

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

8 May 1985

EXAMINER HEARING

IN THE MATTER OF:

Application of Fannie Lee Mitchell	CASE
Inc. for salt water disposal, Lea	8592
County, New Mexico.	

BEFORE: Gilbert P. Quintana, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation	Jeff Taylor
Division:	Attorney at Law
	Legal Counsel to the Division
	State Land Office Bldg.
	Santa Fe, New Mexico 87501

For the Applicant:	William F. Carr
	Attorney at Law
	CAMPBELL & BLACK P. A.
	P. O. Box 2208
	Santa Fe, New Mexico.

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## I N D E X

ROBERT A. CAUDLE

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## E X H I B I T S

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Applicant Exhibit Two, Correction, etc. 6

Applicant Exhibit Three, Receipts 7

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MR. QUINTANA: Now we'll call

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Case 8592, the application of --

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MR. TAYLOR: Application of

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Fannie Lee Mitchell, Inc., for salt water disposal, Lea

6

County, New Mexico.

7

MR. CARR: May it please the

8

Examiner, my name is William F. Carr, with the law firm

9

Campbell and Black, P. A., appearing on behalf of Fannie Lee

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Mitchell, Inc.

11

We have one witness who needs

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to be sworn.

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MR. QUINTANA: Are there other

14

appearances in this case?

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If not, would you please stand

16

and be sworn in at this time?

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18

(Witness sworn.)

19

20

ROBERT A. CAUDLE,

21

being called as a witness and being duly sworn upon his

22

oath, testified as follows, to-wit:

23

24

25

## DIRECT EXAMINATION

BY MR. CARR:

Q Would you state your full name, please?

A Robert A. Caudle.

Q Would you spell your last name?

A C-A-U-D-L-E.

Q Where do you reside?

A Lovington, New Mexico.

Q Mr. Caudle, by whom are you employed?

A By Fannie Lee Mitchell, Incorporated.

Q And in what capacity?

A As president.

Q Have you previously testified before this Commission or one of its examiners and had your credentials accepted and made a matter of record?

A No, I haven't.

Q Would you review for Mr. Quintana your educational background and your work experience?

A I went to college at Eastern New Mexico, receiving a BBA in 1967.

After that worked two years for Shell Oil Company; four years as a Field Superintendent for my present company, Fannie Lee Mitchell, and eight years with American Quazar Petroleum, and then I've been back as the owner of Fannie Lee Mitchell for four years.

1                   Q           And you are owner and president of Fannie  
2 Lee Mitchell?

3                   A           Yes, sir.

4                   Q           Are you familiar with the application  
5 filed in this case on behalf of Fannie Lee Mitchell, Inc.?

6                   A           Yes, sir.

7                               MR. CARR: Are the witness'  
8 qualifications acceptable?

9                               MR. QUINTANA: Yes, they are.

10                  Q           Mr. Caudle, would you briefly state what  
11 you are seeking with this application?

12                  A           Yes. I'm seeking to increase the inter-  
13 val of disposal in our existing Caudle disposal well form  
14 4950 feet down to 14,474 feet.

15                  Q           Would you refer to what has been marked  
16 for identification and Mitchell Exhibit Number One and iden-  
17 tify that for Mr. Quintana?

18                  A           Yes. This is a Form C-108 filed on our  
19 behalf by Natural Resources Engineering, Inc.

20                  Q           And now would you go to Exhibit Number  
21 Two and identify that, please?

22                  A           Yes. Exhibit Number Two is also filed on  
23 our behalf by Natural Resources, Inc., and it is a correc-  
24 tion of a map that was filed, had an incorrect splice on it  
25 in the original Form C-108.

1           Q           Attached to Exhibit Number Two are there  
2 also copies of letters giving notice of the application to  
3 the surface owner and all operators?

4           A           Offset operators, yes, that's correct.

5           Q           And then would you identify Exhibit Num-  
6 ber Three for Mr. Quintana?

7           A           Exhibit Number Three is copies of the  
8 certified receipts where we mailed the notices.

9           Q           What is the present status of the subject  
10 well?

11          A           We are currently disposing into the well.

12          Q           And how long have you been using this  
13 well for disposal purposes?

14          A           I personally have only had it for four  
15 and a half years but it has been a disposal well for over 25  
16 years.

17          Q           Would you refer to the plat which is in-  
18 cluded in Exhibit Number Two and review the plat for the  
19 Examiner?

20          A           Yes. The center of the plat shows the  
21 location of our disposal well with a half mile circle and  
22 also with a 2-1/2 miles circle -- or a 2 mile circle.

23          Q           This shows the lease ownership in the  
24 area?

25          A           Yes, it does.

1 Q And the one-half mile circle is the area  
2 of review for this well.

3 A Correct.

4 Q Are there any wells within this one-half  
5 miles that penetrate the injection zone?

6 A No, there are none.

7 Q Are there any plugged and abandoned wells  
8 within this one-half mile area of review?

9 A No.

10 Q Would you refer to the schematic drawing  
11 of the subject well, which is included as the last page on  
12 Exhibit Number One, and review this for the Examiner?

13 A Yes. The schematic drawing shows the  
14 existing pipe program in the well and the -- how the pipe  
15 was cemented and how the well now exists.

16 Q Would you explain to Mr. Quintana what  
17 you propose to do with this well?

18 A Yes. We have cement circulated behind  
19 the 9-5/8ths intermediate casing down to a depth of 4945  
20 feet.

21 Our proposal is to clean out the casing  
22 and tubing now existing in the well to that point, run a new  
23 7-inch casing to that point and circulate cement to the sur-  
24 face, leaving open the interval from 4950 to the bottom of  
25 the hole.

1           Q           And you will have cement circulated be-  
2 hind everything above that?

3           A           Yes, we'll also run tubinb and packer at  
4 that point.

5           Q           What is the source of the water that you  
6 propose to dispose of in this well?

7           A           It's produced water from the various for-  
8 mations in eastern New Mexico.

9           Q           And you're hauling this water pursuant to  
10 authority from the Corporation Commission?

11          A           Right, authority held by Fannie Lee Mit-  
12 chell.

13          Q           And you dispose of that water in this  
14 well?

15          A           Yes.

16          Q           What volumes do you propose to inject in  
17 the well?

18          A           From 1300 to 1700 barrels per day.

19          Q           And would 1700 barrels be the maximum in-  
20 jection?

21          A           Yes, it would.

22          Q           Is this an open or a closed system?

23          A           It's a closed system.

24          Q           Do you propose to inject by gravity or  
25 under pressure?



1 A It would be by gravity.

2 Q And you're seeking no approval for any  
3 injection under pressure whatsoever?

4 A No.

5 Q Does Exhibit Number One include a water  
6 analysis of waters that are injected in the subject well?

7 A Yes, it does. It is part of Exhibit One.

8 Q And where was the water taken?

9 A It was taken from the holding tanks at  
10 the disposal site, the water that actually goes into the  
11 well.

12 Q Is the injection fluid compatible with  
13 the water in the injection zone?

14 A Yes.

15 Q Have you had any problems during the 30  
16 years that you've been disposing of water into these zones?

17 A No.

18 Q Are there fresh water zones in the imme-  
19 diate area?

20 A Yes, there are.

21 Q And what are those zones?

22 A They're from the Ogallala formation.

23 Q Is that the only fresh water zone?

24 A Only one we know of, yes.

25 Q At approximately what depth is the Ogall-

1 lala encountered?

2 A From roughly 100 feet down to a maximum  
3 depth of approximately 350 feet.

4 Q Are there any fresh water wells within a  
5 mile of the proposed injection well?

6 A Yes, there are.

7 Q Have you had water analyses run on the  
8 waters from those wells?

9 A Yes, we have, and they're included in Ex-  
10 hibit One.

11 Q And do each of the water analyses indi-  
12 cate the distance of the fresh water well from the proposed  
13 injection well?

14 A Yes, they do.

15 Q Are all of the fresh water wells within a  
16 mile of the proposed well producing fresh water from the  
17 Ogallala formation?

18 A Yes.

19 Q Has a log of the injection well previous-  
20 ly been filed with the Oil Conservation Division?

21 A Yes, it has.

22 Q And Exhibit Number Three includes return  
23 receipts from each of the interest owners within the area of  
24 review.

25 A Yes, that's correct.

1           Q           Are you aware of any similar applications  
2 for salt water disposal that have been granted in this gen-  
3 eral area?

4           A           No, not in our area of interest.

5           Q           Is Natural Resources Engineering, Inc., a  
6 consulting engineering firm?

7           A           Yes.

8           Q           And did you employ them to assist you in  
9 preparation of this application?

10          A           Yes, I did.

11          Q           Did you cause them to examine all avail-  
12 able geologic and engineering data and determine whether or  
13 not there were any open faults or other hydrologic connec-  
14 tions between the disposal zone and any underground sources  
15 of drinking water?

16          A           Yes, I did, at my direction.

17          Q           And what did they conclude?

18          A           They concluded there's no communication.

19          Q           And is that statement part of Exhibit  
20 Number One?

21          A           Yes, it is.

22          Q           In your opinion will granting this appli-  
23 cation be in the best interest of conservation, the preven-  
24 tion of waste and the protection of correlative rights?

25          A           Yes, I do.

1           Q           Were Exhibits One through three prepared  
2 under your direction and supervision?

3           A           Yes, they were.

4           Q           Have you reviewed them?

5           A           Yes.

6           Q           To the best of your knowledge are they  
7 correct and accurate?

8           A           Yes, they are.

9                       MR. CARR: At this time, Mr.  
10 Quintana, we would offer Mitchell Exhibits One through  
11 Three.

12                      MR. QUINTANA: Mitchell Exhi-  
13 bits One through Three will be admitted in evidence.

14                      MR. CARR: And that concludes  
15 my direct examination of Mr. Caudle.

16  
17                      CROSS EXAMINATION

18 BY MR. QUINTANA:

19           Q           Is it Mr. Caudle?

20           A           Yes.

21           Q           Mr. Caudle, I have a question for you.

22           A           Okay.

23           Q           Can you explain to me why you would like  
24 to inject into that total sum of formations that you're  
25 going to include?

1                   What is the reason for that? Why not  
2 just one or two formations? Why from the --

3                   A           Well the condition of the pipe that is  
4 now in the hole is such that we think that the fishing of  
5 all the pipe and casing down the hole is going to be com-  
6 pletely uneconomical, but that we can do it down to a depth,  
7 the 4950 feet where we know that we have good casing from  
8 there to surface, and complete it at that point without re-  
9 working the bottom 10,000 feet of the hole.

10                  Q           Do you feel that the depth that you will  
11 be able to work on the well will be sufficient to protect  
12 any fresh water sources in the area?

13                  A           Yes, I do.

14                  Q           You said compatibility tests were done.  
15 Were these compatibility tests done on produced water being  
16 injected into the well as compared -- comparing that to  
17 water existing in the wellbores at this time from the dif-  
18 ferent formations, or are you just going on experience that  
19 they're --

20                  A           Just on experience, yes.

21                  Q           Would you explain to me how long you've  
22 been operating in that area yourself?

23                  A           Me personally?

24                  Q           Uh-huh.

25                  A           At various times, probably fifteen years.

1 This particular time, four and a half years.

2 Q In all that time in your experience you  
3 have not had any compatibility problems --

4 A No.

5 Q -- with any of those zones?

6 A No, sir.

7 MR. QUINTANA: I have nothing  
8 further.

9 Are there other questions of  
10 the witness?

11 If not, he may be excused.

12 Is there anything further in  
13 Case 8592?

14 MR. CARR: Nothing further.

15 MR. QUINTANA: If not, Case  
16 8592 will be taken under advisement.

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18 (Hearing concluded.)

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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 CSR

I do hereby certify that the foregoing is  
a complete and correct transcript of the proceedings in  
the Examiner hearing of Case No. 8592  
heard by me on May 8 19 85.

Gilbert P. Quintana, Examiner  
Oil Conservation Division