

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires July 31, 2010

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. Jicarilla Apache 119
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		6. If Indian, Allottee or Tribe Name Jicarilla Apache
2. Name of Operator Energen Resources Corporation		7. Unit or CA Agreement Name and No.
3a. Address 2010 Afton Place Farmington, New Mexico 87401	3b. Phone No. (include area code) (505)325-6800	8. Lease Name and Well No. Northwest #4N
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface (G) Sec. 08-T26N-R04W, 2,252' FNL & 1,528' FEL At proposed prod. zone		9. API Well No. 30-039-31038
14. Distance in miles and direction from nearest town or post office* 20 miles northwest of Lindrith		10. Field and Pool, or Exploratory Blanco Mesaverde/Wildhorse DK
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 1,528'		11. Sec., T., R., M., or Blk. and Survey or Area Sec. 08-T26N-R04W
16. No. of Acres in lease 2,262.16		12. County or Parish Rio Arriba
17. Spacing Unit dedicated to this well 320 acres E/2		13. State NM
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 2,250'		20. BLM/BIA Bond No. on file
19. Proposed Depth 8,325'		21. Elevations (Show whether DF, KDB, RT, GL, etc.) 7,139' GL
22. Approximate date work will start* 4/1/2011		23. Estimated duration 15 Days

24. Attachments

RCUD MAY 27 '11

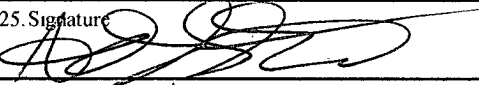
The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must be attached to this form.

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 must be filed with the appropriate Forest Service Office).

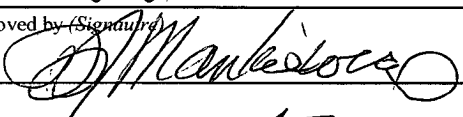
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the BLM

DIST. 3

25. Signature 	Name (Printed/Typed) Andrew Soto	Date 3/7/11
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Title

Drilling Engineer

Approved by (Signature) 	Name (Printed/Typed) AFM	Date 5/23/11
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Title

Office

FFU

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.

NOTIFY AZTEC OCD 24 HRS.

PRIOR TO CASING & CEMENT

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)

BLM'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

RECEIVED

MAR 08 2011

Farmington Field Office
Bureau of Land Management

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

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

NMOC

JUN 10 2011

A

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

*API Number 30039-31038	*Pool Code 72319/71599	*Pool Name Blanco Mesavende / Basin Dakota
*Property Code 302938	*Property Name NORTHWEST	*Well Number 4N
*OGRID No. 162928	*Operator Name ENERGEN RESOURCES CORPORATION	*Elevation 7139'

¹⁰ Surface Location

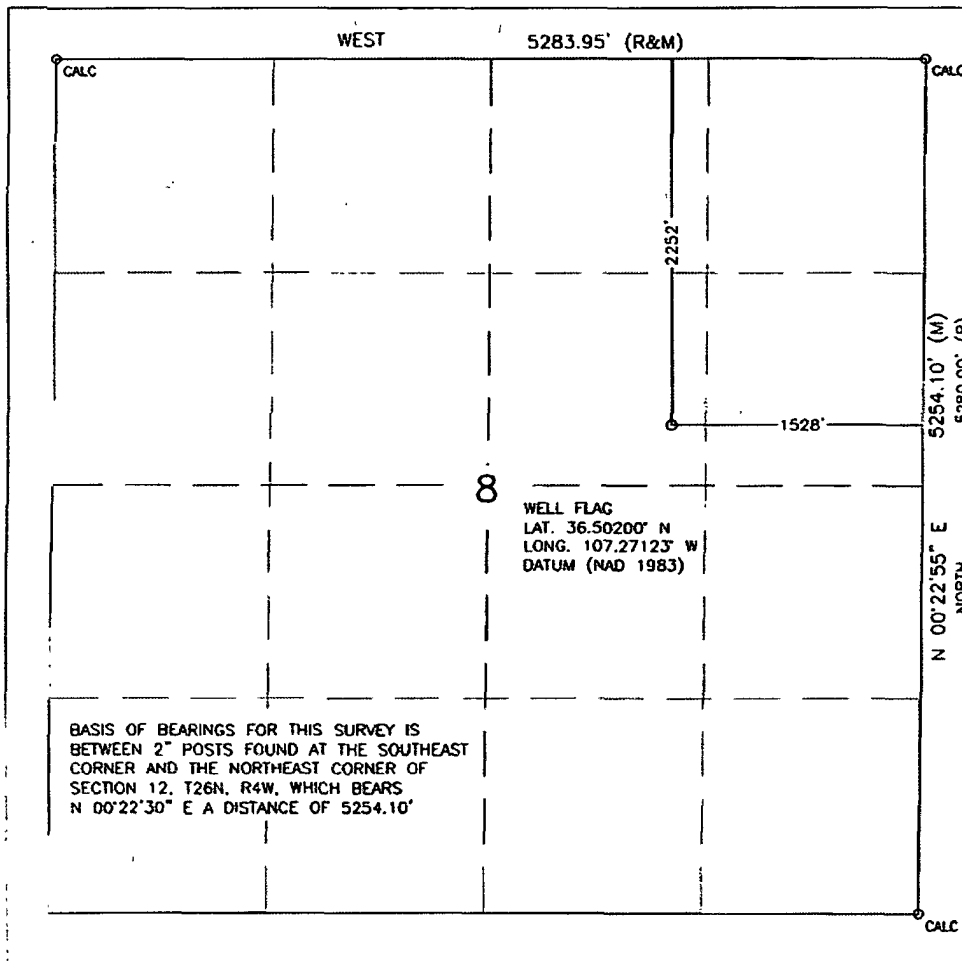
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	8	26N	4W		2252'	NORTH	1528	EAST	RIO ARriba

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
¹² Dedicated Acres 320 acres E/2			¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ 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

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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 3-31-11

Printed Name
Andrew Soto

E-mail Address
asoto@energen.com

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

OCTOBER 13, 2010

Date of Survey
Signature and Seal of Professional Surveyor:



DAVID RUSSELL

Certificate Number 10201

3/7/2011

OPERATIONS PLAN

WELL NAME.....Northwest #4N
JOB TYPE.....Vertical Blanco Mesaverde/Wild Horse Dakota
DEPT.....Drilling and Completions
PREPARED BY.....Andrew Soto

GENERAL INFORMATION

Surface Location	2,252' FNL & 1,528' FEL
S-T-R	(G) Sec. 08, T26N, R04W
County, State	Rio Arriba, New Mexico
Elevations	7,139' GL
Total Depth	8,350' +/- (MD)
Formation Objective	Blanco Mesaverde Wildhorse Dakota

FORMATION TOPS

San Jose	Surface
Nacimiento	2,291' (TVD)
Ojo Alamo Ss	3,291' (TVD)
Kirtland Sh	3,431' (TVD)
Fruitland Fm	3,496' (TVD)
Pictured Cliffs SS	3,836' (TVD)
Lewis Shale	3,951' (TVD)
Cliff House SS	5,501' (TVD)
Menefee Fm	5,641' (TVD)
Point Lookout SS	5,991' (TVD)
Mancos Sh	6,491' (TVD)
Greenhorn Ls	7,961' (TVD)
Graneros Sh	8,021' (TVD)
Dakota Two Wells SS	8,041' (TVD)
Dakota Pagaute SS	8,146' (TVD)
Dakota Cubero SS	8,186' (TVD)
Dakota Oak Cannon SS	8,256' (TVD)
Dakota Encinal Canyon Fm.	8,296' (TVD)
Total Depth	8,350' (MD)/(TVD)

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.**

3/7/2011

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	4,100'	8 3/4"	7"	23 lb/ft	J-55 LT&C
Prod. Casing	0	8,350'	6 1/4"	4 1/2"	11.6 lb/ft	J-55 LT&C
Tubing	0	8,350'	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 place 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 % CaCl₂ and 1/4 #/sk Flocele (15.6 ppg, 1.18 ft³/sk 157 ft³ 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 394 sks PRB II with 5 #/sk Gilsonite, and 1/4 #/sk Flocele (12.3 ppg, 2.24 ft³/sk) and a tail of 100 sks PRB II with 5 #/sk Gilsonite and 1/4 #/sk Flocele (13.5 ppg, 1.81 ft³/sk) (1,064 ft³ 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 H₂O + 20 bbls Chem Flush + 10 bbls scavenger slurry (mix at lighter density). Follow flush with a lead of 129 sks 65/35 Halliburton Light Premium with 10#/sk Gilsonite, 1/2 #/sk Flocele 1.2% Halad-9 (12.3 ppg, 1.8 ft³/sk) and a tail of 239 sks 50/50 Poz Premium with 5#/sk Gilsonite, 1/4 #/sk Flocele and 1.2% Halad-9 (13.5 ppg, 1.31 ft³/sk) (545 ft³, 20% excess of OH to circulate inside of intermediate casing). The top of tail is designed to 5,300' FS and the top of lead is designed to 3,900' FS (plus excess).

3/7/2011

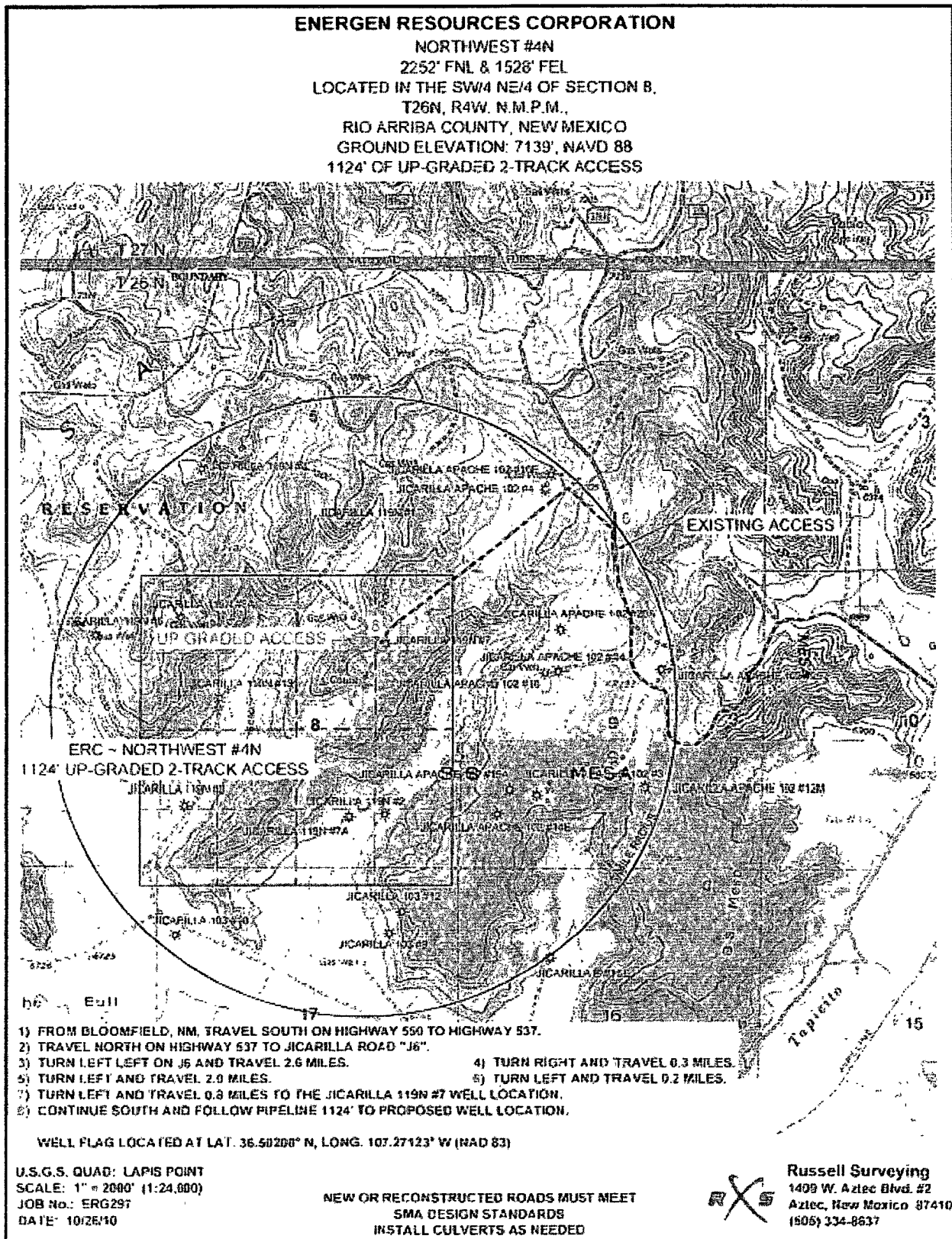
Set slips with full string weight

A CBL will be ran to determine TOC.

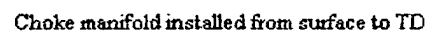
OTHER INFORMATION

- 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 A – Access Map



Typical 2000 psi Choke Manifold Configuration



Energen Resources Corporation

Typical BOP Configuration for Gas Drilling

