Form 3160-3 (June 2015)			FORM APPI OMB No. 10 Expires: Januar	04-0137			
UNITED STATES DEPARTMENT OF THE II BUREAU OF LAND MANA	NTERIOR		5. Lease Serial No. NMNM013237				
APPLICATION FOR PERMIT TO D		R	6. If Indian, Allotee or Tr	ibe Name			
1a. Type of work: Image: Constraint of the second seco	EENTER		7. If Unit or CA Agreeme	ent, Name and No.			
1b. Type of Well: ✓ Oil Well Gas Well Oil 1c. Type of Completion: Hydraulic Fracturing ✓ Si	8. Lease Name and Well No. SIG 6/5 B2EH FED COM						
2. Name of Operator MEWBOURNE OIL COMPANY			9. API Well No.	15-53741			
3a. Address P O BOX 5270, HOBBS, NM 88241	3b. Phone No. <i>(include ar</i>(575) 393-5905	ea code)	10. Field and Pool, or Ex Wolfcamp/BONE SPRI				
 Location of Well (Report location clearly and in accordance w At surface SWNW / 1980 FNL / 80 FWL / LAT 32.6047 At proposed prod. zone SENE / 1980 FNL / 100 FEL / LA 	059 / LONG -104.12158	23	11. Sec., T. R. M. or Blk. SEC 6/T20S/R29E/NM				
14. Distance in miles and direction from nearest town or post office 20 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)	16. No of acres in lease	No of acres in lease 17. Spacing Unit dedicated to this well 320.0					
 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1012 feet 	19. Proposed Depth 7949 feet / 17630 feet						
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3290 feet	22. Approximate date wor 01/02/2022	k will start*	23. Estimated duration 60 days				
The following, completed in accordance with the requirements of	24. Attachments	r No. 1. and the H	Avdraulic Fracturing rule p	er 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 SUPO must be filed with the appropriate Forest Service Office 	4. Bond to c Item 20 a5. Operator	over the operatior bove). certification.	is unless covered by an exis	ting bond on file (see			
25. Signature (Electronic Submission)	Name (Printed/Type BRADLEY BISHO	·	03-5905 Date 11/	e 12/2021			
Title Regulatory			·				
Approved by (Signature) (Electronic Submission)	Name (Printed/Type CODY LAYTON /		959 Date 04/2	e 21/2023			
Title Assistant Field Manager Lands & Minerals Application approval does not warrant or certify that the applicant applicant to conduct operations thereon. Conditions of approval, if any, are attached.	Office Carlsbad Field Off t holds legal or equitable tir		in the subject lease which	would entitle the			
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, m of the United States any false, fictitious or fraudulent statements of				epartment or agency			

TONS	Accep	oted for record – NMOCD
CONDITIONS	JRH	
		*(Instructions on page 2)

(Continued on page 2)

APPROVED WITH CONDI Approval Date: 04/21/2023

District 1 (255 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-0161 Fax: (575) 393-0720 District III 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) 476-3462State of New Mex Energy, Minerals & Natural Resou OIL CONSERVATION 1220 South St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462							l Resources De TION DIVISIO St. Francis Dr.	-	Su	bmit on	Form C-102 vised August 1, 2011 e copy to appropriate District Office MENDED REPORT	
			W	ELL L	OCATIO	N AND ACH	REAGE DEDIC	CATION PLA	Т			
		API Numbe			² Pool Code 65010		WIND	me BONE	E SPRING			
	⁴ Property Co 3333				SIG	⁵ Property N 6/5 B2EH	ame I FED COM				⁶ Well Number 1H	
	70grid 1474			⁸ Operator Name ⁹ Elevation MEWBOURNE OIL COMPANY 3290'								
•						¹⁰ Surface	Location					
	UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/W	est line	County	
	5	6	20S	29E		1980	NORTH	80	WE	ST	EDDY	

	Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Townsh	ip Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
н	5	20S	29E		1980	NORTH	100	EAST	EDDY	
12 Dedicated Acres	¹³ Joint	or Infill	14 Consolidation	Code 15	Order No.		•	•		
320										
309.88	5									

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.

16			¹⁷ OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete</i>
GEODETIC DATA	CORNER DATA		
NAD 83 GRID - NM EAST	NAD 83 GRID – NM EAST	F: FOUND BRASS CAP "19 N 583011.3 - E 616701	
<u>SURFACE LOCATION</u> N: 583787.7 – E: 606543.4	A: FOUND BRASS CAP "1916"		
N: 585787.7 – E: 606543.4 LAT: 32.6047059* N	N 580365.5 - E 606463.1	G: FOUND BRASS CAP "19 N 580365.0 - E 616706	
LONG: 104.1215823° W	B: FOUND BRASS CAP "1942" N 583023.8 – E 606467.5		location pursuant to a contract with an owner of such a mineral or working
BOTTOM HOLE		H: FOUND BRASS CAP "19 N 580369.0 - E 614058	interast or to a voluntary pooling agreement or a compulsory pooling
N: 583770.4 - E: 616599.9	C: FOUND BRASS CAP "1916" N 585767.2 – E 606452.8	I: FOUND BRASS CAP "19	order heretofore entered by the division.
LAT: 32.6045990° N		N 580372.5 – E 611413	
LONG: 104.0889248° W	D: FOUND BRASS CAP "1916" N 585757.6 – E 611400.7	J: FOUND BRASS CAP "19	
	E: FOUND BRASS CAP "1916"	N 580368.4 - E 608772	
	N 585749.7 - E 616696.7	K: FOUND BRASS CAP "19	
		N 583013.9 - E 611406	BBISHOP@MEWBOURNE.COM
			E-mail Address
S 89 [•] 53'19" E 4949.	11' D	S 89°54'53" E 5297.22'	
© <u>S 89*53'19" E 4949.</u>			$\mathbf{I}_{\mathbf{S}}^{(E)} ^{18} SURVEYOR CERTIFICATION$
	4.34		I hereby certify that the well location shown on this
C LOT 4 LOT 3 LOT 2 00 31.79 Acs. 42.73 Acs. 42.87			$LOT 1 \frac{1}{100}$ plat was plotted from field notes of actual surveys
			$\begin{bmatrix} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$
9 LOT 5	35		same is true and correct to the best of my belief.
29.88 Acs.	<u> </u>		
8 80'	00		$100^{10} \gtrsim \frac{09/20/2021}{\text{Date of Survey}}$
		5	Signature and Seal of Professional Survey
6 FTP 1980' FNL & 100' FWL	5.0	LTP 1980' FNL & 100	FEL S
S 29.91 Acs.	264		
	<i>≥</i>		× ALL V. MO
	ROJECT AREA PRODUCI	NG AREA	19680
50.00 LOT 7			Certificate Number
29.95 Acs.	00		NAL 3
A S 89*55'36" W 2309.57' (J) S 89*5	4 42 W 2641.74 UN 895529	W 2045.56 (H) N 89 54 45 W	^{' 2648.46} ' Job No.: LS21091015

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	En	State ergy, Minerals a	e of New Mex nd Natural Reso		nt		mit Electronically E-permitting			
Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505										
	NA	ATURAL GA	AS MANAC	SEMENT PI	LAN					
This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.										
<u>Section 1 – Plan Description</u> Effective May 25, 2021										
. Operator: Mew	bourne C	il Co.	OGRID:	14744		_ Date:11	/1/21			
I. Type: 🗶 Original 🗆	Amendment of	lue to □ 19.15.27.	9.D(6)(a) NMA(C 🗆 19.15.27.9.D(6)(b) N	MAC 🗆 Other				
f Other, please describe:										
II. Well(s): Provide the e recompleted from a si	following info	ormation for each	new or recomplet	ed well or set of v	wells pro	oposed to be d	rilled or proposed			
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D		cipated MCF/D	Anticipated Produced Water BBL/D			
SIG 6/5 B2EH Fed Com #1H		D 6 20S 29E	1980' FNL x 80' FW	1500	30	00	2500			
V. Central Delivery Po 7. Anticipated Schedulo proposed to be recomple	e: Provide the	following informa	tion for each new	y or recompleted w	vell or so		27.9(D)(1) NMAC			
-		Spud Date				Initial Flow Back Date	First Productio Date			
IG 6/5 B2EH Fed Com #1H		1/6/22	2/1/22	3/1/22		3/16/22	3/16/22			
VI. Separation Equipm VII. Operational Pract Subsection A through F VIII. Best Managemen during active and planne	ices: 🛛 Attacl of 19.15.27.8 1 t Practices: 🗖	n a complete desc NMAC.] Attach a comple	ription of the act	ions Operator wil	l take to	o comply with	the requirements			

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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.

 \boxtimes 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. \Box 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 \Box will \Box 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 \Box does \Box 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: \Box 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.

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Section 3 - Certifications Effective May 25, 2021

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

 \square 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

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

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

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

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

Section 4 - Notices

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

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

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

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

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

Signature:	Bradley Bishop							
Printed Name:	BRADLEY BISHOP							
Title:	REGULATORY MANAGER							
E-mail Address:	BBISHOP@MEWBOURNE.COM							
Date:	11/1/21							
Phone:	575-393-5905							
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)								
Approved By:								
Title:								
Approval Date:								
Conditions of Ap	pproval:							

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 pressure venting 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 the diversion 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.

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Drilling Plan Data Report 04/24/2023 U.S. Department of the Interior BUREAU OF LAND MANAGEMENT APD ID: 10400081165 Submission Date: 11/12/2021 Highlighted data reflects the most **Operator Name: MEWBOURNE OIL COMPANY** recent changes Well Name: SIG 6/5 B2EH FED COM Well Number: 1H Show Final Text Well Type: OIL WELL Well Work Type: Drill

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
7716229	UNKNOWN	3290	27	27	OTHER : Top soil	NONE	N
7716230	TOP SALT	2833	457	457	SALT	NONE	N
7716237	BOTTOM SALT	2490	800	800	SALT	NONE	N
7716238	YATES	2250	1040	1040	SANDSTONE	NATURAL GAS, OIL	N
7716234	CAPITAN REEF	1861	1429	1429	DOLOMITE, LIMESTONE	USEABLE WATER	N
7716235	DELAWARE	225	3065	3065	LIMESTONE	NATURAL GAS, OIL	N
7716228	BONE SPRINGS	-1712	5002	5002	LIMESTONE, SHALE	NATURAL GAS, OIL	N
7716231	BONE SPRING 1ST	-3528	6818	6818	SANDSTONE	NATURAL GAS, OIL	N
7716232	BONE SPRING 2ND	-4125	7415	7415	SANDSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 17630

Equipment: Annular, Pipe Rams, Blind Ram

Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. Anchors not required by manufacturer. A multi-bowl wellhead is being used. See attached schematic

Testing Procedure: BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold.

Choke Diagram Attachment:

Operator Name: MEWBOURNE OIL COMPANY Well Name: SIG 6/5 B2EH FED COM

Well Number: 1H

 $Sig_6_5_B2EH_Fed_Com_1H_5M_BOPE_Choke_Diagram_20211112095314.pdf$

Sig_6_5_B2EH_Fed_Com_1H_Flex_Line_Specs_20211112095322.pdf

Sig_6_5_B2EH_Fed_Com_1H_Flex_Line_Specs_API_16C_20211112095322.pdf

BOP Diagram Attachment:

Sig_6_5_B2EH_Fed_Com_1H_5M_Mutli_Bowl_WH_20211112095345.pdf

Sig_6_5_B2EH_Fed_Com_1H_5M_BOPE_Schematic_20211112095345.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	26	20.0	NEW	API	N	0	350	0	350	3290	2940	350	J-55	94	BUTT	3.4	13.8	DRY	42.6 1	DRY	44.9 8
2	SURFACE	17.5	13.375	NEW	API	N	0	975	0	975	3290	2315	975	H-40	48	ST&C	1.73	3.88	DRY	6.88	DRY	11.5 6
3	INTERMED IATE	12.2 5	9.625	NEW	API	N	0	3000	0	3000	3624	290	3000	J-55	36	LT&C	1.29	2.26	DRY	4.19	DRY	5.22
4	PRODUCTI ON	8.75	7.0	NEW	API	N	0	8074	0	7747	3635	-4457	1	P- 110	29	LT&C	2	2.55	DRY	2.96	DRY	3.64
5	LINER	6.12 5	4.5	NEW	API	N	7174	17630	7174	7949	-3884	-4659	10456	P- 110	13.5	LT&C	2.58	3	DRY	2.39	DRY	2.99

Casing Attachments

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Operator Name: MEWBOURNE OIL COMPANY

Well Name: SIG 6/5 B2EH FED COM

Well Number: 1H

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Casing Attachments

Casing ID: 1 String SUR	FACE								
Inspection Document:									
Spec Document:									
Tapered String Spec:									
Casing Design Assumptions and Worksheet(s):									
Sig_6_5_B2EH_Fed_Com_1H_Csg_Assumptions_20211112095752.pdf									
Casing ID: 2 String SUR	FACE								
Inspection Document:									
Spec Document:									
Tapered String Spec:									
	_Surface_Csg_Tapered_String_20181018150949.pdf								
Casing Design Assumptions and Workshe									
Sig_6_5_B2EH_Fed_Com_1H_Csg_A									
<u> </u>									
Casing ID: 3 String INTE	RMEDIATE								
Inspection Document:									
Spec Document:									
Toward Chring Cross									
Tapered String Spec:	Intermediate Con Tenered String 2010101010151210 adt								
Casing Design Assumptions and Workshe	Intermediate_Csg_Tapered_String_20181018151340.pdf								
Sig_6_5_B2EH_Fed_Com_1H_Csg_A	ssumptions_20211112095511.pdf								

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Operator Name: MEWBOURNE OIL COMPANY

Well Name: SIG 6/5 B2EH FED COM

Well Number: 1H

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asing Attachments		
Casing ID: 4	String	PRODUCTION
Inspection Document:		
Spec Document:		
Tapered String Spec:		
Casing Design Assumpt	tions and W	/orksheet(s)·
Sig_6_5_B2EH_Fe	d_Com_1H_	_Csg_Assumptions_20211112095604.pdf
Casing ID: 5	String	LINER
Inspection Document:		
Spec Document:		
Tapered String Spec:		
Casing Design Assumpt	tions and W	/orksheet(s):

Sig_6_5_B2EH_Fed_Com_1H_Csg_Assumptions_20211112095720.pdf

Section	4 - 00	SILICII									
String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	261	380	2.12	12.5	805	100	Class C	Class C + Salt + Gel + Extender + LCM
SURFACE	Tail		261	350	200	1.34	14.8	268	100	Class C	Retarder
INTERMEDIATE	Lead	1025	0	317	57	2.12	12.5	120	25	Class C	Salt, Gel, Extender, LCM
INTERMEDIATE	Tail		317	1025	200	1.34	14.8	268	25	Class C	Retarder
SURFACE	Lead		0	679	290	2.12	12.5	615	25	Class C	Salt, Gel, Extender, LCM

Section 4 - Cement

Operator Name: MEWBOURNE OIL COMPANY

Well Name: SIG 6/5 B2EH FED COM

Well Number: 1H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Tail		679	975	200	1.34	14.8	268	25	Class C	Retarder
INTERMEDIATE	Lead	1025	1025	2314	238	2.12	12.5	504	25	Class C	Salt, Gel, Extender, LCM
INTERMEDIATE	Tail		2314	3000	200	1.34	14.8	268	25	Class C	Retarder
PRODUCTION	Lead	3050	1350	2453	102	2.12	12.5	218	25	Class C	Salt, Gel, LCM, Extender
PRODUCTION	Tail		2453	3050	100	1.18	15.6	118	25	Class C	Retarder
PRODUCTION	Lead	3050	3050	5603	230	2.12	12.5	488	25	Class C	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail		5603	8074	400	1.18	15.6	472	25	Class C	Retarder
LINER	Lead		7174	1763 0	410	2.97	11.2	1218	25	Class C	Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-Settling Agent

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

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

Describe the mud monitoring system utilized: Visual Monitoring

Circulating Medium Table

Operator Name: MEWBOURNE OIL COMPANY

Well Name: SIG 6/5 B2EH FED COM

Top Depth	Bottom Depth	Mud Type	Min Weight (Ibs/gal)	Max Weight (Ibs/gal)	Density (Ibs/cu ft)	Gel Strength (lbs/100 sqft)	НА	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	975	SPUD MUD	8.6	8.8							
975	3000	SALT SATURATED	10	10							
3000	8074	WATER-BASED MUD	8.6	9.5							
8074	1763 0	OIL-BASED MUD	9	11							

Section 6 - Test, Logging, Coring

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

Will use the CNL/GR run in offset well: Sig 6/5 B3EH Fed Com #1H

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

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

Coring operation description for the well:

None

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 2800	Anticipated Surface Pressure: 1051
Anticipated Bottom Hole Temperature(F): 140	
Anticipated abnormal pressures, temperatures, or poter	ntial geologic hazards? NO
Describe:	
Contingency Plans geoharzards description:	
Contingency Plans geohazards	
Hydrogen Sulfide drilling operations plan required? YES	S
Hydrogen sulfide drilling operations	

Sig_6_5_B2EH_Fed_Com_1H_H2S_Plan_20211112102832.pdf

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Operator Name: MEWBOURNE OIL COMPANY

Well Name: SIG 6/5 B2EH FED COM

Well Number: 1H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Sig_6_5_B2EH_Fed_Com_1H_Dir_Plan_20211112102910.pdf Sig_6_5_B2EH_Fed_Com_1H_Dir_Plot_20211112102910.pdf

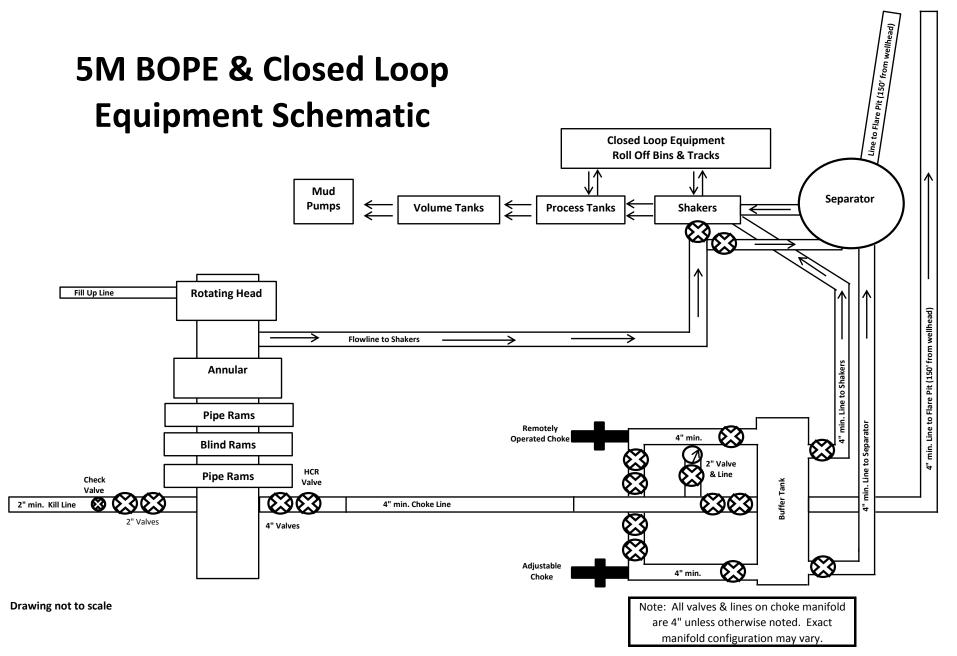
Other proposed operations facets description:

Other proposed operations facets attachment:

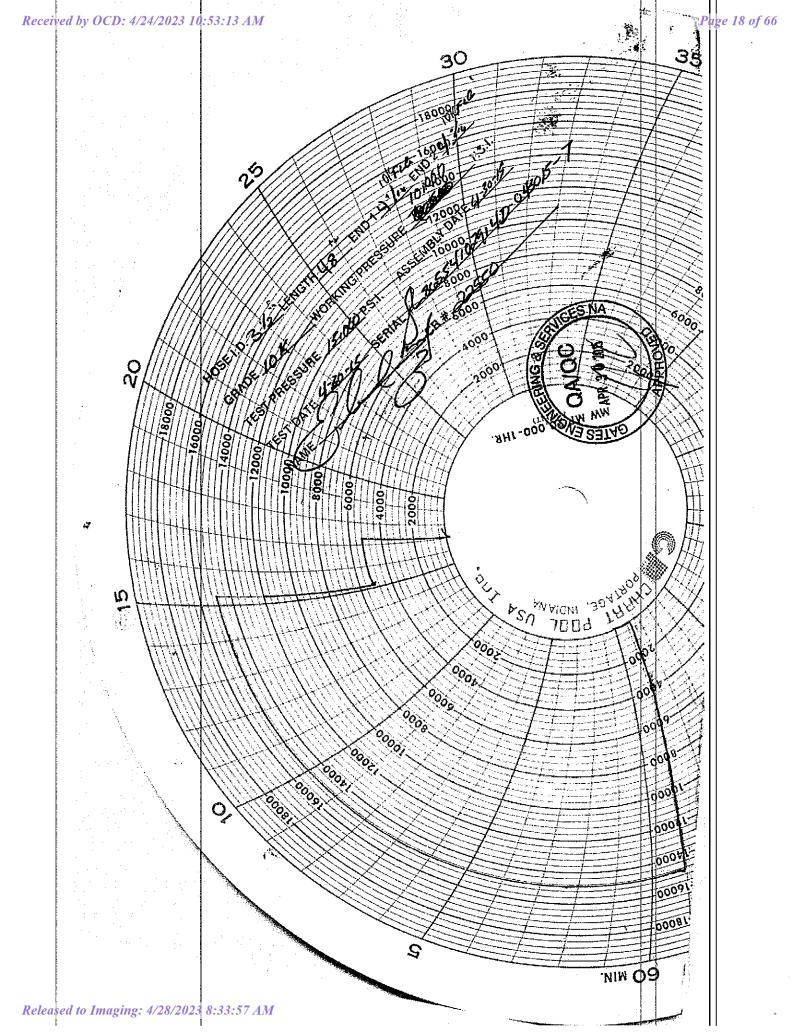
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Other Variance attachment:

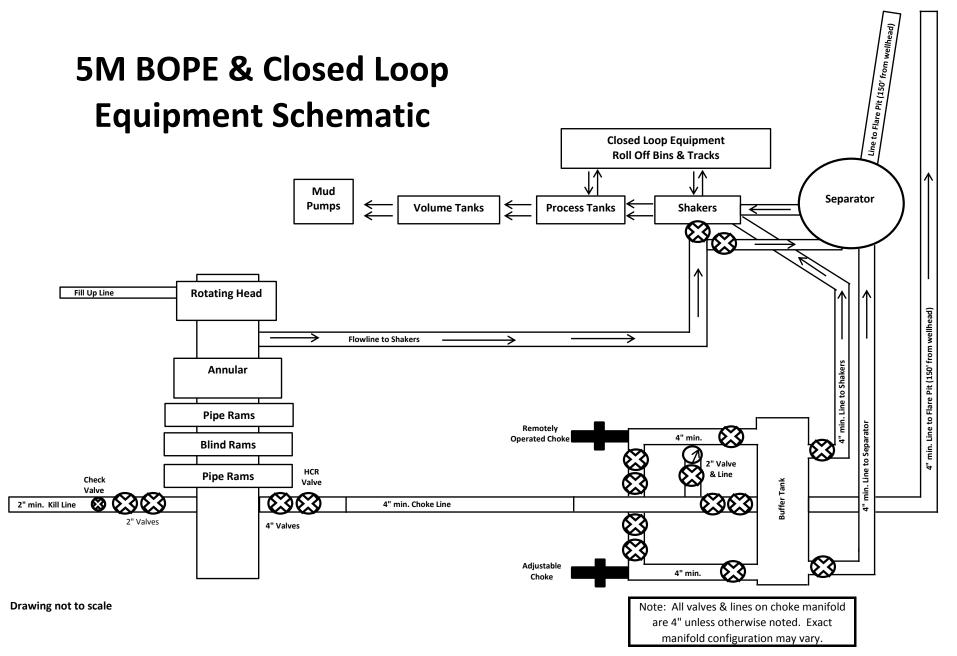
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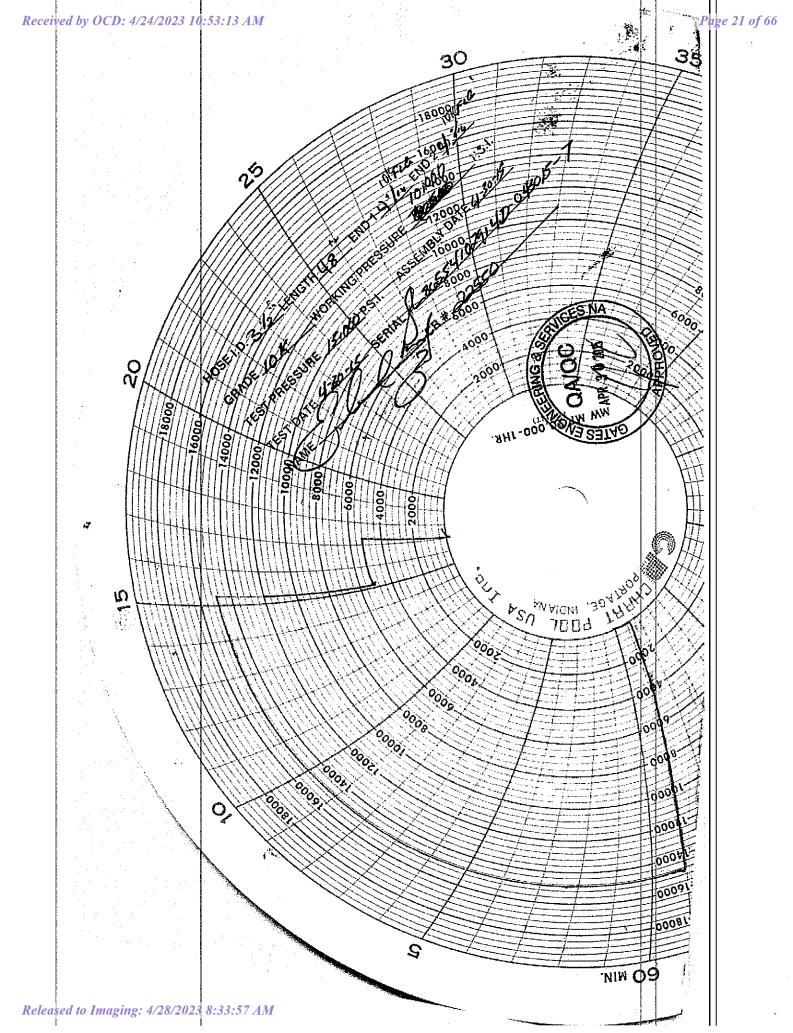
TH AMERICA, INC. , TEXAS 78405		PHONE: 361-887-9807 FAX: 361-887-0812 EMAIL: <i>Tim.Cantu@gates.com</i> WEB: www.gates.com	3
EMENTING ASSEMB	LY PRESSURE T	EST CERTIFICATE	
AUSTIN DISTRIBUTING 4060578 500506	Test Date: Hose Serial No.: Created By:	4/30/2015 D-043015-7 JUSTIN CROPPER	
	10K3.548.0CK4.1/1610KFLGE		
4 1/16 10K FLG 4773-6290	End Fitting 2 : Assembly Code :	4 1/16 10K FLG L36554102914D-043015-7	
			-
t per API Spec 7K/Q1, Fifth E in accordance with this prod	dition, June 2010, Test uct number. Hose burs	t pressure 9.6.7 and per Table 9 t pressure 9.6.7.2 exceeds the	
		· · · · · · · · · · · · · · · · · · ·	-
QUALITY 4/30/2015 Alger Month	Produciton: Date : Signature :	PRODUCTION 4/30/2015	
		Forn-PTC - 01 Rev.02	
	TEXAS 78405 EMENTING ASSEMBI AUSTIN DISTRIBUTING AUSTIN DISTRIBUTING 4060578 500506 41/16 10K FLG 41/16 10K FLG 41/16 10K FLG 4773-6290 10,000 PSI	TEXAS 78405 EMENTING ASSEMBLY PRESSURE TI AUSTIN DISTRIBUTING Test Date: 4060578 Hose Serial No.: 500506 Created By: 10K3.548.0CK4.1/1610KFLGE 41/16 10K FLG End Fitting 2 : 4773-6290 Assembly Code : 10,000 PSI Test Pressure : North America, Inc. certifies that the following ho field Roughneck Agreement/Specification requirement t per API Spec 7K/Q1, Fifth Edition, June 2010, Test in accordance with this product number. Hose burs minimum of 2.5 times the working pressure p QUALITY Produciton: Date : Produciton:	FAX: 361-887-0812 EMAIL: Tim.Cantu@gates.com WEB: www.gates.com EMENTING ASSEMBLY PRESSURE TEST CERTIFICATE AUSTIN DISTRIBUTING Test Date: 4060578 Hose Serial No.: 900506 Created By: 10K3.548.0CK4.1/1610KFLGF/E LE 41/16 10K FLG End Fitting 2 : 41/16 10K FLG End Fitting 2 : 4773-6290 Assembly Code : 10,000 PSI Test Pressure : 110,000 PSI Test Pressure : 12,000 PSI Test Pressure : 12,000 PSI Test Pressure 9.6.7.2 and per Table 9 In accordance with this product number. Hose burst pressure 9.6.7.2 exceeds the minimum of 2.5 times the working pressure per Table 9. 10UALITY Pr



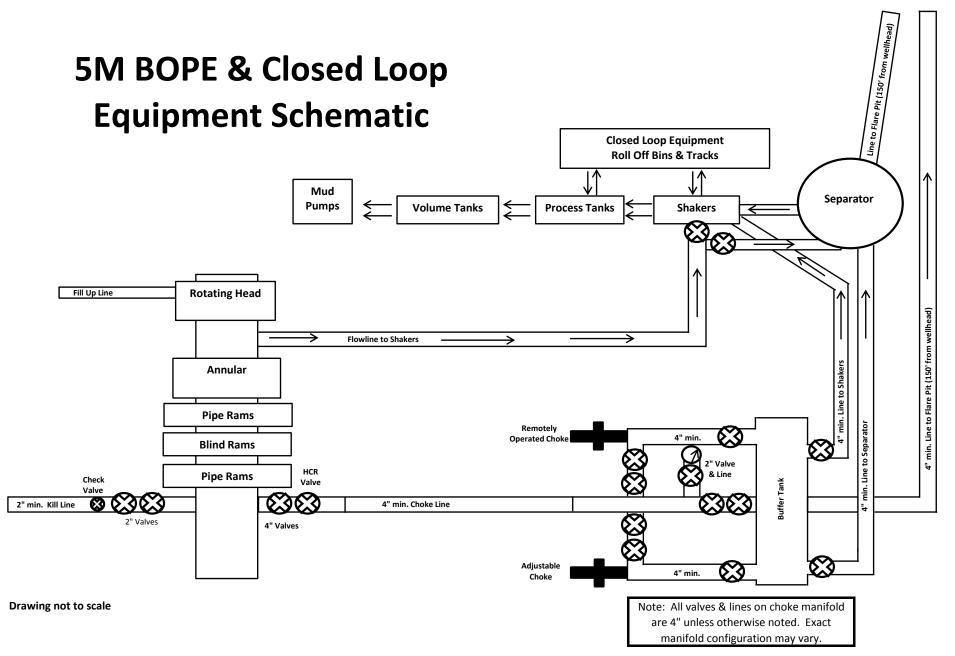
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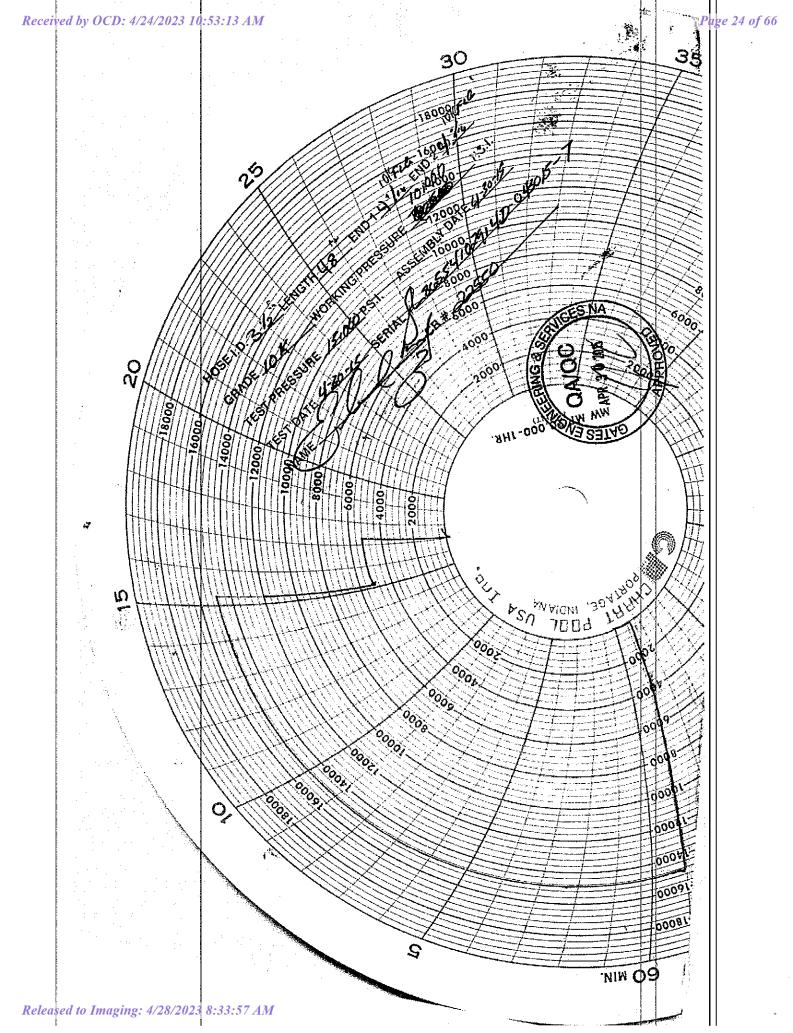
GATES E & S NORT 134 44TH STREET CORPUS CHRISTI,	·····		PHONE: 361-887-9807	
	1		FAX: 361-887-0812 EMAIL: <i>Tim.Cantu@gates.cor</i> WEB: www.gates.com	
10K C	EMENTING ASSEMB	LY PRESSURE T	TEST CERTIFICATE	
Customer :	AUSTIN DISTRIBUTING	Test Date:	4/30/2015	
Customer Ref. :	4060578	Hose Serial No.:	D-043015-7	
Invoice No. :	500506	Created By:	JUSTIN CROPPER	
.	r	10K3.548.0CK4.1/1610KFLG	SF/F1F	
Product Description:		1003.340.0004.17101010 10	of the first state	
End Fitting 1 :	4 1/16 10K FLG	End Fitting 2 :	4 1/16 10K FLG	
Gates Part No. :	4773-6290	Assembly Code :	L36554102914D-043015-7	
Working Pressure :	10,000 PSI	Test Pressure :	15,000 PSI	
the Gates Oil	field Roughneck Agreement/	Specification requirem	nose assembly has been tested to nents and passed the 15 minute est pressure 9.6.7 and per Table 9	
the Gates Oil hydrostatic tesi	field Roughneck Agreement/ t per API Spec 7K/Q1, Fifth E in accordance with this prod	Specification requirem Edition, June 2010, Te luct number. Hose bui	nents and passed the 15 minute est pressure 9.6.7 and per Table 9 rst pressure 9.6.7.2 exceeds the	
the Gates Oil hydrostatic tesi	field Roughneck Agreement/! t per API Spec 7K/Q1, Fifth E	Specification requirem Edition, June 2010, Te luct number. Hose bui	nents and passed the 15 minute est pressure 9.6.7 and per Table 9 rst pressure 9.6.7.2 exceeds the	
the Gates Oil hydrostatic test to 15,000 psi	field Roughneck Agreement/ t per API Spec 7K/Q1, Fifth E in accordance with this prod minimum of 2.5 times	Specification requirem Edition, June 2010, Te luct number. Hose bui	nents and passed the 15 minute est pressure 9.6.7 and per Table 9 rst pressure 9.6.7.2 exceeds the	
the Gates Oil hydrostatic tesi	field Roughneck Agreement/ t per API Spec 7K/Q1, Fifth E in accordance with this prod	Specification requirem Edition, June 2010, Te luct number. Hose but the working pressure Produciton: Date :	nents and passed the 15 minute est pressure 9.6.7 and per Table 9 rst pressure 9.6.7.2 exceeds the per Table 9.	
the Gates Oil hydrostatic test to 15,000 psi	field Roughneck Agreement/ t per API Spec 7K/Q1, Fifth E in accordance with this prod minimum of 2.5 times	Specification requirem Edition, June 2010, Te luct number. Hose but the working pressure Produciton:	nents and passed the 15 minute est pressure 9.6.7 and per Table 9 rst pressure 9.6.7.2 exceeds the per Table 9. PRODUCTION	
the Gates Oil hydrostatic test to 15,000 psi Quality Manager : Date :	field Roughneck Agreement/ t per API Spec 7K/Q1, Fifth E in accordance with this prod minimum of 2.5 times	Specification requirem Edition, June 2010, Te luct number. Hose but the working pressure Produciton: Date :	PRODUCTION	
the Gates Oil hydrostatic test to 15,000 psi Quality Manager : Date :	field Roughneck Agreement/ t per API Spec 7K/Q1, Fifth E in accordance with this prod minimum of 2.5 times	Specification requirem Edition, June 2010, Te luct number. Hose but the working pressure Produciton: Date :	nents and passed the 15 minute est pressure 9.6.7 and per Table 9 rst pressure 9.6.7.2 exceeds the per Table 9. PRODUCTION	
the Gates Oil hydrostatic test to 15,000 psi Quality Manager : Date :	field Roughneck Agreement/ t per API Spec 7K/Q1, Fifth E in accordance with this prod minimum of 2.5 times	Specification requirem Edition, June 2010, Te luct number. Hose but the working pressure Produciton: Date :	PRODUCTION	
the Gates Oil hydrostatic test to 15,000 psi Quality Manager : Date :	field Roughneck Agreement/ t per API Spec 7K/Q1, Fifth E in accordance with this prod minimum of 2.5 times	Specification requirem Edition, June 2010, Te luct number. Hose but the working pressure Produciton: Date :	PRODUCTION	
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the Gates Oil hydrostatic test to 15,000 psi Quality Manager : Date :	field Roughneck Agreement/ t per API Spec 7K/Q1, Fifth E in accordance with this prod minimum of 2.5 times	Specification requirem Edition, June 2010, Te luct number. Hose but the working pressure Produciton: Date :	PRODUCTION	
the Gates Oil hydrostatic test to 15,000 psi Quality Manager : Date :	field Roughneck Agreement/ t per API Spec 7K/Q1, Fifth E in accordance with this prod minimum of 2.5 times	Specification requirem Edition, June 2010, Te luct number. Hose but the working pressure Produciton: Date :	PRODUCTION	
the Gates Oil hydrostatic test to 15,000 psi Quality Manager : Date :	field Roughneck Agreement/ t per API Spec 7K/Q1, Fifth E in accordance with this prod minimum of 2.5 times	Specification requirem Edition, June 2010, Te luct number. Hose but the working pressure Produciton: Date :	PRODUCTION	



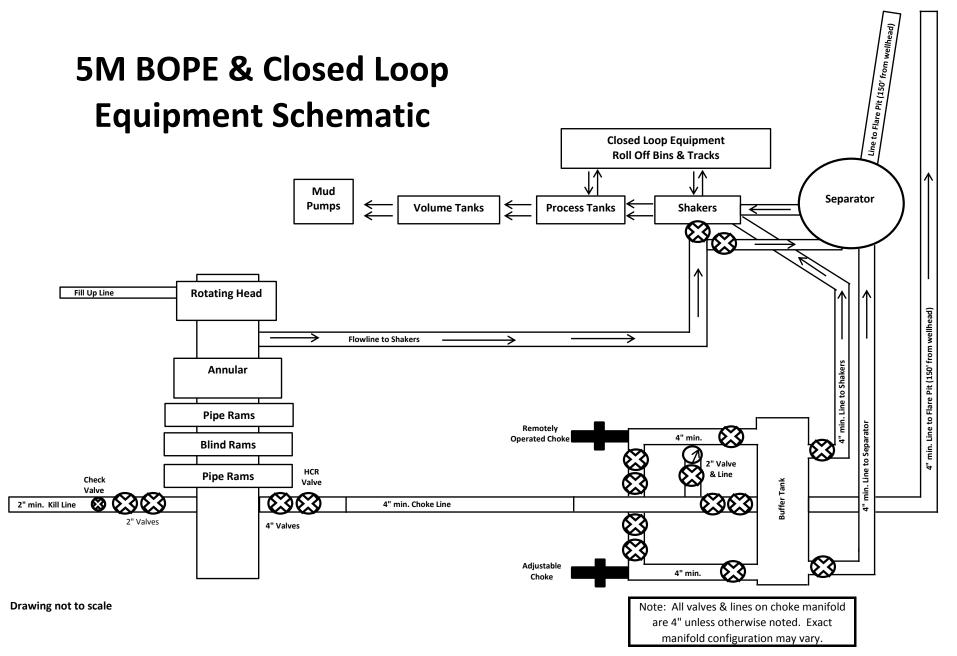
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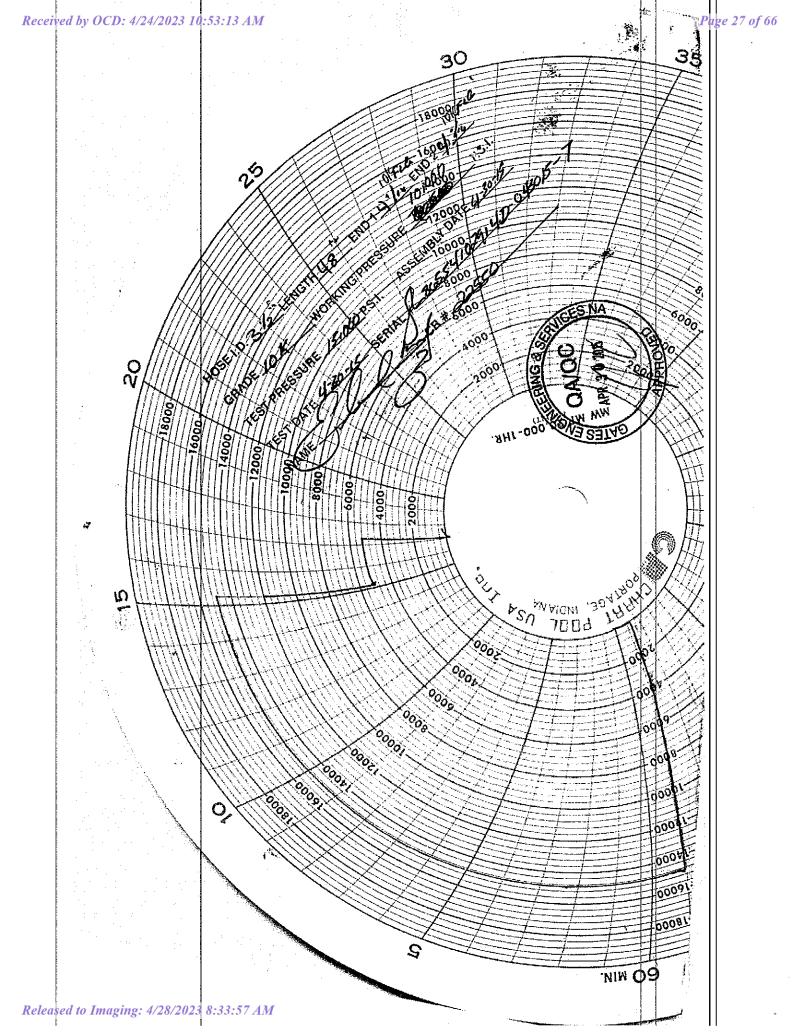
CORPUS CHRISTI,	TH AMERICA, INC. , TEXAS 78405		PHONE: 361-887-9807 FAX: 361-887-0812 EMAIL: <i>Tim.Cantu@gates.com</i> WEB: www.gates.com	
10K C	EMENTING ASSEMBI	LY PRESSURE T	EST CERTIFICATE	
Customer : Customer Ref. :	AUSTIN DISTRIBUTING 4060578 500506	Test Date: Hose Serial No.: Created By:	4/30/2015 D-043015-7 JUSTIN CROPPER	
Invoice No. :				
Product Description:		10K3.548.0CK4.1/1610KFLG	JE/E LE	
End Fitting 1 : Gates Part No. :	4 1/16 10K FLG 4773-6290	End Fitting 2 : Assembly Code :	4 1/16 10K FLG L36554102914D-043015-7	
Working Pressure :	10,000 PSI	Test Pressure :	15,000 PSI	
the Gates Oil	field Roughneck Agreement/S	Specification requirem	ose assembly has been tested to nents and passed the 15 minute st pressure 9.6.7 and per Table 9	
the Gates Oill hydrostatic test	field Roughneck Agreement/S t per API Spec 7K/Q1, Fifth Ed	Specification requirem dition, June 2010, Tes uct number. Hose bur	nents and passed the 15 minute st pressure 9.6.7 and per Table 9 rst pressure 9.6.7.2 exceeds the	
the Gates Oill hydrostatic test	field Roughneck Agreement/S t per API Spec 7K/Q1, Fifth E in accordance with this produ	Specification requirem dition, June 2010, Tes uct number. Hose bur	nents and passed the 15 minute st pressure 9.6.7 and per Table 9 rst pressure 9.6.7.2 exceeds the	
the Gates Oill hydrostatic test	field Roughneck Agreement/S t per API Spec 7K/Q1, Fifth E in accordance with this produ	Specification requirem dition, June 2010, Tes uct number. Hose bur	nents and passed the 15 minute st pressure 9.6.7 and per Table 9 rst pressure 9.6.7.2 exceeds the	
the Gates Oill hydrostatic test to 15,000 psi Quality Manager : Date :	field Roughneck Agreement/S t per API Spec 7K/Q1, Fifth Ed in accordance with this produ minimum of 2.5 times t	Specification requirem dition, June 2010, Tes uct number. Hose bur the working pressure Produciton: Date :	PRODUCTION	
the Gates Oill hydrostatic test to 15,000 psi Quality Manager : Date :	field Roughneck Agreement/S t per API Spec 7K/Q1, Fifth Ed in accordance with this produ minimum of 2.5 times t	Specification requirem dition, June 2010, Tes uct number. Hose bur the working pressure Produciton: Date :	PRODUCTION	



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RTH AMERICA, INC. PHONE: 361-887-9807 FT FAX: 361-887-0812 II, TEXAS 78405 EMAIL: <i>Tim.Cantu@gates.com</i> WEB: www.gates.com WEB: www.gates.com CEMENTING ASSEMBLY PRESSURE TEST CERTIFICATE AUSTIN DISTRIBUTING Test Date: 4060578 D-043015-7 500506 Created By: 10K3.548.0CK4.1/1610KFLGE/E LE 41/16 10K FLG End Fitting 2 : 41/16 10K FLG Assembly Code : 10,000 PSI Test Pressure :
AUSTIN DISTRIBUTING Test Date: 4/30/2015 4060578 Hose Serial No.: D-043015-7 500506 Created By: JUSTIN CROPPER 10K3.548.0CK4.1/1610KFLGE/E LE 10K3.548.0CK4.1/1610KFLGE/E LE 4 1/16 10K FLG End Fitting 2 : 4 1/16 10K FLG 4 1/16 10K FLG End Fitting 2 : 10K3.5548.0CK4.1/2015-7
4060578 Hose Serial No.: D-043015-7 500506 Created By: JUSTIN CROPPER 10K3.548.0CK4.1/1610KFLGE/E LE 10K3.548.0CK4.1/1610KFLGE/E LE 4 1/16 10K FLG End Fitting 2 : 4 1/16 10K FLG 4 1/16 10K FLG End Fitting 2 : 10K3.548.0CK4.1/1610KFLGE/E LE
4060578 Hose Serial No.: D-043015-7 500506 Created By: JUSTIN CROPPER 10K3.548.0CK4.1/1610KFLGE/E LE 10K3.548.0CK4.1/1610KFLGE/E LE 4 1/16 10K FLG End Fitting 2 : 4 1/16 10K FLG 4 1/16 10K FLG End Fitting 2 : 10K3.548.0CK4.1/1610KFLGE/E LE
10K3.548.0CK4.1/1610KFLGE/E LE 4 1/16 10K FLG End Fitting 2 : 4 1/16 10K FLG 4 1/16 10K FLG Assembly Code : L36554102914D-043015-7
4 1/16 10K FLG End Fitting 2 : 4 1/16 10K FLG 4773-6290 Assembly Code : L36554102914D-043015-7
4 1/16 10K FLG End Fitting 2 : 4 1/16 10K FLG 4773-6290 Assembly Code : L36554102914D-043015-7
4 1/16 10K FLG End Fitting 2 : 4 1/16 10K FLG 4773-6290 Assembly Code : L36554102914D-043015-7
4773-6290 Assembly Code : L36554102914D-043015-7
10,000 PSI Test Pressure : 15,000 PSI
est per API Spec 7K/Q1, Fifth Edition, June 2010, Test pressure 9.6.7 and per Table 9 si in accordance with this product number. Hose burst pressure 9.6.7.2 exceeds the minimum of 2.5 times the working pressure per Table 9.
QUALITY Produciton: PRODUCTION
/ 4/30/2015 / Date:
(Myth GMP Signature:
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GATES ENGINEERING & SERVICES NORTH AMERICA 7603 Prairie Oak Dr. Houston, TX 77086 PHONE: (281) 602 - 4119 FAX: EMAIL: Troy.Schmidt@gates.com WEB: www.gates.com

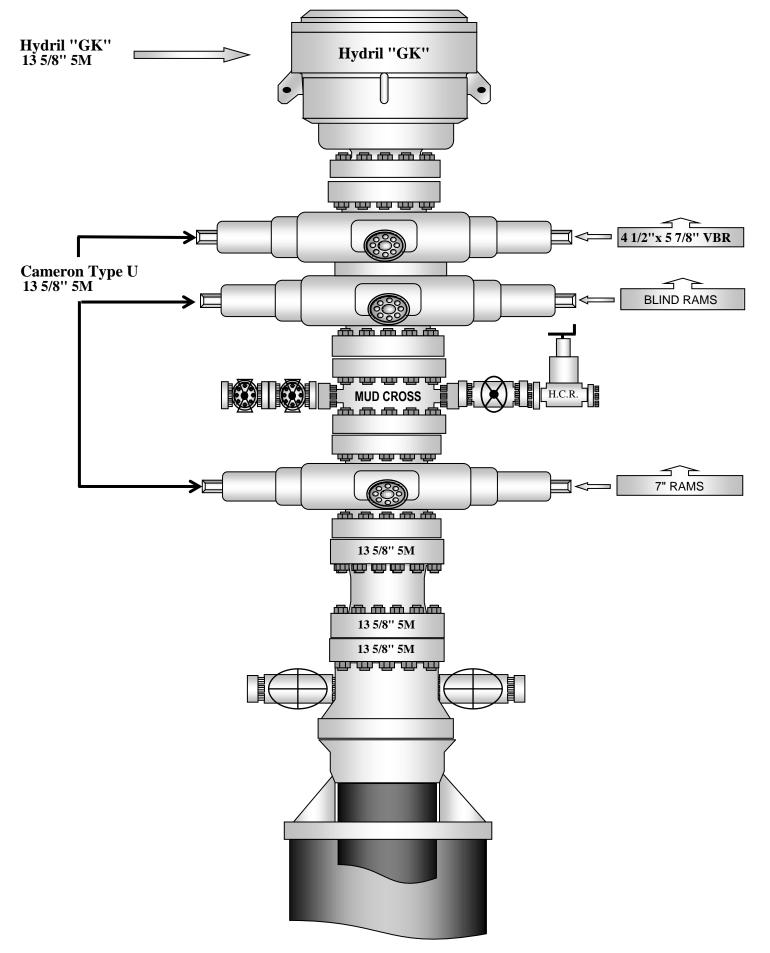
10K CHOKE & KILL ASSEMBLY PRESSURE TEST CERTIFICATE

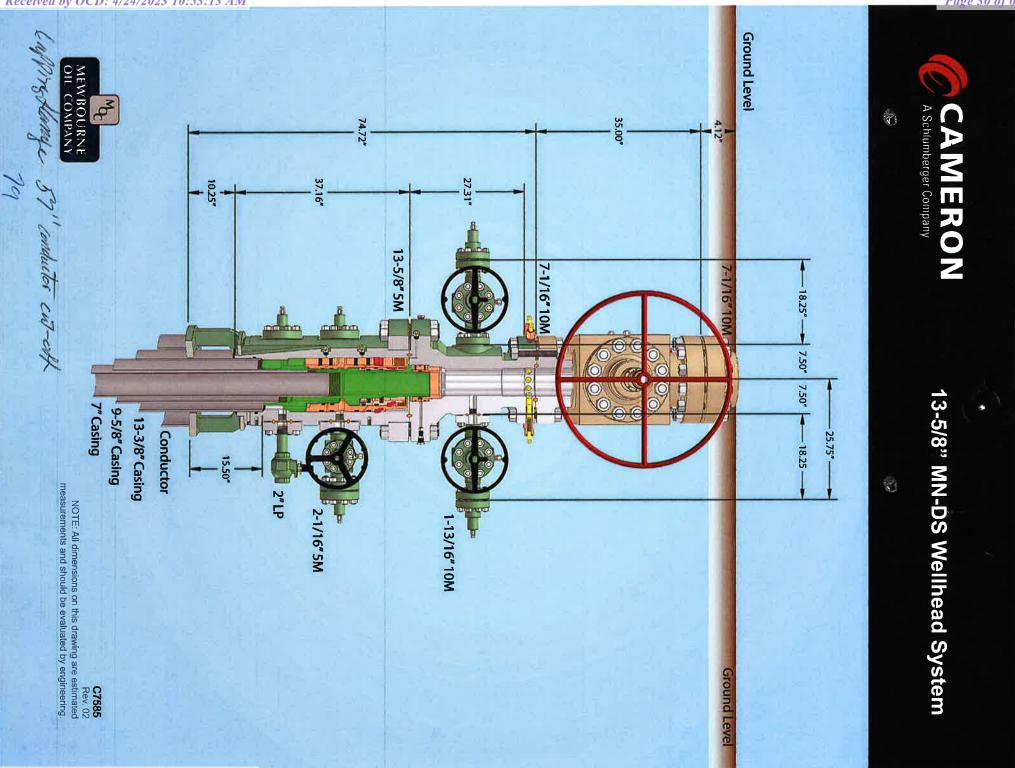
Customer:	A-7 AUSTIN INC DBA AUSTIN HOSE	Test Date:	8/20/2018
Customer Ref.:	4101901	Hose Serial No.:	H-082018-10
Invoice No.:	511956	Created By:	Moosa Naqvi
Product Description:	10KF.	3.035.0CK41/1610KFLGFXDxFLT	L/E
		and the second se	
End Fitting 1:	4 1/16 in. Fixed Flange	End Fitting 2:	4 1/16 in. Float Flange
	4 1/16 in. Fixed Flange 68503010-9721632	End Fitting 2: Assembly Code:	4 1/16 in. Float Flange L40695052218H-082018-10

Gates Engineering & Services North America certifies that the following hose assembly has successfully passed all pressure testing requirements set forth in Gates specifications: GTS-04-052 (for 5K assemblies) or GTS-04-053 (10K assemblies), which include reference to Specification API 16C (2nd Edition); sections 7.5.4, 7.5.9, and 10.8.7. A test graph will accompany this test certificate to illustrate conformity to test requirements.

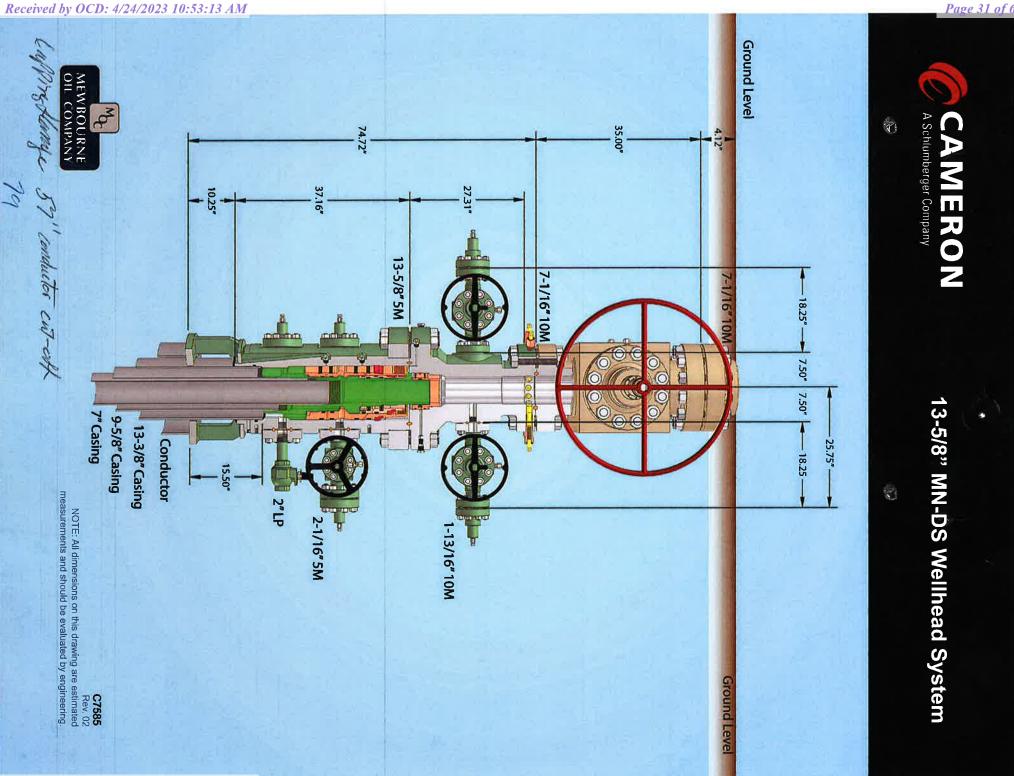
Quality:	QUALITY	Production:	PRODUCTION
Date :	8/20/2018	Date :	8/20/2018
Signature :	h n n	Signature :	TP-1
	Mossa Nym	/	Form PTC - 01 Rev.0 2



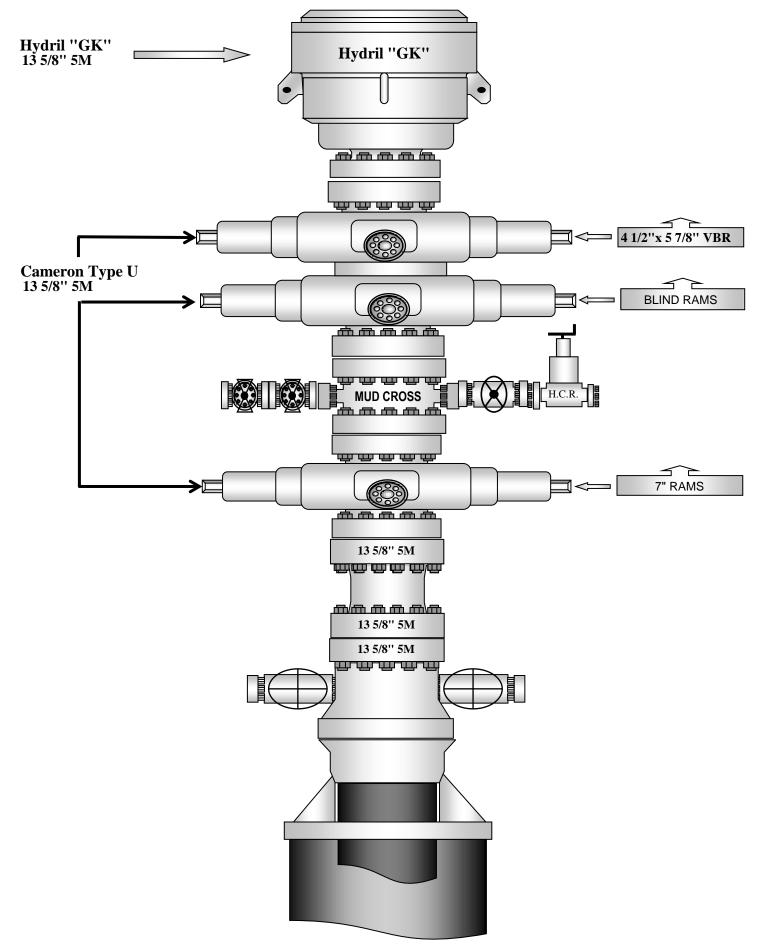


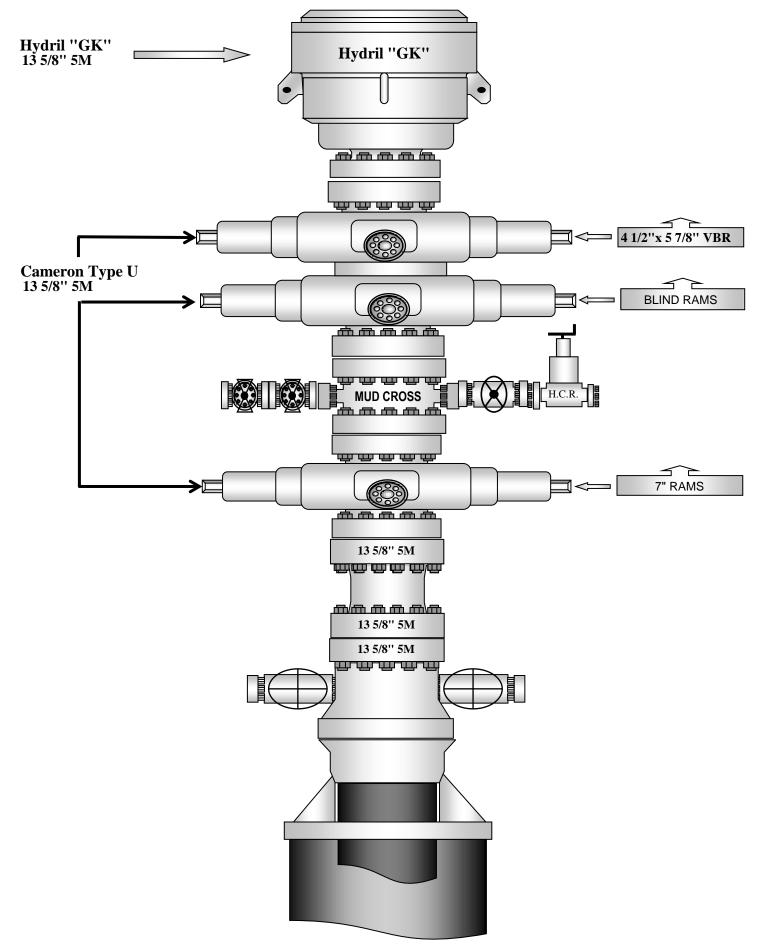


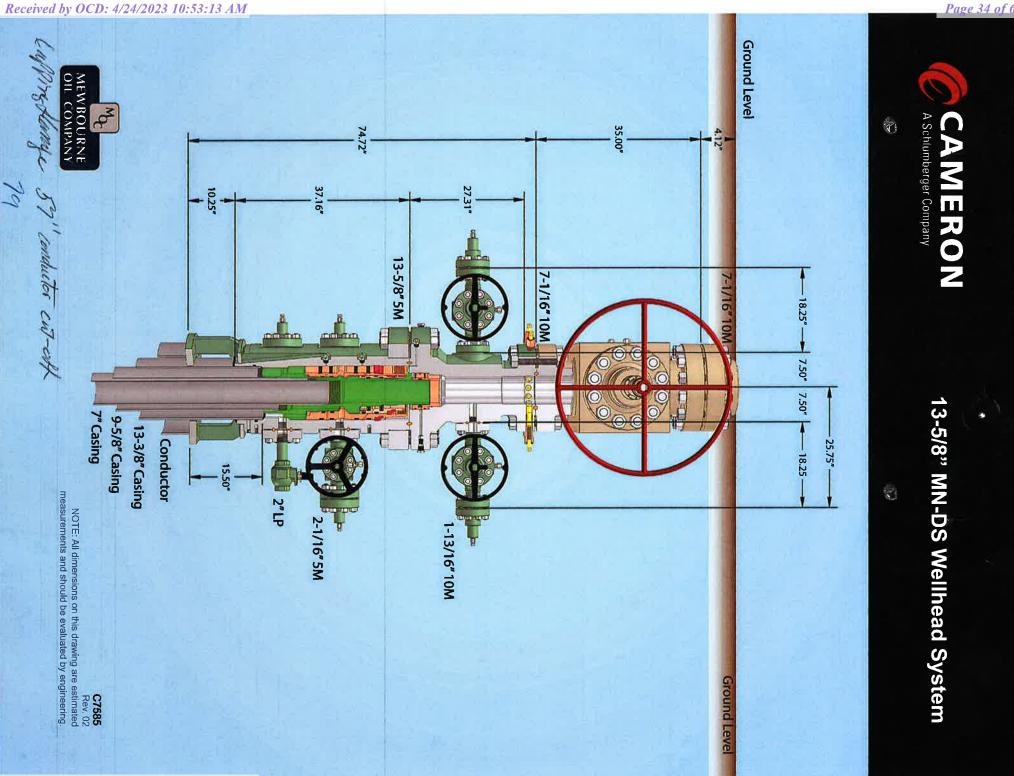
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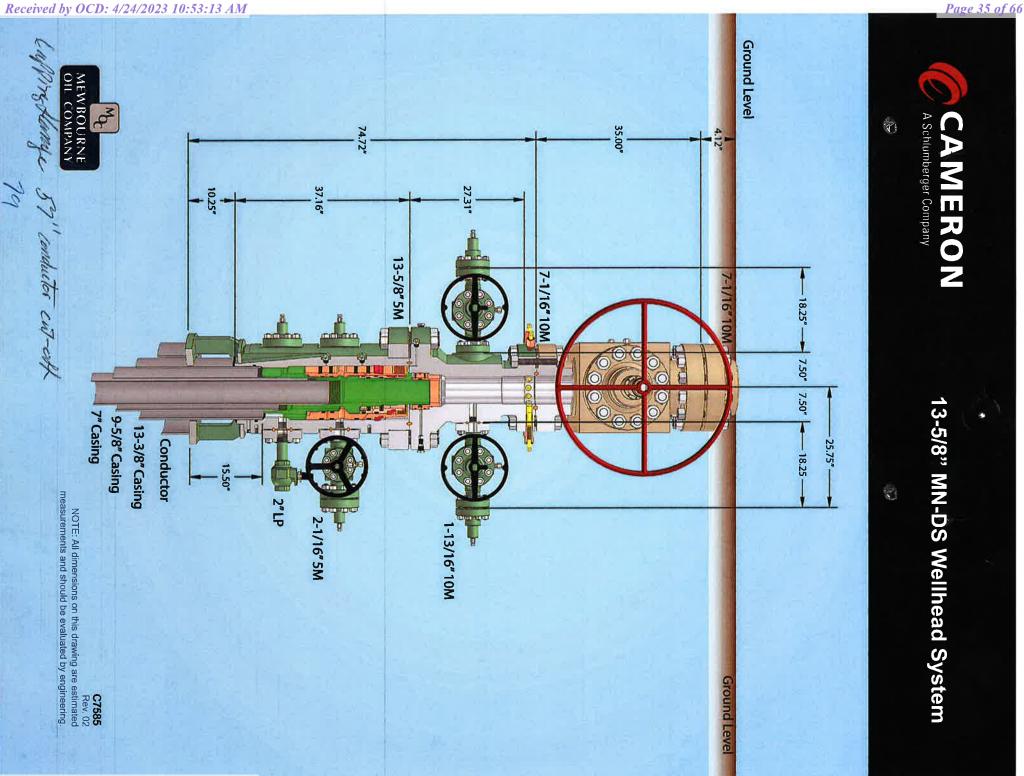
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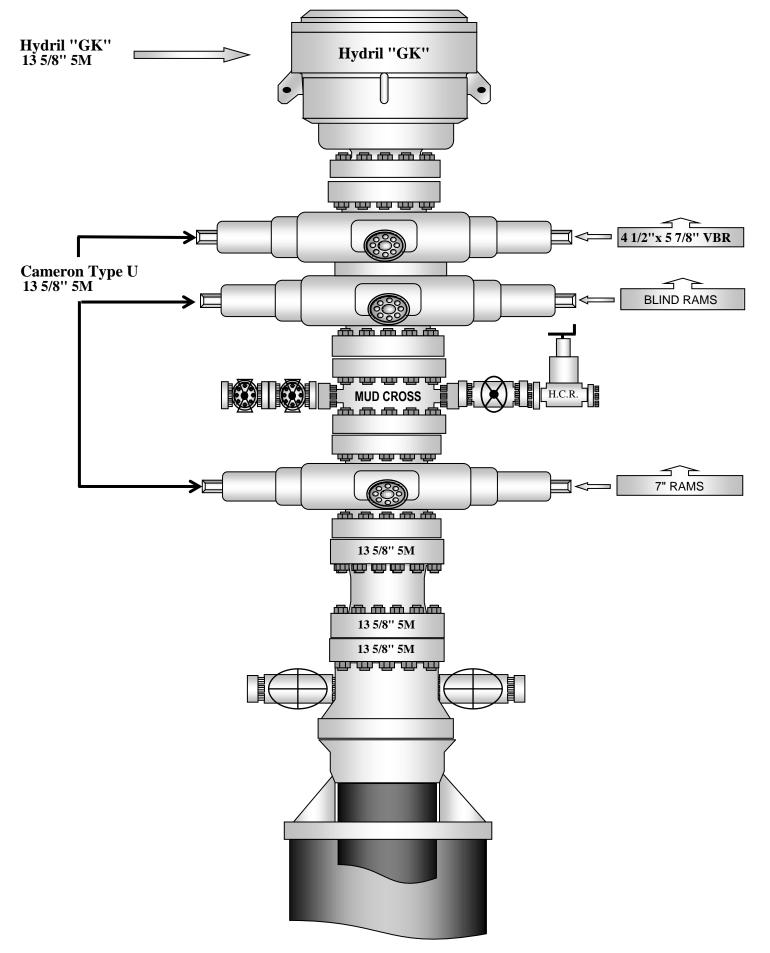


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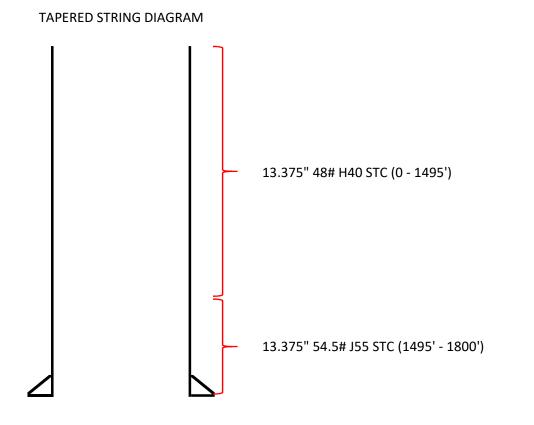


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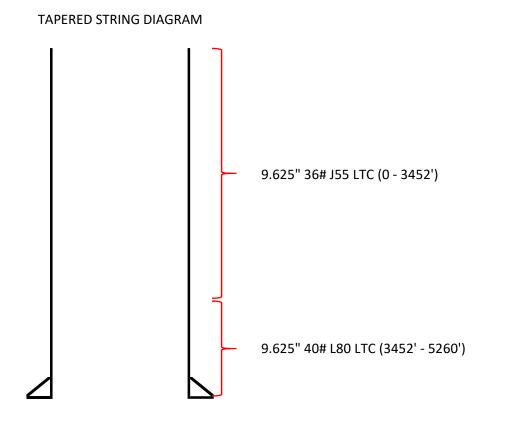


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			JOINT	
	COLLAPSE	BURST	YIELD	BODY YIELD
48#	1.125	2.530	3.710	6.240
54.5#	1.370	3.310	30.920	51.320

.



			JOINT	
	COLLAPSE	BURST	YIELD	BODY YIELD
36#	1.125	1.960	2.300	2.870
40#	1.130	2.100	10.050	12.670

Casing Program

Hole	Casing	Interval	Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	То	Size	(lbs)			Collapse	Burst	Tension	Tension
26"	0'	350'	20"	94	J55	BTC	3.40	13.80	42.61	44.98
17.5"	0'	975'	13.375"	48	H40	STC	1.73	3.88	6.88	11.56
12.25"	0'	3,000'	9.625"	36	J55	LTC	1.29	2.26	4.19	5.22
8.75"	0	8,074'	7"	29	P110	LTC	2.00	2.55	2.96	3.64
6.125"	7,174'	17,630'	4.5"	13.5	P110	LTC	2.58	3.00	2.39	2.99
				BLM Minimum Safety		1.125	1	1.6 Dry	1.6 Dry	
				Factor					1.8 Wet	1.8 Wet

	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.	Ν
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?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	Y
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd 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 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(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?	

Casing Program

Hole	Casing	Interval	Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	То	Size	(lbs)			Collapse	Burst	Tension	Tension
26"	0'	350'	20"	94	J55	BTC	3.40	13.80	42.61	44.98
17.5"	0'	975'	13.375"	48	H40	STC	1.73	3.88	6.88	11.56
12.25"	0'	3,000'	9.625"	36	J55	LTC	1.29	2.26	4.19	5.22
8.75"	0	8,074'	7"	29	P110	LTC	2.00	2.55	2.96	3.64
6.125"	7,174'	17,630'	4.5"	13.5	P110	LTC	2.58	3.00	2.39	2.99
				BLM Minimum Safety		1.125	1	1.6 Dry	1.6 Dry	
				Factor					1.8 Wet	1.8 Wet

	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.	Ν
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?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	Y
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd 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 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(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?	

Casing Program

Hole	Casing	Interval	Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	То	Size	(lbs)			Collapse	Burst	Tension	Tension
26"	0'	350'	20"	94	J55	BTC	3.40	13.80	42.61	44.98
17.5"	0'	975'	13.375"	48	H40	STC	1.73	3.88	6.88	11.56
12.25"	0'	3,000'	9.625"	36	J55	LTC	1.29	2.26	4.19	5.22
8.75"	0	8,074'	7"	29	P110	LTC	2.00	2.55	2.96	3.64
6.125"	7,174'	17,630'	4.5"	13.5	P110	LTC	2.58	3.00	2.39	2.99
				BLM Minimum Safety		1.125	1	1.6 Dry	1.6 Dry	
						Factor			1.8 Wet	1.8 Wet

	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.	Ν
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?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	Y
Is well located in SOPA but not in R-111-P? If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	N
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(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?	

Casing Program

Hole	Casing	Interval	Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	То	Size	(lbs)			Collapse	Burst	Tension	Tension
26"	0'	350'	20"	94	J55	BTC	3.40	13.80	42.61	44.98
17.5"	0'	975'	13.375"	48	H40	STC	1.73	3.88	6.88	11.56
12.25"	0'	3,000'	9.625"	36	J55	LTC	1.29	2.26	4.19	5.22
8.75"	0	8,074'	7"	29	P110	LTC	2.00	2.55	2.96	3.64
6.125"	7,174'	17,630'	4.5"	13.5	P110	LTC	2.58	3.00	2.39	2.99
				BLM Minimum Safety		1.125	1	1.6 Dry	1.6 Dry	
				Factor					1.8 Wet	1.8 Wet

	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.	Ν
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?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	Y
Is well located in SOPA but not in R-111-P? If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	N
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(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?	

Casing Program

Hole	Casing	Interval	Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	То	Size	(lbs)			Collapse	Burst	Tension	Tension
26"	0'	350'	20"	94	J55	BTC	3.40	13.80	42.61	44.98
17.5"	0'	975'	13.375"	48	H40	STC	1.73	3.88	6.88	11.56
12.25"	0'	3,000'	9.625"	36	J55	LTC	1.29	2.26	4.19	5.22
8.75"	0	8,074'	7"	29	P110	LTC	2.00	2.55	2.96	3.64
6.125"	7,174'	17,630'	4.5"	13.5	P110	LTC	2.58	3.00	2.39	2.99
				BLM Minimum Safety		1.125	1	1.6 Dry	1.6 Dry	
						Factor			1.8 Wet	1.8 Wet

	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.	Ν
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?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	Y
Is well located in SOPA but not in R-111-P? If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	N
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(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 Sig 6/5 B2EH Fed Com #1H Sec 6, T20S, R29E SHL: 1980' FNL & 80' FWL (Sec 6) BHL: 1980' FNL & 100' FEL (Sec 5)

Plan: Design #1

Standard Planning Report

11 November, 2021

Database: Company: Project: Site: Well: Well: Wellbore: Design:	Eddy Sig 6/ Sec 6	ourne Oil Comp County, New M 5 B2EH Fed Co , T20S, R29E 1980' FNL & 10	exico NAD 83 om #1H		TVD Refer MD Refere North Refe	ence:		Site Sig 6/5 B2EH Fed Com #1H WELL @ 3317.0usft (Original Well Elev) WELL @ 3317.0usft (Original Well Elev) Grid Minimum Curvature		
Project	Eddy C	County, New Me	xico NAD 83							
Map System: Geo Datum: Map Zone:	North Ar	e Plane 1983 nerican Datum xico Eastern Zo			System Dat	tum:	Gr	ound Level		
Site	Sig 6/5	B2EH Fed Cor	n #1H							
Site Position: From: Position Uncerta	Ma ainty:	р 0.0 г	Northir Easting Isft Slot Ra	g:	606,		Latitude: Longitude:			32.6047013 -104.1215868
Well	Sec 6,	T20S, R29E								
Well Position Position Uncerta Grid Convergen	•	0.	0 usft Eas	rthing: sting: Ilhead Elevat	ion:	583,786.00 606,542.00 3,317.0	usft Lon	tude: gitude: und Level:		32.6047013 -104.1215866 3,290.0 ust
Wellbore	BHL:	1980' FNL & 100	0' FEL (Sec 5)							
Magnetics	Мо	odel Name	Sample	Date	Declina (°)	tion	Dip A (°	-	Field Str (nT	-
Design Audit Notes: Version: Vertical Section	Design :		Phase epth From (TV (usft) 0.0		PROTOTYPE +N/-S (usft) 0.0	+E. (us	On Depth: /-W sft) .0	Dire	0.0 ection (°) 0.10	
Plan Survey Too Depth Fro (usft) 1	m Dept (us	h To	11/11/2021 (Wellbore) #1 (BHL: 1980'	FNL & 100	Tool Name		Remarks			
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 3,000.0 3,048.6 7,126.0 7,174.6 8,062.8 17,630.9	0.00 0.00 0.97 0.97 0.00 88.79 88.79	0.00 0.00 270.00 270.00 0.00 90.10 90.10	0.0 3,000.0 3,048.6 7,125.4 7,174.0 7,747.0 7,949.0	0.0 0.0 0.0 0.0 -0.9 -17.0	0.0 0.0 -0.4 -69.6 -70.0 491.0 10,057.0	0.00 0.00 2.00 2.00 2.00 10.00 0.00	0.00 0.00 2.00 0.00 -2.00 10.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00	90.10	DP: 1980' FNL & 10 HL: 1980' FNL & 10

11/11/2021 5:11:28PM

Database:	Hobbs	Local Co-ordinate Reference:	Site Sig 6/5 B2EH Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3317.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 3317.0usft (Original Well Elev)
Site:	Sig 6/5 B2EH Fed Com #1H	North Reference:	Grid
Well:	Sec 6, T20S, R29E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 1980' FNL & 100' FEL (Sec 5)		
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: 1980'	FNL & 80' FWL (Sec 6)							
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0								0.00	
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	270.00	3,048.6	0.0	-0.4	-0.4	2.00	2.00	0.00
3,100.0	0.97	270.00	3,100.0	0.0	-1.3	-0.4	0.00	0.00	0.00
3,200.0	0.97	270.00	3,200.0	0.0	-3.0	-3.0	0.00	0.00	0.00
3,200.0	0.97	270.00	3,300.0	0.0	-4.7	-3.0	0.00	0.00	0.00
3,400.0	0.97	270.00	3,399.9	0.0	-6.4	-6.4	0.00	0.00	0.00
3,500.0	0.97	270.00	3,499.9	0.0	-8.1	-8.1	0.00	0.00	0.00
3,600.0	0.97	270.00	3,599.9	0.0	-9.8	-9.8	0.00	0.00	0.00
3,700.0	0.97	270.00	3,699.9	0.0	-11.5	-11.5	0.00	0.00	0.00
3,800.0	0.97	270.00	3,799.9	0.0	-13.2	-13.2	0.00	0.00	0.00
3,900.0	0.97	270.00	3,899.9	0.0	-14.9	-14.9	0.00	0.00	0.00
4,000.0	0.97	270.00	3,999.9	0.0	-14.9	-14.9	0.00	0.00	0.00
4,100.0	0.97	270.00	4,099.8	0.0	-18.2	-18.2	0.00	0.00	0.00
4,100.0	0.97	270.00	4,199.8	0.0	-10.2	-10.2	0.00	0.00	0.00
4,200.0	0.97	270.00	4,199.8	0.0	-19.9	-19.9	0.00	0.00	0.00
4,400.0	0.97	270.00	4,399.8	0.0	-23.3	-23.3	0.00	0.00	0.00
4,500.0	0.97	270.00	4,499.8	0.0	-25.0	-25.0	0.00	0.00	0.00
4,600.0	0.97	270.00	4,599.8	0.0	-26.7	-26.7	0.00	0.00	0.00
4,700.0	0.97	270.00	4,699.8	0.0	-28.4	-28.4	0.00	0.00	0.00
4,800.0	0.97	270.00	4,799.7	0.0	-30.1	-30.1	0.00	0.00	0.00
4,900.0	0.97	270.00	4,899.7	0.0	-31.8	-31.8	0.00	0.00	0.00
4,900.0	0.97	270.00	4,899.7 4,999.7	0.0	-31.6	-31.6	0.00	0.00	0.00
5,000.0	0.97	270.00	4,999.7 5,099.7	0.0	-35.5	-35.5	0.00		0.00
J. 100.0	0.97	210.00	5,099.7	0.0	-35.2	-30.2	0.00	0.00	0.00

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COMPASS 5000.16 Build 97

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Database:	Hobbs	Local Co-ordinate Reference:	Site Sig 6/5 B2EH Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3317.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 3317.0usft (Original Well Elev)
Site:	Sig 6/5 B2EH Fed Com #1H	North Reference:	Grid
Well:	Sec 6, T20S, R29E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 1980' FNL & 100' FEL (Sec 5)		
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	0.97	270.00	5,199.7	0.0	-36.9	-36.9	0.00	0.00	0.00
5,300.0	0.97	270.00	5,299.7	0.0	-38.6	-38.6	0.00	0.00	0.00
5,400.0	0.97	270.00	5,399.7	0.0	-40.3	-40.3	0.00	0.00	0.00
5,500.0	0.97	270.00	5,499.6	0.0	-42.0	-42.0	0.00	0.00	0.00
5,600.0	0.97	270.00	5,599.6	0.0	-43.7	-43.7	0.00	0.00	0.00
5,700.0	0.97	270.00	5,699.6	0.0	-45.4	-45.4	0.00	0.00	0.00
5,800.0	0.97	270.00	5,799.6	0.0	-47.1	-47.1	0.00	0.00	0.00
5,900.0	0.97	270.00	5.899.6	0.0	-48.8	-48.8	0.00	0.00	0.00
6,000.0	0.97	270.00	5,999.6	0.0	-50.5	-50.5	0.00	0.00	0.00
6,100.0	0.97	270.00	6,099.6	0.0	-52.2	-52.2	0.00	0.00	0.00
6,200.0	0.97	270.00	6,199.5	0.0	-53.9	-53.9	0.00	0.00	0.00
6,300.0	0.97	270.00	6,299.5	0.0	-55.6	-55.6	0.00	0.00	0.00
6,400.0	0.97	270.00	6,399.5	0.0	-57.3	-57.3	0.00	0.00	0.00
6,500.0	0.97	270.00	6,499.5	0.0	-59.0	-59.0	0.00	0.00	0.00
6,600.0	0.97	270.00	6,599.5	0.0	-60.7	-60.7	0.00	0.00	0.00
6,700.0	0.97	270.00	6,699.5	0.0	-62.4	-62.4	0.00	0.00	0.00
6,800.0	0.97	270.00	6,799.5	0.0	-64.1	-64.1	0.00	0.00	0.00
6,900.0	0.97	270.00	6,899.4	0.0	-65.8	-65.8	0.00	0.00	0.00
7,000.0	0.97	270.00	6,999.4	0.0	-67.5	-67.5	0.00	0.00	0.00
7,100.0	0.97	270.00	7,099.4	0.0	-69.1	-69.1	0.00	0.00	0.00
7,126.0	0.97	270.00	7,125.4	0.0	-69.6	-69.6	0.00	0.00	0.00
7,174.6	0.00	0.00	7,174.0	0.0	-70.0	-70.0	2.00	-2.00	0.00
KOP: 1980'	FNL & 10' FWL (Sec 6)							
7,200.0	2.54	90.10	7,199.4	0.0	-69.4	-69.4	10.00	10.00	0.00
7,250.0	7.54	90.10	7,249.2	0.0	-65.0	-65.0	10.00	10.00	0.00
7,300.0	12.54	90.10	7,298.4	0.0	-56.3	-56.3	10.00	10.00	0.00
7,350.0	17.54	90.10	7,346.7	0.0	-43.4	-43.4	10.00	10.00	0.00
7,350.0	22.53	90.10	7,393.6	-0.1				10.00	0.00
7,400.0	22.00	90.10	7,393.0	-0.1	-26.2	-26.2	10.00	10.00	0.00
7,450.0	27.53	90.10	7,438.9	-0.1	-5.1	-5.1	10.00	10.00	0.00
7,500.0	32.53	90.10	7,482.2	-0.2	19.9	19.9	10.00	10.00	0.00
7,500.1	32.53	90.10	7,482.3	-0.2	20.0	20.0	0.00	0.00	0.00
FTP: 1980' I	FNL & 100' FWL (Sec 6)							
7,550.0	37.53	90.10	7,523.1	-0.2	48.6	48.6	10.03	10.03	0.00
7,600.0	42.53	90.10	7,561.4	-0.3	80.8	80.8	10.00	10.00	0.00
7,650.0	47.53	90.10	7,596.7	-0.3	116.1	116.1	10.00	10.00	0.00
7,700.0	52.53	90.10	7,628.8	-0.4	154.4	154.4	10.00	10.00	0.00
7,750.0	57.52	90.10	7,657.5	-0.4	195.4	195.4	10.00	10.00	0.00
7,800.0	62.52	90.10	7,682.5	-0.5	238.7	238.7	10.00	10.00	0.00
7,850.0	67.52	90.10	7,703.6	-0.6	284.0	284.0	10.00	10.00	0.00
7,900.0	72.52	90.10	7.720.7	-0.7	331.0	331.0	10.00	10.00	0.00
,			, -						
7,950.0	77.52	90.10	7,733.6	-0.8	379.3	379.3	10.00	10.00	0.00
8,000.0	82.52	90.10	7,742.2	-0.8	428.5	428.5	10.00	10.00	0.00
8,050.0	87.51	90.10	7,746.6	-0.9	478.3	478.3	10.00	10.00	0.00
8,062.8	88.79	90.10	7,747.0	-0.9	491.0	491.0	10.00	10.00	0.00
8,074.7	88.79	90.10	7,747.3	-1.0	503.0	503.0	0.00	0.00	0.00
LP: 1980' FI	NL & 583' FWL (S		-						
8,100.0	88.79	90.10	7,747.8	-1.0	528.3	528.3	0.00	0.00	0.00
8,200.0	88.79	90.10	7,749.9	-1.2	628.2	628.2	0.00	0.00	0.00
8,300.0	88.79	90.10	7,752.0	-1.2	728.2	728.2	0.00	0.00	0.00
8,400.0	88.79	90.10	7,754.1	-1.5	828.2	828.2	0.00	0.00	0.00
8,500.0	88.79	90.10	7,756.2	-1.7	928.2	928.2	0.00	0.00	0.00
8,600.0	88.79	90.10	7,758.3	-1.8	1,028.1	1,028.2	0.00	0.00	0.00
8,700.0	88.79	90.10	7,760.5	-2.0	1,128.1	1,128.1	0.00	0.00	0.00

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Database:	Hobbs	Local Co-ordinate Reference:	Site Sig 6/5 B2EH Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3317.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 3317.0usft (Original Well Elev)
Site:	Sig 6/5 B2EH Fed Com #1H	North Reference:	Grid
Well:	Sec 6, T20S, R29E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 1980' FNL & 100' FEL (Sec 5)		
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)
8,800.0	88.79	90.10	7,762.6	-2.2	1,228.1	1,228.1	0.00	0.00	0.00
8,900.0	88.79	90.10	7,764.7	-2.3	1,328.1	1,328.1	0.00	0.00	0.00
9,000.0	88.79	90.10	7,766.8	-2.5	1,428.1	1,428.1	0.00	0.00	0.00
9,100.0	88.79	90.10	7,768.9	-2.7	1,528.0	1,528.0	0.00	0.00	0.00
9,200.0	88.79	90.10	7,771.0	-2.9	1,628.0	1,628.0	0.00	0.00	0.00
9,300.0	88.79	90.10	7,773.1	-3.0	1,728.0	1,728.0	0.00	0.00	0.00
9,400.0	88.79	90.10	7,775.2	-3.2	1,828.0	1,828.0	0.00	0.00	0.00
9,500.0	88.79	90.10	7,777.3	-3.4	1,927.9	1,927.9	0.00	0.00	0.00
9,600.0	88.79	90.10	7,779.5	-3.5	2,027.9	2,027.9	0.00	0.00	0.00
9,700.0	88.79	90.10	7,781.6	-3.7	2,127.9	2,127.9	0.00	0.00	0.00
9,800.0	88.79	90.10	7,783.7	-3.9	2,227.9	2,227.9	0.00	0.00	0.00
9,900.0	88.79	90.10	7,785.8	-4.0	2,327.9	2,327.9	0.00	0.00	0.00
10,000.0	88.79	90.10	7,787.9	-4.2	2,427.8	2,427.8	0.00	0.00	0.00
10,100.0	88.79	90.10	7,790.0	-4.4	2,527.8	2,527.8	0.00	0.00	0.00
10,200.0	88.79	90.10	7,792.1	-4.5	2,627.8	2,627.8	0.00	0.00	0.00
10,300.0	88.79	90.10	7,794.2	-4.7	2,727.8	2,727.8	0.00	0.00	0.00
10,400.0	88.79	90.10	7,796.3	-4.9	2,827.7	2,827.7	0.00	0.00	0.00
,									
10,500.0	88.79	90.10	7,798.5	-5.0	2,927.7	2,927.7	0.00	0.00	0.00
10,600.0	88.79	90.10	7,800.6	-5.2	3,027.7	3,027.7	0.00	0.00	0.00
10,700.0	88.79	90.10	7,802.7	-5.4	3,127.7	3,127.7	0.00	0.00	0.00
10,800.0	88.79	90.10	7,804.8	-5.5	3,227.7	3,227.7	0.00	0.00	0.00
10,900.0	88.79	90.10	7,806.9	-5.7	3,327.6	3,327.6	0.00	0.00	0.00
11,000.0	88.79	90.10	7,809.0	-5.9	3,427.6	3,427.6	0.00	0.00	0.00
11,100.0	88.79	90.10	7,811.1	-6.0	3,527.6	3,527.6	0.00	0.00	0.00
11,200.0	88.79	90.10	7,813.2	-6.2	3,627.6	3,627.6	0.00	0.00	0.00
11,300.0	88.79	90.10	7,815.3	-6.4	3,727.5	3,727.5	0.00	0.00	0.00
11,400.0	88.79	90.10	7,817.5	-6.5	3,827.5	3,827.5	0.00	0.00	0.00
11,500.0	88.79	90.10	7,819.6	-6.7	3,927.5	3,927.5	0.00	0.00	0.00
11,600.0	88.79	90.10	7,821.7	-6.9	4,027.5	4,027.5	0.00	0.00	0.00
11,700.0	88.79	90.10	7,823.8	-0.9	4,027.5	4,027.5	0.00	0.00	0.00
11,800.0	88.79	90.10	7,825.9	-7.2	4,127.3	4,127.3	0.00	0.00	0.00
11,900.0	88.79	90.10	7,828.0	-7.2	4,327.4	4,327.4	0.00	0.00	0.00
12,000.0	88.79	90.10	7,830.1	-7.5	4,427.4	4,427.4	0.00	0.00	0.00
12,100.0	88.79	90.10	7,832.2	-7.7	4,527.4	4,527.4	0.00	0.00	0.00
12,200.0	88.79	90.10	7,834.3	-7.9	4,627.3	4,627.3	0.00	0.00	0.00
12,300.0	88.79	90.10	7,836.5	-8.1	4,727.3	4,727.3	0.00	0.00	0.00
12,400.0	88.79	90.10	7,838.6	-8.2	4,827.3	4,827.3	0.00	0.00	0.00
12,433.7	88.79	90.10	7,839.3	-8.3	4,861.0	4,861.0	0.00	0.00	0.00
,	FNL & 0' FWL (S		,						
12,500.0	88.79	90.10	7,840.7	-8.4	4,927.3	4,927.3	0.00	0.00	0.00
12,600.0	88.79	90.10	7,842.8	-8.6	5,027.3	5,027.3	0.00	0.00	0.00
12,700.0	88.79	90.10	7,844.9	-8.7	5,127.2	5,127.2	0.00	0.00	0.00
12,800.0	88.79	90.10	7,847.0	-8.9	5,227.2	5,227.2	0.00	0.00	0.00
			,						
12,900.0	88.79	90.10	7,849.1	-9.1	5,327.2	5,327.2	0.00	0.00	0.00
13,000.0	88.79	90.10	7,851.2	-9.2	5,427.2	5,427.2	0.00	0.00	0.00
13,100.0	88.79	90.10	7,853.3	-9.4	5,527.1	5,527.1	0.00	0.00	0.00
13,200.0	88.79	90.10	7,855.5	-9.6	5,627.1	5,627.1	0.00	0.00	0.00
13,300.0	88.79	90.10	7,857.6	-9.7	5,727.1	5,727.1	0.00	0.00	0.00
13,400.0	88.79	90.10	7,859.7	-9.9	5,827.1	5,827.1	0.00	0.00	0.00
13,500.0	88.79	90.10	7,861.8	-10.1	5,927.0	5,927.1	0.00	0.00	0.00
13,600.0	88.79	90.10	7,863.9	-10.2	6,027.0	6,027.0	0.00	0.00	0.00
13,700.0	88.79	90.10	7,866.0	-10.4	6,127.0	6,127.0	0.00	0.00	0.00
13,800.0	88.79	90.10	7,868.1	-10.6	6,227.0	6,227.0	0.00	0.00	0.00
			•						

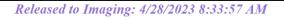
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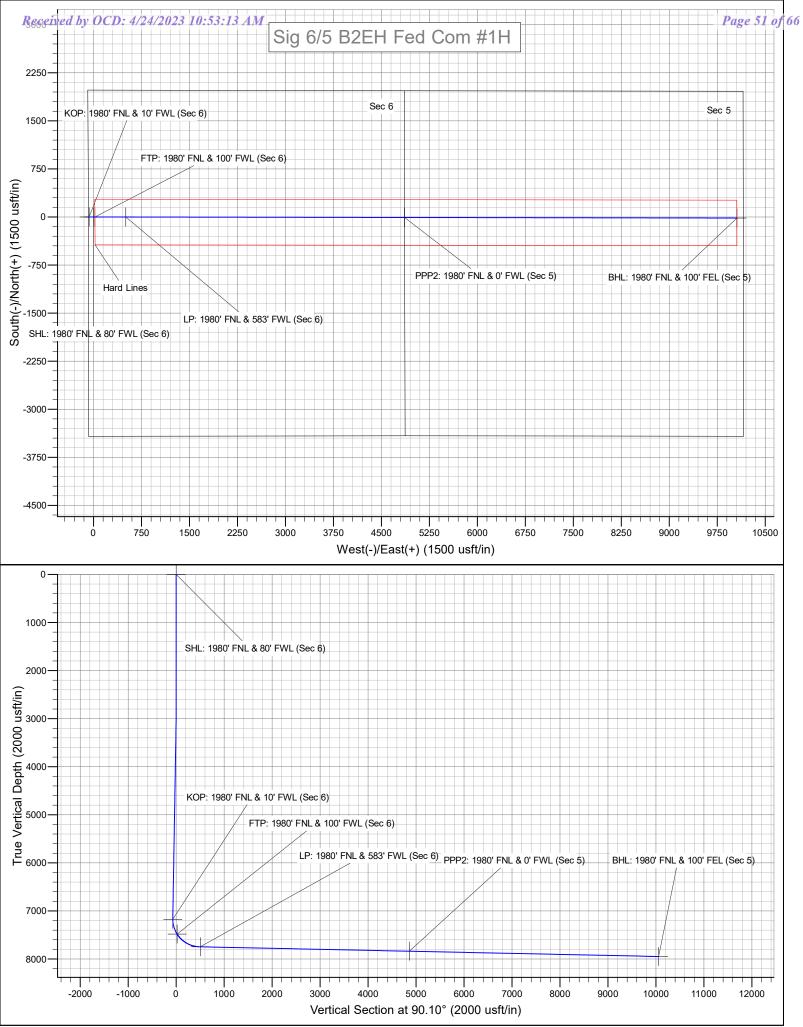
Hobbs	Local Co-ordinate Reference:	Site Sig 6/5 B2EH Fed Com #1H
Mewbourne Oil Company	TVD Reference:	WELL @ 3317.0usft (Original Well Elev)
Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 3317.0usft (Original Well Elev)
Sig 6/5 B2EH Fed Com #1H	North Reference:	Grid
Sec 6, T20S, R29E	Survey Calculation Method:	Minimum Curvature
BHL: 1980' FNL & 100' FEL (Sec 5)		
Design #1		
	Mewbourne Oil Company Eddy County, New Mexico NAD 83 Sig 6/5 B2EH Fed Com #1H Sec 6, T20S, R29E 3HL: 1980' FNL & 100' FEL (Sec 5)	Mewbourne Oil Company TVD Reference: Eddy County, New Mexico NAD 83 MD Reference: Sig 6/5 B2EH Fed Com #1H North Reference: Sec 6, T20S, R29E Survey Calculation Method: 3HL: 1980' FNL & 100' FEL (Sec 5) Survey Calculation Method:

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	88.79	90.10	7,870.2	-10.7	6,327.0	6,327.0	0.00	0.00	0.00
14,000.0	88.79	90.10	7,872.3	-10.9	6,426.9	6,426.9	0.00	0.00	0.00
14,100.0	88.79	90.10	7,874.5	-11.1	6,526.9	6,526.9	0.00	0.00	0.00
14,200.0	88.79	90.10	7,876.6	-11.2	6,626.9	6,626.9	0.00	0.00	0.00
14,300.0	88.79	90.10	7,878.7	-11.4	6,726.9	6,726.9	0.00	0.00	0.00
14,400.0	88.79	90.10	7,880.8	-11.6	6,826.8	6,826.9	0.00	0.00	0.00
14,500.0	88.79	90.10	7,882.9	-11.7	6,926.8	6,926.8	0.00	0.00	0.00
14,600.0	88.79	90.10	7,885.0	-11.9	7,026.8	7,026.8	0.00	0.00	0.00
14,700.0	88.79	90.10	7,887.1	-12.1	7,126.8	7,126.8	0.00	0.00	0.00
14,800.0	88.79	90.10	7,889.2	-12.2	7,226.8	7,226.8	0.00	0.00	0.00
14,900.0	88.79	90.10	7,891.3	-12.4	7,326.7	7,326.7	0.00	0.00	0.00
15,000.0	88.79	90.10	7,893.5	-12.6	7,426.7	7,426.7	0.00	0.00	0.00
15,100.0	88.79	90.10	7,895.6	-12.8	7,526.7	7,526.7	0.00	0.00	0.00
15,200.0	88.79	90.10	7,897.7	-12.9	7,626.7	7,626.7	0.00	0.00	0.00
15,300.0	88.79	90.10	7,899.8	-13.1	7,726.6	7,726.7	0.00	0.00	0.00
15,400.0	88.79	90.10	7,901.9	-13.3	7,826.6	7,826.6	0.00	0.00	0.00
15,500.0	88.79	90.10	7,904.0	-13.4	7,926.6	7,926.6	0.00	0.00	0.00
15,600.0	88.79	90.10	7,906.1	-13.6	8,026.6	8,026.6	0.00	0.00	0.00
15,700.0	88.79	90.10	7,908.2	-13.8	8,126.6	8,126.6	0.00	0.00	0.00
15,800.0	88.79	90.10	7,910.3	-13.9	8,226.5	8,226.5	0.00	0.00	0.00
15,900.0	88.79	90.10	7,912.5	-14.1	8,326.5	8,326.5	0.00	0.00	0.00
16,000.0	88.79	90.10	7,914.6	-14.3	8,426.5	8,426.5	0.00	0.00	0.00
16,100.0	88.79	90.10	7,916.7	-14.4	8,526.5	8,526.5	0.00	0.00	0.00
16,200.0	88.79	90.10	7,918.8	-14.6	8,626.4	8,626.5	0.00	0.00	0.00
16,300.0	88.79	90.10	7,920.9	-14.8	8,726.4	8,726.4	0.00	0.00	0.00
16,400.0	88.79	90.10	7,923.0	-14.9	8,826.4	8,826.4	0.00	0.00	0.00
16,500.0	88.79	90.10	7,925.1	-15.1	8,926.4	8,926.4	0.00	0.00	0.00
16,600.0	88.79	90.10	7,927.2	-15.3	9,026.4	9,026.4	0.00	0.00	0.00
16,700.0	88.79	90.10	7,929.3	-15.4	9,126.3	9,126.3	0.00	0.00	0.00
16,800.0	88.79	90.10	7,931.5	-15.6	9,226.3	9,226.3	0.00	0.00	0.00
16,900.0	88.79	90.10	7,933.6	-15.8	9,326.3	9,326.3	0.00	0.00	0.00
17,000.0	88.79	90.10	7,935.7	-15.9	9,426.3	9,426.3	0.00	0.00	0.00
17,100.0	88.79	90.10	7,937.8	-16.1	9,526.2	9,526.3	0.00	0.00	0.00
17,200.0	88.79	90.10	7,939.9	-16.3	9,626.2	9,626.2	0.00	0.00	0.00
17,300.0	88.79	90.10	7,942.0	-16.4	9,726.2	9,726.2	0.00	0.00	0.00
17,400.0	88.79	90.10	7,944.1	-16.6	9,826.2	9,826.2	0.00	0.00	0.00
17,500.0	88.79	90.10	7,946.2	-16.8	9,926.2	9,926.2	0.00	0.00	0.00
17,600.0	88.79	90.10	7,948.3	-16.9	10,026.1	10,026.1	0.00	0.00	0.00
17,630.9	88.79	90.10	7,949.0	-17.0	10,057.0	10,057.0	0.00	0.00	0.00

Database: Company: Project: Site: Well: Wellbore: Design:	Hobbs Mewbourne Oil Company Eddy County, New Mexico NAD 83 Sig 6/5 B2EH Fed Com #1H Sec 6, T20S, R29E BHL: 1980' FNL & 100' FEL (Sec 5) Design #1			TVD Refere MD Referen North Refer	nce:	WELL @ 3	B2EH Fed Com #1H 317.0usft (Original Well Elev) 317.0usft (Original Well Elev) urvature		
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: 1980' FNL & 80' F - plan hits target ce - Point		0.00	0.0	0.0	0.0	583,786.00	606,542.00	32.6047013	-104.1215868
KOP: 1980' FNL & 10' F - plan hits target ce - Point		0.00	7,174.0	0.0	-70.0	583,786.00	606,472.00	32.6047017	-104.1218142
FTP: 1980' FNL & 100' - plan hits target ce - Point		0.00	7,482.3	-0.2	20.0	583,785.85	606,562.00	32.6047008	-104.1215219
LP: 1980' FNL & 583' F - plan hits target ce - Point		0.00	7,747.3	-1.0	503.0	583,785.04	607,045.00	32.6046959	-104.1199534
PPP2: 1980' FNL & 0' F - plan hits target ce - Point		0.00	7,839.3	-8.3	4,861.0	583,777.73	611,403.00	32.6046509	-104.1058013
BHL: 1980' FNL & 100' - plan hits target ce - Point		0.00	7,949.0	-17.0	10,057.0	583,769.00	616,599.00	32.6045953	-104.0889279





Intent	Х	As Drilled	
API #			

Operator Name:	Property Name:	Well Number
Mewbourne Oil Co.	Sig 6/5 B2EH Fed Com	1H

Kick Off Point (KOP)

UL E	Section 6	Township 20S	Range 29E	Lot	Feet 1980	From N/S N	Feet 10	From E/W	County EDDY
Latitu 32.6	^{de} 604701	17			Longitude -104.12	Longitude -104.1218142			NAD 83

First Take Point (FTP)

UL E	Section 6	Township 20S	Range 29E	Lot	Feet 1980	From N/S N	Feet 100	From E/W	County EDDY
Latitu 32.6	^{de} 604700	08			Longitude	15219			NAD 83

Last Take Point (LTP)

UL H	Section 5	Township 20S	Range 29E	Lot	Feet 1980	From N/S N	Feet 100	From E/W E	County EDDY
Latitu	de				Longitud	le			NAD
32.6	604595	53			-104.	0889279)		83

Is this well the defining well for the Horizontal Spacing Unit? N

Is this well an infill well?

Y	

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

 API #

 Operator Name:

 Mewbourne Oil Company

 Sig 6/5 B3EH Fed Com

 1H

KZ 06/29/2018

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	MEWBOURNE OIL COMPANY
LEASE NO.:	NMNM013237
WELL NAME & NO.:	SIG 6-5 B2EH FED COM 1H
SURFACE HOLE FOOTAGE:	1980'/N & 80'/W
BOTTOM HOLE FOOTAGE	1980'/N & 100'/E
LOCATION:	SECTION 6, T20S, R29E, NMP
COUNTY:	Eddy County, New Mexico

COA

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

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the Wildcat pool. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 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

Casing Design:

- 1. The **20** inch surface casing shall be set at approximately **350** feet (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after

completing the cement job.

- b. Wait on cement (WOC) time for a primary cement job will be a minimum of $\underline{\mathbf{8}}$ <u>hours</u> or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The **13-3/8** inch first intermediate casing shall be set at approximately **975** feet. The minimum required fill of cement behind the **13-3/8** inch first intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash. Excess cement calculates to 12%, additional cement might be required.
 - In <u>High Cave/Karst Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
 - In <u>Capitan Reef Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
 - Special Capitan Reef requirements. If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:
 (Use this for 3 string wells in the Capitan Reef, if 4 string well ensure FW based mud used across the capitan interval)
 - Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
 - Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.

3. The **9-5/8** inch second intermediate casing shall be set at approximately **3,000** feet. The minimum required fill of cement behind the **9-5/8** inch second intermediate casing is:

Option 1 (Single Stage):

• Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash. Excess cement calculates to -23%, additional cement might be required.

Option 2:

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

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office.
 Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
 Excess cement calculates to 2%, additional cement might be required.
- 4. The minimum required fill of cement behind the 7 inch production casing is:

Option 1 (Single Stage):

Cement should tie-back at least 50 feet on top of Capitan Reef top. If cement does not circulate see B.1.a, c-d above.
 Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
 Excess cement calculates to -7%, additional cement might be required.

Option 2:

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

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
 - Cement should tie-back at least 50 feet on top of Capitan Reef top. If cement does not circulate see B.1.a, c-d above.
 Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
 Excess cement calculates to 20%, additional cement might be required.
- 5. The minimum required fill of cement behind the 4-1/2 inch production liner is:
 - Cement should tie-back 100 feet into the previous casing. Operator shall provide method of verification.
 Excess cement calculates to 23%, additional cement might be required.

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.
 - 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.

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e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, 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. <u>When the Communitization Agreement number is known, it shall also be on the sign.</u>

GENERAL REQUIREMENTS

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

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

Eddy County

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

- Lea County Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981
- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

- a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
- b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- <u>Wait on cement (WOC) for Potash Areas:</u> 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, 2) until cement has been in place at least <u>24 hours</u>. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. <u>Wait on cement (WOC) for Water Basin:</u> 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 <u>8 hours</u>.

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WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
 - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

OTA01242023

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. <u>Well Control Equipment</u>
 - 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. <u>Protective Equipment for Essential Personnel</u>

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. <u>Hydrogen Sulfide Protection and Monitoring Equipment</u>

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. <u>Visual Warning Systems</u>

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 Office911 or 575-887-7551Ambulance Service911 or 575-885-2111Carlsbad Fire Dept911 or 575-885-2111Loco Hills Volunteer Fire Dept.911 or 575-677-3266Closest Medical Facility - Columbia Medical Center of Carlsbad575-492-5000

Mewbourne Oil Company	Hobbs District Office Fax 2 nd Fax	575-393-5905 575-397-6252 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: SIG 6/5 B2EH FED COM

Well Number: 1H

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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 Disposal location ownership: PRIVATE FACILITY Disposal type description:

Disposal location description: Waste Management facility in Carlsbad.

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

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

Reserve pit depth (ft.)

Reserve pit volume (cu. yd.)

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

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO Are you storing cuttings on location? N Description of cuttings location Cuttings area length (ft.) Cuttings area depth (ft.) Cuttings area depth (ft.) Is at least 50% of the cuttings area in cut? WCuttings area liner Cuttings area liner *Received by OCD: 4/24/2023 10:53:13 AM*

Operator Name: MEWBOURNE OIL COMPANY

Well Name: SIG 6/5 B2EH FED COM

Well Number: 1H

Section 8 - Ancillary

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities

Comments:

Section 9 - Well Site

Well Site Layout Diagram:

SIG6_5B2EHFedCom1H_wellsitelayout_20211102143825.pdf

Comments:

Section 10 - Plans for Surface

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: SIG 6/5 B2EH & B3EH Fed Com wells

Multiple Well Pad Number: 2

Recontouring

Drainage/Erosion control construction: None

Drainage/Erosion control reclamation: None

Well pad proposed disturbance (acres): 3.86	Well pad interim reclamation (acres): 1.05	Well pad long term disturbance (acres): 2.81
Road proposed disturbance (acres): 0.49	Road interim reclamation (acres): 0	Road long term disturbance (acres): 0
Powerline proposed disturbance (acres): 0	Powerline interim reclamation (acres):	Powerline long term disturbance (acres): 0
Pipeline proposed disturbance (acres): 0.49	Pipeline interim reclamation (acres): 0	Pipeline long term disturbance (acres): 0
Other proposed disturbance (acres): 0	Other interim reclamation (acres): 0	Other long term disturbance (acres): 0
Total proposed disturbance: 4.84	Total interim reclamation: 1.05	Total long term disturbance: 2.81

Disturbance Comments: In areas to be heavily disturbed, the top 6 inches of soil material, will be stripped and stockpiled on the perimeter of the well location to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils. Contaminated soil will not be stockpiled, but properly treated and handled prior to topsoil salvaging.

Reconstruction method: The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.

Topsoil redistribution: Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used.

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

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CONDITIONS

Action 210094

CONDITIONS

Operator:	OGRID:
MEWBOURNE OIL CO	14744
P.O. Box 5270	Action Number:
Hobbs, NM 88241	210094
	Action Type:
	[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
john.harrison	Notify OCD 24 hours prior to casing & cement	4/28/2023
john.harrison	Will require a File As Drilled C-102 and a Directional Survey with the C-104	4/28/2023
john.harrison	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	4/28/2023
john.harrison	Cement is required to circulate on both surface and intermediate1 strings of casing	4/28/2023
john.harrison	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	4/28/2023
john.harrison	Will require a name change complying with OCD policy prior to putting the well into production.	4/28/2023