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P/S send copy of  
order to:  
Jed. Thacker  
Hull Mfg. Production  
P.O. Box 1162  
Midland, TX 79702

CASE NO.

7518

---

APPLICATION,  
TRANSCRIPTS,  
SMALL EXHIBITS,  
ETC.



BRUCE KING  
GOVERNOR  
LARRY HENGE  
COMMISSIONER

STATE OF NEW MEXICO  
**ENERGY AND MINERALS DEPARTMENT**  
OIL CONSERVATION DIVISION

POST OFFICE BOX 2888  
SANTA FE, NEW MEXICO 87504  
505/427-6224

April 28, 1982

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

Re: CASE NO. 7518  
ORDER NO. R-6943

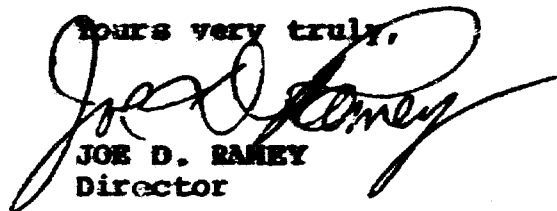
Applicant:

Consolidated Oil & Gas Inc.

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 \_\_\_\_\_  
Artesia OCD \_\_\_\_\_  
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. 7518  
Order No. R-6943

APPLICATION OF CONSOLIDATED OIL & GAS  
INC. FOR SALT WATER DISPOSAL, LEA  
COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on March 31, 1982, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 29th day of April, 1982, 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, Consolidated Oil & Gas, Inc., is the owner and operator of the Midway State Well No. 1, located in Unit P of Section 8, Township 17 South, Range 37 East, NMPM, Midway-Abo Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the Abo formation, with injection into the perforated interval from approximately 8688 feet to 8856 feet.

(4) That the injection should be accomplished through 2 7/8-inch plastic lined tubing installed in a packer set at approximately 8640 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. 7518  
Order No. R-6943

(5) That the injection well or system should be equipped with a pressure limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 1738 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 Abo formation.

(7) 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.

(8) 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.

(9) That the offset operator of wells to the immediate south and southwest of the proposed disposal well expressed concern that the disposal of produced salt water into the subject well might result in premature watering out of its production wells.

(10) That the producing intervals of said wells are structurally lower than the disposal interval of the subject well.

(11) That said offset operator conditionally waived objection to the proposed disposal, provided the Division retains jurisdiction of this matter "...to order immediate stoppage of injection operations if and when it should appear necessary to do so."

(12) That said offset operator should monitor production from its wells, and report to the Division Director any abnormalities or changes in production characteristics of said wells, whereupon the Division Director will take appropriate action.

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

-3-

Case No. 7518  
Order No. R-6943

IT IS THEREFORE ORDERED:

(1) That the applicant, Consolidated Oil & Gas, Inc., is hereby authorized to utilize its Midway State Well No. 1, located in Unit P of Section 8, Township 17 South, Range 37 East, NMPM, Midway-Abo Pool, Lea County, New Mexico, to dispose of produced salt water into the Abo formation, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 8640 feet, with injection into the perforated interval from approximately 8688 feet to 8856 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 or other acceptable device which will limit the wellhead pressure on the injection well to no more than 1738 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 Abo formation.

(4) 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.

(5) 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.

(6) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 702, 703, 704, 705, 706, 708, and 1120 of the Division Rules and Regulations.

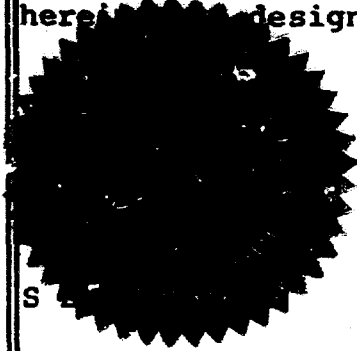
(7) That Gulf Oil Corporation shall monitor production from its Lea State "KN" Wells Nos. 1 and 2, located in Units A and B, respectively, of Section 17, Township 17 South, Range 37 East, NMPM, Midway-Abo Pool, Lea County, New Mexico, and shall immediately report any abnormalities or changes in production characteristics of said wells to the Division Director.

-4-

Case No. 7518  
Order No. R-6943

(R) 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 hereinafter designated.



STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

*Joe D. Ramey*  
JOE D. RAMEY,  
Director

S

## NEW MEXICO OIL CONSERVATION COMMISSION

## EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date

MARCH 31, 1982

Time: 9:00 A.M.

## NAME

## REPRESENTING

## LOCATION

Phil Vary	Amoco Production Co	Houston
Katherine Kaucer	Amoco Production Co.	Houston
Allen O. Oates	Amoco Production Co	Houston
James C. Allen	" "	"
Calvin Eggett, Jr.	Hinkle Law Firm	Roswell
James J. Jerny	Jennings & Murie, Jr.	Roswell
Doyle S. S. Jr.	Union Oil Co of Cal	Midland
Lincoln Hicks	Union Oil Co of Cal.	Midland
Delbert Fother	MMS	Albuquerque
Bob S. McLaughlin	Chama Petroleum Co.	Dallas, TX
Joger McLaughlin	BFA	Albuquerque
Bob Huber	Byrum	Santa Fe
W. H. McLaughlin	Santa Fe	Roswell
W. H. McLaughlin	Indochina	Roswell
Clyde A. Mote	Amoco Prod Co.	Houston
William L. Carr	Campbell, Egert & Back	Santa Fe
W. H. McLaughlin	Att. Law (PARKS)	HOBBS



## NEW MEXICO OIL CONSERVATION COMMISSION

## EXAMINER HEARING

SANTA FE, NEW MEXICOHearing Date MARCH 31, 1982 Time: 9:00 A.M.

NAME	REPRESENTING	LOCATION
Robert L. Wallace	Parabo	Hobbs
Ray H. Wallace	Parabo	Hobbs
William A. McAlpin	Santa Fe Exploration Co.	Roswell
Steven C. James	Mesa Petroleum Co.	Midland
Joseph D. Stewart Jr.	Consolidated Oil & Gas	Denver
J. W. LAM	NEW MEXICO STATE LAND OFFICE	SANTA FE
Mark S. Hark	Dow Chemical	Midland
L. B. Tayler	✓	✓
Robert M. Datsch	S&T Oil Co.	Gardens
W. Kellum	Kellum & Kellum	Santa Fe
Bob McCreary	Southern Union Co.	Dallas
Jeff Edmister	NMCO	Alec
H. K. Kenderich	El Paso Natural Gas	El Paso
Ernest L. Peelle	Wm. Barnhill	Santa Fe
L. Bunker	Santa Fe Exploration	Midland
	Reich	

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

31 March 1982

EXAMINER HEARING

IN THE MATTER OF:

Application of Consolidated Oil & Gas,  
Inc., for salt water disposal, Lea  
County, New Mexico.

CASE  
7518

BEFORE: Daniel S. Nutter

*Hearing  
Registered in  
this Transcript*

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation  
Division:

W. Perry Pearce, 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

## I N D E X

## STATEMENT BY MR. KELLAHIN

3

## JOE STEWART

Direct Examination by Mr. Kellahin

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Cross Examination by Mr. Nutter

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## E X H I B I T S

Applicant Exhibit One, Plat

4

Applicant Exhibit Two, List of Wells

8

Applicant Exhibit Three, Document

8

Applicant Exhibit Four, Geological Data

9

Applicant Exhibit Five, Log

9

Applicant Exhibit Six, Schematic

10

Applicant Exhibit Seven, Schematic

11

Applicant Exhibit Eight, Water Analysis

12

Applicant Exhibit Nine, Document

12

Applicant Exhibit Ten, List

12

Applicant Exhibit Eleven, Return Receipts

13

1  
2 MR. NUTTER: We'll call next Case Number  
3 7518.

4 MR. PEARCE: It is the application of  
5 Consolidated Oil and Gas, Inc., for salt water disposal, Lea  
6 County, New Mexico.

7 MR. KELLAHIN: If the Examiner please,  
8 I'm Tom Kellahin of Santa Fe, New Mexico, appearing on behalf  
9 of the applicant, and I have one witness.

10  
11 (Witness sworn.)  
12

13 MR. KELLAHIN: In accordance with the  
14 Commission's Rules on salt water disposal applications, Mr.  
15 Nutter, the application has attached to it all the exhibits  
16 which we're required to file with the Commission prior to the  
17 hearing, and we would like to use those same exhibits in our  
18 testimony today.

19  
20 JOE STEWART

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

23  
24 DIRECT EXAMINATION

25 BY MR. KELLAHIN:

1  
2 Q Mr. Stewart, would you please state your  
3 name and occupation?

4 A My name is Joe Stewart. I'm Southern  
5 Division Production Manager for Consolidated Oil and Gas, in  
6 Denver.

7 Q Mr. Stewart, have you previously testi-  
8 fied before the Oil Conservation Division?

9 A No, I haven't.

10 Q What's your educational background, Mr.  
11 Stewart?

12 A I have a chemical engineering degree  
13 from Colorado School of Mines and two years experience in  
14 chemical engineering and ten years experience in petroleum  
15 engineering.

16 Q Have you made a study of the facts sur-  
17 rounding this particular application, Mr. Stewart?

18 A Yes, I have.

19 MR. KELLAHIN: We tender Mr. Stewart as  
20 an expert petroleum engineer.

21 MR. NUTTER: Mr. Stewart is qualified.

22 Q Mr. Stewart, let me direct you to the  
23 packet of exhibits which is attached to your application, and  
24 have you turn first to what is marked as Exhibit Number One  
25 and identify the well for which you seek approval as a salt

1  
2 water disposal well.

3 A Okay. The proposed well is in the far  
4 southeast corner of Section 8. It's the Grace State No. 1  
5 in the center of the circle.

6 Q All right. What are the other wells  
7 identified on the map here, Mr. Stewart? What kind of wells  
8 are they?

9 A Okay, all the wells to the south and  
10 east and west are Abo wells, or plugged wells, and the two  
11 wells to the north, the Hale State 1-Y and the Davalo State  
12 No. 1 are Devonian wells.

13 Q All right, let me see if I can find  
14 those. Looking in Section 8?

15 A Right, and then --

16 Q In the south half of the north half there  
17 are three wells that are circled? It looks like Faskin wells?

18 A Right.

19 Q And what kind of wells are those?

20 A These are Devonian wells.

21 Q All three of those.

22 A Uh-huh.

23 Q And then the well up in the northeast  
24 of the northeast, what kind of well is that?

25 A Strawn well.

1  
2 Q All right, sir. What is the proposed  
3 disposal formation?

4 A It is the Abo.

5 Q And what will be the source of the pro-  
6 duced water that you're going to dispose of in this well?

7 A It will be both from the Abo and the  
8 Devonian.

9 Q What wells will contribute water for the  
10 disposal well?

11 A Well, currently in Section 17 we have the --  
12 our wells, the Shipp 3-A, 2-A, and the Shipp No. 1.

13 Q 3-A and the 2-A are in Unit letter C and  
14 D --

15 A Right.

16 Q -- and then the third well you mentioned  
17 is in Unit letter G, I guess.

18 A Uh-huh, right, and all -- and the other  
19 wells are -- that currently we're going to use are the three  
20 Faskin wells.

21 Q In Section 8?

22 A In Section 8 that are Devonian wells.  
23 It's 1, 2, and 3 right where it says Devonian discovery, the  
24 Harrell State 1-Y, just south of there, it's within the circle,  
25 and straight south of there is the letters A-1, that's Conso-

1  
2 validated's State A-1, that's also operated by Faskin.

3 Q All right, sir, what's currently being  
4 done with this produced water?

5 A All of the water now is being injected  
6 in the salt water disposal well in Section 17, the Shipp NO.  
7 2, which is on the east portion of that section, just straight  
8 south of our circle.

9 Q In Unit I of Section 17?

10 A Right.

11 Q All right. That disposal well disposes  
12 water into what formation?

13 A Into the Abo.

14 Q All right. Would you describe generally  
15 what is the perforated interval or the disposal interval for  
16 the proposed disposal well?

17 A The perforated interval is 8688 to 8856.

18 Q The method of disposal, Mr. Stewart, is  
19 this to be under an injection pressure system or is this well,  
20 in your opinion, going to take the produced water under gravity?

21 A There won't be gravity feed, but we'll  
22 have to pump it in under pressure up to about 1500 pounds.

23 Q Using the depth of the perforations and  
24 that surface pressure, what would that translate to in terms  
25 of pressure at the surface?



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A The gradient is .17.

Q All right. All right, sir, let's turn to Exhibit Number Two. Would you identify Exhibit Number Two for us?

A Exhibit Number Two describes each well within the half mile radius of the proposed disposal well as far as cement, perforations, TD, and when they were drilled.

Q You prepared this tabulation, Mr. Stewart?

A Yes, I did.

Q In reviewing the well files to prepare this tabulation, are you satisfied that the cement in each of these wells is such that it covers the Abo disposal formation?

A Yes, I am.

Q All right, sir. Let's go to Exhibit Number Three, then, Mr. Stewart, and have you summarize for us the information contained on that exhibit.

A Basically, we're paying to pump up around 500 barrels a day,--currently we're just making 300 barrels a day,--of injected fluid. Our average pressure will be 500 pounds, up to 1500 pounds. The system will be closed and we're going to -- well, I already described the water that we're going to inject. And the zone is productive within one mile.

1  
2 Q Are you aware of any incompatibility of  
3 produced water from the Devonian, Strawn, and the Abo?

4 A No, I am not.

5 Q And would you continue to use this other  
6 disposal well down in Unit I of Section 17?

7 A We will only if the new well proves to  
8 be more satisfactory than the old well, we'll plug the old  
9 well and use the new well; otherwise we'll use both of them  
10 to divide the load.

11 Q All right, sir. Let's turn to Exhibit  
12 Number Four and have you identify that.

13 A Exhibit Four describes the geological  
14 data on the Abo zone. The pool is Midway Abo. It's the Abo  
15 formation and the geologic trend is the Abo, approximately  
16 180 feet thick, and the top is 8676 and the perforations are  
17 listed.

18 Q All right, sir, let's turn to Exhibit  
19 Number Five and have you identify that.

20 A Number Five is the log on the -- on the  
21 well, and it shows the top of the Abo at 8676, and also the  
22 perforated interval on down below.

23 Q Is that what's indicated in these numbers  
24 here?

25 A Yes.

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Q Below 8700, between 8700 and 8750 --

A Right.

Q -- with some numbers?

A There's a -- well, those are the feet of pay. The perforations are marked with dashed lines beside it.

Q All right. This proposed disposal well is an old Abo production well, is it not?

A Right, it's an old Abo well and we've just recently plugged the No. 2 and the No. 3 Wells to the west of this one and we wanted to save this one for a disposal well.

Q All right, sir, let's turn to Exhibit Number Six and have you identify that.

A Okay. Exhibit Six illustrates what our plan is and the condition of the well at this time. We have cement circulated on the surface pipe. We have an 8-5/8ths intermediate with -- set at 3971. Then we have a 5-1/2 inch liner to TD. Cement behind the liner was determined by a temperature survey at 4300. We propose to set a packer with plastic-lined tubing at 8640, just above the perforations, and put inhibited water in the annulus.

Q In your opinion is the method of completion for disposal in this well such that water will remain

1  
2 confined to the Abo formation?

3 A Yes, it will.

4 Q Let's turn to Exhibit Number Seven and  
5 have you describe what those five schematics are.

6 A Okay. Each of the plugged wells within  
7 the half mile radius is described as to where the plugs are.

8 The first is the Lovington State No. 1  
9 in Section 9. It was originally an Abo producer and has since  
10 been plugged and abandoned. The plugs are shown and it was  
11 adequately plugged, in my opinion.

12 The next well is the Midway State No. 2,  
13 which is our well which I said we recently plugged. It was  
14 an Abo producer. The plugs are shown, both above the Abo at  
15 the top of the liner and at the surface.

16 The next well is the David Faskin-Conso-  
17 lidated State No. 1, which may be slightly outside of that  
18 half mile radius but it is a dry hole and the plugs are shown.

19 The next well isn't required. It's a  
20 David Faskin well, the Hale State No. 1, which they had to  
21 abandon due to junk in the hole, and it shows the plugs in  
22 that well.

23 The next well is the Midway State A-1,  
24 which is the Humble Drilling Company, which is just north of  
25 the proposed disposal well. It was also an attempted Abo

1 completion. It has been plugged and the plugs are shown.

2 And that's all of the plugged wells.

3 Q Are you aware of any problem with any  
4 plugged and abandoned well within the half mile radius of  
5 investigation that is a potential problem well insofar as  
6 disposed water in the Abo can migrate up through that well-  
7 bore and --

8 A I'm not. I'm aware of no problem.

9 Q All right. Let's look at Exhibit Number  
10 Eight and have you identify that.

11 A Exhibit Eight gives a fresh water ana-  
12 lysis from two fresh water wells that are located in Section  
13 5, and which were the nearest water wells that we could find.  
14 The analyses are shown.

15 Q Tell me, what is the depth of the water  
16 wells in this area?

17 A Well, 200 feet, 300.

18 Q Exhibit Number Nine?

19 A Exhibit Nine states that we've examined  
20 all the data and find -- we don't find any faults in the area  
21 where we could contaminate the drinking water.

22 Q You made that examination?

23 A I did, and conferred with our geologist.

24 Q All right, sir. And then Exhibit Ten is

1  
2 the offset operators that potentially are affected by the  
3 disposal well.

4 A Yes.

5 Q All right, sir.

6 MR. KELLAHIN: Mr. Nutter, Exhibit Number  
7 Eleven is copies of return receipts from certified mail letters  
8 showing that we have served all of the affected parties with  
9 notice of the application and the exhibits we have.

10 Q Mr. Stewart, in conclusion, in your opinion  
11 will approval of this application be in the best interest of  
12 conservation, the prevention of waste, and the protection of  
13 correlative rights?

14 A Yes, it will.

15 Q And were Exhibits One through Ten pre-  
16 pared by you?

17 A Yes, they were.

18 MR. KELLAHIN: We move the introduction  
19 of Consolidated's Exhibits One through Eleven.

20 MR. NUTTER: Consolidated's Exhibits  
21 One through Eleven will be admitted in evidence.

22  
23 CROSS EXAMINATION

24 BY MR. NUTTER:

25 Q Mr. Stewart, on page -- on the front

side of Form C-108, item Roman numeral VII.

A Yes.

Q Item four under Roman numeral VII requires sources and appropriate analysis of injection fluid and compatibility with receiving formation, if other than re-injected produced water.

Now, you're re-injecting water that's coming from another formation here. Have you made an analysis of this Devonian water to see if it's compatible with the Abo water?

A Yes, I have, and I have an analysis of the combined water on hand.

Q Okay. Does this analysis show whether any precipitates would form by the comingling of these waters?

A It does not but I don't any -- the precipitates indicated on the -- in the analysis.

The solids aren't increased.

Q Well, now, the Abo water is much, much higher in calcium than the Devonian water.

A Yes.

Q And the Devonian water is much higher in sulphates than the Abo water. I wonder if you could have an analysis made by a lab to show the compatibility of these waters?

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A Yes, I can.

Q So that we'd know that they won't form precipitates.

A Yes.

Q All right, now, with respect to offset operators, Mr. Stewart, we have received a letter from Gulf Oil Corporation, which states that while we have no objection to the authorization of Midway State No. 1 SWD Well, based on reasonable prudent completion and injection operations, there is some possibility that the injection of fluid into the formation could result in the early destruction of our "B" State "KN" Wells Nos. 1 and 2, directly offset to the south of the proposed SWD well.

Therefor, we request the Commission to include in any order approving the application retention of jurisdiction to order immediate stappage of injection operations, if and when it should it appear necessary to do so.

Now, with respect to your well, what is the structural postion of those two Gulf wells that are mentioned there?

You don't have a structural map in this set of exhibits.

A I don't have the map. I'd say generally the -- I can provide the map, but I generally think they are



1  
2 structurally lower than we are.

3 Q It would appear from your Exhibit Number  
4 Two the perforations on both of those wells would be somewhat  
5 lower than the perforations that you're going to be disposing  
6 into.

7 Now, if you could prepare a little  
8 structure map and show where these wells are with respect to  
9 your well, or your injection zone.

10 A Yes, sir.

11 Q We'd appreciate that.

12 MR. NUTTER: Are there any further ques-  
13 tions of Mr. Stewart?

14 MR. KELLAHIN: No, sir.

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

17 MR. KELLAHIN: Not in this case.

18 MR. NUTTER: Does anyone have anything  
19 they wish to offer in Case Number 7518?

20 We'll take the case under advisement.

21  
22 (Hearing concluded.)  
23  
24  
25

## 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 CSR

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B  
Santa Fe, New Mexico 87501  
Phone (505) 433-7409

I do hereby certify that the foregoing is  
a correct and true transcript of the proceedings in  
the hearing held on 3/31 1982  
heard by 7518

[Signature] Examiner  
Oil Conservation Division

**KELLAHIN and KELLAHIN**

*Attorneys at Law*

500 Don Gaspar Avenue

Post Office Box 1709

Santa Fe, New Mexico 87501

Jason Kellahin

W. Thomas Kellahin

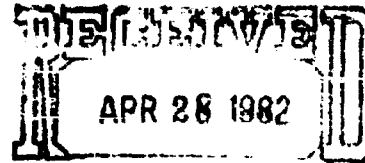
Karen Aubrey

Telephone 982-4285

Area Code 505

April 28, 1982

Mr. Daniel S. Nutter  
Oil Conservation Division  
P. O. Box 2208  
Santa Fe, New Mexico 87501



Re: Consolidated Oil & Gas  
Case 7518

Dear Mr. Nutter:

At the hearing of the referenced case on March 31, 1982, you requested that we submit a structure made on top of the Abo formation and the water analyses required by Paragraph VII 4 of Form C-108.

Please find that information enclosed.

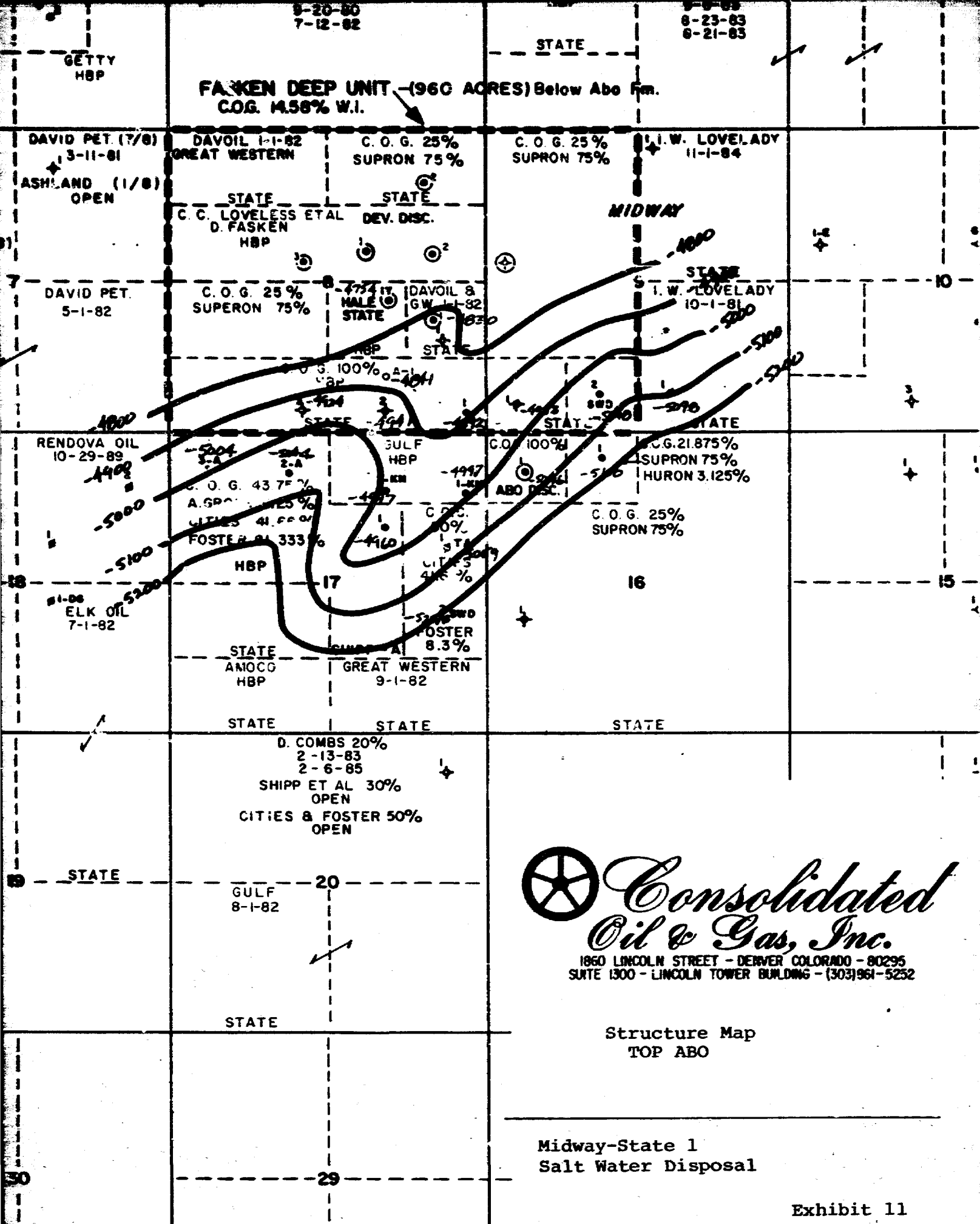
Very truly yours

W. Thomas Kellahin

WTK:rb

Enclosure

cc: Mr. J. D. Stewart, Jr.  
Consolidated Oil & Gas



9-20-80  
7-12-82

8-23-83  
8-21-83

STATE

**FASKEN DEEP UNIT (960 ACRES) Below Abo Fm.**  
COG. 1.58% W.I.

GETTY HBP  
DAVID PET. (7/8)  
3-11-81  
ASHLAND (1/8)  
OPEN

DAVOIL 1-1-82  
GREAT WESTERN

C. O. G. 25%  
SUPRON 75%

C. O. G. 25%  
SUPRON 75%

I. W. LOVELADY  
11-1-84

STATE  
C. C. LOVELESS ET AL  
D. FASKEN  
HBP

STATE  
DEV. DISC.

MIDWAY

DAVID PET.  
5-1-82

C. O. G. 25%  
SUPERON 75%

DAVOIL 8  
GW 1-1-82  
STATE

I. W. LOVELADY  
10-1-81

RENDOVA OIL  
10-29-89

C. O. G. 43.75%  
A. G. P. 56.25%  
CITIES 41.66%  
FOSTER 81.333%  
HBP

GULF  
HBP

C. O. G. 100%  
ABO DISC.

C. O. G. 21.875%  
SUPRON 75%  
HURON 3.125%


ELK OIL  
7-1-82

STATE  
AMOCG  
HBP

GREAT WESTERN  
9-1-82

D. COMBS 20%  
2-13-83  
2-6-85  
SHIPP ET AL 30%  
OPEN  
CITIES & FOSTER 50%  
OPEN

GULF  
8-1-82

 **Consolidated  
Oil & Gas, Inc.**

1860 LINCOLN STREET - DENVER COLORADO - 80295  
SUITE 1300 - LINCOLN TOWER BUILDING - (303)961-5252

Structure Map  
TOP ABO

Midway-State 1  
Salt Water Disposal

Exhibit 11

Ref: Para VII - C-108

CONSOLIDATED OIL & GAS INC.  
EXHIBIT 12

Midway State 1  
Salt Water Disposal Well  
Section 8, T17S, R37E, NMPM  
Lea County, New Mexico

Injected Fluid Water Analysis  
and Compatibility Test

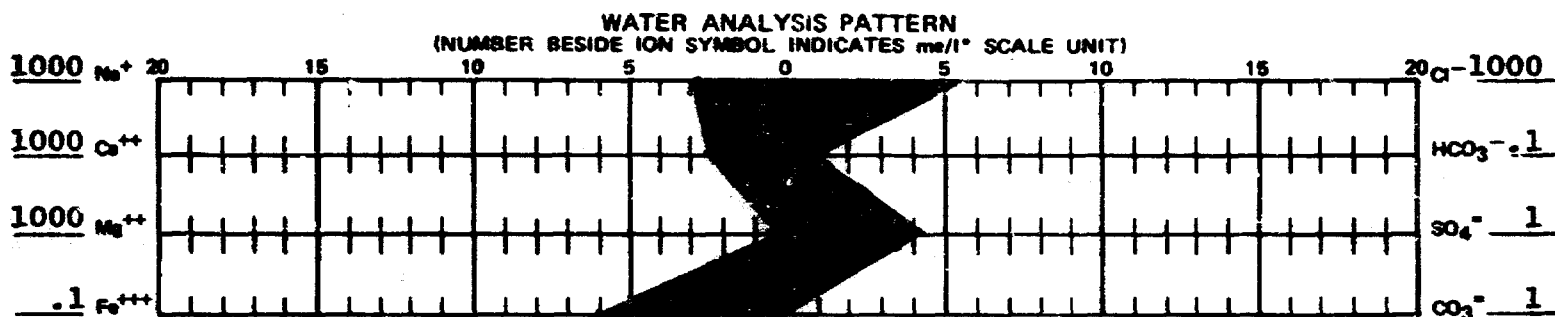
It is proposed to inject Abo and Devonian produced water. Three water analyses are attached. The first analysis is produced Abo water from the Shipp A Lease, the second is produced Devonian water from the Hale State Lease, and the third is a combined sample of the water from both zones. No precipitation was noted when the two waters were combined.



Exhibit 12  
Sample 1  
Produced Abo Water

# WATER ANALYSIS REPORT

COMPANY <b>CONSOLIDATED OIL &amp; GAS</b>				ANALYSIS NUMBER <b>#1276</b>	
COMPANY ADDRESS				DATE <b>4/1/82</b>	
FIELD		COUNTY OR PARISH <b>LEA</b>		STATE <b>N.M.</b>	
LEASE OR UNIT <b>SHIPP "A" BATTERY</b>		WELL(S) NAME OR NO.		WATER SOURCE (FORMATION) <b>Abo</b>	
DEPTH, FT.	BHT, OF	SAMPLE SOURCE <b>Battery</b>	TEMP, OF	WATER, BBL/DAY	OIL, BBL/DAY
DATE SAMPLED <b>4/1/82</b>		TYPE OF WATER <input checked="" type="checkbox"/> PRODUCED <input type="checkbox"/> SUPPLY <input type="checkbox"/> WATERFLOOD <input type="checkbox"/> SALT WATER DISPOSAL		GAS, MMCF/DAY	



## DISSOLVED SOLIDS

CATIONS	me/l*	mg/l*
Total Hardness	2340	-----
Calcium, Ca ++	2160	43200
Magnesium, Mg ++	180	2196
Iron (Total) Fe +++	.6	11
Barium, Ba ++	---	---
Sodium, Na + (calc.)	2734	62882

ANIONS	me/l*	mg/l*
Chloride, Cl -	5070	180,000
Sulfate, SO4 =	4.2	200
Carbonate, CO3 =	-0-	-0-
Bicarbonate, HCO3 -	.1	6.1
Hydroxyl, OH -	-0-	-0-
Sulfide, S =	.003	.05

## DISSOLVED GASES

Hydrogen Sulfide, H2S	trace mg/l*
Carbon Dioxide, CO2	404 mg/l*
Oxygen, O2	--- mg/l*

## PHYSICAL PROPERTIES

pH	5.30
Specific Gravity	1.195
Total Dissolved Solids (calc.)	288484 mg/l*
Stability Index @ 20 °C	+1.29
CaSO4 Solubility @ 20 °C	25.9 me/l*
Max. CaSO4 Possible (calc.)	4.2 me/l*
Max. CaSO4 Possible (calc.)	me/l*
Residual Hydrocarbons	ppm(Vol/Vol)
Residual Hydrocarbons	ppm(Vol/Vol)

## TOTAL SOLIDS (QUANTITATIVE)

288495

## REMARKS AND RECOMMENDATIONS:

- @20 c SEVERE CARBONATE SCALING IS INDICATED
- @20 c CALCIUM SULFATE SCALING IS UNLIKELY

\*NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

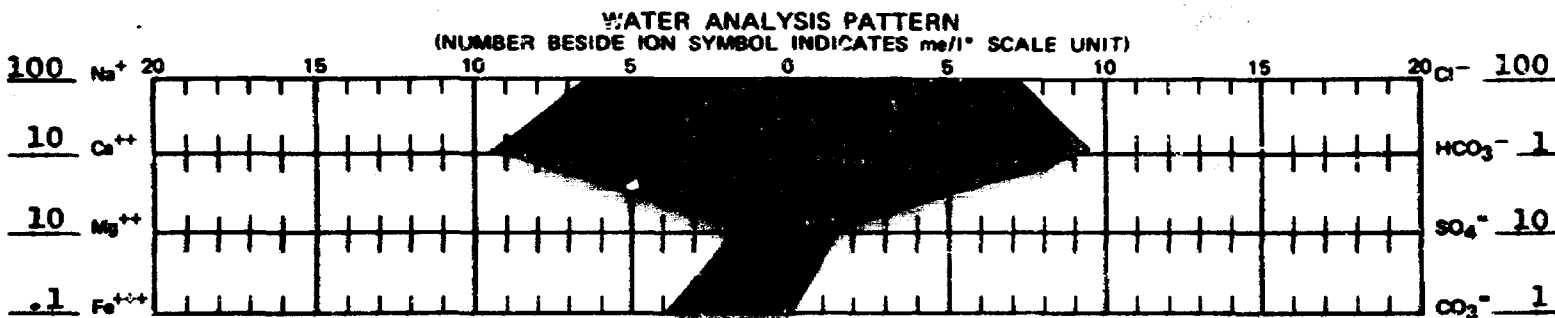
BAKER OIL TREATING REPRESENTATIVE <b>D. HAYES</b>		ADDRESS		TELEPHONE	
ANALYZED BY: <b>R.D. HARDIN</b>		DATE <b>4/1/82</b>	DISTRIBUTION	OFF:	RES:



Exhibit 12  
Sample 2  
Produced Devonian Water

# WATER ANALYSIS REPORT

COMPANY <b>DAVID FASKEN</b>				ANALYSIS NUMBER <b>#1277</b>	
COMPANY ADDRESS				DATE <b>4/1/82</b>	
FIELD		COUNTY OR PARISH <b>LEA</b>		STATE <b>N.M.</b>	
LEASE OR UNIT <b>HALE BATTERY</b>		WELL(S) NAME OR NO.		WATER SOURCE (FORMATION) <b>Devonion</b>	
DEPTH, FT.	BHT, °F	SAMPLE SOURCE <b>Battery</b>	TEMP. °F	WATER, BBL/DAY	OIL, BBL/DAY
DATE SAMPLED <b>4/1/82</b>		TYPE OF WATER <input checked="" type="checkbox"/> PRODUCED <input type="checkbox"/> SUPPLY <input type="checkbox"/> WATERFLOOD <input type="checkbox"/> SALT WATER DISPOSAL			



## DISSOLVED SOLIDS

CATIONS	me/l*	mg/l*
Total Hardness	110	---
Calcium, Ca <sup>++</sup>	94	1880
Magnesium, Mg <sup>++</sup>	16	195.2
Iron (Total) Fe <sup>+++</sup>	.38	7
Barium, Ba <sup>++</sup>	---	---
Sodium, Na <sup>+</sup> (calc.)	619.7	14253

ANIONS	me/l*	mg/l*
Chloride, Cl <sup>-</sup>	704	25000
Sulfate, SO <sub>4</sub> <sup>=</sup>	16.6	800
Carbonate, CO <sub>3</sub> <sup>=</sup>	-0-	-0-
Bicarbonate, HCO <sub>3</sub> <sup>-</sup>	9.5	580
Hydroxyl, OH <sup>-</sup>	-0-	-0-
Sulfide, S <sup>=</sup>	.04	.6

## TOTAL SOLIDS (QUANTITATIVE)

### REMARKS AND RECOMMENDATIONS:

- @20 c MODERATE CARBONATE SCALING IS INDICATED
- @20 c CALCIUM SULFATE SCALING IS UNLIKELY

## DISSOLVED GASES

Hydrogen Sulfide, H <sub>2</sub> S	100 mg/l*
Carbon Dioxide, CO <sub>2</sub>	103 mg/l*
Oxygen, O <sub>2</sub>	---

## PHYSICAL PROPERTIES

pH	7.55
Specific Gravity	1.025
Total Dissolved Solids (calc.)	42707.4 mg/l*
Stability Index @ 20 °C	+ .76
CaSO <sub>4</sub> Solubility @ 20 °C	47.4 me/l*
Max. CaSO <sub>4</sub> Possible (calc.)	16.6 me/l*
Residual Hydrocarbons	ppm(Vol/Vol)

\*NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

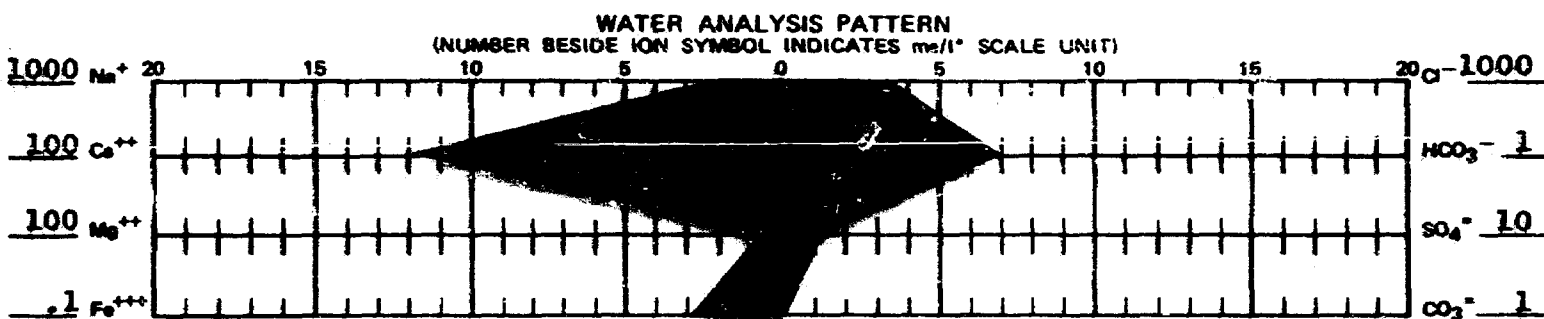
BAKER OIL TREATING REPRESENTATIVE <b>D. HAYES</b>	ADDRESS	TELEPHONE	RES:
ANALYZED BY: <b>R.D. HARDIN</b>	DATE <b>4/1/82</b>	OFF:	



Exhibit 12  
Sample 3  
Combined Abo & Devonian Water  
Compatibility Test

WATER ANALYSIS REPORT

COMPANY <b>CONSOLIDATED OIL &amp; GAS, DAVID FASKENS</b>				ANALYSIS NUMBER <b>#1295</b>		
COMPANY ADDRESS <b>SHIPP "A" BATT. &amp; HALE BATT., COMINGLED IN LAB</b>				DATE <b>4/9/82</b>		
FIELD		COUNTY OR PARISH <b>LEA</b>		STATE <b>N.M.</b>		
LEASE OR UNIT		WELL(S) NAME OR NO.		WATER SOURCE (FORMATION)		
DEPTH. FT.	SHT. OF	SAMPLE SOURCE <b>LINE TO S.W.D.</b>	TEMP. °F	WATER. BBL/DAY	OIL. BBL/DAY	GAS. MMCF/DAY
DATE SAMPLED <b>4/9/82</b>		TYPE OF WATER <input checked="" type="checkbox"/> PRODUCED <input type="checkbox"/> SUPPLY <input type="checkbox"/> WATERFLOOD <input type="checkbox"/> SALT WATER DISPOSAL				



DISSOLVED SOLIDS

CATIONS	me/l*	mg/l*
Total Hardness	1240	---
Calcium, Ca ++	1160	23200
Magnesium, Mg++	80	976
Iron (Total) Fe+++	.27	5.0
Barium, Ba++	---	---
Sodium, Na+(calc.)	2102.03	48346.69

DISSOLVED GASES

Hydrogen Sulfide, H2S	50 mg/l*
Carbon Dioxide, CO2	435.6 mg/l*
Oxygen, O2	--- mg/l*

PHYSICAL PROPERTIES

pH	6.45
Specific Gravity	1.125
Total Dissolved Solids (calc.)	191493.59 mg/l*
Stability Index @ 20 °C	+1.29
CaSO4 Solubility @ 20 °C	9.94 me/l*
Max. CaSO4 Possible (calc.)	11.46 me/l*
Max. CaSO4 Possible (calc.)	--- me/l*
Residual Hydrocarbons	--- ppm(Vol/Vol)
Residual Hydrocarbons	--- ppm(Vol/Vol)

TOTAL SOLIDS (QUANTITATIVE)

191499.84

REMARKS AND RECOMMENDATIONS:

@20°C SEVERE CARBONATE SCALING IS INDICATED.

@20°C CALCIUM SULFATE SCALING IS LIKELY.

COLOR OF SAMPLES BEFORE MIXING; HALE, BLACK TINTED

SHIPP "A", RUSTY TINTED

COLOR AFTER MIXING EQUAL PARTS FROM EACH SAMPLE; BLACK TINTED, NO PRECIPITATION.

BAKER OIL TREATING REPRESENTATIVE <b>J.T. LEWIS</b>		ADDRESS		TELEPHONE		RES:	
ANALYZED BY: <b>R.D. HARDIN</b>		DATE <b>4/9/82</b>		DISTRIBUTION		OFF:	

\*NOTE: me/l and mg/l are commonly used interchangeably for epm and pp, respectively. Where epm and ppm are used, corrections should be made for specific gravity.



	<u>Devonian Water</u> (6/81)	<u>Abol Water</u> (1977)	<u>Combined Water</u> (11/81)
Na	24649		19281
Ca	1213	41500	5560
Mg	175	4920	1903
Cl	38340	190000	44000
SO <sub>4</sub>	1931	100	1400
CO <sub>3</sub>	1623	25	268
TDS	67950		72414
Fe	775	nil	
pH	6.45	4.9	6.25
sp gr	1.0166		
res	.201		
tot hard	3750		
tot alk	1330		

Case 7518

## APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage  
Application qualifies for administrative approval? ☐ yes ☐ no
- II. Operator: Consolidated Oil & Gas, Inc.  
Address: 1860 Lincoln St. Suite 1300, Denver, Co. 80295  
Contact party: J. D. Stewart, Jr. Phone: 303-861-5252
- III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? ☐ yes ☒ no  
If yes, give the Division order number authorizing the project \_\_\_\_\_.
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- \* VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
  2. Whether the system is open or closed;
  3. Proposed average and maximum injection pressure;
  4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
  5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- \* VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- \* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- \* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification
- I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- Name: W. Thomas Kellen Title: Attorney  
Signature: [Signature] Date: March 2, 1982
- \* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.

**III. WELL DATA**

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

**XIV. PROOF OF NOTICE**

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

**NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.**

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**NOTICE:** Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

**CONSOLIDATED OIL & GAS, INC.**  
**Midway - State 1**  
**Salt Water Disposal**

**INDEX**

- Exhibit 1 - Map Required by Paragraph V of C-108**
- Exhibit 2 - Tabular Summary Required by Paragraph VI of C-108**
- Exhibit 3 - Data Sheet Required by Paragraph VII of C-108**
- Exhibit 4 - Geological Data Required by Paragraph VII of C-108**
- Exhibit 5 - Log of Disposal Well**
- Exhibit 6 - Injection Well Data Sheet**
- Exhibit 7 - Schematic of P&A Wells Within 1/2 Mile**
- Exhibit 8 - Water Quality Required by Paragraph XI of C-108**
- Exhibit 9 - Statement Required by Paragraph XII of C-108**
- Exhibit 10 - Notice Requirements**



TABULAR SUMMARY  
Wells Within One-half Mile of  
Consolidated Oil & Gas, Inc. Midway State # 1

## Apollo Oil Company

Lovington 16 State # 1  
Producing

440' FNL & 1980' FWL, Sec 16, T17S, R37E  
Csg: 13-3/8" @ 329' w/250 sx  
8-5/8" @ 3570' w/400 sx  
4-1/2" @ 9048' w/300 sx  
Spud date 12-27-62

TD 9048', Perfs 8930'-8979'  
Top of cmt: Surface  
Top of cmt: 1998' est.  
Top of cmt: 7623' TS

Lovington 9 State # 2  
SMD

660' FSL & 1980' FWL, Sec 9, T17S, R37E  
Csg: 10-3/4" @ 295' w/250 sx  
7" @ 5550' w/350 sx  
4-1/2" @ 9090' w/700 sx  
Spud date 6-8-63

TD 9096', Perfs 8901'-8988'  
Top of cmt: Surface  
Top of cmt: 4600' est  
Top of cmt: 2270'

## Supron Energy Corp

Lovington 1 State # 1  
PSA

*Handwritten:* 1/2" @ 9217' w/183 sx  
Spud date 2-17-63

500' FSL & 500' FWL, Sec 9, T17S, R37E  
Csg: 13-3/8" @ 303' w/250 sx  
8-5/8" @ 3548' w/400 sx  
5-1/2" @ 9217' w/183 sx  
Spud date 2-17-63

TD 9014', Perfs 8813'-8904'  
Top of cmt: surface  
Top of cmt: 1976' TS,  
cut & pulled from 1010'  
Top of cmt: 8415' est,  
cut & pulled from 6175'

Consolidated Oil & Gas, Inc. Southern Union State # 1  
Pumping

500' FSL & 660' FWL, Sec 16, T17S, R37E  
Csg: 13-3/8" @ 314' w/350 sx  
8-5/8" @ 3549' w/350 sx  
5-1/2" @ 9014' w/300 sx  
Spud date 8-19-62

TD 9014', Perfs 8861'-8898'  
Top of cmt: Surface  
Top of cmt: 2825' TS  
Top of cmt: 7282' est

Shipp # 1  
TA

660' FEL & 1980' FNL, Sec 17, T17S, R37E  
Csg: 10-3/4" @ 343' w/275 sx  
7-5/8" @ 3550' w/300 sx  
5-1/2" liner 3424'-9030' w/330 sx  
Spud date 2-18-63

TD 9027', Perfs 8915'-8926'  
Top of cmt: Cmt circ  
Top of cmt: 2150' est  
Top of cmt: 3424'

Shipp # A1  
Producing

1650' FNL & 1650' FEL, Sec 17, T17S, R37E  
Csg: 12-3/4" @ 310' w/375 sx  
7-5/8" @ 3970' w/250 sx  
5-1/2" liner 3871'-8976' w/100 sx  
Spud date 10-12-63

TD 8977', Perfs 8886'-8906'  
Top of cmt: surface  
Top of cmt: 1790'  
Top of cmt: 3871'

Consolidated Oil & Gas, Inc. ~~Midway State~~ # 2

PSA

330' FSL & 1650' FEL, Sec 8, T17S, R37E TD 8905', Perfs 8703'-8842'  
Csg: 12-3/4" @ 301' w/350 sx Top of cmt: surface  
8-5/8" @ 4354' w/350 sx Top of cmt: 3430' est. ut  
& pulled from 700'

5-1/2" liner 4240'-8900' w/425 sx Top of cmt: 4240'  
Spud date 12-18-64

*Sketch Ex 7*

Gulf Oil Corp.

Lea State KN # 1  
Producing

990' FNL & 330' FEL, Sec 17, T17S, R37E TD 9011', Perfs 8800'-8932'  
Csg: 13-3/8" @ 344' w/286 sx Top of cmt: surface  
8-5/8" @ 3596' w/250 sx Top of cmt: 2990' est  
5-1/2" @ 9010' w/350 sx Top of cmt: 7000' est  
Spud date 5-4-63

Lea State KN # 2  
Producing

990' FNL & 1650' FEL, Sec 17, T17S, R37E TD 9012', Perfs 8,97'-8982'  
Csg: 13-3/8" @ 359' w/300 sx Top of cmt: surface  
8-5/8" @ 4299' w/450 sx Top of cmt: 3200' est  
5-1/2" @ 9009' w/200 sx Top of cmt: 7850' est  
Spud date 4-27-64

David Pasken

Hale State # 1Y  
Producing

2260' FSL & 1650' FEL, Sec 8, T17S, R37E TD 11,875', Perfs 11,800'-  
11,850'  
Csg: 13-3/8" @ 438' w/350 sx Top of cmt: Surface  
8-5/8" @ 4450' w/1700 sx Top of cmt: surface  
5-1/2" @ 11,875' w/375 sx & 850 sx Top of cmt: 4000' TS  
Spud date 4-29-80

Davoll State # 1  
Producing

1980' FSL & 990' FEL, Sec 8, T17S, R37E TD 11,860', Perfs 10,738'-  
11,820'  
Csg: 13-3/8" @ 412' w/350 sx Top of cmt: surface  
8-5/8" @ 4465' w/2200 sx Top of cmt: surface  
5-1/2" @ 11,860' w/1825 sx Top of cmt: 3610' TS  
Spud date 6-17-81

Consolidated State # 1

PSA

2310' FNL & 330' FNL, Sec 9, T17S, R37E TD 11,073' Dry hole  
Csg: 13-3/8" @ 398' w/350 sx Top of cmt: surface  
8-5/8" @ 4462' w/1600 sx Top of cmt: surface  
Spud date 1-10-81

*Handwritten initials*

David Pasken

~~Halo State~~ # 1  
P&A

*5/17/80*

2310' FSL & 1650' FEL, Sec 8, T17S, R37E  
Csg: 13-3/8" @ 437' w/350 sx  
(drill collars left in hole  
1046'-1145')

TD 1215', Perfs none  
Top of cmt: surface

Plug # 1 250 sx/260'-550'  
Plug # 2 10 sx/surface-20'

Spud date 4-18-80

Consolidated State # A-1  
Producing

990' FSL & 1650' FEL, Sec 8, T17S, R37E  
Csg: 13-3/8" @ 399' w/350 sx  
8-5/8" @ 4392' w/1900 sx  
5-1/2" @ 11,934' w/875 sx + 950 sx  
Spud date 11-19-81

TD 11,935', Perfs 11,753'-  
11,882'  
Top of cmt: surface  
Top of cmt: ~~surface~~  
Top of Cmt: 4100' TS

Hondo Drilling Company

~~Middle State~~ # A-1  
P&A

*5/17/80*

1600' FSL & 700' FEL, Sec 8, T17S, R37E  
Csg: 11-3/4" @ 329' w/250 sx  
8-5/8" @ 4399' w/375 sx  
4-1/2" @ 8680' w/165 sx

TD 8952', Perfs 8495'-8618'  
Top of cmt: surface  
Top of cmt: 3320' est, cut &  
pulled from 1250'  
Top of cmt: 7950' est, cut &  
pulled from 7850'

Drilled 1965



CONSOLIDATED OIL & GAS, INC.

Exhibit 3

Midway State 1  
Salt Water Disposal Well  
Section 8, T17S-R37E, NMPM  
Lea County, New Mexico

Data on Proposed Operation

1. Proposed average and maximum daily rate and volume of fluids to be injected:

Average daily rate: 500 B/D  
Maximum daily rate: 1500 B/D

2. System is closed.

3. Proposed average and maximum injection pressures:

Average injection pressure: 500 psi  
Maximum injection pressure: 1500 psi

4. Source of injection fluid: leases in area.

5. Zone of disposal is productive of oil and gas within one mile of the proposed disposal well.

~~8868~~  
~~1773.6~~

8688  
1737.6

perfs 8688-8856

CONSOLIDATED OIL & GAS, INC.

Exhibit 4

Midway State 1  
Salt Water Disposal Well  
Section 8, T17S-R37E, NMPM  
Lea County, New Mexico

Geological Data on Injection Zone

Pool: Midway - Abo  
Formation: Abo  
Geological Name: Abo  
Thickness: 180 feet  
Depth: 8676' top of Abo

Injection interval: 3 shots per foot at 8688', 8711', 8726',  
8734', 8758', 8806', 8818', 8838', 8856'

UNIT



# WELEX

GUARD LOG

COMPANY Consolidated Oil & Gas, Inc. WELL Midway-State # 1-8 FIELD MIDWAY (ABO) County LEA State N. M.	COMPANY <u>CONSOLIDATED OIL &amp; GAS, INC.</u>			
	WELL <u>MIDWAY-STATE # 1-8</u>			
	FIELD <u>MIDWAY (ABO)</u>			
	COUNTY <u>LEA</u> STATE <u>NEW MEXICO</u>			
	Location <u>330' FSL 330' FEL</u>		Other Services: <u>GR-AVL</u>	
Sec. <u>8</u> Twp <u>17-S</u> Rge <u>37-E</u>				
Permanent Datum <u>Ground Level</u> Elev. <u>3773</u>		Elev.: K.B. <u>3784</u>		
Log Measured From <u>K. B. .11</u> Ft. Above Perm. Datum		D.F. <u>3783</u>		
Drilling Measured From <u>Kelly Bushing</u>		G.I. <u>3773</u>		
Date	<u>12-6-64</u>			
Run No.	<u>- One -</u>			
Depth-Driller	<u>8939</u>			
Depth-Welex	<u>8938</u>			
Btm. Log Inter.	<u>8934</u>			
Top Log Inter.	<u>3973</u>			
Casing-Driller	<u>8-5/8" @ 3973</u>	@	@	@
Casing-Welex	<u>3973</u>			
Bit Size	<u>7-7/8"</u>			
Type Fluid in Hole	<u>Mud</u>			
	<u>FloSeal, Drispac</u>			
Dens.   Visc.	<u>9.0   38</u>			
pH   Fluid Loss	<u>6   14.6ml</u>	ml	ml	ml
Source of Sample	<u>Circulated</u>			
R <sub>1</sub> @ Meas. Temp.	<u>.14 @ 72°F</u>	@ °F	@ °F	@ °F
R <sub>2</sub> @ Meas. Temp.	<u>.10 @ 54°F</u>	@ °F	@ °F	@ °F
R <sub>3</sub> @ Meas. Temp.	<u>.25 @ 67°F</u>	@ °F	@ °F	@ °F
Source R <sub>1</sub> R <sub>2</sub> R <sub>3</sub>	<u>Measured</u>			
R <sub>1</sub> @ BHT	<u>.088 @ 134°F</u>	@ °F	@ °F	@ °F
Time Since Circ.				
Max. Rec. Temp.	<u>134°F @ BH</u>	°F @	°F @	°F @
Equip.   Location	<u>3003   Hobbs</u>			
Recorded By	<u>B. A. Kithas</u>			
Witnessed By	<u>Mr. Farmar</u>			

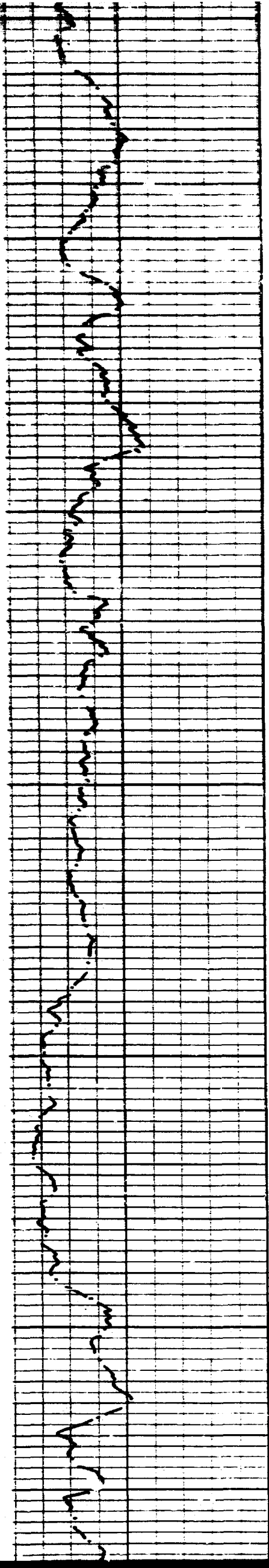
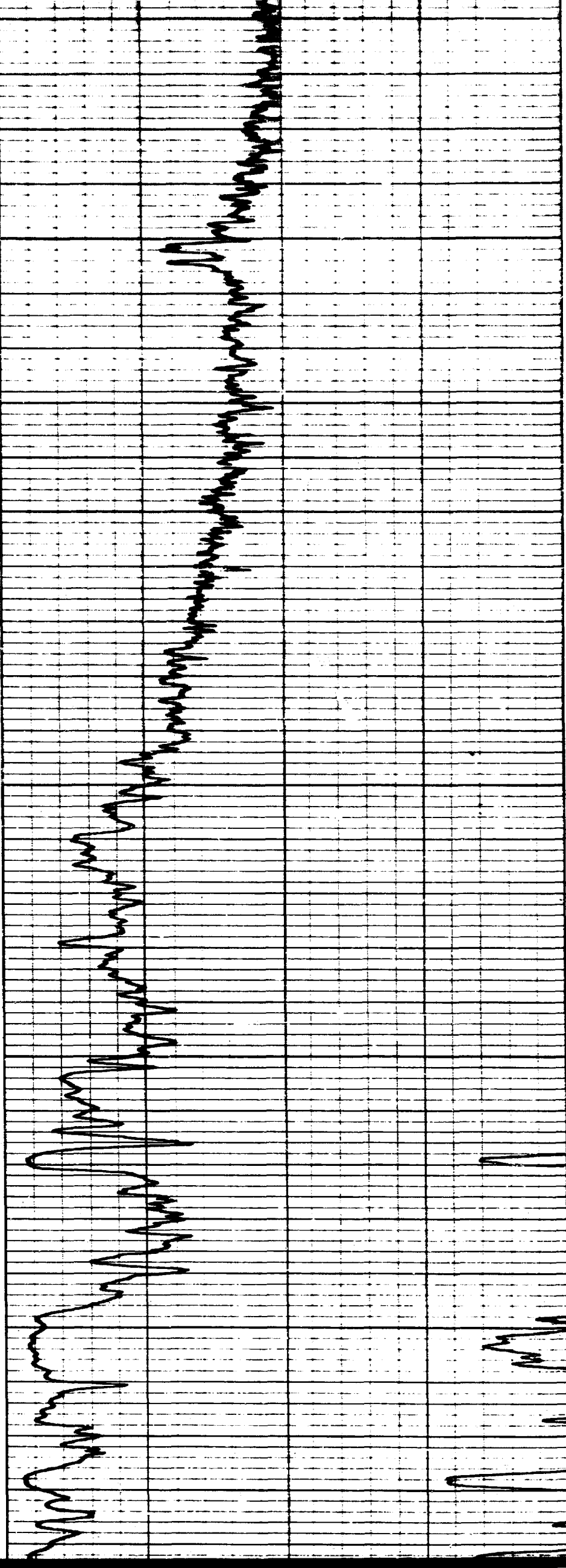
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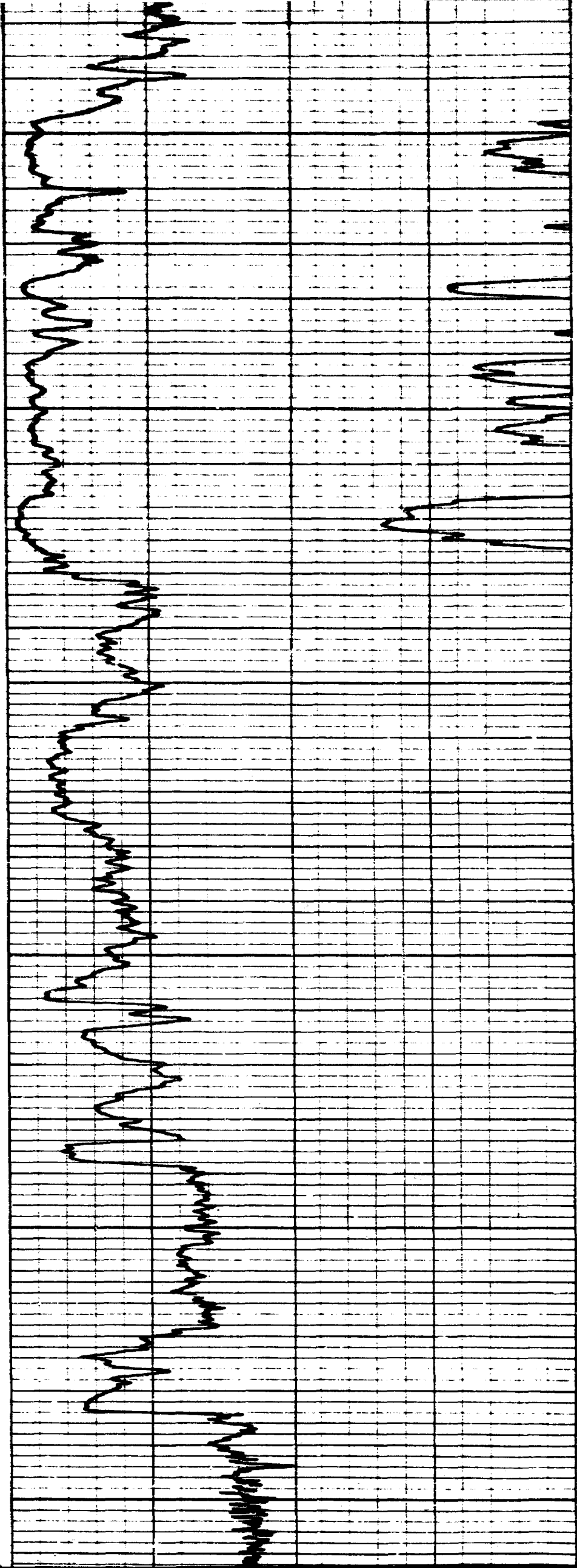
8150

8200

8250

8300





8300

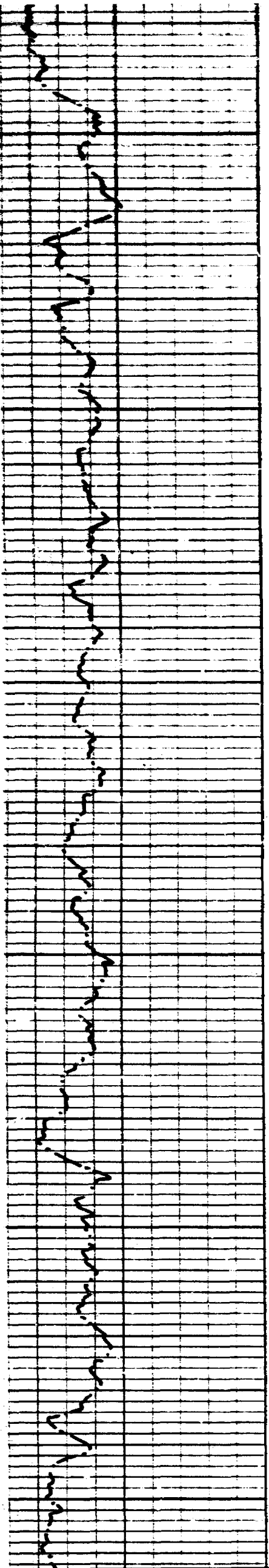
8350

8400

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8550

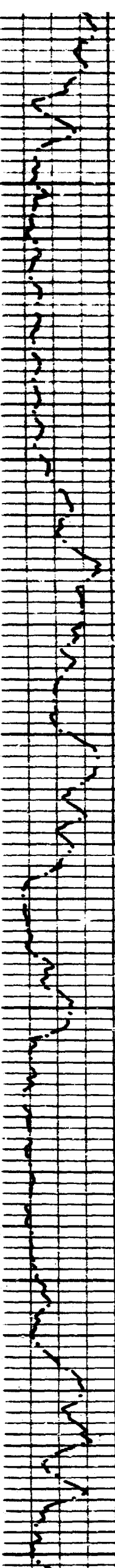
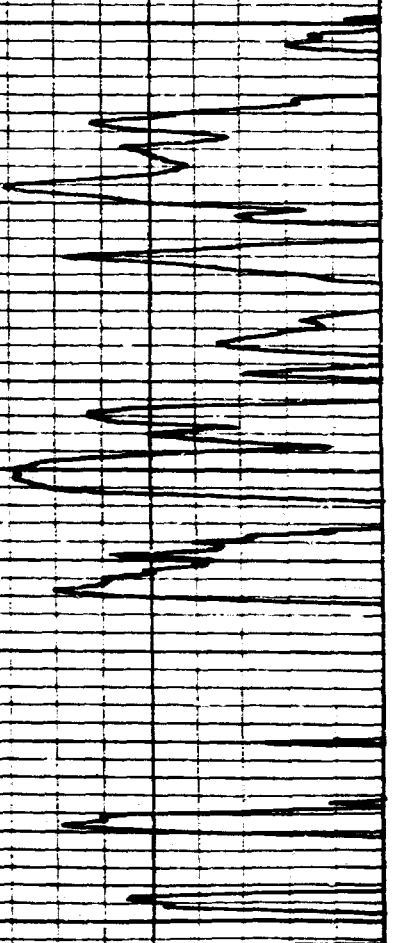
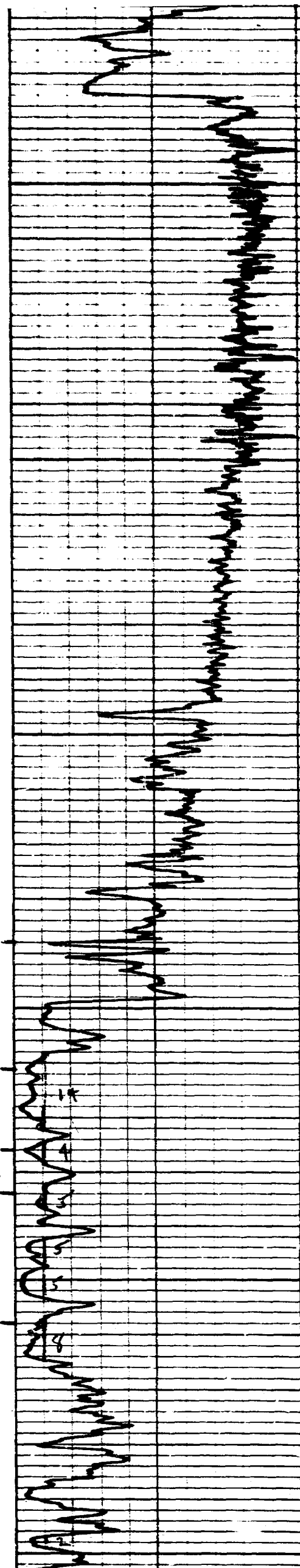
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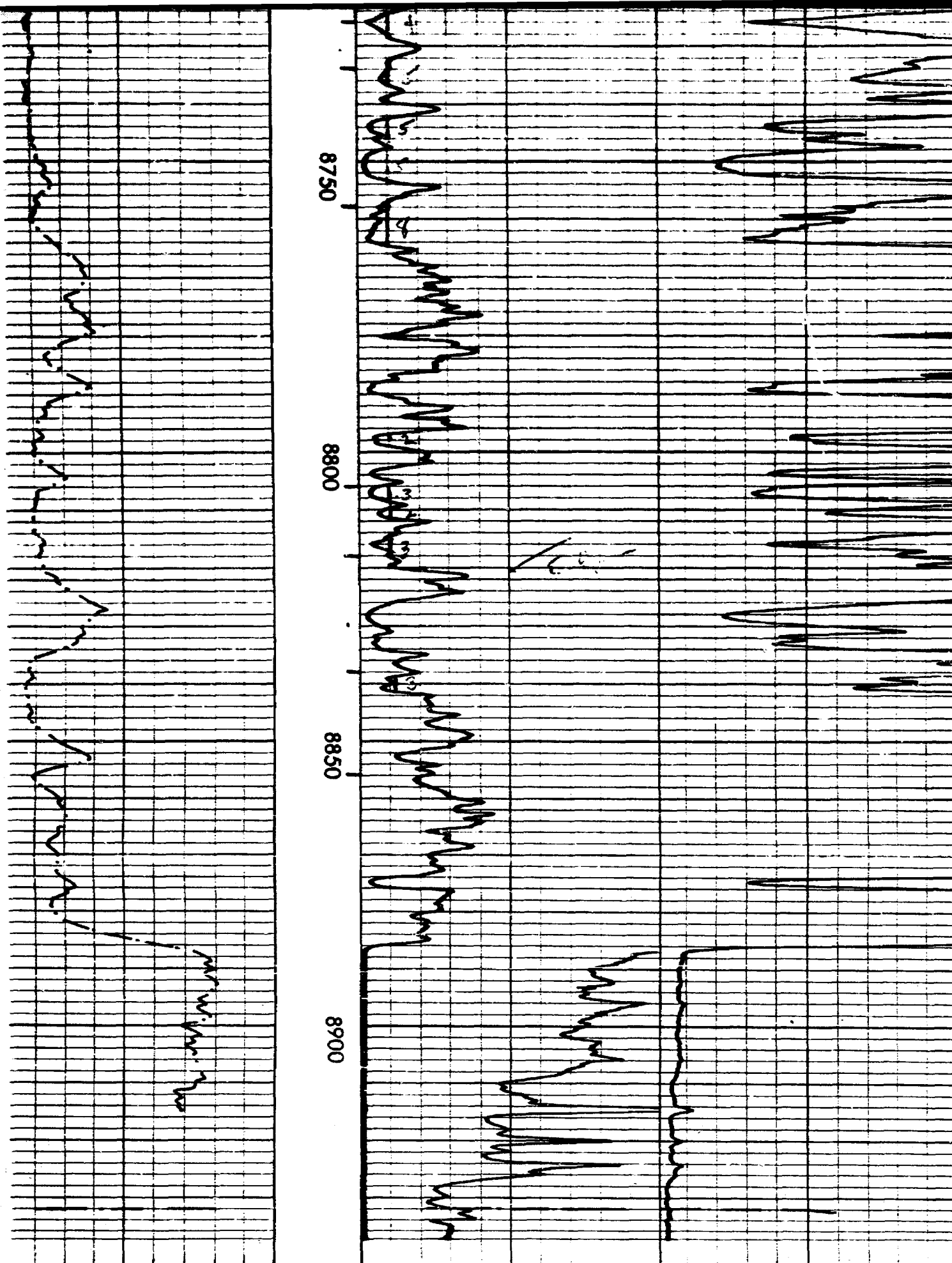
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Consolidated Oil &amp; Gas, Inc. Midway State

OPERATOR

LEASE

1 330' FSL & 330' FEL 8 17S 37E  
 WELL NO. FOOTAGE LOCATION SECTION TOWNSHIP RANGE  
 Lea County, New Mexico

SchematicTabular DataSurface Casing

Size 13-3/8 " Cemented with 300 sq.  
 13-3/8" @ 304' , TOP Surface feet determined by circulated  
 Hole size 17-1/2"

Intermediate Casing

Size 8-5/8 " Cemented with 350 sq.  
 TOC 2600 feet determined by calculation  
 Hole size 12"

Long string (liner)

Size 5-1/2 " Cemented with 425 sq.  
 TOC 4300 feet determined by TS  
 Hole size 7-5/8"  
 Total depth 8938

Injection interval

8688 feet to 8856 feet  
 (perforated or open hole, indicate which)

2-7/8" Plastic lined tbg

Baker Model AD-1 packer @ 8640'

Perfs 8688'-8856'

5-1/2" liner 3836'-8936'  
 (top tested to 1250 psi at  
 surface and held ok)

Yates 3220'

Queen 4185'  
 San Andres 4985'  
 Lovington 5125'  
 Glorieta 6587'

Abo Reef 8676'

Tubing size 2-7/8" lined with plastic set in a  
 (material)  
 Baker Model AD-1 packer at 8640' feet.  
 (brand and model)

(or describe any other casing-tubing seal).

Other Data

- Name of the injection formation Abo
- Name of Field or Pool (if applicable) Midway Abo
- Is this a new well drilled for injection? ☐ Yes ☒ No  
 If no, for what purpose was the well originally drilled? Oil Well
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.  
Midway (Strawn) 10,660'  
Midway (Devonian) 11,680'



Supron Energy Corporation  
Lovington 9 State No. 1  
500' FSL & 500' FWL  
Sec 9, T17S-R37E  
P&A 12-19-76

10 sx cmt plug @ surface

65 sx cmt plug 240'-360'  
13-3/8" @ 303' w/250 sx circ.

45 sx cmt plug 950'-1060'  
8-5/8" csg cut & pulled from 1010'

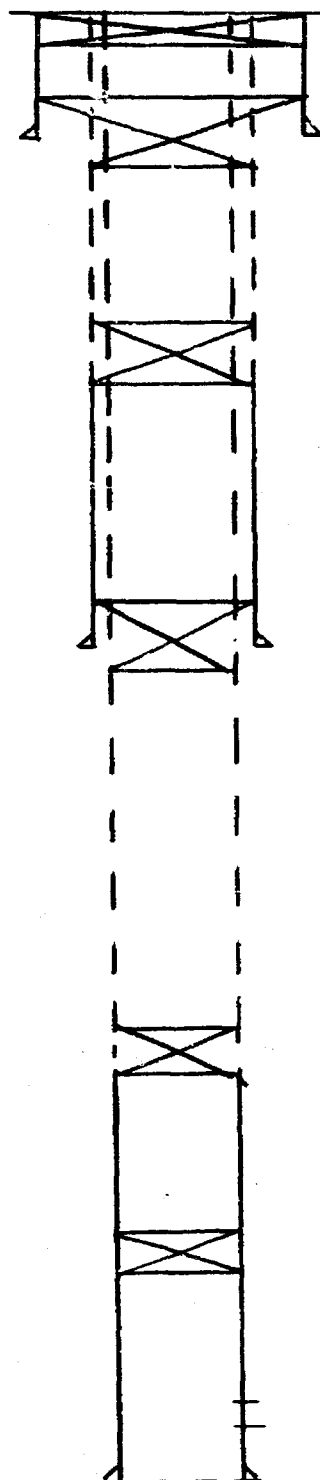
50 sx cmt plug 3425'-3594'  
8-5/8" @ 3548' w/400 sx

OK

50 sx cmt plug 5820'-6175'  
4-1/2" csg cut & pulled from 6175'

CIBP @ 8794' w/35 sx cmt on top

Abo perms 8813'-8904'

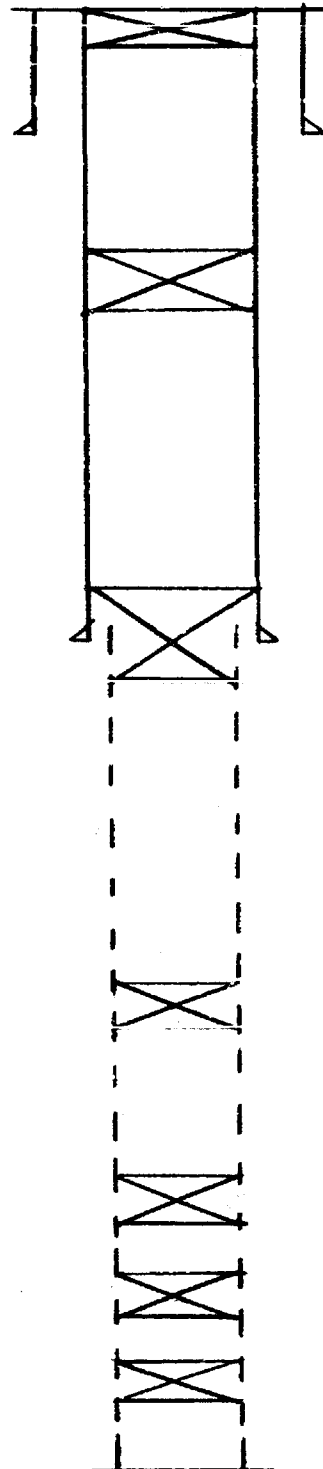


TD 9217'

Exhibit 7 a

Exhibit 7 **6**

David Fasken  
Consolidated State # 1  
2310' FNL & 330' FWL  
Sec 9, T17S, R37E  
P&A 3-2-81



Plug # 7 35'-0' w/10 sx

13-3/8" csg @ 398' w/350 sx, circ

Plug # 6 1400'-1300' w/30 sx

OK

8-5/8" @ 4462' w/1600 sx, circ  
plug # 5 4512'-4412' w/40 sx

Plug # 4 6404'-6304' w/50 sx

Plug # 3 8918'-8818' w/40 sx

Plug # 2 9140'-9040' w/40 sx

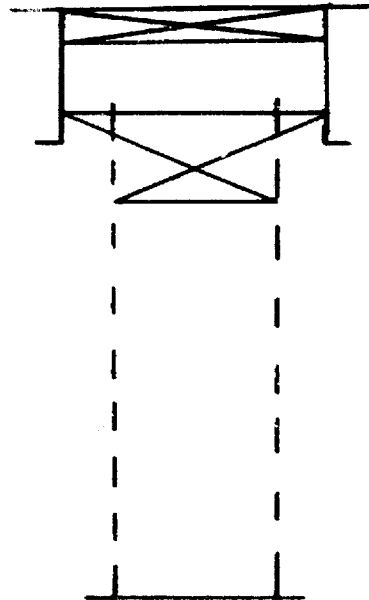
Plug # 1 10,754'-10,654' w/35 sx

Open hole (7-7/8")

TD 11,073'

Exhibit 7 *e*

David Fasken  
Fale State # 1  
2310' FSL & 1650' FEL  
Sec 8, T17S, R37E  
P&A 4-26-80



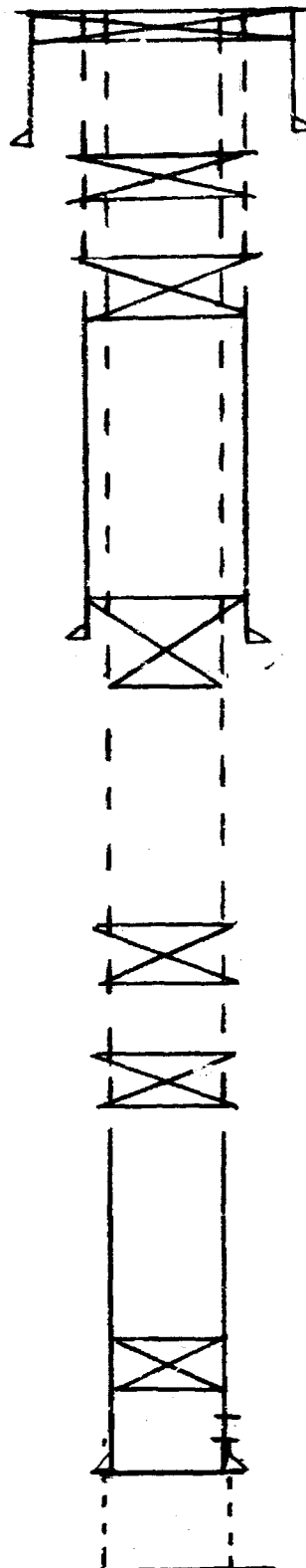
10 sx cnt plug at surface

13-3/8" @ 437' w/350 sx, circ  
250 sx cnt plug 260'-550'

Drill collars left in hole  
1046'-1145'

TD 1215'

Hondo Drilling Company  
 Midway - State "A" 1  
 1600' FSL & 700' FEL  
 Sec 8, T17S, R37E  
 P&A 5-4-66



10 sx cmt plug at surface

11-3/4" @ 329' w/250 sgs  
 25 sx cmt plug 360'-330'

25 sx cmt plug 1260'-1230'  
 8-5/8" csg cut & pulled from 1250'

*AK*

25 sx cmt plug 4400'-4325'  
 8-5/8" @ 4399' w/375 sx

25 sx cmt plug 6460'-6385'

25 sx cmt plug 7800'-7725'  
 4-1/2" csg cut & pulled from 7850'

50 sx cmt plug. Top @ 8072'  
 Also perfs 8495'-8618'

4-1/2" @ 8680' w/165 sx

## CONSOLIDATED OIL &amp; GAS, INC.

## Exhibit 8

Midway State 1  
Salt Water Disposal Well  
Section 8, T17S,R37E, NNPM  
Lea County, New Mexico

Fresh Water Chemical Analysis

SOURCE LOCATION	WATER WELL Sec. 5,T17S,R37E	IRRIGATION WELL Sec. 5,T17S,R37E
Date Sampled	2-4-82	2-4-82
Total Hardness	0.45✓	6.5✓
Calcium	8 mg/l✓	114 mg/l✓
Sodium	378.4 mg/l	48.3 mg/l
Chlorides	380 mg/l✓	110 mg/l✓
Sulfates	88 mg/l	100 mg/l
Bicarbonates	268.4 mg/l	207.4 mg/l
pH	6.65 mg/l	6.05 mg/l
Total dissolved solids	1123.4 mg/l✓	589.5 mg/l✓

CONSOLIDATED OIL & GAS, INC.

Exhibit 9

Midway State 1  
Salt Water Disposal Well  
Section 8, T17S, R37E, N4PM  
Lea County, New Mexico

Affirmative Statement

Consolidated Oil & Gas, Inc. has examined available geological and engineering data and finds no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

CONSOLIDATED OIL & GAS, INC.

Exhibit 10

Midway State 1  
Salt Water Disposal Well  
Section 8, T17S, R37E, NMPM  
Lea County, New Mexico

NOTICE

Pursuant to Section XIV,

Applicant has mailed copies of the application to the following:

Surface Owner:

Commissioner of Public Lands  
P. O. Box 1148  
Santa Fe, New Mexico 87501  
Attention: Mr. Ray Graham

Leasehold Operators within one-half mile:

Gulf Oil Corporation  
Box 1150  
Midland, Texas 79702

Supron Energy Corporation  
Building V., Fifth Floor  
10300 North Central Expressway  
Dallas, Texas 75231

Apollo Oil Company  
P. O. Box 1737  
Hobbs, New Mexico 88240

David Fasken  
608 First National Bank Building  
Midland, Texas 79701

Applicant has caused to be published in the Lovington Leader, a newspaper of general circulation in Lea County, the attached notice.



**NOTICE OF PUBLICATION**

**STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
SANTA FE, NEW MEXICO**

**NOTICE:** To all persons having any right, title, interest or claim in the following:

Pursuant to the Rules and Regulations of the New Mexico Oil Conservation Division, Consolidated Oil & Gas, Inc., hereby gives public notice that it has applied to the Division for an order approving its Midway State # 1 well located 330 feet from the South line and 330 feet from the east line of section 8, T17S, R37E, NMPM, Lea County, New Mexico as a disposal well in the Abo formation of the Midway-Abo Pool at a depth of 8688 feet to 8856 feet at a maximum rate of 1500 barrels per day at a maximum injection pressure of 1500 psi.

Any interested party must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within fifteen (15) days of the date of publication of this notice.

**KELLAHIN & KELLAHIN**  
Attorneys at Law  
P. O. Box 1769  
Santa Fe, New Mexico 87501  
(505) 982-4285  
Attorneys for Consolidated Oil & Gas, Inc.

Dockets Nos. 10-82 and 11-82 are tentatively set for April 14 and April 28, 1982. Applications for hearing must be filed at least 22 days in advance of hearing date.

**DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 31, 1982**  
**9 A.M. - OIL CONSERVATION DIVISION CONFERENCE ROOM**  
**STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO**

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

**CASE 7469:** (Continued from March 3, 1982, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Division on its own motion to permit H. M. Bailey & Associates, Commercial Union Insurance Company, and all other interested parties to appear and show cause why the following wells on the H. M. Bailey Lease, Township 21 South, Range 1 West, Dona Ana County, should not be plugged and abandoned in accordance with a Division-approved plugging program: In Section 10: Nos. 9 in Unit A, 9, 11, 12, and 13 in Unit B, 10 and 14 in Unit C; and No. 15 in Unit C of Section 9.

**CASE 7497:** (Continued and Readvertised)

Application of Parabo, Inc. for an oil treatment plant permit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority for the construction and operation of an oil treating plant for the purpose of treating and reclaiming sediment oil at its salt water disposal site in the SW/4 of Section 29, Township 21 South, Range 38 East.

**CASE 7516:** Application of Benson-Montin-Greer for a unit agreement, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the North Canada Ojitos Unit Area, comprising 12,361 acres, more or less, of Jicarilla Apache Indian lands in Township 27 North, Range 1 West.

**CASE 7517:** Application of Anadarko Production Company for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of an unorthodox location 1450 feet from the South line and 1400 feet from the West line of Section 15, Township 22 South, Range 37 East, Penrose Skelly Pool, the NE/4 SW/4 of said Section 15 to be dedicated to the well.

**CASE 7518:** Application of Consolidated Oil & Gas Inc., for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Abo formation in the perforated interval from 8688 feet to 8856 feet in its Midway State Well No. 1, located in Section 8, Township 17 South, Range 37 East, Midway-Abo Pool.

**CASE 7519:** Application of S & J Oil Company for special pool rules, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Seven Lakes-Menafee Oil Pool to provide for wells to be located not nearer than 25 feet to the quarter-quarter section line nor nearer than 165 feet to lands owned by an offset operator.

**CASE 7510:** (Continued from March 16, 1982, Examiner Hearing)

Application of Union Oil Company of California for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp and Penn formations underlying the W/2 of Section 10, Township 22 South, Range 32 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 7511:** (Continued from March 16, 1982, Examiner Hearing)

Application of Buffton Oil & Gas Inc. for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp through Devonian formations underlying the W/2 of Section 35, Township 16 South, Range 35 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 7520:** Application of Lewis B. Burleson Inc. for compulsory pooling and a non-standard proration and spacing unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Jalast Pool underlying a 160-acre non-standard proration unit comprising the NW/4 of Section 15, Township 24 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 7521: Application of William B. Barnhill for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of an unorthodox location 660 feet from the South and West lines of Section 35, Township 19 South, Range 25 East, Permian-Penn, Strawn, Atoka and Morrow formations, the S/2 of said Section 35 to be dedicated to the well.

CASE 7522: Application of Santa Fe Exploration Co. for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of an unorthodox location 660 feet from the North and West lines of Section 14, Township 20 South, Range 25 East, Permian-Penn, Strawn, Atoka and Morrow formations, the W/2 of said Section 14 to be dedicated to the well.

CASE 7523: Application of Robert W. Enfield for compulsory pooling and an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp-Penn formations underlying the E/2 of Section 18, Township 19 South, Range 27 East, to be dedicated to a well to be drilled at an unorthodox location 660 feet from the North and East lines of said Section 18. 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 7524 THROUGH 7535: Application of Jack J. Grynberg for compulsory pooling, Chaves County, New Mexico. Applicant, in each of the following 12 cases, seeks an order pooling all mineral interests down through the Abo formation underlying the lands specified in each case, each to form a standard 160-acre gas spacing and production unit to be dedicated to a well to be drilled at a standard location thereon. Also to be considered in each case will be the cost of drilling and completing said wells and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the wells and a charge for risk involved in drilling said wells:

CASE 7524: SE/4 Section 2, Township 5 South, Range 24 East

CASE 7525: SW/4 Section 3, Township 5 South, Range 24 East

CASE 7526: NW/4 Section 3, Township 5 South, Range 24 East

CASE 7527: SE/4 Section 3, Township 5 South, Range 24 East

CASE 7528: NW/4 Section 4, Township 5 South, Range 24 East

CASE 7529: NE/4 Section 4, Township 5 South, Range 24 East

CASE 7530: NW/4 Section 11, Township 6 South, Range 24 East

CASE 7531: SW/4 Section 11, Township 6 South, Range 24 East

CASE 7532: SE/4 Section 27, Township 6 South, Range 24 East

CASE 7533: SW/4 Section 27, Township 6 South, Range 24 East

CASE 7534: NW/4 Section 34, Township 6 South, Range 24 East

CASE 7535: SW/4 Section 17, Township 6 South, Range 25 East

CASE 7515: (Continued and Readvertised)

Application of Four Corners Gas Producers Association for designation of a tight formation, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the designation of the Dakota formation underlying all or portions of Townships 26 and 27 North, Ranges 12 and 13 West, Township 28 North, Range 13 West, Township 29 North, Ranges 13 through 15 West, and Township 30 North, Ranges 14 and 15 West, containing 164,120 acres, more or less, as a tight formation pursuant to Section 107 of the Natural Gas Policy Act and 18 CFR Section 271. 701-705.

# Gulf Oil Exploration and Production Company

J. M. Thacker  
GENERAL MANAGER PRODUCTION  
SOUTHWEST DISTRICT

MAR 30 1982  
P. O. Box 1180  
MIDLAND, TX 79702  
OIL CONSERVATION DIVISION  
SANTA FE

March 29, 1982

New Mexico Energy & Minerals Dept.  
Oil Conservation Division  
P.O. Box 2088  
Santa Fe, New Mexico 87501

Dear Mr. Nutter:

As per our phone conversation on Monday, 3-29-82, attached is a letter from Gulf Oil Corporation referring to Case No. 7518 by Consolidated Oil and Gas, Inc. for its Midway State No. 1 SWD well in Section 8, T-17-S, R-37-E, Lea County, New Mexico. This case is presently scheduled for the Examiners Hearing on March 31, 1982.

It would be appreciated if you would read the attached letter into the record for the above mentioned case.

Thank you.

Yours very truly,

*Alan W. Bohling*

Alan W. Bohling  
Petroleum Engineer

AWB/da  
Attachments



A DIVISION OF GULF OIL CORPORATION

# Gulf Oil Exploration and Production Company

MAR 30 1982

J. M. Thacker  
GENERAL MANAGER PRODUCTION  
SOUTHWEST DISTRICT

March 24, 1982

F. O. Drawer 1150  
Midland, TX 79702

New Mexico Energy & Minerals Dept.  
Oil Conservation Division  
P.O. Box 2088  
Santa Fe, New Mexico 87501

Attention: Mr. Joe D. Ramey, Director

Gentlemen:

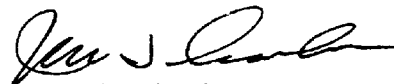
Re: Qualified consent to the application of Consolidated Oil & Gas, Inc. for Midway State No. 1 SWD well in Section 8, T-17-S, R-37-E, NMPM, Lea County, New Mexico.

Gulf Oil Corporation has been furnished a copy of the application for a Salt Water Disposal well in Unit P, Section 8, T-17-S, R-37-E, NMPM, Lea County, New Mexico from Kellahin and Kellahin, Attorneys at Law, representing Consolidated Oil and Gas, Inc.

While we have no objection to the authorization of the Midway State No. 1 SWD well based upon reasonable and prudent completion and injection operations, there is some possibility that the injection of fluid into the Abo formation could result in the early destruction of our Lea State "KN" Wells No. 1 and No. 2 directly offset to the south of the proposed SWD Well.

Therefore we request the Commission to include, in any order approving the application, a retention of jurisdiction to order immediate stoppage of injection operations if and when it should appear necessary to do so.

Yours very truly,



J. M. Thacker  
General Manager - Production

AWB/da

cc: Consolidated Oil & Gas, Inc.  
Kellahin and Kellahin, Attorneys at Law



A DIVISION OF GULF OIL CORPORATION

**KELLAHIN and KELLAHIN**

*Attorneys at Law*

300 Don Gaspar Avenue

Post Office Box 1769

Santa Fe, New Mexico 87501

Jason Kellahin

W. Thomas Kellahin

Karen Aubrey

Telephone 982-4285

Area Code 505

March 2, 1982

Mr. Joe D. Ramey  
Oil Conservation Division  
P.O. Box 2088  
Santa Fe, New Mexico 87501

RE: Consolidated Oil & Gas Inc.

Dear Mr. Ramey:

On behalf of Consolidated Oil & Gas Inc., please find enclosed an application for approval of a disposal well:

Midway State 1 well located 330 feet from the South line and 330 feet from the East line of Section 8, T17S, R37E, NMPM, Lea County, New Mexico.

The application proposes the use of the Abo formation as the disposal zone.

Copies of the application have been mailed this date by certified mail return receipt to all offset operators and the owner of the surface.

Please set this matter for the examiner hearing now scheduled for March 31, 1982.

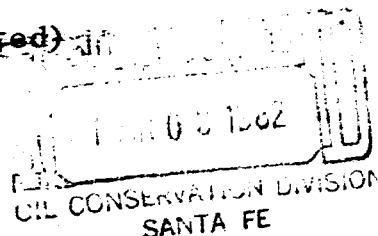
Very truly yours,

*W. Thomas Kellahin*  
W. Thomas Kellahin

WTK:jm

Enclosure

cc: Mr. J. D. Stewart (Consolidated)  
OCD, District II, Artesia  
Commissioner of Public Lands  
Gulf Oil Corporation  
Supron Energy Corporation  
Apollo Oil Company  
David Fasken



*HEARINGS  
ORDERS*

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

*Hold for competency  
of fluids  
analysis and  
structure map.*

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

*JAR*

CASE NO. 7518

Order No. R-6943

*M.S.*

*Bill*

APPLICATION OF CONSOLIDATED OIL & GAS  
INC. FOR SALT WATER DISPOSAL, LEA  
COUNTY, NEW MEXICO.

*[Signature]*  
*WIP*

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on March 31, 1982,  
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this \_\_\_\_\_ day of April, 1982, 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, Consolidated Oil & Gas, Inc., is the owner and operator of the Midway State Well No. 1, located in Unit P of Section 8, Township 17 South, Range 37 East, NMPM, Midway-Abo Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the Abo formation, with injection into the perforated interval from approximately 8688 feet to 8856 feet.

(4) That the injection should be accomplished through 2 1/2-inch plastic lined tubing installed in a packer set at approximately 8640 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 switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 1738 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 Abo formation.

(7) 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.

(8) 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.

(9) That the <sup>of wells</sup> ~~effect~~ operator, to the immediate south and southwest of the proposed disposal well expressed concern that the disposal of produced and water into the subject well might result in premature watering out of its production wells.

(10) That <sup>intervals of said</sup> ~~said~~ producing wells are structurally lower than the disposal interval of the subject well.

(11) That said ~~effect~~ operator conditionally raised objection to the proposed disposal, provided the Division retain jurisdiction of this matter...to order immediate stoppage of injection operations if and when it should appear necessary to do so."

(12) That said ~~effect~~ operator should monitor production from its wells, and report to the Division Director any abnormalities ~~of production~~ or changes in production characteristics of said wells, whereupon

~~action.~~ ~~subject to the above provisions~~  
(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, Consolidated Oil & Gas, Inc., is hereby authorized to utilize its Midway State Well No. 1, located in Unit P of Section 8, Township 17 South, Range 37 East, NMPM, Midway-Abo Pool, Lea County, New Mexico, to dispose of produced salt water into the Abo formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 8640 feet, with injection into the perforated interval from approximately 8688 feet to 8856 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 or other acceptable device which will limit the wellhead pressure on the injection well to no more than 1738 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 Abo formation.

(4) 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.

(5) 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.

(6) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 702, 703, 704, 705, 706, 708, and 1120 of the Division Rules and Regulations.

(7) That Gulf Oil Corporation shall monitor production from its Lea State "KN" wells Nos. 1 and 2, located in Units A and B, respectively, of Section 17, Township 17 South, Range 37 East, NMPM, Midway-Abo Pool, Lea County, New Mexico, and shall immediately report

any known, use or changes in previous  
Twin characteristics of soil walks to the  
Division River.

(3) 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