

ATS-10-178

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Form 3160-3
(August 2007)

OCB Artesia

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT


APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-14847
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Clayton Williams Energy, Inc. (25706)		7. If Unit or CA Agreement, Name and No.
3a. Address Suite 3000, 6 Desta Drive Midland, Texas 79705	3b. Phone No. (include area code) (432) 682-6324	8. Lease Name and Well No. Phillips -19- Federal #23 (26582)
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 1475' FNL, 2415' FEL, Unit Letter G At proposed prod. zone		9. API Well No. 30-015- 38438
UNORTHODOX LOCATION		10. Field and Pool, or Exploratory Empire, Glorieta-Yeso (96210)
14. Distance in miles and direction from nearest town or post office* 7 miles NW of Loco Hills, New Mexico	12. County or Parish Eddy	13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1165'	16. No. of acres in lease 1054.42	17. Spacing Unit dedicated to this well 40 acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 509'	19. Proposed Depth 6,000	20. BLM/BIA Bond No. on file NM 2787
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3699' GL	22. Approximate date work will start* 06/30/2010	23. Estimated duration 20 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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 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). | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature 	Name (Printed/Typed) Matt Swierc	Date 5/19/10
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Title
Production Superintendent

Approved by (Signature) /s/ Don Peterson	Name (Printed/Typed)	Date AUG 24 2010
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Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE
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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.

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 the jurisdiction of such department or agency.

(Continued on page 2)

*(Instructions on page 2)

Roswell Controlled Water Basin

OCD CONDITION OF APPROVAL for Drilling:
Intent to drill ONLY -- CANNOT produce until the Non-Standard
Location has been approved by OCD Santa Fe office.

**Approval Subject to General Requirements
& Special Stipulations Attached**

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

CLAYTON WILLIAMS ENERGY, INC.
DRILLING PROGRAM

Attached to BLM Form 3160-3

Lease Name: Phillips Federal 19
Well No: 23
Location: Sec. 19, T-17-S, R-29-E
Eddy Co., NM

1. Geological name of surface location: Triassic
2. Estimated tops of important geological markers:

<u>Name</u>	<u>Depth(MD)</u>	<u>Depth(SS)</u>	<u>Rock Type</u>
Rustler	300	3390	Red Bed Evaporites
Yates	820'	2870	Limestone
Seven Rivers	1080'	2610	Dolomite
Queen	1660'	2030	Dolomite/Sandstone
Grayburg	2055'	1635	Dolomite/Sandstone
San Andres	2350'	1340	Dolomite/Anhydrite
Glorieta	3790'	-100	Dolomite/Sandstone
Yeso	3860'	-170	Dolomite
Base of Yeso	6000'	-1970	

3. Estimated name of anticipated fresh water, oil and gas:

<u>Formation</u>	<u>Depth(MD)</u>	<u>Depth(SS)</u>	<u>Fresh Water/Oil/Gas</u>
Rustler	100	3390	Fresh Water
Yates	820'	2870	Oil
Seven Rivers	1146'	2610	Oil
Queen	1724'	2030	Oil
Grayburg	2105'	1635	Oil
San Andres	2414'	1340	Oil
Glorieta	3841'	-100	Oil
Yeso	3860'	-170	Oil

No other formations expected to produce fresh water or hydrocarbons. Surface casing set at 300' and circulating cement to surface will protect the surface fresh water sand. Production casing cemented back to surface will isolate intervals capable of producing oil and gas.

4. CASING PROGRAM

<u>Hole Size</u>	<u>Interval</u>	<u>OD Csg</u>	<u>Weight</u>	<u>Grade</u>	<u>Conn</u>	<u>BUR/COL/TENS</u>
11"	300'	8-5/8"	24#	J-55	STC/New	2.86/4.57/33.89
7-7/8"	6000'	5-1/2"	17#	J-55	LTC/New	2.65/1.30/2.56

5. CEMENT PROGRAM

*See
top*

8-5/8" Surface Casing
125 SX CI "C" + 2% CaCl₂ : 1.35ft³/sx yield – circulated to surface. 100% excess.

5-1/2" Production Casing:
Stage tool @ +/-2600'

- 1st Stage: Lead: 215 sx EconoCem C; 2.42 ft³/sx yield
Tail: 325 sx Class VersaCem "C" + 0.4% LAP1+0.4%CFR3+0.25lb/sx D-AIR3000; 1.22 ft³/sx yield– circulated to above DV Tool; 50% excess
- 2nd Stage: Lead: 230 sx EconoCem C; 2.42 ft³/sx yield
Tail: 100 sx HalCem C + 2% CaCl₂; 1.35 ft³/sx yield -circulated to surface; 50% excess

6. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) schematic attached will consist of a double ram-type (3000 psi WP) preventer and/or a bag-type (hydril) preventer (3000 psi WP). BOP will be hydraulically operated and the ram-type preventer will be equipped with blind rams and appropriate pipe rams. The BOP will be nipped up on the surface casing and used continuously until TD is reached. All BOP's and accessory equipment will be tested before drilling out of surface casing. Before drilling out of surface casing, the ram-type BOP and accessory equipment will be tested to 3000 psi and the hydril to 50% of rated working pressure (1500 psi). Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and 3" choke line will be attached to a drilling spool or BOP side outlets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold with 3000 psi WP rating.

7. Type & Characteristics of the Proposed Mud System:

The well will be drilled to TD with a combination of Fresh Water Gel/Brine System.

The applicable depths and properties of this system are as follows:

<u>Depth</u>	<u>Type</u>	<u>Weight (ppg)</u>	<u>Viscosity (sec)</u>	<u>Water Loss (cc)</u>
300'	FW Gel	8.6-9.0	34-45	N/C
6000'	Brine	9.8-10.1	28-30	12

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the well site at all times.

8. Auxiliary Well Control and Monitoring Equipment

- A. A Kelly cock will be kept in the drill string at all times.
- B. A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- C. The drilling fluids system will be visually monitored at all times.
- D. A mudlogging unit will be continuously monitoring drilling penetration rate and hydrocarbon shows from surface to casing to TD.
- E. A fixed electronic H₂S monitoring system, including alarms with monitors at the shaker and the bell nipple, will be in operation from surface to TD.

9. Logging, Testing & Coring Program: *See C & A*

- A. Drill stem tests: None anticipated.
- B. Electronic logging program: DSN, MSFL, DLL, FMI (optional) from TD to surface casing
- C. Coring: None

10. Abnormal Conditions, Pressures, Temperatures & Potential Hazards:

Possible sulfur water flows in the Queen/Grayburg intervals. Estimated bottom hole temp of 110 deg. F, and maximum bottom hole pressure of 2500 psi.

11. Anticipated Starting Date & Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. The anticipated spud date is upon approval of APD. Once commenced, the drilling operations should be finished within approximately 10 days. If the well is productive, an additional 10 days will be required for completion and testing.

12. Safety

Tour Safety Meeting will be conducted with all crews and reported on IADC morning report. Topics and attendance will be recorded for each meeting and kept on file in company representatives office for inspection.

13. Miscellaneous Notes

H2S Contingency plan attached

Totco inclination surveys every 500' or bit trip.

Mud Disposal: closed loop system, haul off all cuttings and fluids.

BHA – Surface and Production hole; slick assembly, no stabilizers or reamers

Bit Program

Surface	11"	Tri-Cone	60-100 RPM	25-35K WOB
Production	7-7/8"	PDC/Tri-Cone	60-90 RPM	30-40K WOB

Well: Phillips Federal 19 Type Well; Clayton Williams Energy, Inc.

Type Vertical	RIG: TBD	DATE: May 13, 2010
Field Loco Hills	County: Eddy	Elevation: Varies
Gas/Oil: Oil	Mud Company: TBD	Cement: Halliburton

Location: Section 19, T17S, R29E Eddy County, NM

Comments:

Mud Logger	Surveys	WOB/GPM Bit Type	Formantion Tops Hole Sizes		Mud Weight	Open Hole Logs	Cement	Wellhead	Remarks
		5K-15K 300GPM Rock Bit							
		Inclinations 200' and 400'	RED BEDS 11" Hole						Fresh water Native Mud: 8.4 to 8.6 ppg No Open Hole Logs
No Mudlogger									125 sxs "C" + 25 Calcium Chloride Top Out as Needed
			8-5/8", 24#, J55 STC	300 400'					
		Inclinations Every 500'	7-7/8" Hole						9.8 to 10.1 ppg Brine w/ Poly Sweeps as needed
Mudlogger on at drill out surface									
		30K-40KWOB 300GPM Rock/PDC bits	Grayburg	2055					POTENTIAL WATER FLOWS in Grayburg
			San Andres	2350					
				DV Tool 2600'					
			Glorieta	3790					CEMENT: Stage 1: Lead: 215 sxs EconoCem C Tail: 325 sxs Versa Cem "C" + 0.4% LAP1+ 0.4% CFR3 + 0.25lb/sx D-AIR3000
			Top Yeso	3860					Stage 2: Lead: 230 sxs EconoCem C Tail: 100 sxs HalCem "C" + 2% Calcium Chlor.
			Base of Yeso	6000'					OPEN HOLE LOGS - from TD to surf casing Density/Neutron/Microlog/Dual Induction FMI Optional