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APR 21 2010

Bureau of Land Management  
Durango, Colorado

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT


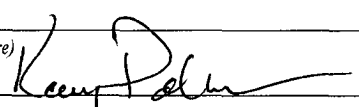
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. IMDA 751-05-1025, Tract C
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 Ute Mountain Ute
2. Name of Operator Elk San Juan, LLC		7. If Unit or CA Agreement, Name and No. Ute Mountain Tribal 20 No. 33
3a. Address 1401 17th Street, Suite 700 Denver, CO 80202	3b. Phone No. (include area code) 303-296-4505	8. Lease Name and Well No. Ute Mountain Tribal 20 No. 33
4. Location of Well (Report location clearly and in accordance with any State requirements *) At surface 1650' FSL, 1975' FEL, NWSE Section 20-T31N-R14W At proposed prod. zone 1650' FSL, 1975' FEL, NWSE Section 20-T31N-R14W		9. API Well No. 30-045-35139
14. Distance in miles and direction from nearest town or post office* Approximately 10 miles North of Kirtland, New Mexico		10. Field and Pool, or Exploratory Verde Field/Gallup
15. Distance from proposed* location to nearest property or lease line, ft 330' (Also to nearest drig. unit line, if any)	16. No. of acres in lease 6360	11. Sec., T. R. M. or Blk. and Survey or Area NWSE Section 20, T31N, R14W, NMPPM
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1000	19. Proposed Depth 3250'	12. County or Parish San Juan County
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5664' GL	22. Approximate date work will start* 05/01/2010	13. State NM
23. Estimated duration 25 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.
2. A Drilling Plan.
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature 	Name (Printed/Typed) Robert E. Fielder	Date 04/20/2010
Title Agent		
APPROVED FOR A PERIOD NOT TO EXCEED 2 YEARS		
Approved by (Signature) 	Name (Printed/Typed) Kelly Palmer	Date 5/3/10
Title ACTING CENTER MANAGER	Office SAN JUAN PUBLIC LANDS CENTER	

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)

Approval of this agreement 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...

Approval of this agreement 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...

Venting / Flaring approved for 30 days per NTL-4A

SEE ATTACHED  
CONDITIONS OF APPROVAL

MAY 05 2010

NOTIFY AZTEC OCD 24 HRS  
PRIOR TO CASING & CEMENT

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOC FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOC PART 19.15.17, PRIOR TO THE USE OF CONSTRUCTION OF THE ABOVE APPLICATIONS.

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  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised October 12, 2005  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

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APR 29 2010 AMENDED REPORT

Bureau of Land Management  
Durango, Colorado

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-045-35139	<sup>2</sup> Pool Code 62510	<sup>3</sup> Pool Name VERDE GALLUP
<sup>4</sup> Property Code 38138	<sup>5</sup> Property Name UTE MOUNTAIN TRIBAL 20	<sup>6</sup> Well Number 33
<sup>7</sup> GRID No. 234144	<sup>8</sup> Operator Name ELK SAN JUAN, INC.	<sup>9</sup> Elevation 5664'

<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
J	20	31N	14W		1650	SOUTH	1975	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 40.0 Acres - NW/4 SE/4					<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

15	5282.64'		<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, 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.  Robert E. Fielder 4/29/2010 Signature Date Robert E. Fielder Printed Name
5280.00'	20	5280.00'	<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 21, 2006 Signature and Seal of Professional Surveyor  JASON C. EDWARDS Certificate Number 15269
	LAT: 36.88374 °N LONG: 108.33029 °W DATUM: NAD1983	1975'	
	1650'		
	5281.32'		

**RECEIVED****APR 29 2010**Bureau of Land Management  
Durango, Colorado**DRILLING PLAN****Elk San Juan, LLC****Ute Mountain Tribal 20-33***Sec 20 T31N R14W**San Juan County, New Mexico***ESTIMATED FORMATION TOPS**

FORMATION	TOP	COMMENTS
Lewis	Surface	May include potential water zone
Cliff House	403'	May include potential water zone
Menefee	551'	May include potential water zone
Point Lookout	1278'	May include potential water zone
Upper Mancos	1617'	
Gallup	2614'	
Tocito	2681'	Anticipated oil & gas zone
Sanastee	2854'	Anticipated oil & gas zone
Juana Lopez	3007'	Anticipated oil & gas zone
TD	3250'	

NOTE: Tops are based on Ground Level (GL) elevation of 5664'

- A) The Bureau of Land Management (BLM) will be notified within 72 hours of spudding the well.

**CASING PROGRAM**

HOLE SIZE	DEPTH SET	CSG SIZE	WGHT	GRD	ID	THRD	CAP (bbl/ft)
12 1/4	300'	9 5/8	36.0	J-55	8.921	LTC	0.07731
8 3/4	2300'	7	23.0	J-55	6.366	LTC	0.03936
6 1/4	TD	4 1/2	11.6	J-55	4.000	LTC	0.01554

NOTE: All casing depth intervals are to surface unless otherwise noted.

***Casing Specs***

SIZE (in)	ID (in)	DRIFT DIA (in)	WALL THICKNESS (in)	COLLAPSE RESISTANCE (psi)	INTERNAL YEILD (psi)	TENSILE YEILD (lbs)	JOINT STRENGTH (lbs)
9 5/8	8.921	8.765	0.352	2020	3520	564000	394000
7	6.366	6.241	0.317	3270	4360	366000	284000
4 1/2	4.000	3.871	0.250	4960	5350	184000	154000

- A) The Bureau of Land Management will be notified 72 hours prior to running casing, cementing, and BOPE testing
- B) As per 43 CFR 3160, Onshore Oil and Gas Order No. 2, Drilling Operations, Part B.1 h:
- a) Prior to drilling out cement, all casing strings will be pressure tested to 0.22 psi/ft of casing length or 1500 psi, whichever is greater, but not to exceed 70% of minimum internal yield. Pressure decline must not be greater than 10% in 30 minutes.

**RECEIVED****APR 29 2010**Bureau of Land Management  
Durango, Colorado**DRILLING PROGRAM****1. SURFACE****A. BOP & Surface Containment**

HOLE SIZE	PRESSURE TESTING	BOP EQUIPMENT
12 1/4	NA	No BOPE required

**B. Mud Program**

HOLE SIZE	MUD WGT	VISC	FLUID LOSS	COMMENTS
12 1/4	8.4-8.8	28-35	NA	FRESH H2O

NOTE: Mud weight increases will be directed by hole conditions.

**C. Cement Program****CASING** 9 5/8" 36.0# J-55 (set @ 300')**SURFACE CEMENT** Total Slurry Volume: 33 bbls

170 sks: HSR + 3% Calcium Chloride + 0.25 lb/sk Super Flake

- i. Bow Spring Centralizers
  - At every joint
- ii. If cement falls or does not circulate to surface, cement will be topped off.
- iii. Cement will not be placed down annulus with a 1" pipe unless BLM is present.
- iv. The Bureau of Land Management will be notified 72 hours prior to running casing and cementing.
- v. As per 43 CFR 3160, Onshore Oil and Gas Order No.2, Drilling Operations, Part B:
  - All waiting on cement times shall be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe (minimum of 8 hours) prior to drilling out.
  - Prior to drilling out cement, intermediate casing will be pressure tested to 1500 psi. Pressure decline must not be greater than 10% (160 psi) in 30 minutes.

**2. INTERMEDIATE****A. BOP & Surface Containment**

HOLE SIZE	PRESSURE TESTING	BOP EQUIPMENT
8 3/4	2000# (10 min)	2M BOP Stack Double Ram with Adjustable Choke

NOTE: Estimated BHP at Intermediate TD should be approximately 1077 psi. No downhole hazards such as abnormal pressure or hydrogen sulfide gas is expected in this interval.

- i. The Bureau of Land Management will be notified 72 hours prior to all BOPE pressure tests.
- ii. The BOPE shall be closed whenever the well is unattended.
- iii. As per 43 CFR 3160, Onshore Oil and Gas Order No. 2, Drilling Operations, Part A:
  - All BOPE connections subjected to well pressure will be flanged, welded, or clamped.
  - Choke Manifold:
    - Tee blocks or targeted 'T's will be used and anchored to prevent slip and reduce vibration.
    - Two adjustable chokes will be used in the choke manifold.
    - All valves (except chokes) in kill line choke manifold and choke line will not restrict the flow.
    - Pressure gauges in the well control system will be designed for drilling fluid.

iv. BOPE Testing:

- BOPE shall be pressure tested when initially installed, whenever any seal subject to pressure testing is broken, or after repairs.
- All BOP tests will be performed with a test plug in place.
- BOP will be tested to full stack working pressure and annular preventer to 50% stack working pressure.

B. Mud Program

HOLE SIZE	MUD WGHT	VISC	FLUID LOSS	COMMENTS
8 3/4	8.4-9.0	28-40	8-10	FRESH H2O w/polymer sweeps (as required)

NOTE: Mud weight increases will be directed by hole conditions.

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- i. Pump high viscosity sweeps as needed for hole cleaning.
- ii. As per 43 CFR 3160, Onshore Oil and Gas Order No. 2, Drilling Operations, Part C: *Bureau of Land Management  
Durango, Colorado*
- Slow pump speed will be recorded on daily drilling report after mudding up.
  - Electronic/mechanical mud monitoring equipment will be used; and include a pit volume totalizer (PVT), stroke counter, and flow sensor.
  - Mud test will be performed at least every 24 hours after mudding up to determine density, viscosity, gel strength, filtration, and pH.
  - Gas-detecting equipment will be installed and operated in the mud-return system.
  - Flare system will be used that gathers and burns all gas. Flare line will discharge at least 100 feet from the well head with straight lines, positioned downwind of the prevailing wind direction, and anchored.

C. Cement Program

**CASING** 7" 23.0# J-55 (set @ 2300')

**INTERMEDIATE CEMENT** Total Slurry Volume: 92 bbls

Lead: 178 sks: 35:65 POZ:HSR + 6% Bentonite + 5 lb/sk Gilsonite + 0.25 lb/sk Super Flake

Tail: 79 sks: HSR + 1% Calcium Chloride + 5 lb/sk Gilsonite + 0.25 lb/sk Super Flake

NOTE: Slurry design may change due to actual conditions.

- i. Intermediate (7") casing will be drifted for 6.25" prior to running in the hole.
- ii. Bow Spring Centralizers
- 1<sup>st</sup> 5 JNTS: every joint
  - REMAINDER: every 5<sup>th</sup> joint
- iii. Float Equipment
- Float shoe.
- iv. Intermediate cement program is designed to bring cement to surface.
- v. Prior to drilling out intermediate, unload hole to displace fluid and prepare air system.
- vi. The Bureau of Land Management will be notified 72 hours prior to running casing and cementing.
- vii. As per 43 CFR 3160, Onshore Oil and Gas Order No.2, Drilling Operations, Part B:
- All waiting on cement times shall be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe (minimum of 8 hours) prior to drilling out.
  - Prior to drilling out cement, intermediate casing will be pressure tested to 1500 psi. Pressure decline must not be greater than 10% (230 psi) in 30 minutes.

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Bureau of Land Management  
Durango, Colorado

### 3. PRODUCTION

#### A. BOP & Surface Containment

HOLE SIZE	PRESSURE TESTING	BOP EQUIPMENT
6 1/4	2000# (10 min)	2M BOP Stack Double RAM with Adjustable Choke

NOTE: Estimated BHP at Production TD should be approximately 1400 psi. No downhole hazards such as abnormal pressure or hydrogen sulfide gas is anticipated in this interval

- i. The Bureau of Land Management will be notified 72 hours prior to all BOPE pressure tests.
- ii. The BOPE shall be closed whenever the well is unattended.
- iii. As per 43 CFR 3160, Onshore Oil and Gas Order No. 2, Drilling Operations, Part A:
  - All BOPE connections subjected to well pressure will be flanged, welded, or clamped.
  - Choke Manifold:
    - Tee blocks or targeted 'T's will be used and anchored to prevent slip and reduce vibration.
    - Two adjustable chokes will be used in the choke manifold.
    - All valves (except chokes) in kill line choke manifold and choke line will not restrict the flow.
    - Pressure gauges in the well control system will be designed for drilling fluid.
- iv. BOPE Testing:
  - BOPE shall be pressure tested when initially installed, whenever any seal subject to pressure testing is broken, or after repairs.
  - All BOP tests will be performed with a test plug in place.
  - BOP will be tested to full stack working pressure and annular preventer to 50% stack working pressure.

#### B. Mud Program

HOLE SIZE	MUD WGHT	VISC	FLUID LOSS	COMMENTS
6 1/4	NA	NA	NA	AIR/AIR MIST

- i. During air drilling operations, if required, air-mist will then be used to control fluid influx into wellbore.
- ii. As per 43 CFR 3160, Onshore Oil and Gas Order No. 2, Drilling Operations, Part E.1 (Air Drilling Operations):
  - Blooie line discharge will be 100 feet from wellbore and securely anchored.
  - All cutting and circulating medium will be directed into a reserve or blooie pit.
  - Automatic igniter or continuous pilot will be in place on the blooie line.
  - Mud will remain in tanks in the event of well control issues. Higher air flow will be used first to flush out formation water.

#### C. Cement Program

**CASING** 4 1/2" 11.6# J-55 (set @ TD)

**PRODUCTION CASING** Total Slurry Volume: 67 bbls

81 skc Premium Lite FM + 5% bwoc CSE + 5% bwoc LCM-1 + 95% bwoc LW-6 + 0.5% bwoc Sodium Metesilicate + 0.5% bwoc FL-63 + 0.4% bwoc R-3 + 0.2% bwoc CD-32 + 164% Fresh Water

NOTE: Slurry design may change due to actual conditions.

- i. Centralizers
  - 1ST 23 JNTS: every joint
  - NEXT 12 JNTS: every third joint (~500' into intermediate).

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Bureau of Land Management  
Durango, Colorado

- ii. Float Equipment
  - Float shoe.
- iii. Production program is designed to bring cement to 500 ft into Intermediate
- iv. The Bureau of Land Management will be notified 72 hours prior to running casing and cementing
- v. As per 43 CFR 3160, Onshore Oil and Gas Order No.2, Drilling Operations, Part B:
- vi. All waiting on cement times shall be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe (minimum of 8 hours) prior to drilling out.
- vii. Prior to drilling out cement, intermediate casing will be pressure tested to 1500 psi. Pressure decline must not be greater than 10% (230 psi) in 30 minutes.

## **WELL HEAD**

**Casing Head:** C-22, 11" 3000# x 9 5/8" SOW with 2-2" LPO

**Tubing Head:** TCM 11" 3000# x 7 1/16" 3000# with 2 1/16" studed outlets

## **AUXILIARY EQUIPMENT**

- A) Upper and lower kelly cock with handle available
- B) Floor stabbing valve 3000#
- C) Safety valve and subs to fit all string connections in use

## **SURVEY & LOGGING PROGRAMS**

- A) Coring: Whole core may be taken at the direction of the wellsite geologist in the Gallup Formation.
- B) Open Hole Logs: No log run for intermediate. TD into intermediate casing (~2200'): Gamma Ray, Resistivity, Neutron Density, and Caliper. There will not be fluid in the hole.
- C) Mud Logging: Mud logger will come on at 300' and will remain on until TD. The computerized 2-person logging unit will catch and describe 30 foot samples to intermediate casing point; 10 foot samples to TD; record and monitor gas shows and record drill times (normal mud logging duties).
- D) Formation Testing: No formation testing is anticipated. RFT's may be run in the Gallup Formation intervals at the discretion of the wellsite geologist.

## **COMPLETIONS**

- A) Completion intervals will be selected based on mud log shows and open hole log evaluation.
  - a) Primary target intervals will be the Tocito and Sanastee (intervals of the Gallup Formation).
  - b) The target intervals are planned to be perforated and nitrogen (N<sub>2</sub>) fracture stimulated.
  - c) Completion operations will be conducted after the drilling rig is moved off location.

Elk San Juan, LLC  
Tribal IMDA: 751-05-1025  
Well: Ute Mountain Tribal #20-33  
Surface Location: 1650' FSL & 1975' FEL  
Sec. 20, T. 31 N., R. 14 W.  
San Juan County, New Mexico

3160

**Conditions of Approval - Drilling Plan**

1. All drilling locations must be built as drilled and not constructed 'back to back' prior to drilling.
2. No additional zones will be commingled without UMU Tribal and BLM approval.
3. Stabilized Bottomhole pressures and flow rates must be taken from each perforated zone.
4. Notify this office at least **3 days** prior to:
  - a. spudding the well
  - b. running casing strings and cementing
  - c. BOP tests
  - d. Drill Stem Testing

**For the above procedures, Operators must talk to BLM personnel directly. Do not leave messages on answering machines.**

5. All BOP tests will be performed with a test plug in place. The BOP will be tested to full stack working pressure and the annular preventer to 50% maximum stack working pressure. All accumulators will be function tested as per Onshore Order #2. All 2M or greater systems require **adjustable** chokes as per Onshore Order #2.
6. If a BLM Inspector is not present during the initial BOP test, please provide chart record.
7. Submit copies of all logs to this office both paper and in Log ASCII Standard (LAS) format.
8. **If any operations are to start over the weekend, notify this office by noon Friday. If any problems arise after hours or on weekends, call BLM personnel using the home phone numbers listed on the following 'INFORMATIONAL NOTICE - APD's'. Do not leave messages on answering machines.**

Continued on Page Number 2.



9. If it is necessary, the BLM must witness the topping-off of the Surface Casing Cement

10. A CBL is required if cement is not circulated to the surface on the Surface or Intermediate casing string. A CBL will be required on the Production casing string to determine that there is 500 ft of cement overlapped into the Intermediate casing string. BLM verbal approval will be required prior to squeezing.

11. The tops of all major identifiable geologic units (formations) from surface to TD will be logged and recorded.

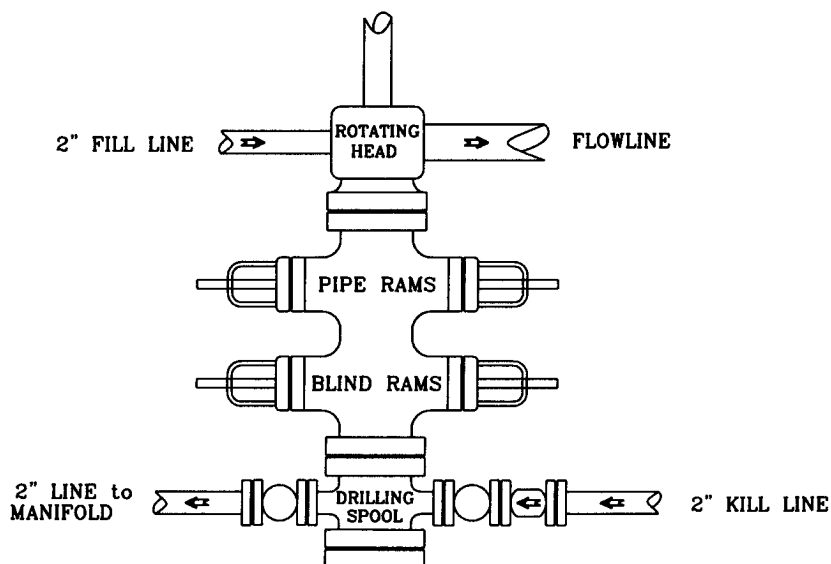
12. Well File Information: Please provide copies of the items on the attached sheet.

**Well File Information:** All tests and operations on any well in the subject lands shall be conducted at the Operators sole discretion. Provide to this office copies of the following, if conducted

- a. All wire line logs – Field and Final Print (Electrical, Radioactive, Sonic, Porosity, Velocity, etc. with digitized and log analysis, if available).
- b. Drill Stem tests - field data
- c. Core analysis - field data
- d. Mud Log - final prints
- e. Drill Stem tests - final prints
- f. Core analysis - final prints
- g. Revised Structure and Isopach maps
- h. Location (Surveyor's Plat & Drilling Permit
- i. Daily Drilling Report, Daily Workover report and final Drilling Summary
- j. Directional Survey
- k. Geological Report
- l. Completion Report
- m. Production Test Data (AOF Potential, GOR, etc.)
- n. 30 Day Well Production Test Record
- o. Bottom Hole Pressure Surveys
- p. Gas, Oil, and/or Water Analysis
- q. Monthly Oil, Gas, and/or Plant Products Purchasing Statements
- r. MMS Monthly OGOR and/or 4054 Monthly Report of Operations
- s. Sundry Notices to the BLM
- t. Wellbore profile
- u. Division Orders/Title Opinion
- v. Plug and Abandon Reports
- w. AFEs
- x. Other Information Requested by the Tribal Energy Department.

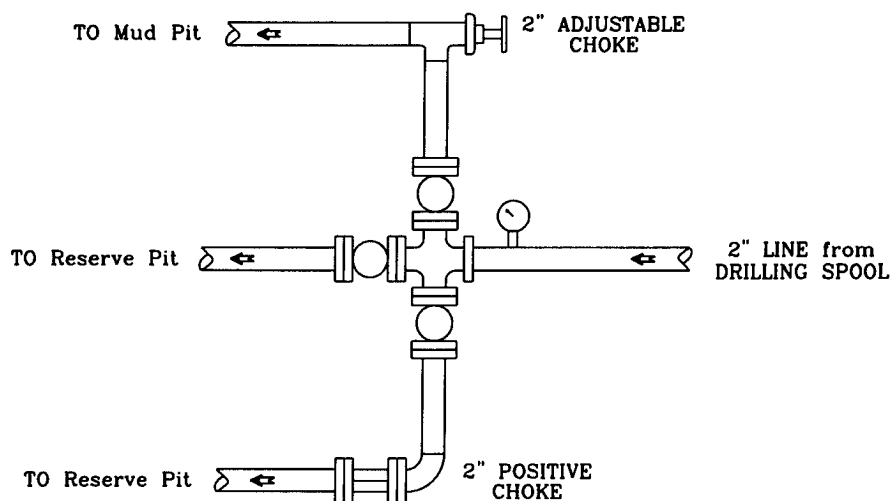
# PRESSURE CONTROL

## 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, LLC*

Ute Mountain Tribal 20 No. 33

1650' FSL – 1975' FEL

Section 20, T31N, R14W, NMPM

San Juan County, New Mexico