

CASE 7236: BELCO PETROLEUM CORPORATION
FOR A DUAL COMPLETION, EDDY COUNTY, NEW MEXICO

CASE NO.

7236

APPLICATION,
TRANSCRIPTS,
SMALL EXHIBITS,

ETC.



BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

January 26, 1982

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

Mr. Thomas Kellahin
Kellahin & Kellahin
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Re: CASE NO. 7236
ORDER NO. R-6889

Applicant:

~~Belec Petroleum 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 _____
Artesia OCD _____
Aztec OCD _____

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. 7236
Order No. R-6889

APPLICATION OF BELCO PETROLEUM
CORPORATION FOR A DUAL COMPLETION,
EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 o'clock a.m. on May 6, 1981, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 26th day of January, 1982, 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 applicant's James Ranch Well No. 11 was completed as a single Atoka gas producing well only and Case No. 7236 should be dismissed.

IT IS THEREFORE ORDERED:

(1) That Case No. 7236 is hereby dismissed.

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

-2-

Case No. 7236
Order No. R-6889

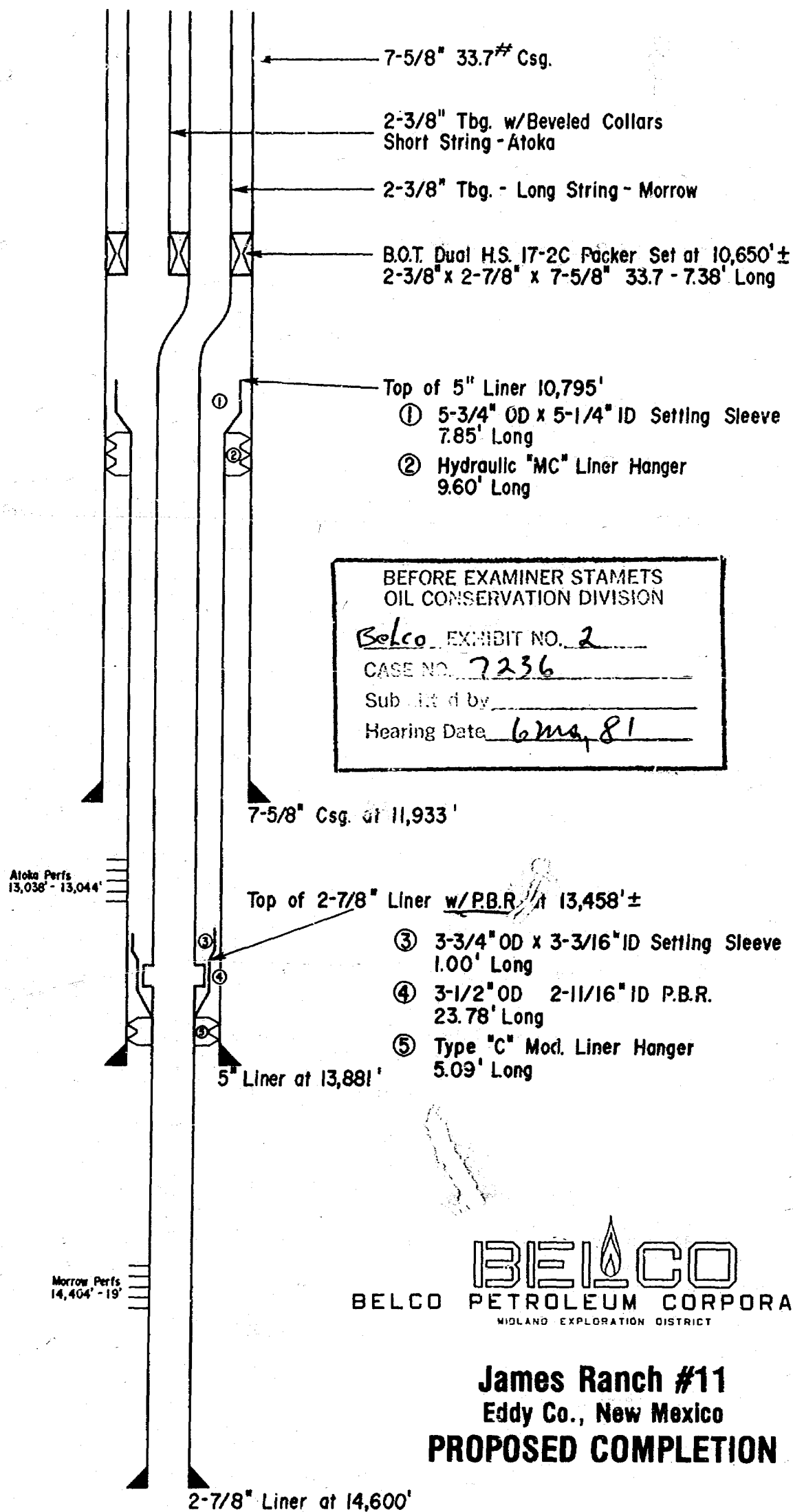
DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



Joe D. Ramey
JOE D. RAMEY,
Director

S E



BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION

Belco EXHIBIT NO. 2

CASE NO. 7236

Submitted by _____

Hearing Date 6 May 81

BELCO

BELCO PETROLEUM CORPORATION
MIDLAND EXPLORATION DISTRICT

James Ranch #11
Eddy Co., New Mexico
PROPOSED COMPLETION

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

EXAMINER HEARING

IN THE MATTER OF:

Application of Belco Petroleum Corporation for a dual completion,
Eddy County, New Mexico.

CASE
7236

BEFORE: Richard L. Stamets

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:

W. Thomas Kellahin, Esq.
KELLAHIN & KELLAHIN
500 Don Gaspar
Santa Fe, New Mexico 87501

1

2

2

I N D E X

3

4

JAMES R. HENRY

5

Direct Examination by Mr. Kellahin

3

6

Cross Examination by Mr. Stamets

12

7

8

9

10

11

12

13

E X H I B I T S

14

15

Applicant Exhibit One, Plat

5

16

Applicant Exhibit Two, Sketch

8

17

18

19

20

21

22

23

24

25

MR. STAMETS: We'll call next Case 7236.

MR. PADILLA: Application of Belco Petroleum Corporation for a dual completion, Eddy County, New Mexico.

MR. KELLAHIN: I'm Tom Kellahin of Santa Fe, New Mexico, appearing on behalf of the applicant, and I have one witness.

(Witness sworn.)

JAMES R. HENRY

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. Henry, would you please state your name and occupation?

A My name is James R. Henry. I work for Belco Petroleum. I'm a District Engineer in Midland, Texas.

Q Mr. Henry, have you previously testified as a petroleum engineer before the Oil Conservation Division?

A No.

Q. Would you explain to the Examiner when and where you obtained your engineering degree?

A. I obtained a mechanical engineering degree from Oklahoma State University in 1970. Out of school, started working for Amoco Production up until December of 1980. I've been with Belco since December.

Q. What were your responsibilities during your employment with Amoco?

A. At the end I was a Section Leader in Odessa, Texas, working on the drilling and primary production.

Q. And what are your responsibilities with Belco Petroleum Corporation?

A. We're an operations office where we drill and complete and get the wells to operate. Then we turn it over to our production people in Houston.

Q. Do your duties include the dual completion, which is the subject matter of this application?

A. Yes, sir.

Q. And pursuant to those duties have you made a study of the facts surrounding the application?

A. Yes, sir.

MR. KELLAHIN: We tender Mr. Henry as an expert petroleum engineer.

MR. STAMETS: He is considered qualified.

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

Mr. Henry, I'd like to direct your attention to what we've marked as Belco Exhibit Number One, and have you first of all locate the subject well for us.

A.

All right. The well is located in Section 36. You see in the northwest corner we have a surface location, and then you see a dashed line running off to the east, move to the northeast, where we show a Bone Springs bottom hole location, an Atoka bottom hole location, and a Morrow bottom hole location.

Q

This well was directionally drilled pursuant to a previous Oil Conservation Division order, was it not, Mr. Henry?

A.

Yes.

MR. KELLAHIN: If the Examiner please, that is Commission Order R-6369-A, in which the Commission approved the deviation of this hole pursuant to the request from the State Land Commissioner. This is part of the WIPP area and the surface location had to be outside the WIPP area, with the bottom hole location underlying the WIPP project.

Q

And pursuant to that order was a well in fact drilled, Mr. Henry?

A.

Yes.

Q

And what is the current status of the

well?

1
2 A. We're currently in process of trying to
3 complete the well.

4 Q. What is the acreage to be dedicated to
5 the well? It would be the north half of Section 36, is it not?

6 A. North half of Section 36.

7 Q. All right, sir, and have you tested any
8 of the possible productive horizons in the well?

9 A. No.

10 Q. Have you studied the logs on the well?

11 A. Yes.

12 Q. And based upon your log study, Mr.
13 Henry, what are the potentially productive formations?

14 A. It appears that we should have productive
15 Atoka section and also Morrow, and we potentially may have
16 some Bone Springs.

17 Q. All right, sir, are there any other
18 Atoka wells producing in the area?

19 A. Yes.

20 Q. And where are those Atoka wells?

21 A. Shell is operating the James Ranch No.
22 1 in the --

23 Q. All right, where is Shell's ranch --
24 well?

25 A. It's in the southeast quarter of Section

1
2 36.

3 Q Okay. What, if any, demand has been
4 placed upon you by the Commissioner of Public Lands to protect
5 the north half of Section 36 from drainage from that well?

6 A It has been requested that we -- to get
7 the Atoka on production to protect the royalty interest in
8 it.

9 Q All right, sir, and turning your atten-
10 tion to any Morrow producing wells, how are those identified
11 on your plat?

12 A All right, we have, as far as Morrow
13 producers, we have a James Ranch Unit No. 3 in Section 10 --

14 Q One.

15 A One, I'm sorry. It's in the southeast
16 quarter.

17 We have a James Ranch 4 that's in Sec-
18 tion 6. That's in the southwest quarter. That's Morrow.

19 We have James Ranch 7, James Ranch 7
20 that's in Section 6 in the northeast corner. That's also
21 Morrow.

22 Also we have a newer well, James Ranch
23 10 that is in the -- that's also an Atoka. This is an Atoka
24 sand that's producing out of the same zone as the James Ranch
25 Unit No. 1 of Shell. That's producing out of the Atoka.

1
2 That's in the northeast corner of Section 1.

3 And the Hudson Federal is an Atoka car-
4 bonate, which is not the same producing horizon as Atoka sand,
5 but that's producing in the northwest corner of Section 1.

6 Q All right, sir, let me direct your
7 attention to Exhibit Number Two and explain to us how you
8 propose to dually complete this well.

9 A All right. Basically, what we plan on
10 doing on the completion work, we will go ahead and test the
11 Atoka horizon first, even though it is the higher horizon, and
12 we're doing that because the Atoka in this area has proven
13 not to be as water sensitive, or sensitive to fluid, as the
14 Morrow horizon.

15 We'll go ahead and test the Atoka hori-
16 zon. We'll then kill the Atoka, run our dual equipment,
17 which will consist of a dual packer setup and a 7-5/8ths
18 casing string. We have a polished bore receptacle that is
19 setting on top of the 2-7/8ths liner. The top of it is ap-
20 proximately 13,458. We will put a seal assembly into this
21 polished bore area, pack off the Morrow section from anything
22 above it. We'll produce then up two dual strings of 2-3/8ths
23 tubing.

24 Q In your opinion, Mr. Henry, will the
25 proposed method of dually completing the Atoka and Morrow

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

formations in this well properly isolate the production from those two formations?

A. Yes.

Q. You're using 2-7/8ths inch tubing for the Morrow production?

A. No, it's going to be, the liner is 2-7/8ths, and we'll have 2-3/8ths going down to the top of the --

Q. What's the reason for using a liner of that size for this particular well?

A. Well, in this particular case we had a -- did have a directional hole and we had problems maintaining direction and angle, and we did get some doglegs involved, causing a severe crooked hole, and in running the 5-inch liner it got stuck.

Our original TD on the well was 14,600 feet. The liner bottom got stuck at 13,881 and we could not get the liner free. So we had to go ahead and set the liner there and cement it in place. And then to go ahead and cover the Morrow to protect it and be able to test it, we went ahead and ran a 2-7/8ths inch liner, tying back from TD to the 5-inch liner.

Q. Okay. Mr. Henry, do you have an opinion as to the probable pressures to be encountered in the Atoka

1
2 formation in this well?

3 A. It's estimated maybe between 3000 and
4 3500. We should have some drainage effect.

5 Q. Is that a bottom hole pressure?

6 A. Bottom hole.

7 Q. And that is based upon what information,
8 Mr. Henry?

9 A. Offset wells that were drilled, assuming,
10 then, that we have some drainage.

11 Q. In your opinion what would you antici-
12 pate to be the bottom hole pressure for the Morrow perforations
13 in this well?

14 A. It will probably be similar. We're
15 not getting any drainage in the Morrow in this particular
16 area of the field.

17 Q. What are the design limitations of the
18 packer assembly here with regards to pressure differential?

19 A. As far as the dual packer, you're
20 probably looking at a 5000 pound differential rating on it.

21 The PBR seal assembly is normally --
22 the seal assemblies themselves are rated for 10,000 pounds.
23 But you'll probably never see that type of differential,

24 Q. All right. Do either or both of these
25 zones produce any liquids?

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. Yes.

Q Which, if any?

A. The Morrow supposedly will produce around 4 barrels per million. The Atoka will produce around 10 barrels per million.

Q Is that water or is that --

A. Condensate.

Q -- condensate? It's condensate?

A. Yes.

Q All right, sir. In your opinion, Mr. Henry, will the proposed method of dually completing, dual completion for this well be in the best interest of conservation, the prevention of waste, and the protection of correlative rights?

A. Yes.

Q Were Exhibits One and Two prepared by you or compiled under your direction and supervision?

A. Yes.

MR. KELLAHIN: That concludes our examination of Mr. Henry, and we'll move the introduction of Exhibits One and Two.

MR. STAMETS: These exhibits will be admitted.

CROSS EXAMINATION

BY MR. STAMETS:

Q. Mr. Henry, would you reiterate the pressures on the two zones for me?

A. Again, on the Atoka we have not gotten any pressures in the actual well itself. We have not measured any. I am guessing that we'll probably have between 3000 and 3500 pounds on the Atoka. We should have some drainage effect on that.

The Morrow, again, I think we're probably looking at a similar pressure. I can't get you any closer than that.

Q. Now, what rate of liquids production did you expect on the Atoka?

A. Well, what we have out there right now, the Atoka looks like it should make about 4 barrels per million, and the Morrow, 1 barrel per million.

Q. Okay. Now, the Atoka will be flowing up the 2-5/8ths -- or 2-5/8ths -- 2-7/8ths 5-inch annulus to the top of the 5-inch liner, and then up the 2-7/8ths 7-5/8ths annulus to the tubing which is set at 10,650, is that right?

A. Yes.

1
2 Q Okay. Will the Atoka have any difficulty
3 lifting those fluids through the annular space?

4 A That is -- there's a possibility.
5 Initially, no, I would say no, but in the future it could
6 have some problems, yes. We don't know that.

7 If it makes as much fluid as we antici-
8 pate, it could have some problems.

9 Q Yes. And how would you deal with that
10 situation later on?

11 A Well, basically, what you would have to
12 do is to get closer to your perforations with your equipment
13 and possibly have smaller, even smaller tubing to get you
14 more velocity. We are hoping -- we're anticipating, we're
15 not sure what the Morrow is going to look like here. It
16 could -- the logs indicate there is some possibility that it
17 could be wet and we'd wind up with a single completion, but
18 we want to cover ourselves here, but we think the Atoka ini-
19 tially, we'll not have any problems producing it with this
20 particular method.

21 It would really be very difficult to
22 dually complete by putting a packer down in the 5-inch liner,
23 to dual -- to complete and produce it, the Atoka. The
24 equipment would be very difficult to -- to get in and also
25 to get out if we had to get it out, and you would have some

1
2 very small ID's that you'd be working with, which could be
3 detrimental in themselves.

4 Q Would -- assuming, now, that you are
5 successful in completing both these zones, would it be possible
6 to make a projection after a few months that would show at
7 what stage you might begin to have trouble lifting those
8 liquids?

9 A Yes. You can go ahead and monitor your
10 production and watch your pressures and fluctuations involved
11 with -- with your pressures that you're seeing on surface,
12 along with production, and get an idea if you're having some
13 flowing problems causing detriment to your -- your producing
14 zones.

15 Q So would it be reasonable for an order
16 on this particular well to provide for some sort of a report
17 within six to twelve months on that?

18 A Very reasonable.

19 Q Okay. The 2-7/8ths inch casing which is
20 set below the 5-inch liner has been cemented all the way back
21 up inside the 5-inch liner, is that correct?

22 A Yes.

23 Q Okay, so it's actually casing below the
24 PBR and tubing above the PBR?

25 A Yes.

1
2
3 MR. STAMETS: Any other questions of
the witness? He may be excused.

4 Anything further in this case?

5 We'll take the case under advisement.
6

7 (Hearing concluded.)
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

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 Conserva-
tion 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.

RL, 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7419

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 7236
heard by me on 5-6 1981.

Richard L. Hamel, Examiner
Oil Conservation Division

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

EXAMINER HEARING

IN THE MATTER OF:

Application of Belco Petroleum Corporation for a dual completion,
Eddy County, New Mexico.

CASE
7236

BEFORE: Richard L. Stamets

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:

W. Thomas Kellahin, Esq.
KELLAHIN & KELLAHIN
500 Don Gaspar
Santa Fe, New Mexico 87501

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

JAMES R. HENRY:

Direct Examination by Mr. Kellahin

3

Cross Examination by Mr. Stamets

12

E X H I B I T S

Applicant Exhibit One, Plat

5

Applicant Exhibit Two, Sketch

8

MR. STAMETS: We'll call next Case 7236.

MR. PADILLA: Application of Belco Petroleum Corporation for a dual completion, Eddy County, New Mexico.

MR. KELLAHIN: I'm Tom Kellahin of Santa Fe, New Mexico, appearing on behalf of the applicant, and I have one witness.

(Witness sworn.)

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. Henry, would you please state your name and occupation?

A. My name is James R. Henry. I work for Belco Petroleum. I'm a District Engineer in Midland, Texas.

Q Mr. Henry, have you previously testified as a petroleum engineer before the Oil Conservation Division?

A. No.

1
2 Q Would you explain to the Examiner when
3 and where you obtained your engineering degree?

4 A I obtained a mechanical engineering de-
5 gree from Oklahoma State University in 1970. Out of school,
6 started working for Amoco Production up until December of 1980.
7 I've been with Belco since December.

8 Q What were your responsibilities during
9 your employment with Amoco?

10 A At the end I was a Section Leader in
11 Odessa, Texas, working on the drilling and primary production.

12 Q And what are your responsibilities with
13 Belco Petroleum Corporation?

14 A We're an operations office where we
15 drill and complete and get the wells to operate. Then we
16 turn it over to our production people in Houston.

17 Q Do your duties include the dual com-
18 pletion, which is the subject matter of this application?

19 A Yes, sir.

20 Q And pursuant to those duties have you
21 made a study of the facts surrounding the application?

22 A Yes, sir.

23 MR. KELLAHIN: We tender Mr. Henry as
24 an expert petroleum engineer.

25 MR. STAMETS: He is considered qualified.

1
2 Q Mr. Henry, I'd like to direct your
3 attention to what we've marked as Belco Exhibit Number One,
4 and have you first of all locate the subject well for us.

5 A All right. The well is located in Sec-
6 tion 36. You see in the northwest corner we have a surface
7 location, and then you see a dashed line running off to the
8 east, move to the northeast, where we show a Bone Springs
9 bottom hole location, an Atoka bottom hole location, and a
10 Morrow bottom hole location.

11 Q This well was directionally drilled
12 pursuant to a previous Oil Conservation Division order, was
13 it not, Mr. Henry?

14 A Yes.

15 MR. KELLAHIN: If the Examiner please,
16 that is Commission Order R-6369-A, in which the Commission
17 approved the deviation of this hole pursuant to the request
18 from the State Land Commissioner. This is part of the WIPP
19 area and the surface location had to be outside the WIPP area,
20 with the bottom hole location underlying the WIPP project.

21 Q And pursuant to that order was a well
22 in fact drilled, Mr. Henry?

23 A Yes.

24 Q And what is the current status of the
25 well?

1
2 A. We're currently in process of trying to
3 complete the well.

4 Q What is the acreage to be dedicated to
5 the well? It would be the north half of Section 36, is it not?

6 A. North half of Section 36.

7 Q All right, sir, and have you tested any
8 of the possible productive horizons in the well?

9 A. No.

10 Q Have you studied the logs on the well?

11 A. Yes.

12 Q And based upon your log study, Mr.
13 Henry, what are the potentially productive formations?

14 A. It appears that we should have productive
15 Atoka section and also Morrow, and we potentially may have
16 some Bone Springs.

17 Q All right, sir, are there any other
18 Atoka wells producing in the area?

19 A. Yes.

20 Q And where are those Atoka wells?

21 A. Shell is operating the James Ranch No.
22 1 in the --

23 Q All right, where is Shell's ranch --
24 well?

25 A. It's in the southeast quarter of Section

36.

Q Okay. What, if any, demand has been placed upon you by the Commissioner of Public Lands to protect the north half of Section 36 from drainage from that well?

A It has been requested that we -- to get the Atoka on production to protect the royalty interest in it.

Q All right, sir, and turning your attention to any Morrow producing wells, how are those identified on your plat?

A All right, we have, as far as Morrow producers, we have a James Ranch Unit No. 3 in Section 10 --

Q One.

A One, I'm sorry. It's in the southeast quarter.

We have a James Ranch 4 that's in Section 6. That's in the southwest quarter. That's Morrow.

We have James Ranch 7, James Ranch 7 that's in Section 6 in the northeast corner. That's also Morrow.

Also we have a newer well, James Ranch 10 that is in the -- that's also an Atoka. This is an Atoka sand that's producing out of the same zone as the James Ranch Unit No. 1 of Shell. That's producing out of the Atoka.

1
2 That's in the northeast corner of Section 1.

3 And the Hudson Federal is an Atoka car-
4 bonate, which is not the same producing horizon as Atoka sand,
5 but that's producing in the northwest corner of Section 1.

6 Q All right, sir, let me direct your
7 attention to Exhibit Number Two and explain to us how you
8 propose to dually complete this well.

9 A All right. Basically, what we plan on
10 doing on the completion work, we will go ahead and test the
11 Atoka horizon first, even though it is the higher horizon, and
12 we're doing that because the Atoka in this area has proven
13 not to be as water sensitive, or sensitive to fluid, as the
14 Morrow horizon.

15 We'll go ahead and test the Atoka hori-
16 zon. We'll then kill the Atoka, run our dual equipment,
17 which will consist of a dual packer setup and a 7-5/8ths
18 casing string. We have a polished bore receptacle that is
19 setting on top of the 2-7/8ths liner. The top of it is ap-
20 proximately 13,458. We will put a seal assembly into this
21 polished bore area, pack off the Morrow section from anything
22 above it. We'll produce then up two dual strings of 2-3/8ths
23 tubing.

24 Q In your opinion, Mr. Henry, will the
25 proposed method of dually completing the Atoka and Morrow

1
2 formations in this well properly isolate the production from
3 those two formations?

4 A. Yes.

5 Q You're using 2-7/8ths inch tubing for
6 the Morrow production?

7 A No, it's going to be, the liner is
8 2-7/8ths, and we'll have 2-3/8ths going down to the top of
9 the --

10 Q What's the reason for using a liner of
11 that size for this particular well?

12 A Well, in this particular case we had
13 a -- did have a directional hole and we had problems
14 maintaining direction and angle, and we did get some doglegs
15 involved, causing a severe crooked hole, and in running the
16 5-inch liner it got stuck.

17 Our original TD on the well was 14,600
18 feet. The liner bottom got stuck at 13,881 and we could not
19 get the liner free. So we had to go ahead and set the liner
20 there and cement it in place. And then to go ahead and cover
21 the Morrow to protect it and be able to test it, we went
22 ahead and ran a 2-7/8ths inch liner, tying back from TD to
23 the 5-inch liner.

24 Q Okay. Mr. Henry, do you have an opinion
25 as to the probable pressures to be encountered in the Atoka

1
2 formation in this well?

3 A It's estimated maybe between 3000 and
4 3500. We should have some drainage effect.

5 Q Is that a bottom hole pressure?

6 A Bottom hole.

7 Q And that is based upon what information,
8 Mr. Henry?

9 A Offset wells that were drilled, assuming,
10 then, that we have some drainage.

11 Q In your opinion what would you antici-
12 pate to be the bottom hole pressure for the Morrow perforations
13 in this well?

14 A It will probably be similar. We're
15 not getting any drainage in the Morrow in this particular
16 area of the field.

17 Q What are the design limitations of the
18 packer assembly here with regards to pressure differential?

19 A As far as the dual packer, you're
20 probably looking at a 5000 pound differential rating on it.

21 The PBR seal assembly is normally --
22 the seal assemblies themselves are rated for 10,000 pounds.
23 But you'll probably never see that type of differential.

24 Q All right. Do either or both of these
25 zones produce any liquids?

1
2
3 A. Yes.

4 Q. Which, if any?

5 A. The Morrow supposedly will produce
6 around 4 barrels per million. The Atoka will produce around
7 10 barrels per million.

8 Q. Is that water or is that --

9 A. Condensate.

10 Q. -- condensate? It's condensate?

11 A. Yes.

12 Q. All right, sir. In your opinion, Mr.
13 Henry, will the proposed method of dually completing, dual
14 completion for this well be in the best interest of conserva-
15 tion, the prevention of waste, and the protection of corre-
16 lative rights?

17 A. Yes.

18 Q. Were Exhibits One and Two prepared by
19 you or compiled under your direction and supervision?

20 A. Yes.

21 MR. KELLAHIN: That concludes our ex-
22 amination of Mr. Henry, and we'll move the introduction of
23 Exhibits One and Two.

24 MR. STAMETS: These exhibits will be
25 admitted.

CROSS EXAMINATION

BY MR. STAMETS:

Q Mr. Henry, would you reiterate the pressures on the two zones for me?

A Again, on the Atoka we have not gotten any pressures in the actual well itself. We have not measured any. I am guessing that we'll probably have between 3000 and 3500 pounds on the Atoka. We should have some drainage effect on that.

The Morrow, again, I think we're probably looking at a similar pressure. I can't get you any closer than that.

Q Now, what rate of liquids production did you expect on the Atoka?

A Well, what we have out there right now, the Atoka looks like it should make about 4 barrels per million, and the Morrow, 1 barrel per million.

Q Okay. Now, the Atoka will be flowing up the 2-5/8ths -- or 2-5/8ths -- 2-7/8ths 5-inch annulus to the top of the 5-inch liner, and then up the 2-7/8ths 7-5/8ths annulus to the tubing which is set at 10,650, is that right?

A Yes.

1
2 Q Okay. Will the Atoka have any difficulty
3 lifting those fluids through the annular space?

4 A That is -- there's a possibility.
5 Initially, no, I would say no, but in the future it could
6 have some problems, yes. We don't know that.

7 If it makes as much fluid as we antici-
8 pate, it could have some problems.

9 Q Yes. And how would you deal with that
10 situation later on?

11 A Well, basically, what you would have to
12 do is to get closer to your perforations with your equipment
13 and possibly have smaller, even smaller tubing to get you
14 more velocity. We are hoping -- we're anticipating, we're
15 not sure what the Morrow is going to look like here. It
16 could -- the logs indicate there is some possibility that it
17 could be wet and we'd wind up with a single completion, but
18 we want to cover ourselves here, but we think the Atoka ini-
19 tially, we'll not have any problems producing it with this
20 particular method.

21 It would really be very difficult to
22 dually complete by putting a packer down in the 5-inch liner,
23 to dual -- to complete and produce it, the Atoka. The
24 equipment would be very difficult to -- to get in and also
25 to get out if we had to get it out, and you would have some

1
2 very small ID's that you'd be working with, which could be
3 detrimental in themselves.

4 Q Would -- assuming, now, that you are
5 successful in completing both these zones, would it be possible
6 to make a projection after a few months that would show at
7 what stage you might begin to have trouble lifting those
8 liquids?

9 A Yes. You can go ahead and monitor your
10 production and watch your pressures and fluctuations involved
11 with -- with your pressures that you're seeing on surface,
12 along with production, and get an idea if you're having some
13 flowing problems causing detriment to your -- your producing
14 zones.

15 Q So would it be reasonable for an order
16 on this particular well to provide for some sort of a report
17 within six to twelve months on that?

18 A Very reasonable.

19 Q Okay. The 2-7/8ths inch casing which is
20 set below the 5-inch liner has been cemented all the way back
21 up inside the 5-inch liner, is that correct?

22 A Yes.

23 Q Okay, so it's actually casing below the
24 PBR and tubing above the PBR?

25 A Yes.

MR. STAMETS: Any other questions of
the witness? He may be excused.

Anything further in this case?

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 Conserva-
tion 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. _____,
heard by me on _____ 19____.

_____, Examiner
Oil Conservation Division

SALLY W. BOYD, C.S.R.

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

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

Docket No. 15-81

Dockets Nos. 16-81 and 17-81 are tentatively set for May 20 and June 3, 1981. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - MAY 6, 1981

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

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

- CASE 7235: Application of Public Lands Exploration Inc. for a unit agreement, Guadalupe County, New Mexico. Applicant, in the above-styled cause, seeks approval for the O'Connell Ranch Unit Area, comprising 640 acres, more or less, of State and fee lands in Township 11 North, Range 25 East, said unit being for the purpose of conducting an enhanced oil recovery project by the injection of steam.
- CASE 7236: Application of Belco Petroleum Corporation for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its James Ranch Well No. 11 located in Unit E of Section 36, Township 22 South, Range 30 East, to produce gas from the Atoka and Morrow formations thru parallel strings of tubing.
- CASE 7237: Application of Conoco Inc. for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its State F-1 Well No. 10 located in Unit V of Section 1, Township 21 South, Range 36 East, to produce oil from the Hardy-Drinkard Pool and an undesignated Tubb pool thru parallel strings of tubing.
- CASE 7238: Application of Holly Energy, Inc. for directional drilling and an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to directionally drill its Salt Lake South Deep Well No. 1, the surface location of which is 2189 feet from the North line and 500 feet from the East line of Section 6, Township 21 South, Range 32 East, South Salt Lake-Morrow Gas Pool, in a northerly direction to bottom it within 150 feet of the center of Unit A (Lot 1) of said Section 6, Lots 1 thru 8 to be dedicated to the well.
- CASE 7239: Application of Troy Strickland and E. V. Isbell for a non-standard proration unit, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 75.5-acre non-standard proration unit comprising Lot 3 and that portion of Lot 4 North of the San Juan River mid-channel, all in Section 14, Township 29 North, Range 15 West, to be dedicated to a well to be drilled at a standard location thereon.
- CASE 7240: Application of El Paso Natural Gas Company for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Fruitland and Blanco-Pictured Cliffs production in the wellbore of its Sunray B Well No. 6 located in Unit C of Section 1, Township 30 North, Range 10 West.
- CASE 7241: Application of Harvey E. Yates Company for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox Mississippian location of its Austin State 18 Well No. 1 to be drilled 1980 feet from the South line and 1650 feet from the East line of Section 18, Township 14 South, Range 36 East, the S/2 of said Section 18 to be dedicated to the well.
- CASE 7242: Application of Harvey E. Yates Company for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox Wolfcamp-Pennsylvanian location of its McDonald Well No. 1 to be drilled 660 feet from the South line and 990 feet from the East line of Section 33, Township 13 South, Range 36 East, the S/2 of said Section 33 to be dedicated to the well.
- CASE 7243: Application of Harvey E. Yates Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian and Mississippian formations underlying the S/2 of Section 33, Township 13 South, Range 36 East, for a gas completion and/or all mineral interests in the Devonian formation underlying the SE/4 SE/4 of said Section 33 for an oil completion. 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 7217: (Continued from April 8, 1981, Examiner Hearing)
- Application of Harvey E. Yates Company for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox Morrow location of its Travis Ohio State Cor Well No. 1 to be drilled 660 feet from the South and West lines of Section 13, Township 16 South, Range 28 East, the S/2 of said Section 13 to be dedicated to the well.

Jason Kellahin
W. Thomas Kellahin
Karen Aubrey

KELLAHIN and KELLAHIN
Attorneys at Law
500 Don Gaspar Avenue
Post Office Box 1769
Santa Fe, New Mexico 87501

April 15, 1981



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

Case 7236

RE: Belco Petroleum Corporation

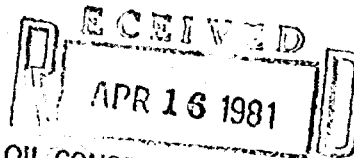
Dear Joe:

Please set the enclosed application for hearing
at the next available examiner hearing on May 6, 1981.

Very truly yours,

W. Thomas Kellahin
W. Thomas Kellahin

WTK:jm
Enclosure
cc: Patrick Miller, Esq.



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

IN THE MATTER OF THE APPLICATION
BELCO PETROLEUM CORPORATION FOR
APPROVAL OF DUAL COMPLETION, EDDY
COUNTY NEW MEXICO

Case 7236

A P P L I C A T I O N

Comes Now BELCO PETROLEUM CORPORATION by and through its attorneys, KELLAHIN & KELLAHIN, and applies to the Oil Conservation Division of New Mexico for approval of dual completion for its James Ranch 11 well located 1980 feet from the North line and 920 feet from the West line of Section 36, T22S, R30E, NMPM, Eddy County New Mexico and in support thereof would show:

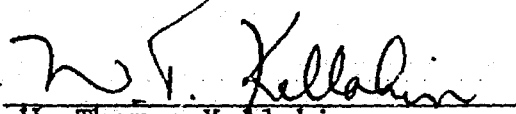
1. Applicant is the operator of the James Ranch 11 well located 1980 feet from the North line and 920 feet from the West line of Section 36, T22S, R30E, NMPM.
2. Applicant proposes to dually complete its well for production from the Atoka and Morrow formations in the subject well with each zone to be produced through a separate string of tubing.
3. Approval of the application will be in the best interest of conservation, the prevention of waste and the protection of correlative rights.

WHEREFORE applicant prays that its application be set
for an Examiner Hearing and that after notice and hearing,
the Division grant the application as requested.

Respectfully submitted,

KELLAHIN & KELLAHIN

By


W. Thomas Kellahin
P.O. Box 1769
Santa Fe, New Mexico 87501
(505) 982-4285

ATTORNEYS FOR APPLICANT

ROUGH

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. 7236

Order No. R- 6889

APPLICATION OF BELCO PETROLEUM CORPORATION
FOR A DUAL COMPLETION, FDDY
COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 o'clock a.m. on
May 6, 19 81, at Santa Fe, New Mexico, before
Examiner Richard L. Stamets

NOW, on this day of January, 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, Belco Petroleum Corporation
seeks authority to complete its James Ranch Well No. 11,
the surface location of which is
Well No. 11, located in Unit E of Section 36, Town-
ship 22 South, Range 30 East, NMPM, Eddy
County, New Mexico, as a dual completion (conventional) to
(combination)
(tubingless)

produce gas from the Atoka and Morrow formations through parallel

strings of tubing with separator of the two zones by
means of a polished bore receptacle set of approximately
13,456 feet

applicant's

(2) That ~~A said~~ James Ranch Well No 11 was completed as a single Atoka gas producing well only and Case No 7236 should be dismissed.

IT IS THEREFORE ORDERED:

(1) That Case No 7236 is hereby dismissed