Form 3160-3 FORM APPROVED OMB No. 1004-0220 (October 2024) Expires: October 31, 2027 **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. NMNM118108 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 MAKERS MARK FEDERAL COM 264H 2. Name of Operator 9. API Well No. 30-015-57441 CHEVRON USA INCORPORATED 3a. Address 3b. Phone No. (include area code) 10. Field and Pool, or Exploratory PO BOX 1392, BAKERSFIELD, CA 93302 (661) 633-4000 WELCH/BONE SPRING 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 17/T26S/R27E/NMP At surface SENW / 1379 FNL / 2033 FWL / LAT 32.045976 / LONG -104.214277 At proposed prod. zone NENW / 25 FNL / 1675 FWL / LAT 32.078944 / LONG -104.215565 14. Distance in miles and direction from nearest town or post office\* 12. County or Parish 13 State **EDDY** NM 11 miles 15. Distance from proposed\* 16. No of acres in lease 17. Spacing Unit dedicated to this well 1379 feet location to nearest property or lease line, ft. 2560.0 (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 8002 feet / 18990 feet FED: ES0022 applied for, on this lease, ft. 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start\* 23. Estimated duration 3279 feet 04/15/2025 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 CAROL ADLER / Ph: (432) 687-7866 (Electronic Submission) 04/23/2024 Title Sr Regulatory Affairs Coordinator Approved by (Signature) Name (Printed/Typed) Date (Electronic Submission) 08/27/2025 TANJA BACA / Ph: (575) 234-5940 Title Office Supervisory Land Law Examiner 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



(Continued on page 2)

\*(Instructions on page 2)

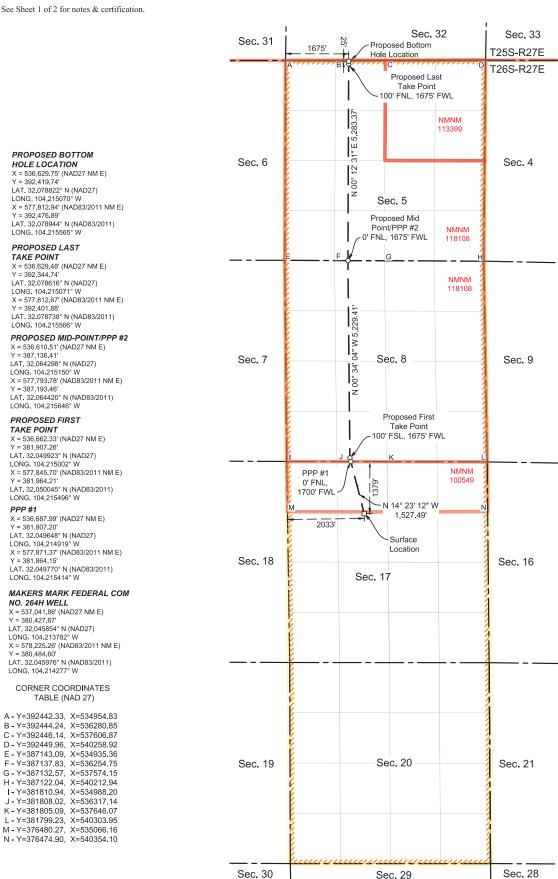
Santa Fe Main Office

Phone:		441 Fax: (55) 4	76-3462			e of New Mexico nerals & Natural R	esources		n '	<u>C-102</u>				
	l Information (505) 629-6					Department			St	ed October 17, 2025 ubmit Electronically				
Online	Phone Direc	tory Visit:	ento at wal		OIL CONS	SERVATION DI	V1810N		vi ☑ Initial Su	ia OCD Permitting				
nttps://v	www.emnra.	nm.gov/ocd/co	ntact-us/					Submittal	☐ Amende					
				}				Type:	☐ As Drille					
			-	!	WELL LOCA	TION INFORMATIO	)N							
	umber	15 57444	Pool Code			Pool Name	NC							
	ty Code 3371	15-57441 10	Property Na		FEDERAL COM	WELCH; BONE SPRI	NG		Well Numb	er				
OGRII 4323		10	Operator Na	ame						vel Elevation				
	e Owner: $\square$	State  Fee			1110.	Mineral Owner: [	☐ State ☐ Fe	e 🗆 Tribal						
					Surf	ace Location								
UL F	Section 17	Township 26 SOUTH	Range 27 EAST, N.M.P.M.	Lot N/A	Ft. from N/S 1379' NORTH	Ft. from E/W 2033' WEST	Latitude 32.04597		Longitude 04.214277° W	County EDDY				
			111111111111		Bottom	1 Hole Location								
UL C	Section 5	Township 26 SOUTH	Range 27 EAST, N.M.P.M.	Lot N/A	Ft. from N/S 25' NORTH	Ft. from E/W 1675' WEST	Latitude 32.07894		Longitude 04.215565° W	County EDDY				
D 1:	. 1.4	I cu D c					II 's OUNT	la 111	. 6.1					
2560	ated Acres	Infill or Defi INFILL	ning Well	Definir N/A	ng Well API	Overlapping Spacing Unit (Y/N) Consolidation Code N/A N/A								
Order	Numbers. N	SP-2182				Well setbacks are	under Commo	on Ownershi	p: □Yes □No	⊠N/A				
					Kick O	Off Point (KOP)								
UL N/A	Section N/A	Township N/A	Range N/A	Lot N/A	Ft. from N/S N/A	Ft. from E/W N/A	Latitude N/A		Longitude N/A	County N/A				
					First T	ake Point (FTP)								
UL N	Section 8	Township 26 SOUTH	Range 27 EAST, N.M.P.M.	Lot N/A	Ft. from N/S 100' SOUTH	Ft. from E/W Latitu 1675' WEST 32.05		I	Longitude 04.215496° W	County EDDY				
		•				ake Point (LTP)								
UL C	Section 5	Township 26 SOUTH	Range 27 EAST, N.M.P.M.	Lot N/A	Ft. from N/S 100' NORTH	Ft. from E/W 1675' WEST	Latitude 32.07873		Longitude 04.215566° W	County EDDY				
Unitiz	ed Area or A	rea of Uniform	Interest	Cnasin	a Unit Tyma M Hay	wizantal   Vartical	Gro	und Floor E	levation:					
N/A	ed Alea of A	Trea of Chillothi	Interest	Spacing	g Unit Type ⊠ Hoi	rizontai 🗆 Verticai	3279		evation.					
OPER	ATOR CER	TIFICATIONS				SURVEYOR CERTI	FICATIONS							
best of that thi. the land at this lunlease pooling  If this v the conmineral the well	my knowledge s organization d including the location pursued mineral intererorder the location into the location of the location well is a horizous ent of at least linterest in ea	and belief, and, y either owns a we e proposed botton ant to a contract crest, or to a volus ore entered by the ontal well, I furthe t one lessee or ow ch tract (in the ta interval will be lo	if the well is a vorking interest on hole location on the location on the location of the loca	pertical or unleased or has a ri of a working reement of the second of t	ed mineral interest in ight to drill this well ing interest or or a compulsory exation has received tor unleased n which any part of	I hereby certify that the actual surveys made by to the best of my belief.  See Sheet 2 of 2 for plat								
Signatu	ire		Date		<u> </u>	Signature and Seal of Professional Surveyor								
	Carol Ad	ler					11/17/20							
Printed	Name					Certificate Number	Date of Su	rvey						
Email A	caroladle Address	er@chevron.	.com											



This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.



# 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: _Chevron	USA, Inc	0	GRID:	4323	Date: <u>3</u>	/27/2024						
II. Type: ⊠ Original [	☐ Amendment	due to □ 19.15.27.9.	O(6)(a) NMAO	C □ 19.15.27.9.D	(6)(b) NMAC □	Other.						
If Other, please describe	e:											
III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.												
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D						
MAKERS MARK 8 5 FEDERAL COM 263H	PENDING	UL: F, SEC 17, T26S- R27E	1379' FNL, 2013' FWL	1055	2610	1180						
MAKERS MARK 8 5 FEDERAL COM 264H	PENDING	UL: F, SEC 17, T26S- R27E	1379' FNL, 2033' FWL	1055	2610	1180						
MAKERS MARK 8 5 FEDERAL COM 265H	PENDING	UL: F, SEC 17, T26S- R27E	1379' FNL, 2053' FWL	1055	2610	1180						
MAKERS MARK 8 5 FEDERAL COM 266H	PENDING	UL: F, SEC 17, T26S- R27E	1379' FNL, 2073' FWL	1055	2610	1180						
MAKERS MARK 8 5 FEDERAL COM 267H	PENDING	UL: F, SEC 17, T26S- R27E	1379' FNL, 2093' FWL	1055	2610	1180						
IV. Central Delivery P	IV. Central Delivery Point Name:Hayhurst NM Section 9 CTB, T26S-R27E [See 19.15.27.9(D)(1) NMAC]											

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

Well Name	API	Spud Date	TD Reached	Completion	Initial Flow	First Production
			Date	Commencement Date	Back Date	Date
MAKERS MARK 8 5	PENDING	March 2026	N/A	N/A	N/A	N/A
FEDERAL COM 263H						
MAKERS MARK 8 5	PENDING	March 2026	N/A	N/A	N/A	N/A
FEDERAL COM 264H						
MAKERS MARK 8 5	PENDING	March 2026	N/A	N/A	N/A	N/A
FEDERAL COM 265H						
MAKERS MARK 8 5	PENDING	March 2026	N/A	N/A	N/A	N/A
FEDERAL COM 266H						

MAKERS MARK 8 5 FEDERAL COM 267H	PENDING	March 2026	N/A	N/A	N/A	N/A
	•		•			

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

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

VIII. Best Management Practices: 

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

# Section 2 – Enhanced Plan EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

🗵 Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

# IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF		

## X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in		

**XI. Map.**  $\square$  Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

**XII.** Line Capacity. The natural gas gathering system  $\square$  will  $\square$  will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

**XIII.** Line Pressure. Operator  $\square$  does  $\square$  does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

**XIV. Confidentiality:** 

Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

(i)

# Section 3 - Certifications Effective May 25, 2021

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

Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including: power generation on lease; (a) power generation for grid; (b) (c) compression on lease; (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. HSE Regulatory Affairs Coordinator										
E-mail Address: caroladler@chevron.com										
Date: 3/27/2024										
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.

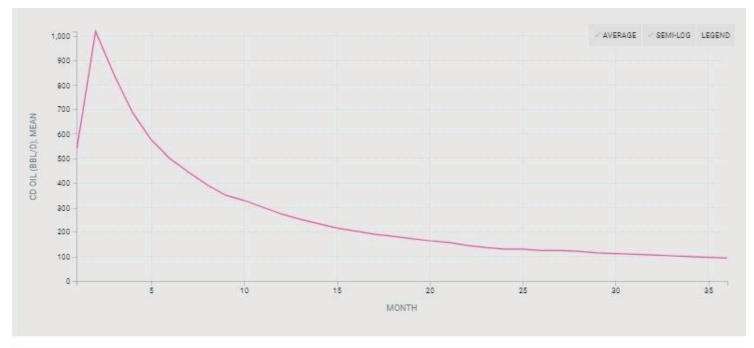
# **Eddy County NM Bone Spring Average Production per Well**

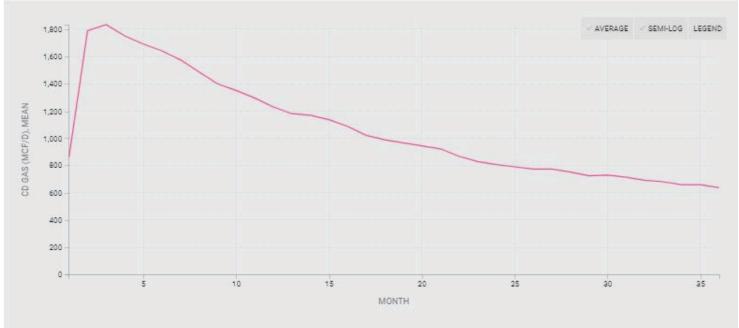
Data source: Publicly available from Enverus Prism (June 2024)

• Number of wells: N = 642

• Data Range: 2016+

Production History: 36 months





Chevron U.S.A. Inc. Waste Minimization Plan

Well Name: MAKERS MARK FEDERAL COM Well Number: 264H

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 respectfully 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.

**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. A full BOP test will be performed per hole section, unless approval from BLM is received otherwise (see variance request). Flex choke hose will be used for all wells on the pad (see attached specs and variance). BOP test pressures and other documented tests may be recorded and documented via utilization of the IPT 'Suretec' Digital BOP Test Method in lieu of the standard test chart. In the event the IPT system is unavailable, the standard test chart will be used.

# **Choke Diagram Attachment:**

BLM\_5M\_Choke\_Manifold\_Diagram\_20240423080551.pdf
Choke\_and\_Flex\_Hose\_COC\_7660103\_20240813152238.pdf

### **BOP Diagram Attachment:**

BLM\_5M\_Intermediate\_BOP\_and\_Choke\_Manifold\_NEW\_20240423080613.pdf

1.03\_\_\_WH\_\_\_NM\_Slim\_Hole\_DM100312151\_20240423080623.pdf

MultiBowl\_Wellhead\_Specs\_20240423080644.pdf

# **Section 3 - Casing**

2	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	450	0	450	3279	2829	450	J-55	54.5	BUTT	5.43	4.39	BUOY	37.0 6	BUOY	34.7 8
			12.2 5	9.625	NEW	API	N	0	2102	0	2073	3279	1206	2102	L-80	40	BUTT	3.27	2.74	BUOY	11.4 2	BUOY	11.0 5
		INTERMED IATE	8.75	7.0	NEW	API	N	0	7353	0	7253	3279	-3974	7353	P- 110		OTHER - BLUE	2.31	4.84	BUOY	4.42	BUOY	4.42
	- 1	PRODUCTI ON	6.12 5	5.0	NEW	API	N	7153	7803	7053	7653	-3774	-4374		P- 110	_	OTHER - W513	1.94	4.61	BUOY	2.68	BUOY	4.21
		PRODUCTI ON	6.12 5	4.5	NEW	API	N	7803	18990	7653	8002	-4374	-4723	11187	P- 110	11.6	OTHER - W521	1.94	4.61	BUOY	2.68	BUOY	4.21

Well Name: MAKERS MARK FEDERAL COM Well Number: 264H

Casing	Attach	ıments
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Casing ID: 1 String SURFACE

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

13.375in\_BTC\_54.5ppf\_J55\_20240423080857.pdf

Casing ID: 2

String

**INTERMEDIATE** 

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

9.625in\_BTC\_40ppf\_L80\_20240423081009.pdf

Casing ID: 3

String

INTERMEDIATE

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

7in\_Blue\_SD\_29ppf\_P110\_20240423081134.pdf

Well Name: MAKERS MARK FEDERAL COM Well Number: 264H

# **Casing Attachments**

Casing ID: 4

String

**PRODUCTION** 

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

5in\_Wedge\_513\_18ppf\_P110\_20240423081320.pdf

Casing ID: 5

String

**PRODUCTION** 

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

4.5in\_Wedge\_521\_11.6ppf\_P110\_20240423081434.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
SURFACE	Lead		0	450	240	1.63	3.6	391	25		EXTENDER, ANTIFOAM, RETARDER, VISCOSIFIER

INTERMEDIATE	Lead	0	1102	201	2.29	11.5	459	25		EXTENDER, ANTIFOAM, RETARDER, VISCOSIFIER
INTERMEDIATE	Tail	1102	2102	263	1.63	12.6	429	25	CLASS C	EXTENDER, ANTIFOAM,

Well Name: MAKERS MARK FEDERAL COM Well Number: 264H

String Type	Lead/Tail	Stage Tool Depth	Тор МD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
											RETARDER, VISCOSIFIER
INTERMEDIATE	Lead		0	6353	322	3.52	10.5	1132	25	CLASS C	EXTENDER, ANTIFOAM, RETARDER, VISCOSIFIER
INTERMEDIATE	Tail		6353	7353	124	1.52	12.6	188	25	CLASS C	EXTENDER, ANTIFOAM, RETARDER, VISCOSIFIER
PRODUCTION	Lead		7153	1899 0	917	1.52	12.6	1393	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 43 CFR 3172:

Diagram of the equipment for the circulating system in accordance with 43 CFR 3172:

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 transporting of E&P waste will follow EPA regulations and accompanying manifests.

**Describe the mud monitoring 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 to detect volume changes indicating loss or gain of circulating fluid 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**

Well Name: MAKERS MARK FEDERAL COM Well Number: 264H

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	450	SPUD MUD	8.3	10							
450	2102	SALT SATURATED	8.3	10							Saturated brine would be used through salt sections.
2102	7353	OTHER : WBM/BRINE	8.5	9.8							
7353	1899 0	OIL-BASED MUD	8.5	9.8							Due to wellbore instability in the lateral, may exceed the MW window needed to maintain overburden stresses

# **Section 6 - Test, Logging, Coring**

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

a. Production tests are not planned.

b. Logs run include: Gamma Ray Log, Directional Survey

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

GAMMA RAY LOG, DIRECTIONAL SURVEY,

Coring operation description for the well:

c. Coring Operations are not planned.

## **Section 7 - Pressure**

Anticipated Bottom Hole Pressure: 4078 Anticipated Surface Pressure: 2317

Anticipated Bottom Hole Temperature(F): 140

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

Chevron\_Standard\_H2S\_Contingency\_Plan\_2022\_20240423082430.pdf

Well Name: MAKERS MARK FEDERAL COM Well Number: 264H

# **Section 8 - Other Information**

### Proposed horizontal/directional/multi-lateral plan submission:

DefPlan100ft\_MakersMarkFederalComNo.264H\_R0\_20240423082518.pdf Makers Mark Fed Com 264H 9 POINT 20240423082524.pdf

## Other proposed operations facets description:

- a. 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 duration for surface and intermediate string(s) will be based on time for tail slurry to develop 500 psi compressive strength and will follow rules as laid out in Onshore Order 2

### Other proposed operations facets attachment:

HHNM\_PAD\_61\_GAS\_MANAGEMENT\_PLAN\_20240423082638.pdf
Operational\_Best\_Management\_Practices\_20240423082706.pdf
5\_well\_rig\_layout\_20240423082717.pdf
CUSA\_Spudder\_Rig\_Data\_20240423082730.pdf

Other Variance request(s)?:

Other Variance attachment:

### Schlumberger

### Makers Mark Federal Com No. 264H R0 mdv 28Feb24 Proposal Geodetic Report

Field:
Structure / Slot:
Well:
Borehole:
UBHI / API#:
Survey Name:
Survey Date:
Tort / AHD / DDI / ERD Ratio:
Coordinate Reference System: Tort / AHD / DDI / ERD Ratio: Coordinate Reference System: Location Lat / Long: Location Grid NE Y/X: CRS Grid Convergence Angle: Grid Scale Factor: Version / Patch: 

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
Surface	0.00	0.00	334.06	0.00	-3,307.00	0.00	0.00	0.00	0.00	380,427.67	537,041.86	32.04585414	-104.21378192
	100.00 200.00	0.00	334.06 334.06	100.00 200.00	-3,207.00 -3,107.00	0.00	0.00	0.00	0.00	380,427.67 380,427.67	537,041.86 537,041.86	32.04585414 32.04585414	-104.21378192 -104.21378192
	300.00	0.00	334.06	300.00	-3,007.00	0.00	0.00	0.00	0.00	380,427.67	537,041.86	32.04585414	-104.21378192
Salado (SLDO)	400.00 405.00	0.00	334.06 334.06	400.00 405.00	-2,907.00 -2,902.00	0.00	0.00	0.00	0.00	380,427.67 380,427.67	537,041.86 537,041.86		-104.21378192 -104.21378192
Castile (CSTL)	427.39	0.00	334.06	427.39	-2,879.61	0.00	0.00	0.00	0.00	380,427.67	537,041.86	32.04585414	-104.21378192
Build 1.5°/100ft	500.00 600.00	0.00	334.06 334.06	500.00 600.00	-2,807.00 -2,707.00	0.00	0.00	0.00	0.00	380,427.67 380,427.67	537,041.86 537,041.86	32.04585414 32.04585414	-104.21378192 -104.21378192
	700.00 800.00	1.50 3.00	334.06 334.06	699.99 799.91	-2,607.01 -2.507.09	1.18 4.71	1.18 4.71	-0.57 -2.29	1.50 1.50	380,428.85 380,432.38	537,041.29 537.039.57	32.04585738 32.04586709	-104.21378376 -104.21378929
	900.00	4.50	334.06	899.69	-2,407.31	10.60	10.59	-5.15	1.50	380,438.26	537,036.71	32.04588327	-104.21379850
	1,000.00 1,100.00	6.00 7.50	334.06 334.06	999.27 1,098.57	-2,307.73 -2,208.43	18.85 29.43	18.82 29.39	-9.15 -14.29	1.50 1.50	380,446.49 380,457.05	537,032.71 537,027.57	32.04590590 32.04593497	-104.21381139 -104.21382794
	1,200.00	9.00	334.06	1,197.54	-2,208.43	42.35	42.29	-20.57	1.50	380,469.96	537,021.29	32.04597045	-104.21384815
	1,300.00 1,400.00	10.50 12.00	334.06 334.06	1,296.09 1,394.16	-2,010.91 -1,912.84	57.61 75.18	57.52 75.06	-27.98 -36.51	1.50 1.50	380,485.18 380,502.72	537,013.89 537,005.35	32.04601234 32.04606059	-104.21387200 -104.21389947
	1,500.00	13.50	334.06	1,491.70	-1,815.30	95.05	94.91	-46.16	1.50	380,522.57	536,995.70	32.04611517	-104.21393056
Hold	1,600.00 1,700.00	15.00 15.00	334.06 334.06	1,588.62 1,685.21	-1,718.38 -1,621.79	117.22 140.53	117.04 140.32	-56.93 -68.25	1.50 0.00	380,544.70 380,567.97	536,984.93 536,973.61	32.04617605 32.04624006	-104.21396522 -104.21400168
	1,800.00	15.00	334.06	1,781.80	-1,525.20	163.84	163.59	-79.57	0.00	380,591.25	536,962.29	32.04630407	-104.21403813
	1,900.00 2,000.00	15.00 15.00	334.06 334.06	1,878.39 1,974.99	-1,428.61 -1,332.01	187.15 210.46	186.87 210.14	-90.89 -102.22	0.00	380,614.52 380,637.79	536,950.97 536,939.65	32.04636808 32.04643209	-104.21407458 -104.21411103
	2,100.00	15.00	334.06	2,071.58	-1,235.42	233.77	233.42	-113.54	0.00	380,661.06	536,928.33	32.04649611	-104.21414748
Lamar (LMAR) Bell Canyon (BLCN)	2,122.07 2.174.18	15.00 15.00	334.06 334.06	2,092.90 2.143.23	-1,214.10 -1,163.77	238.92 251.06	238.55 250.68	-116.04 -121.93	0.00	380,666.20 380,678.33	536,925.84 536,919.94	32.04651023 32.04654359	-104.21415553 -104.21417452
	2,200.00	15.00	334.06	2,168.17	-1,138.83	257.08	256.69	-124.86	0.00	380,684.34	536,917.01	32.04656012	-104.21418394
	2,300.00 2,400.00	15.00 15.00	334.06 334.06	2,264.76 2,361.36	-1,042.24 -945.64	280.39 303.70	279.96 303.24	-136.18 -147.50	0.00	380,707.61 380,730.88	536,905.69 536,894.37	32.04662413 32.04668814	-104.21422039 -104.21425684
	2,500.00	15.00	334.06	2,457.95	-849.05	327.01	326.51	-158.82	0.00	380,754.15	536,883.05	32.04675215	-104.21429329
	2,600.00 2,700.00	15.00 15.00	334.06 334.06	2,554.54 2,651.13	-752.46 -655.87	350.32 373.63	349.79 373.06	-170.14 -181.46	0.00	380,777.43 380,800.70	536,871.73 536,860.41	32.04681616 32.04688018	-104.21432975 -104.21436620
	2,800.00	15.00	334.06	2,747.73	-559.27	396.94	396.34	-192.78	0.00	380,823.97	536,849.09	32.04694419	-104.21440265
	2,900.00 3,000.00	15.00 15.00	334.06 334.06	2,844.32 2,940.91	-462.68 -366.09	420.25 443.56	419.61 442.89	-204.10 -215.43	0.00	380,847.24 380,870.52	536,837.77 536,826.45	32.04700820 32.04707221	-104.21443910 -104.21447556
Cherry Canyon (CRCN)	3,065.03	15.00	334.06	3,003.73	-303.27	458.72	458.02	-222.79	0.00	380,885.65	536,819.09	32.04711384	-104.21449926
	3,100.00 3,200.00	15.00 15.00	334.06 334.06	3,037.50 3,134.10	-269.50 -172.90	466.87 490.18	466.16 489.44	-226.75 -238.07	0.00	380,893.79 380,917.06	536,815.13 536,803.81	32.04713622 32.04720024	-104.21451201 -104.21454846
	3,300.00	15.00	334.06	3,230.69	-76.31	513.49	512.71	-249.39	0.00	380,940.33	536,792.49	32.04726425	-104.21458492
	3,400.00 3,500.00	15.00 15.00	334.06 334.06	3,327.28 3,423.87	20.28 116.87	536.80 560.11	535.98 559.26	-260.71 -272.03	0.00	380,963.61 380,986.88	536,781.17 536,769.85	32.04732826 32.04739227	-104.21462137 -104.21465782
	3,600.00	15.00	334.06	3,520.47	213.47	583.42	582.53	-283.35	0.00	381,010.15	536,758.53	32.04745628	-104.21469427
	3,700.00 3,800.00	15.00 15.00	334.06 334.06	3,617.06 3,713.65	310.06 406.65	606.73 630.04	605.81 629.08	-294.67 -305.99	0.00 0.00	381,033.42 381,056.70	536,747.21 536,735.89	32.04752029 32.04758431	-104.21473073 -104.21476718
Drop 1.5°/100ft	3,884.49	15.00	334.06	3,795.26	488.26	649.74	648.75	-315.56	0.00	381,076.36	536,726.33	32.04763839	-104.21479798
	3,900.00 4,000.00	14.77 13.27	334.06 334.06	3,810.25 3,907.27	503.25 600.27	653.32 675.14	652.33 674.11	-317.30 -327.90	1.50 1.50	381,079.94 381,101.72	536,724.59 536,713.99	32.04764824 32.04770815	-104.21480359 -104.21483771
	4,100.00	11.77	334.06	4,004.89	697.89	694.66	693.60	-337.38	1.50	381,121.21	536,704.51	32.04776175	-104.21486823
Brushy Canyon (BCN)	4,200.00 4,203.46	10.27 10.22	334.06 334.06	4,103.05 4,106.45	796.05 799.45	711.87 712.42	710.79 711.34	-345.74 -346.00	1.50 1.50	381,138.39 381,138.94	536,696.16 536,695.89	32.04780901 32.04781053	-104.21489515 -104.21489601
	4,300.00	8.77	334.06	4,201.67	894.67	726.76	725.65	-352.97	1.50	381,153.26	536,688.92	32.04784990	-104.21491843
	4,400.00 4,500.00	7.27 5.77	334.06 334.06	4,300.69 4,400.04	993.69 1,093.04	739.32 749.54	738.20 748.40	-359.07 -364.03	1.50 1.50	381,165.80 381,176.00	536,682.82 536,677.86	32.04788440 32.04791247	-104.21493808 -104.21495406
	4,600.00	4.27	334.06	4,499.65	1,192.65	757.42	756.27	-367.86	1.50	381,183.87	536,674.04	32.04793410	-104.21496638
	4,700.00 4,800.00	2.77 1.27	334.06 334.06	4,599.46 4,699.40	1,292.46 1,392.40	762.94 766.11	761.78 764.95	-370.54 -372.08	1.50 1.50	381,189.38 381,192.55	536,671.35 536,669.81	32.04794927 32.04795798	-104.21497502 -104.21497998
Hold Vertical	4,884.49	0.00	334.06	4,783.88	1,476.88	766.96	765.79	-372.49	1.50	381,193.39	536,669.40	32.04796029	-104.21498129
	4,900.00 5,000.00	0.00	334.06 334.06	4,799.39 4,899.39	1,492.39 1,592.39	766.96 766.96	765.79 765.79	-372.49 -372.49	0.00	381,193.39 381,193.39	536,669.40 536,669.40	32.04796029 32.04796029	-104.21498129 -104.21498129
	5,100.00	0.00	334.06	4,999.39	1,692.39	766.96	765.79	-372.49	0.00	381,193.39	536,669.40	32.04796029	-104.21498129
	5,200.00 5,300.00	0.00	334.06 334.06	5,099.39 5,199.39	1,792.39 1,892.39	766.96 766.96	765.79 765.79	-372.49 -372.49	0.00	381,193.39 381,193.39	536,669.40 536,669.40	32.04796029 32.04796029	-104.21498129 -104.21498129
	5,400.00	0.00	334.06	5,299.39	1,992.39	766.96	765.79	-372.49	0.00	381,193.39	536,669.40	32.04796029	-104.21498129
	5,500.00 5,600.00	0.00	334.06 334.06	5,399.39 5,499.39	2,092.39 2,192.39	766.96 766.96	765.79 765.79	-372.49 -372.49	0.00	381,193.39 381,193.39	536,669.40 536,669.40	32.04796029 32.04796029	-104.21498129 -104.21498129
	5,700.00	0.00	334.06	5,599.39 5,699.39	2,292.39	766.96	765.79	-372.49	0.00	381,193.39	536,669.40	32.04796029	-104.21498129 -104.21498129
Bone Spring Lime (BSGL)	5,800.00 5,803.57	0.00	334.06 334.06	5,702.96	2,392.39 2,395.96	766.96 766.96	765.79 765.79	-372.49 -372.49	0.00	381,193.39 381,193.39	536,669.40 536,669.40	32.04796029 32.04796029	-104.21498129
Avalon Upper (AVU)	5,900.00 5,915.99	0.00	334.06 334.06	5,799.39 5,815.38	2,492.39 2,508.38	766.96 766.96	765.79 765.79	-372.49 -372.49	0.00	381,193.39 381,193.39	536,669.40 536,669.40	32.04796029 32.04796029	-104.21498129 -104.21498129
Avaiori Opper (Av O)	6,000.00	0.00	334.06	5,899.39	2,592.39	766.96	765.79	-372.49	0.00	381,193.39	536,669.40	32.04796029	-104.21498129
	6,100.00 6,200.00	0.00	334.06 334.06	5,999.39 6.099.39	2,692.39 2.792.39	766.96 766.96	765.79 765.79	-372.49 -372.49	0.00	381,193.39 381,193.39	536,669.40 536,669.40	32.04796029 32.04796029	-104.21498129 -104.21498129
	6,300.00	0.00	334.06	6,199.39	2,892.39	766.96	765.79	-372.49	0.00	381,193.39	536,669.40	32.04796029	-104.21498129
Avalon Lower (AVL)	6,372.70 6,400.00	0.00	334.06 334.06	6,272.09 6,299.39	2,965.09 2.992.39	766.96 766.96	765.79 765.79	-372.49 -372.49	0.00	381,193.39 381,193.39	536,669.40 536,669.40	32.04796029 32.04796029	-104.21498129 -104.21498129
	6,500.00	0.00	334.06	6,399.39	3,092.39	766.96	765.79	-372.49	0.00	381,193.39	536,669.40	32.04796029	-104.21498129
	6,600.00 6,700.00	0.00	334.06 334.06	6,499.39 6,599.39	3,192.39 3,292.39	766.96 766.96	765.79 765.79	-372.49 -372.49	0.00	381,193.39 381.193.39	536,669.40 536,669.40	32.04796029 32.04796029	-104.21498129 -104.21498129
First Bone Spring Upper (FBU)	6,727.96	0.00	334.06	6,627.35	3,320.35	766.96	765.79	-372.49	0.00	381,193.39	536,669.40	32.04796029	-104.21498129
	6,800.00 6,900.00	0.00	334.06 334.06	6,699.39 6,799.39	3,392.39 3,492.39	766.96 766.96	765.79 765.79	-372.49 -372.49	0.00	381,193.39 381,193.39	536,669.40 536,669.40	32.04796029 32.04796029	-104.21498129 -104.21498129
First Bone Spring Lower (FBL)	6,920.83	0.00	334.06	6,820.22	3,513.22	766.96	765.79	-372.49	0.00	381,193.39	536,669.40	32.04796029	-104.21498129
	7,000.00 7,100.00	0.00	334.06 334.06	6,899.39 6,999.39	3,592.39 3,692.39	766.96 766.96	765.79 765.79	-372.49 -372.49	0.00	381,193.39 381,193.39	536,669.40 536,669.40	32.04796029 32.04796029	-104.21498129 -104.21498129
	7,200.00	0.00	334.06	7,099.39	3,792.39	766.96	765.79	-372.49	0.00	381,193.39	536,669.40	32.04796029	-104.21498129
Second Bone Spring Upper (SBL	7,215.34 7,300.00	0.00	334.06 334.06	7,114.73 7,199.39	3,807.73 3,892.39	766.96 766.96	765.79 765.79	-372.49 -372.49	0.00	381,193.39 381,193.39	536,669.40 536,669.40	32.04796029 32.04796029	-104.21498129 -104.21498129
Build 8°/100ft	7,353.42	0.00	334.06	7,252.81	3,945.81	766.96	765.79	-372.49	0.00	381,193.39	536,669.40	32.04796029	-104.21498129
	7,400.00 7,500.00	3.73 11.73	359.43 359.43	7,299.36 7,398.37	3,992.36 4,091.37	768.47 781.90	767.30 780.74	-372.50 -372.64	8.00 8.00	381,194.90 381,208.34	536,669.39 536,669.26		-104.21498134 -104.21498172
	7,600.00	19.73	359.43	7,494.55	4,187.55	808.99	807.82	-372.91	8.00	381,235.41	536,668.99	32.04807582	-104.21498249
Second Bone Spring Lower (SBL	7,700.00 7,744.51	27.73 31.29	359.43 359.43	7,586.02 7,624.75	4,279.02 4,317.75	849.19 871.11	848.02 869.94	-373.30 -373.52	8.00 8.00	381,275.61 381,297.53	536,668.59 536,668.37	32.04824658	-104.21498363 -104.21498426
, 5 - (	7,800.00	35.73	359.43	7,671.01	4,364.01	901.73	900.56	-373.83	8.00	381,328.15	536,668.07	32.04833076	-104.21498513
	7,900.00 8,000.00	43.73 51.73	359.43 359.43	7,747.86 7,815.07	4,440.86 4,508.07	965.59 1,039.52	964.42 1,038.35	-374.46 -375.19	8.00 8.00	381,392.00 381,465.93	536,667.44 536,666.70	32.04850629 32.04870952	-104.21498694 -104.21498905
	8,100.00	59.73	359.43	7,871.34	4,564.34	1,122.09	1,120.92	-376.01	8.00	381,548.48	536,665.89	32.04893648	-104.21499140
	8,200.00 8,300.00	67.73 75.73	359.43 359.43	7,915.57 7,946.89	4,608.57 4,639.89	1,211.69 1,306.56	1,210.51 1,305.38	-376.90 -377.84	8.00 8.00	381,638.07 381,732.93	536,665.00 536,664.06		-104.21499394 -104.21499664
Landing Daint	8,400.00	83.73	359.43	7,964.71	4,657.71	1,404.88	1,403.70	-378.81	8.00	381,831.24	536,663.08	32.04971379	-104.21499944
Landing Point FTP Cross	8,476.19 8,476.29	89.82 89.82	359.43 359.43	7,969.00 7,969.00	4,662.00 4,662.00	1,480.91 1,481.01	1,479.73 1,479.83	-379.56 -379.57	8.00 0.00	381,907.26 381,907.36	536,662.33 536,662.33	32.04992306	-104.21500160 -104.21500160
•	8,500.00	89.82	359.43	7,969.07	4,662.07	1,504.72	1,503.53	-379.80	0.00	381,931.07	536,662.09	32.04998823	-104.21500228
	8,600.00 8,700.00	89.82 89.82	359.43 359.43	7,969.38 7,969.70	4,662.38 4,662.70	1,604.72 1,704.71	1,603.53 1,703.52	-380.79 -381.78	0.00	382,031.05 382,131.04	536,661.10 536,660.11	32.05053797	-104.21500512 -104.21500797
	8,800.00	89.82	359.43	7,970.01	4,663.01	1,804.71	1,803.52	-382.77	0.00	382,231.02	536,659.12	32.05081284	-104.21501081
	8,900.00 9,000.00	89.82 89.82	359.43 359.43	7,970.32 7,970.63	4,663.32 4,663.63	1,904.71 2,004.71	1,903.51 2,003.51	-383.76 -384.76	0.00	382,331.01 382,430.99	536,658.13 536,657.14		-104.21501366 -104.21501650

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	9,100.00 9,200.00	89.82 89.82	359.43 359.43	7,970.94 7.971.25	4,663.94 4.664.25	2,104.70 2,204.70	2,103.50 2.203.50	-385.75 -386.74	0.00	382,530.98 382,630.97	536,656.15 536,655.16	32.05163745 32.05191232	-104.21501935 -104.21502219
	9,300.00	89.82	359.43	7,971.56	4,664.56	2,304.70	2,303.49	-387.73	0.00	382,730.95	536,654.17	32.05218719	-104.21502503
	9,400.00 9,500.00	89.82 89.82	359.43 359.43	7,971.87 7,972.18	4,664.87 4,665.18	2,404.69 2,504.69	2,403.49 2,503.48	-388.72 -389.71	0.00	382,830.94 382,930.92	536,653.18 536,652.19	32.05246206 32.05273693	-104.21502788 -104.21503072
	9,600.00	89.82	359.43	7,972.49	4,665.49	2,604.69	2,603.47	-390.70	0.00	383,030.91	536,651.19	32.05301180	-104.21503357
	9,700.00 9,800.00	89.82 89.82	359.43 359.43	7,972.80 7,973.12	4,665.80 4,666.12	2,704.69 2,804.68	2,703.47 2,803.46	-391.69 -392.68	0.00	383,130.89 383,230.88	536,650.20 536,649.21	32.05328667 32.05356154	-104.21503641 -104.21503926
	9,900.00	89.82	359.43	7,973.43	4,666.43	2,904.68	2,903.46	-393.67	0.00	383,330.86	536,648.22	32.05383641	-104.21504210
	10,000.00 10,100.00	89.82 89.82	359.43 359.43	7,973.74 7,974.05	4,666.74 4,667.05	3,004.68 3,104.68	3,003.45 3,103.45	-394.66 -395.66	0.00	383,430.85 383,530.83	536,647.23 536,646.24	32.05411128 32.05438615	-104.21504495 -104.21504779
	10,200.00	89.82	359.43	7,974.36	4,667.36	3,204.67	3,203.44	-396.65	0.00	383,630.82	536,645.25	32.05466102	-104.21505064
	10,300.00 10,400.00	89.82 89.82	359.43 359.43	7,974.67 7.974.98	4,667.67 4,667.98	3,304.67 3.404.67	3,303.44 3.403.43	-397.64 -398.63	0.00	383,730.81 383,830.79	536,644.26 536,643.27	32.05493588 32.05521075	-104.21505348 -104.21505632
	10,500.00	89.82	359.43	7,975.29	4,668.29	3,504.66	3,503.43	-399.62	0.00	383,930.78	536,642.28	32.05548562	-104.21505917
	10,600.00	89.82	359.43	7,975.60	4,668.60	3,604.66	3,603.42	-400.61	0.00	384,030.76	536,641.29	32.05576049	-104.21506201
	10,700.00 10,800.00	89.82 89.82	359.43 359.43	7,975.91 7,976.22	4,668.91 4,669.22	3,704.66 3,804.66	3,703.42 3,803.41	-401.60 -402.59	0.00	384,130.75 384,230.73	536,640.30 536,639.30	32.05603536 32.05631023	-104.21506486 -104.21506770
	10,900.00	89.82	359.43	7,976.54	4,669.54	3,904.65	3,903.40	-403.58	0.00	384,330.72	536,638.31	32.05658510	-104.21507055
	11,000.00 11,100.00	89.82 89.82	359.43 359.43	7,976.85 7,977.16	4,669.85 4,670.16	4,004.65 4.104.65	4,003.40 4,103.39	-404.57 -405.56	0.00	384,430.70 384,530.69	536,637.32 536,636.33	32.05685997 32.05713484	-104.21507339 -104.21507624
	11,200.00	89.82	359.43	7,977.47	4,670.47	4,204.65	4,203.39	-406.56	0.00	384,630.67	536,635.34	32.05740971	-104.21507908
	11,300.00 11.400.00	89.82 89.82	359.43 359.43	7,977.78 7.978.09	4,670.78 4.671.09	4,304.64 4,404.64	4,303.38 4.403.38	-407.55 -408.54	0.00	384,730.66 384,830.65	536,634.35 536,633.36	32.05768458 32.05795945	-104.21508193 -104.21508477
	11,500.00	89.82	359.43	7,978.40	4,671.40	4,504.64	4,503.37	-409.53	0.00	384,930.63	536,632.37	32.05823432	-104.21508762
	11,600.00	89.82	359.43	7,978.71	4,671.71	4,604.63	4,603.37	-410.52	0.00	385,030.62	536,631.38	32.05850919	-104.21509046
	11,700.00 11,800.00	89.82 89.82	359.43 359.43	7,979.02 7.979.33	4,672.02 4,672.33	4,704.63 4.804.63	4,703.36 4,803.36	-411.51 -412.50	0.00	385,130.60 385,230.59	536,630.39 536,629.40	32.05878406 32.05905892	-104.21509331 -104.21509615
	11,900.00	89.82	359.43	7,979.64	4,672.64	4,904.63	4,903.35	-413.49	0.00	385,330.57	536,628.41	32.05933379	-104.21509900
	12,000.00 12,100.00	89.82 89.82	359.43 359.43	7,979.96 7.980.27	4,672.96 4.673.27	5,004.62 5,104.62	5,003.35 5.103.34	-414.48 -415.47	0.00	385,430.56 385,530.54	536,627.41 536.626.42	32.05960866 32.05988353	-104.21510184 -104.21510469
	12,200.00	89.82	359.43	7,980.58	4,673.58	5,204.62	5,203.33	-416.47	0.00	385,630.53	536,625.43	32.06015840	-104.21510753
	12,300.00 12,400.00	89.82 89.82	359.43 359.43	7,980.89 7.981.20	4,673.89 4.674.20	5,304.61 5,404.61	5,303.33 5,403.32	-417.46 -418.45	0.00	385,730.51 385,830.50	536,624.44 536,623.45	32.06043327 32.06070814	-104.21511038 -104.21511322
	12,500.00	89.82	359.43	7,981.51	4,674.51	5,504.61	5,503.32	-419.44	0.00	385,930.49	536,622.46	32.06070814	-104.21511322
	12,600.00	89.82	359.43	7,981.82	4,674.82	5,604.61	5,603.31	-420.43	0.00	386,030.47	536,621.47	32.06125788	-104.21511891
	12,700.00 12.800.00	89.82 89.82	359.43 359.43	7,982.13 7.982.44	4,675.13 4.675.44	5,704.60 5,804.60	5,703.31 5.803.30	-421.42 -422.41	0.00	386,130.46 386,230.44	536,620.48 536,619.49	32.06153275 32.06180762	-104.21512175 -104.21512460
	12,900.00	89.82	359.43	7,982.75	4,675.75	5,904.60	5,903.30	-423.40	0.00	386,330.43	536,618.50	32.06208249	-104.21512744
	13,000.00 13,100.00	89.82 89.82	359.43 359.43	7,983.06 7,983.38	4,676.06 4,676.38	6,004.60 6,104.59	6,003.29 6,103.29	-424.39 -425.38	0.00	386,430.41 386,530.40	536,617.51 536,616.52	32.06235736 32.06263222	-104.21513029 -104.21513313
	13,200.00	89.82	359.43	7,983.69	4,676.69	6,204.59	6,203.28	-426.37	0.00	386,630.38	536,615.52	32.06290709	-104.21513513
	13,300.00	89.82	359.43	7,984.00	4,677.00	6,304.59	6,303.28	-427.37	0.00	386,730.37	536,614.53	32.06318196	-104.21513882
	13,400.00 13,500.00	89.82 89.82	359.43 359.43	7,984.31 7,984.62	4,677.31 4,677.62	6,404.58 6,504.58	6,403.27 6,503.26	-428.36 -429.35	0.00	386,830.36 386,930.34	536,613.54 536,612.55	32.06345683 32.06373170	-104.21514167 -104.21514452
	13,600.00	89.82	359.43	7,984.93	4,677.93	6,604.58	6,603.26	-430.34	0.00	387,030.33	536,611.56	32.06400657	-104.21514736
MP/PPP2. Turn 2°/100ft	13,700.00 13,706.10	89.82 89.82	359.43 359.43	7,985.24 7,985.26	4,678.24 4,678.26	6,704.58 6,710.67	6,703.25 6,709.35	-431.33 -431.39	0.00	387,130.31 387,136.41	536,610.57 536,610.51	32.06428144 32.06429820	-104.21515021 -104.21515038
Hold to TD	13,745.06	89.82	0.21	7,985.38	4,678.38	6,749.64	6,748.32	-431.51	2.00	387,175.37	536,610.39	32.06440531	-104.21515063
	13,800.00	89.82	0.21	7,985.55	4,678.55	6,804.57	6,803.25	-431.31	0.00	387,230.30	536,610.59	32.06455631	-104.21514978
	13,900.00 14.000.00	89.82 89.82	0.21 0.21	7,985.86 7,986.17	4,678.86 4.679.17	6,904.57 7,004.57	6,903.25 7,003.25	-430.94 -430.57	0.00	387,330.29 387,430.28	536,610.96 536,611.33	32.06483119 32.06510607	-104.21514824 -104.21514669
	14,100.00	89.82	0.21	7,986.48	4,679.48	7,104.57	7,103.25	-430.20	0.00	387,530.27	536,611.70	32.06538094	-104.21514515
	14,200.00 14,300.00	89.82 89.82	0.21 0.21	7,986.80 7,987.11	4,679.80 4,680.11	7,204.56 7,304.56	7,203.25 7,303.25	-429.83 -429.46	0.00	387,630.26 387,730.25	536,612.07 536,612.44	32.06565582 32.06593070	-104.21514360 -104.21514206
	14,400.00	89.82	0.21	7,987.42	4,680.42	7,404.56	7,403.25	-429.09	0.00	387,830.24	536,612.81	32.06620557	-104.21514051
	14,500.00 14,600.00	89.82 89.82	0.21 0.21	7,987.73 7,988.04	4,680.73 4,681.04	7,504.55 7,604.55	7,503.24 7,603.24	-428.72 -428.35	0.00	387,930.23 388,030.22	536,613.18 536,613.54	32.06648045 32.06675533	-104.21513897 -104.21513742
	14,700.00	89.82	0.21	7,988.35	4,681.35	7,704.55	7,703.24	-427.99	0.00	388,130.21	536,613.91	32.06703020	-104.21513588
	14,800.00	89.82	0.21	7,988.66	4,681.66	7,804.55	7,803.24	-427.62	0.00	388,230.20	536,614.28	32.06730508	-104.21513433
	14,900.00 15,000.00	89.82 89.82	0.21 0.21	7,988.97 7,989.28	4,681.97 4,682.28	7,904.54 8,004.54	7,903.24 8,003.24	-427.25 -426.88	0.00	388,330.19 388,430.18	536,614.65 536,615.02	32.06757996 32.06785483	-104.21513279 -104.21513124
	15,100.00	89.82	0.21	7,989.59	4,682.59	8,104.54	8,103.24	-426.51	0.00	388,530.17	536,615.39	32.06812971	-104.21512970
	15,200.00 15,300.00	89.82 89.82	0.21 0.21	7,989.91 7,990.22	4,682.91 4,683.22	8,204.53 8,304.53	8,203.24 8,303.23	-426.14 -425.77	0.00	388,630.16 388,730.15	536,615.76 536,616.13	32.06840459 32.06867946	-104.21512815 -104.21512661
	15,400.00	89.82	0.21	7,990.53	4,683.53	8,404.53	8,403.23	-425.40	0.00	388,830.14	536,616.50	32.06895434	-104.21512506
	15,500.00 15,600.00	89.82 89.82	0.21 0.21	7,990.84 7,991.15	4,683.84 4,684.15	8,504.53 8,604.52	8,503.23 8,603.23	-425.03 -424.66	0.00	388,930.13 389,030.12	536,616.87 536,617.24	32.06922921 32.06950409	-104.21512352 -104.21512197
	15,700.00	89.82	0.21	7,991.46	4,684.46	8,704.52	8,703.23	-424.29	0.00	389,130.11	536,617.61	32.06977897	-104.21512042
	15,800.00 15,900.00	89.82 89.82	0.21 0.21	7,991.77 7.992.08	4,684.77 4.685.08	8,804.52 8.904.51	8,803.23 8.903.23	-423.92 -423.56	0.00	389,230.09 389,330.08	536,617.97 536,618.34	32.07005384 32.07032872	-104.21511888 -104.21511733
	16,000.00	89.82	0.21	7,992.39	4,685.39	9,004.51	9,003.23	-423.19	0.00	389,430.07	536,618.71	32.07060360	-104.21511733
	16,100.00 16.200.00	89.82 89.82	0.21 0.21	7,992.70 7,993.01	4,685.70 4.686.01	9,104.51 9,204.51	9,103.23 9.203.22	-422.82 -422.45	0.00	389,530.06	536,619.08 536,619.45	32.07087847 32.07115335	-104.21511424
	16,200.00 16,300.00	89.82 89.82	0.21	7,993.01 7,993.33	4,686.01 4,686.33	9,204.51 9,304.50	9,203.22 9,303.22	-422.45 -422.08	0.00	389,630.05 389,730.04	536,619.45 536,619.82		-104.21511270 -104.21511115
	16,400.00	89.82	0.21	7,993.64	4,686.64	9,404.50	9,403.22	-421.71	0.00	389,830.03	536,620.19	32.07170310	-104.21510961
	16,500.00 16,600.00	89.82 89.82	0.21 0.21	7,993.95 7.994.26	4,686.95 4,687.26	9,504.50 9.604.49	9,503.22 9.603.22	-421.34 -420.97	0.00	389,930.02 390,030.01	536,620.56 536,620.93	32.07197798 32.07225285	-104.21510806 -104.21510652
	16,700.00	89.82	0.21	7,994.57	4,687.57	9,704.49	9,703.22	-420.60	0.00	390,130.00	536,621.30	32.07252773	-104.21510497
	16,800.00 16.900.00	89.82 89.82	0.21 0.21	7,994.88 7,995.19	4,687.88 4.688.19	9,804.49 9,904.49	9,803.22 9.903.22	-420.23 -419.86	0.00	390,229.99 390,329.98	536,621.67 536.622.04	32.07280261 32.07307748	-104.21510343 -104.21510188
	17,000.00	89.82	0.21	7,995.19	4,688.50	10,004.48	10,003.21	-419.49	0.00	390,429.97	536,622.40	32.07307746	-104.21510188
	17,100.00	89.82	0.21	7,995.81	4,688.81	10,104.48	10,103.21	-419.12	0.00	390,529.96	536,622.77	32.07362723	-104.21509879
	17,200.00 17,300.00	89.82 89.82	0.21 0.21	7,996.12 7.996.44	4,689.12 4.689.44	10,204.48 10.304.47	10,203.21 10,303.21	-418.76 -418.39	0.00	390,629.95 390,729.94	536,623.14 536,623.51	32.07390211 32.07417699	-104.21509724 -104.21509570
	17,400.00	89.82	0.21	7,996.75	4,689.75	10,404.47	10,403.21	-418.02	0.00	390,829.93	536,623.88	32.07445186	-104.21509415
	17,500.00 17.600.00	89.82 89.82	0.21 0.21	7,997.06 7.997.37	4,690.06 4.690.37	10,504.47 10,604.47	10,503.21 10,603.21	-417.65 -417.28	0.00	390,929.92 391,029.91	536,624.25 536,624.62	32.07472674	-104.21509261 -104.21509106
	17,700.00	89.82	0.21	7,997.68	4,690.68	10,704.46	10,703.21	-416.91	0.00	391,129.90	536,624.99	32.07527649	-104.21508952
	17,800.00	89.82	0.21	7,997.99	4,690.99	10,804.46	10,803.21	-416.54	0.00	391,229.89	536,625.36		-104.21508797
	17,900.00 18.000.00	89.82 89.82	0.21 0.21	7,998.30 7.998.61	4,691.30 4.691.61	10,904.46 11.004.46	10,903.20 11.003.20	-416.17 -415.80	0.00	391,329.88 391.429.87	536,625.73 536,626.10		-104.21508642 -104.21508488
	18,100.00	89.82	0.21	7,998.92	4,691.92	11,104.45	11,103.20	-415.43	0.00	391,529.86	536,626.46	32.07637599	-104.21508333
	18,200.00 18.300.00	89.82 89.82	0.21 0.21	7,999.23 7.999.54	4,692.23 4.692.54	11,204.45 11.304.45	11,203.20 11.303.20	-415.06 -414.69	0.00	391,629.85 391,729.84	536,626.83 536.627.20		-104.21508179 -104.21508024
	18,400.00	89.82	0.21	7,999.86	4,692.86	11,404.44	11,403.20	-414.33	0.00	391,829.83	536,627.57	32.07720062	-104.21507870
	18,500.00	89.82	0.21	8,000.17	4,693.17	11,504.44	11,503.20	-413.96	0.00	391,929.82	536,627.94		-104.21507715
	18,600.00 18,700.00	89.82 89.82	0.21 0.21	8,000.48 8,000.79	4,693.48 4,693.79	11,604.44 11,704.44	11,603.20 11,703.20	-413.59 -413.22	0.00	392,029.81 392,129.80	536,628.31 536,628.68	32.07/75037	-104.21507561 -104.21507406
	18,800.00	89.82	0.21	8,001.10	4,694.10	11,804.43	11,803.19	-412.85	0.00	392,229.79	536,629.05	32.07830013	-104.21507251
LTP Cross	18,900.00 18,914.99	89.82 89.82	0.21 0.21	8,001.41 8.001.46	4,694.41 4,694.46	11,904.43 11,919.42	11,903.19 11,918.18	-412.48 -412.42	0.00	392,329.78 392.344.76	536,629.42 536,629.47	32.07857500	-104.21507097 -104.21507074
Makers Mark Federal Com No. 2	18,989.97	89.82	0.21	8,001.69	4,694.69	11,994.40	11,993.17	-412.15	0.00	392,419.74	536,629.75		-104.21506958

Survey Type: Def Plan

Survey Error Model: WPTS Rev 0. Survey Program:

survey Program:

Expected Max

Description

Part

MD From

MD To

EOU Freq

Hole Size Casing Diameter
Inclination

Survey Tool Code

Vendor / Tool

Borehole / Survey

(ft)

(ft)

(ft)

(in)

(deg)

1 0.000 20,173.977 1/100.00025 – 8.75 – 6.1259.625 – 7 – 6.125 B001Mb\_MWD+HRGM Makers Mark Federal Com No. 264H / Makers Mark

 EOU Geometry:
 Include (in)
 Casing Size (in)
 Name

 552.500
 17.500
 13.375

 2,482.500
 12.250
 9.625

 8,904.500
 8.750
 7.000

 18,989.974
 6.125

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

**OPERATOR'S NAME:** CHEVRON USA INCORPORATED WELL NAME & NO.: MAKERS MARK FED COM 264H SURFACE HOLE FOOTAGE: 1379'/N & 20'/W BOTTOM HOLE FOOTAGE 25'/N & 1675'/W LOCATION: Section 17, T.26 S., R.27 E., NMP COUNTY: Eddy County, New Mexico

COA

H2S	Yes	○ No	
Potash	None	© Secretary	© R-111-P
Cave/Karst Potential	○ Low	© Medium	• High
Cave/Karst Potential	Critical		
Variance	None	• Flex Hose	Other Other
Wellhead	Conventional	• Multibowl	O 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	<b>▼</b> 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 (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 or 17.5 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.
     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

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

# 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 Choose an item. inch Choose an item. 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 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

# **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
  - i. Notify the BLM when moving in and removing the Spudder Rig.
  - ii. Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
  - iii. BOP/BOPE test to be conducted per **43** CFR **3172** as soon as 2<sup>nd</sup> 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. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

# A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing

- integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-Q potash area, the NMOCD requirements shall be followed.

## **B. PRESSURE CONTROL**

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in 43 CFR 3172.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure

- test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - ii. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - iii. Manufacturer representative shall install the test plug for the initial BOP test.
  - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
  - v. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - i. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - ii. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the

- cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
- iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to 43 CFR 3172 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- iv. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- v. The results of the test shall be reported to the appropriate BLM office.
- vi. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- vii. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- viii. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per 43 CFR 3172.

# C. DRILLING MUD

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

# D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.)

created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

JS 12/10/2024

### 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** 10/15/2025

APD ID: 10400098204

Submission Date: 04/23/2024

Highlighted data reflects the most recent changes

Operator Name: CHEVRON USA INCORPORATED

Well Number: 264H

Well Name: MAKERS MARK FEDERAL COM Well Type: OIL WELL

Well Work Type: Drill

**Show Final Text** 

# **Section 1 - Geologic Formations**

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
16276427	RUSTLER	3279	28	28	SANDSTONE	NONE	N
16276428	SALADO	2874	405	405	ANHYDRITE, SALT	NONE	N
16276429	CASTILE	2852	427	427	ANHYDRITE, SALT	NONE	N
16276430	LAMAR	1186	2093	2122	LIMESTONE, SHALE	NONE	N
16276431	BELL CANYON	1136	2143	2174	LIMESTONE, SANDSTONE	NONE	N
16276432	CHERRY CANYON	275	3004	3065	LIMESTONE, SANDSTONE	NONE	N
16276433	BRUSHY CANYON	-827	4106	4203	LIMESTONE, SANDSTONE	NONE	N
16276434	BONE SPRING LIME	-2424	5703	5804	SHALE, SILTSTONE	NONE	N
16276435	AVALON SAND	-2536	5815	6373	SHALE	NATURAL GAS, OIL	N
16276436	BONE SPRING 1ST	-3348	6627	6921	SANDSTONE, SHALE	NATURAL GAS, OIL	N
16276437	BONE SPRING 2ND	-3836	7115	7745	SANDSTONE, SHALE	NATURAL GAS, OIL	Y

# **Section 2 - Blowout Prevention**

Pressure Rating (PSI): 5M Rating Depth: 8002

Equipment: Chevron will have a minimum of a 5,000 psi rig stack for drill out below surface casing

Requesting Variance? YES

Variance request: Chevron respectfully request to vary from the Onshore Order 2 where it states: "(A full BOP Test) shall be performed: when initially installed and whenever any seal subject to test pressure is 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 components nor any break will ever surpass 21 days between 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

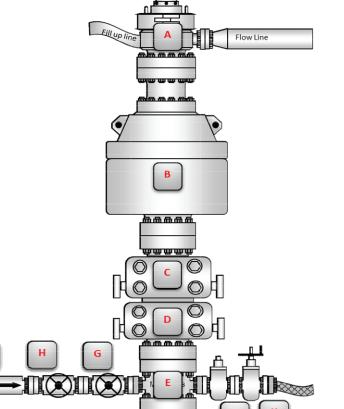
# **BLOWOUT PREVENTER SCHEMATIC**

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)					
I	2"	5,000	Kill Line Check valve					
			·					



<del>pwww</del>

	<u>Choke line</u>								
Part	Size	Pressure	Doscription						
Part	Size	Rating	Description						
J	3"	5,000	HCR (gate valve)						
K	3"	5,000	Manual HCR (gate valve)						
		<u>Wellhead</u>							
Part	Size	Pressure	Description						
Part	Size	Rating	Description						
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.

Sante Fe Main Office Phone: (505) 476-3441

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

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

ACKNOWLEDGMENTS

Action 519372

### **ACKNOWLEDGMENTS**

Operator:	OGRID:
CHEVRON U S A INC	4323
6301 Deauville Blvd	Action Number:
Midland, TX 79706	519372
	Action Type:
	[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

### ACKNOWLEDGMENTS

I hereby certify that no additives containing PFAS chemicals will be added to the completion or recompletion of this well.

Sante Fe Main Office Phone: (505) 476-3441

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Action 519372

### **CONDITIONS**

Operator:	OGRID:
CHEVRON U S A INC	4323
6301 Deauville Blvd	Action Number:
Midland, TX 79706	519372
	Action Type:
	[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

### CONDITIONS

Created By	Condition	Condition Date
carol adler	Cement is required to circulate on both surface and intermediate1 strings of casing.	10/23/2025
carol adler	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	10/23/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	11/5/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	11/5/2025
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.	11/5/2025
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.	11/5/2025