

(August 1999)

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OMB NO. 1004-0130
Expires: November 30, 2000

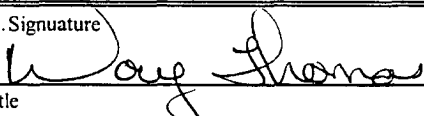
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMSF-079486	
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 checked="" 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 2198 Bloomfield Highway: Farmington, New Mexico		8. Lease Name and Well No. Carson 12	
3b. Phone No. (include area code) (505) 325-6800		9. API Well No. 30 039 27058	
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface 1425' FNL, 1235' FEL At proposed prod. zone		10. Field and Pool, or Exploratory East Blanco PC/Basin FRT Coal	
14. Distance in miles and direction from nearest town or post office* Nine (9) miles NE of Gobernador, New Mexico		11. Sec., T., R., M., or Blk. and Survey or Area H Sec. 28, T30N, R4W	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 1235'		12. County or Parish Rio Arriba	
16. No. of Acres in lease 2437.49 1819.52		13. State NM	
17. Spacing Unit dedicated to this well 267.56 ± 320 ^{E/2}			
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 2700'		20. BLM/BIA Bond No. on file	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 7584' G.L.		22. Approximate date work will start* July 2003	
		23. Estimated duration 11 days	

24. Attachments

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

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan | 5. Operator certification. |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature 	Name (Printed/Typed) Doug Thomas	Date 7/11/02
Title Drilling Completion Foreman		
Approved by (Signature) /s/ David J. Mankiewicz	Name (Printed/Typed)	Date MAY 7 2004
Title	Office	

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.

*(Instructions on Reverse)

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

NMOCD

District II
PO Drawer 00, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
PO Box 2088, Santa Fe, NM 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30039-27058	*Pool Code 72400 / 71629	*Pool Name BLANCO PICTURED CLIFFS, EAST / BASIN FRUITLAND COAL
*Property Code 21185	*Property Name CARSON	*Well Number 12
*GRID No. 162928	*Operator Name ENERGEN RESOURCES CORPORATION	*Elevation 7584'

¹⁰ Surface Location

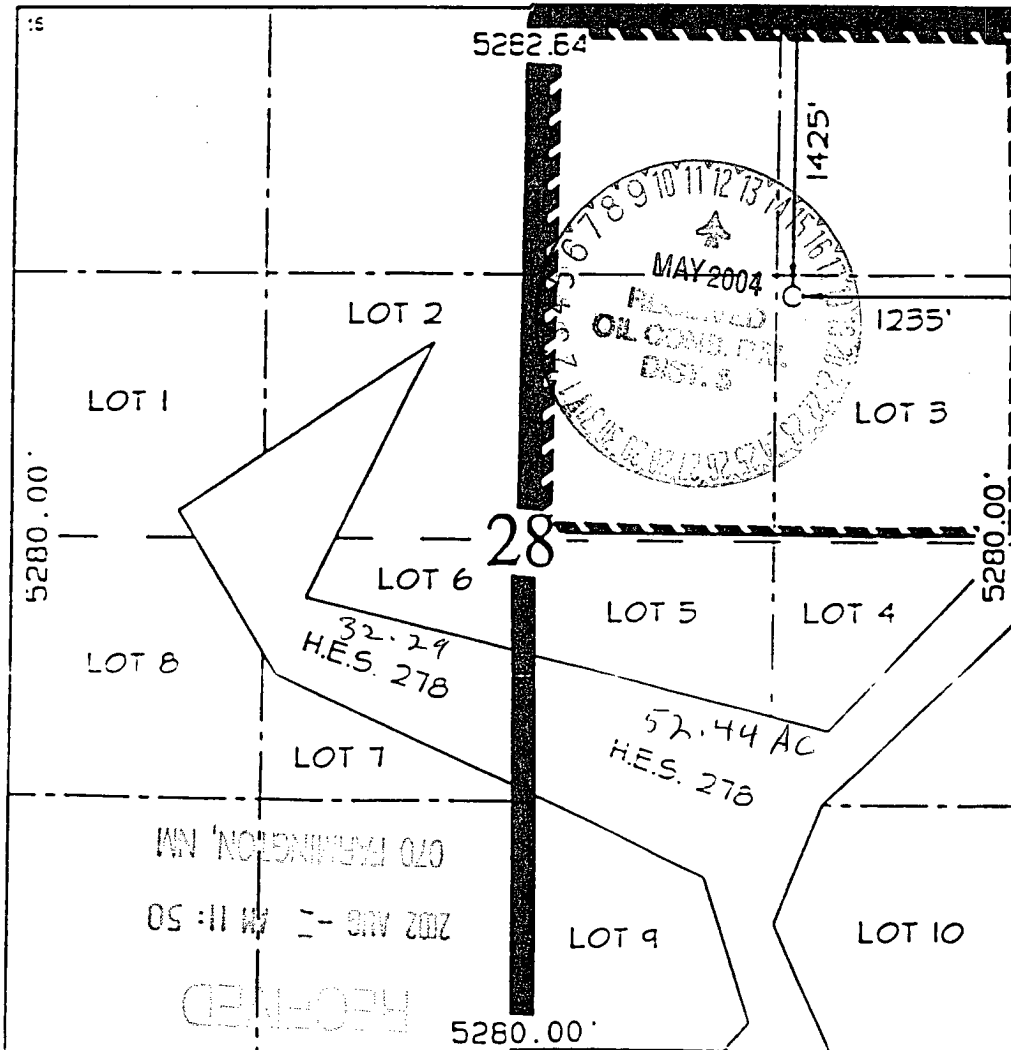
U. or Lot No.	Section	Township	Range	Lot No.	Feet from the	North/South Line	Feet from the	East/West Line	County
H	28	30N	4W		1425	NORTH	1235	EAST	RIO ARriba

¹¹ Bottom Hole Location If Different From Surface

U. or Lot No.	Section	Township	Range	Lot No.	Feet from the	North/South Line	Feet from the	East/West Line	County

*Decedent Acres 160.0 Acres (NE/4) - FC 320.0 Acres (E/2) - FC	*Date of Dedication MAY 2004	*Consideration Code DIS. S	*Order No.
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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



" OPERATOR CERTIFICATION

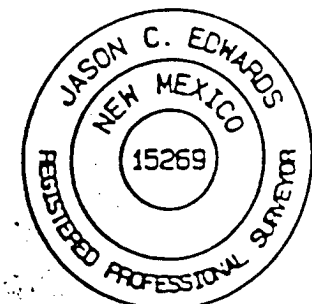
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Don Graham
Signature
Don Graham
Printed Name
Production Superintendent
Title
7-31-02
Date

" 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: JUNE 3, 2002
Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

OPERATIONS PLAN

WELL NAME: Carson #12

LOCATION: 1425' FNL, 1235' FEL, Section 28, T30N, R4W, Rio Arriba County, NM

FIELD: East Blanco Pictured Cliffs

ELEVATION: 7584' GL

FORMATION TOPS:

Surface	San Jose
Nacimiento	2491
Ojo Alamo	3706
Kirtland	3926
Fruitland	4106
Pictured Cliffs	4326
Lewis	4691
Total Depth	4776

LOGGING PROGRAM:

Open Hole Logs:

Surface to TD: HRI/SP/GR, CNT/LDT/MLT, MRIL

Mud Logs:	None
Coring:	None
Natural Gauges:	None

MUD PROGRAM: Fresh water low solids mud from surface to T. D. 9.0-9.2 PPG.

CASING PROGRAM:

<u>HOLE SIZE</u>	<u>DEPTH</u>	<u>CSG SIZE</u>	<u>WT.</u>	<u>GRADE</u>
12 ¼"	200'	9 5/8"	32.3#	H-40
7 7/8"	4776'	5 ½"	15.5#	J-55

TUBING PROGRAM:

4700	2 3/8"	4.7#	J-55
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WELLHEAD: 9 5/8" 2000 x 5 1/2" Larkin Fig. 92 casing head. 5-1/2" 2000 x 2" tubing head.

BOP SPECIFICATIONS:

An 11" 2000 psi minimum double gate BOP stack (Figure 1) will be used following nipple up of casing head. During air drilling operations, a Shaffer Type 50 or equivalent rotating head will be installed on top of the stack. A 2" nominal, 2000 psi minimum choke manifold will be used. An upper Kelly Cock valve with handle available and drill string valve to fit each drill string will be available on the rig floor during drilling operations.

CEMENTING:

9 5/8" surface casing - Cement with 110 sks Class B Cement with 1/4# flocele/sk and 2% calcium chloride (130 cu. ft. of slurry, 100% excess to circulate to surface). WOC 12 hrs. Test casing to 600# for 30 minutes.

Texas Pattern Guide Shoe on bottom.

5 1/2" production casing:

First Stage - cement with 160 sks Class B with 2% Calcium Chloride, 10% Gilsonite and 1/4# flocele/sks (202 cu. ft. of slurry, 50% excess to circulate stage tool @ 4000).

Second Stage - cement with 510 sks 65/35 Class B Poz with 6% gel, 2% calcium chloride, 10% gilsonite, and 1/4# flocele/sk. Tail with 50 sks Class B w/2% calcium chloride, 10% gilsonite and 1/4# flocele/sk. (1040 cu. ft. of slurry, 50% excess to circulate to surface). WOC 12 hrs.

Cement nose guide shoe on bottom with a self-fill insert float valve on top of shoe joint. 8 bow spring centralizers spaced every 3rd joint off bottom. One bow spring centralizer below and eight above stage tool at 4000. Two turbolating centralizers at the base of the Ojo Alamo.

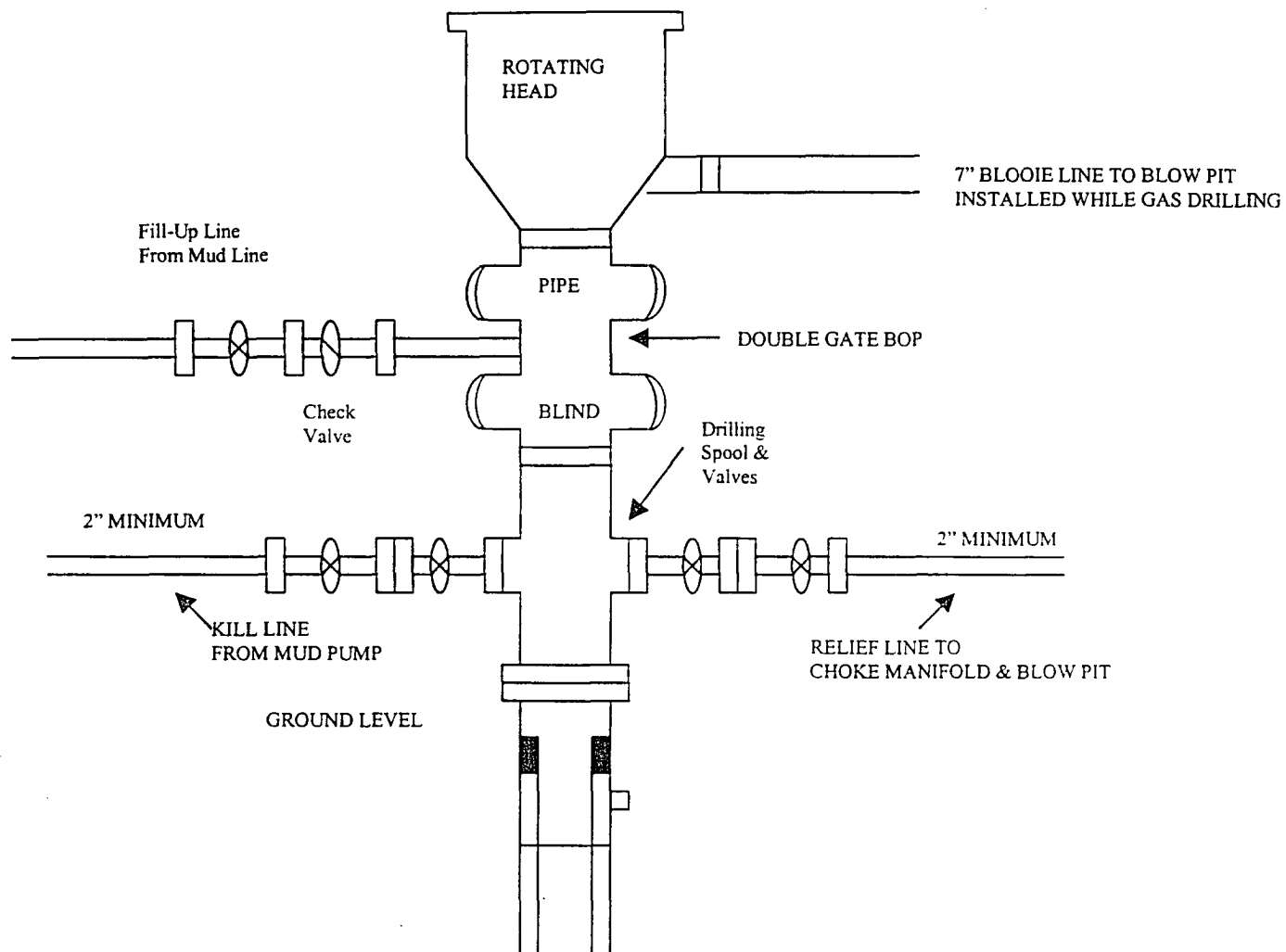
OTHER INFORMATION:

- 1) No abnormal temperatures or pressures are anticipated.
- 2) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control.
- 3) This gas is dedicated.
- 4) Anticipated pore pressure for the Fruitland is 900 psi and the Pictured Cliffs is 1000 psi.

ENERGEN RESOURCES CORPORATION

Mesa Verde / Dakota Well

BOP Configuration

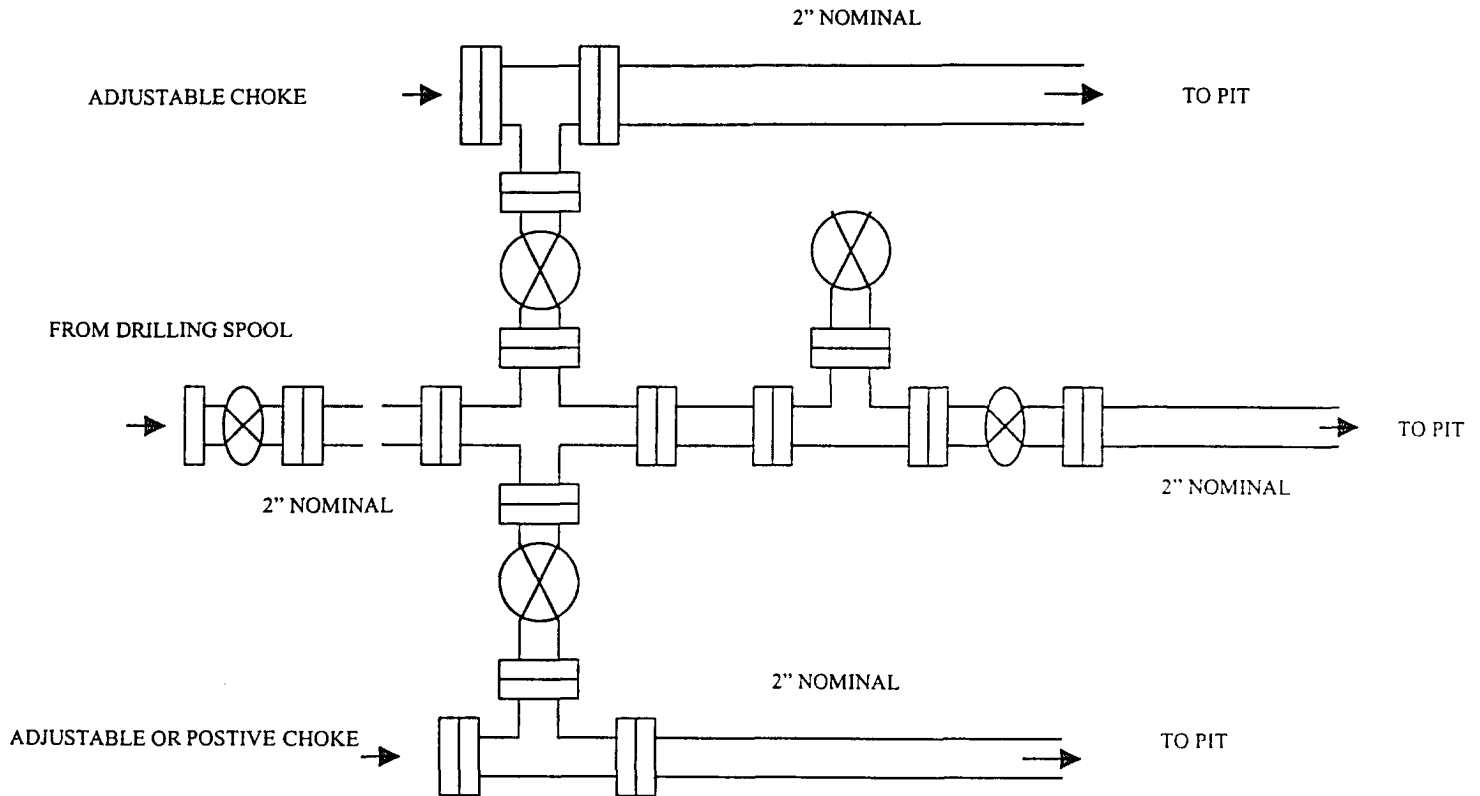


Minimum BOP installation for a Mesaverde well from Surface to Total Depth. 11' Bore, 2000 psi minimum working pressure double Gate BOP to be equipped with blind and pipe rams. A Schaffer Type 50 or equivalent rotating head to be installed on the top of The BOP. All equipment is 2000 psi working pressure or greater.

ENERGEN RESOURCES CORPORATION

Choke Manifold Configuration

2M psi System



Minimum choke manifold installation from surface to Total Depth.
2" minimum, 2000 psi working pressure equipment with two chokes.

DATUM: NAD1927

