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.: NMLC058581

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.: SAMSONITE 4/3 FED COM 523H

2. Name of Operator: MEWBOURNE OIL COMPANY

9. API Well No.: 30-015-55417

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

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

10. Field and Pool, or Exploratory: WC -025 G06 S223322J/Bone Spring

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

At surface: NENE / 1310 FNL / 275 FEL / LAT 32.7801091 / LONG -104.0892545

At proposed prod. zone: SENW / 1980 FNL / 2543 FWL / LAT 32.7783377 / LONG -104.0629161

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 5/T18S/R29E/NMP

14. Distance in miles and direction from nearest town or post office*: 10 miles

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): 210 feet

16. No of acres in lease:

17. Spacing Unit dedicated to this well: 240.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 20 feet

19. Proposed Depth: 7214 feet / 15074 feet

20. BLM/BIA Bond No. in file: FED: NM1693

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3546 feet

22. Approximate date work will start*: 12/24/2023

23. Estimated duration: 60 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)	BRADLEY BISHOP / Ph: (575) 393-5905	11/06/2023

Title: Regulatory

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	CODY LAYTON / Ph: (575) 234-5959	08/22/2024

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

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 08/22/2024

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

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-015-55417	96832	SAND TANK; BONE SPRING

4 Property Code	5 Property Name	6 Well Number
336248	SAMSONITE 4/3 FED COM	523H

7 OGRID NO.	8 Operator Name	9 Elevation
14744	MEWBOURNE OIL COMPANY	3546'

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
A	5	18S	29E		1330	NORTH	275	EAST	EDDY

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
F	3	18S	29E		1980	NORTH	2543	WEST	EDDY

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
240			

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.

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GEODETIC DATA
NAD 83 GRID – NM EAST

SURFACE LOCATION
N: 647622.3 – E: 616351.5
LAT: 32.7801091° N
LONG: 104.0892545° W

KICK OFF POINT (KOP)
1980' FNL – 473' FEL SEC.5
N: 646971.9 – E: 616154.9
LAT: 32.7783225° N
LONG: 104.0898991° W

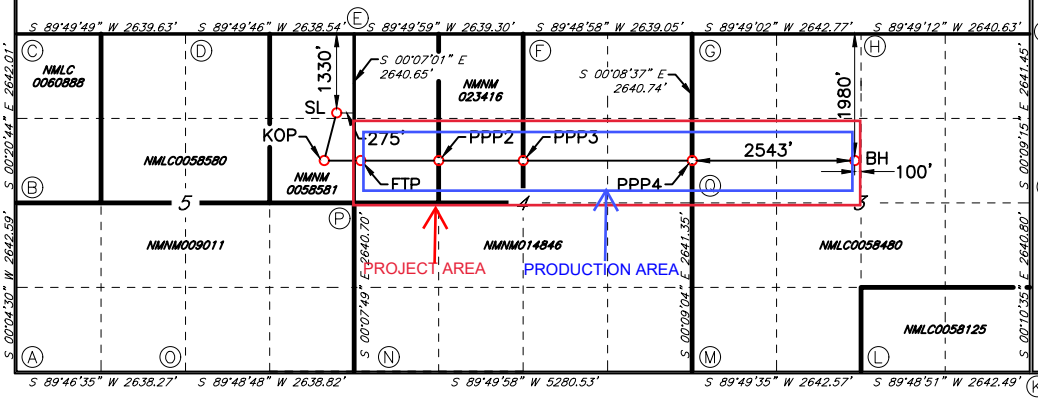
FIRST TAKE POINT (FTP)
1980' FNL – 100' FWL SEC.4
N: 646973.6 – E: 616727.7
LAT: 32.7783235° N
LONG: 104.0880352° W

PROPOSED PENETRATION POINT 2 (PPP2)
1980' FNL – 1320' FWL SEC.4
N: 646977.4 – E: 617947.4
LAT: 32.7783261° N
LONG: 104.0840669° W

PROPOSED PENETRATION POINT 3 (PPP3)
1980' FNL – 2639' FEL SEC.4
N: 646981.5 – E: 619267.0
LAT: 32.7783287° N
LONG: 104.0797733° W

PROPOSED PENETRATION POINT 4 (PPP4)
1980' FNL – 0' FWL SEC. 3
N: 646989.5 – E: 621905.7
LAT: 32.7783330° N
LONG: 104.0711877° W

BOTTOM HOLE
N: 646997.6 – E: 624447.9
LAT: 32.7783377° N
LONG: 104.0629161° W



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.

Ryan McDaniel 10/24/23
Signature Date

RYAN MCDANIEL
Printed Name

RYANMCDANIEL@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.

09/21/2023
Date of Survey

Signature and Seal of Professional Surveyor:

ROBERT M. HOWETT NEW MEXICO 19680 PROFESSIONAL SURVEYOR

19680
Certificate Number

REV: ADD WELL CALLS 10/06/23

LS23090828R

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:** 10/24/2

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
SAMSONITE 4-3 FED COM 523H		C 3 18S 29E	440' FNL x 1900' FWL	2000	2500	2000

IV. Central Delivery Point Name: SAMSONITE 4-3 FED COM 523H [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
SAMSONITE 4-3 FED COM 523H		12/24/23	1/24/24	2/24/24	2/29/24	2/29/24

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.

Page 8

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:	10/24/23
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.

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

Drilling Plan Data Report
08/26/2024

APD ID: 10400095503
Submission Date: 11/06/2023
Operator Name: MEWBOURNE OIL COMPANY
Well Name: SAMSONITE 4/3 FED COM
Well Number: 523H
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	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
13997729	UNKNOWN	3546	28	28	OTHER : Topsoil	NONE	N
13997741	TOP SALT	3254	292	292	SALT	NONE	N
13997730	BOTTOM SALT	2856	690	690	SALT	NONE	N
13997742	YATES	2665	881	881	SANDSTONE	NATURAL GAS, OIL	N
13997743	SEVEN RIVERS	2324	1222	1222	DOLOMITE	NATURAL GAS, OIL	N
13997744	QUEEN	1654	1892	1892	DOLOMITE, SANDSTONE	NATURAL GAS, OIL	N
13997745	SAN ANDRES	853	2693	2693	DOLOMITE	NATURAL GAS, OIL	N
13997728	BONE SPRING	-458	4004	4004	LIMESTONE	NATURAL GAS, OIL	N
13997746	BONE SPRING 2ND	-2579	6125	6125	SANDSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M
Rating Depth: 15074

Equipment: Annular, Pipe Rams, Blind Rams, 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.
Requesting Variance? YES

Variance request: A variance is requested for the use of a variable choke line from the BOP to the choke manifold. See attached for hydrostatic test chart. Anchors are not required by manufacturer. Variance is requested to use a multi bowl wellhead. Variance is requested to perform break testing according to attached procedure.

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.

Operator Name: MEWBOURNE OIL COMPANY

Well Name: SAMSONITE 4/3 FED COM **Well Number:** 523H

Choke Diagram Attachment:

Samsonite_4_3_Fed_Com_523H_5M_BOPE_Choke_Diagram_20240806110153.pdf

Samsonite_4_3_Fed_Com_523H_Flex_Line_Specs_API_16C_20240806110153.pdf

BOP Diagram Attachment:

Samsonite_4_3_Fed_Com_523H_Break_Testing_Variance_20231026111009.pdf

Samsonite_4_3_Fed_Com_523H_5M_BOPE_Schematic_20240806110211.pdf

Samsonite_4_3_Fed_Com_523H_5M_Multi_Bowl_WH_20240806110211.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	267	0	267	3546	3279	267	H-40	48	ST&C	6.68	15.01	DRY	25.12	DRY	42.21
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	1140	0	1140	2968	2406	1140	J-55	36	LT&C	3.79	6.6	DRY	11.04	DRY	13.74
3	PRODUCTION	8.75	7.0	NEW	API	N	0	6400	0	6351	2968	-2805	6400	P-110	26	LT&C	1.89	3.01	DRY	2.84	DRY	3.54
4	LINER	6.125	4.5	NEW	API	N	6250	15074	6202	7214	-2656	-3668	8824	P-110	13.5	LT&C	2.59	3.01	DRY	2.84	DRY	3.54

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Samsonite_4_3_Fed_Com_523H_CsgAssumptions_20240725163336.pdf

Operator Name: MEWBOURNE OIL COMPANY

Well Name: SAMSONITE 4/3 FED COM **Well Number:** 523H

Casing Attachments

Casing ID: 2 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Samsonite_4_3_Fed_Com_523H_CsgAssumptions_20240725163345.pdf

Casing ID: 3 **String** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Samsonite_4_3_Fed_Com_523H_CsgAssumptions_20240725163353.pdf

Casing ID: 4 **String** LINER

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Samsonite_4_3_Fed_Com_523H_CsgAssumptions_20240725163400.pdf

Section 4 - Cement

Operator Name: MEWBOURNE OIL COMPANY

Well Name: SAMSONITE 4/3 FED COM **Well Number:** 523H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	141	90	2.12	12.5	200	100	Class C	Salt, Gel, Extender, LCM
SURFACE	Tail		141	330	200	1.34	14.8	268	100	Class C	Retarder
INTERMEDIATE	Lead		0	487	90	2.12	12.5	200	25	Class C	Salt, Gel, Extender, LCM
INTERMEDIATE	Tail		487	1140	200	1.34	14.8	268	25	Class C	Retarder
PRODUCTION	Lead	3000	940	2299	120	2.12	12.5	260	25	C	SALT GEL EXTENDER LCM DEFOAMER
PRODUCTION	Tail		2299	3000	100	1.34	14.8	134	25	C	RETARDER, FLUID LOSS, DEFOAMER
PRODUCTION	Lead	3000	3000	3900	80	2.12	12.5	170	25	Class C	Gel, Retarder, Defoamer, Extender, LCM
PRODUCTION	Tail		3900	6400	400	1.18	15.6	472	25	Class H	Retarder, Fluid Loss, Defoamer
LINER	Lead		6250	15074	570	1.85	13.5	1060	25	Class H	SALT, GET, FLUID FLOSS, DEFOAMER, DISPERSANT

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: Pason/PVT/Visual Monitoring

Circulating Medium Table

Operator Name: MEWBOURNE OIL COMPANY

Well Name: SAMSONITE 4/3 FED COM **Well Number:** 523H

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
0	267	SPUD MUD	8.3	8.8							
267	1140	SALT SATURATED	9	10.5							
1140	6400	WATER-BASED MUD	10	11.5							
6400	15074	OIL-BASED MUD	11	12.5							

Section 6 - Test, Logging, Coring

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

No logs are planned based on well control or offset log information. Offset Well: Samsonite 4/3 Fed Com #521H

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

MEASUREMENT WHILE DRILLING,MUD LOG/GEOLOGIC LITHOLOGY LOG,DIRECTIONAL SURVEY,

Coring operation description for the well:

None

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4126 **Anticipated Surface Pressure:** 2538

Anticipated Bottom Hole Temperature(F): 140

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

Samsonite_4_3_Fed_Com_523H_H2S_Plan_20231026100828.pdf

Operator Name: MEWBOURNE OIL COMPANY

Well Name: SAMSONITE 4/3 FED COM **Well Number:** 523H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Samsonite_4_3_Fed_Com_523H_MOC_Dir_Plan_20231026100903.pdf

Samsonite_4_3_Fed_Com_523H_MOC_Dir_Plot_20231026100907.pdf

Other proposed operations facets description:

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.

Other proposed operations facets attachment:

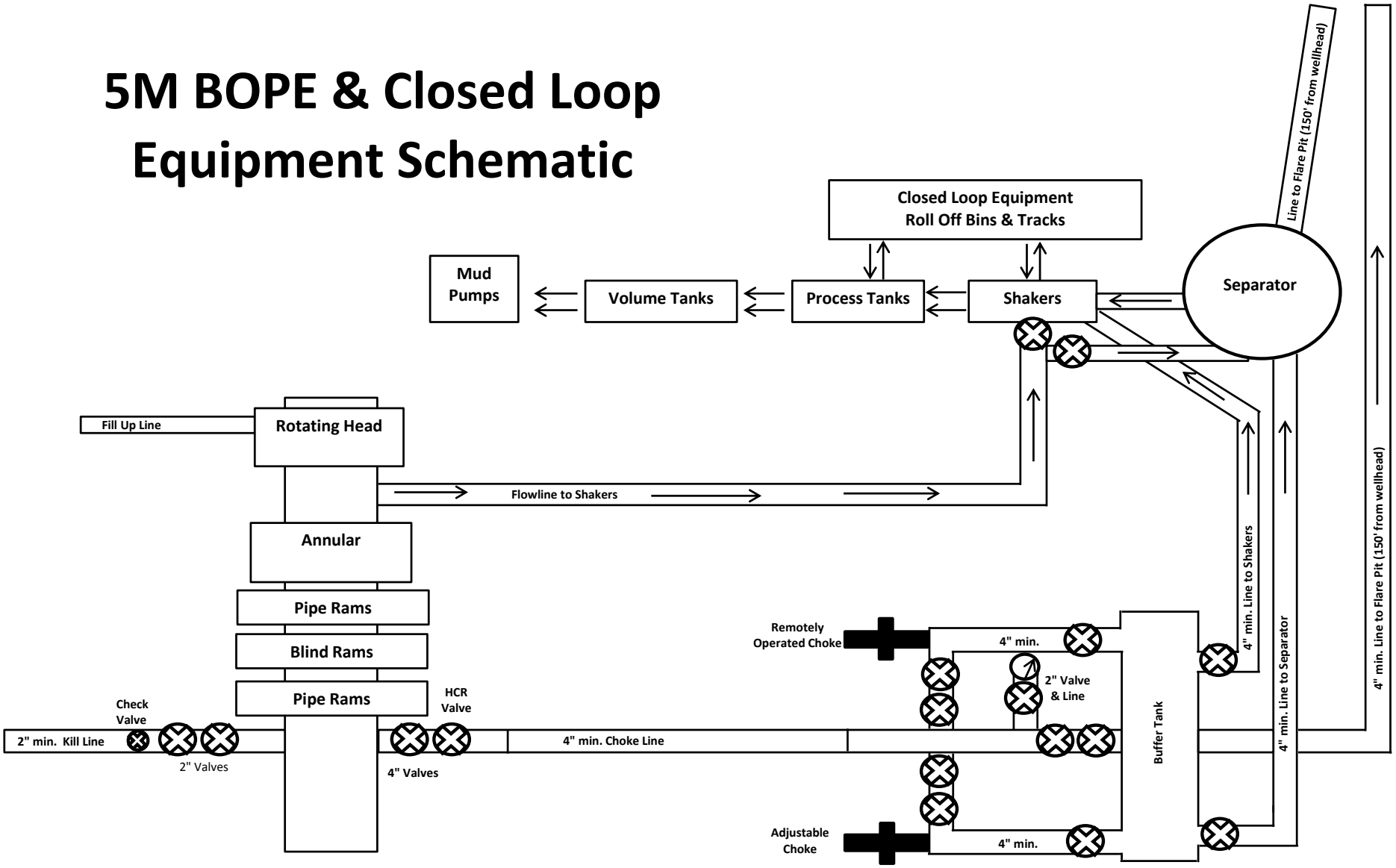
Samsonite_4_3_Fed_Com_523H_AddInfo_20231026100951.pdf

Samsonite_4_3_Fed_Com_523H_Drlg_Program_20240725163210.pdf

Other Variance attachment:

Samsonite_4_3_Fed_Com_523H_Offline_Cementing_Variance_20231026101121.pdf

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.

LETONE

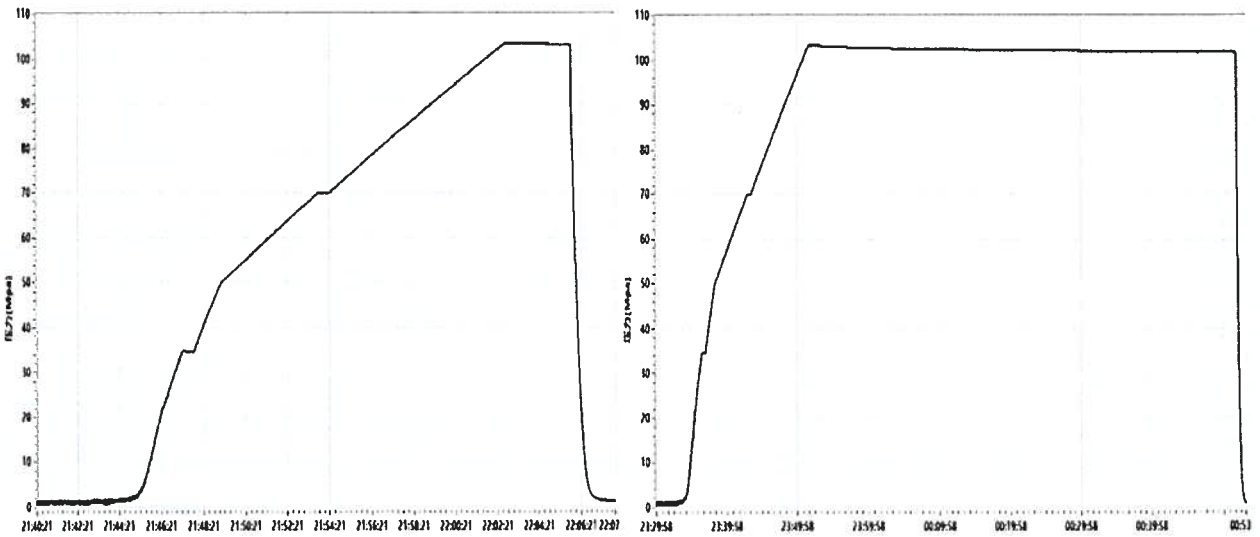
LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD

HYDROSTATIC TESTING REPORT

LTYY/QR-5.7.1-28 №: 230826015

Product Name	Choke And Kill Hose	Standard	API Spec 16C 3rd edition
Product Specification	3″×10000psi×60ft（18.29m）	Serial Number	7660144
Inspection Equipment	MTU-BS-1600-3200-E	Test medium	Water
Inspection Department	Q.C. Department	Inspection Date	2023.08.26
Rate of length change			
Standard requirements	At working pressure ,the rate of length change should not more than ±2%		
Testing result	10000psi (69.0MPa) ,Rate of length change 0.7%		
Hydrostatic testing			
Standard requirements	At 1.5 times working pressure, the initial pressure-holding period of not less than three minutes, the second pressure-holding period of not less than one hour, no leaks.		
Testing result	15000psi (103.5MPa), 3 min for the first time, 60 min for the second time, no leakage		

Graph of pressure testing:



Conclusion	The inspected items meet standard requirements of API Spec 16C 3rd edition				
Approver	Jiaolong Chen	Auditor	Hliqing Dong	Inspector	Zhansheng Wang

LETONE

LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD

CERTIFICATE OF QUALITY

LTYY/QR-5.7.1-19B №: LT2023-126-002

Customer Name	Austin Hose		
Product Name	Choke And Kill Hose		
Product Specification	3″×10000psi×60ft（18.29m）	Quantity	2PCS
Serial Number	7660143~7660144	FSL	FSL3
Temperature Range	-29℃～+121℃	Standard	API Spec 16C 3rd edition
Inspection Department	Q.C. Department	Inspection date	2023.08.26

Inspection Items	Inspection results
Appearance Checking	In accordance with API Spec 16C 3rd edition
Size and Lengths	In accordance with API Spec 16C 3rd edition
Dimensions and Tolerances	In accordance with API Spec 16C 3rd edition
End Connections: 4-1/16″×10000psi Integral flange for sour gas service	In accordance with API Spec 6A 21st edition
End Connections: 4-1/16″×10000psi Integral flange for sour gas service	In accordance with API Spec 17D 3rd edition
Hydrostatic Testing	In accordance with API Spec 16C 3rd edition
product Marking	In accordance with API Spec 16C 3rd edition
Inspection conclusion	The inspected items meet standard requirements of API Spec 16C 3rd edition
Remarks	

Approver	Jiaolong Chen	Auditor	Hliqing Dong	Inspector	Zhansheng Wang

LETONE

LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD

CERTIFICATE OF CONFORMANCE

№:LT230826016

Product Name：Choke And Kill Hose

Product Specification：3″×10000psi×60ft（18.29m）

Serial Number：7660143~7660144

End Connections: 4-1/16″×10000psi Integral flange for sour gas service

The Choke And Kill Hose assembly was produced by LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD . in Aug 2023, and inspected by LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD. according to API Spec 16C 3rd edition on Aug 26, 2023. The overall condition is good. This is to certify that the Choke And Kill Hose complies with all current standards and specifications for API Spec 16C 3rd edition .

QC Manager：Jiaolong Chen　　Date:Aug 26, 2023

MEWBOURNE OIL COMPANY

Mewbourne Oil Co.

BOP Break Testing Variance

Mewbourne Oil Company requests a variance from the minimum standards for well control equipment testing of 43 CFR 3172 to allow a testing schedule of the blow out preventer (BOP) and blow out prevention equipment (BOPE) along with batch drilling & offline cementing operations. Modern rig upgrades which facilitate pad drilling allow the BOP stack to be moved between wells on a multi-well pad without breaking any BOP stack components apart. Widespread use of these technologies has led to break testing BOPE being endorsed as safe and reliable. American Petroleum Institute (API) best practices are frequently used by regulators to develop their regulations. API Standard 53, *Well Control Equipment Systems for Drilling Wells* (5th Ed., Dec. 2018) Section 5.3.7.1 states "A pressure test of the pressure containing component shall be performed following the disconnection or repair, limited to the affected component."

Procedures

1. Full BOPE test at first installation on the pad.
   - Full BOPE test at least every 21 days.
   - Function test BOP elements per 43 CFR 3172.
   - Contact the BLM if a well control event occurs.
2. After the well section is secured and the well is confirmed to be static, the BOP will be disconnected from the wellhead and walked with the rig to another well on the pad. Two breaks on the BOPE will be made (Fig. 1).
   - Connection between the flex line and the HCR valve
   - Connection between the wellhead and the BOP quick connect (Fig. 5 & 6).
3. A capping flange will be installed after cementing per wellhead vendor procedure & casing pressure will be monitored via wellhead valve.
4. The BOP will be removed and carried by a hydraulic carrier (Fig. 3 & 4).
5. The rig will then walk to the next well.
6. Confirm that the well is static and remove the capping flange.
7. The connection between the flex line and HCR valve and the connection between the wellhead and the BOP quick connect will be reconnected.
8. Install a test plug into the wellhead.
9. A test will then be conducted against the upper pipe rams and choke, testing both breaks (Fig. 1 & 2).
10. The test will be held at 250 psi low and to the high value submitted in the APD, not to exceed 5000 psi.
11. The annular, blind rams and lower pipe rams will then be function tested.
12. If a pad consists of three or more wells, steps 4 through 11 will be repeated.

MEWBOURNE OIL COMPANY

13. A break test will only be conducted if the intermediate section can be drilled and cased within 21 days of the last full BOPE test.

Barriers

Before Nipple Down:

- Floats in casing
- Kill weight fluid in casing
- Kill weight fluid in annulus
- Solid body mandrel and/or packoff

After Nipple Down:

- Floats in casing
- Kill weight fluid in casing
- Kill weight fluid in annulus
- Solid body mandrel and/or packoff
- Offline cementing tool and/or cement head
- Capping flange after cementing

Summary

A variance is requested to only test broken pressure seals on the BOPE when moving between wells on a multi-well pad if the following conditions are met:

- A full BOPE test is conducted on the first well on the pad. API Standard 53 requires testing annular BOP to 70% of RWP or 100% of MASP, whichever is greater.
- If the first well on the pad is not the well with the deepest intermediate section, a full BOPE test will also be performed when moving to a deeper well.
- The hole section being drilled has a MASP under 5000 psi.
- If a well control event occurs, Mewbourne will contact BLM for permission to continue break testing.
- If significant (>50%) losses occur, full BOPE testing will be required going forward.
- Full BOPE test will be required prior to drilling the production hole.

While walking the rig, the BOP stack will be secured via hydraulic winch or hydraulic carrier. A full BOPE test will be performed at least every 21 days.

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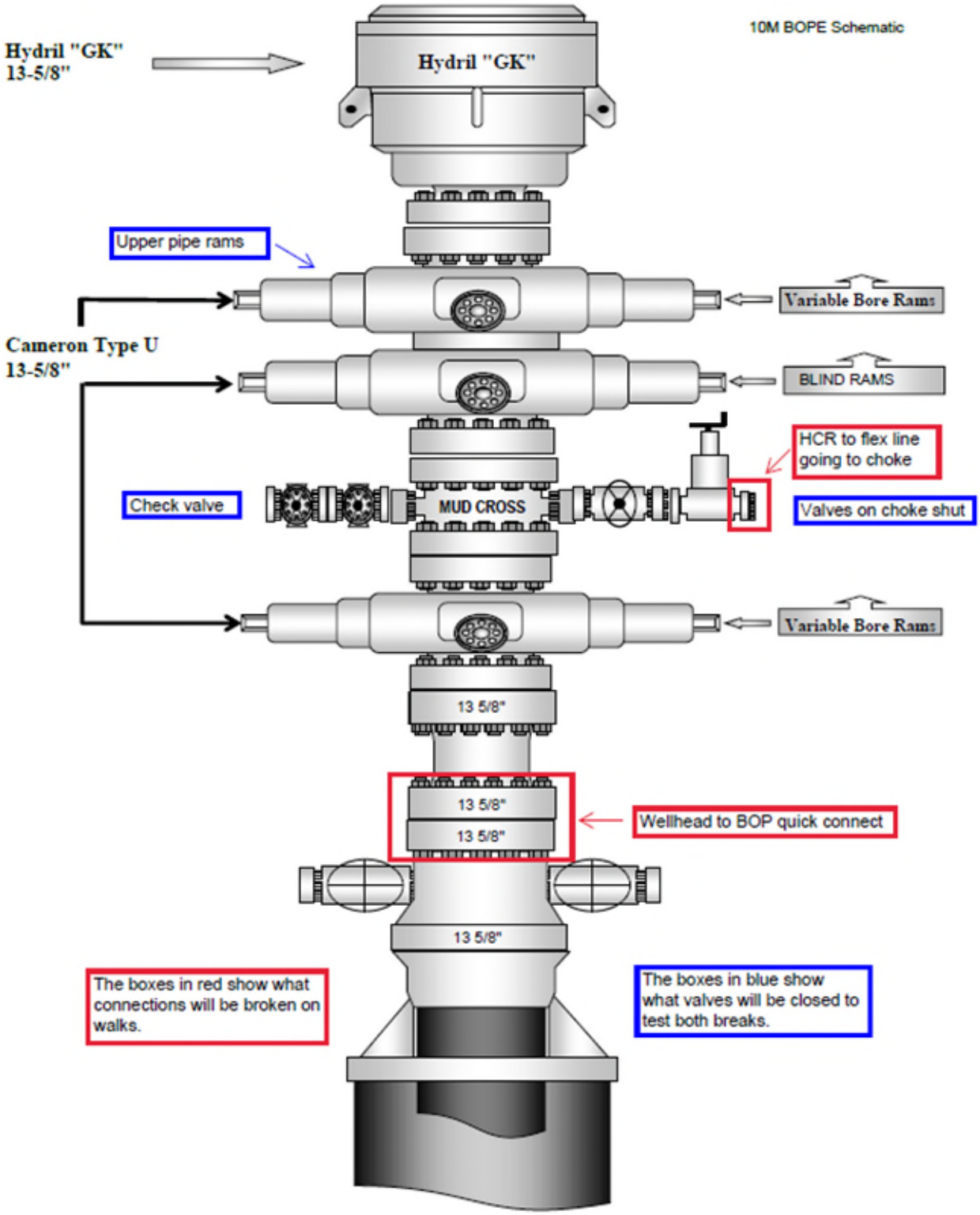

Figure 1. BOP diagram

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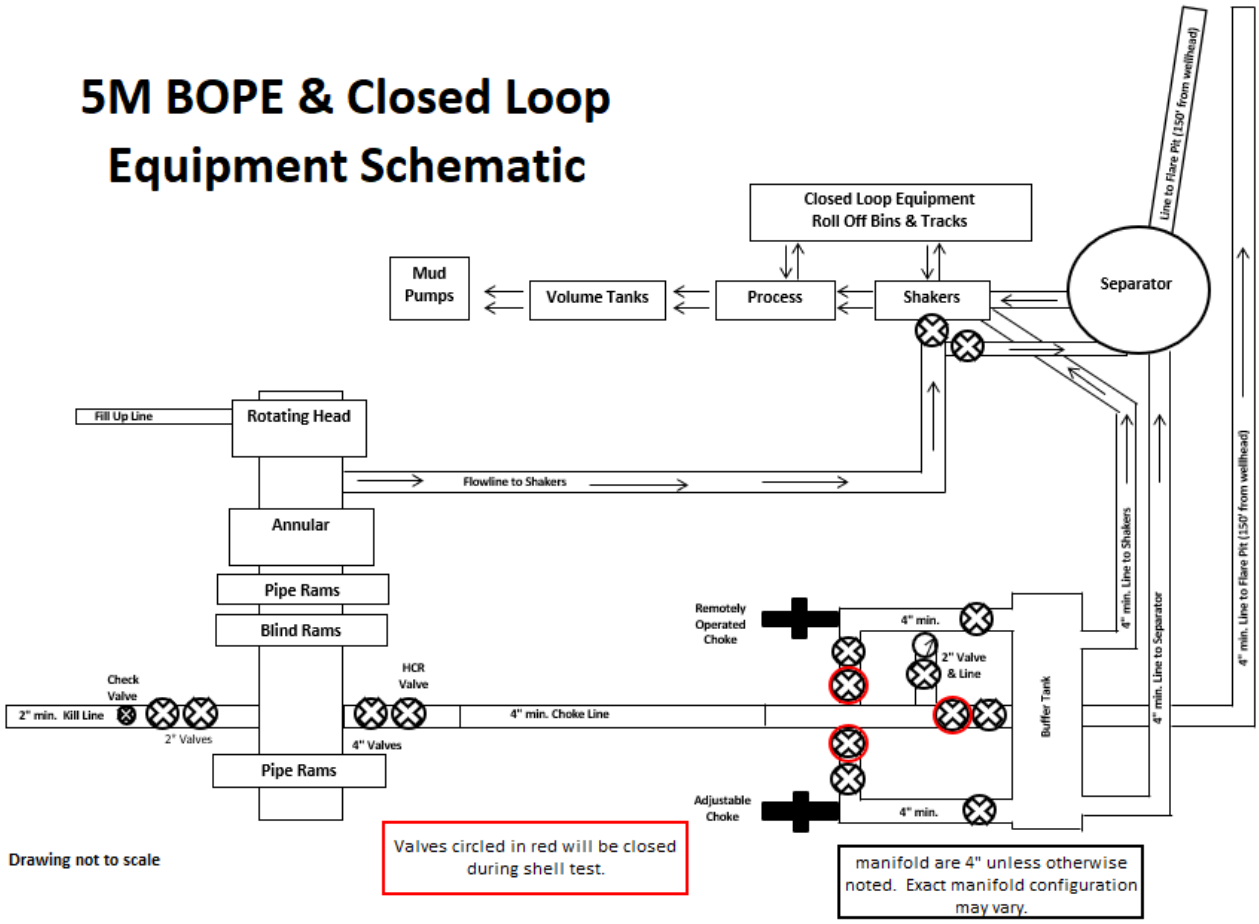

Figure 2. BOPE diagram

MEWBOURNE
OIL COMPANY

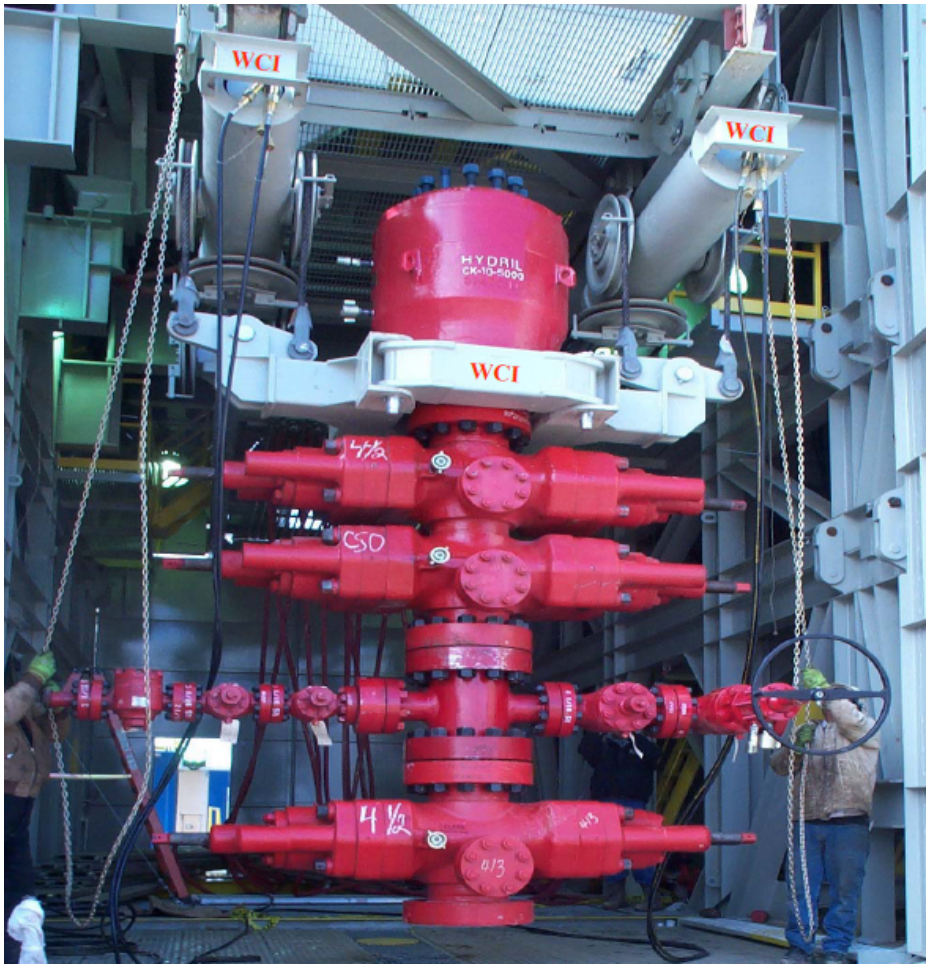

Figure 3. BOP handling system

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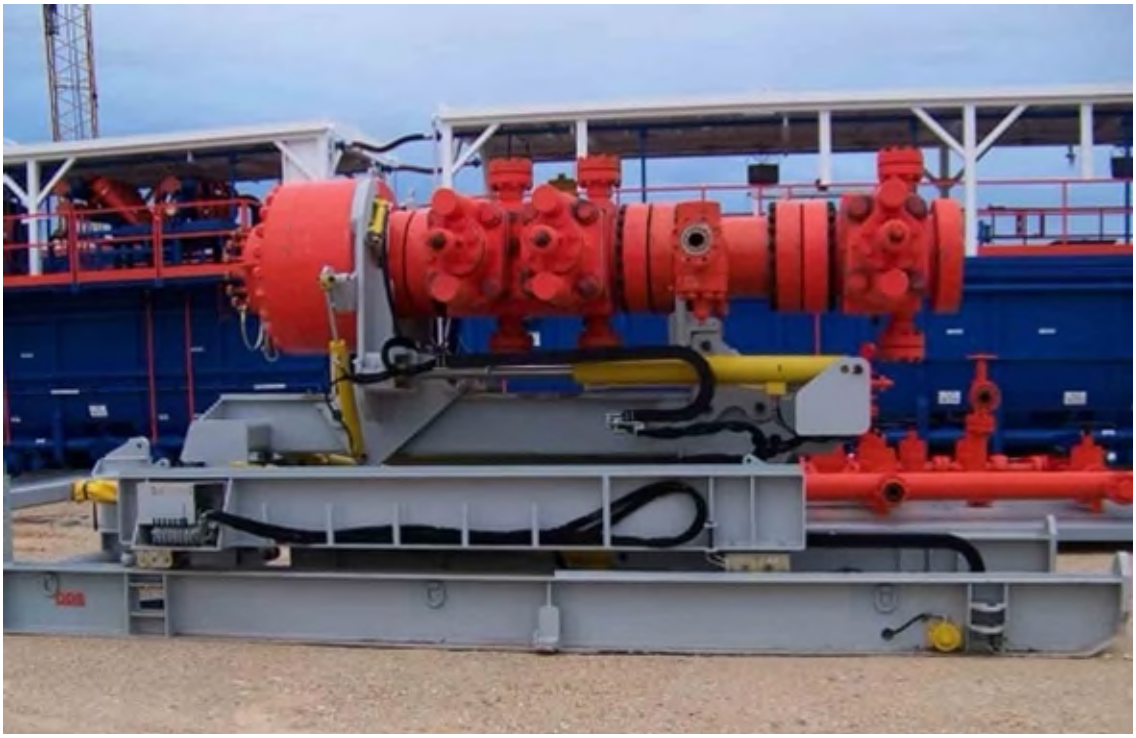


Figure 4. BOP handling system

MEWBOURNE
OIL COMPANY

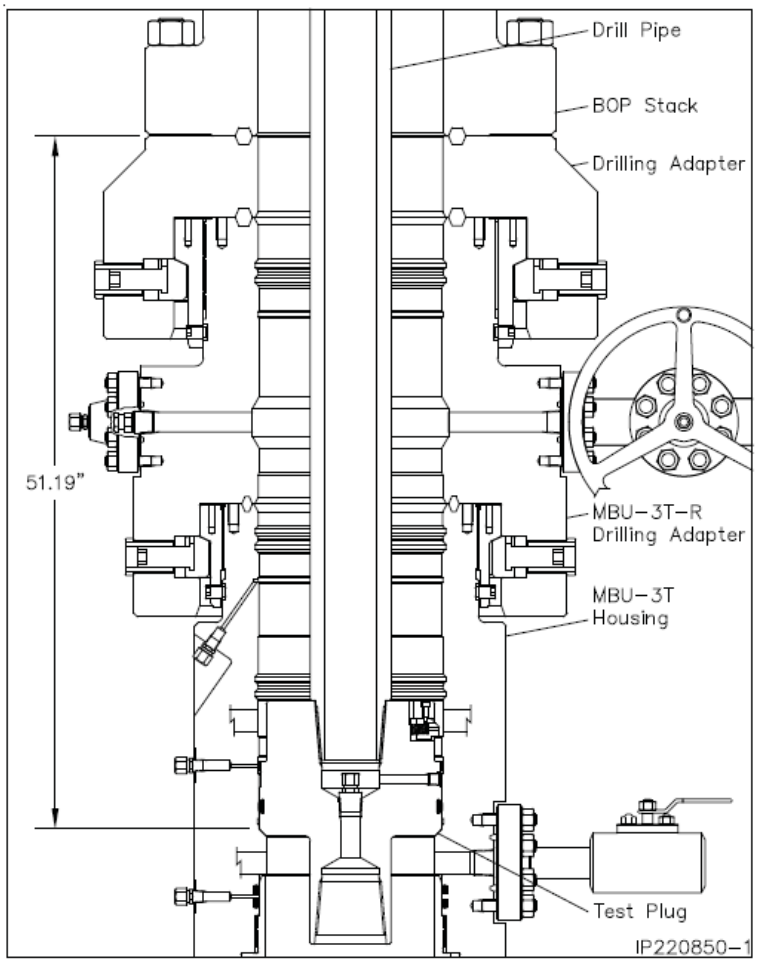


Figure 5. Cactus 5M wellhead with BOP quick connect

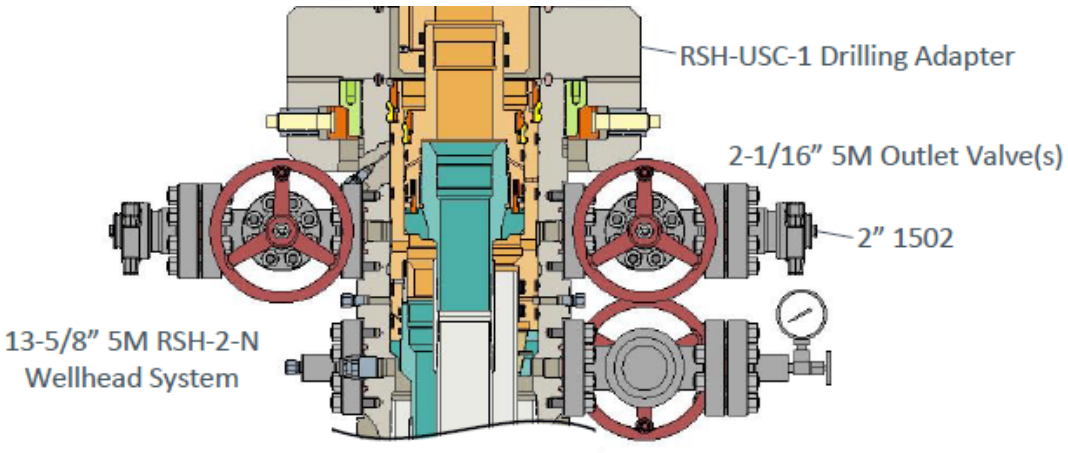
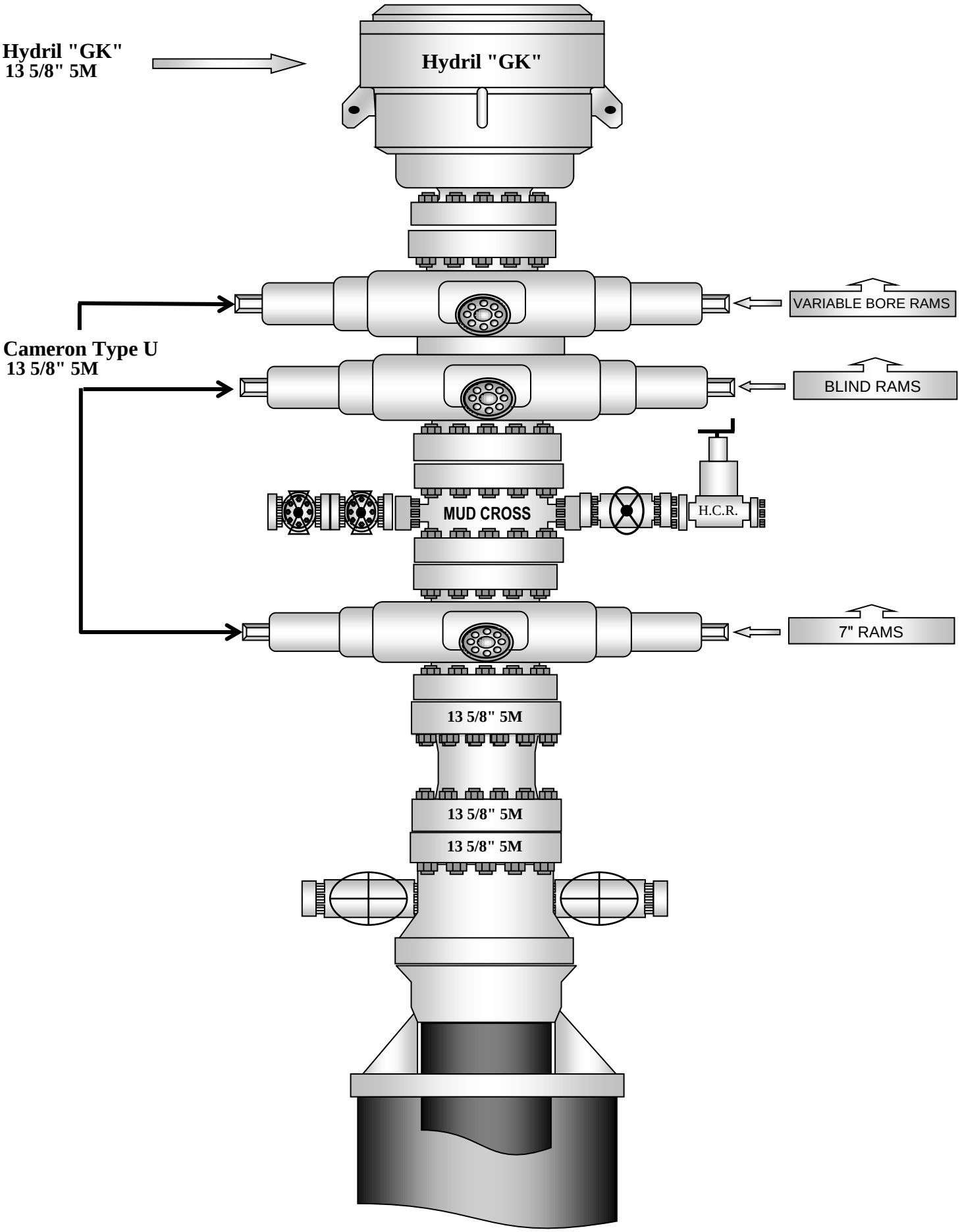
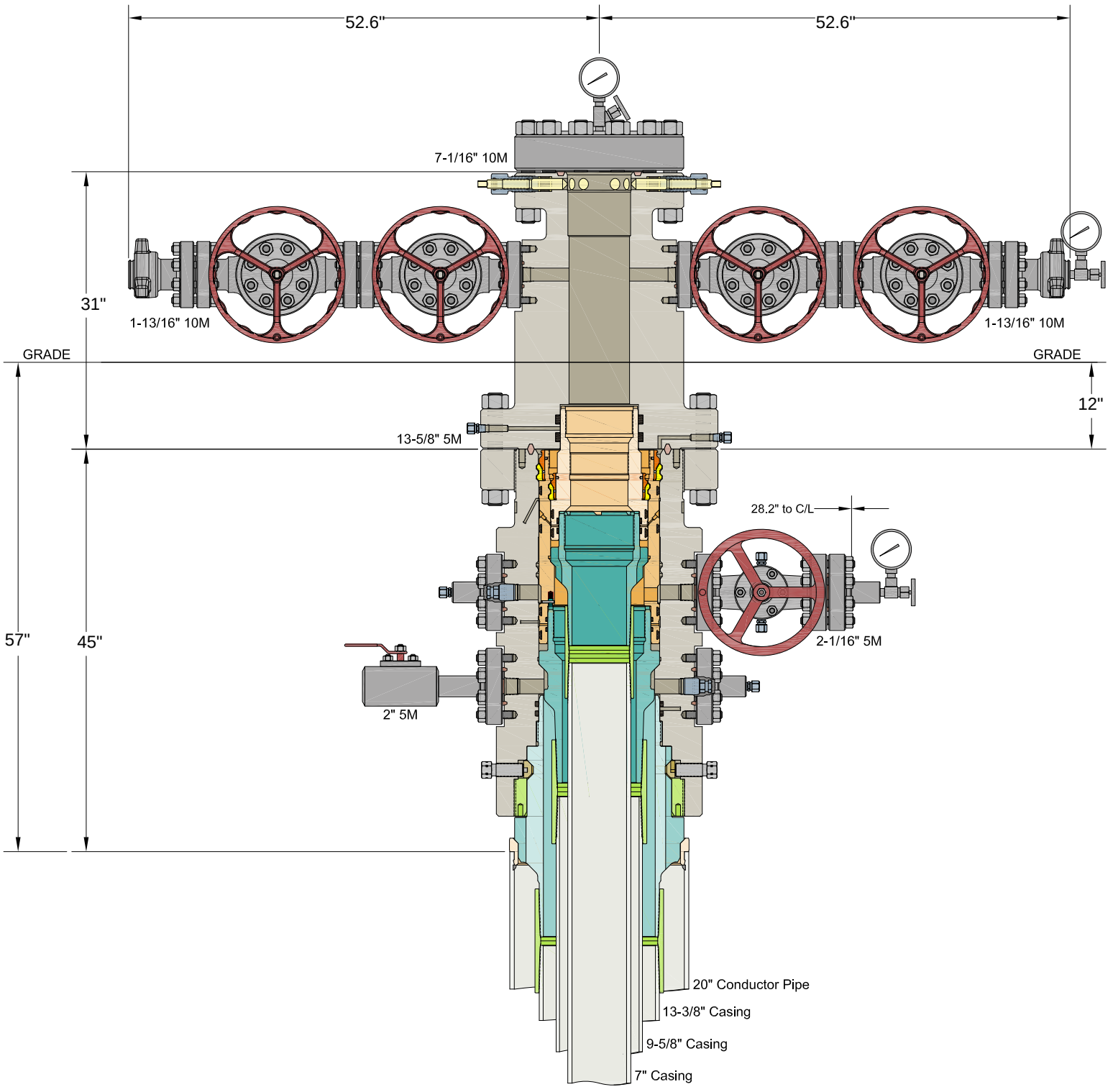


Figure 6. Vault 5M wellhead with BOP quick connect

5M BOPE Schematic





ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC	MEWBOURNE OIL COMPANY NEW MEXICO		
20" x 13-3/8" x 9-5/8" x 7" MBU-3T-CFL-R-DBLO Wellhead System With 9-5/8" & 7" Fluted Mandrel Casing Hangers And 13-5/8" 5M x 7-1/16" 10M CTH-DBLHPS Tubing Head	DRAWN	DLE	18APR22
	APPRV		
	DRAWING NO.	HBE0000660	

Mewbourne Oil Company, Samsonite 4/3 Fed Com 523H
Sec 5, T18S, R29E
SHL: 1330' FNL 275' FEL (Sec 5)
BHL: 1980' FNL 2543' FWL (Sec 3)

Casing Program Design A

String	Hole Size	Top MD	Top TVD	Bot MD	Bot TVD	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
Surface	17.500 in	0'	0'	267'	267'	13.375	48.00	H40	STC	6.68	15.01	25.12	42.21
Int	12.250 in	0'	0'	1140'	1140'	9.625	36.00	J55	LTC	3.79	6.60	11.04	13.74
Production	8.750 in	0'	0'	6400'	6351'	7.000	26.00	P110	LTC	1.89	3.01	4.16	4.99
Liner	6.125 in	6250'	6202'	15074'	7214'	4.500	13.50	P110	LTC	2.59	3.01	2.84	3.54
							BLM Minimum Safety Factors			**1.125**	**1.0**	**1.6 Dry**	**1.6 Dry**
												1.8 Wet	**1.8 Wet**

Cement Program

Casing		# Sacks	Wt. lb/gal	Yield ft^3/sack	TOC/BOC	Volume ft^3	% Excess	Slurry Description
13.375 in	LEAD	50	12.5	2.12	0' - 78'	110	100%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	78' - 267'	268		Class C: Retarder
9.625 in	LEAD	90	12.5	2.12	0' - 487'	200	25%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	487' - 1140'	268		Class C: Retarder
1st Stg 7 in	LEAD	80	12.5	2.12	3000' - 3900'	170	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
	TAIL	400	15.6	1.18	3900' - 6400'	472		Class H: Retarder, Fluid Loss, Defoamer
7" DV Tool @ 3000'								
2nd Stg 7 in	LEAD	120	12.5	2.12	940' - 2299'	260	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
	TAIL	100	14.8	1.34	2299' - 3000'	134		Class C: Retarder, Fluid Loss, Defoamer
4.5 in	LEAD	570	13.5	1.85	6250' - 15074'	1060	25%	Class H: Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-

Design A - Mud Program

Depth	Mud Wt	Mud Type
0' - 267'	8.3-8.8	Fresh Water
267' - 1140'	9-10.5	Brine
1140' - 6400'	10-11.5	Cut-Brine
6400' - 15074'	11-12.5	OBM

Geology

Formation	Est. Top (TVD)	Mineral Resources	Formation	Est. Top (TVD)	Mineral Resources
Rustler			Yeso		
Castile			Delaware (Lamar)		
Salt Top	292'	None	Bell Canyon		
Salt Base	690'	None	Cherry Canyon		
Yates	881'	Oil/Natural Gas	Manzanita Marker		
Seven Rivers	1222'	Oil/Natural Gas	Basal Brushy Canyon		
Queen	1892'	Oil/Natural Gas	Bone Spring	4004'	Oil/Natural Gas
Capitan			1st Bone Spring		
Grayburg	2335'	None	2nd Bone Spring	6125'	Oil/Natural Gas
San Andres	2693'	Oil/Natural Gas	3rd Bone Spring		
Glorieta			Wolfcamp		

All casing strings will be tested in accordance with 43 CFR Part 3170 Subpart 3172. 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.	**N**
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 an open annulus used to satisfy R-111-Q? If yes, see cement design.	
Is an engineered weak point used to satisfy R-111-Q?	
If yes, at what depth is the weak point planned?	
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?	

Mewbourne Oil Company

Eddy County, New Mexico NAD 83
Samsonite 4/3 Fed Com #523H
Sec 05, T18S, R29E
SHL: 1330' FNL & 275' FEL (Sec 5)
BHL: 1980' FNL & 2543' FWL (Sec 3)

Plan: Design #1

Standard Planning Report

25 October, 2023

Planning Report

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Samsonite 4/3 Fed Com #523H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3574.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	**MD Reference:**	WELL @ 3574.0usft (Original Well Elev)
Site:	Samsonite 4/3 Fed Com #523H	**North Reference:**	Grid
Well:	Sec 05, T18S, R29E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 1980' FNL & 2543' FWL (Sec 3)		
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 Samsonite 4/3 Fed Com #523H

Site Position:		**Northing:**	647,622.30 usft	**Latitude:**	32.7801089
From:	Map	**Easting:**	616,351.50 usft	**Longitude:**	-104.0892545
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "		

Well Sec 05, T18S, R29E

Well Position	**+N/-S**	0.0 usft	**Northing:**	647,622.30 usft	**Latitude:**	32.7801089
	+E/-W	0.0 usft	**Easting:**	616,351.50 usft	**Longitude:**	-104.0892545
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	3,574.0 usft	**Ground Level:**	3,546.0 usft
Grid Convergence:		0.13 °				

Wellbore BHL: 1980' FNL & 2543' FWL (Sec 3)

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/31/2014	7.43	60.52	48,513.23077816

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	94.41

Plan Survey Tool Program **Date** 10/25/2023

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	15,073.6	Design #1 (BHL: 1980' FNL & 254		

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	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,822.1	8.44	196.82	1,820.6	-29.7	-9.0	2.00	2.00	0.00	196.82	
6,027.5	8.44	196.82	5,980.4	-620.7	-187.6	0.00	0.00	0.00	0.00	
6,449.6	0.00	0.00	6,401.0	-650.4	-196.6	2.00	-2.00	0.00	180.00	KOP: 1980' FNL & 47
7,332.3	88.22	89.82	6,974.0	-648.7	358.9	9.99	9.99	0.00	89.82	
15,073.6	88.22	89.82	7,214.0	-624.7	8,096.4	0.00	0.00	0.00	0.00	BHL: 1980' FNL & 254

Planning Report

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Samsonite 4/3 Fed Com #523H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3574.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	**MD Reference:**	WELL @ 3574.0usft (Original Well Elev)
Site:	Samsonite 4/3 Fed Com #523H	**North Reference:**	Grid
Well:	Sec 05, T18S, R29E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 1980' FNL & 2543' FWL (Sec 3)		
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: 1330' FNL & 275' FEL (Sec 5)									
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	2.00	196.82	1,500.0	-1.7	-0.5	-0.4	2.00	2.00	0.00
1,600.0	4.00	196.82	1,599.8	-6.7	-2.0	-1.5	2.00	2.00	0.00
1,700.0	6.00	196.82	1,699.5	-15.0	-4.5	-3.4	2.00	2.00	0.00
1,800.0	8.00	196.82	1,798.7	-26.7	-8.1	-6.0	2.00	2.00	0.00
1,822.1	8.44	196.82	1,820.6	-29.7	-9.0	-6.7	2.00	2.00	0.00
1,900.0	8.44	196.82	1,897.6	-40.7	-12.3	-9.1	0.00	0.00	0.00
2,000.0	8.44	196.82	1,996.5	-54.7	-16.5	-12.3	0.00	0.00	0.00
2,100.0	8.44	196.82	2,095.5	-68.8	-20.8	-15.4	0.00	0.00	0.00
2,200.0	8.44	196.82	2,194.4	-82.8	-25.0	-18.6	0.00	0.00	0.00
2,300.0	8.44	196.82	2,293.3	-96.9	-29.3	-21.7	0.00	0.00	0.00
2,400.0	8.44	196.82	2,392.2	-110.9	-33.5	-24.9	0.00	0.00	0.00
2,500.0	8.44	196.82	2,491.1	-125.0	-37.8	-28.1	0.00	0.00	0.00
2,600.0	8.44	196.82	2,590.0	-139.0	-42.0	-31.2	0.00	0.00	0.00
2,700.0	8.44	196.82	2,689.0	-153.1	-46.3	-34.4	0.00	0.00	0.00
2,800.0	8.44	196.82	2,787.9	-167.1	-50.5	-37.5	0.00	0.00	0.00
2,900.0	8.44	196.82	2,886.8	-181.2	-54.8	-40.7	0.00	0.00	0.00
3,000.0	8.44	196.82	2,985.7	-195.2	-59.0	-43.8	0.00	0.00	0.00
3,100.0	8.44	196.82	3,084.6	-209.3	-63.3	-47.0	0.00	0.00	0.00
3,200.0	8.44	196.82	3,183.5	-223.3	-67.5	-50.1	0.00	0.00	0.00
3,300.0	8.44	196.82	3,282.5	-237.4	-71.8	-53.3	0.00	0.00	0.00
3,400.0	8.44	196.82	3,381.4	-251.5	-76.0	-56.4	0.00	0.00	0.00
3,500.0	8.44	196.82	3,480.3	-265.5	-80.3	-59.6	0.00	0.00	0.00
3,600.0	8.44	196.82	3,579.2	-279.6	-84.5	-62.7	0.00	0.00	0.00
3,700.0	8.44	196.82	3,678.1	-293.6	-88.8	-65.9	0.00	0.00	0.00
3,800.0	8.44	196.82	3,777.0	-307.7	-93.0	-69.1	0.00	0.00	0.00
3,900.0	8.44	196.82	3,876.0	-321.7	-97.2	-72.2	0.00	0.00	0.00
4,000.0	8.44	196.82	3,974.9	-335.8	-101.5	-75.4	0.00	0.00	0.00
4,100.0	8.44	196.82	4,073.8	-349.8	-105.7	-78.5	0.00	0.00	0.00
4,200.0	8.44	196.82	4,172.7	-363.9	-110.0	-81.7	0.00	0.00	0.00
4,300.0	8.44	196.82	4,271.6	-377.9	-114.2	-84.8	0.00	0.00	0.00
4,400.0	8.44	196.82	4,370.5	-392.0	-118.5	-88.0	0.00	0.00	0.00
4,500.0	8.44	196.82	4,469.5	-406.0	-122.7	-91.1	0.00	0.00	0.00
4,600.0	8.44	196.82	4,568.4	-420.1	-127.0	-94.3	0.00	0.00	0.00
4,700.0	8.44	196.82	4,667.3	-434.1	-131.2	-97.4	0.00	0.00	0.00
4,800.0	8.44	196.82	4,766.2	-448.2	-135.5	-100.6	0.00	0.00	0.00
4,900.0	8.44	196.82	4,865.1	-462.2	-139.7	-103.8	0.00	0.00	0.00
5,000.0	8.44	196.82	4,964.0	-476.3	-144.0	-106.9	0.00	0.00	0.00
5,100.0	8.44	196.82	5,063.0	-490.3	-148.2	-110.1	0.00	0.00	0.00

Planning Report

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Samsonite 4/3 Fed Com #523H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3574.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	**MD Reference:**	WELL @ 3574.0usft (Original Well Elev)
Site:	Samsonite 4/3 Fed Com #523H	**North Reference:**	Grid
Well:	Sec 05, T18S, R29E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 1980' FNL & 2543' FWL (Sec 3)		
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	8.44	196.82	5,161.9	-504.4	-152.5	-113.2	0.00	0.00	0.00
5,300.0	8.44	196.82	5,260.8	-518.5	-156.7	-116.4	0.00	0.00	0.00
5,400.0	8.44	196.82	5,359.7	-532.5	-161.0	-119.5	0.00	0.00	0.00
5,500.0	8.44	196.82	5,458.6	-546.6	-165.2	-122.7	0.00	0.00	0.00
5,600.0	8.44	196.82	5,557.5	-560.6	-169.5	-125.8	0.00	0.00	0.00
5,700.0	8.44	196.82	5,656.5	-574.7	-173.7	-129.0	0.00	0.00	0.00
5,800.0	8.44	196.82	5,755.4	-588.7	-178.0	-132.1	0.00	0.00	0.00
5,900.0	8.44	196.82	5,854.3	-602.8	-182.2	-135.3	0.00	0.00	0.00
6,000.0	8.44	196.82	5,953.2	-616.8	-186.4	-138.4	0.00	0.00	0.00
6,027.5	8.44	196.82	5,980.4	-620.7	-187.6	-139.3	0.00	0.00	0.00
6,100.0	6.99	196.82	6,052.3	-630.0	-190.4	-141.4	2.00	-2.00	0.00
6,200.0	4.99	196.82	6,151.7	-640.0	-193.5	-143.6	2.00	-2.00	0.00
6,300.0	2.99	196.82	6,251.5	-646.7	-195.5	-145.1	2.00	-2.00	0.00
6,400.0	0.99	196.82	6,351.4	-650.0	-196.5	-145.9	2.00	-2.00	0.00
6,449.6	0.00	0.00	6,401.0	-650.4	-196.6	-146.0	2.00	-2.00	0.00
KOP: 1980' FNL & 473' FEL (Sec 5)									
6,500.0	5.04	89.82	6,451.3	-650.4	-194.4	-143.8	9.99	9.99	0.00
6,550.0	10.03	89.82	6,500.9	-650.4	-187.8	-137.2	9.99	9.99	0.00
6,600.0	15.03	89.82	6,549.7	-650.3	-177.0	-126.4	9.99	9.99	0.00
6,650.0	20.03	89.82	6,597.3	-650.3	-161.9	-111.4	9.99	9.99	0.00
6,700.0	25.02	89.82	6,643.5	-650.2	-142.8	-92.3	9.99	9.99	0.00
6,750.0	30.02	89.82	6,687.8	-650.2	-119.7	-69.3	9.99	9.99	0.00
6,800.0	35.02	89.82	6,730.0	-650.1	-92.8	-42.5	9.99	9.99	0.00
6,850.0	40.02	89.82	6,769.6	-650.0	-62.4	-12.2	9.99	9.99	0.00
6,900.0	45.01	89.82	6,806.5	-649.9	-28.6	21.5	9.99	9.99	0.00
6,950.0	50.01	89.82	6,840.2	-649.8	8.3	58.2	9.99	9.99	0.00
7,000.0	55.01	89.82	6,870.6	-649.6	47.9	97.8	9.99	9.99	0.00
7,050.0	60.01	89.82	6,897.5	-649.5	90.1	139.8	9.99	9.99	0.00
7,100.0	65.00	89.82	6,920.6	-649.4	134.4	184.0	9.99	9.99	0.00
7,150.0	70.00	89.82	6,939.7	-649.2	180.6	230.0	9.99	9.99	0.00
7,200.0	75.00	89.82	6,954.7	-649.1	228.3	277.5	9.99	9.99	0.00
7,250.0	79.99	89.82	6,965.6	-648.9	277.1	326.2	9.99	9.99	0.00
7,300.0	84.99	89.82	6,972.1	-648.8	326.6	375.6	9.99	9.99	0.00
7,332.3	88.22	89.82	6,974.0	-648.7	358.9	407.7	9.99	9.99	0.00
7,349.6	88.22	89.82	6,974.5	-648.6	376.2	425.0	0.00	0.00	0.00
FTP/LP: 1980' FNL & 100' FWL (Sec 4)									
7,400.0	88.22	89.82	6,976.1	-648.5	426.5	475.1	0.00	0.00	0.00
7,500.0	88.22	89.82	6,979.2	-648.2	526.5	574.8	0.00	0.00	0.00
7,600.0	88.22	89.82	6,982.3	-647.8	626.4	674.4	0.00	0.00	0.00
7,700.0	88.22	89.82	6,985.4	-647.5	726.4	774.0	0.00	0.00	0.00
7,800.0	88.22	89.82	6,988.5	-647.2	826.3	873.7	0.00	0.00	0.00
7,900.0	88.22	89.82	6,991.6	-646.9	926.3	973.3	0.00	0.00	0.00
8,000.0	88.22	89.82	6,994.7	-646.6	1,026.2	1,072.9	0.00	0.00	0.00
8,100.0	88.22	89.82	6,997.8	-646.3	1,126.2	1,172.6	0.00	0.00	0.00
8,200.0	88.22	89.82	7,000.9	-646.0	1,226.1	1,272.2	0.00	0.00	0.00
8,300.0	88.22	89.82	7,004.0	-645.7	1,326.1	1,371.8	0.00	0.00	0.00
8,400.0	88.22	89.82	7,007.1	-645.4	1,426.0	1,471.5	0.00	0.00	0.00
8,500.0	88.22	89.82	7,010.2	-645.1	1,526.0	1,571.1	0.00	0.00	0.00
8,569.9	88.22	89.82	7,012.4	-644.8	1,595.9	1,640.8	0.00	0.00	0.00
PPP2: 1980' FNL & 1320' FWL (Sec 4)									
8,600.0	88.22	89.82	7,013.3	-644.8	1,625.9	1,670.7	0.00	0.00	0.00
8,700.0	88.22	89.82	7,016.4	-644.4	1,725.9	1,770.4	0.00	0.00	0.00
8,800.0	88.22	89.82	7,019.5	-644.1	1,825.8	1,870.0	0.00	0.00	0.00

Planning Report

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Samsonite 4/3 Fed Com #523H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3574.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	**MD Reference:**	WELL @ 3574.0usft (Original Well Elev)
Site:	Samsonite 4/3 Fed Com #523H	**North Reference:**	Grid
Well:	Sec 05, T18S, R29E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 1980' FNL & 2543' FWL (Sec 3)		
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)
8,900.0	88.22	89.82	7,022.6	-643.8	1,925.8	1,969.6	0.00	0.00	0.00
9,000.0	88.22	89.82	7,025.7	-643.5	2,025.8	2,069.3	0.00	0.00	0.00
9,100.0	88.22	89.82	7,028.8	-643.2	2,125.7	2,168.9	0.00	0.00	0.00
9,200.0	88.22	89.82	7,031.9	-642.9	2,225.7	2,268.5	0.00	0.00	0.00
9,300.0	88.22	89.82	7,035.0	-642.6	2,325.6	2,368.1	0.00	0.00	0.00
9,400.0	88.22	89.82	7,038.1	-642.3	2,425.6	2,467.8	0.00	0.00	0.00
9,500.0	88.22	89.82	7,041.2	-642.0	2,525.5	2,567.4	0.00	0.00	0.00
9,600.0	88.22	89.82	7,044.3	-641.7	2,625.5	2,667.0	0.00	0.00	0.00
9,700.0	88.22	89.82	7,047.4	-641.3	2,725.4	2,766.7	0.00	0.00	0.00
9,800.0	88.22	89.82	7,050.5	-641.0	2,825.4	2,866.3	0.00	0.00	0.00
9,890.2	88.22	89.82	7,053.3	-640.8	2,915.5	2,956.2	0.00	0.00	0.00
PPP3: 1980' FNL & 2639' FEL (Sec 4)									
9,900.0	88.22	89.82	7,053.6	-640.7	2,925.3	2,965.9	0.00	0.00	0.00
10,000.0	88.22	89.82	7,056.7	-640.4	3,025.3	3,065.6	0.00	0.00	0.00
10,100.0	88.22	89.82	7,059.8	-640.1	3,125.2	3,165.2	0.00	0.00	0.00
10,200.0	88.22	89.82	7,062.9	-639.8	3,225.2	3,264.8	0.00	0.00	0.00
10,300.0	88.22	89.82	7,066.0	-639.5	3,325.1	3,364.5	0.00	0.00	0.00
10,400.0	88.22	89.82	7,069.1	-639.2	3,425.1	3,464.1	0.00	0.00	0.00
10,500.0	88.22	89.82	7,072.2	-638.9	3,525.0	3,563.7	0.00	0.00	0.00
10,600.0	88.22	89.82	7,075.3	-638.6	3,625.0	3,663.4	0.00	0.00	0.00
10,700.0	88.22	89.82	7,078.4	-638.2	3,724.9	3,763.0	0.00	0.00	0.00
10,800.0	88.22	89.82	7,081.5	-637.9	3,824.9	3,862.6	0.00	0.00	0.00
10,900.0	88.22	89.82	7,084.6	-637.6	3,924.8	3,962.2	0.00	0.00	0.00
11,000.0	88.22	89.82	7,087.7	-637.3	4,024.8	4,061.9	0.00	0.00	0.00
11,100.0	88.22	89.82	7,090.8	-637.0	4,124.7	4,161.5	0.00	0.00	0.00
11,200.0	88.22	89.82	7,093.9	-636.7	4,224.7	4,261.1	0.00	0.00	0.00
11,300.0	88.22	89.82	7,097.0	-636.4	4,324.6	4,360.8	0.00	0.00	0.00
11,400.0	88.22	89.82	7,100.1	-636.1	4,424.6	4,460.4	0.00	0.00	0.00
11,500.0	88.22	89.82	7,103.2	-635.8	4,524.5	4,560.0	0.00	0.00	0.00
11,600.0	88.22	89.82	7,106.3	-635.5	4,624.5	4,659.7	0.00	0.00	0.00
11,700.0	88.22	89.82	7,109.4	-635.1	4,724.4	4,759.3	0.00	0.00	0.00
11,800.0	88.22	89.82	7,112.5	-634.8	4,824.4	4,858.9	0.00	0.00	0.00
11,900.0	88.22	89.82	7,115.6	-634.5	4,924.3	4,958.6	0.00	0.00	0.00
12,000.0	88.22	89.82	7,118.7	-634.2	5,024.3	5,058.2	0.00	0.00	0.00
12,100.0	88.22	89.82	7,121.8	-633.9	5,124.2	5,157.8	0.00	0.00	0.00
12,200.0	88.22	89.82	7,124.9	-633.6	5,224.2	5,257.5	0.00	0.00	0.00
12,300.0	88.22	89.82	7,128.0	-633.3	5,324.1	5,357.1	0.00	0.00	0.00
12,400.0	88.22	89.82	7,131.1	-633.0	5,424.1	5,456.7	0.00	0.00	0.00
12,500.0	88.22	89.82	7,134.2	-632.7	5,524.1	5,556.4	0.00	0.00	0.00
12,530.2	88.22	89.82	7,135.1	-632.6	5,554.2	5,586.4	0.00	0.00	0.00
PPP4: 1980' FNL & 0' FWL (Sec 3)									
12,600.0	88.22	89.82	7,137.3	-632.4	5,624.0	5,656.0	0.00	0.00	0.00
12,700.0	88.22	89.82	7,140.4	-632.1	5,724.0	5,755.6	0.00	0.00	0.00
12,800.0	88.22	89.82	7,143.5	-631.7	5,823.9	5,855.2	0.00	0.00	0.00
12,900.0	88.22	89.82	7,146.6	-631.4	5,923.9	5,954.9	0.00	0.00	0.00
13,000.0	88.22	89.82	7,149.7	-631.1	6,023.8	6,054.5	0.00	0.00	0.00
13,100.0	88.22	89.82	7,152.8	-630.8	6,123.8	6,154.1	0.00	0.00	0.00
13,200.0	88.22	89.82	7,155.9	-630.5	6,223.7	6,253.8	0.00	0.00	0.00
13,300.0	88.22	89.82	7,159.0	-630.2	6,323.7	6,353.4	0.00	0.00	0.00
13,400.0	88.22	89.82	7,162.1	-629.9	6,423.6	6,453.0	0.00	0.00	0.00
13,500.0	88.22	89.82	7,165.2	-629.6	6,523.6	6,552.7	0.00	0.00	0.00
13,600.0	88.22	89.82	7,168.3	-629.3	6,623.5	6,652.3	0.00	0.00	0.00
13,700.0	88.22	89.82	7,171.4	-629.0	6,723.5	6,751.9	0.00	0.00	0.00
13,800.0	88.22	89.82	7,174.5	-628.6	6,823.4	6,851.6	0.00	0.00	0.00

Planning Report

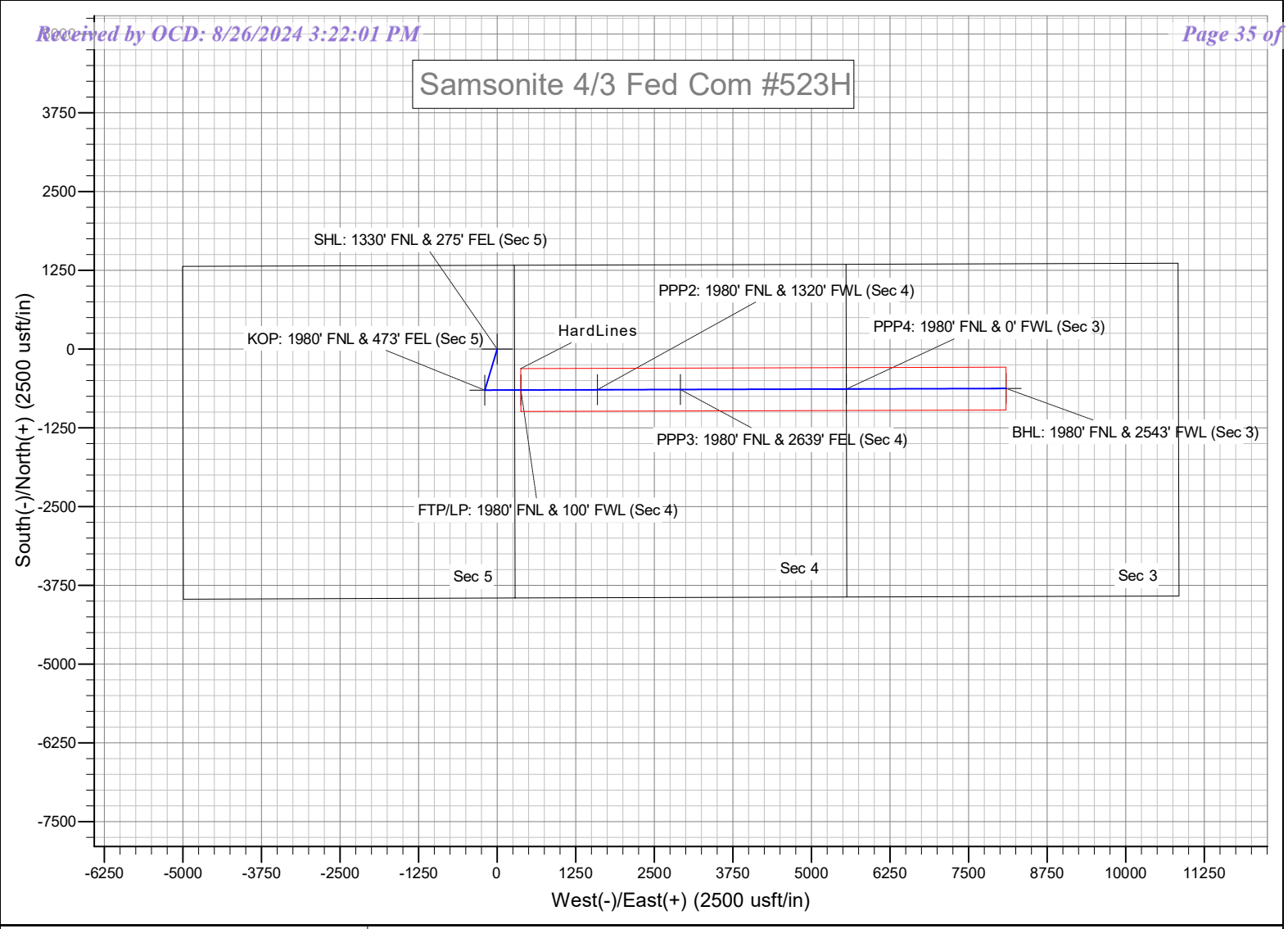
Database:	Hobbs	**Local Co-ordinate Reference:**	Site Samsonite 4/3 Fed Com #523H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3574.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	**MD Reference:**	WELL @ 3574.0usft (Original Well Elev)
Site:	Samsonite 4/3 Fed Com #523H	**North Reference:**	Grid
Well:	Sec 05, T18S, R29E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 1980' FNL & 2543' FWL (Sec 3)		
Design:	Design #1		

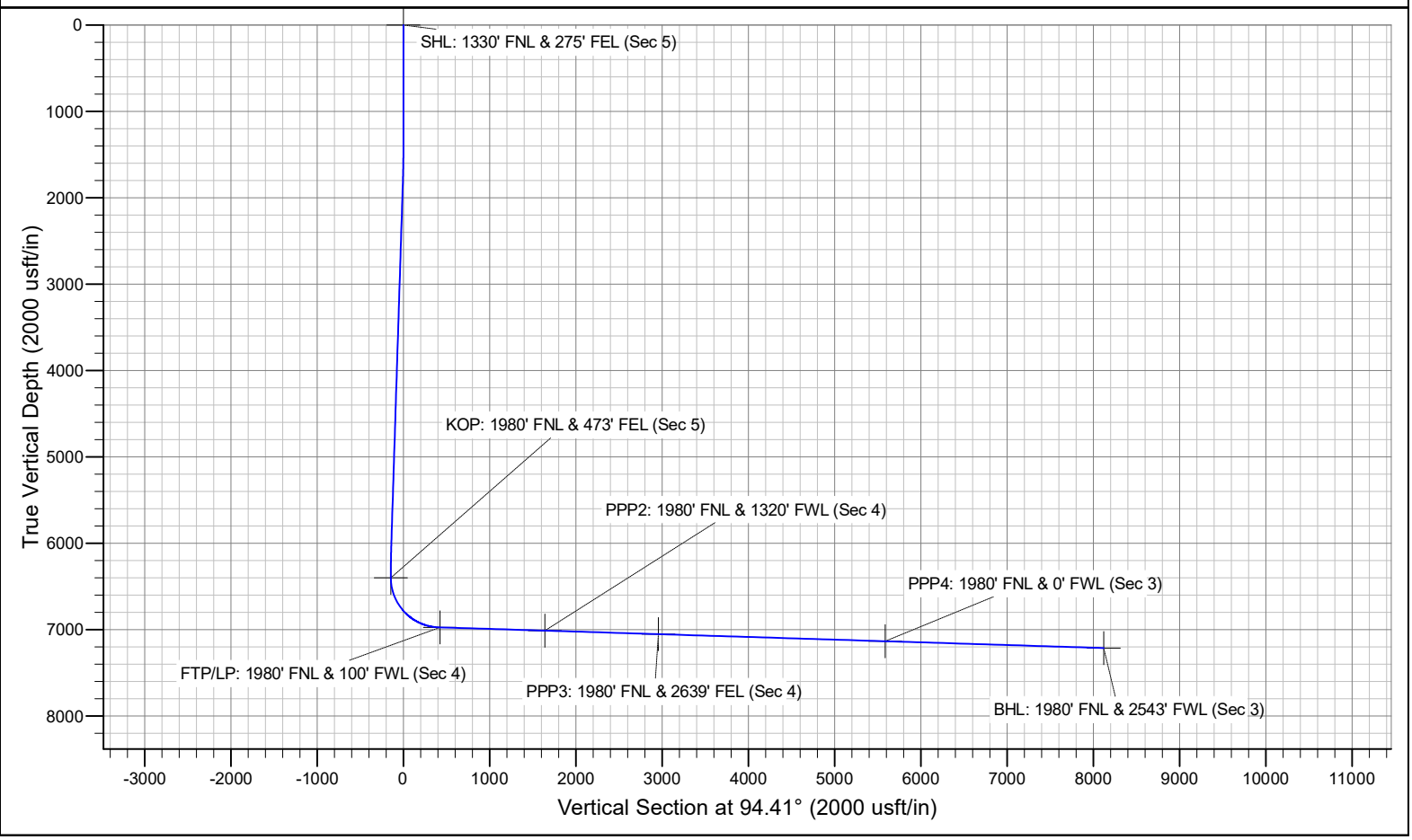
Planned Survey

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)
13,900.0	88.22	89.82	7,177.6	-628.3	6,923.4	6,951.2	0.00	0.00	0.00
14,000.0	88.22	89.82	7,180.7	-628.0	7,023.3	7,050.8	0.00	0.00	0.00
14,100.0	88.22	89.82	7,183.8	-627.7	7,123.3	7,150.5	0.00	0.00	0.00
14,200.0	88.22	89.82	7,186.9	-627.4	7,223.2	7,250.1	0.00	0.00	0.00
14,300.0	88.22	89.82	7,190.0	-627.1	7,323.2	7,349.7	0.00	0.00	0.00
14,400.0	88.22	89.82	7,193.1	-626.8	7,423.1	7,449.3	0.00	0.00	0.00
14,500.0	88.22	89.82	7,196.2	-626.5	7,523.1	7,549.0	0.00	0.00	0.00
14,600.0	88.22	89.82	7,199.3	-626.2	7,623.0	7,648.6	0.00	0.00	0.00
14,700.0	88.22	89.82	7,202.4	-625.9	7,723.0	7,748.2	0.00	0.00	0.00
14,800.0	88.22	89.82	7,205.5	-625.5	7,822.9	7,847.9	0.00	0.00	0.00
14,900.0	88.22	89.82	7,208.6	-625.2	7,922.9	7,947.5	0.00	0.00	0.00
15,000.0	88.22	89.82	7,211.7	-624.9	8,022.8	8,047.1	0.00	0.00	0.00
15,073.6	88.22	89.82	7,214.0	-624.7	8,096.4	8,120.5	0.00	0.00	0.00
BHL: 1980' FNL & 2543' FWL (Sec 3)									

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: 1330' FNL & 275' F - plan hits target center - Point	0.00	0.00	0.0	0.0	0.0	647,622.30	616,351.50	32.7801089	-104.0892545
KOP: 1980' FNL & 473' I - plan hits target center - Point	0.00	0.00	6,401.0	-650.4	-196.6	646,971.90	616,154.90	32.7783225	-104.0898991
FTP/LP: 1980' FNL & 10 - plan hits target center - Point	0.00	0.00	6,974.5	-648.6	376.2	646,973.68	616,727.70	32.7783237	-104.0880353
PPP2: 1980' FNL & 132(- plan hits target center - Point	0.00	0.00	7,012.4	-644.8	1,595.9	646,977.46	617,947.40	32.7783263	-104.0840668
PPP3: 1980' FNL & 263 - plan hits target center - Point	0.00	0.00	7,053.3	-640.8	2,915.5	646,981.55	619,267.00	32.7783289	-104.0797732
PPP4: 1980' FNL & 0' F\ - plan hits target center - Point	0.00	0.00	7,135.1	-632.6	5,554.2	646,989.73	621,905.70	32.7783337	-104.0711876
BHL: 1980' FNL & 2543' - plan hits target center - Point	0.00	0.00	7,214.0	-624.7	8,096.4	646,997.60	624,447.90	32.7783378	-104.0629161


Samsonite 4/3 Fed Com #523H
SHL: 1330' FNL & 275' FEL (Sec 5)
KOP: 1980' FNL & 473' FEL (Sec 5)
HardLines
PPP2: 1980' FNL & 1320' FWL (Sec 4)
PPP4: 1980' FNL & 0' FWL (Sec 3)
PPP3: 1980' FNL & 2639' FEL (Sec 4)
BHL: 1980' FNL & 2543' FWL (Sec 3)
FTP/LP: 1980' FNL & 100' FWL (Sec 4)
Sec 5
Sec 4
Sec 3
South(-)/North(+) (2500 usft/in)
West(-)/East(+) (2500 usft/in)


SHL: 1330' FNL & 275' FEL (Sec 5)
KOP: 1980' FNL & 473' FEL (Sec 5)
PPP2: 1980' FNL & 1320' FWL (Sec 4)
PPP4: 1980' FNL & 0' FWL (Sec 3)
FTP/LP: 1980' FNL & 100' FWL (Sec 4)
PPP3: 1980' FNL & 2639' FEL (Sec 4)
BHL: 1980' FNL & 2543' FWL (Sec 3)
True Vertical Depth (2000 usft/in)
Vertical Section at 94.41° (2000 usft/in)

Mewbourne Oil Company, Samsonite 4/3 Fed Com 523H
Sec 5, T18S, R29E
SHL: 1330' FNL 275' FEL (Sec 5)
BHL: 1980' FNL 2543' FWL (Sec 3)

Operator Name:	Property Name:	Well Number
Mewbourne Oil Company	Samsonite 4/3 Fed Com	523

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
H	5	18	29	-	1980'	FNL	473'	FEL	Eddy
Latitude					Longitude				NAD
32.7783225					-104.0898991				83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
E	4	18	29	-	1980'	FNL	100'	FWL	Eddy
Latitude					Longitude				NAD
32.7783235					-104.0880352				83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
F	3	18	29	-	1980'	FNL	2543'	FWL	Eddy
Latitude					Longitude				NAD
32.7783377					-104.0629161				83

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

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

PECOS DISTRICT

SURFACE USE

CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Mewbourne Oil Company
LEASE NO.:	NMLC058581
COUNTY:	Eddy County, New Mexico

Wells:

Samsonite 4-3 521H

Samsonite 4-3 523H

Approval Date: 08/22/2024

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3. GENERAL PROVISIONS

The failure of the operator to comply with these requirements may result in the assessment of liquidated damages or penalties pursuant to 43 CFR 3163.1 or 3163.2. A copy of these conditions of approval shall be present on the location during construction, drilling and reclamation activity. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

1.1. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural resource (historic or prehistoric site or object) discovered by the operator, or any person working on the operator's behalf, on the public or federal land shall be immediately reported to the Authorized Officer. The operator shall suspend all operations in the immediate area (within 100ft) of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer, in conjunction with a BLM Cultural Resource Specialist, to determine appropriate actions to prevent the loss of significant scientific values. The operator shall be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the operator.

Traditional Cultural Properties (TCPs) are protected by NHPA as codified in 36 CFR 800 for possessing traditional, religious, and cultural significance tied to a certain group of individuals. Though there are currently no designated TCPs within the project area or within a mile of the project area, but it is possible for a TCP to be designated after the approval of this project. **If a TCP is designated in the project area after the project's approval, the BLM Authorized Officer will notify the operator of the following conditions and the duration for which these conditions are required.**

1. Temporary halting of all construction, drilling, and production activities to lower noise.
2. Temporary shut-off of all artificial lights at night.

The operator is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA), specifically NAGPRA Subpart B regarding discoveries, to protect human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered during project work. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and a BLM-CFO Authorized Officer will be notified immediately. The BLM will then be required to be notified, in writing, within 24 hours of the discovery. The written notification should include the geographic location by county and state, the contents of the discovery, and the steps taken to protect said discovery. You must also include any potential threats to the discovery and a conformation that all activity within 100ft of the discovery has ceased and work will not resume until written certification is issued. All work on the entire project must halt for a minimum of 3 days and work cannot resume until an Authorized Officer grants permission to do so.

Any paleontological resource discovered by the operator, or any person working on the operator's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. The operator will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the operator.

1.2. RANGELAND RESOURCES

1.2.1. **Cattleguards**

Where a permanent cattleguard is approved, an appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations. A gate shall be constructed on one side of the cattleguard and fastened securely to H-braces.

1.2.2. **Fence Requirement**

Where entry granted across a fence line, the fence must be braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

1.2.3. **Livestock Watering Requirement**

Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

1.3. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA, New Mexico Department of Agriculture, and BLM requirements and policies.

1.3.1 African Rue (Peganum harmala)

Spraying: The spraying of African Rue must be completed by a licensed or certified applicator. In order to attempt to kill or remove African Rue the proper mix of chemical is needed. The mix consists of 2% Arsenal (Imazapyr) and 2% Roundup (Glyphosate) along with a nonionic surfactant. Any other chemicals or combinations shall be approved by the BLM Noxious Weeds Coordinator prior to treatment. African Rue shall be sprayed in connection to any dirt working activities or disturbances to the site being sprayed. Spraying of African Rue shall be done on immature plants at initial growth through flowering and mature plants between budding and flowering stages. Spraying shall not be conducted after flowering when plant is fruiting. This will ensure optimal intake of chemical and decrease chances of developing herbicide resistance. After spraying, the operator or necessary parties must contact the Carlsbad Field Office to inspect the effectiveness of the application treatment to the plant species. No ground disturbing activities can take place until the inspection by the authorized officer is complete. The operator may contact the Environmental Protection Department or the BLM Noxious Weed Coordinator at (575) 234-5972 or BLM_NM_CFO_NoxiousWeeds@blm.gov.

Management Practices: In addition to spraying for African Rue, good management practices should be followed. All equipment should be washed off using a power washer in a designated containment area. The containment area shall be bermed to allow for containment of the seed to prevent it from entering any open areas of the nearby landscape. The containment area shall be excavated near or adjacent to the well pad at a depth of three feet and just large enough to get equipment inside it to be washed off. This will allow all seeds to be in a centrally located area that can be treated at a later date if the need arises.

1.4. LIGHT POLLUTION

1.4.1. **Downfacing**

All permanent lighting will be pointed straight down at the ground in order to prevent light spill beyond the edge of approved surface disturbance.

1.4.2. **Shielding**

All permanent lighting will use full cutoff luminaires, which are fully shielded (i.e., not emitting direct or indirect light above an imaginary horizontal plane passing through the lowest part of the light source).

1.4.3. **Lighting Color**

Lighting shall be 3,500 Kelvin or less (Warm White) except during drilling, completion, and workover operations. No bluish-white lighting shall be used in permanent outdoor lighting.

4. SPECIAL REQUIREMENTS

2.3 VISUAL RESOURCE MANAGEMENT

2.5.1 **VRM IV**

Above-ground structures including meter housing that are not subject to safety requirements are painted a flat non-reflective paint color, Shale Green from the BLM Standard Environmental Color Chart (CC-001: June 2008).

5. CONSTRUCTION REQUIRENMENTS

3.1 CONSTRUCTION NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at BLM_NM_CFO_Construction_Reclamation@blm.gov at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and COAs on the well site and they shall be made available upon request by the Authorized Officer.

3.2 TOPSOIL

The operator shall strip the topsoil (the A horizon) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. No more than the top 6 inches of topsoil shall be removed. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (the B horizon and below) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

3.3 CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No reserve pits will be used for drill cuttings. The operator shall properly dispose of drilling contents at an authorized disposal site.

3.4 FEDERAL MINERAL PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

3.5 WELL PAD & SURFACING

Any surfacing material used to surface the well pad will be removed at the time of interim and final reclamation.

3.6 EXCLOSURE FENCING (CELLARS & PITS)

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the well cellar is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

The operator will also install and maintain mesh netting for all open well cellars to prevent access to smaller wildlife before and after drilling operations until the well cellar is free of fluids and the operator. Use a maximum netting mesh size of 1 ½ inches. The netting must not have holes or gaps.

3.7 ON LEASE ACESS ROAD

3.7.1 **Road Width**

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

3.7.2 **Surfacing**

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements will be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

3.7.3 **Crowning**

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

3.7.4 **Ditching**

Ditching shall be required on both sides of the road.

3.7.5 **Turnouts**

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

3.7.6 **Drainage**

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, leadoff ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch

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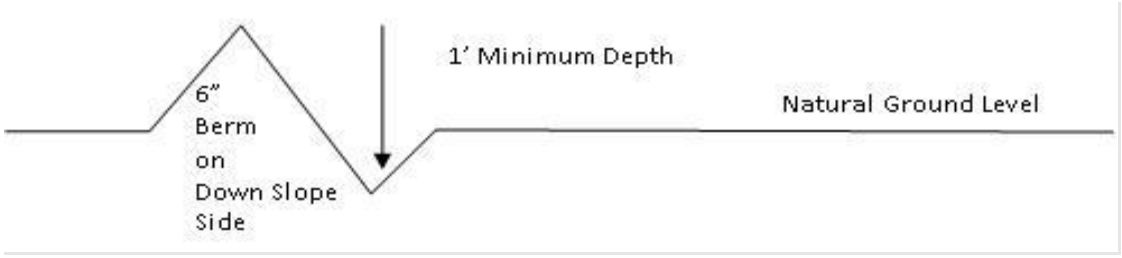

All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4} + 100' = 200' \text{ lead-off ditch interval}$$

3.7.7 **Public Access**

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Approval Date: 08/22/2024

Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

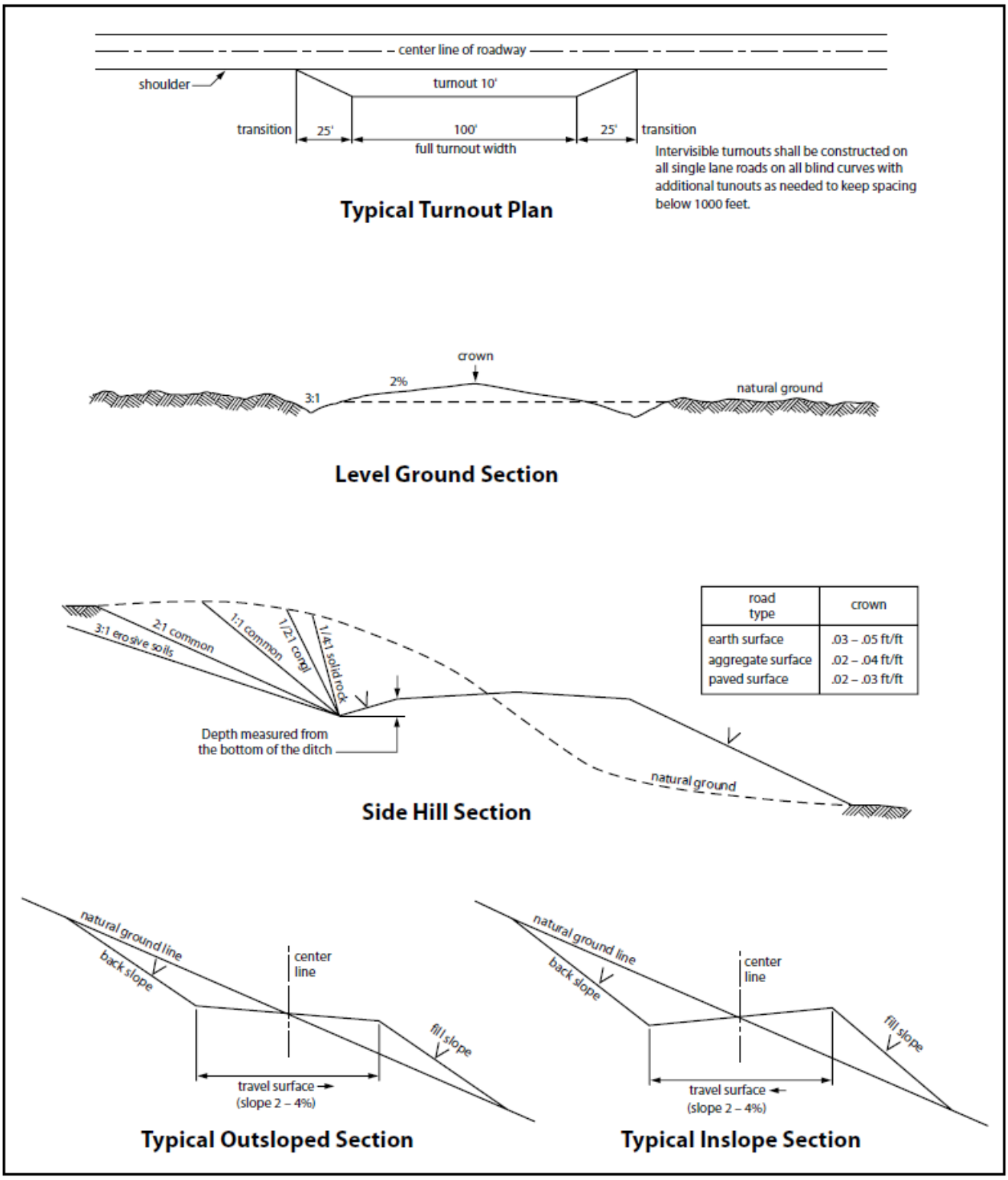

Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

7. PRODUCTION (POST DRILLING)

5.1 WELL STRUCTURES & FACILITIES

5.1.1 **Placement of Production Facilities**

Production facilities must be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

5.1.2 **Exclosure Netting (Open-top Tanks)**

Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

5.1.3. Chemical and Fuel Secondary Containment and Exclosure Screening

The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

5.1.4. Open-Vent Exhaust Stack Exclosures

The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone*.) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

5.1.5. Containment Structures

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

8. RECLAMATION

Stipulations required by the Authorized Officer on specific actions may differ from the following general guidelines

6.1 ROAD AND SITE RECLAMATION

Any roads constructed during the life of the well will have the caliche removed or linear burial. If contaminants are indicated then testing will be required for chlorides and applicable contaminate anomalies for final disposal determination (disposed of in a manner approved by the Authorized Officer within Federal, State and Local statutes, regulations, and ordinances) and seeded to the specifications in sections 6.5 and 6.6.

6.2 EROSION CONTROL

Install erosion control berms, windrows, and hummocks. Windrows must be level and constructed perpendicular to down-slope drainage; steeper slopes will require greater windrow density. Topsoil between windrows must be ripped to a depth of at least 12”, unless bedrock is encountered. Any large boulders pulled up during ripping must be deep-buried on location. Ripping must be perpendicular to down-slope. The surface must be left rough in order to catch and contain rainfall on-site. Any trenches resulting from erosion cause by run-off shall be addressed immediately.

6.3 INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations must undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators must work with BLM surface protection specialists (BLM_NM_CFO_Construction_Reclamation@blm.gov) to devise the best strategies to reduce the size of the location. Interim reclamation must allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche and any other surface material is required. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided in section 6.6.

Upon completion of interim reclamation, the operator shall submit a Sundry Notice, Subsequent Report of Reclamation (Form 3160-5).

6.4 FINAL ABANDONMENT & RECLAMATION

Prior to surface abandonment, the operator shall submit a Notice of Intent Sundry Notice and reclamation plan.

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding will be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM. After earthwork and seeding is completed, the operator is required to submit a Sundry Notice, Subsequent Report of Reclamation.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (BLM_NM_CFO_Construction_Reclamation@blm.gov).

6.5 SEEDING TECHNIQUES

Seeds shall be hydro-seeded, mechanically drilled, or broadcast, with the broadcast-seeded area raked, ripped or dragged to aid in covering the seed. The seed mixture shall be evenly and uniformly planted over the disturbed area.

6.6 SOIL SPECIFIC SEED MIXTURE

The lessee/permitee shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed land application will be accomplished by mechanical planting using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area. Smaller/heavier seeds tend to drop the bottom of the drill and are planted first; the operator shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory BLM or Soil Conservation

District stand is established as determined by the Authorized Officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding or until several months of precipitation have occurred, enabling a full four months of growth, with one or more seed generations being established

Seed Mixture 2, for Sandy Site

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

Approval Date: 08/22/2024

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	MEWBOURNE OIL COMPANY
WELL NAME & NO.:	SAMSONITE 4/3 FED COM 523H
APD ID:	10400095503
LOCATION:	Section 5, T.18 S., R.29 E. NMP.
COUNTY:	Eddy County, New Mexico

COA

H_2S	○ No		◉ Yes	
Potash / WIPP	◉ None	○ Secretary	○ R-111-Q	☐ Open Annulus ☐ WIPP
Cave / Karst	◉ Low	○ Medium	○ High	○ Critical
Wellhead	○ Conventional	◉ Multibowl	○ Both	○ Diverter
Cementing	☐ Primary Squeeze	☐ Cont. Squeeze	☐ EchoMeter	☑ DV Tool
Special Req	☐ Capitan Reef	☐ Water Disposal	☑ COM	☐ Unit
Waste Prev.	○ Self-Certification	○ Waste Min. Plan	◉ APD Submitted prior to 06/10/2024	
Additional Language	☑ Flex Hose ☐ Four-String	☐ Casing Clearance ☑ Offline Cementing	☐ Pilot Hole ☐ Fluid-Filled	☑ Break Testing

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H_2S) Drilling Plan shall be activated **AT SPUD**. As a result, the Hydrogen Sulfide area must meet **43 CFR 3176** requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING DESIGN

Primary Casing Design

1. The **13-3/8** inch surface casing shall be set at approximately **267 ft.** (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**
   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 psi 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 psi compressive strength, whichever is greater.
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 in a competent bed at approximately **1,140 ft.** The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

- **Cement to surface.** If cement does not circulate see B.1.a, c-d above.

Note: Excess cement volume is below the CFO's recommendation of 25%. More cement might be needed.

3. Operator has proposed to set **7 in.** (P-110 26#) production casing at approximately **6,400 ft.** (6,351 ft. TVD). The minimum required fill of cement behind the **7 in.** 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 (Two-stage): 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 should tie-back **at least 200 feet** into previous casing string. Operator shall provide method of verification. If cement does not circulate, contact the appropriate BLM office.

4. The minimum required fill of cement behind the **4-1/2 in.** production liner is:

- Cement should tie-back **at least 100 feet** into previous casing string. Operator shall provide method of verification.

Alternate Casing Design

1. The **13-3/8** inch surface casing shall be set at approximately **267 ft.** (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**

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 psi 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 psi compressive strength, whichever is greater.
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 in a competent bed at approximately **1,140 ft.** The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

- **Cement to surface.** If cement does not circulate see B.1.a, c-d above.

Note: Excess cement volume is below the CFO's recommendation of 25%. More cement might be needed.

3. Operator has proposed to set **7 in.** (P-110 26#) production casing at approximately **7,350 ft.** (6,975 ft. TVD). The minimum required fill of cement behind the **7 in.** 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 (Two-stage): 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 should tie-back **at least 200 feet** into previous casing string. Operator shall provide method of verification. If cement does not circulate, contact the appropriate BLM office.

4. The minimum required fill of cement behind the **4-1/2 in.** production liner is:

- Cement should tie-back **at least 100 feet** into previous casing string. Operator shall provide method of verification.

Offline Cementing

Operator has been **(Approved)** to pump the proposed cement program offline in the **Surface and intermediate(s) intervals**. Offline cementing should commence within 24 hours of landing the casing for the interval. Notify the BLM 4hrs prior to the commencement of any offline cementing procedure at **Eddy County: 575-361-2822**.

C. 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. Before drilling the surface casing shoe out, the BOP/BOPE shall be pressure-tested in accordance with **title 43 CFR 3172 and API Standard 53.**

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 the **title 43 CFR 3172.6(b)(9)** must be followed.

BOPE Break Testing Variance

- BOPE Break Testing is ONLY permitted for intervals utilizing a 5M BOPE or less. **(Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP.)**
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer **(575-706-2779)** prior to the commencement of any BOPE Break Testing operations.

- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted **(575-361-2822 Eddy County)** 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per **43 CFR 3172**.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.

- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.

- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

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)

Contact Eddy County Petroleum Engineering Inspection Staff:

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220; **BLM_NM_CFO_DrillingNotifications@BLM.GOV**; (575) 361-2822.

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
        i. Notify the BLM when moving in and removing the Spudder Rig.
        ii. 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.
        iii. BOP/BOPE test to be conducted per **43 CFR 3172** 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 doghouse or stairway area.
3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

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 following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be

recorded in the driller's log. The casing integrity 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 integrity 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-Q 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 **43 CFR 3172**.
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:
    i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    ii. 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.
    iii. Manufacturer representative shall install the test plug for the initial BOP test.
    iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
    v. 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.
    i. 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 cement), 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).
    ii. 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 cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (Only applies to single stage cement jobs, prior to the cement setting up.)
    iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** 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 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

iv. 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.

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

vi. 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.

vii. 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.

viii. 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 **43 CFR 3172**.

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

SA 08/13/2024

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**

Operator Name: MEWBOURNE OIL COMPANY

Well Name: SAMSONITE 4/3 FED COM **Well Number:** 523H

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: IRRIGATION

Water source use type: DUST CONTROL
CAMP USE
SURFACE CASING
INTERMEDIATE/PRODUCTION CASING
STIMULATION

Source latitude: 32.704819 **Source longitude:** -104.123086

Source datum: NAD83

Water source permit type: WATER WELL

Water source transport method: TRUCKING

Source land ownership: PRIVATE

Source transportation land ownership: STATE

Water source volume (barrels): 1940 **Source volume (acre-feet):** 0.2500526

Source volume (gal): 81480

Water source type: IRRIGATION

Water source use type: DUST CONTROL
SURFACE CASING
INTERMEDIATE/PRODUCTION CASING
STIMULATION

Source latitude: 32.32698 **Source longitude:** -104.21917

Source datum: NAD83

Water source permit type: WATER WELL

Water source transport method: TRUCKING

Source land ownership: PRIVATE

Operator Name: MEWBOURNE OIL COMPANY

Well Name: SAMSONITE 4/3 FED COM **Well Number:** 523H

Source transportation land ownership: FEDERAL

Water source volume (barrels): 1940 **Source volume (acre-feet):** 0.2500526

Source volume (gal): 81480

Water source and transportation

Samsonite_4_3_Fed_Com_523H_WaterSourceTransMap_20231026101505.pdf

Water source comments: Both sources shown on one map.

New water well? N

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

New water well casing? **Used casing source:**

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Casing length (ft.): **Casing top depth (ft.):**

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: Caliche

Construction Materials source location

Samsonite_4_3_Fed_Com_523H_CalicheSourceTransMap_20231026101522.pdf

Operator Name: MEWBOURNE OIL COMPANY

Well Name: SAMSONITE 4/3 FED COM **Well Number:** 523H

Section 7 - Methods for Handling

Waste type: DRILLING

Waste content description: Drill cuttings

Amount of waste: 940 barrels

Waste disposal frequency : One Time Only

Safe containment description: Drill cuttings will be properly contained in steel tanks (20 yard roll off bins.)

Safe containmant attachment:

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

Disposal type description:

Disposal location description: NMOCD approved waste disposal locations are CRI or Lea Land, both facilities are located on HWY 62/180, Sec. 27 T20S R32E.

Waste type: SEWAGE

Waste content description: Human waste & grey water

Amount of waste: 1500 gallons

Waste disposal frequency : Weekly

Safe containment description: 2,000 gallon plastic container

Safe containmant attachment:

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

Disposal type description:

Disposal location description: City of Carlsbad Water Treatment facility

Waste type: GARBAGE

Waste content description: Garbage & trash

Amount of waste: 1500 pounds

Waste disposal frequency : One Time Only

Safe containment description: Enclosed trash trailer

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Waste Management facility in Carlsbad.

Reserve Pit

Reserve Pit being used? NO

Operator Name: MEWBOURNE OIL COMPANY

Well Name: SAMSONITE 4/3 FED COM **Well Number:** 523H

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

Cuttings Area being used? NO

Are you storing cuttings on location? N

Description of cuttings location

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:

Samsonite_4_3_Fed_Com_523H_WellSiteLayout_20231026101546.pdf

Comments: NONE

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

CONDITIONS

Action 377849

CONDITIONS

Operator:	OGRID:
MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	14744
	Action Number: 377849
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify OCD 24 hours prior to casing & cement	9/11/2024
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	9/11/2024
ward.rikala	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	9/11/2024
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	9/11/2024
ward.rikala	If cement does not circulate on any string, a CBL is required for that string of casing	9/11/2024
ward.rikala	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	9/11/2024
ward.rikala	Must submit C-102 on new C-102 form.	9/11/2024