Received by OCD: 2/26/2025 9:45:45	State of New Mexico		Form C-103 of 28
Office <u>District I</u> – (575) 393-6161	Energy, Minerals and Natural Re	sources WELL API NO.	Revised July 18, 2013
1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> – (575) 748-1283	OIL CONSERVATION DIVI	30)-015-45204
811 S. First St., Artesia, NM 88210 District III – (505) 334-6178	1220 South St. Francis D	5. Indicate Type of	
1000 Rio Brazos Rd., Aztec, NM 87410	Santa Fe, NM 87505	6. State Oil & Gas	FEE X
<u>District IV</u> – (505) 476-3460 1220 S. St. Francis Dr., Santa Fe, NM	Sunta 1 0, 1414 073 03	o. State Off & Gas	Lease No.
87505 SUNDRY NOT	ICES AND REPORTS ON WELLS	7. Lease Name or U	Jnit Agreement Name
	SALS TO DRILL OR TO DEEPEN OR PLUG BAC CATION FOR PERMIT" (FORM C-101) FOR SUCI	K TO A	
1. Type of Well: Oil Well	Gas Well Other SWD	8. Well Number 1	
2. Name of Operator Solaris Water Midstream, LLC		9. OGRID Number 371643	
3. Address of Operator		10. Pool name or V	Vildcat
9651 Katy Freeway, Suite 400,	Houston, TX 77024	SWD; Devonian-S	ilurian
4. Well Location		·	
	2443 feet from the South line		
Section 12	Township 24 S Range 30		County Eddy
	11. Elevation (Show whether DR, RKB, 3,535'	RT, GR, etc.)	
	3,555		
12. Check	Appropriate Box to Indicate Nature	of Notice, Report or Other D	ata
		•	
NOTICE OF IN PERFORM REMEDIAL WORK □	ITENTION TO:		
TEMPORARILY ABANDON			LTERING CASING AND A
PULL OR ALTER CASING		NG/CEMENT JOB	_
DOWNHOLE COMMINGLE	_	Notify OCD 24 hrs. prior to	
CLOSED-LOOP SYSTEM	DI O AL I STI OTUM	done, gilbert.cordero@emr	ord.nm.gov
OTHER: 13 Describe proposed or comp	Plug & Abandon 🔲 OTHI oleted operations. (Clearly state all pertiner		including estimated date
	ork). SEE RULE 19.15.7.14 NMAC. For l		
proposed completion or rec		rumpre Comprehensi Tittaen wer	10010 diagram of
Solaris Water requests per	nission to P&A this wellbore as outlined be	elow and in the proposed P&A wel	lbore diagram.
See the proposed w	ell bore diagram and cover letter	for the plugging scope	
occ the proposed w	cii bore diagram and cover letter	ior the plugging scope.	
G 15 10/12/2010	D: D: D: [01/17/2019	7
Spud Date: 10/13/2018	Rig Release Date:	01/1//2019	
SEE AT	TACHED COA's MUST BE P	LUGGED BY 9/12/26	_
I hereby certify that the information	above is true and complete to the best of n		
SIGNATURE JAHA	Macton TITLE Regulators For	oinean DAT	T 00/00/2025
SIGNATURE THE SIGNATURE	TITLE Regulatory En	gnicer DAT	E_09/09/2025
Type or print name <u>Faith Malton</u> <u>For State Use Only</u>	E-mail address: Faitl	n.malton@ariswater.com PHO	NE: <u>932-454-0001</u>
APPROVED BY:	TITLE Stake	L Manager DATI	E 9/24/25
Conditions of Approval (if any):		/ / /	



SOLARIS WATER MIDSTREAM, LLC MAD COW SWD NO. 1 (30-015-45204) Eddy County, New Mexico

PROPOSED PLUGGING PROCEDURE September 26, 2025 AFE Number

Objective:

Plug and abandon the wellbore.

Directions to Well:

Turn south off Highway 128 (Jal Highway) onto Twin Wells Road. Go 5.3 miles and turn right just behind the big Oxy tank battery and follow the road 0.9 miles, bearing to the right, then turn right (north). Go 0.25 miles to EOG SQUIRES ALR #002 pump jack, then turn left and go 0.1 mile to location.

Contact List:

Steve Bruington

Consulting Engineer Office:

Cell: 210-213-4251

Email: steveb@bruingtonengineering.com

210-828-8117

Jeffery Cook Cell: 713-614-3644

VP, Engineering

Solaris Water Solutions, LLC Email: Jeffery.cook@ariswater.com

Sheriff's Department 911

Eddy County (Non-Emergency) 575-887-7551

Fire Department 911

Eddy County Fire Rescue 575-628-5450

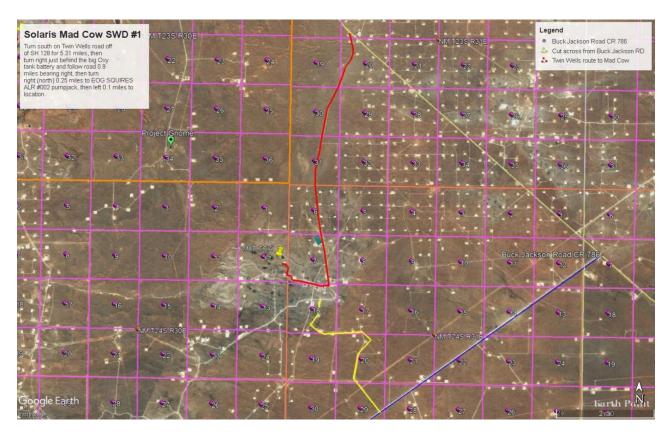


Ambulance, EMS 911

Carlsbad EMS (Non-Emergency) 575-885-3125

Latitude (NAD83) 32.2318593N Longitude (NAD83) 103.8293325'W

Elevation 3535'



Nearest Hospital:

Carlsbad Medical Center 2430 W. Pierce St., Carlsbad, NM 88220 575-887-4100



WELL DATA:

- 20", 94#/ft, J55, BTC surface casing set at 667'; cement circulated to surface
- 13-3/8", 68#/ft, J55, BTC (0-3079') and 72#/ft, HCP-110, BTC (3079'-4269') intermediate casing set at 4269'; circulated 500 barrels of cement to surface
- 9-5/8", 53.5#/ft, HCP-110, 8R, LTC intermediate casing set at 10,748'; DV tool with ECP set at 4244'; cement was not circulated to surface thru the DV tool
- 7-5/8", 39#/ft, P110, EZGO, FJ3 liner set from 14,387'-10,470'with Peak liner top packer
- 5-1/2", 23#/ft, HCP110, EZGO, FJ3, (51 joints) liner with Halliburton Versa flex expandable liner hanger: top of liner at 14,379'; cemented to top of liner; liner set from 16,615'-14,379'
- 5-1/2", 23#/ft, HCP-110, EZGO, FJ3 scab liner with Halliburton VersaFlex liner hanger set from 14,386'-14,273'
- Drilled 4-1/2" hole to 17,650'; mud weight = 10.7 ppg cut brine
- Injection interval: 16,615'-17650' (Devonian)
- 232 joints 5-1/2", 20#/ft, HCP-110, EZGO, HTGT tubing from 0'-10,130'
- 98 joints of 5", 20/ft, P110, EZGO, FJ3 tubing from 10,130'-14,042'
- 78 joints of 3-1/2", 9.3#/ft, L80, EZGO, FJ3 tubing from 14,042'-16,658'; spaced out with slick joint and 2 pup joints with Halliburton 3" ATR locator seal unit (2.96" x 2.328") with 40,000# weight on the packer (65,000# slackoff at the surface)
- 5-1/2" Halliburton BWS nickel plated permanent packer with 3-5/8" x 9.38" nickel alloy seal 925 bore extension set at 16,570'; 2-7/8", 6.5#/ft, L-80, EUE nickel plated pup joint, 3.673" x 2.313" nickel alloy XN-nipple with 2.205" No-Go; end of packer assembly at 16,570'. See attached packer setting detail.
- 13-3/8" x 13-5/8" 5000 psi C-22, SOW casing head
- 13-5/8" 5000 psi x 11" 10,000 psi tubing spool no trim description; (3) 1-13/16" 10,000 psi, gate valves
- 11" 10,000 psi x 5-1/8" 5000 psi adaptor flange
- 5-1/8" 5000 psi gate valve with FF trim
- 5-1/8" 5000 psi gate valve trim unknown
- 5-1/2" CT-SWD pin x 5" FJ3 crossover, 17-4 PH 1150 stainless steel tubing hanger
- 11", 10,000 psi C-22 x 5-1/2" CT-SWD bottom with 5" Acme lifting threads and 5" Type H back pressure valve, 718 Inconel

The 2 plugs and hole punchers were done without OCD approval or

- (2) 5-1/8" 5000 psi master valves
- Fluid in the annulus: 11.6 ppg CaCl₂
- SITP = 0 psi The 2 places and b
- SICP = 0 psi notification
- Set 2.75" OD Diamondback Eliminator bridge plug rated to 10,000 psi and 400° F at 16,555'; dumped 39' of cement on top of plug; the plug did not test
- Set 2.75" OD Diamondback Eliminator bridge plug rated to 10,000 psi and 400° F at 16,226'; tested the plug to 3000 psi; dumped 25' of cement on top of the plug
- Punched holes in the 3-1/2" tubing at 14,138'

Petroleum Engineering Consulting

APPROVED

GC 9/24/25



Elevation: 27' from ground level to kelly bushing

See COAs and adjust cement volumes accordingly

PROPOSED PROCEDURE:

This procedure is based on the following assumptions:

APPROVED GC 9/24/25

- The well is dead
- The CBLs for the 5-1/2" and 7-5/8" liners are on file with the NMOCD
- The regulatory filings indicate the 20" and 13-3/8" casings were cemented to surface
- 1. Notify NMOCD in Artesia (575-748-1283) at least 24 hours prior to performing plugging operations.
- 2. Check and record the SITP and SICP.
- 3. Move in and rig up Hurricane 24-hour workover rig with 3.5 power swivel, 11" 5000 psi BOPs with blind rams and 3-1/2" x 5-1/2" variable bore pipe rams on top and blind rams on bottom, accumulator unit, (2) 5-1/2" FJ3, 5" FJ3 and 3-1/2" FJ3 TIW valves, frac tanks, open top tanks, and pipe racks. The BOPs and TIW valves must have test charts indicating most recent pressure tests.
- 4. Bleed off the shut in pressure through the Force flowback manifold. If the pressure does not bleed to zero then circulated the well with 11.6 ppg CaCl₂ water.
- 5. Set two-way check valve in the tubing hanger to isolate the open hole.
- 6. Nipple down the injection tree and nipple up 11" 5000 psi BOPs with blind rams and 3-1/2" x 5-1/2" variable bore pipe rams and accumulator. Test the BOPs to 250 psi and 2000 psi. Record the tests on a recording chart.
- 7. Send the tree to AFS Energy Services.
- 8. Pull the two-way check valve.
- 9. Check the tubing and annulus for pressure. Pump kill weight fluid as necessary to kill the well. Perform ~30-minute flow check.
- 10. Rig up casing crew and laydown machine. Have back up set of tongs on location.
- 11. Place (2) 5-1/2", 5", and 3-1/2" TIW valves on the rig floor in the open position. Discuss with the rig crew a method to quickly pick up and stab the valve.
- 12. Rig up casing jacks. Make up 5-1/2" TIW valve with pup joint and screw into the tubing hanger. to tubing. Pick up tubing string to neutral weight (~341,500#). The tubing was landed with 40,000# of compression (65,000# slack off at the surface).
- 13. Rig up electric line truck with pack off and full lubricator and cut the tubing ~16,150'.
- 14. Allow the fluids to equalize and make sure the well is dead.
- 15. Lay down the tubing hanger and visually inspect the tubing hanger. Send to AFS Energy Services.

Petroleum Engineering Consulting

See COAs and adjust cement volumes accordingly



BRUINGTON ENGINEERING, LLC

APPROVED GC 9/24/25

- 16. Pull out of the hole laying down the 5-1/2", 5", and 3-1/2" tubing and seal assembly. Install thread protectors if available. Do not rotate the tubing more than 25 rpms. Send tubing to PetroSmith.
- 17. KEEP THE HOLE FULL OF KILL WEIGHT FLUID WHILE PULLING OUT OF THE HOLE. Monitor wellbore fill volume out of reverse unit open top tank.
- 18. Prepare the location to receive a 3-1/2" work string. Clean and drift tubing.
- 19. Rig up electric line truck with full lubricator. Make gauge ring and junk basket run to 16,150'. Set cast iron bridge plug in 5-1/2" liner at 16,150'. Test the casing to 2000 psi. Dump 35' of cement (5 sacks) on top of the cast iron bridge plug.
- 20. Spot cement 14733' 14633' 7 5/8' Shoe
- 21. Trip in the hole open ended with 3-1/2" tubing to ~14,500'. Spot ~10 barrels (40 sacksf sacks) of Class E cement from 14,500'-14,350' (across the Morrow). Pull out of the hole to ~14,000'. Wait on cement for 6 hours. Trip in the hole and tag cement. Displace well with kill weight mud ~11.5 ppg mud.
- 22. Pull out of the hole to 11,420'. Spot 10-barrel (50 sacks) of Class E cement plug from 11,420'-11,270' (across the Wolfcamp). Pull out of the hole to 11,000' and wait on cement for 6 hours. Trip in the hole and tag plug.
- 23. Spot cement 10798' 10698' 9 8/8" Shoe
- 24. Pull out of the hole with 3-1/2" tubing.
- 25. Make a gauge ring and junk basket run to ~10,450'. Set cast iron bridge plug at 10,450'. Test the cast iron bridge plug to 2000 psi. Dump 35' (15 sacks) of cement on top. Run RCBL if needed
- 26. If there is no cement across the 1st Bone Springs at 8930' then perforate for a squeeze at 8980' with a 3-1/8" casing gun. Set cement retainer at ~8880'. Trip in the hole with 3-1/2" tubing. Sting into the retainer and squeeze 15 barrels (report the number of sacks) of Class G or H cement into the 9-5/8" x 12-1/4" annulus. Sting out of the retainer and leave ~100' of cement (75 sacks) on top of the retainer. WOC & Tag @ 7980' T BS
- 27. Perforate the 9-5/8" casing ~100' above the top of the cement. Set cement retainer 100' above the perforations. Trip in the hole with 3-1/2" tubing and sting into the cement retainer. Attempt to establish circulation from the 9-5/8" x 13-3/8" annulus.
- 28. If circulation is established then squeeze 150' cement plug (80 sacks) in the annulus, pull out of the retainer and spot 150' cement plug (45 sacks) on top of the retainer. If circulation is not established then spot 150' cement plug (report the number of sacks) in the 9-5/8" casing. WOC & Tag
- 29. Pull out of the hole with 200' of tubing and wait on cement for 6 hours. Trip in the hole and tag cement. Pull out of the hole with 3-1/2" tubing.
- 30. Nipple down blowout preventers and weld on 9-5/8" pull nipple and remove casing slips. Nipple up blowout preventers. Go in the hole with jet cutter and cut the 9-5/8" casing above the top of the cement. Note: there is an external casing packer on the 9-5/8" at 4244'.
- 31. Trip in the hole with open ended 3-1/2" tubing to 4320'. Spot 150' cement plug (45 sacks) from 4320'-3990'. Pull out of the hole to ~3950' and wait on cement for 6 hours. Trip in the hole and tag cement.
- 32. Run RCBL to surface

Petroleum Engineering Consulting



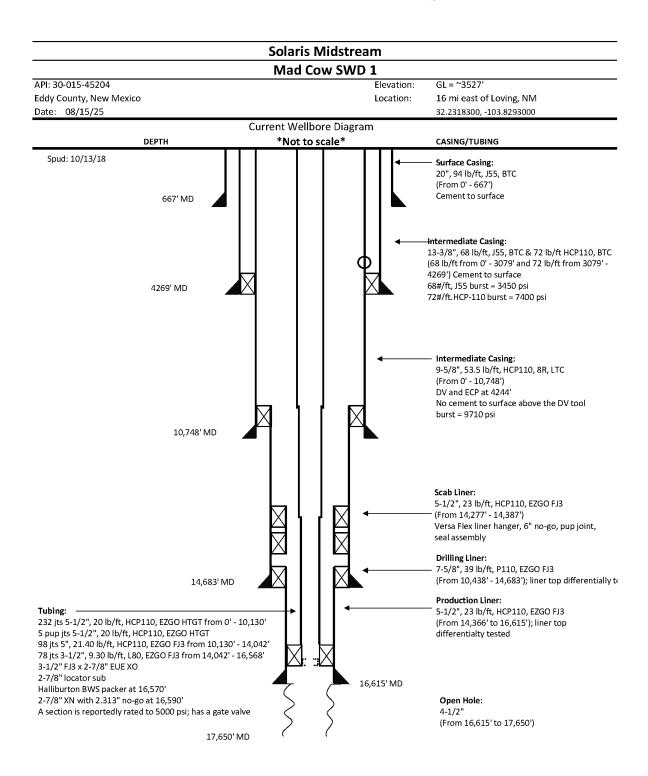
APPROVED GC 9/24/25

- BRUINGTON ENGINEERING, LLC
- 30. Pull out of the hole to ~1170' and spot 150' cement plug (45 sacks) from 1170'-1020'. Wait on cement for 6 hours and tag the plug.
- 31. Lay down the 3-1/2" work string and nipple down 11" blowout preventers.
- 32. Cut off the 13-3/8", 20" and 30" ~ 4' below ground level. Fill in the cellar and casing with cement. Monitor for 30 minutes.
- 33. A steel plate at least 4" in diameter must be set in cement on top of the exact well location and extend at least 4" above ground level. The marker must include the following information:
 - Operator name
 - Lease name and well number
 - API number
 - Unit letter
 - Section, Township and Range
- 34. Clean up the location.

NOTE: THIS IS INTENDED TO SERVE AS A GUIDE AND MAY CHANGE AS WELLSITE CONDITIONS DICTATE.

HOLD SAFETY MEETINGS TO DISCUSS ALL NON-ROUTINE OPERATIONS.
WE ARE NOT IN A HURRY TO THE EXTENT WE CREATE A HAZARDOUS
SITUATION. KEEP SAFETY FIRST!





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,
 - South Contact, Gilbert Cordero, 575-626-0830, gilbert.cordero@emnrd.nm.gov
- 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:
 - o 4 hours for accelerated (calcium chloride) cement.
 - o 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
 - o 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 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

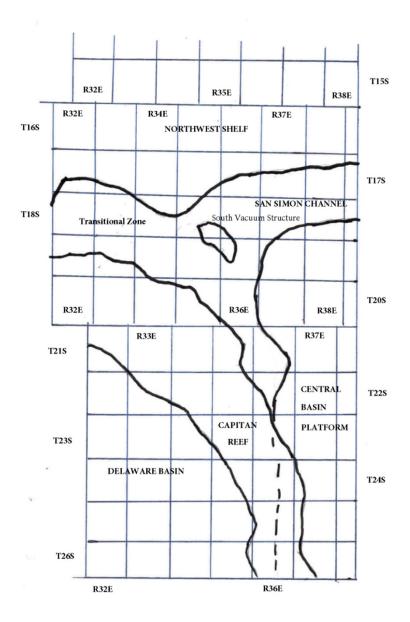


Figure D2 Formation Table

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						Granit Wash (Detrital	
basement material and						basement material,	
fractured pre-Cambrian	Siluro-Devonian	Morrow	Siluro-Devonian	Ellenburger	Siluro-Devonian	fractured pre-Cambrian	
basement rock)						basement rock and fracture	
basement rock)						Mafic Volcanic intrusives).	
Montoya	Mississippian	Atoka	Morrow	Mokee	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		ТиЬЬ	
Yeso (Township 15 South to	Rustler					Blinebry	
Township 17 South)	nastiei					Billiebly	
Drinkard or Lower Yeso							
(Township 15 South to						Paddock	
Township 17 South)							
Tubb (Township 15 South to						Glorieta	
Township 17 South)						Cioneta	
Blinebry (Township 15 South						San Andres	
to Township 17 South)						Dan Andres	
Paddock (Township 15 South to Township 17 South)						Grayburg	
Glorieta						Grayburg-San Andres	
San Andres						Queen	
Queen (Township 15 South						S Di	
to Township 17 South)						Seven Rivers	
Seven Rivers (Township 15						Yates	
South to Township 17 South)						i ates	
Yates (Township 15 South to						Base of Salt	
Township 17 South) Base of Salt				1		Rustler	
						Hustier	
Rustler							

EXHIBIT "A" CASE 9316 ORDER **R-111-P**

CONSOLIDATED LAND **DESCRIPTION** OF THE KNOWN POTASH **LEASING AREA**, AS OF FEBRUARY **3**, **1988**

EDDY COUNTY, NEW MEXICO

TOWNSHIP 18 SOUTH, RANGE 30 EAST, NMPM

Section 10: **SE/4** SE/4

Section 11: S/2 SW/4

Section 13: W/2 SW/4 and SE/4 SW/4
Section 14: W/2 NE/4, NW/4 and S/2

Section 15: E/2 NE/4, SE/4 SW/4 and SE/4 Section 22: N/2, N/2 SW/4, SE/4 SW/4 and SE/4

Section 23: Al

Section 24: N/2 NW/4, SW/4 NW/4 and NW/4 SW/4

Section 26: NE/4, N/2 NW/4 and SE/4 NW/4

Section 27: N/2 NE/4 and NE/4 NW/4

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM

Section 11: SE/4 SE/4

Section 12: SE/4 NE/4 and S/2

Section 13: All

Section 14: NE/4, SE/4 NW/4 and S/2

Section 15: SE/4 SE/4

Section 22: NE/4, E/2 W/2 and SE/4

Section 23: All Section 24: All

Section 25: NW/4 NW/4

Section 26: N/2 NE/4 AND NW/4 Section 27: NE/4 AND E/2 NW/4

TOWNSHIP 19 SOUTH, RANGE 30 EAST, NMPM

Section 2:SW/4

Section 3: W/2 SW/4, SE/4 SW/4, S/2 SE/4 and

NE/4 SE/4

Section 4: Lots 3 and 4. SW/4 NE/4, S/2 NW/4

and S/2

Section 5: Lots 1, 2, and 3, S/2 NE/4,

S/2 NW/4 and S/2

Section 6: S/2 SE/4 and NE/4 SE/4

Sections 7 to 10 inclusive

Section 11: S/2 NE/4, NW/4 NW/4 and S/2

Section 12: NE/4, S/2 NW/4 and S/2

Section 13: NE/4, W/2, N/2 SE/4 and SW/4 SE/4

Sections 14 to 18 inclusive

Section 19: Lots 1, 2, and 3, NE/4, E/2 NW/4,

NE/4 SW/4, E/2 SE/4 and

Released to Imaging: 10/1/2025 9:56:45 AM

NW/4 SE/4

Sections 20 to 23 inclusive

Received by OCD: 9/26/2025 9:35:45 AM

-2-EXHIBIT "A" con'd

Section 25: NW/4 NW/4

Section 26: NE/4 NE/4, W/2 NE/4, W/2, W/2 SE/4

and SE/4 SE/4

Section 27: Al1 Section 28: AI1

Section 29: E/2, E/2 NW/4 and NW/4 NW/4

E/2 and SE/4 SW/4 Sect ion 32:

Section 33 to 35 inclusive

Section 36: NW/4 NW/4, S/2 NW/4 and S/2

TOWNSHIP 19 SOUTH, RANGE 31 EAST, NMPM

Section 7: Lots 1, 2, and 3 and E/2 NW/4

Section 18: Lots 1, 2, and 3 and SW/4 NE/4,

E/2 NW/4 and NE/4 SW/4

Section 31: Lot 4 Section 34: SE/4 SE/4

Section 35: S/2 SW/4 and SW/4 SE/4

Section 36: S/2 SE/4

LEA COUNTY, NEW MEXICO

TOWNSHIP 19 SOUTH, RANGE 32 EAST, NMPM

Section 31: Lot 4

Section 33: Lots 1 to 4 inclusive and N/2 S/2 Section 34: Lots 1 to 4 inclusive and N/2 S/2 Section 35: Lots 1 to 4 inclusive and N/2 S/2 Section 36: Lots 1 to 4 inclusive, SE/4 NE/4, NW/4 SW/4 and NE/4 SE/4

TOWNSHIP 19 SOUTH, RANGE 33 EAST, NMPM

Section 22: SE/4 NE/4, E/2 SW/4 and SE/4 Section 23: S/2 NW/4, SW/4. W/2 SE/4 and

SE/4 SE/4

Section 25: SW/4 NW/4, W/2 SW/4 and SE/4 SW/4

Section 26: All Section 27: All

Section 28: S/2 SE/4 and NE/4 SE/4

Section 30: Lots 2 to 4 inclusive, S/2 NE/4,

SE/4 NW/4. E/2 SW/4 and SE/4

Section 31: All

Section 32: NE/4, S/2 NW/4 and S/2

Sections 33 to 35 inclusive

Section 36: W/2 NE/4, SE/4 NE/4, NW/4 and S/2

TOWNSHIP 19 SOUTH, RANGE 34 EAST, NMPM

Section 31 Lots 3 and 4

EXHIBIT "A" con'd

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EDDY COUNTY, NEW MEXICO

TOWNSHIP 20 SOUTH, RANGE 29 EAST, NMPM

Section 1: SE/4 NE/4 and E/2 SE/4

Section 13:

SW/4 NW/4, W/2 SW/4 AND SE/4 SW/4

Section 14:

NW/4 NE/4, S/2 NE/4, NW/4 and S/2

Section15:

E/2 E/2, SE/4 SW/4 and W/2 SE/4

Section 22: Section 23: E/2 and E/2 NW/4 ΑII

Section 24:

SW/4 NE/4, W/2, W/2 SE/4

and SE/4 SE/4

Section 25:

N/2, SW/4, W/2 SE/4 and NE/4 SE/4

Section 26:

Section 27:

E/2

Section 34: Section 35: NE/4

N/2

Section 36:

W/2 NE/4 AND NW/4

TOWNSHIP 20 SOUTH, RANGE 30 EAST, NMPM

Sections 1 to 4 inclusive

Section 5: Lots 1 to 3 inclusive, S/2 N/2

and S/2

Section 6 Lots 5, 6, and 7, S/2 NE/4, E/2 SW/4

and SE/4

Section 7 Lots 1 and 2. E/2 and E/2 NW/4

Sections 8 to 17 inclusive

Section 18

E/2

Section 19

E/2 and SE/4 SW/4

Sections 20 to 29 inclusive

Section 30:

Lots 1 to 3 inclusive, E/2 and

E/2 W/2

Section 31

E/4 and E/2 SE/4

Sections 32 to 35 inclusive

TOWNSHIP 20 SOUTH, RANGE 31 EAST, NMPM

Section 1 Lots 1 to 3 inclusive, S/2 N/2

and S/2

Section 2: All

Section 3:

Lots 1 and 2, S/2 NE/4 and SE/4

Section 6: Lots 4 to 7 inclusive, SE/4 NW/4,

E/2 SW/4, W/2 SE/4 and

SE/4 SE/4

Section 7: All

Section 8:

S/2 N/2 and S/2

Section 9: S/2 NW/4, SW/4, W/2 SE/4 and SE/4 SE/4

Section 10:

E/2 and SW/4

Section 11 to 36 inclusive

-4-EXHIBIT "A" con'd

LEA COUNTY, NEW MEXICO

TOWNSHIP 20 SOUTH, RANGE 32 EAST, NMPM

Sections 1 to 4 inclusive Section 5: S/2 SE/4

Section 6: Lots 4 to 7 inclusive, SE/4 NW/4,

E/2 SW/4 and SW/4 SE/4

Sections 7 to 36 inclusive

TOWNSHIP 20 **SOUTH**, RANGE 33 EAST, NMPM Sections 1 to 36 inclusive

TOWNSHIP 20 SOUTH, RANGE 34 EAST, NMPM

Section 6: Lots 3 to 7 inclusive, SE/4 NEW/4,

E/2SW/4, W/2 SE/4 AND

SE/4 SE/4

Section 7: All

Section 8: SW/4, S/2 NW/4, W/2 SE/4 and

SE/4 SE/4

Section 16:

W/2 NW/4, SE/4 NW/4, SW/4 and

S/2 SE/4

Sections 17 to 21 inclusive

Section 22:

N/2 NW/4, SW/4 NW/4, W/2 SE/4,

and SE/4 SE/4

Section 26:

SW/4, W/2 SE/4 and SE/4 SE/4

Sections 27 to 35 inclusive

Section 36:

SW/4 NW/4 and W/2 SW/4

EDDY COUNTY, NEW MEXICO

TOWNSHIP 21 SOUTH, RANGE 29 EAST, NMPM

Sections 1 to 3 inclusive

Section 4: Lots 1 through 16, NE/4 SW/4 and

SE/4

Section 5: Lot 1

Section 10:

N/2 NE/4, SE/4 NE/4 and SE/4 SE/4

Sections 11 to 14 inclusive

Section 15:

E/2 NE/4 and NE/4 SE/4

Section 23:

N/2 NE/4

Section 24:

E/2, N/2NW/4 and SE/4NW/4

Section 25:

NE/4 NE/4 and S/2 SE/4

Section 35:

Lots 2 to 4 inclusive, S/2 NE/4.

NE/4 SW/4 and N/2 SE/4

Section 36:

Lots 1 to 4 inclusive, NE/4,

E/2 NW/4 AND N/2 S/2

TOWNSHIP 21 SOUTH, RANGE 30 EAST, NMPM

Sections 1 to 36 inclusive

-5-**EXHIBIT** "A" CON'D

TOWNSHIP 21 SOUTH, RANGE 31 EAST, NMPM

Sections 1 to 36 inclusive

LEA COUNTY, NEW MEXICO

TOWNSHIP 21 SOUTH, RANGE 32 EAST, NMPM

Sections 1 to 27 inclusive

Section 28: N/2 and N/2 S/2

14/2 and 14/

Sections 29 to 31 inclusive

Section 32:

NW/4 NE/4, NW/4 and NW/4 SW/4

Section 34:

N/2 NE/4

Section 35:

N/2 N/2

Section 36:

E/2, N/2 NW/4, SE/4 NW/4 and

NE/4 SW/4

TOWNSHIP 21 SOUTH, RANGE 33 EAST, NMPM

Section 1:

Lots 2 to 7 inclusive, Lots 10

to 14 inclusive, N/2 SW/4 and

SW/4 SW/4

Sections 2 to 11 inclusive

Section 12:

NW/4 NW/4 and SW/4 SW/4

Section 13:

N/2 NW/4, S/2 N/2 and S/2

Sections 14 to 24 inclusive

Section 25:

N/2. SW/4 and W/2 SE/4

Sections 26 to 30 inclusive

Section 31:

Lots 1 to 4 inclusive, NE/4,

E/2 W/2, N/2 SE/4 and

SW/4 SE/4

Section 32:

N/2 and NW/4 SW/4

Section 33:

N/2

Section 34: NE

NE/4, N/2 NW/4 and E/2 SE/4

Section 35:

ΔΙΙ

Section 36:

W/2 NE/4, NW/4 and S/2

TOWNSHIP 21 SOUTH, RANGE 34 EAST, NMPM

Section 17: W/2 Section 18: All

Section 19:

Lots 1 to 4 inclusive, NE/4,

E/2 W/2, N/2 SE/4 and

SW/4 SE/4

Section 20:

NW/4 NW/4

Section 30:

Lots 1 and 2 and NE/4 NW/4

Section 31:

Lots 3 and 4

EDDY COUNTY, NEW MEXICO

TOWNSHIP 22 SOUTH, RANGE 28 EAST, NMPM

Section 36: E/2 E/2

-6-EXHIBIT "A" con'd

TOWNSHIP 22 SOUTH, RANGE 29 EAST, NMPM

Sections 1 and 2 inclusive

Section 3 SE/4 SW/4 and SE/4

Section 9 S/2 NE/4 and S/2

Sections **10** to 16 inclusive Section 17 S/2 SE/4

Section 19 SE/4 NE/4 and E/2 SE/4

Sections 20 to 28 inclusive

Section 29 N/2 N/2, S/2 NE/4 and SE/4

Section 30 NE/4 NE/4

Section 31 Lots 1 to 4 inclusive, S/2 NE/4,

E/2 W/2 and SE/4

Sections 32 to 36 inclusive

TOWNSHIP 22 SOUTH, RANGE 30 EAST, NMPM

Sections 1 to 36 inclusive

TOWNSHIP 22 SOUTH, RANGE 31 EAST, NMPM

Sections 1 to 11 inclusive

Section 12: NW/4 NE/4, NW/4 and NW/4 SW/4

Section 13: S/2 NW/4 and SW/4

Sections 14 through 23 inclusive

Section 24: W/2

Section 25: NW/4

Section 25: NVV/4
Section 26: NE/4

NE/4 AND N/2 NW/4

Sections 27 to 34 inclusive

LEA COUNTY, NEW MEXICO

TOWNSHIP 22 SOUTH, RANGE 32 EAST, NMPM

Section 1: Lot 1

Section 6: Lots 2 to 7 inclusive and SE/4 NW/4

TOWNSHIP 22 SOUTH, RANGE 33 EAST NMPM

Section 1: Lots 1 to 4 inclusive, S/2 N/2 and

N/2 S/2

Section 2:All

Section 3:Lot 1, SE/4 NE/4 and SE/4

Section 6: Lot 4

Section 10:

NE/4

Section 11:

NW/4 NE/4 AND NW/4

TOWNSHIP 22 SOUTH, RANGE 34 EAST NMPM

Section 6: Lots 4 to 6 inclusive

-7-EXHIBIT "A" **con'd**

EDDY COUNTY, NEW MEXICO

TOWNSHIP 23 SOUTH, RANGE 28 EAST, NMPM

Section 1: Lot 1

TOWNSHIP 23 SOUTH, RANGE 29 EAST, NMPM

Sections 1 to 5 inclusive

Section 6:

Lots 1 to 6 inclusive, S/2 NE/4,

SE/4 NW/4. E/2 SW/4 and SE/4

Section 7: NE/4 and NE/4 NW/4

Section 8: N/2, N/2 SW/4, SE/4 SW/4 and SE/4

Sections 9 to 16 inclusive

Section 17:

NE/4 and E/2 SE/4

Sections 21 to 23 inclusive

Section 24:

N/2, SW/4 and N/2 SE/4

Section 25:

W/2 NW/4 and NW/4 SW/4

Section 26: Section 27: All All

Section 28:

N/2, N/2 SW/4, SE/4 SW/4 and SE/4

Section 33:

N/2 NE/4 and NE/4 NW/4

Section 34:

NE/4, E/2 NW/4, NW/4 NW/4, NE/4 SW/4 and SE/4

ΑII

Section 35: Section 36:

W/2 NE/4, NW/4 and N/2 SW/4

TOWNSHIP 23 SOUTH, RANGE 30 EAST, NMPM

Sections 1 to 18 inclusive

Section 19

N/2, N/2 SW/4, SE/4 SW/4 and SE/4

Section 20

All

Section 21

All

Section 22

N/2, S/2 SW/4, N/2 S/2 and SE/4 SE/4

Sections 23 to 25 inclusive

Section 26

E/2, SE/4 NW/4 and SW/4

Section 27

N/2 NW/4, SW/4 NW/4, SE/4 SW/4,

Section 28

S/2 SE/4 and NE/4 SE/4

Section 30

N/2 and SW/4 Sect ion 29 N/2 and SE/4

N/2 NE/4

Section 32

N/2 NE/4

Section 33

SE/4 NE/4, N/2 NW/4, NE/4 SE/4

and S/2 SE/4

Sections 34 to 36 inclusive

TOWNSHIP 23 SOUTH, RANGE 31 EAST, NMPM

Section 2:

Lot 4, SW/4 NW/4 and W/2 SE/4

Sections 3 to 7 inclusive

Section 8:

NE/4 NE/4, W/2 NE/4 and W/2

Section 9:

N/2 N/2

Section 10:

NW/4 NW/4 and SE/4 SE/4

Section 11:

S/2 NE/4, S/2 SW/4 and SE/4

-8-EXHIBIT "A" CON'D

Section 12: SW/4 NW/4 and SW/4

Section 13: SW/4 NE/4, W/2 and W/2 SE/4

Section 14:

Section 15: E/2, SE/4 NW/4 and SW/4

Section 16: SW/4 and S/2 SE/4

Section 17: NW/4 and S/2

Sections 18 to 23 inclusive

Section 24: W/2 NE/4 and W/2

Section 25: W/2 NE/4, NW/4, N/2 SW/4 and

NW/4 SE/4

Section 26 to 34 inclusive

Section 35: N/2 NW/4 and SW/4 NW/4

TOWNSHIP 24 SOUTH, RANGE 29 EAST, NMPM

Section 2: Lots 2 to 4 inclusive

Section 3:Lot 1

TOWNSHIP 24 SOUTH, RANGE 30 EAST, NMPM

Section 1: Lots 1 to 4 inclusive, S/2 N/2,

SW/4 and NW/4 SE/4

Section 2: All Section 3: All

Section 4: Lots 1 and 2, S/2 NE/4, SE/4 NW/4,

SW/4 SW/4. E/2 SW/4 and SE/4

Section 9: N/2, N/2 SW/4, SE/4 SW/4 and SE/4

Section 10: All Section 11: ΑII

Section 12: W/2 NW/4 and NW/4 SW/4

Section 14: W/2 NE/4 and NW/4 Section 15: NE/4 and N/2 NW/4

TOWNSHIP 24 SOUTH, RANGE 31 EAST, NMPM

Section 3: Lots 2 to 4 inclusive, SW/4 NE/4,

S/2 NW/4, SW/4 and W/2 SE/4

Section 4:

All Section 5: Lots 1 to 4 inclusive, S/2 N/2,

N/2 S/2 and SE/4 SE/4

Section 6: Lots 1 to 6 inclusive, S/2 NE/4,

SE/4 NW/4, NE/4 SW/4 and

N/2 SE/4

Section 9: E/2 and NW/4 Section 10: W/2 NE/4 and W/2

Section 35: Lots 1 to 4 inclusive, S/2 N/2 and

N/2 S/2

Section 36: Lots 1 and 2, SW/4 NW/4 and N/2 SW/4

TOWNSHIP 25 SOUTH, RANGE 31 EAST, NMPM

Section 1: Lots 3 and 4 and S/2 NW/4

Section 2: Lots 1 to 4 inclusive and S/2 N/2 API: 30-015-45204

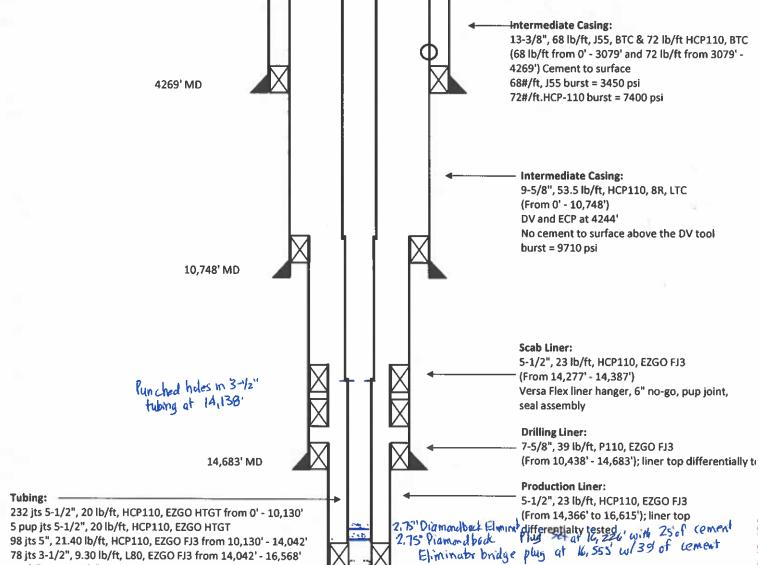
Date: 08/15/25

Spud: 10/13/18

Eddy County, New Mexico

DEPTH

667' MD



Solaris Midstream
Mad Cow SWD 1

Current Wellbore Diagram
Not to scale

GL = ~3527'

CASING/TUBING

Surface Casing: 20", 94 lb/ft, J55, BTC (From 0' - 667') Cement to surface

16 mi east of Loving, NM

32.2318300, -103.8293000

Elevation:

Location:

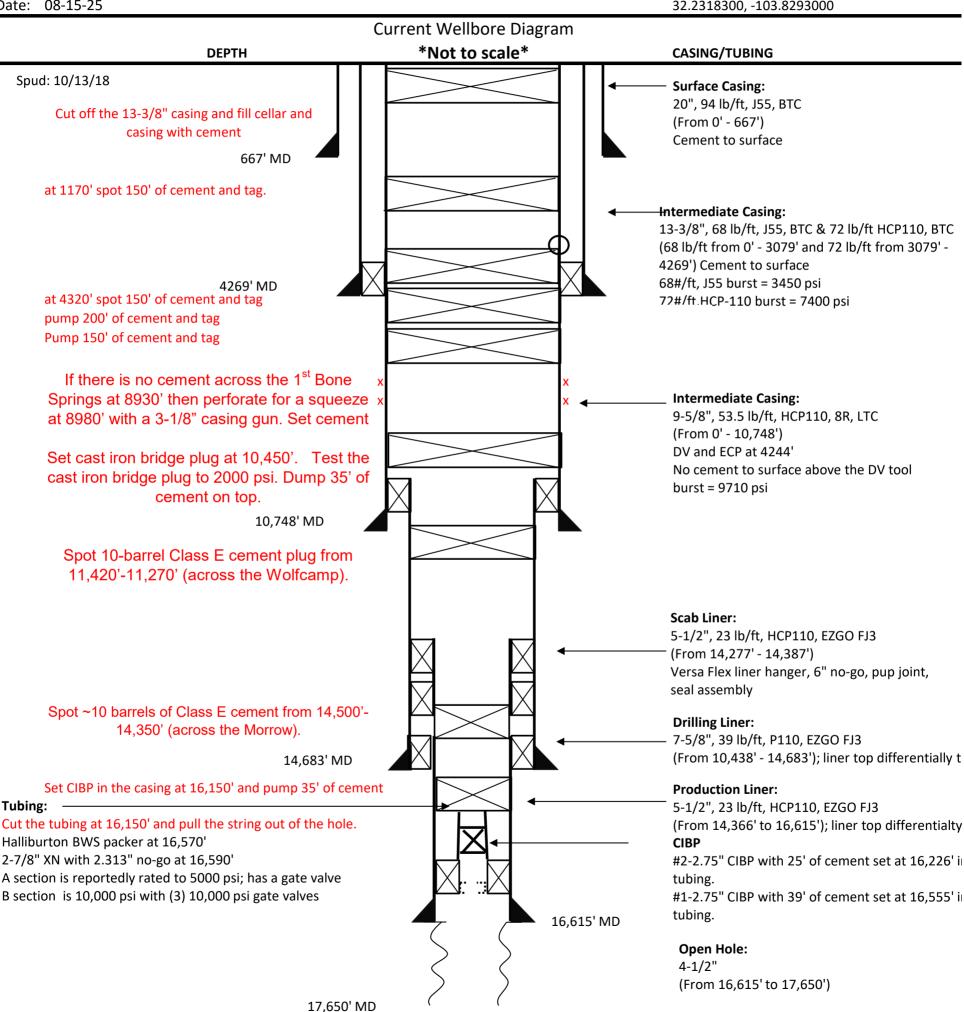
Solaris Midstream

Mad Cow SWD 1

API: 30-015-45204 GL = ~3527' Elevation:

Eddy County, New Mexico Location: 16 mi east of Loving, NM

Date: 08-15-25 32.2318300, -103.8293000 **Current Wellbore Diagram**



Sante Fe Main Office Phone: (505) 476-3441

General Information Phone: (505) 629-6116

Online Phone Directory 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

Action 509641

CONDITIONS

Operator:	OGRID:
SOLARIS WATER MIDSTREAM, LLC	371643
9651 Katy Fwy	Action Number:
Houston, TX 77024	509641
	Action Type:
	[C-103] NOI Plug & Abandon (C-103F)

CONDITIONS

Created By		Condition Date
gcordero	A Cement Bond Log (CBL) is required to be submitted to electronic permitting.	10/1/2025
gcordero	Submit Cement Bond Logs (CBL) prior to submittal of C-103P.	10/1/2025