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AUG 29 2012

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Form 3160-5
(September 2001)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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 Expl. & Prod., LLC

9. API Well No.
30-025-40487

3a. Address
123 Robert S. Kerr Ave., 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, Sec 9 T21S R38E

11. County or Parish, State
Lea Co., NM

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 **Completion proced. and possible cement squeeze**
	☐ 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.)

SandRidge Expl. & Prod., LLC respectfully requests to perform the attached procedure. The procedure includes monitoring 5 1/2"& 8 5/8" annulus during frac treatments and notes to squeeze if communication is observed during the frac which may occur due to cement not circulating to surface. Cement did not circulate on account of a severe hole "washout" up hole near the bottom of the 8 5/8" surface casing. SandRidge calculated more than adequate cement to normally circulate to surface but the "washout" allowed cement to only reach 410' inside the 8 5/8" surface casing which we believe should still provide hydraulic seal from normal well issues or the frac job.

Thank you for your consideration of our proposal.

Best Regards,

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVED
AUG 13 2012
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

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

Signature Date **08/08/2012**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by _____ Title _____ 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

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)

Well name: **Elliott Federal #4**

Field.	McElvain	
State, County	New Mexico,Lea	
Location.	Section 9, TWP 21S RNG 38E	
TD	8,083'	
PBTD	7,982'	
TOC	TOC @ 410' by CBL 7/26/12	
KB	3,578'	
GL	3,565'	
Wellhead	Larkin Head	
Misc info	5 5" x OH annular fluid	10 20 ppg Drilling Fluid
	5 5" casing fluid	2% KCL Water
	BHT	114 °F at 7703'

Engineer in Charge. Torrey Wetsel Office: 405-429-6429, Cell. 405-365-6529, twetsel@sandridgeenergy com

CSG	OD	ID	Drift	GRADE	THD	WT/FT	TOP	BTM	# JTS	BIT SZE	DEPTH	SXS	Burst	Collapse
Surface	8 625"	8 097"	7 972"	J-55	ST&C	24 00#	0'	1,640'	39	12 250"	0'	850	2,950	1,370
Prod	5 500"	4 892"	4 767"	L-80	LT&C	17 00#	0'	8,072'	195	7 875"	8075'	1400	7,740	6,290
Production Tubing	2 875"	2 441"	2 347"	J-55	8 RD	0 00#	0'	00'	0	-	-	-	7,260	7,680

80% of 5-1/2" casing burst **6,192 psig**
80% of 2-7/8" tubing **5,808 psig**
80% of 2-7/8" N-80 Workstring **8,453 psig**

PURPOSE The purpose of this completion procedure is to complete and test the Lower and Upper Wichita Albany and Lower Clearfork in 4 Stages as detailed below All stages to be stimulated via 5-1/2" casing.

LOG INFORMATION
OPEN HOLE LOGS Weatherford dated 18 JULY 2012
CASED HOLE LOGS **GRAY CBL-GR-CCL ran 26 July 2012**
CORRELATION **Correlation of CBL and open hole logs will have to be done on location NOTE** Perforations were selected off of the open hole logs

STAGE 1: LOWER ABO (7440'-7450' & 7514'-7522' OA)

1 MIRU flow/swab testing tank and hard-line to the wellhead ND wellhead NU 10,000 psi dual frac valves

2. MIRU GRAY WL **Correlate to GR/CCL/CBL dated 26 July 2012** and PU & RIH with 5-1/2" Gauge Ring and Junk Basket to PBTD PU & RIH with Dump Bailer and spot 3 bbls. 20% NEFE HCL from ~7522' to ~7400' PU and RIH with 3-3/8" TAG system - **OWEN HERO SDP-3375-411NT3 charges (25 gram, 0 42" entry hole)** Correlate to GR/CCL/CBL and perforate the **Lower Abo** as follows (with pump in sub valve(s) and 5-1/2" casing wing valves shut in)

STAGE 1

LOWER ABO

Top Perf	Base Perf	Phasing	Feet	SPF	Total holes
7 440'	7,450'	60°	10'	6	60
7,514'	7,522'	60°	8'	6	48
		Totals	**18'**		**108 shots**

3. PU & RIH with 3-3/8" X 6' "stick" GAS GUN **solid propellant stimulation system** Correlate to Gray Wireline CBL and stimulate the **Lower Abo perforated interal from 7,514'-7,620' PU & RIH with 3-3/8" X 4' "stick" GAS GUN solid propellant stimulation system. Correllate to Gray Wireline CBL and stimulate the Lower Abo perforated interal from 7,440'-7,446'.**

4 **Add anti-emulsion chemicals supplied by Smart Chemical Services to frac tanks prior to loading acid** MIRU stimulation service company Hold safety meeting and test frac stack and lines Initiate breakdown by pumping treated 10# Brine Water down casing Perform acid fracture stimulation treatment of the Lower Wichita Albany per the attached pumping schedule via 5-1/2" casing at 30 bpm up to a maximum **STP = 6200 psig.** Tag acid with Ir-132 Radioactive Tracer Special Note Monitor the 5-1/2" x 8-5/8" annulus with electronic pressure gauge and set a Pop-Off valve to go off at 750 psi If communication is encountered on annulus during frac treatment, shut-down and notify OKC Operations Engineer and BLM Carlsbad, NM Field Office before proceeding

Record ISIP, 5 min, 10 min, 15 min 20 min

5 Proceed to complete Stage 2

STAGE 2: UPPER ABO (7340'-7350' OA)

6 PU & RIH with a **CIBP and set at 7430 ft** PU & RIH with Dump Bailer and spot 3 bbls 20% NEFE HCL from ~7350' to ~7220' PU and RIH with 3-3/8" TAG system - **OWEN HERO SDP-3375-411NT3 charges (25 gram, 0 42" entry hole)** Correlate to GR/CCL/CBL and perforate the **Upper Abo** as follows (with pump in sub valve(s) and 5-1/2" casing wing valves shut in)

STAGE 2

UPPER ABO

Top Perf	Base Perf	Phasing	Feet	SPF	Total holes
7,340'	7,350'	60°	10'	6	60
		Totals	**10'**		**60 shots**

7 PU & RIH with 3-3/8" X 6' "stick" GAS GUN **solid propellant stimulation system** Correlate to Gray Wireline CBL and stimulate the Upper Abo **perforated interal from 7,340'-7,346'.**

8 **Add anti-emulsion chemicals supplied by Smart Chemical Services to frac tanks prior to loading acid** MIRU stimulation service company Hold safety meeting and test frac stack and lines Initiate breakdown by pumping treated 10# Brine Water down casing Perform acid fracture stimulation treatment of the Wichita Albany per the attached pumping schedule via 5-1/2" casing at 25 bpm **up to a maximum STP = 6200 psig** Tag acid with Sc-46 Radioactive Tracer Special Note Monitor the 5-1/2" x 8-5/8" annulus with electronic pressure gauge and set a Pop-Off valve to go off at 750 psi If communication is encountered on annulus during frac treatment and the Popp-Off valve goes off, Shut-Down and notify OKC Operations Engineer and BLM Carlsbad, NM Field Office before proceeding

Record ISIP, 5 min, 10 min, 15 min. 20 min
Close frac valves and RD stimulation company

9 Remain SI at least 4 hours or overnight for acid to react Flow well down on 16/64" ck until well dies. ND and release frac valves.

BRIDGE PLUG DRILL OUT AND RA TRACER SURVEY

10 MI, unload, rack and tally 2-7/8" EUE 8rd 6 5 ppf N80 WS PU and RIH with new 4-3/4" mill & DC's on 2-7/8" WS & tag top of CIBP @ 7430' RU power swivel and reverse unit Establish circulation down annulus and up tubing If cannot reverse circulate, RU Foam Unit to drill out CIBP at 7430' Clean out to PBTD at 7982' and circulate clean POH and LD WS and bit & DC's.

SUBMIT RA TARCER TO BLM

11. MIRU Slickline Unit PU & RIH withthe SPECTRA Log RA tracer survey and run post frac height log across the Lower and Upper Abo intervals from PBTD @ 7982 ft to ~7000 ft Submit RA Tracer log results to BLM Carlsbad, NM Field Office for approval to proceed with production

PUMP TEST LOWER AND UPPER ABO STAGE 1 AND 2

See COA

See COA

12 Put well on pump test to evaluate the production performance of the Lower and Upper Abo Stage 1 and 2 intervals as follows MI, rack & talley new 2-7/8" EUE 8 rd J-55 6 5 ppf production tubing MU and TIH with production BHA (no bull plugged mud anchor; will run pump with 10' dip tube inside casing) on tubing, Want SN @ ~ 7572' and TAC @ ~ 7140' Note string details on report and in WellView ND stripping head and BOP, set TAC in 15,000# tension, NU 3K WH Flange, land tubing with stripper rubber, tubing slips & bowl, compression plate, packing, and hammer cap **RIH with rods string per attached XROD design DO NOT RUN ANY GUIDED RODS** Be sure to note in Well View and on the daily report the rod manufacturer and grade RU horse head. RU KT, load tubing and test pump to 500 psi with FW RDMO KT RD WSU and POP Report no less than 10 days of production in Well View ***NOTE Once all stimulation flow back water is recovered, obatin a formation water sample and submit to Tech Management for testing and analysis. Have lab analysis results sent to OKC office Operations Engineer**

SUBMIT REQUEST TO COMMINGLE ABO AND DRINKARD TO BLM

13. Once adequate production data has been acquired on the Abo (approx. 15 days) **Submit a sundry notice to BLM C-107A Request Downhole Commingle Abo and Drinkard intervals. Once approval to Commingle Abo and Drinkard intervals has been received from BLM, proceed to STEP 14 to complete the Drinkard**

STAGE 3: DRINKARD (6785'-6795')

14 MIRU WSU POH with pump and rods SB same NU BOP's & stripper head Unset TAC and POH and SB production tubing

15 MIRU GRAY WL with full lubricator, pump-in sub, and pack off **PU and RIH with CIBP and set same at +/-7300'** RU KT and load casing with treated 2% KCL water and test casing and CBP to 3000 psi surface pressure PU & RIH with Dump Bailer and spot 3 bbls 20% NEFE HCL from ~6795' to ~6667' POOH with setting tool PU and RIH with 3-3/8" TAG system - **OWEN HERO SDP-3375-411NT3 charges (25 gram, 0.42" entry hole)** Correlate to Gray Wireline CBL and perforate the Drinkard as follows (with pump in sub valve(s) and 5-1/2" casing wing valves shut in)

STAGE 3 **DRINKDARD**

Top Perf	Base Perf	Phasing	Feet	SPF	Total holes
6,785'	6 795'	60°	10'	6	60
		Totals	**10'**		**60 shots**

16. PU & RIH with **3-3/8" X 6' "stick" GAS GUN solid propellant stimulation system** Correllate to Gray Wireline CBL and stimulate the Drinkard **perforated interval 6785'-6791'.**

17 Add anti-emulsion chemicals supplied by Smart Chemical Services to frac tanks prior to loading acid MIRU stimulation service company Hold safety meeting and pressure test frac stack and lines Initiate breakdown by pumping treated 10# Brine Water down casing Perform acid fracture stimulation of the **Drinkard** interval per the attached pumping schedule via 5-1/2" casing at **25 bpm up to a maximum STP = 6200 psig.** Tag acid with Sc-46 Radioactive Tracer Special Note Monitor the 5-1/2" x 8-5/8" annulus with electronic pressure gauge and set a Pop-Off valve to go off at 750 psi. If communication is encountered on annulus during frac treatment, shut-down and notify OKC Operations Engineer and BLM Carsbad, NM Field Office before proceeding

Record ISIP, 5 min, 10 min, 15 min. 20 min
Close frac valves and RD stimulation company

18 Remain SI at least 4 hours or overnight for acid to react. Flow well down on 16/64" ck until well dies ND and release frac valves.

BRIDGE PLUG DRILL OUT AND RA TRACER SURVEY

19. NU BOP NU stripper head PU and RIH with new 4-3/4" mill & DC's on 2-7/8" WS & tag CIBP @ 7300' RU power swivel and reverse unit Attempt to reverse circulate It cannot reverse circulate, RU Foam Unit to drill out CIBP at 7300' Clean out to PBTD at 7982' and circulate clean. POH and LD WS and bit & DC's

20. MIRU Slickline Unit. PU & RIH with the SPECTRA Log RA tracer survey and run post frac height log across the Abo and Drinkard intervals from PBTD @ 7982 ft to ~6500 ft Submit RA Tracer log results to BLM Carlsbad, NM Field Office for approval to proceed with production.

COMMINGLE ABO AND DRINKARD

21 PU and TIH with production BHA **(no bull plugged mud anchor; will run pump with 10' dip tube inside casing)** on tubing, Want SN @ 7572' and TAC @ 6585' Note string details on report and in WellView ND stripping head and BOP, set TAC in 15,000# tension, NU 3K WH Flange, land tubing with stripper rubber, tubing slips & bowl, compression plate, packing, and hammer cap RIH with rods string per attached XROD design Be sure to note in Well View and on the daily report the rod manufacturer and grade RU horse head RU KT, load tubing and test pump to 500 psi with FW RDMO KT RD WSU and POP Report no less than 15 days of production in Well View

See COA

Provide Tracer String To BLM

See COA

CONDITIONS OF APPROVAL

Sundry dated 8/8/2012

OPERATOR'S NAME:	SANDRIDGE EXPLORATION & PRODUCTION
LEASE NO.:	NMLC69048
WELL NAME & NO.:	4 ELLIOT FEDERAL
SURFACE HOLE FOOTAGE:	1285' FSL & 580' FEL
LOCATION:	Section 9, T.21 S., R.38 E., NMPM
COUNTY:	Lea County, New Mexico

1. **Surface disturbance beyond the existing pad must have prior approval.**

2. **Closed loop system required.**

3. **3000 (3M) BOP to be used. All blowout preventer (BOP) and related equipment (BOPE) shall comply with reasonable well control requirements. A two ram system with a blind ram and a pipe ram designed for the size of the work string shall be adequate. Tapered work strings will require an additional pipe ram. The manifold shall comply with Onshore Oil and Gas Order #2 Attachment I (2M Diagrams of Choke Manifold Equipment). The accumulator system shall have an immediately available power source to close the rams and retain 200 psi above pre-charge. The pre-charge test shall follow requirements in Onshore Order #2.**

4. **Hydrogen Sulfide has been reported in this section As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.**

5. **The operator is required to <u>TAG the FRAC</u> stages with a tracer and run a tracer survey to ensure the injected Prop is not placed out of zone. Report results to BLM.**

6. **The operator shall set their <u>Pop-off valve to be set to go off at 750 psi</u>. If communication is encountered on the annulus during the FRAC treatment and the pop-off valve goes off <u>shut down and the BLM shall be notified before proceeding.</u> "Provide frac job documentation to BLM"**

7. **Subsequent sundry with well test and wellbore schematic required.**

8. **Work to be completed in 90 days.**

NOTE to Operator the Original APD was approved for the Wantz:Abo formation not the Drinkard. The operator does not have approval to commingle the Drinkard with the Abo.

The operator shall submit a sundry notice to the BLM to requesting approval to Down hole Commingle the Abo and Drinkard formations with a copy of the C-107A and test allocations; <u>before putting well on production.</u>

EGF 081312