

Form 3160-3  
(June 2015)FORM APPROVED  
OMB No. 1004-0137  
Expires: January 31, 2018

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

1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER 1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other 1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		5. Lease Serial No.  6. If Indian, Allottee or Tribe Name  7. If Unit or CA Agreement, Name and No.  8. Lease Name and Well No.
2. Name of Operator		9. API Well No. <b>30-025-52500</b>
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.<br>2. A Drilling Plan.<br>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).<br>5. Operator certification.<br>6. Such other site specific information and/or plans as may be requested by the BLM. |
|---|---|

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

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

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

(Continued on page 2)

\*(Instructions on page 2)



District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720  
District II  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-025-52500	<sup>2</sup> Pool Code 50461	<sup>3</sup> Pool Name QUAIL RIDGE;BONE SPRING, SOUTH
<sup>4</sup> Property Code 335232	<sup>5</sup> Property Name LOOSEY GOOSEY 4-9 FED COM	<sup>6</sup> Well Number 204H
<sup>7</sup> OGRID No. 215099	<sup>8</sup> Operator Name CIMAREX ENERGY CO.	<sup>9</sup> Elevation 3659.8'

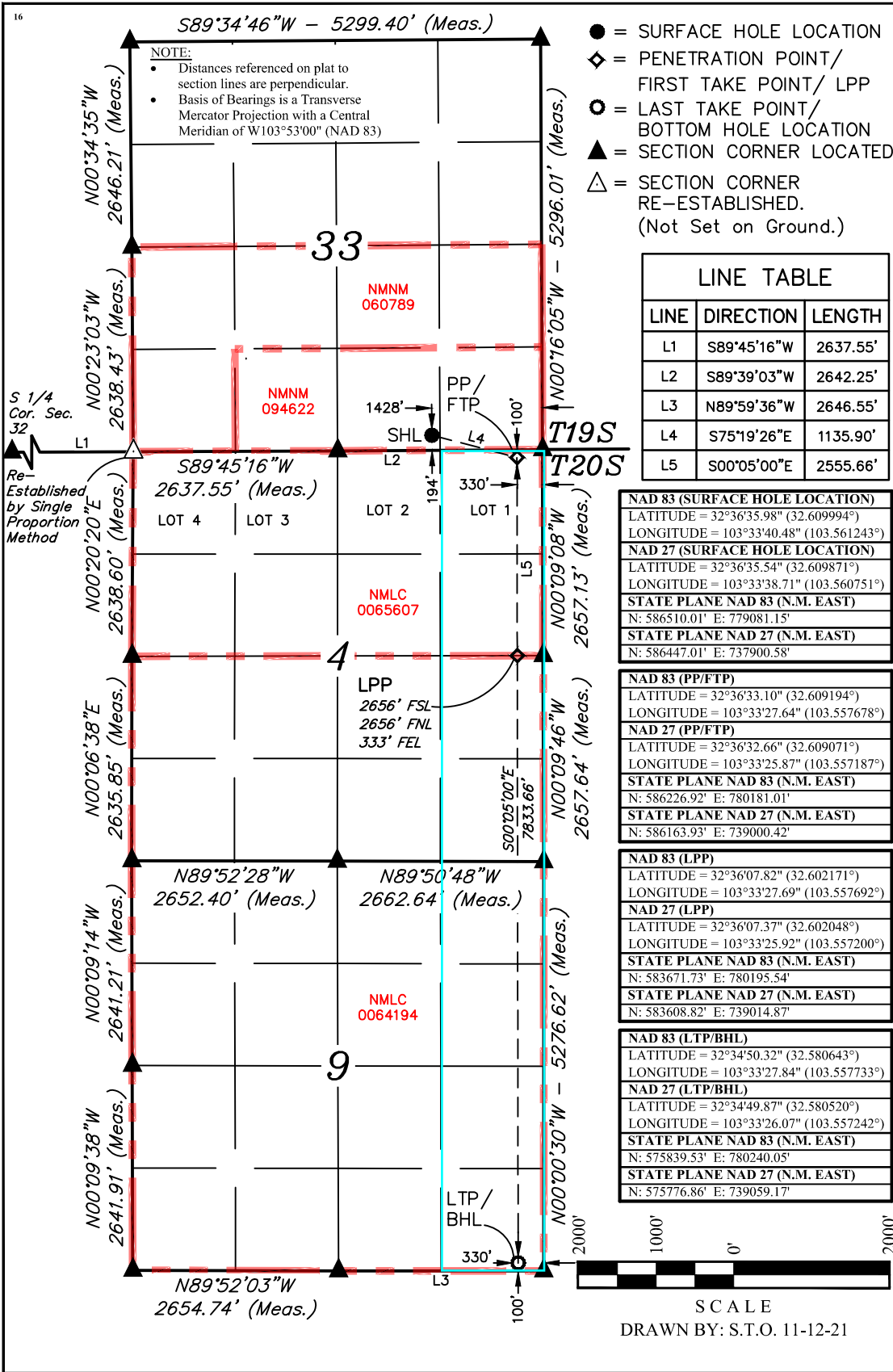
<sup>10</sup> Surface Location

UL or lot no. O	Section 33	Township 19S	Range 34E	Lot Idn	Feet from the 194	North/South line SOUTH	Feet from the 1428	East/West line EAST	County LEA
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<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no. P	Section 9	Township 20S	Range 34E	Lot Idn	Feet from the 100	North/South line SOUTH	Feet from the 330	East/West line EAST	County LEA
<sup>12</sup> Dedicated Acres 320.89	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.						

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



<sup>17</sup> OPERATOR  
CERTIFICATION

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

*Brittany Gordon* 7/28/2023  
Signature Date

*Brittany Gordon*  
Printed Name  
*brittany.gordon@coterra.com*  
E-mail Address

<sup>18</sup> SURVEYOR  
CERTIFICATION

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

November 01, 2021

Date of Survey  
Signature and Seal of Professional Surveyor:



Certificate Number:

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

Submit Electronically  
Via E-permitting

## 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 Company **OGRID:** 215099 **Date:** 1/29/24

**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
Loosey Goosey 4-9 Fed Com 204H		O, Sec 33 T19S, R34E	194 ESNL/1428 FEL	850	1822	650

**IV. Central Delivery Point Name:** Loosey Goosey 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
Loosey Goosey 4-9 Fed Com 204H		11/10/2025	12/10/2025	1/20/2026	3/1/2026	3/1/2026

**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: 
Printed Name: Sarah Jordan
Title: Regulatory Analyst
E-mail Address: sarah.jordan@coterra.com
Date: 1/29/24
Phone: 432/620-1909
<b>OIL CONSERVATION DIVISION</b> <b>(Only applicable when submitted as a standalone form)</b>
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.

## **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.*



## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	Cimarex
<b>LEASE NO.:</b>	NMLC065607
<b>LOCATION:</b>	Section 33, T.19 S, R.34 E., NMPM
<b>COUNTY:</b>	Lea County, New Mexico
<b>WELL NAME &amp; NO.:</b>	Loosey Goosey 4-9 Fed Com 302H
<b>SURFACE HOLE FOOTAGE:</b>	1189'/S & 1448'/W
<b>BOTTOM HOLE FOOTAGE:</b>	100'/S & 2120'/W

COA

<b>H<sub>2</sub>S</b>	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
<b>Potash / WIPP</b>	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P	<input type="checkbox"/> WIPP
<b>Cave / Karst</b>	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High	<input type="radio"/> Critical
<b>Wellhead</b>	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both	<input type="radio"/> Diverter
<b>Cementing</b>	<input type="checkbox"/> Primary Squeeze	<input type="checkbox"/> Cont. Squeeze	<input type="checkbox"/> EchoMeter	<input type="checkbox"/> DV Tool
<b>Special Req</b>	<input type="checkbox"/> Break Testing	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit
<b>Variance</b>	<input checked="" type="checkbox"/> Flex Hose	<input type="checkbox"/> Casing Clearance	<input type="checkbox"/> Pilot Hole	<input checked="" type="checkbox"/> Capitan Reef
<b>Variance</b>	<input type="checkbox"/> Four-String	<input checked="" type="checkbox"/> Offline Cementing	<input checked="" type="checkbox"/> Fluid-Filled	<input type="checkbox"/> Open Annulus
<input type="checkbox"/> Batch APD / Sundry				

### A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H<sub>2</sub>S) Drilling Plan shall be activated 500 feet prior to drilling into the **Delaware Group and Morrow** formation. As a result, the Hydrogen Sulfide area must meet all requirements from **43 CFR 3176**, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

### B. CASING

**Surface casings must be kept fluid filled to meet BLM minimum collapse requirement.**

1. The **13-3/8** inch surface casing shall be set at approximately **1820** feet (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
  - 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 shall be set at **5600ft**:
- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Excess calculates to 12%. Additional cement may be required.**  
**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, and Capitan Reef.**
  - ❖ In Capitan Reef Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
  - ❖ **Special Capitan Reef requirements.** If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:  
**(Use this for 3 string wells in the Capitan Reef, if 4 string well ensure FW based mud used across the Capitan interval)**
  - Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
  - Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.
3. The minimum required fill of cement behind the **7** inch production casing is:
- Cement should tie-back at least **50 feet(4950ft)** on top of Capitan Reef top. If cement does not circulate see B.1.a, c-d above.
- Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, and Capitan Reef.**

4. The minimum required fill of cement behind the **4-1/2** inch production liner is:
  - Cement should tie-back **100 feet** into the previous casing. Operator shall provide method of verification. **Excess calculates to 9%. Additional cement maybe required.**

### 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 surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the casing shoe shall be **5000 (5M)** psi.
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. If the cement does not circulate and one-inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
  - e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172 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 43 CFR 3171 and 3172.
- 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](mailto: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
    - Notify the BLM when moving in and removing the Spudder Rig.
    - Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a

digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing 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 part 3170 Subpart 3172** must be followed.
  - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after



installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR**

**part 3170 Subpart 3172.**

**C. DRILLING MUD**

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

**D. WASTE MATERIAL AND FLUIDS**

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

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

**ZS 9/14/2023**



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

# Operator Certification Data Report

01/25/2024

## Operator

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

**NAME:** AMITHY CRAWFORD

**Signed on:** 03/15/2022

**Title:** Regulatory Analyst

**Street Address:** 600 N MARIENFELD STE 600

**City:** MIDLAND

**State:** TX

**Zip:** 79701

**Phone:** (432)620-1909

**Email address:** AMITHY.CRAWFORD@COTERRA.COM

## Field

**Representative Name:**

**Street Address:**

**City:**

**State:**

**Zip:**

**Phone:**

**Email address:**



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

## Application Data

01/25/2024

APD ID: 10400083866

Submission Date: 03/17/2022

Operator Name: CIMAREX ENERGY COMPANY

Well Name: LOOSEY GOOSEY 4-9 FED COM

Well Number: 204H

Well Type: OIL WELL

Well Work Type: Drill

Highlighted data  
reflects the most  
recent changes  
[Show Final Text](#)

### Section 1 - General

APD ID: 10400083866

Tie to previous NOS? N

Submission Date: 03/17/2022

BLM Office: Carlsbad

User: AMITHY CRAWFORD

Title: Regulatory Analyst

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM65607

Lease Acres:

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? Y

Permitting Agent? NO

APD Operator: CIMAREX ENERGY COMPANY

Operator letter of

### Operator Info

Operator Organization Name: CIMAREX ENERGY COMPANY

Operator Address: 6001 DEAUVILLE BLVD STE 300N

Zip: 79706

Operator PO Box:

Operator City: MIDLAND

State: TX

Operator Phone: (303)295-3995

Operator Internet Address: hknaults@cimarex.com

### Section 2 - Well Information

Well in Master Development Plan? NO

Master Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: LOOSEY GOOSEY 4-9 FED COM

Well Number: 204H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: QUAIL RIDGE

Pool Name: [50460] BONE  
SPRING

**Operator Name:** CIMAREX ENERGY COMPANY**Well Name:** LOOSEY GOOSEY 4-9 FED COM**Well Number:** 204H**Is the proposed well in an area containing other mineral resources?** USEABLE WATER,NATURAL GAS,OIL**Is the proposed well in a Helium production area?** N **Use Existing Well Pad?** N **New surface disturbance?****Type of Well Pad:** MULTIPLE WELL**Multiple Well Pad Name:** Loosey**Number:** W2E2

Goosey 4-9 Fed Com

**Well Class:** HORIZONTAL**Number of Legs:** 1**Well Work Type:** Drill**Well Type:** OIL WELL**Describe Well Type:****Well sub-Type:** INFILL**Describe sub-type:****Distance to town:** 26 Miles**Distance to nearest well:** 20 FT**Distance to lease line:** 194 FT**Reservoir well spacing assigned acres Measurement:** 321 Acres**Well plat:** Loosey\_Goosey\_4\_9\_Fed\_Com\_204H\_C102\_20230814\_20230814144651.pdf**Well work start Date:** 10/31/2022**Duration:** 30 DAYS**Section 3 - Well Location Table****Survey Type:** RECTANGULAR**Describe Survey Type:****Datum:** NAD83**Vertical Datum:** NAVD88**Survey number:****Reference Datum:** GROUND LEVEL

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
SHL Leg #1	194	FSL	1428	FEL	19S	34E	33	Aliquot SWSE	32.609994	103.561243	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 94622	3659	0	0	N
KOP Leg #1	194	FSL	1428	FEL	19S	34E	33	Aliquot SWSE	32.609994	103.561243	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 94622	-6034	9785	9693	N
PPP Leg #1-1	100	FNL	330	FEL	20S	34E	4	Aliquot NENE	32.609194	103.557678	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0 65607	-6641	10943	10300	Y

**Operator Name:** CIMAREX ENERGY COMPANY**Well Name:** LOOSEY GOOSEY 4-9 FED COM**Well Number:** 204H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
PPP Leg #1-2	2656	FNL	333	FEL	20S	34E	4	Aliquot NESE	32.602171	103.557692	LEA	NEW MEXICO	NEW MEXICO	F	NMLC064194	-6641	12686	10300	Y
EXIT Leg #1	100	FSL	330	FEL	20S	34E	9	Aliquot SESE	32.580643	103.557733	LEA	NEW MEXICO	NEW MEXICO	F	NMLC064194	-6641	20518	10300	Y
BHL Leg #1	100	FSL	330	FEL	20S	34E	9	Aliquot SESE	32.580643	103.557733	LEA	NEW MEXICO	NEW MEXICO	F	NMLC064194	-6641	20518	10300	Y



Intent ☐ As Drilled ☐

API #									
Operator Name:				Property Name:				Well Number	

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #									
Operator Name:				Property Name:				Well Number	

Estimated Formation Tops

Formation:	Top:	Formation:	Top:



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

# Drilling Plan Data Report

01/25/2024

APD ID: 10400083866

Submission Date: 03/17/2022

Highlighted data  
reflects the most  
recent changes

Operator Name: CIMAREX ENERGY COMPANY

Well Name: LOOSEY GOOSEY 4-9 FED COM

Well Number: 204H

Well Type: OIL WELL

Well Work Type: Drill

[Show Final Text](#)

## Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
12144229	RUSTLER	0	1543	1543	ANHYDRITE, SANDSTONE	USEABLE WATER	N
12144230	TOP SALT	-1632	1632	1632	ANHYDRITE	NONE	N
12144231	BASE OF SALT	-3225	3225	3225	ANHYDRITE	NONE	N
12144232	LAMAR	-5214	5214	5214	SANDSTONE	NONE	N
12144233	BELL CANYON	-5286	5286	5286	SANDSTONE	NONE	N
12144234	CHERRY CANYON	-5740	5740	5740	SANDSTONE	NONE	N
12144235	BRUSHY CANYON	-6672	6672	6672	SANDSTONE	NATURAL GAS, OIL	N
12144236	BONE SPRING	-8200	8200	8200	LIMESTONE	NATURAL GAS, OIL	N
12144237	BONE SPRING 1ST	-9376	9376	9376	SHALE	NATURAL GAS, OIL	N
12144238	BONE SPRING 2ND	-9928	9928	9928	SANDSTONE	NATURAL GAS, OIL	Y

## Section 2 - Blowout Prevention

Pressure Rating (PSI): 2M

Rating Depth: 5236

**Equipment:** A BOP consisting of three rams, including one blind ram and two pipe rams and one annular preventer. An accumulator that meets the requirements in Onshore Order #2 for the pressure rating of the BOP stack. A rotating head may be installed as needed. A Kelly clock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor.

**Requesting Variance?** YES

**Variance request:** Co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used. Variance to include Hammer Union connections on lines downstream of the buffer tank only.

**Testing Procedure:** A multi-bowl wellhead system will be utilized. After running the 13 3/8" surface casing, a 13 3/8" BOP/BOPE system with a minimum working pressure of 2000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 2000 psi test. Annular will be tested to 100%

**Operator Name:** CIMAREX ENERGY COMPANY**Well Name:** LOOSEY GOOSEY 4-9 FED COM**Well Number:** 204H

of working pressure. The pressure test will be repeated at least every 30 days, as per Onshore Order No. 2. The multi-bowl wellhead will be installed by vendors representative. A copy of the installation instructions has been sent to the BLM field office. The wellhead will be installed by a third-party welder, monitored by the wellhead vendor representative. All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type. A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 2000 psi. The surface casing string will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater. The casing strings utilizing steel body pack-off will be tested to 70% of casing burst. If well conditions dictate conventional slips will be set and BOPE will be tested to appropriate pressures based on permitted pressure requirements.

**Choke Diagram Attachment:**

Loosey\_Goosey\_4\_9\_Fed\_Com\_204H\_Choke\_2M\_3M\_20220315090714.pdf

**BOP Diagram Attachment:**

Loosey\_Goosey\_4\_9\_Fed\_Com\_204H\_BOP\_2M\_20220315090721.pdf

**Pressure Rating (PSI):** 3M**Rating Depth:** 10535

**Equipment:** A BOP consisting of three rams, including one blind ram and two pipe rams and one annular preventer. An accumulator that meets the requirements in Onshore Order #2 for the pressure rating of the BOP stack. A rotating head may be installed as needed. A Kelly clock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor.

**Requesting Variance?** YES

**Variance request:** Co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used. Variance to include Hammer Union connections on lines downstream of the buffer tank only.

**Testing Procedure:** A multi-bowl wellhead system will be utilized. After running the 13 3/8" surface casing, a 13 3/8 BOP/BOPE system with a minimum working pressure of 3000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 3000 psi test. Annular will be tested to 100% of working pressure. The pressure test will be repeated at least every 30 days, as per Onshore Order No. 2. The multi-bowl wellhead will be installed by vendors representative. A copy of the installation instructions has been sent to the BLM field office. The wellhead will be installed by a third-party welder, monitored by the wellhead vendor representative. All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type. A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 3000 psi. Slips will be utilized after running and cementing the production casing. After installation of the slips and wellhead on the production casing, a 13 5/8 BOP/BOPE system with a minimum working pressure of 3000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 3000 psi test. Annular will be tested to 100% of working pressure. The pressure test will be repeated at least every 30 days, as per Onshore Order No. 2. The surface casing string will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater. The casing string utilizing steel body pack-off will be tested to 70% of casing burst. If well conditions dictate conventional slips will be set and BOPE will be tested to appropriate pressures based on permitted pressure requirements.

**Choke Diagram Attachment:**

Loosey\_Goosey\_4\_9\_Fed\_Com\_204H\_Choke\_2M\_3M\_20220315090740.pdf

**BOP Diagram Attachment:**

Loosey\_Goosey\_4\_9\_Fed\_Com\_204\_BOP\_3M\_20220315090809.pdf

**Operator Name:** CIMAREX ENERGY COMPANY**Well Name:** LOOSEY GOOSEY 4-9 FED COM**Well Number:** 204H**Pressure Rating (PSI):** 5M**Rating Depth:** 20518

**Equipment:** A BOP consisting of three rams, including one blind ram and two pipe rams and one annular preventer. An accumulator that meets the requirements in Onshore Order #2 for the pressure rating of the BOP stack. A rotating head may be installed as needed. A Kelly clock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor.

**Requesting Variance?** YES

**Variance request:** Co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used. Variance to include Hammer Union connections on lines downstream of the buffer tank only.

**Testing Procedure:** A multi-bowl wellhead system will be utilized. After running the 13 3/8" surface casing, a 13 3/8 BOP/BOPE system with a minimum working pressure of 5000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 5000 psi test. Annular will be tested to 100% of working pressure. The pressure test will be repeated at least every 30 days, as per Onshore Order No. 2. The multi-bowl wellhead will be installed by vendors representative. A copy of the installation instructions has been sent to the BLM field office. The wellhead will be installed by a third-party welder, monitored by the wellhead vendor representative. All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type. A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi. Slips will be utilized after running and cementing the production casing. After installation of the slips and wellhead on the production casing, a 13 5/8 BOP/BOPE system with a minimum working pressure of 5000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 5000 psi test. Annular will be tested to 100% of working pressure. The pressure test will be repeated at least every 30 days, as per Onshore Order No. 2. The surface casing string will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater. The casing string utilizing steel body pack-off will be tested to 70% of casing burst. If well conditions dictate conventional slips will be set and BOPE will be tested to appropriate pressures based on permitted pressure requirements.

**Choke Diagram Attachment:**

Loosey\_Goosey\_4\_9\_Fed\_Com\_204H\_Choke\_5M\_20220315090926.pdf

**BOP Diagram Attachment:**

Loosey\_Goosey\_4\_9\_Fed\_Com\_204H\_BOP\_5M\_20220315090933.pdf

### Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1593	0	1593	3659	2066	1593	H-40	48	ST&C	1.12	2.51	BUOY	4.21	BUOY	4.21
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5236	0	5236	3750	-1577	5236	HCK-55	40	LT&C	1.36	1.41	BUOY	2.68	BUOY	2.68
3	PRODUCTION	8.75	7.0	NEW	API	N	0	9785	0	9785	3750	-6126	9785	L-80	29	LT&C	1.53	1.78	BUOY	1.98	BUOY	1.98

Operator Name: CIMAREX ENERGY COMPANY

Well Name: LOOSEY GOOSEY 4-9 FED COM

Well Number: 204H

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
4	PRODUCTI ON	8.75	7.0	NEW	API	N	9785	10535	9785	10247	-6126	-6588	750	P-110	29	BUTT	1.78	2.34	BUOY	69.34	BUOY	69.34
5	COMPLETI ON SYSTEM	6	4.5	NEW	API	N	8785	20518	8785	10300	-5126	-6641	11733	P-110	11.6	BUTT	1.57	2.22	BUOY	20.88	BUOY	20.88

Casing Attachments

Casing ID: 1

String

SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Loosey\_Goosey\_4\_9\_Fed\_Com\_204H\_Casing\_Assumptions\_20220315091109.pdf

Casing ID: 2

String

INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Loosey\_Goosey\_4\_9\_Fed\_Com\_204H\_Casing\_Assumptions\_20220315091254.pdf

Operator Name: CIMAREX ENERGY COMPANY

Well Name: LOOSEY GOOSEY 4-9 FED COM

Well Number: 204H

Casing Attachments

Casing ID: 3	String	PRODUCTION
Inspection Document:		
Spec Document:		
Tapered String Spec:		
Casing Design Assumptions and Worksheet(s):		
Loosey_Goosey_4_9_Fed_Com_204H_Casing_Assumptions_20220315091147.pdf		
Casing ID: 4	String	PRODUCTION
Inspection Document:		
Spec Document:		
Tapered String Spec:		
Casing Design Assumptions and Worksheet(s):		
Loosey_Goosey_4_9_Fed_Com_204H_Casing_Assumptions_20220315091228.pdf		
Casing ID: 5	String	COMPLETION SYSTEM
Inspection Document:		
Spec Document:		
Tapered String Spec:		
Casing Design Assumptions and Worksheet(s):		
Loosey_Goosey_4_9_Fed_Com_204H_Casing_Assumptions_20220315091333.pdf		

Section 4 - Cement



**Operator Name:** CIMAREX ENERGY COMPANY**Well Name:** LOOSEY GOOSEY 4-9 FED COM**Well Number:** 204H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead		0	0	0	0	0	0	0	0	0

SURFACE	Lead		0	1593	772	1.72	13.5	1327	45	Class C	Bentonite
SURFACE	Tail		0	1593	207	1.34	14.8	277	45	Class C	LCM
INTERMEDIATE	Lead		0	5236	980	1.88	12.9	1842	53	35:65 (Poz:C)	Salt, Bentonite
INTERMEDIATE	Tail		0	5236	292	1.34	14.8	391	53	Class C	LCM
PRODUCTION	Lead		0	1053 5	291	3.64	10.3	1059	25	Tuned Light	LCM
PRODUCTION	Tail		0	1053 5	125	1.36	14.8	170	25	Class C	Retarder
COMPLETION SYSTEM	Lead		8785	2051 8	740	1.3	14.2	962	10	50:50 (Poz:H)	Salt + Bentonite + Fluid Loss + Dispersant + SMS

### Section 5 - Circulating Medium

**Mud System Type:** Closed**Will an air or gas system be Used?** NO**Description of the equipment for the circulating system in accordance with Onshore Order #2:****Diagram of the equipment for the circulating system in accordance with Onshore Order #2:**

**Describe what will be on location to control well or mitigate other conditions:** Sufficient mud materials will be kept on location at all times in order to combat lost circulation or unexpected kicks. In order to run DSTs, open hole logs, and casing, the viscosity and water loss may have to be adjusted in order to meet these needs.

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

### Circulating Medium Table

**Operator Name:** CIMAREX ENERGY COMPANY**Well Name:** LOOSEY GOOSEY 4-9 FED COM**Well Number:** 204H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1593	OTHER : Fresh Water	7.83	8.33							
1593	5236	SALT SATURATED	9.8	10.3							
5236	1053 5	OTHER : Cut Brine or OBM	8.5	9							
1053 5	2051 8	OIL-BASED MUD	8.5	9							

### Section 6 - Test, Logging, Coring

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

No DST Planned

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

COMPENSATED NEUTRON LOG,DIRECTIONAL SURVEY,GAMMA RAY LOG,

**Coring operation description for the well:**

N/A

### Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 4820

**Anticipated Surface Pressure:** 2553

**Anticipated Bottom Hole Temperature(F):** 172

**Anticipated abnormal pressures, temperatures, or potential geologic hazards?** YES

**Describe:**

Lost circulation may be encountered in the Delaware mountain group. Abnormal pressure as well as hole stability issues may be encountered in the Wolfcamp.

**Contingency Plans geohazards description:**

Lost circulation material will be available, as well as additional drilling fluid along with the fluid volume in the drilling rig pit system. Drilling fluid can be mixed on location or mixed in vendor mud plant and trucked to location if needed. Sufficient barite will be available to maintain appropriate mud weight for the Wolfcamp interval.

**Contingency Plans geohazards**

**Hydrogen Sulfide drilling operations plan required?** YES

**Hydrogen sulfide drilling operations**

Loosey\_Goosey\_4\_9\_Fed\_Com\_204H\_H2S\_Plan\_20220315091821.pdf

**Operator Name:** CIMAREX ENERGY COMPANY

**Well Name:** LOOSEY GOOSEY 4-9 FED COM

**Well Number:** 204H

## Section 8 - Other Information

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

Loosey\_Goosey\_4\_9\_Fed\_Com\_204H\_Prelim\_Directional\_\_\_AC\_Report\_20220315091852.pdf

**Other proposed operations facets description:**

**Other proposed operations facets attachment:**

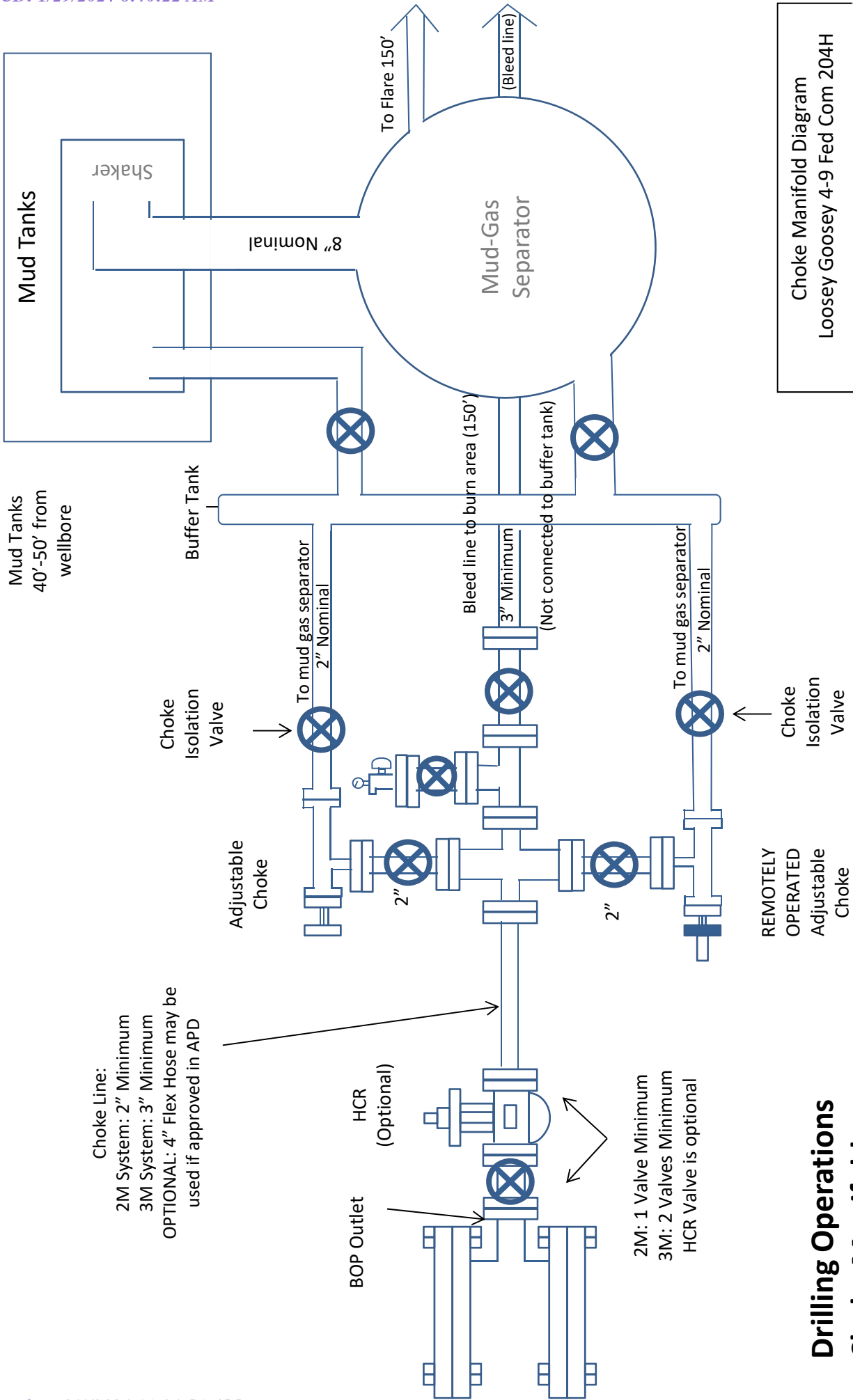
Loosey\_Goosey\_4\_9\_Fed\_Com\_204H\_Drilling\_Plan\_20220315091900.pdf

**Other Variance attachment:**

Offline\_Cement\_Procedure\_20220126145421.pdf

Loosey\_Goosey\_4\_9\_Fed\_Com\_204H\_Flex\_Hose\_20220315092007.pdf

Loosey\_Goosey\_4\_9\_Fed\_Com\_204H\_Multibowl\_20220315092045.pdf

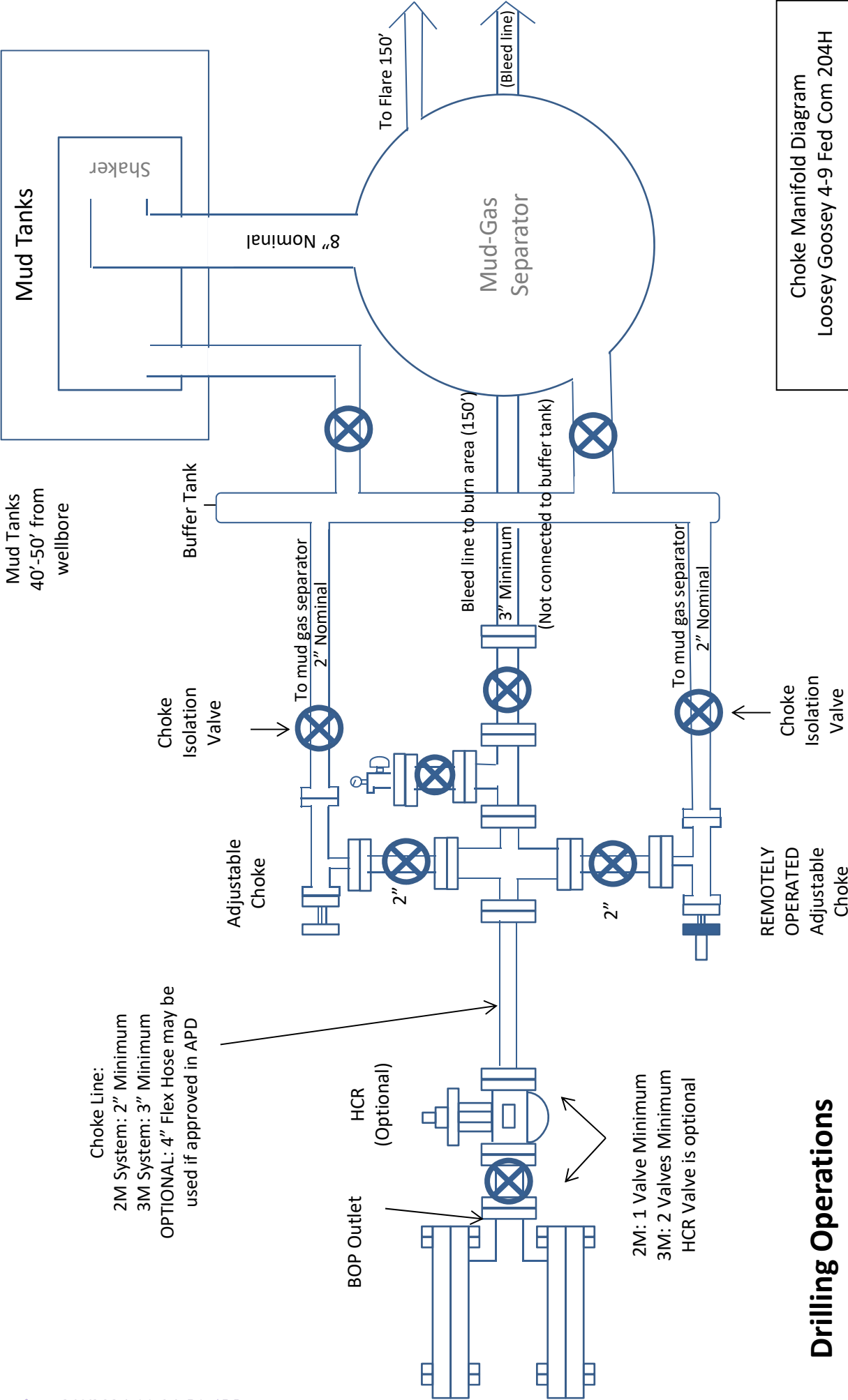


Choke Manifold Diagram  
Loosey Goosey 4-9 Fed Com 204H

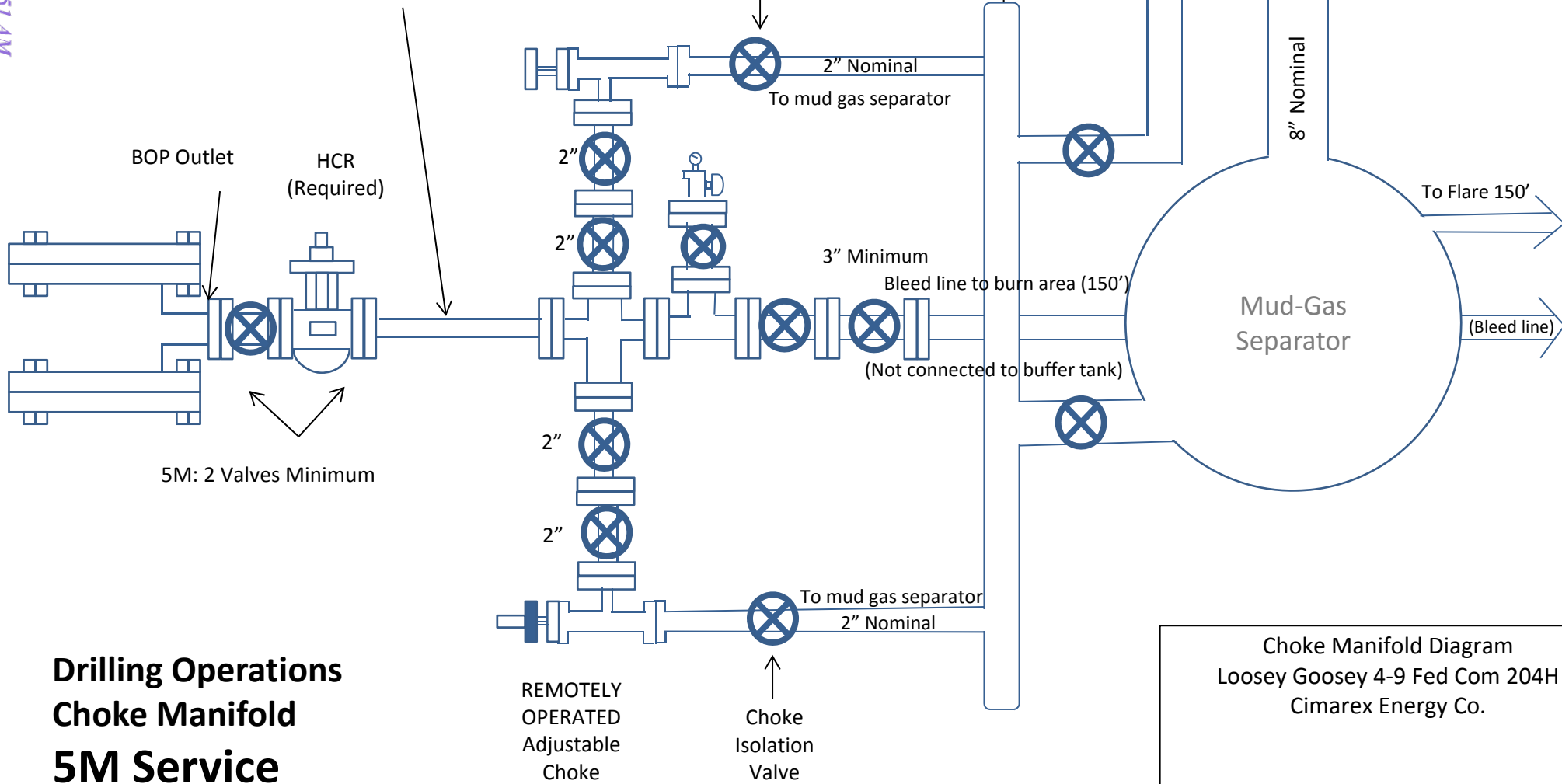
**Drilling Operations  
Choke Manifold  
2M/3M Service**

Choke Line:  
2M System: 2" Minimum  
3M System: 3" Minimum  
OPTIONAL: 4" Flex Hose may be  
used if approved in APD

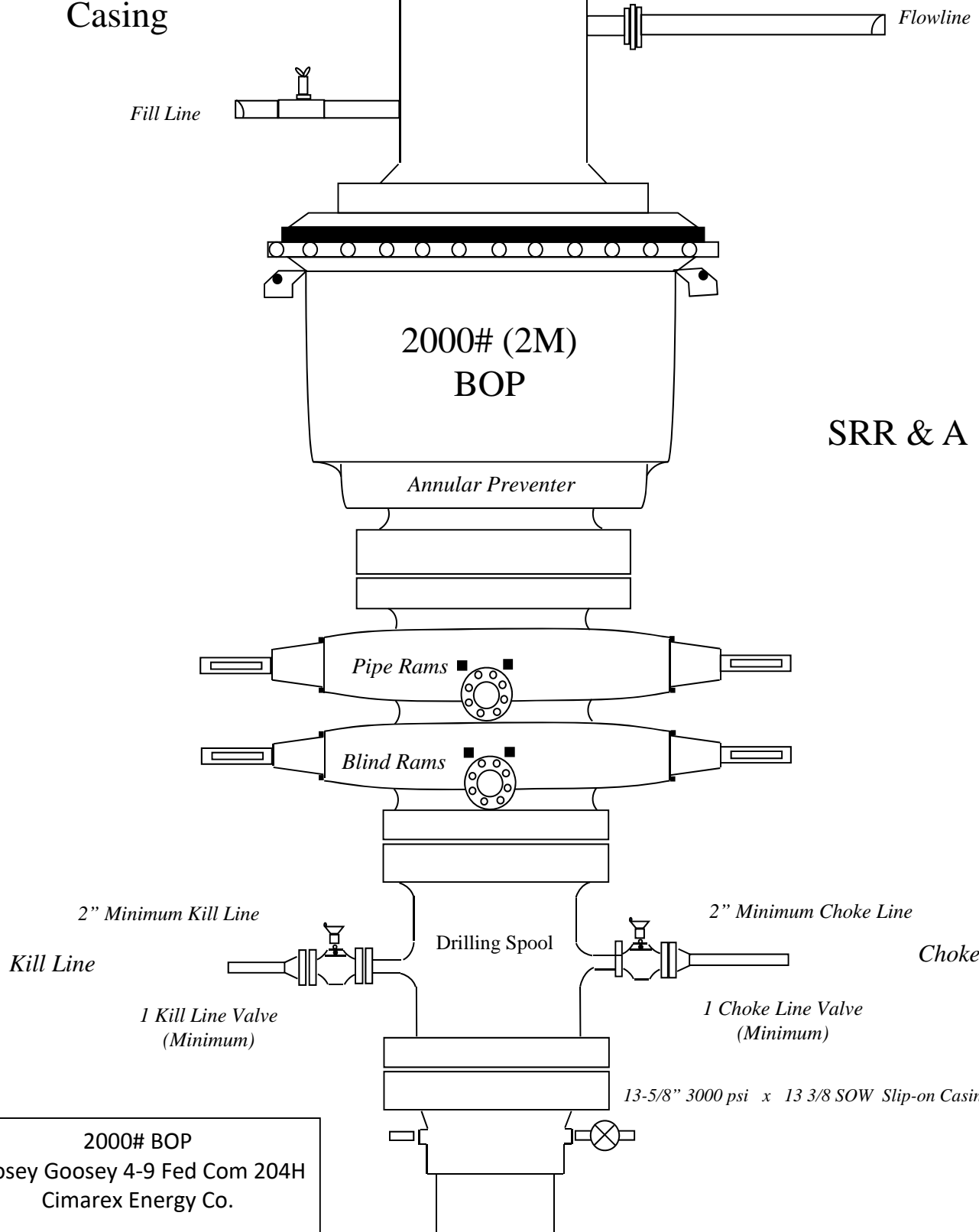
2M: 1 Valve Minimum  
3M: 2 Valves Minimum  
HCR Valve is optional



Choke Line:  
5M System: 3" Minimum  
OPTIONAL: 4" Flex Hose may be  
used if approved in APD

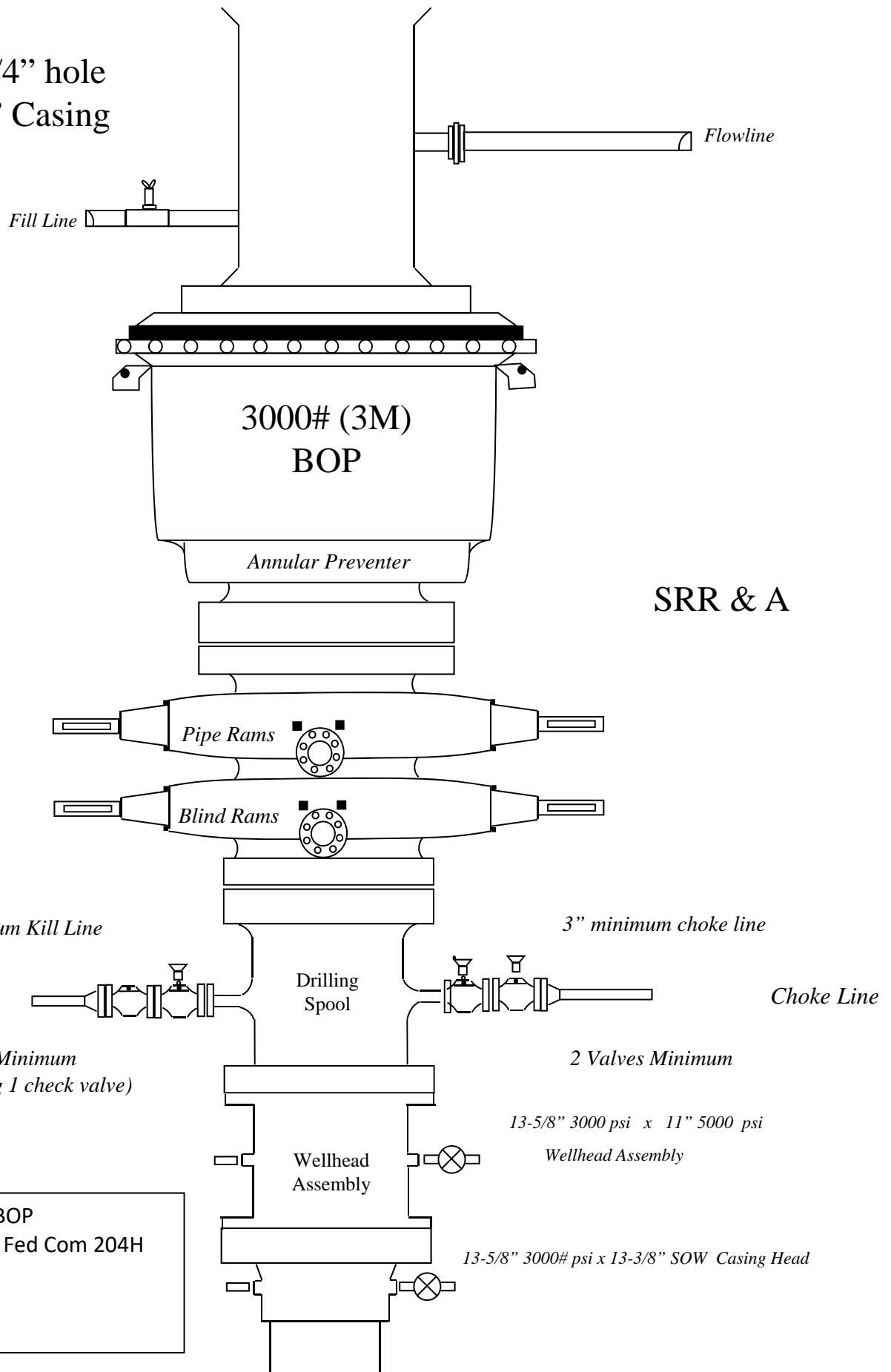


Drilling 12 1/4" hole  
below 13 3/8"  
Casing





Drilling 8-3/4" hole  
below 9 5/8" Casing



SRR & A

3000# BOP  
Loosey Goosey 4-9 Fed Com 204H

Drilling 6" hole  
below 7" Casing

Fill Line

Flowline

5000# (5M)  
BOP

Annular Preventer

SRR & A

Pipe Rams

Blind Rams

2" Minimum Kill Line

Kill Line

Drilling  
Spool

3" minimum choke line

Choke Line

2 Valves Minimum

(HCR Required)

2 Valves and a check valve

Wellhead  
Assembly

11" 5000 psi x 7-1/16" 10,000 psi  
Wellhead Assembly

Wellhead  
Assembly

13-5/8" 3000 psi x 11" 5000 psi  
Wellhead Assembly

13-5/8" 3000# psi x 13-3/8" SOW Casing Head

5000# BOP  
Loosey Goosey 4-9 Fed Com 204H  
Cimarex Energy Co.

**Loosey Goosey 4-9 Fed Com 204H**  
Casing Assumptions

Hole Size	Casing Depth From	Casing Depth To	Setting Depth TVD	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17 1/2	0	1593	1593	13-3/8"	48.00	H-40	ST&C	1.12	2.51	4.21
12 1/4	0	5236	5236	9-5/8"	40.00	HCK-55	LT&C	1.36	1.41	2.68
8 3/4	0	9785	9785	7"	29.00	L-80	LT&C	1.53	1.78	1.98
8 3/4	9785	10535	10247	7"	29.00	P-110	BT&C	1.78	2.34	69.34
6	8785	20518	10300	4-1/2"	11.60	P-110	BT&C	1.57	2.22	20.88
BLM Minimum Safety Factor								1.125	1	1.6 Dry 1.8 Wet

**Loosey Goosey 4-9 Fed Com 204H**  
Casing Assumptions

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BLM Minimum Safety Factor								1.125	1	1.6 Dry 1.8 Wet

**Loosey Goosey 4-9 Fed Com 204H**  
Casing Assumptions

Hole Size	Casing Depth From	Casing Depth To	Setting Depth TVD	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
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BLM Minimum Safety Factor								1.125	1	1.6 Dry 1.8 Wet



**Loosey Goosey 4-9 Fed Com 204H**

Cimarex Energy Co.

Lea Co., NM

- 1 All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:
  - A. Characteristics of H<sub>2</sub>S
  - B. Physical effects and hazards
  - C. Principal and operation of H<sub>2</sub>S detectors, warning system and briefing areas.
  - D. Evacuation procedure, routes and first aid.
  - E. Proper use of safety equipment & life support systems
  - F. Essential personnel meeting Medical Evaluation criteria will receive additional training on the proper use of 30 minute pressure demand air packs.

H<sub>2</sub>S Detection and Alarm Systems:

  - A. H<sub>2</sub>S 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 H<sub>2</sub>S detectors may be placed as deemed necessary.
  - B. An audio alarm system will be installed on the derrick floor and in the top doghouse.
- 3 Windsock and/or wind streamers:
  - A. Windsock at mudpit area should be high enough to be visible.
  - B. Windsock on the rig floor and / or top doghouse should be high enough to be visible.
- 4 Condition Flags and Signs
  - A. Warning sign on access road to location.
  - B. Flags to be displayed on sign at entrance to location. Green flag indicates normal safe condition. Yellow flag indicates potential pressure and danger. Red flag indicates danger (H<sub>2</sub>S present in dangerous concentration). Only H<sub>2</sub>S trained and certified personnel admitted to location.
- 5 Well control equipment:
  - A. See exhibit "E-1"
- 6 Communication:
  - A. While working under masks chalkboards will be used for communication.
  - B. Hand signals will be used where chalk board is inappropriate.
  - C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.
- 7 Drillstem Testing:

No DSTs or cores are planned at this time.
- 8 Drilling contractor supervisor will be required to be familiar with the effects H<sub>2</sub>S has on tubular goods and other mechanical equipment.
- 9 If H<sub>2</sub>S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H<sub>2</sub>S scavengers if necessary.

H<sub>2</sub>S Contingency Plan  
**Loosey Goosey 4-9 Fed Com 204H**  
Cimarex Energy Co.  
Lea Co., NM

**Emergency Procedures**

In the event of a release of gas containing H<sub>2</sub>S, the first responder(s) must:

- « Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- « Evacuate any public places encompassed by the 100 ppm ROE.
- « Be equipped with H<sub>2</sub>S monitors and air packs in order to control the release.
- « Use the "buddy system" to ensure no injuries occur during the 432-620-1975
- « Take precautions to avoid personal injury during this operation.
- « Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- « Have received training in the:
  - Detection of H<sub>2</sub>S, and
  - Measures for protection against the gas,
  - Equipment used for protection and emergency response.

**Ignition of Gas Source**

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). 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.

**Characteristics of H<sub>2</sub>S and SO<sub>2</sub>**

Please see attached International Chemical Safety Cards.

**Contacting Authorities**

Cimarex Energy Co. of Colorado's 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. 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. Cimarex Energy Co. of Colorado's response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

H<sub>2</sub>S Contingency Plan Emergency Contacts  
**Loosey Goosey 4-9 Fed Com 204H**  
 Cimarex Energy Co.  
 Lea Co., NM

**Company Office**

Cimarex Energy Co. of Colorado	800-969-4789
Co. Office and After-Hours Menu	

**Key Personnel**

Name	Title	Office	Mobile
Larry Seigrist	Drilling Manager	432-620-1934	580-243-8485
Charlie Pritchard	Drilling Superintendent	432-620-1975	432-238-7084
Roy Shirley	Construction Superintendent		432-634-2136

**Artesia**

Ambulance	911
State Police	575-746-2703
City Police	575-746-2703
Sheriff's Office	575-746-9888
<b>Fire Department</b>	<b>575-746-2701</b>
Local Emergency Planning Committee	575-746-2122
New Mexico Oil Conservation Division	575-748-1283

**Carlsbad**

Ambulance	911
State Police	575-885-3137
City Police	575-885-2111
Sheriff's Office	575-887-7551
<b>Fire Department</b>	<b>575-887-3798</b>
Local Emergency Planning Committee	575-887-6544
US Bureau of Land Management	575-887-6544

**Santa Fe**

New Mexico Emergency Response Commission (Santa Fe)	505-476-9600
New Mexico Emergency Response Commission (Santa Fe) 24 Hrs	505-827-9126
New Mexico State Emergency Operations Center	505-476-9635

**National**

National Emergency Response Center (Washington, D.C.)	800-424-8802
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**Medical**

Flight for Life - 4000 24th St.; Lubbock, TX	806-743-9911
Aerocare - R3, Box 49F; Lubbock, TX	806-747-8923
Med Flight Air Amb - 2301 Yale Blvd S.E., #D3; Albuquerque, NM	505-842-4433
SB Air Med Service - 2505 Clark Carr Loop S.E.; Albuquerque, NM	505-842-4949

**Other**

Boots & Coots IWC	800-256-9688	or	281-931-8884
Cudd Pressure Control	432-699-0139	or	432-563-3356
Halliburton	575-746-2757		
B.J. Services	575-746-3569		



Coterra Loosey Goosey 4-9 Fed Com 204H Rev0 kFc 04Feb22 Proposal  
Geodetic Report  
(Def Plan)



Report Date:	February 07, 2022 - 09:26 AM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	COTERRA	Vertical Section Azimuth:	179.670 ° (Grid North)
Field:	NM Lea County (NAD 83)	Vertical Section Origin:	0.000 ft, 0.000 ft
Structure / Slot:	Coterra Loosey Goosey 4-9 Pad (east) / 204H	TVD Reference Datum:	RKB = 22ft
Well:	Loosey Goosey 4-9 Fed Com 204H	TVD Reference Elevation:	3681.800 ft above MSL
Borehole:	Loosey Goosey 4-9 Fed Com 204H	Seabed / Ground Elevation:	3659.800 ft above MSL
UWI / API#:	Unknown / Unknown	Magnetic Declination:	6.360 °
Survey Name:	Coterra Loosey Goosey 4-9 Fed Com 204H Rev0 kFc 04Feb22	Total Gravity Field Strength:	998.5086mgn (9.80665 Based)
Survey Date:	February 04, 2022	Gravity Model:	GARM
Tort / AHD / DDI / ERD Ratio:	117.408 ° / 11394.375 ft / 6.426 / 1.106	Total Magnetic Field Strength:	47852.183 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Magnetic Dip Angle:	60.457 °
Location Lat / Long:	N 32° 36' 35.97958", W 103° 33' 40.47579"	Declination Date:	February 04, 2022
Location Grid N/E Y/X:	N 586510.010 ftUS, E 779081.150 ftUS	Magnetic Declination Model:	HDGM 2022
CRS Grid Convergence Angle:	0.4161 °	North Reference:	Grid North
Grid Scale Factor:	0.99997382	Grid Convergence Used:	0.4161 °
Version / Patch:	2.10.829.1	Total Corr Mag North->Grid North:	5.9438 °
		Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S °)	Longitude (E/W °)
SHL [100' FNL, 330' FEL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	586510.01	779081.15	N 32.609994	W 103.561243
	100.00	0.00	106.70	100.00	0.00	0.00	0.00	0.00	586510.01	779081.15	N 32.609994	W 103.561243
	200.00	0.00	106.70	200.00	0.00	0.00	0.00	0.00	586510.01	779081.15	N 32.609994	W 103.561243
	300.00	0.00	106.70	300.00	0.00	0.00	0.00	0.00	586510.01	779081.15	N 32.609994	W 103.561243
	400.00	0.00	106.70	400.00	0.00	0.00	0.00	0.00	586510.01	779081.15	N 32.609994	W 103.561243
	500.00	0.00	106.70	500.00	0.00	0.00	0.00	0.00	586510.01	779081.15	N 32.609994	W 103.561243
	600.00	0.00	106.70	600.00	0.00	0.00	0.00	0.00	586510.01	779081.15	N 32.609994	W 103.561243
	700.00	0.00	106.70	700.00	0.00	0.00	0.00	0.00	586510.01	779081.15	N 32.609994	W 103.561243
	800.00	0.00	106.70	800.00	0.00	0.00	0.00	0.00	586510.01	779081.15	N 32.609994	W 103.561243
	900.00	0.00	106.70	900.00	0.00	0.00	0.00	0.00	586510.01	779081.15	N 32.609994	W 103.561243
	1000.00	0.00	106.70	1000.00	0.00	0.00	0.00	0.00	586510.01	779081.15	N 32.609994	W 103.561243
	1100.00	0.00	106.70	1100.00	0.00	0.00	0.00	0.00	586510.01	779081.15	N 32.609994	W 103.561243
	1200.00	0.00	106.70	1200.00	0.00	0.00	0.00	0.00	586510.01	779081.15	N 32.609994	W 103.561243
	1300.00	0.00	106.70	1300.00	0.00	0.00	0.00	0.00	586510.01	779081.15	N 32.609994	W 103.561243
	1400.00	0.00	106.70	1400.00	0.00	0.00	0.00	0.00	586510.01	779081.15	N 32.609994	W 103.561243
Nudge, Build 2"/100ft	1500.00	0.00	106.70	1500.00	0.00	0.00	0.00	0.00	586510.01	779081.15	N 32.609994	W 103.561243
Rustler	1543.00	0.86	106.70	1543.00	0.09	-0.09	0.31	2.00	586509.92	779081.46	N 32.609994	W 103.561242
	1600.00	2.00	106.70	1599.98	0.51	-0.50	1.67	2.00	586509.51	779082.82	N 32.609993	W 103.561238
Top Salt	1632.05	2.64	106.70	1632.00	0.89	-0.87	2.91	2.00	586509.14	779084.06	N 32.609992	W 103.561234
	1700.00	4.00	106.70	1699.84	2.04	-2.00	6.68	2.00	586508.01	779087.83	N 32.609989	W 103.561222
	1800.00	6.00	106.70	1799.45	4.60	-4.51	15.03	2.00	586505.50	779096.18	N 32.609982	W 103.561195
	1900.00	8.00	106.70	1898.70	8.16	-8.01	26.70	2.00	586502.00	779107.85	N 32.609972	W 103.561157
	2000.00	10.00	106.70	1997.47	12.74	-12.50	41.69	2.00	586497.51	779122.84	N 32.609959	W 103.561108
Hold	2050.00	11.00	106.70	2046.63	15.41	-15.12	50.42	2.00	586494.89	779131.56	N 32.609952	W 103.561080
	2100.00	11.00	106.70	2095.71	18.20	-17.86	59.55	0.00	586492.15	779140.70	N 32.609944	W 103.561050
	2200.00	11.00	106.70	2193.87	23.79	-23.34	77.83	0.00	586486.67	779158.98	N 32.609929	W 103.560991
	2300.00	11.00	106.70	2292.03	29.38	-28.83	96.11	0.00	586481.19	779177.25	N 32.609913	W 103.560932
	2400.00	11.00	106.70	2390.20	34.96	-34.31	114.38	0.00	586475.70	779195.53	N 32.609898	W 103.560873
	2500.00	11.00	106.70	2488.36	40.55	-39.79	132.66	0.00	586470.22	779213.81	N 32.609882	W 103.560813
	2600.00	11.00	106.70	2586.52	46.14	-45.27	150.94	0.00	586464.74	779232.08	N 32.609867	W 103.560754
	2700.00	11.00	106.70	2684.69	51.73	-50.75	169.21	0.00	586459.26	779250.36	N 32.609851	W 103.560695
	2800.00	11.00	106.70	2782.85	57.31	-56.23	187.49	0.00	586453.78	779268.64	N 32.609836	W 103.560636
	2900.00	11.00	106.70	2881.01	62.90	-61.71	205.77	0.00	586448.30	779286.91	N 32.609821	W 103.560577
	3000.00	11.00	106.70	2979.17	68.49	-67.20	224.04	0.00	586442.82	779305.19	N 32.609805	W 103.560517
	3100.00	11.00	106.70	3077.34	74.07	-72.68	242.32	0.00	586437.33	779323.46	N 32.609790	W 103.560458
	3200.00	11.00	106.70	3175.50	79.66	-78.16	260.60	0.00	586431.85	779341.74	N 32.609774	W 103.560399
Base Salt (Tansil)	3250.43	11.00	106.70	3225.00	82.48	-80.92	269.81	0.00	586429.09	779350.96	N 32.609767	W 103.560369
	3300.00	11.00	106.70	3273.66	85.25	-83.64	278.87	0.00	586426.37	779360.02	N 32.609759	W 103.560340
	3400.00	11.00	106.70	3371.82	90.83	-89.12	297.15	0.00	586420.89	779378.29	N 32.609743	W 103.560280
	3500.00	11.00	106.70	3469.99	96.42	-94.60	315.43	0.00	586415.41	779396.57	N 32.609728	W 103.560221
	3600.00	11.00	106.70	3568.15	102.01	-100.09	333.70	0.00	586409.93	779414.84	N 32.609713	W 103.560162
	3700.00	11.00	106.70	3666.31	107.59	-105.57	351.98	0.00	586404.44	779433.12	N 32.609697	W 103.560103
	3800.00	11.00	106.70	3764.47	113.18	-111.05	370.26	0.00	586398.96	779451.40	N 32.609682	W 103.560044
	3900.00	11.00	106.70	3862.64	118.77	-116.53	388.53	0.00	586393.48	779469.67	N 32.609666	W 103.559984
	4000.00	11.00	106.70	3960.80	124.35	-122.01	406.81	0.00	586388.00	779487.95	N 32.609651	W 103.559925
	4100.00	11.00	106.70	4058.96	129.94	-127.49	425.09	0.00	586382.52	779506.22	N 32.609635	W 103.559866
	4200.00	11.00	106.70	4157.13	135.53	-132.98	443.36	0.00	586377.04	779524.50	N 32.609620	W 103.559807
	4300.00	11.00	106.70	4255.29	141.11	-138.46	461.64	0.00	586371.56	779542.78	N 32.609605	W 103.559747
	4400.00	11.00	106.70	4353.45	146.70	-143.94	479.92	0.00	586366.07	779561.05	N 32.609589	W 103.559688
	4500.00	11.00	106.70	4451.61	152.29	-149.42	498.19	0.00	586360.59	779579.33	N 32.609574	W 103.559629
	4600.00	11.00	106.70	4549.78	157.87	-154.90	516.47	0.00	586355.11	779597.61	N 32.609558	W 103.559570
	4700.00	11.00	106.70	4647.94	163.46	-160.38	534.75	0.00	586349.63	779615.88	N 32.609543	W 103.559511
	4800.00	11.00	106.70	4746.10	169.05	-165.87	553.02	0.00	586344.15	779634.16	N 32.609527	W 103.559451
Capitan	4893.62	11.00	106.70	4838.00	174.28	-171.00	570.13	0.00	586339.02	779651.27	N 32.609513	W 103.559396
	4900.00	11.00	106.70	4844.26	174.64	-171.35	571.30	0.00	586338.67	779652.43	N 32.609512	W 103.559392
	5000.00	11.00	106.70	4942.43	180.22	-176.83	589.58	0.00	586333.19	779670.71	N 32.609497	W 103.559333
	5100.00	11.00	106.70	5040.59	185.81	-182.31	607.85	0.00	586327.70	779688.99	N 32.609481	W 103.559274
	5200.00	11.00	106.70	5138.75	191.40	-187.79	626.13	0.00	586322.22	779707.26	N 32.609466	W 103.559215
Section 33-4 Line NMLC0065607 Lease Crossing Lamar	5203.42	11.00	106.70	5142.11	191.59	-187.98	626.75	0.00	586322.04	779707.89	N 32.609465	W 103.559213
	5276.66	11.00	106.70	5214.00	195.68	-191.99	640.14	0.00	586318.02	779721.27	N 32.609454	W 103.559169
	5300.00	11.00	106.70	5236.92	196.98	-193.27	644.41	0.00	586316.74	779725.54	N 32.609450	W 103.559155
Bell Canyon	5350.00	11.00	106.70	5286.00	199.78	-196.02	653.55	0.00	586314.00	779734.68	N 32.609443	W 103.559126
	5400.00	11.00	106.70	5335.08	202.57	-198.76	662.68	0.00	586311.26	779743.81	N 32.609435	W 103.559096
	5500.00	11.00	106.70	5433.24	208.16	-204.24	680.96	0.00	586305.78	779762.09	N 32.609419	W 103.559037
	5600.00	11.00	106.70	5531.40	213.74	-209.72	699.24	0.00	586300.30	779780.37	N 32.609404	W 103.558978
	5700.00	11.00	106.70	5629.57	219.33	-215.20	717.51	0.00	586294.82	779798.64	N 32.609389	W 103.558918
	5800.00	11.00	106.70	5727.73	224.92	-220.68	735.79	0.00	586289.33	779816.92	N 32.609373	W 103.558859
Cherry Canyon	5812.50	11.00	106.70	5740.00	225.62	-221.37	738.07	0.00	586288.65	779819.20	N 32.609371	W 103.558852
	5900.00	11.00	106.70	5825.89	230.50	-226.16	754.07	0.00	586283.85	779835.20	N 32.609358	W 103.558800
	6000.00	11.00	106.70	5924.05	236.09	-231.65	772.34	0.00	586278.37	779853.47	N 32.609342	W 103.558741
	6100.00	11.00	106.70	6022.22	241.68	-237.13	790.62	0.00	586272.89	779871.75	N 32.609327	W 103.558682
	6200.00	11.00	106.70	6120.38	247.26	-242.61	808.90	0.00	586267.41	779890.02	N 32.609311	W

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S °)	Longitude (E/W °)
Drop 2"/100ft	6300.00	11.00	106.70	6218.54	252.85	-248.09	827.17	0.00	586261.93	779908.30	N 32.609296	W 103.558563
	6400.00	11.00	106.70	6316.70	258.44	-253.57	845.45	0.00	586256.44	779926.58	N 32.609281	W 103.558504
	6500.00	11.00	106.70	6414.87	264.02	-259.05	863.73	0.00	586250.96	779944.85	N 32.609265	W 103.558445
	6600.00	11.00	106.70	6513.03	269.61	-264.54	882.00	0.00	586245.48	779963.13	N 32.609250	W 103.558385
	6690.18	11.00	106.70	6601.55	274.65	-269.48	898.48	0.00	586240.54	779979.61	N 32.609236	W 103.558332
	6700.00	10.80	106.70	6611.20	275.19	-270.01	900.26	2.00	586240.00	779981.39	N 32.609234	W 103.558326
	6761.78	9.57	106.70	6672.00	278.39	-273.15	910.73	2.00	586236.87	779991.85	N 32.609225	W 103.558292
	6800.00	8.80	106.70	6709.73	280.18	-274.90	916.57	2.00	586235.11	779997.70	N 32.609220	W 103.558273
	6900.00	6.80	106.70	6808.80	284.15	-278.80	929.58	2.00	586231.21	780010.70	N 32.609209	W 103.558231
	7000.00	4.80	106.70	6908.28	287.11	-281.71	939.26	2.00	586228.31	780020.39	N 32.609201	W 103.558200
Brushy Canyon	7100.00	2.80	106.70	7008.06	289.06	-283.61	945.62	2.00	586226.40	780026.74	N 32.609196	W 103.558179
	7200.00	0.80	106.70	7108.00	289.98	-284.52	948.63	2.00	586225.50	780029.75	N 32.609193	W 103.558170
	7240.18	0.00	106.70	7148.18	290.06	-284.60	948.90	2.00	586225.42	780030.02	N 32.609193	W 103.558169
	7300.00	0.00	106.70	7208.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	7400.00	0.00	106.70	7308.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	7500.00	0.00	106.70	7408.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	7600.00	0.00	106.70	7508.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	7700.00	0.00	106.70	7608.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	7800.00	0.00	106.70	7708.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	7900.00	0.00	106.70	7808.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
Bone Spring	8000.00	0.00	106.70	7908.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	8100.00	0.00	106.70	8008.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	8200.00	0.00	106.70	8108.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	8292.00	0.00	106.70	8200.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	8300.00	0.00	106.70	8208.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	8400.00	0.00	106.70	8308.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	8500.00	0.00	106.70	8408.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	8600.00	0.00	106.70	8508.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	8700.00	0.00	106.70	8608.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	8800.00	0.00	106.70	8708.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
1st BS Sand	8900.00	0.00	106.70	8808.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	9000.00	0.00	106.70	8908.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	9100.00	0.00	106.70	9008.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	9200.00	0.00	106.70	9108.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	9300.00	0.00	106.70	9208.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	9400.00	0.00	106.70	9308.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	9468.00	0.00	106.70	9376.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	9500.00	0.00	106.70	9408.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	9600.00	0.00	106.70	9508.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
	9700.00	0.00	106.70	9608.00	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
KOP, Build 10"/100ft	9785.18	0.00	106.70	9693.18	290.06	-284.60	948.90	0.00	586225.42	780030.02	N 32.609193	W 103.558169
2nd BS Sand	9800.00	1.48	165.67	9708.00	290.25	-284.79	948.95	10.00	586225.23	780030.07	N 32.609193	W 103.558169
	9900.00	11.48	165.67	9807.23	301.19	-295.71	951.74	10.00	586214.31	780032.86	N 32.609163	W 103.558160
	10000.00	21.48	165.67	9903.00	328.68	-323.16	958.75	10.00	586186.85	780039.87	N 32.609087	W 103.558138
	10027.13	24.19	165.67	9928.00	338.90	-333.36	961.35	10.00	586176.65	780042.48	N 32.609059	W 103.558129
	10100.00	31.48	165.67	9992.40	371.89	-366.31	969.77	10.00	586143.71	780050.89	N 32.608968	W 103.558103
	10200.00	41.48	165.67	10072.70	429.51	-423.85	984.46	10.00	586086.17	780065.58	N 32.608810	W 103.558057
	10300.00	51.48	165.67	10141.47	499.79	-494.02	1002.38	10.00	586016.00	780083.50	N 32.608617	W 103.558000
	10400.00	61.48	165.67	10196.62	580.58	-574.70	1022.99	10.00	585935.33	780104.11	N 32.608394	W 103.557935
	10500.00	71.48	165.67	10236.47	669.44	-663.43	1045.65	10.00	585846.60	780126.77	N 32.608150	W 103.557864
	Build & Turn 5"/100ft	10535.18	75.00	165.67	10246.61	702.12	-696.06	1053.98	10.00	585813.97	780135.10	N 32.608060
Landing Point	10600.00	77.35	167.98	10262.11	763.48	-757.34	1068.32	5.00	585752.69	780149.44	N 32.607891	W 103.557792
	10700.00	81.00	171.45	10280.90	860.19	-853.95	1085.83	5.00	585656.08	780166.95	N 32.607626	W 103.557738
	10800.00	84.69	174.86	10293.35	958.74	-952.43	1097.64	5.00	585557.60	780178.76	N 32.607355	W 103.557702
	10900.00	88.39	178.22	10299.39	1058.38	-1052.04	1103.66	5.00	585458.00	780184.77	N 32.607081	W 103.557684
	10943.34	90.00	179.67	10300.00	1101.71	-1095.36	1104.45	5.00	585414.68	780185.57	N 32.606962	W 103.557683
	11000.00	90.00	179.67	10300.00	1158.37	-1152.02	1104.77	0.00	585358.02	780185.89	N 32.606806	W 103.557683
	11100.00	90.00	179.67	10300.00	1258.37	-1252.02	1105.34	0.00	585258.02	780186.46	N 32.606531	W 103.557684
	11200.00	90.00	179.67	10300.00	1358.37	-1352.02	1105.91	0.00	585158.03	780187.03	N 32.606256	W 103.557684
	11300.00	90.00	179.67	10300.00	1458.37	-1452.02	1106.48	0.00	585058.03	780187.60	N 32.605981	W 103.557685
	11400.00	90.00	179.67	10300.00	1558.37	-1552.02	1107.05	0.00	584958.04	780188.17	N 32.605707	W 103.557685
Section 4-9 Line Crossing	11500.00	90.00	179.67	10300.00	1658.37	-1652.02	1107.62	0.00	584858.04	780188.74	N 32.605432	W 103.557686
	11600.00	90.00	179.67	10300.00	1758.37	-1752.01	1108.19	0.00	584758.05	780189.31	N 32.605157	W 103.557686
	11700.00	90.00	179.67	10300.00	1858.37	-1852.01	1108.76	0.00	584658.05	780189.87	N 32.604882	W 103.557687
	11800.00	90.00	179.67	10300.00	1958.37	-1952.01	1109.33	0.00	584558.05	780190.44	N 32.604607	W 103.557687
	11900.00	90.00	179.67	10300.00	2058.37	-2052.01						

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S °)	Longitude (E/W °)
	15500.00	90.00	179.67	10300.00	5658.37	-5651.95	1130.38	0.00	580858.22	780211.49	N 32.594438	W 103.557707
	15600.00	90.00	179.67	10300.00	5758.37	-5751.95	1130.95	0.00	580758.22	780212.06	N 32.594163	W 103.557707
	15700.00	90.00	179.67	10300.00	5858.37	-5851.95	1131.51	0.00	580658.23	780212.63	N 32.593888	W 103.557708
	15800.00	90.00	179.67	10300.00	5958.37	-5951.95	1132.08	0.00	580558.23	780213.20	N 32.593613	W 103.557708
	15900.00	90.00	179.67	10300.00	6058.37	-6051.94	1132.65	0.00	580458.24	780213.77	N 32.593338	W 103.557709
	16000.00	90.00	179.67	10300.00	6158.37	-6151.94	1133.22	0.00	580358.24	780214.34	N 32.593064	W 103.557709
	16100.00	90.00	179.67	10300.00	6258.37	-6251.94	1133.79	0.00	580258.25	780214.91	N 32.592789	W 103.557710
	16200.00	90.00	179.67	10300.00	6358.37	-6351.94	1134.36	0.00	580158.25	780215.48	N 32.592514	W 103.557710
	16300.00	90.00	179.67	10300.00	6458.37	-6451.94	1134.93	0.00	580058.25	780216.05	N 32.592239	W 103.557711
	16400.00	90.00	179.67	10300.00	6558.37	-6551.94	1135.50	0.00	579958.26	780216.62	N 32.591964	W 103.557711
	16500.00	90.00	179.67	10300.00	6658.37	-6651.93	1136.07	0.00	579858.26	780217.18	N 32.591689	W 103.557712
	16600.00	90.00	179.67	10300.00	6758.37	-6751.93	1136.64	0.00	579758.27	780217.75	N 32.591414	W 103.557712
	16700.00	90.00	179.67	10300.00	6858.37	-6851.93	1137.20	0.00	579658.27	780218.32	N 32.591140	W 103.557713
	16800.00	90.00	179.67	10300.00	6958.37	-6951.93	1137.77	0.00	579558.28	780218.89	N 32.590865	W 103.557713
	16900.00	90.00	179.67	10300.00	7058.37	-7051.93	1138.34	0.00	579458.28	780219.46	N 32.590590	W 103.557714
	17000.00	90.00	179.67	10300.00	7158.37	-7151.93	1138.91	0.00	579358.29	780220.03	N 32.590315	W 103.557714
	17100.00	90.00	179.67	10300.00	7258.37	-7251.92	1139.48	0.00	579258.29	780220.60	N 32.590040	W 103.557715
	17200.00	90.00	179.67	10300.00	7358.37	-7351.92	1140.05	0.00	579158.29	780221.17	N 32.589765	W 103.557715
	17300.00	90.00	179.67	10300.00	7458.37	-7451.92	1140.62	0.00	579058.30	780221.74	N 32.589491	W 103.557716
	17400.00	90.00	179.67	10300.00	7558.37	-7551.92	1141.19	0.00	578958.30	780222.31	N 32.589216	W 103.557716
	17500.00	90.00	179.67	10300.00	7658.37	-7651.92	1141.76	0.00	578858.31	780222.87	N 32.588941	W 103.557717
	17600.00	90.00	179.67	10300.00	7758.37	-7751.92	1142.33	0.00	578758.31	780223.44	N 32.588666	W 103.557717
	17700.00	90.00	179.67	10300.00	7858.37	-7851.91	1142.89	0.00	578658.32	780224.01	N 32.588391	W 103.557718
	17800.00	90.00	179.67	10300.00	7958.37	-7951.91	1143.46	0.00	578558.32	780224.58	N 32.588116	W 103.557719
	17900.00	90.00	179.67	10300.00	8058.37	-8051.91	1144.03	0.00	578458.33	780225.15	N 32.587841	W 103.557719
	18000.00	90.00	179.67	10300.00	8158.37	-8151.91	1144.60	0.00	578358.33	780225.72	N 32.587567	W 103.557720
	18100.00	90.00	179.67	10300.00	8258.37	-8251.91	1145.17	0.00	578258.33	780226.29	N 32.587292	W 103.557720
	18200.00	90.00	179.67	10300.00	8358.37	-8351.91	1145.74	0.00	578158.34	780226.86	N 32.587017	W 103.557721
	18300.00	90.00	179.67	10300.00	8458.37	-8451.91	1146.31	0.00	578058.34	780227.43	N 32.586742	W 103.557721
	18400.00	90.00	179.67	10300.00	8558.37	-8551.90	1146.88	0.00	577958.35	780227.99	N 32.586467	W 103.557722
	18500.00	90.00	179.67	10300.00	8658.37	-8651.90	1147.45	0.00	577858.35	780228.56	N 32.586192	W 103.557722
	18600.00	90.00	179.67	10300.00	8758.37	-8751.90	1148.01	0.00	577758.36	780229.13	N 32.585918	W 103.557723
	18700.00	90.00	179.67	10300.00	8858.37	-8851.90	1148.58	0.00	577658.36	780229.70	N 32.585643	W 103.557723
	18800.00	90.00	179.67	10300.00	8958.37	-8951.90	1149.15	0.00	577558.37	780230.27	N 32.585368	W 103.557724
	18900.00	90.00	179.67	10300.00	9058.37	-9051.90	1149.72	0.00	577458.37	780230.84	N 32.585093	W 103.557724
	19000.00	90.00	179.67	10300.00	9158.37	-9151.89	1150.29	0.00	577358.37	780231.41	N 32.584818	W 103.557725
	19100.00	90.00	179.67	10300.00	9258.37	-9251.89	1150.86	0.00	577258.38	780231.98	N 32.584543	W 103.557725
	19200.00	90.00	179.67	10300.00	9358.37	-9351.89	1151.43	0.00	577158.38	780232.55	N 32.584268	W 103.557726
	19300.00	90.00	179.67	10300.00	9458.37	-9451.89	1152.00	0.00	577058.39	780233.12	N 32.583994	W 103.557726
	19400.00	90.00	179.67	10300.00	9558.37	-9551.89	1152.57	0.00	576958.39	780233.68	N 32.583719	W 103.557727
	19500.00	90.00	179.67	10300.00	9658.37	-9651.89	1153.14	0.00	576858.40	780234.25	N 32.583444	W 103.557727
	19600.00	90.00	179.67	10300.00	9758.37	-9751.88	1153.70	0.00	576758.40	780234.82	N 32.583169	W 103.557728
	19700.00	90.00	179.67	10300.00	9858.37	-9851.88	1154.27	0.00	576658.41	780235.39	N 32.582894	W 103.557728
	19800.00	90.00	179.67	10300.00	9958.37	-9951.88	1154.84	0.00	576558.41	780235.96	N 32.582619	W 103.557729
	19900.00	90.00	179.67	10300.00	10058.37	-10051.88	1155.41	0.00	576458.41	780236.53	N 32.582344	W 103.557729
	20000.00	90.00	179.67	10300.00	10158.37	-10151.88	1155.98	0.00	576358.42	780237.10	N 32.582070	W 103.557730
	20100.00	90.00	179.67	10300.00	10258.37	-10251.88	1156.55	0.00	576258.42	780237.67	N 32.581795	W 103.557730
	20200.00	90.00	179.67	10300.00	10358.37	-10351.87	1157.12	0.00	576158.43	780238.24	N 32.581520	W 103.557731
	20300.00	90.00	179.67	10300.00	10458.37	-10451.87	1157.69	0.00	576058.43	780238.80	N 32.581245	W 103.557732
	20400.00	90.00	179.67	10300.00	10558.37	-10551.87	1158.26	0.00	575958.44	780239.37	N 32.580970	W 103.557732
	20500.00	90.00	179.67	10300.00	10658.37	-10651.87	1158.83	0.00	575858.44	780239.94	N 32.580695	W 103.557733
Loosey Goosey 4-9 Fed Com 204H - BHL [100' FSL, 330' FEL]	20518.91	90.00	179.67	10300.00	10677.28	-10670.78	1158.93	0.00	575839.53	780240.05	N 32.580643	W 103.557733

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 3 \*\*\* 3-D 95.000% Confidence 2.7955 sigma  
Survey Program:

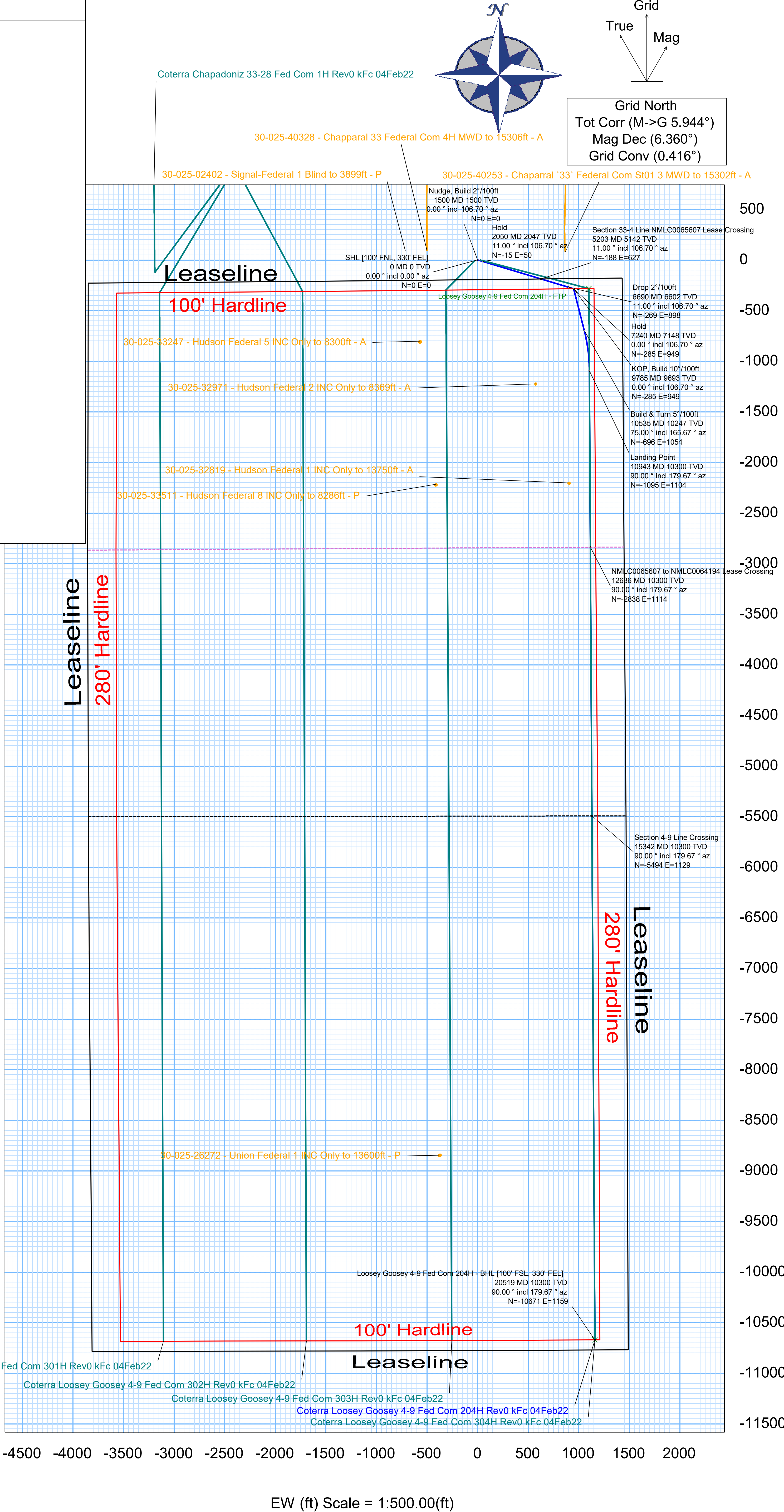
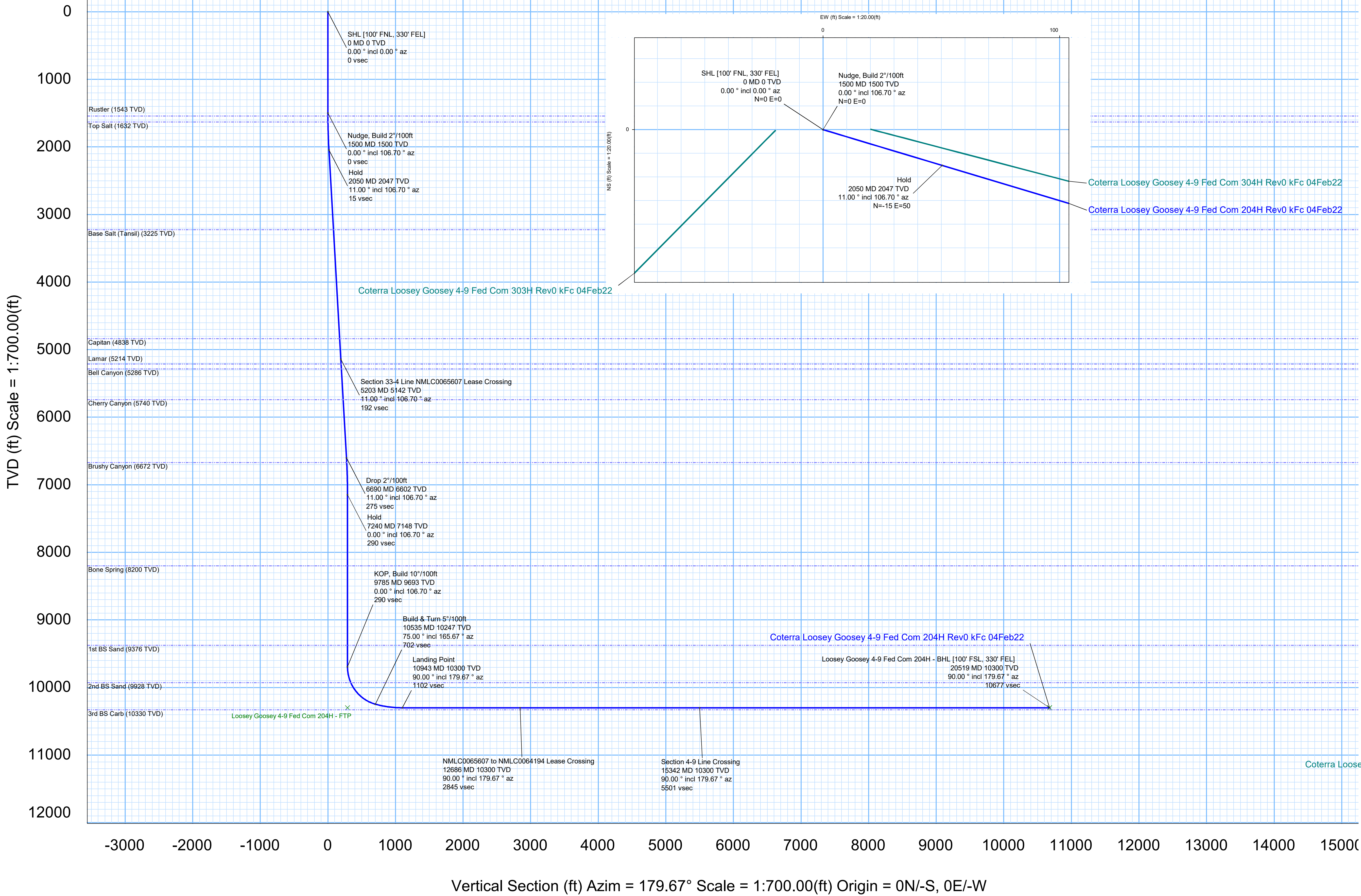
Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	22.000	1/100.000	30.000	30.000		A001Mb_MWD-Depth Only	Loosey Goosey 4-9 Fed Com 204H / Coterra Loosey Goosey 4-9
	1	22.000	20518.911	1/100.000	30.000	30.000		A001Mb_MWD	Loosey Goosey 4-9 Fed Com 204H / Coterra Loosey Goosey 4-9



Borehole: Loosey Goosey 4-9 Fed Com 204H			Well: Loosey Goosey 4-9 Fed Com 204H			Field: NM Lea County (NAD 83)			Structure: Coterra Loosey Goosey 4-9 Pad (east)		
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Gravity & Magnetic Parameters				Surface Location				NAD83 New Mexico State Plane, Eastern Zone, US Feet				Miscellaneous			
Model:	HDGM 2022	Dip:	60.457°	Date:	04-Feb-2022	Lat:	N 32 36 35.98	Northing:	586510.01ftUS	Grid Conv:	0.4161°	Slot:	204H	TVD Ref:	RKB = 22ft (3681.8ft above MSL)
MagDec:	6.36°	FS:	47852.183nT	Gravity FS:	998.509mgn (9.80665 Based)	Lon:	W 103 33 40.48	Easting:	779081.15ftUS	Scale Fact:	0.99997382	Plan:	Coterra Loosey Goosey 4-9 Fed Com 204H Rev0 kFc 04Feb22		

Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL [100' FNL, 330° FEL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Nudge, Build 2°/100ft	1500.00	0.00	106.70	1500.00	0.00	0.00	0.00	0.00
Rustler	1543.00	0.86	106.70	1543.00	0.09	-0.09	0.31	2.00
Top Salt	1632.05	2.64	106.70	1632.00	0.89	-0.87	2.91	2.00
Hold	2050.00	11.00	106.70	2046.63	15.41	-15.12	50.42	2.00
Base Salt (Tansil)	3250.43	11.00	106.70	3225.00	82.48	-80.92	269.81	0.00
Capitan	4893.62	11.00	106.70	4838.00	174.28	-171.00	570.13	0.00
Section 33-4 Line NMLC0065607 Lease Crossing	5203.42	11.00	106.70	5142.11	191.59	-187.98	626.75	0.00
Lamar	5276.66	11.00	106.70	5214.00	195.68	-191.99	640.14	0.00
Bell Canyon	5350.00	11.00	106.70	5286.00	199.78	-196.02	653.55	0.00
Cherry Canyon	5812.50	11.00	106.70	5740.00	225.62	-221.37	738.07	0.00
Drop 2°/100ft	6690.18	11.00	106.70	6601.55	274.65	-269.48	898.48	0.00
Brushy Canyon	6761.78	9.57	106.70	6672.00	278.39	-273.15	910.73	2.00
Hold	7240.18	0.00	106.70	7148.18	290.06	-284.60	948.90	2.00
Bone Spring	8292.00	0.00	106.70	8200.00	290.06	-284.60	948.90	0.00
1st BS Sand	9468.00	0.00	106.70	9376.00	290.06	-284.60	948.90	0.00
KOP, Build 10°/100ft	9785.18	0.00	106.70	9693.18	290.06	-284.60	948.90	0.00
2nd BS Sand	10027.13	24.19	165.67	9928.00	338.90	-333.36	961.35	10.00
Build & Turn 5°/100ft	10535.18	75.00	165.67	10246.61	702.12	-696.06	1053.98	10.00
Landing Point	10943.34	90.00	179.67	10300.00	1101.71	-1095.36	1104.45	5.00
NMLC0065607 to NMLC0064194 Lease Crossing	12686.35	90.00	179.67	10300.00	2844.72	-2838.35	1114.37	0.00
Section 4-9 Line Crossing	15342.16	90.00	179.67	10300.00	5500.52	-5494.11	1129.48	0.00
Loosey Goosey 4-9 Fed Com 204H - BHL [100' FSL, 330° FEL]	20518.91	90.00	179.67	10300.00	10677.28	-10670.78	1158.93	0.00
3rd BS Carb	NaN			10330.00				







Coterra Loosey Goosey 4-9 Fed Com 204H Rev0 kFc 04Feb22 Anti-Collision Summary Report

Analysis Date-24hr Time:	February 07, 2022 - 09:26	Analysis Method:	3D Least Distance
Client:	COTERRA	Reference Trajectory:	Coterra Loosey Goosey 4-9 Fed Com 204H Rev0 kFc 04Feb22 (Def Plan)
Field:	NM Lea County (NAD 83)	Depth Interval:	Every 10.00 Measured Depth (ft)
Structure:	Coterra Loosey Goosey 4-9 Pad (east)	Rule Set:	NAL Procedure: D&M AntiCollision Standard S002
Slot:	204H	Min Pts:	All local minima indicated.
Well:	Loosey Goosey 4-9 Fed Com 204H	Version / Patch:	2.10.829.1
Borehole:	Loosey Goosey 4-9 Fed Com 204H	Database \ Project:	localhost\drilling-project1
Scan MD Range:	0.00ft ~ 20518.91ft		

Trajectory Error Model: ISCWSA0 3-D 95.000% Confidence 2.7955 sigma

Offset Trajectories Summary

Offset Selection Criteria  
Wellhead distance scan: Not performed!  
Selection filters: Definitive Surveys - Definitive Plans - Definitive surveys exclude definitive plans  
- All Non-Def Surveys when no Def-Survey is set in a borehole - All Non-Def Plans when no Def-Plan is set in a borehole

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
30-025-32819 - Hudson Federal 1 INC Only to 13750ft - A (Def Survey)													
	2393.91	32.81	2391.41	2361.10	N/A	MAS = 10.00 (m)	0.00	0.00					Fail Major
	2393.83	32.81	2391.32	2361.02	201013.86	MAS = 10.00 (m)	10.00	10.00				Surface	
	2393.79	32.81	2391.29	2360.98	364987.63	MAS = 10.00 (m)	20.00	20.00				MinPt-O-SF	
	2393.79	32.81	2391.29	2360.98	700479.95	MAS = 10.00 (m)	22.00	22.00				MINPT-O-EOU	
	2391.75	32.81	2371.45	2358.94	134.21	MAS = 10.00 (m)	580.00	580.00				WRP	
	1920.66	412.15	1645.06	1508.51	7.02	OSF1.50	7880.00	7788.00				MinPts	
	1915.36	484.86	1591.29	1430.50	5.95	OSF1.50	9260.00	9168.00				MinPt-CtCt	
	1916.72	488.90	1589.95	1427.81	5.90	OSF1.50	9380.00	9288.00				MinPt-CtCt	
	1768.46	533.80	1411.76	1234.66	4.99	OSF1.50	10220.00	10087.45	OSF<5.00			MINPT-O-EOU	
	545.29	547.98	179.14	-2.69	1.49	OSF1.50	11540.00	10300.00		OSF<1.50		Enter Alert	
	367.23	550.25	-0.43	-183.01	1.00	OSF1.50	11740.00	10300.00				Enter Minor	
	202.80	552.72	-166.52	-349.93	0.55	OSF1.50	12040.00	10300.00			OSF<1.00	Enter Major	
	202.73	552.34	-166.32	-349.60	0.55	OSF1.50	12050.00	10300.00				MinPts	
	356.89	542.86	-5.85	-185.97	0.98	OSF1.50	12340.00	10300.00			OSF>1.00	MinPt-CtCt	
	533.72	542.13	171.47	-8.41	1.48	OSF1.50	12540.00	10300.00		OSF>1.50		Exit Major	
	1795.07	541.71	1433.10	1253.36	4.99	OSF1.50	13830.00	10300.00	OSF>5.00			Exit Minor	
	8472.88	539.32	8112.50	7933.56	23.67	OSF1.50	20518.91	10300.00				Exit Alert	
												TD	
30-025-02402 - Signal-Federal 1 Blind to 3899ft - P (Def Survey)													
	718.76	43.18	689.14	675.58	26.41	OSF1.50	0.00	0.00				Surface	Fail Major
	718.76	66.01	673.92	652.75	16.92	OSF1.50	22.00	22.00				WRP	
	718.76	230.78	564.07	487.98	4.71	OSF1.50	120.00	120.00	OSF<5.00			Enter Alert	
	718.76	728.92	231.98	-10.16	1.48	OSF1.50	360.00	360.00		OSF<1.50		Enter Minor	
	718.76	1081.77	-3.25	-363.01	1.00	OSF1.50	530.00	530.00			OSF<1.00	Enter Major	
	718.76	3095.07	-1345.45	-2376.31	0.35	OSF1.50	1500.00	1500.00				MinPt-CtCt	
	1120.66	7992.97	-4208.82	-6872.31	0.21	OSF1.50	3900.00	3862.64				MinPts	
	2911.09	4372.16	-4.52	-1461.07	1.00	OSF1.50	6380.00	6297.07			OSF>1.00	Exit Major	
	3685.45	3695.77	1220.77	-10.32	1.50	OSF1.50	7220.00	7128.00		OSF>1.50		Exit Minor	
	7526.97	4139.49	4766.48	3387.48	2.73	OSF1.50	13200.00	10300.00				MINPT-O-EOU	
	8147.03	4897.62	4881.12	3249.41	2.50	OSF1.50	14400.00	10300.00				MinPt-O-ADP	
	9107.27	5653.72	5337.29	3453.54	2.42	OSF1.50	15930.00	10300.00				MinPt-O-SF	
	12677.32	6887.06	8085.12	5790.27	2.76	OSF1.50	20518.91	10300.00				TD	
Coterra Loosey Goosey 4-9 Fed Com 304H Rev0 kFc 04Feb22 (Def Plan)													
	20.00	16.49	17.50	3.50	N/A	MAS = 5.03 (m)	0.00	0.00	CtCt<=15m<15.00			Enter Alert	Fail Minor
	19.99	16.49	17.49	3.50	N/A	MAS = 5.03 (m)	22.00	22.00				WRP	
	19.99	20.07	5.78	-0.08	1.49	OSF1.50	1230.00	1230.00		OSF<1.50		Enter Minor	
	19.99	21.12	5.08	-1.13	1.41	OSF1.50	1300.00	1300.00				MinPt-CtCt	
	20.14	21.56	4.93	-1.43	1.39	OSF1.50	1330.00	1330.00				MINPT-O-EOU	
	20.25	21.71	4.95	-1.46	1.39	OSF1.50	1340.00	1340.00				MinPts	
	22.81	23.02	6.63	-0.21	1.48	OSF1.50	1430.00	1430.00		OSF>1.50		Exit Minor	
	150.17	150.36	49.10	-0.19	1.50	OSF1.50	9850.00	9757.86		OSF<1.50		Enter Minor	
	146.67	155.20	42.37	-8.53	1.42	OSF1.50	9990.00	9893.67				MinPt-CtCt	
	147.50	157.43	41.71	-9.93	1.40	OSF1.50	10030.00	9930.62				MINPT-O-EOU	
	148.00	158.04	41.81	-10.04	1.40	OSF1.50	10040.00	9939.68				MinPts	
	162.73	164.58	52.18	-1.85	1.48	OSF1.50	10140.00	10025.75			OSF>1.50	Exit Minor	
	505.03	160.72	397.04	344.30	4.76	OSF1.50	10640.00	10270.37	OSF>5.00			Exit Alert	
	530.40	161.08	422.18	369.32	4.99	OSF1.50	14040.00	10300.00	OSF<5.00			Enter Alert	
	530.40	358.57	290.52	171.83	2.22	OSF1.50	20518.91	10300.00				MinPts	
Coterra Loosey Goosey 4-9 Fed Com 303H Rev0 kFc 04Feb22 (Def Plan)													
	20.00	16.50	17.50	3.50	N/A	MAS = 5.03 (m)	0.00	0.00	CtCt<=15m<15.00			Enter Alert	Fail Minor
	20.00	16.50	17.50	3.50	49395.43	MAS = 5.03 (m)	22.00	22.00				WRP	
	20.00	20.07	5.79	-0.07	1.49	OSF1.50	1230.00	1230.00		OSF<1.50		Enter Minor	
	20.00	24.13	3.08	-4.13	1.21	OSF1.50	1500.00	1500.00				MinPt-CtCt	
	20.15	24.58	2.93	-4.42	1.20	OSF1.50	1530.00	1530.00				MINPT-O-EOU	
	20.27	24.72	2.95	-4.46	1.20	OSF1.50	1540.00	1540.00				MinPts	
	26.75	27.07	7.86	-0.33	1.48	OSF1.50	1700.00	1699.84		OSF>1.50		Exit Minor	
	102.53	32.91	79.75	69.62	4.93	OSF1.50	2120.00	2115.34	OSF>5.00			Exit Alert	
	1098.94	94.06	1035.40	1004.89	17.99	OSF1.50	6060.00	5982.95				MinPt-O-SF	
	1262.93	147.68	1163.65	1115.26	13.02	OSF1.50	9810.00	9717.99				MINPT-O-EOU	
	1263.06	147.82	1163.68	1115.23	13.01	OSF1.50	9820.00	9727.98				MinPt-O-ADP	
	1277.19	151.00	1175.69	1126.19	12.88	OSF1.50	10040.00	9939.68				MinPt-O-SF	
	1509.81	454.94	1205.69	1054.88	5.00	OSF1.50	16300.00	10300.00	OSF<5.00			Enter Alert	
	1509.84	723.96	1026.37	785.89	3.13	OSF1.50	20518.91	10300.00				MinPts	
30-025-32971 - Hudson Federal 2 INC Only to 8369ft - A (Def Survey)													
	1355.98	32.81	1353.48	1323.17	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Warning Alert

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Cl-Cl (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
30-025-26272 - Union Federal 1 INC Only to 13600ft - P (Def Survey)	1355.85	32.81	1353.28	1323.04	20512.35	MAS = 10.00 (m)	22.00	22.00				WRP	
	1348.90	47.19	1316.61	1301.71	45.20	OSF1.50	930.00	930.00				MinPt-ClCt	
	1007.56	304.35	803.83	703.21	4.99	OSF1.50	5890.00	5816.08	OSF<5.00			Enter Alert	
	1002.94	321.63	787.69	681.31	4.70	OSF1.50	6230.00	6149.83				MinPt-ClCt	
	1007.19	408.84	733.79	598.34	3.71	OSF1.50	7890.00	7798.00				MinPt-ClCt	
	1011.36	439.71	717.39	571.65	3.46	OSF1.50	8490.00	8398.00				MinPts	
	1220.08	370.03	972.55	850.04	4.97	OSF1.50	9160.00	9068.00	OSF>5.00			Exit Alert	
	1986.43	155.83	1881.71	1830.60	19.41	OSF1.50	11070.00	10300.00				MinPts	
	2634.52	315.30	2423.49	2319.22	12.62	OSF1.50	12800.00	10300.00				MinPt-O-SF	
	9655.99	440.67	9361.38	9215.32	33.05	OSF1.50	20518.91	10300.00				TD	
												Warning Alert	
30-025-40253 - Chaparral '33' Federal Com SI01 3 MWD to 15302ft - A (Def Survey)	8848.45	32.81	8845.95	8815.64	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	8848.43	32.81	8845.92	8815.62	N/A	MAS = 10.00 (m)	10.00	10.00				MinPt-O-SF	
	8848.41	32.81	8845.91	8815.60	N/A	MAS = 10.00 (m)	22.00	22.00				WRP	
	8846.48	32.81	8835.70	8813.67	1068.37	MAS = 10.00 (m)	320.00	320.00				MinPts	
	8846.70	67.38	8800.94	8779.31	204.46	OSF1.50	1320.00	1320.00				MinPt-ClCt	
	8706.53	276.70	8521.23	8429.83	47.62	OSF1.50	5560.00	5492.14				MinPt-ClCt	
	8658.92	364.62	8415.01	8294.31	35.86	OSF1.50	7050.00	6958.14				MinPt-ClCt	
	8658.99	455.47	8354.51	8203.53	28.67	OSF1.50	8710.00	8618.00				MinPt-ClCt	
	2062.41	621.33	1647.35	1441.07	4.99	OSF1.50	17300.00	10300.00	OSF<5.00			Enter Alert	
	1527.28	694.15	1063.68	833.13	3.31	OSF1.50	18690.00	10300.00				MinPt-ClCt	
	1527.33	694.25	1063.67	833.08	3.31	OSF1.50	18700.00	10300.00				MinPts	
	1527.46	694.34	1063.73	833.12	3.31	OSF1.50	18710.00	10300.00				MinPt-O-SF	
	2115.62	636.90	1690.19	1478.72	5.00	OSF1.50	20150.00	10300.00	OSF>5.00			Exit Alert	
	2385.82	620.63	1971.23	1765.18	5.78	OSF1.50	20518.91	10300.00				TD	
30-025-33247 - Hudson Federal 5 INC Only to 8300ft - A (Def Survey)	4852.43	32.81	4849.88	4819.63	92493.85	MAS = 10.00 (m)	0.00	0.00				Surface	
	4852.43	32.81	4849.80	4819.62	36280.44	MAS = 10.00 (m)	22.00	22.00				WRP	
	4821.75	32.81	4802.13	4788.94	281.48	MAS = 10.00 (m)	1730.00	1729.75				MinPts	
	4822.06	32.81	4801.87	4789.25	272.44	MAS = 10.00 (m)	1800.00	1799.45				MINPT-O-EOU	
	910.73	153.19	807.77	757.54	9.04	OSF1.50	10290.00	10135.17				MinPt-ClCt	
	910.89	153.57	807.69	757.32	9.02	OSF1.50	10300.00	10141.47				MinPts	
	919.92	156.18	814.97	763.74	8.95	OSF1.50	10370.00	10181.61				MinPt-O-SF	
	10766.69	177.05	10647.83	10589.65	92.50	OSF1.50	20518.91	10300.00				TD	
30-025-40328 - Chapparral 33 Federal Com 4H MWD to 15306ft - A (Def Survey)	982.00	32.81	979.50	949.19	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	981.82	32.81	979.26	949.01	17120.13	MAS = 10.00 (m)	22.00	22.00				WRP	
	978.93	32.81	958.12	946.12	53.34	MAS = 10.00 (m)	560.00	560.00				MinPts	
	986.80	56.14	948.54	930.66	27.52	OSF1.50	1030.00	1030.00				MINPT-O-EOU	
	980.27	72.61	931.03	907.66	20.92	OSF1.50	1370.00	1370.00				MinPt-ClCt	
	984.19	80.94	929.40	903.26	18.77	OSF1.50	1540.00	1540.00				MINPT-O-EOU	
	1018.32	120.83	936.93	897.48	12.88	OSF1.50	2270.00	2262.59				MinPt-O-ADP	
	1137.48	183.53	1014.29	953.94	9.40	OSF1.50	3420.00	3391.46				MinPts	
	1601.43	400.07	1333.94	1201.42	6.03	OSF1.50	7660.00	7568.00				MinPt-ClCt	
	1608.70	439.98	1314.58	1158.77	5.51	OSF1.50	8420.00	8328.00				MinPts	
	2748.79	317.78	2536.10	2431.00	13.07	OSF1.50	11540.00	10300.00				MinPt-O-SF	
	10212.60	443.75	9915.94	9788.85	34.71	OSF1.50	20518.91	10300.00				TD	
30-025-40328 - Chapparral 33 Federal Com 4H MWD to 15306ft - A (Def Survey)	4728.31	32.81	4725.73	4695.50	62743.58	MAS = 10.00 (m)	0.00	0.00				MinPts	
	4728.40	32.81	4725.77	4695.59	38047.35	MAS = 10.00 (m)	22.00	22.00				WRP	
	4789.84	32.81	4776.81	4757.03	454.59	MAS = 10.00 (m)	1190.00	1190.00				MINPT-O-EOU	
	4793.02	32.81	4774.36	4760.21	296.55	MAS = 10.00 (m)	1620.00	1619.96				MinPts	
	4793.32	32.81	4774.00	4760.51	284.78	MAS = 10.00 (m)	1690.00	1689.86				MINPT-O-EOU	
	1736.65	250.16	1568.94	1486.38	10.50	OSF1.50	10190.00	10065.15				MinPt-ClCt	
	1736.58	250.40	1568.82	1486.18	10.49	OSF1.50	10200.00	10072.70				MINPT-O-EOU	
	1736.79	250.62	1568.88	1486.17	10.48	OSF1.50	10210.00	10080.13				MinPt-O-ADP	
	1740.40	251.55	1571.87	1488.85	10.47	OSF1.50	10260.00	10115.49				MinPt-O-SF	
	10901.69	179.07	10781.48	10722.63	92.59	OSF1.50	20518.91	10300.00				TD	
30-025-33511 - Hudson Federal 8 INC Only to 8286ft - P (Def Survey)	2260.91	32.81	2258.41	2228.10	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	2260.86	32.81	2258.16	2228.06	11059.60	MAS = 10.00 (m)	22.00	22.00				WRP	
	2257.04	32.81	2241.53	2224.23	173.30	MAS = 10.00 (m)	460.00	460.00				MinPts	
	2256.65	62.34	2214.27	2194.32	56.51	OSF1.50	1240.00	1240.00				MinPt-ClCt	
	2247.78	126.37	2162.70	2121.41	27.19	OSF1.50	2500.00	2488.36				MinPt-ClCt	
	2242.95	157.05	2137.42	2085.90	21.74	OSF1.50	3070.00	3047.89				MinPt-ClCt	
	2245.14	162.75	2138.61	2082.39	20.99	OSF1.50	3230.00	3204.95				MINPT-O-EOU	
	2246.13	205.08	2108.58	2041.05	16.61	OSF1.50	3950.00	3911.72				MinPt-ClCt	
	2250.86	219.79	2103.54	2031.12	15.52	OSF1.50	4270.00	4225.84				MINPT-O-EOU	
	2253.88	224.25	2103.54	2029.62	15.23	OSF1.50	4360.00	4314.19				MINPT-O-EOU	
	2273.21	247.56	2107.34	2025.65	13.90	OSF1.50	4800.00	4746.10				MinPt-O-ADP	
	2316.76	314.84	2106.04	2001.92	11.11	OSF1.50	6040.00	5963.32				MINPT-O-EOU	
	2322.76	321.96	2107.28	2000.80	10.89	OSF1.50	6200.00	6120.38				MinPt-O-ADP	
	2362.03	410.12	2087.78	1951.91	8.68	OSF1.50	7890.00	7798.00				MinPt-ClCt	
	2363.32	419.02	2083.14	1944.30	8.50	OSF1.50	8090.00	7998.00				MinPts	
	2788.38	252.97	2618.91	2535.44	16.69	OSF1.50	12060.00	10300.00				MinPts	
	2788.39	252.97	2618.91	2535.42	16.68	OSF1.50	12070.00	10300.00				MinPt-O-ADP	
	3192.00	307.50	2986.17	2884.50	15.69	OSF1.50	13610.00	10300.00				MinPt-O-SF	
	8910.13	419.31	8629.76	8490.82	32.06	OSF1.50	20518.91	10300.00				TD	
Coterra Chapadoniz 33-28 Fed Com 1H Rev0 kFc 04Feb22 (Def Plan)	2569.92	32.81	2567.42	2537.11	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	2569.92	32.81	2567.42	2537.11	N/A	MAS = 10.00 (m)	22.00	22.00				WRP	
	2569.92	32.81	2553.00	2537.11	178.03	MAS = 10.00 (m)	1500.00	1500.00				MinPts	
	2570.08	32.81	2552.86	2537.27	174.46	MAS = 10.00 (m)	1530.00	1530.00				MINPT-O-EOU	
	4142.97	157.85	4036.90	3985.11	39.98	OSF1.50	9800.00	9708.00				MINPT-O-EOU	
	4143.06	157.99	4036.91	3985.08	39.94	OSF1.50	9810.00	9717.99				MinPt-O-ADP	
	4250.55	166.84	4138.49	4083.71	38.77	OSF1.50	10440.00	10214.48				MinPt-O-SF	

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
	4460.87	174.44	4343.74	4286.43	38.89	OSF1.50	11170.00	10300.00				MinPt-O-SF	
	4480.56	175.20	4362.93	4305.36	38.89	OSF1.50	11240.00	10300.00				MinPt-O-SF	
	4501.26	175.98	4383.11	4325.29	38.90	OSF1.50	11310.00	10300.00				MinPt-O-SF	
	11408.88	233.14	11252.62	11175.74	74.18	OSF1.50	20518.91	10300.00				TD	
Coterra Loosey Goosey 4-9 Fed Com 302H Rev0 kFc 04Feb22 (Def Plan)													
	2606.88	32.81	2604.38	2574.07	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	2606.88	32.81	2604.38	2574.07	N/A	MAS = 10.00 (m)	22.00	22.00				WRP	
	2581.57	34.41	2557.80	2547.16	121.24	OSF1.50	1990.00	1987.61				MinPt-CtCt	
	2581.76	34.87	2557.68	2546.89	119.53	OSF1.50	2020.00	2017.15				MINPT-O-EOU	
	2581.89	35.02	2557.71	2546.87	118.97	OSF1.50	2030.00	2026.98				MinPt-O-ADP	
	2679.14	160.90	2571.04	2518.25	25.35	OSF1.50	9785.18	9693.18				MinPt-CtCt	
	2679.27	161.21	2570.96	2518.05	25.30	OSF1.50	9810.00	9717.99				MINPT-O-EOU	
	2679.39	161.34	2571.00	2518.05	25.28	OSF1.50	9820.00	9727.98				MinPt-O-ADP	
	2709.70	165.31	2598.66	2544.39	24.90	OSF1.50	10160.00	10041.83				MinPt-O-SF	
	2864.32	183.86	2740.90	2690.44	23.67	OSF1.50	10710.00	10282.43				MinPts	
	2879.58	193.96	2749.40	2685.61	22.54	OSF1.50	10870.00	10298.26				MINPT-O-EOU	
	2900.07	785.37	2375.66	2114.70	5.55	OSF1.50	20518.91	10300.00				MinPts	
Coterra Loosey Goosey 4-9 Fed Com 301H Rev0 kFc 04Feb22 (Def Plan)													
	2588.39	32.81	2585.89	2555.58	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	2588.39	32.81	2585.89	2555.58	N/A	MAS = 10.00 (m)	22.00	22.00				WRP	
	2581.76	32.81	2563.15	2548.98	159.83	MAS = 10.00 (m)	1630.00	1629.96				MinPts	
	2581.82	32.81	2563.11	2549.02	159.06	MAS = 10.00 (m)	1640.00	1639.94				MINPT-O-EOU	
	4093.14	161.25	3984.81	3931.89	38.65	OSF1.50	9810.00	9717.99				MINPT-O-EOU	
	4093.27	161.38	3984.85	3931.89	38.62	OSF1.50	9820.00	9727.98				MinPt-O-ADP	
	4200.29	170.79	4085.59	4029.50	37.42	OSF1.50	10490.00	10233.21				MinPt-O-SF	
	4263.19	184.87	4139.10	4078.31	35.04	OSF1.50	10720.00	10283.90				MinPt-O-ADP	
	4297.80	788.19	3771.50	3509.60	8.20	OSF1.50	20518.91	10300.00				MinPts	

**1. Geological Formations**

TVD of target 10,300

Pilot Hole TD N/A

MD at TD 20,518

Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	1543	Useable Water	
Top Salt	1632	N/A	
Base Salt	3225	N/A	
Capitan	4838	N/A	
Lamar	5214	N/A	
Bell Canyon	5286	N/A	
Cherry Canyon	5740	N/A	
Brushy Canyon	6672	Hydrocarbons	
Bone Spring	8200	Hydrocarbons	
1st Bone Spring	9376	Hydrocarbons	
2nd Bone Spring	9923	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
17 1/2	0	1593	1593	13-3/8"	48.00	H-40	ST&C	1.12	2.51	4.21
12 1/4	0	5236	5236	9-5/8"	40.00	HCK-55	LT&C	1.36	1.41	2.68
8 3/4	0	9785	9785	7"	29.00	L-80	LT&C	1.53	1.78	1.98
8 3/4	9785	10535	10247	7"	29.00	P-110	BT&C	1.78	2.34	69.34
6	8785	20518	10300	4-1/2"	11.60	P-110	BT&C	1.57	2.22	20.88
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

## Cimarex Energy Co., Loosey Goosey 4-9 Fed Com 204H

	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?	N

**3. Cementing Program**

Casing	# Sk	Wt. lb/gal	Yld ft <sup>3</sup> /sack	H <sub>2</sub> O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	772	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	207	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	980	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	292	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	291	10.30	3.64	22.18		Lead: Tuned Light + LCM
	125	14.80	1.36	6.57	9.5	Tail: Class C + Retarder
Completion System	740	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	53
Production	5036	25
Completion System	10335	10

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
12 1/4	13 5/8	2M	Annular	X	2M
			Blind Ram		
			Pipe Ram		
			Double Ram	X	
			Other		
8 3/4	13 5/8	3M	Annular	X	3M
			Blind Ram		
			Pipe Ram		
			Double Ram	X	
			Other		
6	13 5/8	5M	Annular	X	5M
			Blind Ram		
			Pipe Ram		
			Double Ram	X	
			Other		

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. 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.

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.				
	Y	Are anchors required by manufacturer?			



**5. Mud Program**

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0' to 1593'	Fresh Water	7.83 - 8.33	28	N/C
1593' to 5236'	Brine Water	9.80 - 10.30	30-32	N/C
5236' to 10535'	Cut Brine or OBM	8.50 - 9.00	27-70	N/C
10535' to 20518'	OBM	8.50 - 9.00	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.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
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**6. Logging and Testing Procedures**

Logging, Coring and Testing	
X	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.
	No logs are planned based on well control or offset log information.
	Drill stem test?
	Coring?

Additional Logs Planned	Interval
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**7. Drilling Conditions**

Condition	
BH Pressure at deepest TVD	4820 psi
Abnormal Temperature	No

Hydrogen Sulfide (H<sub>2</sub>S) monitors will be installed prior to drilling out the surface shoe. If H<sub>2</sub>S 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	H <sub>2</sub> S is present
X	H <sub>2</sub> S plan is attached

**8. Other Facets of Operation****9. Wellhead**

A multi-bowl wellhead system will be utilized.

After running the 13-3/8" surface casing, a 13 5/8" BOP/BOPE system with a minimum working pressure of 5000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 5000 psi test. Annular will be tested to working pressure, or a maximum test pressure of 5000 psi. The pressure test will be repeated at least every 30 days, as per Onshore Order No. 2.

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

The wellhead will be installed by a third-party welder while being monitored by the wellhead vendor representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type.

A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi.

A solid steel body pack-off will be utilized after running and cementing the production casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi.

All casing strings will be tested as per Onshore Order No.2 to at least 0.22 psi/ft or 1,500 whichever is greater and not to exceed 70% of casing burst.

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

#### 10. Other Variances

Cimarex requests to perform offline cementing. OLC procedure as follows: 1. Land casing on solid body mandrel hanger. Engage packoff and lockring 2. Install BPV 3. Skid rig 4. Check for pressure and remove BPV 5. Circulate down casing, taking returns through casing valves 6. Pump lead and tail cement 7. Displace cement and bump the plug 8. Ensure floats are holding pressure 9. RD cement crew 10. Install BPV and TA cap.

Cimarex requests permission to skid the rig to the next well on the pad to begin operations instead of waiting 8 hours for surface cement to harden on this 204H well. Surface cement will be pumped, we will ensure floats hold, do a green cement test and then Skid to the next well on pad. We will not perform any operations on this 204H well until at least 8 hours and when both tail and lead slurry reach 500psi. The mandrel hanger is made up on the last joint of 13 3/8" casing and then lowered down with and landing joint. It is then lowered down until the mandrel contacts the landing ring which is prewelded to the conductor pipe. At this point the 13 3/8" casing is entirely supported by the conductor pipe via the landing ring / mandrel and is independent from the rig. This allows us to walk the rig away from the 204H well and begin work on the next well while the cement is hardening. There is no way for the casing to be moved or knocked off center since it is hanging from the landing ring.

# Cementing Operational Workflow

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## Conventional Cementing

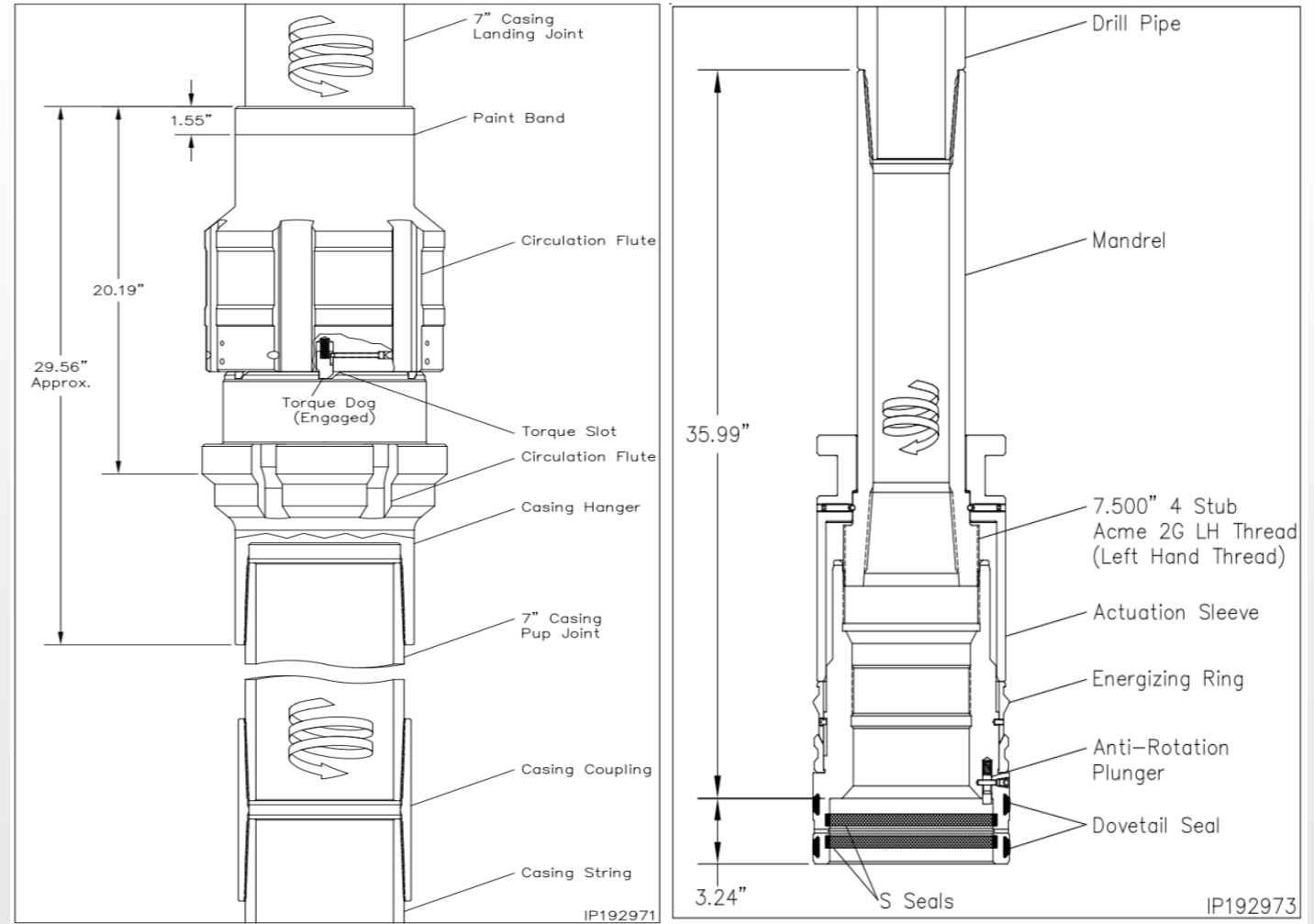
1. Land casing on fluted mandrel hanger
2. Circulate down casing, taking returns through BOP stack
3. Pump lead and tail cement
4. Displace cement and bump the plug
5. Ensure floats are holding pressure
6. RD cement crew
7. Install packoff to isolate pressure
8. Install BPV and skid rig

## Offline Cementing

1. Land casing on **solid body** mandrel hanger
  - a) Engage packoff and lockring
2. Install BPV
3. Skid rig
4. Check for pressure and remove BPV
5. Circulate down casing, taking returns through casing valves
6. Pump lead and tail cement
7. Displace cement and bump the plug
8. Ensure floats are holding pressure
9. RD cement crew
10. Install BPV and TA cap

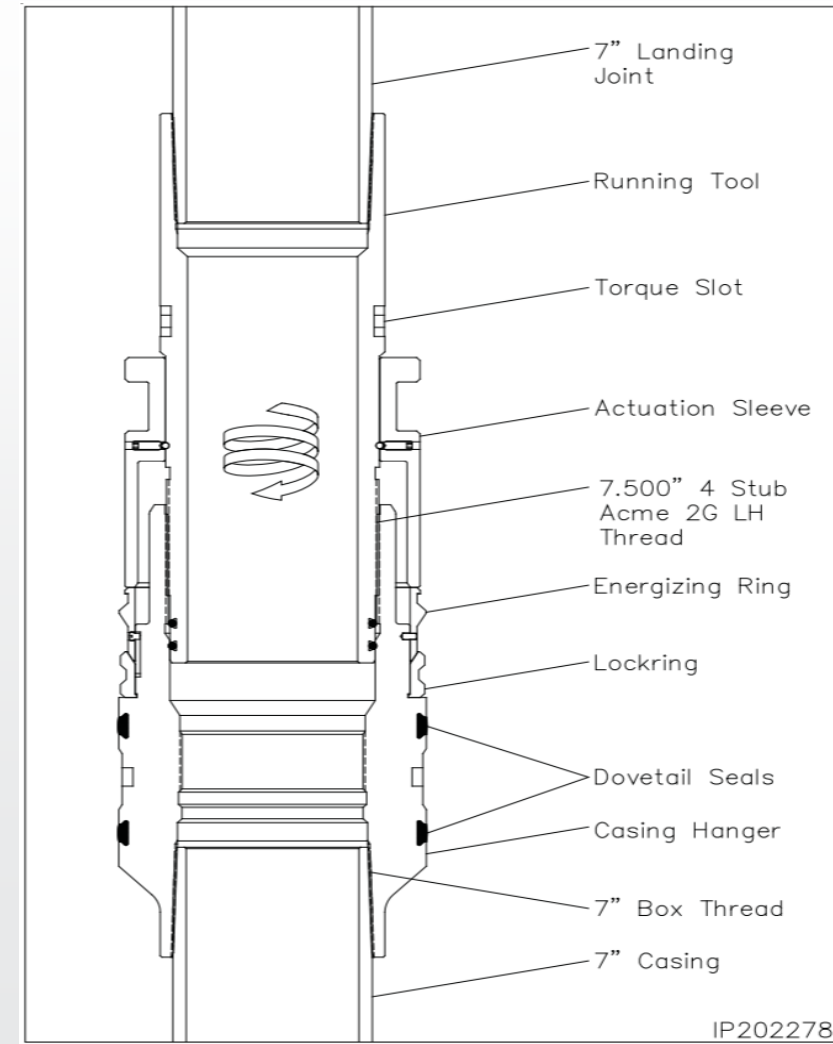
# Conventional Cementing Equipment-Fluted Mandrel

- Fluted Hanger allows returns up past the hanger body
- Returns throughout cement job flow up through BOP stack and into flowline
- Packoff is installed **after** cement job to isolate pressure above and below hanger
- Lockring engaged during packoff installation

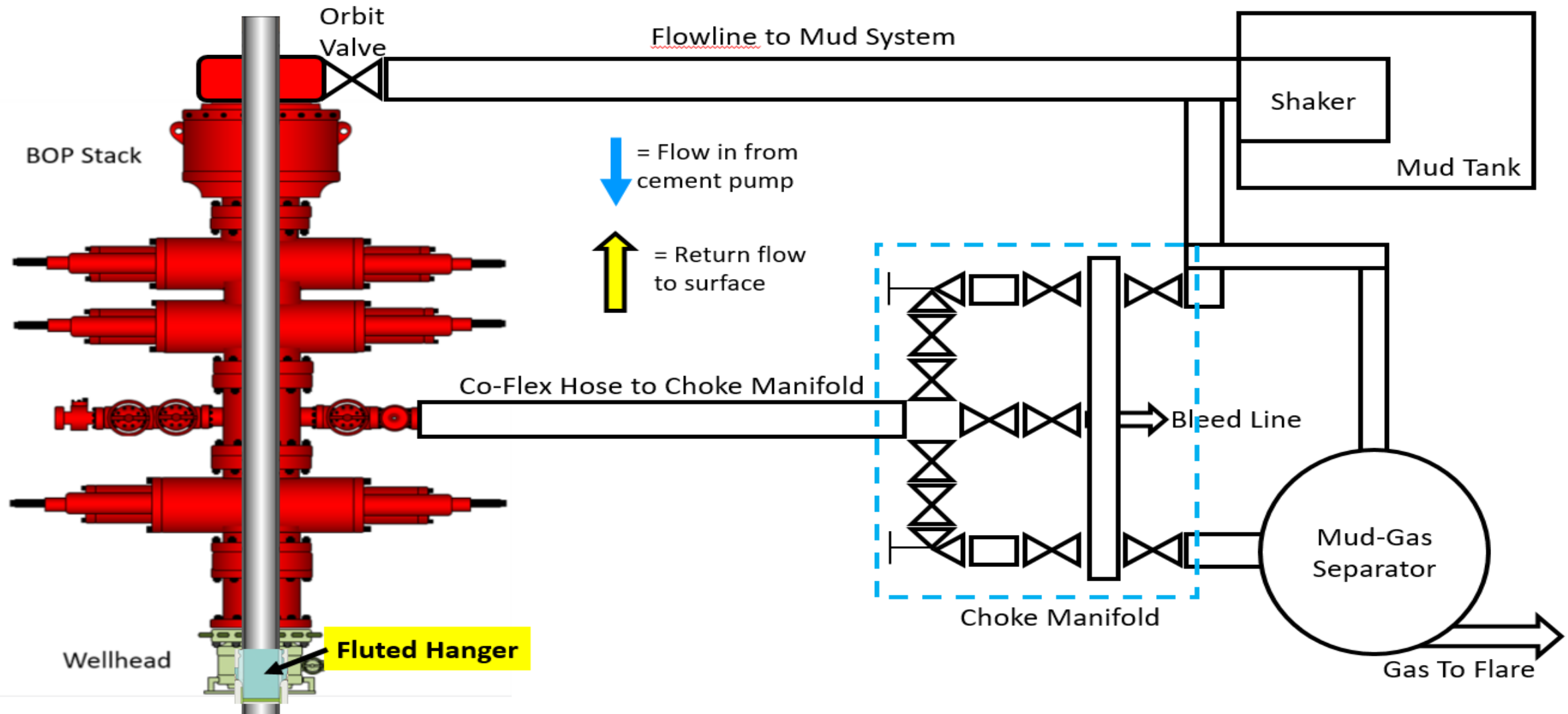


# Offline Cementing Equipment-Solid Body Mandrel Hanger

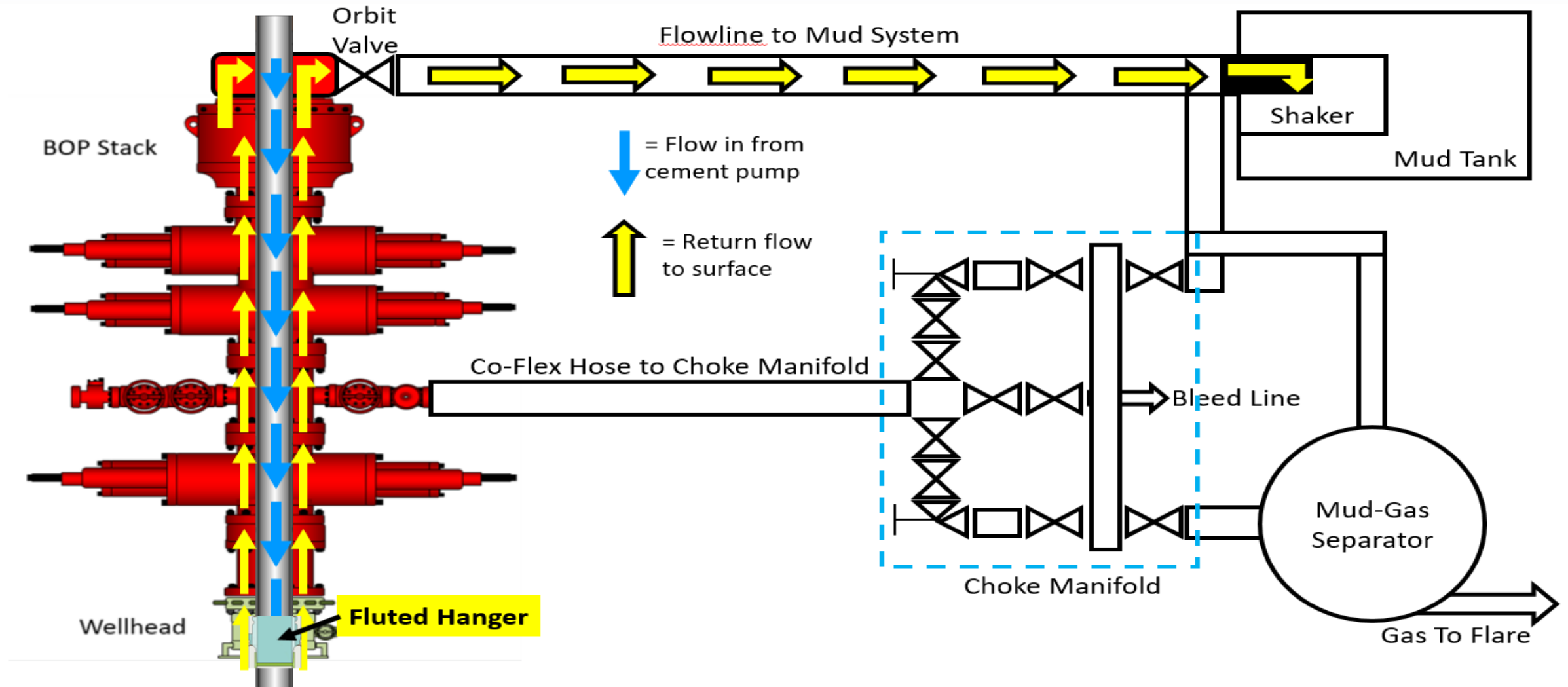
- Solid Body Mandrel Hanger allows for casing to be landed and pressure isolated in one step, **prior** to cementing
- Lockring is engaged to lock casing in place
- Casing is isolated and returns throughout cement job flow through the casing valves and through flowback iron independent of rig



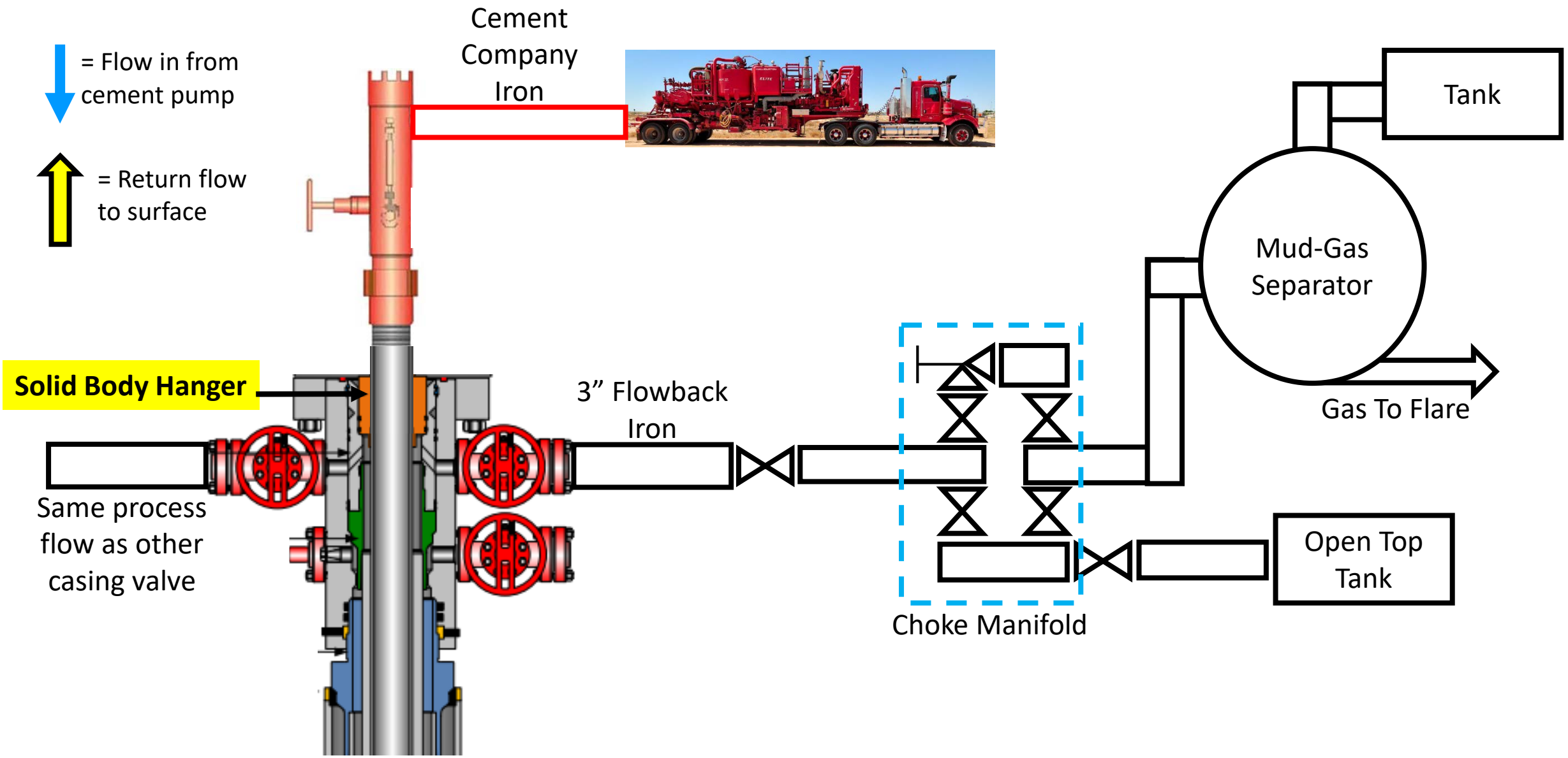
# Conventional Cementing Flow Diagram



# Conventional Cementing Flow Diagram

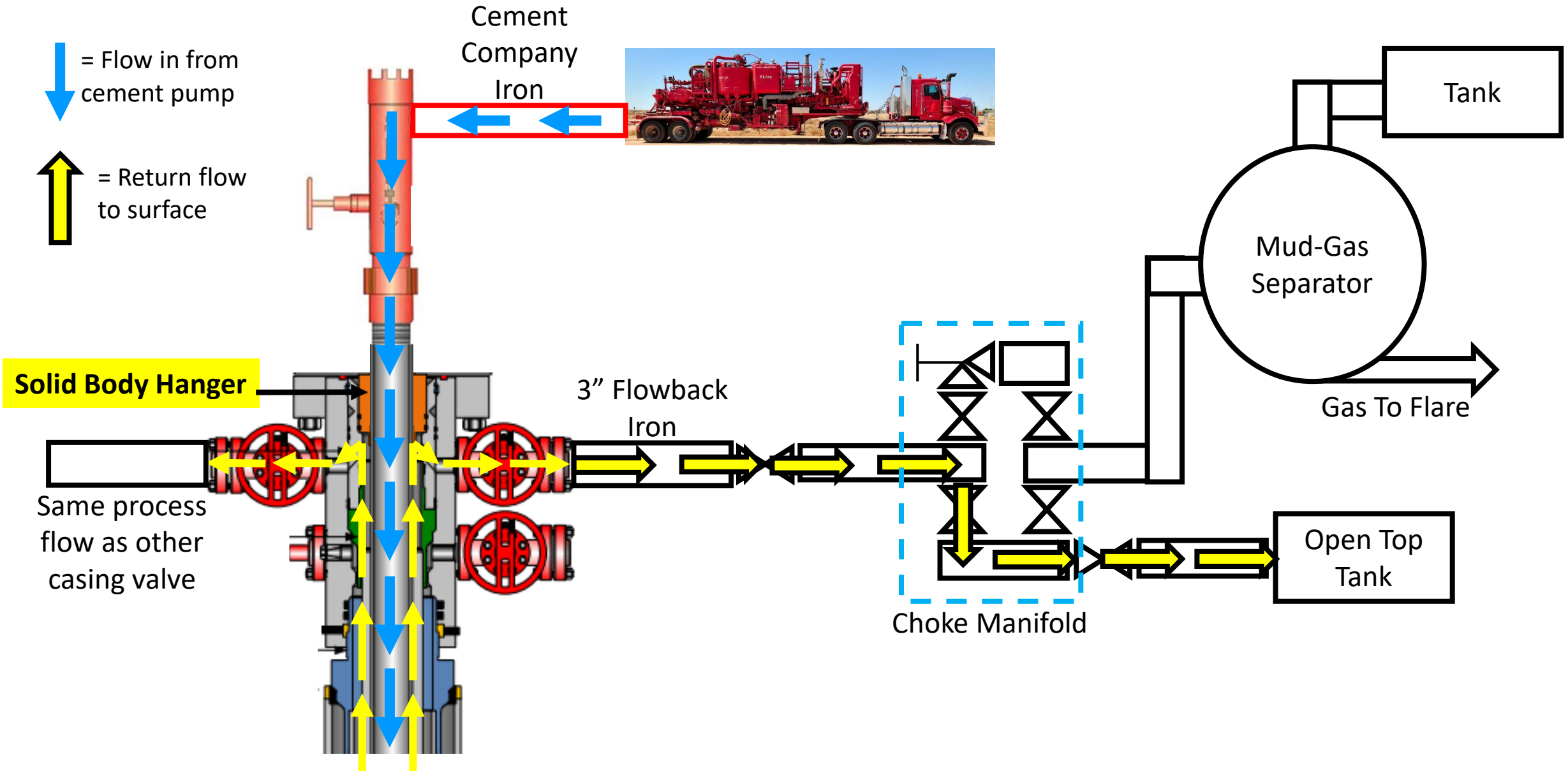


# Offline Cementing -- Intermediate Casing



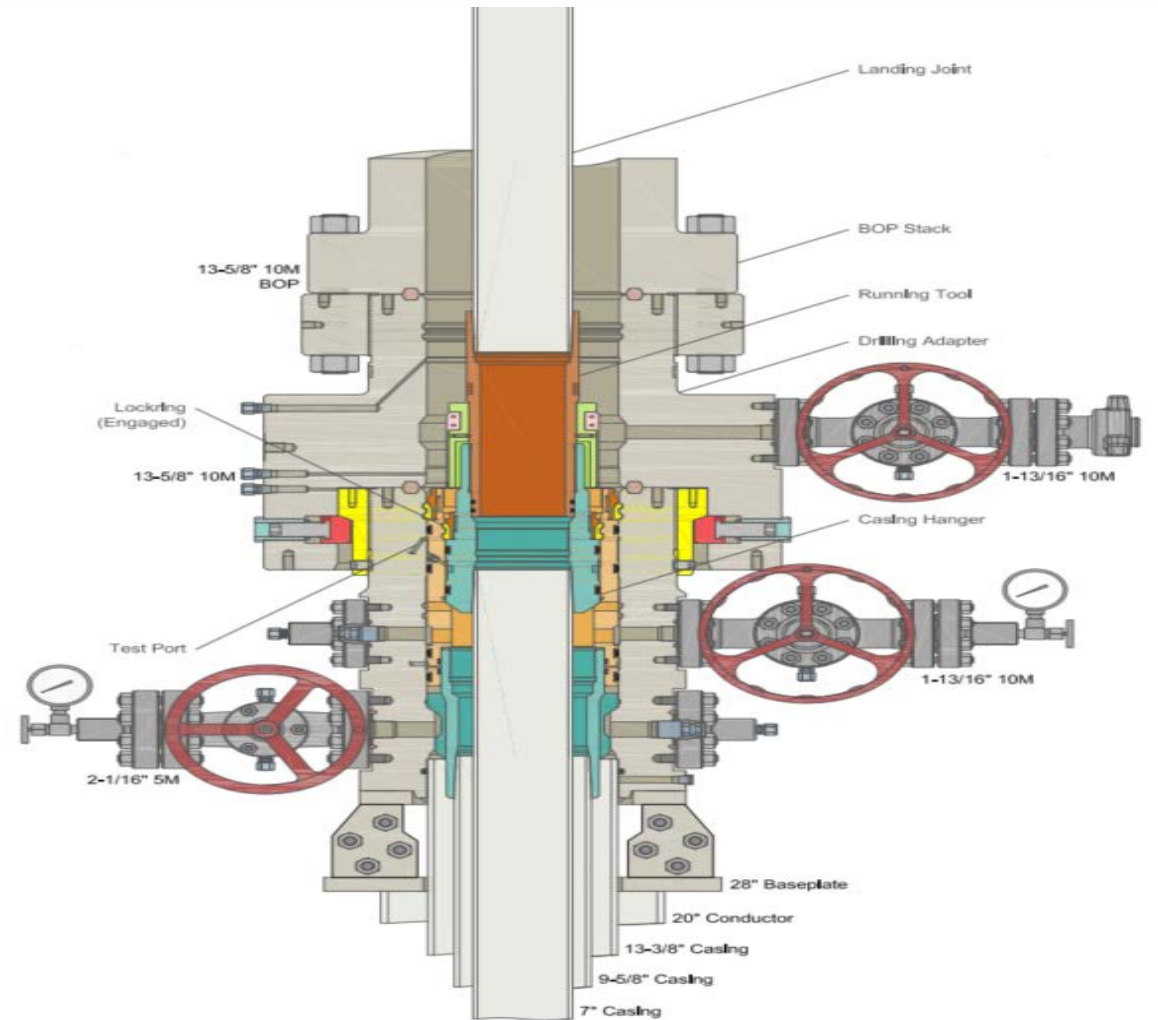


# Offline Cementing -- Intermediate Casing



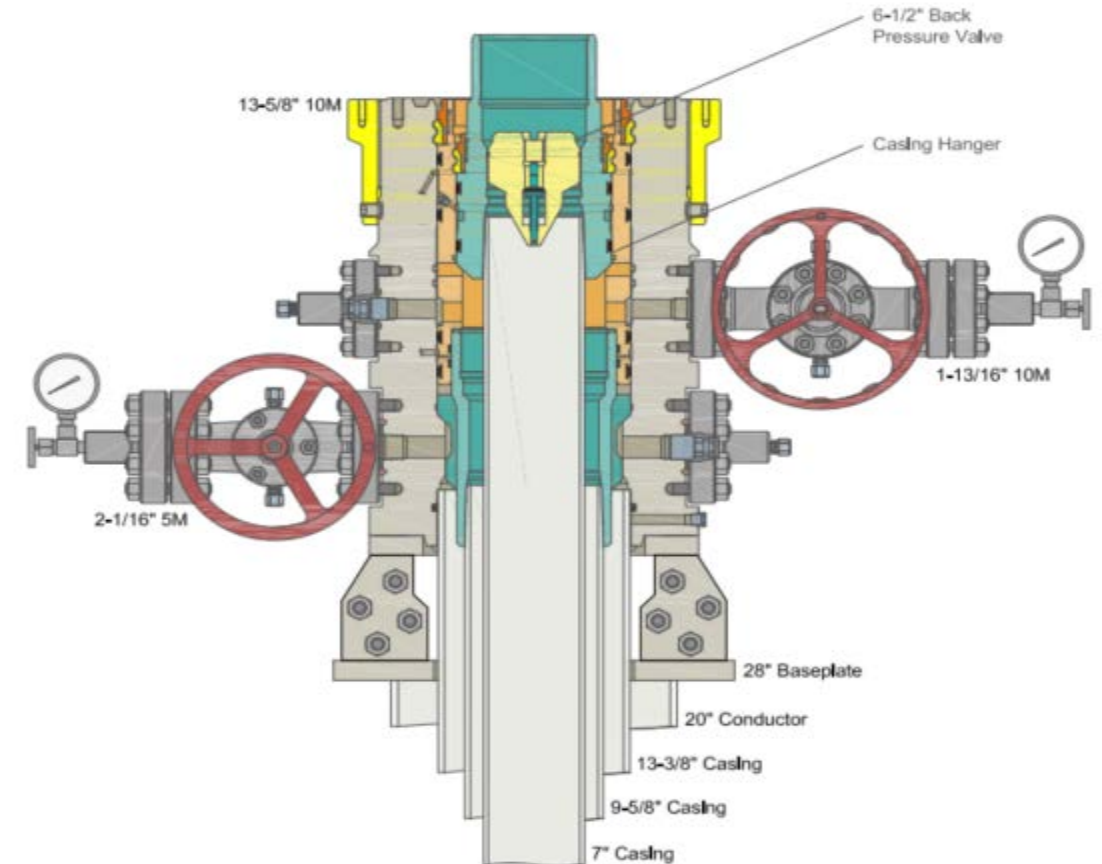
# Offline Cementing Progression

- Run 7" casing
- Land 11" nominal x 7" hanger
- Test casing hanger
- Energize 11" nom x 7" hanger lock ring and pull test
- Re-test casing hanger
- Barriers & Procedures after landing casing before setting packoff
  - 10K BOP & 5K Annular-Internal and Annular barrier
  - Kill Weight Fluid in annulus and casing (ensure well is static before setting solid body packoff) Internal and Annular barrier
    - **If well is not static we WILL NOT set solid body packoff.**
  - 10K float collar-Internal Barrier
  - 10k float Shoe-Internal Barrier
    - **After circulating a 1.5 casing capacities to ensure full column of mud and no entrained gas pumps will be shut off and floats checked for flow**



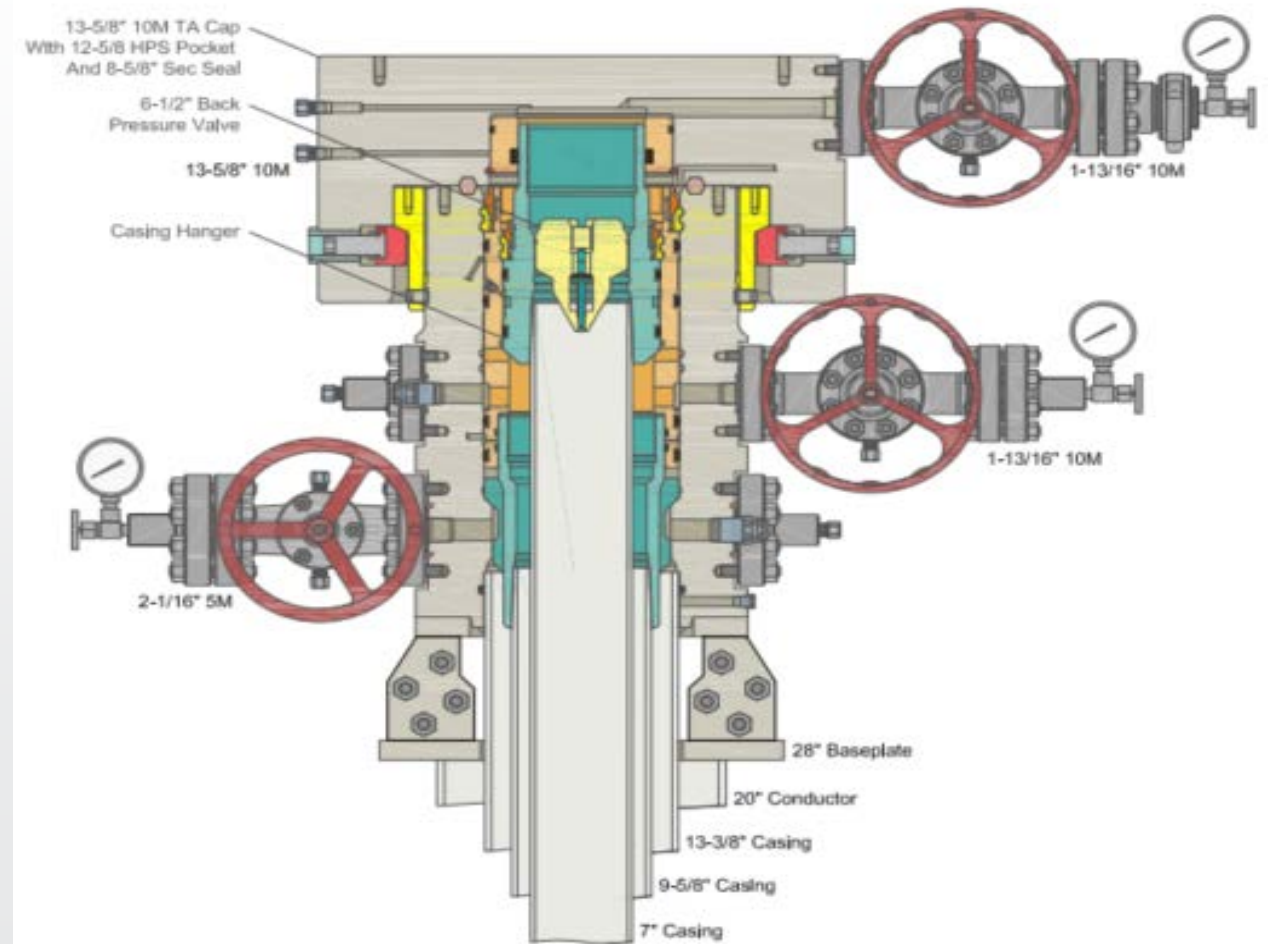
# Offline Cementing Progression

- Pick up running tool with 6-1/2" nominal Back Pressure valve run into well and set
- Barriers and procedures **BEFORE** removing BOP's
  - Kill weight Fluid in annulus-Annular Barrier
  - Solid Body Packoff-Annular Barrier
  - 10K Float Equipment-Internal Barrier
  - 10K Back pressure valve installed with BOP still on well-Internal Barrier
    - BPV will be tested before it arrives on location by Cactus



# Offline Cementing Progression

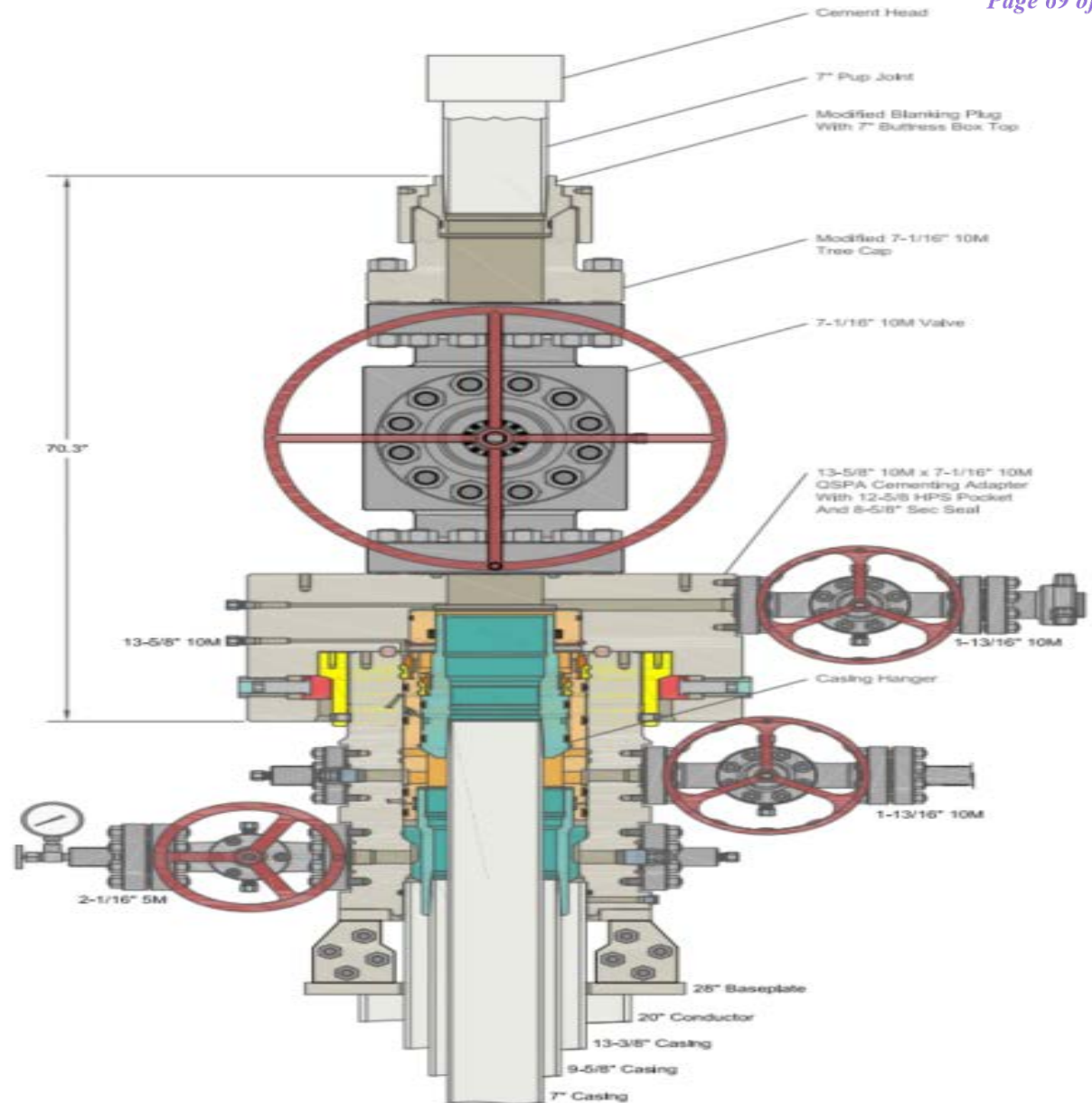
- Nipple down BOP
- Nipple up TA Cap and test
- Skid Drilling Rig
- Barriers and procedures **AFTER** removing BOP's
  - Kill weight Fluid in annulus-Annular Barrier
  - Solid Body Packoff-Annular Barrier
  - 10K Float Equipment-Internal Barrier
  - 10K Back pressure valve-Internal Barrier
  - 10K rated TA cap with Valve-Internal Barrier





# Offline Cementing Progression

- Check Pressure on TA Cap and remove
- Install adaptor with Gate valve for off line cementing and test
- Rig up flowback iron independent of rig
- Retrieve Back Pressure Valve
- Shut in well
- Rig up to cement and pump job
- NU 10K TA cap after cement job
- Barriers and procedures before rigging up cementing equipment
  - Address well and ensure no pressure on TA cap
    - Ability to pump into well through casing valves on backside to kill if needed
  - Kill weight Fluid in annulus-Annular barrier
  - Solid Body Packoff-Annular barrier
  - 10K Float Equipment-Internal Barrier
  - 10K Back pressure valve-Internal Barrier

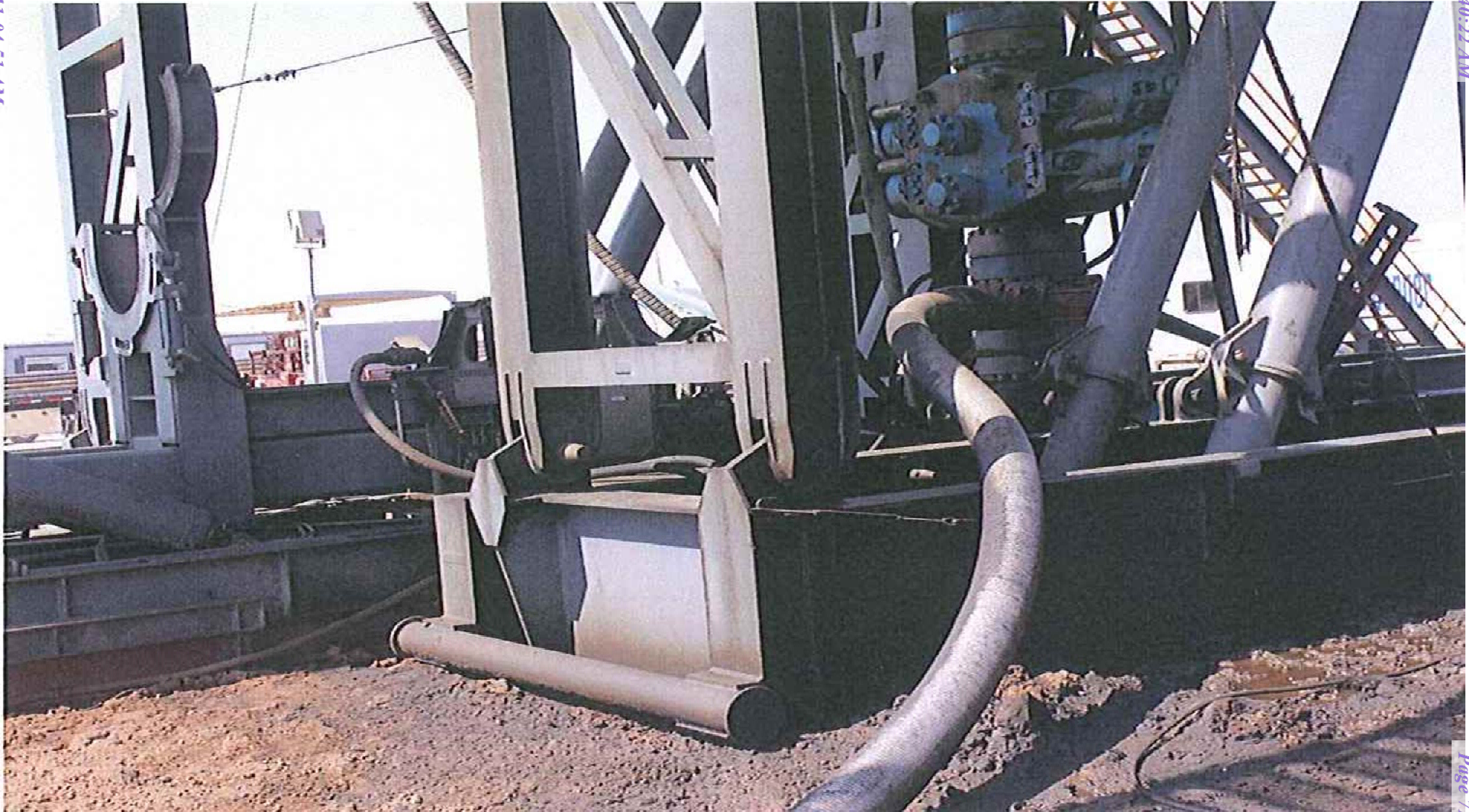


# Offline Cementing Risk and COA Compliance

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- All testing and breaks tested in accordance with Onshore Order # 2 and COA's
- If no cement to surface, bradenhead squeeze still possible with offline cementing equipment
- Time from skid rig to offline cementing ops typically 24 hours
- **Conditions where we would not Offline Cement**
  - **Well is flowing**
- All wellhead equipment rated to 10K maintaining APD compliant
  - 10K flowback iron independent of rig circulating system
  - 10K Back Pressure Valve
  - 10K Gate Valve & TA combo for second barrier during operations
  - 10K 1-13/16 Valve coming off TA cap
  - 10K TA Cap

Co-Flex Hose  
Loosey Goosey 4-9 Fed Com 204H  
Cimarex Energy Co.







## Midwest Hose & Specialty, Inc.

Co-Flex Hose Hydrostatic Test  
Loosey Goosey 4-9 Fed Com 204H  
Cimarex Energy Co.

### INTERNAL HYDROSTATIC TEST REPORT

Customer:		P.O. Number:	
Oderco Inc		odyd-271	
HOSE SPECIFICATIONS			
Type: Stainless Steel Armor Choke & Kill Hose		Hose Length: 45'ft.	
I.D. 4 INCHES		O.D. 9 INCHES	
WORKING PRESSURE	TEST PRESSURE	BURST PRESSURE	
10,000 PSI	15,000 PSI	0 PSI	
COUPLINGS			
Stem Part No.		Ferrule No.	
OKC OKC		OKC OKC	
Type of Coupling: Swage-It			
PROCEDURE			
<u>Hose assembly pressure tested with water at ambient temperature.</u>			
TIME HELD AT TEST PRESSURE		ACTUAL BURST PRESSURE:	
15 MIN.		0 PSI	
Hose Assembly Serial Number: 79793		Hose Serial Number: OKC	
Comments:			
Date:	Tested:	Approved:	
3/8/2011	<i>A. Joins</i>	<i>Levin</i>	





Midwest Hose  
& Specialty, Inc.

## Internal Hydrostatic Test Graph

March 3, 2011

Customer: Houston

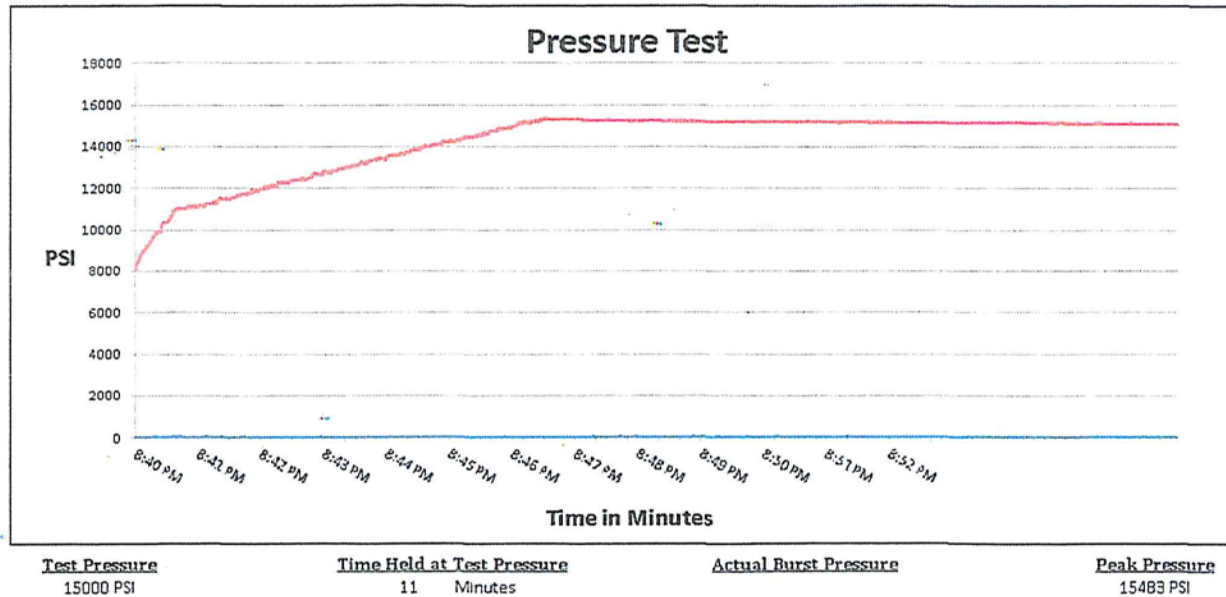
Pick Ticket #: 94260

### Hose Specifications

<u>Hose Type</u>	<u>Length</u>
C & K	45'
<u>I.D.</u>	<u>O.D.</u>
4"	6.09"
<u>Working Pressure</u>	<u>Burst Pressure</u>
10000 PSI	Standard Safety Multiplier Applies

### Verification

<u>Type of Fitting</u>	<u>Coupling Method</u>
41/16 10K	Swage
<u>Die Size</u>	<u>Final O.D.</u>
6.38"	6.25"
<u>Hose Serial #</u>	<u>Hose Assembly Serial #</u>
5544	79793



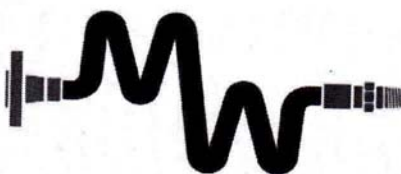
Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: Zac McConnell

Approved By: Kim Thomas

Co-Flex Hose Hydrostatic Test  
Loosey Goosey 4-9 Fed Com 204H  
Cimarex Energy Co.

Co-Flex Hose  
Loosey Goosey 4-9 Fed Com 204H  
Cimarex Energy Co.



## Midwest Hose & Specialty, Inc.

### Certificate of Conformity

Customer:

DEM

PO

ODYD-271

### SPECIFICATIONS

Sales Order

79793

Dated:

3/8/2011

We hereby certify that the material supplied  
for the referenced purchase order to be true  
according to the requirements of the purchase  
order and current industry standards

Supplier:  
Midwest Hose & Specialty, Inc.  
10640 Tanner Road  
Houston, Texas 77041

Comments:

Approved:

*Samuel Garcia*

Date:

3/8/2011



Midwest Hose  
& Specialty, Inc.

Co-Flex Hose  
Loosey Goosey 4-9 Fed Com 204H  
Cimarex Energy Co.

## Specification Sheet Choke & Kill Hose

The Midwest Hose & Specialty Choke & Kill hose is manufactured with only premium componets. The reinforcement cables, inner liner and cover are made of the highest quality material to handle the tough drilling applications of today's industry. The end connections are available with API flanges, API male threads, hubs, hammer unions or other special fittings upon request. Hose assembly is manufactured to API 7K. This assembly is wrapped with fire resistant vermiculite coated fiberglass insulation, rated at 2000 degrees with stainless steel armor cover.

<b>Working Pressure:</b>	5,000 or 10,000 psi working pressure
<b>Test Pressure:</b>	10,000 or 15,000 psi test pressure
<b>Reinforcement:</b>	Multiple steel cables
<b>Cover:</b>	Stainless Steel Armor
<b>Inner Tube:</b>	Petroleum resistant, Abrasion resistant
<b>End Fitting:</b>	API flanges, API male threads, threaded or butt weld hammer unions, unbolt and other special connections
<b>Maximum Length:</b>	110 Feet
<b>ID:</b>	2-1/2", 3", 3-1/2", 4"
<b>Operating Temperature:</b>	-22 deg F to +180 deg F (-30 deg C to +82 deg C)

P.O. Box 96558 - 1421 S.E. 29<sup>th</sup> St. Oklahoma City, OK 73143 \* (405) 670-6718 \* Fax: (405) 670-6816

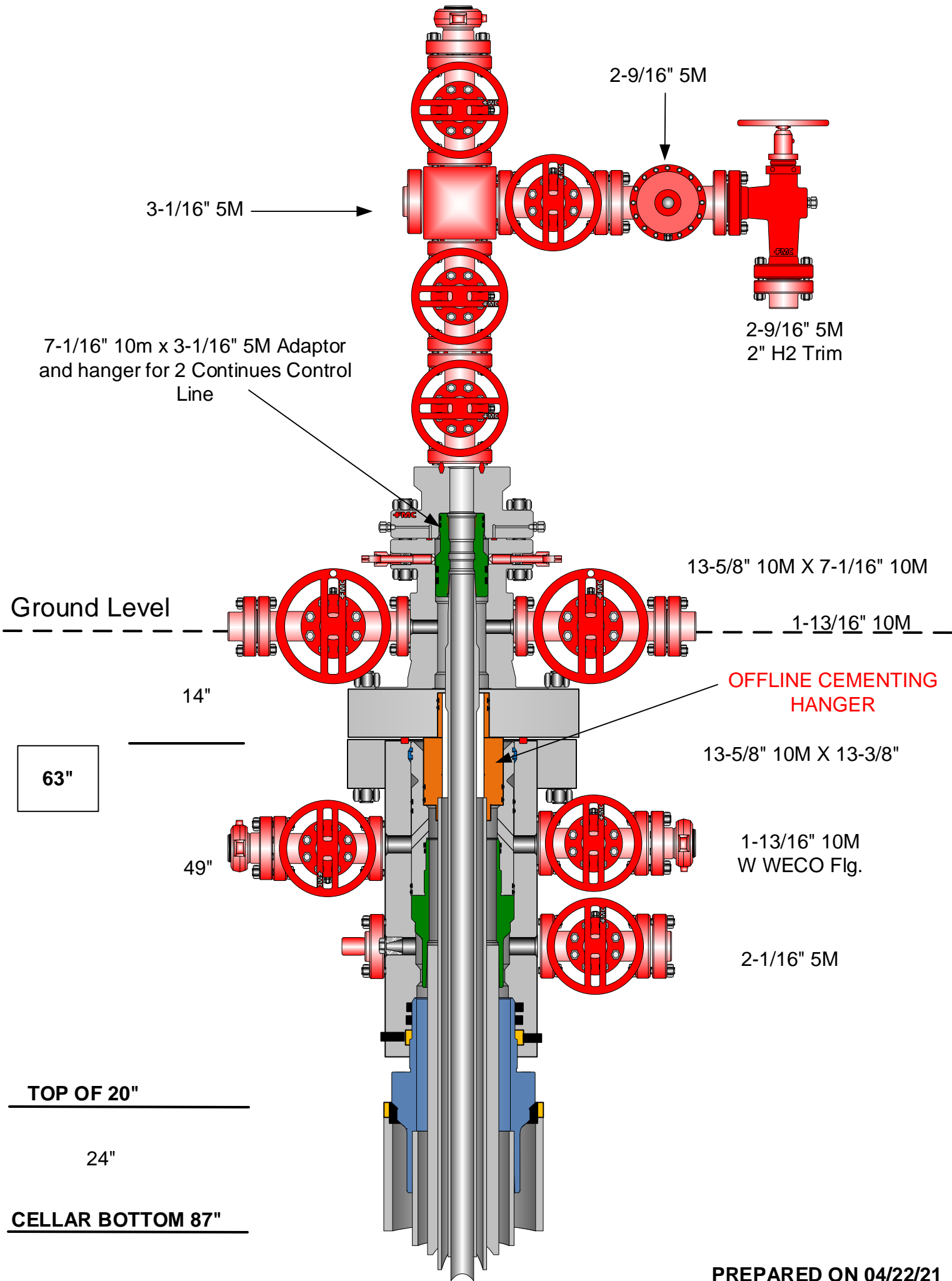


CACTUS FOR SERVICE  
WEARBUSHING  
IN CASING HEAD &  
CASING SPOOL

Loosey Goosey 4-9 Fed com 204H

Hole Size	Casing Depth From	Casing Depth To	Setting Depth TVD	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17 1/2	0	1593	1593	13-3/8"	48.00	H-40	ST&C	1.12	2.51	4.21
12 1/4	0	5236	5236	9-5/8"	40.00	HCK-55	LT&C	1.36	1.41	2.68
8 3/4	0	9785	9785	7"	29.00	L-80	LT&C	1.53	1.78	1.98
8 3/4	9785	10535	10247	7"	29.00	P-110	BT&C	1.78	2.34	69.34
6	8785	20518	10300	4-1/2"	11.60	P-110	BT&C	1.57	2.22	20.88
BLM Minimum Safety Factor								1.125	1	1.6 Dry 1.8 Wet

LEA CO., NM



PREPARED ON 04/22/21



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

# SUPO Data Report

01/25/2024

APD ID: 10400083866

Submission Date: 03/17/2022

Operator Name: CIMAREX ENERGY COMPANY

Well Name: LOOSEY GOOSEY 4-9 FED COM

Well Number: 204H

Well Type: OIL WELL

Well Work Type: Drill

Highlighted data  
reflects the most  
recent changes  
[Show Final Text](#)

## Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Loosey\_Goosey\_4\_9\_Fed\_Com\_W2E2\_Existing\_Acess\_Road\_20220315092108.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? NO

### ROW ID(s)

ID: NM137119

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

## Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Loosey\_Goosey\_4\_9\_Fed\_Com\_W2E2\_New\_Access\_Road\_ROW\_20220315092237.pdf

New road type: COLLECTOR

Length: 810

Feet

Width (ft.): 30

Max slope (%): 2

Max grade (%): 6

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 18

**New road access erosion control:** Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns.

New road access plan or profile prepared? N

New road access plan



Operator Name: CIMAREX ENERGY COMPANY

Well Name: LOOSEY GOOSEY 4-9 FED COM

Well Number: 204H

Access road engineering design? N

Access road engineering design

Turnout? N

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: Caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: Push off and stockpile alongside the location

Access other construction information: The operator will prevent and abate fugitive dust as needed created by vehicular traffic, equipment operations or other events.

Access miscellaneous information: N/a

Number of access turnouts:

Access turnout map:

Drainage Control

New road drainage crossing: CULVERT,LOW WATER

**Drainage Control comments:** To control and prevent potentially contaminated precipitation from leaving the pad site, a perimeter berm and settlement pond will be installed. Contaminated water will be removed from pond, stored in waste tanks, and disposed of at a state approved facility. Standing water or puddles will not be allowed. Drainage ditches would be established and maintained on the pad and along access roads to divert water away from operations. Natural drainage areas disturbed during construction would be re-contoured to near original condition prior to construction. Erosion Control Best Management Practices would be used where necessary and consist of seeding, fiber rolls, water bars, silt fences, and temporary diversion dikes. Areas disturbed during construction that are no longer needed for operations would be obliterated, re-contoured to near original condition prior to construction. Erosion Control Best Management Practices would be used where necessary and consist of seeding, fiber rolls, water bars, silt fences, and temporary diversion dikes. Areas disturbed during construction that are no longer needed for operations would be obliterated, re-contoured, and reclaimed to near original condition to re-establish natural drainage.

Road Drainage Control Structures (DCS) description: N/A

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Loosey\_Goosey\_4\_9\_Fed\_Com\_W2E2\_One\_Mile\_Radius\_20220315092305.pdf

Operator Name: CIMAREX ENERGY COMPANY

Well Name: LOOSEY GOOSEY 4-9 FED COM

Well Number: 204H

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

**Production Facilities description:** Production from this well pad will be routed to the proposed Loosey Goosey 4-9 E2W2 Battery located in the SW of section 33 19S 34E .810' of new access road will be built. 9460' of offlease 3phase 4wire 40v overhead powerline will be built. 10325' of offlease bulklines will be built. 75' ROW width. Bulklines/Flowlines will consist of 1 12" Steel flowline carrying oil gas and water. 4 12" steel bulklines carrying oil gas or water. 1 4" fiber optic cable. 1 12" air poly line. We will also be utilizing a temporary fresh water line. 1- 12" temporary layflat poly Fresh water line. 5 miles in length.

**Production Facilities map:**

- Mighty\_Loosey\_Chap\_Bulkline\_ROW\_20220301143616.pdf
- Mighty\_Loosey\_Chap\_Power\_ROW\_20220301143624.pdf
- Loosey\_Goosey\_4\_9\_Fed\_Com\_W2E2\_Temp\_Water\_Route\_20220315095022.pdf
- Loosey\_Goosey\_4\_9\_Fed\_Com\_W2E2\_SUPO\_20220317082030.pdf
- Mighty\_Chapadoniz\_and\_Loosey\_Goosey\_E2W2\_On\_Pad\_Battery\_20220317082051.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: MUNICIPAL

Water source use type:

SURFACE CASING

INTERMEDIATE/PRODUCTION CASING

Source latitude:

Source longitude:

Source datum:

Water source permit type:

WATER RIGHT

Permit Number:

Water source transport method:

TRUCKING

Source land ownership: FEDERAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 5000

Source volume (acre-feet): 0.64446548

Source volume (gal): 210000

**Operator Name:** CIMAREX ENERGY COMPANY**Well Name:** LOOSEY GOOSEY 4-9 FED COM**Well Number:** 204H**Water source and transportation**

Loosey\_Goosey\_4\_9\_Drilling\_Water\_Route\_20220315095044.pdf

**Water source comments:****New water well?** N**New Water Well Info****Well latitude:****Well Longitude:****Well datum:****Well target aquifer:****Est. depth to top of aquifer(ft):****Est thickness of aquifer:****Aquifer comments:****Aquifer documentation:****Well depth (ft):****Well casing type:****Well casing outside diameter (in.):****Well casing inside diameter (in.):****New water well casing?****Used casing source:****Drilling method:****Drill material:****Grout material:****Grout depth:****Casing length (ft.):****Casing top depth (ft.):****Well Production type:****Completion Method:****Water well additional information:****State appropriation permit:****Additional information attachment:****Section 6 - Construction Materials****Using any construction materials:** YES**Construction Materials description:** Caliche will be obtained from the actual well site if available. If not available onsite caliche will be obtained for a pit located in SESW SWSE of Sec. 25 19S 33E & SW of Sec 13 19S 33E**Construction Materials source location****Section 7 - Methods for Handling****Waste type:** DRILLING**Waste content description:** Drilling Fluids, drill cuttings, water and other waste produced from the well during drilling operations.**Amount of waste:** 15000 barrels**Waste disposal frequency :** Weekly**Safe containment description:** N/A**Safe containmant attachment:**



Operator Name: CIMAREX ENERGY COMPANY

Well Name: LOOSEY GOOSEY 4-9 FED COM

Well Number: 204H

Waste disposal type: HAUL TO COMMERCIAL FACILITY

Disposal location ownership: COMMERCIAL

Disposal type description:

Disposal location description: Haul to R360 Environmental Solutions, 4507 Carlsbad Hwy, Hobbs, NM 88240

Waste type: SEWAGE

Waste content description: Human Waste

Amount of waste: 300 gallons

Waste disposal frequency : Weekly

Safe containment description: Waste will be properly contained and disposed of properly at a state approved disposal facility.

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY

Disposal location ownership: PRIVATE

Disposal type description:

Disposal location description: A licensed 3rd party contractor will be used to haul and dispose human waste to City of Toyah TX waste water facility.

Waste type: GARBAGE

Waste content description: Garbage and trash produced during drilling and completion operations

Amount of waste: 32500 pounds

Waste disposal frequency : Weekly

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY

Disposal location ownership: COMMERCIAL

Disposal type description:

Disposal location description: A licensed 3rd party hauls trash to Lea County Landfill

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.)

Reserve pit width (ft.)

Reserve pit depth (ft.)

Reserve pit volume (cu. yd.)

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Operator Name: CIMAREX ENERGY COMPANY

Well Name: LOOSEY GOOSEY 4-9 FED COM

Well Number: 204H

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? N

Description of cuttings location

Cuttings area length (ft.)

Cuttings area width (ft.)

Cuttings area depth (ft.)

Cuttings area volume (cu. yd.)

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities

Comments:

Section 9 - Well Site

Well Site Layout Diagram:

Loosey\_Goosey\_4\_9\_Fed\_Com\_204H\_Wellsite\_Layout\_20220315095122.pdf

Loosey\_Goosey\_4\_9\_W2E2\_Well\_List\_20220315095530.docx

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: Loosey Goosey 4-9 Fed Com

Multiple Well Pad Number: W2E2

Recontouring

Loosey\_Goosey\_4\_9\_Fed\_Com\_W2E2\_Interim\_reclaim\_20220315095553.pdf

**Drainage/Erosion control construction:** To control and prevent potentially contaminated precipitation from leaving the pad site, a perimeter berm and settlement pond will be installed. Contaminated water will be removed from pond, stored in waste tanks, and disposed of at a state approved facility. Standing water or puddles will not be allowed. Drainage ditches would be established and maintained on the pad and along access roads to divert water away from operations. Natural drainage areas disturbed during construction would be re-contoured to near original condition prior to construction. Erosion Control Best Management Practices would be used where necessary and consist of seeding, fiber rolls, water bars, silt fences, and temporary diversion dikes. Areas disturbed during construction that are no longer needed for operations would be obliterated, re-contoured to near original condition prior to construction. Erosion Control Best Management Practices would be used where necessary and consist of seeding, fiber rolls, water bars, silt

**Operator Name:** CIMAREX ENERGY COMPANY**Well Name:** LOOSEY GOOSEY 4-9 FED COM**Well Number:** 204H

fences, and temporary diversion dikes. Areas disturbed during construction that are no longer needed for operations would be obliterated, re-contoured, and reclaimed to near original condition to re-establish natural drainage.

**Drainage/Erosion control reclamation:** All disturbed and re-contoured areas would be reseeded according to specifications. Approved seed mixtures would be certified weed free and consist of grasses, forbs, or shrubs similar to the surrounding area. Compacted soil areas may need to be obliterated and reclaimed to near natural conditions by re-contouring all slopes to facilitate and re-establish natural drainage.

<b>Well pad proposed disturbance (acres):</b> 7.449	<b>Well pad interim reclamation (acres):</b> 2.668	<b>Well pad long term disturbance (acres):</b> 4.223
<b>Road proposed disturbance (acres):</b> 0.558	<b>Road interim reclamation (acres):</b> 0	<b>Road long term disturbance (acres):</b> 0.558
<b>Powerline proposed disturbance (acres):</b> 6.512	<b>Powerline interim reclamation (acres):</b> 0	<b>Powerline long term disturbance (acres):</b> 6.512
<b>Pipeline proposed disturbance (acres):</b> 17.78	<b>Pipeline interim reclamation (acres):</b> 0	<b>Pipeline long term disturbance (acres):</b> 17.78
<b>Other proposed disturbance (acres):</b> 0	<b>Other interim reclamation (acres):</b> 0	<b>Other long term disturbance (acres):</b> 0
<b>Total proposed disturbance:</b> 32.299	<b>Total interim reclamation:</b> 2.668	<b>Total long term disturbance:</b> 29.073

#### Disturbance Comments:

**Reconstruction method:** After well plugging, all disturbed areas would be returned to the original contour or a contour that blends with the surrounding landform including roads unless the surface owner requests that they be left intact. In consultation with the surface owners it will be determined if any gravel or similar materials used to reinforce an area are to be removed, buried, or left in place during final reclamation. Salvaged topsoil, if any, would be re-spread evenly over the surfaces to be re-vegetated. As necessary, the soil surface would be prepared to provide a seedbed for re-establishment of desirable vegetation. Site preparation may include gouging, scarifying, dozer track-walking, mulching, or fertilizing. Reclamation, Re-vegetation, and Drainage: All disturbed and re-contoured areas would be reseeded using techniques outlined under Phase I and II of this plan or as specified by the land owner. Approved seed mixtures would be certified weed free and consist of grasses, forbs, or shrubs similar to the surrounding area. Compacted soil areas may need to be obliterated and reclaimed to near natural conditions by re-contouring all slopes to facilitate and re-establish natural drainage.

**Topsoil redistribution:** The original stock piled topsoil, if any, will be spread evenly over the areas being reclaimed and the original landform will be restored for all disturbed areas including well pad, production facilities, roads, pipelines, and power line corridors as close as possible to the original topography. The location will then be seeded

**Soil treatment:** The soil surface would be prepared to provide a seedbed for reestablishment of desirable vegetation. Establish control of erosion and invasion of non-native plants to reestablish plant community.

**Existing Vegetation at the well pad:** N/A

**Existing Vegetation at the well pad**

**Existing Vegetation Community at the road:** N/A

**Existing Vegetation Community at the road**

**Existing Vegetation Community at the pipeline:** N/A

**Existing Vegetation Community at the pipeline**

**Existing Vegetation Community at other disturbances:** N/A

Operator Name: CIMAREX ENERGY COMPANY

Well Name: LOOSEY GOOSEY 4-9 FED COM

Well Number: 204H

Existing Vegetation Community at other disturbances

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

Seed

Seed Table

Seed Summary	
Seed Type	Pounds/Acre

Total pounds/Acre:

Seed reclamation

Operator Contact/Responsible Official

First Name: amithy

Last Name: Crawford

Phone: (432)620-1909

Email: amithy.crawford@coterra.com

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment

Weed treatment plan description: N/A

Weed treatment plan

Monitoring plan description: N/A

Monitoring plan

**Operator Name:** CIMAREX ENERGY COMPANY**Well Name:** LOOSEY GOOSEY 4-9 FED COM**Well Number:** 204H**Success standards:** N/A**Pit closure description:** N/A**Pit closure attachment:**

## Section 11 - Surface Ownership

**Disturbance type:** PIPELINE**Describe:****Surface Owner:** BUREAU OF LAND MANAGEMENT, STATE GOVERNMENT**Other surface owner description:****BIA Local Office:****BOR Local Office:****COE Local Office:****DOD Local Office:****NPS Local Office:****State Local Office:** NMSLO**Military Local Office:****USFWS Local Office:****Other Local Office:****USFS Region:****USFS Forest/Grassland:****USFS Ranger District:****Disturbance type:** WELL PAD**Describe:****Surface Owner:** BUREAU OF LAND MANAGEMENT**Other surface owner description:****BIA Local Office:****BOR Local Office:****COE Local Office:****DOD Local Office:****NPS Local Office:****State Local Office:**

**Operator Name:** CIMAREX ENERGY COMPANY**Well Name:** LOOSEY GOOSEY 4-9 FED COM**Well Number:** 204H**Military Local Office:****USFWS Local Office:****Other Local Office:****USFS Region:****USFS Forest/Grassland:****USFS Ranger District:****Disturbance type:** TRANSMISSION LINE**Describe:****Surface Owner:** BUREAU OF LAND MANAGEMENT, STATE GOVERNMENT**Other surface owner description:****BIA Local Office:****BOR Local Office:****COE Local Office:****DOD Local Office:****NPS Local Office:****State Local Office:** NMSLO**Military Local Office:****USFWS Local Office:****Other Local Office:****USFS Region:****USFS Forest/Grassland:****USFS Ranger District:****Disturbance type:** NEW ACCESS ROAD**Describe:****Surface Owner:** BUREAU OF LAND MANAGEMENT**Other surface owner description:****BIA Local Office:****BOR Local Office:****COE Local Office:**

Operator Name: CIMAREX ENERGY COMPANY

Well Name: LOOSEY GOOSEY 4-9 FED COM

Well Number: 204H

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Section 12 - Other

Right of Way needed? Y

Use APD as ROW? Y

ROW Type(s): 281001 ROW - ROADS,288100 ROW – O&G Pipeline,289001 ROW- O&G Well Pad,FLPMA (Powerline)

ROW

SUPO Additional Information:

Use a previously conducted onsite? N

Previous Onsite information:

Other SUPO

## **Cimarex Loosey Goosey 4-9 Fed Com W2E2 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**

Cimarex Energy plans to construct a new off-lease access road

- Length: 810'
- Width: 30'
- Road Plat - Exhibit D.
- A ROW will be submitted to the BLM for approval.
- Cimarex Energy will complete improvements to the driving surface as needed.
- The maximum width of the driving surface for all roads above 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.
- Cimarex Energy will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or other events.

### **Well Radius Map**

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

### **Proposed or Existing Production Facility**

A new facility will be constructed for this project if the well is productive.

- Loosey Goosey 4-9 E2W2 CTB - Exhibit F
  - Direction to facility
  - Facility pad location layout and cut and fill
  - Facility pad archeological boundary
  - Facility pad flowline corridor
  - Facility pad access road

### **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**



## Cimarex Loosey Goosey 4-9 Fed Com W2E2 Surface Use Plan

- Cimarex plans to construct an off-lease power line to service the Mighty Pheasant wells.
- Overhead power line from an existing power source located in the .
- Length: 9,460'.
- Poles: 34
- Specifications: 480 volt, 4 wire, 3 phase.
- Please see Exhibit I for proposed route.
- A ROW application will be submitted to the BLM for the proposed route.

### Well Site Location

- Proposed well pad/location layout - Exhibit J.
- Proposed Rig layout - Exhibit K
  - The rig layout, including V-door and flare line may change depending on rig availability. The pad dimensions and orientation will remain the same. No additional disturbance is anticipated if a rig layout change is necessary to accommodate the drilling rig. If additional disturbance is required a sundry notice will be submitted to the BLM for approval.
  - Mud pits in the closed circulation system will be steel pits and the cuttings will be stored in the steel containment pits.
  - Cuttings will be stored in steel pits until they are hauled to a state-approved disposal facility.
- Archeological boundary - Exhibit L
- Multi well pad: 204H 303H 304H 104H 203H 103H
- Pad Size: 500 x 560
- Construction Material
  - If possible, native caliche will be obtained from the excavation of drill site. The primary way of obtaining caliche will be by "turning over" the location. This means caliche will be obtained from the actual well site. A caliche permit will be obtained from BLM prior to pushing up any caliche. 2,400 cu yds is the max amount of caliche needed for pad and roads. Amount will vary for each pad. The procedure below has been approved by BLM personnel:
    - The top 6 inches of topsoil is pushed off and stockpiled along the side of the location.
    - An approximate 120' x 120' area is used within the proposed well site to remove caliche.
    - Subsoil is removed and piled alongside the 120' x 120' area within the pad site.
    - When caliche is found, material will be stockpiled within the pad site to build the location and road.
    - Then subsoil is pushed back in the hole and caliche is spread accordingly across entire location and road.
    - Once well is drilled, the stockpiled top soil will be used for interim reclamation and spread along areas where caliche is picked up and the location size is reduced. Neither caliche nor subsoil will be stockpiled outside of the well pad. Topsoil will be stockpiled along the edge of the pad as depicted in Exhibit J - Layout Diagram.
    - Caliche will be obtained from the actual well site if available. If not available onsite caliche will be obtained for a pit located in SESW SWSE of Sec. 25 19S 33E & SW of Sec 13 19S 33E
  - Mud pits in the closed circulation system will be steel pits and the cuttings will be stored in steel containment pits.
- Cuttings will be stored in steel pits until they are hauled to a state-approved disposal facility.
- If the well is a producer, those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements. Exhibit P: Interim Reclamation Diagram.
- There are no known dwellings within 1.5 miles of this location.

### Bulkline/Flowline Pipelines

All proposed pipelines will be constructed in a 75' ROW corridor.

- Bulklines/Flowlines
  - Cimarex Energy plans to construct off-lease Bulklines to service the well.
  - 1 12" Steel Flowline carrying oil gas and water
  - 4 12" steel bulklines carrying oil gas or water
  - 1 4" fiber optic cable
  - 1 12" Air poly line
  - Length: 10,325'.
  - MAOP: 1,500 psi; Anticipated working pressure: 200-300 psi.
  - Please see Exhibit M for proposed off-lease route.
  - A ROW application will be submitted to the BLM for the proposed route.

## **Cimarex Loosey Goosey 4-9 Fed Com W2E2 Surface Use Plan**

### **Water Resources**

1- 12" temporary layflat poly fresh water line. 5 miles in length.

### **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 NMOCD 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 NMOCD approved disposal facility.

### **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 NMSLO.
- 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:**

Location was droned



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

## PWD Data Report

01/25/2024

**APD ID:** 10400083866

**Submission Date:** 03/17/2022

**Operator Name:** CIMAREX ENERGY COMPANY

**Well Name:** LOOSEY GOOSEY 4-9 FED COM

**Well Number:** 204H

**Well Type:** OIL WELL

**Well Work Type:** Drill

### Section 1 - General

Would you like to address long-term produced water disposal? NO

### Section 2 - Lined

Would you like to utilize Lined Pit PWD options? N

**Produced Water Disposal (PWD) Location:**

**PWD surface owner:**

**PWD disturbance (acres):**

**Lined pit PWD on or off channel:**

**Lined pit PWD discharge volume (bbl/day):**

**Lined pit**

**Pit liner description:**

**Pit liner manufacturers**

**Precipitated solids disposal:**

**Describe precipitated solids disposal:**

**Precipitated solids disposal**

**Lined pit precipitated solids disposal schedule:**

**Lined pit precipitated solids disposal schedule**

**Lined pit reclamation description:**

**Lined pit reclamation**

**Leak detection system description:**

**Leak detection system**

**Operator Name:** CIMAREX ENERGY COMPANY

**Well Name:** LOOSEY GOOSEY 4-9 FED COM

**Well Number:** 204H

**Lined pit Monitor description:**

**Lined pit Monitor**

**Lined pit: do you have a reclamation bond for the pit?**

**Is the reclamation bond a rider under the BLM bond?**

**Lined pit bond number:**

**Lined pit bond amount:**

**Additional bond information**

### Section 3 - Unlined

**Would you like to utilize Unlined Pit PWD options?** N

**Produced Water Disposal (PWD) Location:**

**PWD disturbance (acres):**

**PWD surface owner:**

**Unlined pit PWD on or off channel:**

**Unlined pit PWD discharge volume (bbl/day):**

**Unlined pit**

**Precipitated solids disposal:**

**Describe precipitated solids disposal:**

**Precipitated solids disposal**

**Unlined pit precipitated solids disposal schedule:**

**Unlined pit precipitated solids disposal schedule**

**Unlined pit reclamation description:**

**Unlined pit reclamation**

**Unlined pit Monitor description:**

**Unlined pit Monitor**

**Do you propose to put the produced water to beneficial use?**

**Beneficial use user**

**Estimated depth of the shallowest aquifer (feet):**

**Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?**

**TDS lab results:**

**Geologic and hydrologic**

**State**

**Unlined Produced Water Pit Estimated**

**Unlined pit: do you have a reclamation bond for the pit?**

**Operator Name:** CIMAREX ENERGY COMPANY**Well Name:** LOOSEY GOOSEY 4-9 FED COM**Well Number:** 204H**Is the reclamation bond a rider under the BLM bond?****Unlined pit bond number:****Unlined pit bond amount:****Additional bond information****Section 4 -****Would you like to utilize Injection PWD options?** N**Produced Water Disposal (PWD) Location:****PWD surface owner:****PWD disturbance (acres):****Injection PWD discharge volume (bbl/day):****Injection well mineral owner:****Injection well type:****Injection well number:****Injection well name:****Assigned injection well API number?****Injection well API number:****Injection well new surface disturbance (acres):****Minerals protection information:****Mineral protection****Underground Injection Control (UIC) Permit?****UIC Permit****Section 5 - Surface****Would you like to utilize Surface Discharge PWD options?** N**Produced Water Disposal (PWD) Location:****PWD surface owner:****PWD disturbance (acres):****Surface discharge PWD discharge volume (bbl/day):****Surface Discharge NPDES Permit?****Surface Discharge NPDES Permit attachment:****Surface Discharge site facilities information:****Surface discharge site facilities map:****Section 6 -****Would you like to utilize Other PWD options?** N**Produced Water Disposal (PWD) Location:****PWD surface owner:****PWD disturbance (acres):****Other PWD discharge volume (bbl/day):**

Operator Name: CIMAREX ENERGY COMPANY

Well Name: LOOSEY GOOSEY 4-9 FED COM

Well Number: 204H

Other PWD type description:

Other PWD type

Have other regulatory requirements been met?

Other regulatory requirements



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

## Bond Info Data

01/25/2024

**APD ID:** 10400083866

**Submission Date:** 03/17/2022

Highlighted data  
reflects the most  
recent changes

**Operator Name:** CIMAREX ENERGY COMPANY

**Well Name:** LOOSEY GOOSEY 4-9 FED COM

**Well Number:** 204H

[Show Final Text](#)

**Well Type:** OIL WELL

**Well Work Type:** Drill

### Bond

**Federal/Indian APD:** FED

**BLM Bond number:** NMB001188

**BIA Bond number:**

**Do you have a reclamation bond?** NO

**Is the reclamation bond a rider under the BLM bond?**

**Is the reclamation bond BLM or Forest Service?**

**BLM reclamation bond number:**

**Forest Service reclamation bond number:**

**Forest Service reclamation bond**

**Reclamation bond number:**

**Reclamation bond amount:**

**Reclamation bond rider amount:**

**Additional reclamation bond information**

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS  
  
Action 308796

CONDITIONS

Operator: CIMAREX ENERGY CO. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 308796
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104	2/6/2024
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	2/6/2024
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	2/6/2024
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing	2/6/2024
pkautz	If cement does not circulate on any string, a CBL is required for that string of casing	2/6/2024