

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0135  
Expires: July 31, 2010

**Carlsbad Field Office**  
**OCD Artesia**

**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.*

No. NMLC029415B

<b>SUBMIT IN TRIPLICATE - Other instructions on reverse side.</b>		7. If Unit or CA/Agreement, Name and/or No.
1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	8. Well Name and No. NOSLER 12 FED EG 6H	
2. Name of Operator BURNETT OIL COMPANY INC	Contact: LESLIE GARVIS E-Mail: lgarvis@burnettoil.com	9. API Well No. 30-015-43421-00-X1
3a. Address 801 CHERRY STREET UNIT 9 FORT WORTH, TX 76102-6881	3b. Phone No. (include area code) Ph: 817.583.8730	10. Field and Pool, or Exploratory FREN
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 11 T17S R31E SENE 1800FNL 300FEL		11. County or Parish, and State EDDY COUNTY, NM

**12. CHECK 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"/> Fracture Treat	<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
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original APD
	<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 shall 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 shall be filed once testing has been completed. Final Abandonment Notices shall 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 request that the DV tool, 5.5"x7" cross over, and top isolation packer be moved from 5500', up to 4800', which is where kick off point will be located. We will be setting a sub pump near 4750', which is at the base of the vertical portion of the well, and there is no need for 7' casing below where we will be setting the sub pump.

Revised Drilling Plan attached - revision in red.

**NM OIL CONSERVATION**  
ARTESIA DISTRICT

NOV 09 2015

Accepted for record  
NMOC

RECEIVED

*WRD 11/20/15*

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #322161 verified by the BLM Well Information System For BURNETT OIL COMPANY INC, sent to the Carlsbad Committed to AFMSS for processing by DUNCAN WHITLOCK on 11/05/2015 (16DW0007SE)	
Name (Printed/Typed) LESLIE GARVIS	Title REGULATORY COORDINATOR
Signature (Electronic Submission)	Date 10/30/2015

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By <u>TEUNGKU MUCHLIS KRUENG</u>	Title <u>PETROLEUM ENGINEER</u>	Date <u>11/05/2015</u>
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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.



BURNETT OIL CO., INC.

**DRILLING PLAN**  
**Nosler 12 Fed EG 6H**  
**HORIZONTAL FREN GLORIETA YESO WELL**

**1. Estimated Tops of Geological Markers and depths of anticipated fresh water, oil or gas:**

<u>Geological Name</u>	<u>Estimate Top</u>	<u>Anticipated Fresh Water, Oil or Gas</u>
Alluvium	Surface	There is no fresh water here
Anhydrite	678'	
Salt	860'	
Base Salt	1864'	
Yates	2038'	
Seven Rivers	2342'	Oil
Queen	2965'	Oil
Grayburg	3388'	Oil
San Andres	3724'	Oil
Glorieta	5218'	Oil
Yeso	5296'	Oil
Total Depth	Refer to APD	

No other formations are expected to yield fresh water, oil or gas in measurable volumes. There is no groundwater in the immediate vicinity where we will be drilling. We will set 13-3/8" casing at approximately +/- 770' in the Anhydrite above the salt and circulate cement to surface.

We will set 9-5/8" intermediate casing at around 2,000' and circulate cement to surface. All intervals will be isolated by setting 7" x 5-1/2" casing to total depth and circulating cement from +/-4,750' to 200' above the base of the 9-5/8" intermediate casing shoe.

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

**(MW = 10 PPG IN DESIGN FACTOR CALCULATIONS.)**

a. Design Safety Factors:

Type	Hole Size	Depth Interval	OD CSG	Weight	Collar	Grade	Collapse Design Factor	Burst Design Factor	Tension Design Factor
Conductor	24"	0-90'	20"	Contractor	Discretion	-----	-----	-----	-----
Surface	17-1/2"	0-770'	13-3/8"	48#	ST&C	H-40	1.125	1.00	1.80
Intermediate	12-1/4"	770-2000'	9-5/8"	36#	LT&C	J-55	1.125	1.00	1.80
Production	8-3/4"	0-4750'	7"	26#	LT&C	L-80	1.125	1.00	1.80
	8-3/4"	4750-5980'	5-1/2"	17#	BTC	L-80	1.125	1.00	1.80
	7-7/8"	5980'-TD'	5-1/2"	17#	BTC	L-80	1.125	1.00	1.80

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**\* While running each casing string, the pipe will be kept at a minimum of 1/3 full at all times to avoid approaching the collapse pressure of the casing.**

b. Surface Casing Info

The proposed casing setting depth is +/- 770' 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 has drilled many wells in this area and is able to easily identify the hard streak on the top of the salt. Cement will be circulated to surface.

c. Intermediate casing

We will run 9-5/8" intermediate casing to 2,000' and circulate cement to surface to get the Salt section behind pipe.

d. Production casing

We will run 7" x 5-1/2" production casing with a stage tool at the bottom of the 7", then a crossover from 7" to 5-1/2". There will be no cement in the lateral, only from the stage tool and up hole into the intermediate casing.

Burnett proposes to run a multiple packer system on the 5-1/2" production casing which will cross over into the 7" casing string (no cement in the lateral). An isolation packer will be set at or a few feet inside the lease offset limit and no completion perforations or ports will be placed between this isolation packer and the cement stage tool.

All intervals will be isolated by setting 7" x 5-1/2" casing to total depth and circulating cement from +/-4,750' to above the base of the 9-5/8" intermediate casing shoe.

200'

**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. 13 3/8 " Surface Casing – Cement to Surface

- 20 bbls fresh water spacer at 8.4 lbm/gal.
- Lead: 345 sx ExtendaCem – CZ 0.1250 lbm Poly-E-Flake. Fluid weight 13.5 lbm/gal, slurry yield 1.745 ft<sup>3</sup>/sx, total mixing fluid 9.18 gal/sx.
- Tail: 355 sx HalCem 2% Calcium Chloride – flake, fluid weight 14.8 lbm/gal, slurry yield 1.347 ft<sup>3</sup>/sx, total mixing fluid 6.39 gal/sx.
- 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. If surface pressures when circulating indicate cement is low in the annulus, temperature**

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**survey results will be reviewed with BLM representative to determine the remediation needed.**

b. 9 5/8" Intermediate Casing:

- Lead: 500 sx ExtendaCem – CZ 0.1250 lbm Poly-E-Flake, Fluid weight 13.5 lbm/gal, slurry yield 1.745 ft<sup>3</sup>/sx, total mixing fluid 9.2 gal/sx.
- Tail: 225 sx HalCem fluid weight 14.8 lbm/gal, slurry yield 1.326 ft<sup>3</sup>/sx, total mixing fluid 6.34 gal/sx.
- Casing/Cementing design is to bring cement to the surface.
- **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. If surface pressures when circulating indicate cement is low in the annulus, temperature survey results will be reviewed with BLM representative to determine the remediation needed.**

c. 7" and 5 1/2" Production Casing:

- Displace mud from lateral with fresh water.
- Open stage tool and pump the following cement. Lead: 250 sx EconoCem – C, 0.1250 lbm Poly-E-Flake, 0.25 lbm D-Air 5000, fluid weight 11.9 lbm/gal, slurry yield 2.464 ft<sup>3</sup>/sx, total mixing fluid 14.24 gal/sx.
- Tail: 160 sx Halcem, 0.50% LAP-1, 0.25 lbm D-Air 5000, 0.40% CFR-3, 0.10% HR-800, fluid weight 14.8 lbm/gal, slurry yield 1.33 ft<sup>3</sup>/sx, total mixing fluid 6.29 gal/sx.
- All intervals will be isolated by setting 7" x 5-1/2" casing to total depth and circulating cement from +/-4,750' to above the base of the 9-5/8" intermediate casing shoe.

The above cement volumes may be revised pending the caliper measurement from the open hole logs.

**4. Pressure Control Equipment:**

The blowout prevention equipment (BOPE) shown in **Exhibit R** 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 2,000 psi and maintained for at least ten (10) minutes. The 10-3/4" 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 will be on the rig floor at all times.

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- c. Hydrogen Sulfide detection and breathing equipment will be installed and in operation at a drilling depth of 1800' (which is more than 500' above top of Grayburg) and will remain until production casing is cemented.
- d. An H2S compliance package will be on all sites while drilling.

**6. Proposed Mud Circulation System (Closed Loop System)**

<u>Depth</u>	<u>Mud Wt</u>	<u>Vis</u>	<u>Fluid Loss</u>	<u>Type System</u>
0' - 770'	8.4 - 9.5		NC	Fresh Water
770' - 2000' MD	10.0		NC	Brine Water
2000' – TD MD	10.0		NC	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. No cores or DSTs are planned at this time.
- b. A mud logger will be on the well from 200' to TD.
- c. No open hole logs will be run.

**8. Potential Hazards:**

No abnormal pressures or temperatures are expected. Lost circulation is expected in the surface hole and not expected in the production hole. 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 2379#. 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 drilled wells surrounding this well.

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 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 operations and drilling is expected to take approximately 25 days. If production casing is run, an additional 90 days would be

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required to complete the well and install the necessary surface equipment (pumping unit, electricity, flowline and storage facility) in order to place the well on production.