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.: NMNM0558679

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.: EAGLE 26 FEDERAL COM 3H

2. Name of Operator: REDWOOD OPERATING LLC

9. API Well No.: 30-015-49270

3a. Address: 11344 LOVINGTON HWY, ARTESIA, NM 88210

3b. Phone No. *(include area code)*: (575) 748-1288

10. Field and Pool, or Exploratory: RED LAKE/GLORIETA YESO

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

At surface: NENE / 1195 FNL / 688 FEL / LAT 32.8092446 / LONG -104.2602783

At proposed prod. zone: SWNW / 1650 FNL / 760 FWL / LAT 32.8078368 / LONG -104.2383566

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 27/T17S/R27E/NMP

14. Distance in miles and direction from nearest town or post office*: 10 miles

12. County or Parish: EDDY

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 688 feet

16. No of acres in lease:

17. Spacing Unit dedicated to this well: 200.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 150 feet

19. Proposed Depth: 3289 feet / 9782 feet

20. BLM/BIA Bond No. in file: FED: NMB001854

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3536 feet

22. Approximate date work will start*: 09/01/2021

23. Estimated duration: 20 days

24. Attachments

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

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

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	DEANA WEAVER / Ph: (575) 748-1288	04/22/2021

Title: Production Clerk

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575) 234-5959	02/02/2022

Title	Office
Assistant Field Manager Lands & Minerals	Carlsbad Field Office

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

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

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 02/02/2022

Confidential

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
30-015-49270	51120	Red Lake; Glorieta Yeso

[4] Property Code	[5] Property Name	[6] Well Number
329382	EAGLE 26 FEDERAL COM	3H

[7] OGRID No.	[8] Operator Name	[9] Elevation
330211	REDWOOD OPERATING LLC	3536.1

[10] Surface Location

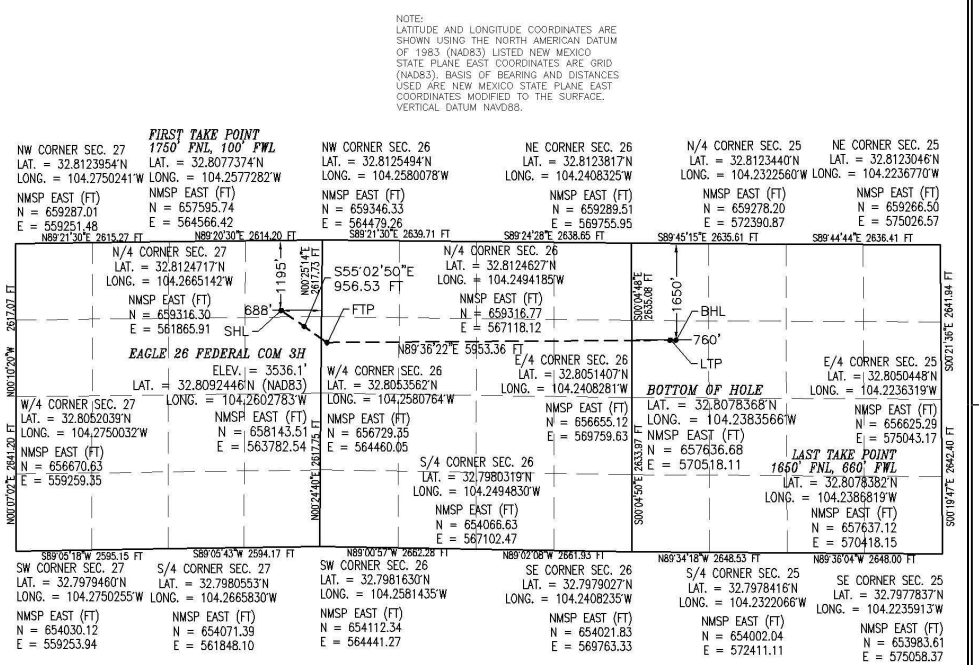
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	27	17 S	27 E		1195	NORTH	688	EAST	EDDY

[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
E	25	17 S	27 E		1650	NORTH	760	WEST	EDDY

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
200			

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.



[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.

Deana Weaver 3/30/2021

Signature Date

Deana Weaver

Printed Name

dweaver@mec.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.

NOVEMBER 11, 2020

Date of Survey

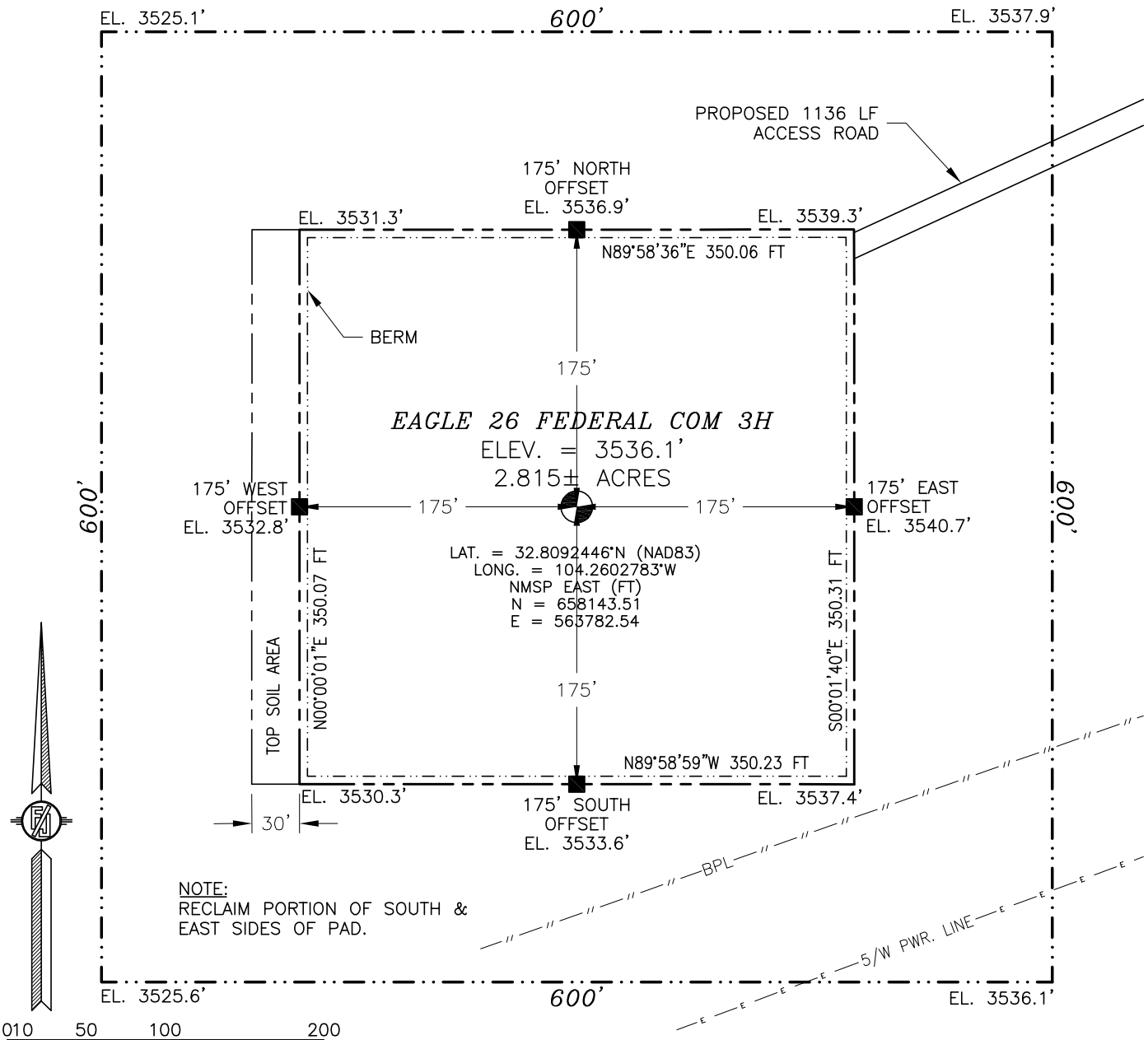
Signature and Seal of Professional Surveyor:

Certificate Number: FILIMON F. JARAMILLO, PLS 12797

SURVEY NO. 8538

SECTION 27, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
SITE MAP

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE



010 50 100 200
SCALE 1" = 100'

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF STATE HIGHWAY 82 & CR. 204 (HILLTOP) GO SOUTH ON CR. 204 FOR APPROX. 0.2 OF A MILE, GO WEST ON 20' CALICHE LEASE ROAD FOR APPROX. 1.06 MILES, CONTINUE SOUTH ON 15' CALICHE LEASE ROAD FOR APPROX. 0.29 OF A MILE TO BEGIN ROAD SURVEY, FOLLOW ROAD SURVEY WEST FOR 70' TO THE SOUTHEAST PAD CORNER FOR EAGLE 27 FED. COM 3H, THEN FROM THE SOUTHWEST PAD CORNER FOLLOW ROAD SURVEY SOUTHWEST FOR APPROX. 1136' TO THE NORTHEAST PAD CORNER FOR THIS LOCATION.

I, FILIMON F. JARAMILLO, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I OR UNDER MY RESPONSIBLE FOR THIS SURVEY, THAT THIS PLAT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

12797

FILIMON F. JARAMILLO, PLS 12797

REDWOOD OPERATING LLC

EAGLE 26 FEDERAL COM 3H

LOCATED 1195 FT. FROM THE NORTH LINE AND 688 FT. FROM THE EAST LINE OF SECTION 27, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

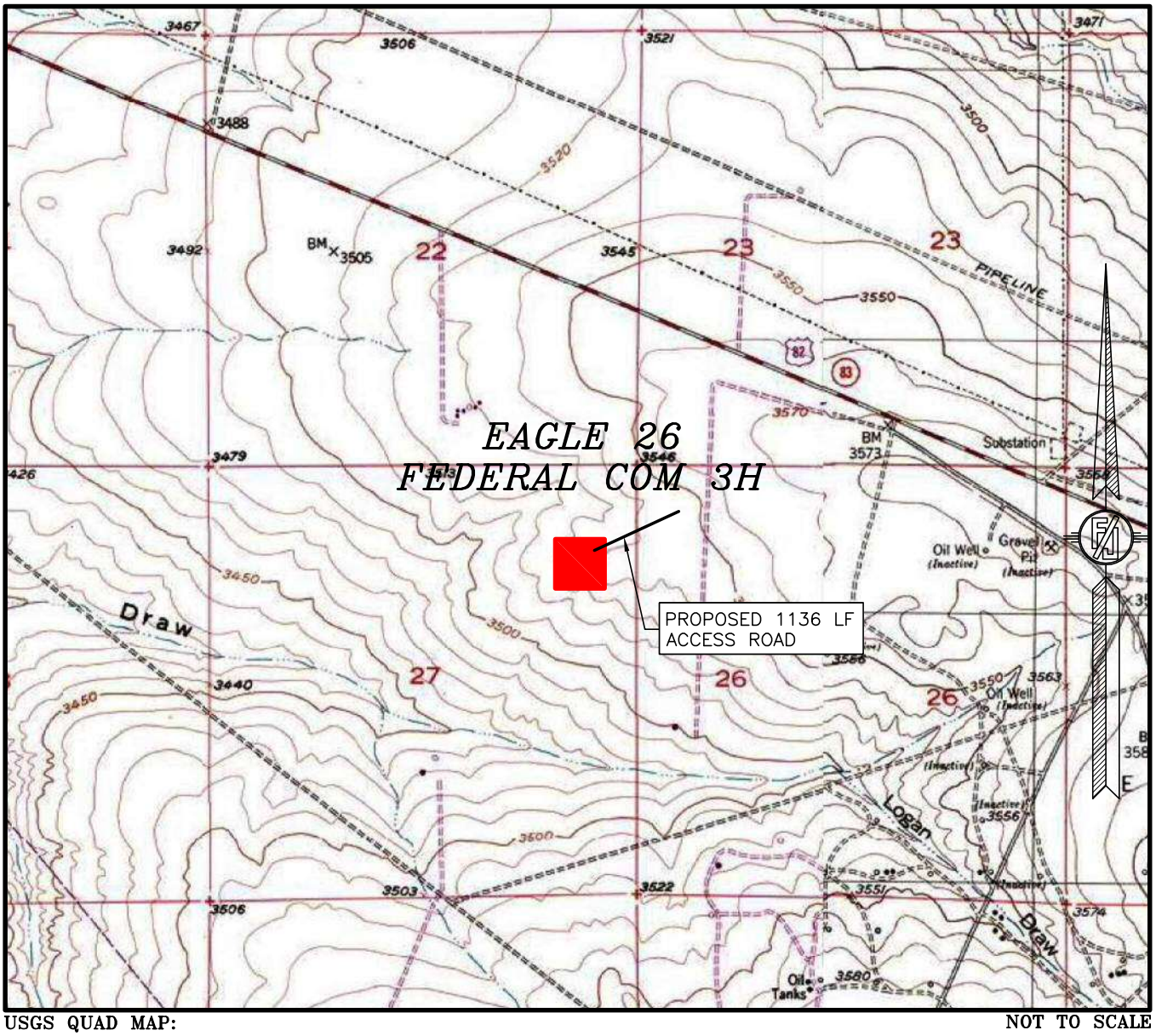
NOVEMBER 11, 2020

SURVEY NO. 8538

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 27, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

LOCATION VERIFICATION MAP



USGS QUAD MAP:
SPRING LAKE

NOT TO SCALE

REDWOOD OPERATING LLC
EAGLE 26 FEDERAL COM 3H
LOCATED 1195 FT. FROM THE NORTH LINE
AND 688 FT. FROM THE EAST LINE OF
SECTION 27, TOWNSHIP 17 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

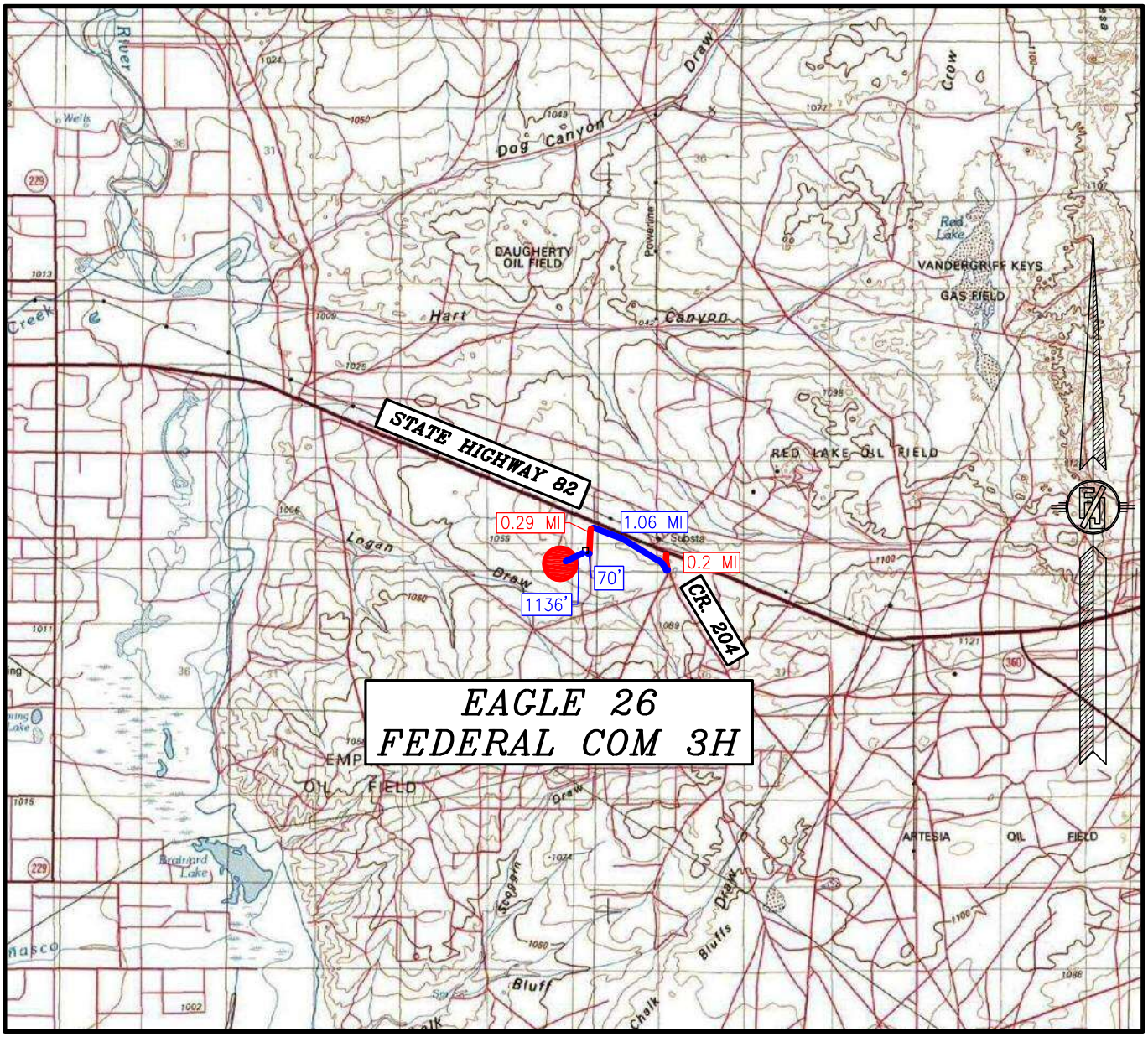
NOVEMBER 11, 2020

SURVEY NO. 8538

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 27, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

VICINITY MAP



DISTANCES IN MILES NOT TO SCALE

DIRECTIONS TO LOCATION
FROM THE INTERSECTION OF STATE HIGHWAY 82 & CR. 204 (HILLTOP) GO SOUTH ON CR. 204 FOR APPROX. 0.2 OF A MILE, GO WEST ON 20' CALICHE LEASE ROAD FOR APPROX. 1.06 MILES, CONTINUE SOUTH ON 15' CALICHE LEASE ROAD FOR APPROX. 0.29 OF A MILE TO BEGIN ROAD SURVEY, FOLLOW ROAD SURVEY WEST FOR 70' TO THE SOUTHEAST PAD CORNER FOR EAGLE 27 FED. COM 3H, THEN FROM THE SOUTHWEST PAD CORNER FOLLOW ROAD SURVEY SOUTHWEST FOR APPROX. 1136' TO THE NORTHEAST PAD CORNER FOR THIS LOCATION.

REDWOOD OPERATING LLC
EAGLE 26 FEDERAL COM 3H
LOCATED 1195 FT. FROM THE NORTH LINE AND 688 FT. FROM THE EAST LINE OF SECTION 27, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

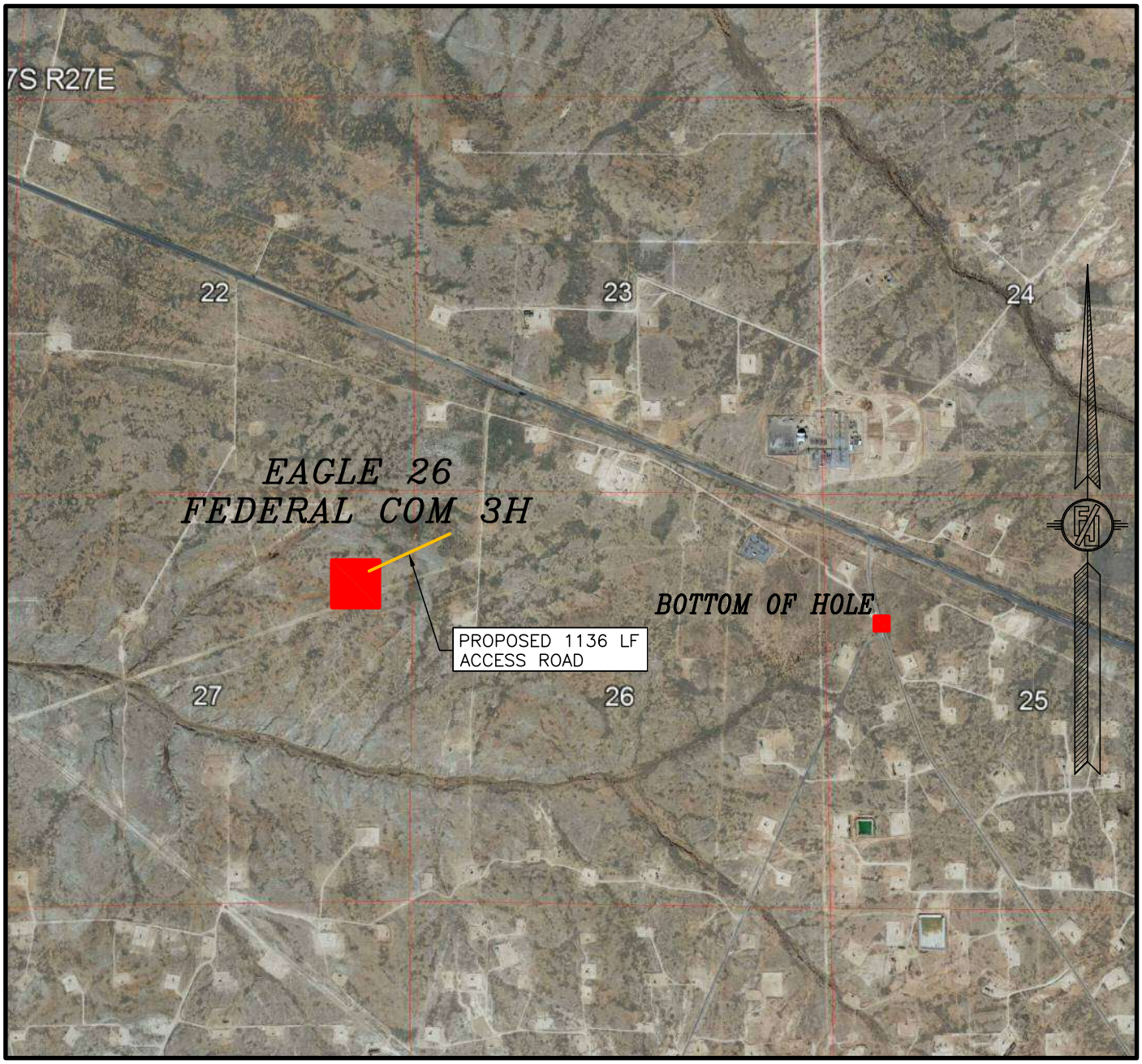
NOVEMBER 11, 2020

SURVEY NO. 8538

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 27, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
DECEMBER 2019

REDWOOD OPERATING LLC
EAGLE 26 FEDERAL COM 3H
LOCATED 1195 FT. FROM THE NORTH LINE
AND 688 FT. FROM THE EAST LINE OF
SECTION 27, TOWNSHIP 17 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

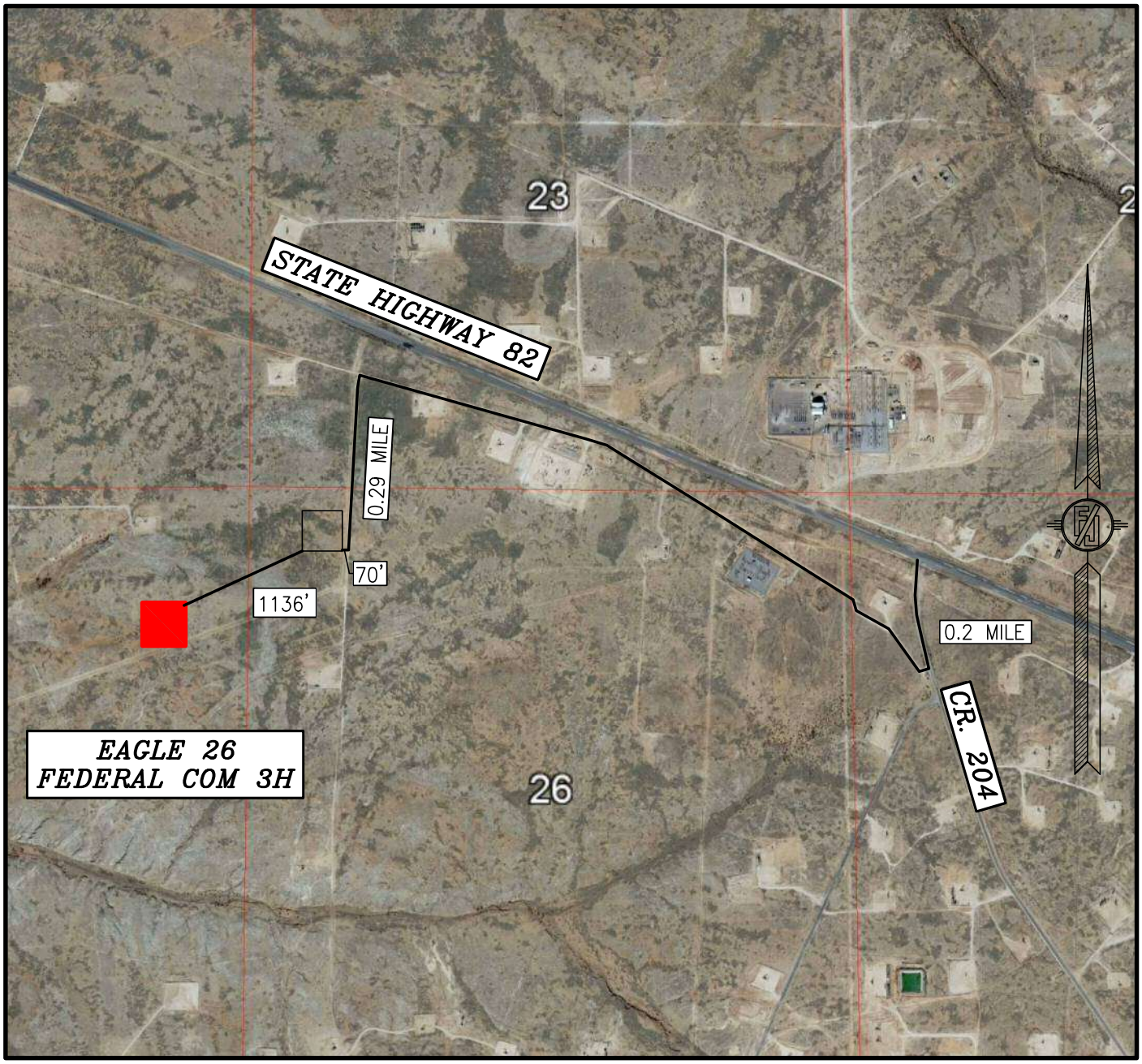
NOVEMBER 11, 2020

SURVEY NO. 8538

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 27, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

ACCESS AERIAL ROUTE MAP



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
DECEMBER 2019

REDWOOD OPERATING LLC

EAGLE 26 FEDERAL COM 3H

LOCATED 1195 FT. FROM THE NORTH LINE
AND 688 FT. FROM THE EAST LINE OF
SECTION 27, TOWNSHIP 17 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

NOVEMBER 11, 2020

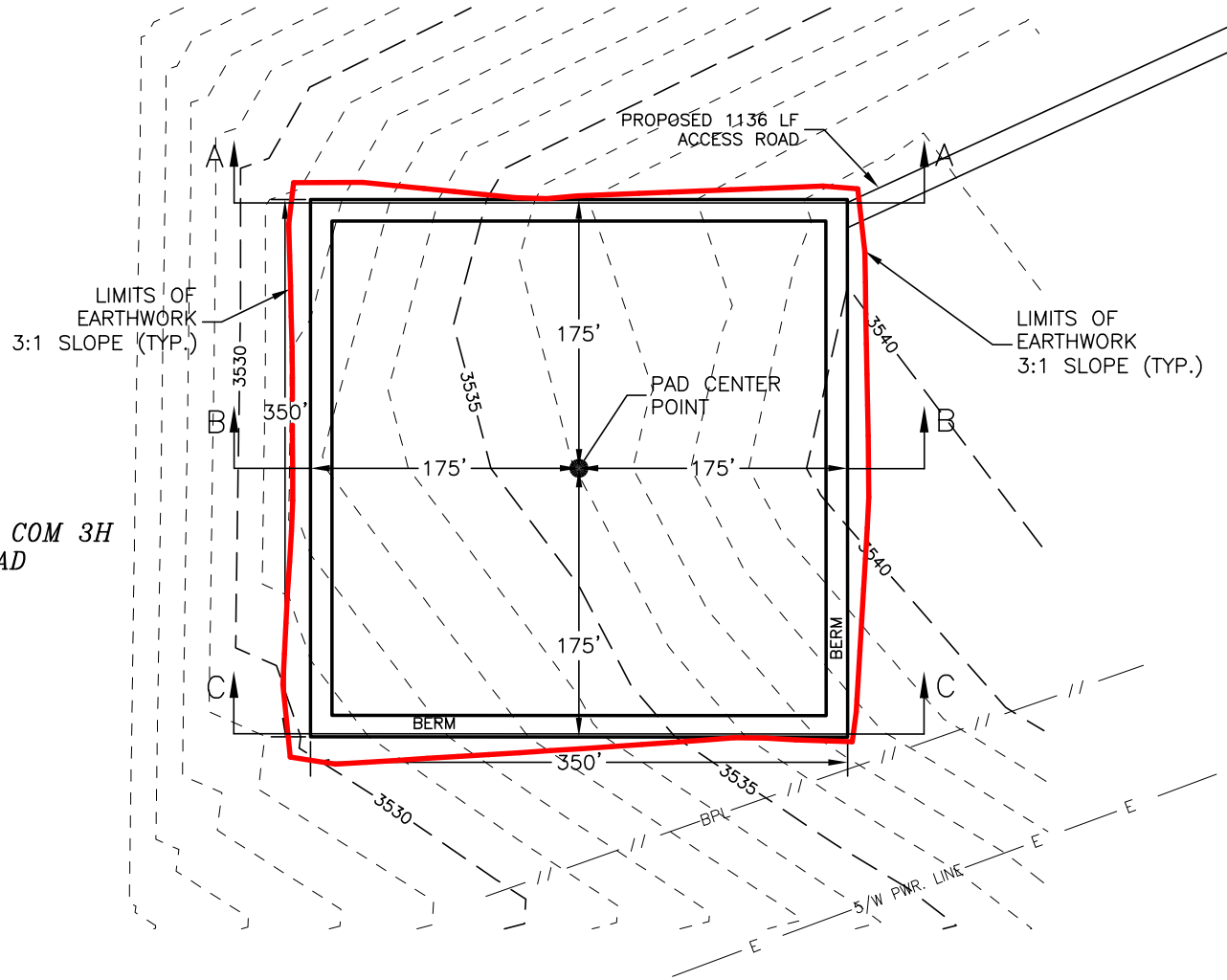
SURVEY NO. 8538

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

Released to Imaging: 2/11/2022 2:22:30 PM

Received by OCD: 2/2/2022 3:23:50 PM

PLAN VIEW



EAGLE 26 FEDERAL COM 3H
PROPOSED PAD
EL. 3536.0'

I, FILIMON F. JARAMILLO, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

FILIMON F. JARAMILLO PLS. 12797

REDWOOD OPERATING LLC
GRADING PLAN AND CROSS SECTIONS
FOR EAGLE 26 FEDERAL COM 3H
SECTION 27, TOWNSHIP 17 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

NOVEMBER 11, 2020

012 60 120 240
SCALE 1" = 120'

CUT	FILL	NET
3890 CU. YD	6321 CU. YD	2431 CU. YD (FILL)

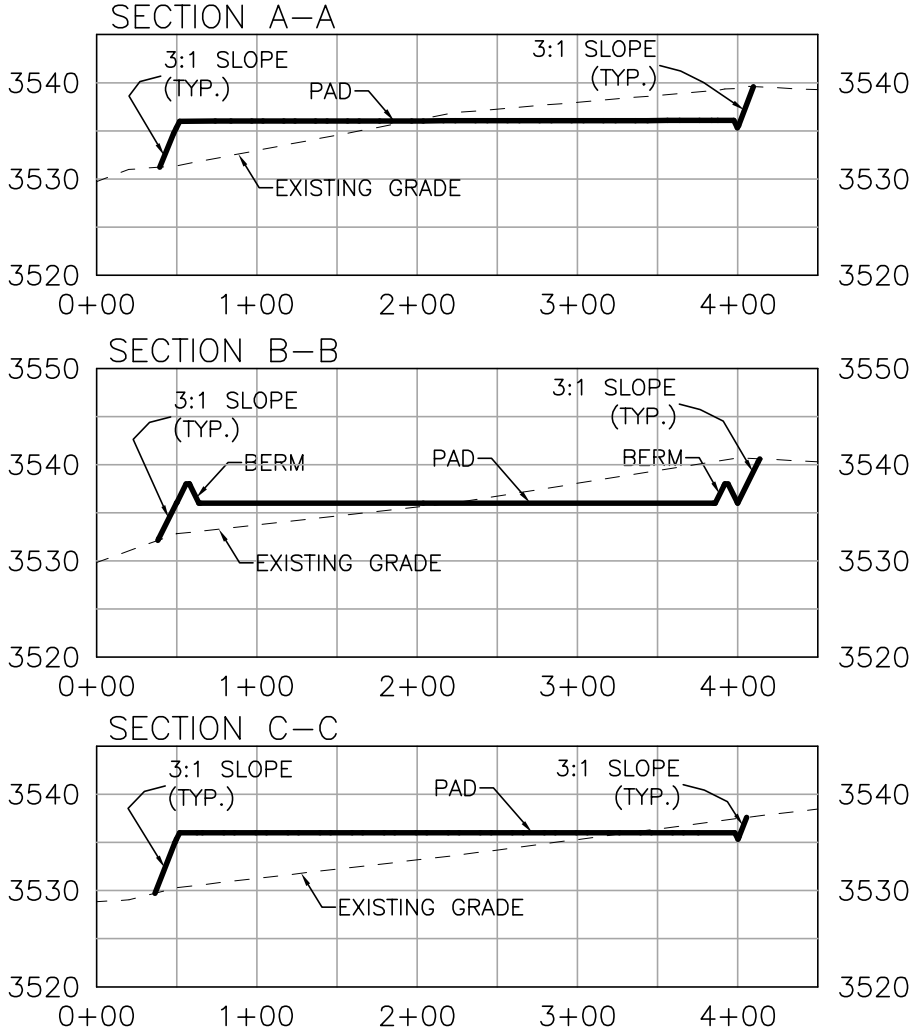
EARTHWORK QUANTITIES ARE ESTIMATED

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 *CARLSBAD, NEW MEXICO*

SHEET 1-2
SURVEY NO. 8538

Released to Imaging: 2/11/2022 2:22:30 PM
Received by OCD: 2/2/2022 3:23:50 PM

CROSS-SECTIONS



I, FILIMON F. JARAMILLO, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

FILIMON F. JARAMILLO PLS. 12797

REDWOOD OPERATING LLC
GRADING PLAN AND CROSS SECTIONS
FOR EAGLE 26 FEDERAL COM 3H
SECTION 27, TOWNSHIP 17 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

NOVEMBER 11, 2020

012 60 120 240
SCALE 1" = 120' - 1" = 20' VER

CUT	FILL	NET
3890 CU. YD	6321 CU. YD	2431 CU. YD (FILL)

EARTHWORK QUANTITIES ARE ESTIMATED

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 *CARLSBAD, NEW MEXICO*

SHEET 2-2
SURVEY NO. 8538

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: Redwood Operating LLC **OGRID:** 330211 **Date:** ____/____/_____

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
Eagle 26 Federal Com 3H		Unit A Sec. 27 T17S R27E	1195 FNL 688 FEL	100	100	1,000

IV. Central Delivery Point Name: DCP Midstream Linam Ranch Processing Plant/ Durango Midstream [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
Eagle 26 Federal Com #3H		3/1/2022	3/20/2022	4/20/2022	4/20/2022	4/20/2022

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:	Deana Weaver
Printed Name:	Deana Weaver
Title:	Regulatory Technician II
E-mail Address:	regulatory@redwoodoperating.com
Date:	2/02/2022
Phone:	575-748-1288

OIL CONSERVATION DIVISION

(Only applicable when submitted as a standalone form)

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

VI. Separation Equipment:

Redwood Operating LLC production facilities include separation equipment designed to efficiently separate gas from liquid phases to optimize gas capture based on projected and estimated volumes from the targeted pool of our completion project. Redwood Operating LLC will utilize flowback separation equipment and production separation equipment designed and built to industry specifications after the completion to optimize gas capture and send gas to sales or flare based on analytical composition. Redwood Operating LLC operates facilities that are typically multi-well facilities. Redwood Operating LLC will upgrade production separation equipment, if necessary prior to new wells being completed, if determined to be undersized or inadequate. This equipment is already on-site and tied into our sales gas lines prior to the new drill operations.

VII. Operational Practices:

1. Subsection (A) Venting and Flaring of Natural Gas. Redwood Operating LLC understands the requirements of NMAC 19.15.27.8 which outlines that the venting and flaring of natural gas during drilling, completion or production operations that constitutes waste as defined in 19.15.2 are prohibited.
2. Subsection (B) Venting and Flaring during drilling operations. This gas capture plan is for a well being drilled.
3. Subsection (C) Venting and flaring during completion or recompletion. Flow lines will be routed for flow back fluids into a completion or storage tank and if feasible under well conditions, flare rather than vent and commence operation of a separator as soon as it is technically feasible for a separator to function.
    - At any point in the well life (completion, production, inactive) an audio, visual and olfactory inspection be performed at prescribed intervals (weekly or monthly) pursuant to Subsection D of 19.15.27.8 NMAC, to confirm that all production equipment is operating properly and there are no leaks or releases.
4. Subsection (D) Venting and flaring during production operations ○ At any point in the well life (completion, production, inactive) an audio, visual and olfactory inspection be performed at prescribed intervals (weekly or monthly) pursuant to Subsection D of 19.15.27.8 NMAC, to confirm that all production equipment is operating properly and there are no leaks or releases.
    - Monitor manual liquid unloading for wells on-site or in close proximity (<30 minutes' drive time), take reasonable actions to achieve a stabilized rate and pressure at the earliest practical time, and take reasonable actions to minimize venting to the maximum extent practicable.
    - Redwood Operating LLC will not vent or flare except during the approved activities listed in NMAC 19.15.27.8 (D) 14.
5. Subsection (E) Performance standards. All tanks and separation equipment are designed for maximum throughput and pressure to minimize waste.
    - If a flare is utilized during production operations it will have a continuous pilot and is located more than 100 feet from any known well or storage tanks.
    - At any point in the well life (completion, production, inactive) an audio, visual and olfactory inspection be performed at prescribed intervals (weekly or monthly) pursuant to Subsection D

of 19.15.27.8 NMAC, to confirm that all production equipment is operating properly and there are no leaks or releases.

6. Subsection (F) Measurement or estimation of vented and flared natural gas
   - Measurement equipment is installed to measure the volume of natural gas flared from process piping.
   - When measurement is not practicable, estimation of vented and flared natural gas will be completed as noted in 19.15.27.8 (F) 5-6.

VIII. Best Management Practices:

1. Redwood Operating LLC has adequate storage and takeaway capacity for wells it chooses to complete as the flow lines at the sites are already in place and tied into a gathering system.
2. Redwood Operating LLC will flare rather than vent vessel blowdown gas when technically feasible during active and/or planned maintenance to equipment on-site.
3. Redwood Operating LLC combusts natural gas that would otherwise be vented or flared, when technically feasible.
4. Redwood Operating LLC will shut in wells in the event of a takeaway disruption, emergency situations, or other operations where venting or flaring may occur due to equipment failures.

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

Drilling Plan Data Report
02/02/2022

APD ID: 10400071579
Submission Date: 04/22/2021
Operator Name: REDWOOD OPERATING LLC
Well Name: EAGLE 26 FEDERAL COM
Well Number: 3H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
3376364	QUATERNARY	3536	0	0	ALLUVIUM	NONE	N
3376365	YATES	3349	187	187	SILTSTONE	NATURAL GAS, OIL	N
3376366	SEVEN RIVERS	3091	445	445	DOLOMITE, SILTSTONE	NATURAL GAS, OIL	N
3376367	QUEEN	2609	927	927	SILTSTONE	NATURAL GAS, OIL	N
3376368	GRAYBURG	2172	1364	1364	DOLOMITE, SILTSTONE	NATURAL GAS, OIL	N
3376369	SAN ANDRES	1873	1663	1663	DOLOMITE	NATURAL GAS, OIL	N
3376370	GLORIETA	499	3037	3037	SILTSTONE	NATURAL GAS, OIL	Y
3376371	YESO	431	3105	3105	DOLOMITE	NATURAL GAS, OIL	Y
3200138		0					

Section 2 - Blowout Prevention

Pressure Rating (PSI): 3M
Rating Depth: 9783

Equipment: Rotating Head, Mud-Gas Separator

Requesting Variance? NO

Variance request:

Testing Procedure: The BOP/BOPE test shall include a low pressure test from 250 to 300psi. 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. The estimated bottom hole at TD is 120 degrees and estimated maximum bottom hole pressure is 1574 psig (0.052*3289'TVD*9.2ppg) less than 2900 bottom hole pressure. Will test to 2000psi for 30 min.

Choke Diagram Attachment:

Choke_Manifold_20210330083400.pdf

choke_manifold_diagram_20210330083444.pdf

BOP Diagram Attachment:

Operator Name: REDWOOD OPERATING LLC

Well Name: EAGLE 26 FEDERAL COM **Well Number:** 3H

Choke_Manifold_20210330083400.pdf

choke_manifold_diagram_20210330083444.pdf

bop_diagram_20210330083516.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	375	0	375	3536	3161	375	J-55	48	ST&C	3.953	4.667	BUOY	28.197	BUOY	4.74
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	1230	0	1230	3536	2306	1230	J-55	36	ST&C	3.158	7.04	BUOY	10.505	BUOY	7.04
3	PRODUCTION	8.75	7.0	NEW	API	N	0	2300	0	2300	3536	1236	2300	L-80	26	LT&C	4.098	2.443	BUOY	4.424	BUOY	2.413
4	PRODUCTION	8.75	7.0	NEW	API	N	2300	3400	2300	3400	1236	136	1100	L-80	26	OTHER - BTC	2.822	2.457	BUOY	4.424	BUOY	2.443
5	PRODUCTION	8.75	5.5	NEW	API	N	3400	9783	3400	9783	136	-6247	6383	L-80	17	OTHER - BTC	3.57	2.718	BUOY	3.698	BUOY	2.62

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Surface_Csg_20210329145030.pdf

Operator Name: REDWOOD OPERATING LLC

Well Name: EAGLE 26 FEDERAL COM **Well Number:** 3H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

inter_csg_20210329144635.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

prod_csg_20210329145607.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

prod_csg_20210329150020.pdf

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Operator Name: REDWOOD OPERATING LLC

Well Name: EAGLE 26 FEDERAL COM **Well Number:** 3H

Casing Attachments

Casing ID: 5 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

prod_csg_20210329150556.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead		0	0	0	0	0	0		0	0
PRODUCTION	Lead		0	0	0	0	0	0	0	0	0
SURFACE	Lead		0	375	420	1.34	14.8	261	100	Class C + 1% PF1	20bbls gel spacer, 50sx of 11# scavenger cement
INTERMEDIATE	Lead		0	1230	250	1.72	13.5	385.23	100	Class C + 4%PF20+1% PF1+0.125#/skP F29 + .4%PF45	20bbls gel spacer, 50sx of 11# scavenger cement
INTERMEDIATE	Tail		1	1230	200	1.34	14.8	385.23	100	Class C + .1%PF 1	20bbls gel spacer, 50sx of 11# scavenger cement
PRODUCTION	Lead		0	9783	375	1.82	12.9	2471.18	35	35/65 Perlite/C 5% PF44 + 6% PF20 + 2% PF13 +3 ppsPF42+.4pps	20bbls gel spacer, 50sx of 11# scavenger cement

CONFIDENTIAL

Operator Name: REDWOOD OPERATING LLC

Well Name: EAGLE 26 FEDERAL COM **Well Number:** 3H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
										125ppsPF29	
PRODUCTION	Tail		0	9783	1800	1.48	13	2471.18	35	PVL + 1.3% PF44(BWOW) + 5% PF174+.5%PF506 + 0.1%PF153+	20bbls Gel Spacer, 50sx of 11# Scavenger Cement

Section 5 - Circulating Medium

Mud System Type: Open

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: BOPE Brine Water

Describe the mud monitoring system utilized: Pason PVT with PVT Volume Recorder

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	375	SPUD MUD	8.5	10	74.8	0.1	11		12000	15	
375	1230	LSND/GEL	8.3	10	74.8	0.1	11		12000	15	
1230	9783	LSND/GEL	8.3	9.2	74.8	0.1	11		12000	15	The estimated bottom hole at TD is 120 degrees and estimated maximum bottom hole press is 1574 psig less than 2900 bottom hole pressure

Operator Name: REDWOOD OPERATING LLC

Well Name: EAGLE 26 FEDERAL COM **Well Number:** 3H

Section 6 - Test, Logging, Coring

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

None

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

CNL/FDC,COMPENSATED DENSILOG,GAMMA RAY LOG,DUAL LATERAL LOG/MICRO-SPHERICALLY FOCUSED,

Coring operation description for the well:

None

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 1574 **Anticipated Surface Pressure:** 850

Anticipated Bottom Hole Temperature(F): 95

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? NO

Hydrogen sulfide drilling operations plan:

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Eagle_26_Federal_Com_3H_Prelimary_Plan_1_20210330093802.pdf
Horizontal_Spacing_Unit_20210330093811.pdf
H2S_Escape_Route_Diagram_20210330093947.pdf
H2S_Plan_20210419125459.pdf
Drilling_Plan_20210420091956.pdf
GasCapturePlanFormFinal_000_20210420100914.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Other Variance attachment:

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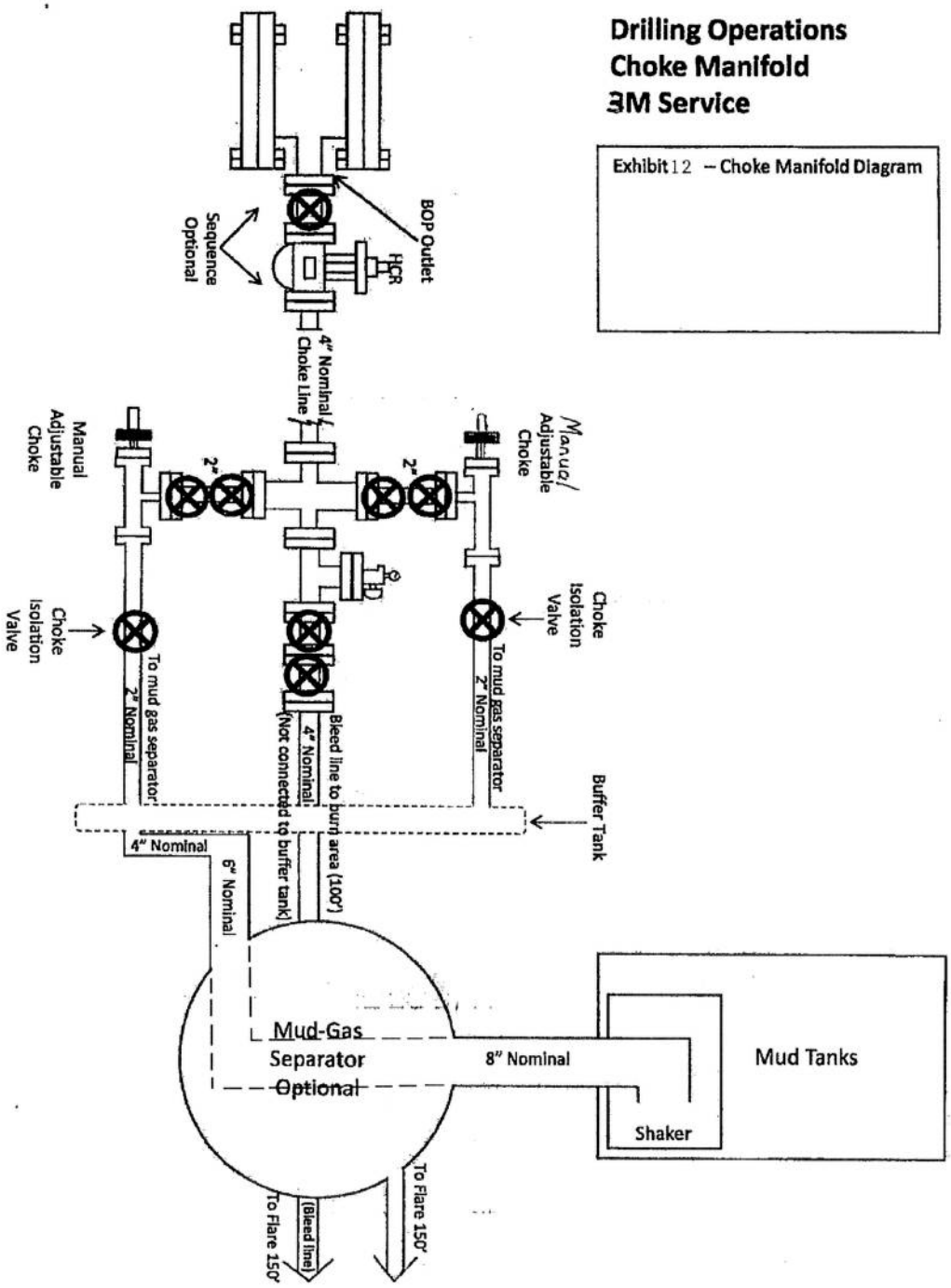
Mack Energy Corporation

MANIFOLD SCHEMATIC
Exhibit #12



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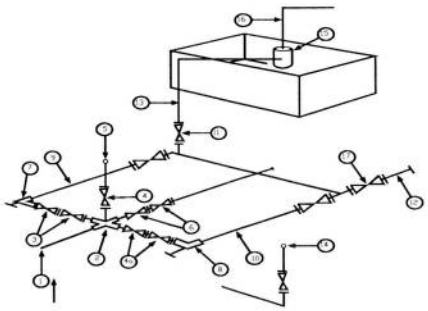
Mack Energy Corporation

Exhibit #11
MIMIMUM CHOKE MANIFOLD
3,000, 5,000, and 10,000 PSI Working Pressure
3M will be used
3 MWP - 5 MWP - 10 MWP



Mud Pit

Reserve Pit

*** Location of separator optional**

Below Substructure

Mimimum requirements

No.		3,000 MWP I.D.	Nominal	Rating	5,000 MWP I.D.	Nominal	Rating	10,000 MWP I.D.	Nominal	Rating
1	Line from drilling Spool		3"	3,000		3"	5,000		3"	10,000
2	Cross 3" x 3" x 3" x 2"			3,000			5,000			
2	Cross 3" x 3" x 3" x 2"									10,000
3	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000
4	Valve Gate Plug	1 13/16		3,000	1 13/16		5,000	1 13/16		10,000
4a	Valves (1)	2 1/16		3,000	2 1/16		5,000	2 1/16		10,000
5	Pressure Gauge			3,000			5,000			10,000
6	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000
7	Adjustable Choke (3)	2"		3,000	2"		5,000	2"		10,000
8	Adjustable Choke	1"		3,000	1"		5,000	2"		10,000
9	Line		3"	3,000		3"	5,000		3"	10,000
10	Line		2"	3,000		2"	5,000		2"	10,000
11	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000
12	Line		3"	1,000		3"	1,000		3"	2,000
13	Line		3"	1,000		3"	1,000		3"	2,000
14	Remote reading compound Standpipe pressure quage			3,000			5,000			10,000
15	Gas Separator		2' x5'			2' x5'			2' x5'	
16	Line		4"	1,000		4"	1,000		4"	2,000
17	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000

(1) Only one required in Class 3M
(2) Gate valves only shall be used for Class 10 M
(3) Remote operated hydraulic choke required on 5,000 psi and 10,000 psi for drilling.

EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTION

1. All connections in choke manifold shall be welded, studded, flanged or Cameron clamp of comparable rating.
2. All flanges shall be API 6B or 6BX and ring gaskets shall be API RX or BX. Use only BX for 10 MWP.
3. All lines shall be securely anchored.
4. Chokes shall be equipped with tungsten carbide seats and needles, and replacements shall be available.
5. alternate with automatic chokes, a choke manifold pressure gauge shall be located on the rig floor in conjunction with the standpipe pressure gauge.
6. Line from drilling spool to choke manifold should bee as straight as possible. Lines downstream from chokes shall make turns by large bends or 90 degree bends using bull plugged tees

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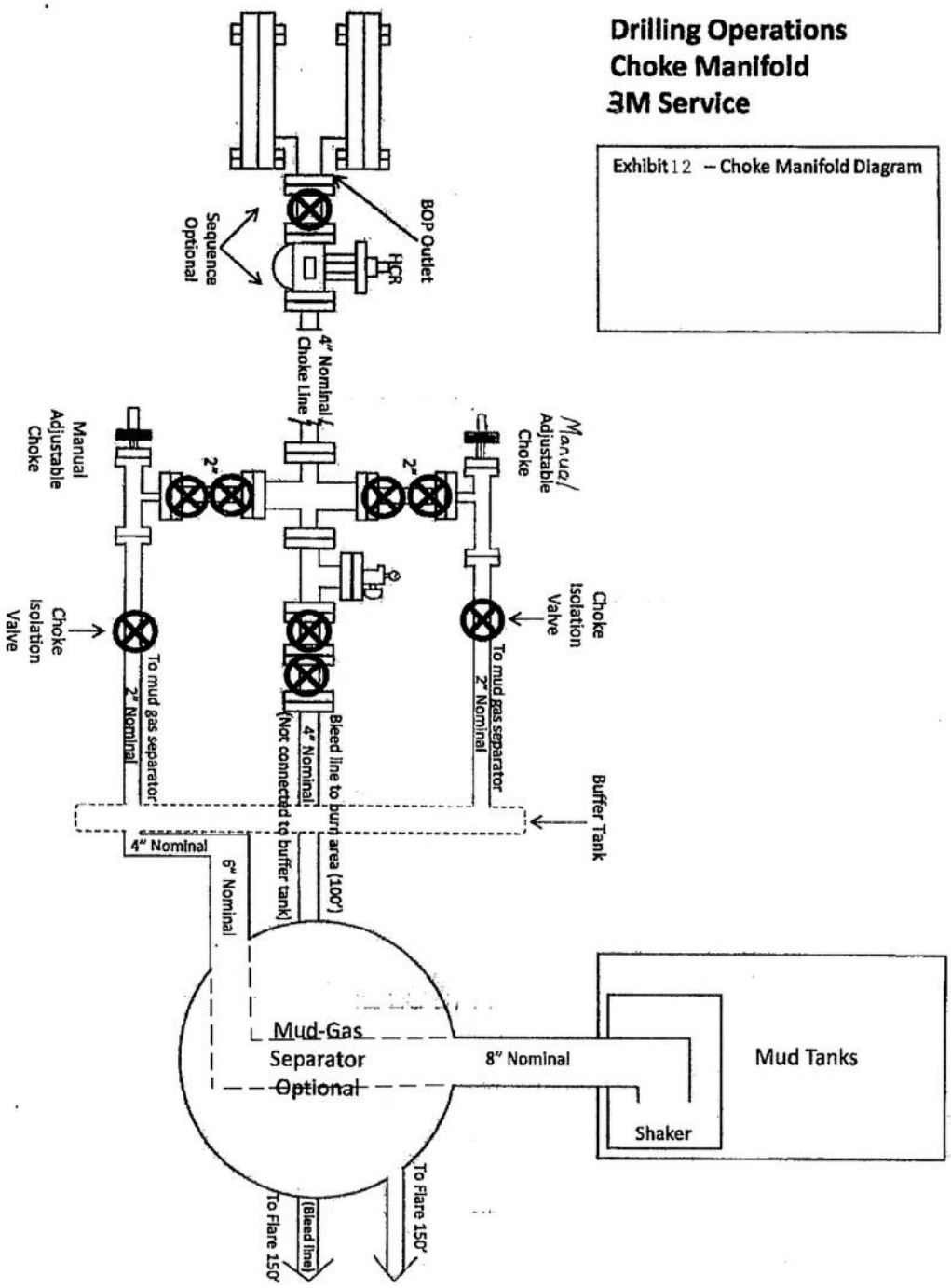
Mack Energy Corporation

MANIFOLD SCHEMATIC

Exhibit #12



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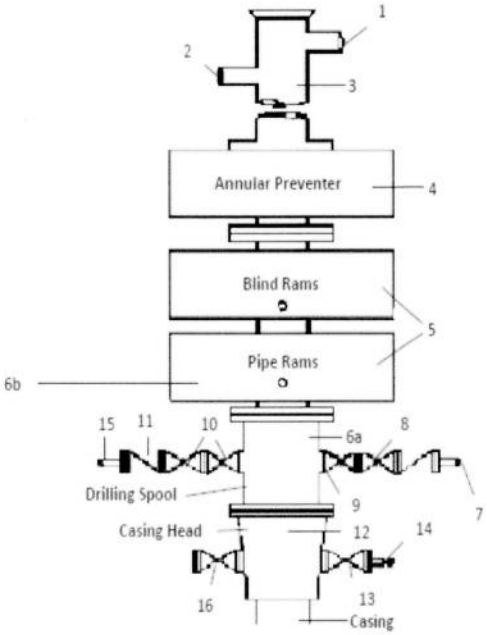
Mack Energy Corporation
Minimum Blowout Preventer Requirements
5000 psi Working Pressure
13 5/8 inch- 5 MWP
11 Inch - 5 MWP

Stack Requirements

NO.	Items	Min. I.D.	Min. Nominal
1	Flowline		2"
2	Fill up line		2"
3	Drilling nipple		
4	Annular preventer		
5	Two single or one dual hydraulically operated rams		
6a	Drilling spool with 2" min. kill line and 3" min choke line outlets		2" Choke
6b	2" min. kill line and 3" min. choke line outlets in ram. (Alternate to 6a above)		
7	Valve Gate Plug	3 1/8	
8	Gate valve-power operated	3 1/8	
9	Line to choke manifold		3"
10	Valve Gate Plug	2 1/16	
11	Check valve	2 1/16	
12	Casing head		
13	Valve Gate Plug	1 13/16	
14	Pressure gauge with needle valve		
15	Kill line to rig mud pump manifold		2"



OPTIONAL

16	Flanged Valve	1 13/16	

CONTRACTOR'S OPTION TO FURNISH:

1. All equipment and connections above bradenhead or casinghead. Working pressure of preventers to be 2000 psi minimum.
2. Automatic accumulator (80 gallons, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
3. BOP controls, to be located near drillers' position.
4. Kelly equipped with Kelly cock.
5. Inside blowout preventer or its equivalent on derrick floor at all times with proper threads to fit pipe being used.
6. Kelly saver-sub equipped with rubber casing protector at all times.
7. Plug type blowout preventer tester.
8. Extra set pipe rams to fit drill pipe in use on location at all times.
9. Type RX ring gaskets in place of Type R.
10.

ME

MEC TO FURNISH:

1. Bradenhead or casing head and side valves.
2. Wear bushing. If required.

GENERAL NOTES:

1. Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
2. All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers up through choke valves must be full opening and suitable for high pressure mud service.
3. Controls to be of standard design and each marked, showing opening and closing position
4. Chokes will be positioned so as not to hamper or delay changing of choke beans. Replaceable parts for adjustable choke, or bean sizes, retainers, and choke wrenches to be conveniently located for immediate use.
5. All valves to be equipped with hand-wheels or handles ready for immediate use.
6. Choke lines must be suitably anchored.
7. Handwheels and extensions to be connected and ready for use.
8. Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency.
9. All seamless steel control piping (2000 psi working pressure) to have flexible joints to avoid stress. Hoses will be permitted.
10. Casinghead connections shall not be used except in case of emergency.
11. Does not use kill line for routine fill up operations.

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Attached to Form 3160-3
Redwood Operating LLC
Eagle 26 Federal Com #3H NMNM-0558679 NMNM-055869
SHL : 1195 FNL & 688 FEL, NENE, Sec. 27 T17S R27E
BHL : 1650 FNL & 760 FWL, SWNW, Sec. 25 T17S R27E
Eddy County, NM

DRILLING PROGRAM

1. Geologic Name of Surface Formation

Quaternary

2. Estimated Tops of Important Geologic Markers:

Yates	187’
Seven Rivers	445’
Queen	927’
Grayburg	1364’
San Andres	1663’
Glorieta	3037’
Yeso/ Paddock	3105’

3. Estimated Depths of Anticipated Fresh Water, Oil and Gas:

Yates	187’	Oil/Gas
Seven Rivers	445’	Oil/Gas
Queen	927’	Oil/Gas
Grayburg	1364’	Oil/Gas
San Andres	1663’	Oil/Gas
Glorieta	3037’	Oil/Gas
Yeso/Paddock	3105’	Oil/Gas

No other formations are expected to give up oil, gas or fresh water in measurable quantities. Setting 13 3/8” casing to 375’ and circulating cement back to surface will protect the surface fresh water sand. Salt section and shallower zones above TD, which contain commercial quantities of oil and/or gas, will have cement circulated across them by cementing 5 ½” production casing, sufficient cement will be pumped to circulate back to surface.

4. Casing Program:

Hole Size	Interval	OD Casing	Wt, Grade, Jt, cond, collapse/burst/tension
17 1/2”	0-375’	13 3/8”	48#, J-55, ST&C, New, 3.952991/4.667192/4.74
12 ¼”	0-1230’	9 5/8”	36#, J-55, ST&C, New, 3.158224/7.04/7.04
8 3/4”	0-2300’	7”	26#, L-80, LT&C, New, 4.097786/2.442546/2.413333
8 ¾”	2300-3400’	7”	26#, L-80, BT&C, New, 2.822037/2.456769/ 2.442546
8 ¾”	3400-9783’	5 ½”	17#, L-80, BT&C, New, 3.569556/2.718283/2.626435

5. Cement Program:

13 3/8” Surface Casing: Lead 420sx, Class C+1% PF1, yld 1.34, wt 14.8 ppg, 6.307 gals/sx, excess 100%, Slurry Top Surface

9 5/8" Intermediate Casing: Lead 250sx Class C + 4% PF20 +1% PF1 + 0.125#/skPF29+.4%PF45, yld 1.72, wt 13.5 ppg, excess 100%, Slurry Top Surface. Tail: 200sx, Class C+.1% PF1, yld 1.34, wt 14.8 ppg, 6.307 gals/sx, excess 100%, Slurry Top 1,800'

7" & 5 ½" Production Casing: Lead 375sx, 36/65 Perlite/C 5% PF44 +6% PF20 + .2%PF13 + 3ppsPF 42 + .4pps PF45 +.125pps PF29 , yld 1.82, wt 12.9 ppg, 9,21 gals/sx, excess 35%, Slurry Top Surface, Tail: 1800sx, PVL + 1.3% PF44 (BWOW) + 5% PF174 + .5%PF506 + 0.1% PF 153 + .4# PF45, yld 1.48, wt 13 ppg, 7.57gals/sx, 35% excess, Slurry Top 2,000'

6. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown in Exhibit #10 will consist of a double ram-type (3000 psi WP) minimum preventer. This unit will be hydraulically operated and the ram type preventer will be equipped with blind rams on top of 4 1/2" drill pipe rams on bottom. The 11" BOP will be nipped up on the 8 5/8" surface casing and tested by a 3rd party to 2000 psi used continuously until TD is reached. All BOP's and accessory equipment will be tested to 2000 psi before drilling out of intermediate casing. 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 (Exhibit #10) will include a Kelly cock and floor safety valve and choke lines and choke manifold (Exhibit #11) with a minimum 2000 psi WP rating

7. Types and Characteristics of the Proposed Mud System:

The well will be drilled to TD with a combination of fresh and cut brine mud system. The applicable depths and properties of this system are as follows:

DEPTH	TYPE	WEIGHT	VISCOSITY	WATERLOSS
0-375'	Fresh Water	10	28	N.C.
375-1230'	Cut Brine	10	29	N.C.
1230-TD'	Cut Brine	9.2	29	N.C.

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

8. Auxiliary Well Control and Monitoring Equipment:

A. Kelly cock will be kept in the drill string at all times.
B. A full opening drill pipe-stabbing valve with proper drill pipe connections will be on the rig floor at all times.

9. Logging, Testing and Coring Program:

A. The electric logging program will consist of GR-Dual Laterolog, Spectral Density, Dual Spaced Neutron, CSNG Log from T.D. to 8 5/8 casing shoe.
B. Drill Stem test is not anticipated.

C. No conventional coring is anticipated.
D. Further testing procedures will be determined at TD.

10. Abnormal Conditions, Pressures, Temperatures and Potential Hazards:

No abnormal pressures or temperatures are anticipated. The estimated bottom hole at TD is 120 degrees and estimated maximum bottom hole pressure is The estimated bottom hole at TD is 120 degrees and estimated maximum bottom hole pressure is 1573 psig (0.052*3289'TVD*9.2ppg) less than 2900 Bottom Hole Pressure. Low levels of Hydrogen sulfide have been monitors in producing wells in the area, so H2S may be present while drilling of the well; a plan is attached to the Drilling program. No major loss of circulation zones has been reported in offsetting wells.

11. Anticipated Starting Date and Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. The anticipated spud date is Septemper 1, 2021. Once commenced, the drilling operation should be finished in approximately 20 days. If the well is productive, an additional 30 days will be required for completion and testing before a decision is made to install permanent facilities.

Attachment to Exhibit #10
NOTES REGARDING THE BLOWOUT PREVENTERS
Eagle 26 Federal Com #3H
Eddy County, New Mexico

1. Drilling nipple to be so constructed that it can be removed without use of a welder through rotary table opening, with minimum I.D. equal to preventer bore.
2. Wear ring to be properly installed in head.
3. Blow out preventer and all fittings must be in good condition, 2000 psi WP minimum.
4. All fittings to be flanged.
5. Safety valve must be available on rig floor at all times with proper connections, valve to be full 2000 psi WP minimum.
6. All choke and fill lines to be securely anchored especially ends of choke lines.
7. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
8. Kelly cock on Kelly.
9. Extension wrenches and hands wheels to be properly installed.
10. Blow out preventer control to be located as close to driller's position as feasible.

Attached to Form 3160-3
Redwood Operating LLC
Eagle 26 Federal Com #3H NMNM-0558679 NMNM-055869
SHL : 1195 FNL & 688 FEL, NENE, Sec. 27 T17S R27E
BHL : 1650 FNL & 760 FWL, SWNW, Sec. 25 T17S R27E
Eddy County, NM

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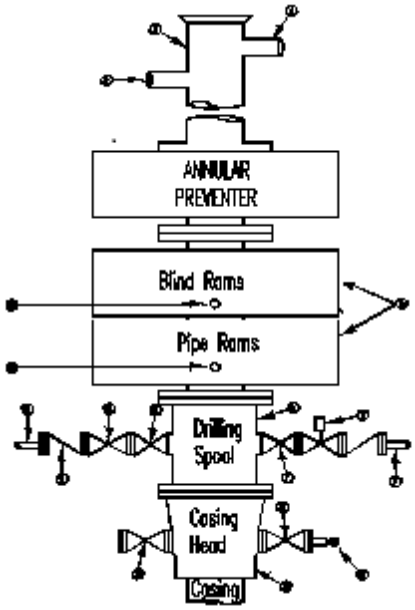
11. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation all API specifications.

Mack Energy Corporation
Minimum Blowout Preventer Requirements
3000 psi Working Pressure
13 3/8 inch- 3 MWP
11 Inch - 3 MWP
EXHIBIT #10

Stack Requirements

NO.	Items	Min. I.D.	Min. Nominal
1	Flowline		2"
2	Fill up line		2"
3	Drilling nipple		
4	Annular preventer		
5	Two single or one dual hydraulically operated rams		
6a	Drilling spool with 2" min. kill line and 3" min choke line outlets		2" Choke
6b	2" min. kill line and 3" min. choke line outlets in ram. (Alternate to 6a above)		
7	Valve Gate Plug	3 1/8	
8	Gate valve-power operated	3 1/8	
9	Line to choke manifold		3"
10	Valve Gate Plug	2 1/16	
11	Check valve	2 1/16	
12	Casing head		
13	Valve Gate Plug	1 13/16	
14	Pressure gauge with needle valve		
15	Kill line to rig mud pump manifold		2"



OPTIONAL

16	Flanged Valve	1 13/16	

CONTRACTOR'S OPTION TO CONTRACTOR'S OPTION TO FURNISH:

1. All equipment and connections above bradenhead or casinghead. Working pressure of preventers to be 2000 psi minimum.
2. Automatic accumulator (80 gallons, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
3. BOP controls, to be located near drillers' position.
4. Kelly equipped with Kelly cock.
5. Inside blowout preventer or its equivalent on derrick floor at all times with proper threads to fit pipe being used.
6. Kelly saver-sub equipped with rubber casing protector at all times.
7. Plug type blowout preventer tester.
8. Extra set pipe rams to fit drill pipe in use on location at all times.
9. Type RX ring gaskets in place of Type R.
10.

ME

MEC TO FURNISH:

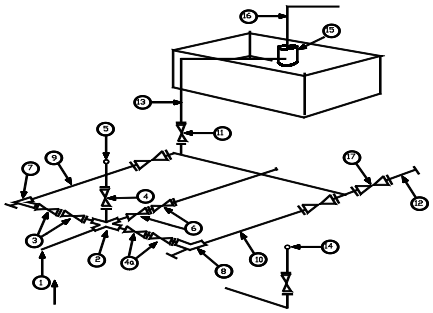
1. Bradenhead or casing head and side valves.
2. Wear bushing. If required.

GENERAL NOTES:

1. Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
2. All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers up through choke valves must be full opening and suitable for high pressure mud service.
3. Controls to be of standard design and each marked, showing opening and closing position
4. Chokes will be positioned so as not to hamper or delay changing of choke beans. Replaceable parts for adjustable choke, or bean sizes, retainers, and choke wrenches to be conveniently located for immediate use.
5. All valves to be equipped with hand-wheels or handles ready for immediate use.
6. Choke lines must be suitably anchored.
7. Handwheels and extensions to be connected and ready for use.
8. Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency.
9. All seamless steel control piping (2000 psi working pressure) to have flexible joints to avoid stress. Hoses will be permitted.
10. Casinghead connections shall not be used except in case of emergency.
11. Does not use kill line for routine fill up operations.

Mack Energy Corporation

Exhibit #11
MIMIMUM CHOKE MANIFOLD
2,000, 5,000, and 10,000 PSI Working Pressure
3M will be used
2 MWP - 5 MWP - 10 MWP



Mud Pit

Reserve Pit

*** Location of separator optional**

Below Substructure

Mimimum requirements

No.		3,000 MWP I.D.	Nominal	Rating	5,000 MWP I.D.	Nominal	Rating	10,000 MWP I.D.	Nominal	Rating
1	Line from drilling Spool		3"	3,000		3"	5,000		3"	10,000
2	Cross 3" x 3" x 3" x 2"			3,000			5,000			
2	Cross 3" x 3" x 3" x 2"									10,000
3	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000
4	Valve Gate Plug	1 13/16		3,000	1 13/16		5,000	1 13/16		10,000
4a	Valves (1)	2 1/16		3,000	2 1/16		5,000	2 1/16		10,000
5	Pressure Gauge			3,000			5,000			10,000
6	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000
7	Adjustable Choke (3)	2"		3,000	2"		5,000	2"		10,000
8	Adjustable Choke	1"		3,000	1"		5,000	2"		10,000
9	Line		3"	3,000		3"	5,000		3"	10,000
10	Line		2"	3,000		2"	5,000		2"	10,000
11	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000
12	Line		3"	1,000		3"	1,000		3"	2,000
13	Line		3"	1,000		3"	1,000		3"	2,000
14	Remote reading compound Standpipe pressure quage			3,000			5,000			10,000
15	Gas Separator		2' x5'			2' x5'			2' x5'	
16	Line		4"	1,000		4"	1,000		4"	2,000
17	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000

(1) Only one required in Class 2M
(2) Gate valves only shall be used for Class 10 M
(3) Remote operated hydraulic choke required on 5,000 psi and 10,000 psi for drilling.

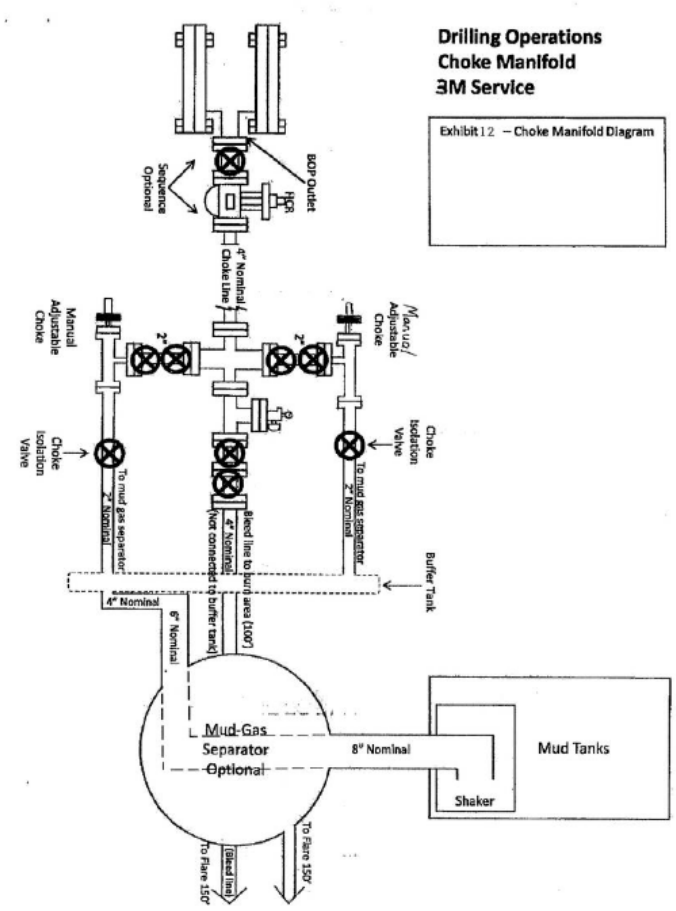
EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTION

1. All connections in choke manifold shall be welded, studded, flanged or Cameron clamp of comparable rating.
2. All flanges shall be API 6B or 6BX and ring gaskets shall be API RX or BX. Use only BX for 10 MWP.
3. All lines shall be securely anchored.
4. Chokes shall be equipped with tungsten carbide seats and needles, and replacements shall be available.
5. alternate with automatic chokes, a choke manifold pressure gauge shall be located on the rig floor in conjunction with the standpipe pressure gauge.
6. Line from drilling spool to choke manifold should bee as straight as possible. Lines downstream from chokes shall make turns by large bends or 90 degree bends using bull plugged tees

Mack Energy Corporation

MANIFOLD SCHEMATIC

Exhibit #12



Eagle 26 Federal Com 3H, Plan 1

Operator	Redwood Operating LLC	**Units**	feet, °/100ft	21:12 Saturday, December 19, 2020	Page 1 of 5
Field	Red Lake	**County**	Eddy	**Vertical Section Azimuth**	89.61
Well Name	Eagle 26 Federal Com 3H	**State**	New Mexico	**Survey Calculation Method**	Minimum Curvature
Plan	1	**Country**	USA	**Database**	Access

Location	SL: 1195 FNL & 688 FEL Section 27-T17S-R27E BHL: 1650 FNL & 760 FWL Section 25-T17S-7E		**Map Zone** UTM	**Lat Long Ref**	
Site			**Surface X** 1867848.7	**Surface Long**	
Slot Name		**UWI**	**Surface Y** 11909999.3	**Surface Lat**	
Well Number	3H	**API**	**Surface Z** 3554.1	**Global Z Ref**	KB
Project		**MD/TVD Ref** KB	**Ground Level** 3536.1	**Local North Ref**	Grid

DIRECTIONAL WELL PLAN

MD*	INC*	AZI*	TVD*	N*	E*	DLS*	V. S.*	MapE*	MapN*	SysTVD*
ft	deg	deg	ft	ft	ft	°/100ft	ft	ft	ft	ft
*** TIE (at MD = 2306.00)										
2306.00	0.00	0.0	2306.00	0.00	0.00		0.00	1867848.70	11909999.30	1248.10
2350.00	0.00	0.0	2350.00	0.00	0.00	0.00	0.00	1867848.70	11909999.30	1204.10
2400.00	0.00	0.0	2400.00	0.00	0.00	0.00	0.00	1867848.70	11909999.30	1154.10
*** KOP 8 DEGREES (at MD = 2406.00)										
2406.00	0.00	0.0	2406.00	0.00	0.00	0.00	0.00	1867848.70	11909999.30	1148.10
2450.00	3.52	139.9	2449.97	-1.03	0.87	8.00	0.86	1867849.57	11909998.27	1104.13
2500.00	7.52	139.9	2499.73	-4.71	3.97	8.00	3.94	1867852.67	11909994.59	1054.37
2550.00	11.52	139.9	2549.03	-11.04	9.29	8.00	9.22	1867857.99	11909988.26	1005.07
2600.00	15.52	139.9	2597.64	-19.98	16.82	8.00	16.68	1867865.52	11909979.32	956.46
2650.00	19.52	139.9	2645.31	-31.49	26.51	8.00	26.30	1867875.21	11909967.81	908.79
2700.00	23.52	139.9	2691.81	-45.51	38.33	8.00	38.02	1867887.03	11909953.79	862.29
2750.00	27.52	139.9	2736.92	-61.99	52.20	8.00	51.78	1867900.90	11909937.31	817.18
2800.00	31.52	139.9	2780.43	-80.83	68.06	8.00	67.51	1867916.76	11909918.47	773.67
2850.00	35.52	139.9	2822.10	-101.95	85.85	8.00	85.15	1867934.55	11909897.36	732.00
2900.00	39.52	139.9	2861.75	-125.23	105.46	8.00	104.60	1867954.16	11909874.07	692.35
2950.00	43.52	139.9	2899.18	-150.58	126.80	8.00	125.77	1867975.50	11909848.72	654.92
3000.00	47.52	139.9	2934.20	-177.86	149.78	8.00	148.56	1867998.48	11909821.44	619.90
3050.00	51.52	139.9	2966.66	-206.95	174.27	8.00	172.85	1868022.97	11909792.35	587.44
*** 55 DEGREE TANGENT (at MD = 3093.50)										
3093.50	55.00	139.9	2992.67	-233.61	196.72	8.00	195.12	1868045.42	11909765.69	561.43
3100.00	55.00	139.9	2996.40	-237.68	200.15	0.00	198.52	1868048.85	11909761.62	557.70
3150.00	55.00	139.9	3025.08	-269.01	226.53	0.00	224.69	1868075.23	11909730.29	529.02
3200.00	55.00	139.9	3053.76	-300.34	252.91	0.00	250.86	1868101.61	11909698.96	500.34
3250.00	55.00	139.9	3082.44	-331.67	279.29	0.00	277.03	1868127.99	11909667.63	471.66
3300.00	55.00	139.9	3111.12	-363.00	305.67	0.00	303.20	1868154.37	11909636.30	442.98
*** 12 DEGREE BUILD (at MD = 3343.50)										
3343.50	55.00	139.9	3136.07	-390.26	328.63	0.00	325.96	1868177.33	11909609.04	418.03
3350.00	55.34	139.0	3139.78	-394.31	332.09	12.00	329.40	1868180.79	11909604.99	414.32
3400.00	58.13	132.7	3167.22	-424.26	361.20	12.00	358.31	1868209.90	11909575.04	386.88
3450.00	61.22	126.7	3192.48	-451.79	394.40	12.00	391.32	1868243.10	11909547.51	361.62
3500.00	64.56	121.1	3215.28	-476.59	431.32	12.00	428.07	1868280.02	11909522.71	338.82
3550.00	68.09	115.8	3235.37	-498.38	471.56	12.00	468.16	1868320.26	11909500.92	318.73
3600.00	71.79	110.8	3252.52	-516.94	514.68	12.00	511.15	1868363.38	11909482.36	301.58
3650.00	75.61	106.0	3266.56	-532.05	560.20	12.00	556.57	1868408.90	11909467.25	287.54
3700.00	79.53	101.3	3277.32	-543.55	607.63	12.00	603.92	1868456.33	11909455.75	276.78
3750.00	83.51	96.8	3284.70	-551.32	656.45	12.00	652.68	1868505.15	11909447.98	269.40
3800.00	87.54	92.3	3288.60	-555.27	706.11	12.00	702.32	1868554.81	11909444.03	265.50

Eagle 26 Federal Com 3H, Plan 1

Operator	Redwood Operating LLC	**Units**	feet, °/100ft	21:12 Saturday, December 19, 2020	Page 2 of 5
Field	Red Lake	**County**	Eddy	**Vertical Section Azimuth**	89.61
Well Name	Eagle 26 Federal Com 3H	**State**	New Mexico	**Survey Calculation Method**	Minimum Curvature
Plan	1	**Country**	USA	**Database**	Access

Location	SL: 1195 FNL & 688 FEL Section 27-T17S-R27E BHL: 1650 FNL & 760 FWL Section 25-T17S-7E	**Map Zone**	UTM	**Lat Long Ref**	
Site		**Surface X**	1867848.7	**Surface Long**	
Slot Name	**UWI**	**Surface Y**	11909999.3	**Surface Lat**	
Well Number	3H **API**	**Surface Z**	3554.1	**Global Z Ref**	KB
Project	**MD/TVD Ref** KB	**Ground Level**	3536.1	**Local North Ref**	Grid

DIRECTIONAL WELL PLAN

MD* ft	INC* deg	AZI* deg	TVD* ft	N* ft	E* ft	DLS* °/100ft	V. S.* ft	MapE* ft	MapN* ft	SysTVD* ft
*** LANDING POINT (at MD = 3830.52)										
3830.52	90.00	89.6	3289.26	-555.79	736.62	12.00	732.82	1868585.32	11909443.51	264.84
3850.00	90.00	89.6	3289.26	-555.65	756.10	0.00	752.30	1868604.80	11909443.65	264.84
3900.00	90.00	89.6	3289.26	-555.31	806.10	0.00	802.30	1868654.80	11909443.99	264.84
3950.00	90.00	89.6	3289.26	-554.97	856.10	0.00	852.30	1868704.80	11909444.33	264.84
4000.00	90.00	89.6	3289.26	-554.63	906.09	0.00	902.30	1868754.79	11909444.67	264.84
4050.00	90.00	89.6	3289.26	-554.29	956.09	0.00	952.30	1868804.79	11909445.01	264.84
4100.00	90.00	89.6	3289.26	-553.95	1006.09	0.00	1002.30	1868854.79	11909445.35	264.84
4150.00	90.00	89.6	3289.26	-553.61	1056.09	0.00	1052.30	1868904.79	11909445.69	264.84
4200.00	90.00	89.6	3289.26	-553.27	1106.09	0.00	1102.30	1868954.79	11909446.03	264.84
4250.00	90.00	89.6	3289.26	-552.93	1156.09	0.00	1152.30	1869004.79	11909446.37	264.84
4300.00	90.00	89.6	3289.26	-552.59	1206.09	0.00	1202.30	1869054.79	11909446.71	264.84
4350.00	90.00	89.6	3289.26	-552.25	1256.09	0.00	1252.30	1869104.79	11909447.05	264.84
4400.00	90.00	89.6	3289.26	-551.91	1306.08	0.00	1302.30	1869154.78	11909447.39	264.84
4450.00	90.00	89.6	3289.26	-551.57	1356.08	0.00	1352.30	1869204.78	11909447.73	264.84
4500.00	90.00	89.6	3289.26	-551.23	1406.08	0.00	1402.30	1869254.78	11909448.07	264.84
4550.00	90.00	89.6	3289.26	-550.89	1456.08	0.00	1452.30	1869304.78	11909448.41	264.84
4600.00	90.00	89.6	3289.26	-550.55	1506.08	0.00	1502.30	1869354.78	11909448.75	264.84
4650.00	90.00	89.6	3289.26	-550.21	1556.08	0.00	1552.30	1869404.78	11909449.09	264.84
4700.00	90.00	89.6	3289.26	-549.87	1606.08	0.00	1602.30	1869454.78	11909449.43	264.84
4750.00	90.00	89.6	3289.26	-549.53	1656.08	0.00	1652.30	1869504.78	11909449.77	264.84
4800.00	90.00	89.6	3289.26	-549.19	1706.08	0.00	1702.30	1869554.78	11909450.11	264.84
4850.00	90.00	89.6	3289.26	-548.85	1756.07	0.00	1752.30	1869604.77	11909450.45	264.84
4900.00	90.00	89.6	3289.26	-548.51	1806.07	0.00	1802.30	1869654.77	11909450.79	264.84
4950.00	90.00	89.6	3289.26	-548.17	1856.07	0.00	1852.30	1869704.77	11909451.13	264.84
5000.00	90.00	89.6	3289.26	-547.83	1906.07	0.00	1902.30	1869754.77	11909451.48	264.84
5050.00	90.00	89.6	3289.26	-547.48	1956.07	0.00	1952.30	1869804.77	11909451.82	264.84
5100.00	90.00	89.6	3289.26	-547.14	2006.07	0.00	2002.30	1869854.77	11909452.16	264.84
5150.00	90.00	89.6	3289.26	-546.80	2056.07	0.00	2052.30	1869904.77	11909452.50	264.84
5200.00	90.00	89.6	3289.26	-546.46	2106.07	0.00	2102.30	1869954.77	11909452.84	264.84
5250.00	90.00	89.6	3289.26	-546.12	2156.07	0.00	2152.30	1870004.77	11909453.18	264.84
5300.00	90.00	89.6	3289.26	-545.78	2206.06	0.00	2202.30	1870054.76	11909453.52	264.84
5350.00	90.00	89.6	3289.26	-545.44	2256.06	0.00	2252.30	1870104.76	11909453.86	264.84
5400.00	90.00	89.6	3289.26	-545.10	2306.06	0.00	2302.30	1870154.76	11909454.20	264.84
5450.00	90.00	89.6	3289.26	-544.76	2356.06	0.00	2352.30	1870204.76	11909454.54	264.84
5500.00	90.00	89.6	3289.26	-544.42	2406.06	0.00	2402.30	1870254.76	11909454.88	264.84
5550.00	90.00	89.6	3289.26	-544.08	2456.06	0.00	2452.30	1870304.76	11909455.22	264.84

Eagle 26 Federal Com 3H, Plan 1

Operator	Redwood Operating LLC	**Units**	feet, °/100ft	21:12 Saturday, December 19, 2020	Page 3 of 5
Field	Red Lake	**County**	Eddy	**Vertical Section Azimuth**	89.61
Well Name	Eagle 26 Federal Com 3H	**State**	New Mexico	**Survey Calculation Method**	Minimum Curvature
Plan	1	**Country**	USA	**Database**	Access

Location	SL: 1195 FNL & 688 FEL Section 27-T17S-R27E BHL: 1650 FNL & 760 FWL Section 25-T17S-7E	**Map Zone**	UTM	**Lat Long Ref**	
Site		**Surface X**	1867848.7	**Surface Long**	
Slot Name	**UWI**	**Surface Y**	11909999.3	**Surface Lat**	
Well Number	3H **API**	**Surface Z**	3554.1	**Global Z Ref**	KB
Project	**MD/TVD Ref** KB	**Ground Level**	3536.1	**Local North Ref**	Grid

DIRECTIONAL WELL PLAN

MD* ft	INC* deg	AZI* deg	TVD* ft	N* ft	E* ft	DLS* °/100ft	V. S.* ft	MapE* ft	MapN* ft	SysTVD* ft
5600.00	90.00	89.6	3289.26	-543.74	2506.06	0.00	2502.30	1870354.76	11909455.56	264.84
5650.00	90.00	89.6	3289.26	-543.40	2556.06	0.00	2552.30	1870404.76	11909455.90	264.84
5700.00	90.00	89.6	3289.26	-543.06	2606.05	0.00	2602.30	1870454.75	11909456.24	264.84
5750.00	90.00	89.6	3289.26	-542.72	2656.05	0.00	2652.30	1870504.75	11909456.58	264.84
5800.00	90.00	89.6	3289.26	-542.38	2706.05	0.00	2702.30	1870554.75	11909456.92	264.84
5850.00	90.00	89.6	3289.26	-542.04	2756.05	0.00	2752.30	1870604.75	11909457.26	264.84
5900.00	90.00	89.6	3289.26	-541.70	2806.05	0.00	2802.30	1870654.75	11909457.60	264.84
5950.00	90.00	89.6	3289.26	-541.36	2856.05	0.00	2852.30	1870704.75	11909457.94	264.84
6000.00	90.00	89.6	3289.26	-541.02	2906.05	0.00	2902.30	1870754.75	11909458.28	264.84
6050.00	90.00	89.6	3289.26	-540.68	2956.05	0.00	2952.30	1870804.75	11909458.62	264.84
6100.00	90.00	89.6	3289.26	-540.34	3006.05	0.00	3002.30	1870854.75	11909458.96	264.84
6150.00	90.00	89.6	3289.26	-540.00	3056.04	0.00	3052.30	1870904.74	11909459.30	264.84
6200.00	90.00	89.6	3289.26	-539.66	3106.04	0.00	3102.30	1870954.74	11909459.64	264.84
6250.00	90.00	89.6	3289.26	-539.32	3156.04	0.00	3152.30	1871004.74	11909459.98	264.84
6300.00	90.00	89.6	3289.26	-538.98	3206.04	0.00	3202.30	1871054.74	11909460.32	264.84
6350.00	90.00	89.6	3289.26	-538.64	3256.04	0.00	3252.30	1871104.74	11909460.66	264.84
6400.00	90.00	89.6	3289.26	-538.30	3306.04	0.00	3302.30	1871154.74	11909461.00	264.84
6450.00	90.00	89.6	3289.26	-537.96	3356.04	0.00	3352.30	1871204.74	11909461.34	264.84
6500.00	90.00	89.6	3289.26	-537.61	3406.04	0.00	3402.30	1871254.74	11909461.69	264.84
6550.00	90.00	89.6	3289.26	-537.27	3456.03	0.00	3452.30	1871304.73	11909462.03	264.84
6600.00	90.00	89.6	3289.26	-536.93	3506.03	0.00	3502.30	1871354.73	11909462.37	264.84
6650.00	90.00	89.6	3289.26	-536.59	3556.03	0.00	3552.30	1871404.73	11909462.71	264.84
6700.00	90.00	89.6	3289.26	-536.25	3606.03	0.00	3602.30	1871454.73	11909463.05	264.84
6750.00	90.00	89.6	3289.26	-535.91	3656.03	0.00	3652.30	1871504.73	11909463.39	264.84
6800.00	90.00	89.6	3289.26	-535.57	3706.03	0.00	3702.30	1871554.73	11909463.73	264.84
6850.00	90.00	89.6	3289.26	-535.23	3756.03	0.00	3752.30	1871604.73	11909464.07	264.84
6900.00	90.00	89.6	3289.26	-534.89	3806.03	0.00	3802.30	1871654.73	11909464.41	264.84
6950.00	90.00	89.6	3289.26	-534.55	3856.03	0.00	3852.30	1871704.73	11909464.75	264.84
7000.00	90.00	89.6	3289.26	-534.21	3906.02	0.00	3902.30	1871754.72	11909465.09	264.84
7050.00	90.00	89.6	3289.26	-533.87	3956.02	0.00	3952.30	1871804.72	11909465.43	264.84
7100.00	90.00	89.6	3289.26	-533.53	4006.02	0.00	4002.30	1871854.72	11909465.77	264.84
7150.00	90.00	89.6	3289.26	-533.19	4056.02	0.00	4052.30	1871904.72	11909466.11	264.84
7200.00	90.00	89.6	3289.26	-532.85	4106.02	0.00	4102.30	1871954.72	11909466.45	264.84
7250.00	90.00	89.6	3289.26	-532.51	4156.02	0.00	4152.30	1872004.72	11909466.79	264.84
7300.00	90.00	89.6	3289.26	-532.17	4206.02	0.00	4202.30	1872054.72	11909467.13	264.84
7350.00	90.00	89.6	3289.26	-531.83	4256.02	0.00	4252.30	1872104.72	11909467.47	264.84
7400.00	90.00	89.6	3289.26	-531.49	4306.02	0.00	4302.30	1872154.72	11909467.81	264.84
7450.00	90.00	89.6	3289.26	-531.15	4356.01	0.00	4352.30	1872204.71	11909468.15	264.84

Eagle 26 Federal Com 3H, Plan 1

Operator	Redwood Operating LLC	**Units**	feet, °/100ft	21:12 Saturday, December 19, 2020	Page 4 of 5
Field	Red Lake	**County**	Eddy	**Vertical Section Azimuth**	89.61
Well Name	Eagle 26 Federal Com 3H	**State**	New Mexico	**Survey Calculation Method**	Minimum Curvature
Plan	1	**Country**	USA	**Database**	Access

Location	SL: 1195 FNL & 688 FEL Section 27-T17S-R27E BHL: 1650 FNL & 760 FWL Section 25-T17S-7E	**Map Zone**	UTM	**Lat Long Ref**	
Site		**Surface X**	1867848.7	**Surface Long**	
Slot Name	**UWI**	**Surface Y**	11909999.3	**Surface Lat**	
Well Number	3H **API**	**Surface Z**	3554.1	**Global Z Ref**	KB
Project	**MD/TVD Ref** KB	**Ground Level**	3536.1	**Local North Ref**	Grid

DIRECTIONAL WELL PLAN

MD* ft	INC* deg	AZI* deg	TVD* ft	N* ft	E* ft	DLS* °/100ft	V. S.* ft	MapE* ft	MapN* ft	SysTVD* ft
7500.00	90.00	89.6	3289.26	-530.81	4406.01	0.00	4402.30	1872254.71	11909468.49	264.84
7550.00	90.00	89.6	3289.26	-530.47	4456.01	0.00	4452.30	1872304.71	11909468.83	264.84
7600.00	90.00	89.6	3289.26	-530.13	4506.01	0.00	4502.30	1872354.71	11909469.17	264.84
7650.00	90.00	89.6	3289.26	-529.79	4556.01	0.00	4552.30	1872404.71	11909469.51	264.84
7700.00	90.00	89.6	3289.26	-529.45	4606.01	0.00	4602.30	1872454.71	11909469.85	264.84
7750.00	90.00	89.6	3289.26	-529.11	4656.01	0.00	4652.30	1872504.71	11909470.19	264.84
7800.00	90.00	89.6	3289.26	-528.77	4706.01	0.00	4702.30	1872554.71	11909470.53	264.84
7850.00	90.00	89.6	3289.26	-528.43	4756.00	0.00	4752.30	1872604.70	11909470.87	264.84
7900.00	90.00	89.6	3289.26	-528.09	4806.00	0.00	4802.30	1872654.70	11909471.21	264.84
7950.00	90.00	89.6	3289.26	-527.75	4856.00	0.00	4852.30	1872704.70	11909471.55	264.84
8000.00	90.00	89.6	3289.26	-527.40	4906.00	0.00	4902.30	1872754.70	11909471.90	264.84
8050.00	90.00	89.6	3289.26	-527.06	4956.00	0.00	4952.30	1872804.70	11909472.24	264.84
8100.00	90.00	89.6	3289.26	-526.72	5006.00	0.00	5002.30	1872854.70	11909472.58	264.84
8150.00	90.00	89.6	3289.26	-526.38	5056.00	0.00	5052.30	1872904.70	11909472.92	264.84
8200.00	90.00	89.6	3289.26	-526.04	5106.00	0.00	5102.30	1872954.70	11909473.26	264.84
8250.00	90.00	89.6	3289.26	-525.70	5156.00	0.00	5152.30	1873004.70	11909473.60	264.84
8300.00	90.00	89.6	3289.26	-525.36	5205.99	0.00	5202.30	1873054.69	11909473.94	264.84
8350.00	90.00	89.6	3289.26	-525.02	5255.99	0.00	5252.30	1873104.69	11909474.28	264.84
8400.00	90.00	89.6	3289.26	-524.68	5305.99	0.00	5302.30	1873154.69	11909474.62	264.84
8450.00	90.00	89.6	3289.26	-524.34	5355.99	0.00	5352.30	1873204.69	11909474.96	264.84
8500.00	90.00	89.6	3289.26	-524.00	5405.99	0.00	5402.30	1873254.69	11909475.30	264.84
8550.00	90.00	89.6	3289.26	-523.66	5455.99	0.00	5452.30	1873304.69	11909475.64	264.84
8600.00	90.00	89.6	3289.26	-523.32	5505.99	0.00	5502.30	1873354.69	11909475.98	264.84
8650.00	90.00	89.6	3289.26	-522.98	5555.99	0.00	5552.30	1873404.69	11909476.32	264.84
8700.00	90.00	89.6	3289.26	-522.64	5605.99	0.00	5602.30	1873454.69	11909476.66	264.84
8750.00	90.00	89.6	3289.26	-522.30	5655.98	0.00	5652.30	1873504.68	11909477.00	264.84
8800.00	90.00	89.6	3289.26	-521.96	5705.98	0.00	5702.30	1873554.68	11909477.34	264.84
8850.00	90.00	89.6	3289.26	-521.62	5755.98	0.00	5752.30	1873604.68	11909477.68	264.84
8900.00	90.00	89.6	3289.26	-521.28	5805.98	0.00	5802.30	1873654.68	11909478.02	264.84
8950.00	90.00	89.6	3289.26	-520.94	5855.98	0.00	5852.30	1873704.68	11909478.36	264.84
9000.00	90.00	89.6	3289.26	-520.60	5905.98	0.00	5902.30	1873754.68	11909478.70	264.84
9050.00	90.00	89.6	3289.26	-520.26	5955.98	0.00	5952.30	1873804.68	11909479.04	264.84
9100.00	90.00	89.6	3289.26	-519.92	6005.98	0.00	6002.30	1873854.68	11909479.38	264.84
9150.00	90.00	89.6	3289.26	-519.58	6055.97	0.00	6052.30	1873904.67	11909479.72	264.84
9200.00	90.00	89.6	3289.26	-519.24	6105.97	0.00	6102.30	1873954.67	11909480.06	264.84
9250.00	90.00	89.6	3289.26	-518.90	6155.97	0.00	6152.30	1874004.67	11909480.40	264.84
9300.00	90.00	89.6	3289.26	-518.56	6205.97	0.00	6202.30	1874054.67	11909480.74	264.84

Eagle 26 Federal Com 3H, Plan 1

Operator	Redwood Operating LLC	**Units**	feet, °/100ft	21:12 Saturday, December 19, 2020	Page 5 of 5
Field	Red Lake	**County**	Eddy	**Vertical Section Azimuth**	89.61
Well Name	Eagle 26 Federal Com 3H	**State**	New Mexico	**Survey Calculation Method**	Minimum Curvature
Plan	1	**Country**	USA	**Database**	Access

Location	SL: 1195 FNL & 688 FEL Section 27-T17S-R27E BHL: 1650 FNL & 760 FWL Section 25-T17S-7E		**Map Zone** UTM	**Lat Long Ref**	
Site			**Surface X** 1867848.7	**Surface Long**	
Slot Name		**UWI**	**Surface Y** 11909999.3	**Surface Lat**	
Well Number	3H	**API**	**Surface Z** 3554.1	**Global Z Ref**	KB
Project		**MD/TVD Ref** KB	**Ground Level** 3536.1	**Local North Ref**	Grid

DIRECTIONAL WELL PLAN

MD*	INC*	AZI*	TVD*	N*	E*	DLS*	V. S.*	MapE*	MapN*	SysTVD*
ft	deg	deg	ft	ft	ft	°/100ft	ft	ft	ft	ft
9350.00	90.00	89.6	3289.26	-518.22	6255.97	0.00	6252.30	1874104.67	11909481.08	264.84
9400.00	90.00	89.6	3289.26	-517.88	6305.97	0.00	6302.30	1874154.67	11909481.42	264.84
9450.00	90.00	89.6	3289.26	-517.54	6355.97	0.00	6352.30	1874204.67	11909481.76	264.84
9500.00	90.00	89.6	3289.26	-517.19	6405.97	0.00	6402.30	1874254.67	11909482.11	264.84
9550.00	90.00	89.6	3289.26	-516.85	6455.97	0.00	6452.30	1874304.67	11909482.45	264.84
9600.00	90.00	89.6	3289.26	-516.51	6505.96	0.00	6502.30	1874354.66	11909482.79	264.84
9650.00	90.00	89.6	3289.26	-516.17	6555.96	0.00	6552.30	1874404.66	11909483.13	264.84
9700.00	90.00	89.6	3289.26	-515.83	6605.96	0.00	6602.30	1874454.66	11909483.47	264.84
9750.00	90.00	89.6	3289.26	-515.49	6655.96	0.00	6652.30	1874504.66	11909483.81	264.84
*** TD (at MD = 9782.21)										
9782.21	90.00	89.6	3289.26	-515.27	6688.17	0.00	6684.51	1874536.87	11909484.03	264.84

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Redwood Operating, LLC.
LEASE NO.:	NMLC 0067849, NMLC 0064050, NMNM 0558679, NMNM 099031
COUNTY:	Eddy

Wells:

Well Pad 1
Eagle 33 Federal Com 1H
Surface Hole Location: 1988' FSL & 688' FWL, Section 34, T. 17 S., R. 27 E.
Bottom Hole Location: 1650' FSL & 1' FWL, Section 33, T. 17 S., R. 27 E.

Eagle 33 Federal Com 4H
Surface Hole Location: 1968' FSL & 688' FWL, Section 34, T. 17 S., R. 27 E.
Bottom Hole Location: 2310' FSL & 1' FWL, Section 33, T. 17 S., R. 27 E.

Eagle 33 Federal Com 5H
Surface Hole Location: 1948' FSL & 688' FWL, Section 34, T. 17 S., R. 27 E.
Bottom Hole Location: 1650' FSL & 1' FWL, Section 33, T. 17 S., R. 27 E.

Eagle 33 Federal Com 6H
Surface Hole Location: 1928' FSL & 688' FWL, Section 34, T. 17 S., R. 27 E.
Bottom Hole Location: 1650' FSL & 1' FWL, Section 33, T. 17 S., R. 27 E.

Well Pad 2
Eagle 33 Federal Com 2H
Surface Hole Location: 1796' FNL & 688' FWL, Section 34, T. 17 S., R. 27 E.
Bottom Hole Location: 1750' FNL & 1' FWL, Section 33, T. 17 S., R. 27 E.

Eagle 33 Federal Com 7H
Surface Hole Location: 1816' FNL & 688' FWL, Section 34, T. 17 S., R. 27 E.
Bottom Hole Location: 1750' FNL & 1' FWL, Section 33, T. 17 S., R. 27 E.

Eagle 33 Federal Com 8H
Surface Hole Location: 1836' FNL & 688' FWL, Section 34, T. 17 S., R. 27 E.
Bottom Hole Location: 2160' FNL & 1' FWL, Section 33, T. 17 S., R. 27 E.

Eagle 33 Federal Com 9H
Surface Hole Location: 1856' FNL & 688' FWL, Section 34, T. 17 S., R. 27 E.
Bottom Hole Location: 2160' FNL & 1' FWL, Section 33, T. 17 S., R. 27 E.

Well Pad 3
Eagle 33 Federal Com 3H
Surface Hole Location: 430' FNL & 550' FWL, Section 34, T. 17 S., R. 27 E.
Bottom Hole Location: 330' FNL & 1' FWL, Section 33, T. 17 S., R. 27 E.

Eagle 33 Federal Com 10H
Surface Hole Location: 450' FNL & 550' FWL, Section 34, T. 17 S., R. 27 E.
Bottom Hole Location: 330' FNL & 1' FWL, Section 33, T. 17 S., R. 27 E.

Approval Date: 02/02/2022

Eagle 33 Federal Com 11H
Surface Hole Location: 470' FNL & 550' FWL, Section 34, T. 17 S., R. 27 E.
Bottom Hole Location: 840' FNL & 1' FWL, Section 33, T. 17 S., R. 27 E.

Eagle 33 Federal Com 12H
Surface Hole Location: 490' FNL & 550' FWL, Section 34, T. 17 S., R. 27 E.
Bottom Hole Location: 840' FNL & 1' FWL, Section 33, T. 17 S., R. 27 E.

Well Pad 4
Eagle 26 Federal 2H
Surface Hole Location: 1320' FSL & 1880' FEL, Section 26, T. 17 S., R. 27 E.
Bottom Hole Location: 990' FSL & 1' FWL, Section 27, T. 17 S., R. 27 E.

Well Pad 5
Eagle 26 Federal Com 3H
Surface Hole Location: 1195' FNL & 688' FEL, Section 27, T. 17 S., R. 27 E.
Bottom Hole Location: 1650' FNL & 760' FWL, Section 25, T. 17 S., R. 27 E.

Well Pad 6
Eagle 26 Federal Com 4H
Surface Hole Location: 330' FNL & 665' FEL, Section 27, T. 17 S., R. 27 E.
Bottom Hole Location: 330' FNL & 1319' FWL, Section 25, T. 17 S., R. 27 E.

Well Pad 7
Eagle 27 Federal Com 2H
Surface Hole Location: 1625' FNL & 1115' FWL, Section 26, T. 17 S., R. 27 E.
Bottom Hole Location: 1650' FNL & 1' FWL, Section 27, T. 17 S., R. 27 E.

Well Pad 8
Eagle 27 Federal Com 3H
Surface Hole Location: 380' FNL & 688' FWL, Section 26, T. 17 S., R. 27 E.
Bottom Hole Location: 380' FNL & 1307' FEL, Section 28, T. 17 S., R. 27 E.

APD, Well Pads, Surface Pipelines, and Access Roads

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.

Closed Loop System
Federal Mineral Material Pits
Well Pads
Roads

☐**Road Section Diagram**

☒**Production (Post Drilling)**

Well Structures & Facilities
Pipelines

☐**Interim Reclamation**

☐**Final Abandonment & Reclamation**

Approval Date: 02/02/2022

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 Stipulation 6 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.

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.

V. 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.

Cave/Karst:

Construction Mitigation

In order to mitigate the impacts from construction activities on cave and karst resources, the following Conditions of Approval will apply to this APD or project:

General Construction:

- No blasting
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction, and no additional construction shall occur until clearance has been issued by the Authorized Officer.
- All linear surface disturbance activities will avoid sinkholes and other karst features to lessen the possibility of encountering near surface voids during construction, minimize changes to runoff, and prevent untimely leaks and spills from entering the karst drainage system.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

Pad Construction:

- The pad will be constructed and leveled by adding the necessary fill and caliche – no blasting.
- The entire perimeter of the well pad 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 high with impermeable mineral material (e.g., caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- 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.
- 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 access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised (i.e. an access road crossing the berm cannot be lower than the berm height).
- Following a rain event, all fluids will vacuumed off of the pad and hauled off-site and disposed at a proper disposal facility.

Road Construction:

- Turnout ditches and drainage leadoffs will not be constructed in such a manner as to alter the natural flow of water into or out of cave or karst features.
- Special restoration stipulations or realignment may be required if subsurface features are discovered during construction.

Surface Flowlines Installation:

- Flowlines will be routed around sinkholes and other karst features to minimize the possibility of leaks/spills from entering the karst drainage system.

Drilling Mitigation

Federal regulations and standard Conditions of Approval applied to all APDs require that adequate measures are taken to prevent contamination to the environment. Due to the extreme

sensitivity of the cave and karst resources in this project area, the following additional Conditions of Approval will be added to this APD.

To prevent cave and karst resource contamination the following will be required:

- Closed loop system using steel tanks - all fluids and cuttings will be hauled off-site and disposed of properly at an authorized site
- Rotary drilling with fresh water where cave or karst features are expected to prevent contamination of freshwater aquifers.
- Directional drilling is only allowed at depths greater than 100 feet below the cave occurrence zone to prevent additional impacts resulting from directional drilling.
- Lost circulation zones will be logged and reported in the drilling report so BLM can assess the situation and work with the operator on corrective actions.
- Additional drilling, casing, and cementing procedures to protect cave zones and fresh water aquifers. See drilling COAs.

Production Mitigation
In order to mitigate the impacts from production activities and due to the nature of karst terrane, the following Conditions of Approval will apply to this APD:

- Tank battery locations and facilities will be bermed and lined with a 20 mil thick permanent liner that has a 4 oz. felt backing, or equivalent, to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.
- Development and implementation of a leak detection system to provide an early alert to operators when a leak has occurred.
- Automatic shut off, check values, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Residual and Cumulative Mitigation
The operator will perform annual pressure monitoring on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be taken to correct the problem to the BLM's approval.

Plugging and Abandonment Mitigation
Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Range:

Fence Requirement
Where entry granted across a fence line, the fence must be H-braced or angle iron 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 consult with the private surface landowner or the grazing allotment holder prior to cutting any fence(s).

Figure 1. Pipe H-brace specifications

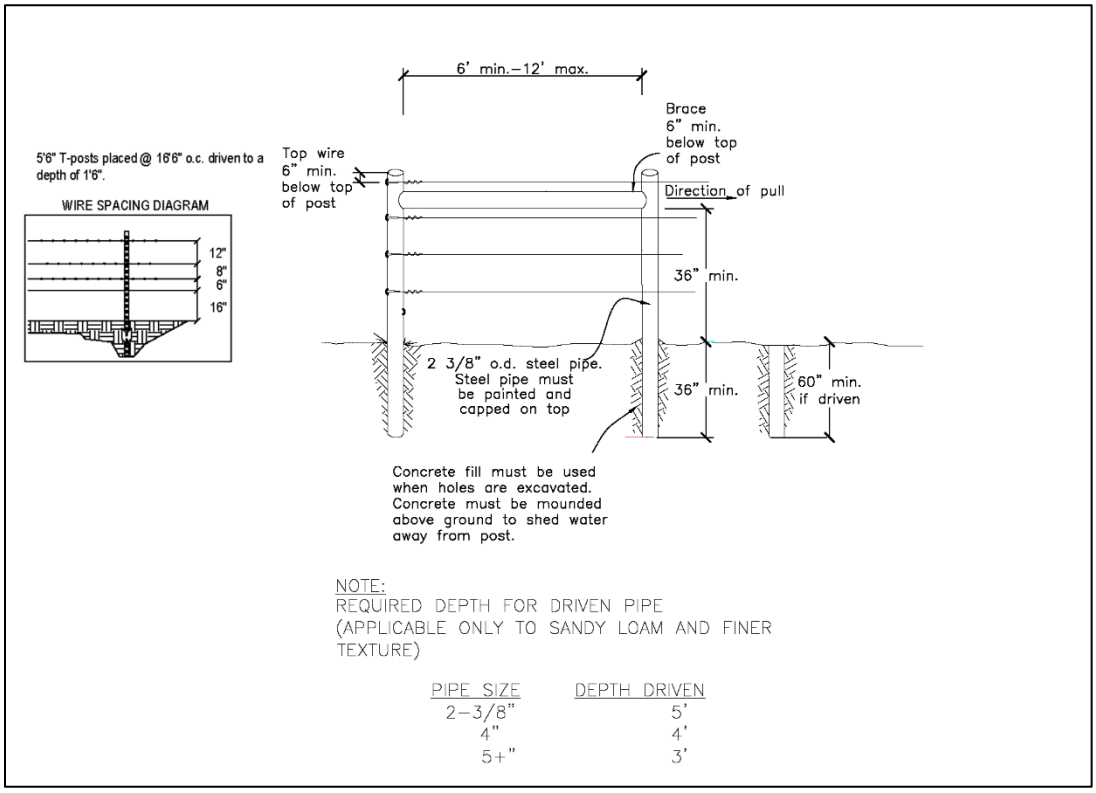
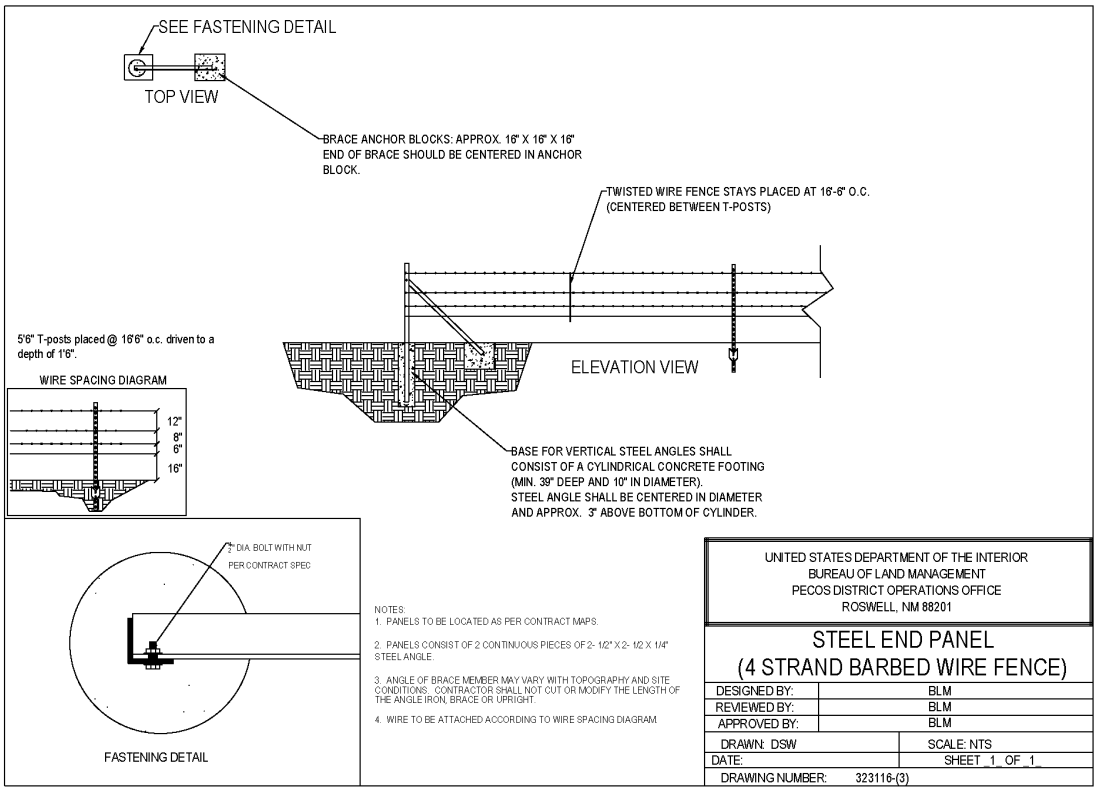


Figure 2. Angle iron brace specifications



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Cattleguards

Where a permanent cattleguard 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.

Livestock Water Protection

Operator must contact the allotment holder prior to construction to identify the location of the livestock pipeline(s) and trough(s). Operator must take measures to protect the pipeline from compression or other damages. If the livestock pipeline is damaged or compromised in any way near the proposed action as a result of oil and gas activity, operator is responsible for repairing the livestock pipeline immediately. Livestock routes to water sources/troughs must not be blocked by construction activities. Berming surface-laid oil-and-gas flowlines/pipelines is necessary to allow livestock to cross over them to get to water. Any damage to structures that provide water to livestock (such as windmills, pipelines, drinking troughs, earthen reservoirs) throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. 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.

VRM IV:

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

Short-term mitigation measures include painting all above-ground structures that are not subject to safety requirements (including meter housing) Shale Green, which is a flat non-reflective paint color listed in the BLM Standard Environmental Color Chart (CC-001: June 2013). Long-term mitigation measures include the removal of wells and associated infrastructure following abandonment (end of cost-effective production). Previously impacted areas will be reclaimed by removing structures and caliche pads, returning disturbed areas to natural grade, and revegetating with an approved BLM seed mixture; thereby eliminating visual impacts.

VI. 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.

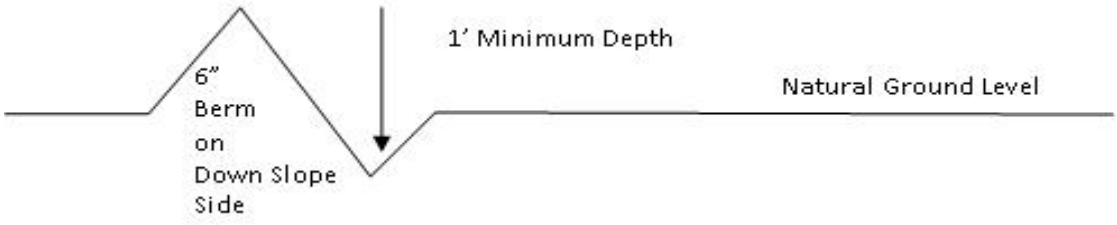
Ditching
Ditching shall be required on both sides of the road.

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:

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

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

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Construction Steps

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

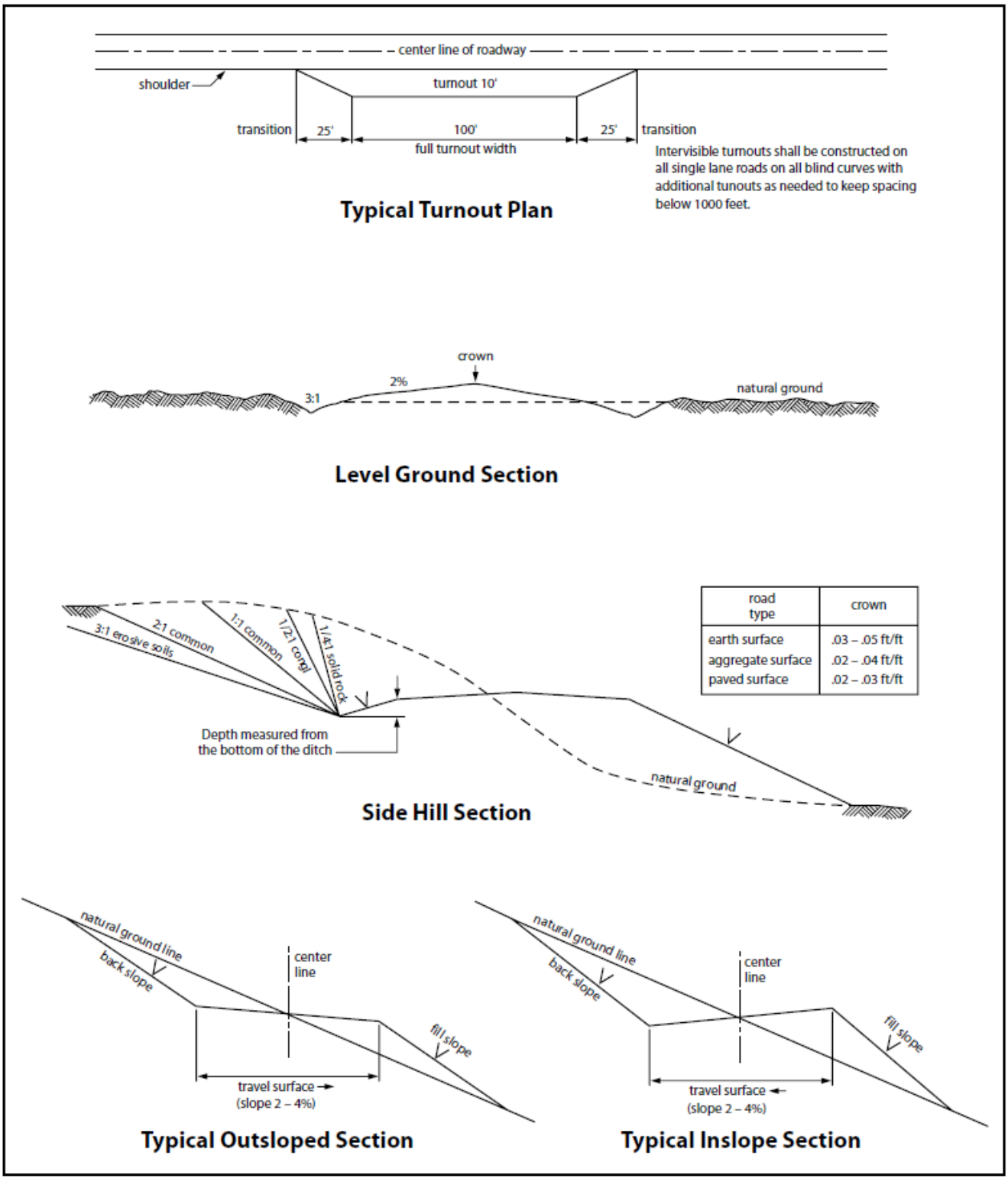

Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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VII. 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.

21. Special Stipulations:

Karst:

- 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.

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the Grant and attachments, including stipulations, survey plat(s) and/or map(s), shall be on location during construction. BLM personnel may request to review 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:

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1. 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. Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, Holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC § 2601 *et seq*. (1982) with regard 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 in particular, 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. 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 activity of 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 provision applies without regard to whether a release is caused by Holder, its agent, or unrelated third parties.

4. Holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. Holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

a. Activities of Holder including, but not limited to: construction, operation, maintenance, and termination of the facility;

b. Activities of other parties including, but not limited to:
   (1) Land clearing
   (2) Earth-disturbing and earth-moving work
   (3) Blasting
   (4) Vandalism and sabotage;

c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars ($1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, 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, salt water, 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/she 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 Holder. Such action by the Authorized Officer shall not relieve Holder of any responsibility as provided herein.

6. All construction and maintenance activity shall be confined to the authorized right-of-way width of **30** feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the surface pipeline shall be installed no farther than 10 feet from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline shall be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity shall be confined to existing roads or right-of-ways.

7. No blading or clearing of any vegetation shall be allowed unless approved in writing by the Authorized Officer.

8. Holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of duney areas, the pipeline shall be "snaked" around hummocks and dunes rather than suspended across these features.

9. The pipeline shall be buried with a minimum of 6 inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

10. 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.

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. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

13. 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. Signs will be maintained in a legible condition for the life of the pipeline.

14. 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. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. 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 16 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.

16. 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."

17. 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.

18. 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, powerline 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.

19. Surface pipelines shall be less than or equal to 4 inches and a working pressure below 125 psi.

VIII. 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).

IX. 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).

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Mixture 4, for Gypsum Sites

The holder shall seed all the 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 will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will 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). The 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. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will 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
Alkali Sacaton (*Sporobolus airoides*)	1.5
DWS~ Four-wing saltbush (*Atriplex canescens*)	8.0

~DWS: DeWinged Seed

*Pounds of pure live seed:

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

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**REDWOOD OPERATING LLC**
LEASE NO.:	**NMNM0558679**
WELL NAME & NO.:	EAGLE 26 FEDERAL COM 3H
SURFACE HOLE FOOTAGE:	1195'/N & 688'/E
BOTTOM HOLE FOOTAGE	1650'/N & 760'/W
LOCATION:	Section 27, T.17 S., R.27 E., NMPM
COUNTY:	Eddy 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	☐ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☑ COM	☐ Unit

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the 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 **375 feet** (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface.

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

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hours or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The **9-5/8** inch Intermediate casing shall be set at **1230** ft. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

Option 1 (Single Stage):

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

❖ In High Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

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

Option 1 (Single Stage):

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

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. **BOP REQUIREMENTS**

Option 1:

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

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

Option 2:

Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

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

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

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

GENERAL REQUIREMENTS

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

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

☒ Eddy 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.

Approval Date: 02/02/2022

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.

Approval Date: 02/02/2022

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.

RI01262022

Approval Date: 02/02/2022

Attached to Form 3160-3
Redwood Operating LLC
Eagle 26 Federal Com #3H NMNM-0558679 NMNM-055869
SHL : 1195 FNL & 688 FEL, NENE, Sec. 27 T17S R27E
BHL : 1650 FNL & 760 FWL, SWNW, Sec. 25 T17S R27E
Eddy County, NM

Mack Energy Corporation
Onshore Order #6
Hydrogen Sulfide Drilling Operation Plan

I. HYDROGEN SULFIDE TRAINING

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

1. The hazards an characteristics of hydrogen sulfide (H2S)
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H2S detectors alarms warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

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

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

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500 feet) and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operations Plan and the Public Protection Plan. **The concentrations of H2S of wells in this area from surface to TD are low enough that a contingency plan is not required.**

II. H2S SAFETY EQUIPMENT AND SYSTEMS

Note: All H2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonable expected to contain H2S.

1. Well Control Equipment:

A. Flare line.
B. Choke manifold.
C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
D. Auxiliary equipment may include if applicable: annular preventer & rotating head.

2. Protective equipment for essential personnel:

A. Mark II Survive air 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

3. H2S detection and monitoring equipment:

A. 1 portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 PPM are reached.

4. Visual warning systems:

A. Wind direction indicators as shown on well site diagram (Exhibit #8).
B. Caution/Danger signs (Exhibit #7) shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

5. Mud program:

A. The mud program has been designed to minimize the volume of H2S circulated to surface. Proper mud weight, safe drilling practices and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

6. Metallurgy:

A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
B. All elastomers used for packing and seals shall be H2S trim.

7. Communication:

A. Radio communications in company vehicles including cellular telephone and 2-way radio.
B. Land line (telephone) communication at Office.

8. Well testing:

A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H2S environment will use the closed chamber method of testing.

Attached to Form 3160-3
Redwood Operating LLC
Eagle 26 Federal Com #3H NMNM-0558679 NMNM-055869
SHL : 1195 FNL & 688 FEL, NENE, Sec. 27 T17S R27E
BHL : 1650 FNL & 760 FWL, SWNW, Sec. 25 T17S R27E
Eddy County, NM

B. There will be no drill stem testing.

EXHIBIT #7

WARNING

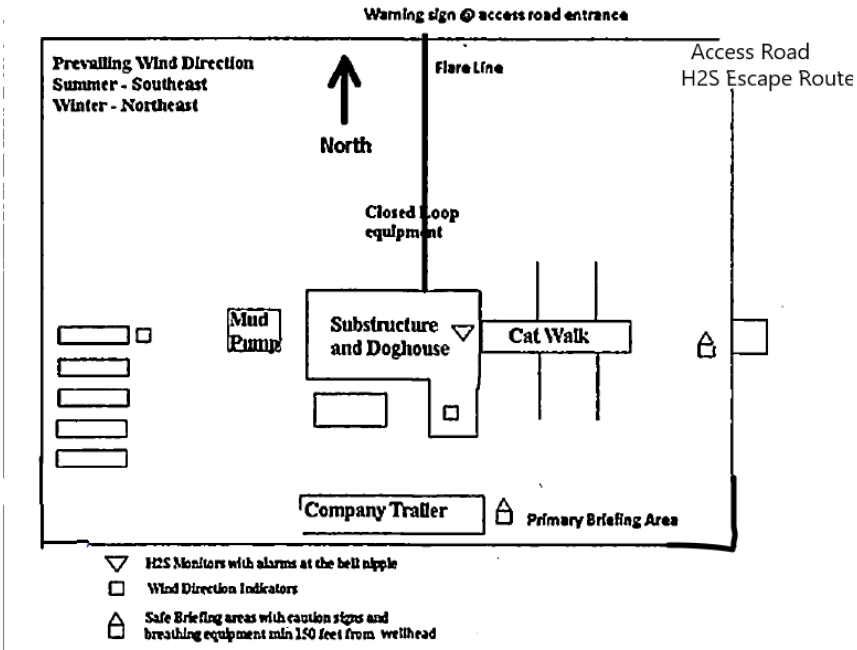
YOU ARE ENTERING AN H2S

AUTHORIZED PERSONNEL ONLY

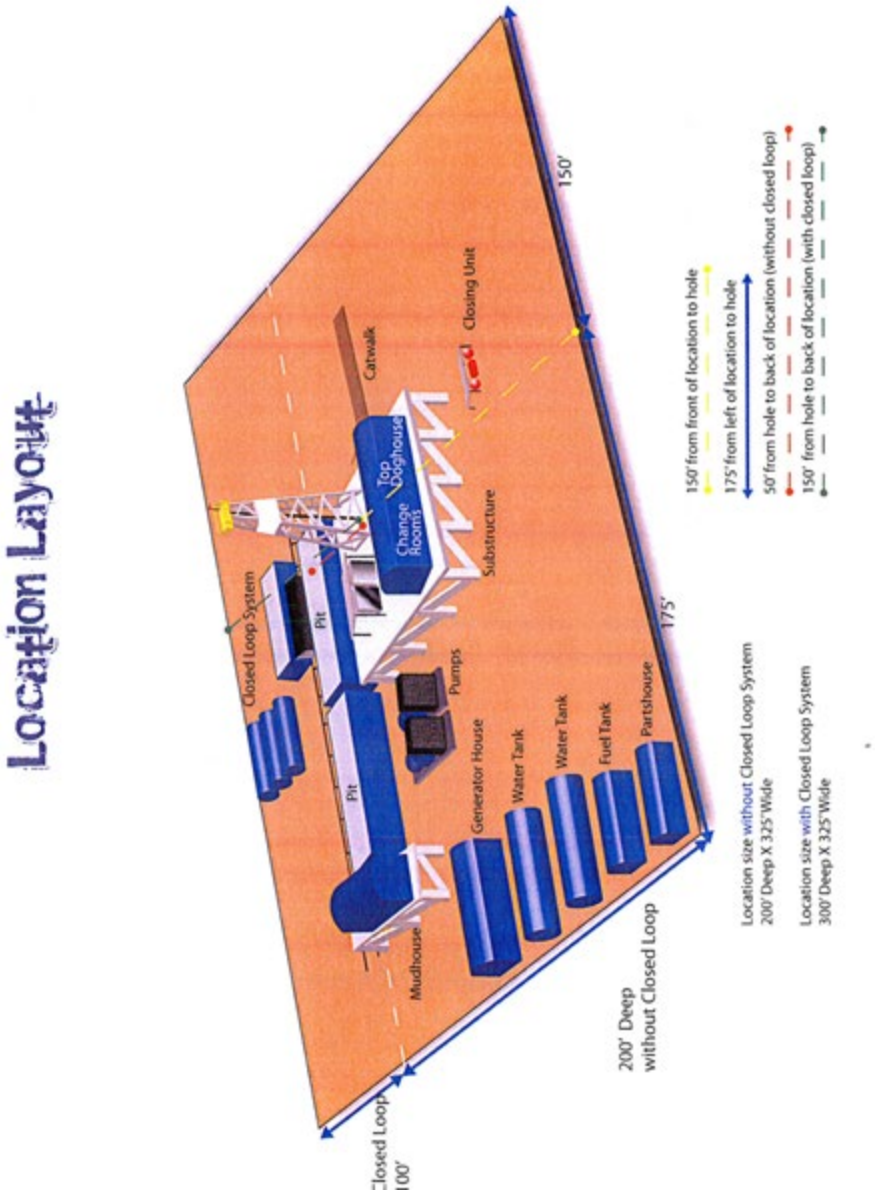
1. BEARDS OR CONTACT LENSES NOT ALLOWED
2. HARD HATS REQUIRED
3. SMOKING IN DESIGNATED AREAS ONLY
4. BE WIND CONSCIOUS AT ALL TIMES
5. CHECK WITH Redwood Operating FOREMAN AT OFFICE

Redwood Operating LLC

1-575-748-1288



DRILLING LOCATION H2S SAFTY EQUIPMENT
Exhibit # 8



Mack Energy Corporation Call List, Eddy County

Artesia (575)	Cellular	Office
Jim Krogman	432-934-1596	748-1288
Emilio Martinez	432-934-7586	748-1288

Agency Call List (575)

Artesia

State Police……..746-2703
City Police……...746-2703
Sheriff's Office……746-9888
Ambulance……...911
Fire Department……...746-2701
LEPC (Local Emergency Planning Committee……...746-2122
NMOCD……...748-1283

Carlsbad

State Police……..885-3137
City Police……...885-2111
Sheriff's Office……887-7551
Ambulance……...911
Fire Department……...885-2111
LEPC (Local Emergency Planning Committee……...887-3798
Bureau of Land Management……...887-6544
New Mexico Emergency Response Commission……(505)476-9690
24 Hour……(505)827-9126
Natonal Emergency Response Center (Washington)……(800)424-8802

Emergency Services

Boots & Coots IWC……..…1-800-256-9688 or (281)931-8884
Cudd pressure Control…….(915)699-0139 or (915)563-3356
Halliburton……..746-2757
Par Five……..748-9539

Flight For Life-Lubbock, TX……..……(806)743-9911
Aerocare-Lubbock, TX……...(806)747-8923
Med Flight Air Amb-Albuquerque, NM…….(505)842-4433
Lifeguard Air Med Svc. Albuquerque, NM……(505)272-3115

Intent [XXX] As Drilled [ ]

API #

Operator Name:	Property Name:	Well Number
REDWOOD OPERATING LLC	**EAGLE 26 FEDERAL COM**	**3H**

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
A	**27**	**17S**	**27E**		**1195**	**NORTH**	**688**	**EAST**	**EDDY**

Latitude	Longitude	NAD
32.8092446	**104.2602783**	**83**

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
E	**26**	**17S**	**27E**		**1750**	**NORTH**	**100**	**WEST**	**EDDY**

Latitude	Longitude	NAD
32.8077374	**104.2577282**	**83**

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
E	**25**	**17S**	**27E**		**1650**	**NORTH**	**660**	**WEST**	**EDDY**

Latitude	Longitude	NAD
32.8078382	**104.2386819**	**83**

Is this well the defining well for the Horizontal Spacing Unit? [ ]

Is this well an infill well? [ ]

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

API #

Operator Name:	Property Name:	Well Number

KZ 06/29/2018

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

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

CONDITIONS

Action 77889

CONDITIONS

Operator: Redwood Operating LLC PO Box 1370 Artesia, NM 882111370	OGRID: 330211
	Action Number: 77889
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Notify OCD 24 hours prior to casing & cement	2/11/2022
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104	2/11/2022
kpickford	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	2/11/2022
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing	2/11/2022
kpickford	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	2/11/2022