Form 3160-3
(April 2004)

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Bureau of Land Management
Farmington Field Office

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMSF-078101

6. If Indian, Allotee or Tribe Name
N/A

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.
~~N/A~~ NMNM - 119350

1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
SHIPP GAS COM 21 H

2. Name of Operator
XTO ENERGY INC

9. API Well No.
30-045- 34903

3a. Address **382 ROAD 3100**
AZTEC, NM 87410

3b. Phone No. *(include area code)*
(505) 333-3159

10. Field and Pool, or Exploratory
BASIN FRUITLAND COAL

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface **770' FSL & 1975' FEL**
At proposed prod. zone **2550' FSL & 700' FEL**

11. Sec., T. R. M. or Blk. and Survey or Area
1-27N-13W NMPM

14. Distance in miles and direction from nearest town or post office*
7 AIR MILES SOUTH OF FARMINGTON

12. County or Parish
SAN JUAN

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) **700'**	16. No. of acres in lease **279.97**	17. Spacing Unit dedicated to this well **Lots 1 & 2, S2NE4, & SE4 (= 319.97 acres)** E/2
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. **1,969' (Shipp Gas 1E)**	19. Proposed Depth **3,152' MD**	20. BLM/BIA Bond No. on file **BLM NATION WIDE UTB-000138**
21. Elevations (Show whether DF, KDB, RT, GL, etc.) **5,778' GL**	22. Approximate date work will start* **07/01/2009**	23. Estimated duration **4 WEEKS**

RECEIVED
MAR 1 2010
OIL CONS. DIV. DIST. 3

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall 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 shall 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 authorized officer.

25. Signature	Name *(Printed/Typed)*	Date
	BRIAN WOOD	**01/30/2009**

Title **CONSULTANT** **PHONE: (505) 466-8120** **FAX: (505) 466-9682**

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
		3/23/10
Title Acting AFM	Office Minerals	

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)

Hold C104
for Directional Survey
and "As Drilled" plat

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

APR 0 5 2010

NMOCD

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
1301 W. Grand Ave., Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
1220 South 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, NM 87505

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Bureau of Land Management
Farmington Field Office

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-34903	71629	BASIN FRUITLAND COAL GAS

[4] Property Code	[5] Property Name	[6] Well Number
22812	SHIPP GAS COM	21H

[7] OGRID No.	[8] Operator Name	[9] Elevation
5380	XTO ENERGY INC.	5778

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	1	27-N	13-W		770	SOUTH	1975	EAST	SAN JUAN

[11] 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
I	1	27-N	13-W		2550	SOUTH	700	EAST	SAN JUAN

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
319.97 E/2		C	

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

16

LOT 4
39.95

LOT 3
39.96

LOT 2
39.98

LOT 1
39.99

BOTTOM HOLE:
LAT: 36.60402° N. (NAD 83)
LONG: 108.16395° W. (NAD 83)
LAT: 36°36'14.5" N. (NAD 27)
LONG: 108°09'47.9" W. (NAD 27)

FD. 2 1/2" BC.
1911 G.L.O.

1

700'

SURFACE:
LAT: 36.59913° N. (NAD 83)
LONG: 108.16828° W. (NAD 83)
LAT: 36°35'56.8" N. (NAD 27)
LONG: 108°10'03.5" W. (NAD 27)

2550'

N 00-01-53 W
2640.87' (M)

PRELIMINARY B.H.L.
B.H.L. FOOTAGES ARE APPROXIMATE
AND PROVIDED BY XTO ENERGY INC.
CLIENT

1975'

770'

FD. 2 1/2" BC.
1911 G.L.O.

N 89-56-55 W
2643.39' (M)

FD. 2 1/2" BC.
1911 G.L.O.

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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.

Signature — Date: 1-30-09

BRIAN WOOD
Printed Name

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SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plot 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 knowledge and belief.

MARCH 05, 2008
Date of Survey

Signature and Seal of Professional Surveyor:

ROY A. BUSH
NEW MEXICO
8894
REGISTERED PROFESSIONAL LAND SURVEYOR
05-15-08

8894
Certificate Number

XTO Energy Inc.
Shipp Gas Com 21
SHL: 770' FSL & 1975' FEL
BHL: 2550' FSL & 700' FEL
Sec. 1, T. 27 N., R. 13 W., San Juan County, NM

Drilling Program

1. ESTIMATED FORMATION TOPS

Formation Name	True Vertical Depth	Measured Depth	Elevation
Nacimiento	0'	12'	+5,778'
Kirtland shale	85'	85'	+5,693'
Fruitland Formation	731'	736'	+5,047'
Lower Fruitland coal	1,265'	1,521'	+4,513'
Total Depth (TD)	1,265'	3,152'	+4,513'

2. NOTABLE ZONES

Gas & Oil Zones	Water Zones	Coal Zone
Fruitland	Ojo Alamo	Fruitland
	Fruitland	

Water zones will be protected with casing, cement, and weighted mud. Fresh water found while drilling will be recorded. Oil or gas shows will be tested for commercial potential based on the geologist's recommendations.

3. PRESSURE CONTROL

The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. (A typical 2,000 psi model is on PAGE 3.) An 8-5/8" x 11" 2,000 pound double ram BOP system with a choke manifold and mud cross will be tested to ≈200 psi and then to ≈1,000 psi. Upper and lower Kelly cocks with valve handle and subs to fit all drill string connections which are in use will be available on the rig floor.

Tests will be run when:

1) installed
2) anytime a pressure seal is broken (test only affected equipment)
3) at least every 30 days
4) blind & pipe rams will be activated each trip, but no more than daily

BOP systems will be consistent with API RP 53. Blowout preventers will be installed and tested before drilling surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated daily to ensure good mechanical working order and this inspection recorded on the daily drilling report. Preventers and casing will be pressure tested before drilling casing cement plugs. Maximum expected bottom hole pressure will be ≤465 psi. BOP and mud system will control pressure.

4. CASING & CEMENT

Type	Hole	O. D.	Interval	Length	Weight	Grade	Coupling
Surface	12.25"	9.625"	0' - 225'	225'	36#	J-55	S T & C
Intermediate	8.75"	7 "	0' - 1525'	1525'	23#	J-55	S T & C
Production liner	6.125"	4.5"	1465' - 3152'	1687'	10.5#	J-55	S T & C

Type	Collapse Rating psi	Burst Rating psi	Joint Strength	I. D.	Drift	*SF Collapse	**SF Burst	***SF Tensile
Surface	2020	3520	394 M-lbs	8.921"	8.765"	18.76	32.7	48.6
Intermediate	3270	4360	284 M-lbs	6.276"	6.151"	5.4	7.2	8.09
Production liner	4010	4790	132 M-lbs	4.025"	3.927"	7.25	8.67	7.45

* Collapse is based on evacuated annulus & hydrostatic at TVD

** Burst is based on evacuated casing & hydrostatic at TVD

*** Tensile is based on hanging air weight of casing in a vertical hole measured at depth

Surface casing will be cemented to the surface with >100 % excess using ≈195 cubic feet (≈140 sacks) Type III cement (or equivalent) containing accelerator + LCM mixed at 14.5 pounds per gallon, 1.39 cubic feet per sack, and 6.7 gallons water per sack. At least 3 centralizers will be installed.

Intermediate casing will be cemented to the surface with >30% excess. Lead with ≈75 sacks (166.5 cubic feet) premium light or CBM light with accelerator + LCM + dispersant + fluid loss additive mixed at 12.1 pounds per gallon, 2.22 cubic feet per sack, and 12.04 gallons water per sack. Tail with ≈100 sacks (148 cubic feet) Type III or V with accelerator + LCM + dispersant + fluid loss additive mixed at 14.2 pounds per gallon, 1.48 cubic feet per sack, and 7.34 gallons water per sack. Centralizers will be installed.

Production liner will be set using an uncemented liner hanger. The liner may be tied back to the surface during the well completion.

5. MUD PROGRAM

RANGE	MUD TYPE	WEIGHT	VISCOSITY	WATER LOSS
0' - 225'	Fresh-Spud	8.6-9.0	28-32	NC
225' - 1,525'	Fresh-Poly	8.4-8.8	28-32	NC
1,525' - TD	Air Mist	N/A	N/A	NC

Will use fibrous materials as needed to control seepage and lost circulation. Pump high viscosity sweeps as needed for hole cleaning. Raise viscosity at TD for logging. Reduce viscosity after logging for cementing. Use Fruitland coal produced water as make-up water for mist fluid. Pump enough fluid to dampen vibration at directional bottom hole assembly. If directional control is not maintainable in air/mist environment, then convert to polymer mud.

6. CORES, TESTS, & LOGS

No cores or drill stem tests are planned. Mud logger will arrive at ≈225' and collect samples from there to TD. A gamma ray open hole log will be run from ≈225' to TD.

7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, nor hydrogen sulfide are expected. Maximum expected bottom hole pressure will be ~~≤380 psi.~~ 468 psi

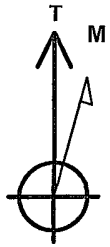
8. OTHER INFORMATION

The anticipated spud date is upon approval. It is expected it will take about four weeks to drill and complete the well. Directional well bore views and data are at the back of the APD.

Well Name: Shipp Gas Com 21

San Juan Division
Drilling Department

Calculation Method: Minimum Curvature
Geodetic Datum: North American Datum 1983
Lat: 36° 35' 56.868 N
Long: 108° 10' 5.808 W



Azimuths to True North
Magnetic North: 10.36°

Magnetic Field
Strength: 50891.8snT
Dip Angle: 63.33°
Date: 10/14/2008
Model: IGRF200510

FORMATION TOP DETAILS

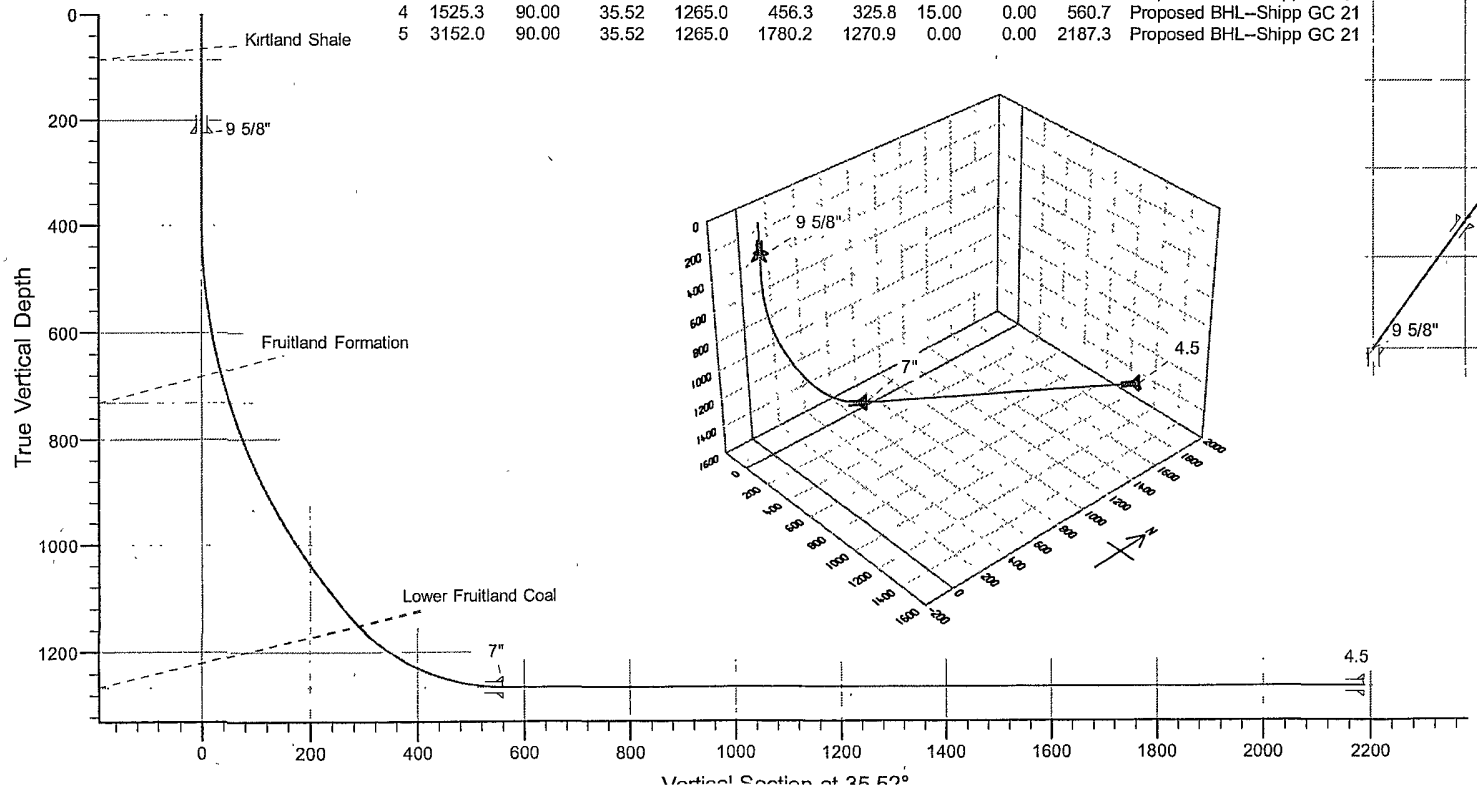
TVDPath	MDPath	Formation
85.0	85.0	Kirtland Shale
731 0	736.2	Fruitland Formation
1265.0	1520.8	Lower Fruitland Coal

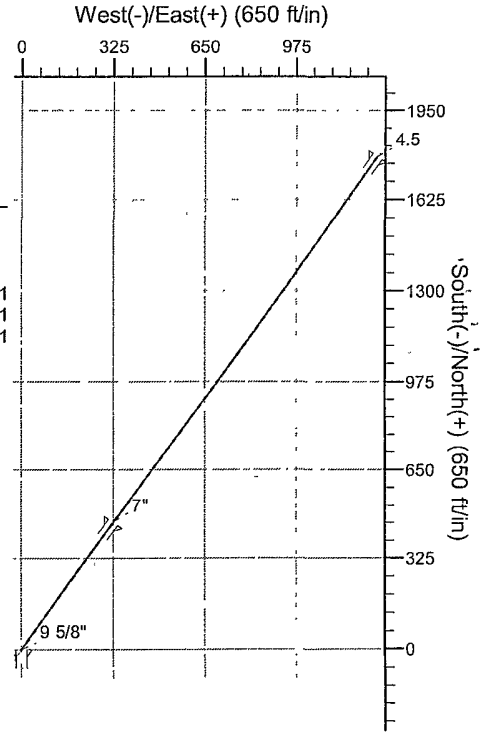
CASING DETAILS

TVD	MD	Name	Size
225 0	225.0	9 5/8"	9-5/8
1265 0	1525.0	7"	7
1265.0	3152.0	4.5	4-1/2

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	392.0	0.00	0.00	392.0	0.0	0.0	0.00	0.00	0.0	
3	1192.0	40.00	35.52	1128.6	218.2	155.8	5.00	35.52	268.1	Proposed BHL--Shipp GC 21
4	1525.3	90.00	35.52	1265.0	456.3	325.8	15.00	0.00	560.7	Proposed BHL--Shipp GC 21
5	3152.0	90.00	35.52	1265.0	1780.2	1270.9	0.00	0.00	2187.3	Proposed BHL--Shipp GC 21





Database:	LMRKTEST	**Local Co-ordinate Reference:**	Well Shipp Gas Com 21
Company:	XTO Energy, Inc.	**TVD Reference:**	Rig KB @ 5790.0ft (Aztec 507)
Project:	San Juan Basin, NM (NAD 83)	**MD Reference:**	Rig KB @ 5790.0ft (Aztec 507)
Site:	Shipp Gas Com 21	**North Reference:**	True
Well:	Shipp Gas Com 21	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Shipp Gas Com 21		
Design:	Permitted Wellbore		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0 0	0.0	0.00	0.00	0 00
85.0	0.00	0.00	85.0	0.0	0.0	0.0	0.00	0.00	0.00
Kirtland Shale									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
225.0	0.00	0.00	225.0	0.0	0.0	0.0	0.00	0.00	0.00
9 5/8"									
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
392.0	0.00	0.00	392.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.40	35.52	400.0	0.0	0.0	0.0	5.00	5.00	0.00
500.0	5.40	35.52	499.8	4.1	3.0	5.1	5.00	5.00	0.00
600.0	10.40	35.52	598.9	15.3	10.9	18.8	5.00	5.00	0.00
700.0	15.40	35.52	696.3	33.5	23.9	41.1	5.00	5.00	0.00
736.2	17.21	35.52	731.0	41.7	29.8	51.3	5.00	5.00	0.00
Fruitland Formation									
800.0	20.40	35.52	791.4	58.5	41.8	71.9	5.00	5.00	0.00
900.0	25.40	35.52	883.5	90.2	64.4	110.8	5.00	5.00	0.00
1,000.0	30.40	35.52	971.9	128.2	91.5	157.5	5.00	5.00	0.00
1,100.0	35.40	35.52	1,055.8	172.4	123.1	211.8	5.00	5.00	0.00
1,192.0	40.00	35.52	1,128.6	218.2	155.8	268.1	5.00	5.00	0.00
1,200.0	41.20	35.52	1,134.7	222 4	158.8	273.3	15.00	15.00	0.00
1,225.0	44.95	35.52	1,152.9	236.3	168.7	290.4	15.00	15.00	0.00
1,250.0	48.70	35.52	1,170.0	251.2	179.3	308.6	15.00	15.00	0.00
1,275.0	52.45	35.52	1,185.9	266.9	190.5	327.9	15.00	15.00	0.00
1,300.0	56.20	35.52	1,200.5	283.4	202.3	348.2	15.00	15.00	0.00
1,325.0	59.95	35.52	1,213.7	300.7	214.7	369.4	15.00	15.00	0.00
1,350.0	63.70	35.52	1,225.5	318.6	227.5	391.5	15.00	15.00	0.00
1,375.0	67.45	35.52	1,235.8	337.1	240.7	414.2	15.00	15.00	0.00
1,400.0	71.20	35.52	1,244.6	356.2	254.3	437.6	15.00	15.00	0.00
1,425.0	74.95	35.52	1,251.9	375.6	268.2	461.5	15.00	15.00	0.00
1,450.0	78.70	35.52	1,257.6	395.4	282.3	485.9	15.00	15.00	0.00
1,475.0	82.45	35.52	1,261.7	415.5	296.6	510.5	15.00	15.00	0.00
1,500.0	86.20	35.52	1,264.2	435 7	311.1	535.4	15.00	15.00	0.00
1,520.8	89.32	35.52	1,265.0	452.6	323.1	556.1	15.00	15.00	0.00
Lower Fruitland Coal									
1,525.0	89.95	35.52	1,265.0	456.1	325.6	560.4	15.00	15.00	0.00
7"									
1,525.3	90.00	35.52	1,265.0	456 3	325.8	560.7	15.00	15.00	0.00
1,600.0	90.00	35.52	1,265.0	517.1	369.2	635.4	0.00	0.00	0.00
1,700.0	90.00	35.52	1,265.0	598.5	427.3	735.4	0.00	0.00	0.00
1,800.0	90.00	35 52	1,265.0	679.9	485.4	835.4	0.00	0.00	0.00
1,900.0	90.00	35.52	1,265.0	761.3	543.5	935.4	0.00	0.00	0.00
2,000.0	90.00	35.52	1,265.0	842.7	601.6	1,035.4	0.00	0.00	0.00
2,100.0	90.00	35.52	1,265.0	924.0	659.7	1,135.4	0.00	0.00	0.00
2,200.0	90.00	35.52	1,265.0	1,005.4	717.8	1,235.4	0.00	0.00	0.00
2,300.0	90.00	35.52	1,265.0	1,086.8	775.9	1,335.4	0.00	0.00	0.00
2,400.0	90.00	35.52	1,265.0	1,168.2	834.0	1,435.4	0.00	0.00	0.00
2,500.0	90.00	35.52	1,265.0	1,249.6	892.1	1,535.4	0.00	0.00	0.00
2,600.0	90.00	35.52	1,265.0	1,331.0	950.2	1,635.4	0.00	0.00	0.00
2,700.0	90.00	35.52	1,265.0	1,412.4	1,008.3	1,735.4	0.00	0.00	0.00
2,800.0	90.00	35.52	1,265.0	1,493.8	1,066.4	1,835.4	0.00	0.00	0.00
2,900.0	90.00	35.52	1,265.0	1,575.1	1,124.5	1,935.4	0.00	0.00	0.00
3,000.0	90.00	35.52	1,265.0	1,656.5	1,182.6	2,035.4	0.00	0.00	0.00
3,100.0	90.00	35.52	1,265.0	1,737.9	1,240.7	2,135.4	0.00	0.00	0.00

XTO Energy Inc

Planning Report

Database:	LMRKTEST	**Local Co-ordinate Reference:**	Well Shipp Gas Com 21
Company:	XTO Energy, Inc.	**TVD Reference:**	Rig KB @ 5790.0ft (Aztec 507)
Project:	San Juan Basin, NM (NAD 83)	**MD Reference:**	Rig KB @ 5790.0ft (Aztec 507)
Site:	Shipp Gas Com 21	**North Reference:**	True
Well:	Shipp Gas Com 21	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Shipp Gas Com 21		
Design:	Permitted Wellbore		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,152.0	90.00	35.52	1,265.0	1,780.2	1,270.9	2,187.3	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Proposed BHL--Shipp G - plan hits target center - Rectangle (sides W20.0 H20.0 D4.0)	0.00	0.00	1,265.0	1,780.2	1,270.9	2,039,340.67	2,626,050.44	36° 36' 14.472 N	108° 9' 50.220 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
3,152.0	1,265.0	4.5	4-1/2	6-1/8
225.0	225.0	9 5/8"	9-5/8	12-1/4
1,525.0	1,265.0	7"	7	8-3/4

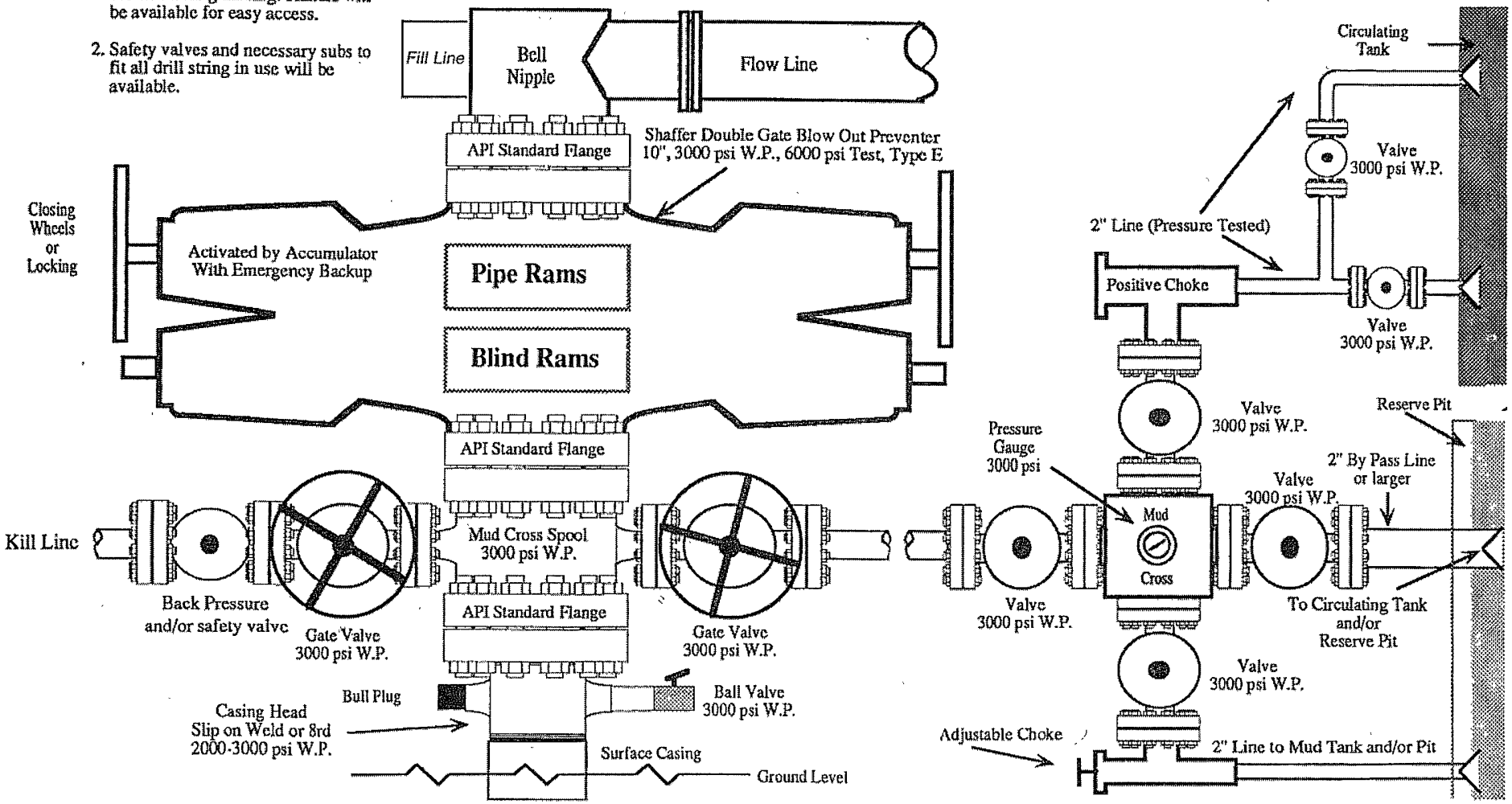
Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
85.0	85.0	Kirtland Shale		0.00	
736.2	731.0	Fruitland Formation		0.00	
1,520.8	1,265.0	Lower Fruitland Coal		0.00	

2,000 PSI BOP SYSTEM

Note: 1. An upper Kelly cock valve will be utilized during drilling. Handle will be available for easy access.

2. Safety valves and necessary subs to fit all drill string in use will be available.



Note: This equipment is designed to meet requirements for a 2-M rating standard per 43 CFR part 3160 (amended). Proper operation and testing of equipment will be carried out per standard. 2,000 psi equipment can be substituted in the drawing to meet minimum requirements per standard.