Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Rec'd 05/26/2020 - NMOCD

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

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NMNM107384

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
ROCK RIDGE FEDERAL WCB 9H

2. Name of Operator
MURCHISON OIL & GAS LLC
Contact: CINDY COTTRELL
E-Mail: ccottrell@jdmii.com

9. API Well No.
30-015-46330-00-X1

3a. Address
LEGACY TOWER ONE 7250 DALLAS PKY, STE 1400
PLANO, TX 75024-5002

3b. Phone No. (include area code)
Ph: 972.931.0700

10. Field and Pool or Exploratory Area
PURPLE SAGE-WOLFCAMP (GAS)

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 30 T24S R29E SENE 2325FNL 250FEL
32.189377 N Lat, 104.015984 W Lon

11. County or Parish, State
EDDY COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Change to Original APD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Murchison Oil and Gas, LLC respectfully requests permission to change the conventional wellhead system to a speed wellhead system. The speed wellhead system diagram and casing running procedure are attached. The BOP testing requirements are incorporated in the casing running procedure.

Accepted - KMS NMOCD

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #506968 verified by the BLM Well Information System
For MURCHISON OIL & GAS LLC, sent to the Carlsbad
Committed to AFMSS for processing by PRISCILLA PEREZ on 03/15/2020 (20PP1621SE)

Name *(Printed/Typed)* LUKE PUMPHREY — Title OPERATIONS ENGINEER

Signature (Electronic Submission) — Date 03/12/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By DYLAN ROSSMANGO — Title PETROLEUM ENGINEER — Date 05/26/2020

Conditions of approval, if any, are attached. Approval of this notice 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.

Office Carlsbad

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.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Casing Running and BOP Testing Procedure with Speed Wellhead Assembly

Surface:

1. PU and RIH with 13 ⅜", 48#, J55, STC casing. Install Texas pattern guide shoe on bottom and float collar at 1 jt up from shoe. Thread lock float equipment. Install centralizers at 5' above shoe, 5' above float collar, and 1 every third joint to surface. Pump through float equipment to insure open before RIH. PU speed wellhead assembly as last casing jt and land assembly on top of conductor casing. With casing on bottom, circulate with rig pumps a minimum of 1 casing capacity while rigging up cementers. After cementing and bumping plug with 500 psi over, weld base plate to conductor. Install 2" ball valve on one side and 2" bull plug on other side of wellhead housing. Test BOPs to 250/5000 psi on chart.

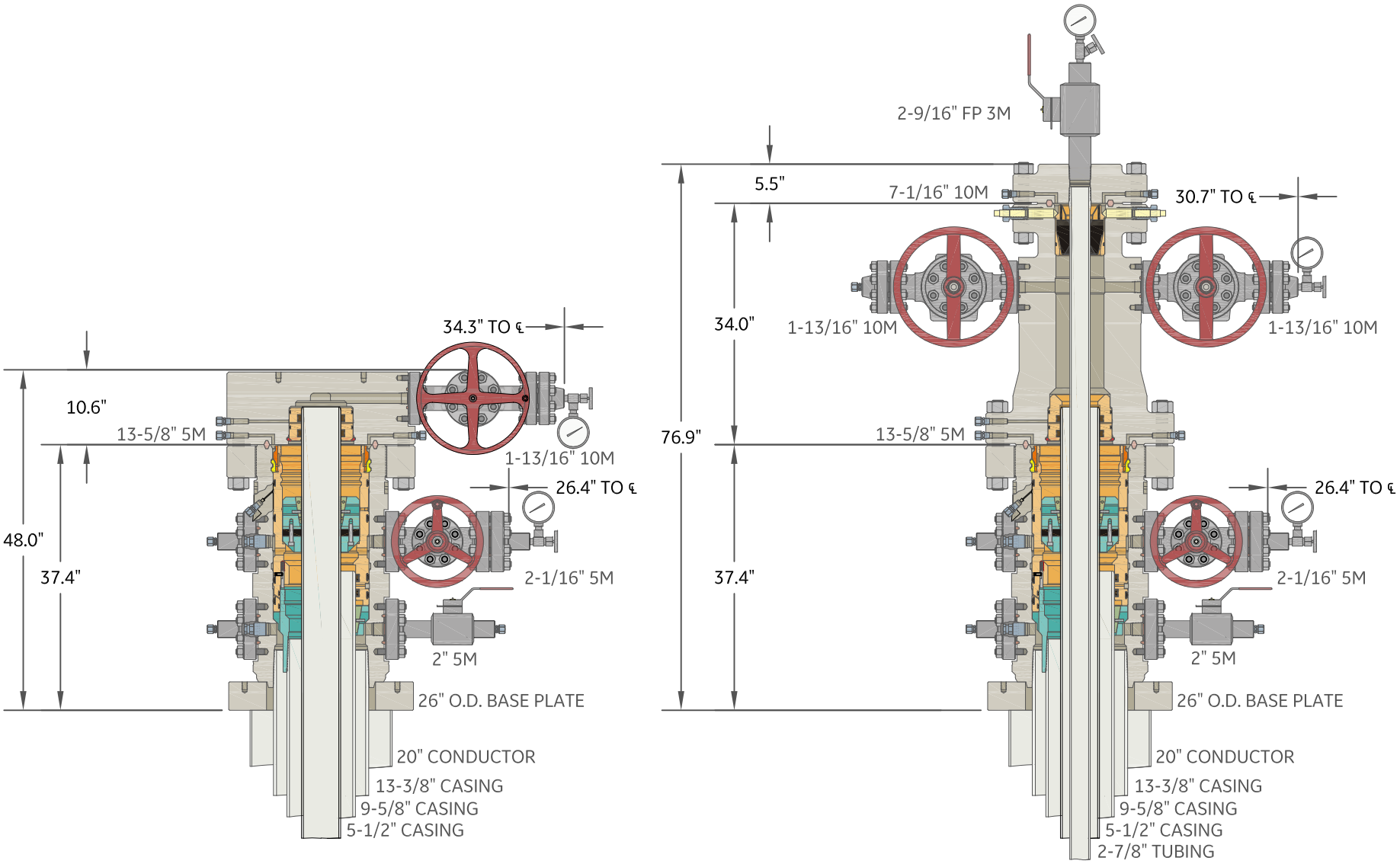
Intermediate:

2. RU casing tools and run 3000', 9 ⅝", 43.5#, HCP110, BTC casing followed by 9 5/8", 40#, HCP110, BTC casing. Install float shoe on bottom and float collar 1 jt above shoe. Thread lock shoe and float collar. Install centralizers at 5' above shoe, 5' above float collar, and 1 every 3rd joint through bottom 500' of casing. Install DV tool at 3000' with Weatherford ACP at 1 jt below DV. Install centralizers every third joint for 500' above DV. Pump through float equipment to ensure open before RIH. PU 9 5/8" speed heading landing assembly. Land Hanger inside speed wellhead assembly. (Verify landing through LWR test/sight port). With casing on bottom, RU cement head and circulate rig pumps a min of 1 casing capacity. After cementing, drop closing plug, displace with OBM and close DV tool. Run RSH-2-N Packoff with Lock Ring and install packoff into speed wellhead system. Packoff will be landed above wellhead hanger neck. Engage lock ring and set packoff. Have wash tool on location to ensure wellhead will accept packoff. After system is installed, install 2"5 M gate valve on one side and bull plug on other side. Test BOPs to 250/5000 psi on chart only if last test was greater than 30 days or the seal has been broken.

BOP must be tested after installation and before drilling out the previous shoe; break testing is not approved. DR

Production:

3. RU casing crew and torque turn. Run 5 ½", 20#, HCP110RY, BTC & BPN casing string with BTC casing on bottom and x-over at heel (Note: BTC and BPN will screw together so no x-over joint is necessary). Install Weatherford double valve float shoe with plug receptacle on bottom. Thread lock shoe. Install spiral gliders on shoe joint and every second joint through curve, Install bow spring centralizer just above the 9 ⅝" shoe. Install 5 ½" marker joints at about 14,000', 12,000', 10,500', and 9000'. Run casing to TD, RU cement head, and circulate with rig pumps either bottoms up or casing capacity whichever is larger. With cement in place, lift BOP's and set casing slips with full string weight. Cut off casing, ND BOP's, and install 11" 5M X 7 1/16" 10M tubing head with 2 – 2" FO with 2- 2 1/16" 10m gate valves. Install dry hole cap.



BAKER HUGHES a GE company

Pressure Control

20" X 13-3/8" X 9-5/8" X 5-1/2" X 2-7/8" 10M RSH-2-N WELLHEAD ASSEMBLY, WITH TA CAP ASSEMBLY, T-EBS-F TUBING HEAD, TC STRIPPER RUBBER AND B5 ADAPTER FLANGE

ALL DIMENSIONS ARE APPROXIMATE, NOT FOR MANUFACTURING USE.

DRAWN BY: VJK	DRAWING NO. 10015901
REVIEWED BY:	Rev. A / Sht. 1 of 1
APPROVED BY:	DATE: 29AUG19

HOWARD / BORDEN CNTY'S

MURCHISON OIL & GAS INC.

PECOS DISTRICT
DRILLING OPERATIONS
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Murchison Oil & Gas LLC**
LEASE NO.:	**NMNM107384**
WELL NAME & NO.:	**Rock Ridge Federal 9H, 10H, & 11H**
LOCATION:	**Section 30, T 24S, R 29E, NMPM**
COUNTY:	**Eddy County, New Mexico**

A. PRESSURE CONTROL

1. **Break testing for these wells is not approved. BOP must be tested upon installation and before drilling out the previous shoe.**
2. The operator has proposed a multi-bowl wellhead assembly, see attached schematic. 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 Onshore Order 2 III.A.2.i must be followed.

DR 5/26/2020