Form 3160-3 (June 2015)				FORM APPROVED OMB No. 1004-0137 Expires: January 31, 2018				
UNITED STATES DEPARTMENT OF THE IN BUREAU OF LAND MANAG		Γ		5. Lease Serial No.				
APPLICATION FOR PERMIT TO DR				6. If Indian, Allotee	or Tribe	Name		
1a. Type of work: DRILL REE	ENTER			7. If Unit or CA Agreement, Name and No.				
1b. Type of Well: Oil Well Gas Well Other  1c. Type of Completion: Hydraulic Fracturing Sing	er de Zone	Multiple Zone		8. Lease Name and	Well No.			
Te. Type of Completion. Tryunaume Fracturing	ne Zone	Withtiple Zone			88]			
2. Name of Operator [4323]				9. API Well No.	30-02	5-49722		
	b. Phone N	lo. (include area cod	de)	10. Field and Pool, o	or Exploi	ratory [97964/96715]		
4. Location of Well (Report location clearly and in accordance with	h any State	requirements.*)		11. Sec., T. R. M. or	Blk. and	d 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	1	13. State		
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig, unit line, if any)	6. No of ac	eres in lease	17. Spacin	ring Unit dedicated to this well				
	9. Proposed	d Depth	20. BLM/	BIA Bond No. in file				
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approxi	mate date work will	start*	23. Estimated durati	on			
	24. Attac	hments						
The following, completed in accordance with the requirements of C (as applicable)	Inshore Oil	and Gas Order No.	1, and the H	Iydraulic Fracturing ru	ıle per 4	3 CFR 3162.3-3		
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office).</li> </ol>	Lands, the	Item 20 above). 5. Operator certifi	cation.	s unless covered by an		•		
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 happlicant to conduct operations thereon.  Conditions of approval, if any, are attached.	nolds legal o	or equitable title to t	hose rights	in the subject lease wh	hich wou	ald entitle the		
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, mal of the United States any false, fictitious or fraudulent statements or					ny depar	rtment or agency		
NGMP Rec 01/18/2022				ν	~~			
		TH CONDI'	10NS	01/18	1/2022	2		
SL	BD) Ar	III VV						
(Continued on page 2)				*(Ins	structic	ons on page 2)		

Released to Imaging: 1/18/2022 2:38:09 PM Approval Date: 11/12/2021

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

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

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

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

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

☐ AMENDED REPORT

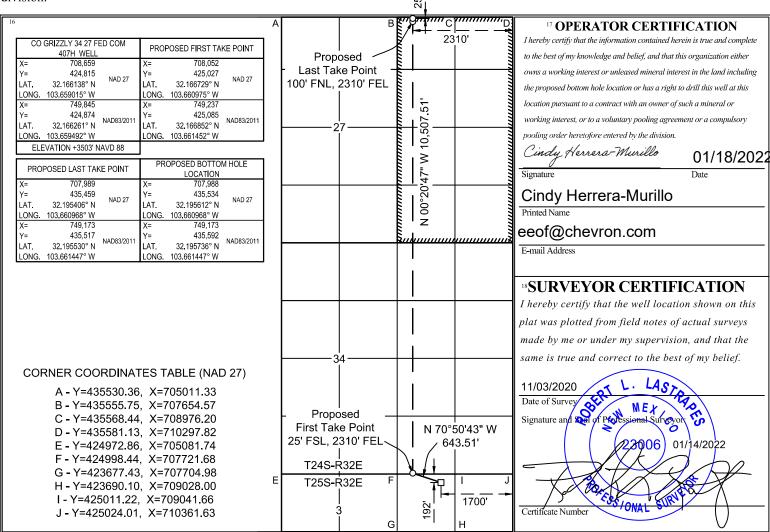
#### WELL LOCATION AND ACREAGE DEDICATION PLAT

Santa Fe, NM 87505

30-025-49721		<sup>2</sup> Pool Code				
30-023-49/21		97964	WC-025 G-07 S243225C;LOWER BC	NE SPRING		
<sup>4</sup> Property Code		<sup>5</sup> Pr	6 Well Number			
332088		CO GRIZZI	407H			
<sup>7</sup> OGRID No.		8 Or	perator Name	<sup>9</sup> Elevation		
4323		CHEVR	3503'			

	<sup>10</sup> Surface Location												
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County				
В	3	25 SOUTH	32 EAST, N.M.P.M.	EAST, N.M.P.M.		NORTH	1700'	EAST	LEA				
	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				
В	27	24 SOUTH	32 EAST, N.M.P.M.		25'	NORTH	2310'	EAST	LEA				
<sup>12</sup> Dedicated A	<sup>12</sup> Dedicated Acres <sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.									
320		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.



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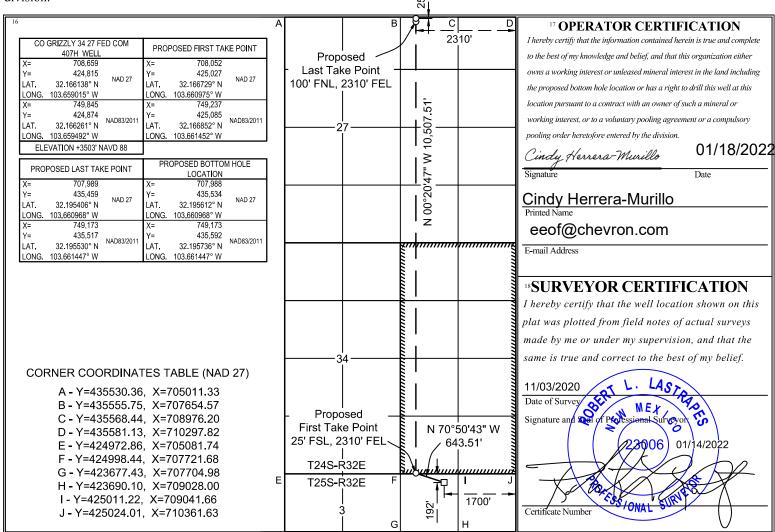
#### WELL LOCATION AND ACREAGE DEDICATION PLAT

Santa Fe, NM 87505

<sup>1</sup> API Number		<sup>2</sup> Pool Code				
30-025-49721		96715	SPRING			
<sup>4</sup> Property Code		<sup>5</sup> Pr	operty Name	6 Well Number		
332088		CO GRIZZI	407H			
<sup>7</sup> OGRID No.		8 OI	perator Name	<sup>9</sup> Elevation		
4323		CHEVR	3503'			

	<sup>10</sup> Surface Location												
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County				
В	3	25 SOUTH	32 EAST, N.M.P.M.		192'	NORTH	1700'	EAST	LEA				
	<sup>11</sup> 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				
В	27	24 SOUTH	32 EAST, N.M.P.M.		25'	NORTH	2310'	EAST	LEA				
<sup>12</sup> Dedicated Acres   <sup>13</sup> Joint or Infill		14 Consolidation Code	15 Order No.										
Dedicated A	cres Jon	nt or iniiii	Consolidation Code	Order No.									

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.



#### 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: Che	vron USA_		OGRID: _	4323		Date:1_/_12/_22		
II. Type: ⊠ Original □ A	Amendment	due to □ 19.15.2	7.9.D(6)(a) NMA	C □ 19.15.27.9.D	(6)(b) NMAC □	Other.		
If Other, please describe: _								
III. Well(s): Provide the for be recompleted from a sing					wells proposed to	o be drilled or proposed to		
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D		
CO Grizzly 3 10 FED 416H	Pending	UL:H, SEC 3, T25S- R32E	192' FNL, 1,675' FEL	2,000	3,570	1,990		
CO Grizzly 3 34 FED 417H	Pending	UL:H, SEC 3, T25S- R32E	192' FNL, 1,650' FEL	2,000	3,570	1,990		
CO Grizzly 3 34 FED 418H	Pending	UL:H, SEC 3, T25S- R32E	192' FNL, 1,600' FEL	2,000	3,570	1,990		
CO Grizzly 34 27 FED COM 407H 30	Pending -025-49721	UL:H, SEC 3, T25S- R32E	192' FNL, 1,700' FEL	2,000	3,570	1,990		
CO Grizzly 34 27 FED COM 408H	Pending	UL:H, SEC 3, T25S- R32E	192' FNL, 1,625' FEL	2,000	3,570	1,990		
CO Grizzly 34 27 FED COM 409H	Pending	UL:H, SEC 3, T25S- R32E	192' FNL, 1,575' FEL	2,000	3,570	1,990		
IV. Central Delivery Poin	nt Name:	<u>Cotton Di</u>	raw Sec #3 CTB		[See 19.15.27.9	(D)(1) NMAC]		
V. Anticipated Schedule: proposed to be recompleted					vell or set of well	ls proposed to be drilled or		

Page 1 of 5

Well Name	API	Spud Date	TD Reached	Completion	Initial Flow	First Production
			Date	Commencement Date	Back Date	Date
	Pending	August 28, 2022	N/A	N/A	N/A	N/A
CO Grizzly 3 10						
FED 416H						
	Pending	September 15, 2022	N/A	N/A	N/A	N/A
CO Grizzly 3 10 FED 417H						
	Pending	October 3, 2022	N/A	N/A	N/A	N/A
CO Grizzly 3 34						
FED 418H						
	Pending	November 8, 2022	N/A	N/A	N/A	N/A
CO Grizzly 34 27 FED COM 407H	30-025-49721					
	Pending	November 26, 2022	N/A	N/A	N/A	N/A
CO Grizzly 34 27 FED COM 408H						
	Pending	December 14, 2022	N/A	N/A	N/A	N/A
CO Grizzly 34 27 FED COM 409H						

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	Available Maximum Daily Capacity
			Start Date	of System Segment Tie-in

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

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

Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including: power generation on lease; (a) **(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)
- other alternative beneficial uses approved by the division. (i)

# **Section 4 - Notices**

- 1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:
- Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become (a) 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
- 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 Herrera-Murillo
Printed Name: CNDY HERRERA-MURILLO
Title: SR REGULATORY AFFAIRS COORDINATOR
E-mail Address: eeof@chevron.com
Date: 1/12/2022
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 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.

Well Name: CO GRIZZLY 34 27 FED COM Well Number: 407H

Test) shall be performed: when initially installed and whenever any seal subject to test pressure is broken." We propose to break test if able to finish the next hole section within 21 days of the previous full BOP test. No BOP components nor any break will ever surpass 21 days between testing. A break test will consist of a 250 psi low / 5,000 psi high for 10 min each test against the connection that was broken when skidding the rig. Upon the first nipple up of the pad a full BOP test will be performed. A full BOP test will be completed prior to drilling the production liner hole sections, unless the BOP connection was not broken prior to drilling that hole section (example: drilling straight from production into production liner hole section). A break test will only be performed on operations where BLM documentation states a 5M or less BOP can be utilized.

Testing Procedure: Stack will be tested as specified in the attached testing requirements. Test BOP from 250 psi to 6,650 psi in Ram and Annular (annular and BOP will be 10M); 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. A full BOP test will be performed 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.

#### **Choke Diagram Attachment:**

BLM\_Choke\_Hose\_Test\_Specs\_Pressure\_Test\_20200616142852.pdf

BLM\_5M\_Choke\_Manifold\_Diagram\_20200616143140.pdf

Grizzly\_Break\_Test\_Variance\_20210223113359.pdf

#### **BOP Diagram Attachment:**

BLM\_5M\_Annular\_10M\_Rams\_Test\_Plan\_20200616142927.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	13.375	NEW	API	N	0	900	0	900	3503	2603	900	J-55	54.5	ST&C	2.44	1.7	DRY	4.72	DRY	4.72
	INTERMED IATE	12.2 5	9.625	NEW	API	N	0	4600	0	4600	3503	-1097	4600	L-80	-	OTHER - BTC	1.78	1.34	DRY	2.7	DRY	2.7
	PRODUCTI ON	8.75	7.0	NEW	API	N	0	8750	0	8750	3157	-5247	l	OTH ER		OTHER - BLUE	5.82	1.15	DRY	2.77	DRY	2.77
4		6.12 5	4.5	NEW	API	Υ	8450	21377	8450	10525	-4947	-7022	12927	P- 110		OTHER - W- 521	1.32	1.11	DRY	1.38	DRY	1.38

#### Casing Attachments

**Operator Name: CHEVRON USA INCORPORATED** Well Name: CO GRIZZLY 34 27 FED COM Well Number: 407H **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\_STC\_20210223114424.pdf Casing ID: 2 String Type: INTERMEDIATE **Inspection Document: Spec Document: Tapered String Spec:** Casing Design Assumptions and Worksheet(s): 9.625\_40ppf\_L80\_ICY\_BTC\_20210223114708.pdf Casing ID: 3 String Type: PRODUCTION **Inspection Document: Spec Document: Tapered String Spec:** Casing Design Assumptions and Worksheet(s):

Page 3 of 7

7\_29ppf\_P110\_TSH\_Blue\_20200616144815.pdf

Well Name: CO GRIZZLY 34 27 FED COM Well Number: 407H

**Casing Attachments** 

Casing ID: 4

String Type:LINER

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

4.5\_11.6ppf\_P110\_TSH\_W521\_20200616145927.pdf

Casing Design Assumptions and Worksheet(s):

# **Section 4 - Cement**

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	900	421	1.34	14.5	564	100		Extender Antifoam Retarder

INTERMEDIATE	Lead	0	3600	902	2.5	11.5	2255	100	CLASS C	Extender, Antifoam, Retarder
INTERMEDIATE	Tail	360	0 4600	336	1.4	14.5	470	50	Class C	Extender, Antifoam, Retarder
PRODUCTION	Lead	410	0 7750	329	2.5	11.5	823	50	Class C	Extender, Antifoam, Retarder, Viscosifier
PRODUCTION	Tail	775	0 8750	134	1.4	14.5	188	25	Class C	Extender, Antifoam, Retarder, Viscosifier
LINER	Lead	845	0 2137 7	827	1.84	13.2	1522	25	Class C	Extender, Antifoam, Retarder, Viscosifier

Well Name: CO GRIZZLY 34 27 FED COM Well Number: 407H

## **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 by utilized 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 portatoilet 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.

**Describe the mud monitoring system utilized:** A mud test shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH. Visual mud monitoring equipment shall be in place to detect volume changes indicating loss or gain of circulating fluid volume. When abnormal pressures are anticipated -- a pit volume totalizer (PVT), stroke counter, and flow sensor will be used to detect volume changes indicating loss or gain of circulating fluid volume 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)	ЬН	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	900	SPUD MUD	8.3	10.3							VIS: 26-36 FILTRATE: 15-25
900	4600	OTHER : BRINE	8.3	10.6							VIS: 26-36 FILTRATE: 15-25
4600	8750	OTHER : WBM/Brine	8.7	10.6							Viscosity: 26-36 Filtrate: 15-25
8750	2137 7	OIL-BASED MUD	8.7	10.5							Viscosity: 50-70 Filtrate: 5-10

Well Name: CO GRIZZLY 34 27 FED COM Well Number: 407H

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

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

Type Logs Interval Timing

Mudlogs - 2 man mudlog - Surf csg shoe through prod hole TD - Drillout of Int Csg

LWD - MWD Gamma - Int. and Prod. Hole - While Drilling

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

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

Coring operation description for the well:

Conventional whole core samples are not planned. A Directional Survey will be run.

#### **Section 7 - Pressure**

Anticipated Bottom Hole Pressure: 5254 Anticipated Surface Pressure: 2938

Anticipated Bottom Hole Temperature(F): 180

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

Describe:

Contingency Plans geoharzards description:

**Contingency Plans geohazards attachment:** 

Hydrogen Sulfide drilling operations plan required? NO

Hydrogen sulfide drilling operations plan:

### **Section 8 - Other Information**

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

CO\_Grizzly\_Pad\_Rig\_layout\_20200629123353.pdf

H2S Summary 20200626110454.pdf

CO\_Grizzly\_34\_27\_Fed\_Com\_407H\_Directional\_20210223120736.pdf

CO\_Grizzly\_3\_27\_FED\_Gas\_Capture\_Plan\_20210223121030.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.
- Authorization to follow Onshore Order 2 Section B Casing and Cementing Requirements to wait to 500 psi compressive strength (CS) of the tail cement slurry, for primary cement operations in both the Surface and Intermediate casing string(s). WOC time is considered the time between bumping the plug (cement in place), until beginning to drill the shoe track. This will ensure that cement will be at sufficient strength prior to performing a shoe test and drilling ahead through the next hole section.

<sup>\*\*\*</sup>Drilling plan attached contains a contingency casing and cement program.

Well Name: CO GRIZZLY 34 27 FED COM Well Number: 407H

### Other proposed operations facets attachment:

CO\_Grizzly\_34\_27\_Fed\_Com\_407H\_9pt\_Drilling\_Plan\_20210614135937.pdf

#### **Other Variance attachment:**

CUSA\_Spudder\_Rig\_Data\_20190802085518.pdf Grizzly\_WOC\_Variance\_20210223121110.pdf



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

# Drilling Plan Data Report

**APD ID:** 10400068723 **Sub**i

**Operator Name: CHEVRON USA INCORPORATED** 

Well Name: CO GRIZZLY 34 27 FED COM

Well Type: OIL WELL

Submission Date: 02/23/2021

Highlighted data reflects the most recent changes

Show Final Text

Well Number: 407H
Well Work Type: Drill

# **Section 1 - Geologic Formations**

Formation	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing
1545128	RUSTLER	3503	890	890	DOLOMITE	NONE	N
1545129	CASTILE	-383	3886	3936	ANHYDRITE	NONE	N
1545130	LAMAR	-1274	4777	4813	LIMESTONE	NONE	N
1545131	BELL CANYON	-1317	4820	4856	SANDSTONE	NONE	N
1545132	CHERRY CANYON	-2205	5708	5744	SANDSTONE	NONE	N
1545133	BRUSHY CANYON	-3588	7091	7127	SANDSTONE	NONE	N
1545134	BONE SPRING	-5217	8720	8756	LIMESTONE	NONE	N
1545135	UPPER AVALON SHALE	-5312	8815	8851	LIMESTONE, SANDSTONE, SHALE	NONE	N
1545136	BONE SPRING 1ST	-6234	9737	9789	SANDSTONE	NONE	N
1545137	BONE SPRING 2ND	-7022	10525	21377	SANDSTONE	NONE	Y

#### **Section 2 - Blowout Prevention**

Pressure Rating (PSI): 5M Rating Depth: 10525

**Equipment:** Chevron will have a minimum of a 5,000 psi rig stack 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). Flex choke hose will be used for all wells on the pad. BOP test will be conducted by a 3rd party.

Requesting Variance? YES

Variance request: Chevron requests the following variances: - Variance to use a CoFlex hose with a metal protective covering that will be utilized between the BOP and Choke manifold. - Variance to use an FMC Technologies UH-S Multibowl wellhead, which will be run through the rig floor on surface casing. BOPE will be nippled up and tested after cementing surface casing. Subsequent tests will be performed as needed, not to exceed 30 days. The field report from FMC Technologies and BOP test information will be provided in a subsequent report at the end of the well. Please see the attached wellhead schematic. An installation manual has been placed on file with the BLM office and remains unchanged from previous submittal. All tests performed by 3rd party. - Variance from the Onshore Order 2 where it states: "(A full BOP

#### Schlumberger

#### CO Grizzly 34 27 Fed Com 407H R0 mdv 01Oct20 Proposal Geodetic Report



#### (Def Plan)

Report Date: January 05, 2021 - 11:26 AM Client: Chevron

Field: NM Lea County (NAD 27)

Structure / Slot: Chevron Cotton Draw Grizzly Pad 1 / 407H CO Grizzly 34 27 Fed Com 407H Well: Borehole: CO Grizzly 34 27 Fed Com 407H

UWI / API#: Unknown / Unknown Survey Name: CO Grizzly 34 27 Fed Com 407H R0 mdv 01Oct20

Survey Date: Tort / AHD / DDI / ERD Ratio:

January 04, 2021 118.829 ° / 11851.519 ft / 6.456 / 1.126 NAD27 New Mexico State Plane, Eastern Zone, US Feet Coordinate Reference System:

Location Lat / Long: N 32° 9' 58.09078", W 103° 39' 32.45887" Location Grid N/E Y/X: N 424815.000 ftUS, E 708659.000 ftUS

0.3590° CRS Grid Convergence Angle: Grid Scale Factor: 0.99995896 Version / Patch: 2.10.824.0

Survey / DLS Computation: Minimum Curvature / Lubinski Vertical Section Azimuth: 359.640 ° (Grid North) 0.000 ft, 0.000 ft **Vertical Section Origin:** RKB = 28ft TVD Reference Datum: TVD Reference Elevation: 3531.000 ft above MSL Seabed / Ground Elevation: 3503.000 ft above MSL Magnetic Declination: 6.491°

Total Gravity Field Strength: 998.4287mgn (9.80665 Based) GARM 47679.615 nT

Gravity Model:
Total Magnetic Field Strength: Magnetic Dip Angle: 59.759 ° Declination Date: Magnetic Declination Model: North Reference: Grid Convergence Used: Total Corr Mag North->Grid

January 04, 2021 HDGM 2020 Grid North 0.3590° 6.1317 Well Head

Local Coord Referenced To:

Selfecte    Bolle   Double   Double   Double   Double   Double   No.   Self-like   No.   No.   Self-li	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°'")
200100	Surface					0.00		0.00				N 32 9 58.09	W 103 39 32.46
2000   0.00		100.00	0.00	241.73	100.00	0.00	0.00	0.00	0.00	424815.00	708659.00	N 32 9 58.09	W 103 39 32.46
150,00													
2000   0.00   24173   00.00   0.00													
Rapin (2000) 0.00   24.173   886.00   0.00   0.00   0.00   0.00   24.4811.00   770869.00   10.20   24.0811.00   170869.00   10.20   24.0811.00   170869.00   10.20   24.0811.00   10.0													
Restant													
9 69° Camel Hald 15° 1000 Hald	Rustler												
Bull 15/Y1001													
1100.00   1.50   241.73   1099.99   0.61   0.62   0.15   1.55   4.284   3.8   708657.8   N. 29   95.00   W 103 93.25   1.55   1.50													
1200.00   3.00   241.73   1999.91   2-465   2-46   4-61   1.50   42481-25   70585-36   3.2   9.5807   W13 39 32.5													W 103 39 32.47
14000   0.00   24.73   1992   3.79   4.91   1.84   1.90   24480.00   7.0040.017   1.00   39.25   1.00   1.00   39.25   1.00   1.00   39.25		1200.00	3.00	241.73	1199.91	-2.45	-2.48	-4.61	1.50	424812.52	708654.39	N 32 9 58.07	W 103 39 32.51
Held (1500.00 7.50 241.73 1498.57 1.15.30 1.5.46 22.75 1.50 42.77 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50													
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1700   8.50	Hold												
1900   8.50													
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200													
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2690.00			8.50	241.73	2289.87	-70.39	-71.22	-132.43	0.00		708526.57	N 32 9 57.39	W 103 39 34.00
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300.00 8.50 241.73 3081.00													
3100.00 8.50 241.73 3179.89 -132.66 -132.64 -127.23 -236.59 0.00 424867.77 70842.24 7.8 2, 95.68 W 103.39.52.2   3300.00 8.50 241.73 3179.89 -132.66 -132.64 -262.63 0.00 424673.77 708596.38 N 32, 95.67 W 103.39.52.3   3400.00 8.50 241.73 3377.78 -146.50 -146.24 -262.63 0.00 424673.77 708596.38 N 32, 95.67 W 103.39.52.5   3500.00 8.50 241.73 3377.78 -146.50 -146.24 -262.63 0.00 42466.77 708370.34 N 32, 95.67 W 103.39.52.5   3500.00 8.50 241.73 3377.78 -146.50 -162.24 -286.67 0.00 42466.77 708370.34 N 32, 95.67 W 103.39.52.5   3500.00 8.50 241.73 377.68 -167.24 -286.67 0.00 42468.77 708370.34 N 32, 95.67 W 103.39.52.5   3500.00 8.50 241.73 377.38 -174.18 -176.25 -227.73 0.00 42468.76 708371.28 N 32, 95.67 W 103.39.52.5   3500.00 8.50 241.73 377.38 -174.18 -176.25 -227.73 0.00 42468.76 708371.28 N 32, 95.67 W 103.39.52.5   3500.00 8.50 241.73 3872.69 -1861.10 -176.25 -227.73 0.00 42468.76 708371.28 N 32, 95.67 W 103.39.52.5   3500.00 8.50 241.73 3872.69 -1861.10 -176.25 -227.73 0.00 42468.76 708371.28 N 32, 95.67 W 103.39.52.5   3500.00 8.50 241.73 3872.69 -1861.10 -176.25 -327.73 0.00 42468.76 708371.28 N 32, 95.63 W 103.39.39.24 N 32, 95.63 W 103.39.39.34 N 32, 95.65 W 103.39.39.34 N 32, 95.													
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ABOLO		4600.00	8.50	241.73	4564.59	-229.54	-232.26	-431.89	0.00	424582.75	708227.13	N 32 9 55.82	W 103 39 37.50
Lamar       4813 75       8.50       241.73       4776 00       -244.33       -247.23       -459.72       0.00       424567.78       708199.30       N       32       9 55.67       W 103 39 37.83         Bell Canyon       4857.23       8.50       241.73       4819.00       -247.34       -250.27       -470.95       0.00       424561.74       708198.07       N       32       9 55.67       W 103 39 37.83         5000.00       8.50       241.73       4861.30       -250.20       -260.27       -470.95       0.00       424561.74       70818.07       N       32       9 55.55       W 103 39 37.83         6100.00       8.50       241.73       4960.20       -257.22       -260.27       -496.99       0.00       424567.44       708162.03       N       32       9 55.55       W 103 39 32.78         6500.00       8.50       241.73       5556.90       -277.98       -281.27       -510.01       0.00       424567.47       708149.01       N       32       955.55       W 103 39 38.51         6400.00       8.50       241.73       5555.80       -284.90       -288.28       -536.05       0.00       424519.73       708122.97       N       32       955.20       W 103 39 38.73<													
Bell Canyon 4857.23 8.50 241.73 4819.00 -247.34 -250.27 -465.28 0.00 424564.74 70818.07 N 32 9.55.64 W 103.39 37.85 4000.00 8.50 241.73 4861.30 -250.30 -253.27 -470.95 0.00 424561.74 708185.07 N 32 9.55.61 W 103.39 37.85 5000.00 8.50 241.73 4960.20 -257.22 -260.27 -489.97 0.00 424554.74 708175.05 N 32 9.55.55 W 103.39 38.1 510.00 8.50 241.73 5059.10 -264.14 -267.27 -496.99 0.00 424540.74 708175.05 N 32 9.55.55 W 103.39 38.1 5300.00 8.50 241.73 5159.00 -271.06 -274.27 -510.01 0.00 424540.74 708149.01 N 32 9.55.34 W 103.39 38.1 5300.00 8.50 241.73 5256.90 -277.98 -281.27 -523.03 0.00 424533.74 708135.99 N 32 9.55.34 W 103.39 38.1 5500.00 8.50 241.73 5355.80 -284.90 -288.28 -536.05 0.00 424533.74 708135.99 N 32 9.55.24 W 103.39 38.5 5500.00 8.50 241.73 5355.80 -284.90 -288.28 -536.05 0.00 424532.73 708109.95 N 32 9.55.20 W 103.39 38.7 5500.00 8.50 241.73 5355.80 -298.74 -302.28 -562.09 0.00 424517.3 708109.95 N 32 9.55.20 W 103.39 38.7 5500.00 8.50 241.73 5553.61 -298.74 -302.28 -562.09 0.00 424517.3 708109.95 N 32 9.55.00 W 103.39 38.7 570.00 8.50 241.73 5652.51 -305.66 -309.28 -575.11 0.00 42450.57 70806.93 N 32 9.55.07 W 103.39 38.7 570.00 8.50 241.73 5652.51 -305.66 -309.28 -575.11 0.00 42450.57 70806.93 N 32 9.55.07 W 103.39 39.20 570.00 8.50 241.73 5652.51 -305.66 309.28 -575.11 0.00 42450.73 708096.93 N 32 9.55.07 W 103.39 39.20 570.00 8.50 241.73 5850.31 -319.46 -323.24 -601.07 0.00 42450.73 70807.8 N 32 9.55.03 W 103.39 39.20 570.00 8.50 241.73 5850.31 -319.46 -323.24 -601.07 0.00 42450.73 70807.8 N 32 9.54.93 W 103.39 39.30 570.00 8.50 241.73 5850.31 -319.50 -323.29 -601.15 0.75 424481.73 708057.8 N 32 9.54.93 W 103.39 39.40 570.00 8.50 241.73 5849.31 -326.11 -329.98 -613.59 0.75 424485.04 70807.8 N 32 9.54.80 W 103.39 39.40 570.00 6.25 241.73 6848.9 -330.50 -684.89 0.75 424485.04 70807.8 N 32 9.54.80 W 103.39 39.40 570.00 6.25 241.73 6848.59 -350.05 -350.05 -684.89 0.75 424485.04 70807.8 N 32 9.54.80 W 103.39 39.40 570.00 6.50 241.73 6846.59 -350.05 -350.05 -684.89 0.75 424485.04 708007.8 N 32 9.54.60 W													
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Cherry Canyon         5700.00         8.50         241.73         5652.51         .305.66         .309.28         .575.11         0.00         424505.73         708083.91         N         32         95.07         W 103.39 39.12           Cherry Canyon         5755.10         8.50         241.73         5707.00         -309.47         -313.14         -582.28         0.00         424490.73         708070.89         N         32         955.00         W 103.39 39.2           Drop. 75°/100ft         5899.40         8.50         241.73         5849.72         -319.46         -323.24         -601.07         0.00         424491.77         708070.89         N         32         954.93         W 103.39 39.4           5900.00         8.50         241.73         5849.72         -319.46         -323.24         -601.07         0.00         424491.77         708057.85         N         32         954.93         W 103.39 39.4           6000.00         7.75         241.73         5849.31         -326.11         -329.98         -613.59         0.75         424495.04         708045.43         N         32         954.93         W 103.39 39.8           6000.00         7.75         241.73         6048.48         -332.12         -335.05													
Cherry Canyon 5755.10 8.50 241.73 5707.00 -309.47 -313.14 -582.28 0.00 424501.87 708076.78 V 32 9.55.03 W 103.39 39.24 5800.00 8.50 241.73 5751.41 -312.58 -316.28 -588.13 0.00 424498.73 708070.89 N 32 9.55.00 W 103.39 39.24 5900.00 8.50 241.73 5849.72 -319.46 -323.24 601.07 0.00 424491.77 708057.95 N 32 9.54.93 W 103.39 39.44 5900.00 8.50 241.73 5849.71 -326.51 -329.80 610.50 0.75 424491.73 708057.95 N 32 9.54.93 W 103.39 39.44 6000.00 7.00 241.73 5949.31 -326.51 -329.98 613.59 0.75 424478.96 70804.31 N 32 9.54.80 W 103.39 39.44 6100.00 7.00 241.73 6048.48 -332.12 -336.05 624.89 0.75 424478.96 708034.13 N 32 9.54.80 W 103.39 39.74 6200.00 6.25 241.73 6048.48 -332.52 -341.52 -635.05 0.75 424478.96 708034.13 N 32 9.54.80 W 103.39 39.74 6400.00 4.75 241.73 6247.29 -342.31 -346.36 -644.06 0.75 424468.65 70801.11 N 32 9.54.60 W 103.39 39.84 640.00 4.75 241.73 6346.89 -346.49 -350.59 651.92 0.75 424464.3 708007.11 N 32 9.54.60 W 103.39 39.04 10.00 6500.00 4.00 241.73 6346.89 -350.05 354.20 -658.64 0.75 424468.2 708007.11 N 32 9.54.60 W 103.39 40.11 6600.00 3.25 241.73 6646.59 -350.05 354.20 -658.64 0.75 424468.2 708007.11 N 32 9.54.60 W 103.39 40.11 6600.00 3.25 241.73 6646.29 -355.36 -359.56 -668.61 0.75 424458.2 707994.2 N 32 9.54.60 W 103.39 40.11 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424458.5 707994.2 N 32 9.54.60 W 103.39 40.11 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424458.5 707994.2 N 32 9.54.60 W 103.39 40.11 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424458.5 707994.2 N 32 9.54.60 W 103.39 40.11 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424458.5 707994.2 N 32 9.54.60 W 103.39 40.11 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424458.5 707994.2 N 32 9.54.60 W 103.39 40.11 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424458.5 707994.2 N 32 9.54.60 W 103.39 40.11 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424458.5 707994.2 N 32 9.54.60 W 103.39 40.11 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424													
Drop. 75°/100ft   5890.00   8.50   241.73   5751.41   -312.58   -316.28   -588.13   0.00   424498.73   708070.89   N   32   955.00   W   103 93 93.25   105.00   103 93 93.25   105.00   103 93 93.25   105.00	Cherry Canyon					-309.47	-313.14			424501.87			
5900.00         8.50         241.73         5850.31         -319.50         -323.29         -601.15         0.75         424491.73         708057.88         N         32         954.93         W 103.39 39.44           6000.00         7.00         241.73         5949.31         -326.11         -329.98         -613.59         0.75         424495.04         708045.43         N         32         954.80         W 103.39 39.81           6100.00         7.00         241.73         6048.48         -332.12         -336.05         624.89         0.75         424478.96         708034.13         N         32         954.80         W 103.39 39.81           6200.00         6.25         241.73         6147.81         -337.52         -341.52         -635.05         0.75         424478.50         708023.88         N         32         954.75         W 103.39 39.81           6300.00         5.50         241.73         6147.81         -337.52         -341.52         -635.05         0.75         424478.50         708023.88         N         32         954.76         W 103.39 39.81           6400.00         4.75         241.73         6346.89         -346.49         -350.59         -651.92         0.75         424468.43 <th< td=""><td></td><td>5800.00</td><td></td><td>241.73</td><td>5751.41</td><td>-312.58</td><td>-316.28</td><td>-588.13</td><td></td><td>424498.73</td><td></td><td></td><td></td></th<>		5800.00		241.73	5751.41	-312.58	-316.28	-588.13		424498.73			
6000.00 7.75 241.73 5949.31 -326.11 -329.98 -613.59 0.75 424455.04 708045.43 N 32 9 54.86 W 103 39 39.6 6100.00 7.00 241.73 6048.48 -332.12 -336.05 -624.89 0.75 424478.96 708034.13 N 32 9 54.80 W 103 39 39.7 6200.00 6.25 241.73 6147.81 -337.52 -341.52 -635.05 0.75 424473.50 708023.98 N 32 9 54.75 W 103 39 39.8 6300.00 5.50 241.73 6247.29 -342.31 -346.36 -644.06 0.75 424468.65 708014.97 N 32 9 54.70 W 103 39 39.8 6400.00 4.75 241.73 6346.89 -346.39 -350.59 -651.92 0.75 424468.65 708014.97 N 32 9 54.76 W 103 39 39.0 6500.00 4.00 241.73 6346.59 -350.05 -354.20 -658.64 0.75 424460.82 708000.39 N 32 9 54.60 W 103 39 40.19 6600.00 3.25 241.73 6546.39 -350.05 -354.20 -658.64 0.75 424467.82 7070904.83 N 32 9 54.60 W 103 39 40.19 6600.00 2.50 241.73 6546.39 -355.36 -359.56 -666.61 0.75 424457.82 7070904.2 N 32 9 54.67 W 103 39 40.19 6700.00 2.50 241.73 6546.39 -355.36 -359.56 -666.61 0.75 424457.82 7070904.2 N 32 9 54.67 W 103 39 40.20 6700.00 2.50 241.73 6546.39 -355.36 -359.56 -666.61 0.75 424457.82 7070904.2 N 32 9 54.67 W 103 39 40.20 6700.00 2.50 241.73 6546.39 -355.36 -359.56 -666.61 0.75 424457.82 7070904.2 N 32 9 54.67 W 103 39 40.20 6700.00 2.50 241.73 6546.39 -355.36 -359.56 -666.61 0.75 424457.82 7070904.2 N 32 9 54.67 W 103 39 40.20 6700.00 2.50 241.73 6546.39 -355.36 -359.56 -666.61 0.75 424457.82 7070904.2 N 32 9 54.67 W 103 39 40.20 6700.00 2.50 241.73 6546.39 -355.36 -359.56 -666.61 0.75 424457.82 7070904.2 N 32 9 54.67 W 103 39 40.20 6700.00 2.50 241.73 6546.39 -355.36 -359.56 -666.61 0.75 424457.82 7070904.2 N 32 9 54.67 W 103 39 40.20 6700.00 2.50 241.73 6546.39 -355.36 -359.56 -666.61 0.75 424457.82 7070904.2 N 32 9 54.67 W 103 39 40.20 6700.00 2.50 241.73 6546.39 -355.36 -359.56 -666.61 0.75 424457.82 7070904.2 N 32 9 54.67 W 103 39 40.20 6700.00 2.50 241.73 6546.39 -355.36 -359.56 -666.61 0.75 424457.82 7070904.2 N 32 9 54.67 W 103 39 40.20 6700.00	Drop .75°/100ft												
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6200.00 6.25 241.73 6147.81 -337.52 -341.52 -635.05 0.75 424473.50 708023.98 N 32 9.54.75 W 103 39 39.8° 6300.00 5.50 241.73 6247.29 -342.31 -346.36 -644.06 0.75 424468.65 708001.17 N 32 9.54.76 W 103 39 39.8° 6400.00 4.75 241.73 6346.89 -346.49 -350.59 -651.92 0.75 424464.43 708007.11 N 32 954.66 W 103 39 40.1° 6500.00 4.00 241.73 6446.59 -350.05 -354.20 -658.64 0.75 424460.82 708000.39 N 32 954.68 W 103 39 40.1° 6600.00 3.25 241.73 6546.59 -350.31 -357.19 -664.20 0.75 424457.82 707994.83 N 32 954.68 W 103 39 40.1° 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424455.45 707990.42 N 32 954.67 W 103 39 40.2° 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424455.45 707990.42 N 32 954.57 W 103 39 40.2° 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424455.45 707990.42 N 32 954.57 W 103 39 40.2° 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424455.45 707990.42 N 32 954.57 W 103 39 40.2° 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424455.45 707990.42 N 32 954.57 W 103 39 40.2° 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424455.45 707990.42 N 32 954.57 W 103 39 40.2° 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424455.45 707990.42 N 32 954.57 W 103 39 40.2° 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424455.45 707990.42 N 32 954.57 W 103 39 40.2° 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424455.45 707990.42 N 32 954.57 W 103 39 40.2° 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424455.45 707990.42 N 32 954.57 W 103 39 40.2° 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424455.45 707990.42 N 32 954.57 W 103 39 40.2° 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424455.45 707990.42 N 32 954.57 W 103 39 40.2° 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424455.45 707990.42 N 32 954.57 W 103 39 40.2° 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424455.45 707990.42 N 32 954.57 W 103 39 40.2° 6700.00 2.50 241.73 6646.27 -355.36 241.73 6445.20 241.73 6445.20 24													
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6400.00 4.75 241.73 6346.89 -346.49 -350.59 -651.92 0.75 424464.43 708007.11 N 32 954.66 W 103 39 40.01 6500.00 4.00 241.73 6446.59 -350.05 -354.20 -658.64 0.75 424460.82 708000.39 N 32 954.63 W 103 39 40.12 6600.00 3.25 241.73 6546.39 -353.01 -357.19 -664.20 0.75 424457.82 707994.83 N 32 954.60 W 103 39 40.21 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424457.82 707994.82 N 32 954.67 W 103 39 40.21 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424455.85 707990.42 N 32 954.67 W 103 39 40.21 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -688.61 0.75 424455.85 707990.42 N 32 954.67 W 103 39 40.21 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -688.61 0.75 424455.85 707990.42 N 32 954.67 W 103 39 40.21 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -688.61 0.75 424455.85 707990.42 N 32 954.67 W 103 39 40.21 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -688.61 0.75 424455.85 707990.42 N 32 954.67 W 103 39 40.21 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -688.61 0.75 424455.85 707990.42 N 32 954.67 W 103 39 40.21 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -688.61 0.75 424455.85 707990.42 N 32 954.67 W 103 39 40.21 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -688.61 0.75 424455.85 707990.42 N 32 954.67 W 103 39 40.21 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -688.61 0.75 424455.85 707990.42 N 32 954.67 W 103 39 40.21 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -688.61 0.75 424455.85 707990.42 N 32 954.67 W 103 39 40.21 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -688.61 0.75 424455.85 707990.42 N 32 954.67 W 103 39 40.21 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -688.61 0.75 424455.85 707990.42 N 32 954.67 W 103 39 40.21 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -688.61 0.75 424455.85 707990.42 N 32 954.67 W 103 39 40.21 6700.00 2.50 241.73 80.75													
6500.00 4.00 241.73 6446.59 -350.05 -354.20 -658.64 0.75 424460.82 708000.39 N 32 954.63 W 103 39 40.10 6600.00 3.25 241.73 6546.39 -353.01 -357.19 -664.20 0.75 424457.82 707994.83 N 32 954.67 W 103 39 40.20 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424455.45 707990.42 N 32 954.67 W 103 39 40.20 6700.00 0.50 241.73 6646.27 -355.36 0.359.56 -668.61 0.75 424455.45 707990.42 N 32 954.67 W 103 39 40.20 6700.00 0.50 0.50 0.50 0.50 0.50 0.50 0.5													
6600.00 3.25 241.73 6546.39 -353.01 -357.19 -664.20 0.75 424457.82 707994.83 N 32 9 54.60 W 103 39 40.2 6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424455.45 707990.42 N 32 9 54.57 W 103 39 40.2				241./3									
6700.00 2.50 241.73 6646.27 -355.36 -359.56 -668.61 0.75 424455.45 707990.42 N 32 9 54.57 W 103 39 40.20													
		6800.00	1.75	241.73	6746.20	-355.36 -357.09	-361.32	-671.87	0.75	424455.45			

...CO Grizzly 34 27 Fed Com 407H\CO Grizzly 34 27 Fed Com 407H R0 mdv 01Oct20

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 ° ' ")
	6900.00	1.00	241.73	6846.17	-358.21	-362.45	-673.98	0.75	424452.56	707985.05	N 32 9 54.55	W 103 39 40.33
Hold Vertical	7000.00 7032.92	0.25 0.00	241.73 241.73	6946.16 6979.08	-358.72 -358.75	-362.97 -363.00	-674.94 -675.00	0.75 0.75	424452.05 424452.02			W 103 39 40.34 W 103 39 40.34
	7100.00	0.00	241.73	7046.16	-358.75	-363.00	-675.00	0.00	424452.02	707984.03	N 32 9 54.54	W 103 39 40.34
Brushy Canyon	7143.84 7200.00	0.00 0.00	241.73 241.73	7090.00 7146.16	-358.75 -358.75	-363.00 -363.00	-675.00 -675.00	0.00 0.00	424452.02 424452.02		N 32 9 54.54 N 32 9 54.54	W 103 39 40.34 W 103 39 40 34
	7300.00	0.00	241.73	7246.16	-358.75	-363.00	-675.00	0.00	424452.02		N 32 9 54.54	
	7400.00	0.00	241.73	7346.16 7446.16	-358.75	-363.00	-675.00	0.00 0.00	424452.02			W 103 39 40.34
	7500.00 7600.00	0.00	241.73 241.73	7546.16 7546.16	-358.75 -358.75	-363.00 -363.00	-675.00 -675.00	0.00	424452.02 424452.02			W 103 39 40.34 W 103 39 40.34
	7700.00	0.00	241.73	7646.16	-358.75	-363.00	-675.00	0.00	424452.02	707984.03	N 32 9 54.54	W 103 39 40.34
	7800.00 7900.00	0.00	241.73 241.73	7746.16 7846.16	-358.75 -358.75	-363.00 -363.00	-675.00 -675.00	0.00 0.00	424452.02 424452.02		N 32 9 54.54 N 32 9 54.54	W 103 39 40.34 W 103 39 40 34
	8000.00	0.00	241.73	7946.16	-358.75	-363.00	-675.00	0.00	424452.02			W 103 39 40.34
	8100.00	0.00	241.73	8046.16	-358.75	-363.00	-675.00	0.00	424452.02		N 32 9 54.54	
	8200.00 8300.00	0.00	241.73 241.73	8146.16 8246.16	-358.75 -358.75	-363.00 -363.00	-675.00 -675.00	0.00 0.00	424452.02 424452.02			W 103 39 40.34 W 103 39 40.34
	8400.00	0.00	241.73	8346.16	-358.75	-363.00	-675.00	0.00	424452.02	707984.03	N 32 9 54.54	W 103 39 40.34
	8500.00 8600.00	0.00 0.00	241.73 241.73	8446.16 8546.16	-358.75 -358.75	-363.00 -363.00	-675.00 -675.00	0.00 0.00	424452.02 424452.02			W 103 39 40.34 W 103 39 40.34
	8700.00	0.00	241.73	8646.16	-358.75	-363.00	-675.00	0.00	424452.02			W 103 39 40.34
Bone Spring	8772.84	0.00	241.73	8719.00	-358.75	-363.00	-675.00	0.00	424452.02			W 103 39 40.34
Upper Avalon	8800.00 8867.84	0.00 0.00	241.73 241.73	8746.16 8814.00	-358.75 -358.75	-363.00 -363.00	-675.00 -675.00	0.00 0.00	424452.02 424452.02			W 103 39 40.34 W 103 39 40.34
	8900.00	0.00	241.73	8846.16	-358.75	-363.00	-675.00	0.00	424452.02	707984.03	N 32 9 54.54	W 103 39 40.34
	9000.00 9100.00	0.00	241.73 241.73	8946.16 9046.16	-358.75 -358.75	-363.00 -363.00	-675.00 -675.00	0.00 0.00	424452.02 424452.02			W 103 39 40.34 W 103 39 40.34
	9200.00	0.00	241.73	9146.16	-358.75	-363.00	-675.00	0.00	424452.02			W 103 39 40.34
	9300.00	0.00	241.73	9246.16	-358.75	-363.00	-675.00	0.00	424452.02		N 32 9 54.54	W 103 39 40.34
	9400.00 9500.00	0.00	241.73 241.73	9346.16 9446.16	-358.75 -358.75	-363.00 -363.00	-675.00 -675.00	0.00 0.00	424452.02 424452.02		N 32 9 54.54 N 32 9 54.54	W 103 39 40.34 W 103 39 40.34
	9600.00	0.00	241.73	9546.16	-358.75	-363.00	-675.00	0.00	424452.02	707984.03	N 32 9 54.54	W 103 39 40.34
First Day:	9700.00	0.00	241.73	9646.16	-358.75	-363.00	-675.00	0.00	424452.02	707984.03	N 32 9 54.54	W 103 39 40.34
First Bone Spring	9789.84	0.00	241.73	9736.00	-358.75	-363.00	-675.00	0.00	424452.02		N 32 9 54.54	
7" Casing	9800.00 9853.84	0.00 0.00	241.73 241.73	9746.16 9800.00	-358.75 -358.75	-363.00 -363.00	-675.00 -675.00	0.00 0.00	424452.02 424452.02			W 103 39 40.34 W 103 39 40.34
-	9900.00	0.00	241.73	9846.16	-358.75	-363.00	-675.00	0.00	424452.02	707984.03	N 32 9 54.54	W 103 39 40.34
Build 10°/100ft	9962.92	0.00	241.73	9909.08	-358.75	-363.00 361.80	-675.00	0.00 10.00	424452.02			W 103 39 40.34 W 103 39 40.34
	10000.00 10100.00	3.71 13.71	4.49 4.49	9946.14 10044.86	-357.56 -342.49	-361.80 -346.73	-674.91 -673.72	10.00	424453.21 424468.29			W 103 39 40.34 W 103 39 40.32
	10200.00	23.71	4.49	10139.45	-310.57	-314.79	-671.22	10.00	424500.22	707987.81	N 32 9 55.02	W 103 39 40.29
	10300.00 10400.00	33.71 43.71	4.49 4.49	10227.05 10304.99	-262.77 -200.53	-266.97 -204.70	-667.47 -662.58	10.00 10.00	424548.05 424610.31			W 103 39 40.24 W 103 39 40.18
	10500.00	53.71	4.49	10370.89	-125.76	-129.89	-656.71	10.00	424685.12		N 32 9 56.85	
Second Bone Spring	10535.49	57.26	4.49	10391.00	-96.63	-100.74	-654.43	10.00	424714.26	708004.60	N 32 9 57.13	W 103 39 40.08
9	10600.00	63.71	4.49	10422.77	-40.72	-44.81	-650.04	10.00	424770.20			W 103 39 40.02
	10700.00 10800.00	73.71 83.71	4.49 4.49	10459.03 10478.59	52.00 149.59	47.96 145.60	-642.76 -635.10	10.00 10.00	424862.96 424960.60		N 32 9 58.61 N 32 9 59.57	W 103 39 39.93
FTP Point	10866.47	90.35	4.49	10482.03	215.69	211.74	-629.92	10.00	425026.73		N 32 10 0.23	
Landing Point												
	10900.00 11000.00	90.35 90.35	4.49 4.49	10481.82 10481.20	249.11 348.75	245.17 344.86	-627.29 -619.47	0.00 0.00	425060.16 425159.85			W 103 39 39.74 W 103 39 39.64
Turn 2°/100ft	11016.30	90.35	4.49	10481.10	364.99	361.11	-618.20	0.00	425176.10	708040.83	N 32 10 1.70	W 103 39 39.62
	11100.00 11200.00	90.35 90.35	2.81 0.81	10480.58 10479.97	448.48 548.40	444.64 544.58	-612.87 -609.71	2.00 2.00	425259.62 425359.56		N 32 10 2.53 N 32 10 3.52	W 103 39 39.56
Hold	11258.56	90.35	359.64	10479.61	606.95	603.14	-609.48	2.00	425418.11			W 103 39 39.51
	11300.00	90.35	359.64	10479.35	648.40	644.58	-609.74	0.00	425459.55			W 103 39 39.51
	11400.00 11500.00	90.35 90.35	359.64 359.64	10478.74 10478.13	748.39 848.39	744.57 844.57	-610.37 -611.00	0.00 0.00	425559.54 425659.53		N 32 10 5.50 N 32 10 6.49	W 103 39 39.51
	11600.00	90.35	359.64	10477.52	948.39	944.57	-611.63	0.00	425759.53			W 103 39 39.51
	11700.00 11800.00	90.35 90.35	359.64 359.64	10476.91 10476.30	1048.39 1148.39	1044.56 1144.56	-612.26 -612.88	0.00 0.00	425859.52 425959.51		N 32 10 8.47 N 32 10 9.45	W 103 39 39.51 W 103 39 39.51
	11900.00	90.35	359.64	10475.69	1248.38	1244.55	-613.51	0.00	426059.50			W 103 39 39.51
	12000.00	90.35	359.64	10475.08	1348.38	1344.55	-614.14	0.00	426159.49			W 103 39 39.51
	12100.00 12200.00	90.35 90.35	359.64 359.64	10474.47 10473.86	1448.38 1548.38	1444.55 1544.54	-614.77 -615.40	0.00	426259.48 426359.48		N 32 10 12.42 N 32 10 13.41	
	12300.00	90.35	359.64	10473.25	1648.38	1644.54	-616.03	0.00	426459.47	708043.00	N 32 10 14.40	W 103 39 39.51
	12400.00 12500.00	90.35 90.35	359.64 359.64	10472.64 10472.02	1748.38 1848.37	1744.54 1844.53	-616.65 -617.28	0.00 0.00	426559.46 426659.45		N 32 10 15.39 N 32 10 16.38	
	12600.00	90.35	359.64	10471.41	1948.37	1944.53	-617.91	0.00	426759.44		N 32 10 17.37	
IFP1, Build	12618.56	90.35	359.64	10471.30	1966.93	1963.08	-618.03	0.00	426778.00	708041.00	N 32 10 17.55	W 103 39 39.51
2°/100ft Hold	12678.32	91.54	359.67	10470.31	2026.68	2022.84	-618.38	2.00	426837.75		N 32 10 18.15	
	12700.00	91.54	359.67	10469.73	2048.35	2044.51	-618.51	0.00	426859.42	708040.52	N 32 10 18.36	W 103 39 39.5°
	12800.00 12900.00	91.54 91.54	359.67 359.67	10467.03 10464.34	2148.32 2248.28	2144.47 2244.43	-619.08 -619.65	0.00 0.00	426959.38 427059.34		N 32 10 19.35 N 32 10 20.34	
	13000.00	91.54	359.67	10464.34	2348.25	2344.39	-620.22	0.00	427059.34		N 32 10 20.34 N 32 10 21.33	
	13100.00	91.54	359.67	10458.94	2448.21	2444.36	-620.79	0.00	427259.25		N 32 10 22.32	
	13200.00 13300.00	91.54 91.54	359.67 359.67	10456.25 10453.55	2548.17 2648.14	2544.32 2644.28	-621.36 -621.93	0.00 0.00	427359.21 427459.17		N 32 10 23.31 N 32 10 24.30	
	13400.00	91.54	359.67	10450.86	2748.10	2744.24	-622.50	0.00	427559.12	708036.53	N 32 10 25.28	W 103 39 39.50
	13500.00	91.54	359.67	10448.16	2848.06	2844.20	-623.07	0.00	427659.08		N 32 10 26.27	
	13600.00 13700.00	91.54 91.54	359.67 359.67	10445.47 10442.77	2948.03 3047.99	2944.17 3044.13	-623.64 -624.21	0.00 0.00	427759.04 427859.00		N 32 10 27.26 N 32 10 28.25	
	13800.00	91.54	359.67	10440.07	3147.95	3144.09	-624.78	0.00	427958.96	708034.25	N 32 10 29.24	W 103 39 39.50
	13900.00 14000.00	91.54 91.54	359.67 359.67	10437.38 10434.68	3247.92 3347.88	3244.05 3344.01	-625.35 -625.92	0.00 0.00	428058.91 428158.87		N 32 10 30.23 N 32 10 31.22	
	14100.00	91.54	359.67	10431.99	3447.85	3443.98	-626.49	0.00	428258.83		N 32 10 32.21	
	14200.00	91.54	359.67	10429.29	3547.81	3543.94	-627.06	0.00	428358.79		N 32 10 33.20	
		91.54	359.67	10426.59	3647.77	3643.90	-627.63	0.00	428458.74		N 32 10 34.19	
FP2, Drop	14300.00	04.54	250.07	10424.70	3718.03	3714.16	-628.03	0.00	428529.00 428558.71		N 32 10 34.88	
	14300.00 14370.29	91.54	359.67		2747		-628.20	2.00	4:78558 71	VURU3U 83	IN 32 10 35 18	W 103 39 39.49
2°/100ft	14300.00 14370.29 14400.00	90.95	359.65	10424.05	3747.74 3771.16	3743.87 3767.29						
2°/100ft	14300.00 14370.29 14400.00 14423.42 14500.00	90.95 90.48 90.48	359.65 359.64 359.64	10424.05 10423.76 10423.12	3771.16 3847.74	3767.29 3843.86	-628.35 -628.83	2.00 0.00	428582.12 428658.69	708030.68 708030.20	N 32 10 35.41 N 32 10 36.17	W 103 39 39.4 W 103 39 39.4
2°/100ft	14300.00 14370.29 14400.00 14423.42 14500.00 14600.00	90.95 90.48 90.48 90.48	359.65 359.64 359.64 359.64	10424.05 10423.76 10423.12 10422.27	3771.16 3847.74 3947.73	3767.29 3843.86 3943.85	-628.35 -628.83 -629.46	2.00 0.00 0.00	428582.12 428658.69 428758.68	708030.68 708030.20 708029.57	N 32 10 35.41 N 32 10 36.17 N 32 10 37.16	W 103 39 39.49 W 103 39 39.49 W 103 39 39.49
2°/100ft	14300.00 14370.29 14400.00 14423.42 14500.00	90.95 90.48 90.48	359.65 359.64 359.64	10424.05 10423.76 10423.12	3771.16 3847.74	3767.29 3843.86	-628.35 -628.83	2.00 0.00	428582.12 428658.69	708030.68 708030.20 708029.57 708028.94	N 32 10 35.41 N 32 10 36.17	W 103 39 39.49 W 103 39 39.49 W 103 39 39.49 W 103 39 39.49
2°/100ft	14300.00 14370.29 14400.00 14423.42 14500.00 14600.00 14700.00 14800.00 14800.00	90.95 90.48 90.48 90.48 90.48 90.48	359.65 359.64 359.64 359.64 359.64 359.64	10424.05 10423.76 10423.12 10422.27 10421.43 10420.59 10419.75	3771.16 3847.74 3947.73 4047.73 4147.72 4247.72	3767.29 3843.86 3943.85 4043.85 4143.84 4243.84	-628.35 -628.83 -629.46 -630.08 -630.71 -631.34	2.00 0.00 0.00 0.00 0.00 0.00	428582.12 428658.69 428758.68 428858.68 428958.67 429058.66	708030.68 708030.20 708029.57 708028.94 708028.31 708027.69	N 32 10 35.41 N 32 10 36.17 N 32 10 37.16 N 32 10 38.15 N 32 10 39.13 N 32 10 40.12	W 103 39 39.44 W 103 39 39.44
2°/100ft	14300.00 14370.29 14400.00 14423.42 14500.00 14600.00 14700.00 14800.00 14900.00	90.95 90.48 90.48 90.48 90.48 90.48 90.48	359.65 359.64 359.64 359.64 359.64 359.64 359.64	10424.05 10423.76 10423.12 10422.27 10421.43 10420.59 10419.75 10418.90	3771.16 3847.74 3947.73 4047.73 4147.72 4247.72 4347.72	3767.29 3843.86 3943.85 4043.85 4143.84 4243.84 4343.83	-628.35 -628.83 -629.46 -630.08 -630.71 -631.34 -631.97	2.00 0.00 0.00 0.00 0.00 0.00 0.00	428582.12 428658.69 428758.68 428858.68 428958.67 429058.66 429158.65	708030.68 708030.20 708029.57 708028.94 708028.31 708027.69 708027.06	N 32 10 35.41 N 32 10 36.17 N 32 10 37.16 N 32 10 38.15 N 32 10 39.13 N 32 10 40.12 N 32 10 41.11	W 103 39 39.49 W 103 39 39.49
IFP2, Drop 2°/100ft Hold	14300.00 14370.29 14400.00 14423.42 14500.00 14600.00 14700.00 14800.00 14900.00 15000.00	90.95 90.48 90.48 90.48 90.48 90.48 90.48 90.48	359.65 359.64 359.64 359.64 359.64 359.64 359.64 359.64	10424.05 10423.76 10423.12 10422.27 10421.43 10420.59 10419.75 10418.90 10418.06	3771.16 3847.74 3947.73 4047.73 4147.72 4247.72 4347.72 4447.71	3767.29 3843.86 3943.85 4043.85 4143.84 4243.84 4343.83 4443.83	-628.35 -628.83 -629.46 -630.08 -630.71 -631.34 -631.97 -632.60	2.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	428582.12 428658.69 428758.68 42858.68 42858.67 429058.66 429158.65 429258.64	708030.68 708030.20 708029.57 708028.94 708028.31 708027.69 708027.06 708026.43	N 32 10 35.41 N 32 10 36.17 N 32 10 37.16 N 32 10 39.13 N 32 10 40.12 N 32 10 41.11 N 32 10 42.10	W 103 39 39.48 W 103 39 39.48
2°/100ft	14300.00 14370.29 14400.00 14423.42 14500.00 14600.00 14700.00 14800.00 14900.00	90.95 90.48 90.48 90.48 90.48 90.48 90.48	359.65 359.64 359.64 359.64 359.64 359.64 359.64	10424.05 10423.76 10423.12 10422.27 10421.43 10420.59 10419.75 10418.90	3771.16 3847.74 3947.73 4047.73 4147.72 4247.72 4347.72	3767.29 3843.86 3943.85 4043.85 4143.84 4243.84 4343.83	-628.35 -628.83 -629.46 -630.08 -630.71 -631.34 -631.97	2.00 0.00 0.00 0.00 0.00 0.00 0.00	428582.12 428658.69 428758.68 428858.68 428958.67 429058.66 429158.65	708030.68 708030.20 708029.57 708028.94 708028.31 708027.69 708027.06 708025.80 708025.17	N 32 10 35.41 N 32 10 36.17 N 32 10 37.16 N 32 10 38.15 N 32 10 39.13 N 32 10 40.12 N 32 10 41.11	W 103 39 39.49 W 103 39 39.49

...CO Grizzly 34 27 Fed Com 407H\CO Grizzly 34 27 Fed Com 407H R0 mdv 01Oct20

Comments	MD	Incl	Azim Grid	TVD	VSEC	NS	EW	DLS	Northing	Easting	Latitude	Longitude (E/W ° ' ")
	(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(ftUS)	(ftUS)	(N/S ° ' ")	
	15600.00	90.48	359.64	10413.85	4947.70	4943.80	-635.74	0.00	429758.59	708023.28		W 103 39 39.49
	15700.00	90.48	359.64	10413.01	5047.69	5043.79	-636.37	0.00	429858.58	708022.66	N 32 10 48.04	
	15800.00	90.48	359.64	10412.17	5147.69	5143.79	-637.00	0.00	429958.57	708022.03	N 32 10 49.03	
	15900.00	90.48	359.64	10411.32	5247.69	5243.78	-637.63 -638.26	0.00	430058.56	708021.40	N 32 10 50.02	
	16000.00	90.48	359.64	10410.48	5347.68	5343.78		0.00	430158.55	708020.77	N 32 10 51.01	
IEDO D	16100.00	90.48	359.64	10409.64	5447.68	5443.77	-638.89	0.00	430258.54	708020.14	N 32 10 52.00	W 103 39 39.50
IFP3, Drop 2°/100ft	16122.46	90.48	359.64	10409.45	5470.14	5466.24	-639.03	0.00	430281.00	708020.00	N 32 10 52.22	W 103 39 39.50
2710011	16200.00	88.93	359.64	10409.85	5547.67	5543.77	-639.51	2.00	430358.53	708019.51	N 32 10 52.99	W 103 39 39.50
Hold	16257.44	87.78	359.64	10411.49	5605.09	5601.18	-639.88	2.00	430415.94	708019.15	N 32 10 53.56	W 103 39 39.50
	16300.00	87.78	359.64	10413.14	5647.62	5643.71	-640.14	0.00	430458.46	708018.88	N 32 10 53.98	
	16400.00	87.78	359.64	10417.01	5747.54	5743.63	-640.77	0.00	430558.38	708018.26	N 32 10 54.97	
	16500.00	87.78	359.64	10420.88	5847.47	5843.55	-641.40	0.00	430658.30	708017.63	N 32 10 55.95	
	16600.00	87.78	359.64	10424.74	5947.39	5943.48	-642.03	0.00	430758.22	708017.00	N 32 10 56.94	W 103 39 39.50
	16700.00	87.78	359.64	10428.61	6047.32	6043.40	-642.65	0.00	430858.14	708016.37	N 32 10 57.93	W 103 39 39.50
	16800.00	87.78	359.64	10432.48	6147.24	6143.32	-643.28	0.00	430958.06	708015.75	N 32 10 58.92	W 103 39 39.50
	16900.00	87.78	359.64	10436.35	6247.17	6243.25	-643.91	0.00	431057.98	708015.12	N 32 10 59.91	W 103 39 39.50
	17000.00	87.78	359.64	10440.22	6347.09	6343.17	-644.54	0.00	431157.90	708014.49	N 32 11 0.90	W 103 39 39.50
	17100.00	87.78	359.64	10444.09	6447.02	6443.09	-645.16	0.00	431257.82		N 32 11 1.89	W 103 39 39.50
	17200.00	87.78	359.64	10447.96	6546.94	6543.02	-645.79	0.00	431357.73	708013.24	N 32 11 2.88	W 103 39 39.50
	17300.00	87.78	359.64	10451.82	6646.87	6642.94	-646.42	0.00	431457.65	708012.61	N 32 11 3.87	W 103 39 39.50
	17400.00	87.78	359.64	10455.69	6746.79	6742.86	-647.05	0.00	431557.57	708011.98	N 32 11 4.85	W 103 39 39.50
	17500.00	87.78	359.64	10459.56	6846.72	6842.79	-647.68	0.00	431657.49		N 32 11 5.84	
	17600.00	87.78	359.64	10463.43	6946.64	6942.71	-648.30	0.00	431757.41	708010.72	N 32 11 6.83	W 103 39 39.50
	17700.00	87.78	359.64	10467.30	7046.57	7042.63	-648.93	0.00	431857.33	708010.10	N 32 11 7.82	W 103 39 39.50
	17800.00	87.78	359.64	10471.17	7146.50	7142.55	-649.56	0.00	431957.25	708009.47	N 32 11 8.81	W 103 39 39.50
IFP4, Build 2°/100ft	17874.81	87.78	359.64	10474.06	7221.25	7217.31	-650.03	0.00	432032.00	708009.00	N 32 11 9.55	W 103 39 39.50
	17900.00	88.29	359.66	10474.92	7246.42	7242.48	-650.18	2.00	432057.17	708008.85	N 32 11 9.80	W 103 39 39.50
Hold	17929.37	88.87	359.67	10475.65	7275.78	7271.84	-650.35	2.00	432086.53	708008.67	N 32 11 10.09	W 103 39 39.50
	18000.00	88.87	359.67	10477.04	7346.40	7342.46	-650.76	0.00	432157.14	708008.27	N 32 11 10.79	W 103 39 39.50
	18100.00	88.87	359.67	10479.01	7446.38	7442.44	-651.33	0.00	432257.12	708007.70	N 32 11 11.78	
	18200.00	88.87	359.67	10480.97	7546.36	7542.42	-651.90	0.00	432357.09	708007.13	N 32 11 12.77	
	18300.00	88.87	359.67	10482.94	7646.34	7642.39	-652.47	0.00	432457.07	708006.56	N 32 11 13.76	
	18400.00	88.87	359.67	10484.90	7746.32	7742.37	-653.04	0.00	432557.04	708005.99	N 32 11 14.74	
	18500.00	88.87	359.67	10486.87	7846.30	7842.35	-653.61	0.00	432657.02	708005.42	N 32 11 15.73	
	18600.00	88.87	359.67	10488.84	7946.29	7942.33	-654.18	0.00	432756.99	708004.85	N 32 11 16.72	
	18700.00	88.87	359.67	10490.80	8046.27	8042.31	-654.75	0.00	432856.96	708004.28	N 32 11 17.71	
	18800.00	88.87	359.67	10492.77	8146.25	8142.29	-655.32	0.00	432956.94	708003.71	N 32 11 18.70	
	18900.00	88.87	359.67	10494.73	8246.23	8242.27	-655.89	0.00	433056.91	708003.14	N 32 11 19.69	
	19000.00	88.87	359.67	10496.70	8346.21	8342.25	-656.46	0.00	433156.89	708002.57	N 32 11 20.68	
	19100.00 19200.00	88.87 88.87	359.67 359.67	10498.66 10500.63	8446.19 8546.17	8442.23 8542.21	-657.03 -657.60	0.00 0.00	433256.86 433356.84	708002.00 708001.43	N 32 11 21.67 N 32 11 22.66	
						8642.19		0.00	433456.81			
	19300.00	88.87	359.67	10502.60	8646.15		-658.17	0.00		708000.86 708000.29	N 32 11 23.65 N 32 11 24.64	
	19400.00 19500.00	88.87 88.87	359.67 359.67	10504.56 10506.53	8746.13 8846.11	8742.16 8842.14	-658.74 -659.31	0.00	433556.79 433656.76	707999.72	N 32 11 24.64 N 32 11 25.63	
	19600.00	88.87	359.67	10508.49	8946.09	8942.12	-659.88	0.00	433756.74		N 32 11 26.62	
IFP5, Build												
2°/100ft Hold	19626.27 19655.13	88.87 89.45	359.67 359.64	10509.01 10509.43	8972.36 9001.21	8968.39 8997.24	-660.03 -660.20	0.00 2.00	433783.00 433811.86	707999.00 707998.83	N 32 11 26.88 N 32 11 27.16	
i iolu	19700.00	89.45	359.64	10509.43	9046.08	9042.11	-660.48	0.00	433856.72	707998.54	N 32 11 27.10 N 32 11 27.61	
	19800.00	89.45	359.64	10510.82	9146.08	9142.10	-661.11	0.00	433956.71	707997.92	N 32 11 28.60	
	19900.00	89.45	359.64	10511.78	9246.07	9242.10	-661.74	0.00	434056.70	707997.29	N 32 11 29.59	
	20000.00	89.45	359.64	10512.74	9346.07	9342.09	-662.37	0.00	434156.69	707996.66	N 32 11 30.57	
	20100.00	89.45	359.64	10513.70	9446.06	9442.08	-663.00	0.00	434256.68	707996.03	N 32 11 31.56	
	20200.00	89.45	359.64	10514.66	9546.06	9542.08	-663.63	0.00	434356.67	707995.40	N 32 11 32.55	
	20300.00	89.45	359.64	10515.62	9646.05	9642.07	-664.26	0.00	434456.66	707994.77	N 32 11 33.54	
	20400.00	89.45	359.64	10516.58	9746.05	9742.06	-664.88	0.00	434556.64	707994.14	N 32 11 34.53	
	20500.00	89.45	359.64	10517.54	9846.04	9842.06	-665.51	0.00	434656.63	707993.52	N 32 11 35.52	
	20600.00	89.45	359.64	10518.50	9946.04	9942.05	-666.14	0.00	434756.62	707992.89	N 32 11 36.51	
	20700.00	89.45	359.64	10519.47	10046.04	10042.04	-666.77	0.00	434856.61	707992.26	N 32 11 37.50	
	20800.00	89.45	359.64	10520.43	10146.03	10142.04	-667.40	0.00	434956.60	707991.63		W 103 39 39.49
	20900.00	89.45	359.64	10521.39	10246.03	10242.03	-668.03	0.00	435056.59	707991.00	N 32 11 39.48	
	21000.00	89.45	359.64	10522.35	10346.02	10342.02	-668.66	0.00	435156.58	707990.37	N 32 11 40.47	
	21100.00	89.45	359.64	10523.31	10446.02	10442.02	-669.28	0.00	435256.57	707989.74		W 103 39 39.49
	21200.00	89.45	359.64	10524.27	10546.01	10542.01	-669.91	0.00	435356.56	707989.12	N 32 11 42.45	
	21300.00	89.45	359.64	10525.23	10646.01	10642.00	-670.54	0.00	435456.55	707988.49		W 103 39 39.49
LTP Point CO Grizzly 34	21302.46	89.45	359.64	10525.25	10648.46	10644.46	-670.56	0.00	435459.00		N 32 11 43.46	
27 Fed Com	21377.46	89.45	359.64	10525.97	10723.47	10719.46	-671.03	0.00	435534.00	707988,00	N 32 11 44.21	W 103 39 39 49

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 Casi (in)	ng Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	28.000	1/100.000	12.250	9.625		B001Mb_MWD+HRGM-Depth Only	CO Grizzly 34 27 Fed Com 407H / CO Grizzly 34 27 Fed Com 407H R0 mdv 01Oct20
	1	28.000	900.000	1/100.000	12.250	9.625		B001Mb_MWD+HRGM	CO Grizzly 34 27 Fed Com 407H / CO Grizzly 34 27 Fed Com 407H
	1	900.000	9853.837	1/100.000	8.750	7.000		B001Mb_MWD+HRGM	CO Grizzly 34 27 Fed Com 407H / CO Grizzly 34 27 Fed Com 407H
	2	9846.669	21377.462	1/100.000	6.000	4.500		B001Mb_MWD+HRGM	CO Grizzly 34 27 Fed Com 407H / CO Grizzly 34 27 Fed Com 407H

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

**OPERATOR'S NAME:** | CHEVRON USA INC.

LEASE NO.: NMLC061936

**LOCATION:** Section. 3., T25S., R.32E., NMP

**COUNTY:** Lea County, New Mexico

WELL NAME & NO.: CO GRIZZLY 34 27 FED COM 407H

**SURFACE HOLE FOOTAGE:** 192'/N & 1700'/E **BOTTOM HOLE FOOTAGE** 25'/N & 2310'/E

WELL NAME & NO.: CO GRIZZLY 34 27 FED COM 408H

**SURFACE HOLE FOOTAGE:** 192'/N & 1625'/E **BOTTOM HOLE FOOTAGE** 25'/N & 1430'/E

WELL NAME & NO.: CO GRIZZLY 34 27 FED COM 409H

**SURFACE HOLE FOOTAGE:** 192'/N & 1575'/E **BOTTOM HOLE FOOTAGE** 25'/N & 550'/E

#### COA

H2S	• Yes	O No	
Potash	None	Secretary	© R-111-P
Cave/Karst Potential	• Low	© Medium	C High
Cave/Karst Potential	Critical		
Variance	O None	• Flex Hose	Other
Wellhead	Conventional	O Multibowl	© Both
Other	☐ 4 String Area	☐ Capitan Reef	□WIPP
Other	☐ Fluid Filled	▼ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	<b>▼</b> COM	□ Unit

#### A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Double X** formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

#### **B. CASING**

#### **Casing Design:**

- 1. The **13-3/8** inch surface casing shall be set at approximately **950** feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8** hours or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The **9-5/8** inch intermediate casing shall be set at approximately **4785** 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.

#### **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.
- 3. The minimum required fill of cement behind the 7 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.

### Operator has proposed to pump down 9-5/8" X 7" annulus. Operator must run a CBL from TD of the 7" casing to surface. Submit results to BLM.

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

#### C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2.

#### 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)

#### **Communitization Agreement**

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

# GENERAL REQUIREMENTS

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

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)
  - ☑ Eddy CountyCall 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 2<sup>nd</sup> 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 intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

#### B. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in 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

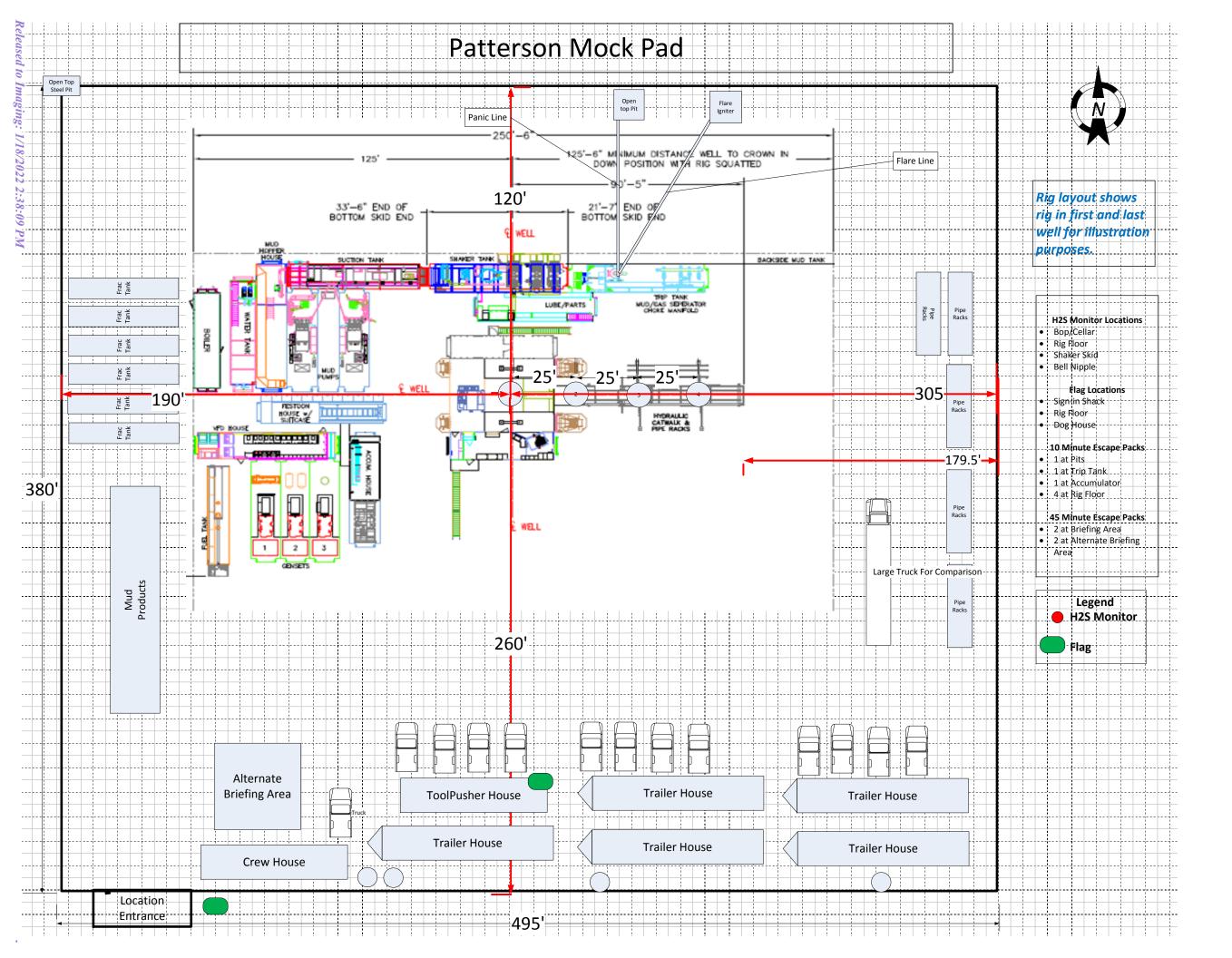
Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

#### 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.

NMK06242021





APD ID: 10400068723

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

# Drilling Plan Data Report

Submission Date: 02/23/2021

Operator Name: CHEVRON USA INCORPORATED

Well Name: CO GRIZZLY 34 27 FED COM Well Number: 407H

Well Type: OIL WELL Well Work Type: Drill

Highlighted data reflects the most recent changes

**Show Final Text** 

# **Section 1 - Geologic Formations**

Formation	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1545128	RUSTLER	3503	890	890	DOLOMITE	NONE	N
1545129	CASTILE	-383	3886	3936	ANHYDRITE	NONE	N
1545130	LAMAR	-1274	4777	4813	LIMESTONE	NONE	N
1545131	BELL CANYON	-1317	4820	4856	SANDSTONE	NONE	N
1545132	CHERRY CANYON	-2205	5708	5744	SANDSTONE	NONE	N
1545133	BRUSHY CANYON	-3588	7091	7127	SANDSTONE	NONE	N
1545134	BONE SPRING	-5217	8720	8756	LIMESTONE	NONE	N
1545135	UPPER AVALON SHALE	-5312	8815	8851	LIMESTONE, SANDSTONE, SHALE	NONE	N
1545136	BONE SPRING 1ST	-6234	9737	9789	SANDSTONE	NONE	N
1545137	BONE SPRING 2ND	-7022	10525	21377	SANDSTONE	NONE	Y

#### **Section 2 - Blowout Prevention**

Pressure Rating (PSI): 5M Rating Depth: 10525

**Equipment:** Chevron will have a minimum of a 5,000 psi rig stack 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). Flex choke hose will be used for all wells on the pad. BOP test will be conducted by a 3rd party.

Requesting Variance? YES

Variance request: Chevron requests the following variances: - Variance to use a CoFlex hose with a metal protective covering that will be utilized between the BOP and Choke manifold. - Variance to use an FMC Technologies UH-S Multibowl wellhead, which will be run through the rig floor on surface casing. BOPE will be nippled up and tested after cementing surface casing. Subsequent tests will be performed as needed, not to exceed 30 days. The field report from FMC Technologies and BOP test information will be provided in a subsequent report at the end of the well. Please see the attached wellhead schematic. An installation manual has been placed on file with the BLM office and remains unchanged from previous submittal. All tests performed by 3rd party. - Variance from the Onshore Order 2 where it states: "(A full BOP

F

13-5/8"

# **BLOWOUT PREVENTER SCHEMATIC**

Operation: **Intermediate & Production Drilling Operations** 

Pipe Ram

Kill Line Check valve

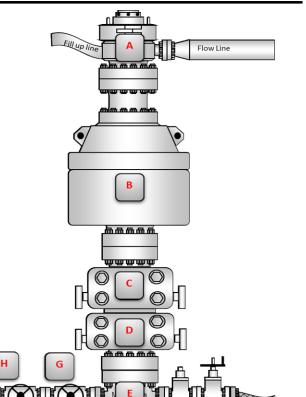
#### **BOP Stack Pressure Part** Size Description Rating 13-5/8" N/A Rotating Head/Bell nipple 13-5/8" 5,000 Annular В 13-5/8" C 10,000 Blind Ram 13-5/8" 10,000 D Pipe Ram Ē 13-5/8" 10,000 **Mud Cross**

Minimum System operation pressure

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

10,000





	<u>Choke line</u>										
Part	Size	Pressure Rating	Description								
J	3"	10,000	HCR (gate valve)								
К	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

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 71534

#### **CONDITIONS**

Operator:	OGRID:
CHEVRON U S A INC	4323
6301 Deauville Blvd	Action Number:
Midland, TX 79706	71534
	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	1/18/2022
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	1/18/2022
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	1/18/2022
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing	1/18/2022