Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM31649

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.:

8. Lease Name and Well No.: ALTHEA 18 FED 103H

2. Name of Operator: MEWBOURNE OIL COMPANY

9. API Well No.: 30-015-53484

3a. Address: P O BOX 5270, HOBBS, NM 88241

3b. Phone No. *(include area code)*: (575) 393-5905

10. Field and Pool, or Exploratory: WC025 G09 S263406D;~~RED HILLS UPP~~

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: TR O / 590 FSL / 1422 FEL / LAT 32.036816 / LONG -103.916625

At proposed prod. zone: TR J / 2560 FSL / 1484 FEL / LAT 32.05684 / LONG -103.916797

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 18/T26S/R30E/NMP

14. Distance in miles and direction from nearest town or post office*

12. County or Parish: EDDY

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 100 feet

16. No of acres in lease:

17. Spacing Unit dedicated to this well: 480.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 15 feet

19. Proposed Depth: 7588 feet / 15241 feet

20. BLM/BIA Bond No. in file: FED:

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3093 feet

22. Approximate date work will start*: 04/15/2021

23. Estimated duration: 25 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	STAR HARRELL / Ph: (575) 393-5905	10/15/2020

Title: Regulatory Specialist

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	CODY LAYTON / Ph: (575) 234-5959	01/25/2023

Title	Office
Assistant Field Manager Lands & Minerals	Carlsbad Field Office

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

APPROVED WITH CONDITIONS

Approval Date: 01/25/2023

(Continued on page 2)

*(Instructions on page 2)

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 Rd., 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, New Mexico 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015- 53484	98211	WC-015 G-03S262925D; BONE SPRING

Property Code	Property Name	Well Number
333828	ALTHEA 18 FED	103H

OGRID No.	Operator Name	Elevation
14744	MEWBOURNE OIL COMPANY	3093'

Surface Location

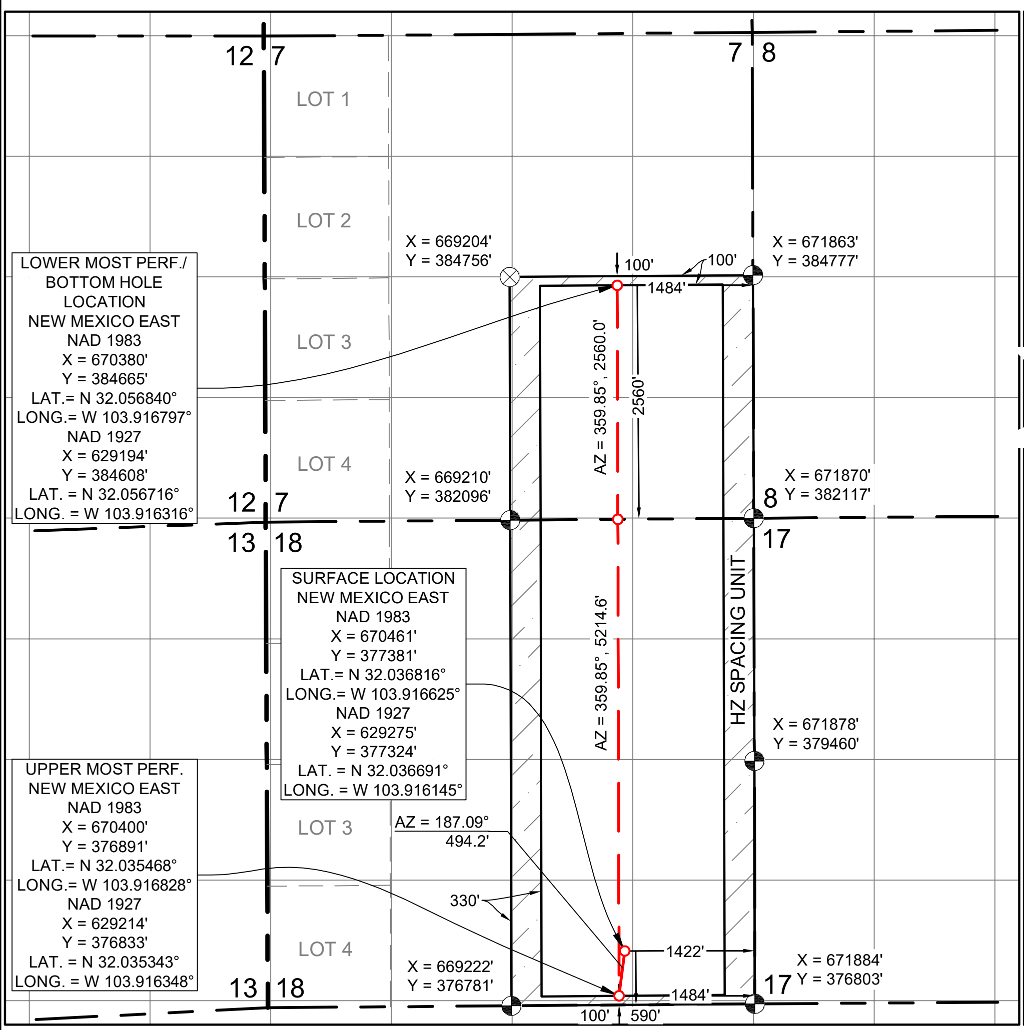
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	18	26 S	30 E		590	SOUTH	1422	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	7	26 S	30 E		2560	SOUTH	1484	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidated Code	Order No.
480.00			

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



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

[signature] 2/28/23
Signature Date

BRADLEY BISHOP
Print Name

BBISHOP@MEWBOURNE.COM
E-mail Address

SURVEYORS CERTIFICATION

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

MAY 14, 2020
Date of Survey

Signature and Seal of Professional Surveyor: 07/01/20

CASEY WAYNE FAIRCLOTH NEW MEXICO 21051 PROFESSIONAL SURVEYOR

Job No.: EOG_190035
CASEY WAYNE FAIRCLOTH, N.M.P.L.S.
Certificate Number 21051

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: Mewbourne Oil Co. **OGRID:** 14744 **Date:** 5/2/22

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Althea 18 Fed 103H		O 18 26S 30E	590' FSL x 1422' FEL	1500	5000	4000

IV. Central Delivery Point Name: Althea 18 Fed 103H [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Althea 18 Fed 103H		7/2/22	8/2/22	9/2/22	9/17/22	9/17/22

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

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I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:	Bradley Bishop
Printed Name:	BRADLEY BISHOP
Title:	REGULATORY MANAGER
E-mail Address:	BBISHOP@MEWBOURNE.COM
Date:	5/2/22
Phone:	575-393-5905

OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)

Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

Mewbourne Oil Company

Natural Gas Management Plan – Attachment

VI. Separation equipment will be sized by construction engineering staff based on stated manufacturer daily throughput capacities and anticipated daily production rates to ensure adequate capacity. Closed vent system piping, compression needs, and VRUs will be sized utilizing ProMax modelling software to ensure adequate capacity for anticipated production volumes and conditions.

VII. Mewbourne Oil Company (MOC) will take following actions to comply with the regulations listed in 19.15.27.8 :

A. MOC will maximize the recovery of natural gas by minimizing the waste, as defined by 19.15.2 NMAC, of natural gas through venting and flaring. MOC will ensure that well(s) will be connected to a natural gas gathering system with sufficient capacity to transport natural gas. If there is no adequate takeaway for the gas, well(s) will be shut in until the natural gas gathering system is available.

B. All drilling operations will be equipped with a rig flare located at least 100 ft from the nearest surface hole. Rig flare will be utilized to combust any natural gas that is brought to surface during normal drilling operations. In the case of emergency venting or flaring the volumes will be estimated and reported appropriately.

C. During completion operations any natural gas brought to surface will be flared. Immediately following the finish of completion operations, all well flow will be directed to permanent separation equipment. Produced natural gas from separation equipment will be sent to sales. It is not anticipated that gas will not meet pipeline standards. However, if natural gas does not meet gathering pipeline quality specifications, MOC will flare the natural gas for 60 days or until the natural gas meets the pipeline quality specifications, whichever is sooner. MOC will ensure that the flare is sized properly and is equipped with automatic igniter or continuous pilot. The gas sample will analyzed twice per week and the gas will be routed into a gathering system as soon as pipeline specifications are met.

D. Natural gas will not be flared with the exceptions and provisions listed in the 19.15.27.8 D.(1) through (4). If there is no adequate takeaway for the separator gas, well(s) will be shut in until the natural gas gathering system is available with exception of emergency or malfunction situations. Venting and/or flaring volumes will be estimated and reported appropriately.

E. MOC will comply with the performance standards requirements and provisions listed in 19.15.27.8 E.(1) through (8). All equipment will be designed and sized to handle maximum anticipated pressures and throughputs in order to minimize the waste. Production storage tanks constructed after May 25, 2021 will be equipped with automatic gauging system. Flares constructed after May 25, 2021 will be equipped with automatic igniter or continuous pilot. Flares will be located at least 100' from the well and storage tanks unless otherwise approved by the division. MOC will conduct AVO inspections as described in 19.15.27.8 E (5) (a) with frequencies specified in 19.15.27.8 E (5) (b) and (c). All emergencies will be resolved as quickly and safely as feasible to minimize waste.

F. The volume of natural gas that is vented or flared as the result of malfunction or emergency during drilling and completions operations will be estimated. The volume of natural gas that is vented, flared or beneficially used during production operations, will be measured or estimated. MOC will install equipment to measure

the volume of natural gas flared from existing process piping or a flowline piped from equipment such as high pressure separators, heater treaters, or vapor recovery units associated with a well or facility associated with a well authorized by an APD issued after May 25, 2021 that has an average daily production greater than 60 Mcf/day. If metering is not practicable due to circumstances such as low flow rate or low pressureventing and flaring, MOC will estimate the volume of vented or flared natural gas. Measuring equipment will conform to industry standards and will not be designed or equipped with a manifold that allows thediversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.

VIII. For maintenance activities involving production equipment and compression, venting will be limited to the depressurization of the subject equipment to ensure safe working conditions. For maintenance of production and compression equipment the associated producing wells will be shut in to eliminate venting. For maintenance of VRUs all gas normally routed to the VRU will be routed to flare to eliminate venting.

Eddy County, NM (NAD 83 NME)

Althea 18 Fed #103H

Plan #0.1 RT

Azimuths to Grid North
True North: -0.22°
Magnetic North: 6.58°

Magnetic Field
Strength: 47446.3nT
Dip Angle: 59.71°
Date: 7/10/2020
Model: IGRF2020

To convert a Magnetic Direction to a Grid Direction, Add 6.58°
To convert a Magnetic Direction to a True Direction, Add 6.80° East
To convert a True Direction to a Grid Direction, Subtract 0.22°

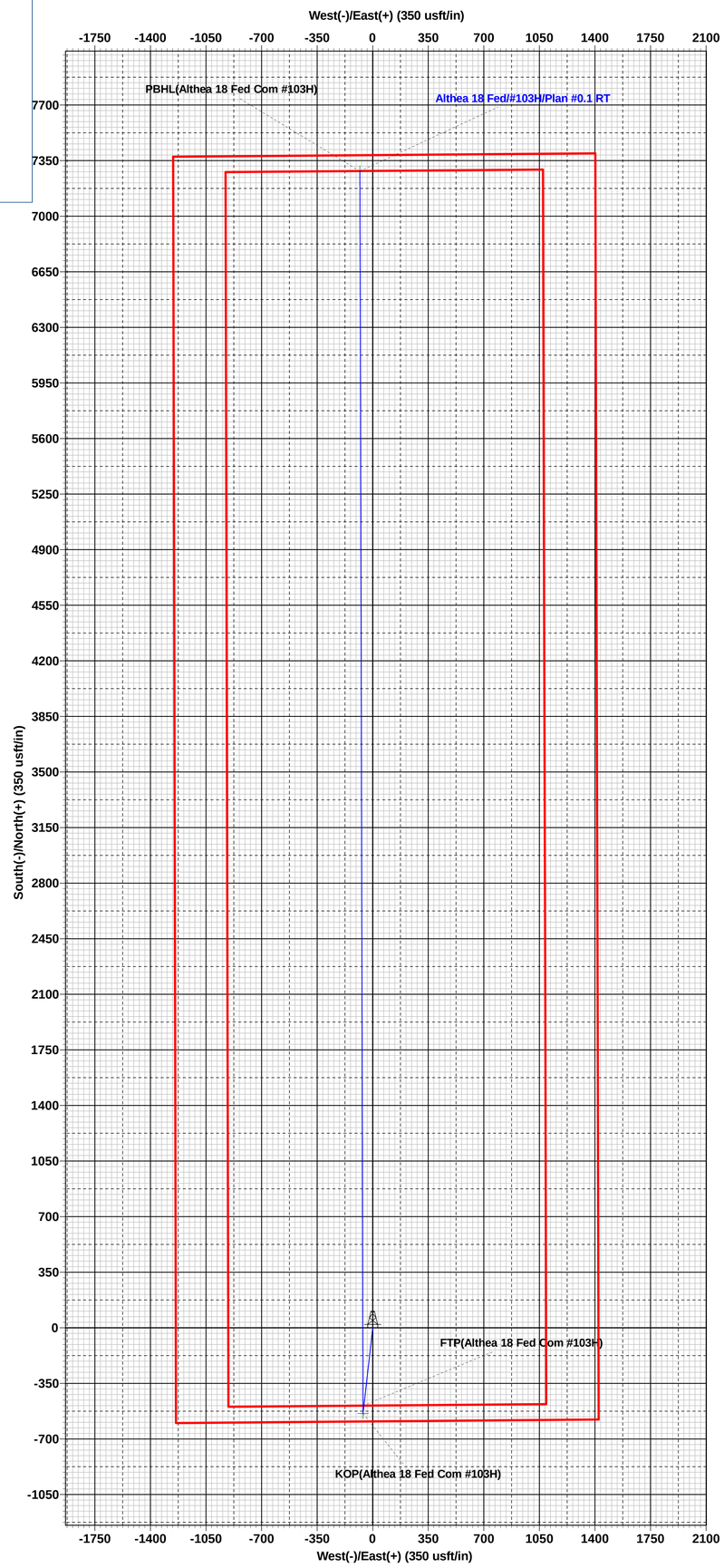
PROJECT DETAILS: Eddy County, NM (NAD 83 NME)

Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	New Mexico Eastern Zone
System Datum:	Mean Sea Level

WELL DETAILS: #103H

3093.0
kb = 25' @ 3118.0usft

Northing	Easting	Latittude	Longitude
377381.00	670461.00	32° 2' 12.536 N	103° 54' 59.850 W



SECTION DETAILS

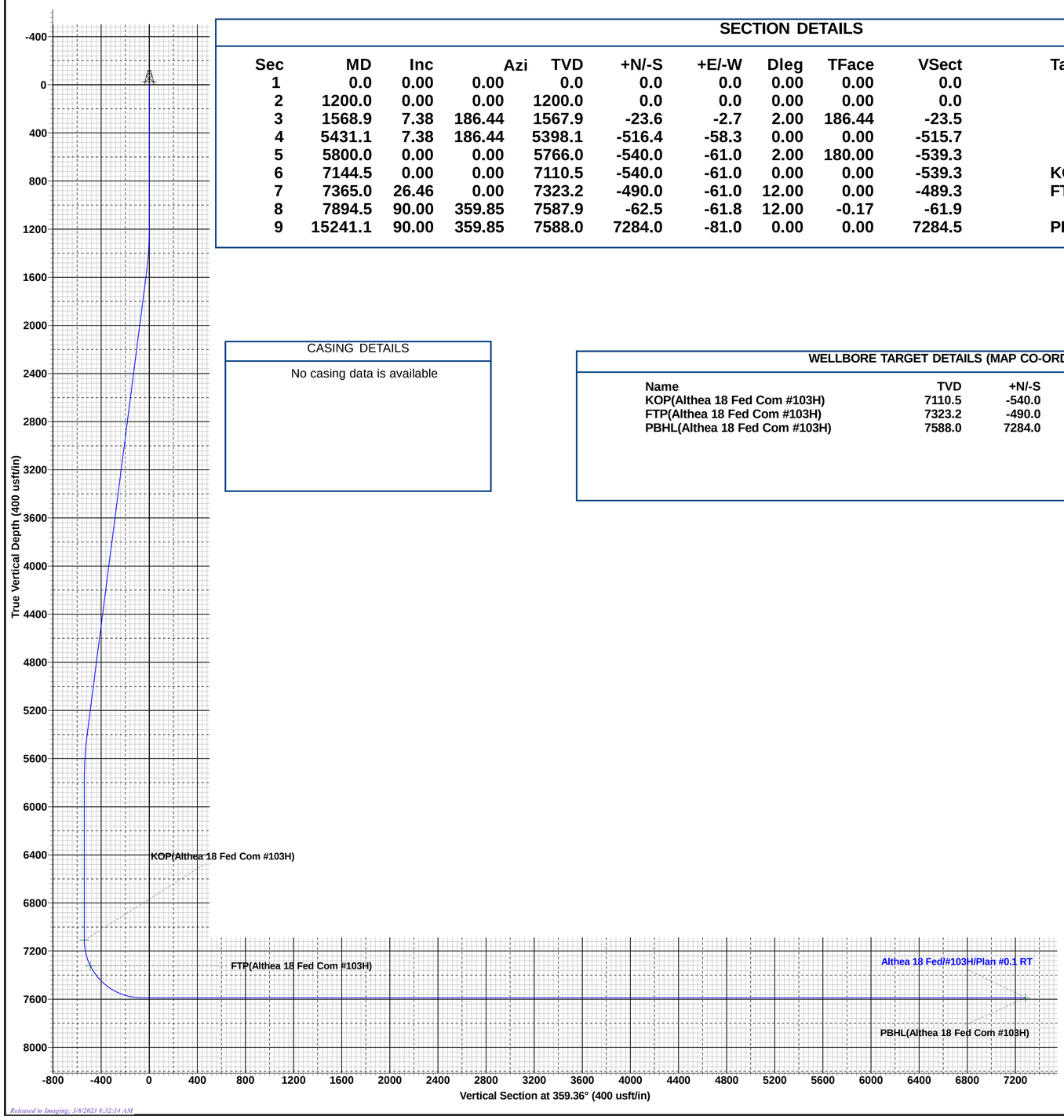
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	1568.9	7.38	186.44	1567.9	-23.6	-2.7	2.00	186.44	-23.5	
4	5431.1	7.38	186.44	5398.1	-516.4	-58.3	0.00	0.00	-515.7	
5	5800.0	0.00	0.00	5766.0	-540.0	-61.0	2.00	180.00	-539.3	
6	7144.5	0.00	0.00	7110.5	-540.0	-61.0	0.00	0.00	-539.3	KOP(Althea 18 Fed Com #103H)
7	7365.0	26.46	0.00	7323.2	-490.0	-61.0	12.00	0.00	-489.3	FTP(Althea 18 Fed Com #103H)
8	7894.5	90.00	359.85	7587.9	-62.5	-61.8	12.00	-0.17	-61.9	
9	15241.1	90.00	359.85	7588.0	7284.0	-81.0	0.00	0.00	7284.5	PBHL(Althea 18 Fed Com #103H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP(Althea 18 Fed Com #103H)	7110.5	-540.0	-61.0	376841.00	670400.00
FTP(Althea 18 Fed Com #103H)	7323.2	-490.0	-61.0	376891.00	670400.00
PBHL(Althea 18 Fed Com #103H)	7588.0	7284.0	-81.0	384665.00	670380.00



Eddy County, NM (NAD 83 NME)
Althea 18 Fed
#103H
OH
Plan #0.1 RT
9:57, July 10 2020

MEWBOURNE OIL COMPANY

Eddy County, NM (NAD 83 NME)
Althea 18 Fed
#103H

OH

Plan: Plan #0.1 RT

Standard Planning Report

10 July, 2020

Planning Report

Database:	EDM	**Local Co-ordinate Reference:**	Well #103H
Company:	MEWBOURNE OIL COMPANY	**TVD Reference:**	kb = 25' @ 3118.0usft
Project:	Eddy County, NM (NAD 83 NME)	**MD Reference:**	kb = 25' @ 3118.0usft
Site:	Althea 18 Fed	**North Reference:**	Grid
Well:	#103H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Project	Eddy County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Althea 18 Fed				
Site Position:		**Northing:**	377,381.00 usft	**Latitude:**	32° 2' 12.509 N
From:	Map	**Easting:**	671,184.00 usft	**Longitude:**	103° 54' 51.450 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.22 °

Well	#103H				
Well Position	**+N/-S**	0.0 usft	**Northing:**	377,381.00 usft	**Latitude:**	32° 2' 12.536 N
	+E/-W	-723.0 usft	**Easting:**	670,461.00 usft	**Longitude:**	103° 54' 59.850 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,093.0 usft

Wellbore	OH			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2020	7/10/2020	6.80	59.71	47,446.26788700

Design	Plan #0.1 RT			
Audit Notes:				
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**
	0.0	0.0	0.0	359.36

Plan Survey Tool Program **Date** 7/10/2020

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	15,241.1	Plan #0.1 RT (OH)	EOG MWD+IFR1	
				MWD + IFR1	

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	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,568.9	7.38	186.44	1,567.9	-23.6	-2.7	2.00	2.00	0.00	186.44	
5,431.1	7.38	186.44	5,398.1	-516.4	-58.3	0.00	0.00	0.00	0.00	
5,800.0	0.00	0.00	5,766.0	-540.0	-61.0	2.00	-2.00	0.00	180.00	
7,144.5	0.00	0.00	7,110.5	-540.0	-61.0	0.00	0.00	0.00	0.00	KOP(Althea 18 Fed C
7,365.0	26.46	0.00	7,323.2	-490.0	-61.0	12.00	12.00	0.00	0.00	FTP(Althea 18 Fed C
7,894.5	90.00	359.85	7,587.9	-62.5	-61.8	12.00	12.00	-0.03	-0.17	
15,241.1	90.00	359.85	7,588.0	7,284.0	-81.0	0.00	0.00	0.00	0.00	PBHL(Althea 18 Fed

Planning Report

Database:	EDM	**Local Co-ordinate Reference:**	Well #103H
Company:	MEWBOURNE OIL COMPANY	**TVD Reference:**	kb = 25' @ 3118.0usft
Project:	Eddy County, NM (NAD 83 NME)	**MD Reference:**	kb = 25' @ 3118.0usft
Site:	Althea 18 Fed	**North Reference:**	Grid
Well:	#103H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

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
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	2.00	186.44	1,300.0	-1.7	-0.2	-1.7	2.00	2.00	0.00
1,400.0	4.00	186.44	1,399.8	-6.9	-0.8	-6.9	2.00	2.00	0.00
1,500.0	6.00	186.44	1,499.5	-15.6	-1.8	-15.6	2.00	2.00	0.00
1,568.9	7.38	186.44	1,567.9	-23.6	-2.7	-23.5	2.00	2.00	0.00
1,600.0	7.38	186.44	1,598.7	-27.5	-3.1	-27.5	0.00	0.00	0.00
1,700.0	7.38	186.44	1,697.9	-40.3	-4.6	-40.2	0.00	0.00	0.00
1,800.0	7.38	186.44	1,797.1	-53.1	-6.0	-53.0	0.00	0.00	0.00
1,900.0	7.38	186.44	1,896.2	-65.8	-7.4	-65.7	0.00	0.00	0.00
2,000.0	7.38	186.44	1,995.4	-78.6	-8.9	-78.5	0.00	0.00	0.00
2,100.0	7.38	186.44	2,094.6	-91.3	-10.3	-91.2	0.00	0.00	0.00
2,200.0	7.38	186.44	2,193.8	-104.1	-11.8	-104.0	0.00	0.00	0.00
2,300.0	7.38	186.44	2,292.9	-116.9	-13.2	-116.7	0.00	0.00	0.00
2,400.0	7.38	186.44	2,392.1	-129.6	-14.6	-129.5	0.00	0.00	0.00
2,500.0	7.38	186.44	2,491.3	-142.4	-16.1	-142.2	0.00	0.00	0.00
2,600.0	7.38	186.44	2,590.4	-155.1	-17.5	-154.9	0.00	0.00	0.00
2,700.0	7.38	186.44	2,689.6	-167.9	-19.0	-167.7	0.00	0.00	0.00
2,800.0	7.38	186.44	2,788.8	-180.7	-20.4	-180.4	0.00	0.00	0.00
2,900.0	7.38	186.44	2,888.0	-193.4	-21.9	-193.2	0.00	0.00	0.00
3,000.0	7.38	186.44	2,987.1	-206.2	-23.3	-205.9	0.00	0.00	0.00
3,100.0	7.38	186.44	3,086.3	-219.0	-24.7	-218.7	0.00	0.00	0.00
3,200.0	7.38	186.44	3,185.5	-231.7	-26.2	-231.4	0.00	0.00	0.00
3,300.0	7.38	186.44	3,284.6	-244.5	-27.6	-244.2	0.00	0.00	0.00
3,400.0	7.38	186.44	3,383.8	-257.2	-29.1	-256.9	0.00	0.00	0.00
3,500.0	7.38	186.44	3,483.0	-270.0	-30.5	-269.6	0.00	0.00	0.00
3,600.0	7.38	186.44	3,582.2	-282.8	-31.9	-282.4	0.00	0.00	0.00
3,700.0	7.38	186.44	3,681.3	-295.5	-33.4	-295.1	0.00	0.00	0.00
3,800.0	7.38	186.44	3,780.5	-308.3	-34.8	-307.9	0.00	0.00	0.00
3,900.0	7.38	186.44	3,879.7	-321.0	-36.3	-320.6	0.00	0.00	0.00
4,000.0	7.38	186.44	3,978.9	-333.8	-37.7	-333.4	0.00	0.00	0.00
4,100.0	7.38	186.44	4,078.0	-346.6	-39.1	-346.1	0.00	0.00	0.00
4,200.0	7.38	186.44	4,177.2	-359.3	-40.6	-358.9	0.00	0.00	0.00
4,300.0	7.38	186.44	4,276.4	-372.1	-42.0	-371.6	0.00	0.00	0.00
4,400.0	7.38	186.44	4,375.5	-384.8	-43.5	-384.3	0.00	0.00	0.00
4,500.0	7.38	186.44	4,474.7	-397.6	-44.9	-397.1	0.00	0.00	0.00
4,600.0	7.38	186.44	4,573.9	-410.4	-46.4	-409.8	0.00	0.00	0.00
4,700.0	7.38	186.44	4,673.1	-423.1	-47.8	-422.6	0.00	0.00	0.00
4,800.0	7.38	186.44	4,772.2	-435.9	-49.2	-435.3	0.00	0.00	0.00
4,900.0	7.38	186.44	4,871.4	-448.7	-50.7	-448.1	0.00	0.00	0.00
5,000.0	7.38	186.44	4,970.6	-461.4	-52.1	-460.8	0.00	0.00	0.00
5,100.0	7.38	186.44	5,069.7	-474.2	-53.6	-473.6	0.00	0.00	0.00
5,200.0	7.38	186.44	5,168.9	-486.9	-55.0	-486.3	0.00	0.00	0.00

Planning Report

Database:	EDM	**Local Co-ordinate Reference:**	Well #103H
Company:	MEWBOURNE OIL COMPANY	**TVD Reference:**	kb = 25' @ 3118.0usft
Project:	Eddy County, NM (NAD 83 NME)	**MD Reference:**	kb = 25' @ 3118.0usft
Site:	Althea 18 Fed	**North Reference:**	Grid
Well:	#103H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

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)
5,300.0	7.38	186.44	5,268.1	-499.7	-56.4	-499.0	0.00	0.00	0.00
5,400.0	7.38	186.44	5,367.3	-512.5	-57.9	-511.8	0.00	0.00	0.00
5,431.1	7.38	186.44	5,398.1	-516.4	-58.3	-515.7	0.00	0.00	0.00
5,500.0	6.00	186.44	5,466.5	-524.4	-59.2	-523.7	2.00	-2.00	0.00
5,600.0	4.00	186.44	5,566.1	-533.1	-60.2	-532.4	2.00	-2.00	0.00
5,700.0	2.00	186.44	5,666.0	-538.3	-60.8	-537.6	2.00	-2.00	0.00
5,800.0	0.00	0.00	5,766.0	-540.0	-61.0	-539.3	2.00	-2.00	0.00
5,900.0	0.00	0.00	5,866.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
6,000.0	0.00	0.00	5,966.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
6,100.0	0.00	0.00	6,066.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
6,200.0	0.00	0.00	6,166.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
6,300.0	0.00	0.00	6,266.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
6,400.0	0.00	0.00	6,366.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
6,500.0	0.00	0.00	6,466.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
6,600.0	0.00	0.00	6,566.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
6,700.0	0.00	0.00	6,666.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
6,800.0	0.00	0.00	6,766.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
6,900.0	0.00	0.00	6,866.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
7,000.0	0.00	0.00	6,966.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
7,100.0	0.00	0.00	7,066.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
7,144.5	0.00	0.00	7,110.5	-540.0	-61.0	-539.3	0.00	0.00	0.00
7,150.0	0.66	0.00	7,116.0	-540.0	-61.0	-539.3	12.00	12.00	0.00
7,175.0	3.66	0.00	7,141.0	-539.0	-61.0	-538.3	12.00	12.00	0.00
7,200.0	6.66	0.00	7,165.9	-536.8	-61.0	-536.1	12.00	12.00	0.00
7,225.0	9.66	0.00	7,190.6	-533.2	-61.0	-532.5	12.00	12.00	0.00
7,250.0	12.66	0.00	7,215.1	-528.4	-61.0	-527.7	12.00	12.00	0.00
7,275.0	15.66	0.00	7,239.4	-522.3	-61.0	-521.6	12.00	12.00	0.00
7,300.0	18.66	0.00	7,263.2	-514.9	-61.0	-514.2	12.00	12.00	0.00
7,325.0	21.66	0.00	7,286.7	-506.3	-61.0	-505.6	12.00	12.00	0.00
7,350.0	24.66	0.00	7,309.7	-496.5	-61.0	-495.7	12.00	12.00	0.00
7,365.0	26.46	0.00	7,323.2	-490.0	-61.0	-489.3	12.00	12.00	0.00
7,375.0	27.66	359.99	7,332.1	-485.4	-61.0	-484.7	12.00	12.00	-0.08
7,400.0	30.66	359.98	7,354.0	-473.3	-61.0	-472.5	12.00	12.00	-0.07
7,425.0	33.66	359.96	7,375.1	-460.0	-61.0	-459.2	12.00	12.00	-0.06
7,450.0	36.66	359.95	7,395.6	-445.6	-61.0	-444.8	12.00	12.00	-0.05
7,475.0	39.66	359.94	7,415.2	-430.1	-61.0	-429.4	12.00	12.00	-0.04
7,500.0	42.66	359.93	7,434.0	-413.7	-61.1	-413.0	12.00	12.00	-0.04
7,525.0	45.66	359.92	7,452.0	-396.2	-61.1	-395.5	12.00	12.00	-0.03
7,550.0	48.66	359.92	7,469.0	-377.9	-61.1	-377.2	12.00	12.00	-0.03
7,575.0	51.66	359.91	7,485.0	-358.7	-61.1	-358.0	12.00	12.00	-0.03
7,600.0	54.66	359.90	7,500.0	-338.7	-61.2	-338.0	12.00	12.00	-0.02
7,625.0	57.66	359.90	7,513.9	-318.0	-61.2	-317.3	12.00	12.00	-0.02
7,650.0	60.66	359.89	7,526.7	-296.5	-61.2	-295.8	12.00	12.00	-0.02
7,675.0	63.66	359.89	7,538.4	-274.4	-61.3	-273.7	12.00	12.00	-0.02
7,700.0	66.66	359.88	7,548.9	-251.7	-61.3	-251.0	12.00	12.00	-0.02
7,725.0	69.66	359.88	7,558.2	-228.5	-61.4	-227.8	12.00	12.00	-0.02
7,750.0	72.66	359.87	7,566.2	-204.8	-61.4	-204.1	12.00	12.00	-0.02
7,775.0	75.66	359.87	7,573.1	-180.8	-61.5	-180.1	12.00	12.00	-0.02
7,800.0	78.66	359.87	7,578.6	-156.4	-61.5	-155.7	12.00	12.00	-0.02
7,825.0	81.66	359.86	7,582.9	-131.8	-61.6	-131.1	12.00	12.00	-0.02
7,850.0	84.66	359.86	7,585.9	-107.0	-61.7	-106.3	12.00	12.00	-0.02
7,875.0	87.66	359.85	7,587.5	-82.0	-61.7	-81.3	12.00	12.00	-0.02
7,894.5	90.00	359.85	7,587.9	-62.5	-61.8	-61.9	12.00	12.00	-0.02
7,900.0	90.00	359.85	7,587.9	-57.0	-61.8	-56.3	0.00	0.00	0.00

Planning Report

Database:	EDM	**Local Co-ordinate Reference:**	Well #103H
Company:	MEWBOURNE OIL COMPANY	**TVD Reference:**	kb = 25' @ 3118.0usft
Project:	Eddy County, NM (NAD 83 NME)	**MD Reference:**	kb = 25' @ 3118.0usft
Site:	Althea 18 Fed	**North Reference:**	Grid
Well:	#103H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

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)
8,000.0	90.00	359.85	7,587.9	43.0	-62.0	43.7	0.00	0.00	0.00
8,100.0	90.00	359.85	7,587.9	143.0	-62.3	143.6	0.00	0.00	0.00
8,200.0	90.00	359.85	7,587.9	243.0	-62.6	243.6	0.00	0.00	0.00
8,300.0	90.00	359.85	7,587.9	343.0	-62.8	343.6	0.00	0.00	0.00
8,400.0	90.00	359.85	7,587.9	443.0	-63.1	443.6	0.00	0.00	0.00
8,500.0	90.00	359.85	7,587.9	543.0	-63.4	543.6	0.00	0.00	0.00
8,600.0	90.00	359.85	7,587.9	643.0	-63.6	643.6	0.00	0.00	0.00
8,700.0	90.00	359.85	7,587.9	743.0	-63.9	743.6	0.00	0.00	0.00
8,800.0	90.00	359.85	7,587.9	843.0	-64.1	843.6	0.00	0.00	0.00
8,900.0	90.00	359.85	7,587.9	943.0	-64.4	943.6	0.00	0.00	0.00
9,000.0	90.00	359.85	7,588.0	1,043.0	-64.7	1,043.6	0.00	0.00	0.00
9,100.0	90.00	359.85	7,588.0	1,143.0	-64.9	1,143.6	0.00	0.00	0.00
9,200.0	90.00	359.85	7,588.0	1,243.0	-65.2	1,243.6	0.00	0.00	0.00
9,300.0	90.00	359.85	7,588.0	1,343.0	-65.5	1,343.6	0.00	0.00	0.00
9,400.0	90.00	359.85	7,588.0	1,443.0	-65.7	1,443.6	0.00	0.00	0.00
9,500.0	90.00	359.85	7,588.0	1,543.0	-66.0	1,543.6	0.00	0.00	0.00
9,600.0	90.00	359.85	7,588.0	1,643.0	-66.2	1,643.6	0.00	0.00	0.00
9,700.0	90.00	359.85	7,588.0	1,743.0	-66.5	1,743.6	0.00	0.00	0.00
9,800.0	90.00	359.85	7,588.0	1,843.0	-66.8	1,843.6	0.00	0.00	0.00
9,900.0	90.00	359.85	7,588.0	1,943.0	-67.0	1,943.6	0.00	0.00	0.00
10,000.0	90.00	359.85	7,588.0	2,043.0	-67.3	2,043.6	0.00	0.00	0.00
10,100.0	90.00	359.85	7,588.0	2,143.0	-67.5	2,143.6	0.00	0.00	0.00
10,200.0	90.00	359.85	7,588.0	2,243.0	-67.8	2,243.6	0.00	0.00	0.00
10,300.0	90.00	359.85	7,588.0	2,343.0	-68.1	2,343.6	0.00	0.00	0.00
10,400.0	90.00	359.85	7,588.0	2,443.0	-68.3	2,443.6	0.00	0.00	0.00
10,500.0	90.00	359.85	7,588.0	2,543.0	-68.6	2,543.6	0.00	0.00	0.00
10,600.0	90.00	359.85	7,588.0	2,643.0	-68.9	2,643.6	0.00	0.00	0.00
10,700.0	90.00	359.85	7,588.0	2,743.0	-69.1	2,743.6	0.00	0.00	0.00
10,800.0	90.00	359.85	7,588.0	2,843.0	-69.4	2,843.5	0.00	0.00	0.00
10,900.0	90.00	359.85	7,588.0	2,943.0	-69.6	2,943.5	0.00	0.00	0.00
11,000.0	90.00	359.85	7,588.0	3,043.0	-69.9	3,043.5	0.00	0.00	0.00
11,100.0	90.00	359.85	7,588.0	3,143.0	-70.2	3,143.5	0.00	0.00	0.00
11,200.0	90.00	359.85	7,588.0	3,243.0	-70.4	3,243.5	0.00	0.00	0.00
11,300.0	90.00	359.85	7,588.0	3,343.0	-70.7	3,343.5	0.00	0.00	0.00
11,400.0	90.00	359.85	7,588.0	3,443.0	-70.9	3,443.5	0.00	0.00	0.00
11,500.0	90.00	359.85	7,588.0	3,543.0	-71.2	3,543.5	0.00	0.00	0.00
11,600.0	90.00	359.85	7,588.0	3,643.0	-71.5	3,643.5	0.00	0.00	0.00
11,700.0	90.00	359.85	7,588.0	3,743.0	-71.7	3,743.5	0.00	0.00	0.00
11,800.0	90.00	359.85	7,588.0	3,843.0	-72.0	3,843.5	0.00	0.00	0.00
11,900.0	90.00	359.85	7,588.0	3,943.0	-72.3	3,943.5	0.00	0.00	0.00
12,000.0	90.00	359.85	7,588.0	4,042.9	-72.5	4,043.5	0.00	0.00	0.00
12,100.0	90.00	359.85	7,588.0	4,142.9	-72.8	4,143.5	0.00	0.00	0.00
12,200.0	90.00	359.85	7,588.0	4,242.9	-73.0	4,243.5	0.00	0.00	0.00
12,300.0	90.00	359.85	7,588.0	4,342.9	-73.3	4,343.5	0.00	0.00	0.00
12,400.0	90.00	359.85	7,588.0	4,442.9	-73.6	4,443.5	0.00	0.00	0.00
12,500.0	90.00	359.85	7,588.0	4,542.9	-73.8	4,543.5	0.00	0.00	0.00
12,600.0	90.00	359.85	7,588.0	4,642.9	-74.1	4,643.5	0.00	0.00	0.00
12,700.0	90.00	359.85	7,588.0	4,742.9	-74.3	4,743.5	0.00	0.00	0.00
12,800.0	90.00	359.85	7,588.0	4,842.9	-74.6	4,843.5	0.00	0.00	0.00
12,900.0	90.00	359.85	7,588.0	4,942.9	-74.9	4,943.5	0.00	0.00	0.00
13,000.0	90.00	359.85	7,588.0	5,042.9	-75.1	5,043.5	0.00	0.00	0.00
13,100.0	90.00	359.85	7,588.0	5,142.9	-75.4	5,143.5	0.00	0.00	0.00
13,200.0	90.00	359.85	7,588.0	5,242.9	-75.7	5,243.5	0.00	0.00	0.00
13,300.0	90.00	359.85	7,588.0	5,342.9	-75.9	5,343.5	0.00	0.00	0.00

Planning Report

Database:	EDM	**Local Co-ordinate Reference:**	Well #103H
Company:	MEWBOURNE OIL COMPANY	**TVD Reference:**	kb = 25' @ 3118.0usft
Project:	Eddy County, NM (NAD 83 NME)	**MD Reference:**	kb = 25' @ 3118.0usft
Site:	Althea 18 Fed	**North Reference:**	Grid
Well:	#103H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

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)
13,400.0	90.00	359.85	7,588.0	5,442.9	-76.2	5,443.5	0.00	0.00	0.00
13,500.0	90.00	359.85	7,588.0	5,542.9	-76.4	5,543.5	0.00	0.00	0.00
13,600.0	90.00	359.85	7,588.0	5,642.9	-76.7	5,643.4	0.00	0.00	0.00
13,700.0	90.00	359.85	7,588.0	5,742.9	-77.0	5,743.4	0.00	0.00	0.00
13,800.0	90.00	359.85	7,588.0	5,842.9	-77.2	5,843.4	0.00	0.00	0.00
13,900.0	90.00	359.85	7,588.0	5,942.9	-77.5	5,943.4	0.00	0.00	0.00
14,000.0	90.00	359.85	7,588.0	6,042.9	-77.8	6,043.4	0.00	0.00	0.00
14,100.0	90.00	359.85	7,588.0	6,142.9	-78.0	6,143.4	0.00	0.00	0.00
14,200.0	90.00	359.85	7,588.0	6,242.9	-78.3	6,243.4	0.00	0.00	0.00
14,300.0	90.00	359.85	7,588.0	6,342.9	-78.5	6,343.4	0.00	0.00	0.00
14,400.0	90.00	359.85	7,588.0	6,442.9	-78.8	6,443.4	0.00	0.00	0.00
14,500.0	90.00	359.85	7,588.0	6,542.9	-79.1	6,543.4	0.00	0.00	0.00
14,600.0	90.00	359.85	7,588.0	6,642.9	-79.3	6,643.4	0.00	0.00	0.00
14,700.0	90.00	359.85	7,588.0	6,742.9	-79.6	6,743.4	0.00	0.00	0.00
14,800.0	90.00	359.85	7,588.0	6,842.9	-79.8	6,843.4	0.00	0.00	0.00
14,900.0	90.00	359.85	7,588.0	6,942.9	-80.1	6,943.4	0.00	0.00	0.00
15,000.0	90.00	359.85	7,588.0	7,042.9	-80.4	7,043.4	0.00	0.00	0.00
15,100.0	90.00	359.85	7,588.0	7,142.9	-80.6	7,143.4	0.00	0.00	0.00
15,200.0	90.00	359.85	7,588.0	7,242.9	-80.9	7,243.4	0.00	0.00	0.00
15,241.1	90.00	359.85	7,588.0	7,284.0	-81.0	7,284.5	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP(Althea 18 Fed Com - plan hits target center - Point	0.00	0.00	7,110.5	-540.0	-61.0	376,841.00	670,400.00	32° 2' 7.195 N	103° 55' 0.583 W
FTP(Althea 18 Fed Com - plan hits target center - Point	0.00	0.00	7,323.2	-490.0	-61.0	376,891.00	670,400.00	32° 2' 7.689 N	103° 55' 0.580 W
PBHL(Althea 18 Fed Co - plan hits target center - Point	0.00	0.00	7,588.0	7,284.0	-81.0	384,665.00	670,380.00	32° 3' 24.622 N	103° 55' 0.464 W

Eddy County, NM (NAD 83 NME)

Althea 18 Fed #103H

Plan #0.1 RT

Azimuths to Grid North
True North: -0.22°
Magnetic North: 6.58°

Magnetic Field
Strength: 47446.3nT
Dip Angle: 59.71°
Date: 7/10/2020
Model: IGRF2020

To convert a Magnetic Direction to a Grid Direction, Add 6.58°
To convert a Magnetic Direction to a True Direction, Add 6.80° East
To convert a True Direction to a Grid Direction, Subtract 0.22°

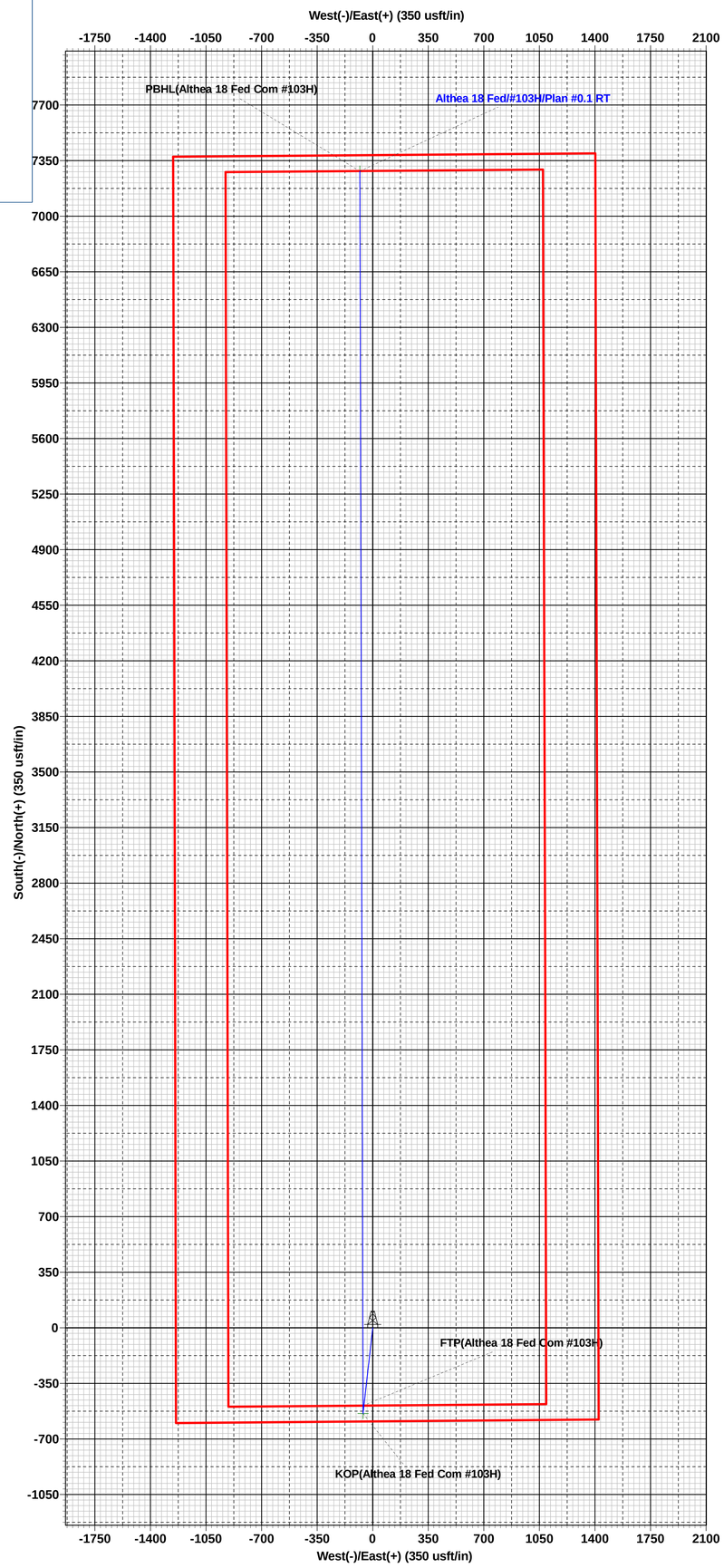
PROJECT DETAILS: Eddy County, NM (NAD 83 NME)

Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	New Mexico Eastern Zone
System Datum:	Mean Sea Level

WELL DETAILS: #103H

3093.0
kb = 25' @ 3118.0usft

Northing	Easting	Latittude	Longitude
377381.00	670461.00	32° 2' 12.536 N	103° 54' 59.850 W



SECTION DETAILS

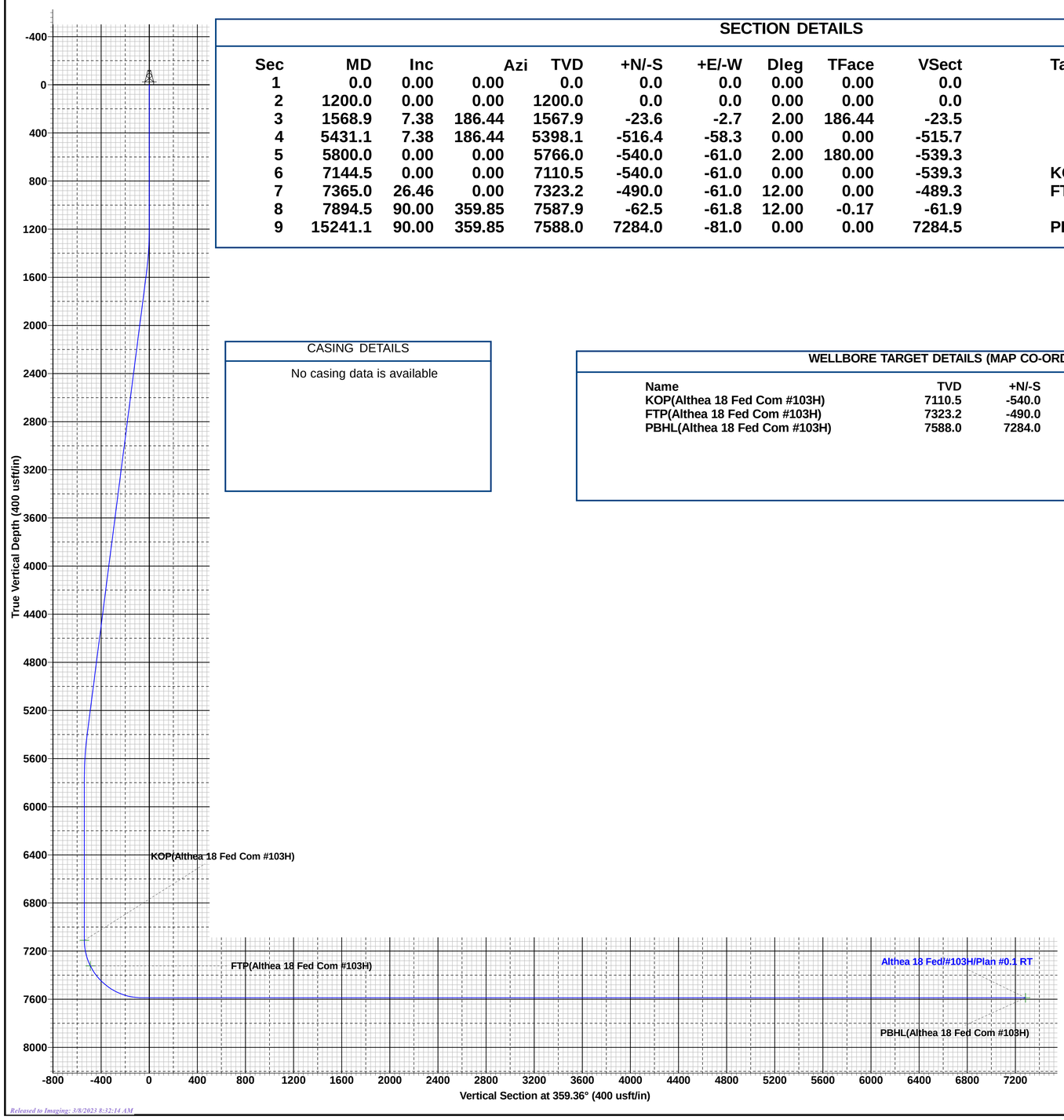
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	1568.9	7.38	186.44	1567.9	-23.6	-2.7	2.00	186.44	-23.5	
4	5431.1	7.38	186.44	5398.1	-516.4	-58.3	0.00	0.00	-515.7	
5	5800.0	0.00	0.00	5766.0	-540.0	-61.0	2.00	180.00	-539.3	
6	7144.5	0.00	0.00	7110.5	-540.0	-61.0	0.00	0.00	-539.3	KOP(Althea 18 Fed Com #103H)
7	7365.0	26.46	0.00	7323.2	-490.0	-61.0	12.00	0.00	-489.3	FTP(Althea 18 Fed Com #103H)
8	7894.5	90.00	359.85	7587.9	-62.5	-61.8	12.00	-0.17	-61.9	
9	15241.1	90.00	359.85	7588.0	7284.0	-81.0	0.00	0.00	7284.5	PBHL(Althea 18 Fed Com #103H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP(Althea 18 Fed Com #103H)	7110.5	-540.0	-61.0	376841.00	670400.00
FTP(Althea 18 Fed Com #103H)	7323.2	-490.0	-61.0	376891.00	670400.00
PBHL(Althea 18 Fed Com #103H)	7588.0	7284.0	-81.0	384665.00	670380.00



Eddy County, NM (NAD 83 NME)
Althea 18 Fed
#103H
OH
Plan #0.1 RT
9:57, July 10 2020

MEWBOURNE OIL COMPANY

Eddy County, NM (NAD 83 NME)
Althea 18 Fed
#103H

OH

Plan: Plan #0.1 RT

Standard Planning Report

10 July, 2020

Planning Report

Database:	EDM	**Local Co-ordinate Reference:**	Well #103H
Company:	MEWBOURNE OIL COMPANY	**TVD Reference:**	kb = 25' @ 3118.0usft
Project:	Eddy County, NM (NAD 83 NME)	**MD Reference:**	kb = 25' @ 3118.0usft
Site:	Althea 18 Fed	**North Reference:**	Grid
Well:	#103H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Project	Eddy County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Althea 18 Fed				
Site Position:		**Northing:**	377,381.00 usft	**Latitude:**	32° 2' 12.509 N
From:	Map	**Easting:**	671,184.00 usft	**Longitude:**	103° 54' 51.450 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.22 °

Well	#103H				
Well Position	**+N/-S**	0.0 usft	**Northing:**	377,381.00 usft	**Latitude:**	32° 2' 12.536 N
	+E/-W	-723.0 usft	**Easting:**	670,461.00 usft	**Longitude:**	103° 54' 59.850 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,093.0 usft

Wellbore	OH			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2020	7/10/2020	6.80	59.71	47,446.26788700

Design	Plan #0.1 RT			
Audit Notes:				
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**
	0.0	0.0	0.0	359.36

Plan Survey Tool Program **Date** 7/10/2020

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	15,241.1	Plan #0.1 RT (OH)	EOG MWD+IFR1	
				MWD + IFR1	

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	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,568.9	7.38	186.44	1,567.9	-23.6	-2.7	2.00	2.00	0.00	186.44	
5,431.1	7.38	186.44	5,398.1	-516.4	-58.3	0.00	0.00	0.00	0.00	
5,800.0	0.00	0.00	5,766.0	-540.0	-61.0	2.00	-2.00	0.00	180.00	
7,144.5	0.00	0.00	7,110.5	-540.0	-61.0	0.00	0.00	0.00	0.00	KOP(Althea 18 Fed C
7,365.0	26.46	0.00	7,323.2	-490.0	-61.0	12.00	12.00	0.00	0.00	FTP(Althea 18 Fed C
7,894.5	90.00	359.85	7,587.9	-62.5	-61.8	12.00	12.00	-0.03	-0.17	
15,241.1	90.00	359.85	7,588.0	7,284.0	-81.0	0.00	0.00	0.00	0.00	PBHL(Althea 18 Fed

Planning Report

Database:	EDM	**Local Co-ordinate Reference:**	Well #103H
Company:	MEWBOURNE OIL COMPANY	**TVD Reference:**	kb = 25' @ 3118.0usft
Project:	Eddy County, NM (NAD 83 NME)	**MD Reference:**	kb = 25' @ 3118.0usft
Site:	Althea 18 Fed	**North Reference:**	Grid
Well:	#103H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

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
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	2.00	186.44	1,300.0	-1.7	-0.2	-1.7	2.00	2.00	0.00
1,400.0	4.00	186.44	1,399.8	-6.9	-0.8	-6.9	2.00	2.00	0.00
1,500.0	6.00	186.44	1,499.5	-15.6	-1.8	-15.6	2.00	2.00	0.00
1,568.9	7.38	186.44	1,567.9	-23.6	-2.7	-23.5	2.00	2.00	0.00
1,600.0	7.38	186.44	1,598.7	-27.5	-3.1	-27.5	0.00	0.00	0.00
1,700.0	7.38	186.44	1,697.9	-40.3	-4.6	-40.2	0.00	0.00	0.00
1,800.0	7.38	186.44	1,797.1	-53.1	-6.0	-53.0	0.00	0.00	0.00
1,900.0	7.38	186.44	1,896.2	-65.8	-7.4	-65.7	0.00	0.00	0.00
2,000.0	7.38	186.44	1,995.4	-78.6	-8.9	-78.5	0.00	0.00	0.00
2,100.0	7.38	186.44	2,094.6	-91.3	-10.3	-91.2	0.00	0.00	0.00
2,200.0	7.38	186.44	2,193.8	-104.1	-11.8	-104.0	0.00	0.00	0.00
2,300.0	7.38	186.44	2,292.9	-116.9	-13.2	-116.7	0.00	0.00	0.00
2,400.0	7.38	186.44	2,392.1	-129.6	-14.6	-129.5	0.00	0.00	0.00
2,500.0	7.38	186.44	2,491.3	-142.4	-16.1	-142.2	0.00	0.00	0.00
2,600.0	7.38	186.44	2,590.4	-155.1	-17.5	-154.9	0.00	0.00	0.00
2,700.0	7.38	186.44	2,689.6	-167.9	-19.0	-167.7	0.00	0.00	0.00
2,800.0	7.38	186.44	2,788.8	-180.7	-20.4	-180.4	0.00	0.00	0.00
2,900.0	7.38	186.44	2,888.0	-193.4	-21.9	-193.2	0.00	0.00	0.00
3,000.0	7.38	186.44	2,987.1	-206.2	-23.3	-205.9	0.00	0.00	0.00
3,100.0	7.38	186.44	3,086.3	-219.0	-24.7	-218.7	0.00	0.00	0.00
3,200.0	7.38	186.44	3,185.5	-231.7	-26.2	-231.4	0.00	0.00	0.00
3,300.0	7.38	186.44	3,284.6	-244.5	-27.6	-244.2	0.00	0.00	0.00
3,400.0	7.38	186.44	3,383.8	-257.2	-29.1	-256.9	0.00	0.00	0.00
3,500.0	7.38	186.44	3,483.0	-270.0	-30.5	-269.6	0.00	0.00	0.00
3,600.0	7.38	186.44	3,582.2	-282.8	-31.9	-282.4	0.00	0.00	0.00
3,700.0	7.38	186.44	3,681.3	-295.5	-33.4	-295.1	0.00	0.00	0.00
3,800.0	7.38	186.44	3,780.5	-308.3	-34.8	-307.9	0.00	0.00	0.00
3,900.0	7.38	186.44	3,879.7	-321.0	-36.3	-320.6	0.00	0.00	0.00
4,000.0	7.38	186.44	3,978.9	-333.8	-37.7	-333.4	0.00	0.00	0.00
4,100.0	7.38	186.44	4,078.0	-346.6	-39.1	-346.1	0.00	0.00	0.00
4,200.0	7.38	186.44	4,177.2	-359.3	-40.6	-358.9	0.00	0.00	0.00
4,300.0	7.38	186.44	4,276.4	-372.1	-42.0	-371.6	0.00	0.00	0.00
4,400.0	7.38	186.44	4,375.5	-384.8	-43.5	-384.3	0.00	0.00	0.00
4,500.0	7.38	186.44	4,474.7	-397.6	-44.9	-397.1	0.00	0.00	0.00
4,600.0	7.38	186.44	4,573.9	-410.4	-46.4	-409.8	0.00	0.00	0.00
4,700.0	7.38	186.44	4,673.1	-423.1	-47.8	-422.6	0.00	0.00	0.00
4,800.0	7.38	186.44	4,772.2	-435.9	-49.2	-435.3	0.00	0.00	0.00
4,900.0	7.38	186.44	4,871.4	-448.7	-50.7	-448.1	0.00	0.00	0.00
5,000.0	7.38	186.44	4,970.6	-461.4	-52.1	-460.8	0.00	0.00	0.00
5,100.0	7.38	186.44	5,069.7	-474.2	-53.6	-473.6	0.00	0.00	0.00
5,200.0	7.38	186.44	5,168.9	-486.9	-55.0	-486.3	0.00	0.00	0.00

Database:	EDM	**Local Co-ordinate Reference:**	Well #103H
Company:	MEWBOURNE OIL COMPANY	**TVD Reference:**	kb = 25' @ 3118.0usft
Project:	Eddy County, NM (NAD 83 NME)	**MD Reference:**	kb = 25' @ 3118.0usft
Site:	Althea 18 Fed	**North Reference:**	Grid
Well:	#103H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

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)
5,300.0	7.38	186.44	5,268.1	-499.7	-56.4	-499.0	0.00	0.00	0.00
5,400.0	7.38	186.44	5,367.3	-512.5	-57.9	-511.8	0.00	0.00	0.00
5,431.1	7.38	186.44	5,398.1	-516.4	-58.3	-515.7	0.00	0.00	0.00
5,500.0	6.00	186.44	5,466.5	-524.4	-59.2	-523.7	2.00	-2.00	0.00
5,600.0	4.00	186.44	5,566.1	-533.1	-60.2	-532.4	2.00	-2.00	0.00
5,700.0	2.00	186.44	5,666.0	-538.3	-60.8	-537.6	2.00	-2.00	0.00
5,800.0	0.00	0.00	5,766.0	-540.0	-61.0	-539.3	2.00	-2.00	0.00
5,900.0	0.00	0.00	5,866.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
6,000.0	0.00	0.00	5,966.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
6,100.0	0.00	0.00	6,066.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
6,200.0	0.00	0.00	6,166.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
6,300.0	0.00	0.00	6,266.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
6,400.0	0.00	0.00	6,366.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
6,500.0	0.00	0.00	6,466.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
6,600.0	0.00	0.00	6,566.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
6,700.0	0.00	0.00	6,666.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
6,800.0	0.00	0.00	6,766.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
6,900.0	0.00	0.00	6,866.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
7,000.0	0.00	0.00	6,966.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
7,100.0	0.00	0.00	7,066.0	-540.0	-61.0	-539.3	0.00	0.00	0.00
7,144.5	0.00	0.00	7,110.5	-540.0	-61.0	-539.3	0.00	0.00	0.00
7,150.0	0.66	0.00	7,116.0	-540.0	-61.0	-539.3	12.00	12.00	0.00
7,175.0	3.66	0.00	7,141.0	-539.0	-61.0	-538.3	12.00	12.00	0.00
7,200.0	6.66	0.00	7,165.9	-536.8	-61.0	-536.1	12.00	12.00	0.00
7,225.0	9.66	0.00	7,190.6	-533.2	-61.0	-532.5	12.00	12.00	0.00
7,250.0	12.66	0.00	7,215.1	-528.4	-61.0	-527.7	12.00	12.00	0.00
7,275.0	15.66	0.00	7,239.4	-522.3	-61.0	-521.6	12.00	12.00	0.00
7,300.0	18.66	0.00	7,263.2	-514.9	-61.0	-514.2	12.00	12.00	0.00
7,325.0	21.66	0.00	7,286.7	-506.3	-61.0	-505.6	12.00	12.00	0.00
7,350.0	24.66	0.00	7,309.7	-496.5	-61.0	-495.7	12.00	12.00	0.00
7,365.0	26.46	0.00	7,323.2	-490.0	-61.0	-489.3	12.00	12.00	0.00
7,375.0	27.66	359.99	7,332.1	-485.4	-61.0	-484.7	12.00	12.00	-0.08
7,400.0	30.66	359.98	7,354.0	-473.3	-61.0	-472.5	12.00	12.00	-0.07
7,425.0	33.66	359.96	7,375.1	-460.0	-61.0	-459.2	12.00	12.00	-0.06
7,450.0	36.66	359.95	7,395.6	-445.6	-61.0	-444.8	12.00	12.00	-0.05
7,475.0	39.66	359.94	7,415.2	-430.1	-61.0	-429.4	12.00	12.00	-0.04
7,500.0	42.66	359.93	7,434.0	-413.7	-61.1	-413.0	12.00	12.00	-0.04
7,525.0	45.66	359.92	7,452.0	-396.2	-61.1	-395.5	12.00	12.00	-0.03
7,550.0	48.66	359.92	7,469.0	-377.9	-61.1	-377.2	12.00	12.00	-0.03
7,575.0	51.66	359.91	7,485.0	-358.7	-61.1	-358.0	12.00	12.00	-0.03
7,600.0	54.66	359.90	7,500.0	-338.7	-61.2	-338.0	12.00	12.00	-0.02
7,625.0	57.66	359.90	7,513.9	-318.0	-61.2	-317.3	12.00	12.00	-0.02
7,650.0	60.66	359.89	7,526.7	-296.5	-61.2	-295.8	12.00	12.00	-0.02
7,675.0	63.66	359.89	7,538.4	-274.4	-61.3	-273.7	12.00	12.00	-0.02
7,700.0	66.66	359.88	7,548.9	-251.7	-61.3	-251.0	12.00	12.00	-0.02
7,725.0	69.66	359.88	7,558.2	-228.5	-61.4	-227.8	12.00	12.00	-0.02
7,750.0	72.66	359.87	7,566.2	-204.8	-61.4	-204.1	12.00	12.00	-0.02
7,775.0	75.66	359.87	7,573.1	-180.8	-61.5	-180.1	12.00	12.00	-0.02
7,800.0	78.66	359.87	7,578.6	-156.4	-61.5	-155.7	12.00	12.00	-0.02
7,825.0	81.66	359.86	7,582.9	-131.8	-61.6	-131.1	12.00	12.00	-0.02
7,850.0	84.66	359.86	7,585.9	-107.0	-61.7	-106.3	12.00	12.00	-0.02
7,875.0	87.66	359.85	7,587.5	-82.0	-61.7	-81.3	12.00	12.00	-0.02
7,894.5	90.00	359.85	7,587.9	-62.5	-61.8	-61.9	12.00	12.00	-0.02
7,900.0	90.00	359.85	7,587.9	-57.0	-61.8	-56.3	0.00	0.00	0.00

Planning Report

Database:	EDM	**Local Co-ordinate Reference:**	Well #103H
Company:	MEWBOURNE OIL COMPANY	**TVD Reference:**	kb = 25' @ 3118.0usft
Project:	Eddy County, NM (NAD 83 NME)	**MD Reference:**	kb = 25' @ 3118.0usft
Site:	Althea 18 Fed	**North Reference:**	Grid
Well:	#103H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

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)
8,000.0	90.00	359.85	7,587.9	43.0	-62.0	43.7	0.00	0.00	0.00
8,100.0	90.00	359.85	7,587.9	143.0	-62.3	143.6	0.00	0.00	0.00
8,200.0	90.00	359.85	7,587.9	243.0	-62.6	243.6	0.00	0.00	0.00
8,300.0	90.00	359.85	7,587.9	343.0	-62.8	343.6	0.00	0.00	0.00
8,400.0	90.00	359.85	7,587.9	443.0	-63.1	443.6	0.00	0.00	0.00
8,500.0	90.00	359.85	7,587.9	543.0	-63.4	543.6	0.00	0.00	0.00
8,600.0	90.00	359.85	7,587.9	643.0	-63.6	643.6	0.00	0.00	0.00
8,700.0	90.00	359.85	7,587.9	743.0	-63.9	743.6	0.00	0.00	0.00
8,800.0	90.00	359.85	7,587.9	843.0	-64.1	843.6	0.00	0.00	0.00
8,900.0	90.00	359.85	7,587.9	943.0	-64.4	943.6	0.00	0.00	0.00
9,000.0	90.00	359.85	7,588.0	1,043.0	-64.7	1,043.6	0.00	0.00	0.00
9,100.0	90.00	359.85	7,588.0	1,143.0	-64.9	1,143.6	0.00	0.00	0.00
9,200.0	90.00	359.85	7,588.0	1,243.0	-65.2	1,243.6	0.00	0.00	0.00
9,300.0	90.00	359.85	7,588.0	1,343.0	-65.5	1,343.6	0.00	0.00	0.00
9,400.0	90.00	359.85	7,588.0	1,443.0	-65.7	1,443.6	0.00	0.00	0.00
9,500.0	90.00	359.85	7,588.0	1,543.0	-66.0	1,543.6	0.00	0.00	0.00
9,600.0	90.00	359.85	7,588.0	1,643.0	-66.2	1,643.6	0.00	0.00	0.00
9,700.0	90.00	359.85	7,588.0	1,743.0	-66.5	1,743.6	0.00	0.00	0.00
9,800.0	90.00	359.85	7,588.0	1,843.0	-66.8	1,843.6	0.00	0.00	0.00
9,900.0	90.00	359.85	7,588.0	1,943.0	-67.0	1,943.6	0.00	0.00	0.00
10,000.0	90.00	359.85	7,588.0	2,043.0	-67.3	2,043.6	0.00	0.00	0.00
10,100.0	90.00	359.85	7,588.0	2,143.0	-67.5	2,143.6	0.00	0.00	0.00
10,200.0	90.00	359.85	7,588.0	2,243.0	-67.8	2,243.6	0.00	0.00	0.00
10,300.0	90.00	359.85	7,588.0	2,343.0	-68.1	2,343.6	0.00	0.00	0.00
10,400.0	90.00	359.85	7,588.0	2,443.0	-68.3	2,443.6	0.00	0.00	0.00
10,500.0	90.00	359.85	7,588.0	2,543.0	-68.6	2,543.6	0.00	0.00	0.00
10,600.0	90.00	359.85	7,588.0	2,643.0	-68.9	2,643.6	0.00	0.00	0.00
10,700.0	90.00	359.85	7,588.0	2,743.0	-69.1	2,743.6	0.00	0.00	0.00
10,800.0	90.00	359.85	7,588.0	2,843.0	-69.4	2,843.5	0.00	0.00	0.00
10,900.0	90.00	359.85	7,588.0	2,943.0	-69.6	2,943.5	0.00	0.00	0.00
11,000.0	90.00	359.85	7,588.0	3,043.0	-69.9	3,043.5	0.00	0.00	0.00
11,100.0	90.00	359.85	7,588.0	3,143.0	-70.2	3,143.5	0.00	0.00	0.00
11,200.0	90.00	359.85	7,588.0	3,243.0	-70.4	3,243.5	0.00	0.00	0.00
11,300.0	90.00	359.85	7,588.0	3,343.0	-70.7	3,343.5	0.00	0.00	0.00
11,400.0	90.00	359.85	7,588.0	3,443.0	-70.9	3,443.5	0.00	0.00	0.00
11,500.0	90.00	359.85	7,588.0	3,543.0	-71.2	3,543.5	0.00	0.00	0.00
11,600.0	90.00	359.85	7,588.0	3,643.0	-71.5	3,643.5	0.00	0.00	0.00
11,700.0	90.00	359.85	7,588.0	3,743.0	-71.7	3,743.5	0.00	0.00	0.00
11,800.0	90.00	359.85	7,588.0	3,843.0	-72.0	3,843.5	0.00	0.00	0.00
11,900.0	90.00	359.85	7,588.0	3,943.0	-72.3	3,943.5	0.00	0.00	0.00
12,000.0	90.00	359.85	7,588.0	4,042.9	-72.5	4,043.5	0.00	0.00	0.00
12,100.0	90.00	359.85	7,588.0	4,142.9	-72.8	4,143.5	0.00	0.00	0.00
12,200.0	90.00	359.85	7,588.0	4,242.9	-73.0	4,243.5	0.00	0.00	0.00
12,300.0	90.00	359.85	7,588.0	4,342.9	-73.3	4,343.5	0.00	0.00	0.00
12,400.0	90.00	359.85	7,588.0	4,442.9	-73.6	4,443.5	0.00	0.00	0.00
12,500.0	90.00	359.85	7,588.0	4,542.9	-73.8	4,543.5	0.00	0.00	0.00
12,600.0	90.00	359.85	7,588.0	4,642.9	-74.1	4,643.5	0.00	0.00	0.00
12,700.0	90.00	359.85	7,588.0	4,742.9	-74.3	4,743.5	0.00	0.00	0.00
12,800.0	90.00	359.85	7,588.0	4,842.9	-74.6	4,843.5	0.00	0.00	0.00
12,900.0	90.00	359.85	7,588.0	4,942.9	-74.9	4,943.5	0.00	0.00	0.00
13,000.0	90.00	359.85	7,588.0	5,042.9	-75.1	5,043.5	0.00	0.00	0.00
13,100.0	90.00	359.85	7,588.0	5,142.9	-75.4	5,143.5	0.00	0.00	0.00
13,200.0	90.00	359.85	7,588.0	5,242.9	-75.7	5,243.5	0.00	0.00	0.00
13,300.0	90.00	359.85	7,588.0	5,342.9	-75.9	5,343.5	0.00	0.00	0.00

Planning Report

Database:	EDM	**Local Co-ordinate Reference:**	Well #103H
Company:	MEWBOURNE OIL COMPANY	**TVD Reference:**	kb = 25' @ 3118.0usft
Project:	Eddy County, NM (NAD 83 NME)	**MD Reference:**	kb = 25' @ 3118.0usft
Site:	Althea 18 Fed	**North Reference:**	Grid
Well:	#103H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

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)
13,400.0	90.00	359.85	7,588.0	5,442.9	-76.2	5,443.5	0.00	0.00	0.00
13,500.0	90.00	359.85	7,588.0	5,542.9	-76.4	5,543.5	0.00	0.00	0.00
13,600.0	90.00	359.85	7,588.0	5,642.9	-76.7	5,643.4	0.00	0.00	0.00
13,700.0	90.00	359.85	7,588.0	5,742.9	-77.0	5,743.4	0.00	0.00	0.00
13,800.0	90.00	359.85	7,588.0	5,842.9	-77.2	5,843.4	0.00	0.00	0.00
13,900.0	90.00	359.85	7,588.0	5,942.9	-77.5	5,943.4	0.00	0.00	0.00
14,000.0	90.00	359.85	7,588.0	6,042.9	-77.8	6,043.4	0.00	0.00	0.00
14,100.0	90.00	359.85	7,588.0	6,142.9	-78.0	6,143.4	0.00	0.00	0.00
14,200.0	90.00	359.85	7,588.0	6,242.9	-78.3	6,243.4	0.00	0.00	0.00
14,300.0	90.00	359.85	7,588.0	6,342.9	-78.5	6,343.4	0.00	0.00	0.00
14,400.0	90.00	359.85	7,588.0	6,442.9	-78.8	6,443.4	0.00	0.00	0.00
14,500.0	90.00	359.85	7,588.0	6,542.9	-79.1	6,543.4	0.00	0.00	0.00
14,600.0	90.00	359.85	7,588.0	6,642.9	-79.3	6,643.4	0.00	0.00	0.00
14,700.0	90.00	359.85	7,588.0	6,742.9	-79.6	6,743.4	0.00	0.00	0.00
14,800.0	90.00	359.85	7,588.0	6,842.9	-79.8	6,843.4	0.00	0.00	0.00
14,900.0	90.00	359.85	7,588.0	6,942.9	-80.1	6,943.4	0.00	0.00	0.00
15,000.0	90.00	359.85	7,588.0	7,042.9	-80.4	7,043.4	0.00	0.00	0.00
15,100.0	90.00	359.85	7,588.0	7,142.9	-80.6	7,143.4	0.00	0.00	0.00
15,200.0	90.00	359.85	7,588.0	7,242.9	-80.9	7,243.4	0.00	0.00	0.00
15,241.1	90.00	359.85	7,588.0	7,284.0	-81.0	7,284.5	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP(Althea 18 Fed Com - plan hits target center - Point	0.00	0.00	7,110.5	-540.0	-61.0	376,841.00	670,400.00	32° 2' 7.195 N	103° 55' 0.583 W
FTP(Althea 18 Fed Com - plan hits target center - Point	0.00	0.00	7,323.2	-490.0	-61.0	376,891.00	670,400.00	32° 2' 7.689 N	103° 55' 0.580 W
PBHL(Althea 18 Fed Co - plan hits target center - Point	0.00	0.00	7,588.0	7,284.0	-81.0	384,665.00	670,380.00	32° 3' 24.622 N	103° 55' 0.464 W

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	MEWBOURNE OIL COMPANY
WELL NAME & NO.:	ALTHEA 18 FED 103H
SURFACE HOLE FOOTAGE:	590'/S & 1422'/E
BOTTOM HOLE FOOTAGE	2560'/S & 1484'/E
LOCATION:	Section 18, T.26 S., R.30 E., NMP
COUNTY:	Eddy County, New Mexico

COA

H2S	○ Yes	◉ No	
Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	○ Low	◉ Medium	○ High
Cave/Karst Potential	○ Critical		
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	◉ Multibowl	○ Both
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☐ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☐ COM	☐ Unit

A. CASING

Primary Casing Design:

1. The **13-3/8** inch surface casing shall be set at approximately **1,065** feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

Approval Date: 01/25/2023

d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The **9-5/8** inch intermediate casing shall be set at approximately **1,065** feet. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

3. The **5-1/2** inch production casing shall be set at approximately **15,241** feet. **KEEP HOLE FULL FOR TENSILE SF DURING CASING RUN.** The minimum required fill of cement behind the **5-1/2** inch production casing is:

Option 1 (Single Stage):

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

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a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

B. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 3500 (3.5M) psi.**

   a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
   b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
   c. Manufacturer representative shall install the test plug for the initial BOP test.
   d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
   e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ Eddy County
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

Approval Date: 01/25/2023

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the

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following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic

pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

    b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

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Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

KPI – 1/23/2023

Approval Date: 01/25/2023

MEWBOURNE OIL COMPANY

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Hydrogen Sulfide Plan Summary

A. All personnel shall receive proper H2S training in accordance with Onshore Order III.C.3.a.

B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.

C. Required Emergency Equipment:

- Well control equipment
  a. Flare line 150' from wellhead to be ignited by flare gun.
  b. Choke manifold with a remotely operated choke.
  c. Mud/gas separator

- Protective equipment for essential personnel.

  Breathing apparatus:
  a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
  b. Work/Escape packs —4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
  c. Emergency Escape Packs —4 packs shall be stored in the doghouse for emergency evacuation.

  Auxiliary Rescue Equipment:
  a. Stretcher
  b. Two OSHA full body harness
  c. 100 ft 5/8 inch OSHA approved rope
  d. 1-20# class ABC fire extinguisher

- H2S detection and monitoring equipment:
  The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.
  (Gas sample tubes will be stored in the safety trailer)

- Visual warning systems.
  a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
  b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
  c. Two wind socks will be placed in strategic locations, visible from all angles.

MEWBOURNE OIL COMPANY

ALTHEA 18 FED #103H

- Mud program:
  The mud program has been designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S bearing zones.

- Metallurgy:
  All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.

- Communication:
  Communication will be via cell phones and land lines where available.

Operator Name: MEWBOURNE OIL COMPANY

Well Name: ALTHEA 18 FED **Well Number:** 103H

proposed well location and stockpiled along the side of the well location as depicted on the well site diagram/survey plat. -An area will be used within the proposed well site dimensions to excavate caliche. Subsoil will be removed and stockpiled within the surveyed well pad dimensions. -Once caliche/surfacing mineral is found, the mineral material will be excavated and stock piled within the approved drilling pad dimensions. -Then, subsoil will be pushed back in the excavated hole and caliche will be spread accordingly across the entire well pad and road (if available). -Neither caliche, nor subsoil will be stock piled outside of the well pad dimensions. Topsoil will be stockpiled along the edge of the pad as depicted in the Well Site Layout or survey plat. * In the event that no caliche is found onsite, caliche will be hauled in from a BLM approved caliche pit or other established mineral pit. A BLM mineral material permit will be acquired prior to obtaining any mineral material from BLM pits or federal land.

Construction Materials source location

ALTHEA_18_FC_CALICHE_MAP_20201014083435.pdf

Section 7 - Methods for Handling

Waste type: DRILLING

Waste content description: Drill fluids and produced oil and water from the well during drilling and completion operations will be stored safely and disposed of properly in an NMOCD approved disposal facility. Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly. Human waste and grey water will be properly contained of and disposed of properly. After drilling and completion operations; trash, chemicals, salts, frac sand, and other waste material will be removed and disposed of properly at a state approved disposal facility.

Amount of waste: 0 barrels

Waste disposal frequency : Daily

Safe containment description: Steel Tanks

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: Trucked to NMOCD approved disposal facility

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Operator Name: MEWBOURNE OIL COMPANY

Well Name: ALTHEA 18 FED **Well Number:** 103H

Cuttings Area being used? NO

Are you storing cuttings on location? Y

Description of cuttings location Closed Loop System. Drill cuttings will be disposed of into steel tanks and taken to an NMOCD approved disposal facility.

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities

Comments:

Section 9 - Well Site

Well Site Layout Diagram:

ALTHEA_18_FED_PAD_B_CUTFILL_20201015131617.pdf
4_Althea_18_Fed_Wellsite_103H_20201015131639.pdf
5_Althea_18_Fed_Padsite_103H_20201015131639.pdf
Althea_18_Fed_103H_Rig_Layout_20201015131646.pdf

Comments: Exhibit 2A-Wellsite & Exhibit 2B-Padsite Exhibit 4-Rig Layout Cut/Fill Exhibits 6, 6A & 6B

Section 10 - Plans for Surface

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:** ALTHEA 18 FED

Multiple Well Pad Number: 103H/104H/202H/203H

Recontouring

6_Althea_18_Fed_Reclamation_Diagrams_103H_20201015131705.pdf

Drainage/Erosion control construction: Proper erosion control methods will be used on the area to control erosion, runoff, and siltation of the surrounding area.

Drainage/Erosion control reclamation: The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and that erosion is controlled.

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 Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

COMMENTS

Action 191582

COMMENTS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 191582
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

COMMENTS

Created By	Comment	Comment Date
kpickford	Defining well	3/7/2023

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CONDITIONS

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Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
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	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Notify OCD 24 hours prior to casing & cement	3/7/2023
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104	3/7/2023
kpickford	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	3/7/2023
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing	3/7/2023
kpickford	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	3/7/2023