Form 3160-3 (April 2004)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED ROUD JAN2907 OMB NO. 1004-0137011 CONS. DIV. Expires March 31, 2007

APPLICATION FOR PERMIT	5.	5. Lease Serial No. NM-09840			
la. Type of Work	REENTE	Reported to the state of the st	_ 6.	If Indian, Allotee or Tribe Name	
1b. Type of Well Oil Well X Gas Well	Other [R DEC 12 ∩ 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Unit or CA Agreement Name and No.	
2. Name of Operator	· · · · · · · · · · · · · · · · · · ·	1		Lease Name and Well No.	
Energen Resources Corporation		070 FARMESTER	,]	Tibbar Federal #2E	
3a. Address		3b. Phone No. (include area coo	de) 9.	API Well No. (3/1/100	
2198 Bloomfield Hwy Farmington, NM 87 4 Location of Well (Report location clearly and in accordance)		505.325.6800		30-045-34109	
A	ice min any bia.	ic equitements)	10.	Field and Pool, or Exploratory Basin Dakota	
At surface 2555' fnl, 1700' fel			11.	Sec., T., R., M., or Blk. and Survey or Area	
At proposed prod. zone			ļ	(G) S13, T26N, R9W	
14. Distance in miles and direction from nearest town or post of	ffice*		12.	County or Parish 13. State	
Approximately 20 mile		at of Bloomfield	Sa	n Juan NM	
15. Distance from proposed* location to nearest		16. No. of Acres in lease		ng Unit dedicated to this well	
property or lease line, ft. 1700' (Also to nearest drg. unit line, if any)		1440	ļ <u>-</u>	320 E 12.	
18. Distance from proposed location* to nearest well, drilling, completed,		19. Proposed Depth	20.BLM	BIA Bond No. on file	
applied for, on this lease, ft. Approx 330	1	6734 '			
21. Elevations (Show whether DF, KDB, RT, GL, etc.		22. Approximate date work will start*		23. Estimated duration	
-673 4 GL 6317		2/1/07		15 days	
 Well plat certified by a registered surveyor. A Drilling Plan A Surface Use Plan (if the location is on National Forest S SUPO shall be filed with the appropriate Forest Service On 	of Onshore Oil	4. Bond to cover the operation Item 20 above). 5. Operator certification.	ons unless	covered by an existing bond on file (see and/or plans as may be required by the	
25. Signuature	N	Name (Printed/Typed)		Date	
Title	1	Nathan Smith		12/05/06	
Drilling Engineer					
Approved by (Signature) / Manche world		Name (Printed/Typed)		Date 1/24/07	
Title AFM		Office		, ,	
Application approval does not warrant or certify that the app conduct operations thereon. Conditions of approval, if any, are attached.	BoPS		he subject	lease which would entitle the applicant to	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212 States any false, fictitious or fraudulent statements or represent			lly to make	e to any department or agency of the United	
*(Instructions on page 2)		ROTIFY AZTEC	000 TNESS	24hrs coydecmont	
DRILLING OPERATIONS AUTHORI SUBJECT TO COMPLIANCE WITH "GENERAL REQUIREMENTS".	IZED ARE ATTACHED	This action is	subject to	technical and uant to 43 CFR 3165.3 43 CFR 3165.4	

ROW JANZETT Form C-102 CONS. DIV.

District 1

1625 N. French Dr., Hobbs, NM 88240

1301 W. Grand Avenue, 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 & Natural Resources Department

OIL CONSERVATION DIVISION 1220 South St. Francis Dr.

Santa Fe, NM 87505

Revised October 12, 2005

Submit to Appropriate District Office

RECENTED

1 1 State Lease - 4 Copies

, . . AMENDED REPORT

Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

30-045-34109		² Pool Code	³ Pool Name		
		11599	Basin Dakota		
Property Code		5 Pr	roperty Name	6 Well Number	
10012		TIBBA	# 2E		
OGRID No.		⁴ O ₁	perator Name	' Elevation	
162928	ENERGEN RESOURCES CORPORATION		OURCES CORPORATION	6317'	

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	13	26N	9W		2555	NORTH	1700	EAST	SAN JUAN

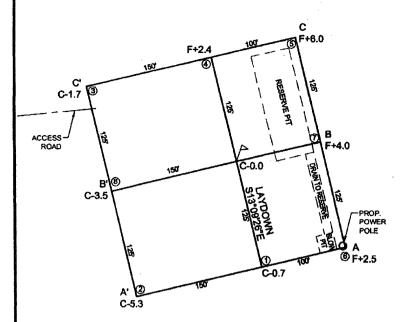
11 Bottom Hole Location If Different From Surface

2 OVIOLI I I OVI DO I I OVI DA									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
					<u> </u>				
12 Dedicated Acres		· infili 14 C	Consolidation (Code 13 Or	der No.				
E/2320									

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the

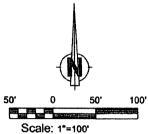
NRG*51'00"W	2604 36' (R)	N89°51'00"W S80°40'33"E	2604.36' (R) 2604.46' (M)	
N89°51'00"W	2604.36' (R)	\$89°49'33"E FD. 2 1/2" BRASS CAP GLO 1947 B.R.O.G.	CALC. 19833 00000000000000000000000000000000000	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and helief, and that this organization either owns a working interest or unleased 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 computery pooling order heretofore batteged by the division Signature Date Nathan Smith
			1700'	
M 00 CO 000		3	2638.55' (CALC.)	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 Sarvey
	9°49′00°W	5217.3	FD. 2 1/2" BRASS CAP GLO 1947	Signature and seal of rofessional Surveyors 482

Submit 3 Copies To Appropriate District	State of New Me			Form C-103
Office District I	Energy, Minerals and Natur	ral Resources		May 27, 2004
1625 N. French Dr., Hobbs, NM 87240 District II		- Dunglos	WELL API NO. 3	0-045-34109
1301 W. Grand Ave., Artesia, NM 88210	OIL CONSERVATION 1220 South St. Fra		5. Indicate Type o	f Lease
District III 1000 Rio Brazos Rd., Aztec, NM 87410	Santa Fe, NM 8		STATE [
District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505	Juliu 1 0, 11111 0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	6. State Oil & Gas	s Lease No.
SUNDRY NOTICE (DO NOT USE THIS FORM FOR PROPOS DIFFERENT RESERVOIR. USE "APPLICA" PROPOSALS.)		OR PLUG BACK TO A	7. Lease Name or Tibbar Federal	Unit Agreement Name:
1. Type of Well:			8. Well Number	
Oil Well Gas Well 🗶	Other			2E
2. Name of Operator			9. OGRID Number	
Energen Resources Corporati	on			928
3. Address of Operator 2198 Bloomfield Highway, F	Seminaton NM 07401		10. Pool name or Basin Dakota	Wildcat
4. Well Location	animiquon, New 87401		Basiii Dakota	
			4-44	
Unit Letter <u>G</u> : 2	555 feet from the Nor	th line and	1700 feet fro	m the <u>East</u> line
Section 13	Township 26N	Range 09W	NMPM	County San Juan
	11. Elevation (Show whether			
		34' GL		
Pit or Below-grade Tank Application X				
Pit type Drill Depth to Groundwater	>100' Distance from nearest fresh	water well <u>>1000 '</u> Dis	tance from nearest surf	ace water <u>>250'</u>
Pit Liner Thickness: 12 mil	Below-Grade Tank: Volume_	bbls; Construction	on Material	
	•			
12. Check Ar	propriate Box to Indicate	Nature of Notice.	Report, or Other	r Data
NOTICE OF INTE	• •	· ·	SEQUENT REI	
	PLUG AND ABANDON	REMEDIAL WORK		ALTERING CASING
TEMPORARILY ABANDON	CHANGE PLANS	COMMENCE DRILLI	NG OPNS. 🔲	PLUG AND ABANDONMENT
PULL OR ALTER CASING	MULTIPLE COMPLETION	CASING TEST AND CEMENT JOB		ABANDONMENT
OTHER: Build drilling pit	\mathbf{x}	OTHER:		
13. Describe proposed or completed of		tinent details, and give	e nertinent dates inc	hiding estimated date
of starting any proposed work). So or recompletion.		• •	•	•
Energen Resources plans to	build a lined nit second	ing to MOOD Dit	d Below-wodo m-	nk Guidelinee! ee
issued on November 1,2004.	-		_	
accordance with BIM and "O	_			on day pro an
I hereby certify that the information abo	ave is true and complete to the	host of my knowledge	and boliof Year	At all and the but
grade tank has been/will be constructed or clo	sed according to NMOCD guidelines	s X , a general permit	or an (attached) alte	ernative OCD-approved plan
SIGNATURE VICTORIA	OXXXX		ry Analyst	
	/ \	nail address:	vdonaghe(energe	
Type or print name Vicki Donaghe				phone No. 505.325.6800
For State Use Only	t Ille our	UTT OR & GAS MSPE	CTOR MIT AN	JAN 3 1 2007
APPROVED BY	TIT	LE	I	DATE
Conditions of Approval, if any:	•			



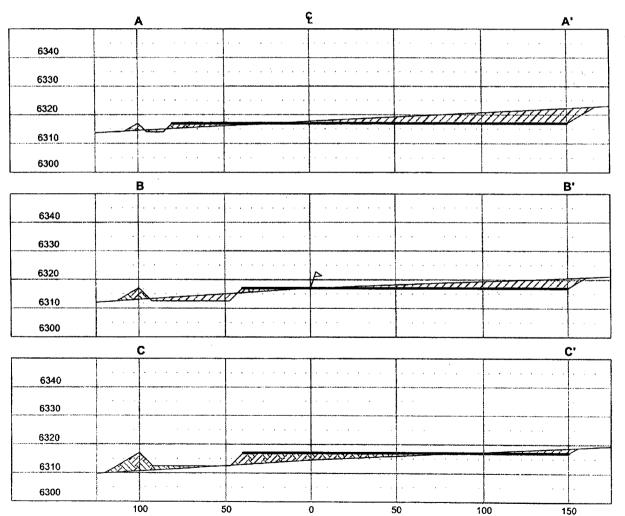
ENERGEN RESOURCES CORPORATION

TIBBAR FEDERAL #2E
2555' FNL & 1700' FEL
LOCATED IN THE SW/4 NE/4 OF SECTION 13,
T26N, R9W, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO
ELEVATION: 6317', NAVD 88



Scale. 1"=100"

LATITUDE: 36°29'18"N LONGITUDE: 107°44'17"W DATUM: NAD 83



HORIZ. SCALE: 1"=50' VERT. SCALE: 1"=30' Red Skies Surveying & Mapping, Inc.
A Native American Owned Company

101 Fauver Lane, Bloomfield, New Mexico 87413 Phone/Fav: (505) 532,5308 Cell No: (505) 733,5325

Operations Plan December 4, 2006

Tibbar Federal #2E

General Information

Location

2555' fnl, 1700' fel swne S13, T26N, R09W San Juan County, New Mexico

Elevations
Total Depth
Formation Objective

6317' GL 6734' (MD) Basin Dakota

Formation Tops

Nacimiento	Surface	Menefee Fm	3659'
Ojo Alamo Ss	1234'	Point Lookout Ss	4359'
Kirtland Sh	1339'	Mancos Shale	4704'
Fruitland Fm	1734'	Graneros Shale	6374'
Top Coal	1814'	Dakota "Twowells" Ss	6404'
Bottom Coal	2019'	Dakota "Paguate" Ss	6499'
Pictured Cliffs Ss	2019'	Dakota "Cubero" Ss	6569'
Lewis Shale	2249'	Dakota "Oak Canyon" Ss	6669'
Cliffhouse Ss	3574'	Dakota "Encinal Cyn" Ss	6684'
•		Total Depth	6734'

Drilling

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

The 6 ¼" wellbore will be drilled with a low solids non-dispersed fresh water mud system. Weighting materials will be drill cuttings. 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: From Surface to TD - Temp / HRI / CNT, LDT / GR

Surveys: Surface and/or every 500' to TD

Tubulars

Casing, Tubing, & Casing Equipment:

String Surface Production	Interval 0' -200 ' 32 <i>c</i>) 0'-6734'	Wellbore 12 ¼" 6 ¼"	Casing 9 5/8" 4 ½"	Csg Wt 32.3 ppf 11.6 ppf	Grade H-40 ST&C J-55 LT&C
Tubing	0'-6680'		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.

Production 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 standard bow spring centralizers to optimize standoff. If multistage cementing is required, DV tool(s) will be placed based on formation characteristics.

Cementing

Surface Casing: 125 sks Type V cement with 2.0 % CaCl₂ and ¼ #/sk Flocele (15.4 ppg, 1.23 ft³/sk 154 ft³ of slurry, 100% excess to circulate to surface). WOC 12 hours. Pressure test surface casing to 1000 psi for 30 min.

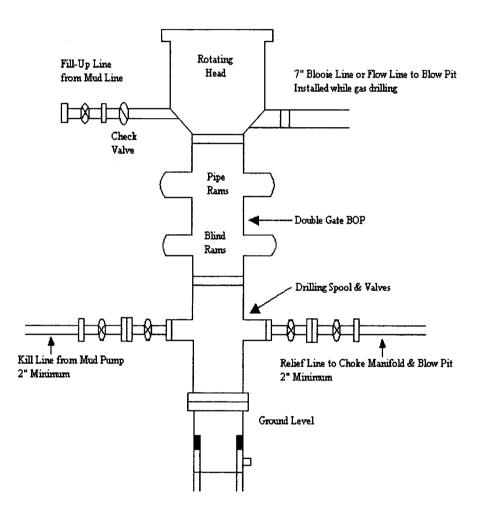
Production Casing: Before cementing, circulate hole at least 1 ½ hole volumes of mud and reduce funnel viscosity to minimum to aide in hole cleanout. Depending on wellbore conditions, cement may consist a lead of 550 sks 65/35 Type V with 6.0 % Bentonite, 2.0 % CaCl₂, 10 #/sk Gilsonite, and ¼ #/sk Flocele (12.3 ppg, 1.93 ft³/sk) followed by a tail of 250 sks 50/50 Type V with 2.0 % Bentonite, 0.80 % Halad-9, 0.10 % CFR-3, 5.0 #/sk Gilsonite, ¼ #/sk Flocele (13.5 ppg, 1.30 ft³/sk). (1386.5 ft³ of slurry, 100 % excess to circulate to surface).

Other Information

- 1) This well will be cased and the Basin Dakota 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) No abnormal temperatures or pressures are anticipated. Anticipated fracture gradient is 0.70 psi/ft.
- 4) This gas is dedicated.

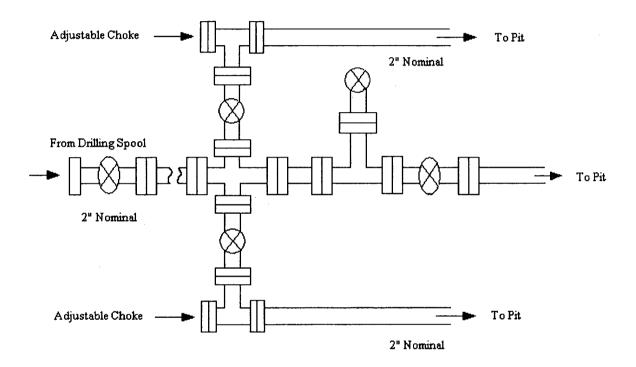
Energen Resources Corporation

Typical BOP Configuration for Gas Drilling



Energen Resources Corporation

Typical 2000 psi Choke Manifold Configuration



Choke manifold installed from surface to TD