

BW-031

ANNUAL

REPORT

2021

2021 ANNUAL CLASS III WELL REPORT

H.R.C. INC.

Schubert 7 Well # 1 (BW-031)

API 30-025-36781

MAY 9, 2022

GARY M. SCHUBERT

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SUMMARY OF CLASS III OPERATIONS 2021

Schubert 7 Well # 1 (BW-31) production operations in 2021 recorded an upward trend as the industry recovered from the COVID pandemic. An annual total of 295,614 bbl. of brine was extracted at an average weight of 9.89 PPG (1.1851 SG), an increase of 32.2% over 2020. Steady sales are expected in 2022.

Analysis of water samples from the designated monitor well showed no changes in water quality.

All facility lines and connections receive a daily visual inspection. Readings on pressure gauges are recorded daily, along with the produced brine and injected water volumes. Safety shut off mechanisms are tested to ensure that the high and low pressure shut down systems are fully functional. In 2021 there were no leaks that occurred during the year. The fresh water systems and well are insulated to protect the fresh water system from freezing. All meters and valves were protected and are in good working condition.

H.R.C., Inc. preventive maintenance plan is to replace any connections or valves that could be showing wear. This will continue as a safe operating procedure in 2022. Connections are changed when the first sign of salt is seen behind the threaded end.

In April of 2021, a new mechanical seal was installed on the Summit MT Transfer pump as a part of routine maintenance on the pump. The work was performed by Odessa Pumps of Hobbs and was completed in approximately three hours. The pump was tested for any leaks and operating pressure was verified upon completion of the work.

In December of 2021 a new bearing and rotor assembly was installed on the Summit MT Transfer pump as a result of normal wear on the pump. This work was the first time the pump had required this maintenance since its installation. At the same time a mechanical seal was installed by the same mechanic who performed the work in April. The same procedures from the last seal change were followed. When replacing the above equipment, fresh water was used to clean out the lines, and valves were shut in allowing the connecting unions to be broken to prevent any impact to the ground within the pump shop where the pump resides.

There were no deviations from normal operations of the well.

Surface subsidence monitoring results show no changes in elevations at the designated monitoring points.

Solution cavern characterization results show that the cavern size and shape remain within NMOCD recommended limits.

H.R.C., Inc. has continued its COVID protection plan for employees, requiring appropriate masks, hand sanitizers, aerosols and nitrile gloves in the field and office. Field tickets are stored in plastic bags and handled diligently for the least exposure possible to its employees.

H.R.C., Inc. Schubert 7 # 1 is an asset to industry and continues to support oil & gas production operations in New Mexico.

FLUID INJECTION & BRINE PRODUCTION VOLUMES**2021 MONTHLY TOTALS PRODUCED BRINE & INJECTED FRESH WATER**

MONTH	PROD. BRINE	INJ. FRESH WATER
JANUARY	13721	13604
FEBRUARY	7886	7795
MARCH	6135	6057
APRIL	27514	27202
MAY	21574	21309
JUNE	28258	27930
JULY	23602	23338
AUGUST	17876	17657
SEPTEMBER	15437	15242
OCTOBER	15671	15461
NOVEMBER	10793	10704
DECEMBER	19361	19214
TOTAL	207828	205513

YEAR	PROD. BRINE	INJ. FRESH WATER
2017	301,502	282,445
2018	240,838	241,242
2019	284,882	278,960
2020	133,110	131,644
2021	207,828	205,513

ANNUAL TOTALS PRODUCED BRINE & INJECTED FRESH WATER

The Schubert 7 Well #1 (BW-31) was worked over at end of December of 2020, as per previously submitted reports, and depth of production was lowered. New cavern characterization beginning January 2021.

EXTRACTION VS. INJECTION RATIOS

2021 FLUID INJECTION & BRINE PRODUCTION VOLUME RATIO

MONTH	BRINE	BRINE PSI	FRESH WATER	FW PSI	RATIO (RAW)	RATIO (CALC)
JANUARY	13721	30	13604	265	13721:13604	1.0086
FEBRUARY	7886	32	7795	269	7886:7795	1.0117
MARCH	6135	35	6057	268	6135:6057	1.0129
APRIL	27514	37	27202	270	27514:27202	1.0115
MAY	21574	35	21309	269	21574:21309	1.0124
JUNE	28258	40	27930	267	28258:27930	1.0117
JULY	23602	39	23338	270	23602:23338	1.0113
AUGUST	17876	32	17657	265	17876:17657	1.0124
SEPTEMBER	15437	34	15242	269	15437:15242	1.0128
OCTOBER	15671	39	15461	270	15671:15461	1.0136
NOVEMBER	10793	37	10704	267	10793:10704	1.0083
DECEMBER	19361	40	19214	270	19361:19214	1.0077

INJECTION PRESSURE

Production pressure remains consistent with 2020, taking into account the workover done at the end of 2020. Injection pressure increased by 65 psi due to the wellbore change to inject down tubing and produce up the annulus instead of the previous method of injecting down annulus and producing up tubing. Annulus average is 36 PSIG and the tubing average is at 268 PSIG. RFD pump runs at 53.6 Hz. with a yield of 28 to 29 GPM. The lease operator checks the pressure daily and records it on his daily logs.

Please find production & injection pressure and volume data attached in Appendix A, and can be seen in the table above.

MONITOR WELL WATER SAMPLE CHEMICAL ANALYSIS DATA

The BW-31 order requires that the specified monitor well be sampled quarterly and chemical analysis results be reported to the OCD. H.R.C. Inc. has erroneously been performing this sampling on a semi-annual basis instead of quarterly. Quarterly sampling and analysis has been instituted as of January 2022, and will remain on a quarterly basis going forward. Cardinal Laboratories sampled water from the designated monitor well on 06/02/2021 and 12/17/2021. Summary of the analyses from June 2021 and December 2021 for Inorganic Compounds and Total Recovery Metals by ICP (E200.7) are shown below. There were no appreciable changes in the designated monitor well water quality throughout 2021, and as compared to 2020.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398- 20-13 for 06/16/21 and 12/27/21.

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

Method EPA 552.2 Total Halo acetic 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 Halo acetic Acids (HAA-5)

Full details of the analytical results are attached at the end of this report in Appendix B.

JUNE 2021 RESULTS**MONITOR WELL INORGANIC COMPOUNDS**

Analyte	Result	MDL	Reporting Limit	Units	Analyzed Date	Method
Alkalinity, Bicarbonate	210		5.0	MG/L	6-3-21	310.0
Alkalinity Carbonate	< 1.00		1.0	MG/L	6-3-21	310.0
Chloride	560		4.0	MG/L	6-3-21	4500-C1.B
Conductivity	2400		1.0	US/CM	6-4-21	120.1
pH	7.74		0.100	pH Units	6-4-21	150.1
Sulfate	166		50	MG/L	6-3-21	375.4
TDS	1380		5.0	MG/L	6-7-21	160.1
Alkalinity Total	172		4.0	MG/L	6-3-21	310.1

MONITOR WELL TOTAL RECOVERABLE METALS by ICP (E220.7)

Analyte	Result	MDL	Reporting Limit	Units	Analyzed Date	Method
Calcium	123		0.500	MG/L	6-14-21	EPA200.7
Magnesium	35		0.500	MG/L	6-14-21	EPA200.7
Potassium	3.31	.915	5.0	MG/L	6-14-21	EPA200.7
Sodium	287		5.0	MG/L	6-14-21	EPA200.7

DECEMBER 2021 RESULTS**MONITOR WELL INORGANIC COMPOUNDS**

Analyte	Result	MDL	Reporting Limit	Units	Analyzed Date	Method
Alkalinity, Bicarbonate	224		5.00	MG/L	12-20-21	310.0
Alkalinity Carbonate	<1.00		1.00	MG/L	12-20-21	310.0
Chloride	68.0		4.00	MG/L	12-20-221	4500. C1.B
Conductivity	671		1.00	UMHOS/CM	12-17-21	120.1
pH	7.83		0.100	pH units	12-17-21	150.1
Sulfate	81.6		25.0	MG/L	12-20-21	375.4
TDS	417		5.0	MG/L	12-20-21	160.1
Alkalinity Total	184		4.00	MG/L	12-20-21	310.1

MONITOR WELL TOTAL RECOVERABLE METALS by ICP (E220.7)

Analyte	Result	MDL	Reporting Limit	Units	Analyzed Date	Method
Calcium	49.8		1.00	MG/L	1-6-22	EPA 200.7
Magnesium	15.2		1.00	MG/L	1-5-22	EPA 200.7
Potassium	1.89	1.83	10.00	MG/L	1-5-22	EPA 200.7
Sodium	63.3		10.00	MG/L	1-5-22	EPA 200.7

PRODUCED BRINE & INJECTED FRESH WATER CHEMICAL ANALYSIS DATA

The BW-31 order requires that the produced brine and injected fresh water be sampled quarterly and chemical analysis results be reported to the OCD. H.R.C. Inc. has erroneously been performing this sampling on a semi-annual basis instead of quarterly. Quarterly sampling and analysis has been instituted as of January 2022, and will remain on a quarterly basis going forward. Cardinal Laboratories sampled produced brine and injected fresh water from the BW-31 facility on 06/02/2021 and 12/17/2021. Summary of the analyses from June 2021 and December 2021 for Inorganic Compounds and Total Recovery Metals by ICP (E200.7) are shown below. There were no appreciable changes in both the produced brine chemistry and injected fresh water chemistry throughout 2021, and as compared to 2020.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398- 20-13 for 06/16/21 and 12/27/21.

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

Method EPA 552.2 Total Halo acetic 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 Halo acetic Acids (HAA-5)

Full details of the analytical results are attached at the end of this report in Appendix B.

BRINE ANALYTICAL RESULTS: JUNE 2021**INORGANIC COMPOUNDS**

Analyte	Result	MDL	Reporting Limit	Units	Analyzed Date	Method
Alkalinity, Bicarbonate	259		5.00	MG/L	6-3-21	310.0
Alkalinity Carbonate	<1.00		1.00	MG/L	6-3-21	310.0
Chloride	192,000		4.00	MG/L	6-3-21	4500.C1.B
Conductivity	276,000		1.00	UMHOS/CM	6-4-21	120.1
pH	6.88		0.100	Ph Units	6-4-21	150.1
Sulfate	5050		500	MG/L	6-3-21	375.4
TDS	314,000		5.00	MG/L	6-8-21	160.1
Alkalinity Total	212		4.00	MG/L	6-3-21	310.1

TOTAL RECOVERABLE METALS by ICP (E220.7)

Analyte	Result	MDL	Reporting Limit	Units	Analyzed Date	Method
Calcium	1050		50.0	MG/L	6-14-21	EPA 200.7
Magnesium	617		50.0	MG/L	6-14-21	EPA200.7
Potassium	1160	91.5	500	MG/L	6-14-21	EPA 200.7
Sodium	108,000		500	MG/L	6-14-21	EPA 200.7

FRESH WATER ANALYTICAL RESULTS: JUNE 2021**INORGANIC COMPOUNDS**

Analyte	Result	MDL	Reporting Limit	Units	Analyzed	Method
Alkalinity, Bicarbonate	244		5.00	MG/L	6-3-21	310.0
Alkalinity Carbonate	<1.00		1.00	MG/L	6-3-21	310.0
Chloride	476		4.00	MG/L	6-3-21	4500.C1.B
Conductivity	2760		1.00	UMHOS/CM	6-3-21	120.1
pH	7.46		0.100	pH units	6-4-21	150.1
Sulfate	498		125	MG/L	6-3-21	375.1
TDS	1840		5.00	MG/L	6-8-21	160.1
Alkalinity Total	200		4.00	MG/L	6-3-21	310.1

TOTAL RECOVERABLE METALS by ICP (E220.7)

Analyte	Result	MDL	Reporting Limit	Units	Analyzed	Method
Calcium	241		0.500	MG/L	6-14-21	EPA 200.7
Magnesium	77.3		0.500	MG/L	6-14-21	EPA 200.7
Potassium	6.91	0.915	5.00	MG/L	6-14-21	EPA 200.7
Sodium	224		5.00	MG/L	6-14-21	EPA 200.7

BRINE ANALYTICAL RESULTS: DECEMBER 2021**INORGANIC COMPOUNDS**

Analyte	Result	MDL	Reporting Limit	Units	Analyzed Date	Method
Alkalinity Bicarbonate	264		5.00	MG/L	12-20-21	310.0
Alkalinity Carbonate	<1.00		1.00	MG/L	12-20-21	310.0
Chloride	190,000		4.00	MG/L	12-20-21	4500. C1.B
Conductivity	283,000		1.00	UMHOS/CM	12-17-21	120.1
pH	6.59		0.100	Ph Units	12-17-21	150.1
Sulfate	6880		1250	MG/L	12-20-21	375.1
TDS	319,000		5.00	MG/L	12-20-21	160.1
Alkalinity Total	216		4.00	MG/L	12-20-21	310.1

TOTAL RECOVERABLE METALS by ICP (E220.7)

Analyte	Result	MDL	Reporting Limit	Units	Analyzed Date	Method
Calcium	915		20.0	MG/L	1-5-22	EPA 200.7
Magnesium	645		20.0	MG/L	1-5-22	EPA 200.7
Potassium	1370	36.6	200	MG/L	1-5-22	EPA 200.7
Sodium	104,000		500	MG/L	1-5-22	EPA 200.7

FRESH WATER ANALYTICAL RESULTS: DECEMBER 2021**INORGANIC COMPOUNDS**

Analyte	Result	MDL	Reporting Limit	Units	Analyzed	Method
Alkalinity, Bicarbonate	303		5.00	MG/L	12-20-21	310.0
Alkalinity Carbonate	<1.00		1.00	MG/L	12-20-21	310.0
Chloride	292		4.00	MG/L	12-20-21	4500.C1.B
Conductivity	1630		1.00	UMHOS/CM	12-17-21	120.1
pH	7.44		0.100	pH Units	12-17-21	150.1
Sulfate	158		25.0	MG/L	12-20-21	375.1
TDS	1000		5.00	MG/L	12-20-21	160.1
Alkalinity Total	248		4.00	MG/L	12-20-21	310.1

TOTAL RECOVERABLE METALS by ICP (E220.7)

Analyte	Result	MDL	Reporting Limit	Units	Analyzed	Method
Calcium	124		1.00	MG/L	1-5-22	EPA 200.7
Magnesium	24.3		1.00	MG/L	1-5-22	EPA 200.7
Potassium	12.2	1.83	10.00	MG/L	1-5-22	EPA 200.7
Sodium	168		10.00	MG/L	1-5-22	EPA 200.7

PIPE LINE HYDROSTATIC TEST RESULTS

Lines that lead to the storage tanks from the wellhead have a hydrostatic pressure of 8.3 pounds of pressure at the base of the line at the fill tank when idle. The operating static pressure average is 11.7 psi respectively. The operating pressure is at around 20 psig. Discharge line is of 3" Polyethylene SDR 11 with a max operating pressure of 160 PSI.

The Brine Water transfer line from the storage tanks at the Schubert 7 Well # 1 Facility is run straight to the ETZ Water Station sales tanks located approximately 3.8 miles to the southwest of the well. The line is run in 3" SDR-11 Polyethylene and has an operating pressure of 150 psi when the transfer pump is running. There is a 2" ball valve on the discharge of the transfer pump and a 3" ball valve at the inlet to the sales tanks that can be closed to allow for testing of the pipe integrity. This test is performed on a quarterly basis along with daily visual inspections.

VISUAL LEAK INSPECTION MONITORING

H.R.C. Inc. operations personnel walks each above ground facility line daily, and inspects all lines and connections for any sign of leaks or sweating of threads.

The H.R.C. lease operator drives out the lines that are underground and below frost level and visually inspects for any signs of compromised line integrity. This is done up to four times daily, but at a minimum once daily.

No leaks were detected in 2021. Because there were no leaks or spills detected in 2021, there are no leak or spill corrective action reports required.

MECHANICAL INTEGRITY TESTS

A successful mechanical integrity test was performed on 12/18/20. Please find a copy of the MIT Chart, Procedure Report, and C-103 in Appendix C.

AREA OF REVIEW (AOR) UPDATE

H.R.C., Inc. has updated the 2021 AOR for the Schubert 7 Well # 1 (BW-31), showing no new permits or new drilled wells have been located within the ½ or 2 mile AOR since the 2020 report. The last reported change to the AOR was in 2016: Sozo Natural Resources, Schubert 18 #4H, API #30-025-43365, currently Temporarily Abandoned status. This well is outside the ½ mile AOR, but within the 2 mile AOR.

Please find a copy of the ½ and 2 mile AOR review map in Appendix D.

DEVIATIONS FROM NORMAL FLOW CONFIGURATION

H.R.C. Inc. certifies that the well was operated in compliance with its permitted normal flow configuration throughout 2021 (inject fresh water down tubing, produce brine up annulus --- note that permitted normal flow configuration was reverse of this prior to 2020 workover).

MAJOR FACILITY ACTIVITIES OR EVENTS

There were some upgrades to storage capacity for BW-31 during the 2021 operating year. In March of 2021 there were three new 500 Bbl fiberglass brine tanks added to allow for extra storage capacity as well as flexibility in well operations. These three tanks were tied into the existing tank battery with 4" ball valves at each tank and 3" SDR-11 polyethylene lines connecting them to the existing system. The containment area was also expanded to accommodate the extra tanks and storage volume. At the same time these tanks were added, one 750 Bbl Fiberglass tank was added for fresh injection water storage. The existing fresh injection water storage tanks were emptied and disconnected from the supply line and the injection pump and the lines were rerouted to the new 750 Bbl tank. Ball valves, heat tape, and float controls were all installed on this new tank to facilitate normal operations. In November of 2021, six new 500 Bbl Fiberglass tanks were installed for storage of fresh injection water. These additional tanks will help with flexibility operating the well should there be an interruption in the fresh water supply line.

SURFACE SUBSIDENCE MONITORING PLAN RESULTS

Surface subsidence surveys were conducted in June 2021, September 2021, and December 2021, by Basin Surveys, certified by Gary L. Jones, Texas PLS. Three elevation markers are in place. No changes in elevation have been found.

Please find a copy of the BW-31 surveyor's plat in Appendix F, with locations of the BW-31 EM markers, and stating no changes found as of December 27, 2021.

SOLUTION CAVERN CHARACTERIZATION DATA RESULTS

The characterization of the cavern can be mathematically calculated using $V = \pi R^2 h / 3$, where the cavern is assumed to be conical in shape, V = volume of salt removed in ft^3 , R = cavern radius in ft at bottom, and h = height of cavern in ft.

BW-31 has produced 4,199,125 Bbl. of brine from the Salado formation from 2006 to December 31, 2020. As per the 2020 annual report, the cavern diameter at end of 2020 was 311.7 ft, and cavern top was at 1865 ft. At end of 2020, the well was recompleted, with a new 5 1/2" surface casing set at 404 ft. and a new 4 1/2" liner set at 1993 ft. The well was drilled to a new depth of 2649 ft., and new 2 7/8" tubing set at 2609 ft. This recompletion has been previously approved and submitted to the Department. In 2021, 207,828 bbl of brine was produced from the new, deeper cavern. The old wellbore schematic as well as a new wellbore and cavern characterization diagram can be found in Appendix H.

Because the "new" cavern and the "old" caverns are interconnected, the old cavern top at 1865 ft will be used for the cavern size factor calculations, as well as the larger of the old cavern diameter (311.7 ft.) or the diameter of the new cavern (as calculated from 2021 brine production volumes). The new cavern height will be taken as the distance from the new end of tubing to the base of the old cavern, 2609 ft – 2312 ft, or $h = 297$ ft.

It takes 122.136 Lbs. of salt to produce one barrel of quality brine yielding a Specific Gravity of 1.195. Multiplying salt ratio to total fluid bbl. equals 25,383,281 lbs of salt mined during 2021 out of the new cavern. The amount of salt mined, 25,383,281 lbs, divided by 80 lbs salt/ft.³ equals 317,291 ft.³ volume of salt removed through December 31, 2021. Volume of cavern, $V = 317,291 \text{ ft}^3$.

Substituting into $V = \pi R^2 h / 3$ for V and h , and solving for R shows that the radius of the new cavern, $R = 32$ ft. Diameter of new cavern, $D = 2R = 64$ ft. This is less than the diameter of the old cavern, 311.7 ft, so the diameter of the old cavern will be used for the cavern size factor calculation.

Depth of cavern is taken to be depth of top of old cavern, 1865 ft.

In respect to the recommended maximum allowable D/depth cavern size factor of 0.5, the Schubert 7 Well No. 1 (BW-31) has a factor value of $(311.7' / 1865') = 0.167$, which is well below the maximum allowable.

The recompletion of the BW-31 well to a deeper horizon has added years of remaining life to enable continued mining for the salt that is used throughout the oil and gas industry in Southeastern New Mexico.

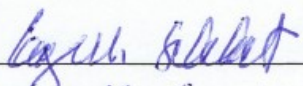
Please find a copy of the BW-31 new wellbore schematic and input data for the cavern characterization calculations in Appendix G.

CONCLUSIONS & RECOMMENDATIONS

This well and facility are in good working order and maintained regularly. The cavern diameter/depth ratio is well within recommended maximum limits, and will not cause cavern collapse. There has been no evidence of surface subsidence. The nearby monitor well shows no evidence of contamination of USDW's. H.R.C. Inc. has not been fully in compliance with reporting to OCD, but procedures have been implemented to bring this well into full reporting compliance, and will remain so going forward.

ANNUAL CERTIFICATION

H.R.C. Inc. certifies that continued salt solution mining of the Schubert 7 Well #1 (BW-31) will not cause cavern collapse, surface subsidence, property damage, or otherwise threaten public health and the environment, based on geologic and engineering data.

Signature  for H.R.C., Inc. Date 5/5/22
Name GARY M. SCHUBERT Title PRES.

APPENDIX A

2021 Production & Injection Pressures and Volumes					
Month		Brine Production (Bbls)		Fresh Injection (Bbls)	
		Average Pressure (psi)		Average Pressure (psi)	
January		13,721		13,604	
		30		265	
February		7,886		7,795	
		32		269	
March		6,135		6,057	
		35		268	
April		27,514		27,202	
		37		270	
May		21,574		21,309	
		35		269	
June		28,258		27,930	
		40		267	
July		23,602		23,338	
		39		270	
August		17,876		17,657	
		32		265	
September		15,437		15,242	
		34		269	
October		15,671		15,461	
		39		270	
November		10,793		10,704	
		37		267	
December		19,361		19,214	
		40		270	
Yearly Total		207,828		205,513	
		36		268	
Cumulative Total		Brine Production (Bbls)		Fresh Injection (Bbls)	
		207,828		205,513	
**New Cavern		2021		2021	
** Did workover in December of 2020 and lowered depth of production. Begin new cavern characterization in January 2021					
** Injecting down the tubing and producing brine back up the casing					

APPENDIX B

6-2-21



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

June 16, 2021

BEN DONAHUE
ETZ WATER STATION
PO BOX 6056
HOBBS, NM 88241

RE: SCHUBERT

Enclosed are the results of analyses for samples received by the laboratory on 06/02/21 14:47.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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/ga/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

Page 1 of 11



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

Analytical Results For:ETZ WATER STATION
PO BOX 6056
HOBBS NM, 88241Project: SCHUBERT
Project Number: SCHUBERT #7 WATER SAMPLES
Project Manager: BEN DONAHUE
Fax To:Reported:
16-Jun-21 11:30

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MONITOR WELL	H211405-01	Water	02-Jun-21 10:15	02-Jun-21 14:47
FRESH WATER	H211405-02	Water	02-Jun-21 10:00	02-Jun-21 14:47
BRINE WATER	H211405-03	Water	02-Jun-21 10:20	02-Jun-21 14:47

Cardinal Laboratories

*=Accredited Analyte

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A handwritten signature in cursive script, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager

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

Analytical Results For:

ETZ WATER STATION
PO BOX 6056
HOBBS NM, 88241

Project: SCHUBERT
Project Number: SCHUBERT #7 WATER SAMPLES
Project Manager: BEN DONAHUE
Fax To:

Reported:
16-Jun-21 11:30

MONITOR WELL
H211405-01 (Water)

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

Cardinal Laboratories**Inorganic Compounds**

Alkalinity, Bicarbonate	210		5.00	mg/L	1	1042813	GM	03-Jun-21	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	1042813	GM	03-Jun-21	310.1	
Chloride*	560		4.00	mg/L	1	1060207	GM	03-Jun-21	4500-Cl-B	
Conductivity*	2400		1.00	umhos/cm @ 25°C	1	1060306	GM	04-Jun-21	120.1	
pH*	7.74		0.100	pH Units	1	1060306	GM	04-Jun-21	150.1	
Temperature °C	22.7			pH Units	1	1060306	GM	04-Jun-21	150.1	
Sulfate*	166		50.0	mg/L	5	1060307	GM	03-Jun-21	375.4	
TDS*	1380		5.00	mg/L	1	1052704	GM	07-Jun-21	160.1	
Alkalinity, Total*	172		4.00	mg/L	1	1042813	GM	03-Jun-21	310.1	

Green Analytical Laboratories**Total Recoverable Metals by ICP (E200.7)**

Calcium*	123		0.500	mg/L	5	B211250	AES	14-Jun-21	EPA200.7	
Magnesium*	35.0		0.500	mg/L	5	B211250	AES	14-Jun-21	EPA200.7	
Potassium*	3.31	0.915	5.00	mg/L	5	B211250	AES	14-Jun-21	EPA200.7	J
Sodium*	287		5.00	mg/L	5	B211250	AES	14-Jun-21	EPA200.7	

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

Analytical Results For:

ETZ WATER STATION
PO BOX 6056
HOBBS NM, 88241

Project: SCHUBERT
Project Number: SCHUBERT #7 WATER SAMPLES
Project Manager: BEN DONAHUE
Fax To:

Reported:
16-Jun-21 11:30

FRESH WATER
H211405-02 (Water)

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

Cardinal Laboratories**Inorganic Compounds**

Alkalinity, Bicarbonate	244		5.00	mg/L	1	1042813	GM	03-Jun-21	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	1042813	GM	03-Jun-21	310.1	
Chloride*	476		4.00	mg/L	1	1060207	GM	03-Jun-21	4500-Cl-B	
Conductivity*	2760		1.00	umhos/cm @ 25°C	1	1060306	GM	04-Jun-21	120.1	
pH*	7.46		0.100	pH Units	1	1060306	GM	04-Jun-21	150.1	
Temperature °C	22.7			pH Units	1	1060306	GM	04-Jun-21	150.1	
Sulfate*	498		125	mg/L	12.5	1060307	GM	03-Jun-21	375.4	
TDS*	1840		5.00	mg/L	1	1052704	GM	08-Jun-21	160.1	
Alkalinity, Total*	200		4.00	mg/L	1	1042813	GM	03-Jun-21	310.1	

Green Analytical Laboratories**Total Recoverable Metals by ICP (E200.7)**

Calcium*	241		0.500	mg/L	5	B211250	AES	14-Jun-21	EPA200.7	
Magnesium*	77.3		0.500	mg/L	5	B211250	AES	14-Jun-21	EPA200.7	
Potassium*	6.91	0.915	5.00	mg/L	5	B211250	AES	14-Jun-21	EPA200.7	
Sodium*	224		5.00	mg/L	5	B211250	AES	14-Jun-21	EPA200.7	

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

Analytical Results For:

ETZ WATER STATION
PO BOX 6056
HOBBS NM, 88241

Project: SCHUBERT
Project Number: SCHUBERT #7 WATER SAMPLES
Project Manager: BEN DONAHUE
Fax To:

Reported:
16-Jun-21 11:30

BRINE WATER
H211405-03 (Water)

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

Alkalinity, Bicarbonate	259		5.00	mg/L	1	1042813	GM	03-Jun-21	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	1042813	GM	03-Jun-21	310.1	
Chloride*	192000		4.00	mg/L	1	1060207	GM	03-Jun-21	4500-Cl-B	
Conductivity*	276000		1.00	umhos/cm @ 25°C	1	1060306	GM	04-Jun-21	120.1	
pH*	6.88		0.100	pH Units	1	1060306	GM	04-Jun-21	150.1	
Temperature °C	22.7			pH Units	1	1060306	GM	04-Jun-21	150.1	
Sulfate*	5050		1000	mg/L	100	1060307	GM	03-Jun-21	375.4	
TDS*	314000		5.00	mg/L	1	1060410	GM	08-Jun-21	160.1	
Alkalinity, Total*	212		4.00	mg/L	1	1042813	GM	03-Jun-21	310.1	

Green Analytical Laboratories**Total Recoverable Metals by ICP (E200.7)**

Calcium*	1050		50.0	mg/L	500	B211250	AES	14-Jun-21	EPA200.7	
Magnesium*	617		50.0	mg/L	500	B211250	AES	14-Jun-21	EPA200.7	
Potassium*	1160	91.5	500	mg/L	500	B211250	AES	14-Jun-21	EPA200.7	
Sodium*	108000		500	mg/L	500	B211250	AES	14-Jun-21	EPA200.7	

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

Analytical Results For:

ETZ WATER STATION
PO BOX 6056
HOBBS NM, 88241

Project: SCHUBERT
Project Number: SCHUBERT #7 WATER SAMPLES
Project Manager: BEN DONAHUE
Fax To:

Reported:
16-Jun-21 11:30

Inorganic Compounds - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1042813 - General Prep - Wet Chem										
Blank (1042813-BLK1)				Prepared: 28-Apr-21 Analyzed: 29-Apr-21						
Alkalinity, Carbonate	ND	1.00	mg/L							
Alkalinity, Bicarbonate	5.00	5.00	mg/L							
Alkalinity, Total	4.00	4.00	mg/L							
LCS (1042813-BS1)				Prepared: 28-Apr-21 Analyzed: 29-Apr-21						
Alkalinity, Carbonate	ND	2.50	mg/L				80-120			
Alkalinity, Bicarbonate	305	12.5	mg/L				80-120			
Alkalinity, Total	250	10.0	mg/L	250		100	80-120			
LCS Dup (1042813-BSD1)				Prepared: 28-Apr-21 Analyzed: 29-Apr-21						
Alkalinity, Carbonate	ND	2.50	mg/L				80-120		20	
Alkalinity, Bicarbonate	305	12.5	mg/L				80-120	0.00	20	
Alkalinity, Total	250	10.0	mg/L	250		100	80-120	0.00	20	
Batch 1052704 - Filtration										
Blank (1052704-BLK1)				Prepared: 27-May-21 Analyzed: 28-May-21						
TDS	ND	5.00	mg/L							
LCS (1052704-BS1)				Prepared: 27-May-21 Analyzed: 28-May-21						
TDS	517		mg/L	500		103	80-120			
Duplicate (1052704-DUP1)				Source: H211352-01 Prepared: 27-May-21 Analyzed: 28-May-21						
TDS	10200	5.00	mg/L		9450			7.23	20	
Batch 1060207 - General Prep - Wet Chem										
Blank (1060207-BLK1)				Prepared & Analyzed: 02-Jun-21						
Chloride	ND	4.00	mg/L							

* = Accredited Analyte

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

Analytical Results For:

ETZ WATER STATION
PO BOX 6056
HOBBS NM, 88241

Project: SCHUBERT
Project Number: SCHUBERT #7 WATER SAMPLES
Project Manager: BEN DONAHUE
Fax To:

Reported:
16-Jun-21 11:30

Inorganic Compounds - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1060207 - General Prep - Wet Chem										
LCS (1060207-BS1)					Prepared & Analyzed: 02-Jun-21					
Chloride	104	4.00	mg/L	100		104	80-120			
LCS Dup (1060207-BSD1)					Prepared & Analyzed: 02-Jun-21					
Chloride	104	4.00	mg/L	100		104	80-120	0.00	20	
Batch 1060306 - General Prep - Wet Chem										
LCS (1060306-BS1)					Prepared: 03-Jun-21 Analyzed: 04-Jun-21					
pH	2.11		pH Units	2.00		106	90-110			
Conductivity	99700		uS/cm	100000		99.7	80-120			
Duplicate (1060306-DUP1)					Source: H211404-01 Prepared: 03-Jun-21 Analyzed: 04-Jun-21					
Conductivity	2080		1.00 umhos/cm @ 25°C		2080			0.241	20	
pH	7.33	0.100	pH Units		7.34			0.136	20	
Temperature °C	22.7		pH Units		22.8			0.440	200	
Batch 1060307 - General Prep - Wet Chem										
Blank (1060307-BLK1)					Prepared & Analyzed: 03-Jun-21					
Sulfate	ND	10.0	mg/L							
LCS (1060307-BS1)					Prepared & Analyzed: 03-Jun-21					
Sulfate	20.6	10.0	mg/L	20.0		103	80-120			
LCS Dup (1060307-BSD1)					Prepared & Analyzed: 03-Jun-21					
Sulfate	20.2	10.0	mg/L	20.0		101	80-120	1.96	20	

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

Analytical Results For:

ETZ WATER STATION
PO BOX 6056
HOBBS NM, 88241

Project: SCHUBERT
Project Number: SCHUBERT #7 WATER SAMPLES
Project Manager: BEN DONAHUE
Fax To:

Reported:
16-Jun-21 11:30

Inorganic Compounds - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1060410 - Filtration										
Blank (1060410-BLK1)										
TDS	ND	5.00	mg/L							Prepared: 04-Jun-21 Analyzed: 08-Jun-21
LCS (1060410-BS1)										
TDS	524		mg/L	500		105	80-120			Prepared: 04-Jun-21 Analyzed: 08-Jun-21
Duplicate (1060410-DUP1)										
		Source: H211405-03								Prepared: 04-Jun-21 Analyzed: 08-Jun-21
TDS	315000	5.00	mg/L		314000			0.409	20	

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

Analytical Results For:

ETZ WATER STATION
PO BOX 6056
HOBBS NM, 88241

Project: SCHUBERT
Project Number: SCHUBERT #7 WATER SAMPLES
Project Manager: BEN DONAHUE
Fax To:

Reported:
16-Jun-21 11:30

Total Recoverable Metals by ICP (E200.7) - Quality Control**Green Analytical Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B211250 - Total Rec. 200.7/200.8/200.2										
Blank (B211250-BLK1)				Prepared: 07-Jun-21 Analyzed: 14-Jun-21						
Magnesium	ND	0.100	mg/L							
Sodium	ND	1.00	mg/L							
Calcium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
LCS (B211250-BS1)				Prepared: 07-Jun-21 Analyzed: 14-Jun-21						
Sodium	3.28	1.00	mg/L	3.24		101	85-115			
Potassium	7.98	1.00	mg/L	8.00		99.7	85-115			
Magnesium	19.6	0.100	mg/L	20.0		98.2	85-115			
Calcium	3.96	0.100	mg/L	4.00		99.0	85-115			
LCS Dup (B211250-BSD1)				Prepared: 07-Jun-21 Analyzed: 14-Jun-21						
Magnesium	20.0	0.100	mg/L	20.0		99.8	85-115	1.59	20	
Potassium	7.93	1.00	mg/L	8.00		99.1	85-115	0.613	20	
Sodium	3.35	1.00	mg/L	3.24		104	85-115	2.21	20	
Calcium	4.03	0.100	mg/L	4.00		101	85-115	1.75	20	

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Notes and Definitions

- J Estimated concentration. Analyte concentration between MDL and RL.
- 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

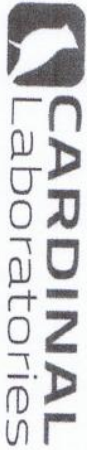
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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <u>ETZ Water Station</u>		P.O. #:		BILL TO												ANALYSIS REQUEST											
Project Manager: <u>Ben Donahue</u>		Company:																									
Address: <u>P.O. Box 5102</u>		Attn:																									
City: <u>Hobbs</u>		Address:																									
Phone #: <u>575 343 3141</u>		City:																									
Fax #: <u></u>		State: <u>NM</u>																									
Zip: <u>88241</u>		Project Owner:																									
Project Name: <u>Shubert #7 Water Samples</u>		State:																									
Project Location: <u>Shubert Well #7</u>		Zip:																									
Sampler Name: <u>Ben Donahue</u>		Phone #:																									
Fax #:																											
FOR LAB USE ONLY																											
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX	PRESERV.	SAMPLING	DATE	TIME																			
<u>4211405</u>	<u>1 Monitor Well</u>	<u>G</u>	<u>2</u>	<u>GROUNDWATER</u>			<u>6/22</u>	<u>10:15</u>	<u>✓</u>																		
	<u>2 Fresh Water</u>	<u>G</u>	<u>2</u>	<u>WASTEWATER</u>			<u>6/22</u>	<u>10:00</u>	<u>✓</u>																		
	<u>3 Brine Water</u>	<u>G</u>	<u>2</u>	<u>SOIL</u>			<u>6/22</u>	<u>10:20</u>	<u>✓</u>																		
				<u>SLUDGE</u>																							
				<u>OTHER :</u>																							
				<u>ACID/BASE:</u>																							
				<u>ICE / COOL</u>																							
				<u>OTHER :</u>																							
PLEASE NOTE: Liability and Damages: Cardinal's liability and damage is limited to the amount paid by the client for the service. All claims including those for negligence and/or professional malpractice must be filed within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages. The performance of services is based upon the information provided by the client. Cardinal Laboratories is not responsible for the accuracy of the information provided by the client. Cardinal Laboratories is not responsible for the accuracy of the information provided by the client. Cardinal Laboratories is not responsible for the accuracy of the information provided by the client.		Relinquished By: <u>Ben Donahue</u>		Date: <u>6/22</u>		Received By: <u>Ben Donahue</u>		Date: <u>6/22</u>		Time: <u>10:15</u>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:		All Results are emailed. Please provide Email address: <u>gschubert@gmail.com</u>		REMARKS:									
Delivered By: (Circle One) <u>UPS</u>		Observed Temp. °C: <u>0.4</u>		Sample Condition: <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Cool <input type="checkbox"/> Yes <input type="checkbox"/> No		CHECKED BY: <u>NO</u>		Turnaround Time: <u>1</u> day		Standard: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> RUSH		Bacteria (only) Sample Condition: <input checked="" type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Corrected Temp. °C: <u></u>													
Sampler: <u>UPS</u>		Corrected Temp. °C: <u></u>																									
FORM 1000 (Rev. 3/1/00) 06/20																											

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



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

January 10, 2022

BEN DONAHUE
ETZ WATER STATION
PO BOX 6056
HOBBS, NM 88241

RE: SCHUBERT

Enclosed are the results of analyses for samples received by the laboratory on 12/17/21 12:27.

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

Page 1 of 10

pg. 30



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

Analytical Results For:ETZ WATER STATION
PO BOX 6056
HOBBS NM, 88241Project: SCHUBERT
Project Number: SHUBERT #7 WATER SAMPLES
Project Manager: BEN DONAHUE
Fax To:Reported:
10-Jan-22 12:02

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FRESH WATER	H213653-01	Water	17-Dec-21 09:35	17-Dec-21 12:27
BRINE WATER	H213653-02	Water	17-Dec-21 09:40	17-Dec-21 12:27
MONITOR WELL	H213653-03	Water	17-Dec-21 09:30	17-Dec-21 12:27

Cardinal Laboratories

*=Accredited Analyte

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

Analytical Results For:

ETZ WATER STATION
PO BOX 6056
HOBBS NM, 88241

Project: SCHUBERT
Project Number: SHUBERT #7 WATER SAMPLES
Project Manager: BEN DONAHUE
Fax To:

Reported:
10-Jan-22 12:02

FRESH WATER
H213653-01 (Water)

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

Cardinal Laboratories**Inorganic Compounds**

Alkalinity, Bicarbonate	303		5.00	mg/L	1	1120308	AC	20-Dec-21	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	1120308	AC	20-Dec-21	310.1	
Chloride*	292		4.00	mg/L	1	1121717	GM	20-Dec-21	4500-Cl-B	
Conductivity*	1630		1.00	umhos/cm @ 25°C	1	1121716	GM	17-Dec-21	120.1	
pH*	7.44		0.100	pH Units	1	1121716	GM	17-Dec-21	150.1	
Temperature °C	21.2			pH Units	1	1121716	GM	17-Dec-21	150.1	
Sulfate*	158		25.0	mg/L	2.5	1122003	AC	20-Dec-21	375.4	
TDS*	1000		5.00	mg/L	1	1120903	AC	20-Dec-21	160.1	
Alkalinity, Total*	248		4.00	mg/L	1	1120308	AC	20-Dec-21	310.1	

Green Analytical Laboratories**Total Recoverable Metals by ICP (E200.7)**

Calcium*	124		1.00	mg/L	10	B213157	JDA	05-Jan-22	EPA200.7	
Magnesium*	24.3		1.00	mg/L	10	B213157	JDA	05-Jan-22	EPA200.7	
Potassium*	12.2	1.83	10.0	mg/L	10	B213157	JDA	05-Jan-22	EPA200.7	
Sodium*	168		10.0	mg/L	10	B213157	JDA	05-Jan-22	EPA200.7	

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*=Accredited Analyte

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

Analytical Results For:

ETZ WATER STATION
PO BOX 6056
HOBBS NM, 88241

Project: SCHUBERT
Project Number: SHUBERT #7 WATER SAMPLES
Project Manager: BEN DONAHUE
Fax To:

Reported:
10-Jan-22 12:02

BRINE WATER
H213653-02 (Water)

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

Alkalinity, Bicarbonate	264		5.00	mg/L	1	1120308	AC	20-Dec-21	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	1120308	AC	20-Dec-21	310.1	
Chloride*	190000		4.00	mg/L	1	1121717	GM	20-Dec-21	4500-Cl-B	
Conductivity*	283000		1.00	umhos/cm @ 25°C	1	1121716	GM	17-Dec-21	120.1	
pH*	6.59		0.100	pH Units	1	1121716	GM	17-Dec-21	150.1	
Temperature °C	21.4			pH Units	1	1121716	GM	17-Dec-21	150.1	
Sulfate*	6880		1250	mg/L	125	1122003	AC	20-Dec-21	375.4	
TDS*	319000		5.00	mg/L	1	1120903	AC	20-Dec-21	160.1	
Alkalinity, Total*	216		4.00	mg/L	1	1120308	AC	20-Dec-21	310.1	

Green Analytical Laboratories**Total Recoverable Metals by ICP (E200.7)**

Calcium*	915		20.0	mg/L	200	B213157	JDA	05-Jan-22	EPA200.7	
Magnesium*	645		20.0	mg/L	200	B213157	JDA	05-Jan-22	EPA200.7	
Potassium*	1370	36.6	200	mg/L	200	B213157	JDA	05-Jan-22	EPA200.7	
Sodium*	104000		500	mg/L	500	B213157	JDA	06-Jan-22	EPA200.7	

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

Analytical Results For:

ETZ WATER STATION
PO BOX 6056
HOBBS NM, 88241

Project: SCHUBERT
Project Number: SHUBERT #7 WATER SAMPLES
Project Manager: BEN DONAHUE
Fax To:

Reported:
10-Jan-22 12:02

MONITOR WELL
H213653-03 (Water)

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

Alkalinity, Bicarbonate	224		5.00	mg/L	1	1120308	AC	20-Dec-21	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	1120308	AC	20-Dec-21	310.1	
Chloride*	68.0		4.00	mg/L	1	1121717	GM	20-Dec-21	4500-Cl-B	
Conductivity*	671		1.00	umhos/cm @ 25°C	1	1121716	GM	17-Dec-21	120.1	
pH*	7.83		0.100	pH Units	1	1121716	GM	17-Dec-21	150.1	
Temperature °C	21.4			pH Units	1	1121716	GM	17-Dec-21	150.1	
Sulfate*	81.6		25.0	mg/L	2.5	1122003	AC	20-Dec-21	375.4	
TDS*	417		5.00	mg/L	1	1120903	AC	20-Dec-21	160.1	
Alkalinity, Total*	184		4.00	mg/L	1	1120308	AC	20-Dec-21	310.1	

Green Analytical Laboratories**Total Recoverable Metals by ICP (E200.7)**

Calcium*	49.8		1.00	mg/L	10	B213157	JDA	06-Jan-22	EPA200.7	
Magnesium*	15.2		1.00	mg/L	10	B213157	JDA	05-Jan-22	EPA200.7	
Potassium*	1.89	1.83	10.0	mg/L	10	B213157	JDA	05-Jan-22	EPA200.7	J
Sodium*	63.3		10.0	mg/L	10	B213157	JDA	05-Jan-22	EPA200.7	

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Celey D. Keene, Lab Director/Quality Manager

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

Analytical Results For:

ETZ WATER STATION
PO BOX 6056
HOBBS NM, 88241

Project: SCHUBERT
Project Number: SHUBERT #7 WATER SAMPLES
Project Manager: BEN DONAHUE
Fax To:

Reported:
10-Jan-22 12:02

Inorganic Compounds - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120308 - General Prep - Wet Chem										
Blank (1120308-BLK1)				Prepared & Analyzed: 03-Dec-21						
Alkalinity, Carbonate	ND	1.00	mg/L							
Alkalinity, Bicarbonate	5.00	5.00	mg/L							
Alkalinity, Total	4.00	4.00	mg/L							
LCS (1120308-BS1)				Prepared & Analyzed: 03-Dec-21						
Alkalinity, Carbonate	ND	2.50	mg/L				80-120			
Alkalinity, Bicarbonate	292	12.5	mg/L				80-120			
Alkalinity, Total	240	10.0	mg/L	250		96.0	80-120			
LCS Dup (1120308-BSD1)				Prepared & Analyzed: 03-Dec-21						
Alkalinity, Carbonate	ND	2.50	mg/L				80-120		20	
Alkalinity, Bicarbonate	305	12.5	mg/L				80-120	4.18	20	
Alkalinity, Total	250	10.0	mg/L	250		100	80-120	4.08	20	
Batch 1120903 - Filtration										
Blank (1120903-BLK1)				Prepared: 09-Dec-21 Analyzed: 13-Dec-21						
TDS	ND	5.00	mg/L							
LCS (1120903-BS1)				Prepared: 09-Dec-21 Analyzed: 13-Dec-21						
TDS	523		mg/L	500		105	80-120			
Duplicate (1120903-DUP1)				Source: H213532-06 Prepared: 09-Dec-21 Analyzed: 13-Dec-21						
TDS	613	5.00	mg/L		591			3.65	20	
Batch 1121716 - General Prep - Wet Chem										
LCS (1121716-BS1)				Prepared & Analyzed: 17-Dec-21						
pH	7.11		pH Units	7.00		102	90-110			
Conductivity	105000		uS/cm	100000		105	80-120			

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

Analytical Results For:

ETZ WATER STATION
PO BOX 6056
HOBBS NM, 88241

Project: SCHUBERT
Project Number: SHUBERT #7 WATER SAMPLES
Project Manager: BEN DONAHUE
Fax To:

Reported:
10-Jan-22 12:02

Inorganic Compounds - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1121716 - General Prep - Wet Chem										
Duplicate (1121716-DUP1)		Source: H213653-01		Prepared & Analyzed: 17-Dec-21						
pH	7.47	0.100	pH Units		7.44			0.402	20	
Conductivity	1610	1.00	umhos/cm @ 25°C		1630			1.17	20	
Temperature °C	21.3		pH Units		21.2			0.471	200	
Batch 1121717 - General Prep - Wet Chem										
Blank (1121717-BLK1)		Prepared & Analyzed: 17-Dec-21								
Chloride	ND	4.00	mg/L							
LCS (1121717-BS1)		Prepared & Analyzed: 17-Dec-21								
Chloride	100	4.00	mg/L	100		100	80-120			
LCS Dup (1121717-BSD1)		Prepared & Analyzed: 17-Dec-21								
Chloride	104	4.00	mg/L	100		104	80-120	3.92	20	
Batch 1122003 - General Prep - Wet Chem										
Blank (1122003-BLK1)		Prepared & Analyzed: 20-Dec-21								
Sulfate	ND	10.0	mg/L							
LCS (1122003-BS1)		Prepared & Analyzed: 20-Dec-21								
Sulfate	22.4	10.0	mg/L	20.0		112	80-120			
LCS Dup (1122003-BSD1)		Prepared & Analyzed: 20-Dec-21								
Sulfate	23.1	10.0	mg/L	20.0		116	80-120	3.21	20	

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

Analytical Results For:

ETZ WATER STATION
PO BOX 6056
HOBBS NM, 88241

Project: SCHUBERT
Project Number: SHUBERT #7 WATER SAMPLES
Project Manager: BEN DONAHUE
Fax To:

Reported:
10-Jan-22 12:02

Total Recoverable Metals by ICP (E200.7) - Quality Control**Green Analytical Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B213157 - Total Rec. 200.7/200.8/200.2										
Blank (B213157-BLK1)				Prepared: 28-Dec-21 Analyzed: 05-Jan-22						
Magnesium	ND	0.100	mg/L							
Calcium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
Sodium	ND	1.00	mg/L							
LCS (B213157-BS1)				Prepared: 28-Dec-21 Analyzed: 05-Jan-22						
Potassium	7.86	1.00	mg/L	8.00		98.3	85-115			
Sodium	3.15	1.00	mg/L	3.24		97.1	85-115			
Magnesium	20.2	0.100	mg/L	20.0		101	85-115			
Calcium	3.93	0.100	mg/L	4.00		98.3	85-115			
LCS Dup (B213157-BSD1)				Prepared: 28-Dec-21 Analyzed: 05-Jan-22						
Magnesium	20.2	0.100	mg/L	20.0		101	85-115	0.397	20	
Calcium	3.93	0.100	mg/L	4.00		98.3	85-115	0.00694	20	
Potassium	7.86	1.00	mg/L	8.00		98.2	85-115	0.0388	20	
Sodium	3.14	1.00	mg/L	3.24		96.8	85-115	0.252	20	

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Notes and Definitions

J	Estimated concentration. Analyte concentration between MDL and RL.
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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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager

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Company Name: ETZ Water Station

ANALYSIS REQUEST

Page 10 of 10

APPENDIX C

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.) 1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other Brine <input type="checkbox"/> 2. Name of Operator H.R.C., INC. 3. Address of Operator P.O. Box 5102 Hobbs, New Mexico 4. Well Location Unit Letter <u>J</u> : <u>2313</u> feet from the <u>South</u> line and <u>2313</u> feet from the <u>East</u> line Section <u>7</u> Township <u>19S</u> Range <u>39E</u> NMPM Lea County 11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3585 GL.	WELL API NO. 30-025-36781 5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/> 6. State Oil & Gas Lease No. 7. Lease Name or Unit Agreement Name Shubert 7 8. Well Number 1 BW-31 9. OGRID Number 131652 10. Pool name or Wildcat BSW - Salado
--	---

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: Bradenhead Test Report <input checked="" 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.

Please find with this report the Bradenhead Test Report conducted 1/4/2021 as per request of OCD District I Kerry Fortner.

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 Acting Agent for H.R.C., INC DATE 2/5/2021

Type or print name David H. Alvarado E-mail address: davidal00136@gmail.com PHONE: 575 513 1238

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____

Conditions of Approval (if any): _____



NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC NM 87410
(805) 334-4178 FAX: (805) 334-4170
<http://emnrds.state.nm.us/oed/District16/3dstatic.htm>

BRADENHEAD TEST REPORT

(submit 1 copy to above address)

Date of Test 1/4/2021 Operator H.R.C. INC. API #30-0 25-36781

Property Name SCHUBERT 7 Well No. 1 Location: Unit 2 Section 7 Township 19S Range 39E

Well Status(Shut-In or Producing) Initial PSI: Tubing 2 3/8 Intermediate 5 1/2 Casing 4 1/2 Bradenhead 0 5/8

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

Testing	PRESSURE				
	BH	Bradenhead		INTERM	
TIME		Int	Csg	Int	Csg
5 min	0	0	230	0	230
10 min	0	0	230	0	230
15 min	0	0	230	0	230
20 min					
25 min					
30 min					

FLOW CHARACTERISTICS

BRADENHEAD	INTERMEDIATE
Steady Flow	
Surges	
Down to Nothing	
Nothing	✓
Gas	
Gas & Water	
Water	

If bradenhead flowed water, check all of the descriptions that apply below:

CLEAR _____ FRESH _____ SALTY _____ SULFUR _____ BLACK _____

5 MINUTE SHUT-IN PRESSURE BRADENHEAD 0 INTERMEDIATE 230

REMARKS:

By GARY M. SCHUBERT Witness BEN DONAHUE / DAVID AARON

MGR.
(Position)

E-mail address GARYMSCHUBERT@GMAIL.COM

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. 30-025-36781	
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other Brine		5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>	
2. Name of Operator H.R.C., INC.		6. State Oil & Gas Lease No.	
3. Address of Operator P.O. Box 5102 Hobbs, New Mexico		7. Lease Name or Unit Agreement Name Shubert 7	
4. Well Location Unit Letter <u>J</u> : <u>2313</u> feet from the <u>South</u> line and <u>2313</u> feet from the <u>East</u> line Section <u>7</u> Township <u>19S</u> Range <u>39E</u> NMPM Lea County		8. Well Number <u>1 BW-031</u>	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3585 GL		9. OGRID Number 131652	
		10. Pool name or Wildcat BSW - Salado	

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ 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: Re set tubing depth deeper ☒

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.

Please see the attached report with this C- 103 of work completed on the Shubert 7 Well # 1 BW-031.

Please find with this report the MIT chart that was conducted on 12/18/2020

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 David H. Alvarado TITLE Acting Agent for H.R.C., INC DATE 2/5/2021

Type or print name David H. Alvarado E-mail address: davidal00136@gmail.com PHONE: 575 513 1238
For State Use Only

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

C-103 SUBSEQUENT REPORT

SHUBERT 7 WELL No. 1

API 30-025-36781 BW-031

12/14/2020 Performed JSA's, MI & RU workover unit and drilling reverse unit, ND wellhead tree and lift on 2 7/8 J-55 tbg. to 20K tbg. stuck worked tbg. to 30K tbg. started moving, removed tbg. hanger. NU BOP prepare for tubing extraction lay down total 71- 2 7/8 J 55 jts. and one parted jt. 23 foot long. Left in hole 8 foot of 2 7/8 J-55, bit sub w/ 4 3/4" bit. Tallied extracted pipe @ 2307' left in hole from 2307'-2312' closed BOP SDFN

12/15/2020 MI 86 jts. 2 3/8" EUE 4.7# J-55 tbg. and 50 jts. 4 1/2" 11.35 # J-55 Csg. w/ID 4". RIH w/new 4 3/4" skirted Varel cone bit w/ bit sub and 6- 3 1/2" OD d/c's on top of bit sub. RIH w/tbg. tag top of fish @ 1820' rolled of top of fish continue to RIH to 1826' RU Swivel rotate from 1826' to 1844' continued to drill and wash out bore to 1985', pulled bit up into 8 5/8 csg. To 1702 shut in BOP SDFN

12/16/2020 Open up BOP continued to RIH with Bit, Bit sub, D/C and tubing rolling off of TOF @ 1856' continued to drill and wash 1985' to 2020' hard drilling from 2020'-2034' fall out washing to 2044' circulate hole 60 minutes, POH LD 3 1/2" d/c w/BHA shut in BOP SDFN

12/17/2020 Open BOP installed 4 1/2 rams MI Lewis Casing Crew, P/U 1- 4 1/2 muleshoed jt., TIH with 47 jts. 4 1/2" 11.35# J-55 LTC casing total 48 joints landed casing w/ 4 1/2 " X 3.85' LTC Pin X 4 1/2" LTC Box 11.35# J-55 in Box liner w/22k string weight. Casing well head hanger(double grove O ring seal) tighten hanger retaining pins. 4 1/2" 11.35# Liner Casing set at 1993' closed well in. SDFN

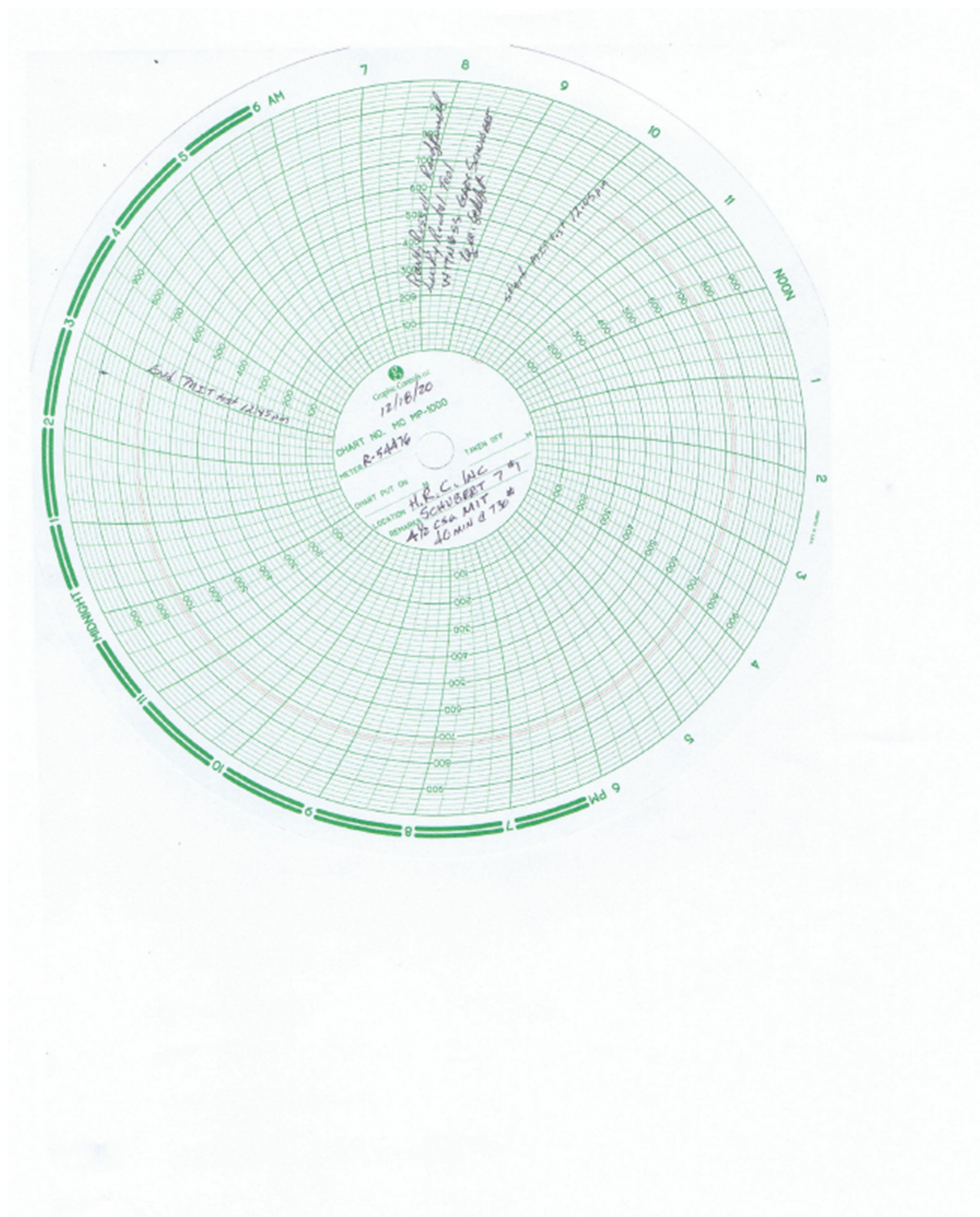
12/18/2020 Open well and BOP removed landing sub R/D Lewis Casing Crew. N/D BOP installed 7 1/16" 3M x 7 1/16" 3M tbg. spool w/ 6 3/8" bore TC Profile with 2" API pipe outlets, installed to 5 1/2" csg. Wellhead section 7 1/16" 3M flange top over 4 1/2" csg. hanger. Tested wellhead for 10 minutes @ 2200 psi no leak off, NU BOP & installed 2 3/8" rams. RIH w/ AD1 Pkr. Set @ 1960', tested 4 1/2" annulus to 730 Psi for 40 minutes tested good no leak off. TOH with AD1 Pkr. RIH with new 3 7/8" skirted mill tooth bit, 2 3/8" eubx X 2 3/8" rgbx bit sub below 2 3/8" J-55 tbg. tag @2048' Pulled bit up into 4 1/2" casing at 1864 closed well in and BOP SDFN.

12/19/2020 Open well RIH with Bit to 2048' drilled to 2051', fell out ran to 2074' drill from 2074 - 2076 ran to 2079' continued drilling 2079' - 2081' ran to to 2102', continued drilling from 2102' -2105' fell out continued washing to 2163' got stuck, worked pipe free, could not return back to 2163' Pipe stacking out after lifting. Re moved swivel POH w/ tbg. Tubing was

bent on joint number two above bit sub, and sheared cut on jt. # 1 above bit sub and bit left 1-16' 2 3/8" tbg. piece and a bit sub w/ 3 7/8" bit in hole. 18' fish est. depth of TOF #2 @2145'-2163" shut in SDFN.

12/21/20 Open up well P/U & RIH w/ 3 7/8" bear claw bit, bit sub, 4- 3 1/8" OD drill collars, & 2 3/8" tubing to 2012' attached swivel w/ 2 1/2 md connection on top Joint, drilled from 2012'-2014' then ran to drill 2018'-2021' ran to 2025'-2026' then ran to 2162'- 2166' fell out 2182' ran to drill 2188' – 2190' ran to 2194' – 2231' fell out 2231' ran to drill 2231' – 2236' fell out to drill 2240' – 2265' TUH w/ bit into 4 1/2" casing @ 1865' closed well in SDFN

12/22/2020 Open well up ran bit back to drill 2265' – 2267' fell out and ran to tag 2649' pulled bit to land @2609' RD swivel, ND stripper head & BOP, install tbg. hanger flange and N/U well head connections pumped on well 6 hrs. shut down & connect to facility surface injection pump, RD rig & reverse unit then released all workover equipment.



American Valve & Meter, Inc.

1113 W. BROADWAY

P.O. BOX 166 HOBBS, NM 88240

TO: Lucky Rental

DATE: 12/1/20

This is to certify that:

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

12" Pressure recorder

Ser# R-54476

at these points.

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

Remarks:

Signature: 

SCHUBERT 7 WELL NO. 1

API 30-025-36781

2313 FSL, 2313 FEL

J - SEC 7 - T19S - R39E

LAT: 32.6738815 LONG: -103.0835953

Current
12/22/2020

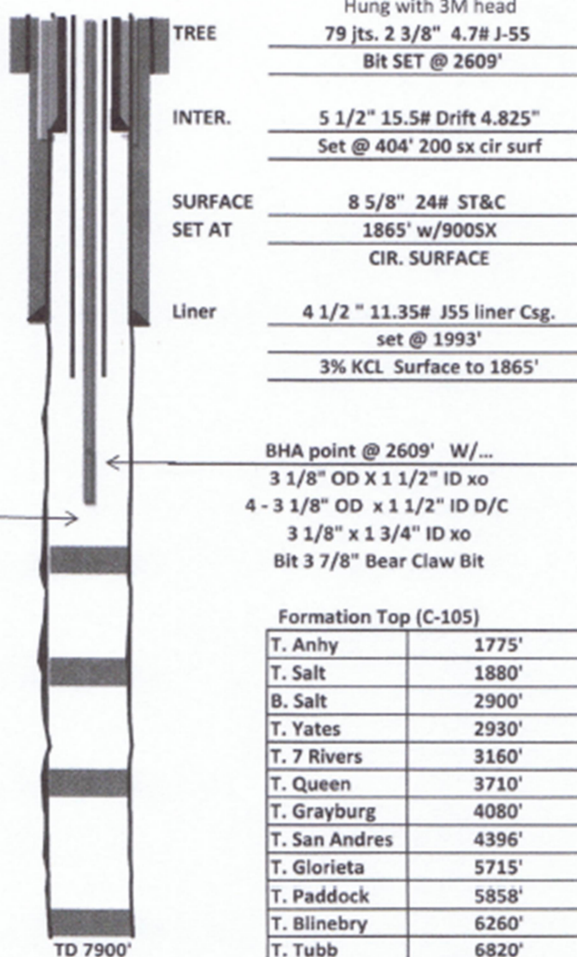
Lithology Record (C-105)

From	To	Thick / ft.	Lithology
212'	1151'	939'	Redbed
1151'	1455'	304'	RB / Shale
1455'	1775'	320'	Shale
1775'	1880'	105'	Anhydrite
1880'	2900'	1020'	Salt, Redbed, Shale
2900'	3130'	230'	Anhy, Salt, Shale
3130'	4080'	950'	Anhy., Dolomite
4080'	4430'	350'	Dolomite, Anhydrite
4430'	7500'	3070'	Dolomite, Limestone
7500'	7900'	400'	Dolomite

OH HOLE SIZE 7 7/8"

DRILL OH TO 2649'

Yates @2930'	PLUG # 4	100sx @ 2947'
	est. TOC @	2,557' 390'
	PLUG # 3	40sx @ 4089'
	est. TOC @	3,933' 156'
	PLUG # 2	35sx @ 5710'
	est. TOC @	5,573' 137'
	PLUG # 1	30sx @ 7900'
	est. TOC @	7,783' 117'

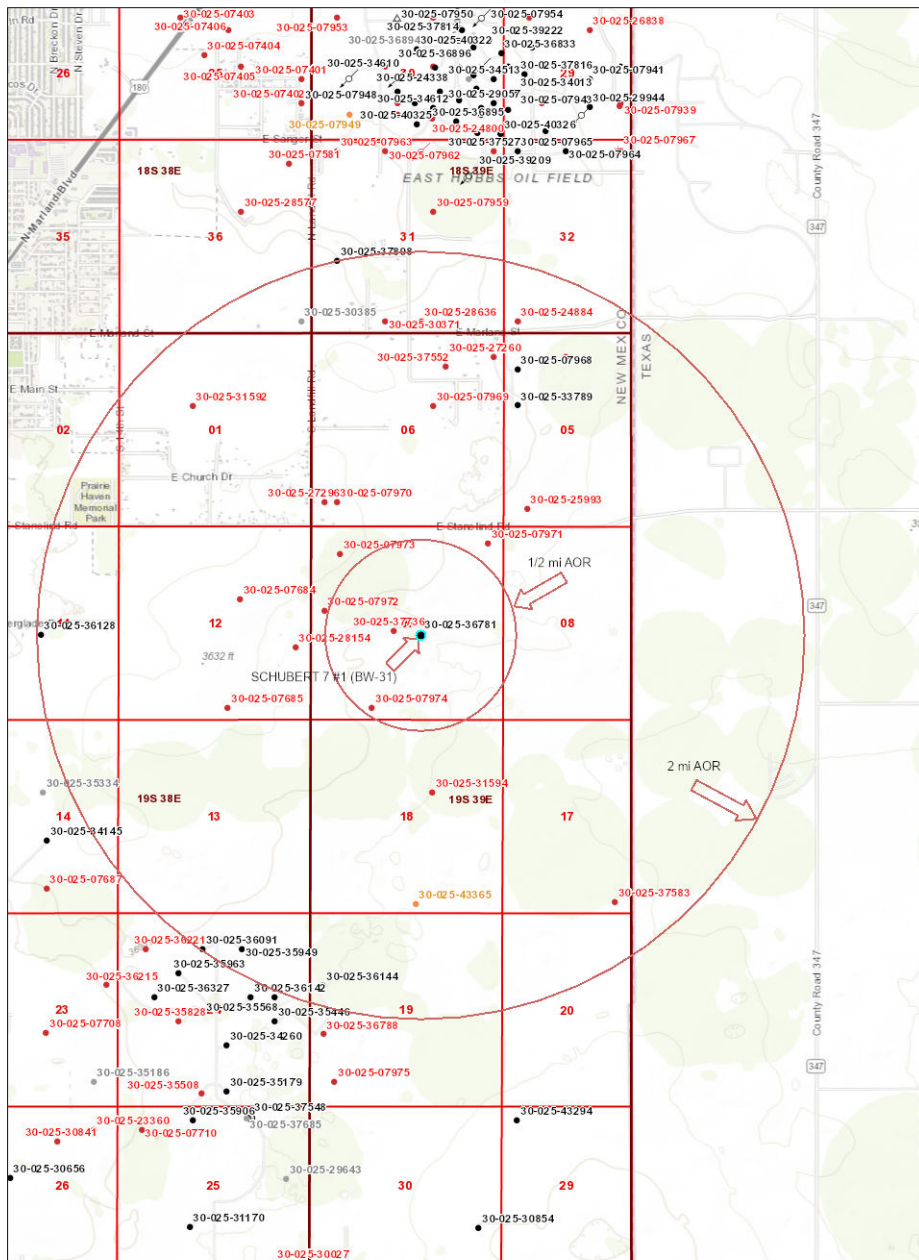


Formation Top (C-105)

T. Anhy	1775'
T. Salt	1880'
B. Salt	2900'
T. Yates	2930'
T. 7 Rivers	3160'
T. Queen	3710'
T. Grayburg	4080'
T. San Andres	4396'
T. Glorieta	5715'
T. Paddock	5858'
T. Blinbry	6260'
T. Tubb	6820'
T. Drinkard	7050'
T. Abo	7464'

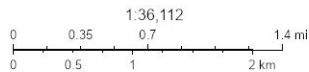
APPENDIX D

Schubert 7 #1 (BW-31) 1/2 & 2 Mi AOR



4/13/2022, 3:02:17 PM

- | | | |
|--|--|---|
| <ul style="list-style-type: none"> Override 1 Wells - Large Scale undefined Miscellaneous CO2, Active CO2, Cancelled CO2, New CO2, Plugged | <ul style="list-style-type: none"> CO2, Temporarily Abandoned Gas, Active Gas, Cancelled Gas, New Gas, Plugged Gas, Temporarily Abandoned Injection, Active Injection, Cancelled | <ul style="list-style-type: none"> Injection, New Injection, Plugged Injection, Temporarily Abandoned Oil, Active Oil, Cancelled Oil, New Oil, Plugged Oil, Temporarily Abandoned |
|--|--|---|



Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department.
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c)

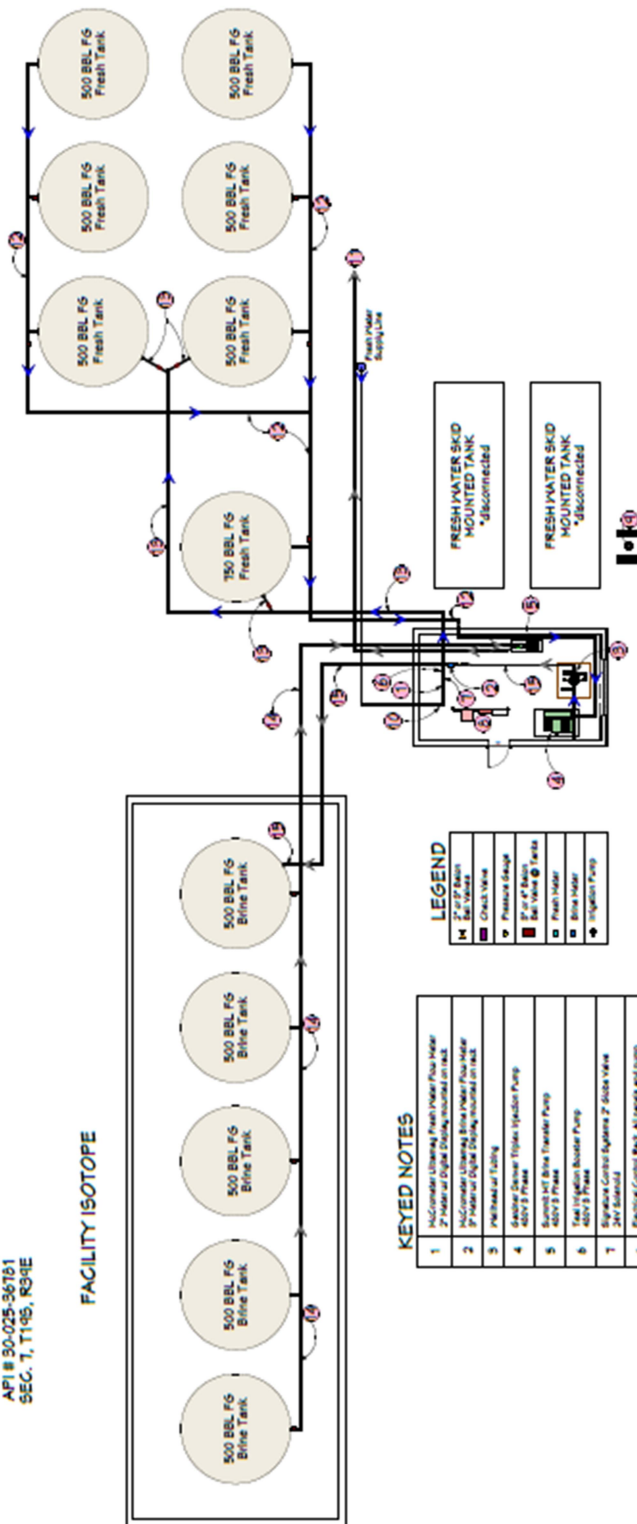
New Mexico Oil Conservation Division

APPENDIX E

H.R.C. Inc.

Schubert T Well No. 1
API # 30-025-36781
SEC. 7, T11N8, R9E

FACILITY ISOTOPE



KEYED NOTES

1	McCombs Unloading Fresh Water Pump 2" Water at Digital Display mounted on wall
2	McCombs Unloading Brine Water Pump 3" Water at Digital Display mounted on wall
3	PH/Head of Tank
4	Adaptive Drive Valve Injection Pump 400V 3 Phase
5	Switched Brine Transfer Pump 400V 3 Phase
6	Flow Injection Booster Pump 400V 3 Phase
7	Signature Control Systems 2" Brine Valve 24V Solenoid
8	Electrical Control Rack. All pumps and pump controls hung on rack at this location.
9	Fresh Water Monitor Panel at console.
10	Fresh Water Supply Point. 2" Poly SDR 11 line and product valve at the isolation tank to Fresh Water.
11	2" Poly SDR 11 Brine line from transfer pump to tank.
12	2" Poly SDR 11 Line from Fresh Water tank outlet to tank.
13	2" Poly SDR 11 Line from top of 500 & 500 BBL Fresh Water tank to Injection Pump.
14	2" Poly SDR 11 Line from Brine Water tank outlet to Fresh Water Transfer Pump.
15	2" Poly SDR 11 Line from top of 500 BBL Brine Tank from Fresh Water Line.

LEGEND	
M	2" or 3" Meter
□	2" or 3" Valve
▽	Pressure Gauge
▽	2" or 3" Valve
□	2" or 3" Valve
□	Brine Water
□	Brine Water
□	Injection Pump

H.R.C. Inc.

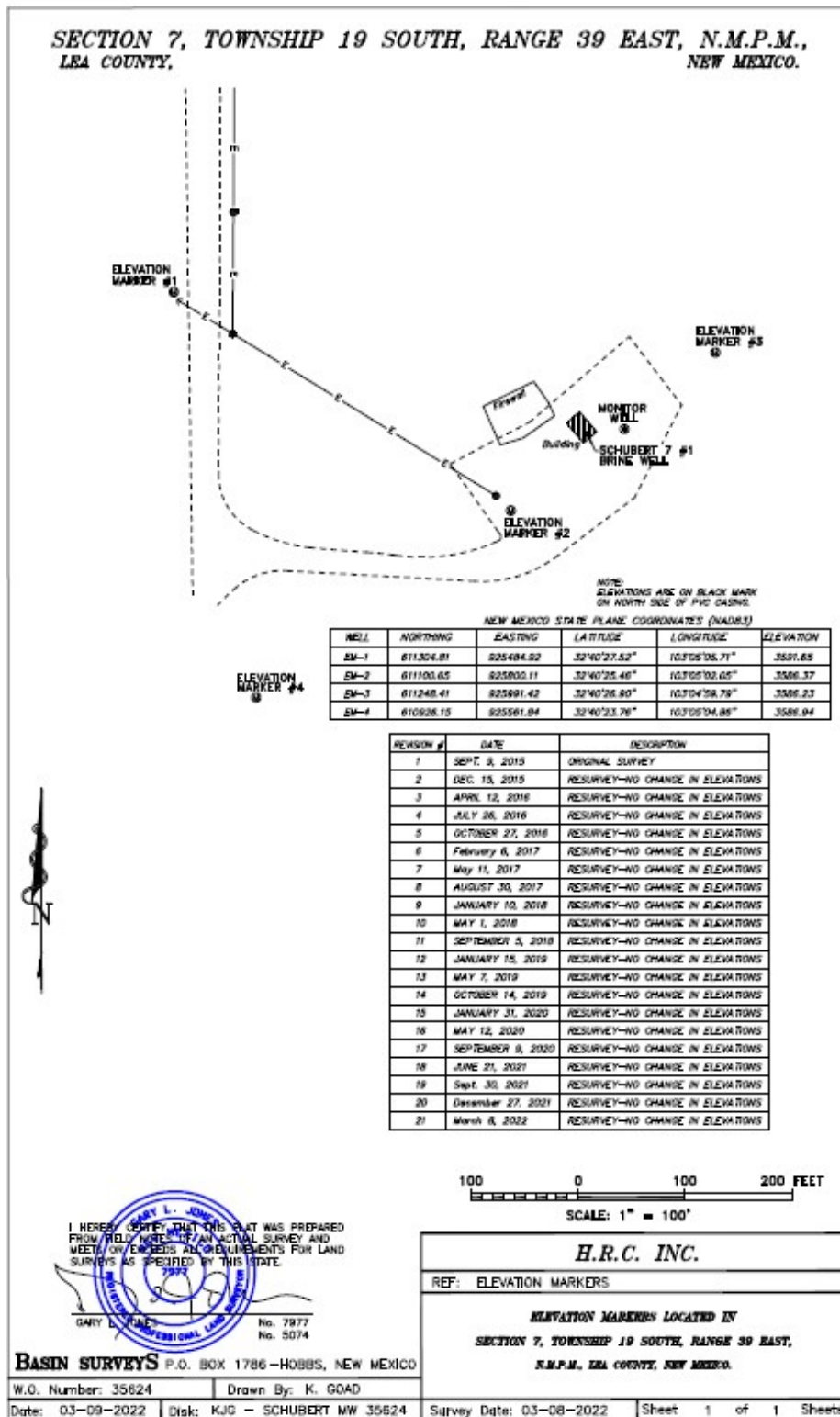
Pipeline Overlay Map



A	Schubert 7 Well # 1 32.673935, -103.083677
B	Schubert Farms Well # 1 32.637603, -103.098728
C	Peanut Shed Storage Battery 32.628787, -103.111053
D	ETZ Water Station 32.624077, -103.113627

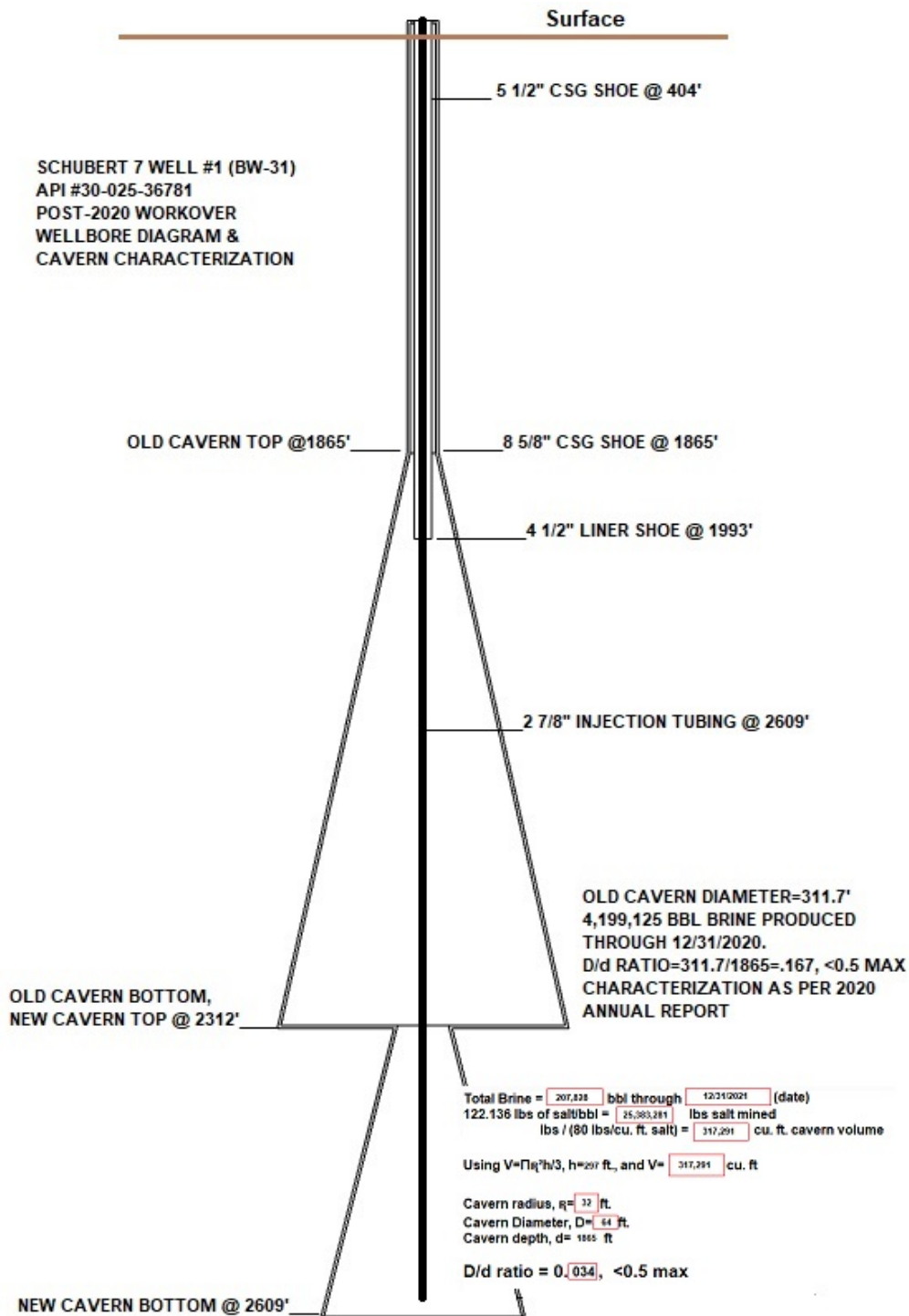
—	3" SDR 11 Poly pipeline from Schubert 7 Well # 1 to ETZ Water Station
—	3" SDR 11 Poly pipeline from Schubert Farms Well # 1 to Peanut Shed Storage Battery
—	3" SDR 11 Poly pipeline from transfer pump at Peanut Shed to ETZ Water Station
—	2" SDR 11 Poly pipeline from transfer pump at Peanut Shed to ETZ Water Station
—	2" SDR 11 Poly pipeline from transfer pump at Peanut Shed to ETZ Water Station

APPENDIX F



APPENDIX G

NEW WELLBORE & CAVERN CHARACTERIZATION DIAGRAM



OLD CAVERN DIAGRAM & CHARACTERIZATION

Schubert 7 Well No1

December 31, 2020

API 30-025-36781

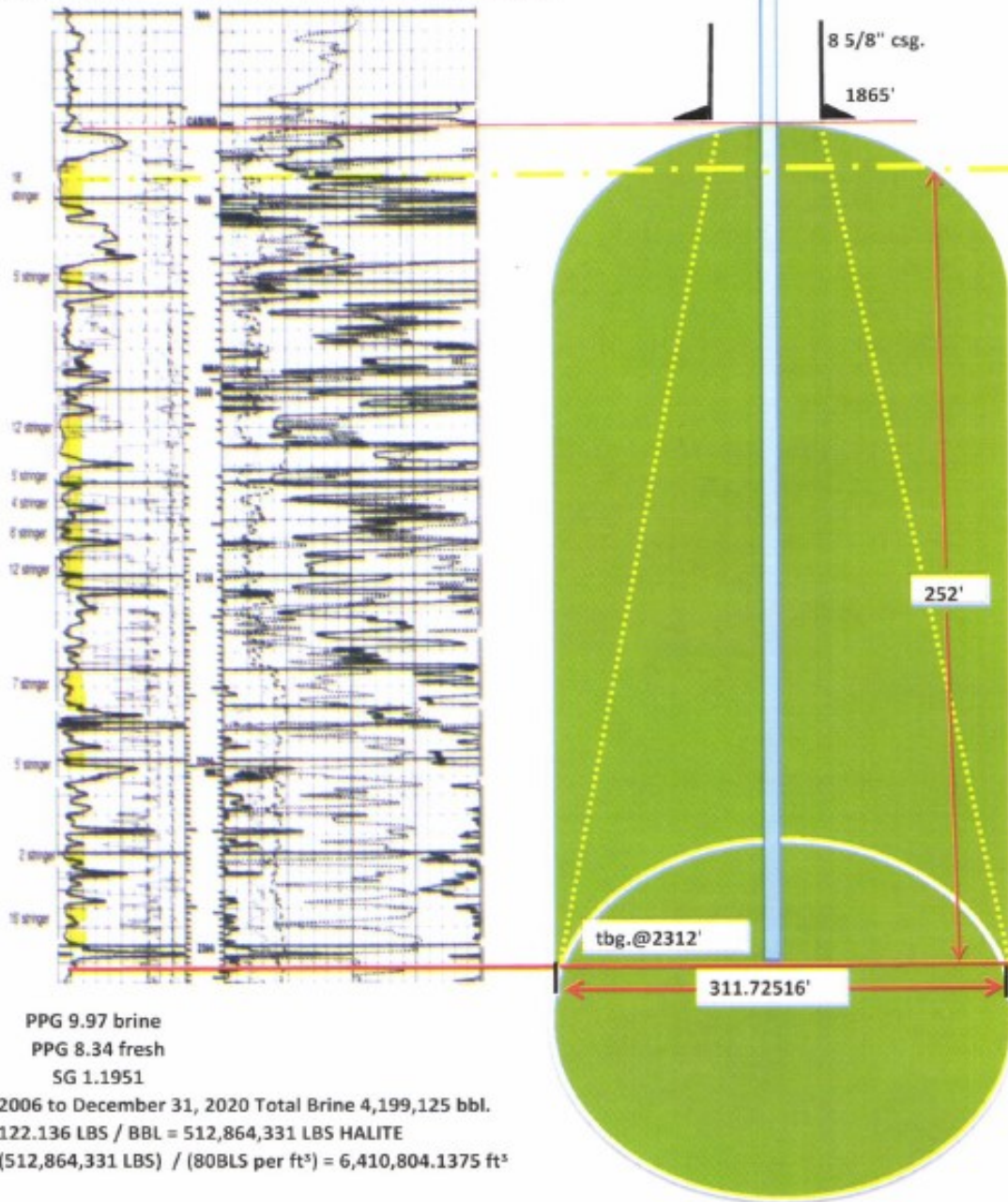
J SEC7 T19S R39E

LAT: 32.6738815 LONG:-103.0835953

2 7/8" J-55 6.5# IPC

8 5/8" csg.

1865'



$$V = \frac{\pi R^2 h}{3}$$

$$V = (3.14159 * 155.86258^2) * (252') / 3$$

$$V = 6,410,804 \text{ ft}^3$$

Est. height is 252'
Est. cavern floor diameter is 311.72516'
311.72516 / 1865 = 0.167145 factor value

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 106323

COMMENTS

Operator: HRC INC P.O. Box 5102 Hobbs, NM 88241	OGRID: 131652
	Action Number: 106323
	Action Type: [UF-DP] Discharge Permit (DISCHARGE PERMIT)

COMMENTS

Created By	Comment	Comment Date
cchavez	Annual Report 2021	7/6/2022

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
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	131652
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CONDITIONS

Created By	Condition	Condition Date
cchavez	None	7/6/2022