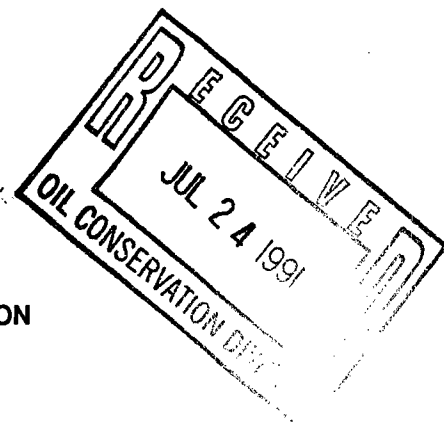


July 23, 1991

VIA FEDERAL EXPRESS

Mr. Michael Stogner
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504



Re: **APPLICATION FOR AN UNORTHODOX WELL LOCATION**
Proposed Merit-Record "35" Well No. 1
990' FSL & 990' FEL of Sec. 35, T19S, R35E
Lea County, New Mexico



Dear Mr. Stogner:

Mitchell Energy Corporation is requesting approval of an unorthodox location for the subject well at a location 990' FSL and 990' FEL of Section 35, T19S, R35E, Lea County, New Mexico. Our review of this area indicates that the primary objective Morrow sands are probably partially depleted at all orthodox locations on this proration unit, but that a well at the proposed location should be able to recover reserves which cannot be recovered by any existing well. Accordingly, we believe approval of the this application will prevent physical waste of hydrocarbons. We offer six exhibits in support of this application. Following is a summary of each exhibit:

- 1) Land Plat
The land plat attached shows all offset operators, our 320 acre stand-up drilling unit and the proposed unorthodox well location.
- 2) Isopach - Net Morrow Sand
This isopach shows a NE-SW trending Morrow sand thick over the proposed location in the SW/4 of Sec. 35, T19S, R35E. The Morrow sands in this area appear to have come from both a NW and a NE direction.
- 3) Structure Map - T/Morrow Sands
The structure at the top of the Morrow sands shows a complex pattern of faulting associated with the Central Basin Platform. The proposed unorthodox location lies along a NE-SW trending structural ridge.
- 4) Stratigraphic Cross Section H-H'
This cross section illustrates the complex nature of the Morrow sands. The Morrow reservoirs in this area are composed of several thin discontinuous lenses of sand.

5) Volumetric Drainage Estimates and Plat for Henry Record Well No. 1 and H.S. Record Well No. 2

The Henry Record Well No. 1 (Sec. 26, 1, T19S, R35E) was drilled and completed in the Pearl North (Morrow) field (a correlative zone as shown on the enclosed cross-section). The well has produced 48, 109 BO and 1.471 BCFG from perforations at 12,528' - 12,533'. Based on this information we have calculated an estimated radial drainage area of 335 acres for this well.

started only currently producing from the Pearl Sand

The H.S. Record Well No. 2 was drilled 1959 and completed in the Morrow sands of the Pearl Penn Field. This well had cumulative production of 49,129 BO with no reported gas production from perforations at 12,642' - 12,666'. Since we do not have any reported gas production information on this well the attached volumetric drainage estimate for the H.S. Record No. 2 is based on the assumption that it produced with the same average producing GOR as the Henry Record No. 1. Based on this assumption we have calculated an estimated radial drainage area of 131 acres for this well.

The Plat attached with this exhibit reflects the location of the above discussed two wells, the assumed drainage radius around each well, all legal well locations and our proposed *unorthodox location*.

6) Waiver Letters

As shown on Exhibit 1 (Land Plat) there are three offset operators to our stand-up 320 acre drilling unit. We have received waiver letters (attached) from Mobil and Merit Energy Company. We expect to receive the third waiver from Marathon in the near future and we will forward same to your office as soon as possible.

Should you require additional information or if I can be of any further help in this matter, kindly advise.

Very truly yours,

MITCHELL ENERGY CORPORATION

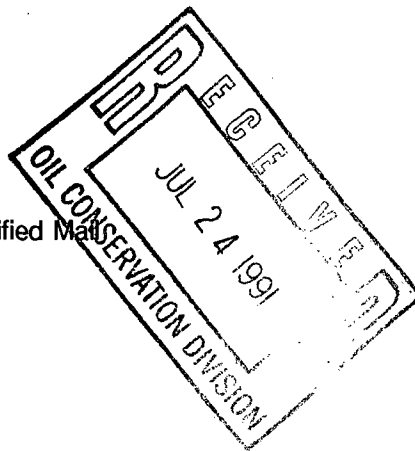
George Mullen
George Mullen

Regulatory Affairs Specialist

GM:mtb
3gunorth.lt

cc: Oil Conservation Division - Hobbs, NM
Merit Energy Partners - Certified Mail
Marathon Oil Company - Certified Mail
Mobil Exploration & Producing U.S. Inc. - Certified Mail

enc.





STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

OIL CONSERVATION DIVISION
RECEIVED

'91 AUG 8 AM 8 54

7-31-91

BRUCE KING
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RE: Proposed:

MC	_____
DHC	_____
NSL	<u>X</u> _____
NSP	_____
SWD	_____
WFX	_____
PMX	_____

Gentlemen:

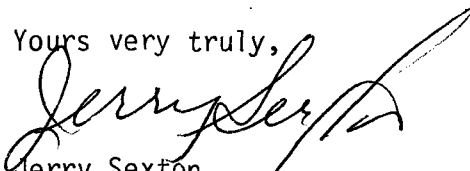
I have examined the application for the:

Mitchell Energy Corp. merit-Record "35" #1-P 35-19-35
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly,


Jerry Sexton
Supervisor, District 1

/ed

H. S. Record #2

(35G, T19S-R35E)

Volumetric Drainage Estimate

Given: Perforations 12,643-12,664'
Cumulative Production = 49,129 BO No reported gas

ϕ = 12.6%
Sw = 30.0%
h = 12.0 Ft.

From logs

IBHP = 6320 psi
Rp = 31,250 SCF/BBL
API = 41°
Gas Gr. = .765
Bgi = .002688 CF/SCF

From DST
Average produced gas/oil ratio of the
correlative interval in the H.S. Record #1
Reported
Reported

Assumed: FBHP = 632 psi
Bga = .026357 CF/SCF

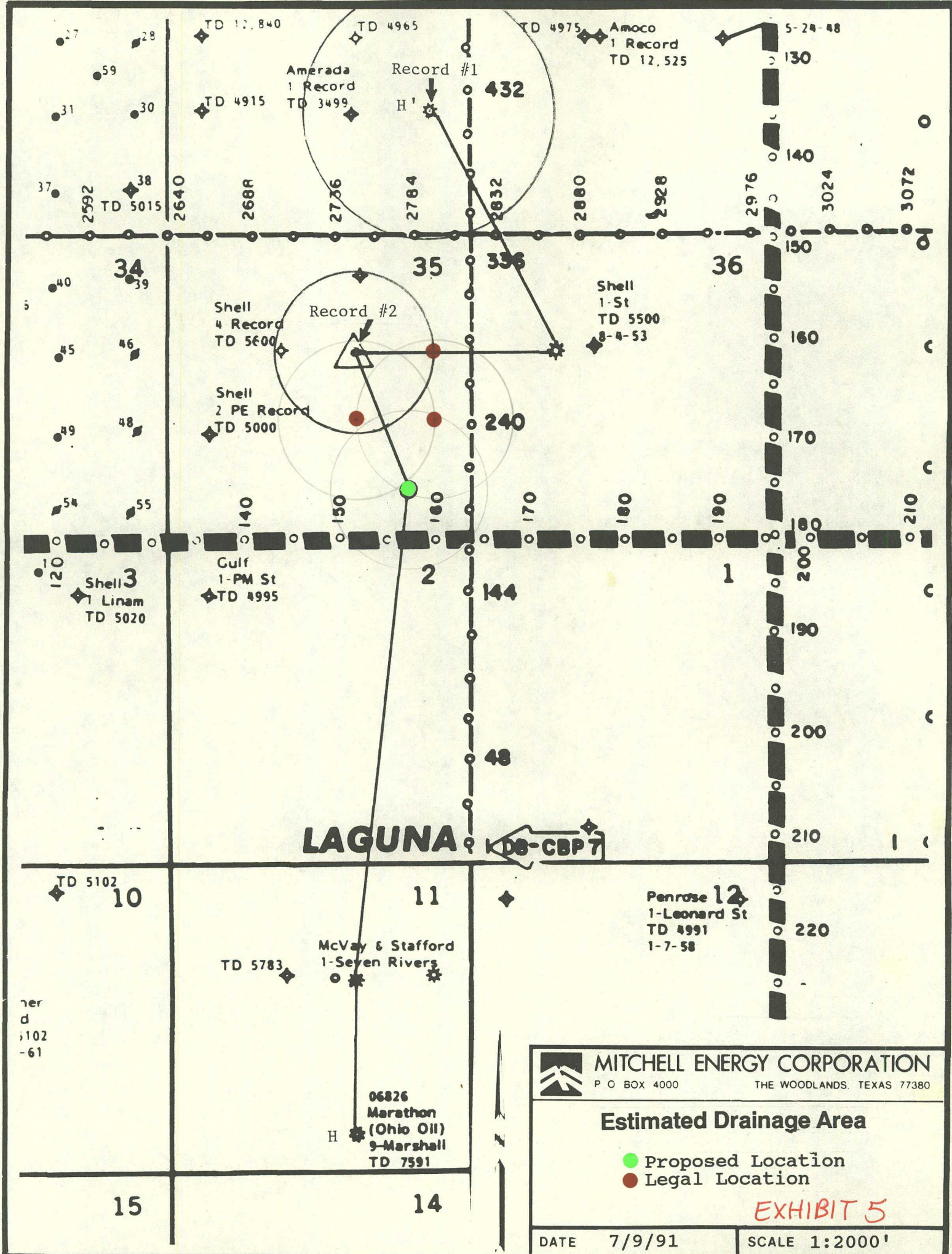
Estimated Unit Recovery = 977 MCF/AcFt.

Estimated Unit Recovery/Acre = 977 MCF/AcFt (12 Ft.) = 11,725 MCF/Ac.

*** Assuming the same average producing ratio as the H. S. Record #1,
Cumulative gas production for the H. S. Record #2 is estimated at
1,535,000 MCFG. ***

Estimated Drainage Area = $\frac{1,535,000 \text{ MCF}}{11,725 \text{ MCF/Acre}}$ = 131 Acres

Estimated Drainage Radius = 1,350 Ft.



INTENTIONAL OMISSIONS

The following document(s) have been intentionally omitted from this file due to the indicated reasons.

FILE # NSL 3038

DESCRIPTION OF OMITTED DOCUMENTS

OMITTED DOCUMENT

REASON OMITTED

Exhibit 4 - Coyote Prospect
STRATIGRAPHIC Cross Section Too Large

H. S. Record #1

(26I, T19S-R35E)

Volumetric Drainage Estimate

Given: Perforations 12,528-12,533'
Cumulative Production = 48,109 BO 1,470,941 MCFG

ϕ	= 11.0%	
Swi	= 17.0%	From logs
h	= 5 Ft.	
IBHP	= 6493 psi	From DST
Rp	= 31,250 SCF/BBL	Average produced gas/oil ratio
API	= 50.8°	Reported
Gas Gr.	= .987	Reported
Bgi	= .0030447 CF/SCF	

Assumed: FBHP = 649 psi
Bga = .0234355 CF/SCF

Estimated Unit Recovery = 878 MCF/AcFt.

Estimated Unit Recovery/Acre = 878 MCF/AcFt (5 Ft) = 4,390 MCF/Ac

Estimated Drainage Area = $\frac{1,470,941 \text{ MCF}}{4,390 \text{ MCF/Ac}}$ = 335 Acres

Estimated Drainage Radius = 2,155 Ft.

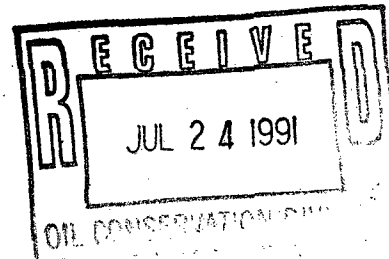


EXHIBIT 5

OIL CONSERVATION DIVISION
RECEIVED

'91 AUG 14 AM 8 40

June 24, 1991

VIA FEDERAL EXPRESS

Marathon Oil Company
125 West Missouri
Midland, TX 79701

RECEIVED

AUG 09 1991

Re: UNORTHODOX WELL LOCATION
MERIT-RECORD "35" WELL NO. 1
LEA COUNTY, NEW MEXICO

PRODUCTION
REGULATORY AFFAIRS



Gentlemen:

This is to advise that Mitchell Energy Corporation is requesting an exception to State of New Mexico's Rule 104 C. II. (a) for the above subject well. The proposed location of our Merit-Record "35" No. 1 is as follows:

990' FSL and 990' FEL of Section 35, T19S, R35E,
Lea County, New Mexico

If you, as a offsetting operator, have no objections to the above request, please indicate by signing in the space provided below and return two copies of this letter to the undersigned in the enclosed self-addressed envelope. The third copy is for your file completion.

Thank you in advance for your prompt attention to this matter and if I can be of any further help, kindly advise.

Very truly yours,

MITCHELL ENERGY CORPORATION

George Mullen
George Mullen
Regulatory Affairs Specialist

GM:mtb

WAIVE OBJECTION TO MERIT RECORD "35" WELL NO. 1 LOCATION ABOVE:

COMPANY: Marathon Oil Company BY: Paul Wedel

TITLE: Landman DATE: 8/6/91

enc.

PLEASE USE BLACK INK ONLY!!!!!!!!!!!!!!

FACSIMILE TRANSMISSION ROUTING SLIP

DATE: 8-9-91
MESSAGE TO: MICHAEL STOGNER
COMPANY NAME: OIL CONSERVATION DIVISION
CITY: SANTA FE NEW MEXICO
FACSIMILE NUMBER: (505) 827-5741
MESSAGE FROM: GEORGE MULLEN
NUMBER OF PAGES INCLUDING THIS SHEET: 2
RETURN BY MAIL _____ THROW AWAY WHEN SENT X

!!!!!!!!!!!!!! IF THIS IS A LONG DISTANCE CALL, PLEASE LEAVE
YOUR LONG DISTANCE CODE NUMBER!!!!!!!!!!!!!!

COMMENTS: MICHAEL,
THIS IS THE LAST WAIVER LETTER
WE NEEDED FOR OUR UNORTHODOX WELL
LOCATION. I'LL PUT THE ORIGINAL
IN THE MAIL TO YOU TODAY. THANKS
AGAIN FOR YOUR HELP.

George Mullen

IF YOU DO NOT RECEIVE ALL PAGES, PLEASE CALL TRACI AT
(713)377-5929. THANK YOU!

June 24, 1991

VIA FEDERAL EXPRESS

Marathon Oil Company
125 West Missouri
Midland, TX 79701

RECEIVED

AUG 09 1991

Re: UNORTHODOX WELL LOCATION
MERIT-RECORD "35" WELL NO. 1
LEA COUNTY, NEW MEXICO

REGULATORY AFFAIRS



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MITCHELL ENERGY CORPORATION

George Mullen
George Mullen
Regulatory Affairs Specialist

GM:mtb

WAIVE OBJECTION TO MERIT RECORD "35" WELL NO. 1 LOCATION ABOVE:

COMPANY: Marathon Oil Company BY: [Signature]TITLE: Landman DATE: 8/6/91

enc.

MITCHELL ENERGY CORPORATION 2001 TIMBERLOCH PLACE
P.O. BOX 4000, THE WOODLANDS, TEXAS 77387-4000 713/377-5500
A subsidiary of Mitchell Energy & Development Corp.

June 20, 1991

VIA FEDERAL EXPRESS

Merit Energy Partners, L.P.
Merit Energy Partners II, L.P.
Merit Energy Partners III, L.P.
Attn: Mr. Joe Marek
12221 Merit Drive, Suite 1040
Dallas, TX 75251

Re: UNORTHODOX WELL LOCATION
MERIT-RECORD "35" WELL NO. 1
LEA COUNTY, NEW MEXICO



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RECEIVED

JUN 26 1991

PRODUCTION
REGULATORY AFFAIRS

GM:mtb

Very truly yours,

MITCHELL ENERGY CORPORATION

George Mullen
George Mullen
Regulatory Affairs Specialist

WAIVE OBJECTION TO MERIT RECORD "35" WELL NO. 1 LOCATION ABOVE:

COMPANY: Merit Energy Co BY: Joe A Marek
TITLE: V.P. DATE: 6/21/91

enc.

June 20, 1991

VIA FEDERAL EXPRESS

Mobil Exploration & Producing U.S., Inc.
P.O. Box 633
Midland, TX 79702

RECEIVED

JUL 15 1991

Re: UNORTHODOX WELL LOCATION
MERIT-RECORD "35" WELL NO. 1
LEA COUNTY, NEW MEXICO

PRODUCTION
REGULATORY AFFAIRS



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MITCHELL ENERGY CORPORATION

George Mullen
Regulatory Affairs Specialist

GM:mtb

WAIVE OBJECTION TO MERIT RECORD "35" WELL NO. 1 LOCATION ABOVE:

COMPANY: MOBIL

BY:

DANNY BEQUENO

TITLE: STAFF LANDMAN

DATE: 7/10/91

enc.

H. S. Record #1

(26I, T19S-R35E)

Volumetric Drainage Estimate

Given: Perforations 12,528-12,533'
Cumulative Production = 48,109 BO 1,470,941 MCFG

ϕ = 11.0%
Swi = 17.0% From logs
h = 5 Ft.

IBHP = 6493 psi From DST
Rp = 31,250 SCF/BBL Average produced gas/oil ratio
API = 50.8° Reported
Gas Gr. = .987 Reported
Bgi = .0030447 CF/SCF

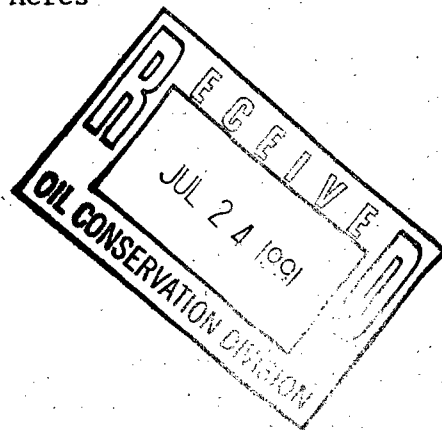
Assumed: FBHP = 649 psi
Bga = .0234355 CF/SCF

Estimated Unit Recovery = 878 MCF/AcFt.

Estimated Unit Recovery/Acre = 878 MCF/AcFt (5 Ft) = 4,390 MCF/Ac

Estimated Drainage Area = $\frac{1,470,941 \text{ MCF}}{4,390 \text{ MCF/Ac}}$ = 335 Acres

Estimated Drainage Radius = 2,155 Ft.



H. S. Record #2

(35G, T19S-R35E)

Volumetric Drainage Estimate

Given: Perforations 12,643-12,664'
Cumulative Production = 49,129 BO No reported gas

ϕ = 12.6%
Sw = 30.0%
h = 12.0 Ft.

From logs

IBHP = 6320 psi
Rp = 31,250 SCF/BBL

From DST

Average produced gas/oil ratio of the
correlative interval in the H.S. Record #1

API = 41°

Reported

Gas Gr. = .765

Reported

Bgi = .002688 CF/SCF

Assumed: FBHP = 632 psi
Bga = .026357 CF/SCF

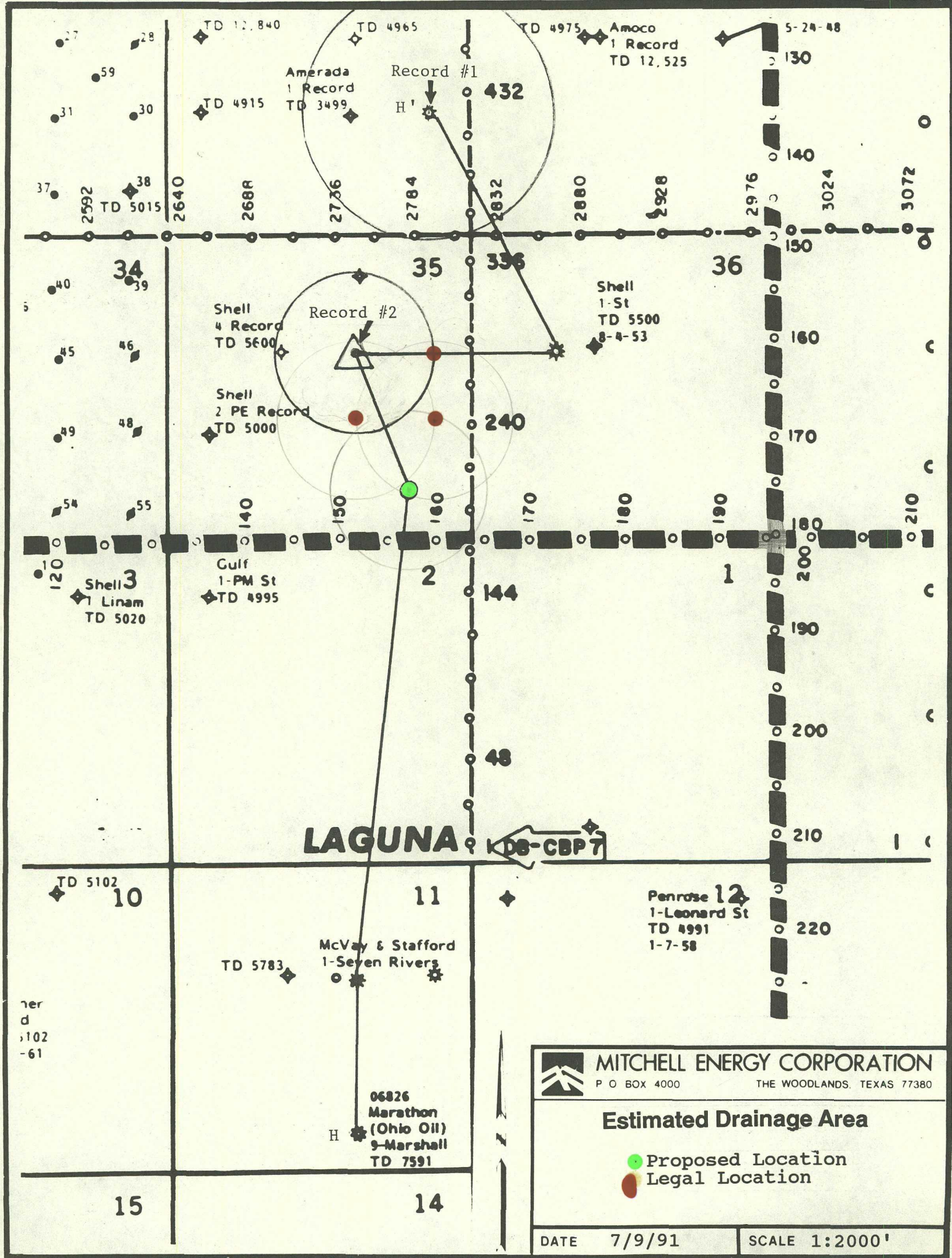
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Estimated Unit Recovery/Acre = 977 MCF/AcFt (12 Ft.) = 11,725 MCF/Ac.

*** Assuming the same average producing ratio as the H. S. Record #1,
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1,535,000 MCFG. ***

Estimated Drainage Area = $\frac{1,535,000 \text{ MCF}}{11,725 \text{ MCF/Acre}}$ = 131 Acres

Estimated Drainage Radius = 1,350 Ft.





MITCHELL ENERGY CORPORATION
 P O BOX 4000
 THE WOODLANDS, TEXAS 77380

Estimated Drainage Area

- Proposed Location
- Legal Location

DATE 7/9/91

SCALE 1:2000'

Enclosure 5

June 20, 1991

VIA FEDERAL EXPRESS

Mobil Exploration & Producing U.S., Inc.
P.O. Box 633
Midland, TX 79702

RECEIVED

JUL 15 1991

Re: UNORTHODOX WELL LOCATION
MERIT-RECORD "35" WELL NO. 1
LEA COUNTY, NEW MEXICO

PRODUCTION
REGULATORY AFFAIRS



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Very truly yours,

MITCHELL ENERGY CORPORATION

George Mullen
George Mullen
Regulatory Affairs Specialist

GM:mtb

WAIVE OBJECTION TO MERIT RECORD "35" WELL NO. 1 LOCATION ABOVE:

COMPANY: MOBIL

BY: *[Signature]*

DANNY BEQUENO

TITLE: STAFF LANDMAN

DATE: 7/10/91

enc.

June 20, 1991

VIA FEDERAL EXPRESS

Merit Energy Partners, L.P.
Merit Energy Partners II, L.P.
Merit Energy Partners III, L.P.
Attn: Mr. Joe Marek
12221 Merit Drive, Suite 1040
Dallas, TX 75251

Re: UNORTHODOX WELL LOCATION
MERIT-RECORD "35" WELL NO. 1
LEA COUNTY, NEW MEXICO



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Lea County, New Mexico

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Thank you in advance for your prompt attention to this matter and if I can be of any further help, kindly advise.

RECEIVED

JUN 26 1991

PRODUCTION
REGULATORY AFFAIRS

GM:mtb

Very truly yours,

MITCHELL ENERGY CORPORATION

George Mullen
George Mullen
Regulatory Affairs Specialist

WAIVE OBJECTION TO MERIT RECORD "35" WELL NO. 1 LOCATION ABOVE:

COMPANY: Merit Energy Co BY: Joe A Marek
TITLE: U.P. DATE: 6/21/91

enc.

MITCHELL ENERGY CORPORATION 2001 TIMBERLOCH PLACE
P.O. BOX 4000, THE WOODLANDS, TEXAS 77387-4000 713/377-5500
A subsidiary of Mitchell Energy & Development Corp.

EXHIBIT 6

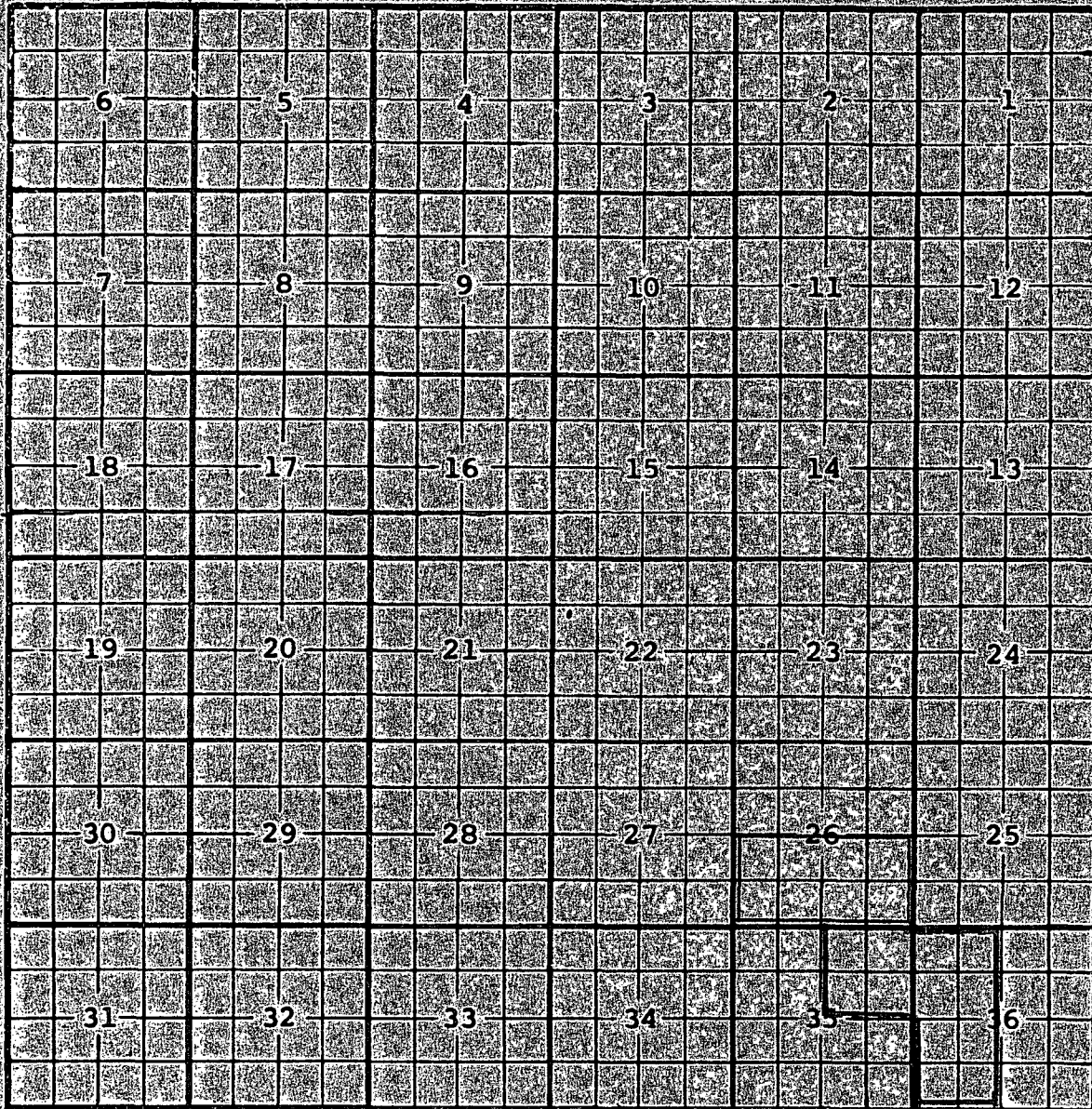
COUNTY Lea

POOL North Pearl - Morrow Gas

TOWNSHIP 19 South

RANGE 35 East

NMPM



Description: 5/2 Sec. 26 (R-4969, 4-1-75)

Ext. NE 1/4 Sec. 35, W 1/2 Sec. 36 (R-9544, 7-1-91)