

**BW - \_\_\_\_31\_\_\_\_**

# **BRINE PRODUCTION**

**BW - 31**

**SCHUBERT 7 – WELL # 1**

**Year 2019**

<b>MONTH</b>	<b>BRINE PRODUCTION (BY Meter)</b>	<b>FRESH WATER INJECTED (By Meter)</b>
January	30,031	29,719
February	28,726	28,492
March	27,971	27,860
April	16,717	16,621
May	18,123	13,967
June	27,630	27,447
July	23,990	23,812
August		
September		
October		
November		
December		

BW 31

SCHUBERT 7 - WELL # 1

2019	ETZ BRINE WATER BBLs	PATE BRINE WATER BBLs	TOTAL BRINE WATER BBLs	FRESH WATER INJECTED BBLs	DATE FRESH WATER METER READ	FRESH WATER METER READING BY GALLONS (X 100)	FRESH WATER USED BY GALLONS (X 100)	TOTAL FRESH WATER BBLs
JANUARY, 2019	30,031		30,031	29,719	01/31/19	1,297,613	12,482	29,719
FEBRUARY, 2019	28,726		28,726	28,492	02/28/19	1,309,580	11,967	28,492
MARCH, 2019	27,971		27,971	27,860	03/30/19	1,321,281	11,701	27,860
APRIL 2019	16,717		16,717	16,621	04/30/19	1,328,262	6,981	16,621
MAY, 2019	18,123		18,123	13,967	05/31/19	1,335,808	7,546	13,967
JUNE, 2019	27,630		27,630	27,447	06/30/19	1,347,336	11,528	27,447
JULY, 2019	23,990		23,990	23,812	07/31/19	1,357,337	10,001	23,812
AUGUST, 2019								
SEPTEMBER, 2019								
OCTOBER, 2019								
NOVEMBER, 2019								
DECEMBER, 2019								

APR 11 2019 PM03:34



**HRC, INC.**  
P. O. Box 5102  
Hobbs, NM 88241-5102  
Phone # (575) 393-6662  
Fax # (575) 393-6662

January 17, 2019

Jim Griswold  
Senior Hydrologist  
ENMRD/Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Ref: 2018 Annual Report  
B-31 Schubert 7 -- Well # 1 (BW-317)

Dear Mr. Griswold,

Enclosed please find the monthly freshwater injection and brine production numbers for the Hobbs facility for the year of 2018. Included also are Cardinal Laboratories' results of analyses for samples for the month of December, 2017 and the production amounts for December 2017 and the 2017 production totals for your reference.

Thank you,

Sincerely,

A handwritten signature in blue ink, appearing to read 'Gary M. Schubert', is written over a light blue rectangular background.

Gary M. Schubert  
GMS/br

**BW - 31**

**SCHUBERT 7 – WELL # 1**

**Year 2018**

<b>MONTH</b>	<b>BRINE PRODUCTION (BY Meter)</b>	<b>FRESH WATER INJECTED (By Meter)</b>
January	25,912	25,981
February	23,395	22,926
March	9,552	9,402
April	11,771	11,674
May	15,573	15,216
June	21,761	21,459
July	18,602	18,409
August	17,971	17,854
September	22,200	21,959
October	21,614	21,369
November	24,652	24,502
December	28,007	27,876

December 18, 2013

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 11/21/18 8:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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](http://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

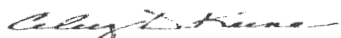
**Analytical Results For:**ETZ WATER STATION  
PO BOX 6056  
HOBBS NM, 88241Project: SCHUBERT  
Project Number: #7 BRINE WATER SAMPLES  
Project Manager: BEN DONAHUE  
Fax To:Reported:  
18-Dec-18 11:24

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BRINE WATER	H803419-01	Water	21-Nov-18 06:00	21-Nov-18 08:15
FRESH WATER	H803419-02	Water	21-Nov-18 06:00	21-Nov-18 08:15
MONITOR WELL	H803419-03	Water	21-Nov-18 06:00	21-Nov-18 08:15

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 or 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

### Analytical Results For:

ETZ WATER STATION  
PO BOX 6056  
HOBBS NM, 88241

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

Reported:  
18-Dec-18 11:24

### BRINE WATER

H803419-01 (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	8112610	AC	26-Nov-18	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	8112610	AC	26-Nov-18	310.1	
Chloride*	176000		4.00	mg/L	1	8112601	AC	26-Nov-18	4500-Cl-B	
Conductivity*	237000		1.00	uS/cm	1	8112118	AC	21-Nov-18	120.1	
pH*	7.02		0.100	pH Units	1	8112118	AC	21-Nov-18	150.1	
Sulfate*	3810		833	mg/L	83.3	8112713	AC	27-Nov-18	375.4	
TDS*	271000		5.00	mg/L	1	8111901	AC	27-Nov-18	160.1	
Alkalinity, Total*	248		4.00	mg/L	1	8112610	AC	26-Nov-18	310.1	

#### Green Analytical Laboratories


#### Total Recoverable Metals by ICP (E200.7)

Calcium*	1280		25.0	mg/L	250	B812009	AES	07-Dec-18	EPA200.7	
Magnesium*	322		25.0	mg/L	250	B812009	AES	07-Dec-18	EPA200.7	
Potassium*	114	16.9	250	mg/L	250	B812009	AES	11-Dec-18	EPA200.7	J
Sodium*	99500		250	mg/L	250	B812009	AES	07-Dec-18	EPA200.7	

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 or 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.



Caley D. Keene, Lab Director/Quality Manager



### Analytical Results For:

ETZ WATER STATION  
PO BOX 6056  
HOBBS NM, 88241

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

Reported:  
18-Dec-18 11:24

### FRESH WATER

#### H803419-02 (Water)

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

#### Cardinal Laboratories

#### Inorganic Compounds

Alkalinity, Bicarbonate	312		5.00	mg/L	1	8112610	AC	26-Nov-18	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	8112610	AC	26-Nov-18	310.1	
Chloride*	280		4.00	mg/L	1	8112601	AC	26-Nov-18	4500-Cl-B	
Conductivity*	1450		1.00	uS/cm	1	8112118	AC	21-Nov-18	120.1	
pH*	7.58		0.100	pH Units	1	8112118	AC	21-Nov-18	150.1	
Sulfate*	199		50.0	mg/L	5	8112713	AC	27-Nov-18	375.4	
TDS*	694		5.00	mg/L	1	8111901	AC	28-Nov-18	160.1	
Alkalinity, Total*	256		4.00	mg/L	1	8112610	AC	26-Nov-18	310.1	

#### Green Analytical Laboratories

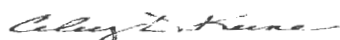
#### Total Recoverable Metals by ICP (E200.7)

Calcium*	117		0.100	mg/L	1	B812009	AES	07-Dec-18	EPA200.7	
Magnesium*	23.4		0.100	mg/L	1	B812009	AES	07-Dec-18	EPA200.7	
Potassium*	13.3	0.068	1.00	mg/L	1	B812009	AES	11-Dec-18	EPA200.7	
Sodium*	154		1.00	mg/L	1	B812009	AES	07-Dec-18	EPA200.7	

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 or 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

### Analytical Results For:

ETZ WATER STATION  
PO BOX 6056  
HOBBS NM, 88241

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

Reported:  
18-Dec-18 11:24

### MONITOR WELL H803419-03 (Water)

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

#### Cardinal Laboratories

##### Inorganic Compounds

Alkalinity, Bicarbonate	249		5.00	mg/l	1	8112610	AC	26-Nov-18	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	8112610	AC	26-Nov-18	310.1	
Chloride*	64.0		4.00	mg/L	1	8112601	AC	26-Nov-18	4500-CL-B	
Conductivity*	647		1.00	uS/cm	1	8112118	AC	21-Nov-18	120.1	
pH*	7.75		0.100	pH Units	1	8112118	AC	21-Nov-18	150.1	
Sulfate*	62.5		10.0	mg/L	1	8112713	AC	27-Nov-18	375.4	
TDS*	170		5.00	mg/L	1	8111901	AC	28-Nov-18	160.1	
Alkalinity, Total*	204		4.00	mg/L	1	8112610	AC	26-Nov-18	310.1	

#### Green Analytical Laboratories

##### Total Recoverable Metals by ICP (E200.7)

Calcium*	55.0		0.100	mg/L	1	B812009	AES	07-Dec-18	EPA200.7	
Magnesium*	16.6		0.100	mg/L	1	B812009	AES	07-Dec-18	EPA200.7	
Potassium*	2.00	0.068	1.00	mg/L	1	B812009	AES	11-Dec-18	EPA200.7	
Sodium*	58.7		1.00	mg/L	1	B812009	AES	07-Dec-18	EPA200.7	

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 or 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

**Analytical Results For:**

ETZ WATER STATION  
PO BOX 6056  
HOBBS NM, 88241

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

Reported:  
18-Dec-18 11:24

**Inorganic Compounds - Quality Control**  
**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 8111901 - Filtration**
**Blank (8111901-BLK1)**

Prepared: 19-Nov-18 Analyzed: 20-Nov-18

TDS ND 5.00 mg/L

**LCS (8111901-BS1)**

Prepared: 19-Nov-18 Analyzed: 20-Nov-18

TDS 522 mg/L 672 77.7 80-120

**Duplicate (8111901-DUP1)**

Source: H803351-01

Prepared: 19-Nov-18 Analyzed: 20-Nov-18

TDS 562 5.00 mg/L 452 21.7 20 QR-03

**Batch 8112118 - General Prep - Wet Chem**
**LCS (8112118-BS1)**

Prepared &amp; Analyzed: 21-Nov-18

Conductivity 100000 uS/cm 100000 100 80-120

pH 7.12 pH Units 7.00 102 90-110

**Duplicate (8112118-DUP1)**

Source: H803419-01

Prepared &amp; Analyzed: 21-Nov-18

pH 7.07 0.100 pH Units 7.02 0.710 20

Conductivity 236000 1.00 uS/cm 237000 0.338 20

**Batch 8112601 - General Prep - Wet Chem**
**Blank (8112601-BLK1)**

Prepared &amp; Analyzed: 26-Nov-18

Chloride ND 4.00 mg/L

**LCS (8112601-BS1)**

Prepared &amp; Analyzed: 26-Nov-18

Chloride 100 4.00 mg/L 100 100 80-120

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 or 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

### Analytical Results For:

ETZ WATER STATION  
PO BOX 6056  
HOBBS NM, 88241

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

Reported:  
18-Dec-18 11:24

### Inorganic Compounds - Quality Control

#### Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

#### Batch 8112601 - General Prep - Wet Chem

##### LCS Dup (8112601-BSD1)

Prepared &amp; Analyzed: 26-Nov-18

Chloride	100	4.00	mg/L	100		100	80-120	0.00	20	
----------	-----	------	------	-----	--	-----	--------	------	----	--

#### Batch 8112610 - General Prep - Wet Chem

##### Blank (8112610-BLK1)

Prepared &amp; Analyzed: 26-Nov-18

Alkalinity, Carbonate	ND	1.00	mg/L							
Alkalinity, Bicarbonate	5.00	5.00	mg/L							
Alkalinity, Total	4.00	4.00	mg/L							

##### LCS (8112610-BS1)

Prepared &amp; Analyzed: 26-Nov-18

Alkalinity, Carbonate	ND	2.50	mg/L				80-120			
Alkalinity, Bicarbonate	318	12.5	mg/L				80-120			
Alkalinity, Total	260	10.0	mg/L	250		104	80-120			

##### LCS Dup (8112610-BSD1)

Prepared &amp; Analyzed: 26-Nov-18

Alkalinity, Carbonate	ND	2.50	mg/L				80-120		20	
Alkalinity, Bicarbonate	305	12.5	mg/L				80-120	4.02	20	
Alkalinity, Total	250	10.0	mg/L	250		100	80-120	3.92	20	

#### Batch 8112713 - General Prep - Wet Chem

##### Blank (8112713-BLK1)

Prepared &amp; Analyzed: 27-Nov-18

Sulfate	ND	10.0	mg/L							
---------	----	------	------	--	--	--	--	--	--	--

##### LCS (8112713-BS1)

Prepared &amp; Analyzed: 27-Nov-18

Sulfate	23.3	10.0	mg/L	20.0		117	80-120			
---------	------	------	------	------	--	-----	--------	--	--	--

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 or 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

**Analytical Results For:**ETZ WATER STATION  
PO BOX 6056  
HOBBS NM, 88241Project: SCHUBERT  
Project Number: #7 BRINE WATER SAMPLES  
Project Manager: BEN DONAHUE  
Fax To:Reported:  
18-Dec-18 11:24**Inorganic Compounds - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

**Batch 8112713 - General Prep - Wet Chem****LCS Dup (8112713-BSD1)**

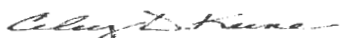
Prepared &amp; Analyzed: 27-Nov-18

Sulfate	19.6	10.0	mg/L	20.0		98.0	80-120	17.5	20	
---------	------	------	------	------	--	------	--------	------	----	--

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 or 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



### Analytical Results For:

ETZ WATER STATION  
PO BOX 6056  
HOBBS NM, 88241

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

Reported:  
18-Dec-18 11:24

### 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 B812009 - Total Rec. 200.7/200.8/200.2

##### Blank (B812009-BLK1)

Prepared: 03-Dec-18 Analyzed: 07-Dec-18

Magnesium	ND	0.100	mg/L							
Calcium	ND	0.100	mg/L							
Sodium	ND	1.00	mg/L							
Potassium	ND	1.00	mg/L							

##### LCS (B812009-BS1)

Prepared: 03-Dec-18 Analyzed: 11-Dec-18

Potassium	8.21	1.00	mg/L	8.00		103	85-115			
Magnesium	20.7	0.100	mg/L	20.0		104	85-115			
Calcium	4.17	0.100	mg/L	4.00		104	85-115			
Sodium	3.38	1.00	mg/L	3.24		104	85-115			

##### LCS Dup (B812009-BSD1)

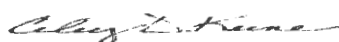
Prepared: 03-Dec-18 Analyzed: 11-Dec-18

Potassium	8.16	1.00	mg/L	8.00		102	85-115	0.686	20	
Calcium	4.19	0.100	mg/L	4.00		105	85-115	0.480	20	
Sodium	3.34	1.00	mg/L	3.24		103	85-115	1.13	20	
Magnesium	20.8	0.100	mg/L	20.0		104	85-115	0.586	20	

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 or 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

**Notes and Definitions**

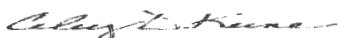
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
J	Estimated concentration. Analyte concentration between MDL and RL.
ND	Analyte NOT DETECTED at or above the reporting 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

---

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 or 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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

Relinquished By:		Date: 11/21/18		Received By: Jodi Henson		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
		Time: 8:15				Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
Relinquished By:		Date:		Received By:		REMARKS:  email to: gaefmscheibet@gmail.com			
		Time:							
Delivered By: (Circle One)				Sample Condition		CHECKED BY: (Initials)			
<input checked="" type="radio"/> <b>Sampler</b> - <input type="radio"/> UPS - <input type="radio"/> Bus - <input type="radio"/> Other: 0.30c / #97				Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>					

+ Cardinal cannot accent verbal changes. Please fax written changes to (575) 292-7226.





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

June 04, 2018

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 05/18/18 15:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. 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](http://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

6-4-18  
#7

**Analytical Results For:**ETZ WATER STATION  
PO BOX 6056  
HOBBS NM, 88241Project: SCHUBERT  
Project Number: #7 WATER SAMPLES - BRINE WEL  
Project Manager: BEN DONAHUE  
Fax To:Reported:  
04-Jun-18 11:50

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FRESH WATER	H801389-01	Water	18-May-18 10:00	18-May-18 15:50
BRINE WATER	H801389-02	Water	18-May-18 10:05	18-May-18 15:50
MONITOR WELL	H801389-03	Water	18-May-18 10:10	18-May-18 15:50

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 or 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

**Analytical Results For:**

ETZ WATER STATION  
PO BOX 6056  
HOBBS NM, 88241

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

Reported:  
04-Jun-18 11:50

**FRESH WATER**  
H801389-01 (Water)

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

**Cardinal Laboratories**
**Inorganic Compounds**

Alkalinity, Bicarbonate	220		5.00	mg/L	1	8050906	AC	21-May-18	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	8050906	AC	21-May-18	310.1	
Chloride*	120		4.00	mg/L	1	8051614	AC	21-May-18	4500-Cl-B	
Conductivity*	1020		1.00	uS/cm	1	8052104	AC	21-May-18	120.1	
pH*	7.53		0.100	pH Units	1	8052104	AC	21-May-18	150.1	
Sulfate*	208		50.0	mg/L	5	8052201	AC	22-May-18	375.4	
TDS*	672		5.00	mg/L	1	8052105	AC	23-May-18	160.1	
Alkalinity, Total*	180		4.00	mg/L	1	8050906	AC	21-May-18	310.1	

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

Calcium*	86.3		1.00	mg/L	10	B805178	JDA	29-May-18	EPA200.7	
Magnesium*	24.8		1.00	mg/L	10	B805178	JDA	29-May-18	EPA200.7	
Potassium*	<10.0		10.0	mg/L	10	B805178	JDA	29-May-18	EPA200.7	
Sodium*	92.9		10.0	mg/L	10	B805178	JDA	29-May-18	EPA200.7	

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 or 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

### Analytical Results For:

ETZ WATER STATION  
PO BOX 6056  
HOBBS NM, 88241

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

Reported:  
04-Jun-18 11:50

### BRINE WATER H801389-02 (Water)

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

#### Cardinal Laboratories

#### Inorganic Compounds

Alkalinity, Bicarbonate	122		5.00	mg/L	1	8050906	AC	21-May-18	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	8050906	AC	21-May-18	310.1	
Chloride*	190000		4.00	mg/L	1	8051614	AC	21-May-18	4500-Cl-B	
Conductivity*	253000		1.00	uS/cm	1	8052104	AC	21-May-18	120.1	
pH*	6.91		0.100	pH Units	1	8052104	AC	21-May-18	150.1	
Sulfate*	5000		833	mg/L	83.33	8052201	AC	22-May-18	375.4	
TDS*	305000		5.00	mg/L	1	8052105	AC	23-May-18	160.1	
Alkalinity, Total*	100		4.00	mg/L	1	8050906	AC	21-May-18	310.1	

#### Green Analytical Laboratories

#### Total Recoverable Metals by ICP (E200.7)

Calcium*	1300		50.0	mg/L	500	B805178	JDA	29-May-18	EPA200.7	
Magnesium*	359		50.0	mg/L	500	B805178	JDA	29-May-18	EPA200.7	
Potassium*	<500		500	mg/L	500	B805178	JDA	29-May-18	EPA200.7	
Sodium*	108000		500	mg/L	500	B805178	JDA	29-May-18	EPA200.7	

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 or 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.



Caley D. Keene, Ldo Director/Quality Manager

### Analytical Results For:

ETZ WATER STATION  
PO BOX 6056  
HOBBS NM, 88241

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

Reported:  
04-Jun-18 11:50

### MONITOR WELL H801389-03 (Water)

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

#### Cardinal Laboratories

#### Inorganic Compounds

Alkalinity, Bicarbonate	234		5.00	mg/L	1	8050906	AC	21-May-18	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	8050906	AC	21-May-18	310.1	
Chloride*	72.0		4.00	mg/L	1	8051614	AC	21-May-18	4500-Cl-B	
Conductivity*	696		1.00	uS/cm	1	8052104	AC	21-May-18	120.1	
pH*	8.00		0.100	pH Units	1	8052104	AC	21-May-18	150.1	
Sulfate*	83.7		25.0	mg/L	2.5	8052201	AC	22-May-18	375.4	
TDS*	408		5.00	mg/L	1	8052105	AC	23-May-18	160.1	
Alkalinity, Total*	192		4.00	mg/L	1	8050906	AC	21-May-18	310.1	

#### Green Analytical Laboratories


#### Total Recoverable Metals by ICP (E200.7)

Calcium*	47.0		1.00	mg/L	10	B805178	JDA	29-May-18	EPA200.7	
Magnesium*	14.2		1.00	mg/L	10	B805178	JDA	29-May-18	EPA200.7	
Potassium*	<10.0		10.0	mg/L	10	B805178	JDA	29-May-18	EPA200.7	
Sodium*	72.2		10.0	mg/L	10	B805178	JDA	29-May-18	EPA200.7	

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 or 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

### Analytical Results For:

ETZ WATER STATION  
PO BOX 6056  
HOBBS NM, 88241

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

Reported:  
04-Jun-18 11:50

### Inorganic Compounds - Quality Control

#### Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

#### Batch 8050906 - General Prep - Wet Chem

##### Blank (8050906-BLK1)

Prepared &amp; Analyzed: 09-May-18

Alkalinity, Carbonate	ND	1.00	mg/L							
Alkalinity, Bicarbonate	5.00	5.00	mg/L							
Alkalinity, Total	4.00	4.00	mg/L							

##### LCS (8050906-BS1)

Prepared &amp; Analyzed: 09-May-18

Alkalinity, Carbonate	ND	2.50	mg/L				80-120			
Alkalinity, Bicarbonate	318	12.5	mg/L				80-120			
Alkalinity, Total	260	10.0	mg/L	250		104	80-120			

##### LCS Dup (8050906-BSD1)

Prepared &amp; Analyzed: 09-May-18

Alkalinity, Carbonate	ND	2.50	mg/L				80-120		20	
Alkalinity, Bicarbonate	365	12.5	mg/L				80-120	13.9	20	
Alkalinity, Total	300	10.0	mg/L	250		120	80-120	14.3	20	

#### Batch 8051614 - General Prep - Wet Chem

##### Blank (8051614-BLK1)

Prepared &amp; Analyzed: 16-May-18

Chloride	ND	4.00	mg/L							
----------	----	------	------	--	--	--	--	--	--	--

##### LCS (8051614-BS1)

Prepared &amp; Analyzed: 16-May-18

Chloride	100	4.00	mg/L	100		100	80-120			
----------	-----	------	------	-----	--	-----	--------	--	--	--

##### LCS Dup (8051614-BSD1)

Prepared &amp; Analyzed: 16-May-18

Chloride	104	4.00	mg/L	100		104	80-120	3.92	20	
----------	-----	------	------	-----	--	-----	--------	------	----	--

#### Batch 8052104 - General Prep - Wet Chem

##### LCS (8052104-BS1)

Prepared &amp; Analyzed: 21-May-18

pH	7.20		pH Units	7.00		103	90-110			
Conductivity	501		uS/cm	500		100	80-120			

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 or 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



### Analytical Results For:

ETZ WATER STATION  
PO BOX 6056  
HOBBS NM, 88241

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

Reported:  
04-Jun-18 11:50

### Inorganic Compounds - Quality Control

#### Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

#### Batch 8052104 - General Prep - Wet Chem

##### Duplicate (8052104-DUP1)

Source: H801389-01

Prepared &amp; Analyzed: 21-May-18

Conductivity	1020	1.00	uS/cm		1020			0.0984	20	
pH	7.54	0.100	pH Units		7.53			0.133	20	

#### Batch 8052105 - Filtration

##### Blank (8052105-BLK1)

Prepared: 21-May-18 Analyzed: 23-May-18

TDS	ND	5.00	mg/L							
-----	----	------	------	--	--	--	--	--	--	--

##### LCS (8052105-BS1)

Prepared: 21-May-18 Analyzed: 23-May-18

TDS	518	5.00	mg/L	527	98.3	80-120				
-----	-----	------	------	-----	------	--------	--	--	--	--

##### Duplicate (8052105-DUP1)

Source: H801385-01

Prepared: 21-May-18 Analyzed: 23-May-18

TDS	996	5.00	mg/L		1000			0.800	20	
-----	-----	------	------	--	------	--	--	-------	----	--

#### Batch 8052201 - General Prep - Wet Chem

##### Blank (8052201-BLK1)

Prepared &amp; Analyzed: 22-May-18

Sulfate	ND	10.0	mg/L							
---------	----	------	------	--	--	--	--	--	--	--

##### LCS (8052201-BS1)

Prepared &amp; Analyzed: 22-May-18

Sulfate	19.6	10.0	mg/L	20.0	98.2	80-120				
---------	------	------	------	------	------	--------	--	--	--	--

##### LCS Dup (8052201-BSD1)

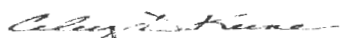
Prepared &amp; Analyzed: 22-May-18

Sulfate	20.8	10.0	mg/L	20.0	104	80-120	5.88		20	
---------	------	------	------	------	-----	--------	------	--	----	--

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 or 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

**Analytical Results For:**

 ETZ WATER STATION  
 PO BOX 6056  
 HOBBS NM, 88241

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

 Reported:  
 04-Jun-18 11:50

**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 B805178 - Total Rec. 200.7/200.8/200.2**
**Blank (B805178-BLK1)**

Prepared: 24-May-18 Analyzed: 29-May-18

Calcium	ND	0.100	mg/L							
Sodium	ND	1.00	mg/L							
Potassium	ND	1.00	mg/L							
Magnesium	ND	0.100	mg/L							

**LCS (B805178-BS1)**

Prepared: 24-May-18 Analyzed: 29-May-18

Sodium	3.21	1.00	mg/L	3.24		99.2	85-115			
Potassium	8.17	1.00	mg/L	8.00		102	85-115			
Magnesium	20.2	0.100	mg/L	20.0		101	85-115			
Calcium	4.00	0.100	mg/L	4.00		100	85-115			

**LCS Dup (B805178-BSD1)**

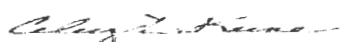
Prepared: 24-May-18 Analyzed: 29-May-18

Potassium	8.34	1.00	mg/L	8.00		104	85-115	2.03	20	
Sodium	3.26	1.00	mg/L	3.24		101	85-115	1.43	20	
Calcium	4.07	0.100	mg/L	4.00		102	85-115	1.63	20	
Magnesium	20.6	0.100	mg/L	20.0		103	85-115	1.60	20	

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 or 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



**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

---

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 or 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.



---

Carey D. Keene, Lab Director/Quality Manager



# CARDINAL Laboratories

## 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>		BILL TO		ANALYSIS REQUEST																																																																																																																											
Project Manager: <u>Ben Denahue</u>		P.O. #:		<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-family: cursive; font-size: 2em; margin-right: 10px;">Cations / Anions</div> <table border="1" style="width: 100%; height: 100%;"> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table> </div>																																																																																																																											
Address: <u>PO Box 5102</u>		Company:																																																																																																																													
City: <u>Hobbs</u> State: <u>NM</u> Zip: <u>88241</u>		Attn:																																																																																																																													
Phone #: <u>575 393 3914</u> Fax #:		Address:																																																																																																																													
Project #:		City:																																																																																																																													
Project Name: <u>Schubert #7 Water Samples</u>		State: Zip:																																																																																																																													
Project Location: <u>Schubert #7 Bore well</u>		Phone #:																																																																																																																													
Sampler Name: <u>Ben Denahue</u>		Fax #:																																																																																																																													
FOR LAB USE ONLY		MATRIX		PRESERV.		SAMPLING																																																																																																																									
Lab I.D.	Sample I.D.	GRAB OR (COMP.)	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER	DATE	TIME																																																																																																																	
<u>H801389</u>	<u>1 Fresh water</u>	<u>1</u>	<u>1</u>	<input checked="" type="checkbox"/>									<u>5/19/18</u>	<u>10:00a</u>	<input checked="" type="checkbox"/>																																																																																																																
	<u>2 Bore water</u>	<u>1</u>	<u>1</u>	<input checked="" type="checkbox"/>									<u>5/19/18</u>	<u>10:05a</u>	<input checked="" type="checkbox"/>																																																																																																																
	<u>3 Monitor well</u>	<u>1</u>	<u>1</u>	<input checked="" type="checkbox"/>									<u>5/19/18</u>	<u>10:10a</u>	<input checked="" type="checkbox"/>																																																																																																																

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 the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <u>[Signature]</u>	Date: <u>5-18-18</u> Time: <u>3:50</u>	Received By: <u>[Signature]</u>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Date:	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) <u>- 1.1e</u>			REMARKS: <u>Email results to: garymschubert@gmail.com</u>	
Sampler - UPS - Bus - Other: <u>Corrected - 1.15e</u>			CHECKED BY: (Initials) <u>TO #75</u>	
Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>				

**BW - 31**

**SCHUBERT 7 – WELL # 1**

**Year 2017**

<b>MONTH</b>	<b>BRINE PRODUCTION (BY Meter)</b>	<b>FRESH WATER INJECTED (By Meter)</b>
<b>January</b>		
<b>February</b>		
<b>March</b>		
<b>April</b>		
<b>May</b>		
<b>June</b>		
<b>July</b>		
<b>August</b>		
<b>September</b>		
<b>October</b>		
<b>November</b>		
<b>December</b>	<b>25,690</b>	<b>25,079</b>



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

November 28, 2017

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 11/16/17 10:19.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-9. 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](http://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

11-28-17  
# 7

**Analytical Results For:**ETZ WATER STATION  
PO BOX 6056  
HOBBS NM, 88241Project: SCHUBERT  
Project Number: #7  
Project Manager: BEN DONAHUE  
Fax To:Reported:  
28-Nov-17 18:13

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BRINE WATER	H703206-01	Water	16-Nov-17 07:45	16-Nov-17 10:19
MONITOR WELL	H703206-02	Water	16-Nov-17 07:45	16-Nov-17 10:19
FRESH WATER	H703206-03	Water	16-Nov-17 07:45	16-Nov-17 10:19

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 or 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

**Analytical Results For:**

 ETZ WATER STATION  
 PO BOX 6056  
 HOBBS NM, 88241

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

 Reported:  
 28-Nov-17 18:13

**BRINE WATER**  
**H703206-01 (Water)**

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

**Cardinal Laboratories**
**Inorganic Compounds**

Alkalinity, Bicarbonate	195		5.00	mg/L	1	7110705	AC	17-Nov-17	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	7110705	AC	17-Nov-17	310.1	
Chloride*	172000		4.00	mg/L	1	7112001	AC	20-Nov-17	4500-Cl-B	
Conductivity*	494000		1.00	uS/cm	1	7111701	AC	17-Nov-17	120.1	
pH*	7.06		0.100	pH Units	1	7111701	AC	16-Nov-17	150.1	
Sulfate*	3960		500	mg/L	50	7112201	AC	22-Nov-17	375.4	
TDS*	257000		5.00	mg/L	1	7111608	AC	17-Nov-17	160.1	
Alkalinity, Total*	160		4.00	mg/L	1	7110705	AC	17-Nov-17	310.1	

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

Calcium*	1220	9.12	30.0	mg/L	300	B711172	JDA	22-Nov-17	EPA200.7	
Magnesium*	285	22.6	30.0	mg/L	300	B711172	JDA	22-Nov-17	EPA200.7	
Potassium*	<63.0	63.0	300	mg/L	300	B711172	JDA	22-Nov-17	EPA200.7	
Sodium*	93500	51.4	300	mg/L	300	B711172	JDA	22-Nov-17	EPA200.7	

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 or 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



**Analytical Results For:**

 ETZ WATER STATION  
 PO BOX 6056  
 HOBBS NM, 88241

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

 Reported:  
 28-Nov-17 18:13

**MONITOR WELL**  
**H703206-02 (Water)**

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

**Cardinal Laboratories**
**Inorganic Compounds**

Alkalinity, Bicarbonate	220		5.00	mg/L	1	7110705	AC	17-Nov-17	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	7110705	AC	17-Nov-17	310.1	
Chloride*	204		4.00	mg/L	1	7112001	AC	20-Nov-17	4500-Cl-B	
Conductivity*	1210		1.00	uS/cm	1	7111701	AC	17-Nov-17	120.1	
pH*	7.82		0.100	pH Units	1	7111701	AC	16-Nov-17	150.1	
Sulfate*	170		25.0	mg/L	2.5	7112201	AC	22-Nov-17	375.4	
TDS*	794		5.00	mg/L	1	7111608	AC	17-Nov-17	160.1	
Alkalinity, Total*	180		4.00	mg/L	1	7110705	AC	17-Nov-17	310.1	

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

Calcium*	92.2	1.52	5.00	mg/L	50	B711172	JDA	22-Nov-17	EPA200.7	
Magnesium*	25.1	3.77	5.00	mg/L	50	B711172	JDA	22-Nov-17	EPA200.7	
Potassium*	<10.5	10.5	50.0	mg/L	50	B711172	JDA	22-Nov-17	EPA200.7	
Sodium*	123	8.57	50.0	mg/L	50	B711172	JDA	22-Nov-17	EPA200.7	

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 or 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 a 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

**Analytical Results For:**

 ETZ WATER STATION  
 PO BOX 6056  
 HOBBS NM, 88241

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

 Reported:  
 28-Nov-17 18:13

**FRESH WATER**

H703206-03 (Water)

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

**Cardinal Laboratories**
**Inorganic Compounds**

Alkalinity, Bicarbonate	283		5.00	mg/L	1	7110705	AC	17-Nov-17	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	7110705	AC	17-Nov-17	310.1	
Chloride*	224		4.00	mg/L	1	7112001	AC	20-Nov-17	4500-Cl-B	
Conductivity*	1420		1.00	uS/cm	1	7111701	AC	17-Nov-17	120.1	
pH*	7.98		0.100	pH Units	1	7111701	AC	16-Nov-17	150.1	
Sulfate*	195		25.0	mg/L	2.5	7112201	AC	22-Nov-17	375.4	
TDS*	896		5.00	mg/L	1	7111608	AC	17-Nov-17	160.1	
Alkalinity, Total*	232		4.00	mg/L	1	7110705	AC	17-Nov-17	310.1	

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

Calcium*	119	1.52	5.00	mg/L	50	B711172	JDA	22-Nov-17	EPA200.7	
Magnesium*	25.6	3.77	5.00	mg/L	50	B711172	JDA	22-Nov-17	EPA200.7	
Potassium*	<10.5	10.5	50.0	mg/L	50	B711172	JDA	22-Nov-17	EPA200.7	
Sodium*	130	8.57	50.0	mg/L	50	B711172	JDA	22-Nov-17	EPA200.7	

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 or 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



**Analytical Results For:**

 ETZ WATER STATION  
 PO BOX 6056  
 HOBBS NM, 88241

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

 Reported:  
 28-Nov-17 18:13

**Inorganic Compounds - Quality Control**  
**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 7110705 - General Prep - Wet Chem**
**Blank (7110705-BLK1)**

Prepared &amp; Analyzed: 07-Nov-17

Alkalinity, Carbonate	ND	1.00	mg/L							
Alkalinity, Bicarbonate	5.00	5.00	mg/L							
Alkalinity, Total	4.00	4.00	mg/L							

**LCS (7110705-BS1)**

Prepared &amp; Analyzed: 07-Nov-17

Alkalinity, Carbonate	ND	2.50	mg/L				80-120			
Alkalinity, Bicarbonate	330	12.5	mg/L				80-120			
Alkalinity, Total	270	10.0	mg/L	250		108	80-120			

**LCS Dup (7110705-BSD1)**

Prepared &amp; Analyzed: 07-Nov-17

Alkalinity, Carbonate	ND	2.50	mg/L				80-120		20	
Alkalinity, Bicarbonate	355	12.5	mg/L				80-120	7.30	20	
Alkalinity, Total	290	10.0	mg/L	250		116	80-120	7.14	20	

**Batch 7111608 - Filtration**
**Blank (7111608-BLK1)**

Prepared: 16-Nov-17 Analyzed: 17-Nov-17

TDS	ND	5.00	mg/L							
-----	----	------	------	--	--	--	--	--	--	--

**LCS (7111608-BS1)**

Prepared: 16-Nov-17 Analyzed: 17-Nov-17

TDS	228	5.00	mg/L	213		107	80-120			
-----	-----	------	------	-----	--	-----	--------	--	--	--

**Duplicate (7111608-DUP1)**

Source: H703199-01

Prepared: 16-Nov-17 Analyzed: 17-Nov-17

TDS	9630	5.00	mg/L		9890			2.64	20	
-----	------	------	------	--	------	--	--	------	----	--

**Batch 7111701 - General Prep - Wet Chem**
**LCS (7111701-BS1)**

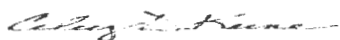
Prepared &amp; Analyzed: 16-Nov-17

pH	6.97		pH Units	7.00		99.6	90-110			
Conductivity	507		uS/cm	500		101	80-120			

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 or 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

**Analytical Results For:**

 ETZ WATER STATION  
 PO BOX 6056  
 HOBBS NM, 88241

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

 Reported:  
 28-Nov-17 18:13

**Inorganic Compounds - Quality Control**
**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 7111701 - General Prep - Wet Chem**
**Duplicate (7111701-DUP1)**

Source: H703206-01

Prepared &amp; Analyzed: 16-Nov-17

pH	7.07	0.100	pH Units		7.06			0.142	20	
Conductivity	501000	1.00	uS/cm		494000			1.46	20	

**Batch 7112001 - General Prep - Wet Chem**
**Blank (7112001-BLK1)**

Prepared &amp; Analyzed: 20-Nov-17

Chloride	ND	4.00	mg/L							
----------	----	------	------	--	--	--	--	--	--	--

**LCS (7112001-BS1)**

Prepared &amp; Analyzed: 20-Nov-17

Chloride	100	4.00	mg/L	100		100	80-120			
----------	-----	------	------	-----	--	-----	--------	--	--	--

**LCS Dup (7112001-BSD1)**

Prepared &amp; Analyzed: 20-Nov-17

Chloride	100	4.00	mg/L	100		100	80-120	0.00	20	
----------	-----	------	------	-----	--	-----	--------	------	----	--

**Batch 7112201 - General Prep - Wet Chem**
**Blank (7112201-BLK1)**

Prepared &amp; Analyzed: 22-Nov-17

Sulfate	ND	10.0	mg/L							
---------	----	------	------	--	--	--	--	--	--	--

**LCS (7112201-BS1)**

Prepared &amp; Analyzed: 22-Nov-17

Sulfate	23.2	10.0	mg/L	20.0		116	80-120			
---------	------	------	------	------	--	-----	--------	--	--	--

**LCS Dup (7112201-BSD1)**

Prepared &amp; Analyzed: 22-Nov-17

Sulfate	23.6	10.0	mg/L	20.0		118	80-120	1.79	20	
---------	------	------	------	------	--	-----	--------	------	----	--

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 or 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

**Analytical Results For:**

 ETZ WATER STATION  
 PO BOX 6056  
 HOBBS NM, 88241

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

 Reported:  
 28-Nov-17 18:13

**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 B711172 - Total Rec. 200.7/200.8/200.2**
**Blank (B711172-BLK1)**

Prepared: 20-Nov-17 Analyzed: 22-Nov-17

Calcium	ND	0.100	mg/L							
Sodium	ND	1.00	mg/L							
Magnesium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							

**LCS (B711172-BS1)**

Prepared: 20-Nov-17 Analyzed: 22-Nov-17

Magnesium	20.8	0.100	mg/L	20.0		104	85-115			
Potassium	8.07	1.00	mg/L	8.00		101	85-115			
Sodium	6.68	1.00	mg/L	6.48		103	85-115			
Calcium	4.23	0.100	mg/L	4.00		106	85-115			

**LCS Dup (B711172-BSD1)**

Prepared: 20-Nov-17 Analyzed: 22-Nov-17

Potassium	8.22	1.00	mg/L	8.00		103	85-115	1.77	20	
Calcium	4.24	0.100	mg/L	4.00		106	85-115	0.215	20	
Sodium	6.66	1.00	mg/L	6.48		103	85-115	0.224	20	
Magnesium	20.8	0.100	mg/L	20.0		104	85-115	0.0742	20	

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 or 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

**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

---

**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 or 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**



**பக்கம் 10 of 10**

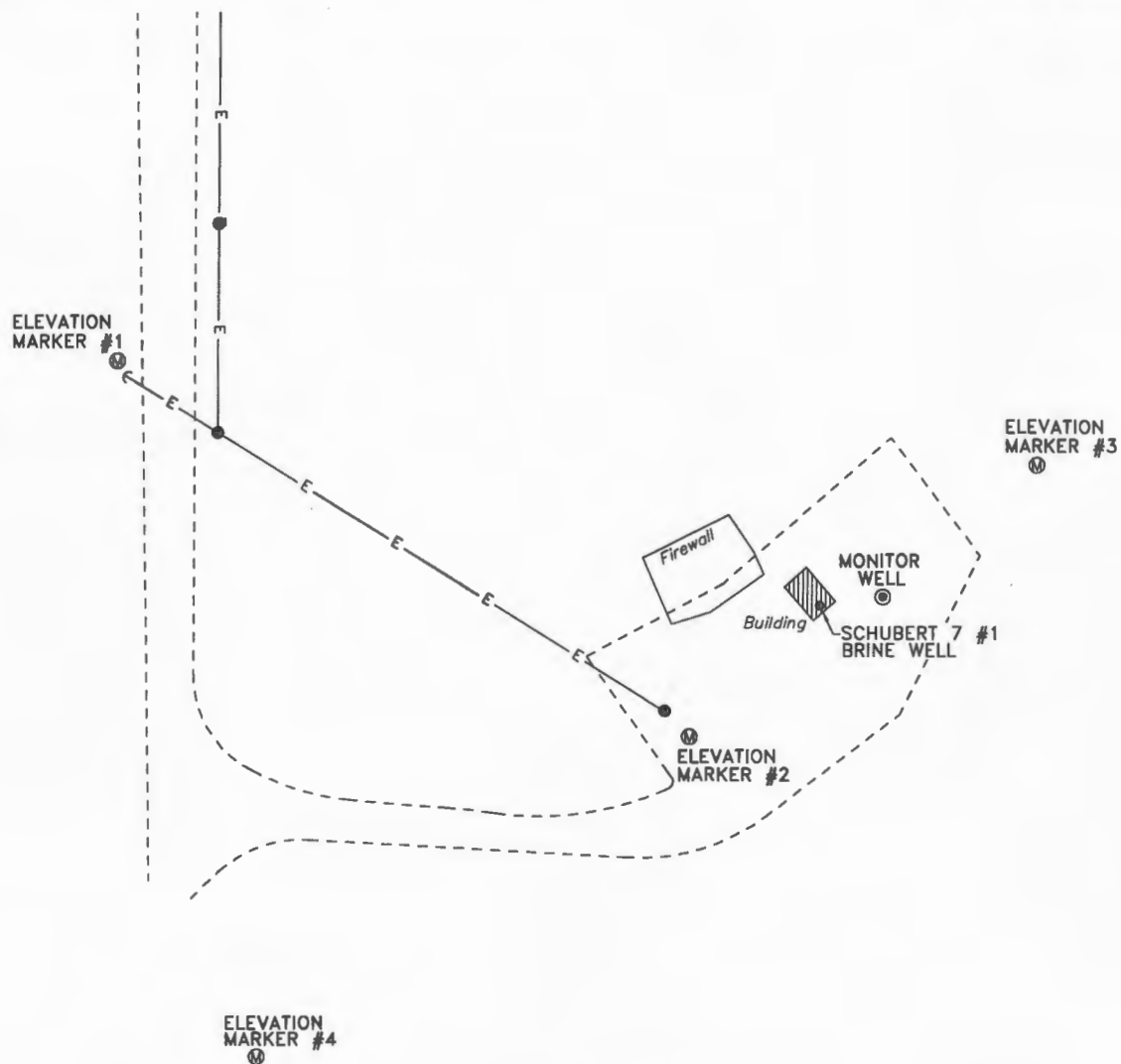
[illegible]

**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 the client for the analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: 	Date: 11/16/17	Received By: 	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
Time: 10:19 AM	Date:	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS: email. to : garymschubert@gmail.com
Time:			
Delivered By: (Circle One) 0.32	Sample Condition	CHECKED BY:	
Sampler - UPS - Bus - Other:	Cool Intact	(Initials)	
0.55	<input type="checkbox"/> Yes <input type="checkbox"/> No	10. #75	



SECTION 7, TOWNSHIP 19 SOUTH, RANGE 39 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO.



NOTE:  
ELEVATIONS ARE ON BLACK MARK  
ON NORTH SIDE OF PVC CASING.

NEW MEXICO STATE PLANE COORDINATES (NAD83)

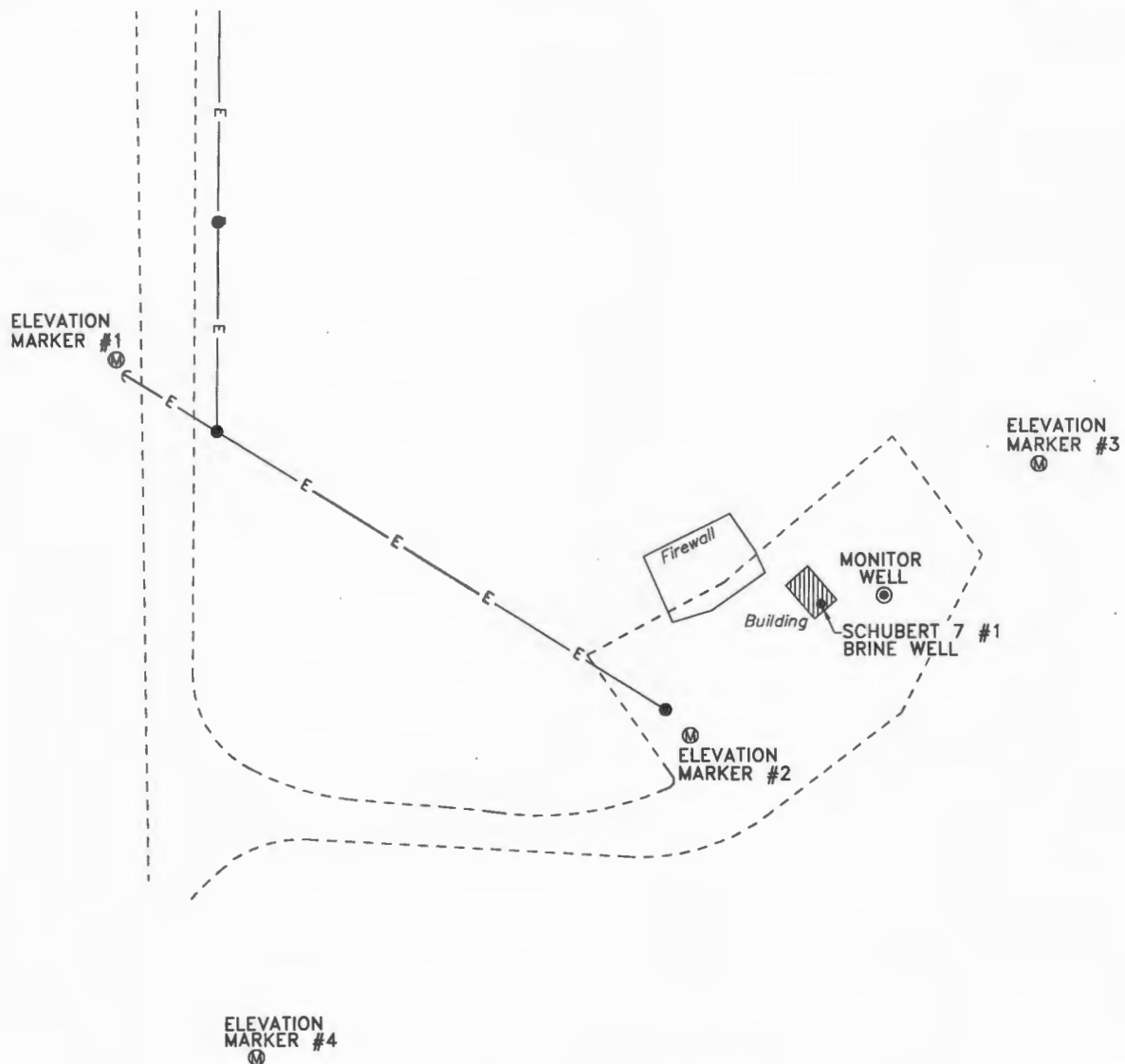
WELL	NORTHING	EASTING	LATITUDE	LONGITUDE	ELEVATION
EM-1	611304.81	925484.92	32°40'27.52"	103°05'05.71"	3591.65
EM-2	611100.65	925800.11	32°40'25.46"	103°05'02.05"	3586.37
EM-3	611248.41	925991.42	32°40'26.90"	103°04'59.79"	3586.23
EM-4	610926.15	925561.84	32°40'23.76"	103°05'04.86"	3586.94

REVISION #	DATE	DESCRIPTION
1	SEPT. 9, 2015	ORIGINAL SURVEY
2	DEC. 15, 2015	RESURVEY-NO CHANGE IN ELEVATIONS
3	APRIL 12, 2016	RESURVEY-NO CHANGE IN ELEVATIONS
4	JULY 26, 2016	RESURVEY-NO CHANGE IN ELEVATIONS
5	OCTOBER 27, 2016	RESURVEY-NO CHANGE IN ELEVATIONS
6	February 6, 2017	RESURVEY-NO CHANGE IN ELEVATIONS
7	May 11, 2017	RESURVEY-NO CHANGE IN ELEVATIONS
8	AUGUST 30, 2017	RESURVEY-NO CHANGE IN ELEVATIONS
9	JANUARY 10, 2018	RESURVEY-NO CHANGE IN ELEVATIONS





SECTION 7, TOWNSHIP 19 SOUTH, RANGE 39 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO.



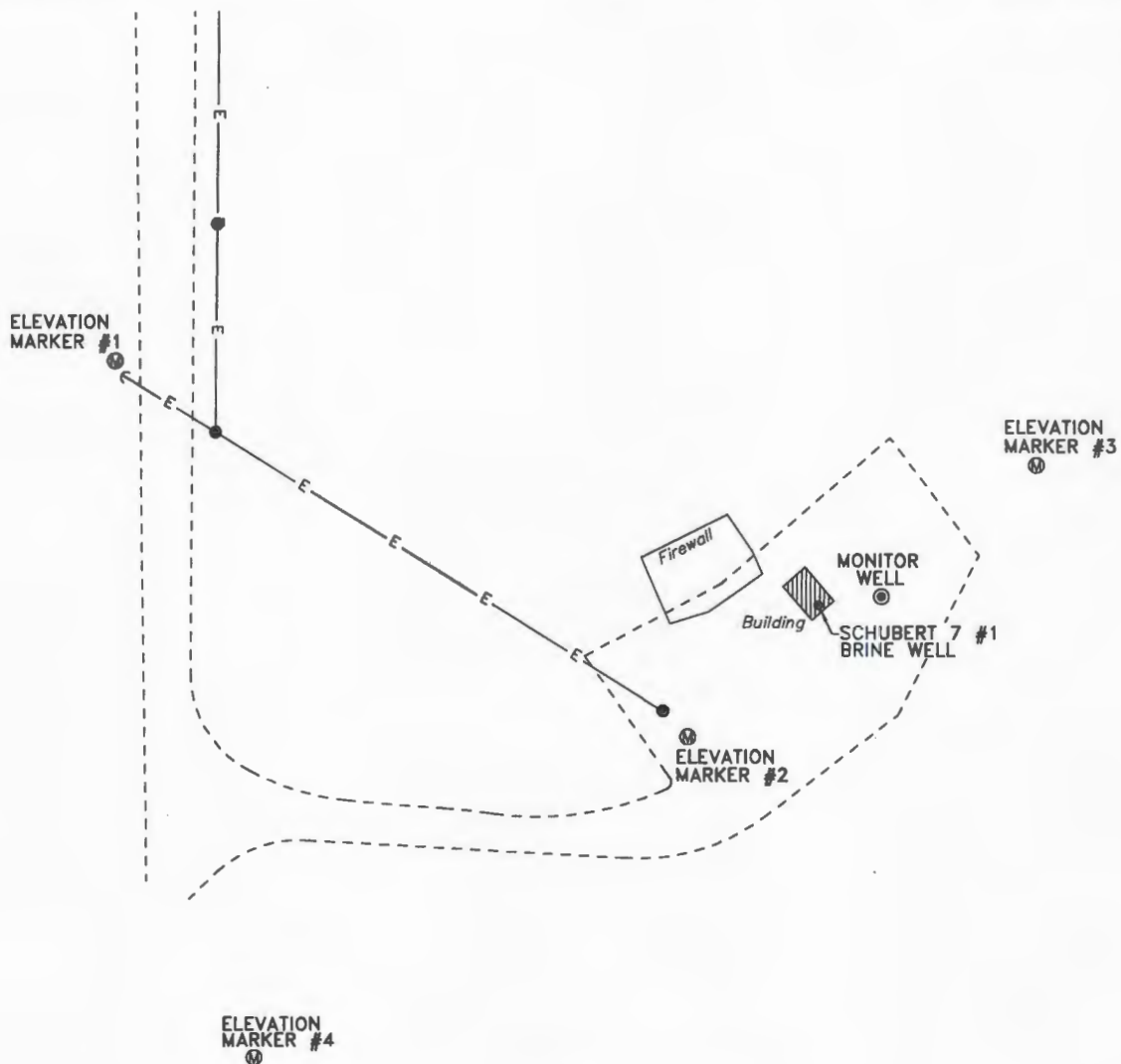
NOTE:  
ELEVATIONS ARE ON BLACK MARK  
ON NORTH SIDE OF PVC CASING.

NEW MEXICO STATE PLANE COORDINATES (NAD83)

WELL	NORTHING	EASTING	LATITUDE	LONGITUDE	ELEVATION
EM-1	611304.81	92548.492	32°40'27.52"	103°05'05.71"	3591.65
EM-2	611100.65	92580.011	32°40'25.46"	103°05'02.05"	3586.37
EM-3	611248.41	92599.142	32°40'26.90'	103°04'59.79"	3586.23
EM-4	610926.15	925561.84	32°40'23.76"	103°05'04.86"	3586.94

REVISION #	DATE	DESCRIPTION
1	SEPT. 9, 2015	ORIGINAL SURVEY
2	DEC. 15, 2015	RESURVEY-NO CHANGE IN ELEVATIONS
3	APRIL 12, 2016	RESURVEY-NO CHANGE IN ELEVATIONS
4	JULY 20, 2016	RESURVEY-NO CHANGE IN ELEVATIONS
5	OCTOBER 27, 2016	RESURVEY-NO CHANGE IN ELEVATIONS
6	February 6, 2017	RESURVEY-NO CHANGE IN ELEVATIONS
7	May 11, 2017	RESURVEY-NO CHANGE IN ELEVATIONS
8	AUGUST 30, 2017	RESURVEY-NO CHANGE IN ELEVATIONS
9	JANUARY 10, 2018	RESURVEY-NO CHANGE IN ELEVATIONS
10	MAY 1, 2018	RESURVEY-NO CHANGE IN ELEVATIONS
11	SEPTEMBER 5, 2018	RESURVEY-NO CHANGE IN ELEVATIONS
12	JANUARY 15, 2019	RESURVEY-NO CHANGE IN ELEVATIONS

SECTION 7, TOWNSHIP 19 SOUTH, RANGE 39 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO.



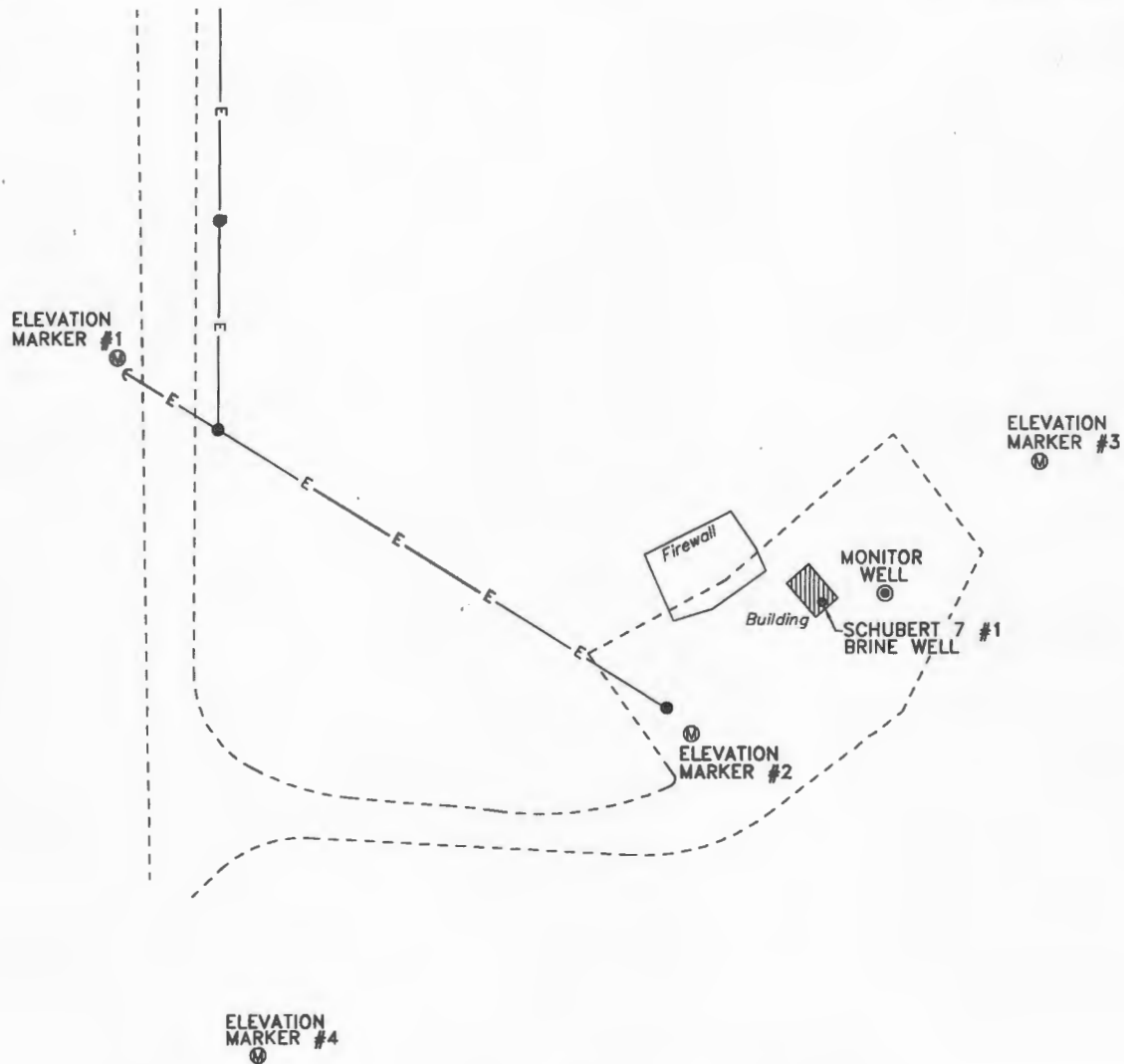
NOTE:  
ELEVATIONS ARE ON BLACK MARK  
ON NORTH SIDE OF PVC CASING.

NEW MEXICO STATE PLANE COORDINATES (NAD83)

WELL	NORTHING	EASTING	LATITUDE	LONGITUDE	ELEVATION
EM-1	611304.81	925484.92	32°40'27.52"	103°05'05.71"	3591.65
EM-2	611100.65	925800.11	32°40'25.46"	103°05'02.05"	3586.37
EM-3	611248.41	925991.42	32°40'26.90"	103°04'59.79"	3586.23
EM-4	610926.15	925561.84	32°40'23.76"	103°05'04.86"	3586.94

REVISION #	DATE	DESCRIPTION
1	SEPT. 9, 2015	ORIGINAL SURVEY
2	DEC. 15, 2015	RESURVEY-NO CHANGE IN ELEVATIONS
3	APRIL 12, 2016	RESURVEY-NO CHANGE IN ELEVATIONS
4	JULY 26, 2016	RESURVEY-NO CHANGE IN ELEVATIONS
5	OCTOBER 27, 2016	RESURVEY-NO CHANGE IN ELEVATIONS
6	February 6, 2017	RESURVEY-NO CHANGE IN ELEVATIONS
7	May 11, 2017	RESURVEY-NO CHANGE IN ELEVATIONS
8	AUGUST 30, 2017	RESURVEY-NO CHANGE IN ELEVATIONS
9	JANUARY 10, 2018	RESURVEY-NO CHANGE IN ELEVATIONS
10	MAY 1, 2018	RESURVEY-NO CHANGE IN ELEVATIONS

SECTION 7, TOWNSHIP 19 SOUTH, RANGE 39 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO.



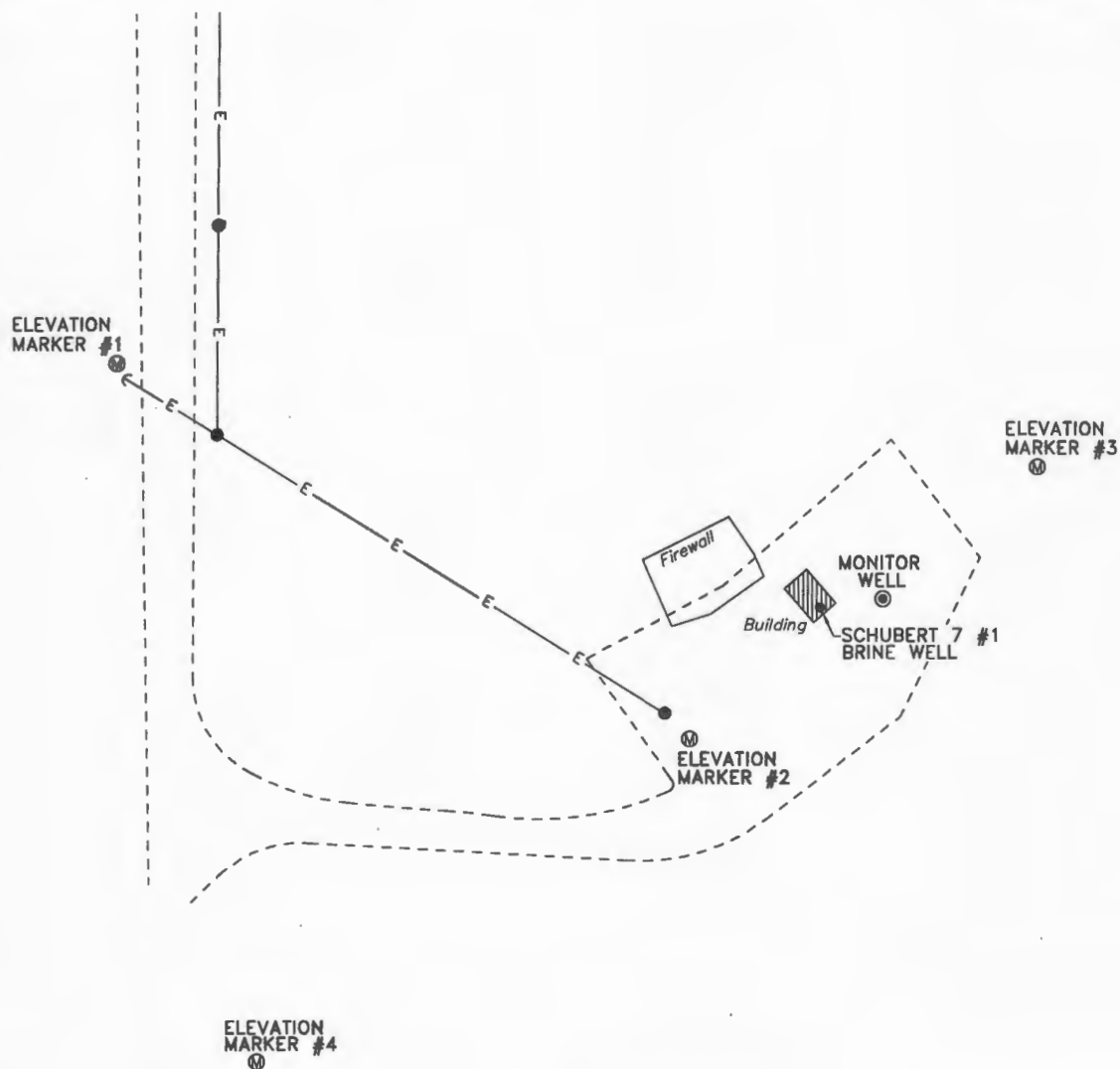
NOTE:  
ELEVATIONS ARE ON BLACK MARK  
ON NORTH SIDE OF PVC CASING.

NEW MEXICO STATE PLANE COORDINATES (NAD83)

WELL	NORTHING	EASTING	LATITUDE	LONGITUDE	ELEVATION
EM-1	611304.81	925484.92	32°40'27.52"	103°05'05.71"	3591.65
EM-2	611100.65	925800.11	32°40'25.46"	103°05'02.05"	3586.37
EM-3	611248.41	925991.42	32°40'26.90"	103°04'59.79"	3586.23
EM-4	610926.15	925561.84	32°40'23.76"	103°05'04.86"	3586.94

REVISION #	DATE	DESCRIPTION
1	SEPT. 9, 2015	ORIGINAL SURVEY
2	DEC. 15, 2015	RESURVEY-NO CHANGE IN ELEVATIONS
3	APRIL 12, 2016	RESURVEY-NO CHANGE IN ELEVATIONS
4	JULY 26, 2016	RESURVEY-NO CHANGE IN ELEVATIONS
5	OCTOBER 27, 2016	RESURVEY-NO CHANGE IN ELEVATIONS
6	February 6, 2017	RESURVEY-NO CHANGE IN ELEVATIONS
7	May 11, 2017	RESURVEY-NO CHANGE IN ELEVATIONS
8	AUGUST 30, 2017	RESURVEY-NO CHANGE IN ELEVATIONS

SECTION 7, TOWNSHIP 19 SOUTH, RANGE 39 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO.



NOTE:  
ELEVATIONS ARE ON BLACK MARK  
ON NORTH SIDE OF PVC CASING.

NEW MEXICO STATE PLANE COORDINATES (NAD83)

WELL	NORTHING	EASTING	LATITUDE	LONGITUDE	ELEVATION
EM-1	611304.81	925484.92	32°40'27.52"	103°05'05.71"	3591.65
EM-2	611100.65	925800.11	32°40'25.46"	103°05'02.05"	3586.37
EM-3	611248.41	925991.42	32°40'26.90"	103°04'59.79"	3586.23
EM-4	610926.15	925561.84	32°40'23.76"	103°05'04.86"	3586.94

REVISION #	DATE	DESCRIPTION
1	SEPT. 9, 2015	ORIGINAL SURVEY
2	DEC. 15, 2015	RESURVEY-NO CHANGE IN ELEVATIONS
3	APRIL 12, 2016	RESURVEY-NO CHANGE IN ELEVATIONS
4	JULY 26, 2016	RESURVEY-NO CHANGE IN ELEVATIONS
5	OCTOBER 27, 2016	RESURVEY-NO CHANGE IN ELEVATIONS
6	February 6, 2017	RESURVEY-NO CHANGE IN ELEVATIONS
7	May 11, 2017	RESURVEY-NO CHANGE IN ELEVATIONS
8	AUGUST 30, 2017	RESURVEY-NO CHANGE IN ELEVATIONS
9	JANUARY 10, 2018	RESURVEY-NO CHANGE IN ELEVATIONS
10	MAY 1, 2018	RESURVEY-NO CHANGE IN ELEVATIONS
11	SEPTEMBER 5, 2018	RESURVEY-NO CHANGE IN ELEVATIONS

## Chavez, Carl J, EMNRD

---

**From:** Chavez, Carl J, EMNRD  
**Sent:** Friday, May 4, 2018 8:50 AM  
**To:** 'Gary Schubert'  
**Cc:** Griswold, Jim, EMNRD; 'David Alvarado'  
**Subject:** RE: BW-31 & BW-36

Gary:

Good morning. The New Mexico Oil Conservation Division (OCD) has received documents from Mr. David Alvarado including applications for renewal for both BWs 31 and 36. OCD believes the submittal for BW-36 was unnecessary, as the DP does not expire until 9/30/2021, and could be the records package submitted to meet OCD's May 4, 2018 records request deadline? **OCD requires the \$100 filing fee for BW-31 in order to begin reviewing the submittal**, since it was not submitted or has not to my knowledge been received by OCD..

Yes, OCD received information from Mr. Alvarado that may be added to the administrative record by COB today for our review. I will make sure this new info. is also added to the records for final review.

Please contact me if you have questions. Thank you.

Mr. Carl J. Chavez, CHMM (#13099)  
New Mexico Oil Conservation Division  
Energy Minerals and Natural Resources Department  
1220 South St Francis Drive  
Santa Fe, New Mexico 87505  
Ph. (505) 476-3490  
E-mail: [CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us)

**“Why not prevent pollution, minimize waste to reduce operating costs, reuse or recycle, and move forward with the rest of the Nation?” (To see how, go to: <http://www.emnrd.state.nm.us/OCD> and see “Publications”)**

**From:** Gary Schubert <garymschubert@gmail.com>  
**Sent:** Friday, May 4, 2018 8:25 AM  
**To:** Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>  
**Cc:** Griswold, Jim, EMNRD <Jim.Griswold@state.nm.us>  
**Subject:** BW-31 & BW-36

Carl,

Please see monthly volume reports on the above mentioned wells for the first four months of 2018.

Also as you are aware I have engaged David Alvarado review the files of both wells and scrutinize same to be sure we are in total compliance with all reporting, etc. You have recently received his reports to you regarding that and to my knowledge all information is up to date including the renewal application on BW-31 which is set to renew in September. If you are aware of any items that have been mistakenly omitted please let David or myself know and we will immediately get that information to you.

Thanks,

Gary

--

Gary M. Schubert



## Chavez, Carl J, EMNRD

---

**From:** Gary Schubert <garymschubert@gmail.com>  
**Sent:** Friday, May 4, 2018 8:25 AM  
**To:** Chavez, Carl J, EMNRD  
**Cc:** Griswold, Jim, EMNRD  
**Subject:** BW-31 & BW-36  
**Attachments:** .pdf05042018\_00000.pdf

Carl,

Please see monthly volume reports on the above mentioned wells for the first four months of 2018.

Also as you are aware I have engaged David Alvarado review the files of both wells and scrutinize same to be sure we are in total compliance with all reporting, etc. You have recently received his reports to you regarding that and to my knowledge all information is up to date including the renewal application on BW-31 which is set to renew in September. If you are aware of any items that have been mistakenly omitted please let David or myself know and we will immediately get that information to you.

Thanks,

Gary

--

Gary M. Schubert

**BW - 31**

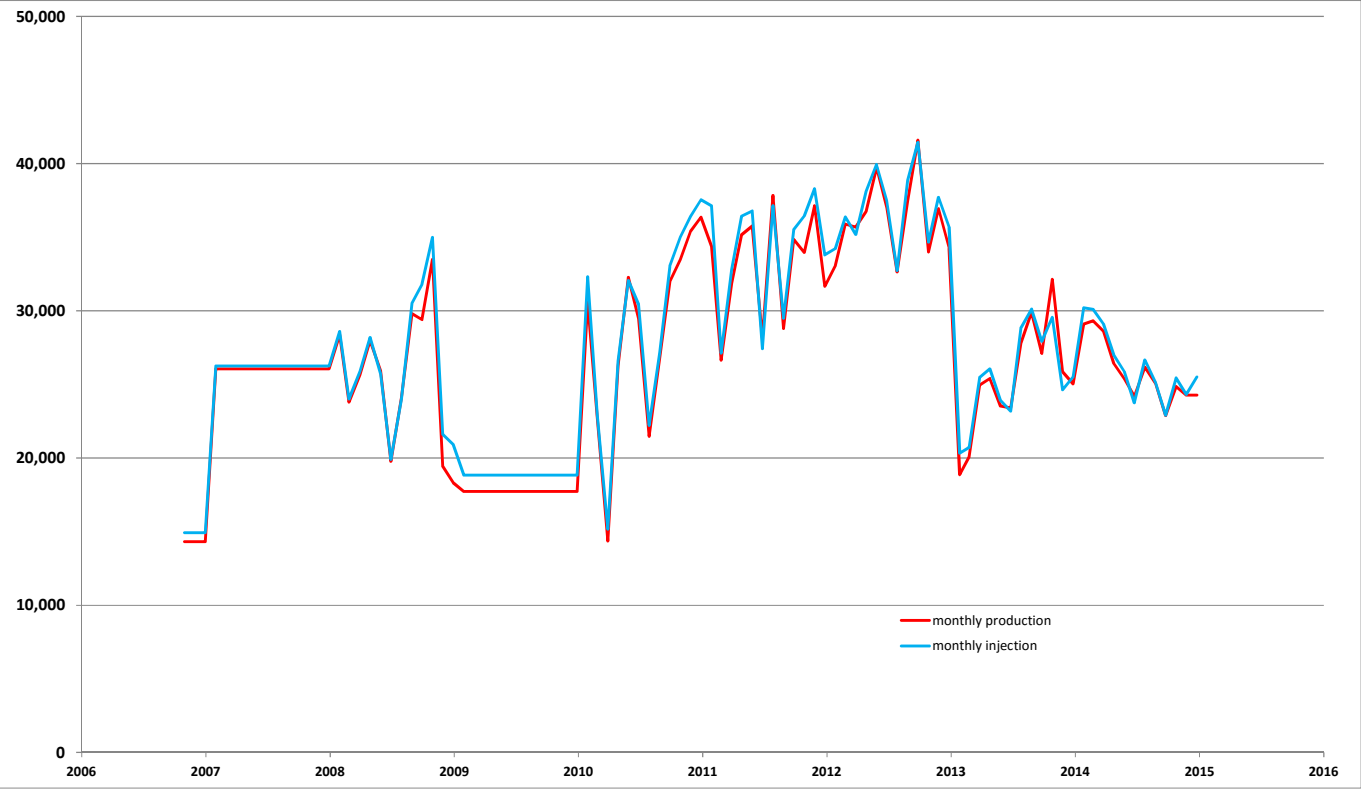
**SCHUBERT 7 – WELL # 1**

**Year 2018**

<b>MONTH</b>	<b>BRINE PRODUCTION (BY Meter)</b>	<b>FRESH WATER INJECTED (By Meter)</b>
January	25,912	25,981
February	23,395	22,926
March	9,552	9,402
April	11,771	11,674
May		
June		
July		
August		
September		
October		
November		
December		

**BW – 31**  
**SCHUBERT 7 – WELL # 1**  
**YEAR 2013**

<b>MONTH</b>	<b>BRINE PRODUCTION (BY Meter)</b>	<b>FRESH WATER INJECTED (By Meter)</b>
January	18,870	20,333
February	20,100	20,714
March	24,960	25,460
April	25,410	26,048
May	23,530	23,910
June	23,400	23,190
July	27,820	28,862
August	29,900	30,119
September	27,110	27,919
October		
November		
December		
Total		



year	month	date	monthly production	monthly injection	annual production	annual injection	total historic production
2006	Oct	10/31/06	14317	14933			
	Nov	11/30/06	14317	14933			
	Dec	12/31/06	14317	14933	42950	44800	
2007	Jan	1/31/07	26067	26250			
	Feb	2/28/07	26067	26250			
	Mar	3/31/07	26067	26250			
	Apr	4/30/07	26067	26250			
	May	5/31/07	26067	26250			
	Jun	6/30/07	26067	26250			
	Jul	7/31/07	26067	26250			
	Aug	8/31/07	26067	26250			
	Sep	9/30/07	26067	26250			
	Oct	10/31/07	26067	26250			
	Nov	11/30/07	26067	26250			
	Dec	12/31/07	26067	26250	312800	315000	
2008	Jan	1/31/08	28370	28600			
	Feb	2/28/08	23800	24000			
	Mar	3/31/08	25640	25900			
	Apr	4/30/08	27980	28200			
	May	5/31/08	25890	25700			
	Jun	6/30/08	19770	19900			
	Jul	7/31/08	24100	24000			
	Aug	8/31/08	29810	30500			
	Sep	9/30/08	29400	31800			
	Oct	10/31/08	33500	35000			
	Nov	11/30/08	19430	21600			
	Dec	12/31/08	18300	20900	305990	316100	
2009	Jan	1/31/09	17732	18838			
	Feb	2/28/09	17732	18838			
	Mar	3/31/09	17732	18838			
	Apr	4/30/09	17732	18838			
	May	5/31/09	17732	18838			
	Jun	6/30/09	17732	18838			
	Jul	7/31/09	17732	18838			
	Aug	8/31/09	17732	18838			
	Sep	9/30/09	17732	18838			
	Oct	10/31/09	17732	18838			
	Nov	11/30/09	17732	18838			
	Dec	12/31/09	17732	18838	212779	226058	
2010	Jan	1/31/10	30568	32311			
	Feb	2/28/10	22730	22921			
	Mar	3/31/10	14360	15169			
	Apr	4/30/10	26238	26616			
	May	5/31/10	32273	32066			

	Jun	6/30/10	29490	30433		
	Jul	7/31/10	21476	22216		
	Aug	8/31/10	26778	27145		
	Sep	9/30/10	31989	33038		
	Oct	10/31/10	33476	35023		
	Nov	11/30/10	35402	36404		
	Dec	12/31/10	36354	37545	341134	350887
2011	Jan	1/31/11	34390	37121		
	Feb	2/28/11	26653	27131		
	Mar	3/31/11	31870	32821		
	Apr	4/30/11	35172	36426		
	May	5/31/11	35766	36794		
	Jun	6/30/11	28147	27429		
	Jul	7/31/11	37842	37155		
	Aug	8/31/11	28805	29498		
	Sep	9/30/11	34852	35519		
	Oct	10/31/11	33969	36438		
	Nov	11/30/11	37140	38305		
	Dec	12/31/11	31672	33800	396278	408437
2012	Jan	1/31/2012	33081	34225		
	Feb	2/29/2012	35895	36376		
	Mar	3/31/2012	35674	35190		
	Apr	4/30/12	36731	38109		
	May	5/31/12	39746	39940		
	Jun	6/30/12	37005	37479		
	Jul	7/31/12	32640	32729		
	Aug	8/31/12	37467	38874		
	Sep	9/30/12	41586	41448		
	Oct	10/31/12	33998	34657		
	Nov	11/30/12	36936	37710		
	Dec	12/31/12	34281	35690	435040	442427
2013	Jan	1/31/2013	18870	20333		
	Feb	2/28/2013	20100	20714		
	Mar	3/31/2013	24960	25460		
	Apr	4/30/13	25410	26048		
	May	5/31/13	23530	23910		
	Jun	6/30/13	23400	23190		
	Jul	7/31/13	27820	28862		
	Aug	8/31/13	29900	30119		
	Sep	9/30/13	27110	27919		
	Oct	10/31/13	32134	29557		
	Nov	11/30/13	25865	24643		
	Dec	12/31/13	25037	25510	304136	306265
2014	Jan	1/31/2014	29097	30200		
	Feb	2/28/2014	29322	30100		
	Mar	3/31/2014	28619	29100		
	Apr	4/30/14	26417	27017		



May	5/31/14	25381	25876		
Jun	6/30/14	24195	23755		
Jul	7/31/14	26167	26657		
Aug	8/31/14	25077	25138		
Sep	9/30/14	22883	22907		
Oct	10/31/14	24867	25436		
Nov	11/30/14	24267	24321		
Dec	12/31/14	24276	25500	310568	316007