Form 3160-3
(March 2012)

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM062924

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

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

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No. (321460): MINIS 1 FED WCA 16H

2. Name of Operator: CHISHOLM ENERGY OPERATING LLC (372137)

9. API Well No.: 30-025-44853

3a. Address: 801 Cherry St., Suite 1200 Unit 20 Fort Worth

3b. Phone No. *(include area code)*: (817)469-1104

10. Field and Pool, or Exploratory: HAT MESA / WOLFCAMP (98282)

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

At surface: LOT 1 / 150 FNL / 1218 FEL / LAT 32.521936 / LONG -103.623806

At proposed prod. zone: SESE / 330 FSL / 528 FEL / LAT 32.501601 / LONG -103.621541

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 1 / T21S / R32E / NMP

14. Distance in miles and direction from nearest town or post office*: 28 miles

12. County or Parish: LEA

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 150 feet

16. No. of acres in lease: 156.35

17. Spacing Unit dedicated to this well: 238.75

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 60 feet

19. Proposed Depth: 11535 feet / 18992 feet

20. BLM/BIA Bond No. on file: FED: NMB001468

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3721 feet

22. Approximate date work will start*: 10/01/2018

23. Estimated duration: 30 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

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 required by the BLM.

25. Signature: (Electronic Submission)

Name *(Printed/Typed)*: Jennifer Elrod / Ph: (817)953-3728

Date: 11/08/2017

Title: Senior Regulatory Technician

Approved by *(Signature)*: (Electronic Submission)

Name *(Printed/Typed)*: Cody Layton / Ph: (575)234-5959

Date: 05/11/2018

Title: Supervisor Multiple Resources

Office: CARLSBAD

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.

(Continued on page 2)

*(Instructions on page 2)

GCP Rec 05/23/2018

APPROVED WITH CONDITIONS

KZ 05/31/2018

Approval Date: 05/11/2018

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 1: 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 well, 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 directionally 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.

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 well 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 will 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 collects this information to allow 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 Collection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

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Additional Operator Remarks

Location of Well

1. SHL: LOT 1 / 150 FNL / 1218 FEL / TWSP: 21S / RANGE: 32E / SECTION: 1 / LAT: 32.521936 / LONG: -103.623806 (TVD: 0 feet, MD: 0 feet)
   PPP: LOT 1 / 330 FNL / 528 FEL / TWSP: 21S / RANGE: 32E / SECTION: 1 / LAT: 32.521439 / LONG: -103.621568 (TVD: 11535 feet, MD: 12166 feet)
   BHL: SESE / 330 FSL / 528 FEL / TWSP: 21S / RANGE: 32E / SECTION: 1 / LAT: 32.501601 / LONG: -103.621541 (TVD: 11535 feet, MD: 18992 feet)

BLM Point of Contact

Name: Priscilla Perez
Title: Legal Instruments Examiner
Phone: 5752345934
Email: pperez@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
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Chisholm Energy Operating**
LEASE NO.:	**NM62924**
WELL NAME & NO.:	**16H – Minis 1 Fed WCA**
SURFACE HOLE FOOTAGE:	**150'/N & 1218'/E**
BOTTOM HOLE FOOTAGE	**330'/S & 528'/E**
LOCATION:	**Sec. 1, T. 21 S, R. 32 E**
COUNTY:	**Lea County, New Mexico**

COA

H2S	○ Yes	◉ No	
Potash	○ None	○ Secretary	◉ R-111-P
Cave/Karst Potential	◉ Low	○ Medium	○ High
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	◉ Multibowl	○ Both
Other	☐ 4 String Area	☑ Capitan Reef	☐ WIPP

A. Hydrogen Sulfide

Hydrogen Sulfide (H2S) 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. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **1500** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.

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

Operator shall filled 1/3rd casing with fluid while running intermediate casing to maintain collapse safety factor.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

a. First stage to DV tool: 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:Cement to surface. If cement does not circulate, contact the appropriate BLM office.

❖ **Special Capitan Reef requirements.** 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 FW based mud used across the capitan interval)

- Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.

- Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.

Production lead cement is a Class H.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:
- Cement to surface. If cement does not circulate, contact the appropriate BLM office.**Additional cement maybe required. Excess calculates to 24%.**

C. PRESSURE CONTROL

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

2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

GENERAL REQUIREMENTS

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

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

☒ Chaves and Roosevelt Counties
Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201.
During office hours call (575) 627-0272.
After office hours call (575)

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

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all

times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

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

A. CASING

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

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

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

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

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

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be

tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

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

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

B. PRESSURE CONTROL

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

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

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

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

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

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

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

    c. The tests shall be done by an independent service company utilizing a test plug. The results of the test shall be reported to the appropriate BLM office.

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

    e. 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.

    f. 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. This test shall be performed prior to the test at full stack pressure.

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

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

Waste Minimization Plan (WMP)

In the interest of resource development, submission of additional well gas capture development plan information is deferred but may be required by the BLM Authorized Officer at a later date.

ZS 033118

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

Date: 03/29/2018

☒ Original
☐ Amended - Reason for Amendment:

Operator & OGRID No.: Chisholm Energy Operating, LLC/372137

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

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

Well(s)/Production Facility – Name of facility

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

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
MINIS 1 FED COM WCA 16H	025-	LOT 1-1-21S-32E	150 FNL 1218 FEL	900	FLARED	PIPELINE IN PLACE; FLARE ONLY WHEN NEEDED

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to DCP Midstream and will be connected to DCP Midstream low/high pressure gathering system located in _LEA_____ County, New Mexico. It will require FLOWLINES to connect the facility to low/high pressure gathering system. Chisholm Energy Operating, LLC provides (periodically) to DCP Midstream a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Chisholm Energy Operating, LLC and DCP Midstream have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DCP Midstream Processing Plant located in Sec._20__, Twn._19S_, Rng._32E_, __Lea___ County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

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

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

Alternatives to Reduce Flaring

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

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

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Chisholm Energy Operating
LEASE NO.:	NM62924
WELL NAME & NO.:	Minis 1 Fed WCA 16H
SURFACE HOLE FOOTAGE:	150'/N & 1218'/E
BOTTOM HOLE FOOTAGE	330'/S & 528'/E
LOCATION:	Section 1, T. 21 S., R. 32 E.
COUNTY:	Lea County, New Mexico

TABLE OF CONTENTS

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

I. GENERAL PROVISIONS

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

II. PERMIT EXPIRATION

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

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

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

acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Watershed
The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The berm shall be maintained through the life of the well and after interim reclamation has been completed.
Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control.

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

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

This authorization is subject to your Certificate of Participation and/or Certificate of Inclusion under the New Mexico Candidate Conservation Agreement. Because it involves surface disturbing activities covered under your Certificate, your Habitat Conservation Fund Account with the Center of Excellence for Hazardous Materials Management (CEHMM) will be debited according to Exhibit B Part 2 of the Certificate of Participation.

Potash- See Potash Memo

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the at least 3 working days prior to commencing construction of the access road and/or well pad.

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

B. TOPSOIL

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

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

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the .

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

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

F. EXCLOSURE FENCING (CELLARS & PITS)

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

G. ON LEASE ACCESS ROADS

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

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

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

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

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

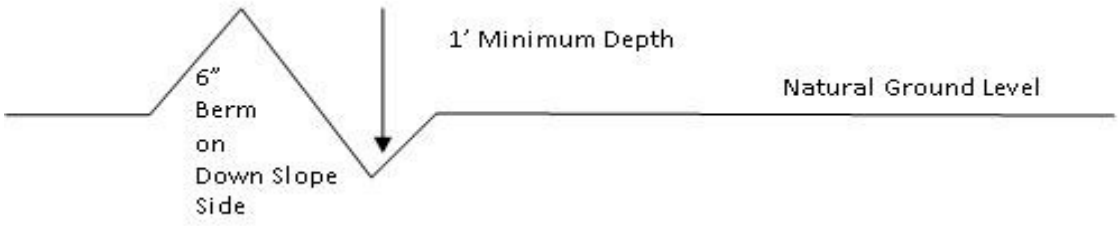
Ditching
Ditching shall be required on both sides of the road.

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

Drainage

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

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



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

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

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

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

Construction Steps

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

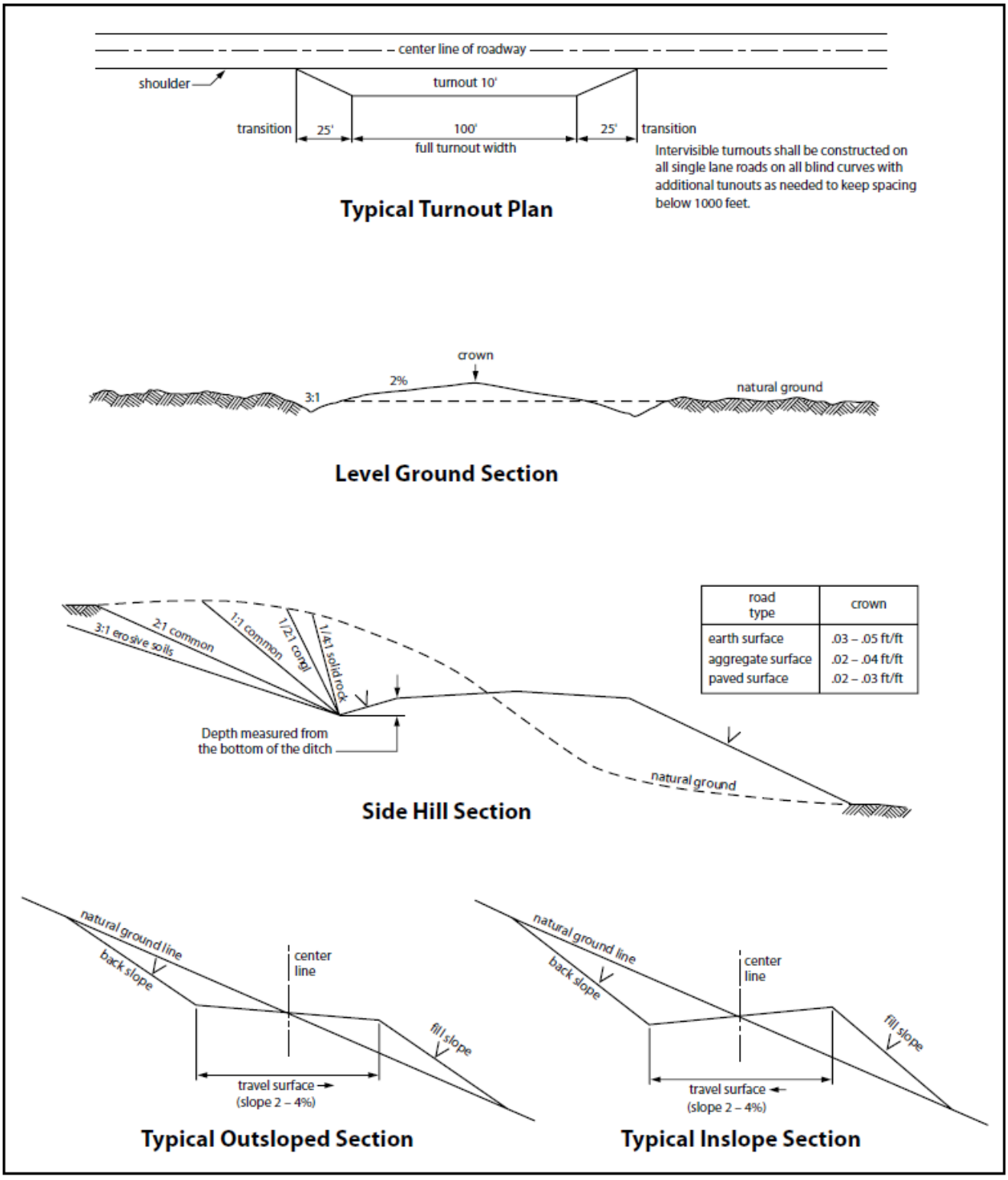


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

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

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

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

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

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

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

VIII. INTERIM RECLAMATION

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

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

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

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

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

IX. FINAL ABANDONMENT & RECLAMATION

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

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

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

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

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

Seed Mixture for LPC Sand/Shinnery Sites

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

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

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

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

*Pounds of pure live seed:

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

AFMSS

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

Operator Certification Data Report

05/14/2018

Operator Certification

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

NAME: Jennifer Elrod **Signed on:** 11/08/2017

Title: Senior Regulatory Technician

Street Address: 801 CHERRY STREET, SUITE 1200-UNIT 20

City: Fort Worth **State:** TX **Zip:** 76102

Phone: (817)953-3728

Email address: jelrod@chisholmenergy.com

Field Representative

Representative Name:

Street Address:

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

Phone:

Email address:

APD ID: 10400022507 **Submission Date:** 11/08/2017

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: MINIS 1 FED WCA **Well Number:** 16H

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

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400022507 **Tie to previous NOS?** **Submission Date:** 11/08/2017

BLM Office: CARLSBAD **User:** Jennifer Elrod **Title:** Senior Regulatory Technician

Federal/Indian APD: FED **Is the first lease penetrated for production Federal or Indian?** FED

Lease number: NMNM062924 **Lease Acres:** 156.35

Surface access agreement in place? **Allotted?** **Reservation:**

Agreement in place? NO **Federal or Indian agreement:**

Agreement number:

Agreement name:

Keep application confidential? NO

Permitting Agent? NO **APD Operator:** CHISHOLM ENERGY OPERATING LLC

Operator letter of designation:

Operator Info

Operator Organization Name: CHISHOLM ENERGY OPERATING LLC

Operator Address: 801 Cherry St., Suite 1200 Unit 20 **Zip:** 76102

Operator PO Box:

Operator City: Fort Worth **State:** TX

Operator Phone: (817)469-1104

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO **Mater Development Plan name:**

Well in Master SUPO? EXISTING **Master SUPO name:** JE

Well in Master Drilling Plan? EXISTING **Master Drilling Plan name:** JE

Well Name: MINIS 1 FED WCA **Well Number:** 16H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** HAT MESA **Pool Name:** WOLFCAMP

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

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: MINIS 1 FED WCA **Well Number:** 16H

Describe other minerals:

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

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** MINIS PAD 3 **Number:** 6H,7H,10H,11H,16H

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: 28 Miles **Distance to nearest well:** 60 FT **Distance to lease line:** 150 FT

Reservoir well spacing assigned acres Measurement: 238.75 Acres

Well plat: MINIS_1_FED_WCA_16H_REV_APD_C102_032218_20180322134224.pdf

Well work start Date: 10/01/2018 **Duration:** 30 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: 7977

	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
SHL Leg #1	150	FNL	1218	FEL	21S	32E	1	Lot 1	32.521936	-103.623806	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 062924	3721	0	0
KOP Leg #1	150	FNL	1218	FEL	21S	32E	1	Lot 1	32.521936	-103.623806	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 062924	-7012	10733	10733
PPP Leg #1	330	FNL	528	FEL	21S	32E	1	Lot 1	32.521439	-103.621568	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 060777	-7814	12166	11535

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: MINIS 1 FED WCA **Well Number:** 16H

	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
EXIT Leg #1	330	FSL	528	FEL	21S	32E	1	Aliquot SESE	32.501601	-103.621541	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 092187	-7814	18992	11535
BHL Leg #1	330	FSL	528	FEL	21S	32E	1	Aliquot SESE	32.501601	-103.621541	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 092187	-7814	18992	11535

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
1226 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1226 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011

Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	96438	HAT MESA; WOLFCAMP

Property Code	Property Name	Well Number
	MINIS 1 FED COM WCA	16H

OGRID No.	Operator Name	Elevation
372137	CHISHOLM ENERGY OPERATING, LLC	3721'

Surface Location

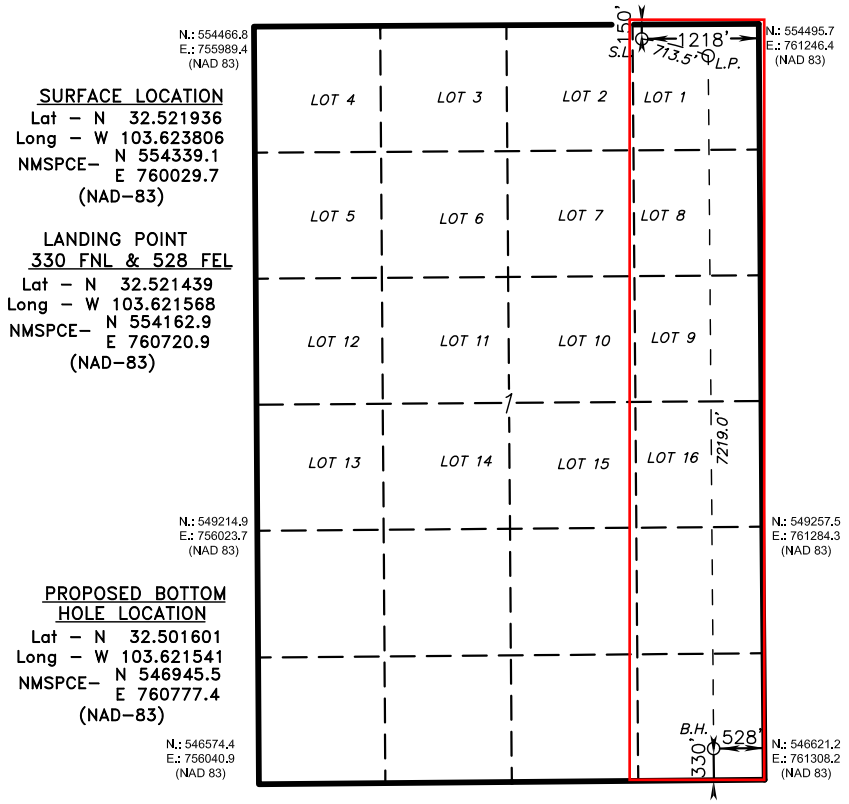
UL or lot No.	Section	Township	Range	Lot Idn	FEET from the	North/South line	FEET from the	East/West line	County
LOT 1	1	21 S	32 E		150	NORTH	1218	EAST	LEA

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	1	21 S	32 E		330	SOUTH	528	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
238.75			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



SURFACE LOCATION
Lat – N 32.521936
Long – W 103.623806
NMSPCE– N 554339.1
E 760029.7
(NAD-83)

LANDING POINT
330 FNL & 528 FEL
Lat – N 32.521439
Long – W 103.621568
NMSPCE– N 554162.9
E 760720.9
(NAD-83)

PROPOSED BOTTOM HOLE LOCATION
Lat – N 32.501601
Long – W 103.621541
NMSPCE– N 546945.5
E 760777.4
(NAD-83)

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.

Jennifer Elrod 3/22/18
Signature Date

JENNIFER ELROD
Printed Name

jelrod@chisholmenergy.com
Email Address

SURVEYOR CERTIFICATION

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

MAY 10, 2017
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate No. Gary L. Jones 7977
BASIN SURVEYS

0' 1000' 2000' 3000' 4000'
SCALE: 1" = 1000'
WO Num.: 32886

APD ID: 10400022507 **Submission Date:** 11/08/2017

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: MINIS 1 FED WCA **Well Number:** 16H

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

Highlighted data reflects the most recent changes

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Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	RUSTLER	3721	0	0	ANHYDRITE	USEABLE WATER,CO2,OIL	No
2	SALADO	1861	1860	1860		NATURAL GAS,OIL	No
3	YATES	611	3110	3110	SHALE,SANDSTONE	NATURAL GAS,OIL	No
4	CAPITAN REEF	216	3505	3505	LIMESTONE,DOLOMITE	NATURAL GAS,OIL	No
5	DELAWARE	-2009	5730	5730	SHALE,SANDSTONE,SILTSTONE	NATURAL GAS,OIL	No
6	BONE SPRING	-5014	8735	8735	LIMESTONE,SHALE	NATURAL GAS,OIL	No
7	BONE SPRING 1ST	-5944	9665	9665	SHALE,SANDSTONE,SILTSTONE	NATURAL GAS,OIL	No
8	BONE SPRING 2ND	-6519	10240	10240	SHALE,SANDSTONE,SILTSTONE	NATURAL GAS,OIL	No
9	BONE SPRING 3RD	-7484	11205	11205	SHALE,SANDSTONE,SILTSTONE	NATURAL GAS,OIL	No
10	WOLFCAMP	-7754	11475	11475	LIMESTONE,SHALE,SILTSTONE	NATURAL GAS,OIL	Yes

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M **Rating Depth:** 12500

Equipment: Rotating Head, Mud Gas Separator, Flare Line, Remote Kill LIne

Requesting Variance? YES

Variance request: WE PROPOSE UTILIZING A CACTUS SPEED HEAD MULTI-BOWL WELLHEAD FOR THIS WELL. PLEASE SEE ATTACHED DIAGRAM AND PRESSURE TESTING STATEMENT. ALSO WE REQUEST TO USE A FLEX CHOKE HOSE; PLEASE SEE ATTACHMENT
Testing Procedure: -N/U the rig's BOP. Use 3rd party testers to perform the following: -Test the pipe rams, blind rams, floor valves (IBOP and/or upper Kelly valve), choke lines and manifold to 250 psi/5,000 psi with a test plug and a test pump. -Test the Hyrdil annular to 250 psi/1,500 psi with same as above.

Choke Diagram Attachment:

5M_Choke_Manifold_Diagram_08_16_2017_20171013133708.jpg

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: MINIS 1 FED WCA **Well Number:** 16H

5M_Choke_Manifold_Diagram_08_16_2017_20171013133708.jpg

BOP Diagram Attachment:

5m_BOP_Diagram_08_16_2017_20171013133731.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.625	NEW	API	N	0	1500	0	1500	3721	2221	1500	J-55	54.5	BUTT	1.72	4.17	DRY	11.12	DRY	10.43
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5400	0	5400	3721	-1679	5400	J-55	40	LTC	1.35	1.38	DRY	2.41	DRY	2.92
3	PRODUCTION	8.75	5.5	NEW	API	N	0	18992	0	11535	3721	-7814	18992	P-110	20	BUTT	1.95	2.22	DRY	2.89	DRY	2.78

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Assumptions_WCA_20171013134221.pdf

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: MINIS 1 FED WCA **Well Number:** 16H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Assumptions_WCA_20171013134452.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Assumptions_WCA_20171013134714.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	1150	584	2.53	12	1478	85	Class C	Sodium Metasilicate, Defoamer, KCL
SURFACE	Tail		1150	1500	341	1.32	14.8	450	85	Class C	none
INTERMEDIATE	Lead	3500	0	3500	740	2.43	12	1797	100	Class C	Sodium Metasilicate, Defoamer, KCL, Kol-Seal, Cellophane Flakes, ROF SealCheck

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: MINIS 1 FED WCA **Well Number:** 16H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Lead	3500	3500	5050	420	2.31	12	971	100	Class H	Sodium Metasilicate, Defoamer, KCL, Kol-Seal, Cellophane Flakes, ROF SealCheck
INTERMEDIATE	Tail		5050	5400	180	1.22	14.4	219	100	Class H	Fluid Loss, Dispercent, Retarder
PRODUCTION	Lead		4900	11035	474	3.87	12	1909	25	Class C	Bentonite, Compressive Strength Enhancer, Silica Fume Alternative, Fluid Loss, Defoamer, Sodium Metasilicate, Retarder
PRODUCTION	Tail		11035	18992	2185	1.15	15.8	2512	25	Class H	Fluid Loss, Suspension Agent, Retarder, Defoamer, Dispersant

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

Describe the mud monitoring system utilized: PVE, Pason/CanRig, visual Monitoring

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
5400	11535	OIL-BASED MUD	8.8	9.5							
0	1500	SPUD MUD	8.5	9.2							

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: MINIS 1 FED WCA **Well Number:** 16H

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
1500	5400	WATER-BASED MUD	9.8	10.2							

Section 6 - Test, Logging, Coring

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

None

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

CBL,DS,GR,MWD

Coring operation description for the well:

None

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5600 **Anticipated Surface Pressure:** 3062.3

Anticipated Bottom Hole Temperature(F): 160

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Lea_County_H2S_plan_20180322133530.pdf

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: MINIS 1 FED WCA **Well Number:** 16H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

QES___Minis_1_FED_WCA_16H_Design__1_20170920062159.pdf

QES___Minis_1_FED_WCA_16H_WM_D_1_20170920062201.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Other Variance attachment:

Cactus_Speed_Head_Installation_Procedure_20180322133556.pdf

Cactus_Speed_Head_Pressure_Testing_Statement_20180322133556.pdf

Cactus_Speedhead_Diagram_20180322133557.pdf

Choke_Hose_M55_1_07102017_145204_66_1225_04_14_2014__20180322133557.pdf

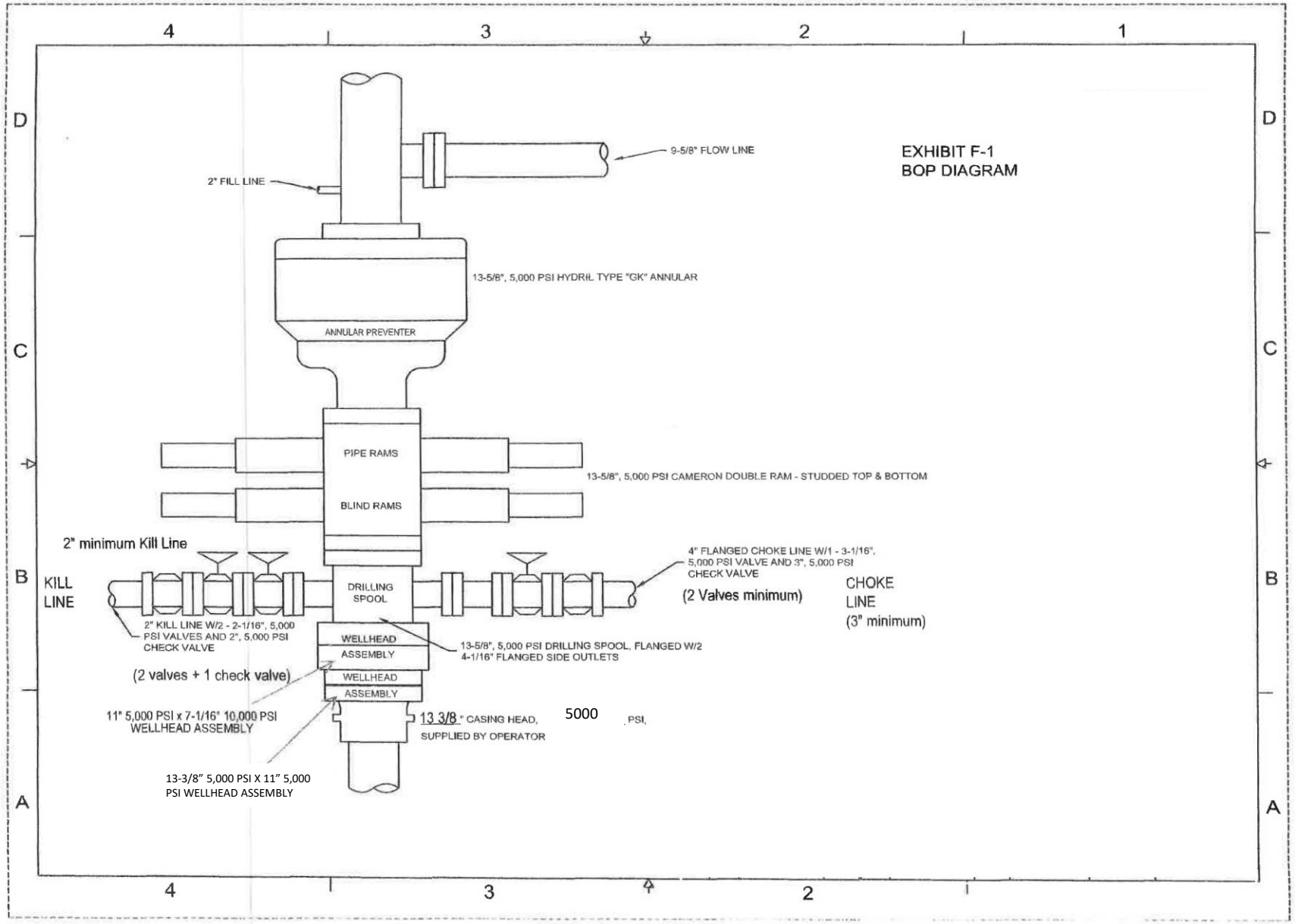
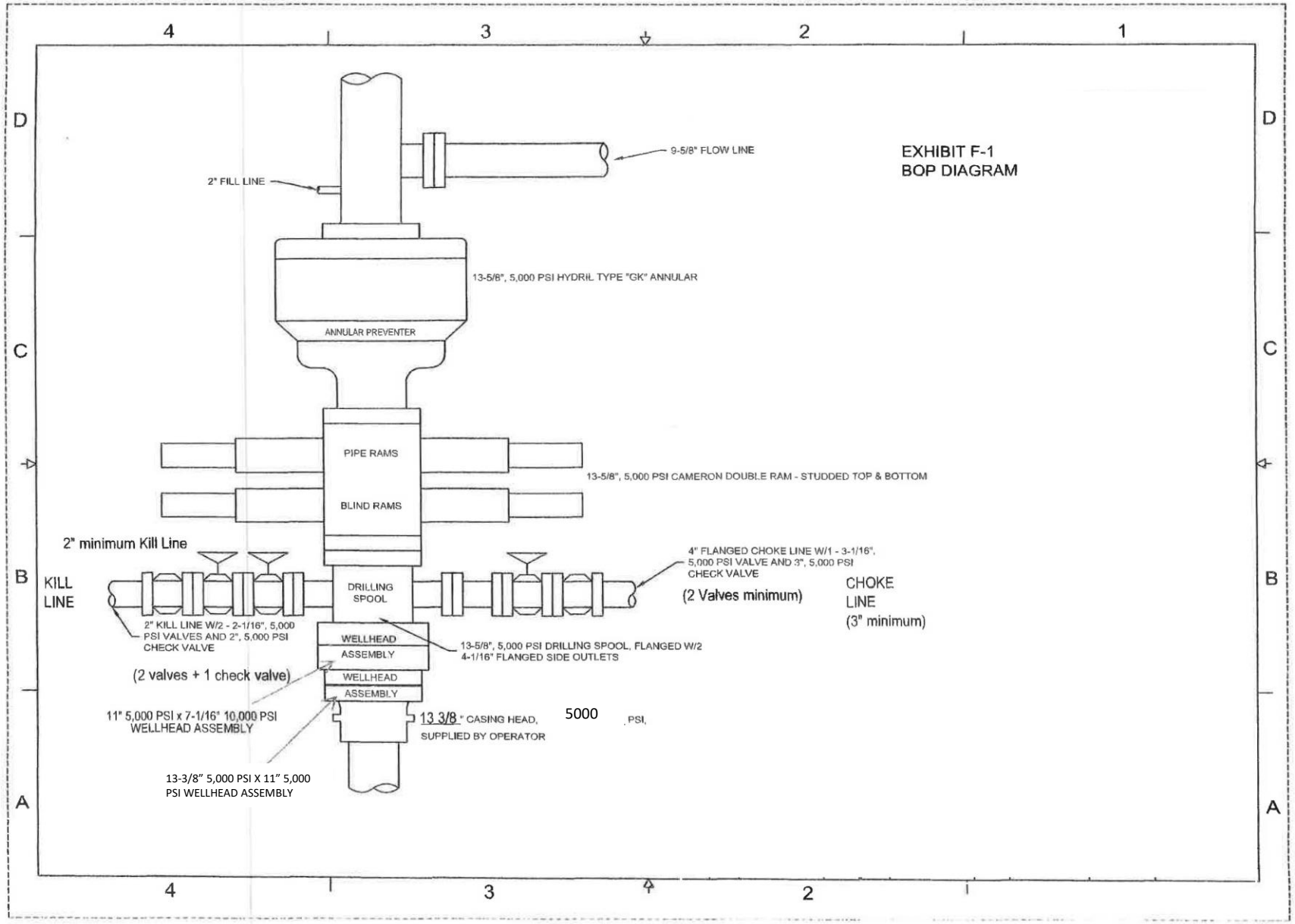


EXHIBIT F-1
BOP DIAGRAM
9-5/8" FLOW LINE
2" FILL LINE
13-5/8", 5,000 PSI HYDRIL TYPE "GK" ANNULAR
ANNULAR PREVENTER
PIPE RAMS
BLIND RAMS
13-5/8", 5,000 PSI CAMERON DOUBLE RAM - STUDDED TOP & BOTTOM
2" minimum Kill Line
KILL LINE
4" FLANGED CHOKE LINE W/1 - 3-1/16", 5,000 PSI VALVE AND 3", 5,000 PSI CHECK VALVE
(2 Valves minimum)
CHOKE LINE
(3" minimum)
DRILLING SPOOL
2" KILL LINE W/2 - 2-1/16", 5,000 PSI VALVES AND 2", 5,000 PSI CHECK VALVE
13-5/8", 5,000 PSI DRILLING SPOOL, FLANGED W/2 4-1/16" FLANGED SIDE OUTLETS
WELLHEAD ASSEMBLY
WELLHEAD ASSEMBLY
(2 valves + 1 check valve)
11" 5,000 PSI x 7-1/16" 10,000 PSI WELLHEAD ASSEMBLY
13 3/8" CASING HEAD, SUPPLIED BY OPERATOR
5000
PSI,
13-3/8" 5,000 PSI X 11" 5,000 PSI WELLHEAD ASSEMBLY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13-5/8", 5,000 PSI HYDRIL TYPE "GK" ANNULAR
ANNULAR PREVENTER
PIPE RAMS
BLIND RAMS
13-5/8", 5,000 PSI CAMERON DOUBLE RAM - STUDDED TOP & BOTTOM
2" minimum Kill Line
KILL LINE
4" FLANGED CHOKE LINE W/1 - 3-1/16", 5,000 PSI VALVE AND 3", 5,000 PSI CHECK VALVE
(2 Valves minimum)
CHOKE LINE
(3" minimum)
DRILLING SPOOL
2" KILL LINE W/2 - 2-1/16", 5,000 PSI VALVES AND 2", 5,000 PSI CHECK VALVE
13-5/8", 5,000 PSI DRILLING SPOOL, FLANGED W/2 4-1/16" FLANGED SIDE OUTLETS
WELLHEAD ASSEMBLY
WELLHEAD ASSEMBLY
(2 valves + 1 check valve)
11" 5,000 PSI x 7-1/16" 10,000 PSI WELLHEAD ASSEMBLY
13 3/8" CASING HEAD, SUPPLIED BY OPERATOR
5000
PSI,
13-3/8" 5,000 PSI X 11" 5,000 PSI WELLHEAD ASSEMBLY

Casing Program: **Minis (13 3/8" x 9 5/8" x 5 1/2")**

Open Hole Size (Inches)	Casing Depth; From (ft)	Casing Setting Depth (ft) MD	Casing Setting Depth (ft) TVD	Casing Size (inches)	Casing Weight (lb/ft)	Casing Grade	Thread	Condition	Anticipated Mud Weight (ppg)	Burst (psi)	Burst SF (1.125)	Collapse (psi)	Collapse SF (1.125)	Tension Joint (klbs)	Air Weight (lbs)	Tension Joint SF (1.8)	Tension Body (klbs)	Air Weight (lbs)	Tension Body SF (1.8)
Surface																			
17.5"	0'	1,500'	1,500'	13 3/8"	54.5	J-55	BTC	New	8.4	2730	4.17	1130	1.72	909,000	81,750	11.12	853,000	81,750	10.43
Intermediate																			
12.25"	0'	5,400'	5,400'	9 5/8"	40	J-55	LTC	New	10.2	3950	1.38	2570	1.35	520,000	216,000	2.41	630,000	216,000	2.92
Production																			
8.75"	0'	18,992'	11,535'	5 1/2"	20	P-110	BTC	New	9.5	12630	2.22	11100	1.95	667,000	230,700	2.89	641,000	230,700	2.78

Casing Design Criteria and Casing Loading Assumptions:

Surface

Tension	A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	8.4	ppg
Collapse	A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	8.4	ppg
Burst	A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	8.4	ppg

Intermediate

Tension	A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	10.2	ppg
Collapse	A 1.125 design factor with 1/3 TVD internal evacuation and collapse force equal to a mud gradient of:	10.2	ppg
Burst	A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	10.2	ppg

Production

Tension	A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	9.5	ppg
Collapse	A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	9.5	ppg
Burst	A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	9.5	ppg

Casing Program: **Minis (13 3/8" x 9 5/8" x 5 1/2")**

Open Hole Size (Inches)	Casing Depth; From (ft)	Casing Setting Depth (ft) MD	Casing Setting Depth (ft) TVD	Casing Size (inches)	Casing Weight (lb/ft)	Casing Grade	Thread	Condition	Anticipated Mud Weight (ppg)	Burst (psi)	Burst SF (1.125)	Collapse (psi)	Collapse SF (1.125)	Tension Joint (klbs)	Air Weight (lbs)	Tension Joint SF (1.8)	Tension Body (klbs)	Air Weight (lbs)	Tension Body SF (1.8)
Surface																			
17.5"	0'	1,500'	1,500'	13 3/8"	54.5	J-55	BTC	New	8.4	2730	4.17	1130	1.72	909,000	81,750	11.12	853,000	81,750	10.43
Intermediate																			
12.25"	0'	5,400'	5,400'	9 5/8"	40	J-55	LTC	New	10.2	3950	1.38	2570	1.35	520,000	216,000	2.41	630,000	216,000	2.92
Production																			
8.75"	0'	18,992'	11,535'	5 1/2"	20	P-110	BTC	New	9.5	12630	2.22	11100	1.95	667,000	230,700	2.89	641,000	230,700	2.78

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Burst	A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	10.2	ppg

Production

Tension	A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	9.5	ppg
Collapse	A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	9.5	ppg
Burst	A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	9.5	ppg

Casing Program: **Minis (13 3/8" x 9 5/8" x 5 1/2")**

Open Hole Size (Inches)	Casing Depth; From (ft)	Casing Setting Depth (ft) MD	Casing Setting Depth (ft) TVD	Casing Size (inches)	Casing Weight (lb/ft)	Casing Grade	Thread	Condition	Anticipated Mud Weight (ppg)	Burst (psi)	Burst SF (1.125)	Collapse (psi)	Collapse SF (1.125)	Tension Joint (klbs)	Air Weight (lbs)	Tension Joint SF (1.8)	Tension Body (klbs)	Air Weight (lbs)	Tension Body SF (1.8)
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Casing Design Criteria and Casing Loading Assumptions:

Surface

Tension	A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	8.4	ppg
Collapse	A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	8.4	ppg
Burst	A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	8.4	ppg

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Tension	A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	10.2	ppg
Collapse	A 1.125 design factor with 1/3 TVD internal evacuation and collapse force equal to a mud gradient of:	10.2	ppg
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Tension	A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	9.5	ppg
Collapse	A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	9.5	ppg
Burst	A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	9.5	ppg

Chisholm Energy Operating, LLC

801 Cherry St., Suite 1200-Unit 20

Fort Worth, TX 76102

H2S Contingency Plan

Lea County, NM

Escape

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

Assumed 100 ppm ROE = 3000'
100 ppm H2S concentration shall trigger activation of this plan

Emergency Procedures

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

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

  in the: Detection of

  H2S, and

  Measures for protection against the gas,

  Equipment used for protection and emergency response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (S02). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas.

Characteristics of H2S and SO,

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H2S	1.189 Air=1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO2	2.21 Air=1	2 ppm	N/A	1000 ppm

Contacting Authorities

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

Hydrogen Sulfide Drilling Operations Plan

1. All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:
   A. Characteristics of H2S
   B. Physical effects and hazards
   C. Principal and operation of H2S detectors, warning system and briefing areas.
   D. Evacuation procedure, routes and first aid.
   E. Proper use of safety equipment & life support systems
   F. Essential personnel meeting Medical Evaluation criteria will receive additional training on the proper use of 30-minute pressure demand air packs.

2. H2S Detection and Alarm Systems:
   a. H2S sensors/detectors to be located on the drilling rig floor, in the base of the sub structure/cellar area, on the mud pits in the shale shaker area. Additional H2S detectors may play placed as deemed necessary.
   b. An audio alarm system will be installed on the derrick floor and in the top doghouse.

3. Windsock and/or wind streamers:
   a. Windsock at mudpit area should be high enough to be visible.
   b. Windsock on the rig floor and/ or top doghouse should be high enough to be visible.

4. Condition Flags and Signs
   a. Warning sign on access road to location.
   b. Flags to be displayed on sign at entrance to location. Green flag indicates normal safe condition. Yellow flag indicates potential pressure and danger. Red flag indicates danger (H2S present in dangerous concentration). Only H2S trained and certified personnel

admitted to location.

5. Well control equipment:
   a. See exhibit BOP and Choke Diagrams

6. Communication:
   a. While working under masks chalkboards will be used for communication.
   b. Hand signals will be used where chalk board is inappropriate.
   c. Two-way radio will be used to communicate off location in case of emergency help is required. In most cases, cellular telephones will be available at most drilling foreman's trailer or living quarters.

7. Drill stem Testing:
   No DSTs are planned at this time.

8. Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubular goods and other mechanical equipment.
9. If H25 is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H2S scavengers if necessary.

Emergency Assistance Telephone List

Chisholm Energy Holdings, LLC

Chisholm Energy Operating, LLC	Office:	(817)953-6063
Vice President of Operations-Brad Grandstaff	Office:	(817)953-3150
	Cell:	(972)977-9221
Drilling Superintendent-Russell Simons	Cell:	(830)285-7501
Production Superintendent-Paul Martinez	Cell:	(325)206-1722

Public Safety:			**911 or**
Lea County Sheriff's Department		Number:	(575)396-3611
Lea County Emergency Management-Lorenzo Velasquez		Number:	(575)391-2983
Lea County Fire Marshal			
Lorenzo Velasquez, Director		Number:	(575)391-2983
Jeff Broom, Deputy Fire Marshal		Number:	(575)391-2988
Fire Department:			
Knowles Fire Department		Number:	(505)392-2810
City of Hobbs Fire Department		Number:	(505)397-9308
Jal Volunteer Fire Department		Number:	(505)395-2221
Lovington Fire Department		Number:	(575)396-2359
Maljamar Fire Department		Number:	(505)676-4100
Tatum Volunteer Fire Department		Number:	(505)398-3473
Eunice Fire Department		Number:	(575)394-3258
Hospital: Lea Regional Medical Center		Number:	(575)492-5000
AirMed: Medevac		Number:	(888)303-9112
Dept. of Public Safety		Number:	(505)827-9000
New Mexico OCD-Dist. 1-Hobbs-	Office	Number:	(575)393-6161
	Emergency	Number:	(575)370-3186
Lea County Road Department		Number:	(575)391-2940
NMDOT		Number:	(505)827-5100

Chisholm Energy Operating, LLC

Lea County, NM
Sec 1, T-21-S, R-32-E
Minis 1 FED WCA 16H

Wellbore #1

Plan: Design #1

QES Well Planning Report

08 September, 2017

DIRECTIONAL DRILLING

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Minis 1 FED WCA 16H
Company:	Chisholm Energy Operating, LLC	**TVD Reference:**	RKB @ 3747.0usft (Latshaw #17)
Project:	Lea County, NM	**MD Reference:**	RKB @ 3747.0usft (Latshaw #17)
Site:	Sec 1, T-21-S, R-32-E	**North Reference:**	Grid
Well:	Minis 1 FED WCA 16H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project Lea County, NM

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

Site Sec 1, T-21-S, R-32-E

Site Position:		**Northing:**	554,324.00 usft	**Latitude:**	32° 31' 19.000 N
From:	Map	**Easting:**	757,290.00 usft	**Longitude:**	103° 37' 57.701 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.38 °

Well Minis 1 FED WCA 16H

Well Position	**+N/-S**	15.1 usft	**Northing:**	554,339.10 usft	**Latitude:**	32° 31' 18.970 N
	+E/-W	2,739.7 usft	**Easting:**	760,029.70 usft	**Longitude:**	103° 37' 25.703 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,721.0 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/8/2017	6.98	60.32	48,083.86413819

Design Design #1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	174.23

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
10,733.2	0.00	0.00	10,733.2	0.0	0.0	0.00	0.00	0.00	0.00	
11,266.2	53.30	89.55	11,192.6	1.8	230.5	10.00	10.00	0.00	89.55	
12,166.2	90.00	179.55	11,535.0	-567.5	694.4	10.00	4.08	10.00	90.00	
18,992.5	90.00	179.55	11,535.0	-7,393.6	747.7	0.00	0.00	0.00	0.00	PBHL Minis 1 FED

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Minis 1 FED WCA 16H
Company:	Chisholm Energy Operating, LLC	**TVD Reference:**	RKB @ 3747.0usft (Latshaw #17)
Project:	Lea County, NM	**MD Reference:**	RKB @ 3747.0usft (Latshaw #17)
Site:	Sec 1, T-21-S, R-32-E	**North Reference:**	Grid
Well:	Minis 1 FED WCA 16H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Minis 1 FED WCA 16H
Company:	Chisholm Energy Operating, LLC	**TVD Reference:**	RKB @ 3747.0usft (Latshaw #17)
Project:	Lea County, NM	**MD Reference:**	RKB @ 3747.0usft (Latshaw #17)
Site:	Sec 1, T-21-S, R-32-E	**North Reference:**	Grid
Well:	Minis 1 FED WCA 16H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.00	0.00	0.00
8,800.0	0.00	0.00	8,800.0	0.0	0.0	0.0	0.00	0.00	0.00
8,900.0	0.00	0.00	8,900.0	0.0	0.0	0.0	0.00	0.00	0.00
9,000.0	0.00	0.00	9,000.0	0.0	0.0	0.0	0.00	0.00	0.00
9,100.0	0.00	0.00	9,100.0	0.0	0.0	0.0	0.00	0.00	0.00
9,200.0	0.00	0.00	9,200.0	0.0	0.0	0.0	0.00	0.00	0.00
9,300.0	0.00	0.00	9,300.0	0.0	0.0	0.0	0.00	0.00	0.00
9,400.0	0.00	0.00	9,400.0	0.0	0.0	0.0	0.00	0.00	0.00
9,500.0	0.00	0.00	9,500.0	0.0	0.0	0.0	0.00	0.00	0.00
9,600.0	0.00	0.00	9,600.0	0.0	0.0	0.0	0.00	0.00	0.00
9,700.0	0.00	0.00	9,700.0	0.0	0.0	0.0	0.00	0.00	0.00
9,800.0	0.00	0.00	9,800.0	0.0	0.0	0.0	0.00	0.00	0.00
9,900.0	0.00	0.00	9,900.0	0.0	0.0	0.0	0.00	0.00	0.00
10,000.0	0.00	0.00	10,000.0	0.0	0.0	0.0	0.00	0.00	0.00
10,100.0	0.00	0.00	10,100.0	0.0	0.0	0.0	0.00	0.00	0.00
10,200.0	0.00	0.00	10,200.0	0.0	0.0	0.0	0.00	0.00	0.00
10,300.0	0.00	0.00	10,300.0	0.0	0.0	0.0	0.00	0.00	0.00
10,400.0	0.00	0.00	10,400.0	0.0	0.0	0.0	0.00	0.00	0.00
10,500.0	0.00	0.00	10,500.0	0.0	0.0	0.0	0.00	0.00	0.00
10,600.0	0.00	0.00	10,600.0	0.0	0.0	0.0	0.00	0.00	0.00
10,700.0	0.00	0.00	10,700.0	0.0	0.0	0.0	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Minis 1 FED WCA 16H
Company:	Chisholm Energy Operating, LLC	**TVD Reference:**	RKB @ 3747.0usft (Latshaw #17)
Project:	Lea County, NM	**MD Reference:**	RKB @ 3747.0usft (Latshaw #17)
Site:	Sec 1, T-21-S, R-32-E	**North Reference:**	Grid
Well:	Minis 1 FED WCA 16H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
KOP : Build 10.00°/100'									
10,733.2	0.00	0.00	10,733.2	0.0	0.0	0.0	0.00	0.00	0.00
10,750.0	1.68	89.55	10,750.0	0.0	0.2	0.0	10.00	10.00	0.00
10,800.0	6.68	89.55	10,799.8	0.0	3.9	0.4	10.00	10.00	0.00
10,850.0	11.68	89.55	10,849.2	0.1	11.9	1.1	10.00	10.00	0.00
10,900.0	16.68	89.55	10,897.7	0.2	24.1	2.2	10.00	10.00	0.00
10,950.0	21.68	89.55	10,944.9	0.3	40.5	3.8	10.00	10.00	0.00
11,000.0	26.68	89.55	10,990.5	0.5	61.0	5.7	10.00	10.00	0.00
11,050.0	31.68	89.55	11,034.1	0.7	85.4	7.9	10.00	10.00	0.00
11,100.0	36.68	89.55	11,075.5	0.9	113.5	10.5	10.00	10.00	0.00
11,150.0	41.68	89.55	11,114.2	1.1	145.0	13.5	10.00	10.00	0.00
11,200.0	46.68	89.55	11,150.0	1.4	179.9	16.7	10.00	10.00	0.00
11,250.0	51.68	89.55	11,182.7	1.7	217.7	20.2	10.00	10.00	0.00
Build/Turn 10.00°/100'									
11,266.2	53.30	89.55	11,192.6	1.8	230.5	21.4	10.00	10.00	0.00
11,300.0	53.37	93.76	11,212.8	1.0	257.6	24.9	10.00	0.22	12.46
11,350.0	53.75	99.96	11,242.5	-3.8	297.5	33.7	10.00	0.76	12.40
11,400.0	54.45	106.07	11,271.8	-12.9	337.0	46.7	10.00	1.39	12.23
11,450.0	55.45	112.06	11,300.6	-26.3	375.6	63.9	10.00	2.00	11.97
11,500.0	56.73	117.88	11,328.5	-43.8	413.2	85.2	10.00	2.57	11.65
11,550.0	58.28	123.52	11,355.3	-65.3	449.4	110.2	10.00	3.09	11.28
11,600.0	60.06	128.96	11,381.0	-90.7	484.0	139.0	10.00	3.57	10.88
11,650.0	62.06	134.20	11,405.2	-119.8	516.7	171.1	10.00	4.00	10.47
11,700.0	64.25	139.24	11,427.8	-152.2	547.3	206.5	10.00	4.38	10.08
11,750.0	66.61	144.09	11,448.6	-187.9	575.5	244.8	10.00	4.72	9.70
11,800.0	69.11	148.76	11,467.4	-226.5	601.0	285.8	10.00	5.00	9.35
11,850.0	71.74	153.28	11,484.2	-267.7	623.8	329.1	10.00	5.25	9.03
11,900.0	74.47	157.66	11,498.7	-311.2	643.7	374.4	10.00	5.46	8.76
11,950.0	77.28	161.92	11,510.9	-356.7	660.4	421.3	10.00	5.62	8.53
12,000.0	80.16	166.09	11,520.7	-403.8	673.9	469.6	10.00	5.76	8.34
12,050.0	83.09	170.19	11,528.0	-452.2	684.1	518.7	10.00	5.86	8.19
12,100.0	86.05	174.23	11,532.7	-501.5	690.8	568.5	10.00	5.93	8.09
12,150.0	89.03	178.25	11,534.9	-551.3	694.1	618.4	10.00	5.97	8.03
EOC: 90.00° Inc, 179.55° Azi, 11535.0' TVD									
12,166.2	90.00	179.55	11,535.0	-567.5	694.4	634.5	10.00	5.98	8.02
12,200.0	90.00	179.55	11,535.0	-601.3	694.7	668.2	0.00	0.00	0.00
12,300.0	90.00	179.55	11,535.0	-701.3	695.4	767.7	0.00	0.00	0.00
12,400.0	90.00	179.55	11,535.0	-801.3	696.2	867.3	0.00	0.00	0.00
12,500.0	90.00	179.55	11,535.0	-901.3	697.0	966.9	0.00	0.00	0.00
12,600.0	90.00	179.55	11,535.0	-1,001.3	697.8	1,066.4	0.00	0.00	0.00
12,700.0	90.00	179.55	11,535.0	-1,101.3	698.6	1,166.0	0.00	0.00	0.00
12,800.0	90.00	179.55	11,535.0	-1,201.3	699.3	1,265.6	0.00	0.00	0.00
12,900.0	90.00	179.55	11,535.0	-1,301.3	700.1	1,365.1	0.00	0.00	0.00
13,000.0	90.00	179.55	11,535.0	-1,401.3	700.9	1,464.7	0.00	0.00	0.00
13,100.0	90.00	179.55	11,535.0	-1,501.3	701.7	1,564.3	0.00	0.00	0.00
13,200.0	90.00	179.55	11,535.0	-1,601.3	702.5	1,663.8	0.00	0.00	0.00
13,300.0	90.00	179.55	11,535.0	-1,701.3	703.3	1,763.4	0.00	0.00	0.00
13,400.0	90.00	179.55	11,535.0	-1,801.3	704.0	1,863.0	0.00	0.00	0.00
13,500.0	90.00	179.55	11,535.0	-1,901.3	704.8	1,962.5	0.00	0.00	0.00
13,600.0	90.00	179.55	11,535.0	-2,001.3	705.6	2,062.1	0.00	0.00	0.00
13,700.0	90.00	179.55	11,535.0	-2,101.3	706.4	2,161.7	0.00	0.00	0.00
13,800.0	90.00	179.55	11,535.0	-2,201.3	707.2	2,261.3	0.00	0.00	0.00
13,900.0	90.00	179.55	11,535.0	-2,301.3	707.9	2,360.8	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Minis 1 FED WCA 16H
Company:	Chisholm Energy Operating, LLC	**TVD Reference:**	RKB @ 3747.0usft (Latshaw #17)
Project:	Lea County, NM	**MD Reference:**	RKB @ 3747.0usft (Latshaw #17)
Site:	Sec 1, T-21-S, R-32-E	**North Reference:**	Grid
Well:	Minis 1 FED WCA 16H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,000.0	90.00	179.55	11,535.0	-2,401.3	708.7	2,460.4	0.00	0.00	0.00
14,100.0	90.00	179.55	11,535.0	-2,501.3	709.5	2,560.0	0.00	0.00	0.00
14,200.0	90.00	179.55	11,535.0	-2,601.3	710.3	2,659.5	0.00	0.00	0.00
14,300.0	90.00	179.55	11,535.0	-2,701.3	711.1	2,759.1	0.00	0.00	0.00
14,400.0	90.00	179.55	11,535.0	-2,801.3	711.8	2,858.7	0.00	0.00	0.00
14,500.0	90.00	179.55	11,535.0	-2,901.3	712.6	2,958.2	0.00	0.00	0.00
14,600.0	90.00	179.55	11,535.0	-3,001.2	713.4	3,057.8	0.00	0.00	0.00
14,700.0	90.00	179.55	11,535.0	-3,101.2	714.2	3,157.4	0.00	0.00	0.00
14,800.0	90.00	179.55	11,535.0	-3,201.2	715.0	3,256.9	0.00	0.00	0.00
14,900.0	90.00	179.55	11,535.0	-3,301.2	715.7	3,356.5	0.00	0.00	0.00
15,000.0	90.00	179.55	11,535.0	-3,401.2	716.5	3,456.1	0.00	0.00	0.00
15,100.0	90.00	179.55	11,535.0	-3,501.2	717.3	3,555.6	0.00	0.00	0.00
15,200.0	90.00	179.55	11,535.0	-3,601.2	718.1	3,655.2	0.00	0.00	0.00
15,300.0	90.00	179.55	11,535.0	-3,701.2	718.9	3,754.8	0.00	0.00	0.00
15,400.0	90.00	179.55	11,535.0	-3,801.2	719.6	3,854.3	0.00	0.00	0.00
15,500.0	90.00	179.55	11,535.0	-3,901.2	720.4	3,953.9	0.00	0.00	0.00
15,600.0	90.00	179.55	11,535.0	-4,001.2	721.2	4,053.5	0.00	0.00	0.00
15,700.0	90.00	179.55	11,535.0	-4,101.2	722.0	4,153.0	0.00	0.00	0.00
15,800.0	90.00	179.55	11,535.0	-4,201.2	722.8	4,252.6	0.00	0.00	0.00
15,900.0	90.00	179.55	11,535.0	-4,301.2	723.6	4,352.2	0.00	0.00	0.00
16,000.0	90.00	179.55	11,535.0	-4,401.2	724.3	4,451.7	0.00	0.00	0.00
16,100.0	90.00	179.55	11,535.0	-4,501.2	725.1	4,551.3	0.00	0.00	0.00
16,200.0	90.00	179.55	11,535.0	-4,601.2	725.9	4,650.9	0.00	0.00	0.00
16,300.0	90.00	179.55	11,535.0	-4,701.2	726.7	4,750.5	0.00	0.00	0.00
16,400.0	90.00	179.55	11,535.0	-4,801.2	727.5	4,850.0	0.00	0.00	0.00
16,500.0	90.00	179.55	11,535.0	-4,901.2	728.2	4,949.6	0.00	0.00	0.00
16,600.0	90.00	179.55	11,535.0	-5,001.2	729.0	5,049.2	0.00	0.00	0.00
16,700.0	90.00	179.55	11,535.0	-5,101.2	729.8	5,148.7	0.00	0.00	0.00
16,800.0	90.00	179.55	11,535.0	-5,201.2	730.6	5,248.3	0.00	0.00	0.00
16,900.0	90.00	179.55	11,535.0	-5,301.2	731.4	5,347.9	0.00	0.00	0.00
17,000.0	90.00	179.55	11,535.0	-5,401.2	732.1	5,447.4	0.00	0.00	0.00
17,100.0	90.00	179.55	11,535.0	-5,501.2	732.9	5,547.0	0.00	0.00	0.00
17,200.0	90.00	179.55	11,535.0	-5,601.2	733.7	5,646.6	0.00	0.00	0.00
17,300.0	90.00	179.55	11,535.0	-5,701.2	734.5	5,746.1	0.00	0.00	0.00
17,400.0	90.00	179.55	11,535.0	-5,801.2	735.3	5,845.7	0.00	0.00	0.00
17,500.0	90.00	179.55	11,535.0	-5,901.2	736.0	5,945.3	0.00	0.00	0.00
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17,800.0	90.00	179.55	11,535.0	-6,201.1	738.4	6,244.0	0.00	0.00	0.00
17,900.0	90.00	179.55	11,535.0	-6,301.1	739.2	6,343.5	0.00	0.00	0.00
18,000.0	90.00	179.55	11,535.0	-6,401.1	740.0	6,443.1	0.00	0.00	0.00
18,100.0	90.00	179.55	11,535.0	-6,501.1	740.7	6,542.7	0.00	0.00	0.00
18,200.0	90.00	179.55	11,535.0	-6,601.1	741.5	6,642.2	0.00	0.00	0.00
18,300.0	90.00	179.55	11,535.0	-6,701.1	742.3	6,741.8	0.00	0.00	0.00
18,400.0	90.00	179.55	11,535.0	-6,801.1	743.1	6,841.4	0.00	0.00	0.00
18,500.0	90.00	179.55	11,535.0	-6,901.1	743.9	6,941.0	0.00	0.00	0.00
18,600.0	90.00	179.55	11,535.0	-7,001.1	744.6	7,040.5	0.00	0.00	0.00
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18,800.0	90.00	179.55	11,535.0	-7,201.1	746.2	7,239.7	0.00	0.00	0.00
18,900.0	90.00	179.55	11,535.0	-7,301.1	747.0	7,339.2	0.00	0.00	0.00
TD @ 18992.5' MD, 11535.0' TVD									
18,992.5	90.00	179.55	11,535.0	-7,393.6	747.7	7,431.3	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Minis 1 FED WCA 16H
Company:	Chisholm Energy Operating, LLC	**TVD Reference:**	RKB @ 3747.0usft (Latshaw #17)
Project:	Lea County, NM	**MD Reference:**	RKB @ 3747.0usft (Latshaw #17)
Site:	Sec 1, T-21-S, R-32-E	**North Reference:**	Grid
Well:	Minis 1 FED WCA 16H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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
LP Minis 1 FED WCA - plan misses target center by 120.8usft at 11822.4usft MD (11475.2 TVD, -244.6 N, 611.6 E) - Point	0.00	0.00	11,535.0	-176.2	691.2	554,162.90	760,720.90	32° 31' 17.181 N	103° 37' 17.644 W
PBHL Minis 1 FED W - plan hits target center - Point	0.00	0.00	11,535.0	-7,393.6	747.7	546,945.50	760,777.40	32° 30' 5.762 N	103° 37' 17.547 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
10,733.2	10,733.2	0.0	0.0	KOP : Build 10.00°/100'
11,266.2	11,192.6	1.8	230.5	Build/Turn 10.00°/100'
12,166.2	11,535.0	-567.5	694.4	EOC: 90.00° Inc, 179.55° Azi, 11535.0' TVD
18,992.5	11,535.0	-7,393.6	747.7	TD @ 18992.5' MD, 11535.0' TVD

Company Name: Chisholm Energy Operating, LLC
Minis 1 FED WCA 16H
Lea County, NM
Rig: Latshaw #17
Created by: Keith Noack
Date: 11:01, September 08 2017

Sec 1, T-21-S, R-32-E
Minis 1 FED WCA 16H
Q171* & WT-170***
Design #1

PROJECT DETAILS: Lea County, NM	
Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	New Mexico Eastern Zone
System Datum:	Mean Sea Level

CHISHOLM ENERGY

WELL DETAILS: Minis 1 FED WCA 16H

3721.0

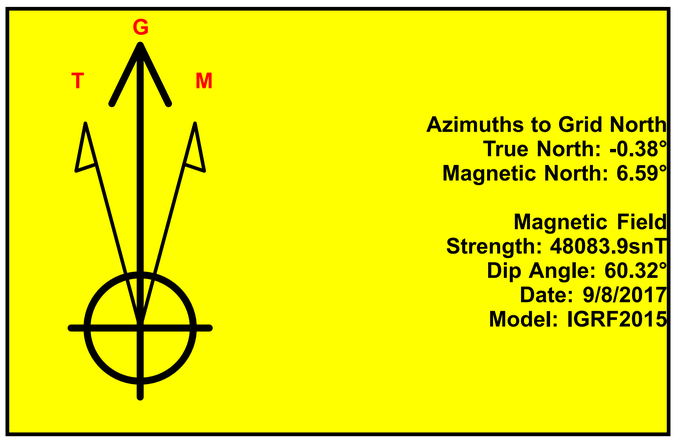
+N/-S	+E/-W	Northing	Easting	Latittude	Longitude
0.0	0.0	554339.10	760029.70	32° 31' 18.970 N	103° 37' 25.703 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DIeg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
10733.2	0.00	0.00	10733.2	0.0	0.0	0.00	0.00	0.0	KOP : Build 10.00°/100'
11266.2	53.30	89.55	11192.6	1.8	230.5	10.00	89.55	21.4	Build/Turn 10.00°/100'
12166.2	90.00	179.55	11535.0	-567.5	694.4	10.00	90.00	634.5	EOC: 90.00° Inc, 179.55° Azi, 11535.0' TVD
18992.5	90.00	179.55	11535.0	-7393.6	747.7	0.00	0.00	7431.3	TD @ 18992.5' MD, 11535.0' TVD

DESIGN TARGET DETAILS

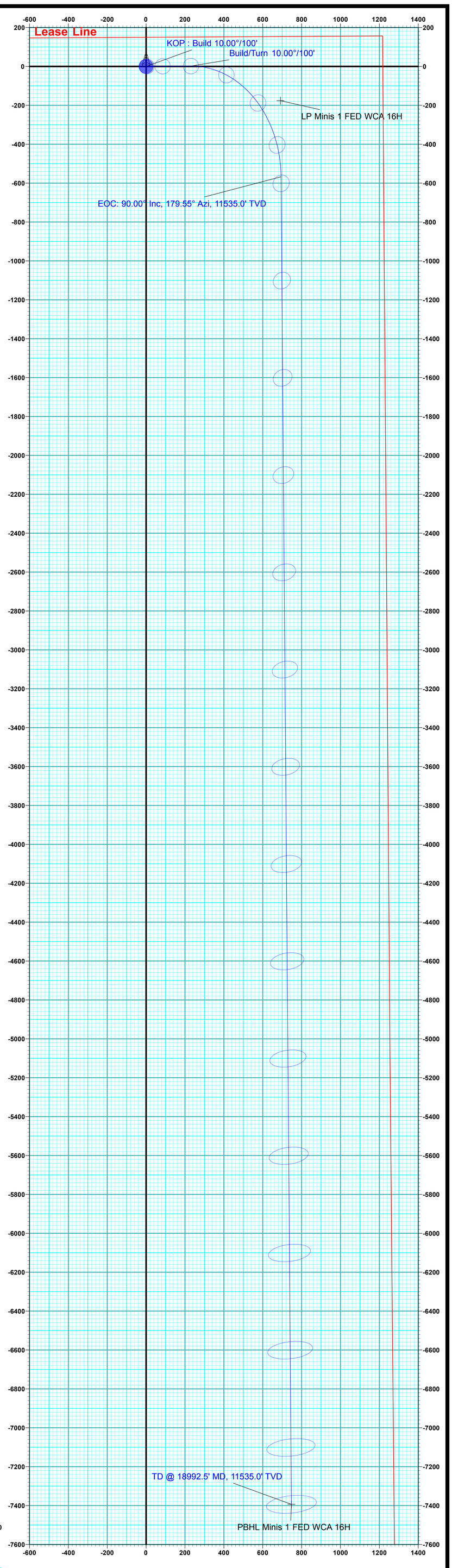
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LP Minis 1 FED WCA 16H	11535.0	-176.2	691.2	554162.90	760720.90	32° 31' 17.181 N	103° 37' 17.644 W
PBHL Minis 1 FED WCA 16H	11535.0	-7393.6	747.7	546945.50	760777.40	32° 30' 5.762 N	103° 37' 17.547 W

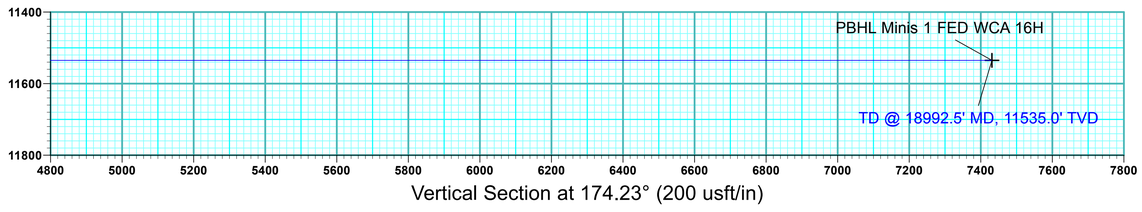


Azimuths to Grid North
True North: -0.38°
Magnetic North: 6.59°

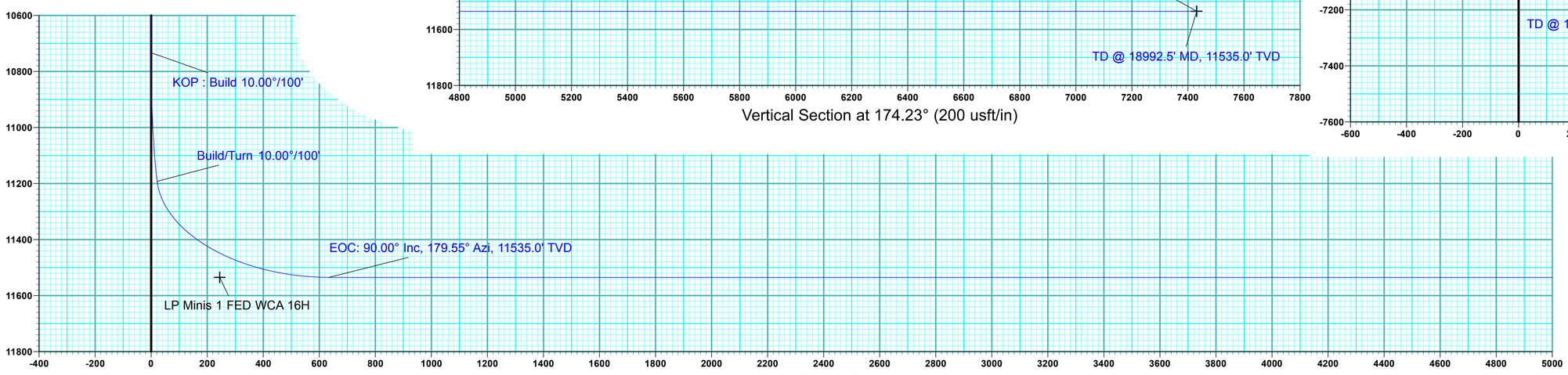
Magnetic Field
Strength: 48083.9snT
Dip Angle: 60.32°
Date: 9/8/2017
Model: IGRF2015

QES
DIRECTIONAL DRILLING





Vertical Section at 174.23° (200 usft/in)



Vertical Section at 174.23° (200 usft/in)

Cactus Wellhead

Installation Procedure Prepared For:

Chisholm Energy

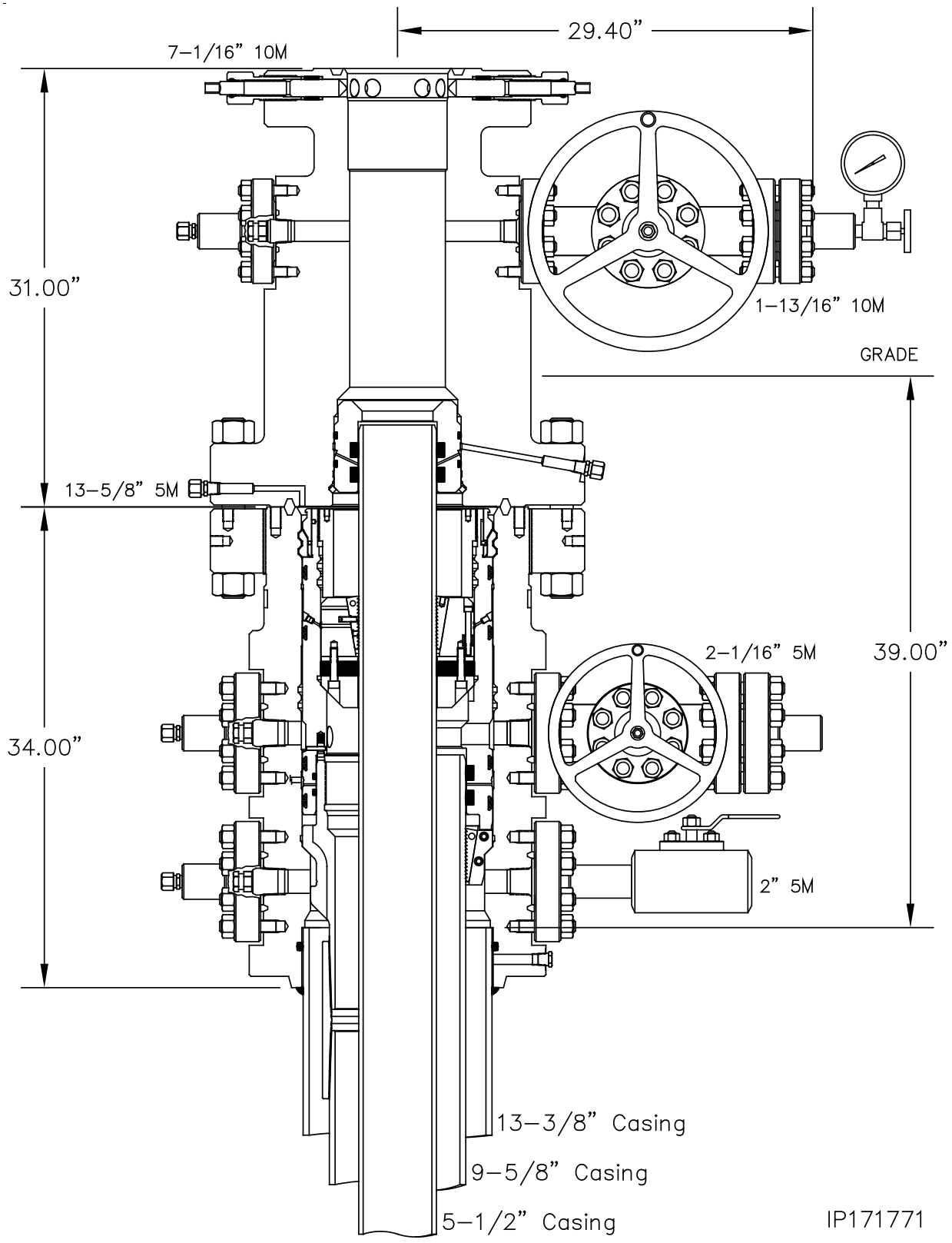
13-3/8” x 9-5/8” x 5-1/2” 5/10M MBU-3T Wellhead System With CTH-HPS-F MOD Tubing Head

Publication # IP0571

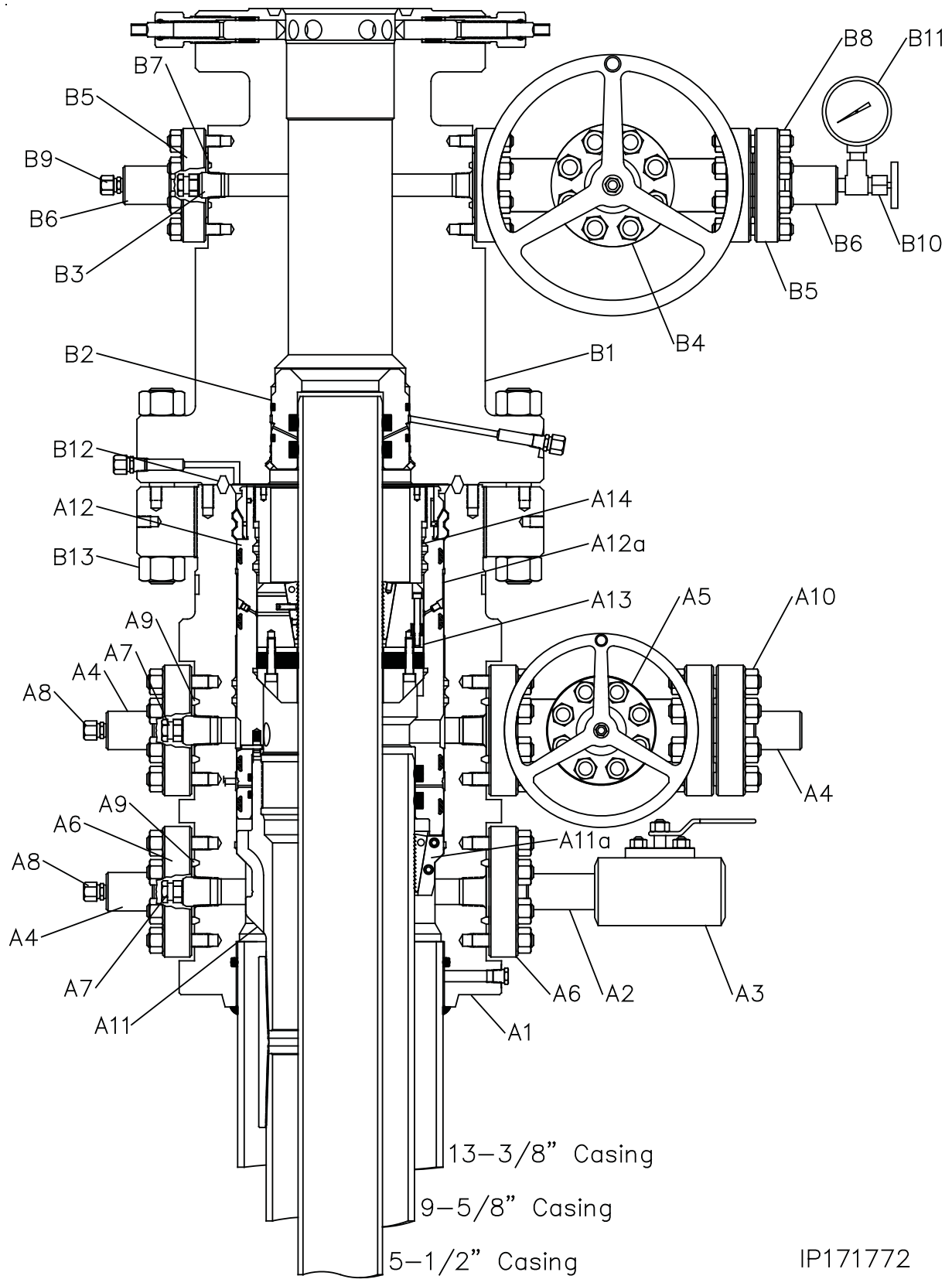
May, 2017

Table of Contents

System Drawing



Bill of Materials



APD ID: 10400022507 **Submission Date:** 11/08/2017

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: MINIS 1 FED WCA **Well Number:** 16H

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:

MINIS_1_FED_WCA_16H_APD_LOC_VERIFICATION_09182017_20170920062647.pdf
MINIS_1_FED_WCA_16H_APD_VICINITY_09182017_20170920062648.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT **Row(s) Exist?** NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

MINIS_1_FED_WCA_16H_APD_PAD_PLAT_PROP_LSE_RD_09182017_20170920062703.pdf

New road type: RESOURCE

Length: 1956 Feet **Width (ft.):** 30

Max slope (%): 2 **Max grade (%):** 1

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 15

New road access erosion control: Road will be crowned and ditched to prevent erosion

New road access plan or profile prepared? NO

New road access plan attachment:

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: MINIS 1 FED WCA **Well Number:** 16H

Access road engineering design? NO

Access road engineering design attachment:

Access surfacing type: OTHER

Access topsoil source: BOTH

Access surfacing type description: 6" rolled and compacted caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description: Surfacing material will consist of native caliche obtained from the well site if possible. Otherwise, caliche will be hauled from nearest caliche pit

Onsite topsoil removal process: Grading

Access other construction information:

Access miscellaneous information:

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

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and be consistent with local drainage patterns.

Road Drainage Control Structures (DCS) description: No drainage control necessary

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Additional Attachment(s):

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

MINIS_1_FED_WCA_16H_APD_MILE_RADIUS_09182017_20170920062754.pdf

Existing Wells description:

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

Submit or defer a Proposed Production Facilities plan? DEFER

Estimated Production Facilities description: If well is productive, a tank battery will be installed on well pad. Tank battery construction and instillation plans will be submitted via Sundry Notice.

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: MINIS 1 FED WCA **Well Number:** 16H

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: INTERMEDIATE/PRODUCTION CASING, STIMULATION, SURFACE CASING

Water source type: GW WELL

Describe type:

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Source land ownership: PRIVATE

Water source transport method: PIPELINE

Source transportation land ownership: PRIVATE

Water source volume (barrels): 120000

Source volume (acre-feet): 15.467172

Source volume (gal): 5040000

Water source and transportation map:

Minis_Water_Source_Map_20170920062820.jpg

Water source comments:

New water well? NO

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:

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: MINIS 1 FED WCA **Well Number:** 16H

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Construction Materials description: Construction materials from the location will be used. No additional needs are anticipated.
Construction Materials source location attachment:

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drilling Fluids and Cuttings

Amount of waste: 6000 barrels

Waste disposal frequency : Daily

Safe containment description: Steel Tanks

Safe containmant attachment:

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

Disposal location description: Trucked to approved disposal facility

Waste type: COMPLETIONS/STIMULATION

Waste content description: Completions Fluids

Amount of waste: 2000 barrels

Waste disposal frequency : Daily

Safe containment description: Steel Tanks

Safe containmant attachment:

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

Disposal location description: Trucked to an approved disposal facility

Waste type: FLOWBACK

Waste content description: Oil

Amount of waste: 1000 barrels

Waste disposal frequency : One Time Only

Safe containment description: Frac Tanks

Safe containmant attachment:

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: MINIS 1 FED WCA **Well Number:** 16H

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

Disposal type description: Private

Disposal location description: Haul to tank battery

Waste type: SEWAGE

Waste content description: Human Waste

Amount of waste: 50 pounds

Waste disposal frequency : Weekly

Safe containment description: Portable Toilets

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Serviced by toilet rental company

Waste type: GARBAGE

Waste content description: Trash and Debris

Amount of waste: 200 pounds

Waste disposal frequency : One Time Only

Safe containment description: roll off bin with netted top

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Truck to commercial waste facility

Waste type: PRODUCED WATER

Waste content description: Produced water

Amount of waste: 4000 barrels

Waste disposal frequency : One Time Only

Safe containment description: Steel Tanks

Safe containmant attachment:

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

Disposal type description: Private

Disposal location description: Trucked to tank battery

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: MINIS 1 FED WCA **Well Number:** 16H

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

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

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

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

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? YES

Description of cuttings location Stored in steel bin and hauled to disposal site by truck

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

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

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

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

E_Minis_Well_Pad_Layout_20170920062857.pdf

MINIS_1_FED_WCA_16H_APD_PAD_PLAT_09182017_20170920062857.pdf

Comments:

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: MINIS 1 FED WCA **Well Number:** 16H

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:** MINIS PAD 3

Multiple Well Pad Number: 6H,7H,10H,11H,16H

Recontouring attachment:

Drainage/Erosion control construction: Drainage systems, if an, will be reshaped to the original configuration with provisions made to alleviate erosion.

Drainage/Erosion control reclamation: Any portion of the site that is not needed for future operations will be reclaimed to the original state as much as possible.

Wellpad long term disturbance (acres): 4.78 **Wellpad short term disturbance (acres):** 4.78

Access road long term disturbance (acres): 0.76 **Access road short term disturbance (acres):** 0.76

Pipeline long term disturbance (acres): 0 **Pipeline short term disturbance (acres):** 0

Other long term disturbance (acres): 0 **Other short term disturbance (acres):** 0

Total long term disturbance: 5.54 **Total short term disturbance:** 5.54

Disturbance Comments:

Reconstruction method: No interim reclamation planned due to future development on this pad, as well as tank battery construction if the well is productive.

Topsoil redistribution: After the area has been reshaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible.

Soil treatment: No treatment necessary

Existing Vegetation at the well pad: mesquite, shinnery oak

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: mesquite, shinnery oak

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: mesquite, shinnery oak

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: no other disturbance

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: MINIS 1 FED WCA **Well Number:** 16H

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed type: PERENNIAL GRASS **Seed source:** COMMERCIAL

Seed name: LPC-Seed Mix 2

Source name: **Source address:**

Source phone:

Seed cultivar:

Seed use location: WELL PAD,WELL PAD

PLS pounds per acre: 5 **Proposed seeding season:** SPRING

Seed Summary

Total pounds/Acre: 5

Seed Type	Pounds/Acre
PERENNIAL GRASS	5

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: Tim **Last Name:** Green

Phone: (432)686-8235 **Email:** tgreen@chisholmenergy.com

Seedbed prep: Rip and add topsoil

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: All areas will be monitored, and weeds will be treated

Weed treatment plan attachment:

Monitoring plan description: Monitoring by lease operators during each visit

Monitoring plan attachment:

Success standards: N/A

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: MINIS 1 FED WCA **Well Number:** 16H

Pit closure description: No pit, utilizing closed loop system

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

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

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

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:

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: MINIS 1 FED WCA **Well Number:** 16H

USFWS Local Office:

Other Local Office:

USFS Region:

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

Section 12 - Other Information

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

ROW Type(s): 281001 ROW - ROADS

ROW Applications

SUPO Additional Information: This well bore contains BLM leases NMNM062924, NMNM060777, & NMNM092187

Use a previously conducted onsite? YES

Previous Onsite information: Onsite was conducted during Drill Island Application onsite. Per BLM no other onsite needed.

Other SUPO Attachment

Minis_Lease_Number_Map_20171214082846.pdf

Section 1 - General

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

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

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

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

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

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

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

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

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

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

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

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

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

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

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

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

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

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

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

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

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

AFMSS

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

Bond Info Data Report

05/14/2018

Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB001468

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment: