


UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007

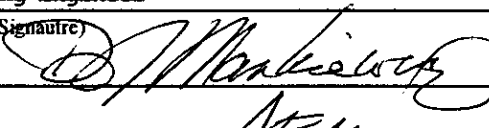
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. Jicarilla Contract 96	
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 Energex Resources Corporation		7. Unit or CA Agreement Name and No.	
3a. Address 2198 Bloomfield Hwy Farmington, NM 87401		8. Lease Name and Well No. Jicarilla 96 #4B	
3b. Phone No. (include area code) 505.325.6800		9. API Well No. 30-039-30153	
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface 2500' fnl, 1420' fel At proposed prod. zone		10. Field and Pool, or Exploratory A/Mesa Verde	
14. Distance in miles and direction from nearest town or post office* Approximatley 29 miles south southwest from Dulce, NM		11. Sec., T., R., M., or Blk. and Survey or Area (G) S1, T26N, R3W	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 1420'		12. County or Parish Rio Arriba	
16. No. of Acres in lease 2530.72		13. State NM	
17. Spacing Unit dedicated to this well 313.54 E/2		18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Approx 500'	
19. Proposed Depth 6330'		20. BLM/BIA Bond No. on file RCVD MAY4'07 OIL CONS. DIV.	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 7138' GL		22. Approximate date work will start* 11/15/07	
23. Estimated duration 25 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) Nathan Smith	Date 1/4/07
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Approved by (Signature) 	Name (Printed/Typed) AFM	Date 5/3/07
Title Drilling Engineer	Office PFO	

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 page 2)

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

HOLD C104 FOR Change in status to #4R

NMOCD

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".

5/9/07

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

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000

DISTRICT II
311 South First, Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-039-30153	Pool Code 162928-72319	Pool Name BLANCONESA VERDE
Property Code 21938	Property Name JICARILLA 96	Well Number 4B
OGRID No. 162928	Operator Name ENERGEN RESOURCES CORPORATION	Elevation 7138'

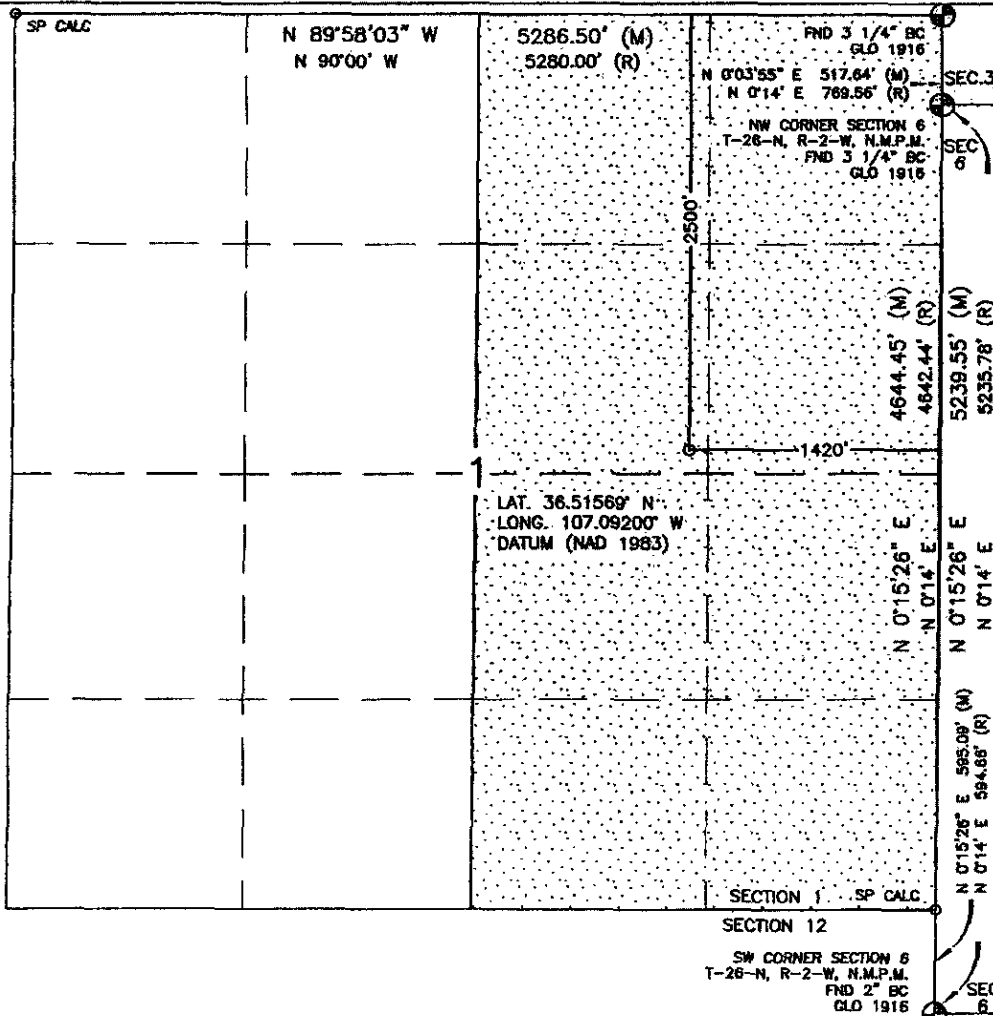
10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	1	26N	3W	Z 00	2500'	NORTH	1420'	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
Dedicated Acres 313.54 Acres - (E/2)					Joint or Infill	Consolidation Code	Order No. BLANCONESA VERDE 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



17 OPERATOR CERTIFICATION

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

Signature
Nathan Smith
Printed Name
Drilling Engineer
Title
1/8/07
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.

AUGUST 22, 2006

Date of Survey
Signature and Seal of Professional Surveyor:

DAVID R. RUSSELL
NEW MEXICO
REGISTERED PROFESSIONAL LAND SURVEYOR
10201
DAVID RUSSELL
Certificate Number 10201

Submit 3 Copies To Appropriate District
Office
District I
1625 N. French Dr., Hobbs, NM 87240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
May 27, 2004

WELL API NO. 30-039-30153

5. Indicate Type of Lease
STATE ☐ FEE ☐

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name:
Jicarilla 96

8. Well Number
#4B

9. OGRID Number
162928

10. Pool name or Wildcat
Mesaverde

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

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

2. Name of Operator
Energen Resources Corporation

3. Address of Operator
2198 Bloomfield Highway, Farmington, NM 87401

4. Well Location
Unit Letter G; 2500 feet from the North line and 1420 feet from the East line
Section 01 Township 26N Range 03W NMPM County Rio Arriba

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
7138' GL

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type Drill Depth to Groundwater >100' Distance from nearest fresh water well >1000' Distance from nearest surface water >250'

Pit Liner Thickness: 12 mil Below-Grade Tank: Volume _____ bbls; Construction Material _____

12. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐ CHANGE PLANS ☐

PULL OR ALTER CASING ☐ MULTIPLE COMPLETION ☐

OTHER: Build drilling pit ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐

CASING TEST AND CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Energen Resources plans to build a lined pit according to "OCD Pit and Below-grade Tank Guidelines", as issued on November 1, 2004. Energen anticipates the submittal of a C-144 for closure of this pit in accordance with BLM and "OCD Pit and Below-grade Tank Guidelines".

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒ , a general permit ☐ or an (attached) alternative OCD-approved plan ☐

SIGNATURE Vicki Donaghey TITLE Regulatory Analyst DATE 01/04/07

Type or print name Vicki Donaghey E-mail address: vdonaghe@energen.com Telephone No. 505.325.6800

For State Use Only

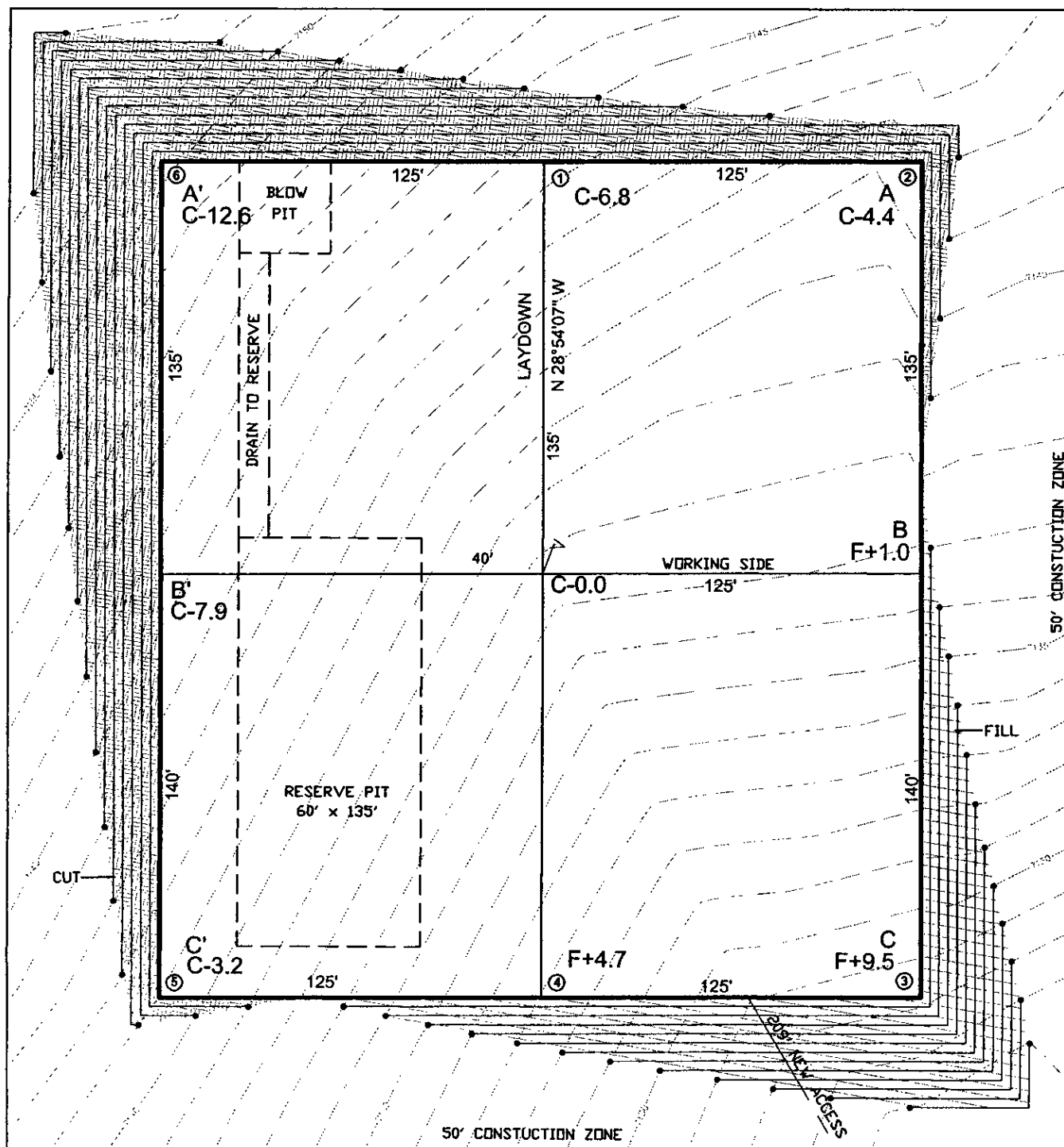
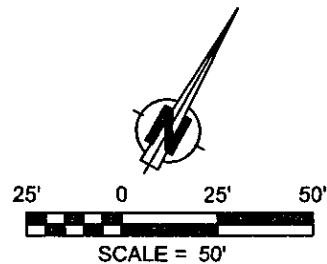
APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 63 DATE MAY 09 2007

Conditions of Approval, if any:

LATITUDE: 36.51569°N
LONGITUDE: 107.09200°W
DATUM: NAD 83

ENERGEN RESOURCES CORPORATION

JICARILLA 96 #4B
2500' FNL & 1420' FEL
LOCATED IN THE SW/4 NE/4 OF
SECTION 1, T26N, R3W, N.M.P.M.,
RIO ARriba COUNTY, NEW MEXICO
GROUND ELEVATION: 7138', NAVD 88
FINISHED PAD ELEVATION: 7137.7', NAVD 88



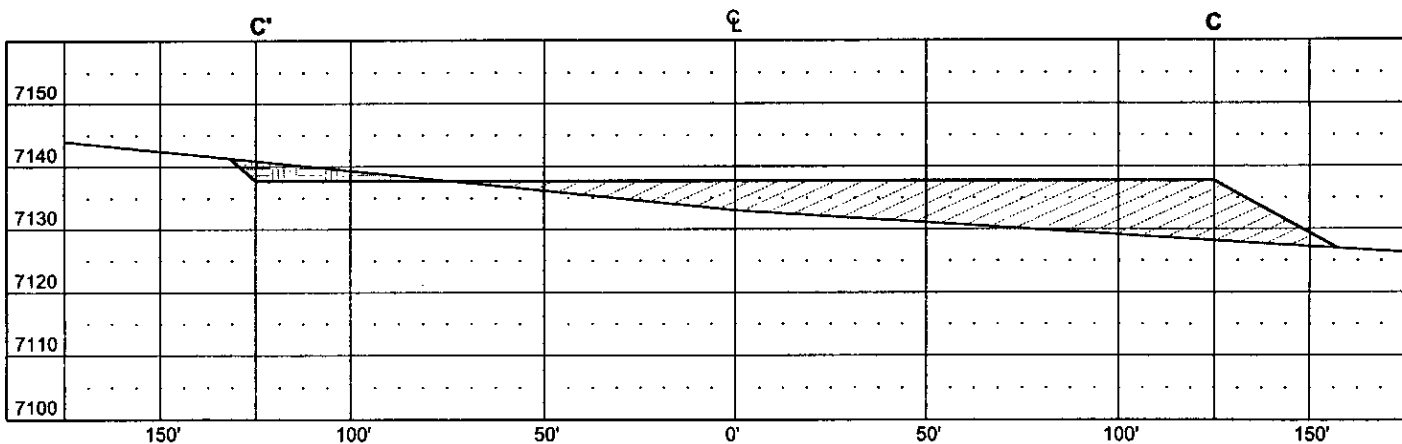
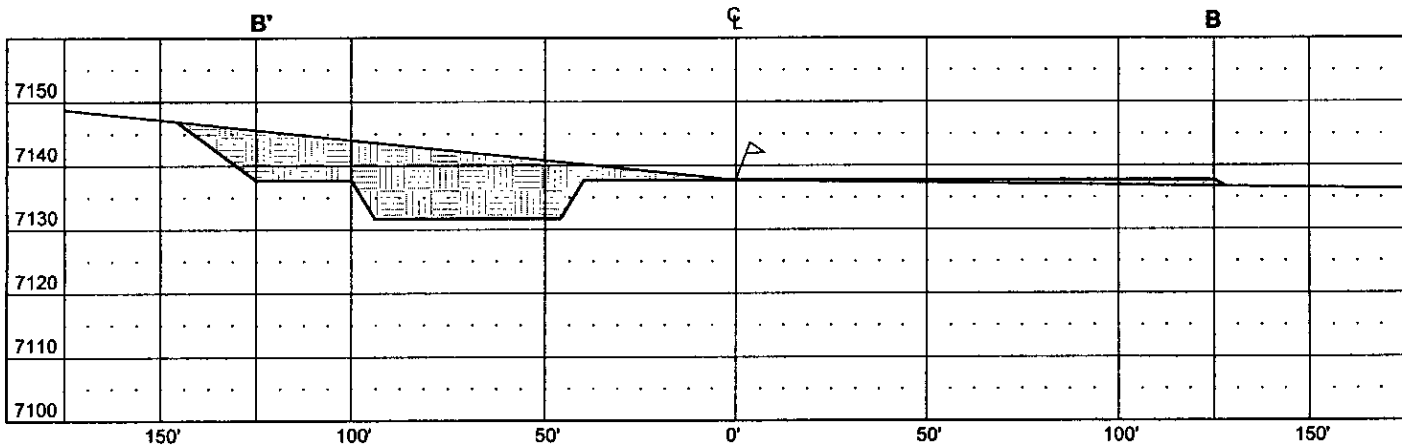
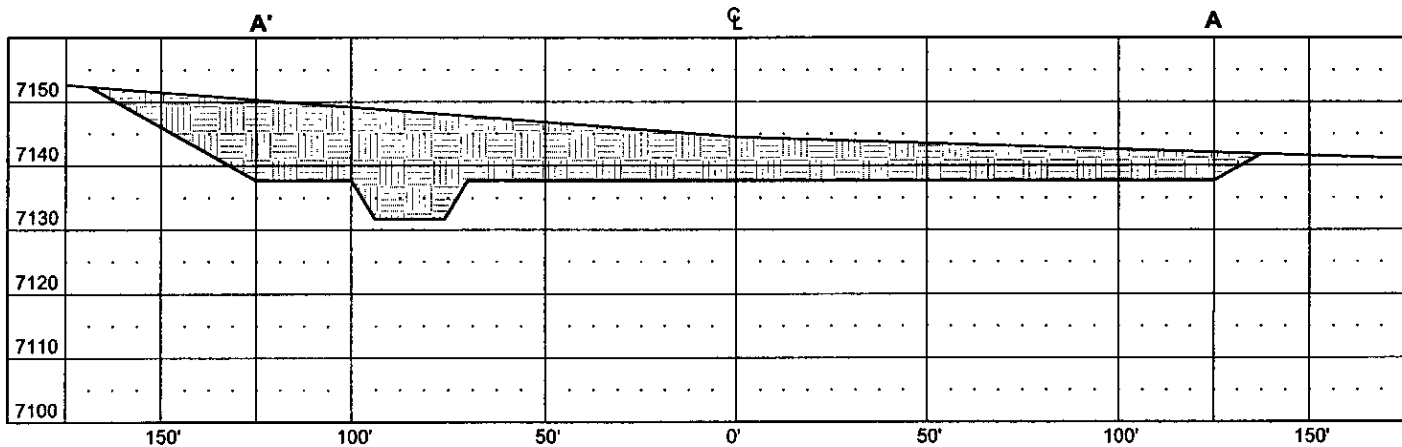
209 LF OF NEW ACCESS
FROM EXISTING 2 TRACK ROAD

FOOT CONTOUR INTERVAL SHOWN
SCALE: 1" = 50'
JOB No.: ERG134
DATE: 08/25/06

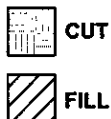


Russell Surveying
1409 W. Aztec Blvd. #5
Aztec, New Mexico 87410
(505) 334-8637

JICARILLA 96 #4B
2500' FNL & 1420' FEL
LOCATED IN THE SW/4 NE/4 OF
SECTION 1, T26N, R3W, N.M.P.M.,
RIO ARriba COUNTY, NEW MEXICO
GROUND ELEVATION: 7138', NAVD 88
FINISHED PAD ELEVATION: 7137.7', NAVD 88



ERT. SCALE: 1" = 30'
 IORZ. SCALE: 1" = 50'
 IOB No.: ERG134
 DATE: 08/25/06



Russell Surveying
1409 W. Aztec Blvd. #5
Aztec, New Mexico 87410
(505) 334-8637

Operations Plan

November 27, 2006

Jicarilla 96 #4B

General Information

Location	2500' fnl, 1420' fel swne S1, T26N, R03W Rio Arriba County, New Mexico
Elevations	7138' GL
Total Depth	6330' (MD)
Formation Objective	Blanco Mesa Verde

Formation Tops

San Jose	Surface	Lewis Shale	3880'
Nacimiento	2215'		
Ojo Alamo Ss	3375'	Huerfanito Bentonite	4215'
Kirtland Sh	3445'	Cliff House	5475'
Fruitland Fm	3535'	Menefee	5545'
Top Coal	3595'	Point Lookout Ss.	5880'
Bottom Coal	3680'	Mancos Shale	6150'
Pictured Cliffs	3685'	Total Depth	6330'

Drilling

The 12 ¼" wellbore will be drilled with a fresh water mud system.

The 8 ¾" wellbore will be drilled with a low solids non-dispersed fresh water mud system. Weighting materials will be drill cuttings and/or Barite as needed. Mud density is expected to range from 8.3 ppg to 8.9 ppg. Air/mist from intermediate setting depth to TD with a hole size being 6 ¼".

Blowout Control Specifications:

A 2000 psi minimum double ram or annulus 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 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: From Surface to Intermediate setting depth - None
From Intermediate setting depth to TD - Temp / HRI / CNT, LDT / GR

Mud Logs: None

Coring: None

Surveys: Surface and/or every 500' to TD

Tubulars

Casing, Tubing, & Casing Equipment:

String	Interval	Wellbore	Casing	Csg Wt	Grade
Surface	0'-200'	12 ¼"	9 5/8"	32.3 ppf	H-40 ST&C
Intermediate	200'-4055'	8 ¾"	7"	23.0 ppf	J-55 LT&C
Production	3855'-6330'	6 ¼"	4 ½"	11.6 ppf	J-55 LT&C
Tubing	0'-6280'		2 3/8"	4.7 ppf	J-55

Casing Equipment:

Surface Casing: Depending on wellbore conditions, a Texas Pattern Guide Shoe on bottom. Casing centralization with standard bow spring centralizers to achieve optimal standoff.

Intermediate Casing: Depending on wellbore conditions, a cement nose guide shoe on bottom with self fill insert float collar on top of shoe joint and casing centralization with bow spring centralizers to optimize standoff. Two turbolating centralizers at the base of the Ojo Alamo are recommended.

Production Liner: Depending on wellbore conditions, a cement nose guide shoe on bottom with self fill insert float collar on top of shoe joint and casing centralization with standard bow spring centralizers to optimize standoff. If multistage cementing is required, DV tool will be placed based on formation characteristics.

Wellhead

11" 3000 x 9 5/8" Casing Head, 11" 3000 x 7 1/16" 3000 Christmas Tree.

Cementing

Surface Casing: 225 sks Std (class B) with 2.0 % CaCl_2 and ¼ #/sk Flocele (15.6 ppg, 1.18 ft³/sk 247 ft³ of slurry, 100% excess to circulate to surface). WOC 12 hours. Pressure test surface casing to 600 psi for 30 min.

Intermediate 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 550 sks 65/35 with 6.0 % Bentonite, 2.0 % CaCl_2 , 10 #/sk Gilsonite, and ½ #/sk Flocele (12.3 ppg, 1.96 ft³/sk) and a tail of 125 sks of Standard (Class B) cement with 5.0 #/sk Gilsonite, and ¼ #/sk Flocele (15.2ppg, 1.24 ft³/sk). (1300 ft³ of slurry, 100 % excess to circulate to surface). WOC 12 hours. Pressure test casing to 1200 psi for 30 min.

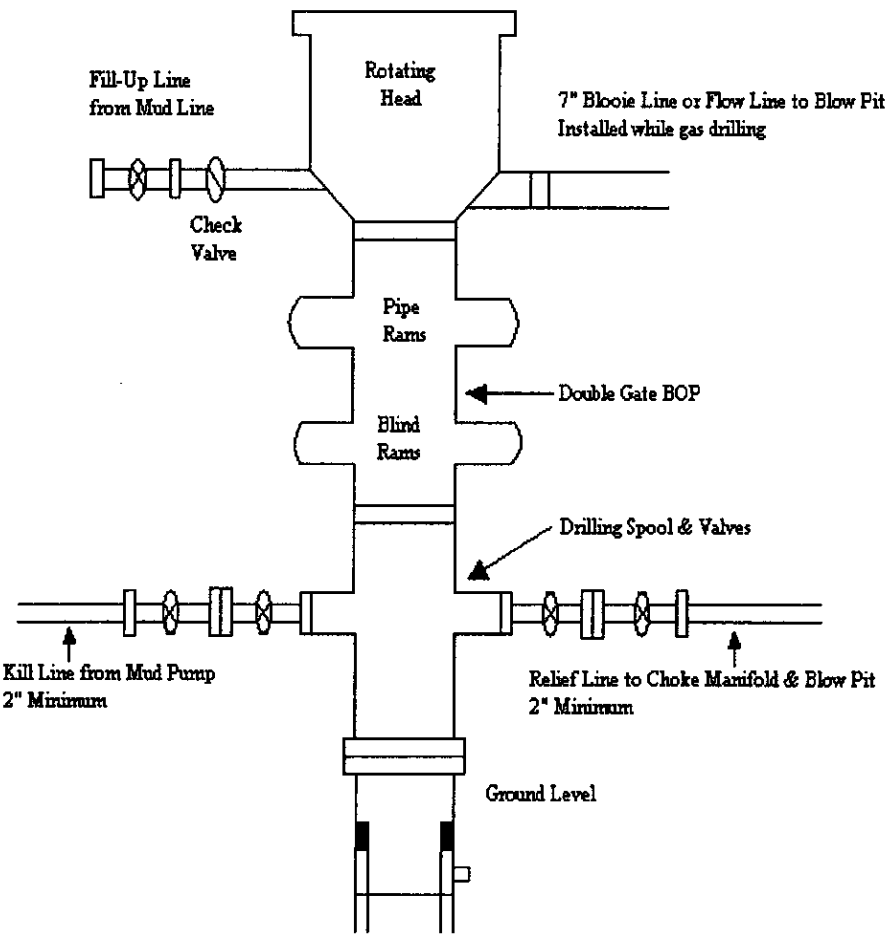
Production Liner: Depending on wellbore conditions, cement may consist of 390 sks 50/50 with 2.0 % Bentonite, 0.50% Halad-9, 0.10% CFR-3, 5 #/sk Gilsonite, and ¼ #/sk Flocele (13.5 ppg, 1.30 ft³/sk). (487.5 ft³ of slurry, 90 % excess open hole, no excess in liner lap to circulate off liner top). Use calipers on logs to figure cement volumes.

Other Information

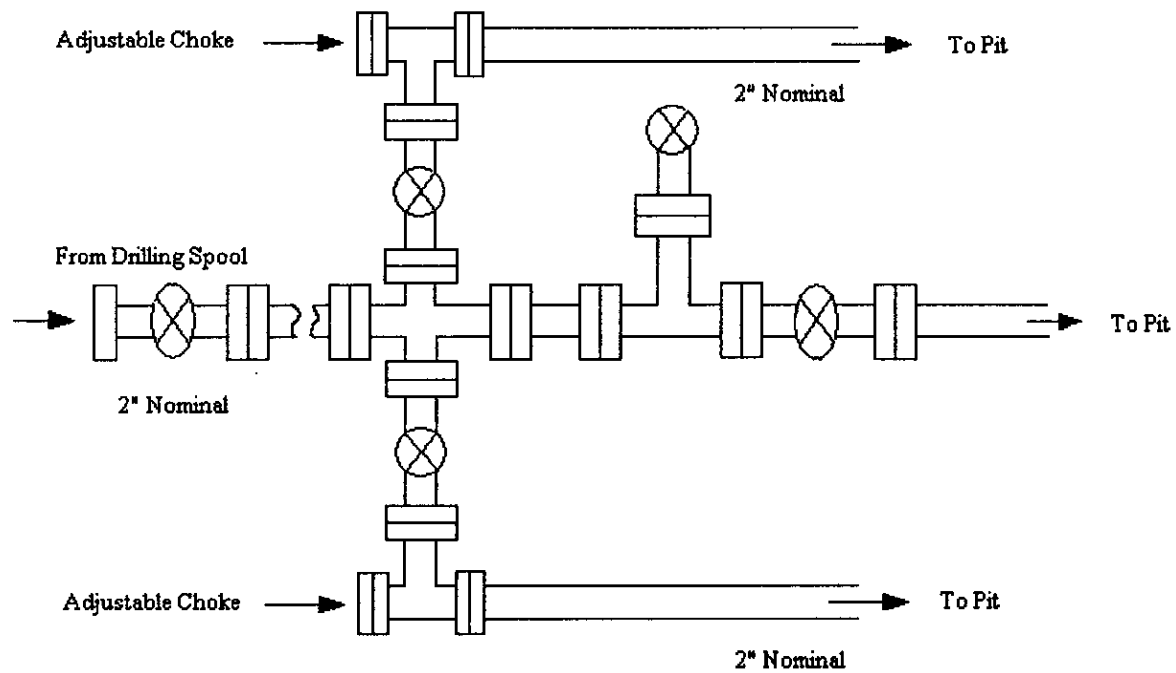
- 1) This well will be cased and the Blanco Mesa Verde fracture stimulated.
- 2) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control. The production string may need to be cemented in multiple stages with a slurry design deviated from that listed above.
- 3) Mesa Verde pore pressure is anticipated to be 800 psi, the Pictured Cliffs is 600 psi and the Fruitland is 500 psi.
- 4) No abnormal temperatures or pressures are anticipated.
- 5) This gas is dedicated.

Energen Resources Corporation

Typical BOP Configuration for Gas Drilling



Typical 2000 psi Choke Manifold Configuration



Choke manifold installed from surface to TD