

CASE 6778: HARVEY E. YATES COMPANY FOR
AN NGPA DETERMINATION, EDDY COUNTY, NEW
MEXICO

CASE NO.

6778

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. 6778
Order No. R-6249

APPLICATION OF HARVEY E. YATES
COMPANY FOR AN NGPA DETERMINATION,
EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on January 3, 1980, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 28th day of January, 1980, 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 (6) 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. 2, located in Unit N of Section 4, 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 with perforations from 10,896 to 10,910 feet, and a plugged-back depth of 11,371 feet after having been drilled to a total depth of 11,430 feet.

(4) That although there are several wells in the vicinity of the subject well which have penetrated and are completed in the Morrow formation, available well logs demonstrate that the

subject well is completed in a stray sand encountered in a section containing a non-productive shale or tight sand facies in such other wells.

(5) That the 3800 pound shut-in pressure encountered by said well is indicative of an undrained reservoir.

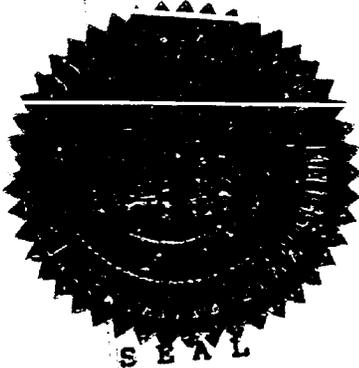
(6) That the combined log and pressure data presented establishes that said Loco Hills Welch Well No. 2 has been completed in a new onshore reservoir as defined by the provisions of Section 102 (c) of the Natural Gas Policy Act of 1978 and the applicable rules of the Federal Energy Regulatory Commission.

IT IS THEREFORE ORDERED:

(1) That the Harvey E. Yates Company Loco Hills Welch Well No. 2, located in Unit N of Section 4, Township 18 South, Range 29 East, NMPM, Eddy County, New Mexico, is completed in a new onshore reservoir as defined by Sections 2 (6) 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 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 herein-
above designated.



STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Joe D. Ramey
JOE D. RAMEY
Director

fd/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
3 January 1980

EXAMTNER HEARING

IN THE MATTER OF:)	
)	
)	
Application of Harvey E. Yates Com-)	CASE
pany for an NGPA determination,)	6778
Eddy County, New Mexico.)	
)	

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation	Ernest L. Padilla, Esq.
Division:	Legal Counsel for the Division
	State Land Office Bldg.
	Santa Fe, New Mexico 87501

For the Applicant:	Robert E. Strand, Esq.
	Harvey E. Yates Company
	P. O. Box 1933
	Roswell, New Mexico 88201

2

I N D E X

RANDOLPH C . SMITH

Direct Examination by Mr. Strand 3
Cross Examination by Mr. Stamets 9

E X H I B I T S

Applicant Exhibit One, Cross Section 6
Applicant Exhibit Two, Structure Map 8

MR .STAMETS: We'll call next Case
6778.

MR. PADILLA: Application of Harvey
E. Yates Company for an NGPA determination, Eddy County,
New Mexico.

MR .STRAND: Mr. Examiner, in this
application Harvey E. Yates Company seeks a Natural Gas
Policy Act determination for its Loco Hills Welch No. 2
Well, seeking again a determination that it produces from
a new on-shore reservoir. We have one witness, Mr.
Randy Smith, who needs to be sworn, I believe.

(Witness sworn.)

RANDOLPH E . SMITH

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

DIRECT EXAMINATION

BY MR .STRAND:

- Q State your name, please.
A Randolph C. Smith.
Q Mr. Smith, who are you employed by?
A With Harvey E. Yates Company.
Q Mr. Smith, have you testified before

the Commission in the past?

A. No, I have not.

Q. Would you please state for the record your educational background?

A. I have a Bachelor's of Science in geology from New Mexico Institute of Mining and Technology in 1974. The last two years prior to graduation I worked for the New Mexico Bureau of Mines with Roy Foster in research and exploration geology.

After graduation I went to work for Dresser Atlas in Odessa, Texas, and worked for them for eighteen months as an open hole logging engineer.

Then I went to work for Superior Oil Company for three and a half years in Midland, Texas, as exploration geologist for southeast New Mexico and West Texas, and then the last nine months I've been employed with Harvey E. Yates Company as an exploration geologist in southeast New Mexico.

MR. STRAND: Mr. Examiner, are Mr. Smith's qualifications acceptable?

MR. STAMETS: They are.

Q. Mr. Smith, would you please state the location of the Loco Hills Welch No. 2?

A. The Loco Hills Welch No. 2 is located in Section 4, Township 18 South, 29 East, 1980 from the

west and 660 from the south, of Eddy County, New Mexico.

Q. Mr. Smith, Harvey E. Yates Company is the operator of that well, is this correct?

A. That's correct.

Q. What is the status of the ownership under the proration unit assigned to that well?

A. It's a fee.

Q. It's all --

A. It's all fee.

Q. What was the spud date of that well?

A. October 18th, 1979.

Q. And would you please state the perforated or producing interval in that well?

A. Yes. It's 10,896 through 910.

Q. Would you describe in geological terms that producing interval?

A. This is a 14-foot Lower Morrow Sand, which is a medium to coarse, fairly well sorted sand, as we perforated it.

MR. STAMETS: What was the bottom perforation?

A. 10,910.

MR. STAMETS: Thank you.

Q. Mr. Smith, are you familiar with the term "reservoir" as defined under the Natural Gas Policy

Act of 1978?

A. Yes, sir.

Q. Referring to Exhibit Number One, would you please describe that exhibit?

A. Okay. Exhibit Number One is a primary exhibit. This is a stratigraphic cross section. I believe you each have a copy. If you'd like me to hang it up, I could.

MR. STAMETS: No, I think this one is small enough, we could look at it right here.

A. Okay. As I said before, this is a stratigraphic cross section hung on the top of the Lower Morrow, which the datum is the top of the Lower Morrow, and is also classified by myself as the Morrow C Shale.

This is a regional marker throughout the area. Our well, Loco Hills Welch No. 2, is the well in the middle with the arrow above it, and there is also an index map on the right side of the cross section, which is a structure map on this top of the Lower Morrow Sands. Also, the well is indicated by the arrow in Section 4.

The intervals perforated in all the adjacent surrounding wells are in the center column colored in red. You can see the yellow indications of the sand and the red is the porosity in the cross section through the various logs.

You can see the interval that we perforated is also colored in red; that's 10,896 through 10,910. The three wells to the north, if you follow this reservoir laterally to the north, you can see are not present. They're just beneath this datum line, though all three of the northern wells there produced from higher and lower intervals.

As you move to the south and southwest, you see the other two wells, the right two logs on the righthand side of the cross section. The one just immediately to the south of us, the Depco Loco Hills Deep No. 1, they show that they did encounter a similar sand in the stratigraphic position. They ran a drill stem test that's written on the bottom from 10,920 to 11,078. They recovered 120 foot of drilling fluid. This well was P&A'd 2-5-77.

There were some other drill stem tests on this well but none of them proved to be commercial.

On the log there it also shows that they had low porosity and there's very little permeability on a resistivity log in comparison to our well adjacent to it to the north.

Q Mr. Smith, is it your opinion that the wells that you have listed on this cross section are the wells which have significance in determining the extent of the reservoir from which the Loco Hills Welch No. 2

produces?

A. Yes.

Q. Mr. Smith, referring to Exhibit Number Two, would you please describe that for the Examiner?

A. Exhibit Number Two is just a larger, more regional version of the index map on the cross section. It's just more laterally continuous and distinct structure map on top of the Lower Morrow Sands, showing the relative size of the reservoir and compared to the other wells around. This also is just to show more detailed ownership map.

Q. Mr. Smith, have you described in kind of a red circle on Exhibit Number Two, and also on Exhibit Number One, what you feel the extent of the reservoir, Morrow reservoir under the Loco Hills Welch is?

A. Yes, I have.

Q. Mr. Smith, was any natural gas produced in commercial quantities from this reservoir prior to April 20th, 1977?

A. No, it was not.

Q. In your opinion was this reservoir penetrated by any old wells spudded prior to February 19th, 1977?

A. No, there was none.

Q. Mr. Smith, were Exhibits One and Two

prepared by you or under your supervision?

A. Yes.

MR. STRAND: Mr. Examiner, I would move the admission of Exhibits One and Two.

MR. STAMETS: These exhibits will be admitted.

CROSS EXAMINATION

BY MR. STAMETS:

Q. Mr. Smith, do you have the shut-in pressure on this well?

A. On our well?

Q. Yes.

A. Yes, sir, just a second.

The most recent shut-in tubing pressure was 3800 pounds. That was December 16th, 1979.

Q. Surface pressure?

A. Yes, sir.

Q. Looking at your Exhibit Number Two, it would appear that there are no Morrow gas wells east of the well in question, is that correct?

A. That's correct.

Q. At least in the immediate vicinity?

A. Yes, sir.

Q Now, what about -- what about the wells in Section 8, which would be the section south and west of the section in question? What are those wells completed in?

A Those two wells in Section 8, the Amoco South Empire Deep No. 15, this is completed out of a Lower Morrow Sand, which is not this sand. It's further down in the section.

And the Depco No. 1 Welch is completed -- was completed out of the Upper Pennsylvanian-Cisco carbonate zone.

Q Okay.

A Neither one of these wells contained or have this reservoir present in them.

Q Okay, what about in the section north of there, the northwest quarter of Section 5? This Amoco SED No. 9?

A Okay, that well also does not have the reservoir present. It is a dry hole and there are also two wells between that well and the subject well.

Q All right.

A To show the well -- the reservoir is also not present.

Q And then in Section 33 of 17, 29, in

the southwest quarter there is a well.

A. Yes, sir. That well is produced out of the Upper Morrow sections, higher in the section than we are here. It does not have the reservoir present in it and it also has a dry hole in between, which is on our cross section, which is the dry hole adjacent to our well, the Amoco No. 17, that did not have the reservoir present.

That's the third log on the cross section.

Q. Okay. What is the trend of Morrow reservoirs in this area? Do they trend north/south, as you've shown on your exhibit, or do they trend east/west, or a combination?

A. Well, there's many combinations. It depends on where you are in the section. In this particular instance the reason I put the north/south orientation on this particular well is the fact that it is not present, or appear to be present, in any other reservoirs or any other wells except the one immediately to the south, which is the Depco Loco Hills No. 1, which you see the sand is present there. It was tested; only recovered a small amount of drilling fluid; has very little porosity and no permeability. And you can see that the sand does appear to be present there. It's not as thick or as clean but --

and it also is tight.

And that's the only well I have to show any type of orientation to that particular reservoir.

MR. STAMETS: Are there other questions of this witness? He may be excused.

Do you have anything further in this

case?

This case will be taken under ad-

visement.

(Hearing concluded.)

REPORTER'S CERTIFICATE

I, SALLY W. BOYD, a Certified Shorthand 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 from my notes taken at the time of the hearing.

Sally W. Boyd C.S.R.
Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 6778
heard by me on 1-3 1980.
Richard P. Hambl, Examiner
Oil Conservation Division

2

I N D E X

RAHDOLPH C SMITH

Direct Examination by Mr. Strand

3

Cross Examination by Mr. Stanets

9

E X H I B I T S

Applicant Exhibit One, Cross Section

6

Applicant Exhibit Two, Structure Map

8

MR. STRAND: We'll call next case

6778.

MR. SIDMAN: Application of Harvey E. Yates Company for an NCPA determination, Sando County, New Mexico.

MR. STRAND: Mr. Examiner, in this application Harvey E. Yates Company seeks a Natural Gas Policy Act determination for its Loco Hills Welch No. 2 Well, seeking again a determination that it produces from a new on-shore reservoir. We have one witness, Mr. Randy Smith, who needs to be sworn, I believe.

(Witness sworn.)

RANDOLPH E. SMITH

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

DIRECT EXAMINATION

BY MR. STRAND:

- Q State your name, please.
- A Randolph C. Smith.
- Q Mr. Smith, who are you employed by?
- A With Harvey E. Yates Company.
- Q Mr. Smith, have you testified before

the Commission in the past?

A. No, I have not.

Q. Would you please state for the record your educational background?

A. I have a Bachelor's of Science in geology from New Mexico Institute of Mining and Technology in 1974. The last two years prior to graduation I worked for the New Mexico Bureau of Mines with Roy Poston in research and exploration geology.

After graduation I went to work for Dresser Atlas in Odessa, Texas, and worked for them for eighteen months as an open hole logging engineer.

Then I went to work for Superior Oil Company for three and a half years in Midland, Texas, as exploration geologist for southeast New Mexico and West Texas, and then the last nine months I've been employed with Harvey E. Yates Company as an exploration geologist in southeast New Mexico.

MR. STRAND: Mr. Examiner, are Mr. Smith's qualifications acceptable?

MR. STANTON: They are.

Q. Mr. Smith, would you please state the location of the Ioco Hills Welch No. 2?

A. The Ioco Hills Welch No. 2 is located in Section 4, Township 10 South, 20 East, 1950 Area, the

west and 660 from the south, of S&C County, New Mexico.

Q Mr. Smith, Harvey L. Yates Company is the operator of that well, is this correct?

A That's correct.

Q What is the status of the ownership under the proration unit assigned to that well?

A It's a fee.

Q It's all --

A It's all fee.

Q What was the spud date of that well?

A October 18th, 1979.

Q And would you please state the perforated or producing interval in that well?

A Yes. It's 10,896 through 910.

Q Would you describe in geological terms that producing interval?

A This is a 14-foot Lower Morrow Sand, which is a medium to coarse, fairly well sorted sand, as we perforated it.

MR. STAMMES: What was the bottom perforation?

A 10,910.

MR. STAMMES: Thank you.

Q Mr. Smith, are you familiar with the term "reservoir" as defined under the Natural Gas Policy

Act of 1973?

A Yes, sir.

Q Referring to Exhibit Number One, would you please describe that exhibit?

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MR. SPANES: No, I think this one is small enough, we could look at it right here.

A Okay. As I said before, this is a stratigraphic cross section hung on the top of the Lower Morrow, which the datum is the top of the Lower Morrow, and is also classified by myself as the Morrow C Shale.

This is a regional marker throughout the area. Our well, Loco Hills Welch No. 2, is the well in the middle with the arrow above it, and there is also an index map on the right side of the cross section, which is a structure map on this top of the Lower Morrow Sands. Also, the well is indicated by the arrow in Section 4.

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As you move to the south and southwest, you see the other two wells, the right two logs on the righthand side of the cross section. The one just immediately to the south of us, the Depco Loco Hills Deep No. 1, they show that they did encounter a similar sand in the stratigraphic position. They ran a drill stem test that's written on the bottom from 10,820 to 11,076. They recovered 120 foot of drilling fluid. This well was P&A'C 2-5-77.

There were some other drill stem tests on this well but none of them proved to be commercial.

On the log there it also shows that they had low porosity and there's very little permeability on a resistivity log in comparison to our well adjacent to it to the north.

Q Mr. Smith, is it your opinion that the wells that you have listed on this cross section are the wells which have significance in determining the extent of the reservoir from which the Loco Hills Welch No. 2

produces?

A. Yes.

Q. Mr. Smith, referring to Exhibit Number Two, would you please describe that for the Examiner?

A. Exhibit Number Two is just a larger, more regional version of the index map on the cross section. It's just more laterally continuous and distinct structure map on top of the Lower Morrow Sands, showing the relative size of the reservoir and compared to the other wells around. This also is just to show more detailed ownership map.

Q. Mr. Smith, have you described in kind of a red circle on Exhibit Number Two, and also on Exhibit Number One, what you feel the extent of the reservoir, Morrow reservoir under the Loco Hills Welch is?

A. Yes, I have.

Q. Mr. Smith, was any natural gas produced in commercial quantities from this reservoir prior to April 26th, 1977?

A. No, it was not.

Q. In your opinion was this reservoir penetrated by any old wells spudded prior to February 19th, 1977?

A. No, there was none.

Q. Mr. Smith, were Exhibits One and Two

prepared by you or under your supervision?

A Yes.

MR. STAMETS: Mr. Liminer, I would move the admission of Exhibits One and Two.

MR. STAMETS: These exhibits will be admitted.

CROSS EXAMINATION

BY MR. STAMETS:

Q Mr. Smith, do you have the shut-in pressure on this well?

A On our well?

Q Yes.

A Yes, sir, just a second.

The most recent shut-in tubing pressure was 3800 pounds. That was December 16th, 1979.

Q Surface pressure?

A Yes, sir.

Q Looking at your Exhibit Number Two, it would appear that there are no Morrow gas wells east of the well in question, is that correct?

A That's correct.

Q At least in the immediate vicinity?

A Yes, sir.

Q Wells in Section 3, which are located west of the section line, were they completed in?

A Yes, they were completed in the Arco South Empire (Pre-Permian) and Lower Merros Sand, which is not taken down in the section.

Q And the upper Merros is completed -- was completed out of the Cisco carbonate zone.

A Okay.

Q Neither one of these wells contained or have this reservoir present in them.

A Okay, what about in the section north of there, the northwest quarter of Section 27?

Arco SLM No. 27

A Okay, that well also does not have the reservoir present. It is a dry hole and there are also two wells between that well and the subject well.

Q All right.

A Yes, that is the subject well.

Q Is also not present.

A Yes, that is the reservoir.

Q Thank you, Section 27, 28, 29, in

the southwest quarter there is a well.

Q Yes, sir. That well is produced out of the Upper Morrow section, higher in the section than we are here. It does not have the reservoir present in it and it also has a dry hole in between, which is on our cross section, which is the dry hole adjacent to our well, the Amoco No. 17, that did not have the reservoir present.

That's the third leg on the cross section.

Q Okay. What is the trend of Morrow reservoirs in this area? Do they trend north/south, as you've shown on your exhibit, or do they trend east/west, or a combination?

A Well, there's many combinations. It depends on where you are in the section. In this particular instance the reason I put the north/south orientation on this particular well is the fact that it is not present, or appear to be present, in any other reservoirs or any other wells except the one immediately to the south, which is the Depeo Loco Hills No. 1, which you see the sand is present there. It was tested; only recovered a small amount of drilling fluids; has very little porosity and no permeability. And you can see that the sand does appear to be present there. It's not as thick or as clean but --

and it also is tight.

And that's the only well I have to show any type of orientation to that particular reservoir.

MR. STAMPS: Are there other questions of this witness? He may be excused.

Do you have anything further in this case?

This case will be taken under advisement.

(Hearing concluded.)

REPORTER'S CERTIFICATE

I, SALLY W. BOYD, a Certified Shorthand 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 from my notes taken at the time of the hearing.

Sally W. Boyd, C.S.R.

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

Florence
It is ok to
send out the order
in case 6778. Put
this in the case file
RLL

Memo

JAN 14 1980

To Bill

O. C. D.
ARTESIA, OFFICE

From
R. L. STAMETS
Technical
Support Chief

Please have Larry confirm
the "Morrow C Shale"
picks on this cross-section.
We want to be certain
that this is indeed
a separate pay zone
in Harvey Yates
Loed Hills Well No 2
N 4-185-29 E.

1.23.80

Larry says correlation OK
Dick

HEYCO

PETROLEUM PRODUCERS



HARVEY E. YATES COMPANY

P. O. BOX 1933

SUITE 300, SECURITY NATIONAL BANK BUILDING

505/623-6601

ROSWELL, NEW MEXICO 88201

January 12, 1980

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

Attention: Mr. Richard Stamets

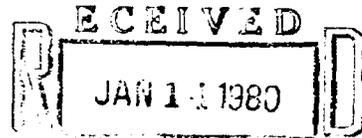
Re: Case #6778
NGPA Determination
Loco Hills Welch #2

Dear Mr. Stamets:

I am submitting the information contained in this letter as a supplement to the evidence submitted at the January 3, 1980 hearing of the above referenced case.

The following tabulation shows the spud dates of the wells from which Mr. Randy Smith used data in defining the extent of the producing reservoir:

Empire South Deep Unit #12 2120 FWL & 1980 FSL Sec. 5, T-18S, R-29E	11/05/76
Empire South Deep Unit #14 1650 FNL & 2010 FEL Sec. 5, T-18S, R-29E	04/08/77
Empire South Deep Unit #17 660 FNL & 1980 FWL Sec. 4, T-18S, R-29E	11/10/77
Loco Hills Deep #1 1980 FNL & 1980 FWL Sec. 9, T-18S, R-29E	Spud date unavailable but prior to February 19, 1977
Loco Hills Welch #1 480 FNL & 600 FWL Sec. 9, T-18S, R-29E	09/15/78



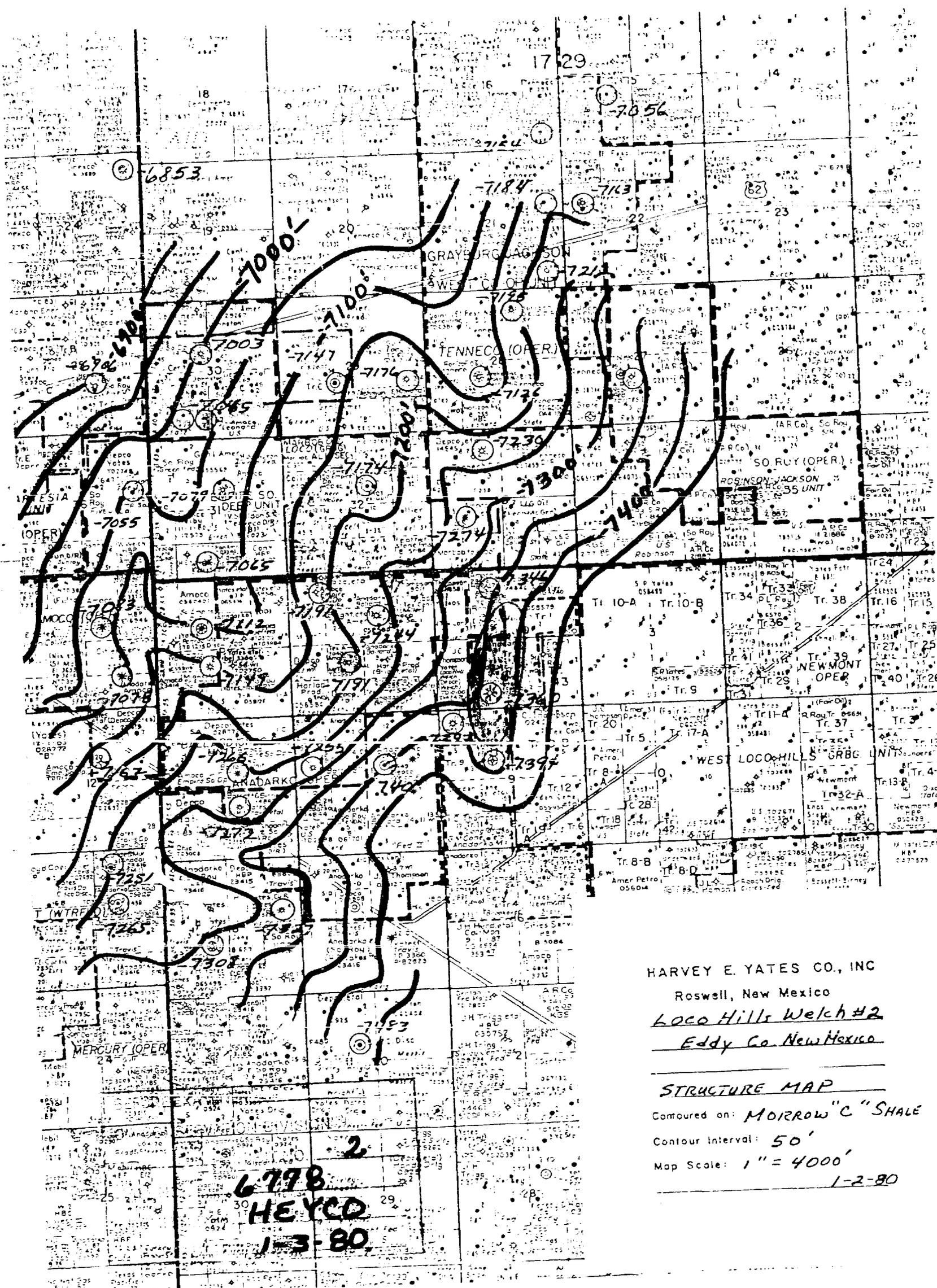
OIL CONSERVATION DIVISION
SANTA FE

If you have any questions concerning this information please let me know.

Sincerely,


Robert H. Strand
Attorney

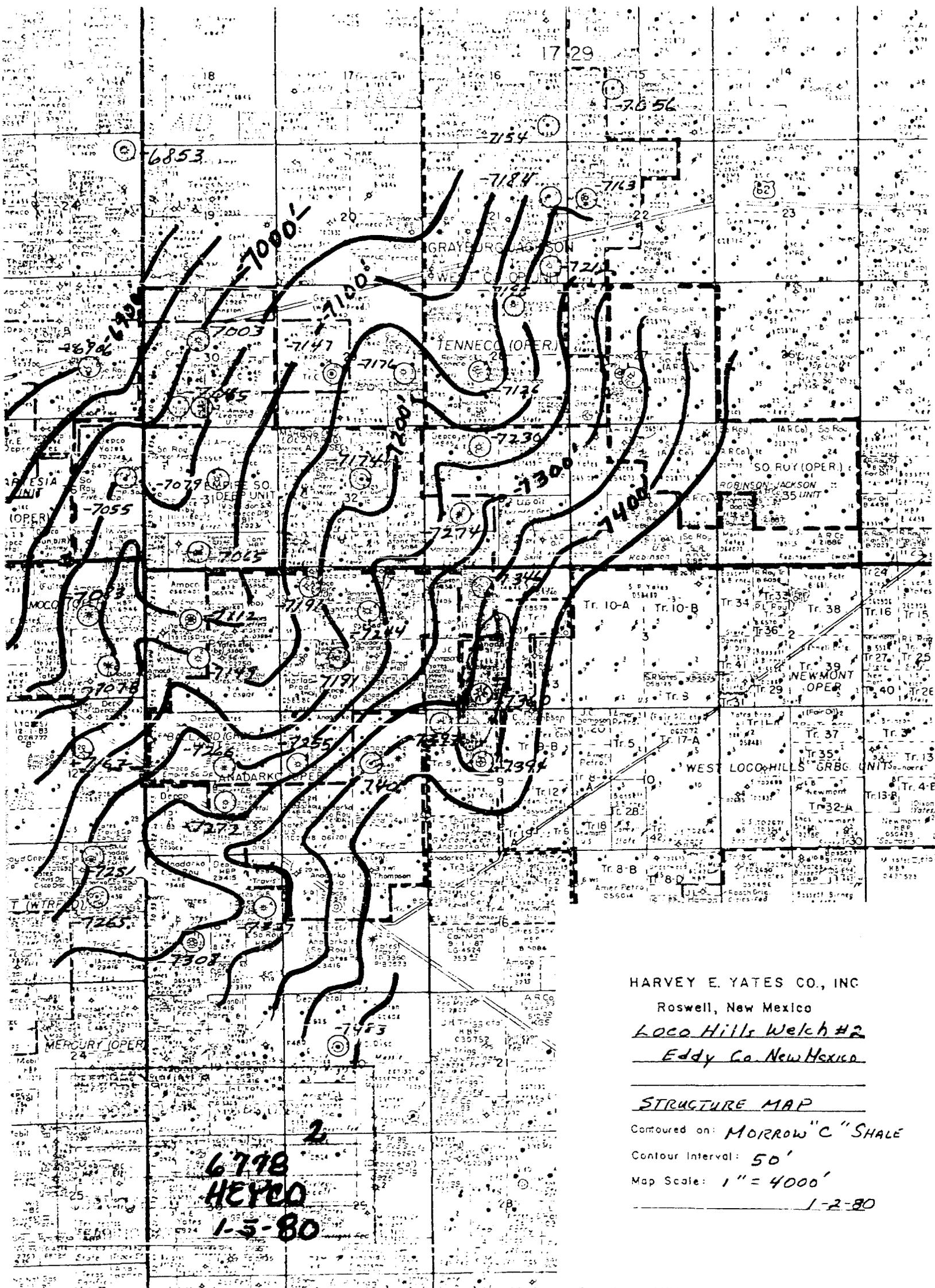
RHS/lh
NGPA-1 #15



HARVEY E. YATES CO., INC
 Roswell, New Mexico
 Loco Hills Welch #2
 Eddy Co. New Mexico

STRUCTURE MAP
 Contoured on: MORROW "C" SHALE
 Contour Interval: 50'
 Map Scale: 1" = 4000'
 1-2-80

6778
 HEYCO
 1-3-80



HARVEY E. YATES CO., INC
 Roswell, New Mexico
Loco Hills Welch #2
Eddy Co. New Mexico

STRUCTURE MAP
 Contoured on: MORROW "C" SHALE
 Contour Interval: 50'
 Map Scale: 1" = 4000'
 1-2-80

NEW MEXICO OIL CONSERVATION DIVISION
P. O. Box 2088, Santa Fe, New Mexico 87501

Alternative APPLICATION FOR WELLHEAD
PRICE CEILING CATEGORY DETERMINATION

1. FOR DIVISION USE ONLY

DATE OF: APPLICATION _____
 DETERMINATION _____
 CONTESTED _____
 PARTICIPANTS _____

Name of Operator
HARVEY E. YATES COMPANY

Address of Operator
P. O. Box 1933, Roswell, New Mexico 88201

Location of Well
 UNIT LETTER N 1980 FEET FROM THE West LINE AND 660 FEET FROM
 THE South LINE, SECTION 4 TOWNSHIP 18S RANGE 29E NEPPL
Und. S. Empire Morrow

13. Name and Address of Transporter(s)
El Paso Natural Gas Company, P. O. Box 1492, El Paso, Texas 79978

2. Kind of Lease
 State, Federal or Fee FEE

3. State Oil & Gas Lease No. _____

7. Unit Agreement No. _____

8. Name of Lease Unit
LOCO HILLS WELCH

9. Well No.
2

10. Field and Pool, or other
Und. S. Empire Morrow

12. County
EDDY

WELL CATEGORY INFORMATION

Check appropriate box for category sought and information submitted.

1. Category(ies) Sought (By NGPA Section No.) 103
2. All Applications must contain:
 - a. C-101 APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK
 - b. C-105 WELL COMPLETION OR RECOMPLETION REPORT AND LOG
 - c. DIRECTIONAL DRILLING SURVEY, IF REQUIRED UNDER RULE 111
 - d. AFFIDAVITS OF MAILING OR DELIVERY
3. NEW NATURAL GAS UNDER SEC. 102(c)(1)(B) (using 2.5 Mile or 1000 Feet Deeper Test)
 - a. Location Plat
4. NEW NATURAL GAS UNDER SEC. 102(c)(1)(C) (new onshore reservoir)
 - a. C-122 Multipoint and one point back pressure test
5. NEW ONSHORE PRODUCTION WELL
 - a. C-102 WELL LOCATION AND ACREAGE DEDICATION PLAT
 - b. No. of order authorizing infill program SANTA FE PARTITION
6. STRIPPER GAS
 - a. C-116 GAS-OIL RATIO TEST
 - b. PRODUCTION CURVE FOR 12-MONTH PERIOD PRECEDING DECEMBER 1, 1978.
 - c. PRODUCTION CURVE FOR THE 90-DAY PERIOD ON WHICH THE APPLICATION IS BASED

I HEREBY CERTIFY THAT THE INFORMATION CONTAINED HEREIN IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

NAME: George M. Yates SIGNED: _____
 TITLE: Vice President DATE: December 20, 1979
 APPROVED: _____, EXAMINER

FERC-121

1.0 API well number (If not available, leave blank. 14 digits.)	30-015-23001			
2.0 Type of determination being sought (Use the codes found on the front of this form.)	103 Section of NGPA		Category Code	
3.0 Depth of the deepest completion location: (Only needed if sections 103 or 107 in 2.0 above.)	10,910' feet			
4.0 Name, address and code number of applicant: (35 letters per line maximum. If code number not available, leave blank.)	HARVEY E. YATES COMPANY Name P. O. BOX 1933 Street Roswell, NM 88201 City State Zip Code			
5.0 Location of this well: [Complete (a) or (b).] (a) For onshore wells (35 letters maximum for field name.)	None Field Name EDDY County State NM			
(b) For OCS wells	Area Name Block Number Date of Lease M. Day Yr. OCS Lease Number			
(c) Name and identification number of this well: (35 letters and digits maximum.)	LOCO HILLS WELCH #2			
(d) If code 4 or 5 in 2.0 above, name of the reservoir: (35 letters maximum.)	None			
6.0 (a) Name and code number of the purchaser: (35 letters and digits maximum. If code number not available, leave blank.)	EL PASO NATURAL GAS COMPANY Name Buyer Code			
(b) Date of the contract:	101610111719J M. Day Yr.			
(c) Estimated annual production:	550 MMcf.			
	(a) Base Price (\$/MMBTU)	(b) Tax	(c) All Other Prices Indicate (+) or (-)	(d) Total of (a), (b) and (c)
7.0 Contract price: (As of filing date. Complete to 3 decimal places.)	2.143	-.140	---	2.283
8.0 Maximum lawful rate: (As of filing date. Complete to 3 decimal places.)	2.143	-.140	---	2.283
9.0 Person responsible for this application	George M. Yates Vice President Name Title Signature December 20, 1979 505-623-6601 Date Application is Completed Phone Number			
Agency Use Only				
Date Received by Juris. Agency				
Date Received by FERC				

FERC-121

LOCO HILLS WELCH #2
Form Approved
OMB No. 438-R0381

U.S. DEPARTMENT OF ENERGY
Federal Energy Regulatory Commission
Washington, D.C. 20426

APPLICATION FOR DETERMINATION OF THE MAXIMUM LAWFUL
PRICE UNDER THE NATURAL GAS POLICY ACT (NGPA)
(Sections 102, 103, 107 and 108)

PLEASE READ BEFORE COMPLETING THIS FORM:

General Instructions:

Complete this form if you are applying for price classification under sections 102, 103, 107 or 108 of the NGPA. A separate application is required for each well. If any reservoir qualifies for a category which differs from the category applicable to the producing well, separate applications must be made for the producing well and the reservoir. Complete each appropriate item on the reverse side of this page. The code numbers used in items 4.0 and 6.0 can be obtained from the Buyer/Seller Code Book. If there is more than one purchaser or contract, identify the additional information in the space below. Enter any additional remarks in the space below.

Submit the completed application to the appropriate Jurisdictional Agency as listed in title 18 of the CFR, part 270.103. If there are any questions, call (202) 275-4539.

Specific Instructions for Item 2.0, Type of Determination:

<u>Section of NGPA</u>	<u>Category Code</u>	<u>Description</u>
102	1	New OCS Lease
102	2	New onshore well (2.5 mile test)
102	3	New onshore well (1,000 feet deeper test)
102	4	New onshore reservoir
102	5	New reservoir on old OCS Lease
103	-	New onshore production well
107	-	High cost natural gas
108	-	Stripper well

Other Purchasers/Contracts:

Contract Date
(Mo. Day Yr.)

Purchaser

Buyer Code

Remarks:

APPLICATION PURSUANT TO
SECTION 103(c) OF
THE NATURAL GAS POLICY ACT OF 1978 (NGPA)

Well: LOCO HILLS WELCH #2
API No: 30-015-23001

AFFIDAVIT

STATE OF NEW MEXICO COUNTY OF EDDY

BEFORE ME, the undersigned authority, duly commissioned and qualified within and for the State and County aforesaid, personally came and appeared GEORGE M. YATES, who, being by me first duly sworn, deposed and said:

That he is the Vice President of HARVEY E. YATES COMPANY, the applicant for the well as described heretofore in this application, and, in that capacity, he is requesting the appropriate Jurisdictional Agency to determine the eligibility of said well for wellhead pricing purposes pursuant to the rules and regulations of said agency and the Federal Energy Regulatory Commission and pursuant to the NGPA.

That this application is made pursuant to 18 CFR 274.204 (a)-(f).

That to the best of his information and knowledge;

- (a) The surface drilling of the well for which he seeks a determination was begun on or after February 19, 1977.
- (b) The well satisfies any applicable Federal or State well-spacing requirements.
- (c) The well is not within a proration unit:
 - (1) Which was in existence at the time the surface drilling of the well began; and
 - (2) Which was applicable to the reservoir from which natural gas is produced; and
 - (3) Which applied to any other well which either produced natural gas in commercial quantities or the surface drilling of which began after February 18, 1977, and was thereafter capable of producing natural gas in commercial quantities.

That he has concluded to the best of his information and knowledge that there is substantial evidence to support a determination that the natural gas produced from said well is produced from a new onshore production well as defined in the NGPA; and that he has no knowledge of any other information not described in the application which is inconsistent with this conclusion.

That he has mailed, or caused to be mailed, postage prepaid, copies of the completed Form FERC 121, Application for Determination of the Maximum lawful Price Under the Natural Gas Policy Act, and any jurisdictional agency supplemental application form to the Purchaser(s) and to the co-lessee(s) and/or working interest owners, which are listed separately.

That to the best of his knowledge and belief, all information contained in this application for category determination, pursuant to the NGPA, is true and correct including all documents, testimony, and evidence submitted with the application.

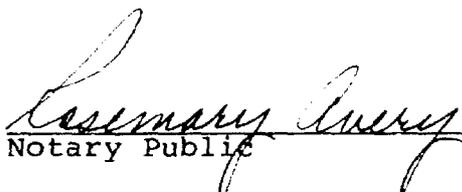
Signed


George M. Yates
Vice President

Subscribed in my presence and duly sworn to before me, this 21st day of December, 1979.

My Commission expires:

July 27, 1980


Notary Public

INDEX OF EXHIBITS

1. Application to Drill
2. Completion Report
3. Well Location and Acreage Dedication Plat
4. Well Location Plat (Proration Unit)
5. List of Co-Lessees, Working Interest Owners and Gas Purchaser

EXHIBIT 1
APPLICATION TO DRILL

900

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	<input checked="" type="checkbox"/>

NEW MEXICO OIL CONSERVATION COMMISSION

RECEIVED

30-015-2300

SEP 10 1979

O. C. C.
ARTEBIA, OFFICE

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

a. Type of Work

b. Type of Well DRILL DEEPEN PLUG BACK
 OIL WELL GAS WELL OTHER SINGLE ZONE MULTIPLE ZONE

Name of Operator
HARVEY E. YATES COMPANY

Address of Operator
P. O. Box 1933, Roswell, N. M. 88201

Location of Well
UNIT LETTER N LOCATED 1980 FEET FROM THE West LINE
AND 660 FEET FROM THE South LINE OF SEC. 4 TWP. 18S RGE. 29E NMPM



11. Field Agreement Name
Loco Hills Welch

12. Well No.
2

13. Field and County without
Und. S. Empire Morrow

14. County
Eddy

15. Elevation (Show whether DF, RL, etc.) 3521.2' GL	16. Kind & Status Plug Bond Blanket	17. Depth of Well 11,400'	18. Formation Morrow	19. Rotary or C.R. Rotary	20. Approx. Date Work Will Start Aug. 15, 1979
---	--	------------------------------	-------------------------	------------------------------	---

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
17 1/2"	13 3/8"	48#	350'	475 Sx	Circulate
12 1/4"	8 5/8"	24#, 28#	3000'	1300 Sx	Circulate
7 7/8"	5 1/2"	17#, 20#	11,400'	1500 Sx	600' above productive zone

BOP: Schematic attached.

This acreage is ~~leased~~ to a gas purchaser.

APPROVAL VALID
FOR 90 DAYS UNLESS
DRILLING COMMENCED,
EXPIRES 12-12-79

BELOW SPACE DESCRIBE PROPOSED PROGRAM IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTION ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.
By Harvey E. Yates Title Vice President Date June 29, 1979

APPROVED BY W. A. Gressett TITLE SUPERVISOR, ARTEBIA DATE SEP 10 1979

CONDITIONS OF APPROVAL, IF ANY:
notify this office if water flow is encountered

EXHIBIT 2

COMPLETION REPORT

NO. OF COPIES RECEIVED
 DISTRIBUTION
 STATE
 COUNTY
 LAND OFFICE
 OPERATOR

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

REVISION
 DATE
 TIME
 BY

NAME OF WELL
 TYPE OF COMPLETION
 NO.
 OPERATOR
 Harvey E. Yates Company
 P. O. Box 1933, Roswell, N. M. 88201

LOCOS
 Loco Hills Welch
 2
 Und. S. Empire Morrow
 Eddy

DATE 1980
 WEST 660
 SOUTH 4
 188
 29E

10-18-79	11-23-79	12-13-79	3521.2' GL
11,430'	11,371'		0'-11,430'
10,896' - 10,910' Morrow			No
Densilog-Neutron; Dual-MicroLaterlog; GR-Depth Control			No

CASING SIZE	WEIGHT LBS. FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8"	54#	360'	17 1/2"	350 Sx Cl. C w/2% CaCl	None
8 5/8"	24#, 28#	2905'	11"	900 Sx	None
5 1/2"	17#	11,425'	7 7/8"	1000 Sx	None

LINER RECORD				TUBING RECORD		
SIZE	TOP	BOTTOM	SACKS CEMENT	SIZE	DEPTH SET	PACKER SET
				2 7/8"	10,913'	10,862'

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
10,896' - 10,910' - 56 1/2" dia holes	None

PRODUCTION						
DATE	Flowing	SI	Water - P.D.L.	Oil - Gal. (est.)	Gas - MCF	API Gravity
12-13-79	Flowing	SI				
12-14-79	1	24/64"	Trace	131	0	
815	0	est. 5	3155	0	55° - API	

DATE 12-21-79
 SIGNATURE: *Jack Hardin*
 TITLE: Engineer

INSTRUCTIONS

Data from this log shall be the appropriate lithological column of this formation to be later than 24 days after the completion of any newly-filled or reopened well. Material for analysis shall be a copy of all observations and test results from the well and a summary of all special tests conducted, including full item to be. All test results shall be reported by the 30th day of the month following the completion of the well; tests of depth shall also be reported. The thickness of each formation shall be reported for each zone. The formation to be filled in quotes except for those listed, where no quotes are required. See Table 11-1.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE.

Southeastern New Mexico

Northwestern New Mexico

T. Anhy	T. Canyon	9812'	T. Ojo Alamo	T. Penn. "E"
T. Salt	T. Strawn	10022'	T. Karlund Frontland	T. Penn. "C"
B. Salt	T. Anoka	10324'	T. Fractured Chalk	T. Penn. "D"
T. Yates	T. Miss	1015'	T. Cliff House	T. Leadville
T. 7 Rivers	T. Devonian	1325'	T. Monette	T. Madison
T. Queen	T. Silurian	2018'	T. Point Lookout	T. Elbert
T. Grayburg	T. Montoya	2380'	T. Mancos	T. McCracken
T. San Andres	T. Simpson	2830'	T. Gallup	T. Ignacio Quartz
T. Glorietta	T. McKee		Base Greenham	T. Granite
T. Paddock	T. Embury		T. Dakota	
T. Blincoy	T. Gr. Wash		T. Morrison	
T. Tubb	T. Granite		T. Tohito	
T. Drinkard	T. Delaware Sand		T. Entrada	
T. Abo	T. Bone Springs	1st 6016'	T. Wingate	
T. Wolfcamp	T. Bone Sps	2nd 6830'	T. Chino	
T. Penn.	T. Bone Sps	3rd 7778'	T. Permian	
T. Cisco (Hough C)	T. Mor	Clastics 10724'	T. Penn. "A"	
T. Chester	T. Lo-Morrow	10954'		

No. 1, from 10896'	to 10910'	No. 4, from	to
No. 2, from	to	No. 5, from	to
No. 3, from	to	No. 6, from	to

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from	to	feet
No. 2, from	to	feet
No. 3, from	to	feet
No. 4, from	to	feet

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	360	360	Surface rock				
360	1550	1190	Anhy				
1550	2625	1075	Anhy & lime				
2625	5310	2685	Lime				
5310	10802	5492	Lime & shale				
10802	10930	128	Lime, shale and chert				
10930	11058	128	Lime and shale				
11058	11148	90	Shale				
11148	11335	187	Lime and shale				
11335	11430	95	Shale				

EXHIBIT 3

WELL LOCATION AND ACREAGE DEDICATION PLAT

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form No. 1
1-6-75

All distances must be from the corner here defined, unless otherwise noted.

HARVEY E. YATES CO.		LOCO HILLS WELCH		2
N	4	18 SOUTH	29 EAST	EDDY
1980	WEST	660	SOUTH	
Ground Level Elev.	Top of Formation	Und. S. Empire Morrow		320
3521.2	Morrow			

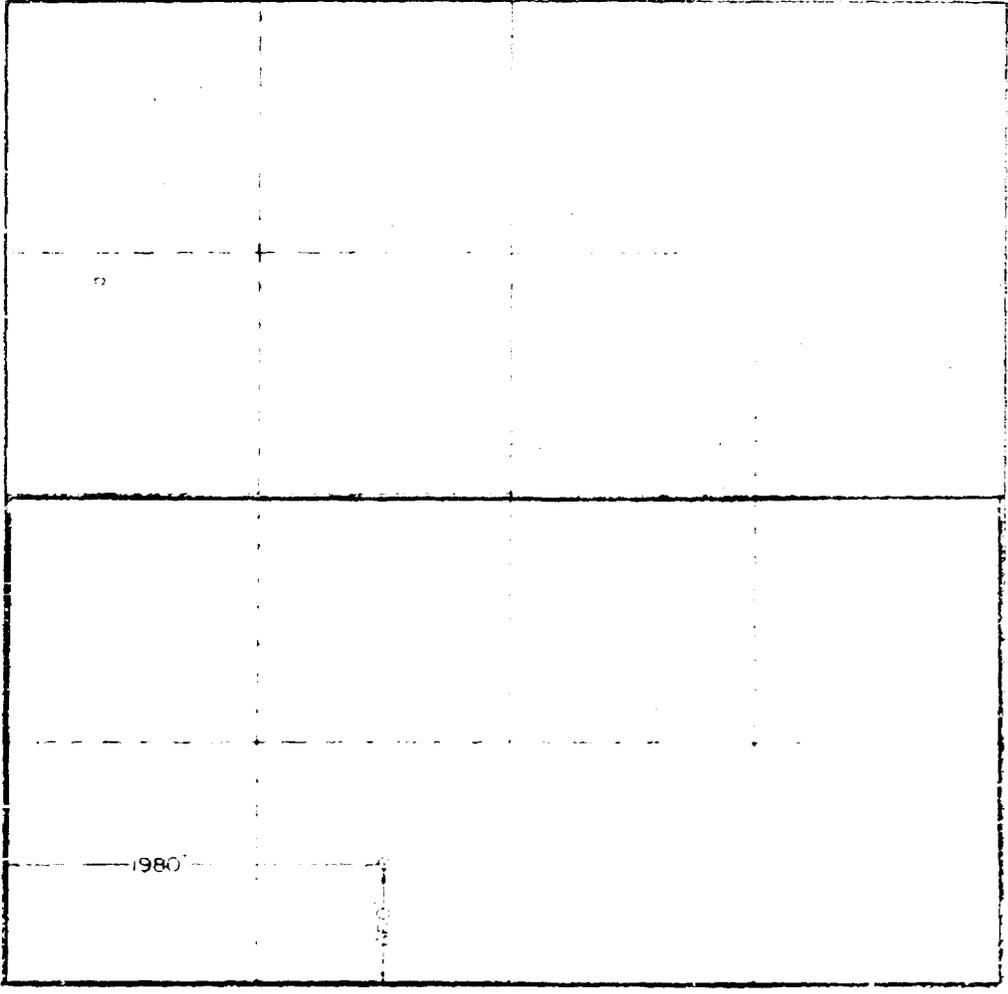
- Outline the acreage dedicated to the subject well by colored pencil or blue ink marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify (by well name, lease name, working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interests consolidated by communitization, unitization, force-pooling, etc?

Yes No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated (on reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated by communitization, unitization, force-pooling, or otherwise (or until a non-standard unit, eliminating such interests, has been approved by the Commission.

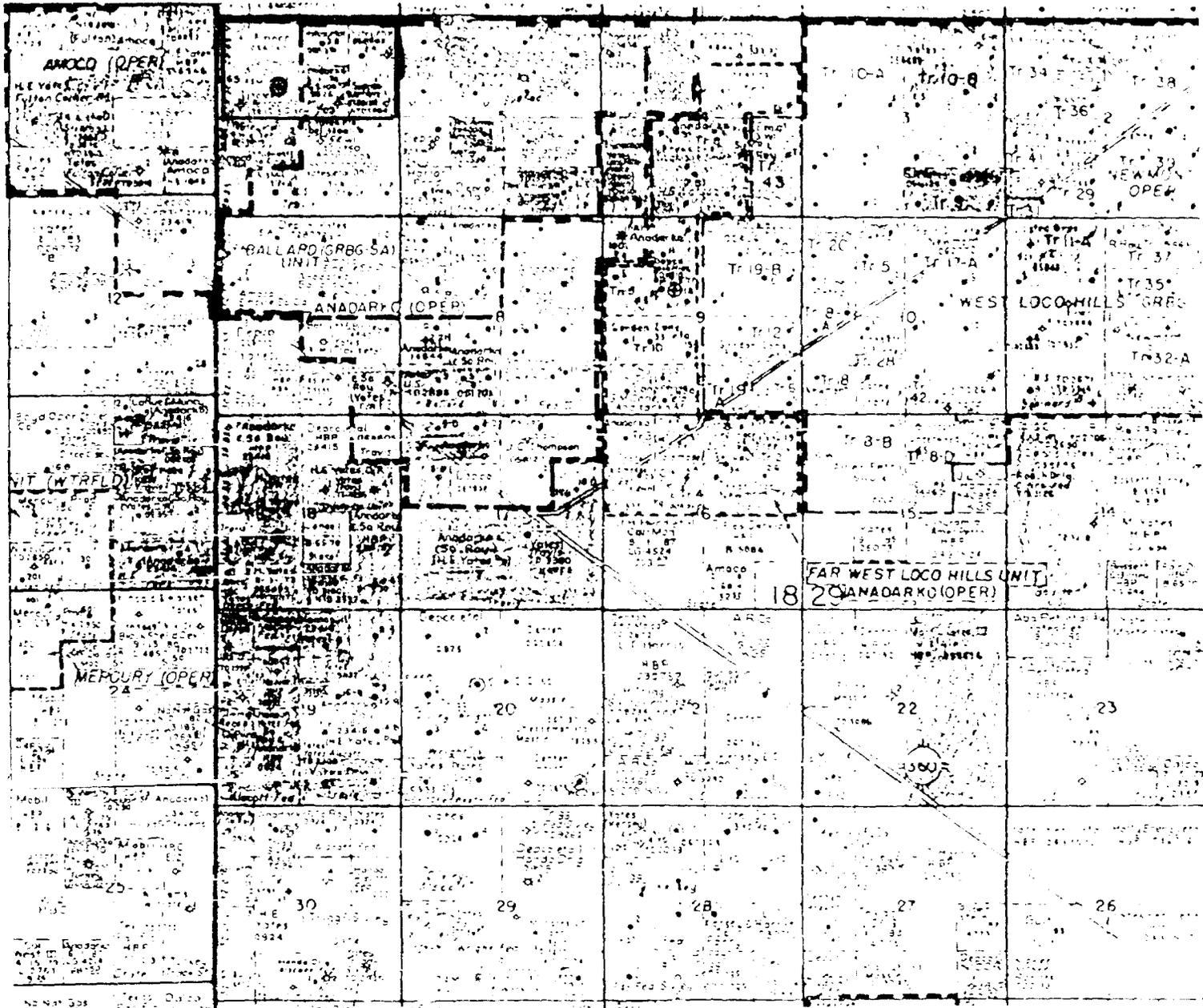
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SEP 10 1979
O. C. C.
ARTESIA, OFFICE



Meddy Yates
Vice President
Harvey E. Yates Company
June 29, 1979

EXHIBIT 4

WELL LOCATION PLAT (PRORATION UNIT)



○ LOCO HILLS WELCH #2 WELL
 1980 FWL and 660 FSL
 Sec. 4, T-18S, R-29E

— Proration Unit Assigned to the Loco Hills Welch #2 Well

EXHIBIT 5

LIST OF CO-LESSEES, WORKING INTEREST OWNERS AND
GAS PURCHASER

LOCO HILLS WELCH #2
Working Interest Owners
Mailing List

Richard L Ray
P. O. Box 689
Tyler, Texas 75701

J. Cleo Thompson
4500 Republic National Bank Building
Dallas, Texas 79701

Wendell W. Iverson
P. O. Box 1343
Midland, Texas 79701

Coronado Exploration Corp.
1007 Marquette, NW
Albuquerque, New Mexico 87102

DEPCO, INC.
1000 Petroleum Building
110 Sixteenth Street
Denver, Colorado 80202

GAS PURCHASER

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 78879

NEW MEXICO OIL CONSERVATION DIVISION
P. O. Box 2050, Santa Fe, New Mexico 87501

Alternative APPLICATION FOR WELLHEAD
PRICE CEILING CATEGORY DETERMINATION

FORM O-137

1. FOR DIVISION USE ONLY

DATE OF: APPLICATION _____
DETERMINATION _____
CONTESTED _____
PARTICIPANTS _____

Kind of Lease	State, Federal or Fee FEE
5. State Oil & Gas Lease No.	
7. Unit Agreement No.	
8. Name of Lease Unit	LOCO HILLS WELCH
9. Well No.	2
10. Field No. (if any)	

Name of Operator

HARVEY E. YATES COMPANY

Address of Operator

P. O. Box 1933, Roswell, New Mexico 88201

Location of Well

UNIT LETTER N 1980 FEET FROM THE West LINE AND 660 FEET FROM

South 4 18S 29E Und. S. Empire Morrow

13. Name and Address of Transporter(s)

El Paso Natural Gas Company, P. O. Box 1492, El Paso, Texas 79978

14. County

EDDY

WELL CATEGORY INFORMATION

Check appropriate box for category sought and information submitted.

- Category(ies) Sought (By NPGA Section No.) 103
- All Applications must contain:
 - a. C-101 APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK
 - b. C-105 WELL COMPLETION OR RECOMPLETION REPORT AND LOG
 - c. DIRECTIONAL DRILLING SURVEY, IF REQUIRED UNDER RULE 111
 - d. AFFIDAVITS OF MAILING OR DELIVERY
- NEW NATURAL GAS UNDER SEC. 102(c)(1)(B) (using 2.5 mile or 1000 feet Deeper Test)
 - a. Location Plat
- NEW NATURAL GAS UNDER SEC. 102(c)(1)(C) (new onshore reservoir)
 - a. C-122 Multipoint and one point back pressure test
- NEW ONSHORE PRODUCTION WELL
 - a. C-102 WELL LOCATION AND ACREAGE DEDICATION PLAT
 - b. No. of order authorizing infill program _____
- STRIPPER GAS
 - a. C-116 GAS-OIL RATIO TEST
 - b. PRODUCTION CURVE FOR 12-MONTH PERIOD PRECEDING DECEMBER 1, 1978.
 - c. PRODUCTION CURVE FOR THE 90-DAY PERIOD ON WHICH THE APPLICATION IS BASED

I HEREBY CERTIFY THAT THE INFORMATION CONTAINED HEREIN IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

NAME: George M. Yates

SIGNED: _____

TITLE: Vice President

DATE: December 20, 1979

APPROVED: _____, EXAMINER

Exhibit B

FERC-121

1.0 API well number: (If not available, leave blank. 14 digits.)	<u>30-015-23001</u>			
2.0 Type of determination being sought: (Use the codes found on the front of this form.)	<u>103</u> Section of NGPA		Category Code	
3.0 Depth of the deepest completion location: (Only needed if sections 103 or 107 in 2.0 above.)	<u>10,910'</u> feet			
4.0 Name, address and code number of applicant: (35 letters per line maximum. If code number not available, leave blank.)	<u>HARVEY E. YATES COMPANY</u> Name <u>P. O. BOX 1933</u> Street <u>Roswell,</u> <u>NM</u> <u>88201</u> City State Zip Code			
5.0 Location of this well: [Complete (a) or (b).] (a) For onshore wells (35 letters maximum for field name.)	<u>None</u> Field Name <u>EDDY</u> <u>NM</u> County State			
(b) For OCS wells.	Area Name Block Number Date of Lease _____ Mo. Day Yr. OCS Lease Number			
(c) Name and identification number of this well: (35 letters and digits maximum.)	<u>LOCO HILLS WELCH #2</u>			
(d) If code 4 or 5 in 2.0 above, name of the reservoir: (35 letters maximum.)	<u>None</u>			
6.0 (a) Name and code number of the purchaser: (35 letters and digits maximum. If code number not available, leave blank.)	<u>EI, PASO NATURAL GAS COMPANY</u> Name Buyer Code			
(b) Date of the contract:	<u>10/6/10/11/7/19/</u> Mo. Day Yr.			
(c) Estimated annual production:	<u>550</u> MMcf.			
	(a) Base Price (\$/MMBtu)	(b) Tax	(c) All Other Prices [Indicate (+) or (-).]	(d) Total of (a), (b), and (c)
7.0 Contract price: (As of filing date. Complete to 3 decimal places.)	<u>2.143</u>	<u>-.140</u>	<u>-----</u>	<u>2.283</u>
8.0 Maximum lawful rate: (As of filing date. Complete to 3 decimal places.)	<u>2.143</u>	<u>-.140</u>	<u>-----</u>	<u>2.283</u>
9.0 Person responsible for this application:	<u>George E. Yates</u> <u>Vice President</u> Name Title _____ Signature <u>December 20, 1979</u> <u>505-623-6601</u> Date Application is Completed Phone Number			
Agency Use Only				
Date Received by Juris. Agency				
Date Received by FERC				

U.S. DEPARTMENT OF ENERGY
Federal Energy Regulatory Commission
Washington, D.C. 20426

APPLICATION FOR DETERMINATION OF THE MAXIMUM LAWFUL
PRICE UNDER THE NATURAL GAS POLICY ACT (NGPA)
(Sections 102, 103, 107 and 108)

PLEASE READ BEFORE COMPLETING THIS FORM:

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Submit the completed application to the appropriate Jurisdictional Agency as listed in title 18 of the CFR, part 270.103. If there are any questions, call (202) 275 4539.

Specific Instructions for Item 2.0, Type of Determination:

<u>Section of NGPA</u>	<u>Category Code</u>	<u>Description</u>
102	1	New OCS Lease
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107	-	High cost natural gas
108	-	Stripper well

Other Purchasers/Contracts:

<u>Contract Date</u> (Mo. Day Yr.)	<u>Purchaser</u>	<u>Buyer Code</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Remarks:

APPLICATION PURSUANT TO
SECTION 103(c) OF
THE NATURAL GAS POLICY ACT OF 1978 (NGPA)

Well: LOCO HILLS WELCH #2
API No: 30-015-23001

AFFIDAVIT

STATE OF NEW MEXICO COUNTY OF EDDY

BEFORE ME, the undersigned authority, duly commissioned and qualified within and for the State and County aforesaid, personally came and appeared GEORGE M. YATES, who, being by me first duly sworn, deposed and said:

That he is the Vice President of HARVEY E. YATES COMPANY, the applicant for the well as described heretofore in this application, and, in that capacity, he is requesting the appropriate Jurisdictional Agency to determine the eligibility of said well for wellhead pricing purposes pursuant to the rules and regulations of said agency and the Federal Energy Regulatory Commission and pursuant to the NGPA.

That this application is made pursuant to 18 CFR 274.204 (a)-(f).

That to the best of his information and knowledge;

- (a) The surface drilling of the well for which he seeks a determination was begun on or after February 19, 1977.
- (b) The well satisfies any applicable Federal or State well-spacing requirements.
- (c) The well is not within a proration unit:
 - (1) Which was in existence at the time the surface drilling of the well began; and
 - (2) Which was applicable to the reservoir from which natural gas is produced; and
 - (3) Which applied to any other well which either produced natural gas in commercial quantities or the surface drilling of which began after February 18, 1977, and was thereafter capable of producing natural gas in commercial quantities.

That he has concluded to the best of his information and knowledge that there is substantial evidence to support a determination that the natural gas produced from said well is produced from a new onshore production well as defined in the NGPA; and that he has no knowledge of any other information not described in the application which is inconsistent with this conclusion.

That he has mailed, or caused to be mailed, postage prepaid, copies of the completed Form FERC 121, Application for Determination of the Maximum lawful Price Under the Natural Gas Policy Act, and any jurisdictional agency supplemental application form to the Purchaser(s) and to the co-lessee(s) and/or working interest owners, which are listed separately.

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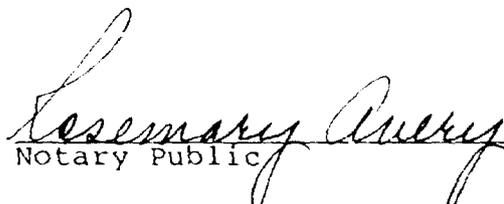
Signed


George M. Yates
Vice President

Subscribed in my presence and duly sworn to before me, this 21st day of December, 1979.

My Commission expires:

July 27, 1980


Rosemary Avery
Notary Public

INDEX OF EXHIBITS

1. Application to Drill
2. Completion Report
3. Well Location and Acreage Dedication Plat
4. Well Location Plat (Proration Unit)
5. List of Co-Lessees, Working Interest Owners and Gas Purchaser

EXHIBIT 1
APPLICATION TO DRILL

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	<input checked="" type="checkbox"/>

NEW MEXICO OIL CONSERVATION BOARD

RECEIVED

SEP 10 1979

O. C. C.
ARTESIA, OFFICE

30-015-2300

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

A. Type of Work		7. Unit Approval Time	
B. Type of Well OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		8. Name of Operator	
C. Name of Operator		9. Well No.	
HARVEY E. YATES COMPANY		2	
D. Address of Operator		10. Date and Loc. of Well	
P. O. Box 1933, Roswell, N. M. 89201		Und. S. Empire Morrow	
E. Location of Well UNIT LETTER <u>N</u> LOCATED <u>1980</u> FEET FROM THE <u>West</u> LINE <u>660</u> FEET FROM THE <u>South</u> LINE OF SEC. <u>4</u> T14S R18S E29E NMPM		11. County	
		Eddy	
13. Depth of Well		14. Formation	
11,400'		Morrow	
15. Depth of Casing		16. Depth of Casing	
3521.2' GL		Blanket	
17. Approx. Date Work Will Start		18. Approx. Date Work Will Start	
Aug. 15, 1979		Aug. 15, 1979	

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
17 1/2"	13 3/8"	48#	350'	475 Sx	Circulate
12 1/4"	8 5/8"	24#, 28#	3000'	1300 Sx	Circulate
7 7/8"	5 1/2"	17#, 20#	11,400'	1500 Sx	600' above productive zone

BOP: Schematic attached.

This acreage is ~~reserved~~ to a gas purchaser.

APPROVAL VALID FOR 90 DAYS UNLESS DRILLING COMMENCED,

EXPIRES 12-12-79

ABOVE SPACE DESCRIBE PROPOSED PROGRAM IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTION, CIVIL BLOWOUT PREVENTER PROGRAM, IF ANY.
 I hereby certify that the information above is true and complete to the best of my knowledge and belief.

By David G. Yates Title Vice President Date June 29, 1979
 (Day space for Stamp Use)

APPROVED BY W. A. Stewart TITLE SUPERVISOR, ARTESIA DATE SEP 10 1979

CONDITIONS OF APPROVAL, IF ANY:
notify this office if water flow is encountered

EXHIBIT 2

COMPLETION REPORT

NO. OF COPIES RECEIVED
DISTRIBUTION
DATE
BY
LAND OFFICE
OPERATOR

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

DATE OF REPORT
BY
No. **XX**

NAME OF WELL
DATE OF COMPLETION
NO. **XX**
OPERATOR
Harvey E. Yates Company
P. O. Box 1933, Roswell, N. M. 88201

Loco Hills Welch
2
Und. S. Empire Morrow
Eddy

SECTION **N** TOWNSHIP **1980** RANGE **West** SECTION **660**

NO. **4** EASTING **18S** NORTHING **29E**

10-18-79	11-23-79	12-13-79	3521.2' GL
11,430'	11,371'		0'-11,430'

10,896' - 10,910' Morrow No

Densilog-Neutron; Dual-Microlaterlog; GR-Depth Control No

CASING SIZE	WEIGHT LBS. PER FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8"	54#	360'	17 1/2"	350 Sx C1 C w/2% CaCl	None
8 5/8"	24#, 28#	2905'	11"	900 Sx	None
5 1/2"	17#	11,425'	7 7/8"	1000 Sx	None

LINER RECORD				TUBING RECORD			
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2 7/8"	10,913'	10,862'

ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	DEPT. INTERVAL		AMOUNT AND KIND MATERIAL USED	
	10,896' - 10,910' - 56 1/2" dia holes	None		

PRODUCTION							
DATE	STATUS	TYPE OF PUMP	DISCHARGE	WATER - PPL	FOAM - GPH	WATER - PPL	FOAM - GPH
12-13-79	Flowing						
12-14-79	1	24/64"	Trace	131	0		
915	0	est. 5	3155	0	55° - API		

I hereby certify that the data herein are true and complete to the best of my knowledge and belief.

Jack Harder

Engineer DATE 12-21-79

INSTRUCTIONS

Data from this log to be filed with the appropriate field edition of the "Compendium" later than 20 days after the completion of any newly-drilled log. Loggers will be required to file a copy of all observations and lithological descriptions from the well and a summary of all special tests conducted, including full item tests. All test results shall be reported by the bottom of the last normally filled well; the vertical depths shall also be reported. The number of feet in each zone through which the well is reported to be drilled shall be reported in the appropriate field edition of the "Compendium" to be filed in duplicate. Exceptions to these instructions are required for double holes.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

Northwestern New Mexico

T. Anhy	T. Canyon	9812'	T. Ojo Alamo	T. Penn. "B"
T. Salt	T. Strawn	10022'	T. Kirtland Footland	T. Penn. "C"
T. Salt	T. Anoka	10324'	T. Pictured Cliffs	T. Penn. "D"
T. Yates	T. Miss	1015'	T. Cliff House	T. Leadville
T. 7 Rivers	T. Devonian	1325'	T. Menard	T. Madison
T. Queen	T. Silurian	2018'	T. Point Lookout	T. Elbert
T. Gravelly	T. Montevia	2380'	T. Mancos	T. McCracken
T. San Andres	T. Simpson	2830'	T. Gallup	T. Ignacio Quartz
T. Glorietta	T. McRae		Essex Greenhorn	T. Granite
T. Padlock	T. Ellenburger		T. Dakota	T.
T. Blinobry	T. Gr. Wash		T. Morrison	T.
T. Tubb	T. Granite		T. Todilto	T.
T. Drinkard	T. Delaware Sand		T. Entrada	T.
T. Abo	T. Bone Springs	1st 6016'	T. Wingate	T.
T. Wolfcamp	T. Bone Sps 2nd	6830'	T. Chino	T.
T. Penn	T. Bone Sps 3rd	7778'	T. Permian	T.
T. Cisco (Horn, B, C)	T. Mor Clastics	10724'	T. Penn. "A"	T.
T. Chester	T. Lo-Morrow	10954'		

No. 1, from 10896'	to 10910'	No. 4, from	to
No. 2, from	to	No. 5, from	to
No. 3, from	to	No. 6, from	to

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from	to	feet
No. 2, from	to	feet
No. 3, from	to	feet
No. 4, from	to	feet

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	360	360	Surface rock				
360	1550	1190	Anhy				
1550	2625	1075	Anhy & lime				
2625	5310	2685	Lime				
5310	10802	5492	Lime & shale				
10802	10930	128	Lime, shale and chert				
10930	11058	128	Lime and shale				
11058	11148	90	Shale				
11148	11335	187	Lime and shale				
11335	11430	95	Shale				

EXHIBIT 3

WELL LOCATION AND ACREAGE DEDICATION PLAT

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

All distances must be from the outer hole corners of the section.

HARVEY E. YATES CO.		LOCO HILLS WELCH		2
Section Letter N	Section 4	Range 18 SOUTH	Meridian 29 EAST	EDDY
Well Location of Well:				
1980	feet from	WEST	line #1	660
Ground Level Elev. 3521.2	Producing Formation Morrow	Well Name Und. S. Empire Morrow	Well No. 320	

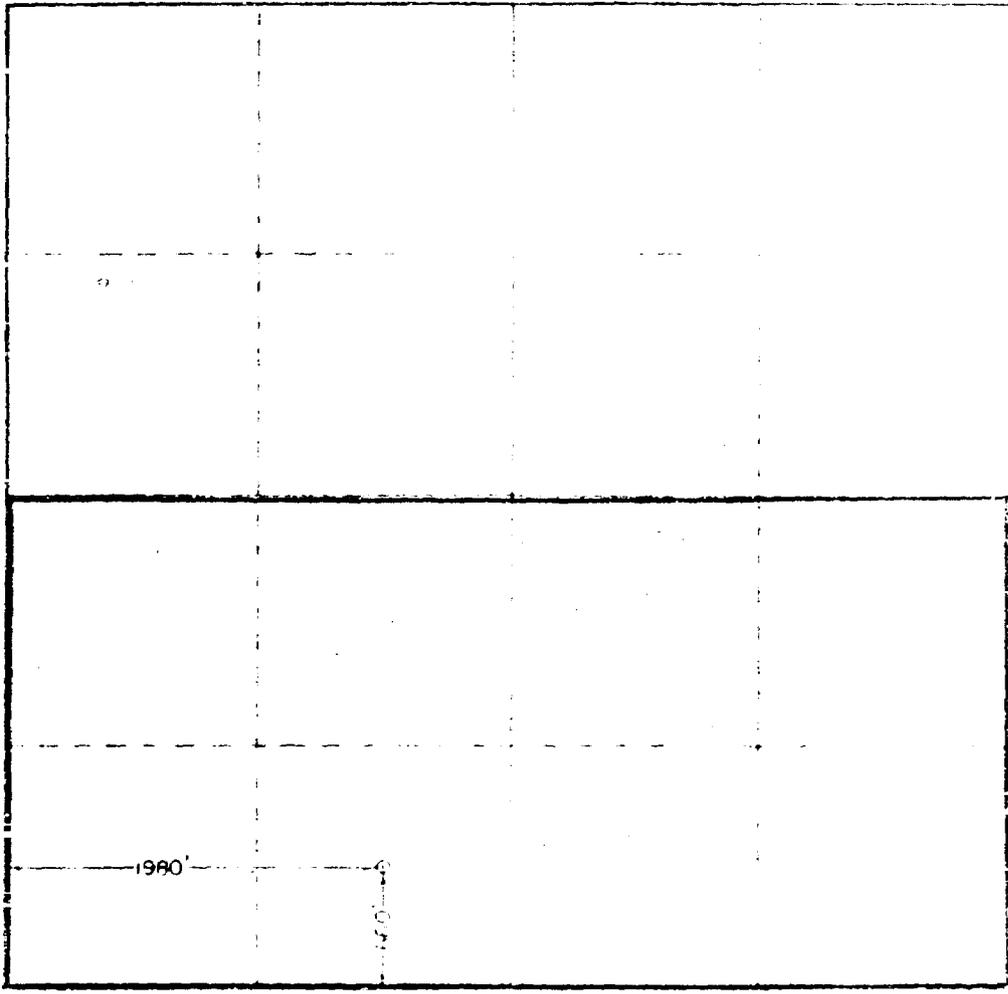
1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify (as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests consolidated by communitization, unitization, forced-pooling, etc.?

Yes No If answer is "yes," type of consolidation:

If answer is "no," list the owners and tract descriptions which have actually been consolidated (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

RECEIVED
SEP 10 1979
O. C. C.
ARTERIA OFFICE



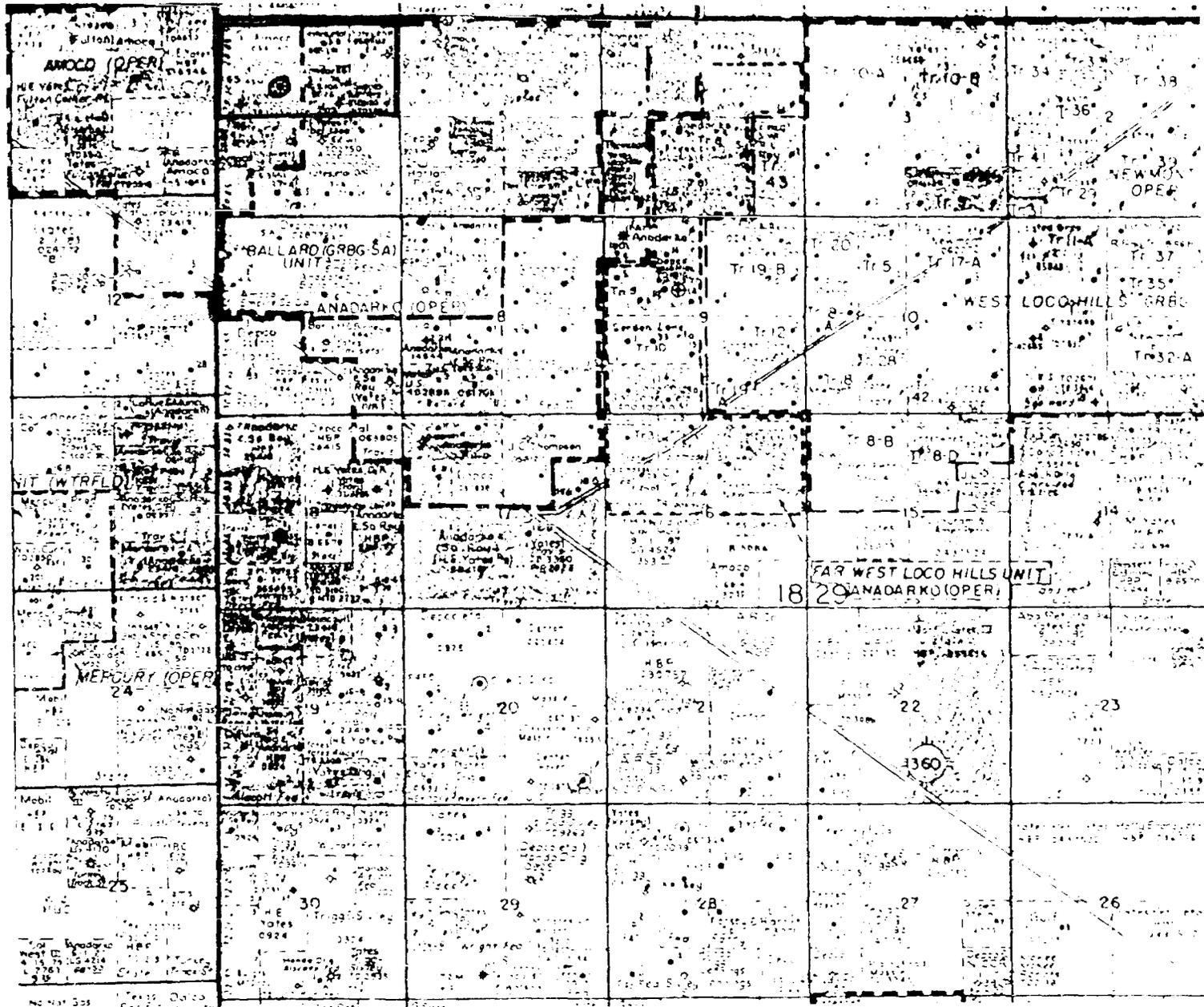
Harvey E. Yates
Vice President
Harvey E. Yates Company
June 29, 1979

I hereby certify that the information shown on this plat is true and correct to the best of my knowledge and belief.

JUNE 29, 1979

EXHIBIT 4

WELL LOCATION PLAT (PRORATION UNIT)



○ LOCO HILLS WELCH #2 WELL
 1980 FWL and 660 FSL
 Sec. 4, T-18S, R-29E

— Proration Unit Assigned to the Loco Hills Welch #2 Well

EXHIBIT 5

LIST OF CO-LESSEES, WORKING INTEREST OWNERS AND
GAS PURCHASER

LOCO HILLS WELCH #2
Working Interest Owners
Mailing List

Richard L Ray
P. O. Box 689
Tyler, Texas 75701

J. Cleo Thompson
4500 Republic National Bank Building
Dallas, Texas 79701

Wendell W. Iverson
P. O. Box 1343
Midland, Texas 79701

Coronado Exploration Corp.
1007 Marquette, NW
Albuquerque, New Mexico 87102

DEPCO, INC.
1000 Petroleum Building
110 Sixteenth Street
Denver, Colorado 80202

GAS PURCHASER

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 78879

NEW MEXICO OIL CONSERVATION DIVISION
 P. O. Box 2088, Santa Fe, New Mexico 87501

Alternative APPLICATION FOR WELLSHEAD
 PRICE CEILING CATEGORY DETERMINATION

Third Copy

1. FOR DIVISION USE ONLY

DATE OF: APPLICATION _____
 DETERMINATION _____
 CONTESTED _____
 PARTICIPANTS _____

2. Type of Lease	FEE
3. State, Federal or Loc	
4. Section & Well Completion	
5. Unit Agreement	
6. Name of Leaseholder	LOCO HILLS WELCH
7. Well No.	2
8. Field No. (if different)	
9. Name of Operator	Und. S. Empire Morrow

Name of Operator

HARVEY E. YATES COMPANY

Address of Operator

P. O. Box 1933, Roswell, New Mexico 88201

Location of Well

UNIT LETTER N 1980 FEET FROM THE West 660 LINE AND FEET FROM THE South 4 TOWNSHIP 18S RANGE 29E

13. Name and Address of Transporter(s)

El Paso Natural Gas Company, P. O. Box 1492, El Paso, Texas 79978

EDDY

WELL CATEGORY INFORMATION

Check appropriate box for category sought and information submitted.

1. Category(ies) Sought (By NGPA Section No.) 103
2. All Applications must contain:
 - a. C-101 APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK
 - b. C-105 WELL COMPLETION OR RECOMPLETION REPORT AND LOGS
 - c. DIRECTIONAL DRILLING SURVEY, IF REQUIRED UNDER RULE 111
 - d. AFFIDAVITS OF MAILING OR DELIVERY
3. NEW NATURAL GAS UNDER SEC. 102(c)(1)(B) (using 2.5 Mile or 1000 Feet Deeper Test)
 - a. Location Plat
4. NEW NATURAL GAS UNDER SEC. 102(c)(1)(C) (new onshore reservoir)
 - a. C-122 Multipoint and one point back pressure test
5. NEW ONSHORE PRODUCTION WELL
 - a. C-102 WELL LOCATION AND ACREAGE DEDICATION PLAT
 - b. No. of order authorizing infill program _____
6. STRIPPER GAS
 - a. C-116 GAS-OIL RATIO TEST
 - b. PRODUCTION CURVE FOR 12-MONTH PERIOD PRECEDING DECEMBER 1, 1978.
 - c. PRODUCTION CURVE FOR THE 90-DAY PERIOD ON WHICH THE APPLICATION IS BASED

I HEREBY CERTIFY THAT THE INFORMATION CONTAINED HEREIN IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

NAME: George M. Yates

SIGNED: [Signature]

TITLE: Vice President

DATE: December 20, 1979

APPROVED: _____

EXAMINER

Exhibit B

FERC 121

1.0 APL well number (If not available, leave blank. 14 digits.)	30-015-23001			
2.0 Type of determination being sought (Use the codes found on the front of this form.)	103 Section of NGPA		Category Code	
3.0 Depth of the deepest completion location: (Only needed if sections 103 or 107 in 2.0 above.)	10,910' feet			
4.0 Name, address and code number of applicant: (35 letters per line maximum. If code number not available, leave blank.)	HARVEY E. YATES COMPANY Name		Seller Code	
	P. O. BOX 1933 Street			
	Koswell,	NM	88201	
	City	State	Zip Code	
5.0 Location of this well: (Complete (a) or (b).) (a) For onshore wells (35 letters maximum for field name.)	None			
	Field Name EDDY		NM State	
(b) For OCS wells	Area Name Block Number			
	Date of Lease		OCS Lease Number	
	Mo. Day Yr.			
(c) Name and identification number of this well: (35 letters and digits maximum.)	LOCO HILLS WELCH #2			
(d) If code 4 or 5 in 2.0 above, name of the reservoir: (35 letters maximum.)	None			
6.0 (a) Name and code number of the purchaser: (35 letters and digits maximum. If code number not available, leave blank.)	EL PASO NATURAL GAS COMPANY Name		Buyer Code	
(b) Date of the contract:	101610111719J Mo. Day Yr.			
(c) Estimated annual production:	550 MMcf.			
	(a) Base Price (\$/MMBtu)	(b) Tax	(c) All Other Prices (Indicate + or -)	(d) Total of (a), (b) and (c)
7.0 Contract price: (As of filing date. Complete to 3 decimal places.)	2.143	.140		2.283
8.0 Maximum lawful rate: (As of filing date. Complete to 3 decimal places.)	2.143	.140		2.283
9.0 Person responsible for this application	George M. Yates Vice President			
Agency Use Only	Name Title			
Date Received by Juris. Agency	Signature			
Date Received by FERC	December 20, 1979 Date Application is Completed		505-623-6601 Phone Number	

U.S. DEPARTMENT OF ENERGY
 Federal Energy Regulatory Commission
 Washington D.C. 20426

APPLICATION FOR DETERMINATION OF THE MAXIMUM LAWFUL
 PRICE UNDER THE NATURAL GAS POLICY ACT (NGPA)
 (Sections 102, 103, 107 and 108)

PLEASE READ BEFORE COMPLETING THIS FORM:

General Instructions:

Complete this form if you are applying for price classification under sections 102, 103, 107 or 108 of the NGPA. A separate application is required for each well. If any reservoir qualities for a category which differs from the category applicable to the producing well, separate applications must be made for the producing well and the reservoir. Complete each appropriate item on the reverse side of this page. The code numbers used in items 4.0 and 6.0 can be obtained from the Buyer/Seller Code Book. If there is more than one purchaser or contract, identify the additional information in the space below. Enter any additional remarks in the space below.

Submit the completed application to the appropriate Jurisdictional Agency as listed in title 18 of the CFR, part 270.103. If there are any questions, call (202) 275 4539.

Specific Instructions for Item 2.0, Type of Determination:

<u>Section of NGPA</u>	<u>Category Code</u>	<u>Description</u>
102	1	New OCS Lease
102	2	New onshore well (2.5 mile test)
102	3	New onshore well (1,000 feet deeper test)
102	4	New onshore reservoir
102	5	New reservoir on old OCS Lease
103	--	New onshore production well
107	--	High cost natural gas
108	--	Stripper well

Other Purchasers/Contracts:

<u>Contract Date</u> (Mo. Day Yr.)	<u>Purchaser</u>	<u>Buyer Code</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Remarks:

APPLICATION PURSUANT TO
SECTION 103(c) OF
THE NATURAL GAS POLICY ACT OF 1978 (NGPA)

Well: LOCO HILLS WELCH #2
API No: 30-015-23001

AFFIDAVIT

STATE OF NEW MEXICO COUNTY OF EDDY

BEFORE ME, the undersigned authority, duly commissioned and qualified within and for the State and County aforesaid, personally came and appeared GEORGE M. YATES, who, being by me first duly sworn, deposed and said:

That he is the Vice President of HARVEY E. YATES COMPANY, the applicant for the well as described heretofore in this application, and, in that capacity, he is requesting the appropriate Jurisdictional Agency to determine the eligibility of said well for wellhead pricing purposes pursuant to the rules and regulations of said agency and the Federal Energy Regulatory Commission and pursuant to the NCPA.

That this application is made pursuant to 18 CFR 274.204 (a)-(f).

That to the best of his information and knowledge;

- (a) The surface drilling of the well for which he seeks a determination was begun on or after February 19, 1977.
- (b) The well satisfies any applicable Federal or State well-spacing requirements.
- (c) The well is not within a proration unit:
 - (1) Which was in existence at the time the surface drilling of the well began; and
 - (2) Which was applicable to the reservoir from which natural gas is produced; and
 - (3) Which applied to any other well which either produced natural gas in commercial quantities or the surface drilling of which began after February 18, 1977, and was thereafter capable of producing natural gas in commercial quantities.

That he has concluded to the best of his information and knowledge that there is substantial evidence to support a determination that the natural gas produced from said well is produced from a new onshore production well as defined in the NGPA; and that he has no knowledge of any other information not described in the application which is inconsistent with this conclusion.

That he has mailed, or caused to be mailed, postage prepaid, copies of the completed Form FERC 121, Application for Determination of the Maximum lawful Price Under the Natural Gas Policy Act, and any jurisdictional agency supplemental application form to the Purchaser(s) and to the co-lessee(s) and/or working interest owners, which are listed separately.

That to the best of his knowledge and belief, all information contained in this application for category determination, pursuant to the NGPA, is true and correct including all documents, testimony, and evidence submitted with the application.

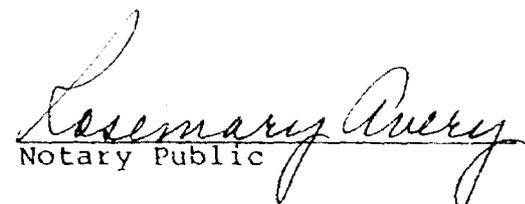
Signed


George M. Yates
Vice President

Subscribed in my presence and duly sworn to before me, this 21st day of December, 1979.

My Commission expires:

July 27, 1980


Rosemary Avery
Notary Public

INDEX OF EXHIBITS

1. Application to Drill
2. Completion Report
3. Well Location and Acreage Dedication Plat
4. Well Location Plat (Proration Unit)
5. List of Co-Lessees, Working Interest Owners and
Gas Purchaser

EXHIBIT 1
APPLICATION TO DRILL

NO. OF COPIES RECEIVED

DISTRIBUTION

SANTA FE

FILE

U.S.G.S.

LAND OFFICE

OPERATOR

NEW MEXICO OIL CONSERVATION BOARD

RECEIVED

SEP 10 1979

O. C. C.
ARTERIA, OFFICE

30-018-2300

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

a. Type of Work

b. Type of Well
 DRILL DEEPEN PLUG BACK
 OIL WELL GAS WELL

c. Name of Operator
 HARVEY E. YATES COMPANY

d. Address of Operator
 P. O. Box 1933, Roswell, N. M. 88201

e. Location of Well
 UNIT LETTER N LOCATED 1980 FEET FROM THE West LINE
660 FEET FROM THE South LINE OF SEC. 4 T18S R29E N00W

f. Depth of Well
11,400'

g. Formation
Morrow

h. Method of Drilling
Rotary

i. Revolutions (Show whether DL, RL, etc.)
3521.2' GL

j. Blanket
Blanket

k. Moranco
Moranco

l. Approximate Date Work Will Start
Aug. 15, 1979

7. State Agreement State

8. Bureau of Land Management

9. Well No.
2

10. Field and Loc., or Well No.
Loco Hills Welch

11. County
Eddy

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
17 1/2"	13 3/8"	48#	350'	475 Sx	Circulate
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7 7/8"	5 1/2"	17#, 20#	11,400'	1500 Sx	600' above productive zone

BOP: Schematic attached.

This acreage is ~~not~~ to a gas purchaser.

APPROVAL VALID
FOR 90 DAYS UNLESS
DRILLING COMMENCED,

EXPIRES 12-12-79

ABOVE SPACE DESCRIBE PROPOSED PROGRAM; IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Paul J. Yates Title vice President Date June 29, 1979

APPROVED BY H. A. Gressett TITLE SUPERVISOR, ARTERIA DATE SEP 10 1979

CONDITIONS OF APPROVAL, IF ANY:
notify this office if waterflow is encountered

EXHIBIT 2
COMPLETION REPORT

NO. OF COPIES RECEIVED
 DATE RECEIVED
 BY
 TITLE
 DEPARTMENT

NEW METHOD OF WELL COMPLETION COMMITTEE
 WELL COMPLETION OR RECOMPLETION REPORT AND LOG

DATE OF REPORT
 BY
 TITLE
 DEPARTMENT

NAME OF WELL
 TYPE OF WELL
 OPERATOR
 HARVEY E. YATES COMPANY
 P. O. Box 1933, Roswell, N. M. 88201

Loco Hills Welch
 2
 Und. S. Empire Morrow
 Eddy

DATE OF REPORT N 1980 WELL FROM THE West 660
 SOUTH OF SECTION 4 TWP. 18S RGE. 29E

10-18-79	11-23-79	12-13-79	3521.2' GL
11,430'	11,371'		0'-11,430'
10,896' - 10,910' Morrow			No

Densilog-Neutron; Dual-MicroLaterlog; GR-Depth Control No

PIPE SIZE	WEIGHT (LBS./FT.)	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8"	54#	360'	17 1/2"	350 Sx. CI C w/2% CaCl	None
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LINK RECORD				TUBING RECORD			
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2 7/8"	10,913'	10,862'

10,896' - 10,910' - 56 1/2" dia holes	ACID, SODI, FRACTURE, CEMENT SQUEEZE, ETC.	
	DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
	None	

PRODUCTION						
DATE	FLOWING	WELL STATUS	WATER - PHL	Oil - PHL	Gas - PHL	Other
12-13-79	Flowing	SI				
12-14-79	1	24/64"	Trace	131	0	
915	0	est. 5	3155	0	55° - API	

I hereby certify that the data herein are true and correct to the best of my knowledge and belief.
 SIGNATURE: Jack Hardie TITLE: Engineer DATE: 12-21-79

INSTRUCTIONS

Data from this form to be filed with the appropriate reports to the office of the State Geologist not later than 20 days after the completion of any newly drilled or reopened well. It shall be completed by the owner of all electrical and radio activity logs run in the well and a summary of all special tests conducted, including full logs. All data from the well log shall be corrected to true vertical depth by the well owner. The formation to be filed in this report shall not be corrected for multiple completions. The formation to be filed in this report shall be the formation to be filed in the appropriate report. (See rule 110.)

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

Northwestern New Mexico

T. Anhy	T. Canyon	9812'	T. Ojo Alamo	T. Penn. "B"
T. Salt	T. Strawn	10022'	T. Ketchel Frontland	T. Penn. "C"
T. Salt	T. Atoka	10324'	T. Pictured Cliffs	T. Penn. "D"
T. Yates	T. Miss	1015'	T. Cliff House	T. Leadville
T. T. Rivers	T. Devonian	1325'	T. Menches	T. Madison
T. Queen	T. Silurian	2018'	T. Point Lead out	T. Elbert
T. Grayburg	T. Montevic	2380'	T. Mancos	T. McCracken
T. San Andres	T. Simpson	2830'	T. Gallup	T. Ignacio Quartz
T. Glorieta	T. McKee		Base Greenhorn	T. Granite
T. Padlock	T. Ellenburger		T. Dakota	
T. Blainey	T. Gr. Wash		T. Morrison	
T. Tubb	T. Granite		T. Todilto	
T. Brinkard	T. Delaware Sand		T. Entrada	
T. Abo	T. Bone Springs	1st 6016'	T. Wingate	
T. Wolfcamp	T. Bone Sps 2nd	6830'	T. Chule	
T. Penn	T. Bone Sps 3rd	7778'	T. Permian	
T. Cisco (Humph C)	T. Mori Clastics	10724'	T. Penn "A"	
T. Chester	T. Lo-Morrow	10954'		

OIL OR GAS SANDS OR ZONES

No. 1, from 10896'	to 10910'	No. 4, from	to
No. 2, from	to	No. 5, from	to
No. 3, from	to	No. 6, from	to

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from	to	feet
No. 2, from	to	feet
No. 3, from	to	feet
No. 4, from	to	feet

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	360	360	Surface rock				
360	1550	1190	Anhy				
1550	2625	1075	Anhy & lime				
2625	5310	2685	Lime				
5310	10802	5492	Lime & shale				
10802	10930	128	Lime, shale and chert				
10930	11058	128	Lime and shale				
11058	11148	90	Shale				
11148	11335	187	Lime and shale				
11335	11450	95	Shale				

EXHIBIT 3

WELL LOCATION AND ACREAGE DEDICATION PLAT

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Supervisor's Office
Albuquerque, N.M.

All distances must be from the outer hole faces of the Section.

HARVEY E. YATES CO.		LOCO HILLS WELCH		2
Section N	Range 4	Meridian 18 SOUTH	Block 29 EAST	EDDY
Section 1980		feet from the WEST		660
				SOUTH
Surface Elevation 3521.2	Producing Formation Morrow		Und. S. Empire Morrow	320

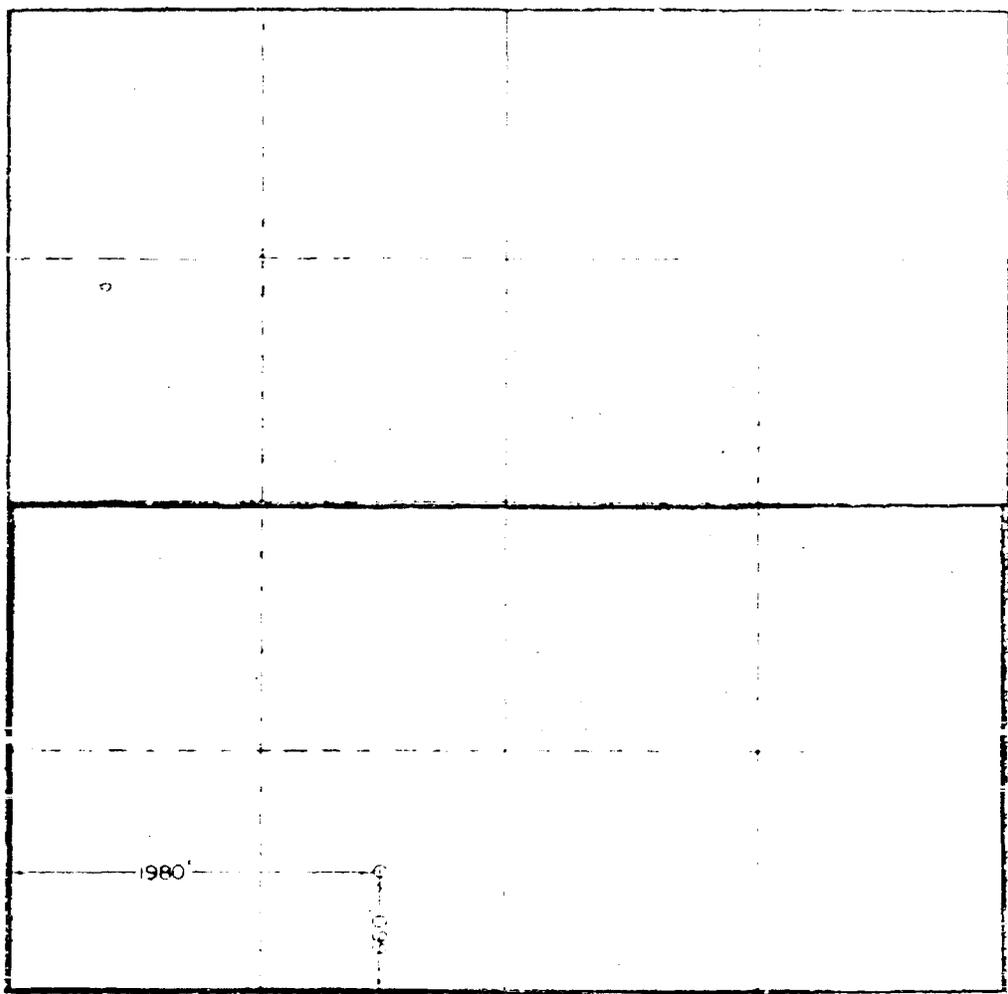
1. Outline the acreage dedicated to the subject well by colored pencil or lacquer marks on the plat (see instructions).
2. If more than one lease is dedicated to the well, outline each and identify (see instructions as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests been consolidated by communitization, unitization, force-pooling, etc?

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ARTESIA OFFICE

Yes No If answer is "yes" type of consolidation

If answer is "no" list the owners and tract descriptions which have actually been consolidated (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, force-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



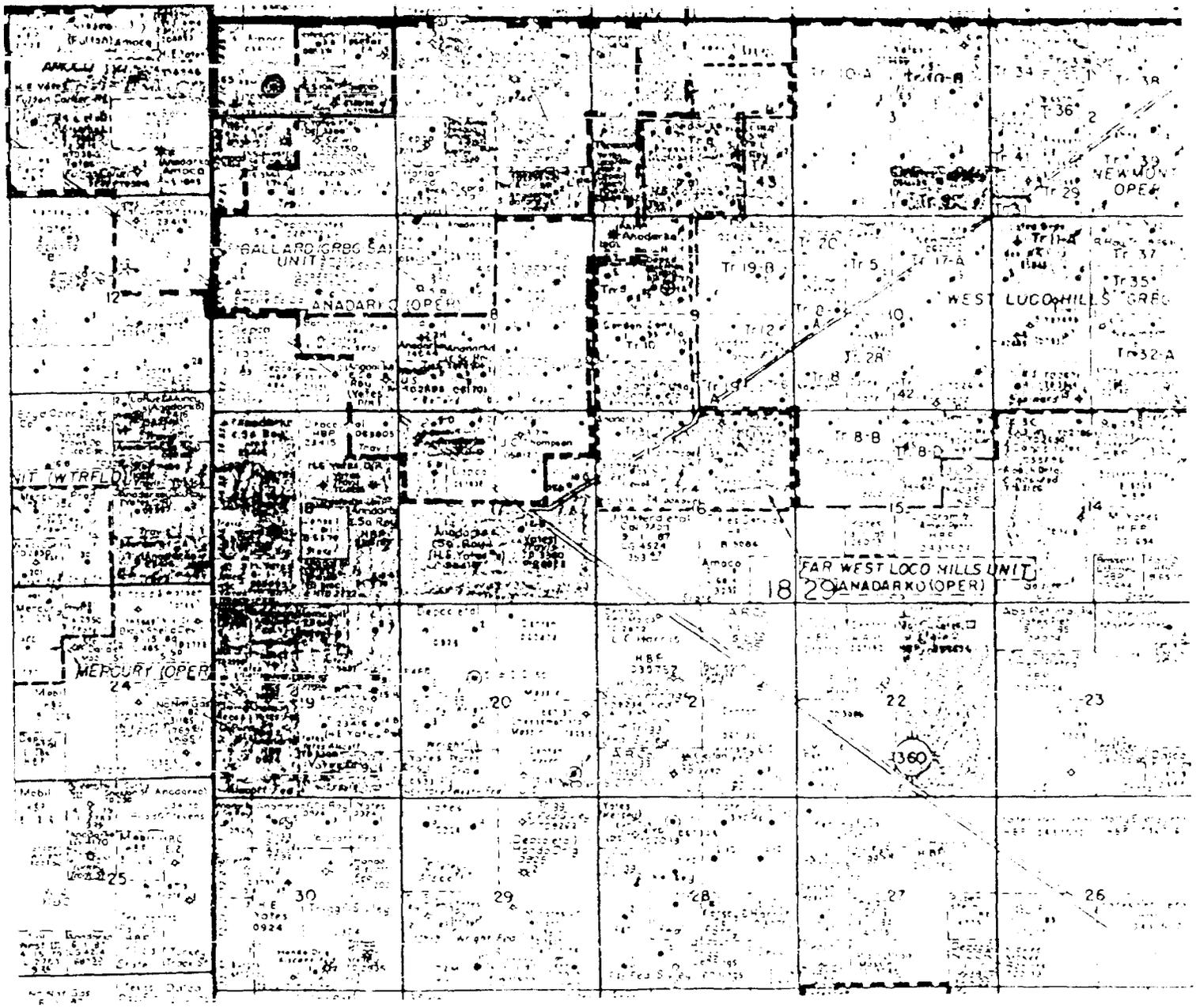
Harvey E. Yates
Vice President
Harvey E. Yates Company
June 29, 1979

I hereby certify that the well location shown on this plat is correct from field notes of actual survey made by me or other persons licensed by me of the same date and is true to the best of my knowledge and belief.

JUNE 29, 1979

EXHIBIT 4

WELL LOCATION PLAT (PRORATION UNIT)



○ LOCO HILLS WELCH #2 WELL
 1980 FWL and 660 FSL
 Sec. 4, T-18S, R-29E

— Proration Unit Assigned to the Loco Hills Welch #2 Well

EXHIBIT 5

LIST OF CO-LESSEES, WORKING INTEREST OWNERS AND
GAS PURCHASER

LOCO HILLS WELCH #2
Working Interest Owners
Mailing List

Richard L. Ray
P. O. Box 689
Tyler, Texas 75701

J. Cleo Thompson
4500 Republic National Bank Building
Dallas, Texas 79701

Wendell W. Iverson
P. O. Box 1343
Midland, Texas 79701

Coronado Exploration Corp.
1007 Marquette, NW
Albuquerque, New Mexico 87102

DEPCO, INC.
1000 Petroleum Building
110 Sixteenth Street
Denver, Colorado 80202

GAS PURCHASER

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 78879

Dockets Nos. 2-80 and 3-80 are tentatively set for January 16 and 30, 1980. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - THURSDAY - JANUARY 3, 1980

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. Stanets, Examiner, or Daniel S. Nutter, Alternate Examiner:

- CASE 6770: In the matter of the hearing called by the Oil Conservation Division on its own motion to permit National Petroleum Company and all other interested parties to appear and show cause why its Well No. 1 located 905 feet from the North line and 1155 feet from the West line of Section 22, Township 29 North, Range 11 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Division-approved plugging program.
- CASE 6786: In the matter of the hearing called by the Oil Conservation Division on its own motion to consider the amendment of its administrative procedure for the approval of infill drilling on existing gas proration units as promulgated by Order No. R-6013 to permit the approval of infill wells as new onshore production wells pursuant to the Natural Gas Policy Act of 1978 without notice and hearing even though such wells have been spudded prior to receiving such approval.
- CASE 6771: Application of Getty Oil Company for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 160-acre non-standard gas proration unit comprising the E/2 SW/4 of Section 31, Township 24 South, Range 37 East, and the NW/4 NE/4 and NE/4 NW/4 of Section 6, Township 25 South, Range 37 East, Jalmat Gas Pool, to be dedicated to a well to be drilled at a standard location thereon.
- CASE 6772: Application of Reading & Bates Petroleum Co. for compulsory pooling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Dakota formation underlying the SE/4 of Section 17, Township 24 North, Range 3 West, Chacon-Dakota Pool, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 6773: 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 E/2 of Section 20, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 6774: Application of Doyle Hartman for an unorthodox location, non-standard proration unit, and approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 120-acre non-standard proration unit comprising the NW/4 NW/4 of Section 6, Township 25 South, Range 37 East, and the W/2 SW/4 of Section 31, Township 24 South, Range 37 East, to be dedicated to his Federal Jalmat Com Well No. 1 at an unorthodox location 590 feet from the North line and 660 feet from the West line of said Section 6; applicant further seeks a finding that the drilling of said well is necessary to effectively and efficiently drain that portion of an existing proration unit which cannot be so drained by the existing well.
- CASE 6768: (Continued and Readvertised)
- Application of Alpha Twenty-One Production Company for two non-standard gas proration units, compulsory pooling, unorthodox well location, and approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 40-acre non-standard gas proration unit comprising the SW/4 SE/4 of Section 21, Township 24 South, Range 37 East, Jalmat Gas Pool, to be dedicated to the El Paso Natural Gas Company Shell Black Well No. 2. Applicant also seeks an order pooling all mineral interests in the Jalmat Gas Pool underlying the E/2 SW/4 and NW/4 SE/4 of said Section 21 to form a 120-acre non-standard gas proration unit to be dedicated to a well to be drilled at an unorthodox location 990 feet from the South line and 1650 feet from the West line of said Section 21. 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well. Applicant further seeks a finding that the drilling of said well is necessary to effectively and efficiently drain that portion of the existing proration unit which cannot be so drained by the existing well.

CASE 6767: (Continued from December 12, 1979, Examiner Hearing)

Application of Alpha Twenty-One Production Company for two non-standard gas proration units, unorthodox well location, and approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 40-acre non-standard proration unit comprising the NW/4 NW/4 of Section 27, Township 25 South, Range 37 East, Jalmat Gas Pool, to be dedicated to El Paso Natural Gas Company's Harrison Well No. 2, and also a 200-acre unit comprising the S/2 N/2 and NE/4 NW/4 of said Section 27 to be dedicated to a well to be drilled at an unorthodox location 1980 feet from the North line and 560 feet from the West line of Section 27. Applicant further seeks a finding that the drilling of the latter well is necessary to effectively and efficiently drain that portion of an existing proration unit which cannot be so drained by the existing well.

CASE 6487: (Continued from October 17, 1979, Examiner Hearing)

Application of El Paso Natural Gas Company for approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a waiver of existing well-spacing requirements and a finding that the drilling of its Shell E State Com Well No. 2 located in Unit N of Section 6, Township 21 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.

CASE 6732: (Continued from November 28, 1979, Examiner Hearing)

Application of Dorchester Exploration, Inc. for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Morton Solid State Unit Well No. 1 located 2156 feet from the North line and 990 feet from the West line of Section 4, Township 15 South, Range 34 East, Tres Papalotes-Pennsylvanian Pool.

CASE 6775: Application of Harvey E. Yates Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Young Deep Unit Area, comprising 2242 acres, more or less, of Federal lands in Township 18 South, Range 32 East.

CASE 6776: 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 location of its Young Deep Unit Well No. 1, a Morrow test to be drilled 660 feet from the North and West lines of Section 10, Township 18 South, Range 32 East, the W/2 of said Section 10 to be dedicated to the well.

CASE 6777: Application of Harvey E. Yates Company for an NCPA determination, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks a new onshore reservoir determination for its Amoco 22 State Well No. 2 located in Unit G of Section 22, Township 23 South, Range 27 East.

CASE 6778: Application of Harvey E. Yates Company for an NCPA determination, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks a new onshore reservoir determination for its Loco Hills Welch Well No. 2 located in Unit N of Section 4, Township 18 South, Range 29 East.

CASE 6745: (Continued from November 28, 1979, Examiner Hearing)

Application of Harvey E. Yates Company 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 W/2 of Section 28, Township 23 South, Range 24 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6779: Application of Yates Petroleum Corporation for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Pronghorn Unit Area, comprising 5,120 acres, more or less, of State and Federal lands in Townships 22 and 23 South, Range 33 East.

CASE 6780: Application of Yates Petroleum Corporation for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Serpentine Bends Unit Area, comprising 4,802 acres, more or less, of State and Federal lands in Township 24 South, Ranges 23 and 24 East.

CASE 6781: Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Morrow test well to be drilled 660 feet from the South line and 1980 feet from the East line of Section 1, Township 20 South, Range 28 East, the W/2 of said Section 1 to be dedicated to the well.

CASE 6782: Application of Inexco Oil Company for an exception to Order No. R-3221, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221 to permit disposal of produced brine into an unlined surface pit located in Unit H of Section 7, Township 19 South, Range 33 East.

CASE 6783: Application of McClellan Oil Corporation for an unorthodox oil well location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Marlisue State Well No. 6 located 1355 feet from the North line and 2475 feet from the West line of Section 24, Township 14 South, Range 29 East, Double "L"-Queen Associated Pool, the NE/4 NW/4 of said Section 24 to be dedicated to the well.

CASE 6784: Application of Merrion & Bayless for a non-standard proration unit and an unorthodox gas well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 640-acre non-standard gas proration unit comprising the W/2 of Section 18 and the W/2 of Section 19, Township 32 North, Range 14 West, Barker Creek-Paradox Pool, to be dedicated to its Ute Well No. 7 at an unorthodox location 1685 feet from the South line and 3335 feet from the East line of said Section 19.

In the alternative, applicant seeks an order force pooling all of said Section 19 to form a standard 640-acre unit.

CASE 6785: Application of The Harlow Corporation for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the San Andres formation underlying the SW/4 SW/4 of Section 18, Township 8 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

Memo

From

FLORENE DAVIDSON
ADMINISTRATIVE SECRETARY

To

Called in by Bob Strand
December 7, 1979

Harvey E. Yates Company
New Onshore Reservoir

Loco Hills Welch # 2-N

66015 + 1980/W

Section 4 - T18S-R29E

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. 6778

Order No. R-6249

APPLICATION OF HARVEY E. YATES
COMPANY FOR AN NGPA DETERMINATION,
EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on January 3
19 80, at Santa Fe, New Mexico, before Examiner Richard L. Stamets

NOW, on this _____ day of January, 19 80, 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 (6) 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. 2, located in Unit N of
Section 4, 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 with perforations from 10896 to 10910 feet, and a plugged-back depth of 11371 feet after having been drilled to a total depth of 11430 feet.

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

See Finding 6
W. Yates
available well logs demonstrate that the subject well is completed in a stray sand encountered in a section commonly containing ^{a non-productive} shale ~~lies on~~ or ~~on~~ ^{tight} sand facies ^{found} in such ^{other} wells.

(5) That the 3500 pound shut-in pressure encountered by said well is indicative of an uncharged reservoir.

REGULATORY COMMISSION.

IT IS THEREFORE ORDERED:

(1) That the Harvey E. Yates Company Loco Hills Welch Well No. 2, located in Unit N of Section 4, Township 18 South, Range 29 East, NMPM, Eddy County, New Mexico, is completed in a new onshore reservoir as defined by Sections 2 (6) and 102 (c) of the Natural Gas Policy Act of 1978, and the applicable rules of the Federal Energy Regulatory Commission. ~~with~~

(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.