AFMSS

U.S. Department of the Interior
Bureau of Land Management

Application for Permit to Drill

APD Package Report

Date Printed:

APD ID:	Well Status:
APD Received Date:	Well Name:
Operator:	Well Number:

APD Package Report Contents

- Form 3160-3

- Operator Certification Report

- Application Report
- Application Attachments
  -- Well Plat: 1 file(s)

- Drilling Plan Report
- Drilling Plan Attachments
  -- Blowout Prevention Choke Diagram Attachment: 4 file(s)
  -- Blowout Prevention BOP Diagram Attachment: 1 file(s)
  -- Casing Taperd String Specs: 2 file(s)
  -- Casing Design Assumptions and Worksheet(s): 1 file(s)
  -- Hydrogen sulfide drilling operations plan: 1 file(s)
  -- Proposed horizontal/directional/multi-lateral plan submission: 7 file(s)
  -- Other Facets: 3 file(s)
  -- Other Variances: 1 file(s)

- SUPO Report
- SUPO Attachments
  -- Existing Road Map: 1 file(s)
  -- Attach Well map: 1 file(s)
  -- Production Facilities map: 6 file(s)
  -- Water source and transportation map: 1 file(s)
  -- Well Site Layout Diagram: 1 file(s)
  -- Recontouring attachment: 1 file(s)
  -- Other SUPO Attachment: 1 file(s)

- PWD Report
- PWD Attachments
  -- None

- Bond Report
- Bond Attachments
  -- None

Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☐ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.

2. Name of Operator

9. API Well No.
30-025-54823

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface

At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date

Title

Approved by *(Signature)*	Name *(Printed/Typed)*	Date

Title	Office

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 06/10/2025

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Approval Date: 06/10/2025

Additional Operator Remarks

Location of Well

0. SHL: NWNW / 270 FNL / 470 FWL / TWSP: 25S / RANGE: 33E / SECTION: 32 / LAT: 32.093578 / LONG: -103.601337 (TVD: 0 feet, MD: 0 feet)

PPP: NWNW / 100 FNL / 750 FEL / TWSP: 25S / RANGE: 33E / SECTION: 32 / LAT: 32.094045 / LONG: -103.600434 (TVD: 12368 feet, MD: 12385 feet)

PPP: SWNW / 1323 FNL / 751 FWL / TWSP: 26S / RANGE: 33E / SECTION: 5 / LAT: 32.076162 / LONG: -103.600431 (TVD: 12921 feet, MD: 13135 feet)

PPP: NWSW / 2645 FNL / 751 FWL / TWSP: 26S / RANGE: 33E / SECTION: 5 / LAT: 32.072257 / LONG: -103.600431 (TVD: 12961 feet, MD: 13444 feet)

BHL: SWSW / 100 FSL / 750 FWL / TWSP: 26S / RANGE: 33E / SECTION: 5 / LAT: 32.065572 / LONG: -103.60043 (TVD: 12886 feet, MD: 23072 feet)

BLM Point of Contact

Name: JANET D ESTES
Title: ADJUDICATOR
Phone: (575) 234-6233
Email: JESTES@BLM.GOV

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

Red Hills 32-5 FEDERAL COM 501H

APD - Geology COAs (Not in Potash or WIPP)

- For at least one well per pad (deepest well within initial development preferred) the record of the drilling rate (ROP) along with the Gamma Ray (GR) and Neutron (CNL) well logs run from TVD to surface in the vertical section of the hole shall be submitted to the BLM office as well as all other logs run on the full borehole 30 days from completion. Any other logs run on the wellbore, excluding cement remediation, should also be sent. Only digital copies of the logs in .TIF or .LAS formats are necessary; paper logs are no longer required. Logs shall be emailed to blm-cfo-geology@doimspp.onmicrosoft.com. Well completion report should have .pdf copies of any CBLs or Temp Logs run on the wellbore.

- Exceptions: In areas where there is extensive log coverage (in particular the salt zone adjacent to a pad), Operators are encouraged to contact BLM Geologists to discuss if additional GR and N logs are necessary on a pad. Operator may request a waiver of the GR and N log requirement due to good well control or other reasons to be approved by BLM Geologist prior to well completion. A waiver approved by BLM must be attached to completion well report to satisfy COAs.

- The top of the Rustler, top and bottom of the Salt, and the top of the Capitan Reef (if present) are to be recorded on the Completion Report.

Be aware that:

- H2S has been reported within one mile of the proposed project. Measurements up to 9000 ppm were recorded.

Questions? Contact Thomas Evans, BLM Geologist at 575-234-5965 or tvevans@blm.gov

C-102	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024
Submit Electronically Via OCD Permitting		Submittal Type: ☒ Initial Submittal ☐ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name
30-025-54823	98158	WC-025 G-09 S253236A; UPR WOLFCAMP

Property Code	Property Name	Well Number
326032	RED HILLS 32-5 FED COM	501H

OGRID No.	Operator Name	Ground Level Elevation
162683	CIMAREX ENERGY CO. OF COLORADO	3,396.6'

Surface Owner: ☒ State ☐ Fee ☐ Tribal ☒ Federal Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
D	32	25S	33E		270 NORTH	470 WEST	32.093578°	-103.601337°	LEA

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
M	5	26S	33E		100 SOUTH	750 WEST	32.065572°	-103.600430°	LEA

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
1280				

Order Numbers. Well setbacks are under Common Ownership: ☐Yes ☐No

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
D	32	25S	33E		100 NORTH	750 WEST	32.094045°	-103.600434°	LEA

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
D	32	25S	33E		100 NORTH	750 WEST	32.094045°	-103.600434°	LEA

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
M	5	26S	33E		100 SOUTH	750 WEST	32.065572°	-103.600430°	LEA

Unitized Area or Area of Uniform Interest	Spacing Unit Type ☐ Horizontal ☐ Vertical	Ground Floor Elevation:

OPERATOR CERTIFICATIONS

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

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Shelly Bowen 3/13/2025

Signature Date

Shelly Bowen

Printed Name

shelly.bowen@coterra.com

Email Address

SURVEYOR CERTIFICATIONS

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

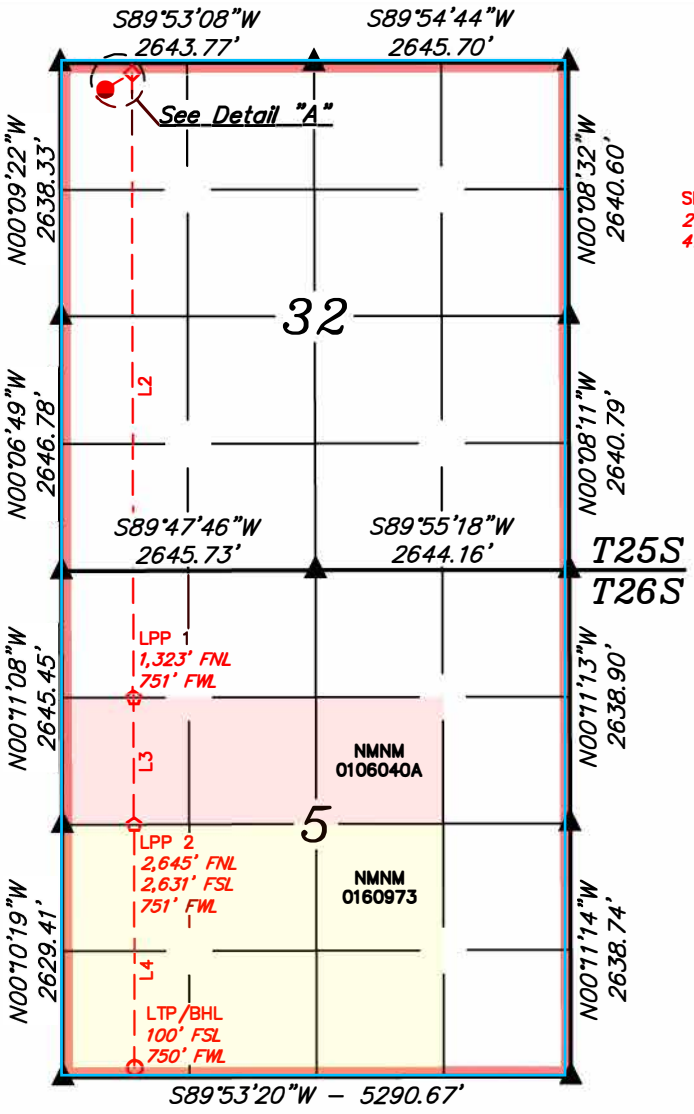
Signature and Seal of Professional Surveyor

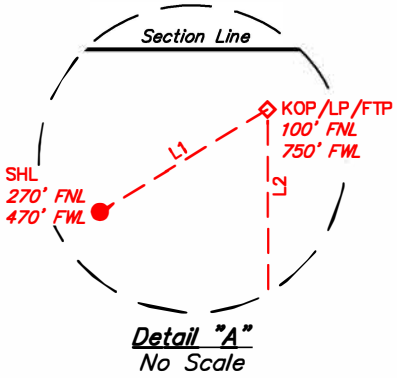
23782 May 01, 2018

Certificate Number Date of Survey

Note: No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

Property Name	Well Number	Drawn By	Revised By
RED HILLS 32-5 FED COM	501H	D.M.C. 10-31-24	REV. 1 T.I.R. 01-21-25 (UPDATE WELLBORE)





- = SURFACE HOLE LOCATION
- = KICK OFF POINT/LANDING POINT/FIRST TAKE POINT
- = LEASE PENETRATION POINT
- = LAST TAKE POINT/ BOTTOM HOLE LOCATION
- = SECTION CORNER LOCATED
- = DEDICATED ACREAGE

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°05'36.88" (32.093578°)
LONGITUDE = -103°36'04.81" (-103.601337°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°05'36.43" (32.093453°)
LONGITUDE = -103°36'03.12" (-103.600866°)
STATE PLANE NAD 83 (N.M. EAST)
N: 398549.76' E: 768019.47'
STATE PLANE NAD 27 (N.M. EAST)
N: 398492.12' E: 726833.05'

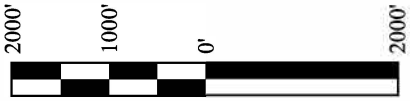
NAD 83 (KOP/LP/FTP)
LATITUDE = 32°05'38.56" (32.094045°)
LONGITUDE = -103°36'01.56" (-103.600434°)
NAD 27 (KOP/LP/FTP)
LATITUDE = 32°05'38.11" (32.093920°)
LONGITUDE = -103°35'59.87" (-103.599963°)
STATE PLANE NAD 83 (N.M. EAST)
N: 398721.45' E: 768298.16'
STATE PLANE NAD 27 (N.M. EAST)
N: 398663.81' E: 727111.74'

NAD 83 (LPP 1)
LATITUDE = 32°04'34.18" (32.076162°)
LONGITUDE = -103°36'01.55" (-103.600431°)
NAD 27 (LPP 1)
LATITUDE = 32°04'33.73" (32.076037°)
LONGITUDE = -103°35'59.86" (-103.599961°)
STATE PLANE NAD 83 (N.M. EAST)
N: 392216.13' E: 768343.08'
STATE PLANE NAD 27 (N.M. EAST)
N: 392158.65' E: 727156.36'

NAD 83 (LPP 2)
LATITUDE = 32°04'21.10" (32.072527°)
LONGITUDE = -103°36'01.55" (-103.600431°)
NAD 27 (LPP 2)
LATITUDE = 32°04'20.65" (32.072402°)
LONGITUDE = -103°35'59.86" (-103.599961°)
STATE PLANE NAD 83 (N.M. EAST)
N: 390893.72' E: 768352.21'
STATE PLANE NAD 27 (N.M. EAST)
N: 390836.27' E: 727165.43'

NAD 83 (LTP/BHL)
LATITUDE = 32°03'56.06" (32.065572°)
LONGITUDE = -103°36'01.55" (-103.600430°)
NAD 27 (LTP/BHL)
LATITUDE = 32°03'55.61" (32.065447°)
LONGITUDE = -103°35'59.86" (-103.599960°)
STATE PLANE NAD 83 (N.M. EAST)
N: 388363.49' E: 768369.67'
STATE PLANE NAD 27 (N.M. EAST)
N: 388306.10' E: 727182.78'

NOTE:
- Distances referenced on plat to section lines are perpendicular.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)
- Colored areas within section lines represent Federal oil & gas leases.



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N58°36'10"E	327.39'
L2	S00°09'24"E	6506.60'
L3	S00°09'24"E	1322.67'
L4	S00°09'24"E	2530.73'

Sheet 2 of 2

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: Cimarex Energy Co. of Colorado **OGRID:** 162683 **Date:** 4/1/2025

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

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Red Hills 32-5 Fed Com 501H		Sec 32 T25S, R33E	270 FNL/470 FWL	248	1361	4782

IV. Central Delivery Point Name: _Red Hills CTB ___ _____ [See 19.15.27.9(D)(1) NMAC]

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Red Hills 32-5 Fed Com 501H		6/1/25	9/29/25	1/1/26	3/15/26	3/15/26

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

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

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

Section 4 - Notices

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

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

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

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

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

Signature:	[redacted] Shelly Bowen
Printed Name:	Shelly Bowen
Title:	Sr. Regulatory Analyst
E-mail Address:	shelly.bowen@coterra.com
Date:	4/1/2025
Phone:	432/620-1644

OIL CONSERVATION DIVISION

(Only applicable when submitted as a standalone form)

Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

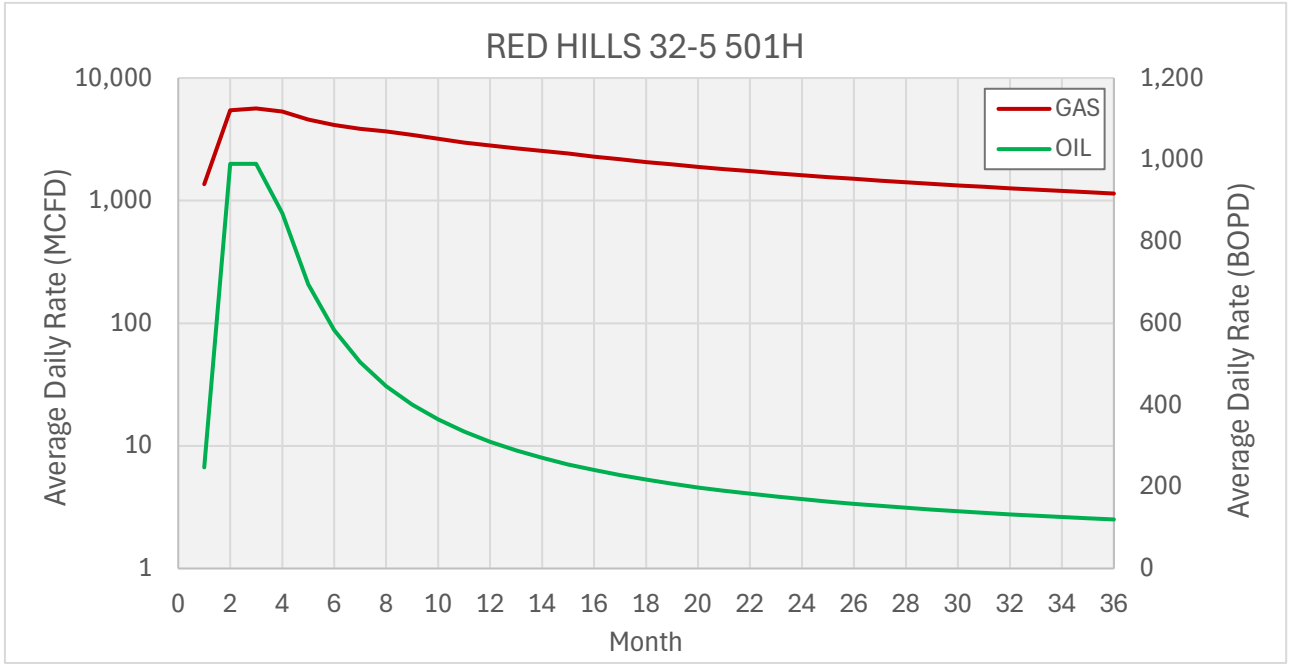
From State of New Mexico, Natural Gas Management Plan

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

XEC Standard Response

Standard facility gas process flow begins at the inlet separator. These vessels are designed based off of forecasted rates and residence times in accordance with, and often greater than, API 12J. The separated gas is then routed to an additional separation vessel (ie sales scrubber) in order to extract liquids that may have carried over or developed due to the decrease in pressure. The sales scrubber is sized based on API 521. From the sales scrubber, the gas leaves the facility and enters the gas midstream gathering network.

RED HILLS 32-5 501H	RED HILLS 32-5 501H
GAS MCFD	OIL BOPD
1361	248
5445	990
5646	990
5327	869
4584	695
4137	583
3849	505
3659	446
3441	401
3188	365
2982	335
2812	310
2669	289
2547	271
2420	255
2288	241
2171	228
2066	217
1971	207
1886	198
1808	190
1737	183
1672	176
1613	170
1557	164
1506	158
1458	153
1414	149
1372	144
1333	140
1296	136
1262	133
1229	129
1199	126
1169	123
1142	120


RED HILLS 32-5 501H
10,000
1,000
100
10
1
Average Daily Rate (MCFD)
1,200
1,000
800
600
400
200
0
Average Daily Rate (BOPD)
GAS
OIL
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36
Month

Cimarex
VII. Operational Practices

Cimarex values the sustainable development of New Mexico's natural resources. Venting and flaring of natural gas is a source of waste in the industry, and Cimarex will ensure that its values are aligned with those of NMOCD. As such, Cimarex plans to take pointed steps to ensure compliance with Subsection A through F of 19.15.27.8 NMAC.

Specifically, below are the steps Cimarex will plan to follow under routine well commissioning and operations.

1. Capture or combust natural gas during drilling operations where technically feasible, using the best industry practices and control technologies.
    a. All flares during these operations will be a minimum of 100ft away from the nearest surface-hole location.
2. All gas present during post-completion drill-out and flow back will be routed through separation equipment, and, if technically feasible, flare unsellable vapors rather than vent. Lastly, formal sales separator commissioning to process well-stream fluids and send gas to a gas flow line/collection system or use the gas for on-site fuel or beneficial usage, gas as soon as is safe and technically feasible.
3. Cimarex will ensure the flare or combustion equipment is properly sized to handle expected flow rates, ensure this equipment is equipped with an automatic or continuous ignition source, and ensure this equipment is designed for proper combustion efficiency.
4. If Cimarex must flare because gas is not meeting pipeline specifications, Cimarex will limit flaring to <60 days, analyze gas composition at least twice per week, and route gas into a gathering pipeline as soon as pipeline specifications are met.
5. Under routine production operations, Cimarex will not flare/vent unless:
    a. Venting or flaring occurs due to an emergency or equipment malfunction.
    b. Venting or flaring occurs as a result of unloading practices, and an operator is onsite (or within 30 minutes of drive time and posts contact information at the wellsite) until the end of unloading practice.
    c. The venting or flaring occurs during automated plungerlift operations, in which case the Cimarex operator will work to optimize the plungerlift system to minimize venting/flaring.
    d. The venting or flaring occurs during downhole well maintenance, in which case Cimarex will work to minimize venting or flaring operations to the extent that it does not pose a risk to safe operations.
    e. The well is an exploratory well, the division has approved the well as an exploratory well, venting or flaring is limited to 12 months, as approved by the division, and venting/flaring does not cause Cimarex to breach its State-wide 98% gas capture requirement.
    f. Venting or flaring occurs because the stock tanks or other low-pressure vessels are being gauged, sampled, or liquids are being loaded out.
    g. The venting or flaring occurs because pressurized vessels are being maintained and are being blown-down or depressurized.
    h. Venting or flaring occurs as a result of normal dehydration unit operations.

i. Venting or flaring occurs as a result of bradenhead testing.
j. Venting or flaring occurs as a result of normal compressor operations, including general compressor operations, compressor engines and turbines.
k. Venting or flaring occurs as a result of a packer leakage test.
l. Venting or flaring occurs as a result of a production test lasting less than 24 hours unless otherwise approved by the division.
m. Venting or flaring occurs as a result of new equipment commissioning and is necessary to purge impurities from the pipeline or production equipment.

6. Cimarex will maintain its equipment in accordance with its Operations and Maintenance Program, to ensure venting or flaring events are minimized and that equipment is properly functioning.
7. Cimarex will install automatic tank gauging equipment on all production facilities constructed after May 25, 2021, to ensure minimal emissions from tank gauging practices.
8. By November 25, 2022, all Cimarex facilities equipped with flares or combustors will be equipped with continuous pilots or automatic igniters, and technology to ensure proper function, i.e. thermocouple, fire-eye, etc…
9. Cimarex will perform AVO (audio, visual, olfactory) facility inspections in accordance with NMOCD requirements. Specifically, Cimarex will:
    a. Perform weekly inspections during the first year of production, and so long as production is greater than 60 MCFD.
    b. If production is less than 60 MCFD, Cimarex will perform weekly AVO inspections when an operator is present on location, and inspections at least once per calendar month with at least 20 calendar days between inspections.
10. Cimarex will measure or estimate the volume of vented, flared or beneficially used natural gas, regardless of the reason or authorization for such venting or flaring.
11. On all facilities constructed after May 25, 2021, Cimarex will install metering where feasible and in accordance with available technology and best engineering practices, in an effort to measure how much gas could have been vented or flared.
    a. In areas where metering is not technically feasible, such as low-pressure/low volume venting or flaring applications, engineering estimates will be used such that the methodology could be independently verified.
12. Cimarex will fulfill the division's requirements for reporting and filing of venting or flaring that exceeds 50 MCF in volume or last eight hours or more cumulatively within any 24-hour period.

VIII. Best Management Practices to minimize venting during active and planned maintenance

Cimarex strives to ensure minimal venting occurs during active and planned maintenance activities. Below is a description of common maintenance practices, and the steps Cimarex takes to limit venting exposure.

- **Workovers:**
  - Always strive to kill well when performing downhole maintenance.
  - If vapors or trapped pressure is present and must be relieved then:
    - Initial blowdown to production facility:
      - Route vapors to LP flare if possible/applicable
    - Blowdown to portable gas buster tank:
      - Vent to existing or portable flare if applicable.

- **Stock tank servicing:**
  - Minimize time spent with thief hatches open.
  - When cleaning or servicing via manway, suck tank bottoms to ensure minimal volatiles exposed to atmosphere.
    - Connect vacuum truck to low pressure flare while cleaning bottoms to limit venting.
  - Isolate the vent lines and overflows on the tank being serviced from other tanks.

- **Pressure vessel/compressor servicing and associated blowdowns:**
  - Route to flare where possible.
  - Blow vessel down to minimum available pressure via pipeline, prior to venting vessel.
  - Preemptively changing anodes to reduce failures and extended corrosion related servicing.
  - When cleaning or servicing via manway, suck vessel bottoms to ensure minimal volatiles exposed to atmosphere.

- **Flare/combustor maintenance:**
  - Minimize downtime by coordinating with vendor and Cimarex staff travel logistics.
  - Utilizing preventative and predictive maintenance programs to replace high wear components before failure.
  - Because the flare/combustor is the primary equipment used to limit venting practices, ensure flare/combustor is properly maintained and fully operational at all times via routine maintenance, temperature telemetry, onsite visual inspections.

The Cimarex expectation is to limit all venting exposure. Equipment that may not be listed on this document is still expected to be maintained and associated venting during such maintenance minimized.

1. Geological Formations

TVD of target 12,886'
MD at TD 23,073'

Pilot Hole TD N/A
Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	957	Hydrocarbons	
Top of Salt	1002	N/A	
Base of Salt/Lamar	4885	N/A	
Top Delware Sands/Bell Canyon	4972	N/A	
Cherry Canyon	6356	Hydrocarbons	
Brushy Canyon	7530	Hydrocarbons	
Basal Brushy Canyon	8885	N/A	
Bone Spring Lime	9063	N/A	
Leonard/Avalon Sand	9141	Hydrocarbons	
Avalon Shale	9356	Hydrocarbons	
1st Bone Spring Sand	9995	Hydrocarbons	
2nd Bone Spring Sand	10588	Hydrocarbons	
3rd Bone Spring Sand	11708	Hydrocarbons	
Wolfcamp	12147	Hydrocarbons	
Wolfcamp B - Target	13019	Hydrocarbons	

2. Casing Program

Hole Size	Casing Depth From	Casing Depth To	Setting Depth TVD	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
14 3/4	0	1022	1022	10-3/4"	40.50	J-55	BT&C	3.57	7.07	15.20
9 7/8	0	12385	12385	7-5/8"	29.70	HCL-80	BT&C	0.83	1.19	1.86
6 3/4	0	11885	11885	5-1/2"	20.00	P-110	BT&C	1.57	1.74	2.76
6 3/4	11885	23073	12886	5"	18.00	P-110	BT&C	1.82	1.85	64.32
					BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet

TVD was used on all calculations.
All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	N
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	N
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	N
Is 2nd string set 100' to 600' below the base of salt?	N
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	N
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	N
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	N
Is AC Report included?	Y

3. Cementing Program

Casing	# Sks	Wt. lb/gal	Yld ft3/sack	H2O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	396	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	106	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	983	10.30	3.64	22.18	12	Lead: Tuned Light + LCM
	200	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	1387	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS

Casing String	TOC	% Excess
Surface	0	45
Intermediate	0	49
Production	12185	

Cimarex request the ability to perform casing integrity tests after plug bump of cement job.

4. Pressure Control Equipment

	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.

BOP installed and tested before drilling which hole?	Size	Min Required WP	Type		Tested To
9 7/8	**13 5/8**	**10M**	Annular	X	100% of working pressure
			Blind Ram		10M
			Pipe Ram		
			Double Ram	X	
			Other		
6 3/4	**13 5/8**	**10M**	Annular	X	100% of working pressure
			Blind Ram		10M
			Pipe Ram	X	
			Double Ram	X	
			Other		

X	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or 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. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.	
X	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.	
	N	Are anchors required by manufacturer?

5. Mud Program

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0' to 1022'	Fresh Water	7.83 - 8.33	28	N/C
1022' to 12385'	Brine Diesel Emulsion	8.50 - 9.00	30-35	N/C
12385' to 23073'	OBM	10.50 - 11.00	50-70	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

The Brine Emulsion is completely saturated brine fluid that ties diesel into itself to lower the weight of the fluid. The drilling fluid is completely salt saturated.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing	
	Will run GR/CNL fromTD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
X	No logs are planned based on well control or offset log information.
	Drill stem test?
	Coring?

Additional Logs Planned	Interval

7. Drilling Conditions

Condition	
BH Pressure at deepest TVD	7370 psi
Abnormal Temperature	No

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
X	H2S is present
X	H2S plan is attached

8. Other Facets of Operation

9. Wellhead

1. The multi-bowl wellhead will be installed by a vendor representative. A copy of the installation instructions has been sent to the BLM field office.

2. A packoff will be installed after running and cementing the production casing. This packoff will be tested to 10K psi.

BOPE Additional Information & Testing

1. After running the first string of casing, a 10M BOP/BOPE system with 5M annular will be installed. BOPs will be tested according to Onshore Order #2. BOPE will be tested to full rated pressure (10K for all BOPE except the annular, which is tested to 5K). For the low test, the system will be tested to 250 psi.

2. All BOP equipment will be tested utilizing a conventional test plug.

3. A remote kill line is included in the BOPE system

4. All casing strings will be tested per Onshore Order #2, to 0.22 psi/ft or 1,500 psi, whichever is greater, not to exceed 70% of casing burst.

5. If well conditions dictate, conventional slips will be set and BOPE will be tested to appropriate pressures based on permitted pressure requirements.

Additional Well Control Notes

1. In the event wellbore pressure encroaches to the maximum rated pressure of the annular, primary pressure control will be switched to the higher rated components (i.e., switch from annular to pipe rams) – upper pipe rams will be closed, and the annular opened in order to not exceed maximum rated pressures.

Well Control Plan

Warning Signs of a Kick

If a kick is ever suspected, perform flow check.

While Drilling:

1. Drilling break or increase in penetration rate
2. Increase of flow
3. Pit gain
4. Flow without pumping
5. Circulating pressure decrease and/or spm increase
6. Increase in gas cutting at the shakers
7. Decrease in cuttings at shakers

While Tripping:

1. Hole not taking the proper fill on trip out of hole
2. Hole returns too much mud on trip in hole
3. Flow without pumping

While Out of the Hole:

1. Flow
2. Pit gain

Well Control Procedures with Diverter

A TIW valve in the open position must be on the rig floor at all times.

If rotating head is installed:

1. Perform flow check.
2. If well is flowing, divert flow down flow line and through separator, before returning across shakers.
3. Swap to 10 ppg brine and circulate around. Notify superintendent.

4. If well becomes uncontrollable, close annular, which will open HCR to divert flow away from rig.

If rotating head is not installed:

1. Perform flow check.
2. If well is flowing uncontrollably, close annular, which will open HCR to divert flow away from rig.
3. Swap to 10 ppg brine and circulate around. Notify superintendent.
4. After 10 ppg is circulated around shut pumps off and perform flow check.

Well Control Procedures

Coterra follows a hard shut-in procedure. Choke will be in the closed position.

General Well Control

1. If in doubt, secure the well first, then inform your supervisor.
2. Never wait for approval to shut in the well.
3. Verify that the mud pump is off before you close the BOP.
4. Always check and verify the well is properly secured after shut in.
5. Always install TIW valve in the open position.
6. If TIW valve is installed and then closed, apply estimated DP shut-in pressure above valve before opening.
7. The weak link in the mud system and mud lines is the pressure relief valve or pop off valve on the mud pump.
8. Keep the TIW valve wrench in a designated location on the rig floor and in the open position.
9. Use a drill string float above the bit. Don't perforate or disable the float.
10. In the event wellbore pressure encroaches to the maximum rated pressure of the annular, primary pressure control will be switched to the higher rated components (i.e., switch from annular to pipe rams) – upper pipe rams will be closed, and the annular opened in order to not exceed maximum rated pressures.

Hard Shut-In

1. Remote choke is closed.
2. Stop pumping and space out.
3. Check for flow.
4. To shut in, close annular or pipe ram if no annular is present.
5. Open the HCR valve.
6. Check systems, bump float. Record Initial Shut in Drill pipe pressure and Initial shut in casing pressure.

Flow Check when on Bottom

1. Alert crew & stop rotating
2. Pick up and space out
3. Shut down pumps
4. Observe well for flow
5. Shut-in if flowing

Shutting in while Drilling

1. After flow has been detected via flow check, kill pumps, shut in well and open HCR
2. Verify well is shut-in and flow has stopped
3. Notify supervisory personnel
4. Record data
5. Begin go forward planning

Flow Check while Tripping

1. Alert crew & pick up / space out
2. Stop pipe movement. Set slips with tool joint accessible at rotary table
3. Install open TIW safety valve and close valve
4. Observe well for flow
5. Shut-in if flowing

Shutting in while Tripping

1. Install open TIW safety valve and close valve
2. Shut-in the well
3. Verify well is shut-in and flow has stopped
4. Install IBOP
5. Notify supervisory personnel
6. Record data; SICP, shut-in time, kick depth, and pit gain
7. Begin go forward planning

Shutting in while Out of Hole

1. Sound alarm
2. Shut-in well: close blind rams.
3. Verify well is shut-in and monitor pressures.
4. Notify supervisory personnel
5. Record data; SICP, shut-in time, kick depth, and pit gain
6. Begin go forward planning

Information to Record while Shut-In

1. Shut in drill pipe pressure every 5 minutes

2. Shut in casing pressure every 5 minutes
3. Pit gain
4. Total volume in pit system
5. Mud weight in suction pit
6. Current depth
7. Total depth
8. Time the well is shut in

H2S with Annular Diverter:

1. Kill Pumps, close annular, which will open HCR, to divert flow away from rig.
2. Muster and take head count.
3. Call ASSI to check location for H2S. Call Coterra superintendent.
4. After ASSI has checked for H2S the path forward will be decided from Coterra superintendent.

H2S with BOP's:

1. Kill pumps
2. Shut in annular with HCR open and chokes closed.
3. Muster and take head count.
4. Call ASSI to check location for H2S. Call Coterra superintendent.
5. After ASSI has checked for H2S. discuss path forward with Coterra superintendent

Procedure for Closing Blind Rams

- Open HCR valve (visually check that the HCR valve is open – stem in the valve is open, stem out the valve is closed).
- Verify all circulating pumps are off (mud pumps, trip tank pump, etc.)
- Ensure that the hydraulic choke is in the closed position.
- Close the blind rams and place the "blind rams closed, bleed pressure and remove hole cover before opening" sign on the console.
- Monitor the shut in casing pressure gauge periodically while the blinds are closed to ensure that wellbore pressure isn't building. If pressure build up is observed, monitor the shut in casing pressure more frequently & document. Notify rig management and Coterra representative of the pressure build up.
- Ensure that the inner bushings are locked into the master bushings if applicable.
- Install hole cover.

Procedure for Opening Blind Rams

- Make sure choke manifold is aligned correctly.
- Open the hydraulic choke to bleed any trapped pressure that may be under the blind rams. (Even if the casing pressure gauge is reading zero).

- Confirm that no flow is discharging into the trip tank or possum bellies of the shale shaker (wherever the separator is discharging into).
- Remove hole cover.
- Confirm that the inner bushing are locked into the master bushings if applicable.
- Clear all personnel from the rig floor.
- Remove sign and open blind rams.
- Return the BOPE to its original operating alignment.

BOP Drills

- Drilling crews should conduct BOP drills weekly from BOP nipple up to TD for reaction time to properly simulate securing the well. Record BOP drills on that day's report.
- Standard precautions such as checking the accumulator for proper working pressure, function testing rams, and recording slow pump rates are performed on a daily basis or on trips..
- All supervisory personnel onsite need to be properly trained and currently hold certification from an approved blowout prevention school. Any deviation from this needs to be discussed prior to spud.
- Drillers should always notify the tool pusher and the drilling foreman before performing a blowout drill.

Choke Manifold Freeze Prevention

- When possible, blow out the choke & kill lines as well as the choke manifold with rig air to remove water based fluids.
- When clear water is being placed into the choke & kill line as well as the choke manifold, make sure that the water has a mixture of 30% methanol added.
- When applicable, choke & kill lines as well as choke manifold needs to be pumped through with the rig pump by the driller to ensure that the lines aren't plugged with settling barite or solids.

COTERRA Rev0

Borehole:	Well:	Field:	Structure:
Red Hills 32-5 Fed Com 501H	Red Hills 32-5 Fed Com 501H	NM Lea County (NAD 83)	Coterra Red Hills 32-5 Fed Com Pad D

Gravity & Magnetic Parameters						Surface Location	NAD83 New Mexico State Plane, Eastern Zone, US Feet					Miscellaneous			
Model:	HDGM 2025	Dip:	59.566°	Date:	07-Mar-2025	Lat:	N 32 5 36.88	Northing:	398549.76ftUS	Grid Conv:	0.3889°	Slot:	Red Hills 32-5 Fed Com 501H	TVD Ref:	RKB (3419.600 ft above MSL)
MagDec:	6.109°	FS:	47125.26nT	Gravity FS:	998.429mgn (9.80665 Based)	Lon:	W 103 36 4.81	Easting:	768019.47ftUS	Scale Fact:	0.99996794	Plan:	Red Hills 32-5 Fed Com 501H Rev0 kFc 07Mar25		

Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL [270'FNL, 470'FWL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rustler	957.00	0.00	58.36	957.00	0.00	0.00	0.00	0.00
A3 Top	1002.00	0.00	58.36	1002.00	0.00	0.00	0.00	0.00
A3 Base	1097.00	0.00	58.36	1097.00	0.00	0.00	0.00	0.00
Salado	1272.00	0.00	58.36	1272.00	0.00	0.00	0.00	0.00
Nudge, Build 2°/100ft	2500.00	0.00	58.36	2500.00	0.00	0.00	0.00	0.00
Hold	2800.12	6.00	58.36	2799.58	-8.14	8.24	13.37	2.00
Lamar	4897.05	6.00	58.36	4885.00	-121.85	123.25	200.07	0.00
Bell Canyon	4984.52	6.00	58.36	4972.00	-126.60	128.05	207.86	0.00
Drop 2°/100ft	5630.04	6.00	58.36	5613.97	-161.60	163.46	265.33	0.00
Hold	5930.16	0.00	58.36	5913.55	-169.75	171.70	278.70	2.00
Cherry Canyon	6372.61	0.00	58.36	6356.00	-169.75	171.70	278.70	0.00
Brushy Canyon	7546.61	0.00	58.36	7530.00	-169.75	171.70	278.70	0.00
Basal Brushy Canyon	8901.61	0.00	58.36	8885.00	-169.75	171.70	278.70	0.00
Bone Springs Lime	9079.61	0.00	58.36	9063.00	-169.75	171.70	278.70	0.00
Leonard	9157.61	0.00	58.36	9141.00	-169.75	171.70	278.70	0.00
Avalon	9372.61	0.00	58.36	9356.00	-169.75	171.70	278.70	0.00
1st BS SS	10011.61	0.00	58.36	9995.00	-169.75	171.70	278.70	0.00
2nd BS SS	10604.61	0.00	58.36	10588.00	-169.75	171.70	278.70	0.00
3rd BS SS	11724.61	0.00	58.36	11708.00	-169.75	171.70	278.70	0.00
Wolfcamp	12163.61	0.00	58.36	12147.00	-169.75	171.70	278.70	0.00
KOP, Build 10°/100ft	12385.16	0.00	58.36	12368.55	-169.75	171.70	278.70	0.00
Build 5°/100ft	13135.16	75.00	179.60	12921.98	254.92	-252.96	281.66	10.00
Landing Point	13444.09	90.45	179.60	12961.00	560.43	-558.46	283.78	5.00
Red Hills 32-5 Fed Com 501H - BHL [100'FSL, 750'FWL]	23072.76	90.45	179.60	12886.00	10188.81	-10186.62	350.21	0.00

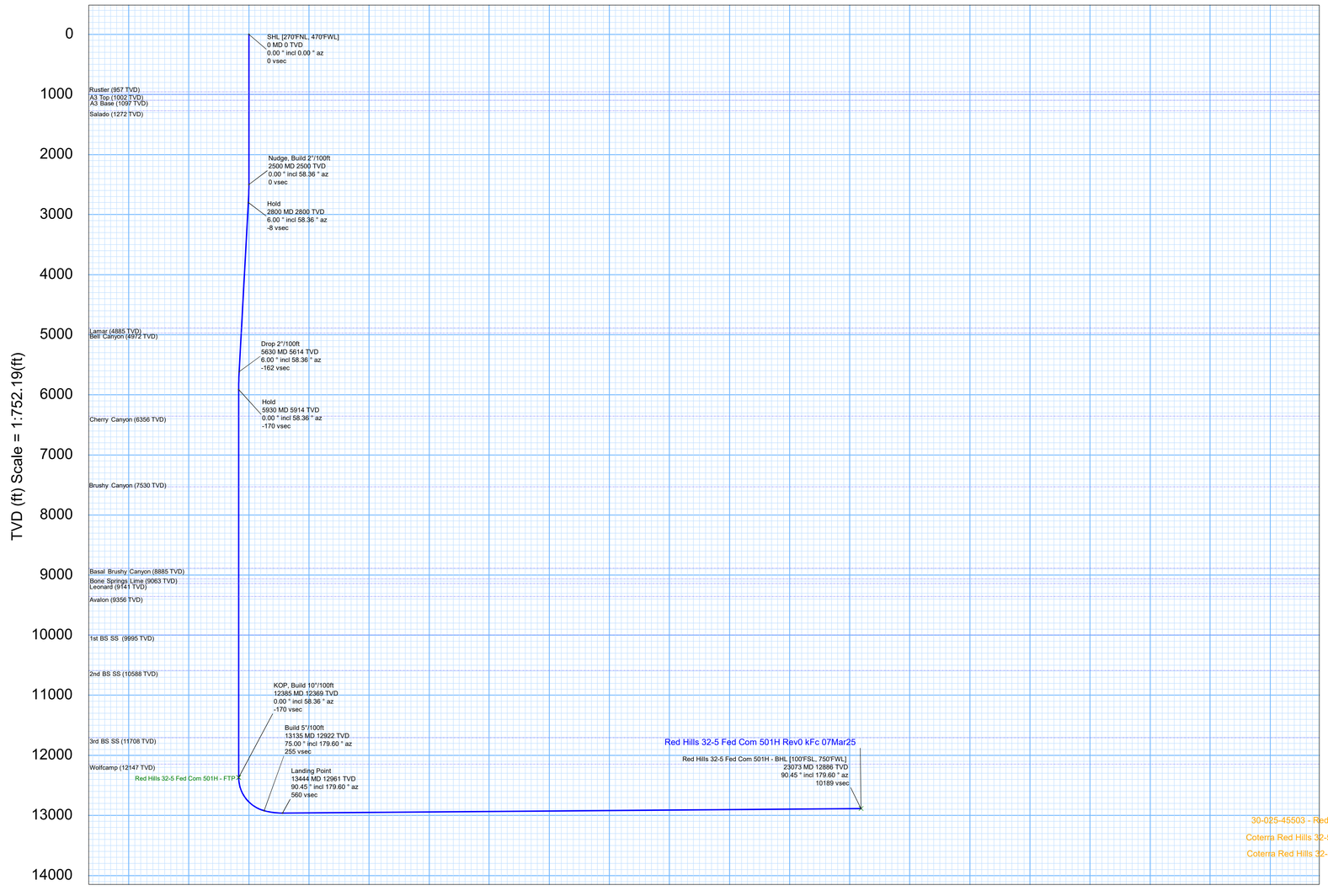
D
E
C

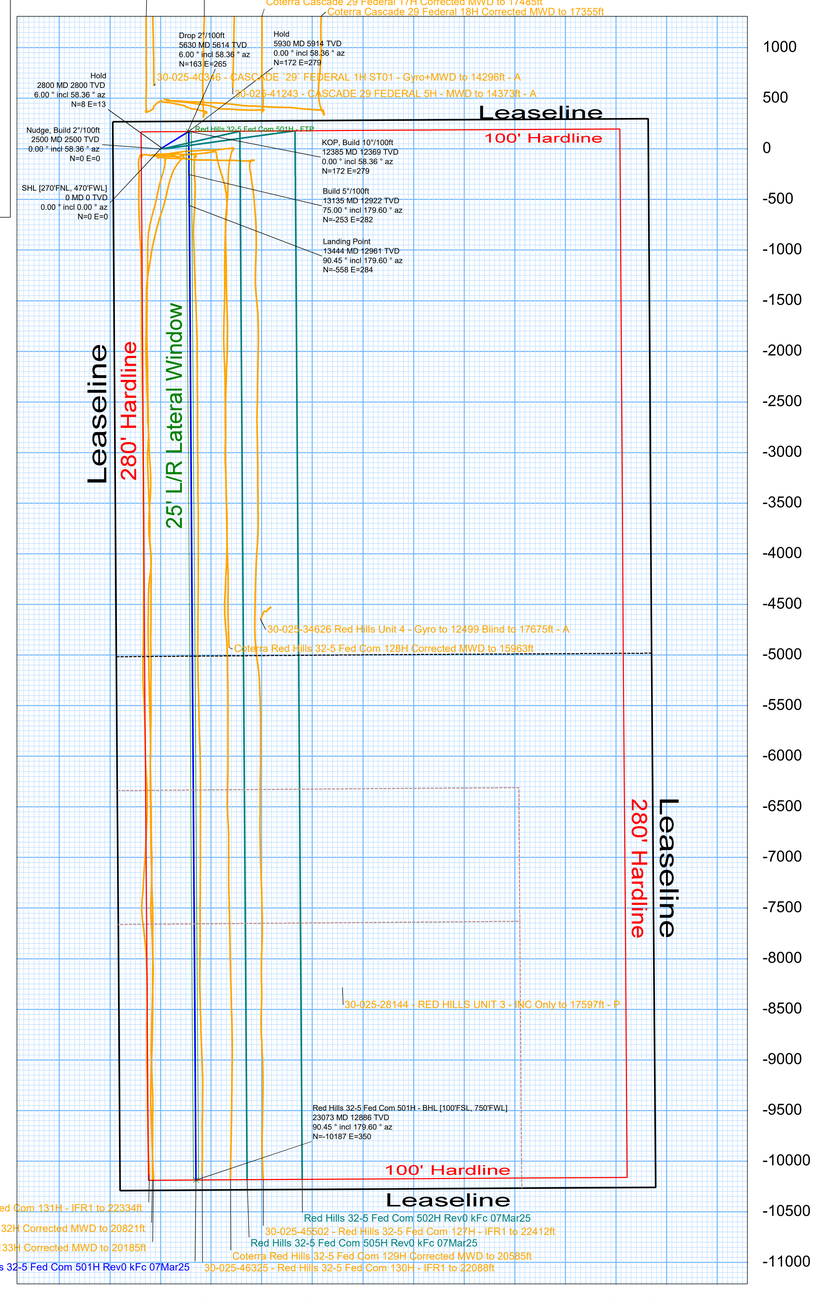
CONTROLLED

Plan ref	Red Hills 32-5 Fed Com 501H Rev0 kFc 07Mar25
Drawing ref	
Copy number	of 3
Date	07-Mar-2025

1	Client	
2	Client	
3	Office	
4	Office	

Copy number for





Red Hills 32-5 Fed Com 501H Rev0 kFc 07Mar25 Proposal Geodetic Report

Def Plan

Report Date:	March 07, 2025 - 07:39 PM (UTC 0)	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	COTERRA	**Vertical Section Azimuth:**	179.600 °(GRID North)
Field:	NM Lea County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Coterra Red Hills 32-5 Fed Com Pad D / Red Hills 32-5 Fed Com 501H	**TVD Reference Datum:**	RKB
Well:	Red Hills 32-5 Fed Com 501H	**TVD Reference Elevation:**	3419.600 ft above MSL
Borehole:	Red Hills 32-5 Fed Com 501H	**Seabed / Ground Elevation:**	3396.600 ft above MSL
UBHI / API#:	Unknown / Unknown	**Magnetic Declination:**	6.109°
Survey Name:	Red Hills 32-5 Fed Com 501H Rev0 kFc 07Mar25	**Total Gravity Field Strength:**	998.4294mgn (9.80665 Based)
Survey Date:	March 07, 2025	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	102.451 ° / 10685.902 ft / 6.290 / 0.824	**Total Magnetic Field Strength:**	47125.26 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	59.566°
Location Lat / Long:	32°5'36.88008"N , 103°36'4.81439"W	**Declination Date:**	March 07, 2025
Location Grid N/E Y/X:	N 398549.760 ftUS , E 768019.470 ftUS	**Magnetic Declination Model:**	HDGM 2025
CRS Grid Convergence Angle:	0.389°	**North Reference:**	Grid North
Grid Scale Factor:	0.99996794(Applied)	**Grid Convergence Used:**	0.389°
Version / Patch:	2024.5.0.1	**Total Corr Mag North->Grid North:**	5.721°
		Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)
SHL [270'FNL, 470'FWL]	0.00	0.00	0.00	0.00	-3,419.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733			
	100.00	0.00	58.36	100.00	-3,319.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	200.00	0.00	58.36	200.00	-3,219.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	300.00	0.00	58.36	300.00	-3,119.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	400.00	0.00	58.36	400.00	-3,019.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	500.00	0.00	58.36	500.00	-2,919.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	600.00	0.00	58.36	600.00	-2,819.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	700.00	0.00	58.36	700.00	-2,719.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	800.00	0.00	58.36	800.00	-2,619.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	900.00	0.00	58.36	900.00	-2,519.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
Rustler□	957.00	0.00	58.36	957.00	-2,462.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	1,000.00	0.00	58.36	1,000.00	-2,419.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
A3 Top□	1,002.00	0.00	58.36	1,002.00	-2,417.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
A3 Base□	1,097.00	0.00	58.36	1,097.00	-2,322.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	1,100.00	0.00	58.36	1,100.00	-2,319.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	1,200.00	0.00	58.36	1,200.00	-2,219.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
Salado□	1,272.00	0.00	58.36	1,272.00	-2,147.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	1,300.00	0.00	58.36	1,300.00	-2,119.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	1,400.00	0.00	58.36	1,400.00	-2,019.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	1,500.00	0.00	58.36	1,500.00	-1,919.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	1,600.00	0.00	58.36	1,600.00	-1,819.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	1,700.00	0.00	58.36	1,700.00	-1,719.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	1,800.00	0.00	58.36	1,800.00	-1,619.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	1,900.00	0.00	58.36	1,900.00	-1,519.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	2,000.00	0.00	58.36	2,000.00	-1,419.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	2,100.00	0.00	58.36	2,100.00	-1,319.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	2,200.00	0.00	58.36	2,200.00	-1,219.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	2,300.00	0.00	58.36	2,300.00	-1,119.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	2,400.00	0.00	58.36	2,400.00	-1,019.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
Nudge, Build 2°/100ft	2,500.00	0.00	58.36	2,500.00	-919.60	0.00	0.00	0.00	398,549.76	768,019.47	32.09357780	-103.60133733	0.00	0.00	0.00
	2,600.00	2.00	58.36	2,599.98	-819.62	-0.90	0.92	1.49	398,550.68	768,020.96	32.09358029	-103.60133251	2.00	2.00	0.00
	2,700.00	4.00	58.36	2,699.84	-719.76	-3.62	3.66	5.94	398,553.42	768,025.41	32.09358775	-103.60131807	2.00	2.00	0.00
	2,800.00	6.00	58.36	2,799.45	-620.15	-8.14	8.23	13.36	398,557.99	768,032.83	32.09360018	-103.60129401	2.00	2.00	0.00
Hold	2,800.12	6.00	58.36	2,799.58	-620.02	-8.14	8.24	13.37	398,558.00	768,032.84	32.09360020	-103.60129397	2.00	2.00	0.00
	2,900.00	6.00	58.36	2,898.90	-520.70	-13.56	13.72	22.26	398,563.48	768,041.73	32.09361509	-103.60126514	0.00	0.00	0.00
	3,000.00	6.00	58.36	2,998.36	-421.24	-18.98	19.20	31.17	398,568.96	768,050.64	32.09363000	-103.60123627	0.00	0.00	0.00
	3,100.00	6.00	58.36	3,097.81	-321.79	-24.41	24.69	40.07	398,574.45	768,059.54	32.09364491	-103.60120741	0.00	0.00	0.00
	3,200.00	6.00	58.36	3,197.26	-222.34	-29.83	30.17	48.97	398,579.93	768,068.44	32.09365982	-103.60117854	0.00	0.00	0.00
	3,300.00	6.00	58.36	3,296.71	-122.89	-35.25	35.66	57.88	398,585.42	768,077.35	32.09367473	-103.60114967	0.00	0.00	0.00
	3,400.00	6.00	58.36	3,396.16	-23.44	-40.67	41.14	66.78	398,590.90	768,086.25	32.09368964	-103.60112080	0.00	0.00	0.00
	3,500.00	6.00	58.36	3,495.61	76.01	-46.10	46.63	75.68	398,596.38	768,095.15	32.09370455	-103.60109194	0.00	0.00	0.00
	3,600.00	6.00	58.36	3,595.07	175.47	-51.52	52.11	84.59	398,601.87	768,104.05	32.09371946	-103.60106307	0.00	0.00	0.00
	3,700.00	6.00	58.36	3,694.52	274.92	-56.94	57.60	93.49	398,607.35	768,112.96	32.09373437	-103.60103420	0.00	0.00	0.00
	3,800.00	6.00	58.36	3,793.97	374.37	-62.36	63.08	102.39	398,612.84	768,121.86	32.09374928	-103.60100533	0.00	0.00	0.00
	3,900.00	6.00	58.36	3,893.42	473.82	-67.79	68.57	111.30	398,618.32	768,130.76	32.09376419	-103.60097647	0.00	0.00	0.00
	4,000.00	6.00	58.36	3,992.87	573.27	-73.21	74.05	120.20	398,623.81	768,139.67	32.09377910	-103.60094760	0.00	0.00	0.00
	4,100.00	6.00	58.36	4,092.32	672.72	-78.63	79.54	129.10	398,629.29	768,148.57	32.09379401	-103.60091873	0.00	0.00	0.00
	4,200.00	6.00	58.36	4,191.78	772.18	-84.06	85.02	138.01	398,634.78	768,157.47	32.09380892	-103.60088986	0.00	0.00	0.00
	4,300.00	6.00	58.36	4,291.23	871.63	-89.48	90.51	146.91	398,640.26	768,166.38	32.09382383	-103.60086100	0.00	0.00	0.00
	4,400.00	6.00	58.36	4,390.68	971.08	-94.90	95.99	155.81	398,645.75	768,175.28	32.09383874	-103.60083213	0.00	0.00	0.00
	4,500.00	6.00	58.36	4,490.13	1,070.53	-100.32	101.48	164.72	398,651.23	768,184.18	32.09385365	-103.60080326	0.00	0.00	0.00
	4,600.00	6.00	58.36	4,589.58	1,169.98	-105.75	106.96	173.62	398,656.72	768,193.08	32.09386856	-103.60077439	0.00	0.00	0.00
	4,700.00	6.00	58.36	4,689.03	1,269.43	-111.17	112.45	182.52	398,662.20	768,201.99	32.09388347	-103.60074553	0.00	0.00	0.00
	4,800.00	6.00	58.36	4,788.49	1,368.89	-116.59	117.93	191.43	398,667.69	768,210.89	32.09389838	-103.60071666	0.00	0.00	0.00
Lamar□	4,897.05	6.00	58.36	4,885.00	1,465.40	-121.85	123.25	200.07	398,673.01	768,219.53	32.09391285	-103.60068864	0.00	0.00	0.00
	4,900.00	6.00	58.36	4,887.94	1,468.34	-122.01	123.42	200.33	398,673.17	768,219.79	32.09391329	-103.60068779	0.00	0.00	0.00
Bell Canyon□	4,984.52	6.00	58.36	4,972.00	1,552.40	-126.60	128.05	207.86	398,677.81	768,227.32	32.09392589	-103.60066339	0.00	0.00	0.00
	5,000.00	6.00	58.36	4,987.39	1,567.79	-127.44	128.90	209.23	398,678.66	768,228.70	32.09392820	-103.60065892	0.00	0.00	0.00
	5,100.00	6.00	58.36	5,086.84	1,667.24	-132.86	134.39	218.14	398,684.14	768,237.60	32.09394311	-103.60063006	0.00	0.00	0.00
	5,200.00	6.00	58.36	5,186.29	1,766.69	-138.28	139.87	227.04	398,689.63	768,246.50	32.09395802	-103.60060119	0.00	0.00	0.00
	5,300.00	6.00	58.36	5,285.75	1,866.15	-143.70	145.36	235.94	398,695.11	768,255.40	32.09397293	-103.60057232	0.00	0.00	0.00
	5,400.00	6.00	58.36	5,385.20	1,965.60	-149.13	150.84	244.85	398,700.59	768,264.31	32.09398784	-103.60054345	0.00	0.00	0.00
	5,500.00	6.00	58.36	5,484.65	2,065.05	-154.55	156.32	253.75	398,706.08	768,273.21	32.09400275	-103.60051459	0.00	0.00	0.00
	5,600.00	6.00	58.36	5,584.10	2,164.50	-159.97	161.81	262.65	398,711.56	768,282.11	32.09401766	-103.60048572	0.00	0.00	0.00
Drop 2°/100ft	5,630.04	6.00	58.36	5,613.97	2,194.37	-161.60	163.46	265.33	398,713.21	768,284.79	32.09402213	-103.60047705	0.00	0.00	0.00
	5,700.00	4.60	58.36	5,683.63	2,264.03	-164.95	166.85	270.83	398,716.60	768,290.29	32.09403135	-103.60045920	2.00	-2.00	0.00
	5,800.00	2.60	58.36	5,783.43	2,363.83	-168.21	170.15	276.18	398,719.90	768,295.64	32.09404031	-103.60044185	2.00	-2.00	0.00
	5,900.00	0.60	58.36	5,883.39	2,463.79	-169.66	171.61	278.56	398,721.37	768,298.02	32.09404430	-103.60043413	2.00	-2.00	0.00
Hold	5,930.16	0.00	58.36	5,913.55	2,493.95	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	2.00	-2.00	0.00
	6,000.00	0.00	58.36	5,983.39	2,563.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	6,100.00	0.00	58.36	6,083.39	2,663.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	6,200.00	0.00	58.36	6,183.39	2,763.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	6,300.00	0.00	58.36	6,283.39	2,863.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
Cherry Canyon□	6,372.61	0.00	58.36	6,356.00	2,936.40	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	6,400.00	0.00	58.36	6,383.39	2,963.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	6,500.00	0.00	58.36	6,483.39	3,063.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	6,600.00	0.00	58.36	6,583.39	3,163.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	6,700.00	0.00	58.36	6,683.39	3,263.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	6,800.00	0.00	58.36	6,783.39	3,363.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	6,900.00	0.00	58.36	6,883.39	3,463.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	7,000.00	0.00	58.36	6,983.39	3,563.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	7,100.00	0.00	58.36	7,083.39	3,663.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	7,200.00	0.00	58.36	7,183.39	3,763.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	7,300.00	0.00	58.36	7,283.39	3,863.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	7,400.00	0.00	58.36	7,383.39	3,963.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	7,500.00	0.00	58.36	7,483.39	4,063.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
Brushy Canyon□	7,546.61	0.00	58.36	7,530.00	4,110.40	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	7,600.00	0.00	58.36	7,583.39	4,163.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	7,700.00	0.00	58.36	7,683.39	4,263.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	7,800.00	0.00	58.36	7,783.39	4,363.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	7,900.00	0.00	58.36	7,883.39	4,463.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	8,000.00	0.00	58.36	7,983.39	4,563.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	8,100.00	0.00	58.36	8,083.39	4,663.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	8,200.00	0.00	58.36	8,183.39	4,763.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	8,300.00	0.00	58.36	8,283.39	4,863.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	8,400.00	0.00	58.36	8,383.39	4,963.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	8,500.00	0.00	58.36	8,483.39	5,063.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	8,600.00	0.00	58.36	8,583.39	5,163.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	8,700.00	0.00	58.36	8,683.39	5,263.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	8,800.00	0.00	58.36	8,783.39	5,363.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	8,900.00	0.00	58.36	8,883.39	5,463.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
Basal Brushy Canyon□	8,901.61	0.00	58.36	8,885.00	5,465.40	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	9,000.00	0.00	58.36	8,983.39	5,563.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
Bone Springs Lime□	9,079.61	0.00	58.36	9,063.00	5,643.40	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	9,100.00	0.00	58.36	9,083.39	5,663.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
Leonard□	9,157.61	0.00	58.36	9,141.00	5,721.40	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	9,200.00	0.00	58.36	9,183.39	5,763.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	9,300.00	0.00	58.36	9,283.39	5,863.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
Avalon□	9,372.61	0.00	58.36	9,356.00	5,936.40	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)
	9,400.00	0.00	58.36	9,383.39	5,963.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	9,500.00	0.00	58.36	9,483.39	6,063.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	9,600.00	0.00	58.36	9,583.39	6,163.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	9,700.00	0.00	58.36	9,683.39	6,263.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	9,800.00	0.00	58.36	9,783.39	6,363.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	9,900.00	0.00	58.36	9,883.39	6,463.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	10,000.00	0.00	58.36	9,983.39	6,563.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
1st BS SS □	10,011.61	0.00	58.36	9,995.00	6,575.40	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	10,100.00	0.00	58.36	10,083.39	6,663.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	10,200.00	0.00	58.36	10,183.39	6,763.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	10,300.00	0.00	58.36	10,283.39	6,863.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	10,400.00	0.00	58.36	10,383.39	6,963.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	10,500.00	0.00	58.36	10,483.39	7,063.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	10,600.00	0.00	58.36	10,583.39	7,163.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
2nd BS SS□	10,604.61	0.00	58.36	10,588.00	7,168.40	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	10,700.00	0.00	58.36	10,683.39	7,263.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	10,800.00	0.00	58.36	10,783.39	7,363.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	10,900.00	0.00	58.36	10,883.39	7,463.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	11,000.00	0.00	58.36	10,983.39	7,563.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	11,100.00	0.00	58.36	11,083.39	7,663.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	11,200.00	0.00	58.36	11,183.39	7,763.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	11,300.00	0.00	58.36	11,283.39	7,863.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	11,400.00	0.00	58.36	11,383.39	7,963.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	11,500.00	0.00	58.36	11,483.39	8,063.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	11,600.00	0.00	58.36	11,583.39	8,163.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	11,700.00	0.00	58.36	11,683.39	8,263.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
3rd BS SS□	11,724.61	0.00	58.36	11,708.00	8,288.40	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	11,800.00	0.00	58.36	11,783.39	8,363.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	11,900.00	0.00	58.36	11,883.39	8,463.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	12,000.00	0.00	58.36	11,983.39	8,563.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	12,100.00	0.00	58.36	12,083.39	8,663.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
Wolfcamp□	12,163.61	0.00	58.36	12,147.00	8,727.40	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	12,200.00	0.00	58.36	12,183.39	8,763.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	12,300.00	0.00	58.36	12,283.39	8,863.79	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
KOP, Build 10°/100ft	12,385.16	0.00	58.36	12,368.55	8,948.95	-169.75	171.70	278.70	398,721.45	768,298.16	32.09404453	-103.60043369	0.00	0.00	0.00
	12,400.00	1.48	179.60	12,383.39	8,963.79	-169.55	171.50	278.70	398,721.26	768,298.16	32.09404400	-103.60043369	10.00	10.00	0.00
	12,500.00	11.48	179.60	12,482.62	9,063.02	-158.28	160.23	278.78	398,709.98	768,298.24	32.09401300	-103.60043368	10.00	10.00	0.00
	12,600.00	21.48	179.60	12,578.39	9,158.79	-129.94	131.89	278.98	398,681.64	768,298.44	32.09393511	-103.60043366	10.00	10.00	0.00
	12,700.00	31.48	179.60	12,667.78	9,248.18	-85.40	87.35	279.29	398,637.11	768,298.75	32.09381269	-103.60043364	10.00	10.00	0.00
	12,800.00	41.48	179.60	12,748.08	9,328.48	-26.02	27.97	279.70	398,577.73	768,299.16	32.09364946	-103.60043360	10.00	10.00	0.00
	12,900.00	51.48	179.60	12,816.85	9,397.25	46.41	-44.45	280.21	398,505.31	768,299.67	32.09345038	-103.60043356	10.00	10.00	0.00
	13,000.00	61.48	179.60	12,872.00	9,452.40	129.68	-127.72	280.79	398,422.04	768,300.25	32.09322150	-103.60043351	10.00	10.00	0.00
	13,100.00	71.48	179.60	12,911.85	9,492.25	221.26	-219.30	281.43	398,330.47	768,300.89	32.09296978	-103.60043345	10.00	10.00	0.00
Build 5°/100ft	13,135.16	75.00	179.60	12,921.98	9,502.38	254.92	-252.96	281.66	398,296.81	768,301.12	32.09287725	-103.60043343	10.00	10.00	0.00
	13,200.00	78.24	179.60	12,936.99	9,517.39	317.99	-316.03	282.10	398,233.74	768,301.56	32.09270389	-103.60043340	5.00	5.00	0.00
	13,300.00	83.24	179.60	12,953.07	9,533.47	416.65	-414.69	282.79	398,135.08	768,302.25	32.09243268	-103.60043335	5.00	5.00	0.00
	13,400.00	88.24	179.60	12,960.49	9,540.89	516.35	-514.38	283.48	398,035.40	768,302.94	32.09215866	-103.60043331	5.00	5.00	0.00
Landing Point	13,444.09	90.45	179.60	12,961.00	9,541.40	560.43	-558.46	283.78	397,991.32	768,303.24	32.09203749	-103.60043329	5.00	5.00	0.00
	13,500.00	90.45	179.60	12,960.56	9,540.96	616.34	-614.37	284.17	397,935.41	768,303.63	32.09188381	-103.60043327	0.00	0.00	0.00
	13,600.00	90.45	179.60	12,959.78	9,540.18	716.34	-714.37	284.86	397,835.42	768,304.32	32.09160895	-103.60043324	0.00	0.00	0.00
	13,700.00	90.45	179.60	12,959.00	9,539.40	816.33	-814.36	285.55	397,735.43	768,305.01	32.09133408	-103.60043321	0.00	0.00	0.00
	13,800.00	90.45	179.60	12,958.22	9,538.62	916.33	-914.35	286.24	397,635.44	768,305.70	32.09105922	-103.60043317	0.00	0.00	0.00
	13,900.00	90.45	179.60	12,957.45	9,537.85	1,016.33	-1,014.35	286.93	397,535.45	768,306.39	32.09078436	-103.60043314	0.00	0.00	0.00
	14,000.00	90.45	179.60	12,956.67	9,537.07	1,116.32	-1,114.34	287.62	397,435.45	768,307.08	32.09050950	-103.60043311	0.00	0.00	0.00
	14,100.00	90.45	179.60	12,955.89	9,536.29	1,216.32	-1,214.34	288.31	397,335.46	768,307.77	32.09023463	-103.60043307	0.00	0.00	0.00
	14,200.00	90.45	179.60	12,955.11	9,535.51	1,316.32	-1,314.33	289.00	397,235.47	768,308.46	32.08995977	-103.60043304	0.00	0.00	0.00
	14,300.00	90.45	179.60	12,954.33	9,534.73	1,416.32	-1,414.33	289.69	397,135.48	768,309.15	32.08968491	-103.60043301	0.00	0.00	0.00
	14,400.00	90.45	179.60	12,953.55	9,533.95	1,516.31	-1,514.32	290.38	397,035.49	768,309.84	32.08941005	-103.60043297	0.00	0.00	0.00
	14,500.00	90.45	179.60	12,952.77	9,533.17	1,616.31	-1,614.32	291.07	396,935.50	768,310.53	32.08913518	-103.60043294	0.00	0.00	0.00
	14,600.00	90.45	179.60	12,951.99	9,532.39	1,716.31	-1,714.31	291.76	396,835.51	768,311.22	32.08886032	-103.60043291	0.00	0.00	0.00
	14,700.00	90.45	179.60	12,951.21	9,531.61	1,816.30	-1,814.31	292.45	396,735.52	768,311.91	32.08858546	-103.60043287	0.00	0.00	0.00
	14,800.00	90.45	179.60	12,950.44	9,530.84	1,916.30	-1,914.30	293.14	396,635.52	768,312.60	32.08831059	-103.60043284	0.00	0.00	0.00
	14,900.00	90.45	179.60	12,949.66	9,530.06	2,016.30	-2,014.29	293.83	396,535.53	768,313.29	32.08803573	-103.60043281	0.00	0.00	0.00
	15,000.00	90.45	179.60	12,948.88	9,529.28	2,116.29	-2,114.29	294.52	396,435.54	768,313.98	32.08776087	-103.60043277	0.00	0.00	0.00
	15,100.00	90.45	179.60	12,948.10	9,528.50	2,216.29	-2,214.28	295.21	396,335.55	768,314.67	32.08748601	-103.60043274	0.00	0.00	0.00
	15,200.00	90.45	179.60	12,947.32	9,527.72	2,316.29	-2,314.28	295.90	396,235.56	768,315.36	32.08721114	-103.60043271	0.00	0.00	0.00
	15,300.00	90.45	179.60	12,946.54	9,526.94	2,416.28	-2,414.27	296.59	396,135.57	768,316.05	32.08693628	-103.60043267	0.00	0.00	0.00
	15,400.00	90.45	179.60	12,945.76	9,526.16	2,516.28	-2,514.27	297.28	396,035.58	768,316.74	32.08666142	-103.60043264	0.00	0.00	0.00
	15,500.00	90.45	179.60	12,944.98	9,525.38	2,616.28	-2,614.26	297.97	395,935.59	768,317.43	32.08638656	-103.60043261	0.00	0.00	0.00
	15,600.00	90.45	179.60	12,944.20	9,524.60	2,716.28	-2,714.26	298.66	395,835.60	768,318.12	32.08611169	-103.60043257	0.00	0.00	0.00
	15,700.00	90.45	179.60	12,943.43	9,523.83	2,816.27	-2,814.25	299.35	395,735.60	768,318.81	32.08583683	-103.60043254	0.00	0.00	0.00
	15,800.00	90.45	179.60	12,942.65	9,523.05	2,916.27	-2,914.25	300.04	395,635.61	768,319.50	32.08556197	-103.60043250	0.00	0.00	0.00
	15,900.00	90.45	179.60	12,941.87	9,522.27	3,016.27	-3,014.24	300.73	395,535.62	768,320.19	32.08528710	-103.60043247	0.00	0.00	0.00
	16,000.00	90.45	179.60	12,941.09	9,521.49	3,116.26	-3,114.24	301.42	395,435.63	768,320.88	32.08501224	-103.60043244	0.00	0.00	0.00
	16,100.00	90.45	179.60	12,940.31	9,520.71	3,216.26	-3,214.23	302.11	395,335.64	768,321.57	32.08473738	-103.60043240	0.00	0.00	0.00
	16,200.00	90.45	179.60	12,939.53	9,519.93	3,316.26	-3,314.22	302.80	395,235.65	768,322.26	32.08446252	-103.60043237	0.00	0.00	0.00
	16,300.00	90.45	179.60	12,938.75	9,519.15	3,416.25	-3,414.22	303.49	395,135.66	768,322.95	32.08418765	-103.60043234	0.00	0.00	0.00
	16,400.00	90.45	179.60	12,937.97	9,518.37	3,516.25	-3,514.21	304.18	395,035.67	768,323.64	32.08391279	-103.60043230	0.00	0.00	0.00
	16,500.00	90.45	179.60	12,937.19	9,517.59	3,616.25	-3,614.21	304.87	394,935.67	768,324.33	32.08363793	-103.60043227	0.00	0.00	0.00
	16,600.00	90.45	179.60	12,936.42	9,516.82	3,716.25	-3,714.20	305.56	394,835.68	768,325.02	32.08336306	-103.60043223	0.00	0.00	0.00
	16,700.00	90.45	179.60	12,935.64	9,516.04	3,816.24	-3,814.20	306.25	394,735.69	768,325.71	32.08308820	-103.60043220	0.00	0.00	0.00
	16,800.00	90.45	179.60	12,934.86	9,515.26	3,916.24	-3,914.19	306.94	394,635.70	768,326.40	32.08281334	-103.60043217	0.00	0.00	0.00
	16,900.00	90.45	179.60	12,934.08	9,514.48	4,016.24	-4,014.19	307.63	394,535.71	768,327.09	32.08253848	-103.60043213	0.00	0.00	0.00
	17,000.00	90.45	179.60	12,933.30	9,513.70	4,116.23	-4,114.18	308.32	394,435.72	768,327.78	32.08226361	-103.60043210	0.00	0.00	0.00
	17,100.00	90.45	179.60	12,932.52	9,512.92	4,216.23	-4,214.18	309.01	394,335.73	768,328.47	32.08198875	-103.60043207	0.00	0.00	0.00
	17,200.00	90.45	179.60	12,931.74	9,512.14	4,316.23	-4,314.17	309.70	394,235.74	768,329.16	32.08171389	-103.60043203	0.00	0.00	0.00
	17,300.00	90.45	179.60	12,930.96	9,511.36	4,416.22	-4,414.17	310.39	394,135.75	768,329.85	32.08143902	-103.60043200	0.00	0.00	0.00
	17,400.00	90.45	179.60	12,930.18	9,510.58	4,516.22	-4,514.16	311.08	394,035.75	768,330.54	32.08116416	-103.60043196	0.00	0.00	0.00
	17,500.00	90.45	179.60	12,929.41	9,509.81	4,616.22	-4,614.15	311.77	393,935.76	768,331.23	32.08088930	-103.60043193	0.00	0.00	0.00
	17,600.00	90.45	179.60	12,928.63	9,509.03	4,716.22	-4,714.15	312.46	393,835.77	768,331.92	32.08061443	-103.60043190	0.00	0.00	0.00
	17,700.00	90.45	179.60	12,927.85	9,508.25	4,816.21	-4,814.14	313.15	393,735.78	768,332.60	32.08033957	-103.60043186	0.00	0.00	0.00
	17,800.00	90.45	179.60	12,927.07	9,507.47	4,916.21	-4,914.14	313.84	393,635.79	768,333.29	32.08006471	-103.60043183	0.00	0.00	0.00
	17,900.00	90.45	179.60	12,926.29	9,506.69	5,016.21	-5,014.13	314.53	393,535.80	768,333.98	32.07978985	-103.60043179	0.00	0.00	0.00
	18,000.00	90.45	179.60	12,925.51	9,505.91	5,116.20	-5,114.13	315.22	393,435.81	768,334.67	32.07951498	-103.60043176	0.00	0.00	0.00
	18,100.00	90.45	179.60	12,924.73	9,505.13	5,216.20	-5,214.12	315.91	393,335.82	768,335.36	32.07924012	-103.60043173	0.00	0.00	0.00
	18,200.00	90.45	179.60	12,923.95	9,504.35	5,316.20	-5,314.12	316.60	393,235.82	768,336.05	32.07896526	-103.60043169	0.00	0.00	0.00
	18,300.00	90.45	179.60	12,923.17	9,503.57	5,416.19	-5,414.11	317.28	393,135.83	768,336.74	32.07869039	-103.60043166	0.00	0.00	0.00
	18,400.00	90.45	179.60	12,922.40	9,502.80	5,516.19	-5,514.11	317.97	393,035.84	768,337.43	32.07841553	-103.60043162	0.00	0.00	0.00
	18,500.00	90.45	179.60	12,921.62	9,502.02	5,616.19	-5,614.10	318.66	392,935.85	768,338.12	32.07814067	-103.60043159	0.00	0.00	0.00
	18,600.00	90.45	179.60	12,920.84	9,501.24	5,716.18	-5,714.09	319.35	392,835.86	768,338.81	32.07786580	-103.60043156	0.00	0.00	0.00
	18,700.00	90.45	179.60	12,920.06	9,500.46	5,816.18	-5,814.09	320.04	392,735.87	768,339.50	32.07759094	-103.60043152	0.00	0.00	0.00
	18,800.00	90.45	179.60	12,919.28	9,499.68	5,916.18	-5,914.08	320.73	392,635.88	768,340.19	32.07731608	-103.60043149	0.00	0.00	0.00
	18,900.00	90.45	179.60	12,918.50	9,498.90	6,016.18	-6,014.08	321.42	392,535.89	768,340.88	32.07704121	-103.60043145	0.00	0.00	0.00
	19,000.00	90.45	179.60	12,917.72	9,498.12	6,116.17	-6,114.07	322.11	392,435.90	768,341.57	32.07676635	-103.60043142	0.00	0.00	0.00
	19,100.00	90.45	179.60	12,916.94	9,497.34	6,216.17	-6,214.07	322.80	392,335.90	768,342.26	32.07649149	-103.60043138	0.00	0.00	0.00
	19,200.00	90.45	179.60	12,916.16	9,496.56	6,316.17	-6,314.06	323.49	392,235.91	768,342.95	32.07621663	-103.60043135	0.00	0.00	0.00
	19,300.00	90.45	179.60	12,915.39	9,495.79	6,416.16	-6,414.06	324.18	392,135.92	768,343.64	32.07594176	-103.60043132	0.00	0.00	0.00
	19,400.00	90.45	179.60	12,914.61	9,495.01	6,516.16	-6,514.05	324.87	392,035.93	768,344.33	32.07566690	-103.60043128	0.00	0.00	0.00
	19,500.00	90.45	179.60	12,913.83	9,494.23	6,616.16	-6,614.05	325.56	391,935.94	768,345.02	32.07539204	-103.60043125	0.00	0.00	0.00
	19,600.00	90.45	179.60	12,913.05	9,493.45	6,716.15	-6,714.04	326.25	391,835.95	768,345.71	32.07511717	-103.60043121	0.00	0.00	0.00
	19,700.00	90.45	179.60	12,912.27	9,492.67	6,816.15	-6,814.04	326.94	391,735.96	768,346.40	32.07484231	-103.60043118	0.00	0.00	0.00
	19,800.00	90.45	179.60	12,911.49	9,491.89	6,916.15	-6,914.03	327.63	391,635.97	768,347.09	32.07456745	-103.60043114	0.00	0.00	0.00
	19,900.00	90.45	179.60	12,910.71	9,491.11	7,016.15	-7,014.02	328.32	391,535.97	768,347.78	32.07429258	-103.60043111	0.00	0.00	0.00
	20,000.00	90.45	179.60	12,909.93	9,490.33	7,116.14	-7,114.02	329.01	391,435.98	768,348.47	32.07401772	-103.60043108	0.00	0.00	0.00
	20,100.00	90.45	179.60	12,909.15	9,489.55	7,216.14	-7,214.01	329.70	391,335.99	768,349.16	32.07374286	-103.60043104	0.00	0.00	0.00
	20,200.00	90.45	179.60	12,908.38	9,488.78	7,316.14	-7,314.01	330.39	391,236.00	768,349.85	32.07346799	-103.60043101	0.00	0.00	0.00
	20,300.00	90.45	179.60	12,907.60	9,488.00	7,416.13	-7,414.00	331.08	391,136.01	768,350.54	32.07319313	-103.60043097	0.00	0.00	0.00
	20,400.00	90.45	179.60	12,906.82	9,487.22	7,516.13	-7,514.00	331.77	391,036.02	768,351.23	32.07291827	-103.60043094	0.00	0.00	0.00
	20,500.00	90.45	179.60	12,906.04	9,486.44	7,616.13	-7,613.99	332.46	390,936.03	768,351.92	32.07264340	-103.60043090	0.00	0.00	0.00
	20,600.00	90.45	179.60	12,905.26	9,485.66	7,716.12	-7,713.99	333.15	390,836.04	768,352.61	32.07236854	-103.60043087	0.00	0.00	0.00
	20,700.00	90.45	179.60	12,904.48	9,484.88	7,816.12	-7,813.98	333.84	390,736.05	768,353.30	32.07209368	-103.60043083	0.00	0.00	0.00
	20,800.00	90.45	179.60	12,903.70	9,484.10	7,916.12	-7,913.98	334.53	390,636.05	768,353.99	32.07181881	-103.60043080	0.00	0.00	0.00
	20,900.00	90.45	179.60	12,902.92	9,483.32	8,016.12	-8,013.97	335.22	390,536.06	768,354.68	32.07154395	-103.60043077	0.00	0.00	0.00
	21,000.00	90.45	179.60	12,902.14	9,482.54	8,116.11	-8,113.96	335.91	390,436.07	768,355.37	32.07126909	-103.60043073	0.00	0.00	0.00
	21,100.00	90.45	179.60	12,901.37	9,481.77	8,216.11	-8,213.96	336.60	390,336.08	768,356.06	32.07099422	-103.60043070	0.00	0.00	0.00
	21,200.00	90.45	179.60	12,900.59	9,480.99	8,316.11	-8,313.95	337.29	390,236.09	768,356.75	32.07071936	-103.60043066	0.00	0.00	0.00
	21,300.00	90.45	179.60	12,899.81	9,480.21	8,416.10	-8,413.95	337.98	390,136.10	768,357.44	32.07044450	-103.60043063	0.00	0.00	0.00
	21,400.00	90.45	179.60	12,899.03	9,479.43	8,516.10	-8,513.94	338.67	390,036.11	768,358.13	32.07016963	-103.60043059	0.00	0.00	0.00
	21,500.00	90.45	179.60	12,898.25	9,478.65	8,616.10	-8,613.94	339.36	389,936.12	768,358.82	32.06989477	-103.60043056	0.00	0.00	0.00
	21,600.00	90.45	179.60	12,897.47	9,477.87	8,716.09	-8,713.93	340.05	389,836.12	768,359.51	32.06961990	-103.60043052	0.00	0.00	0.00
	21,700.00	90.45	179.60	12,896.69	9,477.09	8,816.09	-8,813.93	340.74	389,736.13	768,360.20	32.06934504	-103.60043049	0.00	0.00	0.00
	21,800.00	90.45	179.60	12,895.91	9,476.31	8,916.09	-8,913.92	341.43	389,636.14	768,360.89	32.06907018	-103.60043045	0.00	0.00	0.00
	21,900.00	90.45	179.60	12,895.13	9,475.53	9,016.08	-9,013.92	342.12	389,536.15	768,361.58	32.06879531	-103.60043042	0.00	0.00	0.00
	22,000.00	90.45	179.60	12,894.36	9,474.76	9,116.08	-9,113.91	342.81	389,436.16	768,362.27	32.06852045	-103.60043039	0.00	0.00	0.00
	22,100.00	90.45	179.60	12,893.58	9,473.98	9,216.08	-9,213.91	343.50	389,336.17	768,362.96	32.06824559	-103.60043035	0.00	0.00	0.00
	22,200.00	90.45	179.60	12,892.80	9,473.20	9,316.08	-9,313.90	344.19	389,236.18	768,363.65	32.06797072	-103.60043032	0.00	0.00	0.00

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)
	22,300.00	90.45	179.60	12,892.02	9,472.42	9,416.07	-9,413.89	344.88	389,136.19	768,364.34	32.06769586	-103.60043028	0.00	0.00	0.00
	22,400.00	90.45	179.60	12,891.24	9,471.64	9,516.07	-9,513.89	345.57	389,036.20	768,365.03	32.06742100	-103.60043025	0.00	0.00	0.00
	22,500.00	90.45	179.60	12,890.46	9,470.86	9,616.07	-9,613.88	346.26	388,936.20	768,365.72	32.06714613	-103.60043021	0.00	0.00	0.00
	22,600.00	90.45	179.60	12,889.68	9,470.08	9,716.06	-9,713.88	346.95	388,836.21	768,366.41	32.06687127	-103.60043018	0.00	0.00	0.00
	22,700.00	90.45	179.60	12,888.90	9,469.30	9,816.06	-9,813.87	347.64	388,736.22	768,367.10	32.06659641	-103.60043014	0.00	0.00	0.00
	22,800.00	90.45	179.60	12,888.12	9,468.52	9,916.06	-9,913.87	348.33	388,636.23	768,367.79	32.06632154	-103.60043011	0.00	0.00	0.00
	22,900.00	90.45	179.60	12,887.35	9,467.75	10,016.05	-10,013.86	349.02	388,536.24	768,368.48	32.06604668	-103.60043007	0.00	0.00	0.00
	23,000.00	90.45	179.60	12,886.57	9,466.97	10,116.05	-10,113.86	349.71	388,436.25	768,369.17	32.06577181	-103.60043004	0.00	0.00	0.00
Red Hills 32-5 Fed Com 501H - I	23,072.76	90.45	179.60	12,886.00	9,466.40	10,188.81	-10,186.62	350.21	388,363.49	768,369.67	32.06557181	-103.60043001	0.00	0.00	0.00

Survey Type: Def Plan

Survey Error Model: ISCWSA0 3 - D 95 % Confidence 2.7955 sigma

Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Code	Vendor / Tool	Borehole / Survey
	1	0.000	12,300.000	1/100.000	'.5 – 12.25 – 8.75	3.375 – 9.625 – 7		A001Mb_MWD		Red Hills 32-5 Fed Com 501H / Red Hills 32-5 Fec
	1	12,300.000	23,072.764	1/100.000	8.75 – 6	7 – 6		A008Mb_MWD+IFR1+MS		Red Hills 32-5 Fed Com 501H / Red Hills 32-5 Fec

EOU Geometry:

End MD (ft)	Hole Size (in)	Casing Size (in)	Name
1,287.100	17.500	13.375	
4,899.157	12.250	9.625	
12,504.575	8.750	7.000	
23,072.764	6.000		

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Devon Energy Production Company LP**
LOCATION:	Section 32, T.25 S., R.33 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	**Red Hills 32-5 Federal Com 501H**
ATS/API ID:	**ATS-25-1329**
APD ID:	**10400104257**
Sundry ID:	**N/a**

COA

H2S	Yes		
Potash	None	None	
Cave/Karst Potential	Low		
Cave/Karst Potential	☐ Critical		
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	Conventional and Multibowl		
Other	☐ 4 String ☐ 5 String	Capitan Reef: None	☐ WIPP
Other	Pilot Hole: None	☐ Open Annulus	
Cementing	Contingency Squeeze: None	Echo-Meter: None	Primary Cement Squeeze: None
Special Requirements	☐ Water Disposal/Injection	☐ COM	☑ Unit
Special Requirements	☐ Batch Sundry	Waste Prevention: Waste MP	
Special Requirements Variance	☐ BOPE Break Testing ☐ Offline BOPE Testing	☐ Offline Cementing	☑ Casing Clearance

Approval Date: 06/10/2025

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Delaware** formation. As a result, the Hydrogen Sulfide area must meet **43 CFR part 3170 Subpart 3176** 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

1. The **10-3/4** inch surface casing shall be set at approximately **1022 feet** (a minimum of 70 feet into the Rustler Anhydrite and above the salt when present, and below usable fresh water) and cemented to the surface. The surface hole shall be **14 3/4** inch in diameter.

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

2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

    - Cement to surface. If cement does not circulate see B.1.a, c-d above.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

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

C. PRESSURE CONTROL

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

2.

Approval Date: 06/10/2025

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 **5000 (5M)** psi.

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **7-5/8** inch intermediate casing shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**

Option 2:

Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **10-3/4** inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**

a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
c. Manufacturer representative shall install the test plug for the initial BOP test.
d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.

Approval Date: 06/10/2025

D. SPECIAL REQUIREMENT (S)

Unit Wells

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

Commercial Well Determination

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

Casing Clearance

Operator casing variance is approved for the utilization of 5-1/2 inch P-110 BTC 18 #/ft **from** base of curve and a minimum of 500 feet or the minimum tie-back requirement above, whichever is greater into the previous casing shoe.

Operator shall clean up cycles until wellbore is clear of cuttings and any large debris, ensure cutting sizes are less than 0.5 micron before cementing.

Approval Date: 06/10/2025

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)

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

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.

Approval Date: 06/10/2025

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172** and **API STD 53 Sec. 5.3**.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke

manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

    b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be

initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR part 3170 Subpart 3172**.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and

disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

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

Long Vo (LVO) 6/5/2025

H2S Drilling Operations Plan

Training

All company and contract personnel admitted on location must be trained by a qualified H2S safety instructor to do the following:

1. Characteristics of H2S
2. Physical effects and hazards
3. Principle and operation of H2S detectors, warning system, and briefing areas
4. Evacuation procedure, routes and first aid
5. Proper use of safety equipment & life support systems
6. Essential personnel meeting Medical Evaluation criteria will receive additional training on the proper use of 30 minute pressure demand air packs.

H2S Detection and Alarm Systems

1. H2S sensors/detectors to be located on the drilling rig floor, in the base of the sub structure/cellar area, on the mud pits in the shale shaker area. Additional H2S detectors may be placed as deemed necessary
2. An audio alarm system will be installed on the derrick floor and in the top doghouse

Windsock and/or wind streamers

1. Windsock at mudpit area should be high enough to be visible
2. Windsock on the rig floor and / or top of doghouse should be high enough to be visible

Condition Flags & Signs

1. Warning signs on access road to location
2. Flags are to be displayed on sign at the entrance to location. Green flag indicates normal safe condition. Yellow flag indicates potential pressure and danger. Red flag indicates

danger (H2S present in dangerous concentration). Only H2S trained and certified personnel admitted to location.

Well Control Equipment

1. See the pressure control section of this submission.

Communication

1. While working under masks, chalkboards will be used for communication
2. Hand signals will be used where chalk board is inappropriate.
3. Two way radio will be used to communicate off location in case emergency help is required. In most cases, cellular telephones will be available at most drilling foreman's trailer or living quarters.

Drillstem Testing

1. No DSTs or cores are planned at this tmie
2. Drilling contractor supervisor will be required to be familiar with the effects that H2S has on tubular goods and other mechanical equipment.
3. If H2S is encountered, mud system will be altered if necessary to maintain control of the well. A mud gas separator will be brought into service along with H2S scavenger if necessary.

H2S Contingency Plan

Emergency Procedures

In the event of an H2S release, the first responder(s) must:

1. Isolate the area and prevent entry by other persons into the 100 PPM ROE.
2. Evacuate any public places encompassed by the 100 PPM ROE.
3. Be equipped with H2S monitors and air packs in order to control the release.
4. Use the buddy system
5. Take precautions to avoid personal injury during this operation
6. Contact operator and/or local officials to aid in operation. See list of emergency contacts attached.
7. Have received training the detection of H2S, measures for protection against the gas, and equipment used for protection and emergency response

Ignition of the Gas Source

1. Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Contacting Authorities

1. Coterra personnel must liaise with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours.
2. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. Coterra’s response must be in coordination with the State of New Mexico's" Hazardous Materials Emergency Response Plan" (HMER).

Coterra: H2S Plan

Emergency Contacts

Coterra Energy

Charlie Pritchard: Drilling Operations Manager: 432 – 238 – 7084

Darrell Kelly: Vice President EHS: 281 – 589 – 5795

Third Party

PERMIAN REGION CONTACT NUMBERS

CALL 911

Air Ambulance Services

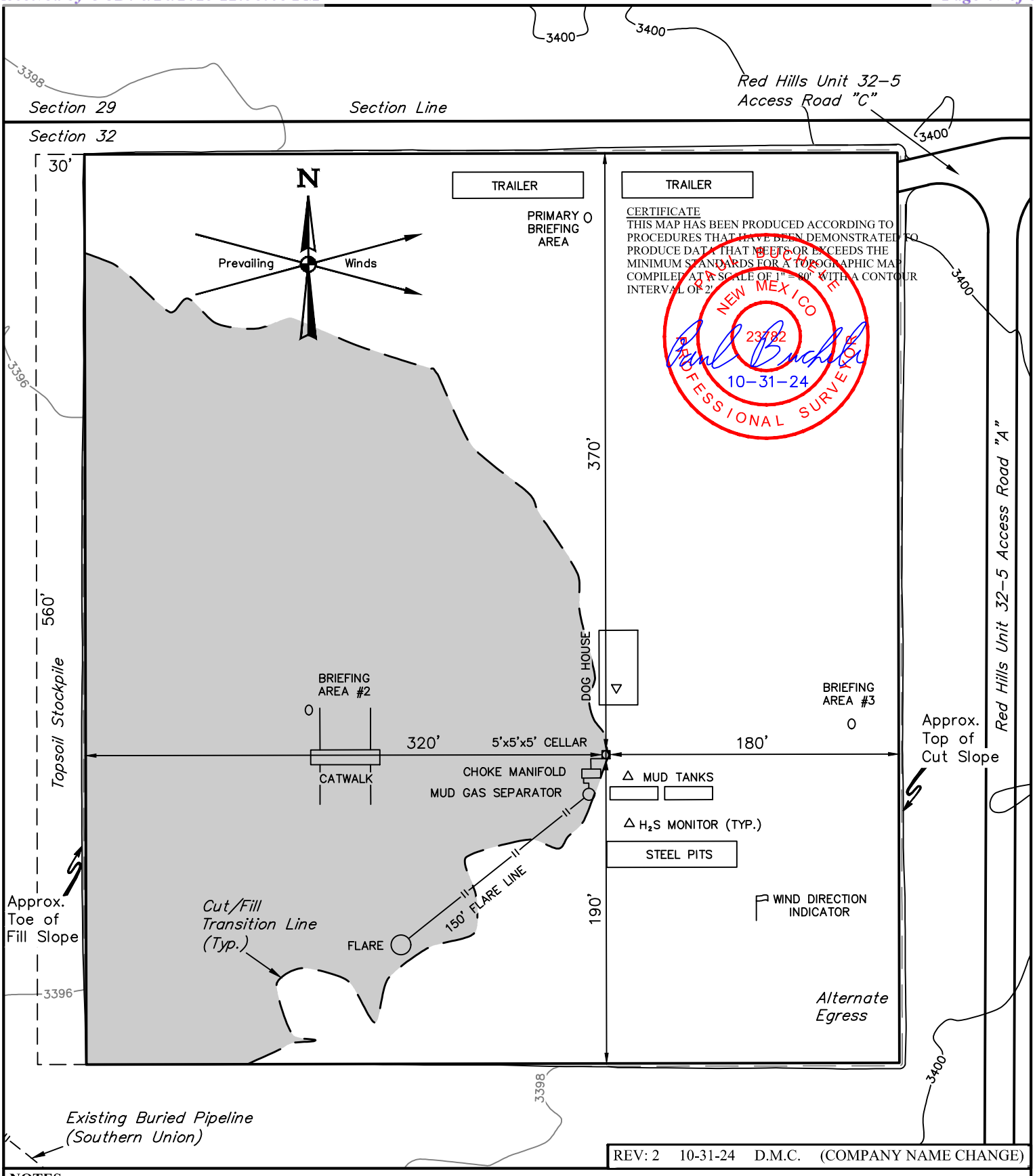
Reeves County Medical - Pecos, TX	432-447-3551
Aero Care - Midland, TX	800-627-2376
Tri State Care Flight - Artesia, NM	800-800-0900
Air Methods - Hobbs, NM	800-242-6199

Fire / Police / Medical Care

Sheriff's Office		Fire Departments		Hospital / Medical Care Facilities	
Andrews County	432-523-5545	Andrews	432-523-3111	Permian Regional Med.	432-523-2200
Reagan County	325-884-2929	Big Lake	325-884-3650	Reagan Memorial Hosp.	325-884-2561
Howard County	432-264-2244	Big Springs	432-264-2303	Scenic Mountain Med Ctr	432-263-1211
Terry County	806-637-2212	Brownfield	806-637-6633		
Crane County	432-558-3571	Crane	432-558-2361	Crane Memorial Hosp.	432-558-3555
Val Verde County	830-774-7513	Del Rio	830-774-8648	Val Verde Regional Med.	830-775-8566
		Denver City	806-592-3516	Yoakum County Hospital	806-592-2121
Pecos County	432-336-3521	Ft. Stockton	432-336-8525		
Glasscock County	432-354-2361	Garden City			
Winkler County	432-586-3461	Kermit	432-586-2577	Winkler County Memorial	432-586-5864
		McCamey	432-652-8232	McCamey Hospital	432-652-8626
Loving County	432-377-2411	Mentone			
Irion County	325-835-2551	Mertzon			
Ward County	432-943-6703	Monahans	432-943-2211	Ward Memorial Hospital	432-943-2511
Ector County	432-335-3050	Odessa	432-335-4650	Odessa Regional Hosp.	432-582-8340
Crocket County	325-392-2661	Ozona	325-392-2626		
Reeves County	432-445-4901	Pecos	505-757-6511	Reeves County Hospital	432-447-3551
Yoakum County	806-456-2377	Plains	806-456-2288		
Garza County	806-495-3595	Post			
Upton County	432-693-2422	Rankin			
Coke County	915-453-2717	Robert Lee			
		Roscoe	325-766-3931		
Hockley County	806-894-3126	Levelland	806-894-3155	Covenant Health	806-894-4963
Tom Green County	325-655-8111	San Angelo	325-657-4355	San Angelo Comm. Med.	325-949-9511
Gaines County	432-758-9871	Seminole	432-758-3621	Memorial Hospital	432-758-5811
Terrell County	432-345-2525	Sanderson			
Scurry County	325-573-3551	Snyder	325-573-3546	DM Cogdell Memorial	325-573-6374
Sterling County	325-378-4771	Sterling City			
Nolan County	325-235-5471	Sweetwater	325-235-8130	Rolling Plains Memorial	325-235-1701
Culberson County	432-283-2060	Van Horn		Culberson Hospital	432-283-2760
New Mexico					
Lea County	505-396-3611	Knowles	505-392-7469	Lea Reg Med Ctr	575-492-5000
Eddy County	575-887-7551	Carlsbad	575-885-3125	Carlsbad Medical	575-887-4100
		Artesia	575-746-5050	Artesia Hospital	575-748-3333
Roosevelt County	575-356-4408				
Chaves County	575-624-7590				

Ground Ambulance Services

Reeves County Medical	Pecos, TX	432-447-3551



REV: 2 10-31-24 D.M.C. (COMPANY NAME CHANGE)

NOTES:

- Contours shown at 2' intervals.

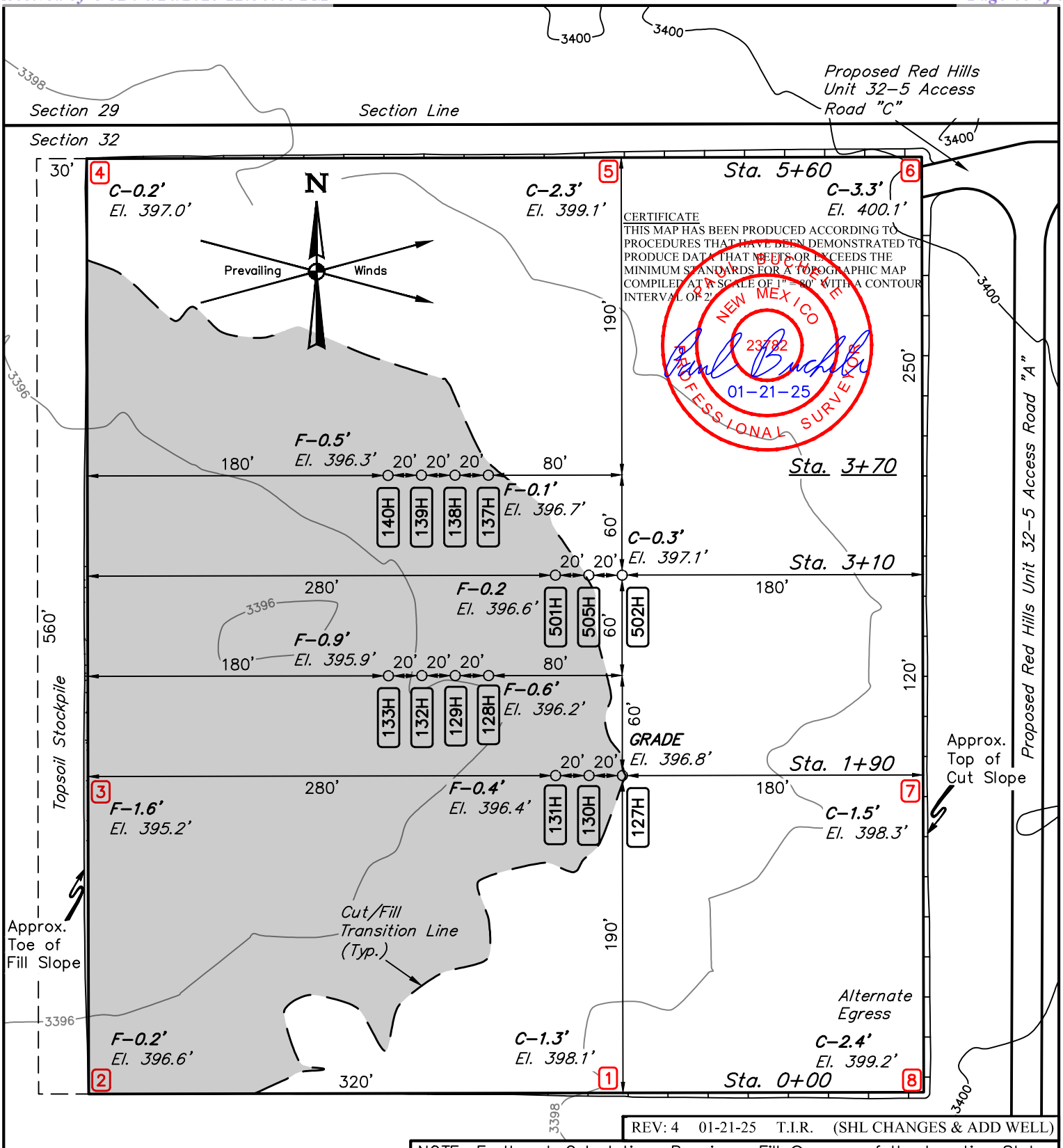
CIMAREX ENERGY CO. OF COLORADO

RED HILLS 32-5 FED COM W2W2 PAD #1
NW 1/4 NW 1/4, SECTION 32, T25S, R33E, N.M.P.M.
LEA COUNTY, NEW MEXICO

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

SURVEYED BY	J.J., C.H.	05-01-18	SCALE
DRAWN BY	R.J.	05-09-18	1" = 80'

TYPICAL RIG LAYOUT **EXHIBIT K**



CERTIFICATE
THIS MAP HAS BEEN PRODUCED ACCORDING TO PROCEDURES THAT HAVE BEEN DEMONSTRATED TO PRODUCE DATA THAT MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR A TOPOGRAPHIC MAP COMPILED AT A SCALE OF 1" = 80' WITH A CONTOUR INTERVAL OF 2'.

PAUL BUCHELE — NEW MEXICO — 23782 — 01-21-25 — PROFESSIONAL SURVEYOR

REV: 4 01-21-25 T.I.R. (SHL CHANGES & ADD WELL)

NOTE: Earthwork Calculations Require a Fill @ some of the Location Stakes For Balance. All Fill is to be Compacted to a Minimum of 95% of the Maximum Dry Density Obtained by AASHTO Method t-99.

FINISHED GRADE ELEVATION = **3396.8'**

NOTES:
- Flare pit is to be located a min. of 100' from the wellhead.
- Contours shown at 2' intervals.
- Cut/Fill slopes 1 1/2:1 (Typ. except where noted)
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00"

CIMAREX ENERGY CO. OF COLORADO

RED HILLS 32-5 FED COM W2W2 PAD #1
NW 1/4 NW 1/4, SECTION 32, T25S, R33E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	J.J., C.H.	05-01-18	SCALE
DRAWN BY	R.J.	05-09-18	1" = 80'
LOCATION LAYOUT			EXHIBIT J

UINTAH ENGINEERING & LAND SURVEYING
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

Cimarex Red Hills 32-5 Federal Com 172H
Surface Use Plan

Upon approval of the Application for Permit to Drill (APD) the following surface use plan of operations will be followed and carried out. The surface use plan outlines the proposed surface disturbance. If any other disturbance is needed after the APD is approved, a BLM sundry notice or right of way application will be submitted for approval prior to any additional surface disturbance.

Existing Roads

- Directions to location - Exhibit A.
- Public access route - Exhibit B.
- Existing access road for the proposed project. Please see Exhibit B and C.
- Cimarex Energy will:
  - Improve and/or maintain existing road(s) condition the same as or better than before the operations began.
  - Provide plans for improvement and /or maintenance of existing roads if requested.
  - Repair or replace damaged or deteriorated structures as needed. Including cattle guards and culverts.
  - Prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or other events.
  - Obtain written BLM approval prior to the application of surfactants, binding agents, or other dust suppression chemicals on the roadways.
- The maximum width of the driving surface will be 18'. The road will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1' deep with 3:1 slopes. The driving surface will be made of 6" rolled and compacted caliche.

New or Reconstructed Access Roads

No new roads are proposed for this project.

Well Radius Map

Please see Exhibit E for wells within one mile or proposed well SHL and BHL.

Proposed or Existing Production Facility

An existing and previously approved batteries will be utilized for the project if the well is productive.

- Red Hills Unit 32 West CTB 2 (existing), Red Hills Unit 32 West 1 CTB , East 3 CTB, & east 4 CTB(previously approved)
  - Battery Pad diagram - Exhibit F
  - Battery will not require an expansion in order to accomodate additional production equipment for the project.
  - Battery Pad location previously approved
    - APD: Red Hills 32-5 Fed Com 127H.

Gas Pipeline Specifications

- No new gas pipelines are required for this project.

Salt Water Disposal Specifications

- No new SWD pipelines are required for this project.

Power Lines

- No new power line is required for this project.

Well Site Location

- An new well pad will be used to drill the proposed well.
  - Wells drilled or to be drilled: Red Hills 32-5 Federal Com 169H-182H
- Well pad previously approved. APD: Red Hills 32-5 Fed Com 171H

Cimarex Red Hills 32-5 Federal Com 172H
Surface Use Plan

Bulklines
All proposed pipelines will be constructed in a 60' ROW corridor.

- Bulklines
  - Cimarex Energy plans to construct on-lease Bulklines to service the well.
  - 8- 12" HP steel for oil, gas, and water production.
  - Length: 6,009'.
  - MAOP: 1,500 psi; Anticipated working pressure: 200-300 psi.
  - Please see Exhibit M for proposed on-lease route.

Water Resources

No temporary fresh water pipelines are proposed for this project.

Methods of Handling Waste

- Drilling fluids, produced oil, and water from the well during drilling and completion operations will be stored safely and disposed of properly in a state approved disposal facility.
- Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly at a state approved disposal facility. All trash on and around well site will be collected for disposal.
- Human waste and grey water will be contained and disposed of properly at a state approved disposal site.
- After drilling and completion operations, trash, chemicals, salts, frac sand and other waste will be removed and disposed of properly at a state approved disposal site.
- The well will be drilled utilizing a closed loop system. Drill cuttings will be properly disposed of into steel tanks and taken to an state approved disposal facility.

Waste Minimization Plan

See Gas Capture Plan.

Ancillary Facilities

No camps or airstrips to be constructed.

Interim and Final Reclamation

- Rehabilitation of the location will start in a timely manner after all proposed drilling wells have been drilled from the pad or if drilling operations have ceased as outlined below:
  - No approved or pending drill permits for wells located on the drill pad
  - No drilling activity for 5 years from the drill pad
- Surfacing materials will be removed and returned to a mineral pit or recycled to repair or build roads and well pads.
- Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.
- Exhibit P illustrates the proposed Surface Reclamation plans after cessation of drilling operations as outlined above.
  - The areas of the location not essential to production facilities and operations will be reclaimed and seeded per BLM requirements.
- Operator will amend the surface reclamation plan if well is a dry hole and/or a single well pad.

Surface Ownership

- The wellsite is on surface owned by State of NM.
- A copy of Surface Use Agreement has been given to the surface owner.
- The land is used mainly for farming, cattle ranching, recreational use, and oil and gas production.

Cultural Resource Survey - Archeology

- Cultural Resources Survey will be conducted for the entire project as proposed in the APD and submitted to the BLM for review and approval.

On Site Notes and Information

Cimarex Red Hills 32-5 Federal Com 172H
Surface Use Plan

Onsite Date: 4/17/2008
BLM Personnel on site: Jeff Robertson
Cimarex Energy personnel on site: Barry Hunt
Pertinent information from onsite:

COTERRA Rev0

Borehole:	Well:	Field:	Structure:
Red Hills 32-5 Fed Com 501H	Red Hills 32-5 Fed Com 501H	NM Lea County (NAD 83)	Coterra Red Hills 32-5 Fed Com Pad D

Gravity & Magnetic Parameters						Surface Location	NAD83 New Mexico State Plane, Eastern Zone, US Feet					Miscellaneous			
Model:	HDGM 2025	Dip:	59.566°	Date:	07-Mar-2025	Lat:	N 32 5 36.88	Northing:	398549.76ftUS	Grid Conv:	0.3889°	Slot:	Red Hills 32-5 Fed Com 501H	TVD Ref:	RKB (3419.600 ft above MSL)
MagDec:	6.109°	FS:	47125.26nT	Gravity FS:	998.429mgn (9.80665 Based)	Lon:	W 103 36 4.81	Easting:	768019.47ftUS	Scale Fact:	0.99996794	Plan:	Red Hills 32-5 Fed Com 501H Rev0 kFc 07Mar25		

Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL [270'FNL, 470'FWL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rustler	957.00	0.00	58.36	957.00	0.00	0.00	0.00	0.00
A3 Top	1002.00	0.00	58.36	1002.00	0.00	0.00	0.00	0.00
A3 Base	1097.00	0.00	58.36	1097.00	0.00	0.00	0.00	0.00
Salado	1272.00	0.00	58.36	1272.00	0.00	0.00	0.00	0.00
Nudge, Build 2°/100ft	2500.00	0.00	58.36	2500.00	0.00	0.00	0.00	0.00
Hold	2800.12	6.00	58.36	2799.58	-8.14	8.24	13.37	2.00
Lamar	4897.05	6.00	58.36	4885.00	-121.85	123.25	200.07	0.00
Bell Canyon	4984.52	6.00	58.36	4972.00	-126.60	128.05	207.86	0.00
Drop 2°/100ft	5630.04	6.00	58.36	5613.97	-161.60	163.46	265.33	0.00
Hold	5930.16	0.00	58.36	5913.55	-169.75	171.70	278.70	2.00
Cherry Canyon	6372.61	0.00	58.36	6356.00	-169.75	171.70	278.70	0.00
Brushy Canyon	7546.61	0.00	58.36	7530.00	-169.75	171.70	278.70	0.00
Basal Brushy Canyon	8901.61	0.00	58.36	8885.00	-169.75	171.70	278.70	0.00
Bone Springs Lime	9079.61	0.00	58.36	9063.00	-169.75	171.70	278.70	0.00
Leonard	9157.61	0.00	58.36	9141.00	-169.75	171.70	278.70	0.00
Avalon	9372.61	0.00	58.36	9356.00	-169.75	171.70	278.70	0.00
1st BS SS	10011.61	0.00	58.36	9995.00	-169.75	171.70	278.70	0.00
2nd BS SS	10604.61	0.00	58.36	10588.00	-169.75	171.70	278.70	0.00
3rd BS SS	11724.61	0.00	58.36	11708.00	-169.75	171.70	278.70	0.00
Wolfcamp	12163.61	0.00	58.36	12147.00	-169.75	171.70	278.70	0.00
KOP, Build 10°/100ft	12385.16	0.00	58.36	12368.55	-169.75	171.70	278.70	0.00
Build 5°/100ft	13135.16	75.00	179.60	12921.98	254.92	-252.96	281.66	10.00
Landing Point	13444.09	90.45	179.60	12961.00	560.43	-558.46	283.78	5.00
Red Hills 32-5 Fed Com 501H - BHL [100'FSL, 750'FWL]	23072.76	90.45	179.60	12886.00	10188.81	-10186.62	350.21	0.00

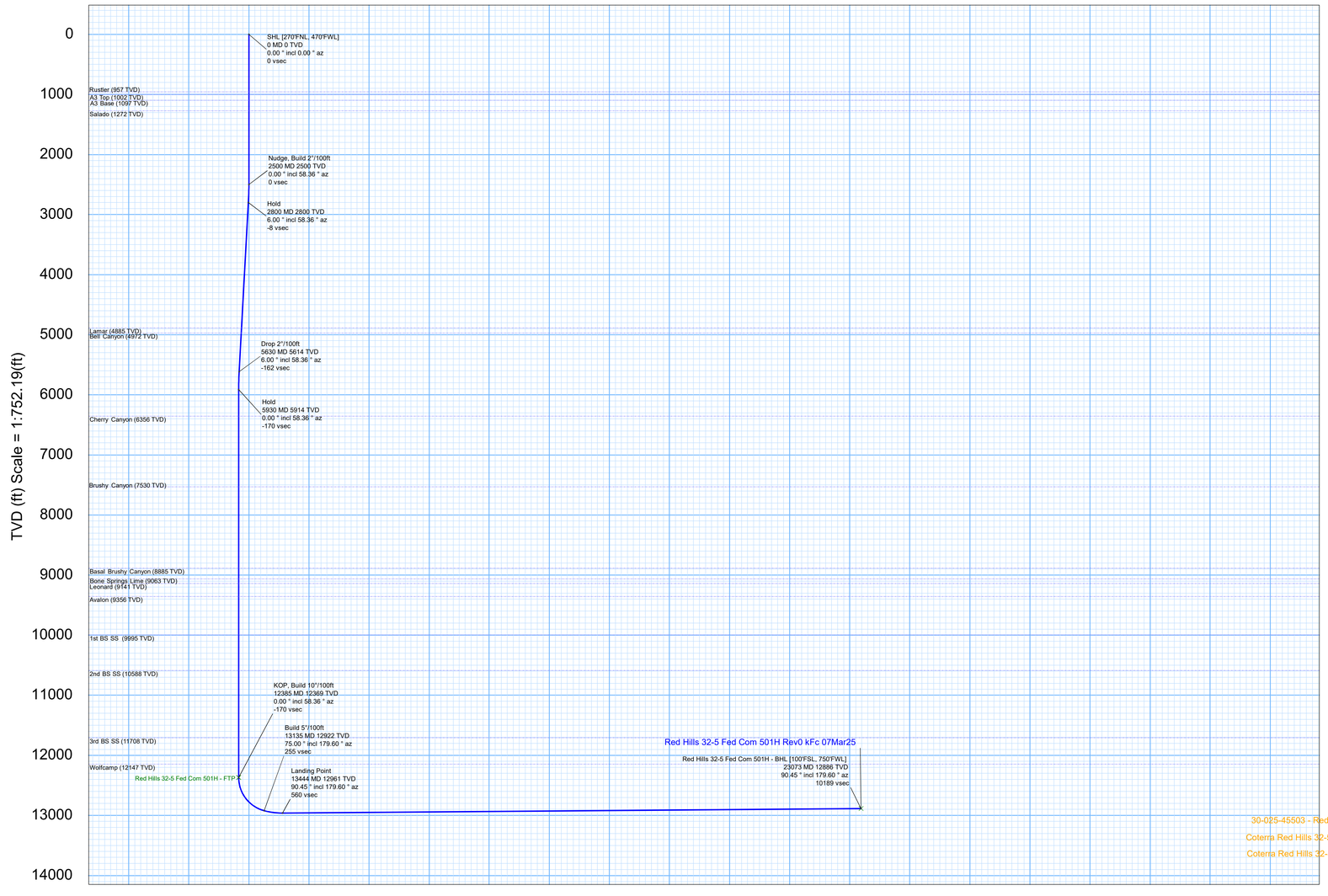
D
E
C

CONTROLLED

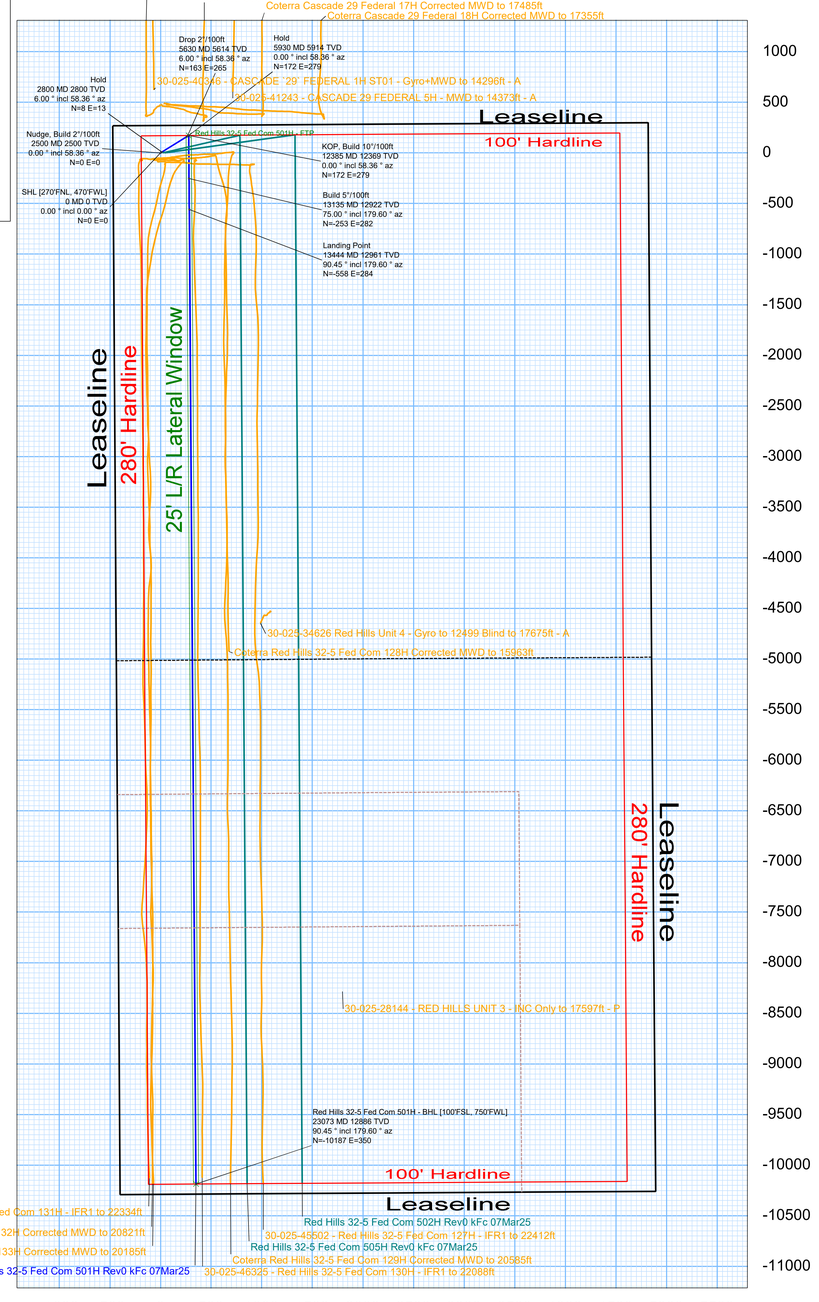
Plan ref	Red Hills 32-5 Fed Com 501H Rev0 kFc 07Mar25
Drawing ref	
Copy number	of 3
Date	07-Mar-2025

1	Client	
2	Client	
3	Office	
4	Office	

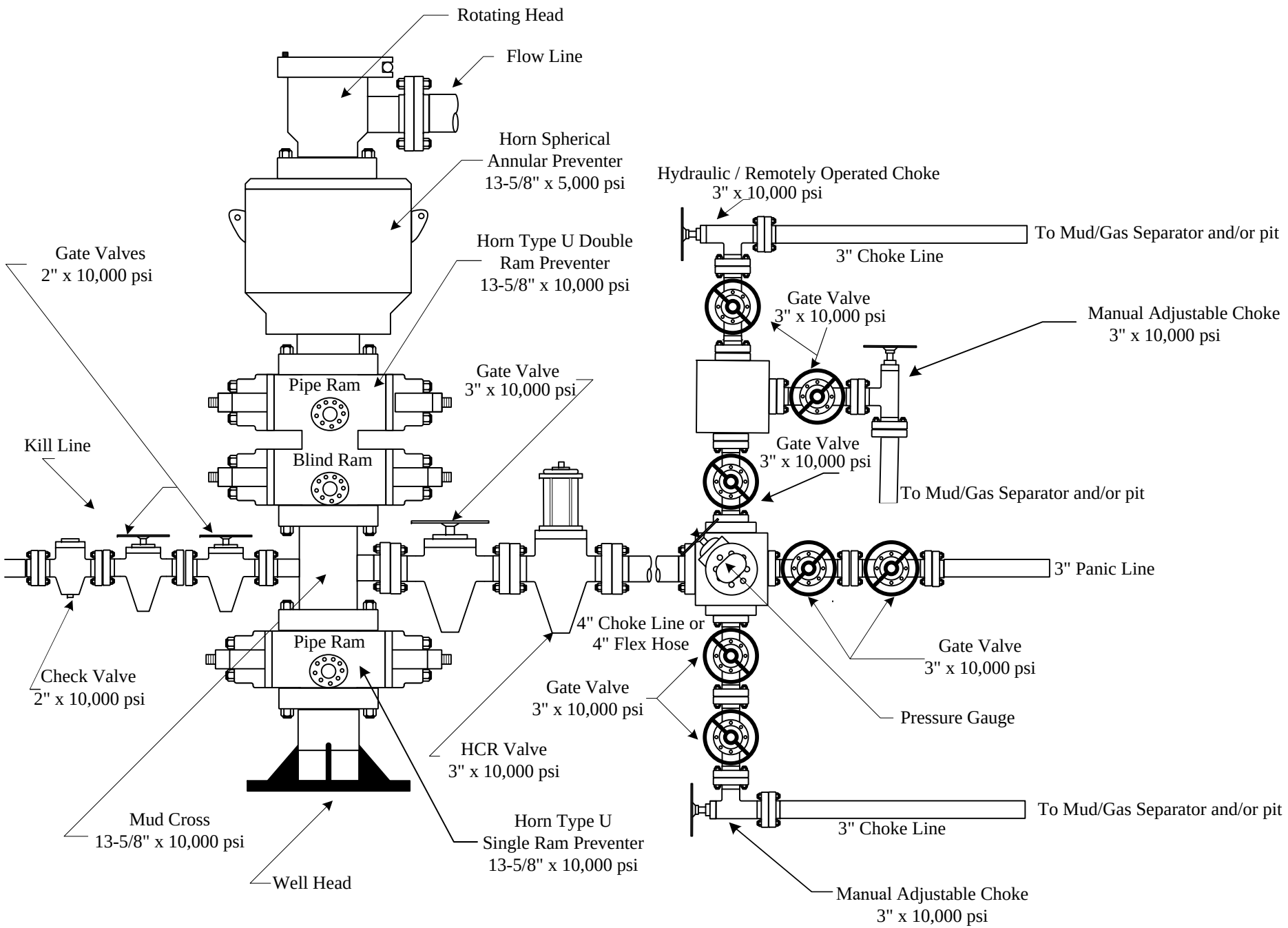
Copy number for

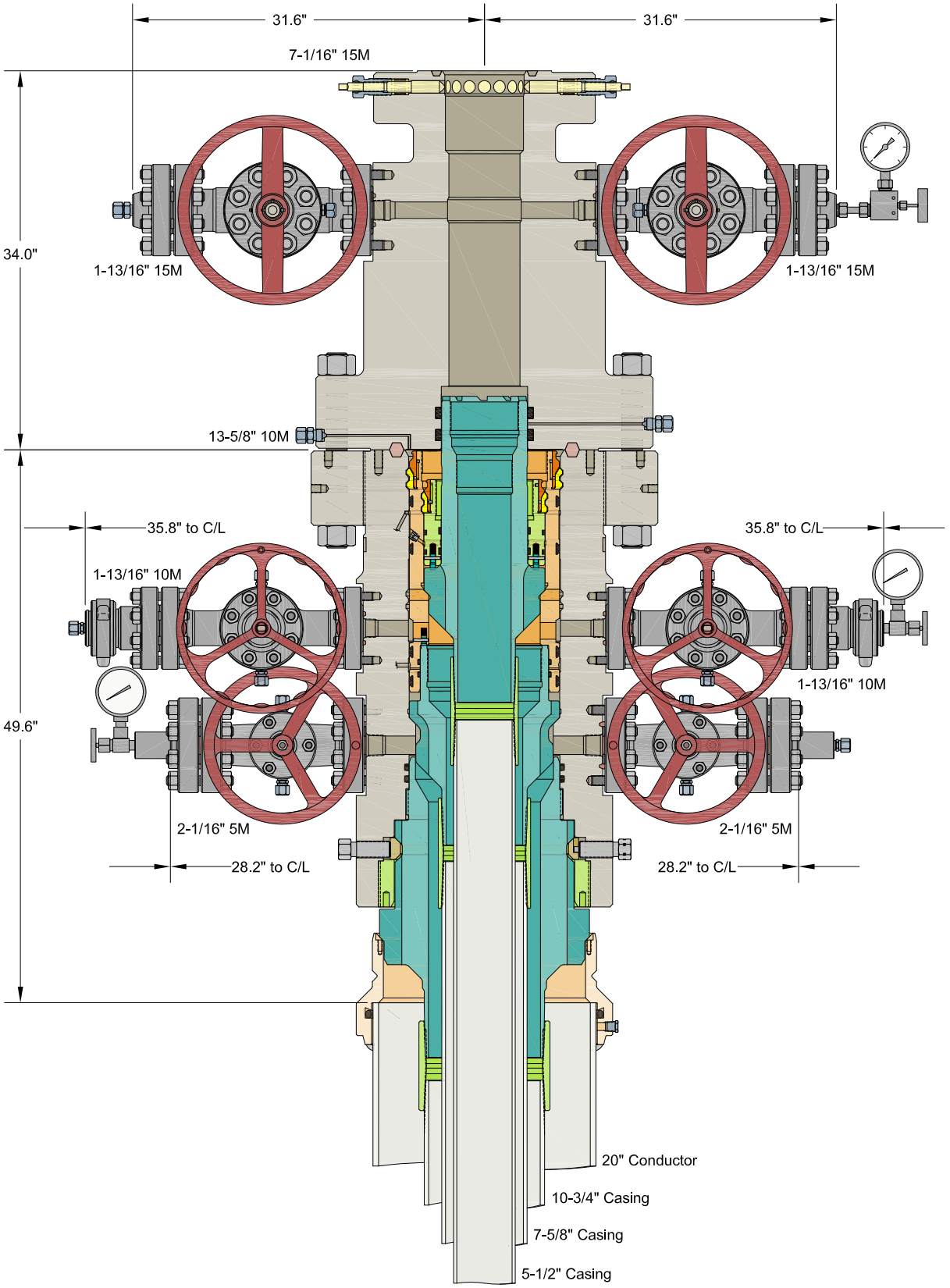


NS (ft) Scale = 1:530.17(ft)



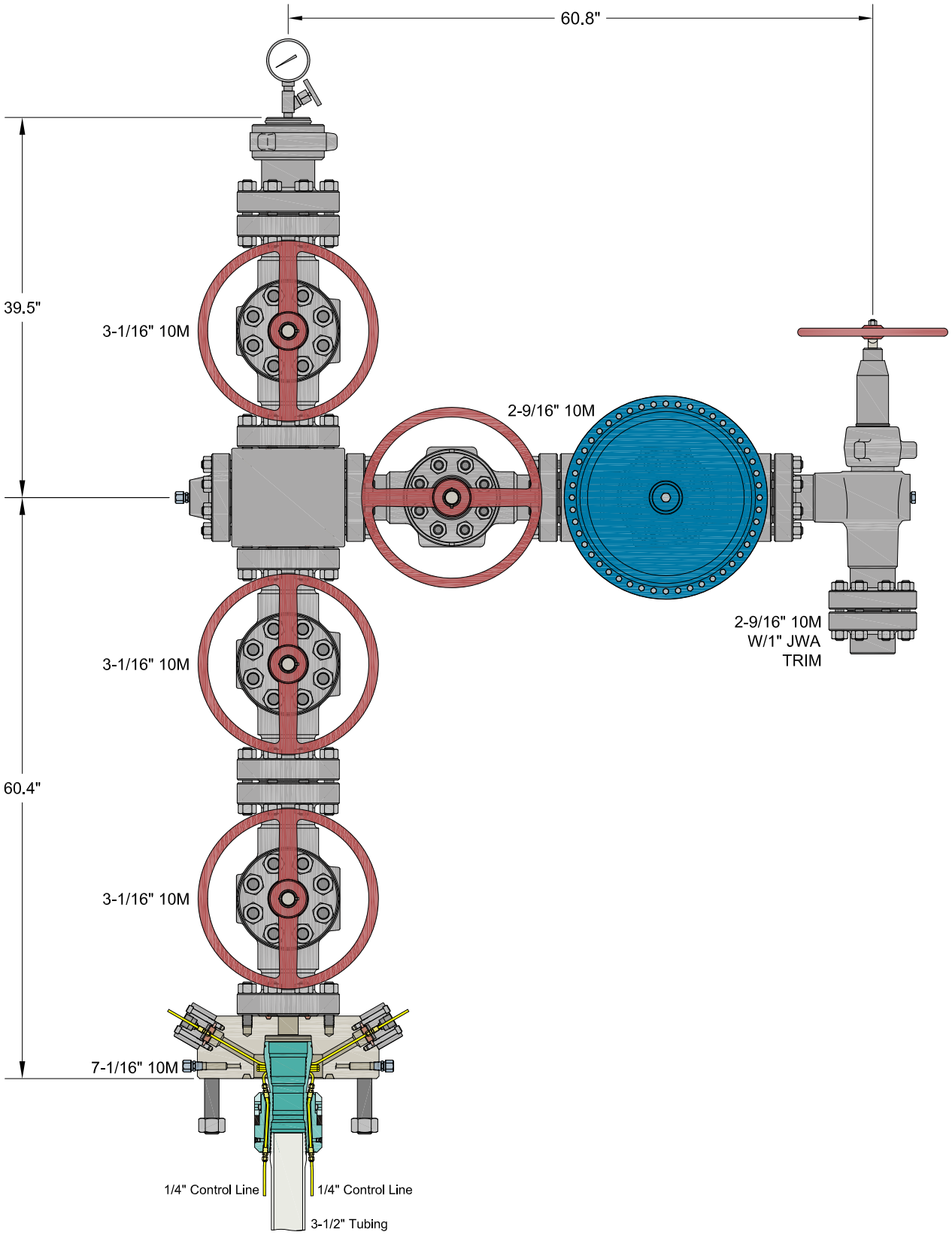
COTERRA





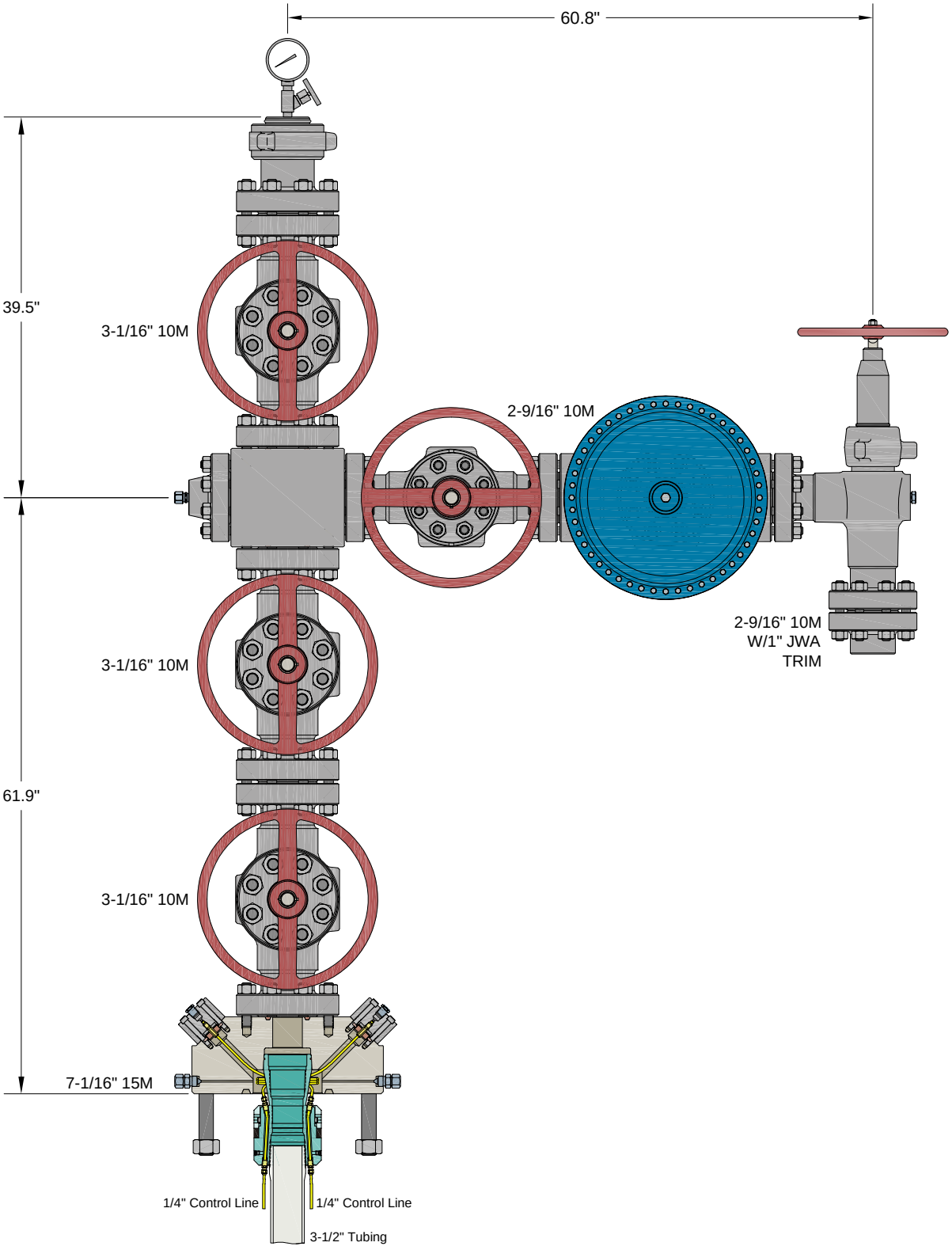
ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC	COTERRA ENERGY INC HOBBS, NM		
20" x 10-3/4" x 7-5/8" x 5-1/2" MBU-3T-CFL-R-DBLO-SF Wellhead With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head And 7-5/8" & 5-1/2" Mandrel Casing Hangers	DRAWN	VJK	07JUL23
	APPRV		
	DRAWING NO.	HBE0000965	



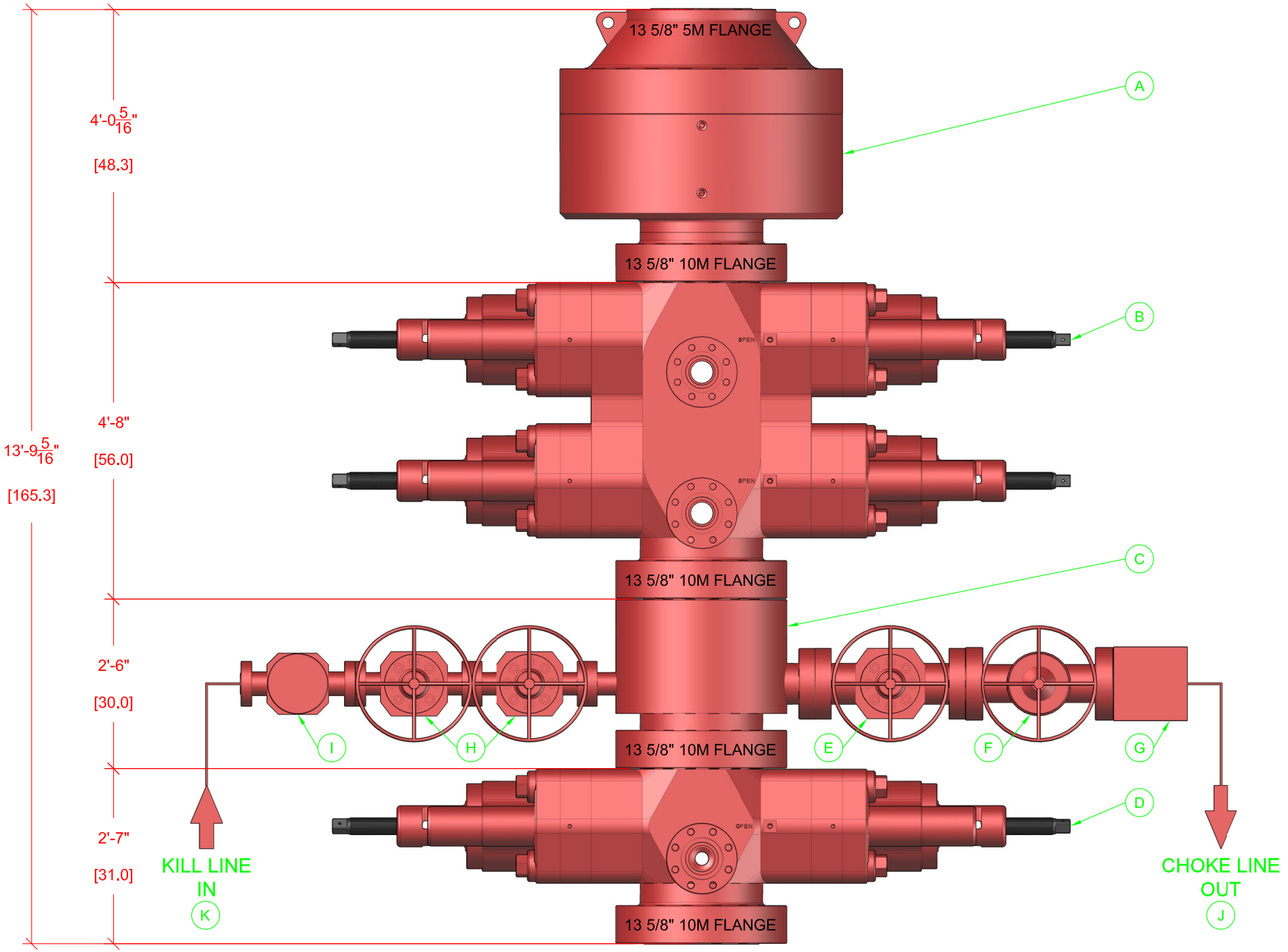
ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC	CIMAREX HOBBS, NM
7-1/16" 10M x 3-1/16" x 2-9/16" 10M Production Tree Assembly With 7-1/16" 10M x 3-1/16" 10M T40-CCL Tubing Head Adapter And 7-1/16" 3-1/2" T40-CCL Tubing Hanger	DRAWN VJK 05SEP23 APPRV DRAWING NO. HBE0001018



ALL DIMENSIONS APPROXIMAT

CACTUS WELLHEAD LLC	CIMAREX HOBBS, NM	
7-1/16" 15M x 3-1/16" x 2-9/16" 10M Production Tree Assembly With 7-1/16" 15M x 3-1/16" 10M T40-CCL Tubing Head Adapter And 7-1/16" 3-1/2" T40-CCL Tubing Hanger	DRAWN	VJK 13DEC23
	APPRV	
	DRAWING NO.	HBE0001018



BOP EQUIPMENT INFORMATION

DESCRIPTION	MODEL	QTY
ANNULAR BOP	13 5/8" 5M	1
DOUBLE RAM BOP	13 5/8" 10M TYPE-U	1
MUD CROSS	13 5/8" 10M	1
SINGLE RAM BOP	13 5/8" 10M TYPE-U	1
GATE VALVE	4 1/16" 10M FC MANUAL	1
HCR VALVE	4 1/16" 10M HCR	1

ITEM	DESCRIPTION	MODEL	QTY
G	STUDDED BLOCK	4 1/16" 10M	1
H	GATE VALE	2 1/16" 10M FC MANUAL	2
I	CHECK VALVE	2 1/16" 10M	1
J	CHOKE HOSE	4 1/16" 10M	1
K	KILL HOSE	2 1/16" 10M	1
L			

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

General Information
Phone: (505) 629-6116

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

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

CONDITIONS

Operator:	OGRID:
CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd Midland, TX 79706	162683
	Action Number: 478435
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
klinarte	Cement is required to circulate on both surface and intermediate1 strings of casing.	6/24/2025
klinarte	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	6/24/2025
matthew.gomez	Administrative order required for non-standard spacing unit prior to production.	7/16/2025
matthew.gomez	Notify the OCD 24 hours prior to casing & cement.	7/16/2025
matthew.gomez	A [C-103] Sub. Drilling (C-103N) is required within (10) days of spud.	7/16/2025
matthew.gomez	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.	7/16/2025
matthew.gomez	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.	7/16/2025
matthew.gomez	File As Drilled C-102 and a directional Survey with C-104 completion packet.	7/16/2025