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2.8 BCF

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BEFORE THE
OIL CONSERVATION DIVISION
Case No.12587 Exhibit No. 6
Submitted By:
Sapient Energy Corp.
Hearing Date: October 4, 2001

1 Stogner?

2 A. Yes, I am.

3 MR. CARR: Mr. Stogner, we tender Mr. Lowe as an
4 expert witness in reservoir engineering.

5 EXAMINER STOGNER: Any objection?

6 MR. KELLAHIN: No, sir.

7 EXAMINER STOGNER: So qualified.

8 Q. (By Mr. Carr) Mr. Lowe, you've prepared exhibits
9 for presentation today, have you not?

10 A. Yes, I have.

11 Q. Let's refer to what has been marked as Conoco
12 Exhibit Number 3. Would you identify this and review the
13 information on the exhibit for Mr. Stogner?

14 A. Certainly, it's is a production plot of oil,
15 water and gas. And what I'll describe to you is, on the X
16 axis, is the time line in years. The curves represented
17 here in a solid bold with filled circles is the hydrocarbon
18 liquid or oil. The dashed lines with stars is the gas
19 production. And the thin line with open diamonds is the
20 water production. I also have on here a dashed line with
21 triangles representing the GOR of this well here.

22 What you see, obviously, is the completion in
23 August of 1999, in the Tubb. We see here in December where
24 the well was fracture-stimulated and saw significant
25 increases in gas production. Along with that came some

1 water, but it quickly dropped off, as well as the oil.
2 However, this production, coming from Dwight's PI and
3 updated from the website of the OCD production through
4 November, shows a fairly consistent decline of gas, an
5 effective decline of 16 percent with a nominal decline of
6 about 17.

7 Using this and using an economic limit of 50 MCF
8 per day, which is fivefold higher than what was presented
9 beforehand, shows a recoverable reserves of 2.8 BCF of gas.

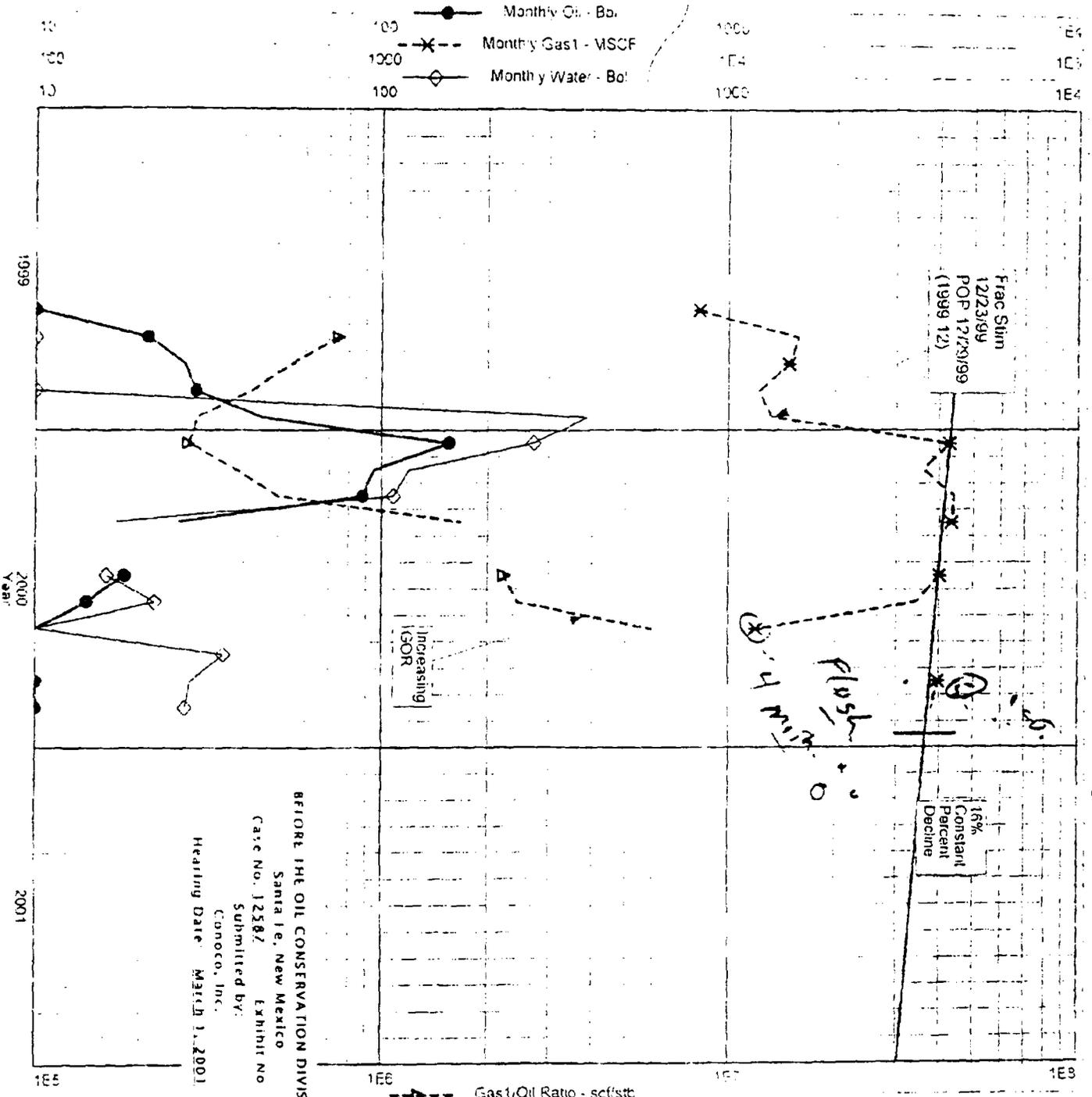
10 Q. Let's go to what has been marked Exhibit Number
11 4, the plot, and I ask you to review this information.

12 A. Okay. I did not know what the original pressure
13 was in this particular well, and so using some of the
14 knowledge base of Conoco in their production in the Tubb
15 formation, I presented three possible scenarios of what the
16 initial pressure might be.

17 What we show here on this graph, at the very
18 bottom, is the estimated ultimate recovery. On the left-
19 hand side is a computed drainage radius.

20 And you'll see three lines on the graph. The
21 blue line represents an initial pressure of 2462, and that
22 was computed from a pressure gradient that is typically
23 seen in the Tubb, which is 0.385 p.s.i. per foot.

24 I then looked at it from the standpoint of
25 possible depletion that may have occurred. Referencing



BERNHA J BARBER (12) (1300210250597896968) Data Aug 1999, Dec 2000

BEFORE THE OIL CONSERVATION DIVISION
 Santa Fe, New Mexico
 Case No. 12587 Exhibit No. 3
 Submitted by:
 Conoco, Inc.
 Hearing Date: March 1, 2001

- Monthly Oil - Bbl
Cum: 520 Bbl
- ✱ Monthly Gas1 - MSCF
Cum: 394780 MSCF
- ◇ Monthly Gas1 FC 1 - MSCF
versus time
OI: 36795 MSCF, Dec, 2000
OI: 152452 MSCF, Mar, 2019
DI: (Exponential) 16
RR: 2.4027e+006 MSCF
EUR: 2.82248e+008 MSCF
Cum: 1037 Bbl
- ▲ Gas1/Oil Ratio - scf/stb

2.8 BCF
 Conoco Exhibit

Conoco

NM OCD Hearing (3/01/2001)

EXHIBIT 4

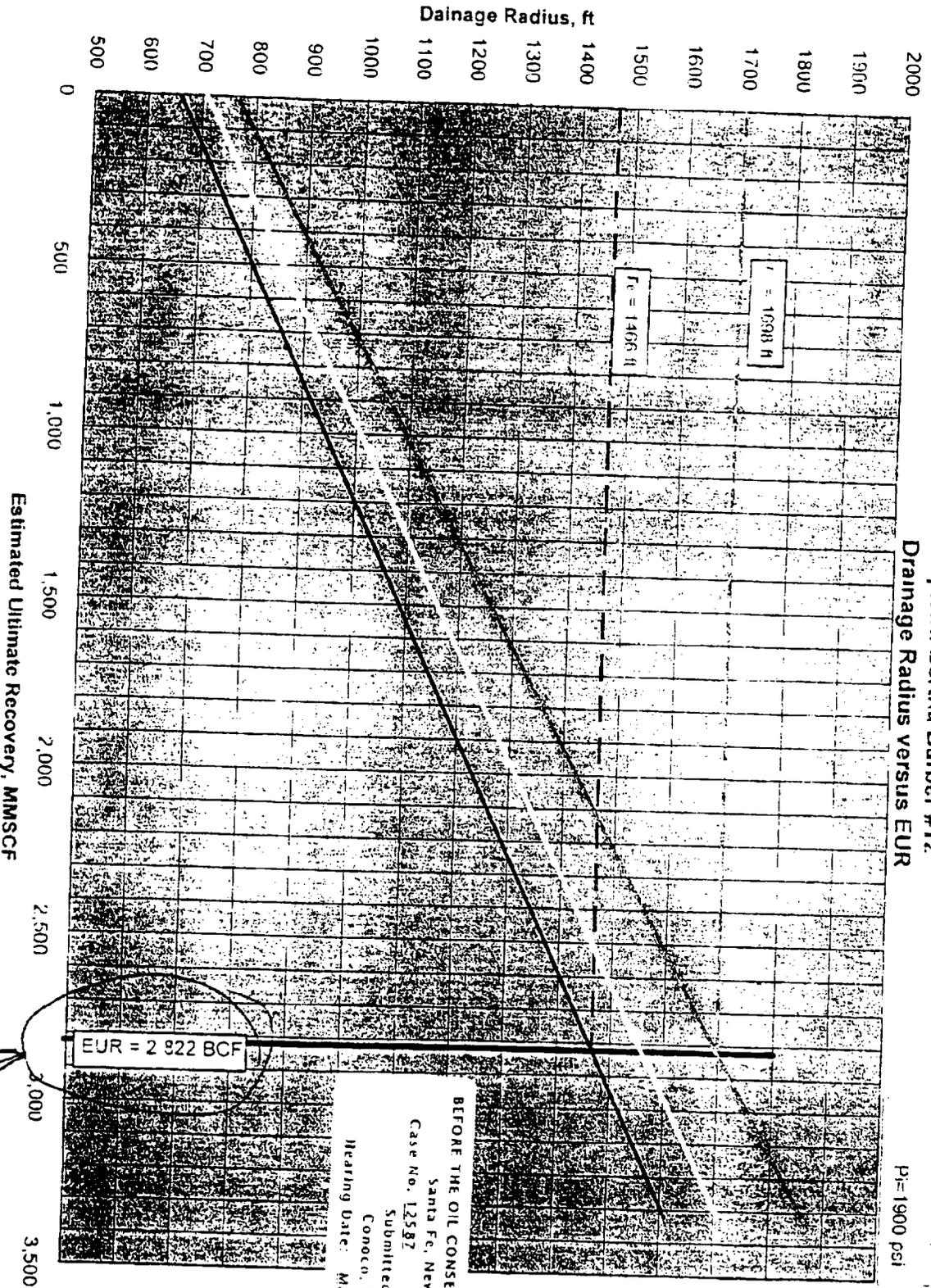
Sapient: Bertha Barber #12

Drainage Radius versus EUR

PI=2462 psi

PI=2200 psi

PI=1900 psi



BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

Case No. 12582 Exhibit No. 4

Submitted by:

Conoco, Inc

Hearing Date: March 1, 2001

2.8 BCF