

Form 3160-3
(June 2015)FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER 1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other 1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		5. Lease Serial No. NMNM0033312A 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No. BLACK SHEEP 4/33 B3PA FED COM [329752] 1H 9. API Well No. 30-025-48864
2. Name of Operator MEWBOURNE OIL COMPANY [14744] 3a. Address P O BOX 5270, HOBBS, NM 88241 3b. Phone No. (include area code) (575) 393-5905		10. Field and Pool, or Exploratory [28430] GRAMA RIDGE/BONE SPRING 11. Sec., T. R. M. or Blk. and Survey or Area SEC 4/T22S/R34E/NMP
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SESE / 294 FSL / 432 FEL / LAT 32.4142861 / LONG -103.4677733 At proposed prod. zone NENE / 100 FNL / 600 FEL / LAT 32.4423808 / LONG -103.4682526		12. County or Parish LEA 13. State NM
14. Distance in miles and direction from nearest town or post office* 20 miles		15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 185 feet 16. 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 11407 feet / 21562 feet 20. BLM/BIA Bond No. in file FED: NM1693		21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3627 feet 22. Approximate date work will start* 01/06/2020 23. Estimated duration 60 days
24. Attachments		

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

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

25. Signature (Electronic Submission)	Name (Printed/Typed) BRADLEY BISHOP / Ph: (575) 393-5905	Date 11/14/2019
Title Regulatory		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575) 234-5959	Date 04/12/2021
Title Assistant Field Manager Lands & Minerals		
Office Carlsbad Field Office		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

GCP Rec 04/22/2021

SL

(Continued on page 2)



Approval Date: 04/12/2021

KZ
05/13/2021

*(Instructions on page 2)

District I

1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III

1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

Form C-102

Revised August 1, 2011

Submit one copy to appropriate

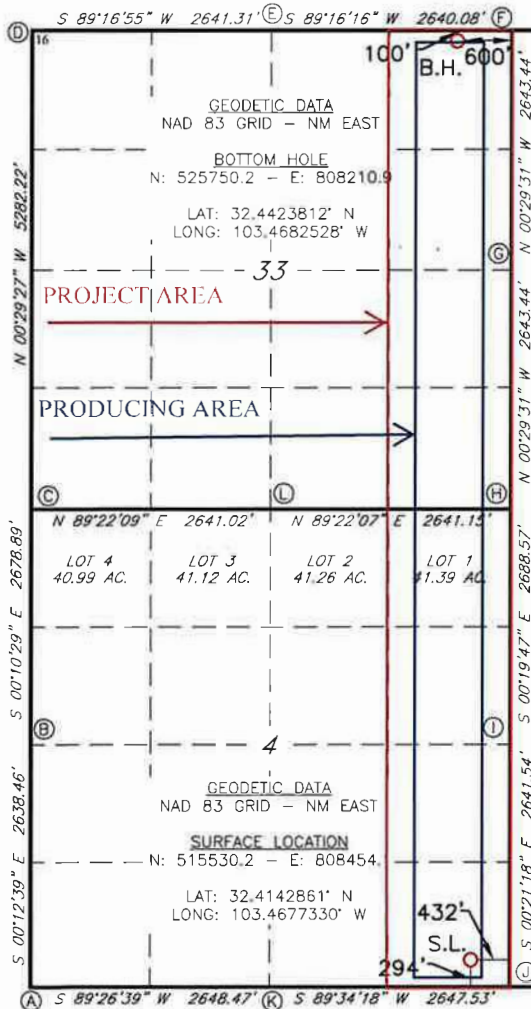
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-48864		² Pool Code 28430		³ Pool Name GRAMA RIDGE; BONE SPRING	
⁴ Property Code 329752		⁵ Property Name BLACK SHEEP 4/33 B3PA FED COM			⁶ Well Number 1H
⁷ OGRID NO. 14744		⁸ Operator Name MEWBOURNE OIL COMPANY			⁹ Elevation 3599'
¹⁰ Surface Location					
UL or lot no. P	Section 4	Township 22S	Range 34E	Lot Idn 294	Feet from the 294
		North/South line SOUTH		Feet From the 432	East/West line EAST
				County LEA	
¹¹ Bottom Hole Location If Different From Surface					
UL or lot no. A	Section 33	Township 21S	Range 34E	Lot Idn 100	Feet from the 100
		North/South line NORTH		Feet from the 600	East/West line EAST
				County LEA	
¹² Dedicated Acres 320		¹³ Joint or Infill		¹⁴ Consolidation Code	
				¹⁵ Order No.	

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.

¹⁷ OPERATOR CERTIFICATION

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

Signature: *Bradley Bishop* Date: **11-5-19**
Printed Name: **BRADLEY BISHOP**
E-mail Address: **BBISHOP@MEWBOURNE.COM**

¹⁸ SURVEYOR CERTIFICATION

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

3-25-2019

Date of Survey

Signature and Seal of Professional Surveyor

19680

Certificate Number

REV:10-25-19 NAME/BHL

LS19060680R

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

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

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

Date: 11/5/19

☒ Original

Operator & OGRID No.: Mewbourne Oil Company - 14744

☐ Amended - Reason for Amendment: _____

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

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

Well(s)/Production Facility – Name of facility

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

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Black Sheep 4/33 B3PA Fed Com #1H	30-025-48864	P-4-22S-34E	294' FSL & 432' FEL	0	NA	ONLINE AFTER FRAC

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to Western and will be connected to Western low/high pressure gathering system located in EDDY County, New Mexico. It will require 3,400 ' of pipeline to connect the facility to low/high pressure gathering system. Mewbourne Oil Company provides (periodically) to Western a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Mewbourne Oil Company and Western have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Western Processing Plant located in Sec. 36, Blk. 58 T1S, Culberson County, Texas. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

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

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

Alternatives to Reduce Flaring

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

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



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

Drilling Plan Data Report
04/13/2021

APD ID: 10400050707

Submission Date: 11/14/2019

Highlighted data reflects the most recent changes

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B3PA FED COM

Well Type: OIL WELL

Well Number: 1H

Well Work Type: Drill

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
582246	UNKNOWN	3627	28	28	OTHER : Top Soil	NONE	N
582251	RUSTLER	1922	1705	1705	ANHYDRITE, DOLOMITE	USEABLE WATER	N
582250	TOP SALT	1437	2190	2190	SALT	NONE	N
582247	BOTTOM SALT	-178	3805	3805	SALT	NONE	N
582254	YATES	-428	4055	4055	SANDSTONE	NATURAL GAS, OIL	N
582255	CAPITAN REEF	-758	4385	4385	DOLOMITE, LIMESTONE	USEABLE WATER	N
582252	DELAWARE	-1928	5555	5555	LIMESTONE	NATURAL GAS, OIL	N
582245	BONE SPRINGS	-4813	8440	8440	LIMESTONE, SHALE	NATURAL GAS, OIL	N
582248	BONE SPRING 1ST	-5886	9513	9513	SANDSTONE	NATURAL GAS, OIL	N
582249	BONE SPRING 2ND	-6442	10069	10069	SANDSTONE	NATURAL GAS, OIL	N
586755	BONE SPRING 3RD	-7326	10953	10953	SANDSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 21562

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

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B3PA FED COM

Well Number: 1H

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

Choke Diagram Attachment:

- Black_Sheep_4_33_B3PA_Fed_Com_1H_5M_BOPE_Choke_Diagram_20191113081927.pdf
- Black_Sheep_4_33_B3PA_Fed_Com_1H_Flex_Line_Specs_API_16C_20200729140706.pdf

BOP Diagram Attachment:

- Black_Sheep_4_33_B3PA_Fed_Com_1H_Multi_Bowl_WH_20191113081940.pdf
- Black_Sheep_4_33_B3PA_Fed_Com_1H_5M_BOPE_Schematic_20191113081946.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1755	0	1755	3627	1872	1755	J-55	54.5	ST&C	1.41	3.4	DRY	5.37	DRY	8.92
2	INTERMEDIATE	12.25	9.625	NEW	API	Y	0	3452	0	3452	3624	175	3452	J-55	36	LT&C	1.13	1.96	DRY	2.33	DRY	2.9
3	INTERMEDIATE	12.25	9.625	NEW	API	Y	3452	4393	3452	4393	175	-766	941	J-55	40	LT&C	1.13	1.73	DRY	7.44	DRY	9.01
4	INTERMEDIATE	12.25	9.625	NEW	API	Y	4393	5282	4393	5282	-766	-1655	889	L-80	40	LT&C	1.13	2.08	DRY	20.44	DRY	25.76
5	INTERMEDIATE	12.25	9.625	NEW	API	Y	5282	5500	5282	5500	-1655	-1873	218	HCL-80	40	LT&C	1.48	2.01	DRY	95.99	DRY	99.99
6	PRODUCTION	8.75	7.0	NEW	API	N	0	11300	0	11194	3635	-7567	11300	P-110	26	LT&C	1.41	1.8	DRY	2.36	DRY	2.83
7	LINER	6.125	4.5	NEW	API	N	10782	21562	10771	11407	-7144	-7780	10780	P-110	13.5	LT&C	1.8	2.09	DRY	2.32	DRY	2.9

Casing Attachments

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B3PA FED COM

Well Number: 1H

Casing Attachments

Casing ID: 1String Type: SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Black_Sheep_4_B2MD_Fed_Com_2H_Surface_Csg_Tapered_String_20181018150949.pdf

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B3PA_Fed_Com_1H_Csg_assumptions_20191113090046.pdf

Casing ID: 2String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Black_Sheep_4_33_B3PA_Fed_Com_1H_Intermediate_Csg_Tapered_String_20191113084403.pdf

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B3PA_Fed_Com_1H_Csg_assumptions_20191113090100.pdf

Casing ID: 3String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Black_Sheep_4_33_B3PA_Fed_Com_1H_Intermediate_Csg_Tapered_String_20191113084924.pdf

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B3PA_Fed_Com_1H_Csg_assumptions_20191113090130.pdf

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B3PA FED COM

Well Number: 1H

Casing Attachments

Casing ID: 4

String Type:INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Black_Sheep_4_33_B3PA_Fed_Com_1H_Intermediate_Csg_Tapered_String_20191113085039.pdf

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B3PA_Fed_Com_1H_Csg_assumptions_20191113090144.pdf

Casing ID: 5

String Type:INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Black_Sheep_4_33_B3PA_Fed_Com_1H_Intermediate_Csg_Tapered_String_20191113085457.pdf

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B3PA_Fed_Com_1H_Csg_assumptions_20191113090158.pdf

Casing ID: 6

String Type:PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B3PA_Fed_Com_1H_Csg_assumptions_20191113090110.pdf

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B3PA FED COM

Well Number: 1H

Casing Attachments

Casing ID: 7 String Type:LINER

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B3PA_Fed_Com_1H_Csg_assumptions_20191113090119.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Lead		0	0	0	0	0	0	0	0	0

INTERMEDIATE	Lead		0	0	0	0	0	0	0	0	0
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INTERMEDIATE	Lead		0	0	0	0	0	0	0	0	0
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SURFACE	Lead		0	1562	1030	2.12	12.5	2184	100	Class C	Salt, Gel, Extender, LCM
SURFACE	Tail		1562	1755	200	1.34	14.8	268	100	Class C	Retarder
INTERMEDIATE	Lead	4250	0	3929	780	2.12	12.5	1654	25	Class C	Salt, Gel, Extender, LCM
INTERMEDIATE	Tail		3929	4250	100	1.34	14.8	134	25	Class C	Retarder
INTERMEDIATE	Lead	4250	4250	4815	110	2.12	12.5	233	25	Class C	Salt, Gel Extender, LCM

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B3PA FED COMWell Number: 1H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Tail		4815	5500	500	1.34	14.8	268	25	Class C	Retarder
PRODUCTION	Lead		4335	7249	400	2.12	12.5	848	25	Class C	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail		7249	11300	400	1.18	15.6	472	25	Class H	Retarder, Fluid Loss, Defoamer
LINER	Lead		10782	21562	430	2.97	11.2	1277	25	Class C	Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-Settling Agent

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

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

Describe the mud monitoring system utilized: Visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1755	SPUD MUD	8.6	8.8							
1755	5500	SALT SATURATED	10	10							
5500	11194	WATER-BASED MUD	8.6	9.5							

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B3PA FED COM

Well Number: 1H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1119 4	1140 7	OIL-BASED MUD	9	10							

Section 6 - Test, Logging, Coring

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

Will run GR/CNL from KOP (10782') to surface

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

COMPENSATED NEUTRON LOG,DIRECTIONAL SURVEY,GAMMA RAY LOG,MEASUREMENT WHILE DRILLING,MUD LOG/GEOLOGIC LITHOLOGY LOG,MUD LOG/GEOLOGICAL LITHOLOGY LOG,

Coring operation description for the well:

None

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5932

Anticipated Surface Pressure: 3422

Anticipated Bottom Hole Temperature(F): 140

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Black_Sheep_4_33_B3PA_Fed_Com_1H_H2S_Plan_20191113105113.pdf

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B3PA FED COM

Well Number: 1H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Black_Sheep_4_33_B3PA_Fed_Com_1H_Dir_plan_20191113105140.pdf

Black_Sheep_4_33_B3PA_Fed_Com_1H_Dir_plot_20191113105140.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Black_Sheep_4_33_B3PA_Fed_Com_1H_Add_Info_20191113105342.pdf

Black_Sheep_4_33_B3PA_Fed_Com_1H_Drlg_Program_20191113105715.docx

Other Variance attachment:

Mewbourne Oil Company, Black Sheep 4/33 B3PA Fed Com #1H
Sec 4, T22S, R34E
SL: 294' FSL & 432' FEL
BHL: 100' FNL & 600' FEL

Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
	From	To								
17.5"	0'	1755'	13.375"	54.5	J55	STC	1.41	3.90	5.37	8.92
12.25"	0'	3452'	9.625"	36	J55	LTC	1.13	1.96	2.33	2.90
12.25"	3452'	4393'	9.625"	40	J55	LTC	1.13	1.73	7.44	9.01
12.25"	4393'	5282'	9.625"	40	L80	LTC	1.13	2.09	20.44	25.76
12.25"	5282'	5500'	9.625"	40	HCL80	LTC	1.48	2.01	95.99	105.05
8.75"	0'	11300'	7"	26	HCP110	LTC	1.41	1.80	2.36	2.83
6.125"	10782'	21562'	4.5"	13.5	P110	LTC	1.80	2.09	2.32	2.90
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

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

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	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.	N
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?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Mewbourne Oil Company, Black Sheep 4/33 B3PA Fed Com #1H
Sec 4, T22S, R34E
SL: 294' FSL & 432' FEL
BHL: 100' FNL & 600' FEL

Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
	From	To								
17.5"	0'	1755'	13.375"	54.5	J55	STC	1.41	3.90	5.37	8.92
12.25"	0'	3452'	9.625"	36	J55	LTC	1.13	1.96	2.33	2.90
12.25"	3452'	4393'	9.625"	40	J55	LTC	1.13	1.73	7.44	9.01
12.25"	4393'	5282'	9.625"	40	L80	LTC	1.13	2.09	20.44	25.76
12.25"	5282'	5500'	9.625"	40	HCL80	LTC	1.48	2.01	95.99	105.05
8.75"	0'	11300'	7"	26	HCP110	LTC	1.41	1.80	2.36	2.83
6.125"	10782'	21562'	4.5"	13.5	P110	LTC	1.80	2.09	2.32	2.90
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

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

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	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.	N
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?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Mewbourne Oil Company, Black Sheep 4/33 B3PA Fed Com #1H
Sec 4, T22S, R34E
SL: 294' FSL & 432' FEL
BHL: 100' FNL & 600' FEL

Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
	From	To								
17.5"	0'	1755'	13.375"	54.5	J55	STC	1.41	3.90	5.37	8.92
12.25"	0'	3452'	9.625"	36	J55	LTC	1.13	1.96	2.33	2.90
12.25"	3452'	4393'	9.625"	40	J55	LTC	1.13	1.73	7.44	9.01
12.25"	4393'	5282'	9.625"	40	L80	LTC	1.13	2.09	20.44	25.76
12.25"	5282'	5500'	9.625"	40	HCL80	LTC	1.48	2.01	95.99	105.05
8.75"	0'	11300'	7"	26	HCP110	LTC	1.41	1.80	2.36	2.83
6.125"	10782'	21562'	4.5"	13.5	P110	LTC	1.80	2.09	2.32	2.90
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

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

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	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.	N
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?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Mewbourne Oil Company, Black Sheep 4/33 B3PA Fed Com #1H
Sec 4, T22S, R34E
SL: 294' FSL & 432' FEL
BHL: 100' FNL & 600' FEL

Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
	From	To								
17.5"	0'	1755'	13.375"	54.5	J55	STC	1.41	3.90	5.37	8.92
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12.25"	3452'	4393'	9.625"	40	J55	LTC	1.13	1.73	7.44	9.01
12.25"	4393'	5282'	9.625"	40	L80	LTC	1.13	2.09	20.44	25.76
12.25"	5282'	5500'	9.625"	40	HCL80	LTC	1.48	2.01	95.99	105.05
8.75"	0'	11300'	7"	26	HCP110	LTC	1.41	1.80	2.36	2.83
6.125"	10782'	21562'	4.5"	13.5	P110	LTC	1.80	2.09	2.32	2.90
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h
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	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	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.	N
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?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Mewbourne Oil Company, Black Sheep 4/33 B3PA Fed Com #1H
Sec 4, T22S, R34E
SL: 294' FSL & 432' FEL
BHL: 100' FNL & 600' FEL

Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
	From	To								
17.5"	0'	1755'	13.375"	54.5	J55	STC	1.41	3.90	5.37	8.92
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12.25"	3452'	4393'	9.625"	40	J55	LTC	1.13	1.73	7.44	9.01
12.25"	4393'	5282'	9.625"	40	L80	LTC	1.13	2.09	20.44	25.76
12.25"	5282'	5500'	9.625"	40	HCL80	LTC	1.48	2.01	95.99	105.05
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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.	N
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?	
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Is well located in high Cave/Karst?	N
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If yes, are there three strings cemented to surface?	

Mewbourne Oil Company, Black Sheep 4/33 B3PA Fed Com #1H
Sec 4, T22S, R34E
SL: 294' FSL & 432' FEL
BHL: 100' FNL & 600' FEL

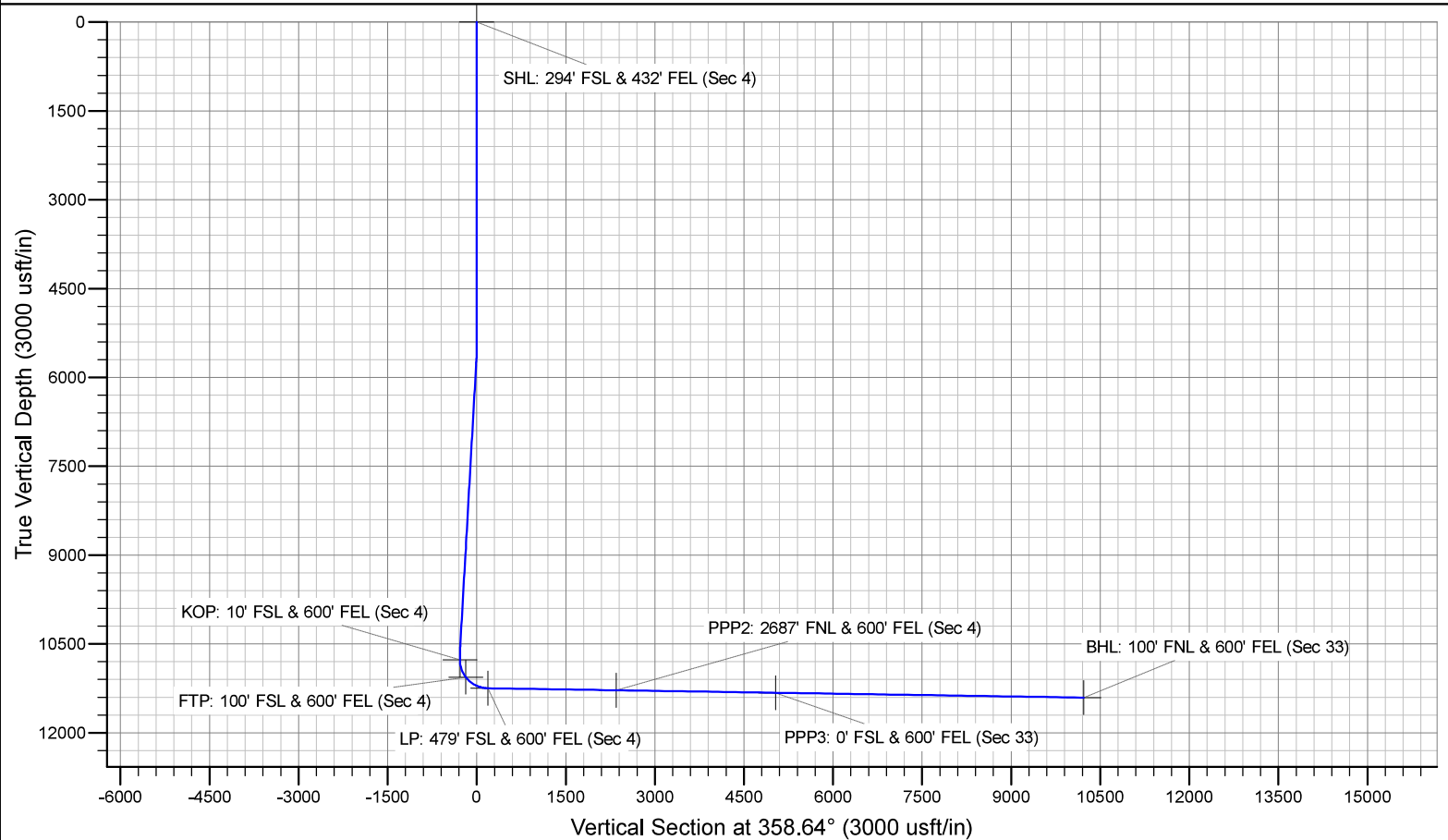
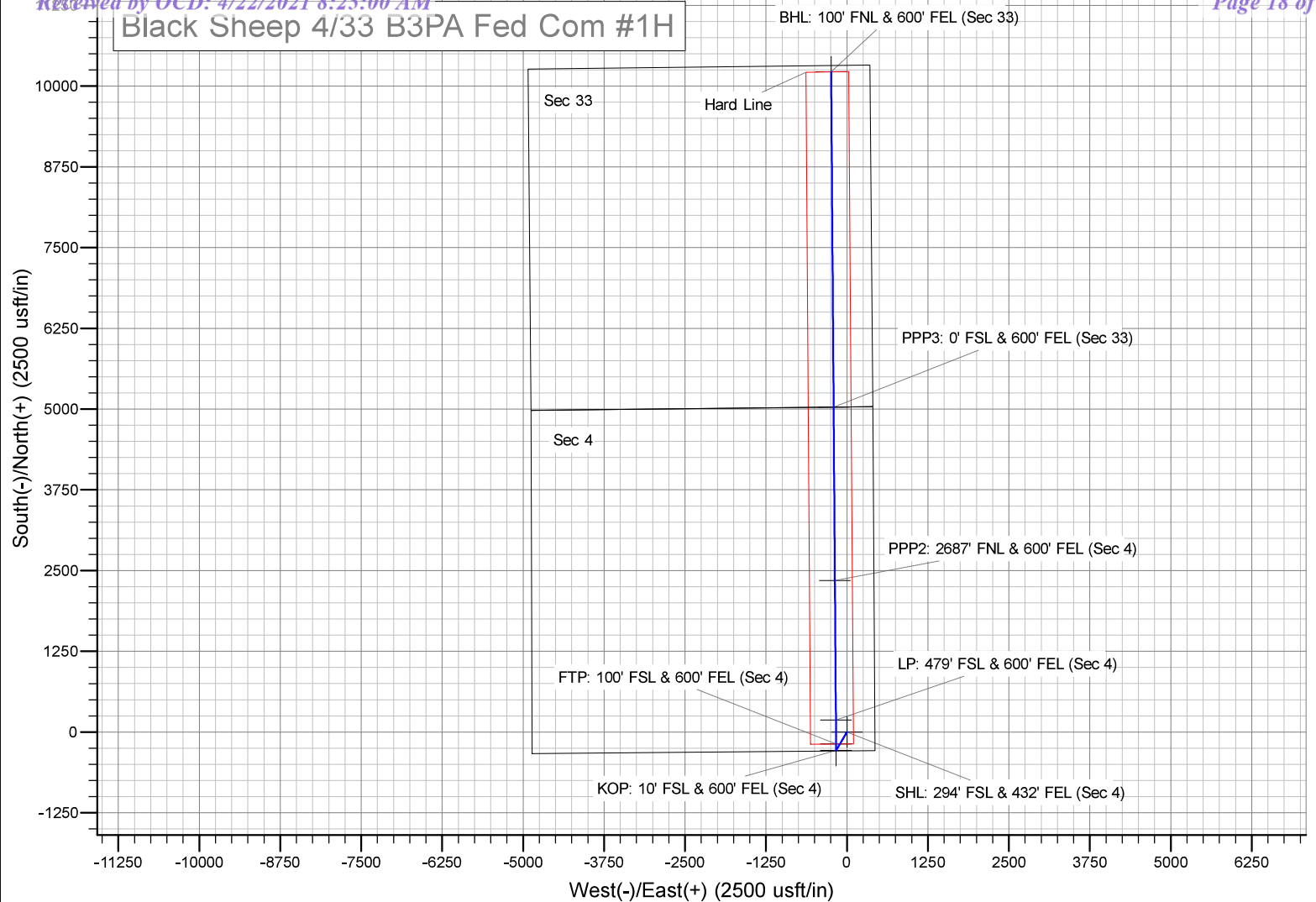
Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
	From	To								
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12.25"	5282'	5500'	9.625"	40	HCL80	LTC	1.48	2.01	95.99	105.05
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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.	N
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
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Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Black Sheep 4/33 B3PA Fed Com #1H



Mewbourne Oil Company

Lea County, New Mexico NAD 83

Black Sheep 4/33 B3PA Fed Com #1H

Sec 4, T22S, R34E

SHL: 294' FSL & 432' FEL, Sec 4

BHL: 100' FNL & 600' FEL, Sec 33

Plan: Design #1

Standard Planning Report

31 October, 2019

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Black Sheep 4/33 B3PA Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3627.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	MD Reference:	WELL @ 3627.0usft (Original Well Elev)
Site:	Black Sheep 4/33 B3PA Fed Com #1H	North Reference:	Grid
Well:	Sec 4, T22S, R34E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 100' FNL & 600' FEL, Sec 33		
Design:	Design #1		

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

Site	Black Sheep 4/33 B3PA Fed Com #1H			
Site Position:		Northing:	515,530.00 usft	Latitude: 32.4142857
From:	Map	Easting:	808,454.00 usft	Longitude: -103.4677334
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.46 °

Well	Sec 4, T22S, R34E			
Well Position	+N/-S	0.0 usft	Northing:	515,530.00 usft
	+E/-W	0.0 usft	Easting:	808,454.00 usft
Position Uncertainty	0.0 usft		Wellhead Elevation:	3,627.0 usft
			Ground Level:	3,599.0 usft

Wellbore	BHL: 100' FNL & 600' FEL, Sec 33				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/31/2019	6.51	60.16	47,901

Design	Design #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	358.64

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,751.3	3.77	210.13	5,751.1	-7.1	-4.1	1.50	1.50	0.00	210.13	
10,530.4	3.77	210.13	10,519.9	-278.9	-161.9	0.00	0.00	0.00	0.00	
10,781.7	0.00	0.00	10,771.0	-286.0	-166.0	1.50	-1.50	0.00	180.00	KOP: 10' FSL & 600' F
11,525.1	89.10	359.58	11,249.0	184.5	-169.4	11.99	11.99	0.00	-0.42	
21,562.1	89.10	359.58	11,407.0	10,220.0	-243.0	0.00	0.00	0.00	0.00	BHL: 100' FNL & 600'

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Black Sheep 4/33 B3PA Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3627.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	MD Reference:	WELL @ 3627.0usft (Original Well Elev)
Site:	Black Sheep 4/33 B3PA Fed Com #1H	North Reference:	Grid
Well:	Sec 4, T22S, R34E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 100' FNL & 600' FEL, Sec 33		
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: 294' FSL & 432' FEL (Sec 4)									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00

Planning Report

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Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3627.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	MD Reference:	WELL @ 3627.0usft (Original Well Elev)
Site:	Black Sheep 4/33 B3PA Fed Com #1H	North Reference:	Grid
Well:	Sec 4, T22S, R34E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 100' FNL & 600' FEL, Sec 33		
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)	
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,600.0	1.50	210.13	5,600.0	-1.1	-0.7	-1.1	1.50	1.50	0.00	
5,700.0	3.00	210.13	5,699.9	-4.5	-2.6	-4.5	1.50	1.50	0.00	
5,751.3	3.77	210.13	5,751.1	-7.1	-4.1	-7.0	1.50	1.50	0.00	
5,800.0	3.77	210.13	5,799.7	-9.9	-5.8	-9.8	0.00	0.00	0.00	
5,900.0	3.77	210.13	5,899.5	-15.6	-9.1	-15.4	0.00	0.00	0.00	
6,000.0	3.77	210.13	5,999.3	-21.3	-12.4	-21.0	0.00	0.00	0.00	
6,100.0	3.77	210.13	6,099.1	-27.0	-15.7	-26.6	0.00	0.00	0.00	
6,200.0	3.77	210.13	6,198.8	-32.7	-19.0	-32.2	0.00	0.00	0.00	
6,300.0	3.77	210.13	6,298.6	-38.3	-22.3	-37.8	0.00	0.00	0.00	
6,400.0	3.77	210.13	6,398.4	-44.0	-25.6	-43.4	0.00	0.00	0.00	
6,500.0	3.77	210.13	6,498.2	-49.7	-28.9	-49.0	0.00	0.00	0.00	
6,600.0	3.77	210.13	6,598.0	-55.4	-32.2	-54.6	0.00	0.00	0.00	
6,700.0	3.77	210.13	6,697.8	-61.1	-35.5	-60.2	0.00	0.00	0.00	
6,800.0	3.77	210.13	6,797.6	-66.8	-38.8	-65.8	0.00	0.00	0.00	
6,900.0	3.77	210.13	6,897.3	-72.5	-42.1	-71.4	0.00	0.00	0.00	
7,000.0	3.77	210.13	6,997.1	-78.1	-45.4	-77.0	0.00	0.00	0.00	
7,100.0	3.77	210.13	7,096.9	-83.8	-48.7	-82.6	0.00	0.00	0.00	
7,200.0	3.77	210.13	7,196.7	-89.5	-52.0	-88.2	0.00	0.00	0.00	
7,300.0	3.77	210.13	7,296.5	-95.2	-55.3	-93.9	0.00	0.00	0.00	
7,400.0	3.77	210.13	7,396.3	-100.9	-58.6	-99.5	0.00	0.00	0.00	
7,500.0	3.77	210.13	7,496.0	-106.6	-61.9	-105.1	0.00	0.00	0.00	
7,600.0	3.77	210.13	7,595.8	-112.3	-65.2	-110.7	0.00	0.00	0.00	
7,700.0	3.77	210.13	7,695.6	-117.9	-68.5	-116.3	0.00	0.00	0.00	
7,800.0	3.77	210.13	7,795.4	-123.6	-71.8	-121.9	0.00	0.00	0.00	
7,900.0	3.77	210.13	7,895.2	-129.3	-75.1	-127.5	0.00	0.00	0.00	
8,000.0	3.77	210.13	7,995.0	-135.0	-78.4	-133.1	0.00	0.00	0.00	
8,100.0	3.77	210.13	8,094.7	-140.7	-81.7	-138.7	0.00	0.00	0.00	
8,200.0	3.77	210.13	8,194.5	-146.4	-85.0	-144.3	0.00	0.00	0.00	
8,300.0	3.77	210.13	8,294.3	-152.0	-88.3	-149.9	0.00	0.00	0.00	
8,400.0	3.77	210.13	8,394.1	-157.7	-91.6	-155.5	0.00	0.00	0.00	
8,500.0	3.77	210.13	8,493.9	-163.4	-94.9	-161.1	0.00	0.00	0.00	
8,600.0	3.77	210.13	8,593.7	-169.1	-98.2	-166.7	0.00	0.00	0.00	
8,700.0	3.77	210.13	8,693.4	-174.8	-101.5	-172.3	0.00	0.00	0.00	
8,800.0	3.77	210.13	8,793.2	-180.5	-104.8	-177.9	0.00	0.00	0.00	
8,900.0	3.77	210.13	8,893.0	-186.2	-108.1	-183.5	0.00	0.00	0.00	
9,000.0	3.77	210.13	8,992.8	-191.8	-111.4	-189.1	0.00	0.00	0.00	
9,100.0	3.77	210.13	9,092.6	-197.5	-114.7	-194.7	0.00	0.00	0.00	
9,200.0	3.77	210.13	9,192.4	-203.2	-118.0	-200.4	0.00	0.00	0.00	
9,300.0	3.77	210.13	9,292.1	-208.9	-121.3	-206.0	0.00	0.00	0.00	
9,400.0	3.77	210.13	9,391.9	-214.6	-124.6	-211.6	0.00	0.00	0.00	
9,500.0	3.77	210.13	9,491.7	-220.3	-127.9	-217.2	0.00	0.00	0.00	
9,600.0	3.77	210.13	9,591.5	-226.0	-131.1	-222.8	0.00	0.00	0.00	
9,700.0	3.77	210.13	9,691.3	-231.6	-134.4	-228.4	0.00	0.00	0.00	
9,800.0	3.77	210.13	9,791.1	-237.3	-137.7	-234.0	0.00	0.00	0.00	
9,900.0	3.77	210.13	9,890.8	-243.0	-141.0	-239.6	0.00	0.00	0.00	
10,000.0	3.77	210.13	9,990.6	-248.7	-144.3	-245.2	0.00	0.00	0.00	
10,100.0	3.77	210.13	10,090.4	-254.4	-147.6	-250.8	0.00	0.00	0.00	
10,200.0	3.77	210.13	10,190.2	-260.1	-150.9	-256.4	0.00	0.00	0.00	
10,300.0	3.77	210.13	10,290.0	-265.8	-154.2	-262.0	0.00	0.00	0.00	
10,400.0	3.77	210.13	10,389.8	-271.4	-157.5	-267.6	0.00	0.00	0.00	
10,500.0	3.77	210.13	10,489.5	-277.1	-160.8	-273.2	0.00	0.00	0.00	

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Black Sheep 4/33 B3PA Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3627.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	MD Reference:	WELL @ 3627.0usft (Original Well Elev)
Site:	Black Sheep 4/33 B3PA Fed Com #1H	North Reference:	Grid
Well:	Sec 4, T22S, R34E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 100' FNL & 600' FEL, Sec 33		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,530.4	3.77	210.13	10,519.9	-278.9	-161.9	-274.9	0.00	0.00	0.00
10,600.0	2.73	210.13	10,589.4	-282.3	-163.8	-278.3	1.50	-1.50	0.00
10,700.0	1.23	210.13	10,689.3	-285.2	-165.6	-281.2	1.50	-1.50	0.00
10,781.7	0.00	0.00	10,771.0	-286.0	-166.0	-282.0	1.50	-1.50	0.00
KOP: 10' FSL & 600' FEL (Sec 4)									
10,800.0	2.19	359.58	10,789.3	-285.6	-166.0	-281.6	11.99	11.99	0.00
10,900.0	14.18	359.58	10,888.1	-271.4	-166.1	-267.4	11.99	11.99	0.00
11,000.0	26.16	359.58	10,981.8	-237.0	-166.4	-233.0	11.99	11.99	0.00
11,096.6	37.74	359.58	11,063.6	-186.0	-166.7	-182.0	11.99	11.99	0.00
FTP: 100' FSL & 600' FEL (Sec 4)									
11,100.0	38.15	359.58	11,066.3	-183.9	-166.7	-179.9	11.99	11.99	0.00
11,200.0	50.13	359.58	11,137.9	-114.4	-167.3	-110.4	11.99	11.99	0.00
11,300.0	62.12	359.58	11,193.6	-31.5	-167.9	-27.5	11.99	11.99	0.00
11,400.0	74.10	359.58	11,230.8	61.1	-168.5	65.1	11.99	11.99	0.00
11,500.0	86.09	359.58	11,247.9	159.4	-169.3	163.4	11.99	11.99	0.00
11,525.1	89.10	359.58	11,249.0	184.5	-169.4	188.5	11.99	11.99	0.00
LP: 479' FSL & 600' FEL (Sec 4)									
11,600.0	89.10	359.58	11,250.2	259.4	-170.0	263.4	0.00	0.00	0.00
11,700.0	89.10	359.58	11,251.8	359.4	-170.7	363.3	0.00	0.00	0.00
11,800.0	89.10	359.58	11,253.3	459.4	-171.5	463.3	0.00	0.00	0.00
11,900.0	89.10	359.58	11,254.9	559.4	-172.2	563.3	0.00	0.00	0.00
12,000.0	89.10	359.58	11,256.5	659.3	-172.9	663.3	0.00	0.00	0.00
12,100.0	89.10	359.58	11,258.0	759.3	-173.7	763.2	0.00	0.00	0.00
12,200.0	89.10	359.58	11,259.6	859.3	-174.4	863.2	0.00	0.00	0.00
12,300.0	89.10	359.58	11,261.2	959.3	-175.1	963.2	0.00	0.00	0.00
12,400.0	89.10	359.58	11,262.8	1,059.3	-175.9	1,063.2	0.00	0.00	0.00
12,500.0	89.10	359.58	11,264.3	1,159.3	-176.6	1,163.1	0.00	0.00	0.00
12,600.0	89.10	359.58	11,265.9	1,259.3	-177.3	1,263.1	0.00	0.00	0.00
12,700.0	89.10	359.58	11,267.5	1,359.2	-178.1	1,363.1	0.00	0.00	0.00
12,800.0	89.10	359.58	11,269.1	1,459.2	-178.8	1,463.1	0.00	0.00	0.00
12,900.0	89.10	359.58	11,270.6	1,559.2	-179.5	1,563.0	0.00	0.00	0.00
13,000.0	89.10	359.58	11,272.2	1,659.2	-180.3	1,663.0	0.00	0.00	0.00
13,100.0	89.10	359.58	11,273.8	1,759.2	-181.0	1,763.0	0.00	0.00	0.00
13,200.0	89.10	359.58	11,275.4	1,859.2	-181.7	1,863.0	0.00	0.00	0.00
13,300.0	89.10	359.58	11,276.9	1,959.1	-182.5	1,962.9	0.00	0.00	0.00
13,400.0	89.10	359.58	11,278.5	2,059.1	-183.2	2,062.9	0.00	0.00	0.00
13,500.0	89.10	359.58	11,280.1	2,159.1	-183.9	2,162.9	0.00	0.00	0.00
13,600.0	89.10	359.58	11,281.7	2,259.1	-184.7	2,262.9	0.00	0.00	0.00
13,685.9	89.10	359.58	11,283.0	2,345.0	-185.3	2,348.7	0.00	0.00	0.00
PPP2: 2687' FNL & 600' FEL (Sec 4)									
13,700.0	89.10	359.58	11,283.2	2,359.1	-185.4	2,362.8	0.00	0.00	0.00
13,800.0	89.10	359.58	11,284.8	2,459.1	-186.1	2,462.8	0.00	0.00	0.00
13,900.0	89.10	359.58	11,286.4	2,559.1	-186.9	2,562.8	0.00	0.00	0.00
14,000.0	89.10	359.58	11,288.0	2,659.0	-187.6	2,662.7	0.00	0.00	0.00
14,100.0	89.10	359.58	11,289.5	2,759.0	-188.3	2,762.7	0.00	0.00	0.00
14,200.0	89.10	359.58	11,291.1	2,859.0	-189.1	2,862.7	0.00	0.00	0.00
14,300.0	89.10	359.58	11,292.7	2,959.0	-189.8	2,962.7	0.00	0.00	0.00
14,400.0	89.10	359.58	11,294.3	3,059.0	-190.5	3,062.6	0.00	0.00	0.00
14,500.0	89.10	359.58	11,295.8	3,159.0	-191.2	3,162.6	0.00	0.00	0.00
14,600.0	89.10	359.58	11,297.4	3,259.0	-192.0	3,262.6	0.00	0.00	0.00
14,700.0	89.10	359.58	11,299.0	3,358.9	-192.7	3,362.6	0.00	0.00	0.00
14,800.0	89.10	359.58	11,300.6	3,458.9	-193.4	3,462.5	0.00	0.00	0.00
14,900.0	89.10	359.58	11,302.1	3,558.9	-194.2	3,562.5	0.00	0.00	0.00

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Black Sheep 4/33 B3PA Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3627.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	MD Reference:	WELL @ 3627.0usft (Original Well Elev)
Site:	Black Sheep 4/33 B3PA Fed Com #1H	North Reference:	Grid
Well:	Sec 4, T22S, R34E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 100' FNL & 600' FEL, Sec 33		
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)	
15,000.0	89.10	359.58	11,303.7	3,658.9	-194.9	3,662.5	0.00	0.00	0.00	
15,100.0	89.10	359.58	11,305.3	3,758.9	-195.6	3,762.5	0.00	0.00	0.00	
15,200.0	89.10	359.58	11,306.8	3,858.9	-196.4	3,862.4	0.00	0.00	0.00	
15,300.0	89.10	359.58	11,308.4	3,958.8	-197.1	3,962.4	0.00	0.00	0.00	
15,400.0	89.10	359.58	11,310.0	4,058.8	-197.8	4,062.4	0.00	0.00	0.00	
15,500.0	89.10	359.58	11,311.6	4,158.8	-198.6	4,162.4	0.00	0.00	0.00	
15,600.0	89.10	359.58	11,313.1	4,258.8	-199.3	4,262.3	0.00	0.00	0.00	
15,700.0	89.10	359.58	11,314.7	4,358.8	-200.0	4,362.3	0.00	0.00	0.00	
15,800.0	89.10	359.58	11,316.3	4,458.8	-200.8	4,462.3	0.00	0.00	0.00	
15,900.0	89.10	359.58	11,317.9	4,558.8	-201.5	4,562.3	0.00	0.00	0.00	
16,000.0	89.10	359.58	11,319.4	4,658.7	-202.2	4,662.2	0.00	0.00	0.00	
16,100.0	89.10	359.58	11,321.0	4,758.7	-203.0	4,762.2	0.00	0.00	0.00	
16,200.0	89.10	359.58	11,322.6	4,858.7	-203.7	4,862.2	0.00	0.00	0.00	
16,300.0	89.10	359.58	11,324.2	4,958.7	-204.4	4,962.2	0.00	0.00	0.00	
16,372.3	89.10	359.58	11,325.3	5,031.0	-205.0	5,034.5	0.00	0.00	0.00	
PPP3: 0' FSL & 600' FEL (Sec 33)										
16,400.0	89.10	359.58	11,325.7	5,058.7	-205.2	5,062.1	0.00	0.00	0.00	
16,500.0	89.10	359.58	11,327.3	5,158.7	-205.9	5,162.1	0.00	0.00	0.00	
16,600.0	89.10	359.58	11,328.9	5,258.6	-206.6	5,262.1	0.00	0.00	0.00	
16,700.0	89.10	359.58	11,330.5	5,358.6	-207.4	5,362.0	0.00	0.00	0.00	
16,800.0	89.10	359.58	11,332.0	5,458.6	-208.1	5,462.0	0.00	0.00	0.00	
16,900.0	89.10	359.58	11,333.6	5,558.6	-208.8	5,562.0	0.00	0.00	0.00	
17,000.0	89.10	359.58	11,335.2	5,658.6	-209.6	5,662.0	0.00	0.00	0.00	
17,100.0	89.10	359.58	11,336.8	5,758.6	-210.3	5,761.9	0.00	0.00	0.00	
17,200.0	89.10	359.58	11,338.3	5,858.6	-211.0	5,861.9	0.00	0.00	0.00	
17,300.0	89.10	359.58	11,339.9	5,958.5	-211.8	5,961.9	0.00	0.00	0.00	
17,400.0	89.10	359.58	11,341.5	6,058.5	-212.5	6,061.9	0.00	0.00	0.00	
17,500.0	89.10	359.58	11,343.1	6,158.5	-213.2	6,161.8	0.00	0.00	0.00	
17,600.0	89.10	359.58	11,344.6	6,258.5	-214.0	6,261.8	0.00	0.00	0.00	
17,700.0	89.10	359.58	11,346.2	6,358.5	-214.7	6,361.8	0.00	0.00	0.00	
17,800.0	89.10	359.58	11,347.8	6,458.5	-215.4	6,461.8	0.00	0.00	0.00	
17,900.0	89.10	359.58	11,349.4	6,558.5	-216.2	6,561.7	0.00	0.00	0.00	
18,000.0	89.10	359.58	11,350.9	6,658.4	-216.9	6,661.7	0.00	0.00	0.00	
18,100.0	89.10	359.58	11,352.5	6,758.4	-217.6	6,761.7	0.00	0.00	0.00	
18,200.0	89.10	359.58	11,354.1	6,858.4	-218.4	6,861.7	0.00	0.00	0.00	
18,300.0	89.10	359.58	11,355.6	6,958.4	-219.1	6,961.6	0.00	0.00	0.00	
18,400.0	89.10	359.58	11,357.2	7,058.4	-219.8	7,061.6	0.00	0.00	0.00	
18,500.0	89.10	359.58	11,358.8	7,158.4	-220.6	7,161.6	0.00	0.00	0.00	
18,600.0	89.10	359.58	11,360.4	7,258.3	-221.3	7,261.6	0.00	0.00	0.00	
18,700.0	89.10	359.58	11,361.9	7,358.3	-222.0	7,361.5	0.00	0.00	0.00	
18,800.0	89.10	359.58	11,363.5	7,458.3	-222.8	7,461.5	0.00	0.00	0.00	
18,900.0	89.10	359.58	11,365.1	7,558.3	-223.5	7,561.5	0.00	0.00	0.00	
19,000.0	89.10	359.58	11,366.7	7,658.3	-224.2	7,661.5	0.00	0.00	0.00	
19,100.0	89.10	359.58	11,368.2	7,758.3	-225.0	7,761.4	0.00	0.00	0.00	
19,200.0	89.10	359.58	11,369.8	7,858.3	-225.7	7,861.4	0.00	0.00	0.00	
19,300.0	89.10	359.58	11,371.4	7,958.2	-226.4	7,961.4	0.00	0.00	0.00	
19,400.0	89.10	359.58	11,373.0	8,058.2	-227.2	8,061.3	0.00	0.00	0.00	
19,500.0	89.10	359.58	11,374.5	8,158.2	-227.9	8,161.3	0.00	0.00	0.00	
19,600.0	89.10	359.58	11,376.1	8,258.2	-228.6	8,261.3	0.00	0.00	0.00	
19,700.0	89.10	359.58	11,377.7	8,358.2	-229.4	8,361.3	0.00	0.00	0.00	
19,800.0	89.10	359.58	11,379.3	8,458.2	-230.1	8,461.2	0.00	0.00	0.00	
19,900.0	89.10	359.58	11,380.8	8,558.2	-230.8	8,561.2	0.00	0.00	0.00	
20,000.0	89.10	359.58	11,382.4	8,658.1	-231.6	8,661.2	0.00	0.00	0.00	
20,100.0	89.10	359.58	11,384.0	8,758.1	-232.3	8,761.2	0.00	0.00	0.00	

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Black Sheep 4/33 B3PA Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3627.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	MD Reference:	WELL @ 3627.0usft (Original Well Elev)
Site:	Black Sheep 4/33 B3PA Fed Com #1H	North Reference:	Grid
Well:	Sec 4, T22S, R34E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 100' FNL & 600' FEL, Sec 33		
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)	
20,200.0	89.10	359.58	11,385.6	8,858.1	-233.0	8,861.1	0.00	0.00	0.00	
20,300.0	89.10	359.58	11,387.1	8,958.1	-233.8	8,961.1	0.00	0.00	0.00	
20,400.0	89.10	359.58	11,388.7	9,058.1	-234.5	9,061.1	0.00	0.00	0.00	
20,500.0	89.10	359.58	11,390.3	9,158.1	-235.2	9,161.1	0.00	0.00	0.00	
20,600.0	89.10	359.58	11,391.9	9,258.0	-235.9	9,261.0	0.00	0.00	0.00	
20,700.0	89.10	359.58	11,393.4	9,358.0	-236.7	9,361.0	0.00	0.00	0.00	
20,800.0	89.10	359.58	11,395.0	9,458.0	-237.4	9,461.0	0.00	0.00	0.00	
20,900.0	89.10	359.58	11,396.6	9,558.0	-238.1	9,561.0	0.00	0.00	0.00	
21,000.0	89.10	359.58	11,398.2	9,658.0	-238.9	9,660.9	0.00	0.00	0.00	
21,100.0	89.10	359.58	11,399.7	9,758.0	-239.6	9,760.9	0.00	0.00	0.00	
21,200.0	89.10	359.58	11,401.3	9,858.0	-240.3	9,860.9	0.00	0.00	0.00	
21,300.0	89.10	359.58	11,402.9	9,957.9	-241.1	9,960.9	0.00	0.00	0.00	
21,400.0	89.10	359.58	11,404.4	10,057.9	-241.8	10,060.8	0.00	0.00	0.00	
21,500.0	89.10	359.58	11,406.0	10,157.9	-242.5	10,160.8	0.00	0.00	0.00	
21,562.1	89.10	359.58	11,407.0	10,220.0	-243.0	10,222.9	0.00	0.00	0.00	
BHL: 100' FNL & 600' FEL (Sec 33)										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
SHL: 294' FSL & 432' FE - plan hits target center - Point	0.00	0.00	0.0	0.0	0.0	515,530.00	808,454.00	32.4142857	-103.4677334	
KOP: 10' FSL & 600' FEI - plan hits target center - Point	0.00	0.00	10,771.0	-286.0	-166.0	515,244.00	808,288.00	32.4135033	-103.4682787	
FTP: 100' FSL & 600' FE - plan hits target center - Point	0.00	0.00	11,063.6	-186.0	-166.7	515,344.00	808,287.27	32.4137782	-103.4682785	
LP: 479' FSL & 600' FEL - plan hits target center - Point	0.00	0.00	11,249.0	184.5	-169.4	515,714.50	808,284.60	32.4147966	-103.4682774	
PPP2: 2687' FNL & 600' - plan hits target center - Point	0.00	0.00	11,283.0	2,345.0	-185.3	517,875.00	808,268.72	32.4207351	-103.4682722	
PPP3: 0' FSL & 600' FEI - plan hits target center - Point	0.00	0.00	11,325.3	5,031.0	-205.0	520,561.00	808,249.03	32.4281180	-103.4682655	
BHL: 100' FNL & 600' FE - plan hits target center - Point	0.00	0.00	11,407.0	10,220.0	-243.0	525,750.00	808,211.00	32.4423808	-103.4682526	

Intent ☒ As Drilled ☐

API #		
Operator Name: Mewbourne Oil Co.	Property Name: Black Sheep 4/33 B3PA Fed Com	Well Number 1H

Kick Off Point (KOP)

UL P	Section 4	Township 22S	Range 34E	Lot	Feet 10	From N/S S	Feet 600	From E/W E	County Lea
Latitude 32.4135033					Longitude -103.4682787				NAD 83

First Take Point (FTP)

UL P	Section r	Township 22S	Range 34E	Lot	Feet 100	From N/S S	Feet 600	From E/W E	County Lea
Latitude 32.4137782					Longitude -103.4682785				NAD 83

Last Take Point (LTP)

UL A	Section 33	Township 21S	Range 34E	Lot	Feet 100	From N/S N	Feet 600	From E/W E	County Lea
Latitude 32.4423808					Longitude -103.4682526				NAD 83

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

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

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

**PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL**

MEWBOURNE OIL COMPANY

BLACK SHEEP 4/33 B3PA FED COM 1H:

Surface Hole Location: 294' FSL & 432' FEL, Section 04, T. 22 S., R. 34 E.

Bottom Hole Location: 100' FNL & 600' FEL, Section 33, T. 22 S., R. 34 E.

**Lease Number NMNM0033312A
Lea County, New Mexico**

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Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
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- ☐ **Construction**
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 - Federal Mineral Material Pits
 - Well Pads
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- ☐ **Road Section Diagram**
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 - Well Structures & Facilities
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- ☐ **Interim Reclamation**
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I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for

acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Wildlife:

Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken:

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

Timing Limitation Exceptions:

The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

Ground-level Abandoned Well Marker to avoid raptor perching:

Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

Watershed/Water Quality:

- The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The berm shall be maintained through the life of the well and after interim reclamation has been completed.
- Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion.

- Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control.
- Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank or 24-hour production, whichever is greater.
- Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

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

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

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

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

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

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing

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

G. ON LEASE ACCESS ROADS

Road Width

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

Surfacing

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

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

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

Crowning

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

Ditching

Ditching shall be required on both sides of the road.

Turnouts

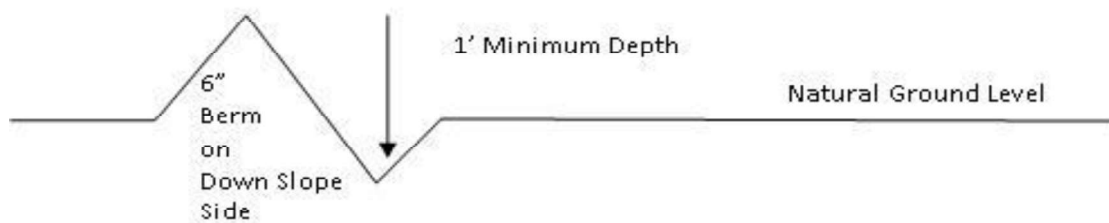
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

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

Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the

private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access

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

Construction Steps

1. Salvage topsoil
2. Construct road

3. Redistribute topsoil
4. Revegetate slopes

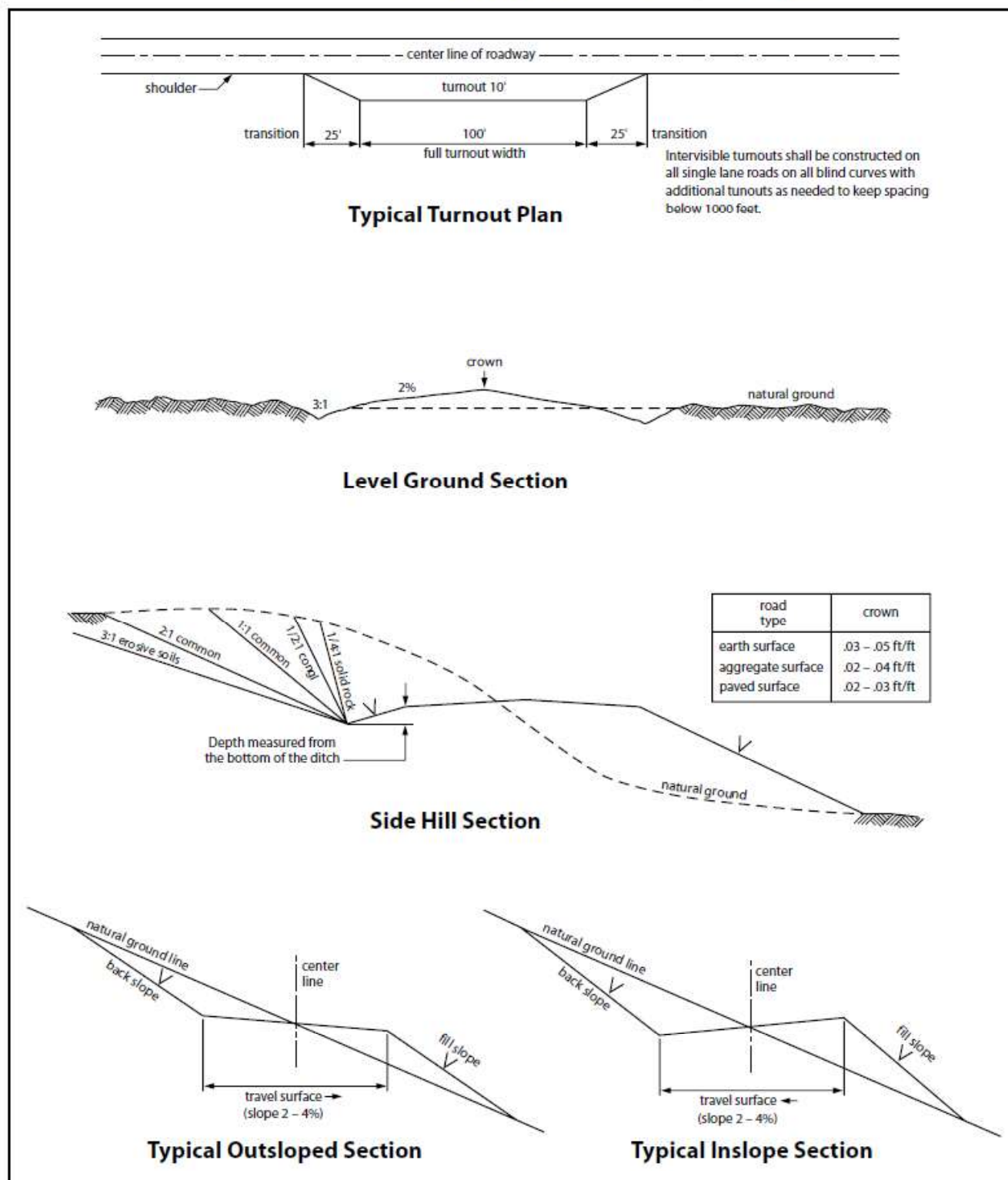


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

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

Exclosure Netting (Open-top Tanks)

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

Chemical and Fuel Secondary Containment and Exclosure Screening

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

Open-Vent Exhaust Stack Exclosures

The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production

equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures

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

Painting Requirement

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

B. PIPELINES

BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic

substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of 36 inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be 30 feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed 20 feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)

- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed **30** feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)
- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

- () seed mixture 1 () seed mixture 3
() seed mixture 2 () seed mixture 4
(X) seed mixture 2/LPC () Aplomado Falcon Mixture

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

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

18. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

- a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
- b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

19. Special Stipulations:

Lesser Prairie-Chicken

Oil and gas activities will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

VIII. INTERIM RECLAMATION

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

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be

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

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

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

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

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

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Seed Mixture for LPC Sand/Shinnery Sites

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

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. Seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may not be made before completion of at least one full growing season after seeding.

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

<u>Species</u>	<u>lb/acre</u>
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

*Pounds of pure live seed:

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

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	MEWBOURNE OIL COMPANY
LEASE NO.:	NMNM033312A
WELL NAME & NO.:	BLACK SHEEP 4-33 B3PA FED COM 1H
SURFACE HOLE FOOTAGE:	294' FSL & 432' FEL
BOTTOM HOLE FOOTAGE:	100' FNL & 600' FEL
LOCATION:	Section 4, T. 22 S., R 34 E., NMP
COUNTY:	Lea County, New Mexico

COA

H2S	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both
Other	<input type="checkbox"/> 4 String Area	<input checked="" type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input checked="" type="checkbox"/> Fluid Filled	<input type="checkbox"/> Cement Squeeze	<input type="checkbox"/> Pilot Hole
Special Requirements	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Grama Ridge Field**. 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

1. The **13-3/8** inch surface casing shall be set at approximately **1790 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing, which shall be set at approximately **5500 feet** is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above.
Excess cement calculates to -48%, additional cement might be required.

Option 2:

Operator has proposed DV tool at depth of **4250'**, but will adjust cement proportionately if moved, the depth may be adjusted as long as the cement is changed proportionally. DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage. 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.
- ❖ **Special Capitan Reef requirements.** If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:
 - 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.

Production casing must be kept fluid filled to meet BLM minimum collapse requirement.

3. The minimum required fill of cement behind the 7 inch production casing is:
 - Cement should tie-back at least **50 feet** above the Capitan Reef. Operator shall provide method of verification.
Excess cement calculates to 25%, additional cement might be required.
4. 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.

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.
 - 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. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

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

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

☒ 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)
393-3612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.

- Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

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

OTA03102021

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 known hydrogen sulfide source. The initial training session shall include a review of the site specific Hydrogen Sulfide Drilling Operations Plan.

3. Hydrogen Sulfide Safety Equipment and Systems

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

1. Well Control Equipment
 - A. Choke manifold with minimum of one adjustable choke/remote choke.
 - B. Blowout preventers equipped with blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
 - C. Auxiliary equipment including annular type blowout preventer.
2. Protective Equipment for Essential Personnel

Thirty minute self contained work unit located in the dog house and at briefing areas.

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

3. Hydrogen Sulfide Protection and Monitoring Equipment

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

4. Visual Warning Systems

A. Wind direction indicators as indicated on the wellsite diagram.

B. Caution signs shall be posted on roads providing access to location. Signs shall be painted a high visibility color with lettering of sufficient size to be readable at reasonable distances from potentially contaminated areas.

4. **Mud Program**

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

5. **Metallurgy**

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

6. **Communications**

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

7. **Well Testing**

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

8. **Emergency Phone Numbers**

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

Mewbourne Oil Company	Hobbs District Office	575-393-5905
	Fax	575-397-6252
	2nd Fax	575-393-7259

District Manager	Robin Terrell	575-390-4816
Drilling Superintendent	Frosty Lathan	575-390-4103
	Bradley Bishop	575-390-6838
Drilling Foreman	Wesley Noseff	575-441-0729

Operator Name: MEWBOURNE OIL COMPANY**Well Name:** BLACK SHEEP 4/33 B3PA FED COM**Well Number:** 1H**Safe containmant attachment:****Waste disposal type:** HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE**Disposal type description:****Disposal location description:** NMOCD approved waste disposal locations are CRI or Lea Land, both facilities are located on HWY 62/180, Sec. 27 T20S R32E.**Waste type:** SEWAGE**Waste content description:** Human waste & grey water**Amount of waste:** 1500 gallons**Waste disposal frequency :** Weekly**Safe containment description:** 2,000 gallon plastic container**Safe containmant attachment:****Waste disposal type:** HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE**Disposal type description:****Disposal location description:** City of Carlsbad Water Treatment facility**Waste type:** GARBAGE**Waste content description:** Garbage & trash**Amount of waste:** 1500 pounds**Waste disposal frequency :** One Time Only**Safe containment description:** Enclosed trash trailer**Safe containmant attachment:****Waste disposal type:** HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE**Disposal type description:****Disposal location description:** Waste Management facility in Carlsbad.**Reserve Pit****Reserve Pit being used?** N**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**

Operator Name: MEWBOURNE OIL COMPANY**Well Name:** BLACK SHEEP 4/33 B3PA FED COM**Well Number:** 1H

Cuttings Area

Cuttings Area being used? NO**Are you storing cuttings on location?** N**Description of cuttings location****Cuttings area length (ft.)****Cuttings area width (ft.)****Cuttings area depth (ft.)****Cuttings area volume (cu. yd.)****Is at least 50% of the cuttings area in cut?****WCuttings area liner****Cuttings area liner specifications and installation description**

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: N**Ancillary Facilities attachment:****Comments:**

Section 9 - Well Site Layout

Well Site Layout Diagram:

BlackSheep4_33B3PAFedCom1H_wellsitelayout_20191107100904.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance**Multiple Well Pad Name:** Black Sheep 4/33 PA Fed Com wells**Multiple Well Pad Number:** 2**Recontouring attachment:****Drainage/Erosion control construction:** None**Drainage/Erosion control reclamation:** None



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

Drilling Plan Data Report
04/13/2021

APD ID: 10400050707

Submission Date: 11/14/2019

Highlighted data reflects the most recent changes

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B3PA FED COM

Well Type: OIL WELL

Well Number: 1H

Well Work Type: Drill

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
582246	UNKNOWN	3627	28	28	OTHER : Top Soil	NONE	N
582251	RUSTLER	1922	1705	1705	ANHYDRITE, DOLOMITE	USEABLE WATER	N
582250	TOP SALT	1437	2190	2190	SALT	NONE	N
582247	BOTTOM SALT	-178	3805	3805	SALT	NONE	N
582254	YATES	-428	4055	4055	SANDSTONE	NATURAL GAS, OIL	N
582255	CAPITAN REEF	-758	4385	4385	DOLOMITE, LIMESTONE	USEABLE WATER	N
582252	DELAWARE	-1928	5555	5555	LIMESTONE	NATURAL GAS, OIL	N
582245	BONE SPRINGS	-4813	8440	8440	LIMESTONE, SHALE	NATURAL GAS, OIL	N
582248	BONE SPRING 1ST	-5886	9513	9513	SANDSTONE	NATURAL GAS, OIL	N
582249	BONE SPRING 2ND	-6442	10069	10069	SANDSTONE	NATURAL GAS, OIL	N
586755	BONE SPRING 3RD	-7326	10953	10953	SANDSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 21562

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



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

Drilling Plan Data Report
04/13/2021

APD ID: 10400050707

Submission Date: 11/14/2019

Highlighted data reflects the most recent changes

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B3PA FED COM

Well Type: OIL WELL

Well Number: 1H

Well Work Type: Drill

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
582246	UNKNOWN	3627	28	28	OTHER : Top Soil	NONE	N
582251	RUSTLER	1922	1705	1705	ANHYDRITE, DOLOMITE	USEABLE WATER	N
582250	TOP SALT	1437	2190	2190	SALT	NONE	N
582247	BOTTOM SALT	-178	3805	3805	SALT	NONE	N
582254	YATES	-428	4055	4055	SANDSTONE	NATURAL GAS, OIL	N
582255	CAPITAN REEF	-758	4385	4385	DOLOMITE, LIMESTONE	USEABLE WATER	N
582252	DELAWARE	-1928	5555	5555	LIMESTONE	NATURAL GAS, OIL	N
582245	BONE SPRINGS	-4813	8440	8440	LIMESTONE, SHALE	NATURAL GAS, OIL	N
582248	BONE SPRING 1ST	-5886	9513	9513	SANDSTONE	NATURAL GAS, OIL	N
582249	BONE SPRING 2ND	-6442	10069	10069	SANDSTONE	NATURAL GAS, OIL	N
586755	BONE SPRING 3RD	-7326	10953	10953	SANDSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 21562

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Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B3PA FED COMWell Number: 1H

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

Choke Diagram Attachment:

- Black_Sheep_4_33_B3PA_Fed_Com_1H_5M_BOPE_Choke_Diagram_20191113081927.pdf
- Black_Sheep_4_33_B3PA_Fed_Com_1H_Flex_Line_Specs_API_16C_20200729140706.pdf

BOP Diagram Attachment:

- Black_Sheep_4_33_B3PA_Fed_Com_1H_Multi_Bowl_WH_20191113081940.pdf
- Black_Sheep_4_33_B3PA_Fed_Com_1H_5M_BOPE_Schematic_20191113081946.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1755	0	1755	3627	1872	1755	J-55	54.5	ST&C	1.41	3.4	DRY	5.37	DRY	8.92
2	INTERMEDIATE	12.25	9.625	NEW	API	Y	0	3452	0	3452	3624	175	3452	J-55	36	LT&C	1.13	1.96	DRY	2.33	DRY	2.9
3	INTERMEDIATE	12.25	9.625	NEW	API	Y	3452	4393	3452	4393	175	-766	941	J-55	40	LT&C	1.13	1.73	DRY	7.44	DRY	9.01
4	INTERMEDIATE	12.25	9.625	NEW	API	Y	4393	5282	4393	5282	-766	-1655	889	L-80	40	LT&C	1.13	2.08	DRY	20.44	DRY	25.76
5	INTERMEDIATE	12.25	9.625	NEW	API	Y	5282	5500	5282	5500	-1655	-1873	218	HCL-80	40	LT&C	1.48	2.01	DRY	95.99	DRY	99.99
6	PRODUCTION	8.75	7.0	NEW	API	N	0	11300	0	11194	3635	-7567	11300	P-110	26	LT&C	1.41	1.8	DRY	2.36	DRY	2.83
7	LINER	6.125	4.5	NEW	API	N	10782	21562	10771	11407	-7144	-7780	10780	P-110	13.5	LT&C	1.8	2.09	DRY	2.32	DRY	2.9

Casing Attachments

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B3PA FED COM

Well Number: 1H

Casing Attachments

Casing ID: 1String Type: SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Black_Sheep_4_B2MD_Fed_Com_2H_Surface_Csg_Tapered_String_20181018150949.pdf

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B3PA_Fed_Com_1H_Csg_assumptions_20191113090046.pdf

Casing ID: 2String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Black_Sheep_4_33_B3PA_Fed_Com_1H_Intermediate_Csg_Tapered_String_20191113084403.pdf

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B3PA_Fed_Com_1H_Csg_assumptions_20191113090100.pdf

Casing ID: 3String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Black_Sheep_4_33_B3PA_Fed_Com_1H_Intermediate_Csg_Tapered_String_20191113084924.pdf

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B3PA_Fed_Com_1H_Csg_assumptions_20191113090130.pdf

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B3PA FED COM

Well Number: 1H

Casing Attachments

Casing ID: 4

String Type:INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Black_Sheep_4_33_B3PA_Fed_Com_1H_Intermediate_Csg_Tapered_String_20191113085039.pdf

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B3PA_Fed_Com_1H_Csg_assumptions_20191113090144.pdf

Casing ID: 5

String Type:INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Black_Sheep_4_33_B3PA_Fed_Com_1H_Intermediate_Csg_Tapered_String_20191113085457.pdf

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B3PA_Fed_Com_1H_Csg_assumptions_20191113090158.pdf

Casing ID: 6

String Type:PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B3PA_Fed_Com_1H_Csg_assumptions_20191113090110.pdf

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B3PA FED COMWell Number: 1H

Casing Attachments

Casing ID: 7String Type:LINER

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B3PA_Fed_Com_1H_Csg_assumptions_20191113090119.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Lead		0	0	0	0	0	0	0	0	0
INTERMEDIATE	Lead		0	0	0	0	0	0	0	0	0
INTERMEDIATE	Lead		0	0	0	0	0	0	0	0	0
SURFACE	Lead		0	1562	1030	2.12	12.5	2184	100	Class C	Salt, Gel, Extender, LCM
SURFACE	Tail		1562	1755	200	1.34	14.8	268	100	Class C	Retarder
INTERMEDIATE	Lead	4250	0	3929	780	2.12	12.5	1654	25	Class C	Salt, Gel, Extender, LCM
INTERMEDIATE	Tail		3929	4250	100	1.34	14.8	134	25	Class C	Retarder
INTERMEDIATE	Lead	4250	4250	4815	110	2.12	12.5	233	25	Class C	Salt, Gel Extender, LCM

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B3PA FED COMWell Number: 1H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Tail		4815	5500	500	1.34	14.8	268	25	Class C	Retarder
PRODUCTION	Lead		4335	7249	400	2.12	12.5	848	25	Class C	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail		7249	11300	400	1.18	15.6	472	25	Class H	Retarder, Fluid Loss, Defoamer
LINER	Lead		10782	21562	430	2.97	11.2	1277	25	Class C	Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-Settling Agent

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

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

Describe the mud monitoring system utilized: Visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1755	SPUD MUD	8.6	8.8							
1755	5500	SALT SATURATED	10	10							
5500	11194	WATER-BASED MUD	8.6	9.5							

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B3PA FED COM

Well Number: 1H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1119 4	1140 7	OIL-BASED MUD	9	10							

Section 6 - Test, Logging, Coring

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

Will run GR/CNL from KOP (10782') to surface

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

COMPENSATED NEUTRON LOG,DIRECTIONAL SURVEY,GAMMA RAY LOG,MEASUREMENT WHILE DRILLING,MUD LOG/GEOLOGIC LITHOLOGY LOG,MUD LOG/GEOLOGICAL LITHOLOGY LOG,

Coring operation description for the well:

None

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5932

Anticipated Surface Pressure: 3422

Anticipated Bottom Hole Temperature(F): 140

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Black_Sheep_4_33_B3PA_Fed_Com_1H_H2S_Plan_20191113105113.pdf

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B3PA FED COM

Well Number: 1H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

- Black_Sheep_4_33_B3PA_Fed_Com_1H_Dir_plan_20191113105140.pdf
- Black_Sheep_4_33_B3PA_Fed_Com_1H_Dir_plot_20191113105140.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

- Black_Sheep_4_33_B3PA_Fed_Com_1H_Add_Info_20191113105342.pdf
- Black_Sheep_4_33_B3PA_Fed_Com_1H_Drlg_Program_20191113105715.docx

Other Variance attachment:



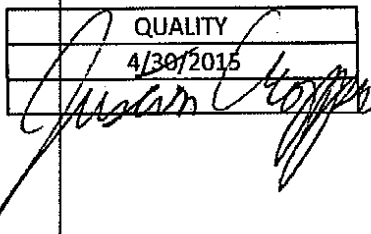
GATES E & S NORTH AMERICA, INC.
134 44TH STREET
CORPUS CHRISTI, TEXAS 78405

PHONE: 361-887-9807
FAX: 361-887-0812
EMAIL: Tim.Cantu@gates.com
WEB: www.gates.com

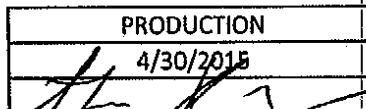
10K CEMENTING ASSEMBLY PRESSURE TEST CERTIFICATE

Customer :	AUSTIN DISTRIBUTING	Test Date:	4/30/2015
Customer Ref. :	4060578	Hose Serial No.:	D-043015-7
Invoice No. :	500506	Created By:	JUSTIN CROPPER
Product Description:	10K3.548.0CK4.1/1610KFLGE/E LE		
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

Gates E & S North America, Inc. certifies that the following hose assembly has been tested to the Gates Oilfield Roughneck Agreement/Specification requirements and passed the 15 minute hydrostatic test per API Spec 7K/Q1, Fifth Edition, June 2010, Test pressure 9.6.7 and per Table 9 to 15,000 psi 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.

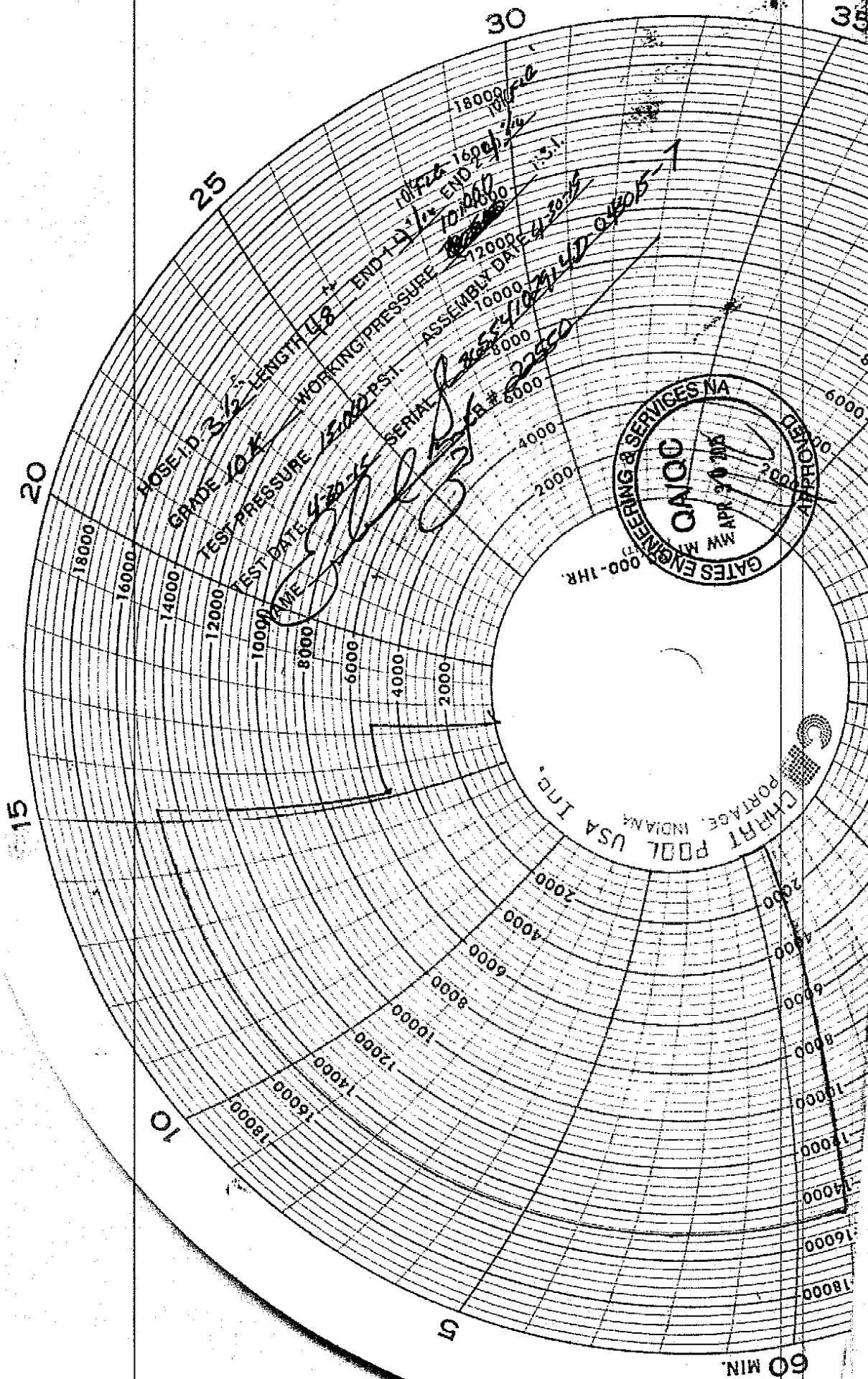
Quality Manager : 
 Date : 4/30/2015
 Signature :

Production:
 Date :
 Signature :

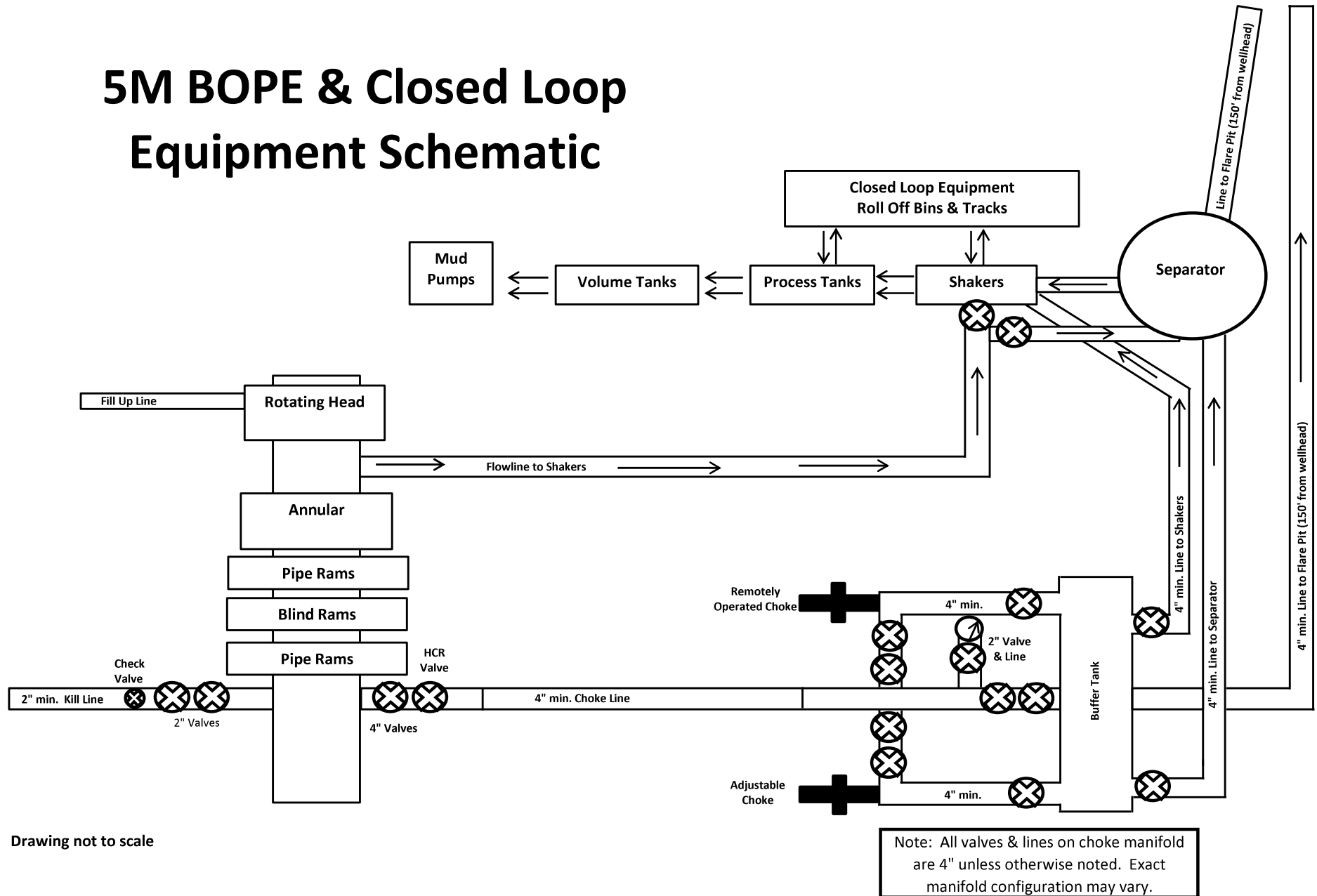
PRODUCTION
 4/30/2015


Form PTC - 01 Rev.02



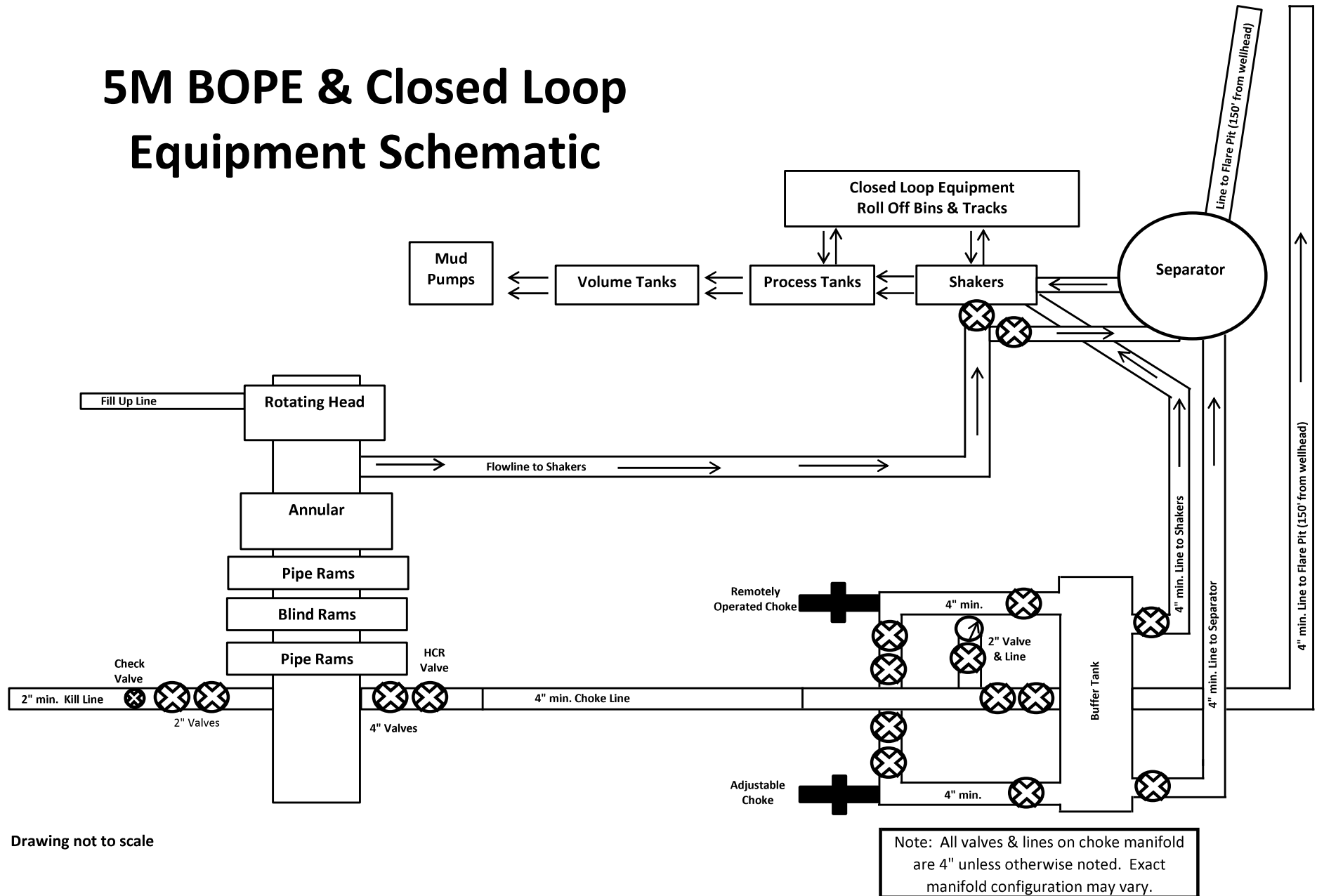


5M BOPE & Closed Loop Equipment Schematic



Drawing not to scale

5M BOPE & Closed Loop Equipment Schematic



Drawing not to scale



GATES E & S NORTH AMERICA, INC.
134 44TH STREET
CORPUS CHRISTI, TEXAS 78405

PHONE: 361-887-9807
FAX: 361-887-0812
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Customer Ref. :	4060578	Hose Serial No.:	D-043015-7
Invoice No. :	500506	Created By:	JUSTIN CROPPER
Product Description:	10K3.548.0CK4.1/1610KFLGE/E LE		
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

Gates E & S North America, Inc. certifies that the following hose assembly has been tested to the Gates Oilfield Roughneck Agreement/Specification requirements and passed the 15 minute hydrostatic test per API Spec 7K/Q1, Fifth Edition, June 2010, Test pressure 9.6.7 and per Table 9 to 15,000 psi 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 Manager : **QUALITY**
 Date : 4/30/2015
 Signature : *Justin Cropper*

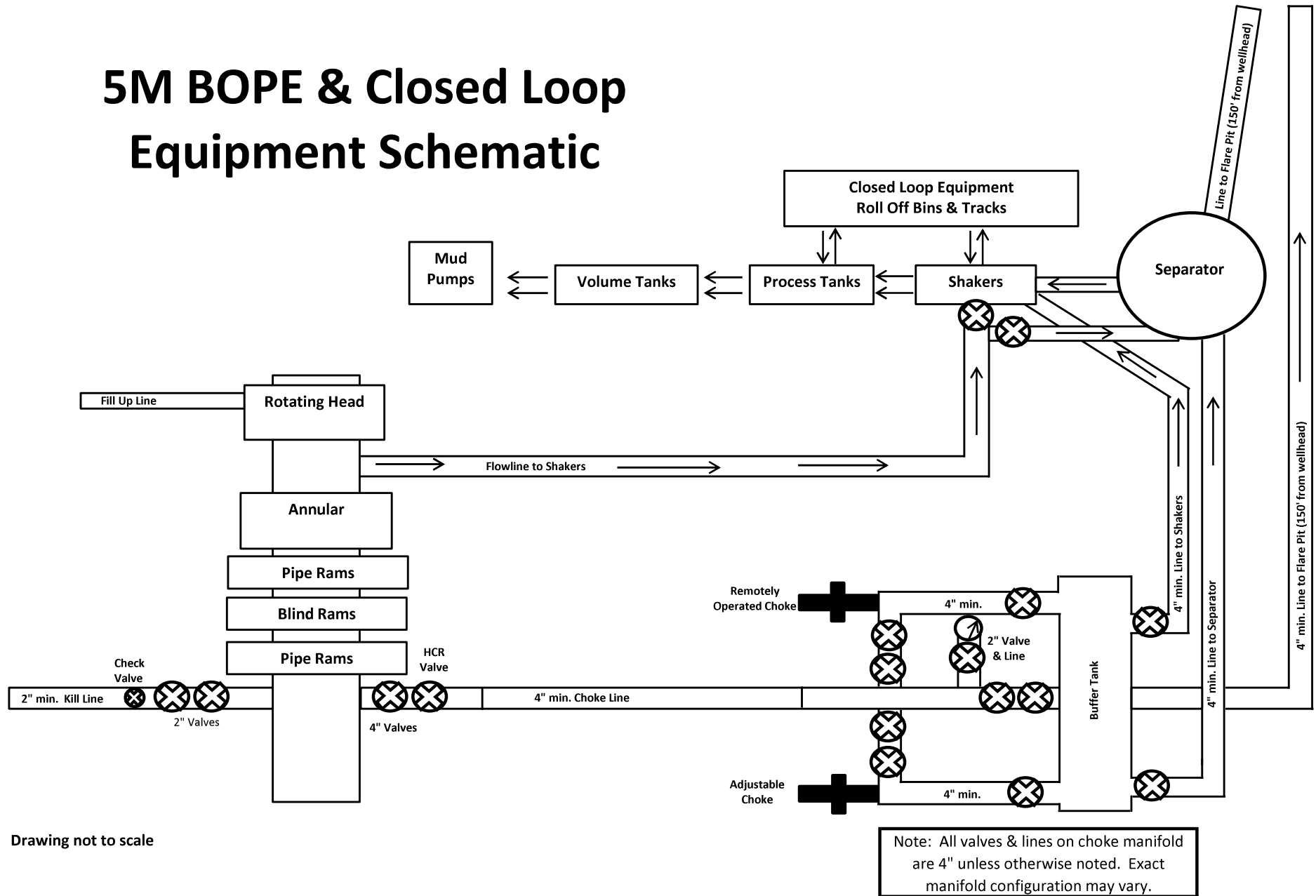
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 Date : 4/30/2015
 Signature : *Justin Cropper*

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5M BOPE & Closed Loop Equipment Schematic



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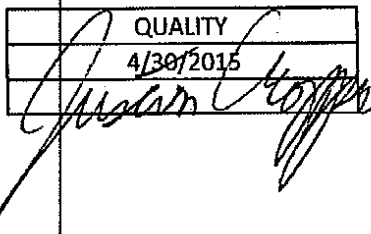
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PHONE: 361-887-9807
FAX: 361-887-0812
EMAIL: Tim.Cantu@gates.com
WEB: www.gates.com

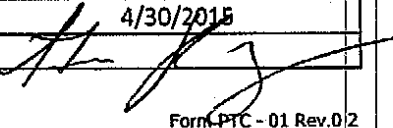
10K CEMENTING ASSEMBLY PRESSURE TEST CERTIFICATE

Customer :	AUSTIN DISTRIBUTING	Test Date:	4/30/2015
Customer Ref. :	4060578	Hose Serial No.:	D-043015-7
Invoice No. :	500506	Created By:	JUSTIN CROPPER
Product Description:	10K3.548.0CK4.1/1610KFLGE/E LE		
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

Gates E & S North America, Inc. certifies that the following hose assembly has been tested to the Gates Oilfield Roughneck Agreement/Specification requirements and passed the 15 minute hydrostatic test per API Spec 7K/Q1, Fifth Edition, June 2010, Test pressure 9.6.7 and per Table 9 to 15,000 psi 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.

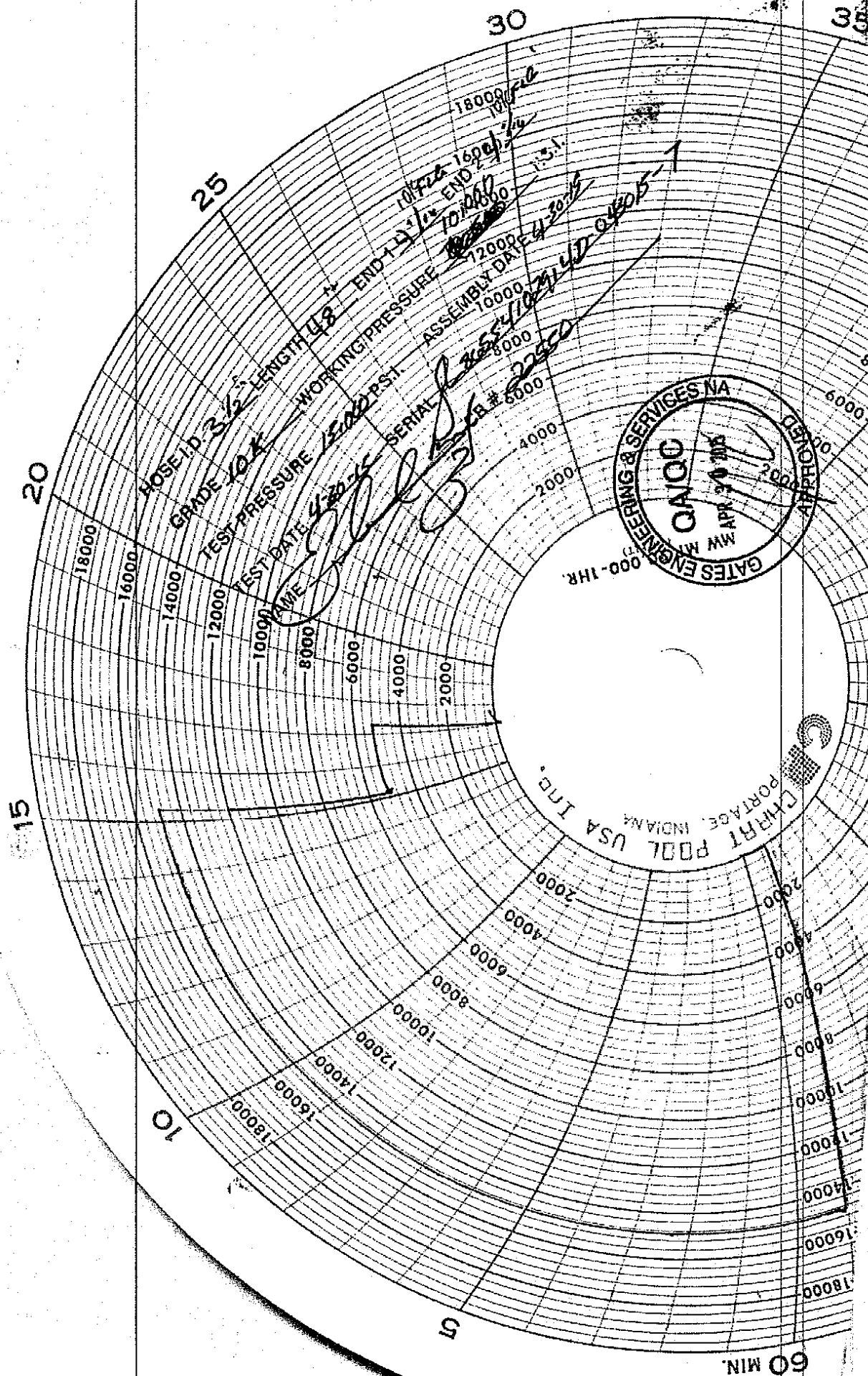
Quality Manager : 
 Date : 4/30/2015
 Signature :

Production:
 Date :
 Signature :

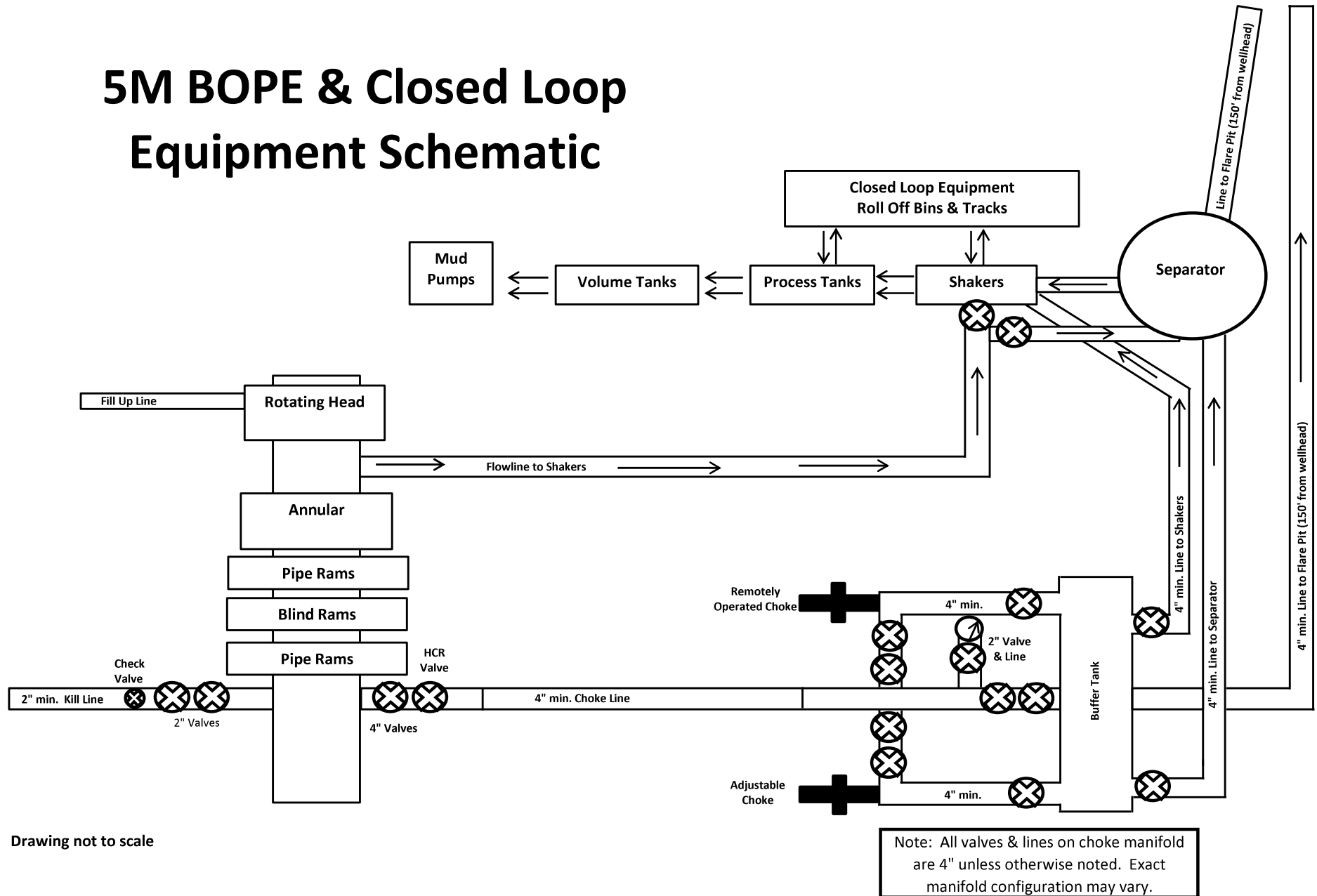
PRODUCTION
 4/30/2015


Form PTC - 01 Rev.02





5M BOPE & Closed Loop Equipment Schematic



Drawing not to scale



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:	10KF3.035.0CK41/1610KFLGFXDxFLT L/E		
End Fitting 1:	4 1/16 in. Fixed Flange	End Fitting 2:	4 1/16 in. Float Flange
Gates Part No.:	68503010-9721632	Assembly Code:	L40695052218H-082018-10
Working Pressure:	10,000 psi.	Test Pressure:	15,000 psi.

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
8/20/2018

Date :
Signature :

Moosa Naqvi

Production:

PRODUCTION
8/20/2018

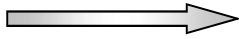
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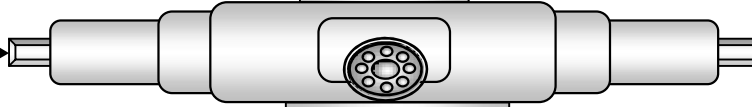


Hydril "GK"
13 5/8" 5M

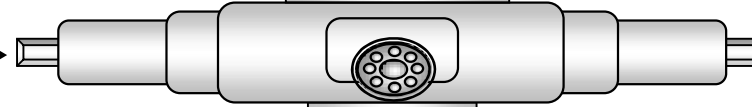


Hydril "GK"

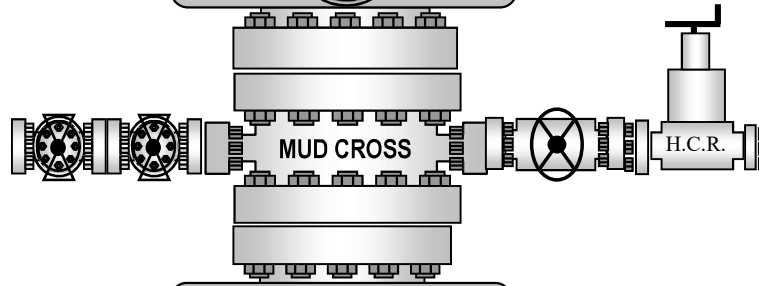
Cameron Type U
13 5/8" 5M



4 1/2" x 5 7/8" VBR



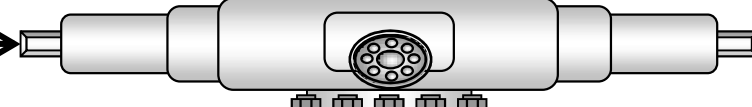
BLIND RAMS



MUD CROSS



H.C.R.



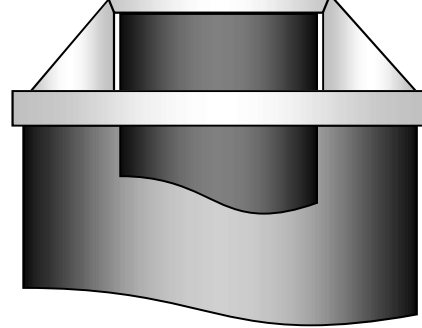
7" RAMS



13 5/8" 5M

13 5/8" 5M

13 5/8" 5M

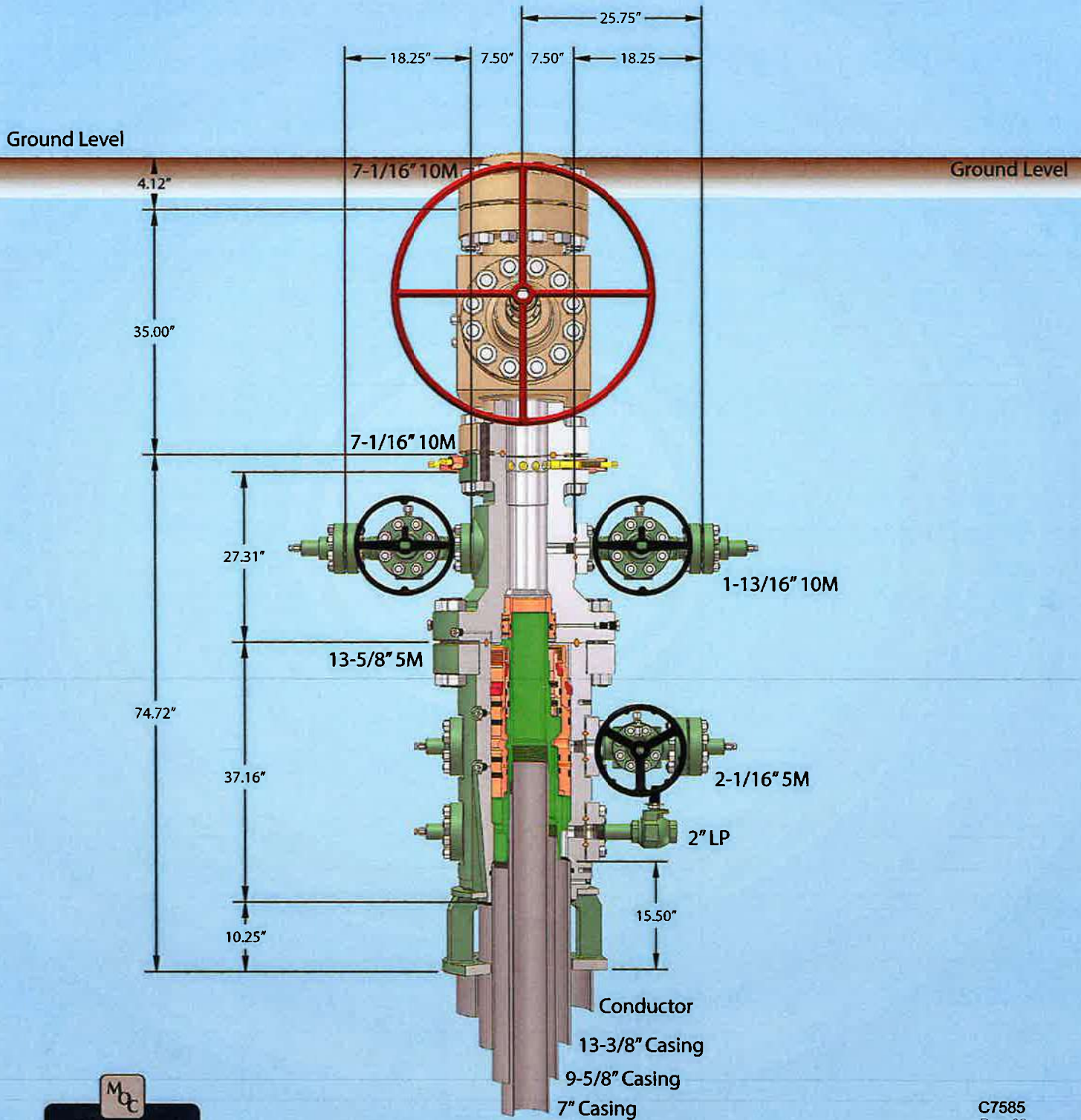


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13-5/8" MN-DS Wellhead System



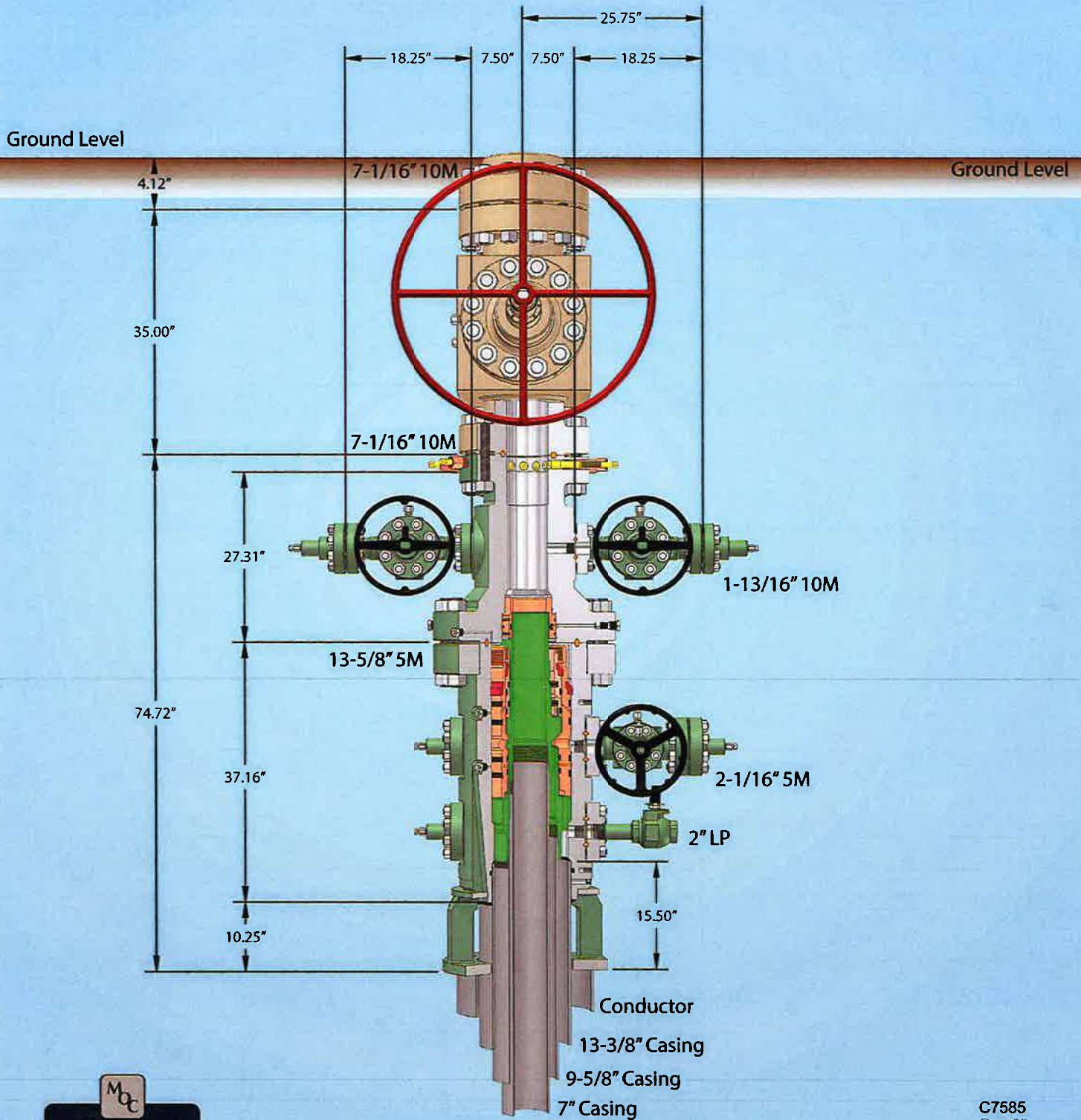
Capping Range 57" conductor cut-off
79

Page 79 of 86

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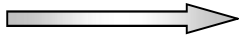
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13-5/8" MN-DS Wellhead System



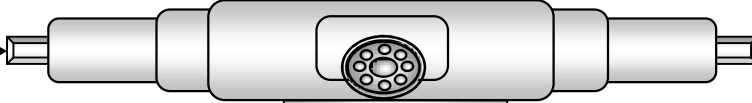
Capping Range 57" conductor cut-off
79

Hydril "GK"
13 5/8" 5M

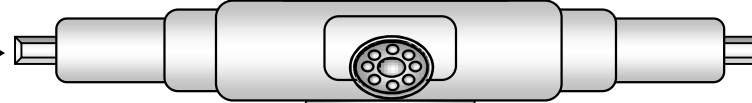


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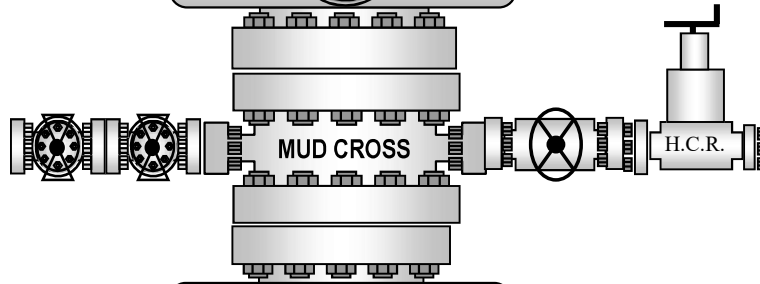
Cameron Type U
13 5/8" 5M



4 1/2" x 5 7/8" VBR



BLIND RAMS

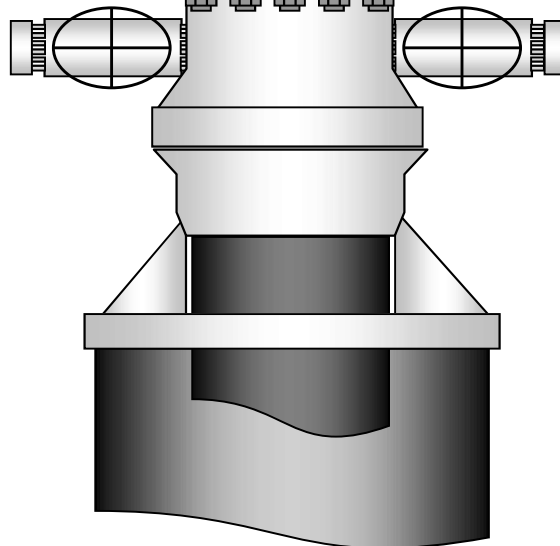
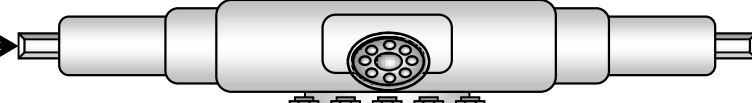


13 5/8" 5M

13 5/8" 5M

13 5/8" 5M

7" RAMS

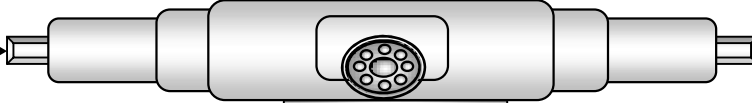


Hydril "GK"
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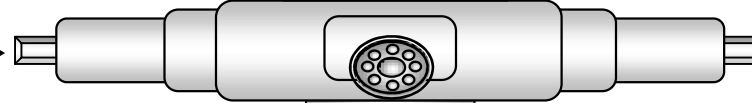


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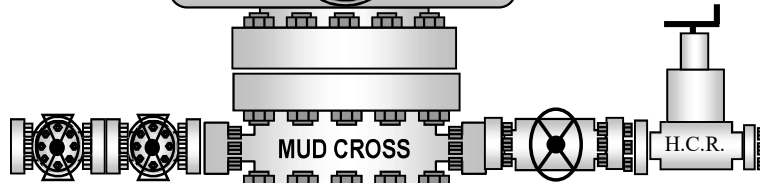
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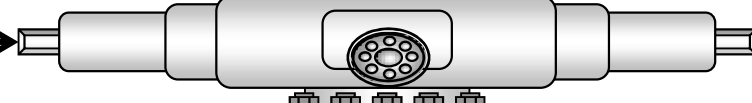
4 1/2" x 5 7/8" VBR



BLIND RAMS



MUD CROSS



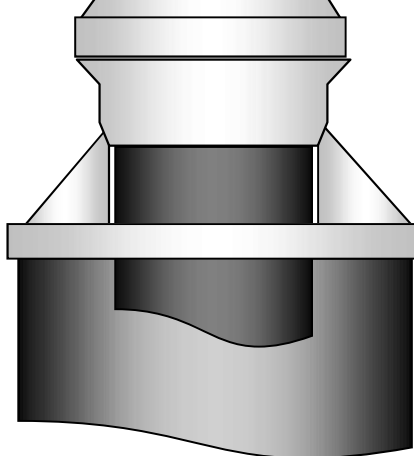
7" RAMS



13 5/8" 5M

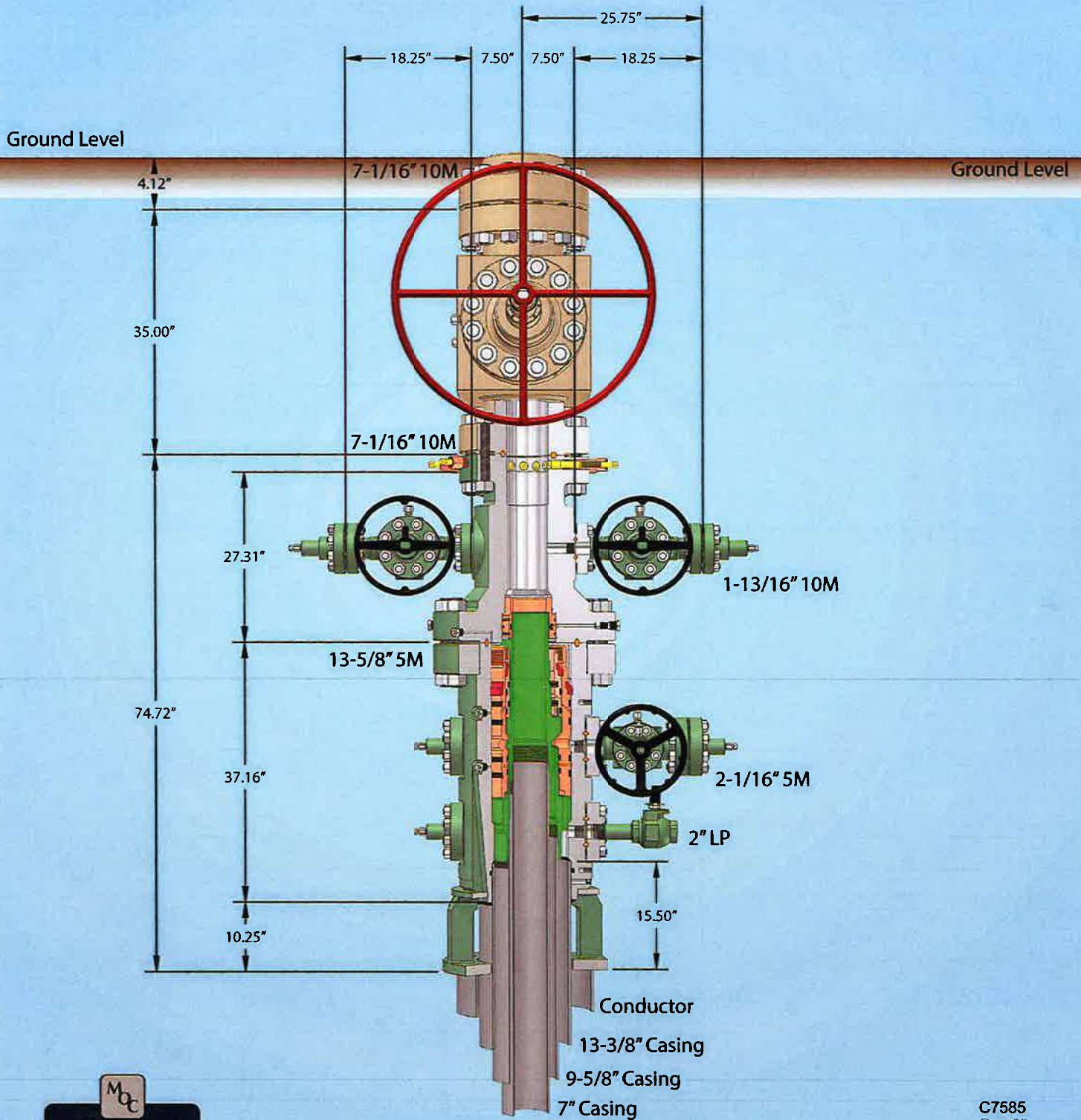
13 5/8" 5M

13 5/8" 5M

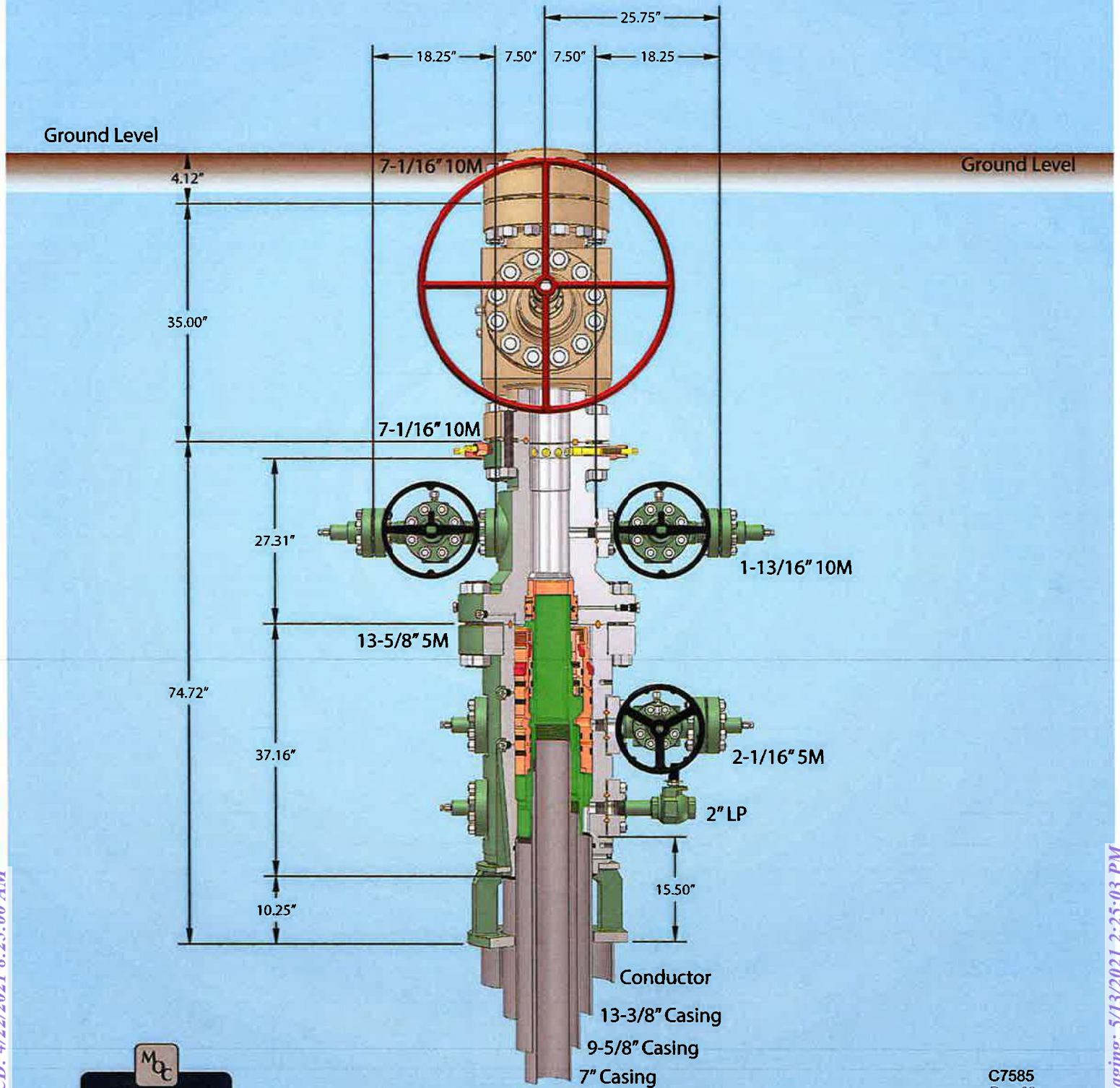


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Received by OCD: 4/22/2021 8:25:00 AM
Released to Imaging: 5/13/2021 2:25:03 PM

13-5/8" MN-DS Wellhead System



Capping Range 57" conductor cut-off
79



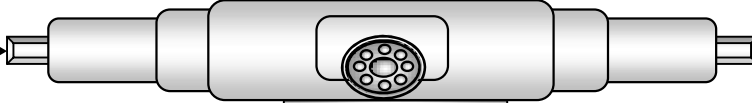
Capping Range 57" conductor cut-off
79

Hydril "GK"
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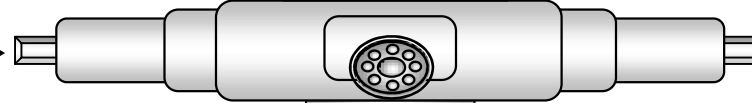


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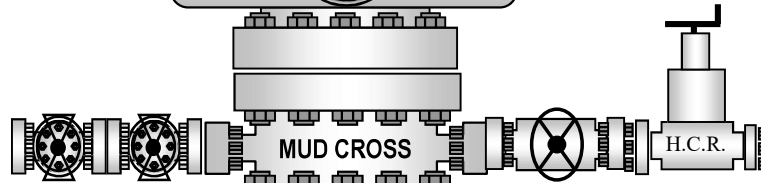
Cameron Type U
13 5/8" 5M



4 1/2" x 5 7/8" VBR



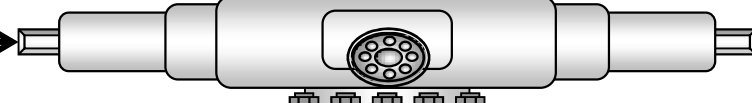
BLIND RAMS



MUD CROSS



H.C.R.



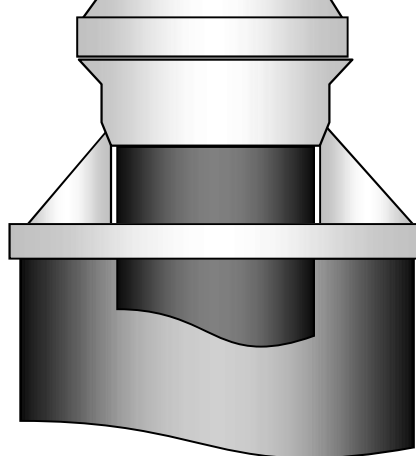
7" RAMS



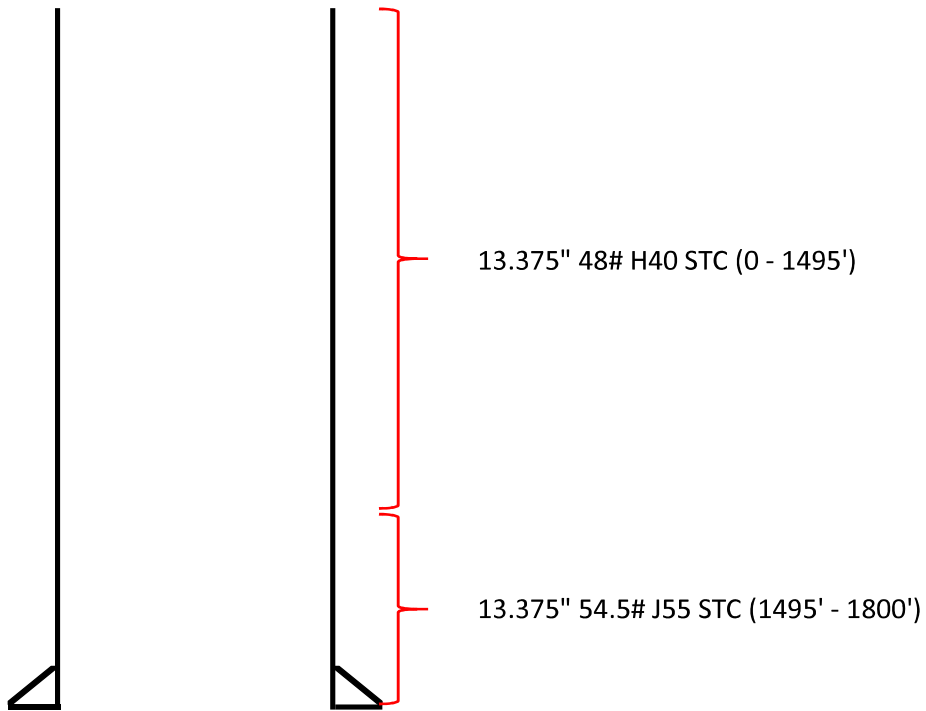
13 5/8" 5M

13 5/8" 5M

13 5/8" 5M



TAPERED STRING DIAGRAM



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

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 25087

CONDITIONS OF APPROVAL

Operator:				OGRID:		Action Number:	Action Type:
	MEWBOURNE OIL CO	P.O. Box 5270	Hobbs, NM88241		14744	25087	FORM 3160-3

OCD Reviewer	Condition
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	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