Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

# APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☐ DRILL ☐ REENTER

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

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

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

8. Lease Name and Well No.

2. Name of Operator

9. API Well No. 30 015 48968

3a. Address

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

10. Field and Pool, or Exploratory

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

At surface

At proposed prod. zone

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

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

12. County or Parish

13. State

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

## 24. Attachments

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

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

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

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

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

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

**Approval Date: 09/09/2021**

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

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

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

☐ AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

| 1 API Number | 2 Pool Code | 3 Pool Name |
|---|---|---|
| 30-015- | ~~97618~~ 96718 | Loco Hills; Glorieta-Yeso |

| 4 Property Code | 5 Property Name | 6 Well Number |
|---|---|---|
| | MERAK 7 FEDERAL | 50H |

| 7 OGRID NO. | 8 Operator Name | 9 Elevation |
|---|---|---|
| 328947 | SPUR ENERGY PARTNERS LLC. | 3675' |

## 10 Surface Location

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet From the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| D | 8 | 17S | 30E | | 1190 | NORTH | 985 | WEST | EDDY |

## 11 Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| 2 | 7 | 17S | 30E | | 1575 | NORTH | 50 | WEST | EDDY |

| 12 Dedicated Acres | 13 Joint or Infill | 14 Consolidation Code | 15 Order No. |
|---|---|---|---|
| 320 | | | |

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

16

GEODETIC DATA
NAD 83 GRID – NM EAST

SURFACE LOCATION (SL)
N: 674233.3 – E: 643837.2
LAT: 32.8530458° N
LONG: 103.9995501° W

FIRST TAKE POINT (FTP)
1575' FNL & 100' FEL – SEC 7
N: 673844.7 – E: 642753.8
LAT: 32.8519871° N
LONG: 104.0030820° W

LAST TAKE POINT (LTP)
1575' FNL & 100' FWL – SEC 7
N: 673813.8 – E: 637755.9
LAT: 32.8519441° N
LONG: 104.0193570° W

BOTTOM HOLE (BH)
N: 673813.5 – E: 637706.0
LAT: 32.8519437° N
LONG: 104.0195197° W

CORNER DATA
NAD 83 GRID – NM EAST

A: FOUND BRASS CAP "1914"
N: 670118.1 – E: 637673.2

B: FOUND BRASS CAP "1914"
N: 672751.6 – E: 637657.6

C: FOUND BRASS CAP "1914"
N: 675387.8 – E: 637653.6

D: FOUND BRASS CAP "1916"
N: 675403.7 – E: 640208.3

E: FOUND BRASS CAP "1916"
N: 675419.9 – E: 642848.2

F: FOUND BRASS CAP "1916"
N: 675428.2 – E: 645488.7

G: FOUND BRASS CAP "1916"
N: 675436.4 – E: 648128.9

H: FOUND BRASS CAP "1916"
N: 672796.7 – E: 648137.7

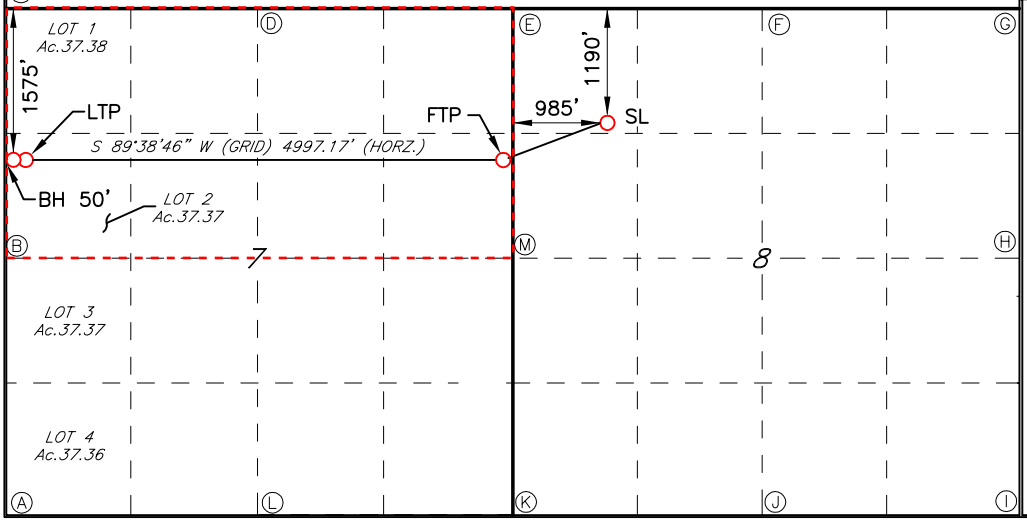
I: FOUND BRASS CAP "1916"
N: 670156.3 – E: 648146.2

J: FOUND BRASS CAP "1916"
N: 670148.2 – E: 645506.1

K: FOUND BRASS CAP "1916"
N: 670140.1 – E: 642866.3

L: FOUND BRASS CAP "1916"
N: 670128.3 – E: 640226.3

M: FOUND BRASS CAP "1916"
N: 672779.6 – E: 642857.5




## 17 OPERATOR CERTIFICATION

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

Sarah Chapman 11/5/2020
Signature Date

Sarah Chapman
Printed Name

schapman@spurepllc.com
E-mail Address

## 18 SURVEYOR CERTIFICATION

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

10-21-2020
Date of Survey

Signature and Seal of Professional Surveyor:

ROBERT M. HOWETT NEW MEXICO 19680 PROFESSIONAL SURVEYOR

19680
Certificate Number

LS20100547

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

# NATURAL GAS MANAGEMENT PLAN

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

## Section 1 – Plan Description
**Effective May 25, 2021**

**I. Operator:** SPUR ENERGY PARTNERS LLC **OGRID:** 328947 **Date:** 09 / 17 / 2021

**II. Type:** ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

**III. Well(s):** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

| Well Name | API | ULSTR | Footages | Anticipated Oil BBL/D | Anticipated Gas MCF/D | Anticipated Produced Water BBL/D |
|---|---|---|---|---|---|---|
| MERAK 7 FEDERAL 20H | 30-015-PENDING | D-8-17S-30E | 1170' FNL 985' FWL | 316 BBL/D | 330 MCF/D | 395 BBL/D |
| MERAK 7 FEDERAL 50H | 30-015-PENDING | D-8-17S-30E | 1190' FNL 985' FWL | 351 BBL/D | 374 MCF/D | 845 BBL/D |
| | | | | | | |
| | | | | | | |

**IV. Central Delivery Point Name:** MERAK 7 FEDERAL CENTRAL TANK BATTERY [See 19.15.27.9(D)(1) NMAC]

**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

| Well Name | API | Spud Date | TD Reached Date | Completion Commencement Date | Initial Flow Back Date | First Production Date |
|---|---|---|---|---|---|---|
| MERAK 7 FEDERAL 20H | 30-015-PENDING | 01/23/2023 | 01/31/2023 | 04/15/2023 | 05/04/2023 | 05/04/2023 |
| MERAK 7 FEDERAL 50H | 30-015-PENDING | 01/31/2023 | 02/08/2023 | 04/15/2023 | 05/04/2023 | 05/04/2023 |

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

**VII. Operational Practices:** ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

**VIII. Best Management Practices:** ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

# Section 2 – Enhanced Plan

**EFFECTIVE APRIL 1, 2022**

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

**IX. Anticipated Natural Gas Production:**

| Well | API | Anticipated Average Natural Gas Rate MCF/D | Anticipated Volume of Natural Gas for the First Year MCF |
|---|---|---|---|
| | | | |
| | | | |

**X. Natural Gas Gathering System (NGGS):**

| Operator | System | ULSTR of Tie-in | Anticipated Gathering Start Date | Available Maximum Daily Capacity of System Segment Tie-in |
|---|---|---|---|---|
| | | | | |
| | | | | |

**XI. Map.** ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

**XII. Line Capacity.** The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

**XIII. Line Pressure.** Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

**XIV. Confidentiality:** ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

## Section 3 - Certifications

**Effective May 25, 2021**

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

**Well Shut-In.** ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

**Venting and Flaring Plan.** ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

## Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

**(a)** Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

**(b)** Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

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

| | |
|---|---|
| Signature: | Sarah Chapman |
| Printed Name: | SARAH CHAPMAN |
| Title: | REGULATORY DIRECTOR |
| E-mail Address: | SCHAPMAN@SPUREPLLC.COM |
| Date: | 09/17/2021 |
| Phone: | 832-930-8613 |

**OIL CONSERVATION DIVISION**

**(Only applicable when submitted as a standalone form)**

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

# Natural Gas Management Plan – Attachment

VI. Separation equipment will be sized by construction engineering staff based on anticipated daily production to ensure adequate capacity.

VII. Spur Energy Partners LLC ("Spur") will take the following actions to comply with the regulations listed in 19.15.27.8:

A. Spur will maximize the recovery of natural gas by minimizing waste, as defined by 19.15.2 NMAC, of natural gas through venting and flaring. Spur will ensure that our wells will be connected to a natural gas gathering system with sufficient capacity to transport natural gas.

B. All drilling operations will be equipped with a rig flare at least 100 feet from the nearest surface hole location. Rig flare will be utilized to combust any natural gas that is brought to surface during normal operations. In the case of emergency, flaring volumes will be reported appropriately.

C. During completion operations any natural gas brought to surface will be flared. Immediately following completion operations, wells will flow to permanent separation equipment. Produced natural gas from separation equipment will be sent to sales. If natural gas does not meet gathering pipeline specifications, Spur will flare for 60 days or until natural gas meets the pipeline specifications. Spur will ensure flare is properly sized and is equipped with an automatic igniter or continuous pilot. Gas samples will be taken twice per week and natural gas will be routed into a gathering system as soon as the pipeline specifications are met.

D. Natural gas will not be flared with the exception of 19.15.27.8(D)(1-4). If there is no adequate takeaway for the separator gas, wells will be shut-in until that natural gas gathering system is available with exception of emergency or malfunction situations. Volumes will be reported appropriately.

E. Spur will comply with performance standards pursuant to 19.15.27.8(E)(1-8). All equipment will be designed and sized to handle maximum pressures to minimize waste. Storage tanks constructed after May 25, 2021 will be equipped with an automatic gauging system that reduces venting of natural gas. Flare stacks installed or replaced after May 25, 2021 will be equipped with an automatic ignitor or continuous pilot. Spur will conduct AVO inspections as described in 19.15.27.8(E)(5)(a) with frequencies specified in 19.15.27.8(E)(5)(b) and (c). All emergencies or malfunctions will be resolved as quickly and safely as possible to minimize waste.

F. The volume of natural gas that is vented or flared as the result of an emergency or malfunction during drilling and/or completion operations will be estimated and reported accordingly. The volume of natural gas that is vented, flared or beneficially used during production operations, will be measured and reported accordingly. Spur will install equipment to measure the volume of natural gas flared from existing piping or a flowline piped from equipment such as high-pressure separators, heater treaters, or VRUs associated with a well or facility associated with a well authorized by an APD after May 25, 2021 that has an average daily production of less than 60,000 cubic feet of natural gas. If metering is not practicable due to circumstances such as low flow rate or low pressure venting or flaring, Spur will estimate the volume of flared or vented natural gas. Measuring equipment will conform to industry standards and will not be equipped with a manifold

that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing equipment.

VIII. For maintenance activities involving production equipment and compression, venting be limited to the depressurization of the subject equipment to ensure safe working conditions. For maintenance of production equipment, the associated producing wells will be shut-in to eliminate venting. For maintenance of VRUs, all natural gas normally routed to the VRU will be routed to flare.

# Spur Energy Partners LLC – Merak 7 Federal 50H

## 1. Geologic Formations

| | |
|---|---|
| TVD of target | 4800' |
| MD at TD | 10477' |

| Formation | Depth | Lithology | Expected Fluids |
|---|---|---|---|
| Quaternary | 0' | Dolomite, other: Caliche | Useable Water |
| Rustler | 375' | Dolomite, Shale, Anhydrite | Other: Brackish Water |
| Top Salt | 525' | Anhydrite | Other: Salt |
| Base Salt | 1040' | Anhydrite | Other: Salt |
| Tansill | 1105' | Sandstone, Dolomite | None |
| Yates | 1215' | Dolomite, Limestone, Shale, Siltstone | Natural Gas, Oil |
| Seven Rivers | 1505' | Dolomite, Limestone | Natural Gas, Oil |
| Queen | 2100' | Anhydrite, Dolomite, Sandstone | Natural Gas, Oil |
| Grayburg | 2515' | Anhydrite | Natural Gas, Oil |
| San Andres | 2830' | Dolomite | Natural Gas, Oil |
| Glorieta | 4260' | Dolomite, Siltstone | Natural Gas, Oil |
| Yeso | 6325' | Dolomite | Natural Gas, Oil |

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

## 2. Casing Program

***Primary Plan:***

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

| Hole Size (in) | Casing Interval | | Csg. Size (in) | Weight (lbs) | Grade | Conn. | SF Collapse | SF Burst | Body SF Tension | Joint SF Tension |
|---|---|---|---|---|---|---|---|---|---|---|
| | From (ft) | To (ft) | | | | | | | | |
| 17.5 | 0 | 450 | 13.375 | 54.5 | J-55 | BTC | 1.125 | 1.2 | 1.4 | 1.4 |
| 12.25 | 0 | 1300 | 9.625 | 36 | J-55 | BTC | 1.125 | 1.2 | 1.4 | 1.4 |
| 8.75 | 0 | 5150 | 7 | 32 | L-80 | BK-HT | 1.125 | 1.2 | 1.4 | 1.4 |
| 8.75 | 5150 | 10477 | 5.5 | 20 | L-80 | BK-HT | 1.125 | 1.2 | 1.4 | 1.4 |
| | | | | | | | SF Values will meet or Exceed | | | |

**Spur Energy Partners LLC – Merak 7 Federal 50H**

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

## 3. Cementing Program

***Primary Plan:***

| Casing String | Top (ft) | Bottom (ft) | % Excess |
|---|---|---|---|
| Surface Tail | 0 | 450 | 165% |
| Intermediate (Lead) | 0 | 450 | 100% |
| Intermediate (Tail) | 450 | 1300 | 165% |
| Production (Lead) | 0 | 4150 | 0% |
| Production (Tail) | 4150 | 10477 | 50% |

| Casing String | # Sks | Wt. (lb/gal) | Yld (ft3/sack) | H20 (gal/sk) | 500# Comp. Strength (hours) | Slurry Description |
|---|---|---|---|---|---|---|
| Surface Tail | 346 | 13.2 | 2.32 | 9.92 | 6:59 | Clas C Premium Plus Cement |
| Intermediate (Lead) | 89 | 12.2 | 1.84 | 13.48 | 8:12 | Clas C Premium Plus Cement |
| Intermediate (Tail) | 312 | 13.2 | 2.32 | 9.92 | 6:59 | Clas C Premium Plus Cement |
| Production (Lead) | 477 | 11.8 | 2.54 | 15.29 | N/A | Clas C Premium Plus Cement |
| Production (Tail) | 1245 | 13.2 | 1.81 | 9.81 | N/A | Clas C Premium Plus Cement |

**Spur Energy Partners LLC – Merak 7 Federal 50H**

## 4. Pressure Control Equipment

***Spur Energy Partners LLC variance for flex hose***

1. Spur requests a variance to use a flex line from the BOP to the choke manifold. Documentation will be attached in the APD and be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no bends).

| BOP installed and tested before drilling which hole? | Size? | Min. Required WP | Type | ✓ | Tested to: |
|---|---|---|---|---|---|
| 12.25" Hole | 13-5/8" | 5M | Annular | ✓ | 70% of working pressure |
| | | 5M | Blind Ram | ✓ | 250 psi / 3000 psi |
| | | | Pipe Ram | ✓ | |
| | | | Double Ram | | |
| | | | Other* | | |
| 8.75" Hole | 13-5/8" | 5M | Annular | ✓ | 70% of working pressure |
| | | 5M | Blind Ram | ✓ | 250 psi / 3000 psi |
| | | | Pipe Ram | ✓ | |
| | | | Double Ram | | |
| | | | Other* | | |

| Condition | Specify what type and where? |
|---|---|
| BH Pressure at deepest TVD | 2268 psi |
| Abnormal Temperature | No |
| BH Temperature at deepest TVD | 120°F |

***Spur Energy Partners LLC will utilize a 5M BOP stack***

*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

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

| | |
|---|---|
| | Formation integrity test will be performed per Onshore Order #2.<br>On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i. |

| | | |
|---|---|---|
| | Y | Are anchors required by manufacturer? |
| | A conventional wellhead system will be employed. The wellhead and connection to the BOPE will meet all API 6A requirements. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days.<br>See attached schematics. | |

## 5. BOP Break Testing Request

Spur Energy Partners LLC requests permission to adjust the BOP break testing requirements as per the verbal agreement reached over the phone between SPUR/BLM on September 7, 2020. A separate sundry will be sent prior to spud that reflects the pad-based break testing plan.

BOP break test under the following conditions:

- After a full BOP test is conducted
- When skidding to drill the production section, where the surface casing point is shallower than the 3 Bone Spring or 10,000 TVD.
- When skidding to drill a production section that does not penetrate the 3rd Bone Spring or deeper.

If the kill line is broken prior to skid, four tests will be performed.

1) The void between the wellhead and the spool (this consists of two tests)
2) The spool between the kill lines and the choke manifold (this consists of two tests)

If the kill line is not broken prior to skid, two tests will be performed.

1) The void between the wellhead and the pipe rams

## 6. Mud Program

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times. The following is a general list of products: Barite, Bentonite, Gypsum, Lime, Soda Ash, Caustic Soda, Nut Plug, Cedar Fiber, Cotton Seed Hulls, Drilling Paper, Salt Water Clay, CACL2. Spur will use a closed mud system.

| Depth | | Type | Weight (ppg) | Viscosity | Water Loss |
|---|---|---|---|---|---|
| From (ft) | To (ft) | | | | |
| 0 | 450 | Water-Based Mud | 8.6-8.9 | 32-36 | N/C |
| 450 | 1300 | Brine | 10.0-10.5 | 32-36 | N/C |
| 1300 | 10477 | Brine | 10.0-10.5 | 32-36 | N/C |

| | |
|---|---|
| What will be used to monitor the loss or gain of fluid? | PVT/PASON/Visual Monitoring |

**Spur Energy Partners LLC – Merak 7 Federal 50H**

## 7. Logging and Testing Procedures

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

| Additional logs planned | | Interval |
|---|---|---|
| No | Resistivity | |
| No | Density | |
| No | CBL | |
| Yes | Mud log | ICP - TD |
| No | PEX | |

## 8. Drilling Conditions

Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.

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

**Total estimated cuttings volume:** 1136 bbls**.**

**Spur Energy Partners LLC – Merak 7 Federal 50H**

## 9. Other facets of operation

| | Yes/No |
|---|---|
| Will more than one drilling rig be used for drilling operations? If yes, describe. Spur Energy Partners LLC requests the option to contract a Surface Rig to drill, set surface casing, and cement for this well. If the timing between rigs is such that Spur Energy Partners LLC. would not be able to preset surface, the Primary Rig will MIRU and drill the well in its entirety per the APD. Please see the attached document for information on the spudder rig. | Yes |

Attachments
_x__ Directional Plan
_x__ H2S Contingency Plan
_x__ Akita 57 Attachment
_x__ BOP Schematics
_x__ Transcend Spudder Rig Attachment

## 10. Company Personnel

| Name | Title | Office Phone | Mobile Phone |
|---|---|---|---|
| Christopher Hollis | Drilling Manager | 832-930-8629 | 713-380-7754 |
| Johnny Nabors | Senior Vice President Operations | 832-930-8502 | 281-904-8811 |

# Spur Energy Partners, LLC

**Eddy County, NM (NAD 83 - NME)**
**Merak 7 Federal**
**#50H**

**Wellbore #1**

**Plan: PERMIT**

# Standard Planning Report

**06 November, 2020**

# Planning Report

| | | | |
|---|---|---|---|
| **Database:** | WBDS_SQL_2 | **Local Co-ordinate Reference:** | Well #50H |
| **Company:** | Spur Energy Partners, LLC | **TVD Reference:** | RKB = 20' @ 3695.00usft |
| **Project:** | Eddy County, NM (NAD 83 - NME) | **MD Reference:** | RKB = 20' @ 3695.00usft |
| **Site:** | Merak 7 Federal | **North Reference:** | Grid |
| **Well:** | #50H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | Wellbore #1 | | |
| **Design:** | PERMIT | | |

**Project** Eddy County, NM (NAD 83 - NME)

| | | | |
|---|---|---|---|
| **Map System:** | US State Plane 1983 | **System Datum:** | Mean Sea Level |
| **Geo Datum:** | North American Datum 1983 | | |
| **Map Zone:** | New Mexico Eastern Zone | | |

**Site** Merak 7 Federal

| | | | | | |
|---|---|---|---|---|---|
| **Site Position:** | | **Northing:** | 674,253.20 usft | **Latitude:** | 32.8531005 |
| **From:** | Map | **Easting:** | 643,837.00 usft | **Longitude:** | -103.9995504 |
| **Position Uncertainty:** | 0.00 usft | **Slot Radius:** | 13.200 in | **Grid Convergence:** | 0.181 ° |

**Well** #50H

| | | | | | | |
|---|---|---|---|---|---|---|
| **Well Position** | **+N/-S** | -19.90 usft | **Northing:** | 674,233.30 usft | **Latitude:** | 32.8530458 |
| | **+E/-W** | 0.20 usft | **Easting:** | 643,837.20 usft | **Longitude:** | -103.9995499 |
| **Position Uncertainty** | | 0.00 usft | **Wellhead Elevation:** | | **Ground Level:** | 3,675.00 usft |

**Wellbore** Wellbore #1

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|---|---|---|---|---|---|
| | IGRF2020 | 11/06/20 | 6.865 | 60.428 | 47,882.34039679 |

**Design** PERMIT

**Audit Notes:**

| | | | | | |
|---|---|---|---|---|---|
| **Version:** | | **Phase:** | PLAN | **Tie On Depth:** | 0.00 |

| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |
|---|---|---|---|---|
| | 0.00 | 0.00 | 0.00 | 269.65 |

**Plan Survey Tool Program** **Date** 11/06/20

| | Depth From (usft) | Depth To (usft) | Survey (Wellbore) | Tool Name | Remarks |
|---|---|---|---|---|---|
| 1 | 0.00 | 10,477.17 | PERMIT (Wellbore #1) | MWD+IGRF | |
| | | | | OWSG MWD + IGRF or WM | |

**Plan Sections**

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | |
| 593.82 | 5.88 | 202.01 | 593.31 | -13.96 | -5.64 | 2.00 | 2.00 | 0.00 | 202.006 | |
| 3,951.61 | 5.88 | 202.01 | 3,933.45 | -332.70 | -134.46 | 0.00 | 0.00 | 0.00 | 0.000 | |
| 4,916.94 | 60.00 | 269.65 | 4,723.35 | -385.69 | -612.38 | 6.00 | 5.61 | 7.01 | 70.951 | |
| 5,116.94 | 60.00 | 269.65 | 4,823.35 | -386.76 | -785.58 | 0.00 | 0.00 | 0.00 | 0.000 | |
| 5,428.29 | 91.13 | 269.65 | 4,900.00 | -388.60 | -1,083.40 | 10.00 | 10.00 | 0.00 | 0.000 | MERAK7-FED 50H |
| 10,427.26 | 91.13 | 269.65 | 4,800.99 | -419.49 | -6,081.30 | 0.00 | 0.00 | 0.00 | 0.000 | MERAK7-FED 50H |
| 10,477.17 | 91.13 | 269.65 | 4,800.00 | -419.80 | -6,131.20 | 0.00 | 0.00 | 0.00 | 0.000 | MERAK7-FED 50H |

SPUR ENERGY PARTNERS

# Planning Report

WELLBENDERS DIRECTIONAL SERVICES

| | | | |
|---|---|---|---|
| **Database:** | WBDS_SQL_2 | **Local Co-ordinate Reference:** | Well #50H |
| **Company:** | Spur Energy Partners, LLC | **TVD Reference:** | RKB = 20' @ 3695.00usft |
| **Project:** | Eddy County, NM (NAD 83 - NME) | **MD Reference:** | RKB = 20' @ 3695.00usft |
| **Site:** | Merak 7 Federal | **North Reference:** | Grid |
| **Well:** | #50H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | Wellbore #1 | | |
| **Design:** | PERMIT | | |

**Planned Survey**

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100.00 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 200.00 | 0.00 | 0.00 | 200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 400.00 | 2.00 | 202.01 | 399.98 | -1.62 | -0.65 | 0.66 | 2.00 | 2.00 | 0.00 |
| 500.00 | 4.00 | 202.01 | 499.84 | -6.47 | -2.61 | 2.65 | 2.00 | 2.00 | 0.00 |
| 593.82 | 5.88 | 202.01 | 593.31 | -13.96 | -5.64 | 5.73 | 2.00 | 2.00 | 0.00 |
| 600.00 | 5.88 | 202.01 | 599.45 | -14.54 | -5.88 | 5.97 | 0.00 | 0.00 | 0.00 |
| 700.00 | 5.88 | 202.01 | 698.93 | -24.04 | -9.71 | 9.86 | 0.00 | 0.00 | 0.00 |
| 800.00 | 5.88 | 202.01 | 798.40 | -33.53 | -13.55 | 13.76 | 0.00 | 0.00 | 0.00 |
| 900.00 | 5.88 | 202.01 | 897.88 | -43.02 | -17.39 | 17.65 | 0.00 | 0.00 | 0.00 |
| 1,000.00 | 5.88 | 202.01 | 997.35 | -52.51 | -21.22 | 21.54 | 0.00 | 0.00 | 0.00 |
| 1,100.00 | 5.88 | 202.01 | 1,096.83 | -62.01 | -25.06 | 25.44 | 0.00 | 0.00 | 0.00 |
| 1,200.00 | 5.88 | 202.01 | 1,196.30 | -71.50 | -28.90 | 29.33 | 0.00 | 0.00 | 0.00 |
| 1,300.00 | 5.88 | 202.01 | 1,295.77 | -80.99 | -32.73 | 33.23 | 0.00 | 0.00 | 0.00 |
| 1,400.00 | 5.88 | 202.01 | 1,395.25 | -90.48 | -36.57 | 37.12 | 0.00 | 0.00 | 0.00 |
| 1,500.00 | 5.88 | 202.01 | 1,494.72 | -99.98 | -40.41 | 41.02 | 0.00 | 0.00 | 0.00 |
| 1,600.00 | 5.88 | 202.01 | 1,594.20 | -109.47 | -44.24 | 44.91 | 0.00 | 0.00 | 0.00 |
| 1,700.00 | 5.88 | 202.01 | 1,693.67 | -118.96 | -48.08 | 48.80 | 0.00 | 0.00 | 0.00 |
| 1,800.00 | 5.88 | 202.01 | 1,793.15 | -128.45 | -51.91 | 52.70 | 0.00 | 0.00 | 0.00 |
| 1,900.00 | 5.88 | 202.01 | 1,892.62 | -137.95 | -55.75 | 56.59 | 0.00 | 0.00 | 0.00 |
| 2,000.00 | 5.88 | 202.01 | 1,992.10 | -147.44 | -59.59 | 60.49 | 0.00 | 0.00 | 0.00 |
| 2,100.00 | 5.88 | 202.01 | 2,091.57 | -156.93 | -63.42 | 64.38 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 5.88 | 202.01 | 2,191.04 | -166.42 | -67.26 | 68.28 | 0.00 | 0.00 | 0.00 |
| 2,300.00 | 5.88 | 202.01 | 2,290.52 | -175.92 | -71.10 | 72.17 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 5.88 | 202.01 | 2,389.99 | -185.41 | -74.93 | 76.06 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 5.88 | 202.01 | 2,489.47 | -194.90 | -78.77 | 79.96 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 5.88 | 202.01 | 2,588.94 | -204.39 | -82.61 | 83.85 | 0.00 | 0.00 | 0.00 |
| 2,700.00 | 5.88 | 202.01 | 2,688.42 | -213.89 | -86.44 | 87.75 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 5.88 | 202.01 | 2,787.89 | -223.38 | -90.28 | 91.64 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 5.88 | 202.01 | 2,887.37 | -232.87 | -94.12 | 95.54 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 5.88 | 202.01 | 2,986.84 | -242.36 | -97.95 | 99.43 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 5.88 | 202.01 | 3,086.31 | -251.86 | -101.79 | 103.32 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 5.88 | 202.01 | 3,185.79 | -261.35 | -105.62 | 107.22 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 5.88 | 202.01 | 3,285.26 | -270.84 | -109.46 | 111.11 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 5.88 | 202.01 | 3,384.74 | -280.33 | -113.30 | 115.01 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 5.88 | 202.01 | 3,484.21 | -289.83 | -117.13 | 118.90 | 0.00 | 0.00 | 0.00 |
| 3,600.00 | 5.88 | 202.01 | 3,583.69 | -299.32 | -120.97 | 122.80 | 0.00 | 0.00 | 0.00 |
| 3,700.00 | 5.88 | 202.01 | 3,683.16 | -308.81 | -124.81 | 126.69 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 5.88 | 202.01 | 3,782.64 | -318.30 | -128.64 | 130.58 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 5.88 | 202.01 | 3,882.11 | -327.80 | -132.48 | 134.48 | 0.00 | 0.00 | 0.00 |
| 3,951.61 | 5.88 | 202.01 | 3,933.45 | -332.70 | -134.46 | 136.49 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 7.35 | 223.97 | 3,981.52 | -337.22 | -137.54 | 139.60 | 6.00 | 3.05 | 45.40 |
| 4,050.00 | 9.59 | 237.72 | 4,030.98 | -341.75 | -143.28 | 145.37 | 6.00 | 4.47 | 27.49 |
| 4,100.00 | 12.15 | 246.02 | 4,080.08 | -346.11 | -151.61 | 153.72 | 6.00 | 5.13 | 16.61 |
| 4,150.00 | 14.88 | 251.40 | 4,128.69 | -350.30 | -162.51 | 164.65 | 6.00 | 5.45 | 10.75 |
| 4,200.00 | 17.70 | 255.12 | 4,176.68 | -354.30 | -175.94 | 178.10 | 6.00 | 5.63 | 7.44 |
| 4,250.00 | 20.56 | 257.84 | 4,223.92 | -358.10 | -191.87 | 194.06 | 6.00 | 5.73 | 5.44 |
| 4,300.00 | 23.46 | 259.92 | 4,270.27 | -361.70 | -210.26 | 212.46 | 6.00 | 5.80 | 4.15 |
| 4,350.00 | 26.38 | 261.56 | 4,315.61 | -365.07 | -231.05 | 233.27 | 6.00 | 5.84 | 3.28 |
| 4,400.00 | 29.31 | 262.89 | 4,359.82 | -368.22 | -254.18 | 256.43 | 6.00 | 5.87 | 2.67 |
| 4,450.00 | 32.26 | 264.00 | 4,402.77 | -371.13 | -279.61 | 281.87 | 6.00 | 5.89 | 2.22 |
| 4,500.00 | 35.21 | 264.94 | 4,444.35 | -373.79 | -307.24 | 309.52 | 6.00 | 5.91 | 1.89 |
| 4,550.00 | 38.17 | 265.76 | 4,484.43 | -376.20 | -337.02 | 339.31 | 6.00 | 5.92 | 1.63 |

SPUR ENERGY PARTNERS

# Planning Report

WELLBENDERS DIRECTIONAL SERVICES

| | | | |
|---|---|---|---|
| **Database:** | WBDS_SQL_2 | **Local Co-ordinate Reference:** | Well #50H |
| **Company:** | Spur Energy Partners, LLC | **TVD Reference:** | RKB = 20' @ 3695.00usft |
| **Project:** | Eddy County, NM (NAD 83 - NME) | **MD Reference:** | RKB = 20' @ 3695.00usft |
| **Site:** | Merak 7 Federal | **North Reference:** | Grid |
| **Well:** | #50H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | Wellbore #1 | | |
| **Design:** | PERMIT | | |

**Planned Survey**

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| 4,600.00 | 41.14 | 266.47 | 4,522.93 | -378.36 | -368.85 | 371.15 | 6.00 | 5.93 | 1.43 |
| 4,650.00 | 44.11 | 267.11 | 4,559.71 | -380.25 | -402.65 | 404.96 | 6.00 | 5.94 | 1.27 |
| 4,700.00 | 47.08 | 267.68 | 4,594.70 | -381.87 | -438.33 | 440.65 | 6.00 | 5.94 | 1.14 |
| 4,750.00 | 50.05 | 268.19 | 4,627.78 | -383.22 | -475.78 | 478.12 | 6.00 | 5.95 | 1.03 |
| 4,800.00 | 53.03 | 268.67 | 4,658.87 | -384.29 | -514.92 | 517.26 | 6.00 | 5.95 | 0.95 |
| 4,850.00 | 56.01 | 269.10 | 4,687.89 | -385.08 | -555.62 | 557.96 | 6.00 | 5.96 | 0.88 |
| 4,900.00 | 58.99 | 269.51 | 4,714.75 | -385.58 | -597.78 | 600.13 | 6.00 | 5.96 | 0.82 |
| 4,916.94 | 60.00 | 269.65 | 4,723.35 | -385.69 | -612.38 | 614.72 | 6.00 | 5.96 | 0.78 |
| 5,000.00 | 60.00 | 269.65 | 4,764.88 | -386.13 | -684.31 | 686.66 | 0.00 | 0.00 | 0.00 |
| 5,100.00 | 60.00 | 269.65 | 4,814.88 | -386.67 | -770.91 | 773.26 | 0.00 | 0.00 | 0.00 |
| 5,116.94 | 60.00 | 269.65 | 4,823.35 | -386.76 | -785.58 | 787.93 | 0.00 | 0.00 | 0.00 |
| 5,150.00 | 63.31 | 269.65 | 4,839.05 | -386.94 | -814.67 | 817.02 | 10.00 | 10.00 | 0.00 |
| 5,200.00 | 68.31 | 269.65 | 4,859.53 | -387.22 | -860.26 | 862.61 | 10.00 | 10.00 | 0.00 |
| 5,250.00 | 73.31 | 269.65 | 4,875.96 | -387.51 | -907.47 | 909.82 | 10.00 | 10.00 | 0.00 |
| 5,300.00 | 78.31 | 269.65 | 4,888.22 | -387.81 | -955.93 | 958.28 | 10.00 | 10.00 | 0.00 |
| 5,350.00 | 83.31 | 269.65 | 4,896.21 | -388.12 | -1,005.27 | 1,007.62 | 10.00 | 10.00 | 0.00 |
| 5,400.00 | 88.31 | 269.65 | 4,899.86 | -388.43 | -1,055.12 | 1,057.47 | 10.00 | 10.00 | 0.00 |
| 5,428.29 | 91.13 | 269.65 | 4,900.00 | -388.60 | -1,083.40 | 1,085.75 | 10.00 | 10.00 | 0.00 |
| 5,500.00 | 91.13 | 269.65 | 4,898.58 | -389.04 | -1,155.10 | 1,157.45 | 0.00 | 0.00 | 0.00 |
| 5,600.00 | 91.13 | 269.65 | 4,896.60 | -389.66 | -1,255.08 | 1,257.43 | 0.00 | 0.00 | 0.00 |
| 5,700.00 | 91.13 | 269.65 | 4,894.62 | -390.28 | -1,355.05 | 1,357.41 | 0.00 | 0.00 | 0.00 |
| 5,800.00 | 91.13 | 269.65 | 4,892.64 | -390.90 | -1,455.03 | 1,457.39 | 0.00 | 0.00 | 0.00 |
| 5,900.00 | 91.13 | 269.65 | 4,890.66 | -391.51 | -1,555.01 | 1,557.37 | 0.00 | 0.00 | 0.00 |
| 6,000.00 | 91.13 | 269.65 | 4,888.68 | -392.13 | -1,654.99 | 1,657.35 | 0.00 | 0.00 | 0.00 |
| 6,100.00 | 91.13 | 269.65 | 4,886.70 | -392.75 | -1,754.97 | 1,757.33 | 0.00 | 0.00 | 0.00 |
| 6,200.00 | 91.13 | 269.65 | 4,884.72 | -393.37 | -1,854.95 | 1,857.32 | 0.00 | 0.00 | 0.00 |
| 6,300.00 | 91.13 | 269.65 | 4,882.73 | -393.99 | -1,954.93 | 1,957.30 | 0.00 | 0.00 | 0.00 |
| 6,400.00 | 91.13 | 269.65 | 4,880.75 | -394.60 | -2,054.90 | 2,057.28 | 0.00 | 0.00 | 0.00 |
| 6,500.00 | 91.13 | 269.65 | 4,878.77 | -395.22 | -2,154.88 | 2,157.26 | 0.00 | 0.00 | 0.00 |
| 6,600.00 | 91.13 | 269.65 | 4,876.79 | -395.84 | -2,254.86 | 2,257.24 | 0.00 | 0.00 | 0.00 |
| 6,700.00 | 91.13 | 269.65 | 4,874.81 | -396.46 | -2,354.84 | 2,357.22 | 0.00 | 0.00 | 0.00 |
| 6,800.00 | 91.13 | 269.65 | 4,872.83 | -397.08 | -2,454.82 | 2,457.20 | 0.00 | 0.00 | 0.00 |
| 6,900.00 | 91.13 | 269.65 | 4,870.85 | -397.69 | -2,554.80 | 2,557.18 | 0.00 | 0.00 | 0.00 |
| 7,000.00 | 91.13 | 269.65 | 4,868.87 | -398.31 | -2,654.77 | 2,657.16 | 0.00 | 0.00 | 0.00 |
| 7,100.00 | 91.13 | 269.65 | 4,866.89 | -398.93 | -2,754.75 | 2,757.14 | 0.00 | 0.00 | 0.00 |
| 7,200.00 | 91.13 | 269.65 | 4,864.91 | -399.55 | -2,854.73 | 2,857.12 | 0.00 | 0.00 | 0.00 |
| 7,300.00 | 91.13 | 269.65 | 4,862.93 | -400.17 | -2,954.71 | 2,957.10 | 0.00 | 0.00 | 0.00 |
| 7,400.00 | 91.13 | 269.65 | 4,860.95 | -400.78 | -3,054.69 | 3,057.08 | 0.00 | 0.00 | 0.00 |
| 7,500.00 | 91.13 | 269.65 | 4,858.97 | -401.40 | -3,154.67 | 3,157.06 | 0.00 | 0.00 | 0.00 |
| 7,600.00 | 91.13 | 269.65 | 4,856.99 | -402.02 | -3,254.65 | 3,257.04 | 0.00 | 0.00 | 0.00 |
| 7,700.00 | 91.13 | 269.65 | 4,855.01 | -402.64 | -3,354.62 | 3,357.02 | 0.00 | 0.00 | 0.00 |
| 7,800.00 | 91.13 | 269.65 | 4,853.03 | -403.26 | -3,454.60 | 3,457.00 | 0.00 | 0.00 | 0.00 |
| 7,900.00 | 91.13 | 269.65 | 4,851.04 | -403.87 | -3,554.58 | 3,556.98 | 0.00 | 0.00 | 0.00 |
| 8,000.00 | 91.13 | 269.65 | 4,849.06 | -404.49 | -3,654.56 | 3,656.96 | 0.00 | 0.00 | 0.00 |
| 8,100.00 | 91.13 | 269.65 | 4,847.08 | -405.11 | -3,754.54 | 3,756.94 | 0.00 | 0.00 | 0.00 |
| 8,200.00 | 91.13 | 269.65 | 4,845.10 | -405.73 | -3,854.52 | 3,856.92 | 0.00 | 0.00 | 0.00 |
| 8,300.00 | 91.13 | 269.65 | 4,843.12 | -406.35 | -3,954.49 | 3,956.90 | 0.00 | 0.00 | 0.00 |
| 8,400.00 | 91.13 | 269.65 | 4,841.14 | -406.96 | -4,054.47 | 4,056.88 | 0.00 | 0.00 | 0.00 |
| 8,500.00 | 91.13 | 269.65 | 4,839.16 | -407.58 | -4,154.45 | 4,156.86 | 0.00 | 0.00 | 0.00 |
| 8,600.00 | 91.13 | 269.65 | 4,837.18 | -408.20 | -4,254.43 | 4,256.84 | 0.00 | 0.00 | 0.00 |
| 8,700.00 | 91.13 | 269.65 | 4,835.20 | -408.82 | -4,354.41 | 4,356.82 | 0.00 | 0.00 | 0.00 |
| 8,800.00 | 91.13 | 269.65 | 4,833.22 | -409.44 | -4,454.39 | 4,456.81 | 0.00 | 0.00 | 0.00 |
| 8,900.00 | 91.13 | 269.65 | 4,831.24 | -410.05 | -4,554.37 | 4,556.79 | 0.00 | 0.00 | 0.00 |
| 9,000.00 | 91.13 | 269.65 | 4,829.26 | -410.67 | -4,654.34 | 4,656.77 | 0.00 | 0.00 | 0.00 |

Planning Report

| | | | |
|---|---|---|---|
| **Database:** | WBDS_SQL_2 | **Local Co-ordinate Reference:** | Well #50H |
| **Company:** | Spur Energy Partners, LLC | **TVD Reference:** | RKB = 20' @ 3695.00usft |
| **Project:** | Eddy County, NM (NAD 83 - NME) | **MD Reference:** | RKB = 20' @ 3695.00usft |
| **Site:** | Merak 7 Federal | **North Reference:** | Grid |
| **Well:** | #50H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | Wellbore #1 | | |
| **Design:** | PERMIT | | |

**Planned Survey**

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| 9,100.00 | 91.13 | 269.65 | 4,827.28 | -411.29 | -4,754.32 | 4,756.75 | 0.00 | 0.00 | 0.00 |
| 9,200.00 | 91.13 | 269.65 | 4,825.30 | -411.91 | -4,854.30 | 4,856.73 | 0.00 | 0.00 | 0.00 |
| 9,300.00 | 91.13 | 269.65 | 4,823.32 | -412.53 | -4,954.28 | 4,956.71 | 0.00 | 0.00 | 0.00 |
| 9,400.00 | 91.13 | 269.65 | 4,821.33 | -413.14 | -5,054.26 | 5,056.69 | 0.00 | 0.00 | 0.00 |
| 9,500.00 | 91.13 | 269.65 | 4,819.35 | -413.76 | -5,154.24 | 5,156.67 | 0.00 | 0.00 | 0.00 |
| 9,600.00 | 91.13 | 269.65 | 4,817.37 | -414.38 | -5,254.22 | 5,256.65 | 0.00 | 0.00 | 0.00 |
| 9,700.00 | 91.13 | 269.65 | 4,815.39 | -415.00 | -5,354.19 | 5,356.63 | 0.00 | 0.00 | 0.00 |
| 9,800.00 | 91.13 | 269.65 | 4,813.41 | -415.62 | -5,454.17 | 5,456.61 | 0.00 | 0.00 | 0.00 |
| 9,900.00 | 91.13 | 269.65 | 4,811.43 | -416.23 | -5,554.15 | 5,556.59 | 0.00 | 0.00 | 0.00 |
| 10,000.00 | 91.13 | 269.65 | 4,809.45 | -416.85 | -5,654.13 | 5,656.57 | 0.00 | 0.00 | 0.00 |
| 10,100.00 | 91.13 | 269.65 | 4,807.47 | -417.47 | -5,754.11 | 5,756.55 | 0.00 | 0.00 | 0.00 |
| 10,200.00 | 91.13 | 269.65 | 4,805.49 | -418.09 | -5,854.09 | 5,856.53 | 0.00 | 0.00 | 0.00 |
| 10,300.00 | 91.13 | 269.65 | 4,803.51 | -418.71 | -5,954.06 | 5,956.51 | 0.00 | 0.00 | 0.00 |
| 10,400.00 | 91.13 | 269.65 | 4,801.53 | -419.32 | -6,054.04 | 6,056.49 | 0.00 | 0.00 | 0.00 |
| 10,427.26 | 91.13 | 269.65 | 4,800.99 | -419.49 | -6,081.30 | 6,083.75 | 0.00 | 0.00 | 0.00 |
| 10,477.17 | 91.13 | 269.65 | 4,800.00 | -419.80 | -6,131.20 | 6,133.65 | 0.00 | 0.00 | 0.00 |

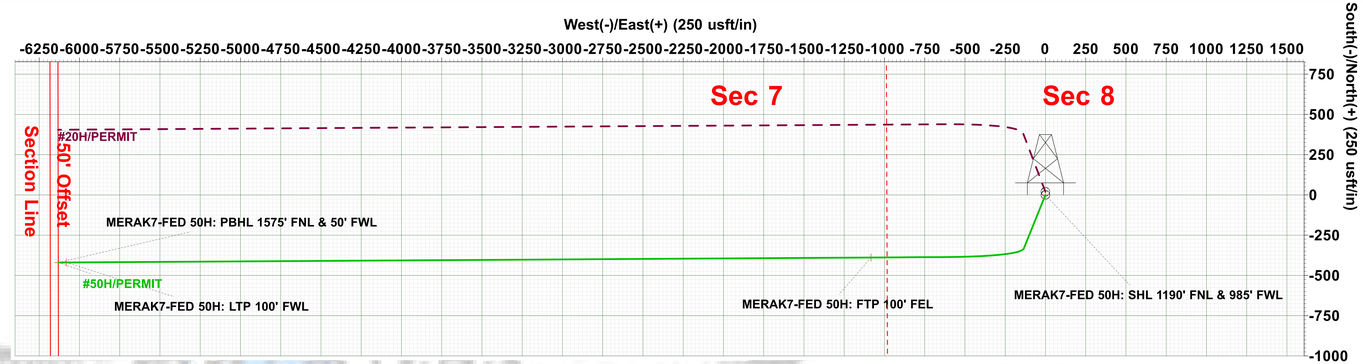
**Design Targets**

| Target Name - hit/miss target - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| MERAK7-FED 50H: S<br>- plan hits target center<br>- Point | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 674,233.30 | 643,837.20 | 32.8530458 | -103.9995499 |
| MERAK7-FED 50H: P<br>- plan hits target center<br>- Point | 0.00 | 0.01 | 4,800.00 | -419.80 | -6,131.20 | 673,813.50 | 637,706.00 | 32.8519436 | -104.0195196 |
| MERAK7-FED 50H: L<br>- plan misses target center by 0.01usft at 10427.26usft MD (4800.99 TVD, -419.49 N, -6081.30 E)<br>- Point | 0.00 | 0.01 | 4,800.99 | -419.50 | -6,081.30 | 673,813.80 | 637,755.90 | 32.8519440 | -104.0193571 |
| MERAK7-FED 50H: F<br>- plan hits target center<br>- Point | 0.00 | 0.01 | 4,900.00 | -388.60 | -1,083.40 | 673,844.70 | 642,753.80 | 32.8519870 | -104.0030819 |

SPUR ENERGY PARTNERS

Company: Spur Energy Partners, LLC
Project: Eddy County, NM (NAD 83 - NME)
Site: Merak 7 Federal
Well: #50H
Wellbore: Wellbore #1
Rig:
Design: PERMIT / 9:00, November 06 2020

WELLBENDERS DIRECTIONAL SERVICES LLC




WELL DETAILS: #50H

RKB = 20' @ 3695.00usft
3675.00

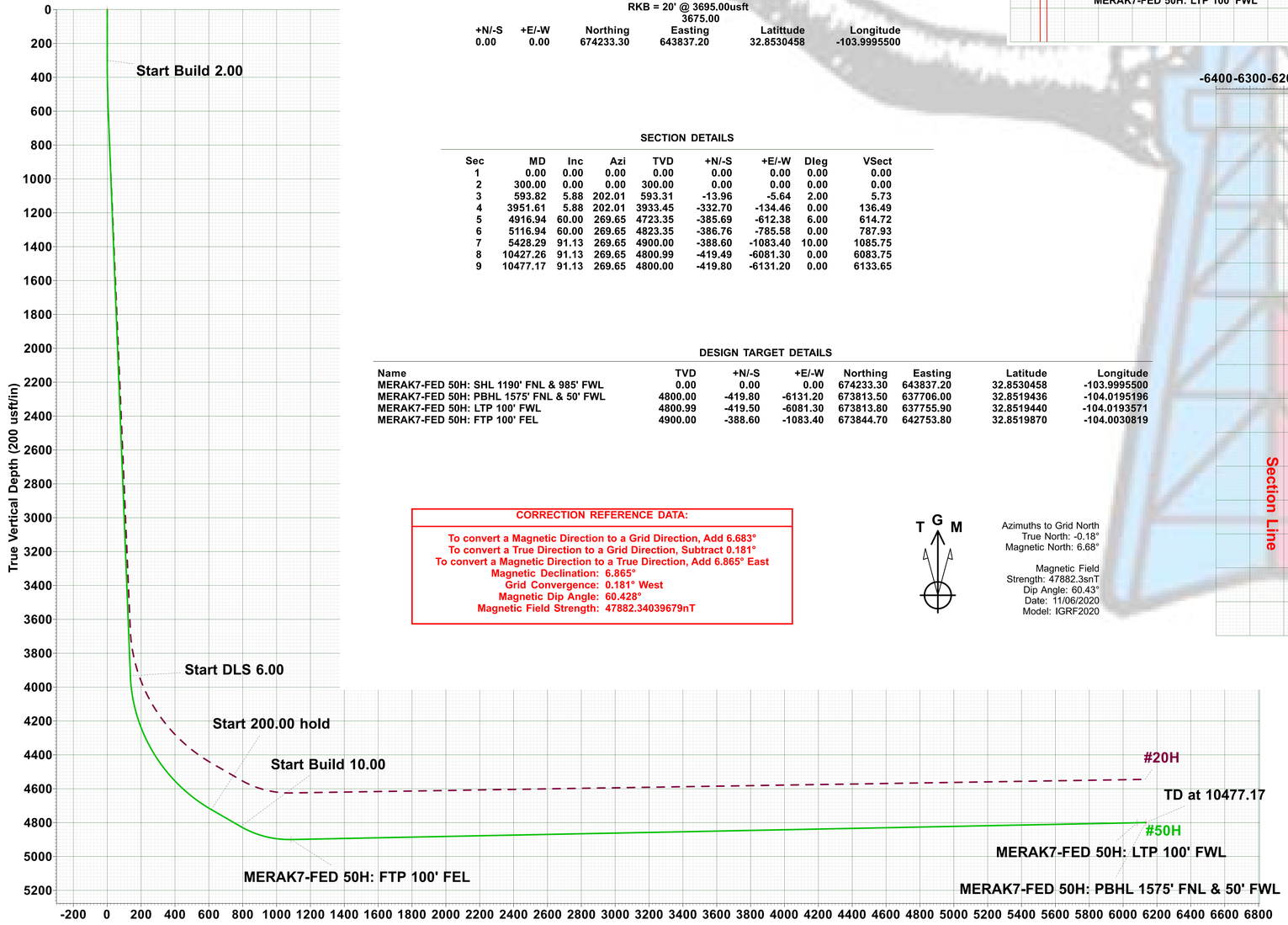
| +N/-S | +E/-W | Northing | Easting | Latittude | Longitude |
|---|---|---|---|---|---|
| 0.00 | 0.00 | 674233.30 | 643837.20 | 32.8530458 | -103.9995500 |

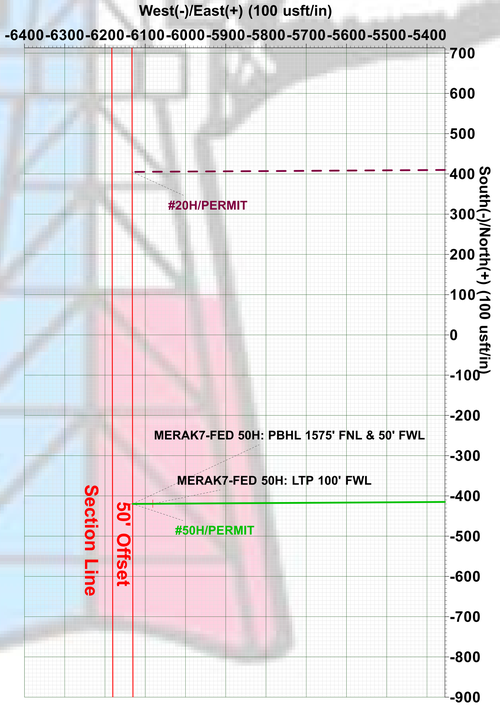
SECTION DETAILS

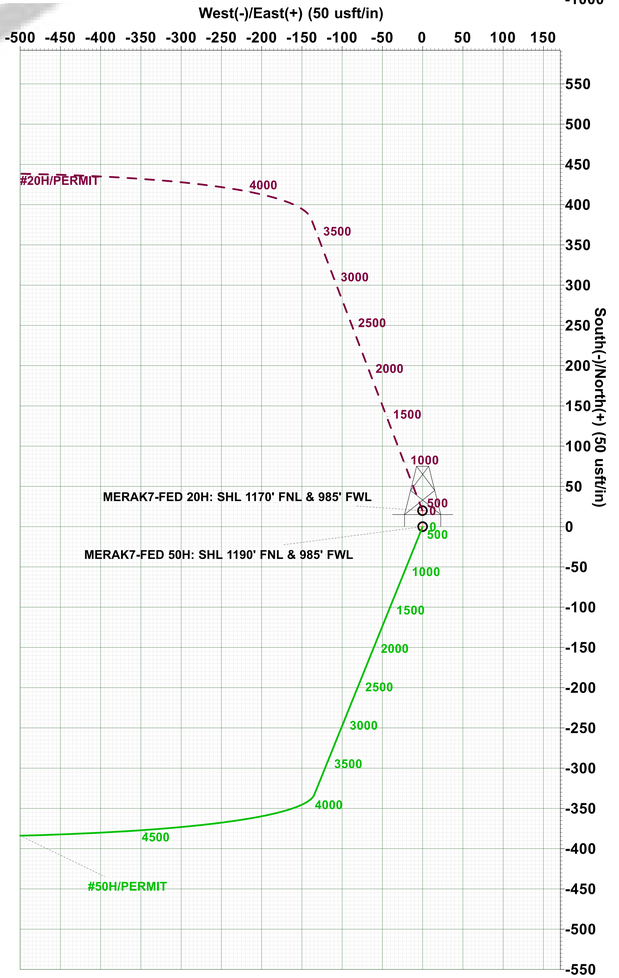
| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | VSect |
|---|---|---|---|---|---|---|---|---|
| 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2 | 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3 | 593.82 | 5.88 | 202.01 | 593.31 | -13.96 | -5.64 | 2.00 | 5.73 |
| 4 | 3951.61 | 5.88 | 202.01 | 3933.45 | -332.70 | -134.46 | 0.00 | 136.49 |
| 5 | 4916.94 | 60.00 | 269.65 | 4723.35 | -385.69 | -612.38 | 6.00 | 614.72 |
| 6 | 5116.94 | 60.00 | 269.65 | 4823.35 | -386.76 | -785.58 | 0.00 | 787.93 |
| 7 | 5428.29 | 91.13 | 269.65 | 4900.00 | -388.60 | -1083.40 | 10.00 | 1085.75 |
| 8 | 10427.26 | 91.13 | 269.65 | 4800.99 | -419.49 | -6081.30 | 0.00 | 6083.75 |
| 9 | 10477.17 | 91.13 | 269.65 | 4800.00 | -419.80 | -6131.20 | 0.00 | 6133.65 |

DESIGN TARGET DETAILS

| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
|---|---|---|---|---|---|---|---|
| MERAK7-FED 50H: SHL 1190' FNL & 985' FWL | 0.00 | 0.00 | 0.00 | 674233.30 | 643837.20 | 32.8530458 | -103.9995500 |
| MERAK7-FED 50H: PBHL 1575' FNL & 50' FWL | 4800.00 | -419.80 | -6131.20 | 673813.50 | 637706.00 | 32.8519436 | -104.0195196 |
| MERAK7-FED 50H: LTP 100' FWL | 4800.99 | -419.50 | -6081.30 | 673813.80 | 637755.90 | 32.8519440 | -104.0193571 |
| MERAK7-FED 50H: FTP 100' FEL | 4900.00 | -388.60 | -1083.40 | 673844.70 | 642753.80 | 32.8519870 | -104.0030819 |




CORRECTION REFERENCE DATA:

To convert a Magnetic Direction to a Grid Direction, Add 6.683°
To convert a True Direction to a Grid Direction, Subtract 0.181°
To convert a Magnetic Direction to a True Direction, Add 6.865° East
Magnetic Declination: 6.865°
Grid Convergence: 0.181° West
Magnetic Dip Angle: 60.428°
Magnetic Field Strength: 47882.34039679nT




Azimuths to Grid North
True North: -0.18°
Magnetic North: 6.68°

Magnetic Field
Strength: 47882.3snT
Dip Angle: 60.43°
Date: 11/06/2020
Model: IGRF2020

PROJECT DETAILS: Eddy County, NM (NAD 83 - NME)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

Disclaimer:
All Plan Details, boundary lines and offset well location/ survey data is provided by customer and subject to customer approval.

Plan: PERMIT (#50H/Wellbore #1)

Created By: Matthew May Date: 9:00, November 06 2020

**PECOS DISTRICT**
**SURFACE USE**
**CONDITIONS OF APPROVAL**

| | |
|---|---|
| OPERATOR'S NAME: | Spur Energy Partners, L.L.C. |
| LEASE NO.: | Lease NMNM002748 |
| COUNTY: | Eddy County |

**Wells:**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Merak 7** | | **FED** | **20H** | | **North Well Pad** | | | | |
| Surface | Section | **8** | T17S, | R30E | 1170 | FNL, | 985 | FWL, | Eddy County |
| Bottom Hole | Section | **7** | T17S, | R30E | 750 | FNL, | 50 | FWL, | Eddy County |
| **Merak 7** | | **FED** | **50H** | | **North Well Pad** | | | | |
| Surface | Section | **8** | T17S, | R30E | 1190 | FNL, | 985 | FWL, | Eddy County |
| Bottom Hole | Section | **7** | T17S, | R30E | 1575 | FNL, | 50 | FWL, | Eddy County |
| **Merak 7** | | **FED** | **10H** | | **Middle Well Pad** | | | | |
| Surface | Section | **8** | T17S, | R30E | 2475 | FSL, | 1080 | FWL, | Eddy County |
| Bottom Hole | Section | **7** | T17S, | R30E | 2100 | FSL, | 50 | FWL, | Eddy County |
| **Merak 7** | | **FED** | **21H** | | **Middle Well Pad** | | | | |
| Surface | Section | **8** | T17S, | R30E | 2508 | FSL, | 1102 | FWL, | Eddy County |
| Bottom Hole | Section | **7** | T17S, | R30E | 2400 | FNL, | 50 | FWL, | Eddy County |
| **Merak 7** | | **FED** | **51H** | | **Middle Well Pad** | | | | |
| Surface | Section | **8** | T17S, | R30E | 2492 | FSL, | 1091 | FWL, | Eddy County |
| Bottom Hole | Section | **7** | T17S, | R30E | 2175 | FSL, | 50 | FWL, | Eddy County |
| **Merak 7** | | **FED** | **11H** | | **South Well Pad** | | | | |
| Surface | Section | **8** | T17S, | R30E | 875 | FSL, | 1060 | FWL, | Eddy County |
| Bottom Hole | Section | **7** | T17S, | R30E | 600 | FSL, | 50 | FWL, | Eddy County |
| **Merak 7** | | **FED** | **22H** | | **South Well Pad** | | | | |
| Surface | Section | **8** | T17S, | R30E | 915 | FSL, | 1060 | FWL, | Eddy County |
| Bottom Hole | Section | **7** | T17S, | R30E | 1350 | FSL, | 50 | FWL, | Eddy County |
| **Merak 7** | | **FED** | **52H** | | **South Well Pad** | | | | |
| Surface | Section | **8** | T17S, | R30E | 855 | FSL, | 1060 | FWL, | Eddy County |
| Bottom Hole | Section | **7** | T17S, | R30E | 400 | FSL, | 50 | FWL, | Eddy County |
| **Merak 7** | | **FED** | **70H** | | **South Well Pad** | | | | |
| Surface | Section | **8** | T17S, | R30E | 895 | FSL, | 1060 | FWL, | Eddy County |
| Bottom Hole | Section | **7** | T17S, | R30E | 1265 | FSL, | 50 | FWL, | Eddy County |





**Approval Date: 09/09/2021**

**TABLE OF CONTENTS**

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

## I. GENERAL PROVISIONS

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

## II. PERMIT EXPIRATION

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

## III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

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

OR

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

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

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

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





**Approval Date: 09/09/2021**

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

## IV. NOXIOUS WEEDS

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

**SPECIAL REQUIREMENT(S)**

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

**TANK BATTERY:**
Tank battery locations will be lined and bermed. A 20-mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank or 24-hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

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

Prior to pipeline installation/construction a leak detection plan will be developed. The method(s) could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present.

The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

**ELECTRIC LINE(S):**
Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion. A power pole should not be placed in drainages, playas, wetlands, riparian areas, or floodplains and must span across the features at a distance away that would not promote further erosion.

**Range:**

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

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

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

**Lesser Prairie Chicken:**

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

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

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

**Dunes Sagebrush Lizard Trench Stipulation**

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

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

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




**Approval Date: 09/09/2021**

**VRM IV:**

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

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

## V. CONSTRUCTION

### A. NOTIFICATION

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

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

### B. TOPSOIL

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

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

### C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

### D. FEDERAL MINERAL MATERIALS PIT

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

### E. WELL PAD SURFACING

Surfacing of the well pad is not required.

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





**Approval Date: 09/09/2021**

## F. EXCLOSURE FENCING (CELLARS & PITS)

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

## G. ON LEASE ACCESS ROADS

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

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

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

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

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

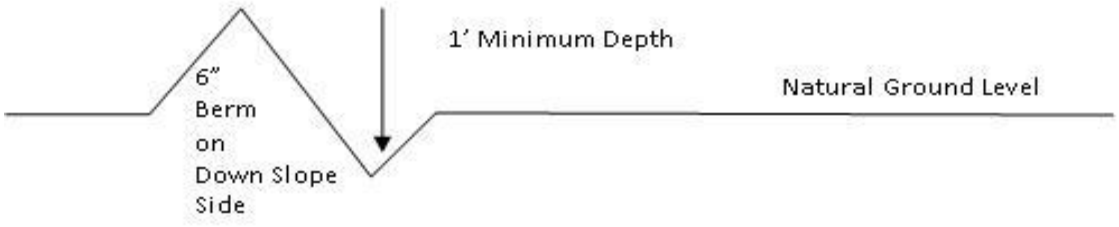
**Ditching**
Ditching shall be required on both sides of the road.

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

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

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

**Cross Section of a Typical Lead-off Ditch**




All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

**Formula for Spacing Interval of Lead-off Ditches**

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

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

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

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

**Public Access**
Public access on this road shall not be restricted by the operator without specific written approval

**Construction Steps**

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

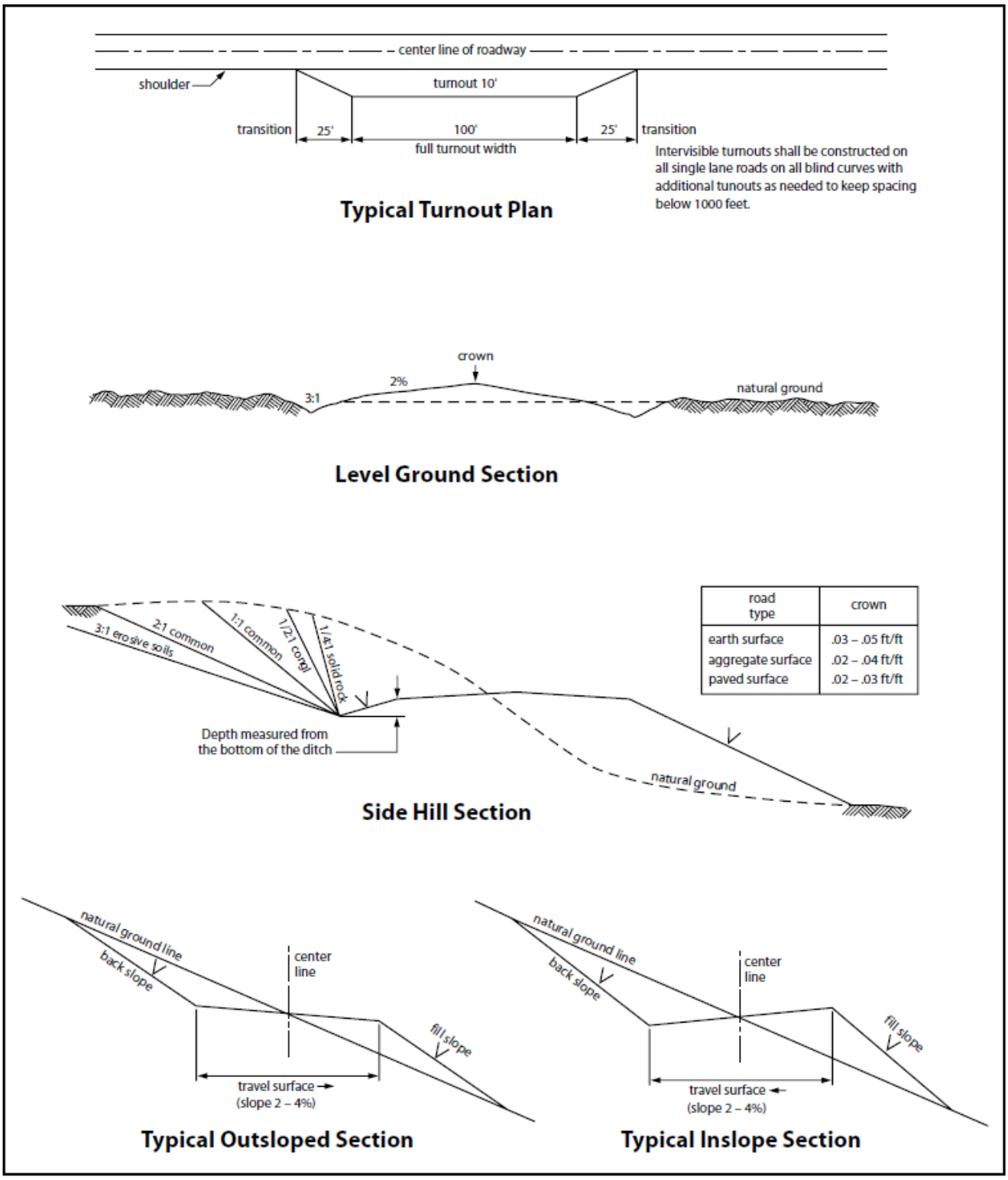



**Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.**

granted by the Authorized Officer





**Approval Date: 09/09/2021**

## VI. PRODUCTION (POST DRILLING)

### A. WELL STRUCTURES & FACILITIES

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

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

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

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

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

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

**B. PIPELINES**

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

CONDITIONS OF APPROVAL FOR TEMPORARY FRESHWATER PIPELINES

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

- Surface pipelines 6.5 inch to 16-inch OD may be in place for no more than 180 days not including installation. In accordance with your request, this 180-day period is requested to begin 5/1/2018.

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

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

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

- Width of authorized use is 15-feet.

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

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

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





**Approval Date: 09/09/2021**

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

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

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

• Pipeline will be marked with your company's name and contact number, at beginning and ending points, at all public-road crossings, and at intervals not exceeding every 0.6 mile, unless otherwise approved by the Authorized Officer.

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

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

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

## BURIED PIPELINE STIPULATIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the

owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

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

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

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

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

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

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

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

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




**Approval Date: 09/09/2021**

OR

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

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

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

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

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

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

20. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

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

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

**A copy of the Grant and attachments, including stipulations, survey plat(s) and/or map(s), shall be on location during construction. BLM personnel may request to review a copy of your permit during construction to ensure compliance with all stipulations.**

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

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

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

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

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

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

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

c. Acts of God.

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

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

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

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

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

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

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

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

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

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





**Approval Date: 09/09/2021**

13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.

14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

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

OR

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

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 16 for more information.

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

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

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




**Approval Date: 09/09/2021**

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

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

**C. ELECTRIC LINES**

- Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems. Larger powerlines will adjust their pole spacing to avoid cave and karst features.
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction.
- No further construction will be done until clearance has been issued by the Authorized Officer.
- Special restoration stipulations or realignment may be required.

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

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

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

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

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

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

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

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

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

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

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

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

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

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

OR

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

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and

the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 11 for more information.

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

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

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

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

## VII. INTERIM RECLAMATION

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

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

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




**Approval Date: 09/09/2021**

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

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

## VIII. FINAL ABANDONMENT & RECLAMATION

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

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

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

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

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





**Approval Date: 09/09/2021**

**Seed Mixture 2, for Sandy Sites**

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

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

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

| Species | lb/acre |
|---|---|
| Sand dropseed (Sporobolus cryptandrus) | 1.0 |
| Sand love grass (Eragrostis trichodes) | 1.0 |
| Plains bristlegrass (Setaria macrostachya) | 2.0 |

*Pounds of pure live seed:

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





**Approval Date: 09/09/2021**

# Pecos District

# Application for Permit to Drill

# Conditions of Approval

## Geology Concerns

| | | | |
|---|---|---|---|
| Potash | ☒ None | ☐ Secretary | ☐ R-111-P |
| Cave/Karst | ☐ Medium | ☐ High | ☐ Critical |
| H2S | ☐ None | ☐ Below 100 PPM | ☒ Above 100 PPM |
| Other | ☐ 4 String Area | ☐ Capitan Reef | ☐ SWD Well |

Note: The geology of the area where the well is being drilled determines the COAs that apply, not the above table.

## Additional Engineering Requirements

Surface casing must be set at: 450 feet

Intermediate casing must be set at: 1,150 feet

## General Requirements

1. Changes to the approved APD casing program need prior approval.

2. The Bureau of Land Management (BLM) will be notified in advance to witness:
   a. Well spudding (minimum 24 hours notice)
   b. Setting and cementing of all casing strings (minimum 4 hours notice)
   c. BOPE tests (minimum 4 hours notice)

   Eddy County
   620 East Greene Street, Carlsbad, NM 88220
   (575) 361-2822

   Lea County
   414 West Taylor, Hobbs, NM 88240
   (575) 393-3612

3. The initial wellhead installed on the well will remain on the well with spools used as needed.

4. 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:

i. 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 a Spudder Rig:
   i. Notify the BLM when moving in and removing the Spudder Rig.
   ii. Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
   iii. BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

5. 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 always be operational 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 doghouse or stairway area.

6. 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.

## 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. 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.

3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
   a. 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.
   b. The results of the test shall be reported to the appropriate BLM office.
   c. 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.

d. 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.
e. 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.
f. 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).
g. 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.
h. 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).

4. If the operator has proposed using a 5,000 (5M) Annular on a 10M BOP:
   a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 10,000 (10M) psi.

5. 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.



 **Approval Date: 09/09/2021**

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.

6. If a variance is approved for break testing the BOPE, the following requirements apply:
   a. BOPE break testing is only approved for a BOP rated at 5M or less.
   b. A full BOP test shall be performed every 21 days (at a minimum).
   c. A full BOP test is required prior to drilling the first intermediate hole section (if applicable). If any subsequent intermediate hole interval is deeper than the first, a full BOP test shall be required.
   d. A full BOP test is required prior to drilling the first production hole section. If any subsequent production hole interval is deeper than the first, a full BOP test shall be required.
   e. While in transfer, the BOP shall be secured by the hydraulic carrier or cradle.
   f. Pressure tests shall be performed on any BOPE components that have been disconnected. A low pressure (250-300 psi) and a high pressure (BOP max pressure rating) test are required.
   g. If a testing plug is used, pressure shall be maintained for at least 10 minutes. If there is any bleed off in pressure, the test shall be considered to have failed.
   h. If no testing plug is used, pressure shall be maintained for at least 30 minutes. If there is a decline in pressure of more than 10 percent, the test shall be considered to have failed.
   i. The appropriate Bureau of Land Management (BLM) office shall be notified a minimum of 4 hours before testing occurs.

7. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply:
   a. The flex line must meet the requirements of API 16C.
   b. Check condition of flexible line from BOP to choke manifold (replace if exterior is damaged or if line fails test).
   c. Line is to be as straight as possible with no hard bends and is to be anchored according to Manufacturer’s requirements.
   d. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating.
   e. 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.




**Approval Date: 09/09/2021**

## Casing and Cement

1. 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.).

2. On any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. The 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.

3. 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.

4. The surface casing shall be set at a minimum of 25 feet into the Rustler Anhydrite and 80 feet 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 24 hours in the Potash Area) 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.

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

6. Intermediate casing must be cemented to surface. For medium/high cave/karst, potash, and Capitan Reef, wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

7. The production cement should tie-back at least 200 feet (500 feet in Secretary Potash, surface in R-111-P potash) into previous casing string. Operator shall provide method of verification.

8. Production liner cement should tie-back at least 100 feet into previous casing string. Operator shall provide verification of cement top.

9. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

10. No pea gravel permitted for remedial cement or fall back remedial cement without prior authorization from a BLM petroleum engineer.

11. 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.

12. DV tools:
    a. First stage to DV tool (The DV tool may be cancelled if cement circulates to surface on the first stage):
        i. Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
    b. Second stage above DV tool:
        i. For intermediate casing, cement to surface.
        ii. For production casing, cement should tie-back at least 200 feet (500 feet in Secretary Potash, surface in R-111-P potash) into previous casing string. Operator shall provide method of verification.
        iii. If cement does not circulate, contact the appropriate BLM office.

13. Wait on cement (WOC) for Potash Areas:
    a. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.
    b. After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met:
        i. Cement reaches a minimum compressive strength of 500 psi for all cement blends
        ii. Until cement has been in place at least 24 hours.
    c. WOC time will be recorded in the driller's log.
    d. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

14. Wait on cement (WOC) for Water Basin:
    a. After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met:

i. Cement reaches a minimum compressive strength of 500 psi at the shoe
ii. Until cement has been in place at least 8 hours.

b. WOC time will be recorded in the driller's log.

15. Wait on cement (WOC) for Medium and High Cave/Karst Areas:
    a. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

16. If cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

## Drilling Mud

1. 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.

## Waste Material and Fluids

1. 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.

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

## Special Requirements

1. Communitization Agreement
    a. The operator will submit a Communitization Agreement to the Carlsbad Field Office (620 E Greene St. Carlsbad, New Mexico 88220), 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.
    b. 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.
        i. 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.
    c. In addition, the well sign shall include the surface and bottom hole lease numbers.
        i. When the Communitization Agreement number is known, it shall also be on the sign.

2. Unit Wells
    a. The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers.
        i. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.
    b. Commercial Well Determination
        i. A commercial well determination shall be submitted after production has been established for at least six months (this is not necessary for secondary recovery unit wells).

3. Hydrogen Sulfide (H2S)
    a. If H2S is encountered, provide measured values and formations to the BLM.
    b. An H2S area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items.
    c. An H2S Drilling Plan shall be activated 500 feet prior to drilling into the any formation designated as having H2S.
    d. Hydrogen Sulfide monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items.

4. Capitan Reef
    a. If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following (Use this for 3 string wells in the Capitan Reef, if 4 string well ensure fresh water based mud used across the Capitan interval):
        i. 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.
        ii. 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.
        iii. The daily drilling report should show mud volume per shift/tour.
        iv. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval.
        v. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.

5. Salt Water Disposal Wells
    a. The operator shall supply the BLM with a copy of a mudlog over the permitted disposal interval and estimated in situ water salinity based on open-hole logs.
    b. If hydrocarbons are encountered while drilling, the operator shall notify the BLM.
    c. The operator shall provide to the BLM a summary of formation depth picks based on mudlog and geophysical logs along with a copy of the mudlog and open-hole logs from total depth to top of Devonian.
    d. An NOI sundry with the completion procedure for this well shall be submitted and approved prior to commencing completion work. The procedure will be reviewed to verify that the completion proposal will allow the operator to:
        i. Properly evaluate the injection zone utilizing open-hole logs, swab testing and/or any other method to confirm that hydrocarbons cannot be produced in paying quantities. This evaluation shall be reviewed by the BLM prior to injection commencing.
        ii. Restrict the injection fluid to the approved formation.
        iii. If a step rate test will be run, an NOI sundry shall be submitted to the BLM for approval.
    e. If off-lease water will be disposed in this well, the operator shall provide proof of right-of-way approval.



 **Approval Date: 09/09/2021**

| Spur Energy Partners LLC Emergency Contact List | | | |
|---|---|---|---|
| **Person** | **Location** | **Office Phone** | **Cell Phone** |
| **Drilling and Completions Department** | | | |
| Drilling Manager - Chris Hollis | Houston | 832-930-8629 | 713-380-7754 |
| Completions Manager - Theresa Voss | Houston | 832-930-8614 | 832-849-8635 |
| VP of Operations - Seth Ireland | Houston | 832-930-8527 | 940-704-6375 |
| Senior VP of Operations - John Nabors | Houston | 832-930-8526 | 281-904-8811 |
| Executive VP of Operations - Todd Mucha | Houston | 832-930-8515 | 281-795-2286 |
| **HES/Environmental and Regulatory Department** | | | |
| EHS Manager - Braidy Moulder | Artestia | 575-616-5400 | 713-264-2517 |
| Superintendent - Jerry Mathews | Artestia | 575-616-5400 | 575-748-5234 |
| Asst. Superintendent - Kenny Kidd | Artestia | 575-616-5400 | 575-703-5851 |
| Regulatory Director - Sarah Chapman | Houston | 832-930-8613 | 281-642-5503 |
| **Regulatory Agencies** | | | |
| Burea of Land Management | Carlsbad | 575-886-6544 | |
| Burea of Land Management | Hobbs | 575-393-3612 | |
| Burea of Land Management | Roswell | 575-622-5335 | |
| Burea of Land Management | Santa Fe | 505-954-2000 | |
| DOT Judicial Pipelnes - Incident Reporting NM Public Regulation Commission | Santa Fe | 505-827-3549<br>505-490-2375 | |
| EPA Hotline | Dallas | 214-665-6444 | |
| Federal OSHA, Area Office | Lubbock | 806-472-7681 | |
| National Response Center | Washington, D.C. | 800-424-8803 | |
| National Infrastructure Coordinator Center | Washington, D.C. | 202-282-2901 | |
| New Mexico Air Qulaity Bureau | Santa Fe | 505-827-1494 | |
| New Mexico Oil Conservation Division | Artestia | 575-748-1283 | After Hours 575-370-7545 |
| New Mexico Oil Conservation Division | Hobbs | 575-393-6161 | |
| New Mexico Oil Conservation Division | Santa Fe | 505-476-3770 | |
| New Mexico OCD Environmental Bureau | Santa Fe | 505-827-7152<br>505-476-3470 | |
| New Mexico Environmental Department | Hobbs | 575-827-9329 | |
| NM State Emergency Response Center | Santa Fe | 505-476-9600 | |
| **Medical Facilities** | | | |
| Artesia General Hospital | Artesia | 575-748-3333 | |
| Covenant Medical Center | Lubbock | 806-725-1011 | |
| Covenant Medical Center Lakeside | Lubbock | 806-725-6000 | |
| Guadalupe County Hospital | Carlsbad | 575-887-6633 | |
| Lea Regional Hospital | Hobbs | 575-492-5000 | |
| Medical Center Hospital | Odessa | 432-640-4000 | |
| Midland Memorial Hospital | Midland | 432-685-1111 | |
| Nor-Lea General Hospital | Lovington | 575-396-6611 | |
| Odessa Regional Hospital | Odessa | 432-334-8200 | |
| Union County General Hospital | Clayton | 575-374-2585 | |
| University Medical Center | Lubbock | 806-725-8200 | |
| **Law Enforcement - Sheriff** | | | |
| Ector County Sheriff's Department | Odessa | 432-335-3050 | |
| Ector County Sheriff's Department | Artesia | 575-746-2704 | |

| | | | |
|---|---|---|---|
| Ector County Sheriff's Department | Carlsbad | 575-887-7551 | |
| Lea County Sherrif's Department | Eunice | 575-384-2020 | |
| Lea County Sherrif's Department | Hobbs | 575-393-2515 | |
| Lea County Sherrif's Department | Lovington | 575-396-3611 | |
| Lubbock County Sheriff's Department | Abernathy | 806-296-2724 | |
| Midland County Sheriff's Department | Midland | 432-688-1277 | |
| Union County Sheriff's Department | Clayton | 575-374-2583 | |
| **Law Enforcement - Police** | | | |
| Abernathy Police Department | Abernathy | 806-298-2545 | |
| Artesia City Police | Artesia | 575-746-2704 | |
| Carslbad City Police | Carlsbad | 575-885-2111 | |
| Clayton City Police | Clayton | 575-374-2504 | |
| Eunice City Police | Eunice | 575-394-2112 | |
| Hobbs City Police | Hobbs | 575-397-9265<br>575-393-2677 | |
| Jal City Police | Jal | 575-395-2501 | |
| Lovington City Police | Lovington | 575-396-2811 | |
| Midland City Police | Midland | 432-685-7113 | |
| Odessa City Police | Odessa | 432-335-3378 | |
| **Law Enforcement - FBI** | | | |
| FBI | Albuquerque | 505-224-2000 | |
| FBI | Midland | 432-570-0255 | |
| **Law Enforcement - DPS (911)** | | | |
| NM State Police | Artesia | 575-746-2704 | |
| NM State Police | Carlsbad | 575-885-3137 | |
| NM State Police | Eunice | 575-392-5588 | |
| NM State Police | Hobbs | 575-392-5588 | |
| NM State Police | Clayton | 575-374-2473 | |
| **Firefighting and Rescue (911)** | | | |
| Abernathy | Abernathy | 806-298-2022 | |
| Amistad/Rosebud | Amistad/Rosebud | 575-633-9113 | |
| Artesia | Artesia | 575-746-5751 | |
| Carslbad | Carlsbad | 575-885-3125 | |
| Clayton | Clayton | 575-374-2435 | |
| Eunice | Eunice | 575-394-2111 | |
| Hobbs | Hobbs | 575-397-9308 | |
| Jal | Jal | 575-395-2221 | |
| Lovington | Lovington | 575-396-2359 | |
| Maljamar | Maljamar | 575-676-4100 | |
| Midland | Midland | 432-685-7346 | |
| Nara Visa | Nara Visa | 575-461-3300 | |
| Odessa | Odessa | 432-335-4659 | |
| Tucumcari | Tucumcari | 911 | |
| West Odessa | Odessa | 432-381-3033 | |

| | | | |
|---|---|---|---|
| **Ambulance (911)** | | | |
| Abernathy Ambulance | Abernathy | 806-298-2241 | |
| Amistad/Rosebud | Amistad/Rosebud | 575-633-9113 | |
| Artesia Ambulance | Artesia | 575-746-2701 | |
| Carslbad Ambulance | Carlsbad | 575-885-2111 | |
| Clayton Ambulance | Clayton | 575-374-2501 | |
| Eunice Ambulance | Eunice | 575-394-3258 | |
| Hobbs Ambulance | Hobbs | 575-397-9308 | |
| Jal Ambulance | Jal | 575-395-3501 | |
| Lovington Ambulance | Lovington | 575-396-2811 | |
| Midland Ambulance | Midland | 432-685-7499 | |
| Nara Visa Ambulance | Nara Visa | 575-461-3300 | |
| Odessa Ambulance | Odessa | 432-335-3378 | |
| Tucumcari Ambulance | Tucumcari | 911 | |
| **Medical Air Ambulance Service** | | | |
| AEROCARE - Methodist Hospital | Lubbock | 800-627-2376 | |
| Southwest MediVac | Hobbs | 800-242-6199 | |
| Odessa Care Star | Odessa | 888-624-3571 | |

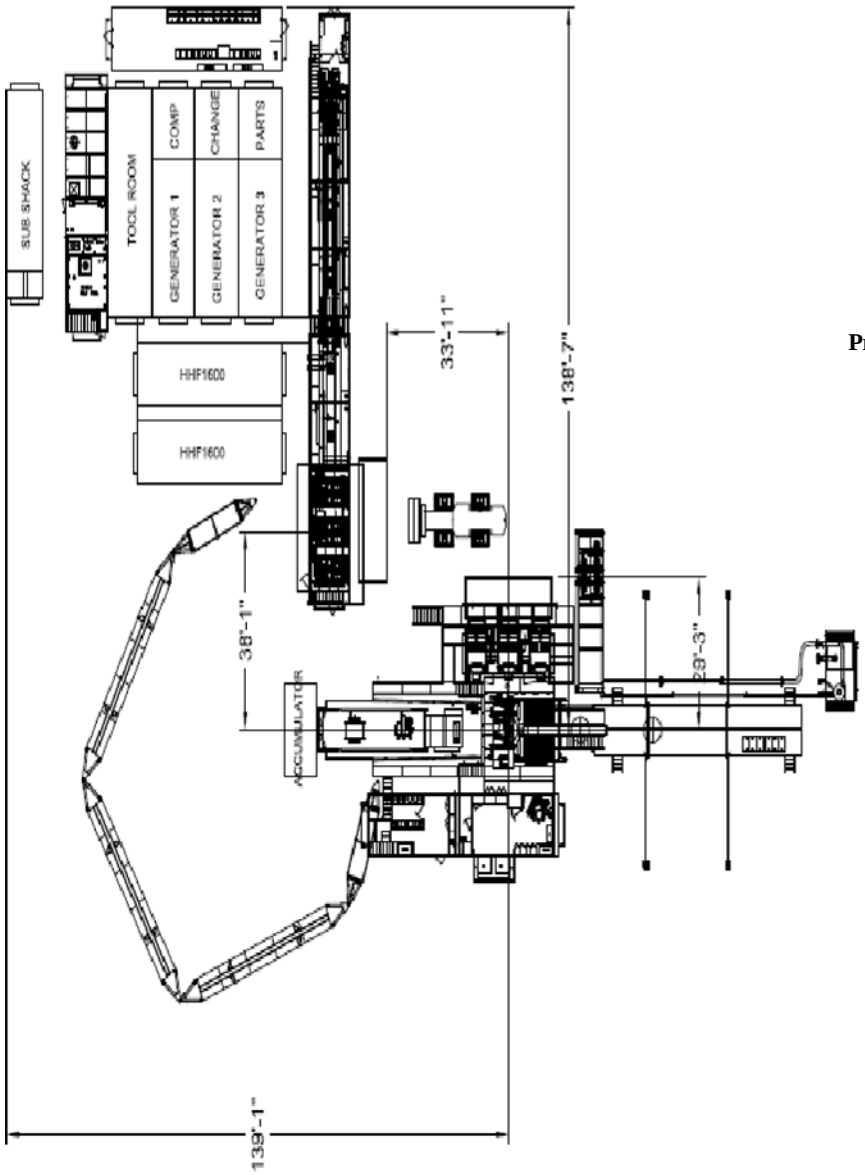
# Permian Drilling
# Hydrogen Sulfide Drilling Operations Plan
# Merak 7 Federal 50H

Open drill site. No homes or buildings are near the proposed location.

1. Escape

   Personnel shall escape upwind of wellbore in the event of an emergency gas release. Escape can take place through the lease road on the Southeast side of the location. Personnel need to move to a safe distance and block the entrance to location. If the primary route is not an option due to the wind direction, then a secondary egress route should be taken.

**Secondary Briefing Area**




**Primary Briefing Area**

Exit to road. Caution sign placed here.

N

Secondary Egress

**WIND:** Prevailing winds are from the Southwest

| TRANSCEND RIG 4 | Contractor Specification |
|---|---|
| Make | Schram |
| Model | TXD 130 |
| Year of Manufacture | 2006 |
| Truck Mounted | YES |
| Rated Drilling Depth | 130,000# hook load |
| Rated Depth with Tubing | |
| Derrick Height | 69’ 9’’ |
| Derrick Type | Telescoping Hydraulic |
| Derrick Capacity | 130,000# |
| Elevators | N/A |
| Drawworks | 760 HP Detroit |
| Wire Diameter | Hydraulic |
| Workfloor Max Height | 8’ |
| Tongs | Hydraulic Iron Roughneck |
| Slips | Manual Slips |
| Included Tubing Handling Tools | • 13 3/8’’ handling tools |
| Included Rod Handling Tools | 85jts of 4.5’’ drill pipe |
| BOP Class Compatibility | |
| Weight Indicator | Hydraulic |
| Rig Safety Equipment | Eye wash station, fire extengushers, wind sock |
| Pad Size Requirements/Limitations | 60’ x 60’ |
| Guy Line Spacing | N/A |
| Other Supplied Rig Equipment<br><br>1- F800 pump<br>1- Pill pit 80bbl<br>1- 400 bbl mud mix<br>1- Shaker 150mesh<br>1- 500 bbl fresh water frac tank | Standard Rig Hand Tools:<br>• (2) 36” pipe wrenches<br>• (2) 24” pipe wrenches<br>• (2) 18” pipe wrenches<br>• (1) 24” crescent wrench<br>• (2) 12” crescent wrenches<br>• (1) 4 lb shop hammer<br>• (1) 12 lb sledge hammer<br>• (1) 4 foot pry bar<br>• Vehicles for Contractor personnel<br>• Air Impact Wrench with Sockets<br>• Mud Scales (as needed) |

# RIG # 57 1,150 HP Double Mast Drilling Rig

**SUBSTRUCTURE**
One Piece Step Down
Floor Height: 18' 9" (on 4' pony sub moving system)
Clear Height (beneath rotary beams): 15' 5"
Rotary Capacity: 400,000 lbf
Max Pipe Setback: 400,000 lbf
*Note: All floor heights above are based on the substructure sitting on 6" mats & 4' pony sub moving system*

**MAST**
106' telescoping, Drill Line: 1-1/8"
Static Hook Load: 440,000 lbf
Racking Capacity: 18,000' of 4" DP, 12,500' of 5" DP

**DRAWWORKS**
TSM 850 425,000lbs w/ 10 Lines
Input Power: 1,150 hp AC traction motor
Main Brake: 1,150 hp AC traction motor (Dynamic)
Aux Parking Brake: Eaton brake & drum / band brake system

**TOP DRIVE**
Tesco EXI 600 AC 350 Ton: Max speed 220 rpm,
Continuous Drill Torque: 30,000 ft-lbs
Max Torque (Make / Break): 45,000 ft-lbs
600 hp AC induction motor & drive system with PLC
250 Ton 5 x 36" Becket Block Assembly

**IRON ROUGHNECK**
NOV ST-80C Conn Range: 4 ½" to 8 ½"
Spin Speed: 75 rpm nominal on 5" drill pipe
Spin Torque: 1,750 ft-lbs
Maximum Make-up torque: 60,000 ft-lbs
Maximum Break-out torque: 80,000 ft-lbs

**ROTARY TABLE**
National 27 ½" 500 Ton with hydraulic drive to position tools only
27 ½" Diameter opening

**POWER SYSTEM**
VFD, MCC, Eaton Drives, Current Power Systems Controls, three Caterpillar C32 gen sets, 1220 BHP.

**MUD PUMP #1**
HHF1600 Triplex Rated Power: 1600 hp
Stroke: 12"
Input Power: 1500 hp AC traction motor
Pressure Rating: 5000 psi

**MUD PUMP #2**
HHF1600 Triplex Rated Power: 1600 hp
Stroke: 12"
Input Power: 1500 hp AC traction motor
Pressure Rating: 5000 psi

**MUD TANKS**
Two Tank system w/ 1200 bbls total capacity
Shakers: Three MI Swaco Mongoose 4 panel dual motion
Mud Gas Separator: MI Swaco 4' OD x 12' tall
Pill Tank: 54 bbls

**MUD SYSTEM**
5000 psi Max Pressure
5" Main plumbing and standpipe

**SCALPING TANK**
Main Tank: 186 bbls capacity
Trip Tank: 24 bbls capacity
Shakers: Three NOV Venom shakers dual motion

**BOP (NACE)**
11" x 5000 psi WP Spherical Annular
11" x 5000 psi WP Double Ram
11" x 5000 psi WP Single Ram (Optional)

**MANIFOLD**
3-1/8" 5,000 psi c/w two 3 1/8" manual chokes

**ACCUMULATOR**
CTI: 160 gal 6 station 3000 psi, c/w N2 Backup & electric triplex pump

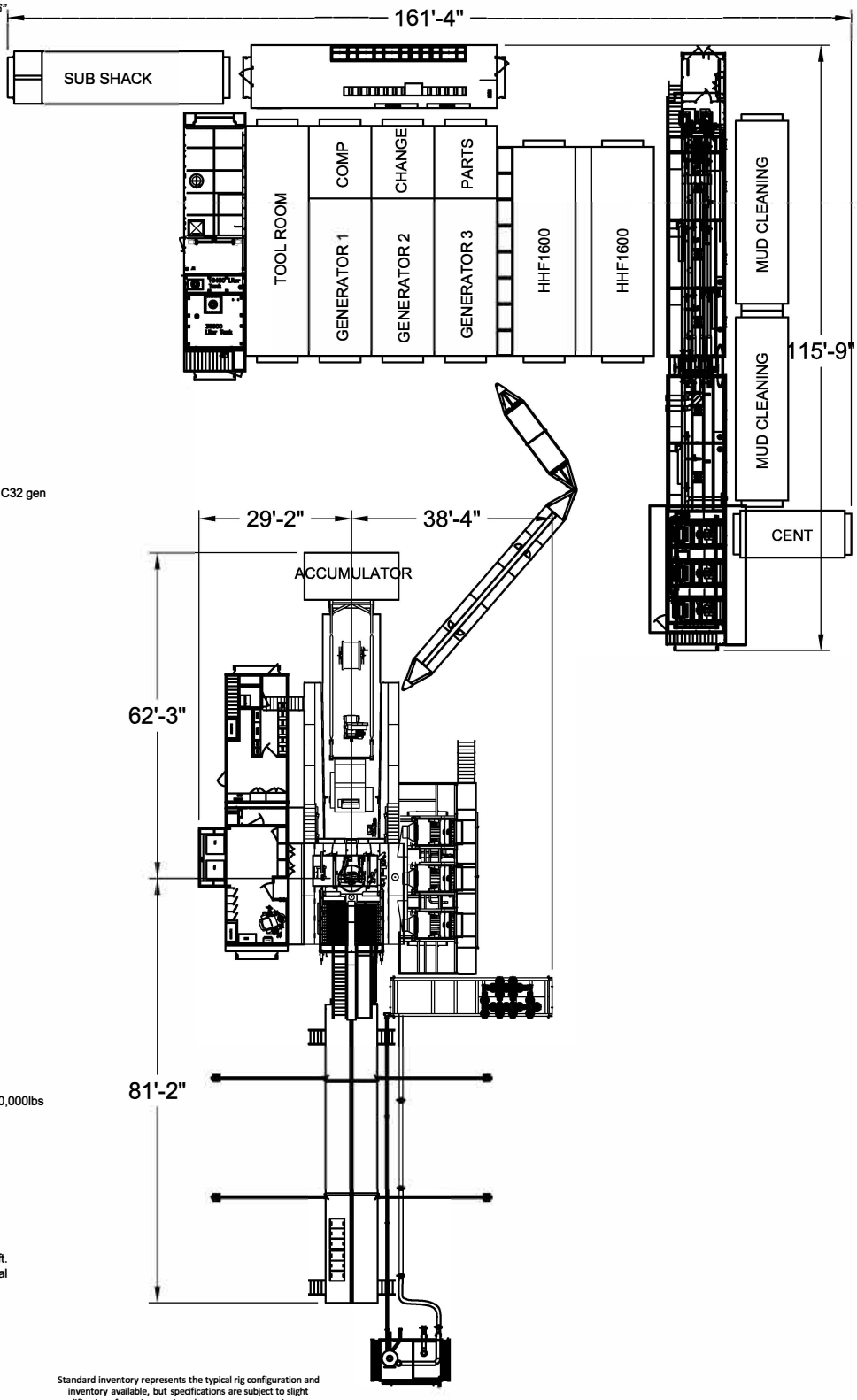
**CATWALK**
Ja-co Power Catwalk, tubular max length 47' 6", max OD 13 ⅝", max weight 10,000lbs

**TUBULARS**
Drill Pipe: Supplied as needed, per availability
Drill Collars & heaviwate: Supplied as needed, per availability

**MISC.**
Water Tank: 409 bbls; Fuel Tank 189 bbls; Screw Compressor
Boiler: 125 hp with Full Winterization

**MOVING SYSTEM:**
Walking beam hydraulic pony sub moving system for linear motion & side shift. 350' of Utility Suitcase style [50' lengths] connection for hydraulic and electrical supply.

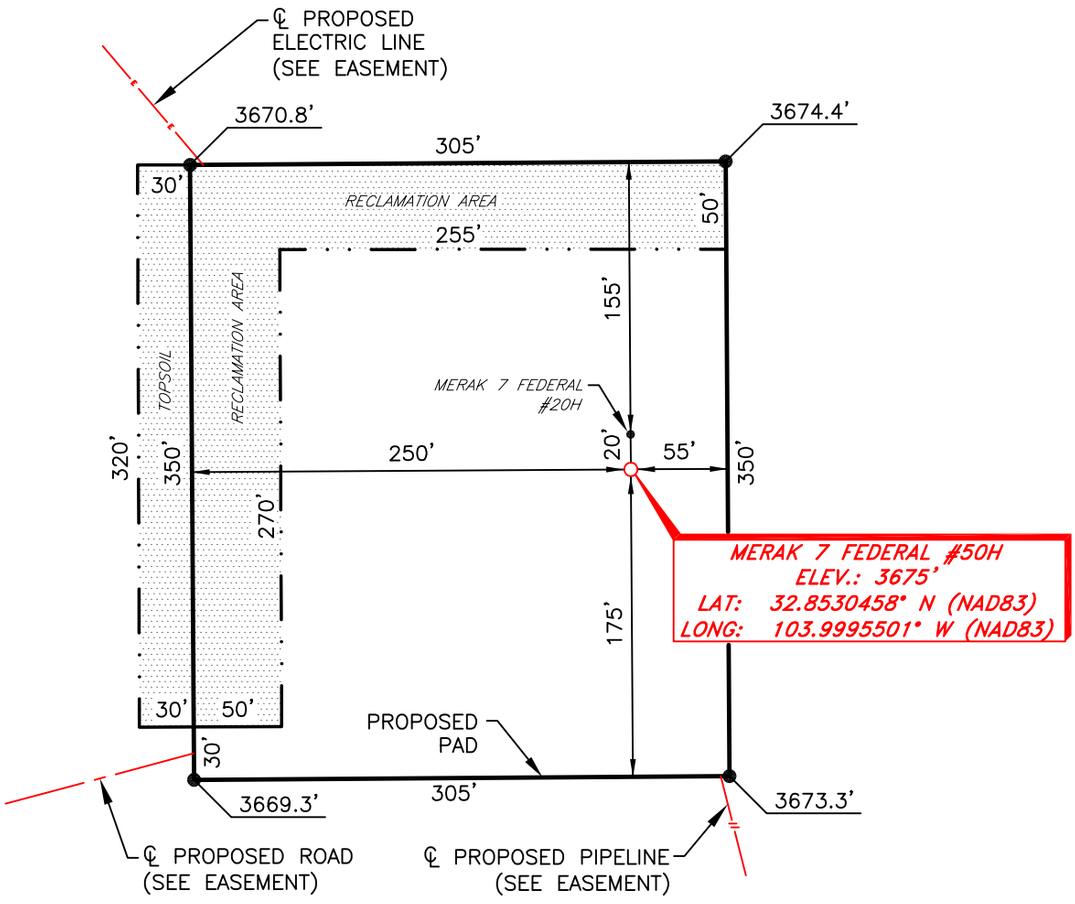
**TOOL/ STORAGE/ CAMP**
Parts Storage Room and Tool House Room
Rig Manage Trailer: 14' x 44' skid mounted




Standard inventory represents the typical rig configuration and inventory available, but specifications are subject to slight modifications from time to time due to customer requirements.

All ratings quoted herin are manufacturer specifications. AKITA's normal operating parameters are 90% of manufacturer mast ratings and 80% of mud pump manufacturer pressure rating. Operation of rig equipment beyond these parameters requires approval from AKITA field office management.

# SPUR ENERGY PARTNERS LLC.
## MERAK 7 FEDERAL #50H
## (1190' FNL & 985' FWL)
### SECTION 8, T17S, R30E
### N. M. P. M., EDDY COUNTY, NEW MEXICO




*DIRECTIONS TO LOCATION*

*From the intersection of U.S. Hwy 82 (Lovington Hwy) and CR #217 (Hagerman Cutoff Rd.);*

*Go North on CR #217 approx. 0.9 miles to a lease road on the left;*

*Turn left and go West approx. 0.8 miles to a lease road on the right;*

*Turn right and go North approx. 0.4 miles to a "Y";*

*Turn left and go Northwest approx. 0.8 miles to a "Y";*

*Turn right and go Northeast approx. 0.2 miles to a lease road on the right;*

*Turn right and go East approx. 165 feet to a proposed road;*

*Continue East on proposed road approx. 0.2 miles to location on the left.*

N

SCALE: 1" = 100'
0 50 100

BEARINGS ARE NAD 83 GRID – NM EAST
DISTANCES ARE GROUND

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this unclassified survey of a well location from an actual survey made on the ground under my direct supervision, said survey and plat meet the Min. Stds. for Land Surveying in the State of N. M. and are true and correct to the best of my knowledge and belief.

Robert M. Howett

Robert M. Howett NM PS 19680

ROBERT M. HOWETT NEW MEXICO 19680 10/27/20 PROFESSIONAL SURVEYOR



| NO. | REVISION | DATE |
|---|---|---|
| | | |
| | | |
| | | |

JOB NO.: LS20100547
DWG. NO.: 20100547–4

RRC

701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

SCALE: 1" = 100'
DATE: 10–21–2020
SURVEYED BY: JFJHSG
DRAWN BY: LPS
APPROVED BY: RMH
SHEET: 1 OF 1

Intent ☐ As Drilled ☐

| API # |
|---|

| Operator Name: | Property Name: | Well Number |
|---|---|---|
| | | |

Kick Off Point (KOP)

| UL | Section | Township | Range | Lot | Feet | From N/S | Feet | From E/W | County |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| Latitude | Longitude | NAD |
|---|---|---|
| | | |

First Take Point (FTP)

| UL | Section | Township | Range | Lot | Feet | From N/S | Feet | From E/W | County |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| Latitude | Longitude | NAD |
|---|---|---|
| | | |

Last Take Point (LTP)

| UL | Section | Township | Range | Lot | Feet | From N/S | Feet | From E/W | County |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| Latitude | Longitude | NAD |
|---|---|---|
| | | |

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

Is this well an infill well? ☐

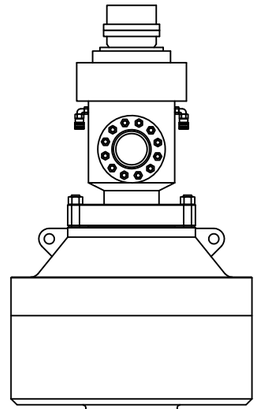
If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

| API # |
|---|

| Operator Name: | Property Name: | Well Number |
|---|---|---|
| | | |

KZ 06/29/2018

ANNULAR
13 5/8" 5,000 psi SHAFFER STYLE



DOUBLE GATE
13 5/8" 5,000 psi SHAFFER LWS STYLE

PIPE RAM

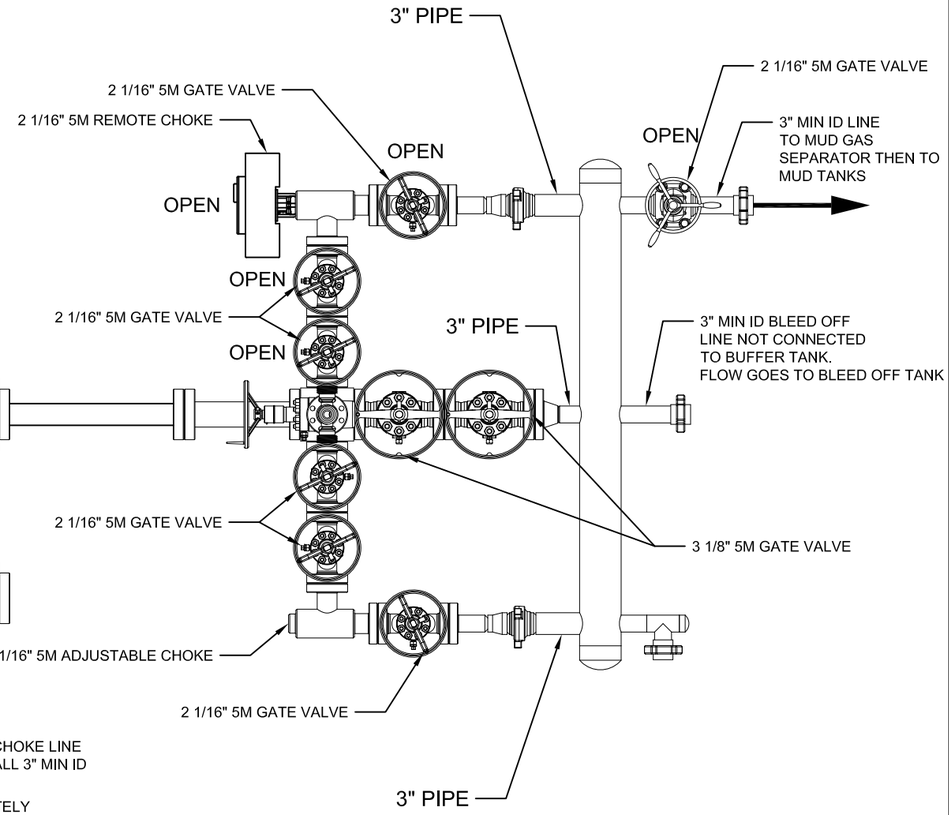
BLIND RAM

MUD CROSS
13 5/8" 5,000 psi, 3 1/8" 5M OUTLETS

CHOKE LINE
ALL 3" MIN ID

3 1/8" 5M REMOTELY
OPERATED VALVE

3 1/8" 5M GATE VALVE




Notes
-
-
-
-

| No. | Revision | Date |
|---|---|---|
| | | |

AKITA DRILLING LTD.
2302 8th Street, Nisku Alberta
T9E 7Z2 Tel: (780) 955-6700



| Date | Scale |
|---|---|
| 5-6-2021 | NTS |
| Dwn / Chk'd By: BG | File Name: R57 13 5M dou.. |
| Project: R57 | |

RIG 57 BOP SCHEMATIC

POWERING PROGRESS™

# MTR DATA BOOK

CL2013

**CUSTOMER:** GATES CANADA INC
**DATE:** 12/19/2017
**Purchase Order:** D235455 (PO 45750)
**Sales Order #:** 509128
**Product Description:** 5K 3 1/2 in. 17 FT. Fire Rated Choke & Kill Gates Hose Assembly c/w 3 1/8 5K Flange with Safety Clamps & Slings Attached

**Hose S/N:** H-121917-14
**PART NUMBER:** FR5K3.517.0CK31/85KFLG S/C

**CONTENTS INCLUDED**

**GMCO FITTINGS**

| | |
|---|---|
| 17-309-1 | INSERT STEM |
| 15-095-1A | FERRULE |

**3 1/8 in. 5K FIXED FLANGE X 3 1/8 in. 5K FLOAT FLANGE**

| | |
|---|---|
| V4131 | FIXED FLANGE |
| V5054 | FLOAT FLANGE |

**WELDING SPECIFICATIONS**
Certification and Procedure for welding

**NDE RESULTS**
1622371-03/1622371-01 Ultrasonic Test Results and Imaging

**Safey Clamps**
34145/34144

**TEST CHART**
Chart Recording of Hydrostatic Test

**TEST CERTIFICATE**
Document Product Details & Positive Results of Hydrostatic Testing

**CERTIFICATE OF CONFORMANCE**
A Declaration of the conformity with the type approval

**IMAGES**
Images of the product prior to shipping.

**PACKING LIST**
Details of Shipping Contents, Dimensions and Weights

**BLACK GOLD®**

**GATES ENGINEERING & SERVICES NORTH AMERICA**
**7603 Prairie Oak Dr. Suite 190**
**Houston, TX. 77086**

**PHONE: +1 (281) 602-4100**
**FAX: +1 (281) 602-4147**
**EMAIL: gesna.quality@gates.com**
**WEB: www.gates.com/oilandgas**

# PRESSURE TEST CERTIFICATE

| | | | |
|---|---|---|---|
| Customer: | GATES CANADA INC | Test Date: | 12/19/2017 |
| Customer Ref.: | D235455 (PO 45750) | Hose Serial No.: | H-121917-14 |
| Invoice No.: | 509128 | Created By: | Cristian Rivera |

| | |
|---|---|
| Product Description: | 5K 3 1/2 in. 17 FT. Fire Rated Choke & Kill c/w 3 1/8 5K Flange with Safety Clamps & Slings Attached |

| | | | |
|---|---|---|---|
| End Fitting 1: | 3 1/8 in. 5K FIXED FLG | End Fitting 2: | 3 1/8 in. 5K FLOAT FLG |
| Oracle Star No.: | 68903550-9725917 | Assembly Code: | 15M5019042016H-121917-14 |
| CUSTOMER P/N: | FR5K3.517.0CK31/85KFLG S/C | Test Pressure: | 7,500 psi. |
| | | Working Pressure: | 5,000 psi. |

**Gates Engineering & Services North America certifies** that:

The following hose assembly has successfully passed all pressure testing requirements set forth in Gates specifications: GTS-04-052 (for 5K assemblies) or GTS-04-053 (10K assemblies) or GTS-04-048 (15K assemblies), which include reference to Specification API 16C (2nd Edition); sections 7.5.4, 7.5.9, and 10.8.7. A test graph will accompany this test certificate to illustrate conformity to test requirements. This hose assembly was pressure tested using equipment and instrumentation that has been calibrated in accordance with the requirements set-forth in the GESNA management system.

| | | | |
|---|---|---|---|
| Quality: | QUALITY | Production: | PRODUCTION |
| Date : | 8/5/2021 | Date : | 8/5/2021 |
| Signature : | | Signature : | |

F-PRD-005B

Revision 6_05032021

**BLACK GOLD®**

**GATES ENGINEERING & SERVICES NORTH AMERICA**
**7603 Prairie Oak Dr.**
**Houston, TX. 77086**

**PHONE: +1 (281) 602-4100**
**FAX: +1 (281) 602-4147**
**EMAIL: gesna.quality@gates.com**
**WEB: www.gates.com/oilandgas**

# CERTIFICATE OF CONFORMANCE

This is to certify that all parts and materials included in this shipment have manufactured and/or processed in accordance with various Gates and API assembly and test specifications. Records of required tests are on-file and subject to examination. Test reports and subsequent test graphs have been made available with this shipment. Additional supporting documentation related to materials, welding, weld inspections, and heat-treatment activities are available upon request.

| | |
|---|---|
| **CUSTOMER:** | GATES CANADA INC |
| **CUSTOMER P.O.#:** | D235455 (PO 45750) |
| **PART DESCRIPTION:** | FR5K3.517.0CK31/85KFLG S/C |
| **PART DESCRIPTION:** | 5K 3 1/2 in. 17 FT. Fire Rated Choke & Kill c/w 3 1/8 5K Flange with Safety Clamps & Slings Attached |
| **SALES ORDER #:** | 509128 |
| **QUANTITY:** | 1 |
| **SERIAL #:** | H-121917-14 |

**SIGNATURE:** O Rivera

**TITLE:** QUALITY ASSURANCE

**DATE:** 8/5/2021

# Gates E&S

North America

7603 Prairie Oak dr.

Houston,TX

Hydrostatic Test

**Customer=** GATES CANADA

**Date of test=** 12/19/17

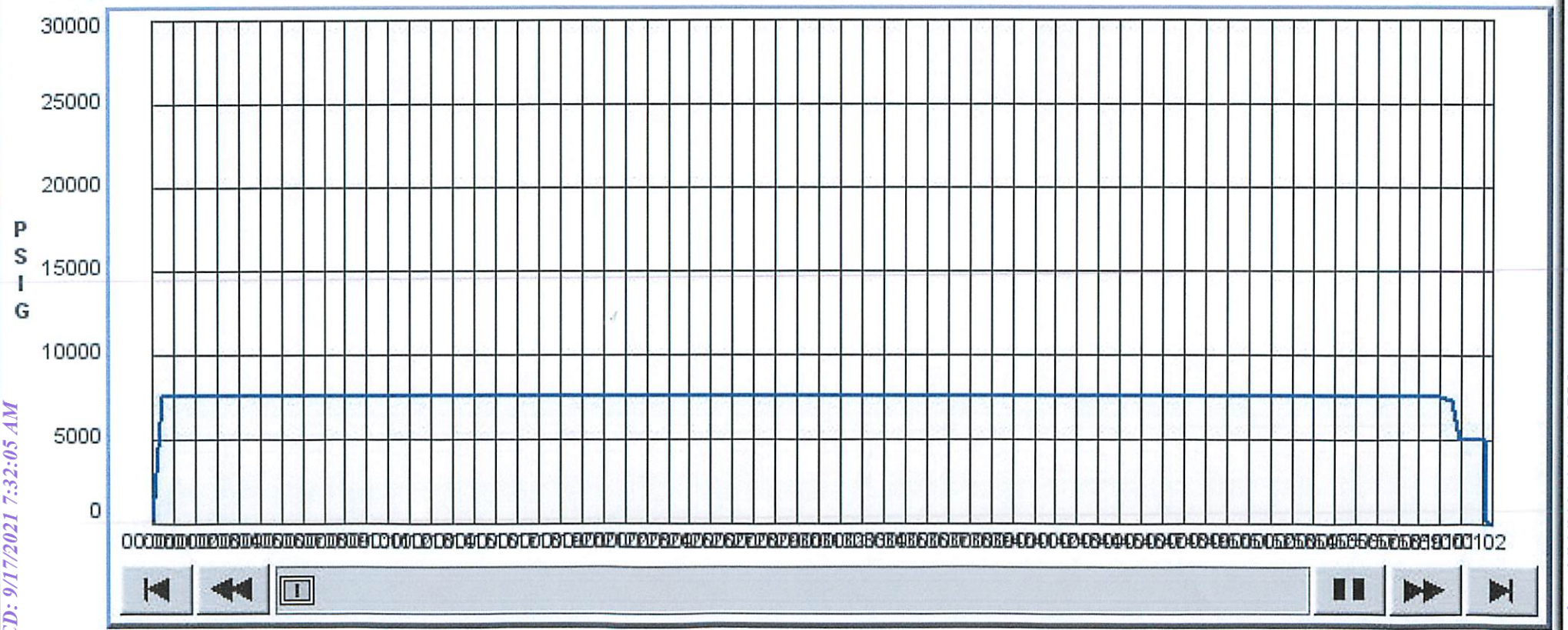
**Serial # =** H-121917-13,-14

**Description =** 3.5 5K 3 1/8 FLG 5K

**Technician=** CHRIS OLIVO

12/19/2017 16:53:26

17:55:52



Edwards Fabrication

1385 Hwy. 35 Bypass S.
P.O. Box 2350
Rockport, TX 78381

O: (361) 790-7910
F: (361) 790-7927

tedwards@edwardsfabrication.com
www.edwardsfabrication.com

# CERTIFICATE OF TEST

**Client:**
Gates E & S North America
134 44th Street
Corpus Christi, TX 78405

**Purchase Order:** 1592198/0

| Certificate Number | | | | Date of Examination |
|---|---|---|---|---|
| 34145 | | | | 04/27/17 |
| **ID#** | **Part Number** | **Description** | **SWL*** | **Proofload** |
| 34145 | E3.5S | 3.5" E Safety Clamp | 6016 lbs. | 12031 lbs. |

The Safety Clamp unit identified on this certificate has been load tested completely assembled; including the clamp body, (2) 3/4" shackles, 5/8" x 48" wire rope sling and anchor tab. Thus, all components are tested at the "Proof" load. Do not disassemble. Do not interchange any part or parts of this tested unit with parts of other Safety Clamp units. DO NOT WELD, CUT, ADD-TO, TAKE AWAY ANY COMPONENTS OR MAKE ANY MODIFICATION TO THIS CLAMP UNIT. Doing so voids this test certificate.

Cutting/Removing either one or both stainless steel Tamper-proof hardware cables renders this Test Certificate VOID.

** Safe Work Load*

THIS PRODUCT IS MANUFACTURED IN THE U.S.A.

We hereby verify that the above information is correct
as contained in the records of Edwards Fabrication L.L.C.

ISO 9001:2008
BUREAU VERITAS
Certification

*Edwards Fabrication L.L.C. is certified as having a Quality Management System.*

Thomas F. Edwards
President
Edwards Fabrication L.L.C.

Edwards Fabrication...

1385 Hwy. 35 Bypass S.
P.O. Box 2350
Rockport, TX 78381

O: (361) 790-7910
F: (361) 790-7927

tedwards@edwardsfabrication.com
www.edwardsfabrication.com

# CERTIFICATE OF TEST

**Client:**
Gates E & S North America
134 44th Street
Corpus Christi, TX 78405

**Purchase Order:** 1592198/0

| Certificate Number | | | | Date of Examination |
|---|---|---|---|---|
| 34144 | | | | 04/27/17 |
| **ID#** | **Part Number** | **Description** | **SWL*** | **Proofload** |
| 34144 | E3.5S | 3.5" E Safety Clamp | 6014 lbs. | 12027 lbs. |

The Safety Clamp unit identified on this certificate has been load tested completely assembled; including the clamp body, (2) 3/4" shackles, 5/8" x 48" wire rope sling and anchor tab. Thus, all components are tested at the "Proof" load. Do not disassemble. Do not interchange any part or parts of this tested unit with parts of other Safety Clamp units. DO NOT WELD, CUT, ADD-TO, TAKE AWAY ANY COMPONENTS OR MAKE ANY MODIFICATION TO THIS CLAMP UNIT. Doing so voids this test certificate.

Cutting/Removing either one or both stainless steel Tamper-proof hardware cables renders this Test Certificate VOID.

** Safe Work Load*

THIS PRODUCT IS MANUFACTURED IN THE U.S.A.

We hereby verify that the above information is correct
as contained in the records of Edwards Fabrication L.L.C.

ISO 9001:2008
BUREAU VERITAS
Certification

*Edwards Fabrication L.L.C. is certified as having a Quality Management System.*

Thomas F. Edwards
President
Edwards Fabrication L.L.C.

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

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

COMMENTS

Action 49606

## COMMENTS

| | |
|---|---|
| Operator:<br>Spur Energy Partners LLC<br>9655 Katy Freeway<br>Houston, TX 77024 | OGRID:<br>328947 |
| | Action Number:<br>49606 |
| | Action Type:<br>[C-101] BLM - Federal/Indian Land Lease (Form 3160-3) |

**COMMENTS**

| Created By | Comment | Comment Date |
|---|---|---|
| kpickford | KP GEO Review 9/20/2021 | 9/20/2021 |

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

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

CONDITIONS

Action 49606

## CONDITIONS

| Operator: | OGRID: |
|---|---|
| Spur Energy Partners LLC<br>9655 Katy Freeway<br>Houston, TX 77024 | 328947 |
| | Action Number:<br>49606 |
| | Action Type:<br>[C-101] BLM - Federal/Indian Land Lease (Form 3160-3) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| kpickford | Notify OCD 24 hours prior to casing & cement | 9/20/2021 |
| kpickford | Will require a File As Drilled C-102 and a Directional Survey with the C-104 | 9/20/2021 |
| kpickford | Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string | 9/20/2021 |
| kpickford | Cement is required to circulate on both surface and intermediate1 strings of casing | 9/20/2021 |
| kpickford | Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system | 9/20/2021 |