Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☐ DRILL ☐ REENTER

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

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

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

8. Lease Name and Well No.

[40338]

2. Name of Operator

[215099]

9. API Well No. **30-025-50081**

3a. Address

3b. Phone No. *(include area code)*

10. Field and Pool, or Exploratory **[37580]**

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

At surface

At proposed prod. zone

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

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

12. County or Parish

13. State

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration

24. Attachments

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

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

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

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

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

NGMP Rec 04/27/2022

KZ
04/29/2022

SL

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 11/12/2021

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

[1] API Number	[2] Pool Code	[3] Pool Name
30-025- **50081**	37580	Lea; Bone Spring; South

[4] Property Code	[5] Property Name	[6] Well Number
40338	PERRY 22 FEDERAL COM	29H

[7] OGRID No.	[8] Operator Name	[9] Elevation
215099	CIMAREX ENERGY CO.	3646.5'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	22	20S	34E		408	NORTH	1500	WEST	LEA

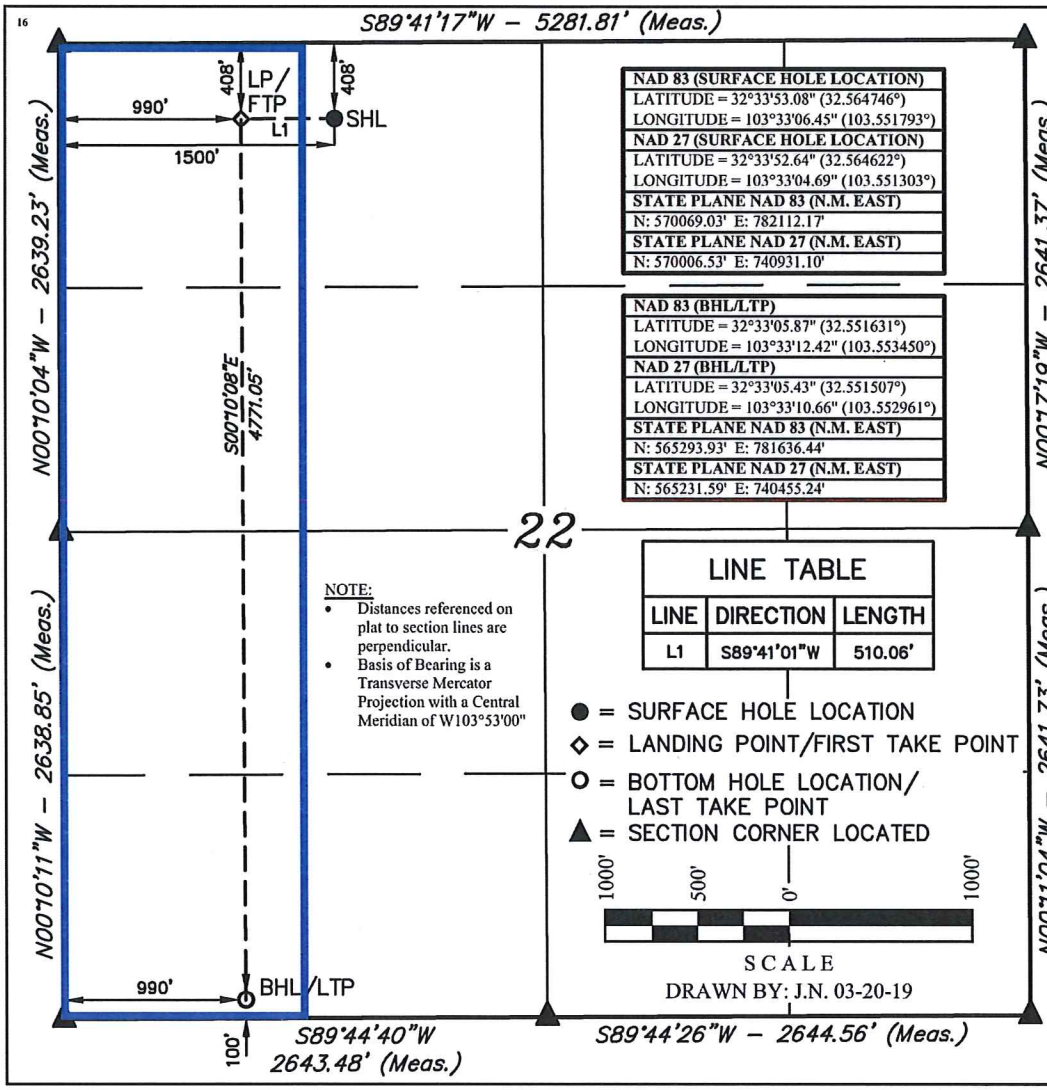
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	22	20S	34E		100	SOUTH	990	WEST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
160			

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.

[16]



NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°33'53.08" (32.564746°)
LONGITUDE = 103°33'06.45" (103.551793°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°33'52.64" (32.564622°)
LONGITUDE = 103°33'04.69" (103.551303°)
STATE PLANE NAD 83 (N.M. EAST)
N: 570069.03' E: 782112.17'
STATE PLANE NAD 27 (N.M. EAST)
N: 570006.53' E: 740931.10'

NAD 83 (BHL/LTP)
LATITUDE = 32°33'05.87" (32.551631°)
LONGITUDE = 103°33'12.42" (103.553450°)
NAD 27 (BHL/LTP)
LATITUDE = 32°33'05.43" (32.551507°)
LONGITUDE = 103°33'10.66" (103.552961°)
STATE PLANE NAD 83 (N.M. EAST)
N: 565293.93' E: 781636.44'
STATE PLANE NAD 27 (N.M. EAST)
N: 565231.59' E: 740455.24'

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S89°41'01"W	510.06'

NOTE:
- Distances referenced on plat to section lines are perpendicular.
- Basis of Bearing is a Transverse Mercator Projection with a Central Meridian of W103°53'00"

● = SURFACE HOLE LOCATION
◇ = LANDING POINT/FIRST TAKE POINT
○ = BOTTOM HOLE LOCATION/ LAST TAKE POINT
▲ = SECTION CORNER LOCATED

1000' 500' 0' 1000'

SCALE

DRAWN BY: J.N. 03-20-19

[17] 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.

Signature 7-31-19 Date

Hope Knauls
Printed Name

hknauls@cimarex.com
E-mail Address

[18] 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.

March 13, 2019
Date of Survey

Signature and Seal of Professional Surveyor:

PAUL BUCHELE NEW MEXICO 23782 PROFESSIONAL SURVEYOR 03-20-19

Certificate Number:

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
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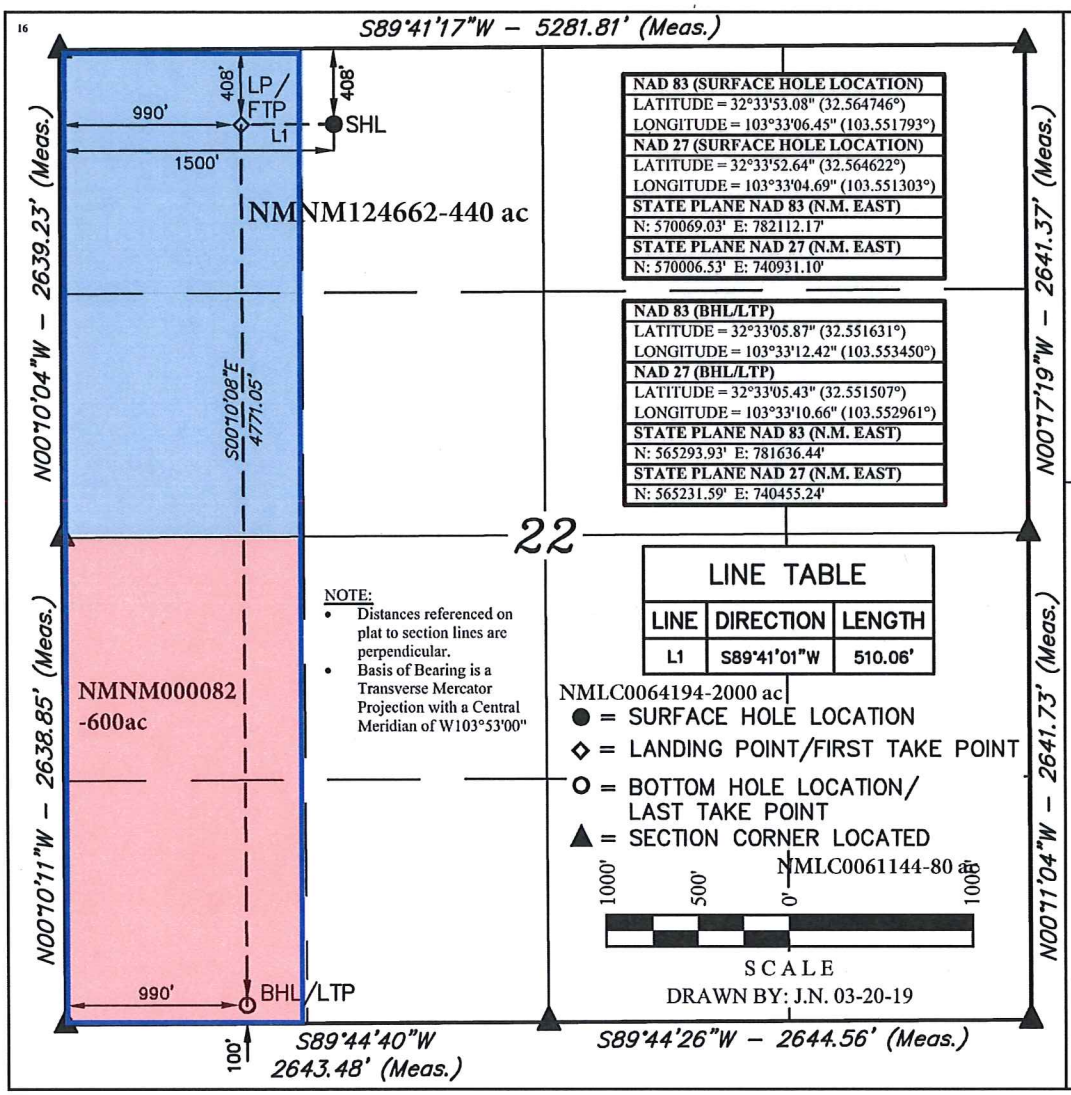

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7-31-19
Signature Date

Hope Knauls
Printed Name

hknauls@cimarex.com
E-mail Address

[18] 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.

March 13, 2019
Date of Survey
Signature and Seal of Professional Surveyor:

Certificate Number:

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Cimarex Energy Company**
LEASE NO.:	**NMNM124662**
WELL NAME & NO.:	Perry 22 Federal Com 29H
SURFACE HOLE FOOTAGE:	408'/N & 1500'/W
BOTTOM HOLE FOOTAGE	100'/S & 990'/W
LOCATION:	Section 22, T.20 S., R.34 E., NMPM
COUNTY:	Lea County, New Mexico

COA

H2S	(•) Yes	( ) No	
Potash	(•) None	( ) Secretary	( ) R-111-P
Cave/Karst Potential	(•) Low	( ) Medium	( ) High
Cave/Karst Potential	( ) Critical		
Variance	( ) None	(•) Flex Hose	( ) Other
Wellhead	( ) Conventional	(•) Multibowl	( ) Both
Other	[ ] 4 String Area	[ ] Capitan Reef	[ ] WIPP
Other	[x] Fluid Filled	[ ] Cement Squeeze	[ ] Pilot Hole
Special Requirements	[ ] Water Disposal	[x] COM	[ ] Unit

A. HYDROGEN SULFIDE

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

B. CASING

1. The **13-3/8 inch** surface casing shall be set at approximately **1,686 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

 Approval Date: 11/12/2021

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.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the **9-5/8 inch** intermediate casing and shall be set at approximately **5,541 feet** is:

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

3. The minimum required fill of cement behind the **7 inch** production casing is:

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

C. PRESSURE CONTROL

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

2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M) psi**.

3. 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 intermediate casing shoe shall be **3000 (3M)** psi.

a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
c. Manufacturer representative shall install the test plug for the initial BOP test.

d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

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

GENERAL REQUIREMENTS

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

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

☒ Eddy County
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

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

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

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

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

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

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

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

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

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

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

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

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

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

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

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

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

lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

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

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

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

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

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

YJ (05/14/2020)

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Cimarex Energy Co.
LEASE NO.:	NMNM124662
COUNTY:	Lea

Wells:

Well Pad 1:
Perry 22 Federal Com 15H
Surface Hole Location: 328' FNL & 1920' FEL, Section 22, T. 20 S, R 34 E.
Bottom Hole Location: 100' FSL & 1720' FEL, Section 22, T. 20 S, R 34 E.

Perry 22 Federal Com 16H
Surface Hole Location: 328' FNL & 1960' FEL, Section 22, T. 20 S, R 34 E.
Bottom Hole Location: 100' FSL & 2260' FEL, Section 22, T. 20 S, R 34 E.

Well Pad 2:
Perry 22 Federal Com 29H
Surface Hole Location: 408' FNL & 1500' FWL, Section 22, T. 20 S, R 34 E.
Bottom Hole Location: 100' FSL & 990' FWL, Section 22, T. 20 S, R 34 E.

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

Approval Date: 11/12/2021

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See information below discussing NAGPRA.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

SPECIAL REQUIREMENT(S)

Watershed:
The entire well pad(s) will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The topsoil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

BURIED/SURFACE LINE(S):
When crossing ephemeral drainages the pipeline(s) will be buried to a minimum depth of 48 inches from the top of pipe to ground level. Erosion control methods such as gabions and/or rock aprons should be placed on both up and downstream sides of the pipeline crossing. In addition, curled (weed free) wood/straw fiber wattles/logs and/or silt fences should be placed on the downstream side for sediment control during construction and maintained until soils and vegetation have stabilized. Water bars should be placed within the ROW to divert and dissipate surface runoff. A pipeline access road is not permitted to cross these ephemeral drainages. Traffic should be diverted to a preexisting route. Additional seeding may be required in floodplains and drainages to restore energy dissipating vegetation.

Prior to pipeline installation/construction a leak detection plan will be developed. The method(s) could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

ELECTRIC LINE(S):
Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion. A power pole should not be placed in drainages, playas, wetlands, riparian areas, or

floodplains and must span across the features at a distance away that would not promote further erosion.

TEMPORARY USE FRESH WATER FRAC LINE(S):

Once the temporary use exceeds the timeline of 180 days and/or with a 90 day extension status; further analysis will be required if the applicant pursues to turn the temporary ROW into a permanent ROW.

Range:

Cattleguards
Where a permanent cattlegaurd is approved, an appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations. A gate shall be constructed on one side of the cattleguard and fastened securely to H-braces.

Fence Requirement
Where entry granted across a fence line, the fence must be braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Livestock Watering Requirement
Structures that provide water to livestock, such as windmills, pipelines, drinking troughs, and earthen reservoirs, will be avoided by moving the proposed action.

Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

Lesser Prairie Chicken:
Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken:
Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

Timing Limitation Exceptions:
The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

Ground-level Abandoned Well Marker to avoid raptor perching:
Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

Potash:
Lessees must comply with the 2012Secretarial Potash Order. The Order is designed to manage the efficient development of oil, gas, and potash resources. Section 6 of the Order provides general provisions which must be followed to minimize conflict between the industries and ensure the safety of operations.

To minimize impacts to potash resources, the proposed well is confined within the boundaries of the established Perry Drill Island.

Dunes Sagebrush Lizard Trench Stipulation

- Pre-construction contact with a BLM wildlife biologist is required within 5 days before any ground disturbing activities associated with the project occurs.
- Successful completion of the BLM Trench Stipulation Workshop is required for a non-agency person to be approved as a monitor.
- Any trench left open for (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, an agency approved monitor shall walk the entire length of the open trench and remove all trapped vertebrates. The bottom surface of the trench will be disturbed a minimum of 2 inches in order to arouse any buried vertebrates. All vertebrates will be released a minimum of 100 yards from the trench.
- For trenches left open for eight (8) hours or more the following requirements apply:

    - Earthen escape ramps and/or structures (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench. Metal structures will not be authorized. Options will be discussed in detail at the required Trench Stipulation Workshop.
    - One approved monitor shall be required to survey up to three miles of trench between the hours of 11 AM-2 PM. A daily report (consolidate if there is more than one monitor) on the vertebrates found and removed from the trench shall be provided to the BLM (email/fax is acceptable) the following morning.
    - Prior to backfilling of the trench all structures used as escape ramps will be removed and the bottom surface of the trench will be disturbed a minimum of 2 inches in order to arouse any buried vertebrates. All vertebrates will be released a minimum of 100 yards from the trench.

- This stipulation shall apply to the entire length of the project in the DSL habitat polygon regardless of land ownership or CCA/CCAA enrollment status.
- A project closeout will be required within three business days of the completion of the project.

V. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

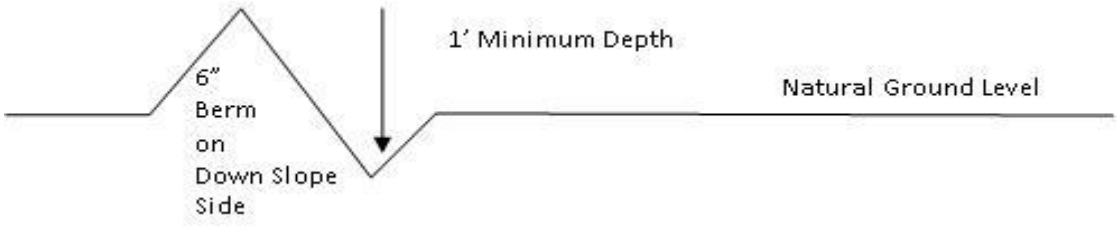
Ditching
Ditching shall be required on both sides of the road.

Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage
Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be

determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Cattle guards
An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

Fence Requirement
Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access
Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

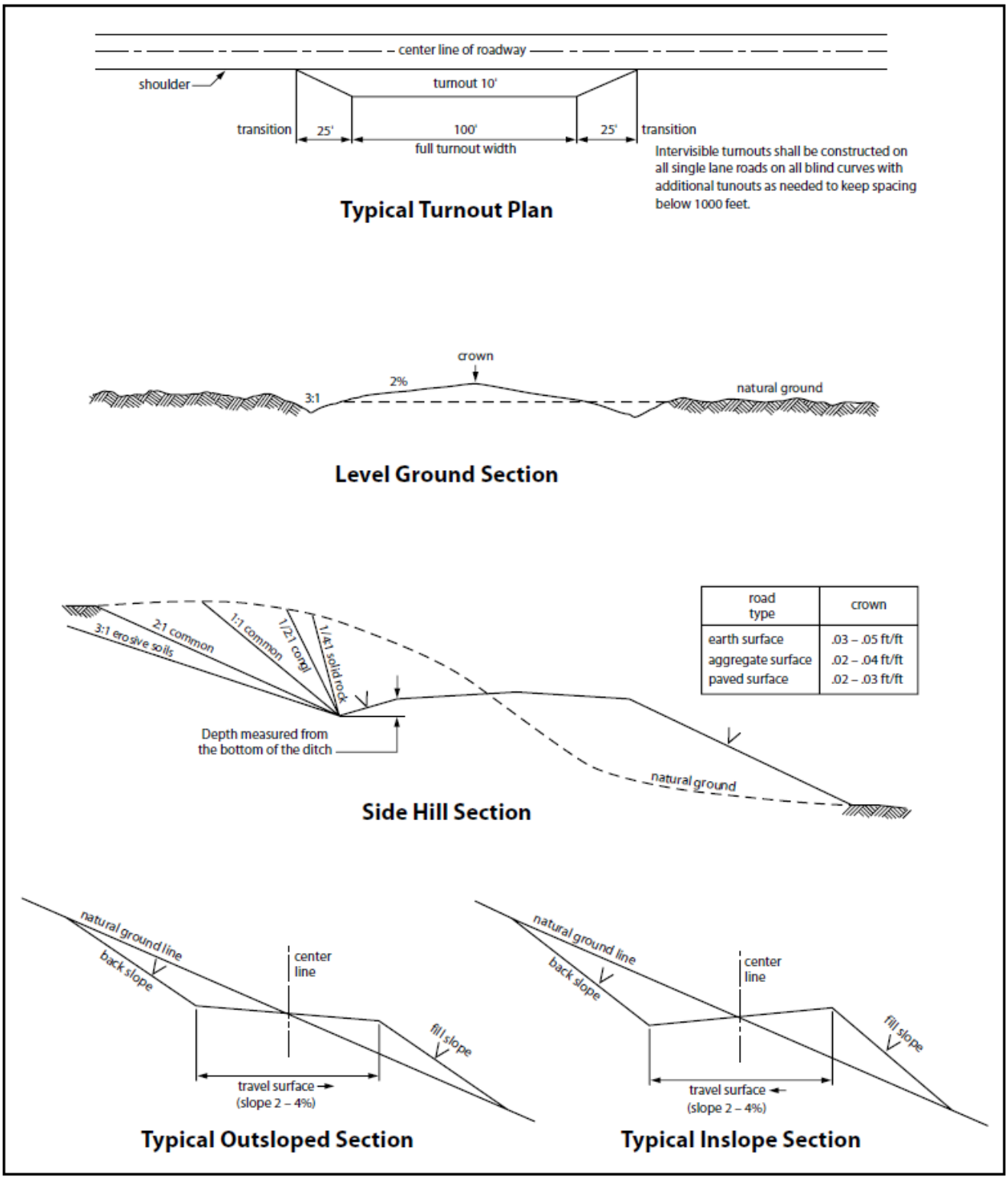


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

Approval Date: 11/12/2021

VI. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)
Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening
The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures
The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone*.) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures
Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. PIPELINES

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Special restoration stipulations or realignment may be required at such intersections, if any.
- A leak detection plan **will be submitted to the BLM Carlsbad Field Office for approval** prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating values and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

CONDITIONS OF APPROVAL FOR TEMPORARY FRESHWATER PIPELINES

Subject to the terms and conditions which are shown below, is hereby approved:

- Surface pipelines 6.5 inch to 16 inch OD may be in place for no more than 180 days not including installation. In accordance with your request, this 180 day period is requested to begin 1/14/2021

- Surface pipeline will be in operation for no more than 180 days; a maximum of seven (7) days authorized for installation of the lay flat poly line prior to operation.

- Surface pipelines larger than 6.5 inch to-16-inch OD may be in place for no more than 180 days from date of authorization; 5/1/2018, unless a SF-299 is submitted within 30 days of this decision expiring requesting a long term buried fresh water pipeline, and processing of the SF-299 is not yet complete at the end of 30 days, in which case the line(s) may be left in place until a decision is made on the SF-299.

- All lines will be removed when no longer in use.

- Width of authorized use is 15-feet.

• No blading and/or earthwork will be allowed in order to place the pipeline except burying the line under crossings.

• The pipeline will be buried under all intersecting routes, including BLM-designated trails and access roads into caliche pits, rancher watering stations, etc. All such buried crossings will be removed when the pipeline is removed, unless otherwise approved by the Authorized Officer. Pipelines larger than 6.5-inch OD may utilize other crossing methodologies (but any fill placed over pipeline must be brought in from off-site).

• Pipeline crossings of fences should be avoided where possible. If a crossing is necessary, contact fence owner [usually the grazing permittee] prior to installation, and install by threading pipeline under the lowest wire of the fence; pipeline should never cross on top of any fence wires.

• The pipeline shall stay within 10 feet maximum of existing disturbance (e.g. lease road, pipeline right-of-way etc.); placement should be within 5 feet whenever possible.

• Placement of pumps or other high-maintenance equipment shall be installed along maintained lease roads.
• Gas or diesel pumps, generators, or compressors shall be placed on visquen matting [or 20 mil plastic] and in a containment structure capable of containing all potentially released fuels. Containments must be protected against wildlife deaths in accordance with oilfield best management practices.

• Due to potential damage to natural resources, no work is allowed during inclement weather.

• Pipeline will be marked with your company's name and contact number, at beginning and ending points, at all public-road crossings, and at intervals not exceeding every 0.5 mile, unless otherwise approved by the Authorized Officer.

• Should unforeseen damage occur to resources, BLM will require reclamation of the impacted land.
• No water may be released into the environment without BLM consent.

• Placement of surface pipelines along or under public roadways may require permits from the road authority.

• This authorization is limited to lands under BLM jurisdiction. If your proposed pipeline crosses lands under private ownership or under other agency jurisdiction, you are responsible for obtaining all necessary permits and approvals from those parties.

BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of **36** inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be **30** feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed **20** feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation*.)

- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed **30** feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)

- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately ___6___ inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

( ) seed mixture 1	( ) seed mixture 3
( ) seed mixture 2	( ) seed mixture 4
(X) seed mixture 2/LPC	( ) Aplomado Falcon Mixture

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates “Standard Environmental Colors” – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder’s name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the

cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 17 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

17. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

18. Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

19. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

20. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps,

ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

Dunes Sagebrush Lizard Trench Stipulation

- Pre-construction contact with a BLM wildlife biologist is required within 5 days before any ground disturbing activities associated with the project occurs.
- Successful completion of the BLM Trench Stipulation Workshop is required for a non-agency person to be approved as a monitor.
- Any trench left open for (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, an agency approved monitor shall walk the entire length of the open trench and remove all trapped vertebrates. The bottom surface of the trench will be disturbed a minimum of 2 inches in order to arouse any buried vertebrates. All vertebrates will be released a minimum of 100 yards from the trench.
- For trenches left open for eight (8) hours or more the following requirements apply:

    - Earthen escape ramps and/or structures (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench. Metal structures will not be authorized. Options will be discussed in detail at the required Trench Stipulation Workshop.
    - One approved monitor shall be required to survey up to three miles of trench between the hours of 11 AM-2 PM. A daily report (consolidate if there is more than one monitor) on the vertebrates found and removed from the trench shall be provided to the BLM (email/fax is acceptable) the following morning.
    - Prior to backfilling of the trench all structures used as escape ramps will be removed and the bottom surface of the trench will be disturbed a minimum of 2 inches in order to arouse any buried vertebrates. All vertebrates will be released a minimum of 100 yards from the trench.

- This stipulation shall apply to the entire length of the project in the DSL habitat polygon regardless of land ownership or CCA/CCAA enrollment status.
- A project closeout will be required within three business days of the completion of the project.

C. ELECTRIC LINES

- Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to

runoff or possible leaks and spills from entering karst systems. Larger powerlines will adjust their pole spacing to avoid cave and karst features.

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction.
- No further construction will be done until clearance has been issued by the Authorized Officer.
- Special restoration stipulations or realignment may be required.

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall

be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

6. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 11 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

11. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting,

excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

12. Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

13. Special Stipulations:
For reclamation remove poles, lines, transformer, etc. and dispose of properly.
Fill in any holes from the poles removed.

VII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

VIII. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Approval Date: 11/12/2021

Seed Mixture for LPC Sand/Shinnery Sites

Holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed shall be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed shall be either certified or registered seed. The seed container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. Seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

Approval Date: 11/12/2021

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

Operator Certification Data Report
12/07/2021

Operator Certification

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:** 08/05/2019

Title: Regulatory Analyst

Street Address: 600 N MARIENFELD STE 600

City: MIDLAND **State:** TX **Zip:** 79701

Phone: (432)620-1909

Email address: acrawford@cimarex.com

Field Representative

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

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

Application Data Report
12/07/2021

APD ID: 10400042332
Submission Date: 08/05/2019
Operator Name: CIMAREX ENERGY COMPANY
Well Name: PERRY 22 FEDERAL COM
Well Number: 29H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400042332
Tie to previous NOS? Y
Submission Date: 08/05/2019
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: NMNM124662
Lease Acres:
Surface access agreement in place?
Allotted?
Reservation:
Agreement in place? NO
Federal or Indian agreement:
Agreement number:
Agreement name:
Keep application confidential? YES
Permitting Agent? NO
APD Operator: CIMAREX ENERGY COMPANY
Operator letter of designation:

Operator Info

Operator Organization Name: CIMAREX ENERGY COMPANY
Operator Address: 600 N MARIENFELD STREET ST SUITE 600
Zip: 79701
Operator PO Box:
Operator City: MIDLAND
State: TX
Operator Phone: (432)571-7800
Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan?
Master Development Plan name:
Well in Master SUPO?
Master SUPO name:
Well in Master Drilling Plan?
Master Drilling Plan name:
Well Name: PERRY 22 FEDERAL COM
Well Number: 29H
Well API Number:
Field/Pool or Exploratory? Field and Pool
Field Name: WC 015 G 06 S242630
Pool Name: LEA BONE SPRING SOUTH
Is the proposed well in an area containing other mineral resources? USEABLE WATER,POTASH

Operator Name: CIMAREX ENERGY COMPANY

Well Name: PERRY 22 FEDERAL COM **Well Number:** 29H

Is the proposed well in an area containing other mineral resources? USEABLE WATER,POTASH

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** NO **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** PERRY 22 FED COM **Number:** E2W2 PAD

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: EXPLORATORY (WILDCAT)

Describe sub-type:

Distance to town: 26.4 Miles **Distance to nearest well:** 0 FT **Distance to lease line:** 400 FT

Reservoir well spacing assigned acres Measurement: 160 Acres

Well plat: Perry_22_Fed_Com_29H_C102._BLM_Lease_20190805160212.pdf

Perry_22_Fed_Com_29H_C102_20190805160213.pdf

Well work start Date: 12/02/2019 **Duration:** 30 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: 23782 **Reference Datum:**

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 lease?
SHL Leg #1	408	FNL	1500	FWL	20S	34E	22	Aliquot NENW	32.564746	-103.551793	LEA	NEW MEXICO	FIRST PRIN	F	NMNM 124662	3646	0	0	
KOP Leg #1	408	FNL	989	FWL	20S	34E	22	Aliquot NWNW	32.564742	-103.553453	LEA	NEW MEXICO	FIRST PRIN	F	NMNM 124662	-6846	10522	10492	

Operator Name: CIMAREX ENERGY COMPANY

Well Name: PERRY 22 FEDERAL COM **Well Number:** 29H

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 lease?
PPP Leg #1-1	408	FNL	989	FWL	20S	34E	20	Aliquot NWNW	32.564742	-103.553453	LEA	NEW MEXICO	FIRST PRIN	F	NMNM 124662	-6846	10522	10492	
EXIT Leg #1	2639	FSL	989	FWL	20S	34E	22	Aliquot NWSW	32.558608	-103.55345	LEA	NEW MEXICO	FIRST PRIN	F	NMNM 082	-7354	13026	11000	
BHL Leg #1	100	FSL	990	FWL	20S	34E	22	Aliquot SWSW	32.551631	-103.55345	LEA	NEW MEXICO	FIRST PRIN	F	NMNM 082	-7399	15566	11045	

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

Drilling Plan Data Report
12/07/2021

APD ID: 10400042332
Submission Date: 08/05/2019
Operator Name: CIMAREX ENERGY COMPANY
Well Name: PERRY 22 FEDERAL COM
Well Number: 29H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

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Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
506866	RUSTLER	3646	1636	1636		NONE	N
506867	TOP SALT	1822	1824	1824		NONE	N
506868	BASE OF SALT	1498	2148	2148		NONE	N
506869	YATES	-8	3654	3654		NONE	N
506870	CAPITAN REEF	-937	4583	4583		NONE	N
506871	DELAWARE SAND	-1915	5561	5561		NONE	N
506872	BRUSHY CANYON	-4461	8107	8107		NATURAL GAS, OIL	N
506873	BONE SPRINGS	-4744	8390	8390		NATURAL GAS, OIL	N
506874	BONE SPRING 1ST	-5911	9557	9557		NATURAL GAS, OIL	N
506875	BONE SPRING 2ND	-6429	10075	10075		NATURAL GAS, OIL	N
506876	BONE SPRING 3RD	-7324	10970	10970		NATURAL GAS, OIL	Y
506881	WOLFCAMP	-7359	11005	11005		NATURAL GAS, OIL	N

Section 2 - Blowout Prevention

Pressure Rating (PSI): 2M
Rating Depth: 5541

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.

Operator Name: CIMAREX ENERGY COMPANY

Well Name: PERRY 22 FEDERAL COM **Well Number:** 29H

Testing Procedure: 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 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 50% 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 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 3000 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:

Perry_22_Fed_Com_29H_Choke_2M3M_20190801142752.pdf

BOP Diagram Attachment:

Perry_22_Fed_Com_29H_BOP_2M_20190801142809.pdf

Pressure Rating (PSI): 3M **Rating Depth:** 15566

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 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 50% 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 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 3000 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:

Perry_22_Fed_Com_29H_Choke_2M3M_20190801143036.pdf

BOP Diagram Attachment:

Perry_22_Fed_Com_29H_BOP_3M_20190801143143.pdf

Operator Name: CIMAREX ENERGY COMPANY

Well Name: PERRY 22 FEDERAL COM **Well Number:** 29H

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	1686	0	1686			1686	J-55	54.5	BUTT	1.46	3.55	BUOY	9.28	BUOY	9.28
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5541	0	5541			5541	J-55	40	LT&C	1.32	1.34	BUOY	2.35	BUOY	2.35
3	PRODUCTION	8.75	7.0	NEW	API	N	0	10522	0	10522			10522	L-80	29	LT&C	1.43	1.66	BUOY	3.13	BUOY	3.13
4	PRODUCTION	8.75	5.5	NEW	API	N	10522	15566	10522	11045			5044	L-80	17	BUTT	1.2	1.5	BUOY	44.65	BUOY	44.65

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Perry_22_Fed_Com_29H_Casing_Assumptions_20190801143546.pdf

Operator Name: CIMAREX ENERGY COMPANY

Well Name: PERRY 22 FEDERAL COM **Well Number:** 29H

Casing Attachments

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Perry_22_Fed_Com_29H_Casing_Assumptions_20190801143753.pdf

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Perry_22_Fed_Com_29H_Casing_Assumptions_20190801144002.pdf

Casing ID: 4 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Perry_22_Fed_Com_29H_Casing_Assumptions_20190801144504.pdf

Section 4 - Cement

Operator Name: CIMAREX ENERGY COMPANY

Well Name: PERRY 22 FEDERAL COM **Well Number:** 29H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1686	817	1.72	13.5	1404	50	CLASS C	BENTONITE
SURFACE	Tail		0	1686	219	1.34	14.8	293	25	CLASS C	LCM
INTERMEDIATE	Lead	3450	0	3450	767	1.88	12.9	1441	50	35:65 (POZ C)	SALT, BENTONITE
INTERMEDIATE	Lead		3450	5541	273	1.88	12.9	513	50	35;65 POZ C	SALT, BENTONITE
INTERMEDIATE	Tail		3450	5541	292	1.34	14.8	391	25	CLASS C	LCM
PRODUCTION	Lead		0	15566	552	3.64	10.3	2009	30	TUNED LIGHT	LCM
PRODUCTION	Tail		0	15566	1268	1.3	14.2	1648	25	50:50 (POZ:H)	SALT, BENTONITE, FLUID LOSS, DISPERSANT, SMS
PRODUCTION	Lead		0	15566	552	3.64	12.9	2009	30	TUNED LIGHT	LCM
PRODUCTION	Tail		0	15566	1268	1.3	14.2	1648	25	50:50 (POZH)	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: PERRY 22 FEDERAL COM **Well Number:** 29H

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
1686	1686	SPUD MUD	8.3	8.8							
1686	5541	SALT SATURATED	9.7	10.2							
5541	15566	OTHER : CUT BRINE OR OBM	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:

CNL,DS,GR

Coring operation description for the well:

N/A

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5169 **Anticipated Surface Pressure:** 2739.1

Anticipated Bottom Hole Temperature(F): 179

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

Describe:

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

Contingency Plans geoharzards 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 attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Perry_22_Fed_Com_29H_H2S_Plan_20190801161252.pdf

Operator Name: CIMAREX ENERGY COMPANY

Well Name: PERRY 22 FEDERAL COM **Well Number:** 29H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Perry_22_Fed_Com_29H_AC_Report_20190801161319.pdf
Perry_22_Fed_Com_29H_Directional_Prelim_20200204100018.pdf

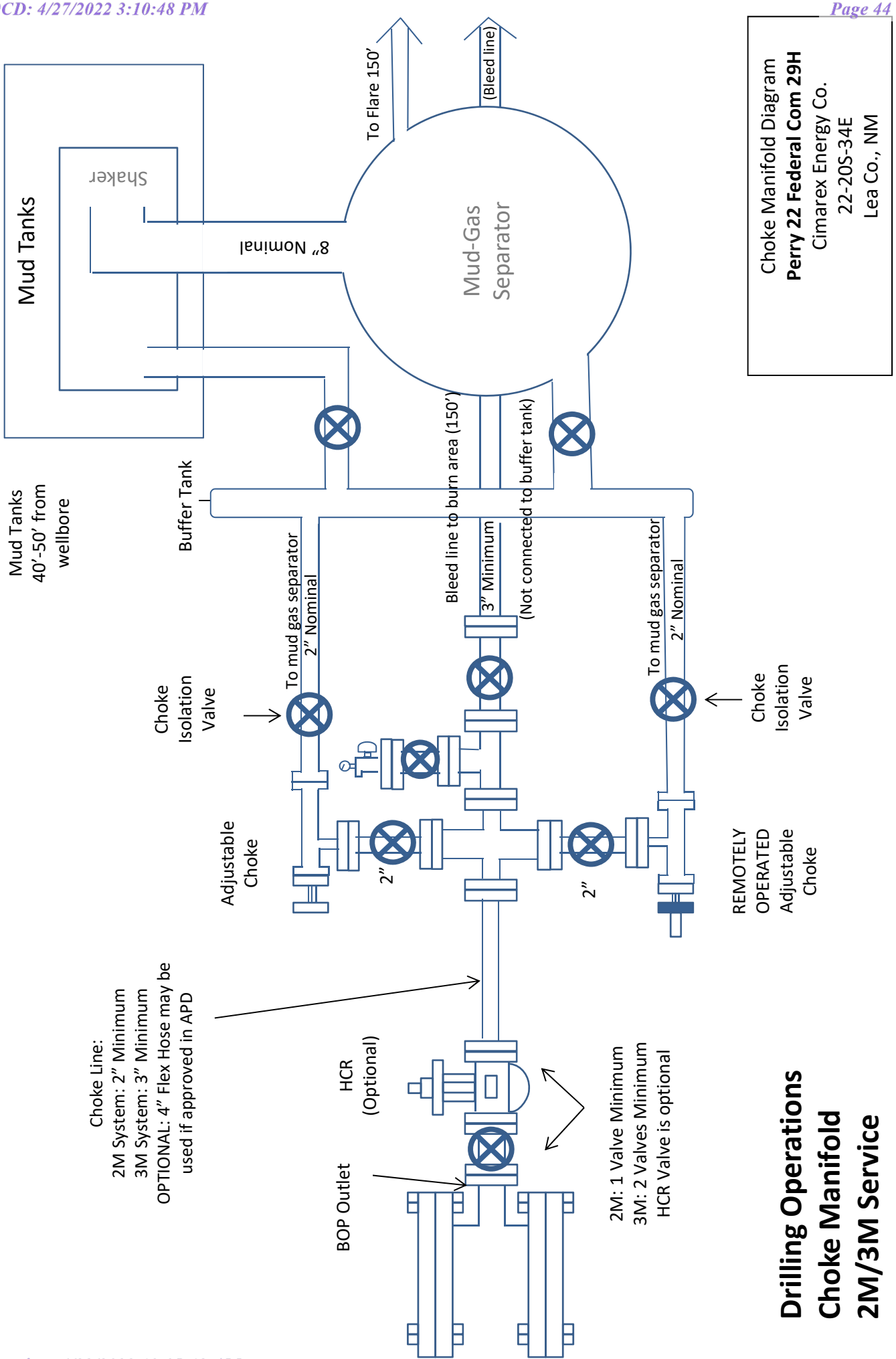
Other proposed operations facets description:

Other proposed operations facets attachment:

Perry_22_Fed_Com_29H_Flex_Hose_20190801161507.pdf
Perry_22_Fed_Com_29H_Gas_Capture_Plan_20190801161508.pdf
Perry_22_Fed_Com_29H_Drilling_Plan_20200409122732.pdf

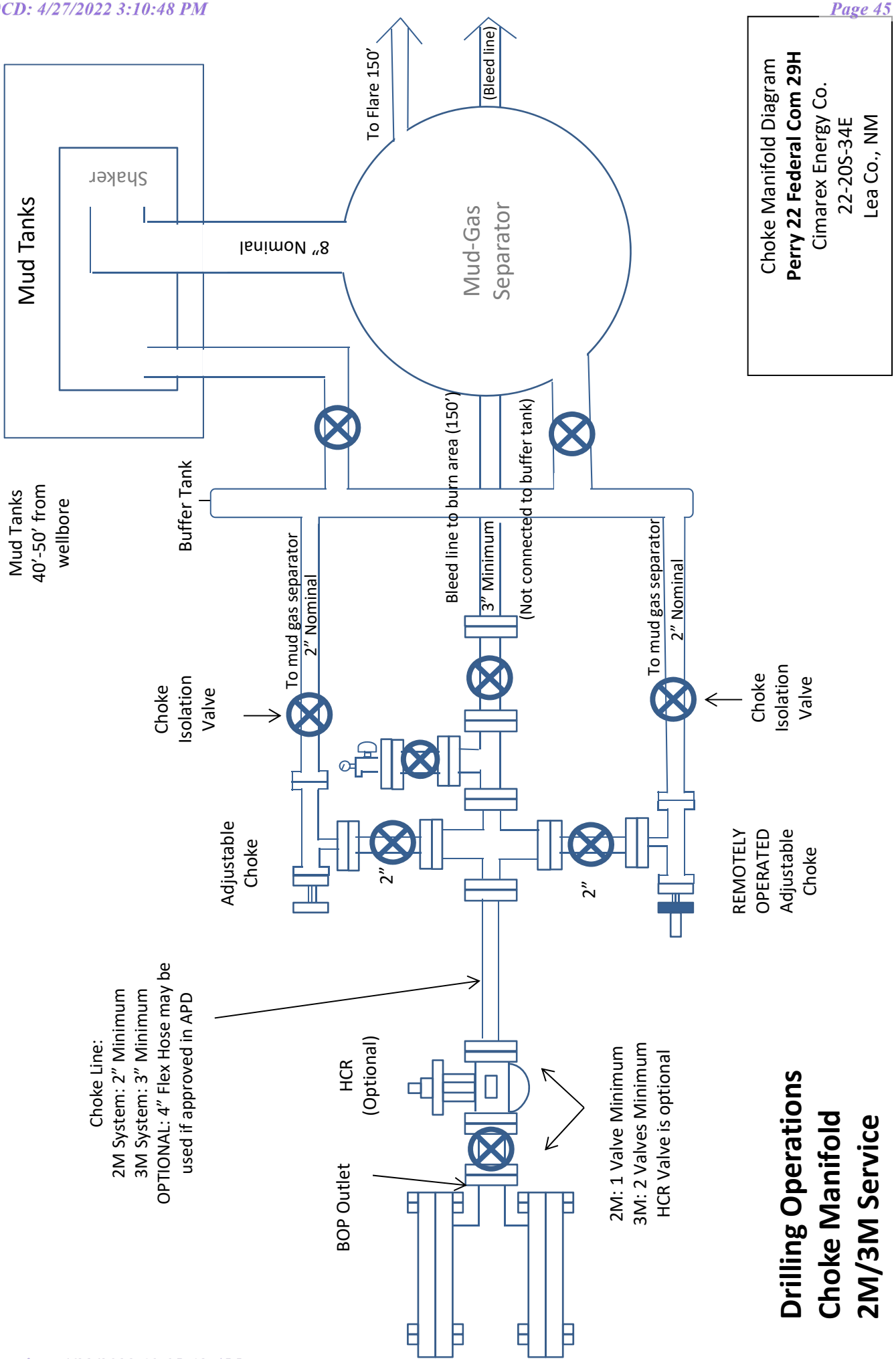
Other Variance attachment:

Perry_22_Fed_Com_29H_Multibowl_Wellhead_20200225141313.pdf

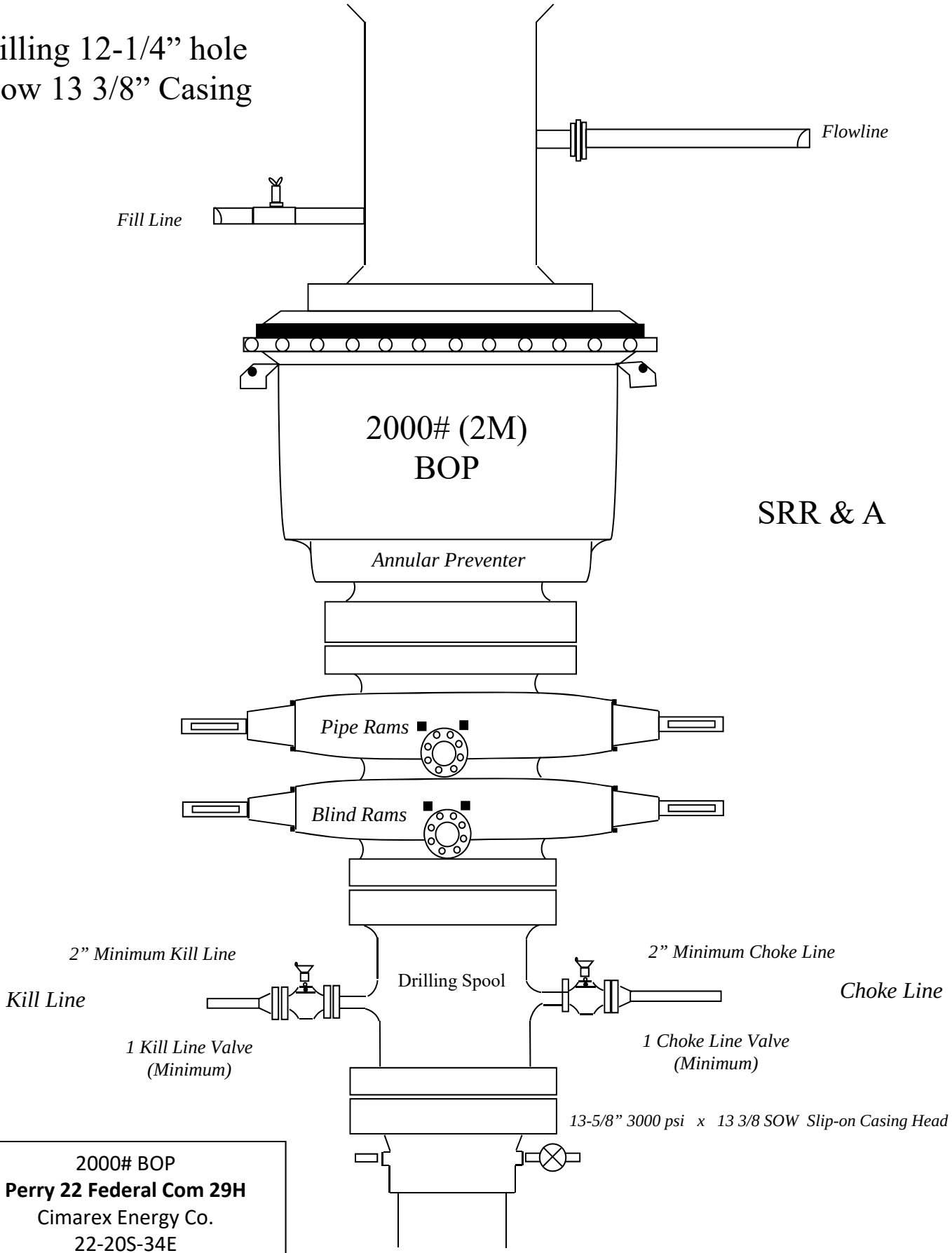


Choke Manifold Diagram
Perry 22 Federal Com 29H
Cimarex Energy Co.
22-20S-34E
Lea Co., NM

Drilling Operations
Choke Manifold
2M/3M Service

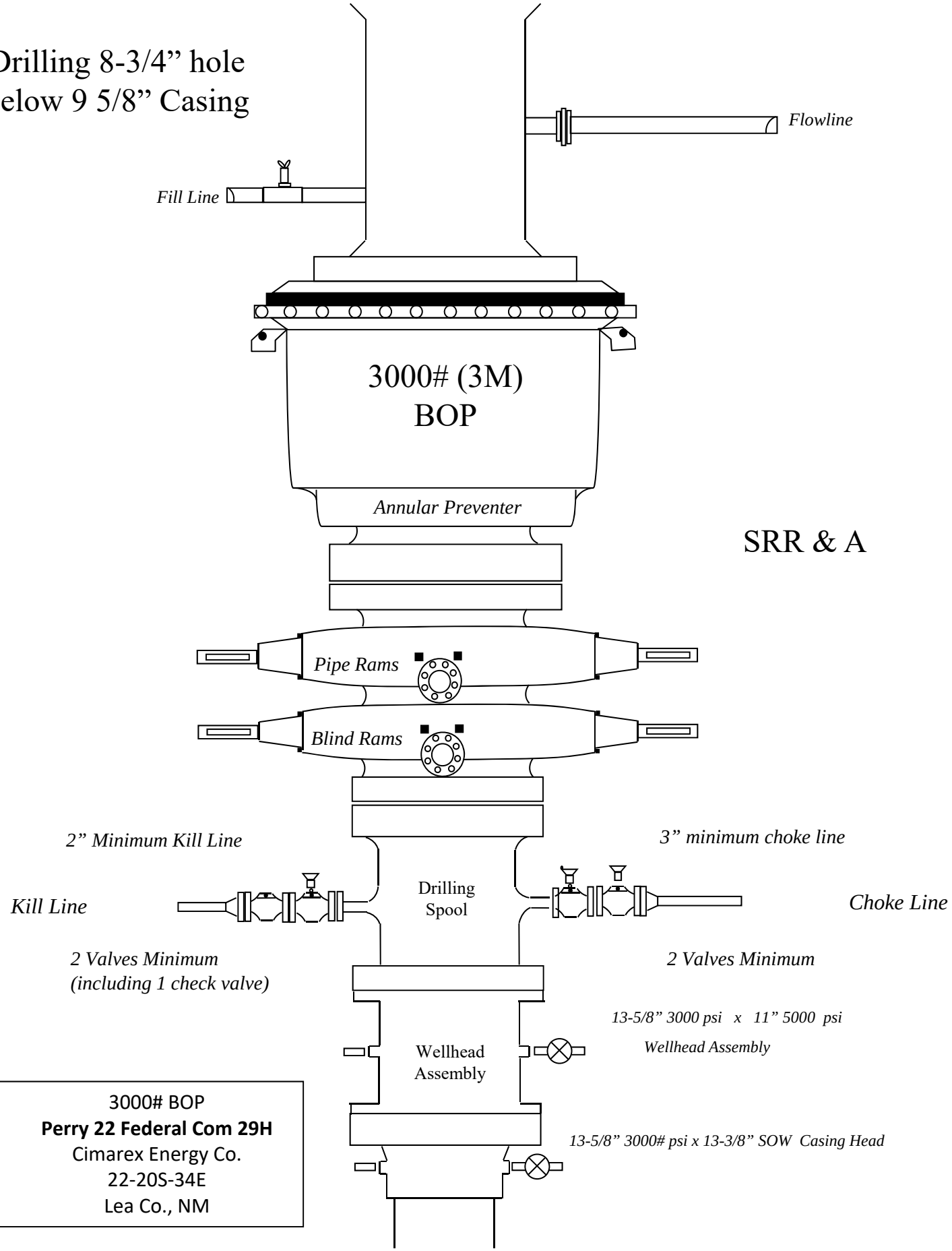

Mud Tanks
Shaker
8" Nominal
Mud-Gas Separator
To Flare 150'
(Bleed line)
Choke Manifold Diagram
Perry 22 Federal Com 29H
Cimarex Energy Co.
22-20S-34E
Lea Co., NM
Mud Tanks 40'-50' from wellbore
Buffer Tank
To mud gas separator 2" Nominal
Bleed line to burn area (150')
3" Minimum
(Not connected to buffer tank)
To mud gas separator 2" Nominal
Choke Isolation Valve
Choke Isolation Valve
Adjustable Choke
2"
2"
REMOTELY OPERATED Adjustable Choke
Choke Line:
2M System: 2" Minimum
3M System: 3" Minimum
OPTIONAL: 4" Flex Hose may be used if approved in APD
HCR (Optional)
BOP Outlet
2M: 1 Valve Minimum
3M: 2 Valves Minimum
HCR Valve is optional
Drilling Operations
Choke Manifold
2M/3M Service

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



2000# BOP
Perry 22 Federal Com 29H
Cimarex Energy Co.
22-20S-34E
Lea Co., NM

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



SRR & A

3000# BOP
Perry 22 Federal Com 29H
Cimarex Energy Co.
22-20S-34E
Lea Co., NM

Perry 22 Federal Com 29H

Casing Assumptions

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	1686	1686	13-3/8"	54.50	J-55	BT&C	1.46	3.55	9.28
12 1/4	0	5541	5541	9-5/8"	40.00	J-55	LT&C	1.32	1.34	2.35
8 3/4	0	10522	10522	7"	29.00	L-80	LT&C	1.43	1.66	3.13
8 3/4	10522	15566	11045	5-1/2"	17.00	L-80	BT&C	1.22	1.50	44.65
					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

Perry 22 Federal Com 29H

Casing Assumptions

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	1686	1686	13-3/8"	54.50	J-55	BT&C	1.46	3.55	9.28
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8 3/4	0	10522	10522	7"	29.00	L-80	LT&C	1.43	1.66	3.13
8 3/4	10522	15566	11045	5-1/2"	17.00	L-80	BT&C	1.22	1.50	44.65
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Perry 22 Federal Com 29H

Casing Assumptions

2. Casing Program

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					BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet

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Perry 22 Federal Com 29H

Casing Assumptions

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	1686	1686	13-3/8"	54.50	J-55	BT&C	1.46	3.55	9.28
12 1/4	0	5541	5541	9-5/8"	40.00	J-55	LT&C	1.32	1.34	2.35
8 3/4	0	10522	10522	7"	29.00	L-80	LT&C	1.43	1.66	3.13
8 3/4	10522	15566	11045	5-1/2"	17.00	L-80	BT&C	1.22	1.50	44.65
					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

Hydrogen Sulfide Drilling Operations Plan

Perry 22 Federal Com 29H

Cimarex Energy Co.

UL: C, Sec. 22, 20S, 34E

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_2S
B. Physical effects and hazards
C. Principal and operation of H2S 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_2S Detection and Alarm Systems:

A. H2S sensors/detectors to be located on the drilling rig floor, in the base of the sub structure/cellar area, on the mud pits in the shale shaker area. Additional H2S detectors may play 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_2S present in dangerous concentration). Only H2S 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 r cores are planned at this time.

8 Drilling contractor supervisor will be required to be familiar with the effects H_2S has on tubular goods and other mechanical equipment.

9 If H2S 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 H2S scavengers if necessary.

H_2S Contingency Plan
Perry 22 Federal Com 29H
Cimarex Energy Co.
UL: C, Sec. 22, 20S, 34E
Lea Co., NM

Emergency Procedures

In the event of a release of gas containing H_2S, 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_2S 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_2S, 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_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas.

Characteristics of H_2S and SO_2

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_2S Contingency Plan Emergency Contact
Perry 22 Federal Com 29H
Cimarex Energy Co.
UL: C, Sec. 22, 20S, 34E
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	
Fire Department		**575-746-2701**	
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	
Fire Department		**575-887-3798**	
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	

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		

Schlumberger

CIMAREX

Cimarex Perry 22 Federal Com 29H Rev0 RM 28May19 Anti-Collision Summary Report

Analysis Date-24hr Time:	May 28, 2019 - 15:54	**Analysis Method:**	3D Least Distance
Client:	Cimarex Energy	**Reference Trajectory:**	Cimarex Perry 22 Federal Com 29H Rev0 RM 28May19 (Non-Def Plan)
Field:	NM Lea County (NAD 83)	**Depth Interval:**	Every 10.00 Measured Depth (ft)
Structure:	Cimarex Perry 22 Federal Com 29H	**Rule Set:**	NAL Procedure: D&M AntiCollision Standard S002
Slot:	New Slot	**Min Pts:**	All local minima indicated.
Well:	Perry 22 Federal Com 29H	**Version / Patch:**	2.10.760.0
Borehole:	Perry 22 Federal Com 29H	**Database \ Project:**	US1153APP452.dir.slb.com\drilling-NM Lea County 2.10
Scan MD Range:	0.00ft ~ 15566.36ft		

Trajectory Error Model: ISCWSA0 3-D 95.000% Confidence 2.7955 sigma, for subject well. For offset wells, error model version is specified with each well respectively.

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	Sep.	Controlling	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)	Dev. (ft)	Fact.	Rule	MD (ft)	TVD (ft)	Alert	Minor	Major		
Cimarex Perry-Federal 1 (Offset) Plugged Blind 0ft-3832ft (Def Survey)													Warning Alert
	3321.25	32.81	3318.75	3288.44	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	3321.20	32.81	3317.94	3288.39	4399.64	MAS = 10.00 (m)	26.00	26.00				WRP	
	3321.20	704.16	2850.92	2617.03	7.09	OSF1.50	2300.00	2300.00				MinPt-CtCt	
	3345.77	1007.31	2673.40	2338.46	4.99	OSF1.50	3270.00	3264.59	OSF<5.00			Enter Alert	
	3365.63	1191.39	2570.53	2174.23	4.24	OSF1.50	3860.00	3850.26				MinPts	
	3365.99	1191.56	2570.78	2174.43	4.24	OSF1.50	3870.00	3860.19				MinPt-O-SF	
	3681.57	1106.37	2943.15	2575.19	5.00	OSF1.50	5240.00	5220.15	OSF>5.00			Exit Alert	
	7293.43	237.06	7134.55	7056.37	46.63	OSF1.50	13580.00	11010.37				MinPt-O-ADP	
	7287.38	230.28	7133.02	7057.10	47.97	OSF1.50	13800.00	11014.21				MINPT-O-EOU	
	7286.81	229.06	7133.27	7057.75	48.23	OSF1.50	13890.00	11015.77				MinPt-CtCt	
	7477.03	341.83	7248.31	7135.20	33.04	OSF1.50	15566.36	11045.00				MinPt-O-SF	
Cimarex Energy Perry 22 Federal 4H MWD Final(Surcon corrected) (Def Survey)													Pass
	1142.23	32.81	1139.73	1109.42	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1142.23	32.81	1139.73	1109.42	422715.18	MAS = 10.00 (m)	26.00	26.00				WRP	
	1139.41	32.81	1132.16	1106.60	239.36	MAS = 10.00 (m)	1090.00	1090.00				MinPts	
	1140.86	32.81	1131.34	1108.05	162.28	MAS = 10.00 (m)	1550.00	1550.00				MINPT-O-EOU	
	678.03	36.23	652.86	641.80	30.52	OSF1.50	6620.00	6590.19				MinPt-O-SF	
	651.51	38.45	624.85	613.07	27.51	OSF1.50	7800.00	7769.85				MinPt-CtCt	
	651.56	38.63	624.78	612.93	27.37	OSF1.50	7840.00	7809.85				MINPT-O-EOU	
	651.64	38.72	624.79	612.92	27.31	OSF1.50	7860.00	7829.85				MinPt-O-ADP	
	660.44	42.71	630.95	617.74	24.88	OSF1.50	8740.00	8709.85				MinPt-CtCt	
	660.53	42.94	630.88	617.59	24.73	OSF1.50	8790.00	8759.85				MINPT-O-EOU	
	660.61	43.04	630.89	617.57	24.68	OSF1.50	8810.00	8779.85				MinPt-O-ADP	
	660.89	44.01	630.52	616.88	24.10	OSF1.50	9030.00	8999.85				MinPt-CtCt	
	660.93	44.16	630.47	616.77	24.02	OSF1.50	9060.00	9029.85				MINPT-O-EOU	
	661.01	44.26	630.48	616.75	23.96	OSF1.50	9080.00	9049.85				MinPt-O-ADP	
	689.78	51.66	654.34	638.12	21.17	OSF1.50	10522.76	10492.61				MinPt-O-SF	
	691.19	51.67	655.75	639.52	21.21	OSF1.50	10600.00	10569.51				MinPt-O-SF	
	601.02	49.31	567.09	551.70	19.43	OSF1.50	11230.00	10968.16				MinPt-O-SF	
	600.92	49.30	567.00	551.62	19.43	OSF1.50	11240.00	10968.95				MinPts	
	600.91	49.28	567.00	551.63	19.43	OSF1.50	11250.00	10969.53				MinPt-CtCt	
	629.29	76.57	577.24	552.71	12.77	OSF1.50	12610.00	10993.46				MinPt-CtCt	
	624.20	109.66	550.09	514.54	8.74	OSF1.50	13600.00	11010.72				MinPt-CtCt	
	624.67	111.19	549.53	513.48	8.62	OSF1.50	13650.00	11011.59				MINPT-O-EOU	
	625.41	112.09	549.68	513.32	8.56	OSF1.50	13680.00	11012.11				MinPt-O-ADP	
	635.94	129.98	548.29	505.96	7.48	OSF1.50	14230.00	11021.70				MinPt-CtCt	
	636.77	132.43	547.49	504.34	7.34	OSF1.50	14310.00	11023.10				MINPT-O-EOU	
	649.80	167.65	537.07	482.15	5.89	OSF1.50	15350.00	11041.23				MinPts	
	650.92	168.19	537.83	482.73	5.88	OSF1.50	15380.00	11041.75				MinPt-O-SF	
	687.80	164.81	577.00	522.99	6.34	OSF1.50	15566.36	11045.00				TD	
Cimarex Perry 22 Federal Com 16H Rev0 RM 28May19 (Non-Def Plan)													Pass
	1824.11	32.81	1821.61	1791.30	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1824.11	32.81	1821.59	1791.30	117124.56	MAS = 10.00 (m)	26.00	26.00				WRP	
	1272.55	64.94	1228.10	1207.62	30.97	OSF1.50	8990.00	8959.85				MinPt-O-SF	
	1272.50	73.11	1222.60	1199.39	27.34	OSF1.50	10530.00	10499.85				MinPts	
	1272.34	72.96	1222.54	1199.38	27.39	OSF1.50	10600.00	10569.51				MinPts	
	1270.05	70.67	1221.78	1199.38	28.28	OSF1.50	11050.00	10919.05				MinPt-O-ADP	
	1269.97	70.58	1221.75	1199.38	28.31	OSF1.50	11080.00	10931.69				MinPt-O-ADP	
	1269.90	70.51	1221.73	1199.39	28.34	OSF1.50	11110.00	10942.60				MinPt-O-ADP	
	1269.86	70.47	1221.73	1199.40	28.36	OSF1.50	11130.00	10948.89				MINPT-O-EOU	
	1269.82	70.35	1221.76	1199.47	28.41	OSF1.50	11190.00	10962.92				MinPt-CtCt	
	1269.84	161.15	1161.25	1108.70	12.05	OSF1.50	15566.36	11045.00				MinPts	
Cimarex Perry 22 Federal Com 15H Rev0 RM 28May19 (Non-Def Plan)													Pass
	1864.06	32.81	1861.56	1831.25	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1864.06	32.81	1861.55	1831.25	114774.62	MAS = 10.00 (m)	26.00	26.00				WRP	
	1864.06	32.81	1847.48	1831.25	132.21	MAS = 10.00 (m)	2300.00	2300.00				MinPts	
	1864.08	32.81	1847.45	1831.27	131.76	MAS = 10.00 (m)	2310.00	2310.00				MINPT-O-EOU	
	1878.78	32.81	1861.56	1845.97	127.46	MAS = 10.00 (m)	2560.00	2559.64				MinPt-O-SF	
	2330.84	33.03	2307.99	2297.81	114.41	OSF1.50	4660.00	4644.40				MinPt-O-SF	
	2565.75	47.60	2533.19	2518.16	85.26	OSF1.50	6600.00	6570.28				MinPt-O-SF	
	2579.06	75.86	2527.66	2503.20	52.68	OSF1.50	10522.76	10492.61				MinPt-O-SF	
	2578.99	75.85	2527.59	2503.14	52.69	OSF1.50	10590.00	10559.63				MinPts	
	2577.64	71.36	2529.23	2506.28	56.09	OSF1.50	11190.00	10962.92				MinPt-CtCt	
	2577.66	155.14	2473.40	2422.52	25.31	OSF1.50	15566.36	11045.00				MinPts	
Cimarex Energy Perry 22 Federal 1H XEM+MWD Survey 0ft - 15368ft MD (Def Survey)													Pass

Results highlighted: Sep-Factor separation <= 1.50 ft

Offset Trajectory	Separation			Allow	Sep.	Controlling	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)	Dev. (ft)	Fact.	Rule	MD (ft)	TVD (ft)	Alert	Minor	Major		
	3452.87	32.81	3450.37	3420.06	N/A	MAS = 10.00 (m)	0.00	0.00				MinPts	
	3452.88	32.81	3450.37	3420.07	228995.79	MAS = 10.00 (m)	26.00	26.00				WRP	
	3453.10	32.81	3448.64	3420.29	1762.34	MAS = 10.00 (m)	500.00	500.00				MinPts	
	3452.16	32.81	3445.00	3419.35	741.43	MAS = 10.00 (m)	1070.00	1070.00				MinPts	
	3450.22	32.81	3439.05	3417.41	397.64	MAS = 10.00 (m)	1990.00	1990.00				MinPts	
	3450.71	32.81	3438.24	3417.90	345.97	MAS = 10.00 (m)	2280.00	2280.00				MinPts	
	3450.71	32.81	3438.16	3417.91	343.01	MAS = 10.00 (m)	2300.00	2300.00				MINPT-O-EOU	
	3452.78	32.81	3440.02	3419.97	336.33	MAS = 10.00 (m)	2400.00	2399.98				MinPt-O-SF	
	3475.99	32.81	3463.15	3443.18	335.92	MAS = 10.00 (m)	2670.00	2668.98				MinPt-O-SF	
	3962.30	36.20	3937.33	3926.10	176.23	OSF1.50	6529.30	6500.00				MinPt-O-SF	
	3966.25	40.52	3938.40	3925.73	156.38	OSF1.50	8440.00	8409.85				MinPt-CtCt	
	3966.54	41.18	3938.25	3925.36	153.73	OSF1.50	8570.00	8539.85				MINPT-O-EOU	
	3966.74	41.44	3938.28	3925.31	152.72	OSF1.50	8620.00	8589.85				MinPt-O-ADP	
	3654.02	301.79	3451.99	3352.23	18.30	OSF1.50	15320.00	11040.70				MinPts	
	3654.03	301.80	3452.00	3352.23	18.30	OSF1.50	15330.00	11040.88				MinPt-O-SF	
	3662.25	301.30	3460.55	3360.95	18.37	OSF1.50	15566.36	11045.00				TD	
Cimarex D and E Federal #1 (Offset) SWD Blind 0ft-3693ft (Def Survey)													Pass
	4239.47	32.81	4236.71	4206.66	16176.99	MAS = 10.00 (m)	0.00	0.00				Surface	
	4239.47	32.81	4233.99	4206.66	1419.03	MAS = 10.00 (m)	26.00	26.00				WRP	
	4239.47	710.86	3764.73	3528.62	8.97	OSF1.50	2300.00	2300.00				MinPt-CtCt	
	4258.58	1147.87	3492.50	3110.71	5.57	OSF1.50	3700.00	3691.43				MinPts	
	7424.17	196.35	7292.44	7227.83	57.43	OSF1.50	14430.00	11025.19				MinPt-O-ADP	
	7411.14	181.90	7289.04	7229.24	61.94	OSF1.50	14790.00	11031.46				MINPT-O-EOU	
	7410.61	180.82	7289.23	7229.79	62.32	OSF1.50	14880.00	11033.03				MinPt-CtCt	
	7442.47	206.11	7304.23	7236.36	54.81	OSF1.50	15566.36	11045.00				MinPt-O-SF	
Marathon Ballard De Federal #5 (Offset) Blind 0ft-3637ft (Def Survey)													Pass
	4571.72	32.81	4569.22	4538.91	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	4571.71	32.81	4567.48	4538.90	2643.26	MAS = 10.00 (m)	26.00	26.00				WRP	
	4557.59	1130.26	3803.24	3427.32	6.06	OSF1.50	3680.00	3671.58				MinPt-O-SF	
	4557.56	1130.25	3803.22	3427.31	6.06	OSF1.50	3690.00	3681.51				MinPts	
	4557.55	1130.23	3803.22	3427.32	6.06	OSF1.50	3700.00	3691.43				MinPt-CtCt	
	7451.59	179.99	7330.76	7271.60	62.95	OSF1.50	14280.00	11022.57				MinPt-O-ADP	
	7407.66	127.52	7321.81	7280.14	88.85	OSF1.50	14750.00	11030.77				MINPT-O-EOU	
	7393.40	102.07	7324.52	7291.34	111.35	OSF1.50	15210.00	11038.79				MinPt-CtCt	
	7402.01	113.56	7325.48	7288.46	99.94	OSF1.50	15566.36	11045.00				MinPts	
Cimarex R and B Federal #1 (Offset) Blind 0ft-3685ft (Def Survey)													Pass
	4777.35	32.81	4774.59	4744.54	18230.65	MAS = 10.00 (m)	0.00	0.00				Surface	
	4777.35	32.81	4771.87	4744.54	1599.18	MAS = 10.00 (m)	26.00	26.00				WRP	
	4777.35	710.86	4302.62	4066.50	10.11	OSF1.50	2300.00	2300.00				MinPt-CtCt	
	4824.75	1145.05	4060.56	3679.71	6.33	OSF1.50	3690.00	3681.51				MinPts	
	4825.17	1145.36	4060.76	3679.81	6.33	OSF1.50	3700.00	3691.43				MinPt-O-SF	
	7623.36	316.69	7411.40	7306.67	36.38	OSF1.50	15160.00	11037.92				MinPt-O-ADP	
	7623.23	316.54	7411.37	7306.69	36.40	OSF1.50	15190.00	11038.44				MINPT-O-EOU	
	7623.21	316.47	7411.39	7306.74	36.41	OSF1.50	15210.00	11038.79				MinPt-CtCt	
	7631.66	319.84	7417.60	7311.81	36.06	OSF1.50	15566.36	11045.00				MinPt-O-SF	
Cimarex Perry Federal #1 (Offset) Plugged Blind 0ft-3669ft (Def Survey)													Pass
	5336.58	32.81	5333.50	5303.77	9257.18	MAS = 10.00 (m)	0.00	0.00				Surface	
	5336.58	32.81	5330.78	5303.77	1616.33	MAS = 10.00 (m)	26.00	26.00				WRP	
	5336.58	711.80	4861.21	4624.78	11.28	OSF1.50	2300.00	2300.00				MinPt-CtCt	
	5413.74	1139.75	4653.07	4273.99	7.14	OSF1.50	3670.00	3661.65				MinPts	
	5414.40	1140.33	4653.35	4274.07	7.13	OSF1.50	3680.00	3671.58				MinPt-O-SF	
	8087.78	478.33	7768.06	7609.45	25.49	OSF1.50	15190.00	11038.44				MinPt-O-ADP	
	8087.77	478.32	7768.05	7609.45	25.49	OSF1.50	15200.00	11038.61				MINPT-O-EOU	
	8087.77	478.30	7768.06	7609.46	25.49	OSF1.50	15210.00	11038.79				MinPt-CtCt	
	8095.80	480.15	7774.87	7615.66	25.42	OSF1.50	15566.36	11045.00				MinPt-O-SF	

Schlumberger

Cimarex Perry 22 Federal Com 29H Rev0 RM 28May19 Proposal Geodetic Report

(Non-Def Plan)

CIMAREX

Report Date:	May 28, 2019 - 03:53 PM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	Cimarex Energy	**Vertical Section Azimuth:**	179.575 ° (Grid North)
Field:	NM Lea County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Cimarex Perry 22 Federal Com 29H / New Slot	**TVD Reference Datum:**	RKB
Well:	Perry 22 Federal Com 29H	**TVD Reference Elevation:**	3672.500 ft above MSL
Borehole:	Perry 22 Federal Com 29H	**Seabed / Ground Elevation:**	3646.500 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	6.566 °
Survey Name:	Cimarex Perry 22 Federal Com 29H Rev0 RM 28May19	**Total Gravity Field Strength:**	998.5017mgn (9.80665 Based)
Survey Date:	May 28, 2019	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	102.883 ° / 5281.566 ft / 5.884 / 0.478	**Total Magnetic Field Strength:**	48116.185 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	60.452 °
Location Lat / Long:	N 32° 33' 53.08396", W 103° 33' 6.45426"	**Declination Date:**	May 28, 2019
Location Grid N/E Y/X:	N 570069.030 ftUS, E 782112.170 ftUS	**Magnetic Declination Model:**	HDGM 2019
CRS Grid Convergence Angle:	0.4207 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99997548	**Grid Convergence Used:**	0.4207 °
Version / Patch:	2.10.760.0	**Total Corr Mag North->Grid North:**	6.1454 °
		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 [408' FNL, 1500' FWL]	0.00	0.00	185.69	0.00	0.00	0.00	0.00	N/A	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45
	100.00	0.00	269.45	100.00	0.00	0.00	0.00	0.00	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45
	200.00	0.00	269.45	200.00	0.00	0.00	0.00	0.00	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45
	300.00	0.00	269.45	300.00	0.00	0.00	0.00	0.00	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45
	400.00	0.00	269.45	400.00	0.00	0.00	0.00	0.00	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45
	500.00	0.00	269.45	500.00	0.00	0.00	0.00	0.00	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45
	600.00	0.00	269.45	600.00	0.00	0.00	0.00	0.00	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45
	700.00	0.00	269.45	700.00	0.00	0.00	0.00	0.00	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45
	800.00	0.00	269.45	800.00	0.00	0.00	0.00	0.00	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45
	900.00	0.00	269.45	900.00	0.00	0.00	0.00	0.00	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45
	1000.00	0.00	269.45	1000.00	0.00	0.00	0.00	0.00	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45
	1100.00	0.00	269.45	1100.00	0.00	0.00	0.00	0.00	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45
	1200.00	0.00	269.45	1200.00	0.00	0.00	0.00	0.00	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45
	1300.00	0.00	269.45	1300.00	0.00	0.00	0.00	0.00	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45
	1400.00	0.00	269.45	1400.00	0.00	0.00	0.00	0.00	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45
	1500.00	0.00	269.45	1500.00	0.00	0.00	0.00	0.00	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45
	1600.00	0.00	269.45	1600.00	0.00	0.00	0.00	0.00	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45
Rustler	*1636.00*	*0.00*	*269.45*	*1636.00*	*0.00*	*0.00*	*0.00*	*0.00*	*570069.03*	*782112.17*	*N 32 33 53.08*	*W 103 33 6.45*
	1700.00	0.00	269.45	1700.00	0.00	0.00	0.00	0.00	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45
	1800.00	0.00	269.45	1800.00	0.00	0.00	0.00	0.00	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45
Top Salt	*1824.00*	*0.00*	*269.45*	*1824.00*	*0.00*	*0.00*	*0.00*	*0.00*	*570069.03*	*782112.17*	*N 32 33 53.08*	*W 103 33 6.45*
	1900.00	0.00	269.45	1900.00	0.00	0.00	0.00	0.00	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45
	2000.00	0.00	269.45	2000.00	0.00	0.00	0.00	0.00	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45
	2100.00	0.00	269.45	2100.00	0.00	0.00	0.00	0.00	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45
Base Salt (Tansil)	*2148.00*	*0.00*	*269.45*	*2148.00*	*0.00*	*0.00*	*0.00*	*0.00*	*570069.03*	*782112.17*	*N 32 33 53.08*	*W 103 33 6.45*
	2200.00	0.00	269.45	2200.00	0.00	0.00	0.00	0.00	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45

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 ° ' ")
Nudge 2°/100' DLS	2300.00	0.00	269.45	2300.00	0.00	0.00	0.00	0.00	570069.03	782112.17	N 32 33 53.08	W 103 33 6.45
	2400.00	2.00	269.45	2399.98	0.00	-0.02	-1.75	2.00	570069.01	782110.42	N 32 33 53.08	W 103 33 6.47
	2500.00	4.00	269.45	2499.84	0.02	-0.07	-6.98	2.00	570068.96	782105.19	N 32 33 53.08	W 103 33 6.54
	2600.00	6.00	269.45	2599.45	0.04	-0.15	-15.69	2.00	570068.88	782096.48	N 32 33 53.08	W 103 33 6.64
Hold Nudge	2647.05	6.94	269.45	2646.20	0.05	-0.20	-20.99	2.00	570068.83	782091.18	N 32 33 53.08	W 103 33 6.70
	2700.00	6.94	269.45	2698.76	0.06	-0.26	-27.39	0.00	570068.77	782084.78	N 32 33 53.08	W 103 33 6.77
	2800.00	6.94	269.45	2798.03	0.09	-0.38	-39.48	0.00	570068.65	782072.69	N 32 33 53.08	W 103 33 6.92
	2900.00	6.94	269.45	2897.30	0.12	-0.50	-51.56	0.00	570068.53	782060.61	N 32 33 53.08	W 103 33 7.06
	3000.00	6.94	269.45	2996.57	0.14	-0.62	-63.65	0.00	570068.41	782048.53	N 32 33 53.08	W 103 33 7.20
	3100.00	6.94	269.45	3095.83	0.17	-0.73	-75.73	0.00	570068.30	782036.44	N 32 33 53.08	W 103 33 7.34
	3200.00	6.94	269.45	3195.10	0.20	-0.85	-87.81	0.00	570068.18	782024.36	N 32 33 53.08	W 103 33 7.48
	3300.00	6.94	269.45	3294.37	0.22	-0.97	-99.90	0.00	570068.06	782012.27	N 32 33 53.08	W 103 33 7.62
	3400.00	6.94	269.45	3393.63	0.25	-1.08	-111.98	0.00	570067.95	782000.19	N 32 33 53.08	W 103 33 7.76
	3500.00	6.94	269.45	3492.90	0.28	-1.20	-124.07	0.00	570067.83	781988.11	N 32 33 53.08	W 103 33 7.90
	3600.00	6.94	269.45	3592.17	0.31	-1.32	-136.15	0.00	570067.71	781976.02	N 32 33 53.08	W 103 33 8.05
Yates	*3662.29*	*6.94*	*269.45*	*3654.00*	*0.32*	*-1.39*	*-143.68*	*0.00*	*570067.64*	*781968.50*	*N 32 33 53.08*	*W 103 33 8.13*
	3700.00	6.94	269.45	3691.43	0.33	-1.43	-148.23	0.00	570067.60	781963.94	N 32 33 53.08	W 103 33 8.19
	3800.00	6.94	269.45	3790.70	0.36	-1.55	-160.32	0.00	570067.48	781951.86	N 32 33 53.08	W 103 33 8.33
	3900.00	6.94	269.45	3889.97	0.39	-1.67	-172.40	0.00	570067.36	781939.77	N 32 33 53.08	W 103 33 8.47
	4000.00	6.94	269.45	3989.24	0.42	-1.78	-184.49	0.00	570067.25	781927.69	N 32 33 53.08	W 103 33 8.61
	4100.00	6.94	269.45	4088.50	0.44	-1.90	-196.57	0.00	570067.13	781915.60	N 32 33 53.08	W 103 33 8.75
	4200.00	6.94	269.45	4187.77	0.47	-2.02	-208.66	0.00	570067.01	781903.52	N 32 33 53.08	W 103 33 8.89
	4300.00	6.94	269.45	4287.04	0.50	-2.13	-220.74	0.00	570066.90	781891.44	N 32 33 53.08	W 103 33 9.03
	4400.00	6.94	269.45	4386.30	0.52	-2.25	-232.82	0.00	570066.78	781879.35	N 32 33 53.08	W 103 33 9.17
	4500.00	6.94	269.45	4485.57	0.55	-2.37	-244.91	0.00	570066.66	781867.27	N 32 33 53.08	W 103 33 9.32
Capitan	*4598.15*	*6.94*	*269.45*	*4583.00*	*0.58*	*-2.48*	*-256.77*	*0.00*	*570066.55*	*781855.41*	*N 32 33 53.08*	*W 103 33 9.45*
	4600.00	6.94	269.45	4584.84	0.58	-2.48	-256.99	0.00	570066.55	781855.18	N 32 33 53.08	W 103 33 9.46
	4700.00	6.94	269.45	4684.11	0.61	-2.60	-269.08	0.00	570066.43	781843.10	N 32 33 53.08	W 103 33 9.60
	4800.00	6.94	269.45	4783.37	0.63	-2.72	-281.16	0.00	570066.31	781831.02	N 32 33 53.08	W 103 33 9.74
	4900.00	6.94	269.45	4882.64	0.66	-2.84	-293.24	0.00	570066.19	781818.93	N 32 33 53.08	W 103 33 9.88
	5000.00	6.94	269.45	4981.91	0.69	-2.95	-305.33	0.00	570066.08	781806.85	N 32 33 53.08	W 103 33 10.02
	5100.00	6.94	269.45	5081.17	0.71	-3.07	-317.41	0.00	570065.96	781794.77	N 32 33 53.08	W 103 33 10.16
	5200.00	6.94	269.45	5180.44	0.74	-3.19	-329.50	0.00	570065.84	781782.68	N 32 33 53.08	W 103 33 10.30
	5300.00	6.94	269.45	5279.71	0.77	-3.30	-341.58	0.00	570065.73	781770.60	N 32 33 53.08	W 103 33 10.45
	5400.00	6.94	269.45	5378.98	0.80	-3.42	-353.67	0.00	570065.61	781758.51	N 32 33 53.08	W 103 33 10.59
	5500.00	6.94	269.45	5478.24	0.82	-3.54	-365.75	0.00	570065.49	781746.43	N 32 33 53.08	W 103 33 10.73
Delaware Sands	*5583.37*	*6.94*	*269.45*	*5561.00*	*0.85*	*-3.63*	*-375.82*	*0.00*	*570065.40*	*781736.36*	*N 32 33 53.08*	*W 103 33 10.85*
	5600.00	6.94	269.45	5577.51	0.85	-3.65	-377.83	0.00	570065.38	781734.35	N 32 33 53.08	W 103 33 10.87
	5700.00	6.94	269.45	5676.78	0.88	-3.77	-389.92	0.00	570065.26	781722.26	N 32 33 53.07	W 103 33 11.01
	5800.00	6.94	269.45	5776.04	0.91	-3.89	-402.00	0.00	570065.14	781710.18	N 32 33 53.07	W 103 33 11.15
	5900.00	6.94	269.45	5875.31	0.93	-4.00	-414.09	0.00	570065.03	781698.09	N 32 33 53.07	W 103 33 11.29
	6000.00	6.94	269.45	5974.58	0.96	-4.12	-426.17	0.00	570064.91	781686.01	N 32 33 53.07	W 103 33 11.43
	6100.00	6.94	269.45	6073.85	0.99	-4.24	-438.25	0.00	570064.79	781673.93	N 32 33 53.07	W 103 33 11.58
	6200.00	6.94	269.45	6173.11	1.01	-4.35	-450.34	0.00	570064.68	781661.84	N 32 33 53.07	W 103 33 11.72
	6300.00	6.94	269.45	6272.38	1.04	-4.47	-462.42	0.00	570064.56	781649.76	N 32 33 53.07	W 103 33 11.86
	6400.00	6.94	269.45	6371.65	1.07	-4.59	-474.51	0.00	570064.44	781637.68	N 32 33 53.07	W 103 33 12.00
	6500.00	6.94	269.45	6470.91	1.10	-4.71	-486.59	0.00	570064.33	781625.59	N 32 33 53.07	W 103 33 12.14
Drop to Vertical 2°/100' DLS	6529.30	6.94	269.45	6500.00	1.10	-4.74	-490.13	0.00	570064.29	781622.05	N 32 33 53.07	W 103 33 12.18
	6600.00	5.53	269.45	6570.28	1.12	-4.81	-497.81	2.00	570064.22	781614.37	N 32 33 53.07	W 103 33 12.27
	6700.00	3.53	269.45	6669.96	1.14	-4.89	-505.70	2.00	570064.14	781606.48	N 32 33 53.07	W 103 33 12.36
	6800.00	1.53	269.45	6769.86	1.15	-4.93	-510.11	2.00	570064.10	781602.07	N 32 33 53.07	W 103 33 12.41
Hold Vertical	6876.35	0.00	269.45	6846.20	1.15	-4.94	-511.13	2.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	6900.00	0.00	269.45	6869.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	7000.00	0.00	269.45	6969.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	7100.00	0.00	269.45	7069.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	7200.00	0.00	269.45	7169.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43

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 ° ' ")
	7300.00	0.00	269.45	7269.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	7400.00	0.00	269.45	7369.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	7500.00	0.00	269.45	7469.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	7600.00	0.00	269.45	7569.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	7700.00	0.00	269.45	7669.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	7800.00	0.00	269.45	7769.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	7900.00	0.00	269.45	7869.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	8000.00	0.00	269.45	7969.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	8100.00	0.00	269.45	8069.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
Brushy Canyon	*8137.15*	*0.00*	*269.45*	*8107.00*	*1.15*	*-4.94*	*-511.13*	*0.00*	*570064.09*	*781601.06*	*N 32 33 53.07*	*W 103 33 12.43*
	8200.00	0.00	269.45	8169.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	8300.00	0.00	269.45	8269.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	8400.00	0.00	269.45	8369.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
Bone Springs	*8420.15*	*0.00*	*269.45*	*8390.00*	*1.15*	*-4.94*	*-511.13*	*0.00*	*570064.09*	*781601.06*	*N 32 33 53.07*	*W 103 33 12.43*
	8500.00	0.00	269.45	8469.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	8600.00	0.00	269.45	8569.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	8700.00	0.00	269.45	8669.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	8800.00	0.00	269.45	8769.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	8900.00	0.00	269.45	8869.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	9000.00	0.00	269.45	8969.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	9100.00	0.00	269.45	9069.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	9200.00	0.00	269.45	9169.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	9300.00	0.00	269.45	9269.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	9400.00	0.00	269.45	9369.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	9500.00	0.00	269.45	9469.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
1st BS Sand	*9587.15*	*0.00*	*269.45*	*9557.00*	*1.15*	*-4.94*	*-511.13*	*0.00*	*570064.09*	*781601.06*	*N 32 33 53.07*	*W 103 33 12.43*
	9600.00	0.00	269.45	9569.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	9700.00	0.00	269.45	9669.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	9800.00	0.00	269.45	9769.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	9900.00	0.00	269.45	9869.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	10000.00	0.00	269.45	9969.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	10100.00	0.00	269.45	10069.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
2nd BS Sand	*10105.15*	*0.00*	*269.45*	*10075.00*	*1.15*	*-4.94*	*-511.13*	*0.00*	*570064.09*	*781601.06*	*N 32 33 53.07*	*W 103 33 12.43*
	10200.00	0.00	269.45	10169.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	10300.00	0.00	269.45	10269.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	10400.00	0.00	269.45	10369.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	10500.00	0.00	269.45	10469.85	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
KOP - Build 12°/100' DLS	10522.76	0.00	269.45	10492.61	1.15	-4.94	-511.13	0.00	570064.09	781601.06	N 32 33 53.07	W 103 33 12.43
	10600.00	9.27	179.58	10569.51	7.39	-11.18	-511.08	12.00	570057.85	781601.10	N 32 33 53.01	W 103 33 12.43
	10700.00	21.27	179.58	10665.81	33.67	-37.46	-510.89	12.00	570031.57	781601.30	N 32 33 52.75	W 103 33 12.43
	10800.00	33.27	179.58	10754.53	79.41	-83.20	-510.55	12.00	569985.84	781601.64	N 32 33 52.30	W 103 33 12.43
3rd BS Sand	*10831.15*	*37.01*	*179.58*	*10780.00*	*97.33*	*-101.12*	*-510.41*	*12.00*	*569967.91*	*781601.77*	*N 32 33 52.12*	*W 103 33 12.43*
	10900.00	45.27	179.58	10831.81	142.59	-146.37	-510.08	12.00	569922.66	781602.11	N 32 33 51.67	W 103 33 12.43
	11000.00	57.27	179.58	10894.26	220.45	-224.24	-509.50	12.00	569844.80	781602.68	N 32 33 50.90	W 103 33 12.43
	11100.00	69.27	179.58	10939.16	309.60	-313.39	-508.84	12.00	569755.65	781603.34	N 32 33 50.02	W 103 33 12.43
	11200.00	81.27	179.58	10964.54	406.14	-409.92	-508.12	12.00	569659.12	781604.06	N 32 33 49.06	W 103 33 12.43
Landing Point	11264.43	89.00	179.58	10970.00	470.29	-474.07	-507.65	12.00	569594.97	781604.54	N 32 33 48.43	W 103 33 12.43
	11300.00	89.00	179.58	10970.62	505.85	-509.63	-507.38	0.00	569559.41	781604.80	N 32 33 48.08	W 103 33 12.43
	11400.00	89.00	179.58	10972.36	605.84	-609.61	-506.64	0.00	569459.43	781605.54	N 32 33 47.09	W 103 33 12.43
	11500.00	89.00	179.58	10974.11	705.82	-709.60	-505.90	0.00	569359.45	781606.28	N 32 33 46.10	W 103 33 12.43
	11600.00	89.00	179.58	10975.85	805.81	-809.58	-505.16	0.00	569259.47	781607.03	N 32 33 45.11	W 103 33 12.43
	11700.00	89.00	179.58	10977.59	905.79	-909.56	-504.42	0.00	569159.49	781607.77	N 32 33 44.12	W 103 33 12.43
	11800.00	89.00	179.58	10979.34	1005.78	-1009.54	-503.67	0.00	569059.51	781608.51	N 32 33 43.13	W 103 33 12.43
	11900.00	89.00	179.58	10981.08	1105.76	-1109.52	-502.93	0.00	568959.54	781609.25	N 32 33 42.14	W 103 33 12.43
	12000.00	89.00	179.58	10982.82	1205.75	-1209.51	-502.19	0.00	568859.56	781609.99	N 32 33 41.15	W 103 33 12.43
	12100.00	89.00	179.58	10984.57	1305.73	-1309.49	-501.45	0.00	568759.58	781610.73	N 32 33 40.16	W 103 33 12.43
	12200.00	89.00	179.58	10986.31	1405.72	-1409.47	-500.71	0.00	568659.60	781611.47	N 32 33 39.17	W 103 33 12.43
	12300.00	89.00	179.58	10988.05	1505.70	-1509.45	-499.97	0.00	568559.62	781612.22	N 32 33 38.19	W 103 33 12.43

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 ° ' ")
	12400.00	89.00	179.58	10989.80	1605.69	-1609.43	-499.23	0.00	568459.64	781612.96	N 32 33 37.20	W 103 33 12.43
	12500.00	89.00	179.58	10991.54	1705.67	-1709.42	-498.48	0.00	568359.66	781613.70	N 32 33 36.21	W 103 33 12.42
	12600.00	89.00	179.58	10993.28	1805.66	-1809.40	-497.74	0.00	568259.68	781614.44	N 32 33 35.22	W 103 33 12.42
	12700.00	89.00	179.58	10995.03	1905.64	-1909.38	-497.00	0.00	568159.70	781615.18	N 32 33 34.23	W 103 33 12.42
	12800.00	89.00	179.58	10996.77	2005.63	-2009.36	-496.26	0.00	568059.72	781615.92	N 32 33 33.24	W 103 33 12.42
	12900.00	89.00	179.58	10998.51	2105.61	-2109.34	-495.52	0.00	567959.74	781616.67	N 32 33 32.25	W 103 33 12.42
	13000.00	89.00	179.58	11000.26	2205.60	-2209.33	-494.78	0.00	567859.76	781617.41	N 32 33 31.26	W 103 33 12.42
Lease 124662 and 0000082 Crossing	*13026.95*	*89.00*	*179.58*	*11000.73*	*2232.54*	*-2236.27*	*-494.58*	*0.00*	*567832.82*	*781617.61*	*N 32 33 30.99*	*W 103 33 12.42*
	13100.00	89.00	179.58	11002.00	2305.58	-2309.31	-494.03	0.00	567759.78	781618.15	N 32 33 30.27	W 103 33 12.42
	13200.00	89.00	179.58	11003.74	2405.57	-2409.29	-493.29	0.00	567659.80	781618.89	N 32 33 29.28	W 103 33 12.42
Wolfcamp	*13272.00*	*89.00*	*179.58*	*11005.00*	*2477.55*	*-2481.28*	*-492.76*	*0.00*	*567587.82*	*781619.42*	*N 32 33 28.57*	*W 103 33 12.42*
	13300.00	89.00	179.58	11005.49	2505.55	-2509.27	-492.55	0.00	567559.82	781619.63	N 32 33 28.29	W 103 33 12.42
	13400.00	89.00	179.58	11007.23	2605.53	-2609.25	-491.81	0.00	567459.84	781620.37	N 32 33 27.30	W 103 33 12.42
	13500.00	89.00	179.58	11008.97	2705.52	-2709.24	-491.07	0.00	567359.87	781621.12	N 32 33 26.31	W 103 33 12.42
	13600.00	89.00	179.58	11010.72	2805.50	-2809.22	-490.33	0.00	567259.89	781621.86	N 32 33 25.32	W 103 33 12.42
	13700.00	89.00	179.58	11012.46	2905.49	-2909.20	-489.58	0.00	567159.91	781622.60	N 32 33 24.33	W 103 33 12.42
	13800.00	89.00	179.58	11014.21	3005.47	-3009.18	-488.84	0.00	567059.93	781623.34	N 32 33 23.35	W 103 33 12.42
	13900.00	89.00	179.58	11015.95	3105.46	-3109.16	-488.10	0.00	566959.95	781624.08	N 32 33 22.36	W 103 33 12.42
	14000.00	89.00	179.58	11017.69	3205.44	-3209.15	-487.36	0.00	566859.97	781624.82	N 32 33 21.37	W 103 33 12.42
	14100.00	89.00	179.58	11019.44	3305.43	-3309.13	-486.62	0.00	566759.99	781625.57	N 32 33 20.38	W 103 33 12.42
	14200.00	89.00	179.58	11021.18	3405.41	-3409.11	-485.88	0.00	566660.01	781626.31	N 32 33 19.39	W 103 33 12.42
	14300.00	89.00	179.58	11022.92	3505.40	-3509.09	-485.13	0.00	566560.03	781627.05	N 32 33 18.40	W 103 33 12.42
	14400.00	89.00	179.58	11024.67	3605.38	-3609.08	-484.39	0.00	566460.05	781627.79	N 32 33 17.41	W 103 33 12.42
	14500.00	89.00	179.58	11026.41	3705.37	-3709.06	-483.65	0.00	566360.07	781628.53	N 32 33 16.42	W 103 33 12.42
	14600.00	89.00	179.58	11028.15	3805.35	-3809.04	-482.91	0.00	566260.09	781629.27	N 32 33 15.43	W 103 33 12.42
	14700.00	89.00	179.58	11029.90	3905.34	-3909.02	-482.17	0.00	566160.11	781630.02	N 32 33 14.44	W 103 33 12.42
	14800.00	89.00	179.58	11031.64	4005.32	-4009.00	-481.43	0.00	566060.13	781630.76	N 32 33 13.45	W 103 33 12.42
	14900.00	89.00	179.58	11033.38	4105.31	-4108.99	-480.68	0.00	565960.15	781631.50	N 32 33 12.46	W 103 33 12.42
	15000.00	89.00	179.58	11035.13	4205.29	-4208.97	-479.94	0.00	565860.17	781632.24	N 32 33 11.47	W 103 33 12.42
	15100.00	89.00	179.58	11036.87	4305.28	-4308.95	-479.20	0.00	565760.19	781632.98	N 32 33 10.48	W 103 33 12.42
	15200.00	89.00	179.58	11038.61	4405.26	-4408.93	-478.46	0.00	565660.22	781633.72	N 32 33 9.50	W 103 33 12.42
	15300.00	89.00	179.58	11040.36	4505.25	-4508.91	-477.72	0.00	565560.24	781634.46	N 32 33 8.51	W 103 33 12.42
	15400.00	89.00	179.58	11042.10	4605.23	-4608.90	-476.98	0.00	565460.26	781635.21	N 32 33 7.52	W 103 33 12.42
	15500.00	89.00	179.58	11043.84	4705.22	-4708.88	-476.23	0.00	565360.28	781635.95	N 32 33 6.53	W 103 33 12.42
Cimarex Perry 22 Federal Com 29H - PBHL [100' FSL, 990' FWL]	15566.36	89.00	179.58	11045.00	4771.57	-4775.23	-475.74	0.00	565293.93	781636.44	N 32 33 5.87	W 103 33 12.42

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma

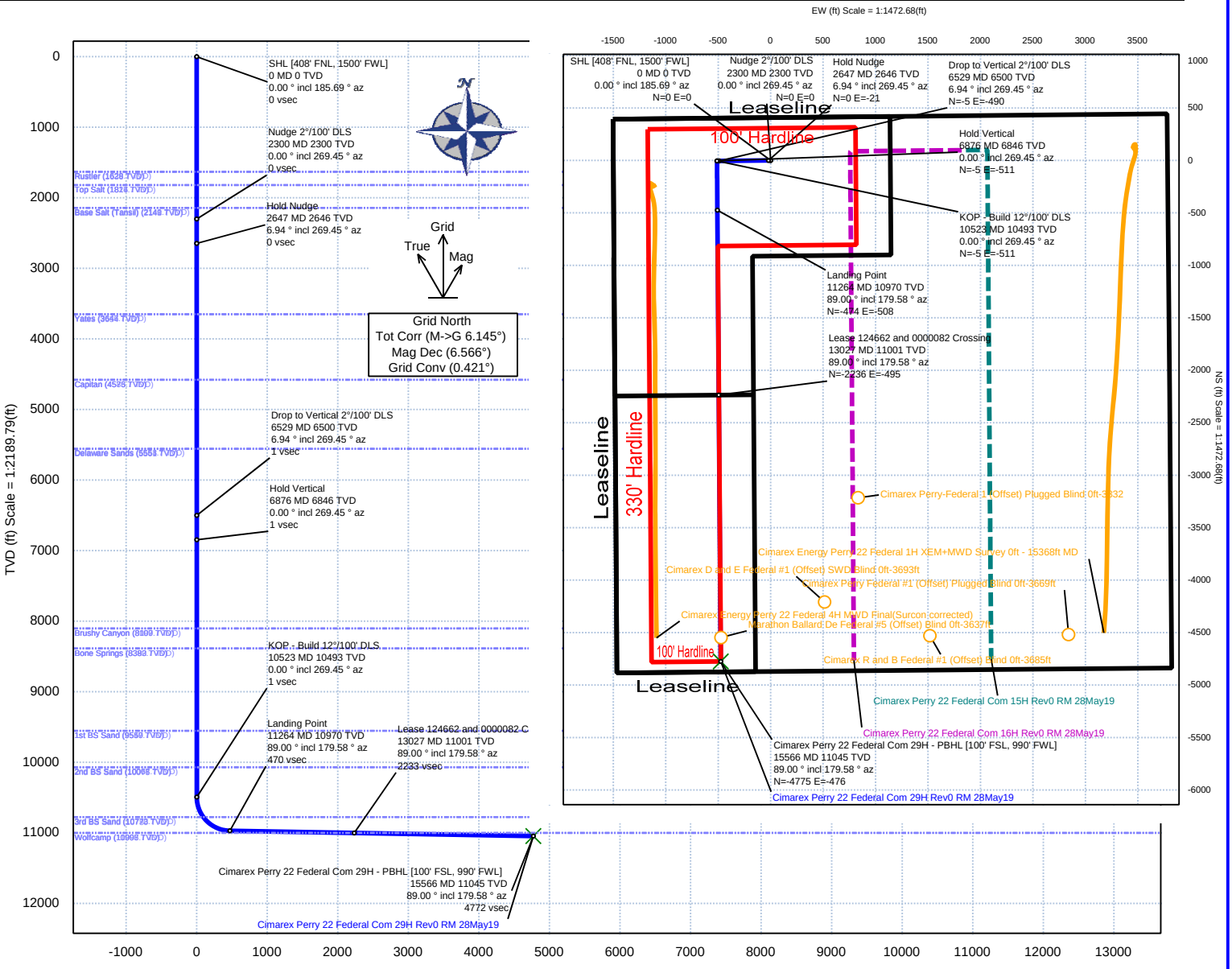
Survey Program:

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	26.000	1/100.000	30.000	30.000		NAL_MWD_IFR1+MS-Depth Only	Perry 22 Federal Com 29H / Cimarex Perry 22 Federal Com 29H Rev0 RM 28May19
	1	26.000	15566.361	1/100.000	30.000	30.000		NAL_MWD_IFR1+MS	Perry 22 Federal Com 29H / Cimarex Perry 22 Federal Com

Cimarex Energy Rev 0

Borehole:	Well:	Field:	Structure:
Perry 22 Federal Com 29H	Perry 22 Federal Com 29H	NM Lea County (NAD 83)	Cimarex Perry 22 Federal Com 29H

Gravity & Magnetic Parameters						Surface Location	NAD83 New Mexico State Plane, Eastern Zone, US Feet					Miscellaneous				
Model:	HDGM 2019	Dip:	60.452°	Date:	28-May-2019	Lat:	N 32 33 53.08	Northing:	570069.03ftUS	Grid Conv:	0.4207°	Slot:	New Slot	TVD Ref:	RKB(3672.5ft above MSL)	
MagDec:	6.566°	FS:	48116.185nT	Gravity FS:	998.502mgn (9.80665 Based)	Lon:	W 103 33 6.45	Easting:	782112.17ftUS	Scale Fact:	0.99997548	Plan:	Cimarex Perry 22 Federal Com 29H Rev0 RM 28May19			

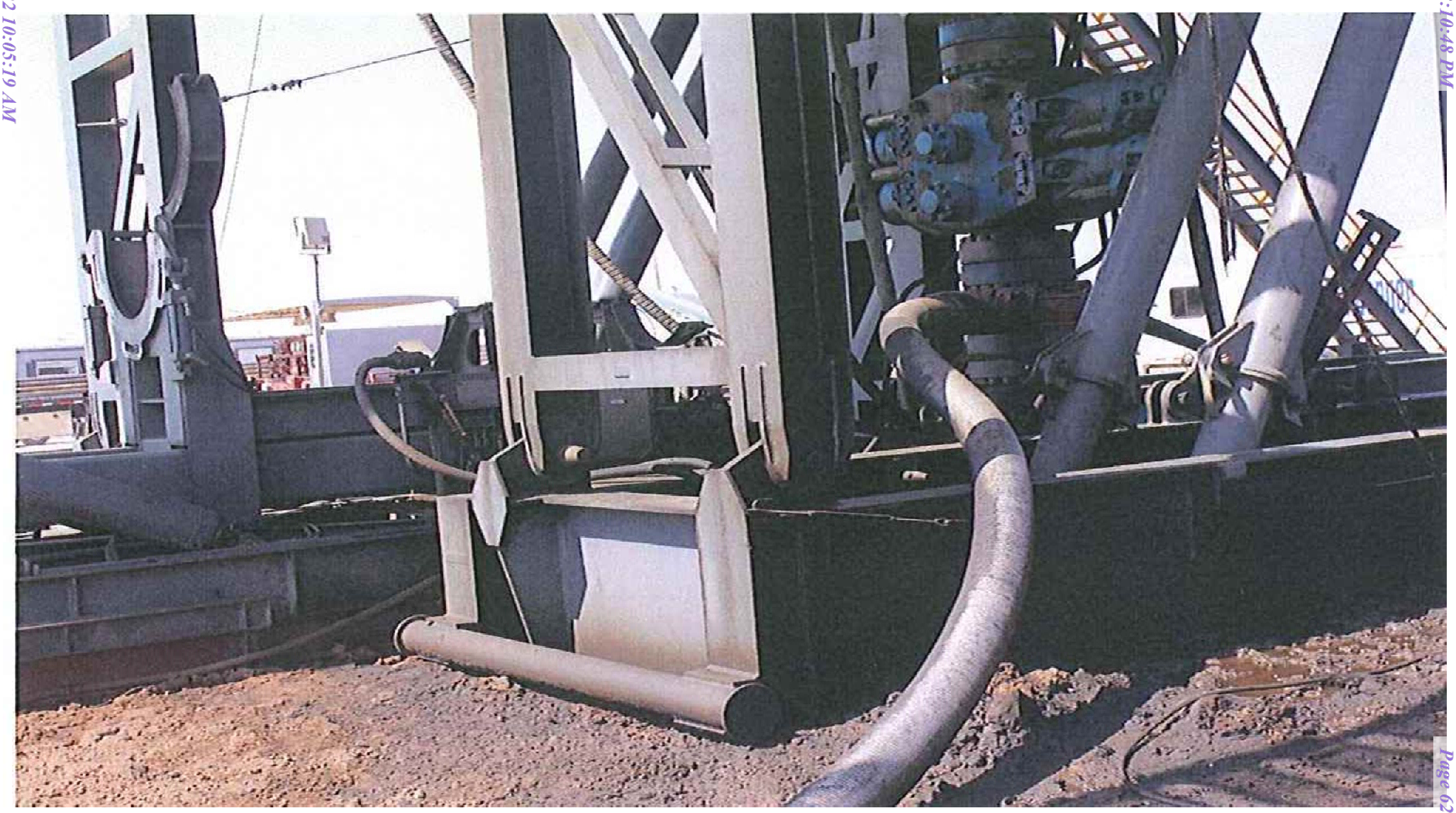


Vertical Section (ft) Azim = 179.58° Scale = 1:2189.79(ft) Origin = 0N/-S, 0E/-W

Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL [408' FNL, 1500' FWL]	0.00	0.00	185.69	0.00	0.00	0.00	0.00	
Rustler	1636.00	0.00	269.45	1636.00	0.00	0.00	0.00	0.00
Top Salt	1824.00	0.00	269.45	1824.00	0.00	0.00	0.00	0.00
Base Salt (Tansil)	2148.00	0.00	269.45	2148.00	0.00	0.00	0.00	0.00
Nudge 2°/100' DLS	2300.00	0.00	269.45	2300.00	0.00	0.00	0.00	0.00
Hold Nudge	2647.05	6.94	269.45	2646.20	0.05	-0.20	-20.99	2.00
Yates	3662.29	6.94	269.45	3654.00	0.32	-1.39	-143.68	0.00
Capitan	4598.15	6.94	269.45	4583.00	0.58	-2.48	-256.77	0.00
Delaware Sands	5583.37	6.94	269.45	5561.00	0.85	-3.63	-375.82	0.00
Drop to Vertical 2°/100' DLS	6529.30	6.94	269.45	6500.00	1.10	-4.74	-490.13	0.00
Hold Vertical	6876.35	0.00	269.45	6846.20	1.15	-4.94	-511.13	2.00
Brushy Canyon	8137.15	0.00	269.45	8107.00	1.15	-4.94	-511.13	0.00
Bone Springs	8420.15	0.00	269.45	8390.00	1.15	-4.94	-511.13	0.00
1st BS Sand	9587.15	0.00	269.45	9557.00	1.15	-4.94	-511.13	0.00
2nd BS Sand	10105.15	0.00	269.45	10075.00	1.15	-4.94	-511.13	0.00
KOP - Build 12°/100' DLS	10522.76	0.00	269.45	10492.61	1.15	-4.94	-511.13	0.00
3rd BS Sand	10831.15	37.01	179.58	10780.00	97.33	-101.12	-510.41	12.00
Landing Point	11264.43	89.00	179.58	10970.00	470.29	-474.07	-507.65	12.00
Lease 124662 and 0000082 Crossing	13026.95	89.00	179.58	11000.73	2232.54	-2236.27	-494.58	0.00
Wolfcamp	13272.00	89.00	179.58	11005.00	2477.55	-2481.28	-492.76	0.00
Cimarex Perry 22 Federal Com 29H - PBHL [100' FSL, 990' FWL]	15566.36	89.00	179.58	11045.00	4771.57	-4775.23	-475.74	0.00

Co-Flex Hose
Perry 22 Federal Com 29H
Cimarex Energy Co.
22-20S-34E
Lea Co., NM



Co-
Flex Hose Hydrostatic Test
Perry 22 Federal Com 29H
Cimarex Energy Co.
22-20S-34E
Lea Co., NM

Midwest Hose & Specialty, Inc.

INTERNAL HYDROSTATIC TEST REPORT

Customer:	P.O. Number:
Oderco Inc	odyd-271

HOSE SPECIFICATIONS

Type:	Hose Length:
Stainless Steel Armor Choke & Kill Hose	45'ft.

I.D.	O.D.
4 INCHES	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

Hose assembly pressure tested with water at ambient temperature.

TIME HELD AT TEST PRESSURE	ACTUAL BURST PRESSURE:
15 MIN.	0 PSI

Hose Assembly Serial Number:	Hose Serial Number:
79793	OKC

Comments:

Date:	Tested:	Approved:
3/8/2011	A. Jaime Sanchez	

Midwest Hose & Specialty, Inc.

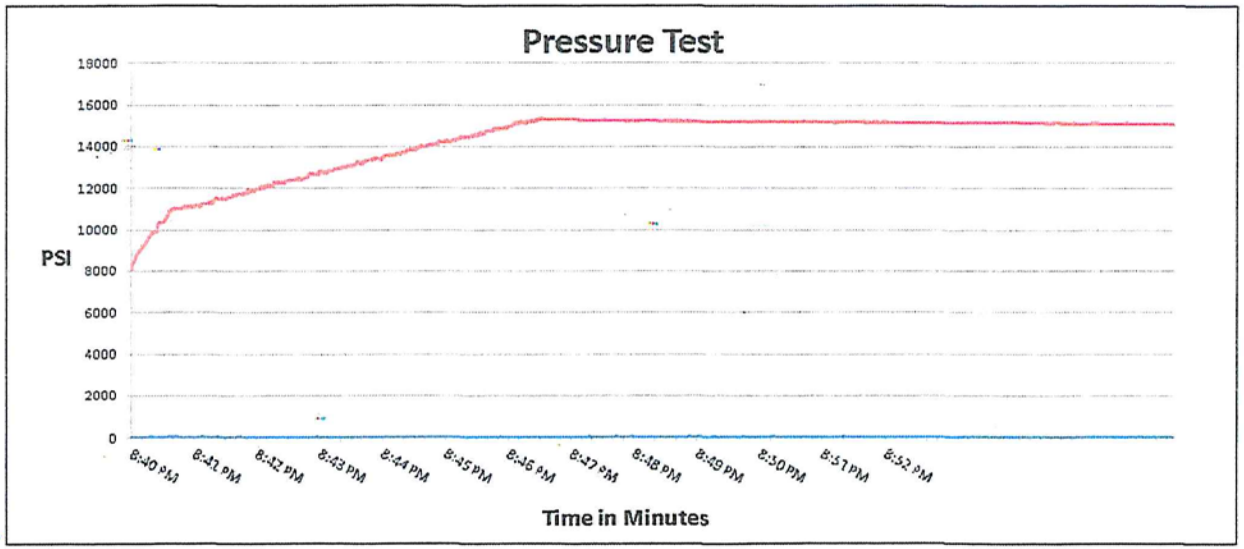
Internal Hydrostatic Test Graph

March 3, 2011

Customer: Houston

Pick Ticket #: 94260

Hose Specifications		Verification	
Hose Type	Length	Type of Fitting	Coupling Method
C & K	45'	4 1/16 10K	Swage
I.D.	O.D.	Die Size	Final O.D.
4"	6.09"	6.38"	6.25"
Working Pressure	Burst Pressure	Hose Serial #	Hose Assembly Serial #
10000 PSI	Standard Safety Multiplier Applies	5544	79793



Test Pressure	Time Held at Test Pressure	Actual Burst Pressure	Peak Pressure
15000 PSI	11 Minutes		15483 PSI

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

Tested By: *Zac Mcconnell*

Approved By: *Kim Thomas*

Co-
Flex Hose Hydrostatic Test
Perry 22 Federal Com 29H
Cimarex Energy Co.
22-20S-34E
Lea Co., NM

Co-Flex Hose
Perry 22 Federal Com 29H
Cimarex Energy Co. 22-20S-34E
Lea Co., NM

Midwest Hose
& Specialty, Inc.

Certificate of Conformity

Customer: DEM	PO ODYD-271

SPECIFICATIONS

Sales Order 79793	Dated: 3/8/2011

We hereby cerify 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: Jamal Garcia	Date: 3/8/2011

Midwest Hose & Specialty, Inc.

Co-Flex Hose
Perry 22 Federal Com 29H
Cimarex Energy Co.
22-20S-34E
Lea Co., NM

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 vermculite coated fiberglass insulation, rated at 2000 degrees with stainless steel armor cover.

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

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

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

Date: 7/11/2019

☒ Original Operator & OGRID No.: Cimarex Energy Co- 215099

☐ Amended - Reason for Amendment:

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Perry 22 Fed Com 29H	Pending	C: 22-20S-34E	408'FNL & 1500' FWL	1600		

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to Gas Transporter and will be connected to Gas Transporter low/high pressure gathering system located in Lea County, New Mexico. It will require 1/2 mile of pipeline to connect the facility to low/high pressure gathering system. Operator provides (periodically) to Gas Transporter a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Operator and Gas Transporter have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Targa (Versado)Monument Plant Processing Plant located in Sec 1-20S-36E , Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on Gas Transporter system at that time. Based on current information, it is Operator's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

1. Geological Formations

TVD of target 11,045
MD at TD 15,566

Pilot Hole TD N/A
Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
RUSTLER	1636	N/A	
TOP SALT	1824	N/A	
BASE SALT	2148	N/A	
YATES	3654	N/A	
CAPITAN	4583	N/A	
DELAWARE SANDS	5561	N/A	
BRUSHY CANYON	8107	N/A	
BONE SPRING	8390	N/A	
1ST BONE SPRING SAND	10075	N/A	
TARGET ZONE	10970	N/A	
WOLFCAMP	11005	N/A	

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	1686	1686	13-3/8"	54.50	J-55	BT&C	1.46	3.55	9.28
12 1/4	0	5541	5541	9-5/8"	40.00	J-55	LT&C	1.32	1.34	2.35
8 3/4	0	10522	10522	7"	29.00	L-80	LT&C	1.43	1.66	3.13
8 3/4	10522	15566	11045	5-1/2"	17.00	L-80	BT&C	1.22	1.50	44.65
					BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet

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

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

3. Cementing Program

Casing	# Sks	Wt. lb/gal	Yld ft3/sack	H2O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	817	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	219	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate Stage 1	273	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
Intermediate Stage 2	767	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
Production	552	10.30	3.64	22.18		Lead: Tuned Light + LCM
	1268	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS

DV tool with possible annular casing packer as needed is proposed at a depth of +/- 3,450'.

Casing String	TOC	% Excess
Surface	0	45
Intermediate Stage 1	3450	39
Intermediate Stage 2	0	24
Production	0	25

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	50% of working pressure
			Blind Ram		2M
			Pipe Ram		
			Double Ram	X	
			Other		
8 3/4	13 5/8	3M	Annular	X	50% of working pressure
			Blind Ram		3M
			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.

	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.	
X	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.	
	N	Are anchors required by manufacturer?

5. Mud Program

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0' to 1686'	FW Spud Mud	8.30 - 8.80	30-32	N/C
1686' to 5541'	Brine Water	9.70 - 10.20	30-32	N/C
5541' to 15566'	Cut Brine or OBM	8.50 - 9.00	27-70	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

6. Logging and Testing Procedures

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

Additional Logs Planned	Interval

7. Drilling Conditions

Condition	
BH Pressure at deepest TVD	5169 psi
Abnormal Temperature	No

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

8. Other Facets of Operation

9. Wellhead

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 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 50% 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 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.

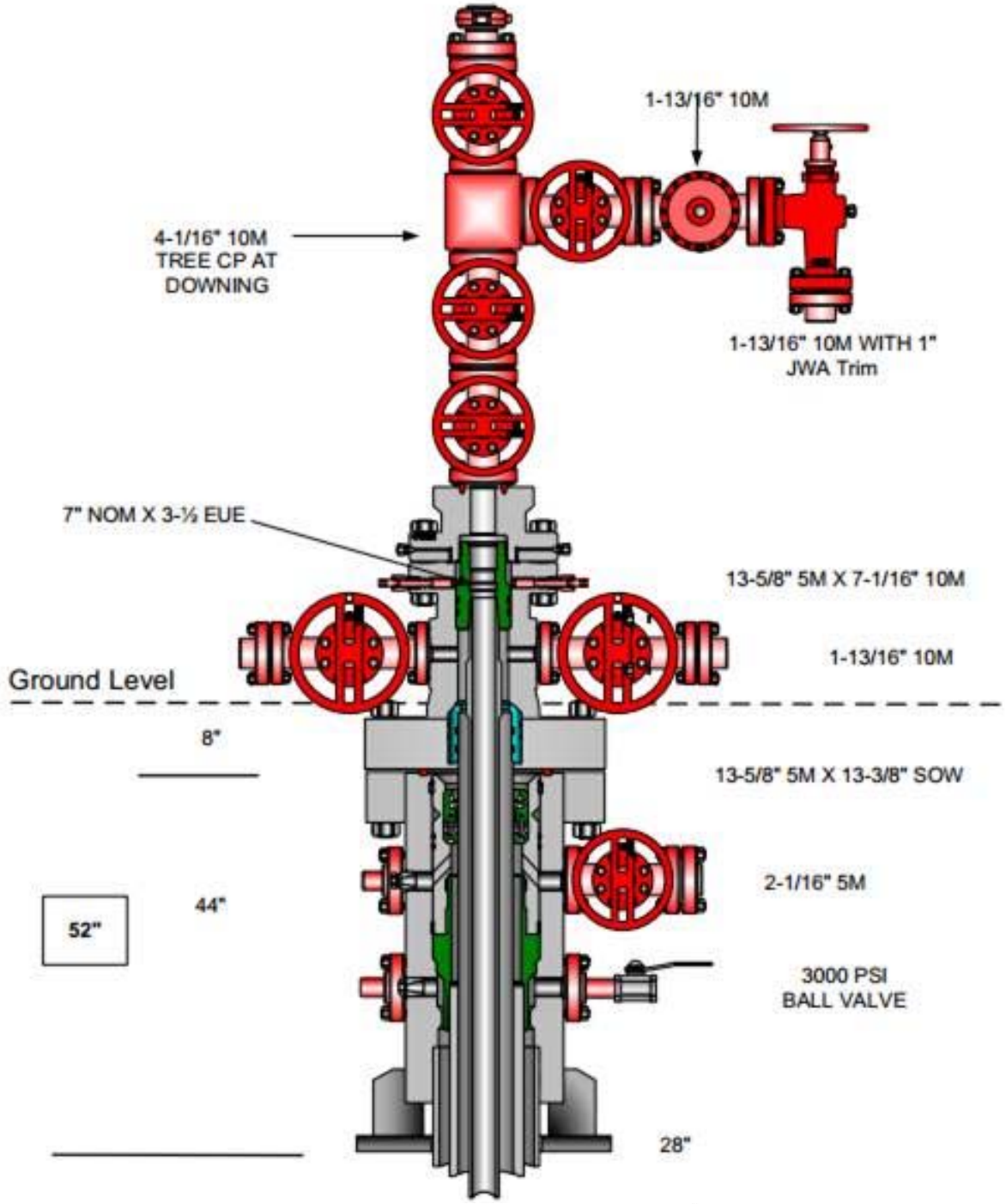
All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type.

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 3000 psi.

All casing strings will be tested as per Onshore Order No.2 to atleast 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.

Multi-bowl Wellhead Diagram



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	1686	1686	13-3/8"	54.50	J-55	BT&C	1.46	3.55	9.28
12 1/4	0	5541	5541	9-5/8"	40.00	J-55	LT&C	1.32	1.34	2.35
8 3/4	0	10522	10522	7"	29.00	L-80	LT&C	1.43	1.66	3.13
8 3/4	10522	15566	11045	5-1/2"	17.00	L-80	BT&C	1.22	1.50	44.65
						BLM Minimum Safety Factor		1.125	1	1.6 Dry 1.8 Wet

Multi-bowl Wellhead Diagram
Perry 22 Federal Com 29H
Cimarex Energy Co.
22-20S-34E
Lea Co., NM

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

SUPO Data Report
12/07/2021

APD ID: 10400042332
Submission Date: 08/05/2019
Operator Name: CIMAREX ENERGY COMPANY
Well Name: PERRY 22 FEDERAL COM
Well Number: 29H
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:

Perry_22_Fed_Com_W2E2___E2W2_Existing_Access_Road_20200204100118.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? NO

ROW ID(s)

ID:

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:

Perry_22_Federal_Com_E2W2_Road_ROW__20200309070708.pdf

New road type: COLLECTOR

Length: 1152 Feet **Width (ft.):** 30

Max slope (%): 2 **Max grade (%):** 6

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 18

New road access erosion control: The side slopes of any drainage channels or swales that are crossed will be re-contoured to original grade and compacted and mulched as necessary to avoid erosion. Where steeper slopes cannot be avoided, water bars or silt fence will be constructed, mulch/rip-rap applied, or other measures employed as necessary to control erosion. Hay bales, straw waddles or silt fence may also be installed to control erosion as needed. All disturbed areas will be seeded with a mix appropriate for the area unless specified otherwise by the landowner.

New road access plan or profile prepared? NO

New road access plan attachment:

Operator Name: CIMAREX ENERGY COMPANY

Well Name: PERRY 22 FEDERAL COM **Well Number:** 29H

Access road engineering design? NO

Access road engineering design attachment:

Turnout? N

Access surfacing type: GRAVEL

Access topsoil source: ONSITE

Access surfacing type description:

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, whether created by vehicular traffic, equipment operations or other events.

Access miscellaneous information:

Number of access turnouts: **Access turnout map:**

Drainage Control

New road drainage crossing: CULVERT,LOW WATER,OTHER

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:

Perry_22_Fed_Com_29H_One_Mile_Radius_Existing_Wells_20190802100837.pdf

Operator Name: CIMAREX ENERGY COMPANY

Well Name: PERRY 22 FEDERAL COM **Well Number:** 29H

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: An existing production facility battery will used located at the Perry 22 Fed Com #1 or Perry 22 Fed Com #4. Road: Existing and new roads will be used. - Please see Exhibit C for 1152' new road. Flowline/Gas Lift: 6" buried steel flowline, 6" buried gas lift line. FL/GL will be constructed in the same 60' trench. Please see Attachment M for route. Power: 831' of 3 Phase, 4 Wire, 480V. See Exhibit I for route.

Production Facilities map:

Perry_22_Fed_Com_E2W2_Production_Facility_20190802100857.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: PIPELINE

TRUCKING

Source land ownership: FEDERAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 5000

Source volume (acre-feet): 0.6444655

Source volume (gal): 210000

Water source and transportation map:

Perry_22_Fed_Com_29H_Drilling_Water_Route_20190802101107.pdf

Water source comments:

New water well? NO

New Water Well Info

Operator Name: CIMAREX ENERGY COMPANY

Well Name: PERRY 22 FEDERAL COM **Well Number:** 29H

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: The drilling and testing operations will be conducted on a watered and compacted native soil grade. Soft spots will be covered with caliche, free of large rocks (3" diameter). Upon completion as a commercial producer the location will be covered with caliche, free of large rocks (3" dia.) from an existing privately owned gravel pit. The private surface owner surface use agreement requires caliche be obtained from a BLM approved pit located in Sec. 35-20S-34E.

Construction Materials source location attachment:

Section 7 - Methods for Handling Waste

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

Operator Name: CIMAREX ENERGY COMPANY

Well Name: PERRY 22 FEDERAL COM **Well Number:** 29H

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: Windmill Spraying Service hauls trash to Lea County Landfill

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:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: Haul to R360 commercial Disposal

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

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

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? NO

Operator Name: CIMAREX ENERGY COMPANY

Well Name: PERRY 22 FEDERAL COM **Well Number:** 29H

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 Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

Perry_22_Fed_Com_29H_Wellsite_Layout_20190802101650.pdf

Perry_22_Federal_E2W2_Wellsite_Pad_Info_20200204115933.docx

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:** PERRY 22 FED COM

Multiple Well Pad Number: E2W2 PAD

Recontouring attachment:

Perry_22_Fed_Com_E2W2__Interim_Reclaimation_20190802101726.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 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.

Operator Name: CIMAREX ENERGY COMPANY

Well Name: PERRY 22 FEDERAL COM **Well Number:** 29H

Well pad proposed disturbance (acres): 7.89
Road proposed disturbance (acres): 0.794
Powerline proposed disturbance (acres): 0.572
Pipeline proposed disturbance (acres): 7.89
Other proposed disturbance (acres): 0

Total proposed disturbance: 17.146

Well pad interim reclamation (acres): 4.3
Road interim reclamation (acres): 0
Powerline interim reclamation (acres): 0
Pipeline interim reclamation (acres): 7.89
Other interim reclamation (acres): 0

Total interim reclamation: 12.19

Well pad long term disturbance (acres): 3.5
Road long term disturbance (acres): 0.794
Powerline long term disturbance (acres): 0
Pipeline long term disturbance (acres): 0
Other long term disturbance (acres): 0

Total long term disturbance: 4.294

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: Salvaged topsoil, if any, would be re-spread evenly over the surfaces to be re-vegetated.

Soil treatment: 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.
Existing Vegetation at the well pad:

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road:

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline:

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances:

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Operator Name: CIMAREX ENERGY COMPANY

Well Name: PERRY 22 FEDERAL COM **Well Number:** 29H

Will seed be harvested for use in site reclamation?

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed Summary	
Seed Type	**Pounds/Acre**

Total pounds/Acre:

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: **Last Name:**

Phone: **Email:**

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: N/A

Weed treatment plan attachment:

Monitoring plan description: N/A

Monitoring plan attachment:

Success standards: N/A

Pit closure description: N/A

Pit closure attachment:

Section 11 - Surface Ownership

Operator Name: CIMAREX ENERGY COMPANY

Well Name: PERRY 22 FEDERAL COM **Well Number:** 29H

Disturbance type: WELL PAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

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:**

Disturbance type: TRANSMISSION LINE

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

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:**

Operator Name: CIMAREX ENERGY COMPANY

Well Name: PERRY 22 FEDERAL COM **Well Number:** 29H

Disturbance type: PIPELINE

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

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:**

Disturbance type: OTHER

Describe: Temp Frac Line

Surface Owner: BUREAU OF LAND MANAGEMENT,PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

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:**

Operator Name: CIMAREX ENERGY COMPANY

Well Name: PERRY 22 FEDERAL COM **Well Number:** 29H

Section 12 - Other Information

Right of Way needed? YES **Use APD as ROW?** YES

ROW Type(s): 281001 ROW - ROADS,287001 ROW – Water Facility,288101 ROW – O&G Facility Sites,289001 ROW-O&G Well Pad,FLPMA (Powerline)

ROW Applications

SUPO Additional Information: Surface disturbance for existing road and production facility have been approved in the Perry 22 Fed Com #1H Apd
Use a previously conducted onsite? YES

Previous Onsite information: Onsite date:3-12-19. BLM Personnel Jeff Robertston. Cimarex Personnel: Barry Hunt

Other SUPO Attachment

Perry_22_Fed_Com_29H_Public_Access_20190802103037.pdf
Perry_22_Fed_Com_29H_Road_Description_20190802103038.pdf
Perry_22_Fed_Com_E2W2__Temp_Frac_Water_Route_20190802103039.pdf
Perry_22_Fed_Com_E2W2_Flowline_ROW_20190802103040.pdf
Perry_22_Fed_Com_E2W2_Powerline_ROW_20190802103041.pdf
Perry_22_Fed_Com_29H_SUPO_20200204113914.pdf

AFMSS

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

PWD Data Report

12/07/2021

APD ID: 10400042332 **Submission Date:** 08/05/2019

Operator Name: CIMAREX ENERGY COMPANY

Well Name: PERRY 22 FEDERAL COM **Well Number:** 29H

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 Pits

Would you like to utilize Lined Pit PWD options? NO

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 specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Operator Name: CIMAREX ENERGY COMPANY

Well Name: PERRY 22 FEDERAL COM **Well Number:** 29H

Lined pit Monitor description:

Lined pit Monitor attachment:

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 attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

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 specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

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

Beneficial use user confirmation:

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 evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

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

Operator Name: CIMAREX ENERGY COMPANY

Well Name: PERRY 22 FEDERAL COM **Well Number:** 29H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

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 attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

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 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Operator Name: CIMAREX ENERGY COMPANY

Well Name: PERRY 22 FEDERAL COM **Well Number:** 29H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

AFMSS

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

Bond Info Data Report

12/07/2021

APD ID: 10400042332

Submission Date: 08/05/2019

Operator Name: CIMAREX ENERGY COMPANY

Well Name: PERRY 22 FEDERAL COM

Well Number: 29H

Well Type: OIL WELL

Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Bond Information

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 attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: Cimarex Energy Company **OGRID:** 215099 **Date:** 4 / 27 / 2022

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
Perry 22 Fed Com 29H	30-025-50081	C, Sec 22, T20S, R34E	408 FNL/1500 FWL	700	1000	1500

IV. Central Delivery Point Name: Perry 22 CDP Sales [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
Perry 22 Federal Com 29H	30-025-50081	12/1/2025	12/15/2022	3/1/2026	4/1/2026	4/1/20026

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:	Sarah Jordan
Printed Name:	Sarah Jordan
Title:	Regulatory Analyst
E-mail Address:	sarah.jordan@coterra.com
Date:	
Phone:	432/620-1909

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

From State of New Mexico, Natural Gas Management Plan

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

XEC Standard Response

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

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.

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1625 N. French Dr., Hobbs, NM 88240
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District III
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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 102088

CONDITIONS

Operator: CIMAREX ENERGY CO. 600 N. Marienfeld Street Midland, TX 79701	OGRID: 215099
	Action Number: 102088
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104	4/29/2022
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	4/29/2022
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	4/29/2022
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing	4/29/2022