OCD-HOBBS

Form 3160-5
(September 2001)

HOBBS OCD

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HOBBS OCD

APR 27 2012

RECEIVED

APR 27 2012

RECEIVED

FORM APPROVED
OMB No 1004-0135
Expires January 31, 2004

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 reverse side.

5 Lease Serial No. LC 069048

6 If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No

1 Type of Well
☑ Oil Well ☐ ☐ Gas Well ☐ ☐ Other

8. Well Name and No.
Elliott Federal #4

2 Name of Operator **Sandridge E&P, LLC**

9 API Well No.
30-025-40487

3a Address
123 Robert S. Kerr, Oklahoma City, OK 73102

3b Phone No *(include area code)*
405-429-6518

10. Field and Pool, or Exploratory Area
Wantz; Abo

4 Location of Well *(Footage, Sec, T, R, M, or Survey Description)*
1285' FSL & 580' FEL

11 County or Parish, State
Sec 9, T21S R38E

LEA

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☑ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ 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)

ELLIOTT FEDERAL #4

Sandridge E&P, LLC respectfully requests to amend the production casing in regards to the ~~Parcell Federal #8~~ well. The well was originally permited to use 4 1/2" 11.6# LTC L-80, we request to now use 5 1/2" 17# LTC L-80. Updated Drilling Program is attached.

Best Regards

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

14 I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)* **Spence Laird** Title **Regulatory Analyst**

Signature Spence Laird Date **04/13/2012**

APPROVED

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by PETROLEUM ENGINEER Title APR 24 2012 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)

KZ

APR 30 2012

DRILLING PROGRAM

SandRidge Exploration and Production, LLP
Elliott Federal #4
Surface Location: 1285' FSL, 580' FEL, Lot 4, Sec 9, T21S R38E, Lea County, New Mexico
Bottom Hole Location: same

1. **Geologic Name of Surface Formation:**
   Quaternary

2. **Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:**

a.	Ogallala	100'	Water
b.	Rustler	1610'	Barren
c.	Top of Salt	1611'	
d.	Base of Salt	2780'	
e.	Tansil	2781'	Barren
f.	Yates	2907'	Oil/Gas
g.	Seven Rivers	3163'	Barren
h.	Queen	3507'	Barren
i.	San Andres	4327'	Oil
j.	Glorieta	5571'	Oil
k.	Blinebry	6010'	Oil
l.	Tubb	6563'	Oil
m.	Drinkard	6745'	Oil
n.	Abo	7163'	Oil
o.	Total Depth	8100'	

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 8-5/8" casing @ 1640' and circulating cement back to the surface. The Abo intervals will be isolated by setting 4-1/2" casing to total depth and circulating cement to the surface.

3. **Casing Program:**

Hole Size	Hole Interval	OD Csg	Casing Interval	Weight	Collar	Grade	N/U
17	0-80'	14	0-80'	50#			
12 -1/4"	80-1640'	8-5/8"	0-1640'	24#	STC	J-55	New
7-7/8"	1640-8100'	5-1/2"	0-8100'	17#	LTC	L-80	New

Design Parameter Factors:

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
8-5/8"	1.78	3.84	6.20
5-1/2"	1.49	1.84	2.45

Casing load assumptions for new 8-5/8" J-55 24# casing:

Collapse: Fluid inside casing is evacuated. A full column of 9 ppg fluid is present in the annulus.
Burst: Fluid in the annulus is evacuated and a full column of 9 ppg fluid is present in the casing.
Tension: All fluid inside wellbore is evacuated

Casing load assumptions for new 5 ½" L-80 17# casing:

Collapse: Fluid inside casing is evacuated. A full column of 10 ppg fluid is present in the annulus.
Burst: Surface treating pressures will not exceed 4200 psi exposure to the casing.
Tension: All fluid inside wellbore is evacuated

4. Cement Program:

a. 14" Conductor

Ready-mix concrete

b. 8 -5/8" Surface

Lead: 540 sacks (100% excess) Class C (65:35) Poz Cement ECONOCEM ™ System +3% lbm/sk Poly-E-Flake, 12.8 ppg, Yield: 1.86 ft^3/sk , Mixing Fluid: 9.94 gal/sk.

Tail: 270 sacks (100% excess) Class C Cement Halcem ™ System+ 2% Calcium Chloride+ 0.125 lbm/sk Poly-E-Flake, 14.8 ppg, Yield:1.35 ft^3/sk, Mixing Fluid 6.37 gal/sk. **TOC @ surface.**

c. 5 ½" Production

Lead: 400 sacks (25% excess) Class H (50:50) Poz EXTENDACEM ™ System + 5 #/sk Gilsonite, 12.2 ppg, Yield 2.26 ft^3/sk, Mixing fluid:12.07 gal/sk.

Tail: ~~7100~~ 710 sacks (25% excess)Class H (50:50) Poz Versacem ™ System + 0.3% Halad ®-9 + 3% Salt + 5 lbm/sk Gilsonite, 14.4 ppg, Yield: 1.25 ft^3/sk, Mixing fluid: 5.06 gal/sk. **TOC @ surface.**

Final volumes will be determined using caliper log and 25% excess.

5. Pressure Control Equipment:

BOP DESIGN: The BOP system used to drill the production hole will consist of an 11" 3M Double Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a 3M system prior to drilling out the surface casing shoe.

The pipe rams will be operated and checked each 24-hour period and each time the drill pipe is out of the hole. These tests will be logged into the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a Kelly cock, floor safety valve, choke lines, and choke manifold rated at 3000 psi WP.

6. **MUD PROGRAM SUMMARY:**

DEPTH	HOLE SIZE	CASING SIZE	MUD WT.	VISCOSITY	FLUID LOSS
0 - 1,640'	12-1/4"	8-5/8"	8.6 – 9.4	31 – 33	NC
1,640'- 4,100'	7-7/8"	- - -	9.7-9.8	28 – 29	NC
4,100' – 6,300	7-7/8"	- - -	9.8-9.9	30 – 31	15 – 10 cc
6,300' – 8,100	7- 7/8"	5-1/2"	9.9-10	32 – 38	10 – 6 cc

Interval Discussion:

INTERVAL	DAYS	WEIGHT	VISCOSITY	API FILTRATE	LCM	pH
0 – 1,640'	1	8.6 -9.4 lbs/gal	31 -33 sec/qt	NC	NC	As needed

Spud in with fresh water allowing native solids to build and maintain viscosity @ 31 – 33 sec./qt. Circulate through closed loop system. Utilize all available solids control equipment and dilution with fresh water to control viscosity, mud weight, and volume. Add 1 sack of Paper every other connection through this interval to help clean hole and/or more Paper as needed for seepage losses. Although lost circulation is not anticipated drilling this interval, ample supply of fibrous LCM will be on location. Approximately 100' from surface TD, mix 15 sacks of yellow starch @ 5 min./sx to help condition hole for running surface casing. Use pre-mix to build viscous PHPA pill and sweep the hole with +/- 10 Bbl. of same prior to tripping out to run 8-5/8" surface casing.

Materials to be Utilized: PHPA, Paper, Starch & Fibrous LCM if required

INTERVAL	DAYS	WEIGHT	VISCOSITY	API FILTRATE	LCM	pH
1,640' – 4,100'	1	9.7-9.8 lbs/gal	28 -29 sec/qt	NC	As needed	10.0 – 10.

Drill below surface casing with 9.7-9.8 lb/gal Brine circulating closed loop system. Build viscous PHPA pills in pre-mix and use to sweep hole for additional cleaning as needed. Mix Paper as required to control seepage losses. Use Lime to control and maintain 10 – 10.5 pH throughout this interval. Use all available solids control equipment and if needed, drip non-ionic PHPA below flow line to help maintain clear Brine. Severe lost circulation is not anticipated drilling this interval but sufficient fibrous material will be on location to combat same should it occur.

Materials to be Utilized: PHPA, Paper, Lime, & Fibrous LCM if required

INTERVAL	DAYS	WEIGHT	VISCOSITY	API FILTRATE	LCM	pH
4,100'– 6,300'	1	9.8-9.9 lbs/gal	30 -31 sec/qt	15 -10 cc	As needed	10.0 – 10.5

At 4,100', reduce fluid loss to 15cc with addition of starch @ 6-8 mins./sk. Continue additions of Lime as needed to control pH. Further reduce fluid loss to 10cc by 6,300' with continued starch additions. Sweep hole as required with viscous PHPA sweeps from premix. Add Paper to sweeps as needed for seepage. Severe lost circulation is not anticipated while drilling this interval but sufficient quantities of fibrous LCM will be on location. Small amounts of Defoamer may be required while drilling this interval. Continue to use all available mechanical solids control and non-ionic PHPA dripped below shaker for additional solids control.

Materials to be Utilized: PHPA, Paper, Lime, Starch; Defoamer & Fibrous LCM if required

INTERVAL	DAYS	WEIGHT	VISCOSITY	API FILTRATE	LCM	pH
6,300'– Total Depth	**2**	9.9-10.0 lbs/gal	32 -38 sec/qt	10 - 6 cc	As needed	10.0 – 10.5

At 6,300' mud up to 32 -34 sec./qt. viscosity with Salt Gel. Continue additions of Lime to control pH. Maintain fluid loss at 10.0 cc with Starch until 6,900'. At 6,900', further reduce fluid loss to 6 cc with additional Starch prior to topping the ABO. Moderate loss of circulation is possible in this interval. Use Paper for seepage losses and fibrous LCM for more severe losses. At 7,600', raise viscosity to 38 sec./qt. with Salt Gel and maintain to TD. At TD, sweep hole with 5 Bbl. viscous PHPA pill and circulate completely out of hole prior to tripping.

Materials to be Utilized: PHPA, Paper, Lime, Salt Gel, Starch; Defoamer & Fibrous LCM if required. Mud products for weight addition and fluid loss control will be on location at all times.

7. **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 having the appropriate connections will be on the rig floor at all times.
   c. Hydrogen Sulfide detection equipment will be in operation prior to spud and throughout the entire drilling process until total depth is reached. Breathing equipment will be on location prior to spud and until total depth is reached.

8. **Logging, Coring, and Testing Program:**
   Gamma Ray / Neutron – Surface to TD (8100')
   Spectral Gamma Ray / Density / Resistivity / Sonic – Surface casing to TD (8100')
   Image - ~6700' to TD (8100')
   Mud Loggers – Surface casing to TD (8100')

9. **Potential Hazards:**
   No abnormal pressures or temperatures are expected. If H2S is encountered, the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 3,204 psi and estimated BHT 110 degrees. H2S monitoring equipment will be on location 24/7 during drilling operations.

10. **Anticipated Starting Date and Duration of Operations:**
    a. Location construction will begin after the BLM and NMOCD have approved the APD. Anticipated spud date will be as soon after approval as rig is available. Move in operations and drilling is expected to take 15 days.
    b. If production casing is run, an additional 30 days will be required to complete well and construct surface facilities and/or lay flow lines in order to place the well on production.

Elliott Federal #4
Sandridge E&P, LLC
30-025-40487
April 24, 2012
Conditions of Approval

Summary of Current Status:

- Well is approved to drill.
- Current casing program:
  - 14" 50# Conductor'
  - 8-5/8" 24# J-55 STC at 1640'
  - 4-1/2" 11.6# L-80 LTC at 7900' (revised in this sundry)
- Wentz; Abo

Current Sundry Requests:

Sandridge E&P is requesting:

1. The production casing be revised for 5-1/2" 17# LTC L-80.
2. Cement volumes be revised to meet excess of 25%
3. Sundry also includes casing point of 1640' for surface casing revised to meet the Conditions of Approval from BLM, along with the corresponding revision needed to the calculated cement lead slurry volume.

Conditions of Approval:

Substitution of 5-1/2" 17# L-80 LTC is approved.

Cement volume will require increase, since current calculated excess is 24%.

TMM 04/24/2012