

CASE 6456: HARVEY E. YATES COMPANY FOR  
A NEW ONSHORE RESERVOIR DETERMINATION,  
EDDY COUNTY, NEW MEXICO

CASE NO.

6456

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APPLICATION,  
TRANSCRIPTS,  
SMALL EXHIBITS,  
ETC.

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. 6456  
Order No. R-6030

APPLICATION OF HARVEY E. YATES  
COMPANY FOR A NEW ONSHORE RESERVOIR  
DETERMINATION, EDDY COUNTY, NEW  
MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on February 14, 1979, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 26th day of June, 1979, 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, Harvey E. Yates Company, seeks a determination by the Division, in accordance with Sections 2(c) and 102 of the Natural Gas Policy Act of 1978, and the applicable rules of the Federal Energy Regulatory Commission, that its Loco Hills Welch Well No. 1, located in Unit D of Section 9, Township 18 South, Range 29 East, NMPM, Eddy County, New Mexico, has discovered a new onshore reservoir from which natural gas was not produced in commercial quantities before April 20, 1977.
- (3) That said well was completed in the Morrow formation November 6, 1978, with perforations from 10,876 feet to 10,882 feet, and a plugged-back depth of 10,950 feet after having been drilled to a total depth of 11,200 feet.
- (4) That although there are several wells in the vicinity of the subject well which have penetrated the Morrow formation,

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Case No. 6456  
Order No. R-6030

the 6-foot sand stringer in the Morrow which is the producing zone for the subject well has been either absent or non-productive in each of said wells.

(5) That the 6-foot stringer which is the productive zone for the subject well appears to be an isolated sand stringer of limited horizontal extent, and does not appear to be productive in any other well in the area.

(6) That as such, the isolated sand stringer in the subject well probably constitutes a separate limited reservoir productive only in the subject well.

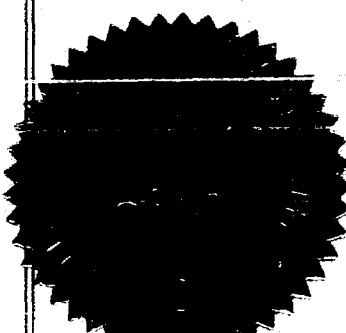
(7) That the subject well is the first and only well drilled to date into and completed to commercially produce from the aforesaid separate reservoir, and therefore qualifies as producing new natural gas from a new onshore reservoir pursuant to the provisions of Section 102(c) of the Natural Gas Policy Act of 1978 and the applicable rules of the Federal Energy Regulatory Commission.

IT IS THEREFORE ORDERED:

(1) That the Harvey E. Yates Company Loco Hills Welch Well No. 1, located in Unit D of Section 9, Township 18 South, Range 29 East, NMPM, Eddy County, New Mexico, is completed in a new onshore reservoir as defined by Sections 2(c) and 102(c) of the Natural Gas Policy Act of 1978, and the applicable rules of the Federal Energy Regulatory Commission.

(2) That jurisdiction of this cause is hereby 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

S E R  
fd/

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
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(3) That said well was completed in the Morrow formation November 6, 1978, with perforations from 10,876 feet to 10,882 feet, and a plugged-back depth of 10,950 feet after having been drilled to a total depth of 11,200 feet.

(4) That although there are several wells in the vicinity of the subject well which have penetrated the Morrow formation,

the 6-foot sand stringer in the Morrow which is the producing zone for the subject well has been either absent or non-productive in each of said wells,

(5) That the 6-foot stringer which is the productive zone for the subject well appears to be an isolated sand stringer of limited horizontal extent, and does not appear to be productive in any other well in the area,

(6) That as such, the isolated sand stringer in the subject well probably constitutes a separate limited reservoir productive only in the subject well,

(7) That the subject well is the first and only well drilled to date into and completed to commercially produce from the aforesaid separate reservoir, and therefore qualifies as producing new natural gas from a new onshore reservoir pursuant to the provisions of Section 102(c) of the Natural Gas Policy Act of 1978 and the applicable rules of the Federal Energy Regulatory Commission,

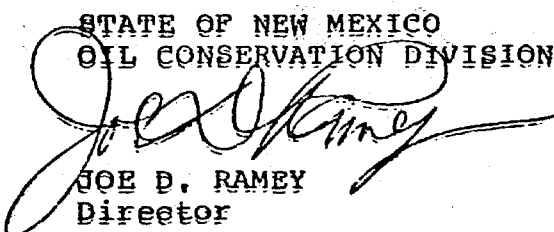
IT IS THEREFORE ORDERED:

(1) That the Harvey E. Yates Company Loco Hills Welch Well No. 1, located in Unit D of Section 9, Township 18 South, Range 29 East, NMPM, Eddy County, New Mexico, is completed in a new onshore reservoir as defined by Sections 2(c) and 102(c) of the Natural Gas Policy Act of 1978, and the applicable rules of the Federal Energy Regulatory Commission,

(2) That jurisdiction of this cause is hereby 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

SEAL  
fd/



CASE 6454: Application of Doyle Hartman for approval of infill drilling and two non-standard proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a finding that the drilling of a well to be located 1980 feet from the South and East lines of Section 9, Township 25 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, is necessary to effectively and efficiently drain that portion of the existing proration unit which cannot be so drained by the existing well, the El Paso Prichard Well No. 1, located in Unit G of Section 9. Applicant further seeks approval of a 160-acre non-standard gas proration unit comprising the SE/4 of Section 9 for the new well and a 160-acre non-standard unit comprising the NE/4 of said Section 9 for the El Paso well.

CASE 6432: (Continued and Readvertised)

Application of John Yuronka for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Langlie Mattix Pool underlying the NE/4 NW/4 and the SE/4 NW/4 of Section 29, Township 24 South, Range 37 East, Lea County, New Mexico, to form two 40-acre units, each 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 wells and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the wells and a charge for risk involved in drilling said wells.

CASE 6435: (Continued and Readvertised)

Application of Amerada Hess Corporation for approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a finding that the drilling of its W. A. Weir "B" Well No. 3 located in Unit B of Section 26, Township 19 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well, and further seeks approval of a waiver of existing well-spacing requirements.

CASE 6419: (Continued from January 31, 1979, Examiner Hearing)

Application of Yates Petroleum Corporation for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Lanning JC Well No. 1 located in Unit B of Section 7, Township 18 South, Range 26 East, Eagle Creek Field, Eddy County, New Mexico, to produce gas from the Strawn formation through the casing-tubing annulus and from the Morrow formation through tubing.

CASE 6423: (Continued from January 31, 1979, Examiner Hearing)

Application of Yates Petroleum Corporation for an unorthodox well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Jackson AT Well No. 9 located 660 feet from the South and West lines of Section 13, Township 17 South, Range 25 East, Eddy County, New Mexico, to test the Wolfcamp, Pennsylvanian, and Mississippian formations, the S/2 of said Section 13 to be dedicated to the well.

CASE 6424: (Continued from January 31, 1979, Examiner Hearing)

Application of Yates Petroleum Corporation for an unorthodox well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Superior Fed. KJ Well No. 1 located 990 feet from the North and West lines of Section 7, Township 20 South, Range 29 East, Eddy County, New Mexico, to test the Wolfcamp and Pennsylvanian formations, the N/2 of said Section 7 to be dedicated to the well.

CASE 6455: Application of Yates Petroleum Corporation for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for its North Texas Hills Unit Area comprising 5,120 acres, more or less, of Federal, state, and Fee lands in Township 21 South, Range 21 East, Eddy County, New Mexico.

CASE 6456: Application of Harvey E. Yates Company for a new onshore reservoir determination, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks a new onshore reservoir determination for its Loco Hills Welch Well No. 1 located in Unit D of Section 9, Township 18 South, Range 29 East, Morrow formation, Eddy County, New Mexico.

CASE 6457: Application of Harvey E. Yates Company for a new onshore reservoir determination, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks a new onshore reservoir determination for its Empire South Deep Unit Well No. 13 located in Unit N of Section 30, Township 17 South, Range 29 East, Morrow formation, Eddy County, New Mexico.



STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
State Land Office Building  
Santa Fe, New Mexico  
14 February 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Harvey E. Yates Com-  
pany for a new onshore reservoir  
determination, Eddy County, New  
Mexico.

CASE  
6456

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation  
Division:

Lynn Teschendorf, Esq.  
Legal Counsel for the Division  
State Land Office Bldg.  
Santa Fe, New Mexico 87503

For the Applicant:

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I N D E X

ANDRES LATTU

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Applicant Exhibit Two, Plat 10

Applicant Exhibit Three-A, Cross Section 10

Applicant Exhibit Three-B, Cross Section 10

Applicant Exhibit Four, Log 10

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1 MR. NUTTER: Call Case Number 6456.

2 MS. TESCHENDORF: Case 6456. Application of  
3 Harvey E. Yates Company for a new onshore reservoir deter-  
4 mination, Eddy County, New Mexico.

5 MR. STRAND: Again, Mr. Examiner, I'd like  
6 to make the same basic comments I made in the last hearing.

7 This particular application is for Harvey  
8 E. Yates Company's Loco Hills Welch No. 1 Well, and we're  
9 asking for a determination under the Natural Gas Policy Act  
10 of 1978, for a Section 103 new onshore reservoir deter-  
11 mination.

12 With respect to this particular well, we  
13 have also filed a separate alternative application for a  
14 new onshore production well under Section 103.

15 Again, I would like to limit the testimony  
16 to the land, drilling, completion, production, and geologi-  
17 cal data relevant to the new onshore reservoir concept  
18 under Section 102.

19 MR. NUTTER: The application for the new  
20 onshore production well would be eligible for administra-  
21 tive approval, is that it?

22 MR. STRAND: Yes, I believe so. I don't  
23 think there are any issues that would require testimony  
24 on that.

25 I would also ask that the sworn statement

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1 that was previously submitted and the various forms, Com-  
2 mission forms that were submitted with that statement be  
3 considered part of the record in this hearing.

4 MR. NUTTER: They will be part of the record.

5 MR. STRAND: Mr. Examiner, Mr. Lattu testi-  
6 fied in the last hearing and is under oath, and he'll be  
7 the only witness in this case.

8 MR. NUTTER: You may proceed. He's still  
9 under oath.

10  
11 ANDREW LATTU  
12 being called as a witness and having been previously sworn  
13 upon his oath, testified as follows, to-wit:

14  
15 DIRECT EXAMINATION

16 BY MR. STRAND:

17 Q Mr. Lattu, you did testify in the last case?

18 A Yes, I did.

19 Q And your qualifications were made a matter  
20 of record?

21 A Yes, they were.

22 Q Mr. Lattu, is Harvey E. Yates Company the  
23 operator of the Loco Hills Welch No. 1 Well?

24 A Yes, they are.

25 Q What's the location of that well?

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1 A The location is 480 feet from the north.  
2 500 feet from the west line of Section 9, Township 18 South,  
3 Range 29 East, Eddy County, New Mexico.

4 Q Is the drill site on fee or State lease  
5 acreage?

6 A It is on fee land.

7 Q Mr. Lattu, I'm correct that this particular  
8 well was a re-entry?

9 A Yes, it was.

10 Q What was the spud date of the original well  
11 that was drilled?

12 A The original spud date was in December of  
13 1977. It was drilled by Depco to a total depth of 10,100  
14 feet, at which point it was plugged and abandoned, February  
15 4th, 1978.

16 Q Was there any production from that initial  
17 well?

18 A No, there was not.

19 Q What was the spud date of the Harvey E.  
20 Yates Company re-entry?

21 A Harvey E. Yates Company re-entered the well  
22 at 9-19-78.

23 Q Mr. Lattu, I refer you to Exhibit One.  
24 Would you please identify that?

25 A This is a well completion report.

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1 Q Do you recognize that as having been signed  
2 by a representative of Harvey E. Yates Company?

3 A Yes, it is.

4 Q What was the completion date on the re-  
5 entry?

6 A The re-entry was completed on December 6th,  
7 1978, at a total depth of 11,200 feet.

8 MR. NUTTER: Mr. Lattu, this exhibit says  
9 November 6th of '78.

10 A Isn't that what I said?

11 MR. NUTTER: You said December.

12 A Oh, I'm sorry, I apologize.

13 MR. NUTTER: 11-6-78.

14 A 11-6, that's what I have written down.

15 MR. NUTTER: Yeah.

16 Q Mr. Lattu, was the well completed as a  
17 producer?

18 A Yes, it was.

19 Q Mr. Lattu, as a producer of gas?

20 A Yes, it was completed as a gas well in the  
21 upper Morrow sand.

22 Q Mr. Lattu, are you familiar with the defin-  
23 ition of the term reservoir as found in Section 2 of the  
24 Natural Gas Policy Act of 1978?

25 A Yes, I am.

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1 Q In forming your opinion as to whether natural  
2 gas produced from the Loco Hills Welch No. 1 is produced  
3 from such a separate reservoir, have you examined and ana-  
4 lyzed available geological and pressure data from the Loco  
5 Hills Welch and surrounding wells of similar depth?

6 A Yes, I have.

7 Q What is the producing interval in the Loco  
8 Hills Welch No. 1?

9 A It is completed in the upper Morrow sand at  
10 a depth of 10,876 to 10,882 feet.

11 Q Mr. Lattu, referring to Exhibit Number Two,  
12 would you please describe the exhibit?

13 A Exhibit Number Two is a location plat, a  
14 scale of one inch equals 2000 feet. It shows the location  
15 of the Loco Hills Welch No. 1 Well, located in Section 9,  
16 and the plat shows a circle of radius two and a half miles,  
17 centered on the Loco Hills Welch No. 1. All wells within  
18 two and a half miles of the subject well, which penetrate  
19 the Morrow sediments and were drilled or drilling prior to  
20 commencement of the subject well, are designated and con-  
21 nected by a dashed line which forms the structural cross  
22 section, which is Exhibit, I believe, Number Three. That  
23 would be Exhibit Number Three-A.

24 Q Referring to Exhibit Number Three-A, Mr.  
25 Lattu, is the existing interval designated on that cross

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1 section?

2 A. Yes, it is, and is indicated as pay sand and  
3 colored yellow.

4 Q Mr Lattu, have you examined all of the logs  
5 that make up this cross section before putting it together?

6 A. Yes, I did.

7 Q Referring to Exhibit Three-B, please de-  
8 scribe that.

9 A. Exhibit Three-B is an additional or supple-  
10 mental cross section. It contains wells that are surrounding  
11 the subject well with a vertical scale of one inch equals  
12 100 feet. DST's or completions in the Morrow are indicated  
13 on these wells.

14 Q Mr. Lattu, as in the last hearing, could we  
15 designate the wells that are shown on Exhibit Three-B as  
16 they appear on Three-A?

17 A. All right. Exhibit Three-A and Three-B,  
18 the wells in Three-B appear in the same order as they do  
19 in Three-A.

20 MR. NUTTER: So they are the two wells to  
21 the right and the two wells to the left of the one with  
22 the arrow?

23 A. Yes, that's correct.

24 MR. NUTTER: Okay.

25 Q The yellow colored area on Exhibit Three-B,



1 that is also a delineation of a producing zone, is that  
2 correct?

3 A Yes, it is, and the perforations in that  
4 yellow zone are the productive perforations. There are  
5 some deeper perforations indicated there, which are not  
6 producing. That was a lower zone we attempted completion  
7 in and were not successful.

8 Q Mr. Lattu, based on your analysis of the  
9 logs which make up these cross sections, does this sand  
10 appear to exist under any of the other wells shown on these  
11 exhibits?

12 A No, it does not.

13 Q I refer you to Exhibit Number Four, would  
14 you please describe this exhibit?

15 A Exhibit Number Four consists of the Harvey  
16 E. Yates Company Loco Hills Welch No. 1 Well on the right  
17 and the Amoco Production's South Empire Deep Unit No. 14  
18 Well on the left. This is the only other well in the area  
19 that is completed in the upper Morrow sand on the Exhibit  
20 Three-B. Also there is a small structure map on this exhibit,  
21 contoured on the top of the Morrow sand.

22 The two pressures indicated for each well  
23 further support the contention that these sands are not  
24 the same reservoir. The Loco Hills -- Harvey E. Yates  
25 Company Loco Hills Welch No. 1 by DST had a maximum reser-

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1       voir pressure of 4549 pounds. The Amoco South Empire Deep  
2       Unit No. 14 by DST had a maximum reservoir pressure of 1961  
3       pounds.

4                     MR. NUTTER: 1961?

5                     A       Yes, that's correct.

6                     Q       Mr. Lattu, on the basis of your analysis of  
7       the logs and pressure data, is it your professional opinion  
8       that the Loco Hills Welch No. 1 produces from a reservoir  
9       separate and distinct from any other wells shown on this  
10      cross section?

11                    A       Yes, it does.

12                    Q       Is it further your opinion that that parti-  
13      cular reservoir has not penetrated by any other well?

14                    A       Yes.

15                    Q       Mr. Lattu, were Exhibits Two, Three, and Four  
16      prepared by you or under your supervision?

17                    A       Yes, they were.

18                    MR. STRAND: Mr. Examiner, I move admission  
19      of Exhibits One through Four.

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

22                    MR. STRAND: That's all I have, Mr. Examiner.

23                    MR. NUTTER: Does anyone have any questions  
24      for Mr. Lattu?  
25

## CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Lattu, what is the name of the sand that you have given to this particular pay?

A I haven't named it, Mr. Examiner.

Q Well --

A Sands that I have given a designation of, say, like B-4 in the previous, or C-4, are sands that I find in a unit that I can map, and this being the only sand I see, I haven't named it.

Q You just call this upper Morrow sand?

A It's upper Morrow sand, yes.

Q And these are the only two wells on this entire Exhibit Number Two that are producing from the upper Morrow, is that it?

A No, that's not correct. On the cross section Exhibit Three-B, these are the only two upper Morrow producing wells.

Q Oh. How about on Exhibit Number Two, are there --

A Okay, on Exhibit Number Two, the South Empire Deep Unit No. 1 is an upper Morrow sand producer.

Q That's upper Morrow? Okay.

A Of course, also the South Empire Deep Unit

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1 No. 13, but it's outside that circle.

2 Q You didn't prepare an exhibit in this case  
3 similar to I believe it was your Exhibit Number Four in the  
4 previous case, where you had an Isopach of the pay.

5 A Yes, this is the only well that that parti-  
6 cular sand is in. It's a very thin sand. I don't corre-  
7 late it to any other well. It's a little stray sand.

8 The South Empire Deep Unit No. 12 on Exhibit  
9 Two also produces from both the upper and lower Morrow.

10 MS. TESCHENDORF: In Section 5 here?

11 MR. STRAND: Yes.

12 Q Well, what evidence have we actually got that  
13 there's no other production from this sand? The No. 14  
14 produces from that sand.

15 A Well, it produces from an upper Morrow sand,  
16 Mr. Examiner, but I do not believe that it's the same sand  
17 in both because of the pressures encountered by DST and  
18 the Exhibit Number Four, which has the two logs side-by-side,  
19 the Morrow section, the upper Morrow section in particular,  
20 looks entirely different on both logs.

21 Q How about the No. 12? You said it produced  
22 from the upper Morrow?

23 A It does produce from the upper Morrow. The  
24 bulk of the production in No. 12 is from a lower Morrow  
25 sand. They are commingled. The upper Morrow sand that

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1 produces in the No. 12 is somewhat depleted and we're back  
2 to our B-4 sand again from the previous hearing.

3 And a survey run by Amoco of that well indi-  
4 cated 11 percent of the production came from this upper  
5 Morrow B-4 sand and 80 percent of the production in the  
6 Morrow came from the lower Morrow sand.

7 Q I still don't see how we can certify that  
8 this well is a discovery well of a new reservoir that hasn't  
9 previously been tapped, unless we show some separation of  
10 this reservoir from these other reservoirs.

11 A Well, this particular sand is not found in  
12 any other well, Mr. Examiner.

13 Q If you're talking about a stringer, you're  
14 not talking about the upper Morrow, you're talking about  
15 the stringer.

16 A About the stringer sand, which is what the  
17 pay is in.

18 It's a very thin sand and probably has not  
19 too great an areal extent. I don't believe it's, you know,  
20 a piece of a bar system or some other mapable unit.

21 Q The well to the southeast of this well, which  
22 on Exhibit Number Two is shown to be P&A'd, I guess.

23 A Yes, that's correct.

24 Q What did this part of the pay look like in  
25 that well?

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1 A. There is approximately a similar looking  
2 unit. It was not covered by a test. It may be the same  
3 sand; it might not be. On log analysis in a similar inter-  
4 val there's a sand of similar thickness that was not tested.  
5 It appeared tight in that well.

6 Q And then the well to the west of that, over  
7 in Section 8, that apparently is an oil well.

8 A. Yes. That was completed in the upper Penn-  
9 sylvanian and the Morrow sand is not present, or there is  
10 no sand --

11 Q No Morrow production at all.

12 A. No Morrow production at all. Both of those  
13 wells looked at the Morrow and neither one of them found  
14 any indication of commercial production.

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

17 Do you have anything further, Mr. Strand?

18 MR. STRAND: Nothing, Mr. Examiner.

19 MR. NUTTER: Does anyone have anything they  
20 wish to offer in Case Number 6456?

21 We'll take the case under advisement.

22 (Hearing concluded.)  
23  
24  
25

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
2020 Plaza Blanca (995) 471-5462  
Santa Fe, New Mexico 87501

## REPORTER'S CERTIFICATE

I, SALLY W. BOYD, a Court Reporter, DO HEREBY CERTIFY that the foregoing and attached 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, knowledge, and skill, from my notes taken at the time of the hearing.

Sally W. Boyd CSR  
Sally W. Boyd C.S.R.

I do hereby certify that the foregoing is  
a complete and correct transcript of the proceedings in  
the Estate of [redacted] No. 6456  
heard by me on 2/14 1979.  
[Signature] Examiner  
Oil Conservation Division

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3030 Plaza Blanca (SOS) 471-2462  
Santa Fe, New Mexico 87501

**HEYCO**

PETROLEUM PRODUCERS



**HARVEY E. YATES COMPANY**

P. O. BOX 1933

SUITE 300, SECURITY NATIONAL BANK BUILDING

505/623-6601

ROSWELL, NEW MEXICO 88201

December 8, 1978

DEC 13 1978

Santa Fe

Case 6456

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

Re: Loco Hills Welch #1  
Section 9: T18S, R29E  
Eddy County, New Mexico

Gentlemen:

Enclosed for filing please find Application for Wellhead Price  
Ceiling Category Determination (Form C-132) on the above captioned  
well.

Sincerely yours,

George M. Yates

SJ/me  
Enclosures

cc: El Paso Natural Gas Co.  
Working Interest Owners



Were all producers on cross section  
completed after Feb 19, 1977?

isn't this same as <sup>upper</sup> zone perforated  
in S. Empire Deep Unit #14?

Pressure production data

NO. OF COPIES RECEIVED  
DISTRIBUTION  
DATE  
U.S.G.S.  
LAND OFFICE  
OPERATION

NEW MEXICO OIL COMPLETION REPORT  
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

FORM NO. 1  
REVISED 1968  
[X]

TYPE OF WELL  
TYPE OF COMPLETION  
NEW ☐ WORK OVER ☐ DEEPEN ☒ PLUG BACK ☐ REPERFORATE ☐

Harvey E. Yates Company  
P. O. Box 1933, Roswell, New Mexico 88201

Loco Hills Welch

Ind. 5. Empire Morrow

SECTION D LOCATED 480 FEET FROM THE North 500

West LINE OF SEC. 9 TWP. 18S R. 29E  
Date Drilled 9-19-78 9-30-78 11-6-78  
Total Depth 11,200' 10,950 Single

3516'  
10,100'-11,200'

10,876' to 10,882' KB Morrow

Type Electric and Other Log Run  
Schlumberger 'CNL & DLL

CASING SIZE	WEIGHT LB. FT.	DEPTH SET	HOLE SIZE	CEMENTING METHOD	AMOUNT CEMENT
Exist: 12 3/4"		402'		475 Sx	None
8 5/8"		2910'		1300 Sx	None
Boycy Ran: 5 1/2"	17#	11,199'	7 7/8"	725 Sx	None

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PAINT SET
None					2 7/8"	10,780'	10,780'

PERFORATION LOGS (Interval, size and number)	ACID, SALT, FRACTURE, CEMENT, ETC.
10,876' to 10,882' KB, 3/8" dia. - 13 Holes	10,876'-10,882'
	250 Gals - 10% acetic 2000 Gals - 7% MTA w/1000 SCF N <sub>2</sub> /Bbl

PRODUCTION							
First Production	Production Method (Flowing, gas lift, pumping, etc.)	Size of Test Pump	Test Interval (Days)	Test Period	Flow Rate (GPM)	Water Cut (%)	Pressure (PSI)
11-14-78	Flowing		SI				
11-14-78	2.75 Hrs	28/64"	0	67.95	0		
250	PKT	0	593	0			

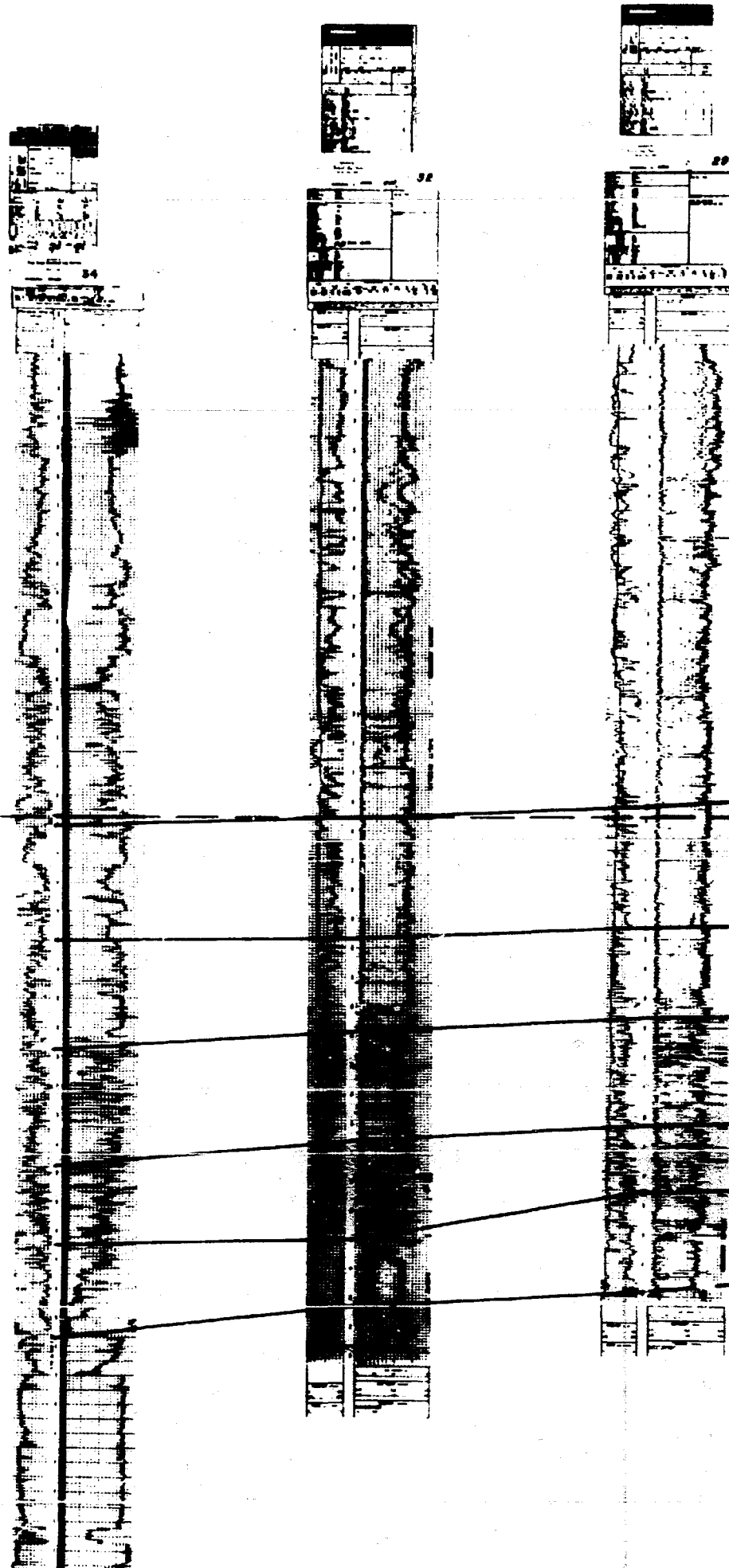
Vented  
List of Attachments

I hereby certify that the information shown on both sides of this form is true and correct to the best of my knowledge and belief.  
SIGNED Per Harder TITLE Engineer  
DATE 11-30-78  
CASE NO. 6456

BEFORE EXAMINED BY  
EL PASO NAT. GAS CO.  
11-30-78  
6456

NO. OF COPIES DESTROYED DISTRIBUTION DATE TIME LOCATION FIELD OFFICE OPERATOR		NEW MEXICO OIL-CONSERVATION COMMISSION WELL COMPLETION OR RECOMPLETION REPORT AND LOG		FORM NO. 1 (Rev. 1-68)	
TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>					
TYPE OF COMPLETION NEW WELL <input type="checkbox"/> REPAIR OVER <input type="checkbox"/> DEEPEN <input checked="" type="checkbox"/> RE-DRILL <input type="checkbox"/> RE-GRIND <input type="checkbox"/>					
NAME OF OPERATOR <b>Harvey E. Yates Company</b> <b>P. O. Box 1933, Roswell, New Mexico 88201</b>					
LOCATION OF WELL SECTION <u>D</u> LOCATED <u>480</u> FEET FROM THE <u>North</u> <u>500</u> FEET FROM THE <u>West</u>					
TOWNSHIP <u>9</u> RANGE <u>18S</u> COUNTY <u>29E</u>					
DATE OF COMPLETION <u>9-19-78</u> <u>9-30-78</u> <u>11-6-78</u>					
DEPTH OF WELL <u>11,200'</u> <u>10,950</u> <u>Single</u>					
PRODUCING INTERVAL(S) OF THIS COMPLETION - TOP, BOTTOM, THICKNESS <u>10,876' to 10,882' KB</u> <u>Narrow</u>					
TYPE OF CEMENT AND OTHER LOGS RUN <u>Schlumberger 'CNL &amp; DLL</u>					
CASING RECORD (Report all stringers in well)					
CASING SIZE	WEIGHT LBS. FT.	DEPTH SET	HOLE SIZE	COMPLETION RECORD	AMOUNT PULLED
Exist: 12 3/4"		402'		475 Sx	None
8 5/8"		2910'		1300 Sx	None
Keyco Ran: 5 1/2"	17#	11,199'	7 7/8"	725 Sx	None
LINER RECORD					
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	DEPTH SET
None					10,780'
PERFORATION LOGS (Interval, size and number) <u>10,876' to 10,882' KB, 3/8" dia. - 13 Holes</u>					
ADDITIONAL LOGS (Fracture, cement, etc.) DEPTH INTERVAL: <u>10,876'-10,882'</u> AMOUNT AND KIND OF MATERIAL USED: <u>250 Gals - 10% acetic</u> <u>2000 Gals - 7 1/2% MTA w/1000</u> <u>SCF N<sub>2</sub>/Bb1</u>					
PRODUCTION					
First Production		Production Method (Flowing, gas lift, pumping, etc.)		Date of Test	
<u>11-14-78</u>		<u>Flowing</u>		<u>SI</u>	
Test Period	Hours Tested	Choke Size	Flowing Per Test Period	Water Produced	Gas Produced
<u>11-14-78</u>	<u>2.75 Hrs</u>	<u>28/64"</u>	<u>0</u>	<u>67.95</u>	<u>0</u>
Working Pressure	Working Pressure	Choke Size	Flowing Per Test Period	Water Produced	Gas Produced
<u>250</u>	<u>Pkr</u>	<u>0</u>	<u>593</u>	<u>0</u>	<u>0</u>
Disposition of Gas (Sold, used for fuel, vented, etc.) <u>Vented</u>					
List of Attachments I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.					
SIGNED		TITLE			
<u>El Paso Nat. Gas Co.</u>		<u>Engineer</u>			
CASE NO.		DATE			
<u>1454</u>		<u>11-30-78</u>			

A

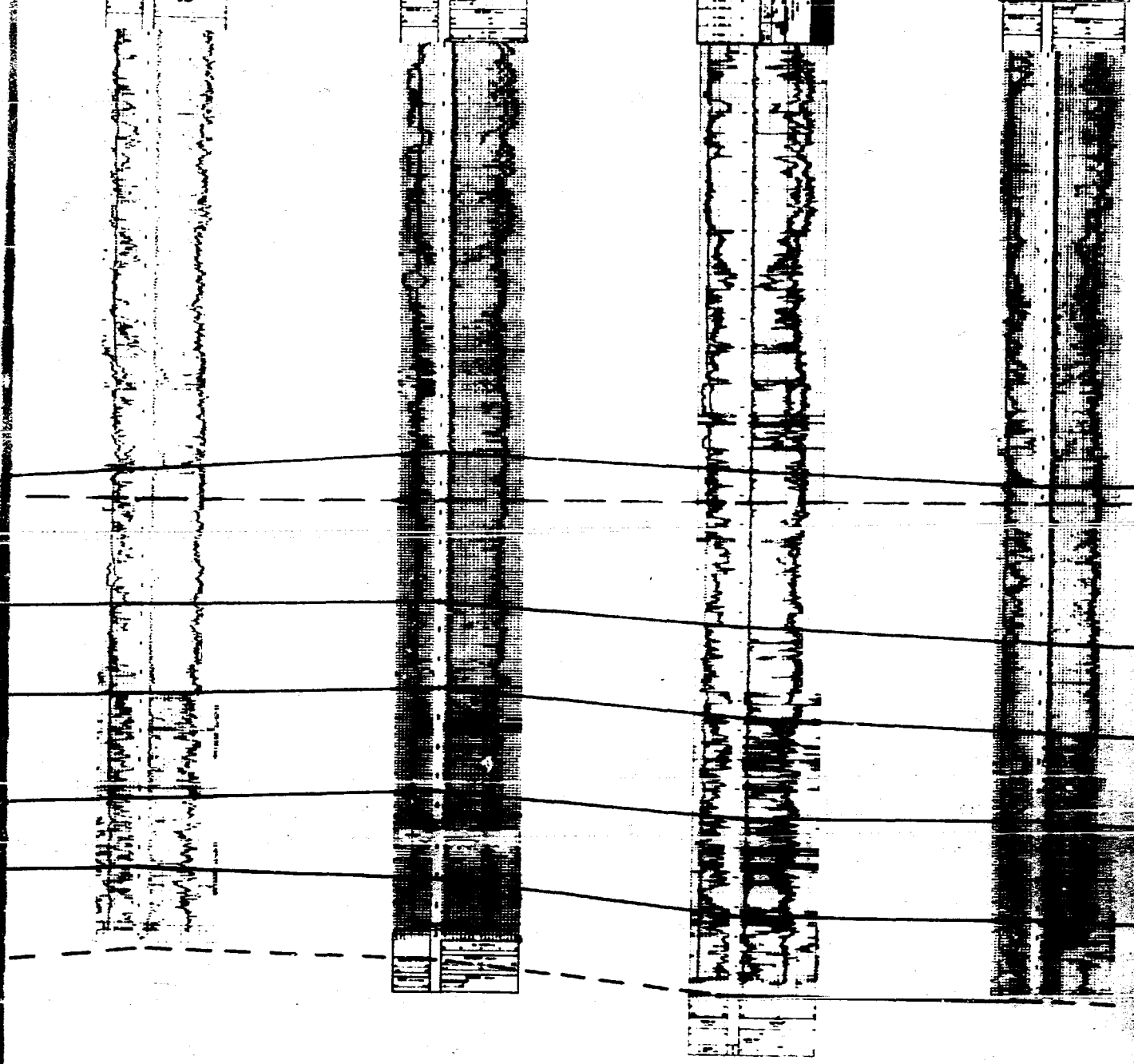
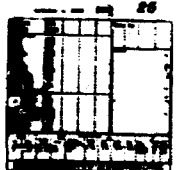
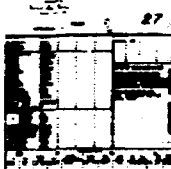
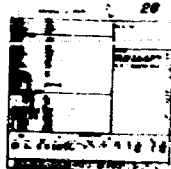
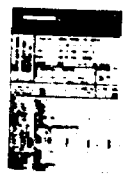


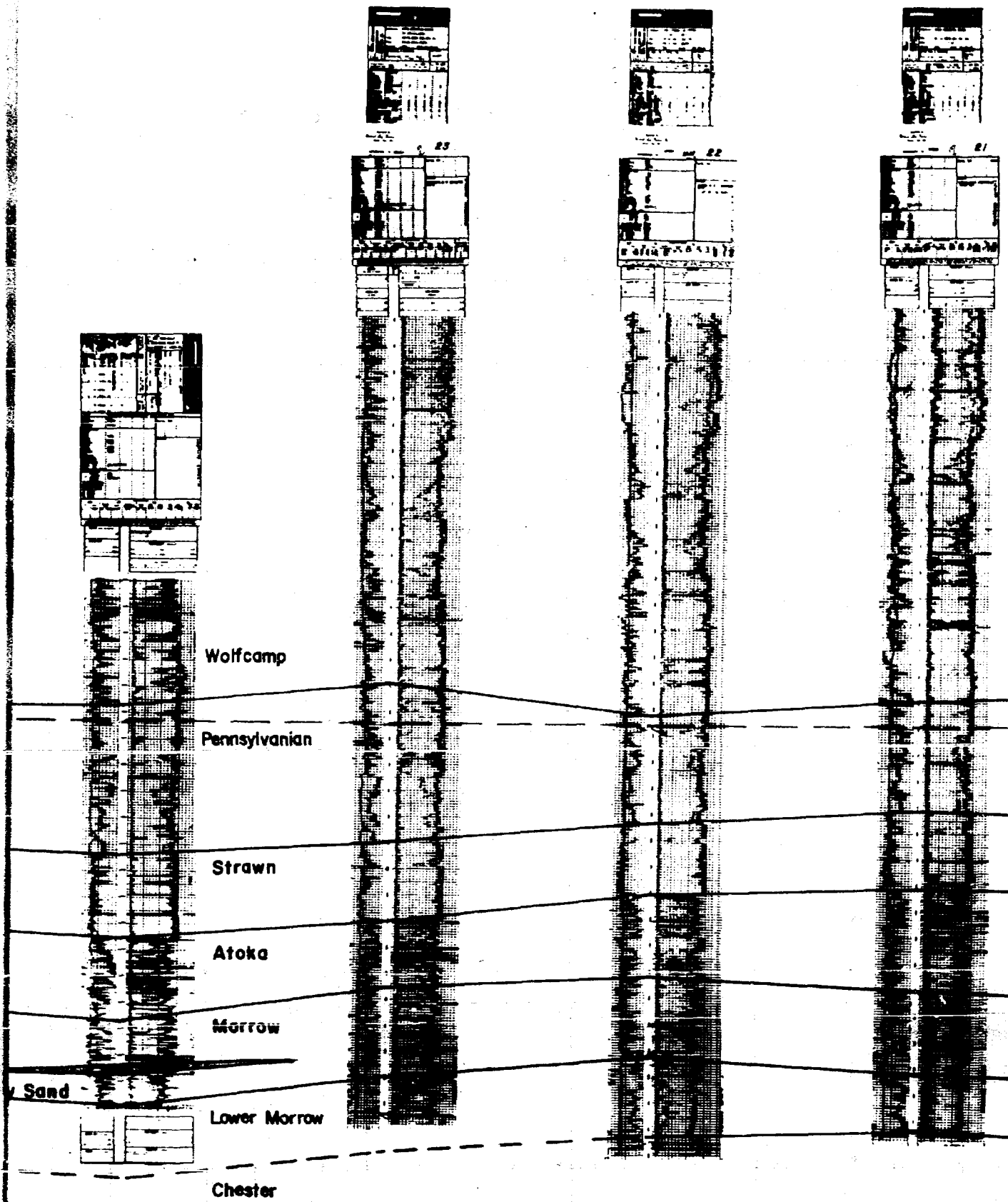


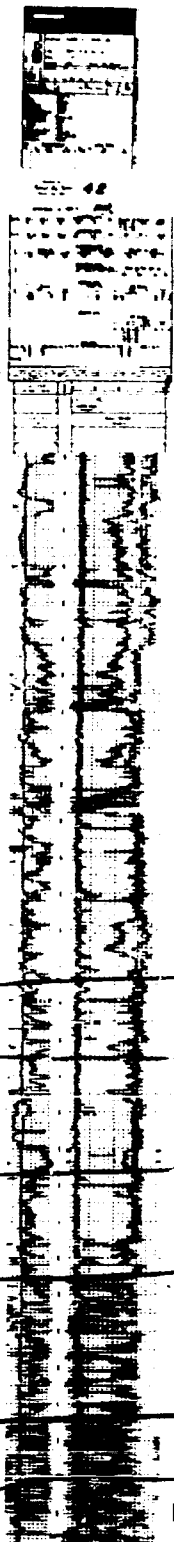
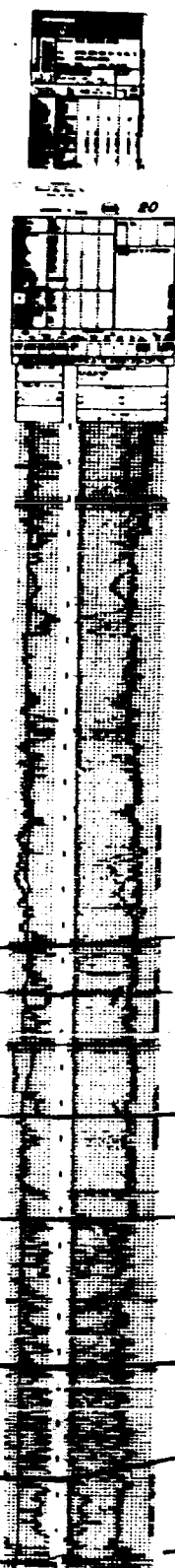
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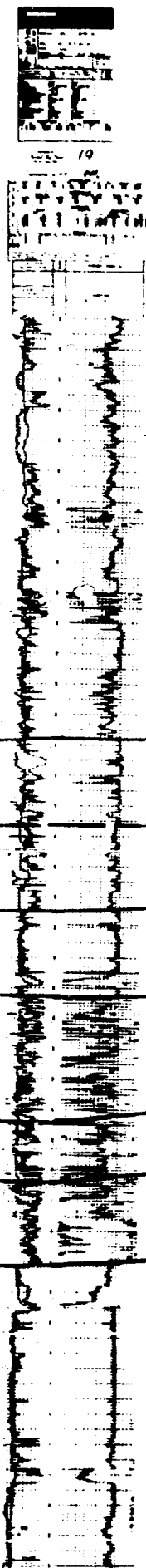
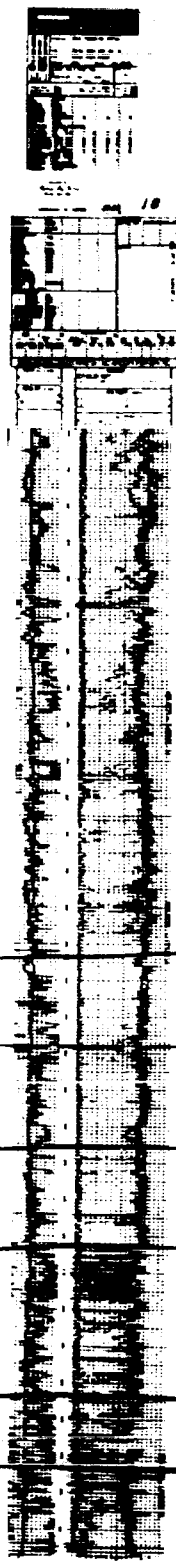
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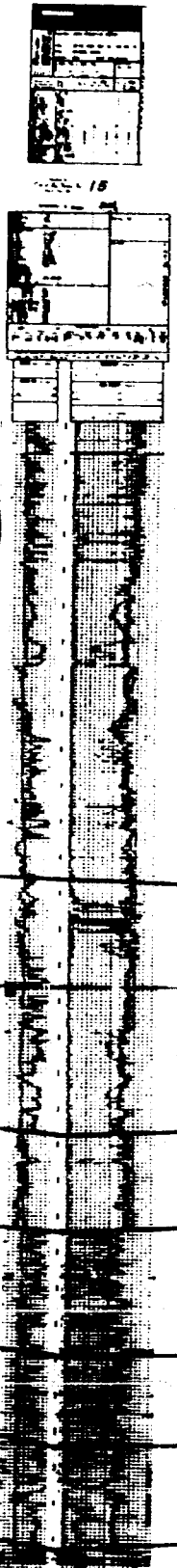
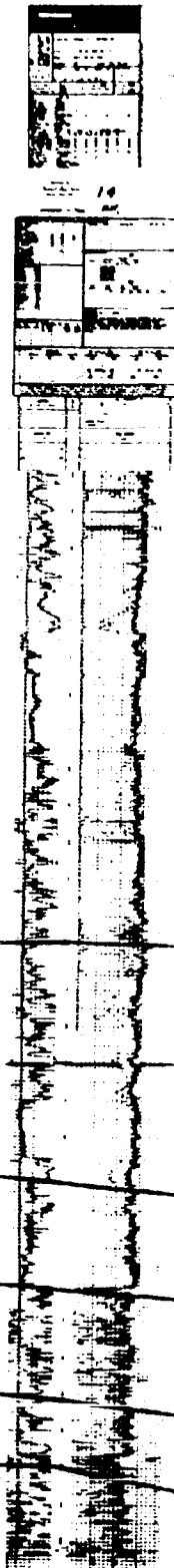
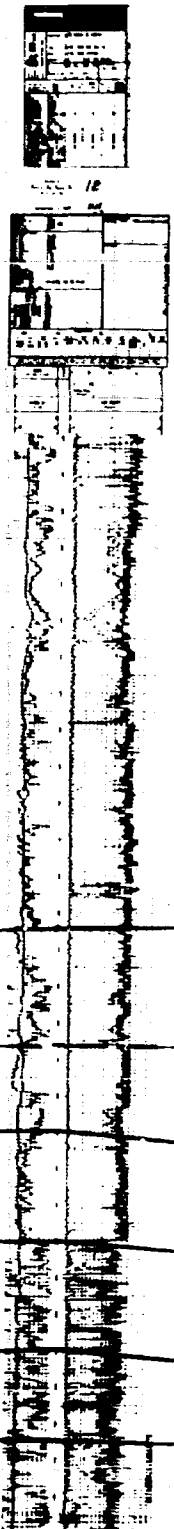
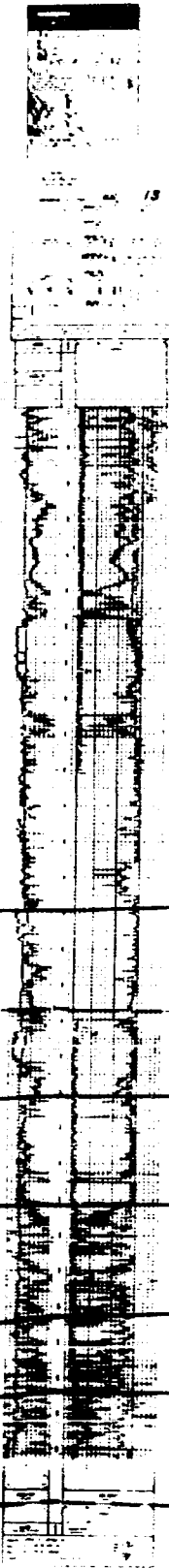




Lower  
Morrow



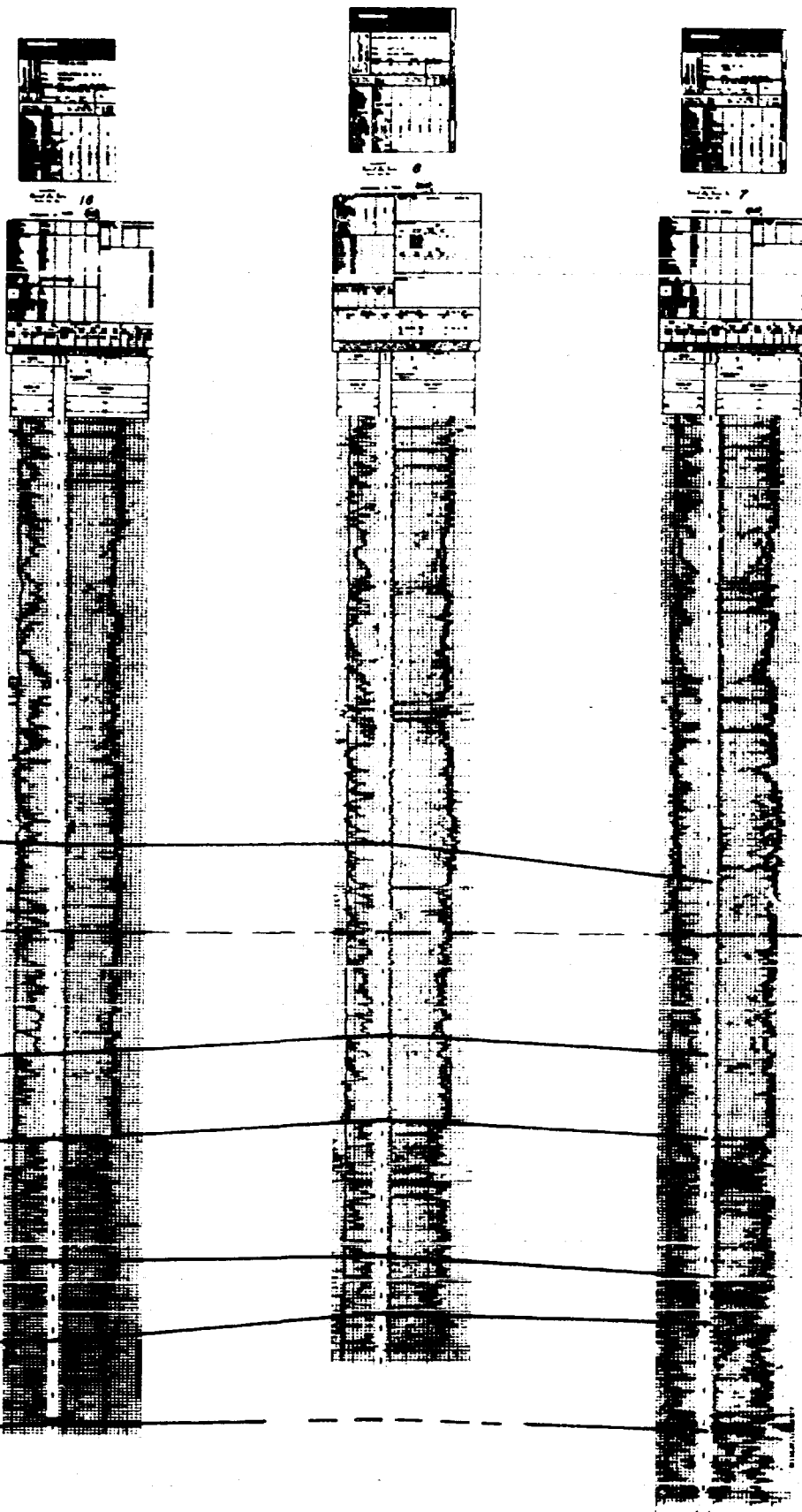








**A'**



**DATUM  
= 6000'**

BEFORE EXAMINATION  
OIL COMPANY  
\_\_\_\_\_  
CASE NO. 6456

~~EXHIBIT NO. 2~~

**STRUCTURAL CROSS SECTION**

**A - A'**

HARVEY E. YATES CO.

LOCO HILLS DEEP NO. 1

HORIZONTAL SCALE: NONE

VERTICAL SCALE: 1" = 500'

## Exhibit #2

Structrual Cross-Section chart of wells within  $2\frac{1}{2}$  miles of the Loco Hills Welch #1 Well penetrating the Morrow sediments as shown on Exhibit #1. The Loco Hills Welch #1 is indicated by an arrow at the top of the Cross-Section.

### Geol'gical Interpretation

The Loco Hills Welch #1 produces gas from an upper Morrow sand at a depth of 10,875'. This sand is approximately 6 feet thick and consists of a medium grain silty calcareous quartz sand. This sand is not present in any other well in this area as is demonstrated by Cross-Section A-A'. It can therefore be concluded that the Loco Hills Welch #1 produces from a Morrow reservoir separate and distinct from any other within  $2\frac{1}{2}$  miles of said well.

## Exhibit #2

Structrual Cross-Section chart of wells within  $2\frac{1}{2}$  miles of the Loco Hills Welch #1 Well penetrating the Morrow sediments as shown on Exhibit #1. The Loco Hills Welch #1 is indicated by an arrow at the top of the Cross-Section.

### Geological Interpretation

The Loco Hills Welch #1 produces gas from an upper Morrow sand at a depth of 10,875'. This sand is approximately 6 feet thick and consists of a medium grain silty calcareous quartz sand. This sand is not present in any other well in this area as is demonstrated by Cross-Section A-A'. It can therefore be concluded that the Loco Hills Welch #1 produces from a Morrow reservoir separate and distinct from any other within  $2\frac{1}{2}$  miles of said well.

ROUGH

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. 6456

Order No. R-6030

APPLICATION OF HARVEY E. YATES  
COMPANY FOR A NEW ONSHORE  
RESERVOIR DETERMINATION,  
EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on February 14,  
19 79, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this \_\_\_\_\_ day of June, 19 79, 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, Harbey E. Yates Company, seeks a determination by the Division, in accordance with Sections 2(c) and 102 of the Natural Gas Policy Act of 1978, and the applicable rules of the Federal Energy Regulatory Commission, that its Loco Hills Welch Well No. 1, located in Unit D of Section 9, Township 18 South, Range 29 East, NM PM, Eddy County, New Mexico, has discovered a new onshore reservoir from which natural gas was not produced in commercial quantities before April 20, 1977.

(3) That said well was completed in the Marrow formation November 6, 1978, with perforations from 10,876 feet to 10,882 feet, and a plugged-back ~~total~~ depth of 10,950 feet after having been drilled to a total depth of 11,200 feet.

(4) That although there are several wells in the vicinity of the subject well which have penetrated the Marrow formation, the 6-foot sand stringer in the Marrow which is the producing zone for the subject well has been either absent or non-productive in each of said wells.

(5) That the 6-foot stringer which is the production zone for the subject well appears to be an isolated sand stringer of limited horizontal extent, and does not appear to be productive in any other well in the area.

(6) That as such, ~~the~~ the isolated sand

stringer in the subject well probably constitutes a separate limited reservoir productive only in the subject well.

(7) That the subject well is the first and only well drilled to date into and completed to commercially produce from the aforesaid separate reservoir, and therefore qualifies as producing new natural gas from a new onshore reservoir pursuant to the provisions of Section 102(c) of the Natural Gas Policy Act of 1978 and the applicable rules of the Federal Energy Regulatory Commission.

IT IS THEREFORE ORDERED

(1) That the Harvey E. Yates Company Loco Hills Welsh Well No 1, located in Unit D of Section 9, Township 18 South, Range 29 East, NMPM, Reddy County, New Mexico, is completed in a new onshore reservoir as defined by Sections 2(c) and 102(c) of the Natural Gas Policy Act of 1978, and the applicable rules of the Federal Energy Regulatory Commission.

(2) Jurisdiction

Done at