



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

February 9, 1990

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

Mr. William F. Carr
Campbell & Black
Attorneys at Law
Post Office Box 2208
Santa Fe, New Mexico

Re: CASE NO. 9833
ORDER NO. R-9076-A

Applicant:

Texaco Inc.

Dear Sir:

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

Sincerely,

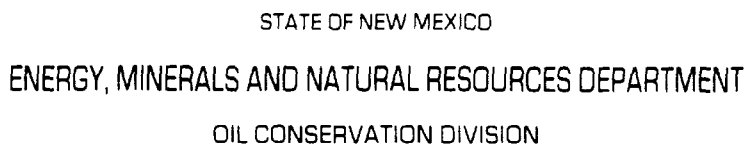
Florene Davidson

FLORENE DAVIDSON
OC Staff Specialist

Copy of order also sent to:

| | |
|-------------|----------|
| Hobbs OCD | <u>x</u> |
| Artesia OCD | <u>x</u> |
| Aztec OCD | |

Other _____



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FLORENE DAVIDSON
OC Staff Specialist

Other _____

1 STATE OF NEW MEXICO
2 ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
3 OIL CONSERVATION DIVISION
4 CASE 9833

5
6
7 EXAMINER HEARING

8
9 IN THE MATTER OF:

10
11 Application of Texaco, Inc., for Salt Water
12 Disposal, Lea County, New Mexico

13
14
15
16 TRANSCRIPT OF PROCEEDINGS

17
18 BEFORE: MICHAEL E. STOGNER, EXAMINER

19
20 STATE LAND OFFICE BUILDING
21 SANTA FE, NEW MEXICO
22 November 29, 1989

23
24 **ORIGINAL**

25

CUMBRE COURT REPORTING
(505) 984-2244

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FOR THE DIVISION:

ROBERT G. STOVALL
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1 HEARING EXAMINER: The hearing will come to
2 order. Call the next case, No. 9833, which is the
3 application of Texaco, Incorporated, for salt water
4 disposal, Lea County, New Mexico.

5 Call for appearances at this time.

6 MR. CARR: May it please the Examiner, my
7 name is William F. Carr, with the law firm of Campbell
8 & Black, P.A., of Santa Fe. We represent Texaco, and
9 I have one witness.

10 HEARING EXAMINER: Are there any other
11 appearances in this matter? Will the witness please
12 stand to be sworn and raise your right hand.

13 (Thereupon, the witness was sworn.)

14 HEARING EXAMINER: Mr. Carr.

15 KENNETH GLENN CARTER

16 Called as a witness herein, after having been first
17 duly sworn upon his oath, testified as follows:

18 EXAMINATION

19 BY MR. CARR:

20 Q. Will you state your full name and place of
21 residence?

22 A. Kenneth Glenn Carter, Hobbs, New Mexico.

23 Q. By whom are you employed and in what
24 capacity?

25 A. Texaco, USA, as a petroleum engineer.

1 Q. Mr. Carter, have you previously testified
2 before this Division?

3 A. No, I have not.

4 Q. Would you summarize your educational
5 background and then review your work experience for
6 the Examiner.

7 A. I graduated from Texas Tech University in
8 1984 with a Bachelor of Science in petroleum
9 engineering. I worked for Getty and Texaco in Hobbs
10 since that time, for the past five years.

11 Q. Does your area of responsibility with
12 Texaco include that portion of southeastern New Mexico
13 which is involved in this case?

14 A. Yes, it does.

15 Q. Are you familiar with the application filed
16 in this case on behalf of Texaco?

17 A. Yes, I am.

18 MR. CARR: Are the witness's qualifications
19 acceptable?

20 HEARING EXAMINER: Mr. Carter is so
21 qualified.

22 Q. Would you briefly state what Texaco seeks
23 with this application?

24 A. Texaco seeks authority to dispose of
25 produced water into the Lazy J-Penn Pool from 9734 to

1 9740 in the New Mexico "DM" State NCT-2, Well No. 1.

2 Q. Would you refer to what has been marked for
3 identification as Texaco Exhibit No. 1, and identify
4 it, please?

5 A. This is a Form C-108 with all the necessary
6 attachments. On page 2 you can see where the
7 injection interval is going to be from 9734 to 9740.

8 Q. Mr. Carter, would you go to page 4 in
9 Exhibit No. 1 and identify this and review it for the
10 Examiner?

11 A. Yes. This is a lease map of the area. The
12 proposed disposal well is marked by an arrow in
13 Section 21 of Township 13 South, Range 33 East. The
14 smaller circle surrounding the proposed disposal well
15 is the half-mile radius circle which is the area of
16 review. The larger circle is the two-mile radius
17 circle, which all the wells, the records were
18 researched within this area, and the map has been
19 updated for all wells within that circle.

20 Q. This page shows the lease ownership in the
21 area of this well, does it not?

22 A. That's correct.

23 Q. Let's go to the next page in this exhibit,
24 and I would ask you to identify what is contained on
25 pages 5 through 9 of Exhibit 1.

1 A. It's a tabulation of the wells within the
2 area of review. It contains the operator of the well,
3 the name of the well, the location, construction of
4 the well, the date it was drilled, the depth and the
5 record of completion.

6 Q. And this is the information that is
7 required by Form C-108 on each well in the area of
8 review?

9 A. That is correct.

10 Q. Let's go down to pages 10 through 13, and
11 I'd ask you to identify these, please.

12 A. Pages 10 through 13 are wellbore schematics
13 of wells within the area of review which have been
14 plugged and abandoned. These schematics include all
15 the information which is required by the C-108 for
16 such wells which have been plugged and abandoned,
17 including when the well was drilled and completed, the
18 casing strings, and the setting depths, cement, cement
19 on each string, perforations, plugging procedure,
20 including cement plugs and cast-iron bridge plugs.

21 Q. And these pages contain all the plugging
22 detail on each of the plugged and abandoned wells in
23 the area?

24 A. That is correct.

25 Q. Having reviewed these, are you satisfied

1 that the plugging of each of the wells is sufficient
2 to prevent these wells from becoming a source of
3 migration of injection fluids into other zones?

4 A. Yes, I am.

5 Q. Let's now go back and look at page 3 of
6 this exhibit, and I would ask you to identify this
7 page first, and then review the information on this
8 exhibit and show how you propose to convert the well
9 to injection?

10 A. This page has two wellbore schematics, one
11 which shows the present condition of the wellbore then
12 the second one which shows the proposed salt water
13 disposal well. The present condition, the well is a
14 shut-in producer, it was completed in the Lazy J-Penn
15 as an oil producer in February of 1970. 11-3/4-inch
16 surface casing was set at 365 feet with 250 sacks of
17 cement. The cement did circulate to surface. Eight
18 and five-eighths intermediate casing was set at 4103,
19 with 865 sacks of cement; the cement top was
20 calculated at 1,100 feet, using a 45 percent fillup.

21 Five and a half inch production casing was
22 set at 9850 with 750 sacks of cement. The top of
23 cement was calculated at 5,500 feet with a 75-percent
24 fillup. TD was 9850, and plug-back TD is 9803.

25 Q. All right. Let's go to the proposed

1 changes in the well, then.

2 A. We will set a nickel-plated packer at
3 approximately 9680; the perforations are at 9734, so
4 that's about 50 feet above the perks. We will have a
5 two and three-eighths inch IPC tubing string for
6 disposal.

7 Q. And the tubing is going to be lined, is
8 that correct?

9 A. Yes.

10 Q. Will the annular space be filed with a
11 fluid?

12 A. Yes, it will, with an inhibited fluid.

13 Q. Will there be a pressure gauge at the
14 surface that will enable you to monitor the pressure
15 in the annular space?

16 A. Yes, there will be.

17 Q. Into what formation do you propose to
18 inject water?

19 A. Into the Bough-C, which is in the
20 Permo-Penn, and this is the Lazy J-Penn field.

21 Q. What is the source of the water that you
22 propose to inject?

23 A. It's produced to Lazy J-Penn water.

24 Q. Is all of the water that you're going to be
25 injecting, is it going to be produced water?

1 A. Yes, it is.

2 Q. What volumes do you propose to inject?

3 A. Average daily rate of 250 barrels per day,
4 with a maximum of 1,000 barrels per day.

5 Q. And is this going to be an open or a closed
6 system?

7 A. It will be a closed system.

8 Q. Do you propose to inject by gravity or
9 under pressure?

10 A. Normal operation will be under gravity, but
11 we will have a centrifugal pump with approximately 150
12 p.s.i. capability.

13 Q. And is that 150 pounds the maximum pressure
14 that you propose to utilize?

15 A. Yes.

16 Q. Would a pressure limitation of two-tenths
17 pound per foot of depth to the top of the injection
18 interval, be satisfactory for Texaco's purposes?

19 A. Yes, it would.

20 Q. All right, Mr. Carter, let's go to page 16
21 of Exhibit No. 1, and I would ask you to identify that
22 and review it for the Examiner.

23 A. It's a water analysis at the Lazy J-Penn
24 produced waters, which we propose to dispose of.

25 Q. And you're going to just simply be

1 reinjecting Penn water back into the formation from
2 which it is produced, is that correct?

3 A. That is correct.

4 Q. Are there any fresh water zones in this
5 area?

6 A. Yes, there is.

7 Q. What is that zone?

8 A. It's the Ogallala.

9 Q. Do you know the approximate depth of that?

10 A. The base of the Ogallala is approximately
11 240 feet as per the State Engineer's office in
12 Roswell.

13 Q. Would you identify what has been marked as
14 Texaco Exhibit No. 2, please.

15 A. Yes. It's a similar lease map to the one
16 presented earlier. The difference between this one
17 and the other is that I've marked the water analysis
18 that I've attached on this map.

19 Q. Does this show the location of the fresh
20 water wells in the area?

21 A. Yes, to the quarter quarter.

22 Q. And what intervals are they producing from?

23 A. The Ogallala.

24 Q. Would you go back now to Exhibit No. 1 and
25 review the information contained on pages 17 through

1 20 of that exhibit.

2 A. Yes. On pages 17 through 20 are fresh
3 water analyses obtained from windmills in the area.
4 These are the only producing Ogallala wells that we
5 could locate in the area.

6 Q. And these are the wells that are shown on
7 Exhibit No. 2?

8 A. That is correct.

9 Q. Is the log of the proposed injection well
10 on file with the Oil Conservation Commission?

11 A. Yes, it is.

12 Q. Have you enclosed a portion of that log in
13 Exhibit No. 1?

14 A. Yes, I've enclosed a portion of the
15 sidewall neutron log across the interval of interest.

16 Q. That's on page 15?

17 A. That's correct.

18 Q. What, basically, does this show?

19 A. It shows the perforated interval which we
20 propose to inject into, at 9734 to 9740.

21 Q. Would you identify what has been marked as
22 Texaco, Inc., Exhibit No. 3, please?

23 A. Yes. It's an affidavit that our attorneys
24 have provided to us which indicates that notice of
25 today's hearing has been given as required by Division

1 rules.

2 Q. And attached to that affidavit, are there
3 copies of the notice letters and return receipts?

4 A. Yes, there are.

5 Q. Mr. Carter, are you aware of similar
6 applications for salt water disposal that have been
7 approved in this general area?

8 A. Yes, I am.

9 Q. Could you identify those for the Examiner,
10 please?

11 A. Yes. There are two salt water disposal
12 wells within a mile of the proposed well. One is
13 located in Section 20, Unit letter P, operated by
14 Coastal Oil and Gas Corporation. The other is located
15 in Section 21, Unit letter N, which is operated by
16 Texaco, Inc.

17 Q. Are these also wells that are disposing
18 into the Bough-C?

19 A. That is correct.

20 Q. Based on your examination of the
21 engineering and geologic data on this area, have you
22 found any evidence of open faults or other hydrologic
23 connections between the injection zone and any
24 underground source of drinking water?

25 A. No, I have not.

1 Q. In your opinion, will granting this
2 application be in the best interest of conservation,
3 the prevention of waste and the protection of
4 correlative rights?

5 A. Yes, it will be.

6 Q. Were Exhibits 1 through 3 either prepared
7 by you or compiled under your direction or
8 supervision?

9 A. Yes, they were.

10 MR. CARR: At this time, Mr. Stogner we
11 would move the admission of Texaco, Inc., Exhibits 1
12 through 3.

13 HEARING EXAMINER: Exhibits 1 through 3
14 will be admitted into evidence.

15 MR. CARR: That concludes my direct
16 examination of Mr. Carter.

17 EXAMINATION

18 BY MR. STOGNER:

19 Q. Who is the surface owner of the land out
20 here, Mr. Carter?

21 A. Mrs. Geraldine Tulk, T U L K.

22 Q. When was your subject well originally
23 drilled?

24 A. The New Mexico "DM" State NCT-2, No. 1?

25 Q. Right.

1 A. It was drilled and completed in February of
2 1970.

3 Q. Was this originally a Texaco well, or--

4 A. Yes, it was, or it is.

5 Q. Are you wanting a getty or anything?

6 A. No, sir.

7 Q. In looking at your half-mile radius, you
8 seem to have supplied some wells that were on the
9 fringes or outside of the half-mile radius, that being
10 the well in Unit N of Section 21 and over in P of
11 Section 20. There's a well up there in Section 17 in
12 Unit P.

13 A. Yes, sir.

14 Q. Was that well reviewed?

15 A. I have information on that, and it was
16 plugged.

17 Q. Do you have it with you?

18 A. Yes, sir, I do. Would you like to see the
19 wellbore schematic?

20 Q. Yeah, let's see what you do have here, and
21 we might make that a part of--

22 MR. CARR: Exhibit No. 4?

23 HEARING EXAMINER: Yes. We do have
24 information on these other wells, we might as well
25 include this, also.

1 Q. But now, as I understand it, of all the
2 other wells that are in this half-mile area of review
3 or near there, this is the only plugged and abandoned
4 well?

5 A. No, sir.

6 Q. There are some others?

7 A. There are four other plugged and abandoned
8 wells within the area of review, I believe four.

9 Q. Oh, yeah, I just read it wrong. I'm
10 sorry.

11 A. Pages 10 through 13 show the plugged and
12 abandoned schematics on Exhibit 1.

13 HEARING EXAMINER: Okay. This Exhibit No.
14 4, why don't you present it, Mr. Carr.

15 MR. CARR: Mr. Carter, was Exhibit No. 4
16 prepared by you?

17 THE WITNESS: Yes, it was.

18 MR. CARR: At this time, Mr. Stogner, we
19 would move the admission of Texaco Inc., Exhibit No.
20 4.

21 HEARING EXAMINER: Exhibit No. 4 will be
22 admitted into evidence. Also, we'll take
23 administrative notice of any well files we have on any
24 of these wells. At this point I have no other
25 questions of Mr. Carter.

1 Any other questions of this witness? If
2 not, he may be excused. Is there anything further in
3 Case Number 9833?

4 MR. CARR: Nothing further.

5 HEARING EXAMINER: Then this case will be
6 taken under advisement.

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1 CERTIFICATE OF REPORTER

2

3 STATE OF NEW MEXICO)
4) ss.
5 COUNTY OF SANTA FE)

6

7 I, Carla Diane Rodriguez Certified
8 Shorthand Reporter and Notary Public, HEREBY CERTIFY
9 that the foregoing transcript of proceedings before
10 the Oil Conservation Division was reported by me; that
11 I caused my notes to be transcribed under my personal
12 supervision; and that the foregoing is a true and
13 accurate record of the proceedings.

14 I FURTHER CERTIFY that I am not a relative
15 or employee of any of the parties or attorneys
16 involved in this matter and that I have no personal
17 interest in the final disposition of this matter.

18 WITNESS MY HAND AND SEAL December 11, 1989.

19


CARLA DIANE RODRIGUEZ
CSR No. 91

20

21

My commission expires: May 25, 1991

22

23

24

25

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 9833,
heard by me on 29 November 1989.


Michael E. Stogor, Examiner
Oil Conservation Division

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