

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. Jicarilla Contract 152
1b. TYPE OF WELL OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME Jicarilla Apache
2. NAME OF OPERATOR ENERGEN RESOURCES CORPORATION		7. UNIT AGREEMENT NAME 21958
3. ADDRESS AND TELEPHONE NO. 2198 Bloomfield Highway, Farmington, NM 87401		8. FARM OR LEASE NAME, WELL NO. Jicarilla West 8M
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 990' FSL, 820' FEL At proposed prod. zone		9. API WELL NO. 30-039-26323
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 25 Miles Northwest of Lindrith, New Mexico		10. FIELD AND POOL, OR WILDCAT Blanco MV/Basin DK
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 820'		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 6, T26N, R5W, N.M.P.M.
16. NO. OF ACRES IN LEASE 2557.76'		12. COUNTY OR PARISH Rio Arriba
17. NO. OF ACRES ASSIGNED TO THIS WELL 320/320 E319.66		13. STATE NM
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1000'		19. PROPOSED DEPTH 7960'
20. ROTARY OR CABLE TOOLS Rotary		21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6948' GL
22. APPROX. DATE WORK WILL START*		

23. PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4	9 5/8	36#	200	130 cu. ft. to circ.
8 3/4	7	20 & 23#	3895	878 cu. ft. to circ.
6 1/4	4 1/2	11.6#	7960	626 cu. ft. to circ. to intermediate

An application with NMOCD is being submitted to downhole commingle. Selectively perforate and sand water fracture the Mesaverde and Dakota. This gas is dedicated.

NOTE: THIS IS A PIPELINE R.O.W. EXPEDITED APD.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED [Signature] TITLE Production Superintendent DATE 10/21/99

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

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:

APPROVED BY S/Su Anderson TITLE Asst Field Mgr. DATE 01-19-00
*See Instructions On Reverse Side

District I
PO Box 1990, Hobbs, NM 88241-1990

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

District II
PO Drawer 60, Artesia, NM 88211-0719

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

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 30-039-21323	*Pool Code 72319-71599	*Pool Name Blanco Mesaverde-Basin Dakota
*Property Code 21958	*Property Name JICARILLA WEST	*Well Number 8M
*GRID No. 162928	*Operator Name ENERGEN RESOURCES CORPORATION	*Elevation 6948'

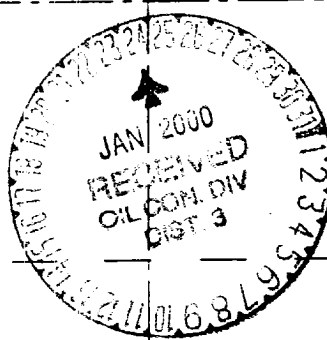
10 Surface Location

U. or lot no. P	Section 6	Township 26N	Range 5W	Lot Ion	Feet from the 990	North/South line SOUTH	Feet from the 820	East/West line EAST	County RIO ARriba
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11 Bottom Hole Location If Different From Surface

U. or lot no.	Section	Township	Range	Lot Ion	Feet from the	North/South line	Feet from the	East/West line	County
* Dedicated Acreage 31966 320/320		* Joint or Infill		* Consolidation Code		* 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

1355.30'	1363.56'	2727.12'		
1336.50'	LOT 4	LOT 3	LOT 2	LOT 1
1315.84'	LOT 5			
LOT 6				
2671.68'	LOT 7	5272.74'		
5276.02'		820'		
		990'		

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

Signature
Gary Brink

Printed Name
Production Superintendent

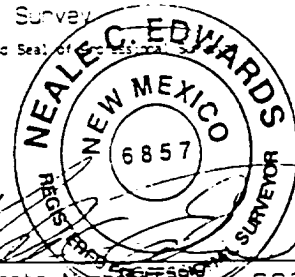
Title
10/27/99

Date

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 22, 1999

Date of Survey

Signature and Seal of Surveyor


Certificate Number
6857

OPERATIONS PLAN

WELL NAME: Jicarilla West #8M

LOCATION: 990' FSL, 820' FEL, Section 6, T26N, R5W, Rio Arriba, New Mexico

FIELD: Blanco MV/Basin Dakota

ELEVATION: 6948'

FORMATION TOPS:

Surface	San Jose	Cliff House	5225
Ojo Alamo	2845	Menefee	5320
Kirtland	3075	Point Lookout	5735
Fruitland	3360	Gallup	6685
Pictured Cliffs	3535	Greenhorn	7655
Lewis	3695	Graneros	7715
Huerfano Benonite	4015	Dakota	7740
		Total Depth	7960

LOGGING PROGRAM:

Open Hole Logs:

Surface to intermediate: HRI/SP/GR; CNT/LDT/MLT

Inter TD to total depth: Temp/HRI/CNT, LDT/GR

Mud Logs: 200' above Ojo Alamo to total depth

Coring: None

Natural Gauges: Every 500' from intermediate TD to total depth

MUD PROGRAM: Fresh water low solids mud from surface to intermediate TD. Air/mist from intermediate casing point to total depth.

CASING PROGRAM:

<u>HOLE SIZE</u>	<u>DEPTH</u>	<u>CSG SIZE</u>	<u>WT.</u>	<u>GRADE</u>
12 1/4"	200'	9 5/8"	36#	K-55
8 3/4"	3895'	7"	23#	K-55
6 1/4"	7960'	4 1/2"	11.6#	K-55

TUBING PROGRAM:

7900' 2 3/8 4.7# J-55

WELLHEAD: 11" 3000 x 9 5/8" casing head. 11" 3000 x 11" 3000 spool. 11" 5000 x 7 1/16" 5000 xmas tree.

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.

CEMENTING:

9 5/8 surface casing - Cement with 110 sks Class B Cement with 1/4" Flocele/sx 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. 3 Centralizers, 1st 3jts.

7" intermediate casing - cement with 390 sks 65/35 Class B Poz with 6% gel, 2% calcium chloride, 10% gilsonite, and 1/4# flocele/sk. Tail with 100 sks Class B w/2% calcium chloride, 10% gilsonite and 1/4# flocele/sk. (878 cu. Ft. of slurry, 50% excess to circulate to surface). WOC 12 hrs. If cement does not circulate, run temperature survey in 8 hrs. to determine TOC. Test casing to 1200 psi for 30 minutes.

Cement nose guide shoe on bottom with a self-fill insert float valve on top of shoe joint. 8 bow spring centralizers spaced every 2nd joint off bottom. Two turbolating centralizers at the base of the Ojo Alamo.

4 1/2 Production Liner

Cement with 495 sks 50/50 poz with 2% gel, 5 PPS gilsonite, .4% halad - 9 and 1/4# flocele/sk (626 cu. ft., 50% excess to circulate liner top). WOC 18 hrs prior to completion.

Cement nose guide shoe on bottom with float collar on top of shoe joint. Liner hanger will have a neopreme packoff on top.

OTHER INFORMATION:

- 1) The Blanco Mesaverde and Basin Dakota will be completed and downhole commingled.
- 2) No abnormal temperatures or pressures are anticipated.
- 3) Anticipated pore pressure for the Mesa Verde is 1100 and the Dakota 1500 psi.
- 4) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control.
- 5) This gas is dedicated.

990' FSL & 820' FEL, SECTION 6, T26N, R5W, N.M.P.M.
RIO ARriba COUNTY, NEW MEXICO

