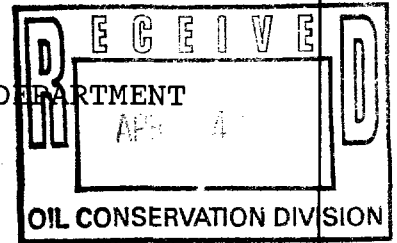


STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION



IN THE MATTER OF THE HEARING CALLED BY)
THE OIL CONSERVATION DIVISION FOR THE)
PURPOSE OF CONSIDERING:)
APPLICATION OF STRATA PRODUCTION COMPANY)
FOR A UNIT AGREEMENT, EDDY COUNTY, NEW)
MEXICO)

CASE NO. 11,492

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

March 21st, 1996

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH, Hearing Examiner, on Thursday, March 21st, 1996, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

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March 21st, 1996
Examiner Hearing
CASE NO. 11,492

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* * *

A P P E A R A N C E S

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FOR THE APPLICANT:

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 P.O. Box 2208
 Santa Fe, New Mexico 87504-2208
 By: WILLIAM F. CARR

* * *

1 WHEREUPON, the following proceedings were had at
2 9:45 a.m.:

3 EXAMINER CATANACH: At this time we'll call Case
4 11,492.

5 MR. CARROLL: Application of Strata Production
6 Company for a unit agreement, Eddy County, New Mexico.

7 EXAMINER CATANACH: Are there appearances in this
8 case?

9 MR. CARR: May it please the Examiner, my name is
10 William F. Carr with the Santa Fe law firm Campbell, Carr,
11 Berge and Sheridan.

12 We represent Strata Production Company in this
13 matter, and I have two witnesses.

14 EXAMINER CATANACH: Are there additional
15 appearances in this case?

16 Will the witnesses please stand to be sworn in?

17 (Thereupon, the witnesses were sworn.)

18 JO MCINERNEY,

19 the witness herein, after having been first duly sworn upon
20 her oath, was examined and testified as follows:

21 DIRECT EXAMINATION

22 BY MR. CARR:

23 Q. Would you state your name for the record, please?

24 A. My name is Jo McInerney.

25 Q. And where do you reside?

1 A. Roswell, New Mexico.

2 Q. By whom are you employed?

3 A. Strata Production Company.

4 Q. And what is your current occupation with Strata?

5 A. Consulting landman.

6 Q. Ms. McInerney, have you previously testified
7 before this Division?

8 A. Yes.

9 Q. At the time of that testimony, were your
10 credentials as a petroleum landman accepted and made a
11 matter of record?

12 A. Yes.

13 Q. And are you familiar with the Application filed
14 in this case?

15 A. Yes.

16 Q. And are you familiar with the proposed West
17 Loving unit?

18 A. Yes.

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

21 EXAMINER CATANACH: They are.

22 Q. (By Mr. Carr) Ms. McInerney, could you briefly
23 summarize for the Examiner what Strata Production Company
24 seeks with this Application?

25 A. Strata seeks approval for the West Loving unit

1 agreement, which is a voluntary exploratory unit located in
2 Eddy County, New Mexico. The unit comprises 1400 acres of
3 federal, state and fee lands.

4 Q. Have you prepared exhibits for presentation here
5 today?

6 A. Yes, Exhibits 1 through 5.

7 Q. Could you identify Strata Exhibit Number 1?

8 A. Exhibit Number 1 is the unit agreement. It's on
9 model form for state, federal or fee acreage.

10 Q. Let's go to Exhibit Number 2. Would you identify
11 that?

12 A. Exhibit Number 2 is the plat of the unit area.
13 It shows the federal, state and fee lands. Two federal
14 leases are included, one state lease is included, and seven
15 fee leases.

16 Q. Are any of these leases soon to expire?

17 A. Yes, the two federal leases will be expiring
18 March 31st, 1996.

19 Q. So to maintain those leases, you need to have the
20 unit approved and spud your initial test well by that time?

21 A. Yes.

22 Q. How many acres are in the unit area?

23 A. 1400 acres.

24 Q. Let's go to Exhibit Number 3, and could you just
25 briefly review that for Mr. Catanach?

1 A. Exhibit Number 3 is the ownership breakdown
2 within the unit.

3 Q. It shows each lease in the unit and the ownership
4 by lease?

5 A. By lease and by tract, which correlates to the
6 Exhibit A.

7 Q. What percentage of the interest in this unit has
8 been committed to the unit plan?

9 A. We have a hundred percent of the working interest
10 committed to the unit. 68.5 percent of the royalty is
11 federal and state, and we have preliminary approval.
12 Twenty percent of the fee owners have committed to the
13 unit. And 12 percent are looking at the unit documents,
14 and we should have or hope to have their approval next
15 week.

16 Q. So what we're doing is, we're looking at a unit
17 agreement that you have at this time 100 percent of the
18 working interest committed?

19 A. Yes.

20 Q. And you hope to have 100 percent of the royalty
21 interest?

22 A. That's right. We also have 100 percent of the
23 overriding royalty interest committed.

24 Q. Has the Commissioner of Public lands given his
25 preliminary approval to this unit?

1 A. Yes.

2 Q. And is a copy of his preliminary approval what
3 has been marked as Strata Production Company Exhibit Number
4 4?

5 A. Yes.

6 Q. You've indicated that the Minerals Management
7 Service at BLM has also designated this as an area that can
8 be logically developed under a unit plan?

9 A. Correct.

10 Q. Is their approval what's marked Exhibit Number 5?

11 A. That's right.

12 Q. Does Strata desire to be named unit operator of
13 the proposed unit?

14 A. Yes.

15 Q. And does the agreement provide for periodic
16 filing for plans of development?

17 A. Yes.

18 Q. When is the initial plan to be filed?

19 A. Six months.

20 Q. And then thereafter, how often are plans filed?

21 A. Twelve months.

22 Q. Will these plans be filed with the Oil
23 Conservation Division at the same time they are filed with
24 the other regulatory agencies?

25 A. Yes, they will.

1 Q. Will Strata also call a geological witness to
2 review the technical aspects of this proposal?

3 A. Yes.

4 Q. Were Exhibits 1 through 5 prepared by you?

5 A. Yes.

6 MR. CARR: At this time, Mr. Catanach, we move
7 the admission into evidence of Strata Exhibits 1 through 5.

8 EXAMINER CATANACH: Exhibits 1 through 5 will be
9 admitted as evidence.

10 MR. CARR: And that concludes my direct
11 examination of Ms. McInerney.

12 EXAMINATION

13 BY EXAMINER CATANACH:

14 Q. Ms. McInerney, which leases are expiring March
15 31st?

16 A. The two federal leases, Tracts 1 and 2.

17 Q. Did you say that 20 percent of the fee owners
18 have committed?

19 A. Yes, I haven't received their applications, but
20 they've given me their approval by phone.

21 Q. And another 12 percent are still looking at the
22 documents?

23 A. Yes, that's right.

24 EXAMINER CATANACH: I have nothing further. The
25 witness may be excused.

1 MR. CARR: At this time we would call Mr. John
2 Worrall.

3 JOHN WORRALL,
4 the witness herein, after having been first duly sworn upon
5 his oath, was examined and testified as follows:

6 DIRECT EXAMINATION

7 BY MR. CARR:

8 Q. Could you state your name for the record, please?

9 A. John Worrall.

10 Q. By whom are you employed?

11 A. Strata Production.

12 Q. And what is your current position with Strata?

13 A. Consulting geologist.

14 Q. Mr. Worrall, have you previously testified before
15 this Division?

16 A. Yes, I have.

17 Q. At the time of that testimony, were your
18 credentials as a petroleum geologist accepted and made a
19 matter of record?

20 A. Yes, they were.

21 Q. Are you familiar with the Application filed in
22 this case?

23 A. Yes, I am.

24 Q. And have you made a geological study of the area
25 surrounding the proposed West Loving unit?

1 A. Yes.

2 MR. CARR: Are the witness's qualifications
3 acceptable?

4 EXAMINER CATANACH: They are.

5 Q. (By Mr. Carr) Mr. Worrall, what horizons are
6 being unitized in the proposed unit?

7 A. All depths.

8 Q. And what is the primary objective in the unit
9 area?

10 A. The primary objective is the Delaware Mountain
11 Group, specifically two basal sandstones present from 5400
12 to 5600 feet.

13 Q. Is this area within a defined pool or within a
14 mile of the defined pool?

15 A. No, it is not. It's a wildcat test.

16 Q. How close is the nearest Delaware pool?

17 A. The nearest pool is the Loving-Brushy Canyon
18 pool, approximately four miles east.

19 Q. Are there secondary objectives in the unit?

20 A. Secondary objectives are the shallower sandstones
21 within the Delaware group.

22 Q. Let's go to Strata's Exhibit Number 6, your
23 structure map, and I would ask you to review for Mr.
24 Catanach the information that's shown on this exhibit.

25 A. Okay. Exhibit 6 -- and I've got a blown-up

1 version of that here -- Exhibit 6 is both a porosity map
2 and a structure map for the two main sandstone objectives,
3 which we call "K" and "L".

4 Also shown is a structure map on a shale marker
5 directly above the "K" sandstone.

6 Our proposed location is shown in red in Section
7 23. And also shown on this map in green is the outlines of
8 a cross-section, our Exhibit 7, which I would like to show
9 you.

10 MR. CARR: Mr. Catanach, we've put the cross-
11 section on the wall behind you, and if it's all right, Mr.
12 Worrall will go to that exhibit and review it for you at
13 this time.

14 EXAMINER CATANACH: Okay.

15 THE WITNESS: This cross-section is a structural
16 cross-section, hung at a datum 2000 feet below sea level.
17 Four wells, four key wells, are shown on it.

18 The most key well is a well drilled by Sylvite,
19 located here, shown as a porosity log, dual lateral log and
20 mud log. Our main objectives are the "K" and "L" sands,
21 and it is these sands, which are the isopach horizon here.
22 Sylvite drilled a well here in which they tested the "K"
23 and "L" sands. It was completed in 1992. It produced only
24 1776 barrels of oil, 15,577 barrels of water. In its last
25 month it averaged two barrels of oil and 28 barrels of

1 water per day as from these zones right here.

2 Downdip, in this well, the Enron well, located in
3 Section 25, we are 236 feet downdip. The zones are still
4 present. That zone was also tested, and it tested 11
5 barrels of oil and 186 barrels of water and produced 464
6 barrels of oil, 10,000 barrels of water in two and a half
7 months. So the production here, averaged at the end there,
8 six barrels of oil a day and 142 barrels of water a day.

9 And the main thing we wanted to point out here
10 is, this is primarily wet 236 feet downdip, but produced
11 approximately 150 barrels of total fluid per day, whereas
12 this only made about 28 barrels of fluid per day.

13 Go further to the west, the well in Section 15
14 drilled by Ray Westall, these zones are not present. Our
15 cutoff we used here is 12 percent.

16 To the south, the well in Section 34 had about 7
17 feet of porosity and some mud log show.

18 So on our isopach map we have 40 feet of porosity
19 here, 46 feet here, and overall north-south we went into
20 fan low. We believe 20 feet is the minimum needed to
21 achieve a commercial well. Twenty feet with a 12-percent
22 recovery factor is 37,000 barrels. So we've used that to
23 determine our unit outline.

24 To the north we have put a permeability barrier
25 on here, and the reason we've done that, this well is wet,

1 but good production in terms of fluid, 150 barrels fluid
2 per day.

3 Q. (By Mr. Carr) That's the well in Section 25?

4 A. That is the well in Section 25.

5 To the north, there's poor permeability, as
6 evidenced by the production of only two barrels of oil and
7 26 barrels of water per day.

8 If we assume a linear degradation of permeability
9 to the north, this line approximates where our 60 barrels
10 of fluid per day could be encountered, so we've drawn a
11 permeability barrier here perpendicular to structural
12 strike.

13 The last thing I want to point out on these maps,
14 shown in blue is an oil-water contact anticipated at minus
15 2325, which would be 125 feet of oil column. And that is
16 fairly standard; 100 to 125 feet is a typical oil column in
17 most Delaware fields.

18 So we've drawn our -- we've included the unit in
19 orange being confined on the east, by the downdip water
20 leg, to the north by a permeability barrier, and then by
21 the 20-foot isopach.

22 Q. And those are the three factors or items you've
23 used to define the unit boundary?

24 A. Yes, sir.

25 Q. You've shown the location of the initial test

1 well?

2 A. Location is 2310 from south and east, Section 23.

3 Q. And how soon does Strata propose to actually
4 drill that well?

5 A. We're ready to drill. We propose to drill before
6 March 31st.

7 Q. Just briefly summarize what your geological study
8 shows about this proposed unit area.

9 A. That we should encounter up to 50 feet of
10 porosity in the "K" and "L" zones. There are secondary
11 horizons above us which have not been tested in the area
12 before.

13 Q. And you have a good location for the proposed
14 well?

15 A. This should be in the thickest portion of the
16 horizon.

17 Q. Does Strata request that this order be expedited?

18 A. Yes, we do.

19 Q. Mr. Worrall, in your opinion will approval of
20 this Application and development of this area under the
21 unit plan be in the best interests of conservation, the
22 prevention of waste and the protection of correlative
23 rights?

24 A. Yes.

25 Q. Were Exhibits 6 and 7 prepared by you?

1 A. Yes, they were.

2 MR. CARR: Mr. Catanach, at this time we'd move
3 the admission into evidence of Exhibits 6 and 7.

4 EXAMINER CATANACH: Exhibits 6 and 7 will be
5 admitted as evidence.

6 MR. CARR: That concludes my direct examination
7 of Mr. Worrall.

8 EXAMINATION

9 BY EXAMINER CATANACH:

10 Q. Mr. Worrall, how did you guys estimate the
11 location of the oil/water contact?

12 A. The way that we did that is, the well in 25 has
13 about a 2-percent oil cut. The well in Section 14 is more
14 like 10-percent oil cut, based on the production that was
15 established. There's also a mud log show in a well in
16 Section 34.

17 And using the 20-foot line for sand thickness at
18 about -- which structurally is around minus 2200 feet, and
19 knowing historically most Delaware fields have an oil
20 column that approximates 100 feet, we knew the line had to
21 be somewhere in between the well in Section 14 and the well
22 in Section 25 for commercial oil to be found. So we
23 approximated 125 feet of oil column.

24 Q. Okay. And the 20-foot contour line, you said
25 that represents a recovery of 37,000 barrels of oil?

1 A. Using 12-percent recovery factor.

2 Q. Which is typical for a Delaware field in this
3 area?

4 A. Yes, sir.

5 EXAMINER CATANACH: Okay, I have nothing further.

6 MR. CARR: We have nothing further in this case.

7 EXAMINER CATANACH: The witness may be excused.

8 There being nothing further in this case, Case
9 11,492 will be taken under advisement.

10 (Thereupon, these proceedings were concluded at
11 10:00 a.m.)

12 * * *

13
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21 I do hereby certify that the foregoing is
22 a complete record of the proceedings in
the Examiner hearing of Case No. 11492
heard by me on May 21 1996.
23 David L. Catanch, Examiner
24 Oil Conservation Division
25

CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
 COUNTY OF SANTA FE)

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

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

WITNESS MY HAND AND SEAL March 29th, 1996.



STEVEN T. BRENNER
 CCR No. 7

My commission expires: October 14, 1998