

# OCD-ARTESIA

Form 3160-5  
(August 2007)

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

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

### 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.**

5 Lease Serial No  
LC-029420A

6 If Indian, Allottee or Tribe Name

**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 Well    ☐ Other

2 Name of Operator  
CHEVRON U.S.A. INC.    (4323)

8 Well Name and No  
SKELLY UNIT #965    (29742)

3a Address  
15 SMITH ROAD  
MIDLAND, TEXAS 79705

3b Phone No (include area code)  
432-687-7375

9 API Well No  
30-015-34647

4 Location of Well (Footage, Sec., T, R, M, or Survey Description)  
990' FSL & 990' FWL, SECTION 15, UL M, T-17S, R-31E

10 Field and Pool or Exploratory Area  
FREN; GLORIETA-YESO (26770)

11 Country or Parish, State  
EDDY COUNTY, NEW MEXICO

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 checked="" 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 type="checkbox"/> Other _____
	<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 recompleat 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 recompleat 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.)

CHEVRON U.S.A. INC. INTENDS TO DEEPEN THE SUBJECT WELL. CHEVRON RESPECTFULLY REQUESTS A 1 YEAR APPROVAL.

PLEASE FIND ATTACHED, THE DEEPENING PROCEDURE, DEEPENING PROGRAM, COMPLETION PROCEDURE, AND CLOSED LOOP INFORMATION FOR THE NMOCD.

Deepening operations will be conducted by COG Opr LLC, agent for Chevron

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

**RECEIVED**

**JUL 15 2011**

**NMOCD ARTESIA**

14 I hereby certify that the foregoing is true and correct. Name (Printed/Typed)  
DENISE PINKERTON

Title REGULATORY SPECIALIST

Signature

*Denise Pinkerton*

Date 05/23/2011

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

Approved by

*Ted M. Morgan*

**Petroleum Engineer**

Date

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

**BUREAU OF LAND MANAGEMENT  
CARLSBAD FIELD OFFICE**

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)

**Skelly Unit #965**  
**Chevron / COG Operating LLC**  
**30-015-34647**  
**June 22, 2011**  
**Conditions of Approval**

**Summary of Current Status:**

- Skelly Unit #965 is a vertical well completed in 5-1/2" casing in the Yeso Formation.
- 5-1/2" casing PBTD is at 5348'.
- Open perforations are in the Paddock at 5007'–5216.5' (209.5').
- Operator proposes to squeeze existing perforations, then deepen the well by drilling vertically to 6750' MD, run and cement 4" casing, and recover uncemented 4" casing.
- The well will be recompleted deeper in the Yeso, frac'ed and then placed on production.

**Requests:**

1. Variance for centralizer stand-off of less than 0.422" is approved due to NMOCD classifying the formations in this area as the Yeso group.
2. The Variance Request to the Liner Top Fluid Entry or Pressure Testing Policy is approved based on NMOCD classification of formations in this area as the Yeso group.
3. Work to be completed within one year, with the following Conditions of Approval to be applicable.

**Conditions of Approval:**

- a) Surface disturbance not to exceed originally approved pad without prior approval.
- b) Closed Loop System to be used.
- c) BOP to be tested to 1000 psi based on BHP expected.
- d) Test casing as per Onshore Order 2.III.B.1.h.
- e) It is recommended that the top of the lead cement for the 4" casing be 100' minimum above the top squeezed shot, since the perforation length is extensive (209.5'), and there is no pressure testing or drawdown testing planned for the squeezed perforations.
- f) The planned depth for setting the DV tool should be revised to  $\pm 4907'$ , or shallower; which is above the top of the open perforations to be squeezed. By doing so, all of the squeezed perforations will be cemented behind the 4" casing. When plugged, a cement plug will be required across this tieback.
- g) The proposed centralizer locations for the shoe, the perforated intervals, and the liner top are acceptable, and will provide necessary centralization in the liner lap, without a liner hanger.
- h) The 4" casing will be backed off above the DV tool, now being located at  $\pm 4907'$ .
- i) If cement does not circulate from the DV tool, the appropriate BLM office is to be notified. In that event, Operator to recommend the alternate method of confirming TOC.
- j) In the event that an Annuli Survey is done, the measured pressures (if any) and the observed effluents (if any) of each annulus, should be reported to the BLM, with the amounts of any H<sub>2</sub>S or CO<sub>2</sub> also reported.
- k) When the work is completed, a subsequent sundry is required listing all details of the work done, and including the new production test information.

## SKELLY UNIT #965 DEEPENING PROGRAM

### 1. Estimated Tops of Important Geologic Markers

Yeso Group +/- 5000'

### 2. Estimated Depths of Anticipated Fresh Water, Oil, and Gas

Yeso Group +/- 5000'

This deepening originates in the Yeso and will finish at the base of the Yeso. The entire Yeso group is an oil and gas bearing interval.

### 3. Casing Program

Hole Size	Interval	OD Casing	Weight	Grade**	Jt./Condition	Burst/collapse/tension
4-3/4"	5239' – 6750'	4"	11.3#	L-80 or P-110	ULT-FJ/New	3.98/4.09/3.21 (L80) 5.47/5.23/4.25 (P110)

\*\* Due to casing shortages, either L-80 or P-110 will be run. The exact grade is unknown at time of requesting permit.

**NOTE: CHEVRON USA INC REQUESTS A VARIANCE TO THE 0.422" STAND OFF RULE BETWEEN CASING AND WELLBORE.**

### 4. Cement Program

4" Liner: Class C, 120 sxs, yield 1.37. 200' minimum tie back to production casing.

**NOTE: CHEVRON USA INC REQUESTS A VARIANCE TO THE LINER TOP FLUID ENTRY OR PRESSURE TEST BECAUSE THE DEEPENED WELL WILL BE COMPLETED IN THE SAME ZONE AS THE CURRENT PERFS AND THE ENTIRE INTERVAL IS RECOGNIZED BY THE OCD AS ONE INTERVAL (YESO). AS PER ONSHORE ORDER NO. 2 SECT III: REQUIREMENTS, PART B. CASING AND CEMENTING REQUIREMENTS, SUBPART b. "NO TEST SHALL BE REQUIRED FOR LINERS THAT DO NOT INCORPORATE OR NEED A SEAL MECHANISM." CHEVRON USA INC BELIEVES WE MEET THE CRITERIA TO NOT BE REQUIRED TESTING THE LINER TOP BECAUSE THERE IS NO NEED FOR A SEAL MECHANISM.**

**NOTE: CHEVRON USA INC REQUESTS A VARIANCE TO THE 200' MINIMUM TIE BACK TO THE PRODUCTION CASING BECAUSE THE LOWEST PERFORATION IS AT 5217'. THE 125' WILL ALLOW US TO NOT COVER EXISTING PERFORATIONS.**

### 5. Minimum Specifications for Pressure Control

The BOP equipment will be a 3000 psi double ram type manually operated preventer. This equipment will be nipple up to a 7-1/16" 3K flange. The pipe rams are located above blind rams. There is no choke or kill manifold. The BOP is tested to 500 psi prior to drilling new formation. Access to the annulus will be through the valves on the 5-1/2" casing head.

### 6. Types and Characteristics of the Proposed Mud System

This well will drilled from end of the existing 5-1/2" casing to TD with 2% KCl.

### 7. Auxillary Well Control and Monitoring Equipment

- A. A full opening drill pipe-stabbing valve with proper drill pipe connections will be on the rig floor at all times.

### 8. Logging, Testing, and Coring Program

- A. The electric logging program will consist of GR, Spectral Gr, Dual Spaced Neutron, CSNG Log and will be run from TD to 5-1/2" production casing shoe.
- B. No drill stem tests.
- C. No conventional coring anticipated.
- D. Further testing procedures will be determined after the 4" liner has been cemented at TD, based on drill shows and log evaluation.

#### **9. Abnormal Conditions, Pressure, Temperatures, and Potential Hazards**

No abnormal pressures or temperatures are anticipated. The estimated bottomhole temperature at TD is 110 degrees and the estimated maximum bottomhole pressure is 2800 psig. The drilling starts in the Yeso and ends in the Yeso. The section of Yeso being drilled has very low permeability (less than 1 md).

#### **10. Anticipated Starting Date and Duration of Operations**

There will be no road or location work required as this is an existing well location. Once commenced, drilling operations should be finished in approximately 14 days. If the well is productive, an additional 30 days will be required for completion and testing before a decision is made.

#### **11. Centralizer Program**

Fixed blade stabilizer subs will be utilized in the casing string to insure adequate isolation and seal throughout the wellbore. These stabilizer subs are positive fixed blade type. These subs will actually be screwed into the casing string. A diagram of the fixed blade stabilizer sub is located at the end of this program.

The standard location of the stabilizers will be the following:

##### *Shoe Location*

Guide shoe, 1 jt casing, stabilizer sub, float collar, 1 jt casing, stabilizer sub

##### *Perf Interval Location – between perf intervals*

Stabilizer sub, 1 jt casing, stabilizer sub

##### *Top of Liner Location*

DV tool, 1 jt casing, stabilizer sub, 1 jt casing, stabilizer sub

#### **12. Summary Drilling and Completion Program**

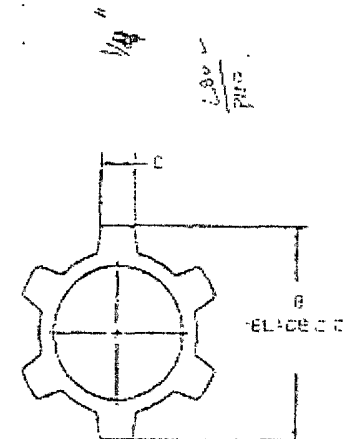
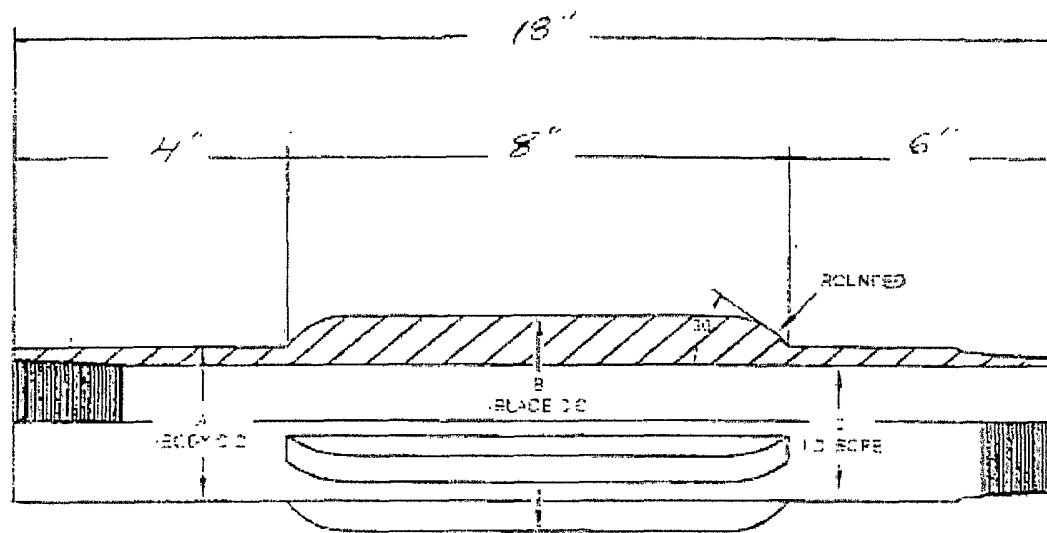
##### **Deepening Procedure**

1. MIRU rig.
2. Sqz upper Yeso w/ +/- 400 sx of Class C neat. Drill out squeeze.
3. PU 4-3/4" bit and drill 4-3/4" hole from 5376' to 6750'.
4. POOH w/ bit and drillstring.
5. RIH w/ logs and log from TD to 5100'.
6. RIH w/ 4", 11.3# casing. See section 11 for general centralizer program.
7. Cement casing from TD to 5239' w/ 120 sxs Class C cmt. Drop plug and open DV tool. Circ cmt off DV tool. Drop plug to close DV tool.
8. PU workstring and RIH and drill out DV tool. POOH and LD workstring.
9. RDMO rig.

## Completion Procedure


1. MIRU rig.
2. RIH/ w/ perforating guns and perforate Yeso from 6350 – 6550 w/ 2 spf, 30 holes.
3. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 179,800 # of sand. Set plug at 6300'.
4. RIH w/ perforating guns and perforate Yeso from 6050' – 6250'.
5. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 179,800 # of sand. Set plug at 6000'.
6. RIH w/ perforating guns and perforate Yeso from 5750' – 5950'.
7. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 179,800 # of sand.
8. RIH and drill out plug at 6000' and 6300'.
9. RIH and cut or back off 4" casing at 5239'. POOH w/ 4" casing. Leave 4" liner from 5239' to 6750' (TD).
10. RIH w/ tbg and locate end of tbg at 5190'.
11. RIH w/ rods and pump.
12. RDMO rig.

Centralizer Diagram



SIZE	A	B	C	D	E	F	G	DRIFT
4" x 4 3/4" 11.6"	4.050	4.750	3.347"	3/4"				3.303"

±.000  
OD  
±.000  
OD  
±.000  
OD

 <b>RAY OIL TOOL CO</b> <small>STAND OFF 2</small>	
CENTRALIZED INTERCASING	
CLIENT	Concho Res
WELL NAME & NO	
CASING	4" F145 11.6"
MATERIAL	434 x 3/4 x 18" Q125
PRODUCTION NO.	42