# NOTIFY AZTEC OCD 24 HRS. PRIOR TO CASING & CEMENT

# RECEIVED

Form 3160 -3 (August 2007)

AUG 13 2012

FORM APPROVED OMB No. 1004-0137 Expires July 31, 2010

UNITED STATES	l	Expires
DEPARTMENT OF THE INTERIOR Farmington Field Office	5.	Lease Serial No.
BUREAU OF LAND MANACEMESTICAL Of Land Managem	89-يام	9-IND-58

BUREAU OF LAND MAN	AGEMENT Out of Land 181	anagoni	>11L			
APPLICATION FOR PERMIT TO	6. If Indian, Allotee NAVAJO NATION		Name			
la. Type of work:	7. If Unit or CA Agreement, Name and No.					
1b. Type of Well:  Oil Well  Gas Well Other	8. Lease Name and Well No. HOGBACK DEEP 12 #34					
2. Name of Operator VISION ENERGY GROUP LLC			9. API Well No. 30-045- 3546	3		
3a. Address 39 OLD RIDGEBURY ROAD DANBURY CT 06810	3b. Phone No. (include area code) 203 837 2538		10. Field and Pool, or HOGBACK PENN		•	
4. Location of Well (Report location clearly and in accordance with any	y State requirements.*)		11. Sec., T. R. M. or I	3lk.and Su	rvey or Area	
At surface 500' FSL & 1700' FEL			SWSE 12-29N-17	W NMPN	٧	
At proposed prod. zone SAME						
14. Distance in miles and direction from nearest town or post office* 5 AIR MILES WSW OF WATERFLOW, NM	14. Distance in miles and direction from nearest town or post office*					
15. Distance from proposed* 940' location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	property or lease line. ft.					
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	8. Distance from proposed location* 2.220' (P&A 7-A 1) 19. Proposed Depth to nearest well, drilling, completed, 2.220' (P&A 7-A 1)					
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will sta	ırt*	23. Estimated duration 1 MONTH	n		
5,116' UNGRADED	5,116' UNGRADED 11/01/2012					
	24. Attachments					
The following, completed in accordance with the requirements of Onshor	e Oil and Gas Order No.1, must be a	ttached to the	is form:			
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office).</li> </ol>	Item 20 above).  Lands, the 5. Operator certifi	cation	ns unless covered by an	•	,	
25. Signature .	Name (Printed/Typed) BRIAN WOOD (505	466-8120	))	Date 08/01/	2012	
Title						

CONSULTANT

(FAX 505 466-9682)

Approved by (Signature)

Name (Printed/Typed)

Date /38/13

Title

AFA Office FF

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.

(Continued 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.

This action is subject to technical and procedural review pursuant to 43 CFR 3168 3 and appeal pursuant to 43 CFR 3165.4

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED

"GENERAL REQUIREMENTS".

MAY 2 3 2013 Ca

HOLD CONTROL HOLD CONTROL CENT

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

# RECEIVE

DISTRICT J 1625 N. French Dr., Hobbs, N.M. 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 DISTRICT II 811 S. First St., Artesia, N.M. 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

S 89°24'24" W S 89°51' W

State of New Mexico
Energy, Minerals & Natural Resources Department 13 2012 Form C-102 Revised August 1, 2011

Submit one copy to appropriate

OIL CONSERVATION DIVISION Farmington Field Office

1220 South St. Francis Dr Bureau of Land Management
Santa Fe, N.M. 87505

District Office

Phone: (505) 334	1-6178 Fax	: (505) 334	-6170		Santa Fe, N.	м. 87505			-		
<u>DISTRICT IV</u> 1220 S. St. Fran Phone: (505) 476	cis Dr., San 3-3460 Fax	nta Fe, N.M.: (505) 478	i. 87505 33462						□ A	MENDED F	REPOR
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**NAD 27** 

500

5278.68' (CALC.) 79.98 CHAINS (R)

DISTRICT I 1625 N. French Dr., Hobbs, N.M. 88240 Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT\_II 811 S. First St., Artesia, N.M. 88210 Phone: (575) 748-1283 Fax: (575) 748-9720

State of New Mexico RECEIVED Energy, Minerals & Natural Resources Department

Form C-102

Revised August 1, 2011

# OIL CONSERVATION DIVISION

AUG 13 Submit one copy to appropriate District Office

<u>DISTRICT III</u> 1000 Rio Brazos Phone: (505) 334		1220 South St. Francis Dr. Farmington Field Office Fax: (505) 334-6170 Santa Fe, N.M. 87505 Bureau of Land Managemen								
<u>DISTRICT IV</u> 1220 S. St. Fran Phone: (505) 476						Burea	IU OI LAIIG M.S.		AME	NDED REPORT
			WELL	LOCATIO	N AND AC	REAGE DED	ICATION PI	LAT		
30-045-3	30-045-35403 98627 WC29N17W12; LEADVILLE OIL									OIL
Property C	1			-	Froperty HOGBACK				•	Well Number 34
28096	2			VISIO	*Operator N ENERGY	Name GROUP LLC	-			Elevation 5116
	· · · · ·				10 Surface	Location		·····		
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/We	st line	County
0	12	29 N	17 W	<b>!</b>	500	SOUTH	1700	EAS	ST	SAN JUAN
<sup>11</sup> 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/We	st line	County
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. —	© = FOUND 2005 B.L.M. BRASS CAP  © = FOUND 1913 U.S.G.L.O. BRASS CAP    BRIAN WOOD   Printed ; ,									
= CALCULATED SECTION CORNER brian@permitswest.com										

# E-mail Address SECTION 12 18 SURVEYOR CERTIFICATION 2642.19' (M) 40 CHAINS (R) I hereby certify that the well location shown on this plat was plotted from field notes of active surveys made by me or under my supervision, and better the wife survey and correct to the best of my slice. 04/11/12 "HVEY®R Date of Survey Signature and Seal STEEL PROFESSIONALS ш LAT: 36.7354721° N 00°29'29" NORTH LONG: 108.5804462° W NAD 83 LAT: 36°44.12830' N LONG: 108°34.78837' W 1700 **NAD 27** 500 S 89°24'24" W S 8<u>9°51' W</u> 5278.68' (CALC.) 79.98 CHAINS (R)

# **Drilling Program**

# 1. <u>ESTIMATED FORMATION TOPS</u> (ungraded GL = 5,116')

Formation Name	<u>GL Depth</u>	KB Depth	<b>Elevation</b>
Mancos shale	0'	18'	+5,116'
Dakota sandstone	846'	864'	+4,270'
Morrison formation	1,061'	1,079'	+4,055'
Entrada sandstone	2,099'	2,117'	+3,017'
Chinle shale	2,733'	2,751'	+2,383'
Shinarump conglomerate	3,637'	3,655'	+1,479'
Cutler formation	3,962'	3,980'	+1,154'
Honker Trail formation	5,283'	5,301'	-167'
Paradox	5,978'	5,996'	-862'
Desert Creek Akah	6,107'	6,125'	-991'
Pinkerton Trail	6,614'	6,632'	-1,498'
Molas limestone	6,747'	6,765'	-1,631'
Leadville	6,841'	6,859'	-1,725'
Devonian	6,983'	7,001'	-1,867'
Precambrian granite	7,343'	7,361'	-2,227'
Total Depth (TD)	7,500'	7,518'	-2,384'

## 2. NOTABLE ZONES

Gas & Oil Zones	Water Zones	Other Mineral Zone
Dakota	Morrison	Morrison
Desert Creek Akah	Entrada	Chinle
Leadville		

Water zones will be protected with casing, cement, and weighted mud. Fresh water found while drilling will be recorded.



#### 3. PRESSURE CONTROL

Maximum expected bottom hole pressure will be  $\approx$ 4,440 psi. A diagram of a typical 5,000 psi BOP system is on Page 2. Specifications are:

Type: 13-5/8" x 5,000 psi WP double-gate BOP and 13-5/8" x 5,000 psi WP annular BOP with hydraulic closing unit. 13-3/8" x 13-5/8" x 5,000 psi WP slipon welded casing head and 13-5/8" x 11" x 5000 psi WP casing spool.

The blowout preventer will be equipped as follows:

- 1) one set of blind rams
- 2) one set of pipe rams
- 3) drilling spool with 2 side outlets (choke side:  $\geq$ 3" minimum kill side:  $\geq$ 2")
- 4) kill line: 2" minimum
- 5) two kill line valves, one of which will be a check valve ( $\geq$ 2")
- 6) choke line:  $\geq$ 3"
- 7) two choke line valves: ≥3"
- 8) one manually operated choke:  $\geq 3$ "
- 9) pressure gauge on choke manifold
- 10) upper kelly cock with handle readily available
- 11) full opening internal blowout preventer or drill pipe safety valve able to fit all connections
- 12) fill up line to be located above uppermost preventer

# Testing Procedures:

At a minimum, the BOP, choke manifold, and all related equipment will be pressure tested to the approved working pressure of the BOP stack (if isolated from the surface casing by means of a test plug) or to 70% of the internal yield strength of the surface casing (if not isolated from the surface casing by means of a test plug). Pressure will be maintained for a period of at least 10 minutes or until requirements of the test are met, whichever is longer. At a minimum, this pressure test will be performed:



- 1) when the BOP is initially installed
- 2) whenever any seal subject to test pressure is broken
- 3) following related repairs
- 4) at minimum 30 day intervals

In addition to the above, the pipe rams will be activated daily, and the blind rams will be activated each trip (but not more frequently than once each day). All BOP tests and drills will be recorded in the IADC Driller's Log (tour sheets).

All choke lines will be straight lines, unless turns use tee-blocks, or are targeted with running tees. These lines will be anchored to prevent whip and vibration.

The accumulator will have sufficient capacity to close all rams (plus the annular preventer, if applicable) and retain a minimum of 200 psi above the pre-charge pressure, without the use of the closing-unit pumps. The fluid reservoir capacity will be double the accumulator capacity. The fluid level will be maintained at the manufacturer's recommendations. The BOP system will have two independent power sources to close the preventers. Nitrogen bottles (three minimum) will be considered one of these sources and will maintain a charge equal to the manufacturer's specifications.

The accumulator pre-charge pressure test will be conducted prior to connecting the closing unit to the BOP stack and at least once every six months thereafter. The accumulator pressure will be corrected if the measured pre-charge pressure is found to be above or below the maximum or minimum limits as specified on Onshore Oil and Gas Order 2.

The blowout preventer and related pressure-control equipment will be installed, tested, and maintained in compliance with Onshore Order 2. The choke manifold and BOP extension rods will be located outside the rig substructure. The hydraulic BOP closing unit will be located  $\geq 25$  feet from the well head, but will be readily accessible to the driller. Exact locations and configurations of the



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RCVD MAY 22 '13 OIL CONS. DIV. DIST. 3

hydraulic BOP closing unit will depend upon the particular drilling rig contracted to drill this well. A 20" diverter will be used on the surface hole.

#### 4. CASING & CEMENT

Hole Size	O.D.	Pounds/Foot	Grade	<u>Connect</u>	<u>SFt</u>	SEc	SEb	Interval
30"	20"	Conductor						0' - 60'
17-1/2"	13-3/8"	54.5	J-55	ST&C	8.35	2.02	2.42	0' - 1130'
12-1/4"	9-5/8"	40	K-55	LT&C	2.81.	1.13	1.01	0' - 3700'
12-1/4"	9-5/8"	40	HCL-80	LT&C	11.6	1.30	1.48	3700' - 5000'
8-3/4"	5-1/2"	17	K-55	LT&C	2.13	1.25	1.37	0' - 7500'

All casing will be pressure tested to approximately one-third of the manufacturer's rated internal yield pressure except that the test pressure shall not be less than 600 psi and need not be greater than 1500 psi. In cases where combination strings are involved, the above test pressure will apply to the lowest pressure rated casing used. Test pressure will be applied for 30 minutes. If a drop of >10% of the test pressure occurs, then the casing will be considered defective and Vision will apply corrective measures.

Intermediate casing is a contingency string. Its actual setting depth will be contingent upon the presence of background gas noted while drilling and hole conditions in general. Safety factors were calculated assuming 9.0 ppg mud weight in the surface hole, 11.5 ppg in the intermediate hole, and 10.0 ppg in the production hole.

Conductor pipe will be cemented to the surface with ≈6 cubic yards ready mix.

Surface casing will be cemented to the surface with 100% excess. Will use 1,200 sacks (1,572 cubic feet) Type 3 + 2% CaCl<sub>2</sub> + 1/4 pound per sack flow seal mixed at 1.31 cubic feet per sack and 14.8 pounds per gallon. One hundred sacks neat cement and 1" tubing will be on site if a top job is needed. Centralizers will be installed in the middle of the shoe joint and every other collar to the surface (total = 9).



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RCVD MAY 22 '13 OIL CONS. DIV.

DIST. 3

Intermediate casing will be cemented to  $\approx 750$ ' ( $\approx 380$ ' overlap) with 25% excess. Will lead with 650 sacks (1,365 cubic feet) premium light + 8% bentonite extender + 5 pounds per sack gilsonite for lost circulation + 1% CaCl<sub>2</sub> accelerator + 1/4 pound per sack cello flake mixed at 2.10 cubic feet per sack and 12.1 pounds per gallon. Tail with 250 sacks (342 cubic feet) Type 3 + 1% CaCl<sub>2</sub> + 1/4 pound per sack flow seal mixed at 1.37 cubic feet per sack and 14.6 pounds per gallon. Centralizers will be installed in the middle of the shoe joint and every other collar above for a total of 15.

Production casing will be cemented to  $\approx$ 4,900' (must overlap intermediate by at least 100') with 25% excess. Will use 420 sacks (831 cubic feet) premium light high strength + 0.3% CD-52 (dispersant) + 1% FL-52A (fluid loss additive) + 6-1/4 pounds per sack gilsonite (extender) mixed at 1.98 cubic feet per sack and 12.5 pounds per gallon. Centralizers will be installed in the middle of the shoe joint and every other collar above for a total of 12.

#### 5. MUD PROGRAM

<u>Interval</u>	Weight	<u>Viscosity</u>	Fluid Loss	<u>Type</u>
0'-1130'	8.5 - 9.0	30 - 45	N/C	Fresh water spud mud
1130'-5000'	9.0 - 11.5	38 -48	8 - 10 cc	Fresh water gel & PHPA, SAPP
5000' - TD	10.0 - 10.5	40 - 48	8 - 10 cc	LSND with guar

#### 6. CORES, TESTS, & LOGS

Two 60' conventional cores (one per zone) are planned.

Drill stem tests are planned for any significant hydrocarbon shows.



PAGE 7

RCVD MAY 22 '13 OIL CONS. DIV.

DIST. 3

DIL-SFL, BHC Sonic-GR-Cal, and LDT-CNL-GR-Cal or equivalent logs will be run from the base of the surface casing to the intermediate casing point and from the intermediate casing point to TD. A dipole sonic and dip meter may be run from 5,000' to TD. CBL will be run on any casing string where cement is not circulated to the surface.

#### 7. DOWN HOLE CONDITIONS

No abnormal temperatures are expected. Maximum bottom hole pressure gradient will be 0.59 psi/foot.

#### 8. MISCELLANEOUS

Anticipated spud date is upon approval. It is expected it will take  $\approx$ 4 weeks to drill the well and  $\approx$ 4 weeks to complete the well.



#### Surface Use Plan

### 1. <u>DIRECTIONS & ROADS</u> (See PAGES 13 - 16)

From the NM 371 San Juan River bridge in southwest Farmington... Go South for 0.7 miles on NM 371 Then turn right and go West  $\approx$ 20 miles on paved N-36 to milepost  $\approx$ 8.6 Then turn right at a cattle guard and go NW 0.8 mile on the middle dirt road Then turn right and go North 695' cross country to the pad

Roads will be maintained to at least equal their present condition.

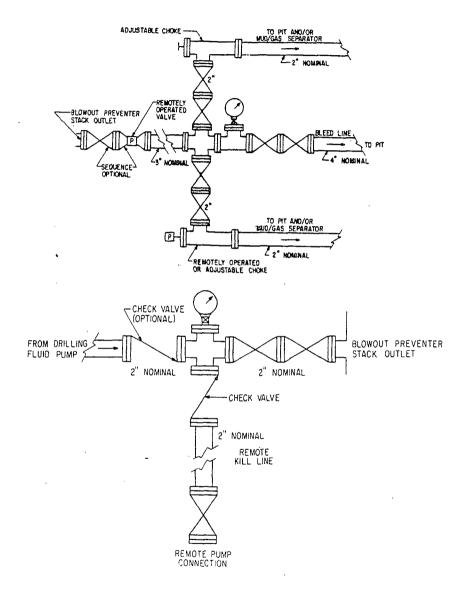
## 2. ROAD TO BE BUILT OR UPGRADED (See PAGES 15 & 16)

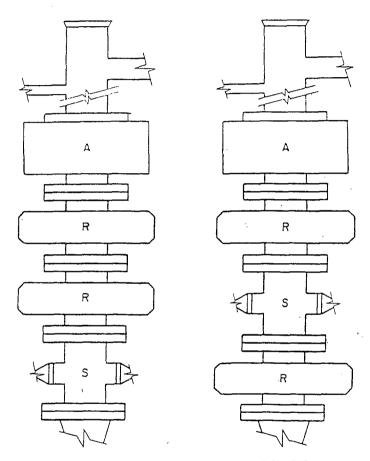
The 695' of new road will be built to BLM Gold Book standards. Road will have a  $\approx 14$ ' wide running surface and will be rocked as needed. A minimum 18" x 20' culvert will be installed at the entrance to the pad. Upgrade of the existing road will consist of rocking where needed and watering when needed. No cattle guard or vehicle turn out is needed. Maximum disturbed width = 20'. Maximum cut or fill = 2'. Maximum grade = 5%. Dust will be controlled.

# 3. EXISTING WELLS (See PAGE 14)

Nine oil wells, one disposal well, and thirty-one plugged wells are within a mile radius. There are no gas, water, or injection wells within a mile according to state records.







TYPICAL 5,000 psi WORKING PRESSURE BOP STACKS

A = Annular type blowout preventer

S = Drilling spool with side outlet connections for choke & kill lines

