

Southern U.S. Business Unit
Domestic Production



**Marathon
Oil Company**

P. O. Box 552
Midland, TX 79702-0552
Telephone 915/682-1626

Yates Asset Team
FAX 915/687-8287

Fax

Date: 10/11
To: RICHARD EZEANYIM
Company: NMOCD
Phone No.: 505 476 3471
Re: INDIAN HILLS U. #30

From: WALTER DUEEASE
Phone No.: 915-687-8294
Total No. of Pages (Including this Cover Page): 23

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply

Comments:

COPIES OF: ORIGINAL APPLICATION 8/3/01, ADMIN. COVER
SHEET HAND DELIVERED TO MR. STAGNER 8/8/01,
CLARIFICATION OF IHU #6 AS AN ATOKA COMPLETION.

THANKS FOR YOUR HELP

If you do not receive all of the pages or if there is a problem receiving this fax,
please call Dana at 915/687-8288.

Southern Business Unit
Domestic Production



**Marathon
Oil Company**

P.O. Box 552
Midland, TX 79702-0552
Telephone 915/682-1626

August 3, 2001

Mr. Michael Stogner
Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, New Mexico 87504

RE: *Application for administrative approval for an exception to the well location requirements provided within the "Special Rules and Regulations for the Indian Basin Morrow Gas Pool," as promulgated by the New Mexico Oil Conservation Division Orders No. R-8170-O-1/R-2441-B, issued in Case No. 11512 and dated July 31, 1996, and R-8170-O-2/R-2441-C, dated August 15, 1996, for the infill well, Indian Hills Unit Well No. 30.*

Dear Mr. Stogner:

Marathon Oil Company respectfully requests administrative approval to produce the Morrow formation from the unorthodox bottom hole location of Indian Hills Unit Well No. 30. This well has a surface location of 1494' FSL and 688' FWL, Section 20, Township 21 South, Range 24 East. The top of Morrow formation is at 1493' FNL and 1523' FWL, and the bottom of the Morrow formation is at 1364' FNL and 1578' FWL of Section 20, Township 21 South, Range 24 East (please see Attachment #1 - Bottom hole location of Indian Hills Unit Well No. 30). This well is unorthodox in the Morrow formation because it infringes upon the 330-foot quarter-quarter setbacks as set forth by the above referenced Division Orders.

In support of this application, details will be provided as to why the Indian Hills Unit Well No. 30 was not drilled to a standard Morrow bottom hole location. These details will include a discussion of how the well fits into Marathon's reservoir management plan, the surface location of the well, the direction plan, and drilling history of the well.

Reservoir Management Plan:

Marathon's original plan for the Indian Hills Unit Well No. 30 was for the well to be a temporary Devonian disposal well for 6-24 months. As Marathon enters its final anticipated infill development phase of the Indian Basin Associated Pool, water production is reaching peak levels. Water removal from the Upper Pennsylvanian formation is critical to lowering reservoir pressure and allowing co-production of the remaining recoverable oil and gas reserves. Marathon's water production is expected to temporarily exceed the current disposal capacity provided by its five existing Devonian

disposal wells. Thus Marathon had a need for a temporary Devonian disposal well. Marathon's reservoir model of the Upper Pennsylvanian formation suggests that in the next one to two years, water production from the field will decline as the aquifer supporting the reservoir will not be able to support the numerous high volume wells producing from the Upper Pennsylvanian formation. The need for the additional disposal capacity is expected to last no more than two years.

After abandoning the Devonian, the Indian Hills Unit Well No. 30 was planned to become the Upper Pennsylvanian producer for the NW/4 of Section 20. This location provides the 160-acre well spacing that Marathon currently believes is optimal for gas recovery from the Upper Pennsylvanian formation. This is also advantageous for the location of the Devonian because the well's bottom hole location is located approximately one half mile away from the current salt water disposal wells and hence minimizes the risk of pressure interference with current disposal wells.

Marathon's third and final objective of the Indian Hills Unit Well No. 30 was to evaluate the Morrow formation in the NW/4 of Section 20. The Indian Basin Morrow Gas Pool continues to be a secondary objective that can only be economically explored in conjunction with the drilling of an Upper Pennsylvanian well (please refer to Page 2, subsection 5(a) of Case No. 11512, dated July 31, 1996, regarding Division Order R-8170-Q-1).

Spiraling drilling costs have forced Marathon to prematurely end the year 2001 drilling program and ultimately reconsider how the Indian Hills Unit Well No. 30 can be best utilized. Because no additional wells will be drilled this year, Marathon's current water disposal capacity is expected to remain adequate for at least six to twelve months. Hence the Indian Hills Unit Well No. 30 will not be completed in the Devonian until sometime in the year 2002. If the water production decline from the field exceeds current expectations, additional salt water disposal may never be needed. Marathon cannot complete Indian Hills Unit Well No. 30 to the Upper Pennsylvanian formation at this time because the current disposal wells will not be able to handle the anticipated 10,000 barrels of water per day that such a completion could produce. Therefore, at this point in time, the Indian Hills Unit Well No. 30 is an unutilized wellbore.

Surface Location:

In planning a surface location for Indian Hills Unit Well No. 30, several considerations had to be made prior to selecting the current location of 1494' FSL and 688' FWL in Section 20 (please see Attachment #2 - Surface Topographic/Facility map). Extensive topographical relief throughout Section 20 resulted in the well being pushed into the SW/4 of the section. By placing the well in close proximity to the existing Rocky Hills #2 salt-water disposal well and using a portion of its drilling pad, Marathon was able to significantly reduce surface disturbance. The final benefit of the location is the close proximity to the existing injection facilities, which thus minimizes the environmental risk associated with disposal lines.

Directional Plan

Marathon's directional plan for Indian Hills Unit Well No. 30 was designed primarily around the desired bottom hole locations of the Upper Pennsylvanian and Devonian formations. Because the Morrow was the lowest priority horizon for the Indian Hills Unit Well No. 30, the downhole location was optimized for the Upper Pennsylvanian and Devonian formations. Two geologic features dominated the directional planning for the Indian Hills Unit Well No. 30. The first of these is a fault that cuts north-south through Section 20 (please see Attachment #3 - Structure Map of the Upper Pennsylvanian formation). The second feature is the transition zone between the productive dolomite facies and the non-productive limestone facies of the Upper Pennsylvanian formation.

Marathon does not currently have 3D seismic data over Section 20. As a result, the precise location of the fault and the transition zone are not known. Marathon wanted to remain a safe distance from both of the above geologic features. Since there is limited information on the nature of the fault in Section 20, it is currently unknown if the fault is a sealing feature or an open flow conduit. If the bottom hole location was to have encroached on the fault, Marathon is concerned that a sealing fault could limit injectivity into the Devonian. On the flip side, if the fault is an open conduit, water disposal near the fault could result in water migration up the fault into the Upper Pennsylvanian formation. Indian Hills Unit Well No. 30 is a northern step-out in the Upper Pennsylvanian from existing production. Due to the poor well control of the dolomite/limestone transition zone, the directional plan attempted to keep a sufficient distance from the transition zone to ensure sufficient dolomite was drilled to efficiently drain the NW/4 of Section 20.

Drilling History:

Marathon ultimately had severe difficulty drilling the Indian Hills Unit Well No. 30. A total of 107 days and nearly \$5,000,000 were spent drilling the well due to multiple sidetrack attempts. In order to hit the bottom hole targets desired by the reservoir management plan from the surface location selected, Indian Hills Unit Well No. 30 had to be directionally drilled into the NW/4 of Section 20 resulting in a directional kick of over 2500' to the top of the Devonian formation.

While drilling the original directional plan, the drill string became stuck in the Upper Pennsylvanian at ~8200' due to differential sticking and what was believed to be sloughing shale from the Wolfcamp formation. Fishing operations for the bottom hole assembly were unsuccessful and Marathon was forced to sidetrack around the fish. The first sidetrack was kicked off at ~6100' to the east of the original well path (please refer to Attachment #4). Unfortunately, the first sidetrack became stuck again in the Upper Pennsylvanian formation at ~8100'. This time, torque and drag resulting from numerous doglegs up the hole and differential sticking were believed to be the cause. Fishing operations were again unsuccessful thus leaving a 400' fish in the hole.

After revising the casing program and the directional drilling technique, the well was plugged back to above 4000' to get above the doglegs that were believed to be primarily responsible for losing the first sidetrack. In order to further minimize doglegs on the second sidetrack, Marathon had to sidetrack to the west of the original directional plan. Marathon was ultimately able to successfully drill the well to total depth.

Waivers:

All offset operators have been notified by Certified Mail of Marathon's intentions of producing the Unorthodox Morrow bottom hole location in Indian Hills Unit Well No. 30. Enclosed is a copy of the waiver letter that was sent to all offset operators.

Marathon regrets that this unorthodox application was not submitted prior to drilling the well to a nonstandard location. Several members of our team attended your recent Industry Training Seminar presentation in Midland, Texas on May 16, 2001. Because the Indian Hills Unit Well No. 30 was spudded on April 7 of this year, Marathon was unable to apply what we learned in your course to this well. However, we now have a much clearer understanding of the importance of ensuring all potentially productive formations are penetrated at orthodox locations. Further, where an orthodox location is not possible for all depths, we are now aware that administrative approval for any unorthodox formation should be received prior to commencement of drilling operations.

Should you have any questions/comments/concerns, please contact me at (915) 687-8306.

Respectfully,



Steven F. Millican
Operations Engineer
Marathon Oil Company

DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II

P.O. Drawer DD, Artesia, NM 86211-0710

DISTRICT III

1000 Rio Bravos Rd., Aztec, NM 87410

DISTRICT IV

P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico

Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

Form C-102

Revised February 10, 1994

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
		Indian Basin Morrow
Property Code	Property Name	Well Number
	INDIAN HILLS UNIT	30
OGED No.	Operator Name	Elevation
14021	MARATHON OIL COMPANY	3783'

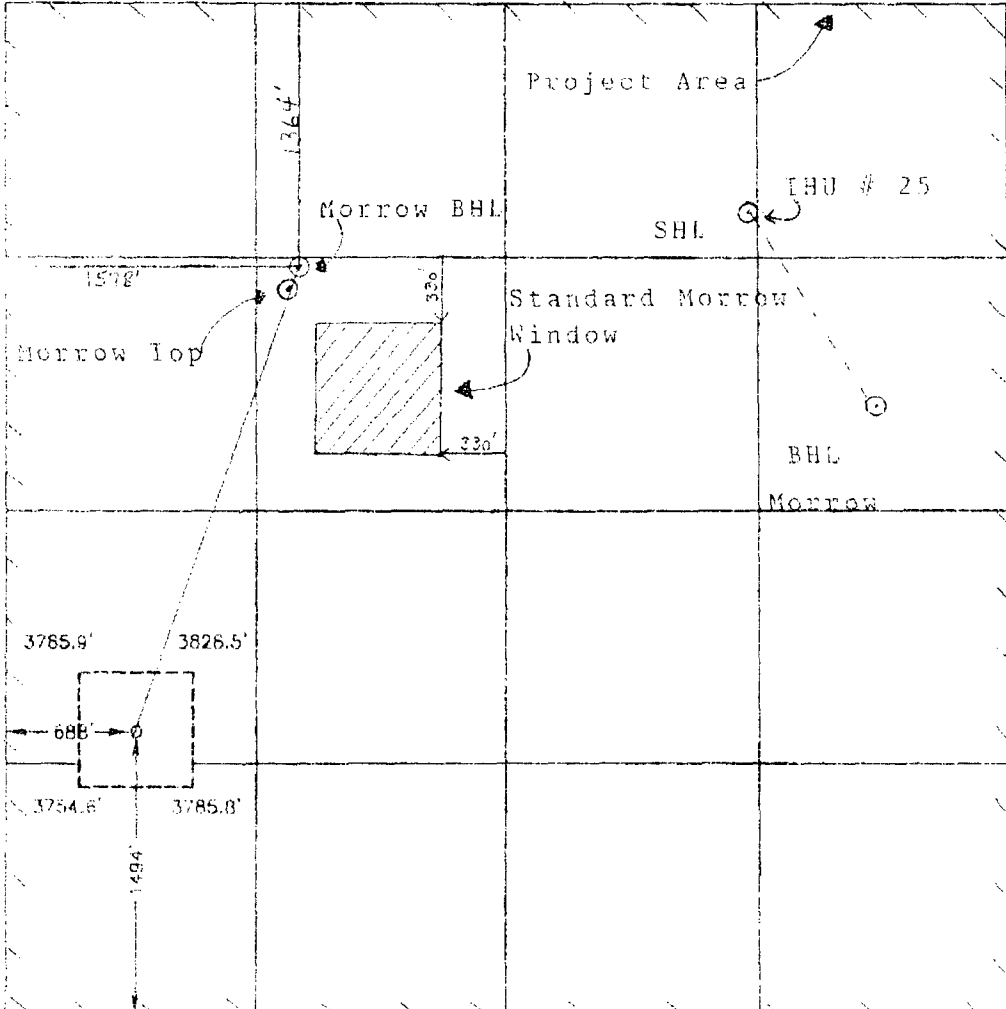
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	20	21-S	24-E		1494	SOUTH	588	WEST	EDDY

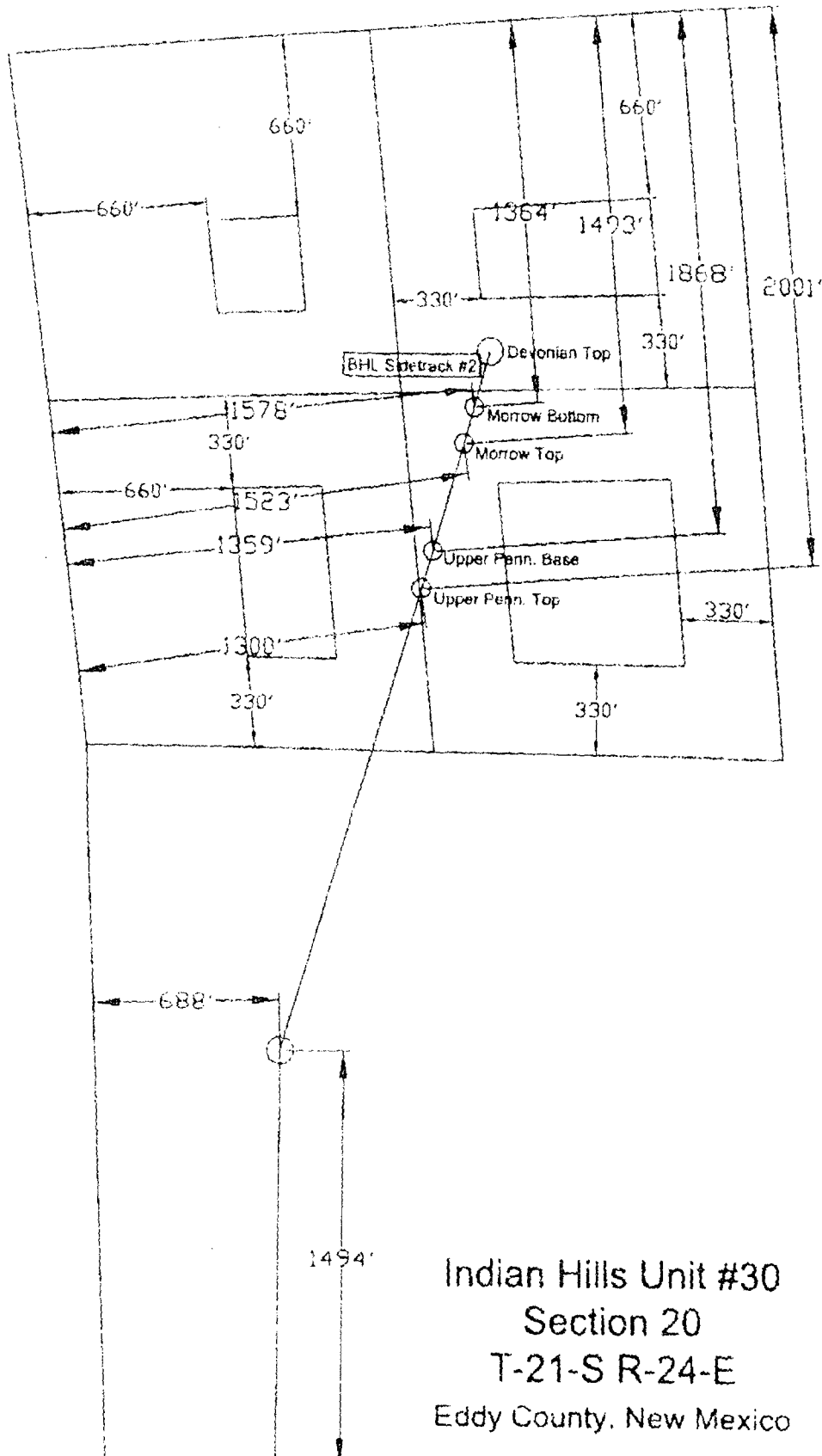
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	20	21-S	24-E		1364	NORTH	1578	WEST	EDDY
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						
0.40									

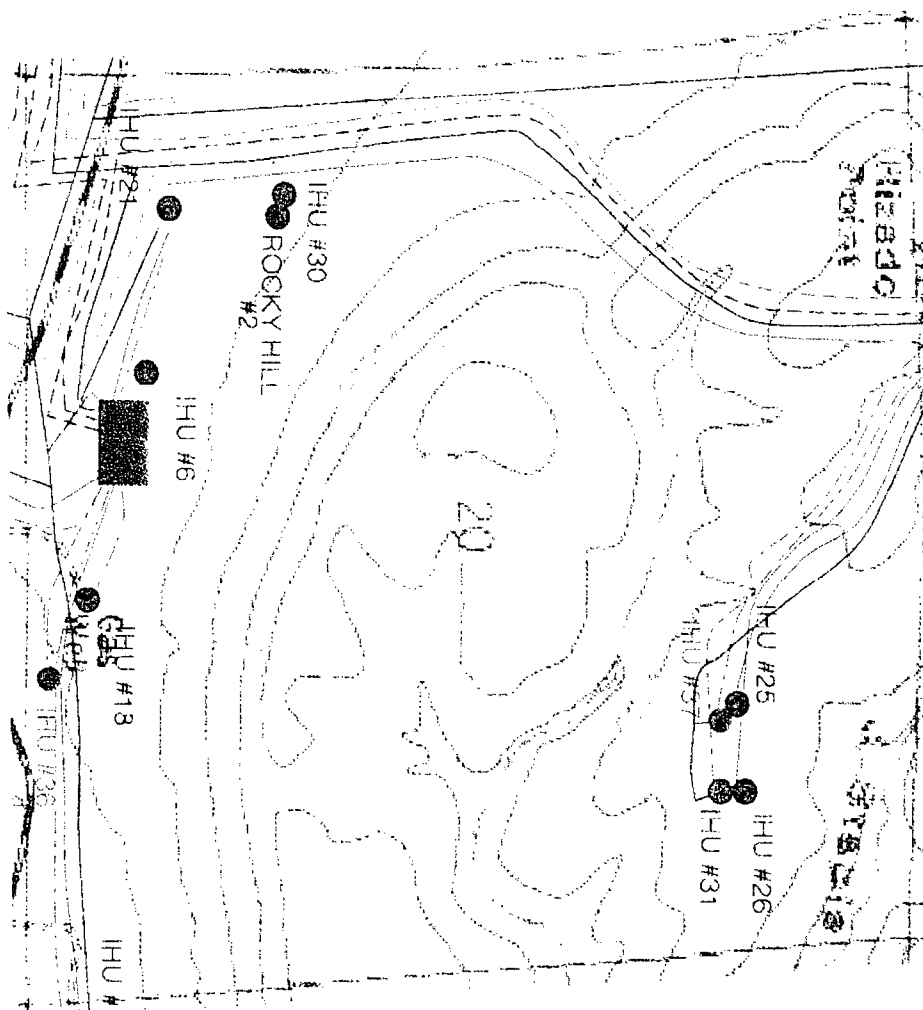
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature: <u>Jerry Fletcher</u> Printed Name: <u>Jerry Fletcher</u> Engineer Tech. Title: <u>8/03/01</u> Date: <u>8/03/01</u>
	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief. JANUARY 30, 2001 Date Surveyed: <u>AWB</u> Signature & Seal of Professional Surveyor: <u>Ronald J. Eidson</u> Certificate No. <u>01-11-0165</u>
	Certificate No. <u>RONALD J. EIDSON 3239</u> <u>GARY EIDSON 12641</u>

ATTACHMENT # 1

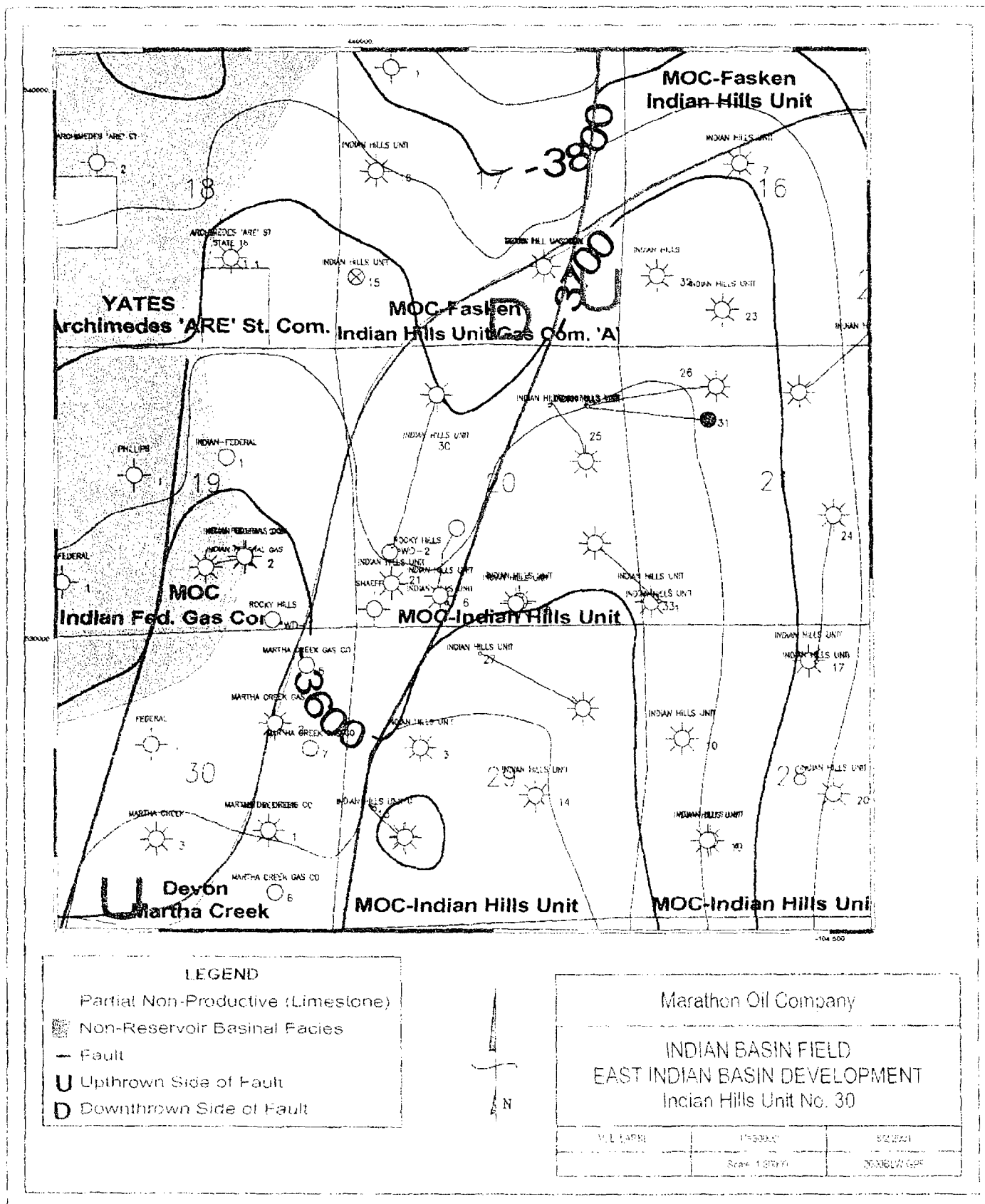


ATTACHMENT #2



- PRODUCING WELLS
- PENDING WELLS
- PLANNED WELLS
- CONTINGENT WELLS
- EXISTING DUAL FLOWLINES
- PROPOSED DUAL FLOWLINES
- EXISTING ELECTRICAL LINES
- PROPOSED ELECTRICAL LINES
- FLUID GATHERING SYSTEM
- OIL GATHERING SYSTEM
- LOW PRESSURE GAS GATHERING SYSTEM
- HIGH PRESSURE GAS GATHERING SYSTEM
- COMPRESSOR FUEL LINE
- COMPRESSOR DISCHARGE LINE
- PROPOSED MORROW GAS GATHERING SYSTEM
- SMD INJECTION LINE
- == ROADWAY
- △ CENTRAL FACILITY
- SATELLITE STATIONS
- COMPRESSOR STATION

ATTACHMENT # 3



ATTACHMENT # 4

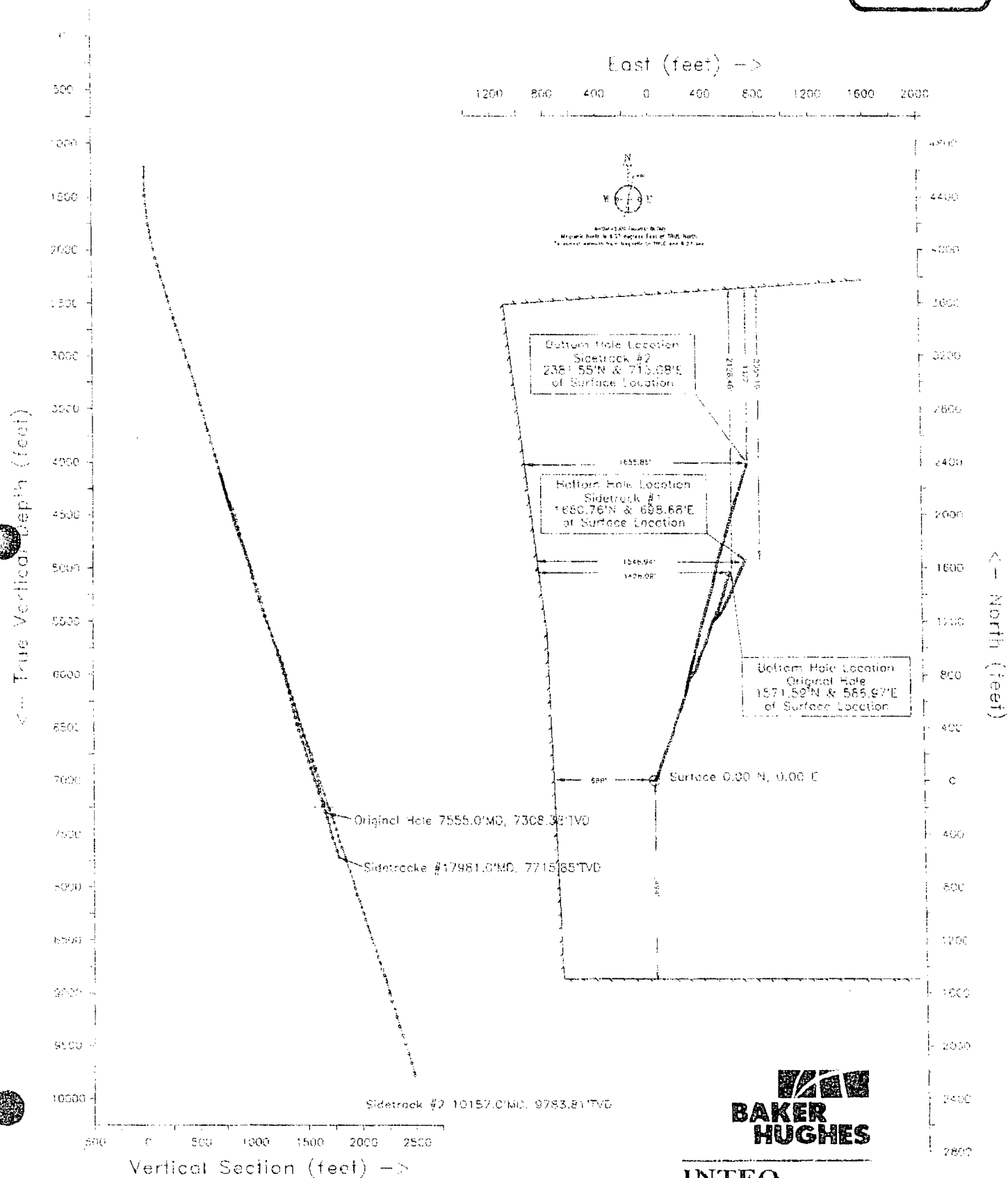
Marathon Oil Company

Structure : Indian Hills Unit No. 30

Slot : slot #1

Field : Indian Basin

Location : EDDY COUNTY, NM.



Azimuth 16.21 with reference 0.00 N, 0.00 E from slot #1

08/08/2001 13:24

0000042047

W. THOMAS KELLAHIN

FAX: 915 687 8287

KELLAHIN AND KELLAHIN

ATTORNEYS AT LAW

EL PATIO BUILDING

117 NORTH GUADALUPE

POST OFFICE BOX 2265

SANTA FE, NEW MEXICO 87504-2265

TELEPHONE (505) 962-4288

TELEFAX (505) 962-2047

W. THOMAS KELLAHIN

NEW MEXICO BOARD OF LEGAL SPECIALIZATION
RECOGNIZED SPECIALIST IN THE AREA OF
NATURAL RESOURCES-OIL AND GAS LAW

JASON KELLAHIN (RETIRED 1991)

FACSIMILE COVER SHEETDATE: August 8, 2001
TIME: 2:30 PM

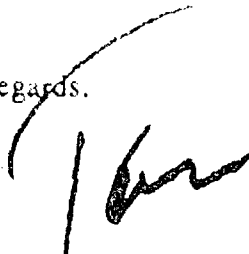
NUMBER OF PAGES: -3-

TO: Ginny Larke
OF: Marathon Oil Company
FAX NO: (915) 687-~~8287~~ 8305REF: NMOCD Administrative Application
Indian Hills Unit Well No. 30
unorthodox well location**MESSAGE:**

Dear Ginny:

I would appreciate you delivering the attached to Steve Millican.

Regards,


W. Thomas Kellahin

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KELLAHIN AND KELLAHIN

ATTORNEYS AT LAW

EL PATIO BUILDING

117 NORTH GUADALUPE

POST OFFICE BOX 2268

SANTA FE, NEW MEXICO 87504-2268

TELEPHONE (505) 982-4285

TELEFAX (505) 982-2047

W. THOMAS KELLAHIN*

NEW MEXICO BOARD OF LEGAL SPECIALIZATION
RECOGNIZED SPECIALIST IN THE AREA OF
NATURAL RESOURCES-OIL AND GAS LAW

JASON KELLAHIN (RETIRED 1991)

August 8, 2001

HAND DELIVERED

Mr. Michael E. Stogner
Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

RE: Indian Hills Unit Well No. 30
Indian Basin-Morrow Gas Pool
Administrative Application of
Marathon Oil Company for Approval
of an Unorthodox Subsurface Location,
Eddy County, New Mexico

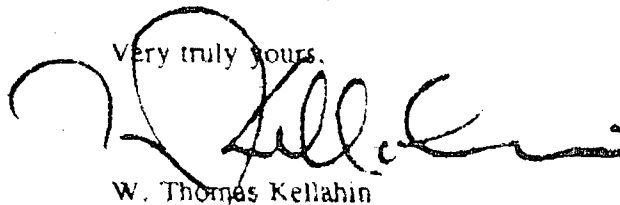
Dear Mr. Stogner:

On behalf of Marathon Oil Company ("Marathon"), please find enclosed their administrative application for approval of an unorthodox oil well location for its Indian Hills Unit Well No. 30 which has been drilled from a surface location of 1494 feet FSL and 688 feet FWL to a bottom hole location in the Morrow formation of 1364 feet FNL and 1578 feet FWL. Section 20, T21S, R24E and dedicated to a standard 640-acre gas proration and spacing unit consisting of all of Section 20 for production from the Indian Basin-Morrow Gas Pool.

The primary objective of the well had been as a Devonian SWD well. However, as Mr. Millican explains in his letter, Marathon changes its plan and ultimately elected to complete the well in the Morrow formation. The pool rules require standard well locations to be not closer than 660 feet to the outer boundary nor closer than 330 feet to any interior quarter-quarter section line. The well is too close to the north and east boundaries of the SW/4NW/4 of this section. Because this is an interior encroachment, it is my understanding that no notification is required to either the Morrow owners in the NW/4 of this section or offset operators/working interest owners in Sections 17, 18 or 19.

If you have any questions or if I have mistakenly interpreted the notification rules, please call me.

Very truly yours,



W. Thomas Kellahin

fx: Marathon Oil Company
Attn: Steven F. Millican

DATE IN	SUPERVISOR	ENGINEER	LOGGED IN	TIME	APP NO.
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms

[NSL-Non-Standard Location] [NSP-Non-Standard Production Unit] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS-Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

1) TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication

☒ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

2) NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

3) SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

4) CERTIFICATION: I hereby certify that the information submitted with this application for administrative approval is accurate and complete to the best of my knowledge. I also understand that no action will be taken on this application until the required information and notifications are submitted to the Division.

Note: Signature must be completed by an individual with managerial and/or supervisory capacity.

Print or Type Name

KELLAHIN & KELLAHIN

Attorneys At Law

P.O. Box 2265

Santa Fe, N.M. 87504-2265

Signature

Attorney

Title

Date

t.kellahin@worldnet.att.net

e-mail Address

Southern Business Unit
Domestic Production



P.O. Box 552
Midland, TX 79702-0552
Telephone 915/682-1626

October 2, 2001

W. Thomas Kellahin
Kellahin & Kellahin
El Patio Building
117 North Guadalupe
Post Office Box 2265
Santa Fe, New Mexico 87504-2265

Re: Indian Hills Unit Well No. 6

Dear Tom:

As per our conversation this afternoon, I have been able to confirm that the Indian Hills Unit Well No. 6 was mistaken filed as a Morrow recompletion after a March 1999 workover. The well was actually completed in the Atoka formation. On June 1, 2001, Ginny Larke submitted pool correction notices to both the New Mexico Oil Conservation Division (NMOCD) in Artesia and the Bureau of Land Management (BLM) in Roswell.

In order to help clarify the well history, I have made a plot of the production from Indian Hills Unit Well No. 6. This plot is annotated with comments that explain what formation is producing at any given time. I was unable to locate a copy of a C-102 for the Atoka formation and therefore had Jerry Fletcher prepare a new copy. In addition, I have included the corrective filings made to the BLM for information purposes.

Below is a summary of the attachments included with this letter:

- 1.) Indian Hills Unit Well No. 6 Well/Production History
- 2.) Letter, dated June 1, 2001, from Ginny Larke to Tim Gum, NMOCD, Artesia
- 3.) Form C-104, submitted 6/1/01, correcting pool name to Atoka
- 4.) Form C-102, dated 10/02/01, showing well location & dedication of Atoka
- 5.) Form C-102, dated 10/16/87, original filling to drill the Indian Hills Unit #6
- 6.) Letter, dated June 1, 2001, from Ginny Larke to Gary Gourley, BLM, Roswell
- 7.) BLM Form 3160-4, submitted 6/1/01, correcting pool code to Atoka
- 8.) BLM Form 3160-5, submitted 6/1/01, correcting pool code to Atoka

Please contact me at (915) 687-8306 if there is any additional information that I may provide if further clarification is required.

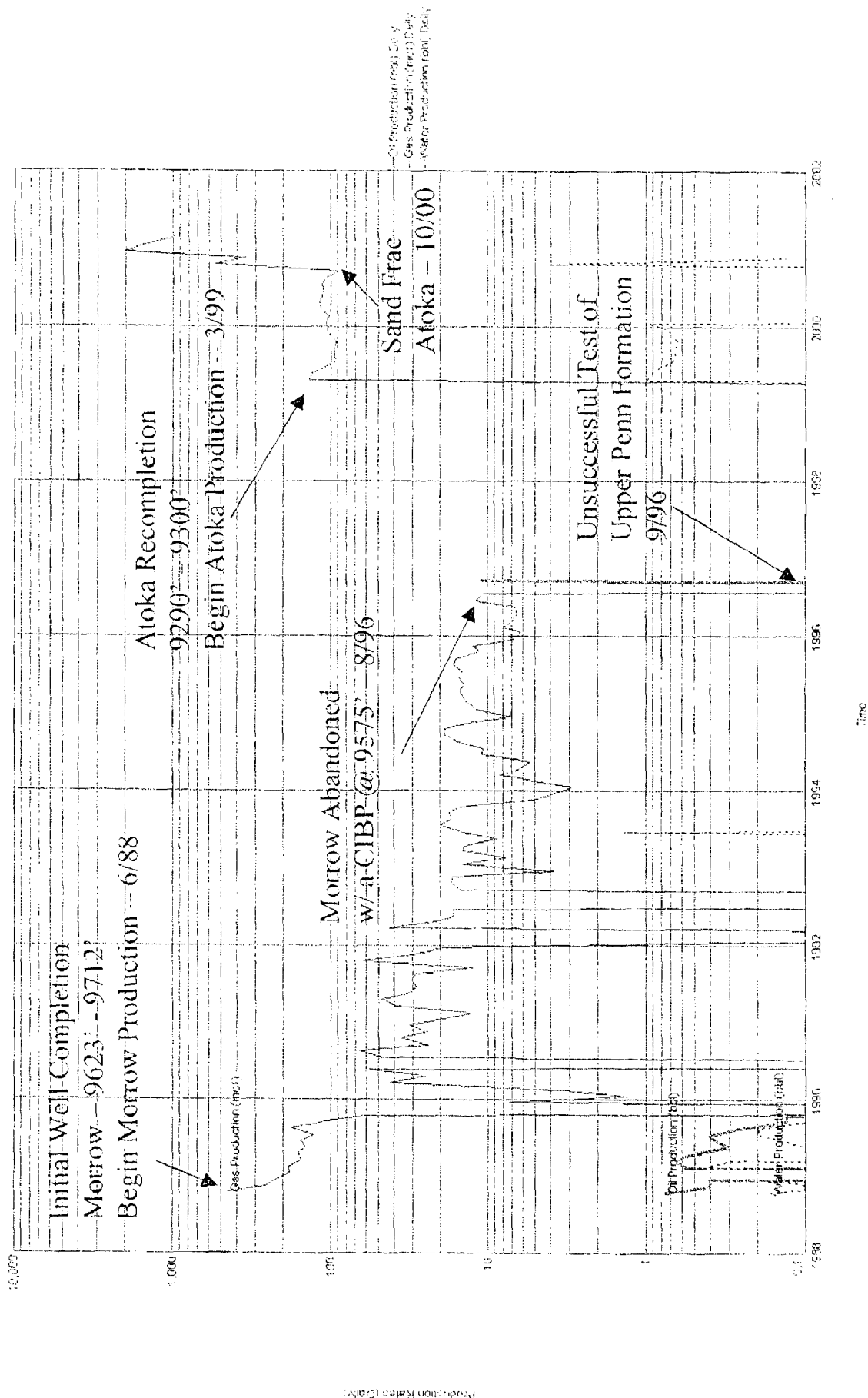
Respectfully,

A handwritten signature in black ink, appearing to read 'S. Millican'.

Steven F. Millican
Operations Engineer
Marathon Oil Company

Indian Hills Unit Well No. 6 History

INDIAN HILLS UNIT - INDIAN BASIN



Southern U.S. Business Unit
Domestic Production



**Marathon
Oil Company**

P.O. Box 552
Midland, TX 79702-0552
Telephone 915/682-1626

June 1, 2001

New Mexico Oil Conservation Division
Attn: Mr. Tim Gum
811 South First Street
Artesia, New Mexico 88210

Dear Mr. Gum,

Per our phone conversation of May 31, 2001, I am sending you the corrected completion forms for the Indian Hills Unit Well No. 6 Atoka completion. As we discussed, I was under the impression that the Atoka formation in this area was a part of the Morrow reservoir. Attached you will find a corrected completion form for this well along with a copy of the sundry notice that was originally sent in, and a corrected C-104.

Please let me know if I need to turn in any other forms to get everything corrected. I appreciate your help and understanding in this matter.

Sincerely,

A handwritten signature in cursive script that reads 'Ginny Larke'.

Ginny Larke
Engineer Technician

Attachments

xc: Gary Gourley
Bureau of Land Management

District J
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-104
Revised March 25, 1999

Submit to Appropriate District Office
5 Copies

☒ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

1 Operator name and Address Marathon Oil Company P.O. Box 552 Midland, Texas 79702		2 OGRID Number 014021
		3 Reason for Filing Code Pool Correction
4 API Number 30-0 30-015-25827	5 Pool Name Indian Basin Atoka (Gas)	6 Pool Code 78920
7 Property Code 6409	8 Property Name Indian Hills Unit	9 Well Number 6

II. Surface Location

11 Well or lot no. N	Section 20	Township 21S	Range 24E	Lot. Idn	Feet from the 560	North/South Line South	Feet from the 1550	East/West line West	County Hddy
--------------------------------	----------------------	------------------------	---------------------	----------	-----------------------------	----------------------------------	------------------------------	-------------------------------	-----------------------

Bottom Hole Location

11 Well or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
12 Use Code F	13 Producing Method Code P	14 Gas Connection Date 3/14/99	15 C-129 Permit Number	16 C-129 Effective Date	17 C-129 Expiration Date				

III. Oil and Gas Transporters

18 Transporter OGRID	19 Transporter Name and Address	20 POD	21 O/G	22 POD ULSTR Location and Description

IV. Produced Water

23 POD	24 POD ULSTR Location and Description

V. Well Completion Data

25 Spud Date	26 Ready Date	27 TD	28 PBTD	29 Perforations	30 DHC, MC
31 Hole Size	32 Casing & Tubing Size	33 Depth Set	34 Sacks Cement		

VI. Well Test Data

35 Date New Oil	36 Gas Delivery Date 3/14/99	37 Test Date	38 Test Length	39 Tbg. Pressure	40 Csg. Pressure
41 Choke Size	42 Oil	43 Water	44 Gas	45 AOF	46 Test Method

47 I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: *Ginny Larke*

Printed name:
Ginny Larke

Title:
Engineer Technician

Date:
6/1/01

Phone:
800-351-1417

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

48 If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature

Printed Name

Title

Date

Oct 11 01 02:30p

MOC - Yates Asset Team

915 687 8287

p.18

DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

Revised February 10, 1994

Submit to Appropriate District Office

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Fee Lease - 3 Copies

DISTRICT II

P.O. Drawer DD, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

P.O. Box 2088, SANTA FE, N.M. 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-25827	Pool Code 78920	Pool Name Indian Basin Atoka (Gas)
Property Code 6409	Property Name Indian Hills Unit	Well Number 6
UGRP No. 14021	Operator Name MARATHON OIL COMPANY	Elevation 3753' G.L.

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	20	21-S	24-E		560	SOUTH	1550	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	20	21-S	24-E		1803	SOUTH	1857	WEST	EDDY
Dedicated Acres 320 W/2	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. Signature Jerry Fletcher Printed Name Engineer Tech. Title 10/02/01 Date
	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief. Date Surveyed Signature & Seal of Professional Surveyor Certificate No.

OCT-11-01 THU

11:50

915 687 8287

P.18

MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-1
Effective 1-1-85

All distances must be from the outer boundaries of the Section.

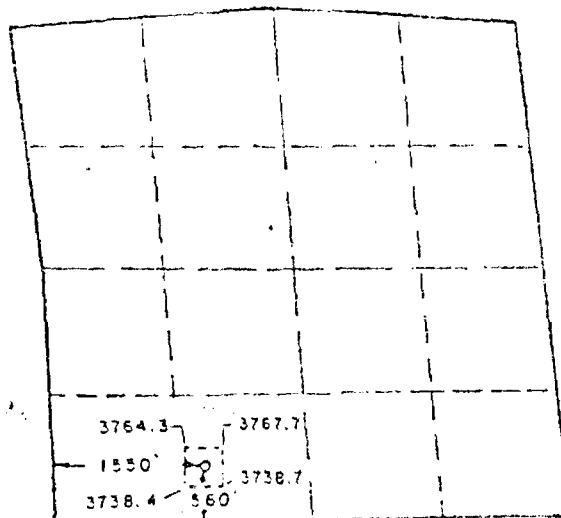
Operator MARATHON OIL COMPANY		Lease INDIAN HILLS UNIT		Well No. 6
Unit Letter N	Section 20	Township 21 SOUTH	Range 24 EAST	County EDDY
Actual Footage Location of Well:				
560 feet from the SOUTH line and 1550 feet from the WEST line				
Ground Level Elev. 3752.7'	Producing Formation Morrow	Pool Morrow	Dedicated Acreage: 640 Acres	

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

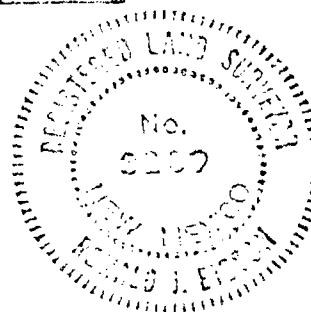
☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (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.



SCALE 1" = 2000'



CERTIFICATION

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

Terry L. Rivers
Name

Terry L. Rivers

Position

Dist. Dir. Superintendent

Company

Marathon Oil Company

Date

October 28, 1987

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

OCTOBER 16, 1987

Registered Professional Engineer
and a Land Surveyor

Ronald J. Eason
Certificate No. JOHN W. WEST 6

Southern U.S. Business Unit
Domestic Production



**Marathon
Oil Company**

P.O. Box 552
Midland, TX 79702-0552
Telephone 915/682-1626

June 1, 2001

Bureau of Land Management
Attn: Mr. Gary Gourley
2909 West Second Street
Roswell, New Mexico 88201

Dear Mr. Gourley,

It has come to my attention that I have filed completion forms for a well that had been recompleted in the Atoka formation as being in the Indian Basin Morrow Gas Pool. I was under the impression that the Atoka formation in the Indian Basin area was a part of the Morrow reservoir. I called Tim Gum, District Manager of the Oil Conservation Division in Artesia to confirm this, and He told me that the Atoka is not a part of the Morrow reservoir, and that I needed to send in corrected completion forms. Attached you will find the corrected completion form, 3160-4, for the Indian Hills Unit Well No. 6 Atoka completion along with the corrected sundry notice and a copy of the sundry notice that was originally sent in.

Please let me know if I need to turn in any other forms to get your records on this well corrected. Thank you for your help and understanding in this matter.

Sincerely,

A handwritten signature in cursive script that reads 'Ginny Larke'.

Ginny Larke
Engineer Technician

Attachments

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

OPERATOR'S COPY

OMB NO. 1004-0137

Expires: February 28, 1995

Form 3160-4
July 1992)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> DRY <input type="checkbox"/> Other _____		7. UNIT AGREEMENT NAME Indian Hills Unit	
b. TYPE OF COMPLETION: NEW WELL <input type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP-EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DUFF RESERVE <input checked="" type="checkbox"/> Other CORRECTION		8. FARM OR LEASE NAME, WELL NO. Indian Hills Unit 6	
2. NAME OF OPERATOR Marathon Oil Company		9. API WELL NO. 30-015-25827	
3. ADDRESS AND TELEPHONE NO. P.O. Box 552, Midland, TX 79702 915-686-1626		10. FIELD AND POOL, OR WILDCAT Indian Basin Atoka (Gas)	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface UL "N", 560' FSL & 1550' FWL At top prod. interval reported below UL "N", 1722' FSL & 1797' FWL At total depth UL "N", 1804' FSL & 1930' FWL		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec 20, T-21-S, R-24-E	
14. PERMIT NO.		DATE ISSUED	
15. DATE SPUDDED		16. DATE T.D. REACHED	
17. DATE COMPL. (Ready to prod.) 2/26/99		18. ELEVATIONS (DI, RKB, RT, GR, ETC.)* GL: 3753 KB: 3769	
19. ELEV. CASING HEAD		20. TOTAL DEPTH, MD & TVD 9620' MD	
21. PLUG BACK T.D., MD & TVD 9565' MD		22. IF MULTIPLE COMPL., HOW MANY* NO	
23. INTERVALS DRILLED BY ROTARY TOOLS		CABLE TOOLS	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)* MD 9290'-9300' ATOKA		25. WAS DIRECTIONAL SURVEY MADE	
26. TYPE ELECTRIC AND OTHER LOGS RUN		27. WAS WELL CORDED	

CASING RECORD (Report all strings set in well)					
CASING SIZE/GRADE	WEIGHT, LB/FT	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
See		Original	Completion	Report	

LINER RECORD				TUBING RECORD		
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)
					2 7/8"	9155'
						9122'

PERFORATION RECORD (Interval, size and number)		ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
9290'-9300' 6 SPF		DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
		9290'-9300'	NO STIMULATION

PRODUCTION							
DATE FIRST PRODUCTION 3/14/99		PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump) FLOWING				WELL STATUS (Producing or shut-in) Producing	
DATE OF TEST 3/14/99	HOURS TESTED 24	CHOKE SIZE 34/64	PROD'N. FOR TEST PERIOD →	OIL - BBL 0	GAS - MCF 154	WATER - BBL 0	GAS - OIL RATIO N/A
FLOW, TUBING PRESS. 140	CASING PRESSURE 0	CALCULATED 24-HOUR RATE →	OIL - BBL	GAS - MCF	WATER - BBL	GR. GRAVITY - API (CORR.)	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) SOLD		35. LIST OF ATTACHMENTS	
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records		TEST WITNESSED BY JUN 7 2001 GARY GOURLEY PETROLEUM ENGINEER	
SIGNED: <u>Garry Gourley</u>	TITLE: <u>Engineer Technician</u>	DATE: <u>6/1/01</u>	

*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Form 3160-3
(August 1999)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

OPERATOR'S COPY

Do not use this form for proposals to drill or to re-enter an
abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name Indian Hills Unit
2. Name of Operator Marathon Oil Company		7. If Unit or CA/Agreement, Name and/or No. Indian Hills Unit
3a. Address P.O. Box 552, Midland, TX 79702		8. Well Name and No. Indian Hills Unit #6
3b. Phone No. (include area code) 515-682-1626		9. API Well No. 30-015-25827
4. Location of Well (For use by BLM, or Survey Description) UL "N", S60' T20N R24E Section 20, T-21-S, R-24-E		10. Field and Pool, or Exploratory Area Indian Basin Atoka (Gas)
		11. County or Parish, State Eddy NM

CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input checked="" type="checkbox"/> Acidize <input type="checkbox"/> Deepen <input checked="" type="checkbox"/> Production (Start/Resume) <input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Air-Casing <input type="checkbox"/> Fracture Treat <input type="checkbox"/> Reclamation <input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair <input type="checkbox"/> New Construction <input type="checkbox"/> Recomplete <input type="checkbox"/> Temporarily Abandon
	<input type="checkbox"/> Change Plans <input type="checkbox"/> Plug and Abandon <input type="checkbox"/> Water Disposal
	<input type="checkbox"/> Convert to Injection <input type="checkbox"/> Plug Back

12. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and any other pertinent information thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent intervals and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

CORRECTION!!! RESERVOIR NAME CHANGE ONLY.

Work comm. 10/99. MIRR PU. NU BOP & Torus. POOH w/ 2-7/8" tbg. RIH w/4-3/4" bit on 5-1/2" casing to 9102' & washed to 9135'. PU swivel & drilled to 9142'. POOH w/bit & scraper. RIH w/4-1/2" tbg. magnet to retrieve lost bit cones. Tagged @ 9145' & washed to solid bed @ 9157'. POOH w/magnet to cone. RIH w/ magnet, tagged @ 9157', washed to 9190' & POOH recovered cone. RIH w/bit & DCs on 2-7/8" tbg. Tagged @ 9190' & washed to 9575' w/no returns. Drilled 1" to 9428'. Circ. & POOH L/D DCs. RIH w/perf gun, RU wireline & ran GR/CCL. Spaced out guns & p. 990' to 9300' w/6 spf for a total of 60 holes. RIH w/prod. tbg & PLS packer. Couldn't get below 910'. PUH to 9055'. Set packer. ND BOP & NU tree. RU swab unit & swabbed well. RD PU & turned well to production 2/26/99.

original approved by (BLM) Gary Gandy 6-7-01 see the recompletion form for date stamp

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Ginny Larke	Title Engineering Technician Date 6/1/01
--	---

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to these rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

Title 18 U.S.C. Section 1001, and Title 18 U.S.C. Section 1212, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.