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I N D E X

STEVEN R. FOY

Direct Examination by Mr. Cooter 4

BOB L. SHACKELFORD

Direct Examination by Mr. Cooter 9

WAYNE R. GIBSON

Direct Examination by Mr. Cooter 12

Cross Examination by Mr. Stogner 19

E X H I B I T S

Craig Exhibit One, Isolith 9

Craig Exhibit Two, Map 13

Craig Exhibit Three, Cross Section 14

Craig Exhibit Four, Structure Map 16

Craig Exhibit Five, Geological Report 19

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MR. STOGNER: Call next Case
Number 8707.

MR. TAYLOR: The application of
Earle M. Craig, Jr. Corporation for an unorthodox gas well
location, Eddy County, New Mexico.

MR. STOGNER: Call for appear-
ances.

MR. COOTER: Paul Cooter, with
the Rodey Firm, Mr. Examiner.

I have three witnesses.

MR. STOGNER: Are there any
other appearances in this matter?

Will the witnesses please stand
and be sworn at this time?

(Witnesses sworn.)

MR. COOTER: First call Steven
Foy.

STEVEN R. FOY,
being called as a witness and being duly sworn upon his
oath, testified as follows, to-wit:

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DIRECT EXAMINATION

BY MR. COOTER:

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

A Steven Foy.

Q And by whom are you employed, Mr. Foy?

A Earle M. Craig, Jr. Corporation.

Q What's your position with that company?

A I am a landman.

Q Would you briefly relate your education and professional experience for the Commission?

A Graduated in '79 from the University of Texas with a petroleum land management degree.

Since that time I have been actively engaged in petroleum land work with Mobil Oil Corporation, (not understood) Exploration, Limited, as an independent, and for the last two years with Earle Craig Corporation.

Q Have you previously testified before this commission?

A Yes, I have.

Q Relate what Earle Craig Corporation seeks by its application.

A We are seeking approval of a proposal to drill a 13,000 foot Wolfcamp test at a nonstandard location.

1 Q What is the spacing or proration unit for
2 that well?

3 A It's 320-acre spacing.

4 Q And comprised of how many leases?

5 A It's comprised of three Federal leases.

6 Q Do you have your application now pending
7 for a communitization agreement with the Bureau of Land Man-
8 agement?

9 A We have not formally submitted a communi-
10 tization agreement to them but we have gotten verbal approv-
11 al and the paperwork is now being routed around for signa-
12 tures to the various interest owners.

13 Q And your proposed objective in this well
14 is what?

15 A The Wolfcamp formation.

16 Q And approximately the depth.

17 A 13,000 feet.

18 Q There is a map attached to your applica-
19 tion filed with this commission. Let me direct your atten-
20 tion to that and ask you to relate the ownership of the var-
21 ious parcels shown on that.

22 First identify the unit, or the proposed
23 proration unit.

24 A The proposed proration unit is the south
25 half of Section 18, Township 26 South, 31 East, and it is

1 shown with a jagged outline around the south half of that
2 section.

3 The offsetting acreage is all keyed, is
4 numbered, and refers to a listing from the previous two
5 pages of the offset operators and leasehold owners.

6 Q That's set forth on a tract by tract
7 basis for all of the adjoining or offsetting or cornering
8 tracts to this proposed unit?

9 A That's correct.

10 Q Were notices of this proposed unorthodox
11 location mailed to all of those offset leasehold owners or
12 operators, offset operators?

13 A Yes.

14 Q Let me ask you to identify this affida-
15 vit. Is that your affidavit?

16 A Yes, it is.

17 Q And does that recite the mailing of such
18 notices?

19 A Yes, it does.

20 Q Are you duly authorized to execute that
21 affidavit on behalf of the applicant, Earle Craig, Jr. Cor-
22 poration?

23 A Yes, I am.

24 Q Attached to the affidavit are what?

25 A Attached to the affidavit are copies of

1 letters notifying these offset operators and leasehold own-
2 ers of our plans to propose a nonstandard location, and that
3 -- requesting that they indicate their approval of this lo-
4 cation and sign it and return it to us.

5 It was sent back in -- it is dated 21st
6 of August, probably went out then. All the return receipts
7 show that they were notified on or about the 26th of August,
8 26th or 27th of August.

9 Q Attached to each letter is a photocopy of
10 the return receipt showing receipt by the offset operators
11 or leasehold owners.

12 A That's correct.

13 Q And that includes everyone with the ex-
14 ception of those tracts where Earle Craig has the interest?

15 A I believe -- I think we got a letter from
16 Earle Craig --

17 Q Yes.

18 A Or Craig, Limited, one or the other.

19 Q Are the facts then set forth in this af-
20 fidavit true and correct to the best of your knowledge and
21 belief?

22 A Yes, they are.

23 Q Have you received any objections to the
24 proposed unorthodox location from any of those offset opera-
25 tors or leasehold owners?

1 A No, we have not.

2 MR. COOTER: Mr. Examiner, we
3 offer the affidavit of this witness on the mailing of the
4 notices.

5 MR. STOGNER: Was this affida-
6 vit included in the application?

7 MR. COOTER: No, it was not.

8 That concludes my questions to
9 this witness.

10 A I would like to mention one thing, that I
11 ought to mention. Where it shows Earle Craig Jr. Corpora-
12 tion being offset operator, leasehold owner, those assign-
13 ments are -- of those rights have been sent to the Bureau of
14 Land Management for recording. They have not yet been ap-
15 proved.

16 They have been obtained but they have not
17 been approved yet, but they have been submitted.

18 MR. STOGNER: I have no ques-
19 tions of this witness.

20 Are there any questions of Mr.
21 Foy?

22 If not, he may be excused.

23 MR. COOTER: Next call Bob
24 Shackelford.

25

1 BOB L. SHACKELFORD,
2 being called as a witness and being duly sworn upon his
3 oath, testified as follows, to-wit:

4

5

DIRECT EXAMINATION

6

BY MR. COOTER:

7

 Q State your name for the record, please,
8 sir.

9

A Bob Shackelford.

10

 Q And by whom are you employed, Mr. Shack-
11 elford?

12

A Earle M. Craig, Jr. Corporation.

13

Q What is your position with the company?

14

A I'm a geologist.

15

 Q Would you briefly relate for this Commis-
16 sion your education and professional experience?

17

 A I have a BS degree in geology from East-
18 ern New Mexico University and I have worked for Earle Craig
19 Corporation for the last four years.

20

 Q Placed in front of you is an exhibit
21 which has been marked as Exhibit Number One. Explain that
22 to the Commission, would you, please, sir?

23

 A This exhibit is a net porosity Isolith
24 map. The parameters we used, it's a clean carbonate with 7
25 percent porosity or greater, and we feel like this is the

1 most sensitive to the production.

2 What we are going to do, in Section 19 we
3 drilled a well recently and it had 28 feet of porosity.
4 What we'd like to do is offset this in Section 18, and what
5 we are projecting here, and what we feel here, is a thin
6 trend, this porosity trend, which extends from the Red Bluff
7 Field in Loving County, Texas -- that's on the bottom part
8 of the map -- and it extends up to our Craig Spitfire 19 No.
9 1, and as you can see in the Red Bluff Field, this is a very
10 thin porosity trend and if you get too far away from your
11 known porosity, you run the risk of getting zero porosity or
12 getting beyond your economic reservoir.

13 This economic reservoir is a red line on
14 your map. We have it at 13 feet. This is based on the fact
15 that the well in Section 30, the Phantom Draw No. 2, had 12
16 feet and was nonproductive. It did produce but it was non-
17 economical and it has been plugged.

18 So we feel that it is necessary for us to
19 stay within this 13 feet limit and that's why we feel we
20 need to get in that corner of Section 18.

21 Q Your red dot and the arrow point out the
22 proposed unorthodox location.

23 A That is correct.

24 Q Was Exhibit One prepared by you?

25 A Yes, it was.

1 MR. COOTER: We would offer
2 Exhibit One at this time.

3 MR. STOGNER: Exhibit One will
4 be admitted into evidence.

5 Mr. Cooter, also the witness'
6 qualifications will be accepted.

7 MR. COOTER: Thank you.
8 That concludes my direct
9 testimony of this witness. I'll have another geologist.

10 MR. STOGNER: Oh, have another
11 geologist?

12 MR. COOTER: Yes.

13 MR. STOGNER: I have no
14 questions of Mr. Shackelford at this time.

15 MR. COOTER: He'll be here and
16 we'll make him available.

17 MR. STOGNER: Thank you.

18 MR. COOTER: Next call Mr.
19 Gibson.

20
21 WAYNE R. GIBSON,
22 being called as a witness and being duly sworn upon his
23 oath, testified as follows, to-wit:

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DIRECT EXAMINATION

BY MR. COOTER:

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

A Wayne Gibson.

Q And by whom are you employed, Mr. Gibson?

A Earle M. Craig, Jr. Corporation.

Q What's your position with the company?

A I'm the Geological and Geophysical Manager.

Q Briefly relate your education and professional experience, please.

A I have a Bachelor of Arts degree with a major in geology for Susquehanna University, 1968, and a Master of Science degree with a major in geology from the University of Wisconsin in Milwaukee in 1971.

I was employed by Texaco from 1971 to mid-1979 and Earle Craig Corporation to date.

Q Is your place of employment in -- with Earle Craig in Midland?

A It's now in Midland and I've been in Midland for fifteen years -- fourteen, fourteen-plus years.

Q You're well acquainted with the southeastern New Mexico area where this proposed well is to be

1 drilled.

2 A Yes, I am.

3 MR. COOTER: Are the --

4 Q Have you previously testified before this
5 commission?

6 A Yes, I did, and believe the case number
7 was 8556.

8 Q That was the last time you were here.

9 A The last time.

10 Q Let me direct your attention to -- first
11 to Exhibit Number Two. Explain that to the commission, if
12 you would, please, sir.

13 A Exhibit Number Two is a 1-inch equal
14 2000-foot scale map showing the location of wells in the
15 Phantom Draw Field area in the southern eastern portion of
16 Eddy County, New Mexico, and the northern portion of Loving
17 County, Texas.

18 It identifies the wells which produce
19 from the Wolfcamp formation, the Wolfcamp detrital
20 formation, at a depth of approximately 12,400 feet, with a
21 square symbol around those producing wells.

22 It also annotates the cumulative
23 production of gas and condensate for each of the wells that
24 produce from the Wolfcamp. Those figures are annotated next
25 to the wells.

1 The location of our proposed Spitfire 18
2 Well in the southeast quarter of Section 18 is shown and al-
3 so the Spitfire 19 (not understood) unit wells.

4 The map is shown for comparison with the
5 reservoir Isolith map. We want to demonstrate that the pro-
6 duction quality is related to the reservoir Isolith map.

7 Q That map, let me interrupt, that map to
8 which you refer is Exhibit Number One.

9 A That's correct.

10 Q Okay, go ahead.

11 A I might mention at this time that the
12 Craig Corporation Spitfire 19 Well in the east half of 19 is
13 currently shut in waiting on pipeline connection. The well
14 was -- potential test, 4-point test was filed with a calcu-
15 lated absolute open flow of approximately 2.8 or 2.9-million
16 cubic feet of gas per day.

17 That's all. Those are the main factors
18 that I wanted to point out on Exhibit Two.

19 Q Let's go to Exhibit Number Three, then,
20 Mr. Gibson, let me place that in front of you and ask you to
21 discuss that for the commission.

22 A Exhibit Number Three is a wireline log
23 cross section in the Phantom Draw Field area.

24 The location of the wells on the cross
25 section are shown on the index map on the lower lefthand

1 corner of the cross section.

2 Q The location of the well in the south-
3 eastern quarter of 18, the proposed well, is not spotted on
4 the map. It should be, the southeast quarter of the south-
5 east quarter of 18.

6 The cross section demonstrates the vari-
7 ability, the lateral variability of the Wolfcamp reservoirs,
8 which have fairly good northeast/southwest trend.

9 For instance, the B zone -- it also iden-
10 tifies the three main zones, producing zones, of the Wolf-
11 camp detrital formation, the A, the B, and the C.

12 The Phantom Draw No. 1 Unit Well was com-
13 pleted in the B zone. The perforations are shown between
14 2600 -- between 12,600 feet and 12,700 feet.

15 When we drilled the Spitfire 19 No. 1, we
16 intended to extend that reservoir, production from that re-
17 servoir. We were concerned about the lateral variability,
18 the, the limit to that reservoir, and when we drilled the
19 well we are concerned with (not understood) out the B zone
20 in the Spitfire 19 is probably sub-economic but has not been
21 tested. Based on the wireline logs it will probably be sub-
22 economic.

23 We did encounter an A zone reservoir in
24 the Spitfire 19 between 12,400 and 500 feet and the perfora-
25 tions are annotated and shown on the cross section.

1 We now wish to offset the Spitfire 19 to
2 extend the A zone reservoir and we're concerned about the
3 lateral variability and limits.

4 I think that the cross section bears out
5 our concern about the east/west limits, the narrow reservoir
6 trends in the area.

7 We should note that the B zone reservoir
8 in the Craig Phantom Draw Unit No. 1, which is approximately
9 30 feet thick, has a cumulative production of about 3.12 --
10 excuse me, correction, about 2.3 billion cubic feet of gas.
11 The well is currently producing between 300 and 400 MCF of
12 gas per day.

13 The Craig Spitfire No. 19 has approxi-
14 mately -- I can't make it out-- approximately 30 to 40 feet
15 of net pay. We expect it will be an economic well but
16 haven't got enough production to know that for sure.

17 Based on these figures, I think 13 feet
18 of pay as an economic cutoff is a reasonable, conservative
19 number.

20 Q Okay, let me next direct your attention
21 to what has been marked as Exhibit Number Four. Would you
22 discuss that for the Examiner?

23 A Exhibit Number Four is a geological
24 structure map based on subsurface well control. It's con-
25 toured on the top of the Wolfcamp A detrital formation,

1 which is, as demonstrated, or as indicated, on the Exhibit
2 Three cross section.

3 It shows regional east dip on the top of
4 the Wolfcamp formation with no demonstrated structural clo-
5 sures and it helps to identify the entrapment of this struc-
6 tural cumulation -- excuse me, the accumulation of gas in
7 these Wolfcamp reservoirs is stratigraphic. The wells have
8 various oil and gas production, oil, gas, and water produc-
9 tion, and the various amounts of water production doesn't
10 seem to be directly related to structure.

11 That's Exhibit Number Four.

12 Q Mr. Gibson, could you give the approxi-
13 mate cost of drilling your proposed well?

14 A The Wolfcamp well with a proposed total
15 depth of approximately 13,000 feet will cost approximately
16 \$1.2-million to drill and complete.

17 Q That does include the completion costs if
18 the well is successful.

19 A That's correct.

20 Q If the application for the unorthodox lo-
21 cation were not granted by this commission, would you recom-
22 mend to your company, based upon the geological information
23 which you have presented, that a well be drilled at a stan-
24 dard location in the south half of Section 19?

25 A We're apprehensive about the reservoir

1 limits and the cost of the well and if a nonstandard loca-
2 tion is not approved, I would not recommend that a standard
3 location be drilled.

4 Q Based upon the geological information
5 which you have presented, if no well were drilled, is there
6 a distinct possibility that production would be -- possible
7 production would be left in the ground?

8 A Yes, there is.

9 Q Would the granting of this application by
10 the commission be in the best interest of conservation and
11 prevent waste?

12 A In my opinion it would.

13 Q Would correlative rights be protected?

14 A Yes, I think they would.

15 MR. COOTER: Mr. Examiner, we
16 offer -- oh, pardon me.

17 Q Were Exhibits Numbers Two, Three, and
18 Four prepared either by you or under your direction and sup-
19 ervision?

20 A Under my direction and supervision.

21 MR. COOTER: We offer Exhibits
22 Two, Three, and Four.

23 MR. STOGNER: Exhibits Two,
24 Three, and Four will be admitted into evidence.

25

1 CROSS EXAMINATION

2 BY MR. STOGNER:

3 Q Mr. Gibson, also with your exhibits there
4 was a --

5 A Geologic report?

6 Q Yes, on letterhead. What is that?

7 A This is a geologic report which explains
8 the geologic reasons for requesting a nonstandard location
9 and which cites the four geological exhibits just discussed.10 MR. STOGNER: Mr. Cooter, let's
11 mark this as Exhibit Five, shall we?12 MR. COOTER: Yes, sir. For the
13 record, let's identify Exhibit Five. That was filed -- was
14 that compiled by you?

15 A Yes, it was prepared by me.

16 Q And filed at the time with the applica-
17 tion in this case?

18 A Yes, it was.

19 MR. COOTER: We would then for-
20 mally offer Exhibit Five, Mr. Examiner.21 MR. STOGNER: Thank you, Mr.
22 Cooter, this will make the case file a little more easier to
23 understand.24 Exhibit Five will be admitted
25 into evidence and I have no further questions of any of the

1 witnesses.

2 Are there any other questions
3 of Mr. Gibson, Mr. Shackelford?

4 If not, Mr. Gibson may step
5 down.

6 Mr. Cooter, is there anything
7 further in Case 8707?

8 MR. COOTER: No, sir, that con-
9 cludes our presentation.

10 MR. STOGNER: Does anybody else
11 have anything further in this case?

12 If not, this case will be taken
13 under advisement.

14

15 (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 (Commission) 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 record of the proceedings in the Examiner hearing of Case No. 8707, heard by me on 25 September 1985.

Michael P. Hoover Examiner
Oil Conservation Division