

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

APR 30 2009

FORM APPROVED
OMB NO. 1004-0137
Expires July 31, 2010Bureau of Land Management
Farmington Field Office

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMSF-078937	
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	
2. Name of Operator Energen Resources Corporation		7. Unit or CA Agreement Name and No.	
3a. Address 2010 Afton Place Farmington, New Mexico 87401		8. Lease Name and Well No. DAVIS #100S	
3b. Phone No. (include area code) (505) 325-6800		9. API Well No. 30 045 34967	
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface 1251' FSL 1027' FEL At proposed prod. zone		10. Field and Pool, or Exploratory Basin Fruitland Coal	
14. Distance in miles and direction from nearest town or post office* 20 miles South of Bloomfield, NM		11. Sec., T., R., M., or Blk. and Survey or Area SE Sec. 13, T26N, R11W NMPM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 1027'		12. County or Parish San Juan	
16. No. of Acres in lease 2560.00 320		13. State NM	
17. Spacing Unit dedicated to this well E/2		20. BLM/BIA Bond No. on file NM2707	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 675'		19. Proposed Depth 1996'	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6409' GL		22. Approximate date work will start* JUNE 2009	
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:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).

- Bond to cover the operation.
 - Operator certification.
 - Such other site specific information and/or plans as may be required by the BLM.
- 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**

25. Signature 	Name (Printed/Typed) JASON KINCAID	Date 04/23/09
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Title Drilling Engineer	
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Approved by (Signature) 	Name (Printed/Typed) Adam Minerale	Date 8/20/09
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Title Adam Minerale	Office
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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)

SEE ATTACHED FOR
CONDITIONS OF APPROVALNOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

This action is subject to technical and procedural review pursuant to 43 CFR 3165.9 and appeal pursuant to 43 CFR 3165.4

AUG 31 2009

NMOC

Drilling operations authorized are subject to compliance with attached "General Requirements".

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

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Form C-102

Revised October 12, 2005

Submit to Appropriate District Office
Bureau of Land Management State Lease - 4 Copies
Farmington Field Office Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-349107		*Pool Code 71629	*Pool Name FC
*Property Code 37794	*Property Name DAVIS		*Well Number #100s
*OGRID No. 162928	*Operator Name ENERGEN RESOURCES		*Elevation 6409'

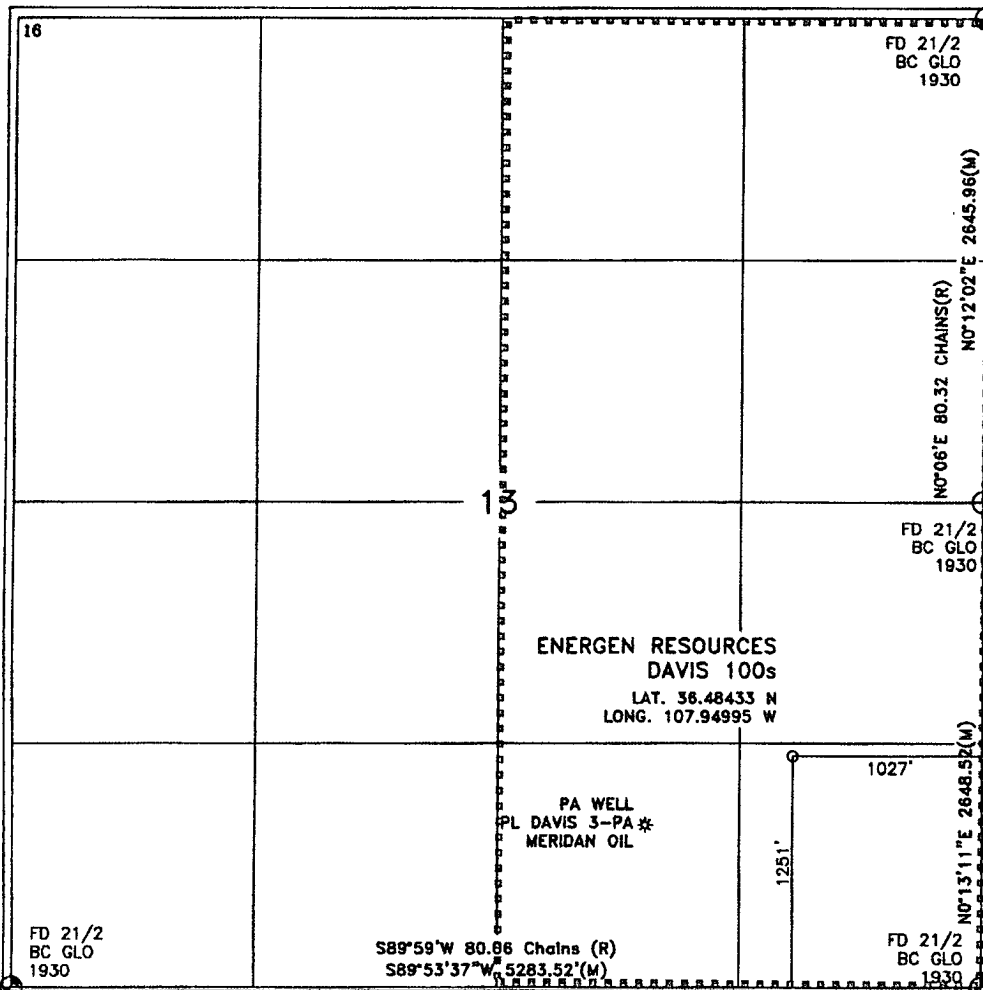
10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	13	26-N	11-W		1251'	SOUTH	1027'	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
12 Dedicated Acres 320 E/2		13 Joint or Infill		14 Consolidation Code		15 Order No.			

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.



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 undivided 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: [Signature] Date: 4-23-09
Printed Name: Susan Kincaid

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: 04/22/09
Signature and Seal of Professional Surveyor: [Signature]
Certificate Number: 8466

4/23/2009



OPERATIONS PLAN

WELL NAME.....Davis #100S
JOB TYPE.....Vertical Fruitland Coal
DEPT.....Drilling and Completions
PREPARED BY.....Jason Kincaid

GENERAL INFORMATION

Surface Location	1251 FSL 1027 FeL
S-T-R	SE Sec.13-T26N-R11W
County, State	San Juan, New Mexico
Elevations	6409' GL
Total Depth	1996' +/- (MD)
Formation Objective	Basin Fruitland Coal

FORMATION TOPS

Nacimiento	Surface
Ojo Alamo Ss	789'
Kirtland Sh	890'
Fruitland Fm	1270'
Top Coal	1546'
Base Coal	1766'
Pictured Cliffs	1796'
Total Depth	1996'

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.

4/23/2009



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	1996	7-7/8"	5-1/2"	15.5 lb/ft	J-55 LT&C
Tubing	0	1996		2 3/8"	4.7 lb/ft	J-55

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 $\frac{1}{4}$ #/sk Flocele (15.6 ppg, 1.18 ft³/sk ~~59 ft³~~ 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 195 sks 65/35 with 6.0 % Bentonite, 2.0 % CaCl_2 , 10 #/sk Gilsonite, and $\frac{1}{2}$ #/sk Flocele (12.3 ppg, 1.93 ft³/sk) and a tail of 150 sks of Class G cement with 5.0 #/sk Gilsonite, and $\frac{1}{4}$ #/sk Flocele (15.4ppg, 1.18 ft³/sk). (~~470 ft³~~ of slurry to circulate to surface, 60% excess). ~~550 ft³~~

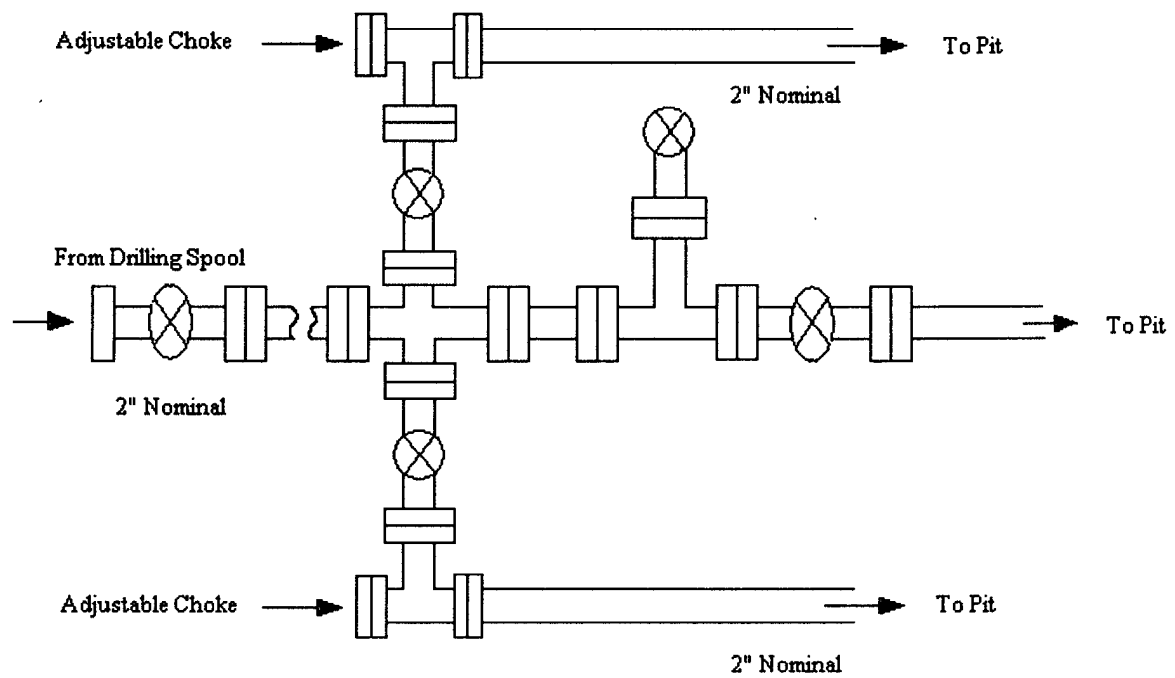
Pump ~~4~~ 10 bbls water, 20 bbls gelled water, 5 bbls water spacer ahead of cement

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 Corporation
Typical 2000 psi Choke Manifold Configuration



Choke manifold installed from surface to TD

Energen Resources Corporation

Typical BOP Configuration for Gas Drilling

