

Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

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

1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No.
1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator		8. Lease Name and Well No.
3a. Address		9. API Well No. 30 015 48998
3b. Phone No. (include area code)		10. Field and Pool, or Exploratory
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area
14. Distance in miles and direction from nearest town or post office*		12. County or Parish
		13. State
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
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)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> 1. Well plat certified by a registered surveyor. 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | <ul style="list-style-type: none"> 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the BLM. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

25. Signature	Name (Printed/Typed)	Date
Title		
Approved by (Signature)	Name (Printed/Typed)	Date
Title		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)

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

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

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

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

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

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

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code 64010	³ Pool Name WELCH;BONE SPRING
⁴ Property Code	⁵ Property Name CICADA UNIT	
⁷ OGRID No. 4323	⁸ Operator Name CHEVRON U.S.A. INC.	⁶ Well Number 54H ⁹ Elevation 3279'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	3	26 SOUTH	27 EAST, N.M.P.M.		273'	SOUTH	1218'	WEST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	15	26 SOUTH	27 EAST, N.M.P.M.		25'	SOUTH	1716'	WEST	EDDY

¹² Dedicated Acres 640	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

PROPOSED FIRST TAKE POINT	
X= 547,212'	NAD 27
Y= 386,886'	NAD 27
LAT. 32.063573° N	NAD 27
LONG. 104.180927° W	NAD 27
X= 588,396'	NAD83/86
Y= 386,943'	NAD83/86
LAT. 32.063695° N	NAD83/86
LONG. 104.181420° W	NAD83/86
PROPOSED MID POINT	
X= 547,338'	NAD 27
Y= 381,695'	NAD 27
LAT. 32.049302° N	NAD 27
LONG. 104.180545° W	NAD 27
X= 588,522'	NAD83/86
Y= 381,752'	NAD83/86
LAT. 32.049425° N	NAD83/86
LONG. 104.181037° W	NAD83/86
PROPOSED LAST TAKE POINT	
X= 547,369'	NAD 27
Y= 376,504'	NAD 27
LAT. 32.035032° N	NAD 27
LONG. 104.180469° W	NAD 27
X= 588,553'	NAD83/86
Y= 376,561'	NAD83/86
LAT. 32.035155° N	NAD83/86
LONG. 104.180961° W	NAD83/86

CICADA UNIT NO. 54H WELL	
X= 546,715'	NAD 27
Y= 387,266'	NAD 27
LAT. 32.064620° N	NAD 27
LONG. 104.182532° W	NAD 27
X= 587,899'	NAD83/86
Y= 387,323'	NAD83/86
LAT. 32.064742° N	NAD83/86
LONG. 104.183024° W	NAD83/86
ELEV. +3279'	NAVD88

CORNER COORDINATES TABLE (NAD 27)	
A - Y=392447.75, X=545573.63	
B - Y=387009.20, X=545492.91	
C - Y=386937.82, X=550774.76	
D - Y=384298.89, X=550859.19	
E - Y=381711.59, X=545622.05	
F - Y=381659.95, X=550943.63	
G - Y=376414.09, X=545653.53	
H - Y=376383.44, X=550941.76	

PROPOSED BOTTOM HOLE LOCATION	
X= 547,369'	NAD 27
Y= 376,429'	NAD 27
LAT. 32.034826° N	NAD 27
LONG. 104.180468° W	NAD 27
X= 588,553'	NAD83/86
Y= 376,486'	NAD83/86
LAT. 32.034949° N	NAD83/86
LONG. 104.180960° W	NAD83/86

¹⁷ OPERATOR CERTIFICATION

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

Signature _____ Date 2/20/2020

Laura Becerra
 Printed Name
LBecerra@Chevron.com
 E-mail Address

¹⁸ SURVEYOR CERTIFICATION

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

11/14/2019
Date of Survey

Signature and Seal of Professional Surveyor:
 Certificate Number _____ 12/04/2019

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 **OGRID:** 4323 **Date:** 10 / 5 / 21

II. Type: Original Amendment due to 19.15.27.9.D(6)(a) NMAC 19.15.27.9.D(6)(b) NMAC Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
CICADA UNIT 51H	<i>Pending</i>	UL:M, Sec 3, T26S-R27E	198' FSL, 1,218' FWL	1635 BBL/D	5841 MCF/D	2089 BBL/D
CICADA UNIT 52H	<i>Pending</i>	UL:M, Sec 3, T26S-R27E	223' FSL, 1,218' FWL	618 BBL/D	2350 MCF/D	4185 BBL/D
CICADA UNIT 53H	<i>Pending</i>	UL:M, Sec 3, T26S-R27E	248' FSL, 1,218' FWL	1635 BBL/D	5841 MCF/D	2089 BBL/D
CICADA UNIT 54H	<i>Pending</i>	UL:M, Sec 3, T26S-R27E	273' FSL, 1,218' FWL	618 BBL/D	2350 MCF/D	4185 BBL/D
CICADA UNIT 55H	<i>Pending</i>	UL:M, Sec 3, T26S-R27E	298' FSL, 1,218' FWL	1635 BBL/D	5841 MCF/D	2089 BBL/D

IV. Central Delivery Point Name: Hayhurst NM CTB 10 [See 19.15.27.9(D)(1) NMAC]

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
CICADA UNIT 51H	<i>Pending</i>	November 2022	N/A	N/A	N/A	N/A
CICADA UNIT 52H	<i>Pending</i>	November 2022	N/A	N/A	N/A	N/A
CICADA UNIT 53H	<i>Pending</i>	November 2022	N/A	N/A	N/A	N/A
CICADA UNIT 54H	<i>Pending</i>	November 2022	N/A	N/A	N/A	N/A
CICADA UNIT 55H	<i>Pending</i>	November 2022	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. Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

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

If Operator checks this box, Operator will select one of the following:

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

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

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

Section 4 - Notices

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

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

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

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

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: <i>Cindy Herrera-Murillo</i>
Printed Name: Cindy Herrera-Murillo
Title: Sr Regulatory Affairs Coordinator
E-mail Address: eeof@chevron.com
Date: 8/23/2021
Phone: 575-263-0431
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 NMOCDC 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

09/29/2021

APD ID: 10400054492

Submission Date: 03/02/2020

Highlighted data
reflects the most
recent changes

Operator Name: CHEVRON USA INCORPORATED

Well Name: CICADA UNIT

Well Number: 54H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
669853	SALADO	3279	701	701	ANHYDRITE, SALT	NONE	N
669870	LAMAR	987	2292	2300	LIMESTONE, SHALE	NONE	N
669854	BELL CANYON	957	2322	2340	LIMESTONE, SANDSTONE	NONE	N
669856	CHERRY CANYON	114	3165	3190	LIMESTONE, SANDSTONE, SILTSTONE	NONE	N
669857	BRUSHY CANYON	-1052	4331	4370	LIMESTONE, SANDSTONE, SHALE	NONE	N
669858	BONE SPRING LIME	-2686	5965	6028	SHALE, SILTSTONE	NONE	N
669868	AVALON SAND	-2796	6075	6100	SHALE	NONE	N
669860	BONE SPRING 1ST	-3569	6848	6880	SANDSTONE, SHALE	NONE	N
669861	BONE SPRING 2ND	-4102	7381	7381	SANDSTONE, SHALE	NONE	N
669864	BONE SPRING 3RD	-5092	8371	8410	LIMESTONE	NONE	N
670315	BONE SPRING	-5608	8887	19643	LIMESTONE, SANDSTONE, SHALE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 8887

Equipment: Chevron will have a minimum of a 5,000 psi rig stack (see proposed schematic) for drill out below surface casing. The stack will be tested as specified in the attached testing requirements. Batch drilling of the surface, intermediate, and production will take place. A full BOP test will be performed per hole section, unless approval from BLM is received otherwise. Flex choke hose will be used for all wells on the pad. BOP test will be conducted by a third party.

Requesting Variance? YES

Variance request: 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 nipped 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

Operator Name: CHEVRON USA INCORPORATED

Well Name: CICADA UNIT

Well Number: 54H

third party. Chevron also requests a variance to use a CoFlex hose with a metal protective covering that will be utilized between the BOP and Choke manifold. Please refer to the attached testing and specification documents.

Testing Procedure: Stack will be tested as specified in the attached testing requirements, upon NU and not to exceed 30 days. Test BOP from 250 psi to 5000 psi in Ram and 250 psi to 3500 psi in annular. BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. Batch drilling of the surface, intermediate, and production will take place. A full BOP test will be performed unless approval from the BLM is received otherwise. Flex choke hose will be used for all wells on the pad. BOP test will be conducted by a third party.

Choke Diagram Attachment:

Continental_Test_Specs_and_Pressure_Test_20200219154019.pdf

BOP Diagram Attachment:

BOP_Testing_Procedure_20200221063003.pdf

BLM_5M_Annular_10M_Stack_BOP_Choke_Schematic_20200219154531.pdf

UHS_Wellhead_Design_20200224075918.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	450	0	450	3279	2829	450	J-55	54.5	BUTT	1.58	1.65	DRY	1.64	DRY	1.64
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	8370	0	8330		-5051	8370	L-80	43.5	BUTT	2.42	1.44	DRY	1.79	DRY	1.79
3	PRODUCTION	8.5	5.5	NEW	API	Y	0	19418	0	8887	3280	-5608	19418	OTHER	20	OTHER - TXP-BTC	1.75	1.29	DRY	2.16	DRY	2.16

Casing Attachments

Operator Name: CHEVRON USA INCORPORATED

Well Name: CICADA UNIT

Well Number: 54H

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

13.375_54.5ppf_J55_BTC_20200219154725.pdf

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

9.625_43.5ppf_L80_IC_LTC_20200219154928.pdf

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

5.500_20lb_P110IC_TXP_20200221063618.pdf

Casing Design Assumptions and Worksheet(s):

Cicada_Unit_54H_9_Pt_Drilling_Plan_20200226145129.pdf

Section 4 - Cement

Operator Name: CHEVRON USA INCORPORATED

Well Name: CICADA UNIT

Well Number: 54H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	0	0	0	0	0		NONE	NONE
SURFACE	Tail		0	450	450	1.33	14.8	654	50	CLASS C	Extender, Antifoam, Retarder
INTERMEDIATE	Lead		0	7370	1139	2.23	11.9	2539	10	Class C	Extender, Antifoam, Retarder, Viscosifier
INTERMEDIATE	Tail		7370	8370	287	1.33	14.8	382	10	CLASS C	Extender, Antifoam, Retarder, Viscosifier
PRODUCTION	Lead		8170	18418	2514	1.85	13.2	4650	10	CLASS H	Extender, Antifoam, Retarder, Viscosifier
PRODUCTION	Tail		18418	19418	122	2.06	15	252	10	ACID SOL 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 closed system will be used consisting of above ground steel tanks. 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. 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. 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 muddling 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 PVT, stroke counter, flow sensor will be used to detect volume changes indicating loss or gain of circulating fluid volume in compliance with Onshore Order #2. A weighting agent and lost circulating material (LCM) will be onsite to mitigate pressure or lost circulation as hole conditions dictate.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
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Operator Name: CHEVRON USA INCORPORATED

Well Name: CICADA UNIT

Well Number: 54H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	450	SPUD MUD	8.3	9.2							Viscosity: 28-30
450	8330	OTHER : BRINE/OBM	8.7	9.6							Viscosity: 26-36
8330	8887	OIL-BASED MUD	8.7	13							Viscosity: 50-70, Filtrate: 10-25 Due to wellbore stability, the mud program may exceed the MW weight window needed to maintain overburden of pore pressure.

Section 6 - Test, Logging, Coring

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

Drill stem tests are not planned

The logging program will be as follows:

Type: Mudlogs Logs: 2 man mudlog Interval: Surf csg shoe through Prod hole TD Timing: While drilling or circulating

Type: LWD Logs: MWD gamma Interval: Int & Prod Hole Timing: While drilling

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

GAMMA RAY LOG, MUD LOG/GEOLOGIC LITHOLOGY LOG, DIRECTIONAL SURVEY, MUD LOG/GEOLOGICAL LITHOLOGY LOG,

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: 2065

Anticipated Surface Pressure: 109

Anticipated Bottom Hole Temperature(F): 160

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

Describe:

Contingency Plans geohazards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? NO

Hydrogen sulfide drilling operations plan:

Operator Name: CHEVRON USA INCORPORATED

Well Name: CICADA UNIT

Well Number: 54H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Cicada_Unit_51H_55H_GCP_20200219160706.pdf

H2S_Contingency_Plan_20200219160655.pdf

Rig_Layout_20200219160442.pdf

Cicada_Unit_54H_Directional_Survey_20200224102925.pdf

CICADA_UNIT_54H_C_102_Cert_20200302091115.pdf

Other proposed operations facets description:

Chevron requests authorization to use the spudder rig to spud the well and set surface casing. The drilling rig will move in less than 90 days to continue drilling operations. Rig layouts attached.

Chevron is also requesting a variance from the Onshore Order 2 to perform a break test on the BOP when able to finish the next hole section within 21 days of the previous full BOP test. Upon the first nipple up of the pad a full BOP test will be performed. A break test will not be performed on our last production hole section. A break test will only be performed on operations where BLM documentation states a 5M or less BOP can be utilized. Summary with details attached below.

Other proposed operations facets attachment:

Other Variance attachment:

Break_Testing_500_psi_CS_Tail__Variance_20200219160848.pdf

CUSA_Spudder_Rig_Data_20200219160835.pdf



Planned Wellpath Report

Cicada Unit No. 54H Rev-A.0

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Well	Cicada Unit No. 54H
Field	Purple Sage, Wolfcamp (Eddy Co., NM) NAD 27	API/Legal	
Facility	HNM Pkg 18	Wellbore	Cicada Unit No. 54H PWB
Slot	Cicada Unit No. 54H		

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Moyagusa
Scale	0.999912	Report Generated	04/Feb/2020 at 15:16
Convergence at slot	0.08° East	Database	WA_HOU_Midland_Defn

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	75.01	1.00	546715.00	387266.00	32°03'52.6314"N	104°10'57.1131"W
Facility Reference Pt			546714.00	387191.00	32°03'51.8892"N	104°10'57.1260"W
Field Reference Pt			152400.30	0.00	30°59'42.8458"N	105°26'33.6593"W

WELLPATH DATUM

Calculation method	Minimum curvature	Patterson 257 (KB) to Facility Vertical Datum	3307.00ft
Horizontal Reference Pt	Slot	Patterson 257 (KB) to Mean Sea Level	3307.00ft
Vertical Reference Pt	Patterson 257 (KB)	Patterson 257 (KB) to Ground Level at Slot (Cicada Unit No. 54H)	28.00ft
MD Reference Pt	Patterson 257 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.67°



Planned Wellpath Report

Cicada Unit No. 54H Rev-A.0

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REFERENCE WELLPATH IDENTIFICATION			
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Field	Purple Sage, Wolfcamp (Eddy Co., NM) NAD 27	API/Legal	
Facility	HNM Pkg 18	Wellbore	Cicada Unit No. 54H PWB
Slot	Cicada Unit No. 54H		

WELLPATH DATA (208 stations) † = interpolated, ‡ = extrapolated station														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
0.00†	0.000	76.126	0.00	0.00	0.00	0.00	546715.00	387266.00	32°03'52.6314"N	104°10'57.1131"W	0.00	0.00	0.00	
28.00	0.000	76.126	28.00	0.00	0.00	0.00	546715.00	387266.00	32°03'52.6314"N	104°10'57.1131"W	0.00	0.00	0.00	Tie On
128.00†	0.000	76.126	128.00	0.00	0.00	0.00	546715.00	387266.00	32°03'52.6314"N	104°10'57.1131"W	0.00	0.00	0.00	
228.00†	0.000	76.126	228.00	0.00	0.00	0.00	546715.00	387266.00	32°03'52.6314"N	104°10'57.1131"W	0.00	0.00	0.00	
328.00†	0.000	76.126	328.00	0.00	0.00	0.00	546715.00	387266.00	32°03'52.6314"N	104°10'57.1131"W	0.00	0.00	0.00	
428.00†	0.000	76.126	428.00	0.00	0.00	0.00	546715.00	387266.00	32°03'52.6314"N	104°10'57.1131"W	0.00	0.00	0.00	
528.00†	0.000	76.126	528.00	0.00	0.00	0.00	546715.00	387266.00	32°03'52.6314"N	104°10'57.1131"W	0.00	0.00	0.00	
628.00†	0.000	76.126	628.00	0.00	0.00	0.00	546715.00	387266.00	32°03'52.6314"N	104°10'57.1131"W	0.00	0.00	0.00	
728.00†	0.000	76.126	728.00	0.00	0.00	0.00	546715.00	387266.00	32°03'52.6314"N	104°10'57.1131"W	0.00	0.00	0.00	
828.00†	0.000	76.126	828.00	0.00	0.00	0.00	546715.00	387266.00	32°03'52.6314"N	104°10'57.1131"W	0.00	0.00	0.00	
850.00	0.000	76.126	850.00	0.00	0.00	0.00	546715.00	387266.00	32°03'52.6314"N	104°10'57.1131"W	0.00	0.00	0.00	Start Build
928.00†	1.170	76.126	927.99	-0.19	0.19	0.77	546715.77	387266.19	32°03'52.6333"N	104°10'57.1041"W	1.50	1.50	0.00	
1028.00†	2.670	76.126	1027.94	-0.97	0.99	4.03	546719.03	387266.99	32°03'52.6412"N	104°10'57.0663"W	1.50	1.50	0.00	
1128.00†	4.170	76.126	1127.75	-2.37	2.42	9.82	546724.82	387268.42	32°03'52.6553"N	104°10'56.9990"W	1.50	1.50	0.00	
1228.00†	5.670	76.126	1227.38	-4.38	4.48	18.14	546733.14	387270.48	32°03'52.6755"N	104°10'56.9022"W	1.50	1.50	0.00	
1328.00†	7.170	76.126	1326.75	-7.00	7.16	29.00	546744.00	387273.16	32°03'52.7019"N	104°10'56.7760"W	1.50	1.50	0.00	
1428.00†	8.670	76.126	1425.80	-10.22	10.47	42.37	546757.37	387276.47	32°03'52.7344"N	104°10'56.6205"W	1.50	1.50	0.00	
1528.00†	10.170	76.126	1524.45	-14.05	14.39	58.26	546773.26	387280.39	32°03'52.7730"N	104°10'56.4358"W	1.50	1.50	0.00	
1548.70	10.481	76.126	1544.81	-14.92	15.28	61.87	546776.86	387281.28	32°03'52.7818"N	104°10'56.3940"W	1.50	1.50	0.00	End Build
1628.00†	10.481	76.126	1622.79	-18.30	18.74	75.87	546790.86	387284.74	32°03'52.8158"N	104°10'56.2312"W	0.00	0.00	0.00	
1728.00†	10.481	76.126	1721.12	-22.56	23.10	93.53	546808.52	387289.10	32°03'52.8587"N	104°10'56.0259"W	0.00	0.00	0.00	
1828.00†	10.481	76.126	1819.45	-26.82	27.46	111.19	546826.18	387293.46	32°03'52.9016"N	104°10'55.8206"W	0.00	0.00	0.00	
1928.00†	10.481	76.126	1917.78	-31.08	31.82	128.85	546843.84	387297.82	32°03'52.9446"N	104°10'55.6154"W	0.00	0.00	0.00	
2028.00†	10.481	76.126	2016.11	-35.34	36.19	146.51	546861.49	387302.18	32°03'52.9875"N	104°10'55.4101"W	0.00	0.00	0.00	
2128.00†	10.481	76.126	2114.45	-39.60	40.55	164.17	546879.15	387306.54	32°03'53.0304"N	104°10'55.2048"W	0.00	0.00	0.00	
2228.00†	10.481	76.126	2212.78	-43.86	44.91	181.83	546896.81	387310.91	32°03'53.0733"N	104°10'54.9995"W	0.00	0.00	0.00	
2328.00†	10.481	76.126	2311.11	-48.12	49.27	199.49	546914.47	387315.27	32°03'53.1162"N	104°10'54.7942"W	0.00	0.00	0.00	
2428.00†	10.481	76.126	2409.44	-52.38	53.63	217.15	546932.13	387319.63	32°03'53.1591"N	104°10'54.5890"W	0.00	0.00	0.00	
2528.00†	10.481	76.126	2507.77	-56.64	57.99	234.81	546949.78	387323.99	32°03'53.2021"N	104°10'54.3837"W	0.00	0.00	0.00	
2628.00†	10.481	76.126	2606.10	-60.90	62.36	252.47	546967.44	387328.35	32°03'53.2450"N	104°10'54.1784"W	0.00	0.00	0.00	



Planned Wellpath Report

Cicada Unit No. 54H Rev-A.0

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Well	Cicada Unit No. 54H
Field	Purple Sage, Wolfcamp (Eddy Co., NM) NAD 27	API/Legal	
Facility	HNM Pkg 18	Wellbore	Cicada Unit No. 54H PWB
Slot	Cicada Unit No. 54H		

WELLPATH DATA (208 stations) † = interpolated, ‡ = extrapolated station														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
2728.00†	10.481	76.126	2704.44	-65.16	66.72	270.12	546985.10	387332.71	32°03'53.2879"N	104°10'53.9731"W	0.00	0.00	0.00	
2828.00†	10.481	76.126	2802.77	-69.42	71.08	287.78	547002.76	387337.07	32°03'53.3308"N	104°10'53.7678"W	0.00	0.00	0.00	
2928.00†	10.481	76.126	2901.10	-73.68	75.44	305.44	547020.42	387341.43	32°03'53.3737"N	104°10'53.5626"W	0.00	0.00	0.00	
3028.00†	10.481	76.126	2999.43	-77.94	79.80	323.10	547038.07	387345.80	32°03'53.4166"N	104°10'53.3573"W	0.00	0.00	0.00	
3128.00†	10.481	76.126	3097.76	-82.20	84.16	340.76	547055.73	387350.16	32°03'53.4596"N	104°10'53.1520"W	0.00	0.00	0.00	
3228.00†	10.481	76.126	3196.09	-86.46	88.53	358.42	547073.39	387354.52	32°03'53.5025"N	104°10'52.9467"W	0.00	0.00	0.00	
3328.00†	10.481	76.126	3294.43	-90.72	92.89	376.08	547091.05	387358.88	32°03'53.5454"N	104°10'52.7415"W	0.00	0.00	0.00	
3428.00†	10.481	76.126	3392.76	-94.98	97.25	393.74	547108.71	387363.24	32°03'53.5883"N	104°10'52.5362"W	0.00	0.00	0.00	
3528.00†	10.481	76.126	3491.09	-99.24	101.61	411.40	547126.36	387367.60	32°03'53.6312"N	104°10'52.3309"W	0.00	0.00	0.00	
3594.20	10.481	76.126	3556.19	-102.06	104.50	423.09	547138.05	387370.49	32°03'53.6596"N	104°10'52.1950"W	0.00	0.00	0.00	Start Drop
3628.00†	9.974	76.126	3589.45	-103.47	105.94	428.92	547143.88	387371.93	32°03'53.6738"N	104°10'52.1273"W	1.50	-1.50	0.00	
3728.00†	8.474	76.126	3688.15	-107.22	109.78	444.48	547159.44	387375.77	32°03'53.7116"N	104°10'51.9464"W	1.50	-1.50	0.00	
3828.00†	6.974	76.126	3787.24	-110.37	113.00	457.53	547172.48	387378.99	32°03'53.7433"N	104°10'51.7947"W	1.50	-1.50	0.00	
3928.00†	5.474	76.126	3886.65	-112.90	115.60	468.05	547183.01	387381.59	32°03'53.7689"N	104°10'51.6724"W	1.50	-1.50	0.00	
4028.00†	3.974	76.126	3986.31	-114.83	117.58	476.04	547191.00	387383.57	32°03'53.7883"N	104°10'51.5795"W	1.50	-1.50	0.00	
4128.00†	2.474	76.126	4086.15	-116.15	118.93	481.50	547196.46	387384.91	32°03'53.8016"N	104°10'51.5160"W	1.50	-1.50	0.00	
4228.00†	0.974	76.126	4186.10	-116.85	119.65	484.42	547199.38	387385.64	32°03'53.8087"N	104°10'51.4821"W	1.50	-1.50	0.00	
4292.91	0.000	178.610	4251.00	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	1.50	-1.50	0.00	End Drop
4328.00†	0.000	178.610	4286.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
4428.00†	0.000	178.610	4386.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
4528.00†	0.000	178.610	4486.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
4628.00†	0.000	178.610	4586.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
4728.00†	0.000	178.610	4686.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
4828.00†	0.000	178.610	4786.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
4928.00†	0.000	178.610	4886.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
5028.00†	0.000	178.610	4986.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
5128.00†	0.000	178.610	5086.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
5228.00†	0.000	178.610	5186.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
5328.00†	0.000	178.610	5286.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
5428.00†	0.000	178.610	5386.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	



Planned Wellpath Report

Cicada Unit No. 54H Rev-A.0

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Well	Cicada Unit No. 54H
Field	Purple Sage, Wolfcamp (Eddy Co., NM) NAD 27	API/Legal	
Facility	HNM Pkg 18	Wellbore	Cicada Unit No. 54H PWB
Slot	Cicada Unit No. 54H		

WELLPATH DATA (208 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
5528.00†	0.000	178.610	5486.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
5628.00†	0.000	178.610	5586.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
5728.00†	0.000	178.610	5686.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
5828.00†	0.000	178.610	5786.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
5928.00†	0.000	178.610	5886.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
6028.00†	0.000	178.610	5986.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
6128.00†	0.000	178.610	6086.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
6228.00†	0.000	178.610	6186.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
6328.00†	0.000	178.610	6286.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
6428.00†	0.000	178.610	6386.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
6528.00†	0.000	178.610	6486.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
6628.00†	0.000	178.610	6586.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
6728.00†	0.000	178.610	6686.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
6791.91	0.000	178.610	6750.00	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	9 5/8" Casing
6828.00†	0.000	178.610	6786.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
6928.00†	0.000	178.610	6886.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
7028.00†	0.000	178.610	6986.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
7128.00†	0.000	178.610	7086.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
7228.00†	0.000	178.610	7186.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
7328.00†	0.000	178.610	7286.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
7428.00†	0.000	178.610	7386.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
7528.00†	0.000	178.610	7486.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
7628.00†	0.000	178.610	7586.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
7728.00†	0.000	178.610	7686.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
7828.00†	0.000	178.610	7786.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
7928.00†	0.000	178.610	7886.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
8028.00†	0.000	178.610	7986.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
8128.00†	0.000	178.610	8086.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
8228.00†	0.000	178.610	8186.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	
8328.00†	0.000	178.610	8286.09	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	



Planned Wellpath Report

Cicada Unit No. 54H Rev-A.0

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Well	Cicada Unit No. 54H
Field	Purple Sage, Wolfcamp (Eddy Co., NM) NAD 27	API/Legal	
Facility	HNM Pkg 18	Wellbore	Cicada Unit No. 54H PWB
Slot	Cicada Unit No. 54H		

WELLPATH DATA (208 stations) † = interpolated, ‡ = extrapolated station														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
8356.65	0.000	178.610	8314.74	-116.98	119.78	484.96	547199.91	387385.77	32°03'53.8100"N	104°10'51.4758"W	0.00	0.00	0.00	Curve KOP
8428.00†	7.135	178.610	8385.91	-112.55	115.34	485.07	547200.02	387381.33	32°03'53.7661"N	104°10'51.4747"W	10.00	10.00	0.00	
8528.00†	17.135	178.610	8483.55	-91.56	94.35	485.58	547200.53	387360.35	32°03'53.5584"N	104°10'51.4691"W	10.00	10.00	0.00	
8628.00†	27.135	178.610	8576.06	-53.93	56.73	486.49	547201.44	387322.73	32°03'53.1861"N	104°10'51.4591"W	10.00	10.00	0.00	
8728.00†	37.135	178.610	8660.64	-0.82	3.62	487.78	547202.73	387269.62	32°03'52.6605"N	104°10'51.4450"W	10.00	10.00	0.00	
8828.00†	47.135	178.610	8734.70	66.18	-63.36	489.40	547204.36	387202.65	32°03'51.9976"N	104°10'51.4272"W	10.00	10.00	0.00	
8928.00†	57.135	178.610	8796.00	145.01	-142.18	491.31	547206.27	387123.83	32°03'51.2176"N	104°10'51.4063"W	10.00	10.00	0.00	
9028.00†	67.135	178.610	8842.68	233.29	-230.45	493.46	547208.41	387035.57	32°03'50.3441"N	104°10'51.3828"W	10.00	10.00	0.00	
9128.00†	77.135	178.610	8873.32	328.33	-325.48	495.76	547210.72	386940.55	32°03'49.4037"N	104°10'51.3576"W	10.00	10.00	0.00	
9228.00†	87.135	178.610	8886.98	427.25	-424.38	498.16	547213.12	386841.66	32°03'48.4249"N	104°10'51.3313"W	10.00	10.00	0.00	
9256.65	90.000	178.610	8887.70	455.88	-453.01	498.86	547213.81	386813.03	32°03'48.1416"N	104°10'51.3237"W	10.00	10.00	0.00	End Build - Landing
9328.00†	90.000	178.610	8887.70	527.22	-524.34	500.59	547215.54	386741.71	32°03'47.4357"N	104°10'51.3048"W	0.00	0.00	0.00	
9428.00†	90.000	178.610	8887.70	627.20	-624.31	503.01	547217.97	386641.74	32°03'46.4464"N	104°10'51.2783"W	0.00	0.00	0.00	
9528.00†	90.000	178.610	8887.70	727.18	-724.28	505.44	547220.39	386541.78	32°03'45.4571"N	104°10'51.2517"W	0.00	0.00	0.00	
9628.00†	90.000	178.610	8887.70	827.16	-824.25	507.87	547222.82	386441.82	32°03'44.4678"N	104°10'51.2252"W	0.00	0.00	0.00	
9728.00†	90.000	178.610	8887.70	927.15	-924.22	510.29	547225.24	386341.86	32°03'43.4785"N	104°10'51.1986"W	0.00	0.00	0.00	
9828.00†	90.000	178.610	8887.70	1027.13	-1024.19	512.72	547227.67	386241.90	32°03'42.4892"N	104°10'51.1721"W	0.00	0.00	0.00	
9928.00†	90.000	178.610	8887.70	1127.11	-1124.16	515.14	547230.10	386141.94	32°03'41.4999"N	104°10'51.1455"W	0.00	0.00	0.00	
10028.00†	90.000	178.610	8887.70	1227.10	-1224.14	517.57	547232.52	386041.98	32°03'40.5105"N	104°10'51.1190"W	0.00	0.00	0.00	
10128.00†	90.000	178.610	8887.70	1327.08	-1324.11	519.99	547234.95	385942.01	32°03'39.5212"N	104°10'51.0924"W	0.00	0.00	0.00	
10228.00†	90.000	178.610	8887.70	1427.06	-1424.08	522.42	547237.37	385842.05	32°03'38.5319"N	104°10'51.0659"W	0.00	0.00	0.00	
10328.00†	90.000	178.610	8887.70	1527.04	-1524.05	524.85	547239.80	385742.09	32°03'37.5426"N	104°10'51.0393"W	0.00	0.00	0.00	
10428.00†	90.000	178.610	8887.70	1627.03	-1624.02	527.27	547242.22	385642.13	32°03'36.5533"N	104°10'51.0128"W	0.00	0.00	0.00	
10528.00†	90.000	178.610	8887.70	1727.01	-1723.99	529.70	547244.65	385542.17	32°03'35.5640"N	104°10'50.9862"W	0.00	0.00	0.00	
10628.00†	90.000	178.610	8887.70	1826.99	-1823.96	532.12	547247.07	385442.21	32°03'34.5747"N	104°10'50.9597"W	0.00	0.00	0.00	
10728.00†	90.000	178.610	8887.70	1926.98	-1923.93	534.55	547249.50	385342.24	32°03'33.5853"N	104°10'50.9332"W	0.00	0.00	0.00	
10828.00†	90.000	178.610	8887.70	2026.96	-2023.90	536.97	547251.93	385242.28	32°03'32.5960"N	104°10'50.9066"W	0.00	0.00	0.00	
10928.00†	90.000	178.610	8887.70	2126.94	-2123.87	539.40	547254.35	385142.32	32°03'31.6067"N	104°10'50.8801"W	0.00	0.00	0.00	
11028.00†	90.000	178.610	8887.70	2226.93	-2223.84	541.83	547256.78	385042.36	32°03'30.6174"N	104°10'50.8535"W	0.00	0.00	0.00	
11128.00†	90.000	178.610	8887.70	2326.91	-2323.81	544.25	547259.20	384942.40	32°03'29.6281"N	104°10'50.8270"W	0.00	0.00	0.00	



Planned Wellpath Report

Cicada Unit No. 54H Rev-A.0

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Well	Cicada Unit No. 54H
Field	Purple Sage, Wolfcamp (Eddy Co., NM) NAD 27	API/Legal	
Facility	HNM Pkg 18	Wellbore	Cicada Unit No. 54H PWB
Slot	Cicada Unit No. 54H		

WELLPATH DATA (208 stations) † = interpolated, ‡ = extrapolated station														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
11228.00†	90.000	178.610	8887.70	2426.89	-2423.78	546.68	547261.63	384842.44	32°03'28.6388"N	104°10'50.8004"W	0.00	0.00	0.00	
11328.00†	90.000	178.610	8887.70	2526.87	-2523.75	549.10	547264.05	384742.48	32°03'27.6495"N	104°10'50.7739"W	0.00	0.00	0.00	
11428.00†	90.000	178.610	8887.70	2626.86	-2623.72	551.53	547266.48	384642.51	32°03'26.6601"N	104°10'50.7473"W	0.00	0.00	0.00	
11528.00†	90.000	178.610	8887.70	2726.84	-2723.69	553.95	547268.90	384542.55	32°03'25.6708"N	104°10'50.7208"W	0.00	0.00	0.00	
11628.00†	90.000	178.610	8887.70	2826.82	-2823.66	556.38	547271.33	384442.59	32°03'24.6815"N	104°10'50.6943"W	0.00	0.00	0.00	
11728.00†	90.000	178.610	8887.70	2926.81	-2923.64	558.81	547273.76	384342.63	32°03'23.6922"N	104°10'50.6677"W	0.00	0.00	0.00	
11828.00†	90.000	178.610	8887.70	3026.79	-3023.61	561.23	547276.18	384242.67	32°03'22.7029"N	104°10'50.6412"W	0.00	0.00	0.00	
11928.00†	90.000	178.610	8887.70	3126.77	-3123.58	563.66	547278.61	384142.71	32°03'21.7136"N	104°10'50.6146"W	0.00	0.00	0.00	
12028.00†	90.000	178.610	8887.70	3226.75	-3223.55	566.08	547281.03	384042.74	32°03'20.7243"N	104°10'50.5881"W	0.00	0.00	0.00	
12128.00†	90.000	178.610	8887.70	3326.74	-3323.52	568.51	547283.46	383942.78	32°03'19.7349"N	104°10'50.5615"W	0.00	0.00	0.00	
12228.00†	90.000	178.610	8887.70	3426.72	-3423.49	570.94	547285.88	383842.82	32°03'18.7456"N	104°10'50.5350"W	0.00	0.00	0.00	
12328.00†	90.000	178.610	8887.70	3526.70	-3523.46	573.36	547288.31	383742.86	32°03'17.7563"N	104°10'50.5085"W	0.00	0.00	0.00	
12428.00†	90.000	178.610	8887.70	3626.69	-3623.43	575.79	547290.73	383642.90	32°03'16.7670"N	104°10'50.4819"W	0.00	0.00	0.00	
12528.00†	90.000	178.610	8887.70	3726.67	-3723.40	578.21	547293.16	383542.94	32°03'15.7777"N	104°10'50.4554"W	0.00	0.00	0.00	
12628.00†	90.000	178.610	8887.70	3826.65	-3823.37	580.64	547295.59	383442.98	32°03'14.7884"N	104°10'50.4288"W	0.00	0.00	0.00	
12728.00†	90.000	178.610	8887.70	3926.63	-3923.34	583.06	547298.01	383343.01	32°03'13.7990"N	104°10'50.4023"W	0.00	0.00	0.00	
12828.00†	90.000	178.610	8887.70	4026.62	-4023.31	585.49	547300.44	383243.05	32°03'12.8097"N	104°10'50.3757"W	0.00	0.00	0.00	
12928.00†	90.000	178.610	8887.70	4126.60	-4123.28	587.92	547302.86	383143.09	32°03'11.8204"N	104°10'50.3492"W	0.00	0.00	0.00	
13028.00†	90.000	178.610	8887.70	4226.58	-4223.25	590.34	547305.29	383043.13	32°03'10.8311"N	104°10'50.3227"W	0.00	0.00	0.00	
13128.00†	90.000	178.610	8887.70	4326.57	-4323.22	592.77	547307.71	382943.17	32°03'9.8418"N	104°10'50.2961"W	0.00	0.00	0.00	
13228.00†	90.000	178.610	8887.70	4426.55	-4423.19	595.19	547310.14	382843.21	32°03'8.8525"N	104°10'50.2696"W	0.00	0.00	0.00	
13328.00†	90.000	178.610	8887.70	4526.53	-4523.16	597.62	547312.56	382743.24	32°03'7.8632"N	104°10'50.2430"W	0.00	0.00	0.00	
13428.00†	90.000	178.610	8887.70	4626.51	-4623.14	600.04	547314.99	382643.28	32°03'6.8738"N	104°10'50.2165"W	0.00	0.00	0.00	
13528.00†	90.000	178.610	8887.70	4726.50	-4723.11	602.47	547317.42	382543.32	32°03'5.8845"N	104°10'50.1900"W	0.00	0.00	0.00	
13628.00†	90.000	178.610	8887.70	4826.48	-4823.08	604.90	547319.84	382443.36	32°03'4.8952"N	104°10'50.1634"W	0.00	0.00	0.00	
13728.00†	90.000	178.610	8887.70	4926.46	-4923.05	607.32	547322.27	382343.40	32°03'3.9059"N	104°10'50.1369"W	0.00	0.00	0.00	
13828.00†	90.000	178.610	8887.70	5026.45	-5023.02	609.75	547324.69	382243.44	32°03'2.9166"N	104°10'50.1103"W	0.00	0.00	0.00	
13928.00†	90.000	178.610	8887.70	5126.43	-5122.99	612.17	547327.12	382143.48	32°03'1.9273"N	104°10'50.0838"W	0.00	0.00	0.00	
14028.00†	90.000	178.610	8887.70	5226.41	-5222.96	614.60	547329.54	382043.51	32°03'0.9379"N	104°10'50.0573"W	0.00	0.00	0.00	
14128.00†	90.000	178.610	8887.70	5326.39	-5322.93	617.02	547331.97	381943.55	32°02'59.9486"N	104°10'50.0307"W	0.00	0.00	0.00	



Planned Wellpath Report

Cicada Unit No. 54H Rev-A.0

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Well	Cicada Unit No. 54H
Field	Purple Sage, Wolfcamp (Eddy Co., NM) NAD 27	API/Legal	
Facility	HNM Pkg 18	Wellbore	Cicada Unit No. 54H PWB
Slot	Cicada Unit No. 54H		

WELLPATH DATA (208 stations) † = interpolated, ‡ = extrapolated station														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
14228.00†	90.000	178.610	8887.70	5426.38	-5422.90	619.45	547334.39	381843.59	32°02'58.9593"N	104°10'50.0042"W	0.00	0.00	0.00	
14328.00†	90.000	178.610	8887.70	5526.36	-5522.87	621.88	547336.82	381743.63	32°02'57.9700"N	104°10'49.9776"W	0.00	0.00	0.00	
14376.65	90.000	178.610	8887.70†	5575.00	-5571.50	623.06	547338.00	381695.00	32°02'57.4887"N	104°10'49.9647"W	0.00	0.00	0.00	Start Turn
14428.00†	90.000	179.637	8887.70	5626.35	-5622.85	623.84	547338.79	381643.66	32°02'56.9806"N	104°10'49.9564"W	2.00	0.00	2.00	
14429.55	90.000	179.668	8887.70	5627.90	-5624.40	623.85	547338.79	381642.11	32°02'56.9653"N	104°10'49.9564"W	2.00	0.00	2.00	End Turn
14528.00†	90.000	179.668	8887.70	5726.35	-5722.85	624.42	547339.37	381543.67	32°02'55.9910"N	104°10'49.9514"W	0.00	0.00	0.00	
14628.00†	90.000	179.668	8887.70	5826.35	-5822.85	625.00	547339.94	381443.68	32°02'55.0015"N	104°10'49.9463"W	0.00	0.00	0.00	
14728.00†	90.000	179.668	8887.70	5926.35	-5922.84	625.58	547340.52	381343.69	32°02'54.0119"N	104°10'49.9412"W	0.00	0.00	0.00	
14828.00†	90.000	179.668	8887.70	6026.35	-6022.84	626.16	547341.10	381243.70	32°02'53.0223"N	104°10'49.9361"W	0.00	0.00	0.00	
14928.00†	90.000	179.668	8887.70	6126.35	-6122.84	626.74	547341.68	381143.71	32°02'52.0328"N	104°10'49.9310"W	0.00	0.00	0.00	
15028.00†	90.000	179.668	8887.70	6226.35	-6222.84	627.32	547342.26	381043.72	32°02'51.0432"N	104°10'49.9259"W	0.00	0.00	0.00	
15128.00†	90.000	179.668	8887.70	6326.35	-6322.84	627.90	547342.84	380943.73	32°02'50.0537"N	104°10'49.9208"W	0.00	0.00	0.00	
15228.00†	90.000	179.668	8887.70	6426.35	-6422.84	628.48	547343.42	380843.74	32°02'49.0641"N	104°10'49.9157"W	0.00	0.00	0.00	
15328.00†	90.000	179.668	8887.70	6526.35	-6522.83	629.06	547344.00	380743.76	32°02'48.0745"N	104°10'49.9107"W	0.00	0.00	0.00	
15428.00†	90.000	179.668	8887.70	6626.35	-6622.83	629.64	547344.58	380643.77	32°02'47.0850"N	104°10'49.9056"W	0.00	0.00	0.00	
15528.00†	90.000	179.668	8887.70	6726.35	-6722.83	630.22	547345.16	380543.78	32°02'46.0954"N	104°10'49.9005"W	0.00	0.00	0.00	
15628.00†	90.000	179.668	8887.70	6826.35	-6822.83	630.80	547345.74	380443.79	32°02'45.1058"N	104°10'49.8954"W	0.00	0.00	0.00	
15728.00†	90.000	179.668	8887.70	6926.35	-6922.83	631.37	547346.32	380343.80	32°02'44.1163"N	104°10'49.8903"W	0.00	0.00	0.00	
15828.00†	90.000	179.668	8887.70	7026.35	-7022.83	631.95	547346.90	380243.81	32°02'43.1267"N	104°10'49.8852"W	0.00	0.00	0.00	
15928.00†	90.000	179.668	8887.70	7126.35	-7122.82	632.53	547347.48	380143.82	32°02'42.1371"N	104°10'49.8801"W	0.00	0.00	0.00	
16028.00†	90.000	179.668	8887.70	7226.35	-7222.82	633.11	547348.06	380043.83	32°02'41.1476"N	104°10'49.8750"W	0.00	0.00	0.00	
16128.00†	90.000	179.668	8887.70	7326.35	-7322.82	633.69	547348.63	379943.84	32°02'40.1580"N	104°10'49.8700"W	0.00	0.00	0.00	
16228.00†	90.000	179.668	8887.70	7426.35	-7422.82	634.27	547349.21	379843.85	32°02'39.1684"N	104°10'49.8649"W	0.00	0.00	0.00	
16328.00†	90.000	179.668	8887.70	7526.35	-7522.82	634.85	547349.79	379743.86	32°02'38.1789"N	104°10'49.8598"W	0.00	0.00	0.00	
16428.00†	90.000	179.668	8887.70	7626.35	-7622.82	635.43	547350.37	379643.87	32°02'37.1893"N	104°10'49.8547"W	0.00	0.00	0.00	
16528.00†	90.000	179.668	8887.70	7726.35	-7722.81	636.01	547350.95	379543.88	32°02'36.1997"N	104°10'49.8496"W	0.00	0.00	0.00	
16628.00†	90.000	179.668	8887.70	7826.35	-7822.81	636.59	547351.53	379443.89	32°02'35.2102"N	104°10'49.8445"W	0.00	0.00	0.00	
16728.00†	90.000	179.668	8887.70	7926.35	-7922.81	637.17	547352.11	379343.91	32°02'34.2206"N	104°10'49.8394"W	0.00	0.00	0.00	
16828.00†	90.000	179.668	8887.70	8026.35	-8022.81	637.75	547352.69	379243.92	32°02'33.2310"N	104°10'49.8343"W	0.00	0.00	0.00	
16928.00†	90.000	179.668	8887.70	8126.35	-8122.81	638.33	547353.27	379143.93	32°02'32.2415"N	104°10'49.8293"W	0.00	0.00	0.00	



Planned Wellpath Report

Cicada Unit No. 54H Rev-A.0

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Well	Cicada Unit No. 54H
Field	Purple Sage, Wolfcamp (Eddy Co., NM) NAD 27	API/Legal	
Facility	HNM Pkg 18	Wellbore	Cicada Unit No. 54H PWB
Slot	Cicada Unit No. 54H		

WELLPATH DATA (208 stations) † = interpolated, ‡ = extrapolated station														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
17028.00†	90.000	179.668	8887.70	8226.35	-8222.81	638.91	547353.85	379043.94	32°02'31.2519"N	104°10'49.8242"W	0.00	0.00	0.00	
17128.00†	90.000	179.668	8887.70	8326.35	-8322.80	639.49	547354.43	378943.95	32°02'30.2624"N	104°10'49.8191"W	0.00	0.00	0.00	
17228.00†	90.000	179.668	8887.70	8426.35	-8422.80	640.07	547355.01	378843.96	32°02'29.2728"N	104°10'49.8140"W	0.00	0.00	0.00	
17328.00†	90.000	179.668	8887.70	8526.35	-8522.80	640.64	547355.59	378743.97	32°02'28.2832"N	104°10'49.8089"W	0.00	0.00	0.00	
17428.00†	90.000	179.668	8887.70	8626.35	-8622.80	641.22	547356.17	378643.98	32°02'27.2937"N	104°10'49.8038"W	0.00	0.00	0.00	
17528.00†	90.000	179.668	8887.70	8726.35	-8722.80	641.80	547356.75	378543.99	32°02'26.3041"N	104°10'49.7987"W	0.00	0.00	0.00	
17628.00†	90.000	179.668	8887.70	8826.35	-8822.80	642.38	547357.32	378444.00	32°02'25.3145"N	104°10'49.7936"W	0.00	0.00	0.00	
17728.00†	90.000	179.668	8887.70	8926.35	-8922.79	642.96	547357.90	378344.01	32°02'24.3250"N	104°10'49.7886"W	0.00	0.00	0.00	
17828.00†	90.000	179.668	8887.70	9026.35	-9022.79	643.54	547358.48	378244.02	32°02'23.3354"N	104°10'49.7835"W	0.00	0.00	0.00	
17928.00†	90.000	179.668	8887.70	9126.35	-9122.79	644.12	547359.06	378144.03	32°02'22.3458"N	104°10'49.7784"W	0.00	0.00	0.00	
18028.00†	90.000	179.668	8887.70	9226.35	-9222.79	644.70	547359.64	378044.04	32°02'21.3563"N	104°10'49.7733"W	0.00	0.00	0.00	
18128.00†	90.000	179.668	8887.70	9326.35	-9322.79	645.28	547360.22	377944.06	32°02'20.3667"N	104°10'49.7682"W	0.00	0.00	0.00	
18228.00†	90.000	179.668	8887.70	9426.35	-9422.79	645.86	547360.80	377844.07	32°02'19.3771"N	104°10'49.7631"W	0.00	0.00	0.00	
18328.00†	90.000	179.668	8887.70	9526.35	-9522.78	646.44	547361.38	377744.08	32°02'18.3876"N	104°10'49.7580"W	0.00	0.00	0.00	
18428.00†	90.000	179.668	8887.70	9626.35	-9622.78	647.02	547361.96	377644.09	32°02'17.3980"N	104°10'49.7530"W	0.00	0.00	0.00	
18528.00†	90.000	179.668	8887.70	9726.35	-9722.78	647.60	547362.54	377544.10	32°02'16.4084"N	104°10'49.7479"W	0.00	0.00	0.00	
18628.00†	90.000	179.668	8887.70	9826.35	-9822.78	648.18	547363.12	377444.11	32°02'15.4189"N	104°10'49.7428"W	0.00	0.00	0.00	
18728.00†	90.000	179.668	8887.70	9926.35	-9922.78	648.76	547363.70	377344.12	32°02'14.4293"N	104°10'49.7377"W	0.00	0.00	0.00	
18828.00†	90.000	179.668	8887.70	10026.35	-10022.78	649.34	547364.28	377244.13	32°02'13.4397"N	104°10'49.7326"W	0.00	0.00	0.00	
18928.00†	90.000	179.668	8887.70	10126.35	-10122.77	649.92	547364.86	377144.14	32°02'12.4502"N	104°10'49.7275"W	0.00	0.00	0.00	
19028.00†	90.000	179.668	8887.70	10226.35	-10222.77	650.49	547365.44	377044.15	32°02'11.4606"N	104°10'49.7224"W	0.00	0.00	0.00	
19128.00†	90.000	179.668	8887.70	10326.35	-10322.77	651.07	547366.02	376944.16	32°02'10.4710"N	104°10'49.7173"W	0.00	0.00	0.00	
19228.00†	90.000	179.668	8887.70	10426.35	-10422.77	651.65	547366.59	376844.17	32°02'9.4815"N	104°10'49.7123"W	0.00	0.00	0.00	
19328.00†	90.000	179.668	8887.70	10526.35	-10522.77	652.23	547367.17	376744.18	32°02'8.4919"N	104°10'49.7072"W	0.00	0.00	0.00	
19428.00†	90.000	179.668	8887.70	10626.35	-10622.77	652.81	547367.75	376644.20	32°02'7.5023"N	104°10'49.7021"W	0.00	0.00	0.00	
19528.00†	90.000	179.668	8887.70	10726.35	-10722.76	653.39	547368.33	376544.21	32°02'6.5128"N	104°10'49.6970"W	0.00	0.00	0.00	
19628.00†	90.000	179.668	8887.70	10826.35	-10822.76	653.97	547368.91	376444.22	32°02'5.5232"N	104°10'49.6919"W	0.00	0.00	0.00	
19643.22	90.000	179.668	8887.70‡	10841.57	-10837.98	654.06	547369.00	376429.00	32°02'5.3726"N	104°10'49.6911"W	0.00	0.00	0.00	PBHL (25' FSBL)



Planned Wellpath Report

Cicada Unit No. 54H Rev-A.0

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Well	Cicada Unit No. 54H
Field	Purple Sage, Wolfcamp (Eddy Co., NM) NAD 27	API/Legal	
Facility	HNM Pkg 18	Wellbore	Cicada Unit No. 54H PWB
Slot	Cicada Unit No. 54H		

HOLE & CASING SECTIONS - Ref Wellbore: Cicada Unit No. 54H PWB Ref Wellpath: Cicada Unit No. 54H Rev-A.0

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
13.375in Casing	28.00	450.00	422.00	28.00	450.00	0.00	0.00	0.00	0.00
9.625in Casing	28.00	6791.91	6763.91	28.00	6750.00	0.00	0.00	119.78	484.96
5.5in Casing	28.00	19643.22	19615.22	28.00	N/A	0.00	0.00	N/A	N/A

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Cicada Unit No. 54H FTP	N/A	8887.70	-380.03	497.04	547212.00	386886.00	32°03'48.8638"N	104°10'51.3436"W	point
Cicada Unit No. 54H LTP	N/A	8887.70	-10762.97	654.06	547369.00	376504.00	32°02'6.1148"N	104°10'49.6899"W	point
1) Cicada Unit No. 54H MP	14376.65	8887.70	-5571.50	623.06	547338.00	381695.00	32°02'57.4887"N	104°10'49.9647"W	point
2) Cicada Unit No. 54H PBHL	19643.22	8887.70	-10837.98	654.06	547369.00	376429.00	32°02'5.3726"N	104°10'49.6911"W	point



Planned Wellpath Report

Cicada Unit No. 54H Rev-A.0

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Well	Cicada Unit No. 54H
Field	Purple Sage, Wolfcamp (Eddy Co., NM) NAD 27	API/Legal	
Facility	HNM Pkg 18	Wellbore	Cicada Unit No. 54H PWB
Slot	Cicada Unit No. 54H		

SURVEY PROGRAM - Ref Wellbore: Cicada Unit No. 54H PWB Ref Wellpath: Cicada Unit No. 54H Rev-A.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
28.00	450.00	OWSG MWD rev2 + HRGM		Cicada Unit No. 54H PWB
450.00	6800.00	OWSG MWD rev2 + HRGM		Cicada Unit No. 54H PWB
6800.00	19643.22	OWSG MWD rev2 + HRGM		Cicada Unit No. 54H PWB

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	CHEVRON USA INCORPORATED
LEASE NO.:	NMNM121473
LOCATION:	Section 3, T.26 S., R.27 E., NMP
COUNTY:	Eddy County, New Mexico

WELL NAME & NO.:	CICADA UNIT 51H
SURFACE HOLE FOOTAGE:	198'/S & 1218'/W
BOTTOM HOLE FOOTAGE:	25'/S & 330'/W

WELL NAME & NO.:	CICADA UNIT 52H
SURFACE HOLE FOOTAGE:	223'/S & 1218'/W
BOTTOM HOLE FOOTAGE:	25'/S & 792'/W

WELL NAME & NO.:	CICADA UNIT 53H
SURFACE HOLE FOOTAGE:	248'/S & 1218'/W
BOTTOM HOLE FOOTAGE:	25'/S & 1260'/W

WELL NAME & NO.:	CICADA UNIT 54H
SURFACE HOLE FOOTAGE:	273'/S & 1218'/W
BOTTOM HOLE FOOTAGE:	25'/S & 1716'/W

WELL NAME & NO.:	CICADA UNIT 55H
SURFACE HOLE FOOTAGE:	298'/S & 1218'/W
BOTTOM HOLE FOOTAGE:	25'/S & 2310'/W

COA

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

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen

Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

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 and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

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

2. The **9-5/8** inch intermediate casing shall be set at approximately **7370** feet. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

Option 1 (Single Stage):

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

Option 2:

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

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
 - b. Second stage above DV tool:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
- ❖ In **Medium Cave/Karst Areas** 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 **5-1/2** inch production casing is:

Option 1 (Single Stage):

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

Option 2:

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

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
 - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

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.

Option 1:

- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.
- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **5000 (5M)** psi.

Option 2:

1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Unit Wells

The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.

Commercial Well Determination

A commercial well determination shall be submitted after production has been established for at least six months.

GENERAL REQUIREMENTS

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

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

Eddy County

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

Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)
393-3612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including

lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

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

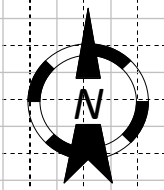
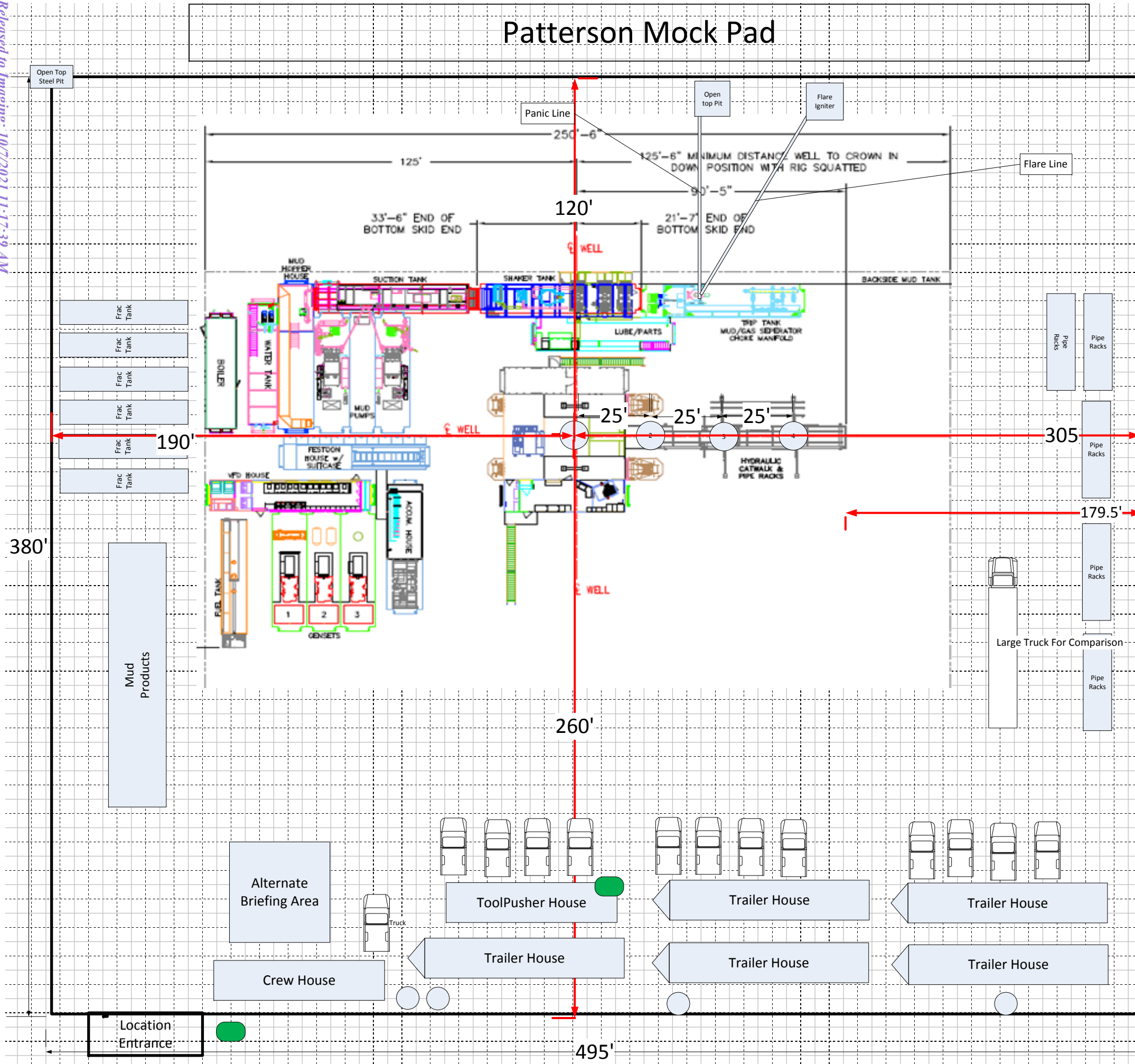
D. WASTE MATERIAL AND FLUIDS

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

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

NMK01222021

Patterson Mock Pad



Rig layout shows rig in first and last well for illustration purposes.

- H2S Monitor Locations**
- Bop/Cellar
 - Rig Floor
 - Shaker Skid
 - Bell Nipple
- Flag Locations**
- Sign in Shack
 - Rig Floor
 - Dog House
- 10 Minute Escape Packs**
- 1 at Pits
 - 1 at Trip Tank
 - 1 at Accumulator
 - 4 at Rig Floor
- 45 Minute Escape Packs**
- 2 at Briefing Area
 - 2 at Alternate Briefing Area

Legend

- H2S Monitor
- Flag



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

Drilling Plan Data Report

09/29/2021

APD ID: 10400054492

Submission Date: 03/02/2020

Highlighted data
reflects the most
recent changes

Operator Name: CHEVRON USA INCORPORATED

Well Name: CICADA UNIT

Well Number: 54H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
669853	SALADO	3279	701	701	ANHYDRITE, SALT	NONE	N
669870	LAMAR	987	2292	2300	LIMESTONE, SHALE	NONE	N
669854	BELL CANYON	957	2322	2340	LIMESTONE, SANDSTONE	NONE	N
669856	CHERRY CANYON	114	3165	3190	LIMESTONE, SANDSTONE, SILTSTONE	NONE	N
669857	BRUSHY CANYON	-1052	4331	4370	LIMESTONE, SANDSTONE, SHALE	NONE	N
669858	BONE SPRING LIME	-2686	5965	6028	SHALE, SILTSTONE	NONE	N
669868	AVALON SAND	-2796	6075	6100	SHALE	NONE	N
669860	BONE SPRING 1ST	-3569	6848	6880	SANDSTONE, SHALE	NONE	N
669861	BONE SPRING 2ND	-4102	7381	7381	SANDSTONE, SHALE	NONE	N
669864	BONE SPRING 3RD	-5092	8371	8410	LIMESTONE	NONE	N
670315	BONE SPRING	-5608	8887	19643	LIMESTONE, SANDSTONE, SHALE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 8887

Equipment: Chevron will have a minimum of a 5,000 psi rig stack (see proposed schematic) for drill out below surface casing. The stack will be tested as specified in the attached testing requirements. Batch drilling of the surface, intermediate, and production will take place. A full BOP test will be performed per hole section, unless approval from BLM is received otherwise. Flex choke hose will be used for all wells on the pad. BOP test will be conducted by a third party.

Requesting Variance? YES

Variance request: 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 nipped 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

Operator Name: CHEVRON USA INCORPORATED

Well Name: CICADA UNIT

Well Number: 54H

third party. Chevron also requests a variance to use a CoFlex hose with a metal protective covering that will be utilized between the BOP and Choke manifold. Please refer to the attached testing and specification documents.

Testing Procedure: Stack will be tested as specified in the attached testing requirements, upon NU and not to exceed 30 days. Test BOP from 250 psi to 5000 psi in Ram and 250 psi to 3500 psi in annular. BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. Batch drilling of the surface, intermediate, and production will take place. A full BOP test will be performed unless approval from the BLM is received otherwise. Flex choke hose will be used for all wells on the pad. BOP test will be conducted by a third party.

Choke Diagram Attachment:

Continental_Test_Specs_and_Pressure_Test_20200219154019.pdf

BOP Diagram Attachment:

BOP_Testing_Procedure_20200221063003.pdf

BLM_5M_Annular_10M_Stack_BOP_Choke_Schematic_20200219154531.pdf

UHS_Wellhead_Design_20200224075918.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	450	0	450	3279	2829	450	J-55	54.5	BUTT	1.58	1.65	DRY	1.64	DRY	1.64
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	8370	0	8330		-5051	8370	L-80	43.5	BUTT	2.42	1.44	DRY	1.79	DRY	1.79
3	PRODUCTION	8.5	5.5	NEW	API	Y	0	19418	0	8887	3280	-5608	19418	OTHER	20	OTHER - TXP-BTC	1.75	1.29	DRY	2.16	DRY	2.16

Casing Attachments

Operator Name: CHEVRON USA INCORPORATED

Well Name: CICADA UNIT

Well Number: 54H

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

13.375_54.5ppf_J55_BTC_20200219154725.pdf

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

9.625_43.5ppf_L80_IC_LTC_20200219154928.pdf

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

5.500_20lb_P110IC_TXP_20200221063618.pdf

Casing Design Assumptions and Worksheet(s):

Cicada_Unit_54H_9_Pt_Drilling_Plan_20200226145129.pdf

Section 4 - Cement

Operator Name: CHEVRON USA INCORPORATED

Well Name: CICADA UNIT

Well Number: 54H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	0	0	0	0	0		NONE	NONE
SURFACE	Tail		0	450	450	1.33	14.8	654	50	CLASS C	Extender, Antifoam, Retarder
INTERMEDIATE	Lead		0	7370	1139	2.23	11.9	2539	10	Class C	Extender, Antifoam, Retarder, Viscosifier
INTERMEDIATE	Tail		7370	8370	287	1.33	14.8	382	10	CLASS C	Extender, Antifoam, Retarder, Viscosifier
PRODUCTION	Lead		8170	18418	2514	1.85	13.2	4650	10	CLASS H	Extender, Antifoam, Retarder, Viscosifier
PRODUCTION	Tail		18418	19418	122	2.06	15	252	10	ACID SOL 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 closed system will be used consisting of above ground steel tanks. 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. 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. 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 muddling 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 PVT, stroke counter, flow sensor will be used to detect volume changes indicating loss or gain of circulating fluid volume in compliance with Onshore Order #2. A weighting agent and lost circulating material (LCM) will be onsite to mitigate pressure or lost circulation as hole conditions dictate.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics

Operator Name: CHEVRON USA INCORPORATED

Well Name: CICADA UNIT

Well Number: 54H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	450	SPUD MUD	8.3	9.2							Viscosity: 28-30
450	8330	OTHER : BRINE/OBM	8.7	9.6							Viscosity: 26-36
8330	8887	OIL-BASED MUD	8.7	13							Viscosity: 50-70, Filtrate: 10-25 Due to wellbore stability, the mud program may exceed the MW weight window needed to maintain overburden of pore pressure.

Section 6 - Test, Logging, Coring

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

Drill stem tests are not planned

The logging program will be as follows:

Type: Mudlogs Logs: 2 man mudlog Interval: Surf csg shoe through Prod hole TD Timing: While drilling or circulating

Type: LWD Logs: MWD gamma Interval: Int & Prod Hole Timing: While drilling

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

GAMMA RAY LOG, MUD LOG/GEOLOGIC LITHOLOGY LOG, DIRECTIONAL SURVEY, MUD LOG/GEOLOGICAL LITHOLOGY LOG,

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: 2065

Anticipated Surface Pressure: 109

Anticipated Bottom Hole Temperature(F): 160

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

Describe:

Contingency Plans geohazards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? NO

Hydrogen sulfide drilling operations plan:

Operator Name: CHEVRON USA INCORPORATED

Well Name: CICADA UNIT

Well Number: 54H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Cicada_Unit_51H_55H_GCP_20200219160706.pdf

H2S_Contingency_Plan_20200219160655.pdf

Rig_Layout_20200219160442.pdf

Cicada_Unit_54H_Directional_Survey_20200224102925.pdf

CICADA_UNIT_54H_C_102_Cert_20200302091115.pdf

Other proposed operations facets description:

Chevron requests authorization to use the spudder rig to spud the well and set surface casing. The drilling rig will move in less than 90 days to continue drilling operations. Rig layouts attached.

Chevron is also requesting a variance from the Onshore Order 2 to perform a break test on the BOP when able to finish the next hole section within 21 days of the previous full BOP test. Upon the first nipple up of the pad a full BOP test will be performed. A break test will not be performed on our last production hole section. A break test will only be performed on operations where BLM documentation states a 5M or less BOP can be utilized. Summary with details attached below.

Other proposed operations facets attachment:

Other Variance attachment:

Break_Testing_500_psi_CS_Tail__Variance_20200219160848.pdf

CUSA_Spudder_Rig_Data_20200219160835.pdf

BLOWOUT PREVENTER SCHEMATIC

Operation: Intermediate & Production Drilling Operations

Minimum System operation pressure 5,000 psi

BOP Stack

Part	Size	Pressure Rating	Description
A	13-5/8"	N/A	Rotating Head/Bell nipple
B	13-5/8"	5,000	Annular
C	13-5/8"	10,000	Blind Ram
D	13-5/8"	10,000	Pipe Ram
E	13-5/8"	10,000	Mud Cross
F	13-5/8"	10,000	Pipe Ram

Kill Line

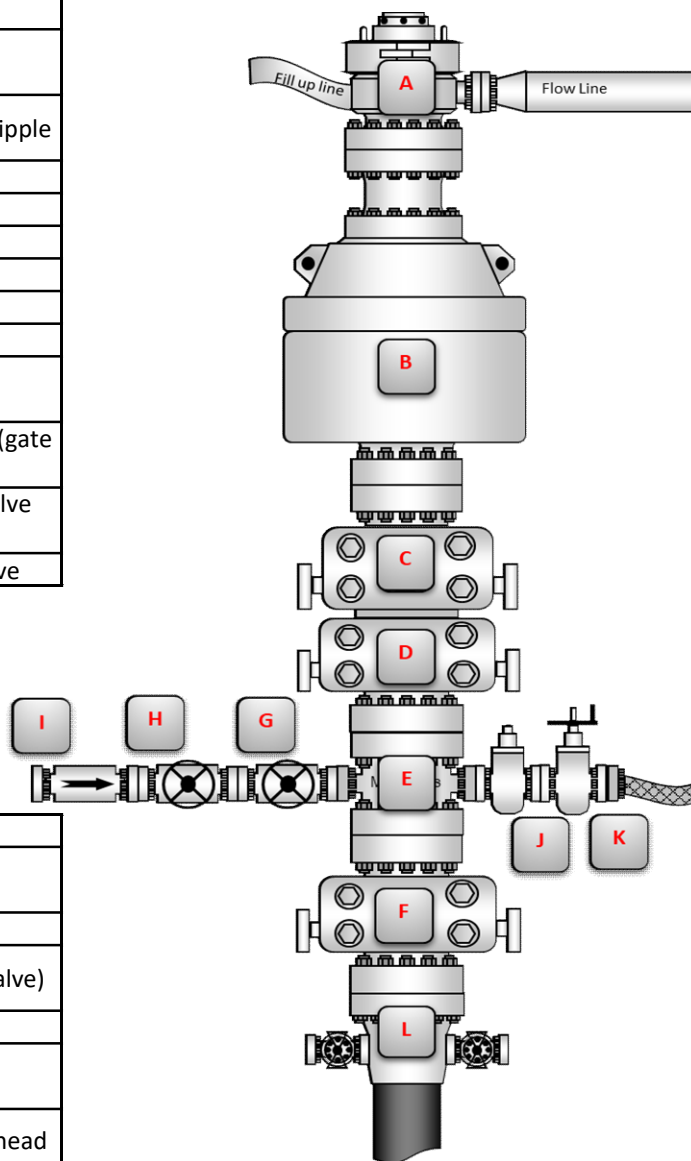
Part	Size	Pressure Rating	Description
G	2"	10,000	Inside Kill Line Valve (gate valve)
H	2"	10,000	Outside Kill Line Valve (gate valve)
I	2"	10,000	Kill Line Check valve

Choke line

Part	Size	Pressure Rating	Description
J	3"	10,000	HCR (gate valve)
K	3"	10,000	Manual HCR (gate valve)

Wellhead

Part	Size	Pressure Rating	Description
L	13-5/8"	5,000	FMC Multibowl 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.

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.

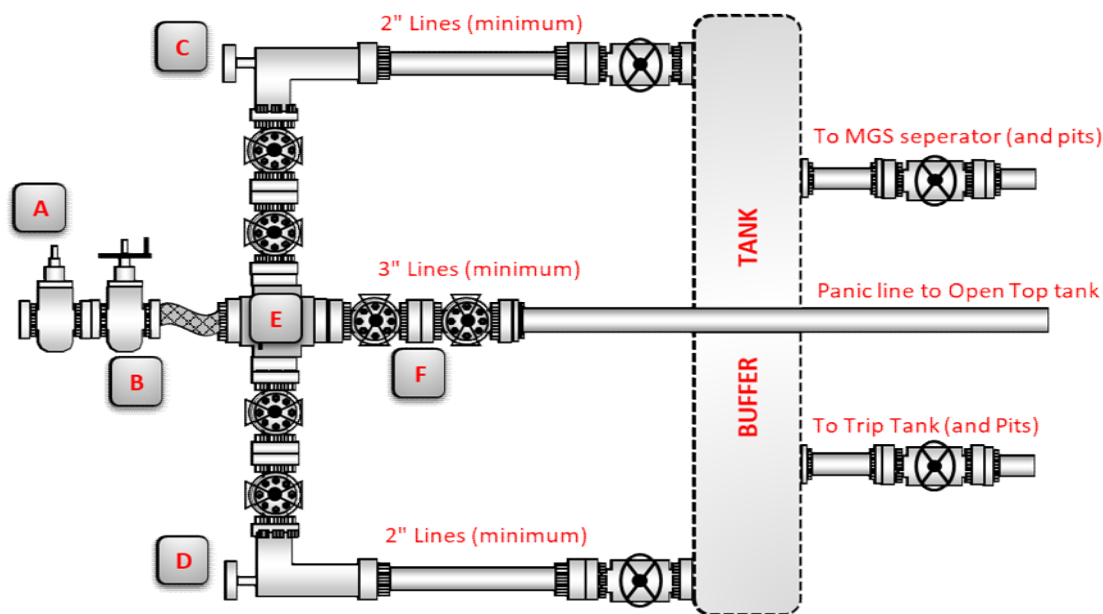
A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve will remain open unless accumulator is inoperative.

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.

CHOKE MANIFOLD SCHEMATIC

Operation:	Intermediate & Production
Minimum System operation pressure	5,000 psi

Choke Manifold			
Part	Size	Pressure Rating	Description
A	3"	10,000	HCR (remotely operated)
B	3"	10,000	HCR (manually operated)
C	2"	10,000	Remotely operated choke
D	2"	10,000	Adjustable choke
E	3"	10,000	Crown valve with pressure gage
F	3"	10,000	Panic line valves



Choke Manifold Installation Checklist: <i>The following items must be verified and checked off prior to pressure testing BOP equipment</i>
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.
Adjustable chokes may be remotely operated but will have backup hand pump for hydraulic actuation in case of loss of rig air or power.
Flare and panic lines will terminate a minimum of 150' from the wellhead. These lines will terminate at a location as per approved APD.
All valves (except chokes) on choke line, kill line and choke manifold will be full opening and will allow straight through flow. This excludes any valves between the mud gas separator and shale shakers.
All manual valves will have hand wheels installed.
Flare systems will have an effective method for ignition.
All connections will be flanged, welded or clamped
If buffer tank is used, a valve will be used on all lines at any entry or exit point to or from the buffer tank.

BLOWOUT PREVENTER SCHEMATIC	
Operation:	Intermediate & Production
Minimum System operation pressure	5,000 psi

Minimum Requirements

Closing Unit and Accumulator Checklist

The following item must be performed, verified, and checked off at least once per well prior to low/high pressure testing of BOP equipment. This must be repeated after 6 months on the same well.

- Precharge pressure for each accumulator bottle must fall within the range below. Bottles may be further charged with nitrogen gas only. Tested precharge pressures must be recorded for each individual bottle and kept on location through the end of the well. Test will be conducted prior to connecting unit to BOP stack.

Check one that applies	Accumulator working pressure rating	Minimum acceptable operating pressure	Desired precharge pressure	Maximum acceptable precharge pressure	Minimum acceptable precharge pressure
<input type="checkbox"/>	1500 psi	1500 psi	750 psi	800 psi	700 psi
<input type="checkbox"/>	2000 psi	2000 psi	1000 psi	1100 psi	900 psi
<input type="checkbox"/>	3000 psi	3000 psi	1000 psi	1100 psi	900 psi

- Accumulator will have sufficient capacity to open the hydraulically-controlled choke line valve (if used), close all rams, close the annular preventer, and retain a minimum of 200 psi above the maximum acceptable precharge pressure (see table above) on the closing manifold without the use of the closing pumps. This test will be performed with test pressure recorded and kept on location through the end of the well
- Accumulator fluid reservoir will be double the usable fluid volume of the accumulator system capacity. Fluid level will be maintained at manufacturer's recommendations. Usable fluid volume will be recorded. Reservoir capacity will be recorded. Reservoir fluid level will be recorded along with manufacturer's recommendation. All will be kept on location through the end of the well.
- Closing unit system will have two independent power sources (not counting accumulator bottles) to close the preventers.
- Power for the closing unit pumps will be available to the unit at all times so that the pumps will automatically start when the closing valve manifold pressure decreases to the pre-set level. It is recommended to check that air line to accumulator pump is "ON" during each tour change.
- With accumulator bottles isolated, closing unit will be capable of opening the hydraulically-operated choke line valve (if used) plus close the annular preventer on the smallest size drill pipe within 2 minutes and obtain a minimum of 200 psi above maximum acceptable precharge pressure (see table above) on the closing manifold. Test pressure and closing time will be recorded and kept on location through the end of the well.
- Master controls for the BOPE system will be located at the accumulator and will be capable of opening and closing all preventer and the choke line valve (if used)
- Remote controls for the BOPE system will be readily accessible (clear path) to the driller and located on the rig floor (not in the dog house). Remote controls will be capable of closing all preventers.
- Record accumulator tests in drilling reports and IADC sheet

BOPE 5K Test Checklist

The following items must be checked off prior to beginning test:

- BLM will be given at least 4 hour notice prior to beginning BOPE testing.
- Valve on casing head below test plug will be open.
- Test will be performed using clear water.

The following items must be performed during the BOPE testing:

- BOPE will be pressure tested when initially installed, whenever any seal subject to test pressure is broken, following related repairs, and at a minimum of 30 day intervals. **Test pressure and times will be recorded by a 3rd party on a test charge and kept on location through the end of the well.**
- Test plug will be used.
- Ram type preventer and all related well control equipment will be tested to 250 psi (low) and 5,000 psi (high).
- Annular type preventer will be tested to 250 psi (low) and 3,500 psi (high).
- Valves will be tested from the working pressure side with all downstream valves open. The check valve will be held open to test the kill line valve(s).
- Each pressure test will be held for 10 minutes with no allowable leak off.
- Master controls and remote controls to the closing unit (accumulator) must be function tested as part of the BOPE test.
- Record BOP tests and pressures in drilling reports and IADC sheet.

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

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

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

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

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

COMMENTS

Action 54081

COMMENTS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 54081
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

COMMENTS

Created By	Comment	Comment Date
kpickford	KP GEO Review 10/7/2021	10/7/2021

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720
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District III
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 Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS
 Action 54081

CONDITIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 54081
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Notify OCD 24 hours prior to casing & cement	10/7/2021
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104	10/7/2021
kpickford	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	10/7/2021
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing	10/7/2021
kpickford	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	10/7/2021