

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

Form C-101
August 1, 2011

Permit 295049

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241		2. OGRID Number 14744
		3. API Number 30-015-48164
4. Property Code 330655	5. Property Name STARSHIP 28 21 B2OB FEE	6. Well No. 001H

7. Surface Location

UL - Lot O	Section 28	Township 23S	Range 28E	Lot Idn O	Feet From 215	N/S Line S	Feet From 1850	E/W Line E	County Eddy
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8. Proposed Bottom Hole Location

UL - Lot B	Section 21	Township 23S	Range 28E	Lot Idn B	Feet From 100	N/S Line N	Feet From 1980	E/W Line E	County Eddy
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9. Pool Information

15011	15011
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Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type Private	15. Ground Level Elevation 3068
16. Multiple N	17. Proposed Depth 18387	18. Formation 2nd Bone Spring Sand	19. Contractor	20. Spud Date 5/15/2021
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	540	430	0
Int1	12.25	9.625	36	2520	590	0
Prod	8.75	7	26	8500	740	2320
Liner1	6.125	4.5	13.5	18387	440	7554

Casing/Cement Program: Additional Comments

MOC proposed to drill & test the Bone Springs formation. H2S rule 118 does not apply because MOC has researched the area & no high concentrations were found. Will have on location & working all H2S safety equipment before Yates formation for safety & insurance purposes. Will stimulate as needed for production.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	2000	1500	Schaffer
Double Ram	3000	3000	Schaffer
Annular	3000	1500	Schaffer

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.

Signature:

OIL CONSERVATION DIVISION

Printed Name: Electronically filed by Monty Whetstone	Approved By: Kurt Simmons
Title: Vice President Operations	Title: Petroleum Specialist - A
Email Address: prodmgr@mewbourne.com	Approved Date: 4/21/2021 Expiration Date: 4/21/2023
Date: 4/15/2021 Phone: 903-561-2900	Conditions of Approval Attached

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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 15011	³ Pool Name CULEBRA BLUFF; BONE SPRING, SOUTH
⁴ Property Code	⁵ Property Name STARSHIP 28/21 B20B FEE		⁶ Well Number 1H
⁷ OGRID NO. 14744	⁸ Operator Name MEWBOURNE OIL COMPANY		⁹ Elevation 3068'

¹⁰ Surface Location

UL or lot no. 0	Section 28	Township 23S	Range 28E	Lot Idn	Feet from the 215	North/South line SOUTH	Feet From the 1850	East/West line EAST	County EDDY
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no. B	Section 21	Township 23S	Range 28E	Lot Idn	Feet from the 100	North/South line NORTH	Feet from the 1980	East/West line EAST	County EDDY
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¹² Dedicated Acres 320	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.

① S 89°33'04" W 2651.93' ② S 89°33'56" W 2651.60' ③

④ N 00°19'29" W 5319.95' ⑤

⑥ N 00°36'10" W 2654.68' ⑦

⑧ N 00°36'34" W 2669.98' ⑨

⑩ N 00°31'52" W 5293.03' ⑪

⑫ S 89°38'00" W 2664.20' ⑬ S 89°35'03" W 2665.47' ⑭

⑮ N 00°18'19" W 2646.21' ⑯ N 00°17'51" W 2651.78' ⑰

⑱ S 89°33'20" W 5350.91' ⑲

100' B.H. 1980'

PROJECT AREA

PRODUCING AREA

21

28

215' S.L. 1850'

GEODETIC DATA
NAD 83 GRID - NM EAST

SURFACE LOCATION
N: 461827.0 - E: 616668.3
LAT: 32.2694021° N
LONG: 104.0896064° W

BOTTOM HOLE
N: 472126.2 - E: 616436.4
LAT: 32.2977144° N
LONG: 104.0902811° W

CORNER DATA
NAD 83 GRID - NM EAST

A: FOUND COTTON SPINDLE
N: 461584.9 - E: 613170.7

B: FOUND 1/2" REBAR
N: 464230.5 - E: 613156.6

C: FOUND 1/2" REBAR
N: 466881.6 - E: 613142.8

D: FOUND COTTON SPINDLE
N: 472200.3 - E: 613112.7

E: FOUND YPC
N: 472221.1 - E: 615763.9

F: FOUND COTTON SPINDLE
N: 472241.2 - E: 618414.9

G: FOUND COTTON SPINDLE
N: 469587.2 - E: 618442.8

H: FOUND COTTON SPINDLE
N: 466918.0 - E: 618471.2

I: FOUND 1/2" REBAR
N: 461626.4 - E: 618520.2

J: FOUND COTTON SPINDLE
N: 466898.7 - E: 615806.4

17 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 a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Bradley Bishop 4-16-21
Signature Date
BRADLEY BISHOP
Printed Name
BBISHOP@MEWBOURNE.COM
E-mail Address

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

03/19/2021
Date of Survey

Signature and Seal of Professional Surveyor

19680
Certificate Number

PROF. ROBERT M. HOWETT
NEW MEXICO
19680
PROFESSIONAL SURVEYOR

Job No.: LS21030241

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GAS CAPTURE PLAN

Date: 4/21/2021

☒ Original

Operator & OGRID No.: [14744] MEWBOURNE OIL CO

☐ Amended - Reason for
Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
STARSHIP 28 21 B2OB FEE #001H	30-015-48164	O-28-23S-28E	0215S 1850E	10	Flared	ONLINE AFTER FRAC

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to SENDERO CARLSBAD NGL, LLC and will be connected to SENDERO CARLSBAD NGL, LLC High Pressure gathering system located in Eddy County, New Mexico. It will require 3400' of pipeline to connect the facility to High Pressure gathering system. MEWBOURNE OIL CO provides (periodically) to SENDERO CARLSBAD NGL, LLC a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, MEWBOURNE OIL CO and SENDERO CARLSBAD NGL, LLC have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at SENDERO CARLSBAD NGL, LLC Processing Plant located in Sec. 31, Twn. 23S, Rng. 28E, Eddy County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on SENDERO CARLSBAD NGL, LLC system at that time. Based on current information, it is MEWBOURNE OIL CO's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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Form APD Conditions

Permit 295049

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: MEWBOURNE OIL CO [14744] P.O. Box 5270 Hobbs, NM 88241	API Number: 30-015-48164
	Well: STARSHIP 28 21 B2OB FEE #001H

OCD Reviewer	Condition
ksimmons	Notify OCD 24 hours prior to casing & cement
ksimmons	Will require a File As Drilled C-102 and a Directional Survey with the C-104
ksimmons	The Operator is to notify NMOCDC by sundry (Form C-103) within ten (10) days of the well being spud
kpickford	Surface casing must be set 25' below top of Rustler Anhydrite or salt in order to seal off protectable water
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
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

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

Mewbourne Oil Company

Eddy County, New Mexico NAD 83

Starship 28/21 B2OB Fee #1H

Sec. 28, T23S R28E

SHL: 215' FSL & 1850' FEL, Sec. 28

BHL: 100' FSL & 1980' FEL, Sec. 21

Plan: Design #1

Standard Planning Report

14 April, 2021

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Starship 28/21 B2OB Fee #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3096.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 3096.0usft (Original Well Elev)
Site:	Starship 28/21 B2OB Fee #1H	North Reference:	Grid
Well:	Sec. 28, T23S R28E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 100' FSL & 1980' FEL, Sec. 21		
Design:	Design #1		

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

Site	Starship 28/21 B2OB Fee #1H					
Site Position:		Northing:	461,827.00	usft	Latitude:	32.2694020
From:	Map	Easting:	616,668.00	usft	Longitude:	-104.0896073
Position Uncertainty:	0.0	usft	Slot Radius:	13-3/16	"	

Well	Sec. 28, T23S R28E					
Well Position	+N/-S	0.0 usft	Northing:	461,827.00 usft	Latitude:	32.2694020
	+E/-W	0.0 usft	Easting:	616,668.00 usft	Longitude:	-104.0896073
Position Uncertainty		0.0 usft	Wellhead Elevation:	3,096.0 usft	Ground Level:	3,068.0 usft
Grid Convergence:		0.13 °				

Wellbore	BHL: 100' FSL & 1980' FEL, Sec. 21				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/31/2014	7.39	60.05	48,210.88474779

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	358.71	

Plan Survey Tool Program	Date	4/14/2021			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	0.0	Design #1 (BHL: 100' FSL & 1980		

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	

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Starship 28/21 B2OB Fee #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3096.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 3096.0usft (Original Well Elev)
Site:	Starship 28/21 B2OB Fee #1H	North Reference:	Grid
Well:	Sec. 28, T23S R28E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 100' FSL & 1980' FEL, Sec. 21		
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
SHL: 215' FSL & 1850' FEL (28)									
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
2,520.0	0.00	0.00	2,520.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	1.60	211.86	2,600.0	-0.9	-0.6	-0.9	2.00	2.00	0.00
2,662.1	2.84	211.86	2,662.0	-3.0	-1.9	-2.9	2.00	2.00	0.00
2,700.0	2.84	211.86	2,699.9	-4.6	-2.9	-4.5	0.00	0.00	0.00
2,800.0	2.84	211.86	2,799.8	-8.8	-5.5	-8.7	0.00	0.00	0.00
2,900.0	2.84	211.86	2,899.6	-13.0	-8.1	-12.8	0.00	0.00	0.00
3,000.0	2.84	211.86	2,999.5	-17.2	-10.7	-17.0	0.00	0.00	0.00
3,100.0	2.84	211.86	3,099.4	-21.4	-13.3	-21.1	0.00	0.00	0.00
3,200.0	2.84	211.86	3,199.3	-25.6	-15.9	-25.3	0.00	0.00	0.00
3,300.0	2.84	211.86	3,299.2	-29.9	-18.6	-29.4	0.00	0.00	0.00
3,400.0	2.84	211.86	3,399.0	-34.1	-21.2	-33.6	0.00	0.00	0.00
3,500.0	2.84	211.86	3,498.9	-38.3	-23.8	-37.7	0.00	0.00	0.00
3,600.0	2.84	211.86	3,598.8	-42.5	-26.4	-41.9	0.00	0.00	0.00
3,700.0	2.84	211.86	3,698.7	-46.7	-29.0	-46.0	0.00	0.00	0.00
3,800.0	2.84	211.86	3,798.5	-50.9	-31.6	-50.2	0.00	0.00	0.00
3,900.0	2.84	211.86	3,898.4	-55.1	-34.3	-54.3	0.00	0.00	0.00
4,000.0	2.84	211.86	3,998.3	-59.3	-36.9	-58.5	0.00	0.00	0.00
4,100.0	2.84	211.86	4,098.2	-63.5	-39.5	-62.6	0.00	0.00	0.00
4,200.0	2.84	211.86	4,198.1	-67.8	-42.1	-66.8	0.00	0.00	0.00
4,300.0	2.84	211.86	4,297.9	-72.0	-44.7	-70.9	0.00	0.00	0.00
4,400.0	2.84	211.86	4,397.8	-76.2	-47.3	-75.1	0.00	0.00	0.00
4,500.0	2.84	211.86	4,497.7	-80.4	-49.9	-79.2	0.00	0.00	0.00
4,600.0	2.84	211.86	4,597.6	-84.6	-52.6	-83.4	0.00	0.00	0.00
4,700.0	2.84	211.86	4,697.4	-88.8	-55.2	-87.5	0.00	0.00	0.00
4,800.0	2.84	211.86	4,797.3	-93.0	-57.8	-91.7	0.00	0.00	0.00
4,900.0	2.84	211.86	4,897.2	-97.2	-60.4	-95.8	0.00	0.00	0.00
5,000.0	2.84	211.86	4,997.1	-101.4	-63.0	-100.0	0.00	0.00	0.00

Planning Report

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Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3096.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 3096.0usft (Original Well Elev)
Site:	Starship 28/21 B2OB Fee #1H	North Reference:	Grid
Well:	Sec. 28, T23S R28E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 100' FSL & 1980' FEL, Sec. 21		
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	2.84	211.86	5,096.9	-105.7	-65.6	-104.1	0.00	0.00	0.00
5,200.0	2.84	211.86	5,196.8	-109.9	-68.3	-108.3	0.00	0.00	0.00
5,300.0	2.84	211.86	5,296.7	-114.1	-70.9	-112.5	0.00	0.00	0.00
5,400.0	2.84	211.86	5,396.6	-118.3	-73.5	-116.6	0.00	0.00	0.00
5,500.0	2.84	211.86	5,496.5	-122.5	-76.1	-120.8	0.00	0.00	0.00
5,600.0	2.84	211.86	5,596.3	-126.7	-78.7	-124.9	0.00	0.00	0.00
5,700.0	2.84	211.86	5,696.2	-130.9	-81.3	-129.1	0.00	0.00	0.00
5,800.0	2.84	211.86	5,796.1	-135.1	-84.0	-133.2	0.00	0.00	0.00
5,900.0	2.84	211.86	5,896.0	-139.3	-86.6	-137.4	0.00	0.00	0.00
6,000.0	2.84	211.86	5,995.8	-143.6	-89.2	-141.5	0.00	0.00	0.00
6,100.0	2.84	211.86	6,095.7	-147.8	-91.8	-145.7	0.00	0.00	0.00
6,200.0	2.84	211.86	6,195.6	-152.0	-94.4	-149.8	0.00	0.00	0.00
6,300.0	2.84	211.86	6,295.5	-156.2	-97.0	-154.0	0.00	0.00	0.00
6,400.0	2.84	211.86	6,395.3	-160.4	-99.7	-158.1	0.00	0.00	0.00
6,500.0	2.84	211.86	6,495.2	-164.6	-102.3	-162.3	0.00	0.00	0.00
6,600.0	2.84	211.86	6,595.1	-168.8	-104.9	-166.4	0.00	0.00	0.00
6,700.0	2.84	211.86	6,695.0	-173.0	-107.5	-170.6	0.00	0.00	0.00
6,800.0	2.84	211.86	6,794.9	-177.2	-110.1	-174.7	0.00	0.00	0.00
6,900.0	2.84	211.86	6,894.7	-181.5	-112.7	-178.9	0.00	0.00	0.00
7,000.0	2.84	211.86	6,994.6	-185.7	-115.4	-183.0	0.00	0.00	0.00
7,100.0	2.84	211.86	7,094.5	-189.9	-118.0	-187.2	0.00	0.00	0.00
7,200.0	2.84	211.86	7,194.4	-194.1	-120.6	-191.3	0.00	0.00	0.00
7,300.0	2.84	211.86	7,294.2	-198.3	-123.2	-195.5	0.00	0.00	0.00
7,400.0	2.84	211.86	7,394.1	-202.5	-125.8	-199.6	0.00	0.00	0.00
7,411.9	2.84	211.86	7,406.0	-203.0	-126.1	-200.1	0.00	0.00	0.00
7,500.0	1.08	211.86	7,494.0	-205.6	-127.7	-202.6	2.00	-2.00	0.00
7,554.0	0.00	0.00	7,548.0	-206.0	-128.0	-203.1	2.00	-2.00	0.00
KOP: 10' FSL & 1980' FEL (28)									
7,600.0	4.60	359.43	7,594.0	-204.2	-128.0	-201.2	10.00	10.00	0.00
7,650.0	9.60	359.43	7,643.6	-198.0	-128.1	-195.0	10.00	10.00	0.00
7,700.0	14.60	359.43	7,692.5	-187.5	-128.2	-184.6	10.00	10.00	0.00
7,750.0	19.60	359.43	7,740.2	-172.8	-128.3	-169.9	10.00	10.00	0.00
7,800.0	24.60	359.43	7,786.6	-154.0	-128.5	-151.1	10.00	10.00	0.00
7,850.0	29.60	359.43	7,831.0	-131.2	-128.7	-128.3	10.00	10.00	0.00
7,879.5	32.55	359.43	7,856.3	-116.0	-128.9	-113.1	10.00	10.00	0.00
FTP: 100' FSL & 1980' FEL (28)									
7,900.0	34.60	359.43	7,873.4	-104.7	-129.0	-101.7	10.00	10.00	0.00
7,950.0	39.60	359.43	7,913.3	-74.5	-129.3	-71.6	10.00	10.00	0.00
8,000.0	44.60	359.43	7,950.3	-41.0	-129.6	-38.1	10.00	10.00	0.00
8,050.0	49.60	359.43	7,984.4	-4.4	-130.0	-1.5	10.00	10.00	0.00
8,100.0	54.60	359.43	8,015.1	35.1	-130.4	38.0	10.00	10.00	0.00
8,150.0	59.60	359.43	8,042.2	77.0	-130.8	80.0	10.00	10.00	0.00
8,200.0	64.60	359.43	8,065.6	121.2	-131.2	124.1	10.00	10.00	0.00
8,250.0	69.60	359.43	8,085.1	167.2	-131.7	170.2	10.00	10.00	0.00
8,300.0	74.60	359.43	8,100.4	214.8	-132.2	217.7	10.00	10.00	0.00
8,350.0	79.60	359.43	8,111.6	263.5	-132.6	266.4	10.00	10.00	0.00
8,400.0	84.60	359.43	8,118.5	313.0	-133.1	315.9	10.00	10.00	0.00
8,450.9	89.68	359.43	8,121.0	363.8	-133.6	366.7	10.00	10.00	0.00
8,500.0	89.68	359.43	8,121.3	412.9	-134.1	415.9	0.00	0.00	0.00
8,600.0	89.68	359.43	8,121.8	512.9	-135.1	515.8	0.00	0.00	0.00
8,700.0	89.68	359.43	8,122.4	612.9	-136.1	615.8	0.00	0.00	0.00
8,800.0	89.68	359.43	8,122.9	712.9	-137.1	715.8	0.00	0.00	0.00
8,900.0	89.68	359.43	8,123.5	812.9	-138.1	815.8	0.00	0.00	0.00
9,000.0	89.68	359.43	8,124.0	912.9	-139.1	915.8	0.00	0.00	0.00

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Starship 28/21 B2OB Fee #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3096.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 3096.0usft (Original Well Elev)
Site:	Starship 28/21 B2OB Fee #1H	North Reference:	Grid
Well:	Sec. 28, T23S R28E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 100' FSL & 1980' FEL, Sec. 21		
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)
9,100.0	89.68	359.43	8,124.6	1,012.9	-140.1	1,015.8	0.00	0.00	0.00
9,200.0	89.68	359.43	8,125.1	1,112.9	-141.1	1,115.8	0.00	0.00	0.00
9,300.0	89.68	359.43	8,125.7	1,212.9	-142.0	1,215.8	0.00	0.00	0.00
9,400.0	89.68	359.43	8,126.3	1,312.9	-143.0	1,315.8	0.00	0.00	0.00
9,500.0	89.68	359.43	8,126.8	1,412.9	-144.0	1,415.8	0.00	0.00	0.00
9,600.0	89.68	359.43	8,127.4	1,512.9	-145.0	1,515.8	0.00	0.00	0.00
9,700.0	89.68	359.43	8,127.9	1,612.9	-146.0	1,615.7	0.00	0.00	0.00
9,800.0	89.68	359.43	8,128.5	1,712.9	-147.0	1,715.7	0.00	0.00	0.00
9,900.0	89.68	359.43	8,129.0	1,812.9	-148.0	1,815.7	0.00	0.00	0.00
10,000.0	89.68	359.43	8,129.6	1,912.8	-149.0	1,915.7	0.00	0.00	0.00
10,100.0	89.68	359.43	8,130.1	2,012.8	-150.0	2,015.7	0.00	0.00	0.00
10,200.0	89.68	359.43	8,130.7	2,112.8	-151.0	2,115.7	0.00	0.00	0.00
10,300.0	89.68	359.43	8,131.2	2,212.8	-151.9	2,215.7	0.00	0.00	0.00
10,400.0	89.68	359.43	8,131.8	2,312.8	-152.9	2,315.7	0.00	0.00	0.00
10,500.0	89.68	359.43	8,132.3	2,412.8	-153.9	2,415.7	0.00	0.00	0.00
10,600.0	89.68	359.43	8,132.9	2,512.8	-154.9	2,515.7	0.00	0.00	0.00
10,700.0	89.68	359.43	8,133.5	2,612.8	-155.9	2,615.6	0.00	0.00	0.00
10,800.0	89.68	359.43	8,134.0	2,712.8	-156.9	2,715.6	0.00	0.00	0.00
10,900.0	89.68	359.43	8,134.6	2,812.8	-157.9	2,815.6	0.00	0.00	0.00
11,000.0	89.68	359.43	8,135.1	2,912.8	-158.9	2,915.6	0.00	0.00	0.00
11,100.0	89.68	359.43	8,135.7	3,012.8	-159.9	3,015.6	0.00	0.00	0.00
11,200.0	89.68	359.43	8,136.2	3,112.8	-160.9	3,115.6	0.00	0.00	0.00
11,300.0	89.68	359.43	8,136.8	3,212.8	-161.8	3,215.6	0.00	0.00	0.00
11,400.0	89.68	359.43	8,137.3	3,312.8	-162.8	3,315.6	0.00	0.00	0.00
11,500.0	89.68	359.43	8,137.9	3,412.7	-163.8	3,415.6	0.00	0.00	0.00
11,600.0	89.68	359.43	8,138.4	3,512.7	-164.8	3,515.6	0.00	0.00	0.00
11,700.0	89.68	359.43	8,139.0	3,612.7	-165.8	3,615.6	0.00	0.00	0.00
11,800.0	89.68	359.43	8,139.5	3,712.7	-166.8	3,715.5	0.00	0.00	0.00
11,900.0	89.68	359.43	8,140.1	3,812.7	-167.8	3,815.5	0.00	0.00	0.00
12,000.0	89.68	359.43	8,140.6	3,912.7	-168.8	3,915.5	0.00	0.00	0.00
12,100.0	89.68	359.43	8,141.2	4,012.7	-169.8	4,015.5	0.00	0.00	0.00
12,200.0	89.68	359.43	8,141.8	4,112.7	-170.8	4,115.5	0.00	0.00	0.00
12,300.0	89.68	359.43	8,142.3	4,212.7	-171.7	4,215.5	0.00	0.00	0.00
12,400.0	89.68	359.43	8,142.9	4,312.7	-172.7	4,315.5	0.00	0.00	0.00
12,500.0	89.68	359.43	8,143.4	4,412.7	-173.7	4,415.5	0.00	0.00	0.00
12,600.0	89.68	359.43	8,144.0	4,512.7	-174.7	4,515.5	0.00	0.00	0.00
12,700.0	89.68	359.43	8,144.5	4,612.7	-175.7	4,615.5	0.00	0.00	0.00
12,800.0	89.68	359.43	8,145.1	4,712.7	-176.7	4,715.4	0.00	0.00	0.00
12,900.0	89.68	359.43	8,145.6	4,812.7	-177.7	4,815.4	0.00	0.00	0.00
13,000.0	89.68	359.43	8,146.2	4,912.7	-178.7	4,915.4	0.00	0.00	0.00
13,100.0	89.68	359.43	8,146.7	5,012.6	-179.7	5,015.4	0.00	0.00	0.00
13,200.0	89.68	359.43	8,147.3	5,112.6	-180.7	5,115.4	0.00	0.00	0.00
13,300.0	89.68	359.43	8,147.8	5,212.6	-181.6	5,215.4	0.00	0.00	0.00
13,400.0	89.68	359.43	8,148.4	5,312.6	-182.6	5,315.4	0.00	0.00	0.00
13,500.0	89.68	359.43	8,148.9	5,412.6	-183.6	5,415.4	0.00	0.00	0.00
13,600.0	89.68	359.43	8,149.5	5,512.6	-184.6	5,515.4	0.00	0.00	0.00
13,700.0	89.68	359.43	8,150.1	5,612.6	-185.6	5,615.4	0.00	0.00	0.00
13,800.0	89.68	359.43	8,150.6	5,712.6	-186.6	5,715.4	0.00	0.00	0.00
13,900.0	89.68	359.43	8,151.2	5,812.6	-187.6	5,815.3	0.00	0.00	0.00
14,000.0	89.68	359.43	8,151.7	5,912.6	-188.6	5,915.3	0.00	0.00	0.00
14,100.0	89.68	359.43	8,152.3	6,012.6	-189.6	6,015.3	0.00	0.00	0.00
14,200.0	89.68	359.43	8,152.8	6,112.6	-190.6	6,115.3	0.00	0.00	0.00
14,300.0	89.68	359.43	8,153.4	6,212.6	-191.5	6,215.3	0.00	0.00	0.00
14,400.0	89.68	359.43	8,153.9	6,312.6	-192.5	6,315.3	0.00	0.00	0.00

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Starship 28/21 B2OB Fee #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3096.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 3096.0usft (Original Well Elev)
Site:	Starship 28/21 B2OB Fee #1H	North Reference:	Grid
Well:	Sec. 28, T23S R28E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 100' FSL & 1980' FEL, Sec. 21		
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)
14,500.0	89.68	359.43	8,154.5	6,412.6	-193.5	6,415.3	0.00	0.00	0.00
14,600.0	89.68	359.43	8,155.0	6,512.5	-194.5	6,515.3	0.00	0.00	0.00
14,700.0	89.68	359.43	8,155.6	6,612.5	-195.5	6,615.3	0.00	0.00	0.00
14,800.0	89.68	359.43	8,156.1	6,712.5	-196.5	6,715.3	0.00	0.00	0.00
14,900.0	89.68	359.43	8,156.7	6,812.5	-197.5	6,815.2	0.00	0.00	0.00
15,000.0	89.68	359.43	8,157.3	6,912.5	-198.5	6,915.2	0.00	0.00	0.00
15,100.0	89.68	359.43	8,157.8	7,012.5	-199.5	7,015.2	0.00	0.00	0.00
15,200.0	89.68	359.43	8,158.4	7,112.5	-200.5	7,115.2	0.00	0.00	0.00
15,300.0	89.68	359.43	8,158.9	7,212.5	-201.4	7,215.2	0.00	0.00	0.00
15,400.0	89.68	359.43	8,159.5	7,312.5	-202.4	7,315.2	0.00	0.00	0.00
15,500.0	89.68	359.43	8,160.0	7,412.5	-203.4	7,415.2	0.00	0.00	0.00
15,600.0	89.68	359.43	8,160.6	7,512.5	-204.4	7,515.2	0.00	0.00	0.00
15,700.0	89.68	359.43	8,161.1	7,612.5	-205.4	7,615.2	0.00	0.00	0.00
15,800.0	89.68	359.43	8,161.7	7,712.5	-206.4	7,715.2	0.00	0.00	0.00
15,900.0	89.68	359.43	8,162.2	7,812.5	-207.4	7,815.2	0.00	0.00	0.00
16,000.0	89.68	359.43	8,162.8	7,912.5	-208.4	7,915.1	0.00	0.00	0.00
16,100.0	89.68	359.43	8,163.3	8,012.5	-209.4	8,015.1	0.00	0.00	0.00
16,200.0	89.68	359.43	8,163.9	8,112.4	-210.4	8,115.1	0.00	0.00	0.00
16,300.0	89.68	359.43	8,164.4	8,212.4	-211.3	8,215.1	0.00	0.00	0.00
16,400.0	89.68	359.43	8,165.0	8,312.4	-212.3	8,315.1	0.00	0.00	0.00
16,500.0	89.68	359.43	8,165.6	8,412.4	-213.3	8,415.1	0.00	0.00	0.00
16,600.0	89.68	359.43	8,166.1	8,512.4	-214.3	8,515.1	0.00	0.00	0.00
16,700.0	89.68	359.43	8,166.7	8,612.4	-215.3	8,615.1	0.00	0.00	0.00
16,800.0	89.68	359.43	8,167.2	8,712.4	-216.3	8,715.1	0.00	0.00	0.00
16,900.0	89.68	359.43	8,167.8	8,812.4	-217.3	8,815.1	0.00	0.00	0.00
17,000.0	89.68	359.43	8,168.3	8,912.4	-218.3	8,915.0	0.00	0.00	0.00
17,100.0	89.68	359.43	8,168.9	9,012.4	-219.3	9,015.0	0.00	0.00	0.00
17,200.0	89.68	359.43	8,169.4	9,112.4	-220.3	9,115.0	0.00	0.00	0.00
17,300.0	89.68	359.43	8,170.0	9,212.4	-221.2	9,215.0	0.00	0.00	0.00
17,400.0	89.68	359.43	8,170.5	9,312.4	-222.2	9,315.0	0.00	0.00	0.00
17,500.0	89.68	359.43	8,171.1	9,412.4	-223.2	9,415.0	0.00	0.00	0.00
17,600.0	89.68	359.43	8,171.6	9,512.4	-224.2	9,515.0	0.00	0.00	0.00
17,700.0	89.68	359.43	8,172.2	9,612.3	-225.2	9,615.0	0.00	0.00	0.00
17,800.0	89.68	359.43	8,172.8	9,712.3	-226.2	9,715.0	0.00	0.00	0.00
17,900.0	89.68	359.43	8,173.3	9,812.3	-227.2	9,815.0	0.00	0.00	0.00
18,000.0	89.68	359.43	8,173.9	9,912.3	-228.2	9,915.0	0.00	0.00	0.00
18,100.0	89.68	359.43	8,174.4	10,012.3	-229.2	10,014.9	0.00	0.00	0.00
18,200.0	89.68	359.43	8,175.0	10,112.3	-230.2	10,114.9	0.00	0.00	0.00
18,300.0	89.68	359.43	8,175.5	10,212.3	-231.1	10,214.9	0.00	0.00	0.00
18,386.7	89.68	359.43	8,176.0	10,299.0	-232.0	10,301.6	0.00	0.00	0.00
BHL: 100' FNL & 1980' FEL (21)									

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Starship 28/21 B2OB Fee #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3096.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 3096.0usft (Original Well Elev)
Site:	Starship 28/21 B2OB Fee #1H	North Reference:	Grid
Well:	Sec. 28, T23S R28E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 100' FSL & 1980' FEL, Sec. 21		
Design:	Design #1		

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
SHL: 215' FSL & 1850' F - plan hits target center - Point	0.00	0.00	0.0	0.0	0.0	461,827.00	616,668.00	32.2694020	-104.0896073
KOP: 10' FSL & 1980' FI - plan hits target center - Point	0.00	0.00	7,548.0	-206.0	-128.0	461,621.00	616,540.00	32.2688365	-104.0900230
FTP: 100' FSL & 1980' F - plan hits target center - Point	0.00	0.00	7,856.3	-116.0	-128.9	461,711.00	616,539.11	32.2690839	-104.0900252
BHL: 100' FNL & 1980' F - plan hits target center - Point	0.00	0.00	8,176.0	10,299.0	-232.0	472,126.00	616,436.00	32.2977139	-104.0902824