

ksharp@sandridgeenergy.com
e-mail Address



October 6, 2011

Mr. David Brooks
New Mexico Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe NM 87505

Re: Elliott Federal #4
Sec 9, T21S, R38E
Lea County, New Mexico

Dear Sir:

Please find attached Form 3160-3, Federal Application for Permit to Drill, which we have prepared for submittal to the BLM, as well as an Administrative Application Checklist for the above captioned well. I believe it contains all information required for review and approval of a non-standard location. SandRidge is the offset operator for this well location; therefore, no notifications will be required.

Thank you in advance for your time and consideration of our NSL approval request. If additional information is required, please contact me.

Sincerely,

A handwritten signature in cursive script that reads "Karen Sharp".

Karen Sharp
Sr. Regulatory Analyst

(405) 429-5745
ksharp@sandridgeenergy.com

attachments

RECEIVED OCT 10 2011 OCT - 7 P 05

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. 1360
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 SandRidge E&P, LLC		7. If Unit or CA Agreement, Name and No.
3a. Address 123 Robert S. Kerr Ave. OKC OK 73102-6406	3b. Phone No. (include area code) 405-429-5500	8. Lease Name and Well No. Elliott Federal #4
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 1285' FSL, 580' FEL, Lot 4 At proposed prod. zone same		9. API Well No. 30-025-
14. Distance in miles and direction from nearest town or post office* Approximately 3 miles NE of Eunice, NM		10. Field and Pool, or Exploratory Wantz;Abo
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease 170.69	11. Sec., T. R. M. or Blk. and Survey or Area Sec 9, T21S, R38E
18. Distance from proposed location* to nearest well, drilling, completed, 1360' applied for, on this lease, ft.	19. Proposed Depth 8100	12. County or Parish Lea
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3565 GL	22. Approximate date work will start* 11/01/2011	13. State NM
23. Estimated duration 15 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) Linda Guthrie	Date 10/01/2011
Title Regulatory Manager e-mail: lguthrie@sandridgeenergy.com		
Approved by (Signature)	Name (Printed/Typed)	Date
Title	Office	

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.

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)

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III
1000 RIO BRAZOS RD., AZTEC, NM 87410

DISTRICT IV
11885 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised July 16, 2010
Submit to Appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-	Pool Code 62700	Pool Name Wantz; Abo
Property Code 38680	Property Name ELLIOTT Federal	Well Number 4
OGRID No. 270265	Operator Name SANDRIDGE E & P, LLC	Elevation 3565'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	9	21-S	38-E		1285	SOUTH	580	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 45.32	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

GEODETIC COORDINATES
NAD 27 NME

SURFACE LOCATION
Y=544185.6 N
X=890746.3 E

LAT.=32.489695° N
LONG.=103.066102° W

DETAIL

OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Karen Sharp 8-1-11
Signature Date

Karen Sharp
Printed Name

ksharp@sandridgeenergy.com
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

MAY 31, 2011

Date of Survey

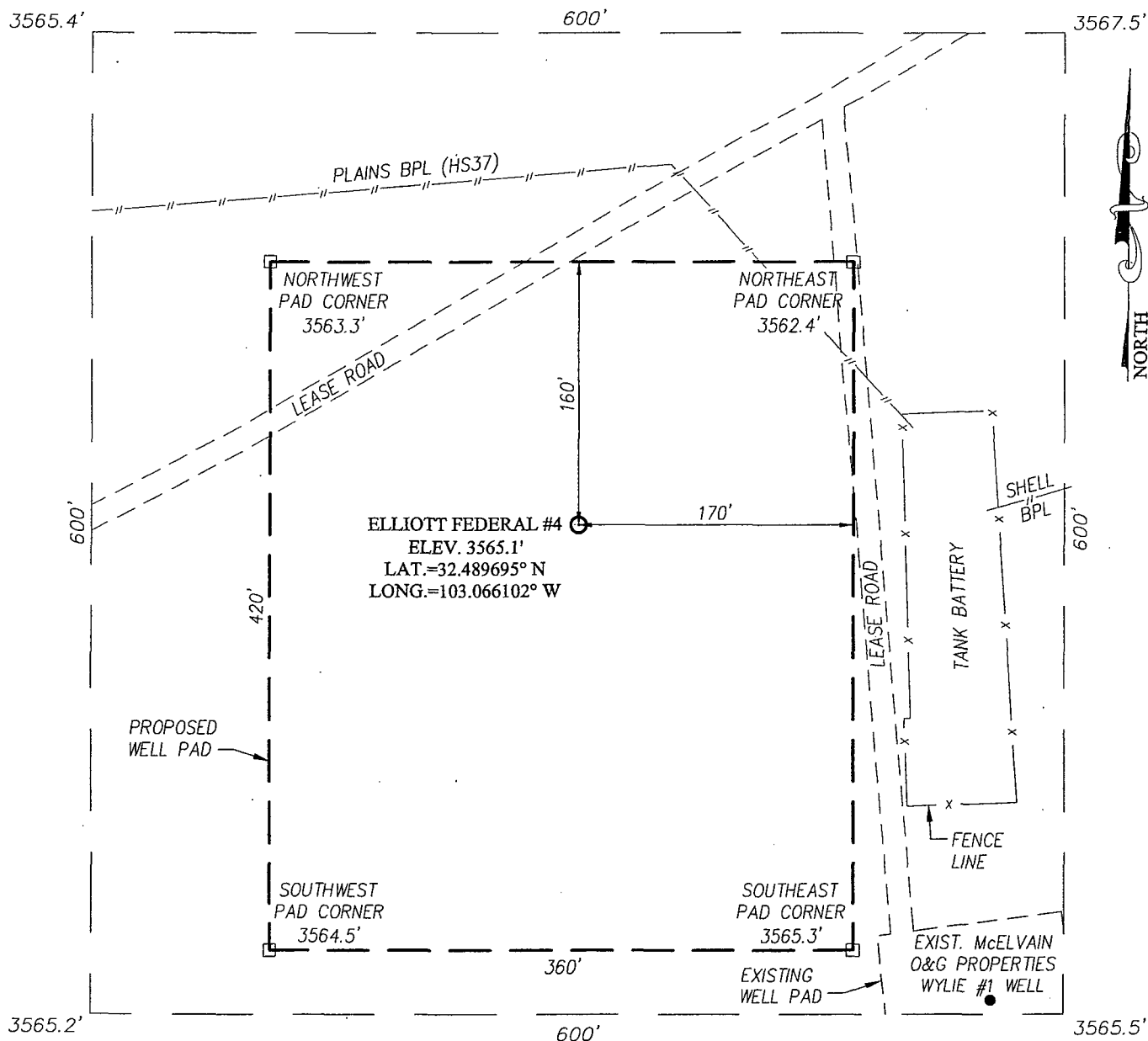
Signature & Seal of Professional Surveyor:

Certificate Number... Gary G. Eidson 12641
Richard J. Eidson 3239

DSS JWSC W.O.: 11.11.1210

SECTION 9, TOWNSHIP 21 SOUTH, RANGE 38 EAST, N.M.P.M.

LEA COUNTY NEW MEXICO



DIRECTIONS TO LOCATION

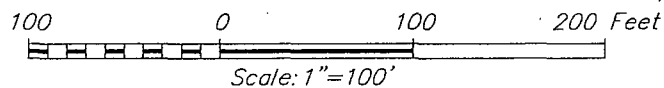
FROM THE INTERSECTION OF ST. HWY. #207 AND ST. HWY. #18, GO SOUTH ON ST. HWY. #18 APPROX. 1.3 MILES. TURN LEFT AND GO EAST APPROX. 0.3 MILES. TURN LEFT AND GO NORTH APPROX. 0.5 MILES. TURN RIGHT AND GO EAST APPROX. 2.7 MILES. TURN RIGHT AND GO SOUTH APPROX. 0.5 MILES. TURN RIGHT AND GO SOUTHWEST APPROX. 0.4 MILES. TURN LEFT AND GO SOUTH APPROX. 0.9 MILES. TURN LEFT AND GO NORTHEAST APPROX. 0.7 MILES. THIS LOCATION STAKE IS APPROX. 150 FEET SOUTHEAST OF ROAD.



PROVIDING SURVEYING SERVICES
SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

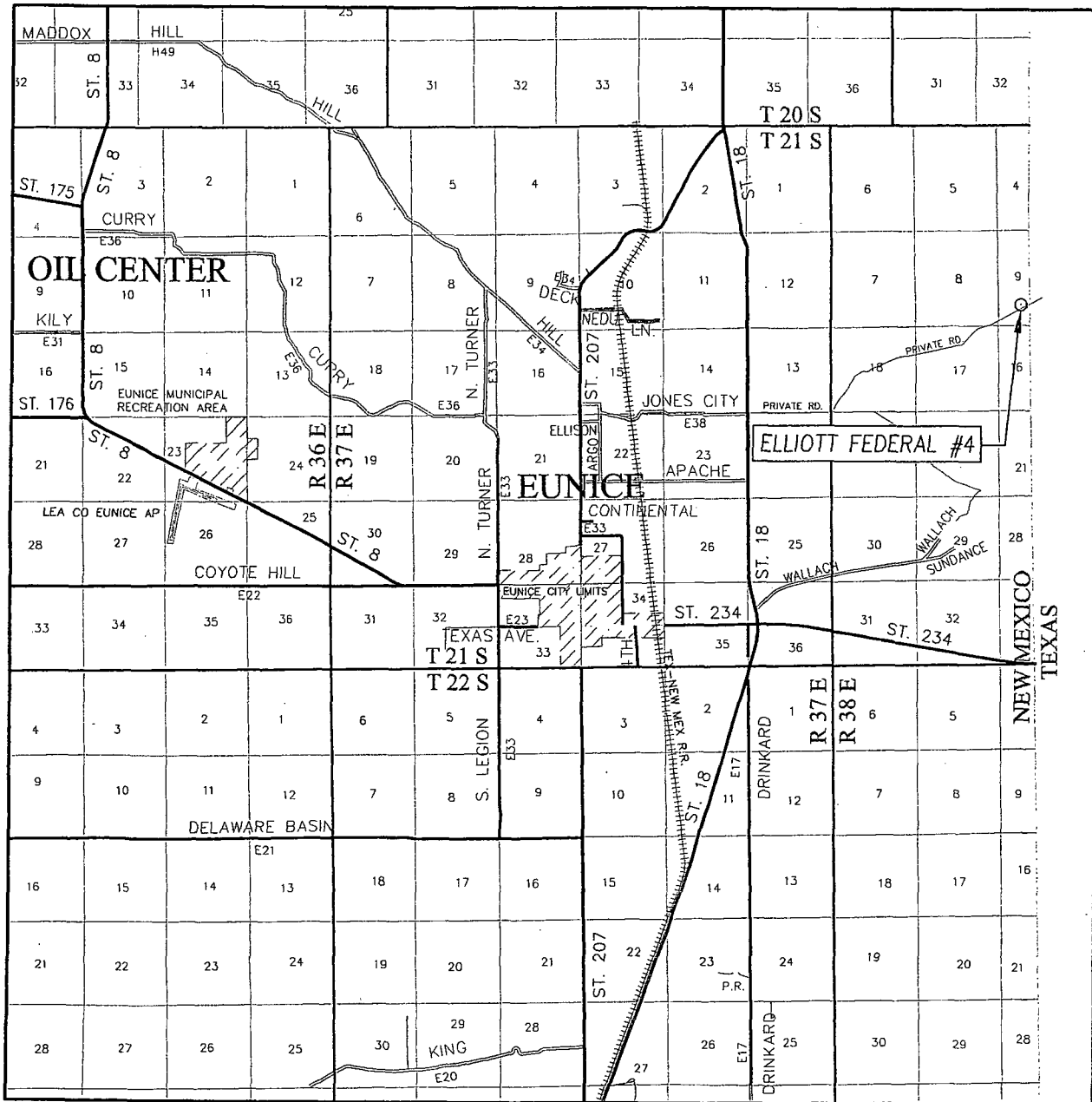


SANDRIDGE E & P, LLC

ELLIOTT FEDERAL #4 WELL
LOCATED 1285 FEET FROM THE SOUTH LINE
AND 580 FEET FROM THE EAST LINE OF SECTION 9,
TOWNSHIP 21 SOUTH, RANGE 38 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO

Survey Date: 5/31/11		Sheet 1 of 1 Sheets	
W.O. Number: 11.13.1564		Dr. By: DSS	Rev 1: 7/16/11
Date: 6/10/11	Rel. W.O.: 11111210	11131564	Scale: 1"=100'

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 9 TWP. 21-S. RGE. 38-E

SURVEY N.M.P.M.

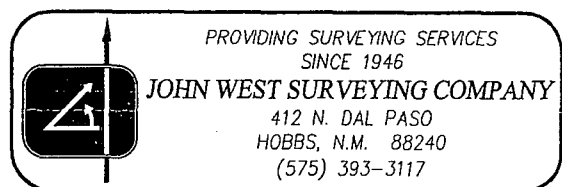
COUNTY LEA STATE NEW MEXICO

DESCRIPTION 1285' FSL & 580' FEL

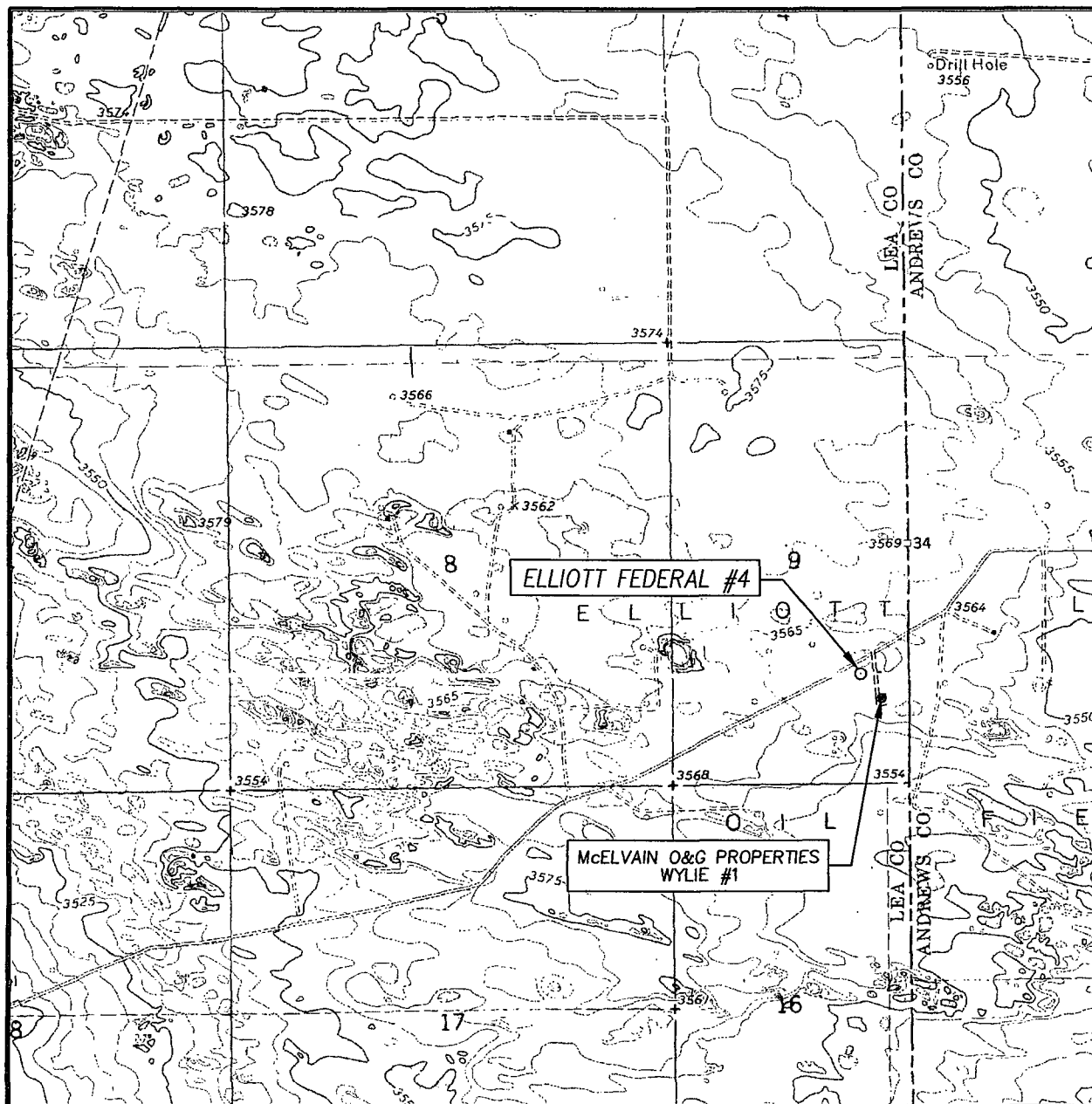
ELEVATION 3565'

OPERATOR SANDRIDGE E & P, LLC

LEASE ELLIOTT FEDERAL



LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

SEC. 9 TWP. 21-S RGE. 38-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 1285' FSL & 580' FEL

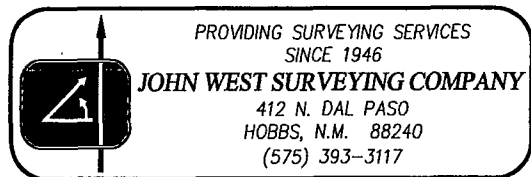
ELEVATION 3565'

OPERATOR SANDRIDGE E & P, LLC

LEASE ELLIOTT FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
EUNICE NE, N.M.

CONTOUR INTERVAL:
EUNICE NE, N.M. - 5'
HOBBS SE, N.M. - 5'



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. Blinbry	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 @ 1525' 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:

<u>Hole Size</u>	<u>Hole Interval</u>	<u>OD Csg</u>	<u>Casing Interval</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>
17	0-80'	14	0-80'	50#		
12 -1/4"	80-1525'	8-5/8"	0-1525'	24#	STC	J-55
7-7/8"	1525-8100'	4-1/2"	0-8100'	11.6#	LTC	L-80

Design Parameter Factors:

<u>Casing Size</u>	<u>Collapse Design Factor</u>	<u>Burst Design Factor</u>	<u>Tension Design Factor</u>
8-5/8"	1.95	4.20	10.68
4-1/2"	1.55	1.85	2.31

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 4 1/2" L-80 11.6# 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: 500 sacks (100% excess) Class C (65:35) Poz Cement ECONOCEM™ System +3% lbm/sk Poly-E-Flake, 12.8 ppg, Yield: 1.86 ft³/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 ft³/sk, Mixing Fluid 6.37 gal/sk. **TOC @ surface.**

c. 4 1/2" Production

Lead: 500 sacks (25% excess) Class H (50:50) Poz EXTENDACEM™ System + 5 #/sk Gilsonite, 12.2 ppg, Yield 2.26 ft³/sk, Mixing fluid:12.07 gal/sk.

Tail: 890 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 ft³/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 - 1,525'	12-1/4"	8-5/8"	8.6 – 9.4	31 – 33	NC
1,525' - 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' – TD	7- 7/8"	4-1/2"	9.9-10	32 – 38	10 – 6 cc

Interval Discussion:

INTERVAL	DAYS	WEIGHT	VISCOSITY	API FILTRATE	LCM	pH
0 – 1,525'	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
1,525' – 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 during 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'– TD	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

Spectral Gamma Ray / Density / Resistivity / Sonic – Surface casing to TD

Image - ~6700' to TD

Mud Loggers – Surface casing to TD

9. Potential Hazards:

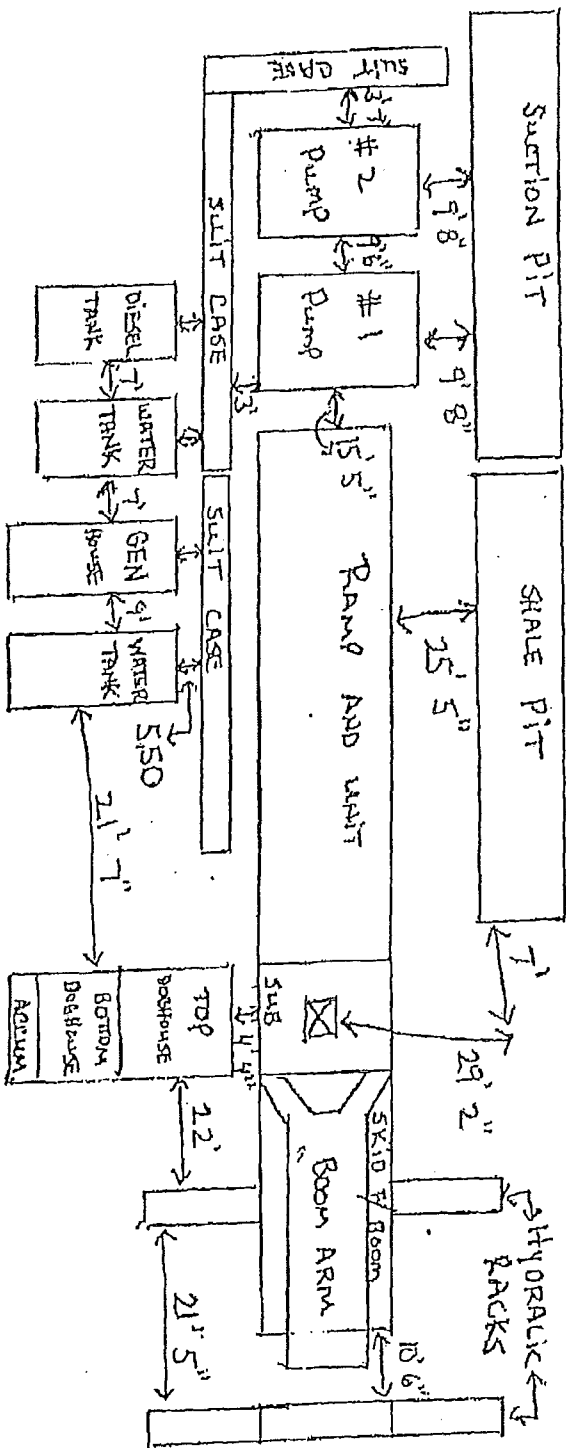
No abnormal pressures or temperatures are expected. If H₂S is encountered, the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this 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:

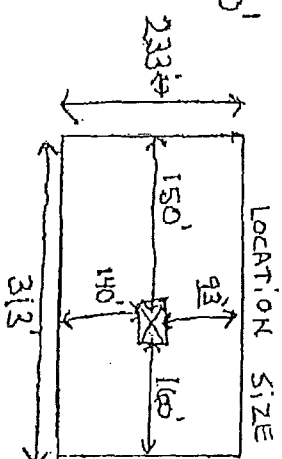
- a. Location construction will begin after the BLM and NMOCD have approved the APD. Anticipated spud date will be as soon after approval as rig is available. Move in operations and drilling is expected to take 15 days.
- b. If production casing is run, an additional 30 days will be required to complete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

FIG #17

Reserve Pits should be added as needed



CENTER OF HOLE TO BACK OF STEEL PITS 40'
 CENTER OF HOLE TO END OF ACCUMULATOR 61'
 CENTER OF HOLE TO END OF WAIR RAMP 58'
 CENTER OF HOLE TO BACK OF LAST PIPE RACK 48'
 CENTER OF HOLE TO END OF ROOM - 44'
 CENTER OF HOLE TO END OF SKID FOR ROOM - 34'



LOCATION SIZE
FOR CLOSED
LOOP SYSTEM

Lariat Services, Inc. – Rig #17 Inventory

APPROXIMATE AGE:

Built 2005

POWERED DRAW WORKS:

Rt 400 Single Drum Drawworks Lebus Grooved for 1 1/8" Line 42" x 10" Brakes with 424-400,000# Tension Torque Brake.

Powered by 630 HP Series 60 Detroit Engine with an Allison 6061 Transmission to 500 HP Right Angle Gear Box.

MAST & SUBSTRUCTURE:

International Derrick Service 67' 500,000 GNC Mast Mounted on a 3 Axle Carrier with Boatskid 12' Substructure with Pipe Handling Boom Arm.

POWERED PUMPS:

- (1) RSF-1000 Powered by Detroit Series 2000 Diesel Engine.
- (1) EMSCO DB-550 Powered by Caterpillar 3406 Diesel Engine.

TOP HEAD DRIVE AND POWER UNIT:

Top Drive system XK250-24K Powered by Detroit Series 60 / 350 HP @ 1200 RPM with Sunstrawn Hydraulic Pump. Maximum Circulating Pressure 5000 PSI with Torque Capacity of 24,000 Ft. lbs. Max. RPM 150.

CROWN AND TRAVELING CARRIER FOR TOP HEAD DRIVE:

Crown is Designed for 8 Line String Up. Consisting of (8) 20" x 1 1/8" Sheaves. Banjo Sheaves are 1 1/8" X 250 Ton.

WELL CONTROL EQUIPMENT:

Koomey 8 Bottle 5 Station Accumulator.
5000 # Choke Manifold.
11" x 3000 # Double Shaffer B.O.P.

GENERATOR HOUSE:

10' x 48' Skid Mounted House.
(2) 380 KW Marathon Generators Powered by (2) Detroit Series 60 550 HP Diesel Engines.
Sullivan Palettek Rotary Screw Compressor.

MUD SYSTEM:

(2) 10' W x 5' H x 40' L with 10' Porch on Each End 400 BBL Each with (4) 5" x 6" Centrifugal Pumps with 50 HP, Electric motors, Linear Shale Shaker. (2) Cone Desander (12) Cone Desilter and Mud Hopper.

TOOLPUSHER'S HOUSE:

8' W x 40' L Idle Time Trailer.

TOP DOGHOUSE:

8' W x 20' L with 4' Porch.

BOTTOM DOG HOUSE:

25' L x 8' W with 5 Station Accumulator Mounted on Front.

WATER TANK:

8' W x 8' H x 40' L with Lubster Mounted on One End with (2) 2" X 3" Centrifugal Pumps with 20 HP Electric Motors.
Water Tank 500 BBL Cap.

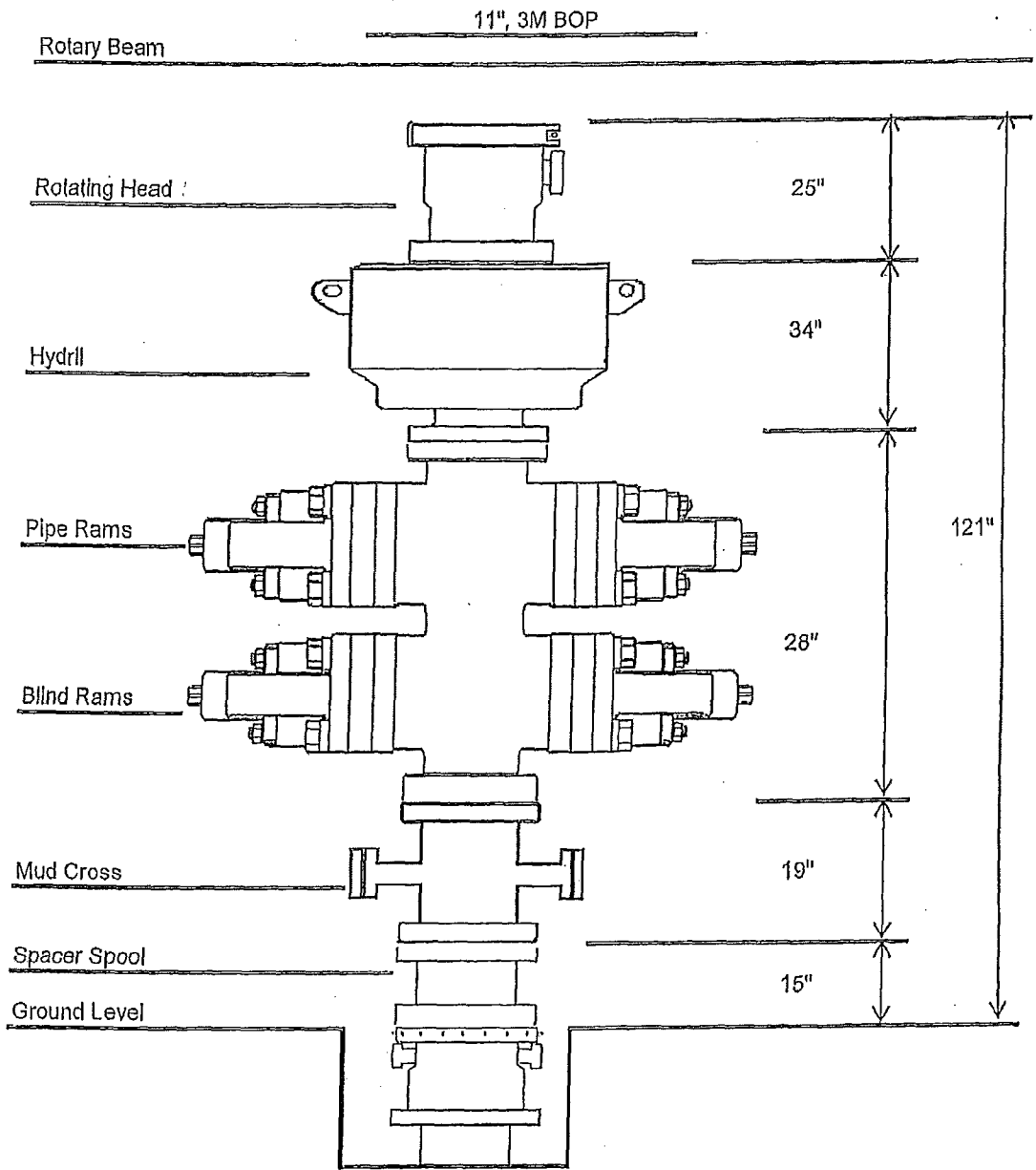
HANDLING TOOLS AND AUXILIARY EQUIPMENT:

OWI 1000 Hydraulic Wireline Machine.
U.S. Oil Tools.
Air Slips.
(2) Braden Hydraulic 3/8" Line Winches.

Lariat Services, Inc. – Rig #17 Inventory

- (1) 450 Gallon Day Tank on Unit.
- (1) 450 Gallon Hydraulic Tank.
- (3) Sultcases (1) 32' x 3' x 1" – (1) 40' x 3' x 1" - (1) 34' x 3' x 2".
- (1) Diesel Tank Skid Mounted 38' L x 7' (Tank is 6' x 6' x 14').
- (1) Junk Box 5' x 8" x 20'.
- (1) Auto-Drill Automatic Driller.
- Type "D" Weight Indicator with E-80 Sensor.
- Deadline Anchor Hercules Type HA 118T.
- Crown Protection System.
- (1) Pre-Mix Pit 7' W x 7' H x 28' L with 5" x 6" Mixing Pump 100 HP Electric Motor.
- (1) 500 BBL Storage Tank.

Lariat 17 BOP

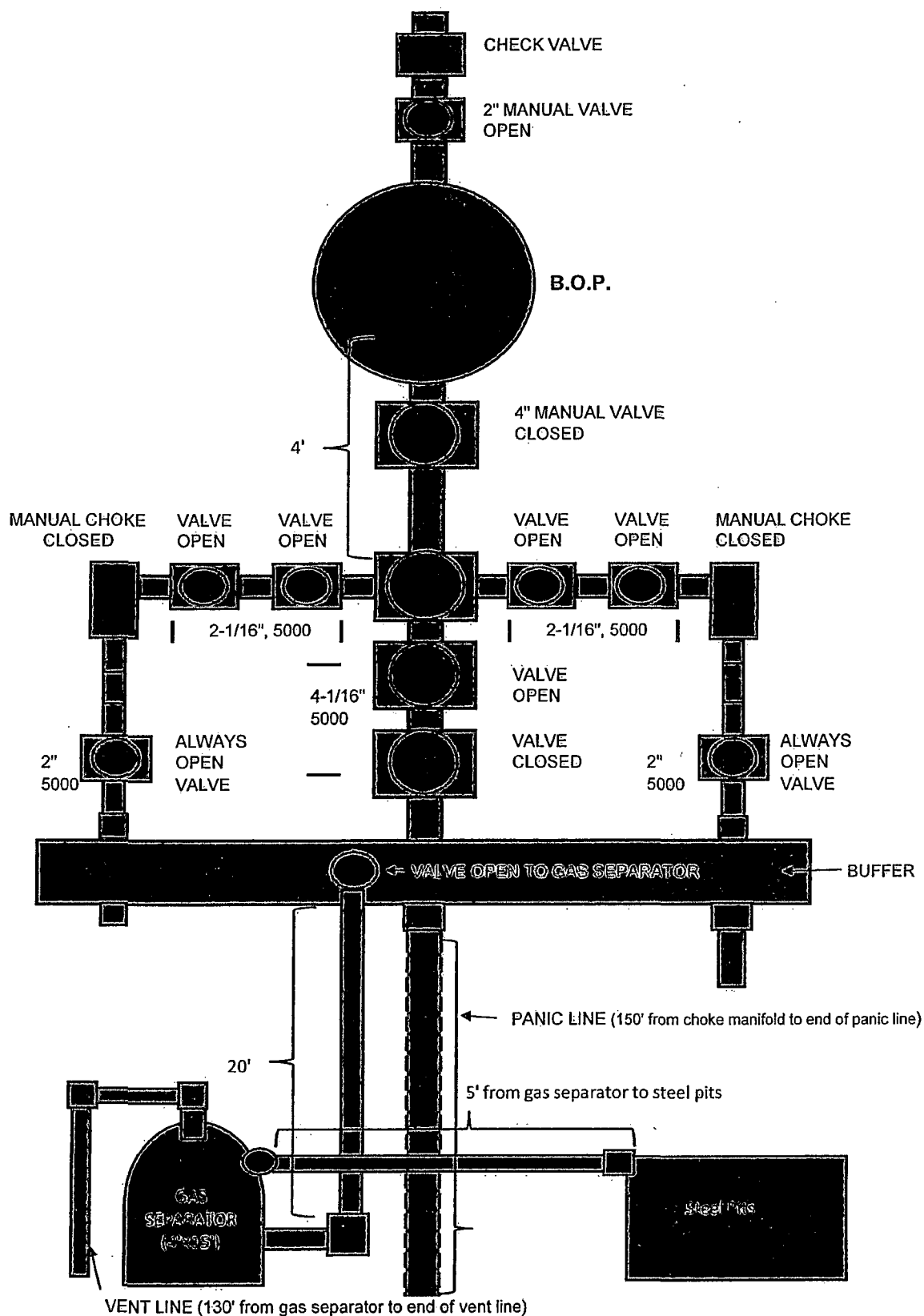


Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTERS
SandRidge Exploration and Production, LLC
Elliott Federal #4

Location: 1285' FSL, 580' FEL, Section 9,T21S, R38E, Lea County, New Mexico

1. Drilling nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.
2. Wear ring will be properly installed in head.
3. Blowout preventer and all associated fittings will be in operable condition to withstand a minimum 3000 psi working pressure.
4. All fittings will be flanged.
5. A full bore safety valve tested to a minimum of 3000 psi WP with proper thread connections will be available on the rotary rig floor at all times.
6. All choke lines will be anchored to prevent movement.
7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.
8. Will maintain a Kelly cock attached to the Kelly.
9. Hand wheels and wrenches will be properly installed and tested for safe operations.
10. Hydraulic floor control for blowout preventer will be location as near in proximity to the driller's controls as practical.
11. All BOP equipment will meet API standards and include a minimum 40-gallon accumulator having two independent means of power to initiate closing operations.

Lariat 17 choke Manifold



SURFACE USE PLAN

SandRidge Exploration and Production, LLC

Elliott Federal #4

Location: 1285' FSL, 580' FEL, Lot 4, Sec 9, T21S R38E, Lea County, New Mexico

1. Existing Roads:

- a. The well site and elevation plat for the proposed well are reflected on the well site layout, Form C-102. The well was staked by John West Engineering.
- b. All roads into the location are depicted on the surveyor plats.
- c. Directions to Location: From the intersection St. Hwy #18 and St. Hwy #207, go south on Hwy #18 approximately 1.3 miles. Turn left and go east approximately 0.3 miles. Turn left and go north appx 0.5 miles. Turn right and go East appx 2.7 miles. Turn right and go south appx 0.5 miles. Turn right and go SW appx 0.4 miles. Turn left and go South appx 0.9 miles. Turn left and go NE appx 0.7 miles. This location stake is appx 150' SE of road.
- d. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.
- e. If existing road is shared with other operators, SandRidge will share in its cost to maintain the road as required by the BLM.

2. New or Reconstructed Access Roads: No new roads will be constructed.

3. Location of Existing Wells:

One-mile Radius Plat shows all existing and proposed wells within a one-mile radius of this proposed location. See attached.

4. Location of Existing and/or Proposed Production Facilities:

- a. In the event the well is found productive, the Elliott Federal #4 tank battery will be utilized and the necessary production equipment will be installed at the well site.
- b. If necessary, the well will be operated by means of an electric prime mover.
- c. If the well is productive, rehabilitation plans are as follows:
 - i. A closed-loop system will be utilized.
 - ii. The original topsoil from the well site will be returned to the location. The drill site will then be contoured as close as practical to the original state.

5. Location and Types of Water Supply:

This location will be drilled using a combination of water mud systems (outlined in the Drilling Program). The water will be obtained from commercial water stations in the area and hauled to location by transport truck.

6. Construction Materials:

The caliche utilized for the drilling pad will be from minerals that are located onsite or will be used onsite. If minerals are not available onsite, then an established mineral pit will be used to build the location.

7. Methods of Handling Waste Material:

- a. Drill cuttings will be disposed of in a closed loop system and hauled to CRI Holdings.
- b. All trash, junk and other waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary landfill.
- c. The supplier will pick up salts remaining after completion of well, including broken sacks.
- d. A Porto-john will be provided for the rig crews. This equipment will be properly maintained during well operations and will be removed when all operation are complete.
- e. Remaining drilling fluids will be sent to a closed-loop system. Water produced during completion will be put into a closed-loop system. Oil and condensate produced will be put into a storage tank and sold.
- f. Disposal of fluids to be transported by the following companies:
 1. Parabo Disposal Facility
 2. Controlled Recovery Inc.

8. Ancillary Facilities: No campsite or other facilities will be constructed as a result of this well.

9. Well Site Layout:

- a. The rig layout diagram shows the proposed well site layout with dimensions of the pad layout.
- b. A closed-loop system will be utilized.
- c. If a pit or closed-loop system will be utilized, SandRidge will comply with the NMOCD requirements 19.15.17. and submit form C-144 CLEZ to the appropriate NMOCD District Office. An unapproved copy of the pit permit is provided within this APD.
- d. Topsoil Stockpiling:

Standard practice is topsoil will be pushed to the high side of the location to prevent water from running across location to control erosion. If a cutout is done and there are two or three high sides, we will use those there.

10. Plans for Surface Reclamation

At the conclusion of oil and gas operations, Sandridge Exploration and Production, LLC, will restore the lands to original conditions as nearly as practical in accordance with BLM standards.

11. Surface Ownership

- a. The surface is owned by the US Government and is administered by the Bureau of Land Management. The surface is multiple use with the primary uses of the region for the grazing of livestock and the production of oil and gas.
- b. Roads and surface location will be restored as directed by the BLM.

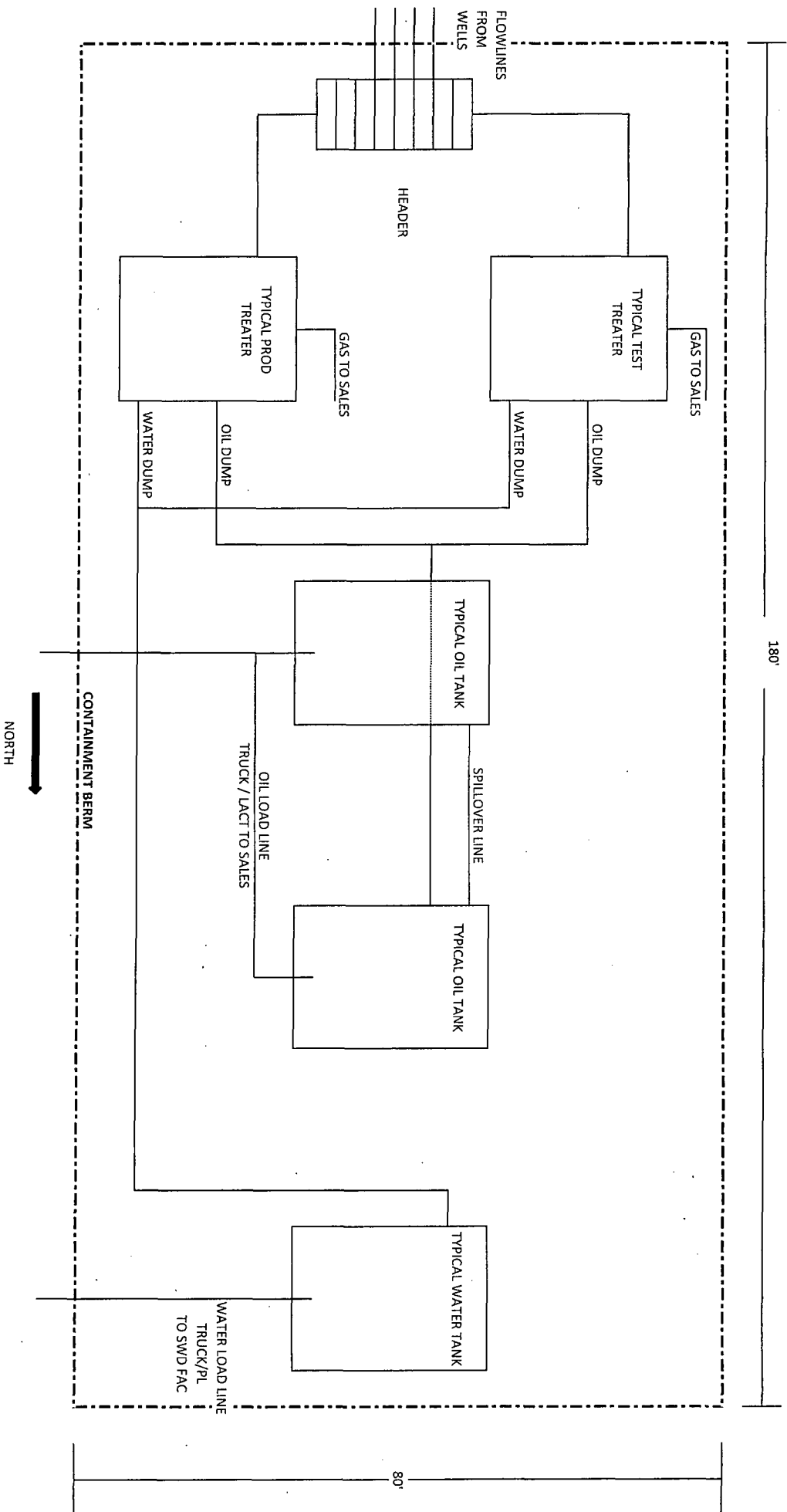
12. Other Information:

- a. The area surrounding the well site is grassland. The topsoil is very sandy in nature. The vegetation is moderately sparse with native prairie grass, sagebrush, yucca and miscellaneous weeds. No wildlife was observed, but it is likely that deer, rabbits, coyotes, and rodents traverse the area.
- b. There is no permanent or live water in the general proximity of the location.
- c. There are no dwellings within 2 miles of well location.
- d. A Cultural Resources Examination has been completed by Southern New Mexico Archaeological Services, Inc. and forwarded to the BLM office in Carlsbad, New Mexico.

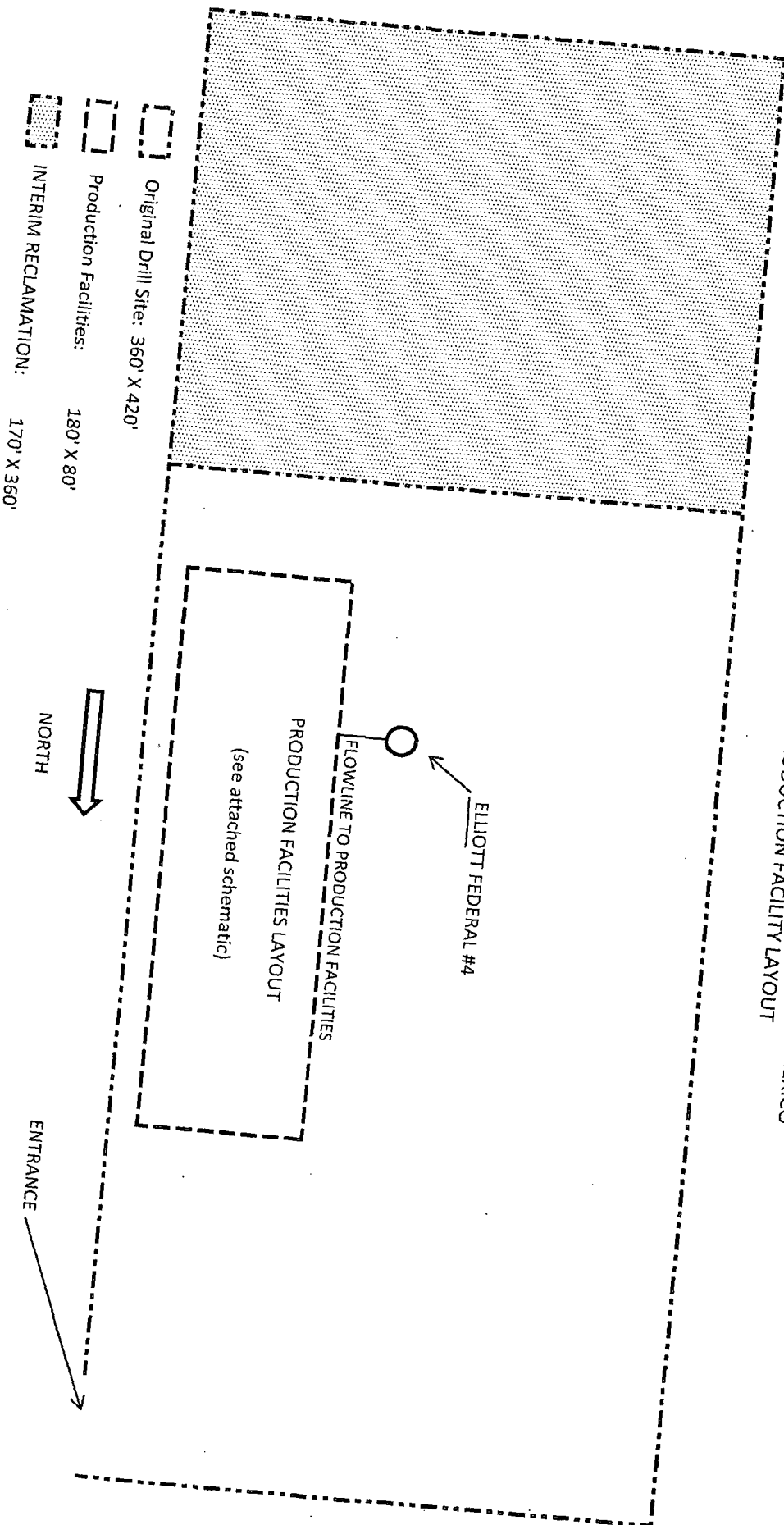
13. Bond Coverage:

- a. Nationwide Lease Bond #B005997, written with U.S. Specialty Insurance Co.
- b. Statewide Bond #B006211, written with U.S. Specialty Insurance Co. and specific to Lea and Eddy Counties.

SANDRIDGE ENERGY COMPANY
TYPICAL WELL PRODUCTION TANK BATTERY
ELLIOT FEDERAL #4



SANDRIDGE ENERGY COMPANY
ELLIOTT FEDERAL #4 [LAT=34.489695 N, LONG=103.006102 W]
SECTION 9 - T21S - R38E, LEA COUNTY, NEW MEXICO
PRODUCTION FACILITY LAYOUT



OPERATOR'S REPRESENTATIVE:

SandRidge Exploration and Production, LLC, representatives responsible for ensuring compliance of the surface use plan are listed below:

Greg Rowe
Operations Manager
123 Robert S. Kerr Ave.
OKC OK 73102-6406

(405) 429-6192 (office)

Raul Rodriguez
Completions Superintendent
1101 E. Pool Rd.
Odessa TX 79766

(432) 290-1392 (Cell)

Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in the APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I or SandRidge Exploration and Production, LLC, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

I hereby also certify that I, or SandRidge Exploration and Production, LLC, have made a good faith effort to provide the surface owner with a copy of the Surface Use Plan of Operations and any Conditions of Approval that are attached to the APD.

Executed this _____ day of _____
Printed Name: Linda Guthrie

Signed Name: _____
Position Title: Regulatory Manager
Address: 123 Robert S. Kerr Ave., OKC OK 73102-6406
Telephone: (405) 429-6085

Jones, William V., EMNRD

From: Spence Laird [slaird@sandridgeenergy.com]
Sent: Thursday, December 01, 2011 6:17 AM
To: Jones, William V., EMNRD
Subject: RE: Non-standard location applications from Sandridge E&P, LLC: Parcell Federal #8 and Elliot Federal #4

Mr. Jones:

These locations are being built NSL due to the surrounding topography and potential Sand Dune Lizard or Lesser Prairie Chicken Habitat. Sandridge looked for areas that may have been previously disturbed or would lessen the new disturbance of potential habitat from the construction of these new well pads. If you would like further clarification please don't hesitate to contact me at your earliest convenience.

Best Regards,

Spence Laird

From: Karen Sharp
Sent: Thursday, December 01, 2011 6:50 AM
To: Spence Laird; Jones, William V., EMNRD
Subject: FW: Non-standard location applications from Sandridge E&P, LLC: Parcell Federal #8 and Elliot Federal #4

Hey Will ~

I did have a nice holiday, thank you. Hope yours was good as well.

Spence Laird is now handling the New Mexico wells, so I am copying him on this e-mail. I am sure he can fix you right up!
Thanks for all you do!

Karen Sharp
405-429-5745



"There are many things in life that will catch your eye, but only a few will catch your heart..pursue those.."

From: Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]
Sent: Wednesday, November 30, 2011 5:56 PM
To: Karen Sharp
Subject: Non-standard location applications from Sandridge E&P, LLC: Parcell Federal #8 and Elliot Federal #4

Karen,
Hope thanksgiving was great for you.

Still seem to be missing the reasons these wells were spotted at these non-standard locations?
We accept all sorts of reasons, i.e. Geological, Topographical, Avoiding pipelines, etc.

Jones, William V., EMNRD

From: Karen Sharp [ksharp@sandridgeenergy.com]
Sent: Monday, November 14, 2011 12:46 PM
To: Jones, William V., EMNRD
Subject: FW: Non-standard location application from Sandridge E&P, LLC: Elliot Federal #4 30-025-NA Wantz-Abo Pool Target

Will: here is first set of information I have received. Would you like for me to follow up with a statement on letterhead to attach to the application? That would make sense to me. ☺

Karen

From: Joel Eilerts
Sent: Monday, November 14, 2011 1:35 PM
To: Terry Reeves; Karen Sharp
Subject: RE: Non-standard location application from Sandridge E&P, LLC: Elliot Federal #4 30-025-NA Wantz-Abo Pool Target

- a. We have all rights in Lot 3
- b. Working Interest Ownership is the same in Lots 3 and 4. SandRidge owns 100% WI.
- c. No idea why we picked this location. I was not part of that process

JME

From: Terry Reeves
Sent: Monday, November 14, 2011 9:08 AM
To: Karen Sharp
Cc: Joel Eilerts
Subject: RE: Non-standard location application from Sandridge E&P, LLC: Elliot Federal #4 30-025-NA Wantz-Abo Pool Target

Karen,

I do not have the answers but Joel may. Am forwarding to Joel as well.

Terry
Terry L. Reeves
Terry L. Reeves
Sr. Operations Engineer



123 Robert S. Kerr Avenue
Oklahoma City, OK 73102-6406
Office: 405-429-6328
Cell: 405-365-4827
Fax: 405-429-5978

"He paid a price He didn't owe
because I owed a price I couldn't pay."

Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Wednesday, November 30, 2011 4:56 PM
To: 'Karen Sharp'
Subject: Non-standard location applications from Sandridge E&P, LLC: Parcell Federal #8 and Elliot Federal #4

Karen,
Hope thanksgiving was great for you.

Still seem to be missing the reasons these wells were spotted at these non-standard locations?
We accept all sorts of reasons, i.e. Geological, Topographical, Avoiding pipelines, etc.

Will

From: Joel Eilerts
Sent: Monday, November 14, 2011 1:51 PM
To: Terry Reeves; Karen Sharp
Subject: RE: Non-standard location application from Sandridge E&P, LLC: Parcell Federal #8 30-025-NA Wantz-Abo Pool Target

- a. We acquired McElvain's interest as well as the other WI partners in these tracts. Our working interest in these tracts are 100%
- b. We have 100% WI on all offsetting tracts, this is the same as our drillsite tract.
- c. Don't know anything about this....seems like a regulatory issue.
- d. No idea, I had no input in the drillsite location.

JME

From: Terry Reeves
Sent: Monday, November 14, 2011 9:09 AM
To: Karen Sharp
Cc: Joel Eilerts
Subject: RE: Non-standard location application from Sandridge E&P, LLC: Parcell Federal #8 30-025-NA Wantz-Abo Pool Target

Same response as the last one. Joel??

Terry
Terry L. Reeves
Terry L. Reeves
Sr. Operations Engineer



123 Robert S. Kerr Avenue
Oklahoma City, OK 73102-6406

"finitus non capio infinitus"

"Uncertainty will not rule our lives
if our lives are dependent on our
heavenly Father."

From: Karen Sharp
Sent: Monday, November 14, 2011 7:52 AM
To: Terry Reeves
Cc: Frank Guerrero; Jones, William V., EMNRD; Spence Laird
Subject: FW: Non-standard location application from Sandridge E&P, LLC: Elliot Federal #4 30-025-NA Wantz-Abo Pool Target

Good morning, Terry ~

Can you please address Will's questions below concerning the non-standard location request for this well? I will also forward a second request for the second well which needs questions answered as well. I have been "moved out" of the New Mexico area again, Terry, so please copy Spence Laird with any future correspondence. Thank you.

Karen Sharp
405-429-5745



From: Jones, William V., EMNRD [<mailto:William.V.Jones@state.nm.us>]
Sent: Tuesday, November 08, 2011 3:10 PM
To: Karen Sharp
Cc: Ezeanyim, Richard, EMNRD; Brooks, David K., EMNRD
Subject: Non-standard location application from Sandridge E&P, LLC: Elliot Federal #4 30-025-NA Wantz-Abo Pool Target

Hello Karen,
Nice to see you are still around!
Another request mainly like the last.

For this proposed vertical well to be drilled to 8100 feet....The well encroaches on Unit K (Lot 3) to the north. And there does not appear to be a Wantz-Abo oil well in that Unit K - so no "operator of record" exists in that Unit letter K (lot 3).

- a. Does Sandridge now control the Abo minerals in Unit letter K?
- b. Our notice requirement on NSL's drills down to the working interest owner level but not below that. That means if Sandridge controls those lands, then notice still should be sent to the working interest partners of Sandridge - but not if the working interests are identical (same owners in the same percentages) between the Unit letter N (Lot4) and the offsetting "affected" Unit letter K (Lot 3). Please let me know about that ownership and if you are sending out more notices.
- c. The proposed well is being drilled at a non-standard location. Why did Sandridge pick this location instead of a standard one?

Thank You,

Will

William V Jones, P.E.
Engineering, Oil Conservation Division
1220 South St. Francis Drive, Santa Fe, NM 87505
Tel 505.476.3448 ~ Fax 505.476.3462

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240
DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210
DISTRICT III
1000 RIO BRAZOS RD., AZTEC, NM 87410
DISTRICT IV
11885 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised July 16, 2010
Submit to Appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-	Pool Code 62700	Pool Name Mantiz; Abo
Property Code 309281	Property Name PARCELL FEDERAL	Well Number 8
OGRID No. 270265	Operator Name SANDRIDGE E & P, LLC	Elevation 3565'

Surface Location									
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	8	21-S	38-E		1485	SOUTH	1375	EAST	LEA

Bottom Hole Location If Different From Surface									
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>GEODETIC COORDINATES NAD 27 NME</p> <p>SURFACE LOCATION Y=544342.2 N X=887131.8 E</p> <p>LAT.=32.490243° N LONG.=103.077816° W</p> <p>Parcell Federal #4 2310' FSL & 2310' FEL</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Karen Sharp</i> 8-1-11 Signature Date</p> <p>KAREN SHARP Printed Name</p> <p>ksharp@sandridgeenergy.com E-mail Address</p> <p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>MAY 31, 2011</p> <p>Date of Survey</p> <p>Signature of Professional Surveyor: <i>Gary G. Eldson</i></p> <p>NEW MEXICO 3239</p> <p>Certification Number: Gary G. Eldson 12641 J. Eldson 3239</p> <p>DSS JWSC W.O.: 11.11.1209</p>
---	--

Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Tuesday, November 08, 2011 2:10 PM
To: 'Karen Sharp'
Cc: Ezeanyim, Richard, EMNRD; Brooks, David K., EMNRD
Subject: Non-standard location application from Sandridge E&P, LLC: Elliot Federal #4 30-025-NA Wantz-Abo Pool Target

Hello Karen,
Nice to see you are still around!
Another request mainly like the last.

For this proposed vertical well to be drilled to 8100 feet....The well encroaches on Unit K (Lot 3) to the north. And there does not appear to be a Wantz-Abo oil well in that Unit K - so no "operator of record" exists in that Unit letter K (lot 3).

- a. Does Sandridge now control the Abo minerals in Unit letter K? *Yes*
- b. Our notice requirement on NSL's drills down to the working interest owner level but not below that. That means if Sandridge controls those lands, then notice still should be sent to the working interest partners of Sandridge - but not if the working interests are identical (same owners in the same *OK*
percentages) between the Unit letter N (Lot4) and the offsetting "affected" Unit letter K (Lot 3). Please let me know about that ownership and if you are sending out more notices.
- c. The proposed well is being drilled at a non-standard location. Why did Sandridge pick this location instead of a standard one? *?*

Thank You,

Will

William V Jones, P.E.
Engineering, Oil Conservation Division
1220 South St. Francis Drive, Santa Fe, NM 87505
Tel 505:476.3448 ~ Fax 505.476.3462

