



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 ^{Pool} Pools in the subject well.

The above ~~referenced~~ *Wildcat* 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
Page 2

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

Undesignated Gas
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 Gas* Strawn & ~~La Huerta~~ 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>Bas</i> (Estimated)	13.5	90	2285.8	82.8	0
<i>Undesignated</i> La Huerta Atoka <i>Bas</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 MANAGEMENT

FORM 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 <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Designation and Serial No.
2. Name of Operator Marathon Oil Company	6. If Indian, Allottee or Tribe Name
3. Address and Telephone No. P. O. Box 552 Midland, TX 79702	7. If Unit or CA. Agreement Designation
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	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 <i>gas</i>
	11. County or Parish, State Eddy County, New Mexico <i>Wildcat Strawn</i>

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

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other <u>Downhole Commingle</u>
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> 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 Superintendent Date 11-5-91

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____

Conditions of approval, if any: _____

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.

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

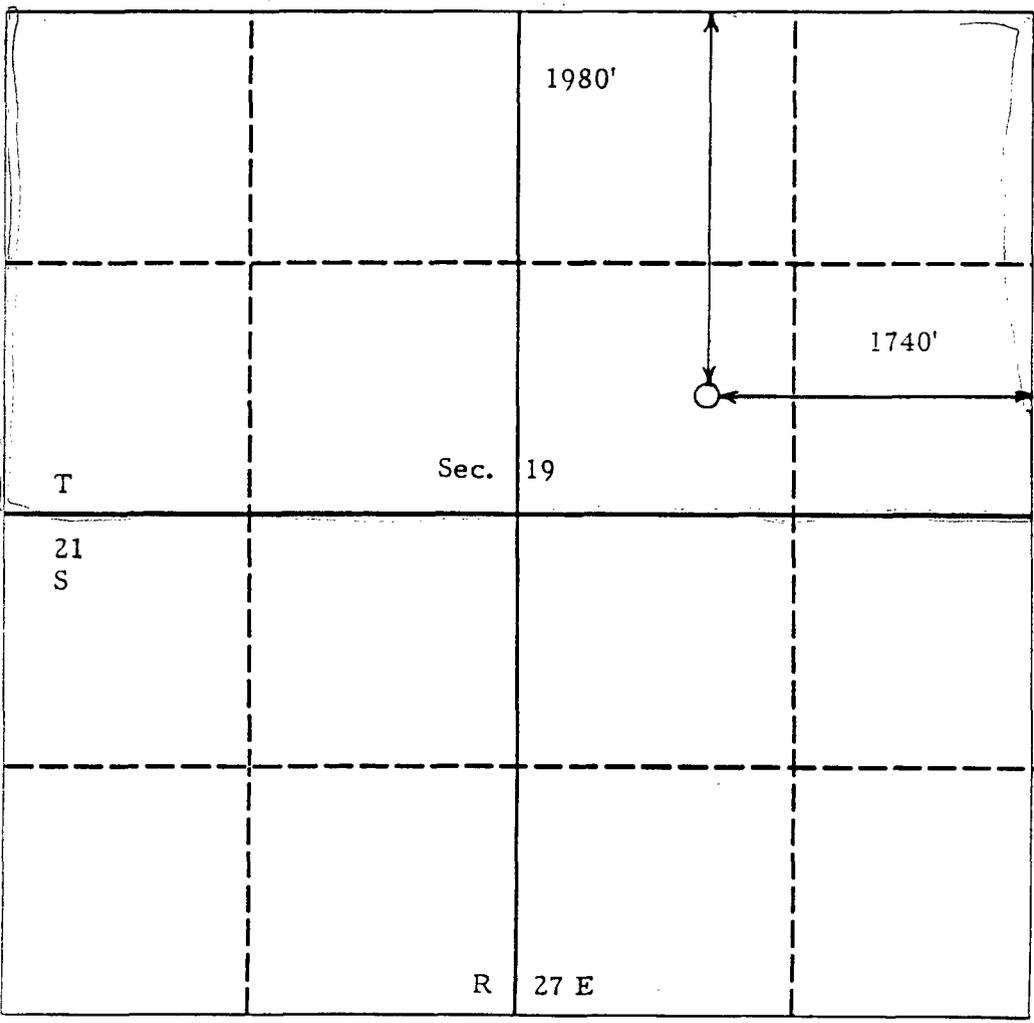
Operator Marathon Oil Company			Lease Pioneer Federal			Well No. 1		
Unit Letter G	Section 19	Township 21S	Range 27E	County NMPM		Eddy		

Actual Footage Location of Well:

1980 feet from the North line and 1740 feet from the East line

Ground level Elev. 3181'	Producing Formation La Huerta Strawn <i>Wildcat</i>	Pool La Huerta Strawn <i>Car</i>	Dedicated Acreage: 320 Acres
-----------------------------	---	--	---------------------------------

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
 - If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
 - 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. _____



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

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

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

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

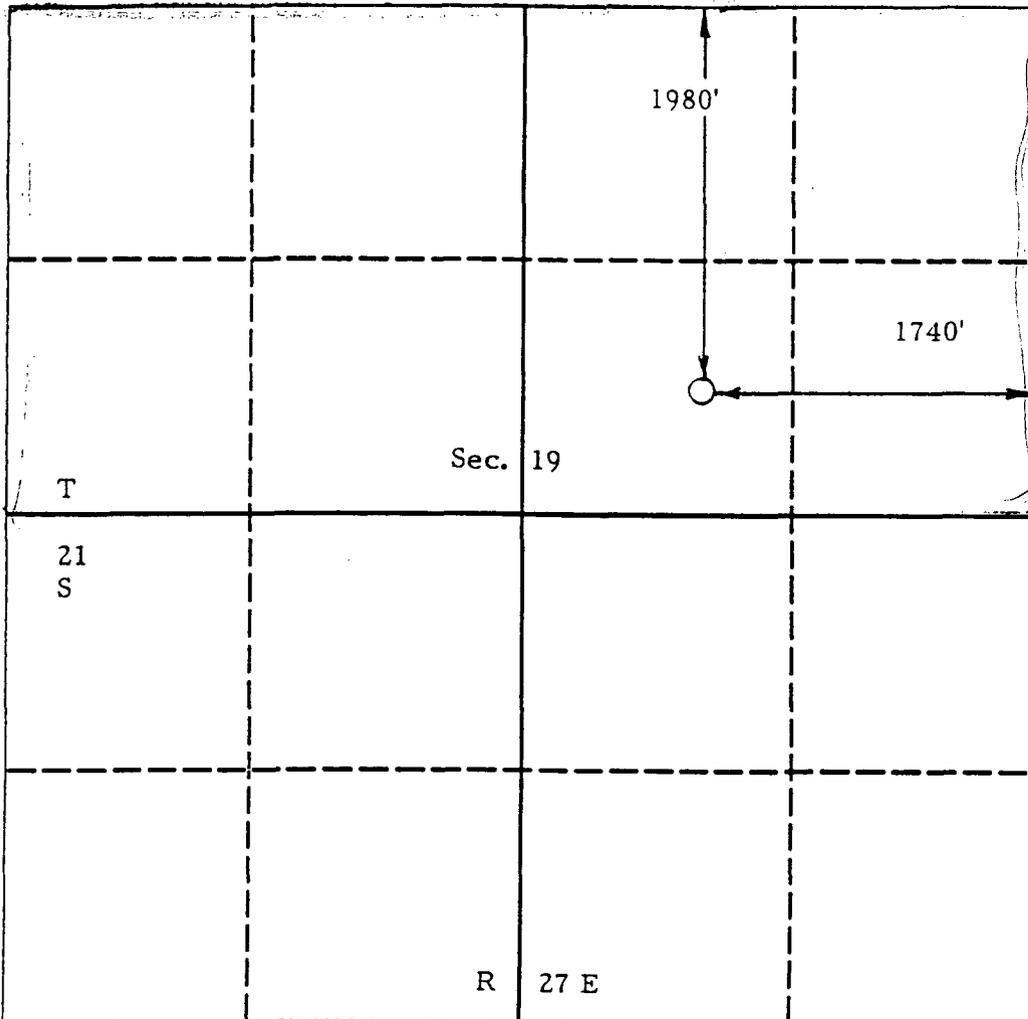
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

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 La Huerta Atoka		Pool La Huerta Atoka	Dedicated Acreage: 320 Acres				

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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.

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 Llaneta (Straw) 845		County Eddy											
Address P. O. Box 552 Midland, TX 79702		TYPE OF TEST - (X)		Completion		Special (X)									
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKESIZE	TBG PRESS	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST		GAS RATIO CU FT/BBL			
		U	S	T						R	WATER BBL'S		GRAV. OIL	OIL BBL'S	GAS MCF
Pioneer Federal Com	1	F	19	21	27	10/15/91 (Estimated)	F 13/64"	3000	Gas	24	0	53	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.

Steven P. Guidry
 Signature
 Steven P. Guidry, Production Superintendent

Printed name and title

11-5-91
 Date

505 - 393-7106
 Telephone 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

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-116
 Revised 1/1/89

GAS - OIL RATIO TEST

Operator		Pool		County												
Marathon Oil Company		La Huerta (Atoka) <i>Gas</i>		Eddy												
Address		TYPE OF TEST - (X)		Completion		Special										
P. O. Box 552 Midland, TX 79702		<input checked="" type="checkbox"/> Scheduled <input type="checkbox"/> Special		<input type="checkbox"/>		<input checked="" type="checkbox"/>										
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 BBLs.	GRAV. OIL		OIL BBLs.	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.

Signature Steven P. Guidry (Rate are estimated)
 Steven P. Guidry, Production Superintendent
 Printed name and title
 Date 11-5-91 505-593-7106
 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 IDENTIFICATION: COMPANY: LEASE: PLANT:	Pioneer Federal Com Well No. 1 Marathon Oil Co.
------	--	--	---

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 Strawn (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' PBDT 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'

PBDT
11,458'

HISTORY