

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary-Designate

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey, Division Director
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions
listed below are made in accordance with OCD Rule 19.15.7.11
and are in addition to the actions approved by BLM on the
following 3160-3 APD form.

Operator Signature Date: 6/23/12

Well information;

Operator Vision, Well Name and Number Hogback Deep 19 #12

API# 30-045-35388, Section 19, Township 29 NS, Range 16 EW

Conditions of Approval:

(See the below checked and handwritten conditions)

- ☒ Notify Aztec OCD 24hrs prior to casing & cement.
- ☐ Hold C-104 for directional survey & "As Drilled" Plat
- ☒ Hold C-104 for NSL, NSP, DHC NSL for WC LEADVILLE Oil
- ☐ Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- ☒ Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
 - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
 - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
 - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
- ☐ Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
- ☐ Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils

Charlie Herrin
NMOCD Approved by Signature

9-23-2013 ca
Date

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Form 3160-3
(August 2007)

JUL 18 2012

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Farmington Field Office

Bureau of Land Management

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. 989-IND-58	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name NAVAJO NATION	
2. Name of Operator VISION ENERGY GROUP LLC		7. If Unit or CA Agreement, Name and No.	
3a. Address 39 OLD RIDGEBURY ROAD DANBURY CT 06810		8. Lease Name and Well No. HOGBACK DEEP 19 #12	
3b. Phone No. (include area code) 203 837 2538		9. API Well No. 30-045- 35388	
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 1500' FNL & 900' FWL At proposed prod. zone SAME		10. Field and Pool, or Exploratory HOGBACK PENN & WC LEADVILLE	
14. Distance in miles and direction from nearest town or post office* 5 AIR MILES SW OF WATERFLOW, NM		11. Sec., T. R. M. or Blk. and Survey or Area SNNW 19-29N-16W NMPM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 4,991'	16. No. of acres in lease 4,480 4800	17. Spacing Unit dedicated to this well NW4 PENN & SNNW LEADVILLE RCVD SEP 6 '13	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1,417' (P&A USG 19-19)	19. Proposed Depth 7,525'	20. BLM/BIA Bond No. on file 015037275 OIL CONS. DIV. DIST. 3	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5,148' UNGRADED	22. Approximate date work will start* 11/01/2012	23. Estimated duration 1 MONTH	

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond or letter (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the BLM.

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

25. Signature 	Name (Printed/Typed) BRIAN WOOD (505 466-8120)	Date 06/23/2012
Title CONSULTANT (FAX 505 466-9682)		
Approved by (Signature) 	Name (Printed/Typed) AEM	Date 8/4/13
Title FFO		

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)

*(Instructions on page 2)

NMOC
A

This action is subject to technical and procedural review pursuant to 43 CFR 3160.3 and appeal pursuant to 43 CFR 3165.4

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

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

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

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, N.M. 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

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Form C-102

Revised August 1, 2011

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, N.M. 87505

JUL 18 2012

Submit one copy to appropriate
District Office

Farmington Field Office
Bureau of Land Management

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ PI Number 30-045- 35388	² Pool Code 32770	³ Pool Name HOGBACK PENN
⁴ Property Code 40150	⁵ Property Name HOGBACK DEEP 19	⁶ Well Number 12
⁷ OGRID No. 280962	⁸ Operator Name VISION ENERGY GROUP LLC	⁹ Elevation 5148

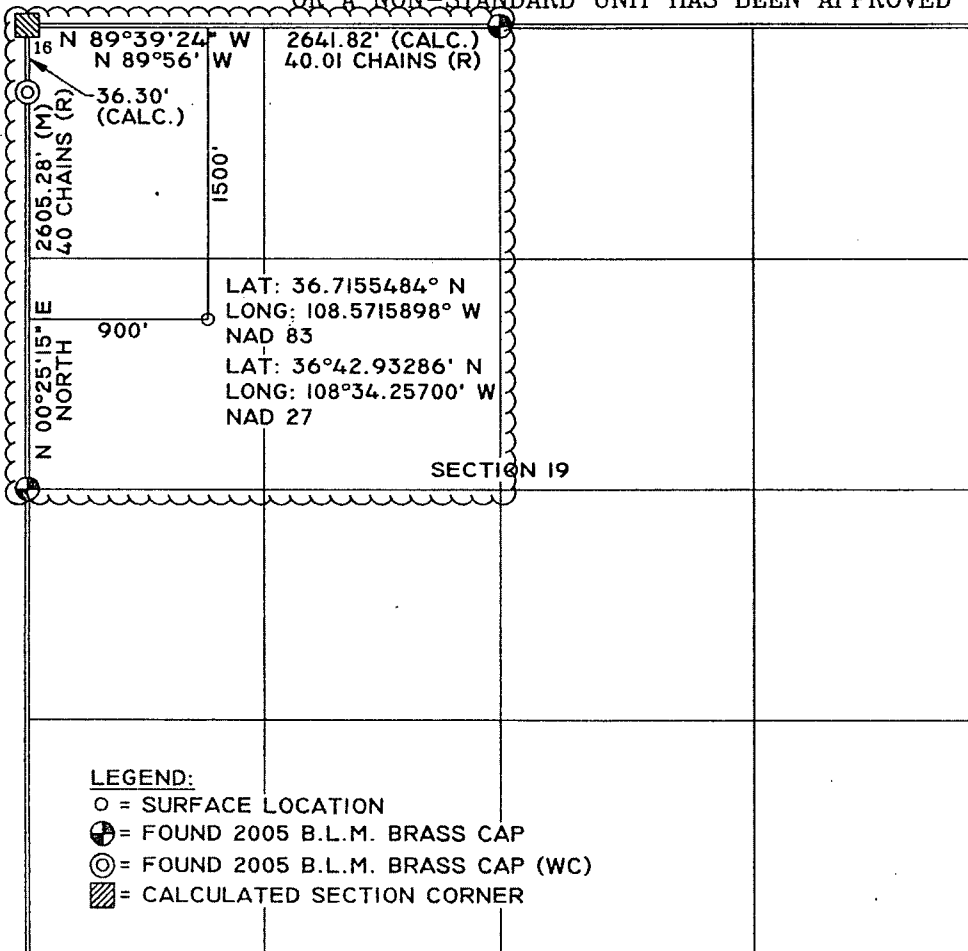
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	19	29 N	16 W		1500	NORTH	900	WEST	SAN JUAN

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
¹² Dedicated Acres 160		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ 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



¹⁷ OPERATOR CERTIFICATION

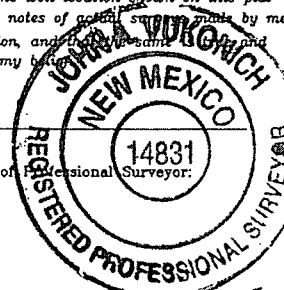
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Brian Wood 6-23-12
Signature Date
BRIAN WOOD
Printed
brian@permitswest.com
E-mail Address

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of a survey made by me or under my supervision, and that the same is true and correct to the best of my belief.

05/07/12
Date of Survey
Signature and Seal of Professional Surveyor:



14831
Certificate Number
5-15-2012

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State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

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JUL 18 2012

Form C-102
Revised August 1, 2011
Submit one copy to appropriate

Farmington Field Office

District Office

Bureau of Land Management

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ PI Number 30-045- 35388		⁸ Pool Code 98047		⁹ Pool Name WC29N16W19: LEADVILLE OIL	
⁴ Property Code 40150		⁵ Property Name HOGBACK DEEP 19			⁶ Well Number 12
⁷ UGRID No. 280962		³ Operator Name VISION ENERGY GROUP LLC			² Elevation 5148

¹⁰ Surface Location

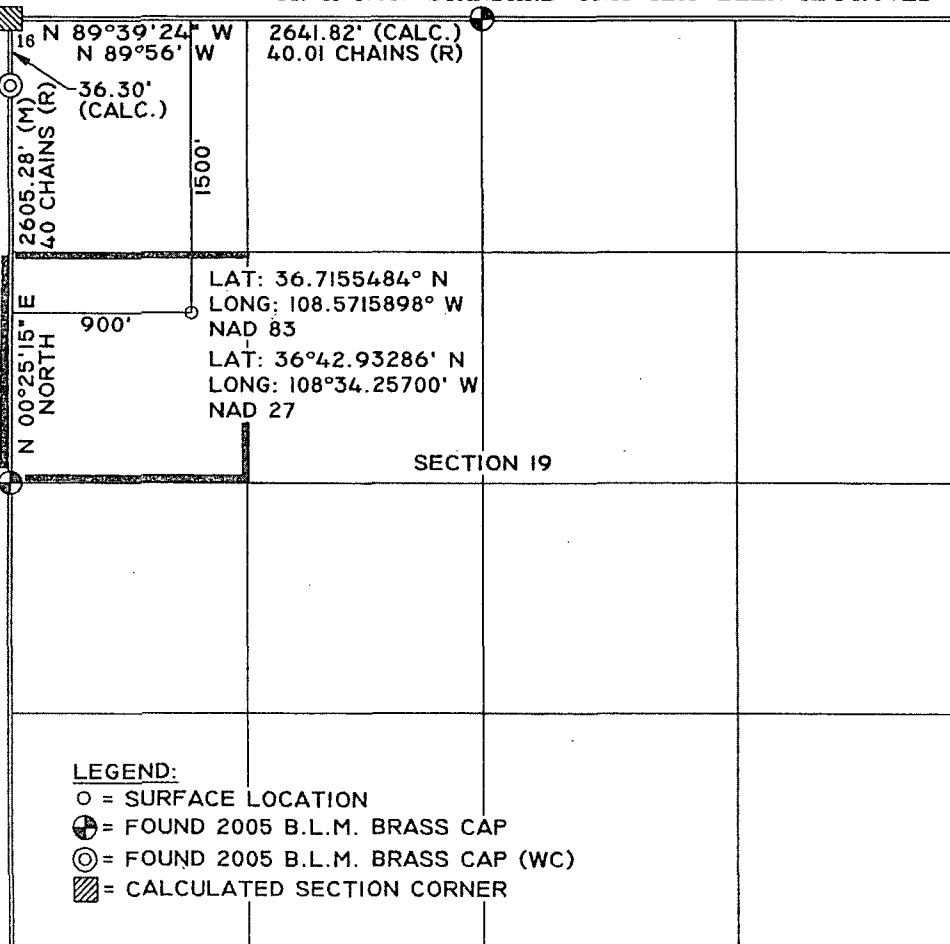
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	19	29 N	16 W		1500	NORTH	900	WEST	SAN JUAN

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

¹² Dedicated Acres 40	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, 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 compulsory pooling order heretofore entered by the division.

Signature: *Brian Wood* Date: 6-23-12
 Printed: BRIAN WOOD
 E-mail Address: brian@permitswest.com

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of a duly sworn and qualified surveyor or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey: 05/07/12
 Signature and Seal of Professional Surveyor:



Certificate Number: 14831
 Date: 5-15-2012

Vision Energy Group LLC
Hogback Deep 19 #12
1500' FNL & 900' FWL
Sec. 19, T. 29 N., R. 16 W.
San Juan County, New Mexico

PAGE 1

Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation Name</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
Mancos shale	0'	18'	+5,148'
Dakota sandstone	838'	856'	+4,310'
Morrison formation	1,053'	1,071'	+4,095'
Entrada sandstone	2,112'	2,130'	+3,036'
Chinle shale	2,762'	2,780'	+2,386'
Shinarump conglomerate	3,670'	3,688'	+1,478'
Cutler formation	4,018'	4,036'	+1,130'
Honker Trail formation	5,358'	5,376'	-210'
Paradox	6,050'	6,068'	-902'
Desert Creek Akah	6,182'	6,200'	-1,034'
Pinkerton Trail	6,675'	6,693'	-1,527'
Molas limestone	6,822'	6,840'	-1,674'
Leadville	6,923'	6,941'	-1,775'
Devonian	7,065'	7,083'	-1,917'
Precambrian granite	7,425'	7,443'	-2,277'
Total Depth (TD)	7,525'	7,543'	-2,377'

2. NOTABLE ZONES

<u>Gas & Oil Zones</u>	<u>Water Zones</u>	<u>Other Mineral Zone</u>
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.

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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 slip-on 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: ≥ 3 " minimum kill side: ≥ 2 ")
- 4) kill line: 2" minimum
- 5) two kill line valves, one of which will be a check valve (≥ 2 ")
- 6) choke line: ≥ 3 "
- 7) two choke line valves: ≥ 3 "
- 8) one manually operated choke: ≥ 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:

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- 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 (four 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 ≥ 25 feet from the well head, but will be readily accessible to the driller. Exact locations and configurations of the 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.

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4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	<u>Pounds/Foot</u>	<u>Grade</u>	<u>Connect</u>	<u>SFt</u>	<u>SFc</u>	<u>SFb</u>	<u>Interval</u>
30"	20"	Conductor						0' - 60'
17-1/2"	13-3/8"	54.5	J-55	S T & C	8.35	2.02	2.42	0' - 1130'
12-1/4"	9-5/8"	40	K-55	L T & C	2.81	1.13	1.01	0' - 3700'
12-1/4"	9-5/8"	40	HCL-80	L T & C	11.6	1.30	1.48	3700' - 5000'
8-3/4"	5-1/2"	17	K-55	L T & C	2.13	1.25	1.36	0' - 7525'

Casing strings (all new) will be pressure tested to 0.22 psi/ft of casing string depth, or 1500 psi, whichever is greater (not to exceed 70% of the internal yield strength of the casing) after cementing and before drilling out from under the casing shoe. 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% CaCl₂ + 1/4 pound per sack flow seal mixed at 14.8 pounds per gallon. One hundred sacks neat 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).

Intermediate casing will be cemented to ≈750' (≈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% CaCl₂ accelerator + 1/4 pound per sack cello flake. mixed at 12.1 pounds per gallon. Tail with 250 sacks (342 cubic feet) Type 3 + 1% CaCl₂ + 1/4 pound per sack flow seal mixed at 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.

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San Juan County, New Mexico

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RCVD SEP 18 '13
OIL CONS. DIV.
DIST. 3

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>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>	<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.

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.

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8. MISCELLANEOUS

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

Vision Energy Group LLC
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Surface Use Plan

1. DIRECTIONS & ROADS (See PAGES 13 - 15)

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 21.2 miles on paved N-36 to mile post \approx 7.5
Then turn left at a cattle guard and go SE 0.55 mile on the left dirt road
Then turn left and go Northeast 1/3 mile on a dirt road
Then turn left and go Northwest 311.47' on a jeep trail
Then bear left and go West 178.7' cross country to the pad

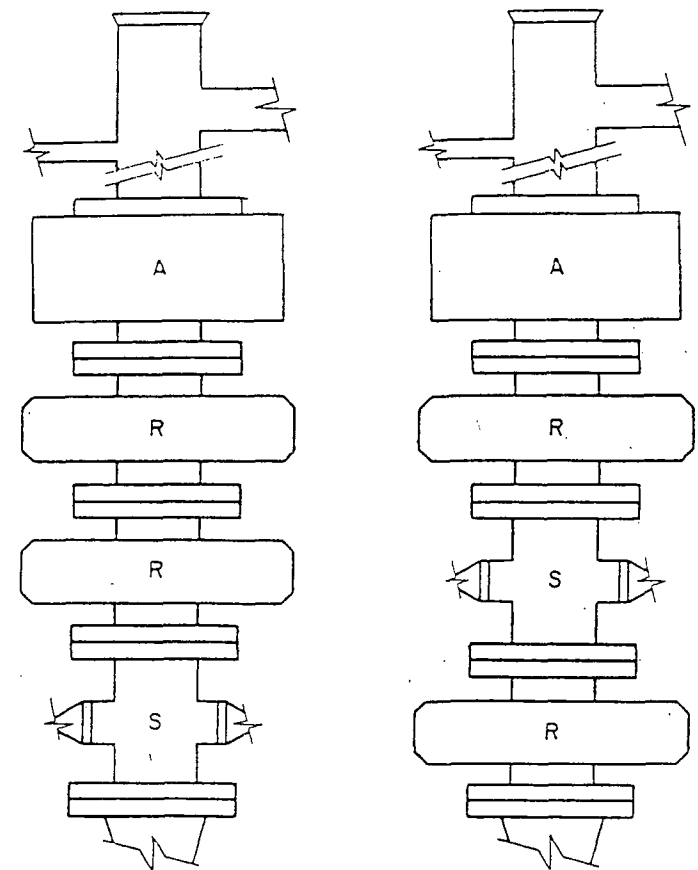
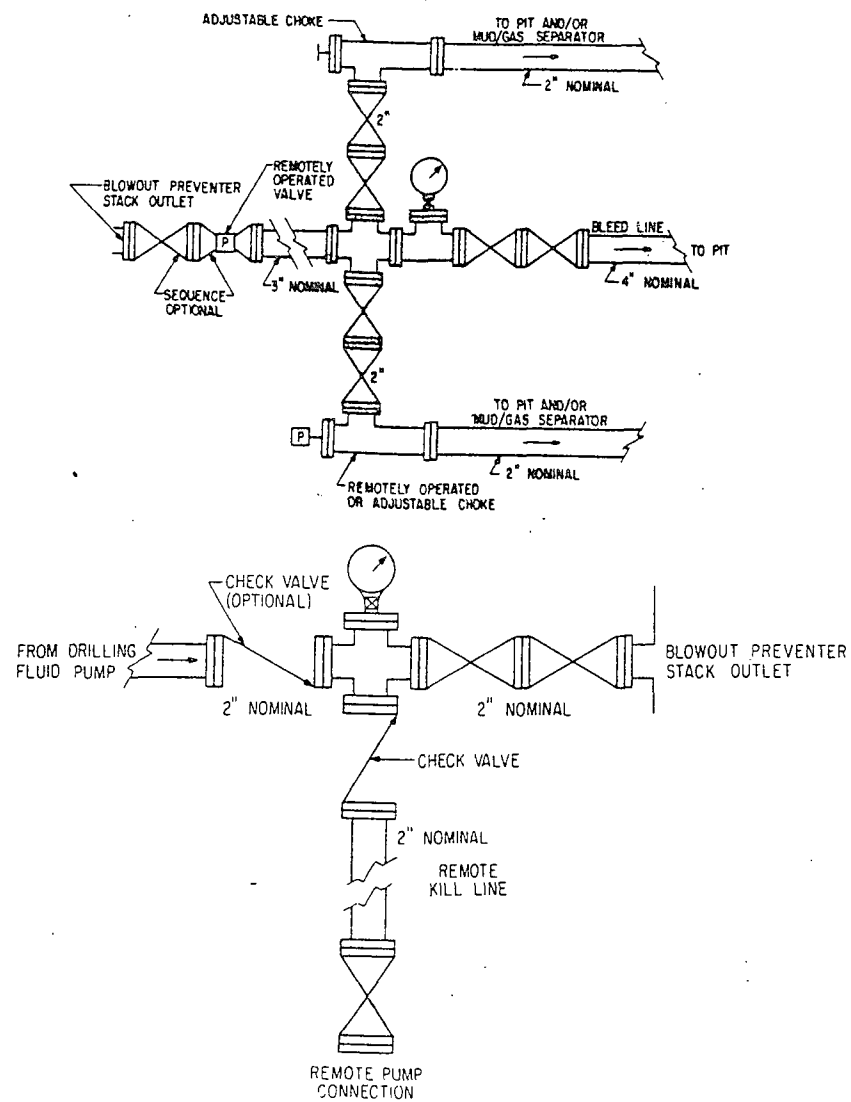
Roads will be maintained to at least equal their present condition.

2. ROAD TO BE BUILT OR UPGRADED (See PAGES 14 & 15)

The 490.17' of road will be upgraded and 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. No cattle guard or vehicle turn out is needed. Maximum disturbed width = 20'. Maximum cut or fill = 3'. Maximum grade = 5%. Dust will be controlled.

3. EXISTING WELLS (See PAGE 14)

Three oil wells and 47 plugged wells are within a mile radius. There are no gas, water, injection, or disposal wells within a mile.



TYPICAL 5,000 psi WORKING PRESSURE BOP STACKS

A = Annular type blowout preventer
 R = Ram
 S = Drilling spool with side outlet connections for choke & kill lines