

Form 3160-3  
(April 2004)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. <b>751-05-1025, Tract A</b>
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" 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 <b>Ute Mountain Ute</b>
2. Name of Operator <b>Elk San Juan, Inc.</b>		7. If Unit or CA Agreement, Name and No.
3a. Address <b>1401 17th Street, Suite 700 Denver, CO 80202</b>		8. Lease Name and Well No. <b>24 #43</b> <b>Ute Mountain Tribal</b>
3b. Phone No. (include area code) <b>303.296.4505</b>		9. API Well No. <b>30-045-34114</b>
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface <b>660' FSL - 1650' FEL, Section 24, T31N, R15W, NMPM</b> At proposed prod. zone <b>same</b>		10. Field and Pool, or Exploratory <b>Basin Dakota</b>
14. Distance in miles and direction from nearest town or post office* <b>12 miles North of Kirtland, New Mexico</b>		11. Sec., T. R. M. or Blk. and Survey or Area <b>0 Section 24, T31N, R15W, NMPM</b>
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) <b>1650</b> <b>990</b>	16. No. of acres in lease <b>7040 acs</b>	17. Spacing Unit dedicated to this well <b>E/2 - 320.0 acs.</b>
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>950</b>	19. Proposed Depth <b>4600'</b>	20. BLM/BIA Bond No. on file <b>B001404</b>
21. Elevations (Show whether DF, KDB, RT, GL, etc.) <b>5549' GL</b>	22. Approximate date work will start* <b>01/01/2007</b>	23. Estimated duration <b>25 days</b>
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the authorized officer.

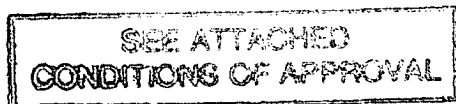
25. Signature <i>Robert E. Fielder</i>	Name (Printed/Typed) <b>Robert E. Fielder</b>	Date <b>11/27/2006</b>
Title <b>Agent</b>		
Approved by (Signature) <i>Michael J. [Signature]</i>	Name (Printed/Typed) <b>Field Office Manager</b>	Date <b>DEC 14 2006</b>
Title	Office	

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.

\*(Instructions on page 2)

Application For Pits - NM OCP Form 4-103  
must be filed prior to construction of Location

Approval of this application does not warrant or certify that the operator thereof and other holders of operating rights hold legal or equitable title to those rights in the subject lease which are committed hereto.

RECEIVED

NOV 30 2006

Bureau of Land Management  
Durango, Colorado

12/22/06

District I  
PO Box 1980, Hobbs, NM 88241-1980

District II  
PO Drawer DD, Artesia, NM 88211-0719

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

OIL CONS. DIV

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number <b>30-045-34114</b>	*Pool Code <b>71599</b>	*Pool Name <b>BASIN DAKOTA</b>
*Property Code <b>35229</b>	*Property Name <b>UTE MOUNTAIN TRIBAL</b>	*Well Number <b>045.3</b>
*GRID No. <b>234144</b>	*Operator Name <b>ELK SAN JUAN, INC.</b>	*Elevation <b>5549'</b>

<sup>10</sup> Surface Location

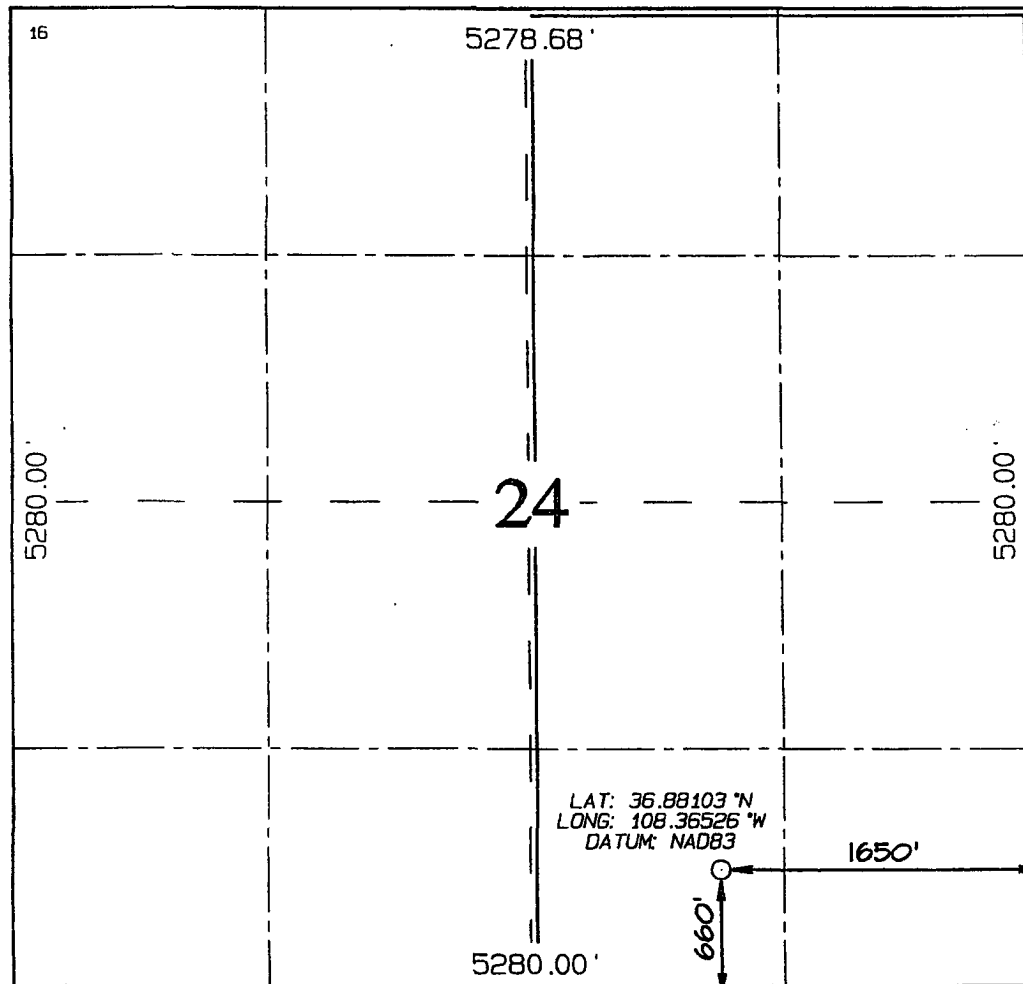
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	24	31N	15W		660	SOUTH	1650	EAST	SAN JUAN

<sup>11</sup> 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

<sup>12</sup> Dedicated Acres <b>320.0 Acres - E/2</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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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



<sup>17</sup> OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

*Robert E. Fielder*

Signature

Robert E. Fielder

Printed Name

Agent

Title

November 27, 2006

Date

<sup>18</sup> 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.

Date of Survey: JULY 11, 2006

Signature and Seal of Professional Surveyor



*Jason C. Edwards*

Certificate Number 15269



C-C'										
5557'										
5547'										
5537'										

Elk San Juan, Inc.  
Ute Mountain Tribal No. 24-43  
660' FSL & 1650' FEL  
Section 24, T31N, R15W, NMPM  
San Juan County, New Mexico

TEN POINT DRILLING PROGRAM

1. Surface Formation: Lewis
2. Surface Elevation: 5549' GL.
3. Estimated Formation Tops:

<u>Formation</u>	<u>Top - feet</u>	<u>Expected Production</u>
Lewis	surface	
Cliff House	684	
Menefee	852	
Pt. Lookout	1623	
Upper Mancos	1753	
Gallup	2110	GAS/OIL
Tocito	3146	
Sanastee	3220	
Lower Mancos	3402	
Greenhorn	3599	
Graneros	3980	GAS
Dakota	4046	GAS
Burro Canyon	4156	
Morrison	4261	
TOTAL DEPTH	4600	

4. Surface Hole Program:

**Bit:** Drill a 12 1/4" hole to 350' using a mill tooth, IADC Class 116 or 117 bit. WOB: all. RPM: 70 - 100.

**Mud:** Use a fresh water base spud mud with the following properties:

<u>Interval (ft)</u>	<u>Weight (ppg)</u>	<u>Ph</u>	<u>Vis(sec/qt)</u>	<u>Water Loss</u>
0 - 350	8.6 or less	9.0-9.5	40 - 50	No Control

**Casing and Cementing:** A string of 8 5/8" 24# J-55 or K-55 ST&C casing will be set and cemented to the surface in a single stage with 245 sacks of Class "B" cement (yield = 1.18 cf/sk) containing 3% CaCl<sub>2</sub> and 1/4 lb/sack celloflake.

Slurry volume assumes 100% excess over calculated hole volume. If cement does not circulate to surface, cement will be topped off using 1" pipe down the 12 1/4" by 8 5/8" annulus. Minimum clearance between couplings and hole is 1.3125".

Prior to drilling out the shoe, casing and BOPE will be tested to a minimum of 600 psig. Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8.

**Drilling Program**  
**Elk San Juan, Inc.**  
**Ute Mountain Tribal No. 24-43**  
Page Two

**Surface Hole Program:** - continued

WOC 12 HOURS. Nipple up 11" 3000# BOPE. Pressure test wellhead and surface BOPE to full working pressure. Pressure test surface casing and BOPE to 600 psi for 15 minutes prior to drilling surface shoe.

**Centralizers:** Run three (3) 8 $\frac{3}{4}$ " X 12  $\frac{1}{4}$ " regular bowspring centralizers. Install first one on stop ring in middle of shoe joint.

**Float Equipment:** Cement nose guide shoe thread locked. Also thread lock connection between first and second joint run.

**5. Production Hole Program:**

**Bit:** Drill a 7  $\frac{1}{8}$ " hole to 4600' using TCI, IADC Class 447 bits. WOB: 35-45K. RPM: 60 - 75.

**Mud:** Use a fresh water base LSND mud with the following properties:

<u>Interval (ft)</u>	<u>Weight (ppg)</u>	<u>Ph</u>	<u>Vis(sec/qt)</u>	<u>Water Loss</u>
350 - 2010	8.6 - 8.8	9.0-9.5	28 - 35	10 - 12
2010 - 4600	8.9 - 9.2	9.0-9.5	35 - 50	8 - 10

Fresh water will be used for dilution and building volume. Sufficient materials will be on location at all times to maintain mud properties and to control any lost circulation problem or unforeseen abnormal pressures. The mud volume in the rig pits will be visually monitored and recorded on a routine basis.

**Note:** Raise **viscosity** to 55 - 60 for logging. Thin to 40 - 45 viscosity to run casing.

**pH** is to be maintained with lime or caustic soda at the recommended levels to assure drill pipe corrosion protection.

Drispac will be used for control of fluid loss.

Hole will be drilled to top of Gallup using polymer and drispac additions to water. Mud up before drilling into Gallup.

Lost Circulation is expected and can occur in the Gallup/Tocito/Sanastee interval. 5 - 10% LCM will be added to the system as soon as mud up is complete and before drilling into the Tocito. Mud weights should be controlled as low as possible with solids control equipment then as low as practical with water dilution.

**Drilling Program**  
**Elk San Juan, Inc.**  
**Ute Mountain Tribal No. 24-43**  
Page Three

**5. Production Hole Program:** - continued

**Pressure Control:** A 3M psi BOP well control system will be utilized. BOP's and choke manifold will be installed and pressure tested to full working pressure before drilling out from under surface casing. Mechanical operation of pipe rams will be checked daily and blind rams will be checked on each trip out of hole. 5 ½" rams will be installed before running production casing. A full opening internal blowout preventor or drill pipe safety valve will be on the drill floor at all times and will be capable of fitting all connections.

**Logging Program:** Dual Induction and Formation Density/Compensated Neutron logs will be run from TD to surface casing shoe.

**Casing and Cementing Program:** Run 5½" 15.5 ppf J-55 production casing from surface to TD and cement in two stages with a mechanical DV tool set at 2110'±. **Stage One: (TD -2110')** Cement with 220 sacks (404.8 cf) of 65/35 Class G POZ containing 6% gel, 5 pps gilsonite, 0.25 pps celloflake and 0.5% FLA mixed at 12.4 ppg to yield 1.84 cf/sk. Tail in with 200 sacks (248.0 cf) of 50/50 Class G Poz with 2% gel, 5 pps gilsonite, 0.25 pps celloflake, 0.2% FLA and 0.1% dispersant mixed at 13.5 ppg to yield 1.24 cf/sk. **Stage Two: (2110' - surface)** Cement with 230 sacks (487.6 cf) of 65/35 Class B POZ containing 6% gel, 5 pps gilsonite and 0.25 pps celloflake mixed at 12.1 ppg to yield 2.12 cf/sk. Tail in with 50 sacks (63.0 cf) of Class B with 2% CaCl<sub>2</sub>, 5 pps gilsonite and 0.25 pps celloflake mixed at 15.26 ppg to yield 1.26 cf/sk.

Circulate and WOC at least four hours between stages.

Slurry volumes assume a 50% excess over gauge hole volume. Minimum clearance between couplings and hole is 0.9125". Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8.

**Centralizers:** 10 - 5½" X 7½" bowspring centralizers will be run across all prospective pays and 4 - 5½" X 7½" turbolizers will be spaced so that three (3) are through the Gallup - Upper Mancos interval and one is at the base of the Pt. Lookout.

**Float Equipment:** Cement nose float shoe, 1 joint 5½" casing and float collar.

**6. Auxiliary Equipment:**

An upper kelly cock will be utilized. The handle will be available on the rig floor at all times

**Drilling Program**  
**Elk San Juan, Inc.**  
**Ute Mountain Tribal No. 24-43**  
Page Four

**7. Logging Program:**

Dual Induction and Epithermal Neutron / Formation Density will be run from TD to surface casing shoe. Deep induction curve will be merged onto the porosity log.

**Coring and Testing Program:**

No cores or drill stem tests are planned.

**8. Abnormal Pressure:**

None anticipated.

**Estimated Bottom Hole Pressure:**

2000 - 2300 psig.

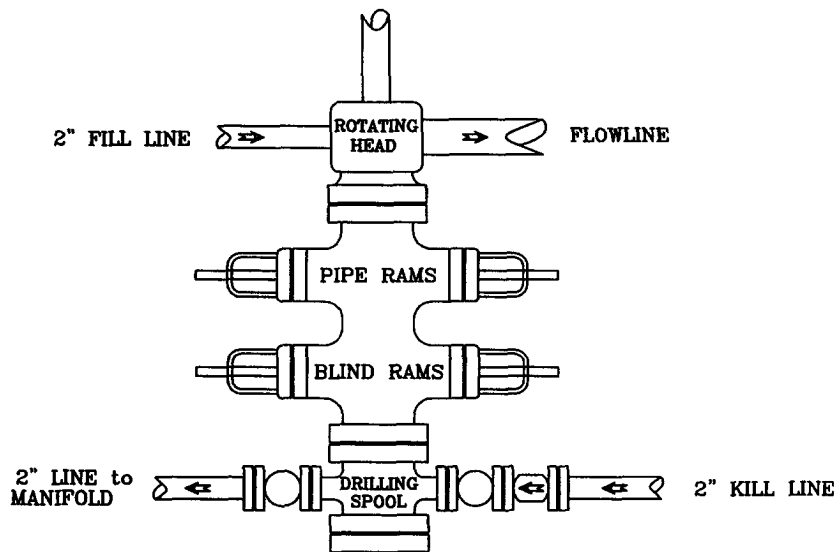
**9. Anticipated Starting Date:**

January 1, 2007.

**Duration of Operations:** It is estimated a total of 15 days will be required for drilling operations and 10 days for the completion operation.

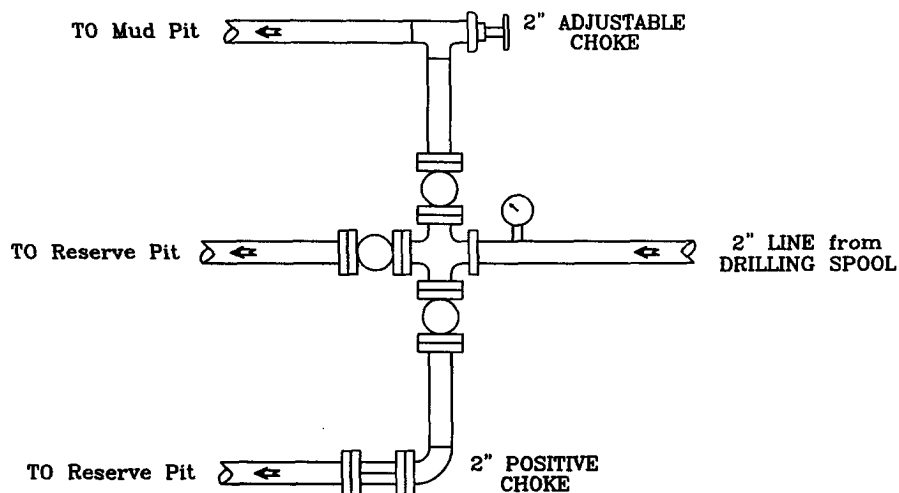
# PRESSURE CONTROL

## Wellhead Assembly



Preventer and Spools are to have a  
6" Bore or larger and a 2000 PSI  
or higher Pressure Rating

## Choke Manifold



*Elk San Juan, Inc.*

Ute Mountain Tribal No. 24-43

660' FSL - 1650' FEL

Section 24, T31N, R15W, NMPM

San Juan County, New Mexico