Form 3160-3 FORM APPROVED OMB No. 1004-0137 (June 2015) Expires: January 31, 2018 **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. NMNM115426 **BUREAU OF LAND MANAGEMENT** APPLICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allotee or Tribe Name 7. If Unit or CA Agreement, Name and No. **✓** DRILL REENTER 1a. Type of work: Oil Well 1b. Type of Well: Gas Well Other 8. Lease Name and Well No. 1c. Type of Completion: Hydraulic Fracturing ✓ Single Zone Multiple Zone RED BULL 30-31 FED STATE COM [329954] 4H 9. API Well No. 2. Name of Operator 30-025-48327 [6137]DEVON ENERGY PRODUCTION COMPANY LP 10. Field and Pool, or Exploratory [2200] 3a Address 3b. Phone No. (include area code) WC-025 G-08 S233528D/LOWER BONE 333 West Sheridan Avenue, Oklahoma City, OK 73102 (800) 583-3866 4. Location of Well (Report location clearly and in accordance with any State requirements.*) 11. Sec., T. R. M. or Blk. and Survey or Area SEC 30/T23S/R35E/NMP At surface NWNE / 883 FNL / 1711 FEL / LAT 32.280448 / LONG -103.403716 At proposed prod. zone SESE / 20 FSL / 330 FEL / LAT 32.253875 / LONG -103.399215 14. Distance in miles and direction from nearest town or post office* 12. County or Parish 13. State NM LEA 15. Distance from proposed* 16. No of acres in lease 17. Spacing Unit dedicated to this well 883 feet location to nearest property or lease line, ft. 320.0 (Also to nearest drig. unit line, if any) 18. Distance from proposed location* 19. Proposed Depth 20. BLM/BIA Bond No. in file to nearest well, drilling, completed, 769 feet 11660 feet / 22084 feet FED: NMB000801 applied for, on this lease, ft. 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start* 23. Estimated duration 3409 feet 04/01/2021 45 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. 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. SUPO must be filed with the appropriate Forest Service Office). 6. Such other site specific information and/or plans as may be requested by the Name (Printed/Typed) Date 25. Signature REBECCA DEAL / Ph: (800) 583-3866 08/12/2020 (Electronic Submission) Regulatory Compliance Professional Approved by (Signature) Date Name (Printed/Typed) (Electronic Submission) Cody Layton / Ph: (575) 234-5959 12/18/2020 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.

GCP Rec 12/29/2020

SL

(Continued on page 2)





*(Instructions on page 2)

INSTRUCTIONS

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

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

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

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

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

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

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

NOTICES

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

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

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

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

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

The Paperwork Reduction Act of 1995 requires us to inform you that:

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

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

Additional Operator Remarks

Location of Well

0. SHL: NWNE / 883 FNL / 1711 FEL / TWSP: 23S / RANGE: 35E / SECTION: 30 / LAT: 32.280448 / LONG: -103.403716 (TVD: 0 feet, MD: 0 feet) PPP: NESE / 2630 FSL / 330 FEL / TWSP: 23S / RANGE: 35E / SECTION: 30 / LAT: 32.274995 / LONG: -103.399222 (TVD: 11660 feet, MD: 14400 feet) PPP: NENE / 100 FNL / 330 FEL / TWSP: 23S / RANGE: 35E / SECTION: 30 / LAT: 32.282615 / LONG: -103.399251 (TVD: 11361 feet, MD: 11534 feet) BHL: SESE / 20 FSL / 330 FEL / TWSP: 23S / RANGE: 35E / SECTION: 31 / LAT: 32.253875 / LONG: -103.399215 (TVD: 11660 feet, MD: 22084 feet)

BLM Point of Contact

Name: Candy Vigil

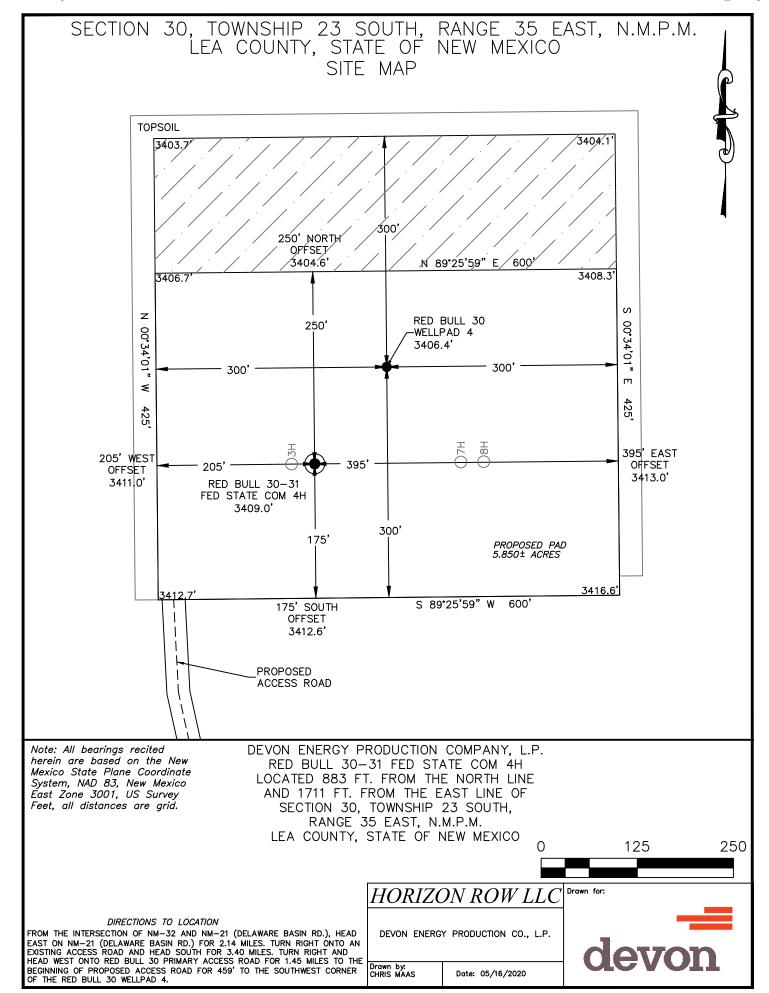
Title: LIE

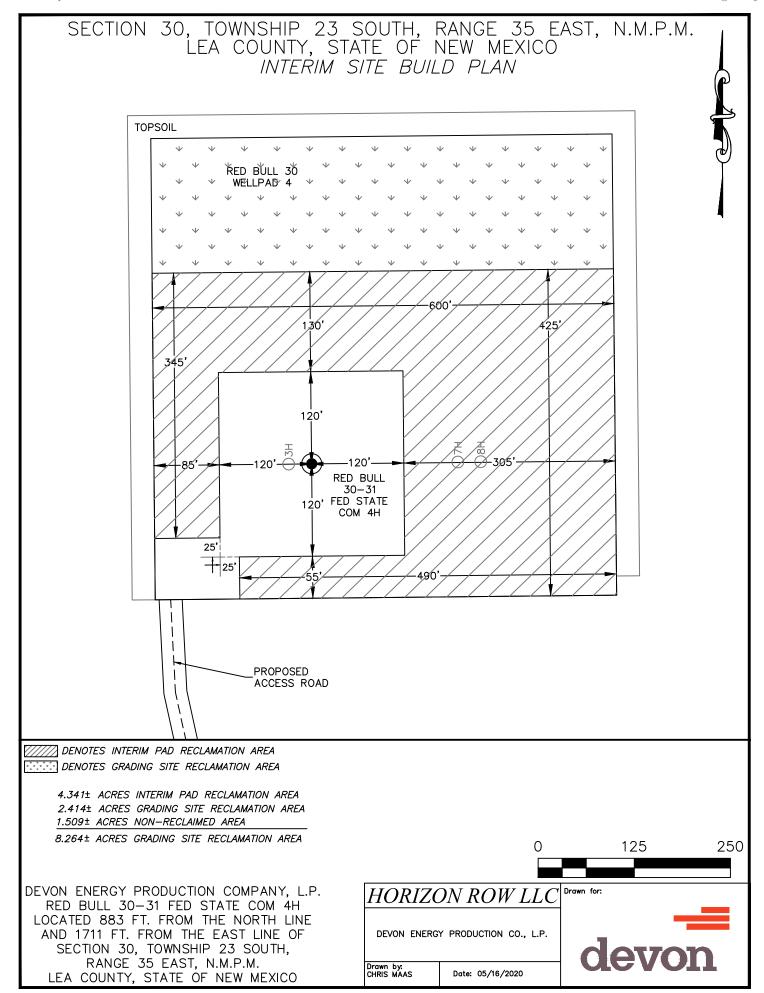
Phone: (575) 234-5982 Email: cvigil@blm.gov

Review and Appeal Rights

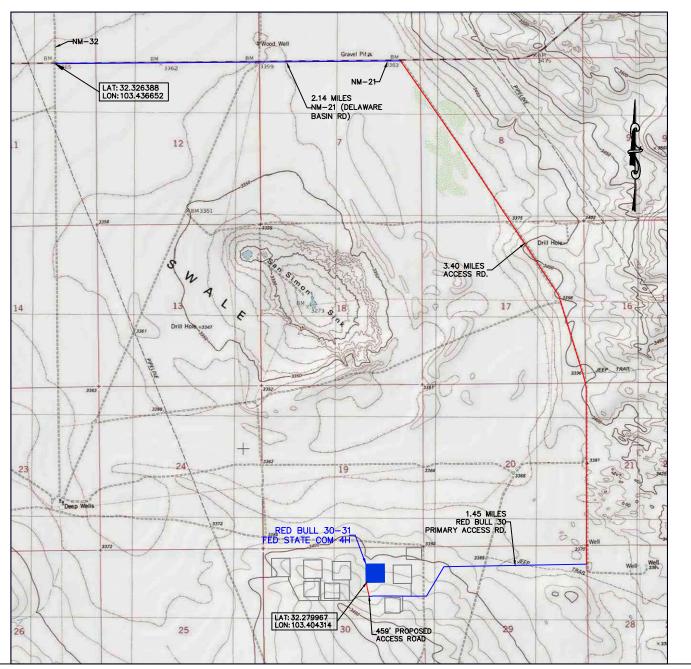
A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North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







SECTION 30, TOWNSHIP 23 SOUTH, RANGE 35 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO VICINITY MAP



DEVON ENERGY PRODUCTION COMPANY, L.P. RED BULL 30-31 FED STATE COM 4H LOCATED 883 FT. FROM THE NORTH LINE AND 1711 FT. FROM THE EAST LINE OF SECTION 30, TOWNSHIP 23 SOUTH, RANGE 35 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO

DIRECTIONS TO LOCATION

PIRECTIONS TO LOCATION

FROM THE INTERSECTION OF NM-32 AND NM-21 (DELAWARE BASIN RD.), HEAD EAST ON NM-21 (DELAWARE BASIN RD.) FOR 2.14 MILES. TURN RIGHT ONTO AN EXISTING ACCESS ROAD AND HEAD SOUTH FOR 3.40 MILES. TURN RIGHT AND HEAD WEST ONTO RED BULL 30 PRIMARY ACCESS ROAD FOR 1.45 MILES TO THE BEGINNING OF PROPOSED ACCESS ROAD FOR 459' TO THE SOUTHWEST CORNER OF THE RED BULL 30 WELLPAD 4.

HORIZON ROW LLC

DEVON ENERGY PRODUCTION CO., L.P.

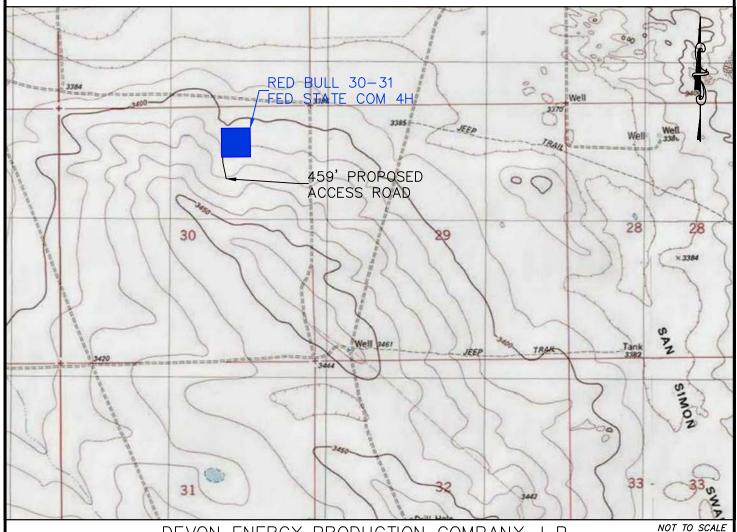
Drawn by: CHRIS MAAS

Date: 05/16/2020



NOT TO SCALE

SECTION 30, TOWNSHIP 23 SOUTH, RANGE 35 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO LOCATION VERIFICATION MAP



DEVON ENERGY PRODUCTION COMPANY, L.P. RED BULL 30-31 FED STATE COM 4H LOCATED 883 FT. FROM THE NORTH LINE AND 1711 FT. FROM THE EAST LINE OF SECTION 30, TOWNSHIP 23 SOUTH, RANGE 35 EAST, N.M.P.M.

LEA COUNTY, STATE OF NEW MEXICO

HORIZON ROW LLC

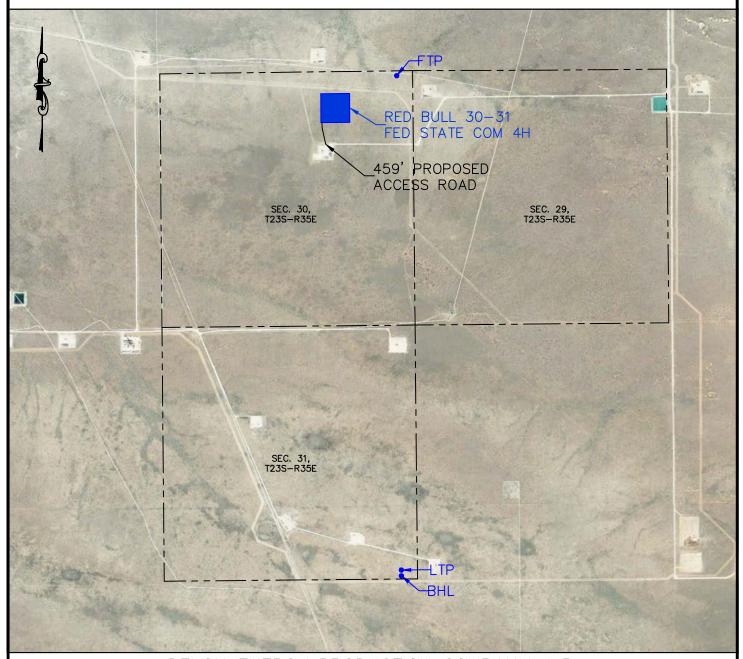
DEVON ENERGY PRODUCTION CO., L.P.

Drawn by: CHRIS MAAS

Date: 05/16/2020



SECTION 30, TOWNSHIP 23 SOUTH, RANGE 35 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO AFRIAI PHOTO



DEVON ENERGY PRODUCTION COMPANY, L.P. RED BULL 30-31 FED STATE COM 4H LOCATED 883 FT. FROM THE NORTH LINE AND 1711 FT. FROM THE EAST LINE OF SECTION 30, TOWNSHIP 23 SOUTH, RANGE 35 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO

NOT TO SCALE

HORIZON ROW LLC

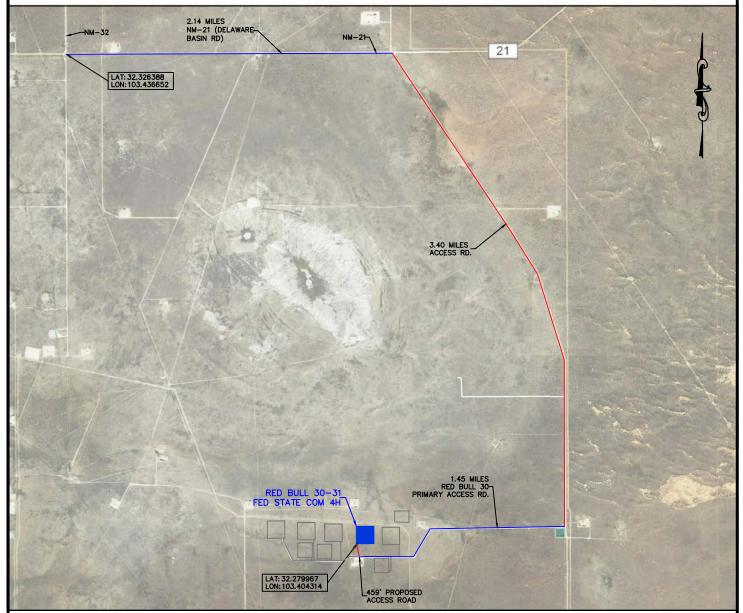
DEVON ENERGY PRODUCTION CO., L.P.

Drawn by: CHRIS MAAS

Date: 05/16/2020



SECTION 30, TOWNSHIP 23 SOUTH, RANGE 35 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO AERIAL ACCESS ROUTE MAP



DEVON ENERGY PRODUCTION COMPANY, L.P. RED BULL 30-31 FED STATE COM 4H LOCATED 883 FT. FROM THE NORTH LINE AND 1711 FT. FROM THE EAST LINE OF SECTION 30, TOWNSHIP 23 SOUTH, RANGE 35 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO

NOT TO SCALE

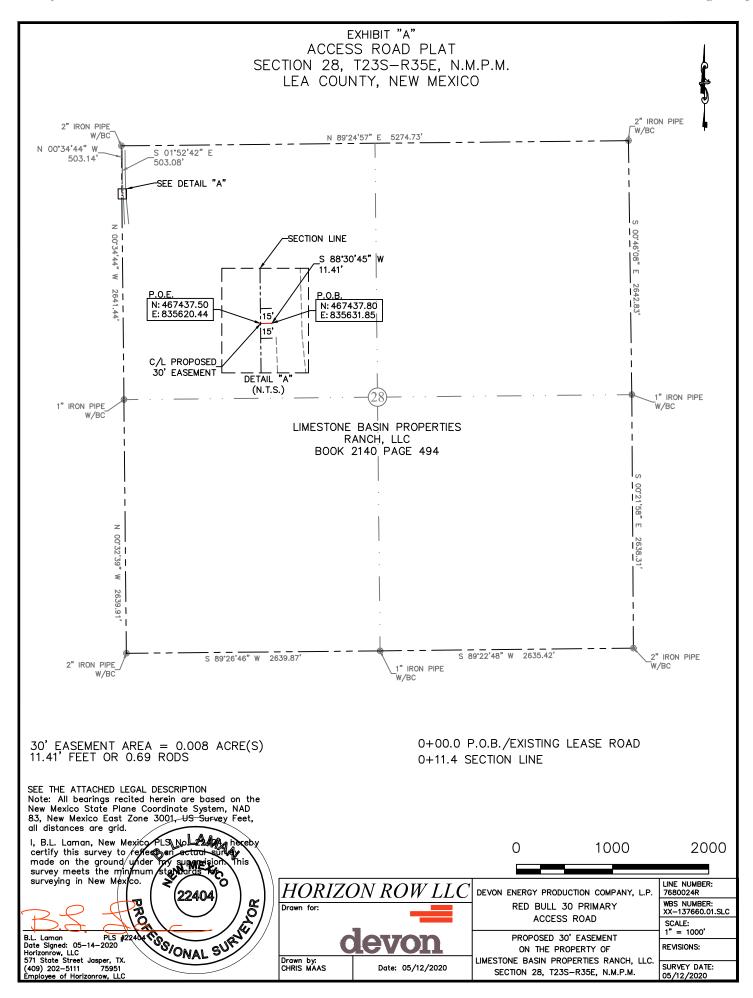
HORIZON ROW LLC

DEVON ENERGY PRODUCTION CO., L.P.

Drawn by: CHRIS MAAS

Date: 05/16/2020





SECTION 28, T23S-R35E, N.M.P.M., LEA COUNTY, NEW MEXICO

LEGAL DESCRIPTION

FOR

DEVON ENERGY PRODUCTION COMPANY, L.P.

LIMESTONE BASIN PROPERTIES RANCH, LLC.

30' EASEMENT DESCRIPTION:

BEING an easement thirty (30) feet in width lying fifteen (15) feet on the right side and fifteen (15) feet on the left side of the survey centerline described below, being out of the northwest quarter (NW ¼) of Section 28, Township 23 South, Range 35 East, N.M.P.M., Lea County, New Mexico, and being out of a parcel of land owned by Limestone Basin Properties Ranch, LLC., recorded in Book 2140, Page 494, Deed Records of Lea County. Said centerline of easement being more particularly described as follows:

Commencing from a 2" iron pipe w/BC for the northwest quarter corner of Section 28;

Thence S 01°52'42" E a distance of 503.08' to the **Point of Beginning** of this easement, having coordinates of Northing=467437.80, Easting=835631.85 feet and continuing the following course;

Thence S 88°30'45" W a distance of 11.41' to the **Point of Ending**, being in the west line of said Section 28 and having coordinates of Northing= 467437.50, Easting= 835620.44 feet, from said point a 2" iron pipe w/BC for the northwest corner of Section 28, T23S-R35E bears N 00°34'44" W a distance of 503.14', covering **11.41' or 0.69 rods** and having an area of **0.008 acres**.

NOTES:

Bearings, distances and coordinates shown herein are based on New Mexico State Plane Coordinate System, NAD 83, East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.

B.L. Laman

PLS 22404

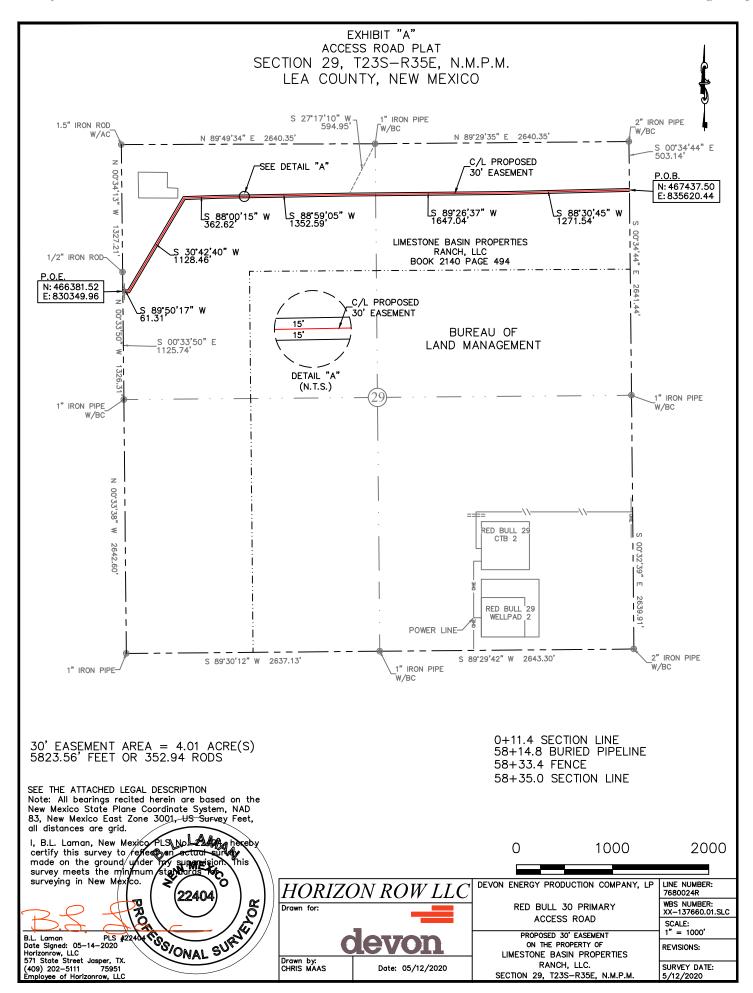
Date Signed: 05/14/2020

Horizon Row, LLC

P.O. Box 548, Dry Creek, La.

(903) 388-3045

10637



SECTION 29, T23S-R35E, N.M.P.M., LEA COUNTY, NEW MEXICO

LEGAL DESCRIPTION

FOR

DEVON ENERGY PRODUCTION COMPANY, LP.

LIMESTONE BASIN PROPERTIES RANCH, LLC.

30' EASEMENT DESCRIPTION:

BEING an easement thirty (30) feet in width lying fifteen (15) feet on the right side and fifteen (15) feet on the left side of the survey centerline described below, being out of the northeast quarter (NE ¼) and the northwest quarter (NW ¼) of Section 29, Township 23 South, Range 35 East, N.M.P.M., Lea County, New Mexico, and being out of a parcel of land owned by Limestone Basin Properties Ranch, LLC., recorded in Book 2140, Page 494, Deed Records of Lea County. Said centerline of easement being more particularly described as follows:

Commencing from a 2" iron pipe w/BC for the northeast corner of Section 29;

Thence S 00°34'44" E a distance of 503.14' to the **Point of Beginning** of this easement in the east line of Section 29, having coordinates of Northing=467437.50, Easting=835620.44 feet and continuing the following courses;

Thence S 88°30'45" W a distance of 1271.54' to an angle point;

Thence S 89°26'37" W a distance of 1647.04' to an angle point;

Thence S 88°59'05" W a distance of 1352.59' to an angle point;

Thence S 88°00'15" W a distance of 362.62' to an angle point;

Thence S 30°42'40" W a distance of 1128.46' to an angle point;

Thence S 89°50'17" W a distance of 61.31' to the **Point of Ending** in the west line of Section 29, having coordinates of Northing=466381.52, Easting=830349.96 feet, from said point a 1" iron pipe w/BC for the west quarter corner of Section 29, T23S-R35E bears S 00°33'50" E a distance of 1125.74', covering **5823.56' or 352.94 rods** and having an area of **4.01 acres**.

NOTES:

Bearings, distances and coordinates shown herein are based on New Mexico State Plane Coordinate System, NAD 83, East Zone 3001, US Survey Feet, all distances are grid.

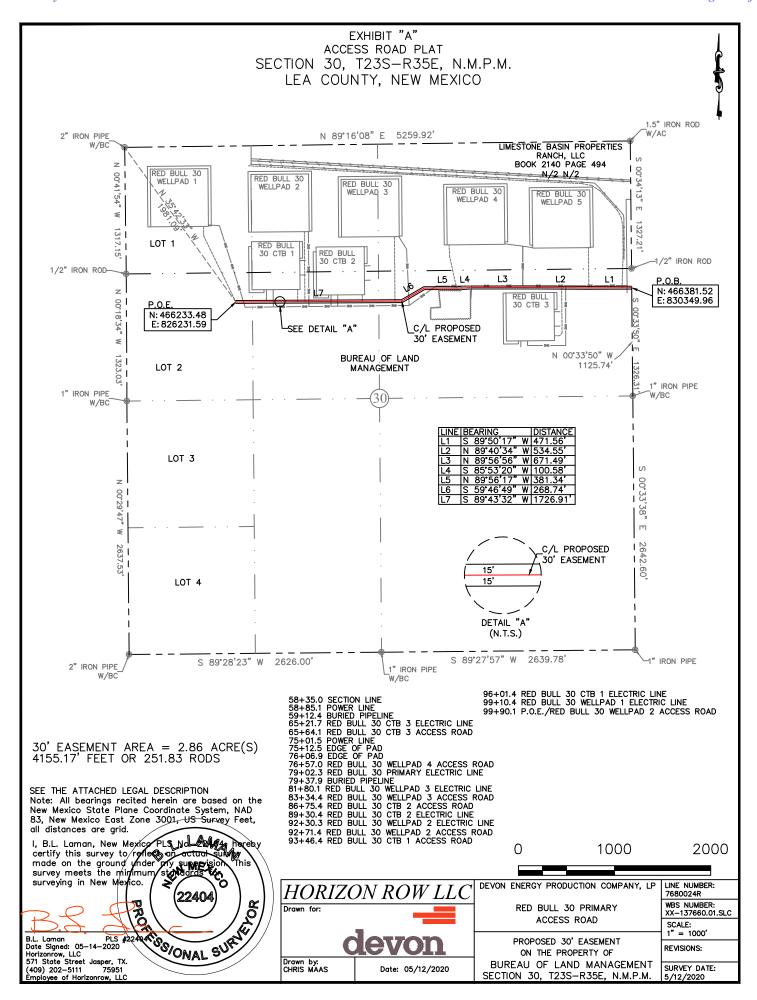
I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.

B.L. Laman PLS 22404

Date Signed: 05/14/2020 Horizon Row, LLC

P.O. Box 548, Dry Creek, La. (903) 388-3045 70637





SECTION 30, T23S-R35E, N.M.P.M., LEA COUNTY, NEW MEXICO

LEGAL DESCRIPTION

FOR

DEVON ENERGY PRODUCTION COMPANY, LP.

BUREAU OF LAND MANAGEMENT

30' EASEMENT DESCRIPTION:

BEING an easement thirty (30) feet in width lying fifteen (15) feet on the right side and fifteen (15) feet on the left side of the survey centerline described below, being out of the northeast quarter (NE ¼) and the northwest quarter (NW ¼) and Lot 2 of Section 30, Township 23 South, Range 35 East, N.M.P.M., Lea County, New Mexico, and being out of a parcel of land owned by the Bureau of Land Management. Said centerline of easement being more particularly described as follows:

Commencing from a 1" iron pipe w/BC for the east quarter corner of Section 30;

Thence N 00°33'50" W a distance of 1125.74' to the **Point of Beginning** of this easement in the east line of Section 30, having coordinates of Northing=466381.52, Easting=830349.96 feet and continuing the following courses;

Thence S 89°50'17" W a distance of 471.56' to an angle point;

Thence N 89°40'34" W a distance of 534.55' to an angle point;

Thence N 89°56'56" W a distance of 671.49' to an angle point;

Thence S 85°53'20" W a distance of 100.58' to an angle point;

Thence N 89°56'17" W a distance of 381.34' to an angle point;

Thence S 59°46'49" W a distance of 268.74' to an angle point;

Thence S 89°43'32" W a distance of 1726.91' to the **Point of Ending**, having coordinates of Northing=466233.48, Easting=826231.59 feet, from said point a 2" iron pipe w/BC for the northwest corner of Section 30, T23S-R35E bears N 35°42'33" W a distance of 1981.09', covering **4155.17' or 251.83 rods** and having an area of **2.86 acres**.

NOTES:

Bearings, distances and coordinates shown herein are based on New Mexico State Plane Coordinate System, NAD 83, East Zone 3001, US Survey Feet, all distances are grid.

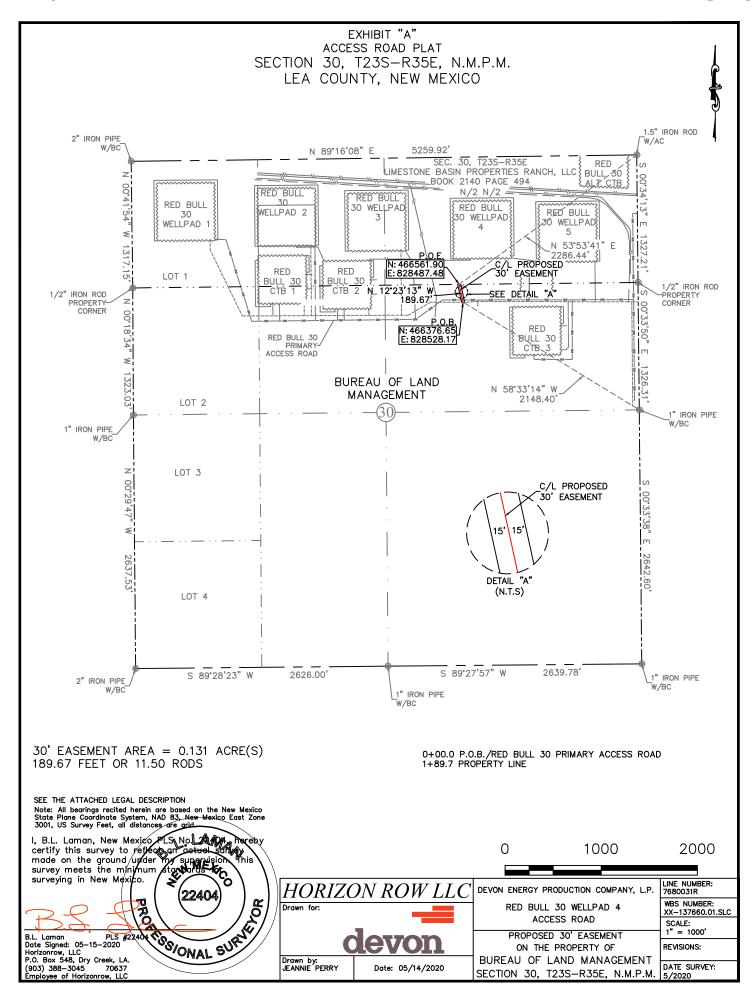
I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.

B.L. Laman PLS 22404

Date Signed: 05/14/2020 Horizon Row, LLC

P.O. Box 548, Dry Creek, La. (903) 388-3045 70637





SECTION 30, T23S-R35E, N.M.P.M., LEA COUNTY, NEW MEXICO

LEGAL DESCRIPTION FOR DEVON ENERGY PRODUCTION COMPANY, L.P. BUREAU OF LAND MANAGEMENT

30' EASEMENT DESCRIPTION:

BEING an easement thirty (30) feet in width lying fifteen (15) feet on the right side and fifteen (15) feet on the left side of the survey centerline described below, being out of the S/2 of the N/2 of Section 30, Township 23 South, Range 35 East, N.M.P.M., Lea County, New Mexico, and being out of a parcel of land owned by the Bureau of Land Management. Said centerline of easement being more particularly described as follows:

Commencing from a 1" iron pipe w/BC found for the east quarter corner of Section 30, T23S-R35E, N.M.P.M., Lea County, New Mexico;

Thence N 58°33'14" W, a distance of 2148.40' to the **Point of Beginning** of this easement, having coordinates of Northing=466376.65 feet, Easting=828528.17 feet, and continuing the following courses;

Thence N 12°23'13" W, a distance of 189.67' to the **Point of Ending** of this easement, in the north line of the S/2 of the N/2 of Section 30, having coordinates of Northing=466561.90 feet, Easting=828487.48 feet, from said point a 1.5" iron rod w/AC found for the northeast corner of Section 30, T23S-R35E, N.M.P.M., Lea County, New Mexico bears N 53°53'41" E a distance of 2286.44', covering 189.67' or 11.50 rods and having an area of 0.131 acres.

NOTES:

Bearings, distances and coordinates shown herein are based on New Mexico State Plane Coordinate System, NAD 83, East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.

B.L. Laman

PLS 22404

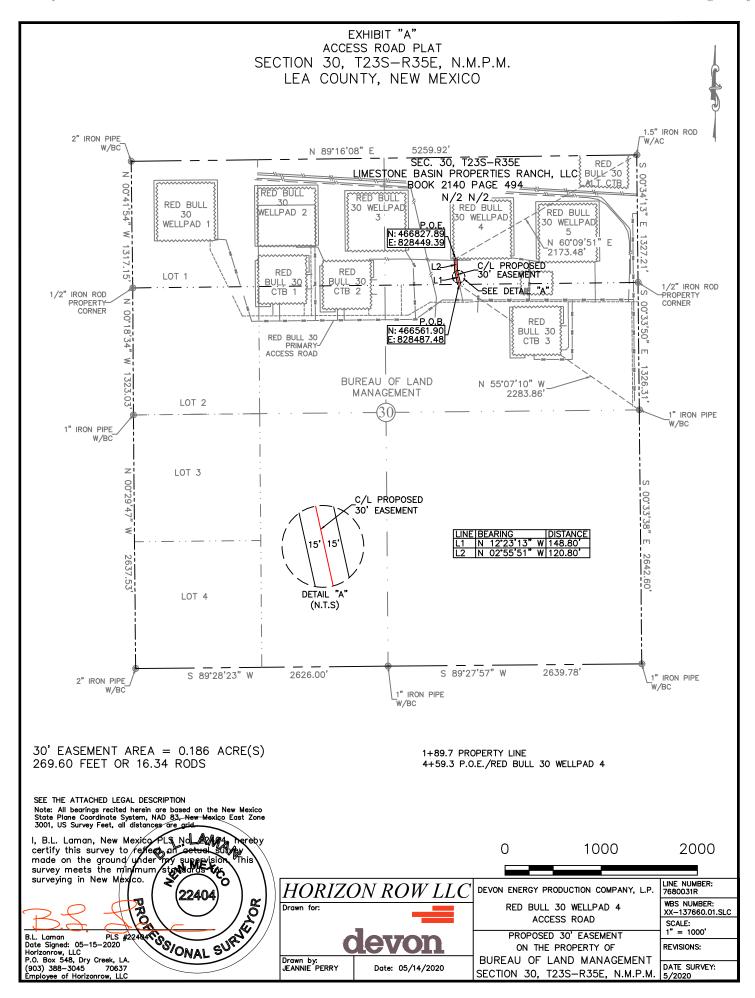
Date Signed: 05/15/2020

Horizon Row, LLC

P.O. Box 548, Dry Creek, LA

(903) 388-3045





SECTION 30, T23S-R35E, N.M.P.M., LEA COUNTY, NEW MEXICO

LEGAL DESCRIPTION FOR DEVON ENERGY PRODUCTION COMPANY, L.P. LIMESTONE BASIN PROPERTIES RANCH, LLC

30' EASEMENT DESCRIPTION:

BEING an easement thirty (30) feet in width lying fifteen (15) feet on the right side and fifteen (15) feet on the left side of the survey centerline described below, being out of the N/2 of the N/2 of Section 30, Township 23 South, Range 35 East, N.M.P.M., Lea County, New Mexico, and being out of a parcel of land owned by the Limestone Basin Properties Ranch, LLC, recorded in Book 2140, Page 494, Deed Records of Lea County. Said centerline of easement being more particularly described in a deed as follows:

Commencing from a 1" iron pipe w/BC found for the east quarter corner of Section 30, T23S-R35E, N.M.P.M., Lea County, New Mexico;

Thence N 55°07'10" W, a distance of 2283.86' to the **Point of Beginning** of this easement, having coordinates of Northing=466561.90 feet, Easting=828487.48 feet, in the south line of the N/2 of Section 30, and continuing the following courses;

Thence N 12°23'13" W, a distance of 148.80' to an angle point;

Thence N 02°55'51" W, a distance of 120.80' to the **Point of Ending** of this easement, having coordinates of 466827.89 feet, Easting=828449.39 feet, from said point a 1.5" iron rod w/AC found for the northeast corner of Section 30, T23S-R35E, N.M.P.M., Lea County, New Mexico bears N 60°09'51" E a distance of 2173.48', covering **269.60' or 16.34 rods** and having an area of **0.186 acres**.

NOTES:

Bearings, distances and coordinates shown herein are based on New Mexico State Plane Coordinate System, NAD 83, East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.

B.L. Laman

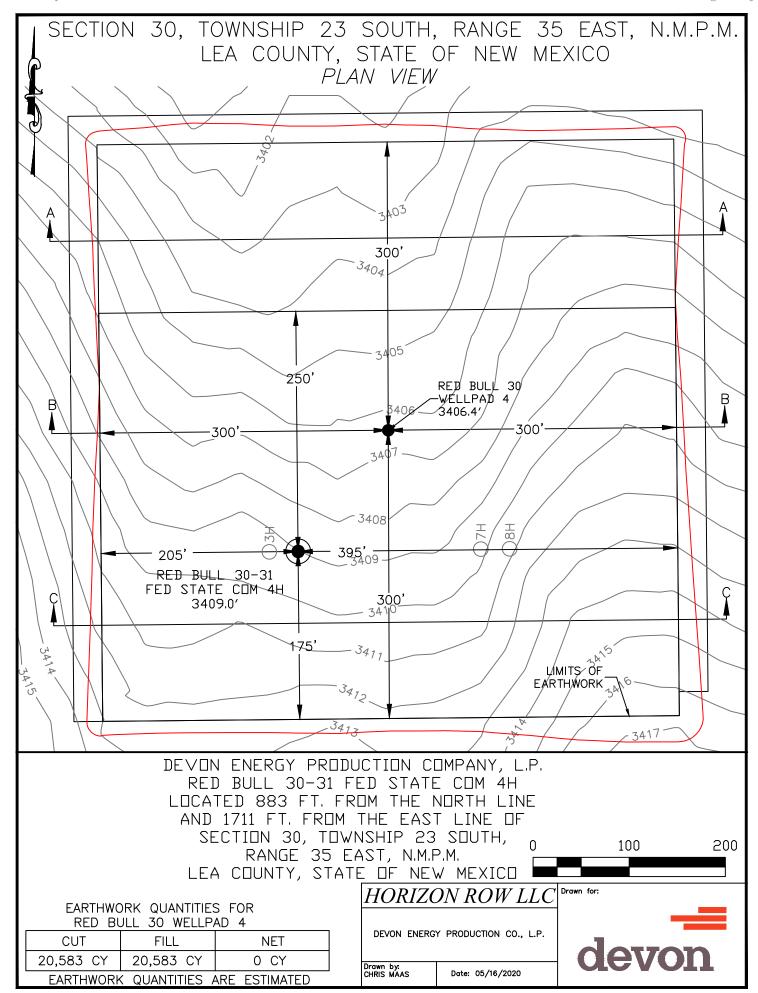
PLS 22404

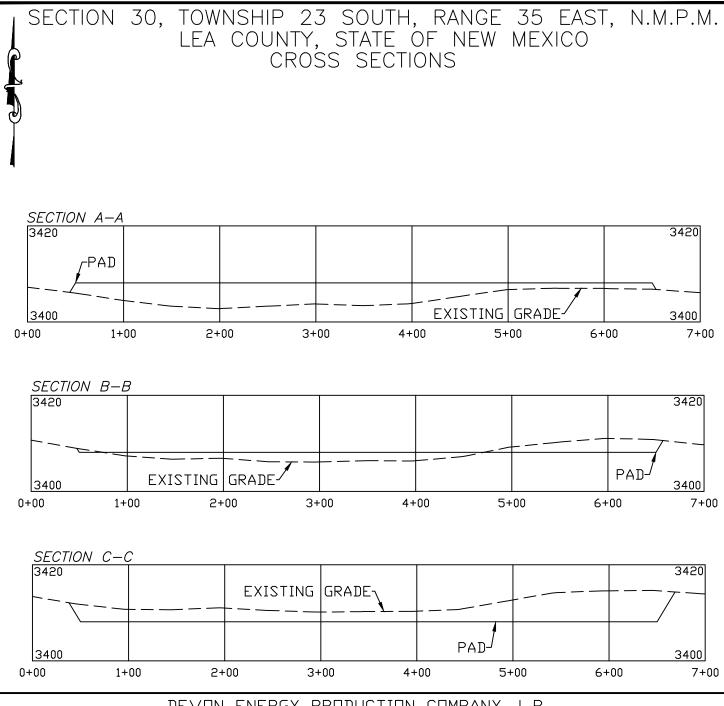
Date Signed: 05/15/2020

Horizon Row, LLC

P.O. Box 548, Dry Creek, LA (903) 388-3045 70637







DEVON ENERGY PRODUCTION COMPANY, L.P.
RED BULL 30-31 FED STATE COM 4H
LOCATED 883 FT. FROM THE NORTH LINE
AND 1711 FT. FROM THE EAST LINE OF
SECTION 30, TOWNSHIP 23 SOUTH,
RANGE 35 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

SCALE 1" = 100' HORIZONTAL SCALE 1" = 20' VERTICAL

EARTHWORK QUANTITIES FOR RED BULL 30 WELLPAD 4

CUT	FILL	NET
20,583 CY	20,583 CY	0 CY
FARTHWORK	' OLIANITITIES	ARE ESTIMATED

HORIZON ROW LLC

DEVON ENERGY PRODUCTION CO., L.P.

Drawn by: CHRIS MAAS Date: 05/16/2020



PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

Devon Energy Production Company LP OPERATOR'S NAME:

> LEASE NO.: NMNM115426

Section 30, T.23 S., R.35 E., NMPM LOCATION:

COUNTY: Lea County, New Mexico

Red Bull 30-31 Fed State Com 3H WELL NAME & NO.:

883'/N & 1741'/E SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE 20'/S & 1870'/E

> WELL NAME & NO.: Red Bull 30-31 Fed State Com 4H

SURFACE HOLE FOOTAGE: 883'/N & 1711'/E **BOTTOM HOLE FOOTAGE** 20'/S & 330'/E

COA

H2S	☑ Yes	□ No	
Potash	■ None	☐ Secretary	□ R-111-P
Cave/Karst Potential	© Low	☐ Medium	☐ High
Cave/Karst Potential	Critical		20.
Variance	□ None	E Flex Hose	C 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 Jamat and Antelope 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 1236 feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature

- survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8** hours or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

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

- 2. The minimum required fill of cement behind the 8-5/8 inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef. Cement excess is less than 25%, more cement might be required.
 - ❖ In <u>Capitan Reef Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
 - ❖ Special Capitan Reef requirements. If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:
 - Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
 - Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.

Operator has proposed to pump down 13-3/8" X 8-5/8" annulus. Operator must run a CBL from TD of the 8-5/8" casing to surface. Submit results to BLM.

- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - Cement should tie-back at least **50 feet** on top of Capitan Reef top **or 200 feet** into the previous casing, whichever is greater. 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, potash or capitan reef. Cement excess is less than 25%, more cement might be required.

C. PRESSURE CONTROL

- 1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 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.

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• In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

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

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)
 - ⊠ Eddy County Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822
 - Lea County Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612
- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. **CASING**

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.
- В. 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.

1. Geologic Formations

TVD of target	11660	Pilot hole depth	N/A
MD at TD:	22084	Deepest expected fresh water	

Basin

ъ п	XX7 / /3/4** 1	
(TVD)	Bearing/Target	Hazards*
from KB	Zone?	
1100		
1400		
3990		
5249		
5300		
9900		
10350		
11350		
11692		
	1100 1400 3990 5249 5300 9900 10350 11350	(TVD) Bearing/Target

^{*}H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program (Primary Design)

		Wt					Casing	Casing Interval		Casing Interval	
Hole Size	Csg. Size	(PPF)	Grade	Conn	From (MD)	To (MD)	From (TVD)	To (TVD)			
17 1/2	13 3/8	48.0	H40	STC	0	1125	0	1125			
9 7/8	8 5/8	32.0	P110	TLW	0	10375	0	10375			
7 7/8	5 1/2	17.0	P110	ВТС	0	22084	0	11660			

[•] All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 IILB.1.h Must have table for continengcy casing.

Casing	# Sks	TOC	Wt.	Yld (ft3/sack)	Slurry Description
Surface	853	Surf	13.2	1.44	Lead: Class C Cement + additives
L., 1	602		9	3.27	Lead: Class C Cement + additives
Int 1	67	4000' above	13.2	1.44	Tail: Class H / C + additives
Int 1	As Needed	Surf	13.2	1.44	Squeeze Lead: Class C Cement + additives
Intermediate	602	Surf	9	3.27	Lead: Class C Cement + additives
Squeeze	67	4000' above	13.2	1.44	Tail: Class H / C + additives
Production	426	3940	9.0	3.3	Lead: Class H /C + additives
	1434	11248	13.2	1.4	Tail: Class H / C + additives

Casing String	% Excess
Surface	50%
Intermediate 1	30%
Intermediate 1 (Two Stage)	25%
Prod	10%

4. Pressure Control Equipment (Three String Design)

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	T	ype	✓	Tested to:
				nular	X	50% of rated working pressure
Int 1	13-58"	5M	Bline	d Ram	X	
IIIL I	13-36	JIVI	Pipe	Ram		5M
			Doub	le Ram	X	SIVI
			Other*			1
	13-5/8"	5M	Annul	ar (5M)	X	50% of rated working pressure
Due de etien			Blind Ram		X	
Production			Pipe Ram			5.11
			Doub	le Ram	X	- 5M
			Other*			
			Annul	ar (5M)		
			Bline	d Ram		
			Pipe Ram			1
			Double Ram			1
			Other*			1
N A variance is requested for	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.					
Y A variance is requested to 1	A variance is requested to run a 5 M annular on a 10M system					

5. Mud Program (Three String Design)

Section	Туре	Weight (ppg)
Surface	FW Gel	8.5-9
Intermediate	DBE / Cut Brine	10-10.5
Production	OBM	8.5-9

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

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
What will be used to monitor the loss of gain of mala.	1 v 1/1 ason/ v isaar iviointoring

6. Logging and Testing Procedures

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

Additional	ogs planned	Interval
	Resistivity	Int. shoe to KOP
	Density	Int. shoe to KOP
X	CBL	Production casing
X	Mud log	Intermediate shoe to TD
	PEX	

7. Drilling Conditions

Condition	Specfiy what type and where?
BH pressure at deepest TVD	5457
Abnormal temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

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

H2S is present
H2S plan attached.

8. Other facets of operation

Is this a walking operation? Potentially

- 1 If operator elects, drilling rig will batch drill the surface holes and run/cement surface casing; walking the rig to next wells on the pad.
- 2 The drilling rig will then batch drill the intermediate sections and run/cement intermediate casing; the wellbore will be isolated with a blind flange and pressure gauge installed for monitoring the well before walking to the
- 3 The drilling rig will then batch drill the production hole sections on the wells with OBM, run/cement production casing, and install TA caps or tubing heads for completions.

NOTE: During batch operations the drilling rig will be moved from well to well however, it will not be removed

Red Bull 30-31 Fed State Com 4H

from the pad until all wells have production casing run/cemented.

Will be pre-setting casing? Potentially

- 1 Spudder rig will move in and batch drill surface hole.
 - a. Rig will utilize fresh water based mud to drill surface hole to TD. Solids control will be handled entirely on a closed loop basis.,
- 2 After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
- ³ The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.
- 4 A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with a pressure gauge installed on the wellhead.
- 5 Spudder rig operations is expected to take 4-5 days per well on a multi-well pa.
- 6 The NMOCD will be contacted and notified 24 hours prior to commencing spudder rig operations.
- 7 Drilling operations will be performed with drilling rig. A that time an approved BOP stack will be nippled up and tested on the wellhead before drilling operations commences on each well.
 - a. The NMOCD will be contacted / notified 24 hours before the drilling rig moves back on to the pad with the pre-set surface casing.

Attachments		
X	Directional Plan	
	Other, describe	

WCDSC Permian NM

Lea County (NAD83 New Mexico East) Sec 30-T23S-R35E Red Bull 30-31 Fed State Com 4H

Wellbore #1

Plan: Permit Plan 1

Standard Planning Report - Geographic

30 June, 2020

Database: EDM r5000.141_Prod US Company: WCDSC Permian NM

Project: Lea County (NAD83 New Mexico East)

Site: Sec 30-T23S-R35E

Well: Red Bull 30-31 Fed State Com 4H

Wellbore: Wellbore #1

Design: Permit Plan 1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Red Bull 30-31 Fed State Com 4H

RKB @ 3434.00ft RKB @ 3434.00ft

Grid

Minimum Curvature

Project Lea County (NAD83 New Mexico East)

Map System: US State Plane 1983
Geo Datum: North American Datum 1983

Geo Datum: North American Datum 198
Map Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

Site Sec 30-T23S-R35E

Northing: 467,842.11 usft Site Position: Latitude: 32.282834 Easting: 825,075.29 usft -103.415203 From Мар Longitude: **Position Uncertainty:** Slot Radius: 13-3/16 " 0.49 0.00 ft **Grid Convergence:**

Well Red Bull 30-31 Fed State Com 4H **Well Position** +N/-S 0.00 ft Northing: 467,004.44 usft Latitude: 32.280448 +E/-W 0.00 ft Easting: 828,632.65 usft Longitude: -103.403716 0.50 ft **Position Uncertainty** Wellhead Elevation: Ground Level: 3,409.00 ft

Wellbore Wellbore #1 Declination Dip Angle Field Strength Magnetics **Model Name** Sample Date (°) (°) (nT) IGRF2015 6/29/2020 6.55 60.10 47,676.67966158

Permit Plan 1 Design Audit Notes: **PROTOTYPE** 0.00 Version: Phase: Tie On Depth: Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 171.31

Plan Survey Tool Program Date 6/30/2020

Depth From Depth To

(ft) (ft) Survey (Wellbore) Tool Name Remarks

1 0.00 22,083.98 Permit Plan 1 (Wellbore #1) MWD+HDGM

OWSG MWD + HDGM

Plan Sections Vertical Build Measured Dogleg Turn Depth Inclination Depth +N/-S Rate Azimuth +E/-W Rate Rate TFO (ft) (°) (°) (ft) (ft) (ft) (°/100usft) (°/100usft) (°/100usft) **Target** (°) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.000.00 0.00 0.00 2.000.00 0.00 0.00 0.00 0.00 0.00 0.00 3,183.32 11.83 58 30 3,174.93 63.99 103.59 1.00 1.00 0.00 58 30 10,109.29 11.83 58.30 9,953.71 810.34 1,311.94 0.00 0.00 0.00 0.00 10,898.18 0.00 0.00 10,737.00 853.00 1,381.00 1.50 -1.50 0.00 180.00 11,248.22 0.00 0.00 11,087.04 853.00 1,381.00 0.00 0.00 0.00 0.00 90.00 179.49 11,660.00 280.06 1.386.14 10.00 10.00 0.00 179.49 PBHL - Red Bull 30-3 12.148.22 22,083.98 0.00 0.00 0.00 0.00 PBHL - Red Bull 30-3 90.00 179.49 11,660.00 -9,655.30 1,475.35

Database: EDM r5000.141_Prod US Company: WCDSC Permian NM

Project: Lea County (NAD83 New Mexico East)

Site: Sec 30-T23S-R35E

Well: Red Bull 30-31 Fed State Com 4H

Wellbore: Wellbore #1

Design: Permit Plan 1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Red Bull 30-31 Fed State Com 4H

RKB @ 3434.00ft RKB @ 3434.00ft

Grid

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	467,004.44	828,632.65	32.280448	-103.403716
100.00	0.00	0.00	100.00	0.00	0.00	467,004.44	828,632.65	32.280448	-103.403716
200.00	0.00	0.00	200.00	0.00	0.00	467,004.44	828,632.65	32.280448	-103.403716
300.00	0.00	0.00	300.00	0.00	0.00	467,004.44	828,632.65	32.280448	-103.403716
400.00	0.00	0.00	400.00	0.00	0.00	467,004.44	828,632.65	32.280448	-103.403716
500.00	0.00	0.00	500.00	0.00	0.00	467,004.44	828,632.65	32.280448	-103.403716
600.00	0.00	0.00	600.00	0.00	0.00	467,004.44	828,632.65	32.280448	-103.403716
700.00	0.00	0.00	700.00	0.00	0.00	467,004.44 467,004.44	828,632.65	32.280448	-103.403716
800.00 900.00	0.00 0.00	0.00 0.00	800.00 900.00	0.00 0.00	0.00 0.00	467,004.44	828,632.65 828,632.65	32.280448 32.280448	-103.403716 -103.403716
1,000.00	0.00	0.00	1,000.00	0.00	0.00	467,004.44	828,632.65	32.280448	-103.403716
1,100.00	0.00	0.00	1,100.00	0.00	0.00	467,004.44	828,632.65	32.280448	-103.403716
1,200.00	0.00	0.00	1,200.00	0.00	0.00	467,004.44	828,632.65	32.280448	-103.403716
1,300.00	0.00	0.00	1,300.00	0.00	0.00	467,004.44	828,632.65	32.280448	-103.403716
1,400.00	0.00	0.00	1,400.00	0.00	0.00	467,004.44	828,632.65	32.280448	-103.403716
1,500.00	0.00	0.00	1,500.00	0.00	0.00	467,004.44	828,632,65	32.280448	-103.403716
1,600.00	0.00	0.00	1,600.00	0.00	0.00	467,004.44	828,632.65	32.280448	-103.403716
1,700.00	0.00	0.00	1,700.00	0.00	0.00	467,004.44	828,632.65	32.280448	-103.403716
1,800.00	0.00	0.00	1,800.00	0.00	0.00	467,004.44	828,632.65	32.280448	-103.403716
1,900.00	0.00	0.00	1,900.00	0.00	0.00	467,004.44	828,632.65	32.280448	-103.403716
2,000.00	0.00	0.00	2,000.00	0.00	0.00	467,004.44	828,632.65	32.280448	-103.403716
2,100.00	1.00	58.30	2,099.99	0.46	0.74	467,004.90	828,633.39	32.280449	-103.403714
2,200.00	2.00	58.30	2,199.96	1.83	2.97	467,006.27	828,635.62	32.280453	-103.403707
2,300.00	3.00	58.30	2,299.86	4.13	6.68	467,008.57	828,639.33	32.280459	-103.403695
2,400.00	4.00	58.30	2,399.68	7.33	11.87	467,011.77	828,644.52	32.280467	-103.403678
2,500.00	5.00	58.30	2,499.37	11.46	18.55	467,015.90	828,651.20	32.280479	-103.403656
2,600.00	6.00	58.30	2,598.90	16.49	26.70	467,020.93	828,659.35	32.280492	-103.403629
2,700.00	7.00	58.30	2,698.26	22.44	36.33	467,026.88	828,668.98	32.280508	-103.403598
2,800.00	8.00	58.30	2,797.40	29.30	47.44	467,033.74	828,680.09	32.280527	-103.403562
2,900.00	9.00	58.30	2,896.30	37.07	60.02	467,041.51	828,692.66	32.280548	-103.403521
3,000.00	10.00	58.30	2,994.93	45.74	74.06	467,050.18	828,706.71	32.280572	-103.403475
3,100.00	11.00	58.30	3,093.26	55.32	89.56	467,059.76	828,722.21	32.280598	-103.403425
3,183.32	11.83	58.30	3,174.93	63.99	103.59	467,068.43	828,736.24	32.280621	-103.403379
3,200.00	11.83	58.30	3,191.25	65.78	106.50	467,070.22	828,739.15	32.280626	-103.403370
3,300.00	11.83	58.30	3,289.13	76.56	123.95	467,081.00	828,756.60	32.280655 32.280684	-103.403313 -103.403256
3,400.00 3,500.00	11.83 11.83	58.30 58.30	3,387.00 3,484.88	87.34 98.11	141.40 158.84	467,091.78 467,102.55	828,774.04 828,791.49	32.280713	-103.403200
3,600.00	11.83	58.30	3,582.75	108.89	176.29	467,113.33	828,808.94	32.280743	-103.403143
3,700.00	11.83	58.30	3,680.63	119.66	193.74	467,124.10	828,826.38	32,280743	-103.403143
3,800.00	11.83	58.30	3,778.50	130.44	211.18	467,134.88	828,843.83	32.280801	-103.403029
3,900.00	11.83	58.30	3,876.38	141.22	228.63	467,145.66	828,861.28	32.280830	-103.403029
4,000.00	11.83	58.30	3,974.25	151.99	246.08	467,156.43	828,878.72	32.280860	-103.402916
4,100.00	11.83	58.30	4,072.13	162.77	263.52	467,167.21	828,896.17	32.280889	-103.402859
4,200.00	11.83	58.30	4,170.00	173.55	280.97	467,177.99	828,913.62	32.280918	-103.402802
4,300.00	11.83	58.30	4,267.87	184.32	298.42	467,188.76	828,931.06	32.280947	-103.402746
4,400.00	11.83	58.30	4,365.75	195.10	315.86	467,199.54	828,948.51	32.280976	-103.402689
4,500.00	11.83	58.30	4,463.62	205.87	333.31	467,210.31	828,965 96	32.281006	-103.402632
4,600.00	11.83	58.30	4,561.50	216.65	350.75	467,221.09	828,983.40	32.281035	-103.402575
4,700.00	11.83	58.30	4,659.37	227.43	368.20	467,231.87	829,000.85	32.281064	-103.402519
4,800.00	11.83	58.30	4,757.25	238.20	385.65	467,242.64	829,018.30	32.281093	-103.402462
4,900.00	11.83	58.30	4,855.12	248.98	403.09	467,253.42	829,035.74	32.281122	-103.402405
5,000.00	11.83	58.30	4,953.00	259.75	420.54	467,264.19	829,053.19	32.281152	-103.402348
5,100.00	11.83	58.30	5,050.87	270.53	437.99	467,274.97	829,070.64	32.281181	-103.402292
5,200.00	11.83	58.30	5,148.75	281.31	455.43	467,285.75	829,088.08	32.281210	-103.402235
5,300.00	11.83	58.30	5,246.62	292.08	472.88	467,296.52	829,105.53	32.281239	-103.402178

Database: EDM r5000.141_Prod US Company: WCDSC Permian NM

Project: Lea County (NAD83 New Mexico East)

Site: Sec 30-T23S-R35E

Well: Red Bull 30-31 Fed State Com 4H

Wellbore: Wellbore #1

Design: Permit Plan 1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Red Bull 30-31 Fed State Com 4H

RKB @ 3434.00ft RKB @ 3434.00ft

Grid

Planned Survey	,								
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,400.00	11.83	58.30	5,344.50	302.86	490.33	467,307.30	829,122.97	32.281268	-103.402121
5,500.00		58.30	5,442.37	313.64	507.77	467,318.08	829,140.42	32.281298	-103.402065
5,600.00		58.30	5,540.25	324.41	525.22	467,328.85	829,157.87	32.281327	-103.402008
5,700.00		58.30	5,638.12	335.19	542.67	467,339.63	829,175.31	32.281356	-103.401951
5,800.00	11.83	58.30	5,736.00	345.96	560.11	467,350.40	829,192.76	32.281385	-103.401894
5,900.00	11.83	58.30	5,833.87	356.74	577.56	467,361.18	829,210.21	32.281414	-103.401838
6,000.00	11.83	58.30	5,931.75	367.52	595.01	467,371.96	829,227.65	32.281444	-103.401781
6,100.00	11.83	58.30	6,029.62	378.29	612.45	467,382.73	829,245.10	32.281473	-103.401724
6,200.00		58.30	6,127.50	389.07	629.90	467,393.51	829,262.55	32.281502	-103.401667
6,300.00		58.30	6,225.37	399.85	647.35	467,404.29	829,279.99	32.281531	-103.401611
6,400.00		58.30	6,323.25	410.62	664.79	467,415.06	829,297.44	32.281560	-103.401554
6,500.00		58.30	6,421.12	421.40	682.24	467,425.84	829,314.89	32.281590	-103.401497
6,600.00		58.30	6,519.00	432.17	699.69	467,436.61	829,332.33	32.281619	-103.401440
6,700.00		58.30	6,616.87	442.95	717.13	467,447.39	829,349.78	32.281648	-103.401384
6,800.00		58.30	6,714.75	453.73	734.58	467,458.17	829,367.23	32.281677	-103.401327
6,900.00		58.30	6,812.62	464.50	752.03	467,468.94	829,384.67	32.281706	-103.401270
7,000.00		58.30	6,910.50	475.28	769.47	467,479.72	829,402.12	32.281736	-103.401213
7,100.00		58.30	7,008.37	486.06	786.92	467,490.49	829,419.57	32.281765	-103.401157
7,200.00		58.30	7,106.25	496.83	804.37	467,501.27 467.512.05	829,437.01	32.281794 32.281823	-103.401100
7,300.00		58.30	7,204.12	507.61	821.81	***	829,454.46		-103.401043 -103.400986
7,400.00		58.30 58.30	7,302.00 7,399.87	518.38 529.16	839.26 856.71	467,522.82 467,533.60	829,471.91 829,489.35	32.281852 32.281882	-103.400986
7,500.00 7,600.00		58.30	7,399.67 7,497.75	539.94	874.15	467,544.38	829,506.80	32.281911	-103.400930
7,700.00		58.30	7,497.73	550.71	891.60	467,555.15	829,524.25	32.281940	-103.400873
7,800.00		58.30	7,693.50	561.49	909.05	467,565.93	829,541.69	32.281969	-103.400759
7,900.00		58.30	7,791.37	572.26	926.49	467,576.70	829,559.14	32.281998	-103.400703
8,000.00		58.30	7,889.25	583.04	943.94	467,587.48	829,576.58	32.282028	-103.400646
8,100.00		58.30	7,987.12	593.82	961.38	467,598.26	829,594.03	32.282057	-103.400589
8,200.00		58.30	8,085.00	604.59	978.83	467,609.03	829,611.48	32.282086	-103.400532
8,300.00		58.30	8,182.87	615.37	996.28	467,619.81	829,628.92	32.282115	-103.400476
8,400.00	11.83	58.30	8,280.74	626.15	1,013.72	467,630.58	829,646.37	32.282144	-103.400419
8,500.00	11.83	58.30	8,378.62	636.92	1,031.17	467,641.36	829,663.82	32.282174	-103.400362
8,600.00	11.83	58.30	8,476.49	647.70	1,048.62	467,652.14	829,681.26	32.282203	-103.400305
8,700.00	11.83	58.30	8,574.37	658.47	1,066.06	467,662.91	829,698.71	32.282232	-103.400249
8,800.00	11.83	58.30	8,672.24	669.25	1,083.51	467,673.69	829,716.16	32.282261	-103.400192
8,900.00		58.30	8,770.12	680.03	1,100.96	467,684.47	829,733.60	32.282290	-103.400135
9,000.00		58.30	8,867.99	690.80	1,118.40	467,695.24	829,751.05	32.282320	-103.400078
9,100.00		58.30	8,965.87	701.58	1,135.85	467,706.02	829,768.50	32.282349	-103.400022
9,200.00	11.83	58.30	9,063.74	712.36	1,153.30	467,716.79	829,785.94	32.282378	-103.399965
9,300.00		58.30	9,161.62	723.13	1,170.74	467,727.57	829,803.39	32.282407	-103.399908
9,400.00		58.30	9,259.49	733.91	1,188.19	467,738.35	829,820.84	32.282436	-103.399851
9,500.00		58.30	9,357.37	744.68	1,205.64	467,749.12	829,838.28	32.282466	-103.399795
9,600.00		58.30	9,455.24	755.46 766.24	1,223.08	467,759.90	829,855.73	32.282495	-103.399738
9,700.00		58.30	9,553.12	766.24	1,240.53	467,770.68	829,873.18	32.282524	-103.399681
9,800.00		58.30 58.30	9,650.99	777.01 797.70	1,257.98	467,781.45	829,890.62	32.282553	-103.399624
9,900.00 10,000.00		58.30 58.30	9,748.87 9,846.74	787.79 798.56	1,275.42 1,292.87	467,792.23 467,803.00	829,908.07 829,925.52	32.282582 32.282612	-103.399568 -103.399511
10,000.00		58.30	9,846.74	809.34	1,292.87	467,803.00	829,942.96	32.282612	-103.399511
10,100.00		58.30	9,953.71	810.34	1,310.32	467,814.78	829,944.58	32.282644	-103.399449
10,200.00		58.30	10,042.71	819.56	1,311.94	467,824.00	829,959.51	32.282669	-103.399449
10,300.00		58.30	10,141.27	828.44	1,341.23	467,832.88	829,973.88	32.282693	-103.399354
10,400.00		58.30	10,240.24	835.95	1,353.40	467,840.39	829,986.05	32.282713	-103.399314
10,500.00		58.30	10,339.54	842.10	1,363.36	467,846.54	829,996.01	32.282730	-103.399282
10,600.00		58.30	10,439.13	846.89	1,371.10	467,851.33	830,003.75	32.282743	-103.399256
10,700.00	2.97	58.30	10,538.91	850.30	1,376.63	467,854.74	830,009.27	32.282752	-103.399238

Database: EDM r5000.141_Prod US Company: WCDSC Permian NM

Project: Lea County (NAD83 New Mexico East)

Site: Sec 30-T23S-R35E

Well: Red Bull 30-31 Fed State Com 4H

Wellbore: Wellbore #1
Design: Permit Plan 1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Red Bull 30-31 Fed State Com 4H

RKB @ 3434.00ft RKB @ 3434.00ft

Grid

Planned Surve	у								
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,800.00) 1.47	58.30	10,638.83	852.34	1,379.93	467,856.78	830,012.57	32.282757	-103.399228
10,898.18		0.00	10,737.00	853.00	1,381.00	467,857.44	830,013.65	32.282759	-103.399224
10,900.00		0.00	10,738.82	853.00	1,381.00	467,857.44	830,013.65	32.282759	-103.399224
11,000.00		0.00	10,838.82	853.00	1,381.00	467,857.44	830,013.65	32.282759	-103.399224
11,100.00		0.00	10,938.82	853.00	1,381.00	467,857.44	830,013.65	32.282759	-103.399224
11,200.00		0.00	11,038.82	853.00	1,381.00	467,857.44	830,013.65	32.282759	-103.399224
11,248.00	0.00	0.00	11,086.82	853.00	1,381.00	467,857.44	830,013.65	32.282759	-103.399224
KOP @	11248' MD, 50'	'FNL, 330' FE	EL						
11,248.22		0.00	11,087.04	853.00	1,381.00	467,857.44	830,013.65	32.282759	-103.399224
11,300.00	5.18	179.49	11,138.75	850.66	1,381.02	467,855.10	830,013.67	32.282753	-103.399224
11,400.00	15.18	179.49	11,237.05	833.01	1,381.18	467,837.45	830,013.83	32.282704	-103.399224
11,500.00	25.18	179.49	11,330.80	798.56	1,381.49	467,803.00	830,014.13	32.282609	-103.399224
11,534.00	28.58	179.49	11,361.12	783.20	1,381.63	467,787.63	830,014.27	32.282567	-103.399224
FTP @	11534' MD, 100	' FNL, 330' F	EL						
11,600.00	35.18	179.49	11,417.13	748.36	1,381.94	467,752.80	830,014.59	32.282471	-103.399224
11,700.00	45.18	179.49	11,493.44	683.93	1,382.52	467,688.37	830,015.16	32.282294	-103.399224
11,800.00	55.18	179.49	11,557.40	607.22	1,383.21	467,611.66	830,015.85	32.282084	-103.399224
11,900.00	65.18	179.49	11,607.07	520.58	1,383.98	467,525.02	830,016.63	32.281845	-103.399224
12,000.00	75.18	179.49	11,640.93	426.63	1,384.83	467,431.07	830,017.47	32.281587	-103.399224
12,100.00	85.18	179.49	11,657.97	328.22	1,385.71	467,332.66	830,018.36	32.281317	-103.399224
12,148.22		179.49	11,660.00	280.06	1,386.14	467,284.50	830,018.79	32.281184	-103.399224
12,200.00		179.49	11,660.00	228.28	1,386.61	467,232.72	830,019.26	32.281042	-103.399224
12,300.00		179.49	11,660.00	128.29	1,387.51	467,132.73	830,020.15	32.280767	-103.399224
12,400.00		179.49	11,660.00	28.29	1,388.40	467,032.73	830,021.05	32.280492	-103.399223
12,500.00		179.49	11,660.00	-71.70	1,389.30	466,932.74	830,021.95	32.280217	-103.399223
12,600.00		179.49	11,660.00	-171.70	1,390.20	466,832.74	830,022.85	32.279943	-103.399223
12,700.00		179.49	11,660.00	-271.70	1,391.10	466,732.75	830,023.74	32.279668	-103.399223
12,800.00		179.49	11,660.00	-371.69	1,392.00	466,632.75	830,024.64	32.279393	-103.399223
12,865.00		179.49	11,660.00	-436.69	1,392.58	466,567.75	830,025.23	32.279214	-103.399223
			20' FNL, 330' FE					00.000.440	400 00000
12,900.00		179.49	11,660.00	-471.69	1,392.89	466,532.75	830,025.54	32.279118	-103.399223
13,000.00		179.49	11,660.00	-571.68	1,393.79	466,432.76	830,026.44	32.278843	-103.399223
13,100.00		179.49	11,660.00	-671.68	1,394.69	466,332.76	830,027.34	32.278568	-103.399223
13,200.00		179.49 179.49	11,660.00	-771.68 -871.67	1,395.59	466,232.77	830,028.23 830,029.13	32.278293 32.278018	-103.399223 -103.399223
13,300.00 13,400.00		179.49	11,660.00 11,660.00	-871.67 -971.67	1,396.49 1,397.38	466,132.77 466,032.78	830,030.03	32.278018 32.277744	-103.399223
13,500.00		179.49	11,660.00	-1,071.66	1,398.28	465,932.78	830,030.93	32.277469	-103.399223
13,600.00		179.49	11,660.00	-1,071.66	1,399.18	465,832.78	830,031.82	32.277194	-103.399222
13,700.00		179.49	11,660.00	-1,171.66	1,400.08	465,732.79	830,032.72	32.276919	-103.399222
13,800.00		179.49	11,660.00	-1,371.65	1,400.97	465,632.79	830,033.62	32.276644	-103.399222
13,900.00		179.49	11,660.00	-1,471.65	1,401.87	465,532.80	830,034.52	32.276369	-103.399222
14,000.00		179.49	11,660.00	-1,571.64	1,402.77	465,432.80	830,035.42	32.276094	-103.399222
14,100.00		179.49	11,660.00	-1,671.64	1,403.67	465,332.80	830,036.31	32.275820	-103.399222
14,185.00		179.49	11,660.00	-1,756.64	1,404.43	465,247.81	830,037.08	32.275586	-103.399222
			43' FSL, 330' FE		,	/	,		
14,200.00		179.49	11,660.00	-1,771.64	1,404.57	465,232.81	830,037.21	32.275545	-103.399222
14,300.00		179.49	11,660.00	-1,871.63	1,405.46	465,132.81	830,038.11	32.275270	-103.399222
14,400.00		179.49	11,660.00	-1,971.63	1,406.36	465,032.82	830,039.01	32.274995	-103.399222
14,500.00		179.49	11,660.00	-2,071.62	1,407.26	464,932.82	830,039.91	32.274720	-103.399222
14,600.00		179.49	11,660.00	2,171.62	1,408.16	464,832.83	830,040.80	32.274445	-103.399222
14,700.00		179.49	11,660.00	-2,271.61	1,409.06	464,732.83	830,041.70	32.274170	-103.399221
		179.49	11,660.00	2,371.61	1,409.95	464,632.83	830,042.60	32.273896	-103.399221
14,800.00									
14,800.00 14,900.00		179.49	11,660.00	-2,471.61	1,410.85	464,532.84	830,043.50	32.273621	-103.399221

Database: EDM r5000.141_Prod US Company: WCDSC Permian NM

Project: Lea County (NAD83 New Mexico East)

Site: Sec 30-T23S-R35E

Well: Red Bull 30-31 Fed State Com 4H

Wellbore: Wellbore #1

Design: Permit Plan 1

Local Co-ordinate Reference:

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Survey Calculation Method:

Well Red Bull 30-31 Fed State Com 4H

RKB @ 3434.00ft RKB @ 3434.00ft

Grid

anned Survey	/								
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
15,100.00	90.00	179.49	11,660.00	-2,671.60	1,412.65	464,332.85	830,045.29	32.273071	-103.39922
15,200.00	90.00	179.49	11,660.00	-2,771.59	1,413.54	464,232.85	830,046.19	32.272796	-103.39922°
15,300.00	90.00	179.49	11,660.00	-2,871.59	1,414.44	464,132.86	830,047.09	32,272521	-103.39922
15,400.00	90.00	179.49	11,660.00	-2,971.59	1,415.34	464,032.86	830,047.99	32.272246	-103.39922
15,500.00	90.00	179.49	11,660.00	-3,071.58	1,416.24	463,932.86	830,048.88	32.271972	-103.39922
15,600.00	90.00	179.49	11,660.00	-3,171.58	1,417.14	463,832.87	830,049.78	32.271697	-103.39922
15,700.00	90.00	179.49	11,660.00	-3,271.57	1,418.03	463,732.87	830,050.68	32.271422	-103.39922
15,800.00	90.00	179.49	11,660.00	-3,371.57	1,418.93	463,632.88	830,051.58	32.271147	-103.39922
15,900.00	90.00	179.49	11,660.00	-3,471.57	1,419.83	463,532.88	830,052.48	32.270872	-103.39922
16,000.00	90.00	179.49	11,660.00	-3,571.56	1,420.73	463,432.89	830,053.37	32.270597	-103.39922
16,100.00	90.00	179.49	11,660.00	-3,671.56	1,421.63	463,332.89	830,054.27	32.270322	-103.39922
16,200.00	90.00	179.49	11,660.00	-3,771.55	1,422.52	463,232.89	830,055.17	32.270047	-103.39922
16,300.00	90.00	179.49	11,660.00	-3,871.55	1,423.42	463,132.90	830,056.07	32.269773	-103.39922
16,400.00	90.00	179.49	11,660.00	-3,971.55	1,424.32	463,032.90	830,056.96	32.269498	-103.39922
16,500.00	90.00	179.49	11,660.00	-4,071.54	1,425.22	462,932.91	830,057.86	32.269223	-103.39922
16,600.00	90.00	179.49	11,660.00	-4,171.54	1,426.11	462,832.91	830,058.76	32.268948	-103.39922
16,700.00	90.00	179.49	11,660.00	-4,271.53	1,427.01	462,732.91	830,059.66	32.268673	-103.39922
16,800.00	90.00	179.49	11,660.00	-4,371.53	1,427.91	462,632.92	830,060.56	32.268398	-103.39922
16,841.00	90.00	179.49	11,660.00	-4,412.53	1,428.28	462,591.92	830,060.92	32.268286	-103.39922
Cross s	ection @ 1684	1' MD, 0' FNL	., 330' FEL						
16,900.00	90.00	179.49	11,660.00	-4,471.53	1,428.81	462,532.92	830,061.45	32.268123	-103.39921
17,000.00	90.00	179.49	11,660.00	-4,571.52	1,429.71	462,432.93	830,062.35	32.267849	-103.39921
17,100.00	90.00	179.49	11,660.00	-4,671.52	1,430.60	462,332.93	830,063.25	32.267574	-103.39921
17,200.00	90.00	179.49	11,660.00	-4,771.51	1,431.50	462,232.94	830,064.15	32.267299	-103.39921
17,300.00	90.00	179.49	11,660.00	-4,871.51	1,432.40	462,132.94	830,065.05	32.267024	-103.39921
17,400.00	90.00	179.49	11,660.00	-4,971.51	1,433.30	462,032.94	830,065.94	32.266749	-103.39921
17,500.00	90.00	179.49	11,660.00	-5,071.50	1,434.20	461,932.95	830,066.84	32.266474	-103.39921
17,600.00	90.00	179.49	11,660.00	-5,171.50	1,435.09	461,832.95	830,067.74	32.266199	-103.39921
17,700.00	90.00	179.49	11,660.00	-5,271.49	1,435.99	461,732.96	830,068.64	32.265925	-103.39921
17,800.00	90.00	179.49	11,660.00	-5,371.49	1,436.89	461,632.96	830,069.53	32.265650	-103.39921
17,900.00	90.00	179.49	11,660.00	-5,471.49	1,437.79	461,532.97	830,070.43	32.265375	-103.39921
18,000.00	90.00	179.49	11,660.00	-5,571.48	1,438.68	461,432.97	830,071.33	32.265100	-103.39921
18,100.00	90.00	179.49	11,660.00	-5,671.48	1,439.58	461,332.97	830,072.23	32.264825	-103.39921
18,200.00	90.00	179.49	11,660.00	-5,771.47	1,440.48	461,232.98	830,073.13	32.264550	-103.39921
18,300.00	90.00	179.49	11,660.00	-5,871.47	1,441.38	461,132.98	830,074.02	32.264275	-103.39921
18,400.00	90.00	179.49	11,660.00	-5,971.47	1,442.28	461,032.99	830,074.92	32.264001	-103.39921
18,500.00	90.00	179.49	11,660.00	-6,071.46	1,443.17	460,932.99	830,075.82	32.263726	-103.39921
18,600.00	90.00	179.49	11,660.00	-6,171.46	1,444.07	460,832.99	830,076.72	32.263451	-103.39921
18,700.00	90.00	179.49	11,660.00	-6,271.45	1,444.97	460,733.00	830,077.62	32.263176	-103.39921
18,800.00	90.00	179.49	11,660.00	-6,371.45	1,445.87	460,633.00	830,078.51	32.262901	-103.39921
18,900.00	90.00	179.49	11,660.00	-6,471.45	1,446.77	460,533.01	830,079.41	32.262626	-103.39921
19,000.00	90.00	179.49	11,660.00	-6,571.44	1,447.66	460,433.01	830,080.31	32.262351	-103.39921
19,100.00	90.00	179.49	11,660.00	-6,671.44	1,448.56	460,333.02	830,081.21	32.262076	-103.39921
19,200.00	90.00	179.49	11,660.00	-6,771.43	1,449.46	460,233.02	830,082.10	32.261802	-103.39921
19,300.00	90.00	179.49	11,660.00	-6,871.43	1,450.36	460,133.02	830,083.00	32.261527	-103.39921
19,400.00	90.00	179.49	11,660.00	-6,971.43	1,451.25	460,033.03	830,083.90	32.261252	-103.39921
19,500.00	90.00	179.49	11,660.00	-7,071.42	1,452.15	459,933.03	830,084.80	32.260977	-103.39921
19,600.00	90.00	179.49	11,660.00	-7,171.42	1,453.05	459,833.04	830,085.70	32.260702	-103.39921
19,700.00	90.00	179.49	11,660.00	-7,271.41	1,453.95	459,733.04	830,086.59	32.260427	-103.39921
19,800.00		179.49	11,660.00	-7,371.41	1,454.85	459,633.05	830,087.49	32.260152	-103.39921
19,900.00		179.49	11,660.00	-7,471.41	1,455.74	459,533.05	830,088.39	32.259878	-103.39921
20,000.00	90.00	179.49	11,660.00	-7,571.40	1,456.64	459,433.05	830,089.29	32.259603	-103.39921
20,100.00	90.00	179.49	11,660.00	-7,671.40	1,457.54	459,333.06	830,090.19	32.259328	-103.39921
20,200.00	90.00	179.49	11,660.00	-7,771.39	1,458.44	459,233.06	830,091.08	32.259053	-103.39921

Database: EDM r5000.141_Prod US Company: WCDSC Permian NM

Project: Lea County (NAD83 New Mexico East)

Site: Sec 30-T23S-R35E

Well: Red Bull 30-31 Fed State Com 4H

Wellbore: Wellbore #1

Design: Permit Plan 1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Red Bull 30-31 Fed State Com 4H

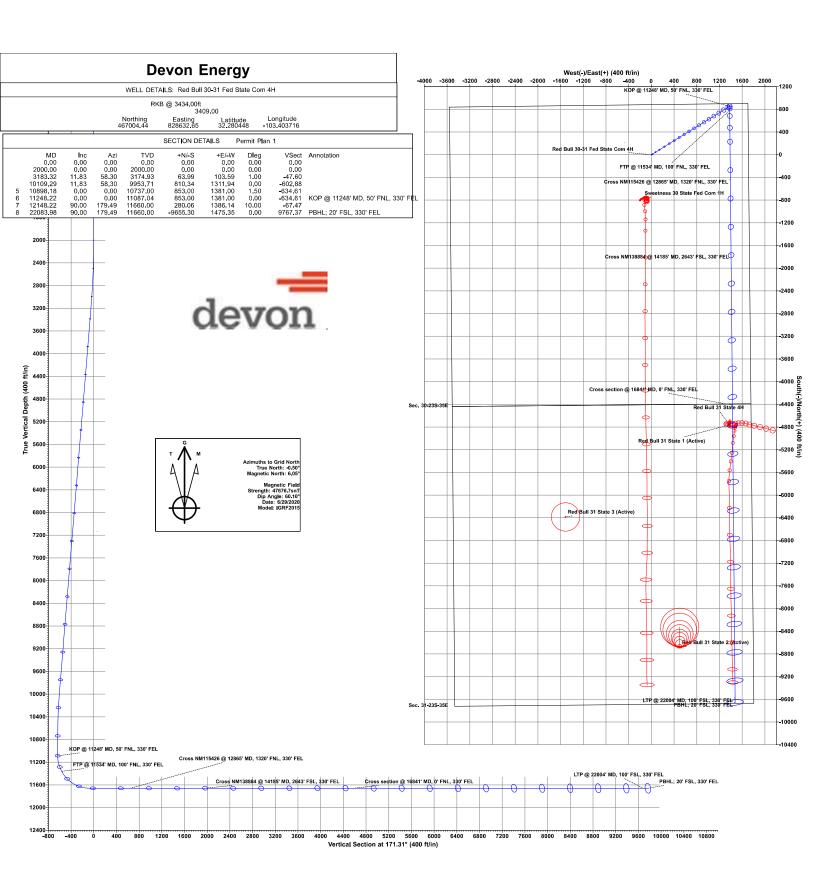
RKB @ 3434.00ft RKB @ 3434.00ft

Grid

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
20,300.00	90.00	179.49	11,660.00	-7,871.39	1,459.34	459,133.07	830,091.98	32.258778	-103.399216
20,400.00	90.00	179.49	11,660.00	-7,971.39	1,460.23	459,033.07	830,092.88	32.258503	-103.399216
20,500.00	90.00	179.49	11,660.00	-8,071.38	1,461 13	458,933.08	830,093.78	32.258228	-103.399216
20,600.00	90.00	179.49	11,660.00	-8,171.38	1,462.03	458,833.08	830,094.67	32.257954	-103.399216
20,700.00	90.00	179.49	11,660.00	-8,271.37	1,462.93	458,733.08	830,095.57	32.257679	-103.399216
20,800.00	90.00	179.49	11,660.00	-8,371.37	1,463.82	458,633.09	830,096.47	32.257404	-103.399216
20,900.00	90.00	179.49	11,660.00	-8,471.37	1,464.72	458,533.09	830,097.37	32.257129	-103.399216
21,000.00	90.00	179.49	11,660.00	-8,571.36	1,465.62	458,433.10	830,098.27	32.256854	-103.399216
21,100.00	90.00	179.49	11,660.00	-8,671.36	1,466.52	458,333.10	830,099.16	32.256579	-103.399216
21,200.00	90.00	179.49	11,660.00	-8,771.35	1,467.42	458,233.10	830,100.06	32.256304	-103.399216
21,300.00	90.00	179.49	11,660.00	-8,871.35	1,468.31	458,133.11	830,100.96	32.256030	-103.399216
21,400.00	90.00	179.49	11,660.00	-8,971.35	1,469.21	458,033.11	830,101.86	32.255755	-103.399215
21,500.00	90.00	179.49	11,660.00	-9,071.34	1,470.11	457,933.12	830,102.76	32.255480	-103.399215
21,600.00	90.00	179.49	11,660.00	-9,171.34	1,471.01	457,833.12	830,103.65	32.255205	-103.399215
21,700.00	90.00	179.49	11,660.00	-9,271.33	1,471.91	457,733.13	830,104.55	32.254930	-103.399215
21,800.00	90.00	179.49	11,660.00	-9,371.33	1,472.80	457,633.13	830,105.45	32.254655	-103.399215
21,900.00	90.00	179.49	11,660.00	-9,471.32	1,473.70	457,533.13	830,106.35	32.254380	-103.399215
22,000.00	90.00	179.49	11,660.00	-9,571.32	1,474.60	457,433.14	830,107.24	32.254105	-103.399215
22,004.00	90.00	179.49	11,660.00	-9,575.32	1,474.63	457,429.14	830,107.28	32.254094	-103.399215
LTP @ 22	2004' MD, 100	' FSL, 330' FE	EL						
22,083.97	90.00	179.49	11,660.00	-9,655.29	1,475.35	457,349.17	830,108.00	32.253875	-103.399215
PBHL; 20	0' FSL, 330' FI	EL							
22,083.98	90.00	179.49	11,660.00	-9,655.30	1,475.35	457,349.16	830,108.00	32.253875	-103.399215

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL - Red Bull 30-31 F - plan misses target - Point		0.00 7.37ft at 0.00	0.00 ft MD (0.00	-9,655.30 TVD, 0.00 N,	1,475.35 0.00 E)	457,349.16	830,108.00	32.253875	-103.399215

Plan Annotations				
Measured	Vertical	Local Coor	dinates	
Depth	Depth	+N/-S	+E/-W	
(ft)	(ft)	(ft)	(ft)	Comment
11,248.00	11,086.82	853.00	1,381.00	KOP @ 11248' MD, 50' FNL, 330' FEL
11,534.00	11,361.12	783.20	1,381.63	FTP @ 11534' MD, 100' FNL, 330' FEL
12,865.00	11,660.00	-436.69	1,392.58	Cross NM115426 @ 12865' MD, 1320' FNL, 330' FEL
14,185.00	11,660.00	-1,756.64	1,404.43	Cross NM138884 @ 14185' MD, 2643' FSL, 330' FEL
16,841.00	11,660.00	-4,412.53	1,428.28	Cross section @ 16841' MD, 0' FNL, 330' FEL
22,004.00	11,660.00	-9,575.32	1,474.63	LTP @ 22004' MD, 100' FSL, 330' FEL
22,083.97	11,660.00	-9,655.29	1,475.35	PBHL; 20' FSL, 330' FEL





Commitment Runs Deep



Design Plan
Operation and Maintenance Plan
Closure Plan

SENM - Closed Loop Systems June 2010

I. Design Plan

Devon uses MI SWACO closed loop system (CLS). The MI SWACO CLS is designed to maintain drill solids at or below 5%. The equipment is arranged to progressively remove solids from the largest to the smallest size. Drilling fluids can thus be reused and savings is realized on mud and disposal costs. Dewatering may be required with the centrifuges to insure removal of ultra fine solids.

The drilling location is constructed to allow storm water to flow to a central sump normally the cellar. This insures no contamination leaves the drilling pad in the event of a spill. Storm water is reused in the mud system or stored in a reserve fluid tank farm until it can be reused. All lubricants, oils, or chemicals are removed immediately from the ground to prevent the contamination of storm water. An oil trap is normally installed on the sump if an oil spill occurs during a storm.

A tank farm is utilized to store drilling fluids including fresh water and brine fluids. The tank farm is constructed on a 20 ml plastic lined, bermed pad to prevent the contamination of the drilling site during a spill. Fluids from other sites may be stored in these tanks for processing by the solids control equipment and reused in the mud system. At the end of the well the fluids are transported from the tank farm to an adjoining well or to the next well for the rig.

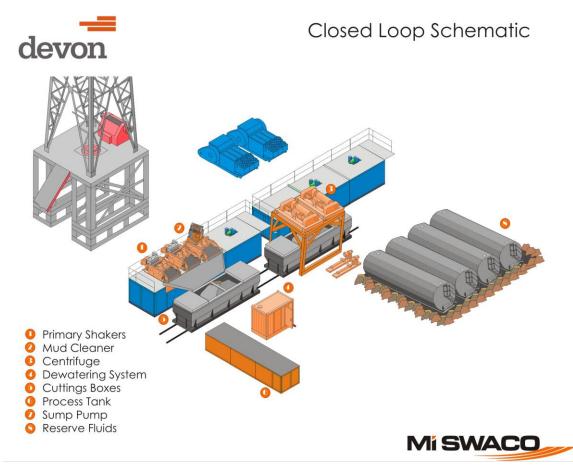
Prior to installing a closed-loop system on site, the topsoil, if present, will be stripped and stockpiled for use as the final cover or fill at the time of closure.

Signs will be posted on the fence surrounding the closed-loop system unless the closed-loop system is located on a site where there is an existing well, that is operated by Devon.

II. Operations and Maintenance Plan

Primary Shakers: The primary shakers make the first removal of drill solids from the drilling mud as it leaves the well bore. The shakers are sized to handle maximum drilling rate at optimal screen size. The shakers normally remove solids down to 74 microns.

Mud Cleaner: The Mud Cleaner cleans the fluid after it leaves the shakers. A set of hydrocyclones are sized to handle 1.25 to 1.5 times the maximum circulating rate. This ensures all the fluid is being processed to an average cut point of 25 microns. The wet discharged is dewatered on a shaker equipped with ultra fine mesh screens and generally cut at 40 microns.



Centrifuges: The centrifuges can be one or two in number depending on the well geometry or depth of well. The centrifuges are sized to maintain low gravity solids at 5% or below. They may or may not need a dewatering system to enhance the removal rates. The centrifuges can make a cut point of 8-10 microns depending on bowl speed, feed rate, solids loading and other factors.

The centrifuge system is designed to work on the active system and be flexible to process incoming fluids from other locations. This set-up is also dependant on well factors.

Dewatering System: The dewatering system is a chemical mixing and dosing system designed to enhance the solids removal of the centrifuge. Not commonly used in shallow wells. It may contain pH adjustment, coagulant mixing and dosing, and polymer mixing and dosing. Chemical flocculation binds ultra fine solids into a mass that is within the centrifuge operating design. The

dewatering system improves the centrifuge cut point to infinity or allows for the return of clear water or brine fluid. This ability allows for the ultimate control of low gravity solids.

Cuttings Boxes: Cuttings boxes are utilized to capture drill solids that are discarded from the solids control equipment. These boxes are set upon a rail system that allows for the removal and replacement of a full box of cuttings with an empty one. They are equipped with a cover that insures no product is spilled into the environment during the transportation phase.

Process Tank: (Optional) The process tank allows for the holding and process of fluids that are being transferred into the mud system. Additionally, during times of lost circulation the process tank may hold active fluids that are removed for additional treatment. It can further be used as a mixing tank during well control conditions.

Sump and Sump Pump: The sump is used to collect storm water and the pump is used to transfer this fluid to the active system or to the tank for to hold in reserve. It can also be used to collect fluids that may escape during spills. The location contains drainage ditches that allow the location fluids to drain to the sump.

Reserve Fluids (Tank Farm): A series of frac tanks are used to replace the reserve pit. These are steel tanks that are equipped with a manifold system and a transfer pump. These tanks can contain any number of fluids used during the drilling process. These can include fresh water, cut brine, and saturated salt fluid. The fluid can be from the active well or reclaimed fluid from other locations. A 20 ml liner and berm system is employed to ensure the fluids do not migrate to the environment during a spill.

If a leak develops, the appropriate division district office will be notified within 48 hours of the discovery and the leak will be addressed. Spill prevention is accomplished by maintaining pump packing, hoses, and pipe fittings to insure no leaks are occurring. During an upset condition the source of the spill is isolated and repaired as soon as it is discovered. Free liquid is removed by a diaphragm pump and returned to the mud system. Loose topsoil may be used to stabilize the spill and the contaminated soil is excavated and placed in the cuttings boxes. After the well is finished and the rig has moved, the entire location is scrapped and testing will be performed to determine if a release has occurred.

All trash is kept in a wire mesh enclosure and removed to an approved landfill when full. All spent motor oils are kept in separate containers and they are removed and sent to an approved recycling center. Any spilled lubricants, pipe

dope, or regulated chemicals are removed from soil and sent to landfills approved for these products.

These operations are monitored by Mi Swaco service technicians. Daily logs are maintained to ensure optimal equipment operation and maintenance. Screen and chemical use is logged to maintain inventory control. Fluid properties are monitored and recorded and drilling mud volumes are accounted for in the mud storage farm. This data is kept for end of well review to insure performance goals are met. Lessons learned are logged and used to help with continuous improvement.

A MI SWACO field supervisor manages from 3-5 wells. They are responsible for training personnel, supervising installations, and inspecting sites for compliance of MI SWACO safety and operational policy.

III. Closure Plan

A maximum 340' X 340' caliche pad is built per well. All of the trucks and steel tanks fit on this pad. All fluid cuttings go to the steel tanks to be hauled by various trucking companies to an agency approved disposal.



Devon Energy Center 333 West Sheridan Avenue Oklahoma City, Oklahoma 73102-5015

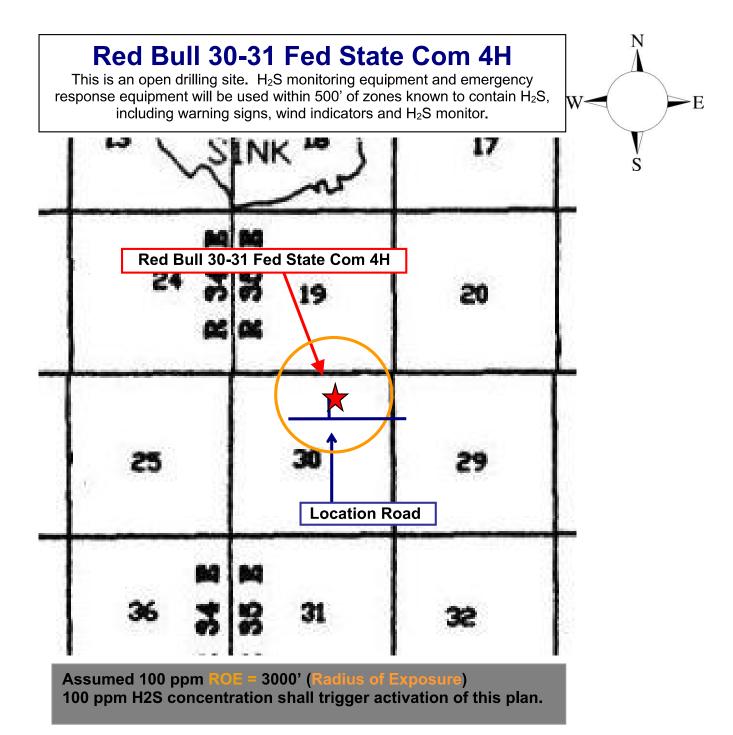
Hydrogen Sulfide (H₂S) Contingency Plan

For

Red Bull 30-31 Fed State Com 4H

Sec-30 T-23S R-35E 883 FNL & 1711' FEL LAT. = 32.280448' N (NAD83) LONG = 103.403716' W

Lea County NM



Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated from the location entrance road. Crews should then block the entrance to the location from the lease road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE. There are no homes or buildings in or near the ROE.

Assumed 100 ppm ROE = 3000'

100 ppm H₂S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H₂S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H₂S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
 - Detection of H₂S, and
 - Measures for protection against the gas,
 - o Equipment used for protection and emergency response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H₂S and SO₂

Common	Chemical	Specific Threshold		Hazardous Limit	Lethal
Name	Formula	Gravity	Limit	nazaruous Liinit	Concentration
Hydrogen Sulfide	H ₂ S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO ₂	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

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

Hydrogen Sulfide Drilling Operation Plan

I. HYDROGEN SULFIDE (H₂S) 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 and 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 metal components. If high tensile tubulars are to be used, personnel will 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.

II. HYDROGEN SULFIDE TRAINING

Note: All H_2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H_2S .

1. Well Control Equipment

- A. Flare line
- B. Choke manifold Remotely Operated
- 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 and rotating head.
- E. Mud/Gas Separator

2. Protective equipment for essential personnel:

30-minute SCBA units located at briefing areas, as indicated on well site diagram, with escape units available in the top doghouse. As it may be difficult to communicate audibly while wearing these units, hand signals shall be utilized.

3. H₂S detection and monitoring equipment:

Portable H₂S monitors positioned on location for best coverage and response. These units have warning lights which activate when H₂S levels reach 10 ppm and audible sirens which activate at 15 ppm. Sensor locations:

- Bell nipple
- Possum Belly/Shale shaker
- Rig floor
- Choke manifold
- Cellar

Visual warning systems:

- A. Wind direction indicators as shown on well site diagram
- B. Caution/ Danger signs shall be posted on roads providing direct access to locations. Signs will be painted a high visibility yellow with black lettering of sufficient size to be reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

4. Mud program:

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.

5. Metallurgy:

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

6. Communication:

- A. Company personnel have/use cellular telephones in the field.
- B. Land line (telephone) communications at Office

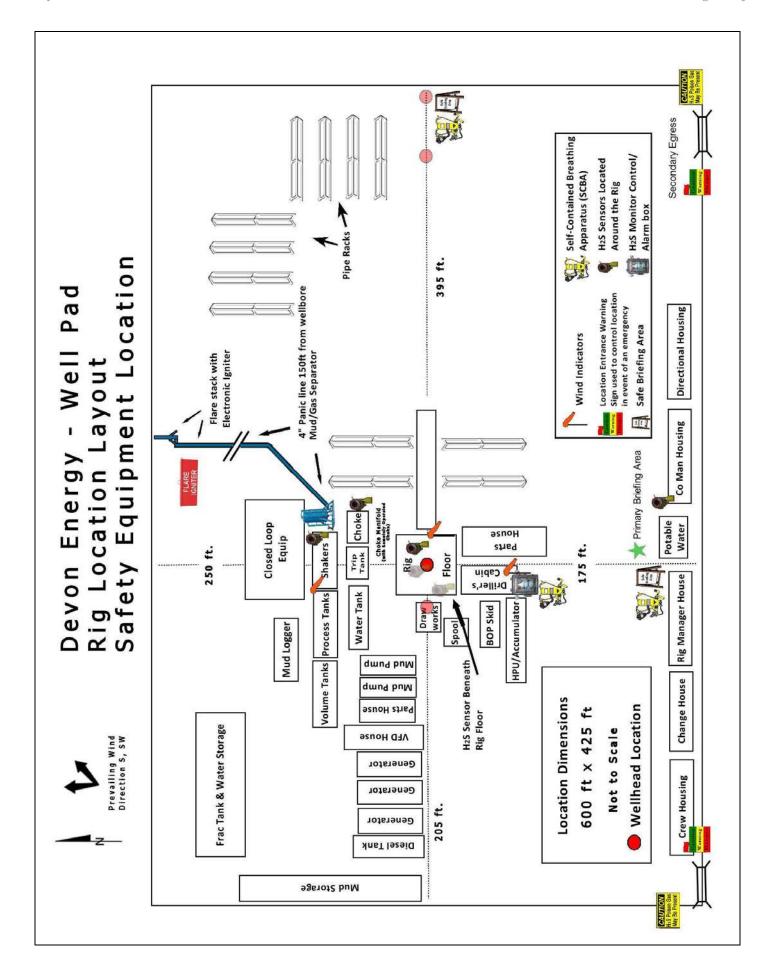
7. Well testing:

- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safety 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.
- B. There will be no drill stem testing.

Devon En	ergy Corp. Company Call List	
Drilling Su	pervisor – Basin – Mark Kramer	405-823-4796
EHS Profe	ssional – Laura Wright	405-439-8129
Agency	Call List	
Lea	Hobbs	
County	Lea County Communication Authority	393-3981
<u>(575)</u>	State Police	392-5588
	City Police	397-9265
	Sheriff's Office	393-2515
	Ambulance	911
	Fire Department	397-9308
	LEPC (Local Emergency Planning Committee)	393-2870
	NMOCD	393-6161
	US Bureau of Land Management	393-3612
	OS Bureau or Land Management	393-3012
Eddy	Carlsbad	
County	State Police	885-3137
<u>(575)</u>	City Police	885-2111
	Sheriff's Office	887-7551
	Ambulance	911
	Fire Department	885-3125
	LEPC (Local Emergency Planning Committee)	887-3798
	US Bureau of Land Management	887-6544
	NM Emergency Response Commission (Santa Fe)	(505) 476-9600
	24 HR	(505) 827-9126
	National Emergency Response Center	(800) 424-8802
	National Pollution Control Center: Direct	(703) 872-6000
	For Oil Spills	(800) 280-7118
	Emergency Services	
	Wild Well Control	(281) 784-4700
	Cudd Pressure Control (915) 699-0139	(915) 563-3356
	Halliburton	(575) 746-2757
	B. J. Services	(575) 746-3569
Give	Native Air – Emergency Helicopter – Hobbs (TX & NM)	(800) 642-7828
GPS	Flight For Life - Lubbock, TX	(806) 743-9911
position:	Aerocare - Lubbock, TX	(806) 747-8923
7555.615111	Med Flight Air Amb - Albuquerque, NM	(575) 842-4433
	Lifeguard Air Med Svc. Albuquerque, NM	(800) 222-1222
	Poison Control (24/7)	(575) 272-3115
	Oil & Gas Pipeline 24 Hour Service	(800) 364-4366
	NOAA – Website - www.nhc.noaa.gov	(000) 004-4000
	110/01 VYEDSILE - www.fillo.fload.gov	
<u> </u>		

Prepared in conjunction with Dave Small





State of New Mexico DISTRICT I 1625 N. FRENCH DR., HOBBS, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 Energy, Minerals & Natural Resources Department CONSERVATION DIVISION DISTRICT II 811 S. FIRST ST., ARTESIA, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720

1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

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

□ AMENDED REPORT

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 FR, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

API Number

WELL LOCATION AND ACREAGE DEDICATION PLAT Pool Code Pool Name

ANTELOPE RIDGE; BONE SPRING

30-025-48327 2200 **Property Code**

Property Name RED BULL 30-31 FED STATE COM Well Number 4H

OGRID No. 6137

329954

Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P. Elevation 3409.0

Surface Location

East/West line Feet from the North/South line UL or lot No. Section Township Range Lot Idn Feet from the County В 30 23-S 35-E 883 NORTH 1711 **EAST** LEA

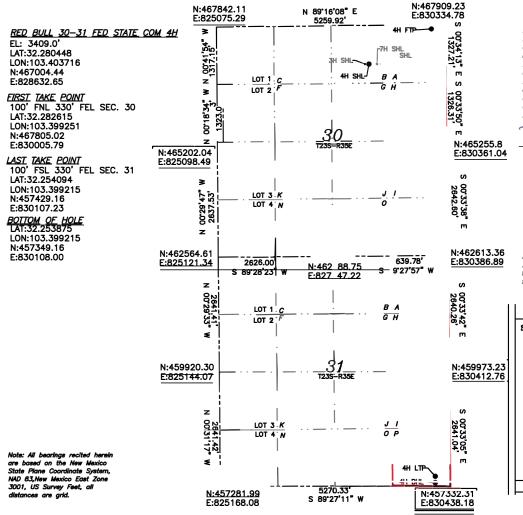
Bottom Hole Location If Different From Surface

Section Lot Idn Feet from the North/South line East/West line UL or lot No. Township Range Feet from the County 31 SOUTH 330 **EAST** 23-S 35-E 20 LEA

Dedicated Acres Joint or Infill Consolidation Code Order No.

320

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



OPERATOR CERTIFICATION

I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

26 esclin Signature

6/29/2020 Date

Rebecca Deal, Regulatory Analyst Printed Name

rebecca.deal@dvn.com E-mail Address

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.

05/09/2020



Inten	t x	As Dril	led								
API#		5-48327									
DE\	rator Nai VON EN MPANY	IERGY P	RODUC	CTION	N	Property Na RED BULL		FED STA	ATE C	СОМ	Well Number 4H
Kick (Off Point	(KOP)									
UL	Section 30	Township 23S	Range 35E	Lot	Feet 50	From N/S	330		n E/W -	County LEA	
Latitu 32.2	ude 282759)		'	Longitu -103	.399224	'	,		NAD 83	
First ⁻	Take Poir	nt (FTP)									
UL A	Section 30	Township 23-S	Range 35-E	Lot	Feet 100	From N/S			n E/W ST	County LEA	
Latitu 32	ude .2826	15		'	Longitu 103	.399215	1	,		NAD 83	
Last 1	「ake Poin	t (LTP)									
UL P	Section 31	Township 23-S	Range 35-E	Lot	Feet 100	From N/S SOUTH 3	Feet 130	From E/W EAST	Count LEA		
Latitu 32	.2540	94			Longitu 103	.399215			NAD 83		
		defining v	vell for th	e Hori N	zontal S _l	pacing Unit?	Υ		•		
	ng Unit.	lease provi	ide API if	availal	ole, Ope	rator Name ar	nd well i	number for	Defini	ng well fo	or Horizontal
	rator Nai	me:				Property Na	me:				Well Number
	·						·		_		KZ 06/29/2018

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

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy, Minerals and Natural Resources Department

Submit Original to Appropriate District Office

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

GAS	CAP	TURE	PLAN
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Date: 7/1/2020		
⊠ Original	Operator & OGRID No.:	6137
☐ Amended - Reason for Amendment:	_	

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

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

Well(s)/Production Facility - Name of facility

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

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments	
Red Bull 30-31 Fed State Com 3H		30-23S-35E	883 FNL & 1741 FEL			Will connect to Red Bull 30 CTB 2	
Red Bull 30-31 Fed State Com 4H 30 -		30-23S-35E 18327	883 FNL & 1711 FEL			Will connect to Red Bull 30 CTB 2	
Red Bull 30 Fed 7H		30-23S-35E	883 FNL & 1521 FEL			Will connect to Red Bull 30 CTB 2	
Red Bull 30 Fed 8H		30-23S-35E	883 FNL & 1491 FEL			Will connect to Red Bull 30 CTB 2	l

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to Lucid and will be connected to Lucid low/high pressure gathering system located in Lea County, New Mexico. It will require 0' of pipeline to connect the facility to low/high pressure gathering system. Devon Energy Production Co. provides (periodically) to Lucid a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Devon Energy Production Co. and Lucid have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Red Hills Processing Plant located in Sec.13, Twn.24S, Rng.34E, Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

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

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

Alternatives to Reduce Flaring

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

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

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1000 Rio Brazos Rd., Aztec, NM 87410

Phone:(505) 334-6178 Fax:(505) 334-6170 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 13212

CONDITIONS OF APPROVAL

Operator:			OGRID:	Action Number:	Action Type:
DEVON ENERGY PRODUCTION COMPAN	333 West Sheridan Ave.	Oklahoma City, OK73102	6137	13212	FORM 3160-3

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing &cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string