AFMSS

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

Sundry Print Report
02/21/2024

Well Name: GALLO CANYON	**Well Location:** T23N / R6W / SEC 13 / SWNW / 36.227448 / -107.425308	**County or Parish/State:** RIO ARRIBA / NM
Well Number: 1	**Type of Well:** OIL WELL	**Allottee or Tribe Name:**
Lease Number: NMNM067612A	**Unit or CA Name:**	**Unit or CA Number:**
US Well Number: 3003923391	**Well Status:** Oil Well Shut In	**Operator:** M & M PRODUCTION & OPERATION

Notice of Intent

Sundry ID: 2775185

Type of Submission: Notice of Intent

Type of Action: Plug and Abandonment

Date Sundry Submitted: 02/14/2024

Time Sundry Submitted: 03:17

Date proposed operation will begin: 08/01/2024

Procedure Description: This sundry is being submitted on behalf of Tommy Bolack Minerals pursuant to Order No. 22KGR0202W. Tommy Bolack Minerals, as current lessee of record, is doing so under protest and is not assuming any responsibility as well operator under the leases or BLM or NMOCD regulations. See Attached procedure and diagrams.

Surface Disturbance

Is any additional surface disturbance proposed?: No

Oral Submission

Oral Notification Date:	Feb 14, 2024	**Oral Notification Time:**	12:00 AM
Contacted By:	Ethan Wakefield	**Contact's Email:**	e.wakefield@dwsrigs.com
Comments:	Submitted paper copy through email because Tommy Bolack Minerals is not the operator in AFMSS 2. Only the record title owner of the lease.		

NOI Attachments

Procedure Description

NM067612A_Gallo_Canyon_001_3003923391_NOIA_02142024_20240214151656.pdf

Well Name: GALLO CANYON	**Well Location:** T23N / R6W / SEC 13 / SWNW / 36.227448 / -107.425308	**County or Parish/State:** RIO ARRIBA / NM
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Lease Number: NMNM067612A	**Unit or CA Name:**	**Unit or CA Number:**
US Well Number: 3003923391	**Well Status:** Oil Well Shut In	**Operator:** M & M PRODUCTION & OPERATION

Conditions of Approval

Additional

General_Requirement_PxA_20240221101716.pdf

2775185_NOIA_1_3003923391_KR_02212024_20240221101648.pdf

Gallo_Canyon_1_Geo_Rpt_20240220070409.pdf

Authorized

NM067612A_001_NOIA_APPRVD_02212024_KGR_20240221102143.pdf

BLM Point of Contact

BLM POC Name: KENNETH G RENNICK

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5055647742

BLM POC Email Address: krennick@blm.gov

Disposition: Approved

Disposition Date: 02/21/2024

Signature: Kenneth Rennick

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
FARMINGTON DISTRICT OFFICE
6251 COLLEGE BLVD.
FARMINGTON, NEW MEXICO 87402

AFMSS 2 Sundry ID 2775185

Attachment to notice of Intention to Abandon

Well: Gallo Canyon 1

CONDITIONS OF APPROVAL

1. Plugging work must be completed by September 9, 2024.

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

3. Farmington Office is to be notified at least 24 hours before the plugging operations commence at (505) 564-7750.

4. Before or within 30 days after completing work, Tommy Bolack Minerals must contact a BLM Farmington Field Office surface inspection staff to schedule a reclamation onsite.

You are also required to place cement excesses per 4.2 and 4.4 of the attached General Requirements.

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

K. Rennick 02/21/2024

BLM - FFO - Geologic Report

Date Completed 2/20/2024

Well No.	Gallo Canyon Unit # 1	Surf. Loc.	1860	FNL	950	FWL
		Sec.	13	T23N		R6W
Lease #	NMNM067612A					
Operator	M&M Production & Operation	County	Rio Arriba		State	New Mexico
TVD	6590	Formation	Basin Mancos/Counselors Gallup			
Elevation	GL 6795	Elevation	Est. KB	6808		

Geologic Formations	Est. tops	Subsea Elev.	Remarks
San Jose	Surface		Surface
Nacimiento Fm.	BSC*		Fresh water sands
Ojo Alamo Ss	1458	5350	Aquifer (fresh water)
Kirtland Fm.	1622	5186	
Fruitland Fm.	1822	4986	Coal/gas/possible water
Pictured Cliffs Ss	2008	4800	Probable water
Lewis Shale	2107	4701	
Huerfanito Bentonite	2335	4473	Reference bed
Chacra (Upper)	2490	4318	Probable water or dry
Lewis Shale Stringer	2570	4238	
Chacra (Lower)	2850	3958	Probable water or dry
Lewis Shale Stringer	3025	3783	
La Ventana Tongue	3260	3548	Probable water or dry
Cliff House	3534	3274	Probable water or gas
Menefee	3623	3185	Coal/ss/water/possible gas
Point Lookout Fm.	4232	2576	Water
Mancos Shale	4446	2362	Source Rock
Gallup	5066	1742	O&G
Greenhorn	6120	688	
Graneros	6200	608	
Dakota Ss	6270	538	O&G

Remarks:

* Behind Surface Casing

- Vertical wellbore - all fm. tops are TVD from KB.

-The submitted plugs are each adequate as presented.

Reference Well:

Same

Prepared by: Walter Gage

Save Print Clear

Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - *Other instructions on page 2*

5. Lease Serial No. NM - 06712 A

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well
☑ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No. Gallo Canyon #001

2. Name of Operator M&M Production & Operation INC

9. API Well No. 30-039-23391

3a. Address P.O. Box 175 Counselor, New Mexico 87018

3b. Phone No. *(include area code)* (505)327-6908

10. Field and Pool or Exploratory Area COUNSELORS GALLUP-DAKOTA

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
E-13-23N-06W 1860 FNL 950 FWL

11. Country or Parish, State Rio Arriba

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☑ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

This sundry is being submitted on behalf Tommy Bolack Minerals pursuant to Order No. 22KGR0202W (Gallo Canyon #1Well, API 30-03-23391) and Order No. 22KGR0203a (Bolack E #4R Well, API 30-03-23435). Tommy Bolack Minerals, as current lessee of record, is doing so under protest and is not assuming any responsibilities as well operator under the leases or BLM or NMOCD regulations.

Please see attached procedure and diagrams.

Received

FEB 14 2024

Farmington Field Office
Bureau of Land Management

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*

Title President

Signature

Date 2-14-24

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by Kenneth Rennick Digitally signed by Kenneth Rennick Date: 2024.02.21 10:59:58 -07'00'

Title Petroleum Engineer Farmington Field Office

Date

Conditions of approval, if any, are attached. Approval of this notice 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.

Office

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.

(Instructions on page 2)

M&M Production & Operation

Plug And Abandonment Procedure

Gallo Canyon #001

1860' FNL & 950' FWL, Section 13, 23N, 06W

Rio Arriba County, NM / API 30-039-23391

1. Hold pre-job safety meeting. Comply with all NMOCD, BLM safety and environmental regulations. Test rig anchors prior to moving in rig if not rigged to base beam.

2. Check casing, tubing, and Bradenhead pressures.

3. Remove existing piping on casing valve. RU blow lines from casing valves and begin blowing down casing pressure. Kill well as necessary. Ensure well is dead or on a vacuum.

4. ND wellhead and NU BOP. Function test BOP.

5. P/U 4.5" bit or casing scraper on 2-3/8" work string round trip as deep as possible above top perforation at 5180'.

6. P/U 4.5" CR, TIH and set CR at +/- 5130'. Pressure test tubing to 1000 psi. Sting out of CR. Load hole, and pressure test casing to 800 psi. If casing does not test, then spot or tag subsequent plugs as appropriate. POOH w/ tubing.

7. RU wireline and run CBL with 500 psi on casing from CR at 5130' to surface to identify TOC. Adjust plugs as necessary for new TOC. Email log copy to

Brandon Powell at Brandon.powell@state.nm.us upon completions of logging operations.

8. Rig up to pump cement down tubing. Pump water to establish rate down tubing.

9. Circulate wellbore with water.

NOTE: All Plugs Include 100% excess outside casing and 50% Excess inside casing

10. Plug 1 **(Gallup Perforations and Formation Top, 5,130'-4,966', 11 Sacks Type III Cement)**

    Mix 11 sx Type III cement and spot a balanced plug inside casing to cover the Gallup perforations and formation top.

11. Plug 2 **(Mancos Formation Top, 4,496'-4,346', 10 Sacks Type III Cement)**

    Mix 10 sx Type III cement and spot a balanced plug inside casing to cover the Mancos formation top.

12. Plug 3 **(Point Lookout Formation Top, 4,282'-4,132', 10 Sacks Type III Cement)**

    Mix 10 sx Type III cement and spot a balanced plug inside casing to cover the Point Lookout formation top.

13. Plug 4 **(Menefee and Cliff House Formation Tops, 3,673'-3,434', 16 Sacks Type III Cement)**

    Mix 16 sx Type III cement and spot a balanced plug inside casing to cover the Menefee and Cliff House formation tops.

14. Plug 5 **(Pictured Cliffs and Fruitland Formation Tops, 2,058'-1,722', 22 Sacks Type III Cement)**

    Mix 22 sx Type III cement and spot a balanced plug inside casing to cover the Pictured Cliffs and Fruitland formation tops.

15. Plug 6 **(Kirtland and Ojo alamo Formation Tops, 1,672'-1,358', 20 Sacks Type III Cement)**

    Mix 20 sx Type III cement and spot a balanced plug inside casing to cover the Kirtland and Ojo Alamo formation tops.

16. Plug 7 **(Surface Casing Shoe, 281'-Surface, 71 Sacks Type III Cement)**

    Attempt to pressure test the bradenhead annulus to 300 psi; note the volume to load. If BH annulus holds pressure, then establish circulation out casing valve with water. Mix approximately 71 sx cement and spot a balanced plug from 281' to surface, circulate good cement out of casing valve. TOOH and LD tubing. Shut well in and WOC. If BH annulus does not test, then perforate at the appropriate depth and attempt to circulate cement to surface filling the casing from 281' and the annulus from the squeeze holes to surface. Shut in well and WOC.

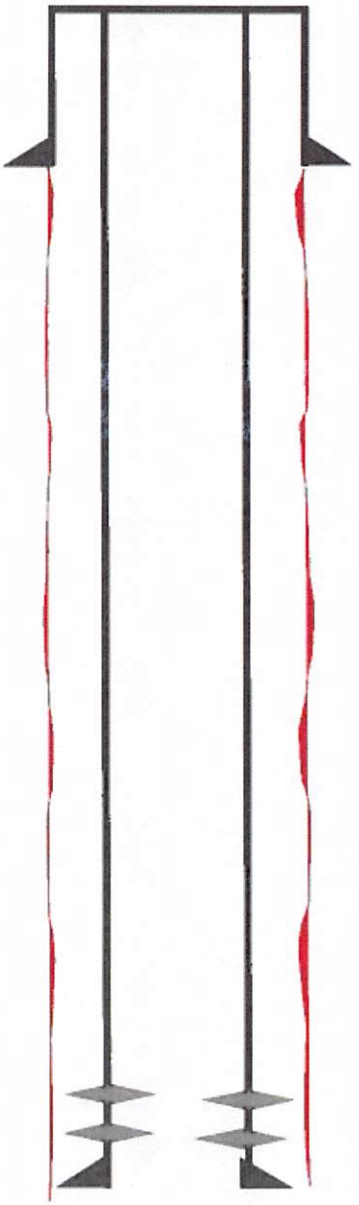
17. ND cementing valves and cut off wellhead. Fill annuli with cement as necessary. Install P&A marker to comply with regulations. Record GPS coordinate for P&A marker on tower report. Photograph P&A marker in place. RD, MOL and restore location per BLM stipulations.

Existing Wellbore Diagram

M & M PRODUCTION & OPERATION
GALLO CANYON #001
API: 30-039-23391
Rio Arriba, New Mexico

Surface Casing

8.625" 42# @ 231'
OH: 12.25"



Formation tops

Ojo alamo - 1458 feet
Kirtland - 1622 ft
Fruitland - 1822 ft
Pictured Cliffs - 2008 ft
Lewis - 2107 ft
Cliff House - 3534 ft
Menefee - 3623 ft
Point Lookout - 4232 ft
Mancos - 4446 ft
Gallup - 5066 ft
Dakota - 6390 ft

Perforations

5180 feet - 6328 feet

Production Casing

4.5" 11.6# @ 6588'
OH: 7.825"

Proposed Wellbore Diagram

M & M PRODUCTION & OPERATION
GALLO CANYON #001
API: 30-039-23391
Rio Arriba, New Mexico

Plug 6
1672 feet - 1358 feet
314 foot plug
20 Sacks of Type III Cement

Plug 5
2058 feet - 1722 feet
336 foot plug
22 Sacks of Type III Cement

Plug 4
3673 feet - 3434 feet
239 foot plug
16 Sacks of Type III Cement

Plug 3
4282 feet - 4132 feet
150 foot plug
10 Sacks of Type III Cement

Plug 2
4496 feet - 4346 feet
150 foot plug
10 Sacks of Type III Cement

Plug 1
5130 feet - 4966 feet
164 foot plug
11 sacks of Type III Cement

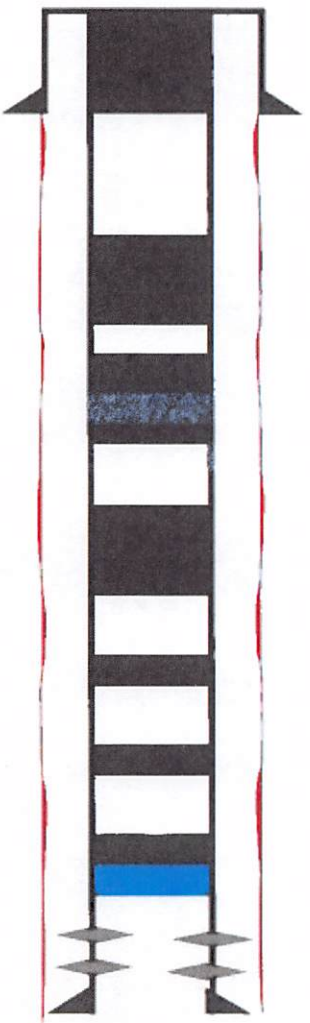
Perforations
5180 feet - 6328 feet

Surface Casing
8.625" 42# @ 231'
OH: 12.25"

Formation tops
Ojo alamo - 1458 feet
Kirtland - 1622 ft
Fruitland - 1822 ft
Pictured Cliffs - 2008 ft
Lewis - 2107 ft
Cliff House - 3534 ft
Menefee - 3623 ft
Point Lookout - 4232 ft
Mancos - 4446 ft
Gallup - 5066 ft
Dakota - 6390 ft

CR at 5130'

Production Casing
4.5" 11.6# @ 6588'
OH: 7.825"



Plug 7
281 feet - Surface
281 foot plug
71 Sacks of Type III Cement

GENERAL REQUIREMENTS FOR PERMANENT ABANDONMENT OF WELLS ON FEDERAL AND INDIAN LEASES FARMINGTON FIELD 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 Authorized Officer, Farmington Field Office.

1.2 Requirements may be added to address specific well conditions.

2.0 Materials used must be accurately measured. (densometer/scales)

3.0 A tank or lined pit must be used for containment of any fluids from the wellbore during plugging operations and all 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 hydrocarbons. If hydrocarbons are present in the pit, the fluids must be removed prior to filling in.

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.

4.6 **A cement bond log or other accepted cement evaluation tool is required to be run if one had not been previously ran or cement did not circulate to surface during the original casing cementing job or subsequent cementing jobs.**

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 tagging with the work string.

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.

5.2 Testing will not be required for any cement plug that is mechanically contained by use of a bridge plug and/or cement retainer, if casing integrity has been established.

5.3 Any cement plug which is the only isolating medium, for a fresh water interval or a zone containing a prospectively valuable deposit of minerals, shall be tested by tagging.

5.4 If perforations are required below the surface casing shoe, a 30 minute minimum wait time will be required to determine if gas and/or water flows are present. If flow is present, the well will be shut-in for a minimum of one hour and the pressure recorded. Short or long term venting may be necessary to evacuate trapped gas. If only a water flow occurs with no associated gas, shut well in and record the pressures. Contact the Engineer as it may be necessary to change the cement weight and additives.

6.0 Before setting any cement plugs the hole needs to be rolled. All wells are to be controlled by means of a fluid that is to be of a weight and consistency necessary to stabilize the wellbore. This fluid shall be left in place as filler between all plugs.

6.1 Drilling mud may be used as the wellbore fluid in open hole plugging operations.

6.2 The wellbore fluid used in cased holes shall be of sufficient weight to balance known pore pressures in all exposed formations.

7.0 A blowout preventer and related equipment (BOPE) shall be installed and tested prior to working in a wellbore with any exposed zone(s); (1) that are over pressured, (2) where the pressures are unknown, or (3) known to contain H_2S.

8.0 Within 30 days after plugging work is completed, file a Sundry Notice, Subsequent Report of Abandonment (Form 3160-5), through the Automated Fluid Minerals Support System (AFMSS) with the Field Manager, Bureau of Land Management, 6251 College Blvd., Suite A, Farmington, NM 87402. The report should show the manner in which the plugging work was carried out, the extent, by depth(s), of cement plugs placed, and the size and location, by depth(s), of casing left in the well. Show date well was plugged.

9.0 All permanently abandoned wells are to be marked with a permanent monument as specified in 43 CFR 3162.6(d). Unless otherwise approved.

10.0 If this well is located in a Specially Designated Area (SDA), compliance with the appropriate seasonal closure requirements will be necessary.

All of the above are minimum requirements. Failure to comply with the above conditions of approval may result in an assessment for noncompliance and/or a Shut-in Order being issued pursuant to 43 CFR 3163.1. You are further advised that any instructions, orders or decisions issued by the Bureau of Land Management are subject to administrative review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4 and 43 CFR 4.700.

State of New Mexico
Energy, Minerals and Natural Resources Department

NOTICE

NEW MEXICO PLUG AND ABANDON CONDITIONS OF APPROVAL

Effective January 1, 2024

The New Mexico Oil Conservation Division ("OCD") is announcing the release of its updated Plugging and Abandoning Conditions of Approval ("COA"). These COAs will bring consistency throughout the state and formalize existing practice in the field that are already being required by OCD and performed by Operators. OCD staff reviewing plans are directed to implement these COA's are throughout the entire State of New Mexico, except when circumstances warrant modifications or additional requirements as dictated by specific plugging project conditions, which determines are left solely to OCD.

For the most part, these updates simply consolidate current practice to ensure it applied uniformly state-wide. The most significant changes from existing practice are as follows:

- Logs.
  - A Cement Bond Log is required to ensure isolation of producing formations, protection of water and correlative rights. A CBL must be run or be on file that can properly evaluate the cement behind the casing.

    Note: Logs must be submitted to OCD via OCD permitting. A copy of the log may be emailed to the Compliance Officer Supervisor for faster review times, but email transmittal does not relieve the requirement for an operator to file through OCD permitting.
- Cement:
  - A table has been included which indicates the Class of cement and its allowed lower limits. This table is intended to align OCD requirements with applicable API standards and the Haliburton Redbook.
  - We are also standardizing practices with respect to cement waiting times:
    - 4 hours for accelerated (calcium chloride) cement.
    - 6 hours on regular cement.
- Formations:

- The COAs now include appendices for geological formation tops that shall be plugged.

The updated plugging COAs are attached to this notice. These COAs are effective for plugging operations for any NOI C-103F submitted on or after January 1, 2024, unless OCD determines that a modification or additional COAs are necessary based on specific plugging project conditions.

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
Standard Plugging Conditions

This document provides OCD's general plugging conditions of approval. It should be noted that the list below may not cover special plugging programs in unique and unusual cases, and OCD expressly reserves the right to impose additional requirements to the extent dictated by project conditions. The OCD also reserves the right to approve deviations from the below conditions if field conditions warrant a change. A C-103F NOI to P&A must be approved prior to plugging operations. Failure to comply with the conditions attached to a plugging approval may result in a violation of 19.15.5.11 NMAC, which may result in enforcement actions, including but not limited to penalties and a requirement that the well be re-plugged as necessary.

1. Notify OCD office at least 24 hours before beginning work and seek prior approval to implementing any changes to the C-103 NOI to PA.
    - North Contact, Monica Kuehling, 505-320-0243, monica.kuehling@emnrd.nm.gov
    - South Contact, Gilbert Cordero, 575-626-0830, gilbert.cordero@emnrd.nm.gov

2. A Cement Bond Log is required to ensure strata isolation of producing formations, protection of water and correlative rights. A CBL must be run or be on file that can be used to properly evaluate the cement behind the casing.

    Note: Logs must be submitted to OCD via OCD permitting. A copy of the log may be emailed to OCD inspector for faster review times, but emailing does not relieve the operators obligation to submit through OCD permitting.

3. Once Plugging operations have commenced, the rig must not rig down until the well is fully plugged without OCD approval. If gap in plugging operations exceeds 30 days, the Operator must file a subsequent sundry of work performed and revised NOI for approval on work remaining. At no time shall the rig be removed from location if it will result in waste or contamination of fresh water.

4. Insure all bradenheads have been exposed, identified and valves are operational prior to rig up.

5. Fluids must be placed between all cement plugs mixed at 25 sacks per 100 bbls of water.
    - North, water or mud laden fluids
    - South, mud laden fluids

6. Closed loop system is to be used for entire plugging operation. Upon completion, contents of steel pits are to be hauled to an OCD permitted disposal facility.

7. Class of cement shall be used in accordance with the below table for depth allowed.

Class	TVD Lower Limit (feet)
Class A/B	6,000
Class I/II	6,000
Class C or III	6,000
Class G and H	8,000
Class D	10,000

Class E	14,000
Class F	16,000

8. After cutting the well head any “top off cement jobs” must remain static for 30 minutes. Any gas bubbles or flow during this 30 minutes shall be reported to the OCD for approval of next steps.

9. Trucking companies being used to haul oilfield waste fluids (Commercial or Private) to a disposal facility shall have an approved OCD C-133 permit.
    - A copy of this permit shall be available in each truck used to haul waste products.
    - It is the responsibility of the Operator and Contractor to verify that this permit is in place prior to performing work.
    - Drivers shall be able to produce a copy upon request of an OCD Compliance Officer.

10. Filing a [C-103] Sub. Plugging (C-103P) will serve as notification that the well has been plugged.

11. A [C-103] Sub. Release After P&A (C-103Q) shall be filed no later than a year after plugging and a site inspection by OCD Compliance officer to determine if the location is satisfactorily cleaned, all equipment, electric poles and trash has been removed to meet OCD standards before bonding can be released.

12. Produced water or brine-based fluids may not be used during any part of plugging operations without prior OCD approval.

13. Cementing;
    - All cement plugs will be neat cement and a minimum of 100’ in length. 50’ of calculated cement excess required for inside casing plugs and 100% calculated cement excess required on outside casing plugs.
    - If cement does not exist between or behind the casing strings at recommended formation depths, the casing perforations will be shot at 50’ below the formation top and the cement retainer shall be set no more than 50’ from the perforations.
    - WOC (Wait on Cement) time will be:
        - 4 hours for accelerated (calcium chloride) cement.
        - 6 hours on regular cement.
    - Operator must tag all cement plugs unless it meets the below condition.
        - The operator has a passing pressure test for the casing annulus and the plug is only an inside plug.
    - If perforations are made operator must tag all plugs using the work string to tag unless given approval to tag with wireline by the correct contact from COA #1 of this document.
        - This includes plugs pumped underneath a cement retainer to ensure retainer seats properly after cement is pumped.
    - Cement can only be bull-headed with specific prior approval.
    - Squeeze pressures are not to exceed the exposed formations frac gradient or the burst pressure of the casing.

14. A cement plug is required to be set from 50’ below to 50’ above (straddling) formation tops, casing shoes, casing stubs, any attempted casing cut offs, anywhere the casing is perforated, DV tools.
    - Perforation/Formation top plug. (When there is less than 100ft between the top perforation to the formation top.) These plugs are required to be started no greater than

50ft from the top perforation. However, the plug should be set below the formation top or as close to the formation top as possible for the maximum isolation between the formations. The plug is required to be a 100ft cement plug plus excess.

- Perforation Plug when a formation top is not included. These plugs are required to be started within 50ft of the top perforation. The plug is required to be a 100ft cement plug plus excess.
- Cement caps on top of bridge plugs or cement retainers for perforation plugs, that are not straddling a formation top, may be set using a bailer with a minimum of 35’ of cement in lieu of the 100’ plug. The bridge plug or retainer must be set within 50ft of the perforations.
- Perforations are required below the surface casing shoe if cement does not exist behind the casing, a 30-minute minimum wait time will be required immediately after perforating to determine if gas and/or water flows are present. If flow is present, the well will be shut-in for a minimum of one hour and the pressure recorded. If gas is detected contact the OCD office for directions.

15. No more than 3000 feet is allowed between cement plugs in cased hole and no more than 2000 feet is allowed in open hole.

16. Formation Tops to be isolated with cement plugs, but not limited to are:
    - Northwest See Figure A
    - South (Artesia) See Figure B
    - Potash See Figure C
        - In the R-111-P (Or as subsequently revised) Area a solid cement plug must be set across the salt section. Fluid used to mix the cement shall be saturated with the salts that are common to the section penetrated and in suitable proportions, not more than 3% calcium chloride (by weight of cement) will be considered the desired mixture whenever possible, woe 4 hours and tag, this plug will be 50' below the bottom and 50' above the top of the Formation.
    - South (Hobbs) See Figure D1 and D2
    - Areas not provided above will need to be reviewed with the OCD on a case by case basis.

17. Markers
    - Dry hole marker requirements 19.15.25.10.
      The operator shall mark the exact location of plugged and abandoned wells with a steel marker not less than four inches in diameter set in cement and extending at least four feet above mean ground level. The marker must include the below information:
        1. Operator name
        2. Lease name and well number
        3. API number
        4. Unit letter
        5. Section, Township and Range

    - AGRICULTURE (Below grade markers)
      In Agricultural areas a request can be made for a below ground marker. For a below ground marker the operator must file their request on a C-103 notice of intent, and it must include the following;
        A) Aerial photo showing the agricultural area
        B) Request from the landowner for the below ground marker.

C) Subsequent plugging report for a well using a below ground marker must have an updated C-102 signed by a certified surveyor for SHL.

Note: A below ground marker is required with all pertinent information mentioned above on a plate, set 3' below ground level, a picture of the plate will be supplied to OCD for record, the exact location of the marker (longitude and latitude by GPS) will be provided to OCD. OCD requires a current survey to verify the location of the below ground marker, however OCD will accept a GPS coordinate that were taken with a GPS that has an accuracy of within 15 feet.

18. If work has not commenced within 1 year of the approval of this procedure, the approval is automatically expired. After 1 year a new [C-103] NOI Plugging (C-103F) must be submitted and approved prior to work.

Figure A

North Formations to be isolated with cement plugs are:

- San Jose
- Nacimiento
- Ojo Alamo
- Kirtland
- Fruitland
- Picture Cliffs
- Chacra (if below the Chacra Line)
- Mesa Verde Group
- Mancos
- Gallup
- Basin Dakota (plugged at the top of the Graneros)
- Deeper formations will be reviewed on a case-by-case basis

Figure B

South (Artesia) Formations to be isolated with cement plugs are:

- Fusselman
- Montoya
- Devonian
- Morrow
- Strawn
- Atoka
- Permo-Penn
- Wolfcamp
- Bone Springs
- Delaware , in certain areas where the Delaware is subdivided into;
    - 1. Bell Canyon
    - 2. Cherry Canyon
    - 3. Brushy Canyon
- Any salt sections
- Abo
- Yeso
- Glorieta
- San Andres
- Greyburg
- Queen
- Yates

Figure C

Potash Area R-111-P

T 18S – R 30E
Sec 10 Unit P. Sec 11 Unit M,N. Sec 13 Unit L,M,N. Sec 14 Unit C -P. Sec 15 Unit A G,H,I,J,K,N,O,P. Sec 22 Unit All
except for M. Sec 23, Sec 24 Unit C,D,E,L, Sec 26 Unit A-G, Sec 27 Unit A,B,C

T 19S – R 29E
Sec 11 Unit P. Sec 12 Unit H-P. Sec 13. Sec 14 Unit A,B,F-P. Sec 15 Unit P. Sec 22 Unit A,B,C,F,G,H,I,J
K,N,O,P. Sec 23.
Sec 24. Sec 25 Unit D. Sec 26 Unit A- F. Sec 27 Unit A,B,C,F,G,H.

T 19S – R 30E
Sec 2 Unit K,L,M,N. Sec 3 Unit I,L,M,N,O,P. Sec 4 Unit C,D,E,F,G,I-P. Sec 5 Unit A,B,C,E-P. Sec 6 Unit I,O,P. Sec 7 – Sec
10. Sec 11 Unit D, G—P. Sec 12 Unit A,B,E-P. Sec 13 Unit A-O. Sec 14-Sec 18. Sec 19 Unit A-L, P. Sec 20 – Sec 23. Sec
24 Unit C,D,E,F,L,M,N. Sec 25 Unit D. Sec 26 Unit A-G, I-P. Sec 27, Sec 28, Sec 29 Unit A,B,C,D,F,G,H,I,J,O,P. Sec 32
Unit A,B,G,H,I,J,N,O,P. Sec 33. Sec 34. Sec 35. Sec 36 Unit D,E,F,I-P.

T 19S – R 31E
Sec 7 Unit C,D,E,F,L. Sec 18 Unit C,D,E,F,G,K,L. Sec 31 Unit M. Sec 34 Unit P. Sec 35 Unit M,N,O. Sec 36 Unit O,P.

T 20S – R 29E
Sec 1 Unit H,I,P. Sec 13 Unit E,L,M,N. Sec 14 Unit B-P. Sec 15 Unit A,H,I,J,N,O,P. Sec 22 Unit A,B,C,F,G,H,I,J,O,P. Sec
23. Sec 24 Unit C,D,E,F,G,J-P. Sec 25 Unit A-O. Sec 26. Sec 27 Unit A,B,G,H,I,J,O,P. Sec 34 Unit A,B,G,H. Sec 35 Unit
A-H. Sec 36 Unit B-G.

T 20S – R 30E
Sec 1 – Sec 4. Sec 5 Unit A,B,C,E-P. Sec 6 Unit E,G-P. Sec 7 Unit A-H,I,J,O,P. Sec 8 – 17. Sec 18 Unit A,B,G,H,I,J,O,P.
Sec 19 Unit A,B,G,H,I,J,O,P. Sec 20 – 29. Sec 30 Unit A-L,N,O,P. Sec 31 Unit A,B,G,H,I,P. Sec 32 – Sec 36.

T 20S – R 31E
Sec 1 Unit A,B,C,E-P. Sec 2. Sec 3 Unit A,B,G,H,I,J,O,P. Sec 6 Unit D,E,F,J-P. Sec 7. Sec 8 Unit E-P. Sec 9 Unit E,F,J-P.
Sec 10 Unit A,B,G-P. Sec 11 – Sec 36.

T 21S – R 29E
Sec 1 – Sec 3. Sec 4 Unit L1 – L16,I,J,K,O,P. Sec 5 Unit L1. Sec 10 Unit A,B,H,P. Sec 11 – Sec 14. Sec 15 Unit A,H,I. Sec
23 Unit A,B. Sec 24 Unit A,B,C,D,F,G,H,I,J,O,P. Sec 25 Unit A,O,P. Sec 35 Unit G,H,I,J,K,N,O,P. Sec 36 A,B,C,F – P.

T 21S – R 30E
Sec 1 – Sec 36

T 21S – R 31E

Sec 1 – Sec 36

T 22S – R 28E
Sec 36 Unit A,H,I,P.

T 22S – R 29E
Sec 1. Sec2. Sec 3 Unit I,J,N,O,P. Sec 9 Unit G – P. Sec 10 – Sec 16. Sec 19 Unit H,I,J. Sec 20 – Sec 28. Sec 29 Unit
A,B,C,D,G,H,I,J,O,P. Sec 30 Unit A. Section 31 Unit C – P. Sec 32 – Sec 36

T 22S – R 30E
Sec 1 – Sec 36

T 22S – R 31E
Sec 1 – Sec 11. Sec 12 Unit B,C,D,E,F,L. Sec 13 Unit E,F,K,L,M,N. Sec 14 – Sec 23. Sec 24 Unit
C,D,E,F,K,L,M,N. Sec 25
Unit A,B,C,D. Sec 26 Unit A,BC,D,G,H. Sec 27 – Sec 34.

T 23S – R 28E
Sec 1 Unit A

T 23S – R 29E
Sec 1 – Sec 5. Sec 6 Unit A – I, N,O,P. Sec 7 Unit A,B,C,G,H,I,P. Sec 8 Unit A – L, N,O,P. Sec 9 – Sec 16. Sec 17 Unit
A,B,G,H,I,P. Sec 21 – Sec 23. Sec 24 Unit A – N. Sec 25 Unit D,E,L. Sec 26. Sec 27. Sec 28 Unit A – J, N,O,P. Sec 33
Unit A,B,C. Sec 34 Unit A,B,C,D,F,G,H. Sec 35. Sec 36 Unit B,C,D,E,F,G,K,L.

T 23S – R 30E
Sec 1 – Sec 18. Sec 19 Unit A – I,N,O,P. Sec 20, Sec 21. Sec 22 Unit A – N, P. Sec 23, Sec 24, Sec 25. Sec 26 Unit
A,B,F-P. Sec 27 Unit C,D,E,I,N,O,P. Sec 28 Unit A – H, K,L,M,N. Sec 29 Unit A – J, O,P. Sec 30 Unit A,B. Sec 32 A,B. Sec
33 Unit C,D,H,I,O,P. Sec 34, Sec 35, Sec 36.

T 23S – R 31E
Sec 2 Unit D,E,J,O. Sec 3 – Sec 7. Sec 8 Unit A – G, K – N. Sec 9 Unit A,B,C,D. Sec 10 Unit D,P. Sec 11 Unit G,H,I,J,M,N,O,P. Sec 12 Unit E,L,K,M,N. Sec 13 Unit C,D,E,F,G,J,K,L,M,N,O. Sec 14. Sec 15 Unit A,B,E – P. Sec 16 Unit
I, K – P. Sec 17 Unit B,C,D,E, I – P. Sec 18 – Sec 23. Sec 24 Unit B – G, K,L,M,N. Sec 25 Unit B – G, J,K,L. Sec 26 – Sec
34. Sec 35 Unit C,D,E.

T 24S – R 29E
Sec 2 Unit A, B, C, D. Sec 3 Unit A

T 24S – R 30E
Sec 1 Unit A – H, J – N. Sec 2, Sec 3. Sec 4 Unit A,B,F – K, M,N,O,P. Sec 9 Unit A – L. Sec 10 Unit A – L, O,P. Sec 11.
Sec 12 Unit D,E,L. Sec 14 Unit B – G. Sec 15 Unit A,B,G,H.

T 24S – R 31E
Sec 3 Unit B – G, J – O. Sec 4. Sec 5 Unit A – L, P. Sec 6 Unit A – L. Sec 9 Unit A – J, O,P. Sec 10 Unit B – G, K – N. Sec
35 Unit E – P. Sec 36 Unit E,K,L,M,N.

T 25S – R 31E
Sec 1 Unit C,D,E,F. Sec 2 Unit A – H.

Figure D1 and D2

South (Hobbs) Formations to be isolated with cement plugs are:

The plugging requirements in the Hobbs Area are based on the well location within specific areas of the Area (See Figure D1). The Formations in the Hobbs Area to be isolated with cement plugs are (see Figure D2)

Figure D1 Map

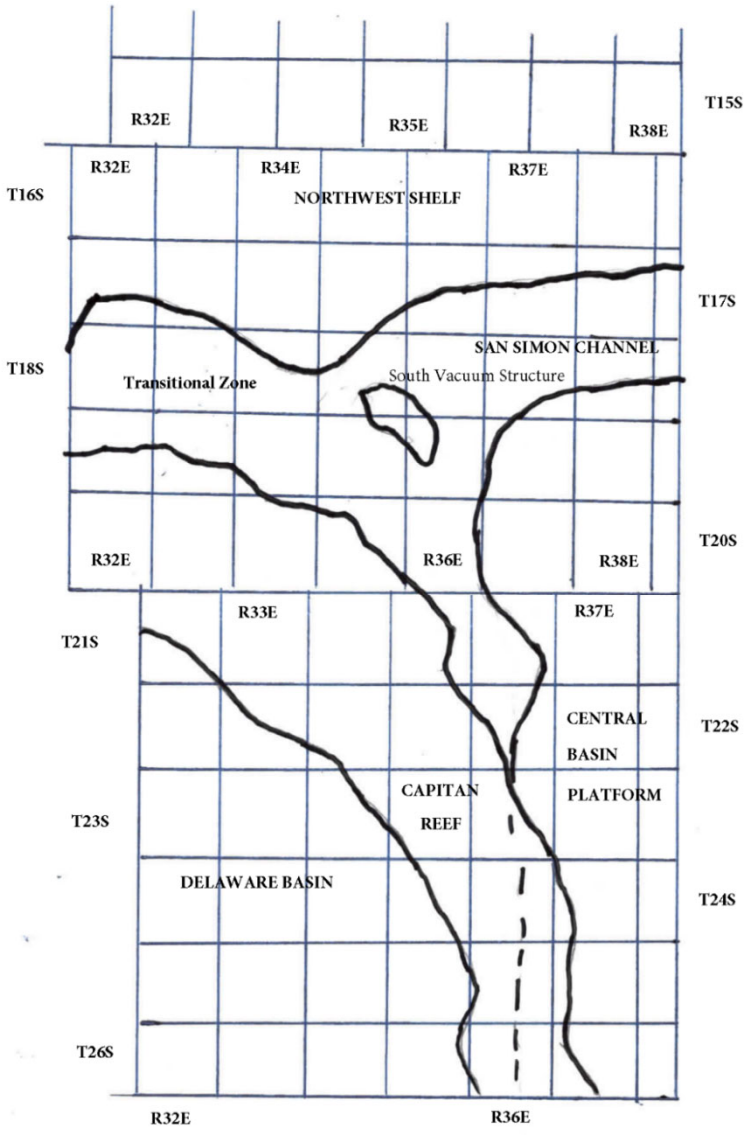


Figure D2 Formation Table

100' Plug to isolate upper and lower fresh water zones (typically 250' to 350')						
Northwest Shelf	**Captan Reef Area**	**Transition Zone**	**San Simon Channel**	**South Vacuum Structure**	**Delaware Basin**	**Central Basin Platform**
Granit Wash (Detrital basement material and fractured pre-Cambrian basement rock)	Siluro-Devonian	Morrow	Siluro-Devonian	Ellenburger	Siluro-Devonian	Granit Wash (Detrital basement material, fractured pre-Cambrian basement rock and fracture Mafic Volcanic intrusives).
Montoya	Mississippian	Atoka	Morrow	Mckee	Morrow	Ellenburger
Fusselman	Morrow	Strawn	Wolfcamp	Siluro-Devonian	Atoka	Connell
Woodford	Atoka	Cisco	Abo Reef	Woodford	Strawn	Waddell
Siluro-Devonian	Strawn	Pennsylvanian	Bone Spring	Mississippian	Pennsylvanian	Mckee
Chester	Pennsylvanian	Wolfcamp	Delaware	Barnett Shale	Lower Wolfcamp	Simpson Group
Austin	Wolfcamp	Bone Spring	San Andres	Morrow	Upper Wolfcamp	Montoya
Mississippian	Abo Reef, if present	Delaware	Queen	Atoka	Wolfcamp	Fusselman
Morrow	Abo, if present	San Andres	Yates	Strawn	Third Bone Spring Sand (Top of Wolfbone)	Silurian
Atoka	Queen, if present	Grayburg-San Andres	Base of Salt	Canyon	First Bone Spring Sand (Top of Lower Bone Spring)	Devonian
Lower Pennsylvanian	Bone Spring	Queen	Rustler	Pennsylvanian	Bone Spring	Strawn
Cisco-Canyon	Delaware	Seven Rivers		Blinebry	Brushy Canyon	Pennsylvanian
Pennsylvanian	Base Capitan Reef	Yates		Bone Spring	Delaware (Base of Salt)	Wolfcamp
Bough	Seven Rivers	Base of Salt		San Andres	Rustler	Abo
Wolfcamp	Yates	Rustler		Queen		Abo Reef
Abo	Top Capitan Reef			Base of Salt		Drinkard
Abo Reef, if present	Base of Salt			Rustler		Tubb
Yeso (Township 15 South to Township 17 South)	Rustler					Blinebry
Drinkard or Lower Yeso (Township 15 South to Township 17 South)						Paddock
Tubb (Township 15 South to Township 17 South)						Glorieta
Blinebry (Township 15 South to Township 17 South)						San Andres
Paddock (Township 15 South to Township 17 South)						Grayburg
Glorieta						Grayburg-San Andres
San Andres						Queen
Queen (Township 15 South to Township 17 South)						Seven Rivers
Seven Rivers (Township 15 South to Township 17 South)						Yates
Yates (Township 15 South to Township 17 South)						Base of Salt
Base of Salt						Rustler
Rustler						

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 324299

CONDITIONS

Operator:	OGRID:
BOLACK MINERALS CO 3901 Bloomfield Hwy Farmington, NM 87401	2647
	Action Number: 324299
	Action Type: [C-103] NOI Plug & Abandon (C-103F)

CONDITIONS

Created By	Condition	Condition Date
loren.diede	Use BLM Dakota formation top of 6270'.	3/20/2024
loren.diede	Add plug over Dakota with CR or CIBP at +/- 6219' and cement plug from +/- 6219' to +/- 6119'.	3/20/2024
loren.diede	Gallup perforations from 5180' to 5216' were cement squeezed in 3-1985. Set CIBP at +/- 5250'. Load and roll hole. Run CBL from 5250' to surface.	3/20/2024
loren.diede	Based on the CBL, The proposed Gallup perforations and formation top plug from 5130' to 4966' may need to be an inside / outside plug.	3/20/2024
loren.diede	Add / combine the DV tool (at 4525') and Mancos formation top plug with an inside-only plug from +/- 4575' to +/- 4346'. Provided there is cement above the DV tool.	3/20/2024
loren.diede	The only Mesa Verde plug required is the Cliffhouse formation top plug from 3584' to 3434'.	3/21/2024
loren.diede	Add Chacra formation top plug from 2540' to 2390'.	3/21/2024