

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir,  
Use "APPLICATION FOR PERMIT--" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other WIW	5. Lease Designation and Serial No. 14-20-603-734 -
2. Name of Operator Vulcan Minerals & Energy, Inc.	6. If Indian, Allottee or Tribe Name Navajo
3. Address and Telephone No. 650 N. Sam Houston Pkwy E. Suite 500 Houston, Tx. 77060 (281) 931-3800	7. If Unit or CA. Agreement Designation Horseshoe Gallup Unit
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 1980' FNL, 660' FEL, Sec. 30, T31N, R16W	8. Well Name and No. HGU #10
12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA	9. API Well No. 30-045-10386

TYPE OF SUBMISSION

TYPE OF ACTION

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment Notice

☒ Abandonment  
☐ Recompletion  
☐ Plugging Back  
☐ Casing Repair  
☐ Altering Casing  
☐ Other

☐ Change of Plans  
☐ New Construction  
☐ Non-Routine Fracturing  
☐ Water Shut-Off  
☐ Conversion to Injection  
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Vulcan plans to plug and abandon this well per the attached procedures.

RECEIVED

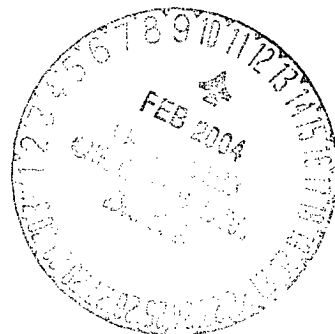
2001 AUG 16 PM 5:14

ENTERED  
AUG 15

SEP 07 2001

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

BY sm



sm

14. I hereby certify that the foregoing is true and correct  
Signed Ken Jackson Title Regulatory Compliance Date 08/15/01

(This space for Federal or State office use)

Approved by James Walker Title PE Date 9/7/01

Conditions of approval, if any:

Approved by James Walker US EPA Region 9 1/22/04

Title 18 U.S.C. Section 1001, makes 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 manner within its jurisdiction.

\*See Instruction on Reverse Side

FARMINGTON COPY

**Plugging and Abandonment Procedure  
Horseshoe Gallup Unit No. 10  
Attachment "A"**

**Well Data:**

Location: 1980' FNL, 660' FEL, Section 30 T31N, R16W  
San Juan County New Mexico

TD: 1422'  
PBTD: 1381'  
CmtRet: 1274'

Surface Casing: 8-5/8", 24 #/ft, J-55 set @ 107' with 125 sacks

Production Casing: 5-1/2", 14 #/ft, H-40 set @ 1417' with 135 sacks

Perforations: 1353' – 1367' with 2SPF Closed by CmtRet 2/19/93  
1231' – 1262' with 2SPF

**Procedure:**

Release packer and TOH w/tubing.

Trip in hole with cement retainer and set at 1180'. Circulate hole and pressure test casing.

Mix and pump 33 sacks of cement below retainer. Pull out of retainer and set ~~25~~ sack  
plug on top of retainer. Estimated top of cement @ ~~1055~~'  
923 36 Jan

Trip out of hole and lay down tubing.

Perforate squeeze holes 15~~7~~'

Establish circulation down casing, through annulus and out bradenhead.

Mix and pump 50 sacks of cement down casing through perforations, into annulus and out through bradenhead. Leave casing and annulus full of cement.

Cut off casing wellhead and install regulation dry hole marker.

Reclaim location as per BLM regulations.

## **BLM CONDITIONS OF APPROVAL**

The following surface rehabilitation Conditions of Approval must be complied with as applicable, before this well can be approved for final abandonment (see 43 CFR 3162.3-4). **Surface rehabilitation work shall be completed within one year of the actual plugging date. Notification for completion of this work can be submitted with a Sundry Notice.**

1. All fences, production equipment, purchaser's equipment, concrete slabs, deadman (anchors), flowlines, risers, debris and trash must be removed from the location.
2. Production pits will be closed according to the Unlined Surface Impoundment Closure Guidelines, as approved in the Environmental Assessment of December 1993. Any oil stained soils may be remediated on-site according to these guidelines or disposed of in an approved disposal facility.
3. The well pad will be shaped to the natural terrain and left as rough as possible. All compacted areas and areas devoid of vegetation shall be ripped to a minimum of 12" before seeding.
4. Access roads will be shaped to conform to the natural terrain and left as rough as possible to detour vehicular travel. Access will be ripped to a minimum of 12" in depth and waterbarred prior to seeding. All erosion problems created by the development must be corrected prior to acceptance of release. Waterbars should be spaced as shown below:

<b>% Slopes</b>	<b>Spacing Interval</b>
Less than 20%	200'
2 to 5%	150'
6 to 9%	100'
10 to 15%	50'
Greater than 15%	30'

All water bars should divert to the downhill side of the road.

5. All disturbed areas will be seeded with the prescribed certified seed mix (reseeding may be required).
6. Notify Surfacing Managing Agency seven (7) days prior to seeding so that they may be present for that option.
7. The period of liability under the bond of record will not be terminated until the lease is inspected and the surface rehabilitation approved.

Other SMA's may vary slightly in their restoration requirements. It is your responsibility, as the operator, to obtain surface restoration requirements from other SMA's. We need to be provided with a copy of these requirements. Any problems concerning stipulations received from other SMA's should be brought to us.

On private land, we should be provided with a letter from the fee owner stating that the surface restoration is satisfactory.

**UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
FARMINGTON FIELD OFFICE  
1235 LA PLATA HIGHWAY  
FARMINGTON, NEW MEXICO 87401**

Attachment to notice of

Re: Permanent Abandonment

Intention to Abandon:

Well: 10 Horseshoe Gallup Unit

**CONDITIONS OF APPROVAL**

1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."

2. Mike Flanikan with the Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 599-8907.

3. The following modifications to your plugging program are to be made:

a) Bring the top of the Gallup plug to 923'.

b) Place the Surface plug from 157' to surface inside and outside the 5 ½" casing.

You are also required to place cement excesses per 4.4 of the attached General Requirements.

Office Hours: 7:45 a.m. to 4:30 p.m.

**GENERAL REQUIREMENTS FOR  
PERMANENT ABANDONMENT OF WELLS ON FEDERAL AND INDIAN LEASES  
FARMINGTON DISTRICT OFFICE**

1.0 The approved plugging plans may contain variances from the following minimum general requirements.

1.1 Modification of the approved plugging procedure is allowed only with the prior approval of the Farmington District office, *Branch of Drilling & Production*.

1.2 Requirements may be added to address specific well conditions.

2.0 Materials used must be accurately measured.

3.0 A tank or approved pit must be used for containment of any fluids from the wellbore during plugging operations and all unattended pits are to be fenced with woven wire. These pits will be fenced on three sides and once the rig leaves location, the fourth side will be fenced.

3.1 Pits are not to be used for disposal of any constituent(s) of concern.

4.0 All cement plugs are to be placed through a work string. Cement may be bull-headed down the casing with prior approval. Cement caps on top of bridge plugs or cement retainers may be placed by dump bailer.

4.1 The cement shall be as specified in the approved plugging plan.

4.2 All cement plugs placed inside casing shall have sufficient volume to fill a minimum of 100' of the casing, or annular void(s) between casings, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.

4.3 Surface plugs may be no less than 50' in length.

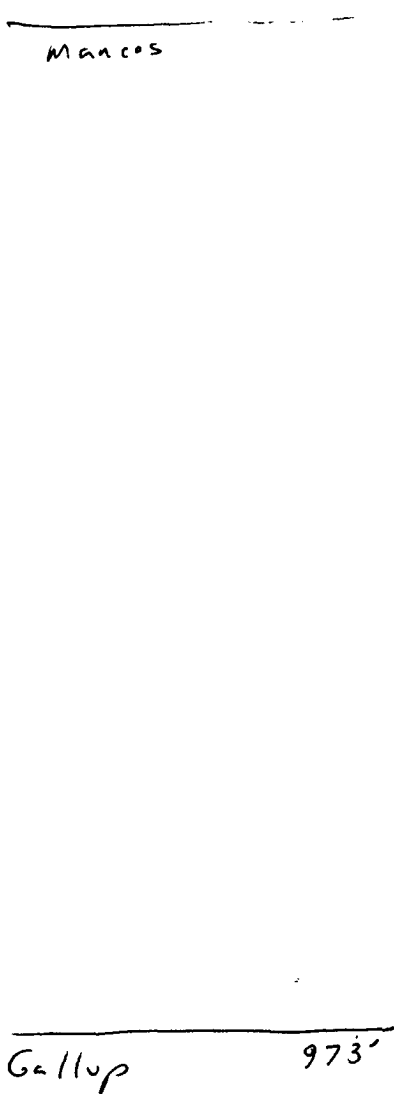
4.4 All cement plugs placed to fill annular void(s) between casing and the formation shall be of sufficient volume to fill a minimum of 100' of the annular space plus 100% excess, *calculated using the bit size*, or 100' of annular capacity, *determined from a caliper log*, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.

4.5 All cement plugs placed to fill an open hole shall be of sufficient volume to fill a minimum of 100' of hole, *as calculated from a caliper log*, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug. In the absence of a caliper log, an excess of 100% shall be required.

5.0 All cement plugs spotted across, or above, any exposed zone(s), when; the wellbore is not full of fluid or the fluid level will not remain static, and in the case of lost circulation or partial returns during cement placement, shall be tested by: (1) tagging with the work string, or: (2) for cased holes only; pressuring to a minimum surface pressure of 500 PSI, with no more than a 10% drop during a 15-minute period.

5.1 The top of any cement plug verified by tagging must be at or above the depth specified in the approved plan, without regard to any excess.

WELL NAME 10 HGV  
 SEC, TWN, RNG. 30-31N-16W



Plug 157' - surface 50 SKS  
 $8\frac{5}{8}"$  24#  
 107'  
 $157 / 7.299 (1.18) = 18 \text{ SKS}$   
 $50 / 5.7719 (1.18) = 7 \text{ SKS}$   
 $107 / 5.192 (1.18) = 17 \text{ SKS}$   
42 SKS

TOC  $\approx$  675' 75%

$(1180 - 923) + 50 / 7.299 (1.18) = 36 \text{ SKS or greater}$

Plug 1180 - ~~1055~~  
 923

Reamer @ 1180' Squeeze w/ 33 SKS  
 Port @ 1231 - 1367'

$5\frac{1}{2}"$  14#  
 1417'

### SURFACE CASING

SIZE HOLE \_\_\_\_\_"  
 SIZE CASING \_\_\_\_\_"  
 Annular Volume \_\_\_\_\_  $\text{ft}^3/\text{ft.}$   
 Cement \_\_\_\_\_ SK  
 Volume \_\_\_\_\_  $\text{ft}^3$

### INTERMEDIATE CASING

SIZE HOLE \_\_\_\_\_"  
 SIZE CASING \_\_\_\_\_"  
 Annular Volume \_\_\_\_\_ f  
 Cement \_\_\_\_\_ S  
 Volume \_\_\_\_\_ f