AFMSS

U.S. Department of the Interior
Bureau of Land Management

Application for Permit to Drill

APD Package Report

Date Printed:

APD ID:	Well Status:
APD Received Date:	Well Name:
Operator:	Well Number:

APD Package Report Contents

- Form 3160-3

- Operator Certification Report

- Application Report
- Application Attachments
  -- Well Plat: 3 file(s)

- Drilling Plan Report
- Drilling Plan Attachments
  -- Blowout Prevention Choke Diagram Attachment: 1 file(s)
  -- Blowout Prevention BOP Diagram Attachment: 2 file(s)
  -- Casing Taperd String Specs: 2 file(s)
  -- Casing Design Assumptions and Worksheet(s): 4 file(s)
  -- Hydrogen sulfide drilling operations plan: 3 file(s)
  -- Proposed horizontal/directional/multi-lateral plan submission: 3 file(s)
  -- Other Facets: 3 file(s)
  -- Other Variances: 2 file(s)

- SUPO Report
- SUPO Attachments
  -- Existing Road Map: 1 file(s)
  -- New Road Map: 1 file(s)
  -- New road access plan attachment: 1 file(s)
  -- Attach Well map: 1 file(s)
  -- Production Facilities map: 1 file(s)
  -- Water source and transportation map: 1 file(s)
  -- Construction Materials source location attachment: 1 file(s)
  -- Well Site Layout Diagram: 3 file(s)
  -- Other SUPO Attachment: 3 file(s)

- PWD Report
- PWD Attachments

-- None

- Bond Report
- Bond Attachments
  -- None

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. 30-015-54224

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: 09/13/2023

INSTRUCTIONS

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

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

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

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

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

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

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

NOTICES

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

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

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

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

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

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

Approval Date: 09/13/2023

Additional Operator Remarks

Location of Well

0. SHL: SESE / 650 FSL / 390 FEL / TWSP: 19S / RANGE: 25E / SECTION: 26 / LAT: 32.6260634 / LONG: -104.448126 (TVD: 0 feet, MD: 0 feet)

PPP: SWSW / 330 FSL / 1 FEL / TWSP: 19S / RANGE: 25E / SECTION: 25 / LAT: 32.62519 / LONG: -104.44672 (TVD: 3045 feet, MD: 3515 feet)

PPP: SWSW / 330 FSL / 100 FEL / TWSP: 19S / RANGE: 25E / SECTION: 25 / LAT: 32.6251879 / LONG: -104.4465352 (TVD: 3050 feet, MD: 3572 feet)

PPP: SWSE / 330 FSL / 2640 FEL / TWSP: 19S / RANGE: 25E / SECTION: 25 / LAT: 32.62518 / LONG: -104.43822 (TVD: 3125 feet, MD: 6136 feet)

BHL: SESE / 330 FSL / 50 FEL / TWSP: 19S / RANGE: 25E / SECTION: 25 / LAT: 32.6251712 / LONG: -104.4299081 (TVD: 3200 feet, MD: 8694 feet)

BLM Point of Contact

Name: GAVIN MICKWEE
Title: Land Law Examiner
Phone: (575) 234-5972
Email: gmickwee@blm.gov

Review and Appeal Rights

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

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: 1,250 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) 689-5981

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.

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: 09/13/2023

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:

 Approval Date: 09/13/2023

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.

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

Operator Certification Data Report

09/13/2023

Operator

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

NAME: SARAH CHAPMAN **Signed on:** 12/08/2022

Title: Regulatory Directory

Street Address: 9655 KATY FREEWAY, SUITE 500

City: Houston **State:** TX **Zip:** 77024

Phone: (832)930-8613

Email address: SCHAPMAN@SPUREPLLC.COM

Field

Representative Name:

Street Address:

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

Phone:

Email address:

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

Application Data
09/13/2023

APD ID: 10400087071
Submission Date: 08/02/2022
Operator Name: SPUR ENERGY PARTNERS LLC
Well Name: DARKO 25 FEDERAL
Well Number: 21H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes
Show Final Text

Section 1 - General

APD ID: 10400087071
Tie to previous NOS? N
Submission Date: 08/02/2022
BLM Office: Carlsbad
User: SARAH CHAPMAN
Title: Regulatory Directory
Federal/Indian APD: FED
Is the first lease penetrated for production Federal or Indian? FED
Lease number: NMNM116565
Lease Acres:
Surface access agreement in place?
Allotted?
Reservation:
Agreement in place? NO
Federal or Indian agreement:
Agreement number:
Agreement name:
Keep application confidential? N
Permitting Agent? NO
APD Operator: SPUR ENERGY PARTNERS LLC
Operator letter of

Operator Info

Operator Organization Name: SPUR ENERGY PARTNERS LLC
Operator Address: 9655 KATY FREEWAY, SUITE 500
Zip: 77024
Operator PO Box:
Operator City: Houston
State: TX
Operator Phone: (832)930-8548
Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO
Master Development Plan name:
Well in Master SUPO? NO
Master SUPO name:
Well in Master Drilling Plan? NO
Master Drilling Plan name:
Well Name: DARKO 25 FEDERAL
Well Number: 21H
Well API Number:
Field/Pool or Exploratory? Field and Pool
Field Name: N. SEVEN RIVERS; **Pool Name:** GLORIETA -YESO

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

Is the proposed well in an area containing other mineral resources? USEABLE WATER,NATURAL GAS,OIL

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** N **New surface disturbance?**

Type of Well Pad: SINGLE WELL **Multiple Well Pad Name:** **Number:**

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

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: **Distance to nearest well:** 650 FT **Distance to lease line:** 0 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: Darko25Fd21H_SitePlan_20220802151112.pdf

Darko25Fd21H_Supplemental_20220802151112.pdf

Darko25Fd21H_C_102_20220802151112.pdf

Well work start Date: 10/20/2023 **Duration:** 10 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: 19680 **Reference Datum:** GROUND LEVEL

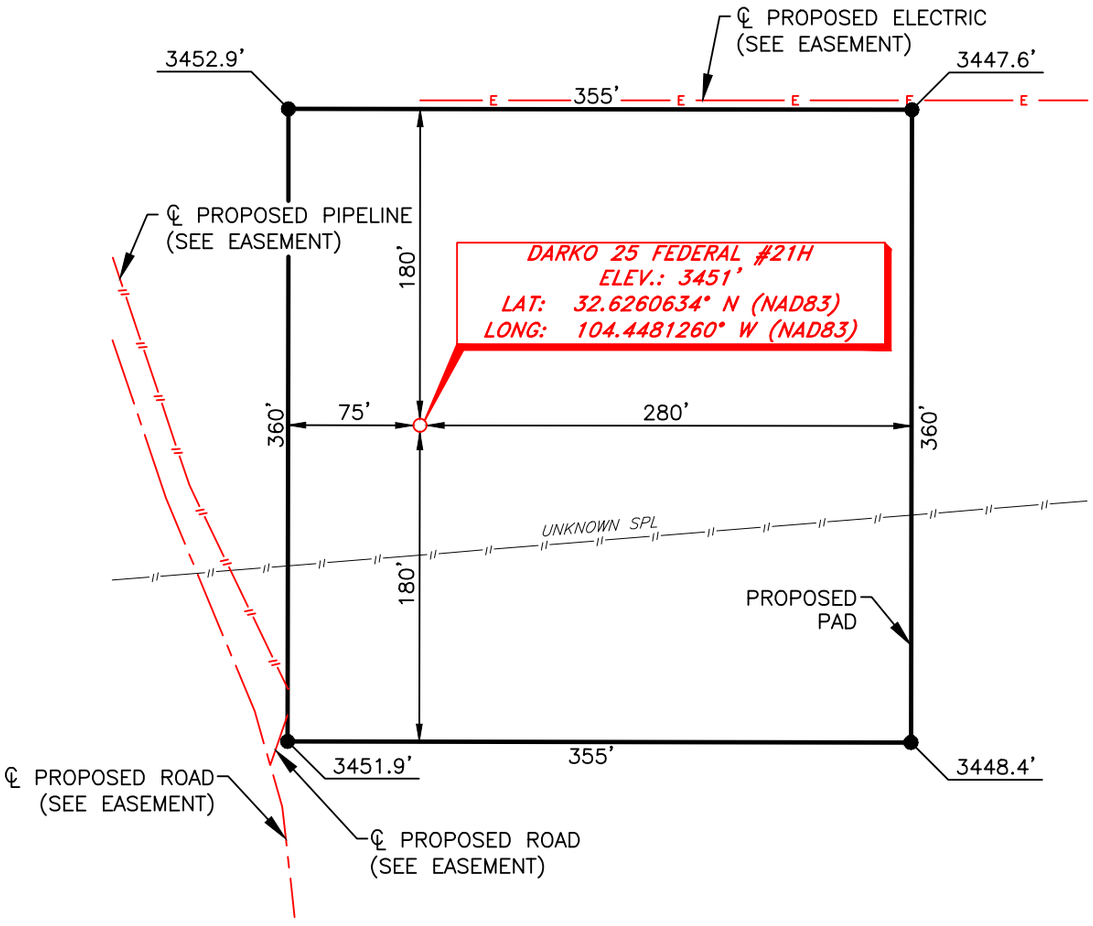
Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
SHL Leg #1	650	FSL	390	FEL	19S	25E	26	Aliquot SESE	32.6260634	-104.448126	EDDY	NEW MEXICO	NEW MEXICO	F	FEE	3451	0	0	N
KOP Leg #1	341	FSL	725	FWL	19S	25E	26	Aliquot SESE	32.6254875	-104.4492143	EDDY	NEW MEXICO	NEW MEXICO	F	FEE	1505	2003	1946	N

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
PPP Leg #1-1	330	FSL	1	FEL	19S	25E	25	Aliquot SWSW	32.62519	-104.44672	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 116565	406	3515	3045	Y
PPP Leg #1-2	330	FSL	100	FEL	19S	25E	25	Aliquot SWSW	32.6251879	-104.4465352	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 116565	401	3572	3050	Y
PPP Leg #1-3	330	FSL	2640	FEL	19S	25E	25	Aliquot SWSE	32.62518	-104.43822	EDDY	NEW MEXICO	NEW MEXICO	F	FEE	326	6136	3125	Y
EXIT Leg #1	330	FSL	100	FEL	19S	25E	25	Aliquot SESE	32.6251712	-104.4300704	EDDY	NEW MEXICO	NEW MEXICO	F	FEE	252	8644	3199	Y
BHL Leg #1	330	FSL	50	FEL	19S	25E	25	Aliquot SESE	32.6251712	-104.4299081	EDDY	NEW MEXICO	NEW MEXICO	F	FEE	251	8694	3200	Y

SPUR ENERGY PARTNERS LLC.
DARKO 25 FEDERAL #21H
(650' FSL & 390' FEL)
SECTION 26, T19S, R25E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

From the intersection of U.S. Hwy 285 and CR #23 (Rock Daisy Rd.);

Go West on CR #23 approx. 2.2 miles to a lease road on the right;

Turn right and go North approx. 0.1 miles to a proposed road on the right;

Turn right and go Northeast approx. 200 feet to location on the right.

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 PROFESSIONAL SURVEYOR 05/23/22

NO.	REVISION	DATE

JOB NO.: LS22050582
DWG. NO.: 22050582–4

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

SCALE: 1" = 100'
DATE: 05/12/22
SURVEYED BY: JF/EU
DRAWN BY: GA
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

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- 54224	97565	N. SEVEN RIVERS; GLORIETA-YESO

4 Property Code	5 Property Name	6 Well Number
334702	DARKO 25 FEDERAL	21H

7 OGRID NO.	8 Operator Name	9 Elevation
328947	SPUR ENERGY PARTNERS LLC.	3451'

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
P	26	19S	25E		650	SOUTH	390	EAST	EDDY

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	25	19S	25E		330	SOUTH	50	EAST	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: 591511.8 – E: 505997.0
LAT: 32.6260634° N
LONG: 104.4481260° W

FIRST TAKE POINT (FTP)
330' FSL & 100' FWL – SEC 25
N: 591192.8 – E: 506486.5
LAT: 32.6251879° N
LONG: 104.4465352° W

LAST TAKE POINT (LTP)
330' FSL & 100' FEL – SEC 25
N: 591181.7 – E: 511555.4
LAT: 32.6251714° N
LONG: 104.4300704° W

BOTTOM HOLE (BH)
N: 591181.6 – E: 511605.4
LAT: 32.6251712° N
LONG: 104.4299081° W

CORNER DATA
NAD 83 GRID – NM EAST

A: FOUND 1/2" REBAR
N: 590847.7 – E: 501100.1

B: FOUND 1/2" REBAR
N: 596091.2 – E: 501054.3

C: FOUND 5/8" REBAR
N: 596249.0 – E: 506393.5

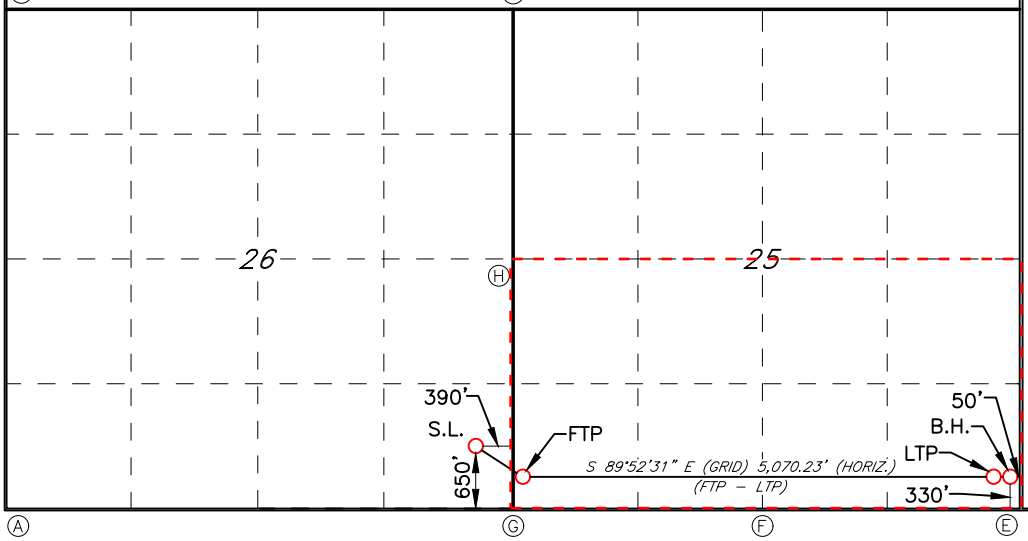
D: FOUND 1/2" REBAR/W
ALUMINUM CAP "LS5412"
N: 596092.3 – E: 511677.4

E: FOUND 1/2" REBAR
N: 590851.6 – E: 511653.9

F: FOUND 1/2" REBAR
N: 590856.4 – E: 509033.1

G: FOUND 1/2" REBAR/W
YELLOW PLASTIC CAP "PS12641"
N: 590863.1 – E: 506386.0

H: FOUND 1/2" REBAR/W
YELLOW PLASTIC CAP "PS12641"
N: 593556.0 – E: 506389.9



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 07/11/2022
Signature Date

SARAH CHAPMAN
Printed Name

SCHAPMAN@SPURENERGY.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.

5/12/2022
Date of Survey

Signature and Seal of Professional Surveyor:

ROBERT M. HOWETT NEW MEXICO 19680 PROFESSIONAL SURVEYOR

19680
Certificate Number

LS22050582

AFMSS

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

Drilling Plan Data Report

09/13/2023

APD ID: 10400087071 **Submission Date:** 08/02/2022

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
12114722	QUATERNARY	3451	0	0	DOLOMITE, OTHER : CALICHE	USEABLE WATER	N
12114723	GRAYBURG	2838	613	613	ANHYDRITE, DOLOMITE, SANDSTONE	NATURAL GAS, OIL	N
12114724	SAN ANDRES	2563	888	888	DOLOMITE, LIMESTONE	NATURAL GAS, OIL	N
12114725	SAN ANDRES LOWER	1493	1958	1958	DOLOMITE, LIMESTONE	NATURAL GAS, OIL	N
12114726	GLORIETA	968	2483	2550	DOLOMITE, SANDSTONE	NATURAL GAS, OIL	N
12114727	PADDOCK	814	2637	2750	DOLOMITE, LIMESTONE	NATURAL GAS, OIL	Y
12114728	BLINEBRY	143	3308	3600	DOLOMITE, LIMESTONE	NATURAL GAS, OIL	Y
12114729	BONE SPRING	-727	4178	4300	LIMESTONE	OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M **Rating Depth:** 5000

Equipment: A 3000psi 5000' rated BOP stack consisting of an annular preventer and double (blind & pipe) ram will be used below surface casing to TD. See attached BOP and choke manifold diagrams.
Requesting Variance? YES

Variance 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. 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).

Testing Procedure: 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

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

Choke Diagram Attachment:

Darko25Fd21H_13.625ChokeBOPDiagramUpdate_20220802125710.pdf

BOP Diagram Attachment:

Darko25Fd21H_13.625ChokeBOPDiagramUpdate_20220802125721.pdf

Darko25Fd21H_FlexHoseCert_20220802125721.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	12.25	9.625	NEW	API	N	0	1250	0	1250	3451	2201	1250	J-55	36	BUTT	1.125	1.2	DRY	1.4	DRY	1.4
2	PRODUCTION	8.75	7.0	NEW	API	Y	0	3350	0	3001	3453	450	3350	L-80	32	OTHER - BK-HT	1.125	1.2	DRY	1.4	DRY	1.4
3	PRODUCTION	8.75	5.5	NEW	API	Y	3350	8694	3001	3200	450	251	5344	L-80	20	OTHER - BK-HT	1.125	1.2	DRY	1.4	DRY	1.4

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

Casing Attachments

Casing ID: 2 **String** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Darko25Fd21H_csg5.5_BKHT_20_HCL80_20220802135119.pdf

Casing Design Assumptions and Worksheet(s):

Darko25Fd21H_CasingAssumptionsSheet_20220802135137.pdf

Darko25Fd21H_csg7_BKHT_32_HCL80_20220802135137.pdf

Casing ID: 3 **String** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Darko25Fd21H_csg5.5_BKHT_20_HCL80_20220802135209.pdf

Casing Design Assumptions and Worksheet(s):

Darko25Fd21H_CasingAssumptionsSheet_20220802135303.pdf

Darko25Fd21H_csg5.5_BKHT_20_HCL80_20220802135304.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	950	259	2.4	13.48	622	100	CLASS C PREMIUM PLUS	6% bentonite + 0.5% thixotropic agent + ¼ #/sk cello flake
SURFACE	Tail		950	1250	111	1.87	13.2	208	100	CLASS C PREMIUM PLUS	¼ #/sk cello flake
PRODUCTION	Lead		0	2350	180	2.42	11.4	677	100	CLASS C PREMIUM PLUS	5% salt + 6% bentonite + 0.1% retarder + ¼ #/sk

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
											cello flake
PRODUCTION	Tail		2350	8694	1239	1.56	11.4	1933	25	CLASS C PREMIUM PLUS	0.3% fluid loss + 0.1% dispersant + 0.1% free water control + 0.4% defoamer + 0.1% retarder + ¼ #/sk cello flake

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Same type mud will be used for both casing strings. Necessary mud products (e. g., barite, bentonite, gypsum, lime, soda ash, caustic soda, nut plug, cedar bark fiber, cotton seed hulls, drilling paper, saltwater clay, CaCl2) will be on site to handle any abnormal hole condition that may be encountered while drilling. High viscosity sweeps will be pumped as needed to clean the hole.

Describe the mud monitoring system utilized: Mud system will be monitored visually and electronically with a Pason PVT system or its equivalent.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1250	WATER-BASED MUD	8.6	8.9							
1250	8694	WATER-BASED MUD	8.6	8.9							

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

Section 6 - Test, Logging, Coring

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

A mud logger will be used from surface casing point to TD. A gamma ray log will be run from TD to the surface casing point. No other logs are planned at this time.

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

MUD LOG/GEOLOGICAL LITHOLOGY LOG,GAMMA RAY LOG,

Coring operation description for the well:

No core or drill stem test is planned.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 1481 **Anticipated Surface Pressure:** 776

Anticipated Bottom Hole Temperature(F): 106

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

Darko25Fd_DrillingH2S_20221219131735.pdf

Darko25Fd21H_EmergencyContactList_20221219131748.pdf

Darko25Fd21H_H2S_20221219131748.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Darko25Fd21H_DirectPlan_20220802135716.pdf

Darko25Fd21H_DirectPlot_20220802135716.pdf

Darko25Fd21H_AC_20220802135716.pdf

Other proposed operations facets description:

Spur Energy Partners LLC requests the option to contract a Surface Rig to drill, set surface/intermediate 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.

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).

Other proposed operations facets attachment:

Darko25Fd20H21H30H_NGMP_20220802082512.pdf

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

Darko25Fd21H_SpudderRig_20220802135742.pdf

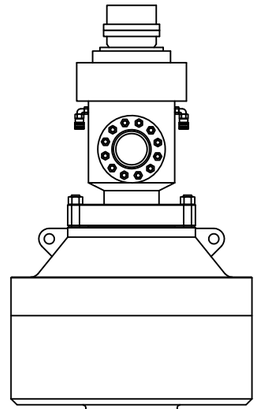
Darko25Fd21H_DrillPlan_20220802135742.pdf

Other Variance attachment:

Darko25Fd21H_13.625ChokeBOPDiagramUpdate_20220802135757.pdf

Darko25Fd21H_FlexHoseCert_20220802135758.pdf

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



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

PIPE RAM

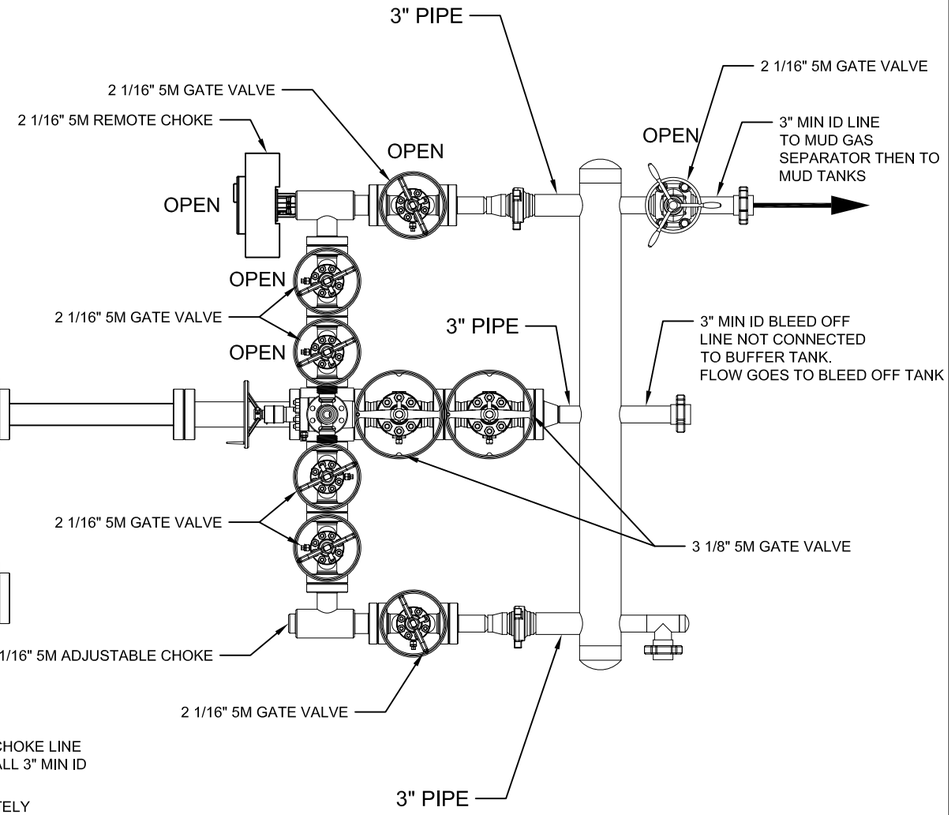
BLIND RAM

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
-
-
-
-

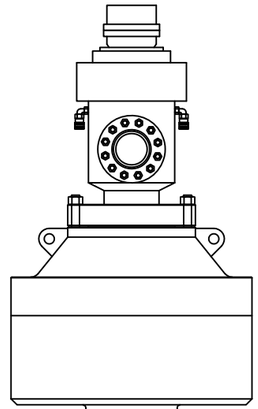
No.	Revision	Date

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

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



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

PIPE RAM

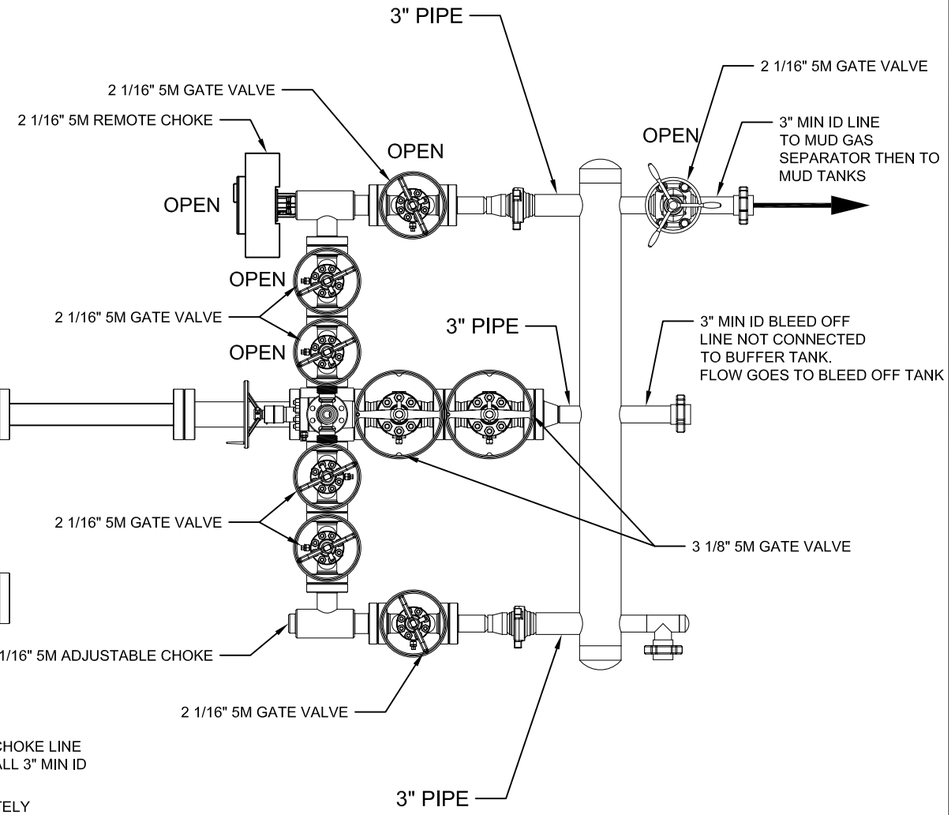
BLIND RAM

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 :	Crivera	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

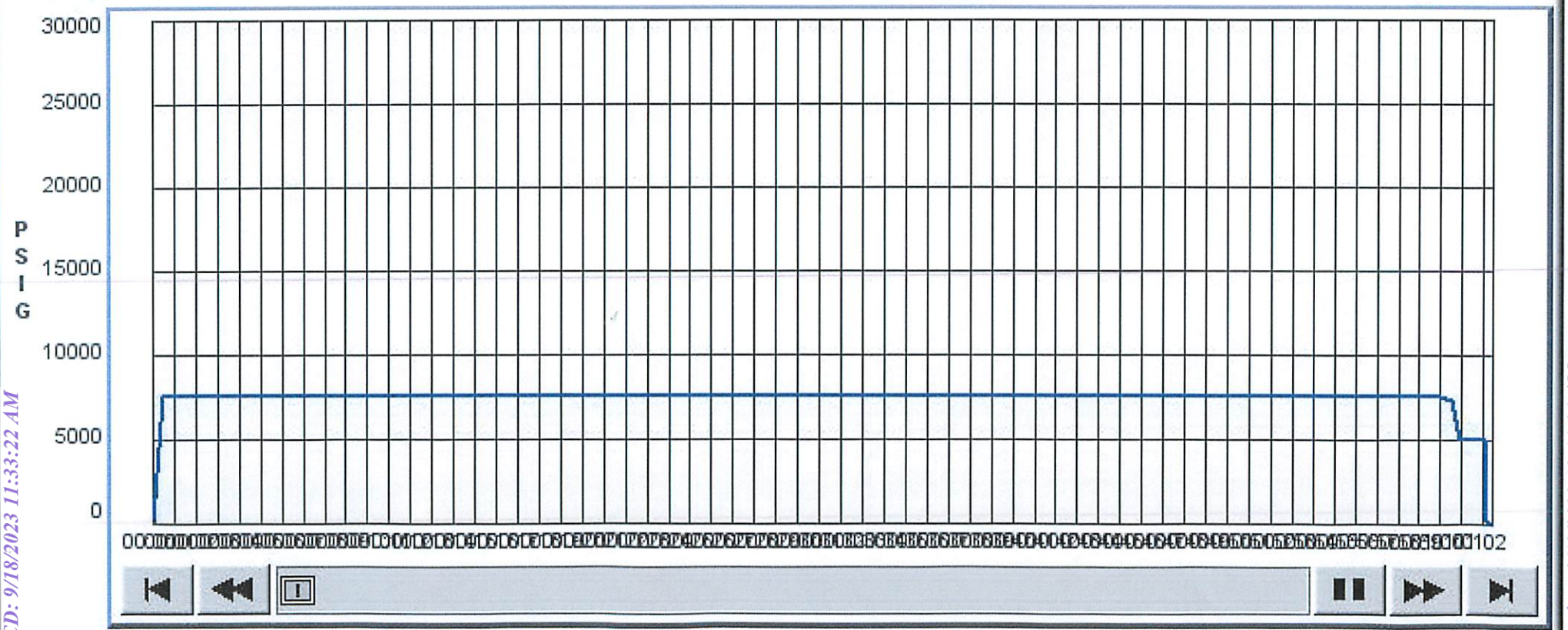
Serial # = H-121917-13,-14

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.

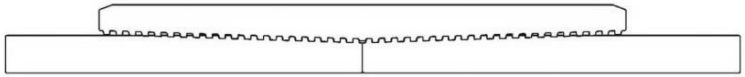
We hereby verify that the above information is correct
as contained in the records of Edwards Fabrication L.L.C.

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.

PRECISION
Keeping You Connected.



SEMI PREMIUMCONNECTIONS
FIELD TESTED. FIELD PROVEN.

Precision Connections BK-HT
5.5 in. 20 lb/ft HC-L80 with 6.3 in. Coupling OD

Pipe Body

Nominal OD	5.500	inches
Nominal Weight	20.00	lb/ft
Wall Thickness	0.361	inches
Plain End Weight	19.81	lb/ft
Drift	4.653	inches
Nominal ID	4.778	inches
Grade	HC-L80	
Min Yield	80,000	lbf/in²
Min Tensile	95,000	lbf/in²
Critical Section Area	5.828	in²
Pipe Body Yield Strength	466	kips
Min Internal Yield Pressure	9,190	psi
Collapse Pressure	9,490	psi

Connection

Coupling OD	6.300	inches
Coupling Length	8.250	inches
Make Up Loss	4.125	inches
Critical Section Area	8.456	in²
Internal Pressure Rating	100%	
External Pressure Rating	100%	
Tension Efficiency	100%	
Connection Strength	466	kips
Compression Efficiency	100%	
Uniaxial Bend Rating	58.2	° / 100 ft
Min Make Up Torque	6,050	ft-lbs
Yield Torque	23,250	ft-lbs

v1.2 7/26/2018

PRECISION

Keeping You Connected.

SEMI PREMIUMCONNECTIONS

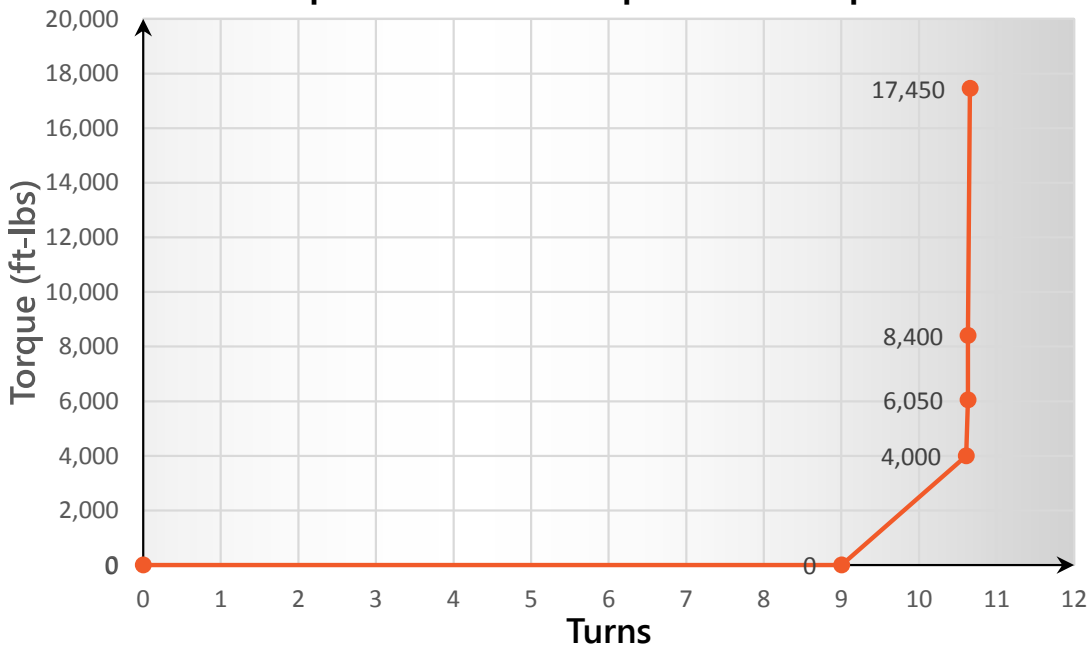
FIELD TESTED. FIELD PROVEN.

Torque Data Sheet - Precision Connections BK-HT

5.5 in. 20 lb/ft HC-L80 with 6.3 in. Coupling OD

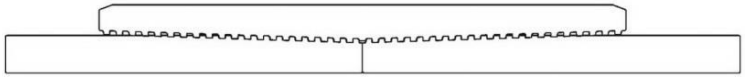
Min Make Up Torque	6,050	ft-lbs	Max Operating Torque	19,800	ft-lbs
Max Make Up Torque	17,450	ft-lbs	Yield Torque	23,250	ft-lbs
Optimum Torque	8,400	ft-lbs			

Representative Torque Turn Graph



v1.2 7/26/2018

PRECISION
Keeping You Connected.



SEMI PREMIUMCONNECTIONS
FIELD TESTED. FIELD PROVEN.

Precision Connections BK-HT
5.5 in. 20 lb/ft HC-L80 with 6.3 in. Coupling OD

Pipe Body

Nominal OD	5.500	inches
Nominal Weight	20.00	lb/ft
Wall Thickness	0.361	inches
Plain End Weight	19.81	lb/ft
Drift	4.653	inches
Nominal ID	4.778	inches
Grade	HC-L80	
Min Yield	80,000	lbf/in²
Min Tensile	95,000	lbf/in²
Critical Section Area	5.828	in²
Pipe Body Yield Strength	466	kips
Min Internal Yield Pressure	9,190	psi
Collapse Pressure	9,490	psi

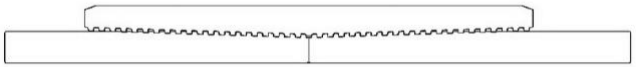
Connection

Coupling OD	6.300	inches
Coupling Length	8.250	inches
Make Up Loss	4.125	inches
Critical Section Area	8.456	in²
Internal Pressure Rating	100%	
External Pressure Rating	100%	
Tension Efficiency	100%	
Connection Strength	466	kips
Compression Efficiency	100%	
Uniaxial Bend Rating	58.2	° / 100 ft
Min Make Up Torque	6,050	ft-lbs
Yield Torque	23,250	ft-lbs

v1.2 7/26/2018

PRECISION

Keeping You Connected.



SEMI PREMIUMCONNECTIONS

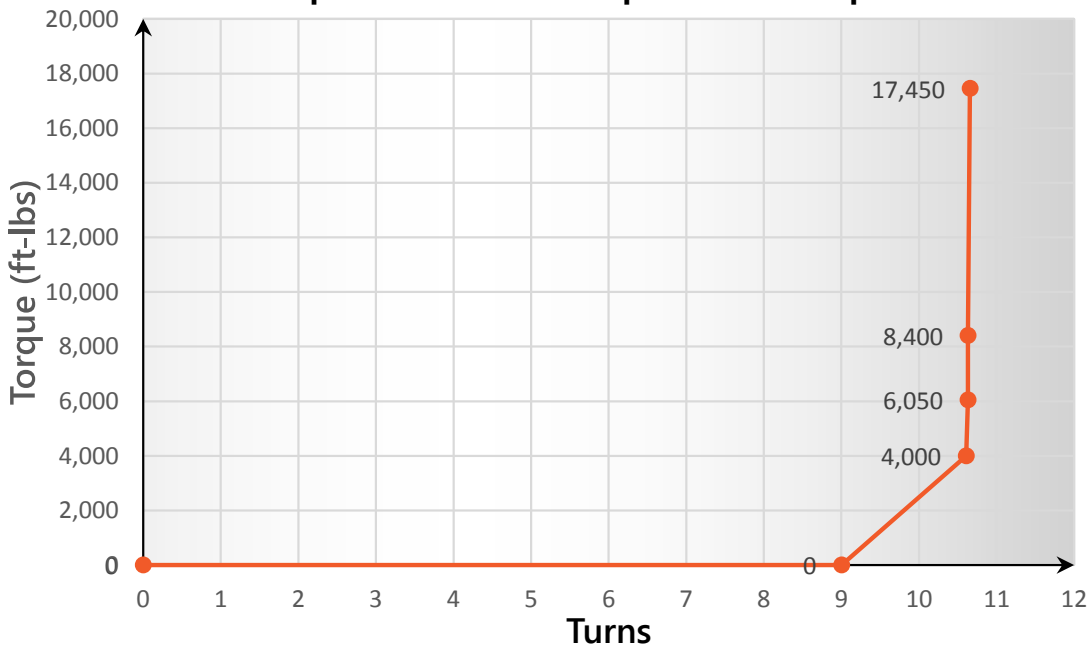
FIELD TESTED. FIELD PROVEN.

Torque Data Sheet - Precision Connections BK-HT

5.5 in. 20 lb/ft HC-L80 with 6.3 in. Coupling OD

Min Make Up Torque	6,050	ft-lbs	Max Operating Torque	19,800	ft-lbs
Max Make Up Torque	17,450	ft-lbs	Yield Torque	23,250	ft-lbs
Optimum Torque	8,400	ft-lbs			

Representative Torque Turn Graph



v1.2 7/26/2018

Casing Design Criteria and Load Case Assumptions

1. Collapse: DF_C=1.125
    a. Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.65 psi/ft). The effects of axial load on collapse will be considered.
    b. Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and minimum mud gradient in which the casing will be run above that (0.65 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft)
2. Burst: DF_B=1.125
    a. Pressure Test: psi casing test with an external force equal to the mud gradient in which the casing will be run (0.65 psi/ft), which is a more conservative backup force than pore pressure.
    b. Injection Down Casing: psi surface injection pressure plus an internal pressure gradient of 0.65 psi/ft with an external force equal to the mud gradient in which the casing will be run (0.65 psi/ft), which is a more conservative backup force than pore pressure.
3. Tensile: DF_T=1.4
    a. Overpull: An overpull force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (8.5 ppg).

Surface Casing Program									
Casing Size (in)	**Weight (ppf)**	**Grade**	**Connection**	**ID**	**ID (drift)**	**Collapse (psi)**	**Burst (psi)**	**Tension (1,000 lbs)**	**Capacity (bbl/ft)**
9-5/8”	36	J-55	BTC	8.921	8.765	2,020	3,520	639	0.0773
Safety Factors									
	API Rec. SF	**ACTUAL SF**	Case		External Fluids		Internal Fluids		
Collapse	1.125	**3.30**	Lost Circulation		Mud		*None*		
Burst	1.125	**1.46**	Plug Bump		Green Cement + 2ksi surf pressure		Displacement Fluid/Mud		
Tension	1.4	**2.8**	100 klbs Overpull		Mud		Mud		

Buoyed Casing Weight: ***40,798 lbs (assuming 8.4 ppg fluid and 1,300’ casing-worst case scenario)***

Production Casing Program									
Casing Size (in)	**Weight (ppf)**	**Grade**	**Connection**	**ID**	**ID (drift)**	**Collapse (psi)**	**Burst (psi)**	**Tension (1,000 lbs)**	**Capacity (bbl/ft)**
7”	32	HCL-80	BK-HT	6.094	6.000	11,890	12,460	1025	0.0361
Safety Factors									
	API Rec. SF	**ACTUAL SF**	Case		External Fluids		Internal Fluids		
Collapse	1.125	**3.75**	Lost Circulation		Mud		*None*		
Burst	1.125	**2.47**	Plug Bump		Green Cement + 2ksi surf pressure		Displacement Fluid/Mud		
Tension	1.4	**2.29**	100 klbs Overpull		Mud		Mud		

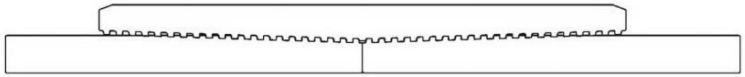
Buoyed Casing Weight: ***90,662 lbs (assuming 8.4 ppg fluid and 3,250’ TVD-worst case scenario)***

Production Casing Program									
Casing Size (in)	**Weight (ppf)**	**Grade**	**Connection**	**ID**	**ID (drift)**	**Collapse (psi)**	**Burst (psi)**	**Tension (1,000 lbs)**	**Capacity (bbl/ft)**
5-1/2”	20	L-80	BK-HT	4.778	4.653	9,490	9,190	466	0.0222

Safety Factors					
	API Rec. SF	**ACTUAL SF**	Case	External Fluids	Internal Fluids
Collapse	1.125	**3.75**	Lost Circulation	Mud	*None*
Burst	1.125	**2.47**	Plug Bump	Green Cement + 2ksi surf pressure	Displacement Fluid/Mud
Tension	1.4	**2.29**	100 klbs Overpull	Mud	Mud

Buoyed Casing Weight: ***56,664 lbs (assuming 8.4 ppg fluid and 3,250’ TVD-worst case scenario)***

PRECISION
Keeping You Connected.



SEMI PREMIUMCONNECTIONS
FIELD TESTED. FIELD PROVEN.

Precision Connections BK-HT
7 in. 32 lb/ft HC-L80 with 7.875 in. Coupling OD

Pipe Body

Nominal OD	7.000	inches
Nominal Weight	32.00	lb/ft
Wall Thickness	0.453	inches
Plain End Weight	31.67	lb/ft
Drift	6.000	inches
Nominal ID	6.094	inches
Grade	HC-L80	
Min Yield	80,000	lbf/in²
Min Tensile	95,000	lbf/in²
Critical Section Area	9.317	in²
Pipe Body Yield Strength	745	kips
Min Internal Yield Pressure	9,060	psi
Collapse Pressure	9,290	psi

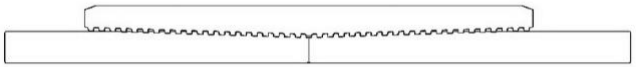
Connection

Coupling OD	7.875	inches
Coupling Length	9.000	inches
Make Up Loss	4.500	inches
Critical Section Area	11.859	in²
Internal Pressure Rating	100%	
External Pressure Rating	100%	
Tension Efficiency	100%	
Connection Strength	745	kips
Compression Efficiency	100%	
Uniaxial Bend Rating	46.5	° / 100 ft
Min Make Up Torque	9,250	ft-lbs
Yield Torque	35,650	ft-lbs

v1.2 7/26/2018

PRECISION

Keeping You Connected.



SEMI PREMIUMCONNECTIONS

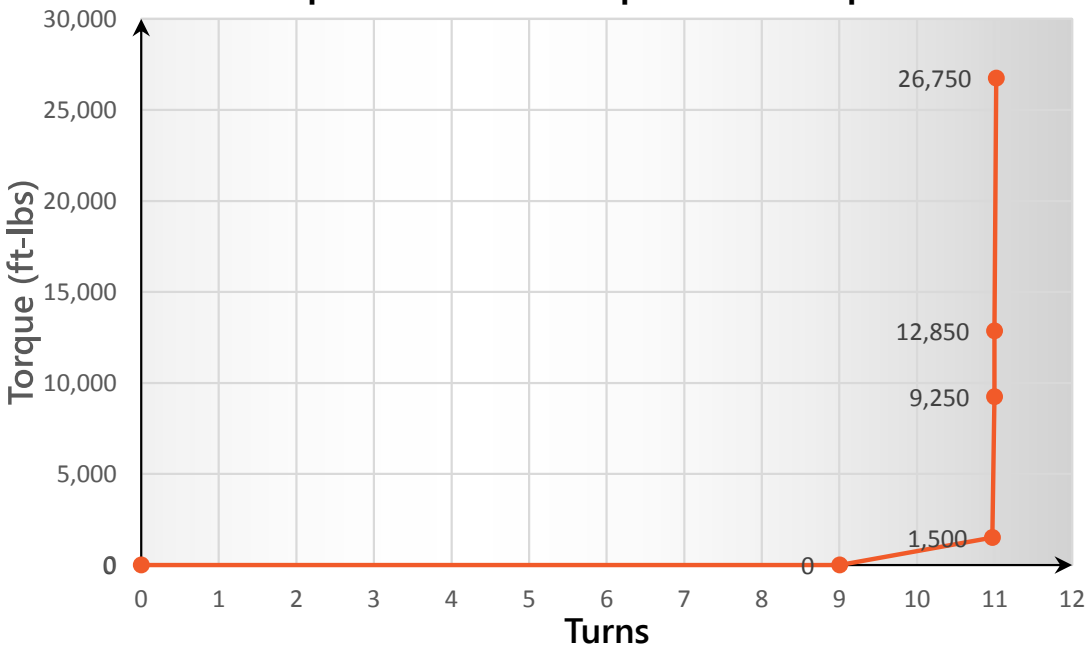
FIELD TESTED. FIELD PROVEN.

Torque Data Sheet - Precision Connections BK-HT

7 in. 32 lb/ft HC-L80 with 7.875 in. Coupling OD

Min Make Up Torque	9,250	ft-lbs	Max Operating Torque	30,300	ft-lbs
Max Make Up Torque	26,750	ft-lbs	Yield Torque	35,650	ft-lbs
Optimum Torque	12,850	ft-lbs			

Representative Torque Turn Graph



v1.2 7/26/2018

Casing Design Criteria and Load Case Assumptions

1. Collapse: DF_C=1.125
    a. Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.65 psi/ft). The effects of axial load on collapse will be considered.
    b. Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and minimum mud gradient in which the casing will be run above that (0.65 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft)
2. Burst: DF_B=1.125
    a. Pressure Test: psi casing test with an external force equal to the mud gradient in which the casing will be run (0.65 psi/ft), which is a more conservative backup force than pore pressure.
    b. Injection Down Casing: psi surface injection pressure plus an internal pressure gradient of 0.65 psi/ft with an external force equal to the mud gradient in which the casing will be run (0.65 psi/ft), which is a more conservative backup force than pore pressure.
3. Tensile: DF_T=1.4
    a. Overpull: An overpull force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (8.5 ppg).

Surface Casing Program									
Casing Size (in)	**Weight (ppf)**	**Grade**	**Connection**	**ID**	**ID (drift)**	**Collapse (psi)**	**Burst (psi)**	**Tension (1,000 lbs)**	**Capacity (bbl/ft)**
9-5/8”	36	J-55	BTC	8.921	8.765	2,020	3,520	639	0.0773
Safety Factors									
	API Rec. SF	**ACTUAL SF**	Case		External Fluids		Internal Fluids		
Collapse	1.125	**3.30**	Lost Circulation		Mud		*None*		
Burst	1.125	**1.46**	Plug Bump		Green Cement + 2ksi surf pressure		Displacement Fluid/Mud		
Tension	1.4	**2.8**	100 klbs Overpull		Mud		Mud		

Buoyed Casing Weight: ***40,798 lbs (assuming 8.4 ppg fluid and 1,300’ casing-worst case scenario)***

Production Casing Program									
Casing Size (in)	**Weight (ppf)**	**Grade**	**Connection**	**ID**	**ID (drift)**	**Collapse (psi)**	**Burst (psi)**	**Tension (1,000 lbs)**	**Capacity (bbl/ft)**
7”	32	HCL-80	BK-HT	6.094	6.000	11,890	12,460	1025	0.0361
Safety Factors									
	API Rec. SF	**ACTUAL SF**	Case		External Fluids		Internal Fluids		
Collapse	1.125	**3.75**	Lost Circulation		Mud		*None*		
Burst	1.125	**2.47**	Plug Bump		Green Cement + 2ksi surf pressure		Displacement Fluid/Mud		
Tension	1.4	**2.29**	100 klbs Overpull		Mud		Mud		

Buoyed Casing Weight: ***90,662 lbs (assuming 8.4 ppg fluid and 3,250’ TVD-worst case scenario)***

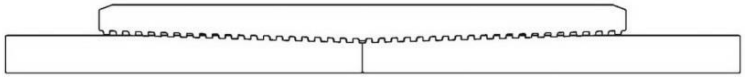
Production Casing Program									
Casing Size (in)	**Weight (ppf)**	**Grade**	**Connection**	**ID**	**ID (drift)**	**Collapse (psi)**	**Burst (psi)**	**Tension (1,000 lbs)**	**Capacity (bbl/ft)**
5-1/2”	20	L-80	BK-HT	4.778	4.653	9,490	9,190	466	0.0222

Safety Factors					
	API Rec. SF	**ACTUAL SF**	Case	External Fluids	Internal Fluids
Collapse	1.125	**3.75**	Lost Circulation	Mud	*None*
Burst	1.125	**2.47**	Plug Bump	Green Cement + 2ksi surf pressure	Displacement Fluid/Mud
Tension	1.4	**2.29**	100 klbs Overpull	Mud	Mud

Buoyed Casing Weight: ***56,664 lbs (assuming 8.4 ppg fluid and 3,250’ TVD-worst case scenario)***

PRECISION

Keeping You Connected.



SEMI PREMIUMCONNECTIONS
FIELD TESTED. FIELD PROVEN.

Precision Connections BK-HT
5.5 in. 20 lb/ft HC-L80 with 6.3 in. Coupling OD

Pipe Body

Nominal OD	5.500	inches
Nominal Weight	20.00	lb/ft
Wall Thickness	0.361	inches
Plain End Weight	19.81	lb/ft
Drift	4.653	inches
Nominal ID	4.778	inches
Grade	HC-L80	
Min Yield	80,000	lbf/in²
Min Tensile	95,000	lbf/in²
Critical Section Area	5.828	in²
Pipe Body Yield Strength	466	kips
Min Internal Yield Pressure	9,190	psi
Collapse Pressure	9,490	psi

Connection

Coupling OD	6.300	inches
Coupling Length	8.250	inches
Make Up Loss	4.125	inches
Critical Section Area	8.456	in²
Internal Pressure Rating	100%	
External Pressure Rating	100%	
Tension Efficiency	100%	
Connection Strength	466	kips
Compression Efficiency	100%	
Uniaxial Bend Rating	58.2	° / 100 ft
Min Make Up Torque	6,050	ft-lbs
Yield Torque	23,250	ft-lbs

v1.2 7/26/2018

PRECISION

Keeping You Connected.

SEMI PREMIUMCONNECTIONS

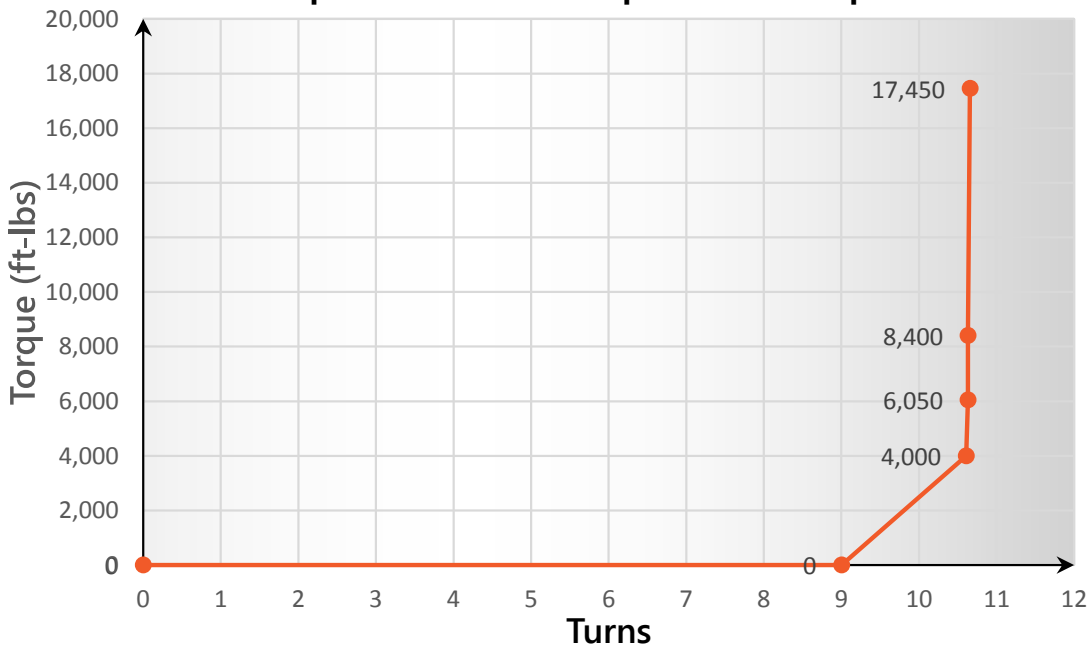
FIELD TESTED. FIELD PROVEN.

Torque Data Sheet - Precision Connections BK-HT

5.5 in. 20 lb/ft HC-L80 with 6.3 in. Coupling OD

Min Make Up Torque	6,050	ft-lbs	Max Operating Torque	19,800	ft-lbs
Max Make Up Torque	17,450	ft-lbs	Yield Torque	23,250	ft-lbs
Optimum Torque	8,400	ft-lbs			

Representative Torque Turn Graph



v1.2 7/26/2018

Permian Drilling

Hydrogen Sulfide Drilling Operations Plan

Darko 25 Federal

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

1. Escape

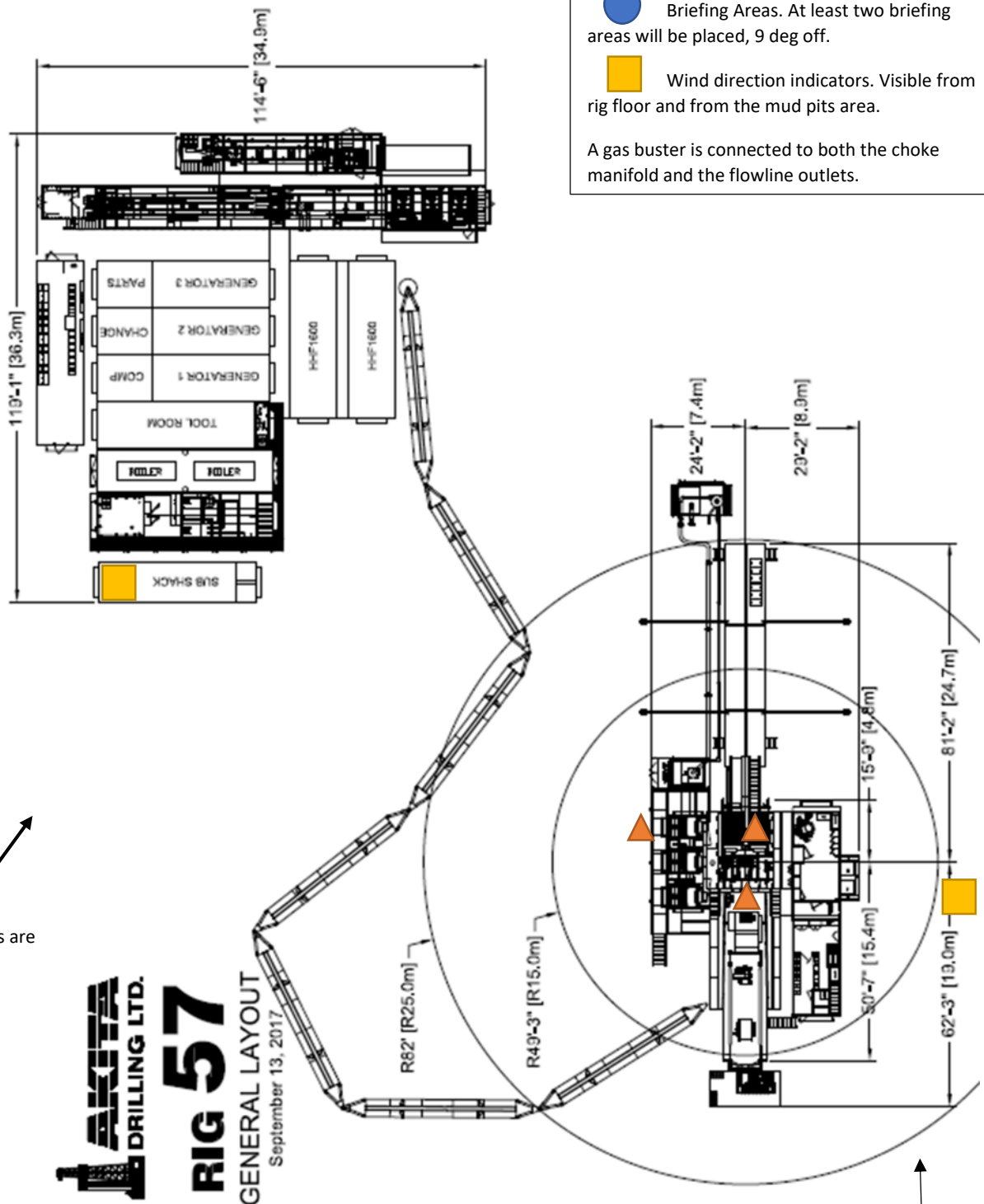
   Personnel shall escape upwind of wellbore in the even of an emergency gas release. Escape can take place through the lease road on the Southeast side of the location. Personnel need to move to a safe distance and block the entrance to location. If the primary route is not an option due to the wind direction,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

H2S Detectors. At least three detectors will be installed: bell nipple, rig floor, and Shakers.

Briefing Areas. At least two briefing areas will be placed, 9 deg off.

Wind direction indicators. Visible from rig floor and from the mud pits area.

A gas buster is connected to both the choke manifold and the flowline outlets.



ARTA DRILLING LTD. RIG 57

GENERAL LAYOUT

September 13, 2017

Wind: Prevailing winds are from the Southwest.

Primary Briefing Area

Secondary Egress

N

Secondary Briefing Area

Exit to road. Caution sign placed here.

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 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 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 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	

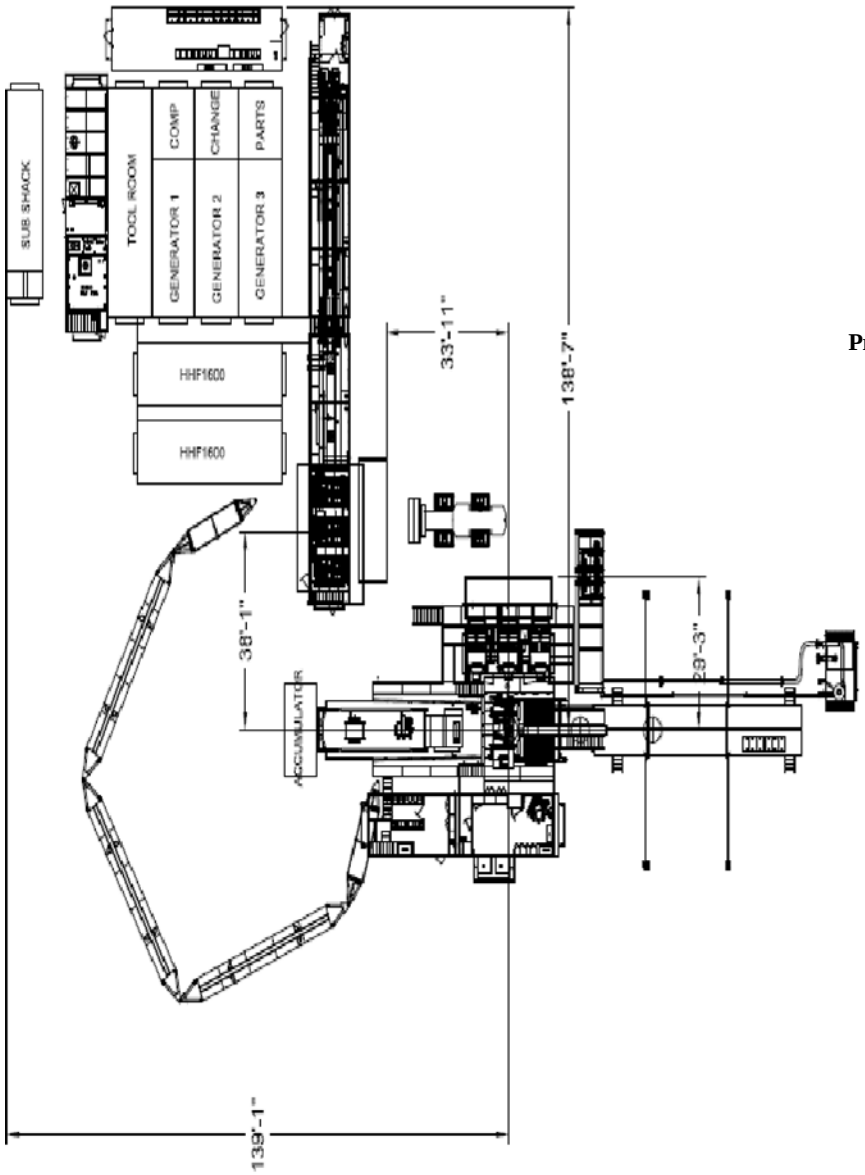
Permian Drilling
Hydrogen Sulfide Drilling Operations Plan
Darko 25 Federal 21H

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

Spur Energy Partners, LLC

Eddy County, NM (NAD 83 - NME)
DARKO 25 FEDERAL
21H

Wellbore #1

Plan: PERMIT

Standard Planning Report

21 June, 2022

Planning Report

Database:	WBDS_SQL_2	**Local Co-ordinate Reference:**	Well 21H
Company:	Spur Energy Partners, LLC	**TVD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Project:	Eddy County, NM (NAD 83 - NME)	**MD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Site:	DARKO 25 FEDERAL	**North Reference:**	Grid
Well:	21H	**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 DARKO 25 FEDERAL

Site Position:		**Northing:**	592,655.90 usft	**Latitude:**	32.6292076
From:	Map	**Easting:**	505,768.70 usft	**Longitude:**	-104.4488717
Position Uncertainty:	0.00 usft	**Slot Radius:**	13.200 in	**Grid Convergence:**	-0.062 °

Well 21H

Well Position	**+N/-S**	-1,144.10 usft	**Northing:**	591,511.80 usft	**Latitude:**	32.6260635
	+E/-W	228.30 usft	**Easting:**	505,997.00 usft	**Longitude:**	-104.4481261
Position Uncertainty		0.00 usft	**Wellhead Elevation:**		**Ground Level:**	3,451.00 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	06/20/22	6.863	60.102	47,534.13672494

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	90.13

Plan Survey Tool Program **Date** 06/20/22

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	8,693.57	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	
1,226.18	18.52	238.04	1,210.13	-78.57	-125.92	2.00	2.00	0.00	238.038	
2,002.75	18.52	238.04	1,946.47	-209.17	-335.23	0.00	0.00	0.00	0.000	
3,089.24	60.00	90.13	2,873.48	-318.03	46.60	7.00	3.82	-13.61	-151.705	
3,289.24	60.00	90.13	2,973.48	-318.41	219.80	0.00	0.00	0.00	0.000	
3,572.46	88.32	90.13	3,050.00	-319.00	489.50	10.00	10.00	0.00	0.000	3. DARKO 25 FED
8,643.55	88.32	90.13	3,198.53	-330.09	5,558.40	0.00	0.00	0.00	0.000	4. DARKO 25 FED
8,693.57	88.32	90.13	3,200.00	-330.20	5,608.40	0.00	0.00	0.00	0.000	5. DARKO 25 FED

SPUR ENERGY PARTNERS

Planning Report

WELLBENDERS DIRECTIONAL SERVICES LLC

Database:	WBDS_SQL_2	**Local Co-ordinate Reference:**	Well 21H
Company:	Spur Energy Partners, LLC	**TVD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Project:	Eddy County, NM (NAD 83 - NME)	**MD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Site:	DARKO 25 FEDERAL	**North Reference:**	Grid
Well:	21H	**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
1. DARKO 25 FED 21H SHL: 650' FSL, 390' FEL									
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	238.04	399.98	-0.92	-1.48	-1.48	2.00	2.00	0.00
500.00	4.00	238.04	499.84	-3.69	-5.92	-5.91	2.00	2.00	0.00
600.00	6.00	238.04	599.45	-8.31	-13.31	-13.30	2.00	2.00	0.00
700.00	8.00	238.04	698.70	-14.76	-23.65	-23.62	2.00	2.00	0.00
800.00	10.00	238.04	797.47	-23.04	-36.92	-36.87	2.00	2.00	0.00
900.00	12.00	238.04	895.62	-33.14	-53.11	-53.04	2.00	2.00	0.00
1,000.00	14.00	238.04	993.06	-45.05	-72.20	-72.09	2.00	2.00	0.00
1,100.00	16.00	238.04	1,089.64	-58.75	-94.15	-94.02	2.00	2.00	0.00
1,200.00	18.00	238.04	1,185.27	-74.22	-118.96	-118.79	2.00	2.00	0.00
1,226.18	18.52	238.04	1,210.13	-78.57	-125.92	-125.74	2.00	2.00	0.00
1,300.00	18.52	238.04	1,280.13	-90.98	-145.81	-145.61	0.00	0.00	0.00
1,400.00	18.52	238.04	1,374.94	-107.80	-172.77	-172.52	0.00	0.00	0.00
1,500.00	18.52	238.04	1,469.76	-124.62	-199.72	-199.44	0.00	0.00	0.00
1,600.00	18.52	238.04	1,564.58	-141.43	-226.67	-226.35	0.00	0.00	0.00
1,700.00	18.52	238.04	1,659.40	-158.25	-253.63	-253.27	0.00	0.00	0.00
1,800.00	18.52	238.04	1,754.22	-175.07	-280.58	-280.18	0.00	0.00	0.00
1,900.00	18.52	238.04	1,849.04	-191.89	-307.53	-307.10	0.00	0.00	0.00
2,002.75	18.52	238.04	1,946.47	-209.17	-335.23	-334.75	0.00	0.00	0.00
2. DARKO 25 FED 21H KOP @ 2002.75' MD									
2,050.00	15.69	232.23	1,991.63	-217.05	-346.65	-346.15	7.00	-6.00	-12.29
2,100.00	12.92	223.49	2,040.08	-225.25	-355.84	-355.33	7.00	-5.53	-17.49
2,150.00	10.60	210.57	2,089.03	-233.27	-362.03	-361.50	7.00	-4.65	-25.83
2,200.00	9.05	192.04	2,138.31	-241.08	-365.19	-364.64	7.00	-3.10	-37.07
2,250.00	8.70	169.32	2,187.73	-248.64	-365.31	-364.74	7.00	-0.69	-45.44
2,300.00	9.69	148.17	2,237.10	-255.94	-362.39	-361.80	7.00	1.98	-42.29
2,350.00	11.68	132.53	2,286.24	-262.94	-356.43	-355.84	7.00	3.98	-31.28
2,400.00	14.26	121.91	2,334.96	-269.62	-347.47	-346.86	7.00	5.15	-21.24
2,450.00	17.16	114.64	2,383.10	-275.95	-335.54	-334.91	7.00	5.80	-14.54
2,500.00	20.25	109.47	2,430.45	-281.91	-320.67	-320.03	7.00	6.17	-10.33
2,550.00	23.44	105.64	2,476.86	-287.48	-302.93	-302.28	7.00	6.40	-7.66
2,600.00	26.72	102.70	2,522.14	-292.63	-282.38	-281.72	7.00	6.54	-5.89
2,650.00	30.03	100.36	2,566.13	-297.35	-259.10	-258.43	7.00	6.64	-4.68
2,700.00	33.39	98.44	2,608.66	-301.63	-233.18	-232.49	7.00	6.71	-3.83
2,750.00	36.76	96.84	2,649.57	-305.43	-204.70	-204.01	7.00	6.75	-3.20
2,800.00	40.16	95.48	2,688.72	-308.75	-173.79	-173.09	7.00	6.79	-2.73
2,850.00	43.57	94.29	2,725.95	-311.58	-140.55	-139.84	7.00	6.82	-2.37
2,900.00	46.99	93.25	2,761.13	-313.91	-105.10	-104.39	7.00	6.84	-2.09
2,950.00	50.42	92.31	2,794.12	-315.73	-67.59	-66.87	7.00	6.86	-1.87
3,000.00	53.85	91.47	2,824.81	-317.02	-28.14	-27.42	7.00	6.87	-1.69
3,050.00	57.30	90.69	2,853.07	-317.79	13.09	13.81	7.00	6.88	-1.55
3,089.24	60.00	90.13	2,873.48	-318.03	46.60	47.32	7.00	6.89	-1.45
3,100.00	60.00	90.13	2,878.86	-318.05	55.92	56.64	0.00	0.00	0.00
3,200.00	60.00	90.13	2,928.86	-318.24	142.52	143.24	0.00	0.00	0.00
3,289.24	60.00	90.13	2,973.48	-318.41	219.80	220.53	0.00	0.00	0.00
3,300.00	61.08	90.13	2,978.77	-318.43	229.17	229.89	10.00	10.00	0.00
3,350.00	66.08	90.13	3,001.02	-318.53	273.93	274.65	10.00	10.00	0.00
3,400.00	71.08	90.13	3,019.28	-318.63	320.46	321.18	10.00	10.00	0.00
3,450.00	76.08	90.13	3,033.41	-318.74	368.41	369.13	10.00	10.00	0.00

SPUR ENERGY PARTNERS

Planning Report

WELLBENDERS DIRECTIONAL SERVICES LLC

Database:	WBDS_SQL_2	**Local Co-ordinate Reference:**	Well 21H
Company:	Spur Energy Partners, LLC	**TVD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Project:	Eddy County, NM (NAD 83 - NME)	**MD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Site:	DARKO 25 FEDERAL	**North Reference:**	Grid
Well:	21H	**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)
3,500.00	81.08	90.13	3,043.31	-318.84	417.40	418.12	10.00	10.00	0.00
3,550.00	86.08	90.13	3,048.90	-318.95	467.07	467.79	10.00	10.00	0.00
3,572.46	88.32	90.13	3,050.00	-319.00	489.50	490.22	10.00	10.00	0.00
3. DARKO 25 FED 21H FTP: 330' FSL, 100' FWL									
3,600.00	88.32	90.13	3,050.81	-319.06	517.03	517.75	0.00	0.00	0.00
3,700.00	88.32	90.13	3,053.74	-319.28	616.99	617.71	0.00	0.00	0.00
3,800.00	88.32	90.13	3,056.66	-319.50	716.94	717.67	0.00	0.00	0.00
3,900.00	88.32	90.13	3,059.59	-319.72	816.90	817.62	0.00	0.00	0.00
4,000.00	88.32	90.13	3,062.52	-319.94	916.86	917.58	0.00	0.00	0.00
4,100.00	88.32	90.13	3,065.45	-320.15	1,016.81	1,017.54	0.00	0.00	0.00
4,200.00	88.32	90.13	3,068.38	-320.37	1,116.77	1,117.49	0.00	0.00	0.00
4,300.00	88.32	90.13	3,071.31	-320.59	1,216.73	1,217.45	0.00	0.00	0.00
4,400.00	88.32	90.13	3,074.24	-320.81	1,316.68	1,317.41	0.00	0.00	0.00
4,500.00	88.32	90.13	3,077.17	-321.03	1,416.64	1,417.37	0.00	0.00	0.00
4,600.00	88.32	90.13	3,080.10	-321.25	1,516.60	1,517.32	0.00	0.00	0.00
4,700.00	88.32	90.13	3,083.03	-321.47	1,616.56	1,617.28	0.00	0.00	0.00
4,800.00	88.32	90.13	3,085.96	-321.68	1,716.51	1,717.24	0.00	0.00	0.00
4,900.00	88.32	90.13	3,088.88	-321.90	1,816.47	1,817.19	0.00	0.00	0.00
5,000.00	88.32	90.13	3,091.81	-322.12	1,916.43	1,917.15	0.00	0.00	0.00
5,100.00	88.32	90.13	3,094.74	-322.34	2,016.38	2,017.11	0.00	0.00	0.00
5,200.00	88.32	90.13	3,097.67	-322.56	2,116.34	2,117.07	0.00	0.00	0.00
5,300.00	88.32	90.13	3,100.60	-322.78	2,216.30	2,217.02	0.00	0.00	0.00
5,400.00	88.32	90.13	3,103.53	-323.00	2,316.25	2,316.98	0.00	0.00	0.00
5,500.00	88.32	90.13	3,106.46	-323.22	2,416.21	2,416.94	0.00	0.00	0.00
5,600.00	88.32	90.13	3,109.39	-323.43	2,516.17	2,516.89	0.00	0.00	0.00
5,700.00	88.32	90.13	3,112.32	-323.65	2,616.12	2,616.85	0.00	0.00	0.00
5,800.00	88.32	90.13	3,115.25	-323.87	2,716.08	2,716.81	0.00	0.00	0.00
5,900.00	88.32	90.13	3,118.17	-324.09	2,816.04	2,816.77	0.00	0.00	0.00
6,000.00	88.32	90.13	3,121.10	-324.31	2,915.99	2,916.72	0.00	0.00	0.00
6,100.00	88.32	90.13	3,124.03	-324.53	3,015.95	3,016.68	0.00	0.00	0.00
6,200.00	88.32	90.13	3,126.96	-324.75	3,115.91	3,116.64	0.00	0.00	0.00
6,300.00	88.32	90.13	3,129.89	-324.97	3,215.86	3,216.59	0.00	0.00	0.00
6,400.00	88.32	90.13	3,132.82	-325.18	3,315.82	3,316.55	0.00	0.00	0.00
6,500.00	88.32	90.13	3,135.75	-325.40	3,415.78	3,416.51	0.00	0.00	0.00
6,600.00	88.32	90.13	3,138.68	-325.62	3,515.74	3,516.47	0.00	0.00	0.00
6,700.00	88.32	90.13	3,141.61	-325.84	3,615.69	3,616.42	0.00	0.00	0.00
6,800.00	88.32	90.13	3,144.54	-326.06	3,715.65	3,716.38	0.00	0.00	0.00
6,900.00	88.32	90.13	3,147.47	-326.28	3,815.61	3,816.34	0.00	0.00	0.00
7,000.00	88.32	90.13	3,150.39	-326.50	3,915.56	3,916.29	0.00	0.00	0.00
7,100.00	88.32	90.13	3,153.32	-326.71	4,015.52	4,016.25	0.00	0.00	0.00
7,200.00	88.32	90.13	3,156.25	-326.93	4,115.48	4,116.21	0.00	0.00	0.00
7,300.00	88.32	90.13	3,159.18	-327.15	4,215.43	4,216.16	0.00	0.00	0.00
7,400.00	88.32	90.13	3,162.11	-327.37	4,315.39	4,316.12	0.00	0.00	0.00
7,500.00	88.32	90.13	3,165.04	-327.59	4,415.35	4,416.08	0.00	0.00	0.00
7,600.00	88.32	90.13	3,167.97	-327.81	4,515.30	4,516.04	0.00	0.00	0.00
7,700.00	88.32	90.13	3,170.90	-328.03	4,615.26	4,615.99	0.00	0.00	0.00
7,800.00	88.32	90.13	3,173.83	-328.25	4,715.22	4,715.95	0.00	0.00	0.00
7,900.00	88.32	90.13	3,176.76	-328.46	4,815.17	4,815.91	0.00	0.00	0.00
8,000.00	88.32	90.13	3,179.69	-328.68	4,915.13	4,915.86	0.00	0.00	0.00
8,100.00	88.32	90.13	3,182.61	-328.90	5,015.09	5,015.82	0.00	0.00	0.00
8,200.00	88.32	90.13	3,185.54	-329.12	5,115.05	5,115.78	0.00	0.00	0.00
8,300.00	88.32	90.13	3,188.47	-329.34	5,215.00	5,215.74	0.00	0.00	0.00
8,400.00	88.32	90.13	3,191.40	-329.56	5,314.96	5,315.69	0.00	0.00	0.00
8,500.00	88.32	90.13	3,194.33	-329.78	5,414.92	5,415.65	0.00	0.00	0.00

Planning Report

Database:	WBDS_SQL_2	**Local Co-ordinate Reference:**	Well 21H
Company:	Spur Energy Partners, LLC	**TVD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Project:	Eddy County, NM (NAD 83 - NME)	**MD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Site:	DARKO 25 FEDERAL	**North Reference:**	Grid
Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Planned Survey

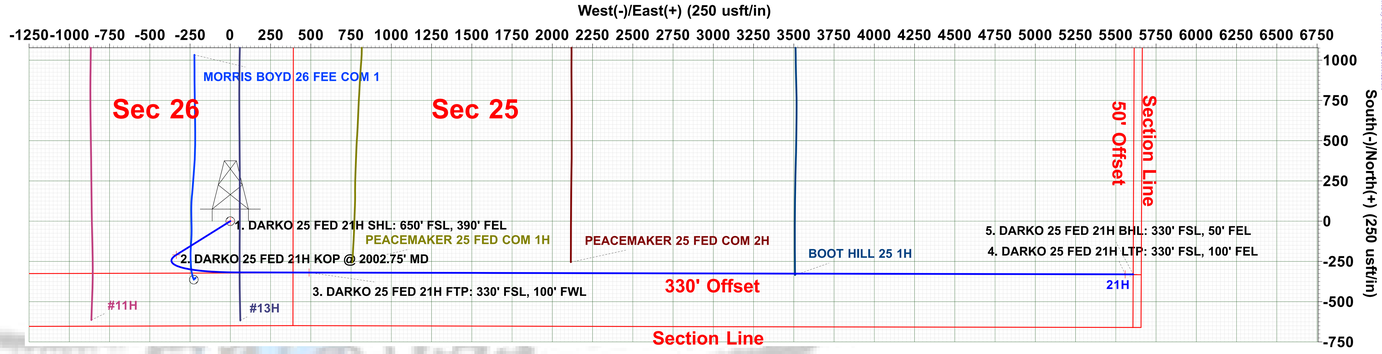
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,600.00	88.32	90.13	3,197.26	-330.00	5,514.87	5,515.61	0.00	0.00	0.00
8,643.55	88.32	90.13	3,198.53	-330.09	5,558.40	5,559.13	0.00	0.00	0.00
4. DARKO 25 FED 21H LTP: 330' FSL, 100' FEL									
8,693.57	88.32	90.13	3,200.00	-330.20	5,608.40	5,609.13	0.00	0.00	0.00
5. DARKO 25 FED 21H BHL: 330' FSL, 50' FEL									

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
1. DARKO 25 FED 21 - plan hits target center - Point	0.00	360.00	0.00	0.00	0.00	591,511.80	505,997.00	32.6260635	-104.4481261
2. DARKO 25 FED 21 - plan hits target center - Point	0.00	360.00	1,946.47	-209.17	-335.23	591,302.64	505,661.77	32.6254875	-104.4492143
3. DARKO 25 FED 21 - plan hits target center - Point	0.00	360.00	3,050.00	-319.00	489.50	591,192.80	506,486.50	32.6251881	-104.4465350
5. DARKO 25 FED 21 - plan hits target center - Point	0.00	360.00	3,200.00	-330.20	5,608.40	591,181.60	511,605.40	32.6251712	-104.4299080
4. DARKO 25 FED 21 - plan misses target center by 1.47usft at 8643.55usft MD (3198.53 TVD, -330.09 N, 5558.40 E) - Point	0.00	360.00	3,200.00	-330.10	5,558.40	591,181.70	511,555.40	32.6251713	-104.4300704

Company: Spur Energy Partners, LLC
Project: Eddy County, NM (NAD 83 - NME)
Site: DARKO 25 FEDERAL
Well: 21H
Wellbore: Wellbore #1
Rig: AKITA 57
Design: PERMIT / 8:44, June 21 2022

WELLBENDERS DIRECTIONAL SERVICES LLC



WELL DETAILS: 21H

RKB = 20' @ 3471.00usft (AKITA 57)
3451.00

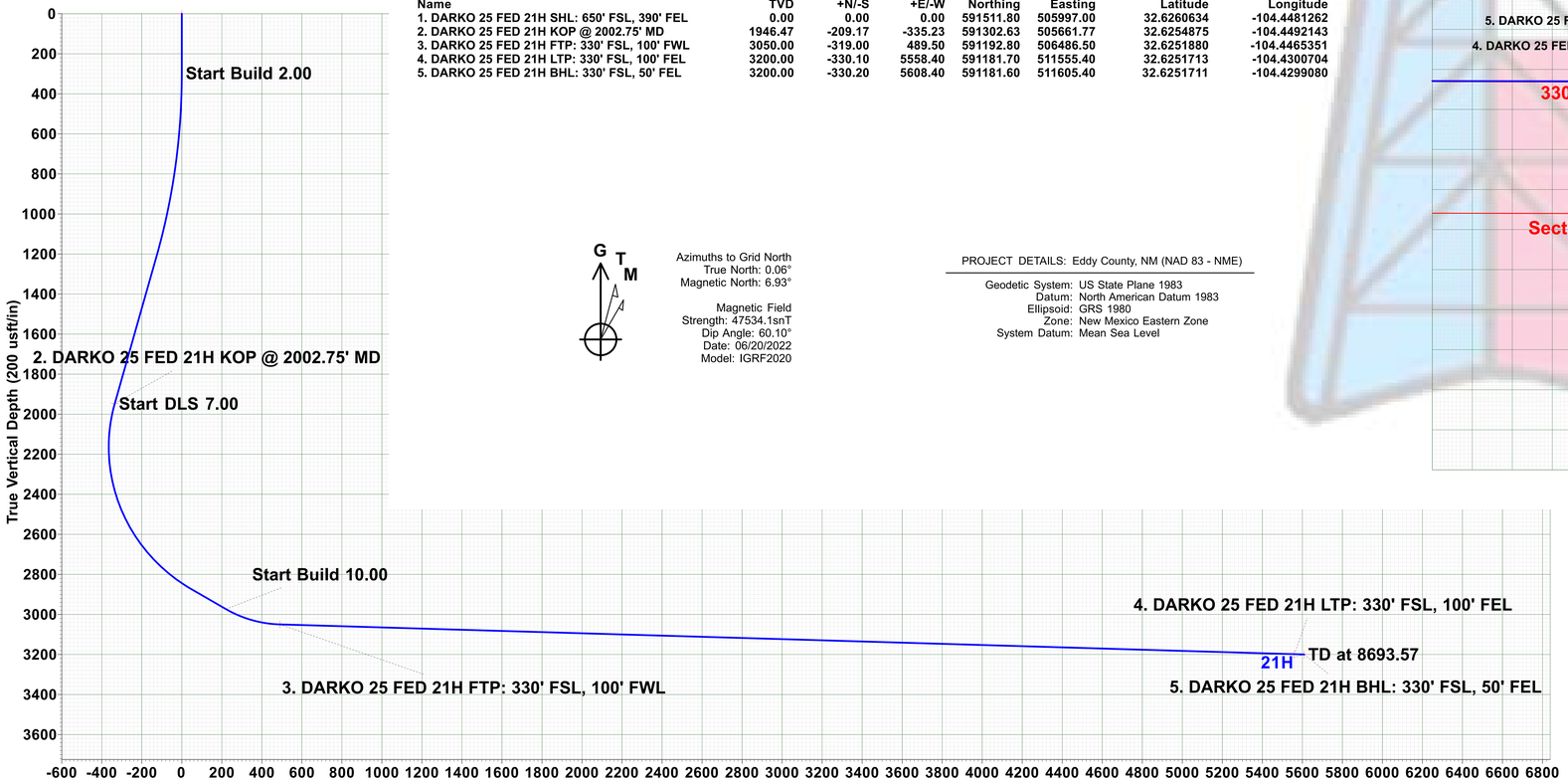
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	591511.80	505997.00	32.6260634	-104.4481262

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	1226.18	18.52	238.04	1210.13	-78.57	-125.92	2.00	-125.74
4	2002.75	18.52	238.04	1946.47	-209.17	-335.23	0.00	-334.75
5	3089.24	60.00	90.13	2873.48	-318.03	46.60	7.00	47.32
6	3289.24	60.00	90.13	2973.48	-318.41	219.80	0.00	220.53
7	3572.46	88.32	90.13	3050.00	-319.00	489.50	10.00	490.22
8	8643.55	88.32	90.13	3198.53	-330.09	5558.40	0.00	5559.13
9	8693.57	88.32	90.13	3200.00	-330.20	5608.40	0.00	5609.13

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
1. DARKO 25 FED 21H SHL: 650' FSL, 390' FEL	0.00	0.00	0.00	591511.80	505997.00	32.6260634	-104.4481262
2. DARKO 25 FED 21H KOP @ 2002.75' MD	1946.47	-209.17	-335.23	591302.63	505661.77	32.6254875	-104.4492143
3. DARKO 25 FED 21H FTP: 330' FSL, 100' FWL	3050.00	-319.00	489.50	591192.80	506486.50	32.6251880	-104.4465351
4. DARKO 25 FED 21H LTP: 330' FSL, 100' FEL	3200.00	-330.10	5558.40	591181.70	511555.40	32.6251713	-104.4300704
5. DARKO 25 FED 21H BHL: 330' FSL, 50' FEL	3200.00	-330.20	5608.40	591181.60	511605.40	32.6251711	-104.4299080

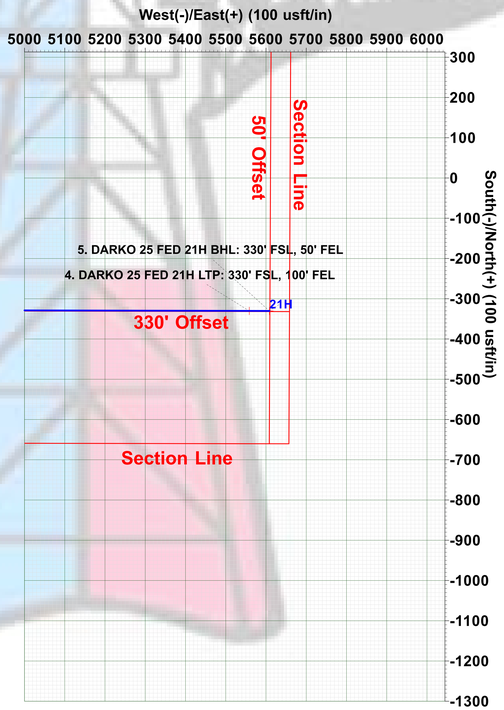


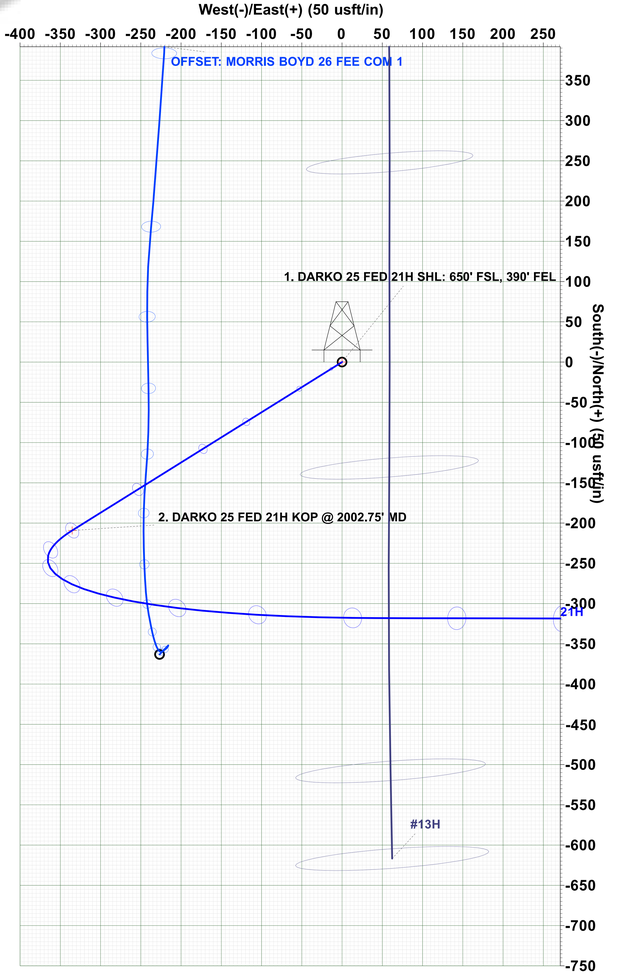
Azimuths to Grid North
True North: 0.06°
Magnetic North: 6.93°

Magnetic Field
Strength: 47534.1snT
Dip Angle: 60.10°
Date: 06/20/2022
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 (21H/Wellbore #1) AKITA 57

Created By: Derek Stephens Date: 8:44, June 21 2022

Spur Energy Partners, LLC

Eddy County, NM (NAD 83 - NME)
DARKO 25 FEDERAL
21H

Wellbore #1
PERMIT

Anticollision Report

21 June, 2022

Anticollision Report

Company:	Spur Energy Partners, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	Eddy County, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Reference Site:	DARKO 25 FEDERAL	**MD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	WBDS_SQL_2
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Reference PERMIT

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.00usft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 2,000.00 us	**Error Surface:**	Pedal Curve
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 06/21/22

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	8,693.57	PERMIT (Wellbore #1)	MWD+IGRF	OWSG MWD + IGRF or WMM

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
DARKO 25 FEDERAL						
OFFSET: BOOT HILL 25 1H - Wellbore #1 - Wellbore #1	6,500.00	4,884.64	312.95	263.09	6.277	SF
OFFSET: BOOT HILL 25 1H - Wellbore #1 - Wellbore #1	6,583.05	4,885.13	301.73	254.11	6.336	CC, ES
OFFSET: MORRIS BOYD 26 FEE COM 1 - Wellbore #1	2,600.00	2,527.98	43.20	28.81	3.001	SF
OFFSET: MORRIS BOYD 26 FEE COM 1 - Wellbore #1	2,611.54	2,535.45	42.40	28.65	3.083	CC, ES
OFFSET: PEACEMAKER 25 FED COM 1H - Wellbore #	3,600.00	4,952.00	384.80	340.59	8.704	SF
OFFSET: PEACEMAKER 25 FED COM 1H - Wellbore #	3,832.25	4,952.00	306.80	278.57	10.868	CC, ES
OFFSET: PEACEMAKER 25 FED COM 2H - Wellbore #	5,000.00	4,940.00	360.96	310.72	7.186	SF
OFFSET: PEACEMAKER 25 FED COM 2H - Wellbore #	5,189.94	4,940.00	306.94	266.53	7.595	CC, ES
Morris-Boyd						
#11H - OH - OH	2,769.09	8,560.82	838.04	736.13	8.224	CC
#11H - OH - OH	2,800.00	8,562.81	839.18	734.89	8.047	ES
#11H - OH - OH	2,900.00	8,568.04	858.24	747.13	7.724	SF
#13H - OH - OH	3,181.21	8,515.59	136.46	59.14	1.765	CC
#13H - OH - OH	3,200.00	8,515.83	137.75	50.19	1.573	ES
#13H - OH - OH	3,300.00	8,517.15	180.99	60.50	1.502	SF

Offset Design DARKO 25 FEDERAL - OFFSET: BOOT HILL 25 1H - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.00 usft

Survey Program: 100-MWD+IGRF — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,700.00	3,083.03	4,874.06	2,836.51	48.09	43.97	-1.711	-316.59	3,507.58	1,907.04	1,851.31	55.73	34.221	
4,800.00	3,085.96	4,874.65	2,836.51	50.64	43.98	-1.600	-317.17	3,507.59	1,808.37	1,752.60	55.77	32.426	
4,900.00	3,088.88	4,875.23	2,836.52	53.19	43.99	-1.488	-317.76	3,507.59	1,709.85	1,654.04	55.82	30.634	
5,000.00	3,091.81	4,875.82	2,836.52	55.76	44.00	-1.377	-318.35	3,507.59	1,611.52	1,555.65	55.87	28.846	
5,100.00	3,094.74	4,876.41	2,836.53	58.33	44.01	-1.265	-318.94	3,507.59	1,513.41	1,457.48	55.92	27.063	
5,200.00	3,097.67	4,877.00	2,836.53	60.90	44.02	-1.154	-319.53	3,507.60	1,415.56	1,359.57	55.98	25.286	
5,300.00	3,100.60	4,877.59	2,836.53	63.48	44.03	-1.042	-320.11	3,507.60	1,318.03	1,261.98	56.05	23.515	
5,400.00	3,103.53	4,878.17	2,836.54	66.06	44.05	-0.930	-320.70	3,507.60	1,220.90	1,164.77	56.13	21.753	
5,500.00	3,106.46	4,878.76	2,836.54	68.65	44.06	-0.819	-321.29	3,507.60	1,124.27	1,068.06	56.21	20.000	
5,600.00	3,109.39	4,879.35	2,836.55	71.24	44.07	-0.707	-321.88	3,507.60	1,028.30	971.98	56.31	18.260	
5,700.00	3,112.32	4,879.94	2,836.55	73.83	44.08	-0.596	-322.47	3,507.61	933.16	876.73	56.43	16.538	
5,800.00	3,115.25	4,880.53	2,836.55	76.42	44.09	-0.484	-323.05	3,507.61	839.16	782.60	56.55	14.838	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

SPUR ENERGY PARTNERS

Anticollision Report

WELLBENDERS DIRECTIONAL SERVICES

Company:	Spur Energy Partners, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	Eddy County, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Reference Site:	DARKO 25 FEDERAL	**MD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	WBDS_SQL_2
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design DARKO 25 FEDERAL - OFFSET: BOOT HILL 25 1H - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.00 usft

Survey Program: 100-MWD+IGRF — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,900.00	3,118.17	4,881.11	2,836.56	79.02	44.10	-0.372	-323.64	3,507.61	746.71	690.02	56.69	13.172	
6,000.00	3,121.10	4,881.70	2,836.56	81.62	44.11	-0.261	-324.23	3,507.61	656.49	599.68	56.81	11.556	
6,100.00	3,124.03	4,882.29	2,836.57	84.22	44.12	-0.149	-324.82	3,507.61	569.53	512.68	56.85	10.018	
6,200.00	3,126.96	4,882.88	2,836.57	86.83	44.13	-0.037	-325.41	3,507.62	487.61	430.95	56.66	8.606	
6,300.00	3,129.89	4,883.47	2,836.57	89.43	44.14	0.074	-325.99	3,507.62	413.71	357.86	55.85	7.408	
6,400.00	3,132.82	4,884.05	2,836.58	92.04	44.16	0.186	-326.58	3,507.62	352.91	299.20	53.71	6.570	
6,500.00	3,135.75	4,884.64	2,836.58	94.65	44.17	0.298	-327.17	3,507.62	312.95	263.09	49.86	6.277	SF
6,583.05	3,138.18	4,885.13	2,836.59	96.82	44.18	0.390	-327.66	3,507.62	301.73	254.11	47.62	6.336	CC, ES
6,600.00	3,138.68	4,885.23	2,836.59	97.26	44.18	0.409	-327.76	3,507.62	302.21	254.52	47.68	6.338	
6,700.00	3,141.61	4,885.82	2,836.59	99.87	44.19	0.521	-328.35	3,507.63	323.60	272.35	51.25	6.314	
6,800.00	3,144.54	4,886.41	2,836.60	102.48	44.20	0.633	-328.93	3,507.63	371.63	316.33	55.30	6.720	
6,900.00	3,147.47	4,886.99	2,836.60	105.09	44.21	0.744	-329.52	3,507.63	437.60	380.09	57.52	7.608	
7,000.00	3,150.39	4,887.58	2,836.60	107.71	44.22	0.856	-330.11	3,507.63	514.67	456.19	58.48	8.801	
7,100.00	3,153.32	4,888.17	2,836.61	110.32	44.23	0.968	-330.70	3,507.63	598.56	539.72	58.84	10.173	
7,200.00	3,156.25	4,888.76	2,836.61	112.94	44.24	1.079	-331.29	3,507.64	686.77	627.84	58.93	11.653	
7,300.00	3,159.18	4,889.35	2,836.62	115.56	44.25	1.191	-331.87	3,507.64	777.85	718.92	58.92	13.201	
7,400.00	3,162.11	4,889.93	2,836.62	118.17	44.27	1.302	-332.46	3,507.64	870.88	812.00	58.87	14.792	
7,500.00	3,165.04	4,890.52	2,836.62	120.79	44.28	1.414	-333.05	3,507.64	965.31	906.49	58.82	16.411	
7,600.00	3,167.97	4,891.11	2,836.63	123.41	44.29	1.526	-333.64	3,507.64	1,060.75	1,001.98	58.77	18.049	
7,700.00	3,170.90	4,891.70	2,836.63	126.03	44.30	1.637	-334.23	3,507.65	1,156.97	1,098.24	58.74	19.698	
7,800.00	3,173.83	4,892.29	2,836.64	128.65	44.31	1.749	-334.82	3,507.65	1,253.78	1,195.07	58.71	21.355	
7,900.00	3,176.76	4,892.87	2,836.64	131.27	44.32	1.861	-335.40	3,507.65	1,351.05	1,292.36	58.70	23.018	
8,000.00	3,179.69	4,893.46	2,836.64	133.89	44.33	1.972	-335.99	3,507.65	1,448.70	1,390.00	58.69	24.682	
8,100.00	3,182.61	4,894.05	2,836.65	136.51	44.34	2.084	-336.58	3,507.65	1,546.64	1,487.94	58.70	26.348	
8,200.00	3,185.54	4,894.64	2,836.65	139.13	44.35	2.195	-337.17	3,507.66	1,644.84	1,586.12	58.71	28.014	
8,300.00	3,188.47	4,895.23	2,836.66	141.75	44.36	2.307	-337.76	3,507.66	1,743.23	1,684.50	58.74	29.679	
8,400.00	3,191.40	4,895.81	2,836.66	144.37	44.38	2.418	-338.34	3,507.66	1,841.80	1,783.04	58.77	31.341	
8,500.00	3,194.33	4,896.40	2,836.67	147.00	44.39	2.530	-338.93	3,507.66	1,940.52	1,881.72	58.80	33.002	

SPUR ENERGY PARTNERS

Anticollision Report

WELLBENDERS DIRECTIONAL SERVICES

Company:	Spur Energy Partners, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	Eddy County, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Reference Site:	DARKO 25 FEDERAL	**MD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	WBDS_SQL_2
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design DARKO 25 FEDERAL - OFFSET: MORRIS BOYD 26 FEE COM 1 - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.00 usft

Survey Program: 1923-MWD+IGRF — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	1.00	0.00	0.00	-148.028	-363.18	-226.69	428.12				
100.00	100.00	99.35	100.35	0.14	0.18	-148.030	-363.15	-226.66	428.08	427.76	0.32	1,330.360	
200.00	200.00	199.70	200.70	0.50	0.36	-148.033	-363.06	-226.57	427.96	427.10	0.86	497.493	
300.00	300.00	300.05	301.05	0.86	0.54	-148.039	-362.91	-226.43	427.76	426.36	1.40	305.826	
400.00	399.98	400.37	401.37	1.21	0.72	-26.205	-362.70	-226.23	425.90	423.98	1.93	221.089	
500.00	499.84	500.56	501.56	1.56	0.90	-26.576	-362.43	-225.96	420.85	418.39	2.45	171.446	
600.00	599.45	600.47	601.47	1.92	1.08	-27.208	-362.10	-225.65	412.62	409.63	2.99	137.903	
700.00	698.70	699.98	700.98	2.31	1.26	-28.130	-361.71	-225.27	401.28	397.75	3.54	113.432	
800.00	797.47	798.97	799.96	2.73	1.44	-29.386	-361.26	-224.84	386.93	382.83	4.09	94.534	
900.00	895.62	897.29	898.28	3.19	1.61	-31.043	-360.76	-224.36	369.69	365.02	4.66	79.301	
1,000.00	993.06	994.83	995.81	3.68	1.79	-33.192	-360.20	-223.82	349.75	344.50	5.25	66.616	
1,100.00	1,089.64	1,091.45	1,092.43	4.23	1.96	-35.964	-359.60	-223.24	327.39	321.52	5.87	55.791	
1,200.00	1,185.27	1,187.03	1,188.01	4.83	2.13	-39.542	-358.94	-222.61	303.01	296.48	6.53	46.397	
1,300.00	1,280.13	1,281.77	1,282.75	5.47	2.30	-43.783	-358.24	-221.93	277.90	270.65	7.25	38.311	
1,400.00	1,374.94	1,376.43	1,377.40	6.12	2.47	-48.711	-357.48	-221.20	254.35	246.31	8.04	31.633	
1,500.00	1,469.76	1,471.03	1,471.99	6.79	2.64	-54.539	-356.67	-220.42	232.99	224.09	8.91	26.162	
1,600.00	1,564.58	1,565.58	1,566.54	7.47	2.81	-61.381	-355.81	-219.59	214.50	204.65	9.85	21.777	
1,700.00	1,659.40	1,660.08	1,661.03	8.15	2.98	-69.281	-354.90	-218.71	199.73	188.87	10.86	18.396	
1,800.00	1,754.22	1,754.53	1,755.47	8.84	3.15	-78.139	-353.93	-217.77	189.57	177.69	11.88	15.959	
1,900.00	1,849.04	1,848.93	1,849.86	9.53	3.32	-87.655	-352.90	-216.79	184.83	171.99	12.84	14.393	
1,930.91	1,878.35	1,878.10	1,879.03	9.74	3.38	-90.659	-352.58	-216.47	184.55	171.43	13.12	14.071	
2,000.00	1,943.86	1,943.28	1,944.20	10.22	3.49	-97.354	-351.83	-215.75	185.96	172.29	13.67	13.602	
2,100.00	2,040.08	2,038.77	2,039.62	10.84	3.84	-90.347	-354.78	-217.42	189.57	175.06	14.51	13.062	
2,200.00	2,138.31	2,141.17	2,141.83	11.30	4.17	-63.065	-358.58	-222.24	185.07	169.83	15.24	12.145	
2,300.00	2,237.10	2,252.71	2,253.12	11.61	4.56	-21.619	-357.60	-228.32	169.02	153.14	15.88	10.644	
2,400.00	2,334.96	2,361.59	2,360.26	11.79	4.96	0.071	-340.03	-234.68	135.35	119.12	16.24	8.337	
2,500.00	2,430.45	2,455.53	2,448.58	11.87	5.35	-0.816	-309.00	-240.96	86.12	69.82	16.30	5.283	
2,600.00	2,522.14	2,527.98	2,512.13	11.90	5.72	-37.420	-274.52	-244.46	43.20	28.81	14.40	3.001	SF
2,611.54	2,532.42	2,535.45	2,518.41	11.89	5.77	-44.266	-270.48	-244.70	42.40	28.65	13.75	3.083	CC, ES
2,700.00	2,608.66	2,585.99	2,559.22	11.88	6.10	-81.072	-240.74	-245.98	79.47	65.69	13.79	5.765	
2,800.00	2,688.72	2,632.08	2,593.80	11.87	6.44	-90.856	-210.30	-246.60	154.93	140.09	14.84	10.437	
2,900.00	2,761.13	2,671.41	2,621.26	11.90	6.78	-89.495	-182.15	-246.21	238.41	222.91	15.49	15.388	
3,000.00	2,824.81	2,703.64	2,642.13	12.13	7.08	-83.611	-157.63	-245.03	325.30	309.28	16.02	20.301	
3,100.00	2,878.86	2,727.00	2,656.24	12.90	7.32	-76.494	-139.06	-243.63	413.91	397.44	16.47	25.127	
3,200.00	2,928.86	2,748.44	2,668.42	14.15	7.55	-80.460	-121.47	-242.30	504.62	487.71	16.90	29.854	
3,300.00	2,978.77	2,764.91	2,677.29	15.63	7.73	-80.263	-107.62	-241.53	597.41	580.21	17.20	34.724	
3,400.00	3,019.28	2,778.53	2,684.36	17.35	7.89	-58.711	-95.98	-241.00	690.64	673.09	17.55	39.357	
3,500.00	3,043.31	2,789.00	2,689.63	19.32	8.01	-42.987	-86.95	-240.64	782.23	764.28	17.95	43.575	
3,600.00	3,050.81	2,789.00	2,689.63	21.43	8.01	-34.222	-86.95	-240.64	870.86	852.63	18.23	47.764	
3,700.00	3,053.74	2,789.00	2,689.63	23.64	8.01	-34.222	-86.95	-240.64	960.25	941.76	18.50	51.918	
3,800.00	3,056.66	2,789.00	2,689.63	25.92	8.01	-34.222	-86.95	-240.64	1,051.56	1,032.86	18.70	56.234	
3,900.00	3,059.59	2,789.00	2,689.63	28.27	8.01	-34.222	-86.95	-240.64	1,144.31	1,125.45	18.86	60.671	
4,000.00	3,062.52	2,789.00	2,689.63	30.66	8.01	-34.222	-86.95	-240.64	1,238.20	1,219.21	18.99	65.196	
4,100.00	3,065.45	2,789.00	2,689.63	33.09	8.01	-34.222	-86.95	-240.64	1,332.98	1,313.88	19.10	69.787	
4,200.00	3,068.38	2,789.00	2,689.63	35.54	8.01	-34.222	-86.95	-240.64	1,428.47	1,409.27	19.19	74.428	
4,300.00	3,071.31	2,799.28	2,694.67	38.02	8.13	-35.650	-77.99	-240.37	1,524.42	1,504.97	19.45	78.381	
4,400.00	3,074.24	2,800.26	2,695.14	40.52	8.14	-35.786	-77.14	-240.35	1,620.94	1,601.41	19.54	82.975	
4,500.00	3,077.17	2,801.18	2,695.58	43.03	8.16	-35.912	-76.33	-240.34	1,717.86	1,698.25	19.61	87.585	
4,600.00	3,080.10	2,802.04	2,695.99	45.56	8.17	-36.031	-75.58	-240.32	1,815.12	1,795.43	19.69	92.205	
4,700.00	3,083.03	2,802.85	2,696.38	48.09	8.18	-36.143	-74.87	-240.31	1,912.65	1,892.90	19.75	96.830	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

SPUR ENERGY PARTNERS

Anticollision Report

WELLBENDERS DIRECTIONAL SERVICES

Company:	Spur Energy Partners, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	Eddy County, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Reference Site:	DARKO 25 FEDERAL	**MD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	WBDS_SQL_2
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design DARKO 25 FEDERAL - OFFSET: PEACEMAKER 25 FED COM 1H - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.00 usft

Survey Program: 100-MWD+IGRF — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,000.00	993.06	4,762.47	2,755.85	3.68	44.84	-157.275	-67.08	768.48	1,953.12	1,925.79	27.33	71.460	
1,100.00	1,089.64	4,775.67	2,755.94	4.23	45.08	-157.598	-80.28	767.97	1,876.24	1,847.68	28.56	65.700	
1,200.00	1,185.27	4,797.16	2,756.26	4.83	45.48	-157.465	-101.73	766.82	1,803.71	1,773.66	30.04	60.038	
1,300.00	1,280.13	1,300.00	2,756.59	5.47	19.93	-156.764	-122.68	765.51	1,735.35	1,718.83	16.53	105.009	
1,400.00	1,374.94	4,831.50	2,756.79	6.12	46.11	-156.192	-136.01	764.72	1,670.08	1,636.56	33.52	49.825	
1,500.00	1,469.76	4,847.00	2,757.04	6.79	46.40	-155.524	-151.48	763.99	1,608.27	1,572.78	35.49	45.317	
1,600.00	1,564.58	4,891.55	2,757.42	7.47	47.22	-153.589	-195.97	761.69	1,550.06	1,512.16	37.91	40.891	
1,700.00	1,659.40	4,912.20	2,757.46	8.15	47.60	-152.688	-216.58	760.47	1,495.83	1,455.60	40.23	37.181	
1,800.00	1,754.22	4,930.75	2,757.49	8.84	47.94	-151.874	-235.10	759.37	1,446.25	1,403.60	42.65	33.908	
1,900.00	1,849.04	4,949.30	2,757.52	9.53	48.29	-151.059	-253.62	758.27	1,401.81	1,356.65	45.16	31.040	
2,000.00	1,943.86	4,952.00	2,757.53	10.22	48.34	-150.940	-256.31	758.11	1,363.12	1,315.60	47.51	28.689	
2,100.00	2,040.08	4,952.00	2,757.53	10.84	48.34	-136.875	-256.31	758.11	1,325.36	1,275.60	49.76	26.636	
2,200.00	2,138.31	4,952.00	2,757.53	11.30	48.34	-105.911	-256.31	758.11	1,282.76	1,230.94	51.81	24.757	
2,300.00	2,237.10	4,952.00	2,757.53	11.61	48.34	-62.515	-256.31	758.11	1,235.46	1,181.82	53.64	23.031	
2,400.00	2,334.96	4,952.00	2,757.53	11.79	48.34	-36.714	-256.31	758.11	1,183.66	1,128.43	55.23	21.432	
2,500.00	2,430.45	4,952.00	2,757.53	11.87	48.34	-24.734	-256.31	758.11	1,127.57	1,071.00	56.57	19.933	
2,600.00	2,522.14	4,952.00	2,757.53	11.90	48.34	-18.407	-256.31	758.11	1,067.40	1,009.75	57.66	18.514	
2,700.00	2,608.66	4,952.00	2,757.53	11.88	48.34	-14.593	-256.31	758.11	1,003.43	944.95	58.48	17.159	
2,800.00	2,688.72	4,952.00	2,757.53	11.87	48.34	-12.061	-256.31	758.11	935.90	876.88	59.03	15.855	
2,900.00	2,761.13	4,952.00	2,757.53	11.90	48.34	-10.255	-256.31	758.11	865.14	805.86	59.28	14.594	
3,000.00	2,824.81	4,952.00	2,757.53	12.13	48.34	-8.886	-256.31	758.11	791.45	732.24	59.22	13.366	
3,100.00	2,878.86	4,952.00	2,757.53	12.90	48.34	-7.898	-256.31	758.11	715.27	656.47	58.80	12.165	
3,200.00	2,928.86	4,952.00	2,757.53	14.15	48.34	-7.898	-256.31	758.11	641.98	584.14	57.84	11.099	
3,300.00	2,978.77	4,952.00	2,757.53	15.63	48.34	-8.014	-256.31	758.11	576.70	520.64	56.06	10.287	
3,400.00	3,019.28	4,952.00	2,757.53	17.35	48.34	-9.227	-256.31	758.11	513.74	460.43	53.31	9.637	
3,500.00	3,043.31	4,952.00	2,757.53	19.32	48.34	-10.691	-256.31	758.11	449.07	399.61	49.46	9.080	
3,600.00	3,050.81	4,952.00	2,757.53	21.43	48.34	-11.902	-256.31	758.11	384.80	340.59	44.21	8.704	SF
3,700.00	3,053.74	4,952.00	2,757.53	23.64	48.34	-11.902	-256.31	758.11	334.09	297.32	36.77	9.086	
3,800.00	3,056.66	4,952.00	2,757.53	25.92	48.34	-11.902	-256.31	758.11	308.49	279.19	29.30	10.528	
3,832.25	3,057.61	4,952.00	2,757.53	26.68	48.34	-11.902	-256.31	758.11	306.80	278.57	28.23	10.868	CC, ES
3,900.00	3,059.59	4,952.00	2,757.53	28.27	48.34	-11.902	-256.31	758.11	314.20	284.40	29.79	10.545	
4,000.00	3,062.52	4,952.00	2,757.53	30.66	48.34	-11.902	-256.31	758.11	349.67	312.44	37.23	9.393	
4,100.00	3,065.45	4,952.00	2,757.53	33.09	48.34	-11.902	-256.31	758.11	407.21	363.14	44.07	9.241	
4,200.00	3,068.38	4,952.00	2,757.53	35.54	48.34	-11.902	-256.31	758.11	478.93	430.19	48.74	9.826	
4,300.00	3,071.31	4,952.00	2,757.53	38.02	48.34	-11.902	-256.31	758.11	559.39	507.62	51.77	10.805	
4,400.00	3,074.24	4,952.00	2,757.53	40.52	48.34	-11.902	-256.31	758.11	645.35	591.58	53.76	12.003	
4,500.00	3,077.17	4,952.00	2,757.53	43.03	48.34	-11.902	-256.31	758.11	734.86	679.74	55.12	13.332	
4,600.00	3,080.10	4,952.00	2,757.53	45.56	48.34	-11.902	-256.31	758.11	826.78	770.71	56.08	14.744	
4,700.00	3,083.03	4,952.00	2,757.53	48.09	48.34	-11.902	-256.31	758.11	920.39	863.62	56.78	16.211	
4,800.00	3,085.96	4,952.00	2,757.53	50.64	48.34	-11.902	-256.31	758.11	1,015.22	957.92	57.30	17.717	
4,900.00	3,088.88	4,955.28	2,757.53	53.19	48.40	-11.302	-259.59	757.91	1,110.95	1,053.16	57.79	19.224	
5,000.00	3,091.81	4,949.58	2,757.52	55.76	48.29	-12.342	-253.90	758.25	1,207.38	1,149.40	57.98	20.824	
5,100.00	3,094.74	4,943.88	2,757.51	58.33	48.19	-13.374	-248.20	758.59	1,304.32	1,246.21	58.12	22.443	
5,200.00	3,097.67	4,938.17	2,757.50	60.90	48.08	-14.398	-242.51	758.93	1,401.67	1,343.46	58.21	24.078	
5,300.00	3,100.60	4,932.47	2,757.49	63.48	47.98	-15.412	-236.81	759.27	1,499.35	1,441.07	58.28	25.726	
5,400.00	3,103.53	4,926.76	2,757.48	66.06	47.87	-16.416	-231.12	759.61	1,597.29	1,538.96	58.33	27.385	
5,500.00	3,106.46	4,921.06	2,757.47	68.65	47.77	-17.409	-225.43	759.94	1,695.46	1,637.10	58.36	29.054	
5,600.00	3,109.39	4,915.35	2,757.46	71.24	47.66	-18.392	-219.73	760.28	1,793.80	1,735.43	58.37	30.730	
5,700.00	3,112.32	4,909.65	2,757.45	73.83	47.55	-19.364	-214.04	760.62	1,892.31	1,833.93	58.38	32.413	
5,800.00	3,115.25	4,903.94	2,757.44	76.42	47.45	-20.324	-208.34	760.96	1,990.95	1,932.57	58.38	34.103	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Spur Energy Partners, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	Eddy County, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Reference Site:	DARKO 25 FEDERAL	**MD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	WBDS_SQL_2
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design DARKO 25 FEDERAL - OFFSET: PEACEMAKER 25 FED COM 2H - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.00 usft

Survey Program: 100-MWD+IGRF — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
3,200.00	2,928.86	4,940.00	2,798.24	14.15	48.07	-3.551	-254.32	2,115.20	1,978.04	1,918.76	59.28	33.368	
3,300.00	2,978.77	4,940.00	2,798.24	15.63	48.07	-3.648	-254.32	2,115.20	1,895.74	1,836.46	59.28	31.981	
3,400.00	3,019.28	4,940.00	2,798.24	17.35	48.07	-4.930	-254.32	2,115.20	1,809.44	1,750.17	59.28	30.526	
3,500.00	3,043.31	4,940.00	2,798.24	19.32	48.07	-7.688	-254.32	2,115.20	1,716.61	1,657.34	59.27	28.964	
3,600.00	3,050.81	4,940.00	2,798.24	21.43	48.07	-12.844	-254.32	2,115.20	1,619.30	1,560.03	59.27	27.322	
3,700.00	3,053.74	4,940.00	2,798.24	23.64	48.07	-12.844	-254.32	2,115.20	1,521.23	1,461.98	59.25	25.673	
3,800.00	3,056.66	4,940.00	2,798.24	25.92	48.07	-12.844	-254.32	2,115.20	1,423.43	1,364.19	59.24	24.030	
3,900.00	3,059.59	4,940.00	2,798.24	28.27	48.07	-12.844	-254.32	2,115.20	1,325.96	1,266.75	59.21	22.394	
4,000.00	3,062.52	4,940.00	2,798.24	30.66	48.07	-12.844	-254.32	2,115.20	1,228.89	1,169.71	59.18	20.766	
4,100.00	3,065.45	4,940.00	2,798.24	33.09	48.07	-12.844	-254.32	2,115.20	1,132.34	1,073.21	59.13	19.150	
4,200.00	3,068.38	4,940.00	2,798.24	35.54	48.07	-12.844	-254.32	2,115.20	1,036.44	977.37	59.06	17.548	
4,300.00	3,071.31	4,940.00	2,798.24	38.02	48.07	-12.844	-254.32	2,115.20	941.39	882.43	58.96	15.966	
4,400.00	3,074.24	4,940.00	2,798.24	40.52	48.07	-12.844	-254.32	2,115.20	847.48	788.67	58.81	14.411	
4,500.00	3,077.17	4,940.00	2,798.24	43.03	48.07	-12.844	-254.32	2,115.20	755.14	696.57	58.57	12.893	
4,600.00	3,080.10	4,940.00	2,798.24	45.56	48.07	-12.844	-254.32	2,115.20	665.02	606.84	58.18	11.431	
4,700.00	3,083.03	4,940.00	2,798.24	48.09	48.07	-12.844	-254.32	2,115.20	578.15	520.64	57.51	10.052	
4,800.00	3,085.96	4,940.00	2,798.24	50.64	48.07	-12.844	-254.32	2,115.20	496.25	439.92	56.33	8.810	
4,900.00	3,088.88	4,940.00	2,798.24	53.19	48.07	-12.844	-254.32	2,115.20	422.23	368.07	54.16	7.796	
5,000.00	3,091.81	4,940.00	2,798.24	55.76	48.07	-12.844	-254.32	2,115.20	360.96	310.72	50.23	7.186	SF
5,100.00	3,094.74	4,940.00	2,798.24	58.33	48.07	-12.844	-254.32	2,115.20	319.85	275.57	44.28	7.224	
5,189.94	3,097.38	4,940.00	2,798.24	60.64	48.07	-12.844	-254.32	2,115.20	306.94	266.53	40.42	7.595	CC, ES
5,200.00	3,097.67	4,940.00	2,798.24	60.90	48.07	-12.844	-254.32	2,115.20	307.11	266.72	40.38	7.605	
5,300.00	3,100.60	4,940.00	2,798.24	63.48	48.07	-12.844	-254.32	2,115.20	326.08	281.64	44.43	7.339	
5,400.00	3,103.53	4,940.00	2,798.24	66.06	48.07	-12.844	-254.32	2,115.20	371.94	321.74	50.20	7.410	
5,500.00	3,106.46	4,940.00	2,798.24	68.65	48.07	-12.844	-254.32	2,115.20	436.29	382.27	54.03	8.076	
5,600.00	3,109.39	4,940.00	2,798.24	71.24	48.07	-12.844	-254.32	2,115.20	512.21	455.98	56.23	9.109	
5,700.00	3,112.32	4,940.00	2,798.24	73.83	48.07	-12.844	-254.32	2,115.20	595.29	537.79	57.50	10.353	
5,800.00	3,115.25	4,940.00	2,798.24	76.42	48.07	-12.844	-254.32	2,115.20	682.92	624.65	58.27	11.720	
5,900.00	3,118.17	4,940.00	2,798.24	79.02	48.07	-12.844	-254.32	2,115.20	773.56	714.80	58.76	13.165	
6,000.00	3,121.10	4,940.00	2,798.24	81.62	48.07	-12.844	-254.32	2,115.20	866.26	807.17	59.09	14.660	
6,100.00	3,124.03	4,940.00	2,798.24	84.22	48.07	-12.844	-254.32	2,115.20	960.43	901.10	59.33	16.188	
6,200.00	3,126.96	4,940.00	2,798.24	86.83	48.07	-12.844	-254.32	2,115.20	1,055.67	996.16	59.51	17.740	
6,300.00	3,129.89	4,940.00	2,798.24	89.43	48.07	-12.844	-254.32	2,115.20	1,151.71	1,092.06	59.65	19.307	
6,400.00	3,132.82	4,940.00	2,798.24	92.04	48.07	-12.844	-254.32	2,115.20	1,248.38	1,188.61	59.77	20.886	
6,500.00	3,135.75	4,940.00	2,798.24	94.65	48.07	-12.844	-254.32	2,115.20	1,345.53	1,285.66	59.87	22.474	
6,600.00	3,138.68	4,940.00	2,798.24	97.26	48.07	-12.844	-254.32	2,115.20	1,443.08	1,383.12	59.96	24.067	
6,700.00	3,141.61	4,940.00	2,798.24	99.87	48.07	-12.844	-254.32	2,115.20	1,540.94	1,480.89	60.04	25.664	
6,800.00	3,144.54	4,940.00	2,798.24	102.48	48.07	-12.844	-254.32	2,115.20	1,639.05	1,578.93	60.12	27.263	
6,900.00	3,147.47	4,940.00	2,798.24	105.09	48.07	-12.844	-254.32	2,115.20	1,737.39	1,677.19	60.19	28.864	
7,000.00	3,150.39	4,940.00	2,798.24	107.71	48.07	-12.844	-254.32	2,115.20	1,835.90	1,775.64	60.26	30.466	
7,100.00	3,153.32	4,940.00	2,798.24	110.32	48.07	-12.844	-254.32	2,115.20	1,934.56	1,874.24	60.33	32.068	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Spur Energy Partners, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	Eddy County, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Reference Site:	DARKO 25 FEDERAL	**MD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	WBDS_SQL_2
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design Morris-Boyd - #11H - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 12-MWD+IGRF, 1365-MWD+IGRF — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,400.00	1,374.94	8,405.78	3,178.22	6.12	111.14	91.313	-137.86	-856.58	1,928.81	1,869.91	58.89	32.751	
1,500.00	1,469.76	8,415.78	3,178.16	6.79	111.33	90.505	-147.85	-856.32	1,830.38	1,770.98	59.40	30.813	
1,600.00	1,564.58	8,426.17	3,178.15	7.47	111.53	89.621	-158.24	-856.04	1,732.04	1,672.08	59.96	28.885	
1,700.00	1,659.40	8,437.00	3,178.16	8.15	111.74	88.648	-169.06	-855.76	1,633.80	1,573.22	60.58	26.970	
1,800.00	1,754.22	8,448.27	3,178.22	8.84	111.95	87.574	-180.34	-855.46	1,535.67	1,474.41	61.26	25.068	
1,900.00	1,849.04	8,463.00	3,178.36	9.53	112.23	86.069	-195.06	-855.06	1,437.67	1,375.65	62.02	23.180	
2,000.00	1,943.86	8,472.94	3,178.49	10.22	112.42	84.979	-204.99	-854.81	1,339.80	1,276.93	62.87	21.311	
2,100.00	2,040.08	8,486.37	3,178.67	10.84	112.68	78.435	-218.41	-854.52	1,243.03	1,178.90	64.13	19.384	
2,200.00	2,138.31	8,499.78	3,178.88	11.30	112.93	98.508	-231.82	-854.28	1,149.82	1,083.53	66.29	17.345	
2,300.00	2,237.10	8,512.87	3,179.10	11.61	113.18	135.790	-244.91	-854.10	1,062.67	993.07	69.60	15.268	
2,400.00	2,334.96	8,525.31	3,179.34	11.79	113.42	157.816	-257.35	-853.97	984.71	910.41	74.30	13.253	
2,500.00	2,430.45	8,536.79	3,179.57	11.87	113.64	167.316	-268.82	-853.90	919.60	839.09	80.51	11.422	
2,600.00	2,522.14	8,547.02	3,179.79	11.90	113.84	171.968	-279.05	-853.87	871.36	783.31	88.05	9.896	
2,700.00	2,608.66	8,555.76	3,179.98	11.88	114.00	174.661	-287.79	-853.86	843.71	747.42	96.29	8.762	
2,769.09	2,664.74	8,560.82	3,180.10	11.87	114.10	175.986	-292.85	-853.87	838.04	736.13	101.91	8.224	CC
2,800.00	2,688.72	8,562.81	3,180.15	11.87	114.14	176.500	-294.84	-853.88	839.18	734.89	104.29	8.047	ES
2,900.00	2,761.13	8,568.04	3,180.28	11.90	114.24	177.994	-300.07	-853.90	858.24	747.13	111.11	7.724	SF
3,000.00	2,824.81	8,571.38	3,180.36	12.13	114.30	179.442	-303.40	-853.92	899.17	782.91	116.27	7.734	
3,100.00	2,878.86	8,572.82	3,180.39	12.90	114.33	-179.103	-304.85	-853.93	958.60	838.82	119.78	8.003	
3,200.00	2,928.86	8,573.51	3,180.41	14.15	114.34	-179.158	-305.53	-853.93	1,027.79	905.66	122.12	8.416	
3,300.00	2,978.77	8,574.17	3,180.43	15.63	114.35	-179.193	-306.20	-853.93	1,101.78	978.05	123.74	8.904	
3,400.00	3,019.28	8,574.63	3,180.44	17.35	114.36	-178.989	-306.65	-853.94	1,185.47	1,060.76	124.70	9.506	
3,500.00	3,043.31	8,574.75	3,180.44	19.32	114.36	-178.401	-306.77	-853.94	1,278.77	1,153.60	125.17	10.217	
3,600.00	3,050.81	8,574.56	3,180.44	21.43	114.36	-176.806	-306.59	-853.94	1,377.14	1,251.80	125.34	10.987	
3,700.00	3,053.74	8,574.31	3,180.43	23.64	114.36	-176.719	-306.33	-853.94	1,476.43	1,351.00	125.43	11.771	
3,800.00	3,056.66	8,574.06	3,180.43	25.92	114.35	-176.636	-306.08	-853.93	1,575.80	1,450.31	125.50	12.557	
3,900.00	3,059.59	8,573.82	3,180.42	28.27	114.35	-176.555	-305.85	-853.93	1,675.25	1,549.70	125.56	13.343	
4,000.00	3,062.52	8,573.59	3,180.41	30.66	114.34	-176.478	-305.62	-853.93	1,774.77	1,649.16	125.61	14.129	
4,100.00	3,065.45	8,573.37	3,180.41	33.09	114.34	-176.404	-305.40	-853.93	1,874.33	1,748.68	125.65	14.917	
4,200.00	3,068.38	8,573.16	3,180.40	35.54	114.33	-176.333	-305.18	-853.93	1,973.94	1,848.24	125.69	15.704	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

SPUR ENERGY PARTNERS

Anticollision Report

WELLBENDERS DIRECTIONAL SERVICES

Company:	Spur Energy Partners, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	Eddy County, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Reference Site:	DARKO 25 FEDERAL	**MD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	WBDS_SQL_2
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design Morris-Boyd - #13H - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 12-MWD+IGRF, 1235-MWD+IGRF — **Offset Well Error:** 0.00 usft

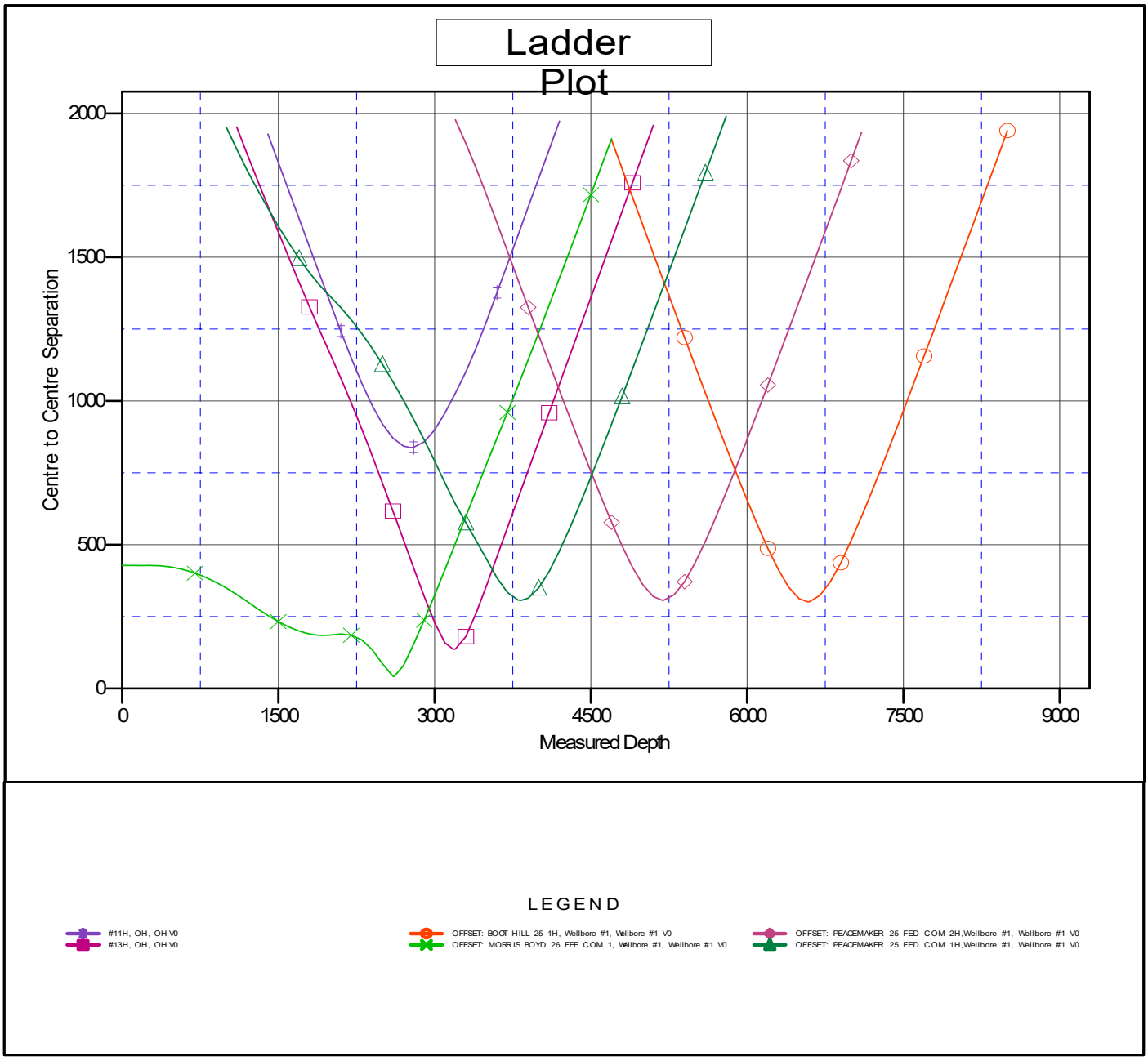
Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,100.00	1,089.64	8,266.12	3,036.96	4.23	109.92	-172.359	-67.06	59.18	1,953.37	1,906.75	46.62	41.899	
1,200.00	1,185.27	8,277.16	3,036.93	4.83	110.13	-172.218	-78.10	59.14	1,860.21	1,813.12	47.10	39.497	
1,300.00	1,280.13	8,289.55	3,036.93	5.47	110.36	-171.503	-90.48	59.08	1,768.71	1,720.96	47.75	37.039	
1,400.00	1,374.94	8,302.42	3,036.96	6.12	110.61	-170.579	-103.35	58.99	1,678.10	1,629.49	48.61	34.521	
1,500.00	1,469.76	8,315.75	3,037.03	6.79	110.86	-169.610	-116.68	58.88	1,588.47	1,538.78	49.69	31.965	
1,600.00	1,564.58	8,330.00	3,037.14	7.47	111.13	-168.562	-130.93	58.74	1,500.00	1,448.94	51.06	29.380	
1,700.00	1,659.40	8,350.65	3,037.31	8.15	111.53	-167.018	-151.58	58.53	1,412.84	1,360.07	52.77	26.773	
1,800.00	1,754.22	8,371.25	3,037.43	8.84	111.92	-165.449	-172.18	58.36	1,327.22	1,272.32	54.90	24.177	
1,900.00	1,849.04	8,391.19	3,037.49	9.53	112.30	-163.904	-192.12	58.22	1,243.45	1,185.94	57.52	21.618	
2,000.00	1,943.86	8,410.49	3,037.50	10.22	112.67	-162.387	-211.42	58.11	1,161.97	1,101.23	60.74	19.130	
2,100.00	2,040.08	8,428.87	3,037.46	10.84	113.01	-148.622	-229.80	58.03	1,079.86	1,015.45	64.40	16.767	
2,200.00	2,138.31	8,445.85	3,037.39	11.30	113.34	-118.256	-246.78	57.98	993.71	925.63	68.07	14.597	
2,300.00	2,237.10	8,461.29	3,037.30	11.61	113.63	-75.876	-262.22	57.96	903.90	832.29	71.61	12.622	
2,400.00	2,334.96	8,469.52	3,037.28	11.79	113.79	-52.991	-270.44	57.95	810.94	736.06	74.87	10.831	
2,500.00	2,430.45	8,479.18	3,037.29	11.87	113.97	-45.810	-280.11	57.95	715.27	637.55	77.72	9.203	
2,600.00	2,522.14	8,488.16	3,037.33	11.90	114.14	-50.608	-289.09	57.96	617.47	537.55	79.92	7.726	
2,700.00	2,608.66	8,496.23	3,037.39	11.88	114.30	-85.163	-297.16	57.97	518.27	437.17	81.09	6.391	
2,800.00	2,688.72	8,503.16	3,037.46	11.87	114.43	-151.307	-304.08	57.99	418.77	338.24	80.52	5.200	
2,900.00	2,761.13	8,508.68	3,037.53	11.90	114.54	-171.556	-309.61	58.00	320.97	244.33	76.64	4.188	
3,000.00	2,824.81	8,512.56	3,037.59	12.13	114.61	-177.287	-313.49	58.02	229.59	163.65	65.95	3.481	
3,100.00	2,878.86	8,514.58	3,037.62	12.90	114.65	-178.929	-315.51	58.02	158.79	108.22	50.58	3.140	
3,181.21	2,919.47	8,515.59	3,037.64	13.91	114.67	-179.354	-316.52	58.03	136.46	59.14	77.32	1.765	CC
3,200.00	2,928.86	8,515.83	3,037.64	14.15	114.67	-179.455	-316.76	58.03	137.75	50.19	87.56	1.573	ES
3,300.00	2,978.77	8,517.15	3,037.66	15.63	114.70	179.992	-318.08	58.03	180.99	60.50	120.48	1.502	SF
3,400.00	3,019.28	8,518.40	3,037.69	17.35	114.72	179.291	-319.33	58.04	263.07	137.28	125.79	2.091	
3,500.00	3,043.31	8,519.44	3,037.70	19.32	114.74	177.366	-320.37	58.04	359.41	233.39	126.01	2.852	
3,600.00	3,050.81	8,520.22	3,037.72	21.43	114.76	96.663	-321.15	58.04	459.18	333.17	126.01	3.644	
3,700.00	3,053.74	8,520.93	3,037.73	23.64	114.77	95.615	-321.86	58.05	559.17	433.14	126.04	4.437	
3,800.00	3,056.66	8,521.66	3,037.74	25.92	114.78	94.885	-322.59	58.05	659.17	533.11	126.07	5.229	
3,900.00	3,059.59	8,522.40	3,037.76	28.27	114.80	94.349	-323.33	58.05	759.17	633.07	126.10	6.020	
4,000.00	3,062.52	8,523.16	3,037.77	30.66	114.81	93.940	-324.09	58.06	859.17	733.03	126.13	6.812	
4,100.00	3,065.45	8,523.94	3,037.79	33.09	114.83	93.617	-324.86	58.06	959.16	833.00	126.17	7.602	
4,200.00	3,068.38	8,524.73	3,037.80	35.54	114.84	93.357	-325.65	58.06	1,059.16	932.96	126.21	8.392	
4,300.00	3,071.31	8,525.54	3,037.82	38.02	114.86	93.143	-326.46	58.07	1,159.16	1,032.91	126.24	9.182	
4,400.00	3,074.24	8,526.36	3,037.84	40.52	114.87	92.965	-327.29	58.07	1,259.16	1,132.87	126.29	9.971	
4,500.00	3,077.17	8,527.21	3,037.85	43.03	114.89	92.815	-328.13	58.07	1,359.15	1,232.82	126.33	10.759	
4,600.00	3,080.10	8,528.07	3,037.87	45.56	114.91	92.686	-329.00	58.08	1,459.15	1,332.78	126.37	11.546	
4,700.00	3,083.03	8,528.96	3,037.89	48.09	114.92	92.576	-329.88	58.08	1,559.15	1,432.73	126.42	12.333	
4,800.00	3,085.96	8,529.86	3,037.91	50.64	114.94	92.480	-330.78	58.09	1,659.15	1,532.68	126.47	13.119	
4,900.00	3,088.88	8,530.79	3,037.93	53.19	114.96	92.396	-331.71	58.09	1,759.14	1,632.62	126.52	13.904	
5,000.00	3,091.81	8,531.73	3,037.95	55.76	114.98	92.323	-332.65	58.10	1,859.14	1,732.57	126.57	14.689	
5,100.00	3,094.74	8,532.70	3,037.97	58.33	114.99	92.258	-333.62	58.10	1,959.14	1,832.51	126.62	15.472	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Spur Energy Partners, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	Eddy County, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Reference Site:	DARKO 25 FEDERAL	**MD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	WBDS_SQL_2
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Reference Depths are relative to RKB = 20' @ 3471.00usft (AKITA 57) Coordinates are relative to: 21H
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Central Meridian is -104.3333333 Grid Convergence at Surface is: -0.062°

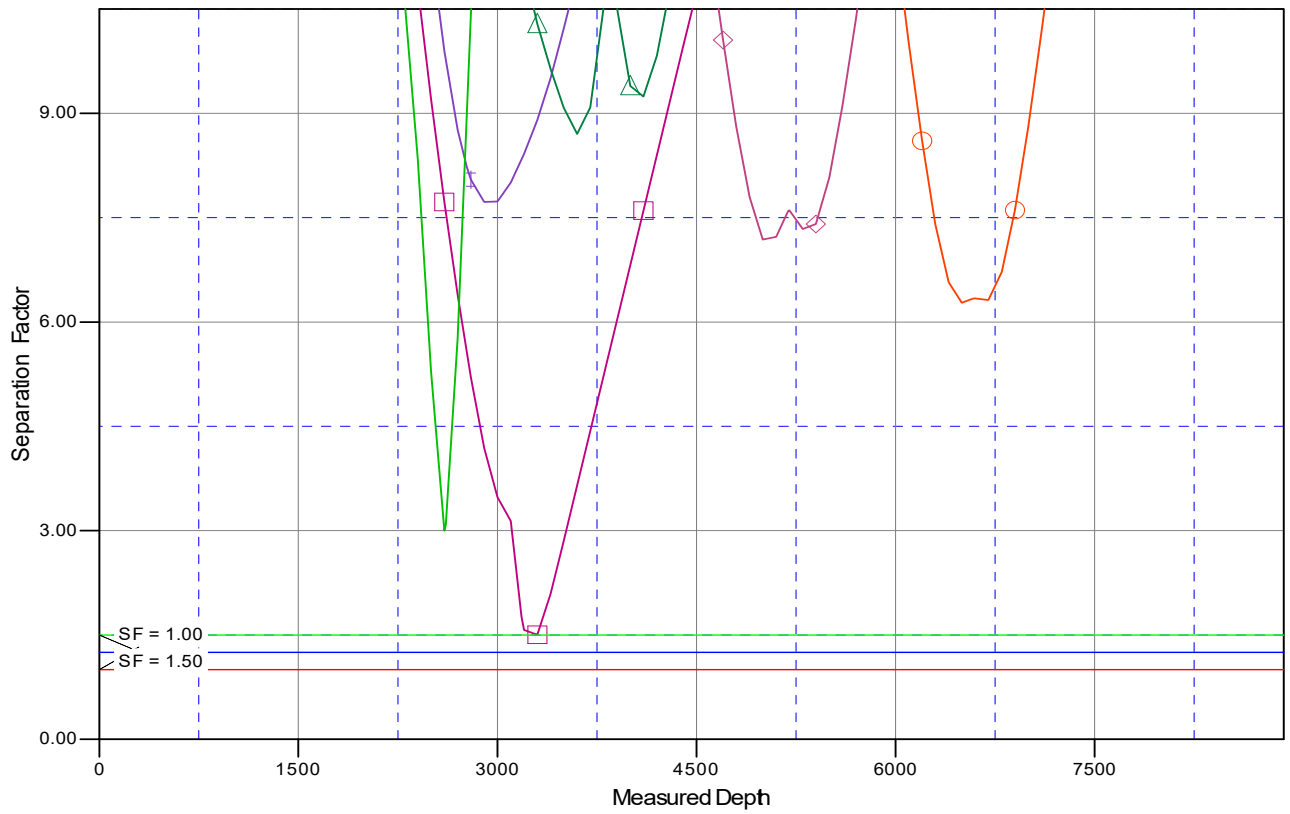


Anticollision Report

Company:	Spur Energy Partners, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	Eddy County, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Reference Site:	DARKO 25 FEDERAL	**MD Reference:**	RKB = 20' @ 3471.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	WBDS_SQL_2
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Reference Depths are relative to RKB = 20' @ 3471.00usft (AKITA 57)
Offset Depths are relative to Offset Datum
Central Meridian is -104.3333333
Coordinates are relative to: 21H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: -0.062°

Separation Factor Plot



LEGEND

#11H, OH, OH V0
#13H, OH, OH V0
OFFSET: BOOT HILL 25 1H, Wellbore #1, Wellbore #1 V0
OFFSET: MORRIS BOYD 26 FEE COM 1, Wellbore #1, Wellbore #1 V0
OFFSET: PEACEMAKER 25 FED COM 2H,Wellbore #1, Wellbore #1 V0
OFFSET: PEACEMAKER 25 FED COM 1H,Wellbore #1, Wellbore #1 V0

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:** 08 / 02 / 2022

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

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
DARKO 25 FEDERAL 20H	30-015-	I-26-19S-25E	1795' FSL 620' FEL	289 BBL/D	329 MCF/D	1010 BBL/D
DARKO 25 FEDERAL 21H	30-015-	P-26-19S-25E	650' FSL 390' FEL	289 BBL/D	329 MCF/D	1010 BBL/D
DARKO 25 FEDERAL 30H	30-015-	I-26-19S-25E	1795' FSL 600' FEL	366 BBL/D	380 MCF/D	1143 BBL/D

IV. Central Delivery Point Name: DARKO 25 FEDERAL 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
DARKO 25 FEDERAL 20H	30-015-	09/28/2023	10/06/2023	01/09/2024	01/24/2024	01/24/2024
DARKO 25 FEDERAL 21H	30-015-	10/06/2023	10/14/2023	01/09/2024	01/24/2024	01/24/2024
DARKO 25 FEDERAL 30H	30-015-	10/14/2023	10/24/2023	01/09/2024	01/24/2024	01/24/2024

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

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

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

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

Section 4 - Notices

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

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

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

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

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

Signature:	
Printed Name:	SARAH CHAPMAN
Title:	REGULATORY DIRECTOR
E-mail Address:	SCHAPMAN@SPURENERGY.COM
Date:	AUGUST 2, 2022
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.

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 1- F800 pump 1- Pill pit 80bbl 1- 400 bbl mud mix 1- Shaker 150mesh 1- 500 bbl fresh water frac tank	Standard Rig Hand Tools: • (2) 36” pipe wrenches • (2) 24” pipe wrenches • (2) 18” pipe wrenches • (1) 24” crescent wrench • (2) 12” crescent wrenches • (1) 4 lb shop hammer • (1) 12 lb sledge hammer • (1) 4 foot pry bar • Vehicles for Contractor personnel • Air Impact Wrench with Sockets • Mud Scales (as needed)

Spur Energy Partners LLC – Darko 25 Federal 21H

1. Geologic Formations

TVD of Target	3,200'
MD at TD	8,694'

Formation	Depth	Lithology	Expected Fluids
Quaternary	0'	Dolomite, other: Caliche	Useable Water
Grayburg	625'	Dolomite, Sandstone, Anhydrite	Natural Gas, Oil
San Andres	905'	Dolomite, Limestone	Natural Gas, Oil
Middle San Andres	1266'	Dolomite, Limestone	Natural Gas, Oil
Lower San Andres	1982'	Dolomite, Limestone	Natural Gas, Oil
Glorieta	2473'	Dolomite, Sandstone	Natural Gas, Oil
Paddock	2646'	Dolomite, Limestone	Natural Gas, Oil
Blinebry	3321'	Dolomite, Limestone	Natural Gas, Oil
Top Bone Spring	4191'	Limestone	Natural Gas, Oil

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

2. Casing Program

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

Casing Formation Set Interval	Hole Size (in)	Casing Interval		Csg. Size (in)	Weight	Grade	Conn.	SF	SF Burst	Body SF	Joint SF
		From (ft)	To (ft)		(lbs)			Collapse		Tension	Tension
Middle San Andres	12.25	0	1250	9.625	36	J-55	BTC	1.125	1.2	1.4	1.4
N/A	8.75	0	3350	7	32	L-80	BK-HT	1.125	1.2	1.4	1.4
Yeso	8.75	3350	8694	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 – Darko 25 Federal 21H

	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?	Y
If yes, are there two strings cemented to surface?	Y
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing String	Top (ft)	Bottom (ft)	% Excess
Surface (Lead)	0	950	100%
Surface (Tail)	950	1250	100%
Production (Lead)	0	2350	100%
Production (Tail)	2350	8694	25%

Casing String	# Sks	Wt. (lb/gal)	Yld (ft3/sack)	H20 (gal/sk)	500# Comp. Strength (hours)	Slurry Description
Surface (Lead)	259	12	2.4	13.48	8:12	Clas C Premium Plus Cement
Surface (Tail)	111	13.2	1.87	9.92	6:59	Clas C Premium Plus Cement
Production (Lead)	180	11.4	2.42	15.29	N/A	Clas C Premium Plus Cement
Production (Tail)	1239	13.2	1.56	9.81	N/A	Clas C Premium Plus Cement

Spur Energy Partners LLC – Darko 25 Federal 21H

4. Pressure Control Equipment

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*		

Spur Energy Partners LLC will be utilizing a 5M BOP

Condition	Specify what type and where?
BH Pressure at deepest TVD	1481 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	106°F

*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. 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?

Spur Energy Partners LLC – Darko 25 Federal 21H

	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. 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.

c		Type	Weight (ppg)	Viscosity	Water Loss
From (ft)	To (ft)				
0	1250	Water-Based Mud	8.6-8.9	32-36	N/C
1250	8694	Water-Based Mud	8.6-8.9	32-36	N/C

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

Spur Energy Partners LLC – Darko 25 Federal 21H

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	SCP - 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: 828.8 bbls**.**

Spur Energy Partners LLC – Darko 25 Federal 21H

9. Other facets of operation

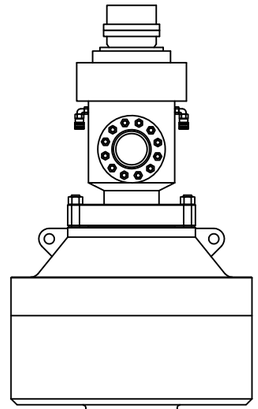
	Yes/No
Will more than one drilling rig be used for drilling operations? If yes, describe. Spur Energy Partners LLC. requests the option to contract a Surface Rig to drill, set surface/intermediate casing and cement for this well. If the timing between rigs is such that Spur Energy Partners LLC. would not be able to preset surface/intermediate 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 Attachments
_x__ BOP Schematics
_x__ Transcend Spudder Rig Attachments

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

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



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

PIPE RAM

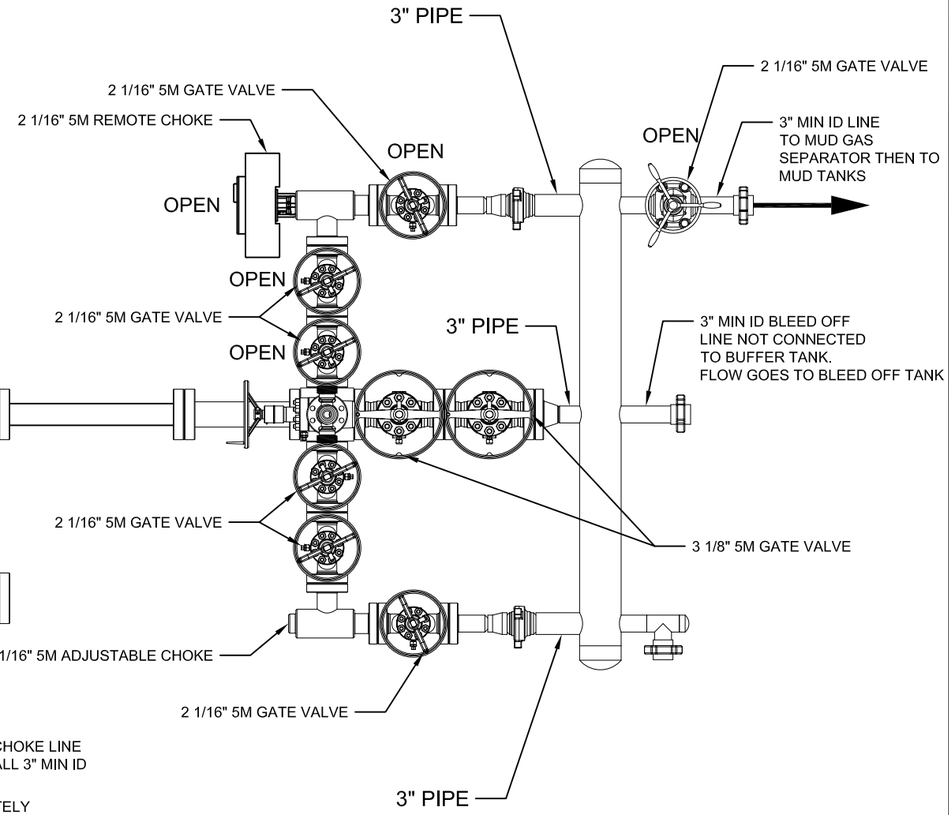
BLIND RAM

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

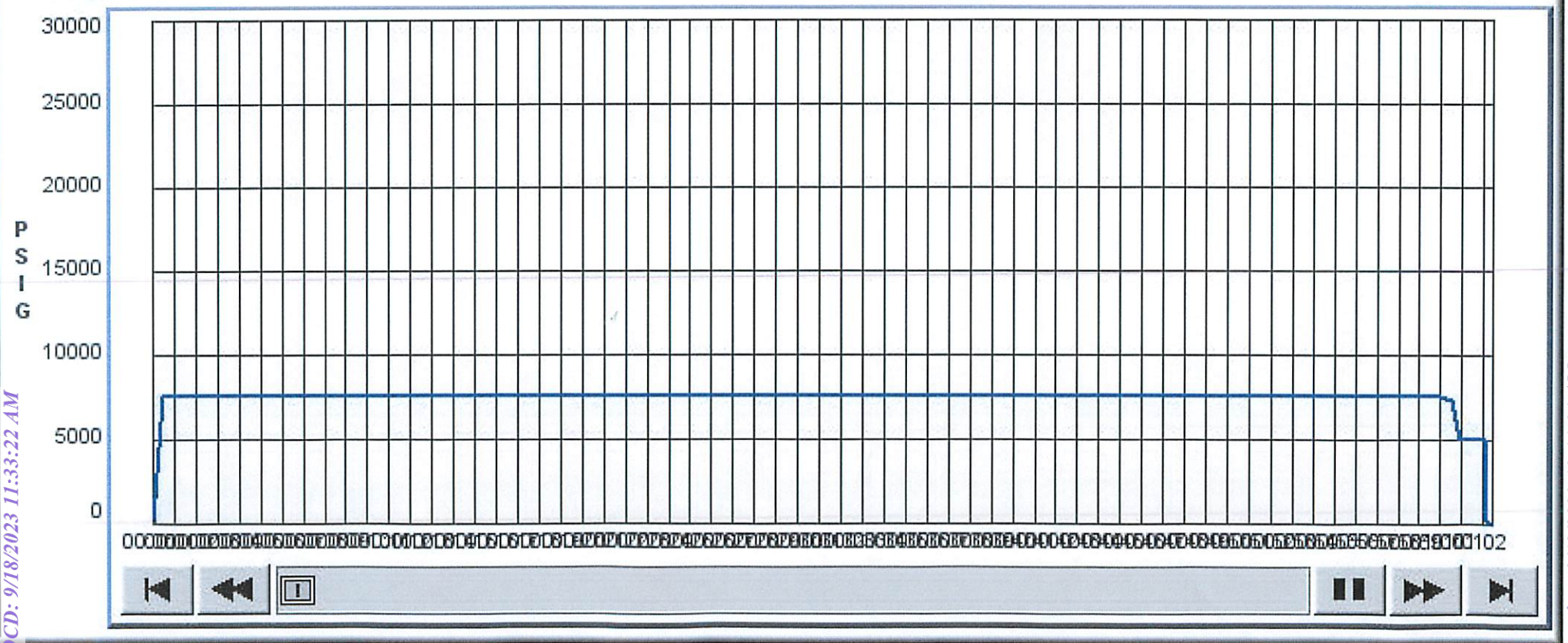
Serial # = H-121917-13,-14

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

Technician= CHRIS OLIVO

12/19/2017 16:53:26

17:55:52



Edwards Fabrication LLC

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.

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

SUPO Data Report
09/13/2023

APD ID: 10400087071
Submission Date: 08/02/2022
Operator Name: SPUR ENERGY PARTNERS LLC
Well Name: DARKO 25 FEDERAL
Well Number: 21H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes
Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Darko25Fd21H_Exist_Road_20220802135808.pdf

Existing Road Purpose: ACCESS

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Darko25Fd21H_NewRoad_20220802135834.pdf

New road type: RESOURCE

Length: 30.29 Feet **Width (ft.):** 30

Max slope (%): 0 **Max grade (%):** 5

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 14

New road access erosion control: Crowned and ditched.

New road access plan or profile prepared? Y

New road access plan

Darko25Fd21H_SitePlan_20220802135920.pdf

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

Access road engineering design? N

Access road engineering design

Turnout? N

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: Caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: Grader

Access other construction information:

Access miscellaneous information:

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

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: Crowned and ditched.

Road Drainage Control Structures (DCS) description: NA

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Darko25Fd21H_ExistWells_20220802135942.pdf

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: a. In the event the well is found to be productive, the Darko 25 Federal Tank Battery would be utilized and the necessary production equipment will be installed at the well site. See proposed facilities layout diagram. b. Each well will have two (2) 4 surface flowlines operating at 80 psi per the survey plats from the well sites to the CTB. The flowlines for the Darko 25 Federal wells will be routed to the Darko 25 Federal CTB. The wells will produce into this battery at any given time. Survey a strip of land 30 feet wide, being 1613.53 feet in length, lying in Section 26, Township 19 South, Range 25 East, N.M.P.M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the centerline survey. c. Electric line will follow a route approved by the BLM. Survey a strip of land 30 feet wide, being 116.52 feet in length, lying in Section 25, Township 19 South, Range 25 East, N.M.P.M., Eddy County, New Mexico, being 15 feet left and 15

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

feet right of the centerline survey. Survey a strip of land 30 feet wide, being 390.01 feet in length, lying in Section 26, Township 19 South, Range 25 East, N.M.P.M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the centerline survey. d. Gas will be sold via one (1) 4 HDPE SDR 7 surface line operating at less than 125 psi into an existing buried gas line. Survey a strip of land 30 feet wide, being 545.19 feet in length, lying in Section 26, Township 19 South, Range 25 East, N.M.P.M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the centerline survey. Survey a strip of land 30 feet wide, being 520.11 feet in length, lying in Section 25, Township 19 South, Range 25 East, N.M.P.M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the centerline survey. Survey a strip of land 30 feet wide, being 2202.47 feet in length, lying in Section 26, Township 19 South, Range 25 East, N.M.P.M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the centerline survey. e. Produced water will be pumped into two (2) 4 HDPE SDR 7 surface lines operating at less than 125 psi. The produced water line will also connect to Spurs SWD system to be disposed of at a Spur operated SWD. Survey a strip of land 30 feet wide, being 504.88 feet in length, lying in Section 26, Township 19 South, Range 25 East, N.M.P.M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the centerline survey. Survey a strip of land 30 feet wide, being 587.17 feet in length, lying in Section 25, Township 19 South, Range 25 East, N.M.P.M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the centerline survey. Survey a strip of land 30 feet wide, being 783.38 feet in length, lying in Section 26, Township 19 South, Range 25 East, N.M.P.M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the centerline survey. f. See attached for additional information on the Darko 25 Federal Tank Battery.

Production Facilities map:

Darko25Fd21H_FacilityPLEL_20220802140133.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: GW WELL

Water source use type: DUST CONTROL
SURFACE CASING
STIMULATION

Source latitude: **Source longitude:**

Source datum:

Water source permit type: WATER WELL

Water source transport method: TRUCKING

Source land ownership: PRIVATE

Source transportation land ownership: PRIVATE

Water source volume (barrels): 9000 **Source volume (acre-feet):** 1.16003787

Source volume (gal): 378000

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

Water source and transportation

Darko25Fd_FracPond_20220802083526.pdf

Water source comments:

New water well? N

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

New water well casing? **Used casing source:**

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Casing length (ft.): **Casing top depth (ft.):**

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: a. All caliche for the drilling pad and proposed access road will be obtained from an existing BLM/State/Fee approved pit from prevailing deposits found on location. Will use the Cox Caliche Pit located in Unit I, Section 19 Township 19 South, Range 26, East, Eddy County, NM. b. The secondary way obtaining caliche to build locations and roads will be by turning over the location. Amount will vary for each pad. The procedure below has been approved by BLM personnel: i. The top 6 of topsoil is pushed off and stockpiled along the side of location ii. Subsoil will be removed and piled alongside the 455 X 360 within the pad site iii. When caliche is found, material will be stockpiled within the pad site to build location and road iv. Once the well is drilled, the stockpiled topsoil will be used for interim reclamation and spread along areas where caliche is picked up and the location size is reduced. Neither the caliche nor subsoil will be stockpiled outside of the well pad. Topsoil will be stockpiled along the eastern edge of the pad as depicted in our Site Plan

Construction Materials source location

Darko25Fd_Caliche_Pit_20221208123751.pdf

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

Section 7 - Methods for Handling

Waste type: DRILLING

Waste content description: Drill cuttings, mud, salts, and other chemicals

Amount of waste: 828.8 barrels

Waste disposal frequency : Daily

Safe containment description: Steel mud tanks

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Mud tanks will be hauled to R360's state approved (NM-01-0006) disposal site at Halfway, NM.

Waste type: SEWAGE

Waste content description: Black and grey matter

Amount of waste: 5 barrels

Waste disposal frequency : Daily

Safe containment description: Plastic holding tanks and chemical toilets

Safe containmant attachment:

Waste disposal type: OTHER **Disposal location ownership:** OTHER

Disposal type description: Public

Disposal location description: Artesia wastewater treatment plant

Waste type: GARBAGE

Waste content description: Trash

Amount of waste: 10 barrels

Waste disposal frequency : Daily

Safe containment description: Portable trash cage

Safe containmant attachment:

Waste disposal type: OTHER **Disposal location ownership:** OTHER

Disposal type description: Public

Disposal location description: Eddy County landfill

Reserve Pit

Reserve Pit being used? NO

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

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

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? Y

Description of cuttings location Steel tank on pad

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

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

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities

Comments:

Section 9 - Well Site

Well Site Layout Diagram:

Darko25Fd21H_SitePlan_20220802140233.pdf
Darko25Fd21H_RigSpecs_20220802140233.pdf
Darko25Fd21H_SpudderRig_20220802140233.pdf

Comments:

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

Section 10 - Plans for Surface

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:**

Multiple Well Pad Number:

Recontouring

Drainage/Erosion control construction: Crowned and ditched

Drainage/Erosion control reclamation: Harrowed on the contour

Well pad proposed disturbance (acres): 0	**Well pad interim reclamation (acres):** 0	**Well pad long term disturbance (acres):** 0
Road proposed disturbance (acres): 0	**Road interim reclamation (acres):** 0	**Road long term disturbance (acres):** 0
Powerline proposed disturbance (acres): 0	**Powerline interim reclamation (acres):** 0	**Powerline long term disturbance (acres):** 0
Pipeline proposed disturbance (acres): 0	**Pipeline interim reclamation (acres):** 0	**Pipeline long term disturbance (acres):** 0
Other proposed disturbance (acres): 0	**Other interim reclamation (acres):** 0	**Other long term disturbance (acres):** 0
Total proposed disturbance: 0	**Total interim reclamation:** 0	**Total long term disturbance:** 0

Disturbance Comments:

Reconstruction method: a. After concluding drilling and/or completion operations, if the well is non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the BLM COAs. The original topsoil will again be returned to the pad and contoured, as close as possible to the original topography, and the area will be seeded with an approved BLM mixture to re-establish vegetation. b. If the well is deemed commercially productive, caliche from the areas of the pad site will not be required for operations will be reclaimed. The original topsoil will be returned to the area of the drill pad not necessary to operate the well. The unused areas of the drill pad will be re-contoured as close as possible to the original topography, and the area will be seeded with an approved BLM mixture to re-establish vegetation.

Topsoil redistribution: The original topsoil will be returned to the area of the drill pad necessary to operate the wells

Soil treatment: To be determined by BLM.

Existing Vegetation at the well pad: NA

Existing Vegetation at the well pad

Existing Vegetation Community at the road: NA

Existing Vegetation Community at the road

Existing Vegetation Community at the pipeline: NA

Existing Vegetation Community at the pipeline

Existing Vegetation Community at other disturbances: NA

Existing Vegetation Community at other disturbances

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description

Will seed be harvested for use in site reclamation?

Seed harvest description:

Seed harvest description attachment:

Seed

Seed Table

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre

Seed reclamation

Operator Contact/Responsible Official

First Name: **Last Name:**

Phone: **Email:**

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment

Weed treatment plan description: To be determined by BLM.

Weed treatment plan

Monitoring plan description: To be determined by BLM.

Monitoring plan

Success standards: To be determined by BLM.

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

Pit closure description: No pit.

Pit closure attachment:

Section 11 - Surface

Disturbance type: WELL PAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: AGREEMENT

Surface Access Agreement Need description: SUA with Ross Ranch Inc.

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: AGREEMENT

Surface Access Agreement Need description: SUA with Ross Ranch Inc.

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: AGREEMENT

Surface Access Agreement Need description: SUA with Ross Ranch Inc.

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Disturbance type: PIPELINE

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: AGREEMENT

Surface Access Agreement Need description: SUA with Ross Ranch Inc.

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Disturbance type: OTHER

Describe: Powerline

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: AGREEMENT

Surface Access Agreement Need description: SUA with Ross Ranch Inc.

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Disturbance type: OTHER

Describe: Tank Battery

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: AGREEMENT

Surface Access Agreement Need description: SUA with Ross Ranch Inc.

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Disturbance type: OTHER

Describe: SWD

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: AGREEMENT

Surface Access Agreement Need description: SUA with Ross Ranch Inc.

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Section 12 - Other

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

ROW Type(s):

ROW

SUPO Additional Information: This well is Fee/Fee/Fed.

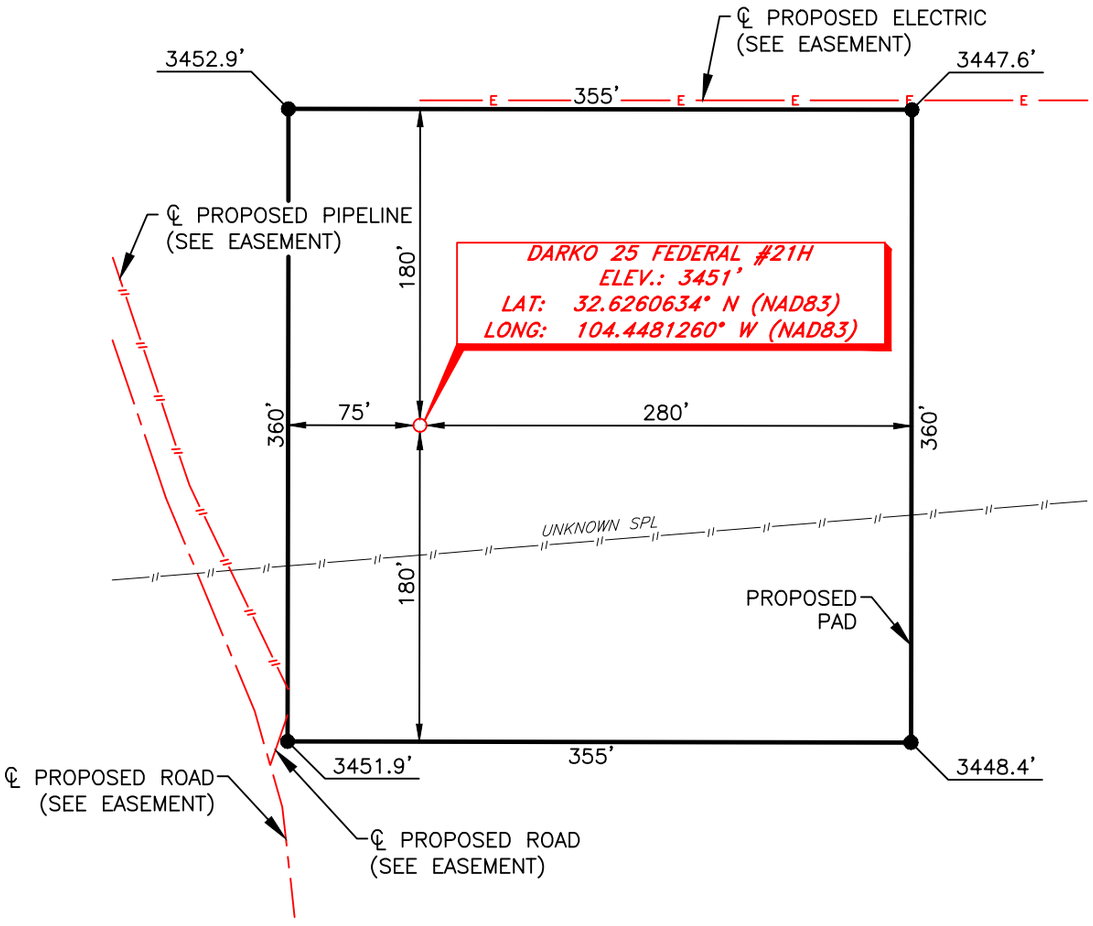
Use a previously conducted onsite? N

Previous Onsite information:

Other SUPO

Darko25Fd20H21H30H_NGMP_20220802091606.pdf
Darko25Fd21H_LVM_20220802140343.pdf
Darko25Fd21H_SUPO_20221208123812.pdf

SPUR ENERGY PARTNERS LLC.
DARKO 25 FEDERAL #21H
(650' FSL & 390' FEL)
SECTION 26, T19S, R25E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

From the intersection of U.S. Hwy 285 and CR #23 (Rock Daisy Rd.);

Go West on CR #23 approx. 2.2 miles to a lease road on the right;

Turn right and go North approx. 0.1 miles to a proposed road on the right;

Turn right and go Northeast approx. 200 feet to location on the right.

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 PROFESSIONAL SURVEYOR 05/23/22

NO.	REVISION	DATE

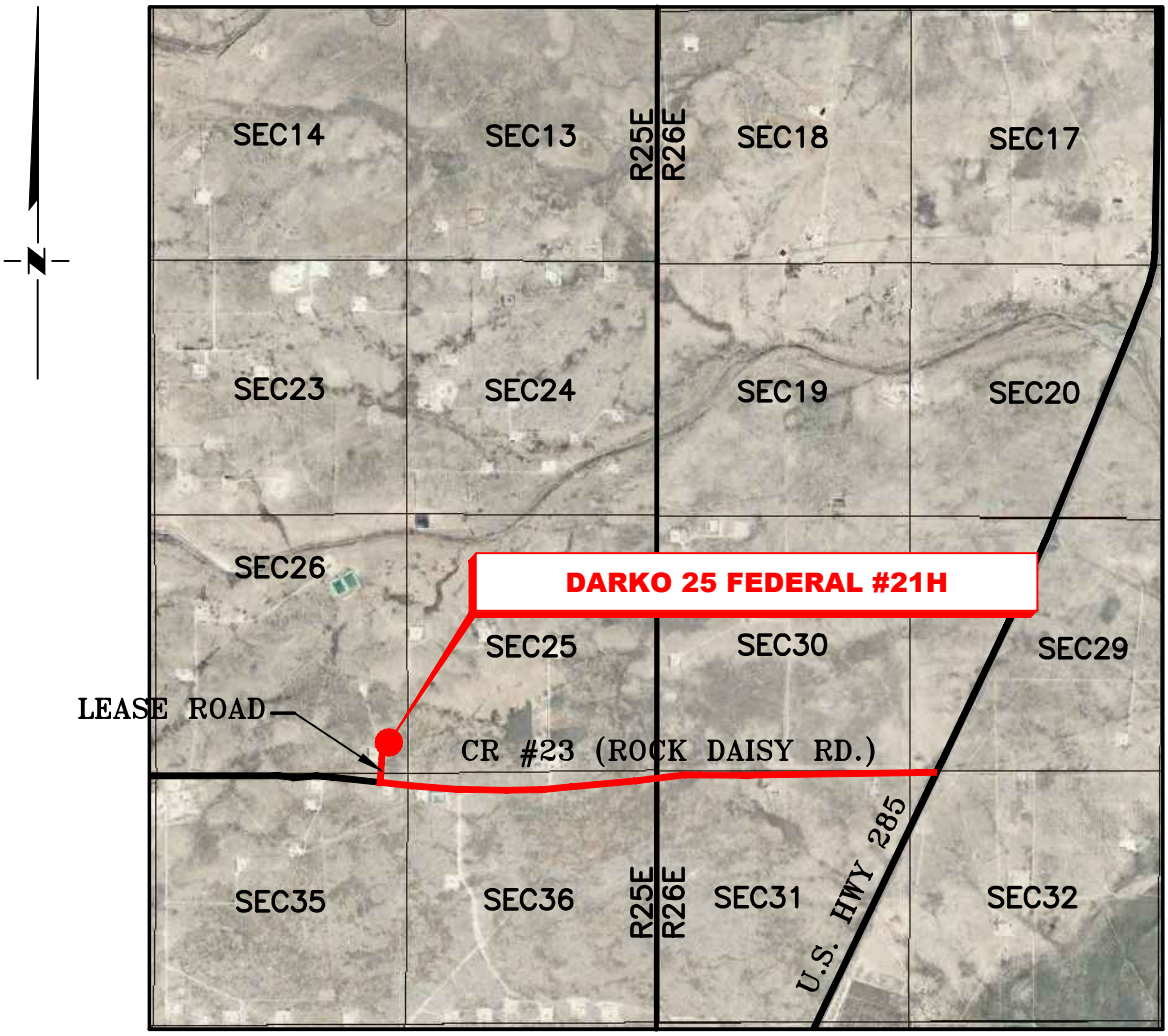
JOB NO.: LS22050582
DWG. NO.: 22050582–4

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

SCALE: 1" = 100'
DATE: 05/12/22
SURVEYED BY: JF/EU
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 1 OF 1

VICINITY MAP

NOT TO SCALE



SECTION 26, TWP. 19 SOUTH, RGE. 25 EAST,
N. M. P. M., EDDY COUNTY, NEW MEXICO

OPERATOR: Spur Energy Partners LLC.
LEASE: Darko 25 Federal
WELL NO.: 21H

LOCATION: 650' FSL & 390' FEL
ELEVATION: 3451'

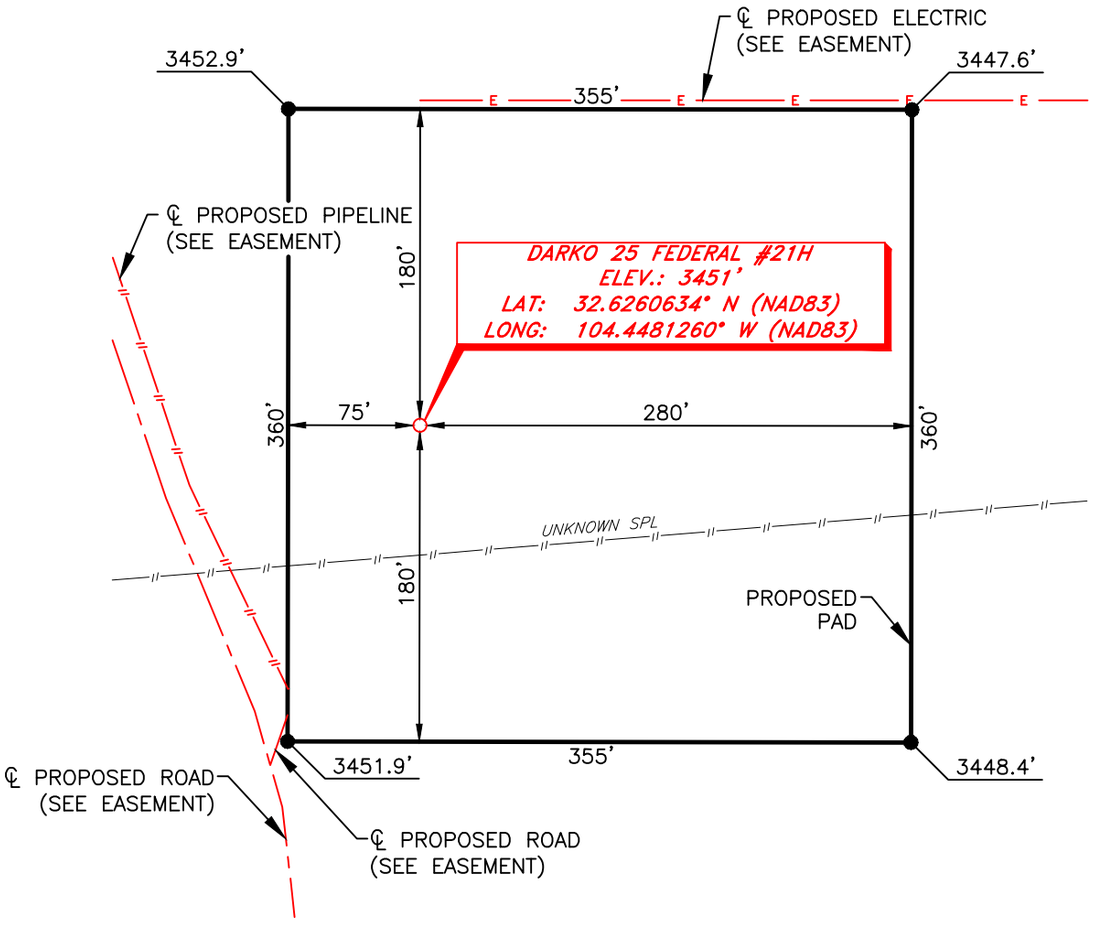
NO.	REVISION	DATE

JOB NO.: LS22050582
DWG. NO.: 22050582–3

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

SCALE: N.T.S.
DATE: 05/12/22
SURVEYED BY: JF/EU
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 1 OF 1

SPUR ENERGY PARTNERS LLC.
DARKO 25 FEDERAL #21H
(650' FSL & 390' FEL)
SECTION 26, T19S, R25E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

From the intersection of U.S. Hwy 285 and CR #23 (Rock Daisy Rd.);

Go West on CR #23 approx. 2.2 miles to a lease road on the right;

Turn right and go North approx. 0.1 miles to a proposed road on the right;

Turn right and go Northeast approx. 200 feet to location on the right.

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 PROFESSIONAL SURVEYOR 05/23/22

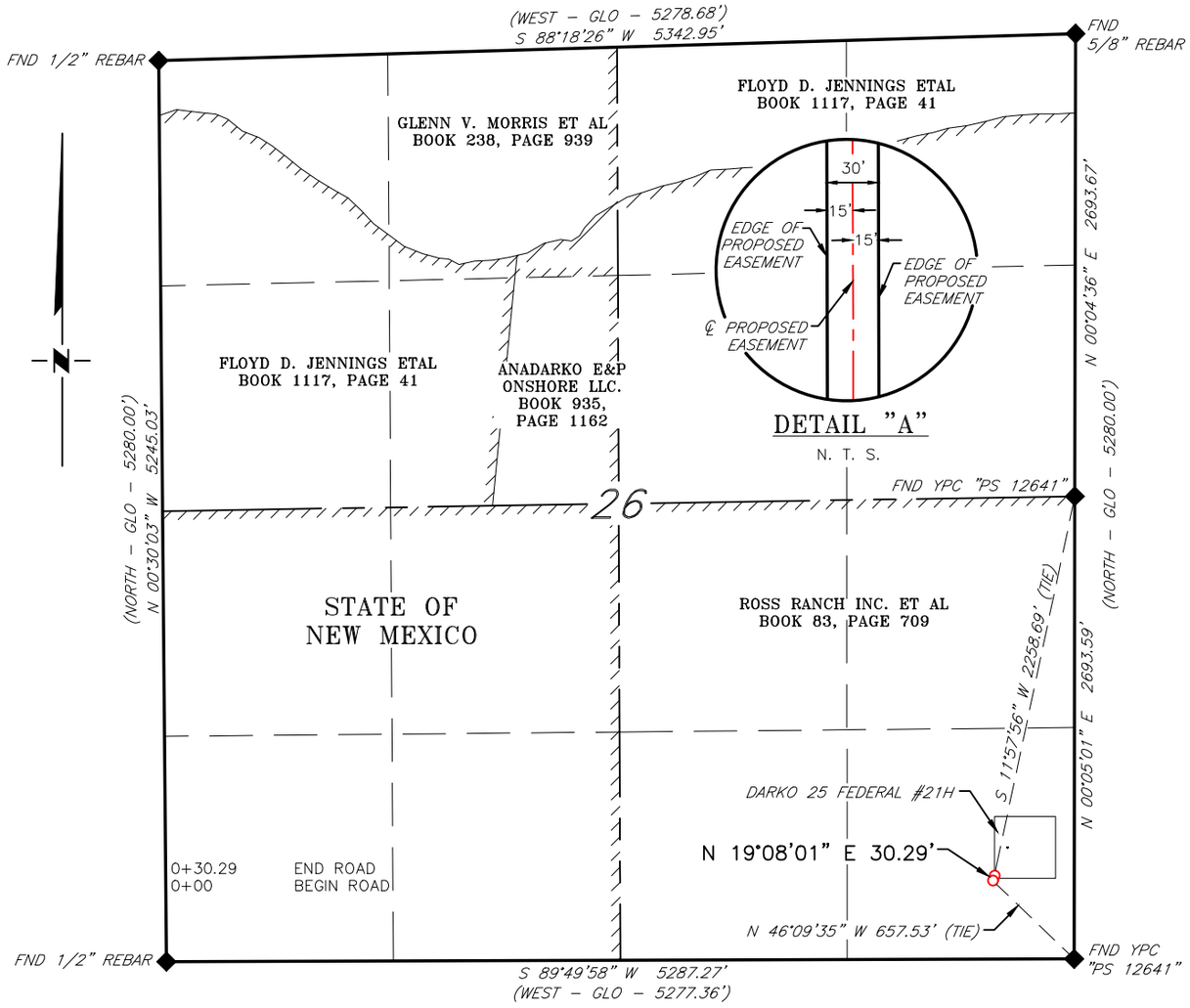
NO.	REVISION	DATE

JOB NO.: LS22050582
DWG. NO.: 22050582–4

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

SCALE: 1" = 100'
DATE: 05/12/22
SURVEYED BY: JF/EU
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 1 OF 1

SPUR ENERGY PARTNERS LLC.
ACCESS ROAD FOR THE DARKO 25 FEDERAL #21H WELL LOCATION
SECTION 26, T19S, R25E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DESCRIPTION

A strip of land 30 feet wide, being 30.29 feet or 1.836 rods in length, lying in Section 26, Township 19 South, Range 25 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across the lands of Ross Ranch Inc. ET AL, according to a deed filed for record in Book 83, Page 709, of the Deed Records of Eddy County, New Mexico:

BEGINNING at Engr. Sta. 0+00, a point in the Southeast quarter Section 26, which bears, N 46°09'35" W, 657.53 feet from a 1/2–inch rebar/w yellow plastic cap, stamped "PS12641", found for the Southeast corner of Section 26;

Thence N 19°08'01" E, 30.29 feet, to Engr. Sta. 0+30.29, the End of Survey, a point in the Southeast quarter of Section 26, which bears, S 11°57'56" W, 2,258.69 feet from a 1/2–inch rebar/w yellow plastic cap, stamped "PS12641", found for the East quarter corner of Section 26.

Said strip of land contains 0.021 acres, more or less, and is allocated by forties as follows:

SE 1/4 SE 1/4	1.836 Rods	0.021 Acres

SCALE: 1" = 1000'
0 500' 1000'

BEARINGS ARE GRID NAD 83 NM EAST
DISTANCES ARE HORIZ. GROUND.

LEGEND
( ) RECORD DATA – GLO
◆ FOUND MONUMENT AS NOTED
PROPOSED ACCESS ROAD

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plat 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 05/18/22 PROFESSIONAL SURVEYOR

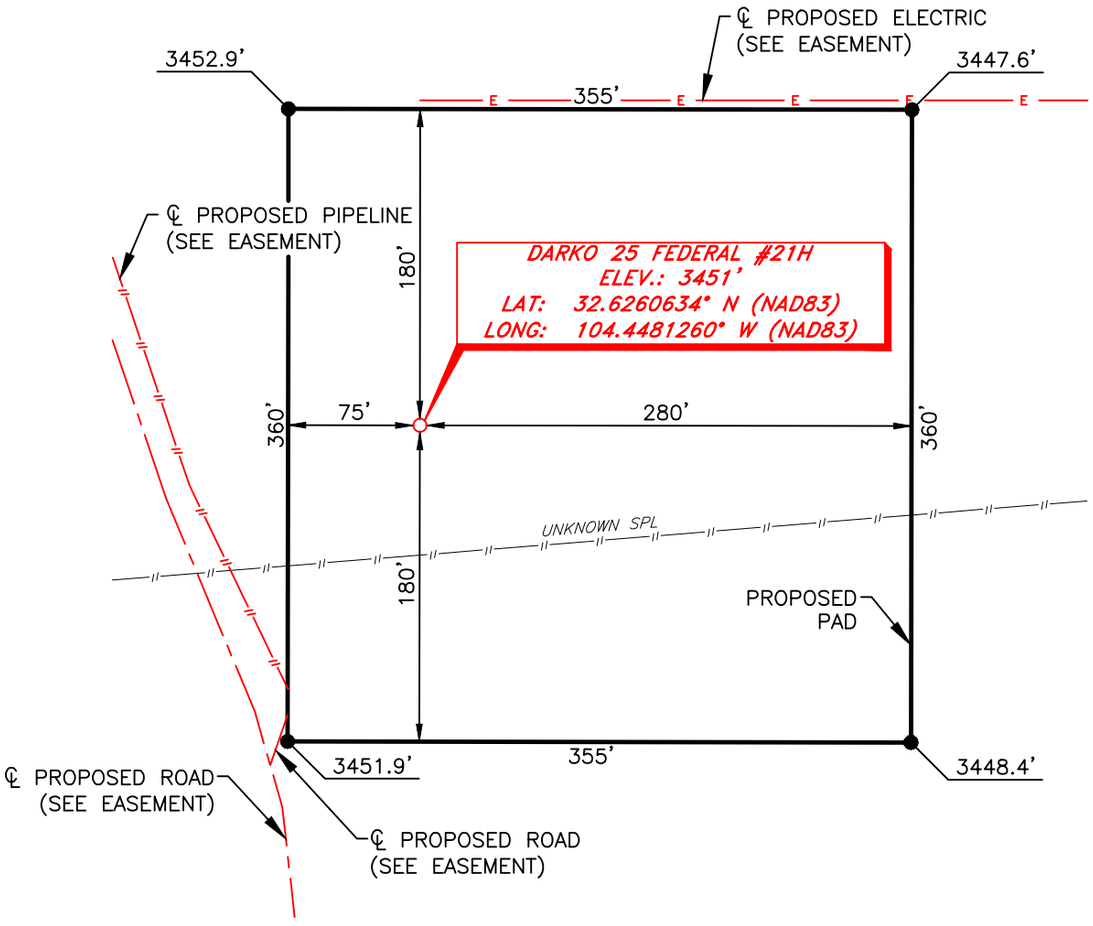
NO.	REVISION	DATE

JOB NO.: LS22050585
DWG. NO.: 22050585–5

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

SCALE: 1" = 1000'
DATE: 05/12/22
SURVEYED BY: JF/RU
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 1 OF 1

SPUR ENERGY PARTNERS LLC.
DARKO 25 FEDERAL #21H
(650' FSL & 390' FEL)
SECTION 26, T19S, R25E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

From the intersection of U.S. Hwy 285 and CR #23 (Rock Daisy Rd.);

Go West on CR #23 approx. 2.2 miles to a lease road on the right;

Turn right and go North approx. 0.1 miles to a proposed road on the right;

Turn right and go Northeast approx. 200 feet to location on the right.

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

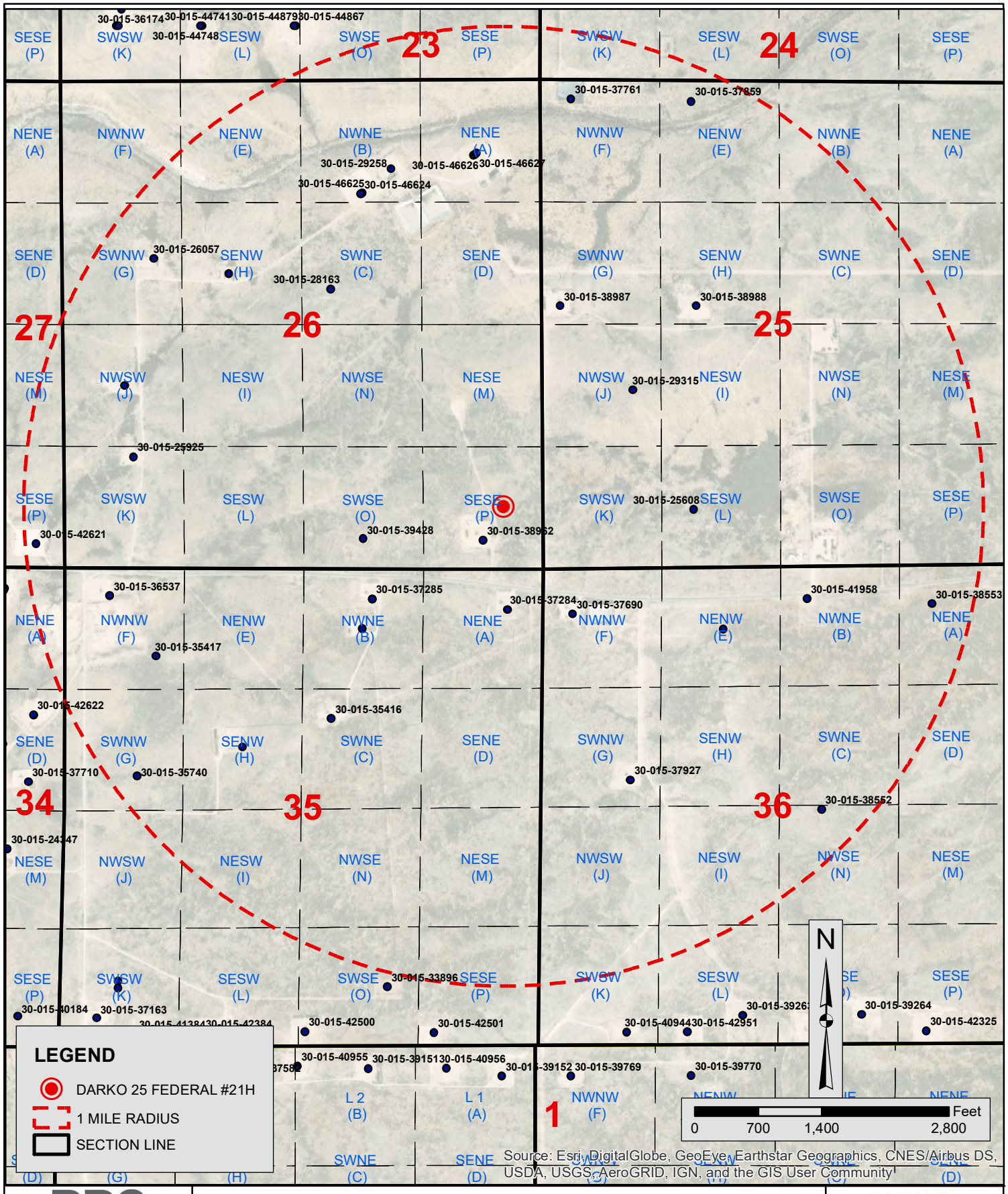
ROBERT M. HOWETT NEW MEXICO 19680 PROFESSIONAL SURVEYOR 05/23/22

NO.	REVISION	DATE

JOB NO.: LS22050582
DWG. NO.: 22050582–4

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

SCALE: 1" = 100'
DATE: 05/12/22
SURVEYED BY: JF/EU
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 1 OF 1



RRC ENERGY SERVICES, LLC.
701 S. Cecil Hobbs, NM 88240
(575) 964-8200

DARKO 25 FEDERAL #21H
(650' FSL & 390' FEL)
Section 26, Township 19 South, Range 25 East,
N. M. P. M., Eddy County, New Mexico

SPUR ENERGY PARTNERS

Date: 05/12/2022	**ONE MILE RADIUS MAP**		Approved By: RMH
Surveyed By: JF/EU	Job No. LS22050582	Dwg. No. 1-MILE (5,280 Ft.) - RADIUS	Drawn By: GA

Darko 25 Federal Facility Development

CTB Site:

The Darko 25 Federal wells will have the ability to be routed to the Darko 25 Federal Tank Battery which is co-located on the Darko 20H and 30H well pad.

Production Flowlines:

Each well will have two (2) 4" surface flowlines operating at 80 psi. The flowlines for the Darko 25 Federal wells will be routed to the Darko 25 Federal Tank Battery. The wells will produce into this battery at any given time.

Salt Water Disposal:

Produced water will be pumped into two (2) 4" HDPE SDR 7 surface lines operating at less than 125 psi. The produced water line will also connect to Spur's SWD System to be disposed of at a Spur operated SWD.

Frac Water System:

Water for the Darko 25 Federal wells will be taken from the Shelby Pond owned by Spur. There will be two (2) 12" Kevlar Layflat lines laid from the pond to location.

Gas Sales:

Gas will be sold via one (1) 4" HDPE SDR 7 surface line operating at less than 100 psi into an existing buried gas line.

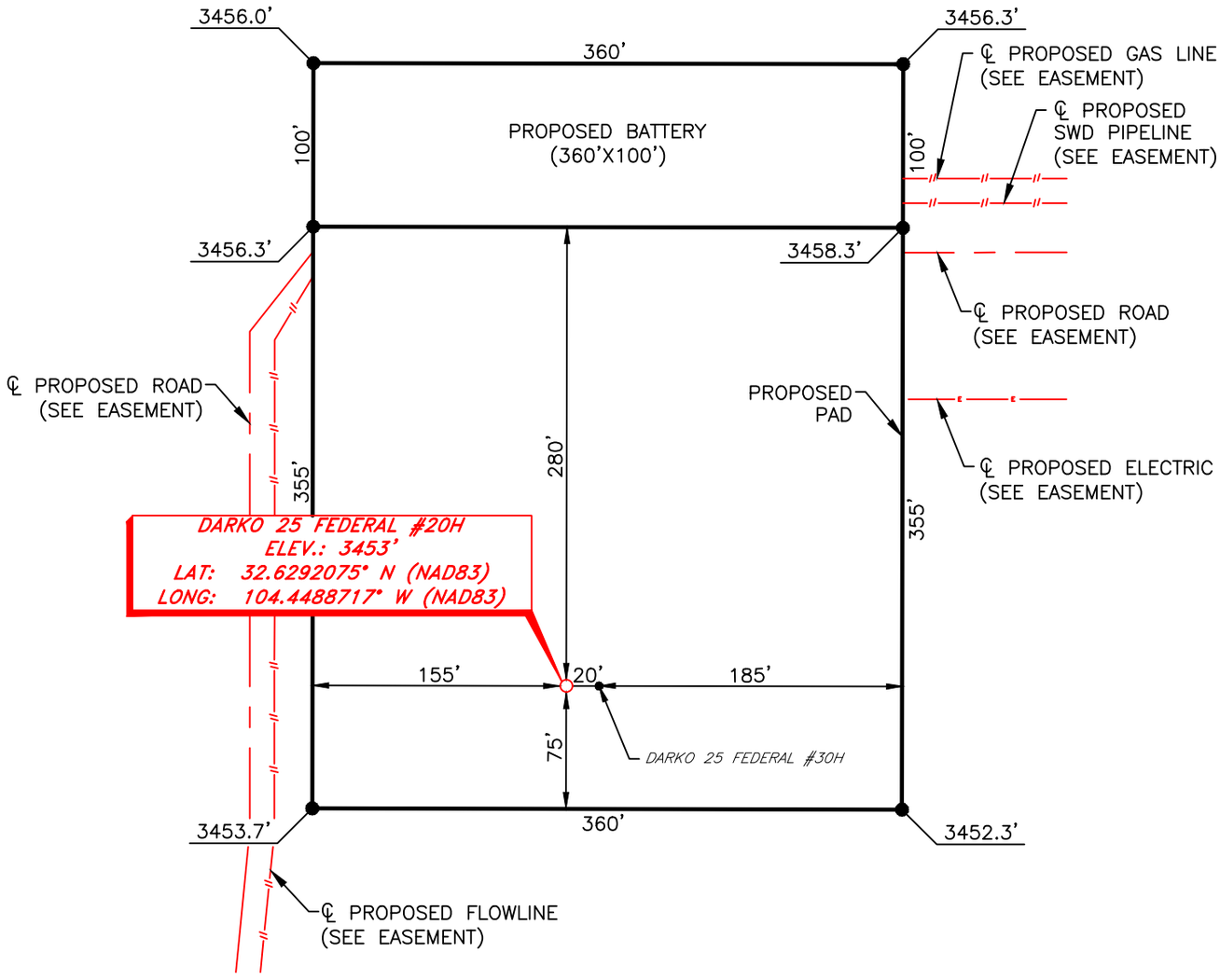
Oil Sales:

Oil will be trucked from the Darko 25 Federal Tank Battery and sold through a LACT.

Electrical System:

3-phase electric lines will be constructed from existing CVE lines per the survey plats to the Darko 25 Federal wells.

SPUR ENERGY PARTNERS LLC.
DARKO 25 FEDERAL #20H
(1795' FSL & 620' FEL)
SECTION 26, T19S, R25E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

From the intersection of U.S. Hwy 285 and CR #23 (Rock Daisy Rd.);

Go West on CR #23 approx. 2.2 miles to a lease road on the right;

Turn right and go North approx. 0.4 miles to location on the right.

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
05/23/22
PROFESSIONAL SURVEYOR

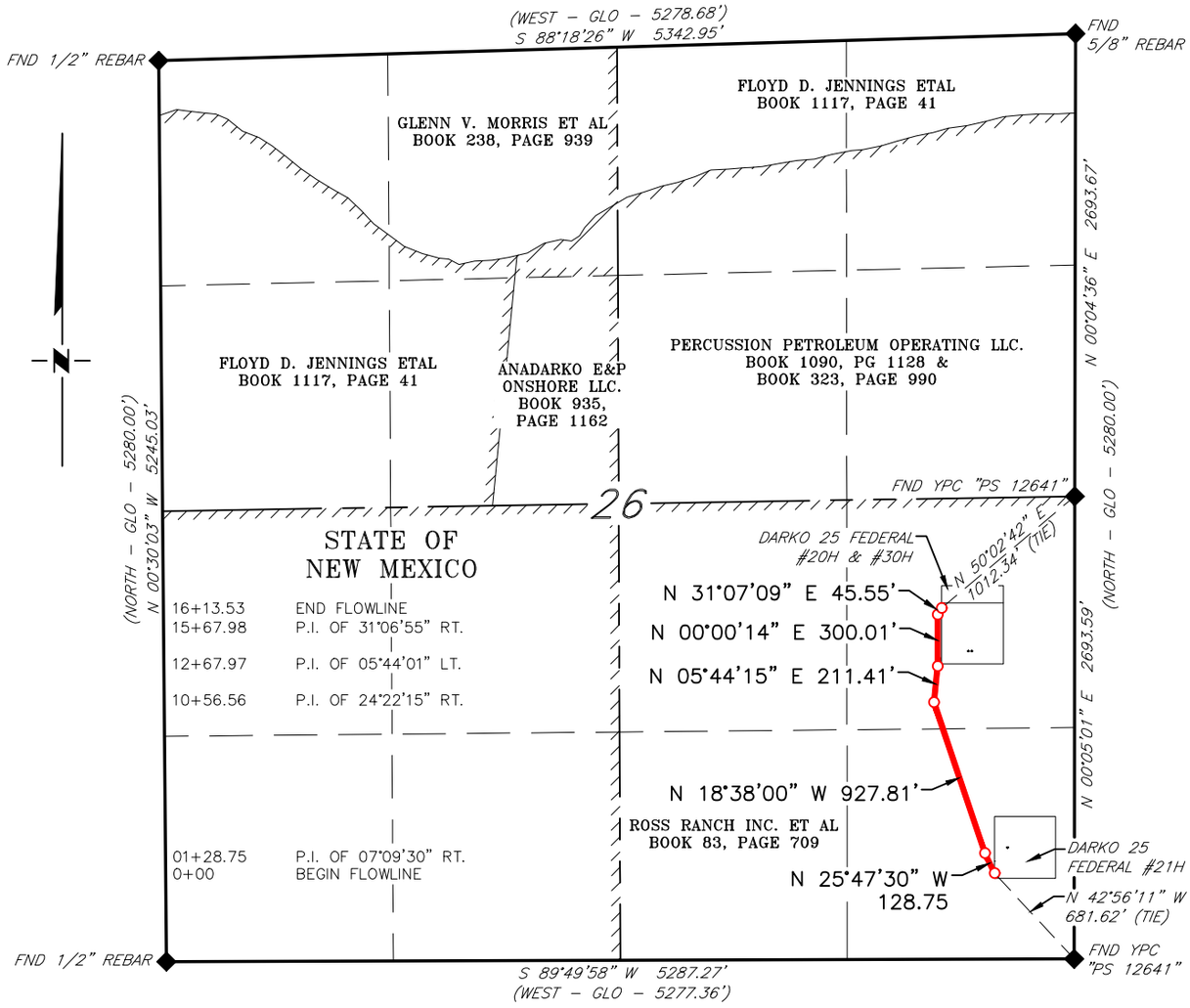
NO.	REVISION	DATE

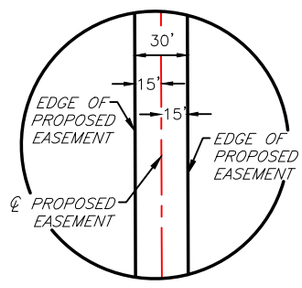
JOB NO.: LS22050580
DWG. NO.: 22050580–4

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

SCALE: 1" = 100'
DATE: 05/12/22
SURVEYED BY: JF/EU
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 1 OF 1

SPUR ENERGY PARTNERS LLC.
PROPOSED FLOWLINE FOR THE DARKO 25 FEDERAL WELL LOCATIONS
SECTION 26, T19S, R25E
N. M. P. M., EDDY COUNTY, NEW MEXICO





DETAIL "A"
N. T. S.

SCALE: 1" = 1000'
0 500' 1000'

BEARINGS ARE GRID NAD 83 NM EAST
DISTANCES ARE HORIZ. GROUND.

LEGEND
( ) RECORD DATA – GLO
◆ FOUND MONUMENT AS NOTED
PROPOSED FLOWLIN

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plat 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 05/27/22 PROFESSIONAL SURVEYOR

NO.	REVISION	DATE

JOB NO.: LS22050586
DWG. NO.: 22050586–1

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

SCALE: 1" = 1000'
DATE: 05/12/22
SURVEYED BY: JF/RU
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 1 OF 2

SPUR ENERGY PARTNERS LLC.
PROPOSED FLOWLINE FOR THE DARKO 25 FEDERAL WELL LOCATIONS
SECTION 26, T19S, R25E
N. M. P. M., EDDY COUNTY, NEW MEXICO

DESCRIPTION

A strip of land 30 feet wide, being 1,613.53 feet or 97.790 rods in length, lying in Section 26, Township 19 South, Range 25 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across the lands of Ross Ranch Inc. ET AL, according to a deed filed for record in Book 83, Page 709, of the Deed Records of Eddy County, New Mexico:

BEGINNING at Engr. Sta. 0+00, a point in the Southeast quarter Section 26, which bears, N 42°56'11" W, 681.62 feet from a 1/2–inch rebar/w yellow plastic cap, stamped "PS12641", found for the Southeast corner of Section 26;

Thence N 25°47'30" W, 128.75 feet, to Engr. Sta. 1+28.75, a P. I. of 07°09'30" right;

Thence N 18°38'00" W, 927.81 feet, to Engr. Sta. 10+56.56, a P. I. of 24°22'15" right;

Thence N 05°44'15" E, 211.41 feet, to Engr. Sta. 12+67.97, a P. I. of 05°44'01" left;

Thence N 00°00'14" E, 300.01 feet, to Engr. Sta. 15+67.98, a P. I. of 31°06'55" right;

Thence N 31°07'09" E, 45.55 feet, to Engr. Sta. 16+13.53, the End of Survey, a point in the Southeast quarter of Section 26, which bears, S 50°02'43" W, 1,012.33 feet from a 1/2–inch rebar/w yellow plastic cap, stamped "PS12641", found for the East quarter corner of Section 26.

Said strip of land contains 1.111 acres, more or less, and is allocated by forties as follows:

SE 1/4 SE 1/4	54.139 Rods	0.615 Acres
NE 1/4 SE 1/4	43.651 Rods	0.496 Acres

NO.	REVISION	DATE

JOB NO.: LS22050586
DWG. NO.: 22050586–2

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

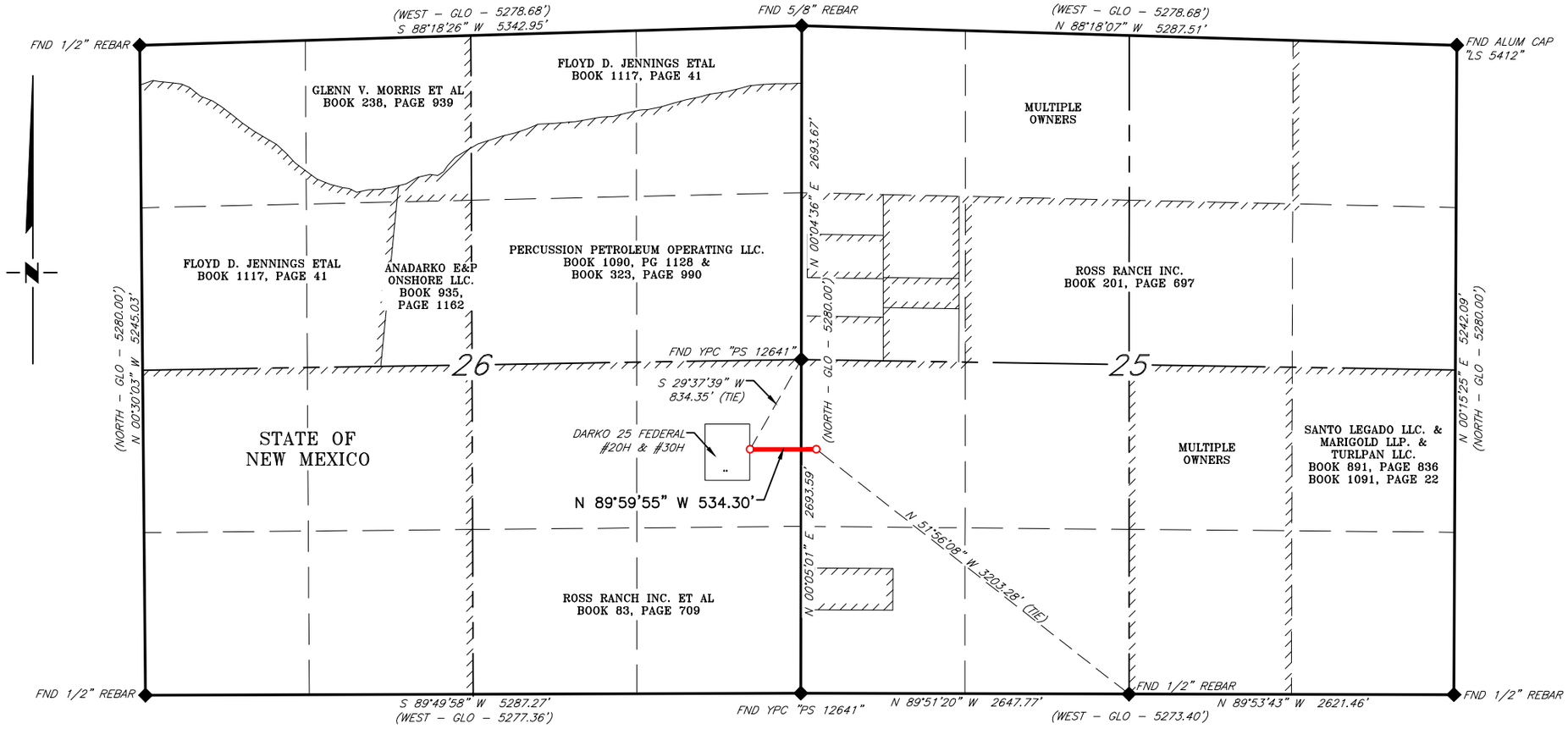
SCALE: 1" = 1000'
DATE: 05/12/22
SURVEYED BY: JF/RU
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 2 OF 2

SPUR ENERGY PARTNERS LLC.

PROPOSED OVERHEAD ELECTRIC LINES FOR THE DARKO 25 FEDERAL #20H & #30H WELL LOCATIONS

SECTIONS 25 & 26, T19S, R25E

N. M. P. M., EDDY COUNTY, NEW MEXICO



SCALE: 1" = 1200'
0 600' 1200'

BEARINGS ARE GRID NAD 83
NM EAST
DISTANCES ARE HORIZ. GROUND.

LEGEND
( ) RECORD DATA – GLO
FOUND MONUMENT
AS NOTED
PROPOSED ELECTRIC LINE

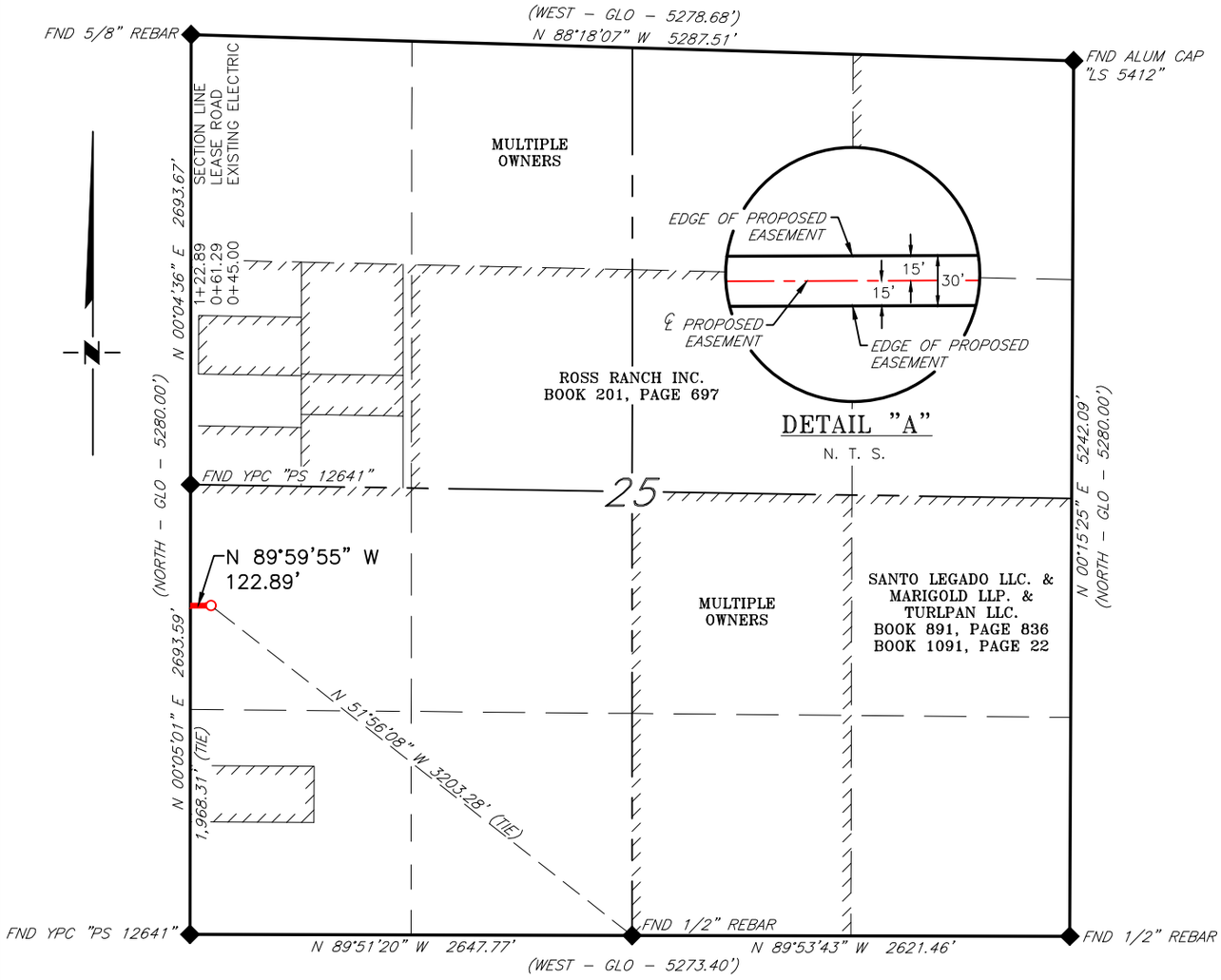
SCALE: 1" = 1200'
DATE: 05/11/22
SURVEYED BY: RU/TM
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 1 OF 3

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

NO.	REVISION	DATE

JOB NO.: LS22050583
DWG. NO.: 22050583-4

SPUR ENERGY PARTNERS LLC.
PROPOSED OVERHEAD ELECTRIC FOR THE
DARKO 25 FEDERAL #20H & #30H WELL LOCATIONS
SECTION 25, T19S, R25E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DESCRIPTION

A strip of land 30 feet wide, being 122.89 feet or 7.448 rods in length, lying in Section 25, Township 19 South, Range 25 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across the lands of Ross Ranch Inc., according to a deed filed for Record in Book 201, Page 697, of the Deed Records of Eddy County, New Mexico:

BEGINNING at Engr. Sta. 0+00, a point in the Southwest quarter Section 25, which bears, N 51°56'08" W, 3,203.28 feet from a 1/2–inch rebar, found for the South quarter corner of Section 25;

Thence N 89°59'55" W, 122.89 feet, to Engr. Sta. 1+22.89 a point on the West line of Section 25, which bears, N 00°05'01" E, 1,968.31 feet from a 1/2–inch rebar/w yellow plastic cap, stamped "PS12641", found for the Southwest corner of Section 25.

Said strip of land contains 0.085 acres, more or less, and is allocated by forties as follows:

NW 1/4 SW 1/4	7.448 Rods	0.085 Acres

SCALE: 1" = 1000'
0 500' 1000'

BEARINGS ARE GRID NAD 83 NM EAST
DISTANCES ARE HORIZ. GROUND.

LEGEND
( ) *RECORD DATA – GLO*
◆ *FOUND MONUMENT AS NOTED*
PROPOSED ELECTRIC LINE

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plat 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 05/27/22 PROFESSIONAL SURVEYOR

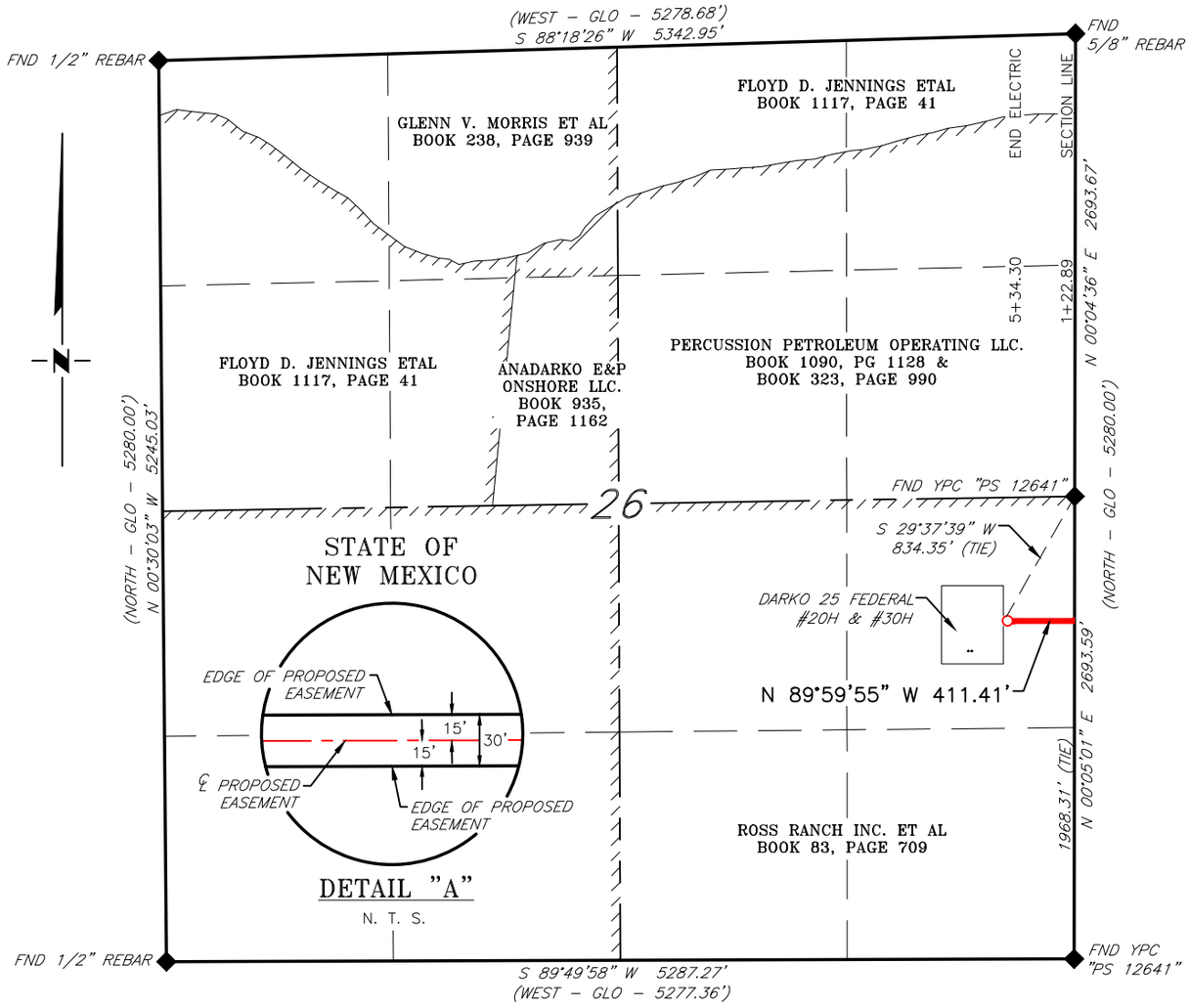
NO.	REVISION	DATE

JOB NO.: LS22050583
DWG. NO.: 22050583–5

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

SCALE: 1" = 1000'
DATE: 05/12/22
SURVEYED BY: JF/RU
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 2 OF 3

SPUR ENERGY PARTNERS LLC.
PROPOSED OVERHEAD ELECTRIC FOR THE
DARKO 25 FEDERAL #20H & #30H WELL LOCATIONS
SECTION 26, T19S, R25E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DESCRIPTION

A strip of land 30 feet wide, being 411.41 feet or 24.934 rods in length, lying in Section 26, Township 19 South, Range 25 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across the lands of Ross Ranch Inc. ET AL, according to a deed filed for record in Book 83, Page 709, of the Deed Records of Eddy County, New Mexico:

BEGINNING at Engr. Sta. 1+22.89, a point on the East line of Section 26, which bears, N 00°05'01" E, 1,968.31 feet from a 1/2–inch rebar/w yellow plastic cap, stamped "PS12641", found for the Southeast corner of Section 26;

Thence N 89°59'55" W, 411.41 feet, to Engr. Sta. 5+34.30, the End of Survey, a point in the Southeast quarter of Section 26, which bears, S 29°37'39" W, 834.35 feet from a 1/2–inch rebar/w yellow plastic cap, stamped "PS12641", found for the East quarter corner of Section 26.

Said strip of land contains 0.283 acres, more or less, and is allocated by forties as follows:

NE 1/4 SE 1/4	24.934 Rods	0.283 Acres

SCALE: 1" = 1000'
0 500' 1000'

BEARINGS ARE GRID NAD 83 NM EAST
DISTANCES ARE HORIZ. GROUND.

LEGEND
( ) *RECORD DATA – GLO*
◆ *FOUND MONUMENT AS NOTED*
PROPOSED ELECTRIC LINE

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plat 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
05/27/22
PROFESSIONAL SURVEYOR

NO.	REVISION	DATE

JOB NO.: LS22050583
DWG. NO.: 22050583–6

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

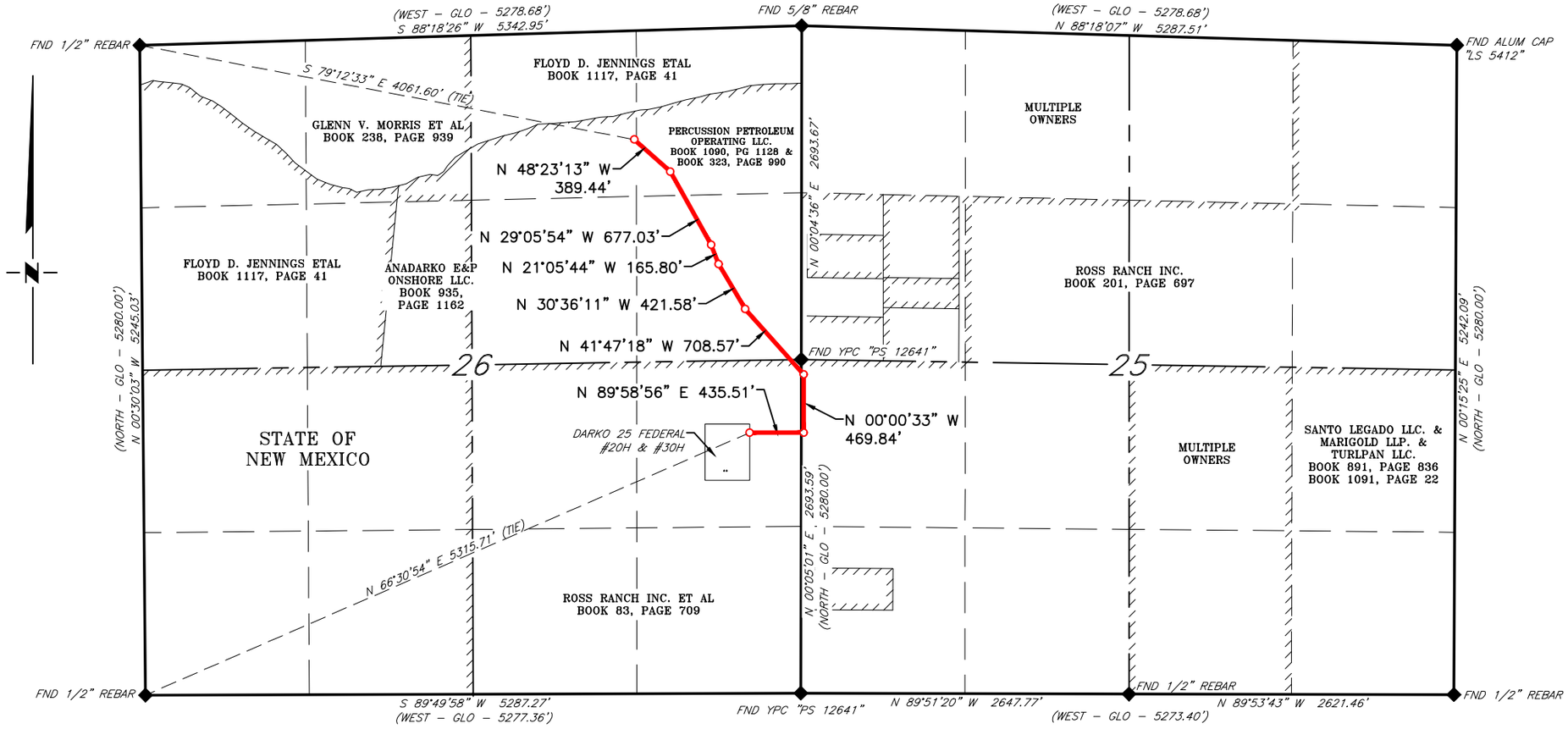
SCALE: 1" = 1000'
DATE: 05/12/22
SURVEYED BY: JF/RU
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 3 OF 3

SPUR ENERGY PARTNERS LLC.

PROPOSED GAS LINE – DCP FOR THE DARKO 25 FEDERAL #20H & #30H WELL LOCATIONS

SECTIONS 25 & 26, T19S, R25E

N. M. P. M., EDDY COUNTY, NEW MEXICO



SCALE: 1" = 1200'
0 600' 1200'

BEARINGS ARE GRID NAD 83
NM EAST
DISTANCES ARE HORIZ. GROUND.

LEGEND
( ) RECORD DATA – GLO
FOUND MONUMENT AS NOTED
PROPOSED GAS LINE

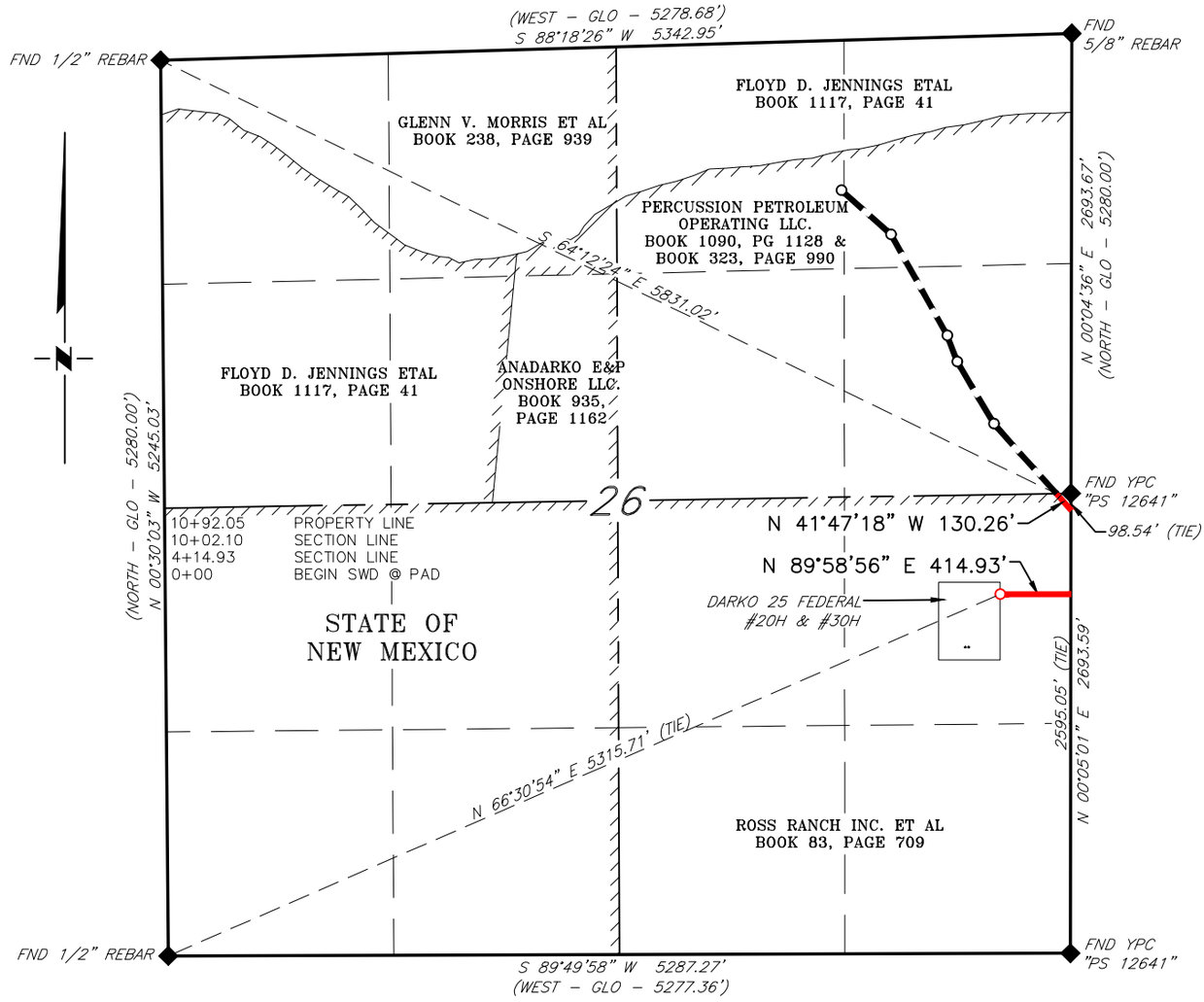
SCALE: 1" = 1200'
DATE: 05/11/22
SURVEYED BY: RU/TM
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 1 OF 6

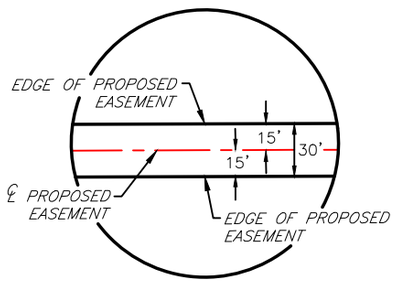
RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

NO.	REVISION	DATE

JOB NO.: LS22050588
DWG. NO.: 22050588-1

SPUR ENERGY PARTNERS LLC.
PROPOSED GAS LINE – DCP FOR THE
DARKO 25 FEDERAL #20H & #30H WELL LOCATIONS
SECTION 26, T19S, R25E
N. M. P. M., EDDY COUNTY, NEW MEXICO





DETAIL "A"
N. T. S.

SCALE: 1" = 1000'
0 500' 1000'

BEARINGS ARE GRID NAD 83
NM EAST
DISTANCES ARE HORIZ. GROUND.

LEGEND
( ) RECORD DATA – GLO
◆ FOUND MONUMENT AS NOTED
PROPOSED GAS LINE

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plat 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
05/27/22
PROFESSIONAL SURVEYOR

NO.	REVISION	DATE

JOB NO.: LS22050588
DWG. NO.: 22050588–2

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

SCALE: 1" = 1000'
DATE: 05/12/22
SURVEYED BY: JF/RU
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 2 OF 6

SPUR ENERGY PARTNERS LLC.
PROPOSED GAS LINE – DCP FOR THE
DARKO 25 FEDERAL #20H & #30H WELL LOCATIONS
SECTION 26, T19S, R25E
N. M. P. M., EDDY COUNTY, NEW MEXICO

DESCRIPTION

A strip of land 30 feet wide, being 545.19 feet or 33.042 rods in length, lying in Section 26, Township 19 South, Range 25 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across the lands of Ross Ranch Inc. ET AL, according to a deed filed for record in Book 83, Page 709, of the Deed Records of Eddy County, New Mexico:

BEGINNING at Engr. Sta. 0+00, a point in the Southeast quarter of Section 26, which bears, N 66°30'54" E, 5,315.71 feet from a 1/2–inch rebar, found for the Southwest corner of Section 26;

Thence N 89°59'56" E, 414.93 feet, to Engr. Sta. 4+14.93, a point on the East line of Section 26, which bears, N 00°05'01" E, 2,595.05 feet from a 1/2–inch rebar/w yellow plastic cap, stamped "PS12641", found for the Southeast corner of Section 26.

Thence BEGINNING AGAIN at Engr. Sta. 9+35.04, a point on the East line of Section 26, which bears, S 00°05'01" W, 98.54 feet, from a 1/2–inch rebar/w yellow plastic cap, stamped "PS12641", found for the East quarter corner of Section 26;

Thence N 41°47'18" W, 130.26 feet, to Engr. Sta. 10+65.30, a point on the North line of the South half of Section 26, Which bears, S 64°12'24" E, 5,831.02 feet from a 1/2–inch rebar, found for the Northwest corner of Section 26.

Said strip of land contains 0.375 acres, more or less, and is allocated by forties as follows:

NE 1/4 SE 1/4	33.042 Rods	0.375 Acres

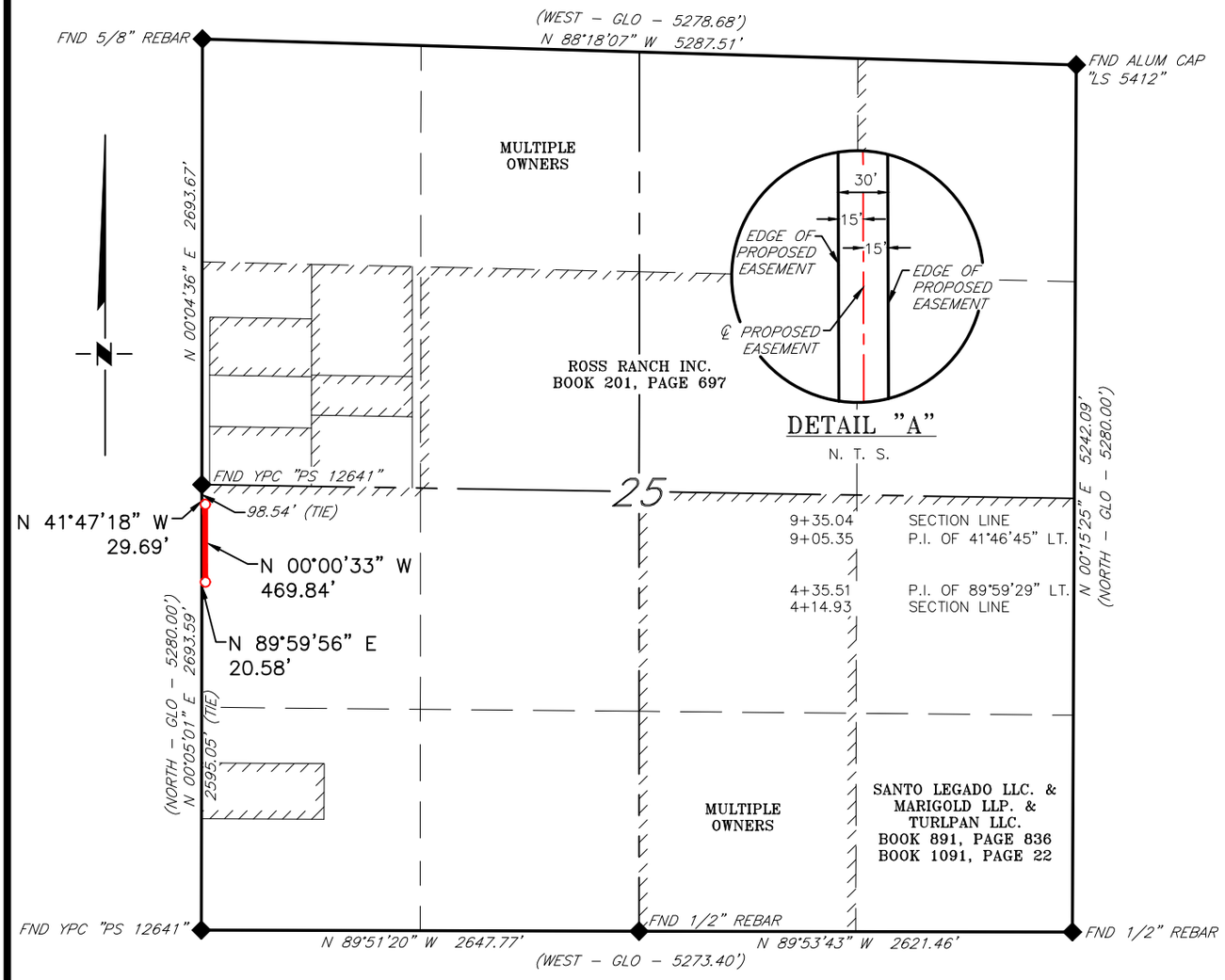
NO.	REVISION	DATE

JOB NO.: LS22050588
DWG. NO.: 22050588–3

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

SCALE: 1" = 1000'
DATE: 05/12/22
SURVEYED BY: JF/RU
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 3 OF 6

SPUR ENERGY PARTNERS LLC.
PROPOSED GAS LINE FOR THE
DARKO 25 FEDERAL #20H & #30H WELL LOCATIONS
SECTION 25, T19S, R25E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DESCRIPTION

A strip of land 30 feet wide, being 520.11 feet or 31.522 rods in length, lying in Section 25, Township 19 South, Range 25 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across the lands of Ross Ranch Inc., according to a deed filed for record in Book 201, Page 697, of the Deed Records of Eddy County, New Mexico:

BEGINNING at Engr. Sta. 4+14.93, a point in the West line of Section 35, which bears, N 00°05'01" E, 2,595.05 feet from a 1/2–inch rebar/w yellow plastic cap, stamped "PS12641" found for the Southwest corner of Section 35;

Thence N 89°58'56" E, 20.58 feet, to Engr. Sta. 4+35.51, a P. I. of 89°59'29" left;

Thence N 00°00'33" W, 469.84 feet, to Engr. Sta. 9+05.35, a P. I. of 41°46'45" left;

Thence N 41°47'18" W, 29.69 feet, to Engr. Sta. 9+35.04 a point on the West line of Section 35, which bears, S 00°05'01" W, 98.54 feet from a 1/2–inch rebar/w yellow plastic cap, stamped "PS12641", found for the West corner of Section 35.

Said strip of land contains 0.358 acres, more or less, and is allocated by forties as follows:

NW 1/4 SW 1/4	31.522 Rods	0.358 Acres

SCALE: 1" = 1000'
0 500' 1000'

BEARINGS ARE GRID NAD 83 NM EAST
DISTANCES ARE HORIZ. GROUND.

LEGEND
( ) RECORD DATA – GLO
◆ FOUND MONUMENT AS NOTED
PROPOSED GAS LINE

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plat 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 05/27/22 PROFESSIONAL SURVEYOR

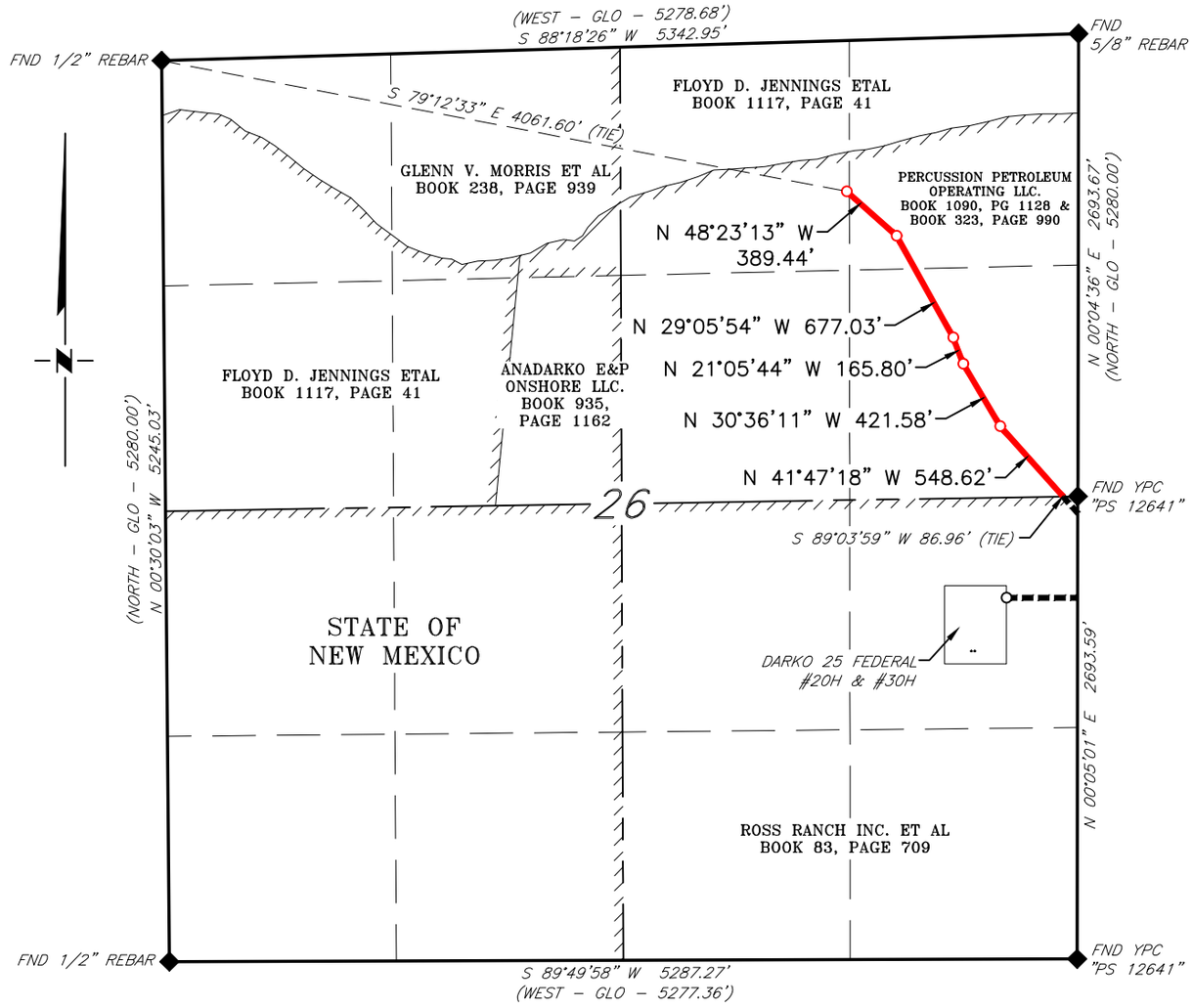
NO.	REVISION	DATE

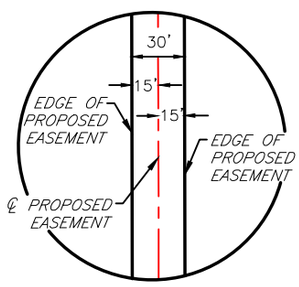
JOB NO.: LS22050588
DWG. NO.: 22050588–4

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

SCALE: 1" = 1000'
DATE: 05/12/22
SURVEYED BY: JF/RU
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 4 OF 6

SPUR ENERGY PARTNERS LLC.
PROPOSED GAS LINE FOR THE
DARKO 25 FEDERAL #20H & #30H WELL LOCATIONS
SECTION 26, T19S, R25E
N. M. P. M., EDDY COUNTY, NEW MEXICO





DETAIL "A"
N. T. S.

STATIONING

32+67.77	END GAS @ DCP BPL
31+06.46	FRONTIER BPL
29+57.87	LEASE ROAD
29+09.29	SPUR BPL
28+78.33	P.I. OF 19°17'19" LT.
22+01.30	P.I. OF 08°00'10" LT.
20+35.50	P.I. OF 09°30'27" RT.
16+13.92	P.I. OF 11°11'07" RT.
10+65.30	PROPERTY LINE

SCALE: 1" = 1000'
0 500' 1000'

BEARINGS ARE GRID NAD 83
NM EAST
DISTANCES ARE HORIZ. GROUND.

LEGEND
( ) RECORD DATA – GLO
◆ FOUND MONUMENT AS NOTED
PROPOSED GAS LINE

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plat 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
05/27/22
PROFESSIONAL SURVEYOR

NO.	REVISION	DATE

JOB NO.: LS22050588
DWG. NO.: 22050588–5

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

SCALE: 1" = 1000'
DATE: 05/12/22
SURVEYED BY: JF/RU
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 5 OF 6

SPUR ENERGY PARTNERS LLC.
PROPOSED GAS LINE FOR THE
DARKO 25 FEDERAL #20H & #30H WELL LOCATIONS
SECTION 26, T19S, R25E
N. M. P. M., EDDY COUNTY, NEW MEXICO

DESCRIPTION

A strip of land 30 feet wide, being 2,202.47 feet or 133.483 rods in length, lying in Section 26, Township 19 South, Range 25 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across the lands of Percussion Petroleum Operating LLC., according to a deed filed for record in Book 1090, Page 1128, & Book 323, Page 990 of the Deed Records of Eddy County, New Mexico:

BEGINNING at Engr. Sta. 10+65.30, a point on the South line of the North half of Section 26, which bears, S 89°03'59" W, 86.96 feet from a 1/2–inch rebar/w yellow plastic cap, stamped "PS12641", found for the East quarter corner of Section 26;

Thence N 41°47'18" W, 548.62 feet, to Engr. Sta. 16+13.92, to a P. I. of 11°11'07" right;

Thence N 30°36'11" W, 421.58 feet, to Engr. Sta. 20+35.50, to a P. I. of 09°30'27" right;

Thence N 21°05'44" W, 165.80 feet, to Engr. Sta. 22+01.30, to a P. I. of 08°00'10" left;

Thence N 29°05'54" W, 677.03 feet, to Engr. Sta. 28+78.33, to a P. I. of 19°17'19" left;

Thence N 48°23'13" W, 389.44 feet, to Engr. Sta. 32+67.77, the End of Survey, a point in the Northeast quarter of Section 26, which bears, S 79°12'33" E, 4,061.60 feet from a 1/2–inch rebar, found for the Northwest corner of Section 26.

Said strip of land contains 1.517 acres, more or less, and is allocated by forties as follows:

SE 1/4 NE 1/4	96.580 Rods	1.098 Acres
NE 1/4 NE 1/4	35.550 Rods	0.404 Acres
NW 1/4 NE 1/4	1.353 Rods	0.015 Acres

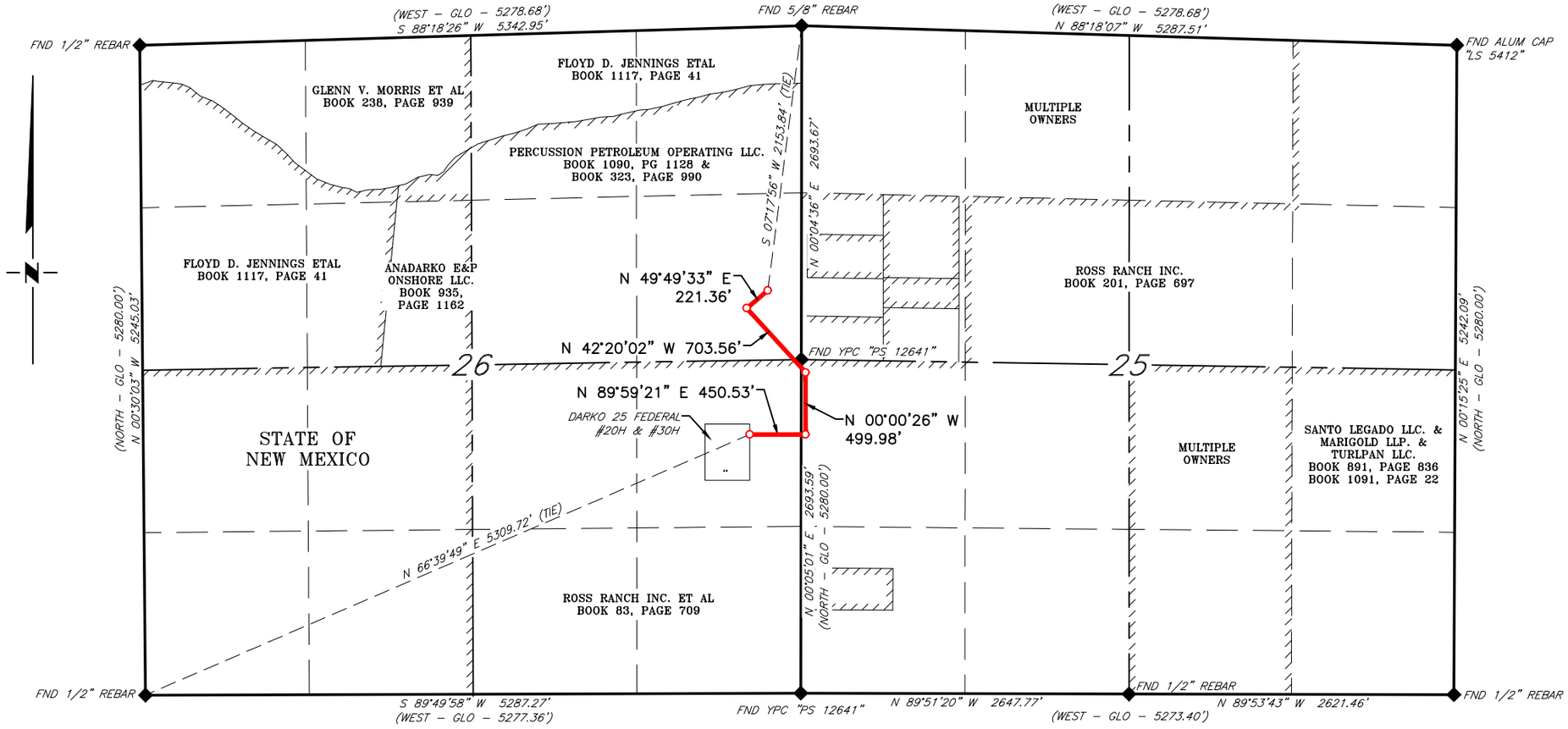
NO.	REVISION	DATE

JOB NO.: LS22050588
DWG. NO.: 22050588–6

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

SCALE: 1" = 1000'
DATE: 05/12/22
SURVEYED BY: JF/RU
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 6 OF 6

SPUR ENERGY PARTNERS LLC.
PROPOSED SWD PIPELINE FOR THE DARKO 25 FEDERAL #20H & #30H WELL LOCATIONS
SECTIONS 25 & 26, T19S, R25E
N. M. P. M., EDDY COUNTY, NEW MEXICO



SCALE: 1" = 1200'
0 600' 1200'

BEARINGS ARE GRID NAD 83 NM EAST
DISTANCES ARE HORIZ. GROUND.

LEGEND
( ) RECORD DATA – GLO
FOUND MONUMENT AS NOTED
PROPOSED SWD PIPELINE

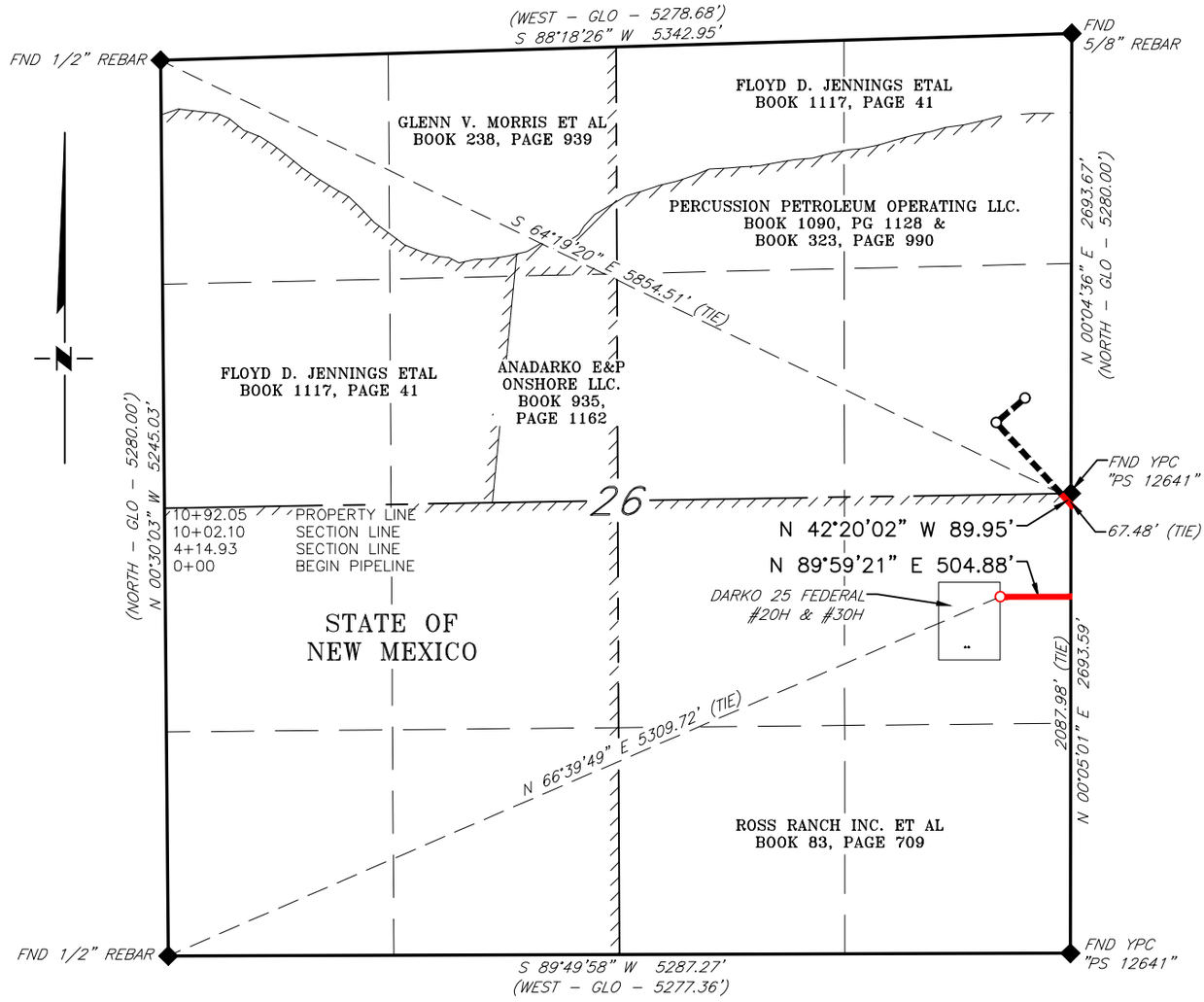
SCALE: 1" = 1200'
DATE: 05/11/22
SURVEYED BY: RU/TM
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 1 OF 5

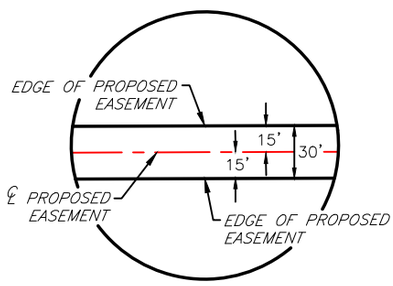
RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

NO.	REVISION	DATE

JOB NO.: LS22050587
DWG. NO.: 22050587-1

SPUR ENERGY PARTNERS LLC.
PROPOSED SWD PIPELINE FOR THE
DARKO 25 FEDERAL #20H & #30H WELL LOCATIONS
SECTION 26, T19S, R25E
N. M. P. M., EDDY COUNTY, NEW MEXICO





DETAIL "A"
N. T. S.

SCALE: 1" = 1000'
0 500' 1000'

BEARINGS ARE GRID NAD 83
NM EAST
DISTANCES ARE HORIZ. GROUND.

LEGEND
( ) RECORD DATA – GLO
◆ FOUND MONUMENT AS NOTED
PROPOSED SWD PIPELINE

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plat 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
05/27/22
PROFESSIONAL SURVEYOR

NO.	REVISION	DATE

JOB NO.: LS22050587
DWG. NO.: 22050587–2

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

SCALE: 1" = 1000'
DATE: 05/12/22
SURVEYED BY: JF/RU
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 2 OF 5

SPUR ENERGY PARTNERS LLC.
PROPOSED SWD PIPELINE FOR THE
DARKO 25 FEDERAL #20H & #30H WELL LOCATIONS
SECTION 26, T19S, R25E
N. M. P. M., EDDY COUNTY, NEW MEXICO

DESCRIPTION

A strip of land 30 feet wide, being 504.88 feet or 30.599 rods in length, lying in Section 26, Township 19 South, Range 25 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across the lands of Ross Ranch Inc. ET AL, according to a deed filed for record in Book 83, Page 709, of the Deed Records of Eddy County, New Mexico:

BEGINNING at Engr. Sta. 0+00, a point in the Southeast quarter of Section 26, which bears, N 66°39'49" E, 5,309.72 feet from a 1/2–inch rebar, found for the Southwest corner of Section 26;

Thence N 89°59'21" E, 414.93 feet, to Engr. Sta. 4+14.93, a point on the East line of Section 26, which bears, N 00°05'01" E, 2,087.98 feet from a 1/2–inch rebar/w yellow plastic cap, stamped "PS12641", found for the Southeast corner of Section 26.

Thence BEGINNING AGAIN at Engr. Sta. 10+02.10, a point on the East line of Section 26, which bears, S 00°05'01" W, 67.48 feet, from a 1/2–inch rebar/w yellow plastic cap, stamped "PS12641", found for the East quarter corner of Section 26;

Thence N 42°20'02" W, 89.95 feet, to Engr. Sta. 10+92.05, a point on the North line of the South half of Section 26, which bears, S 64°19'20" E, 5,854.51 feet from a 1/2–inch rebar, found for the Northwest corner of Section 26.

Said strip of land contains 0.348 acres, more or less, and is allocated by forties as follows:

NE 1/4 SE 1/4	30.599 Rods	0.348 Acres

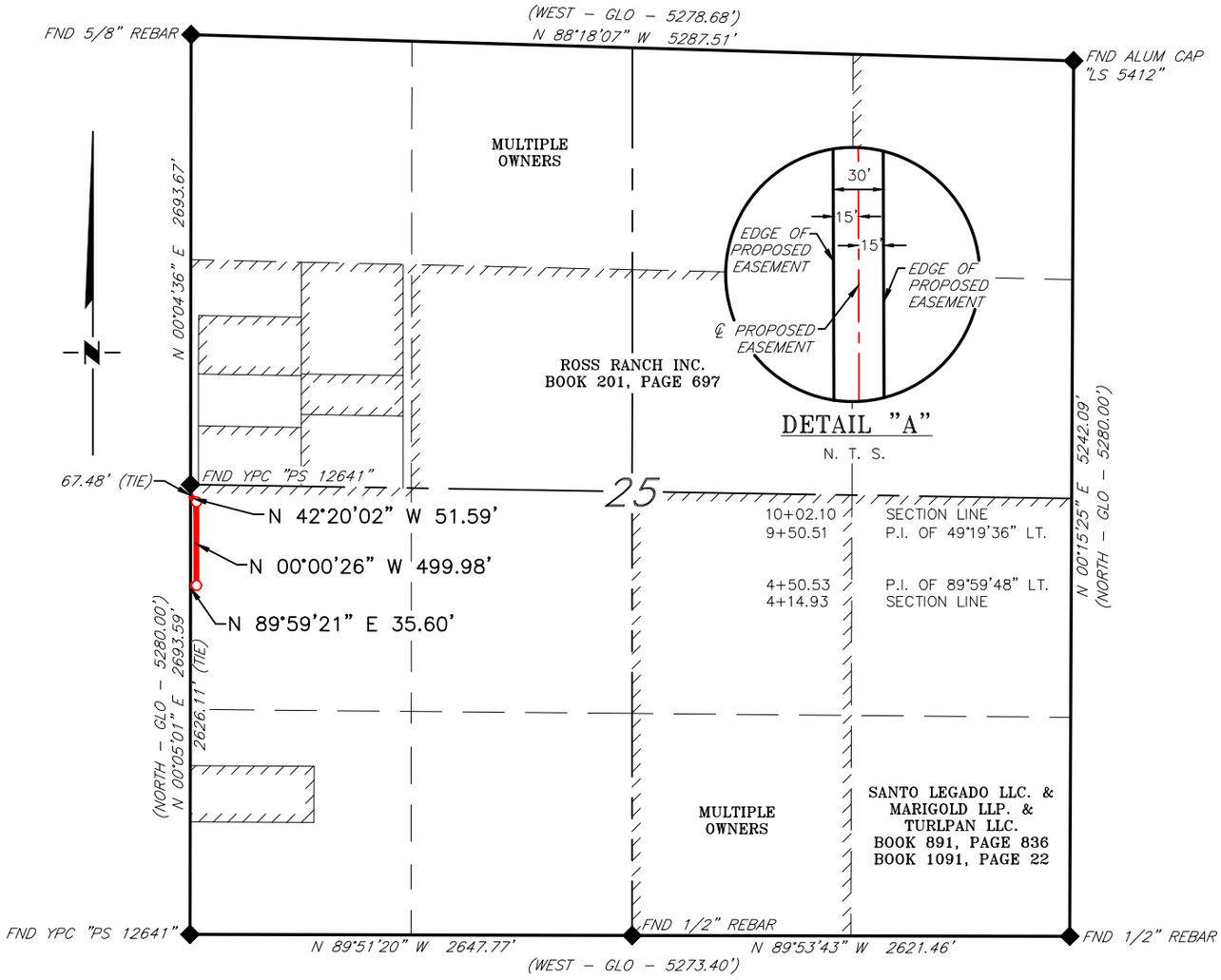
NO.	REVISION	DATE

JOB NO.: LS22050587
DWG. NO.: 22050587–3

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

SCALE: 1" = 1000'
DATE: 05/12/22
SURVEYED BY: JF/RU
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 3 OF 5

SPUR ENERGY PARTNERS LLC.
PROPOSED SWD PIPELINE FOR THE
DARKO 25 FEDERAL #20H & #30H WELL LOCATIONS
SECTION 25, T19S, R25E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DESCRIPTION

A strip of land 30 feet wide, being 587.17 feet or 35.586 rods in length, lying in Section 25, Township 19 South, Range 25 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across the lands of Ross Ranch Inc., according to a deed filed for record in Book 201, Page 697, of the Deed Records of Eddy County, New Mexico:

BEGINNING at Engr. Sta. 4+14.93, a point in the West line of Section 35, which bears, N 00°05'01" E, 2,626.11 feet from a 1/2–inch rebar/w yellow plastic cap, stamped "PS12641" found for the Southwest corner of Section 25;

Thence N 89°59'21" E, 35.60 feet, to Engr. Sta. 4+50.53, a P. I. of 89°59'48" left;

Thence N 00°00'26" W, 499.98 feet, to Engr. Sta. 9+50.51, a P. I. of 42°19'36" left;

Thence N 42°20'02" W, 51.59 feet, to Engr. Sta. 10+02.10, a point on the West line of Section 25, which bears, S 00°05'01" W, 67.48 feet from a 1/2–inch rebar w/yellow plastic cap, stamped "PS12641", found for the West quarter corner of Section 25.

Said strip of land contains 0.404 acres, more or less, and is allocated by forties as follows:

NW 1/4 SW 1/4	35.586 Rods	0.404 Acres

SCALE: 1" = 1000'
0 500' 1000'

BEARINGS ARE GRID NAD 83 NM EAST
DISTANCES ARE HORIZ. GROUND.

LEGEND
( ) *RECORD DATA – GLO*
◆ *FOUND MONUMENT AS NOTED*
PROPOSED SWD PIPELINE

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plat 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 05/27/22 PROFESSIONAL SURVEYOR

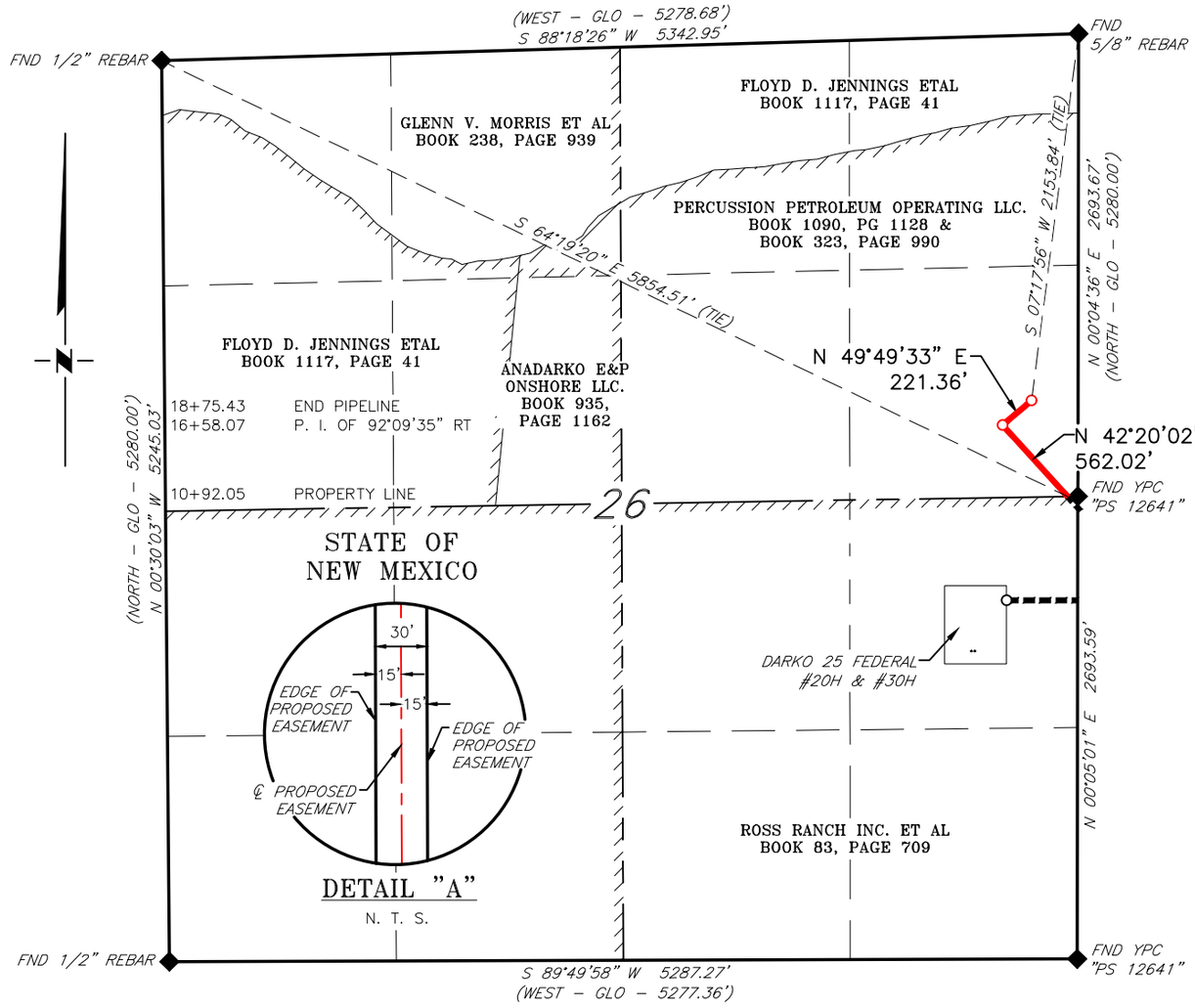
NO.	REVISION	DATE

JOB NO.: LS22050587
DWG. NO.: 22050587–4

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

SCALE: 1" = 1000'
DATE: 05/12/22
SURVEYED BY: JF/RU
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 4 OF 5

SPUR ENERGY PARTNERS LLC.
PROPOSED SWD PIPELINE FOR THE
DARKO 25 FEDERAL #20H & #30H WELL LOCATIONS
SECTION 26, T19S, R25E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DESCRIPTION

A strip of land 30 feet wide, being 783.38 feet or 47.478 rods in length, lying in Section 26, Township 19 South, Range 25 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across the lands of Percussion Petroleum Operating LLC., according to a deed filed for record in Book 1090, Page 1128, & Book 323, Page 990 of the Deed Records of Eddy County, New Mexico:

BEGINNING at Engr. Sta. 10+92.05, a point on the South line of the North half of Section 26, which bears, S 64°19'20" E, 5,854.51 feet from a 1/2–inch rebar, found for the Northwest corner of Section 26;

Thence N 42°20'02" W, 562.02 feet, to Engr. Sta. 16+54.07, to P. I. of 92°09'35" right;

Thence N 49°49'33" E, 221.36 feet, to Engr. Sta. 18+75.43, the End of Survey, a point in the Northeast quarter of Section 26, which bears, S 07°17'56" W, 2,153.84 feet from a 5/8–inch rebar, found for the Northeast corner of Section 26.

Said strip of land contains 0.540 acres, more or less, and is allocated by forties as follows:

SE 1/4 NE 1/4	47.478 Rods	0.540 Acres

SCALE: 1" = 1000'
0 500' 1000'

BEARINGS ARE GRID NAD 83 NM EAST
DISTANCES ARE HORIZ. GROUND.

LEGEND
( ) *RECORD DATA – GLO*
◆ *FOUND MONUMENT AS NOTED*
PROPOSED SWD PIPELINE

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plat 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
05/27/22
PROFESSIONAL SURVEYOR

NO.	REVISION	DATE

JOB NO.: LS22050587
DWG. NO.: 22050587–5

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

SCALE:	1" = 1000'
DATE:	05/12/22
SURVEYED BY:	JF/RU
DRAWN BY:	GA
APPROVED BY:	RMH
SHEET:	5 OF 5

Darko 25 Federal Frac Pond

32.643916, -104.451361

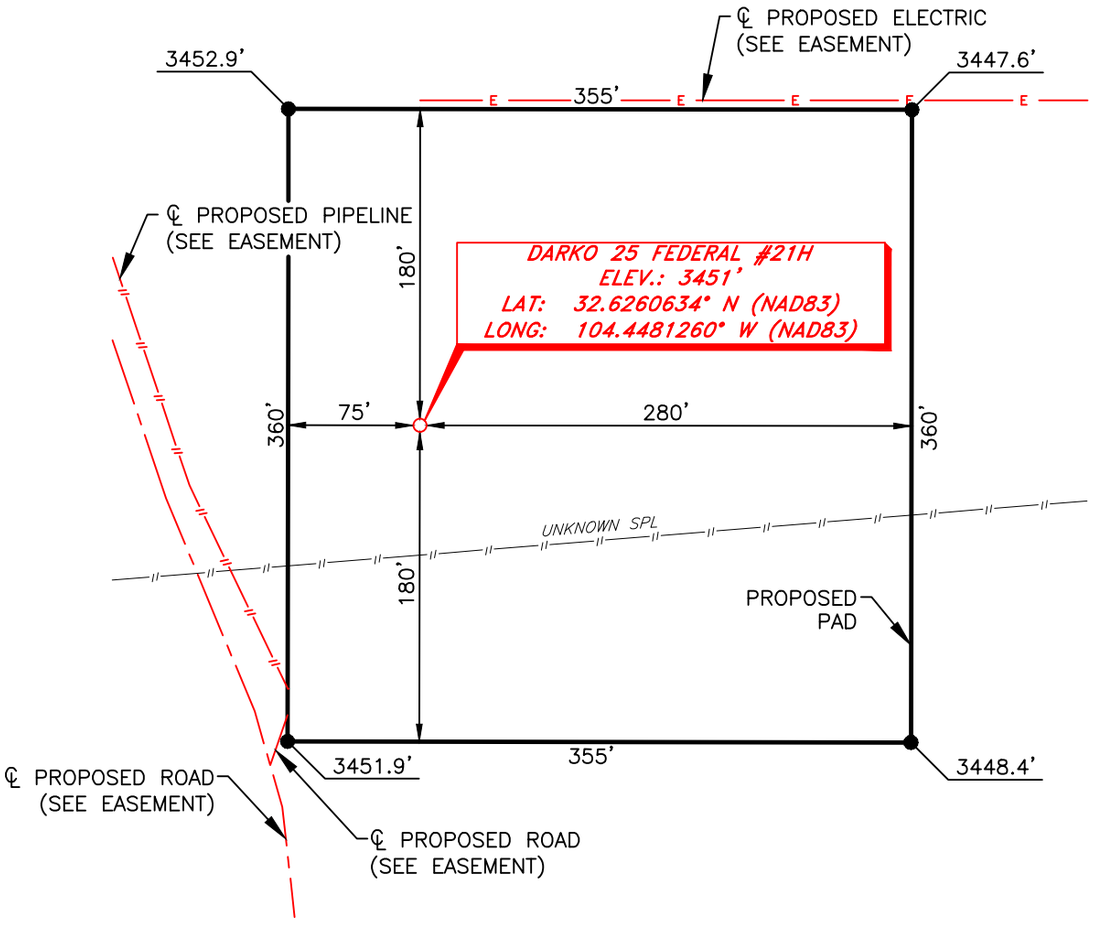
Darko Caliche Pit

Section 19, Township 19 South, Range 26 East

32.64612778,

-104.41322778

SPUR ENERGY PARTNERS LLC.
DARKO 25 FEDERAL #21H
(650' FSL & 390' FEL)
SECTION 26, T19S, R25E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

From the intersection of U.S. Hwy 285 and CR #23 (Rock Daisy Rd.);

Go West on CR #23 approx. 2.2 miles to a lease road on the right;

Turn right and go North approx. 0.1 miles to a proposed road on the right;

Turn right and go Northeast approx. 200 feet to location on the right.

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
05/23/22
PROFESSIONAL SURVEYOR

NO.	REVISION	DATE

JOB NO.: LS22050582
DWG. NO.: 22050582–4

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

SCALE: 1" = 100'
DATE: 05/12/22
SURVEYED BY: JF/EU
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 1 OF 1

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

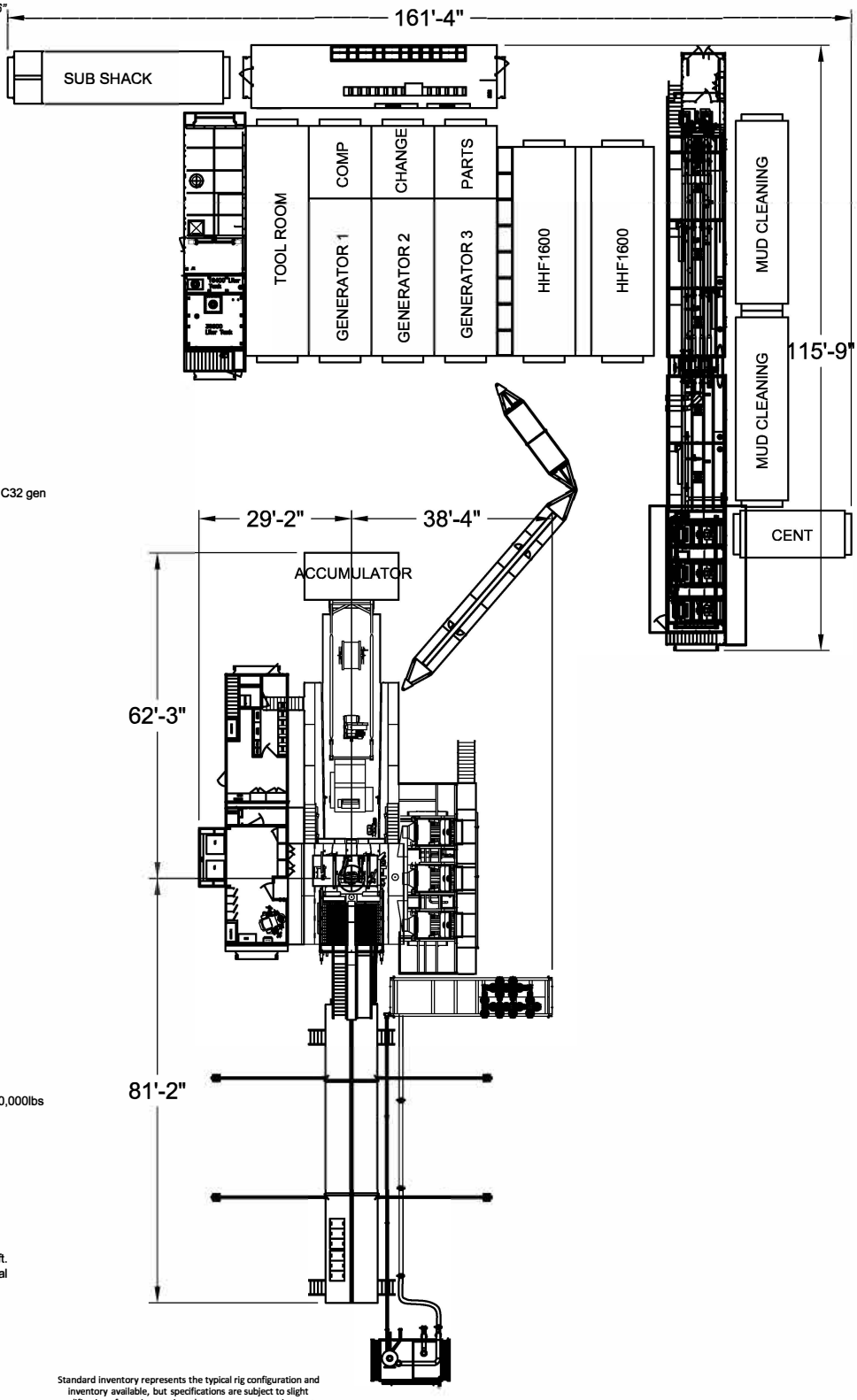
CATWALK
Ja-co Power Catwalk, tubular max length 47' 6", max OD 13 ⅝", max weight 10,000lbs

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.

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 1- F800 pump 1- Pill pit 80bbl 1- 400 bbl mud mix 1- Shaker 150mesh 1- 500 bbl fresh water frac tank	Standard Rig Hand Tools: • (2) 36” pipe wrenches • (2) 24” pipe wrenches • (2) 18” pipe wrenches • (1) 24” crescent wrench • (2) 12” crescent wrenches • (1) 4 lb shop hammer • (1) 12 lb sledge hammer • (1) 4 foot pry bar • Vehicles for Contractor personnel • Air Impact Wrench with Sockets • Mud Scales (as needed)

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:** 08 / 02 / 2022

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

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
DARKO 25 FEDERAL 20H	30-015-	I-26-19S-25E	1795' FSL 620' FEL	289 BBL/D	329 MCF/D	1010 BBL/D
DARKO 25 FEDERAL 21H	30-015-	P-26-19S-25E	650' FSL 390' FEL	289 BBL/D	329 MCF/D	1010 BBL/D
DARKO 25 FEDERAL 30H	30-015-	I-26-19S-25E	1795' FSL 600' FEL	366 BBL/D	380 MCF/D	1143 BBL/D

IV. Central Delivery Point Name: DARKO 25 FEDERAL 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
DARKO 25 FEDERAL 20H	30-015-	09/28/2023	10/06/2023	01/09/2024	01/24/2024	01/24/2024
DARKO 25 FEDERAL 21H	30-015-	10/06/2023	10/14/2023	01/09/2024	01/24/2024	01/24/2024
DARKO 25 FEDERAL 30H	30-015-	10/14/2023	10/24/2023	01/09/2024	01/24/2024	01/24/2024

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

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

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

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

Section 4 - Notices

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

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

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

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

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

Signature:	
Printed Name:	SARAH CHAPMAN
Title:	REGULATORY DIRECTOR
E-mail Address:	SCHAPMAN@SPURENERGY.COM
Date:	AUGUST 2, 2022
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.

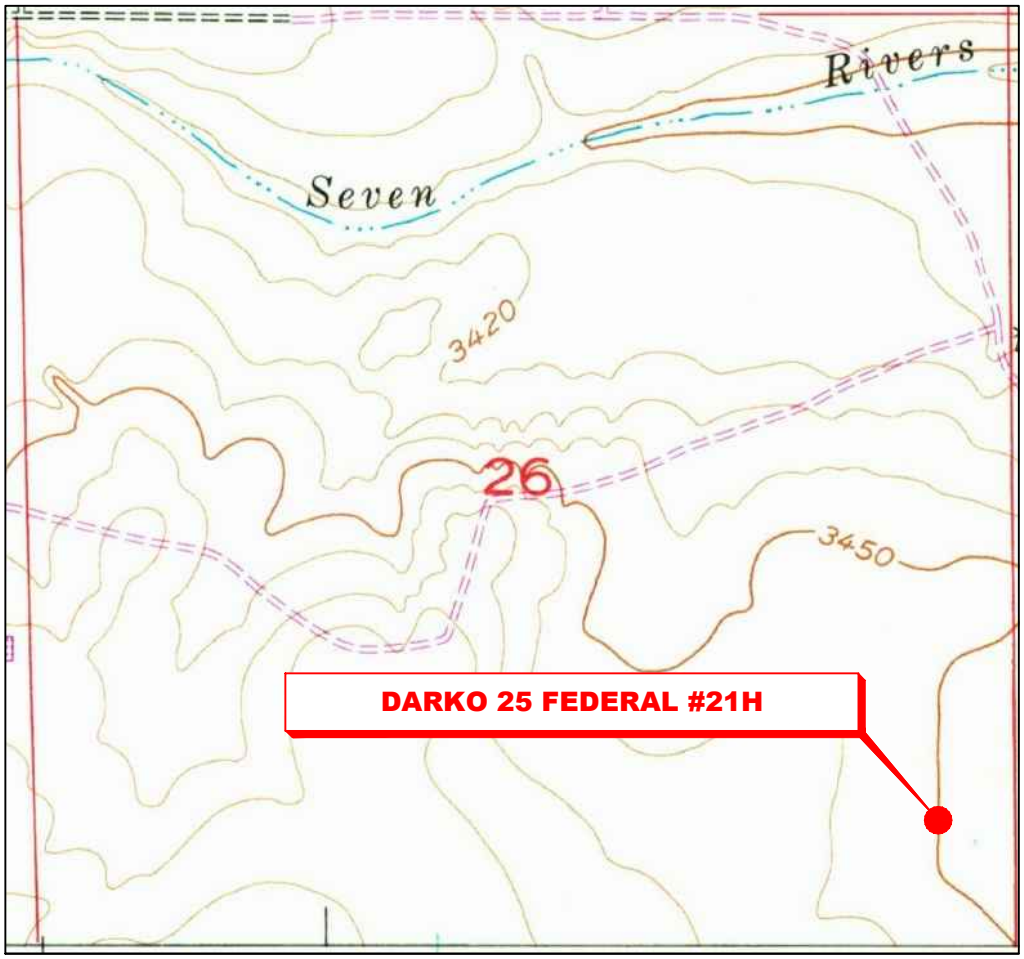
F. The volume of natural gas that is vented or flared as the result of an emergency or malfunction during drilling and/or completion operations will be estimated and reported accordingly. The volume of natural gas that is vented, flared or beneficially used during production operations, will be measured 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.

LOCATION VERIFICATION MAP

NOT TO SCALE



SECTION 26, TWP. 19 SOUTH, RGE. 25 EAST, N. M. P. M., EDDY COUNTY, NEW MEXICO

OPERATOR: Spur Energy Partners LLC.
LEASE: Darko 25 Federal
WELL NO.: 21H
ELEVATION: 3451'

LOCATION: 650' FSL & 390' FEL
CONTOUR INTERVAL: 10'
USGS TOPO. SOURCE MAP:
Dayton, NM (1955)

NO.	REVISION	DATE

JOB NO.: LS22050582
DWG. NO.: 22050582-2

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1000'
DATE: 5/12/2022
SURVEYED BY: JF/EU
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 1 OF 1

Surface Use Plan of Operations

Operator Name/Number: Spur Energy Partners LLC – 328947

Lease Name/Well Number: Darko 25 Federal 21H

Pool Name/Number: N. Seven Rivers; Glorieta-Yeso (97565)

Surface Location: 650' FSL 390' FEL SESE (P) Sec 26 T19S R25E – Fee

Bottom Location: 330' FSL 50' FEL SESE (P) Sec 25 T19S R25E – Fee

1. **Existing Roads**
   a. A copy of the Vicinity Map is attached showing the proposed location. The well location is spotted on the map, which shows the existing road system.
   b. This well was staked by Robert Howett, Certificate No. 19680 on May 12, 2022, certified on July 11, 2022.
   c. Directions to location: From the intersection of U.S. Hwy 285 and CR # 23 (Rock Daisy Rd.); go west on CR #23 approx. 2.2 miles to a lease road on the right; turn right and go north approx. 0.1 miles to a proposed road on the right; turn right and go northeast approx. 200 feet to location on the right.
2. **New or Reconstructed Access Roads**
   a. A new access road will be built as follows: A strip of land 30 feet wide, being 30.29 feet in length, lying in Section 26, Township 19 South, Range 25 East, N.M.P.M, Eddy County, New Mexico; being 15 feet left and 15 feet right of the described centerline.
   b. The maximum width of the road will be 14'. It will be crowned and made up of 6" compacted caliche. Water will be deflected as necessary, to avoid accumulation and prevent surface erosion.
   c. Surface material will be native caliche obtained from a BLM approved pit nearest proximity to the location. The maximum grade will be 2%.
   d. No cattle guards will be required.
   e. Blade, water, and repair existing caliche roads when necessary.
3. **Location of Existing Wells**
   a. Existing wells within one-mile radius of proposed well are shown on attached plat.
4. **Location of Proposed Facilities**
   a. In the event the well is found to be productive, the Darko 25 Federal Tank Battery would be utilized and the necessary production equipment will be installed at the well site. See proposed facilities layout diagram.
   b. Each well will have two (2) 4" surface flowlines operating at 80 psi per the survey plats from the well sites to the CTB. The flowlines for the Darko 25 Federal wells will be routed to the Darko 25 Federal CTB. The wells will produce into this battery at any given time. Survey a strip of land 30 feet wide, being 1613.53 feet in length, lying in Section 26, Township 19 South, Range 25 East, N.M.P.M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the centerline survey.
   c. Electric line will follow a route approved by the BLM. Survey a strip of land 30 feet wide, being 116.52 feet in length, lying in Section 25, Township 19 South, Range 25 East, N.M.P.M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the centerline survey. Survey a strip of land 30 feet wide, being 390.01 feet in length, lying in Section 26, Township 19 South, Range 25 East, N.M.P.M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the centerline survey.

d. Gas will be sold via one (1) 4" HDPE SDR 7 surface line operating at less than 125 psi into an existing buried gas line. Survey a strip of land 30 feet wide, being 545.19 feet in length, lying in Section 26, Township 19 South, Range 25 East, N.M.P.M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the centerline survey. Survey a strip of land 30 feet wide, being 520.11 feet in length, lying in Section 25, Township 19 South, Range 25 East, N.M.P.M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the centerline survey. Survey a strip of land 30 feet wide, being 2202.47 feet in length, lying in Section 26, Township 19 South, Range 25 East, N.M.P.M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the centerline survey.
e. Produced water will be pumped into two (2) 4" HDPE SDR 7 surface lines operating at less than 125 psi. The produced water line will also connect to Spur's SWD system to be disposed of at a Spur operated SWD. Survey a strip of land 30 feet wide, being 504.88 feet in length, lying in Section 26, Township 19 South, Range 25 East, N.M.P.M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the centerline survey. Survey a strip of land 30 feet wide, being 587.17 feet in length, lying in Section 25, Township 19 South, Range 25 East, N.M.P.M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the centerline survey. Survey a strip of land 30 feet wide, being 783.38 feet in length, lying in Section 26, Township 19 South, Range 25 East, N.M.P.M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the centerline survey.
f. See attached for additional information on the Darko 25 Federal Tank Battery.

5. Location and types of Water Supply

a. This well will be drilled using a combination of water mud systems. It will be obtained from commercial water stations in the area and will be hauled to location by truck using existing and proposed roads.

6. Construction Materials

a. All caliche for the drilling pad and proposed access road will be obtained from an existing BLM/State/Fee approved pit from prevailing deposits found on location. Will use the Cox Caliche Pit located in Unit I, Section 19 Township 19 South, Range 26, East, Eddy County, NM.
b. The secondary way obtaining caliche to build locations and roads will be by "turning over" the location. Amount will vary for each pad. The procedure below has been approved by BLM personnel:
    i. The top 6" of topsoil is pushed off and stockpiled along the side of location
    ii. Subsoil will be removed and piled alongside the 455' X 360' within the pad site
    iii. When caliche is found, material will be stockpiled within the pad site to build location and road
    iv. Once the well is drilled, the stockpiled topsoil will be used for interim reclamation and spread along areas where caliche is picked up and the location size is reduced. Neither the caliche nor subsoil will be stockpiled outside of the well pad. Topsoil will be stockpiled along the eastern edge of the pad as depicted in our Site Plan

7. **Methods of Handling Waste Material**
    a. A closed loop system will be utilized consisting of above ground steel tanks and haul-off bins. Disposal of drilling fluids and cuttings will be disposed of at an approved facility. Solids and Liquids – R360.
    b. All trash, junk and other waste material will be contained in trash cans or bins to prevent scattering. When the job is completed, all contents will be removed and disposed of in an approved sanitary landfill.
    c. The supplier, including broken sacks, will pick up remaining slats after the completion of the well.
    d. A port-a-potty will be provided for the rig crews. The equipment will be properly maintained during the drilling and completion operations and removed when the operations are complete.
    e. Disposal of fluids will be transported by the following companies:
        i. Mulholland
        ii. R360
        iii. AR Services
8. **Ancillary Facilities: None needed**
9. **Well-Site Layout**
    V-Door: South CL Tanks: Central Pad: 355’ X 360’ – 1 well pad
10. **Plans for Surface Reclamation**
    a. After concluding drilling and/or completion operations, if the well is non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the BLM COAs. The original topsoil will again be returned to the pad and contoured, as close as possible to the original topography, and the area will be seeded with an approved BLM mixture to re-establish vegetation.
    b. If the well is deemed commercially productive, caliche from the areas of the pad site will not be required for operations will be reclaimed. The original topsoil will be returned to the area of the drill pad not necessary to operate the well. The unused areas of the drill pad will be re-contoured as close as possible to the original topography, and the area will be seeded with an approved BLM mixture to re-establish vegetation.
11. **Surface Ownership**
    a. The surface is owned by Ross Ranch Inc., P.O. Box 216, Lakewood, NM 88254-0216. They will be notified of our intention to drill prior to any activity.
12. **Other Information**
    a. The vegetation cover is generally sparse consisting of mesquite, yucca, shinery oak, sandsage and perennial native range grass. The topsoil is sandy in nature. Wildlife in the area is also sparse consisting of deer, coyotes, rabbits, reptiles, dove and quail.
    b. There is no permanent or live water in the general proximity of the location.
    c. There are no dwellings within one mile of the proposed well site.
13. **Bond Information**
    a. Bond coverage is individual – NMB001783

14. Operator Representatives

Jerry Mathews
Superintendent of Operations
2407 Pecos Avenue
Artesia, NM 88210
Cellular: 575-748-5234

John Nabors
Senior VP of Operations
9655 Katy Freeway, Suite 500
Houston, TX 77024
Cellular: 281-904-8811
Office: 832-930-8526

Nash Bell
VP Land
9655 Katy Freeway, Suite 500
Houston, TX 77024
Cellular: 512-461-1874
Office: 832-930-8582

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

PWD Data Report
09/13/2023

APD ID: 10400087071 **Submission Date:** 08/02/2022

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

Well Type: OIL WELL **Well Work Type:** Drill

Section 1 - General

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

Section 2 - Lined

Would you like to utilize Lined Pit PWD options? N

Produced Water Disposal (PWD) Location:

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

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit

Pit liner description:

Pit liner manufacturers

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule

Lined pit reclamation description:

Lined pit reclamation

Leak detection system description:

Leak detection system

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

Lined pit Monitor description:

Lined pit Monitor

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

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information

Section 3 - Unlined

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

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

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule

Unlined pit reclamation description:

Unlined pit reclamation

Unlined pit Monitor description:

Unlined pit Monitor

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

Beneficial use user

Estimated depth of the shallowest aquifer (feet):

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

TDS lab results:

Geologic and hydrologic

State

Unlined Produced Water Pit Estimated

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

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information

Section 4 -

Would you like to utilize Injection PWD options? N

Produced Water Disposal (PWD) Location:

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

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection

Underground Injection Control (UIC) Permit?

UIC Permit

Section 5 - Surface

Would you like to utilize Surface Discharge PWD options? N

Produced Water Disposal (PWD) Location:

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

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 -

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

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

Other PWD discharge volume (bbl/day):

Operator Name: SPUR ENERGY PARTNERS LLC

Well Name: DARKO 25 FEDERAL **Well Number:** 21H

Other PWD type description:

Other PWD type

Have other regulatory requirements been met?

Other regulatory requirements

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

Bond Info Data
09/13/2023

APD ID: 10400087071
Submission Date: 08/02/2022
Operator Name: SPUR ENERGY PARTNERS LLC
Well Name: DARKO 25 FEDERAL
Well Number: 21H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes
Show Final Text

Bond

Federal/Indian APD: FED

BLM Bond number: NMB001783

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information

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

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

CONDITIONS

Action 266339

CONDITIONS

Operator: Spur Energy Partners LLC 9655 Katy Freeway Houston, TX 77024	OGRID: 328947
	Action Number: 266339
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify OCD 24 hours prior to casing & cement	9/19/2023
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	9/19/2023
ward.rikala	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	9/19/2023
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	9/19/2023
ward.rikala	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	9/19/2023