Form 3160-3 FORM APPROVED OMB No. 1004-0137 (June 2015) Expires: January 31, 2018 **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. NMNM130854 BUREAU OF LAND MANAGEMENT APPLICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allotee or Tribe Name 7. If Unit or CA Agreement, Name and No. **✓** DRILL REENTER 1a. Type of work: 1b. Type of Well: Oil Well ✓ Gas Well Other 8. Lease Name and Well No. 1c. Type of Completion: Hydraulic Fracturing ✓ Single Zone Multiple Zone GREY GOOSE 20 17 FED COM P45 2H 2. Name of Operator 9. API Well No. 30-015-55019 CHEVRON USA INCORPORATED 3a. Address 3b. Phone No. (include area code) 10. Field and Pool, or Exploratory P O BOX 1635, HOUSTON, TX 77251 (661) 654-7256 PURPLE SAGE/WOLFCAMP (98220) 4. Location of Well (Report location clearly and in accordance with any State requirements.*) 11. Sec., T. R. M. or Blk. and Survey or Area SEC 20/T25S/R27E/NMP At surface SESW / 301 FSL / 1447 FWL / LAT 32.108995 / LONG -104.215909 At proposed prod. zone NWNW / 25 FNL / 990 FWL / LAT 32.137257 / LONG -104.217709 14. Distance in miles and direction from nearest town or post office* 12. County or Parish 13. State **EDDY** NM 13 miles 15. Distance from proposed* 16. No of acres in lease 17. Spacing Unit dedicated to this well 301 feet location to nearest property or lease line, ft. 640.0 (Also to nearest drig. unit line, if any) 18. Distance from proposed location* 19. Proposed Depth 20. BLM/BIA Bond No. in file to nearest well, drilling, completed, 500 feet 8747 feet / 19141 feet FED: applied for, on this lease, ft. 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start* 23. Estimated duration 3136 feet 07/31/2023 147 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. 4. Bond to cover the operations unless covered by an existing bond on file (see 2. A Drilling Plan. Item 20 above). 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the SUPO must be filed with the appropriate Forest Service Office). 25. Signature Name (Printed/Typed) Date (Electronic Submission) CAROL ADLER / Ph: (432) 687-7866 08/25/2022 Title Sr Regulatory Affairs Coordinator Approved by (Signature) Name (Printed/Typed) Date (Electronic Submission) 04/12/2024 CHRISTOPHER WALLS / Ph: (575) 234-2234 Title Office Petroleum Engineer 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



*(Instructions on page 2)

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.

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

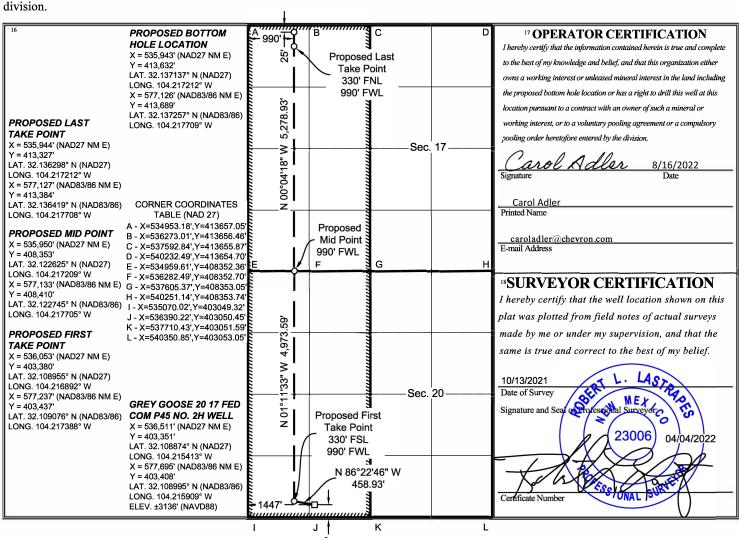
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

Santa Fe, NM 87505

	WEED DOCKTOON AND FROM THE PROPERTY OF THE PRO											
	¹ API Nu	mber	² Pool	Code	Code ³ Pool Name							
30-0	15-55	019	982	20	20 PURPLE SAGE WOLFCAMP (GAS)							
⁴ Proper	ty Code		⁵ Property Name ⁶ Well Number									
3358	60		GREY GOOSE 20 17 FED COM P45 2H									
⁷ OGR	ID No.		⁸ Operator Name ⁹ Elevation									
43	323 CHEVRON U.S.A. INC. 3136'											
¹⁰ Surface Location												
UL or lot no.	Section	n Township	ship Range Lot Idn Feet from the North/South line Feet from the East/West line Co							County		
N	20	25 SOUTH	27 EAST, N.M.P.M.	27 EAST, N.M.P.M. 301' SOUTH 1447' WEST EDDY								
		100	11 Bottom 1	Hole Locat	tion If Diffe	erent From S	Surface					
UL or lot no.	Sectio	n Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/	West line	County		
D	17	25 SOUTH	OUTH 27 EAST, N.M.P.M. 25' NORTH 990' WEST EDDY									
12 Dedicated A	cres 13 J	oint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.	V							
640		INFILL		DEFINING W	VELL IS GREY	GOOSE 20 17	R-2220 P45 3H	4				

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the



301

State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description Effective May 25, 2021

I. Operator: <u>Che</u>	vron USA_		OGRID:	4323		Date: <u>03 / 21 / 22</u>					
II. Type: ⊠ Original □ A	Amendment	due to □ 19.15.27	7.9.D(6)(a) NMAC	□ 19.15.27.9.D((6)(b) NMAC □	Other.					
If Other, please describe: _											
II. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.											
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D					
GREY GOOSE 20 17 FED COM P45 1H	Pending	UL:N, Sec 20, T25S-R27E	301' FSL, 1422' FWL	1230 BBL/D	3453 MCF/D	4225 BBL/D					
GREY GOOSE 20 17 FED COM P45 2H	Pending	UL:N, Sec 20, T25S-R27E	301' FSL, 1447' FWL	1230 BBL/D	3453 MCF/D	4225 BBL/D					
GREY GOOSE 20 17 FED COM P45 3H	Pending	UL:N, Sec 20, T25S-R27E	301' FSL, 1472' FWL	1230 BBL/D	3453 MCF/D	4225 BBL/D					
GREY GOOSE 20 17 FED COM P45 4H	Pending	UL:N, Sec 20, T25S-R27E	301' FSL, 1497' FWL	1230 BBL/D	3453 MCF/D	4225 BBL/D					
IV. Central Delivery Point Name: Hayhurst NM CTB Sec 28 [See 19.15.27.9(D)(1) NMAC] W. Anticipated Schoduler Provide the following information for each new or recompleted well or set of wells proposed to be drilled or											

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached	Completion	Initial Flow	First Production
			Date	Commencement Date	Back Date	Date
GREY GOOSE 20 17	Pending	March 2024	N/A	N/A	N/A	N/A
FED COM P45 1H)					
GREY GOOSE 20 17	Pending	March 2024	N/A	N/A	N/A	N/A
FED COM P45 2H						
GREY GOOSE 20 17	Pending	March 2024	N/A	N/A	N/A	N/A
FED COM P45 3H						
GREY GOOSE 20 17	Pending	March 2024	N/A	N/A	N/A	N/A
FED COM P45 4H						

VI. Separation Equipment:
☐ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☐ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

Page 1 of 4

VIII. Best Management Practices:

Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

			Enhanced Plan /E APRIL 1, 2022	
	2022, an operator that complete this section.		with its statewide natural ga	as capture requirement for the applicable
	s that it is not require for the applicable rep		ction because Operator is in c	compliance with its statewide natural gas
IX. Anticipated Na	tural Gas Productio	n:		
W	ell	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF
X. Natural Gas Ga	thering System (NG	GS):		
Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in
production operation the segment or portion in the Segment or portion in the Segment of the Segm	ns to the existing or plon of the natural gas gate. The natural gas gate from the well prior to e. Operator \(\sqrt{ does} \) described	lanned interconnect of gathering system(s) to whering system will the date of first product does not anticipate the above will continue to	the natural gas gathering syste which the well(s) will be conn will not have capacity to gatherion. at its existing well(s) connected	ticipated pipeline route(s) connecting the em(s), and the maximum daily capacity of nected. ather 100% of the anticipated natural gas ed to the same segment, or portion, of the line pressure caused by the new well(s).
XIV. Confidentiali Section 2 as provide	ty: □ Operator assed in Paragraph (2) of	rts confidentiality purs	suant to Section 71-2-8 NMS .27.9 NMAC, and attaches a fu	A 1978 for the information provided in full description of the specific information

(i)

Section 3 - Certifications <u>Effective May 25, 2021</u>

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal: 🗵 Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system: or ☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. If Operator checks this box, Operator will select one of the following: Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or Venting and Flaring Plan.

Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including: power generation on lease: (a) power generation for grid; (b) compression on lease; (c) (d) liquids removal on lease; reinjection for underground storage; (e) **(f)** reinjection for temporary storage; **(g)** reinjection for enhanced oil recovery; fuel cell production; and (h)

Section 4 - Notices

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

other alternative beneficial uses approved by the division.

- (a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or
- (b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.
- 2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

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

Signature: Carol Adler
Printed Name: Carol Adler
Title: Sr. Regulatory Affairs Specialist
E-mail Address: caroladler@chevron.com
Date: 8/23/2022
Phone: (432) 687-7148
OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

VI. Separation Equipment:

Separation equipment installed at each Chevron facility is designed for maximum anticipated throughput and pressure to minimize waste. Separation equipment is designed and built according to ASME Sec VIII Div I to ensure gas is separated from liquid streams according to projected production.

VII./VIII. Operational & Best Management Practices:

- 1. General Requirements for Venting and Flaring of Natural Gas:
 - In all circumstances, Chevron will flare rather than vent unless flaring is technically infeasible and venting of natural gas will avoid a risk of an immediate and substantial adverse impact on safety, public health, or the environment.
 - Chevron installs and operates vapor recovery units (VRUs) in new facilities to minimize venting and flaring.
 If a VRU experiences operating issues, it is quickly assessed so that action can be taken to return the VRU to operation or, if necessary, facilities are shut-in to reduce the venting or flaring of natural gas.

2. During Drilling Operations:

- Flare stacks will be located a minimum of 110 feet from the nearest surface hole location.
- If an emergency or malfunction occurs, gas will be flared or vented to avoid a risk of an immediate and substantial adverse impact on public health, safety or the environment and be properly reported to the NMOCD pursuant to 19.15.27.8.G.
- Natural gas is captured or combusted if technically feasible using best industry practices and control technologies, such as the use of separators (e.g., Sand Commanders) during normal drilling and completions operations.

3. During Completions:

- Chevron typically does not complete traditional flowback, instead Chevron will flow produced oil, water, and gas to a centralized tank battery and continuously recover salable quality gas. If Chevron completes traditional flowback, Chevron conducts reduced emission completions as required by 40 CFR 60.5375a by routing gas to a gas flow line as soon as practicable once there is enough gas to operate a separator.
 Venting does not occur once there is enough gas to operate a separator
- Normally, during completions a flare is not on-site. A Snubbing Unit will have a flare on-site, and the flare volume will be estimated.
- If natural gas does not meet pipeline quality specification, the gas is sampled twice per week until the gas meets the specifications.

4. During Production:

- An audio, visual and olfactory (AVO) inspection will be performed daily (at minimum) for active wells and
 facilities to confirm that all production equipment is operating properly and there are no leaks or releases
 except as allowed in Subsection D of 19.15.27.8 NMAC. Inactive, temporarily abandoned, or shut-in wells
 and facilities will be inspected weekly. Inspection records will be kept for a minimum of five years and will
 be available upon request by the division.
- Monitor manual liquid unloading for wells on-site, takes all reasonable actions to achieve a stabilized rate
 and pressure at the earliest practical time and takes reasonable actions to minimize venting to the
 maximum extent practicable.
- In all circumstances, Chevron will flare rather than vent unless flaring is technically infeasible and venting
 of natural gas will avoid a risk of an immediate and substantial adverse impact on safety, public health, or
 the environment.
- Chevron's design for new facilities utilizes air-activated pneumatic controllers and pumps.
- If natural gas does not meet pipeline quality specification, the gas is sampled twice per week until the gas meets the specifications.
- Chevron does not produce oil or gas until all flowlines, tank batteries, and oil/gas takeaway are installed, tested, and determined operational.

5. Performance Standards

- Equipment installed at each facility is designed for maximum anticipated throughput and pressure to minimize waste. Tank pressure relief systems utilize a soft seated or metal seated PSVs, as appropriate, which are both designed to not leak.
- Flare stack has been designed for proper size and combustion efficiency. New flares will have a
 continuous pilot and will be located at least 100 feet from the well and storage tanks and will be securely
 anchored.
- New tanks will be equipped with an automatic gauging system.
- An audio, visual and olfactory (AVO) inspection will be performed daily (at minimum) for active wells and
 facilities to confirm that all production equipment is operating properly and there are no leaks or releases
 except as allowed in Subsection D of 19.15.27.8 NMAC. Inactive, temporarily abandoned, or shut-in wells
 and facilities will be inspected weekly. Inspection records will be kept for a minimum of five years and will
 be available upon request by the division.

6. Measurement or Estimation of Vented and Flared Natural Gas

- Chevron estimates or measures the volume of natural gas that is vented, flared, or beneficially used during drilling, operations, regardless of the reason or authorization for such venting or flaring.
- Where technically practicable, Chevron will install meters on flares installed after May 25, 2021. Meters will conform to industry standards. Bypassing the meter will only occur for inspecting and servicing of the meter.



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

Drilling Plan Data Report

04/12/2024

APD ID: 10400087681

Submission Date: 08/25/2022

Highlighted data reflects the most recent changes

Operator Name: CHEVRON USA INCORPORATED

Well Number: 2H

Well Name: GREY GOOSE 20 17 FED COM P45

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

Show Final Text

Section 1 - Geologic Formations

Formation			True Vertical			Mineral Resources	•
ID	Formation Name	Elevation		Depth	Lithologies		Formatio
13242923	SALADO	3147	158	186	ANHYDRITE, SALT	NONE	N
13242935	CASTILE	2779	368	395	ANHYDRITE, SALT	NONE	N
13242925	LAMAR	1190	1957	2009	LIMESTONE, SHALE	NONE	N
13242926	BELL CANYON	1150	1997	2051	LIMESTONE, SANDSTONE	NONE	N
13242927	CHERRY CANYON	315	2832	2916	LIMESTONE, SANDSTONE, SILTSTONE	NONE	N
13242928	BRUSHY CANYON	-753	3900	4020	LIMESTONE, SANDSTONE, SHALE	NONE	N
13242929	BONE SPRING LIME	-2392	5539	5685	SHALE, SILTSTONE	NONE	N
13242930	AVALON SAND	-2504	5651	5795	SHALE	NATURAL GAS, OIL	N
13242932	BONE SPRING 1ST	-3283	6430	6572	SANDSTONE, SHALE	NATURAL GAS, OIL	N
13242936	BONE SPRING 2ND	-3820	6967	7114	SANDSTONE, SHALE	NATURAL GAS, OIL	N
13242940	BONE SPRING 3RD	-5146	8293	8437	SANDSTONE, SHALE	NATURAL GAS, OIL	N
13242941	WOLFCAMP	-5486	8633	8793	SANDSTONE, SHALE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 8749

Equipment: Chevron will have a minimum of a 5,000 psi rig stack (see proposed schematic) for drill out below surface casing.

Requesting Variance? YES

Variance request: Chevron is requesting the following variances: Chevron request to vary from the Onshore Order 2 where it relations if the first of th broken." We propose to break test if able to finish the next hole section within 21 days of the previous full BOP test. No BOP

Well Name: GREY GOOSE 20 17 FED COM P45 Well Number: 2H

testing. A break test will consist of a 250 psi low / 5,000 psi high for 10 min each test against the connection that was broken when skidding the rig. Upon the first nipple up of the pad a full BOP test will be performed. A full BOP test will be completed prior to drilling the production lateral sections unless the BOP connection was not broken prior to drilling that hole section (example: drilling straight from production into production liner hole section). A break test will only be performed on operations where BLM documentation states a 5M or less BOP can be utilized. Chevron requests a variance to use a FMC Technologies UH-S Multibowl wellhead, which will be run through the rig floor on surface casing. BOPE will be nippled up and tested after cementing surface casing. Subsequent tests will be performed as needed, not to exceed 30 days. The field report from FMC Technologies and BOP test information will be provided in a subsequent report at the end of the well. Please see the attached wellhead schematic. An installation manual has been placed on file with the BLM office and remains unchanged from previous submittal. All tests performed by third party. Chevron requests to use high pressure flex hoses for all wells on the pad. Spec sheets attached to APD.

Testing Procedure: The stack will be tested as specified in the attached testing requirements. Batch drilling of the surface, production, and production liner will take place. Chevron proposes a digital BOP test method in lieu of the standard test chart. BOP test pressures and other documented tests will be recorded and documented via utilization of IPT SureTec Digital BOP Testing equipment and software. In the event the IPT system is unavailable, the standard test chart will be used. Test Time Test Pressure Criteria Additional CriteriaLow Pressure Test 10 min 3 psi/min decline No visible leaks. Pressure shall not decrease below the intended test pressure. High Pressure Test 10 min 10 psi/min decline No visible leaks. Pressure shall not decrease below the intended test pressure. Pressure transducers are calibrated to the manufacturers specification. Each testing report will show information on the transducers including manufacturer, model, serial, and calibration date. IPT SureTec software will be used by knowledgeable personnel for BOP pressure testing. The software will be operated per IPT requirements and will not be used beyond the explicitly intended purpose.

Choke Diagram Attachment:

CoFlex Hose Variance 20220824125937.pdf

BLM_5M_Choke_Manifold_Diagram__1_20211018095608.pdf

BOP Diagram Attachment:

NM Slim Hole Wellhead 6650 psi UH S 20210927173753 20220824130018.pdf

UHS_Multibowl_Wellhead_2017_20211028080003.pdf

BLM_5M_Intermediate_BOP_and_Choke_Manifold_NEW_20231016095430.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	396	0	396	3136	2740	396	J-55	54.5	BUTT	2.13	1.43	DRY	2.09	DRY	3.46
2		I_	9.625	NEW	API	Ν	0	1998	0	1985	3168	1151	1998	L-80	40	BUTT	1.24	1.64	DRY	3.16	DRY	3.26
	IATE	5																				
3	INTERMED	8.75	7.0	NEW	API	N	0	8127	0	8087	3143	-4951	8127	1.			1.63	1.15	DRY	2.3	DRY	2.3
	IATE													110		BLUE						
Rel	eased to Im	aging	:: 5/10	2024	8:54:	21 A	$M_{\perp \perp}$															

Well Name: GREY GOOSE 20 17 FED COM P45

Well Number: 2H

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
4	PRODUCTI ON	6.12 5	5.0	NEW	API	N	7827	8727	7577	8637	-4441	-5501	900	P- 110		OTHER - W- 513	1.39	1.1	DRY	2.39	DRY	2.39
5	PRODUCTI ON	6.12 5	4.5	NEW	API	N	8727	19141	8637	8749	-5501	-5613	10414	P- 110		OTHER - W521	1.39	1.1	DRY	1.63	DRY	2.54

Casing	Attach	ments
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Casing ID:	1	String	SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

13.375_casing_spec_sheet_20220824130346.pdf

Casing ID: 2 String INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

9.625_40.0lb_L80IC_BTC_20211011074920.pdf

Well Name: GREY GOOSE 20 17 FED COM P45 Well Number: 2H

	Casing	Attach	ıments
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Casing ID: 3

String

INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

7in_Blue_vs_BlueSD_20211011075244.pdf

Casing ID: 4

String

PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

 $5.0_18.0ppf_P110_W513_20210927174906_20211011075729.pdf$

Casing ID: 5

String

PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

4.5_W521_Spec_Sheet_20211011075837.pdf

Well Name: GREY GOOSE 20 17 FED COM P45 Well

Well Number: 2H

String Type	Lead/Tail	Stage Tool Depth	Тор МD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	0	0	0	0	0	0	N/A	N/A
SURFACE	Tail		0	396	256	1.34	14.8	343	25	CLASS C	Extender, Antifoam, Retarder, Viscosifier
PRODUCTION	Lead		0	0	0	0	0	0	0	N/A	N/A

INTERMEDIATE	Lead		0	998	171	2.29	11.5	391	25	CLASS C	EXTENDER, ANTIFOAM; RETARDER, VISCOSIFIER
INTERMEDIATE	Tail	(998	1998	263	1.63	13.6	429	25	CLASS C	EXTENDER, ANTIFOAM; RETARDER, VISCOSIFIER
INTERMEDIATE	Lead		0	7127	485	2.64	11.5	1281	25	CLASS C	Extender, Antifoam, Retarder, Viscosifier
INTERMEDIATE	Tail	7	7127	8127	134	1.4	14.5	188	25	CLASS C	Extender, Antifoam, Retarder, Viscosifier
PRODUCTION	Lead	7	7927	1914 1	781	1.69	13.2	1320	25	CLASS H	Extender, Antifoam, Retarder, Viscosifier

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: A weighting agent and lost circulating material (LCM) will be onsite to mitigate pressure or lost circulation as hole conditions dictate. If an open reserve pit is not approved by OCD, a closed system will be used consisting of above ground steel tanks and all wastes accumulated during drilling operations will be contained in a portable trash cage and removed from location and deposited in an approved sanitary landfill. If an open reserve pit is in place, pit construction, operation, and closure will follow all applicable rules and regulation. Sanitary wastes will be contained in a chemical porta-toilet and then hauled to an approved sanitary landfill. All fluids and cuttings will be disposed of in accordance with New Mexico Oil Conservation Division rules and regulations. And transportation of E&P waste will follow EPA regulations and accompanying manifests.

Describe the much propriet system utilized: A mud test shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH. Visual mud monitoring equipment shall be in place

Well Name: GREY GOOSE 20 17 FED COM P45 Well Number: 2H

volume. When abnormal pressures are anticipated -- a pit volume totalizer (PVT), stroke counter, and flow sensor will be used to detect volume changes indicating loss or gain of circulating fluid volume.

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)	ЬН	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	396	SPUD MUD	8.3	9.1							VISCOSITY: 26-36 FILTRATE: N/C
396	1998	SALT SATURATED	8.9	10.5							-Saturated brine would be used through salt sections. VISCOSITY: 26-36 FILTRATE: 15-25
1998	8127	OTHER : WBM/BRINE	8.7	9.6							VISCOSITY: 26-36 FILTRATE: 15-25
8127	1914 1	OIL-BASED MUD	9	12.2							VISCOSITY: 50-70 FILTRATE: 5-10 -Due to wellbore instability in the lateral, may exceed the MW weight window needed to maintain overburden stresses

Section 6 - Test, Logging, Coring

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

PRODUCTION TESTS ARE NOT PLANNED

LOGS RUN INCLUDE: GAMMA RAY LOG; DIRECTIONAL SURVEY

CORING OPERATIONS ARE NOT PLANNED

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

GAMMA RAY LOG, DIRECTIONAL SURVEY,

Coring operation description for the well:

Conventional whole core samples are not planned; direction survey will be run - will send log(s) when run.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5550 Anticipated Surface Pressure: 3625

Anticipated Bottom Hole Temperature(F): 165

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

Describe:

Released to Imaging: 5/10/2024 8:54:21 AM

Well Name: GREY GOOSE 20 17 FED COM P45 Well Number: 2H

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

H2S_Contingency_Plan_20211018100553.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

CUSA_Spudder_Rig_Data_20211011085301.pdf

Operational_Best_Management_Practices_V2_20210927175955_20211011085342.pdf

HHNM_GREY_GOOSE_20_17_FED_COM_P45_Gas_Management_Plan___NMOCD_20220824131909.pdf

Rig_Layout_20220411150452_20220824132001.pdf

GREY GOOSE 20 17 FED COM P45 2H 9P 20220825085549.pdf

DefPlan100ft GreyGoose2017FedComP452H R1 20220825085635.pdf

Other proposed operations facets description:

Batch drilling will be employed whereby the drilling rig may drill a specific hole section on all wells prior to moving to the next hole section.

b.

Shallow rig may be utilized to drill surface or intermediate sections. The production section will not be drilled by the shallow rig.

C.

Wait on cement time will use the tail slurry and will follow rules as laid out in Onshore Order 2.

Other proposed operations facets attachment:

Other Variance attachment:

Chevron

Schlumberger

Version / Patch:

Grey Goose 20 17 Fed Com P45 2H R1 mdv 12Apr22 Proposal Geodetic Report

(Def Plan)

VSEC

April 12, 2022 - 04:27 PM Report Date: Client: Field: Chevron NM, Eddy County (NAD 27 EZ) Chevron HNM Pkg 45 Grey Goose Pad / 2H Grey Goose 20 17 Fed Com P45 2H Grey Goose 20 17 Fed Com P45 2H Structure / Slot: Borehole: UWI / API#: Survey Name:

Unknown / Unknown Grey Goose 20 17 Fed Com P45 2H R1 mdv 12Apr22 April 12, 2022 Survey Date: April 12, 2022 111.490 " / 11050.537 ft / 6.427 / 1.254 NAD27 New Mexico State Plane, Eastern Zone, US Feet N 32" 6" 31.94360", W 104" 12" 55.49178" N 403351.000 ftUS, E 536511.000 ftUS 0.0627 " 0.99991062 Survey Date:
Tort / AHD / DDI / ERD Ratio:
Coordinate Reference System:
Location Lat / Long:
Location Grid N/E Y/X:
CRS Grid Convergence Angle:
Grid Scale Factor:

MD

2.10.829.1

Incl

Azim Grid

TVD

Survey / DLS Computation: Vertical Section Azimuth: Vertical Section Origin: TVD Reference Datum: TVD Reference Elevation:
Seabed / Ground Elevation:
Magnetic Declination:
Total Gravity Field Strength:

Gravity Model: Total Magnetic Field Strength: Magnetic Dip Angle: Declination Date: Magnetic Declination Model:
North Reference:
Grid Convergence Used:
Total Corr Mag North->Grid Local Coord Referenced To:

NS

EW

359.390 ° (Grid North) 0.000 ft, 0.000 ft RKB = 28ft 3164.000 ft above MSL 3136.000 ft above MSL 6.935°

Minimum Curvature / Lubinski 998.4467mgn (9.80665 Based) GARM 47528.029 nT 59.681 ° April 12, 2022 HDGM 2022 Grid North 0.0627 ° 6 8724 ° Well Head

DLS

Northing

Easting

Latitude

Longitude

Comments	MD (ft)	Incl (°)	Azim Grid	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting Latitude Longitude (ftUS) (N/S ° ' ") (E/W ° ' ")
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	403351.00	536511.00 N 32 6 31.94 W 104 12 55.49
	100.00	0.00	241.02	100.00	0.00	0.00	0.00	0.00	403351.00	536511.00 N 32 6 31.94 W 104 12 55.49
Salado (SLDO)	186.00	0.00	241.02	186.00	0.00	0.00	0.00	0.00	403351.00	536511.00 N 32 6 31.94 W 104 12 55.49
	200.00	0.00	241.02	200.00	0.00	0.00	0.00	0.00	403351.00	536511.00 N 32 6 31.94 W 104 12 55.49
	300.00	0.00	241.02	300.00	0.00	0.00	0.00	0.00	403351.00	536511.00 N 32 6 31.94 W 104 12 55.49
Castile (CSTL)	396.00	0.00	241.02	396.00	0.00	0.00	0.00	0.00	403351.00	536511.00 N 32 6 31.94 W 104 12 55.49
	400.00	0.00	241.02	400.00	0.00	0.00	0.00	0.00	403351.00	536511.00 N 32 6 31.94 W 104 12 55.49
	500.00	0.00	241.02	500.00	0.00	0.00	0.00	0.00	403351.00	536511.00 N 32 6 31.94 W 104 12 55.49
D 11.4 504000	600.00	0.00	241.02	600.00	0.00	0.00	0.00	0.00	403351.00	536511.00 N 32 6 31.94 W 104 12 55.49
Build 1.5°/100ft	700.00	0.00 1.50	241.02	700.00	0.00 -0.62	0.00 -0.63	0.00 -1.15	0.00 1.50	403351.00 403350.37	536511.00 N 32 6 31.94 W 104 12 55.49
	800.00 900.00	3.00	241.02 241.02	799.99 899.91	-0.62 -2.49	-0.63 -2.54	-1.15 -4.58	1.50	403350.37	536509.86 N 32 6 31.94 W 104 12 55.51 536506.42 N 32 6 31.92 W 104 12 55.55
	1000.00	4.50	241.02	999.69	-5.60	-2.54 -5.71	-4.30	1.50	403345.30	536500.70 N 32 6 31.89 W 104 12 55.61
	1100.00	6.00	241.02	1099.27	-9.94	-10.14	-18.30	1.50	403340.86	536492.70 N 32 6 31.84 W 104 12 55.70
	1200.00	7.50	241.02	1198.57	-15.53	-15.83	-28.59	1.50	403335.17	536482.42 N 32 6 31.79 W 104 12 55.82
	1300.00	9.00	241.02	1297.54	-22.35	-22.79	-41.14	1.50	403328.22	536469.87 N 32 6 31.72 W 104 12 55.97
Hold	1366.47	10.00	241.02	1363.09	-27.56	-28.10	-50.73	1.50	403322.90	536460.27 N 32 6 31.67 W 104 12 56.08
	1400.00	10.00	241.02	1396.11	-30.32	-30.92	-55.83	0.00	403320.08	536455.18 N 32 6 31.64 W 104 12 56.14
	1500.00	10.00	241.02	1494.60	-38.57	-39.33	-71.01	0.00	403311.67	536439.99 N 32 6 31.56 W 104 12 56.32
	1600.00	10.00	241.02	1593.08	-46.82	-47.74	-86.20	0.00	403303.26	536424.81 N 32 6 31.47 W 104 12 56.49
	1700.00	10.00	241.02	1691.56	-55.07	-56.15	-101.38	0.00	403294.85	536409.63 N 32 6 31.39 W 104 12 56.67
	1800.00	10.00	241.02	1790.04	-63.32	-64.57	-116.57	0.00	403286.44	536394.44 N 32 6 31.31 W 104 12 56.85
	1900.00	10.00	241.02	1888.52	-71.57	-72.98	-131.76	0.00	403278.03	536379.26 N 32 6 31.22 W 104 12 57.02
Lamar (LMAR)	1997.96	10.00	241.02 241.02	1985.00	-79.65 -79.82	-81.22	-146.63	0.00 0.00	403269.79	536364.38 N 32 6 31.14 W 104 12 57.20
Bell Canyon (BLCN)	2000.00 2038.58	10.00 10.00	241.02 241.02	1987.00 2025.00	-79.82 -83.00	-81.39 -84.63	-146.94 -152.80	0.00	403269.62 403266.38	536364.07 N 32 6 31.14 W 104 12 57.20 536358 21 N 32 6 31 11 W 104 12 57 27
Bell Carlyon (BLCN)	2100.00	10.00	241.02	2085.49	-88.07	-89.80	-162.13	0.00	403266.36	536348.89 N 32 6 31.06 W 104 12 57.38
	2200.00	10.00	241.02	2183.97	-96.32	-98.21	-177.31	0.00	403251.21	536333.70 N 32 6 30.97 W 104 12 57.55
	2300.00	10.00	241.02	2282.45	-104.57	-106.62	-192.50	0.00	403244.39	536318.52 N 32 6 30.89 W 104 12 57.73
	2400.00	10.00	241.02	2380.93	-112.81	-115.03	-207.69	0.00	403235.98	536303.33 N 32 6 30.81 W 104 12 57.91
	2500.00	10.00	241.02	2479.41	-121.06	-123.44	-222.87	0.00	403227.57	536288.15 N 32 6 30.72 W 104 12 58.08
	2600.00	10.00	241.02	2577.89	-129.31	-131.85	-238.06	0.00	403219.16	536272.96 N 32 6 30.64 W 104 12 58.26
	2700.00	10.00	241.02	2676.38	-137.56	-140.27	-253.24	0.00	403210.75	536257.78 N 32 6 30.56 W 104 12 58.44
	2800.00	10.00	241.02	2774.86	-145.81	-148.68	-268.43	0.00	403202.34	536242.60 N 32 6 30.48 W 104 12 58.61
Cherry Canyon (CRCN)	2886.45	10.00	241.02	2860.00	-152.94	-155.95	-281.56	0.00	403195.07	536229.47 N 32 6 30.40 W 104 12 58.77
	2900.00	10.00	241.02	2873.34	-154.06	-157.09	-283.61	0.00	403193.93	536227.41 N 32 6 30.39 W 104 12 58.79
	3000.00	10.00	241.02	2971.82	-162.31	-165.50	-298.80	0.00	403185.52	536212.23 N 32 6 30.31 W 104 12 58.97
	3100.00	10.00	241.02	3070.30	-170.56	-173.91	-313.99	0.00	403177.11	536197.04 N 32 6 30.23 W 104 12 59.14
	3200.00	10.00 10.00	241.02 241.02	3168.78 3267.27	-178.81	-182.32 -190.73	-329.17 -344.36	0.00	403168.70 403160.29	536181.86 N 32 6 30.14 W 104 12 59.32 536166.67 N 32 6 30.06 W 104 12 59.50
Drop .75°/100ft	3300.00 3342.24	10.00	241.02	3308.86	-187.06 -190.54	-194.29	-344.36	0.00	403156.73	536160.26 N 32 6 30.06 W 104 12 59.50 536160.26 N 32 6 30.02 W 104 12 59.57
Diop .75 / Toolt	3400.00	9.56	241.02	3365.79	-195.20	-199.04	-359.36	0.75	403151.98	536151.68 N 32 6 29.98 W 104 12 59.67
	3500.00	8.81	241.02	3464.50	-202.79	-206.78	-373.33	0.75	403144.24	536137.71 N 32 6 29.90 W 104 12 59.83
	3600.00	8.06	241.02	3563.42	-209.76	-213.89	-386.16	0.75	403137.13	536124.87 N 32 6 29.83 W 104 12 59.98
	3700.00	7.31	241.02	3662.52	-216.12	-220.37	-397.87	0.75	403130.65	536113.17 N 32 6 29.77 W 104 13 0.12
	3800.00	6.56	241.02	3761.78	-221.86	-226.22	-408.44	0.75	403124.80	536102.60 N 32 6 29.71 W 104 13 0.24
	3900.00	5.81	241.02	3861.20	-226.98	-231.45	-417.87	0.75	403119.57	536093.17 N 32 6 29.66 W 104 13 0.35
Brushy Canyon (BCN)	3967.11	5.31	241.02	3928.00	-230.08	-234.60	-423.56	0.75	403116.42	536087.48 N 32 6 29.63 W 104 13 0.42
	4000.00	5.06	241.02	3960.75	-231.49	-236.04	-426.16	0.75	403114.98	536084.88 N 32 6 29.61 W 104 13 0.45
	4100.00	4.31	241.02	4060.42	-235.37	-240.00	-433.31	0.75	403111.02	536077.73 N 32 6 29.57 W 104 13 0.53
	4200.00	3.56	241.02	4160.18	-238.64	-243.33	-439.32	0.75 0.75	403107.69	536071.72 N 32 6 29.54 W 104 13 0.60
	4300.00 4400.00	2.81 2.06	241.02 241.02	4260.02 4359.93	-241.28 -243.30	-246.02 -248.08	-444.18 -447.91	0.75	403105.00 403102.94	536066.86 N 32 6 29.51 W 104 13 0.66 536063.14 N 32 6 29.49 W 104 13 0.70
	4500.00	1.31	241.02	4459.89	-243.30 -244.70	-249.51	-450.48	0.75	403102.94	536060.56 N 32 6 29.48 W 104 13 0.70
	4600.00	0.56	241.02	4559.87	-245.48	-249.31	-450.46 -451.92	0.75	403101.31	536059.12 N 32 6 29.47 W 104 13 0.75
Hold Vertical	4675.18	0.00	241.02	4635.05	-245.66	-250.49	-452.24	0.75	403100.72	536058.80 N 32 6 29.47 W 104 13 0.75
	4700.00	0.00	241.02	4659.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29.47 W 104 13 0.75
	4800.00	0.00	241.02	4759.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29.47 W 104 13 0.75
	4900.00	0.00	241.02	4859.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29.47 W 104 13 0.75
	5000.00	0.00	241.02	4959.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29.47 W 104 13 0.75
	5100.00	0.00	241.02	5059.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29.47 W 104 13 0.75
	5200.00	0.00	241.02	5159.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29.47 W 104 13 0.75
	5300.00	0.00	241.02	5259.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29.47 W 104 13 0.75
	5400.00	0.00	241.02	5359.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29.47 W 104 13 0.75
	5500.00	0.00	241.02	5459.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29.47 W 104 13 0.75
Page Spring Lime (PSCL)	5600.00 5607.13	0.00 0.00	241.02 241.02	5559.87 5567.00	-245.66 -245.66	-250.49 -250.49	-452.24 -452.24	0.00	403100.54 403100.54	536058.80 N 32 6 29.47 W 104 13 0.75 536058.80 N 32 6 29.47 W 104 13 0.75
Bone Spring Lime (BSGL)	5700.00	0.00	241.02	5659.87	-245.66 -245.66	-250.49 -250.49	-452.24 -452.24	0.00	403100.54	536058.80 N 32 6 29.47 W 104 13 0.75 536058.80 N 32 6 29.47 W 104 13 0.75
Avalon Upper (AVU)	5719.13	0.00	241.02	5679.00	-245.66	-250.49	-452.24 -452.24	0.00	403100.54	536058.80 N 32 6 29.47 W 104 13 0.75
	5800.00	0.00	241.02	5759.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29.47 W 104 13 0.75
	5900.00	0.00	241.02	5859.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29.47 W 104 13 0.75
	6000.00	0.00	241.02	5959.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29.47 W 104 13 0.75
Avalon Lower (AVL)	6059.13	0.00	241.02	6019.00	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29.47 W 104 13 0.75
	6100.00	0.00	241.02	6059.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29.47 W 104 13 0.75
	6200.00	0.00	241.02	6159.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29.47 W 104 13 0.75
	6300.00	0.00	241.02	6259.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29.47 W 104 13 0.75
	6400.00	0.00	241.02	6359.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29.47 W 104 13 0.75
First Bone Spring Upper (FBU)	6498.13	0.00	241.02	6458.00	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29.47 W 104 13 0.75
	6500.00	0.00	241.02	6459.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29.47 W 104 13 0.75
	6600.00	0.00	241.02	6559.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29.47 W 104 13 0.75

...Grey Goose 20 17 Fed Com P45 2H\Grey Goose 20 17 Fed Com P45 2H R1 mdv 12Apr22

omments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting Latitu	
	6700.00	0.00	241.02	6659.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29	
rst Bone Spring Lower (FBL)	6719.13	0.00	241.02	6679.00	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29.	
	6800.00 6900.00	0.00	241.02 241.02	6759.87 6859.87	-245.66 -245.66	-250.49 -250.49	-452.24 -452.24	0.00	403100.54 403100.54	536058.80 N 32 6 29 536058.80 N 32 6 29	
	7000.00	0.00	241.02	6959.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29	
econd Bone Spring Upper (SBU)	7035.13	0.00	241.02	6995.00	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29.	
	7100.00 7200.00	0.00	241.02 241.02	7059.87 7159.87	-245.66 -245.66	-250.49 -250.49	-452.24 -452.24	0.00	403100.54 403100.54	536058.80 N 32 6 29 536058.80 N 32 6 29	
	7300.00	0.00	241.02	7259.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29	
	7400.00	0.00	241.02	7359.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29	
econd Bone Spring Lower (SBL)	7500.00 7506.13	0.00 0.00	241.02 241.02	7459.87 7466.00	-245.66 -245.66	-250.49 -250.49	-452.24 -452.24	0.00 0.00	403100.54 403100.54	536058.80 N 32 6 29 536058.80 N 32 6 29.	
econd bone Spring Lower (SBL)	7600.00	0.00	241.02	7559.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29	
	7700.00	0.00	241.02	7659.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29	
	7800.00 7900.00	0.00	241.02 241.02	7759.87 7859.87	-245.66 -245.66	-250.49 -250.49	-452.24 -452.24	0.00	403100.54 403100.54	536058.80 N 32 6 29 536058.80 N 32 6 29	
	8000.00	0.00	241.02	7959.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29	
	8100.00	0.00	241.02	8059.87	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29	47 W 104 13
31C	8127.13	0.00	241.02	8087.00	-245.66	-250.49	-452.24	0.00	403100.54	536058.80 N 32 6 29.	
iild 10°/100ft	8200.00 8280.18	0.00	241.02 241.02	8159.87 8240.05	-245.66 -245.66	-250.49 -250.49	-452.24 -452.24	0.00	403100.54 403100.54		47 W 104 13 (47 W 104 13 (
	8300.00	1.98	358.81	8259.87	-245.31	-250.14	-452.25	10.00	403100.88	536058.79 N 32 6 29	47 W 104 13
ird Bone Spring	8361.40	8.12	358.81	8321.00	-239.91	-244.74	-452.36	10.00	403106.28	536058.68 N 32 6 29.	
	8400.00 8500.00	11.98 21.98	358.81 358.81	8359.00 8454.52	-233.17 -204.00	-238.00 -208.84	-452.50 -453.10	10.00 10.00	403113.02 403142.18	536058.54 N 32 6 29 536057.94 N 32 6 29	
	8600.00	31.98	358.81	8543.52	-158.69	-163.54	-454.04	10.00	403187.48	536057.00 N 32 6 30	
	8700.00	41.98	358.81	8623.30	-98.62	-103.47	-455.29	10.00	403247.54	536055.76 N 32 6 30	
olfcamp A	8752.99	47.28	358.81	8661.00	-61.40	-66.26	-456.06	10.00	403284.75	536054.99 N 32 6 31.	
P Cross	8800.00 8872.14	51.98 59.20	358.81 358.81	8691.44 8732.18	-25.60 33.87	-30.46 29.00	-456.80 -458.03	10.00 10.00	403320.54 403380.00	536054.24 N 32 6 31 536053.01 N 32 6 32.	
•	8900.00	61.98	358.81	8745.86	58.14	53.26	-458.53	10.00	403404.26	536052.51 N 32 6 32	48 W 104 13
	9000.00	71.98	358.81	8784.91	150.06	145.16	-460.44	10.00	403496.15	536050.61 N 32 6 33	
ding Point	9100.00 9183.97	81.98 90.38	358.81 358.81	8807.41 8813.00	247.36 331.07	242.45 326.15	-462.45 -464.18	10.00 10.00	403593.43 403677.12	536048.59 N 32 6 34 536046.86 N 32 6 35	
onig i onit	9200.00	90.38	358.81	8812.89	347.09	342.17	-464.18 -464.52	0.00	403677.12	536046.53 N 32 6 35	
	9300.00	90.38	358.81	8812.23	447.09	442.14	-466.59	0.00	403793.10	536044.46 N 32 6 36	32 W 104 13
	9400.00	90.38	358.81	8811.56	547.08	542.12	-468.66	0.00	403893.07	536042.38 N 32 6 37	
	9500.00 9600.00	90.38 90.38	358.81 358.81	8810.90 8810.24	647.07 747.06	642.10 742.07	-470.73 -472.80	0.00 0.00	403993.04 404093.00	536040.31 N 32 6 38 536038.24 N 32 6 39	
	9700.00	90.38	358.81	8809.58	847.06	842.05	-474.87	0.00	404192.97	536036.17 N 32 6 40	
	9800.00	90.38	358.81	8808.91	947.05	942.02	-476.94	0.00	404292.94	536034.10 N 32 6 41	27 W 104 13
	9900.00	90.38	358.81	8808.25	1047.04	1042.00	-479.01	0.00	404392.91	536032.03 N 32 6 42	
	10000.00 10100.00	90.38 90.38	358.81 358.81	8807.59 8806.93	1147.03 1247.03	1141.98 1241.95	-481.08 -483.16	0.00	404492.87 404592.84	536029.96 N 32 6 43 536027.89 N 32 6 44	25 W 104 13 24 W 104 13
	10200.00	90.38	358.81	8806.26	1347.02	1341.93	-485.23	0.00	404692.81	536025.82 N 32 6 45	
	10300.00	90.38	358.81	8805.60	1447.01	1441.91	-487.30	0.00	404792.77	536023.75 N 32 6 46	22 W 104 13
	10400.00	90.38	358.81	8804.94	1547.01	1541.88	-489.37	0.00	404892.74	536021.68 N 32 6 47	
	10500.00 10600.00	90.38 90.38	358.81 358.81	8804.27 8803.61	1647.00 1746.99	1641.86 1741.84	-491.44 -493.51	0.00	404992.71 405092.68	536019.61 N 32 6 48 536017.54 N 32 6 49	
	10700.00	90.38	358.81	8802.95	1846.98	1841.81	-495.58	0.00	405192.64	536015.46 N 32 6 50	
	10800.00	90.38	358.81	8802.29	1946.98	1941.79	-497.65	0.00	405292.61	536013.39 N 32 6 51	
	10900.00 11000.00	90.38 90.38	358.81 358.81	8801.62 8800.96	2046.97 2146.96	2041.76 2141.74	-499.72 -501.79	0.00	405392.58 405492.55	536011.32 N 32 6 52 536009.25 N 32 6 53	
	11100.00	90.38	358.81	8800.30	2246.95	2241.72	-503.86	0.00	405592.51	536007.18 N 32 6 54	
	11200.00	90.38	358.81	8799.64	2346.95	2341.69	-505.94	0.00	405692.48	536005.11 N 32 6 55	12 W 104 13
	11300.00	90.38	358.81	8798.97	2446.94	2441.67	-508.01	0.00	405792.45	536003.04 N 32 6 56	
	11400.00 11500.00	90.38 90.38	358.81 358.81	8798.31 8797.65	2546.93 2646.93	2541.65 2641.62	-510.08 -512.15	0.00	405892.41 405992.38	536000.97 N 32 6 57 535998.90 N 32 6 58	
	11600.00	90.38	358.81	8796.99	2746.92	2741.60	-514.22	0.00	406092.35	535996.83 N 32 6 59	
	11700.00	90.38	358.81	8796.32	2846.91	2841.58	-516.29	0.00	406192.32	535994.76 N 32 7 0	
	11800.00 11900.00	90.38 90.38	358.81 358.81	8795.66 8795.00	2946.90 3046.90	2941.55 3041.53	-518.36 -520.43	0.00	406292.28 406392.25	535992.69 N 32 7 1 535990.62 N 32 7 2	
	12000.00	90.38	358.81	8794.33	3146.89	3141.50	-522.50	0.00	406492.22	535988.54 N 32 7 3	
	12100.00	90.38	358.81	8793.67	3246.88	3241.48	-524.57	0.00	406592.18	535986.47 N 32 7 4	03 W 104 13
	12200.00	90.38	358.81	8793.01	3346.87	3341.46	-526.64	0.00	406692.15	535984.40 N 32 7 5	
	12300.00 12400.00	90.38 90.38	358.81 358.81	8792.35 8791.68	3446.87 3546.86	3441.43 3541.41	-528.72 -530.79	0.00	406792.12 406892.09	535982.33 N 32 7 6 535980.26 N 32 7 6	
	12500.00	90.38	358.81	8791.02	3646.85	3641.39	-532.86	0.00	406992.05	535978.19 N 32 7 7	
	12600.00	90.38	358.81	8790.36	3746.85	3741.36	-534.93	0.00	407092.02	535976.12 N 32 7 8	
	12700.00	90.38	358.81	8789.70	3846.84	3841.34	-537.00	0.00	407191.99	535974.05 N 32 7 9	
	12800.00 12900.00	90.38 90.38	358.81 358.81	8789.03 8788.37	3946.83 4046.82	3941.32 4041.29	-539.07 -541.14	0.00	407291.96 407391.92	535971.98 N 32 7 10 535969.91 N 32 7 11	
	13000.00	90.38	358.81	8787.71	4146.82	4141.27	-543.21	0.00	407491.89	535967.84 N 32 7 12	
	13100.00	90.38	358.81	8787.05	4246.81	4241.24	-545.28	0.00	407591.86	535965.77 N 32 7 13	
	13200.00 13300.00	90.38 90.38	358.81 358.81	8786.38 8785.72	4346.80 4446.79	4341.22 4441.20	-547.35 -549.43	0.00	407691.82 407791.79	535963.70 N 32 7 14 535961.63 N 32 7 15	
	13400.00	90.38	358.81	8785.06	4546.79	4541.17	-551.50	0.00	407791.79	535959.55 N 32 7 16	
	13500.00	90.38	358.81	8784.39	4646.78	4641.15	-553.57	0.00	407991.73	535957.48 N 32 7 17	88 W 104 13
	13600.00	90.38	358.81	8783.73	4746.77	4741.13	-555.64 557.71	0.00	408091.69	535955.41 N 32 7 18	
	13700.00 13800.00	90.38 90.38	358.81 358.81	8783.07 8782.41	4846.77 4946.76	4841.10 4941.08	-557.71 -559.78	0.00	408191.66 408291.63	535953.34 N 32 7 19 535951.27 N 32 7 20	
Turn 2°/100ft	13861.39	90.38	358.81	8782.00	5008.15	5002.46	-561.05	0.00	408353.00	535950.00 N 32 7 21	
	13900.00	90.38	359.59	8781.74	5046.75	5041.06	-561.59	2.00	408391.60	535949.46 N 32 7 21	83 W 104 13
	13917.22 14000.00	90.38 90.38	359.93 359.93	8781.63 8781.08	5063.97 5146.75	5058.28 5141.06	-561.66 -561.76	2.00 0.00	408408.82 408491.59	535949.39 N 32 7 22 535949.29 N 32 7 22	
	14100.00	90.38	359.93	8780.42	5246.74	5241.05	-561.89	0.00	408591.58	535949.29 N 32 7 22 535949.16 N 32 7 23	
	14200.00	90.38	359.93	8779.76	5346.73	5341.05	-562.01	0.00	408691.56	535949.04 N 32 7 24	
	14300.00	90.38	359.93	8779.09	5446.73	5441.05	-562.13	0.00	408791.55	535948.92 N 32 7 25	
	14400.00 14500.00	90.38 90.38	359.93 359.93	8778.43 8777.77	5546.72 5646.71	5541.05 5641.05	-562.25 -562.38	0.00	408891.54 408991.53	535948.80 N 32 7 26 535948.68 N 32 7 27	
	14600.00	90.38	359.93	8777.10	5746.71	5741.04	-562.50	0.00	409991.53	535948.55 N 32 7 28	
	14700.00	90.38	359.93	8776.44	5846.70	5841.04	-562.62	0.00	409191.51	535948.43 N 32 7 29	75 W 104 13
	14800.00	90.38	359.93	8775.78	5946.69	5941.04	-562.74	0.00	409291.50	535948.31 N 32 7 30	
	14900.00	90.38	359.93 359.93	8775.11 8774.45	6046.69 6146.68	6041.04	-562.87 -562.99	0.00	409391.48	535948.19 N 32 7 31 535948.06 N 32 7 32	
	15000.00 15100.00	90.38 90.38	359.93 359.93	8774.45 8773.79	6146.68 6246.67	6141.03 6241.03	-562.99 -563.11	0.00	409491.47 409591.46	535948.06 N 32 7 32 535947.94 N 32 7 33	
	15200.00	90.38	359.93	8773.13	6346.67	6341.03	-563.23	0.00	409691.45	535947.82 N 32 7 34	
	15300.00	90.38	359.93	8772.46	6446.66	6441.03	-563.35	0.00	409791.44	535947.70 N 32 7 35	69 W 104 13
	15400.00	90.38	359.93	8771.80	6546.65	6541.03	-563.48	0.00	409891.43	535947.57 N 32 7 36	
	15500.00 15600.00	90.38 90.38	359.93 359.93	8771.14 8770.47	6646.65 6746.64	6641.02 6741.02	-563.60 -563.72	0.00	409991.42 410091.40	535947.45 N 32 7 37 535947.33 N 32 7 38	
	15600.00 15700.00	90.38 90.38	359.93 359.93	8770.47 8769.81	6746.64 6846.63	6741.02 6841.02	-563.72 -563.84	0.00	410091.40 410191.39	535947.33 N 32 7 38 535947.21 N 32 7 39	
	15800.00	90.38	359.93	8769.15	6946.63	6941.02	-563.97	0.00	410291.38	535947.09 N 32 7 40	
				8768.49	7046.62	7041.01	-564.09	0.00	410391.37	535946.96 N 32 7 41	
	15900.00	90.38	359.93								
	15900.00 16000.00 16100.00	90.38 90.38	359.93 359.93	8767.82 8767.16	7146.61 7246.61	7141.01 7241.01	-564.21 -564.33	0.00	410491.36 410591.35	535946.84 N 32 7 42 535946.72 N 32 7 43	61 W 104 13

...Grey Goose 20 17 Fed Com P45 2H\Grey Goose 20 17 Fed Com P45 2H R1 mdv 12Apr22

Comments	MD	Incl	Azim Grid	TVD	VSEC	NS	EW	DLS	Northing	Easting	Latitude	Longitude
Comments	(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(ftUS)	(ftUS)	(N/S ° ' ")	(E/W ° ' ")
	16300.00	90.38	359.93	8765.83	7446.59	7441.00	-564.58	0.00	410791.32			N 104 13 1.96
	16400.00	90.38	359.93	8765.17	7546.59	7541.00	-564.70	0.00	410891.31		32 7 46.57	
	16500.00	90.38	359.93	8764.51	7646.58	7641.00	-564.82	0.00	410991.30			N 104 13 1.96
	16600.00	90.38	359.93	8763.85	7746.57	7741.00	-564.94	0.00	411091.29	535946.11 N	32 7 48.55	N 104 13 1.96
	16700.00	90.38	359.93	8763.18	7846.57	7841.00	-565.07	0.00	411191.28			N 104 13 1.96
	16800.00	90.38	359.93	8762.52	7946.56	7940.99	-565.19	0.00	411291.27			N 104 13 1.96
	16900.00	90.38	359.93	8761.86	8046.55	8040.99	-565.31	0.00	411391.26			N 104 13 1.96
	17000.00	90.38	359.93	8761.19	8146.55	8140.99	-565.43	0.00	411491.25			N 104 13 1.96
	17100.00	90.38	359.93	8760.53	8246.54	8240.99	-565.56	0.00	411591.23	535945.50 N	32 7 53.50 1	N 104 13 1.96
	17200.00	90.38	359.93	8759.87	8346.53	8340.98	-565.68	0.00	411691.22	535945.37 N	32 7 54.49	N 104 13 1.96
	17300.00	90.38	359.93	8759.20	8446.53	8440.98	-565.80	0.00	411791.21	535945.25 N	32 7 55.48	N 104 13 1.96
	17400.00	90.38	359.93	8758.54	8546.52	8540.98	-565.92	0.00	411891.20	535945.13 N	32 7 56.47	N 104 13 1.96
	17500.00	90.38	359.93	8757.88	8646.51	8640.98	-566.05	0.00	411991.19			N 104 13 1.96
	17600.00	90.38	359.93	8757.22	8746.51	8740.98	-566.17	0.00	412091.18	535944.88 N	32 7 58.45	N 104 13 1.96
	17700.00	90.38	359.93	8756.55	8846.50	8840.97	-566.29	0.00	412191.17	535944.76 N	32 7 59.44	N 104 13 1.96
	17800.00	90.38	359.93	8755.89	8946.49	8940.97	-566.41	0.00	412291.15	535944.64 N	32 8 0.43	N 104 13 1.96
	17900.00	90.38	359.93	8755.23	9046.49	9040.97	-566.53	0.00	412391.14	535944.52 N	32 8 1.42	N 104 13 1.96
	18000.00	90.38	359.93	8754.56	9146.48	9140.97	-566.66	0.00	412491.13	535944.40 N	32 8 2.41	N 104 13 1.97
	18100.00	90.38	359.93	8753.90	9246.47	9240.96	-566.78	0.00	412591.12	535944.27 N	32 8 3.39	N 104 13 1.97
	18200.00	90.38	359.93	8753.24	9346.47	9340.96	-566.90	0.00	412691.11	535944.15 N	32 8 4.38	N 104 13 1.97
	18300.00	90.38	359.93	8752.58	9446.46	9440.96	-567.02	0.00	412791.10	535944.03 N	32 8 5.37	N 104 13 1.97
	18400.00	90.38	359.93	8751.91	9546.45	9540.96	-567.15	0.00	412891.09	535943.91 N	32 8 6.36	N 104 13 1.97
	18500.00	90.38	359.93	8751.25	9646.45	9640.95	-567.27	0.00	412991.07	535943.78 N	32 8 7.35	N 104 13 1.97
	18600.00	90.38	359.93	8750.59	9746.44	9740.95	-567.39	0.00	413091.06	535943.66 N	32 8 8.34	N 104 13 1.97
	18700.00	90.38	359.93	8749.92	9846.43	9840.95	-567.51	0.00	413191.05	535943.54 N	32 8 9.33	N 104 13 1.97
	18800.00	90.38	359.93	8749.26	9946.43	9940.95	-567.63	0.00	413291.04	535943.42 N	32 8 10.32	N 104 13 1.97
LTP Cross	18836.05	90.38	359.93	8749.02	9982.48	9977.00	-567.68	0.00	413327.09	535943.37 N	32 8 10.68 N	V 104 13 1.97
	18900.00	90.38	359.93	8748.60	10046.42	10040.95	-567.76	0.00	413391.03	535943.29 N	32 8 11.31	N 104 13 1.97
	19000.00	90.38	359.93	8747.93	10146.41	10140.94	-567.88	0.00	413491.02	535943.17 N	32 8 12.30	N 104 13 1.97
	19100.00	90.38	359.93	8747.27	10246.41	10240.94	-568.00	0.00	413591.01	535943.05 N	32 8 13.29	N 104 13 1.97
Grey Goose 20 17 Fed Com P45 2H BHL	19141.00	90.38	359.93	8747.00	10287.40	10281.94	-568.05	0.00	413632.00	535943.00 N	32 8 13.70	N 104 13 1.97

Survey Type:

Def Plan

Survey Error Model: Survey Program: ISCWSA Rev 3 *** 3-D 97.071% Confidence 3.0000 sigma

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size Cas (in)	ing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	28.000	1/100.000	30.000	30.000		B001Mb_MWD+HRGM-Depth Only	Grey Goose 20 17 Fed Com P45 2H / Grey Goose 20 17 Fed Com P45 2H R1 mdv 12Apr22
	1	28.000	19141.000	1/100.000	30.000	30.000		B001Mb_MWD+HRGM	Grey Goose 20 17 Fed Com P45 2H / Grey Goose 20 17 Fed Com

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:
WELL NAME & NO.:
SURFACE HOLE FOOTAGE:
BOTTOM HOLE FOOTAGE
LOCATION:
COUNTY:
COUNTY:
CHEVRON USA INCORPORATED
GREY GOOSE 20 17 FED COM P45 2H
301'/S & 1447'/W
25'/N & 990'/W
Section 20, T.25 S., R.27 E., NMP
Eddy County, New Mexico

COA

H2S	• Yes	O No	
Potash	None	© Secretary	○ R-111-P
Cave/Karst Potential	C Low	O Medium	• High
Cave/Karst Potential	© Critical		
Variance	O None	Flex Hose	Other Other
Wellhead	© Conventional	Multibowl	© Both
Wellhead Variance	© Diverter		
Other	□ 4 String	☐ Capitan Reef	□WIPP
Other	☐ Fluid Filled	☐ Pilot Hole	☐ Open Annulus
Cementing	☐ Contingency	☐ EchoMeter	☐ Primary Cement
	Cement Squeeze		Squeeze
Special Requirements	☐ Water Disposal	☑ COM	□ Unit
Special Requirements	☐ Batch Sundry		
Special Requirements	☑ Break Testing	□ Offline	☐ Casing
Variance		Cementing	Clearance

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated AT SPUD. As a result, the Hydrogen Sulfide area must meet 43 CFR part 3170 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

Primary Casing Design:

1. The 13-3/8 inch surface casing shall be set at approximately 450 feet per BLM Geologist (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. The surface hole shall be 16 inch in diameter.

- 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.

Operator is approved to use contingency cementing for the Intermediate and Production section. Operator shall notify the BLM before proceeding with contingency operation.

- 2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
 - ❖ In <u>High Cave/Karst Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- 3. The minimum required fill of cement behind the 7 inch intermediate casing is:
 - Cement should tie-back at least 200 feet into previous casing string.
 Operator shall provide method of verification.
 Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
 Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.
- 4. The minimum required fill of cement behind the $5 \times 4-1/2$ inch production liner is:
 - Cement should tie-back **100 feet** into the previous casing. Operator shall provide method of verification.
 - Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

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).'
- Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the 13-3/8 inch 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. Variance is approved to use a 5000 (5M) Annular which shall be tested to 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 43 CFR 3172.6(b)(9) must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR 3170.
- 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.

(Note: For a minimum 5M BOPE or less (Utilizing a 10M BOPE system) BOPE Break Testing Variance

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. (Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP)
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer (575-706-2779) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-361-2822 Eddy County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per 43 CFR 3170.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

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

EMAIL or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,

BLM_NM_CFO_DrillingNotifications@BLM.GOV (575) 361-2822

Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981

- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the 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 intergrity 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 intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.
- B. PRESSURE CONTROL
- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in 43 CFR part 3170 Subpart 3172 and API STD 53 Sec. 5.3.
- 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 cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - 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 cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
 - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to 43 CFR part 3170 Subpart 3172 with the pressure not to exceed 70% of the burst rating for the

casing. Any test against the casing must meet the WOC time for 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 43 CFR part 3170 Subpart 3172.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

JS 12/7/2023



Training

MCBU Drilling and Completions H₂S training requirements are intended to define the minimum level of training required for employees, contractors and visitors to enter or perform work at MCBU Drilling and Completions locations that have known concentrations of H₂S.

Awareness Level

Employees and visitors to MCBU Drilling and Completions locations that have known concentrations of H₂S, who are not required to perform work in H₂S areas, will be provided with an awareness level of H₂S training prior to entering any H₂S areas. At a minimum, awareness level training will include:

- 1. Physical and chemical properties of H₂S
- 2. Health hazards of H₂S
- 3. Personal protective equipment
- 4. Information regarding potential sources of H₂S
- 5. Alarms and emergency evacuation procedures

Awareness level training will be developed and conducted by personnel who are qualified either by specific training, educational experience and/or work-related background.

Advanced Level H₂S Training

Employees and contractors required to work in areas that may contain H₂S will be provided with Advanced Level H₂S training prior to initial assignment. In addition to the Awareness Level requirements, Advanced Level H₂S training will include:

- 1. H₂S safe work practice procedures;
- 2. Emergency contingency plan procedures;
- 3. Methods to detect the presence or release of H₂S (e.g., alarms, monitoring equipment), including hands-on training with direct reading and personal monitoring H₂S equipment.
- 4. Basic overview of respiratory protective equipment suitable for use in H₂S environments. Note: Employees who work at sites that participate in the Chevron Respirator User program will require separate respirator training as required by the MCBU Respiratory Protection Program;
- 5. Basic overview of emergency rescue techniques, first aid, CPR and medical evaluation procedures. Employees who may be required to perform "standby" duties are required to receive additional first aid and CPR training, which is not covered in the Advanced Level H₂S training;
- 6. Proficiency examination covering all course material.

Advanced H₂S training courses will be instructed by personnel who have successfully completed an appropriate H₂S train-the-trainer development course (ANSI/ASSE Z390.1-2006) or who possess significant past experience through educational or work-related background.



H₂S Training Certification

All employees and visitors will be issued an H_2S training certification card (or certificate) upon successful completion of the appropriate H_2S training course. Personnel working in an H_2S environment will carry a current H_2S training certification card as proof of having received the proper training on their person at all times.

Briefing Area

A minimum of two briefing areas will be established in locations that at least one area will be upwind from the well at all times. Upon recognition of an emergency situation, all personnel should assemble at the designated upwind briefing areas for instructions.

H₂S Equipment

Respiratory Protection

- a) Six 30 minute SCBAs 2 at each briefing area and 2 in the Safety Trailer.
- b) Eight 5 minute EBAs 5 in the dog house at the rig floor, 1 at the accumulator, 1 at the shale shakers and 1 at the mud pits.

Visual Warning System

- a) One color code sign, displaying all possible conditions, will be placed at the entrance to the location with a flag displaying the current condition.
- b) Two windsocks will be on location, one on the dog house and one on the Drill Site Manager's Trailer.

H₂S Detection and Monitoring System

- a) H₂S monitoring system (sensor head, warning light and siren) placed throughout rig.
 - Drilling Rig Locations: at a minimum, in the area of the Shale shaker, rig floor, and bell nipple.
 - Workover Rig Locations: at a minimum, in the area of the Cellar, rig floor and circulating tanks or shale shaker.



Well Control Equipment

- a) Flare Line 150' from wellhead with igniter.
- b) Choke manifold with a remotely operated choke.
- c) Mud / gas separator

Mud Program

In the event of drilling, completions, workover and well servicing operations involving a hydrogen sulfide concentration of 100 ppm or greater the following shall be considered:

- 1. Use of a degasser
- 2. Use of a zinc based mud treatment
- 3. Increasing mud weight

Public Safety - Emergency Assistance

<u>Agency</u>	Telephone Number
Lea County Sheriff's Department	575-396-3611
Fire Department:	
Carlsbad	575-885-3125
Artesia	575-746-5050
Lea County Regional Medical Center	575-492-5000
Jal Community Hospital	505-395-2511
Lea County Emergency Management	575-396-8602
Poison Control Center	800-222-1222

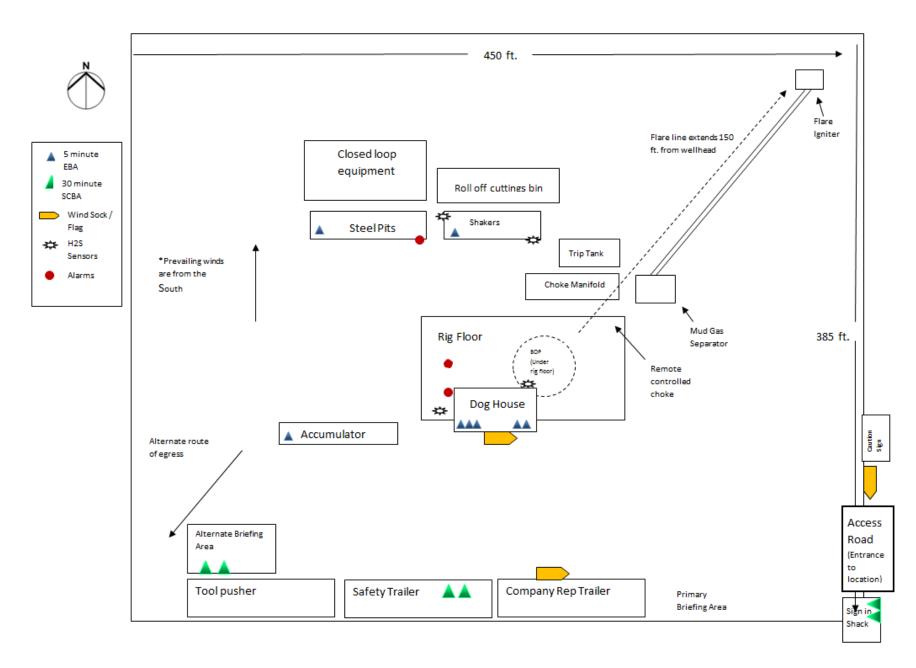


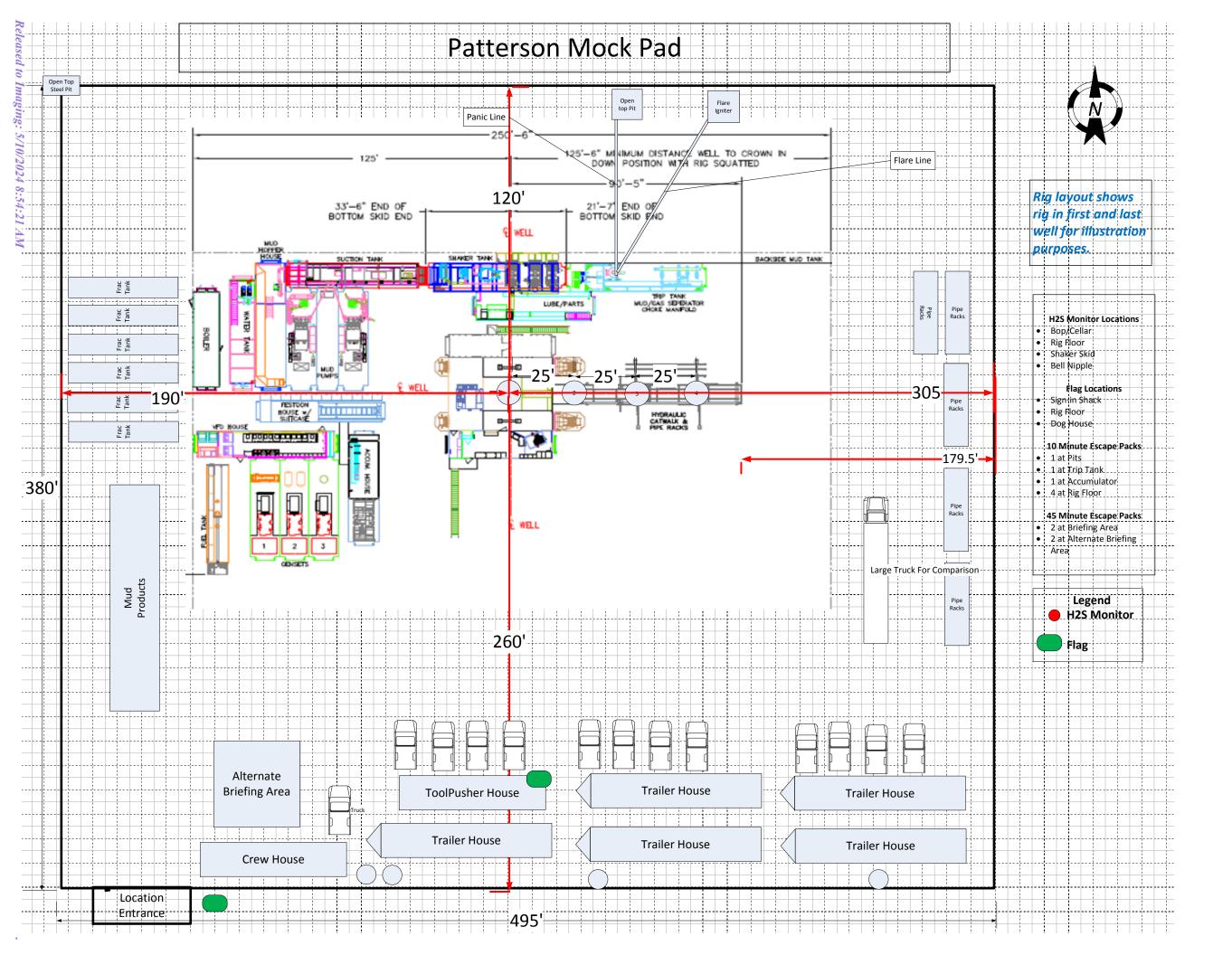
Chevron MCBU D&C Emergency Notifications

Below are lists of contacts to be used in emergency situations.

	Name	Title	Office Number	Cell Phone
1.	TBD	Drilling Engineer		
2.	Sergio Hernandez	Superintendent	713 372 1402	
5.	Dennis Mchugh	Drilling Manager	(713) 372-4496	
6.	Kyle Eastman	Operations Manager	713-372-5863	
7.	TBD	D&C HES		
8.	TBD	Completion Engineer		







Inten	t	As Dril	led										
API#	1												
Ope	rator Nai	me:				Property Name:							Well Number
						<u> </u>							
Kick (Off Point	(KOP)											
UL	Section	Township	Range	Lot	Feet	Fror	n N/S	Feet	F	rom E	/W	County	
Latitu	l ude				Longitu	ıde						NAD	
First ⁻	Take Poir	nt (FTP)			_								
UL	Section	Township	Range	Lot	Feet	Feet From N/S Feet From E/W County							
Latit	ude				Longitu	ıde						NAD	
Last T	Take Poin	t (LTP)	Range	Lot	Feet	From N/S	Fee	t	From E/	w c	Count	у	
Latitu	ude				Longitu	ıde				N	IAD		
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API#													
Ope	rator Nai	me:				Property	Name	:					Well Numbe
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KZ 06/29/2018



APD ID: 10400087681

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

Drilling Plan Data Report 04/12/2024

Submission Date: 08/25/2022

Operator Name: CHEVRON USA INCORPORATED

Well Name: GREY GOOSE 20 17 FED COM P45 Well Number: 2H

Well Type: CONVENTIONAL GAS WELL Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
13242923	SALADO	3147	158	186	ANHYDRITE, SALT	NONE	N
13242935	CASTILE	2779	368	395	ANHYDRITE, SALT	NONE	N
13242925	LAMAR	1190	1957	2009	LIMESTONE, SHALE	NONE	N
13242926	BELL CANYON	1150	1997	2051	LIMESTONE, SANDSTONE	NONE	N
13242927	CHERRY CANYON	315	2832	2916	LIMESTONE, SANDSTONE, SILTSTONE	NONE	N
13242928	BRUSHY CANYON	-753	3900	4020	LIMESTONE, SANDSTONE, SHALE	NONE	N
13242929	BONE SPRING LIME	-2392	5539	5685	SHALE, SILTSTONE	NONE	N
13242930	AVALON SAND	-2504	5651	5795	SHALE	NATURAL GAS, OIL	N
13242932	BONE SPRING 1ST	-3283	6430	6572	SANDSTONE, SHALE	NATURAL GAS, OIL	N
13242936	BONE SPRING 2ND	-3820	6967	7114	SANDSTONE, SHALE	NATURAL GAS, OIL	N
13242940	BONE SPRING 3RD	-5146	8293	8437	SANDSTONE, SHALE	NATURAL GAS, OIL	N
13242941	WOLFCAMP	-5486	8633	8793	SANDSTONE, SHALE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M Rating Depth: 8749

Equipment: Chevron will have a minimum of a 5,000 psi rig stack (see proposed schematic) for drill out below surface casing.

Requesting Variance? YES

Variance request: Chevron is requesting the following variances: Chevron request to vary from the Onshore Order 2 where it reject to full for performed: when initially installed and whenever any seal subject to test pressure is broken." We propose to break test if abie to finish the next hole section within 21 days of the previous full BOP test. No BOP

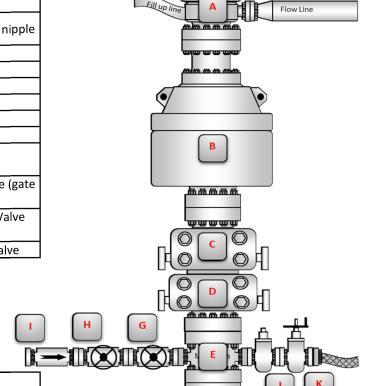
BLOWOUT PREVENTER SCHEMATIC

Operation: Intermediate(s)

Minimum System operation pressure

5,000 psi

BOP Stack									
Part	Size	Pressure Rating	Description						
Α	13-5/8"	N/A	Rotating Head/Bell nipple						
В	13-5/8"	5,000	Annular						
С	13-5/8"	5,000	Blind Ram						
D	13-5/8"	5,000	Pipe Ram						
E	13-5/8"	5,000	Mud Cross						
F	13-5/8"	5,000	Pipe Ram						
		<u>Kill Line</u>							
Part	Size	Pressure Rating	Description						
G	2"	5,000	Inside Kill Line Valve (gate valve)						
Н	2"	5,000	Outside Kill Line Valve (gate valve)						
	2"	5,000	Kill Line Check valve						



<u>Choke line</u>					
Part	Size	Pressure	Description		
		Rating			
J	3"	5,000	HCR (gate valve)		
K	3"	5,000	Manual HCR (gate valve)		
<u>Wellhead</u>					
Part	Size	Pressure	Description		
		Rating			
L	13-5/8"	5,000	FMC 5M/10M wellhead		

BOP Installation Checklist: The following items must be verified and checked off prior to pressure testing BOP equipment

The installed BOP equipment meets at least the minimum requirements (rating, type, size, configuration) as shown on this schematic. Components may be substituted for equivalent equipment rated to higher pressures. Additional components may be put into place as long as they meet or exceed the minimum pressure rating of the system.

All valves on the kill line and choke line will be full opening and will allow straight flow through.

The kill line and choke line will be straight unless turns use tee blocks or are targeted with running tees, and will be anchored to prevent whip and reduce vibration.

Manual (hand wheels) or automatic locking devices will be installed on all ram preventers. Hand wheels will also be install on all manual valves on the choke and kill line.

A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve will remain open unless accumulator is inoperative.

Upper kelly cock valve with handle will be available on rig floor along with saved valve and subs to fit all drill string connections in use.

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

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 334061

CONDITIONS

Operator:	OGRID:
CHEVRON U S A INC	4323
6301 Deauville Blvd	Action Number:
Midland, TX 79706	334061
	Action Type:
	[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify OCD 24 hours prior to casing & cement	5/10/2024
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	5/10/2024
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	5/10/2024
ward.rikala	If cement does not circulate on any string, a CBL is required for that string of casing	5/10/2024
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	5/10/2024