Form 3160-3 FORM APPROVED OMB No. 1004-0137 (June 2015) Expires: January 31, 2018 **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. BUREAU OF LAND MANAGEMENT APPLICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allotee or Tribe Name 7. If Unit or CA Agreement, Name and No. DRILL REENTER 1a. Type of work: 1b. Type of Well: Oil Well Gas Well Other 8. Lease Name and Well No. 1c. Type of Completion: Hydraulic Fracturing Single Zone Multiple Zone 2. Name of Operator 9. API Well No. 30-025-52849 3a. Address 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.*) 11. Sec., T. R. M. or Blk. and Survey or Area At surface At proposed prod. zone 14. Distance in miles and direction from nearest town or post office* 12. County or Parish 13. State 15. Distance from proposed* 16. No of acres in lease 17. Spacing Unit dedicated to this well location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 18. Distance from proposed location* 19. Proposed Depth 20. BLM/BIA Bond No. in file to nearest well, drilling, completed, applied for, on this lease, ft. 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) 1. Well plat certified by a registered surveyor. 4. Bond to cover the operations unless covered by an existing bond on file (see 2. A Drilling Plan. Item 20 above) 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the SUPO must be filed with the appropriate Forest Service Office). 25. Signature Name (Printed/Typed) Date Title Approved by (Signature) Date Name (Printed/Typed) 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

APPROVED WITH CONDITIONS Released to Imaging: 4/25/2024 1:41:00 PM Approval Date: 04/12/2024

*(Instructions on page 2)

District 1 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 <u>District II</u> 811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720

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

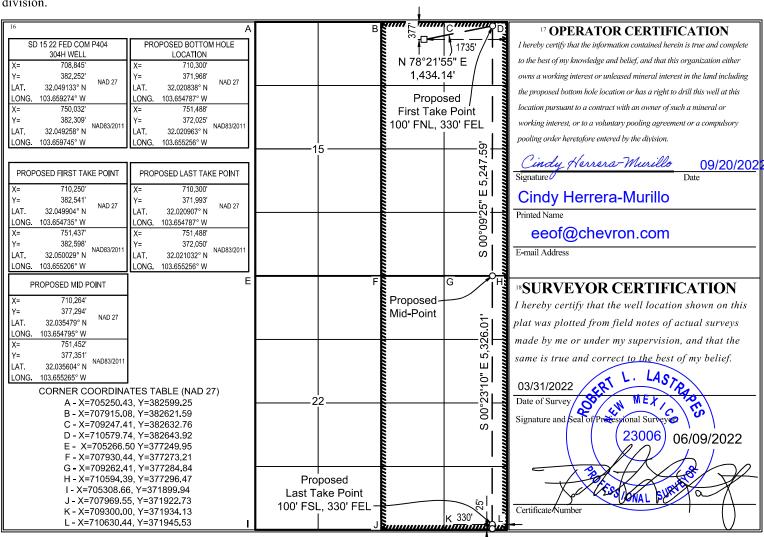
Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT WC-025 G-08 \$253235G;

30-0	¹ API Ni 25-528			Code 97903	3 Pool Name LWR BONE SPRIN XXENNINGSXXBBERBONE SPRINGSHALEX								
	ty Code				roperty Name	7010, 3, 0, 0, 3, 0, 0				Well Number			
335	847		SD 15 22 FED COM P404 304H										
⁷ OGR	ID No.		⁸ Operator Name ⁹ Elevation										
43	23		CHEVRON U.S.A. INC. 3194'										
			¹⁰ Surface Location										
UL or lot no.	Section	n Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/V	West line	County			
В	15	26 SOUTH	32 EAST, N.M.P.M		377'	NORTH	1735'	EA:	ST	LEA			
•			11 Bottom	Hole Locat	ion If Diffe	erent From S	Surface						
UL or lot no.	Section	n Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/V	Vest line	County			
P	22	26 SOUTH	32 EAST, N.M.P.M	.	25'	SOUTH	330'	EAS	ST	LEA			
12 Dedicated A	cres 13 J	oint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.									
640		INFILL											

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.



VI. Separation Equipment:

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

VII./VIII. Operational & Best Management Practices:

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

2. During Drilling Operations:

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

3. During Completions:

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

4. During Production:

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

5. Performance Standards

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

6. Measurement or Estimation of Vented and Flared Natural Gas

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

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:Chevr	on USA Inc		_OGRID: _	4323	Date	e: <u>09/21/2022</u>
II. Type: ⊠ Origina	l □ Amendme	ent due to □ 19.15.27.9	9.D(6)(a) NM	AC □ 19.15.27.9	D(6)(b) NMAC	□ Other.
If Other, please describe	::					
III. Well(s): Provide the be recompleted from a s					wells proposed to	be drilled or proposed to
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
SD 15 22 Fed Com Pad 404 Well #303H	Pending	Unit Letter B: Sect 15 T26S R32E	377' FNL 1795' FEL	1050 BBL/D	2983 MCF/D	1670 BBL/D
SD 15 22 Fed Com Pad 404 Well 304H	Pending	Unit Letter B: Sect 15 T26S R32E	377' FNL 1735'FEL	1050 BBL/D	2983 MCF/D	1670 BBL/D
SD15 22 Fed Com Pad 404 Well #404H	Pending	Unit Letter B: Sect 15 T26S R32E	377' FNL 1815' FEL	1050 BBL/D	2983 MCF/D	1670 BBL/D
SD 15 22 Fed Com Pad 404 Well #405H	Pending	Unit Letter B: Sect 15 T26S R32E	377' FNL 1775' FEL	1050 BBL/D	2983 MCF/D	1670 BBL/D
SD 15 22 Fed Com Pad 404 Well #406H	Pending	Unit Letter B: Sect 15 T26S R32E	377' FNL 1755' FEL	1050 BBL/D	2983 MCF/D	1670 BBL/D
IV. Central Delivery P	oint Name: _	Salado Draw S	atellite 14		_[See 19.15.27.9	(D)(1) NMAC]

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

Well Name	API	Spud Date	TD Reached	Completion	Initial Flow	First Production
		-	Date	Commencement Date	Back Date	Date
SD 15 22 Fed Com Pad 404 Well #303H	TBD	4/8/2025	N/A	N/A	N/A	N/A
SD 15 22 Fed Com Pad 404 Well #304H	TBD	4/28/2025	N/A	N/A	N/A	N/A
SD 15 22 Fed Com Pad 404 Well #404H	TBD	5/18/2025	N/A	N/A	N/A	N/A
SD15 22 Fed Com Pad 404 Well #405H	TBD	6/7/2025	N/A	N/A	N/A	N/A
SD 15 22 Fed Com Pad 404 Well #406H	TBD	6/27/2025	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.
- 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	Available Maximum Daily Capacity
-	,		Start Date	of System Segment Tie-in

- **XI. Map.** \square Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.
- **XII.** Line Capacity. The natural gas gathering system \square will \square will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.
- XIII. Line Pressure. Operator \square does \square does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).
- ☐ Attach Operator's plan to manage production in response to the increased line pressure.
- **XIV. Confidentiality:** □ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

(i)

Section 3 - Certifications Effective May 25, 2021

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

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

Section 4 - Notices

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

other alternative beneficial uses approved by the division.

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

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

Signature: Cindy	Verrera-Murillo Cindy Herrera-Murillo
Printed Name:	Cindy Herrera-Murillo
Title:	Sr HSE Regulatory affairs Coordinator
E-mail Address:	eeof@chevron.com
Date:	09/21/2022
Phone: 575-263-0431	
	OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

Well Name: SD 15 22 FED COM P404 Well Number: 304H

Casing	Attachments
--------	--------------------

Casing ID: 1 Str

String

SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

 $13.375_54.5ppf_J55_STC_20210720091246.pdf$

Casing ID: 2

String

INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

9.625_40.0lb_L80IC_BTC_20210720091414.pdf

Casing ID: 3

String

PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

7_29ppf_TN110SS_TSH_Blue_20210720091535.pdf

Well Name: SD 15 22 FED COM P404 Well Number: 304H

Casing Attachments

Casing ID: 4

String

PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

 $5_18ppf_P110_Flush_W513_20210720091704.pdf$

Casing ID: 5

String

PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

4.5_11.6ppf_P110_TSH_W521_20210720091819.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Тор МD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	0	0	0	0	0	0	N/A	N/A
SURFACE	Tail		0	855	558	1.33	14.8	742	25	CLASS C	EXTENDER, ANTIFOAM,RETARDE R
INTERMEDIATE	Lead		0	3515	553	2.49	11.9	1376	25		EXTENDER, ANTIFOAM, RETARDER,VISCOSIFI ER
INTERMEDIATE	Tail		3515	4515	323	1.33	14.8	429	50		EXTENDER, ANTIFORM, RETARDER,

Well Name: SD 15 22 FED COM P404 Well Number: 304H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
											VISCOSIFIER
PRODUCTION	Lead		0	8461	585	2.49	11.9	1457	25	CLASS C	EXTENDER, ANTIFOAM, RETARDER,VISCOSIFI ER
PRODUCTION	Tail		8461	9461	141	1.33	14.8	188	25	CLASS C	EXTENDER, ANTIFOAM, RETARDER,VISCOSIFI ER
PRODUCTION	Lead		9161	2041	996	1.33	14.8	1324	25	Class C	EXTENDER, ANTIFOAM, RETARDER, VISCOSIFIER

Section 5 - Circulating Medium

Mud System Type: Open

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: If an open reserve pit is not approved by OCD, a closed system will be used consisting of above ground steel tanks and all wastes accumulated during drilling operations will be contained in a portable trash cage and removed from location and deposited in an approved sanitary landfill. If an open reserve pit is in place, pit construction, operation, and closure will follow all applicable rules and regulation. Sanitary wastes will be contained in a chemical porta-toilet and then hauled to an approved sanitary landfill. All fluids and cuttings will be disposed of in accordance with New Mexico Oil Conservation Division rules and regulations. And transportating of E&P waste will follow EPA regulations and accompanying manifests. A mud test shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH. Visual mud monitoring equipment shall be in place to detect volume changes indicating loss or gain of circulating fluid volume. When abnormal pressures are anticipated -- a pit volume totalizer (PVT), stroke counter, and flow sensor will be used to detect volume changes indicating loss or gain of circulating fluid volume.

Describe the mud monitoring system utilized: Visual mud monitoring equipment shall be in place to detect volume changes indicating loss or gain of circulating fluid volume. When abnormal pressures are anticipated -- a pit volume totalizer (PVT), stroke counter, and flow sensor will be used to detect volume changes indicating loss or gain of circulating fluid volume.

Circulating Medium Table

Well Name: SD 15 22 FED COM P404 Well Number: 304H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	РН	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
9461	2041	OIL-BASED MUD	9	9.6							-Due to wellbore instability in the lateral, may exceed the MW weight window needed to maintain overburden stresses Viscosity 50-70 Filtration 5-10
855	4515	OTHER : BRINE	8.9	10							-Saturated brine would be used through salt sections. Viscosity 26-36 Filtration15-25
0	855	SPUD MUD	8.3	8.9							Viscosity 26-36 Filtration15-25
4515	9461	OTHER : WBM/BRINE	8.7	9							Viscosity 26-36 Filtration 15-25

Section 6 - Test, Logging, Coring

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

Production tests are not planned.

Logs run include: Gamma Ray Log, Directional Survey

Coring Operations are not planned.

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

GAMMA RAY LOG, DIRECTIONAL SURVEY,

Coring operation description for the well:

No coring

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4908 Anticipated Surface Pressure: 2744

Anticipated Bottom Hole Temperature(F): 165

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Well Name: SD 15 22 FED COM P404 Well Number: 304H

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

Chevron_Standard_H2S_Contingency_Plan_20211215114107.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

DefPlan100ft_SD1522FEDCOMP404304H_R0_20220922105652.pdf 9pnt_SD_15_22_FED_COM_P404_304H_20220922105704.pdf

Other proposed operations facets description:

Chevron formally requests the variances below:

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

Other proposed operations facets attachment:

5_well_rig_layout_patterson2_20220921103131.pdf
Gas_Management_Plan__SD_Pad_404_20220921103143.pdf
Operational_Best_Management_Practices_V2_20220921103248.pdf
CUSA_Spudder_Rig_Data_20220922081048.pdf

Other Variance attachment:

Schlumberger

SD 15 22 FED COM P404 304H R0 mdv 22Jun22 Proposal Geodetic Report



(Def Plan)

VSEC

TVD

 Report Date:
 June 24, 2022 - 03:02 PM

 Client:
 Chevron

 Field:
 NM Lea County (NAD 27)

 Structure / Slot:
 Chevron SD P404 / 304H

 Well:
 SD 15 22 FED COM P404 304H

 Borehole:
 SD 15 22 FED COM P404 304H

 UWI / API#:
 Unknown / Unknown

 UWI / API#:
 Unknown / Unknown

 Survey Name:
 SD 15 22 FED COM P404 304H R0 mdv 22Jun22

 Survey Date:
 June 23, 2022

 Tort / AHD / DDI / ERD Ratio:
 122.074 ° / 12068.972 ft / 6.484 / 1.224

 Coordinate Reference System:
 NAD27 New Mexico State Plane, Eastern Zone, US Feet

 Location Lat / Long:
 N 32° 2° 56.88092°. W 103° 39' 33.39137°

 Location Grid NIE YIX:
 N 382252.000 ftUS, E 708845.000 ftUS

MD

Incl

Azim Grid

 CRS Grid Convergence Angle:
 0.3577 °

 Grid Scale Factor:
 0.99995905

 Version / Patch:
 2.10.829.1

 Survey / DLS Computation:
 Minimum Curvature / Lubinski

 Vertical Section Azimuth:
 179.730 ° (Grid North)

 Vertical Section Origin:
 0.000 ft, 0.000 ft

 TVD Reference Datum:
 RKB = 28ft

 TVD Reference Elevation:
 3222.000 ft above MSL

 Seabed / Ground Elevation:
 3194.000 ft above MSL

 Magnetic Declination:
 6.390 °t

 Total Gravity Field Strength:
 998.4322mgn (9.80665 Based)

Total Gravity Field Strength: 998.4322mgn (9.8 Gravity Model: GARM
Total Magnetic Field Strength: 47431,778 nT
Magnetic Dip Angle: 59.582 °
Declination Date: June 23, 2022
Magnetic Declination Model: HDGM 2022
North Reference: Grid North
Grid Convergence Used: 0,3577 °
Total Corr Mag North→Grid North: 6.0325 °

Well Head

DLS

Northina

Easting

Latitude

Longitude

EW

Local Coord Referenced To:

NS

Comments	MD (ft)	Incl (°)	Azim Grid	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting Latitude Longitude (ftUS) (N/S ° ' ") (E/W ° ' ")
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	382252.00	708845.00 N 32 2 56.88 W 103 39 33.39
Dockum (DCKM)	51.00	0.00	76.44	51.00	0.00	0.00	0.00	0.00	382252.00	708845.00 N 32 2 56.88 W 103 39 33.39
	100.00	0.00	76.44	100.00	0.00	0.00	0.00	0.00	382252.00	708845.00 N 32 2 56.88 W 103 39 33.39
	200.00	0.00	76.44	200.00	0.00	0.00	0.00	0.00	382252.00	708845.00 N 32 2 56.88 W 103 39 33.39
	300.00	0.00	76.44	300.00	0.00	0.00	0.00	0.00	382252.00	708845.00 N 32 2 56.88 W 103 39 33.39
	400.00	0.00	76.44	400.00	0.00	0.00	0.00	0.00	382252.00	708845.00 N 32 2 56.88 W 103 39 33.39
Build 1.5°/100ft	500.00	0.00	76.44	500.00	0.00	0.00	0.00	0.00	382252.00	708845.00 N 32 2 56.88 W 103 39 33.39
Dewey Lake (DWLK)	501.00	0.02	76.44	501.00	0.00	0.00	0.00	1.50	382252.00	708845.00 N 32 2 56.88 W 103 39 33.39
	600.00	1.50	76.44	599.99	-0.30	0.31	1.27	1.50	382252.31	708846.27 N 32 2 56.88 W 103 39 33.38
Rustler (RSLR)	681.31	2.72	76.44	681.24	-0.99	1.01	4.18	1.50	382253.01	708849.18 N 32 2 56.89 W 103 39 33.34
	700.00	3.00	76.44	699.91	-1.20	1.23	5.09	1.50	382253.23	708850.09 N 32 2 56.89 W 103 39 33.33
	800.00	4.50	76.44	799.69	-2.71	2.76	11.45	1.50	382254.76	708856.45 N 32 2 56.91 W 103 39 33.26
Los Medanos	831.42 900.00	4.97 6.00	76.44 76.44	831.00 899.27	-3.30 -4.81	3.37 4.91	13.97 20.34	1.50 1.50	382255.37 382256.91	708858.97 N 32 2 56.91 W 103 39 33.23 708865.34 N 32 2 56.93 W 103 39 33.15
	1000.00	7.50	76.44	998.57	-4.61 -7.51	7.66	31.77	1.50	382259.66	708876.77 N 32 2 56.95 W 103 39 33.15
Salado (SLDO)	1059.25	8.39	76.44 76.44	1057.25	-7.51 -9.40	9.59	39.73	1.50	382261.58	708884.72 N 32 2 56.97 W 103 39 32.93
Salado (SEDO)	1100.00	9.00	76.44	1097.54	-10.81	11.03	45.72	1.50	382263.03	708890.71 N 32 2 56.99 W 103 39 32.86
	1200.00	10.50	76.44	1196.09	-14.71	15.00	62.18	1.50	382267.00	708907.17 N 32 2 57.03 W 103 39 32.67
	1300.00	12.00	76.44	1294.16	-19.20	19.58	81.14	1.50	382271.58	708926.14 N 32 2 57.07 W 103 39 32.45
	1400.00	13.50	76.44	1391.70	-24.27	24.75	102.60	1.50	382276.75	708947.59 N 32 2 57.12 W 103 39 32.20
Hold	1499.95	15.00	76.44	1488.57	-29.93	30.52	126.51	1.50	382282.52	708971.51 N 32 2 57.18 W 103 39 31.92
	1500.00	15.00	76.44	1488.62	-29.93	30.53	126.52	0.00	382282.53	708971.52 N 32 2 57.18 W 103 39 31.92
	1600.00	15.00	76.44	1585.21	-35.88	36.60	151.68	0.00	382288.60	708996.68 N 32 2 57.23 W 103 39 31.63
	1700.00	15.00	76.44	1681.80	-41.83	42.67	176.84	0.00	382294.67	709021.83 N 32 2 57.29 W 103 39 31.33
	1800.00	15.00	76.44	1778.39	-47.79	48.74	202.00	0.00	382300.74	709046.99 N 32 2 57.35 W 103 39 31.04
	1900.00	15.00	76.44	1874.99	-53.74	54.81	227.16	0.00	382306.81	709072.15 N 32 2 57.41 W 103 39 30.75
	2000.00	15.00	76.44	1971.58	-59.69	60.88	252.32	0.00	382312.88	709097.31 N 32 2 57.47 W 103 39 30.46
	2100.00	15.00	76.44	2068.17	-65.64	66.95	277.48	0.00	382318.95	709122.46 N 32 2 57.53 W 103 39 30.16
	2200.00	15.00	76.44	2164.77	-71.59	73.02	302.63	0.00	382325.02	709147.62 N 32 257.58 W 103 39 29.87
	2300.00	15.00	76.44	2261.36	-77.54	79.09	327.79	0.00	382331.09	709172.78 N 32 2 57.64 W 103 39 29.58
	2400.00 2500.00	15.00 15.00	76.44 76.44	2357.95 2454.55	-83.50 -89.45	85.16 91.23	352.95 378.11	0.00	382337.16 382343.23	709197.94 N 32 2 57.70 W 103 39 29.28 709223.09 N 32 2 57.76 W 103 39 28.99
	2600.00	15.00	76.44	2551.14	-95.40	97.30	403.27	0.00	382349.30	709248.25 N 32 2 57.76 W 103 39 28.70
	2700.00	15.00	76.44	2647.73	-101.35	103.37	428.43	0.00	382355.37	709273.41 N 32 2 57.88 W 103 39 28.41
Castile (CSTL)	2794.46	15.00	76.44	2738.97	-106.97	109.10	452.19	0.00	382361.10	709297.17 N 32 2 57.93 W 103 39 28.13
Castile (CSTL)	2800.00	15.00	76.44	2744.32	-107.30	109.44	453.59	0.00	382361.44	709298.57 N 32 2 57.94 W 103 39 28.11
	2900.00	15.00	76.44	2840.92	-113.25	115.51	478.75	0.00	382367.51	709323.72 N 32 2 57.99 W 103 39 27.82
	3000.00	15.00	76.44	2937.51	-119.20	121.58	503.90	0.00	382373.58	709348.88 N 32 2 58.05 W 103 39 27.53
	3100.00	15.00	76.44	3034.10	-125.16	127.65	529.06	0.00	382379.65	709374.04 N 32 2 58.11 W 103 39 27.24
	3200.00	15.00	76.44	3130.70	-131.11	133.72	554.22	0.00	382385.72	709399.20 N 32 2 58.17 W 103 39 26.94
	3300.00	15.00	76.44	3227.29	-137.06	139.79	579.38	0.00	382391.79	709424.35 N 32 2 58.23 W 103 39 26.65
	3400.00	15.00	76.44	3323.88	-143.01	145.86	604.54	0.00	382397.86	709449.51 N 32 2 58.29 W 103 39 26.36
	3500.00	15.00	76.44	3420.47	-148.96	151.93	629.70	0.00	382403.93	709474.67 N 32 2 58.35 W 103 39 26.06
	3600.00	15.00	76.44	3517.07	-154.91	158.00	654.86	0.00	382410.00	709499.83 N 32 2 58.40 W 103 39 25.77
	3700.00	15.00	76.44	3613.66	-160.87	164.07	680.01	0.00	382416.07	709524.99 N 32 2 58.46 W 103 39 25.48
	3800.00	15.00	76.44	3710.25	-166.82	170.14	705.17	0.00	382422.14	709550.14 N 32 2 58.52 W 103 39 25.19
	3900.00	15.00	76.44	3806.85	-172.77	176.21	730.33	0.00	382428.21	709575.30 N 32 2 58.58 W 103 39 24.89
	4000.00	15.00	76.44	3903.44	-178.72	182.28	755.49	0.00	382434.28	709600.46 N 32 2 58.64 W 103 39 24.60
	4100.00	15.00	76.44	4000.03	-184.67	188.35	780.65	0.00	382440.35	709625.62 N 32 2 58.70 W 103 39 24.31 709650.77 N 32 2 58.75 W 103 39 24.02
	4200.00 4300.00	15.00 15.00	76.44 76.44	4096.62 4193.22	-190.62 -196.58	194.42 200.49	805.81 830.97	0.00	382446.42 382452.49	709650.77 N 32 2 58.75 W 103 39 24.02 709675.93 N 32 2 58.81 W 103 39 23.72
	4400.00	15.00	76.44	4289.81	-202.53	206.56	856.13	0.00	382458.56	709701.09 N 32 2 58.87 W 103 39 23.43
	4500.00	15.00	76.44	4386.40	-208.48	212.63	881.28	0.00	382464.63	709726.25 N 32 2 58.93 W 103 39 23.14
	4600.00	15.00	76.44	4483.00	-214.43	218.70	906.44	0.00	382470.70	709751.40 N 32 2 58.99 W 103 39 22.84
Lamar (LMAR)	4660.17	15.00	76.44	4541.12	-218.01	222.36	921.58	0.00	382474.35	709766.54 N 32 2 59.02 W 103 39 22.67
Bell Canyon (BLCN)	4686.28	15.00	76.44	4566.34	-219.57	223.94	928.15	0.00	382475.93	709773.11 N 32 2 59.04 W 103 39 22.59
	4700.00	15.00	76.44	4579.59	-220.38	224.77	931.60	0.00	382476.77	709776.56 N 32 2 59.05 W 103 39 22.55
	4800.00	15.00	76.44	4676.18	-226.33	230.85	956.76	0.00	382482.84	709801.72 N 32 2 59.11 W 103 39 22.26
	4900.00	15.00	76.44	4772.78	-232.29	236.92	981.92	0.00	382488.91	709826.88 N 32 2 59.16 W 103 39 21.97
	5000.00	15.00	76.44	4869.37	-238.24	242.99	1007.08	0.00	382494.98	709852.03 N 32 2 59.22 W 103 39 21.67
	5100.00	15.00	76.44	4965.96	-244.19	249.06	1032.24	0.00	382501.05	709877.19 N 32 2 59.28 W 103 39 21.38
	5200.00	15.00	76.44	5062.55	-250.14	255.13	1057.40	0.00	382507.12	709902.35 N 32 2 59.34 W 103 39 21.09
	5300.00	15.00	76.44	5159.15	-256.09	261.20	1082.55	0.00	382513.19	709927.51 N 32 2 59.40 W 103 39 20.80
	5400.00	15.00	76.44	5255.74	-262.04	267.27	1107.71	0.00	382519.26	709952.67 N 32 2 59.46 W 103 39 20.50
D 75%/400#	5500.00	15.00	76.44	5352.33	-268.00	273.34	1132.87	0.00	382525.33	709977.82 N 32 2 59.52 W 103 39 20.21 709996.99 N 32 2 59.56 W 103 39 19.99
Drop .75°/100ft	5576.19 5600.00	15.00 14.82	76.44 76.44	5425.92 5448.94	-272.53 -273.94	277.96 279.40	1152.04 1158.00	0.00 0.75	382529.95 382531.39	709996.99 N 32 2 59.56 W 103 39 19.99 710002.95 N 32 2 59.57 W 103 39 19.92
	5700.00	14.82	76.44 76.44	5448.94 5545.77	-273.94 -279.68	279.40	1182.25	0.75	382537.24	710002.95 N 32 2 59.57 W 103 39 19.92 710027.19 N 32 2 59.63 W 103 39 19.64
Cherry Canyon (CRCN)	5751.75	13.68	76.44	5596.01	-282.53	288.16	1194.31	0.75	382540.15	710027.19 N 32 2 59.65 W 103 39 19.64 710039.26 N 32 2 59.66 W 103 39 19.49
Onerry Carryon (CRCN)	5800.00	13.32	76.44	5642.93	-285.12	290.80	1205.26	0.75	382542.79	710050.21 N 32 2 59.68 W 103 39 19.37
	5900.00	12.57	76.44	5740.39	-290.27	296.06	1227.04	0.75	382548.04	710071.99 N 32 2 59.73 W 103 39 19.11
	6000.00	11.82	76.44	5838.13	-295.13	301.01	1247.57	0.75	382553.00	710092.52 N 32 2 59.78 W 103 39 18.88
	6100.00	11.07	76.44	5936.14	-299.69	305.67	1266.86	0.75	382557.65	710111.81 N 32 2 59.83 W 103 39 18.65
	6200.00	10.32	76.44	6034.40	-303.96	310.02	1284.91	0.75	382562.01	710129.85 N 32 2 59.87 W 103 39 18.44
	6300.00	9.57	76.44	6132.90	-307.93	314.07	1301.70	0.75	382566.06	710146.64 N 32 2 59.91 W 103 39 18.25
	6400.00	8.82	76.44	6231.61	-311.61	317.82	1317.23	0.75	382569.80	710162.17 N 32 2 59.94 W 103 39 18.06
	6500.00	8.07	76.44	6330.53	-314.99	321.26	1331.51	0.75	382573.25	710176.45 N 32 2 59.98 W 103 39 17.90

...SD 15 22 FED COM P404 304H\SD 15 22 FED COM P404 304H\SD 15 22 FED COM P404 304H R0 mdv 22Jun22

Schlumberger-Private

Comments	MD	Incl	Azim Grid	TVD	VSEC	NS	EW	DLS	Northing	Easting Latitude Longitude
	(ft) 6600.00	7.32	(°) 76.44	(ft) 6429.63	-318.06	(ft) 324.40	(ft) 1344.53	(°/100ft) 0.75	(ftUS) 382576.39	(ftUS) (N/S ° ' ") (E/W ° ' ") 710189.47 N 32 3 0.01 W 103 39 17.75
	6700.00	6.57	76.44	6528.89	-320.85	327.24	1356.28	0.75	382579.23	710201.22 N 32 3 0.04 W 103 39 17.61
	6800.00	5.82	76.44	6628.31	-323.33	329.77	1366.77	0.75	382581.76	710211.71 N 32 3 0.06 W 103 39 17.49
	6900.00 7000.00	5.07 4.32	76.44 76.44	6727.85 6827.52	-325.51 -327.39	332.00 333.92	1376.00 1383.95	0.75 0.75	382583.98 382585.90	710220.94 N 32 3 0.08 W 103 39 17.38 710228.90 N 32 3 0.10 W 103 39 17.29
	7100.00	3.57	76.44	6927.28	-328.97	335.53	1390.64	0.75	382587.52	710235.58 N 32 3 0.11 W 103 39 17.25
	7200.00	2.82	76.44	7027.12	-330.26	336.84	1396.06	0.75	382588.82	710241.00 N 32 3 0.13 W 103 39 17.15
Brushy Canyon (BCN)	7267.34 7300.00	2.32 2.07	76.44 76.44	7094.40 7127.03	-330.95 -331.24	337.55 337.84	1399.00 1400.21	0.75 0.75	382589.53 382589.83	710243.94 N 32 3 0.13 W 103 39 17.11 710245.15 N 32 3 0.14 W 103 39 17.10
	7400.00	1.32	76.44	7226.99	-331.92	338.53	1403.09	0.75	382590.52	710248.03 N 32 3 0.14 W 103 39 17.10
	7500.00	0.57	76.44	7326.97	-332.30	338.92	1404.69	0.75	382590.91	710249.63 N 32 3 0.15 W 103 39 17.05
Hold	7576.09 7600.00	0.00	76.44 76.44	7403.06 7426.97	-332.39 -332.39	339.01 339.01	1405.06	0.75 0.00	382591.00 382591.00	710250.00 N 32 3 0.15 W 103 39 17.04 710250.00 N 32 3 0.15 W 103 39 17.04
	7700.00	0.00	76.44	7526.97	-332.39	339.01	1405.06 1405.06	0.00	382591.00	710250.00 N 32 3 0.15 W 103 39 17.04 710250.00 N 32 3 0.15 W 103 39 17.04
	7800.00	0.00	76.44	7626.97	-332.39	339.01	1405.06	0.00	382591.00	710250.00 N 32 3 0.15 W 103 39 17.04
	7900.00	0.00	76.44	7726.97	-332.39	339.01	1405.06	0.00	382591.00	710250.00 N 32 3 0.15 W 103 39 17.04
	8000.00 8100.00	0.00	76.44 76.44	7826.97 7926.97	-332.39 -332.39	339.01 339.01	1405.06 1405.06	0.00 0.00	382591.00 382591.00	710250.00 N 32 3 0.15 W 103 39 17.04 710250.00 N 32 3 0.15 W 103 39 17.04
	8200.00	0.00	76.44	8026.97	-332.39	339.01	1405.06	0.00	382591.00	710250.00 N 32 3 0.15 W 103 39 17.04
	8300.00	0.00	76.44	8126.97	-332.39	339.01	1405.06	0.00	382591.00	710250.00 N 32 3 0.15 W 103 39 17.04
	8400.00 8500.00	0.00	76.44 76.44	8226.97 8326.97	-332.39 -332.39	339.01 339.01	1405.06 1405.06	0.00 0.00	382591.00 382591.00	710250.00 N 32 3 0.15 W 103 39 17.04 710250.00 N 32 3 0.15 W 103 39 17.04
	8600.00	0.00	76.44	8426.97	-332.39	339.01	1405.06	0.00	382591.00	710250.00 N 32 3 0.15 W 103 39 17.04
	8700.00	0.00	76.44	8526.97	-332.39	339.01	1405.06	0.00	382591.00	710250.00 N 32 3 0.15 W 103 39 17.04
	8800.00	0.00	76.44 76.44	8626.97 8726.97	-332.39	339.01	1405.06	0.00 0.00	382591.00 382591.00	710250.00 N 32 3 0.15 W 103 39 17.04 710250.00 N 32 3 0.15 W 103 39 17.04
Bone Spring (BSGL)	8900.00 8931.86	0.00	76.44 76.44	8758.83	-332.39 -332.39	339.01 339.01	1405.06 1405.06	0.00	382591.00	710250.00 N 32 3 0.15 W 103 39 17.04 710250.00 N 32 3 0.15 W 103 39 17.04
Upper Avalon (AVU)	8933.47	0.00	76.44	8760.44	-332.39	339.01	1405.06	0.00	382591.00	710250.00 N 32 3 0.15 W 103 39 17.04
	9000.00	0.00	76.44	8826.97	-332.39	339.01	1405.06	0.00	382591.00	710250.00 N 32 3 0.15 W 103 39 17.04
	9100.00 9200.00	0.00	76.44 76.44	8926.97 9026.97	-332.39 -332.39	339.01 339.01	1405.06 1405.06	0.00 0.00	382591.00 382591.00	710250.00 N 32 3 0.15 W 103 39 17.04 710250.00 N 32 3 0.15 W 103 39 17.04
Lower Avalon (AVL)	9285.55	0.00	76.44	9112.52	-332.39	339.01	1405.06	0.00	382591.00	710250.00 N 32 3 0.15 W 103 39 17.04 710250.00 N 32 3 0.15 W 103 39 17.04
	9300.00	0.00	76.44	9126.97	-332.39	339.01	1405.06	0.00	382591.00	710250.00 N 32 3 0.15 W 103 39 17.04
Puild 10°/100ft	9400.00 9461.09	0.00	76.44 76.44	9226.97 9288.06	-332.39 -332.39	339.01 339.01	1405.06 1405.06	0.00 0.00	382591.00 382591.00	710250.00 N 32 3 0.15 W 103 39 17.04 710250.00 N 32 3 0.15 W 103 39 17.04
Build 10°/100ft	9500.00	3.89	76.44 179.85	9326.94	-332.39	337.69	1405.06	10.00	382591.00	710250.00 N 32 3 0.15 W 103 39 17.04 710250.00 N 32 3 0.14 W 103 39 17.04
	9600.00	13.89	179.85	9425.62	-315.63	322.25	1405.10	10.00	382574.24	710250.04 N 32 2 59.98 W 103 39 17.04
	9700.00	23.89	179.85	9520.11	-283.29	289.92	1405.19	10.00	382541.90	710250.13 N 32 2 59.66 W 103 39 17.04
FTP Cross	9702.01 9800.00	24.09 33.89	179.85 179.85	9521.94 9607.55	-282.47 -235.04	289.10 241.66	1405.19 1405.32	10.00 10.00	382541.09 382493.65	710250.13 N 32 2 59.65 W 103 39 17.04 710250.26 N 32 2 59.19 W 103 39 17.05
	9900.00	43.89	179.85	9685.29	-172.33	178.96	1405.48	10.00	382430.95	710250.42 N 32 2 58.56 W 103 39 17.05
	10000.00	53.89	179.85	9750.95	-97.08	103.71	1405.68	10.00	382355.70	710250.62 N 32 2 57.82 W 103 39 17.05
First Bone Upper (FBU)	10096.56 10100.00	63.55 63.89	179.85 179.85	9801.03 9802.55	-14.66 -11.57	21.28 18.20	1405.90 1405.91	10.00 10.00	382273.28 382270.20	710250.84 N 32 2 57.00 W 103 39 17.06 710250.85 N 32 2 56.97 W 103 39 17.06
First Bone Upper TGT1 (FBU_TGT1)	10117.01	65.59	179.85	9809.81	3.81	2.82	1405.95	10.00	382254.82	710250.89 N 32 2 56.82 W 103 39 17.06
	10200.00	73.89	179.85	9838.52	81.60	-74.97	1406.15	10.00	382177.03	710251.09 N 32 2 56.05 W 103 39 17.06
Londino Delet	10300.00	83.89	179.85	9857.76	179.60 245.27	-172.97	1406.41	10.00 10.00	382079.03	710251.35 N 32 2 55.08 W 103 39 17.06 710251.53 N 32 2 54.43 W 103 39 17.07
Landing Point	10365.79 10400.00	90.47 90.47	179.85 179.85	9861.00 9860.72	279.48	-238.64 -272.86	1406.59 1406.68	0.00	382013.37 381979.16	710251.53 N 32 2 54.43 W 103 39 17.07 710251.62 N 32 2 54.09 W 103 39 17.07
	10500.00	90.47	179.85	9859.90	379.48	-372.85	1406.94	0.00	381879.16	710251.88 N 32 253.10 W 103 39 17.07
	10600.00	90.47	179.85	9859.08	479.48 579.47	-472.85	1407.21	0.00	381779.17	710252.15 N 32 2 52.11 W 103 39 17.08 710252.41 N 32 2 51.13 W 103 39 17.08
	10700.00 10800.00	90.47 90.47	179.85 179.85	9858.26 9857.44	679.47	-572.85 -672.84	1407.47 1407.73	0.00	381679.18 381579.19	710252.41 N 32 2 51.13 W 103 39 17.08 710252.67 N 32 2 50.14 W 103 39 17.09
	10900.00	90.47	179.85	9856.62	779.46	-772.84	1408.00	0.00	381479.20	710252.94 N 32 249.15 W 103 39 17.09
	11000.00	90.47	179.85	9855.80	879.46	-872.83	1408.26	0.00	381379.20	710253.20 N 32 2 48.16 W 103 39 17.09
	11100.00 11200.00	90.47 90.47	179.85 179.85	9854.98 9854.16	979.46 1079.45	-972.83 -1072.83	1408.53 1408.79	0.00	381279.21 381179.22	710253.47 N 32 2 47.17 W 103 39 17.10 710253.73 N 32 2 46.18 W 103 39 17.10
	11300.00	90.47	179.85	9853.34	1179.45	-1172.82	1409.06	0.00	381079.23	710254.00 N 32 2 45.19 W 103 39 17.11
	11400.00	90.47	179.85	9852.52	1279.45	-1272.82	1409.32	0.00	380979.24	710254.26 N 32 2 44.20 W 103 39 17.11
	11500.00 11600.00	90.47 90.47	179.85 179.85	9851.70 9850.88	1379.44 1479.44	-1372.82 -1472.81	1409.58 1409.85	0.00	380879.24 380779.25	710254.52 N 32 2 43.21 W 103 39 17.12 710254.79 N 32 2 42.22 W 103 39 17.12
	11700.00	90.47	179.85	9850.06	1579.44	-1572.81	1410.11	0.00	380679.26	710255.05 N 32 242.22 W 103 39 17.12
	11800.00	90.47	179.85	9849.24	1679.43	-1672.80	1410.38	0.00	380579.27	710255.32 N 32 2 40.24 W 103 39 17.13
	11900.00	90.47	179.85	9848.42	1779.43	-1772.80	1410.64	0.00	380479.28	710255.58 N 32 2 39.25 W 103 39 17.13
	12000.00 12100.00	90.47 90.47	179.85 179.85	9847.60 9846.78	1879.43 1979.42	-1872.80 -1972.79	1410.91 1411.17	0.00	380379.28 380279.29	710255.85 N 32 2 38.26 W 103 39 17.14 710256.11 N 32 2 37.27 W 103 39 17.14
	12200.00	90.47	179.85	9845.96	2079.42	-2072.79	1411.43	0.00	380179.30	710256.37 N 32 2 36.28 W 103 39 17.14
	12300.00	90.47	179.85	9845.14	2179.41	-2172.79	1411.70	0.00	380079.31	710256.64 N 32 2 35.29 W 103 39 17.15
	12400.00 12500.00	90.47 90.47	179.85 179.85	9844.32 9843.50	2279.41 2379.41	-2272.78 -2372.78	1411.96 1412.23	0.00	379979.32 379879.32	710256.90 N 32 2 34.30 W 103 39 17.15 710257.17 N 32 2 33.31 W 103 39 17.16
	12600.00	90.47	179.85	9842.68	2479.40	-2472.77	1412.49	0.00	379779.33	710257.43 N 32 2 32.32 W 103 39 17.16
	12700.00	90.47	179.85	9841.86	2579.40	-2572.77	1412.76	0.00	379679.34	710257.70 N 32 2 31.33 W 103 39 17.17
	12800.00 12900.00	90.47 90.47	179.85 179.85	9841.04 9840.22	2679.40 2779.39	-2672.77 -2772.76	1413.02 1413.28	0.00	379579.35 379479.36	710257.96 N 32 2 30.34 W 103 39 17.17 710258.22 N 32 2 29.36 W 103 39 17.17
	13000.00	90.47	179.85	9839.40	2879.39	-2872.76	1413.28	0.00	379479.36	710258.22 N 32 229.36 W 103 39 17.17 710258.49 N 32 228.37 W 103 39 17.18
	13100.00	90.47	179.85	9838.58	2979.39	-2972.76	1413.81	0.00	379279.37	710258.75 N 32 2 27.38 W 103 39 17.18
	13200.00	90.47	179.85	9837.76	3079.38	-3072.75	1414.08	0.00	379179.38	710259.02 N 32 226.39 W 103 39 17.19
	13300.00 13400.00	90.47 90.47	179.85 179.85	9836.94 9836.12	3179.38 3279.38	-3172.75 -3272.75	1414.34 1414.61	0.00	379079.39 378979.40	710259.28 N 32 2 25.40 W 103 39 17.19 710259.55 N 32 2 24.41 W 103 39 17.20
	13500.00	90.47	179.85	9835.30	3379.37	-3372.74	1414.87	0.00	378879.40	710259.81 N 32 2 23.42 W 103 39 17.20
	13600.00	90.47	179.85	9834.48	3479.37	-3472.74	1415.13	0.00	378779.41	710260.07 N 32 2 22.43 W 103 39 17.20
	13700.00 13800.00	90.47 90.47	179.85 179.85	9833.66 9832.84	3579.36 3679.36	-3572.73 -3672.73	1415.40 1415.66	0.00	378679.42 378579.43	710260.34 N 32 2 21.44 W 103 39 17.21 710260.60 N 32 2 20.45 W 103 39 17.21
	13900.00	90.47	179.85	9832.02	3779.36	-3772.73	1415.93	0.00	378479.44	710260.87 N 32 2 19.46 W 103 39 17.22
	14000.00	90.47	179.85	9831.20	3879.35	-3872.72	1416.19	0.00	378379.44	710261.13 N 32 2 18.47 W 103 39 17.22
	14100.00	90.47	179.85	9830.38	3979.35	-3972.72 -4072.72	1416.46	0.00	378279.45	710261.40 N 32 2 17.48 W 103 39 17.23
	14200.00 14300.00	90.47 90.47	179.85 179.85	9829.56 9828.74	4079.35 4179.34	-4072.72 -4172.71	1416.72 1416.98	0.00 0.00	378179.46 378079.47	710261.66 N 32 2 16.49 W 103 39 17.23 710261.92 N 32 2 15.50 W 103 39 17.23
	14400.00	90.47	179.85	9827.92	4279.34	-4272.71	1417.25	0.00	377979.48	710262.19 N 32 2 14.51 W 103 39 17.24
	14500.00	90.47	179.85	9827.10	4379.34	-4372.70	1417.51	0.00	377879.48	710262.45 N 32 2 13.52 W 103 39 17.24
	14600.00	90.47 90.47	179.85 179.85	9826.28 9825.46	4479.33 4579.33	-4472.70 -4572.70	1417.78 1418.04	0.00 0.00	377779.49 377679.50	710262.72 N 32 2 12.53 W 103 39 17.25 710262.98 N 32 2 11.54 W 103 39 17.25
	14700.00	OO. 11		9824.64	4679.32	-4672.69	1418.31	0.00	377579.51	710263.25 N 32 2 10.55 W 103 39 17.25
	14700.00 14800.00	90.47	179.85			-4772.69	1418.57	0.00	377479.52	710263.51 N 32 2 9.56 W 103 39 17.26
	14800.00 14900.00	90.47	179.85	9823.82	4779.32					
MD Tun 25/4000	14800.00 14900.00 15000.00	90.47 90.47	179.85 179.85	9823.00	4879.32	-4872.69	1418.83	0.00	377379.52	710263.77 N 32 2 8.58 W 103 39 17.26
MP, Turn 2°/100ft Hold	14800.00 14900.00 15000.00 15085.53	90.47 90.47 90.47	179.85 179.85 179.85	9823.00 9822.30	4879.32 4964.85	-4872.69 -4958.21	1418.83 1419.06	0.00	377379.52 377294.00	710263.77 N 32 2 8.58 W 103 39 17.26 710264.00 N 32 2 7.73 W 103 39 17.27
MP, Turn 2°/100ft Hold	14800.00 14900.00 15000.00	90.47 90.47	179.85 179.85	9823.00	4879.32	-4872.69	1418.83		377379.52	710263.77 N 32 2 8.58 W 103 39 17.26
	14800.00 14900.00 15000.00 15085.53 15097.37 15100.00 15200.00	90.47 90.47 90.47 90.47 90.47 90.47	179.85 179.85 179.85 179.61 179.61 179.61	9823.00 9822.30 9822.20 9822.18 9821.35	4879.32 4964.85 4976.68 4979.31 5079.31	-4872.69 -4958.21 -4970.05 -4972.68 -5072.68	1418.83 1419.06 1419.12 1419.13 1419.81	0.00 2.00 0.00 0.00	377379.52 377294.00 377282.16 377279.53 377179.54	710264.07 N 32 2 8.58 W 103 39 17.26 710264.00 N 32 2 7.73 W 103 39 17.27 710264.06 N 32 2 7.61 W 103 39 17.27 710264.07 N 32 2 7.59 W 103 39 17.27 710264.75 N 32 2 6.60 W 103 39 17.27
Hold	14800.00 14900.00 15000.00 15085.53 15097.37 15100.00 15200.00 15300.00	90.47 90.47 90.47 90.47 90.47 90.47 90.47	179.85 179.85 179.85 179.61 179.61 179.61 179.61	9823.00 9822.30 9822.20 9822.18 9821.35 9820.53	4879.32 4964.85 4976.68 4979.31 5079.31 5179.31	-4872.69 -4958.21 -4970.05 -4972.68 -5072.68 -5172.67	1418.83 1419.06 1419.12 1419.13 1419.81 1420.49	0.00 2.00 0.00 0.00 0.00	377379.52 377294.00 377282.16 377279.53 377179.54 377079.55	710263.77 N 32 2 8.85 W 103 39 17.26 710264.00 N 32 2 7.61 W 103 39 17.27 710264.06 N 32 2 7.61 W 103 39 17.27 710264.07 N 32 2 7.69 W 103 39 17.27 710264.75 N 32 2 6.60 W 103 39 17.27 710265.43 N 32 2 5.61 W 103 39 17.27
	14800.00 14900.00 15000.00 15008.53 15097.37 15100.00 15200.00 15363.56	90.47 90.47 90.47 90.47 90.47 90.47 90.47 90.47	179.85 179.85 179.85 179.61 179.61 179.61 179.61	9823.00 9822.30 9822.20 9822.18 9821.35 9820.53 9820.00	4879.32 4964.85 4976.68 4979.31 5079.31 5179.31 5242.86	-4872.69 -4958.21 -4970.05 -4972.68 -5072.68 -5172.67 -5236.22	1418.83 1419.06 1419.12 1419.13 1419.81 1420.49 1420.92	0.00 2.00 0.00 0.00 0.00 0.00	377379.52 377294.00 377282.16 377279.53 377179.54 377079.55 377016.00	710263.77 N 32 2 8.58 W 103 39 17.26 710264.00 N 32 2 7.73 W 103 39 17.27 710264.05 N 32 2 7.61 W 103 39 17.27 710264.07 N 32 2 7.69 W 103 39 17.27 710264.75 N 32 2 5.60 W 103 39 17.27 710265.86 N 32 2 5.61 W 103 39 17.27 710265.86 N 32 2 4.98 W 103 39 17.27
Hold	14800.00 14900.00 15000.00 15085.53 15097.37 15100.00 15200.00 15300.00	90.47 90.47 90.47 90.47 90.47 90.47 90.47	179.85 179.85 179.85 179.61 179.61 179.61 179.61	9823.00 9822.30 9822.20 9822.18 9821.35 9820.53	4879.32 4964.85 4976.68 4979.31 5079.31 5179.31	-4872.69 -4958.21 -4970.05 -4972.68 -5072.68 -5172.67	1418.83 1419.06 1419.12 1419.13 1419.81 1420.49	0.00 2.00 0.00 0.00 0.00	377379.52 377294.00 377282.16 377279.53 377179.54 377079.55	710263.77 N 32 2 8.58 W 103 39 17.26 710264.00 N 32 2 7.73 W 103 39 17.27 710264.06 N 32 2 7.61 W 103 39 17.27 710264.07 N 32 2 7.59 W 103 39 17.27 710264.75 N 32 2 6.60 W 103 39 17.27 710265.43 N 32 2 5.61 W 103 39 17.27

...SD 15 22 FED COM P404 304H\SD 15 22 FED COM P404 304H\SD 15 22 FED COM P404 304H R0 mdv 22Jun22

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
·	15700.00	89.69	179.61	9821.57	5579.30	-5572.65	1423.19	0.00	376679.58		1 32 2 1.65 V	
	15800.00	89.69	179.61	9822.12	5679.30	-5672.65	1423.86	0.00	376579.59		1 32 2 0.66 V	
	15900.00	89.69	179.61	9822.67	5779.30	-5772.65	1424.53	0.00	376479.60		1 32 1 59.67 V	
	16000.00	89.69	179.61	9823.22	5879.29	-5872.64	1425.21	0.00	376379.61	710270.15 N	32 1 58.68 V	N 103 39 17.26
	16100.00	89.69	179.61	9823.77	5979.29	-5972.64	1425.88	0.00	376279.62	710270.82 N	1 32 1 57.69 V	N 103 39 17.26
	16200.00	89.69	179.61	9824.31	6079.29	-6072.64	1426.55	0.00	376179.63	710271.49 N	32 1 56.70 V	N 103 39 17.26
	16300.00	89.69	179.61	9824.86	6179.29	-6172.63	1427.23	0.00	376079.63	710272.17 N	I 32 155.71 V	N 103 39 17.26
	16400.00	89.69	179.61	9825.41	6279.29	-6272.63	1427.90	0.00	375979.64	710272.84 N	I 32 154.72 V	N 103 39 17.26
	16500.00	89.69	179.61	9825.96	6379.29	-6372.62	1428.57	0.00	375879.65	710273.51 N	I 32 153.73 V	N 103 39 17.26
	16600.00	89.69	179.61	9826.51	6479.28	-6472.62	1429.25	0.00	375779.66	710274.19 N	I 32 1 52.74 V	N 103 39 17.26
	16700.00	89.69	179.61	9827.05	6579.28	-6572.62	1429.92	0.00	375679.67	710274.86 N	I 32 151.75 \	N 103 39 17.26
	16800.00	89.69	179.61	9827.60	6679.28	-6672.61	1430.59	0.00	375579.67	710275.53 N	1 32 1 50.76 V	N 103 39 17.26
	16900.00	89.69	179.61	9828.15	6779.28	-6772.61	1431.27	0.00	375479.68	710276.21 N	I 32 149.77 \	N 103 39 17.26
	17000.00	89.69	179.61	9828.70	6879.28	-6872.61	1431.94	0.00	375379.69	710276.88 N	I 32 148.78 \	N 103 39 17.26
	17100.00	89.69	179.61	9829.25	6979.28	-6972.60	1432.61	0.00	375279.70	710277.55 N	I 32 147.79 \	N 103 39 17.26
	17200.00	89.69	179.61	9829.79	7079.27	-7072.60	1433.29	0.00	375179.71	710278.23 N	I 32 146.80 V	N 103 39 17.26
	17300.00	89.69	179.61	9830.34	7179.27	-7172.59	1433.96	0.00	375079.71	710278.90 N	I 32 1 45.82 \	N 103 39 17.26
	17400.00	89.69	179.61	9830.89	7279.27	-7272.59	1434.63	0.00	374979.72	710279.57 N	I 32 144.83 \	N 103 39 17.25
	17500.00	89.69	179.61	9831.44	7379.27	-7372.59	1435.31	0.00	374879.73	710280.25 N	I 32 143.84 \	N 103 39 17.25
	17600.00	89.69	179.61	9831.99	7479.27	-7472.58	1435.98	0.00	374779.74	710280.92 N	I 32 1 42.85 \	N 103 39 17.25
	17700.00	89.69	179.61	9832.53	7579.27	-7572.58	1436.65	0.00	374679.75		I 32 141.86 V	
	17800.00	89.69	179.61	9833.08	7679.26	-7672.58	1437.33	0.00	374579.75	710282.27 N	I 32 140.87 \	N 103 39 17.25
	17900.00	89.69	179.61	9833.63	7779.26	-7772.57	1438.00	0.00	374479.76		I 32 1 39.88 \	
	18000.00	89.69	179.61	9834.18	7879.26	-7872.57	1438.68	0.00	374379.77		I 32 138.89 V	
	18100.00	89.69	179.61	9834.73	7979.26	-7972.56	1439.35	0.00	374279.78	710284.29 N	I 32 1 37.90 V	N 103 39 17.25
	18200.00	89.69	179.61	9835.27	8079.26	-8072.56	1440.02	0.00	374179.79		I 32 136.91 V	
	18300.00	89.69	179.61	9835.82	8179.25	-8172.56	1440.70	0.00	374079.79		l 32 135.92 V	
	18400.00	89.69	179.61	9836.37	8279.25	-8272.55	1441.37	0.00	373979.80		l 32 134.93 \	
	18500.00	89.69	179.61	9836.92	8379.25	-8372.55	1442.04	0.00	373879.81		l 32 133.94 \	
	18600.00	89.69	179.61	9837.47	8479.25	-8472.55	1442.72	0.00	373779.82		l 32 132.95 \	
	18700.00	89.69	179.61	9838.01	8579.25	-8572.54	1443.39	0.00	373679.83		l 32 131.96 V	
	18800.00	89.69	179.61	9838.56	8679.25	-8672.54	1444.06	0.00	373579.83		l 32 130.97 \	
IFP2, Build 2°/100ft	18879.84	89.69	179.61	9839.00	8759.09	-8752.38	1444.60	0.00	373500.00		l 32 130.18 \	
	18900.00	90.09	179.61	9839.04	8779.24	-8772.53	1444.74	2.00	373479.84		l 32 129.98 V	
Hold	18908.91	90.27	179.61	9839.01	8788.15	-8781.44	1444.80	2.00	373470.94		l 32 129.89 \	
	19000.00	90.27	179.61	9838.59	8879.24	-8872.53	1445.42	0.00	373379.85		l 32 128.99 \	
	19100.00	90.27	179.61	9838.12	8979.24	-8972.53	1446.10	0.00	373279.86		1 32 1 28.00 V	
	19200.00	90.27	179.61	9837.65	9079.24	-9072.52	1446.79	0.00	373179.87		1 32 1 27.01 \	
	19300.00	90.27	179.61	9837.19	9179.24	-9172.52	1447.47	0.00	373079.87		32 126.02 \	
	19400.00	90.27	179.61	9836.72	9279.24	-9272.52	1448.15	0.00	372979.88		32 125.03 \	
	19500.00	90.27	179.61	9836.25	9379.24	-9372.51	1448.83	0.00	372879.89		I 32 124.04 \	
	19600.00	90.27	179.61	9835.79	9479.24	-9472.51	1449.52	0.00	372779.90		1 32 1 23.06 \	
	19700.00	90.27	179.61	9835.32	9579.23	-9572.51	1450.20	0.00	372679.90		I 32 122.07 \	
	19800.00	90.27	179.61	9834.85	9679.23	-9672.50	1450.88	0.00	372579.91		1 32 121.08 V	
	19900.00	90.27	179.61	9834.39	9779.23	-9772.50	1451.57	0.00	372479.92		32 120.09 \	
	20000.00	90.27	179.61	9833.92	9879.23	-9872.50	1452.25	0.00	372379.93		1 32 1 19.10 V	
	20100.00	90.27	179.61	9833.46	9979.23	-9972.49	1452.93	0.00	372279.94		I 32 1 18.11 \	
	20200.00	90.27	179.61	9832.99	10079.23	-10072.49	1453.61	0.00	372179.94		1 32 1 17.12 \	
	20300.00	90.27	179.61	9832.52	10179.23	-10172.49	1454.30	0.00	372079.95		1 32 1 16.13 \	
LTP Cross	20386.77	90.27	179.61	9832.12	10265.99	-10259.25	1454.89	0.00	371993.19		32 115.27 V	
OD 15 00 550 0011 D101 0011	20400.00	90.27	179.61	9832.06	10279.23	-10272.48	1454.98	0.00	371979.96		1 32 1 15.14 \	
SD 15 22 FED COM P404 304H BHL	20411.96	90.27	179.61	9832.00	10291.18	-10284.44	1455.06	0.00	371968.00	/10300.00 N	l 32 1 15.02 \	N 103 39 17.24

Survey Type:

Def Plan

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

_	Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size C (in)	asing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
		1	0.000	28.000	1/100.000	30.000	30.000		B001Mb_MWD+HRGM-Depth Only	SD 15 22 FED COM P404 304H / SD 15 22 FED COM P404 304H R0 mdv 22Jun22
		1	28.000	20411.959	1/100.000	30.000	30.000		B001Mb_MWD+HRGM	SD 15 22 FED COM P404 304H /

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: CHEVRON USA INCORPORATED
WELL NAME & NO.: SD 15 22 FED COM P404 304H
SURFACE HOLE FOOTAGE: 377'/N & 1735'/E
BOTTOM HOLE FOOTAGE 25'/S & 330'/E
LOCATION: Section 15, T.26 S., R.32 E., NMP
COUNTY: Lea County, New Mexico

COA

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

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated AT SPUD. As a result, the Hydrogen Sulfide area must meet 43 CFR part 3170 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

Primary Casing Design:

1. The 13-3/8 inch surface casing shall be set at approximately 855 feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. The surface hole shall be 16 inch in diameter.

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

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

- 2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.
 Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
 Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.
 - ❖ 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 7 inch intermediate casing is:
 - Cement should tie-back at least 200 feet into previous casing string.
 Operator shall provide method of verification.
 Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
 Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

- 4. The minimum required fill of cement behind the $5 \times 4-1/2$ inch production liner is:
 - Cement should tie-back **100 feet** into the previous casing. Operator shall provide method of verification.

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

C. PRESSURE CONTROL

- 1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the 13-3/8 inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 5000 (5M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.

D. SPECIAL REQUIREMENT (S)

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

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. (Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP)
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle
- Any well control event while drilling require notification to the BLM Petroleum Engineer (575-706-2779) prior to the commencement of any BOPE Break Testing operations.

- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-689-5981 Lea County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per 43 CFR 3170.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

GENERAL REQUIREMENTS

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

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)
 - Eddy County
 EMAIL or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
 BLM_NM_CFO_DrillingNotifications@BLM.GOV (575) 361-2822
 - ✓ Lea CountyCall the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981
- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.

- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.
- В. PRESSURE CONTROL
- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in 43 CFR part 3170 Subpart 3172 and API STD 53 Sec. 5.3.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP

- d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
- e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
 - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
 - d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
 - e. The results of the test shall be reported to the appropriate BLM office.
 - f. All tests are required to be recorded on a calibrated test chart. A copy of the

BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per 43 CFR part 3170 Subpart 3172.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

JS 12/5/2023



Training

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

Awareness Level

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

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

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

Advanced Level H₂S Training

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

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

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



H₂S Training Certification

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

Briefing Area

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

H₂S Equipment

Respiratory Protection

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

Visual Warning System

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

H₂S Detection and Monitoring System

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



Well Control Equipment

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

Mud Program

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

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

Public Safety - Emergency Assistance

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

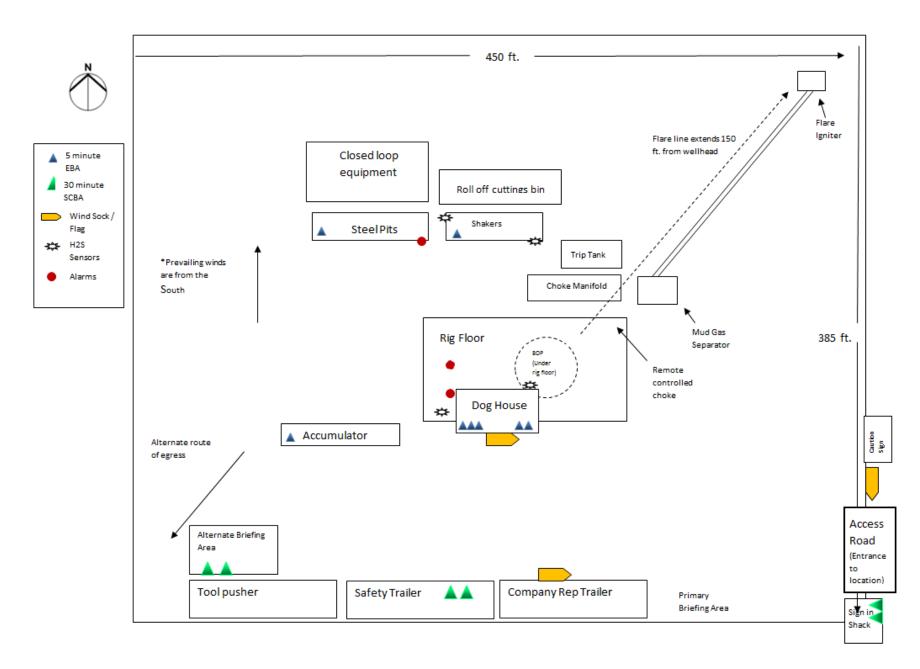


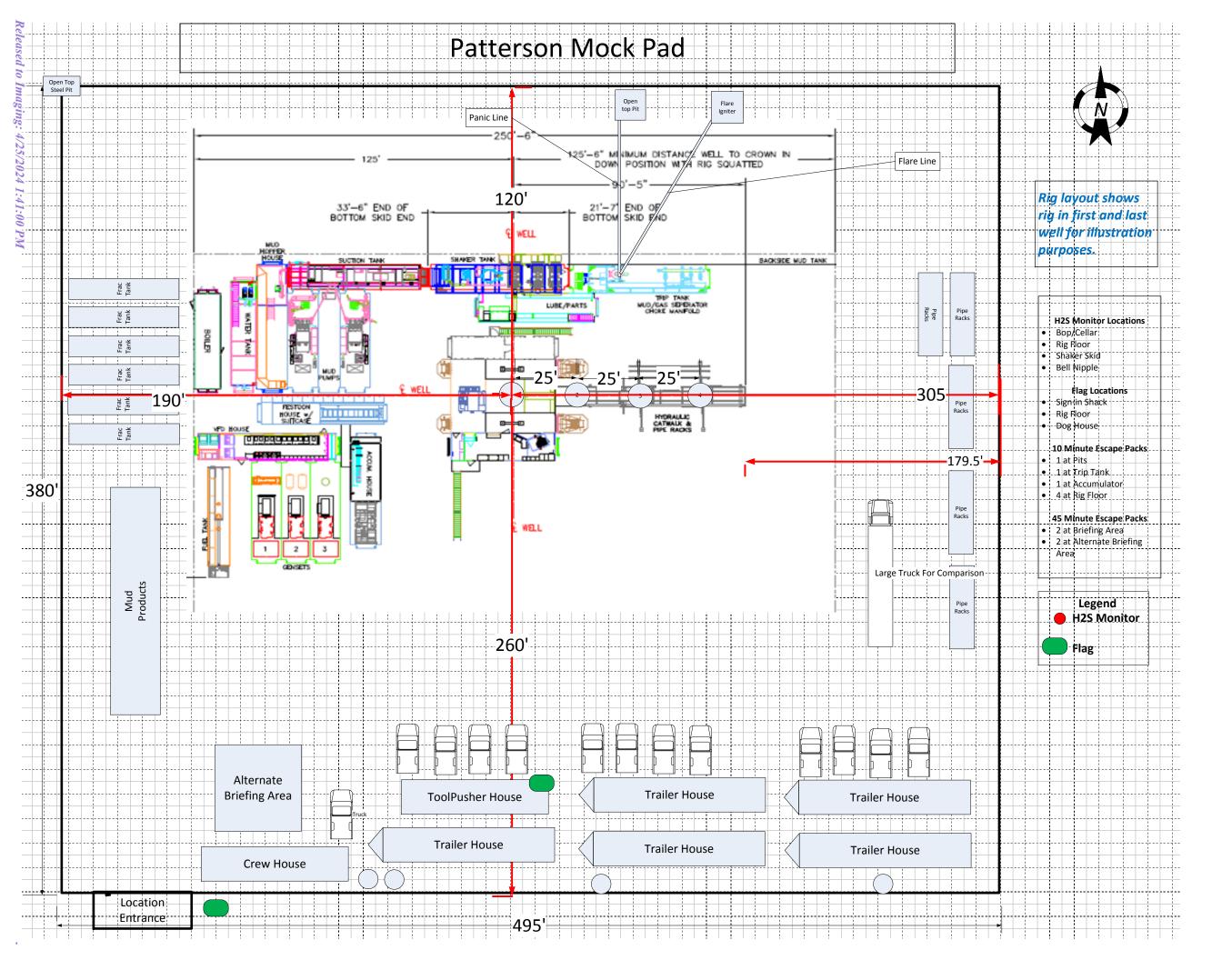
Chevron MCBU D&C Emergency Notifications

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

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







Inten	t	As Dril	led										
API#													
Ope	rator Nai	me:				Propert	y Nam	ne:					Well Number
/ick (Off Doint	(KOD)											
UL	Off Point Section	Township	Range	Lot	Feet	Fro	m N/S	Feet		From	E/W	County	
Latitu	nde				Longitu	ıde						NAD	
irst ⁻	Гаke Poir	nt (FTP)											
UL	Section	Township	Range	Lot	Feet	Feet From N/S Feet From E/W County							
Latitu	ıde	l		1	Longitu	ıde		L				NAD	
UL Latitu	Section	t (LTP) Township	Range	Lot	Feet Longitu	From N/	'S Fe	eet	From E/		Count	у	
Lutite	Juc				Longito	, uc					147.15		
s this	s well the	defining v	vell for th	ie Hori	zontal Sp	pacing Ur	nit?						
s this	s well an	infill well?											
					_								
	ll is yes p ng Unit.	lease provi	ide API if	availal	ble, Opei	rator Nan	ne and	d well n	umber f	or D	efinir	ng well fo	or Horizontal
API#													
Ope	rator Nai	me:	1			Propert	y Nan	ne:					Well Number

KZ 06/29/2018



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

Drilling Plan Data Report

APD ID: 10400088297

Operator Name: CHEVRON USA INCORPORATED

Well Name: SD 15 22 FED COM P404

Well Type: OIL WELL

Submission Date: 09/26/2022

Well Number: 304H

Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
13244910	RUSTLER	3163	680	830	DOLOMITE, SILTSTONE	NONE	N
13244911	SALADO	2107	1056	1056	HALITE	NONE	N
13244912	CASTILE	425	2738	2738	ANHYDRITE	NONE	N
13244913	LAMAR	-1377	4540	4540	LIMESTONE	NONE	N
13244918	BELL CANYON	-1402	4565	4565	SANDSTONE	NONE	N
13244919	CHERRY CANYON	-2432	5595	5616	SANDSTONE	NONE	N
13244920	BRUSHY CANYON	-3930	7093	7266	SANDSTONE	NONE	N
13244915	BONE SPRING LIME	-5595	8758	8931	LIMESTONE	NATURAL GAS, OIL	N
13244921	AVALON SAND	-5596	8759	9285	LIMESTONE, SANDSTONE, SHALE	NATURAL GAS, OIL	N
13244923	BONE SPRING 1ST	-6637	9800	9973	LIMESTONE, SANDSTONE, SHALE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M Rating Depth: 9832

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, production, and production liner will take place. A full BOP test will be performed per hole section, unless approval from BLM is received otherwise (see variance request below). Flex choke hose will be used for all wells on the pad (see attached specs and variance). BOP test will be conducted by a third party.

Requesting Variance? NO

Variance request:

Testing Procedure: The stack will be tested as specified in the attached testing requirements. Batch drilling of the surface, production, and production liner will take place. A full BOP test will be performed per hole section, unless approval from BLM is received otherwise (see variance request). Flex choke hose will be used for all wells on the pad (see attached specs and variance). BOP test pressures and other documented tests

Well Name: SD 15 22 FED COM P404 Well Number: 304H

may be recorded and documented via utilization of the IPT 'Suretec' Digital BOP Test Method in lieu of the standard test chart. In the event the IPT system is unavailable, the standard test chart will be used.

Choke Diagram Attachment:

BLM_5M_Choke_Manifold_Diagram_20210720091028.pdf

BLM_Choke_Hose_Test_Specs_and_Pressure_Test_Continental_20231017131113.pdf

BOP Diagram Attachment:

NM_Slim_Hole_Wellhead_6650_psi_UH_S_20210721102517.pdf

BLM_5M_Annular_10M_Rams_Stackup_and_Test_Plan_20211215112307.pdf

Sundry_Break_Testing_and_WOC_500_psi_SD_P404_20220921094601.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	16	13.625	NEW	API	N	0	855	0	855	3194	2339	855	J-55	54.5	ST&C	4.33	2.02	BUOY	18.3 1	BUOY	18.3 1
2	INTERMED IATE	12.2 5	9.625	NEW	API	N	0	4515	0	4515	3132	-1321	4515	L-80	_	OTHER - BTC	2.28	2.5	BUOY	5.07	BUOY	5.07
3	PRODUCTI ON	8.75	7.0	NEW	API	N	0	9461	0	9288	3202	-6094	9461	OTH ER		OTHER - BLUE	2.97	4.15	BUOY	3.45	BUOY	3.45
4	PRODUCTI ON	6.12 5	5.0	NEW	API	N	9161	9911	8911	9688	-5717	-6494	750	P- 110		OTHER - W- 513	2.34	3.89	BUOY	2.1	BUOY	2.1
5	PRODUCTI ON	6.12 5	4.5	NEW	API	N	9911	20411	9688	9832	-6494	-6638	10500	P- 110	1	OTHER - W- 521	2.34	3.89	BUOY	2.1	BUOY	2.1

Casing Attachments

BLOWOUT PREVENTER SCHEMATIC

Operation: **Intermediate & Production Drilling Operations**

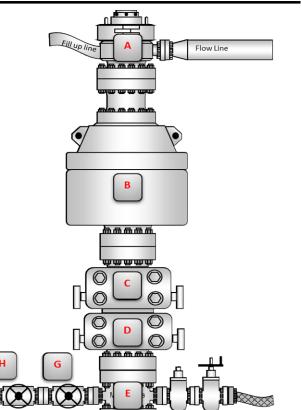
BOP Stack Pressure Part Size Description Rating 13-5/8" N/A Rotating Head/Bell nipple 13-5/8" 5,000 Annular В 13-5/8" C 10,000 Blind Ram 13-5/8" 10,000 D Pipe Ram Ē 13-5/8" 10,000 **Mud Cross** F 13-5/8" 10,000 Pipe Ram

Minimum System operation pressure

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

Vill Lina





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

	<u>Wellhead</u>										
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

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

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

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

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

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

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

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

CONDITIONS

Action 333360

CONDITIONS

Operator:	OGRID:
CHEVRON U S A INC	4323
6301 Deauville Blvd	Action Number:
Midland, TX 79706	333360
	Action Type:
	[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104	4/25/2024
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	4/25/2024
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	4/25/2024
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing	4/25/2024
pkautz	If cement does not circulate on any string, a CBL is required for that string of casing	4/25/2024