

**STATE OF NEW MEXICO
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES
OIL CONSERVATION DIVISION**

**APPLICATION OF MEWBOURNE OIL
COMPANY FOR COMPULSORY POOLING,
LEA COUNTY, NEW MEXICO**

Case No. 20091

**SELF-AFFIRMED STATEMENT OF
LEE SCARBOROUGH**

1. I am over 18 years of age and am competent to provide this Self-Affirmed Statement. I have personal knowledge of the matters addressed herein.
2. I am a landman for Mewbourne Oil Company ("Mewbourne"). I have had direct involvement with Mewbourne's development of the 160-acre standard horizontal spacing unit ("HSU") that is the subject of Mewbourne's application in this case.
3. A plat outlining the HSU is attached hereto as Exhibit A. The HSU is comprised of the E/2 W/2 of Section 21, Township 26 South, Range 32 East in Lea County.
4. Mewbourne seeks to pool the uncommitted interests in the Wolfcamp formation underlying the HSU. The unit will be dedicated to Mewbourne's proposed Red Hills West 21 W0CN Fed Com #1H and Red Hills 21 W1CN Fed Com #2H wells. Both wells will be horizontally drilled from a surface location in Unit C to a bottom hole location in Unit N of Section 21, Township 26 South, Range 32 East, and the completed intervals will be orthodox. Attached hereto as Exhibit B are the C-102s for the wells.
5. There are no depth exceptions in the Wolfcamp formation underlying the HSU.

OCD Case No. 20091

MEWBOURNE OIL
Exhibit #1

6. Beginning in February of this year, I sent a well proposal letter for both wells to all of the then-uncommitted interests in the HSU. A sample of my well proposal letter and a well proposal summary are attached hereto as Exhibit C.

7. After I sent out the well proposal letters, ten of the uncommitted interests entered into Joint Operating Agreements ("JOAs") for both wells. *See Exhibit C.*

8. I have also had follow-up communications with the other three uncommitted interests. A log of my communications with them is attached hereto as Exhibit D. My discussions with Matt Vessel recently resulted in his agreement to execute a lease extension.

9. In my opinion, Mewbourne has made a good faith effort to obtain the voluntary joinder of the uncommitted interests in the HSU.

10. Notice of Mewbourne's application was provided to the three then-remaining uncommitted interests by certified mail, and Mewbourne has received all of the return green cards. A sample of the notice letters and the associated green cards are attached hereto as Exhibit E.

11. The AFEs for the proposed wells are attached hereto as Exhibit F. The estimated costs of the wells are fair and reasonable, and are comparable to the costs of other wells of similar depth and length drilled in Lea County.

12. Mewbourne requests overhead and administrative rates of \$8,000 per month while the wells are being drilled and \$800 per month while the wells are producing. These rates are fair, and are comparable to the rates charged by Mewbourne and by other operators in the vicinity. They are also the rates set forth in the JOAs for the wells. Mewbourne further requests that the rates be adjusted periodically in accordance with the COPAS Accounting Procedure.

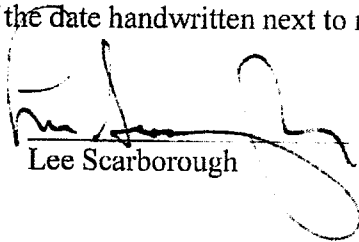
13. Mewbourne requests that it be designated the operator of the wells.

14. Mewbourne also requests that a 200% risk charge be assessed against the remaining uncommitted interests if they are non-consenting working interest owners.

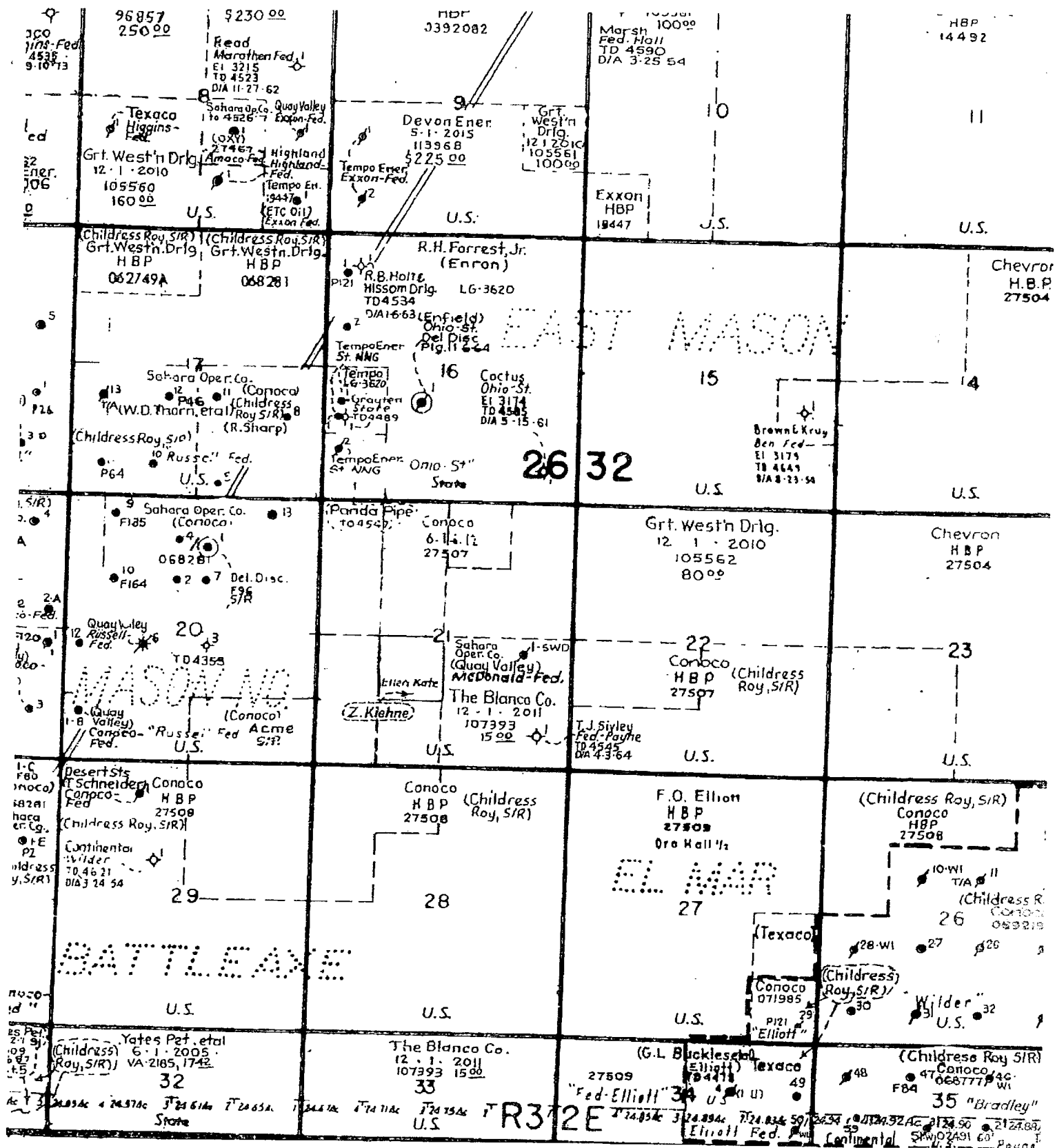
15. In my opinion, the granting of Mewbourne's application would serve the interests of conservation and the prevention of waste.

16. The exhibits attached hereto were either prepared by me or under my supervision or were compiled from company business records.

17. I understand that this Self-Affirmed Statement will be used as written testimony in this case. I affirm that my testimony in paragraphs 1 through 16 above is true and correct and is made under penalty of perjury under the laws of the State of New Mexico. My testimony is made as of the date handwritten next to my signature below.


Lee Scarborough

11/14/2018
Date



Red Hills West 21 Prospect

E/2W/2, Section 21, Township 26 South, Range 32 East, Lea County, New Mexico

Red Hills West 21 W0CN Fed Com #1H

Red Hills West 21 W1CN Fed Com #2H

Exhibit
A

Exhibit B

Submit one copy to appropriate
District Office

☐ AMENDED REPORT

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code		3 Pool Name	
4 Property Code		5 Property Name RED HILLS WEST 21 WOCN FEDERAL COM			6 Well Number 1H
7 GRID NO.		8 Operator Name MEWBOURNE OIL COMPANY			9 Elevation 3153'

10 Surface Location

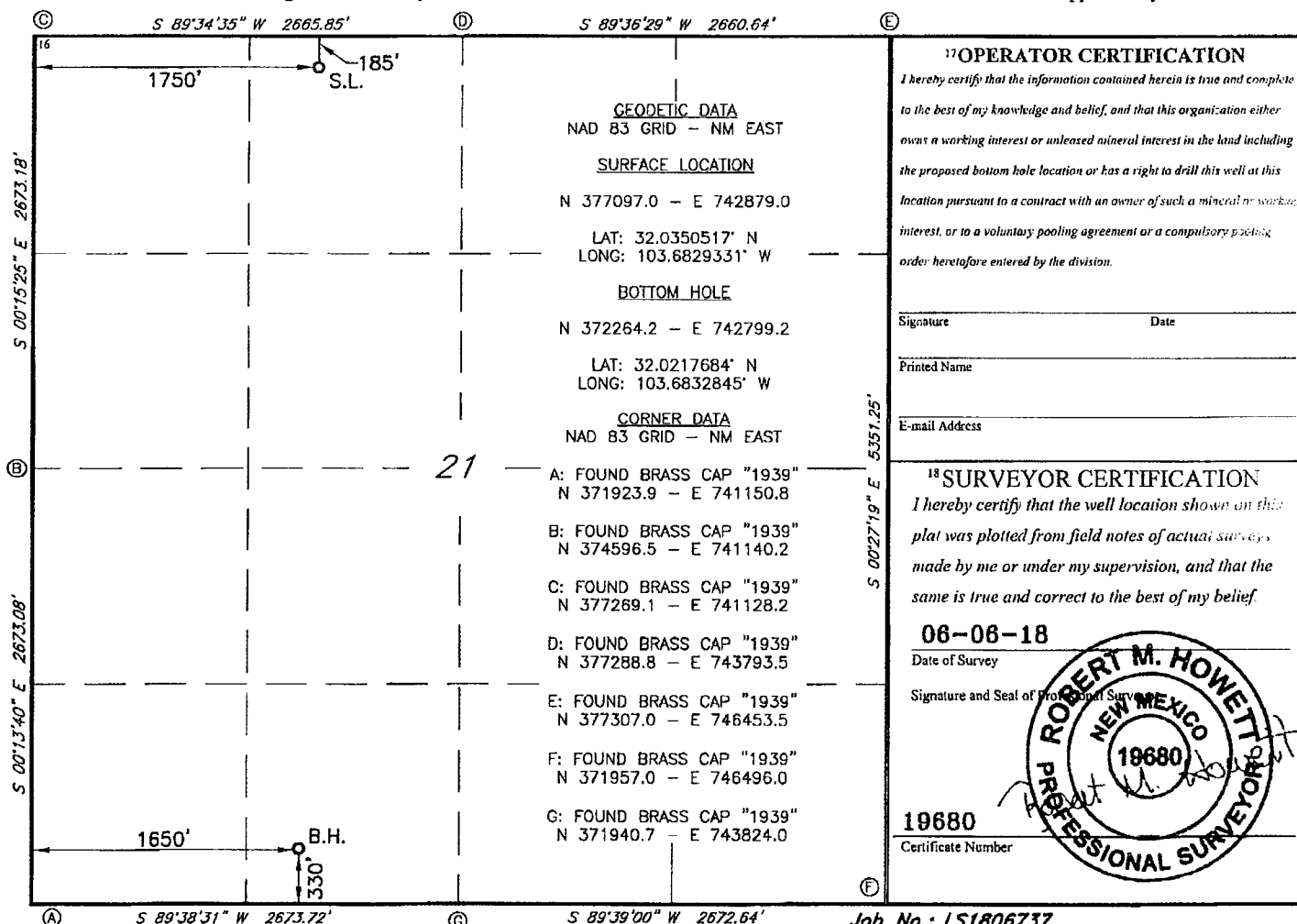
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
C	21	26S	32E		185	NORTH	1750	WEST	LEA

11 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
N	21	26S	32E		330	SOUTH	1650	WEST	LEA

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
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No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.



District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code		3 Pool Name	
4 Property Code		5 Property Name RED HILLS WEST 21 W1CN FEDERAL COM			6 Well Number 2H
7 GRID NO.		8 Operator Name MEWBOURNE OIL COMPANY			9 Elevation 3153'

10 Surface Location

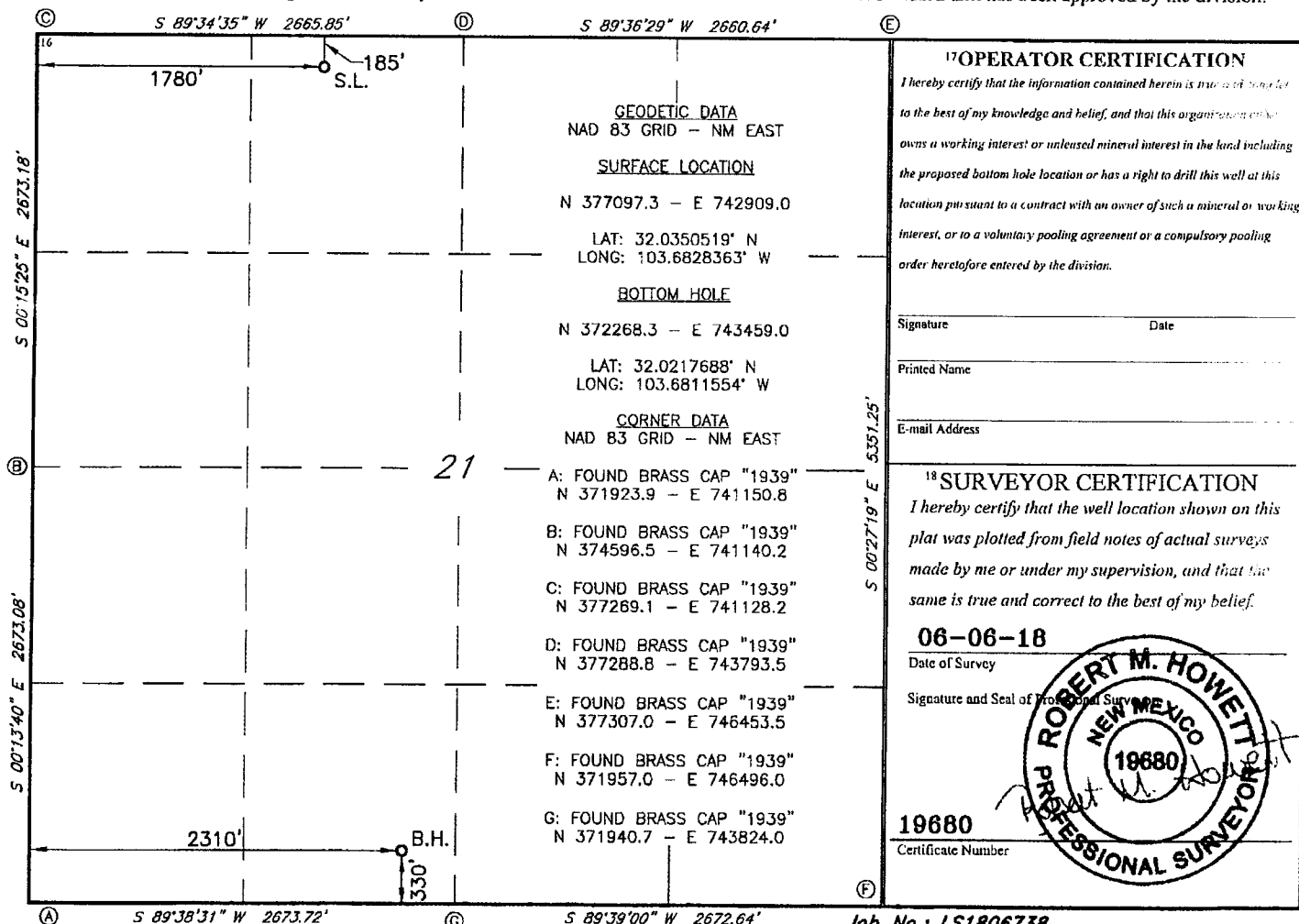
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
C	21	26S	32E		185	NORTH	1780	WEST	LEA

11 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
N	21	26S	32E		330	SOUTH	2310	WEST	LEA

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
--------------------	--------------------	-----------------------	--------------

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.



MEWBOURNE OIL COMPANY

FASKEN CENTER
500 WEST TEXAS, SUITE 1020
MIDLAND, TX 79701

TELEPHONE (432) 682-3715
FACSIMILE (432) 685-4170

February 8, 2018

Certified Mail

Zane Kiehne
1501 South Mary Street
Pecos, Texas 79772-5615

**Exhibit
C**

Re: Proposed Horizontal Wolfcamp Tests
Red Hills West 21 W0CN Fed COM #1H
E/2W/2 Section 21, T-26-S, R-32-E
Red Hills West 21 W1CN Fed Com #2H
E/2W/2 Section 21, T-26-S, R-32-E
Lea County, New Mexico
Red Hills West 21 Prospect

Mr. Kiehne:

Mewbourne Oil Company, as Operator, hereby proposes drilling the following two horizontal Wolfcamp tests:

Red Hills West 21 W0CN Fed Com #1H – Wolfcamp Y Sand
Surface Location: 205' FNL, 1750' FWL, Section 21
Bottom Hole Location: 330' FSL, 1650' FWL, Section 21
Proposed Total Vertical Depth: 11,780'
Proposed Total Measured Depth: 16,485'

Red Hills West 21 W1CN Fed Com #2H – Wolfcamp A Shale
Surface Location: 205' FNL, 1800' FWL, Section 21
Bottom Hole Location: 330' FSL, 2310' FWL, Section 21
Proposed Total Vertical Depth: 12,010'
Proposed Total Measured Depth: 16,715'

Mewbourne will drill these wells “back-to-back”, utilizing Stryker Rig 250W, a “walking rig”, in an effort to maximize cost efficiencies by reducing mobilization charges. If successful, a 160 acre “Project Area” will be assigned to the wells, encompassing the E/2W/2 of Section 21.

Our records indicate that you own 1.5625% working interest in the Project Area by virtue of your mineral ownership under the NE/4SW/4 of Section 21 (2.5 net acres). This ownership is reflected on the enclosed AFEs.

In the event you elect to participate in the proposed wells, please execute the enclosed AFEs and return them to the undersigned within thirty (30) days. Our Joint Operating Agreement will follow, which provides for a Drilling Well Rate of \$7,500.00 per month and a Producing Well Rate of \$750.00 per month. Please enclose your most current well information requirements so that we may supply well data when available.

Mewbourne's AFE form has been updated, providing a clearer option (check-boxes) for the "Extra Expense Well Control Insurance" that Mewbourne purchases for each well it drills. As always, should you opt out, you must provide evidence of adequate "Well Control Insurance".

In lieu of participating, Mewbourne hereby offers to purchase a two (2) year paid-up Oil, Gas And Mineral Lease (enclosed for your review) for \$4,000.00 per net mineral acre ($\$4,000 \times 2.5$ net acres = \$10,000.00), providing for a $\frac{1}{4}$ royalty interest and covering all of your interest in the NE/4SW/4, limited to depths below 100 feet below the base of the Bone Spring formation. This offer is subject to approval of title and lease form.

Feel free to contact me at (432) 682-3715 or via email at lscarborough@mewbourne.com if you have any questions.

Very truly yours,

MEWBOURNE OIL COMPANY

Lee M. Scarborough
Landman

Enclosures

Well Proposal Summary

Well:	Red Hills West 21 WOCN Fed Com #1H (E2W2)			A/E Date:		7/6/20018
JOA Contract Area:	26S-32E Section 21: All	Depths:		All	Pooling Date:	11/15/2018
Owner:	Proration Unit WI%	JOA WI%	Date Received Proposal:	A/E Returned?	JOA Returned?	
Mewbourne Oil Company	26.015625	26.015625		Yes	Yes	
ConocoPhillips Company	25.500000	25.500000	7/16/2018	Yes	Yes	
ConocoPhillips Company	11.250000	11.250000	7/16/2018	Yes	Yes	
RSC Resources, L.P.	7.500000	7.500000	7/16/2018	Yes	Yes	
Great Western Drilling Ltd.	3.281250	3.281250	7/16/2018	Yes	Yes	
McCombs Exploration, LLC	1.640625	1.640625	7/16/2018	Yes	Yes	
MEGSY I, LLC	2.250000	2.250000	7/16/2018	Yes	Yes	
Tamaroa Development, LLC	2.250000	2.250000	7/16/2018	Yes	Yes	
Zane Kiehne (5 net acres NESW)	3.125000	3.125000	2/12/2018	No	No	
Lance S. Esterling	0.781250	0.781250	2/13/2018	Yes	Yes	
Susan E. Swaim, et vir Ken	0.781250	0.781250	2/13/2018	Yes	Yes	
Ross Easterling Mineral Holdings, LLC	2.083325	2.083325	2/13/2018	Yes	Yes	
ELR Minerals, LLC	2.083325	2.083325	2/13/2018	Yes	Yes	
Matt Vessel (3.33 net acres NESW)	2.083350	2.083350	9/19/2018			
Canaan Resource Partners	9.375000	9.375000	2/22/2018	Yes	Yes	
	100.000000	100.000000				

Well Proposal Summary

Well:	Red Hills West 21 W1CN Fed Com #2H (E2W2)			AFE Date: 7/6/20018	
JOA Contract Area:	26S-32E Section 21: All	Depths: All		Pooling Date: 11/15/2018	
Owner:	Proration Unit WI%	JOA WI%	Date Received Proposal:	AFE Returned?	JOA Returned?
Mewbourne Oil Company	26.015625	26.015625		Yes	Yes
ConocoPhillips Company	25.500000	25.500000	7/16/2018	Yes	Yes
ConocoPhillips Company	11.250000	11.250000	7/16/2018	Yes	Yes
RSC Resources, L.P.	7.500000	7.500000	7/16/2018	Yes	Yes
Great Western Drilling Ltd.	3.281250	3.281250	7/16/2018	Yes	Yes
McCombs Exploration, LLC	1.640625	1.640625	7/16/2018	Yes	Yes
MEGSY I, LLC	2.250000	2.250000	7/16/2018	Yes	Yes
Tamaroa Development, LLC	2.250000	2.250000	7/16/2018	Yes	Yes
Zane Kiehne (5 net acres NESW)	3.125000	3.125000	2/12/2018	No	No
Lance S. Esterling	0.781250	0.781250	2/13/2018	Yes	Yes
Susan E. Swaim, et vir Ken	0.781250	0.781250	2/13/2018	Yes	Yes
Ross Easterling Mineral Holdings, LLC	2.083325	2.083325	2/13/2018	Yes	Yes
ELR Minerals, LLC	2.083325	2.083325	2/13/2018	Yes	Yes
Matt Vessel (3.33 net acres NESW)	2.083350	2.083350	9/19/2018		
Canaan Resource Partners	9.375000	9.375000	2/22/2018	Yes	Yes
	100.000000	100.000000			

Correspondence Log

Red Hills West 21 WOCN Fed Cam #1H and Red Hills West 21 W1CN Fed Cam #2H

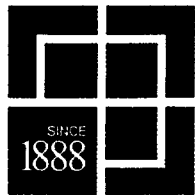
[illegible]

**Exhibit
D**

Correspondence Log

Red Hills West 21 W0CN Fed Com #1H and Red Hills West 21 W1CN Fed Com #2H

[illegible]



HINKLE SHANOR LLP

ATTORNEYS AT LAW

PO BOX 268

SANTA FE, NEW MEXICO 87504

505-982-4554 (FAX) 505-982-8623

WRITER

Gary W. Larson,
Partner

glarson@hinklelawfirm.com

October 4, 2018

VIA CERTIFIED MAIL

Oliver D. Kiehne
P.O. Box 135
Orla, TX 79770

Re: Mewbourne Oil Company NMOCD Application

Dear Mr. Kiehne:

Enclosed is a copy of an application for compulsory pooling that Mewbourne Oil Company ("Mewbourne") has filed with the New Mexico Oil Conservation Division ("the Division"). Mewbourne requests an order pooling all uncommitted mineral interests in the Wolfcamp formation in a standard 160-acre horizontal spacing unit comprised of the E/2 W/2 of Section 21, Township 26 South, Range 32 East, N.M.P.M., Eddy County, New Mexico.

This matter is scheduled for hearing at 8:15 a.m. on Thursday, November 15, 2018 in Porter Hall at the Division's offices located at 1220 South St. Francis Drive, Santa Fe, New Mexico 87505. You are not required to attend this hearing, but as an owner of an interest that may be affected by Mewbourne's application, you may appear at the hearing and present testimony. If you do not appear at that time and become a party of record, you will be precluded from contesting the matter at a later date.

A party appearing in a Division case is required by the Division's Rules to file a Pre-Hearing Statement, which in this matter must be filed no later than Thursday, November 8, 2018. The Pre-Hearing Statement must be filed with the Division's Santa Fe office at the address above, and should include: the name of the party and the party's attorney; a concise statement of the case; the name(s) of the witness(es) the party will call to testify at the hearing; the approximate amount of time the party will need to present the party's case; and an identification of any procedural matters that need to be resolved prior to the hearing. The Pre-Hearing Statement must also be provided to me.

Thank you for your attention to this matter.

Very truly yours,

Gary W. Larson

GWL:sm
Enclosure

**Exhibit
E**

PO BOX 10
ROSWELL, NEW MEXICO 88202
575-622-6510
(FAX) 575-623-9332

PO BOX 1720
ARTESIA, NEW MEXICO 88210
575-622-6510
(FAX) 575-746-6316

PO BOX 268
SANTA FE, NEW MEXICO 87504
505-982-4554
(FAX) 505-982-8623

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Matt Vessel
Estate of Thomasina Vessel
1601 Imperial Ridge
Las Cruces, NM 88011



9590 9402 3019 7124 7226 86

2. Article Number (Transfer from service label)

7018 0040 0000 4364 0320

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Madeleine Vessel* ☐ Agent ☒ Addressee

B. Received by (Printed Name)

Madeleine Vessel 10-6-18

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- | | |
|--|---|
| ☐ Adult Signature | ☐ Priority Mail Express® |
| ☐ Adult Signature Restricted Delivery | ☐ Registered Mail™ |
| ☒ Certified Mail® | ☐ Registered Mail Restricted Delivery |
| ☐ Certified Mail Restricted Delivery | ☐ Return Receipt for Merchandise |
| ☐ Collect on Delivery | ☐ Signature Confirmation™ |
| ☐ Collect on Delivery Restricted Delivery | ☐ Signature Confirmation Restricted Delivery |
| ☐ all Restricted Delivery | |

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Oliver D. Kiehne
P.O. Box 135
Orla, TX 79770



9590 9402 3019 7124 7226 93

2. Article Number (Transfer from service label)

7018 0040 0000 4364 0344

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Oliver D Kiehne* ☐ Agent ☒ Addressee

B. Received by (Printed Name)

Oliver D Kiehne 10-10-18

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- | | |
|--|---|
| ☐ Adult Signature | ☐ Priority Mail Express® |
| ☐ Adult Signature Restricted Delivery | ☐ Registered Mail™ |
| ☒ Certified Mail® | ☐ Registered Mail Restricted Delivery |
| ☐ Certified Mail Restricted Delivery | ☐ Return Receipt for Merchandise |
| ☐ Collect on Delivery | ☐ Signature Confirmation™ |
| ☐ Collect on Delivery Restricted Delivery | ☐ Signature Confirmation Restricted Delivery |
| ☐ all Restricted Delivery | |

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Zane Kiehne
c/o Dan C. Perry
16006 Via Shavano
San Antonio, TX 78249



9590 9402 3019 7124 7226 79

2. Article Number (Transfer from service label)

7018 0040 0000 4364 0337

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Regina Everman* ☒ Agent ☐ Addressee

B. Received by (Printed Name)

Regina Everman 10-9-18

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☒ No

3. Service Type

- | | |
|--|---|
| ☐ Adult Signature | ☐ Priority Mail Express® |
| ☐ Adult Signature Restricted Delivery | ☐ Registered Mail™ |
| ☒ Certified Mail® | ☐ Registered Mail Restricted Delivery |
| ☐ Certified Mail Restricted Delivery | ☐ Return Receipt for Merchandise |
| ☐ Collect on Delivery | ☐ Signature Confirmation™ |
| ☐ Collect on Delivery Restricted Delivery | ☐ Signature Confirmation Restricted Delivery |
| ☐ all Restricted Delivery | |

Domestic Return Receipt

MEWBOURNE OIL COMPANY

AUTHORIZATION FOR EXPENDITURE

Well Name: Red Hills West 21 W0CN Fed Com #1H		Prospect: Wolfcamp	
Location: SL: 185' FNL & 1750' FWL; BHL: 330' FSL & 1650' FWL		County: Lea	ST: NM
Sec. 21	Blk: 	Survey: 	TWP: 26S RNG: 32E Prop. TVD: 11785 TMD: 16579

INTANGIBLE COSTS 0180		CODE	TCP	CODE	CC
Regulatory Permits & Surveys		0180-0100	\$20,000	0180-0200	
Location / Road / Site / Preparation		0180-0105	\$70,000	0180-0206	\$30,000
Location / Restoration		0180-0106	\$200,000	0180-0208	\$30,000
Daywork / Turnkey / Footage Drilling 26 days drlg / 3 days comp @ \$21,000/d		0180-0110	\$584,000	0180-0210	\$67,300
Fuel 1700 gal/day @ 2.70/gal		0180-0114	\$147,200	0180-0214	\$250,000
Mud, Chemical & Additives		0180-0120	\$230,000	0180-0220	
Horizontal Drillout Services				0180-0222	\$140,000
Cementing		0180-0125	\$150,000	0180-0226	\$30,000
Logging & Wireline Services		0180-0130	\$2,000	0180-0230	\$230,000
Casing / Tubing / Snubbing Service		0180-0134	\$25,000	0180-0234	\$70,000
Mud Logging		0180-0137	\$20,000		
Stimulation 29 Stg 11.7 MM gal / 11.7 MM lb				0180-0241	\$1,790,000
Stimulation Rentals & Other				0180-0242	\$200,000
Water & Other		0180-0145	\$50,000	0180-0245	\$390,000
Bits		0180-0148	\$72,000	0180-0248	\$4,000
Inspection & Repair Services		0180-0150	\$40,000	0180-0250	\$5,000
Misc. Air & Pumping Services		0180-0154		0180-0254	\$10,000
Testing & Flowback Services		0180-0158	\$15,000	0180-0258	\$30,000
Completion / Workover Rig				0180-0260	\$10,500
Rig Mobilization		0180-0164	\$150,000		
Transportation		0180-0165	\$20,000	0180-0265	\$20,000
Welding Services		0180-0168	\$5,000	0180-0268	\$15,000
Contract Services & Supervision		0180-0170	\$43,500	0180-0270	\$22,500
Directional Services Includes Vertical Control		0180-0175	\$252,000		
Equipment Rental		0180-0180	\$222,200	0180-0280	\$30,000
Well / Lease Legal		0180-0184	\$5,000	0180-0284	
Well / Lease Insurance		0180-0185	\$5,200	0180-0285	
Intangible Supplies		0180-0188	\$8,000	0180-0288	\$10,000
Damages		0180-0190		0180-0290	
ROW & Easements		0180-0192		0180-0292	\$1,000
Pipeline Interconnect				0180-0293	
Company Supervision		0180-0195	\$139,200	0180-0295	\$72,000
Overhead Fixed Rate		0180-0196	\$10,000	0180-0296	\$20,000
Well Abandonment		0180-0198		0180-0298	
Contingencies 10% (TCP) 10% (CC)		0180-0199	\$248,500	0180-0299	\$347,700
TOTAL			\$2,733,800		\$3,825,000

TANGIBLE COSTS 0181		CODE	TCP	CODE	CC
Casing (19.1" - 30")		0181-0793			
Casing (10.1" - 19.0") 630' - 13 3/8" 54.5# J-55 ST&C @ \$35.90/ft		0181-0794	\$24,200		
Casing (8.1" - 10.0") 4360' - 9 5/8" 40# N-80 LT&C @ \$27.61/ft		0181-0795	\$128,600		
Casing (6.1" - 8.0") 12050' - 7" 29# P-110 LT&C @ \$27.76/ft		0181-0796	\$357,300		
Casing (4.1" - 6.0") 5340' - 4 1/2" 13.5# P-110 LTC @ \$13.66/ft				0181-0797	\$78,000
Tubing 11300' - 2 7/8" 6.5# L-80 EUE 8rd @ \$5.62/ft				0181-0798	\$67,900
Drilling Head		0181-0860	\$45,000		
Tubing Head & Upper Section				0181-0870	\$30,000
Horizontal Completion Tools Completion Liner Hanger				0181-0871	\$30,000
Sucker Rods				0181-0875	
Subsurface Equipment				0181-0880	
Artificial Lift Systems Gas Lift Valves				0181-0884	\$15,000
Pumping Unit				0181-0885	
Surface Pumps & Prime Movers 1/2 VRU/SWD Pump/Circ Pump				0181-0886	\$40,000
Tanks - Oil 3 - 750 bbl				0181-0890	\$55,000
Tanks - Water 3 - 750 bbl				0181-0891	\$66,000
Separation / Treating Equipment 30"x10"x1k# 3 ph/36"x15"x1k#/Gun bb/VRT				0181-0895	\$75,000
Heater Treaters, Line Heaters 8"x20"x75# HT				0181-0897	\$25,000
Metering Equipment				0181-0898	\$14,000
Line Pipe & Valves - Gathering				0181-0900	\$25,000
Fittings / Valves & Accessories				0181-0906	\$60,000
Cathodic Protection				0181-0908	\$8,000
Electrical Installation				0181-0909	\$60,000
Equipment Installation				0181-0910	\$60,000
Pipeline Construction				0181-0920	\$25,000
TOTAL			\$555,100		\$713,900
SUBTOTAL			\$3,288,900		\$4,538,900
TOTAL WELL COST			\$7,827,800		

Extra Expense Insurance

☐ I elect to be covered by Operator's Extra Expense Insurance and pay my proportionate share of the premium.
Operator has secured Extra Expense Insurance covering costs of well control, clean up and redrilling as estimated in Line Item 0180-0185.

☐ I elect to purchase my own well control insurance policy.

If neither box is checked above, non-operating working interest owner elects to be covered by Operator's well control insurance.

Prepared by: B. Talley Date: 7/6/2018

Company Approval: M. Whitel Date: 7/6/2018

Joint Owner Interest: _____ Amount: _____

Joint Owner Name: _____ Signature: _____

Exhibit
F

MEWBOURNE OIL COMPANY

AUTHORIZATION FOR EXPENDITURE

Well Name: Red Hills West 21 W1CN Fed Com #2H		Prospect: Wolfcamp	
Location: SL: 186' FNL & 1780' FWL; BHL: 330' FSL & 2310' FWL		County: Lea	ST: NM
Sec. 21	Blk: 	Survey: 	TWP: 26S RNG: 32E Prop. TVD: 12050 TMD: 18820

INTANGIBLE COSTS 0180		CODE	TCP	CODE	CC
Regulatory Permits & Surveys		0180-0100	\$20,000	0180-0200	
Location / Road / Site / Preparation		0180-0105	\$70,000	0180-0205	\$30,000
Location / Restoration		0180-0106	\$200,000	0180-0206	\$30,000
Daywork / Turnkey / Footage Drilling 26 days drlg / 3 days comp @ \$21,000/d		0180-0110	\$584,000	0180-0210	\$67,300
Fuel 1700 gal/day @ 2.70/gal		0180-0114	\$147,200	0180-0214	\$250,000
Mud, Chemical & Additives		0180-0120	\$230,000	0180-0220	
Horizontal Drillout Services				0180-0222	\$140,000
Cementing		0180-0125	\$150,000	0180-0225	\$30,000
Logging & Wireline Services		0180-0130	\$2,000	0180-0230	\$230,000
Casing / Tubing / Snubbing Service		0180-0134	\$25,000	0180-0234	\$70,000
Mud Logging		0180-0137	\$20,000		
Stimulation 29 Stg 11.7 MM gal / 11.7 MM lb				0180-0241	\$1,790,000
Stimulation Rentals & Other				0180-0242	\$200,000
Water & Other		0180-0145	\$50,000	0180-0245	\$390,000
Bits		0180-0148	\$72,000	0180-0248	\$4,000
Inspection & Repair Services		0180-0150	\$40,000	0180-0250	\$5,000
Misc. Air & Pumping Services		0180-0154		0180-0254	\$10,000
Testing & Flowback Services		0180-0158	\$15,000	0180-0258	\$30,000
Completion / Workover Rig				0180-0260	\$10,500
Rig Mobilization		0180-0164	\$150,000		
Transportation		0180-0165	\$20,000	0180-0265	\$20,000
Welding Services		0180-0168	\$5,000	0180-0268	\$15,000
Contract Services & Supervision		0180-0170	\$43,500	0180-0270	\$22,500
Directional Services Includes Vertical Control		0180-0175	\$252,000		
Equipment Rental		0180-0180	\$222,200	0180-0280	\$30,000
Well / Lease Legal		0180-0184	\$5,000	0180-0284	
Well / Lease Insurance		0180-0185	\$5,200	0180-0285	
Intangible Supplies		0180-0188	\$8,000	0180-0288	\$10,000
Damages		0180-0190		0180-0290	
ROW & Easements		0180-0192		0180-0292	\$1,000
Pipeline Interconnect				0180-0293	
Company Supervision		0180-0195	\$139,200	0180-0295	\$72,000
Overhead Fixed Rate		0180-0196	\$10,000	0180-0296	\$20,000
Well Abandonment		0180-0198		0180-0298	
Contingencies 10% (TCP) 10% (CC)		0180-0199	\$248,500	0180-0299	\$347,700
TOTAL			\$2,733,800		\$3,825,000

TANGIBLE COSTS 0181		CODE	TCP	CODE	CC
Casing (19.1" - 30")		0181-0793			
Casing (10.1" - 19.0") 630' - 13 3/8" 54.5# J-55 ST&C @ \$35.90/ft		0181-0794	\$24,200		
Casing (8.1" - 10.0") 4360' - 9 5/8" 40# N-80 LT&C @ \$27.61/ft		0181-0795	\$128,600		
Casing (6.1" - 8.0") 12370' - 7" 29# P-110 LT&C @ \$27.76/ft		0181-0796	\$366,800		
Casing (4.1" - 6.0") 5340' - 4 1/2" 13.5# P-110 LTC @ \$13.66/ft				0181-0797	\$78,000
Tubing 11470' - 2 7/8" 6.5# L-80 EUE 8rd @ \$5.62/ft				0181-0798	\$68,900
Drilling Head		0181-0860	\$45,000		
Tubing Head & Upper Section				0181-0870	\$30,000
Horizontal Completion Tools Completion Liner Hanger				0181-0871	\$30,000
Sucker Rods				0181-0875	
Subsurface Equipment				0181-0880	
Artificial Lift Systems Gas Lift Valves				0181-0884	\$15,000
Pumping Unit				0181-0885	
Surface Pumps & Prime Movers 1/2 VRU/SWD Pump/Circ Pump				0181-0886	\$40,000
Tanks - Oil 3 - 750 bbl				0181-0890	\$55,000
Tanks - Water 3 - 750 bbl				0181-0891	\$66,000
Separation / Treating Equipment 30"x10"x1k# 3 ph/36"x15"x1k#/Gun bbl/VRT				0181-0895	\$75,000
Heater Treaters, Line Heaters 8"x20"x75# HT				0181-0897	\$25,000
Metering Equipment				0181-0898	\$14,000
Line Pipe & Valves - Gathering				0181-0900	\$25,000
Fittings / Valves & Accessories				0181-0906	\$50,000
Cathodic Protection				0181-0908	\$8,000
Electrical Installation				0181-0909	\$50,000
Equipment Installation				0181-0910	\$50,000
Pipeline Construction				0181-0920	\$25,000
TOTAL			\$664,800		\$714,900
SUBTOTAL			\$3,298,400		\$4,539,900
TOTAL WELL COST			\$7,838,300		

Extra Expense Insurance

☐ I elect to be covered by Operator's Extra Expense Insurance and pay my proportionate share of the premium.
Operator has secured Extra Expense Insurance covering costs of well control, clean up and redrilling as estimated in Line Item 0180-0185.

☐ I elect to purchase my own well control insurance policy.

If neither box is checked above, non-operating working interest owner elects to be covered by Operator's well control insurance.

Prepared by: <u>B. Talley</u>	Date: <u>7/6/2018</u>
Company Approval: <u>M. White</u>	Date: <u>7/6/2018</u>
Joint Owner Interest: _____ Amount: _____	
Joint Owner Name: _____ Signature: _____	

**STATE OF NEW MEXICO
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES
OIL CONSERVATION DIVISION**

**APPLICATION OF MEWBOURNE OIL
COMPANY FOR COMPULSORY POOLING,
LEA COUNTY, NEW MEXICO**

Case No. 20091

**SELF-AFFIRMED STATEMENT OF
JORDAN CARRELL**

1. I am over 18 years of age and am competent to provide this Self-Affirmed Statement. I have personal knowledge of the matters addressed herein.

2. I am a geologist at Mewbourne Oil Company ("Mewbourne"). I am familiar with the development of Mewbourne's proposed wells and the geological matters that pertain to Mewbourne's application.

3. Attached hereto as Exhibit A is a structure contour map depicting the top of the Wolfcamp formation. The map depicts the Wolfcamp in the vicinity of Mewbourne's proposed Red Hills West 21 W0CN Fed Com #1H and Red Hills West 21 W1CN Fed Com #2H wells and a line of cross section.

4. Attached hereto as Exhibit B is cross section running west to east which identifies the targets for both wells.

5. Attached hereto as Exhibit C is a production table identifying Wolfcamp wells in the surrounding area that have been drilled in the same zones that Mewbourne is targeting.

6. Based on the information contained in Exhibits A, B and C, I am able to conclude that:

- a) The horizontal spacing unit ("HSU") for the proposed wells is justified from a geologic sandpoint;

OCD Case No. 20091

MEWBOURNE OIL
Exhibit #2

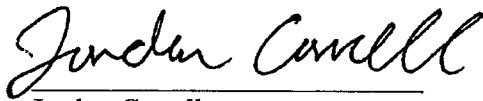
- b) A north to south orientation is preferred;
- c) There is no faulting or other geologic impediment that could adversely affect the drilling of the proposed wells; and
- d) Each quarter section in the HSU will contribute more or less equally to production.

7. The well plan for the Red Hills West 21 W0CN Fed Com #1H is attached hereto as Exhibit D and the well plan for the Red Hills West 21 W1CN Fed Com #2H is attached hereto as Exhibit E. The producing intervals of both wells will be orthodox, and will comply with the Division's setback requirements.

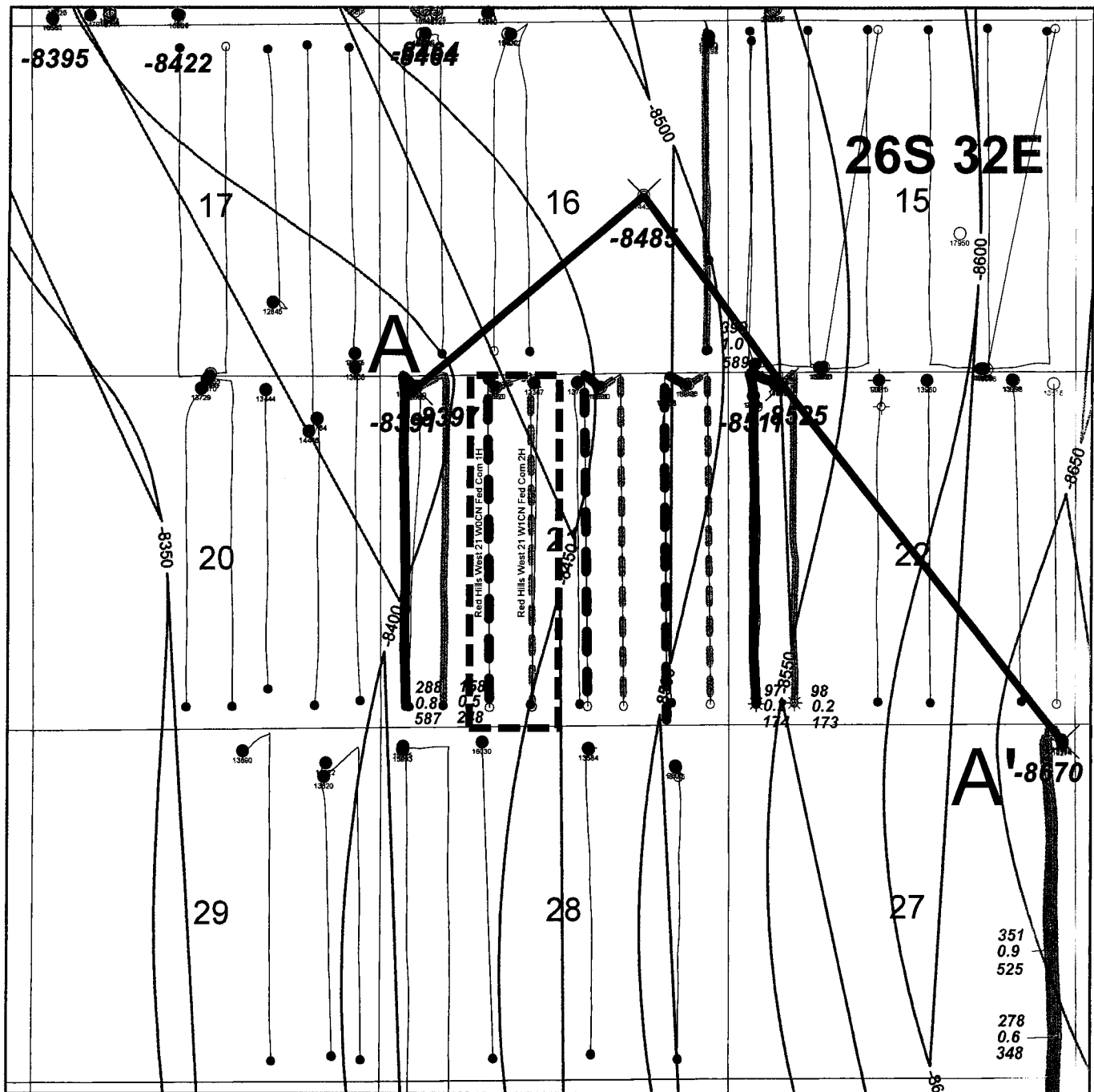
8. Exhibits A through E were either prepared by me or compiled from company records.

9. In my opinion, the granting of Mewbourne's application will serve the interests of conservation and the prevention of waste.

10. I understand that this Self-Affirmed Statement will be used as written testimony in this case. I affirm that my testimony in paragraphs 1 through 9 above is true and correct and is made under penalty of perjury under the laws of the State of New Mexico. My testimony is made as of the date handwritten next to my signature below.


Jordan Carrell

11-14-2018
Date



Wells deeper than 7000'

2500 0 2500 ft

1 inch = 2250 feet



WFMP Cum Oil (MBO)

WFMP Cum Gas (BCF)

WFMP Cum Water (MBW)

Wolfcamp Top
sub sea depth (ft)

Wolfcamp Horizontal Color Code

- WFMP Sand Well
- WFMP Sand Permit
- WFMP A Shale Well
- WFMP A Shale Permit



Mewbourne Oil Company

**Red Hills West 21 W0CN Fed Com #1H &
Red Hills West 21 W1CN Fed Com #2H**
Wolfcamp Top Structure Contour Map
C.I. = 50'

11/12/2018

Lea County

Scale: 1" = 2250'

Exhibit
A

A

MEWBOURNE OIL CO
RED HILLS WEST 21 W10M 2H
185 FNU550 FWL
TWP. 26 S. - Range. 32 E. - Sec. 21
Reference=KB
Datum=5177.00

4524 ft

300254168500

CONOCOPHILLIPS CO
RED HILLS WEST 16 S 1
185 FNU820 FWL
TWP. 26 S. - Range. 32 E. - Sec. 16
Reference=KB
Datum=3222.00

3545 ft

300254291101

MEWBOURNE OIL CO
RED HILLS WEST 16 S 3H
185 FNU820 FWL
TWP. 26 S. - Range. 32 E. - Sec. 22
Reference=KB
Datum=3172.00

6801 ft

300254286501

CONOCOPHILLIPS CO
BATTLE AXE 27 FEDER 1H
240 FNU 245 FEL
TWP. 26 S. - Range. 32 E. - Sec. 27
Reference=KB
Datum=3145.00

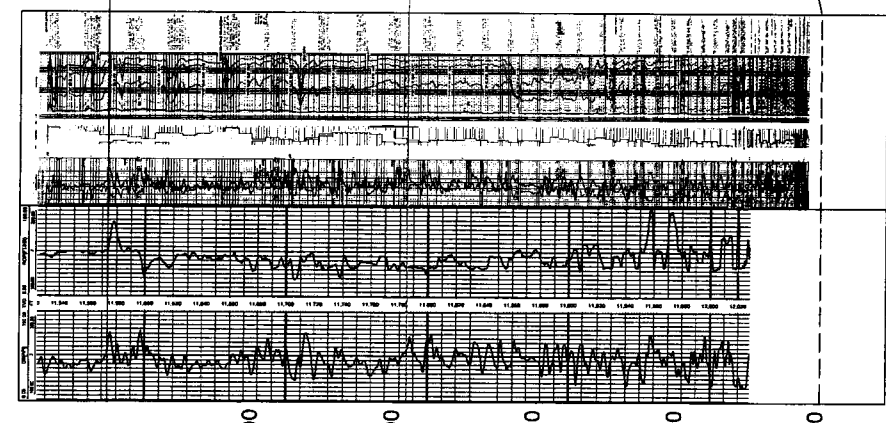
A'

21D

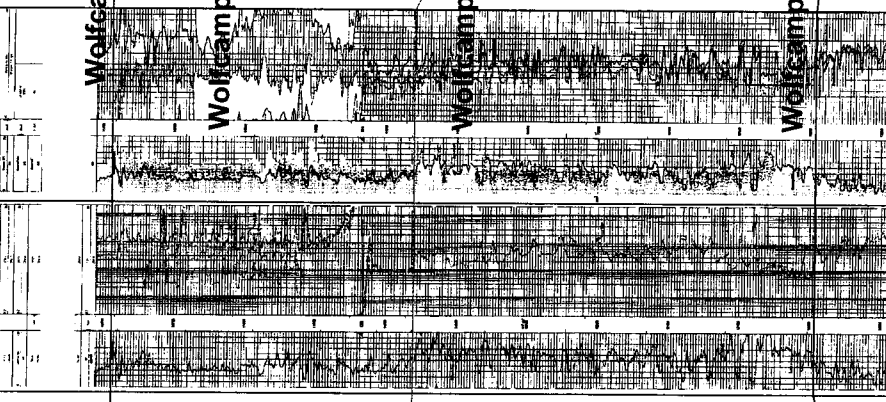
16H

22D

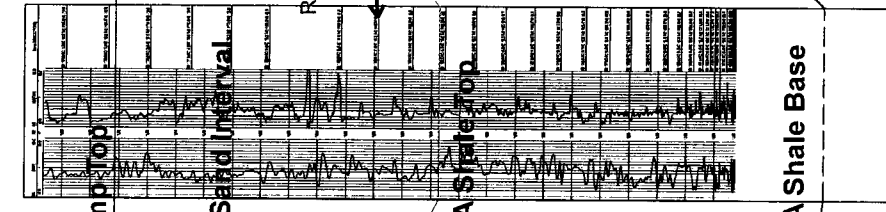
27A



TD=12500.00



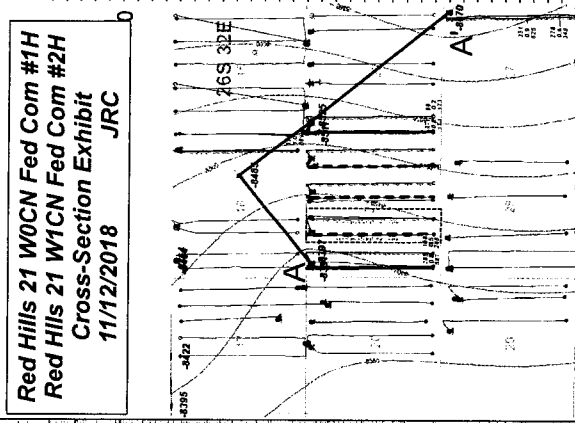
TD=14431.00



TD=16697.73



TD=19105.00



-400

-500

Exhibit
B

Red Hills West 21 Wolfcamp Production Data Table										
Well Name	Operator	API	Location	Vertical/Horizontal	Completion Date	Cum Oil (MBO)	Cum Gas (BCF)	Cum Water (MBW)	NS/EW	H2 Target
RED HILLS WEST 16 STATE W/1 #11H	CONOCOPHILLIPS CO	300254170700	16AP/26S/32E	HORIZONTAL	12/4/2015	399	1.0	589	NS	Lower WFMP A
BATTLE AXE 27 FED COM #1H	CONOCOPHILLIPS CO	300254289500	27A34H/26S/32E	HORIZONTAL	6/7/2017	278	0.6	348	NS	Lower WFMP A
BATTLE AXE 27 FED COM #2H	CONOCOPHILLIPS CO	300254289600	27A34H/26S/32E	HORIZONTAL	6/13/2017	351	0.9	525	NS	Upper WFMP A
RED HILLS WEST 22 W1DM FED COM #3H	MEWBOURNE OIL CO	300254291100	22DM/26S/32E	HORIZONTAL	6/30/2018	98	0.2	173	NS	Lower WFMP A
RED HILLS WEST 22 W0DM COM #4H	MEWBOURNE OIL CO	300254449600	22DM/26S/32E	HORIZONTAL	6/30/2018	97	0.2	174	NS	WFMP Sd
RED HILLS 21 W1DM FED COM #2H	MEWBOURNE OIL CO	300254342700	21DM/26S/32E	HORIZONTAL	9/11/2017	158	0.5	248	NS	Lower WFMP A
RED HILLS WEST 21 W0DM FED COM #3H	MEWBOURNE OIL CO	300254291400	21DM/26S/32E	HORIZONTAL	9/11/2017	288	0.8	587	NS	WFMP Sd
RED HILLS WEST 21 W1AP FED COM #2H	MEWBOURNE OIL CO	300254524700	21AP/26S/32E	HORIZONTAL	Permit approved 9/24/18	-	-	-	NS	Lower WFMP A
RED HILLS WEST 21 W0AP FED COM #3H	MEWBOURNE OIL CO	300254291200	21AP/26S/32E	HORIZONTAL	Spud 11/5/2018	-	-	-	NS	WFMP Sd
RED HILLS WEST 21 W1BO FED COM #3H	MEWBOURNE OIL CO	N/A	21BO/26S/32E	HORIZONTAL	Permit pending	-	-	-	NS	Lower WFMP A
RED HILLS WEST 21 W0BO FED COM #4H	MEWBOURNE OIL CO	N/A	21BO/26S/32E	HORIZONTAL	Permit pending	-	-	-	NS	WFMP Sd
RED HILLS WEST 21 W1CN FED COM #2H	MEWBOURNE OIL CO	N/A	21CN/26S/32E	HORIZONTAL	Permit pending	-	-	-	NS	Lower WFMP A
RED HILLS WEST 21 W0CN FED COM #1H	MEWBOURNE OIL CO	N/A	21CN/26S/32E	HORIZONTAL	Permit pending	-	-	-	NS	WFMP Sd

Exhibit
C

Mewbourne Oil Company

Lea County, New Mexico NAD 83

Red Hills West 21 W0CN Fed Com #1H

Sec 21, T26S, R32E

SL: 185' FNL & 1750' FWL

BHL: 330' FSL & 1650' FWL

Plan: Design #1

Standard Planning Report

02 July, 2018

**Exhibit
D**

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Red Hills West 21 W0CN Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3180.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	MD Reference:	WELL @ 3180.0usft (Original Well Elev)
Site:	Red Hills West 21 W0CN Fed Com #1H	North Reference:	Grid
Well:	Sec 21, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 1650' FWL		
Design:	Design #1		

Project	Lea County, New Mexico NAD 83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Red Hills West 21 W0CN Fed Com #1H				
Site Position:		Northing:	377,097.00 usft	Latitude:	32.0350516
From:	Map	Easting:	742,879.00 usft	Longitude:	-103.6829330
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.35 °

Well	Sec 21, T26S, R32E					
Well Position	+N/-S	0.0 usft	Northing:	377,097.00 usft	Latitude:	32.0350516
	+E/-W	0.0 usft	Easting:	742,879.00 usft	Longitude:	-103.6829330
Position Uncertainty	0.0 usft	Wellhead Elevation:	3,180.0 usft	Ground Level:	3,153.0 usft	

Wellbore	BHL: 330' FSL & 1650' FWL				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/2/2018	6.75	59.81	47,789

Design	Design #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	180.95

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,510.0	0.00	0.00	4,510.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,596.0	1.72	329.87	4,596.0	1.1	-0.6	2.00	2.00	0.00	329.87	
11,214.0	1.72	329.87	11,211.0	172.9	-100.4	0.00	0.00	0.00	0.00	
11,300.0	0.00	0.01	11,297.0	174.0	-101.0	2.00	-2.00	0.00	180.00	KOP @ 11297'
12,049.8	89.87	179.76	11,775.0	-302.9	-99.0	11.99	11.99	0.00	179.76	
16,579.9	89.87	179.76	11,785.0	-4,833.0	-80.0	0.00	0.00	0.00	0.00	BHL: 330' FSL & 1650'

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Red Hills West 21 WOCN Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3180.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	MD Reference:	WELL @ 3180.0usft (Original Well Elev)
Site:	Red Hills West 21 WOCN Fed Com #1H	North Reference:	Grid
Well:	Sec 21, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 1650' FWL		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
SL: 185' FNL & 1750' FWL									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,510.0	0.00	0.00	4,510.0	0.0	0.0	0.0	0.00	0.00	0.00
4,598.0	1.72	329.87	4,598.0	1.1	-0.6	-1.1	2.00	2.00	0.00
4,600.0	1.72	329.87	4,600.0	1.2	-0.7	-1.2	0.00	0.00	0.00
4,700.0	1.72	329.87	4,699.9	3.8	-2.2	-3.8	0.00	0.00	0.00
4,800.0	1.72	329.87	4,799.9	6.4	-3.7	-6.3	0.00	0.00	0.00
4,900.0	1.72	329.87	4,899.9	9.0	-5.2	-8.9	0.00	0.00	0.00
5,000.0	1.72	329.87	4,999.8	11.6	-6.7	-11.5	0.00	0.00	0.00

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Red Hills West 21 WOCN Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3180.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	MD Reference:	WELL @ 3180.0usft (Original Well Elev)
Site:	Red Hills West 21 WOCN Fed Com #1H	North Reference:	Grid
Well:	Sec 21, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 1650' FWL		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,100.0	1.72	329.87	5,099.8	14.2	-8.2	-14.1	0.00	0.00	0.00
5,200.0	1.72	329.87	5,199.7	16.8	-9.7	-16.6	0.00	0.00	0.00
5,300.0	1.72	329.87	5,299.7	19.4	-11.3	-19.2	0.00	0.00	0.00
5,400.0	1.72	329.87	5,399.6	22.0	-12.8	-21.8	0.00	0.00	0.00
5,500.0	1.72	329.87	5,499.6	24.6	-14.3	-24.3	0.00	0.00	0.00
5,600.0	1.72	329.87	5,599.5	27.2	-15.8	-26.9	0.00	0.00	0.00
5,700.0	1.72	329.87	5,699.5	29.8	-17.3	-29.5	0.00	0.00	0.00
5,800.0	1.72	329.87	5,799.4	32.4	-18.8	-32.1	0.00	0.00	0.00
5,900.0	1.72	329.87	5,899.4	35.0	-20.3	-34.6	0.00	0.00	0.00
6,000.0	1.72	329.87	5,999.4	37.6	-21.8	-37.2	0.00	0.00	0.00
6,100.0	1.72	329.87	6,099.3	40.2	-23.3	-39.8	0.00	0.00	0.00
6,200.0	1.72	329.87	6,199.3	42.7	-24.8	-42.3	0.00	0.00	0.00
6,300.0	1.72	329.87	6,299.2	45.3	-26.3	-44.9	0.00	0.00	0.00
6,400.0	1.72	329.87	6,399.2	47.9	-27.8	-47.5	0.00	0.00	0.00
6,500.0	1.72	329.87	6,499.1	50.5	-29.3	-50.0	0.00	0.00	0.00
6,600.0	1.72	329.87	6,599.1	53.1	-30.8	-52.6	0.00	0.00	0.00
6,700.0	1.72	329.87	6,699.0	55.7	-32.3	-55.2	0.00	0.00	0.00
6,800.0	1.72	329.87	6,799.0	58.3	-33.9	-57.8	0.00	0.00	0.00
6,900.0	1.72	329.87	6,898.9	60.9	-35.4	-60.3	0.00	0.00	0.00
7,000.0	1.72	329.87	6,998.9	63.5	-36.9	-62.9	0.00	0.00	0.00
7,100.0	1.72	329.87	7,098.9	66.1	-38.4	-65.5	0.00	0.00	0.00
7,200.0	1.72	329.87	7,198.8	68.7	-39.9	-68.0	0.00	0.00	0.00
7,300.0	1.72	329.87	7,298.8	71.3	-41.4	-70.6	0.00	0.00	0.00
7,400.0	1.72	329.87	7,398.7	73.9	-42.9	-73.2	0.00	0.00	0.00
7,500.0	1.72	329.87	7,498.7	76.5	-44.4	-75.7	0.00	0.00	0.00
7,600.0	1.72	329.87	7,598.6	79.1	-45.9	-78.3	0.00	0.00	0.00
7,700.0	1.72	329.87	7,698.6	81.7	-47.4	-80.9	0.00	0.00	0.00
7,800.0	1.72	329.87	7,798.5	84.3	-48.9	-83.5	0.00	0.00	0.00
7,900.0	1.72	329.87	7,898.5	86.9	-50.4	-86.0	0.00	0.00	0.00
8,000.0	1.72	329.87	7,998.5	89.5	-51.9	-88.6	0.00	0.00	0.00
8,100.0	1.72	329.87	8,098.4	92.1	-53.4	-91.2	0.00	0.00	0.00
8,200.0	1.72	329.87	8,198.4	94.7	-54.9	-93.7	0.00	0.00	0.00
8,300.0	1.72	329.87	8,298.3	97.3	-56.5	-96.3	0.00	0.00	0.00
8,400.0	1.72	329.87	8,398.3	99.8	-58.0	-98.9	0.00	0.00	0.00
8,500.0	1.72	329.87	8,498.2	102.4	-59.5	-101.4	0.00	0.00	0.00
8,600.0	1.72	329.87	8,598.2	105.0	-61.0	-104.0	0.00	0.00	0.00
8,700.0	1.72	329.87	8,698.1	107.6	-62.5	-106.6	0.00	0.00	0.00
8,800.0	1.72	329.87	8,798.1	110.2	-64.0	-109.2	0.00	0.00	0.00
8,900.0	1.72	329.87	8,898.0	112.8	-65.5	-111.7	0.00	0.00	0.00
9,000.0	1.72	329.87	8,998.0	115.4	-67.0	-114.3	0.00	0.00	0.00
9,100.0	1.72	329.87	9,098.0	118.0	-68.5	-116.9	0.00	0.00	0.00
9,200.0	1.72	329.87	9,197.9	120.6	-70.0	-119.4	0.00	0.00	0.00
9,300.0	1.72	329.87	9,297.9	123.2	-71.5	-122.0	0.00	0.00	0.00
9,400.0	1.72	329.87	9,397.8	125.8	-73.0	-124.6	0.00	0.00	0.00
9,500.0	1.72	329.87	9,497.8	128.4	-74.5	-127.1	0.00	0.00	0.00
9,600.0	1.72	329.87	9,597.7	131.0	-76.0	-129.7	0.00	0.00	0.00
9,700.0	1.72	329.87	9,697.7	133.6	-77.5	-132.3	0.00	0.00	0.00
9,800.0	1.72	329.87	9,797.6	136.2	-79.0	-134.9	0.00	0.00	0.00
9,900.0	1.72	329.87	9,897.6	138.8	-80.6	-137.4	0.00	0.00	0.00
10,000.0	1.72	329.87	9,997.6	141.4	-82.1	-140.0	0.00	0.00	0.00
10,100.0	1.72	329.87	10,097.5	144.0	-83.6	-142.6	0.00	0.00	0.00
10,200.0	1.72	329.87	10,197.5	146.6	-85.1	-145.1	0.00	0.00	0.00
10,300.0	1.72	329.87	10,297.4	149.2	-86.6	-147.7	0.00	0.00	0.00
10,400.0	1.72	329.87	10,397.4	151.8	-88.1	-150.3	0.00	0.00	0.00

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Red Hills West 21 W0CN Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3180.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	MD Reference:	WELL @ 3180.0usft (Original Well Elev)
Site:	Red Hills West 21 W0CN Fed Com #1H	North Reference:	Grid
Well:	Sec 21, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 1650' FWL		
Design:	Design #1		

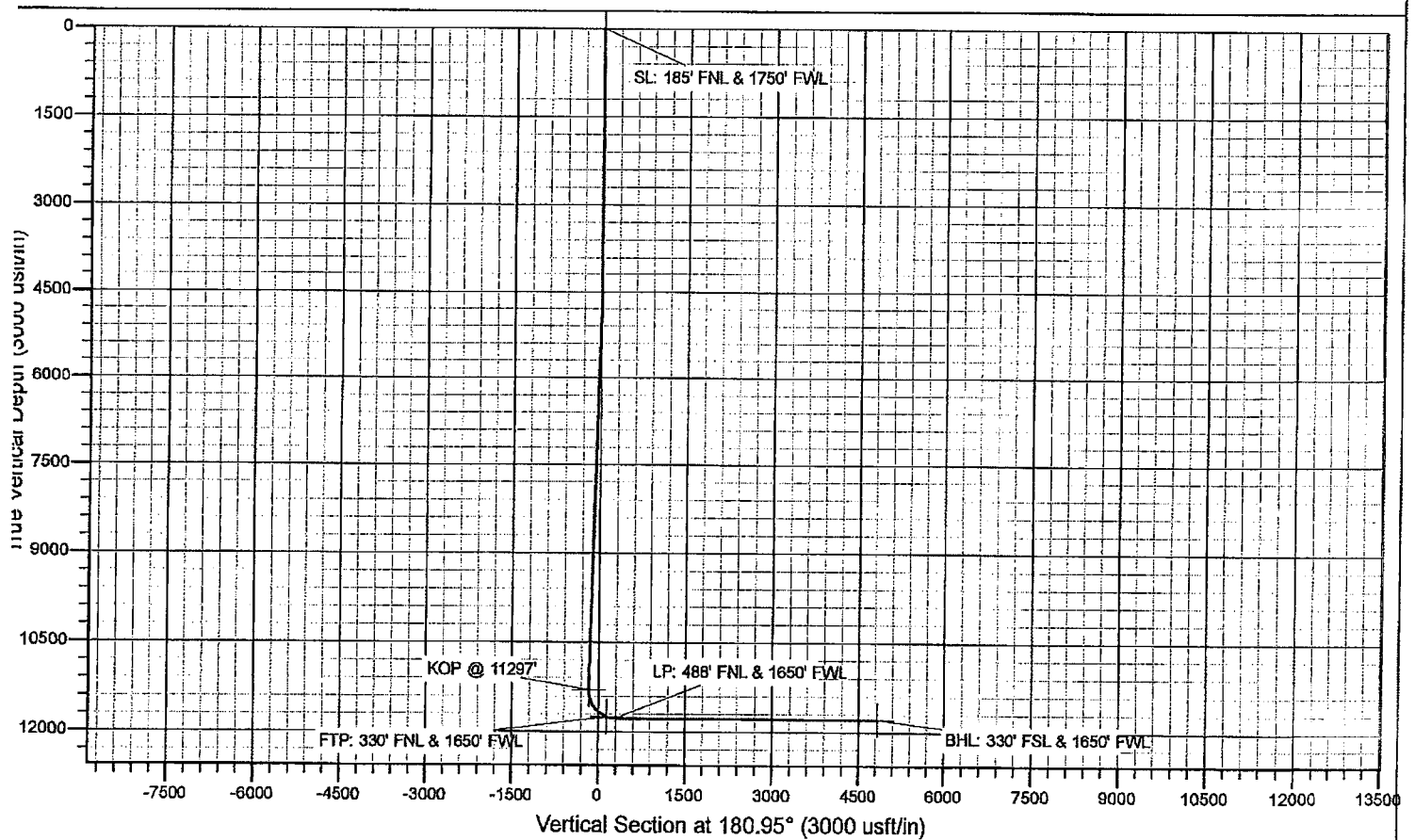
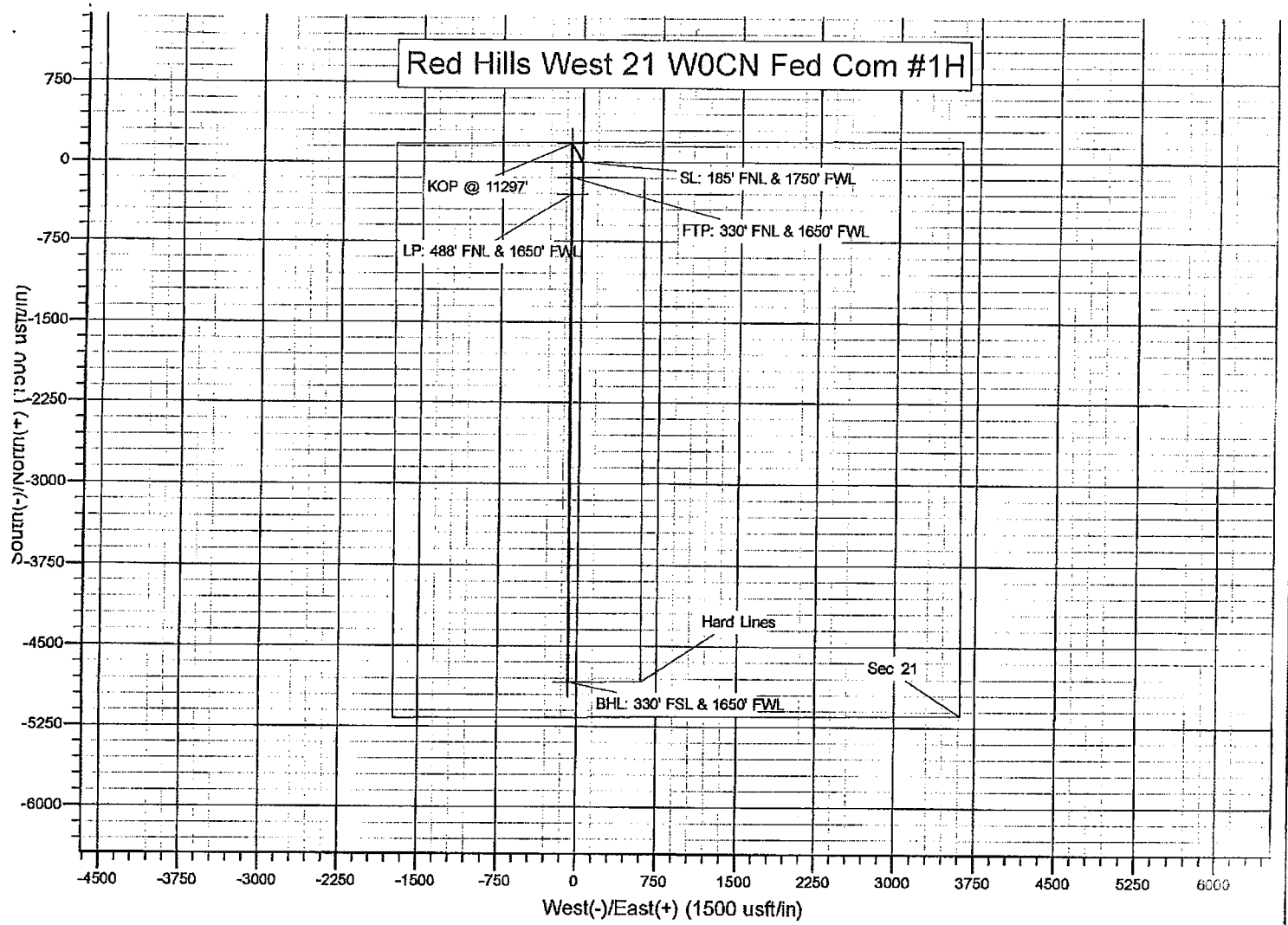
Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,500.0	1.72	329.87	10,497.3	154.4	-89.6	-152.8	0.00	0.00	0.00
10,600.0	1.72	329.87	10,597.3	156.9	-91.1	-155.4	0.00	0.00	0.00
10,700.0	1.72	329.87	10,697.2	159.5	-92.6	-158.0	0.00	0.00	0.00
10,800.0	1.72	329.87	10,797.2	162.1	-94.1	-160.6	0.00	0.00	0.00
10,900.0	1.72	329.87	10,897.1	164.7	-95.6	-163.1	0.00	0.00	0.00
11,000.0	1.72	329.87	10,997.1	167.3	-97.1	-165.7	0.00	0.00	0.00
11,100.0	1.72	329.87	11,097.1	169.9	-98.6	-168.3	0.00	0.00	0.00
11,200.0	1.72	329.87	11,197.0	172.5	-100.1	-170.8	0.00	0.00	0.00
11,214.0	1.72	329.87	11,211.0	172.9	-100.4	-171.2	0.00	0.00	0.00
11,300.0	0.00	0.01	11,297.0	174.0	-101.0	-172.3	2.00	-2.00	0.00
KOP @ 11297'									
11,400.0	11.99	179.76	11,396.3	163.6	-101.0	-161.9	11.99	11.99	0.00
11,500.0	23.97	179.76	11,491.2	132.8	-100.8	-131.1	11.99	11.99	0.00
11,600.0	35.96	179.76	11,577.7	82.9	-100.6	-81.2	11.99	11.99	0.00
11,700.0	47.95	179.76	11,651.9	16.2	-100.3	-14.5	11.99	11.99	0.00
11,800.0	59.93	179.76	11,710.7	-64.5	-100.0	66.2	11.99	11.99	0.00
11,888.8	70.57	179.76	11,747.8	-145.0	-99.7	146.7	11.99	11.99	0.00
FTP: 330' FNL & 1650' FWL									
11,900.0	71.92	179.76	11,751.4	-155.6	-99.6	157.3	11.99	11.99	0.00
12,000.0	83.90	179.76	11,772.3	-253.2	-99.2	254.9	11.99	11.99	0.00
12,049.8	89.87	179.76	11,775.0	-302.9	-99.0	304.5	11.99	11.99	0.00
LP: 488' FNL & 1650' FWL									
12,100.0	89.87	179.76	11,775.1	-353.1	-98.8	354.7	0.00	0.00	0.00
12,200.0	89.87	179.76	11,775.3	-453.1	-98.4	454.7	0.00	0.00	0.00
12,300.0	89.87	179.76	11,775.6	-553.1	-98.0	554.7	0.00	0.00	0.00
12,400.0	89.87	179.76	11,775.8	-653.1	-97.5	654.7	0.00	0.00	0.00
12,500.0	89.87	179.76	11,776.0	-753.1	-97.1	754.6	0.00	0.00	0.00
12,600.0	89.87	179.76	11,776.2	-853.1	-96.7	854.6	0.00	0.00	0.00
12,700.0	89.87	179.76	11,776.4	-953.1	-96.3	954.6	0.00	0.00	0.00
12,800.0	89.87	179.76	11,776.7	-1,053.1	-95.9	1,054.6	0.00	0.00	0.00
12,900.0	89.87	179.76	11,776.9	-1,153.1	-95.4	1,154.6	0.00	0.00	0.00
13,000.0	89.87	179.76	11,777.1	-1,253.1	-95.0	1,254.5	0.00	0.00	0.00
13,100.0	89.87	179.76	11,777.3	-1,353.1	-94.6	1,354.5	0.00	0.00	0.00
13,200.0	89.87	179.76	11,777.5	-1,453.1	-94.2	1,454.5	0.00	0.00	0.00
13,300.0	89.87	179.76	11,777.8	-1,553.1	-93.8	1,554.5	0.00	0.00	0.00
13,400.0	89.87	179.76	11,778.0	-1,653.1	-93.3	1,654.5	0.00	0.00	0.00
13,500.0	89.87	179.76	11,778.2	-1,753.1	-92.9	1,754.4	0.00	0.00	0.00
13,600.0	89.87	179.76	11,778.4	-1,853.1	-92.5	1,854.4	0.00	0.00	0.00
13,700.0	89.87	179.76	11,778.6	-1,953.1	-92.1	1,954.4	0.00	0.00	0.00
13,800.0	89.87	179.76	11,778.9	-2,053.1	-91.7	2,054.4	0.00	0.00	0.00
13,900.0	89.87	179.76	11,779.1	-2,153.1	-91.2	2,154.3	0.00	0.00	0.00
14,000.0	89.87	179.76	11,779.3	-2,253.1	-90.8	2,254.3	0.00	0.00	0.00
14,100.0	89.87	179.76	11,779.5	-2,353.1	-90.4	2,354.3	0.00	0.00	0.00
14,200.0	89.87	179.76	11,779.7	-2,453.1	-90.0	2,454.3	0.00	0.00	0.00
14,237.9	89.87	179.76	11,779.8	-2,491.0	-89.8	2,492.1	0.00	0.00	0.00
PPP-2: 2676' FNL & 1650' FWL									
14,300.0	89.87	179.76	11,780.0	-2,553.1	-89.6	2,554.3	0.00	0.00	0.00
14,400.0	89.87	179.76	11,780.2	-2,653.1	-89.1	2,654.2	0.00	0.00	0.00
14,500.0	89.87	179.76	11,780.4	-2,753.1	-88.7	2,754.2	0.00	0.00	0.00
14,600.0	89.87	179.76	11,780.6	-2,853.1	-88.3	2,854.2	0.00	0.00	0.00
14,700.0	89.87	179.76	11,780.9	-2,953.1	-87.9	2,954.2	0.00	0.00	0.00
14,800.0	89.87	179.76	11,781.1	-3,053.1	-87.5	3,054.1	0.00	0.00	0.00
14,900.0	89.87	179.76	11,781.3	-3,153.1	-87.0	3,154.1	0.00	0.00	0.00

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Red Hills West 21 WOCN Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3180.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	MD Reference:	WELL @ 3180.0usft (Original Well Elev)
Site:	Red Hills West 21 WOCN Fed Com #1H	North Reference:	Grid
Well:	Sec 21, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 1650' FWL		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
15,000.0	89.87	179.76	11,781.5	-3,253.1	-86.6	3,254.1	0.00	0.00	0.00	
15,100.0	89.87	179.76	11,781.7	-3,353.1	-86.2	3,354.1	0.00	0.00	0.00	
15,200.0	89.87	179.76	11,782.0	-3,453.1	-85.8	3,454.1	0.00	0.00	0.00	
15,300.0	89.87	179.76	11,782.2	-3,553.1	-85.4	3,554.0	0.00	0.00	0.00	
15,400.0	89.87	179.76	11,782.4	-3,653.1	-84.9	3,654.0	0.00	0.00	0.00	
15,500.0	89.87	179.76	11,782.6	-3,753.1	-84.5	3,754.0	0.00	0.00	0.00	
15,666.9	89.87	179.76	11,782.8	-3,820.0	-84.2	3,820.9	0.00	0.00	0.00	
PPP-3: 1339' FSL & 1650' FWL										
15,600.0	89.87	179.76	11,782.8	-3,853.1	-84.1	3,854.0	0.00	0.00	0.00	
15,700.0	89.87	179.76	11,783.1	-3,953.1	-83.7	3,954.0	0.00	0.00	0.00	
15,800.0	89.87	179.76	11,783.3	-4,053.1	-83.3	4,053.9	0.00	0.00	0.00	
15,900.0	89.87	179.76	11,783.5	-4,153.1	-82.9	4,153.9	0.00	0.00	0.00	
16,000.0	89.87	179.76	11,783.7	-4,253.1	-82.4	4,253.9	0.00	0.00	0.00	
16,100.0	89.87	179.76	11,783.9	-4,353.1	-82.0	4,353.9	0.00	0.00	0.00	
16,200.0	89.87	179.76	11,784.2	-4,453.1	-81.6	4,453.8	0.00	0.00	0.00	
16,300.0	89.87	179.76	11,784.4	-4,553.1	-81.2	4,553.8	0.00	0.00	0.00	
16,400.0	89.87	179.76	11,784.6	-4,653.1	-80.8	4,653.8	0.00	0.00	0.00	
16,500.0	89.87	179.76	11,784.8	-4,753.1	-80.3	4,753.8	0.00	0.00	0.00	
16,579.9	89.87	179.76	11,785.0	-4,833.0	-80.0	4,833.7	0.00	0.00	0.00	
BHL: 330' FSL & 1650' FWL										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
SL: 185' FNL & 1750' FV - plan hits target center - Point	0.00	0.01	0.0	0.0	0.0	377,097.00	742,879.00	32.0350516	-103.6829330	
KOP @ 11297' - plan hits target center - Point	0.00	0.00	11,297.0	174.0	-101.0	377,271.00	742,778.00	32.0355316	-103.6832556	
FTP: 330' FNL & 1650' F - plan hits target center - Point	0.00	0.00	11,747.8	-145.0	-99.7	376,952.00	742,779.33	32.0346547	-103.6832574	
LP: 488' FNL & 1650' FV - plan hits target center - Point	0.00	0.00	11,775.0	-302.9	-99.0	376,794.06	742,780.00	32.0342205	-103.6832584	
PPP-2: 2676' FNL & 165 - plan hits target center - Point	0.00	0.00	11,779.8	-2,491.0	-89.8	374,606.00	742,789.17	32.0282058	-103.6832712	
PPP-3: 1339' FSL & 165 - plan hits target center - Point	0.00	0.00	11,782.8	-3,820.0	-84.2	373,277.00	742,794.75	32.0245525	-103.6832791	
BHL: 330' FSL & 1650' F - plan hits target center - Point	0.00	0.00	11,785.0	-4,833.0	-80.0	372,264.00	742,799.00	32.0217679	-103.6832850	



Mewbourne Oil Company

Lea County, New Mexico NAD 83

Red Hills West 21 W1CN Fed Com #2H

Sec 21, T26S, R32E

SL: 185' FNL & 1780' FWL

BHL: 330' FSL & 2310' FWL

Plan: Design #1

Standard Planning Report

28 June, 2018

**Exhibit
E**

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Red Hills West 21 W1CN Fed Com #2H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3180.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	MD Reference:	WELL @ 3180.0usft (Original Well Elev)
Site:	Red Hills West 21 W1CN Fed Com #2H	North Reference:	Grid
Well:	Sec 21, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 2310' FWL		
Design:	Design #1		

Project:	Lea County, New Mexico NAD 83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site						Red Hills West 21 W1CN Fed Com #2H					
Site Position:		Northing:		377,097.30 usft		Latitude:		32.0350519			
From:		Map		Easting:		742,909.00 usft		Longitude:		-103.6828362	
Position Uncertainty:		0.0 usft		Slot Radius:		13-3/16 "		Grid Convergence:		0.35 °	

Well	Sec 21, T26S, R32E					
Well Position	+N/-S	0.0 usft	Northing:	377,097.30 usft	Latitude:	32.0350519
	+E/-W	0.0 usft	Easting:	742,909.00 usft	Longitude:	-103.6828362
Position Uncertainty		0.0 usft	Wellhead Elevation:	3,180.0 usft	Ground Level:	3,153.0 usft

Wellbore:	BHL: 330' FSL & 2310' FWL				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/28/2018	6.75	59.82	47,791

Design:	Design #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	173.50

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Built Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,510.0	0.00	0.00	4,510.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,747.7	4.75	71.33	4,747.4	3.2	9.3	2.00	2.00	0.00	71.33	
11,247.2	4.75	71.33	11,224.6	175.5	519.7	0.00	0.00	0.00	0.00	
11,484.9	0.00	0.00	11,462.0	178.7	529.0	2.00	-2.00	0.00	180.00	KOP @ 11462'
12,383.0	89.81	179.76	12,035.0	-392.4	531.4	10.00	10.00	0.00	179.76	
16,820.0	89.81	179.76	12,050.0	-4,829.3	550.0	0.00	0.00	0.00	0.00	BHL: 330' FSL & 2310'

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Red Hills West 21 W1CN Fed Com #2H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3180.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	MD Reference:	WELL @ 3180.0usft (Original Well Elev)
Site:	Red Hills West 21 W1CN Fed Com #2H	North Reference:	Grid
Well:	Sec 21, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 2310' FWL		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
SL: 185' FNL & 1780' FWL									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,510.0	0.00	0.00	4,510.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	1.80	71.33	4,600.0	0.5	1.3	-0.3	2.00	2.00	0.00
4,700.0	3.80	71.33	4,689.9	2.0	6.0	-1.3	2.00	2.00	0.00
4,747.7	4.75	71.33	4,747.4	3.2	9.3	-2.1	2.00	2.00	0.00
4,800.0	4.75	71.33	4,799.5	4.5	13.4	-3.0	0.00	0.00	0.00
4,900.0	4.75	71.33	4,899.2	7.2	21.3	-4.7	0.00	0.00	0.00
5,000.0	4.75	71.33	4,998.9	9.8	29.1	-6.5	0.00	0.00	0.00

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Red Hills West 21 W1CN Fed Com #2H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3180.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	MD Reference:	WELL @ 3180.0usft (Original Well Elev)
Site:	Red Hills West 21 W1CN Fed Com #2H	North Reference:	Grid
Well:	Sec 21, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 2310' FWL		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/S (usft)	+E/W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,100.0	4.75	71.33	5,098.5	12.5	37.0	-8.2	0.00	0.00	0.00
5,200.0	4.75	71.33	5,198.2	15.2	44.9	-10.0	0.00	0.00	0.00
5,300.0	4.75	71.33	5,297.8	17.8	52.7	-11.7	0.00	0.00	0.00
5,400.0	4.75	71.33	5,397.5	20.5	60.6	-13.5	0.00	0.00	0.00
5,500.0	4.75	71.33	5,497.1	23.1	68.4	-15.2	0.00	0.00	0.00
5,600.0	4.75	71.33	5,596.8	25.8	76.3	-17.0	0.00	0.00	0.00
5,700.0	4.75	71.33	5,696.5	28.4	84.1	-18.7	0.00	0.00	0.00
5,800.0	4.75	71.33	5,796.1	31.1	92.0	-20.5	0.00	0.00	0.00
5,900.0	4.75	71.33	5,895.8	33.7	99.8	-22.2	0.00	0.00	0.00
6,000.0	4.75	71.33	5,995.4	36.4	107.7	-24.0	0.00	0.00	0.00
6,100.0	4.75	71.33	6,095.1	39.0	115.5	-25.7	0.00	0.00	0.00
6,200.0	4.75	71.33	6,194.7	41.7	123.4	-27.4	0.00	0.00	0.00
6,300.0	4.75	71.33	6,294.4	44.3	131.2	-29.2	0.00	0.00	0.00
6,400.0	4.75	71.33	6,394.0	47.0	139.1	-30.9	0.00	0.00	0.00
6,500.0	4.75	71.33	6,493.7	49.6	146.9	-32.7	0.00	0.00	0.00
6,600.0	4.75	71.33	6,593.4	52.3	154.8	-34.4	0.00	0.00	0.00
6,700.0	4.75	71.33	6,693.0	54.9	162.6	-36.2	0.00	0.00	0.00
6,800.0	4.75	71.33	6,792.7	57.6	170.5	-37.9	0.00	0.00	0.00
6,900.0	4.75	71.33	6,892.3	60.2	178.3	-39.7	0.00	0.00	0.00
7,000.0	4.75	71.33	6,992.0	62.9	186.2	-41.4	0.00	0.00	0.00
7,100.0	4.75	71.33	7,091.6	65.5	194.0	-43.2	0.00	0.00	0.00
7,200.0	4.75	71.33	7,191.3	68.2	201.9	-44.9	0.00	0.00	0.00
7,300.0	4.75	71.33	7,290.9	70.9	209.7	-46.7	0.00	0.00	0.00
7,400.0	4.75	71.33	7,390.6	73.5	217.6	-48.4	0.00	0.00	0.00
7,500.0	4.75	71.33	7,490.3	76.2	225.4	-50.2	0.00	0.00	0.00
7,600.0	4.75	71.33	7,589.9	78.8	233.3	-51.9	0.00	0.00	0.00
7,700.0	4.75	71.33	7,689.6	81.5	241.1	-53.7	0.00	0.00	0.00
7,800.0	4.75	71.33	7,789.2	84.1	249.0	-55.4	0.00	0.00	0.00
7,900.0	4.75	71.33	7,888.9	86.8	256.8	-57.1	0.00	0.00	0.00
8,000.0	4.75	71.33	7,988.5	89.4	264.7	-58.9	0.00	0.00	0.00
8,100.0	4.75	71.33	8,088.2	92.1	272.6	-60.6	0.00	0.00	0.00
8,200.0	4.75	71.33	8,187.9	94.7	280.4	-62.4	0.00	0.00	0.00
8,300.0	4.75	71.33	8,287.5	97.4	288.3	-64.1	0.00	0.00	0.00
8,400.0	4.75	71.33	8,387.2	100.0	296.1	-65.9	0.00	0.00	0.00
8,500.0	4.75	71.33	8,486.8	102.7	304.0	-67.6	0.00	0.00	0.00
8,600.0	4.75	71.33	8,586.5	105.3	311.8	-69.4	0.00	0.00	0.00
8,700.0	4.75	71.33	8,686.1	108.0	319.7	-71.1	0.00	0.00	0.00
8,800.0	4.75	71.33	8,785.8	110.6	327.5	-72.9	0.00	0.00	0.00
8,900.0	4.75	71.33	8,885.4	113.3	335.4	-74.6	0.00	0.00	0.00
9,000.0	4.75	71.33	8,985.1	115.9	343.2	-76.4	0.00	0.00	0.00
9,100.0	4.75	71.33	9,084.8	118.6	351.1	-78.1	0.00	0.00	0.00
9,200.0	4.75	71.33	9,184.4	121.2	358.9	-79.9	0.00	0.00	0.00
9,300.0	4.75	71.33	9,284.1	123.9	366.8	-81.6	0.00	0.00	0.00
9,400.0	4.75	71.33	9,383.7	126.6	374.6	-83.3	0.00	0.00	0.00
9,500.0	4.75	71.33	9,483.4	129.2	382.5	-85.1	0.00	0.00	0.00
9,600.0	4.75	71.33	9,583.0	131.9	390.3	-86.8	0.00	0.00	0.00
9,700.0	4.75	71.33	9,682.7	134.5	398.2	-88.6	0.00	0.00	0.00
9,800.0	4.75	71.33	9,782.3	137.2	406.0	-90.3	0.00	0.00	0.00
9,900.0	4.75	71.33	9,882.0	139.8	413.9	-92.1	0.00	0.00	0.00
10,000.0	4.75	71.33	9,981.7	142.5	421.7	-93.8	0.00	0.00	0.00
10,100.0	4.75	71.33	10,081.3	145.1	429.6	-95.6	0.00	0.00	0.00
10,200.0	4.75	71.33	10,181.0	147.8	437.4	-97.3	0.00	0.00	0.00
10,300.0	4.75	71.33	10,280.6	150.4	445.3	-99.1	0.00	0.00	0.00
10,400.0	4.75	71.33	10,380.3	153.1	453.1	-100.8	0.00	0.00	0.00

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Red Hills West 21 W1CN Fed Com #2H
Company:	Mawbourne Oil Company	TVD Reference:	WELL @ 3180.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	MD Reference:	WELL @ 3180.0usft (Original Well Elev)
Site:	Red Hills West 21 W1CN Fed Com #2H	North Reference:	Grid
Well:	Sec 21, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 2310' FWL		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,500.0	4.75	71.33	10,479.9	155.7	461.0	-102.6	0.00	0.00	0.00
10,600.0	4.75	71.33	10,579.6	158.4	468.8	-104.3	0.00	0.00	0.00
10,700.0	4.75	71.33	10,679.3	161.0	476.7	-106.1	0.00	0.00	0.00
10,800.0	4.75	71.33	10,778.9	163.7	484.5	-107.8	0.00	0.00	0.00
10,900.0	4.75	71.33	10,878.6	166.3	492.4	-109.5	0.00	0.00	0.00
11,000.0	4.75	71.33	10,978.2	169.0	500.3	-111.3	0.00	0.00	0.00
11,100.0	4.75	71.33	11,077.9	171.6	508.1	-113.0	0.00	0.00	0.00
11,200.0	4.75	71.33	11,177.5	174.3	516.0	-114.8	0.00	0.00	0.00
11,247.2	4.75	71.33	11,224.6	175.5	519.7	-115.6	0.00	0.00	0.00
11,300.0	3.70	71.33	11,277.2	176.8	523.3	-116.4	2.00	-2.00	0.00
11,400.0	1.70	71.33	11,377.1	178.3	527.8	-117.4	2.00	-2.00	0.00
11,484.9	0.00	0.00	11,462.0	178.7	529.0	-117.7	2.00	-2.00	0.00
KOP @ 11462'									
11,500.0	1.51	179.76	11,477.1	178.5	529.0	-117.5	10.00	10.00	0.00
11,600.0	11.51	179.76	11,576.3	167.2	529.0	-106.2	10.00	10.00	0.00
11,700.0	21.51	179.76	11,672.1	138.8	529.2	-78.0	10.00	10.00	0.00
11,800.0	31.51	179.76	11,761.5	94.2	529.4	-33.7	10.00	10.00	0.00
11,900.0	41.51	179.76	11,841.7	34.8	529.6	25.3	10.00	10.00	0.00
12,000.0	51.51	179.76	11,910.5	-37.6	529.9	97.4	10.00	10.00	0.00
12,100.0	61.50	179.76	11,965.6	-120.9	530.3	180.2	10.00	10.00	0.00
12,127.0	64.21	179.76	11,977.9	-145.0	530.4	204.1	10.00	10.00	0.00
FTP: 330' FNL & 2310' FWL									
12,200.0	71.50	179.76	12,005.4	-212.5	530.6	271.2	10.00	10.00	0.00
12,300.0	81.50	179.76	12,028.7	-309.6	531.0	367.7	10.00	10.00	0.00
12,383.0	89.81	179.76	12,035.0	-392.4	531.4	450.0	10.00	10.00	0.00
LP: 577' FNL & 2310' FWL									
12,400.0	89.81	179.76	12,035.1	-409.3	531.5	466.8	0.00	0.00	0.00
12,500.0	89.81	179.76	12,035.4	-509.3	531.9	566.2	0.00	0.00	0.00
12,600.0	89.81	179.76	12,035.7	-609.3	532.3	665.6	0.00	0.00	0.00
12,700.0	89.81	179.76	12,036.1	-709.3	532.7	765.0	0.00	0.00	0.00
12,800.0	89.81	179.76	12,036.4	-809.3	533.1	864.4	0.00	0.00	0.00
12,900.0	89.81	179.76	12,036.7	-909.3	533.6	963.9	0.00	0.00	0.00
13,000.0	89.81	179.76	12,037.1	-1,009.3	534.0	1,063.3	0.00	0.00	0.00
13,100.0	89.81	179.76	12,037.4	-1,109.3	534.4	1,162.7	0.00	0.00	0.00
13,200.0	89.81	179.76	12,037.8	-1,209.3	534.8	1,262.1	0.00	0.00	0.00
13,300.0	89.81	179.76	12,038.1	-1,309.3	535.2	1,361.5	0.00	0.00	0.00
13,400.0	89.81	179.76	12,038.4	-1,409.3	535.7	1,460.9	0.00	0.00	0.00
13,500.0	89.81	179.76	12,038.8	-1,509.3	536.1	1,560.3	0.00	0.00	0.00
13,600.0	89.81	179.76	12,039.1	-1,609.3	536.5	1,659.7	0.00	0.00	0.00
13,700.0	89.81	179.76	12,039.5	-1,709.3	536.9	1,759.1	0.00	0.00	0.00
13,800.0	89.81	179.76	12,039.8	-1,809.3	537.3	1,858.5	0.00	0.00	0.00
13,900.0	89.81	179.76	12,040.1	-1,909.3	537.8	1,957.9	0.00	0.00	0.00
14,000.0	89.81	179.76	12,040.5	-2,009.3	538.2	2,057.3	0.00	0.00	0.00
14,100.0	89.81	179.76	12,040.8	-2,109.3	538.6	2,156.7	0.00	0.00	0.00
14,200.0	89.81	179.76	12,041.1	-2,209.3	539.0	2,256.1	0.00	0.00	0.00
14,300.0	89.81	179.76	12,041.5	-2,309.3	539.4	2,355.5	0.00	0.00	0.00
14,400.0	89.81	179.76	12,041.8	-2,409.3	539.9	2,454.9	0.00	0.00	0.00
14,481.7	89.81	179.76	12,042.1	-2,491.0	540.2	2,536.1	0.00	0.00	0.00
PPP-2: 2676' FNL & 2310' FWL									
14,500.0	89.81	179.76	12,042.2	-2,509.3	540.3	2,554.3	0.00	0.00	0.00
14,600.0	89.81	179.76	12,042.5	-2,609.3	540.7	2,653.7	0.00	0.00	0.00
14,700.0	89.81	179.76	12,042.8	-2,709.3	541.1	2,753.1	0.00	0.00	0.00
14,800.0	89.81	179.76	12,043.2	-2,809.3	541.5	2,852.5	0.00	0.00	0.00

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Red Hills West 21 WICN Fed Com #2H
Company:	Mowbourne Oil Company	TVD Reference:	WELL @ 3180.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	MD Reference:	WELL @ 3180.0usft (Original Well Elev)
Site:	Red Hills West 21 WICN Fed Com #2H	North Reference:	Grid
Well:	Sec 21, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 2310' FWL		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,900.0	89.81	179.76	12,043.5	-2,909.3	541.9	2,951.9	0.00	0.00	0.00
15,000.0	89.81	179.76	12,043.8	-3,009.3	542.4	3,051.3	0.00	0.00	0.00
15,100.0	89.81	179.76	12,044.2	-3,109.3	542.8	3,150.7	0.00	0.00	0.00
15,200.0	89.81	179.76	12,044.5	-3,209.3	543.2	3,250.1	0.00	0.00	0.00
15,300.0	89.81	179.76	12,044.9	-3,309.3	543.6	3,349.5	0.00	0.00	0.00
15,400.0	89.81	179.76	12,045.2	-3,409.3	544.0	3,448.9	0.00	0.00	0.00
15,500.0	89.81	179.76	12,045.5	-3,509.3	544.5	3,548.3	0.00	0.00	0.00
15,600.0	89.81	179.76	12,045.9	-3,609.3	544.9	3,647.8	0.00	0.00	0.00
15,700.0	89.81	179.76	12,046.2	-3,709.3	545.3	3,747.2	0.00	0.00	0.00
15,800.0	89.81	179.76	12,046.6	-3,809.3	545.7	3,846.6	0.00	0.00	0.00
15,810.7	89.81	179.76	12,046.6	-3,820.0	545.8	3,857.2	0.00	0.00	0.00
PPP-3: 1339' FSL & 2310' FWL									
15,900.0	89.81	179.76	12,046.9	-3,909.3	546.1	3,946.0	0.00	0.00	0.00
16,000.0	89.81	179.76	12,047.2	-4,009.3	546.6	4,045.4	0.00	0.00	0.00
16,100.0	89.81	179.76	12,047.6	-4,109.3	547.0	4,144.8	0.00	0.00	0.00
16,200.0	89.81	179.76	12,047.9	-4,209.3	547.4	4,244.2	0.00	0.00	0.00
16,300.0	89.81	179.76	12,048.2	-4,309.3	547.8	4,343.6	0.00	0.00	0.00
16,400.0	89.81	179.76	12,048.6	-4,409.3	548.2	4,443.0	0.00	0.00	0.00
16,500.0	89.81	179.76	12,048.9	-4,509.3	548.7	4,542.4	0.00	0.00	0.00
16,600.0	89.81	179.76	12,049.3	-4,609.3	549.1	4,641.8	0.00	0.00	0.00
16,700.0	89.81	179.76	12,049.6	-4,709.3	549.5	4,741.2	0.00	0.00	0.00
16,800.0	89.81	179.76	12,049.9	-4,809.3	549.9	4,840.6	0.00	0.00	0.00
16,820.0	89.81	179.76	12,050.0	-4,829.3	550.0	4,860.5	0.00	0.00	0.00
BHL: 330' FSL & 2310' FWL									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SL: 185' FNL & 1780' FV - hit/miss target - Shape - Point	0.00	0.00	0.0	0.0	0.0	377,097.30	742,909.00	32.0350519	-103.6828362
KOP @ 11462' - plan hits target center - Point	0.00	0.00	11,462.0	178.7	529.0	377,276.00	743,438.00	32.0355344	-103.6811257
FTP: 330' FNL & 2310' I - plan hits target center - Point	0.00	0.00	11,977.9	-145.0	530.4	376,952.30	743,439.35	32.0346446	-103.6811276
LP: 577' FNL & 2310' FV - plan hits target center - Point	0.00	0.01	12,035.0	-392.4	531.4	376,704.94	743,440.39	32.0339646	-103.6811291
PPP-2: 2676' FNL & 231 - plan hits target center - Point	0.00	0.00	12,042.1	-2,491.0	540.2	374,606.30	743,449.19	32.0281957	-103.6811416
PPP-3: 1339' FSL & 231 - plan hits target center - Point	0.00	0.00	12,046.6	-3,820.0	545.8	373,277.30	743,454.78	32.0245424	-103.6811495
BHL: 330' FSL & 2310' F - plan hits target center - Point	0.00	0.00	12,050.0	-4,829.3	550.0	372,268.00	743,459.00	32.0217680	-103.6811555

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Red Hills West 21 W1CN Fed Com #2H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3180.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	MD Reference:	WELL @ 3180.0usft (Original Well Elev)
Site:	Red Hills West 21 W1CN Fed Com #2H	North Reference:	Grid
Well:	Sec 21, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 2310' FWL		
Design:	Design #1		

Red Hills West 21 W1CN Fed Com #2H

