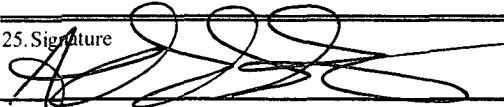
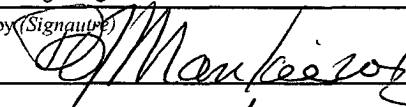


UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED  
OMB NO. 1004-0137  
Expires July 31, 2010MAR 02 2011  
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		Farmington Field Office Bureau of Land Management	
1b. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone			
2. Name of Operator Energen Resources Corporation			
3a. Address 2010 Afton Place Farmington, New Mexico 87401		3b. Phone No. (include area code) (505)325-6800	
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface (I) Sec. 06-T26N-R05W, 2,619' FSL & 721' FEL At proposed prod. zone			
14. Distance in miles and direction from nearest town or post office* 20 miles northwest of Lindrith		5. Lease Serial No. Jicarilla Apache 152	
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drg. unit line, if any) 721'		6. If Indian, Allottee or Tribe Name Jicarilla Apache	
16. No. of Acres in lease 2,557.51		7. Unit or CA Agreement Name and No.	
17. Spacing Unit dedicated to this well 319.60 acres E/2		8. Lease Name and Well No. Jicarilla West #8M	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1,347'		9. API Well No. 30-039-31036	
19. Proposed Depth 7,600'		10. Field and Pool, or Exploratory Blanco Mesaverde/Basin Dakota	
20. BLM/BIA Bond No. on file		11. Sec., T., R., M., or Blk. and Survey or Area Sec. 06-T26N-R05W	
21. Elevations (Show whether DF, KDB, RT, GL, etc) 6,578' GL		12. County or Parish Rio Arriba	
22. Approximate date work will start* 4/1/2011		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. 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  Title Drilling Engineer		Name (Printed/Typed) Andrew Soto Date 3/2/11	
Approved by (Signature)  Title AFM		Name (Printed/Typed) Office FFO Date 4/5/11	
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)

NOTIFY AZTEC OCD 24 HRS.  
PRIOR TO CASING & CEMENTBLM'S 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

JUN 20 2011

A

NMOCD

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

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised July 10, 2010

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

Submit one copy to appropriate  
District Office

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

OIL CONSERVATION DIVISION

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-039-31036	<sup>2</sup> Pool Code 72319/71599	<sup>3</sup> Pool Name Blanco Mesaverte / Basin Dakota
<sup>4</sup> Property Code 21958	<sup>5</sup> Property Name JICARILLA WEST	<sup>6</sup> Well Number 8M
<sup>7</sup> GRID No. 162928	<sup>8</sup> Operator Name ENERGEN RESOURCES CORPORATION	<sup>9</sup> Elevation 6578'

<sup>10</sup> Surface Location

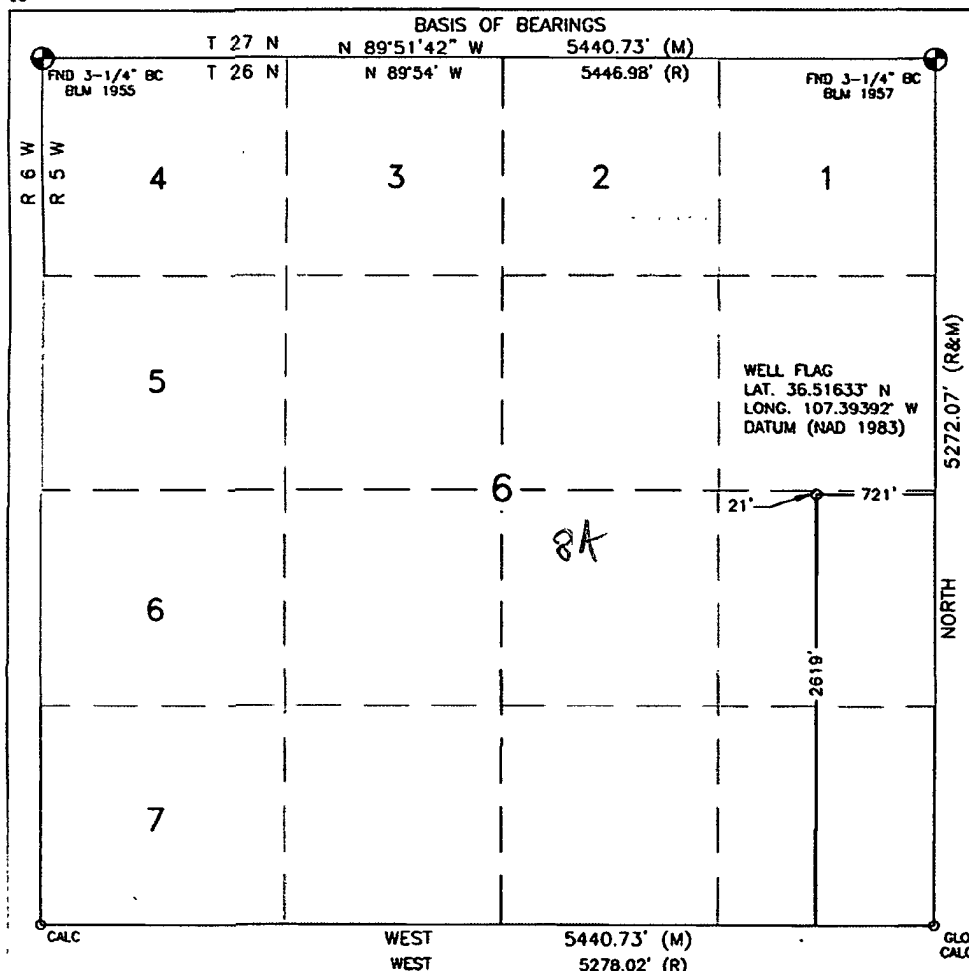
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	6	26N	5W		2619'	SOUTH	721'	EAST	RIO ARRIBA

<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 319.66 acres E/2					<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

16



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 voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature

Date

Andrew Soto

Printed Name

asoto@energen.com

E-mail Address

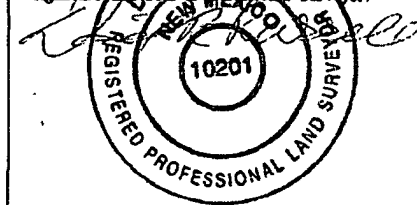
18 SURVEYOR CERTIFICATION

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

NOVEMBER 3, 2010

Date of Survey

Signature and Seal of Registered Surveyor:



DAVID RUSSELL

Certificate Number

10201

3/2/2011

**OPERATIONS PLAN**

**WELL NAME**.....Jicarilla West #8M  
**JOB TYPE**.....Vertical Blanco Mesaverde/Basin Dakota  
**DEPT**.....Drilling and Completions  
**PREPARED BY**.....Andrew Soto

**GENERAL INFORMATION**

Surface Location	2,619' FSL & 721' FEL
S-T-R	(K) Sec. 06, T26N, R05W
County, State	Rio Arriba, New Mexico
Elevations	6,578' GL
Total Depth	7,600' +/- (MD)
Formation Objective	Blanco Mesaverde Basin Dakota

**FORMATION TOPS**

San Jose	Surface
Nacimiento	1,590' (TVD)
Ojo Alamo Ss	2,525' (TVD)
Kirtland Sh	2,725' (TVD)
Fruitland Fm	2,790' (TVD)
Pictured Cliffs SS	3,190' (TVD)
Lewis Shale	3,360' (TVD)
Cliff House SS	4,880' (TVD)
Menefee Fm	4,980' (TVD)
Point Lookout SS	5,390' (TVD)
Mancos Sh	5,785' (TVD)
Greenhorn Ls	7,305' (TVD)
Graneros Sh	7,370' (TVD)
Dakota Pagaute SS	7,400' (TVD)
Dakota Cubero SS	7,435' (TVD)
Dakota Oak Cannon SS	7,470' (TVD)
Dakota Encinal Canyon Fm.	7,520' (TVD)
<b>Total Depth</b>	<b>7,600' (MD)/(TVD)</b>

**DRILLING**

**Surface:** 12 1/4" wellbore will be drilled with a fresh water mud system (spud mud).

**Intermediate:** 8 3/4" wellbore will be drilled with a LSND mud system. Weighting materials will be drill cuttings and if needed barite. Mud density is expected to range from 8.4 ppg to 9.0 ppg.

**Production:** 6 1/4" wellbore will be drilled with an air hammer system or air/mist system depending on reservoir characteristics. Anticipated BHP can be as high as 2,000 psi.

**Blowout Control Specifications:**

A 3,000 psi minimum double ram or annulus BOP stack will be used following nipple up of casing head. A 2" nominal, 2,000 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. **Pressure test BOP to 250 psi for 15 min and 2,000 psi for 15 min.**

3/2/2011

**Logging Program:**

Open hole logs: Schlumberger's Platform Express from Intermediate casing pt to TD.

Mudlogs: From intermediate casing point to TD.

Surveys: Surface casing point and every 500' from surface to TD.

**CASING, TUBING & CASING EQUIPMENT**

String	Start Depth	End Depth	Wellbore	Size	Wt	Grade
Surface	0	250'	12 1/4"	9 5/8"	32.3 lb/ft	H-40 ST&C
Intermediate	0	3,750'	8 3/4"	7"	23 lb/ft	J-55 LT&C
Prod. Casing	0	7,600'	6 1/4"	4 1/2"	11.6 lb/ft	J-55 LT&C
Tubing	0	7,600'	none	2 3/8"	4.7 lb/ft	J-55

**Surface Casing:** Texas Pattern Guide Shoe on bottom of first joint and an insert float valve on top of first joint. Casing centralization will be done with a minimum of 3 standard bow spring centralizers to achieve optimal standoff.

**Intermediate Casing:** Self fill float shoe with self fill float collar on bottom and top of first joint. Casing centralization will be done with double bow spring centralizers to optimize standoff.

**Production Casing:** Self fill float shoe with self fill float collar on bottom and top of the first joint followed by the casing. Casing centralization will be done with double bow spring centralizers to optimize standoff. If multistage cementing is required, DV tools will be placed based on formation characteristics.

**WELLHEAD**

11" x 9 5/8" 3,000 psi weld/slip on casing head. 9 5/8" x 7 1/16" 3,000 psi flanged christmas tree.

**CEMENTING**

**Surface Casing:** 133 sks Type V with 2.0 % CaCl<sub>2</sub> and 1/4 #/sk Flocele (15.6 ppg, 1.18 ft<sup>3</sup>/sk 157 ft<sup>3</sup> of slurry, 100% excess to circulate to surface). WOC 12 hours. Pressure test surface casing to 750 psi for 30 min.

**Intermediate Casing:** Depending on wellbore conditions, cement may consist of 305 sks PRB II with 5 #/sk Gilsonite, and 1/4 #/sk Flocele (12.3 ppg, 2.24 ft<sup>3</sup>/sk) and a tail of 100 sks PRB II with 5 #/sk Gilsonite and 1/4 #/sk Flocele (13.5 ppg, 1.81 ft<sup>3</sup>/sk) (865 ft<sup>3</sup> of slurry, 100% excess lead to circulate to surface). WOC 12 hours. Test casing to 1,500 psi for 30 min.

**Production Casing:** Depending on wellbore conditions, pre-flush with 10 bbls H<sub>2</sub>O + 20 bbls Chem Flush + 10 bbls scavenger slurry (mix at lighter density). Follow flush with a lead of 149 sks 65/35 Halliburton Light Premium with 10#/sk Gilsonite, 1/2 #/sk Flocele 1.2% Halad-9 (12.3 ppg, 1.8 ft<sup>3</sup>/sk) and a tail of 316 sks 50/50 Poz Premium with 5#/sk Gilsonite, 1/4 #/sk Flocele and 1.2% Halad-9 (13.5 ppg, 1.31 ft<sup>3</sup>/sk) (682 ft<sup>3</sup>, 20% excess of OH to circulate inside of intermediate casing). The top of tail is designed to 4,600' FS and the top of lead is designed to 3,550' FS (plus excess).

3/2/2011

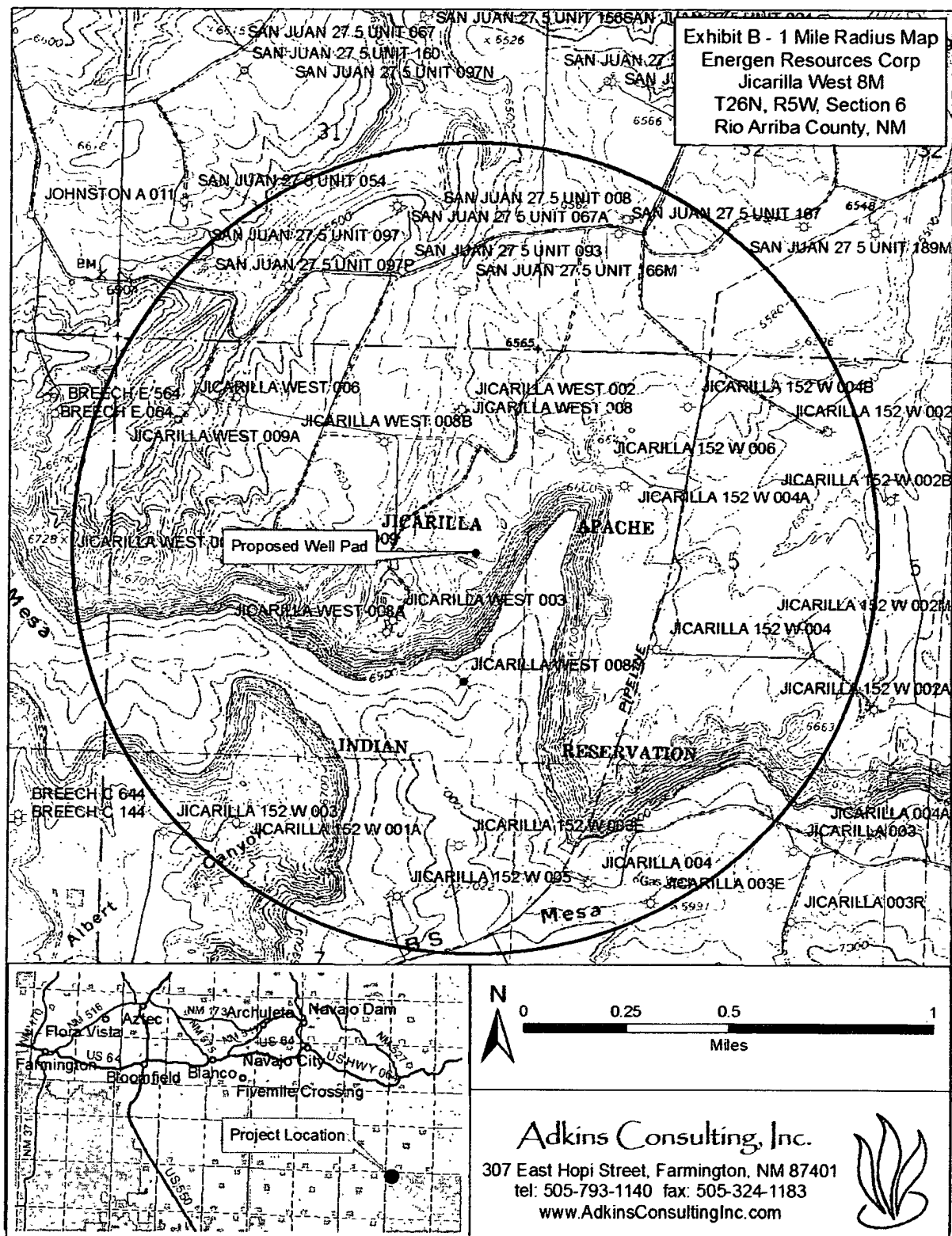
**Set slips with full string weight**

A CBL will be ran to determine TOC.

**OTHER INFORMATION**

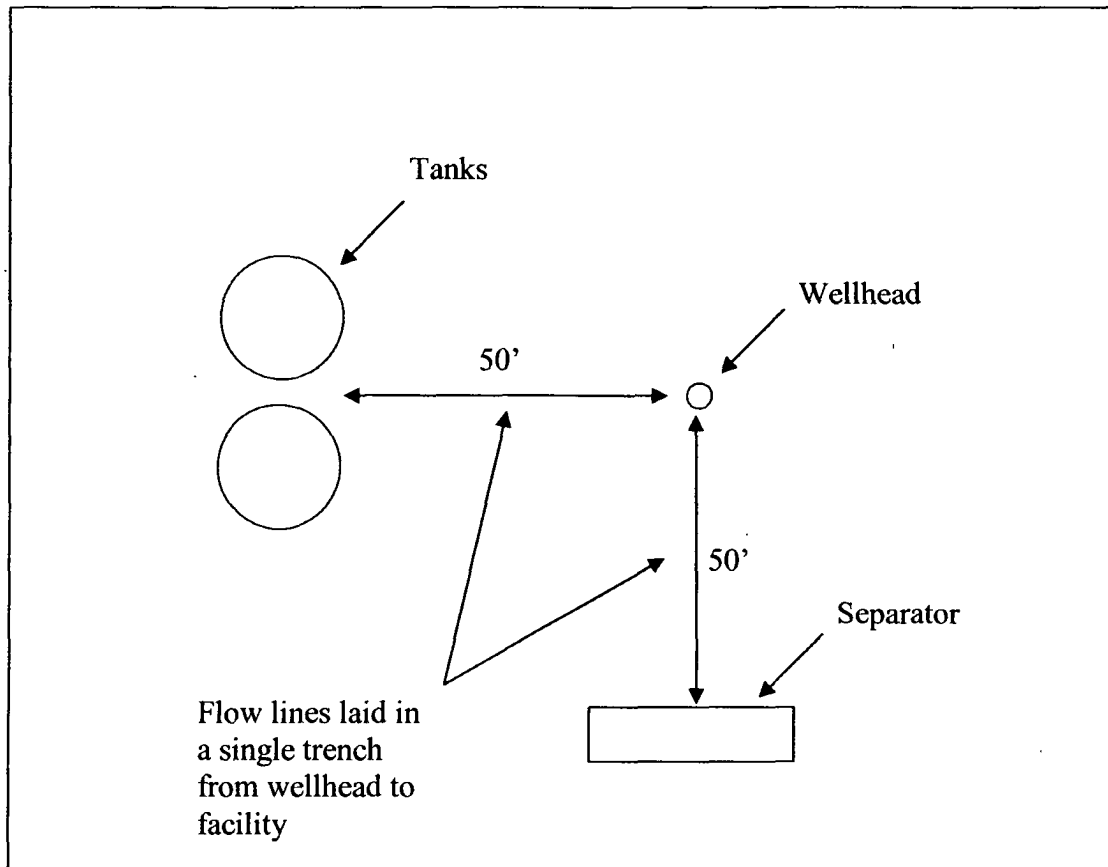
- 1) This well will be a cased hole completion and the Mesaverde and Dakota formations will be fracture stimulated and downhole commingled.
- 2) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control. The production string may need to be cemented in 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 from those listed above to satisfy wellbore and formation conditions.
- 4) No abnormal temperatures or pressures are anticipated.
- 5) This gas is dedicated.

# EXHIBIT B



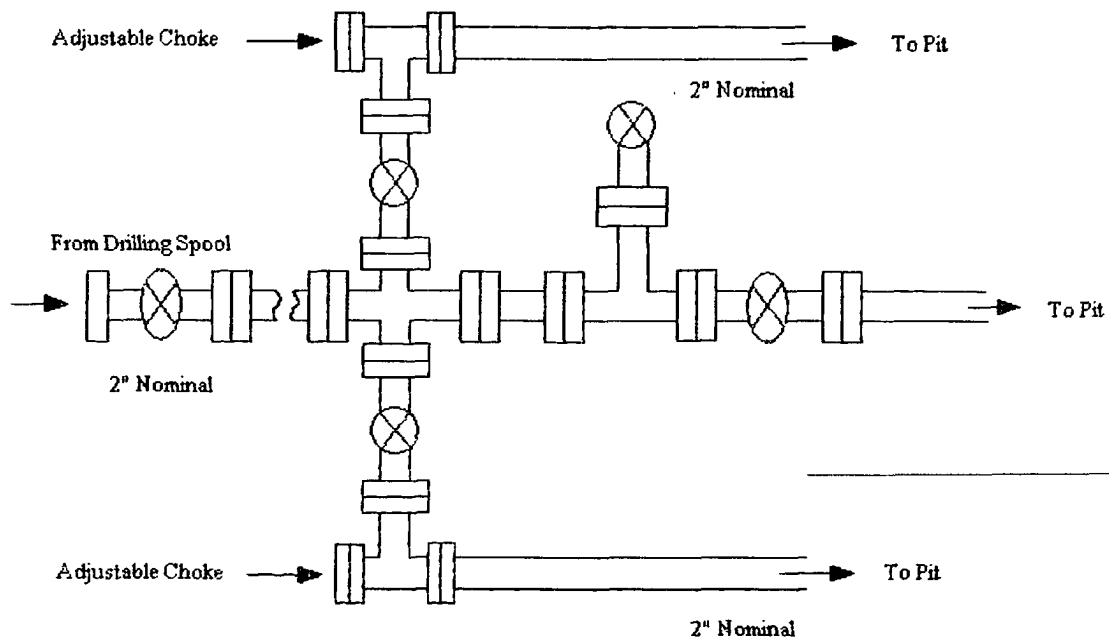
## EXHIBIT C

Typical Energen well pad layout with production facilities



- 50 feet is a minimum offset to ensure facilities are on the outside of the drill rig anchors for work-over activity.

**Energen Resources Corporation**  
Typical 2000 psi Choke Manifold Configuration



Choke manifold installed from surface to TD



# Energen Resources Corporation

## Typical BOP Configuration for Gas Drilling

