



**Marathon
Oil Company**

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

393-7106

November 4, 1991

Mr. Michael E. Stogner
Energy, Minerals and Natural Resources Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87501

RE: Request for Exemption to Rule 303-A
Downhole Commingling
Pioneer Federal Com No. 1
Section 19, T-21-S, R-27-E
Wildcat ~~La Huerta~~ Strawn, La Huerta Atoka
Eddy County, New Mexico

Dear Mr. Stogner: *Undersigned*

Marathon Oil Company respectfully requests Administration approval for an Exemption to Rule 303-A to permit the downhole commingling of production from the ~~La Huerta~~ *Wildcat* Strawn and the La Huerta Atoka *Pus* Pools in the subject well.

The above referenced well was recompleted to the La Huerta Strawn and the La Huerta Atoka and put on production at the time of the workover. Our interpretation was that both perforated intervals were in the Strawn, however, after review by the State of New Mexico Geologist, Darryl Moore, it was brought to Marathon Oil Company's attention that both the Strawn and Atoka had been perforated.

While a definitive zone test has not been conducted on the two zones separately based on pressure response, it is believed that the vast majority of the current production is from the La Huerta Strawn. Due to the overpressured nature of the zones in question, Marathon Oil Company feels that further wellbore testing and zone isolation would pose unnecessary risks from both safety and economic standpoints. Marathon would however conduct more definitive zone testing during the next necessary workover procedure.

All ownership (WI, Royalty, and ORRI) in the wellbore is the same. As required, additional information is attached and all offset operators are being notified by copy of this application.

Mr. Michael E. Stogner

November 4, 1991

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Wildcat
In summary, Marathon feels that as a prudent operator, we can effectively downhole commingle the ~~La Huerta~~ ⁶⁰³ Strawn and La Huerta Atoka and maximize production by doing so. We look forward to your approval of this application.

Sincerely,

Undesignated

Steven P. Guidry

Steven P. Guidry
Production Superintendent

ATTACHMENT NO. 1

Request for exemption to Rule 303-A

Pioneer Federal Com No. 1

Wildcat Gas
~~La Huerta~~ (Strawn), La Huerta (Atoka) pools
Eddy County, New Mexico *Gas*

Undesignated
Reference: Section C-2 Rule 303

- A. Marathon Oil Company
P. O. Box 552
Midland, TX 79702
- B. Pioneer Federal Com No. 1
Unit G, 1980' FNL & 1740' FEL
Section 19, T-21-S, R-27-E
Eddy county, New Mexico (See attachment No. 2 Form 3160-5)
- C. Plat of area can be seen on attachments 3 & 4.
- D. Form C-116 for ~~La Huerta~~ *Wildcat* Strawn Completion (Attachment 5)
Form C-116 for La Huerta Atoka Completion (Attachment 6)
- E. Natural Completion - Both the ~~La Huerta~~ *Undesignated* Strawn & ~~La Huerta~~ *Gas* Atoka were perforated and hooked up to flow w/no stimulation. Based on pressure response following perforating, the La Huerta Strawn is providing the majority of the wells production.
- F. Bottomhole pressure for both zones in question was estimated from hydrostatic fluid column used during workover operations.

La Huerta Strawn - 4621 PSI

La Huerta Atoka - 4729 PSI
- G. Fluids have been analyzed and no incompatibilities exist.
- H. Analysis of the produced fluid indicates no reduction in value from commingling.

- I. Estimated production assuming 90% contribution for the ~~La Huerta~~ Strawn based on pressure response following perforating.

<u>Zone</u>	<u>Oil (BOPD)</u>	<u>Oil (%)</u>	<u>Gas (MCFPD)</u>	<u>Gas (%)</u>	<u>Water (BWPD)</u>
<i>Wildcat</i> La Huerta Strawn <i>Gas</i> (Estimated)	13.5	90	2285.8	82.8	0
<i>Undesignated</i> La Huerta Atoka <i>Gas</i> (Estimated)	1.5	10	476.2	17.2	0

- J. By copy of this letter via certified mail, we are notifying all offset operators of the proposed commingling.

ATTACHMENT NO. 2

Form 3160-5
(June 1990)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Marathon Oil Company

3. Address and Telephone No.

P. O. Box 552 Midland, TX 79702

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Unit G 1980' FNL & 1740' FEL
Sec. 19, T-21-S, R-27-E

5. Lease Designation and Serial No.

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Pioneer Federal Com #1

9. API Well No.

30-015-24777

10. Field and Pool, or Exploratory Area

La Huerta-Strawn/Atoka *gas*

11. County or Parish, State

Eddy County, New Mexico *Wilder Strawn*

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒
- Notice of Intent
-
- ☐
- Subsequent Report
-
- ☐
- Final Abandonment Notice

TYPE OF ACTION

- ☐
- Abandonment
-
- ☐
- Recompletion
-
- ☐
- Plugging Back
-
- ☐
- Casing Repair
-
- ☐
- Altering Casing
-
- ☒
- Other
- Downhole Commingle*
-
- ☐
- Change of Plans
-
- ☐
- New Construction
-
- ☐
- Non-Routine Fracturing
-
- ☐
- Water Shut-Off
-
- ☐
- Conversion to Injection
-
- ☐
- Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Request authorization to downhole commingle the La Huerta Strawn and La Huerta Atoka zones.

14. I hereby certify that the foregoing is true and correct

Signed Steven P. Guidry *Steven P. Guidry* Title Production SuperintendentDate 11-5-91

(This space for Federal or State office use)

Approved by _____
Conditions of approval, if any:

Title _____

Date _____

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 statement or representations as to any matter within its jurisdiction.

*See instruction on Reverse Side

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

P.O. Drawer DD, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Marathon Oil Company			Lease Pioneer Federal		Well No. 1
Unit Letter G	Section 19	Township 21S	Range 27E	County NMPM Eddy	
Actual Footage Location of Well:					
1980 feet from the North line and		1740 feet from the East line			
Ground level Elev. 3181	Producing Formation <i>Wildcat</i> La Huerta Strawn	Pool La Huerta Strawn	Dedicated Acreage: 320 Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.

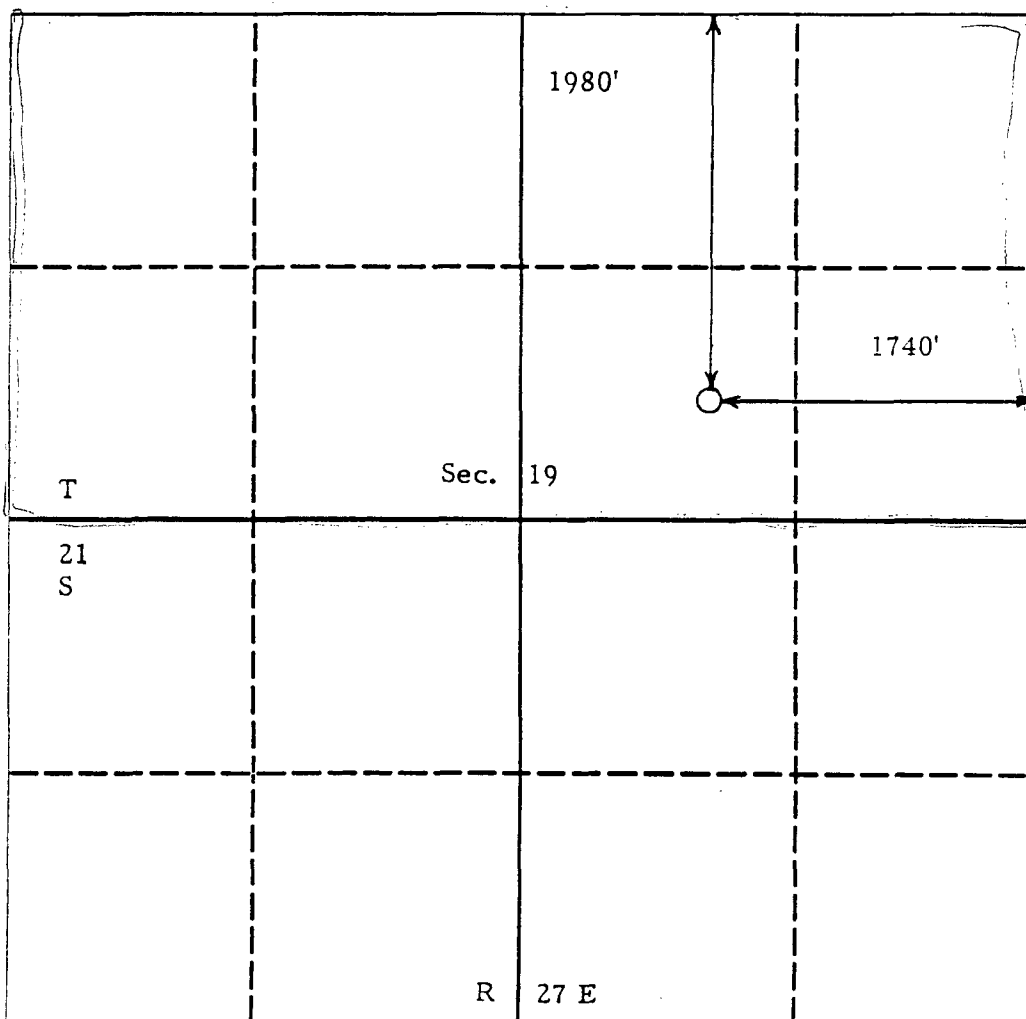
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interest 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 interest, 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.

Steven P. Guidry
Signature

Steven P. Guidry
Printed Name

Production Superintendent
Position

Marathon Oil Company
Company

11-5-91
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.

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

ATTACHMENT NO. 3B
State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

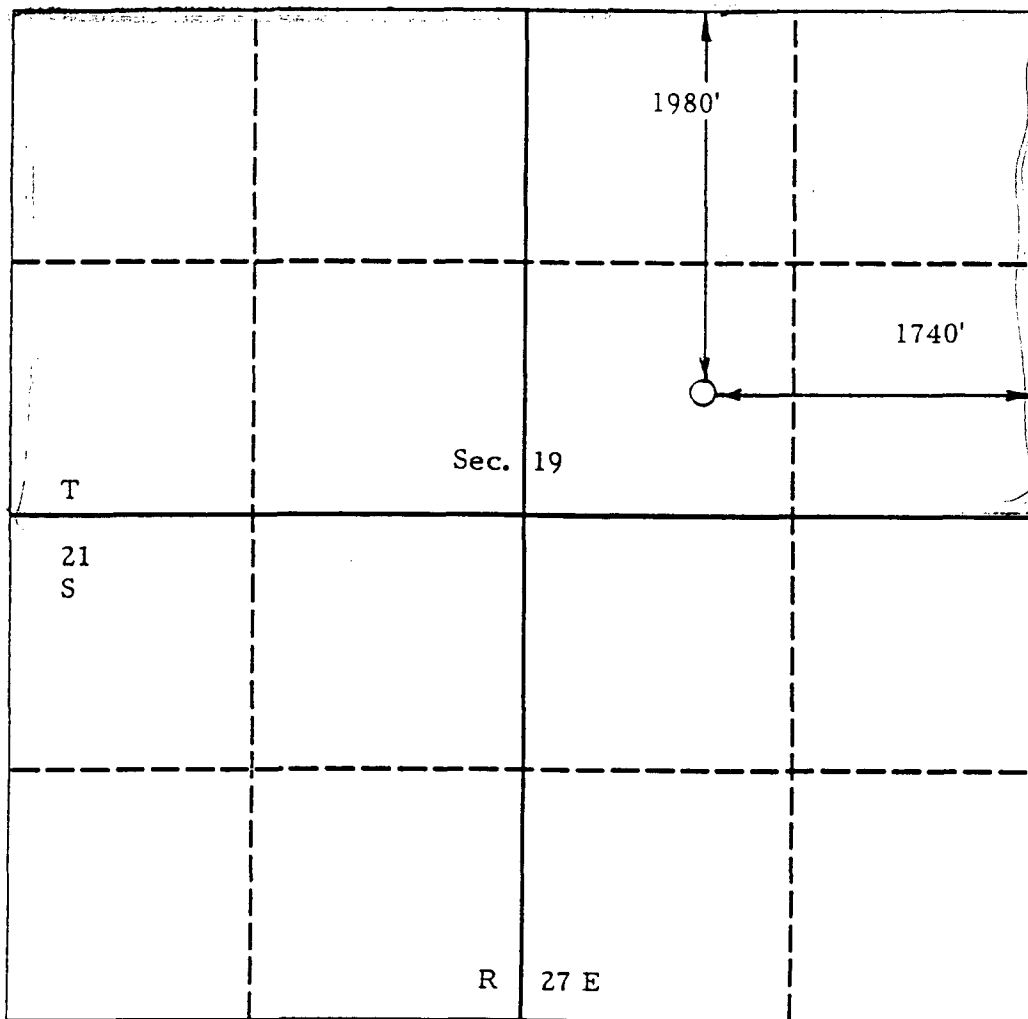
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Marathon Oil Company			Lease Pioneer Federal		Well No. 1
Unit Letter G	Section 19	Township 21S	Range 27E	County NMPM	Eddy
Actual Footage Location of Well: 1980 feet from the North line and 1740' feet from the East line					
Ground level Elev. 3181'	Producing Formation La Huerta Atoka		Pool La Huerta Atoka	Dedicated Acreage: 320 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat 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 interest 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 interest, 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
Steven P. Guidry

Printed Name
Production Superintendent

Position
Marathon Oil Company

Company
11-5-91

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.

Submit 2 copies to appropriate District Office.
DISTRICT I
P.O. Box 1980, Hobbs, NM 88240
DISTRICT II
P.O. Drawer DD, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

ATTACHMENT NO. 5
State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-116
Revised 1/1/89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

GAS - OIL RATIO TEST

Operator Marathon Oil Company	Pool La Jencia (Strawn) 845	County Eddy
Address P. O. Box 552 Midland, TX 79702		
TYPE OF TEST - (X)		Completion <input type="checkbox"/> Special <input checked="" type="checkbox"/>
LEASE NAME	WELL NO.	LOCATION U S T R
Pioneer Federal Com	1	F 19 21 27
DATE OF TEST	CHOKE SIZE	TBG PRESS
10/15/91 (Estimated)	F 13/64"	3000
DAILY ALLOWABLE	PROD. DURING TEST WATER BBL'S	GRAV. OIL
Gas	0	53
LENGTH OF TEST HOURS	OIL BBL'S	GAS - OIL RATIO CU FT/BBL
24	13.5	2485.8
		184,100

Instructions:

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Division.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

(See Rule 301, Rule 1116 & appropriate pool rules.)

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

Signature
Steven P. Guidry (Rates are estimated)

Printed name and title
Steven P. Guidry, Production Superintendent

Date
11-5-91

Telephone No.
505 - 393-7106

Submit 2 copies to Appropriate District Office.
DISTRICT I
P.O. Box 1980, Hobbs, NM 88240
DISTRICT II
P.O. Drawer DD, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

GAS - OIL RATIO TEST

Operator Marathon Oil Company		Pool La Huerta (Atoka) <i>Gas</i>		County Eddy											
Address P. O. Box 552 Midland, TX 79702		TYPE OF TEST - (X) <input checked="" type="checkbox"/> Scheduled <input type="checkbox"/> Completion		Special <input checked="" type="checkbox"/> X											
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBG PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU FT/BBL		
		U	S	T						R	WATER BBL'S	GRAV. OIL		OIL BBL'S	GAS MCF
Pioneer Federal Com	1	6	19	21	27	10/15/91 (Estimated)	F 13/64"	3000	Gas	24	0	53	1.5	276.2	18,400

Instructions:

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Division.
Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.
Report casing pressure in lieu of tubing pressure for any well producing through casing.

(See Rule 301, Rule 1116 & appropriate pool rules.)

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

Steven P. Guidry (Ratios are estimated)
Signature

Steven P. Guidry, Production Superintendent

Printed name and title

11-5-91 505-393-7106
Date Telephone No.



Laboratory Services

1331 Tasker Drive
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

FOR: Marathon Oil Co.
Attention: Mr. Mike Greenough
P. O. Box 2409
Hobbs, New Mexico 88240

SAMPLE Pioneer Federal
IDENTIFICATION: Com Well No. 1
COMPANY: Marathon Oil Co.
LEASE:
PLANT:

SAMPLE DATA:	DATE SAMPLED:	GAS ()	LIQUID (XX)
	ANALYSIS DATE: 11-04-91	SAMPLED BY:	Mike Greenough
	PRESSURE - PSIG	ANALYSIS BY:	Rolland Perry
	SAMPLE TEMP. °F	C1 to C2 RATIO	
	ATMOS. TEMP. °F	CO2 to C2 RATIO	
REMARKS:	Sample Of Condensate.		

COMPONENT ANALYSIS

COMPONENT		MOL PERCENT	LIQ. VOL. PERCENT
Hydrogen Sulfide	(H2S)		
Nitrogen	(N2)	0.00	0.00
Carbon Dioxide	(CO2)	0.00	0.00
Methane	(C1)	0.26	0.10
Ethane	(C2)	0.69	0.43
Propane	(C3)	2.29	1.47
I-Butane	(IC4)	2.14	1.63
N-Butane	(NC4)	4.14	3.03
I-Pentane	(IC5)	5.80	4.94
N-Pentane	(NC5)	4.62	3.89
Hexane	(C6)	12.65	12.10
Heptanes Plus	(C7+)	67.41	72.41
		100.00	100.00

SPECIFIC GRAVITY -
CALCULATED

0.664

API Gravity - 55.5 @60 F

VAPOR PRESSURE (ABSOLUTE) -
CALCULATED

30.17

MOLECULAR WT.

90.87

CU. FT. /GAL.

23.81

WELL DATA SHEET

FIELD La Brea (Strawn)

LEASE AND WELL NO. Pioneer Federal Com No. 1

LOCATION 1980' FNL & 1740' FEL, Sec. 19, T21S, R27E

COUNTY AND STATE Eddy County, New Mexico

STATUS Producing Gas Well

TD 11,500' PBTD 11,105' KB 3,209' GL 3,181'

SURFACE CASING 13 3/8", 48#, H-40 set @ 517'

w/475 sx (circ).

INTERMEDIATE CASING 8 5/8", 24 & 32# set @ 2609'

w/DV tool @ 1503'. Cemented w/a total of 2510 sx

(did not circ).

PRODUCTION CASING 4 1/2", 11.6 & 13.5#, N-80 set @

11,500'. Cemented w/325 sx (did not circ).

TUBING 2 3/8" w/packer set @ 10,116'.

LINER No liner.

RODS None

PUMPING UNIT None

PRESENT COMPLETION: (Formation and Interval)

Strawn 10,258'-10,594'

13 3/8" @
517'

DV Tool @ 1503'
cmtd w/1160 sx

8 5/8" @ 2609'

Wolfcamp 8952-60'
squeezed w/100 sx

DV Tool @ 9979'

2 3/8" tbg & pkr
@ 10,116'

Strawn 10,258-10,594'

CIBP @ 11,150'
w/45' cmt

Morrow 11,187-
11,216'

CIBP @ 11,150'
w/10' cmt

Morrow 11,267-
11,332'

Morrow 11,361-
11,431'

4 1/2" @ 11,500'

PBTD
1,458'

HISTORY

PREPARED BY: Carl A. Bagwell

DATE 10/01/91