

BW-035

**ANNUAL
REPORT**

2021

2021

Annual Class III

Well Report

Llano Disposal, LLC

BW-35

API – 30-25-30701

Submitted by: Laura Angell, 4/26/22

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Summary of Class III Well Operations

BW35 (Siringo ACS State # 1) was put into operation in mid-2017. After initial circulation and cleanup of the newly re-entered wellbore, the well started producing good, commercial quality brine water of 10# per gallon. Well operation was as expected, with the psi of injected fresh water very close to the calculated pressure needed to force the heavier brine water to the surface. The amount of fresh water injected as compared to the amount of brine water recovered, considering the known use of injected water to fill the void created by the continual solution mining of halite, has been as planned. All numbers are reported monthly per OCD requirement and is also noted and used on the brine cavern characterization report. In general, the operation of BW35 has not been difficult, and has done a good job of servicing the requirements of industry in the Lea/Eddy County areas.

Two additional 500-barrell brine storage tanks were added to the tankage/loading facility. See **Appendix E** for a well and loading facility diagram.

A chronological list of C103 forms that Llano Disposal has filed on subject well can be found in **APPENDIX D** at the end of this report.

Monthly Fluid Injection and Brine Production

2021

Month	Brine Monthly BBLs	Brine Cumulative BBLs	Fresh Monthly BBLs	Fresh Cumulative BBLs	PSI	Percent Fresh/ Brine
Jan	25,849	25,849	28,504	28,504	265	1.1027
Feb	29,656	55,505	32,696	61,199	265	1.1025
Mar	25,956	81,461	28,575	89,774	265	1.1009
Apr	17,960	99,421	19,783	109,557	265	1.1015
May	10,545	109,966	11,607	121,164	265	1.1007
Jun	22,238	132,204	24,529	145,693	265	1.1030
Jul	25,384	157,588	28,004	173,696	265	1.1032
Aug	32,510	190,098	35,774	209,470	265	1.1004
Sep	33,495	223,593	37,035	246,506	265	1.1057
Oct	35,215	258,808	38,782	285,288	265	1.1013
Nov	24,693	283,501	27,236	312,524	265	1.1030
Dec	34,889	318,390	39,043	351,567	265	1.1020

Year	Brine Yearly BBLs	Brine Cumulative BBLs	Fresh Yearly BBLs	Fresh Cumulative BBLs
2021	318,390	1,633,491	351,567	1,800,386

Annual Monitor Well Analytical Data Results

Please see page 7 and **Appendix F** for results.

Injection Pressure Data

Injection pressure at the well (tubing) averages 260/PSI. The brine well casing pressure (brine to battery), averages about 35 PSI. The field operator checks the pressures daily and records them on the daily log.

Pipeline Hydrostatic Test Results

Service piping both to and from BW35 is 3" SDR11 high density poly. These 2 lines are tested accordingly to 160 psi. The feeder line (fresh water) runs due west from the fresh water well to BW35. Testing is accomplished by closing a steel ball valve on the well head, then allowing the freshwater pump to bring pressure up to 160 psi. The line is then isolated by valving installed at each end of the line. Pressure is held static on the line for 1 hour, during which time the entire line is visually inspected. The 3" SDR11 HD poly line leading from BW35 to the tankage facility, is tested in the same manner. A valve in the line is closed at the tankage facility. Then the freshwater line at the wellhead is allowed to pressure to 160 psi. A jumper line between the freshwater line and the brine line has been installed at BW35 well head to accomplish this. After brine line pressure has risen to 160 psi, the entire system is shut down, then the brine line is isolated by closing valving in place at each end of the line. Pressure is held for 1 hour, during which time the line is visually inspected. The freshwater line and the brine line run across land that is under the same ownership as Llano Disposal, LLC. Therefore, driving these lines for inspection during testing, and during normal operations, is frequent and at will. The lines between the storage tanks and the truck loading valves, are all 6" SDR11 high density poly. These lines carry normal head pressure of 0 psi (emptied tanks) to 8.4 psi (full tankage) but are virtually always under positive pressure. These lines are under continual live camera observation and viewed daily both by truckers and by Llano field personnel. All tanks are 16' fiberglass and are manifolded together with said 6" SDR11 HD poly line. Valving is installed on the outlet of each tank so that anyone, or all of the tanks can be closed off if needed. All valving and connections are plastic coated steel, stainless steel, poly, or fiberglass.

Pipeline Visual Inspections for leaks are done at minimum every other day, monitoring lines, joints, tanks, and recording volumes and pressure.

Quarterly Chemical Analysis

The full 2021 report can be viewed in **APPENDIX F** at the end of this report. No other analysis was done in 2021.



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Analytical Results For:

LLANO DISPOSAL, LLC 125 W. ST. ANNE HOBBS NM, 88240	Project: SIRINGO ACS STATE #1 Project Number: U BAR BRINE Project Manager: ELIZABETH PICKEREL Fax To: NONE	Reported: 09-Feb-22 12:58
---	---	------------------------------

U BAR BRINE - FRESH WELL
H220327-01 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Inorganic Compounds

Chloride*	68.0		4.00	mg/L	1	2012501	GM	28-Jan-22	4500-CI-B	
pH*	7.31		0.100	pH Units	1	2012803	GM	28-Jan-22	150.1	
Temperature °C	20.9			pH Units	1	2012803	GM	28-Jan-22	150.1	
Specific Gravity @ 60° F	0.9984		0.000	[blank]	1	2012806	GM	28-Jan-22	SM 2710F	
TDS*	591		5.00	mg/L	1	2012426	AC	31-Jan-22	160.1	

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence in any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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Analytical Results For:

LLANO DISPOSAL, LLC 125 W. ST. ANNE HOBBS NM, 88240	Project: SIRINGO ACS STATE #1 Project Number: U BAR BRINE Project Manager: ELIZABETH PICKEREL Fax To: NONE	Reported: 09-Feb-22 12:58
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U BAR BRINE - MONITOR WELL

H220327-02 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Inorganic Compounds

Chloride*	72.0		4.00	mg/L	1	2012501	GM	28-Jan-22	4500-CI-B	
pH*	7.32		0.100	pH Units	1	2012803	GM	28-Jan-22	150.1	
Temperature °C	20.9			pH Units	1	2012803	GM	28-Jan-22	150.1	
Specific Gravity @ 60° F	0.9976		0.000	[blank]	1	2012806	GM	28-Jan-22	SM 2710F	
TDS*	603		5.00	mg/L	1	2012426	AC	31-Jan-22	160.1	

Cardinal Laboratories

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Analytical Results For:

LLANO DISPOSAL, LLC 125 W. ST. ANNE HOBBS NM, 88240	Project: SIRINGO ACS STATE #1 Project Number: U BAR BRINE Project Manager: ELIZABETH PICKEREL Fax To: NONE	Reported: 09-Feb-22 12:58
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**U BAR BRINE - BRINE WELL
H220327-03 (Water)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Inorganic Compounds

Chloride*	156000		4.00	mg/L	1	2012501	GM	28-Jan-22	4500-Cl-B	
pH*	7.09		0.100	pH Units	1	2012803	GM	28-Jan-22	150.1	
Temperature °C	20.8			pH Units	1	2012803	GM	28-Jan-22	150.1	
Specific Gravity @ 60° F	1.165		0.000	[blank]	1	2012806	GM	28-Jan-22	SM 2710F	
TDS*	268000		5.00	mg/L	1	2012805	AC	31-Jan-22	160.1	

Green Analytical Laboratories

Total Recoverable Metals by ICP (E200.7)

Sodium*	89400		500	mg/L	500	B220346	AES	08-Feb-22	EPA200.7	
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Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Mechanical Integrity Test

A MIT was performed on 3/8/21: Llano scheduled, then ran a MIT on BW35 using a calibrated chart recorder with OCD witness (Hobbs OCD, George Bowers). Meter was within meter calibration date requirements (calibrated 8/2/17). The well was tested to regulation psig for the regulation period and exhibited no psig leak-off. See Chart No. 1 in **APPENDIX A**.

Deviations from normal Operations

1. Quarterly Chemical Analysis

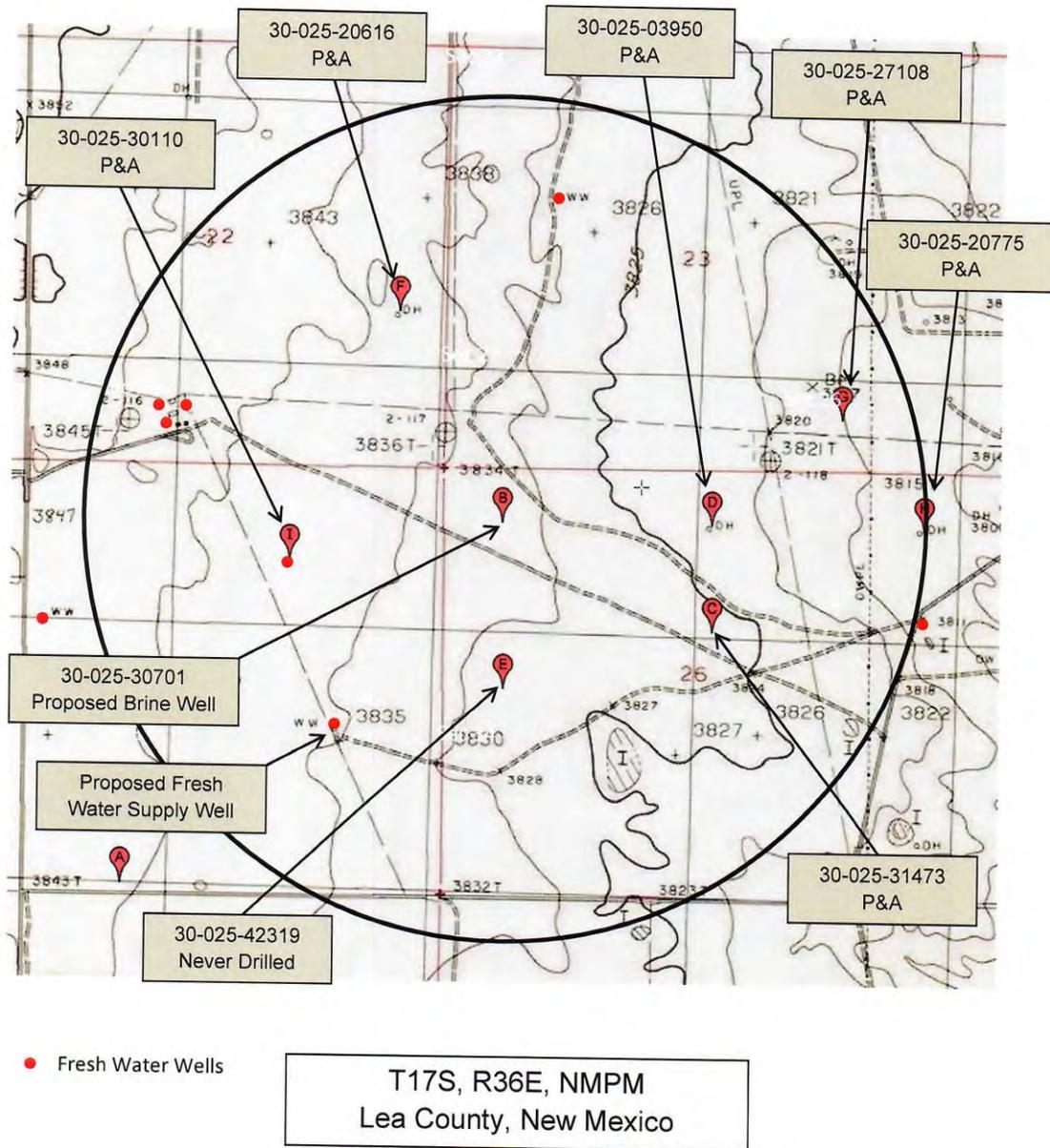
Analysis was completed for the 3rd quarter only as the pandemic had everything chaotic and hard to deploy contractors. Normal operations with vendors, etc. were interrupted significantly.

Leaks and Spills Corrective Action Reports

There were no leaks, spills, or corrective action during this period.

Area of Review Update Summary

Please see below, the original AOR document that was submitted as part of the original application for BW-35. A current, location-by-location review of this brine permit has been completed, and it was found that there has been no oil or gas well development in the area since the original AOR document was created and submitted to NMOCD as part of the original brine permit.



Summary MITs, Surface Subsidence Surveys, Cavern Size & Shape, Cavern Volume and Geometry Measurements with Conclusion(s) and Recommendation(s)

A MIT was performed on 3/8/21: Llano scheduled, then ran a MIT on BW35 using a calibrated chart recorder with OCD witness (Hobbs OCD, George Bowers). Meter was within meter calibration date requirements (calibrated 8/2/17). The well was tested to regulation psig for the regulation period and exhibited no psig leak-off. See Chart No. 1 in **APPENDIX A**.

Please find the Subsidence Report in **APPENDIX C** at the end of this report, that was prepared for us by Pettigrew and Associates out of their Hobbs, NM office. The importance and purpose of the report is to closely monitor any geological shifting, either vertically or horizontally, in the earth surrounding the brine well. All parameters of Pettigrew's investigation are included in the report, along with a review of the monitoring points as installed and archived during the initial development of the well. The full report/plan is included in **APPENDIX C**.

A description of the Cavern Size & Shape, Cavern Volume and Geometry Measurements, are in **APPENDIX B** at the end of this report.

In conclusion, the operational history of BW35 could be described as "good", meaning that the well has performed very well in producing 10# brine. There are no recommendations at this time.

Injected Fluids to Brine Ratio

Total Brine for the year	318,390
Total Fresh for the year	351,567
Ratio of Fresh to Brine	1.10

Summary of Major Facility Activities

Repairs were made to fiberglass tubing during this period (see **Appendix D & E**) and additional brine storage tanks were added (see **Appendix E**).

Surface Subsidence Monitoring Plan Data Results

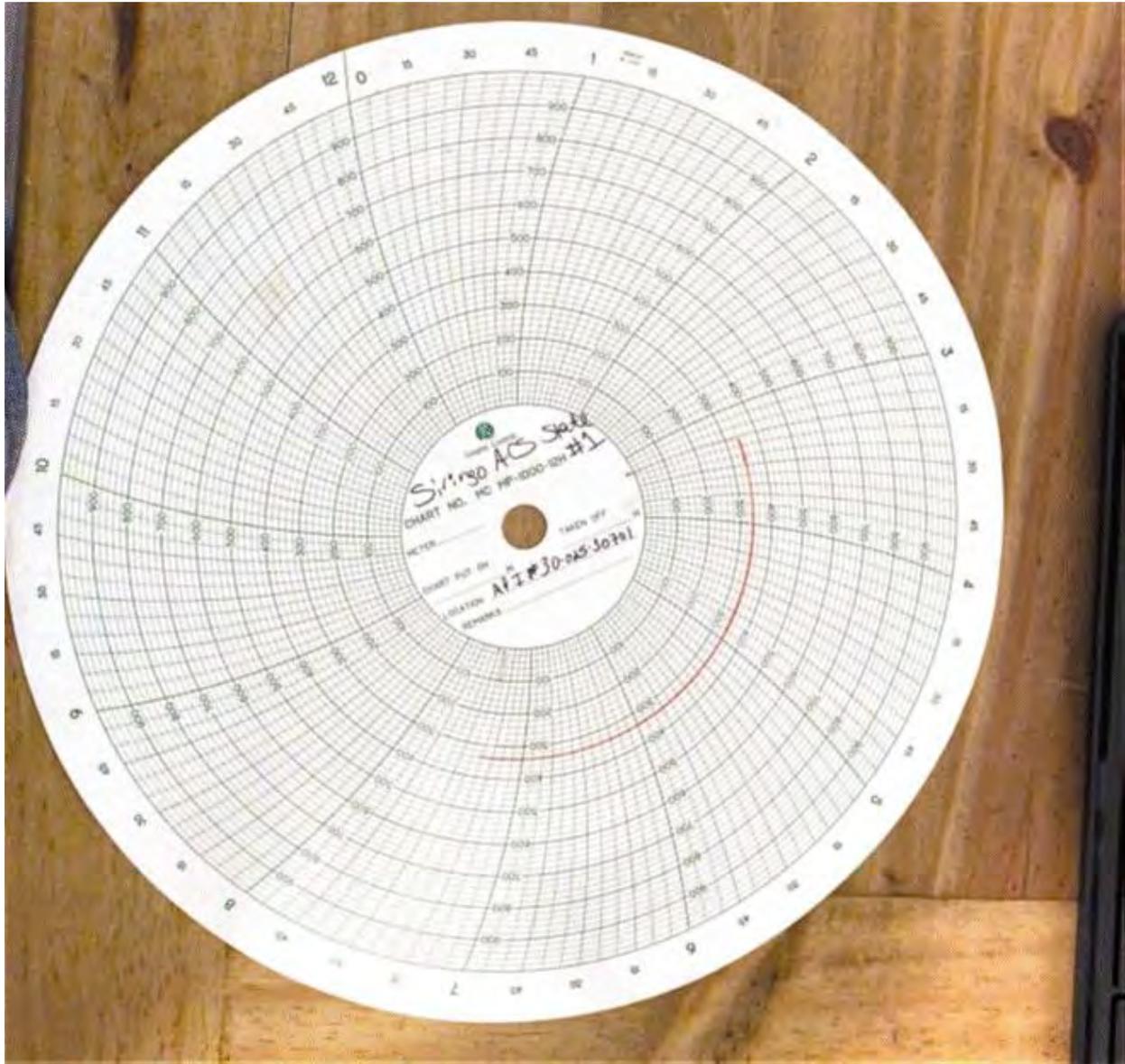
The annual plan survey was completed and is included in **Appendix C** at the end of this report.

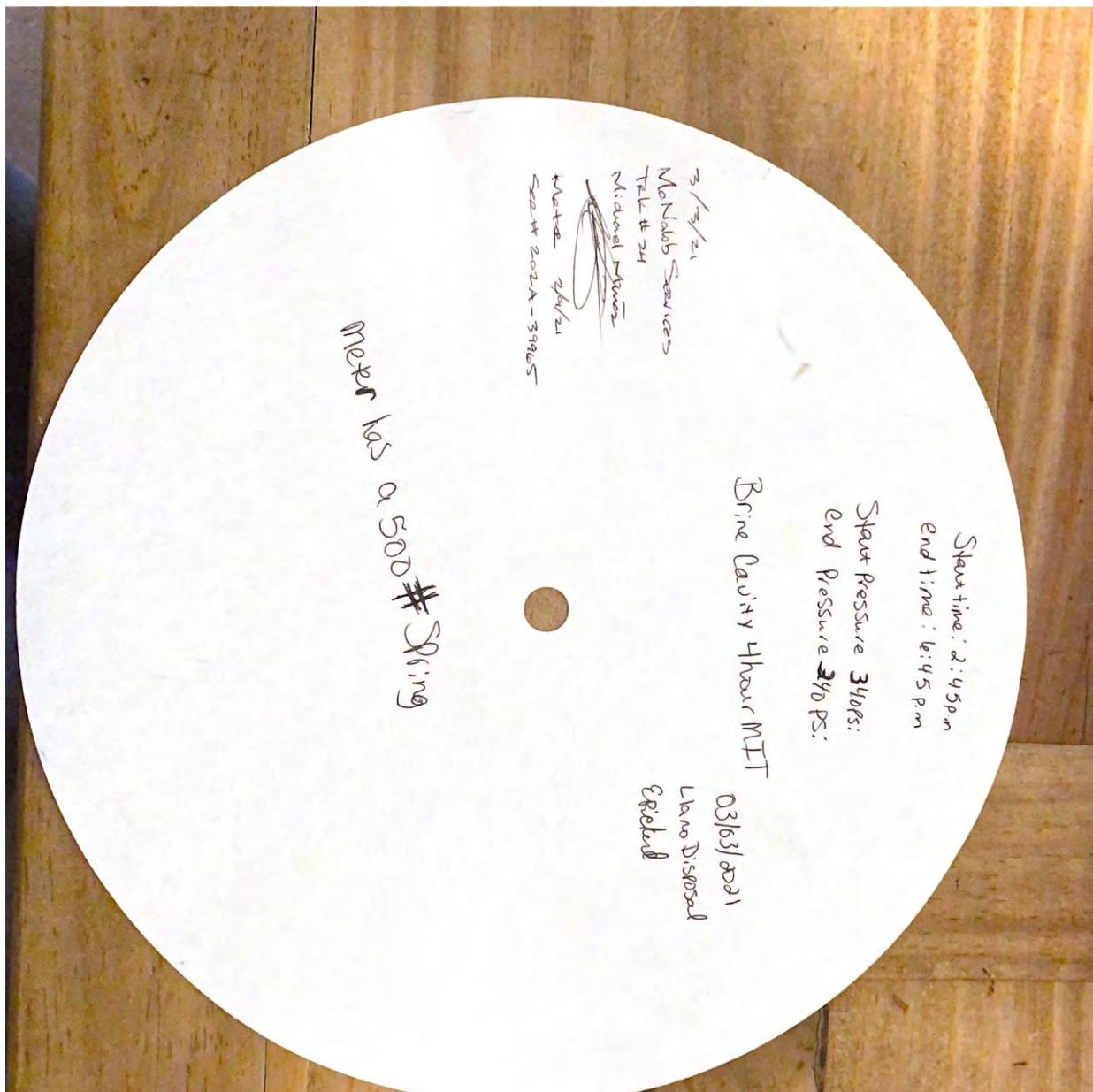
Solution Cavern Characterization Data Results

Please see **APPENDIX B** at the end of this report for a full description.

APPENDIX A

MITs





Received by OCD: 3/8/2021 11:49:07 AM

Page 5 of 6

American Valve & Meter, Inc.

1113 W. BROADWAY

P.O. BOX 166 HOBBS, NM 88240

T0:McNabb

DATE: 2/9/21

This is to certify that:

I, Justin Harris , Technician for American Valve & Meter Inc. Has checked the calibration of the following instrument.

12" _Pressure recorder

Ser#202A-39965

at these points.

Test	Pressure #		Test	Temperature *or Pressure #	
	Found	Left		Found	Left
- 0	-	- 0	-	-	-
- 500	-	- 500	-	-	-
- 700	-	- 700	-	-	-
- 1000	-	- 1000	-	-	-
- 200	-	- 200	-	-	-
- 0	-	- 0	-	-	-

Remarks:

Signature: 

APPENDIX B

Cavern Characterization

Cavern Characterization

For 2021, 351,567 bbls of fresh water have been injected into salt strata for the purpose of brine generation (14,765,814 gallons). Well production history has shown that the well reliably produces 10.0 + pound quality brine water. It therefore follows that each gallon of fresh water (testing 8.34 pounds per gallon) has dissolved 1.66 pounds of halite. By simple calculation, 24,571,251.20 pounds of halite have gone into solution during the past year. Halite has a SG of 2.17 (compared to fresh water), so is calculated and known to weigh 137.47 pounds per cubic foot. It follows then, that 178,302.54 cubic feet of halite has gone into solution. The amount of fresh water injected (351,567 bbls) as compared to the amount of brine produced (318,390 bbls) shows that water is being used to fill the cavity as the cavity increases in volume:

$318,390 \text{ bbls} / 351,567 \text{ bbls} = 90.565\%$ of water is being recovered as brine, 9.44 is being used to fill the brine cavity.

The grand total of halite that has gone into solution since operations began, is 913,329.79 cu ft.

Since it is impossible to know the exact dimensions of the cavity, some assumptions are reasonably made. OCD regulations require that fresh water be injected down a tubing string so that brine may be produced up the tubing/casing annulus. Therefore, brine generation begins at depth, and by the time water so circulated reaches that annulus, it has become saturated brine (or "10# brine"). It is logical then, that dissolution will be rapid at first, then tapers off as saturation is achieved. Such action would imply a cone shaped (inverted cone) cavity.

The teaching to calculate the volume of a truncated cone is :

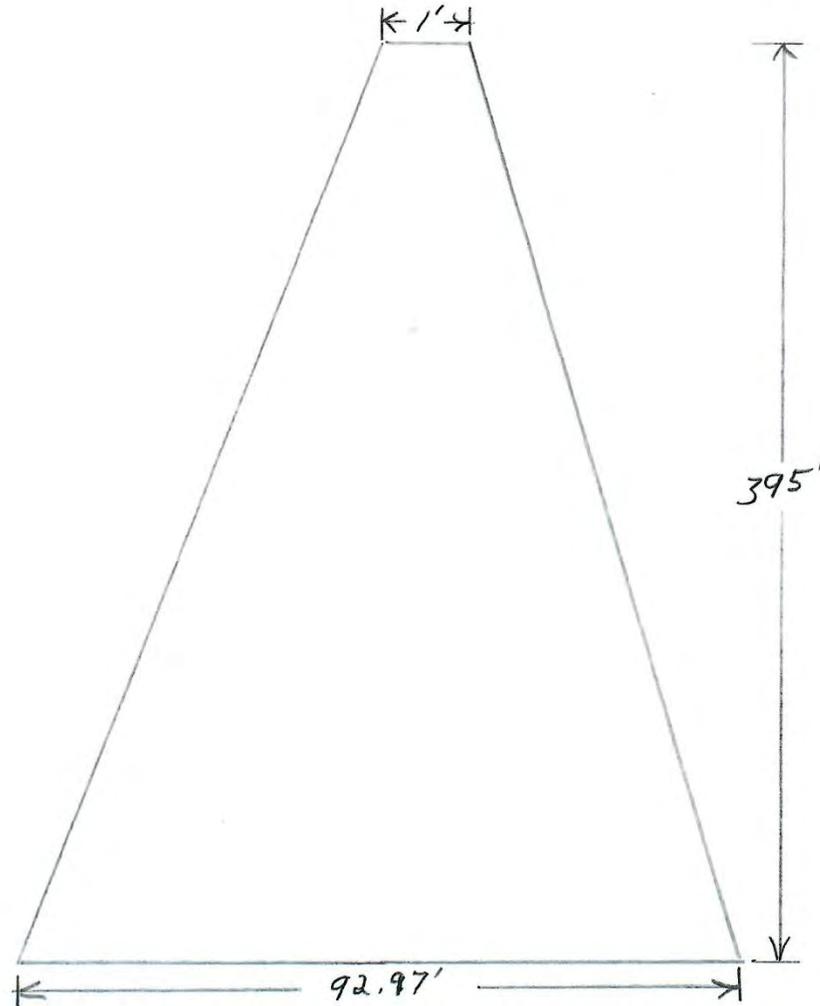
$$\text{Volume} = (1/3) \times \pi (R^2 + (R \times r) + r^2) H$$

Where :

- 1) r equals the radius of the small end cone diameter in feet
- 2) R equals the radius of the large end cone diameter in feet
- 3) R² is "R squared". r² is "r squared".
- 4) H is height in feet from tubing depth to top of salt (casing shoe).

The illustration on the following page, with dimensions shown, satisfies the number of cubic feet of halite in solution since operations began, hence size of cavern.

Cavern Size, Shape, & Volume Estimate



Estimated height (H) to Casing Shoe is 2043'

Estimated cavern floor diameter (D) is 92.97'

Estimated * Cavern Collapse Ratio is **.04** where $92.97/2043 = .045507$

* Per the OCD, the Cavern Collapse Ratio is D/H

APPENDIX C

Subsidence Survey Results



Darr Angell, Llano Disposal LLC
PO Box 190
Lovington, New Mexico, 88260
575-704-2777

10 February, 2022

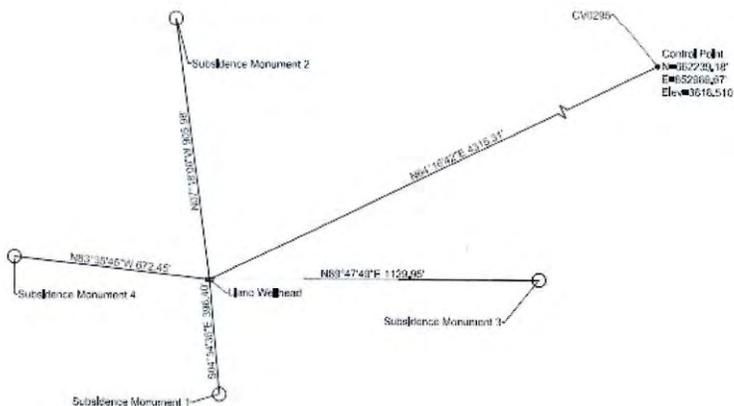
RE: Survey Report
Llano Well Subsidence Monitoring
2017.1005



SUBSIDENCE MONUMENT SURVEY

On January 31, 2022 a field survey was conducted to observe positions of four subsidence monuments surrounding the Llano Wellhead located at $N32^{\circ}48'59.1''$, $W103^{\circ}19'08.02301''$. The well location and associated subsidence monuments can be accessed from NM 483 by turning East on the first road to the South of Buckeye Road, in Lea County.

The Google Earth image and the sketch below illustrate locations of the monuments.





MONUMENT DESCRIPTIONS

Each of the monuments observed are shown below with a description and images of the point.

CV0295 (PT 10)

NGS Control Point CV0295 is a brass U.S. Coast & Geodetic Survey Benchmark set in concrete projecting approximately one foot out of the ground. It is stamped with an X and with the year it was set as shown below, followed by the NGS datasheet:



Llano Wellhead (PT 104 & PT 204)

The existing wellhead was measured on the top of the First Flange leaving the wellhead on the horizontal plane. There is an X Filed into the metal that may fade with rust.





Subsidence Monument 1 (PT 103 & PT 203)

Subsidence Monument 1 is a Berntsen three quarter inch Aluminum Top Security Sleeve Monument. It consists of a rod driven till refusal into a pre drilled three-foot deep hole with a twelve inch diameter. The sleeved rod is encased in six-inch PVC filled with sand, then topped with a Datum Point and an Aluminum Floating Datum Cap. It is then capped with an Access Cover that must be removed with a flathead screw driver or similar tool. The Monument is pictured below:





Subsidence Monument 2 (PT 101 & PT 200)

Subsidence Monument 2 is a Berntsen three quarter inch Aluminum Top Security Sleeve Monument. It consists of a rod driven till refusal into a pre drilled three-foot deep hole with a twelve inch diameter. The sleeved rod is encased in six-inch PVC filled with sand, then topped with a Datum Point and an Aluminum Floating Datum Cap. It is then capped with an Access Cover that must be removed with a flathead screw driver or similar tool. The Monument is pictured below:





Subsidence Monument 3 (PT 100 & PT 202)

Subsidence Monument 3 is a Berntsen three quarter inch Aluminum Top Security Sleeve Monument. It consists of a rod driven till refusal into a pre drilled three-foot deep hole with a twelve inch diameter. The sleeved rod is encased in six-inch PVC filled with sand, then topped with a Datum Point and an Aluminum Floating Datum Cap. It is then capped with an Access Cover that must be removed with a flathead screw driver or similar tool. The Monument is pictured below:





Subsidence Monument 4 (PT 102 & PT 201)

Subsidence Monument 4 is a Berntsen three quarter inch Aluminum Top Security Sleeve Monument. It consists of a rod driven till refusal into a pre drilled three-foot deep hole with a twelve inch diameter. The sleeved rod is encased in six-inch PVC filled with sand, then topped with a Datum Point and an Aluminum Floating Datum Cap. It is then capped with an Access Cover that must be removed with a flathead screw driver or similar tool. The Monument is pictured below:





POINT COMPARISON REPORT FROM TRIMBLE BUSINESS CENTER

Project file data		Coordinate System	
Name:	Z:\2017.1005\Survey\Subsidence_Survey\Field Data\Llano Subsidence_Re-	Name:	United States/State Plane 1983
Size:	72 KB	Zone:	New Mexico East 3001
Modified:	2/11/2022 10:12:46 AM (UTC:-7)	Datum:	NAD 1983 (Conus)
Time zone:	Mountain Standard Time	Global reference datum:	NAD83(2011)
Reference number:	2017.1005	Global reference epoch:	2010
Description:	Subsidence Monitoring	Geoid:	GEOID18 (Conus)
Comment 1:		Vertical datum:	
Comment 2:		Calibrated site:	Default
Comment 3:			

Additional Coordinate System Details

Local Site Settings			
Project latitude:	N32°48'59.08819"	Ground scale factor:	1.00015899506855
Project longitude:	W103°19'08.02316"	False northing offset:	0.000
Project height:	3747.225	False easting offset:	0.000

Point Comparison Report

Horizontal search:	3.281 ft	Horizontal tolerance:	0.066 ft
Vertical search:	3.281 ft	Vertical tolerance:	0.164 ft
Selected points:	12 / 13	Point-pairs found:	5

From Point	To Point	Δ Horizontal	North Azimuth	Δ Northing	Δ Easting	Δ Vertical
100	202	0.032 ft	345°00'23.9"	0.031 ft	-0.008 ft	0.018 ft
101	200	0.057 ft	50°32'34.8"	0.036 ft	0.044 ft	-0.021 ft
102	201	0.054 ft	30°37'43.7"	0.046 ft	0.027 ft	-0.021 ft
103	203	0.018 ft	123°47'23.3"	-0.010 ft	0.015 ft	-0.017 ft
104	204	0.033 ft	73°20'15.7"	0.010 ft	0.032 ft	-0.129 ft

7/15/2022 4:40:48 PM	Z:\2017.1005\Survey\Subsidence_Survey\Field Data\Llano Subsidence_Re-Process.vce	Trimble Business Center
----------------------	--	-------------------------

The points 100–104 are the original set monitoring points and well from 10 April 2017 and the points 200–204 are the surveyed well and monitoring points from 31 January 2022. These points and their locations are described in the point report below.



NORTHING/EASTING POINT REPORT FROM TRIMBLE BUSINESS CENTER

Project file data		Coordinate System	
Name:	Z:\2017.1005\Survey\Subsidence_Survey\F	Name:	United States/State Plane 1983
Size:	72 KB	Zone:	New Mexico East 3001
Modified:	2/11/2022 10:12:46 AM (UTC:-7)	Datum:	NAD 1983 (Conus)
Time zone:	Mountain Standard Time	Global reference datum:	NAD83(2011)
Reference number:	2017.1005	Global reference epoch:	2010
Description:	Subsidence Monitoring	Geoid:	GEOID18 (Conus)
Project Manager:	B. Shafer	Vertical datum:	
Field Tech:	J. White	Calibrated site:	Default
Office Tech:	E. Roybal		

Additional Coordinate System Details

Local Site Settings			
Project latitude:	N32°48'59.08819"	Ground scale factor:	1.00015899506855
Project longitude:	W103°19'08.02316"	False northing offset:	0.000
Project height:	3747.225	False easting offset:	0.000

Point List

ID	Northing	Easting	Elevation	Feature Code
10	662239.176	852989.667	3818.510	7080 NGS CV0295
100	660370.412	850231.907	3826.913	SUBSIDENCE MONUMENT 3
101	661265.048	848986.845	3827.323	SUBSIDENCE MONUMENT 2
102	660441.415	848433.712	3830.030	SUBSIDENCE MONUMENT 4
103	659971.467	849135.890	3828.318	SUBSIDENCE MONUMENT 1
104	660366.409	849101.962	3827.868	LLANO WELLHEAD
200	661265.084	848986.889	3827.302	SUBSIDENCE MONUMENT 2
201	660441.461	848433.740	3830.010	SUBSIDENCE MONUMENT 4
202	660370.443	850231.899	3826.931	SUBSIDENCE MONUMENT 3
203	659971.457	849135.904	3828.301	SUBSIDENCE MONUMENT 1
204	660366.419	849101.993	3827.740	LLANO WELLHEAD

7/15/2022 4:41:42 PM	Z:\2017.1005\Survey\Subsidence_Survey\Field Data\Llano Subsidence_Re-Process.vce	Trimble Business Center
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APPENDIX D

Sundries

Annual Report

Llano Disposal, LLC BW35 API 30-025-30701

2021

Submit 1 Copy To Appropriate District Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form with fields: WELL API NO. 30-025-30701, 5. Indicate Type of Lease STATE x FEE, 6. State Oil & Gas Lease No. SLO Salt Lease Agreement, 7. Lease Name or Unit Agreement Name Siringo ACS State, 8. Well Number 1, 9. OGRID Number 370661, 10. Pool name or Wildcat BSW in Salado, 11. Elevation 3831' MSL

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK X, PLUG AND ABANDON, TEMPORARILY ABANDON, CHANGE PLANS, PULL OR ALTER CASING, MULTIPLE COMPL, DOWNHOLE COMMINGLE, CLOSED-LOOP SYSTEM, OTHER:
SUBSEQUENT REPORT OF: REMEDIAL WORK, ALTERING CASING, COMMENCE DRILLING OPNS., P AND A, CASING/CEMENT JOB, OTHER:

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

It is our intention to rig up to pull production equipment, then repair unknown condition causing generated brine water to come up light. Suspect hole in tubing. Will RU as soon as equipment is available. Will notify NMOCD field agent via cell call or text.

Spud Date: [] Rig Release Date: []
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE [Signature] TITLE Agent for Llano DATE 1/19/21
Type or print name Marvin Burrows E-mail address: _burrowsmarvin@gmail.com_ PHONE: _575-631-8067_
For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____
Conditions of Approval (if any): _____

This 103 was filed to notify OCD that Llano planned to rig up and pull the well to investigate the reason for brine returning to the surface light (less than 10# per gallon).

Submit 1 Copy To Appropriate District Office
 District I - (575) 393-6161
 1625 N. French Dr., Hobbs, NM 88240
 District II - (575) 748-1283
 811 S. First St., Artesia, NM 88210
 District III - (505) 334-6178
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV - (505) 476-3460
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
 Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

Form C-103
 Revised July 18, 2013

<p style="text-align: center;">SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)</p> <p>1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other BSW <input type="checkbox"/></p> <p>2. Name of Operator Llano Disposal, LLC</p> <p>3. Address of Operator PO Box 250 Lovington NM 88260</p> <p>4. Well Location Unit Letter <u> D </u>: <u> 660 </u> feet from the <u> N </u> line and <u> 660 </u> feet from the <u> W </u> line Section <u> 26 </u> Township <u> 17 S </u> Range <u> 36 E </u> NMPM County <u> Lea </u></p> <p>11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3831' MSL</p>	<p>WELL API NO. 30-025-30701</p> <p>5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/></p> <p>6. State Oil & Gas Lease No. SLO Salt Lease Agreement</p> <p>7. Lease Name or Unit Agreement Name Siringo ACS State</p> <p>8. Well Number 1</p> <p>9. OGRID Number 370661</p> <p>10. Pool name or Wildcat BWS</p>
--	---

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

<p style="text-align: center;">NOTICE OF INTENTION TO:</p> <p>PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/> PULL OR ALTER CASING <input type="checkbox"/> MULTIPLE COMPL <input type="checkbox"/> DOWNHOLE COMMINGLE <input type="checkbox"/> CLOSED-LOOP SYSTEM <input type="checkbox"/> OTHER: Brine cavity/ tubing MIT <input checked="" type="checkbox"/></p>	<p style="text-align: center;">SUBSEQUENT REPORT OF:</p> <p>REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/> COMMENCE DRILLING OPNS. <input type="checkbox"/> P AND A <input type="checkbox"/> CASING/CEMENT JOB <input type="checkbox"/> OTHER: <input type="checkbox"/></p>
---	--

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Llano Disposal, LLC earlier filed a C-103 notice of intent to rig up on this brine well to identify the problem that was causing the production of light brine water. A damaged tubing string was subsequently discovered. Necessary repairs/replacements were accomplished. We are now ready to rig up a pump truck on our Siringo ACS, State #1 to perform a brine cavity/tubing MIT (pressure test to 320 psi for 4 hours). We would like to perform this test on Monday February 22nd, at 10.00 AM. OCD witness is invited.

Spud Date: Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Elizabeth Pickerele TITLE Llano's Brine MGR DATE 02/11/2021

Type or print name Elizabeth Pickerele E-mail address: service.llanobrine@gmail.com PHONE: 575-605-6490

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____

Conditions of Approval (if any): _____

This 103 was filed to notify OCD that the well had been pulled, and that the fiberglass portion of the tubing string had been lost (undoubtedly to falling salt). The lost tubing joints were replaced, the repaired string was ran back in without incident, then a MIT was scheduled as shown in the C103.

Submit 1 Copy To Appropriate District Office District I – (575) 393-6161 1625 N. French Dr., Hobbs, NM 88240 District II – (575) 748-1283 811 S. First St., Artesia, NM 88210 District III – (505) 334-6178 1000 Rio Brazos Rd., Aztec, NM 87410 District IV – (505) 476-3460 1220 S. St. Francis Dr., Santa Fe, NM 87505	State of New Mexico Energy, Minerals and Natural Resources OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505	Form C-103 Revised July 18, 2013		
SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-025-30701		
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other BSW <input type="checkbox"/>		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>		
2. Name of Operator Llano Disposal, LLC		6. State Oil & Gas Lease No. SLO Salt Lease Agreement		
3. Address of Operator PO Box 250 Lovington NM 88260		7. Lease Name or Unit Agreement Name Siringo ACS State		
4. Well Location Unit Letter <u>D</u> : 660 feet from the <u>N</u> line and 660 feet from the <u>W</u> line Section <u>26</u> Township <u>17 S</u> Range <u>36 E</u> NMPM County Lea		8. Well Number 1 9. OGRID Number 370661		
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3831' MSL		10. Pool name or Wildcat BSW in Salado		
12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data				
<table style="width:100%; border: none;"> <tr> <td style="width:50%; border: none;"> NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/> PULL OR ALTER CASING <input type="checkbox"/> MULTIPLE COMPL <input type="checkbox"/> DOWNHOLE COMMINGLE <input type="checkbox"/> CLOSED-LOOP SYSTEM <input type="checkbox"/> OTHER: MIT <input checked="" type="checkbox"/> </td> <td style="width:50%; border: none;"> SUBSEQUENT REPORT OF: REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/> COMMENCE DRILLING OPNS. <input type="checkbox"/> P AND A <input type="checkbox"/> CASING/CEMENT JOB <input type="checkbox"/> OTHER: <input type="checkbox"/> </td> </tr> </table>			NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/> PULL OR ALTER CASING <input type="checkbox"/> MULTIPLE COMPL <input type="checkbox"/> DOWNHOLE COMMINGLE <input type="checkbox"/> CLOSED-LOOP SYSTEM <input type="checkbox"/> OTHER: MIT <input checked="" type="checkbox"/>	SUBSEQUENT REPORT OF: REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/> COMMENCE DRILLING OPNS. <input type="checkbox"/> P AND A <input type="checkbox"/> CASING/CEMENT JOB <input type="checkbox"/> OTHER: <input type="checkbox"/>
NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/> PULL OR ALTER CASING <input type="checkbox"/> MULTIPLE COMPL <input type="checkbox"/> DOWNHOLE COMMINGLE <input type="checkbox"/> CLOSED-LOOP SYSTEM <input type="checkbox"/> OTHER: MIT <input checked="" type="checkbox"/>	SUBSEQUENT REPORT OF: REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/> COMMENCE DRILLING OPNS. <input type="checkbox"/> P AND A <input type="checkbox"/> CASING/CEMENT JOB <input type="checkbox"/> OTHER: <input type="checkbox"/>			
13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.				
<p>Llano Disposal, LLC earlier filed a C-103 notice of intent to rig up on this brine well to identify the problem that was causing the production of light brine water. A damaged tubing string was subsequently discovered. Necessary repairs/replacements were accomplished. We are now ready to perform a brine cavity/tubing MIT (pressure test to 300 psi for 3 hours). We would like to perform this test on Tuesday February 9th, at 10.00 AM. OCD witness is invited.</p>				
Spud Date:		Rig Release Date: 		
I hereby certify that the information above is true and complete to the best of my knowledge and belief.				
SIGNATURE	TITLE <u>Llano's Brine MGR</u>	DATE <u>02/04/2021</u>		
Type or print name <u>Elizabeth Pickernel</u> E-mail address: <u>service.llanobrine@gmail.com</u> PHONE: <u>575-605-6490</u>				
For State Use Only APPROVED BY: _____ TITLE _____ DATE _____ Conditions of Approval (if any): _____				

These documents are presented in the order that they were scanned into OCD online files by OCD District 1 office. There were two notices of pending MIT testing. The first test was delayed by rain, muddy roads, and lack of available equipment.

Submit 1 Copy To Appropriate District Office
 District I - (575) 393-6161
 1625 N. French Dr., Hobbs, NM 88240
 District II - (575) 748-1283
 811 S. First St., Artesia, NM 88210
 District III - (505) 334-6178
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV - (505) 476-3460
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
 Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

Form C-103
 Revised July 18, 2013

WELL API NO. 30-025-30701
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. SLD Salt Lease Agreement
7. Lease Name or Unit Agreement Name Siringo ACS State
8. Well Number 1
9. OGRID Number 370641
10. Pool name or Wildcat BSW in Salado

SUNDRY NOTICES AND REPORTS ON WELLS
 (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well Gas Well Other BSW

2. Name of Operator
Llano Disposal LLC

3. Address of Operator
PO BOX 250 Lovington NM 88260

4. Well Location
 Unit Letter D : 660 feet from the N line and 600 feet from the W line
 Section 26 Township 17S Range 36E NMPM County Lea
 11. Elevation (Show whether DR, RKB, RT, GR, etc.)
3834 MSL

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input checked="" type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL. <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
CLOSED-LOOP SYSTEM <input type="checkbox"/>			
OTHER: <input type="checkbox"/>		OTHER: <input type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

It is our intention to rig up to pull production equipment & inspect tubing string. Will run as soon as equipment is available. Will notify NM OCD field agent via call or text.

Spud Date: Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE E. Pickrel TITLE Brine Manager for Llano DATE 05-03-2021
 Type or print name Elizabeth Pickrel E-mail address: service.llano@ PHONE: 575-605-6490
For State Use Only gmail.com
 APPROVED BY: _____ TITLE _____ DATE _____
 Conditions of Approval (if any): _____

The well was not pulled in a timely manner because of heavy rains and muddy access roads. A subsequent 103 was filed to update OCD District 1 office.

Submit 1 Copy To Appropriate District Office
 District I - (575) 393-6161
 1625 N. French Dr., Hobbs, NM 88240
 District II - (575) 748-1283
 811 S. First St., Artesia, NM 88210
 District III - (505) 334-6178
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV - (505) 476-3460
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
 Energy, Minerals and Natural Resources

Form C-103
 Revised July 18, 2013

OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-025-30701
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> BSW		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator Llano Disposal LLC		6. State Oil & Gas Lease No. No Salt Lease Agreement
3. Address of Operator PO Box 250 Lovington NM 88240		7. Lease Name or Unit Agreement Name Siringo ACS State
4. Well Location Unit Letter D : 660 feet from the N line and 660 feet from the W line Section 26 Township 17S Range 36E NMPM County Lea		8. Well Number 1
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3831' MSL		9. OGRID Number 372661
		10. Pool name or Wildcat BSW in Sabado

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input checked="" type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL. <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
CLOSED-LOOP SYSTEM <input type="checkbox"/>			
OTHER: <input type="checkbox"/>		OTHER: <input type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

It is our intention to rig up to pull production equipment and inspect tubing string. Will rig up as soon as equipment is available. Will notify NMOC field agent via call or text.

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Episkel TITLE Brine Manager for Llano DATE 05-27-2021

Type or print name Elizabeth P. Kerol E-mail address: Service.LlanoBrine@gmail.com PHONE: 545-605-6490

APPROVED BY: _____ TITLE _____ DATE _____
 Conditions of Approval (if any): _____

This is a second 103 notice of Llano's intentions to rig up and pull the well to investigate the cause of light brine circulation to surface.

Submit 1 Copy To Appropriate District Office
 District I - (575) 393-6161
 1625 N. French Dr., Hobbs, NM 88240
 District II - (575) 748-1283
 811 S. First St., Artesia, NM 88210
 District III - (505) 334-6178
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV - (505) 476-3460
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
 Energy, Minerals and Natural Resources
 OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

Form C-103
 Revised July 18, 2013

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-025-30701
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> BSW		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator Llano Disposal, LLC		6. State Oil & Gas Lease No. Salado
3. Address of Operator PO BOX 250 Lovington NM 88260		7. Lease Name or Unit Agreement Name Siringo ACS St.
4. Well Location Unit Letter D : 660 feet from the N line and 660 feet from the W line Section 26 Township 17S Range 36E NMPM County Lea		8. Well Number 1
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3831' MSL		9. OGRID Number 370661
		10. Pool name or Wildcat BSW (Brine)

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/> PULL OR ALTER CASING <input type="checkbox"/> MULTIPLE COMPL. <input type="checkbox"/> DOWNHOLE COMMINGLE <input type="checkbox"/> CLOSED-LOOP SYSTEM <input type="checkbox"/> OTHER: <input type="checkbox"/>		SUBSEQUENT REPORT OF: REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/> COMMENCE DRILLING OPNS. <input type="checkbox"/> P AND A <input type="checkbox"/> CASING/CEMENT JOB <input type="checkbox"/> OTHER: MIT <input checked="" type="checkbox"/>	
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13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

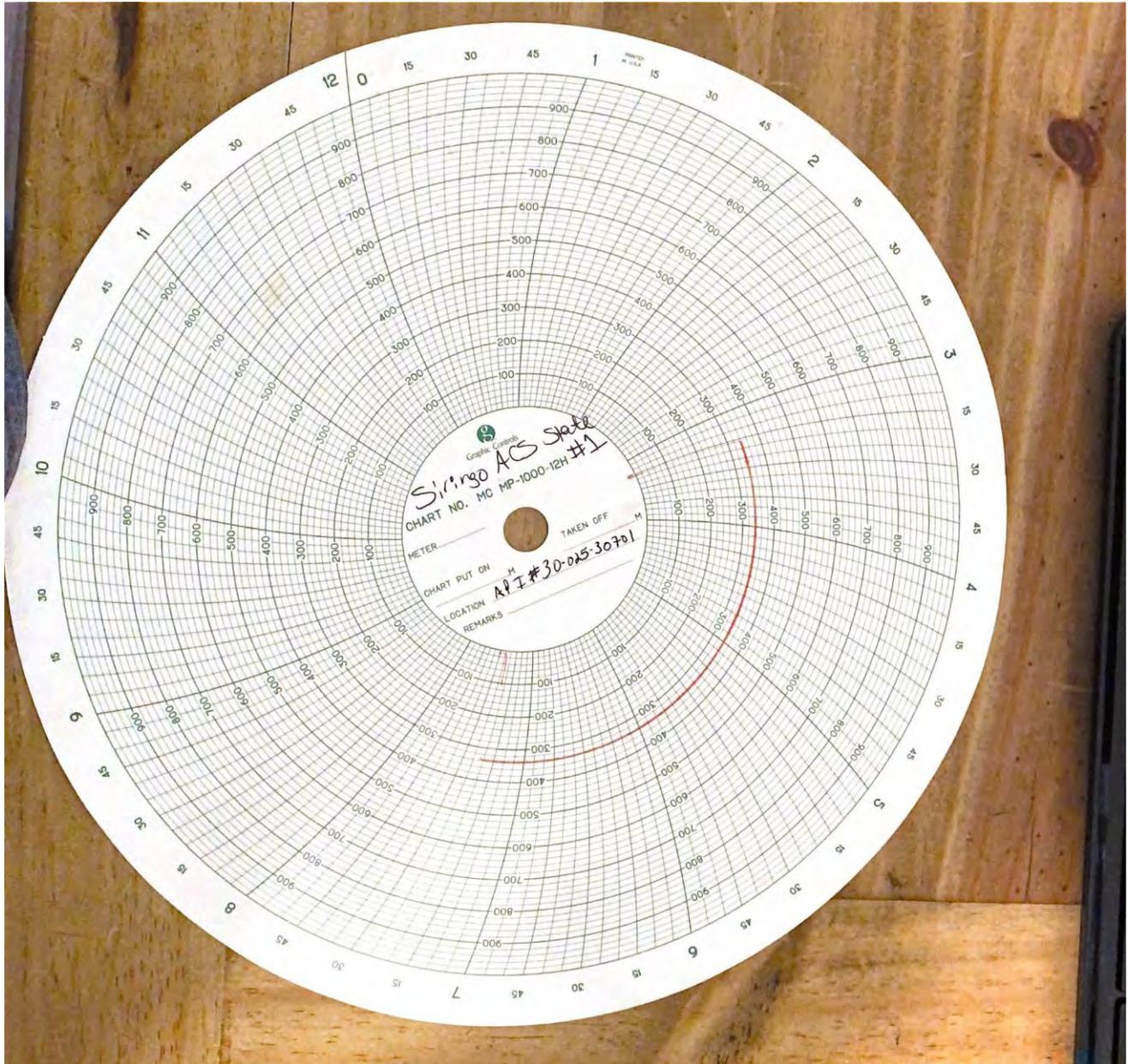
Per earlier C103 notices, we rigged up to repair damaged fiberglass tubing. Accomplished repairs, then ran a 4 hour MFT test in coordination w/Mr. Frotner (OCD, Hobbs). Please find pressure chart & current wellbore schematic attached.

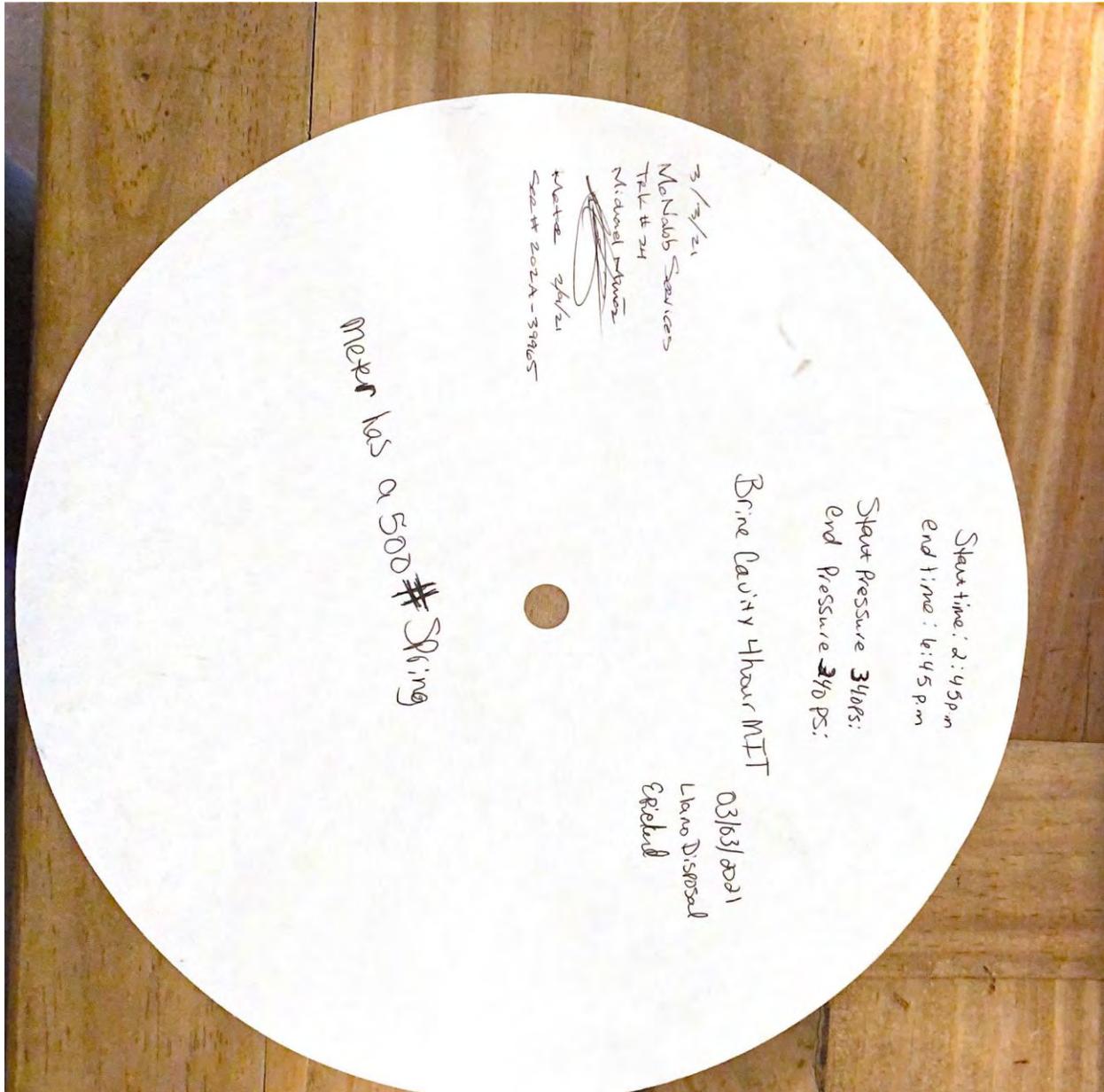
Spud Date: Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Elizabeth P. Uckerel TITLE Brine (mgr) DATE 03-08/2021
 Type or print name Elizabeth P. Uckerel E-mail address: service.llanobcine@gmail.com PHONE: 575-605-6490
For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____
 Conditions of Approval (if any): _____





Received by OCD: 3/8/2021 11:49:07 AM

Page 5 of 6

American Valve & Meter, Inc.

1113 W. BROADWAY

P.O. BOX 166 HOBBS, NM 88240

T0:McNabb

DATE: 2/9/21

This is to certify that:

I, Justin Harris , Technician for American Valve & Meter Inc. Has checked the calibration of the following instrument.

12" _Pressure recorder

Ser#202A-39965

at these points.

Test	Pressure #		Test	Temperature *or Pressure #	
	Found	Left		Found	Left
- 0	-	- 0	-	-	-
- 500	-	- 500	-	-	-
- 700	-	- 700	-	-	-
- 1000	-	- 1000	-	-	-
- 200	-	- 200	-	-	-
- 0	-	- 0	-	-	-

Remarks:

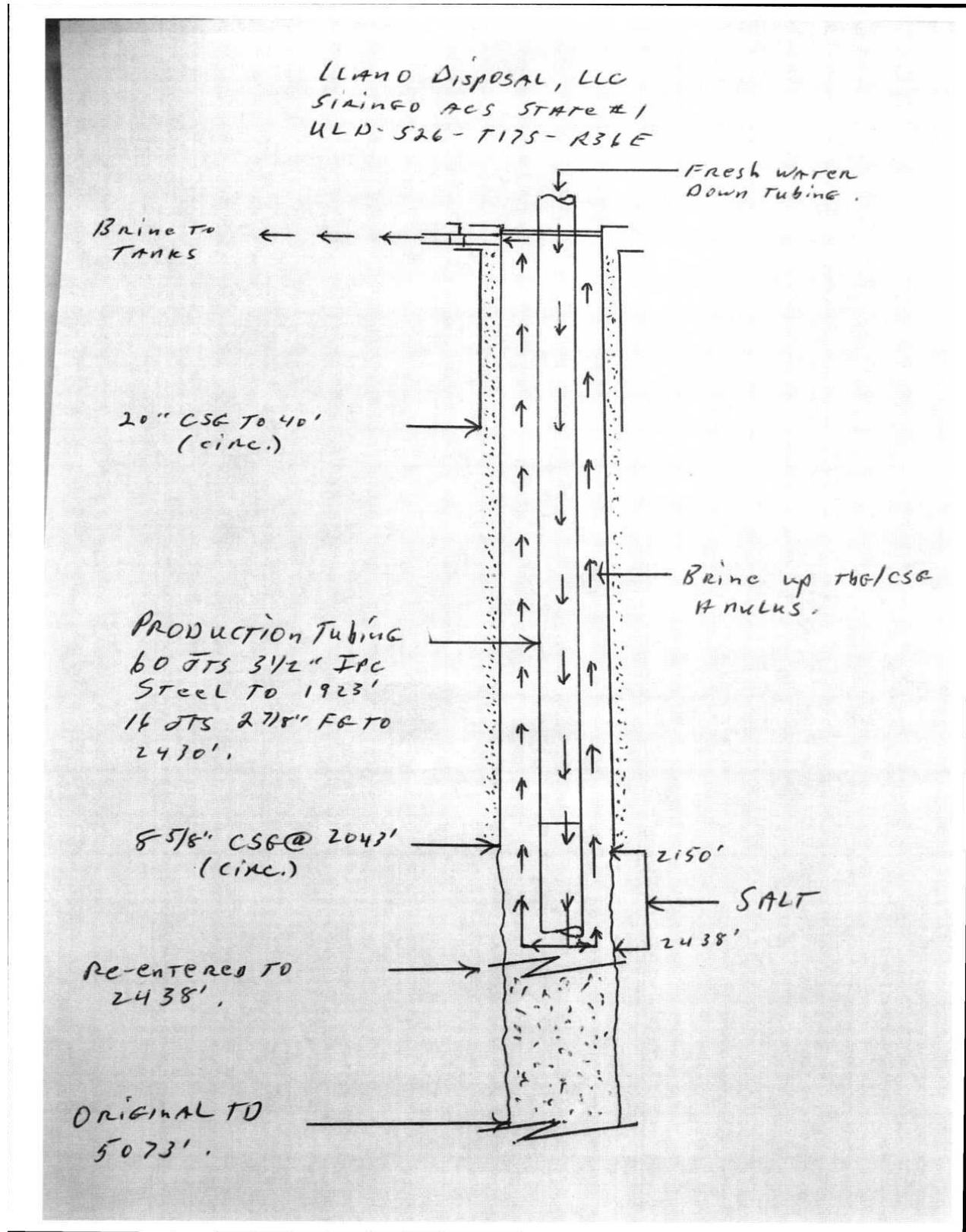
Signature: 

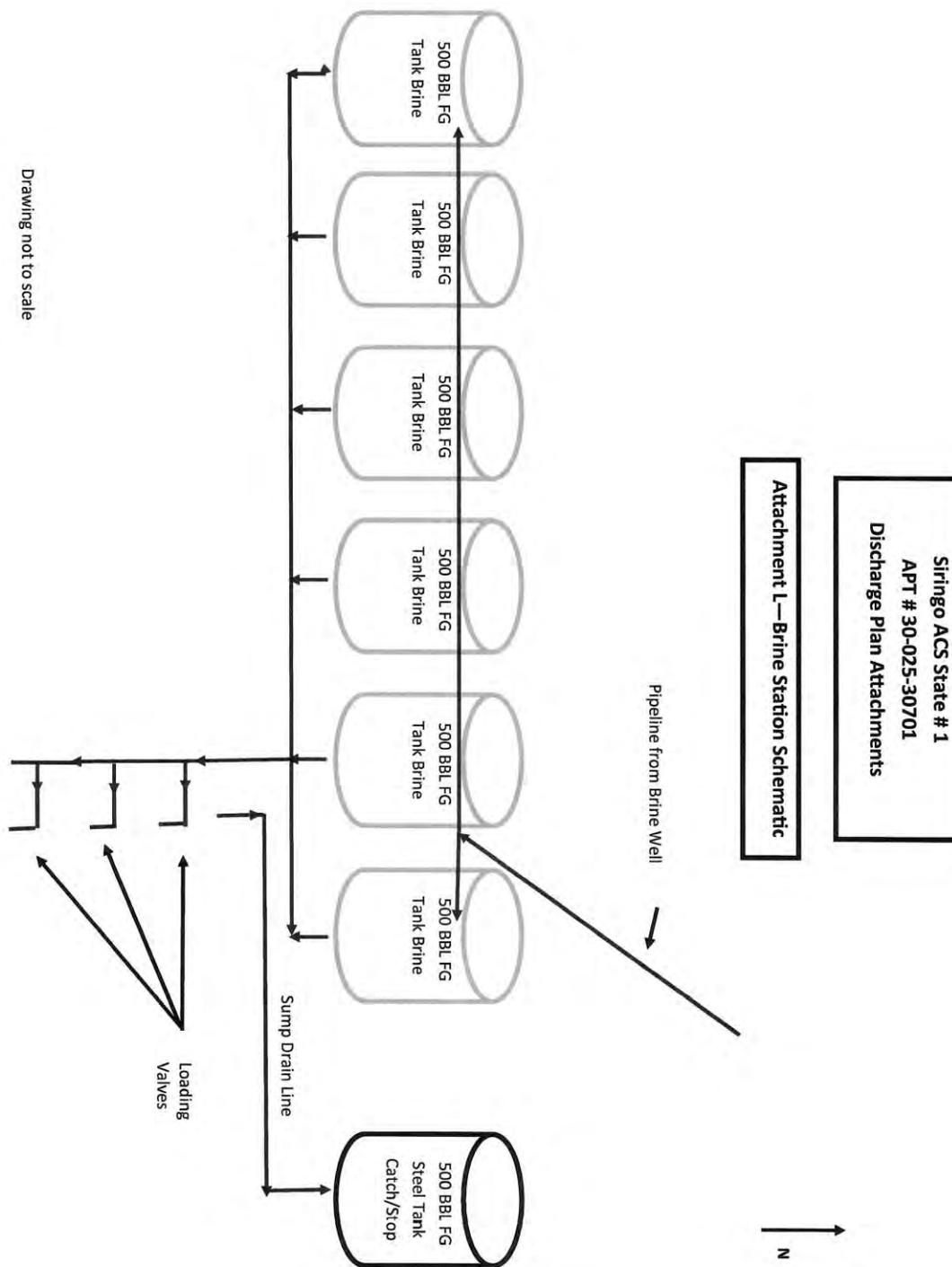
Per earlier 103 notice, Llano rigged up on the well to investigate the cause of light brine circulation to surface. It was discovered that all but 2 joints of 2 7.8" fiberglass tubing had been lost to salt sluffing. The lost tubing was replaced, and the repaired string was run back into the well.

The above pressure chart was run after the well was pulled. Of note is that all required MITs tests that have been performed on this well were with OCD witness. None of the tests exhibited any indication of cavern, casing, or wellhead leakage.

APPENDIX E

Well Diagrams





Siringo ACS State # 1
APT # 30-025-30701
Discharge Plan Attachments

Attachment L—Brine Station Schematic

APPENDIX F

Chemical Analysis



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

February 09, 2022

ELIZABETH PICKEREL
LLANO DISPOSAL, LLC
125 W. ST. ANNE
HOBBS, NM 88240

RE: SIRINGO ACS STATE #1

Enclosed are the results of analyses for samples received by the laboratory on 01/27/22 14:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2 Total Haloacetic Acids (HAA-5)
Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2 Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2 Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene
Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Analytical Results For:

LLANO DISPOSAL, LLC 125 W. ST. ANNE HOBBS NM, 88240	Project: SIRINGO ACS STATE #1 Project Number: U BAR BRINE Project Manager: ELIZABETH PICKEREL Fax To: NONE	Reported: 09-Feb-22 12:58
---	---	------------------------------

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
-----------	---------------	--------	--------------	---------------

U BAR BRINE - FRESH WELL	H220327-01	Water	27-Jan-22 14:00	27-Jan-22 14:50
U BAR BRINE - MONITOR WELL	H220327-02	Water	27-Jan-22 14:05	27-Jan-22 14:50
U BAR BRINE - BRINE WELL	H220327-03	Water	27-Jan-22 14:14	27-Jan-22 14:50

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence in any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Analytical Results For:

LLANO DISPOSAL, LLC 125 W. ST. ANNE HOBBS NM, 88240	Project: SIRINGO ACS STATE #1 Project Number: U BAR BRINE Project Manager: ELIZABETH PICKEREL Fax To: NONE	Reported: 09-Feb-22 12:58
---	---	------------------------------

**U BAR BRINE - FRESH WELL
H220327-01 (Water)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Inorganic Compounds

Chloride*	68.0		4.00	mg/L	1	2012501	GM	28-Jan-22	4500-Cl-B	
pH*	7.31		0.100	pH Units	1	2012803	GM	28-Jan-22	150.1	
Temperature °C	20.9			pH Units	1	2012803	GM	28-Jan-22	150.1	
Specific Gravity @ 60° F	0.9984		0.000	[blank]	1	2012806	GM	28-Jan-22	SM 2710F	
TDS*	591		5.00	mg/L	1	2012426	AC	31-Jan-22	160.1	

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*=Accredited Analyte

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PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Analytical Results For:

LLANO DISPOSAL, LLC 125 W. ST. ANNE HOBBS NM, 88240	Project: SIRINGO ACS STATE #1 Project Number: U BAR BRINE Project Manager: ELIZABETH PICKEREL Fax To: NONE	Reported: 09-Feb-22 12:58
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**U BAR BRINE - MONITOR WELL
H220327-02 (Water)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Inorganic Compounds

Chloride*	72.0		4.00	mg/L	1	2012501	GM	28-Jan-22	4500-Cl-B	
pH*	7.32		0.100	pH Units	1	2012803	GM	28-Jan-22	150.1	
Temperature °C	20.9			pH Units	1	2012803	GM	28-Jan-22	150.1	
Specific Gravity @ 60° F	0.9976		0.000	[blank]	1	2012806	GM	28-Jan-22	SM 2710F	
TDS*	603		5.00	mg/L	1	2012426	AC	31-Jan-22	160.1	

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Analytical Results For:

LLANO DISPOSAL, LLC 125 W. ST. ANNE HOBBS NM, 88240	Project: SIRINGO ACS STATE #1 Project Number: U BAR BRINE Project Manager: ELIZABETH PICKEREL Fax To: NONE	Reported: 09-Feb-22 12:58
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U BAR BRINE - BRINE WELL

H220327-03 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories

Inorganic Compounds

Chloride*	156000		4.00	mg/L	1	2012501	GM	28-Jan-22	4500-Cl-B	
pH*	7.09		0.100	pH Units	1	2012803	GM	28-Jan-22	150.1	
Temperature °C	20.8			pH Units	1	2012803	GM	28-Jan-22	150.1	
Specific Gravity @ 60° F	1.165		0.000	[blank]	1	2012806	GM	28-Jan-22	SM 2710F	
TDS*	268000		5.00	mg/L	1	2012805	AC	31-Jan-22	160.1	

Green Analytical Laboratories

Total Recoverable Metals by ICP (E200.7)

Sodium*	89400		500	mg/L	500	B220346	AES	08-Feb-22	EPA200.7	
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Analytical Results For:

LLANO DISPOSAL, LLC 125 W. ST. ANNE HOBBS NM, 88240	Project: SIRINGO ACS STATE #1 Project Number: U BAR BRINE Project Manager: ELIZABETH PICKEREL Fax To: NONE	Reported: 09-Feb-22 12:58
---	---	------------------------------

**Inorganic Compounds - Quality Control
Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Notes
Batch 2012426 - Filtration										
Blank (2012426-BLK1) Prepared: 24-Jan-22 Analyzed: 25-Jan-22										
TDS	ND	5.00	mg/L							
LCS (2012426-BS1) Prepared: 24-Jan-22 Analyzed: 25-Jan-22										
TDS	541		mg/L	500		108	80-120			
Duplicate (2012426-DUP1) Source: H220238-06 Prepared: 24-Jan-22 Analyzed: 25-Jan-22										
TDS	256000	5.00	mg/L		267000			4.42	20	
Batch 2012501 - General Prep - Wet Chem										
Blank (2012501-BLK1) Prepared: 25-Jan-22 Analyzed: 26-Jan-22										
Chloride	ND	4.00	mg/L							
LCS (2012501-BS1) Prepared: 25-Jan-22 Analyzed: 26-Jan-22										
Chloride	100	4.00	mg/L	100		100	80-120			
LCS Dup (2012501-BSD1) Prepared: 25-Jan-22 Analyzed: 26-Jan-22										
Chloride	100	4.00	mg/L	100		100	80-120	0.00	20	
Batch 2012803 - General Prep - Wet Chem										
LCS (2012803-BS1) Prepared & Analyzed: 28-Jan-22										
pH	7.03		pH Units	7.00		100	90-110			
Duplicate (2012803-DUP1) Source: H220327-01 Prepared & Analyzed: 28-Jan-22										
pH	7.35	0.100	pH Units		7.31			0.546	20	
Temperature °C	20.9		pH Units		20.9			0.00	200	

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Analytical Results For:

LLANO DISPOSAL, LLC 125 W. ST. ANNE HOBBS NM, 88240	Project: SIRINGO ACS STATE #1 Project Number: U BAR BRINE Project Manager: ELIZABETH PICKEREL Fax To: NONE	Reported: 09-Feb-22 12:58
---	---	------------------------------

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Notes
Batch 2012805 - Filtration										
Blank (2012805-BLK1)										
				Prepared: 28-Jan-22 Analyzed: 31-Jan-22						
TDS	ND	5.00	mg/L							
LCS (2012805-BS1)										
				Prepared: 28-Jan-22 Analyzed: 31-Jan-22						
TDS	519		mg/L	500		104	80-120			
Duplicate (2012805-DUP1)										
				Source: H220327-03			Prepared: 28-Jan-22 Analyzed: 31-Jan-22			
TDS	276000	5.00	mg/L		268000			3.07	20	
Batch 2012806 - General Prep - Wet Chem										
Duplicate (2012806-DUP1)										
				Source: H220327-01			Prepared & Analyzed: 28-Jan-22			
Specific Gravity @ 60° F	1.002	0.000	[blank]		0.9984			0.378	20	

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Analytical Results For:

LLANO DISPOSAL, LLC 125 W. ST. ANNE HOBBS NM, 88240	Project: SIRINGO ACS STATE #1 Project Number: U BAR BRINE Project Manager: ELIZABETH PICKEREL Fax To: NONE	Reported: 09-Feb-22 12:58
---	---	------------------------------

Total Recoverable Metals by ICP (E200.7) - Quality Control

Green Analytical Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Notes
Batch B220346 - Total Rec. 200.7/200.8/200.2										
Blank (B220346-BLK1)										
Sodium	ND	1.00	mg/L							Prepared: 07-Feb-22 Analyzed: 08-Feb-22
LCS (B220346-BS1)										
Sodium	1.58	1.00	mg/L	1.62		97.3	85-115			Prepared: 07-Feb-22 Analyzed: 08-Feb-22
LCS Dup (B220346-BSD1)										
Sodium	1.52	1.00	mg/L	1.62		93.9	85-115	3.52	20	

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Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Llano Disposal LLC
Project Manager: Elizabeth Pickrel
Address: PO Box 250
City: Lovington
State: NM **zip:** 88240
Phone #: 575-605-6190 **Fax #:**
Project #: Sirigo ACS #1 **Project Owner:** Llano Disposal
Project Name: UBar Brine Fresh Well
Project Location: D-246-175-34C
Sampler Name: Elizabeth Pickrel

P.O. #:
Company: Llano Disposal
Attn:
Address: PO Box 250
City: Lovington
State: NM **zip:** 88240
Phone #: 575-704-2777
Fax #:

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX	PREPARED	SAMPLING	DATE	TIME	ANALYSIS REQUEST
#220357	UBar Brine Fresh Well	6	1	OTHER <i>Water</i>	<input checked="" type="checkbox"/>		12/22	2:00 PM	TDS, SG, Cl ⁻ , pH +

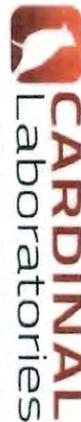
PLEASE NOTE: Laboratory changes Customer labels and serial numbers removed for any chain using vehicles based in contact of the field be marked to the amount paid by the client for the sample. In no event shall Cardinal be liable for monetary or consequential damages, including without limitation, business interruptions, loss of data or loss of time incurred by client, its subsidiaries, affiliates or accessories arising out of or related to the performance of services rendered by Cardinal. Signature of customer must obtain upon any of the above stated instances or otherwise.

Reinquisitioned By: Elizabeth Pickrel
Date: 01/23/22
Time: 7:50
Received By: *Janice Keene*
Date: 01/23/22
Time: 2:00 PM

Delivered By: (Circle One) UPS Bus Other
Observed Temp. °C: 5.3
Corrected Temp. °C: 4.8
Sample Condition: Cool Intact
Checked By: *JK*
Turnaround Time: Standard Rush
Thermometer ID #113: Yes No
Correction Factor: -0.5°C
Bacteria (only) Sample Condition: Cool Intact
 Yes No
Corrected Temp. °C:

REMARKS: Service @ Llano brine @ gmail.com

† Cardinal cannot accept verbal changes. Please email changes to caley.keene@cardinallabsnm.com



101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Llano Disposal LLC
Project Manager: Elizabeth Pickrel
Address: PO BOX 250
City: Livingston
State: NM **zip:** 88240
Phone #: 575-605-6490 **Fax #:**
Project #: Livingston ACS St #1 **Project Owner:** Llano Disposal
Project Name: U Bar Brine monitor well
Project Location: D-26-175-36E
Sampler Name: Elizabeth Pickrel

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX						DATE	TIME	ANALYSIS REQUEST
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER			
HA20357	U Bar Brine monitor well	61	1						1-2-22	2:05pm	TDS, S6, CL, S, PH	

DELIVERED BY: (Circle One) UPS - Bus - Other: **Observed Temp. °C:** 53 **Corrected Temp. °C:** 48

Delivered By: Elizabeth Pickrel **Received By:** [Signature]
Date: 8-27-22 **Time:** 1450

Sample Condition: Intact Cool Yes No

Checked By: [Signature]

Turnaround Time: Standard Add'l Phone #:

Remarks: Service llanobrine@gmail.com



101 East Marland, Hobbs, NM 88240
(575) 393-2328 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Llano Disposal LLC
Project Manager: Elizabeth Pickrel
Address: PO Box 250
City: Lovington
State: NM **Zip:** 88240
Phone #: 575-605-6490 **Fax #:**
Project #: Spring ACS S#1 **Project Owner:** Llano Disposal
Project Name: URBAN Brine
Project Location: Brine well located in URBAN Brine well
Sampler Name: Elizabeth Pickrel

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER	DATE	TIME	ANALYSIS REQUEST	
															PRESERV	SAMPLING
#205327	3 URBAN Brine Brine well	G	1						water				1-23-2021	14 PM	TDS, SG, Cl ⁻ , PH	

RECEIVED BY: Elizabeth Pickrel
DATE: 01-23-21
TIME: 4:50
RECEIVED BY: [Signature]

DELIVERED BY: (Circle One) UPS Bus Other
Observed Temp. °C: 5.3
Corrected Temp. °C: 4.8
Sample Condition: Cool Intact Yes No

TURNAROUND TIME: Standard Rush
Thermometer ID #13: Yes No
Correction Factor -0.5°C: Yes No

REMARKS: Service: llanobrine@gmail.com

† Cardinal cannot accept verbal changes. Please email changes to caley.keene@cardinalabnm.com

APPENDIX G

Certification

Llano Disposal, LLC certifies that continued salt solution mining will not cause cavern collapse, surface subsidence, property damage, or otherwise threaten public health and the environment, based on geologic and engineering data provided herein.

Darr Angell
Name

Owner/Permittee Holder
Title


Signature

4/26/22
Date

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

COMMENTS

Action 126573

COMMENTS

Operator: LLANO DISPOSAL, L.L.C. P.O. Box 250 Lovington, NM 88260	OGRID: 370661
	Action Number: 126573
	Action Type: [UF-DP] Discharge Permit (DISCHARGE PERMIT)

COMMENTS

Created By	Comment	Comment Date
cchavez	Annual Report 2021	7/19/2022

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 126573

CONDITIONS

Operator: LLANO DISPOSAL, L.L.C. P.O. Box 250 Lovington, NM 88260	OGRID: 370661
	Action Number: 126573
	Action Type: [UF-DP] Discharge Permit (DISCHARGE PERMIT)

CONDITIONS

Created By	Condition	Condition Date
cchavez	General Conditions of Approval included in E-Permitting: 1) Environmental Analytical Laboratory Data Results Sheet "Sample ID" descriptors based on permit should include: MW (GW)- Annually, Injection Fresh H2O - Quarterly and Brine- Quarterly. Also, the complete QA/QC laboratory analytical laboratory report for all analytical data shall be provided in each annual report. 2) AOR should include all wells within 1/2 mile of the brine well on a map to scale. 3) Appendix A MIT Chart(s) shall include Chart Recorder Calibration Sheet(s) with last date of calib., calib. results, spring weight, and clock setting. 4) Appendix B "Right Circular Cone" volume algorithm "H" estimated cavern height value shall be the base of cavern depth minus the casing shoe depth value. A depth of salt cavern sounding shall be performed during well workovers to determine cavern height in algorithm calculations. 5) Appendix F permit sample frequency, sample parameters for MW (groundwater), injected freshwater, and b	7/19/2022