Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: I-89-IND-58

6. If Indian, Allotee or Tribe Name: NAVAJO NATION

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☐ Gas Well ☑ Other OTH

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.:

8. Lease Name and Well No.: HOGBACK DEEP 12 40

2. Name of Operator: VISION ENERGY GROUP LLC

9. API Well No.: 30-045-38246

3a. Address: 5750 Johnston Street Suite 103, Lafayette, LA 70503

3b. Phone No. *(include area code)*: (832) 545-4600

10. Field and Pool, or Exploratory: ~~Alamito North/Leadville~~ WC 29N16W20; LEADVILLE

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: LOT 5 / 881 FNL / 800 FWL / LAT 36.7172659 / LONG -108.5539031

At proposed prod. zone: LOT 5 / 881 FNL / 800 FWL / LAT 36.7172659 / LONG -108.5539031

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 20/T29N/R16W/NMP

14. Distance in miles and direction from nearest town or post office*: 4 miles

12. County or Parish: SAN JUAN

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 1180 feet

16. No of acres in lease: 4800

17. Spacing Unit dedicated to this well: 639.84

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 1793 feet

19. Proposed Depth:

20. BLM/BIA Bond No. in file: IND: 015037275

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 5068 feet

22. Approximate date work will start*: 01/02/2021

23. Estimated duration: 30 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

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

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	BRIAN WOOD / Ph: (832) 545-4600	11/04/2020

Title: President

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	DAVE J MANKIEWICZ / Ph: (505) 564-7761	01/03/2022

Title	Office
AFM-Minerals	Farmington Field Office

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.

APPROVED WITH CONDITIONS

Approval Date: 01/03/2022

(Continued on page 2)

*(Instructions on page 2)

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

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-045- 38246	98047	WC 29N16W20; LEADVILLE

4 Property Code	5 Property Name	6 Well Number
39891	HOGBACK DEEP 12	40
7 OGRID No.	**8 Operator Name**	**9 Elevation**
280962	VISION ENERGY GROUP, LLC	5068

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
D	20	29 N	16 W	LOT 5	881	NORTH	800	WEST	SAN JUAN

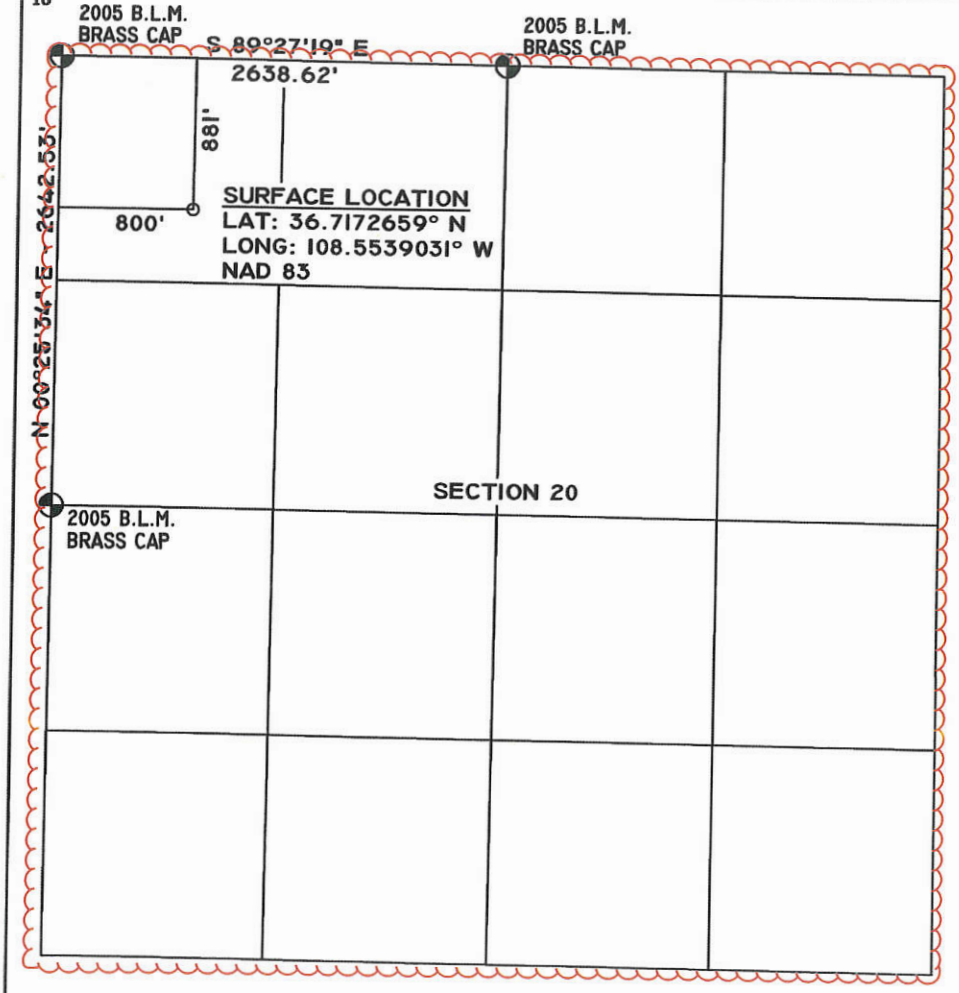
11 Bottom Hole Location If Different From Surface

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	13 Joint or Infill	14 Consolidation Code	15 Order No.
639.84			

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

16



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 — Date: 10-19-20

Printed Name: BRIAN WOOD

E-mail Address: brian@permitswest.com

505 466-8120

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 Survey: 6/05/20

Signature and Seal of Professional Surveyor:

JOHN A. VUKONICH
NEW MEXICO
14831
REGISTERED PROFESSIONAL SURVEYOR

Certificate Number: 14831

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: Vision Energy Group, LLC **OGRID:** 280962 **Date:** 1/4/21

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Hogback Deep 12-40	30-45-	D-20-29N-16W	881' FNL & 800' FWL	**50**	**2.4 m**	**20**
Hogback Deep 12-41	30-45-	L-20-29N-16W	2,505' FSL & 804 'FWL	**65**	**3.3 m**	**90**
Hogback Deep 12-42	30-45-	D-20-29N-16W	152' FNL & 612' FWL	**75**	**2.5 m**	**35**

IV. Central Delivery Point Name: On-lease Hogback helium processing unit in D-20-29N-16W [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Hogback Deep 12-40	30-045-	1/22/22	2/7/22	2/7/22	3/1/22	TBD
Hogback Deep 12-41	30-045-	2/12/22	2/28/22	2/28/22	3/21/22	TBD
Hogback Deep 12-42	30-045-	3/5/22	3/20/22	3/20/22	4/14/22	TBD

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☒ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☒ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☒ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☒ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:	
Printed Name:	David Burns
Title:	Authorized Agent
E-mail Address:	db@cogllc.com
Date:	1/4/2022
Phone:	832 524 4607

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

Natural Gas Management Plan – Attachment

VI. Separation Equipment:

Separation equipment is not currently existing at the Hogback site. At the time of installation, construction engineering staff will properly size the equipment based on anticipated daily production rates to ensure adequate capacity.

VII. Operation Practices:

Vision Energy will take the following actions to comply with the regulations listed in 19.15.27.8:

A. Vision Energy will maximize the recovery of natural gas by minimizing the waste, as defined by 19.15.2 NMAC, of natural gas through venting and flaring.
B. All drilling operations will be equipped with a rig flare located at least 100’ from the nearest surface hole. Rig flare will be utilized to combust any natural gas that is brought to surface during normal drilling operations. In the case of emergency venting or flaring the volumes will be estimated and reported appropriately.
C. During completion operations any natural gas brought to surface will be flared. Immediately following the finish of completion operations, all well flowback will be directed to permanent separation equipment. It is not anticipated that gas will not meet pipeline standards. However, if natural gas does not meet quality specifications, Vision Energy will flare the natural gas for 60 days or until the natural gas meets the quality specifications, whichever is sooner. Vision Energy will ensure that the flare is sized properly and is equipped with automatic igniter or continuous pilot.
D. Natural gas will not be flared with the exceptions and provisions listed in the 19.15.27.8 D.(1) through (4).
E. Vision Energy will comply with the performance standards requirements and provisions listed in 19.15.27.8 E. (1) through (8). All equipment will be designed and sized to handle maximum anticipated pressures and throughputs to minimize the waste. The existing flare will be retrofitted with automatic igniter or continuous pilot no later than 18 months after May 25, 2021. Flares will be located at least 100' from the well and storage tanks unless otherwise approved by the division. Vision Energy will conduct AVO inspections as described in 19.15.27.8 E (5) (a) with frequencies specified in 19.15.27.8 E (5) (b) and (c). All emergencies will be resolved as quickly and safely as feasible to minimize waste.
F. The volume of natural gas that is vented or flared as the result of malfunction or emergency during drilling and completions operations will be estimated. The volume of natural gas that is vented, flared, or beneficially used during production operations, will be measured, or estimated. If metering is not practicable due to circumstances such as low flow rate or low pressure venting and flaring, Vision Energy will estimate the volume of vented or flared natural gas. Measuring equipment will conform to industry standards and will not be designed or equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.

VIII. Best Management Practices:

For maintenance activities involving production equipment and compression, venting will be limited to the depressurization of the subject equipment to ensure safe working conditions. For maintenance of production and compression equipment the associated producing wells will be shut in to eliminate venting. For maintenance of VRUs all gas normally routed to the VRU will be routed to flare to eliminate venting.

AFMSS
U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report
01/03/2022

APD ID: 10400064673
Submission Date: 11/04/2020
Operator Name: VISION ENERGY GROUP LLC
Well Name: HOGBACK DEEP 12
Well Number: 40
Well Type: OTHER
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1126785	MANCOS	5068	0	0	SHALE	USEABLE WATER	N
1126786	DAKOTA	4297	771	771	SANDSTONE	NATURAL GAS, OIL	N
1126787	MORRISON	4087	981	981	MUDSTONE	USEABLE WATER	N
1126788	TODILTO	3032	2036	2036	SANDSTONE	NONE	N
1126789	ENTRADA	3003	2065	2065	SANDSTONE	USEABLE WATER	N
1126790	CHINLE	2317	2751	2751	SHALE	NONE	N
1126791	SHINARUMP	1445	3623	3623	CONGLOMERATE	NONE	N
1126792	DECHELLY	1345	3723	3723	SANDSTONE	NONE	N
1126793	UNKNOWN	1122	3946	3964	OTHER, SANDSTONE : Cutler sandstone	NONE	N
1126794	RICO	-88	5156	5156	SANDSTONE	NONE	N
1126795	UNKNOWN	-258	5326	5326	LIMESTONE, OTHER : Honaker Trail limestone	NONE	N
1126796	ISMAY	-948	6016	6016	LIMESTONE	NONE	N
1126797	DESERT CREEK	-1108	6176	6176	LIMESTONE	NONE	N
1126798	AKAH	-1138	6206	6206	SHALE	NONE	N
1126799	BARKER CREEK	-1418	6486	6486	SHALE	NONE	N
1126800	PINKERTON TRAIL	-1586	6654	6654	LIMESTONE	NONE	N
1126801	MOLAS	-1712	6780	6780	LIMESTONE	NONE	N
1126802	LEADVILLE	-1833	6901	6901	LIMESTONE	NATURAL GAS, OIL	Y

Operator Name: VISION ENERGY GROUP LLC

Well Name: HOGBACK DEEP 12 **Well Number:** 40

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1126803	OURAY	-1993	7061	7061	LIMESTONE	NONE	N

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M **Rating Depth:** 10000

Equipment: 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

Requesting Variance? NO

Variance request:

Testing Procedure: 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. Blowout preventer and related pressure-control equipment will be installed, tested, and maintained in compliance with Onshore Order 2. 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 location and configuration of the hydraulic BOP closing unit will depend on the particular rig contracted to drill the well.

Choke Diagram Attachment:

Hogback12_40_BOP_Choke_20201031132544.pdf

BOP Diagram Attachment:

Hogback12_40_BOP_Choke_20201031132552.pdf

Operator Name: VISION ENERGY GROUP LLC

Well Name: HOGBACK DEEP 12 **Well Number:** 40

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	300	0	300	5068	4768	300	H-40	48	ST&C	1.3	1.3	DRY	1.8	DRY	1.8
2	PRODUCTION	8.75	7.0	NEW	API	N	0	1000	0	1000	5068	4068	1000	P-110	32	BUTT	1.3	1.3	DRY	1.8	DRY	1.8
3	INTERMEDIATE	12.25	9.625	NEW	API	N	0	2100	0	2100	5068	2968	2100	J-55	36	ST&C	13	1.3	DRY	1.8	DRY	1.8
4	PRODUCTION	8.75	7.0	NEW	API	N	1000	7106	1000	7106	4068	-2038	6106	P-110	29	BUTT	1.3	1.3	DRY	1.8	DRY	1.8

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Hogback12_40_Casing_Design_Assumptions_20201031132731.pdf

Operator Name: VISION ENERGY GROUP LLC

Well Name: HOGBACK DEEP 12 **Well Number:** 40

Casing Attachments

Casing ID: 2 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Hogback12_40_Casing_Design_Assumptions_20201031132930.pdf

Casing ID: 3 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Hogback12_40_Casing_Design_Assumptions_20201031132829.pdf

Casing ID: 4 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Hogback12_40_Casing_Design_Assumptions_20201031133039.pdf

Section 4 - Cement

Operator Name: VISION ENERGY GROUP LLC

Well Name: HOGBACK DEEP 12 **Well Number:** 40

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	0	0	0	0	0	0	None	None
SURFACE	Tail		0	300	275	1.52	14.2	418	100	Class G	4% bentonite
INTERMEDIATE	Lead		0	0	0	0	0	0	0	None	None
INTERMEDIATE	Tail		0	2100	670	1.26	14.5	844	25	Class G 50:50 Pozmix A	2% bentonite
PRODUCTION	Lead	5000	0	0	0	0	0	0	0	None	None
PRODUCTION	Tail		2100	5000	1283	1.26	14.5	1616	100	Class G 50:50 Pozmix A	2% bentonite
PRODUCTION	Lead	5000	0	0	0	0	0	0	0	None	None
PRODUCTION	Tail		5000	7106	225	1.48	13.3	333	100	Class G 50:50 Pozmix A	2% bentonite + 10#/sk gilsonite

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Necessary products (e. g., paper, nut shells, cedar bark, calcium carbonate, barite, bentonite) to control fluid loss and change weight will be on site. Mud program may change due to hole conditions.
Describe the mud monitoring system utilized: An electronic PVT mud monitoring system will be used.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	300	OTHER : Fresh water spud	8.5	9							

Operator Name: VISION ENERGY GROUP LLC

Well Name: HOGBACK DEEP 12 **Well Number:** 40

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
300	2100	OTHER : Fresh water gel with PHPA & SAPP	10	10.5							
2100	5200	OTHER : Fresh water gel with PHPA & SAPP	10	10.4							
5200	5700	OTHER : Fresh water gel with PHPA & SAPP	10.4	11.4							
5700	7106	OTHER : Fresh water gel with PHPA & SAPP	11.4	11.4							

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

A mud logger will be on location after surface casing is set. A quad combo logging suite (GR-SP-Array Induction-Formation Density-Neutron-Sonic) will be run from TD to the intermediate shoe. GR and Neutron will continue to GL. Sonic will tie into existing 3-D seismic data.

List of open and cased hole logs run in the well:

GAMMA RAY LOG,MUD LOG/GEOLOGICAL LITHOLOGY LOG,

Coring operation description for the well:

No cores or drill stem test is planned.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 3884 **Anticipated Surface Pressure:** 3884

Anticipated Bottom Hole Temperature(F): 170

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Operator Name: VISION ENERGY GROUP LLC

Well Name: HOGBACK DEEP 12 **Well Number:** 40

Hydrogen sulfide drilling operations plan:

Hogback12_40_H2S_Plan_20210322112232.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Other proposed operations facets description:

Other proposed operations facets attachment:

Hogback12_40_Drill_Plan_Revised_20210322112244.pdf

Other Variance attachment:

DRILLING CONDITION OF APPROVAL

Operator: Vision Energy LLC
Lease No.: I-89-IND-58
Well Name: Hogback Deep 12
Well Location: SEC 20 / T29N / R16W

The operator has proposed to bring cement on the primary cement operation for the intermediate casing to surface.

If indeed cement is not circulated back to surface behind the intermediate string, this office will require the operator to run a CBL or another type of cement evaluation tool to verify the top cement.

This log ran must be submitted to the Farmington Field Office or email the electronic file to jwsavage@blm.gov for verification.

Approval Date: 01/03/2022

Hydrogen Sulfide (H_2S) Contingency Plan
For Vision Energy Group LLC
5750 Johnston St., Suite 103
Lafayette LA 70503

Hogback Deep 12 #40
Section 20, Township 29 North, Range 16 West
881' FNL & 800' FWL
36.71726˚ N & 108.55390˚ W
San Juan County, New Mexico

Prepared By

PERMITS WEST
37 Verano Loop, Santa Fe, New Mexico 87508 505-466-8120

Table of Contents

Checklist for Drilling, Workovers, and Maintenance in H_2S Environment

1. Two safety briefing areas at least 100 yards from well head and arranged so that one briefing area will be upwind at all times. These sites should be located uphill whenever possible. (see Appendix)
2. Identify direction of prevailing winds (see Appendix)
3. At least two wind socks installed at all times
4. Primary and secondary emergency escape routes (flagged trail minimum)
5. Number, types, and storage location of H_2S emergency respirators for personnel, and number of personnel to be present onsite at any one time.
6. H_2S detector locations (3 minimum to include cellar or bell nipple and mud tanks at shale shaker). Type and location of visual and audible alarms to be used.
7. H_2S evacuation and emergency training procedures and schedule (i.e. Contingency Plan)
8. List of area residents within a 3,000' radius, evacuation plan, and contact list (including agencies and individuals)
9. Types and quantities of mud additives and scavengers to be available at location for H_2S operations
10. Design features and operational procedures to be used to provide safe working environment (including a certification by the operator on the APD that all equipment meets standards for H_2S service)
11. Appropriate warning signs and flags on all access roads
12. Provisions for blocking and monitoring access to location during critical incident
13. Ventilation fan under rig floor
14. In event of uncontrolled blowout, designation of local official who has authority to ignite flow
15. Swabbing or drill stem fluids containing H_2S should be put through a separator to permit flaring of gas. Flare should have a continuous pilot light to ensure ignition of all such gas.

1.0 General

1.1 Description of Hydrogen Sulfide Gas

Hydrogen Sulfide (H_2S) is a colorless, transparent gas with a distinct and characteristic rotten-egg odor at low concentrations and not detectable by odor at high concentrations. H_2S at higher concentrations and/or over longer periods of exposure paralyzes the olfactory sense for that specific odor. The gas is extremely toxic to humans and can easily become dangerous and lethal. Extreme care and caution is needed to prevent injury and/or death. H_2S has a specific gravity of 1.192 which is heavier than air. It tends, therefore, to accumulate in low places. This collection of gas can lead to dangerous concentrations in areas such as arroyos and drainages. H_2S from "down hole" is often warmer than surface air and will therefore tend to rise and therefore affect workers above the escaping source. Hydrogen Sulfide is explosive and water soluble.

1.2 Toxicity

American National Standards Institute standard: Z37.2-1972 Acceptable Concentrations of Hydrogen Sulfide describes H_2S toxicity in this way: Hydrogen Sulfide is an extremely toxic and irritating gas. Free hydrogen sulfide in the blood reduces its oxygen-carrying capacity, thereby depressing the nervous system. Hydrogen sulfide is oxidized quite rapidly to sulfates in the body, therefore no permanent aftereffects occur in cases of recovery from acute exposures unless oxygen deprivation of the nervous system is prolonged. There is no evidence that repeated exposures to hydrogen sulfide result in accumulative or systemic poisoning. Effects such as eye irritation, respiratory tract irritation, slow pulse rate, lassitude, digestive disturbances, and cold sweats may occur but these symptoms disappear in a relatively short time after removal from the exposure. Odors become detectable in concentration as low as .008 parts per million (ppm), but the sense of smell is lost after 2-15 minutes at 100 ppm.

1.3 H_2S First Aid and Treatment Procedures

- Victim should be removed to fresh air immediately**
- If victim is not breathing, rescue breathing or artificial breathing should be started immediately
- Treat for shock; keep victim warm and comfortable
- Call ambulance and/or doctor, take victim immediately to emergency room or other healthcare facility

****The rescuer(s) should always wear personal protective equipment when attempting to rescue a H_2S victim. It is important to never increase the number of victims unnecessarily during a H_2S emergency.**

2.0 Hydrogen Sulfide H_2S Contingency Plan

2.1 Introduction

This plan provides required procedures to be followed to adequately provide for a safe H_2S working environment. These required procedures include safety procedures, precautionary measures, and training for emergency and standard procedures. This document sets forth the responsibilities of the operator and all individuals and entities under employment or contract with the operator working in a sour gas (H_2S) area.

To make this contingency plan effective and in order to provide a safe working environment, cooperation from all individuals is a necessity. To this end each person onsite must understand normal and emergency operating procedures for this site. Each individual onsite must have adequate information, training, and practice with the specific procedures described in this Contingency Plan. It is the responsibility of both the operator to provide adequate equipment, training, and procedures, as well as the individual "worker's" responsibility to participate fully in all H_2S procedures, to familiarize themselves with the location of all safety equipment and features, and to keep equipment and procedures in working order and up to date.

Initiative lies with each and every individual for the safety of all. To this end the drilling foreman is required to and will enforce all safety procedures, for the benefit of all involved.

2.2 Purpose

It is Vision's intention to provide a safe working environment for all employees, contractors, and others involved with the drilling of its wells. There exists the possibility of encountering toxic H_2S gas during the drilling, completion, and production of the well. To such end, this H_2S contingency plan will be put into effect after surface casing is drilled and at least 200' before drilling into the first Pennsylvanian age formation.

Safety procedures are established for each individual's safety connected with the operation and for the safety of the residents of the local area.

Vision's foreman will strictly enforce these procedures. Noncompliance may result in loss of pay or dismissal from the site, job, or employment.

2.3 Operating Procedures

Before this H_2S contingency plan is operational, all personnel that are to be involved with operation shall be thoroughly trained* in the proper use of breathing apparatus (i.e. SCBAs and Escape Units), emergency procedures, and H_2S first aid and rescue methods. An approved list of trained personnel will be supplied by the safety company and stored with the drilling foreman.**

*Required training for operation personnel will include, but not be limited to, H_2S safety course from an approved training company, safety briefing on drill site of all safety equipment use and locations before the start of work for each and every person onsite, safety related training in-place, on-site 1,000 feet before the first H_2S formation.

**Throughout this contingency plan breathing apparatus shall be understood as

a) A Self-Contained Breathing Apparatus (SCBA) manufactured such as Scott Industrial or similar.
b) Or an emergency Escape Unit such as the Scott SCRAM or Elsa (or similar) often referred to as hip packs, hoods, or pony bottles.

The two types of breathing apparatus will be differentiated as a SCBA or an Escape Unit as required.

2.3.1 Safety Equipment

Personal H_2S monitors - Every person onsite will be required to wear a personal H_2S monitor at all times while onsite. Monitors will not be worn on hard hats, but should be worn on the waist belt or preferably near the chest in-front.

Breathing Apparatus - All personnel on the drill site will be assigned an individual breathing apparatus unit. This may be either an escape unit or a SCBA unit. A minimum of two SCBA type units will be onsite. These units will be used by the team whose duty it is to serve as the onsite rescue team.

Monitoring and Recording Devices - An experienced safety company (such as DXP Safety Alliance, Farmington, NM) will responsible for the installation and monitoring of H_2S detectors placed on site. These units will be tested and recalibrated as the safety company requires. If H_2S is detected, the

monitors will be tested and recalibrated at least every 12 hours. This monitoring system may or may not be integral to the required two stage alarm system on site. This two stage system (visual and audio) will have a minimum of three H_2S detector locations. Monitors will be located 1), in the cellar or on the bell nipple, 2), at the mud tanks' shale shaker, and 3), to be determined by the safety company. Visual (light) and audio (siren) will activate when H_2S concentrations reach 10 ppm.

First-Aid and rescue equipment-Stored on-site, but ideally up-hill and up-wind from H_2S sources a minimum of one "rescue pack" will contain at least:

- 1 backboard, straps, head blocks
- 1 set of cervical collars (s-xl)
- 1 bag valve mask
- 1 bottle of oxygen
- gauze and other standard first-aid items

One AED (automatic external defibrillator) is suggested.

Gas Monitor - An appropriate monitor should be on-site that can measure for LLE, VOC, CO, and other explosive or hazardous gasses.

2.3.2 Safety Procedures

Cascade System - Every person required to perform duties within "safety zones" (see list below) will be provided with breathing equipment attached to a cascade air system. These areas are as follows

- rig floor
- mud pit
- derrick
- shale shaker
- mud hopper and bulk hopper
- all hazardous locations will be accessible by hose and work pack (SCBA)

Escape Routes - Two escape routes will be at a minimum flagged and kept clear at all times.

Safety Briefing Areas - Two briefing areas will be located at the end of escape routes (see above). The briefing areas will be clearly marked, up-hill, and

located so that one site is always up wind. Please see attached site map for safety briefing areas in Appendix 3.4.

Safety, first-aid, and rescue equipment - Will be stored properly onsite using best practices. This will include proper maintenance and scheduled testing, inspection, and training/practice.

Service companies - All service companies will be briefed regarding potential hazards of the well site including the presence (or potential for) H_2S. These companies will be required to provide breathing apparatus and training to their employees. No service company personnel will be allowed onsite without meeting these requirements. In addition a safety briefing under the direction of the drill foreman regarding site specific H_2S procedures will be provided to each new personnel member reporting on-site.

Drills and practice - Drills reviewing all and any safety procedures including evacuation, rescue, and proper procedures to shut-in a well, and identify source of H_2S in case of a leak will be practiced under the supervision of the safety company representative and company foreman. Proper use of breathing apparatus will be instructed during such drills. Drill schedule will be designed to familiarize new personnel with all safety procedures. Each crew should also be familiar with all operations. Drills should include a short work period in safety equipment.

Warning Signs - Warning signs will be posted at all access roads. "No smoking" signs will be posted at access points as well. Signs will be posted more than 200 feet and no more that 500 from well pad. When H_2S is present at 10 ppm or greater a red flag shall be displayed on the warning sign. Gates, road barricades, and/or gate guards will be used if necessary to prevent access during critical or hazardous situations.

Wind Socks - A minimum of two windsocks will be installed at locations easily observable from all work areas. If more than two windsocks are needed in order to allow "workers" at all times to easily identify the wind direction; more windsock will be installed.

Vehicle Parking - Vehicles should be parked 200 feet from well site with their noses pointing away from the well site. Preferably vehicles will be located up hill and up wind from the well along the escape route.

Testing Fluids - Swabbing and testing fluids containing H_2S will be pass through a separator to permit flaring of the gas. There will be a pilot light in such instances.

Bug Blowers - Explosion proof electric fans will provide circulation to all critical locations when necessary.

Drills reviewing all and any safety procedures including evacuation, rescue, and proper procedures to shut-in a well, and identify source of H_2S in case of a leak will be practiced under the supervision of the safety company representative and company foreman. Proper use of breathing apparatus will be instructed during such drills. Drill schedule will be designed to familiarize new personnel with all safety procedures. Each crew should also be familiar with all operations. Drills should include a short work period in safety equipment.

2.3.3 Working Conditions

Occupational Safety and Health Administration (OSHA) has set guidelines for Permissible Exposure Limits (PEL). This standard is to be considered the threshold **never to be exceeded** for the health and safety of all workers on this site. Ideally, exposure would never be this high.

2.3.3.1 Exposure Limits

OSHA Permissible Exposure Limit (PEL) for General Industry: 29 CFR 1910.1000 Z-2 Table -- Exposures shall not exceed 20 ppm (ceiling) with the following exception: if no other measurable exposure occurs during the 8-hour work shift, exposures may exceed 20 ppm, but not more than 50 ppm (peak), for a single time period up to 10 minutes.

OSHA Permissible Exposure Limit (PEL) for Construction Industry: 29 CFR 1926.55 Appendix A -- 10 ppm, 15 mg/m^3 TWA (accessed via the internet at: http://www.osha.gov/dts/chemicalsampling/data/CH_246800.html#exposure on 19 July 2007)

The maximum exposure limit for an 8-hour day is less than 10 ppm.

2.4 H_2S Emergency Procedures

2.4.1 Incident

H_2S alarm system activation. Light and siren warnings or personal H_2S monitor activation for any one "worker."

2.4.2 Primary Emergency Procedure

i. All rig crew personnel and all auxiliary personnel must **DON BREATHING APPARATUS IMMEDIATELY.**

ii. Rig crew should mask up with SCBA type work packs preferentially

iii. All auxiliary crew should move to safety briefing area, uphill and upwind.

iv. All non-essential personal should continue to evacuate site.

2.4.3 Secondary Emergency Procedure

I. Supervisory Personnel

i. Company Foreman

a. Proceed to cascade trailer and check for safe operation of cascade system

b. Proceed to active safety briefing areas and account for all personnel. If you cannot account for all personnel, then start an appropriate search.

c. Return to drilling floor and supervise operations

ii. Tool Pusher

a. Proceed to cascade trailer and check if Company Foreman is operating cascade system safely. If NOT ensure safe operations of the cascade system.

b. Proceed to drilling floor and supervise operations. Make sure all of the crew are accounted for and institute a buddy system. If all personnel are not accounted for, then initiate an appropriate search.

II. Rig Crew

i. Driller

a. If drilling

1. After donning breathing apparatus, proceed to consol and raise Kelly to slip set position

2. Shut down mud pumps

3. Monitor well flow, remain at console

4. Using hand signals, verify all personnel are at stations, verify company man and tool pusher's position, initiate search if well is not flowing

b. If tripping

1. After donning breathing apparatus put pipe in the slip-set position

2. Stab safety valve, close safety valve

3. Monitor well flow-remain at consol

4. Watch the derrick man descend from the derrick, verify all personnel locations, verify company man and tool pusher's position, initiate search if well is not flowing

c. If well is flowing

1. After donning breathing apparatus, shut well in HARD

2. Verify all personnel locations, verify company man's location and tool pusher's location, initiate search if necessary

3. Obtain necessary pressures for well control

4. Proceed to safety briefing area with crew, plan well control operations with all personnel

ii. Derrickman

a. After donning breathing apparatus, go to pit side window on the floor whether drilling or tripping (descend derrick)

b. Maintain visual contact with driller and monitor flow

c. If mud properties are needed, then proceed to the shaker with "buddy"

d. Monitor other hands on pit side of rig visually

e. Proceed to open manual wellhead if necessary (with "buddy")

iii. Motorman

a. After donning breathing apparatus, go to the cascade system and ensure safe operation

b. Maintain visual contact with chain hand on doghouse side of floor

iv. Chain hand

a. After donning breathing apparatus, stab safety valve if tripping

b. Go to the doghouse/pipe-rack and maintain visual contact with driller and motorman

v. Floorman

a. After donning breathing apparatus, stab safety valve if tripping

b. Aid the driller while maintaining visual contact with driller, derrick man, and chain hand

III. Auxiliary Personnel

i. Mud engineer and Company man or geologist are to act as wardens. Wardens must account for all other auxiliary crew.

ii. All auxiliary crew are to remain in safety briefing area unless evacuated by wardens.

iii. Wardens organize search with notification from company. All searches are to be done with a "buddy". Geologist warden should remain in safety briefing area.

2.4.4 Igniting the Well

I. Decision

i. The Company Foreman holds the responsibility for the decision to ignite a well. In the case where he is incapacitated or absent, authority passes to the tool pusher and then to the contract driller.

ii. The decision to ignite the well is only to be made as a last resort safety measure when

a. There is threat human life and grave threat to public safety and equipment

b. There is no alternative way of containing the well given the emergency faced.

c. An attempt was made to contact area office (circumstances permitting)*

***When human life is threatened, there can be no delay in making a decision.**

I. Instructions for Igniting the Well

i. Two individuals are required for ignition.

ii. Both individuals will wear SCBAs and have 200-foot retrieval cords tied to their waists.

iii. One individual will measure the atmosphere for explosive gasses with appropriate meter.

iv. The other individual will remain in the safety briefing area.

v. Others in the briefing area will remain aware of both individuals and aid as able. If either tethered individual is overcome by gas, then he should be pulled to safety.

vi. The well should be lit with a 25 mm meteor type flare gun when well conditions allow. The safest method of igniting the well should always be used.

vii. Burning H_2S will produce sulfur dioxide which is poisonous. The area, therefore, is not safe once the well has ignited. Continue to observe all emergency procedures and follow orders from supervisors and the area office. Notice of incident should be reported to all appropriate authorities.

3.0 Appendices

3.1 Check List for Safety Equipment (designed for a maximum of 11 people)

- ☐ Safety Trailer housing cascade system at least ten 300 cubic foot bottles of compressed air
- ☐ 7 SCBA type breathing apparatus with 45 cubic foot bottles
- ☐ 5 breathing masks connected to the cascade system with 7 cubic foot pony bottles
- ☐ 2 extra 300 cubic foot bottles able to refill SCBA bottles to be placed at the safety briefing areas
- ☐ 2 Wind socks
- ☐ 1 Flare gun and flares
- ☐ 1 rescue pack (as described in section 2.3.1)
- ☐ Warning signs for access (flags for marking conditions)
- ☐ "Safety Briefing Area" signs, evacuation route flags
- ☐ H_2S monitors (personnel and stationary)
- ☐ Alarm system (audio and visual - explosion proof)
- ☐ Gas Monitor

3.2 Emergency Phone Numbers

Company Personnel to be Notified

David Burns (832) 545-4600

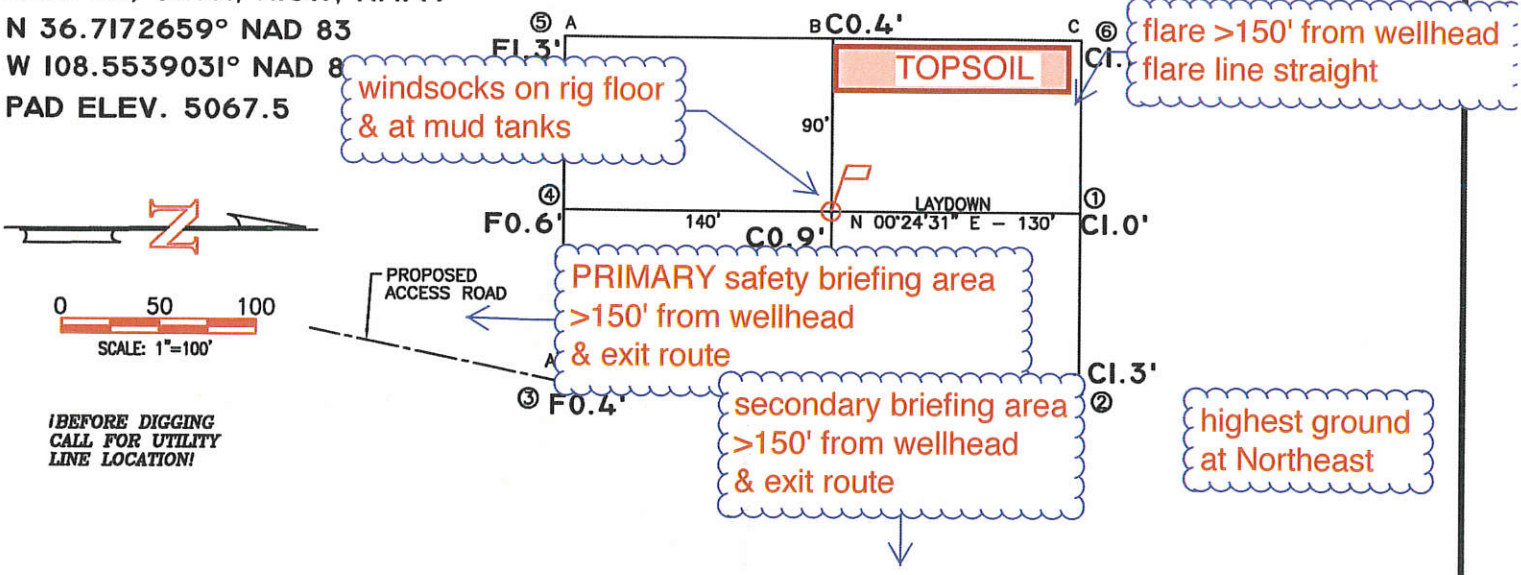
Mike Ratway (805) 886-1642

Others

San Juan County Fire Department (Aztec)	911
	(505) 334-1180
San Juan County Sheriff (Aztec)	911
	(505) 334-6107
San Juan County Sheriff (Kirtland)	(505) 598-0475
San Juan County Emergency Management (Aztec)	(505) 334-1180
San Juan Regional Medical Center (Farmington)	(505) 609-2000
(Helicopter)	(800) 452-9990
National Response Center	(800) 424-8802
BLM (Farmington)	(505) 564-7600
NM Oil Conservation Division (Aztec)	(505) 334-6178
NM Oil Conservation Division (Santa Fe)	(505) 476-3460
NM State Police (Farmington)	(505) 325-7547
Navajo Tribal Police (Shiprock)	(505) 368-1350 (505) 368-1351
Hogback (Tse Daa Kaan) Chapter House	(505) 368-5500
San Juan Chapter House	(505) 960-6916
Navajo Nation Minerals Department (Window Rock)	(928) 871-6587
BIA (Gallup) Bertha Spencer	(505) 863-8336
Navajo Nation Veterinary Clinic (Shiprock)	(505) 368-5891

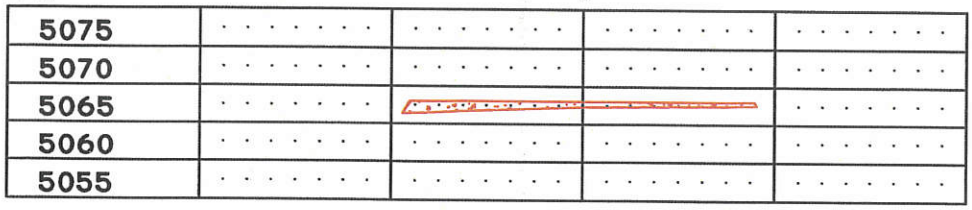
HOGBACK DEEP 12-40
881' FNL, 800' FWL
SEC. 20, T29N, R16W, NMPM
N 36.7172659° NAD 83
W 108.5539031° NAD 8
PAD ELEV. 5067.5

prevailing wind from Southwest

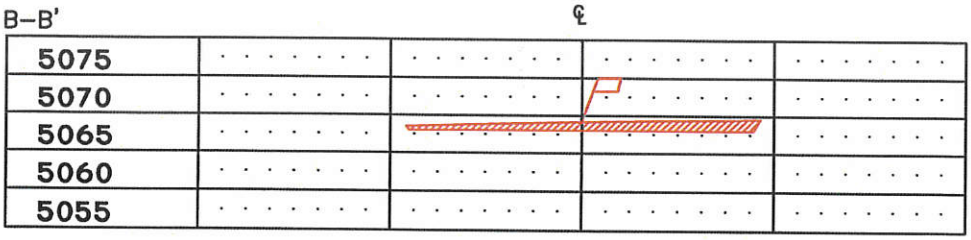


!BEFORE DIGGING CALL FOR UTILITY LINE LOCATION!

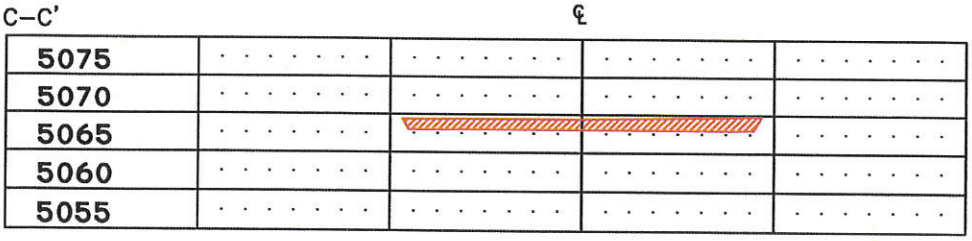
A–A'



B–B'



C–C'



CROSS SECTIONS
HORIZONTAL: 1"=100'
VERTICAL: 1"=20'

I, JOHN A. VUKONICH, BEING A PROFESSIONAL SURVEYOR IN THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THE CALCULATIONS SHOWN ARE BASED UPON A FIELD SURVEY THAT WAS PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT THIS WELL PAD DIAGRAM ACCURATELY REPRESENTS THE SURVEY TO THE BEST OF MY KNOWLEDGE AND BELIEF.

JOHN A. VUKONICH NEW MEXICO 14831 PROFESSIONAL SURVEYOR

2/25/2025

JOHN A. VUKONICH P.S. #14831

VISION ENERGY GROUP LLC

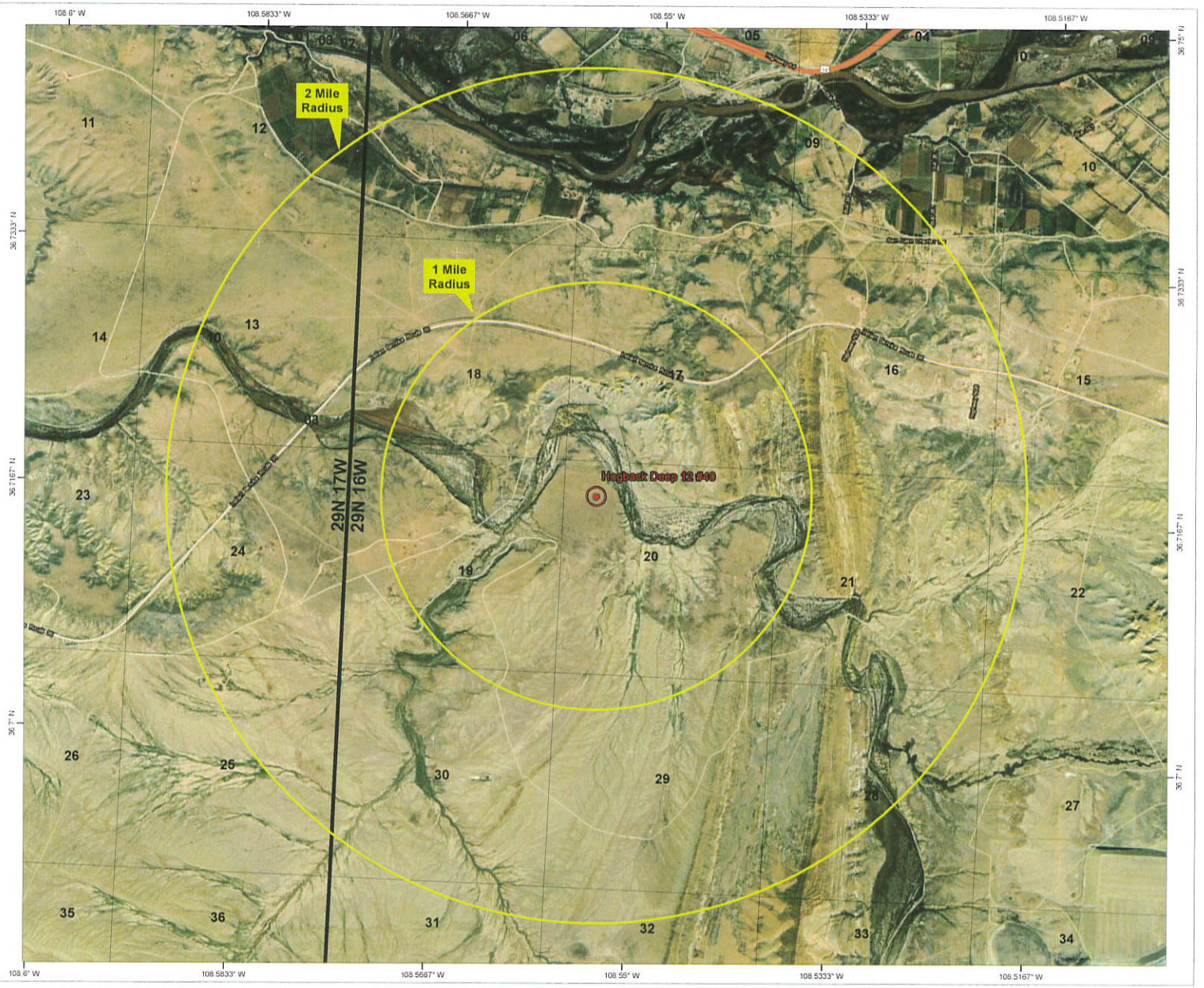
UNITED FIELD SERVICES INC.
P.O. BOX 3651
FARMINGTON, NM 87499
OFFICE: (505) 334-0408

SURVEYED: 06/05/20	REV. DATE/BY: 2/23/21/A.A.D.	APP. BY J.A.V.
DRAWN BY: K.S.	DATE DRAWN: 06/26/20	FILE NAME: 11462C01

Vision Energy Group, LLC

Hogback Deep 12 #40
H2S Contingency Plan:
Radius Map

Section 20, Township 29N, Range 16W
San Juan, New Mexico



Pad Center

1:27,000

0 0.25 0.5 1

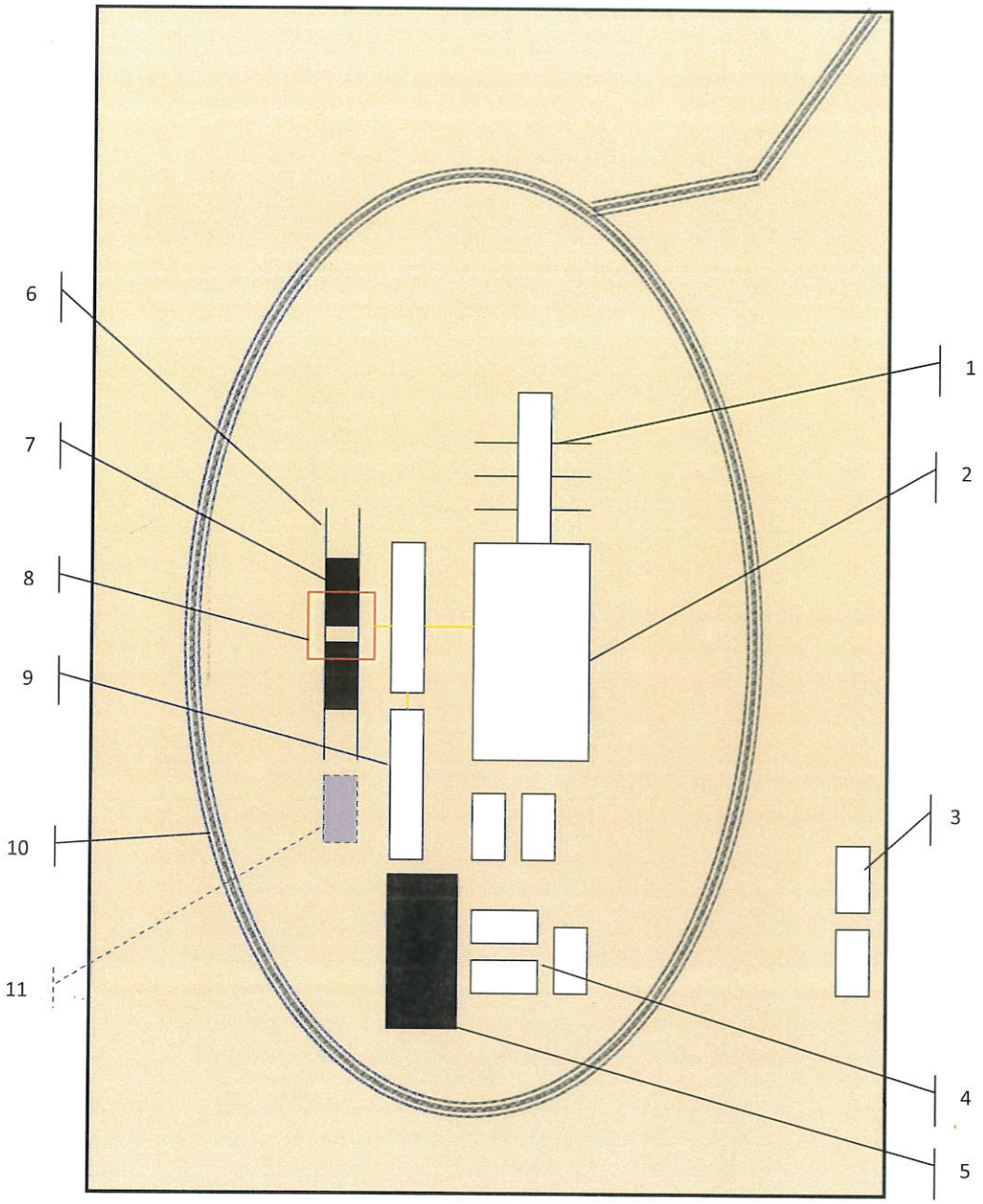
Miles

N

NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST

Prepared by Permits West, Inc., October 30, 2020
for Vision Energy Group, LLC



Schematic Closed Loop Drilling Rig*

1. Pipe Rack
2. Drill Rig
3. House Trailers/ Offices
4. Generator/Fuel/Storage
5. Overflow-Frac Tank
6. Skids
7. Roll Offs
8. Hopper or Centrifuge
9. Mud Tanks
10. Loop Drive
11. Generator (only for use with centrifuge)

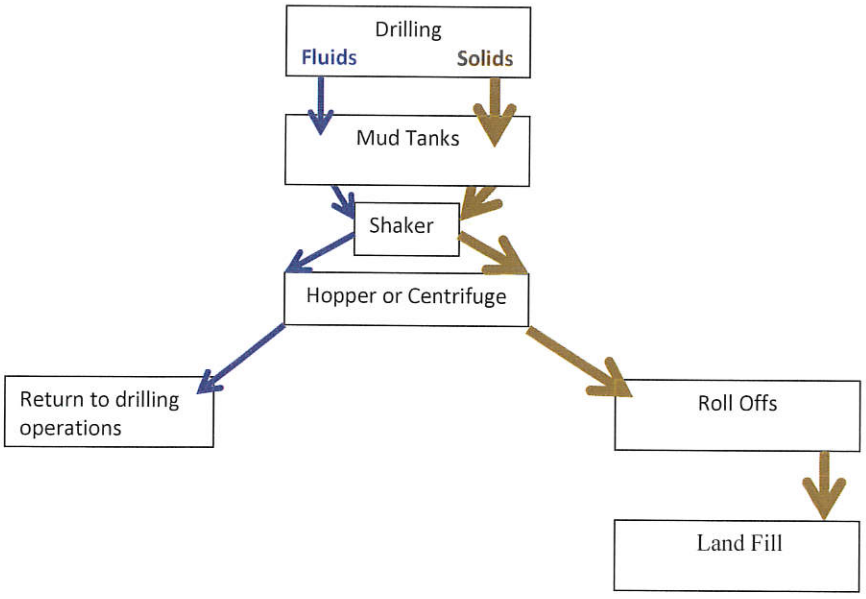
*Not drawn to scale: Closed loop system requires at least 30 feet beyond mud tanks. Ideally 60 feet would be available

Above: Centrifugal Closed Loop System

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

Closed Loop Drilling System: Mud tanks to right (1)
Hopper in air to settle out solids (2)
Water return pipe (3)
Shaker between hopper and mud tanks (4)
Roll offs on skids (5)

Flow Chart for Drilling Fluids and Solids



Photos Courtesy of Gandy Corporation Oil Field Service

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 70558

CONDITIONS

Operator: VISION ENERGY GROUP LLC 5600 North May Avenue Oklahoma City, OK 73112	OGRID: 280962
	Action Number: 70558
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Notify OCD 24 hours prior to casing & cement	1/7/2022
kpickford	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	1/7/2022
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing	1/7/2022
kpickford	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. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	1/7/2022
kpickford	Surface casing must be set to at least 320' deep.	1/7/2022