

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**Carlsbad Field Office**  
**OCD Artesia**  
FORM APPROVED  
DATE NO. 1004-0137  
Expires: January 31, 2018  
Serial No.  
NMC029339A

**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**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	8. Well Name and No. JACKSON A 55
2. Name of Operator BURNETT OIL COMPANY INC Contact: LESLIE GARVIS E-Mail: lgarvis@burnettoil.com	9. API Well No. 30-015-43534-00-X1
3a. Address 801 CHERRY STREET UNIT 9 FORT WORTH, TX 76102-6881	10. Field and Pool or Exploratory Area CEDAR LAKE
3b. Phone No. (include area code) Ph: 817.583.8730	11. County or Parish, State EDDY COUNTY, NM
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 13 T17S R30E SWNE 1650FNL 1650FEL	

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other Change to Original A PD
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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.

Burnett Oil would like to change the casing on the well:

From/To

- 1. 10-3/4" Surface Casing to 8-5/8" Surface Casing
- 2. 7" Production Casing to 5-1/2" Surface Casing

See attached revised Drilling Plan.

*GC*  
*Accepted for record 1/18/19 NMOCD*

RECEIVED

JAN 17 2019

DISTRICT II-ARTESIA O.C.D.

14. I hereby certify that the foregoing is true and correct.  
**Electronic Submission #437309 verified by the BLM Well Information System**  
**For BURNETT OIL COMPANY INC, sent to the Carlsbad**  
**Committed to AFMSS for processing by PRISCILLA PEREZ on 09/28/2018 (18PP2769SE)**

Name (Printed/Typed) LESLIE GARVIS	Title REGULATORY MANAGER
Signature (Electronic Submission)	Date 09/26/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>DYLAN ROSSMANGO</u>	Title <u>PETROLEUM ENGINEER</u>	Date <u>01/15/2019</u>
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 <u>Carlsbad</u>

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 \*\***

*LP 1-25-19*



**DRILLING PLAN**  
**Jackson A 55**  
**SHL/BHL: 1650' FNL, 1650' FEL, Unit G, Sec. 13, T17s, R30E**  
**VERTICAL CEDAR LAKE GLORIETA YESO WELL**

**1. Geological Name of Surface Formation with Estimated Depth:**

<u>Geological Name</u>	<u>Estimate Top</u>	<u>Anticipated Fresh Water, Oil or Gas</u>
a. Alluvium	Surface	Fresh Water, Sand
b. Anhydrite	300'	
c. Salt	536'	
d. Base Salt	1253'	
e. Yates	1437'	
f. Seven Rivers	1712'	Oil
g. Queen	2334'	Oil
h. Grayburg	2722'	Oil
i. San Andres	3023'	Oil
j. Glorieta	4543'	Oil
k. Yeso	4614'	Oil
l. Total Depth	Refer to Form 3160-3	

No other formations are expected to yield oil, gas or fresh water in measurable volumes. We will set 8-5/8" casing @ approx. 520' in the Anhydrite, above the salt and circulate cement to surface.

The oil zones will be isolated by running 5-1/2" casing to total depth and circulating cement to surface.

**2. Casing Program: (ALL CASING WILL BE NEW API APPROVED MATERIAL.)**

**(MW = 10.2 PPG IN DESIGN FACTOR CALCULATIONS.)**

**a. Design Safety Factors:**

<u>Type</u>	<u>Hole Size</u>	<u>Interval</u>	<u>OD Csg</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>	<u>Collapse Design Factor</u>	<u>Burst Design Factor</u>	<u>Tension Design Factor</u>
Conductor		0'-90'	14"	Contractor Discretion			---	---	---
Surface	12-1/4"	0' - +/- 520'	8-5/8"	24.00#	ST & C	J55	1.125	1.00	1.80
Production	7-7/8"	0' - TD	5-1/2"	17.00#	LT & C	J55	1.125	1.00	1.80

**DRILLING PLAN  
VERTICAL LOCO HILLS GLORIETA YESO WELL**

**b. Surface Casing Info**

The proposed casing setting depth is +/- 520' based on cross sections which show the estimated top of the rustler and top of salt. Drilling times will be plotted to find the hard section just above the salt. A mud logger will be on location to evaluate drill and cutting samples as long as circulation is maintained. If salt is penetrated, it will be obvious by the sudden increase in water salinity and surface casing will then be set above the top of salt. Our highly experienced drilling personnel have drilled many wells in this area and are able to easily identify the hard streak on the top of the salt.

**c. Production Casing Info**

Production casing will be set to TD with float shoe on bottom, float collar in first collar, centralizers throughout intervals and above and below a DV Tool set at +/-2600'. After drilling out and testing the casing to 2000 PSI, a cement bond log will be run to evaluate the cement job.

**3. Cementing Program (Note Yields and DV Tool Depth if Multiple Stage.)**

**BLM to be notified prior to all cementing and tag operations in order to observe the operation if desired.**

**a. 8-5/8" Surface Cement to surface**

- 330 sx C +2% PF1 (Calcium Chloride) + PF424 (Water Gelling Agent), mixed at 14.8 ppg, Yield 1.34 with 6.3 gal water per sack.
- **Excess cement 100%.**

**If cement does not circulate to surface, BLM will be notified of same, and advised of the plan to bring the cement to surface so BLM may witness tagging and cementing. When circulating cement, if surface pressures indicate cement is low in the annulus, temperature survey results will be reviewed with BLM representative to determine the remediation needed.**

**b. 5-1/2" Production Casing**

**Stage 1: Lead:** 260 sx 35/65 P/C +5 %PF44 (BWOW)(Salt )+6% PF20 (Bentonite Gel) +0.2% PF153 (Anti Settling) +0.3% PF13 (Retarder) +0.1 25#/sx PF29 (Celloflake) +3#/sx PF42 (Kolseal) +0.4#/sx PF45 (Defaomer), mixed at 12.5 ppg, Yield 2.11 with 11.364 gal water per sack.

**Tail:** 330 sx C +0.3%PF13 (Retarder), mixed at 14.8 ppg, Yield 1.33 with 6.298 gal water per sack.

**30% excess cement.**

**Stage 2: Lead:** 340 sx 35/65 P/C + 5% PF44 (BWOW)(Salt) +6% PF20 (Bentonite Gel) +0.2% PF153 (Anti Settling) +0.125#/sx PF29Celloflake) +3#/sx PF42 (Kolseal) +0.4#/sx PF45 (Defaomer), mixed at 12.5 ppg, Yield 2.11 with 11.362 gal water per sack.

**Tail:** 200 sx C Neat, mixed at 14.8 ppg, Yield 1.32 with 6.3 gal water per sack.

**140% excess cement.**

**DRILLING PLAN  
VERTICAL LOCO HILLS GLORIETA YESO WELL**

The above cement volumes may be revised pending the caliper measurement from the open hole logs. **Casing/cementing design is to bring cement to the surface.**

**4. Pressure Control Equipment:**

The blowout prevention equipment (BOPE) shown in **Exhibit L** will consist of a 2000 PSI Hydril Unit (annular) with hydraulic closing equipment. The equipment will comply with Onshore Order #2 and will be tested to 50% of rated working pressure (RWP), and maintained for at least ten (10) minutes. The 8-5/8" drilling head will be installed on the surface casing and in use continuously until total depth is reached. An independent testing company will be used for the testing. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines and choke manifold having 2000 PSI WP rating.

Burnett is requesting to keep the Mud/Gas Separator on location but only connect if/when needed.

**5. Auxiliary Well Control and Monitoring Equipment:**

- a. A Kelly cock will be in the drill string at all times.
- b. A full opening drill pipe stabbing valve with the appropriate connections on the rig floor at all times.
- c. Hydrogen Sulfide detection and breathing equipment will be installed and in operation at drilling depth of 1800' (which is more than 500' above top of Grayburg) until 5-1/2" casing is cemented.
- d. An H2S compliance package will be on all sites while drilling.

**6. Proposed Mud Circulation System**

<u>Depth</u>	<u>Mud Wt</u>	<u>Visc</u>	<u>Fluid Loss</u>	<u>Type System</u>	<u>Max Volume</u>
0' - +/-520'	8.6 - 9.5			Fresh Water	
+/- 520' - TD' MD	10.0 max			Brine Water	

**The necessary mud products for weight addition and fluid loss control will be on location at all times.**

**Pason equipment will be used to monitor the mud system.**

**7. Logging, Coring and Testing program:**

- a. Any drill stem tests will be based on geological sample shows and planned before spudding.
- b. The open hole electrical logging program will be:
  - 1. Total depth to 1000': Dual Laterolog-Micro Laterolog with Compensated Neutron, Spectral Density log with Spectral Gamma Ray and Caliper.
  - 2. Total depth to Surface: Compensated Neutron with Spectral Gamma Ray.
  - 3. Coring program will be planned and submitted on a well by well basis.
  - 4. Additional testing will be done after setting the 5-1/2" production casing. The specific Intervals will be based on log evaluation, geological sample shows and/or drill stem tests.

**DRILLING PLAN**  
**VERTICAL LOCO HILLS GLORIETA YESO WELL**

**8. Potential Hazards:**

No abnormal pressures or temperatures are expected. Lost circulation is expected in the surface hole and not expected in production. Water flows can occur periodically at various depths in the production hole. All personnel will be familiar with the safe operation of the equipment being used to drill this well. The maximum anticipated bottom hole pressure is 2715#. This is based upon the following formula of  $.445 \times \text{BH ft. estimate}$ . The anticipated bottom hole temperature is 105°F. This is based upon logs of wells in this area.

There is known H2S in this area. In the event that it is necessary to follow the H2S plan, a remote choke will be installed as required in Onshore Order 6. Refer to the attached H2S plan for details.

**9. Anticipated Start Date and Duration of Operation**

Road and location construction will begin after BLM has approved the specific APD and has approved the start of the location work. Anticipated spud date will be as soon as the location building work has been completed and the drilling rig is available to move to the location. Move in and drilling is expected to take approximately 11 days. If production casing is run, an additional 60 days would be required to complete the well and install the necessary surface equipment (pumping unit, electricity, flowline and storage facility) to place the well on production.

**10. Completion Procedure**

Upon completion of drilling operations, this well will be perforated and frac'd in multiple stages. Due to the completion process that Burnett utilizes, we do not anticipate any flowback. Upon completion of stimulation, the well will be put on production.

**PECOS DISTRICT  
DRILLING OPERATIONS  
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	BURNETT OIL COMPANY INC
LEASE NO.:	NMLC029339A
WELL NAME & NO.:	JACKSON A 55
SURFACE HOLE FOOTAGE:	1650'/N & 1650'/E
BOTTOM HOLE FOOTAGE:	VERTICAL WELL
LOCATION:	T-17S, R-30E, S13. NMPM
COUNTY:	EDDY, NM

Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High
Variance	<input checked="" type="radio"/> None	<input type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input checked="" type="radio"/> Conventional	<input type="radio"/> Multibowl	
Other	<input type="checkbox"/> 4 String Area	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP

**All other previous conditions of approval still apply.**

**A. CASING**

1. The **8-5/8** inch surface casing shall be set at approximately **480** 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 **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **5-1/2** inch production casing is:
  - a. Cement to surface. If cement does not circulate see A.1.a, c-d above.

DR 1/15/2019