CASE 6244: TOM L. INGRAM FOR SALT WATER DISPOSAL, LEA COUNTY, NEW MEXICO

CASE NO.

6244

APPlication, Transcripts, Small Exhibits,

ETC.

-- STATE-OF-NEW-MEXICO --



ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

NICK FRANKLIN BECRETARY

June 16, 1978

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING BANTA FE, NEW MEXICO 87501 (505) 827-2434

Mr. Tom Kellahin Kellahin & Fox	Re:	CASE NO. 6244 ORDER NO. R-5748
Attorneys at Law Post Office Box 1769 Santa Fe, New Mexico		Applicant:
		Tom L. Ingram
Dear Sir:		
		copies of the above-referenced tered in the subject case.
Yours very truly,) 	
JOE D. RAMEY Director		
	•	
JDR/fd		
Copy of order also	sent to:	•
Hobbs OCC X Artesia OCC X Astec OCC		
Other		• 1

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 6244 Order No. R-5748

> > ₹3

APPLICATION OF TOM L. INGRAM FOR SALT WATER DISPOSAL, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on June 7, 1978, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 15th day of June, 1978, the Division Director, 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 Division has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Tom L. Ingram, is the owner and operator of the State M Well No. 1, located in Unit O of Section 13, Township 17 South, Range 36 East, NMPM, Vacuum-Abo Pool, Lea County, New Mexico.
- (3) That the applicant proposes to utilize said well to dispose of produced salt water into the Abo Reef formation, with injection into the perforated interval from approximately 8915 feet to 8982 feet.
- (4) That the injection should be accomplished through 2 3/8-inch plastic lined tubing installed in a packer set at approximately 8815 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge or approved leak detection device should be attached to the annulus in order to determine leakage in the casing, tubing, or packer.
- (5) That the injection well or system should be equipped with a pop-off valve or other acceptable device which will limit the wellhead pressure on the injection well to no more than 1783 psi

-2-Case No. 6244 Order No. R-5748

- (6) That the operator should notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of disposal equipment so that the same may be inspected.
- (7) 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.
- (8) 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, Tom L. Ingram, is hereby authorized to utilize its State M Well No. 1, located in Unit O of Section 18, Township 17 South, Range 36 East, NMPM, Vacuum-Abo Pool, Lea County, New Mexico, to dispose of produced salt water into the Abo Reef formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 8815 feet, with injection into the perforated interval from approximately 8915 feet to 8982 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 injection well or system shall be equipped with a pop-off valve or other acceptable device which will limit the wellhead pressure on the injection well to no more than 1783 psi.
- (3) That the operator shall notify the supervisor of the Hobbs district office of the Division 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 Division'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 Division Rules and Regulations.

-3-Case No. 6244 Order No. R-5748

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

DONE at Santa Fe, New Mexico, on the day and year herein-above designated.

STATE OF NEW MEXICO OIL CONSERVATION DEVISION

JOE D. RAMEY Director

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STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION State Land Office Building Santa Fe, New Mexico 7 June, 1978

EXAMINER HEARING

IN THE MATTER OF:

Application of Tom L. Ingram for salt water disposal, Lea County, New Mexico.

CASE 6244

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

APPEARANCES

For the Applicant:

W. Thomas Kellahin, Esq. KELLAHIN & FOX 500 Don Gaspar Santa Fe, New Mexico 87501

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Direct Examination by Mr. Kellahin

TOM L. INGRAM

Cross Examination by Mr. Nutter EXHIBITS Applicant Exhibit One, Plat Applicant Exhibit Two, Contour Map Applicant Exhibit Three, Document Applicant Exhibit Four, Log Applicant Exhibit Five, Water Analysis Applicant Exhibit Five-A, Water Analysis Applicant Exhibit Five-B, Water Analysis Applicant Exhibit Six, Document Applicant Exhibit Seven, Document Applicant Exhibit Eight, Document Applicant Exhibit Nine, Document Applicant Exhibit Ten, Document Applicant Exhibit Eleven, Document Applicant Exhibit Twelve, Document Applicant Exhibit Thirteen, Document Applicant Exhibit Thirteen-A, Water Analysis Applicant Exhibit Fourteen, C-108 Applicant Exhibit Fifteen, Report and Log

$\underline{E} \ \underline{X} \ \underline{H} \ \underline{I} \ \underline{B} \ \underline{I} \ \underline{T} \ \underline{S} \quad \underline{CONT}^{\bullet}\underline{D}$

Applicant Exhibit Sixteen, Letter 16

Applicant Exhibit Seventeen, Letter 16

Applicant Exhibit Eighteen, Letter 16

Applicant Exhibit Nineteen, Letter 16

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MR. NUTTER: Call now Case Number 6244, which is in the application of Tom L. Ingram for salt water disposal, Lea County, New Mexico.

MR. KELLAHIN: Tom Kellahin of Kellahin and Fox, appearing on behalf of the Applicant, and I have one witness.

(Witness sworn.)

TOM L. INGRAM

being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. KELLAHIN:

- Q. Would you please state your name and occupation?
- A. Tom L. Ingram, oil and gas producer, in Roswell.
- Q. Mr. Ingram, have you previously testified before the Division and had your qualifications as an expert witness accepted and made a matter of record?
 - A. I have.

MR. KELLAHIN: We tender Mr. Ingram as an expert witness.

MR. NUTTER: Mr. Ingram is qualified.

(Mr. Kellahin continuing.) Would you please

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refer to what we've marked as Exhibit Number One, identify it and tell the Examiner what you're trying to accomplish.

A. Exhibit Number One is a lease plat showing the proposed injection well in the center with a red circle and then all of the wells within a radius of two miles.

The San Andres production is shown by a small black dot and those producing from the Abo have a larger concentric circle around.

The field where the injection well is located is the northeast extension of the Vacuum-Abo Reef. The West Lovington-San Andres field is to the north; the Double A, the Emerald, the Upper Double A, and the South Double A are also Abo producers that are around to the east and to the west -- pardon me, to the east and to the south.

To the southwest we have the main portion of the Vacuum-Abo Reef, which produces from the San Andres and the Abo.

- Q You disposal well is located in the southeast quarter of Section 18 and circled in red?
 - A. That's true.
- Q. What is the anticipated volume of salt water to be disposed of in that well on a daily basis?
- A. The volume from the three producing wells that we have in the field is approximately 150 barrels a day.
- Q Would you identify the three wells which currently produce salt water which you will then dispose of

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in the subject well?

A. Okay. I am the operator on all of these wells. The No. 1 State "L", which is located 990 feet from the north and 1890 feet from the west line of Section 19, Township 17 South, Range 36 East. The No. 2 State "L", which is located 2310 feet from the south and 330 feet from the west of the same Section 19. The TP State No. 2, 1980 from the south and 330 from the east of Section 24, Township 17 South, Range 35 East.

Q I see that the subject well is offset on the west and the east by what appear to be dry hole symbols, is that correct?

A. Yes, that is correct. Those are both shallow pardon me, the one of the east is a shallow San Andres well. The one on the west was drilled to the Abo Reef and found it to be non-porous and was plugged and abandoned.

Q You have diagrammatic sketches of both of those wellbores in subsequent exhibits, do you not?

A I have one of the Abo well but since the San Andres well did not penetrate the zone that we are anticipating disposing of water into, I did not make one.

Q All right. What is to be the disposal interval?

A. The disposal interval will be the perforation

from 8915 to 8982.

Q. Is it 8992 or 8982?

A. 8982.

MR. KELLAHIN: We'll correct the Exhibit Number One, if the Examiner please, to indicate that it's 8915 to 8982.

MR. NUTTER: Okay, I think all of the records that we've got on this well to date indicate 92, but that can easily be changed; it's lesser than was advertised.

MR. KELLAHIN: Right.

Q (Mr. Kellahin continuing.) All right, Mr.

Ingram, if you'll refer to Exhibit Number Two and identify

it?

A. Exhibit Number 2 is a subsurface contour map on the top of the Abo Reef, and it indicates the injection well up to the northeast, circled in red, and you'll notice a dotted line then going in a west, northwest, direction and then another circle.

The circle with the datum 4906 under it is actually where the bottom of the hole is. This was a directionally drilled hole.

The wells that we propose to take water from are shown as we move down to the southwest, and you will note that the datum for the top of the Abo Reef in the injection well is minus 4906 and the nearest producer to

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that is a minus 4839. So the injection well is actually 67 feet lower than the lowest producing well.

Q Please refer to Exhibit Number 3 and identify it.

A. Exhibit Number Three is a schematic diagram of the well that we are proposing for an injection well, showing all of the casing, the tubing, the top of the cement, the perforations.

Q The topmost perforation is at 8915?

A. Yes, the topmost perforation is at 8915 and we are showing the plastic-lined tubing and packer to be at 8815, which 100 feet above.

Q So there should be a correction on the entry that says 2-3/8ths inch tubing set at 8668 feet, you will amend that to provide for 8815?

A. I think I changed it on the exhibit that he has there.

Q That's fine. Is it your intent to use plastic-lined tubing?

A. Yes.

Q And what kind of installation will you establish on the surface to monitor the well?

A. We will have a vacuum gauge on the surface inasmuch as the water will be going in on a vacuum; however, should pressure be required, we will install a

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pressure gauge with a limiting switch to make certain that the -- that the surface pressure does not exceed the 1783 psi that we're allowed by our regulations.

Q And will you fill the annular space between the tubing and the casing?

A. Yes. The annular space will be filled with inert fluid.

Q Okay. Please refer to Exhibit Number Four and identify it.

A. Exhibit Number Four is just a log of the subject injection well, showing the perforations.

Q Exhibit Number Five.

A. Exhibit Number Five is an analysis of the water that will be injected into this well, and Exhibit Number 5-A is also the same type of data, and Number 5-B, also.

Q. Would you identify Exhibit Number Six and explain what information it contains?

A. Exhibit Number Six is the schematic of the No. 1 State "L", the one producing well that is within a half a mile of the injection well.

Q This is the only producing well within a half mile?

A. Yes, that is correct. It shows all of the casing, the cement used, the top of the cement, and the

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perforations.

- Q Okay. Exhibit Number Seven, please.
- A. Exhibit Number Seven is a schematic of one of the other wells that we'll also be taking water from.

 It's the No. 2 State Well. And it shows the same type of information.
 - Q. Exhibit Eight.
- A. Exhibit Eight is another one of the wells that we'll be taking water from, the TP State No. 2, showing the same type of information.
 - Q. Exhibit Number Nine.
- A. Exhibit Number Nine is the well that you asked about earlier that's immediately to the west of the injection well and it is showing the casing that was initially installed in the well, the total depth, and where the cement plugs are located and the cement plugs are across the zone that we will be injecting our water into.
- Q Is the well depicted on Exhibit Number Nine entirely cemented through the zone of injection?
- A. Yes, the 35 sacks cement plug there at the bottom at 8760 to 8860 is in the zone. This well did not encounter Abo Reef porosity. It was actually a back reef well.

MR. NUTTER: So this well didn't have any production casing run, apparently.

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No. It didn't have any production casing, didn't have any porosity in it.

Exhibit Number Ten.

Exhibit Number Ten is outside the half mile radius, but it -- if you'll look back on Exhibit Number Two, it is one of the highest wells in the field and it is actually located immediately south of the State "L" No. 1 and east of the Featherstone Sun-State No. 1, and it was nonproductive by virtue of not having porosity in the reef there. There appeared to be no porosity along the actual crest of the reef.

While you're looking at Exhibit Number Two, I note that you've identified a water well source southwest of the subject disposal well.

Yes, there is a windmill that is located there and the approximate total depth of 75 feet. All fresh water in this area comes from the Ogalalla and it would be above the redbed, so there would be no water below 300 feet.

In your opinion, then, injection into the subject well will not damage or increase the risk of contamination to fresh water sources.

Yes, that is correct.

Would you look at Exhibit Number Eleven and identify it?

All right. Exhibit Number Eleven is also another dry hole and it is immediately south of the water well that we were just discussing and it is actually the highest well structurally on the top of the Abo Reef, but it also had no porosity in the reef proper.

MR. NUTTER: Do you know what the top of the reef was on that well?

A. Yes, sir, it was minus 4655, and on the other one it's a minus 4748.

MR. NUTTER: That would be the one that's south of the "L" - 1?

A. Yes, uh-huh.

MR. NUTTER: That was minus forty --

A. 748.

MR. NUTTER: Thank you.

Q. Would you identify Exhibit Number Twelve?

A. Exhibit Number Twelve is another well within the two-mile radius that actually penetrated the -- what would be the Abo Reef but it had no Abo Reef in it, either. It's the Featherstone No. 2 Sun-State. It also has plugs set through the equivalent stratigraphic zone.

0. Exhibit Thirteen?

A. Exhibit Number Thirteen is what has been a producing well and on the subsurface contour map it is marked as a Featherstone Development Corporation; however,

Sun has recently assumed operation of this well. It is no longer producing from the Abo Reef. It has pipe set through it and it's my understanding that they are planning to plug back to some other zone.

- Would you identify Exhibit Thirteen A?
- Exhibit Thirteen-A --

MR. NUTTER: Mr. -- before you go on, Mr.

Ingram --

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A. Yes.

MR. NUTTER: -- on this last one, Exhibit Number Thirteen, do you know how much cement was used on that 5-1/2 inch casing and where the top of it is?

750 sacks and the top is, yes, it's marked on the exhibit. It's at 917 feet.

MR. NUTTER: That's on the long string, then?

Yes, right.

MR. NUTTER: Okay. Go ahead.

- Exhibit Thirteen-A.
- Exhibit Thirteen-A is an analysis of the water out of the Abo Reef in this particular well, which shows a similarity to the other -- to the water we have in the others.
 - Exhibit Fourteen.
- Exhibit Fourteen was our C-108, which was the application to dispose of salt water into the well.

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MR. NUTTER: Now, while you're on that, we would want to revise the proposed interval of injection.

A Right, change --

MR. NUTTER: To read 8915 to 8982, right?

A. Right.

MR. NUTTER: Okay.

MR. KELLAHIN: If the Examiner please, does your exhibit reflect the change in the length of the tubing, the tubing depth?

MR. NUTTER: Yes, it does.

MR. KELLAHIN: All right.

Q (Mr. Kellahin continuing.) Would you identify Exhibit Fifteen?

A Exhibit Fifteen is the C-105, which is the well completion log showing all of the casing, the perforations, the tubing, and it has the correct perforations on it, the correct perforated interval.

Q Would you identify Exhibit Sixteen?

A. Exhibit Sixteen is a letter that we sent to the surface owner and the receipt that he received that letter.

0. Exhibit Seventeen.

A. Exhibit Seventeen is to the offset operator,

Sun, and it shows a receipt and also we have an exhibit --

Q. Nineteen.

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A. -- Number Nineteen, which shows that they have no objection to our injecting water.

Q And finally, Exhibit Eighteen.

A. Exhibit Eighteen is to the New Mexico State
Engineer indicating the same information.

There is one -- I see that we have one well on which we do not have a schematic and it's plus or minus a little bit as to whether it's within the half a mile. It is the Huber No. 1 State "B" that is located in Section 18 of 17, 36. It's 1980 from the north and 1980 from the east lines. It was drilled to a total depth of 9004 feet. It had a 25 sack plug set there at 9004 feet. It has a 25 sack plug at 8300 feet. It had a 25 sack plug set at 7000 feet. A 25 sack plug at 6100 feet; a 25 sack plug at 3300 feet, which would be in the base of the 8-5/8ths inch casing, was set at 3310 with 300 sacks. The 13-3/8ths inch casing was set at 370 feet with 200 sacks of cement, which circulated. They also --

MR. NUTTER: You got a little ahead of me, Mr. Ingram.

A. Okay.

MR. NUTTER: The 8-5/8ths was at 3310 with how many sacks?

A. 300.

MR. NUTTER: 300 sacks.

A. Uh-huh.

MR. NUTTER: The 13-3/8ths?

A. At 370.

MR. NUTTER: 370 feet.

A. With 200 sacks.

MR. NUTTER: Circulated.

A. Right, it was circulated. They set a 25-sack plug at 330 feet and then they set a 10-sack plug at the surface.

So while this well also had no porosity in the Abo Reef, it does have cement plugs across the stratigraphic equivalent zones.

Q. Were Exhibits One through Nineteen prepared by you directly, Mr. Ingram, or compiled under your direction and supervision?

A. They were.

On In your opinion, Mr. Ingram, will approval of this application be in the best interests of conservation, the prevention of waste, and the protection of correlative rights?

A Yes, I believe so.

MR. KELLAHIN: We move the introduction of Exhibits One through Nineteen.

MR. NUTTER: Exhibits One through Nineteen will be admitted in evidence.

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CROSS EXAMINATION

BY MR. NUTTER:

Now, the well immediately east of the disposal Q. well, Mr. Ingram, on your Exhibit One it looks like it's the SPH No. 1. I think the exhibit also indicates that it had a TD something like 4883, or something, is that correct?

- Yes, that's correct.
- So it's a shallow well.
- Right, it's a San Andres well.
- Uh-huh.

It had 8-5/8ths inch casing set at 298 feet with 160 sacks.

And then the rest (if the wells that are shown on Exhibit No. 1 in the area are more than a half a mile away or you have covered them with your exhibits there?

- A. Yes, that is correct.
- Now, you mentioned that the Sun-State had Is it the Featherstone Development Corporation Sun-State No. 1?

Is it producing any more?

- No.
- So the only wells that are producing in here are those three Abo wells you're operating, is that it?

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A Yes, that's correct.

Q Okay. And you think that this Abc Reef will take the proposed maximum of 300 barrels on a vacuum?

A. Yes, I think so. We noticed that our fluid level was down far enough that it appeared that we would have no difficulty at all putting water into it.

Q And this tubing will be cemented or plastic lined and the annulus loaded with an inert fluid?

A. Yes.

MR. NUTTER: Are there any further questions of Mr. Ingram?

MR. KELLAHIN: No, sir.

MR. NUTTER: He may be excused. Do you have anything further, Mr. Kellahin?

MR. KELLAHIN: No, sir.

MR. NUTTER: Does anyone have anything to offer in Case Number 6244?

We'll take the case under advisement.
(Hearing concluded.)

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REPORTER'S CERTIFICATE

I, SALLY WALTON BOYD, a Court Reporter, DO HEREBY

CERTIFY that the foregoing and attached Transcript of

Hearing before the Oil Conservation Division was reported

by me; that said transcript is a full, true, and correct

record of the hearing, prepared by me to the best of my

ability, knowledge, and skill from my notes taken at the

time of the hearing.

Sally Walton Boyd, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 62.

New Mexico Oil Conservation Commission

CASE 6204: (Reopened and Readvertised)

Application of Producing Royalties, Inc., for an exemption from the Natural Gas Pricing Act, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks a determination as to whether the proration unit consisting of the NW/4 of Section 12, Township 29 North, Range 12 west, San Juan County, New Mexico, on which the Carroll-Cornell Well No. 2 is located was producing or capable of producing natural gas prior to January 1, 1975, from the Fulcher Kutz-Pictured Cliffs reservoir; if so, applicant seeks exemption from the Natural Gas Pricing Act for two replacement Pictured Cliffs wells in the same proration unit pursuant to a finding that the wells are justified for reasons other than avoiding the application of the Act.

CASE 6244:

Application of Tom L. Ingram for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Abo Reef formation through the perforated interval from 8915 feet to 8992 feet in his State M Well No. 1 located in Unit O of Section 18, Township 17 South, Range 36 East, Vacuum-Abo Pool, Lea County, New Mexico.

- CASE 6245: Application of Germany Investment Company for downhole commingling, Eddy County, New Mexico.

 Applicant, in the above-styled cause, seeks authority to commingle Wolfcamp and Canyon production in the wellbore of its USA 9 Well No. 1 located in Unit I of Section 9, Township 20 South, Range 28 East, North Burton Flat Field, Eddy County, New Mexico.
- CASE 6246: Application of Exxon Corporation for an uno thodox gas well location, Eddy County, New Mexico.

 Applicant, in the above-styled cause, seeks approval for the unorthodox location for a Silurian test to be drilled 1880 feet from the South line and 825 feet from the West line of Section 30, Township 26 South, Range 26 East, Eddy County, New Mexico, the S/2 of said Section 30 to be dedicated to the well.
- CASE 6247: Application of Mobil Oil Corporation for a unit agreement, Lea County, New Mexico, or statutory unitization. Applicant, in the above-styled cause, seeks approval of its North Vacuum Abo East Unit Area, comprising 866 acres, more or less, of State lands in Township 17 South, Range 35 East, Lea County, New Mexico.

In the absence of voluntary unitization, applicant seeks statutory unitization, for the purpose of pressure maintenance, of all mineral interests in the North Vacuum Abo East Unit underlying the following described lands in Township 17 South, Range 35 East, Lea County, New Mexico:

Section 7: \$/2 Section 18: N/2, SW/4, and W/2 SE/4

The unitized interval would be from a depth of 4385 feet subsea to 5225 feet subsea in the Mobil State "UU" Com. Well No. 1, located in Unit F of the aforesaid Section 7.

Among the matters to be considered at the hearing will be the necessity of unit operations; the designation of a unit operator; the determination of the horizontal and vertical limits of the unit area; the determination of a fair, reasonable, and equitable allocation of production and costs of production, including capital investment, to each of the various tracts in the unit area; the determination of credits and charges to be made among the various owners in the unit area for their investment in wells and equipment; and such other matters as may be necessary and appropriate for carrying on efficient unit operations, including, but not necessarily limited to, unit voting procedures, selection, removal, or substitution of unit operator, and time of commencement and termination of unit operations.

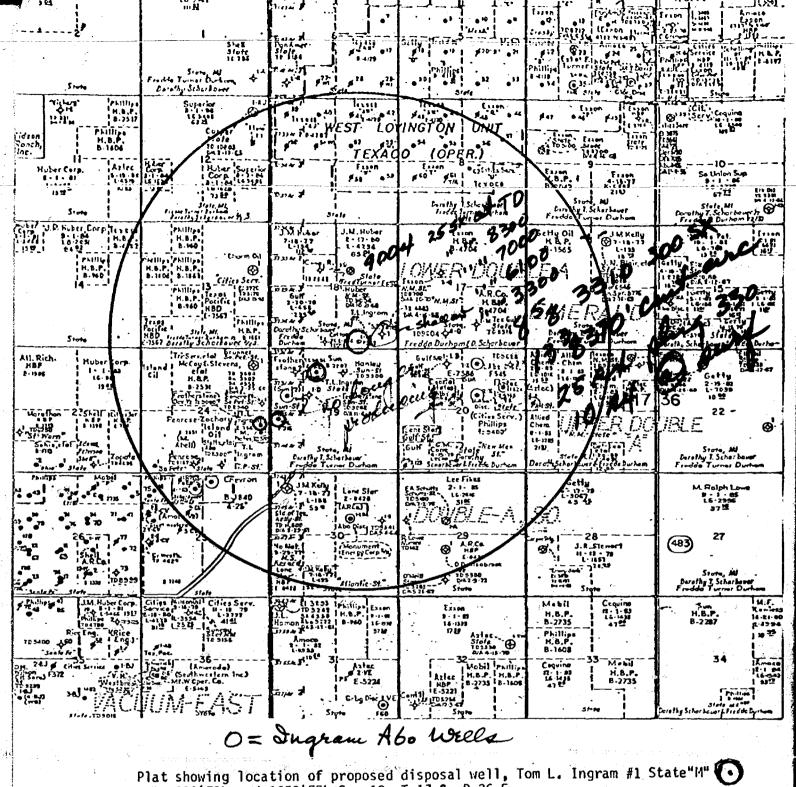
CASE 6248: Application of Mobil Oil Corporation for a pressure maintenance project. Lea County, New Mexico.

Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project in the North Vacuum Abo East Unit Area by the injection of water into the Abo formation through five wells located in Units N and P of Section 7, and Units P, H, and N of Section 18, all in Township 17 South, Range 35 East, North Vacuum Abo Pool, Lea County, New Mexico, and the promulgation of special rules governing said project.

CASE 6249: In the matter of the hearing called by the Oil Conservation Division on its own motion for an order creating, abolishing, and extending certain pools in Chaves, Lea, and Eddy Counties, New Mexico:

(a) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Mississippian production and designated as the Bar U-Mississippian Pool. The discovery well is Charles F. Harding State "3" Well No. 1 located in Unit G of Section 3, Township 9 South, Range 32 East, NMPM. Said pool would comprise:

TOWNSHIP 9 SOUTH, RANGE 32 EAST, NMFM Section 3: NE/4



Plat showing location of proposed disposal well, Tom L. Ingram #1 State "M" (330'FSL and 1650'FEL Sec.18, T 17 S, R 36 E

Producing formations within two mile radius of disposal well are:

• San Andres

Abo

Disposal is to be into the Abo Reef formation at a depth of 8915-8992 feet.

Liquid will be salt water produced from:

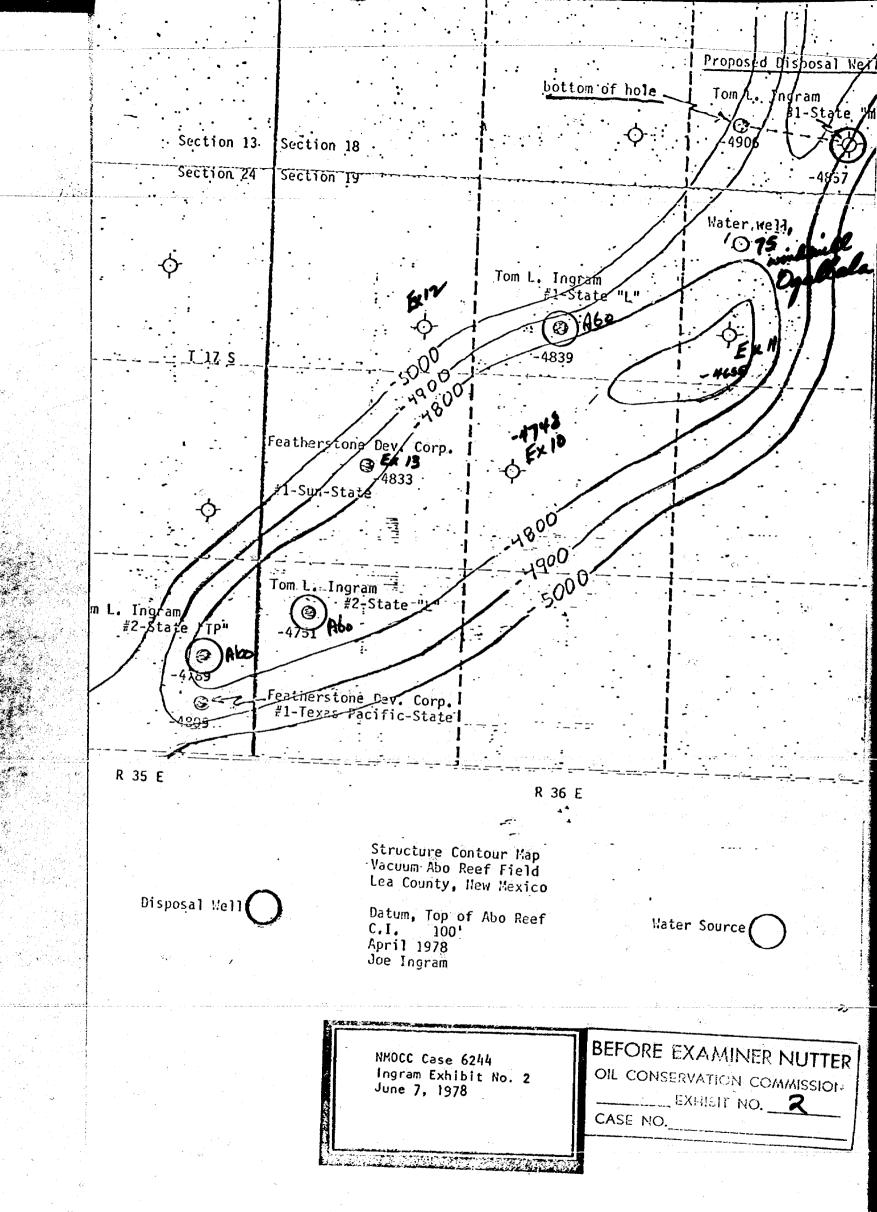
Tom L. Ingram #1 State "L" 990'FNL and 1890'FWL, Sec.19, T 17 S, R 36 E Tom L. Ingram #2 State "L" 2310'FSL and 330'FWL, Sec.19, T 17 S, R 36 E Tom L. Ingram #2 State "TP" 1980'FSL and 330'FEL, Sec.24, T 17 S, R 35 E

Volume will be from 100 to 300 bbls of salt water per day.

Risporal 8915-8982 8915-8992

NMOCC Case 6244 Ingram Exhibit No. 1 June 7, 1978

BEFORE EXAMINED NUTTER OIL COMSETVATION COMMISSION TARAM ENGLISHE NO. CASE NO. 6244



		•	
	Vacuum Abo Reef	OPERATOR Tom L. Ingram	DATE April 10, 1978
	State M	WELL He LOCATION	etter (1 Sec. 18 - 1)75 - R36E
	Cement Top:S	replace (Circulated)	pe of funting
	to be give	ed of find in	becomes necessary
	Role size]	ing set at 340 with 4 7	2% CaCl ₂ 00 sx of Class H +/cement
	Hole sizeCement Top: Perfs: 891	11 (Survey) 5-8917-8937-8940-8943-8947-89	
	900 Baker Model	3-8977-8980-8982-(1 shot per 6 - 2 shots R Single Grip Packer at 2537 rg set at 2555 "(Cement or Pla	
4.33	PBTD 8995' 5-1/2 " c	D Bridge Plug with Blank Off asing set at 9041 with 9041 1501c size 7-7/8	300 sx of + 8#Salt/sackement
		1	
		NMOCC Case 6244 Ingram Exhibit No. 3 June 7, 1978	BEFORE EXAMINER NUTTI OIL CONSERVATION COMMISSION EXHIBIT NO. 3 CASE NO.
THE REPORT OF PARTY AND A			

	5407
	7 / / 8 3406 8965 8 3/8 24/32
	Bil From To Size Wgt. From
lipe S-X-	CASING RECORD
(GF	Recorded by BROWN OLSON
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R	F. 131
	46000 130000
000 000	in hole SALT MUD SALT MUD.
B	a 8965
	gger 8966
	8965
NMO Ing Jun	ONE ONE THERMAIL
ram e 7	6-71
Cas E×	0,
978	sured From K.B., 11 Ft. Above Perm. Datum
5244 of t	Elev.: 3886 Elev.:
No.	EOS 10 Sec. 18 Twp. 17-S Rge. 36-E
	LD CA
	O S Location: 1650' FEL & 330 FSL
	N S COOK
	ACI TA.
	ME L FIELD VACUUM (ABO)
	WELL STATE "M" #1
	NGR
	1 AM
	COMPANY TOM L. INGRA
	The state of the s
	でする。 のでは、これでは、これでは、これでは、これでは、これでは、これでは、これでは、これ

HALLIBURION DIVISION CARONATORY HALLIBURION SERVICES MIDIAND DIVISION HOBBS, NEW REXICO 88240

LABORATORY WATER ANALYSIS

NEUEL COUNTY TO

Roswell, New Kexico Roswell	To Tom L. Ingram	1		Dote	3-29-78	
of Inhoratory management in the Water Property William and company. Submitted by. Well No. As Karked Depth. County. Field Source State "I," #1 State "I," #2 State "I," #1 esistivity. 0.086 @ 7½°F. 0.019 @ 7½°F. 0.019 @ 7½°F. 0.073 @ 7½°F. 1.002 1.068 H. 6.4 6.2 6.5 olcium (Co) 5,800 13,759 5,000 *M lognesium (Mg) Ni1 2,100 960 Alfordes (CI) 48,500 90,590 \$8,000 Shortes (CI) 48,500 90,590 Shortes (HCO ₃) 1,020 315 185 shuble fron (Fe) Ni11 Nilligroms per liter CHEMIST CHEMIST CHEMIST CHEMIST NOTICE	Eox 1757					
Dote Rec. 3-22-78	noswell, New Ke	xico		of laboratory managen	nent; it may however, be us	n appr ed in
Depth Formation Formation Formation Source		· · · · · · · · · · · · · · · · · · ·	<u> </u>	Company.	receiving such report from 1	lallibu
Depth Formation Formation Formation Source	Submitted by			Dote Red	: <u>3-29</u> -78	
State IL	Well No. As Marked	Depth		Formatio	n	*5
State "L" #1 State "L" #2 State "K" #1 esistivity	County	Field		Source	•	
Selectivity		State "L" #1	State	"L" #2		
Decidic Gravity	esistivity ,	0.086 @ 74°F.	0.049	@ 74°F.	• • • • • • • • • • • • • • • • • • • •	
H	the state of the s	•	and the second second			
Solicium (Co) Solicium (Co) Solicium (Mg) Nil Solicium (Mg) Nil Solicium (Mg) Nil Solicium (Mg) Solicium (Mg) Nil Solicium (Mg) Solicium (Mg) Nil Solicium (Mg)	អ	6.4	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			•
No No No No No No No No	olcium (Ca)	5,800	**			t.
hlorides (CI) 48,500 90,500 58,000 slifetes (SO ₄) 2,950 1,600 31,200 carbonates (HCO ₃) 1,020 315 185 sluble Iron (Fe) Nil Nil Nil Kespectfully submitted, alyst: Brewer HALLIBURTON COMPANY By NOTICE NOTICE	lognesium (Mg)	Nil	3			_*MF
So, 1000 Solifotes (SO ₄) 2,950 1,600 3,200 corbonates (HCO ₃) 1,020 315 185 Milligroms per liter *Milligroms per liter	hlorides (CI)	48,500	\(\frac{1}{2}\)			
Tells SEPOST IS LIMITED TO THE DISCOURS CANDED CANDED CANDED CONTROL OF THE DISCOURS CANDED CA	ulfates (SO ₄)					
Milligroms per liter *Milligroms per liter		W. Art	· (
Milligroms per liter *Milligroms per liter *RESPECTIVITY SUDMITTER, HALLIBURTON COMPANY By J. Chemist NOTICE		•		•		
Respectfully submitted, Alliaurion company By NOTICE NOTICE			-		NII .	<u> </u>
Respectfully submitted, Alliaurion company By NOTICE NOTICE	1944 1144 - 1144 1144 1144 1144 1144 1144 1144 1144 1144 1144 1144 1144 1144 1144 1144					
Respectfully submitted, Alliaurion company By NOTICE THIS REPOST IS LIMITED TO THE DISCOURSE CHARGE THE DISCOURSE CHARGE THE DISCOURSE CHARGE TO THE DISCOURSE CHARCE TO T					•	
Respectfully submitted, HALLIBURTON COMPANY By J. Shower NOTICE	morks:					
HALLIBURTON COMPANY By 1. CHEMIST THIS REPOST IS LIMITED TO THE DESCRIPED SAMPLE PROPERTY.				·	*Milligroms per 1	iter
HALLIBURTON COMPANY By 1. CHEMIST THIS REPOST IS LIMITED TO THE DESCRIPED SAMPLE PROPERTY.			•	*. ** **		
HALLIBURTON COMPANY By 1. CHEMIST THIS REPOST IS LIMITED TO THE DESCRIPTO SAMPLE PROPERTY OF THE						580
By // CHEMIST THIS REPOST IS LIMITED TO THE DESCRIPTO CAMPED SALES.		Kespecti	Jlly subminea,			
THIS REPOST IS LIMITED TO THE DESCRIPTO CHURCH STATES	olyst: <u>Brewer</u>		-	HALLIBURTON	I COMPANY	/
THIS REPOST IS LIMITED TO THE DESCRIPTO CAMPIE OFFICE			By	1. X.	Trewer	
NOT BE LIABLE FOR ANY LOSS OR BAMAGE, WHETHER IT BE TO ACT OR OMISSION, RESULTING FROM SUCH REPORT OR ITS USE	THIS REPORT IN THIS CO.	N N	OTICE			•
	TOTAL TO SERVED BE TON	O THE DESCRIBED SAMPLE TESTE CSS OR CAMAGE, WHETHER IT BE	D. ANY USER OF T TO ACT OR OMISSI	HIS REPORT AGREES T ON, RESULTING FROM S	HAT HALLIBURTON SHALL	- '

NMOCC Case 6244 Ingram Exhibit No. 5 June 7, 1978 BEFORE EXAMINER NUTTE OIL CONSERVATION COMMISSION EXHIBIT NO. 5

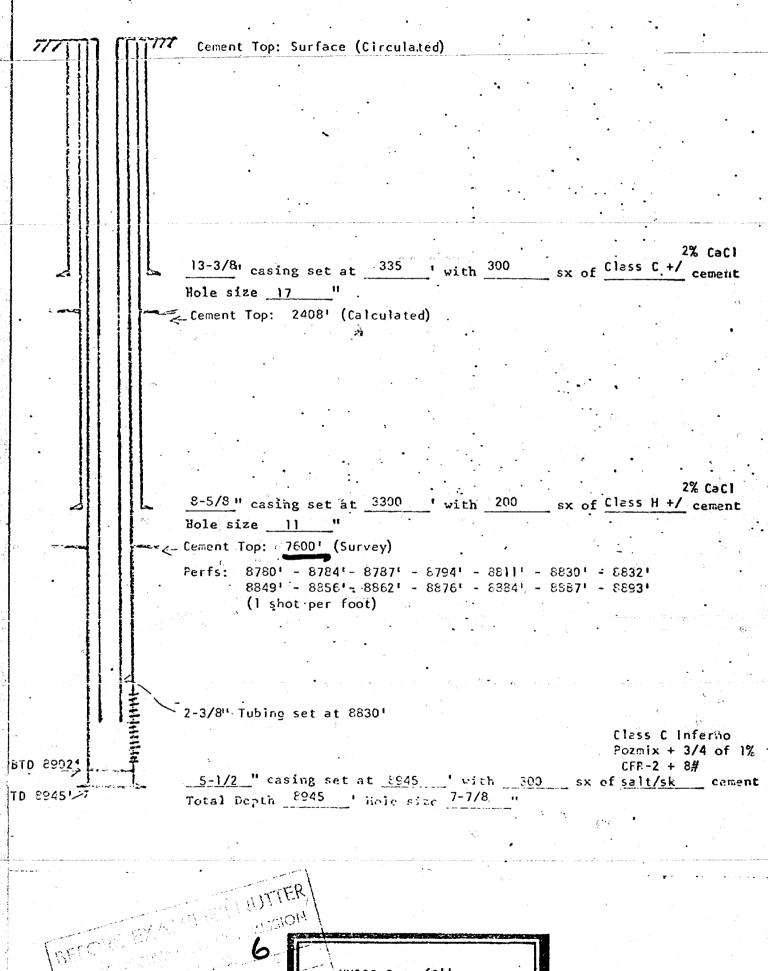
CASE NO.

HALLIBURTON DIVISION LABORATORY RECEIVED AND 2 6 1978 MIDLAND DIVISION

	LABORATORY	WATER .	ANALYSIS	No. W78-269
To Tom Ingram			Date	4-25-78
Box 1757 Roswell, N. M.			it not any part thereof or disclosed without fire of laboratory managem course of regular busing	rty of Halliburton Company and neither nor a copy thereof is to be published at securing the express written approva- ent; it may however, be used in the ess operations by any person or concern receiving such report from Halliburton
Submitted by			Date Rec	4-24-78
Well No. TP State #2	•			
CountyLee				-
· · · · · · · · · · · · · · · · · · ·	4-19-78			
Resistivity				
Specific Gravity	IS			
Hq				
Calcium (Ca)				*MP
Magnesium (Mg)		<u> </u>		
	55,684			
Sulfates (SO ₄)	- ×s-			
Bicarbonates (HCO ₃)			,	
Soluble Iron (Fe)	· · · · · · · · · · · · · · · · · · ·			
•••••••••••••••••••••••••••••••••••••••		i v		
		· · · · · · · · · · · · · · · · · · ·	<u> </u>	
Remarks: *Insufficier	nt sample.			*Milligrams per liter
	7			
		76 (I) 1 U 1 U		
WeX a ser Couis		tfully submit		
Analyst: McLean - Grisco:	ssam - kodgers	^	HALLIBURTO	N COMPANY
		By	C. G sund	M: dearn
This report is limited to the of for any less or damage, with	described sample tested. A			
	3 1 <u>1</u> 2 2 3			
BEFORE EXAMINER	NUTIEK			
BEFORE EXAMINER OIL CONSERVATION CO.	5A			to see a
EXITIO	II i	Case 6244		
CASE NO.	Ingra	m Exhibit 7, 1978		

No. W78-270 LABORATORY WATER ANALYSIS To___Tom Ingram____ 4-25-78 Box 1757 This report is the property of Halliburton Company and neither in our any part thereof nor a copy thereof is to be published or disclosed without first securing the express written opproval of loboratory nonagement; 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. Roswell, N. M. Submitted by ______ Date Rec _____4-24-78 Well No. Featherstone Sun Stepth Formation Aba Reef Field Vacuum Source County Lee Specific Gravity 1.053 7.0 pH Colcium (Co) 10,197 _*MPL Nil Magnesium (Mg) 39,774 Chlorides (CI) Sulfates (SO₄) 2,788 732 Bicarbonates (HCO₃) Trace Soluble Iron (Fe) Remarks: *Milligrams per liter Respectfully submitted, McLean - Grissam - Rodgers HALLIBURTON COMPANY Analyst:_ NOTICE This report is fimited to the described sample tested. Any user of this report agrees that Halliburton shall not be liable for any lass or damage, whether it be to act or amission, resulting from such report or its use. BEFORE EXAMINER NUTTER CIL CONSCIONATION COMMISSION MMOCC Case 6244 Ingram Exhibit No. 5B June 7, 1978

FIELD Vacuum Abo Reef	OPERATOR Tom L. Ingram	041E May 10, 1976	
LEASE State L	WELL RE LOCATION Unit Lette	er C-Sec. 19 - T17S	- R36E



NMOCC Case 6244
Ingram Exhibit No. 6
June 7, 1978

FIELD Vacuum Abo Reef OPERATOR Tom L. Ingram May 7. LEASE State L WELL NO LOCATION Unit Letter IFF Cement Top: Surface (Circulated) with 300 13-3/8 casing set at 320 sx of Class H.+/ cement Hole size 17 " Cement Top 2308' (Calculated) 2% CaCl 8-5/8 " casing set at 3200 Hole size 11 Cement Top: .7450' (Survey) Perfs: 8715-8721-8728-8731-8755-8768 8774-8799-8818-8869-8874 (1 shot per foot) 2-3/8" Tubing set at 8860' Class C Pozmix E# salt/sack BTD 88751 5-1/2 " casing set at £930 ' with 300 sx of/8 3/4 of 1%cement D 8930 Total Depth 8930 ' Hole size 7-7/8 BEFORE EXAMINER NUTTER SEFORE EXAMINATION CONNINSSION
OIL CONSESSIVATION NO. 2 NMOCC Case 6244 Ingram Exhibit No. 7 June 7, 1978 CASE NO.

Secretary States

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Vacuum Abo Reef

Vacuum Abo Reef

Tom L. Ingram

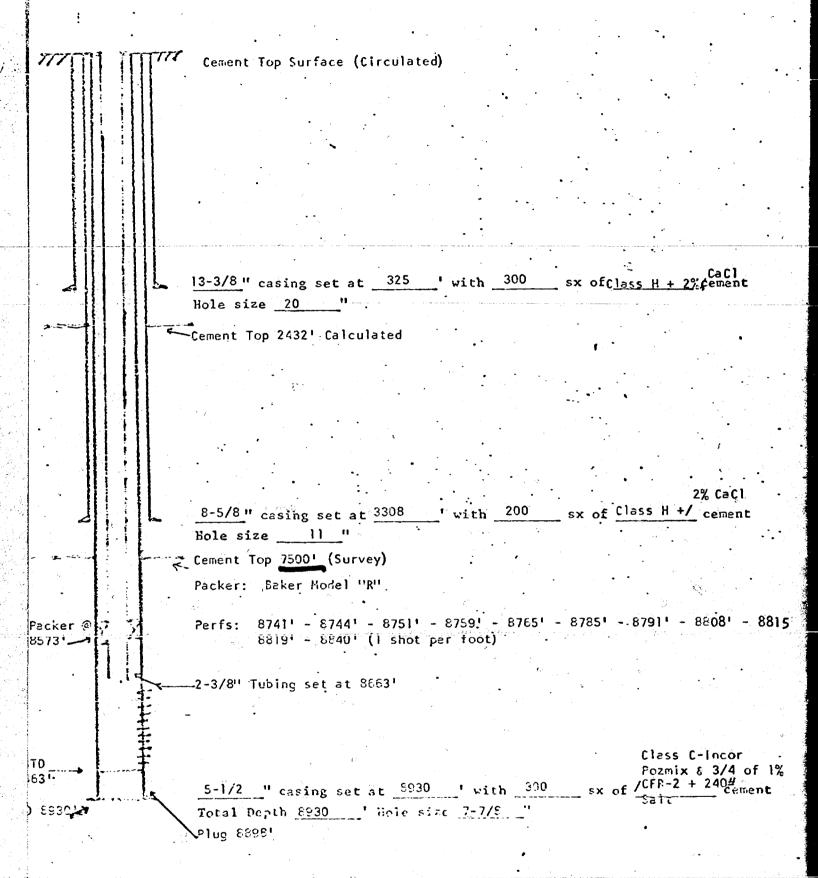
VELL NC LOCATION

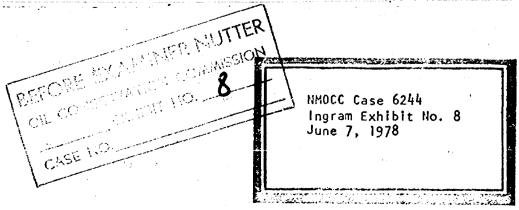
TP State

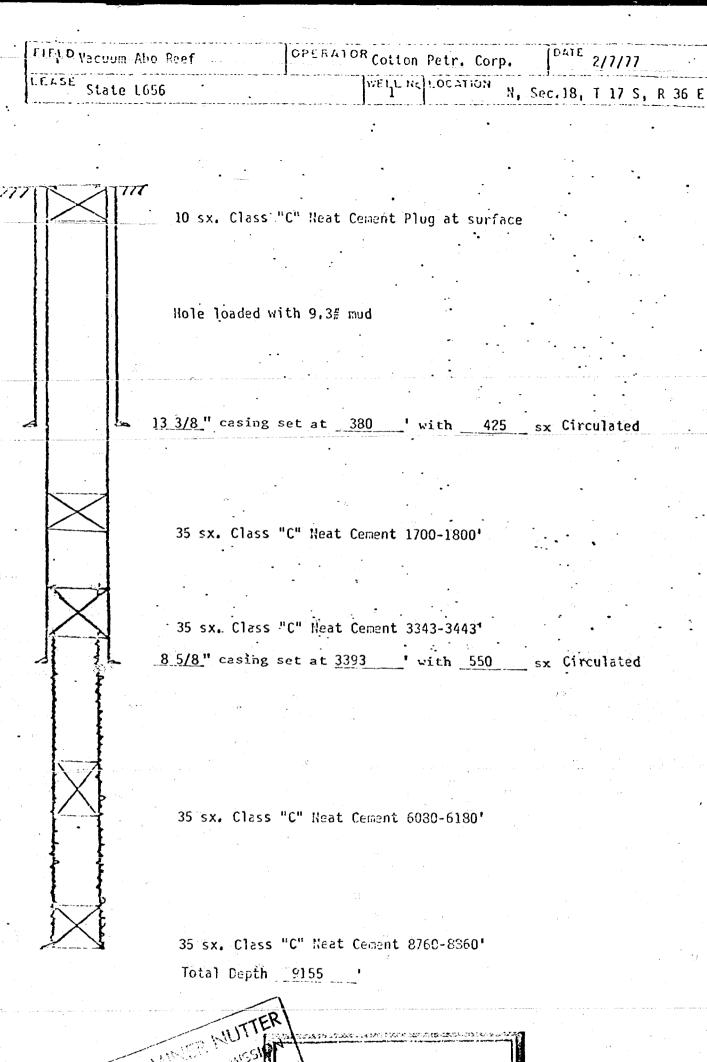
Pay 7, 1976

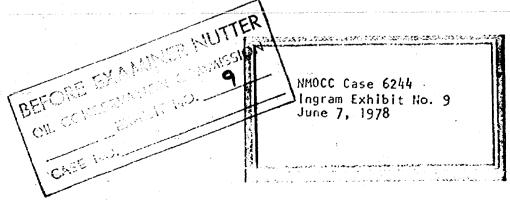
VELL NC LOCATION

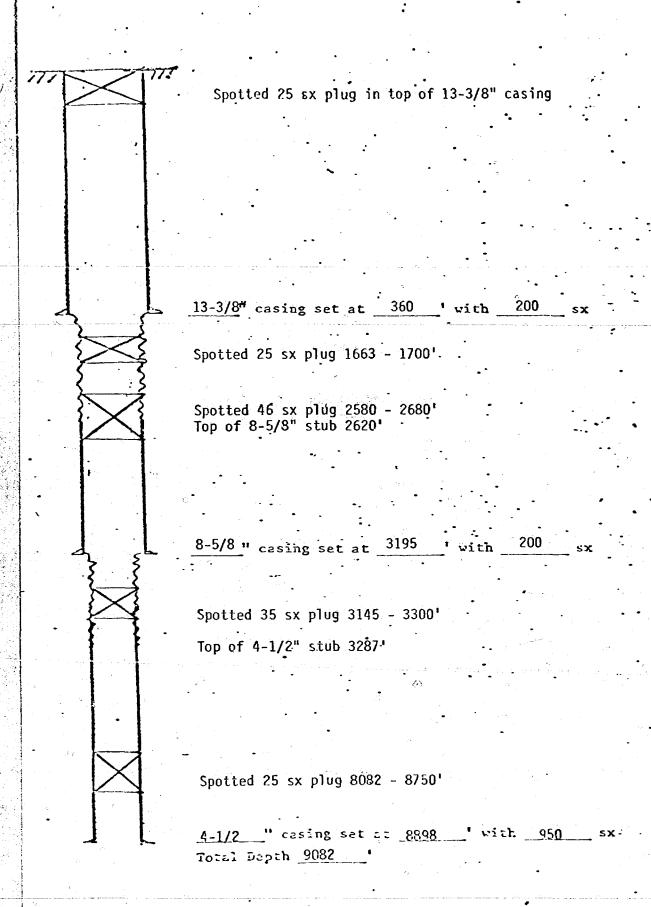
2 Unit Letter 1 -Sec. 24 - T17S-R35E

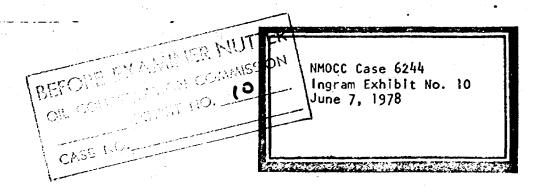


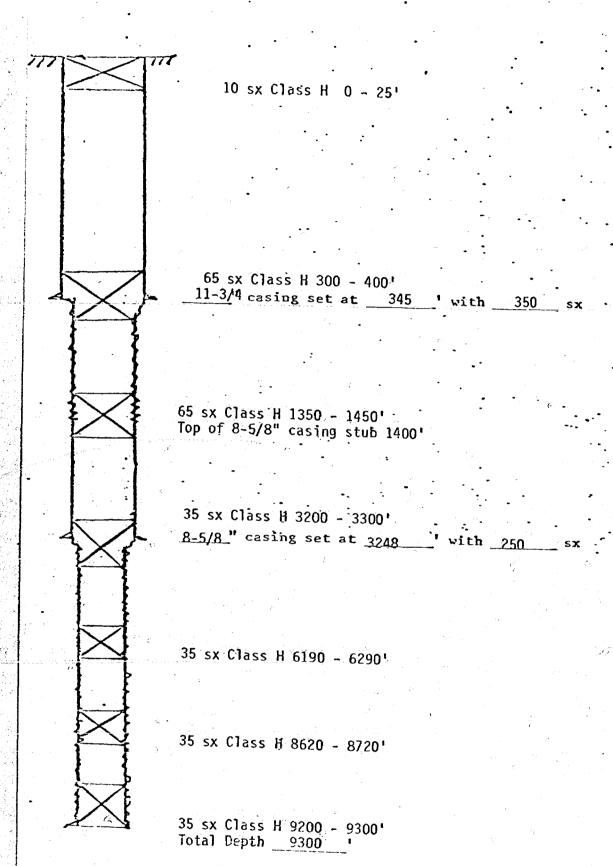


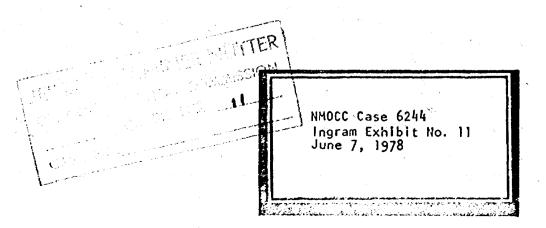












Vacuum Abo Reef

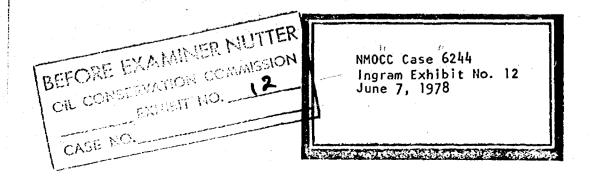
Vacuum Abo Reef

Featherstone Dev. Corp. 6/6/64
WELL RC LOCATION

Sun State

2 Unit Letter D, Sec. 19,7175, R36E

10 sx Halliburton 50-50 Pozmix @ surface 25 sx Halliburton 50-50 Pozmix @ 325' 13-3/8' casing set at 325 ' with 250 25 sx Halliburton 50-50 Pozmix @ 1600' Top of 8-5/8" casing stub 1600' 25 sx Halliburton 50-50 Pozmix @ 1790 25 sx Halliburton 50-50 Pozmix @ 3232' 8-5/8 " casing set at 3232 with 200 25 sx Halliburton 50-50 Pozmix @ 4575' 25 sx Halliburton 50-50 Pozmix @ 6225' 25 sx Halliburton 50-50 Pozmix @ 7000' 25 sx Halliburton 50-50 pozmix @ 8891'
Total Depth 8891'

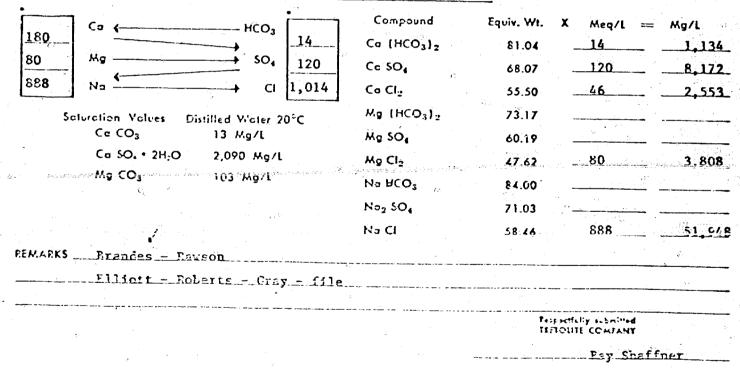


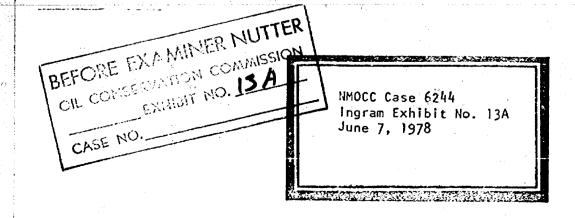
Vacuum Abo Reef Sun Production Co. WELL NEILCOATION | Unit Letter E - Sec. 19 - T17S - R36E Till Cement Top: Surface (Circulated) 13-3/8" casing set at 355' with 250 Role size ___17½ " Cement Top: 917' (long string) Cement Top: 2301'-8-5/8 " casing set at 3292 ' with Bole size ____ !! " Perfs: 8743, 48, 57, 64, 77, 82, 87, 90, 97, 98 8800, 04, 11, 13, 22, 26 BTD 8831 5½ " casing set at <u>8882</u> ' with <u>750</u> sx of TD 8882 Total Depth 8882 | Hole size 7-7/8 " BEFORE EXAMINER NUTTER NMOCC Case 6244 Ingram Exhibit No. 13 June 7, 1978

WATER ANALYSIS REPORT

COMPANY SUB 011 CO.	ADDRESS_liobbs, N.M. DATE: 10-26-77
SOURCE Sun St. #1 Abo field	DATE SAMPLED 10-13-77 ANALYSIS 14993
Analysis	Mg/L *Meq/L
1. pH	
2. H ₂ S (Ovolitative) Pos.	
3. Specific Grovity 1.050	
4. Dissolved Solids 5. Suspended Solids	67,615
6. Phenolphtholein Alkalinity (CoCO3)	
7. Methyl Orange Alkalinity (CoCO3)	
8. Bicarbonale (HCO ₃)	HCO: 854 ÷ 61 14 HCO:
9. Chlorides (CI)	CI $36,000$ $\div 35.5$. 1,014 CI
10. Sulfates (SO ₄)	so, 2,400 -48 120 so,
11. Calcium (Ca)	Co 3,600 ÷20 180 Co
12. Magnesium (Mg)	Mg 972 ÷12.2 80 Mg
13. Total Hardness (CaCO ₁)	13,000
14. Total from (fe)	5.0
15. Borium (Qualitative)	
16. Strontium *Milli equivalents per liter	

PROBABLE MINERAL COMPOSITION

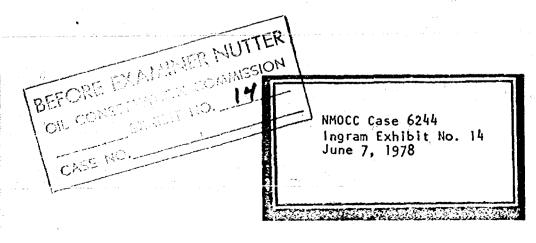




NEW MEXICO OIL CONSERVATION COMMISSION

APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

				1757 6 11	NH 00003
TOM L. INGRAM		WELL NO.	P. O. Box	1757, Roswell	, NM 88201
State M		1	Vacuum Ab	o Reef	Lea
CATION			220		1/50
UNIT LETTER	; w	CLL IS LOCATED	330	South Lin	IC AND 1650 FEET FROM
East LINE, SECTION	18 10.	CASING	RANGE 36E AND TUBING DATA	KMPM.	
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMERT	TOP OF CEMEN	TOP DETERMINED BY
TERMEDIATE	13-3/8	340	400	Surface	Circulated
,	8-5/8	3406	200	2514	Calculated
NG STRING	5-1/2	9041	300	7100	Survey
BING		8815	NAME, MODEL AND DEPT		8815
WE OF PROPOSED INJECTION FORMS	2-3/8	8668	Baker Model	R Single Grip	BUTTON OF FORMATION
ABO REEF			8461		9041
INJECTION THROUGH TUBING, CASIN	G, OR ANNULUS?	FERFCRATIONS		SED INTERVAL (S) OF THE	
Tubing		Perfora	CIVIIS	15-8992- 81 1	
THIS A NEW WELL TRILLED FOR SPOSAL?			SE WAS WELL CRIGINALLY	T CRILLED?	MAS WELL EVER BETK PERFORATED IN ZONE OTHER THAN THE PROPOSED INJECTION ZONE? YES
NO STACE EUCH PERFORATED INTERVA	AS PI	CODUCING OIL	WELL OFF OR SQUEEZE EACH		Yes
9006/Baker Model [OBP with bla	enk off @ 899	اجا	43	
FTH OF BOTTON OF DEEPEST	Jo. Wien Die	DEPTH OF ECTION OF		DEPTH OF TOP	OF NEXT LOWER
190' (top of Red E	Beds) ★	6208	·	9122	<u> </u>
TICIPATED DAILY SMINIMUM JECTION VOLUME BLS.)	I MAXIMUM	_ ;	ED TYPE SYSTEM 15	INJECTION TO BE BY GRAV	TY OR APPROR, FRESSURE (PSI)
	. ! 350	Open		Gravity	
SWER YES OR NO WHETHER THE FO		RE MIN- WATER	TO BE DISPOSED OF 'NA	TORAL WATER IN DISPO-	ARE WATER ANALYSES ATTACHED?
SWER YES OR NO WHETHER THE FO	LLOWING WATERS AT BE UNFIT FOR DOME:	RE MIN- WATER	Yes	Yes	Yes
SWER YES OR NO WHETHER THE FO IALIZED TO SUCH A DEGREE AS TO I OCK, JARIGATION, OR OTHER GENER ME AND ADDRESS OF SURFACE OWN	LLOWING WATERS AT BE UNFIT FOR DOME: TAL USE — NER (OR LESSEE, IF	STATE OR FEDERAL LA	Yes is a	Yes	
SWER YES OR NO WHETHER THE FO INCIDED TO SUCH A DEGREE AS TO FOCK, IRRIGATION, OR OTHER GENER IME AND ADDRESS OF SURFACE OWN Clarence Scharbaue	LLOWING WATERS AT BE UNFIT FOR DOMES TALL USE _ IF OF LESSEE, IF OF LESSEE, IF	STATE OR FEDERAL LAND	Yes ; ** Midland TX 797	Yes	
SWER YES OR NO WHETHER THE FO INCIDENTIAL SOUTH A DEGREE AS TOO COCK, IRRIGATION, OR OTHER GENER WE AND ADDRESS OF SURFACE OWN Clarence Scharbaue ST NAMES AND ADDRESSES OF ALL	LEDWING WATERS AND LESSEE, IF BER (OR LESSEE, IF BER, Jr., P. OPERATORS WITHIN	O. Box 538,	Yes STATE STATE	Yes	
SWER YES OR NO WHETHER THE FO INCIDED TO SUCH A DEGREE AS TO FOCK, IRRIGATION, OR OTHER GENER IME AND ADDRESS OF SURFACE OWN Clarence Scharbaue	LEDWING WATERS AND LESSEE, IF BER (OR LESSEE, IF BER, Jr., P. OPERATORS WITHIN	O. Box 538,	Yes STATE STATE	Yes	
SWER YES OR NO WHETHER THE FO INCIDENTIAL SOUTH A DEGREE AS TOO COCK, IRRIGATION, OR OTHER GENER WE AND ADDRESS OF SURFACE OWN Clarence Scharbaue ST NAMES AND ADDRESSES OF ALL	LEDWING WATERS AND LESSEE, IF BER (OR LESSEE, IF BER, Jr., P. OPERATORS WITHIN	O. Box 538,	Yes STATE STATE	Yes	
SWER YES OR NO WHETHER THE FO ADJIED TO SUCH A DEGREE AS TO! OCK, IRRIGATION, OR OTHER GENER ME AND ADDRESS OF SURFACE OWN Clarence Scharbaue ST NAMES AND ADDRESSES OF ALL	LEDWING WATERS AND LESSEE, IF BER (OR LESSEE, IF BER, Jr., P. OPERATORS WITHIN	O. Box 538,	Yes STATE STATE	Yes	
SWER YES OR NO WHETHER THE FO INCIDENTIAL SOUTH A DEGREE AS TOO COCK, IRRIGATION, OR OTHER GENER WE AND ADDRESS OF SURFACE OWN Clarence Scharbaue ST NAMES AND ADDRESSES OF ALL	NER TOR LESSEE, IF P. OPERATORS WITHIN	O. Box 538,	Yes STATE STATE	Yes	
SWER YES OR NO WHETHER THE FO INCIDENTIAL SOUTH A DEGREE AS TOO COCK, IRRIGATION, OR OTHER GENER WE AND ADDRESS OF SURFACE OWN Clarence Scharbaue ST NAMES AND ADDRESSES OF ALL	NER TOR LESSEE, IF P. OPERATORS WITHIN THE PROPERTY OF THE PRO	O. Box 538, ONE-HALF (\$) MILE OF	Yes STATE STATE	Yes	
SWER YES OR NO WHETHER THE FO RALIZED TO SUCH A DEGREE AS TO! FOCK, IRRIGATION, ON OTHER GENER LIME AND ADDRESS OF SURFACE OWN Clarence Scharbaue IST NAMES AND ACCRESSES OF ALL Sun Production Cor	NER TOR LESSEE, IF P. OPERATORS WITHIN THE PROPERTY OF THE PRO	O. Box 538, ONE-HALF (\$) MILE OF	Yes STATE STATE	Yes	
SWER YES OR NO WHETHER THE FOR ALLIED TO SUCH A DEGREE AS TOO INCK, INRIGATION, OR OTHER GENER COCK, INRIGATION, OR OTHER GENER COCK, INRIGATION, OR OTHER GENER COCK, INRIGATION OF THE APPLICATION OF THE APPLICATION OF THE APPLICATION OF THE APPLICATION	well in thi	O. Box 538, ONE-HALF (1) WILE OF O Hillcrest R	Yes ND) Midland TX 797 THIS INJECTION WELL Road, Dallas, T	Yes 701	
SWER YES OR NO WHETHER THE FOR AND LEED TO SUCH A DEGREE AS TOO LOCK, IRRIGATION, OR OTHER GENER LAS TOO LOCK, IRRIGATION, OR OTHER GENER LAS TOO LOCK, IRRIGATION, OR OTHER GENER LAS TOO LOCK, IRRIGATION CONTROL OF THE POLICY INC.	Well in thi	STATE OR FEDERAL LANGE OF BOX 538, ONE-HALF (1) WILE OF O Hillcrest R	Yes SAND) Midland TX 797 THIS INJECTION WELL Road, Dallas, T	Yes 701 TX 75230	THE NEW MEXICO STATE ENGINEER Yes
* Depth of water to Each of The Following Th	well in thi	STATE OR FEDERAL LANGE OF BOX 538, ONE-BALF (1) MILE OF O Hillcrest R	Yes SAND) Midland TX 797 FINIS INSECTION WELL Road, Dallas, T	Yes 701 TX 75230	THE NEW MEXICO STATE ENGINEER Yes Plagrammatic sketch of well
** Depth of water in Supplication of the polication of the polica	Well in thi	STATE OR FEDERAL LAND. O. BOX 538, ONE-HALF (§) WILE OF O Hillcrest R s area 75'.	Yes SAND) Midland TX 797 FINIS INJECTION WELL Road, Dallas, T	Yes 701 FX 75230 WITHIN ONE-HALF MILE	THE NEW MEXICO STATE ENGINEER Yes STAGRAMMATIC SHETCH OF WELL Yes
** Depth of water in Supplication of the polication of the polica	Well in thi	STATE OR FEDERAL LAND. O. BOX 538, ONE-HALF (§) WILE OF O Hillcrest R s area 75'.	Yes SAND) Midland TX 797 FINIS INJECTION WELL Road, Dallas, T	Yes 701 TX 75230	THE NEW MEXICO STATE ENGINEER Yes STAGRAMMATIC SHETCH OF WELL Yes
* Depth of water in * Depth o	Well in thi	STATE OR FEDERAL LAND. O. Box 538, ONE-HALF (1) MILE OF O Hillcrest R s area 75'. ONER es formation above is	Yes SAND) Midland TX 797 FINIS INJECTION WELL Road, Dallas, T	Yes 701 FX 75230 WITHIN ONE-HALF MILE	THE NEW MEXICO STATE ENGINEER Yes STAGRAMMATIC SHETCH OF WELL Yes



NEW MEXICO OIL CONSERVATION COMMISSION Society Soc	DISTRIBUTION	o see of as yet of a			•					Hey	ried nor Led nor	x :
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36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief	SIZE— 31. Perforction Record 9006' - 2 sl 8915', 17, 82 - one 33. Date First Production Date of Tast Flow Tubing Press, 34. Disposition of Gas 35. List of Attachment	Hows Tested. Casing Pressw (Sold, used for fu	d numb	ottom seri	77, 80, For gos lift. Prod'n. For Test Perior Oil - Bbl.	32. 89 80 90 PRODUCTI pumping —	AC DEPTH IN 915-898 995 906 DN Size and 19 Bbl. Gos - MCF	SIZE 2-3/8 ID, SHOT, F TERVAL 2 SOS - MC W To the lest of	RACTURE, AMO A/500 A/500 Eaker Weight State of the state	CEMENT AND Gal S O gal Well S S Winess	SQUEE. KIND M Dearhe DS 30 DBP Lottes (P) SI Ge	2E, ETC. ATERIAL Usad od. or Shut-i
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	SIZE— 31. Perforction Record 9006' - 2 sl 8915', 17, 82 - one 33. Date First Production Date of Tast Flow Tubing Press, 34. Disposition of Gas 35. List of Attachment	Hows Tested. Casing Pressw (Sold, used for fu	d numb	ottom seri	77, 80, For gos lift. Prod'n. For Test Perior Oil - Bbl.	32. 89 80 90 PRODUCTI pumping —	AC DEPTH IN 915-898 995 906 DN Size and 19 Bbl. Gos - MCF	SIZE 2-3/8 ID, SHOT, F TERVAL 2 SOS - MC W To the lest of	RACTURE, AMO A/500 A/500 Eaker Weight State of the state	CEMENT UNT AND Oal S Ogal Well S Well S SI Wilness	SQUEE. KIND M Pearhe DS 30 DBP Intes (Pi S1 Ge	2E, ETC. ATERIAL USead rod. or Shu-i
SIGNED PSECLE SIGNED TITLE Engineer DATE 4/10/78	SIZE— 31. Perforation Record 9006' - 2 sl 8915', 17, 82 - one 23. Date of Test Flow Tubing Press. 34. Disposition of Gas 35. List of Attachment SIGNED	Frodu	d numb	ottom s er) 61, 63, Method (Flowing theke Size calculated 24- inced, etc.)	77, 80, For gos lift. Prod'n. For Test Perior Oil - Bbl.	32. 89 80 90 PRODUCTI pumping —	AC DEPTH IN 915-898 995 906 DN Size and 19 Bbl. Gos - MCF	SIZE 2-3/8 ID, SHOT, F TERVAL 2 SOS - MC W To the lest of	RACTURE, AMO A/500 A/500 Eaker Weight State of the state	CEMENT UNT AND Oal S Ogal Well S Well S SI Wilness	SQUEE. KIND M Pearhe DS 30 DBP Intes (Pi S1 Ge	2E, ETC. ATERIAL USead rod. or Shu-i
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BEFORE EXAMINER NUTTER NMOCC Case 6244 Ingram Exhibit No. 15 June 7, 1978	SIZE— 31. Perforation Record 9006' - 2 sl 8915', 17, 82 - one 33. Bate First Production Date of Test Flow Tubing Press. 34. Disposition of Gas 35. List of Attachment 36. I hereby centify the SIGNED SIGNED ONE ONE ONE ONE ONE ONE ONE	Interval, size and hots 37, 40, 43, shot per for Production Cosing Pressure (Sold, used for further information and the infor	d numb	ottom s er) 61, 63, Method (Flowing theke Size colouisted 24- inced, etc.) on both sides	77, 80, Free gas life. Prod'n. For Test Perior Oil – Bbl. Of this form TITLE	32. 80 80 90 PRODUCTI pumping - 1 Oil - d Eno	AC DEPTH IN 3) 5-898 395 006 DN Size and 1) Bbl. Cos = MCF	SIZE 2-3/8 ID, SHOT, F YERVAL 2 YPE PUTTP) Gas - MC	RACTURE, AMO A/500 A/500 Eaker Weight State of the state	CEMENT UNT AND Oal S Ogal Well S Well S SI Wilness	SQUEE. KIND M Pearhe DS 30 DBP Intes (Pi S1 Ge	2E, ETC. ATERIAL US ad od. or Shu-ia s - OII Ratio
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SICKED JUSTEL J. GITLE Engineer CAYE 4/10/78	SIZE— 31. Perforation Record 9006' - 2 sl 8915', 17, 82 - one 33. Bate First Production Date of Test Flow Tubing Press. 34. Disposition of Gas 35. List of Attachment 36. I hereby centify the SIGNED SIGNED ONE ONE ONE ONE ONE ONE ONE	Interval, size and hots 37, 40, 43, shot per for Production Cosing Pressure (Sold, used for further information and the infor	d numb	ottom s er) 61, 63, Method (Flowing theke Size colouisted 24- inced, etc.) on both sides	77, 80, Free gas life. Prod'n. For Test Perior Oil – Bbl. Of this form TITLE	32. 80 80 90 PRODUCTI pumping - 1 Oil - d Eno	AC DEPTH IN 3) 5-898 395 006 DN Size and 1) Bbl. Cos = MCF	SIZE 2-3/8 ID, SHOT, F YERVAL 2 YPE PUTTP) Gas - MC	RACTURE, AMO A/500 A/500 Eaker Weight State of the state	CEMENT UNT AND Oal S Ogal Well S Well S SI Wilness	SQUEE. KIND M Pearhe DS 30 DBP Intes (Pi S1 Ge	2E, ETC. ATERIAL US ad od. or Shu-ia s = OII Ratio

This from the to be filled with the appropriate District Cities of the Consideration not later than 26 days after the completion of any really-different well. It shall be accompanied by one copy of all electrical and inscribility look run on the well and a running of all special tests conducted, including drill atom tests. All depths reported shall be measured depths, in the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. The farm is to be filled in quintuplicate except on state land, where six copies are required. See Bute 1108.

INDICATE FOISIATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

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TOM L. INGRAM

ROSWELL, NEW MEXICO BBROL April 13, 1978

To: Surface Owner

Re: Salt Water Disposal
Tom L. Ingram
#1 State "M"
Vacuum ABO Reef Field
Lea County, NM

Gentlemen:

Tom L. Ingram is asking the Commission to approve the application to convert one well to water injection in the Vacuum ABO Reef Field. This well is Tom L. Ingram, #1 State "M". Injection will be into the ABO Reef formation at a depth of 8915 feet to 8982 feet.

A copy of the application is attached. Tom L. Ingram would appreciate your waiver of objection to this application. Three copies of a waiver letter are attached. Please sign, send one copy to the Commission, and return one copy to Tom L. Ingram.

Yours very truly,

TOM L. INGRAM

Joseph T. Ingram
Engineer

JT1/mpc

SECEPT, REGISTERED, INSURED AND CERTIFIED WALL	PS form 3811, Mar. 1976 RETURN R
3. ARTICLE DESCRIPTION REGISTERED NO. CER (Always obtain sign I have received the hirt SIGNATURE 5. ADDRESS (Complete o	O SENDER: Complete items 1, 2, and 3. Add your address in the "RETURN TO" space on reverse. 1. The following service is requested (check one). Show to whom and date delivered
BEFORE EXAMINER NUTTER OIL COMMISSION OIL COMMISSION OIL COMMISSION	NMOCC Case 6244 Ingram Exhibit No. 16 June 7, 1978

TOM L. INGRAM

ROSWELL, NEW MEXICO BBZOL April 13, 1978

To: Offset Operator

Re: Salt Water Disposal Tom L. Ingram #1 State "M" Vacuum ABO Reef Field Lea County, NM

Gentlemen:

Tom L. Ingram is asking the Commission to approve the application to convert one well to water injection in the Vacuum ABO Reef Field. This well is Tom L. ingram, #1 State "M". Injection will be into the ABO Reef formation at a depth of 8915 feet to 8982 feet.

A copy of the application is attached. Tom L. Ingram would appreciate your waiver of objection to this application. Three copies of a waiver letter are attached. Please sign, send one copy to the Commission, and return one copy to Tom L. Ingram.

Yours very truly,

TOM L. INGRAM

Joseph T. Ingram

Engineer

JT1/mpc

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they part to speed the same and they have	6. UNABLE TO DELIVER BECAUSE: CLERK'S	S. ADDIESS (Complete only It requestion)	N 720 G 13	RED NO. CERTIFIED NO. INS	2. ARTICLE ADDRESSED TO: Sun Production Company 12850 Hillcrest Road Dallas, TX 75230	Show to whom and date delivered	1. The following service is requested (check one). Show to whom and date delivered	O SENDER: Complete itens 1, 2, and 1, Add your address in the "RETURN TO" space on reverse.

6244

NMOCC Case 6244 Ingram Exhibit No. 17 June 7, 1978 New Mexico State Engineer State Capitol Santa Fe, New Mexico 87501

Re: Salt Water Disposal
Tom L. Ingram
#1 State "M"
Vacuum ABO Reef Fleid
Lea County, NM

Gentlemen:

Enclosed you will find copies of the application for salt water disposal for the above captioned Item. The original application with list of attachments were sent to the NHOCC in Santa Fe, New Mexico.

Yours very truly,

TOM L. INGRAM

Joseph T. Ingram Engineer

טואצט אאור כצאוויובט אאור	RETURN RECEIPT, REGISTERED, INC	PS. Form 3811, Mar. 1975
S. ADDRESS (Complete only it requested)	2. ARTICLE ADDRESSED TO: New Mexico State Engineer State Capitol Santa Fe. NM 87501 3. ARTICLE DESCRIPTION: REGISTERED NO. CERTIFIED NO. INSURED NO. (Always obtain signature of addressee or aron) Linave received the article described above. SIGNATURE Addressee Authorized agent	Add your siddess in the "RETURN TO" space on reverve. 1. The following service is requested (check one). KX Show to whom and date delivered

BEFORE EXAMINER NUTTER
OIL CONSTRUMINON COMMISSION
CASE NO. 6244

NMOCC Case 6244 Ingram Exhibit No. 18 June 7, 1978 TOM L. INGRAM
100 SOUTH KENTUCKY AVENUE
ROSWELL, NEW MEXICO BB201
April 13, 1978

New Mexico 011 Conservation Commission P. O. Box 2088 Sata Fe, NM 87501

Gentlemen:

As an offset operator, SIN OH, ON PANY hereby waives any objection to the conversion and injection of water into Tom L. Ingram #1 State "M" in the Vacuum ABO Reef Formation as requested in their application for Salt Water Disposal dated April 13, 1978.

For Sun Oil Company

By____

te / April 21 1978

NMOCC Case 6244
Ingram Exhibit No. 19
June 7, 1978

Set for 6/7 heaving. letter operated 5/10/78- CU

Cent capy of Marian 3-77

NEW MEXICO OIL CONSERVATION COMMISSION

APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

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TOM L.	INGRAM	-	• .	P. O		757,	Roswell	, NM 8	38201	
State M			WELL NO.	Vacu	um Abo	Reef			Lea	
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IS INJECTION THROUG	H TUBING, CASING, C	R ANNULUS?	PERFORATION	S OR OPEN HOLE	PROPOSED	INTERV	AL (S) OF INJE	CTION		
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ANTICIPATED DAILY SMICE SMILE	MINIMUM	MAXIMUM	OPEN OR CLOS	ED TYPE SYSTE	M IS INJ	ECTION	TO BE BY GRAY	VITY OR	APPROX. PRESSURE	(PS1)
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KAME AND ADDRESS C	F SURFACE OWNER	(OR LESSEE, IF	STATE OR FEDERAL LAN			162		163		
4.2		•	0. Box 538,		X 79701	1				
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* Depth o	f water wel	li in this	area 75'.						J	
HAVE COPIES OF THIS	APPLICATION BEEN	SURFACE OW!	ER	EACH OF	ERATOR WITH	IN ONE-	HALF MILE	THE NEW	MEXICO STATE ENGIN	EER
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ARE THE FOLLOWING THE APPLICATION (S	ITEMS ATTACHED TO				CAL LOG				ATIC BRETCH OF WE	
THE APPLICATION (S	EE HULE /01-B/	Ύ€	es	, j	es'	•		Υe	es .	
	I hereby certi	ify that the inf	formation above is	true and com	lete to the	best o	of my knowl	edge and	belief.	
assel	1 Dans	a	Foo	ineer	X			4/1	3/78	
1-1-0	(Signature)			Ти	le)				(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.

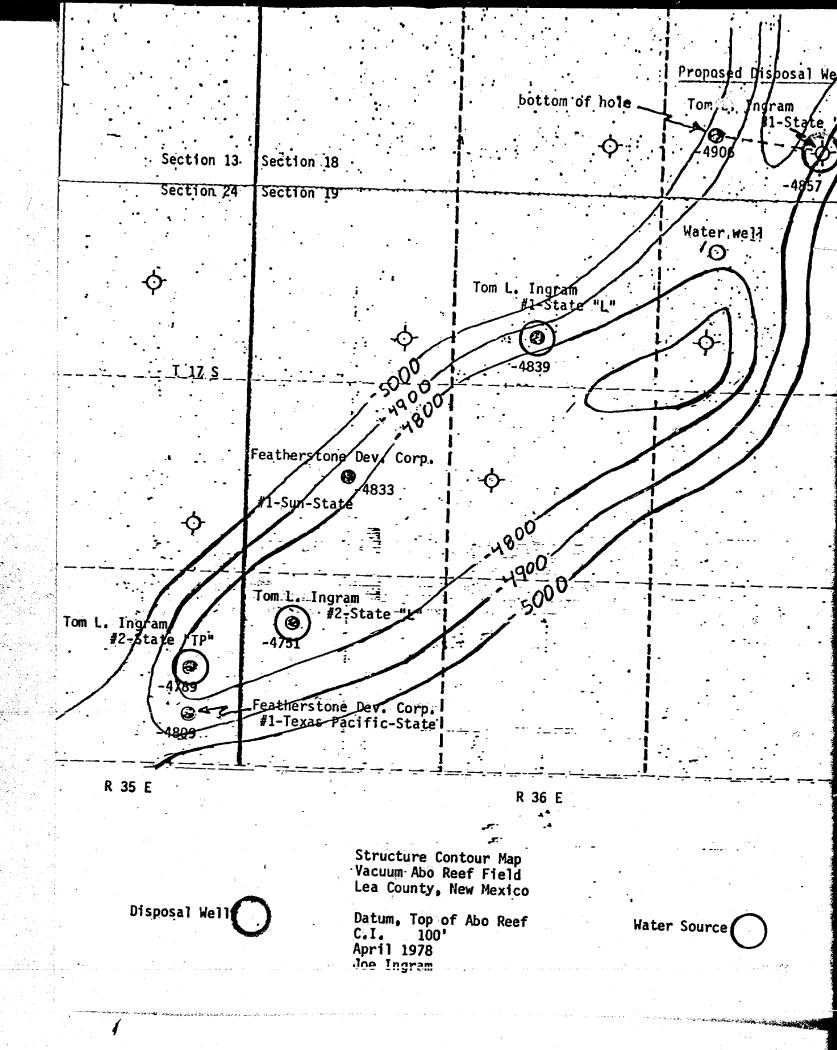
HALLIBURION DIVISION LABORATORY HALLIBURTON SERVICES MIDLAND DIVISION HOBBS, NEW MEXICO 88240

LABORATORY WATER ANALYSIS

NIa	1028-31.2		

To Tom L. Ingram	×	Date_	3-29-78
Box 1757		it nor any part there	perty of Halliburton Company and neither of nor a copy thereof is to be published
Roswell, New Mex	ico	of laboratory manage	first securing the express written approve ement; it may however, be used in the ness operations by any person or concer-
			of receiving such report from Halliburto
Submitted by		Date Ro	ec. 3-29-78
Well No. As Marked	Depth	Formati	on Abo Reef
	Field		
	State "L" #1	State "L" #2	•
Resistivity	0.086 @ 74°F.		0.073 @ 74 ⁰ F.
Specific Gravity		1.102	1.068
pH		6.2	6.5
Calcium (Ca)	5,800	13,750	5,000 *MPI
Magnesium (Mg)	· · · · · · · · · · · · · · · · · · ·	2,100	960
Chlorides (CI)		90,500	58,000
Sulfates (SO ₄)	2,950	1,600	3,200
Bicarbonates (HCO ₃)	and the second s	31.5	185
Soluble Iron (Fe)	Nil	Nil	Nil
<u></u>			
<u> </u>			
Remarks:			*Milligrams per liter
		· .	
	Кезрестин	y submiπea,	en de la companya de La companya de la co
Analyst: Brewer		HALLIBURT	ON COMPANY
CC:		By ///.	Beliver

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 10 ACT OR OMISSION, RESULTING FROM SUCH REPORT OR ITS USE.

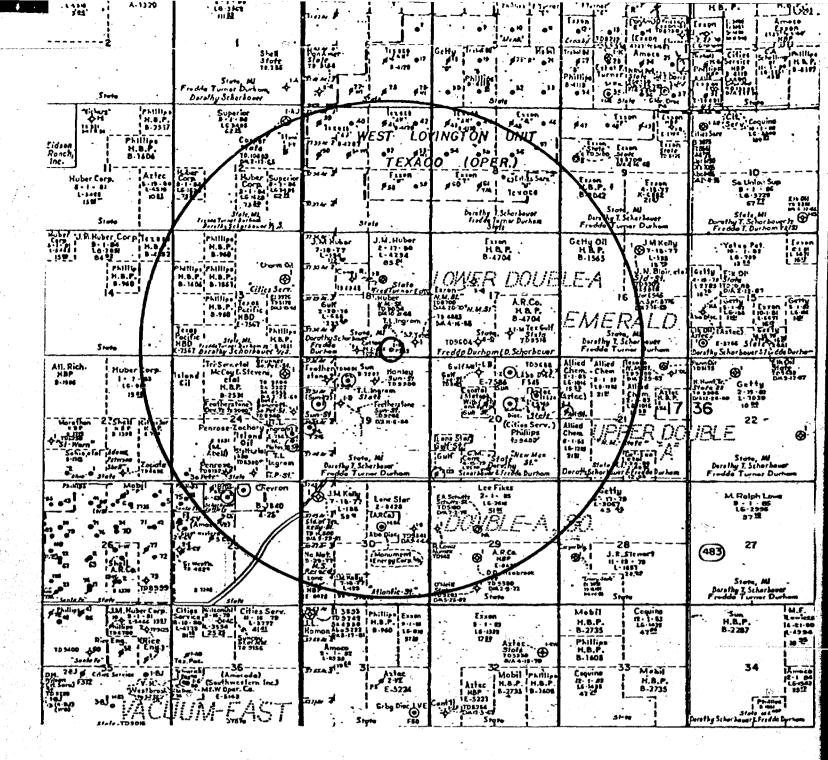


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WARRING OF

FI	LD Vacuum Abo Reef	OPERATOR Tom L. Ingram	DATE April 10, 1978
LE		WELL No LOCATION) Unit Letter	U Sec. 18 - T175 - R36E

www.	Cement Top: Surface (Circulated)
	29' CaCl
	2% CaCl ₂ 13-3/8" casing set at 340 with 400 sx of Class H +/cement
	Hole size 17 "
	Cement Top: 2514' (Calculated)
	2% CaCl ₂ 8-5/8" casing set at 3406 with 200 sx of Elass H +/ cement
	Hole size 11 "
	Cement Top: 7100' (Survey)
	Perfs: 8915-8917-8937-8940-8943-8947-8961 8963-8977-8980-8982-(1 shot per foot)
	9006 - 2 shots Baker Model R Single Grip Packer at 8637'
	- 2-3/8" Tubing set at 8668"(Cement or Plastic lined)
#	
	-Baker Model D Bridge Plug with Blank Off at 8995' Class C Pozmix
BTD 8995!	5-1/2 " casing set at 9041 ' with 300 sx of + 8#Salt/sackement
D 90411	Total Depth 9041 Hole size 7-7/8 "



Plat showing location of proposed disposal well, Tom L. Ingram #1 State"M" 330'FSL and 1650'FEL Sec.18, T 17 \$, R 36 E

Producing formations within two mile radius of disposal well are:

• San Andres

Abo

Disposal is to be into the Abo Reef formation at a depth of 8915-8992 feet.

Liquid will be salt water produced from:

Tom L. Ingram #1 State "L" 990'FNL and 1890'FWL, Sec.19, T 17 S, R 36 E

Tom L. Ingram #2 State "L" 2310'FSL and 330'FWL, Sec.19, T 17 S, R 36 E

Tom L. Ingram #2 State "TP" 1980'FSL and 330'FEL, Sec.24, T 17 S, R 35 E

Volume will be from 100 to 300 bbls of salt water per day.

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	7 7 8 3406 8965 8 5 8 24/2
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(GR	Witnessed by State Of
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	nK.B,111_Ft. Above Perm. Datum
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	ELL DMP
	Y o D A Location: 1650's FEL & 330 sess Other Services:
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Į.	COMPANY TOM L. INGRAM

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SANTA FE		•			er 1-9	elas e			e Type of Lease	
FILE			MEXICO OIL		100			State	X Fee	
U.S.G.S.		WELL COMPL	E HON OK I	RECOMPL	CHUNK	KEPUKI	AND LOG	S. Siate Ol	I & Gas Lease No.	
LAND OFFICE		•				¢.	1: 1		L-134	
OPERATOR			•					TITTA	THITTITI	III
			.					VIIII		III
10. TYPE OF WELL	• •	<u> </u>			Ret	tain for	•	7. Unit Age	reement Name	
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b. TYPE OF COMPLE		PLU	6 DIFF.	<u> </u>		4	•	8, 1 arm or	Lease Name	
2, Name of Operator	NK X DEEP	EN . BAC	K RESVA		THER			State		
TOM L INGRAM	ì							, wen ivo.		
3, Address of Operator	· · · · · · · · · · · · · · · · · · ·			·				10. Field o	md Pool, or Wildcat	
P. 0. Box 17	57. Roswel	1. NM 88201	1						m ABO Reef	
4, Location of Well	<i>5,,</i>	1, 1 00,00	•	•				17777	viiiiiiiiiii	TT
4 ·	17.7									III
UNIT LETTERO	LOCATED	330 FEET	FROM THESC	outh	NE AND	1650	FEET FROM			III
					11111	HIKH	IIIII	12. County	HHH	TT,
THE East LINE OF	sec. 18	TWP. 175 R	εε. 36E	NMPM		IXIII		Lea		777
15. Date Spudded		Reached 17, Dat		y to Prod.)	1 (RKB, RT, C	GR, etc.) 19.	Elev. Cashinghead	
5/21/71.	8/4/71		3/30/78			36 GR	· · · · · · · · · · · · · · · · · · ·	l_		
20, Total Depth	-	ug Back T.D.	22. II N	fultiple Comp	I., How	23. Interve	lls Rota By		Cable Tools	
9041 24. Producing Interval(s		995'		· · · · · · · · · · · · · · · · · · ·		<u> </u>	→ ; 0-1		25, Was Directional Su	
24. Producing intervals	o, or this compre	710n = 10p, B0110	m, Name :	•	•		•		Made	итер
8915-8982	ABO Reef							. }	Yes	
26. Type Electric and C					·			27. \	Was Well Cored	
Laterolog, M	icrolatero	log, Sidewa	l Neutron	Porosi	ty				Yes	
28.			SING RECORD			in well)	, ć	J		
CASING SIZE	WEIGHT LB	./FT. DEPT	HSET	HOLE SIZE		CEME	NTING REC	ORD	ANOUNT PULL	ED
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8-5/8	24-	32 340	06	11"		200 s	XS.		0-	
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29.	··· ····	LINER RECORD	·	<u>.</u>		30.	T	TUBING REC	The state of the s	
SIZE	TOP	воттом	SACKS CEM	ENT SC	REEN	2-3/8		668	8637	
			 			2-3/0		000	0037	
31. Perforation Record	Interval size or	d number)	<u> </u>	32,	ACI	D SHOT F	PACTURE	CENENT SC	DUEEZE, ETC.	
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82 - one s			., ,,,,	89				gal DS		
•	•			90				Model D		-
		-				10				
33,			J	PRODUCTIO	N					
Date First Production	Prod	uction Method (Flo	owing, gas lift,	pumping - S	ize and ty	pe pump)			in (Prod. or Shut-in)	
Date of Book								<u> </u>		
Date of Test	Hours Tested	Choke Size	Test Period		>D1.	Gas - MCI	.	er - Bbl	Gas -Oil Ratio	4
Flow Tubing Press.	Casing Pressu	re Calculated 2	24- Osi - Bbl.	<u>→ </u>	as – MCF	1 W/	iter – Bbl.	Lou	Gravity - API (Corr.)	
		Hour Rate			æ. 110i					
34, Disposition of Gas (Sold, used for fu	el, vented, etc.)					Tes	t Witnessed	Ву	
35, List of Attachments										
-1 1		<u></u>			·				•	
36. I hereby certify that	the information	shown on both sid	les of this form	is true and a	omplete to	the best of	my knowled	ige and belie	F	
A	14		• \$*	÷ .		-				
SIGNED	ept d. S	rgion	TITLE	Engi	neer			DATE	4/10/78	

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a number of all special tests conducted, including drill stem tests. All depths reported shall be measured depths, in the case of directionally drilled wells, true vertical dapths shall also be rejected. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filed to quintoplicate except on state land, where six copies are required. See Bute 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

			neastern New Mexico			Northwo			
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			T. Devonian					4	
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	burg	_	T. Montoya	T. Mancos			Т.	McCracken .	
	Andres	4639	T. Simpson	T Gallup			Т.	lenacio Otzi	e
T. Glori		6293	T. McKee	Pase Green	horn		т.	Granite	
			T. Ellenburger	T. Dakota			Т.		
			T. Gr. Wash	*					
	card		T. Bose Springs	T. Entrada	a		Т.		
T. Abo.		8910	T. Bone Springs	T Wingate	e		т.		
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nclude da lo. 1, fron	n	e of water	IMPORTA	ANT WATER	SANDS	fcet.			
nclude da lo. 1, fron lo. 2, fron lo. 3, fron	mm.	e of water	IMPORTA inflow and elevation to which water reto	ANT WATER	SANDS	fcet.	*************		
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nclude da lo. 1, fron lo. 2, fron lo. 3, fron	mm.	e of water	IMPORTA inflow and elevation to which water re to to to	ANT WATER	SANDS	fcetfcet.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
nclude da lo. 1, from lo. 2, from lo. 3, from lo. 4, from	mm	Thickness in Feet	IMPORTA inflow and elevation to which water re to	ch additional	SANDS	feet. feet. feet. frecessor	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
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nclude da lo. 1, from lo. 2, from From 0 190 830	To 190 1830 1880	Thickness in Feet	IMPORTA inflow and elevation to which water re to to to FORMATION RECORD (Atta Formation Surface sands & Caliche Red beds Anhydrite	ch additional	SANDS	feet. feet. feet. frecessor	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
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U.S.G.S.			001111 41	- 11011 0		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		<u> </u>	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	S. State	ाठा ४	Gas Loaso No.	
LAND OFFICE										1	L-	-134	
OPERATOR								(1		1111	1777	TITTI	III
<u> </u>										UIII	1111.		////
Id. TYPE OF WELL						· · · · · · · · · · · · · · · · · · ·	Ret	ain for		7. 000	Agreem	ent Name	
	011	"[]	GAS	\Box	_ [posal w	_				
b. TYPE OF COMPLE		""	WELL		DRY	OTHER	013	posar n		8. Furm	or Lea	ise Name	
HEW OY	AR Y DEEP		PLUG BACK	□ !!	SVR.					C+a	te M		
2. Name of Operator	000	<u> </u>	846.6	<u> </u>	344.	OTHER		· · · · · · · · · · · · · · · · · · ·		9. Well		 	
TÓM L INGRAI	4									•	1		
3, Address of Operator										10, Fie	ld and I	Peol, or Wildcat	
P. 0. Box 1	757. Roswel	1. NM	88201									ABO Reef	
4. Location of Well	77, 11031101	1, 111	00201							7777	7777	17777777	rr
											IIII		III
UNIT LETTERO_		330			South		,	650			1111.		
UNIT LETTER	LOCATED	<u> </u>	FEET F	ROM THE	300 til	CINE AND	77	77777	FEET FROM	12. Cou	77777	11111111	<i>H</i> ,
Fort	10 6	z .	70			IIIII	///	MIII		J .	,	IIIII	1111.
THE East LINE OF	sec. 10	TWP.	/S x6	ε. 36E	NMPM	777777	777.	MIII	777777	Lea		ev. Cashinghead	777
15, Date Spudded				and the second	caay to t	1			KKB, KI,	GK, etc.)	19, Ele	ev, Cashinghead	
5/21/71	8/4/71			/30/78				6 GR	<u> </u>	1		.,	
20, Total Depth		ug Back	T.D.		II Multipi Many	e Compl., Ho	W	23. Intervo Drilled	ils Rote By i	ry Tools		Cable Tools	
9041		9951	47						<u>→ : 0-</u>	TD	· i	1.	
24. Producing Interval	s), of this comple	etion — 7	Cop, Botton	p, Name								Was Directional : Made	Surve
		_					•		•			*.	
8915-8982	ABO Reef			-								Yes	
26. Type Electric and			•							, 2	7. Was	Well Cored	
Laterolog, I	licrolatero	log,	Sidewa	ll Neutr	on Po	rosity					· Y	es ·	
28.			CAS	SING RECO	ORD (Rep	ort all string	s set	in well)				404	
CASING SIZE	WEIGHT LE	JET.	CEPT	SET	, HOL	E SIZE		CEME	NTING RE	ORD		AMOUNT PUL	LED
13-3/8		48	34	0	17	11		400 s	XS			Circulate	≥d
8-5/8	24-	32 -	340		11	11		200 s				0	
5-1/2	151-		904			-7/8"		300 s				0	
				<u></u>									
29	·	LINER R	ECORD					30.		TUBING F	RECOR	D	
SIZE	TÔP 😏		TTOM	SACKS C	EMENT	SCREEN		SIZE		EPTH SET		PACKER SE	ET
		 		1		30112211		2-3/8		8668		8637	
		 		 			-	2 3/0		-		0031	
31. Perioration Record	Untamal siza	d numba		الــــــ		32.	ACI	D, SHOT, F	OACTUBE	CENENT	SOUE	EZE STC	
9006' - 2 st	•	iu numbe	" .										
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			01, 0)	, //, c	ω,		902			gal S			
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						9006			baker	Model	שמע		
<u> </u>						<u> </u>				Charles Comment			
Date First Production						UCTION			·	1		D	
Date Lital Stodnetton	Prod	uction M	etnod (Pto	wing, gas i	ılı, pump	ing - Size an	ia typ	e pump)		1		Prod. or Shut-in)	•
				 	<u> </u>			<u> </u>			SI		
Date, i Test	Hows Tested	Сь	oke Size	Prod'n. Test Pe		Oil — Bbl.	Ì	Gas — MCI	Wa	ier = Bbl.:	G	as = Oil Ratio	
Flow Tubing Press.	Casing Pressu		lculated 24 wr Rate	- OII - B	bi.	Gas - 1	MCF	Wa	iter — Bbl.	* · ·	Oll Gro	ovity - API (Con	r.j
34. Disposition of Gas	(Sold, used for fi	iel, vent	ed, etc.)					L	. Te	st Witness	ed By		
			•								• 1		
35, List of Attachments	<u> </u>				······································	·							<u> </u>
		•											52.4
36, I hereby certify tha	the information	shove -	n hack side	s of this C	om ie ter	e and comple	10.10	the best of	my kounda	dee and b	-lief		
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1		//	V	•					•				
SIGNED	if J.	rgn	m	TIT	LE	Engineer				DATE _	<u>4/</u>]	0/78	

This form in to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-filled of deepened well. It shall be accompanied by one copy of all electrical and reflectivity loss run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical dopths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Bule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

T Ojo Alamo _

_ T. Kirtland-Fruitiand ___

Southeastern New Mexico *

T. Conyon _

1830

T. Salt_

Northwesteni New Mexico

____ T. Penn. "B"

B. Solt .			т.	Atoka		T. Fict	ured Cliffs	·	т.	Penn. "D".		
T. Yates		3069	T. Miss T. Devonian									
T. 7 Riv	ers		T.	Devonian		T. Mene	:lee		T.	Madison		
T. Quee	n		т.	Silurian		T. Poin	t Lookout		T.	Elbert		
T. Grayl	burg	7.730	т.	Montoya		T. Mane	os		т.	McCracken -		
T. San A	Andres	72	L.	willbaou		4	up			Pincio Arat		
	eta	6293	т.	McKee		Base Gre	enhorn		.T.	Granite		
T. Padd	ock		Т.	Ellenburger	 	T. Dake	ota		т.			_
T. Bline	ebry		т.	Gr. Wash		T. Morr	ison		т.			_
T. Tubb			Т.	Granite		T. Todi	Ito		Т.			_
T. Drink	ard	70.00	Т.	Delaware Sand	1	T. Entr	ada		т.			_
T. Abo		8910	Т.	Bone Springs .		T. Wing	ate		т.	· 		
T. Wolfe	omp		т.			T. Chin	le		Т.	<u> </u>	<u> </u>	
T. Penn			Т.			T. Pem	nian		т.			
T Cisco	(Bough	¬	Т.			T. Pen	. "Á"		т.			
					OIL OR GAS	SANDS	OR ZON	1ES			•	
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No. 2, from	n	****************		.to		No. 5, fr	om	Da / DD 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	*********	to		-
						1, 10						
No. 3, tron	n	•••••••		.to		No. 0, 11	отат		**********	10	********	
No. 1, from	n	***************	************	to.	which water rose		************	feet.	*************	**************************************		-
No. 4, from	na			to.				feet.	*********	****	***************************************	
		i i	.1	FORMATION RI	ECORD (Attach	addi iion	d sheets i	fnecessai	y)			
From	То	Thickness in Feet		Formation		From	То	Thickness in Feet		Formatio	on.	
0 190 1830 1880 3069 4639 6293 8260	190 1830 1880 3069 4639 6293 8260 9041	190 1640 50 1189 1570 1654 1967 781	Red b Anhyd Salt Sand, Dolom Sand	8 Anhydrite Anhydrite	e , Shale	•			MPR Ionset	EIVEL 171978 RVATION CO 35, N. M.	•	
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FILE		* .			SERVATION			ND 1 00	State	· (X)	Fee 🔲
U.S.G.S.		WELL COMPL	E HUN U	א אבננ	JMPLE HO	й к	CPORTA	ND LUG	5. State	011 6 C	ias Leas ò No.
LAND OFFICE		•			:					Ļ-	134
OPERATOR		ě ·					£1	_	17777	7777	THITTITI
			7 ,		•			ĺ.	(1111)	1111:	
In TYPE OF WELL			<u> </u>			D - 3	ain for		7. Unit	lyreeme	ent Name
	011	LL GAS.	П	[]				.11.	٠.	•	
b. TYPE OF COMPLE	TION	ut	. 🖵	ORY	OTHER_	<u>u 1 5</u>	posal w	611	8. Farm	or Leas	e Name
HEW WO	AK Y DEEPI	PLUG BACK	<u></u>	SVA.					Stat	M م	•
2. Name of Operator	in Cas		<u> </u>	.344.	OTHER				9. Woll 1		
TOM L INGRAM	1	•							. 1		
3. Address of Operator		 							10. Field	and P	ool, or Wildcat
P. O. Box 17	57. Roswel	1. NM 88201							Vacu	ium Af	BO Reef
4. Location of Well	<i></i>	.,			•		·		77777	777	mminin
										11111	
UNIT LETTERO	1001750	330		South	LIMP AND	1	650 .	EET FROM		11111	
Wall Cellier	LOCATED	PEE, P	JAI MON		THITTIS	\overline{m}	TITIKE	111111	12. Coun	7777	411111111
Fast	18	175	. 361			III	MIII		دما		
THE East LINE OF 15, Date Spudded	16. Date T.D. I	Reached 17, Date	Compl. !R	endy to P	rod.) 18. E	leva	tions (DF, I	KB, RT, G	R, etc.)	19. Elev	v. Cashinghead
5/21/71		TA 3					6 GR	•			
20. Total Depth		ig Back T.D.	22.	If Multiple	e Compl., Hov		23. Interva	B , Rotar	y Tools	c	able Tools
9041'	8	9951		Many	-	1	Drilled	By to-T	D	j	•
24. Producing Interval	477		n, Name								as Directional Survey
9.1	٨.				-				÷	, N	lade
8915-8982	ABO Reef			-	-					1	Yes
26. Type Electric and C	Other Logs Run	•		<u>-</u>					27	. Was Y	/ell Cored
Laterolog, M	icrolatero	log, Sidewa	II Neuti	ron Po	rosity -					Y	es
28.		CA	SING RECO	ORD (Rep	ort all strings	sei	in well)				
CASING SIZE	WEIGHT LB.	/FT/ DEPT	HSET	HOL	ESIZE		CEMEN	TING REC	ORD		AMOUNT PULLED
13-3/8		48 34	0	17	11		400 s	xs			Circulated
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5-1/2	- 15½-	17 904	1-27-3	7	-7/8'		300 s				0
29.		INER RECORD		•			30.	1	UBING R	ECORD	
SIZE	тор -	воттом	SACKS C	EMENT	SCREEN		SIZE	DE	PTH SET		PACKER SET
			1			T	2-3/8	8	668		8637
			T					4			
31. Perioration Record		d number)			32.	ACIE	, SHOT, FF	ACTURE,	CEMENT	SQUEE	ZE, ETC.
9006' - 2 sh				**	DEPTH	INT	ERVAL	OMA	ONA THE	KIND M	ATERIAL USED
8915', 17, 3	7, 40, 43,	47, 61, 63	, 77, 8	30,	8915-89	982		A/500	gal Sp	earh	ead
82 - one s	hot per fo	ot			8995			A/5000	gal D	\$ 30	
	•				9006		7	Baker	Model	DBP	
			4		4 7					2	
33.				PRODI	UCTION					1. 389	
Date First Production	Prod	action Method (Flo	wing, gas	lift, pumpi	ing - Size and	lyp	е ритр)		Well St	atus (Pr	rod. or Shut-in)
<u></u>		·						ari e	S	1	
Date of Test	Hours Tested	Choke Size	Prod'n. Test Po		Oil - Bbl.	Ì	Gas - MCF	Wate	er — Bbl.	Ga	s—Oil Ratio
Flow Tubing Press,	Casing Pressu	Calculated 2 How Rate	6- Oil — E	ы. –	Gas — M	ICF	Wa	ter — Pbl.		Oil Gron	rity - API (Corr.)
34. Disposition of Gas	Sold, used for fu	el, vented, etc.)						Tes	Witnesse	d By	
35. List of Attachments									. **		
oc I h		,								***	
36. I kereby certify that	the information .	snown on both side A	s of this f	oņm is tru	e and complet	e 10	ine best of i	ny knowled	ge and be	iej.	
Mary Mas	iel I d		·		Fnair			•		<u>ዜ</u> / ነ	0/78
SIGNED		my	TI1	TLE	<u>Engineer</u>				DATE_	<u> 7/ U</u>	V/ /O

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-filled or, deepend well. It shall be accompanied by one copy of all electrical and relativistic large into a the well and a number of all special tests conducted, including drill stem tests. All depths reported chall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be rejected. For multiple completions, Hems 30 through 34 shall be rejected for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Bule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

		Sout	heastern	New Mexico				Northw	estem Nev	v Mexico	•
T. Anhy	· · /	1830	. 4	Canyon	т	Oin A	Jamo		т.	Penn, "B"	
				Strawn							
			T.	Atoka	т.	Pictu	red Cliffs		Т.	Penn. "D" _	
T. Yate		3069		Miss							
T. 7 Riv	vers			Devonian							
				Silurian							
_	burg			Montoya							
	Andres	4639	Т.	Simpson	Т.	Gallu	p		Τ.	Ignacio Quzte	
	ieta	6293	т.	McKee	Ba	se Gree	nhorn		т.	Granite	
			т.	Ellenburger	т.	Dakot	a		Т		
				Gr. Wash							
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	7(20 ag.,	-,		OIL OR						•	
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				FORMATION RECORD (A						******************	
<u> </u>	·	Thickness			I		<u> </u>	Thickness		350	
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190	1830	1640	Red b		l l	•				•	
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SANTA FE			W MEXICO	OIL CON	SERVATION	Соммізсіон		· Proceedings of the contract	Type of Lease
FILE		WELL COMPI						State X	
U.S.G.S.		•	•			ē		5. State Off	6 Gas Lease No.
LAND OFFICE		-	•	• •	•			L	L-134
OPERATOR		ı			•		4.77	IIIIIII	WHIIIIIIII
Clarence								VIIIIII	
la. TYPE OF WELL	•					etain for		7. Unit Agree	ement Name
h ====================================	OIL WE	tic We	<u>.</u>	ORY 🗌	OTHER d	Isposal w	ell.		one North
b. TYPE OF COMPLE	AK []	e	اه [_] دا	IFF. C-3		_		8. Farm or L	•
2, Name of Operator	ER X DEEP	EN DA	čk ni	ESVA.	OTHER			State I	M
	4							1, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
TOM L INGRA							 -	10. Field one	d Pool, or Wildcat
P. 0. Box 1] NM RRON) 1					ł	ABO Reef
4. Location of Well	, ,	., 0020	· · · · · · · · · · · · · · · · · · ·					////////	umilitiinii
:	-						•		
UNIT LETTERO	LOCATEO	330	T ÉROLE VUE	South		1650	FEET FROM	IIIIIII	WHIIIIIIII
	COUNTED	FEET			THITTE	TITIKITI		12. County	<i>########</i>
THE East LINE OF	sec. 18	TWP. 175	RGE. 361	E N. 181.	MIIIII	IIIXIII		Lea	
15, Date Spudded						evalions (DF, I	RKB, RT, C		Elev. Cashinghead
5/21/71	8/4/71		3/30/78	=	· •	886 GR			
20. Total Depth		ug Back T.D.	22.	If Multipl	e Compl., How	23; Interva	ls Rota	y Tools	Cable Tools
9041'	8	39951		Many		Drilled	By 0-1	⁻ D	1
24. Producing Interval			tom, Name					25	5. Was Directional Survey
				45	۲		•	.	Made
8915-8982	ABO Reef								Yes
26, Type Electric and (·						27. Wa	is Well Cored
Laterolog, N	<u>licrolatero</u>	olog, Sidew	vall Neut	ron Po	rosity	<u> </u>			Yes
28.		C	ASING REC	ORD (Rep	ort al! strings s	et in well)			
CASING SIZE				1					
	WEIGHT LÉ		THISET		E SIZE		TING REC	ORD	AMOUNT PULLED
13-3/8		48 3	340	17	11	400 s	xs	ORD	Circulated
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13-3/8 8-5/8 5-1/2 29. SIZE 31. Perforation Record 9006' - 2 sh 8915', 17, 3 82 - one s	24- 15½- I TOP (Interval, size an nots 37, 40, 43, shot per fo	48 3 32 34 17 90 LINER RECORD BOTTOM and number)	\$40 +06 \$ACKS C	17 11 7	32. AG DEPTH IN 8915-898 995 9006	400 s 200 s 300 s 30. 51ZE 2-3/8 CID, SHOT, FR	XS XS XS RACTURE, AMO A/500 A/5000	CEMENT SQUUNT ÁND KINI gal Spear Ogal DBF	Circulated 0 0 PACKER SET 8637 BEEZE, ETC. D MATERIAL USED Thead 30
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13-3/8 8-5/8 5-1/2 29. 31. Perforation Record 9006' - 2 st 8915', 17, 3 82 - one s 33. Date First Production Date of Test Flow Tubing Press.	24- 151- 151- TOP (Interval, size an acts) 37, 40, 43, Shot per fo	48 3 32 34 17 90 LINER RECORD BOTTOM BOTTOM 47, 61, 6 oot Choke Size re Calculated Hour Rate	\$40 406 941 SACKS C 53, 77, 8 Flowing, gas Prod'n. Test P.	PROD lift, pump	32. AC DEPTH IN 8915-898 995 9006 UCTION ing - Size and I	400 s. 200 s. 300 s. 30. SIZE: 2-3/8 CID, SHOT, FF NTERVAL 82 Eype pump) Gas — MCF	XS XS XS RACTURE, AMO A/500 A/5000 Baker	TUBING RECO PTH SET 8668 CEMENT SQU UNT ÁND KINI gal Spear) gal DS 3 Model DBF Well Status S 1 er — Bbl.	Circulated 0 0 0 PACKER SET 8637 BEEZE, ETC. D MATERIAL USED Thead 30 P (Prod. or Shut-in) Gas-Oil Ratio
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INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

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This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-diffice of deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including diffi stem tests. All depths reported shall be measured depths, in the case of directionally diffied wells, true vertical depths shall also be reported. For multiple considerious, Items 30 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Bute 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

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TOM L. INGRAM

ROSWELL, NEW MEXICO 88201 April 13, 1978

New Mexico 011 Conservation Commission P. 0. Box 2088 Sata Fe, NM 87501

Gentlemen:

As an offset operator, SUN OIL COMPANY
hereby waives any objection to the conversion and injection
of water into Tom L. Ingram #1 State "M" in the Vacuum ABO
Reef Formation as requested in their application for Salt Water
Disposal dated April 13, 1978.

For

Rv

Date

April 21, 1978

OIL CONSERVATION COMMISSION Hobbs DISTRICT

OIL CONSERVATION COMMISSION BOX 2088	DATE April 18, 1978
SANTA FE, NEW MEXICO	RE: Proposed MC
	Proposed NSL Yroposed SWD X
f	Proposed SWD X
\$ 2.1879 P. F. S.	Proposed WFX Proposed PMX
Gentlemen:	
I have examined the application dated_	
for the Tom L. Ingram State M #1-0	
	d Well No. Unit, S-T-R
and my recommendations are as follows:	
0.KJ.S.	
	Yours very truly,

ROUGH

dr/

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

2

CASE NO.	6244	·
Order No.	R- 5748	

APPLICATION OF TOM L. INGRAM FOR SALT WATER DISPOSAL, LEA COUNTY, NEW MEXICO.

Alu

ORDER OF THE DIVISION

BY	THE	DIVISION:	

mately **8815**

This cause came on for hearing at 9 a.m. on June 7
19 78 , at Santa Fe, New Mexico, before Examiner Daniel S. Nutte
NOW, on this day of June, 1978, the Division
Director, having considered the testimony, the record, and the
recomendations of the Examiner, and being fully advised in the
premises,
FINDS:
(1) That due public notice having been given as required by
law, the Division has jurisdiction of this cause and the subject
matter thereof.
(2) That the applicant,
is the owner and operator of the State M Well No. 1
located in Unit O of Section 18, Township 17 South
Range 36 East , NMPM, Vacuum-Abo Pool ,
Lea County, New Mexico.
(3) That the applicant proposes to utilize said well to
dispose of produced salt water into the Abo Reef
formation, with injection into the perforated interval
interval from approximately 8915 feet to 6982 feet.
(4) That the injection should be accomplished through 23
-inch plastic lined tubing installed in a packer set at approxi-

filled with an inert fluid; and that a pressure gauge or approved

leak detection device should be attached to the annulus in order

feet; that the casing-tubing annulus should be

to determine leakage in the casing, tubing, or packer.

- (5) 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 1783 than 700 psi.
- (6) That the operator should notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of disposal equipment so that the same may be inspected.
- (7) 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.
- (8) 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,Tom L. Ingram
is hereby authorized to utilize its State M Well No. 1
located in Unit 0 of Section 18 , Township 17 South
Range 36 East , NMPM, Vacuum-Abo Pool
Lea County, New Mexico, to dispose of produced salt water
into the Abo Reef formation, injection to be
into the Abo Reef formation, injection to be accomplished through
accomplished through 238 -inch tubing installed in a

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 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 1783 psi.
- (3) That the operator shall notify the supervisor of the Hobbs district office of the Division 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 Division'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 Division Rules and Regulations.
- (6) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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