

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021

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.

5. Lease Serial No. **JIC92**

6. If Indian, Allottee or Tribe Name
JICARILLA APACHE

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

8. Well Name and No. **JICARILLA 92/18A**

9. API Well No. **3003929943**

10. Field and Pool or Exploratory Area
BLANCO MESAVERDE/BLANCO MESAVERDE

11. Country or Parish, State
RIO ARRIBA/NM

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator **LOGOS OPERATING LLC**

3a. Address **2010 AFTON PLACE, FARMINGTON, NM 87401** 3b. Phone No. (include area code)
(505) 278-8720

4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)
SEC 29/T27N/R3W/NMP

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

TYPE OF SUBMISSION	TYPE OF ACTION				
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off	
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity	
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other	
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon		
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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.)

LOGOS Operating, LLC request permission to plug and abandoned subject well per the updated attached procedure.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)
ETTA TRUJILLO / Ph: (505) 324-4154

Signature (Electronic Submission) _____ Title **Regulatory Specialist**

Date **03/07/2024**

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by _____ Title _____ 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)



Proposed Plug and Abandonment Procedure

Jicarilla 92 18A

API: 30-039-29943

Notes:

- LOGOS requests to P&A the subject well.
 - All cement volumes use 100% excess outside pipe and 50' excess inside.
 - All plugs are planned to be inside only plugs.
 - All cement will be Class G with a 1.15 cf/sk yield or equivalent.
 - BLM & Jicarilla will be notified at least 24 hours prior to beginning work.
1. Comply with all tribal, BLM, and LOGOS safety rules and regulations. Conduct safety meeting for all personnel on location.
 2. MOL and RU. Lay flow lines. Check and record bradenhead and casing pressures.
 3. Roll hole with fresh water and pressure test the casing to 560 psi for 15 minutes.
 - a. If pressure test fails, WOC and tag and record each plug top and top off with more cement if necessary.
 4. PU work string and TIH.
 5. **Plug #1: 5558'- 5720' (Perforations: 5748' / CIBP: 5720' / Mesaverde top: 5608')**: Mix and spot 17 sx Class G cement.
 6. **Plug #2: 4923'-5023' (Chacra: 4973')**: Mix and spot 12 sx Class G cement.
 7. **Plug #3: 4209'- 4309' (TOL: 4259')**: Mix and spot 23 sx Class G cement.
 8. **Plug #4: 3474'- 4062' (Pictured Cliffs top: 4012' / Fruitland top: 3750' / Kirtland top: 3653' / Ojo Alamo top: 3524')**: Mix and spot 123 sx Class G cement.
 9. **Plug #5: 2668'-2768' (Nacimiento top: 2718')**: Mix and spot 29 sx Class G cement.
 10. **Plug #6: 0'-393' (Surface casing shoe: 343')**: Mix and spot 85 sx Class G cement.
 11. ND BOP and cut off wellhead below surface casing flange. Top off with cement if needed. Install P&A marker with cement per regulations. Photograph P&A marker in place. Cut off anchors and restore location per BLM stipulations.



Jicarilla 92 18A P&A Planning

Formations	Tops (ft)
Surface	0
Csg Shoe	343
Nacimiento	2718
Ojo Alamo	3524
Kirtland	3653
Fruitland	3750
Pictured Cliffs	4012
TOL	4259
Chacra	4973
Mesaverde	5608
CIBP	5720

9-5/8" csg & 7" csg capacity	0.1668	cf/ft
8-3/4" hole & 7" csg capacity	0.1503	cf/ft
7" csg capacity	0.221	cf/ft
4.5" liner capacity	0.0873	cf/ft
Yield	1.15	

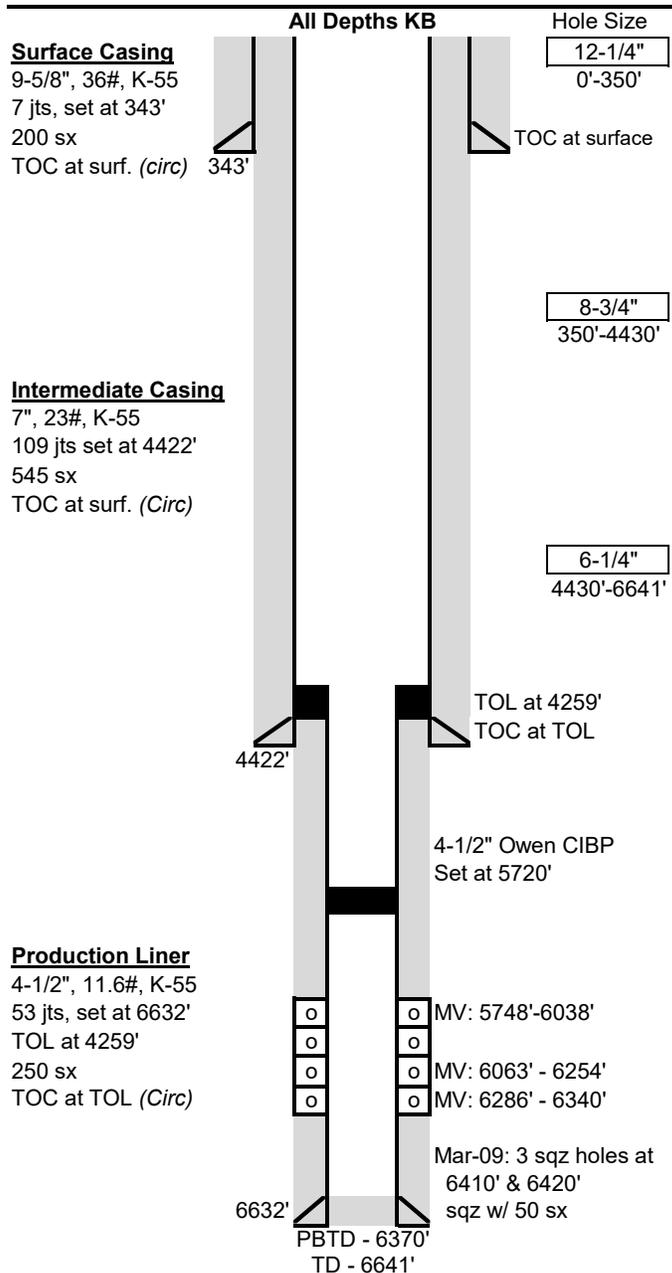
Plugs	Reason	Inside/Outside	Top	Bottom	Total Length of Plug (ft)	Inside Csg Volume (cf/ft)	Outside Csg Volume (cf/ft)	# of sx inside (1.15 yield & 50' excess)	# of sx outside (1.15 yield & 100% excess)	Total # sx
1	Perfs/CIBP/MV	Inside	5558	5720	162	0.0873	-	17		17
2	Chacra	Inside	4923	5023	100	0.0873	-	12		12
3	TOL	Inside	4209	4309	100	0.0873/0.221	-	23		23
4	PC/Fruitland/Kirtland/Ojo	Inside	3474	4062	588	0.221	-	123		123
5	Nacimiento	Inside	2668	2768	100	0.221	-	29		29
6	Surface	Inside	0	393	393	0.221	-	85		85
Grand total cmt										289



Wellbore Schematic

Well Name: Jicarilla 92 18A
 Location: Sec 29, T27N, R03W 1850' FNL & 2000' FEL
 County: Rio Arriba
 API #: 30-039-29943
 Co-ordinates: Lat 36.5465355° Long -107.1659164°
 Elevations: GROUND: 7262'
 KB: 7276'
 Depths (KB): PBDT: 6370'
 TD: 6641'

Date Prepared: 8/4/2021 M.Hespe
 Reviewed By: 8/6/2021 S. Gomez
 Spud Date: 2/3/2009
 Completion Date: 3/12/2009
 Last Workover Date: 12/1/2011 TA



Surface Casing: (2/3/2009)
 Drilled a 12-1/4" surface hole to 350'. Set 7 jts 9-5/8", 36#, K-55 csg at 343'.
 Cement w/ 200 sx Prem Class G(yld 1.2) // Circulated 15 bbls cement to surface.

Intermediate Casing: (2/13/2009)
 Drilled a 8-3/4" intermediate hole to 4430'. Set 109 jts 7", 23#, K-55 csg at 4422'.
 Cement lead w/ 445 sx extendacem (yld- 2.723) // Cement tail w/ 100 sx premium (yld- 1.178) // Circulate 100 bbls to surface // TOC at surface

Production Liner: (2/18/2009)
 Drilled a 6-1/4" production hole to 6641'. Set 53 jts 4-1/2", 11.6#, K-55 csg at 6632'.
 TOL at 4259' // Cement w/ 250 sx fraccem (yield 1.396) // Circulate 14 bbls to pit
 TOC at surface per circulation
 3/10/2009: Shoot 3 sqz holes at 6410' & 3 sqz holes at 6420' // Set CR at 6370'
 Sqz 50 sx Class G neat cement, sting out of CR & rev out 1 bbl cement.

Perforations: (3/12/2009)
MV: (5748'-6038') 1 SPF, 0.35" holes // 24 bbls 15% HCL
 Frac w/ 1239# 20/40 BASF, 5000# mono prop, 5100# 20/40 BASF

MV: (6063'-6254') 1 SPF, 0.34", 60 holes
 Acidized w/ 1000 gal 15% HCL // Frac w/ 819# 20/40 BASF sand, 5000# mono prop
 Screened out during frac

MV: (6286'-6340') 25, 0.34" holes // Acidized w/ 500 gals 15% HCL
 69# 20/40 BASF, 1640# mono prop, 273# 20/40 BASF

Formations:

Nacimiento	2718'
Ojo Alamo	3524'
Kirtland	3653'
Fruitland	3750'
Pictured Cliffs	4012'
Chacra	4973'
Mesaverde-	5608'

Additional Notes:
 12/1/2011: TA Well // Found collar at 5700', Set 4-1/2" Owen CIBP at 5720'
 filled wellbore and pressure tested.

10/14/2016: BH Test passed // Filled wellbore and pressured up to 550 psi

Max deviation 2.75°

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

AFMSS 2 Sundry ID 2773314

Attachment to notice of Intention to Abandon

Well: Jicarilla 92 18A

CONDITIONS OF APPROVAL

1. Plugging work must be completed by November 1, 2024.
2. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."
3. The following modifications to your plugging program are to be made:
 - a. Add a plug to cover a minimum 50 ft below and above the BLM selected formation top location of the Chacra at 4973 ft-depth.
 - b. Adjust plug 3 bottom to cover 50 ft below Pictured Cliffs formation top location selected by the BLM at 4012 ft-depth. 4062 ft, or deeper, should be plug 3 adjusted bottom location.
 - c. For the BLM selected formation top location of the Fruitland at 3750 ft-depth, it is recommended to combine plug 3 and 4. Or an adjustment to cover a minimum 50 ft above and below the location.
4. Farmington Office is to be notified at least 24 hours before the plugging operations commence at (505) 564-7750.
5. Before or within 30 days after completing work, Logos Operating LLC 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 02/07/2024

Well Name: JICARILLA 92	Well Location: T27N / R3W / SEC 29 / SWNE / 36.546536 / -107.165943	County or Parish/State: RIO ARRIBA / NM
Well Number: 18A	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name: JICARILLA APACHE
Lease Number: JIC92	Unit or CA Name:	Unit or CA Number:
US Well Number: 3003929943	Well Status: Temporarily Abandoned	Operator: LOGOS OPERATING LLC

Notice of Intent

Sundry ID: 2773314

Type of Submission: Notice of Intent

Type of Action: Plug and Abandonment

Date Sundry Submitted: 02/05/2024

Time Sundry Submitted: 09:54

Date proposed operation will begin: 04/01/2024

Procedure Description: LOGOS Operating, LLC request permission to plug and abandoned subject well per the attached procedure.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

Jicarilla_92_18A_P_A_Procedure_20240205095220.pdf

Well Name: JICARILLA 2	Well Location: T27N / R3W / SEC 29 / SWNE / 36.546536 / -107.165943	County or Parish/State: RIO ARRIBA / NM
Well Number: 18A	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name: JICARILLA APACHE
Lease Number: JIC92	Unit or CA Name:	Unit or CA Number:
US Well Number: 3003929943	Well Status: Temporarily Abandoned	Operator: LOGOS OPERATING LLC

Conditions of Approval

Specialist Review

- 27N03W29_Jic_92_18A_Geo_KR_20240207140039.pdf
- 2773314_NOIA_92_18A_3003929943_KR_02072024_20240207140039.pdf
- General_Requirement_PxA_20240207140020.pdf

Operator

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: ETTA TRUJILLO **Signed on:** FEB 05, 2024 09:53 AM

Name: LOGOS OPERATING LLC

Title: Regulatory Specialist

Street Address: 2010 AFTON PLACE

City: Farmington **State:** NM

Phone: (505) 324-4154

Email address: ETRUJILLO@LOGOSRESOURCESLLC.COM

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

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:** 02/07/2024

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 2773314

Attachment to notice of Intention to Abandon

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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 02/07/2024

**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 run 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 H₂S.

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.

**BLM FLUID MINERALS
P&A Geologic Report**

Date Completed: 02/07/2024

Well No. Jicarilla 92 18A (API 30-039-29943)		Location	SWNE			
Lease No. JIC92		Sec. 29	T 27N		R 3W	
Operator Logos Operating LLC		County	Rio Arriba	State	New Mexico	
Total Depth 6641'	PBTD 6370'	Formation Mesaverde				
Elevation (GL) 7262'		Elevation (KB) 7276'				

Geologic Formations	Est. Top	Est. Bottom	Log Top	Log Bottom	Remarks
San Jose Fm					Surface/freshwater sands
Nacimiento Fm			2718		Possible freshwater sands
Ojo Alamo Ss			3524		Aquifer (possible freshwater)
Kirtland Shale			3653		
Fruitland Fm			3750		Coal/Gas/Possible water
Pictured Cliffs Ss			4012		Gas
Lewis Shale					
Chacra			4973		Gas
Cliff House Ss			5740		Water/Possible gas
Menefee Fm					Coal/Ss/Water/Possible O&G
Point Lookout Ss					Probable water/Possible O&G
Mancos Shale					
Gallup					O&G/Water
Greenhorn					
Graneros Shale					
Dakota Ss					O&G/Water

Remarks:

Limited raster log data for the formation tops of Mesaverde and Chacra. The Apache #001E reference well justifies the locations selected by the BLM. Mesaverde/ Cliff House top at 5740 ft-depth. **Chacra top at 4973 ft-depth.** The proposed plug by the operator for the Mesaverde is still appropriate. Even though the CIBP is already set 20 ft higher than the BLM location. **A plug will have to be added for the Chacra top location.**

The raster log data and Tribal 05 #001 justifies the formation top locations selected by the BLM for the Pictured Cliffs and Fruitland. **Pictured Cliffs top at 4012 ft-depth. Fruitland top at 3750 ft-depth.** Plug 3 bottom need to be adjusted to be 50 ft below Pictured Cliffs depth. 4062 ft, or deeper, should be plug 3 adjusted bottom location. **It is recommended to combine plug 3 and 4 to account the BLM location for the Fruitland top. Or an adjustment to cover a minimum 50 feet above and below the location.** The formation tops of the Kirtland to Nacimiento selected by the operator are appropriate.

The raster log and the reference wells did not indicate a San Jose formation top location below surface.

Reference Well:

Tribal 05 #001
(Pictured Cliffs – Nacimiento)
US Well No. 30-039-29238
T 26N, R 3W
Rio Arriba County, NM

Apache #001E
(Mesaverde – Chacra)
US Well No. 30-039-22689
T 26N, R 3W
Rio Arriba County, NM

Prepared by: Kenneth Rennick

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 321341

CONDITIONS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 321341
	Action Type: [C-103] NOI Plug & Abandon (C-103F)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	approved for record only	3/11/2024