### Form 3160-5 (August 2007)

## OCD-ARTESIA

**UNITED STATES** DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT** 

FORM APPROVED OMB No 1004-0137 Expires July 31, 2010

5. Lease Serial No NM 7725

6 If Indian, Allottee or Tribe Name

## **SUNDRY NOTICES AND REPORTS ON WELLS**

	orm for proposals t Jse Form 3160-3 (A			•			
SUBMIT IN TRIPLICATE – Other instructions on page 2.				7. If Unit of CA/Agreement, Name and/or No.			
1 Type of Well							
Oil Well Gas W	ell Other				<ol><li>Well Name and No. Trigg 9 Federal, Wel</li></ol>	I #1	
Name of Operator     Rubicon Oil & Gas, LLC					9. API Well No. 30 015 <b>37282</b>		
3a. Address		3b. Phone No.	(ınclude area code	·)	10 Field and Pool or E	Exploratory Area	
508 W. Wall, Suite 500 Midland, TX 79701 - 432 687-51			0/684-6381		Henshaw, Morrow ,	Undesignated	
Location of Well (Footage, Sec , T., F. Surface 660' FSL and 1980' FEL (unit letter O) BHL: Same	R., M., or Survey Description Section 9, T16S, R30E	1)		:	11. Country or Parish, Eddy County, NM	State	
12. CHEC	K THE APPROPRIATE BO	OX(ES) TO IND	ICATE NATURE	OF NOTIC	E, REPORT OR OTHE	ER DATA	
TYPE OF SUBMISSION			ТҮРІ	E OF ACT	ION	· · · · · · · · · · · · · · · · · · ·	
<b>—</b>	Acidize	Deep	en Produ		iction (Start/Resume)	Water Shut-Off	
Notice of Intent	Alter Casing	<del></del>	ure Treat	_	mation	Well Integrity	
	Casing Repair	=	Construction	=			
✓ Subsequent Report				=	mplete	OtherPermit Extension	
	Change Plans		and Abandon	Temp	orarily Abandon		
Final Abandonment Notice	Convert to Injection	Plug	Back	Water	r Disposal	Request	
Rubicon Oil & Gas, LLC (194266) is Form 3160-3 attached). The drilling and development of this and development for this location an Due to advanced stimulation technol  Accepted  NMC	well has been delayed per defisetting locations. ogy Rubicon plans to profor record	RECE JAN 1	of offset drilling de	evelopmer	nt to access the econo	omic viability for the drilling funding approval from investors.	
14 I hereby certify that the foregoing is to Ann Ritchie	ue and correct Name (Printe	ed/Typed)	Title Regulator	v			
	1111	· · · · · ·	1	<u>,                                      </u>			
Signature //	In this		Date 08/12/201	1			
<u> </u>	THIS SPACE	FOR FEDE	RAL OR STA	TE OFF	ICE USE		
Approved by			1				
Approved by /S	/ Don Peterson	F Title	IELD MA		Date JAN <b>1 3</b> 2012		
Conditions of approval, if any, are attached that the applicant holds legal or equitable to entitle the applicant to conduct operations to	tle to those rights in the subje-	ct lease which wo	ertify ould Office ARL		ELD OFFICE		
Title 18 U.S C Section 1001 and Title 43 U	JSC Section 1212, make it a	a crime for any pe	erson knowingly and	willfully to	make to any department	t or agency of the United States any false,	

(Instructions on page 2)

fictitious or fraudulent statements or representations as to any matter within its jurisdiction

\$		Operator Cop	_				
Form 3160-3	3				FORM APPROVED OMB No. 1004-0137		
(August 2007)					Expires July 31, 2010		
	UNITED STATE DEPARTMENT OF THE			5. Lease Serial	No.		
	BUREAU OF LAND MAI			-BUN 07725			
	APPLICATION FOR PERMIT TO			6. If Indian, All	otee or Tribe	Name	
la. Type of work:  DRILL  REENTER				7 If Unit or CA Agreement, Name and No.			
lb. Type of Well:	Well: ☐ Oil Well				8. Lease Name and Well No. Trigg 9 Fed, Well #1		
2. Name of Operator				9. API Well No.			
•		30 015					
3a. Address 3b. Phone No. (include area code)				10. Field and Pool, or Exploratory			
508 W. Wall, Suite 500, Midland, TX 79701 432 687-5100/684-6381				Morrow Undesigna			
4. Location of We	(Report location clearly and in accordance with a	my State requirements.*)		11. Sec., T. R. M. or Blk. and Survey or Area			
At surface 660' FSL & 1980' FEL (O)					Sec 9, T16S, R30E		
At proposed pro	d. zone same		_				
14. Distance in miles and direction from nearest town or post office* 7 miles North of Loco Hills				12. County or Par Eddy County	ish	13. State NM	
15. Distance from pr location to neares property or lease (Also to nearest	st 000	16. No. of acres in lease		17. Spacing Unit dedicated to this well 320 acres			
18. Distance from pro to nearest well, di applied for, on the	posed location* Ist well rilling, completed, is lease, ft.	19. Proposed Depth 10,800'	· · · ·		BIA Bond No. on file		
21. Elevations (Show whether DF, KDB, RT, GL, etc.)		22. Approximate date work will start*		23. Estimated duration			
3816'		08/08/2009	32 days				
		24. Attachments					
The following, comple	eted in accordance with the requirements of Onsho	re Oil and Gas Order No.1, must be a	ittached to th	is form:	<del></del>		
<ol> <li>A Drilling Plan.</li> <li>A Surface Use Plan.</li> </ol>	by a registered surveyor. an (if the location is on National Forest Systemed with the appropriate Forest Service Office).	Lands, the Such other site	cation	ons unless covered by	-	·	
25. Signature	Musi Filaho	Name (Printed/Typed) Ann E. Ritchie			Date 07/01/2	2009	
Title Regulatory Ac	nent .		····	······································			
<del></del>		Nome (Print 1/Time P		<del></del>	Deta		
Approved by Signmur	1 Sm	Name (Printed/Typed)	VID D.	EVANS	7-/	18-09	

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.

Office CARLSBAD FIELD OFFICE

AFIELD MANAGER

APPROVAL FOR TWO YEARS

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)

Roswell Controlled Water Basin

# PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME: Rubicon Oil & Gas LLC

LEASE NO.: NM07725

WELL NAME & NO.: Trigg 9 Federal Well #1 SURFACE HOLE FOOTAGE: 660' FSL & 1980' FEL

**BOTTOM HOLE FOOTAGE** 

LOCATION: | Section 9, T. 16 S., R 30 E., NMPM

**COUNTY:** Eddy County, New Mexico

## **Table of Contents**

The previously approved Conditions of Approval for the approved APD dated 09/18/2009 still apply. Any additions to the originally approved COAs will be addressed below.

Staking Requirement

**⊠** Drilling

Logging Hazards

Waste Material and Fluids

## I. STAKING REQUIREMENT

**A.** The well pad corners and centerline of the access road must be restaked and flagged by a certified surveyor prior to construction to ensure the proper placement of roads and pads.

### II. DRILLING

### A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

☐ Eddy	y County				
Call	the Carlsbad Field Office, 620 I	East Greene St.,	Carlsbad, N	NM 8822	0,
(575)	361-2822				

- 1. Although Hydrogen Sulfide has not been reported in this section, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts and formations to the BLM.
- 2. 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. If the drilling rig is removed without approval an Incident of Non-Compliance will be written and will be a "Major" violation.
- 3. 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 is located, this does not include the dog house or stairway area.
- 4. The record of the drilling rate along with the GR/N well log run from TD to surface 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.

#### B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

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

Possible brine and water flows in the Salado and Artesia groups. Possible loss of circulation in the Grayburg and San Andres formations. Possible over pressure in the Atoka Clastics.

1. The 13-3/8 inch surface casing shall be set at approximately 450 feet and cemented to the surface.

Onshore Order II requires casing to be set across a competent bed and the Rustler Anhydrite is the first formation that meets that criteria.

- 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 is to include the lead cement slurry.
- 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 9-5/8" inch intermediate casing is:

☐ Cement to surface. If cement does not circulate see B.1.a, c-d above.

- 3. The minimum required fill of cement behind the 4-1/2 inch production casing is:
  - Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification. **NOTE: Cement volume as proposed is insufficient and must be increased.**
- 4. 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.

### C. 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. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 2000 (2M) psi.
- 3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 9-5/8" intermediate casing shoe shall be 5000 (5M) psi.

5M 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. 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. The tests shall be done by an independent service company utilizing a test plug **not** a **cup** or **J-packer**.
- c. The results of the test shall be reported to the appropriate BLM office.
- d. 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.
- e. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
- f. 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.
- g. Effective November 1, 2008, no variances will be granted on reduced pressure tests on the surface casing and BOP/BOPE. Onshore Order 2 requirements will be in effect.

#### D. 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.

#### E. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

#### F. 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.

TMM 4 November 2011