AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Operator Certification Data Report

02/25/2019

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: Bradley Bishop Signed on: 07/17/2018

Title: Regulatory

Street Address: PO Box 5270

City: Hobbs State: NM Zip: 88240

Phone: (575)393-5905

Email address: bbishop@mewbourne.com

Field Representative

Representative Name:

Street Address:

City: State: Zip:

Phone:

Email address:

APD ID: 10400030345
Submission Date: 07/17/2018

Operator Name: MEWBOURNE OIL COMPANY

Well Name: GAZELLE 22 B2NC FED COM
Well Number: 2H

Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400030345
Tie to previous NOS?
Submission Date: 07/17/2018

BLM Office: CARLSBAD
User: Bradley Bishop
Title: Regulatory

Federal/Indian APD: FED
Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM132073
Lease Acres: 320

Surface access agreement in place?
Allotted?
Reservation:

Agreement in place? NO
Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? YES

Permitting Agent? NO
APD Operator: MEWBOURNE OIL COMPANY

Operator letter of designation: Gazelle22B2NCFedCom2H_operatorletterofdesignation_20180517130441.pdf

Operator Info

Operator Organization Name: MEWBOURNE OIL COMPANY

Operator Address: PO Box 5270
Zip: 88240

Operator PO Box:

Operator City: Hobbs
State: NM

Operator Phone: (575)393-5905

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO
Mater Development Plan name:

Well in Master SUPO? NO
Master SUPO name:

Well in Master Drilling Plan? NO
Master Drilling Plan name:

Well Name: GAZELLE 22 B2NC FED COM
Well Number: 2H
Well API Number:

Field/Pool or Exploratory? Field and Pool
Field Name: ANTELOPE RIDGE
Pool Name: BONE SPRIING

Is the proposed well in an area containing other mineral resources? USEABLE WATER

Operator Name: MEWBOURNE OIL COMPANY

Well Name: GAZELLE 22 B2NC FED COM Well Number: 2H

Describe other minerals:

Is the proposed well in a Helium production area? N Use Existing Well Pad? NO New surface disturbance?

Type of Well Pad: SINGLE WELL Multiple Well Pad Name: Number:

Well Class: HORIZONTAL Number of Legs:

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: APPRAISAL

Describe sub-type:

Distance to town: 20 Miles Distance to nearest well: 150 FT Distance to lease line: 185 FT

Reservoir well spacing assigned acres Measurement: 160 Acres

Well plat: Gazelle22B2NCFedCom2H_wellplat_20180717075342.pdf

Well work start Date: 09/17/2018 Duration: 60 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 Vertical Datum: NAVD88

Survey number:

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	200	FSL	1750	FWL	23S	34E	22	Aliquot SESW	32.2833977	-103.4608101	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 132073	3471	27	27
KOP Leg #1	10	FSL	1850	FWL	23S	34E	22	Aliquot SESW	32.2828773	-103.4604836	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 132073	-6439	9914	9910
PPP Leg #1	100	FSL	1850	FWL	23S	34E	22	Aliquot SESW	32.2831192	-103.4604838	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 132073	-6715	10209	10186

Operator Name: MEWBOURNE OIL COMPANY

Well Name: GAZELLE 22 B2NC FED COM Well Number: 2H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
PPP Leg #1	3641	FNL	1850	FWL	23S	34E	22	Aliquot SENW	32.2901066	-103.4604901	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-6917	12817	10388
EXIT Leg #1	100	FNL	1850	FWL	23S	34E	22	Aliquot NENW	32.2970911	-103.4604963	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-6917	15358	10388
BHL Leg #1	100	FNL	1850	FWL	23S	34E	22	Aliquot NENW	32.2970911	-103.4604963	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-6917	15358	10388

United States Department of the Interior
Bureau of Land Management
Carlsbad Field Office
620 E Greene Street
Carlsbad, New Mexico 88201-1287

Statement Accepting Responsibility for Operations

Operator Name:	Mewbourne Oil Company
Street or Box:	P.O. Box 5270
City, State:	Hobbs, New Mexico
Zip Code:	88241

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted of the leased land or portion thereof, as described below.

Lease Number:	NMNM 132073
Legal Description of Land:	Section 22, T23S, R34E Lea County, New Mexico. Location @ 200 FSL & 1750 FWL
Formation (if applicable):	Bone Spring
Bond Coverage:	$150,000
BLM Bond File:	NM1693 nationwide, NMB000919

Authorized Signature: Bradley C Bishop

Name: Bradley Bishop
Title: Regulatory Manager

Date: 5-17-18

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

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

OCD – HOBBS
02/26/2019
RECEIVED

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-025-45646	2209	ANTELOPE RIDGE BONE SPRING, WEST

4 Property Code	5 Property Name	6 Well Number
325017	GAZELLE 22 B2NC FEDERAL COM	2H

7 OGRID NO.	8 Operator Name	9 Elevation
14744	MEWBOURNE OIL COMPANY	3471'

10 Surface Location

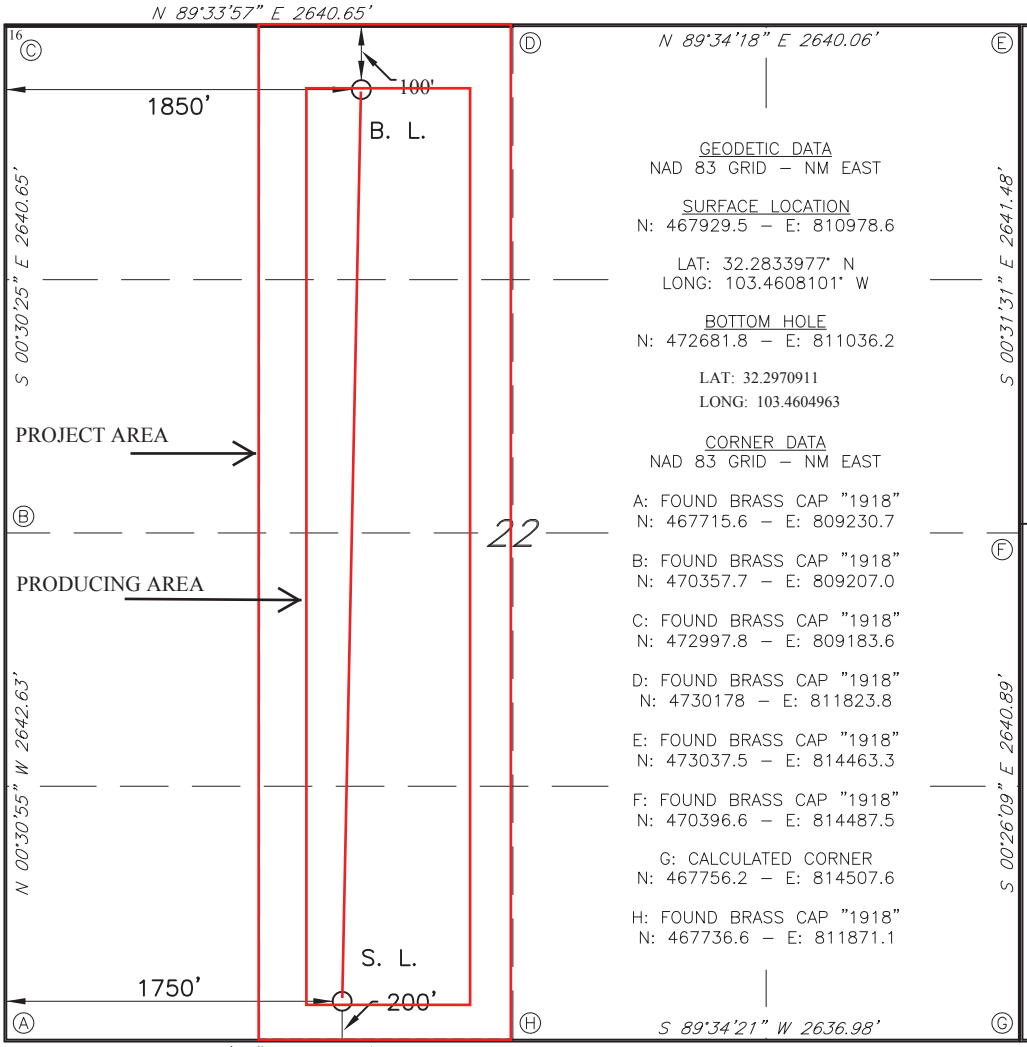
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
N	22	23S	34E		200	SOUTH	1750	WEST	LEA

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	22	23S	34E		100	NORTH	1850	WEST	LEA

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
160			

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.



GEODETIC DATA
NAD 83 GRID – NM EAST

SURFACE LOCATION
N: 467929.5 – E: 810978.6

LAT: 32.2833977° N
LONG: 103.4608101° W

BOTTOM HOLE
N: 472681.8 – E: 811036.2

LAT: 32.2970911
LONG: 103.4604963

CORNER DATA
NAD 83 GRID – NM EAST

A: FOUND BRASS CAP "1918"
N: 467715.6 – E: 809230.7

B: FOUND BRASS CAP "1918"
N: 470357.7 – E: 809207.0

C: FOUND BRASS CAP "1918"
N: 472997.8 – E: 809183.6

D: FOUND BRASS CAP "1918"
N: 4730178 – E: 811823.8

E: FOUND BRASS CAP "1918"
N: 473037.5 – E: 814463.3

F: FOUND BRASS CAP "1918"
N: 470396.6 – E: 814487.5

G: CALCULATED CORNER
N: 467756.2 – E: 814507.6

H: FOUND BRASS CAP "1918"
N: 467736.6 – E: 811871.1

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.

Signature — Date: 7-17-18

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.

4-2-18
Date of Survey

Signature and Seal of Professional Surveyor

ROBERT M. HOWETT
NEW MEXICO
19680
PROFESSIONAL SURVEYOR

19680
Certificate Number

RRC–Job No.: LS1804421

APD ID: 10400030345

Submission Date: 07/17/2018

Operator Name: MEWBOURNE OIL COMPANY

Well Name: GAZELLE 22 B2NC FED COM

Well Number: 2H

Well Type: OIL WELL

Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	UNKNOWN	3471	27	27		NONE	No
2	RUSTLER	2522	970	970	DOLOMITE,ANHYDRITE	USEABLE WATER	No
3	TOP SALT	1457	2035	2035	SALT	NONE	No
4	BOTTOM SALT	-833	4325	4325	SALT	NONE	No
5	LAMAR	-1583	5075	5075	LIMESTONE	NATURAL GAS,OIL	No
6	BELL CANYON	-1608	5100	5100	SANDSTONE	NATURAL GAS,OIL	No
7	CHERRY CANYON	-2353	5845	5845	SHALE,SANDSTONE	NATURAL GAS,OIL	No
8	BRUSHY CANYON	-3778	7270	7270	SANDSTONE	NATURAL GAS,OIL	No
9	BONE SPRING	-5083	8575	8575	SANDSTONE	NATURAL GAS,OIL	No
10	BONE SPRING 1ST	-6158	9650	9650	SANDSTONE	NATURAL GAS,OIL	No
11	BONE SPRING 2ND	-6683	10175	10175	SANDSTONE	NATURAL GAS,OIL	Yes

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 15358

Equipment: Annular, Pipe Ram, Blind Ram

Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. Anchors are not required by the manufacturer. A multi-bowl wellhead is being used. See attached schematic.
Testing Procedure: BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly

cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Choke Diagram Attachment:

Gazelle_22_B2NC_Fed_Com_2H_5M_BOPE_Choke_Diagram_20180712102730.pdf

Gazelle_22_B2NC_Fed_Com_2H_Flex_Line_Specs_20180712102744.pdf

BOP Diagram Attachment:

Gazelle_22_B2NC_Fed_Com_2H_5M_BOPE_Schematic_20180712102755.pdf

Gazelle_22_B2NC_Fed_Com_2H_5M_Multi_Bowl_WH_20180712102804.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1045	0	1045			1045	H-40	48	STC	1.61	3.62	DRY	6.42	DRY	10.79
2	INTERMEDIATE	12.25	9.625	NEW	API	Y	0	5000	0	5000			5000	J-55	36	LTC	1.13	1.96	DRY	2.43	DRY	4.54
3	PRODUCTION	8.75	7.0	NEW	API	N	0	10665	0	10388			10665	P-110	26	LTC	1.56	1.99	DRY	2.33	DRY	2.99
4	LINER	6.125	4.5	NEW	API	N	9914	15358	9910	10388			5444	P-110	13.5	LTC	1.98	2.3	DRY	4.6	DRY	5.74

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Gazelle_22_B2NC_Fed_Com_2H_Csg_Assumptions_20180712133653.pdf

Operator Name: MEWBOURNE OIL COMPANY

Well Name: GAZELLE 22 B2NC FED COM Well Number: 2H

Casing Attachments

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Gazelle_22_B2NC_Fed_Com_2H_Inter_Tapered_String_Diagram_20180712133848.pdf

Casing Design Assumptions and Worksheet(s):

Gazelle_22_B2NC_Fed_Com_2H_Csg_Assumptions_20180712133710.pdf

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Gazelle_22_B2NC_Fed_Com_2H_Csg_Assumptions_20180712133718.pdf

Casing ID: 4 **String Type:** LINER

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Gazelle_22_B2NC_Fed_Com_2H_Csg_Assumptions_20180712133726.pdf

Section 4 - Cement

Operator Name: MEWBOURNE OIL COMPANY

Well Name: GAZELLE 22 B2NC FED COM Well Number: 2H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	845	565	2.12	12.5	1198	100	Class C	Salt, Gel, Extender, LCM
SURFACE	Tail		845	1045	200	1.34	14.8	268	100	Class C	Retarder
INTERMEDIATE	Lead		0	4253	840	2.12	12.5	1781	25	Class C	Salt, Gel, Extender, LCM
INTERMEDIATE	Tail		4253	5000	200	1.34	14.8	268	25	Class C	Retarder
PRODUCTION	Lead		4800	8187	305	2.12	12.5	645	25	Class C	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail		8187	10665	400	1.18	15.6	472	25	Class H	Retarder, Fluid Loss, Defoamer
LINER	Lead		9914	15358	225	2.97	11.2	668	25	Class C	Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-Settling Agent

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Lost circulation material Sweeps Mud scavengers in surface hole

Describe the mud monitoring system utilized: Visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics

Operator Name: MEWBOURNE OIL COMPANY

Well Name: GAZELLE 22 B2NC FED COM Well Number: 2H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1045	5000	SALT SATURATED	10	10							
5000	9910	WATER-BASED MUD	8.6	9.7							
0	1045	SPUD MUD	8.6	8.8							
9910	10388	OIL-BASED MUD	8.6	10							

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Will run GR/CNL from KOP (9914') to surface

List of open and cased hole logs run in the well:

CNL,DS,GR,MWD,MUDLOG

Coring operation description for the well:

None

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5401 Anticipated Surface Pressure: 3104.64

Anticipated Bottom Hole Temperature(F): 140

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Gazelle_22_B2NC_Fed_Com_2H_H2S_Plan_20180712141944.pdf

Operator Name: MEWBOURNE OIL COMPANY

Well Name: GAZELLE 22 B2NC FED COM Well Number: 2H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Gazelle_22_B2NC_Fed_Com_2H_Dir_Plan_20180712142016.pdf

Gazelle_22_B2NC_Fed_Com_2H_Dir_Plot_20180712142023.pdf

Other proposed operations facets description:

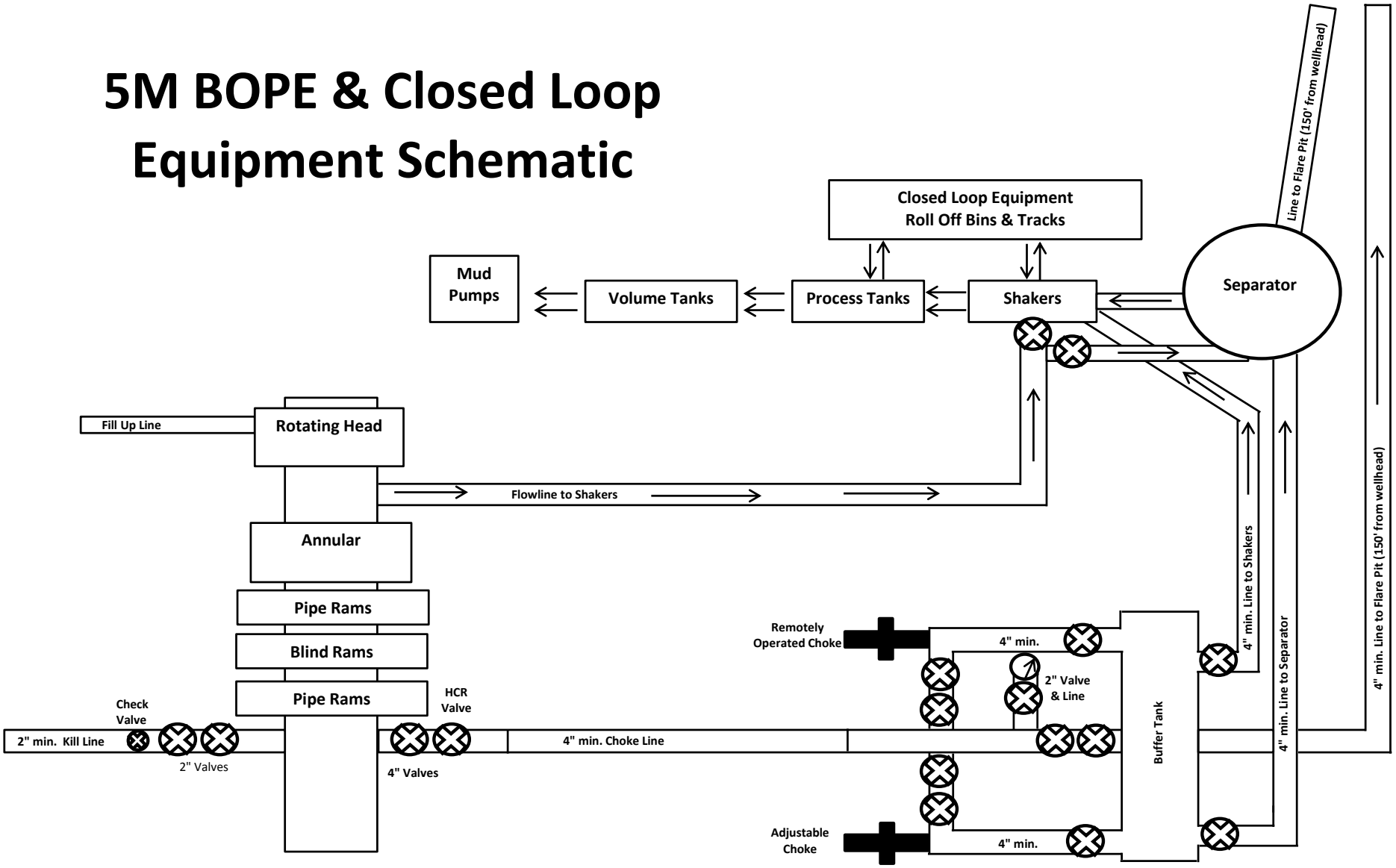
Other proposed operations facets attachment:

Gazelle_22_B2NC_Fed_Com_2H_Drlg_Program_20180712142034.docx

Gazelle_22_B2NC_Fed_Com_2H_OCD_Sheet_20180712142113.pdf

Other Variance attachment:

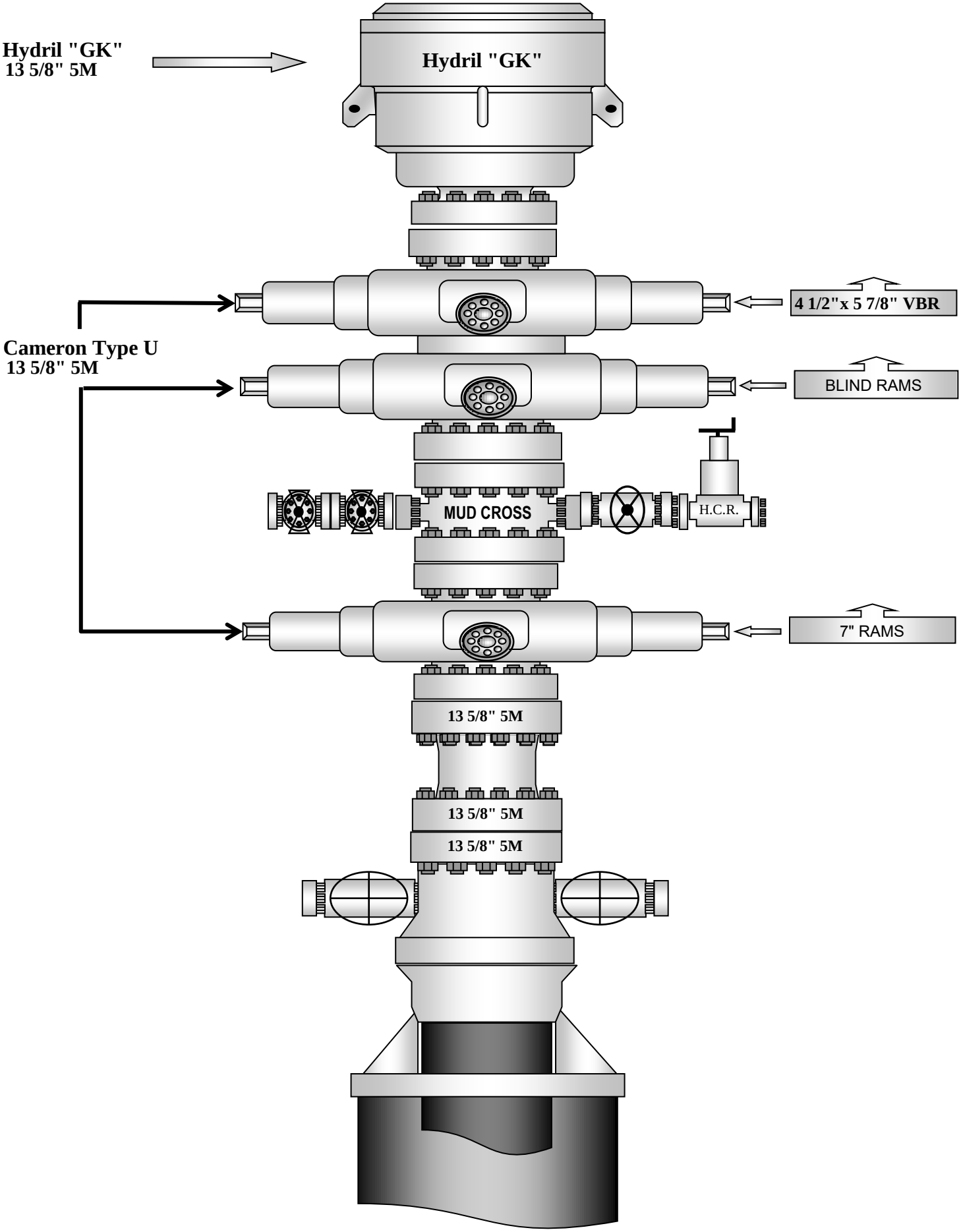
5M BOPE & Closed Loop Equipment Schematic



Drawing not to scale

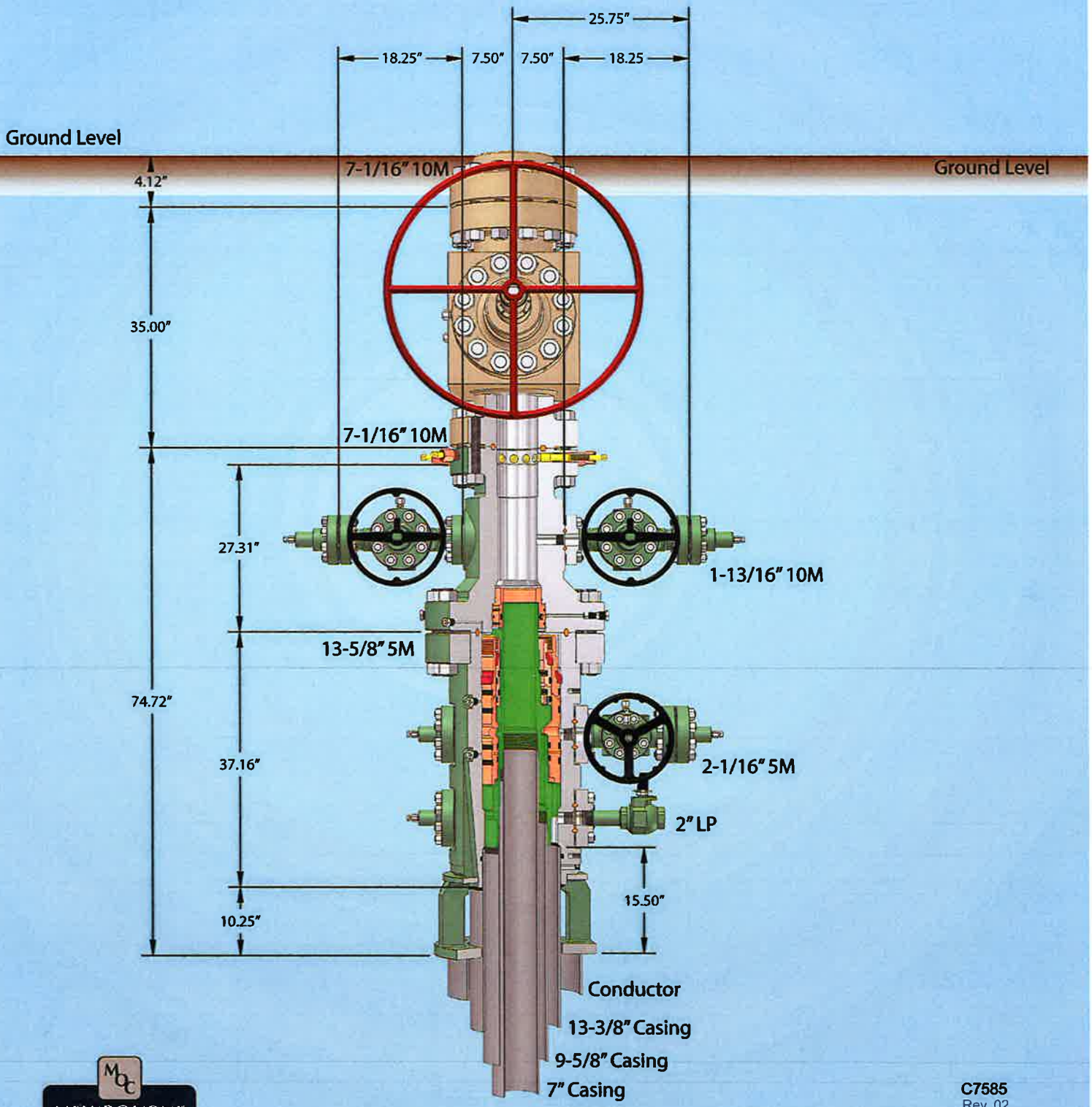
Note: All valves & lines on choke manifold are 4" unless otherwise noted. Exact manifold configuration may vary.

5M BOPE Schematic



CAMERON
A Schlumberger Company

13-5/8" MN-DS Wellhead System



MEWBOURNE OIL COMPANY

C7585
Rev. 02

NOTE: All dimensions on this drawing are estimated measurements and should be evaluated by engineering.

Capping flange 57" conductor cut-off

79

Hydrogen Sulfide Drilling Operations Plan
Mewbourne Oil Company

1. General Requirements

Rule 118 does not apply to this well because MOC has researched this area and no high concentrations of H2S were found. MOC will have on location and working all H2S safety equipment before the Delaware formation for purposes of safety and insurance requirements.

2. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will have received training from a qualified instructor in the following areas prior to entering the drilling pad area of the well:

1. The hazards and characteristics of hydrogen sulfide gas.
2. The proper use of personal protective equipment and life support systems.
3. The proper use of hydrogen sulfide detectors, alarms, warning systems, briefing areas, evacuation procedures.
4. The proper techniques for first aid and rescue operations.

Additionally, supervisory personnel will be trained in the following areas:

1 The effects of hydrogen sulfide on metal components. If high tensile tubular systems are utilized, supervisory personnel will be trained in their special maintenance requirements.
2 Corrective action and shut in procedures, blowout prevention, and well control procedures while drilling a well.
3 The contents of the Hydrogen Sulfide Drilling Operations Plan.

There will be an initial training session prior to encountering a know hydrogen sulfide source. The initial training session shall include a review of the site specific Hydrogen Sulfide Drilling Operations Plan.

3. Hydrogen Sulfide Safety Equipment and Systems

All hydrogen sulfide safety equipment and systems will be installed, tested, and operational prior to drilling below the 9 5/8" intermediate casing.

1. Well Control Equipment
   - A. Choke manifold with minimum of one adjustable choke/remote choke.
   - B. Blowout preventers equipped with blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
   - C. Auxiliary equipment including annular type blowout preventer.
2. Protective Equipment for Essential Personnel
   Thirty minute self contained work unit located in the dog house and at briefing areas.

Additionally: If H2S is encountered in concentrations less than 10 ppm, fans will be placed in work areas to prevent the accumulation of hazardous amounts of poisonous gas. If higher concentrations of H2S are detected the well will be shut in and a rotating head, mud/gas separator, remote choke and flare line with igniter will be installed.

3. Hydrogen Sulfide Protection and Monitoring Equipment
Two portable hydrogen sulfide monitors positioned on location for optimum coverage and detection. The units shall have audible sirens to notify personnel when hydrogen sulfide levels exceed 20 PPM.

4. Visual Warning Systems
A. Wind direction indicators as indicated on the wellsite diagram.
B. Caution signs shall be posted on roads providing access to location. Signs shall be painted a high visibility color with lettering of sufficient size to be readable at reasonable distances from potentially contaminated areas.

4. Mud Program

The mud program has been designed to minimize the amount of hydrogen sulfide entrained in the mud system. Proper mud weight, safe drilling practices, and the use of hydrogen sulfide scavengers will minimize hazards while drilling the well.

5. Metallurgy

All tubular systems, wellheads, blowout preventers, drilling spools, kill lines, choke manifolds, and valves shall be suitable for service in a hydrogen sulfide environment when chemically treated.

6. Communications

State & County Officials phone numbers are posted on rig floor and supervisors trailer. Communications in company vehicles and toolpushers are either two way radios or cellular phones.

7. Well Testing

Drill stem testing is not an anticipated requirement for evaluation of this well. If a drill stem test is required, it will be conducted with a minimum number of personnel in the immediate vicinity. The test will be conducted during daylight hours only.

8. Emergency Phone Numbers

Eddy County Sheriff's Office	**911 or 575-887-7551**
Ambulance Service	**911 or 575-885-2111**
Carlsbad Fire Dept	**911 or 575-885-2111**
Loco Hills Volunteer Fire Dept.	**911 or 575-677-3266**
Closest Medical Facility - Columbia Medical Center of Carlsbad	**575-492-5000**

Mewbourne Oil Company	**Hobbs District Office**	**575-393-5905**
	Fax	**575-397-6252**
	2nd Fax	**575-393-7259**
District Manager	**Robin Terrell**	**575-390-4816**
Drilling Superintendent	**Frosty Lathan**	**575-390-4103**
	Bradley Bishop	**575-390-6838**
Drilling Foreman	**Wesley Noseff**	**575-441-0729**

Mewbourne Oil Company

Lea County, New Mexico NAD 83
Gazelle 22 B2NC Fed Com #2H
Sec 22, T23S, R34E
SL: 200' FSL & 1750' FWL
BHL: 100' FNL & 1850' FWL

Plan: Design #1

Standard Planning Report

11 July, 2018

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Gazelle 22 B2NC Fed Com #2H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3498.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	**MD Reference:**	WELL @ 3498.0usft (Original Well Elev)
Site:	Gazelle 22 B2NC Fed Com #2H	**North Reference:**	Grid
Well:	Sec 22, T23S, R34E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 100' FNL & 1850' FWL		
Design:	Design #1		

Project Lea County, New Mexico NAD 83

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Gazelle 22 B2NC Fed Com #2H

Site Position:		**Northing:**	467,929.00 usft	**Latitude:**	32.2833963
From:	Map	**Easting:**	810,979.00 usft	**Longitude:**	-103.4608087
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.47 °

Well Sec 22, T23S, R34E

Well Position	**+N/-S**	0.0 usft	**Northing:**	467,929.00 usft	**Latitude:**	32.2833963
	+E/-W	0.0 usft	**Easting:**	810,979.00 usft	**Longitude:**	-103.4608087
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	3,498.0 usft	**Ground Level:**	3,471.0 usft

Wellbore BHL: 100' FNL & 1850' FWL

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/11/2018	6.66	60.08	47,955

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	0.64

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	
5,075.0	0.00	0.00	5,075.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,205.1	2.60	151.52	5,205.1	-2.6	1.4	2.00	2.00	0.00	151.52	
9,784.7	2.60	151.52	9,779.9	-185.4	100.6	0.00	0.00	0.00	0.00	
9,914.8	0.00	0.00	9,910.0	-188.0	102.0	2.00	-2.00	0.00	180.00	KOP @ 9910'
10,665.7	90.00	359.49	10,388.0	290.0	97.7	11.99	11.99	0.00	-0.51	
15,358.9	90.00	359.49	10,388.0	4,983.0	56.0	0.00	0.00	0.00	0.00	BHL: 100' FNL & 185(

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Gazelle 22 B2NC Fed Com #2H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3498.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	**MD Reference:**	WELL @ 3498.0usft (Original Well Elev)
Site:	Gazelle 22 B2NC Fed Com #2H	**North Reference:**	Grid
Well:	Sec 22, T23S, R34E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 100' FNL & 1850' FWL		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
SL: 200' FSL & 1750' FWL									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,075.0	0.00	0.00	5,075.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.50	151.52	5,100.0	-0.1	0.1	-0.1	2.00	2.00	0.00

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Gazelle 22 B2NC Fed Com #2H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3498.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	**MD Reference:**	WELL @ 3498.0usft (Original Well Elev)
Site:	Gazelle 22 B2NC Fed Com #2H	**North Reference:**	Grid
Well:	Sec 22, T23S, R34E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 100' FNL & 1850' FWL		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,200.0	2.50	151.52	5,200.0	-2.4	1.3	-2.4	2.00	2.00	0.00
5,205.1	2.60	151.52	5,205.1	-2.6	1.4	-2.6	2.00	2.00	0.00
5,300.0	2.60	151.52	5,299.9	-6.4	3.5	-6.3	0.00	0.00	0.00
5,400.0	2.60	151.52	5,399.8	-10.4	5.6	-10.3	0.00	0.00	0.00
5,500.0	2.60	151.52	5,499.7	-14.4	7.8	-14.3	0.00	0.00	0.00
5,600.0	2.60	151.52	5,599.5	-18.4	10.0	-18.2	0.00	0.00	0.00
5,700.0	2.60	151.52	5,699.4	-22.4	12.1	-22.2	0.00	0.00	0.00
5,800.0	2.60	151.52	5,799.3	-26.3	14.3	-26.2	0.00	0.00	0.00
5,900.0	2.60	151.52	5,899.2	-30.3	16.5	-30.1	0.00	0.00	0.00
6,000.0	2.60	151.52	5,999.1	-34.3	18.6	-34.1	0.00	0.00	0.00
6,100.0	2.60	151.52	6,099.0	-38.3	20.8	-38.1	0.00	0.00	0.00
6,200.0	2.60	151.52	6,198.9	-42.3	23.0	-42.0	0.00	0.00	0.00
6,300.0	2.60	151.52	6,298.8	-46.3	25.1	-46.0	0.00	0.00	0.00
6,400.0	2.60	151.52	6,398.7	-50.3	27.3	-50.0	0.00	0.00	0.00
6,500.0	2.60	151.52	6,498.6	-54.3	29.5	-54.0	0.00	0.00	0.00
6,600.0	2.60	151.52	6,598.5	-58.3	31.6	-57.9	0.00	0.00	0.00
6,700.0	2.60	151.52	6,698.4	-62.3	33.8	-61.9	0.00	0.00	0.00
6,800.0	2.60	151.52	6,798.3	-66.3	36.0	-65.9	0.00	0.00	0.00
6,900.0	2.60	151.52	6,898.2	-70.3	38.1	-69.8	0.00	0.00	0.00
7,000.0	2.60	151.52	6,998.1	-74.2	40.3	-73.8	0.00	0.00	0.00
7,100.0	2.60	151.52	7,098.0	-78.2	42.4	-77.8	0.00	0.00	0.00
7,200.0	2.60	151.52	7,197.9	-82.2	44.6	-81.7	0.00	0.00	0.00
7,300.0	2.60	151.52	7,297.8	-86.2	46.8	-85.7	0.00	0.00	0.00
7,400.0	2.60	151.52	7,397.7	-90.2	48.9	-89.7	0.00	0.00	0.00
7,500.0	2.60	151.52	7,497.6	-94.2	51.1	-93.6	0.00	0.00	0.00
7,600.0	2.60	151.52	7,597.5	-98.2	53.3	-97.6	0.00	0.00	0.00
7,700.0	2.60	151.52	7,697.4	-102.2	55.4	-101.6	0.00	0.00	0.00
7,800.0	2.60	151.52	7,797.3	-106.2	57.6	-105.5	0.00	0.00	0.00
7,900.0	2.60	151.52	7,897.2	-110.2	59.8	-109.5	0.00	0.00	0.00
8,000.0	2.60	151.52	7,997.1	-114.2	61.9	-113.5	0.00	0.00	0.00
8,100.0	2.60	151.52	8,097.0	-118.2	64.1	-117.4	0.00	0.00	0.00
8,200.0	2.60	151.52	8,196.9	-122.1	66.3	-121.4	0.00	0.00	0.00
8,300.0	2.60	151.52	8,296.8	-126.1	68.4	-125.4	0.00	0.00	0.00
8,400.0	2.60	151.52	8,396.7	-130.1	70.6	-129.3	0.00	0.00	0.00
8,500.0	2.60	151.52	8,496.6	-134.1	72.8	-133.3	0.00	0.00	0.00
8,600.0	2.60	151.52	8,596.5	-138.1	74.9	-137.3	0.00	0.00	0.00
8,700.0	2.60	151.52	8,696.3	-142.1	77.1	-141.2	0.00	0.00	0.00
8,800.0	2.60	151.52	8,796.2	-146.1	79.3	-145.2	0.00	0.00	0.00
8,900.0	2.60	151.52	8,896.1	-150.1	81.4	-149.2	0.00	0.00	0.00
9,000.0	2.60	151.52	8,996.0	-154.1	83.6	-153.1	0.00	0.00	0.00
9,100.0	2.60	151.52	9,095.9	-158.1	85.8	-157.1	0.00	0.00	0.00
9,200.0	2.60	151.52	9,195.8	-162.1	87.9	-161.1	0.00	0.00	0.00
9,300.0	2.60	151.52	9,295.7	-166.1	90.1	-165.0	0.00	0.00	0.00
9,400.0	2.60	151.52	9,395.6	-170.0	92.3	-169.0	0.00	0.00	0.00
9,500.0	2.60	151.52	9,495.5	-174.0	94.4	-173.0	0.00	0.00	0.00
9,600.0	2.60	151.52	9,595.4	-178.0	96.6	-176.9	0.00	0.00	0.00
9,700.0	2.60	151.52	9,695.3	-182.0	98.8	-180.9	0.00	0.00	0.00
9,784.7	2.60	151.52	9,779.9	-185.4	100.6	-184.3	0.00	0.00	0.00
9,800.0	2.30	151.52	9,795.2	-186.0	100.9	-184.8	2.00	-2.00	0.00
9,900.0	0.30	151.52	9,895.2	-188.0	102.0	-186.8	2.00	-2.00	0.00
9,914.8	0.00	0.00	9,910.0	-188.0	102.0	-186.8	2.00	-2.00	0.00
KOP @ 9910'									
10,000.0	10.21	359.49	9,994.7	-180.4	101.9	-179.3	11.99	11.99	0.00

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Gazelle 22 B2NC Fed Com #2H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3498.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	**MD Reference:**	WELL @ 3498.0usft (Original Well Elev)
Site:	Gazelle 22 B2NC Fed Com #2H	**North Reference:**	Grid
Well:	Sec 22, T23S, R34E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 100' FNL & 1850' FWL		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,100.0	22.20	359.49	10,090.6	-152.6	101.7	-151.4	11.99	11.99	0.00
10,200.0	34.18	359.49	10,178.6	-105.4	101.3	-104.3	11.99	11.99	0.00
10,209.5	35.32	359.49	10,186.4	-100.0	101.2	-98.9	11.99	11.99	0.00
FTP: 100' FSL & 1850' FWL									
10,300.0	46.17	359.49	10,254.8	-41.0	100.7	-39.9	11.99	11.99	0.00
10,400.0	58.16	359.49	10,316.1	37.8	100.0	38.9	11.99	11.99	0.00
10,500.0	70.14	359.49	10,359.6	127.6	99.2	128.7	11.99	11.99	0.00
10,600.0	82.13	359.49	10,383.5	224.5	98.3	225.6	11.99	11.99	0.00
10,665.7	90.00	359.49	10,388.0	290.0	97.7	291.1	11.99	11.99	0.00
LP: 490' FSL & 1850' FWL									
10,700.0	90.00	359.49	10,388.0	324.3	97.4	325.4	0.00	0.00	0.00
10,800.0	90.00	359.49	10,388.0	424.3	96.6	425.4	0.00	0.00	0.00
10,900.0	90.00	359.49	10,388.0	524.3	95.7	525.4	0.00	0.00	0.00
11,000.0	90.00	359.49	10,388.0	624.3	94.8	625.3	0.00	0.00	0.00
11,100.0	90.00	359.49	10,388.0	724.3	93.9	725.3	0.00	0.00	0.00
11,200.0	90.00	359.49	10,388.0	824.3	93.0	825.3	0.00	0.00	0.00
11,300.0	90.00	359.49	10,388.0	924.3	92.1	925.3	0.00	0.00	0.00
11,400.0	90.00	359.49	10,388.0	1,024.3	91.2	1,025.3	0.00	0.00	0.00
11,500.0	90.00	359.49	10,388.0	1,124.3	90.3	1,125.2	0.00	0.00	0.00
11,600.0	90.00	359.49	10,388.0	1,224.3	89.4	1,225.2	0.00	0.00	0.00
11,700.0	90.00	359.49	10,388.0	1,324.3	88.5	1,325.2	0.00	0.00	0.00
11,800.0	90.00	359.49	10,388.0	1,424.3	87.7	1,425.2	0.00	0.00	0.00
11,900.0	90.00	359.49	10,388.0	1,524.3	86.8	1,525.2	0.00	0.00	0.00
12,000.0	90.00	359.49	10,388.0	1,624.3	85.9	1,625.1	0.00	0.00	0.00
12,100.0	90.00	359.49	10,388.0	1,724.3	85.0	1,725.1	0.00	0.00	0.00
12,200.0	90.00	359.49	10,388.0	1,824.3	84.1	1,825.1	0.00	0.00	0.00
12,300.0	90.00	359.49	10,388.0	1,924.3	83.2	1,925.1	0.00	0.00	0.00
12,400.0	90.00	359.49	10,388.0	2,024.3	82.3	2,025.1	0.00	0.00	0.00
12,500.0	90.00	359.49	10,388.0	2,124.3	81.4	2,125.0	0.00	0.00	0.00
12,600.0	90.00	359.49	10,388.0	2,224.2	80.5	2,225.0	0.00	0.00	0.00
12,700.0	90.00	359.49	10,388.0	2,324.2	79.7	2,325.0	0.00	0.00	0.00
12,800.0	90.00	359.49	10,388.0	2,424.2	78.8	2,425.0	0.00	0.00	0.00
12,817.8	90.00	359.49	10,388.0	2,442.0	78.6	2,442.7	0.00	0.00	0.00
PPP-2: 2641' FNL & 1850' FWL									
12,900.0	90.00	359.49	10,388.0	2,524.2	77.9	2,525.0	0.00	0.00	0.00
13,000.0	90.00	359.49	10,388.0	2,624.2	77.0	2,624.9	0.00	0.00	0.00
13,100.0	90.00	359.49	10,388.0	2,724.2	76.1	2,724.9	0.00	0.00	0.00
13,200.0	90.00	359.49	10,388.0	2,824.2	75.2	2,824.9	0.00	0.00	0.00
13,300.0	90.00	359.49	10,388.0	2,924.2	74.3	2,924.9	0.00	0.00	0.00
13,400.0	90.00	359.49	10,388.0	3,024.2	73.4	3,024.9	0.00	0.00	0.00
13,500.0	90.00	359.49	10,388.0	3,124.2	72.5	3,124.8	0.00	0.00	0.00
13,600.0	90.00	359.49	10,388.0	3,224.2	71.6	3,224.8	0.00	0.00	0.00
13,700.0	90.00	359.49	10,388.0	3,324.2	70.8	3,324.8	0.00	0.00	0.00
13,800.0	90.00	359.49	10,388.0	3,424.2	69.9	3,424.8	0.00	0.00	0.00
13,900.0	90.00	359.49	10,388.0	3,524.2	69.0	3,524.8	0.00	0.00	0.00
14,000.0	90.00	359.49	10,388.0	3,624.2	68.1	3,624.7	0.00	0.00	0.00
14,100.0	90.00	359.49	10,388.0	3,724.2	67.2	3,724.7	0.00	0.00	0.00
14,200.0	90.00	359.49	10,388.0	3,824.2	66.3	3,824.7	0.00	0.00	0.00
14,300.0	90.00	359.49	10,388.0	3,924.2	65.4	3,924.7	0.00	0.00	0.00
14,400.0	90.00	359.49	10,388.0	4,024.2	64.5	4,024.6	0.00	0.00	0.00
14,500.0	90.00	359.49	10,388.0	4,124.2	63.6	4,124.6	0.00	0.00	0.00
14,600.0	90.00	359.49	10,388.0	4,224.2	62.8	4,224.6	0.00	0.00	0.00
14,700.0	90.00	359.49	10,388.0	4,324.2	61.9	4,324.6	0.00	0.00	0.00

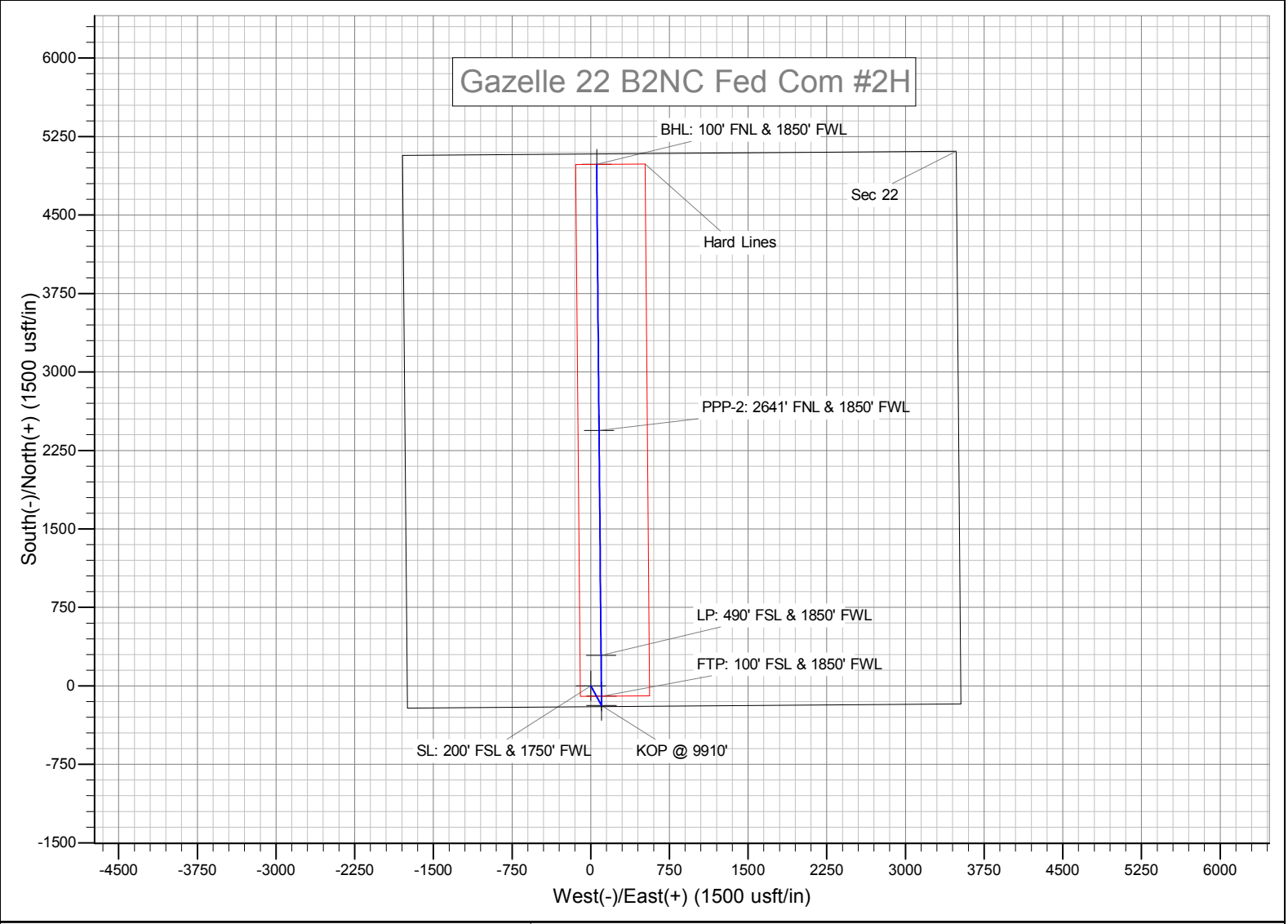
Database:	Hobbs	**Local Co-ordinate Reference:**	Site Gazelle 22 B2NC Fed Com #2H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3498.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	**MD Reference:**	WELL @ 3498.0usft (Original Well Elev)
Site:	Gazelle 22 B2NC Fed Com #2H	**North Reference:**	Grid
Well:	Sec 22, T23S, R34E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 100' FNL & 1850' FWL		
Design:	Design #1		

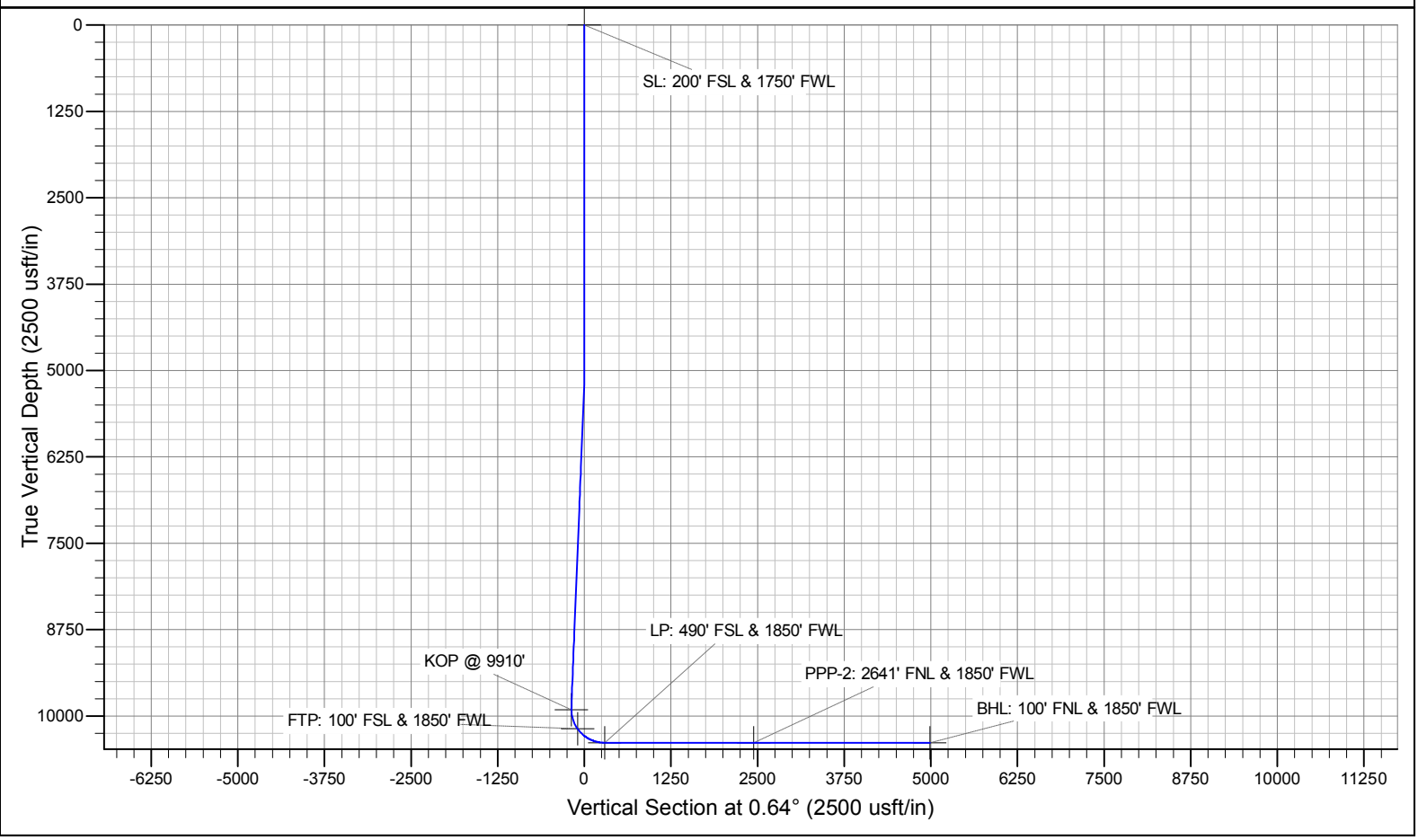
Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,800.0	90.00	359.49	10,388.0	4,424.2	61.0	4,424.6	0.00	0.00	0.00
14,900.0	90.00	359.49	10,388.0	4,524.2	60.1	4,524.5	0.00	0.00	0.00
15,000.0	90.00	359.49	10,388.0	4,624.2	59.2	4,624.5	0.00	0.00	0.00
15,100.0	90.00	359.49	10,388.0	4,724.2	58.3	4,724.5	0.00	0.00	0.00
15,200.0	90.00	359.49	10,388.0	4,824.1	57.4	4,824.5	0.00	0.00	0.00
15,300.0	90.00	359.49	10,388.0	4,924.1	56.5	4,924.5	0.00	0.00	0.00
15,358.9	90.00	359.49	10,388.0	4,983.0	56.0	4,983.3	0.00	0.00	0.00
BHL: 100' FNL & 1850' FWL									

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
SL: 200' FSL & 1750' FV - plan hits target center - Point	0.00	0.00	0.0	0.0	0.0	467,929.00	810,979.00	32.2833963	-103.4608087
KOP @ 9910' - plan hits target center - Point	0.00	0.00	9,910.0	-188.0	102.0	467,741.00	811,081.00	32.2828773	-103.4604836
FTP: 100' FSL & 1850' F - plan hits target center - Point	0.00	0.00	10,186.4	-100.0	101.2	467,829.00	811,080.22	32.2831192	-103.4604838
BHL: 100' FNL & 1850' F - plan hits target center - Point	0.00	0.00	10,388.0	4,983.0	56.0	472,912.00	811,035.00	32.2970911	-103.4604963
LP: 490' FSL & 1850' FV - plan hits target center - Point	0.00	0.00	10,388.0	290.0	97.7	468,218.98	811,076.75	32.2841912	-103.4604848
PPP-2: 2641' FNL & 185 - plan hits target center - Point	0.00	0.00	10,388.0	2,442.0	78.6	470,371.00	811,057.60	32.2901066	-103.4604901


Gazelle 22 B2NC Fed Com #2H
BHL: 100' FNL & 1850' FWL
Sec 22
Hard Lines
PPP-2: 2641' FNL & 1850' FWL
LP: 490' FSL & 1850' FWL
FTP: 100' FSL & 1850' FWL
SL: 200' FSL & 1750' FWL
KOP @ 9910'
South(-)/North(+) (1500 usft/in)
West(-)/East(+) (1500 usft/in)
6000
5250
4500
3750
3000
2250
1500
750
0
-750
-1500
-4500
-3750
-3000
-2250
-1500
-750
0
750
1500
2250
3000
3750
4500
5250
6000


SL: 200' FSL & 1750' FWL
LP: 490' FSL & 1850' FWL
KOP @ 9910'
PPP-2: 2641' FNL & 1850' FWL
FTP: 100' FSL & 1850' FWL
BHL: 100' FNL & 1850' FWL
True Vertical Depth (2500 usft/in)
Vertical Section at 0.64° (2500 usft/in)
0
1250
2500
3750
5000
6250
7500
8750
10000
-6250
-5000
-3750
-2500
-1250
0
1250
2500
3750
5000
6250
7500
8750
10000
11250

Mewbourne Oil Company, Gazelle 22 B2NC Fed Com #2H
Sec 22, T23S, R34E
SL: 200' FSL & 1750' FWL
BHL: 100' FNL & 1850' FWL

1. **Geologic Formations**

TVD of target	10388'	Pilot hole depth	NA
MD at TD:	15358'	Deepest expected fresh water:	300'

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface		
Rustler	970		
Top of Salt	2035		
Base of Salt	4325		
Yates			
Seven Rivers		Oil/Gas	
Lamar	5075	Oil/Gas	
Bell Canyon	5100	Oil/Gas	
Cherry Canyon	5845	Oil/Gas	
Brushy Canyon	7270	Oil/Gas	
Bone Spring	8575	Oil/Gas	
1st Bone Spring Sand	9650	Oil/Gas	
2nd Bone Spring Sand	10175	Target Zone	
3rd Bone Spring Sand			
Abo			
Wolfcamp			
Devonian			
Fusselman			
Ellenburger			
Granite Wash			

*H2S, water flows, loss of circulation, abnormal pressures, etc.

Mewbourne Oil Company, Gazelle 22 B2NC Fed Com #2H
Sec 22, T23S, R34E
SL: 200' FSL & 1750' FWL
BHL: 100' FNL & 1850' FWL

2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
	From	To								
17.5"	0'	1045'	13.375"	48	H40	STC	1.61	3.62	6.42	10.79
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	2.43	3.03
12.25"	3453'	4393'	9.625"	40	J55	LTC	1.13	1.73	8.40	10.18
12.25"	4393'	5000'	9.625"	40	N80	LTC	1.19	2.21	30.36	37.74
8.75"	0'	10665'	7"	26	HCP110	LTC	1.56	1.99	2.33	2.99
6.125"	9914'	15358'	4.5"	13.5	P110	LTC	1.98	2.30	4.60	5.74
BLM Minimum Safety Factor	1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet						

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h
Must have table for contingency casing

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N

If yes, are the first three strings cemented to surface?	
Is 2nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. **Cementing Program**

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H_20 gal/ sk	500# Comp. Strength (hours)	Slurry Description
Surf.	565	12.5	2.12	11	10	Lead: Class C + Salt + Gel + Extender + LCM
	200	14.8	1.34	6.3	8	Tail: Class C + Retarder
Inter.	840	12.5	2.12	11	10	Lead: Class C + Salt + Gel + Extender + LCM
	200	14.8	1.34	6.3	8	Tail: Class C + Retarder
Prod.	305	12.5	2.12	11	9	Lead: Class C + Gel + Retarder + Defoamer + Extender
	400	15.6	1.18	5.2	10	Tail: Class H + Retarder + Fluid Loss + Defoamer
Liner	225	11.2	2.97	18	16	Class C + Salt + Gel + Fluid Loss + Retarder + Dispersant + Defoamer + Anti-Settling Agent

A copy of cement test will be available on location at time of cement job providing pump times & compressive strengths.

Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	25%
Production	4800'	25%
Liner	9914'	25%

Mewbourne Oil Company, Gazelle 22 B2NC Fed Com #2H
Sec 22, T23S, R34E
SL: 200' FSL & 1750' FWL
BHL: 100' FNL & 1850' FWL

4. **Pressure Control Equipment**

BOP installed and tested before drilling which hole?	Size?	System Rated WP	Type		Tested to:
12-1/4"	13-5/8"	5M	Annular	X	2500#
			Blind Ram	X	5000#
			Pipe Ram	X	
			Double Ram		
			Other*		

*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The system may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

X	Formation integrity test will be performed per Onshore Order #2. On exploratory wells or 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. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.

Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.	
	N	Are anchors required by manufacturer?
Y	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. • Provide description here: See attached schematic.	

5. **Mud Program**

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0'	1045'	FW Gel	8.6-8.8	28-34	N/C
1045'	5000'	Saturated Brine	10.0	28-34	N/C
5000'	9910'	Cut Brine	8.6-9.7	28-34	N/C
9910'	10388'	OBM	8.6-10.0	30-40	<10cc

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing.	
X	Will run GR/CNL from KOP (9914') to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No Logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain
	Coring? If yes, explain

Additional logs planned		Interval
X	Gamma Ray	9914' (KOP) to TD

	Density	
	CBL	
	Mud log	
	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	5401 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers in surface hole.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
	H2S is present
X	H2S Plan attached

8. Other facets of operation

Is this a walking operation? If yes, describe.
Will be pre-setting casing? If yes, describe.

Attachments

___ Directional Plan
___ Other, describe

Operator Name:	Property Name:	Well Number
Mewbourne Oil Co.	Gazelle 22 B2NC Fed Com	2H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
N	22	23S	34E		10	S	1850	W	Lea

Latitude	Longitude	NAD
32.2828773	-103.4604836	83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
N	22	23S	34E		100	S	1850	W	Lea

Latitude	Longitude	NAD
32.2831192	-103.4604838	83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
C	22	23S	34E		100	N	1850	W	Lea

Latitude	Longitude	NAD
32.2970911	-103.4604963	83

Is this well the defining well for the Horizontal Spacing Unit? No

Is this well an infill well? Yes

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

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Submit Original
to Appropriate
District Office

OCD – HOBBS
02/26/2019
RECEIVED

GAS CAPTURE PLAN

Date: 5-17-18

☒ Original
☐ Amended - Reason for Amendment:

Operator & OGRID No.: Mewbourne Oil Company - 14744

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete 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
Gazelle 22 B2NC Fed Com #2H	30-025-45646	N -22-T23R-R34E	200 FSL & 1750 FWL	0	NA	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 Western and will be connected to Western low/high pressure gathering system located in EDDY County, New Mexico. It will require 3,400' of pipeline to connect the facility to low/high pressure gathering system. Mewbourne Oil Company provides (periodically) to Western a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Mewbourne Oil Company and Western have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Western Processing Plant located in Sec. 36, Blk. 58 T1S, Culberson County, Texas. 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 Western system at that time. Based on current information, it is Operator'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