Form 3160-3
(October 2024)

FORM APPROVED
OMB No. 1004-0220
Expires: October 31, 2027

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM108973

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.: HARRIER FEDERAL COM 503H

2. Name of Operator: COG OPERATING LLC

9. API Well No.: 30-025-55585

3a. Address: 600 West Illinois Ave, Midland, TX 79701

3b. Phone No. *(include area code)*: (432) 683-7443

10. Field and Pool, or Exploratory: ~~JENNINGS/UPPER BONE SPRING SHALE~~ WC-025 G-08 S253235G;LOWER BONE SPRING

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

At surface: SESW / 575 FSL / 1330 FWL / LAT 32.095832 / LONG -103.649932

At proposed prod. zone: SESW / 50 FSL / 2090 FWL / LAT 32.065147 / LONG -103.647494

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 26/T25S/R32E/NMP

14. Distance in miles and direction from nearest town or post office*: 24 miles

12. County or Parish: LEA

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 50 feet

16. No of acres in lease:

17. Spacing Unit dedicated to this well: 640.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 30 feet

19. Proposed Depth: 10504 feet / 21388 feet

20. BLM/BIA Bond No. in file: FED: NMB000125

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3379 feet

22. Approximate date work will start*: 05/01/2026

23. Estimated duration: 30 days

24. Attachments

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

1. Well plat certified by a registered surveyor.
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
(Electronic Submission)	MAYTE REYES / Ph: (432) 683-7443	07/14/2025

Title: Regulatory Analyst

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	CODY LAYTON / Ph: (575) 234-5959	10/14/2025

Title	Office
Assistant Field Manager Lands & Minerals	Carlsbad Field Office

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

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

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 10/14/2025

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.

(Continued on page 3)

Additional Operator Remarks

Location of Well

0. SHL: SESW / 575 FSL / 1330 FWL / TWSP: 25S / RANGE: 32E / SECTION: 26 / LAT: 32.095832 / LONG: -103.649932 (TVD: 0 feet, MD: 0 feet)

PPP: NENW / 100 FNL / 2090 FWL / TWSP: 25S / RANGE: 32E / SECTION: 35 / LAT: 32.093977 / LONG: -103.647488 (TVD: 10550 feet, MD: 10900 feet)

BHL: SESW / 50 FSL / 2090 FWL / TWSP: 26S / RANGE: 32E / SECTION: 2 / LAT: 32.065147 / LONG: -103.647494 (TVD: 10504 feet, MD: 21388 feet)

BLM Point of Contact

Name: JANET D ESTES

Title: ADJUDICATOR

Phone: (575) 234-6233

Email: JESTES@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 55585	~~97835~~ 97903	~~JENNINGS;UPPER BONE SPRING SHALE~~ WC-025 G-08 S253235G;LOWER BONE SPRING	
Property Code: 325390	Property Name: HARRIER FEDERAL COM		Well Number: 503H
OGRID No.: 229137	Operator Name: COG OPERATING LLC		Ground Level Elevation: 3379.3'

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	Longitude	County
N	26	25-S	32-E		575 FSL	1330 FWL	32.095832°N	103.649932°W	LEA

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
N	2	26-S	32-E		50 FSL	2090 FWL	32.065147°N	103.647494°W	LEA

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
640	Defining	Pending	Y	N/A
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	Longitude	County
N	26	25-S	32-E		575 FSL	1330 FWL	32.095832°N	103.649932°W	LEA

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
C	35	25-S	32-E		100 FNL	2090 FWL	32.093977°N	103.647488°W	LEA

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
N	2	26-S	32-E		100 FSL	2090 FWL	32.065284°N	103.647494°W	LEA

Unitized Area or Area of Uniform Interest	Spacing Unit Type	Ground Floor Elevation:
COM	☒ Horizontal ☐ Vertical	3379.3'

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.

Signature: Mayte Reyes Date: 7/9/2025

Printed Name: Mayte Reyes

Email Address: mayte.reyes@cop.com

SURVEYOR CERTIFICATIONS

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

CHAD L. HARCROW NEW MEXICO 17777 LICENSED PROFESSIONAL SURVEYOR

Chad Harcrow 5/9/25

Signature and Seal of Professional Suveyor

Certificate Number: 17777

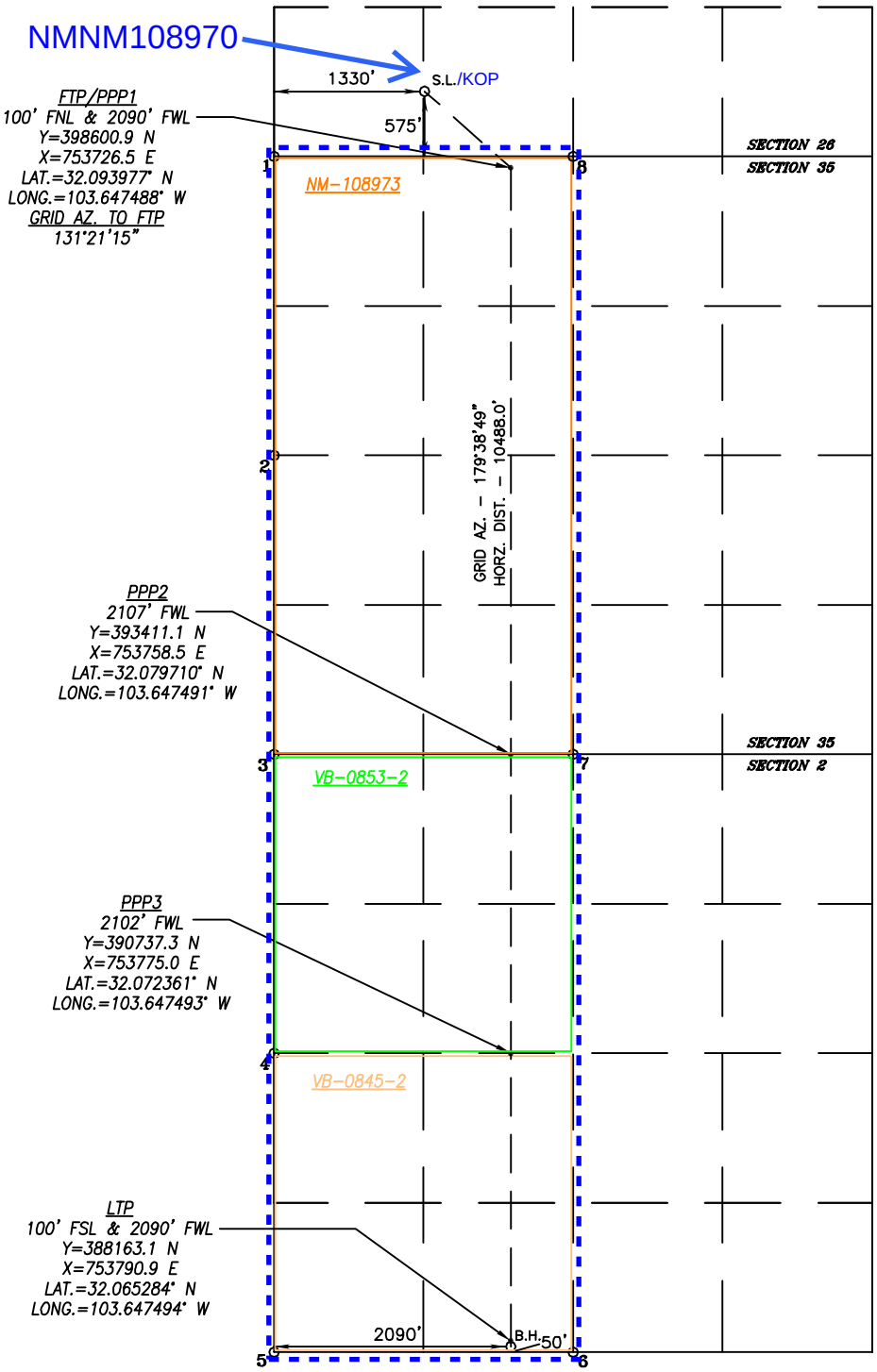
Date of Survey: MAY 1, 2025

W.O.#25-404 | DRAWN BY: WN | PAGE 1 OF 2

ACREAGE DEDICATION PLATS

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

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



NAD 83 NME
SURFACE LOCATION
Y=399270.9 N
X=752965.4 E
LAT.=32.095832° N
LONG.=103.649932° W

POINT LEGEND	
1	Y=398686.8 N X=751636.5 E
2	Y=396042.9 N X=751638.1 E
3	Y=393397.2 N X=751651.4 E
4	Y=390723.7 N X=751673.0 E
5	Y=388048.2 N X=751701.8 E
6	Y=388067.3 N X=754374.2 E
7	Y=393414.5 N X=754276.4 E
8	Y=398704.8 N X=754294.7 E

NAD 83 NME
PROPOSED BOTTOM
HOLE LOCATION
Y=388113.1 N
X=753791.2 E
LAT.=32.065147° N
LONG.=103.647494° W

PAGE 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: COG Operating LLC **OGRID:** 217955 **Date:** 07 / 09 / 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
Harrier Federal Com 503H	30-025-	N-26-25S-32E	575 FSL & 1330 FWL	± 1230	± 3460	± 3880

IV. Central Delivery Point Name: _____ [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
Harrier Federal Com 503H	Pending	9/26/2026	± 25 days from spud	1/24/2027	2/3/2027	2/8/2027

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.

VI. Separation Equipment

How Operator will size separation equipment to optimize gas capture:

All ConocoPhillips production facility equipment will be sized per industry standards (API 12J) with adequate retention time to effectively separate all phases of production. Each project will take into consideration the number of wells and type curves for each formation pool to ensure adequate facility capacity. Design considerations will also include review of all piping, tanks, VRU's and associated equipment to ensure optimized gas capture minimized risk of release.

VII. Operational Practices

Actions Operator will take to comply with the requirements below:

B. Drilling Operations

- During drilling, flare stacks will be located a minimum of 100 feet from the nearest surface hole location. All gas is captured or combusted. If an emergency or malfunction occurs, gas will be flared or vented for public health, safety, and the environment and be properly reported to the NMOCD pursuant to 19.15.27.8.G.
- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.

C. Completion Operations

- During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.
- Individual well test separators will be set to properly separate gas and liquids. A temporary test separator will be utilized initially to process volumes. In addition, separators will be tied into flowback tanks which will be tied into the gas processing equipment for sales down a pipeline.

D. Venting and flaring during production operations

- During each phase of well life (drilling, completion and production) of a ConocoPhillips well, COP personnel will follow all necessary procedures to ensure both the operation and the equipment are within the NMAC 19.15.27.8 Subsection D guidelines.
- During well operations that require unloading of the well to atmospheric pressure, all reasonable actions will be taken to minimize vented gas
- Through the life of the well all flaring shall be measured, and venting events quantified using the data available and industry best practice.

E. Performance standards for separation, storage tank and flare equipment

- All storage tanks and separation equipment are designed minimize risk of liquid or vapor release and optimize gas capture. This includes automation for automatic gauging and pressure monitoring.

- All flare stacks are equipped with auto ignition devices and/or continuous pilots and are designed to operate at maximum combustion efficiency pursuant NMAC 19.15.27.8 Subsection E. Flares will follow COP spacing guidelines to ensure they are a safe distance from combustibles and operations equipment.
- COP personnel will conduct routine AVO inspections on a regular basis per NMAC 19.15.27.8 Subsection E guidelines.

F. Measurement of vented and flared natural gas.

- Measurement equipment will be installed to quantify gas flared during drilling, completion and production of the well.
- All measurement devices installed will meet accuracy ratings per AGA and API standards.
- Measurement devices will be installed without manifolds that allow diversion of gas around the metering element, except for the sole purpose of inspection of servicing the measurement device.

VIII. Best Management Practices

- Operator will curtail or shut in production, within reasonable limits, during upset conditions to minimize venting and flaring.
- When feasible, Operator will use equipment to capture gas that would otherwise be vented or flared.
- During completions and production operations Operator will minimize blowdowns to atmosphere
- When feasible, Operator will use electric or air actuated equipment to reduce bleed emissions

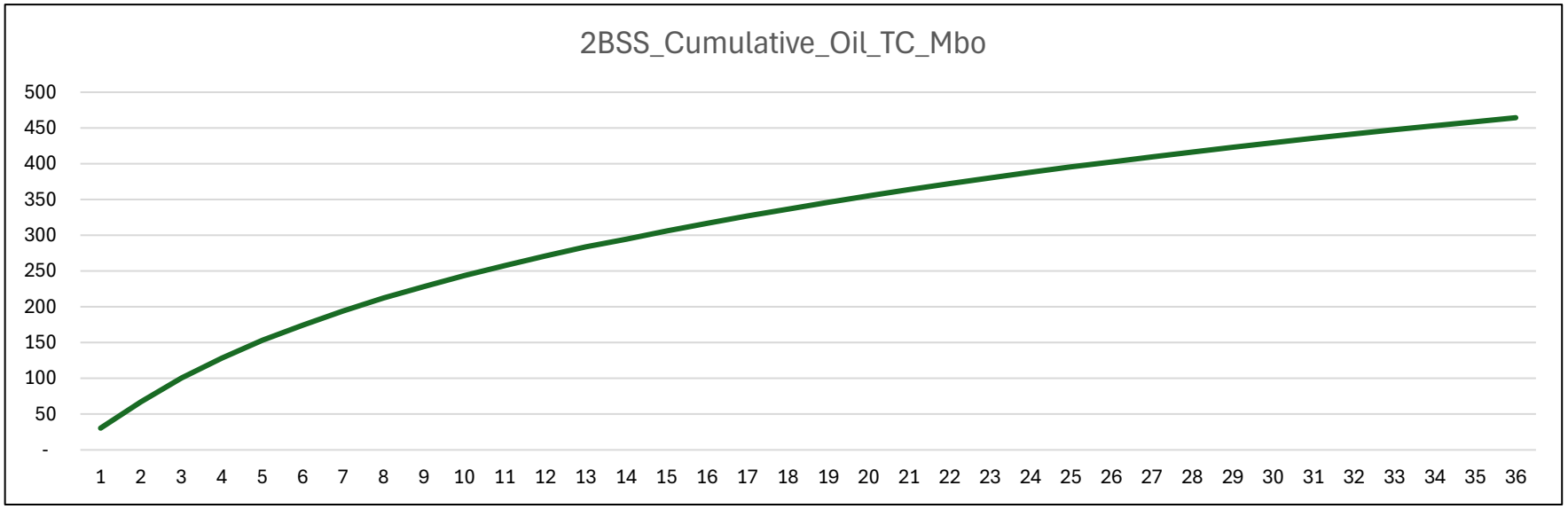
I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

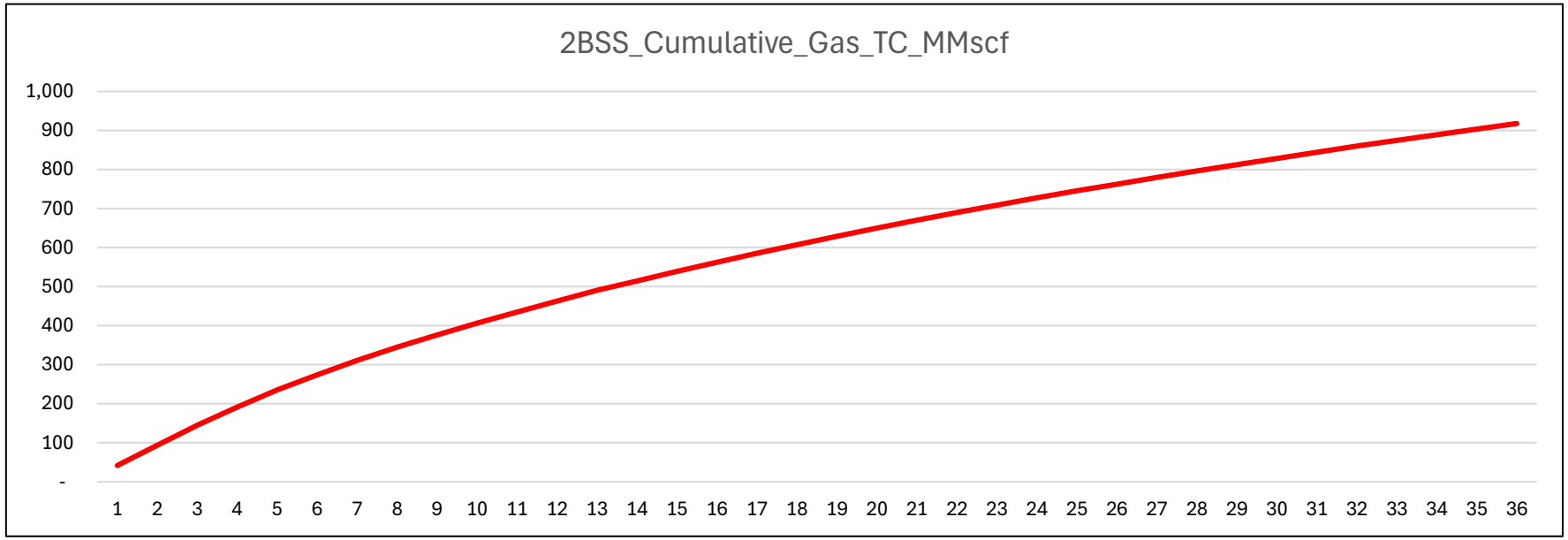
Signature:	Mayte Reyes
Printed Name:	Mayte Reyes
Title:	Sr. Regulatory Coodinator
E-mail Address:	mayte.x.reyes@conocophillips.com
Date:	07/09/2025
Phone:	575-748-6945

OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)

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

Anticipated Production Decline Curve





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

Drilling Plan Data Report
10/15/2025

APD ID: 10400105877
Submission Date: 07/14/2025
Operator Name: COG OPERATING LLC
Well Name: HARRIER FEDERAL COM
Well Number: 503H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
16590010	QUATERNARY	3379	0	0	ALLUVIUM	NONE	N
16589997	RUSTLER	2485	894	894	ALLUVIUM	NONE	N
16590007	TOP SALT	2116	1263	1263	SALT	NONE	N
16590015	BASE OF SALT	-1134	4513	4513	ANHYDRITE	NONE	N
16589992	LAMAR	-1309	4688	4688	LIMESTONE	NATURAL GAS, OIL	N
16590027	BELL CANYON	-1361	4740	4740	SANDSTONE	NATURAL GAS, OIL	N
16590029	CHERRY CANYON	-2321	5700	5700	SANDSTONE	NATURAL GAS, OIL	N
16590017	BRUSHY CANYON	-3859	7238	7238	SANDSTONE	NATURAL GAS, OIL	N
16590024	BONE SPRING	-5479	8858	8858	LIMESTONE	NATURAL GAS, OIL	N
16590000	BONE SPRING 1ST	-6459	9838	9838	SANDSTONE	NATURAL GAS, OIL	N
16589989	---	-6582	9961	9961	SANDSTONE	NATURAL GAS, OIL	N
16590001	BONE SPRING 2ND	-7029	10408	10408	SANDSTONE	NATURAL GAS, OIL	Y
16590028	BONE SPRING 3RD	-7466	10845	10845	SANDSTONE	NATURAL GAS, OIL	N

Section 2 - Blowout Prevention

Operator Name: COG OPERATING LLC

Well Name: HARRIER FEDERAL COM **Well Number:** 503H

Pressure Rating (PSI): 10M **Rating Depth:** 10504

Equipment: Annular, Blind Ram, Pipe Ram, Double Ram. The BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold.
Requesting Variance? YES

Variance request: 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. A variance is requested for use of a multi-bowl wellhead. A variance is requested to allow for break testing during batch drilling.
Testing Procedure: BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per 43 CFR Part 3170 Subpart 3172 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.
Choke Diagram Attachment:

COG_Harrier_10M_Choke_20250714111351.pdf

NEW_COG_Harrier_10M_Choke_20250912081618.pdf

BOP Diagram Attachment:

COG_Harrier_Flex_Hose_Variance_20250714111408.pdf

COG_Harrier_10M_BOP_20250714111408.pdf

NEW_COG_Harrier_Flex_Hose_Variance_20250912081640.pdf

NEW_COG_Harrier_10M_BOP_20250912081641.pdf

Pressure Rating (PSI): 5M **Rating Depth:** 4710

Equipment: Annular, Blind Ram, Pipe Ram, Double Ram. The BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold.
Requesting Variance? YES

Variance request: 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. A variance is requested for use of a multi-bowl wellhead. A variance is requested to allow for break testing during batch drilling.
Testing Procedure: BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per 43 CFR Part 3170 Subpart 3172 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.
Choke Diagram Attachment:

COG_Harrier_5M_Choke_20250714111449.pdf

NEW_COG_Harrier_5M_Choke_20250912081656.pdf

BOP Diagram Attachment:

COG_Harrier_Flex_Hose_Variance_20250714111523.pdf

COG_Harrier_5M_BOP_20250714111523.pdf

NEW_COG_Harrier_Flex_Hose_Variance_20250912081728.pdf

COG_Harrier_5M_BOP_20250912081729.pdf

Operator Name: COG OPERATING LLC

Well Name: HARRIER FEDERAL COM **Well Number:** 503H

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1115	0	1115	3379	2264	1115	J-55	54.5	OTHER - BTC	2.21	1.38	DRY	14.96	DRY	14.96
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	4710	0	4710	3575	-1331	4710	OTHER - L80-IC	40	OTHER - BTC	1.58	1.3	DRY	5.03	DRY	5.03
3	PRODUCTION	8.75	5.5	NEW	API	N	0	21388	0	10504	3689	-7125	21388	OTHER - P110-CY	23	OTHER - TXP BTC	2.66	3.29	DRY	3.02	DRY	3.02

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

COG_Harrier_503H_Casing_Program_20250714111729.pdf

NEW_COG_Harrier_503H_Casing_Program_20250912081925.pdf

Operator Name: COG OPERATING LLC

Well Name: HARRIER FEDERAL COM **Well Number:** 503H

Casing Attachments

Casing ID: 2 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

COG_Harrier_503H_Casing_Program_20250714111614.pdf

NEW_COG_Harrier_503H_Casing_Program_20250912081859.pdf

Casing ID: 3 **String** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

COG_Harrier_503H_Casing_Program_20250714111649.pdf

NEW_COG_Harrier_503H_Casing_Program_20250912081914.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1115	490	1.75	13.5	857	50	Class C	N/A
SURFACE	Tail		1115	1115	179	1.35	14.8	241	50	Class C	N/A
INTERMEDIATE	Lead		4710	4710	930	1.8	12.8	1674	50	Lead: Class C	N/A

Operator Name: COG OPERATING LLC

Well Name: HARRIER FEDERAL COM **Well Number:** 503H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Tail		4710	4710	351	1.34	14.8	470	50	Tail: Class C	N/A
PRODUCTION	Lead		10504	21388	1080	2.98	10.2	3218	20	Lead: Tuned Light	N/A
PRODUCTION	Tail		10504	21388	2460	1.42	13.2	3492	20	Tail: Class H	N/A

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times

Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
4710	21388	OTHER : Cut Brine	8.6	10							Cut Brine
1115	4710	OTHER : Saturated Brine	9	10							Saturated Brine
0	1115	OTHER : Fresh water gel	8.6	8.8							Fresh water gel

Operator Name: COG OPERATING LLC

Well Name: HARRIER FEDERAL COM **Well Number:** 503H

Section 6 - Test, Logging, Coring

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

None planned

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

CEMENT BOND LOG,COMPENSATED NEUTRON LOG,GAMMA RAY LOG,MUD LOG/GEOLOGICAL LITHOLOGY LOG,

Coring operation description for the well:

None planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5465 **Anticipated Surface Pressure:** 3143

Anticipated Bottom Hole Temperature(F): 160

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

COG_Harrier_501H_502H_503H_H2S_Schem_20250708144744.pdf
COG_Harrier_H2S_SUP_20250708145153.pdf
NEW_COG_Harrier_H2S_SUP_20250912082400.pdf
NEW_COG_Harrier_501H_502H_503H_H2S_Schem_20250912082400.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

COG_Harrier_503H_AC_Report_20250714114510.pdf
COG_Harrier_503H_Directional_Plan_20250714114512.pdf
NEW_COG_Harrier_503H_AC_Report_20250912084559.pdf
NEW_COG_Harrier_503H_Directional_Plan_20250912084600.pdf

Other proposed operations facets description:

COG requests option to preset casing.
Break Testing.
Bradenhead Cement.

Other proposed operations facets attachment:

API_BTC_13.375_0.380_J55_Casing_11162022_20250708145528.pdf

Operator Name: COG OPERATING LLC

Well Name: HARRIER FEDERAL COM **Well Number:** 503H

API_BTC_9.625_0.395_L80_IC_08172022_20250708145525.pdf
TXP_BTC_5.500_0.415_P110_CY_05052022_20250708145528.pdf
Wedge_441_5.500_0.415_P110_CY_05052022_20250708145528.pdf
COG_Harrier_503H_Casing_Program_20250714114628.pdf
COG_Harrier_503H_Drilling_Program_20250714114629.pdf
COG_Harrier_503H_Cement_Program_20250714114629.pdf
NEW_COG_Harrier_503H_GCP_20250912084617.pdf
NEW_COG_Harrier_503H_Cement_Program_20250912084617.pdf
NEW_COG_Harrier_503H_Casing_Program_20250912084617.pdf
NEW_COG_Harrier_503H_Drilling_Program_20250912084617.pdf
NEW_Wedge_441_5.500_0.415_P110_CY_05052022_20250912084745.pdf
NEW_TXP_BTC_5.500_0.415_P110_CY_05052022_20250912084746.pdf
NEW_API_BTC_13.375_0.380_J55_Casing_11162022_20250912084746.pdf
NEW_API_BTC_9.625_0.395_L80_IC_08172022_20250912084746.pdf

Other Variance request(s)?: Y

Other Variance attachment:

COP_Offline_Bradenhead_Intermediate_Documentation_3_11_23__Rev2_20240905223209.pdf
COG_5M_Variance_Well_Plan_20240903103517.pdf
COP_BOP_Break_Testing_Documentation_6_07_23_20240903103517.pdf
Cameron_Multi_Bowl_WH_20240903103517.pdf
NEW_COG_5M_Variance_Well_Plan_20250912084804.pdf
NEW_COG_Cameron_Multi_Bowl_WH_20250912084804.pdf
NEW_COP_Offline_Bradenhead_Intermediate_Documentation_3_11_23__Rev2_20250912084805.pdf
NEW_COP_BOP_Break_Testing_Documentation_6_07_23_20250912084805.pdf

DELAWARE BASIN EAST

LEA COUNT SOUTH WEST (NM-E)
HARRIER FEDERAL PROJECT
_HARRIER FED COM 503H

OWB

Plan: PWP0

Standard Planning Report

20 May, 2025

ConocoPhillips
Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well _HARRIER FED COM 503H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	RKB @ 3392.0usft
Project:	LEA COUNT SOUTH WEST (NM-E)	**MD Reference:**	RKB @ 3392.0usft
Site:	HARRIER FEDERAL PROJECT	**North Reference:**	Grid
Well:	_HARRIER FED COM 503H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

Project LEA COUNT SOUTH WEST (NM-E)

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site HARRIER FEDERAL PROJECT

Site Position:		**Northing:**	398,637.10 usft	**Latitude:**	32° 5' 36.820 N
From:	Map	**Easting:**	741,887.40 usft	**Longitude:**	103° 33' 8.116 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "		

Well _HARRIER FED COM 503H

Well Position	**+N/-S**	0.0 usft	**Northing:**	399,213.50 usft	**Latitude:**	32° 5' 44.548 N
	+E/-W	0.0 usft	**Easting:**	711,777.13 usft	**Longitude:**	103° 38' 58.075 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,360.0 usft
Grid Convergence:		0.36 °				

Wellbore OWB

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2024	3/14/2025	6.23	59.60	47,147.19902843

Design PWP0

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	175.76

Plan Survey Tool Program **Date** 3/26/2025

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	21,388.0	PWP0 (OWB)	r.5 MWD+IFR1 OWSG MWD + IFR1 rev.5	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,120.0	12.40	104.23	2,115.1	-16.4	64.8	2.00	2.00	0.00	104.23	
4,838.0	12.40	104.23	4,769.7	-159.9	630.5	0.00	0.00	0.00	0.00	
6,077.9	0.00	0.00	6,000.0	-192.8	760.0	1.00	-1.00	0.00	180.00	
10,150.4	0.00	0.00	10,072.5	-192.8	760.0	0.00	0.00	0.00	0.00	
10,900.4	90.00	179.65	10,550.0	-670.3	762.9	12.00	12.00	23.95	179.65	
21,388.0	90.00	179.65	10,550.0	-11,157.7	827.3	0.00	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well _HARRIER FED COM 503H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	RKB @ 3392.0usft
Project:	LEA COUNT SOUTH WEST (NM-E)	**MD Reference:**	RKB @ 3392.0usft
Site:	HARRIER FEDERAL PROJECT	**North Reference:**	Grid
Well:	_HARRIER FED COM 503H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	2.00	104.23	1,600.0	-0.4	1.7	0.6	2.00	2.00	0.00
1,700.0	4.00	104.23	1,699.8	-1.7	6.8	2.2	2.00	2.00	0.00
1,800.0	6.00	104.23	1,799.5	-3.9	15.2	5.0	2.00	2.00	0.00
1,900.0	8.00	104.23	1,898.7	-6.9	27.0	8.8	2.00	2.00	0.00
2,000.0	10.00	104.23	1,997.5	-10.7	42.2	13.8	2.00	2.00	0.00
2,100.0	12.00	104.23	2,095.6	-15.4	60.7	19.8	2.00	2.00	0.00
2,120.0	12.40	104.23	2,115.1	-16.4	64.8	21.2	2.00	2.00	0.00
2,200.0	12.40	104.23	2,193.3	-20.7	81.4	26.6	0.00	0.00	0.00
2,300.0	12.40	104.23	2,291.0	-25.9	102.2	33.4	0.00	0.00	0.00
2,400.0	12.40	104.23	2,388.6	-31.2	123.1	40.2	0.00	0.00	0.00
2,500.0	12.40	104.23	2,486.3	-36.5	143.9	47.0	0.00	0.00	0.00
2,600.0	12.40	104.23	2,584.0	-41.8	164.7	53.8	0.00	0.00	0.00
2,700.0	12.40	104.23	2,681.6	-47.1	185.5	60.6	0.00	0.00	0.00
2,800.0	12.40	104.23	2,779.3	-52.3	206.3	67.4	0.00	0.00	0.00
2,900.0	12.40	104.23	2,877.0	-57.6	227.1	74.3	0.00	0.00	0.00
3,000.0	12.40	104.23	2,974.6	-62.9	247.9	81.1	0.00	0.00	0.00
3,100.0	12.40	104.23	3,072.3	-68.2	268.7	87.9	0.00	0.00	0.00
3,200.0	12.40	104.23	3,170.0	-73.5	289.6	94.7	0.00	0.00	0.00
3,300.0	12.40	104.23	3,267.6	-78.7	310.4	101.5	0.00	0.00	0.00
3,400.0	12.40	104.23	3,365.3	-84.0	331.2	108.3	0.00	0.00	0.00
3,500.0	12.40	104.23	3,463.0	-89.3	352.0	115.1	0.00	0.00	0.00
3,600.0	12.40	104.23	3,560.7	-94.6	372.8	121.9	0.00	0.00	0.00
3,700.0	12.40	104.23	3,658.3	-99.9	393.6	128.7	0.00	0.00	0.00
3,800.0	12.40	104.23	3,756.0	-105.1	414.4	135.5	0.00	0.00	0.00
3,900.0	12.40	104.23	3,853.7	-110.4	435.2	142.3	0.00	0.00	0.00
4,000.0	12.40	104.23	3,951.3	-115.7	456.1	149.1	0.00	0.00	0.00
4,100.0	12.40	104.23	4,049.0	-121.0	476.9	155.9	0.00	0.00	0.00
4,200.0	12.40	104.23	4,146.7	-126.3	497.7	162.7	0.00	0.00	0.00
4,300.0	12.40	104.23	4,244.3	-131.5	518.5	169.5	0.00	0.00	0.00
4,400.0	12.40	104.23	4,342.0	-136.8	539.3	176.3	0.00	0.00	0.00
4,500.0	12.40	104.23	4,439.7	-142.1	560.1	183.1	0.00	0.00	0.00
4,600.0	12.40	104.23	4,537.3	-147.4	580.9	189.9	0.00	0.00	0.00
4,700.0	12.40	104.23	4,635.0	-152.7	601.7	196.7	0.00	0.00	0.00
4,800.0	12.40	104.23	4,732.7	-157.9	622.6	203.5	0.00	0.00	0.00
4,838.0	12.40	104.23	4,769.7	-159.9	630.5	206.1	0.00	0.00	0.00
4,900.0	11.78	104.23	4,830.4	-163.1	643.1	210.2	1.00	-1.00	0.00
5,000.0	10.78	104.23	4,928.5	-167.9	662.0	216.4	1.00	-1.00	0.00
5,100.0	9.78	104.23	5,026.9	-172.3	679.3	222.1	1.00	-1.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well _HARRIER FED COM 503H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	RKB @ 3392.0usft
Project:	LEA COUNT SOUTH WEST (NM-E)	**MD Reference:**	RKB @ 3392.0usft
Site:	HARRIER FEDERAL PROJECT	**North Reference:**	Grid
Well:	_HARRIER FED COM 503H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,200.0	8.78	104.23	5,125.6	-176.3	694.9	227.2	1.00	-1.00	0.00
5,300.0	7.78	104.23	5,224.5	-179.8	708.9	231.8	1.00	-1.00	0.00
5,400.0	6.78	104.23	5,323.7	-183.0	721.2	235.8	1.00	-1.00	0.00
5,500.0	5.78	104.23	5,423.1	-185.6	731.8	239.2	1.00	-1.00	0.00
5,600.0	4.78	104.23	5,522.7	-187.9	740.7	242.2	1.00	-1.00	0.00
5,700.0	3.78	104.23	5,622.4	-189.7	747.9	244.5	1.00	-1.00	0.00
5,800.0	2.78	104.23	5,722.2	-191.1	753.5	246.3	1.00	-1.00	0.00
5,900.0	1.78	104.23	5,822.1	-192.1	757.3	247.6	1.00	-1.00	0.00
6,000.0	0.78	104.23	5,922.1	-192.7	759.5	248.3	1.00	-1.00	0.00
6,077.9	0.00	0.00	6,000.0	-192.8	760.0	248.5	1.00	-1.00	0.00
6,100.0	0.00	0.00	6,022.1	-192.8	760.0	248.5	0.00	0.00	0.00
6,200.0	0.00	0.00	6,122.1	-192.8	760.0	248.5	0.00	0.00	0.00
6,300.0	0.00	0.00	6,222.1	-192.8	760.0	248.5	0.00	0.00	0.00
6,400.0	0.00	0.00	6,322.1	-192.8	760.0	248.5	0.00	0.00	0.00
6,500.0	0.00	0.00	6,422.1	-192.8	760.0	248.5	0.00	0.00	0.00
6,600.0	0.00	0.00	6,522.1	-192.8	760.0	248.5	0.00	0.00	0.00
6,700.0	0.00	0.00	6,622.1	-192.8	760.0	248.5	0.00	0.00	0.00
6,800.0	0.00	0.00	6,722.1	-192.8	760.0	248.5	0.00	0.00	0.00
6,900.0	0.00	0.00	6,822.1	-192.8	760.0	248.5	0.00	0.00	0.00
7,000.0	0.00	0.00	6,922.1	-192.8	760.0	248.5	0.00	0.00	0.00
7,100.0	0.00	0.00	7,022.1	-192.8	760.0	248.5	0.00	0.00	0.00
7,200.0	0.00	0.00	7,122.1	-192.8	760.0	248.5	0.00	0.00	0.00
7,300.0	0.00	0.00	7,222.1	-192.8	760.0	248.5	0.00	0.00	0.00
7,400.0	0.00	0.00	7,322.1	-192.8	760.0	248.5	0.00	0.00	0.00
7,500.0	0.00	0.00	7,422.1	-192.8	760.0	248.5	0.00	0.00	0.00
7,600.0	0.00	0.00	7,522.1	-192.8	760.0	248.5	0.00	0.00	0.00
7,700.0	0.00	0.00	7,622.1	-192.8	760.0	248.5	0.00	0.00	0.00
7,800.0	0.00	0.00	7,722.1	-192.8	760.0	248.5	0.00	0.00	0.00
7,900.0	0.00	0.00	7,822.1	-192.8	760.0	248.5	0.00	0.00	0.00
8,000.0	0.00	0.00	7,922.1	-192.8	760.0	248.5	0.00	0.00	0.00
8,100.0	0.00	0.00	8,022.1	-192.8	760.0	248.5	0.00	0.00	0.00
8,200.0	0.00	0.00	8,122.1	-192.8	760.0	248.5	0.00	0.00	0.00
8,300.0	0.00	0.00	8,222.1	-192.8	760.0	248.5	0.00	0.00	0.00
8,400.0	0.00	0.00	8,322.1	-192.8	760.0	248.5	0.00	0.00	0.00
8,500.0	0.00	0.00	8,422.1	-192.8	760.0	248.5	0.00	0.00	0.00
8,600.0	0.00	0.00	8,522.1	-192.8	760.0	248.5	0.00	0.00	0.00
8,700.0	0.00	0.00	8,622.1	-192.8	760.0	248.5	0.00	0.00	0.00
8,800.0	0.00	0.00	8,722.1	-192.8	760.0	248.5	0.00	0.00	0.00
8,900.0	0.00	0.00	8,822.1	-192.8	760.0	248.5	0.00	0.00	0.00
9,000.0	0.00	0.00	8,922.1	-192.8	760.0	248.5	0.00	0.00	0.00
9,100.0	0.00	0.00	9,022.1	-192.8	760.0	248.5	0.00	0.00	0.00
9,200.0	0.00	0.00	9,122.1	-192.8	760.0	248.5	0.00	0.00	0.00
9,300.0	0.00	0.00	9,222.1	-192.8	760.0	248.5	0.00	0.00	0.00
9,400.0	0.00	0.00	9,322.1	-192.8	760.0	248.5	0.00	0.00	0.00
9,500.0	0.00	0.00	9,422.1	-192.8	760.0	248.5	0.00	0.00	0.00
9,600.0	0.00	0.00	9,522.1	-192.8	760.0	248.5	0.00	0.00	0.00
9,700.0	0.00	0.00	9,622.1	-192.8	760.0	248.5	0.00	0.00	0.00
9,800.0	0.00	0.00	9,722.1	-192.8	760.0	248.5	0.00	0.00	0.00
9,900.0	0.00	0.00	9,822.1	-192.8	760.0	248.5	0.00	0.00	0.00
10,000.0	0.00	0.00	9,922.1	-192.8	760.0	248.5	0.00	0.00	0.00
10,100.0	0.00	0.00	10,022.1	-192.8	760.0	248.5	0.00	0.00	0.00
10,150.4	0.00	0.00	10,072.5	-192.8	760.0	248.5	0.00	0.00	0.00
10,200.0	5.95	179.65	10,122.0	-195.4	760.0	251.0	12.00	12.00	0.00
10,300.0	17.95	179.65	10,219.7	-216.1	760.1	271.7	12.00	12.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well _HARRIER FED COM 503H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	RKB @ 3392.0usft
Project:	LEA COUNT SOUTH WEST (NM-E)	**MD Reference:**	RKB @ 3392.0usft
Site:	HARRIER FEDERAL PROJECT	**North Reference:**	Grid
Well:	_HARRIER FED COM 503H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,400.0	29.95	179.65	10,310.9	-256.6	760.4	312.1	12.00	12.00	0.00
10,500.0	41.95	179.65	10,391.7	-315.2	760.8	370.6	12.00	12.00	0.00
10,600.0	53.95	179.65	10,458.6	-389.3	761.2	444.5	12.00	12.00	0.00
10,700.0	65.95	179.65	10,508.5	-475.7	761.7	530.7	12.00	12.00	0.00
10,800.0	77.95	179.65	10,539.5	-570.6	762.3	625.4	12.00	12.00	0.00
10,900.0	89.95	179.65	10,550.0	-669.9	762.9	724.5	12.00	12.00	0.00
10,900.4	90.00	179.65	10,550.0	-670.3	762.9	724.8	12.00	12.00	0.00
11,000.0	90.00	179.65	10,550.0	-769.9	763.5	824.2	0.00	0.00	0.00
11,100.0	90.00	179.65	10,550.0	-869.9	764.2	924.0	0.00	0.00	0.00
11,200.0	90.00	179.65	10,550.0	-969.9	764.8	1,023.8	0.00	0.00	0.00
11,300.0	90.00	179.65	10,550.0	-1,069.9	765.4	1,123.5	0.00	0.00	0.00
11,400.0	90.00	179.65	10,550.0	-1,169.9	766.0	1,223.3	0.00	0.00	0.00
11,500.0	90.00	179.65	10,550.0	-1,269.9	766.6	1,323.1	0.00	0.00	0.00
11,600.0	90.00	179.65	10,550.0	-1,369.9	767.2	1,422.8	0.00	0.00	0.00
11,700.0	90.00	179.65	10,550.0	-1,469.9	767.8	1,522.6	0.00	0.00	0.00
11,800.0	90.00	179.65	10,550.0	-1,569.9	768.5	1,622.4	0.00	0.00	0.00
11,900.0	90.00	179.65	10,550.0	-1,669.9	769.1	1,722.2	0.00	0.00	0.00
12,000.0	90.00	179.65	10,550.0	-1,769.9	769.7	1,821.9	0.00	0.00	0.00
12,100.0	90.00	179.65	10,550.0	-1,869.9	770.3	1,921.7	0.00	0.00	0.00
12,200.0	90.00	179.65	10,550.0	-1,969.9	770.9	2,021.5	0.00	0.00	0.00
12,300.0	90.00	179.65	10,550.0	-2,069.8	771.5	2,121.2	0.00	0.00	0.00
12,400.0	90.00	179.65	10,550.0	-2,169.8	772.1	2,221.0	0.00	0.00	0.00
12,500.0	90.00	179.65	10,550.0	-2,269.8	772.8	2,320.8	0.00	0.00	0.00
12,600.0	90.00	179.65	10,550.0	-2,369.8	773.4	2,420.5	0.00	0.00	0.00
12,700.0	90.00	179.65	10,550.0	-2,469.8	774.0	2,520.3	0.00	0.00	0.00
12,800.0	90.00	179.65	10,550.0	-2,569.8	774.6	2,620.1	0.00	0.00	0.00
12,900.0	90.00	179.65	10,550.0	-2,669.8	775.2	2,719.9	0.00	0.00	0.00
13,000.0	90.00	179.65	10,550.0	-2,769.8	775.8	2,819.6	0.00	0.00	0.00
13,100.0	90.00	179.65	10,550.0	-2,869.8	776.4	2,919.4	0.00	0.00	0.00
13,200.0	90.00	179.65	10,550.0	-2,969.8	777.1	3,019.2	0.00	0.00	0.00
13,300.0	90.00	179.65	10,550.0	-3,069.8	777.7	3,118.9	0.00	0.00	0.00
13,400.0	90.00	179.65	10,550.0	-3,169.8	778.3	3,218.7	0.00	0.00	0.00
13,500.0	90.00	179.65	10,550.0	-3,269.8	778.9	3,318.5	0.00	0.00	0.00
13,600.0	90.00	179.65	10,550.0	-3,369.8	779.5	3,418.2	0.00	0.00	0.00
13,700.0	90.00	179.65	10,550.0	-3,469.8	780.1	3,518.0	0.00	0.00	0.00
13,800.0	90.00	179.65	10,550.0	-3,569.8	780.7	3,617.8	0.00	0.00	0.00
13,900.0	90.00	179.65	10,550.0	-3,669.8	781.3	3,717.5	0.00	0.00	0.00
14,000.0	90.00	179.65	10,550.0	-3,769.8	782.0	3,817.3	0.00	0.00	0.00
14,100.0	90.00	179.65	10,550.0	-3,869.8	782.6	3,917.1	0.00	0.00	0.00
14,200.0	90.00	179.65	10,550.0	-3,969.8	783.2	4,016.9	0.00	0.00	0.00
14,300.0	90.00	179.65	10,550.0	-4,069.8	783.8	4,116.6	0.00	0.00	0.00
14,400.0	90.00	179.65	10,550.0	-4,169.8	784.4	4,216.4	0.00	0.00	0.00
14,500.0	90.00	179.65	10,550.0	-4,269.8	785.0	4,316.2	0.00	0.00	0.00
14,600.0	90.00	179.65	10,550.0	-4,369.8	785.6	4,415.9	0.00	0.00	0.00
14,700.0	90.00	179.65	10,550.0	-4,469.8	786.3	4,515.7	0.00	0.00	0.00
14,800.0	90.00	179.65	10,550.0	-4,569.8	786.9	4,615.5	0.00	0.00	0.00
14,900.0	90.00	179.65	10,550.0	-4,669.8	787.5	4,715.2	0.00	0.00	0.00
15,000.0	90.00	179.65	10,550.0	-4,769.8	788.1	4,815.0	0.00	0.00	0.00
15,100.0	90.00	179.65	10,550.0	-4,869.8	788.7	4,914.8	0.00	0.00	0.00
15,200.0	90.00	179.65	10,550.0	-4,969.8	789.3	5,014.6	0.00	0.00	0.00
15,300.0	90.00	179.65	10,550.0	-5,069.8	789.9	5,114.3	0.00	0.00	0.00
15,400.0	90.00	179.65	10,550.0	-5,169.8	790.6	5,214.1	0.00	0.00	0.00
15,500.0	90.00	179.65	10,550.0	-5,269.8	791.2	5,313.9	0.00	0.00	0.00
15,600.0	90.00	179.65	10,550.0	-5,369.8	791.8	5,413.6	0.00	0.00	0.00

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Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well _HARRIER FED COM 503H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	RKB @ 3392.0usft
Project:	LEA COUNT SOUTH WEST (NM-E)	**MD Reference:**	RKB @ 3392.0usft
Site:	HARRIER FEDERAL PROJECT	**North Reference:**	Grid
Well:	_HARRIER FED COM 503H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,700.0	90.00	179.65	10,550.0	-5,469.8	792.4	5,513.4	0.00	0.00	0.00
15,800.0	90.00	179.65	10,550.0	-5,569.8	793.0	5,613.2	0.00	0.00	0.00
15,900.0	90.00	179.65	10,550.0	-5,669.8	793.6	5,712.9	0.00	0.00	0.00
16,000.0	90.00	179.65	10,550.0	-5,769.8	794.2	5,812.7	0.00	0.00	0.00
16,100.0	90.00	179.65	10,550.0	-5,869.8	794.9	5,912.5	0.00	0.00	0.00
16,200.0	90.00	179.65	10,550.0	-5,969.8	795.5	6,012.3	0.00	0.00	0.00
16,300.0	90.00	179.65	10,550.0	-6,069.8	796.1	6,112.0	0.00	0.00	0.00
16,400.0	90.00	179.65	10,550.0	-6,169.8	796.7	6,211.8	0.00	0.00	0.00
16,500.0	90.00	179.65	10,550.0	-6,269.8	797.3	6,311.6	0.00	0.00	0.00
16,600.0	90.00	179.65	10,550.0	-6,369.8	797.9	6,411.3	0.00	0.00	0.00
16,700.0	90.00	179.65	10,550.0	-6,469.8	798.5	6,511.1	0.00	0.00	0.00
16,800.0	90.00	179.65	10,550.0	-6,569.8	799.2	6,610.9	0.00	0.00	0.00
16,900.0	90.00	179.65	10,550.0	-6,669.8	799.8	6,710.6	0.00	0.00	0.00
17,000.0	90.00	179.65	10,550.0	-6,769.8	800.4	6,810.4	0.00	0.00	0.00
17,100.0	90.00	179.65	10,550.0	-6,869.8	801.0	6,910.2	0.00	0.00	0.00
17,200.0	90.00	179.65	10,550.0	-6,969.8	801.6	7,010.0	0.00	0.00	0.00
17,300.0	90.00	179.65	10,550.0	-7,069.8	802.2	7,109.7	0.00	0.00	0.00
17,400.0	90.00	179.65	10,550.0	-7,169.8	802.8	7,209.5	0.00	0.00	0.00
17,500.0	90.00	179.65	10,550.0	-7,269.8	803.5	7,309.3	0.00	0.00	0.00
17,600.0	90.00	179.65	10,550.0	-7,369.7	804.1	7,409.0	0.00	0.00	0.00
17,700.0	90.00	179.65	10,550.0	-7,469.7	804.7	7,508.8	0.00	0.00	0.00
17,800.0	90.00	179.65	10,550.0	-7,569.7	805.3	7,608.6	0.00	0.00	0.00
17,900.0	90.00	179.65	10,550.0	-7,669.7	805.9	7,708.3	0.00	0.00	0.00
18,000.0	90.00	179.65	10,550.0	-7,769.7	806.5	7,808.1	0.00	0.00	0.00
18,100.0	90.00	179.65	10,550.0	-7,869.7	807.1	7,907.9	0.00	0.00	0.00
18,200.0	90.00	179.65	10,550.0	-7,969.7	807.8	8,007.6	0.00	0.00	0.00
18,300.0	90.00	179.65	10,550.0	-8,069.7	808.4	8,107.4	0.00	0.00	0.00
18,400.0	90.00	179.65	10,550.0	-8,169.7	809.0	8,207.2	0.00	0.00	0.00
18,500.0	90.00	179.65	10,550.0	-8,269.7	809.6	8,307.0	0.00	0.00	0.00
18,600.0	90.00	179.65	10,550.0	-8,369.7	810.2	8,406.7	0.00	0.00	0.00
18,700.0	90.00	179.65	10,550.0	-8,469.7	810.8	8,506.5	0.00	0.00	0.00
18,800.0	90.00	179.65	10,550.0	-8,569.7	811.4	8,606.3	0.00	0.00	0.00
18,900.0	90.00	179.65	10,550.0	-8,669.7	812.0	8,706.0	0.00	0.00	0.00
19,000.0	90.00	179.65	10,550.0	-8,769.7	812.7	8,805.8	0.00	0.00	0.00
19,100.0	90.00	179.65	10,550.0	-8,869.7	813.3	8,905.6	0.00	0.00	0.00
19,200.0	90.00	179.65	10,550.0	-8,969.7	813.9	9,005.3	0.00	0.00	0.00
19,300.0	90.00	179.65	10,550.0	-9,069.7	814.5	9,105.1	0.00	0.00	0.00
19,400.0	90.00	179.65	10,550.0	-9,169.7	815.1	9,204.9	0.00	0.00	0.00
19,500.0	90.00	179.65	10,550.0	-9,269.7	815.7	9,304.7	0.00	0.00	0.00
19,600.0	90.00	179.65	10,550.0	-9,369.7	816.3	9,404.4	0.00	0.00	0.00
19,700.0	90.00	179.65	10,550.0	-9,469.7	817.0	9,504.2	0.00	0.00	0.00
19,800.0	90.00	179.65	10,550.0	-9,569.7	817.6	9,604.0	0.00	0.00	0.00
19,900.0	90.00	179.65	10,550.0	-9,669.7	818.2	9,703.7	0.00	0.00	0.00
20,000.0	90.00	179.65	10,550.0	-9,769.7	818.8	9,803.5	0.00	0.00	0.00
20,100.0	90.00	179.65	10,550.0	-9,869.7	819.4	9,903.3	0.00	0.00	0.00
20,200.0	90.00	179.65	10,550.0	-9,969.7	820.0	10,003.0	0.00	0.00	0.00
20,300.0	90.00	179.65	10,550.0	-10,069.7	820.6	10,102.8	0.00	0.00	0.00
20,400.0	90.00	179.65	10,550.0	-10,169.7	821.3	10,202.6	0.00	0.00	0.00
20,500.0	90.00	179.65	10,550.0	-10,269.7	821.9	10,302.4	0.00	0.00	0.00
20,600.0	90.00	179.65	10,550.0	-10,369.7	822.5	10,402.1	0.00	0.00	0.00
20,700.0	90.00	179.65	10,550.0	-10,469.7	823.1	10,501.9	0.00	0.00	0.00
20,800.0	90.00	179.65	10,550.0	-10,569.7	823.7	10,601.7	0.00	0.00	0.00
20,900.0	90.00	179.65	10,550.0	-10,669.7	824.3	10,701.4	0.00	0.00	0.00
21,000.0	90.00	179.65	10,550.0	-10,769.7	824.9	10,801.2	0.00	0.00	0.00

ConocoPhillips
Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well _HARRIER FED COM 503H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	RKB @ 3392.0usft
Project:	LEA COUNT SOUTH WEST (NM-E)	**MD Reference:**	RKB @ 3392.0usft
Site:	HARRIER FEDERAL PROJECT	**North Reference:**	Grid
Well:	_HARRIER FED COM 503H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
21,100.0	90.00	179.65	10,550.0	-10,869.7	825.6	10,901.0	0.00	0.00	0.00
21,200.0	90.00	179.65	10,550.0	-10,969.7	826.2	11,000.7	0.00	0.00	0.00
21,300.0	90.00	179.65	10,550.0	-11,069.7	826.8	11,100.5	0.00	0.00	0.00
21,388.0	90.00	179.65	10,550.0	-11,157.7	827.3	11,188.3	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_HARRIER FED C	0.00	359.65	10,550.0	-11,157.7	827.3	388,055.81	712,604.45	32° 3' 54.081 N	103° 38' 49.283 W
- plan hits target center - Rectangle (sides W100.0 H10,488.0 D20.0)									
FTP_HARRIER FED CC	0.00	0.00	10,550.0	-670.3	763.1	398,543.25	712,540.27	32° 5' 37.867 N	103° 38' 49.254 W
- plan misses target center by 0.2usft at 10900.4usft MD (10550.0 TVD, -670.3 N, 762.9 E) - Circle (radius 50.0)									
LTP_HARRIER FED CO	90.00	179.65	10,550.0	-11,107.7	826.8	388,105.80	712,603.92	32° 3' 54.575 N	103° 38' 49.286 W
- plan misses target center by 38.0usft at 21300.0usft MD (10550.0 TVD, -11069.7 N, 826.8 E) - Circle (radius 50.0)									

Casing Points

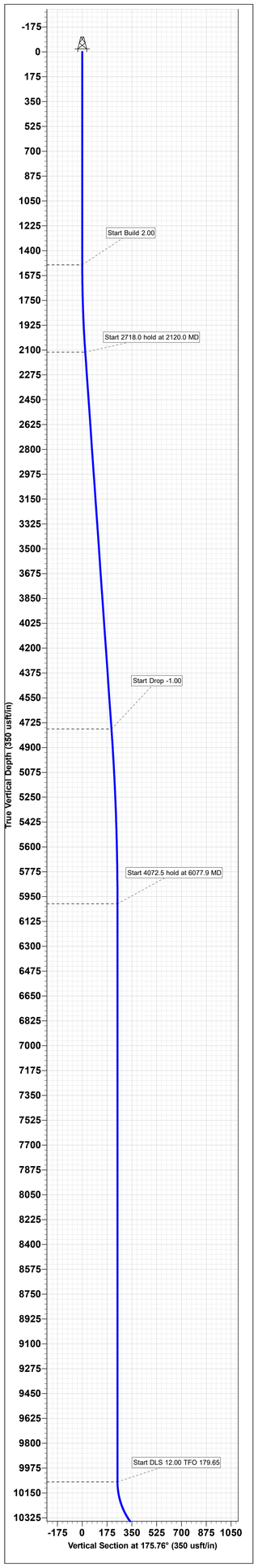
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
21,388.7	10,550.0	5-1/2" Production Casing	5-1/2	6

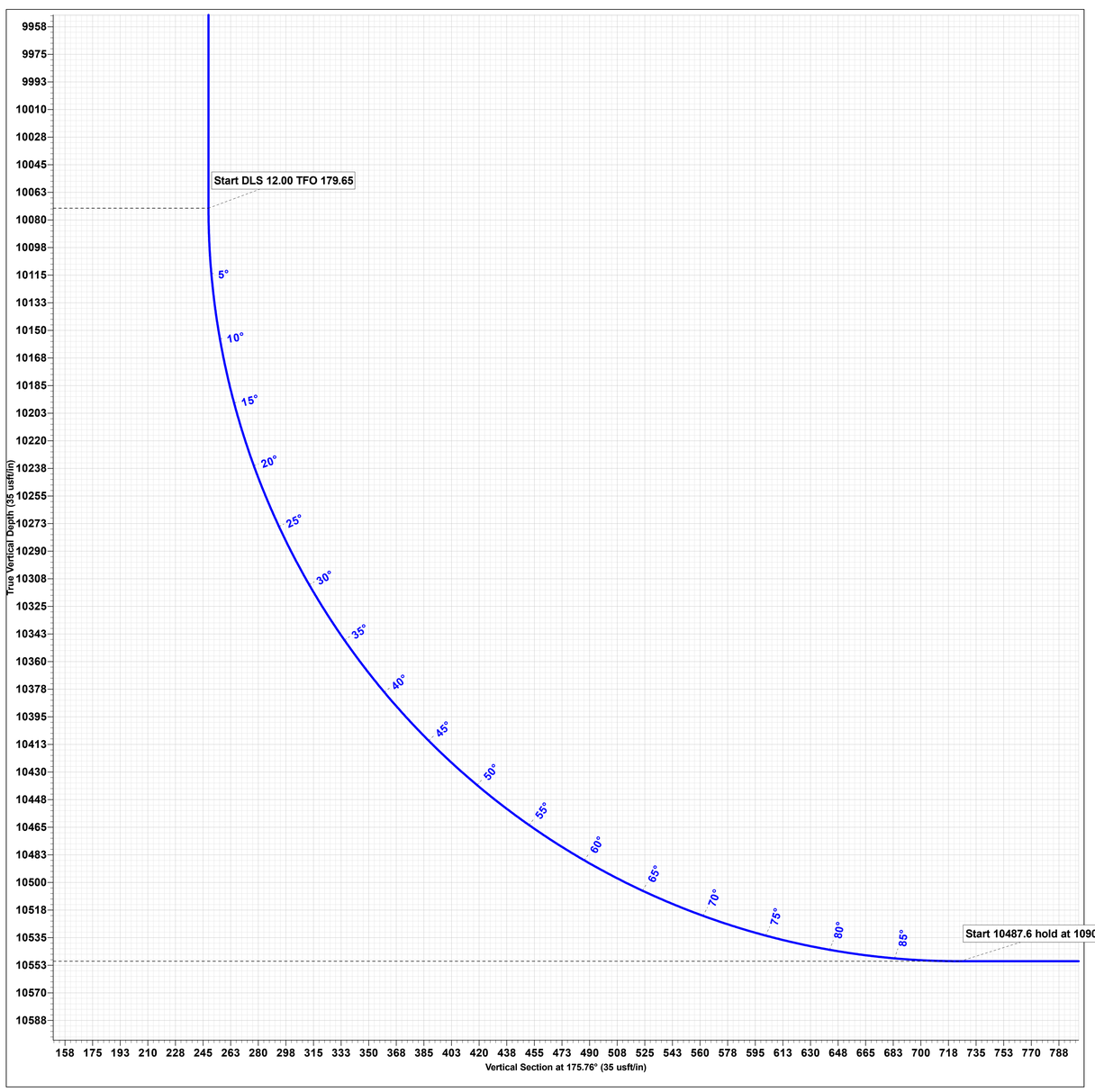
ConocoPhillips

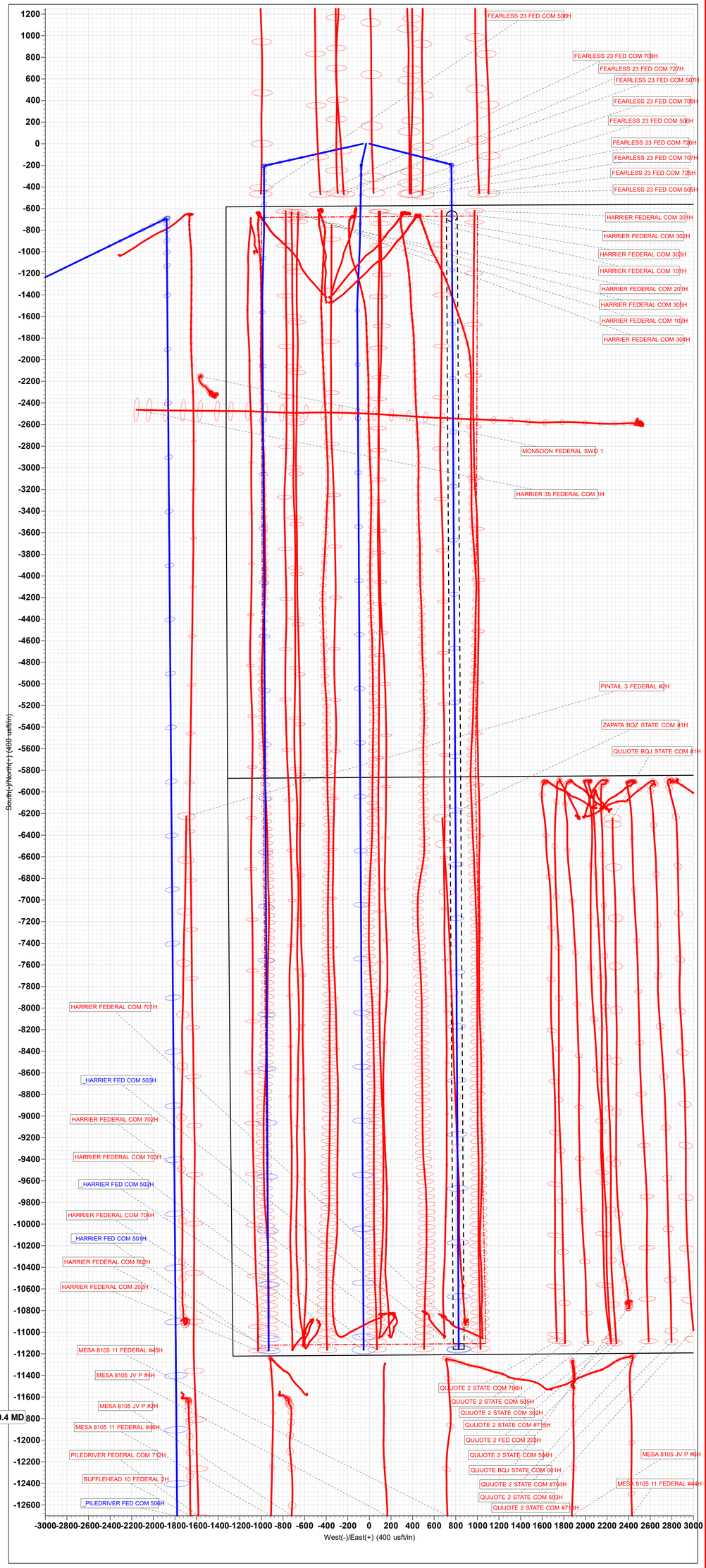
Project:	LEA COUNT SOUTH WEST (NM-E)
Site:	HARRIER FEDERAL PROJECT
Well:	_HARRIER FED COM 503H
Wellbore:	OWB
Design:	PWP0

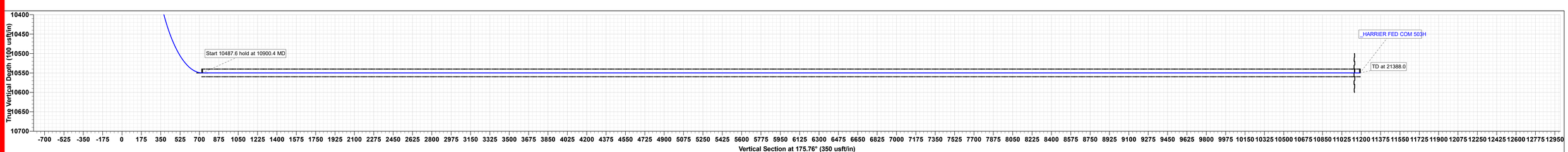
SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0
2120.0	12.40	104.23	2115.1	-16.4	64.8	2.00	104.23	21.2
4838.0	12.40	104.23	4769.7	-159.9	630.5	0.00	0.00	206.1
6077.9	0.00	0.00	6000.0	-192.8	760.0	1.00	180.00	248.5
10150.4	0.00	0.00	10072.5	-192.8	760.0	0.00	0.00	248.5
10900.4	90.00	179.65	10550.0	-670.3	762.9	12.00	179.65	724.8
21388.0	90.00	179.65	10550.0	-11157.7	827.3	0.00	0.00	11188.3









PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	COG OPERATING LLC
WELL NAME & NO.:	HARRIER FED COM 503H
LOCATION:	Section 26, T.25 S., R.32 E.
COUNTY:	Lea County, New Mexico

COA

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

A. HYDROGEN SULFIDE

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

B. CASING

Primary Casing Design:

1. The **13-3/8** inch surface casing shall be set at approximately **1055 feet per BLM Geologist** (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. The surface hole shall be **17 1/2 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 **9-5/8** inch intermediate casing is:

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

Contingency Squeeze:

Operator has proposed to pump down 13-3/8" X 9-5/8" annulus. Operator must top out cement after the bradenhead squeeze and verify cement to surface. Operator can also check TOC with Echo-meter. CBL must be run from TD of the 9-5/8" casing to surface if confidence is lacking on the quality of the bradenhead squeeze cement job. Submit results to BLM.

Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry between second stage BH and top out. Operator must run one CBL per Well Pad.

If cement does not reach surface, the next casing string must come to surface.

Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.

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. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **13-3/8** inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 3500 (70% Working Pressure) psi.**

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
    e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in Onshore Order 1 and 2.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

Offline Cementing

Contact the BLM prior to the commencement of any offline cementing procedure.

GENERAL REQUIREMENTS

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

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

☒ Eddy County
EMAIL or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
BLM_NM_CFO_DrillingNotifications@BLM.GOV
(575) 361-2822

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
    a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
    b. When the operator proposes to set surface casing with Spudder Rig
        i. Notify the BLM when moving in and removing the Spudder Rig.
        ii. Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
        iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from

spacer and drilling mud. The results should be documented in the driller's log and daily reports.

A. CASING

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

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-Q potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR 3172**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
    i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    ii. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    iii. Manufacturer representative shall install the test plug for the initial BOP test.
    iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
    v. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

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

service company test will be submitted to the appropriate BLM office.

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

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

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

JS 8/12/2025

COG OPERATING LLC
HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

a. The hazards and characteristics of hydrogen sulfide (H_2S).
b. The proper use and maintenance of personal protective equipment and life support systems.
c. The proper use of H_2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
d. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

a. The effects of H2S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
b. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
c. The contents and requirements of the H_2S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500 feet) and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

2. H_2S SAFETY EQUIPMENT AND SYSTEMS

Note: All H_2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H2S. If H2S greater than 100 ppm is encountered in the gas stream we will shut in and install H2S equipment.

a. Well Control Equipment:
Flare line.
Choke manifold with remotely operated choke.
Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head.

b. Protective equipment for essential personnel:
Mark II Surviveair 30-minute units located in the dog house and at briefing areas.

c. H2S detection and monitoring equipment:
2 - portable H2S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 ppm are reached.

d. Visual warning systems:
Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

e. Mud Program:
The mud program has been designed to minimize the volume of H2S circulated to the surface.

f. Metallurgy:
All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.

g. Communication:
Company vehicles equipped with cellular telephone.

COG OPERATING LLC has conducted a review to determine if an H2S contingency plan is required for the above referenced well. We were able to conclude that any potential hazardous volume would be minimal. H2S concentrations of wells in this area from surface to TD are low enough; therefore, we do not believe that an H2S contingency plan is necessary.

W A R N I N G

YOU ARE ENTERING AN H_2S AREA
AUTHORIZED PERSONNEL ONLY

1. ***BEARDS OR CONTACT LENSES NOT ALLOWED***
2. ***HARD HATS REQUIRED***
3. ***SMOKING IN DESIGNATED AREAS ONLY***
4. ***BE WIND CONSCIOUS AT ALL TIMES***
5. ***CK WITH COG OPERATING LLC FOREMAN AT MAIN OFFICE***

COG OPERATING LLC

1-575-748-6940

EMERGENCY CALL LIST

	OFFICE
COG OPERATING LLC OFFICE	575-748-6940
DALLAS DALEY	432-818-2329

EMERGENCY RESPONSE NUMBERS

	OFFICE
STATE POLICE	575-748-9718
EDDY COUNTY SHERIFF	575-746-2701
EMERGENCY MEDICAL SERVICES (AMBULANCE)	911 or 575-746-2701
EDDY COUNTY EMERGENCY MANAGEMENT (HARRY BURGESS)	575-887-9511
STATE EMERGENCY RESPONSE CENTER (SERC)	575-476-9620
CARLSBAD POLICE DEPARTMENT	575-885-2111
CARLSBAD FIRE DEPARTMENT	575-885-3125
NEW MEXICO OIL CONSERVATION DIVISION	575-748-1283
INDIAN FIRE & SAFETY	800-530-8693
HALLIBURTON SERVICES	800-844-8451

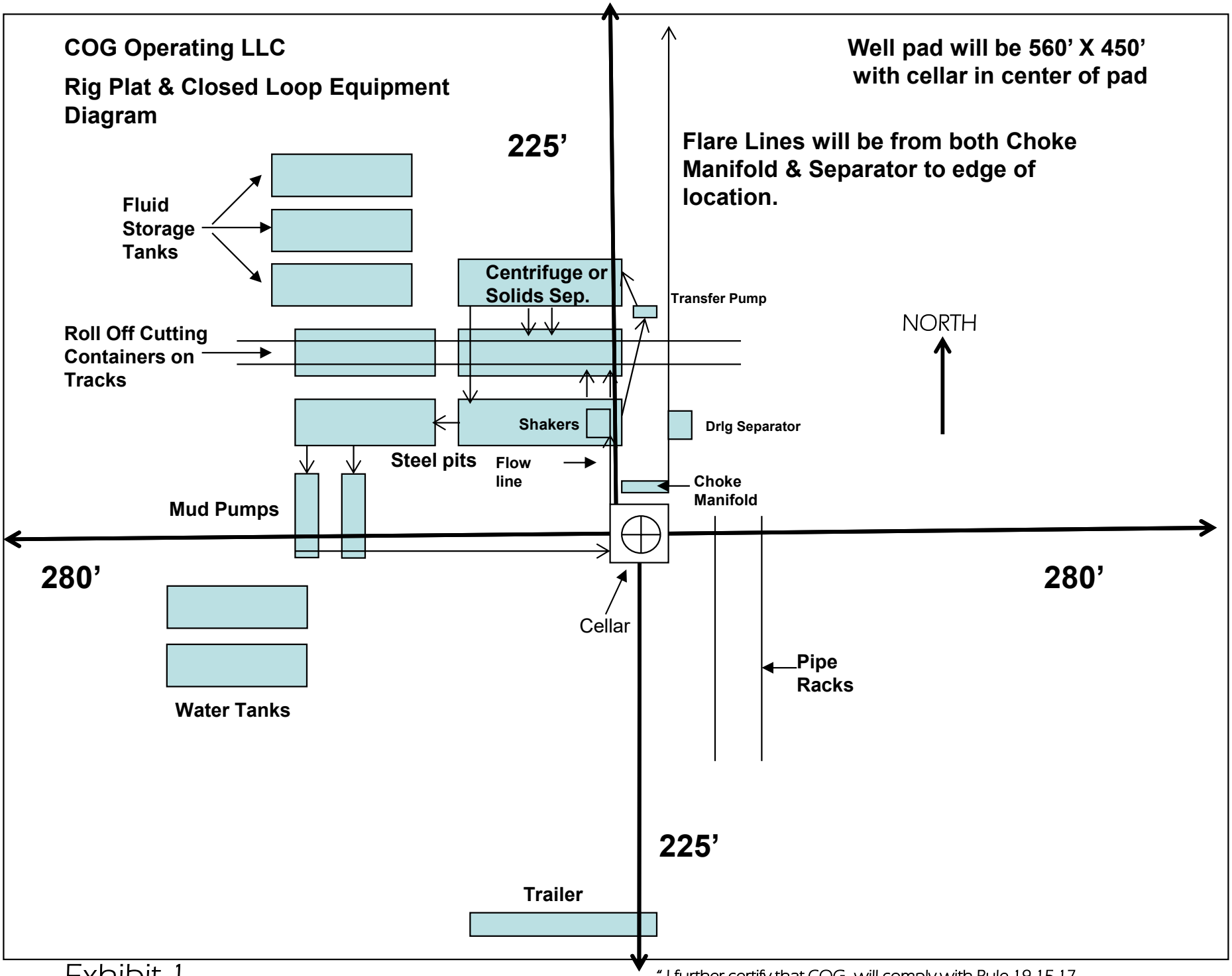


Exhibit 1

" I further certify that COG will comply with Rule 19.15.17 NMAC by using a Closed Loop System."

ConocoPhillips Company - Harrier Federal Com 503H

1. Geologic Formations

TVD of target	10,504' EOL	Pilot hole depth	NA
MD at TD:	21,388'	Deepest expected fresh water:	207'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	894	Water	
Top of Salt	1263	Salt	
Base of Salt	4513	Salt	
Lamar	4688	Salt Water	
Bell Canyon	4740	Salt Water	
Cherry Canyon	5700	Oil/Gas	
Brushy Canyon	7238	Oil/Gas	
Bone Spring	8858	Oil/Gas	
1st Bone Spring Sand	9838	Oil/Gas	
1st Bone Spring Shale	9961	Oil/Gas	
2nd Bone Spring Sand	10408	Target	
3rd Bone Spring Carbonate	10845	Not Penetrated	

2. Casing Program

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17.5”	0	1115	13.375”	54.5	J55	BTC	2.21	1.38	14.96
12.25”	0	4710	9.625”	40	L80-IC	BTC	1.58	1.30	5.03
8.75”	0	21,388	5.5”	23	P110-CY	TXP BTC	2.66	3.29	3.02
						BLM Minimum Safety Factor	1.125	1	1.6 Dry 1.8 Wet

Intermediate casing will be kept at least 1/3 full while running casing.to mitigate collapse. Intermediate burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface.
All casing strings will be tested in accordance with 43 CFR Part 3170 Subpart 3172

ConocoPhillips Company - Harrier Federal Com 503H

	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.	Y
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?	
Is well within the designated 4 string boundary?	
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?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

ConocoPhillips Company - Harrier Federal Com 503H

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H_20 gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	490	13.5	1.75	9.21	12	Lead: Class C
	179	14.8	1.35	6.8	8	Tail: Class C
Inter.	930	12.8	1.8	9.21	12	Lead: Class C
	351	14.8	1.34	6.52	8	Tail: Class C
Prod.	1080	10.2	2.98	14.92	72	Lead: Tuned Light
	2460	13.2	1.42	7.45	19	Tail: Class H

Intermediate cement job to be performed offline.
Subject to Observed Hole Conditions and/or Fluid Caliper Results
Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0’	50%
1st Intermediate	0’	50%
Production	4,210'	20% OH in Lateral (KOP to EOL) – 50% OH in Vertical

ConocoPhillips Company - Harrier Federal Com 503H

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
Y	A variance is requested for the use of BOPE break testing on intermediate skids (in accordance with the 30 day full BOPE test requirements).

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	x	Tested to:
12-1/4”	13-5/8”	5M	Annular	x	2500 psi
			Blind Ram		5M
			Pipe Ram		
			Double Ram		
			Other*		
8-3/4”	13-5/8”	10M	Annular	x	50% testing pressure
			Blind Ram	x	10M
			Pipe Ram	x	
			Double Ram		
			Other*		

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per 43 CFR Part 3170 Subpart 3172 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Y	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 43 CFR Part 3170 Subpart 3172.
Y	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?
N	A multibowl wellhead is being used. The BOP will be tested per 43 CFR Part 3170 Subpart 3172 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

ConocoPhillips Company - Harrier Federal Com 503H

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. Shoe	FW Gel	8.6 - 8.8	28-34	N/C
Surf csg	9-5/8" Int shoe	Saturated Brine	9 - 10	28-34	N/C
9-5/8" Int shoe	Lateral TD	Cut Brine	8.6 - 10	28-34	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.

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.	
Y	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
Y	No Logs are planned based on well control or offset log information.
N	Drill stem test? If yes, explain.
N	Coring? If yes, explain.

Additional logs planned		Interval
N	Resistivity	Pilot Hole TD to ICP
N	Density	Pilot Hole TD to ICP
N	CBL	Production casing
Y	Mud log	Intermediate shoe to TD
N	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	5465 psi at 10504' TVD
Abnormal Temperature	NO 160 Deg. F.

No abnormal pressure or temperature conditions are anticipated. Sufficient mud materials to maintain mud properties and weight increase requirements will be kept on location at all times.

Sufficient supplies of Paper/LCM for periodic sweeps to control seepage and losses will be maintained on location.

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 43 CFR Part 3170 Subpart 3176. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H2S is present
Y	H2S Plan attached

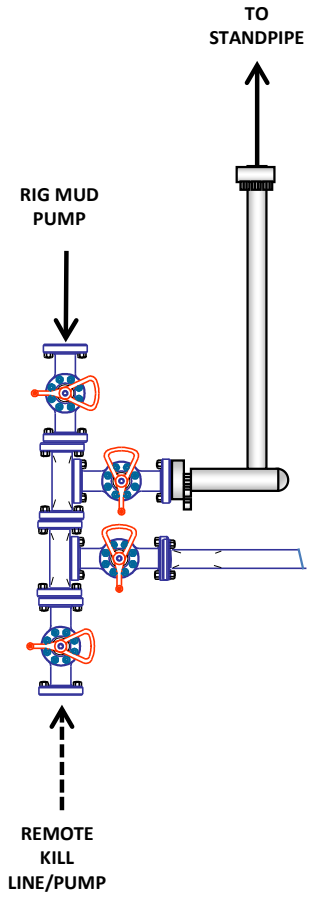
8. Other Facets of Operation

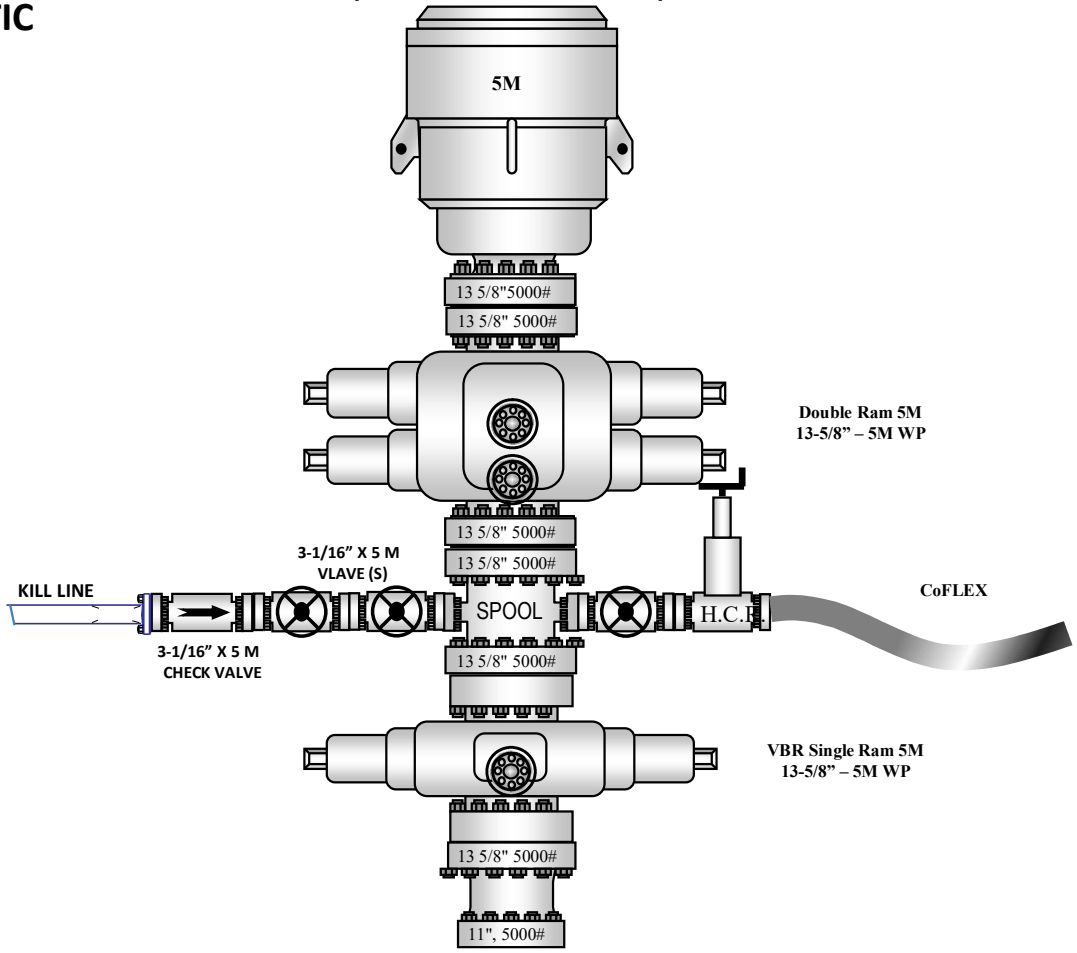
Y	Is it a walking operation?
Y	Is casing pre-set?

x	H2S Plan.
x	BOP & Choke Schematics.
x	Directional Plan

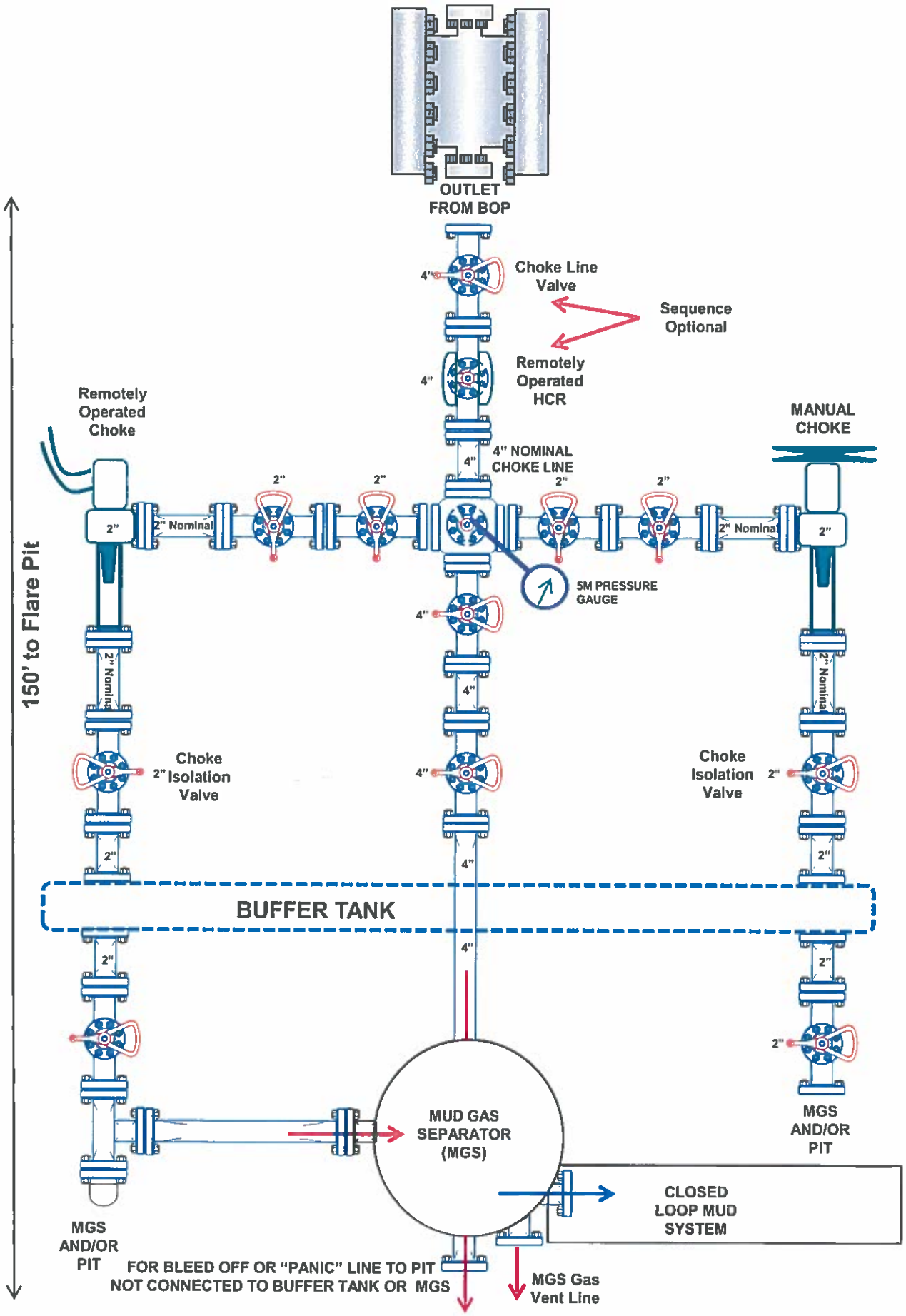
5M BOP Stack

10M REMOTE KILL SCHEMATIC



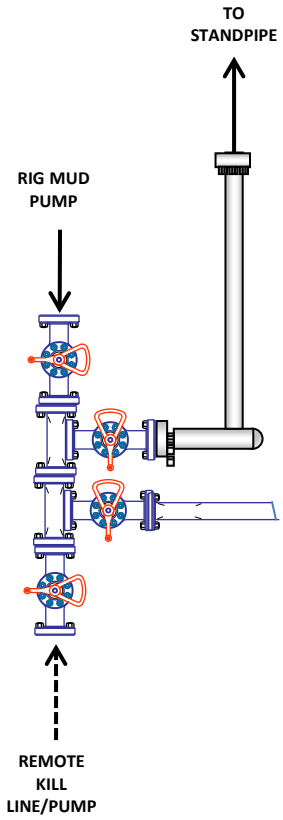


5M Choke Manifold Equipment (WITH MGS + CLOSED LOOP)

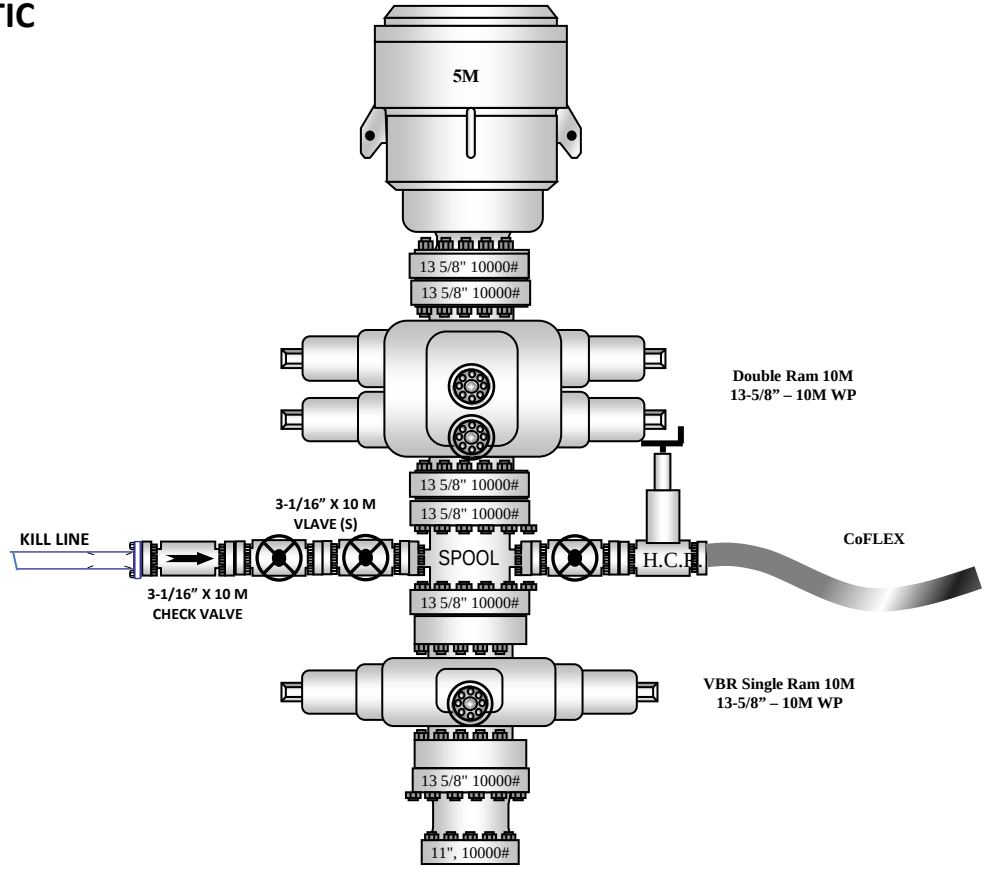


10M BOP Stack

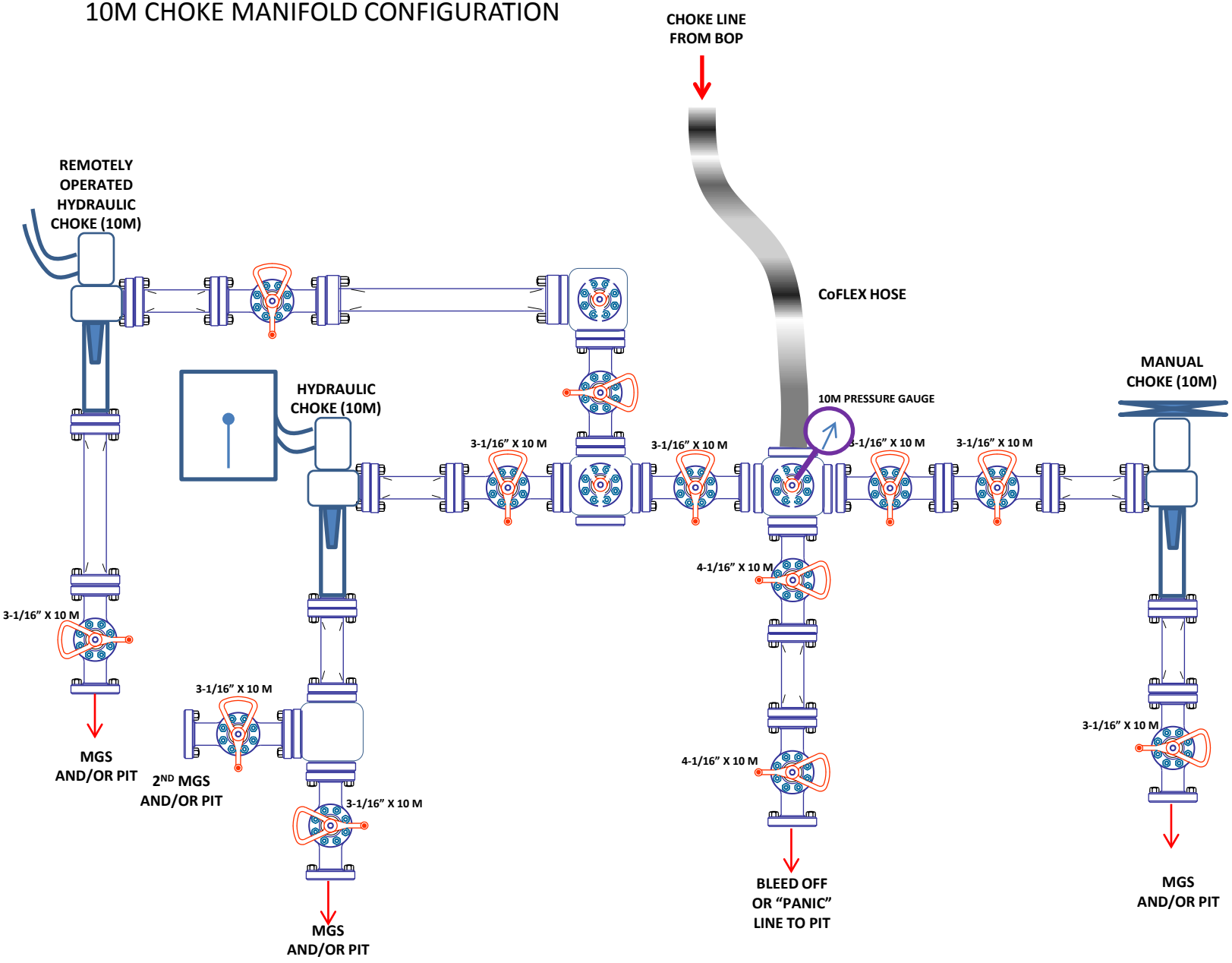
10M REMOTE KILL SCHEMATIC



10M BOP Stack
(5M Annular)



10M CHOKE MANIFOLD CONFIGURATION



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

General Information
Phone: (505) 629-6116

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

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

ACKNOWLEDGMENTS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 515577
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

ACKNOWLEDGMENTS

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

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1220 S. St Francis Dr.
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CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 515577
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
mreyes4	Cement is required to circulate on both surface and intermediate1 strings of casing.	10/15/2025
mreyes4	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	10/15/2025
jeffrey.harrison	File As Drilled C-102 and a directional Survey with C-104 completion packet.	12/15/2025
jeffrey.harrison	Notify the OCD 24 hours prior to casing & cement.	12/15/2025
jeffrey.harrison	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.	12/15/2025
jeffrey.harrison	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.	12/15/2025
jeffrey.harrison	NSP required if not included in an existing order or not an infill to an appropriate defining well in the same pool and spacing unit.	12/15/2025