Form 3160-3
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

JUN 22 20[illegible]

Bureau of Land Mar
Farmington Field Of

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
USA SF 080245

1a. Type of Work [X] DRILL [ ] REENTER

6. If Indian, Allotee or Tribe Name

1b. Type of Well [ ] Oil Well [X] Gas Well [ ] Other [ ] Single Zone [ ] Multiple Zone

7. Unit or CA Agreement Name and No.

2. Name of Operator
Energen Resources Corporation

8. Lease Name and Well No.
Federal 29-9-28 #5

3a. Address
2010 Afton Place Farmington, New Mexico 87401

3b. Phone No. *(include area code)*
(505)325-6800

9. API Well No.
30-045-34998

4. Location of Well *(Report location clearly and in accordance with any State equirements)**

At surface 950'FNL 1429'FWL

10. Field and Pool, or Exploratory
Basin Fruitland Coal

At proposed prod. zone 700'FNL 700'FWL

11. Sec., T., R., M., or Blk. and Survey or Area
(C) Sec.28, T29N, R09W NMPM

14. Distance in miles and direction from nearest town or post office*
15 miles East of Bloomfield, NM

12 County or Parish
San Juan

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any)	16. No. of Acres in lease	17. Spacing Unit dedicated to this well
950'	608.45	W/2

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. on file
262'	2509'	NM2707

21. Elevations (Show whether DF, KDB, RT, GL, etc.	22. Approximate date work will start*	23. Estimated duration
5823' GL	JULY 2009	15 days

RCVD AUG 12 '09
OIL CONS. DIV.
DIST. 3

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)*	Date
	JASON KINCAID	06/22/09

Title
Drilling Engineer

Approved By *(Signature)*	Name *(Printed/Typed)*	Date
		8/10/09

H_2S POTENTIAL EXIST

Title
AFM

Office
FFO

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)

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

NOTIFY AZTEC OCD 24 HRS. PRIOR TO CASING & CEMENT

NOTICE OF APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS.

NMOCD
Hold C104
for Directional Survey
and "As Drilled" plat

AUG 14 2009

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

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

DISTRICT II
1301 W. Grand Avenue , Artesia, NM 88210

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

DISTRICT IV
1220 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. NM 87505

RECEIVED
JUN 29 2009
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
30-045-34998	71629	FC

[4] Property Code	[5] Property Name	[6] Well Number
300450	FEDERAL 29-9-28	#5

[7] OGRID No	[8] Operator Name	[9] Elevation
162928	ENERGEN RESOURCES	5741

[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
C	28	29-N	9-W		950'	NORTH	1429'	WEST	SAN JUAN

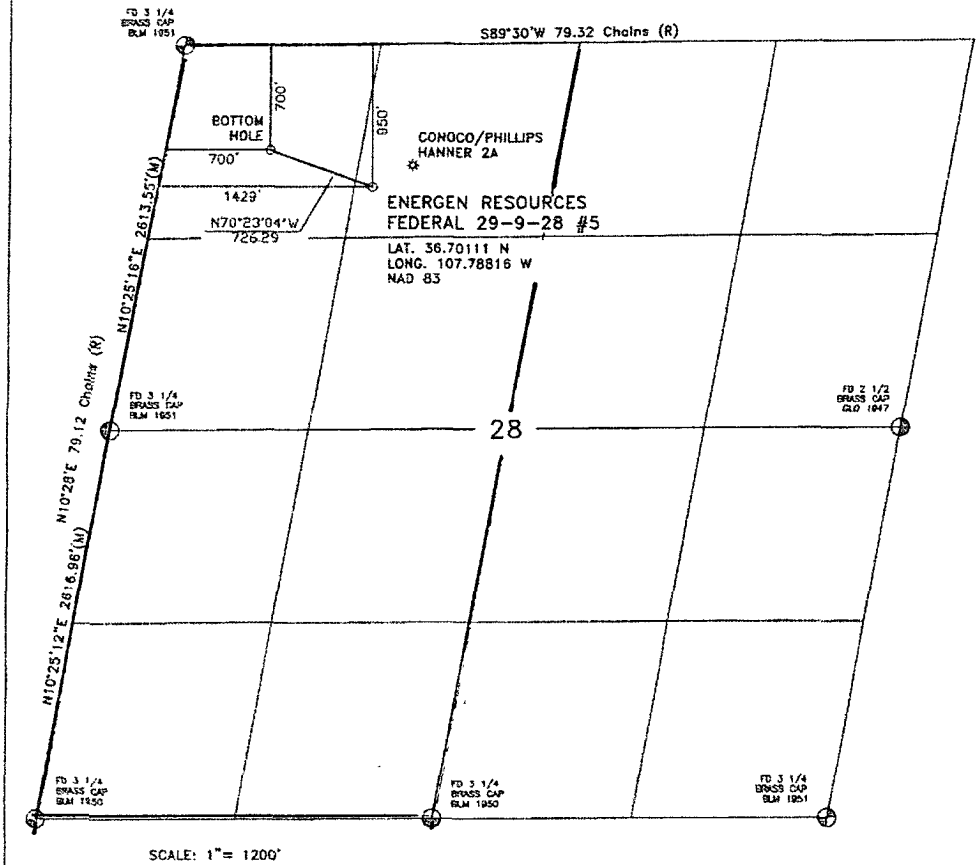
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	28	29-N	9-W		700'	NORTH	700'	WEST	SAN JUAN

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320 W/2			R-13132

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

16



SCALE: 1"= 1200'

[17] 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: 6-29-09

Printed Name: Tracy Knight

[18] 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: 3/31/09

Signature and Seal of Professional Surveyor:

WILLIAM E. MAHNKE II

Certificate Number 8466

6/22/2009

ENERGEN RESOURCES

OPERATIONS PLAN

WELL NAME.....Federal 29-9-28 #5
JOB TYPE.....S-Shape Fruitland Coal
DEPT.....Drilling and Completions
PREPARED BY.....Jason Kincaid

GENERAL INFORMATION

Surface Location	950 FNL 1429 FWL
S-T-R	(C) Sec.28-T29N-R09W
Bottomhole Location	700 FNL 700 FWL
S-T-R	(D) Sec.28-T29N-R09W
County, State	San Juan, New Mexico
Elevations	5741' GL
Total Depth	2509' +/- (MD) 2350' TVD
Formation Objective	Basin Fruitland Coal

FORMATION TOPS

Nacimiento	Surface	
Ojo Alamo Ss	1038' TVD	1093'MD
Kirtland Sh	1203' TVD	1283'MD
Fruitland Fm	1808' TVD	1959'MD
Top Coal	1978' TVD	2131'MD
Base Coal	2158' TVD	2314'MD
Pictured Cliffs	2158' TVD	2314'MD
Total Depth	**2350' TVD**	**2509'MD**

DRILLING

The 12 1/4" wellbore will be drilled with a fresh water mud system.
The 7 7/8" wellbore will be drilled with a low solids fresh water/polymer mud system. Weighting materials will be drill cuttings and, if needed, barite. Mud density is expected to range from 8.3 ppg to 8.9 ppg.

Blowout Control Specifications:

A 2000 psi minimum double ram or annulus BOP stack will be used following nipple up of casing head. A 2" nominal, 2000 psi minimum choke manifold will also be used. An upper Kelly Cock valve handle and drill string valve should be available to fit each drill string and be available on the rig floor during drilling operations.

Logging Program:

Open hole logs: 7-7/8" wellbore induction/gamma ray and density logs.
Mudlogs: none
Surveys: Surface and/or every 500' to TD.

6/22/2009

ENERGEN RESOURCES

CASING, TUBING & CASING EQUIPMENT

String	Start Depth	End Depth	Wellbore	Size	Wt	Grade
Surface	0	150	12-1/4"	8-5/8"	24.0 lb/ft	J-55 ST&C
Production	0	2509	7-7/8"	5-1/2"	15.5 lb/ft	J-55 LT&C
TVD	0	2350				
Tubing	0	2300		2 3/8"	4.7 lb/ft	J-55
TVD	0	2150				

Casing Equipment:

Surface Casing: Depending on wellbore conditions, a Texas Pattern Guide Shoe on first joint with and insert float valve on top. Run standard bow spring centralizers as follows: every other joint from TD to surface.

Production Casing: Depending on wellbore conditions, a Cement nose guide shoe with self fill insert float collar on top of bottom joint and casing centralization with standard bow spring centralizers to optimize standoff.

CEMENTING

Surface Casing: 105 sks Std (class B) with 2.0 % $CaCl_2$ and ¼ #/sk Flocele (15.6 ppg, 1.18 ft^3/sk 59 ft^3 of slurry, 100% excess to circulate to surface). WOC 12 hours. Pressure test surface casing to 750 psi for 30 min.

Production Casing: Before cementing, circulate hole at least 1 ½ hole volumes of mud and reduce funnel viscosity to minimum to aide in hole cleanout. Depending on wellbore conditions, cement may consist of 270 sks 65/35 with 6.0 % Bentonite, 2.0 % $CaCl_2$, 10 #/sk Gilsonite, and ½ #/sk Flocele (12.3 ppg, 1.93 ft^3/sk) and a tail of 150 sks of Class G cement with 5.0 #/sk Gilsonite, and ¼ #/sk Flocele (15.4ppg, 1.18 ft^3/sk). (696 ft^3 of slurry to circulate to surface, 60% excess).

Pump a 10 bbls water, 20 bbls gelled water, 5 bbls water spacer ahead of cement

Cement volumes are subject to change if caliper logs are run and dictate otherwise.

OTHER INFORMATION

1) This well will be cased and the Basin Fruitland Coal fracture stimulated.
2) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control. The production string may need to be cemented in multiple stages with a slurry design deviated from that listed above.
3) If high reservoir pressures or water flows are encountered slurry design may need to be deviated to from those listed above to satisfy wellbore and formation conditions. Anticipated pressure is 300 psi.
4) No abnormal temperatures or pressures are anticipated.
5) This gas is dedicated.

ENERGEN RESOURCES

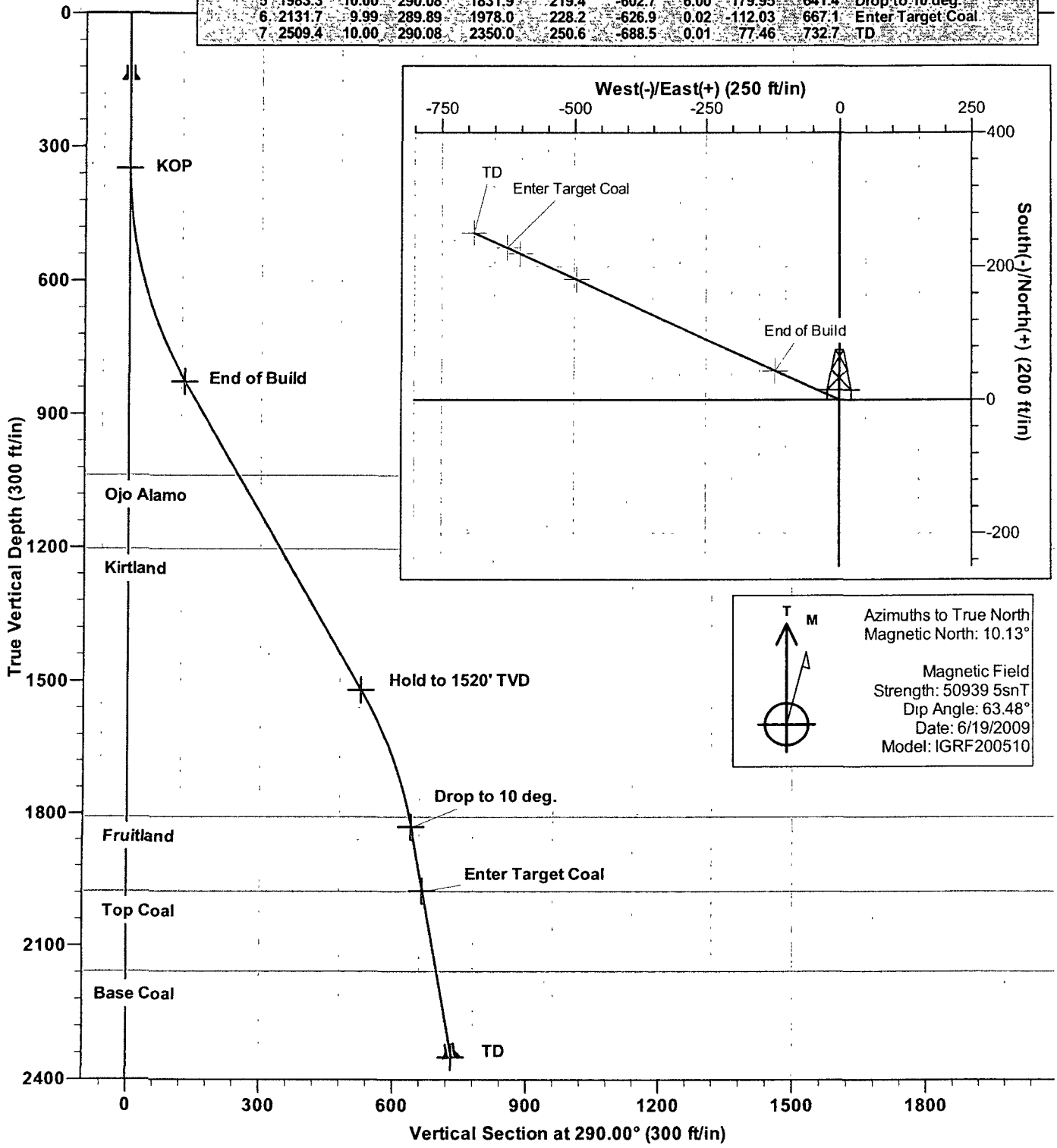
Project: Pilot Project-NENW Sec.38-T29N-R09W
Site: Largo Canyon
Well: Federal 29-9-28 #5
Wellbore: Deviated Infill Fruitland Coal

PROJECT DETAILS:

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Central Zone

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	350.0	0.00	0.00	350.0	0.0	0.0	0.00	0.00	0.0	KOP
3	850.0	30.00	290.02	827.5	43.8	-120.2	6.00	290.02	127.9	End of Build
4	1650.0	30.01	289.97	1520.3	180.6	-496.1	0.00	-66.73	528.0	Hold to 1520' TVD
5	1983.3	10.00	290.08	1831.9	219.4	-602.7	6.00	179.95	641.4	Drop to 10 deg.
6	2131.7	9.99	289.89	1978.0	228.2	-626.9	0.02	-112.03	667.1	Enter Target Coal
7	2509.4	10.00	290.08	2350.0	250.6	-688.5	0.01	77.46	732.7	TD



ENERGEN RESOURCES

Energen Resources

2009 Drilling Program

Company:	Energen Resources	**Local Co-ordinate Reference:**	Well Federal 29-9-28 #5
Project:	Pilot Project-NENW Sec.38-T29N-R09W	**TVD Reference:**	KB @ 5753.0ft (Drilling Rig)
Site:	Largo Canyon	**MD Reference:**	KB @ 5753.0ft (Drilling Rig)
Well:	Federal 29-9-28 #5	**North Reference:**	True
Wellbore:	Deviated Infill Fruitland Coal	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 2003.16 Single User Db

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
TD - plan hits target - Point	0 00	0.00	2,350.0	250 6	-688.5	2,078,363.92	1,188,817.02	36° 42' 6.474 N	107° 47' 25.829 W
Enter Target Coal - plan hits target - Point	0 00	0.00	1,978 0	228 2	-626.9	2,078,340.54	1,188,878.26	36° 42' 6.252 N	107° 47' 25.073 W
Hold to 1520' TVD - plan hits target - Point	0.00	0.00	1,520.3	180 6	-496.1	2,078,290.84	1,189,008 28	36° 42' 5.781 N	107° 47' 23.467 W
Drop to 10 deg. - plan hits target - Point	0 00	0 00	1,831.9	219.4	-602.7	2,078,331.35	1,188,902.31	36° 42' 6.165 N	107° 47' 24.776 W
End of Build - plan hits target - Point	0.00	0 00	827.5	43 8	-120.2	2,078,148 03	1,189,381.93	36° 42' 4 429 N	107° 47' 18.852 W
KOP - plan hits target - Point	0.00	0.00	350.0	0.0	0 0	2,078,102.31	1,189,501.41	36° 42' 3.996 N	107° 47' 17.376 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
150.0	150.0	Surface	8-5/8	12-1/4
2,509.0	2,349.6	Production	5-1/2	7-7/8

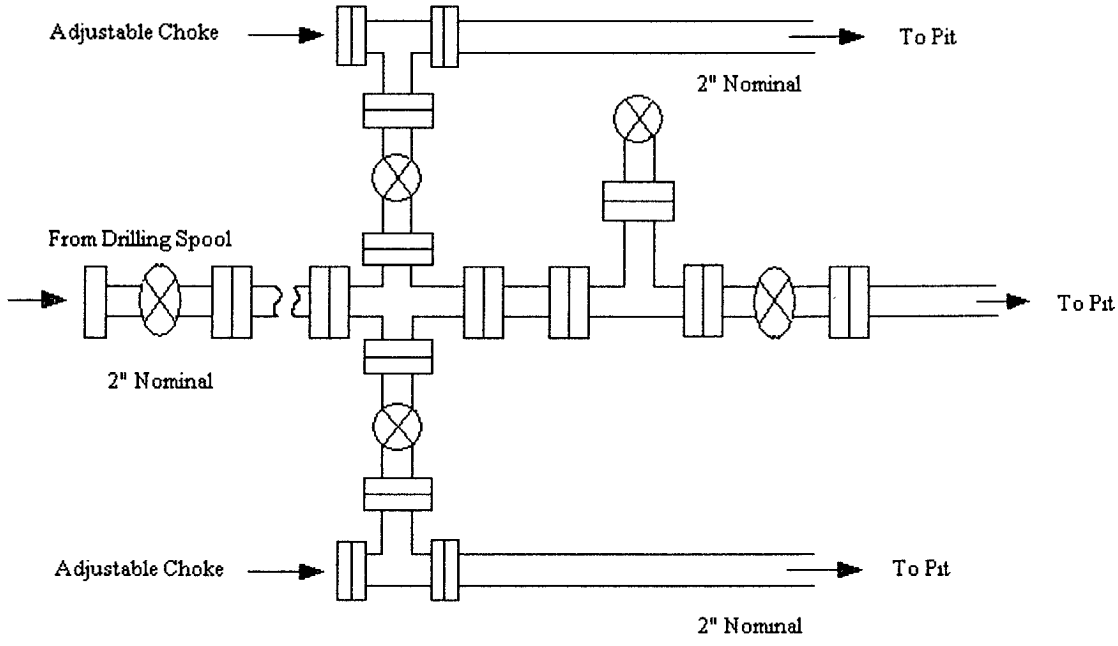
Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,283.6	1,203 0	Kirtland		0.00	
1,959.0	1,808.0	Fruitland		0.00	
2,131 7	1,978.0	Top Coal		0 00	
2,314.4	2,158.0	Pictured Cliffs		0 00	
1,093.1	1,038.0	Ojo Alamo		0 00	
2,314 4	2,158.0	Base Coal		0 00	

Checked By: _____ Approved By: _____ Date: _____

Energen Resources Corporation

Typical 2000 psi Choke Manifold Configuration



Choke manifold installed from surface to TD