Form 3160-3
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
JUN 25 2008
Bureau of Land Management
Farmington Field Office

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: USA SF 079011

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.: NMNM- 78422A-MV

2. Name of Operator: Energen Resources Corporation

8. Lease Name and Well No.: San Juan 32-5 Unit #12C

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

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

9. API Well No.: 30-039-30553

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

At surface: 1593 fnl, 866 fwl

At proposed prod. zone: 1600 fnl, 110 fel

10. Field and Pool, or Exploratory: Mesa Verde

11. Sec., T., R., M., or Blk. and Survey or Area: E Sec 24, T32N, R6W

14. Distance in miles and direction from nearest town or post office*: Approx 9 miles SE Arboles, CO

12. County or Parish: Rio Arriba

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
110'	1480.00	E/2 - 320.00
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**
75'	8816' MD	NM 2707
21. Elevations (Show whether DF, KDB, RT, GL, etc.	**22. Approximate date work will start***	**23. Estimated duration**
6356' GL	8/15/08	35 days

24. Attachments

RCVD MAR 31 '10

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

OIL CONS. DIV.

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.

DIST. 3

25. Signature	Name (*Printed/Typed*)	Date
	Nathan Smith	6/18/08

Title: Drilling Engineer

Approved by (Signature)	Name (*Printed/Typed*)	Date
/s/ Monica Kuehling		3/29/2010
Title	**Office**	
AFM	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 knowlingly 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 30 2010

NMOCD

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

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

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
30-039-30553	72319	Blanco MESAVERDE

4 Property Code	5 Property Name	6 Well Number
21996	SAN JUAN 32-5 UNIT	12 H

7 OGRID No.	8 Operator Name	9 Elevation
162928	ENERGEN RESOURCES CORPORATION	6353'

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
L	24	32N	6W		1716'	SOUTH	811'	WEST	RIO ARRIBA

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
H	19	32N	5W	2	1600'	NORTH	760'	EAST	RIO ARRIBA

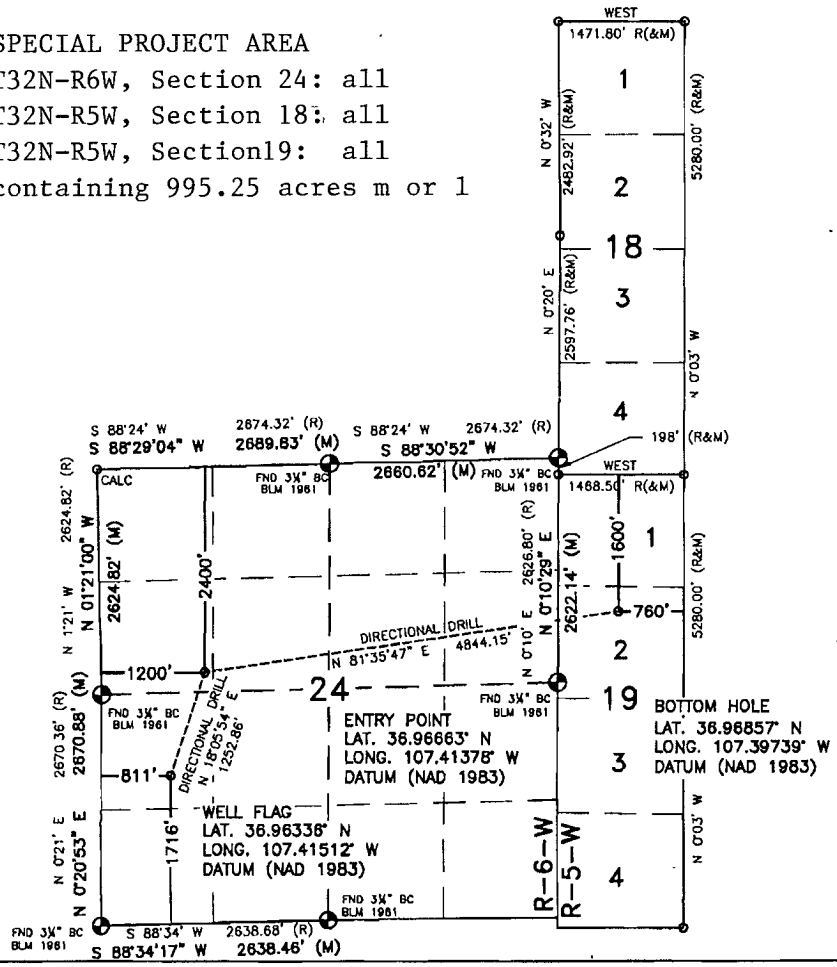
12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
995.25 acres			R-2319 SECS 18 & 19

RCVD APR 26 '10
OIL CONS. DIV.
DIST. 3

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

SPECIAL PROJECT AREA
T32N-R6W, Section 24: all
T32N-R5W, Section 18: all
T32N-R5W, Section19: all
containing 995.25 acres m or 1



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 or a compulsory pooling order heretofore entered by the division.

Signature Date 4/22/2010

DAVID M. POAGE
Printed Name

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.

SEPTEMBER 19, 2008
Date of Survey

Signature and Seal of Professional Surveyor:

DAVID R. RUSSELL
NEW MEXICO
10201
REGISTERED PROFESSIONAL LAND SURVEYOR

DAVID RUSSELL
Certificate Number 10201

ENERGEN
RESOURCES

April 9, 2010

Mr. Steve Hayden
State of New Mexico
Oil Conservation Division
1000 Rio Brazos Rd.
Aztec, NM 87410

RE: San Juan 32-5 Unit # 12C Well
Section 24-32N-6W and 18 & 19-32n-5W
Rio Arriba County, New Mexico

Gentlemen:

Energen Resources is planning to drill the referenced well in a manner so that a horizontal wellbore will cross three spacing units. This will occur in the well shown above. Oil Conservation Division Order No. R-12868-C requires in situations like these that the Operator "shall submit a statement signed by an attorney or land specialist certifying that all owners of all interests in all of the constituent spacing units have agreed upon a formula for allocation of production from the horizontal well."

The well listed above is located in the San Juan 32-5 Unit and all of the interests in these spacing units are committed to and have joined this Unit, including the Unit Agreements. These Unit Agreements control the allocation of all costs and production in all lands included within a particular participating area. The well and the spacing units thereto are within the present Mesaverde Participating Area. Thus the requirement that all parties have agreed to the allocation of production has been met.

For your information I am advising that the only party to this Mesaverde Participating Area other than Energen is XTO Energy.

I am also enclosing a revised C-102 plat which shows the Special Project Area acreage and description.

Please include this letter and the attachment in your files to show that Energen Resources has complied with Order R-12868-C.

Sincerely,

David M. Poage
District Landman

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
DEC 17 2009
Bureau of Land Management
Farmington Field Office

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

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE *- Other instructions on page 2*

5. Lease Serial No.
USA SF 079011

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
NMNM- 78422A-MV

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
San Juan 32-5 Unit # 12C

2. Name of Operator
Energen Resources Corporation

9. API Well No.
30-039-30553

3a. Address
2010 Afton Place, Farmington, NM 87401

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

10. Field and Pool, or Exploratory Area
Mesa Verde

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
SHL: (E) Sec.24, T32N, R06W 1593'FNL & 866'FWL
BHL: (E) Sec.19, T32N, R06W 1400'FNL & 760'FEL

11. County or Parish, State
Rio Arriba NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

Energen Resources would like to make the following change to the San Juan 32-5 Unit #12C. The changes will be pertaining to the landing point of the 7" int. casing and the BHL:

* Change kick-off point to 3850'MD
* Change int. casing setting measured depth (MD) TD to 5389' MD and cement with 580 sks lead followed by 150 sks tail.
* Change the TD of the well to 9602' (MD) and run the 4 1/2" liner to this depth with a new liner top of 5300' (MD).
* Change the bottom hole footage location to 1400'FNL 760'FEL of Sec. 19-T32N-R06W

Attached is a revised C-~~104~~ 102, directional drilling and operations plan.

RCVD MAR 31 '10
OIL CONS. DIV.
DIST. 3

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)* Stephen Byers
Title Drilling Engineer
Signature Stephen Byers
Date 12/17/2009

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by
Title AFM
Date 3/29/2010
Office FFO

Conditions of approval, if any, are attached. Approval of this notice 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.

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes 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.

NMOCD

12/17/2009

ENERGEN RESOURCES

OPERATIONS PLAN

WELL NAME.....San Juan 32-5 Unit #12C
JOB TYPE.....Horizontal Lewis Shale
DEPT.....Drilling and Completions
PREPARED BY.....Jason Kincaid

GENERAL INFORMATION

Surface Location	1593 FNL 866 FWL
S-T-R	(E) Sec.24, T32N, R06W
Bottom Hole Location	1400 FNL 760 FEL
S-T-R	(E) Sec.19, T32N, R06W
County, State	Rio Arriba, New Mexico
Elevations	6438' GL
Total Depth	9602' +/- (MD); 4830' (TVD)
Formation Objective	Lewis Shale - Otero

FORMATION TOPS

San Jose	Surface
Nacimiento	1100' (TVD)
Ojo Alamo Ss	2400' (TVD)
Kirtland Sh	2510' (TVD)
Fruitland Fm	2890' (TVD)
Top Coal Interval	3068' (TVD)
Pictured Cliffs	3170' (TVD)
Lewis Shale	3540' (TVD)
Huerfanito Bentonite	4240' (TVD), 4251' (MD)
*Top of Otero	4710' (TVD), 4899' (MD)
Otero Target	4830' (TVD)
Total Depth	**4830' (TVD), 9602' (MD)**

The prognosis TVD's for the Lewis lateral at horizontal entry point

DRILLING

Surface Wellbore: wellbore will be drilled with spud mud.
Intermediate Wellbore: wellbore will be drilled with a Low Solids Non-Dispersed mud with densities expected to range from 8.8 ppg to 9.2 ppg, or Air/Mist as the wellbore dictates.
Production Wellbore: 6 ¼" wellbore will be drilled with Air/Mist.
Projected KOP is 3850' TVD with 5.85°/100' doglegs. Anticipated BHP is 500 psi.

Blowout Control Specifications:

A 3000 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. **Pressure test BOP to 250 psi for 15 min and 2000 psi for 15 min.**

Logging Program:

Open hole logs: FMI (Focused Micro Imaging)
Mudlogs: 4228' TVD, 4347' MD to TD
Surveys: Surface to KOP every 500' and a minimum of every 200' for directional.

12/17/2009

ENERGEN RESOURCES

CASING, TUBING & CASING EQUIPMENT

String	Start Depth	End Depth	Wellbore	Size	Wt	Grade
Surface	0	400	12-1/4"	9-5/8"	32.3 lb/ft	H-40 ST&C
Intermediate TVD	0 0	5389 4830	8-3/4"	7"	23 lb/ft	J-55 LT&C
Prod. Liner TVD	5300 4828	9602 4830	6-1/4"	4-1/2"	11.6 lb/ft	J-55 LT&C
Tubing	0	5200	none	2-3/8"	4.7 lb/ft	J-55

Casing Equipment:

Surface Casing: Texas Pattern Guide Shoe on bottom of first joint and an insert float valve on top of first joint. Casing centralization with 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 with double bow spring and centralizers to optimize standoff.

Liner: Bull nose guide shoe on bottom of first joint, Packers Plus liner hanger and frac sleeves at frac intervals.

WELLHEAD

11" 3000 x 9 5/8" weld/slip on casing head. 11" 3000 x 7 1/16" Christmas Tree.

CEMENTING

Surface Casing: 250 sks Type V with 2.0 % $CaCl_2$ and ¼ #/sk Flocele (15.6 ppg, 1.18 ft^3/sk 250 ft^3 of slurry, 100 % excess to circulate to surface). WOC 12 hours. Pressure test surface casing to 750 psi for 30 min. Nipple up BOP after WOC. Test BOP to 250 psi low, 1200 psi high for 15 min each. Test choke manifold to 1200 psi for 30 min.

Intermediate Casing: Depending on wellbore conditions, cement may consist of 580 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 Class G with ¼ #/sk Flocele (15.6 ppg, 1.18 ft^3/sk). (1295 ft^3 of slurry, 60% excess to circulate to surface). WOC 12 hours. Test casing to 1200 psi for 30 min. Test BOP to 250 psi low, 1200 psi high for 15 min each. Test choke manifold to 1200 psi for 30 min.

Production Liner: NO CEMENT, Open Hole Completion

****Cement volumes subject to change if caliper logs are ran****

Set slips with full string weight

If cement does not circulate, run temperature survey in 8 hrs. to determine TOC.

12/17/2009

ENERGEN RESOURCES

OTHER INFORMATION

1) This well will be an open hole completion lined with an uncemented pre-drilled liner. The Otero portion of the Lewis Shale will be fracture stimulated..

2) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control. The intermediate 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.

4) No abnormal temperatures or pressures are anticipated.

5) This gas is dedicated.

ENERGEN RESOURCES

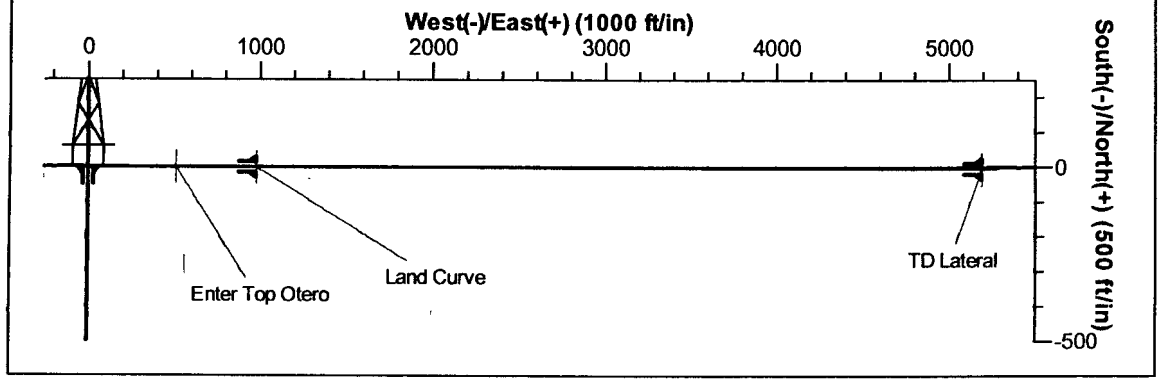
Project: SJBR - Sec.24-T32N-R06W
Site: Eul Canyon
Well: San Juan 32-5 Unit #12C
Wellbore: HZ Lewis Shale

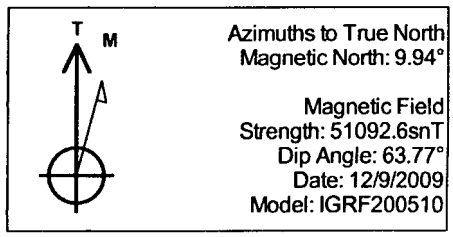
PROJECT DETAILS:

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	3850.0	0.00	0.00	3850.0	0.0	0.0	0.00	0.00	0.0	KOP
3	4899.3	61.35	90.06	4710.0	-0.5	510.1	5.85	90.06	510.1	Enter Top Otero
4	5389.4	90.00	90.04	4830.0	-0.9	980.0	5.85	-0.03	980.0	Land Curve
5	9602.3	90.00	90.06	4830.0	-4.5	5192.9	0.00	98.44	5192.9	TD Lateral





ENERGEN RESOURCES

Energen Resources

Directional Plan

Company:	Energen Resources Corp.	**Local Co-ordinate Reference:**	Well San Juan 32-5 Unit #12C
Project:	SJBR - Sec.24-T32N-R06W	**TVD Reference:**	KB @ 6450.0ft (Drilling Rig)
Site:	Eul Canyon	**MD Reference:**	KB @ 6450.0ft (Drilling Rig)
Well:	San Juan 32-5 Unit #12C	**North Reference:**	True
Wellbore:	HZ Lewis Shale	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 2003.16 Single User Db

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	Build (°/100ft)	N/S (ft)	E/W (ft)	V. Sec (ft)
4,050.0	4,048.6	11.69	90.06	5.85	0.0	20.3	20.3
4,100.0	4,097.3	14.62	90.06	5.85	0.0	31.7	31.7
4,150.0	4,145.3	17.54	90.06	5.85	0.0	45.6	45.6
4,200.0	4,192.6	20.46	90.06	5.85	-0.1	61.8	61.8
4,250.0	4,239.0	23.39	90.06	5.85	-0.1	80.5	80.5
4,251.1	4,240.0	23.45	90.06	5.85	-0.1	80.9	80.9
			Huefanito Bentonite				
4,300.0	4,284.4	26.31	90.06	5.85	-0.1	101.5	101.5
4,350.0	4,328.6	29.23	90.06	5.85	-0.1	124.8	124.8
4,400.0	4,371.6	32.16	90.06	5.85	-0.1	150.3	150.3
4,446.1	4,410.0	34.85	90.06	5.85	-0.2	175.8	175.8
			Top of Navajo City				
4,450.0	4,413.2	35.08	90.06	5.85	-0.2	178.0	178.0
4,500.0	4,453.4	38.00	90.06	5.85	-0.2	207.8	207.8
4,550.0	4,492.0	40.93	90.06	5.85	-0.2	239.5	239.5
4,600.0	4,528.9	43.85	90.06	5.85	-0.3	273.3	273.3
4,650.0	4,564.1	46.77	90.06	5.85	-0.3	308.8	308.8
4,700.0	4,597.4	49.70	90.06	5.85	-0.3	346.1	346.1
4,735.8	4,620.0	51.79	90.06	5.85	-0 4	373.8	373.8
			Base of Navajo City				
4,750.0	4,628.7	52.62	90.06	5.85	-0.4	385.0	385.0
4,800.0	4,658.1	55.54	90.06	5.85	-0.4	425.5	425.5
4,850.0	4,685.3	58.46	90.06	5.85	-0.5	467.4	467.4
4,899.3	4,710.0	61.35	90.06	5.85	-0.5	510.1	510.1
			Top of Otero - Enter Top Otero				
4,950.0	4,733.1	64.31	90.05	5.85	-0.5	555.2	555.2
5,000.0	4,753.7	67.23	90.05	5.85	-0.6	600.8	600.8
5,050.0	4,771.8	70.16	90.05	5.85	-0.6	647.4	647.4
5,100.0	4,787.6	73.08	90.05	5.85	-0.7	694.8	694.8
5,150.0	4,800.9	76.00	90.05	5.85	-0.7	743.0	743.0
5,200.0	4,811.8	78.93	90.05	5.85	-0.8	791.8	791.8
5,250.0	4,820.1	81.85	90.05	5.85	-0.8	841.1	841.1
5,300.0	4,825.9	84.77	90.04	5.85	-0.8	890.7	890.7
5,350.0	4,829.2	87.70	90.04	5.85	-0.9	940.6	940.6
5,389.4	4,830.0	90.00	90.04	5.85	-0.9	980.0	980.0
			Otero Target - Land Curve				
5,400.0	4,830.0	90.00	90.04	0.00	-0.9	990.6	990.6
5,500.0	4,830.0	90.00	90.04	0.00	-1.0	1,090.6	1,090.6
5,600.0	4,830.0	90.00	90.04	0.00	-1.1	1,190.6	1,190.6
5,700.0	4,830.0	90.00	90.04	0.00	-1.1	1,290.6	1,290.6
5,800.0	4,830.0	90.00	90.04	0.00	-1.2	1,390.6	1,390.6
5,900.0	4,830.0	90.00	90.04	0.00	-1.3	1,490.6	1,490.6
6,000.0	4,830.0	90.00	90.04	0.00	-1.4	1,590.6	1,590.6
6,100.0	4,830.0	90.00	90.04	0.00	-1.4	1,690.6	1,690.6
6,200.0	4,830.0	90.00	90.04	0.00	-1.5	1,790.6	1,790.6

ENERGEN RESOURCES

Energen Resources

Directional Plan

Company:	Energen Resources Corp.	**Local Co-ordinate Reference:**	Well San Juan 32-5 Unit #12C
Project:	SJBR - Sec.24-T32N-R06W	**TVD Reference:**	KB @ 6450.0ft (Drilling Rig)
Site:	Eul Canyon	**MD Reference:**	KB @ 6450.0ft (Drilling Rig)
Well:	San Juan 32-5 Unit #12C	**North Reference:**	True
Wellbore:	HZ Lewis Shale	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 2003.16 Single User Db

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	Build (°/100ft)	N/S (ft)	E/W (ft)	V. Sec (ft)
6,300.0	4,830.0	90.00	90.05	0.00	-1.6	1,890.6	1,890.6
6,400.0	4,830.0	90.00	90.05	0.00	-1.7	1,990.6	1,990.6
6,500.0	4,830.0	90.00	90.05	0.00	-1.8	2,090.6	2,090.6
6,600.0	4,830.0	90.00	90.05	0.00	-1.8	2,190.6	2,190.6
6,700.0	4,830.0	90.00	90.05	0.00	-1.9	2,290.6	2,290.6
6,800.0	4,830.0	90.00	90.05	0.00	-2.0	2,390.6	2,390.6
6,900.0	4,830.0	90.00	90.05	0.00	-2.1	2,490.6	2,490.6
7,000.0	4,830.0	90.00	90.05	0.00	-2.2	2,590.6	2,590.6
7,100.0	4,830.0	90.00	90.05	0.00	-2.2	2,690.6	2,690.6
7,200.0	4,830.0	90.00	90.05	0.00	-2.3	2,790.6	2,790.6
7,300.0	4,830.0	90.00	90.05	0.00	-2.4	2,890.6	2,890.6
7,400.0	4,830.0	90.00	90.05	0.00	-2.5	2,990.6	2,990.6
7,500.0	4,830.0	90.00	90.05	0.00	-2.6	3,090.6	3,090.6
7,600.0	4,830.0	90.00	90.05	0.00	-2.7	3,190.6	3,190.6
7,700.0	4,830.0	90.00	90.05	0.00	-2.8	3,290.6	3,290.6
7,800.0	4,830.0	90.00	90.05	0.00	-2.8	3,390.6	3,390.6
7,900.0	4,830.0	90.00	90.05	0.00	-2.9	3,490.6	3,490.6
8,000.0	4,830.0	90.00	90.05	0.00	-3.0	3,590.6	3,590.6
8,100.0	4,830.0	90.00	90.05	0.00	-3.1	3,690.6	3,690.6
8,200.0	4,830.0	90.00	90.05	0.00	-3.2	3,790.6	3,790.6
8,300.0	4,830.0	90.00	90.05	0.00	-3.3	3,890.6	3,890.6
8,400.0	4,830.0	90.00	90.05	0.00	-3.4	3,990.6	3,990.6
8,500.0	4,830.0	90.00	90.05	0.00	-3.5	4,090.6	4,090.6
8,600.0	4,830.0	90.00	90.05	0.00	-3.6	4,190 6	4,190.6
8,700.0	4,830.0	90.00	90.05	0.00	-3.6	4,290.6	4,290.6
8,800.0	4,830.0	90.00	90.05	0.00	-3.7	4,390.6	4,390.6
8,900.0	4,830.0	90.00	90.05	0.00	-3.8	4,490.6	4,490.6
9,000.0	4,830.0	90.00	90.05	0.00	-3.9	4,590.6	4,590.6
9,100.0	4,830.0	90.00	90.05	0.00	-4.0	4,690.6	4,690.6
9,200.0	4,830.0	90.00	90.05	0 00	-4.1	4,790.6	4,790.6
9,300.0	4,830.0	90.00	90.05	0.00	-4.2	4,890.6	4,890.6
9,400.0	4,830.0	90.00	90.05	0.00	-4.3	4,990.6	4,990.6
9,500.0	4,830.0	90.00	90.06	0.00	-4.4	5,090.6	5,090.6
9,602.3	4,830.0	90.00	90.06	0.00	-4.5	5,192.9	5,192.9
				TD Lateral			

ENERGEN RESOURCES

Energen Resources

Directional Plan

Company:	Energen Resources Corp.	**Local Co-ordinate Reference:**	Well San Juan 32-5 Unit #12C
Project:	SJBR - Sec.24-T32N-R06W	**TVD Reference:**	KB @ 6450.0ft (Drilling Rig)
Site:	Eul Canyon	**MD Reference:**	KB @ 6450.0ft (Drilling Rig)
Well:	San Juan 32-5 Unit #12C	**North Reference:**	True
Wellbore:	HZ Lewis Shale	**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
KOP - plan hits target - Point	0.00	0.00	3,850.0	0.0	0.0	2,174,025.92	1,300,090.39	36° 58' 7.752 N	107° 24' 53.964 W
TD Lateral - plan hits target - Point	0.00	0.00	4,830.0	-4.5	5,192.9	2,173,957.91	1,305,282.84	36° 58' 7.703 N	107° 23' 49.977 W
Land Curve - plan hits target - Point	0.00	0.00	4,830.0	-0.9	980.0	2,174,013.04	1,301,070.30	36° 58' 7.743 N	107° 24' 41.888 W
Enter Top Otero - plan hits target - Point	0.00	0.00	4,710.0	-0.5	510.1	2,174,019.18	1,300,600.44	36° 58' 7.747 N	107° 24' 47.679 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
400.0	400.0	Surface	9-5/8	12-1/4
5,389.0	4,830.0	Intermediate	7	8-3/4
9,602.0	4,830.0	Liner	4-1/2	6-1/4

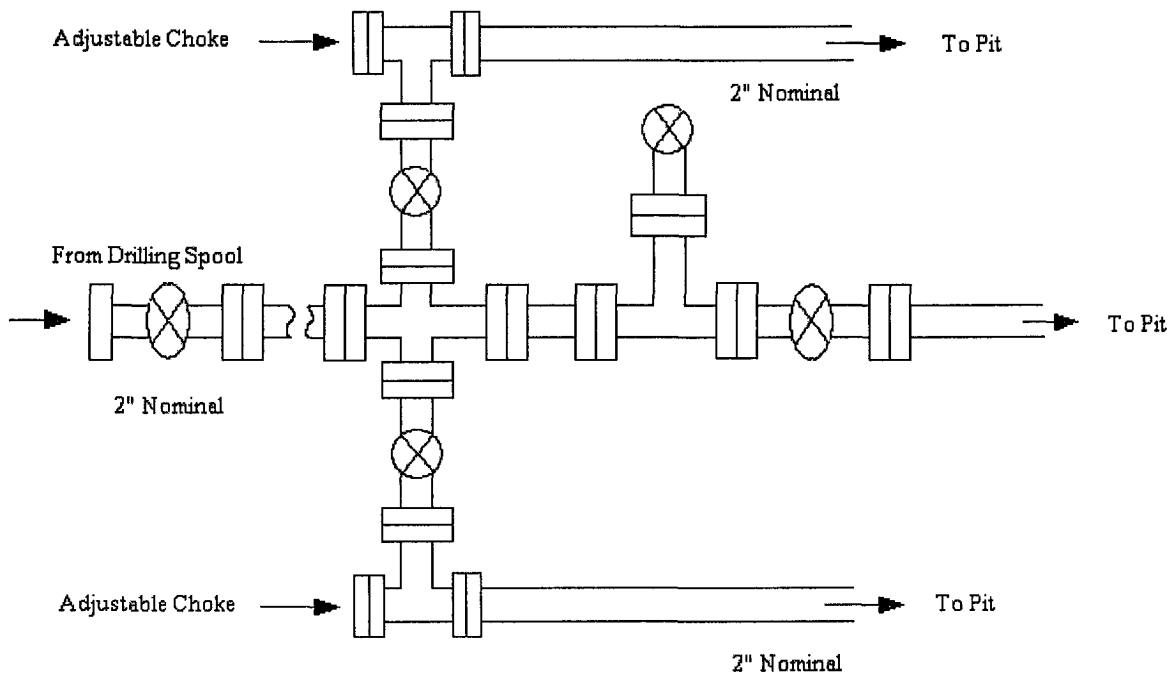
Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,170.0	3,170.0	Pictured Cliffs		0.00	
5,389.4	4,830.0	Otero Target		0.00	
4,251.1	4,240.0	Huefanito Bentonite		0.00	
2,510.0	2,510.0	Kirtland		0.00	
4,899.3	4,710.0	Top of Otero		0.00	
4,446.1	4,410.0	Top of Navajo City		0.00	
3,540.0	3,540.0	Lewis Shale		0.00	
2,890.0	2,890.0	Fruitland		0.00	
3,068.0	3,068.0	Top Coal Interval		0.00	
2,400.0	2,400.0	Ojo Alamo		0.00	
1,100.0	1,100.0	Nacimiento		0.00	
4,735.8	4,620.0	Base of Navajo City		0.00	
	4,900.0	Base of Otero		0.00	

Checked By: _____ Approved By: _____ Date: _____

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