AFMSS

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

Sundry Print Report

10/31/2024

Well Name: NE HOGBACK UNIT	**Well Location:** T30N / R16W / SEC 11 / NESW / 36.82555 / -108.49553	**County or Parish/State:** SAN JUAN / NM
Well Number: 56	**Type of Well:** OIL WELL	**Allottee or Tribe Name:**
Lease Number: NMNM077282	**Unit or CA Name:** NE HOGBACK UNIT	**Unit or CA Number:** NMNM78403A
US Well Number: 3004529350	**Operator:** CHUZA OIL CO INCORPORATED	

Notice of Intent

Sundry ID: 2820045

Type of Submission: Notice of Intent

Type of Action: Plug and Abandonment

Date Sundry Submitted: 10/30/2024

Time Sundry Submitted: 03:20

Date proposed operation will begin: 12/31/2024

Procedure Description: The Bureau of Land Management Farmington Field Office (BLM FFO) requested the New Mexico Oil Conservation Division (NM OCD) to remediate the main facility and plug five Chuza Oil Company wells as part of their program. See attached email conversations. Aztec Well Servicing will be the contractor, the procedure is attached.

Surface Disturbance

Is any additional surface disturbance proposed?: No

Oral Submission

Oral Notification Date:	Oct 30, 2024	**Oral Notification Time:**	12:00 AM
Contacted By:	Ray Granillo	**Contact's Email:**	rgranillo@aztecwell.com
Comments:	Aztec Well Servicing wrote up and submitted P&A plans to BLM via email		

NOI Attachments

Procedure Description

Request_to_Remediate_Chuza_Oil_Main_Facility_20241030151856.pdf

Request_to_Plug_Remaining_Chuza_Oil_Wells_20241030151856.pdf

Hogback_Unit_56_P_A_20241030151847.pdf

Well Name: NE HOGBACK UNIT	**Well Location:** T30N / R16W / SEC 11 / NESW / 36.82555 / -108.49553	**County or Parish/State:** SAN JUAN / NM
Well Number: 56	**Type of Well:** OIL WELL	**Allottee or Tribe Name:**
Lease Number: NMNM077282	**Unit or CA Name:** NE HOGBACK UNIT	**Unit or CA Number:** NMNM78403A
US Well Number: 3004529350	**Operator:** CHUZA OIL CO INCORPORATED	

Conditions of Approval

Specialist Review

2820045_NOI_PnA_NE_Hogback_Unit_56_3004529350_MHK_10.31.2024_20241031133727.pdf

General_Requirement_PxA_20241031133709.pdf

SN_ID_2820045_30N16W11_NE_Hogback_Unit_56_Geo_MHK_20241031133656.pdf

BLM Point of Contact

BLM POC Name: MATTHEW H KADE

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5055647736

BLM POC Email Address: MKADE@BLM.GOV

Disposition: Approved

Disposition Date: 10/31/2024

Signature: Matthew Kade

NMOCD
Plug & Abandon Procedure
October 23, 2024

Well:	Hogback Unit #56	**API:**	30-045-29350
Location:	1570' FSL & 2090' FWL	**Field:**	
Sec,T, R:	Sec 11 30N-16W	**Elevation:**	GL: 5414'
Cnty/State:	San Juan, New Mexico		
Lat/Long:	36.8257294, -108.4961166	**By:**	Aztec Well Servicing

Objective:

Permanently plug & abandon the well from 2160' containing 3 cement plugs.

Note:

All cement volumes use 100% excess outside casing and 50' excess inside pipe. Stabilizing wellbore fluid will be 8.3 ppg, sufficient to balance all exposed formation pressures. All cement will be ASTM Class G neat 15.8ppg, 1.15ft3/ft yield, 5.0gal/sk or equivalent. If casing pressure tests tagging plugs will not be required.

Prior to Rig:

1. Notify NMOCD and BLM
2. Note: verify all cement volumes based on actual slurry to be pumped.
3. See attached COA's from NMOCD and BLM.

Procedure:

1. MIRU well servicing rig and cement equipment.
2. Check casing, tubing, and BH pressures.
3. Removed 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. Pull and LD rods on tubing float.
5. ND wellhead and NU BOP. Function test BOP. RU floor and 2-3/8" handling tools.
6. Release packer and LD production tubing (2065').
7. PU and tally work string and RIH with casing scraper to 1885'.
8. TOOH and LD casing scraper.
9. TIH with 4-1/2" CICR and set @ 1873'.
10. Roll the hole with fresh water and pressure test casing to 500 psi. If casing does not test, then spot or tag subsequent plugs as appropriate. WOC to be determined upon pressure test.
11. TOOH.
12. Rig up WL and run CBL from CICR' to surface. RD WL.
13. TIH to CICR.
14. **Plug #1, 2035' – 1510' (Perforations: 1923' - 2035' Gallup Top: 1560')** Mix & pump 59 sx of class G cement and pump 26 sx below CICR and spot 33 sx above CICR to cover the perforations and Gallup top. Pull up and reverse circulate tubing clean.

THE AZTEC WELL FAMILY

NMOCD

Plug & Abandon Procedure

October 23, 2024

Well:	Hogback Unit #56	**API:**	30-045-29350
Location:	1570' FSL & 2090' FWL	**Field:**	
Sec,T, R:	Sec 11 30N-16W	**Elevation:**	GL: 5414'
Cnty/State:	San Juan, New Mexico		
Lat/Long:	36.8257294, -108.4961166	**By:**	Aztec Well Servicing

15. WOC then tag plug to confirm TOC.
16. LD tubing to 510'.
17. **Plug #2, 510' – 410' (Mancos Top: 460')** Mix & pump 12 sx of class G cement and spot a balanced plug to cover the Mancos top. Pull up and reverse circulate tubing clean.
18. LD remaining tubing.
19. RU WL and perforate @ 175'. Establish injection rate with fresh water. RD WL.
20. **Plug 3, 175' - Surface (Surface Shoe: 125')** Mix and pump 45 sx class G cement and pump down 4-1/2" casing squeezing into perforations and back up BH until good cement returns to surface.
21. NP BOP, cut off wellhead below surface casing flange per regulation. Top off w/cement if needed. Install P&A marker with cement to comply with regulations. RD and MOL. Restore location per BLM stipulations.

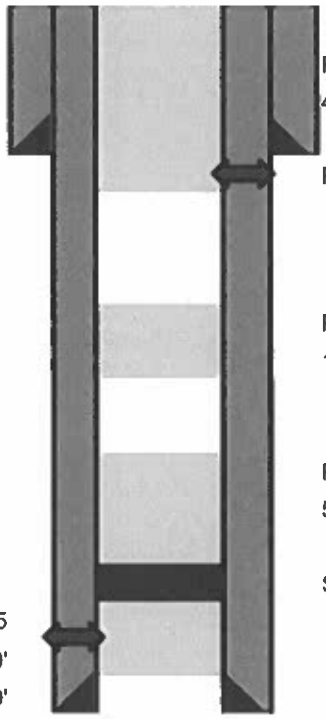
Current WBD
Hogback Unit #56
API: 30-045-29350
11-30N16W
GL 5414'

SURF CSG:	
Hole size:	8-3/4"
Csg size:	7"
Wt:	20#
Grade	J-55
ID:	6.456
Depth:	125
Cap cf/ft:	0.2273
TOC:	surface

PROD CSG:	
Hole size:	6-1/4"
Csg size:	4-1/2"
Wt:	10.5#
Grade	J-55
ID:	4.052
Depth:	2152
Cap cf/ft:	0.0896
Csg/OH Ann:	
Csg/OH Ann, cf/ft:	0.1026
TOC:	surface

FORM TOPS:	
Nacimiento Top:	
Ojo Alamo Top:	
Kirtland Top:	
Fruitland Top:	
Picture Cliffs Top:	
Chacra Top:	
Mesa Verde Top:	
Mancos Top:	460'
Gallup Top:	1,560'
Dakota Top:	

PERFS:	1923 - 2035
PBTD:	2,100'
TD:	2,160'



Plug #3 175' - Surface
45 sx Class G

Perforate @ 175

Plug #2 510' - 410'
12 sx Class G

Plug #1 2035' - 1510'
59 sx Class G

Set CICR @ 1873'

Plugging Information
Class G cmt used mixed @ 15.8 ppg, yield 1.15 cuft/sx
Regulatory representative:
Marker GPS Coordinates:

Current WBD
Hogback Unit #56
API: 30-045-29350
11-30N16W
GL 5414'

SURF CSG:

Hole size:	8-3/4"
Csg size:	7"
Wt:	20#
Grade	J-55
ID:	6.456
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Csg size:	4-1/2"
Wt:	10.5#
Grade	J-55
ID:	4.052
Depth:	2152
Cap cf/ft:	0.0896
Csg/OH Ann:	
Csg/OH Ann, cf/ft:	0.1026
TOC:	surface

FORM TOPS:

Nacimiento Top:	
Ojo Alamo Top:	
Kirtland Top:	
Fruitland Top:	
Picture Cliffs Top:	
Chacra Top:	
Mesa Verde Top:	
Mancos Top:	460'
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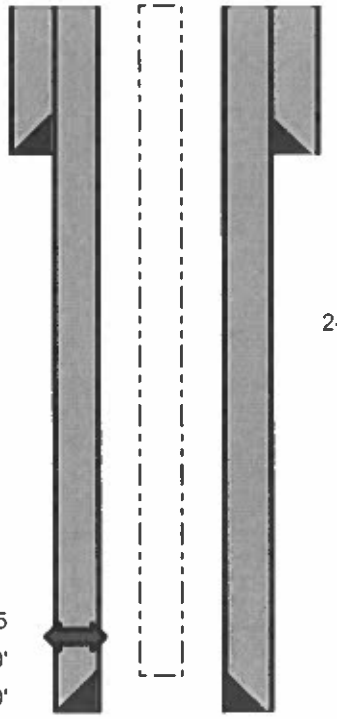
Dakota Top:	



2-3/8" tubing to 2065'

PERFS:	1923 - 2035
PBTD:	2,100'
TD:	2,160'

Plugging Information

Class G cmt used mixed @ 15.8 ppg, yield 1.15 cuft/sx

Regulatory representative:

Marker GPS Coordinates:

Outlook

Re: [EXTERNAL] Chuza Tank Battery Discussion

From Kade, Matthew H <mkade@blm.gov>
Date Tue 9/3/2024 7:45 AM
To Smith, Cory, EMNRD <cory.smith@emnrd.nm.gov>; Rennick, Kenneth G <krennick@blm.gov>; Griswold, Jim, EMNRD <Jim.Griswold@emnrd.nm.gov>
Cc Wenman, Christopher P <cwenman@blm.gov>

Good morning,

I hope everyone had a good Labor Day weekend.

The OCD has permission to shut in the wells/valves to isolate the tank battery if any wells are found to be currently open and active.

There are 28 NE Hogback wells that need to get plugged to close out the field. There are 21 wells that are set to be plugged over the next couple months. A couple of the wells are already in the process or have been plugged just recently. With the other 7 wells, 5 of which should be going to the main tank battery, the BLM FFO is currently working on finalizing all our paperwork to send over to our state office to hopefully get money to plug those wells in 2026 through BIL funding and the bond.

I can provide a list of the wells that the BLM FFO is currently working on that are not yet covered to be plugged. Just let me know.

Thanks,

Matthew Kade
Petroleum Engineer
BLM - Farmington Field Office
6251 College Blvd
Farmington, NM 87402
Office: (505) 564-7736

From: Smith, Cory, EMNRD <cory.smith@emnrd.nm.gov>
Sent: Wednesday, August 28, 2024 2:14 PM
To: Kade, Matthew H <mkade@blm.gov>; Rennick, Kenneth G <krennick@blm.gov>; Griswold, Jim, EMNRD <Jim.Griswold@emnrd.nm.gov>
Cc: Wenman, Christopher P <cwenman@blm.gov>
Subject: RE: [EXTERNAL] Chuza Tank Battery Discussion

Kade,

While performing a desktop review OCD suspect's there may be wells/pipelines that are active/open coming into the tank battery. In the event that that OCD discovers pipelines/wells that are active does the OCD have permission to shut in the wells/valves to isolate the tank battery? Additional if those wells are shut are they scheduled to be plugged any time soon?

Cory Smith • Environmental Projects Supervisor
Environmental Bureau
EMNRD - Oil Conservation Division
5200 Oakland Avenue N.E Suite 100 | Albuquerque, NM 87113
505.419.2687 | Cory.Smith@emnrd.nm.gov
http://www.emnrd.state.nm.us/OCD/

From: Kade, Matthew H <mkade@blm.gov>
Sent: Wednesday, August 28, 2024 8:49 AM
To: Smith, Cory, EMNRD <cory.smith@emnrd.nm.gov>; Rennick, Kenneth G <krennick@blm.gov>; Griswold, Jim, EMNRD <Jim.Griswold@emnrd.nm.gov>
Cc: Wenman, Christopher P <cwenman@blm.gov>
Subject: Re: [EXTERNAL] Chuza Tank Battery Discussion

Good morning Cory,

The BLM has determined that there is no operator on record for the Chuza Tank Battery located in SE/4 of Section 10, Township 30N, Range 16W. The previous operator was Chuza Oil Company, who is/was going through bankruptcy proceedings. Chuza was the operator to expand the amount of production equipment on location from only a couple of tanks to what is on location now. The majority of the previous record title owners on the lease have been unresponsive or are no longer around. According to Federal Regulations, the BLM also cannot get the few responsive previous record title owners of the lease to salvage/remediate equipment that was not there when those previous record title owners operated the wells.

The BLM is therefore requesting that OCD do the salvage/remediation of the Chuza Tank Battery. The BLM requests that all the equipment be removed along with the pipe fencing at the entrance to the pad, the pad be recontoured back to the access road/entrance to the pad, and the pad be reseeded. Sampling of the soil around the tanks may be necessary to make sure that the soil is not saturated with hydrocarbons, especially around the open top tank where we know there is oil saturation in the soil. The OCD can use any proceeds from the sale or salvaging of the equipment and apply it to the remediation. As long as all work will stay on the already approved pad which includes around the open top tank, no additional surveys or approvals should be necessary from the BLM.

If there is anything else the OCD needs from the BLM, please let us know. I have also c.c'd Chris Wenman, Supervisory Natural Resource Specialist with the Farmington Field Office.

Thank you,

Matthew Kade
Petroleum Engineer
BLM - Farmington Field Office
6251 College Blvd
Farmington, NM 87402
Office: (505) 564-7736

From: Smith, Cory, EMNRD <cory.smith@emnrd.nm.gov>
Sent: Tuesday, August 27, 2024 9:28 AM
To: Rennick, Kenneth G <krennick@blm.gov>; Griswold, Jim, EMNRD <Jim.Griswold@emnrd.nm.gov>; Kade, Matthew H <mkade@blm.gov>
Subject: RE: [EXTERNAL] Chuza Tank Battery Discussion

Good morning Gentleman,

Outlook

Chuza Wells Still Needing to be Plugged

From Kade, Matthew H <mkade@blm.gov>
Date Thu 10/17/2024 2:43 PM
To jim.griswold@emnrd.nm.gov <Jim.Griswold@emnrd.nm.gov>
Cc Rennick, Kenneth G <krennick@blm.gov>

Good afternoon Jim,

Thank you for giving us a call earlier.

Here is a list of the wells that the BLM has exhausted our processes of going after current and previous record title owners on the leases for and still need to be plugged.

NE Hogback Unit No. 55 (API#30-045-29271)
NE Hogback Unit No. 52 (API#30-045-30090)
NE Hogback Unit No. 53 (API#30-045-30091)
NE Hogback Unit No. 60 (API# 30-045-30361)
NE Hogback Unit No. 56 (API#30-045-29350)

NE Hogback Unit No. 73H (API#30-045-34754)
NE Hogback Unit No. 74H (API#30-045-34755)

Based on BLM records, the first five wells are all vertical and should all go to the main facility. The other two wells are the horizontals, and we believe go to the facility located on the 74H pad.

Regards,

Matthew Kade
Petroleum Engineer
BLM - Farmington Field Office
6251 College Blvd
Farmington, NM 87402
Office: (505) 564-7736

BLM FLUID MINERALS
P&A Geologic Report

AFMSS ID: 2820045 **Date Completed:** 10/31/2024

Well No.: NE Hogback Unit 56 (API 30-045-29350)		Location:	1570'	FSL	&	2090' FWL
Lease No.: NMNM 077281		NESW	Sec. 11		T30N	R16W
Operator: Chuza Oil Company		County:	San Juan		State:	New Mexico
Total Depth: 2160'	2100' (PBTD)	Formation:	Gallup			
Elevation (GL): 5414'		Elevation (KB):				

Geologic Formations	Log Top	Remarks
San Jose Fm		
Nacimiento Fm		
Ojo Alamo Ss		
Kirtland Shale		
Fruitland Fm		
Pictured Cliffs Ss		
Lewis Shale		
Chacra		
Cliff House Ss		
Menefee Fm		
Point Lookout Ss		Possible gas/water
Mancos Shale	460	Oil & gas
Gallup	1560	Oil & gas
Greenhorn		
Graneros Shale		
Dakota Ss		

Remarks:
P&A

- Current and previous record title owners were exhausted, Well in process of being deemed orphaned by BLM
- Gallup perfs 1923 – 2035'
- BLM approves of submitted formation tops

Reference Wells:
Chuza Oil Co Inc.
NE Hogback Unit 55 (3004529271)
NWNW, Sec 14, T30N, R16W

Prepared by: Matthew Kade
With help from Aleksandr Knapowski

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Farmington District Office
6251 College Boulevard, Suite A
Farmington, New Mexico 87402
http://www.blm.gov/nm

CONDITIONS OF APPROVAL

October 31, 2024

Notice of Intent - Plug and Abandonment

Current Operator: Chuza Oil Company
Lease: NMNM077282
Unit: NMNM78403A
Well(s): NE Hogback Unit 56, API # 30-045-29350
Location: NESW Sec 11 T30N R16W (San Juan County, NM)
Sundry Notice ID#: 2820045

The Notice of Intent to Plug and Abandon is accepted with the following Conditions of Approval (COA):

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

2. Send electronic copy of CBL to BLM Petroleum Engineers Matthew Kade (mkade@blm.gov) and Kenneth Rennick (krennick@blm.gov)

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

You are also required to place cement excesses per 4.2 and 4.4 of the attached General Requirements. Any estimated minimum sacks provided in procedure modification include necessary excesses.

Office Hours: 7:45 a.m. to 4:30 p.m. / Matthew Kade (mkade@blm.gov / 505-564-7736)

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

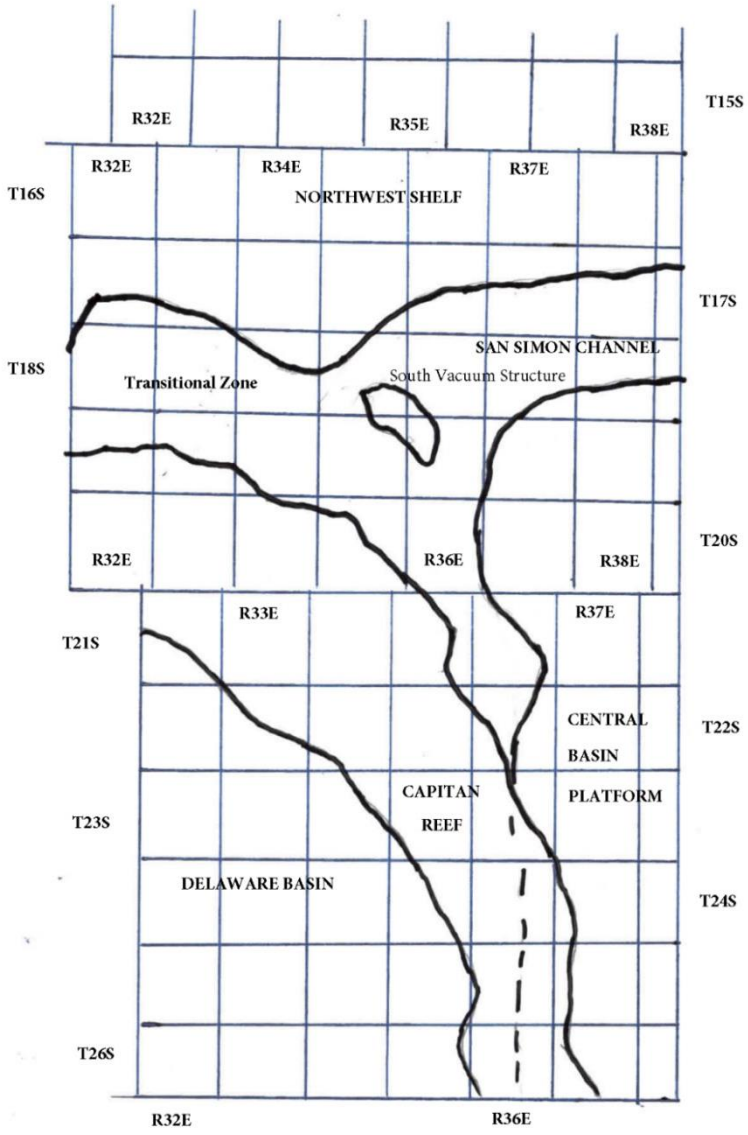


Figure D2 Formation Table

100' P'lug to isolate upper and lower fresh water zones (typiailly 2.50' to 350')						
ND!rthwest Shelf	C;iptan Reef Are<a	Trani5ition Zone	San Simon Oh.annel	South \lacJUUm Structure	Delaware Basin	Ce<n,tiral Basin Platform
Granit \./ash (Detrital basement material and fractured pre-Cambrian basement rock)	Siluro-Devonian	Morrow	Siluro-Devonian	Ellenburger	Siluro-Devonian	Granit \./ash (Detrital basement material, fractured pre-Cambrian basement rock and fracture Mafic Volcanic intrusives).
Montoya	Mississippian	Atoka	Morrow	Mckee	Morrow	Ellenburger
Fusselman	Morrow	Strawn	\./olfcamp	Siluro-Devonian	Atoka	Connell
Woodford	Atoka	Cisco	Abo Reef	Woodford	Strawn	Waddell
Siluro-Devonian	Strawn	Pennsylvanian	Bone Spring	Mississippian	Pennsylvanian	Mckee
Chester	Pennsylvanian	\./olfcamp	Delaware	Barnett Shale	Low er \./olfcamp	Simpson Group
Austin	\./olfcamp	Bone Spring	San Andres	Morrow	Upper \./olfcamp	Montoya
Mississippian	Abo Reef, if present	Delaware	Queen	Atoka	\./olfcamp	Fusselman
Morrow	Abo, if present	San Andres	Yates	Strawn	Third Bone Spring Sand (Top of \./olfbone)	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	Delaw are (Base of Salt)	\./olfcamp
Bough	Seven Rivers	Base of Salt		San Andres	Rustler	Abo
\./olfcamp	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 Low er Y eso (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
Pad dock (Township 15 South to Township 17 South)						Grayburg
Glorieta						Gr ayburg-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						

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https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Operator:	OGRID:
AZTEC WELL SERVICING CO 300 Legion Road Aztec, NM 87410	191362
	Action Number: 405641
	Action Type: [C-103] NOI Plug & Abandon (C-103F)

CONDITIONS

Created By	Condition	Condition Date
loren.diede	Notify the OCD inspection supervisor via email 24 hours prior to beginning Plug & Abandon (P&A) operations.	11/22/2024
loren.diede	A Cement Bond Log (CBL) is required for all Plug & Abandons (P&A) unless a CBL is currently on file with the OCD that can be used to properly evaluate the cement behind the casing.	11/22/2024