# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED OMB NO. 1004-0137 Expires March 31, 2007

5 Lease Serial No.

NOV 012007

APPLICATION FOR PERMIT TO DRILL OR REENTER							5. Lease Serial No.  NMN 118139		
la Type of Work	X	DRILL	REENT	ΓER	Bureau of Land Mar Farmington Field	nagen e	If Indian, Allotee o	r Tribe Name	
b. Type of Well	Oil Well	X Gas Well	Other	Single	Zone Multiple Zon	ne 7	7. Unit or CA Agreer	nent Name and No.	, com
2. Name of Operat	or						B. Lease Name and W	ell No.	~~ [
Energen Reso	urces Corpoi	ration					C. J. Holde		ESSEATOR T
Ba. Address				3b.	Phone No. (include area co	ode)	9. API Well No.		<del></del>
2198 Bloomfi	eld Highway	Farmington,	New Mexico	87401	(505) 325-6800		30-045	<u>-34492</u>	
1. Location of Wel	(Report location	clearly and in acco	rdance with any S	tate equirem	ents)*	10	0. Field and Pool, or		
At surface		ļ.	Basin Fruit		<u> </u>				
At proposed prod. zone							1. Sec., T., R., M., o	Bik. and Survey o	Alca
					······································		A - Sec.31,		NMPM
14. Distance in miles	and direction from	n nearest town or po	st office*			113	2. County or Parish	13.State	
		3 miles so	outhwest of				San Juan	NM	
<ol><li>Distance from p</li></ol>				16.No.	of Acres in lease	17. Space	cing Unit dedicated to	this well	
location to near		700					_		
	drg. unit line, if a				502.00		251.50N/2		
8.1 Distance from p	ronosed location*			19 Prop	osed Depth	20 BL	M/BIA Bond No or	file	
to nearest well,	drilling, completed								
applied for, on t	his lease, ft.	2600'		1663'		l	N		
							NMZ70	1	
21. Elevations (Show	whether DF, KD	B, RT, GL, etc.		22. App	22. Approximate date work will start*		23. Estimated duration		
5801'					March 2, 2008		15 days		
The following, comp	oleted in accordan	ce with the requiren	nents of Onshore (	24. Attach	ments order No. 1, shall be attache	ed to this f	form:		
	Plan (if the locatio	surveyor. on is on National Foropriate Forest Serve	•				•		
25. Signuature				Name (Pru	nted/Typed)	-	Date		
Wish:	Jama	AL.		Vicki Donaghey				10/31/07	
Title		Lund		VICKLI	onagney			10/31/07	
Regulatory		1 /		157 /=					—/
Approved by (Signautre)			Name (Printed/Typed)			Date	6/23	106	
Title	7	AFM		Office 1					
Application approva conduct operations Conditions of appro	thereon.	•	e applicant holds	legal or equit	able title to those rights in	n the subj	ect lease which wou	ld entitle the applic	cant to
Title 18 U.S.C. Secondary false, fict					person knowlingly and will thin its jurisdiction.	Ifully to m	ake to any departme	nt or agency of the	United
*/Instructions on no	nga 21								

\*(Instructions on page 2)

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOCD FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOCD PART 19.15.17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

**NMOCD** 

JUN 3 0 2008



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

This action is subject to technical and procedural review pursuant to 43 CFR 3165 3 and appeal pursuant to 43 CFR 3165 4

SS 47 5 (75)

# RECEIVED

NOV 0 1 2007 State of New Mexico Form C-102 Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVIPHENING OF Land Management Appropriate District Office

State Lease - 4 Copies 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 State Lease - 4 Copies District III 1220 South St. Francis Dr. 1000 Rio Brazos Rd., Aztec, NM 87410 Fee Lease - 3 Copies 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 <sup>2</sup> Pool Code J. 04 cai  $\omega_{\mathcal{O}}$ Property Code Property Name Well Number 1180 C.J. HOLDER # 501S 8 Operator Name OGRID No. Elevation ENERGEN RESOURCES CORPORATION 58011 11095199 Surface Location Feet from the North/South line UL or lot no. Section Township Range Feet from the East/West line County NORTH 29N 13W 1015 A 700 EAST SAN JUAN 11 Bottom Hole Location If Different From Surface Feet from the UL or lot no. Section Township North/South line East/West line County 12 Dedicated Acres <sup>13</sup> Joint or Infill 4 Consolidation Code 15 Order No. 6/2 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. (CALC, COR. S89°54'00"E 4158.00' (R) BY SGL PROP. S89°31'37"E 4130.23 (M) **OPERATOR CERTIFICATION** FD. 1 1/2 ALUM. CAP hereby certify that the information contained herein is true and complete **HCS** best of my knowledge and belief, and that this organization either LS#9672 d bottom hole location or has a right to drill this well at this ENERGEN RESOURCES C.J. HOLDER #501S 700' NAO 83 **SE** N36.48748 <u>E</u>E 5238.17' ( 5241.19' () 10482.38' ( 10535.18' ( 5267.59' (F 5266.22' (N w108 2401 SURVEYOR CERTIFICATION N00°10'42"E S00°19'00"W N00°19'42"E N00°20'39"E 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. FD. 3 1/4" NM #11952 BRASS CAP PROFESSION Certificate Number BLM 1913 N89°54'52"W 2656.55' (M) FD 3 1/2 N89°55'01"W FD. 3 1/2 **BRASS CAP** 1488.88' (M) **BRASS CAP** 

GLO 1913

GLO 1911

#### Drilling Plan October 5, 2007

#### CJ Holder #501S

#### **General Information**

Location 1015' fnl, 700' fel

nene S31, T29N, R13W

San Juan County, New Mexico

Elevations 5801' GL Total Depth 1663' (MD)

Formation Objective Basin Fruitland Coal

#### **Formation Tops**

 Ojo Alamo Ss
 Surface

 Kirtland Sh
 108'

 Fruitland Fm
 1108'

 Top Coal
 1348'

 Bottom Coal
 1463'

 Pictured Cliffs Ss
 1463'

 Total Depth
 1663'

## **Drilling**

The 12 1/4" wellbore will be drilled with a fresh water mud system.

The 8 3/4" 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 (figure 1) 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: Induction/Gamma Ray and Density Logs

Coring: None

Surveys: Surface and/or every 500' to TD

#### **Tubulars**

#### Casing, Tubing, & Casing Equipment:

String	<b>Interval</b>	<b>Wellbore</b>	<b>Casing</b>	<b>Csg Wt</b>	<b>Grade</b>
Surface	0'-150'	12 1/4"	9 5/8"	32.3 ppf	H-40 LT&C
Production	150'-1663'	8 3/4"	7"	23.0 ppf	J-55 LT&C
Tubing	0'-1663'		2 3/8"	4.7 ppf	J-55

#### Casing Equipment:

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

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: 100 sks Std (class B) with 2.0 % CaCl<sub>2</sub> and ¼ #/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 600 psi for 30 min.

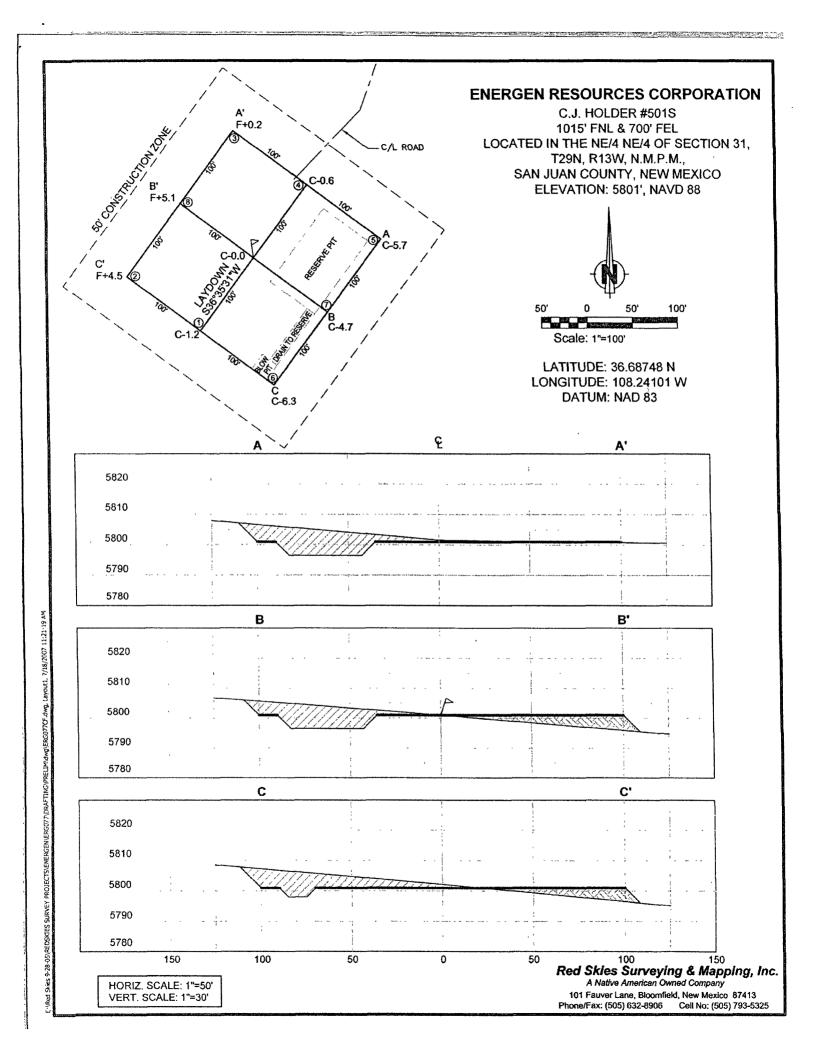
Production Casing: Before cementing, circulate hole at least 1 ½ hole volumes of mud and reduce funnel viscosity to minimum to aide in hole cleanout. Depending on wellbore conditions, cement may consist of 190 sks 65/35 with 6.0 % Bentonite, 2.0 % CaCl<sub>2</sub>, 10 #/sk Gilsonite, and ½ #/sk Flocele (12.3 ppg, 1.93 ft³/sk) and a tail of 135 sks of Standard (Class B) cement with 5.0 #/sk Gilsonite, and ¼ #/sk Flocele (15.4ppg, 1.18 ft³/sk). (526 ft³ of slurry, 100 % excess to circulate to surface).

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

#### Other Information

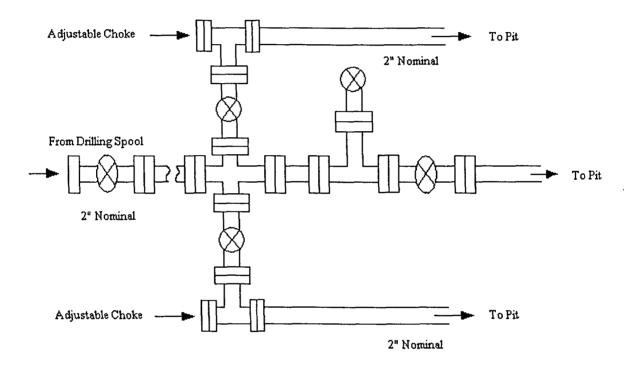
- 1) This well will be cased and the Basin Fruitland Coal fracture stimulated.
- 2) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control. The production string may need to be cemented in multiple stages with a slurry design deviated from that listed 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.
- 4) No abnormal temperatures or pressures are anticipated.
- 5) This gas is dedicated.

Anticipated BHP = 300 psi



# **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

