

Case No.

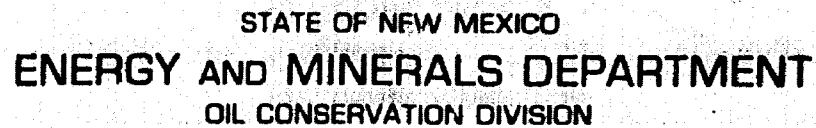
7273

Application

Transcripts

Small Exhibits

ETC



BRUCE KING
GOVERNOR
LARRY KEHOE
SECRETARY

POST OFFICE BOX 8088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

June 29, 1981

Mr. Conrad Coffield
Hinkle, Cox, Eaton, Coffield
& Hensley
Attorneys at Law
P. O. Box 3580
Midland, Texas 79702

Re: CASE NO. 7273
ORDER NO. R-6715

Applicant:

Blanks Energy Corporation

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD	<u> X </u>
Artesia OCD	<u> X </u>
Aztec OCD	<u> </u>

Other

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 7273
Order No. R-6715

APPLICATION OF BLANKS ENERGY
CORPORATION FOR AN UNORTHODOX
OIL WELL LOCATION AND POSSIBLE
DIRECTIONAL DRILLING, LEA COUNTY,
NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on June 17, 1981,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 25th day of June, 1981, the Division
Director, having considered the testimony, the record, and the
recommendations of the Examiner, and being fully advised in the
premises,

FINDS:

- (1) That due public notice having been given as required
by law, the Division has jurisdiction of this cause and the
subject matter thereof.
- (2) That the applicant, Blanks Energy Corporation, seeks
approval of an unorthodox well location 330 feet from the South
line and 900 feet from the East line of Section 16, Township 18
South, Range 35 East, NMPH, to test the Devonian formation,
South Vacuum-Devonian Pool, Lea County, New Mexico.
- (3) That the S/2 SE/4 of said Section 16 is to be dedicated
to the well.
- (4) That said unorthodox location will enable applicant to
avoid a known fault which crosses said proration unit.
- (5) That no offset operator objected to the proposed un-
orthodox location.

-2-

Case No. 7273
Order No. R-6715

(6) That applicant further proposes, if commercial production is not obtained at said unorthodox location, to come back up the hole to approximately 7500 feet and directionally drill in a westerly direction and bottom the well in the Devonian formation at a standard location in the SW/4 SE/4 of said Section 16.

(7) That if such is the case, and applicant does directionally drill said well, the applicant should be required to determine the subsurface location of the bottom of the hole by means of a continuous multi-shot directional survey conducted subsequent to said directional drilling, if said well is to be completed as a producing well.

(8) That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the oil in the subject pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the application of Blanks Energy Corporation for an unorthodox well location for the Devonian formation is hereby approved for a well to be located at a point 330 feet from the South line and 900 feet from the East line of Section 16, Township 18 South, Range 35 East, NMPM, South Vacuum-Devonian Pool, Lea County, New Mexico.

(2) That the S/2 SE/4 of said Section 16 shall be dedicated to the above-described well.

(3) That in the event commercial production is not obtained after drilling the aforesaid well at the above-described location, the applicant is hereby authorized to plug said well back to approximately 7500 feet, set a whipstock, and directionally drill in a westerly direction, bottoming said well in the Devonian formation at a standard location in the SW/4 SE/4 of said Section 16.

PROVIDED HOWEVER, that subsequent to the above-described directional drilling, should said well be a producer, a continuous multi-shot directional survey shall be made of the wellbore from total depth to the kick-off point with shot points not more than 100 feet apart; that the operator shall cause the surveying company to forward a copy of the survey report directly to the

-3-
Case No. 7273
Order No. R-6715

Santa Fe office of the Division, P. O. Box 2088, Santa Fe, New Mexico, and that the operator shall notify the Division's Hobbs District Office of the date and time said survey is to be commenced.

(4) That Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth in addition to measured depths.

(5) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


JOE D. RAMEY
Director

fd/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
17 June 1981

EXAMINER HEARING

IN THE MATTER OF:

Application of Blanks Energy Corpor-
ation for an unorthodox oil well
location and possible directional
drilling, Lea County, New Mexico.

CASE
7273

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

Ernest L. Padilla, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

Conrad E. Coffield, Esq.
HINKLE LAW FIRM
P. O. Box 3580
Midland, Texas

*Hearing
Registered
in this
Transcript*

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date

JUNE 17, 1981

Time: 9:00 A.M.

NAME	REPRESENTING	LOCATION
H. H. Kuehlich	El Paso Natural Gas	El Paso
Carol Decker	Low Current Drillers	Artesia
Ray Stall	Yates Petroleum Corp	Midland, TX
Charles E. Good	Humble Service Firm	Midland TX
W. C. Burlett	Blanks Energy Corp	DENVER
Charles E. Good, Jr.	NECA Petroleum Co.	Santa Fe
W. T. Kelblin	Kelblin & Kelblin	Roswell
Gerald E. Harrington	Holly Energy, Inc.	SF
William L. Gray	Amplite, Reed & Beck	Albuquerque
Sue E. Umshier	USGS, OED	Santa Fe
Bob Haker	Byram	FARMINGTON
Paul C. Thompson	NORTHWEST PIPELINE	Farmington
Tommy Roberts	Dugan Production	ALF
Tom Dugan	Wade & Lar	Houston
J. E. Epperly	par	
H. J. Keenan	Mobil Producing Tex &	
Ja Carr	N. Mexico	

EXAMINER HEARING

, NEW MEXICO

Time: 9:00 A.M.

NAME	REPRESENTING	LOCATION
Scott Hall	State Land Office	Santa Fe

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

2

I N D E X

W. C. BURKETT

Direct Examination by Mr. Coffield

3

Cross Examination by Mr. Nutter

14

E X H I B I T S

Applicant Exhibit One, Plat

5

Applicant Exhibit Two, Structure Map

6

Applicant Exhibit Three, Waiver

9

Applicant Exhibit Four, Recommendation

11

MR. NUTTER: Call next Case Number 7273.

MR. PADILLA: Application of Blanks Energy Corporation for an unorthodox oil well location and possible directional drilling, Lea County, New Mexico.

MR. COFFIELD: Mr. Examiner, I'm Conrad Coffield with the Hinkle law firm in Midland, Texas, and I have one witness to be sworn.

(Witness sworn.)

W. C. BURKETT

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

DIRECT EXAMINATION

BY MR. COFFIELD:

Q Mr. Burkett, for the record would you please state your name, address, occupation, and your relationship to the applicant?

A William C. Burkett, 3208 Lockheed, Midland, Texas. I am a geologist for Blanks Energy Corporation.

MR. NUTTER: How do you spell your last name, Mr. Burkett?

1

2

A B-U-R-K-E-T-T.

3

MR. NUTTER: Thank you.

4

Q

Have you previously testified before the
Division as a geologist?

6

A

No, I have not.

7

Q

Would you please give a resume, brief
resume, of your educational background and your work experience?

9

A

I was graduated with a Bachelor of
Science degree in geology from Miami University in Oxford,
Ohio, in 1967, and I furthered my study and completed work on
my Master's degree and received my Master's degree in geology
in 1969.

14

I came to work in Midland, Texas, for
Texaco, Incorporated, where I was employed for eleven years.

16

In February of 1980 I came to work for
Mr. Blanks at Blanks Energy Corporation as a geologist. I'm
currently employed there.

19

Q

Mr. Burkett, are you familiar with the
Blanks Energy application in this case?

21

A

Yes.

22

Q

And are you familiar with the property
and proposed well location involved here?

24

A

Yes.

25

MR. COFFIELD: Mr. Examiner, do you have

1

5

2 any other questions of Mr. Burkett?

3 MR. NUTTER: Mr. Burkett is qualified.

4 Q Mr. Burkett, would you please state
5 briefly what it is Blanks Energy seeks by this application?

6 A Blanks Energy seeks approval for the
7 unorthodox location of a well to be drilled 330 feet from the
8 south line and 900 feet from the east line of Section 16,
9 Township 18 South, Range 35 East, in Lea County, New Mexico,
10 in the South Vacuum-Devonian Pool. The south half of the
11 southeast quarter of said section is to be dedicated to this
12 well.

13 If commercial production is not obtained
14 at said location, we propose to come back up the hole and
15 directionally drill in a westerly direction and bottom the
16 well in the Devonian formation at a standard location in the
17 southwest quarter of the southeast quarter of said Section 16,

18 Q Mr. Burkett, relative to the unorthodox
19 location aspect of this particular application, is this unor-
20 thodox location sought for geological reasons?

21 A Yes, that's correct.

22 Q Would you please refer to what we've
23 marked as Exhibit One and explain that exhibit to the Examiner?

24 A Okay. Exhibit One is a location and
25 land plat on a portion of Lea County, New Mexico. Acreage

1
2 currently in control by Blanks is colored in yellow. The
3 unorthodox location and the whipstock total depth location
4 is noted in the southeast corner of Section 16. Geographically
5 we're about eighteen miles to the west of the City of Hobbs.
6 The big field up to the north is the Vacuum Field, and the
7 field which we're trying to develop up to the north is the
8 Vacuum South-Devonian Field.

9 Q Okay, would you refer now to what we've
10 marked as Exhibit Two and explain what that represents?

11 A Exhibit Two is a structure map on top
12 of the Devonian structure. The Devonian is the main producing
13 horizon in this area. The production from the Devonian in
14 Vacuum South and Vacuum Middle Field is structurally control-
15 led and by recent drilling we have determined that this is
16 also the case in our subject area.

17 The Blanks acreage again is colored in
18 yellow. The dark yellow acreage is the 80 acres that's
19 dedicated to the subject well. The two red spots indicate
20 the unorthodox location and the red spot south of the Sinclair
21 Well No. 7403 is the bottom hole location for the whipstock,
22 proposed whipstock.

23 Basically we have a structural entrap-
24 ment of hydrocarbons here. Very critical to this entrapment
25 is the big fault which you see trending northwest/southeast,

1
2 We have determined from subsurface
3 control and drilling, and seismic control, the most critical
4 lineation of this fault is critical to our unorthodox location.
5 We have determined from seismic that in the area of our loca-
6 tion the fault is downthrown approximately 1400 feet to the
7 north side of that fault.

8 What we are proposing to do is drill
9 to the north of the Sinclair No. 2 - 401 State Lea in this
10 unorthodox location within the same fault block as the No. 2
11 401 State Lea and recover reserves at a structurally higher
12 position than that well, which cannot be recovered, or have
13 not been recovered by the Sinclair well, which watered out
14 from the Devonian after producing about 38,000 barrels of
15 oil.

16 MR. NUTTER: Now, you're talking about
17 the Sinclair No. 2 - 401?

18 A Right, that's correct.

19 MR. NUTTER: Okay. Was the Sinclair
20 State Lea 403 up here, the No. 7, was it a dry hole on com-
21 pletion?

22 A It was drilled to the Mississippian
23 and it was abandoned there. It was intended to drill to the
24 Devonian but they were running low at Mississippian level
25 and they abandoned the well at Mississippian level.

1
2 They are currently using that well as
3 a water injection well, which they're injecting -- they have
4 injected approximately 7-million barrels of water to date and
5 are currently injecting approximately 1500 barrels of water
6 per day at a pressure of about 2100 pounds.

7 MR. NUTTER: Into what formation?

8 A It's going into several formations from
9 a depth of about 3300 feet to 6900 feet and it's above the
10 Bone Spring pay.

11 MR. NUTTER: So it never has penetrated
12 the Devonian, then?

13 A That's correct.

14 MR. NUTTER: Okay.

15 A The top you see by that well is based
16 on projection, assuming the same thickness of the Mississ-
17 ippian, Woodford, and Devonian that we saw in the Blanks No.
18 1 Honeysuckle to the south.

19 If we are unsuccessful in obtaining
20 hydrocarbon in commercial quantities at the unorthodox
21 location, it is our proposal to come back up-hole and whip-
22 stock to a legal location in the southeast quarter of the
23 southwest -- southwest quarter of the southeast quarter of
24 said Section 16.

25 In this case we hope to recover reserves

1
2 that we can't recover from the Blanks No. 1 Honeysuckle, and
3 we hope to avoid problems with the high pressure water injection
4 well which we'll be twinning to the south.

5 Q Did you have anything further to add on
6 this exhibit?

7 A No.

8 Q What would a standard well location be
9 relative to the proposed unorthodox location?

10 A The standard location in that quarter
11 quarter section is noted by an "X", which falls to the north
12 of the main fault and would be on the downthrown side of that
13 fault.

14 Q Is Blanks Energy the leasehold owner
15 as well as the proposed operator on this?

16 A Not the leasehold owner, but we do have
17 a farm-out arrangement from ARCO. When we drill the well,
18 subject well, we will earn this acreage.

19 Q Do you happen to have a waiver from the
20 offset operator to the east?

21 A Yes, I believe Exhibit --

22 Q Is that --

23 A -- Three.

24 Q Is that Exhibit Three? In your expert
25 opinion, Mr. Burkett, is the unorthodox location sought by

Blanks a more acceptable location geologically?

A. Yes.

Q And if a well were attempted in an orthodox location in the center of the southeast of the southwest quarter of that section, do you believe it would be productive?

A. No.

Q Now turning to the, let's see, the directional drilling aspects of this application, why, I think maybe you've alluded to it, but why is it that Blanks Energy seeks authority to directionally drill this well if it's nonproductive in this unorthodox location to the east?

A. I think there's a couple of problems that justify whipstocking the well, and the two main ones are a risk factor and an economic factor.

Were we to drill straight down, a south twin to the water injection well, we would encounter this water formation from 3300 to 6600 feet. It is under high pressure and, as I've said, they have injected about 7-million barrels of water in that well to date.

When we were drilling the No. 1 Honey-suckle to the south and encountered this section, we encountered a water flowback and had trouble drilling through this section.

1
2 We feel a location as close to the
3 Sinclair State No. 7 - 403 as we have proposed would be im-
4 possible to drill.

5 We have designed a drilling program
6 whereby we, if we could get through it, we would have to set
7 an exotic casing string, the cost of which would be approximately
8 \$1.7 million to drill that well, as compared to whipstocking
9 from the location at a depth of 7500 feet, kicking off, it
10 would cost approximately \$1.1 million.

11 So it's economically better, as well as
12 there is less risk involved in whipstocking because we'll
13 whipstock underneath the formation that's taking the water,
14 formations that are taking the water.

15 Q Okay, Mr. Burkett, relative to the --
16 the actual whipstock operation, would you now turn to Exhibit
17 Four and describe that exhibit, please?

18 A Exhibit Four is a recommendation on the
19 whipstock from the unorthodox location to the legal location,
20 as I previously said.

21 Basically what they would do is go to
22 a depth of approximately 7500 feet and kickout with a
23 directional tool and continue to drill towards the target
24 depth and direction. There would be surveys run prior to
25 kicking off the well. There would be a continuous reading

1
2 We feel a location as close to the
3 Sinclair State No. 7 - 403 as we have proposed would be im-
4 possible to drill.

5 We have designed a drilling program
6 whereby we, if we could get through it, we would have to set
7 an exotic casing string, the cost of which would be approximately
8 \$1.7 million to drill that well, as compared to whipstocking
9 from the location at a depth of 7500 feet, kicking off, it
10 would cost approximately \$1.1 million.

11 So it's economically better, as well as
12 there is less risk involved in whipstocking because we'll
13 whipstock underneath the formation that's taking the water,
14 formations that are taking the water.

15 Q Okay, Mr. Burkett, relative to the --
16 the actual whipstock operation, would you now turn to Exhibit
17 Four and describe that exhibit, please?

18 A Exhibit Four is a recommendation on the
19 whipstock from the unorthodox location to the legal location,
20 as I previously said.

21 Basically what they would do is go to
22 a depth of approximately 7500 feet and kickout with a
23 directional tool and continue to drill towards the target
24 depth and direction. There would be surveys run prior to
25 kicking off the well. There would be a continuous reading

1
2 survey at the kick off point for about 60 to 90 feet with the
3 directional orientation tool, and there would be surveys
4 every 200 feet or less during the actual drilling operations.

5 After we have reached the target location
6 at total depth we would run a multiple shot survey back to
7 the kick off point as required by the State.

8 Q Mr. Burkett, you've testified to the
9 existence of a fault feature in this area, lying immediately
10 to the west of the unorthodox location that we seek. Is it
11 not true that directional drilling through a faulted area is
12 considered dangerous or certainly undesirable?

13 A Yes, this is correct.

14 Q What would you propose to do about that
15 problem in this case?

16 A I have reviewed the seismic record
17 sections as well as the subsurface well control, and from
18 my knowledge of the area, in addition, I know to be a fact
19 that the faulting in this area comes up only as high as the
20 Strawn formation, which is in this area is a depth of approx-
21 imately 10,600 feet.

22 The kick off point at 7500 feet is
23 well above this depth of 10,600 feet and from the graph on
24 Exhibit Three -- Exhibit Four, I'm sorry, at 10,600 feet
25 the well, the bottom hole location has migrated approximately

1
2 800 feet, which would put us well across the fault above the
3 fault, so there would be no problem in whipstocking across
4 that fault.

5 We'd be above the fault and below the
6 water injection formations.

7 Q Did you have anything further to add to
8 your testimony, Mr. Burkett?

9 A No.

10 Q Were Exhibits One through Three prepared
11 by you or under your supervision?

12 A Yes.

13 Q And on Exhibit Four, is that a matter
14 which you have carefully reviewed and with which you concur
15 in its conclusions and recommendation?

16 A Yes.

17 MR. COFFIELD: Mr. Examiner, I move the
18 admission of Exhibits One through Four.

19 MR. NUTTER: Exhibits One through Four
20 will be admitted in evidence.

21 Q And in your opinion, Mr. Burkett, would
22 the granting of this application be in the interests of con-
23 servation, prevention of waste, and protection of correlative
24 rights?

25 A Yes.

1
2 MR. COFFIELD: I have no further ques-
3 tions of Mr. Burkett on direct examination, Mr. Examiner.

4
5 CROSS EXAMINATION

6 BY MR. NUTTER:

7 Q Mr. Burkett, now you've mentioned that
8 when you drilled the Honeysuckle, you encountered this water
9 flow due to the injected water in the old well to the north.

10 A Yes.

11 Q And you stated that if you drilled at
12 the standard location through the injection zone, you would --
13 it would require this exotic casing program. That would be
14 to withstand the pressure of the water that's been injected
15 into that area?

16 A I think after we drilled through that
17 water injection zone, then we would have to set an additional
18 string of casing. So I'm not sure exactly how many strings
19 of casing is involved, but I know we'd have to start out with
20 a 20-inch casing at the surface in order to case off this
21 water injection zone and still drill out with a 7-7/8ths.

22 Q In other words, it wouldn't be to with-
23 stand the pressure. It would just be to counteract the
24 problems with this waterflow while you're drilling through
25 it.

1
2 A We're uncertain as to what the pressures
3 may or may not do to us if we would drill at the standard
4 location.

5 Q But by going in under the injection
6 zone you don't anticipate any problems with it?

7 A That's correct, and we feel that should
8 we start at a kickoff point of 7500 feet, which has already
9 been drilled, it would save us money.

10 Q Which do you feel is the more likely,
11 that you'd get production at the unorthodox surface location
12 or by whipstocking over to the standard location?

13 A I think that we'll get -- in my opinion,
14 we'll establish production at the unorthodox location.

15 Q You're going to control that and try to
16 drill it pretty straight, are you?

17 A Yes.

18 Q Now, how far would you go before you
19 decide whether you've got to whipstock or not? Would you
20 drill into the Devonian or would you --

21 A Yes, uh-huh, we would.

22 Q You would test the Devonian before --

23 A That's correct.

24 Q -- making a decision?

25 A That's correct.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

Q Now, looking at Eastman's program here,
I don't see the kickoff point stated in the -- in the recom-
mended procedure, but it is on their diagram back here. The
kickoff point would be 7500 feet?

A That is correct.

Q And then you'd deviate some 1095 feet
to the west northwest?

A That's correct.

MR. NUTTER: Are there any further
questions of Mr. Burkett? He may be excused.

Do you have anything further, Mr. Coff-
field?

MR. COFFIELD: No, Mr. Examiner, I do
not.

MR. NUTTER: Does anyone have anything
they wish to offer in Case Number 7273?

We'll take the case under advisement.

(Hearing concluded.)

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 record of the proceedings in the Examiner hearing of Case No. 7273 heard by me on 6/17 1981.

[Signature], Examiner
Oil Conservation Division

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
17 June 1981

EXAMINER HEARING

IN THE MATTER OF:

Application of Blanks Energy Corpor-
ation for an unorthodox oil well
location and possible directional
drilling, Lea County, New Mexico.

CASE
7273

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

Ernest L. Padilla, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

Conrad E. Coffield, Esq.
HINKLE LAW FIRM
P. O. Box 3580
Midland, Texas

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

2

I N D E X

W. C. BURKETT

Direct Examination by Mr. Coffield	3
Cross Examination by Mr. Nutter	14

E X H I B I T S

Applicant Exhibit One, Plat	5
Applicant Exhibit Two, Structure Map	6
Applicant Exhibit Three, Waiver	9
Applicant Exhibit Four, Recommendation	11

MR. NUTTER: Call next Case Number 7273.

MR. PADILLA: Application of Blanks Energy Corporation for an unorthodox oil well location and possible directional drilling, Lea County, New Mexico.

MR. COFFIELD: Mr. Examiner, I'm Conrad Coffield with the Hinkle law firm in Midland, Texas, and I have one witness to be sworn.

(Witness sworn.)

W. C. BURKETT

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

DIRECT EXAMINATION

BY MR. COFFIELD:

Q Mr. Burkett, for the record would you please state your name, address, occupation, and your relationship to the applicant?

A William C. Burkett, 3208 Lockheed, Midland, Texas. I am a geologist for Blanks Energy Corporation.

MR. NUTTER: How do you spell your last name, Mr. Burkett?

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

A B-U-R-K-E-T-T.

MR. NUTTER: Thank you.

Q Have you previously testified before the Division as a geologist?

A No, I have not.

Q Would you please give a resume, brief resume, of your educational background and your work experience?

A I was graduated with a Bachelor of Science degree in geology from Miami University in Oxford, Ohio, in 1967, and I furthered my study and completed work on my Master's degree and received my Master's degree in geology in 1969.

I came to work in Midland, Texas, for Texaco, Incorporated, where I was employed for eleven years.

In February of 1980 I came to work for Mr. Blanks at Blanks Energy Corporation as a geologist. I'm currently employed there.

Q Mr. Burkett, are you familiar with the Blanks Energy application in this case?

A Yes.

Q And are you familiar with the property and proposed well location involved here?

A Yes.

MR. COFFIELD: Mr. Examiner, do you have

1

5

2 any other questions of Mr. Burkett?

3 MR. NUTTER: Mr. Burkett is qualified.

4 Q Mr. Burkett, would you please state
5 briefly what it is Blanks Energy seeks by this application?

6 A Blanks Energy seeks approval for the
7 unorthodox location of a well to be drilled 330 feet from the
8 south line and 900 feet from the east line of Section 16,
9 Township 18 South, Range 35 East, in Lea County, New Mexico,
10 in the South Vacuum-Devonian Pool. The south half of the
11 southeast quarter of said section is to be dedicated to this
12 well.

13 If commercial production is not obtained
14 at said location, we propose to come back up the hole and
15 directionally drill in a westerly direction and bottom the
16 well in the Devonian formation at a standard location in the
17 southwest quarter of the southeast quarter of said Section 16.

18 Q Mr. Burkett, relative to the unorthodox
19 location aspect of this particular application, is this unor-
20 thodox location sought for geological reasons?

21 A Yes, that's correct.

22 Q Would you please refer to what we've
23 marked as Exhibit One and explain that exhibit to the Examiner?

24 A Okay. Exhibit One is a location and
25 land plat on a portion of Lea County, New Mexico. Acreage

1

6

2 currently in control by Blanks is colored in yellow. The
3 unorthodox location and the whipstock total depth location
4 is noted in the southeast corner of Section 16. Geographically
5 we're about eighteen miles to the west of the City of Hobbs.
6 The big field up to the north is the Vacuum Field, and the
7 field which we're trying to develop up to the north is the
8 Vacuum South-Devonian Field.

9 Q Okay, would you refer now to what we've
10 marked as Exhibit Two and explain what that represents?

11 A Exhibit Two is a structure map on top
12 of the Devonian structure. The Devonian is the main producing
13 horizon in this area. The production from the Devonian in
14 Vacuum South and Vacuum Middle Field is structurally control-
15 led and by recent drilling we have determined that this is
16 also the case in our subject area.

17 The Blanks acreage again is colored in
18 yellow. The dark yellow acreage is the 80 acres that's
19 dedicated to the subject well. The two red spots indicate
20 the unorthodox location and the red spot south of the Sinclair
21 Well No. 7403 is the bottom hole location for the whipstock,
22 proposed whipstock.

23 Basically we have a structural entrap-
24 ment of hydrocarbons here. Very critical to this entrapment
25 is the big fault which you see trending northwest/southeast.

1
2 We have determined from subsurface
3 control and drilling, and seismic control, the most critical
4 lineation of this fault is critical to our unorthodox location.
5 We have determined from seismic that in the area of our loca-
6 tion the fault is downthrown approximately 1400 feet to the
7 north side of that fault.

8 What we are proposing to do is drill
9 to the north of the Sinclair No. 2 - 401 State Lea in this
10 unorthodox location within the same fault block as the No. 2
11 401 State Lea and recover reserves at a structurally higher
12 position than that well, which cannot be recovered, or have
13 not been recovered by the Sinclair well, which watered out
14 from the Devonian after producing about 38,000 barrels of
15 oil.

16 MR. NUTTER: Now, you're talking about
17 the Sinclair No. 2 - 401?

18 A Right, that's correct.

19 MR. NUTTER: Okay. Was the Sinclair
20 State Lea 403 up here, the No. 7, was it a dry hole on com-
21 pletion?

22 A It was drilled to the Mississippian
23 and it was abandoned there. It was intended to drill to the
24 Devonian but they were running low at Mississippian level
25 and they abandoned the well at Mississippian level.

They are currently using that well as a water injection well, which they're injecting -- they have injected approximately 7-million barrels of water to date and are currently injecting approximately 1500 barrels of water per day at a pressure of about 2100 pounds.

MR. NUTTER: Into what formation?

A. It's going into several formations from a depth of about 3300 feet to 6900 feet and it's above the Bone Spring pay.

MR. NUTTER: So it never has penetrated the Devonian, then?

A. That's correct.

MR. NUTTER: Okay.

A. The top you see by that well is based on projection, assuming the same thickness of the Mississippian, Woodford, and Devonian that we saw in the Blanks No. 1 Honeysuckle to the south.

If we are unsuccessful in obtaining hydrocarbon in commercial quantities at the unorthodox location, it is our proposal to come back up-hole and whipstock to a legal location in the southeast quarter of the southwest - southwest quarter of the southeast quarter of said Section 16.

In this case we hope to recover reserves

1
2 that we can't recover from the Blanks No. 1 Honeysuckle, and
3 we hope to avoid problems with the high pressure water injection
4 well which we'll be twinning to the south.

5 Q Did you have anything further to add on
6 this exhibit?

7 A No.

8 Q What would a standard well location be
9 relative to the proposed unorthodox location?

10 A The standard location in that quarter
11 quarter section is noted by an "X", which falls to the north
12 of the main fault and would be on the downthrown side of that
13 fault.

14 Q Is Blanks Energy the leasehold owner
15 as well as the proposed operator on this?

16 A Not the leasehold owner, but we do have
17 a farm-out arrangement from ARCO. When we drill the well,
18 subject well, we will earn this acreage.

19 Q Do you happen to have a waiver from the
20 offset operator to the east?

21 A Yes, I believe Exhibit --

22 Q Is that --

23 A -- Three.

24 Q Is that Exhibit Three? In your expert
25 opinion, Mr. Burkett, is the unorthodox location sought by

1
2 Blanks a more acceptable location geologically?

3 A Yes.

4 Q And if a well were attempted in an or-
5 thodox location in the center of the southeast of the south-
6 west quarter of that section, do you believe it would be pro-
7 ductive?

8 A No.

9 Q Now turning to the, let's see, the
10 directional drilling aspects of this application, why, I
11 think maybe you've alluded to it, but why is it that Blanks
12 Energy seeks authority to directionally drill this well if
13 it's nonproductive in this unorthodox location to the east?

14 A I think there's a couple of problems
15 that justify whipstocking the well, and the two main ones are
16 a risk factor and an economic factor.

17 Were we to drill straight down, a south
18 twin to the water injection well, we would encounter this
19 water formation from 3300 to 6600 feet. It is under high
20 pressure and, as I've said, they have injected about 7-million
21 barrels of water in that well to date.

22 When we were drilling the No. 1 Honey-
23 suckle to the south and encountered this section, we encountered
24 a water flowback and had trouble drilling through this sec-
25 tion.

1 We feel a location as close to the
2 Sinclair State No. 7 - 403 as we have proposed would be im-
3 possible to drill.
4

5 We have designed a drilling program
6 whereby we, if we could get through it, we would have to set
7 an exotic casing string, the cost of which would be approximately
8 \$1.7 million to drill that well, as compared to whipstocking
9 from the location at a depth of 7500 feet, kicking off, it
10 would cost approximately \$1.1 million.

11 So it's economically better, as well as
12 there is less risk involved in whipstocking because we'll
13 whipstock underneath the formation that's taking the water,
14 formations that are taking the water.

15 Q Okay, Mr. Burkett, relative to the --
16 the actual whipstock operation, would you now turn to Exhibit
17 Four and describe that exhibit, please?

18 A Exhibit Four is a recommendation on the
19 whipstock from the unorthodox location to the legal location,
20 as I previously said.

21 Basically what they would do is go to
22 a depth of approximately 7500 feet and kickout with a
23 directional tool and continue to drill towards the target
24 depth and direction. There would be surveys run prior to
25 kicking off the well. There would be a continuous reading

1
2 survey at the kick off point for about 60 to 90 feet with the
3 directional orientation tool, and there would be surveys
4 every 200 feet or less during the actual drilling operations.

5 After we have reached the target location
6 at total depth we would run a multiple shot survey back to
7 the kick off point as required by the State.

8 Q Mr. Burkett, you've testified to the
9 existence of a fault feature in this area, lying immediately
10 to the west of the unorthodox location that we seek. Is it
11 not true that directional drilling through a faulted area is
12 considered dangerous or certainly undesirable?

13 A Yes, this is correct.

14 Q What would you propose to do about that
15 problem in this case?

16 A I have reviewed the seismic record
17 sections as well as the subsurface well control, and from
18 my knowledge of the area, in addition, I know to be a fact
19 that the faulting in this area comes up only as high as the
20 Strawn formation, which is in this area is a depth of approx-
21 imately 10,600 feet.

22 The kick off point at 7500 feet is
23 well above this depth of 10,600 feet and from the graph on
24 Exhibit Three -- Exhibit Four, I'm sorry, at 10,600 feet
25 the well, the bottom hole location has migrated approximately

1
2 800 feet, which would put us well across the fault above the
3 fault, so there would be no problem in whipstocking across
4 that fault.

5 We'd be above the fault and below the
6 water injection formations.

7 Q Did you have anything further to add to
8 your testimony, Mr. Burkett?

9 A No.

10 Q Were Exhibits One through Three prepared
11 by you or under your supervision?

12 A Yes.

13 Q And on Exhibit Four, is that a matter
14 which you have carefully reviewed and with which you concur
15 in its conclusions and recommendation?

16 A Yes.

17 MR. COFFIELD: Mr. Examiner, I move the
18 admission of Exhibits One through Four.

19 MR. NUTTER: Exhibits One through Four
20 will be admitted in evidence.

21 Q And in your opinion, Mr. Burkett, would
22 the granting of this application be in the interests of con-
23 servation, prevention of waste, and protection of correlative
24 rights?

25 A Yes.

1
2 MR. COFFIELD: I have no further ques-
3 tions of Mr. Burkett on direct examination, Mr. Examiner.
4

5 CROSS EXAMINATION

6 BY MR. NUTTER:

7 Q Mr. Burkett, now you've mentioned that
8 when you drilled the Honeysuckle, you encountered this water
9 flow due to the injected water in the old well to the north.

10 A Yes.

11 Q And you stated that if you drilled at
12 the standard location through the injection zone, you would
13 it would require this exotic casing program. That would be
14 to withstand the pressure of the water that's been injected
15 into that area?

16 A I think after we drilled through that
17 water injection zone, then we would have to set an additional
18 string of casing. So I'm not sure exactly how many strings
19 of casing is involved, but I know we'd have to start out with
20 a 20-inch casing at the surface in order to case off this
21 water injection zone and still drill out with a 7-7/8ths.

22 Q In other words, it wouldn't be to with-
23 stand the pressure. It would just be to counteract the
24 problems with this waterflow while you're drilling through
25 it.

1
2 A We're uncertain as to what the pressures
3 may or may not do to us if we would drill at the standard
4 location.

5 Q But by going in under the injection
6 zone you don't anticipate any problems with it?

7 A That's correct, and we feel that should
8 we start at a kickoff point of 7500 feet, which has already
9 been drilled, it would save us money.

10 Q Which do you feel is the more likely,
11 that you'd get production at the unorthodox surface location
12 or by whipstocking over to the standard location?

13 A I think that we'll get -- in my opinion,
14 we'll establish production at the unorthodox location.

15 Q You're going to control that and try to
16 drill it pretty straight, are you?

17 A Yes.

18 Q Now, how far would you go before you
19 decide whether you've got to whipstock or not? Would you
20 drill into the Devonian or would you --

21 A Yes, uh-huh, we would.

22 Q You would test the Devonian before --

23 A That's correct.

24 Q -- making a decision?

25 A That's correct.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

Q Now, looking at Eastman's program here, I don't see the kickoff point stated in the -- in the recommended procedure, but it is on their diagram back here. The kickoff point would be 7500 feet?

A That is correct.

Q And then you'd deviate some 1095 feet to the west northwest?

A That's correct.

MR. NUTTER: Are there any further questions of Mr. Burkett? He may be excused.

Do you have anything further, Mr. Coffield?

MR. COFFIELD: No, Mr. Examiner, I do not.

MR. NUTTER: Does anyone have anything they wish to offer in Case Number 7273?

We'll take the case under advisement.

(Hearing concluded.)

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.

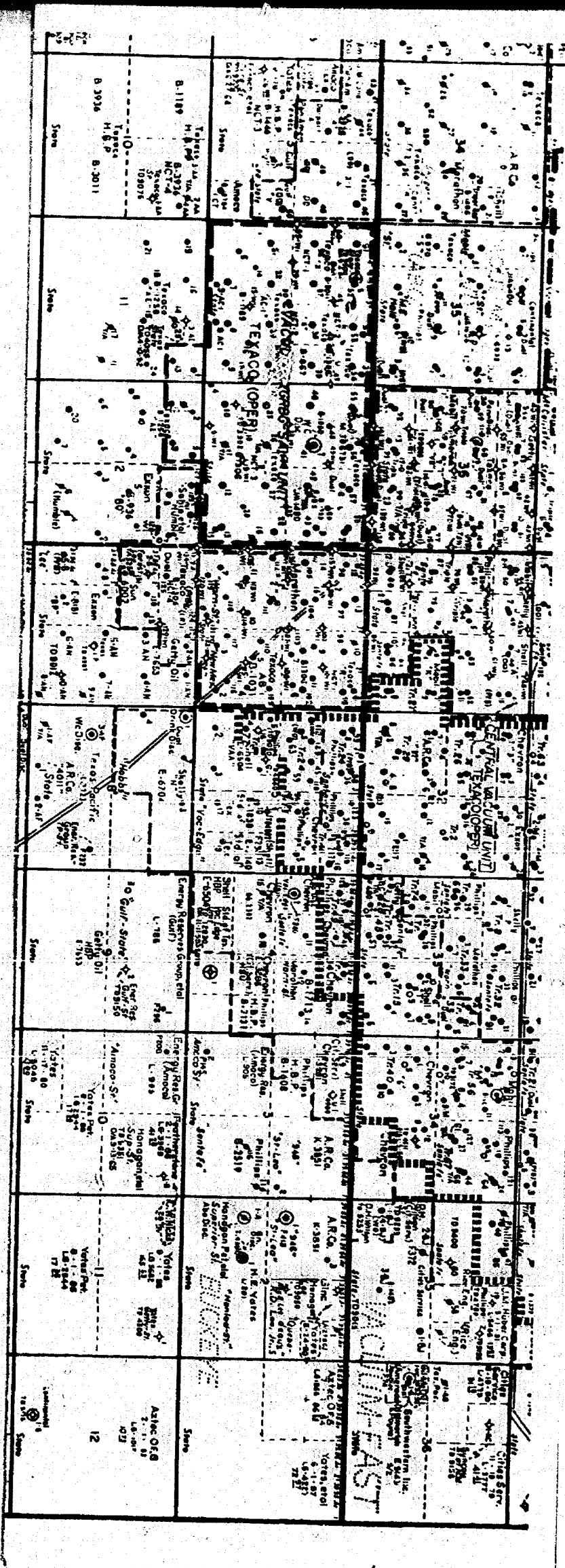
Sally W. Boyd CSR

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 7272 heard by me on 6/17 1981.

[Signature] Examiner.
Oil Conservation Division



R 35 E

10

Line #1
10

Continental
#1-A Nix-Federal

Yates Pet
#1 Reeves

50

100

150

15

200
-8819

250
-8934

300
-8934

350
-9273

Sinclair
#1-403 State Lea

-7935

200
-7904

150
H.B. Rhodes
#1 Atlantic "22" State

22

Sinclair
#3 State Lea "403"

Line #28
10

550

500
Pure Oil Co
#1 State Lea "F"

Harvey E. Y
#1 Fee "23"

VACUUM, SOUTH (DEV.)

Sinclair
#2-403 State Lea

Leatherwood Drig
#1 Atlantic State

Sinclair
#3 State Lea (403)

Pure Oil Co
#2-F State

Honeysuckle Exp
#1 State "22"

400

DUCTION

8

9

Texas Pacific
#3-AF State

Energy Reserves
#2-Y TP State

Getty
#1 "AP" State

Texas Pacific
#1-AF State

Sinclair
#1 State Lea "4011"

Texas Pacific
#2-AF State

Mumble
#1-B State
75

Sinclair
#4 State-Lea "403"
Bishop Uranium
#1 Hooklin-Bull State

Sinclair
#6 "403" State-Lea

VACUUM, MID. (DEV.)

65

Sinclair
#5 "403" State-Lea

60

17

55

50

Sinclair
#11-401 State

T
18
S

BEFORE EXAMINER NUTTER

OIL CONSERVATION DIVISION

BLANKS EXHIBIT NO. 2

CASE NO. 7273

BLANKS ENERGY CORPORATION

BLANKS BUILDING MIDLAND, TEXAS

MAP OF A PORTION OF

LEA COUNTY NEW MEXICO

TOP DEVONIAN STRUCTURE

C.I. ' 100'
SCALE ' 1" = 1000'

GEOLOGIST • W.C. BURKETT

DATE • JUNE 1981

GEOPHYSICIST • MARVIN GIBSON

DEVONIAN PROD

65

60 -8735

55 -8529

-8500

-8400

-8300

-8200

-8100

40 -854

45

D
U

ARCO Oil and Gas Company
Permian District
Post Office Box 1000
Midland, Texas 79702
Telephone 915 684 0100



June 15, 1981

New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Gentlemen:

ARCO Oil and Gas Company waives any objection to Blanks Energy Corporation's proposed unorthodox location, 900' from the East and 330' from the South of Section 16 of Township 18 South and 35 East; and also its proposed option to whipstock the well to a proposed bottom hole location of 1980' from the east and 510' from the South.

Sincerely,

J. L. Tweed
J. L. Tweed
District Engineer

JLT:sep

cc: Blanks Energy Corporation

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Blanks EXHIBIT NO. 3
CASE NO. 7273



P. O. Box 5577/Midland, Texas 79701/(915) 563-0511
TWX 910-881-5066/Cable EASTCO

May 5, 1981

BLANKS ENERGY CORPORATION
Gary Feist

ARCO STATE #1
LEA COUNTY, NEW MEXICO

RECOMMENDED PROCEDURE

1. Drill to 4800' keeping well bore as near vertical as possible and set 8 5/8" casing. Run Gyro Directional Survey 0' to 4800' on wire line before drilling out.
2. Drill out with 7 7/8" bit, 7 7/8" bottom hole (RWP) 10' drill collar, 7 7/8" string (RWP) stabilizer, shock sub, 6" X 30' non magnetic drill collar, 7 7/8" string (RWP) stabilizer, 45,000# drill collars, jars, 10,000# drill collars (above jars) and drill pipe. Drill to the kickoff point and trip out of hole.
3. Go in hole with 7 7/8" MD 33 RSST bit, 5" mud motor. 2° Bent Sub with orienting sleeve, 6" X 30' non magnetic drill collar, drill collars and drill pipe. Orient with directional orientation tool and drill 60' (+ -) to deflect well bore with proper direction and angle. Trip out of hole.
4. Go in hole with regular 7 7/8" drill bit, 7 7/8" bottom hole (RWP), 6" X 30' non magnetic drill collar, 3 - 30' steel drill collars, 7 7/8" stabilizer, drill collars and drill pipe. Drill and build angle at the rate of 1° 30' per 100' until the desired average angle is obtained, and trip out of hole.
5. Go in hole with 7 7/8" bit, 7 7/8" bottom hole (RWP), 10' drill collar, 7 7/8" (1/8" undergauge) string (RWP) stabilizer, shock sub, 6" X 30' non magnetic drill collar, 7 7/8" (1/8" undergauge) string (RWP) stabilizer 45,000# drill collars, jars, 10,000# drill collars (above jars) and drill pipe. Drill with this assembly to the proposed target depth or until a corrective run is needed.
6. Upon reaching total depth on trip out of hole, drop magnetic multiple shot survey and survey back to kick off point. This will give a complete multiple shot survey from surface to total depth which is required by the New Mexico Oil and Gas Conservation Commission.

BEFORE EXAMINER NUTTER	
OIL CONSERVATION DIVISION	
BLANKS	EXHIBIT NO. 4
CASE NO.	7273

Directional Drillers/Sub-Surface Surveyors/Instrument & Tool Rentals/Sales/Worldwide

BLANKS ENERGY CORPORATION PROPOSAL
ARCO STATE WELL NO. 1
LEA COUNTY, NEW MEXICO BD1-250

SURVEY CREATED BY PROPOSAL PROGRAM

RECORD OF SURVEY

RADIUS OF CURVATURE METHOD

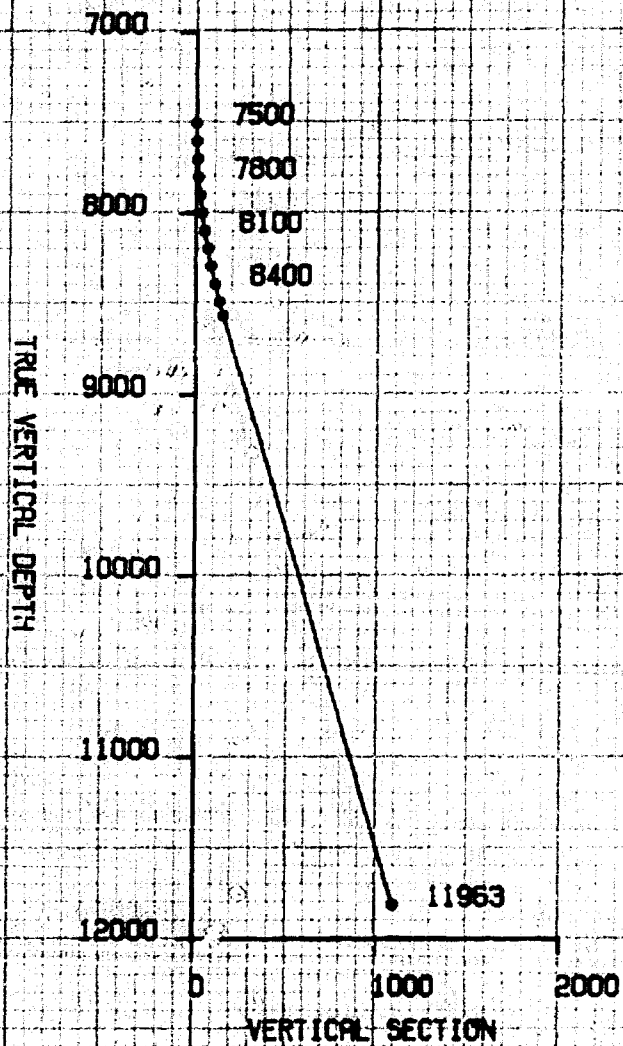
MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D	TRUE VERTICAL DEPTH FEET	RECTANGULAR COORDINATES FEET		DOG LEG SEVERITY DG/100FT
7500.	0 0	0	7500.00	0.00	0.00	0.00
7600.	1 30	N 80 W	7599.99	0.22 N	1.29 W	1.50
7700.	3 0	N 80 W	7699.91	0.86 N	5.16 W	1.50
7800.	4 30	N 80 W	7799.69	1.94 N	11.61 W	1.50
7900.	6 0	N 80 W	7899.27	3.44 N	20.64 W	1.50
8000.	7 30	N 80 W	7998.57	5.37 N	32.23 W	1.50
8100.	9 0	N 80 W	8097.54	7.73 N	46.39 W	1.50
8200.	10 30	N 80 W	8196.09	10.52 N	63.09 W	1.50
8300.	12 0	N 80 W	8294.17	13.73 N	82.33 W	1.50
8400.	13 30	N 80 W	8391.70	17.36 N	104.10 W	1.50
8500.	15 0	N 80 W	8488.62	21.41 N	128.38 W	1.50
8579.	16 11	N 80 W	8564.25	24.91 N	149.37 W	1.50
11963.	16 11	N 80 W	11815.00	180.08 N	1079.99 W	0.00

FINAL CLOSURE - DIRECTION: N 80 DEGS 32 MINS W
DISTANCE: 1094.90 FEET

BLANKS ENERGY CORPORATION PROPOSAL
ARCO STATE WELL NO. 1
LEA COUNTY, NEW MEXICO 801-250

VERTICAL PROJECTION
SCALE 1 IN. = 1000 FEET

EASTMAN WHIPSTOCK, INC.



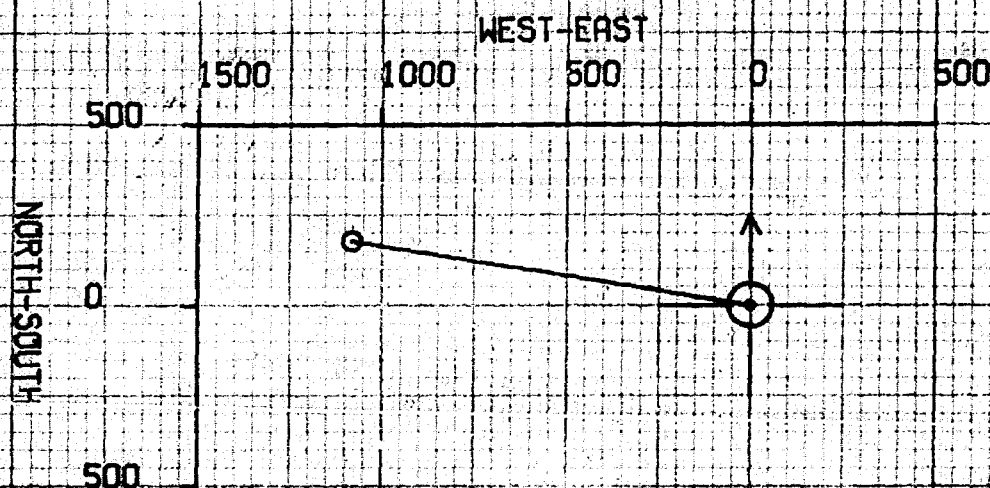
CLOSURE 1094.90 N 80 32 0 W

HORIZONTAL PROJECTION

SCALE 1 IN. = 500 FEET

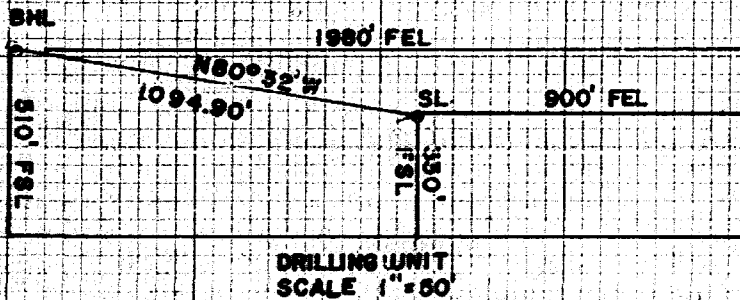
BLANKS ENERGY CORPORATION PROPOSAL
ARCO STATE WELL NO. 1
LEA COUNTY, NEW MEXICO BDL-250

EASTMAN WHIPSTOCK, INC.

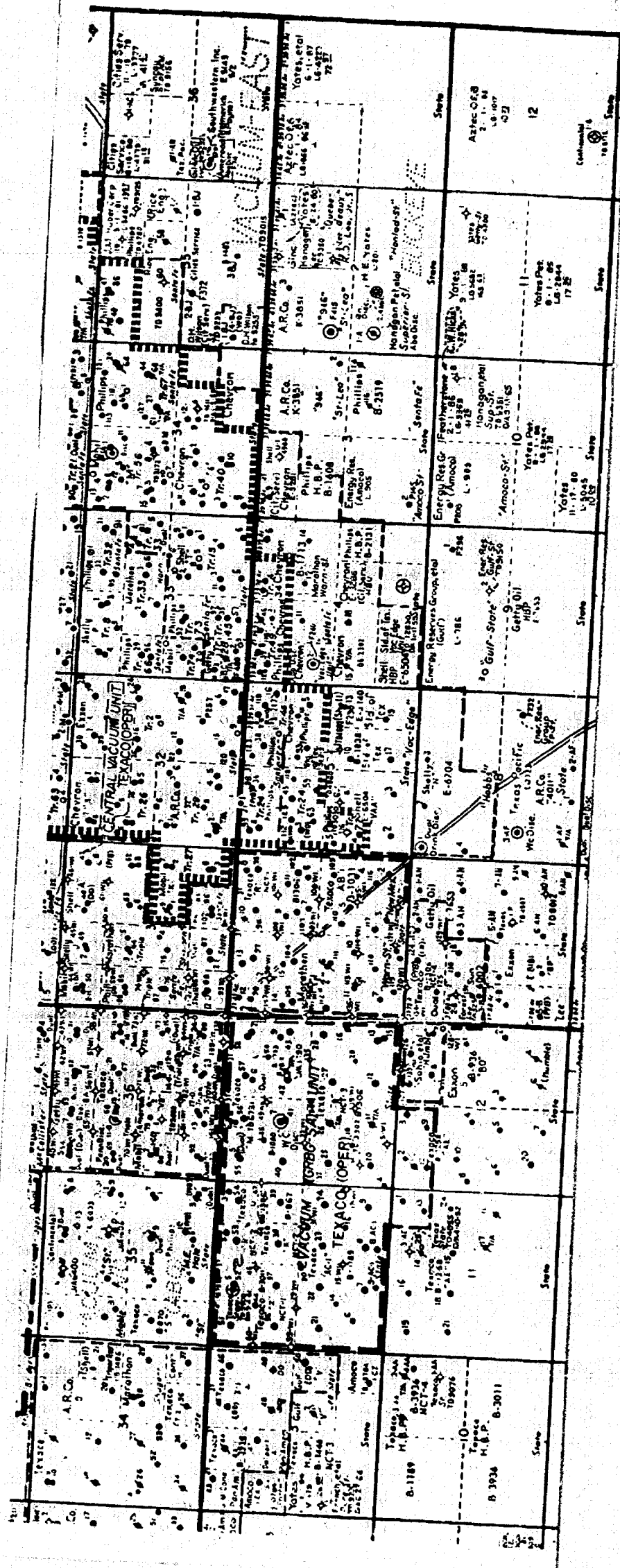


FINAL STATION:
DEPTH 11963 MD. 11815.00 TVD
NORTH 180.08 WEST 1079.99
CLOSURE 1094.90 N 80 32.0 W

BLANKS ENERGY CORPORATION
ARCO STATE WELL NO. 1
LEA COUNTY, TEXAS



DRILLING UNIT
SCALE 1"=50'



8

9

Texas Pacific
#3-AF StateEnergy Reserves
#2-Y TP StateGetty
#1 "AP" StateTexas Pacific
#1-AF StateSinclair
#1 State Lea "4011"Texas Pacific
#2-AF StateHumble
#1-BV State
75Sinclair
#4 State-Lea "403"
Bishop Uranium
#1 Hooklin-Bull StateSinclair
#6 "403" State-Lea

VACUUM, MID. (DEV.)

85

Sinclair
#5 "403" State-Lea

89

17

55

50

Sinclair
#1-401 State

BEFORE EXAMINER NUTTER

OIL CONSERVATION DIVISION

BLANKS EXHIBIT NO. 2

CASE NO. 7273

BLANKS ENERGY CORPORATION

BLANKS BUILDING MIDLAND, TEXAS

MAP OF A PORTION OF

LEA COUNTY NEW MEXICO

TOP DEVONIAN STRUCTURE

C.I. ' 100'
SCALE ' 1" = 1000'

GEOLOGIST • W.C. BURKETT

DATE • JUNE 1981

GEOGRAPHIC

DEVONIAN

R 35 E

10

Line #1
10

Continental
#1-A Nix-Federal

Yates Pet
#1 Reeves

10 0

15 0

20 0
-8819

15

25 0
-3434

30 0
-8934

20 0 -9273

*throw on this
fault is 1400'*

Sinclair
#1-403 State Lea

-7935

20 0
-7904

15 0
H.B. Rhodes
#1 Atlantic "22" State

22

Sinclair
#8 State Lea "403"

Line #28
10

55 0

50 0 Pure Oil Co
#1 State Lea "F"

Harvey E. Ye
#1 Fee "23"

VACUUM, SOUTH (DEV.)

Sinclair
#2-403 State Lea

Leatherwood Drig
#1 Atlantic State

Sinclair
#3 State Lea (403)

Pure Oil Co
#2-F State

Honeysuckle Expl
#1 State "22"

40 0

UCTION

ARCO Oil and Gas Company
Permian District
Post Office Box 1610
Midland, Texas 79702
Telephone 915 684 0100



June 15, 1981

New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Gentlemen:

ARCO Oil and Gas Company waives any objection to Blanks Energy Corporation's proposed unorthodox location, 900' from the East and 330' from the South of Section 16 of Township 18 South and 35 East; and also its proposed option to whipstock the well to a proposed bottom hole location of 1980' from the east and 510' from the South.

Sincerely,

J. L. Tweed
District Engineer

JLT:sep

cc: Blanks Energy Corporation

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Blanks EXHIBIT NO. 3
CASE NO. 7273



P. O. Box 5577 / Midland, Texas 79701 / (915) 563-0511
TWX 910-881-5066 / Cable: EASTCO

May 5, 1981

BLANKS ENERGY CORPORATION
Gary Feist

ARCO STATE #1
LEA COUNTY, NEW MEXICO

RECOMMENDED PROCEDURE

1. Drill to 4800' keeping well bore as near vertical as possible and set 8 5/8" casing. Run Gyro Directional Survey 0' to 4800' on wire line before drilling out.
2. Drill out with 7 7/8" bit, 7 7/8" bottom hole (RWP) 10' drill collar, 7 7/8" string (RWP) stabilizer, shock sub, 6" X 30' non magnetic drill collar, 7 7/8" string (RWP) stabilizer, 45,000# drill collars, jars, 10,000# drill collars (above jars) and drill pipe. Drill to the kickoff point and trip out of hole.
3. Go in hole with 7 7/8" MD 33 RSST bit, 5" mud motor. 20 Bent Sub with orienting sleeve, 6" X 30' non magnetic drill collar, drill collars and drill pipe. Orient with directional orientation tool and drill 60' (+ -) to deflect well bore with proper direction and angle. Trip out of hole.
4. Go in hole with regular 7 7/8" drill bit, 7 7/8" bottom hole (RWP), 6" X 30' non magnetic drill collar, 3 - 30' steel drill collars, 7 7/8" stabilizer, drill collars and drill pipe. Drill and build angle at the rate of 10 30' per 100' until the desired average angle is obtained, and trip out of hole.
5. Go in hole with 7 7/8" bit, 7 7/8" bottom hole (RWP), 10' drill collar, 7 7/8" (1/8" undergauge) string (RWP) stabilizer, shock sub, 6" X 30' non magnetic drill collar, 7 7/8" (1/8" undergauge) string (RWP) stabilizer 45,000# drill collars, jars, 10,000# drill collars (above jars) and drill pipe. Drill with this assembly to the proposed target depth or until a corrective run is needed.
6. Upon reaching total depth on trip out of hole, drop magnetic multiple shot survey and survey back to kick off point. This will give a complete multiple shot survey from surface to total depth which is required by the New Mexico Oil and Gas Conservation Commission.

BEFORE EXAMINER NUTTER

OIL CONSERVATION DIVISION

Blanks EXHIBIT NO. 4

CASE NO. 7273

Directional Drillers/Sub-Surface Surveyors/Instrument & Tool Rentals/Sales/Worldwide

BLANKS ENERGY CORPORATION PROPOSAL
ARCO STATE WELL NO. 1
LEA COUNTY, NEW MEXICO BD1-250

SURVEY CREATED BY PROPOSAL PROGRAM

RECORD OF SURVEY

RADIUS OF CURVATURE METHOD

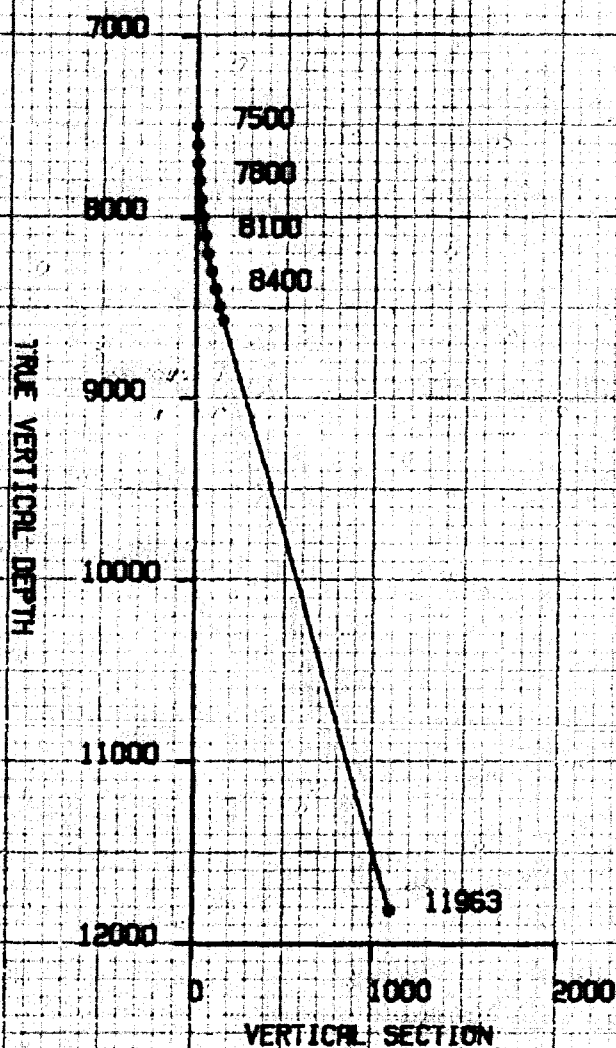
MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D	TRUE VERTICAL DEPTH FEET	RECTANGULAR COORDINATES FEET		DOG LEG SEVERITY DG/100FT
7500.	0 0	0	7500.00	0.00	0.00	0.00
7600.	1 30	N 80 W	7599.99	0.22 N	1.29 W	1.50
7700.	3 0	N 80 W	7699.91	0.86 N	5.16 W	1.50
7800.	4 30	N 80 W	7799.69	1.94 N	11.61 W	1.50
7900.	6 0	N 80 W	7899.27	3.44 N	20.64 W	1.50
8000.	7 30	N 80 W	7998.57	5.37 N	32.23 W	1.50
8100.	9 0	N 80 W	8097.54	7.73 N	46.39 W	1.50
8200.	10 30	N 80 W	8196.09	10.52 N	63.09 W	1.50
8300.	12 0	N 80 W	8294.17	13.73 N	82.33 W	1.50
8400.	13 30	N 80 W	8391.70	17.36 N	104.10 W	1.50
8500.	15 0	N 80 W	8488.62	21.41 N	128.38 W	1.50
8579.	16 11	N 80 W	8564.85	24.91 N	149.37 W	1.50
11963.	16 11	N 80 W	11815.00	180.08 N	1079.99 W	0.00

FINAL CLOSURE: DIRECTION: N 80 DEGS 32 MINS W
DISTANCE: 1094.90 FEET

BLANKS ENERGY CORPORATION PROPOSAL
ARCO STATE WELL NO. 1
LEA COUNTY, NEW MEXICO 801-250

VERTICAL PROJECTION
SCALE 1 IN. = 1000 FEET

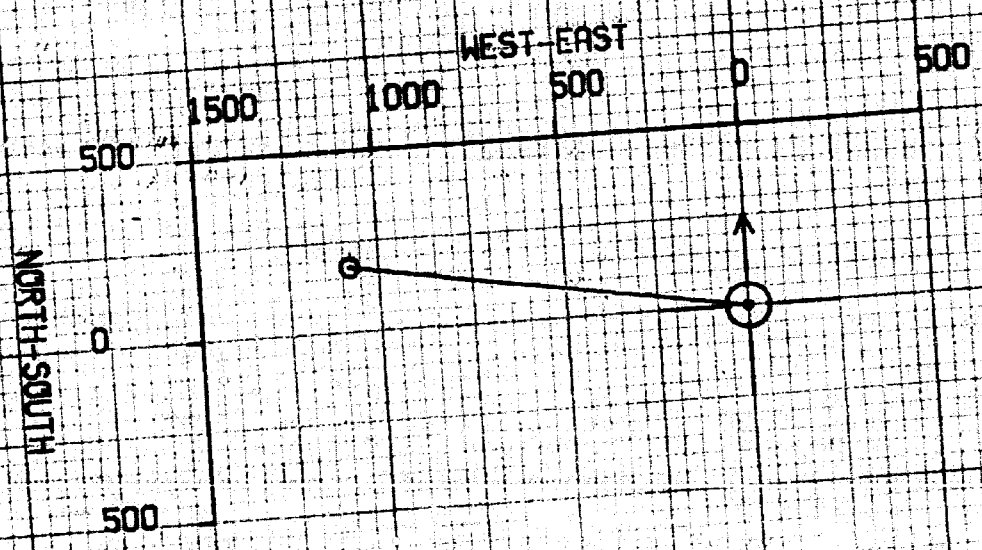
EASTMAN WHIPSTOCK, INC.



CLOSURE 1094.90 N 80 32 0 W

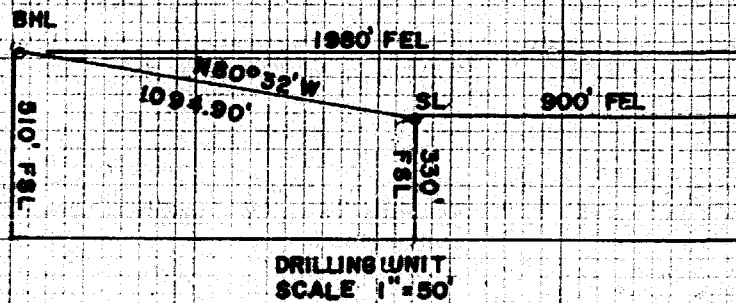
HORIZONTAL PROJECTION
SCALE 1 IN. = 500 FEET

BLANKS ENERGY CORPORATION PROPOSAL
ARCO STATE WELL NO. 1
LEA COUNTY, NEW MEXICO BD1-250
EASTMAN WHIPSTOCK, INC.



FINAL STATION:
DEPTH 11963 MD. 11815.00 TVD
NORTH 180.08 WEST 1079.99
CLOSURE 1094.90 N 80 32 0 W

BLANKS ENERGY CORPORATION
ARCO STATE WELL NO. 1
LEA COUNTY, TEXAS



DRILLING UNIT
SCALE 1"=50'

Dockets Nos. 20-81 and 21-81 are tentatively set for July 2 and 15, 1981. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - JUNE 17, 1981

**9 A.M. - OIL CONSERVATION DIVISION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO**

The following cases will be heard before Daniel S. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

ALLOWABLE: (1) Consideration of the allowable production of gas for July, 1981, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.

(2) Consideration of the allowable production of gas for July, 1981, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 7273: Application of Blanks Energy Corporation for an unorthodox oil well location and possible directional drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled 330 feet from the South line and 900 feet from the East line of Section 16, Township 18 South, Range 35 East, South Vacuum-Devonian Pool, the S/2 SE/4 of said Section 16 to be dedicated to the well. If commercial production is not obtained at said location, applicant proposes to come back up the hole and directionally drill in a westerly direction and bottom the well in the Devonian formation at a standard location in the SW/4 SE/4 of said Section 16.

CASE 7274: Application of Bass Enterprises Production Company for directional drilling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to directionally drill its James Ranch Unit Well No. 13 from an unorthodox surface location 660 feet from the South line and 1340 feet from the East line of Section 36, Township 22 South, Range 30 East, in such a manner as to bottom said well in the Morrow formation at a standard location at least 660 feet from the South line and 1980 feet from the West line of Section 31, Township 22 South, Range 31 East, the S/2 of said Section 31 to be dedicated to the well.

CASE 7275: Application of S. P. Yates for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp-Pennsylvanian formations underlying the N/2 of Section 21, Township 19 South, Range 27 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7263: (Continued from June 3, 1981, Examiner Hearing)

Application of Yates Petroleum Corporation for amendment of Order No. R-5527, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Division Order No. R-5527, which approved an unorthodox Morrow location, to permit the recompletion of its Blayins "IK" Well No. 1 in Unit D of Section 35, Township 17 South, Range 26 East, as an unorthodox gas well location in all Wolfcamp and Pennsylvanian formations.

CASE 7276: Application of Mobil Producing Texas & New Mexico Inc. for the extension of the vertical limits of the Langlie Mattix Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the contraction of the vertical limits of the Jalmat Pool and the upward extension of the vertical limits of the Langlie Mattix Pool to the following depths underlying the following 40-acre tracts in Township 25 South, Range 37 East: NE/4 SE/4 of Section 4: 3327 feet; NE/4 SW/4 of Section 3: 3215 feet; and NE/4 NW/4 of Section 15: 3206 feet.

CASE 7277: Application of Holly Energy, Inc. for an unorthodox oil well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Beeson Well No. 2 to be drilled 1100 feet from the North line and 2300 feet from the West line of Section 29, Township 17 South, Range 30 East, Grayburg-Jackson Pool, the NE/4 NW/4 of said Section 29 to be dedicated to the well.

CASE 7278: Application of Pollution Control, Inc. for an oil treating plant permit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority for the construction and operation of an oil treating plant for the purpose of treating and reclaiming sediment oil at a site in the E/2 NW/4 of Section 18, Township 20 South, Range 33 East.

- CASE 7279:** Application of BCO, Inc. for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Basin-Dakota and Lybrook-Gallup production in the wellbores of the following wells located in Township 23 North, Range 7 West: Dunn Well No. 3 located in Unit I of Section 3 and State H Wells Nos. 3 and 4, located in Units M and D, respectively, of Section 2.
- CASE 7280:** Application of Northwest Pipeline Corporation for a dual completion and downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its Ross Unit Well No. 77 located in Unit L of Section 33, Township 31 North, Range 5 West, to produce gas from the Mesaverde formation and commingled Gallup and Dakota production through separate strings of tubing.
- CASE 7281:** Application of Dugan Production Corporation for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of undesignated Gallup and Basin-Dakota production in the wellbore of its Windfall Well No. 10 located in Unit F of Section 31, Township 26 North, Range 11 West.
- CASE 7282:** Application of Jerome P. McHugh for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Wildhorse-Gallup and Basin-Dakota production in the wellbore of his Apache Well No. 3-E located in Unit H of Section 19, Township 26 North, Range 3 West.
- CASE 7254:** (Continued from May 20, 1981, Examiner Hearing)
Application of Mesa Petroleum Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Mesaverde formation underlying the W/2 of Section 15, Township 30 North, Range 11 West, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.
- CASE 7270:** (Continued from June 3, 1981, Examiner Hearing)
Application of Southland Royalty Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp and Pennsylvanian formations underlying the N/2 of Section 21, Township 19 South, Range 27 East, to be dedicated to its Pecos River Federal 21-A Com Well No. 1 drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.
- CASE 7250:** (Continued from June 3, 1981, Examiner Hearing)
Application of Southland Royalty Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 22, Township 18 South, Range 29 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

W. E. BONJOURANT, JR.
(1914-1973)
OF COUNSEL
CLARENCE E. HINKLE*
ROBERT A. STONE
LEWIS C. COX, JR.*
PAUL W. EATON, JR.
CONRAD E. COFFIELD
HAROLD L. HENSLEY, JR.*
STUART D. SHANOR*
C. D. MARTIN
PAUL J. KELLY, JR.*
JAMES H. BOZARTH
DOUGLAS L. LUNSFORD*
PAUL M. BOHANNON
ERNEST R. FINNEY, JR.
J. DOUGLAS FOSTER
K. DOUGLAS PERRIN*
C. RAY ALLEN
T. CALDER EZZELL, JR.*
WILLIAM B. BURFORD
JOHN S. NELSON*
RICHARD E. OLSON*
ANDERSON CARTER, II
STEVEN D. ARNOLO
JEFFREY L. BOWMAN
JOHN C. HARRISON*

LAW OFFICES
HINKLE, COX, EATON, COFFIELD & HENSLEY
1000 FIRST NATIONAL BANK TOWER
POST OFFICE BOX 3580
MIDLAND, TEXAS 79702
(915) 683-4691

RECEIVED
JUN 05 1981
OIL CONSERVATION DIVISION
SANTA FE
ROSWEDE, TEXAS OFFICE
600 HINKLE BUILDING
(805) 622-6510
AMARILLO, TEXAS OFFICE
1701 AMERICAN NATIONAL BANK BUILDING
(806) 372-5569
*NOT LICENSED IN
TEXAS

Case 7273

June 2, 1981

Mr. Dan Nutter
Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Blanks Energy Corporation
Application for June 17, 1981

Dear Dan:

I am transmitting herewith, executed in triplicate, copies of an Application for Blanks Energy Corporation for an unorthodox location and alternative directional drilling of its Arco State #1 Well.

It is our understanding that this matter has already been placed on the docket for June 17, 1981.

If any additional materials or information is required, please advise.

Very truly yours,

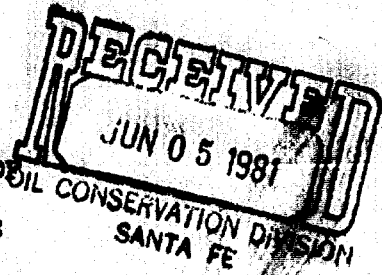
HINKLE, COX, EATON,
COFFIELD & HENSLEY


Conrad E. Coffield

CEC:rh
Enclosures

xc: Mr. John Elphick

BEFORE THE OIL CONSERVATION DIVISION OF
THE DEPARTMENT OF ENERGY AND MINERALS
STATE OF NEW MEXICO



APPLICATION OF BLANKS ENERGY)
CORPORATION FOR AN UNORTHODOX)
WELL LOCATION, LEA COUNTY,)
NEW MEXICO)

Case 7273

APPLICATION

Blanks Energy Corporation hereby makes application for approval of an unorthodox oil well location and states:

1. Applicant seeks approval of an unorthodox oil well location for its Arco State #1 Well to be drilled at a point 900 feet from the East line and 330 feet from the South line of Section 16, Township 18 South, Range 35 East, N.M.P.M., Lea County, New Mexico, to test the Devonian formation.

2. The S $\frac{1}{2}$ SE $\frac{1}{4}$ of Section 16 is to be dedicated to the well.

3. In the alternative, if the well proves to be nonproductive, Applicant further seeks approval for the directional drilling of the Arco State #1 Well in the Vacuum South Devonian Field, the surface location of which would be 900 feet from the East line and 330 feet from the South line of Section 16, Township 18 South, Range 35 East, N.M.P.M., Lea County, New Mexico, and then directionally drilled in a westerly direction to bottom said well in SW $\frac{1}{4}$ SE $\frac{1}{4}$ of said Section.

4. Approval of the unorthodox location and the alternative directional drilling will be in the interest of conservation, prevention of waste and protection of correlative rights.


5. Applicant respectfully requests that this application be set on the June 17, 1981 Docket.

Dated this 2th day of June, 1981.

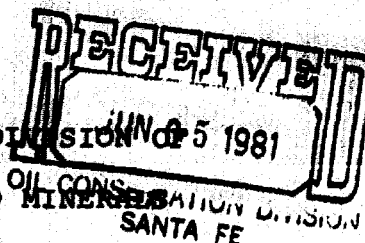
Respectfully submitted,

HINKLE, COX, EATON,
COFFIELD & HENSLEY

By:


Conrad E. Coffield
Attorney for Blanks Energy
Corporation

BEFORE THE OIL CONSERVATION DIVISION
THE DEPARTMENT OF ENERGY AND MINES
STATE OF NEW MEXICO



APPLICATION OF BLANKS ENERGY
CORPORATION FOR AN UNORTHODOX
WELL LOCATION, LEA COUNTY,
NEW MEXICO

Case 7-273

APPLICATION

Blanks Energy Corporation hereby makes application for approval of an unorthodox oil well location and states:

1. Applicant seeks approval of an unorthodox oil well location for its Arco State #1 Well to be drilled at a point 900 feet from the East line and 330 feet from the South line of Section 16, Township 18 South, Range 35 East, N.M.P.M., Lea County, New Mexico, to test the Devonian formation.

2. The S $\frac{1}{2}$ SE $\frac{1}{4}$ of Section 16 is to be dedicated to the well.

3. In the alternative, if the well proves to be nonproductive, Applicant further seeks approval for the directional drilling of the Arco State #1 Well in the Vacuum South Devonian Field, the surface location of which would be 900 feet from the East line and 330 feet from the South line of Section 16, Township 18 South, Range 35 East, N.M.P.M., Lea County, New Mexico, and then directionally drilled in a westerly direction to bottom said well in SW $\frac{1}{4}$ SE $\frac{1}{4}$ of said Section.

4. Approval of the unorthodox location and the alternative directional drilling will be in the interest of conservation, prevention of waste and protection of correlative rights.


5. Applicant respectfully requests that this application be set on the June 17, 1981 Docket.

Dated this 2th day of June, 1981.

Respectfully submitted,

HINKLE, COX, EATON,
COFFIELD & HENSLEY

By:


Conrad E. Coffield
Attorney for Blanks Energy
Corporation

Blanks Energy Corporation
Conrad Caffall 10:00 am 5/27/81

Application of Blanks Energy Corporation
for an unorthodox oil well location
and possible directional drilling, Lea
County, New Mexico

Applicant, in the above styled cause,
seeks approval for the unorthodox
location of a well to be drilled
330 feet from the South line and 900
feet from the East line of Section 16,
Township 18 South, Range 35 East, South
Vacuum-Devonian Pool, Lea County,
New Mexico, ^{the SW 1/4 of said section 16 to be drilled the well.} if commercial production
is not obtained at said location,
applicant proposes to back up the hole
and directionally drill in a westerly
direction and bottom the well in the
Devonian formation at a standard location
in the SW 1/4 SE 1/4 of said Section 16.

DRAFT

dr/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 7273

ORDER NO. R- 6715

APPLICATION OF BLANKS ENERGY CORPORATION

FOR AN UNORTHODOX ^{OIL} GAS WELL LOCATION, AND POSSIBLE DIRECTIONAL
DRILLING, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on June 17,
19 81, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter

NOW, on this day of June, 19 81, the Division
Director, having considered the testimony, the record, and the
recommendations of the Examiner, and being fully advised in the
premises,

FINDS:

(1) That due public notice having been given as required by
law, the Division has jurisdiction of this cause and the subject
matter thereof.

(2) That the applicant, Blanks Energy Corporation, seeks approval of an unorthodox gas well location 330 feet from the South line and 900 feet from the East line of Section 16, Township 18 South Range 35 East, NMPM, to test the Devonian formation, South Vacuum-Devonian Pool, Lea County, New Mexico.

(3) That the S/2 SE/4 of said Section 16 is to be dedicated to the well.

(4) ~~That~~ ^{That} ~~That a well at said unorthodox location will better~~ ^{avoid a known fault which crosses said proration unit.} enable applicant to ~~produce the gas underlying the proration unit.~~

(5) ~~That~~ That no offset operator objected to the proposed unorthodox location.

That applicant further proposes,
(6) ~~Further~~ ^{Further}, if commercial production is not obtained at ~~said location~~ ^{to approximately 1500 feet}, applicant ~~proposes~~ to come back up the hole and directionally drill in a westerly direction and bottom the well in the Devonian formation at a standard ~~location~~ ^{to the SW/4 SE/4} of said Section 16.

if such is the case, and applicant does directionally drill said well.

(7) That the applicant should be required to determine the subsurface location of the bottom of the hole by means of a continuous multi-shot directional survey conducted subsequent to said directional drilling, if said well is to be completed as a producing well.

(8) That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the gas in the subject pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

the application of Blanks Energy Corporation for

(1) That an unorthodox gas well location for the Devonian formation is hereby approved for a well to be located at a point 330 feet from the South line and 900 feet from the East line of Section 16, Township 18 South, Range 35 East NMPM, South Vacuum-Devonian Pool, Lea County, New Mexico.

(2) That the S/2 SE/4 of said Section 16 shall be dedicated to the above-described well.

~~(9) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.~~

~~DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.~~

(3) That in the event commercial production is not obtained after drilling the aforesaid well at the above-described location, the applicant is hereby authorized to plug said well back to approximately 7500 feet, set a whipstock, and directionally drill in a westerly direction, bottoming said well in the Devonian formation at a standard location in the SW/4 SE/4 of said Section 16.

PROVIDED HOWEVER, that subsequent to the above-described directional drilling, should said well be a producer, a continuous multi-shot directional survey shall be made of the wellbore from total depth to the kick-off point with shot points not more than 100 feet apart; that the operator shall cause the surveying company to forward a copy of the survey report directly to the Santa Fe office of the Division, P. O. Box 2088, Santa Fe, New Mexico, and that the operator shall notify the Division's Hobbs District Office of the date and time said survey is to be commenced.

(4) That Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth in addition to measured depths.

(5) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Joe D. Ramey
JOE D. RAMEY
Director

SEAL
fd/