

CASE 6979: WOLFSON OIL COMPANY FOR SALT
WATER DISPOSAL, ROOSEVELT COUNTY, NEW
MEXICO

Case No.

6979

Application

Transcripts

Small Exhibits

ETC

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
23 July 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of Wolfson Oil Company
for salt water disposal, Roosevelt
County, New Mexico.

CASE
6979

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

Ernest L. Padilla, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

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

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B

Santa Fe, New Mexico 87501

Phone (505) 455-7409

I N D E X

HAL FREEDMAN

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SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 MR. STAMETS: We'll call Case 6979.

2 MR. PADILLA: Application of Wolfson Oil
3 Company for salt water disposal, Roosevelt County, New Mexico.

4 MR. KELLAHIN: Tom Kellahin, appearing
5 on behalf of the applicant and I have one witness to be
6 sworn.

7
8 (Witness sworn,)

9
10 HAL FREEDMAN
11 being called as a witness and having been duly sworn upon his
12 oath, testified as follows, to-wit:

13
14 DIRECT EXAMINATION

15 BY MR. KELLAHIN:

16 Q Mr. Freedman, would you please state your
17 name and by whom you're employed?

18 A My name is Hal Freedman. I'm employed
19 by Wolfson Oil Company.

20 Q In what capacity are you employed?

21 A I'm a petroleum engineer.

22 Q As a petroleum engineer have you made a
23 study of the facts surrounding this particular application?

24 A Yes, I have.

25 Q And have you previously testified before

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
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1 the Oil Conservation Division as a petroleum engineer?

2 A Yes, I have.

3 MR. KELLAHIN: Tender Mr. Freedman as an
4 expert petroleum engineer.

5 MR. STAMETS: The witness is considered
6 qualified.

7 Q Mr. Freedman, would you refer to what
8 we've marked as Exhibit Number One and identify that for us?

9 A Exhibit Number One shows our lease, the
10 Mountain-Federal No. 1 outlined in red. It also shows the
11 proposed injection well, our Mountain-Federal No. 1 Well, and
12 in blue it shows the approved Sundance Oil Company salt water
13 disposal well, the Cone Federal No. 8 south of our lease.

14 Q What are you seeking to accomplish, Mr.
15 Freedman?

16 A We hope to dispose of our produced water
17 in our No. 1 Well.

18 Q What have you been doing with that pro-
19 duced water up till now?

20 A Well, previously Sundance has been taking
21 it, until the 12th of June, and they informed us that they
22 could no longer dispose of our water because of their volumes.
23 So we had to find other means and currently we are trucking
24 the water.

25 Q What does it cost you to truck the water?

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
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1 A. It costs us approximately \$1.00 per barrel

2 Q. How many barrels of water a day are you
3 trucking?

4 A. Well, the lease will produce approximately
5 400 but because of the excessive cost we're only producing
6 one to two wells daily; rotating the wells.

7 Q. How many wells do you operate on this
8 lease?

9 A. There are six wells.

10 Q. How are they identified on the plat?

11 A. You mean where or --

12 Q. Yes.

13 A. They are in the northeast corner of Section
14 30 and the east half of the northwest corner of Section 30.

15 Q. From what formations do those wells pro-
16 duce?

17 A. They produce from the San Andres.

18 Q. Do you have any cumulative oil production
19 figures?

20 A. As of July 1st our Mountain-Federal lease
21 produced approximately 113,000 barrels.

22 Q. And do you have an estimate of what the
23 cumulative production is now for all six of the wells, on a
24 daily basis?

25 A. Approximately 80 barrels per day.

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Sedalia, Mo. 64501
Phone (816) 455-7409

1 Q Divided among the six wells?

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3 Q Among the five --

4 A One is shut-in.

5 Q The proposed salt water disposal well is

6 shut-in?

7 A Yes.

8 Q It's an old producer?

9 A Yes, and it makes excessive volume.

10 Q In your opinion, Mr. Freedman, is it econ-

11 omic for Mr. Wolfson to continue to truck the produced salt

12 water off the lease?

13 A No, it is not.

14 Q What will happen to the production from

15 this lease if the application is not approved?

16 A It will result in premature abandonment

17 and loss of oil.

18 Q Will you refer to Exhibit Number Two and

19 identify that?

20 A This is a copy of Sundance's disposal

21 system showing lines going to their Cone Federal No. 8.

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23 Exhibit Number Three for us?

24 A Number Three is the approval by the Con-

25 servation Commission of Sundance's application to utilize

1 their No. 8 Well, Cone Federal No. 8, as an injection well.

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3 found in the Sundance order?

4 A Yes, I have.

5 Q Are any of those provisions -- or compliance
6 with any of those provisions, or requirements, a problem for
7 you?

8 A We would prefer not to plastic-line our
9 tubing at this time. We can monitor the injection through
10 pressure gauges and open annulus and we have not had any
11 tubing corrosion problems in this -- on this lease, nor have
12 we had any in the San Andres in a lease east of there, in the
13 Cato Field, which is producing quite a great length of time.

14 Q Would you describe for me why it's a
15 problem for you to plastic-line the tubing in these wells?

16 A Well --

17 Q This well?

18 A -- it's an expense and the costs have been
19 so prohibitive out there we prefer not to do it at this time.
20 Should it become necessary at a later date, of course, we
21 would.

22 Q How long have your wells been shut in?

23 A Since we were notified by Sundance approx-
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25 Q Are you aware of any problems, Mr. Freedman?

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5 to pump the water off to get the oil, and there is no doubt
6 that we have been harmed by this shutdown.

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8 time involved in order to plastic line the disposal well?

9 A. It would take approximately a full, I
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11 Q. How -- what's your alternative to the
12 plastic lined disposal well? What's your alternative? How
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18 volume of water to be disposed of in this well?

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20 per day.

21 Q. And will the disposal well take that
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23 A. We believe it will take it on vacuum for
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25 Q. Are you aware of the Director's guidelines

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1 concerning the injection surface pressure in disposal wells?

2 A Yes, sir, yes, I am.

3 Q 0.2 psi per foot of depth?

4 A Right.

5 Q And in your opinion, will this well take
6 that --

7 A I feel sure that it would; however, at a
8 later date we would appreciate the same courtesy that the
9 Commission has allowed Sundance for a higher injection pres-
10 sure, but I really don't believe it's necessary because our
11 volume will be quite a bit less than Sundance's.

12 Q What kind of volume does Sundance dispose
13 of in their well?

14 A I don't know that to my knowledge, but
15 I would approximate 2000 barrels a day, probably 2400 with
16 ours.

17 Q Will you refer to Exhibit Number Four and
18 identify that?

19 A Number Four is our application to the
20 Commission to inject water in our No. 1 Well.

21 Q And would you identify Exhibit Number Five
22 for us?

23 A Number Five is a list of wells located
24 within 1/2 mile of our No. 1 Mountain-Federal Well.

25 MR. PADILLA: It's Number Four,

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
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1 MR. KELLAHIN: This tabulation?
2 MR. PADILLA: Yes, it's Number Four.
3 MR. KELLAHIN: Okay.
4 Q The tabulation is Number Four, Mr. Freed-
5 man.
6 A Just move it, okay.
7 Q This one right here?
8 A Yes.
9 Q Tell me what that is again.
10 A That is a compilation of all wells located
11 within 1/2 mile of our Mountain-Federal No. 1.
12 Q Are there any --
13 A In that --
14 Q Excuse me, are there any plugged and aban-
15 doned wells within a half mile of your proposed well?
16 A No, sir, there is not.
17 Q All right.
18 A That's shows the producing interval and
19 the size casing, where the casing is set, and the sacks of
20 cement utilized, and a calculated top of the cement behind
21 the long string.
22 Q Are there any fresh water sands in the
23 area?
24 A There might be some. I know there's a
25 water well about a mile and a half away.

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
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1 Q At what depth do you encounter fresh water
2 sand?

3 A I believe it's higher than 300 feet.

4 Q What will be the disposal interval?

5 A 4108 to 64.

6 Q Have you examined the casing and cementing
7 program in all the offsetting wells within a half mile radius
8 of the disposal well?

9 A Yes, I have.

10 Q In your opinion as a petroleum engineer,
11 are you satisfied that the disposal of produced salt water
12 in the disposal well will not migrate and contaminate fresh
13 water sands?

14 A Yes, I am. Surface casing in this area
15 is set at approximately 1750 feet because of drilling condi-
16 tions, which is far below the fresh water sands, and all sur-
17 face casing, to my knowledge, has been cemented and circulated.

18 Q All right, sir. Would you refer to the
19 schematic of the disposal well? I believe that's Exhibit
20 Number Six.

21 A Yes, this is --

22 MR. STAMETS: Exhibit Number Five.

23 Q All right, that's Number Five.

24 A Number Five.

25 Q Tell me about your schematic, Mr. Freed-

1 man.

2 A It shows the casing program of our wells
3 and if granted, how we intend to dispose of salt water.

4 It shows it to be disposed of below a
5 packer with treated water in the annulus.

6 Q All right, sir. I'll ask you to identify
7 the laboratory water analysis, which I think is Exhibit Number
8 Seven.

9 MR. STAMETS: Eight.

10 Q All right, tell me about the water analysis.

11 A The water analysis was performed by
12 Halliburton on our No. 1 Well which we are utilizing for in-
13 jection, and I believe it is similar to all water injected --
14 that will be injected.

15 Q All right, sir.

16 And you have attached as one of your ex-
17 hibits, the notice filled out on a form provided by the USGS
18 for approval?

19 A Yes, sir.

20 Q And what exhibit is that?

21 MR. STAMETS: Are you talking about this
22 one?

23 Okay, that's Seven.

24 Q Tell me about Exhibit Seven.

25 A Exhibit Seven is an application to the

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
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1 U.S. Department of Interior to utilize the No. 1 Well for in-
2 jection. It also indicates that all our disposal facilities
3 have been and are located at the No. 1 Well, so there will be
4 no new surface disturbance, and they have indicated that that
5 will be acceptable.

6 Q That application is approved, subject to
7 receiving the order of this Division? Or pending approval
8 subject to that order?

9 A Yes, they said they have to wait on the
10 Conservation Commission.

11 Q All right, sir. And the last exhibit,
12 which I believe is Number Nine, is a copy of the log for the
13 disposal well?

14 A Right.

15 Q All right, sir. Were Exhibits One through
16 Nine prepared by you or compiled under your direction and
17 supervision?

18 A Yes, sir, they were.

19 Q And in your opinion, Mr. Freedman, will
20 approval of this application be in the best interests of con-
21 servation, the prevention of waste, and the protection of
22 correlative rights?

23 A Yes, sir, it will.

24 MR. KELLAHIN: That concludes our examin-
25 ation of Mr. Freedman.

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
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CROSS EXAMINATION

BY MR. STAMETS:

Q Mr. Freedman, the only thing that concerns me immediately is that tubing which is not plastic lined and chlorides at 137,000 in here. That's pretty -- pretty raunchy water.

A Yes, it is. We have a well located in Cato Field, which is west of here, that's been producing approximately five years, and the well has never been pulled for any reason. And it's San Andres, also, and none of our wells -- we've had no tubing problems in our wells to date on this lease.

And should it become necessary at a later date, then we would coat the tubing.

Q Aren't the conditions related to production different from conditions related to injection? You have the water exposed to atmosphere --

A This will be a closed system. This will be a closed system. There will be oil on top of our water tanks with pressure switches, high and low shutoffs, that will maintain a closed system.

Q And the water will move to this well by a flow line and is not exposed to atmosphere?

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
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1 A That is correct. It's about 60 feet to
2 the well from the tank.

3 Q Okay.

4 MR. STAMETS: Any other questions of this
5 witness? He may be excused.

6 MR. KELLAHIN: We would offer Exhibits One
7 through Nine into evidence.

8 MR. STAMETS: These exhibits will be ad-
9 mitted.

10 If there is nothing further, the case will
11 be taken under advisement.

12
13 (Hearing concluded.)
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Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
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C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd C.S.R.

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
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I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6979, heard by me on 7-23 1980.
Richard L. Smith, Examiner
Oil Conservation Division

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ENERGY AND MINERALS DEPARTMENT
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SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B

Santa Fe, New Mexico 87501

Phone (505) 455-7409

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Q Mr. Freedman, would you please state your name and by whom you're employed?

A My name is Hal Freedman. I'm employed by Wolfson Oil Company.

Q In what capacity are you employed?

A I'm a petroleum engineer.

Q As a petroleum engineer have you made a study of the facts surrounding this particular application?

A Yes I have.

Q And have you previously testified before

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Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7499

SALLY W. BOYD, C.S.R.
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12 Q Are there any --
13 A In that --
14 Q Excuse me, are there any plugged and aban-
15 doned wells within a half mile of your proposed well?
16 A No, sir, there is not.
17 Q All right.
18 A That's shows the producing interval and
19 the size casing, where the casing is set, and the sacks of
20 cement utilized, and a calculated top of the cement behind
21 the long string.
22 Q Are there any fresh water sands in the
23 area?
24 A There might be some. I know there's a
25 water well about a mile and a half away.

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 Q At what depth do you encounter fresh water
2 sand?
3 A I believe it's higher than 300 feet.
4 Q What will be the disposal interval?
5 A 4108 to 64.
6 Q Have you examined the casing and cementing
7 program in all the offsetting wells within a half mile radius
8 of the disposal well?
9 A Yes, I have.
10 Q In your opinion as a petroleum engineer,
11 are you satisfied that the disposal of produced salt water
12 in the disposal well will not migrate and contaminate fresh
13 water sands?
14 A Yes, I am. Surface casing in this area
15 is set at approximately 1750 feet because of drilling condi-
16 tions, which is far below the fresh water sands, and all sur-
17 face casing, to my knowledge, has been cemented and circulated.
18 Q All right, sir. Would you refer to the
19 schematic of the disposal well? I believe that's Exhibit
20 Number Six.
21 A Yes, this is --
22 MR. STAMETS: Exhibit Number Five.
23 Q All right, that's Number Five.
24 A Number Five.
25 Q Tell me about your schematic, Mr. Freed-

1 man.

2 A It shows the casing program of our wells
3 and if granted, how we intend to dispose of salt water.

4 It shows it to be disposed of below a
5 packer with treated water in the annulus.

6 Q All right, sir. I'll ask you to identify
7 the laboratory water analysis, which I think is Exhibit Number
8 Seven.

9 MR. STAMETS: Eight.

10 Q All right, tell me about the water analysis.

11 A The water analysis was performed by
12 Halliburton on our No. 1 Well which we are utilizing for in-
13 jection, and I believe it is similar to all water injected --
14 that will be injected.

15 Q All right, sir.

16 And you have attached as one of your ex-
17 hibits, the notice filled out on a form provided by the USGS
18 for approval?

19 A Yes, sir.

20 Q And what exhibit is that?

21 MR. STAMETS: Are you talking about this
22 one?

23 Okay, that's Seven.

24 Q Tell me about Exhibit Seven.

25 A Exhibit Seven is an application to the

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B

Santa Fe, New Mexico 87501

Phone (505) 455-7409

1 U.S. Department of Interior to utilize the No. 1 Well for in-
2 jection. It also indicates that all our disposal facilities
3 have been and are located at the No. 1 Well, so there will be
4 no new surface disturbance, and they have indicated that that
5 will be acceptable.

6 Q That application is approved, subject to
7 receiving the order of this Division? Or pending approval
8 subject to that order?

9 A Yes, they said they have to wait on the
10 Conservation Commission.

11 Q All right, sir. And the last exhibit,
12 which I believe is Number Nine, is a copy of the log for the
13 disposal well?

14 A Right.

15 Q All right, sir. Were Exhibits One through
16 Nine prepared by you or compiled under your direction and
17 supervision?

18 A Yes, sir, they were.

19 Q And in your opinion, Mr. Freedman, will
20 approval of this application be in the best interests of con-
21 servation, the prevention of waste, and the protection of
22 correlative rights?

23 A Yes, sir, it will.

24 MR. KELLAHIN: That concludes our examin-
25 ation of Mr. Freedman.

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CROSS EXAMINATION

BY MR. STAMETS:

Q. Mr. Freedman, the only thing that concerns me immediately is that tubing which is not plastic lined and chlorides at 137,000 in here. That's pretty -- pretty raunchy water.

A. Yes, it is. We have a well located in Cato Field, which is west of here, that's been producing approximately five years, and the well has never been pulled for any reason. And it's San Andres, also, and none of our wells -- we've had no tubing problems in our wells to date on this lease.

And should it become necessary at a later date, then we would coat the tubing.

Q. Aren't the conditions related to production different from conditions related to injection? You have the water exposed to atmosphere --

A. This will be a closed system. This will be a closed system. There will be oil on top of our water tanks with pressure switches, high and low shutoffs, that will maintain a closed system.

Q. And the water will move to this well by a flow line and is not exposed to atmosphere?

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 A That is correct. It's about 60 feet to
2 the well from the tank.

3 Q Okay.

4 MR. STAMETS: Any other questions of this
5 witness? He may be excused.

6 MR. KELLAHIN: We would offer Exhibits One
7 through Nine into evidence.

8 MR. STAMETS: These exhibits will be ad-
9 mitted.

10 If there is nothing further, the case will
11 be taken under advisement.

12
13 (Hearing concluded.)
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SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 435-7409

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that
the foregoing Transcript of Hearing before the Oil Conserva-
tion Division was reported by me; that the said transcript
is a full, true, and correct record of the hearing, prepared
by me to the best of my ability.

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 435-7409

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. _____,
heard by me on _____, 19____.

_____, Examiner
Oil Conservation Division



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

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

August 14, 1980

Mr. Thomas Kellahin
Kellahin & Kellahin
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Re: CASE NO. 6979
ORDER NO. R-6440

Applicant:

~~Wolfson Oil Company~~

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD _____ x
Artesia OCD _____ x
Aztec OCD . _____

Other

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. 6979
Order No. R-6440

APPLICATION OF WOLFSON OIL
COMPANY FOR SALT WATER DISPOSAL,
ROOSEVELT COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on July 23, 1980, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 13th day of August, 1980, 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, Wolfson Oil Company, is the owner and operator of the Mountain-Federal Well No. 1, located in Unit G of Section 30, Township 7 South, Range 32 East, NMPM, Tomahawk-San Andres Pool, Roosevelt County, New Mexico.
- (3) That the applicant proposes to utilize said well to dispose of produced salt water into the San Andres formation, with injection into the perforated interval from approximately 4108 feet to 4164 feet.
- (4) That the injection should be accomplished through 2-inch tubing installed in a packer set at approximately 3980 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.

-2-

Case No. 6979
Order No. R-6440

(5) That the injection well or system should be equipped with a pressure limiting switch or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 825 psi.

(6) That the Director of the Division should be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected waters from the San Andres formation.

(7) That within 30 days after the date of first injection into said Mountain-Federal Well No. 1 and semi-annually thereafter the applicant should conduct appropriate tests to assure the integrity of the injection tubing and packer.

(8) That the applicant should contact the supervisor of the Division's district office at Hobbs to establish an appropriate test procedure and an inspection schedule in order that the Division may witness such tests.

(9) That the results of such tests should be filed with the Division not later than 30 days following the conclusion thereof.

(10) That the operator should take all other 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.

(11) 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, Wolfson Oil Company, is hereby authorized to utilize its Mountain-Federal Well No. 1, located in Unit G of Section 30, Township 7 South, Range 32 East, NMPM, Tomahawk-San Andres Pool, Roosevelt County, New Mexico, to dispose of produced salt water into the San Andres formation, injection to be accomplished through 2-inch tubing installed in a packer set at approximately 3980 feet, with injection into the perforated interval from approximately 4108 feet to 4164 feet.

-3-

Case No. 6979

Order No. R-6440

PROVIDED HOWEVER, 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 pressure limiting switch or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 825 psi.

(3) That the Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the San Andres formation.

(4) That within 30 days after the date of first injection into said Mountain-Federal Well No. 1 and semi-annually thereafter the applicant shall conduct appropriate tests to assure the integrity of the injection tubing and packer.

(5) That the applicant shall contact the supervisor of the Division's district office at Hobbs to establish an appropriate test procedure and an inspection schedule in order that the Division may witness such tests.

(6) That the results of such tests shall be filed with the Division not later than 30 days following the conclusion thereof.

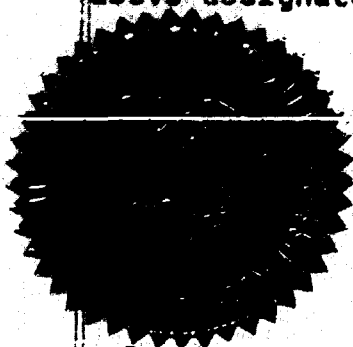
(7) That the operator shall immediately notify the supervisor of the Division's Hobbs district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

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

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

-4-
Case No. 6979
Order No. R-6440

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



SEAL

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Joe D. Ramey
JOE D. RAMEY
Director

rd/

Max Coll, Inc., 1/2 M
J Collier

Emme Jones, et al

Emme Jones
JIA 8907

Dillard & Huckols (S) Jones Robinson, Co

Florence
Evans, et al

Pet Corp.
Midwest Fed.
TD 4350
DIA 1-27-70
U.S.

Flag-Redfern

8-12-80
1-11-80
1-24-80

24

Equino
Emme
D 4234
DIA 10-28-70

Sundance Oil
3-1-82
15019

Moroilco
4-27-82
4-18-82

Joe Wilcox 1/2
Jones Robinson, Co

Ray Westfall
HBP
0392502

Mountain
Fuel Supply
8-1-85
18846

20

Emme Jones, et al

Abby Corp. & West'n. Res. et al
Franklin, Aston & Fair
8-9-80 7-23-80

Cherley Paul

25

Exxon
8-1-82
15667

Abby Corp. &
West'n. Res. et al

U.S.

U.S.
Dillard & Huckols (S)

Wolfson Oil
(Mountain Fuel Supply)
8-1-85
18846

Mountain Fed.
Dillard & Huckols
2 (S)

Sundance Oil
3-1-82
15019

Sundance Oil
1-1-83
17233

Jerry Chambers
Fed.
14154

Cone Fed "U.S. Chambers Fed"

U.S.

Moroilco, Inc.
4-18-82

T. Schneider
Sams
704346
DAS 15-66

29

Moroilco
Nuckols
D 4384
J. H. Nuckols, (S)

Jerry Chambers
(Jerry Chambers)
8-1-81
14154 U.S. Min.
T.E. Tucker (S)

Abby Corp. Union Holly
& West'n. Res. et al, L-5120
8-74 LG-2464
20-31

Holly Energy, et al
1-1-85
LG-2464
20-31

Union
2-1-81
L-5120
8-74

36

Franklin, et al
Qual Disc.
Penn. S.M.
Miss. S.J.

State

Sundance Oil
15019

Game Comm. S.M.

Galco
Shell Fed
104300
DIA 3-6-7

U.S. "Cone-Fed"

Sundance Oil
LG-3029

"State"

D.J. Sorenson
2-1-83
LG-1032
535

State

Moroilco
4-27-87
4-20-87

Mary Griffin

(Union)
(C. Loveless, Jr. & Associates)
0558018

Holly Energy

Union-Fed

Union
6-1-83
18503

Wilson Oil
HBP
0341394

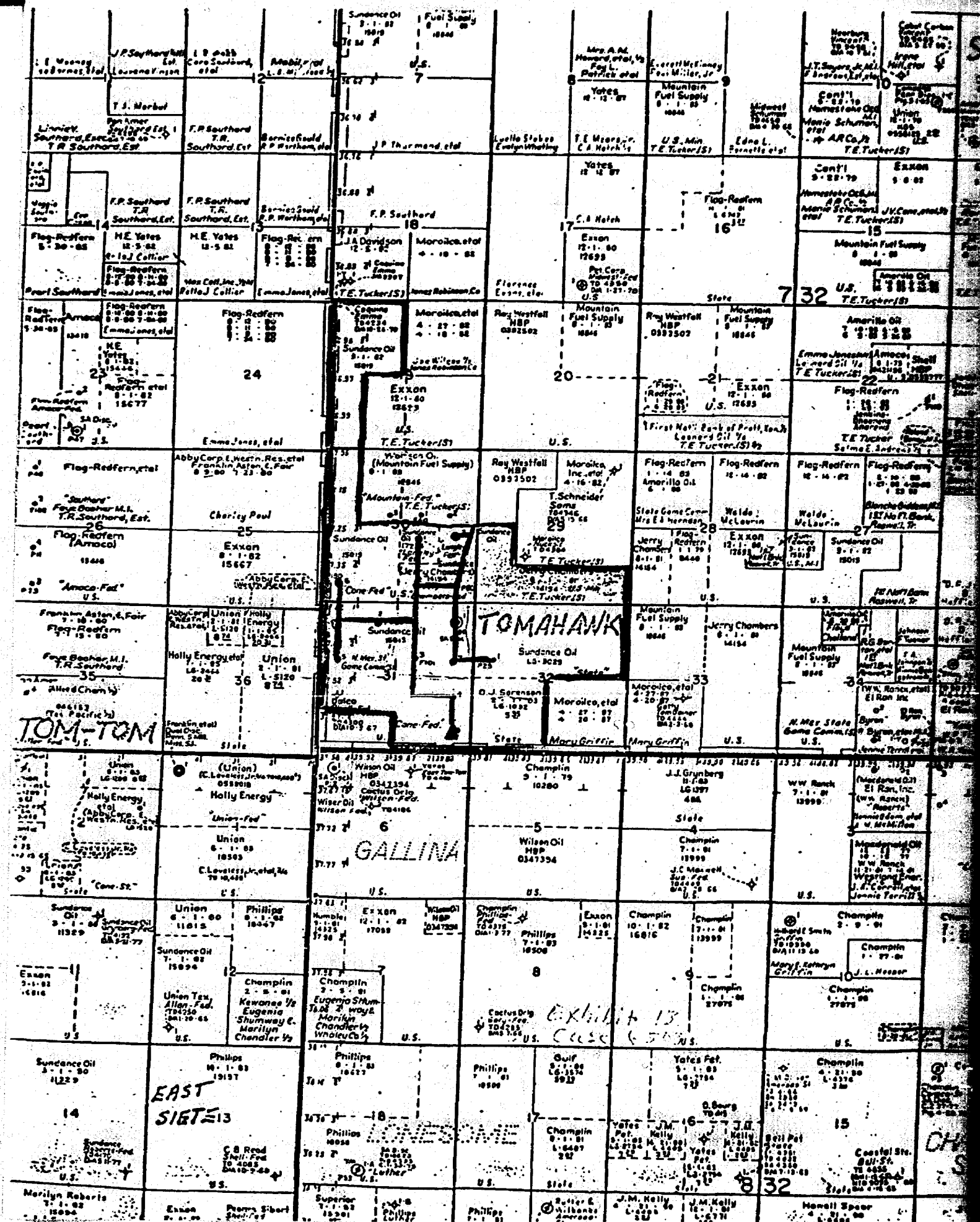
Wiser Oil
Wilson Fed.
TD 4186

6

Champlin
9-1-79
10280

WOLFSON OIL CO.
MOUNTAIN FEDERAL LEASE
ROOSEVELT COUNTY, NEW MEXICO

GALLINA



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:

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION

Wolfson EXHIBIT NO. 3
CASE NO. 6979

CASE NO. 6503
Order No. R-5977

APPLICATION OF SUNDANCE OIL COMPANY
FOR SALT WATER DISPOSAL, ROOSEVELT
COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on March 28, 1979,
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 9th day of April, 1979, 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, Sundance Oil Company, is the
owner and operator of the Cone Federal Well No. 8, located in
Unit P of Section 31, Township 7 South, Range 32 East, NMPM,
Tomahawk-San Andres Pool, Roosevelt County, New Mexico.

(3) That the applicant proposes to utilize said well to
dispose of produced salt water into the San Andres formation,
with injection into the perforated interval from approximately
4207 feet to 4228 feet.

(4) That the injection should be accomplished through
2 3/8-inch plastic lined tubing installed in a packer set at
approximately 4107 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
or the annulus be left open in order to determine leakage in the
casing, tubing, or packer.

(5) That the injection well or system should be equipped with a pressure limiting switch or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 1700 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, Sundance Oil Company, is hereby authorized to utilize its Cone Federal Well No. 8 located in Unit P of Section 31, Township 7 South, Range 32 East, NMPM, Tomahawk-San Andres Pool, Roosevelt County, New Mexico, to dispose of produced salt water into the San Andres formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 4107 feet, with injection into the perforated interval from approximately 4207 feet to 4228 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 or be left open in order to determine leakage in the casing, tubing, or packer.

(2) That the injection well or system shall be equipped with a pressure limiting switch or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 1700 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.

Case No. 6503
Order No. R-5977

(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.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


JOE D. RAMEY
Director

S E A L

fd/

WELLS LOCATED WITHIN ONE-HALF MILE OF DISPOSAL WELL

COMPANY	LEASE	WELL NO.	UNIT NO.	LOCATION	PRODUCING INTERVAL (ft)	T.D.	CASING	SACKS CEMENT	CALCULATED TOP
Holfson	Mountain-Fed.	1	G	30,7-S,32-E	4108-4164	4295	4½ @ 4280	300	2270
"	"	2	H	"	4112-4178	4300	4½ @ 4300	300	2190
"	"	3	F	"	4097-4158	4280	4½ @ 4272	325	2072
"	"	4	B	"	4120-4150	4185	5½ @ 4185	250	1790
"	"	5	C	"	4100-4142	4270	5½ @ 4255	300	1596
"	"	6	A	"	4119-4172	4278	5½ @ 4200	275	1965
Tag-Redfern	Westfall-Fed.	1	E	29,7-S,32-E	4112-4117	4330	4½ @ 4330	250	1790
xxon	Smith-Fed.	1	O	19,7-S,32-E	4036-4265	4308	5½ @ 4288	1860	Surf.
undance	Langley	1	J	30,7-S,32-E	4121-4128	4290	4½ @ 4290	300	2280
"	Chambers-Fed.	3	I	"	4151-4270	4350	4½ @ 4350	300	2340
"	Cone-Fed.	9	K	"	4112-4180	4290	4½ @ 4290	300	2280
"	"	18	E	"	4090-4128	4260	4½ @ 4260	300	2250
"	"	17	L	"	4100-4132	4285	4½ @ 4285	300	2275
"	"	10	N	"	4107-4151	4325	4½ @ 4325	300	2315
"	"	1	P	"	4162-4174	4350	4½ @ 4350	450	1320
"	"	2	O	"	4127-4166	4310	4½ @ 4306	225	2796

WOLFSON OIL COMPANY

OIL PRODUCERS

3206 REPUBLIC NATIONAL BANK TOWER

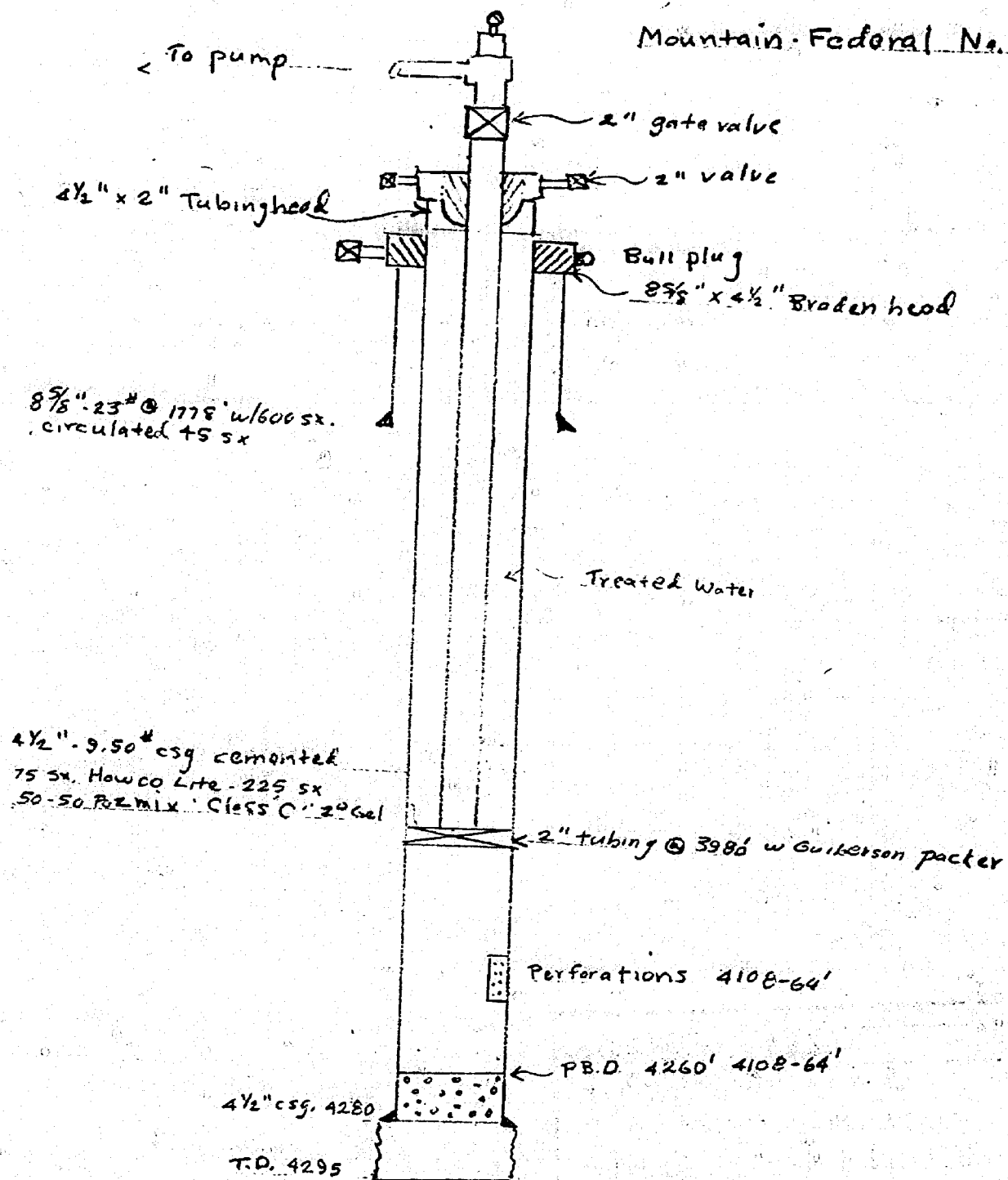
DALLAS, TEXAS 75201

911 MIDLAND NATIONAL BANK BUILDING

MIDLAND, TEXAS

PROPOSED DISPOSAL WELL

Mountain Federal No. 1

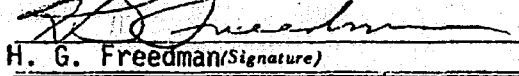


NEW MEXICO OIL CONSERVATION COMMISSION

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

OPERATOR WOLFSON OIL COMPANY		ADDRESS 3206 Republic Bank Tower, Dallas, Texas			
LEASE NAME MOUNTAIN-FEDERAL	WELL NO. 1	FIELD Tomahawk	COUNTY Roosevelt		
LOCATION UNIT LETTER G ; WELL IS LOCATED 2310 FEET FROM THE North LINE AND 1980 FEET FROM THE East LINE, SECTION 30 TOWNSHIP 7-S RANGE 32-E NMPM.					
CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING 23#	8-5/8"	1788'	600	Surface	Circ. 45 sx
INTERMEDIATE None					
LONG STRING 9.5#	4-1/2"	4280'	300	2512	Calculation
TUBING 4.70# V-55	2"	4050'	NAME, MODEL AND DEPTH OF TUBING PACKER Guiberson KVL-30		
NAME OF PROPOSED INJECTION FORMATION San Andres		TOP OF FORMATION 4108'		BOTTOM OF FORMATION 4164'	
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLES? 4108-64'		PROPOSED INTERVAL(S) OF INJECTION 4108-64'	
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Oil		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 Est. 200'		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA None		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA None	
ANTICIPATED DAILY INJECTION VOLUME (BBL/DAY) 250	MINIMUM 200	MAXIMUM 400	OPEN OR CLOSED TYPE SYSTEM closed	IS INJECTION TO BE BY GRAVITY OR PRESSURE? pressure	APPROX. PRESSURE (PSI) 250#
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE - yes			WATER TO BE DISPOSED OF salt water		NATURAL WATER IN DISPOSAL ZONE salt water
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) Tom Tucker, Elida, New Mexico			ARE WATER ANALYSES ATTACHED? yes		
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL					
Sundance Oil Company, 1776 Lincoln St., Denver, Colorado 80203					
Flag-Redfern, Suite 1200 Wall Towers West, Midland, Texas 79701					
Exxon Oil Company, Andrews, Texas					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING? Yes		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) Yes		PLAT OF AREA Yes		ELECTRICAL LOG Yes	
				DIAGRAMMATIC SKETCH OF WELL Yes	

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


H. G. Freedman (Signature)

Production Engineer

(Title)

June 13, 1980

(Date)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN TRIPLICATE
(Other instructions on reverse side)Form approved
Budget Bureau No. 42-R1421
5. LEASE DESIGNATION AND SERIAL NO.

NM 18846

6. INDIAN, ALIQUOT OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Mountain-Federal

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Tomahawk (San Andres)

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

Sec. 30, T-7-S, R-32-E

12. COUNTY OR PARISH 13. STATE

Roosevelt

New Mexico

SUNDRY NOTICES AND REPORT ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT" for such proposals.)1. OIL WELL ☒ GAS WELL ☐ OTHER Salt Water Disposal

2. NAME OF OPERATOR

WOLFSON OIL CO.

3. ADDRESS OF OPERATOR

3206 Republic Bank Tower, Dallas, Texas

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

At surface

2310' FNL & 1980' FEL

14. PERMIT NO.

15. ELEVATIONS (Show whether OF, OF, or, etc.)

4423 KB

16.

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

(Other) Convert well to SMD

(NOTE: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any
proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

We wish to convert our Mountain-Federal #1 well to salt water disposal in the current San Andres producing zone. Our current disposal facilities, which have been utilized to inject our water into Sundance Cone No. 8, are located at the well and there will be no new surface disturbance. Instead of pumping to Sundance, we will pump into the flowline of our No. 1 well through 2" tubing set with a packer above the perforations with treated water behind the tubing. Injection will be monitored by appropriate pressure gauges.

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISIONWOLFSON EXHIBIT NO. 7
CASE NO. 6979

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

SIGNED

H. G. Freedman

(This space for Federal or State office use)

TITLE: Production Engineer

DATE: June 13, 1980

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE:

DATE:

*See Instructions on Reverse Side

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

MIDLAND DIVISION

HOBBS, NEW MEXICO 88240

LABORATORY WATER ANALYSIS

No. W79-1042To Wolfson Oil CompanyDate 11-21-793206 Republic National Bank TowerDallas, Texas 75201

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

Submitted by _____

Date Rec. 11-20-79Well No. Mountain Fed. #1

Depth _____

Formation San Andres

County _____

Field Tomahawk

Source _____

Resistivity _____

Specific Gravity _____

1.150

pH _____

4.5

Calcium (Ca) _____

25,000

*MPL

Magnesium (Mg) _____

2,700

Chlorides (Cl) _____

137,000Sulfates (SO₄) _____450Bicarbonates (HCO₃) _____Nil

Soluble Iron (Fe) _____

400

Remarks: _____

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Wolfson EXHIBIT NO. 8
CASE NO. 6979

*Milligrams per liter

Respectfully submitted,

Analyst: Brewer

cc: _____

HALLIBURTON COMPANY

By W. L. Brewer

CHEMIST

NOTICE

THIS REPORT IS LIMITED TO THE DESCRIBED SAMPLE TESTED. ANY USER OF THIS REPORT AGREES THAT HALLIBURTON SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, WHETHER IT BE TO ACT OR OMISSION, RESULTING FROM SUCH REPORT OR ITS USE.

Max Coll, Inc. 1/2M
Jello Collier

Emma Jones, et al

Emma Jones, et al
JIA 2807

Dillard Nuckols (S)

Jones Robinson, Co

Florence
Evans, et al

Pet Corp
Midwest Fed
TD 4350
DIA 1-27-70
U.S.

Flag-Redfern

8-12-80
8-11-80
7-24-80

24

Coquina
Emma
TD 4234
DIA 10-26-70

Moroilco
4-27-82
4-18-82

Ray Westfall
HBP
0392502

Mountain
Fuel Supply
8-1-80
18846

20

Emma Jones, et al

Abby Corp & West'n. Res. et al
Franklin, Aston & Fair
8-9-80 7-23-80

Charley Paul

25

Exxon
8-1-82
15667

Abby Corp. &
West'n. Res. et al

U.S.

Dillard Nuckols (S)

Wolfson Oil
(Mountain Fuel Supply)
8-1-80
18846

Mountain Fed.

Dillard Nuckols
2 (S)

FLAG
Redfern

Moroilco, Inc.

4-16-82

T. Schneider
Sams
TD 4346
DAS 15-66

29

Moroilco
Nuckols
TD 4384

J.H. Nuckols, (S)

Chambers (Jerry Chambers)

8-1-81
14154 U.S. Min.
TE Tucker (S)

Abby Corp. Union
& West'n. Res. et al
2-1-81
L-5120
874

Holly
Energy
1-1-85
LG-2964
2031

Holly Energy, et al
1-1-85
LG-2464
2031

Union
2-1-81
L-5120
874

36

Franklin, et al
Qual Disc.
Penn S.M.I.
Miss. S.I.

State

Sundance Oil
15019

N. Mex. St.
Game Comm'n

Calco
Shell Fed

TD 4308
DIA 10-3-81

U.S. Cone Fed

Sundance Oil
LG-3029

State

D.J. Sorenson
2-1-83
LG-1032
535

Moroilco
4-27-87
4-20-87

State Mary Griffin

(Union)
(C. Loveless Jr. & Associates)
0558018

Holly Energy

Union-Fed

Union
6-1-83
16503

Wilson Oil
HBP
0347394

Loctus Drig
Wilson Fed
TD 4186

6

Champlin
9-1-79
10280

Exhibit 1
Case 6979

WOLFSON OIL CO.

MOUNTAIN FEDERAL LEASE
ROOSEVELT COUNTY, NEW MEXICO

[illegible]

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. 6503
Order No. R-5977

APPLICATION OF SUNDANCE OIL COMPANY
FOR SALT WATER DISPOSAL, ROOSEVELT
COUNTY, NEW MEXICO.

Exhibit 3
Case 6979

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on March 28, 1979, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 9th day of April, 1979, 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, Sundance Oil Company, is the owner and operator of the Cone Federal Well No. 8, located in Unit P of Section 31, Township 7 South, Range 32 East, NMPM, Tomahawk-San Andres Pool, Roosevelt County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the San Andres formation, with injection into the perforated interval from approximately 4207 feet to 4228 feet.

(4) That the injection should be accomplished through 2 3/8-inch plastic lined tubing installed in a packer set at approximately 4107 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 or the annulus be left open in order to determine leakage in the casing, tubing, or packer.

(5) That the injection well or system should be equipped with a pressure limiting switch or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 1700 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, Sundance Oil Company, is hereby authorized to utilize its Cone Federal Well No. 8 located in Unit P of Section 31, Township 7 South, Range 32 East, NMPM, Tomahawk-San Andres Pool, Roosevelt County, New Mexico, to dispose of produced salt water into the San Andres formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 4107 feet, with injection into the perforated interval from approximately 4207 feet to 4228 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 or be left open in order to determine leakage in the casing, tubing, or packer.

(2) That the injection well or system shall be equipped with a pressure limiting switch or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 1700 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.

Case No. 6503
Order No. R-5977

(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.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


JOE D. RAMEY
Director

S E A L

fd/

WELLS LOCATED WITHIN ONE-HALF MILE OF DISPOSAL WELL

Exhibit 4
Case 6979

COMPANY	LEASE	WELL NO.	UNIT NO.	LOCATION	PRODUCING INTERVAL(ft)	T.D.	CASING	SACKS CEMENT	CALCULATED TOP
Wolfson	Mountain-Fed.	1	G	30,7-S,32-E	4108-4164	4295	4½ @ 4280	300	2270
"	"	2	H	"	4112-4178	4300	4½ @ 4300	300	2190
"	"	3	F	"	4097-4158	4280	4½ @ 4272	325	2072
"	"	4	B	"	4120-4150	4185	5½ @ 4185	250	1790
"	"	5	C	"	4100-4142	4270	5½ @ 4255	300	1596
"	"	6	A	"	4119-4172	4278	5½ @ 4200	275	1965
Flag-Redfern	Westfall-Fed.	1	E	29,7-S,32-E	4112-4117	4330	4½ @ 4330	250	1790
Exxon	Smith-Fed.	1	O	19,7-S,32-E	4036-4265	4308	5½ @ 4288	1860	Surf.
Sundance	Langley	1	J	30,7-S,32-E	4121-4128	4290	4½ @ 4290	300	2280
"	Chambers-Fed.	3	I	"	4151-4270	4350	4½ @ 4350	300	2340
"	Cone-Fed.	9	K	"	4112-4180	4290	4½ @ 4290	300	2280
"	"	18	E	"	4090-4128	4260	4½ @ 4260	300	2250
"	"	17	L	"	4100-4132	4285	4½ @ 4285	300	2275
"	"	10	N	"	4107-4151	4325	4½ @ 4325	300	2315
"	"	1	P	"	4162-4174	4350	4½ @ 4350	450	1320
"	"	2	O	"	4127-4166	4310	4½ @ 4306	225	2796

WOLFSON OIL COMPANY

OIL PRODUCERS

3206 REPUBLIC NATIONAL BANK TOWER

DALLAS, TEXAS 75201

311 MIDLAND NATIONAL BANK BUILDING

MIDLAND, TEXAS

PROPOSED DISPOSAL WELL

Mountain Federal No. 1

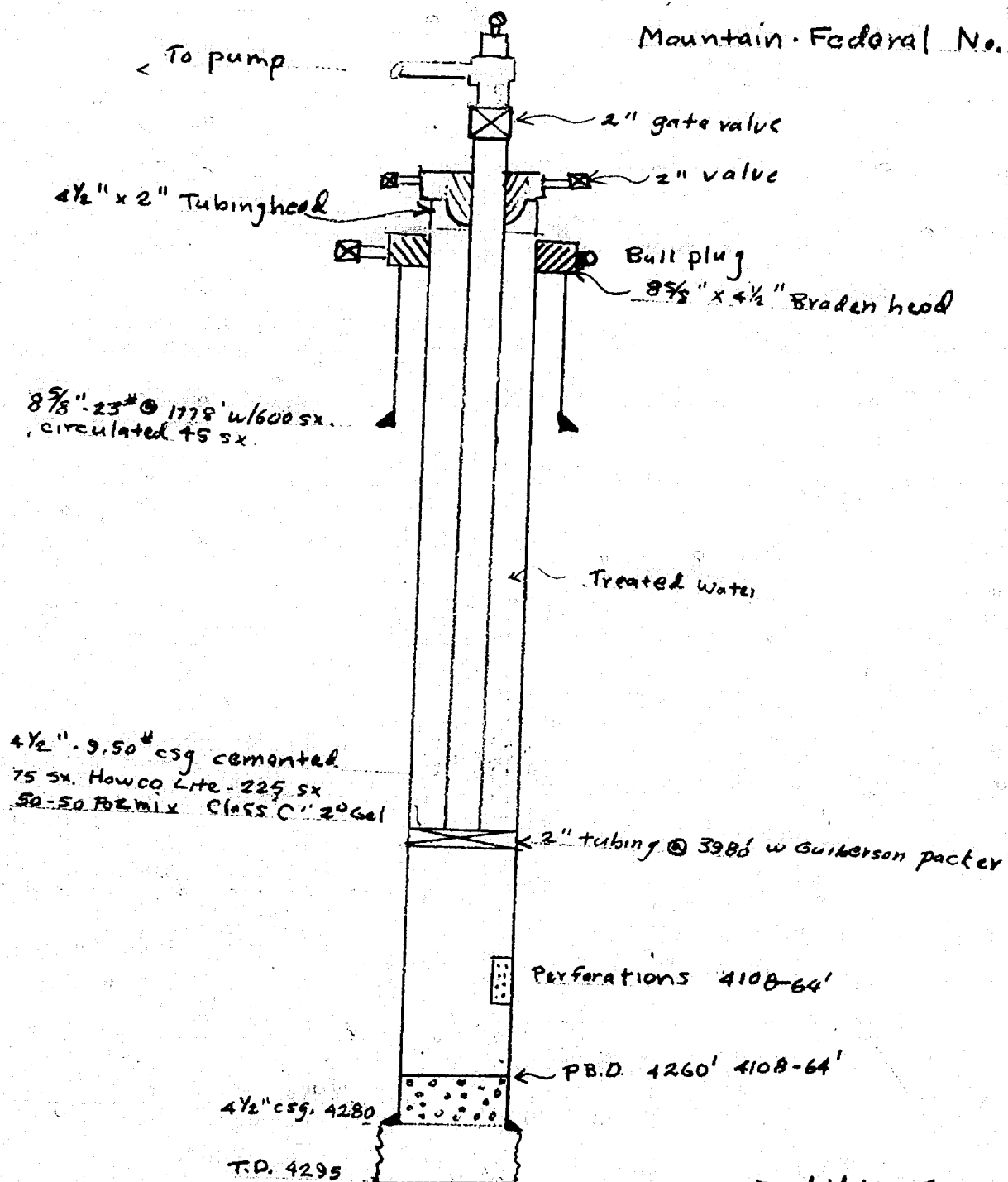


Exhibit 5

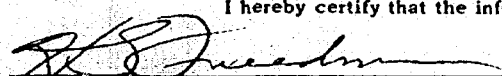
Case 6979

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

OPERATOR WOLFSON OIL COMPANY		ADDRESS 3206 Republic Bank Tower, Dallas, Texas	
LEASE NAME MOUNTAIN-FEDERAL	WELL NO. 1	FIELD Tomahawk	COUNTY Roosevelt
LOCATION UNIT LETTER <u>G</u> , WELL IS LOCATED <u>2310</u> FEET FROM THE <u>North</u> LINE AND <u>1980</u> FEET FROM THE <u>East</u> LINE, SECTION <u>30</u> TOWNSHIP <u>7-S</u> RANGE <u>32-E</u> NMPM.			

CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING 23#	8-5/8"	1788'	600	Surface	Circ. 45 sx
INTERMEDIATE None					
LONG STRING 9.5#	4-1/2"	4280'	300	2512	Calculation
TUBING 4.70# V-55	2"	4050'	NAME, MODEL AND DEPTH OF TUBING PACKER Guiberson KVL-30		
NAME OF PROPOSED INJECTION FORMATION San Andres			TOP OF FORMATION 4108'		BOTTOM OF FORMATION 4164'
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLE? 4108-64'		PROPOSED INTERVAL(S) OF INJECTION 4108-64'	
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Oil			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 Est. 200'		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA None		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA None	
ANTICIPATED DAILY INJECTION VOLUME (BBLS.) 250	MINIMUM 200	MAXIMUM 400	OPEN OR CLOSED TYPE SYSTEM closed	IS INJECTION TO BE BY GRAVITY OR PRESSURE? pressure	APPROX. PRESSURE (PSI) 250#
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE - yes			WATER TO BE DISPOSED OF salt water	NATURAL WATER IN DISPOSAL ZONE salt water	ARE WATER ANALYSES ATTACHED? yes
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) Tom Tucker, Elida, New Mexico					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL					
Sundance Oil Company, 1776 Lincoln St., Denver, Colorado 80203					
Flag-Redfern, Suite 1200 Wall Towers West, Midland, Texas 79701					
Exxon Oil Company, Andrews, Texas					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING? Yes		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) Yes		PLAT OF AREA Yes		ELECTRICAL LOG Yes	
				DIAGRAMMATIC SKETCH OF WELL Yes	

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


H. G. Freedman (Signature)Production Engineer
(Title)June 13, 1980
(Date)

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

Exhibit b
Case 6979

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN TRIPLICATE
(Other instructions on reverse side)Form approved.
Budget Bureau No. 42-01424
5. LEASE DESIGNATION AND SERIAL NO.

NM 18846

6. IF INDIAN, ALIQUOT OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL ☒ GAS WELL ☐ OTHER Salt Water Disposal
2. NAME OF OPERATOR
WOLFSON OIL CO.
3. ADDRESS OF OPERATOR
3206 Republic Bank Tower, Dallas, Texas
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.
See also space 17 below.)
At surface
2310' FNL & 1920' FEL

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Mountain-Federal

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Tomahawk (San Andres)

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

Sec. 30, T-7-S, R-32-E

12. COUNTY OR PARISH

Roosevelt

13. STATE
New Mexico

14. PERMIT NO.

15. ELEVATIONS (Show whether DE, RT, OR, etc.)

4423 KB

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

FRACTURE TREAT

MULTIPLE COMPLETE

SHOOT OR ACIDIZE

ABANDON*

REPAIR WELL

CHANGE PLANS

(Other) Convert well to SWD

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREATMENT

ALTERING CASING

SHOOTING OR ACIDIZING

ABANDONMENT*

(Other)

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

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

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

SIGNED

H. G. Freedman
H. G. Freedman

(This space for Federal or State office use)

TITLE Production Engineer

DATE June 13, 1980

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Exhibit 7
Case 6979

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

MIDLAND DIVISION

HOBBS, NEW MEXICO 88240

LABORATORY WATER ANALYSIS

No. W79-1042

To Wolfson Oil CompanyDate 11-21-793206 Republic National Bank TowerDallas, Texas 75201

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Submitted by _____

Date Rec. 11-20-79Well No. Mountain Fed. #1

Depth _____

Formation San Andres

County _____

Field Tamahawk

Source _____

Resistivity _____

Specific Gravity _____

1.150

pH _____

4.5

Calcium (Ca) _____

25,000

Magnesium (Mg) _____

2,700

Chlorides (Cl) _____

137,000Sulfates (SO₄) _____450Bicarbonates (HCO₃) _____Nil

Soluble Iron (Fe) _____

400

Remarks: _____

*Milligrams per liter

Exhibit 8
Case 6979

Respectfully submitted,

Analyst: Brewer

HALLIBURTON COMPANY

cc: _____

By W. L. Brewer

CHEMIST

NOTICE

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874

Holly
Energy
L-5120
874

Holly Energy, et al
L-5120
874

Union
L-5120
874

Franklin, et al
Dual Disc.
Penn S Mill.
Miss. Sl.

State



(Union)
(C. Loveless Jr. & Associates)
0558018

Holly Energy

Union-Fed

Union
6-1-83
16503



3-58 3-59 3-60 3-61 3-62 3-63 3-64 3-65 3-66 3-67 3-68 3-69 3-70 3-71 3-72 3-73 3-74 3-75 3-76 3-77 3-78 3-79 3-80 3-81 3-82 3-83 3-84 3-85 3-86 3-87 3-88 3-89 3-90 3-91 3-92 3-93 3-94 3-95 3-96 3-97 3-98 3-99 3-100

Wilson Oil
HBP
0341394

Loctus Oil
Wilson Fed

Wiser Oil
Wilson Fed

Wilson Fed

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WOLFSON OIL COMPANY

OIL PRODUCERS

3206 REPUBLIC NATIONAL BANK TOWER

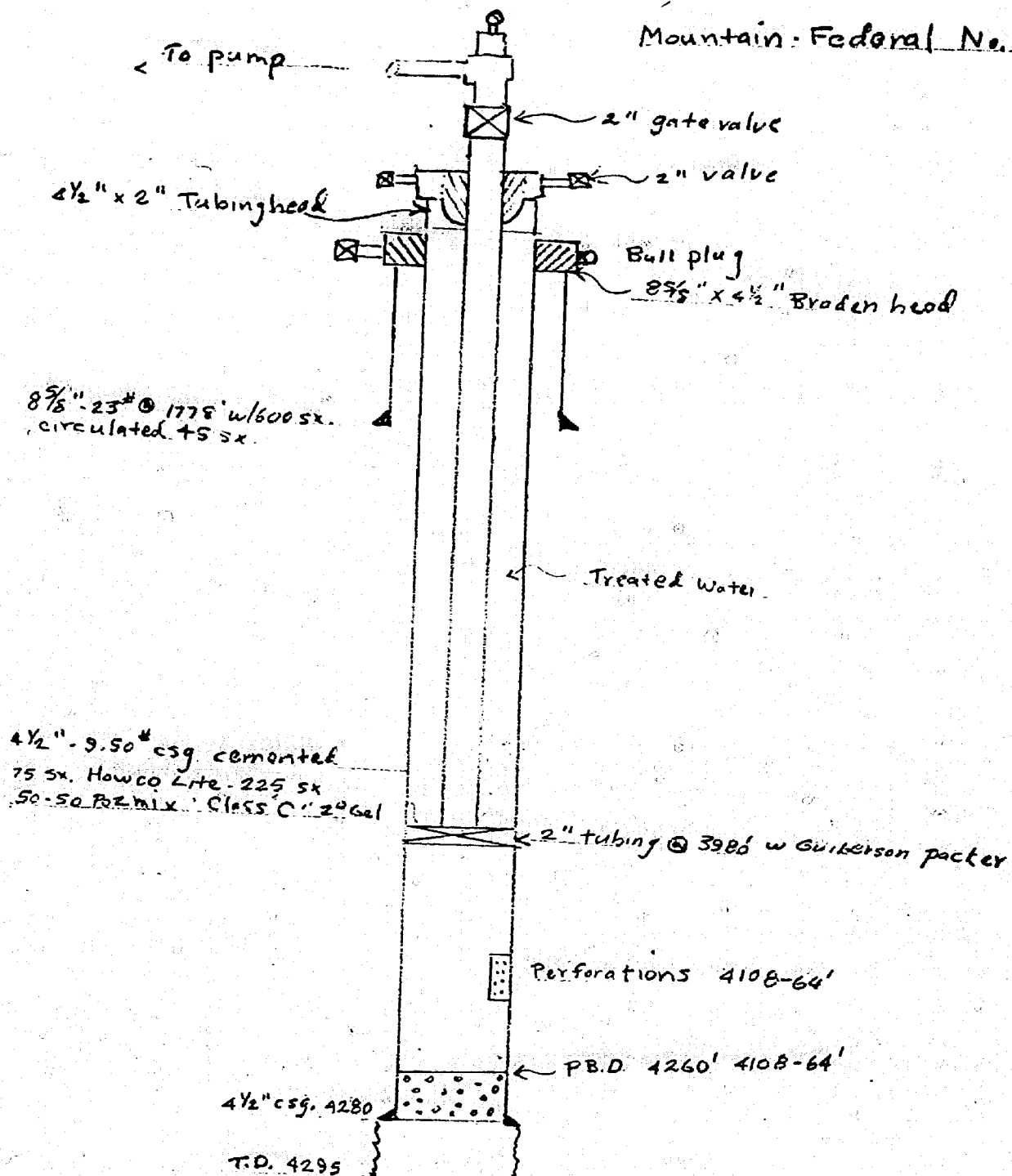
DALLAS, TEXAS 75201

311 MIDLAND NATIONAL BANK BUILDING

MIDLAND, TEXAS

PROPOSED DISPOSAL WELL

Mountain Federal No. 1



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN TRIPPLICATE*
(Other instructions on reverse side)Form approved.
Budget Bureau No. 42-R1424

5. LEASE DESIGNATION AND SERIAL NO.

NM 18846

6. U. S. INDIAN, ALIEN, OR TRIBE NAME

SUNDRY NOTICES AND REPORT ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT" for such proposals.)1. OIL WELL ☒ GAS WELL ☐ OTHER ☐ Salt Water Disposal2. NAME OF OPERATOR
WOLFSON OIL CO.3. ADDRESS OF OPERATOR
3206 Republic Bank Tower, Dallas, Texas4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface

2310' FNL & 1980' FEL

14. PERMIT NO.

15. ELEVATIONS (Show whether OF, ET, OR, etc.)

4423 KB

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Mountain-Federal

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Tomahawk (San Andres)

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

Sec. 30, T-7-S, R-32-E

12. COUNTY OR PARISH

Roosevelt

13. STATE

New Mexico

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETION

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

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

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

We wish to convert our Mountain-Federal #1 well to salt water disposal in the current San Andres producing zone. Our current disposal facilities, which have been utilized to inject our water into Sundance Cone No. 8, are located at the well and there will be no new surface disturbance. Instead of pumping to Sundance, we will pump into the flowline of our No. 1 well through 2" tubing set with a packer above the perforations with treated water behind the tubing. Injection will be monitored by appropriate pressure gauges.

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

SIGNED


H. G. Freedman

(This space for Federal or State office use)

TITLE: Production Engineer

DATE: June 13, 1980

APPROVED BY

TITLE:

DATE:

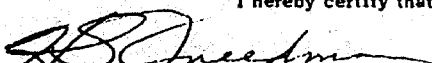
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

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

OPERATOR WOLFSON OIL COMPANY		ADDRESS 3206 Republic Bank Tower, Dallas, Texas				
LEASE NAME MOUNTAIN-FEDERAL	WELL NO. 1	FIELD Tomahawk	COUNTY Roosevelt			
LOCATION UNIT LETTER G ; WELL IS LOCATED 2310 FEET FROM THE North LINE AND 1980 FEET FROM THE East LINE, SECTION 30 TOWNSHIP 7-S RANGE 32-E NMPM.						
CASING AND TUBING DATA						
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY	
SURFACE CASING						
23#	8-5/8"	1788'	600	Surface	Circ. 45 sx	
INTERMEDIATE						
None						
LONG STRING						
9.5#	4-1/2"	4280'	300	2512	Calculation	
TUBING			NAME, MODEL AND DEPTH OF TUBING PACKER			
4.70# V-55	2"	4050'	Guiberson KVL-30			
NAME OF PROPOSED INJECTION FORMATION		TOP OF FORMATION		BOTTOM OF FORMATION		
San Andres		4108'		4164'		
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS?		PERFORATIONS OR OPEN HOLES		PROPOSED INTERVAL(S) OF INJECTION		
Tubing		4108-64'		4108-64'		
IS THIS A NEW WELL DRILLED FOR DISPOSAL?	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED?			HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE?		
No	Oil			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		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA		
Est. 200'		None		None		
ANTICIPATED DAILY INJECTION VOLUME (BBL'S.)	MINIMUM	MAXIMUM	OPEN OR CLOSED TYPE SYSTEM	IS INJECTION TO BE BY GRAVITY OR PRESSURE?	APPROX. PRESSURE (PSI)	
250	200	400	closed	pressure	250#	
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	NATURAL WATER IN DISPOSAL ZONE	ARE WATER ANALYSES ATTACHED?	
yes			salt water	salt water	yes	
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND)						
Tom Tucker, Elida, New Mexico						
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL						
Sundance Oil Company, 1776 Lincoln St., Denver, Colorado 80203						
Flag-Redfern, Suite 1200 Wall Towers West, Midland, Texas 79701						
Exxon Oil Company, Andrews, Texas						
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?						
Yes		SURFACE OWNER		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL		
Yes		Yes		Yes		
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)		PLAT OF AREA		ELECTRICAL LOG		DIAGRAMMATIC SKETCH OF WELL
Yes		Yes		Yes		Yes

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


H. G. Freedman (Signature)Production Engineer
(Title)June 13, 1980
(Date)

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

WELLS LOCATED WITHIN ONE-HALF MILE OF DISPOSAL WELL

COMPANY	LEASE	WELL NO.	UNIT NO.	LOCATION	PRODUCING INTERVAL (ft)	T.D.	CASING	SACKS CEMENT	CALCULATED TOP
Wolfson	Mountain-Fed.	1	G	30,7-S,32-E	4108-4164	4295	4½ @ 4280	300	2270
"	"	2	H	"	4112-4178	4300	4½ @ 4300	300	2190
"	"	3	F	"	4097-4158	4280	4½ @ 4272	325	2072
"	"	4	B	"	4120-4150	4185	5½ @ 4185	250	1790
"	"	5	C	"	4100-4142	4270	5½ @ 4255	300	1596
"	"	6	A	"	4119-4172	4278	5½ @ 4200	275	1965
Flag-Redfern	Westfall-Fed.	1	E	29,7-S,32-E	4112-4117	4330	4½ @ 4330	250	1790
Exxon	Smith-Fed.	1	O	19,7-S,32-E	4036-4265	4308	5½ @ 4288	1860	Surf.
Sundance	Langley	1	J	30,7-S,32-E	4121-4128	4290	4½ @ 4290	300	2280
"	Chambers-Fed.	3	I	"	4151-4270	4350	4½ @ 4350	300	2340
"	Cone-Fed.	9	K	"	4112-4180	4290	4½ @ 4290	300	2280
"	"	18	E	"	4090-4128	4260	4½ @ 4260	300	2250
"	"	17	L	"	4100-4132	4285	4½ @ 4285	300	2275
"	"	10	N	"	4107-4151	4325	4½ @ 4325	300	2315
"	"	1	P	"	4162-4174	4350	4½ @ 4350	450	1320
"	"	2	O	"	4127-4166	4310	4½ @ 4306	225	2796

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

MIDLAND DIVISION

HOBBS, NEW MEXICO 88240

LABORATORY WATER ANALYSIS

No. W79-1042

To Wolfson Oil CompanyDate 11-21-793206 Rerublic National Bank TowerDallas, Texas 75201

This report is the property of Halliburton Company and it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or company and employees thereof receiving such report from Halliburton Company.

Submitted by _____

Date Rec. 11-20-79Well No. Mountain Fed. #1

Depth _____

Formation San Andres

County _____

Field Tomahawk

Source _____

Resistivity _____

Specific Gravity 1.150pH 4.5Calcium (Ca) 25,000Magnesium (Mg) 2,700Chlorides (Cl) 137,000Sulfates (SO₄) 450Bicarbonates (HCO₃) NilSoluble Iron (Fe) 400

Remarks:

*Milligrams per liter

Respectfully submitted,

Analyst: Brewer

HALLIBURTON COMPANY

cc:

By W. L. Brewer

CHEMIST

NOTICE

THIS REPORT IS LIMITED TO THE DESCRIBED SAMPLE TESTED. ANY USER OF THIS REPORT AGREES THAT HALLIBURTON SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, WHETHER IT BE TO ACT OR OMISSION, RESULTING FROM SUCH REPORT OR ITS USE.

- CASE 6975:** Application of Jack Grynberg and Associates for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Rio Felix Unit Area, comprising 7,675 acres, more or less, of Federal, State, and fee lands in Township 14 South, Ranges 24 and 25 East.
- CASE 6976:** Application of R. N. Hillin for an NCPA determination, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks a new onshore reservoir determination in the Wolfcamp formation for a well located 800 feet from the South line and 2000 feet from the East line of Section 34, Township 19 South, Range 28 East.
- CASE 6977:** Application of Benson Mineral Group, Inc. for salt water disposal, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Chacra formation in the interval from 1636 feet to 1743 feet in its Navajo Well No. 1 in Unit F of Section 9, Township 22 North, Range 7 West, Rusty-Chacra Pool.
- CASE 6978:** Application of Benson Mineral Group, Inc. for salt water disposal, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Pictured Cliffs formation in the interval from 800 feet to 963 feet in its Federal Well No. 1 in Unit I of Section 4, Township 21 North, Range 7 West.
- CASE 6979:** Application of Wolfson Oil Company for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the interval from 4108 feet to 4164 feet in its Mountain-Federal Well No. 1 in Unit G of Section 30, Township 7 South, Range 32 East, Tomahawk-San Andres Pool.
- CASE 6940:** (Continued from June 25, 1980, Examiner Hearing)
- Application of Adobe Oil Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests down through the Wolfcamp formation underlying the NW/4 SE/4 for oil and the SE/4 for gas, Section 23, Township 20 South, Range 38 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.
- CASE 6961:** (Continued from July 9, 1980, Examiner Hearing)
- Application of Conoco Inc. for a dual completion and unorthodox well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Meyer A-29 Well No. 11 to be drilled at an unorthodox location 990 feet from the North line and 660 feet from the East line of Section 29, Township 22 South, Range 36 East, to produce gas from the Langley-Devonian and Ellenburger Pools thru parallel strings of tubing, the E/2 of said Section 29 to be dedicated to the well.
- CASE 6980:** Application of Bass Enterprises Production Company for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Palmillo State Well No. 1 located in Unit J of Section 1, Township 19 South, Range 28 East, to produce gas from the North Turkey Track-Morrow Pool and oil from an undesignated Wolfcamp pool thru the casing-tubing annulus and tubing, respectively.
- CASE 6960:** (Continued from July 9, 1980, Examiner Hearing)
- Application of Bass Enterprises Production Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests down to and including the Strawn formation underlying the S/2 SE/4 of Section 13, Township 16 South, Range 36 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.
- CASE 6950:** (Continued from July 9, 1980, Examiner Hearing)
- Application of Bass Enterprises Production Company for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Morrow test well to be drilled 660 feet from the North line and 1980 feet from the East line of Section 4, Township 25 South, Range 31 East, the E/2 of said Section 4 to be dedicated to the well.
- CASE 6981:** Application of Bass Enterprises Production Company for a special gas-oil ratio limitation, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks a special gas-oil ratio limitation of 8000 to one for the Palmillo-Bone Springs Pool.

OIL CONSERVATION DIVISION
DISTRICT 1

*Other wells in same zone
within 1/2 mile
HTH*

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

DATE June 16, 1980

RE: Proposed MC _____
Proposed DHC _____
Proposed HSL _____
Proposed HSP _____
Proposed SWD X _____
Proposed WFX _____
Proposed PMX _____

Gentlemen:

Case 6979

I have examined the application for the:

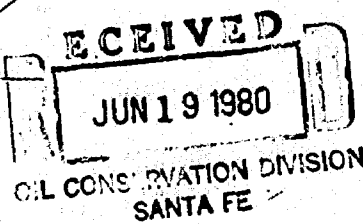
Wolfson Oil Co.	Mountain Federal	No. 1-G	30-7-32
Operator	Lease and Well No.	Unit, S - T - R	

and my recommendations are as follows:

It appears that this will require a hearing. All copies of application
are attached.----J.S.

Yours very truly,

[Signature]
mc



NEW MEXICO OIL CONSERVATION COMMISSION

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

Case 6979
Form C-108
Revised 3-1-78
RECEIVED
JUN 11 1980
DIVISION
OIL CONSERVATION
SANTA FE

OPERATOR WOLFSON OIL COMPANY		ADDRESS 3206 Republic Bank Tower, Dallas, Texas	
LEASE NAME MOUNTAIN-FEDERAL	WELL NO. 1	FIELD Tomahawk	Roosevelt
LOCATION UNIT LETTER G WELL IS LOCATED 2310 FEET FROM THE North LINE AND 1980 FEET FROM THE East LINE, SECTION 30 TOWNSHIP 7-S RANGE 32-E NMPM.			
CASING AND TUBING DATA			
NAME OF STRING 23#	SIZE 8-5/8"	SETTING DEPTH 1788'	SACKS CEMENT 600
TOP OF CEMENT Surface		TOP DETERMINED BY Circ. 45 sx	
INTERMEDIATE None			
LONG STRING 9.5#	SIZE 4-1/2"	SETTING DEPTH 4280'	SACKS CEMENT 300
TOP OF CEMENT 2512		TOP DETERMINED BY Calculation	
TUBING 4.70# V-55	SIZE 2"	SETTING DEPTH 4050'	NAME, MODEL AND DEPTH OF TUBING PACKER Guiberson KVL-30
NAME OF PROPOSED INJECTION FORMATION San Andres		TOP OF FORMATION 4108'	BOTTOM OF FORMATION 4164'
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLES 4108-64'	PROPOSED INTERVAL(S) OF INJECTION 4108-64'
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Oil		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 Est. 200'		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA None	DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA None
ANTICIPATED DAILY INJECTION VOLUME (BBLS.) 250	MINIMUM 200	MAXIMUM 400	OPEN OR CLOSED TYPE SYSTEM closed
IS INJECTION TO BE BY GRAVITY OR PRESSURE? pressure		APPROX. PRESSURE (PSI) 250#	
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE - yes		WATER TO BE DISPOSED OF salt water	NATURAL WATER IN DISPOSAL ZONE salt water
ARE WATER ANALYSES ATTACHED? yes			
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) Tom Tucker, Elida, New Mexico			
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL			
Sundance Oil Company, 1776 Lincoln St., Denver, Colorado 80203			
Flag-Redfern, Suite 1200 Wall Towers West, Midland, Texas 79701			
Exxon Oil Company, Andrews, Texas			
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING? Yes			
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) Yes		PLAT OF AREA Yes	ELECTRICAL LOG Yes
		DIAGRAMMATIC SKETCH OF WELL Yes	

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

H. G. Freedman
H. G. Freedman (Signature)

Production Engineer

(Title)

June 13, 1980

(Date)

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

Max Coll, Inc., 1/2M
J. Collier

Emme Jones, et al

Coquina
Emme
J.A. 8907

Dillard Nuckols (S)

Jones Robinson, Co

Florence
Evans, et al

Pet. Corp.
Midwest-Fed.
TD 4350
DIA 1-27-70
U.S.

Flag-Redfern

8-12-80
8-11-80
8-24-80

24

Emme Jones, et al

Abby Corp. E. West'n. Res. et al
Franklin, Aston, & Fair
8-9-80 7-23-80

Charley Paul

25

Exxon
8-1-82
15667

Abby Corp. E.
(West'n. Res. et al)

U.S.

Abby Corp. Union
E. West'n. Res. et al
2-1-81
L-5120
874

Holly
Energy
1-1-85
L-2464
2031

Holly Energy, et al
1-1-85
L-2464
2031

Union
2-1-81
L-5120
874

Franklin, et al
Dual Disc.
Penn. S.M.I.
Miss. S.I.

State

Boundary
of Tomahawk
San Andres
Paul

(Union)
(C. Loveless Jr. & Assoc.)
056018
Holly Energy

Union-Fed

Union
6-1-83
10503

Coquina
Emme
TD 4234
DIA 10-26-70

Sundance Oil
3-1-82
15019

36 97

Exxon
12-1-80
12699

16 99

U.S.

Dillard Nuckols (S)

Moroilco

4-27-82
4-18-82

Joe Wilcox 1/2
Jones Robinson, Co

Ray Westfall
HBP
0392502

Mountain
Fuel Supply
8-1-83
18846

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U.S.

Ray Westfall
HBP
0392502

Moroilco, Inc.
4-18-82

T. Schneider
Sams
TD 4346
DIA 15-66

Moroilco
Nuckols
TD 4384

J.H. Nuckols (S)

Jerry Chambers

8-1-81

14154 U.S. Min.

T.E. Tucker (S)

Sundance
Oil
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U.S. Chambers-Fed

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Shell Fed

TD 4303
DIA 3-67

U.S. Cone-Fed

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Sundance
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1-1-83

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Langley-
Fed

Jerry Chambers

14154

U.S. Chambers-Fed

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2 F200

Sundance Oil

15019

37 47

05 4 Mex. St.
Game Comm'n

52 31

Galco
Shell Fed

TD 4303
DIA 3-67

U.S. Cone-Fed

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GALLINA

WOLFSON OIL CO.
MOUNTAIN FEDERAL LEASE
ROOSEVELT COUNTY, NEW MEXICO

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

MIDLAND DIVISION

HOBBS, NEW MEXICO 88240

LABORATORY WATER ANALYSIS

No. W79-1042To Wolfson Oil CompanyDate 11-21-793206 Rerublic National Bank TowerDallas, Texas 75201

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Submitted by _____

Date Rec. 11-20-79Well No. Mountain Fed. #1

Depth _____

Formation San Andres

County _____

Field Tomahawk

Source _____

Resistivity _____

Specific Gravity _____

1.150

pH _____

4.5

Calcium (Ca) _____

25,000

*MPL

Magnesium (Mg) _____

2,700

Chlorides (Cl) _____

137,000Sulfates (SO₄) _____450Bicarbonates (HCO₃) _____N11

Soluble Iron (Fe) _____

400

Remarks: _____

*Milligrams per liter

Respectfully submitted,

Analyst: Brewer

HALLIBURTON COMPANY

cc: _____

By W. L. Brewer

CHEMIST

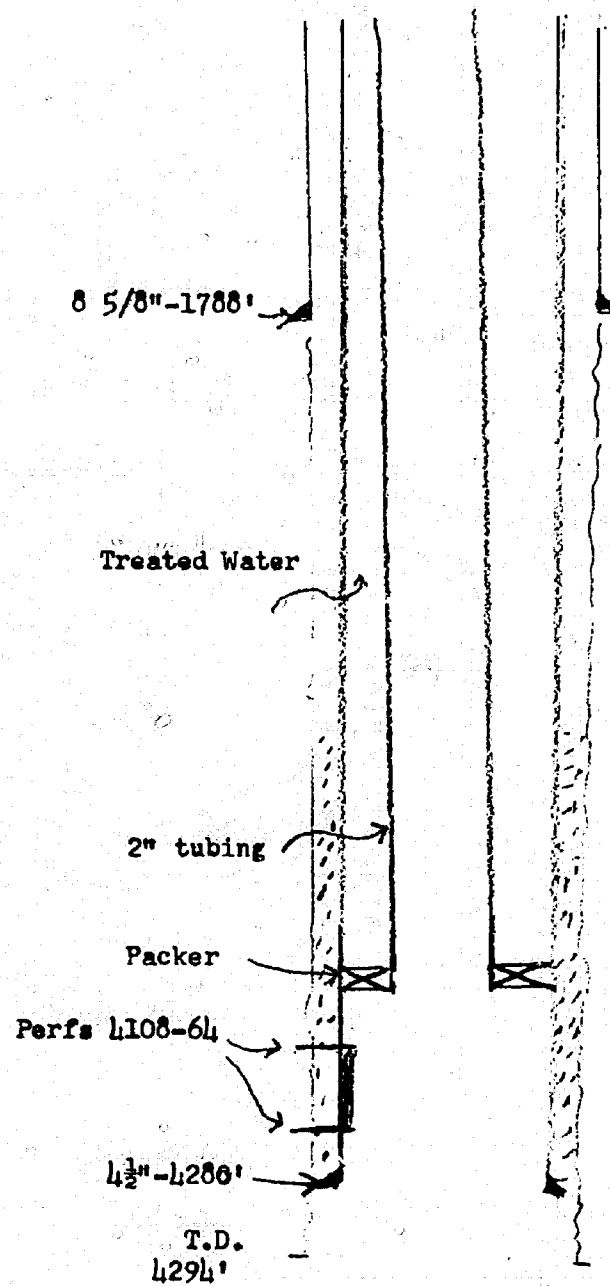
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DIAGRAMMATIC SKETCH

PROPOSED SALT WATER DISPOSAL WELL- MOUNTAIN-FEDERAL NO. 1

ROOSEVELT COUNTY, NEW MEXICO



Case 6979

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

RECEIVED
JUN 19 1980
SANTA FE

OPERATOR WOLFSON OIL COMPANY		ADDRESS 3206 Republic Bank Tower, Dallas, Texas	
LEASE NAME MOUNTAIN-FEDERAL	WELL NO. 1	FIELD Tomahawk	
LOCATION UNIT LETTER G ; WELL IS LOCATED 2310 FEET FROM THE North LINE AND 1980 FEET FROM THE East LINE, SECTION 30 TOWNSHIP 7-S RANGE 32-E NMPM.			

CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING 23#	8-5/8"	1788'	600	Surface	Circ. 45 sx
INTERMEDIATE None					
LONG STRING 9.5#	4-1/2"	4280'	300	2512	Calculation
TUBING 4.70# V-55	2"	4050'	NAME, MODEL AND DEPTH OF TUBING PACKER Guiberson KVL-30		
NAME OF PROPOSED INJECTION FORMATION San Andres			TOP OF FORMATION 4108'		BOTTOM OF FORMATION 4164'
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLES 4108-64'		PROPOSED INTERVAL(S) OF INJECTION 4108-64'	
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Oil		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 Est. 200'		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA None		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA None	
ANTICIPATED DAILY INJECTION VOLUME (BBLs.) 250	MINIMUM 200	MAXIMUM 400	OPEN OR CLOSED TYPE SYSTEM closed	IS INJECTION TO BE BY GRAVITY OR PRESSURE? pressure	APPROX. PRESSURE (PSI) 250#
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE - yes			WATER TO BE DISPOSED OF salt water	NATURAL WATER IN DISPOSAL ZONE salt water	ARE WATER ANALYSES ATTACHED? yes
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) Tom Tucker, Elida, New Mexico					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL					
Sundance Oil Company, 1776 Lincoln St., Denver, Colorado 80203					
Flag-Redfern, Suite 1200 Wall Towers West, Midland, Texas 79701					
Exxon Oil Company, Andrews, Texas					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING? Yes		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)? Yes		PLAT OF AREA Yes		ELECTRICAL LOG Yes	
				DIAGRAMMATIC SKETCH OF WELL Yes	

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

H. G. Freedman (Signature) Production Engineer (Title) June 13, 1980 (Date)

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

Max Cell, Inc., 72M
Collier

Emme Jones, et al

Coquina
Emme
JMA 2807

Dillard Nuckols (S)

Jones Robinson, Co

Fierence
Evans, et al

Pet Corp.
Midwest Fed.
TD 4350
DIA 1-27-70
U.S.

Flag-Redfern

8-12-80
11-80
24-80

24

Coquina
Emme
TD 4234
DIA 10-28-70

Sundance Oil
3-82
15019

Moroilco
4-27-82
4-18-82

Joe Wilcox 1/2
Jones Robinson, Co

Ray Westfall
HBP
0392502

Mountain
Fuel Supply
18846

20

Emme Jones, et al

Abby Corp. E. West'n. Res. et al
Franklin, Aston, & Fair
8-9-80 7-23-80

Cherley Paul

25

Exxon
8-1-82
15667

Abby Corp. E.
(West'n. Res. et al)

U.S.

Wolfson Oil
(Mountain Fuel Supply)
5-18846

Mountain Fed.
Dillard Nuckols,
2 (S)

Sundance Oil
3-1-82
15019

Jerry Chambers
14154
Cone Fed "U.S. Chambers-Fed"

Ray Westfall
HBP
0392502

Moroilco, Inc.
4-16-82

T. Schneider
Sams
T04346
DAS 15-66

29

Moroilco
Nuckols
T04384

J. H. Nuckols, (S)
Jerry Chambers
14154 U.S. Min.
T.E. Tucker (S)

Abby Corp. Union Holly
E. West'n. 2-1-81 Energy
Res. et al, L-5120
874 LG-2464

Holly Energy, et al
7-1-85
LG-2464
20 31

Union
2-1-81
L-5120
874

36

(Franklin, et al)
Dual Disc.
Penn S.M.
Miss. S.I.

State

Sundance Oil
15019

Game Comm. S.I.

Palco
Shell Fed
194300
DIA 10-3-67

U.S. Cone-Fed

Sundance Oil
LG-3029

"State"

D.J. Sorenson
2-1-83
LG-1032
535

Moroilco
4-27-87
4-20-87

Mary Griffin

(Union)
(C. Loveless, Jr. Watson, et al)
0580018

Holly Energy

Union-Fed

Union
6-1-83
10503

Wilson Oil
HBP
0347394

Coctus Drig
Wilson Fed.
TD 4186

Wiser Oil
Wilson Fed.

6

GALLINA

Champlin
9-1-79
10280

WOLFSON OIL CO.
MOUNTAIN FEDERAL LEASE
ROOSEVELT COUNTY, NEW MEXICO

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

MIDLAND DIVISION

HOBBS, NEW MEXICO 88240

LABORATORY WATER ANALYSIS

No. W79-1042To Wolfson Oil CompanyDate 11-21-793206 Republic National Bank TowerDallas, Texas 75201

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Submitted by _____ Date Rec. 11-20-79Well No. Mountain Fed. #1 Depth _____ Formation San AndresCounty _____ Field Tomahawk Source _____

Resistivity	_____	_____	_____
Specific Gravity	<u>1.150</u>	_____	_____
pH	<u>4.5</u>	_____	_____
Calcium (Ca)	<u>25,000</u>	_____	_____ *MPL
Magnesium (Mg)	<u>2,700</u>	_____	_____
Chlorides (Cl)	<u>137,000</u>	_____	_____
Sulfates (SO ₄)	<u>450</u>	_____	_____
Bicarbonates (HCO ₃)	<u>Nil</u>	_____	_____
Soluble Iron (Fe)	<u>400</u>	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Remarks:

*Milligrams per liter

Respectfully submitted,

Analyst: Brewer

HALLIBURTON COMPANY

cc:

By W. L. Brewer

CHEMIST

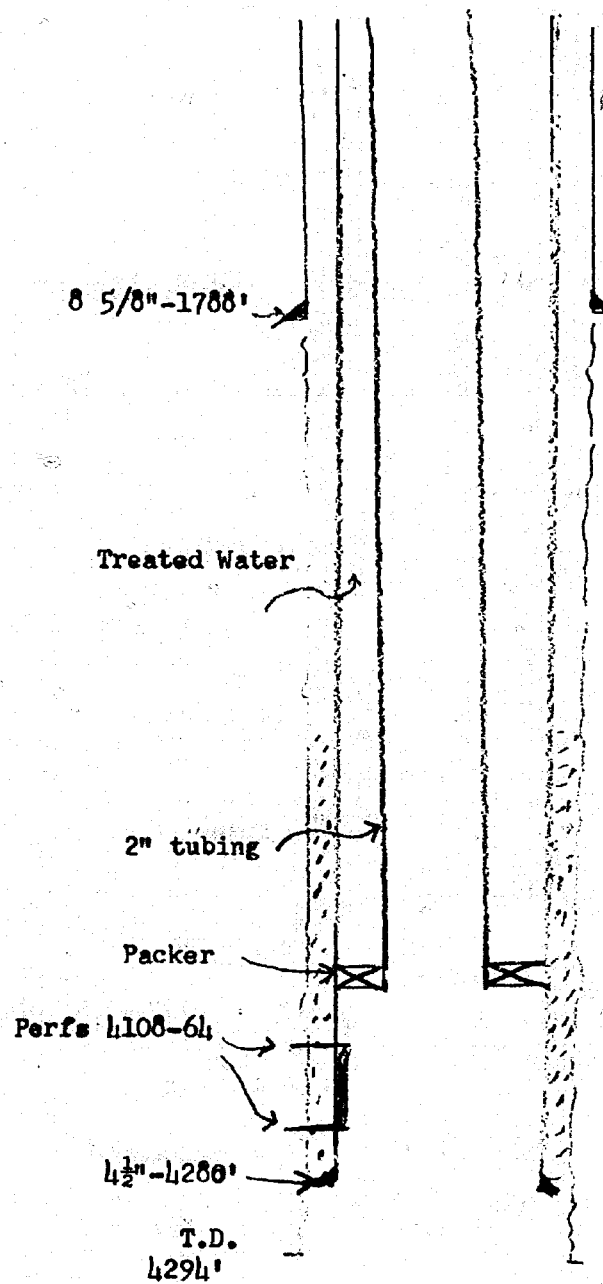
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DIAGRAMMATIC SKETCH

PROPOSED SALT WATER DISPOSAL WELL- MOUNTAIN-FEDERAL NO. 1

ROOSEVELT COUNTY, NEW MEXICO



NEW MEXICO OIL CONSERVATION COMMISSION

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

JUN 19 1980

OPERATOR WOLFSON OIL COMPANY		ADDRESS 3206 Republic Bank Tower Santa Fe, N.M.	
LEASE NAME MOUNTAIN-FEDERAL	WELL NO. 1	FIELD Tomahawk	COUNTY Roosevelt
LOCATION UNIT LETTER G WELL IS LOCATED 2310 FEET FROM THE North LINE AND 1980 FEET FROM THE East LINE, SECTION 30 TOWNSHIP 7-S RANGE 32-E NMPM.			

CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING 23#	8-5/8"	1788'	600	Surface	Circ. 45 sx
INTERMEDIATE None					
LONG STRING 9.5#	4-1/2"	4280'	300	2512	Calculation
TUBING 4.70# V-55	2"	4050'	NAME, MODEL AND DEPTH OF TUBING PACKER Guiberson KVL-30		
NAME OF PROPOSED INJECTION FORMATION San Andres			TOP OF FORMATION 4108'		BOTTOM OF FORMATION 4164'
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLES 4108-64'	PROPOSED INTERVAL(S) OF INJECTION 4108-64'		
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Oil		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 Est. 200'		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA None		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA None	
ANTICIPATED DAILY INJECTION VOLUME (BBLs.) 250	MINIMUM 200	MAXIMUM 400	OPEN OR CLOSED TYPE SYSTEM closed	IS INJECTION TO BE BY GRAVITY OR PRESSURE? pressure	APPROX. PRESSURE (PSI) 250#
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE - yes			WATER TO BE DISPOSED OF salt water	NATURAL WATER IN DISPOSAL ZONE salt water	ARE WATER ANALYSES ATTACHED? yes
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) Tom Tucker, Elida, New Mexico					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL					
Sundance Oil Company, 1776 Lincoln St., Denver, Colorado 80203					
Flag-Redfern, Suite 1200 Wall Towers West, Midland, Texas 79701					
Exxon Oil Company, Andrews, Texas					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?					
Yes		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)		FLAT OF AREA Yes		ELECTRICAL LOG Yes	
				DIAGRAMMATIC SKETCH OF WELL Yes	

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

H. G. Freedman
H. G. Freedman (Signature)

Production Engineer
(Title)

June 13, 1980
(Date)

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

Max Coll, Inc. 1/2M
J. Collier

Emmo Jones, et al

Flug-Redfern

8-12-80
8-11-80
8-24-80

24

Emmo Jones, et al

Abby Corp. E. Westn. Res. et al
Franklin, Aston, & Fair
8-9-80 7-23-80

Cherley Paul

25

Exxon
8-1-82
15667

Abby Corp. E.
Westn. Res. et al
U.S.

Abby Corp. Union
E. Westn. Res. et al
2-1-81
L-5120
874

Holly
Energy
L-1-85
LG-2464
2031

Holly Energy et al
7-1-85
LG-2464
2031

Union
2-1-81
L-5120
874

(Franklin, et al)
Qual Disc.
Penn. S.Mil.
Miss. St.

State

(Union)
(C. Loveless Jr. & Associates)
0580018

Holly Energy

Union-Fed

Union
6-1-83
10503

Coquina
Emmo
JMA 8907

Dillard Nuckols (S)

Coquina
Emmo
TD 4294
DA 10-28-70

Sundance Oil
3-82
15019

36 97

Exxon
12-1-80
12699

16 99

U.S.
Dillard Nuckols (S)

17 83

Wolfson Oil
(Mountain Fuel Supply)
8-85
18846

17 15

Mountain Fed.
Dillard Nuckols
3-82

17 25

Sundance Oil
3-1-82
15019

17 35

Sundance Oil
1-1-83
17233
Langley-Fed.
Sundance
Jerry Chambers
14154
Cone Fed. U.S. Chambers-Fed

17 42

2 FZ00
Sundance Oil
15019

17 47

65 N Mex. St.
Game Comm. St.

17 52

Galco
Shell Fed
104300
DA 10-3-67

17 57

U.S. Cone-Fed

17 58

Wilson Oil
HBP
0347394

17 59

Wiser Oil
Wilson Fed.
TD 4186

17 72

6

GALLINA

Jones Robinson, Co

Moroilco
4-27-82
4-10-82

Joe Wilcox 1/2
Jones Robinson, Co

Florence
Evans, et al

Ray Westfall
HBP
0392502

20

U.S.

Ray Westfall
HBP
0392502

29

T. Schneider
Sams
TD 4346
DA 5-15-66

29

Moroilco
Nuckols
TD 4384

J. H. Nuckols, (S)

Chambers (Jerry Chambers)
8-1-81
14154 U.S. Min.
T.E. Tucker (S)

32

Sundance Oil
LG-3029

32

State

D. J. Sorenson
2-1-83
LG-1032
535

State

Mary Griffin

32

Champlin
9-1-79
10280

32

WOLFSON OIL CO.
MOUNTAIN FEDERAL LEASE
ROOSEVELT COUNTY, NEW MEXICO

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES
MIDLAND DIVISION
HOBBS, NEW MEXICO 88240

LABORATORY WATER ANALYSIS

No. W79-1042

To Wolfson Oil Company

Date 11-21-79

3206 Republic National Bank Tower

Dallas, Texas 75201

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Submitted by _____ Date Rec. 11-20-79

Well No. Mountain Fed. #1 Depth _____ Formation San Andres

County _____ Field Tomahawk Source _____

Resistivity		
Specific Gravity	<u>1.150</u>	
pH	<u>4.5</u>	
Calcium (Ca)	<u>25,000</u>	<u>*MPL</u>
Magnesium (Mg)	<u>2,700</u>	
Chlorides (Cl)	<u>137,000</u>	
Sulfates (SO ₄)	<u>450</u>	
Bicarbonates (HCO ₃)	<u>Nil</u>	
Soluble Iron (Fe)	<u>400</u>	

Remarks:

*Milligrams per liter

Respectfully submitted,

Analyst: Brewer

HALLIBURTON COMPANY

cc:

By W. L. Brewer
CHEMIST

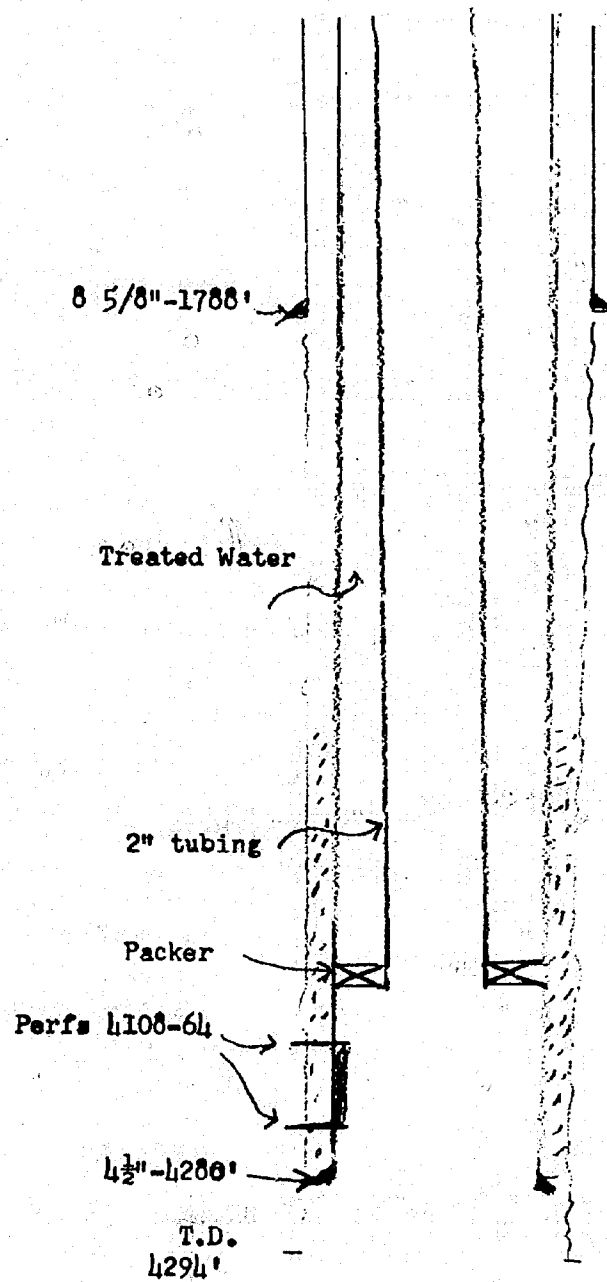
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DIAGRAMMATIC SKETCH

PROPOSED SALT WATER DISPOSAL WELL- MOUNTAIN-FEDERAL NO. 1

ROOSEVELT COUNTY, NEW MEXICO



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:

CASE NO. 6979

Order No. R- 6440

APPLICATION OF WOLFSON OIL
COMPANY FOR SALT WATER DISPOSAL,
ROOSEVELT COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on July 23,
19 80, at Santa Fe, New Mexico, before Examiner Richard L. Stamets
NOW, on this day of July, 19 80, 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, Wolfson Oil Company,
is the owner and operator of the Mountain-Federal Well No. 1,
located in Unit 6 of Section 30, Township 7 South,
Range 32 East, NMPM, Tomahawk-San Andres Pool,
Roosevelt County, New Mexico.

(3) That the applicant proposes to utilize said well to
dispose of produced salt water into ~~the~~ the ~~San Andres~~ the San Andres
formation, with injection into the perforated
interval from approximately 4108 feet to 4164 feet.

(4) That the injection should be accomplished through 2
-inch ~~plastic lined~~ tubing installed in a packer set at approxi-
mately 3980 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 ^{pressure limiting} ~~pop-off~~ ~~switch~~ or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 825 psi.

(6) That the Director of the Division should be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected waters from the San Andres formation.

(7) That within 30 days after the date of first injection into said Mountain-Federal Well No 1 and semi-annually thereafter the applicant ~~should~~ should conduct appropriate tests to assure the ~~content~~ integrity of the injection tubing and packer.

(8) That the applicant should ^{contact} ~~notify~~ the supervisor of the Division's district office at Hobbs ~~in order to~~ ^{in order to} establish ~~immediately~~ an appropriate test procedure and an inspection schedule in order that the Division may witness such tests.

(9) That the results of such tests should be filed with the Division not later than 30 days following the conclusion thereof.

(10) ~~(8)~~ That the operator should take all ^{other} 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.

(11) ~~(9)~~ 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, Wolfson Oil Company, is hereby authorized to utilize its Mountain-Federal Well No. 1, located in Unit G of Section 30, Township 7 South, Range 32 East, NMPM, Tomahawk-San Andres Pool, County, New Mexico, to dispose of produced salt water into the San Andres formation, injection to be accomplished through 2-inch tubing installed in a packer set at approximately 3980 feet, with injection into the perforated interval from approximately 4108 feet to 4164 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 ^{pressure limiting switch} ~~pressure limiting device~~ or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 825 psi.

(3) That the Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the San Andres formation.

Well No 1

(4) That within 30 days after the date of first injection into said Mountain-Federal and semi-annually thereafter the applicant ~~shall~~ shall conduct appropriate tests to assure the ~~water~~ integrity of the injection tubing and packer.

(5) That the applicant ~~shall~~ ^{shall} contact the supervisor of the Division's district office at Hobbs ~~in order to~~ ^{in order to} establish ~~an~~ an appropriate test procedure and an inspection schedule in order that the Division may witness such tests.

shall (6) That the results of such tests ~~shall~~ be filed with the Division not later than 30 days following the conclusion thereof.

(7) 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.

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

(9) 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.