

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
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-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	Sundown Energy, LP	Contact	Ralph Butler
Address	16400 Dallas Parkway #100 Dallas	Telephone No.	75248 214-3686100 (ext 2102)
Facility Name	Lea 403 State #3	Facility Type	Tank Battery
Surface Owner	State of NM	Mineral Owner	State of NM
		API No.	30-025-03128

Well Location:

LOCATION OF RELEASE (Battery remote from well)

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	22	18S	35E	330	South	2310	West	Lea
TANK BATTERY				Latitude	32.72764	Longitude	103.45177	

NATURE OF RELEASE

Type of Release	historic	Volume of Release	unknown	Volume Recovered	nil
Source of Release	Old tank battery site	Date and Hour of Occurrence ?		Date and Hour of Discovery	2015
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?			
By Whom?		Date and Hour			
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

RECEIVED

By OCD District 1 at 11:35 am, May 28, 2015

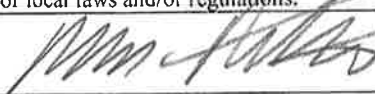

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Tank battery removal- well has been put into new Water Flood.
Tank battery removed per State Land Office request.
Impacted soil was dug out and taken to authorized facility
Area Cleaned up- new soil put in- soil samples taken-- attached.

Describe Area Affected and Cleanup Action Taken.*

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Ralph Butler P E	Approved by Environmental Specialist: 	
Title: Area Operations Mgr	Approval Date: 05/28/2015	Expiration Date: 08/28/2015
E-mail Address: rbutler@sundownenergy.com	Conditions of Approval: Site samples required. Delineate and remediate as per MNOCD guides. Geotag photographs of remediation required.	Attached <input type="checkbox"/> 1RP-3652
Date: 5/21/2015	Phone:	

* Attach Additional Sheets If Necessary

nKJ1514928914
pKJ1514929603



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

December 19, 2012

KYLE PAXTON

SUNDOWN ENERGY

P. O. BOX 277

WICKETT, TX 79788

RE: REEVES QUEEN WATERFLOOD UNIT

Enclosed are the results of analyses for samples received by the laboratory on 11/20/12 11:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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 on 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	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:SUNDOWN ENERGY
P. O. BOX 277
WICKETT TX, 79788Project: REEVES QUEEN WATERFLOOD UN
Project Number: NOT GIVEN
Project Manager: KYLE PAXTON
Fax To: NOT GIVENReported:
19-Dec-12 15:56

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SOUTH VACUUM #5	H202825-01	Water	16-Nov-12 00:00	20-Nov-12 11:10
LEA 403 STATE #2	H202825-02	Water	20-Nov-12 00:00	20-Nov-12 11:10
COMP OF S VACUUM & LEA	H202825-03	Water	20-Nov-12 00:00	20-Nov-12 11:10

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

SUNDOWN ENERGY
P. O. BOX 277
WICKETT TX, 79788

Project: REEVES QUEEN WATERFLOOD UNJ
Project Number: NOT GIVEN
Project Manager: KYLE PAXTON
Fax To: NOT GIVEN

Reported:
19-Dec-12 15:56

SOUTH VACUUM #5

H202825-01 (Water)

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

Alkalinity, Bicarbonate	34.2	5.00	mg/L	1	2110104	HM	26-Nov-12	310.1	
Calcium	3090	1.60	mg/L	1	2101718	HM	30-Nov-12	SM3500Ca-D	
Alkalinity, Carbonate	ND	0.00	mg/L	1	2110104	HM	26-Nov-12	310.1	
Chloride*	13800	4.00	mg/L	1	2112104	HM	26-Nov-12	4500-Cl-B	
Conductivity*	40300	1.00	uS/cm	1	2112607	HM	26-Nov-12	120.1	
Magnesium	899	1.00	mg/L	1	2101718	HM	30-Nov-12	SM3500Mg-E	
pH*	6.11	0.100	pH Units	1	2112607	HM	26-Nov-12	150.1	
Potassium	185	1.00	mg/L	1	2101718	HM	30-Nov-12	HACH 8049	
Sodium	3730	1.00	mg/L	1	2101718	HM	30-Nov-12	Calculation	
Sulfate*	293	10.0	mg/L	1	2112703	AP	27-Nov-12	375.4	
TDS*	23300	5.00	mg/L	1	2112602	HM	21-Nov-12	160.1	
Alkalinity, Total*	28.0	4.00	mg/L	1	2110104	HM	26-Nov-12	310.1	

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Celest D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

SUNDOWN ENERGY
P. O. BOX 277
WICKETT TX, 79788

Project: REEVES QUEEN WATERFLOOD UN
Project Number: NOT GIVEN
Project Manager: KYLE PAXTON
Fax To: NOT GIVEN

Reported:
19-Dec-12 15:56

**LEA 403 STATE #2
H202825-02 (Water)**

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

Inorganic Compounds

Alkalinity, Bicarbonate	503	5.00	mg/L	1	2110104	HM	26-Nov-12	310.1	
Calcium	2480	1.60	mg/L	1	2101718	HM	30-Nov-12	SM3500Ca-D	
Alkalinity, Carbonate	ND	0.00	mg/L	1	2110104	HM	26-Nov-12	310.1	
Chloride*	19400	4.00	mg/L	1	2112104	HM	26-Nov-12	4500-Cl-B	
Conductivity*	58700	1.00	uS/cm	1	2112607	HM	26-Nov-12	120.1	
Magnesium	267	1.00	mg/L	1	2101718	HM	30-Nov-12	SM3500Mg-E	
pH*	7.56	0.100	pH Units	1	2112607	HM	26-Nov-12	150.1	
Potassium	575	1.00	mg/L	1	2101718	HM	30-Nov-12	HACH 8049	
Sodium	9190	1.00	mg/L	1	2101718	HM	30-Nov-12	Calculation	
Sulfate*	261	10.0	mg/L	1	2112703	AP	27-Nov-12	375.4	
TDS*	32300	5.00	mg/L	1	2112602	HM	21-Nov-12	160.1	
Alkalinity, Total*	412	4.00	mg/L	1	2110104	HM	26-Nov-12	310.1	

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Caley D. Keene, Lab Director/Quality Manager

Analytical Results For:

SUNDOWN ENERGY
P. O. BOX 277
WICKETT TX, 79788

Project: REEVES QUEEN WATERFLOOD UNJ
Project Number: NOT GIVEN
Project Manager: KYLE PAXTON
Fax To: NOT GIVEN

Reported:
19-Dec-12 15:56

COMP OF S VACUUM & LEA 403 H202825-03 (Water)

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

Inorganic Compounds

Alkalinity, Bicarbonate	317	5.00	mg/L	1	2110104	HM	13-Dec-12	310.1	
Alkalinity, Carbonate	ND	0.00	mg/L	1	2110104	HM	13-Dec-12	310.1	
Chloride*	16700	4.00	mg/L	1	2121905	HM	19-Dec-12	4500-Cl-B	
Conductivity*	50900	1.00	uS/cm	1	2121806	AP	18-Dec-12	120.1	
pH*	7.57	0.100	pH Units	1	2121910	HM	11-Dec-12	150.1	
Resistivity	0.196		Ohms/m	1	2121908	HM	18-Dec-12	120.1	
Specific Gravity @ 60° F	1.016	0.000	[blank]	4	2121909	HM	19-Dec-12	SM 2710F	
Sulfate*	296	10.0	mg/L	1	2120501	AP	10-Dec-12	375.4	
TDS*	33300	5.00	mg/L	1	2120605	AP	13-Dec-12	160.1	
Alkalinity, Total*	260	4.00	mg/L	1	2110104	HM	13-Dec-12	310.1	

Dissolved Metals

Barium	ND	1.00	mg/L	100	2121907	CK	13-Dec-12	200.7	GAL
Calcium	2200	100	mg/L	100	2121907	CK	13-Dec-12	200.7	GAL
Iron	ND	5.00	mg/L	100	2121907	CK	13-Dec-12	200.7	GAL
Magnesium	619	100	mg/L	100	2121907	CK	13-Dec-12	200.7	GAL
Potassium	326	100	mg/L	100	2121907	CK	13-Dec-12	200.7	GAL
Sodium	7650	100	mg/L	100	2121907	CK	13-Dec-12	200.7	GAL

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

SUNDOWN ENERGY
P. O. BOX 277
WICKETT TX, 79788

Project: REEVES QUEEN WATERFLOOD UNI
Project Number: NOT GIVEN
Project Manager: KYLE PAXTON
Fax To: NOT GIVEN

Reported:
19-Dec-12 15:56

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2101718 - *** DEFAULT PREP ***

Blank (2101718-BLK1)

Prepared: 17-Oct-12 Analyzed: 09-Nov-12

Magnesium	ND	1.00	mg/L							
Potassium	ND	1.00	mg/L							
Calcium	ND	1.60	mg/L							

LCS (2101718-BS1)

Prepared & Analyzed: 17-Oct-12

Potassium	3.00		mg/L	3.00		100	80-120			
Magnesium	54.4		mg/L	50.0		109	80-120			
Calcium	20.8		mg/L	20.0		104	80-120			

Duplicate (2101718-DUP1)

Source: H202593-01

Prepared: 17-Oct-12 Analyzed: 09-Nov-12

Magnesium	1820	1.00	mg/L		1880			3.24	20	
Calcium	6710	1.60	mg/L		6410			4.57	20	
Potassium	540	1.00	mg/L		540			0.00	20	

Batch 2110104 - General Prep - Wet Chem

Blank (2110104-BLK1)

Prepared & Analyzed: 31-Oct-12

Alkalinity, Carbonate	ND	0.00	mg/L							
Alkalinity, Bicarbonate	ND	5.00	mg/L							
Alkalinity, Total	ND	4.00	mg/L							

LCS (2110104-BS1)

Prepared & Analyzed: 31-Oct-12

Alkalinity, Carbonate	ND	0.00	mg/L				80-120			
Alkalinity, Bicarbonate	137	5.00	mg/L				80-120			
Alkalinity, Total	112	4.00	mg/L	100		112	80-120			

LCS Dup (2110104-BSD1)

Prepared & Analyzed: 31-Oct-12

Alkalinity, Carbonate	ND	0.00	mg/L				80-120		20	
Alkalinity, Bicarbonate	137	5.00	mg/L				80-120	0.00	20	
Alkalinity, Total	112	4.00	mg/L	100		112	80-120	0.00	20	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

SUNDOWN ENERGY
P. O. BOX 277
WICKETT TX, 79788

Project: REEVES QUEEN WATERFLOOD UN
Project Number: NOT GIVEN
Project Manager: KYLE PAXTON
Fax To: NOT GIVEN

Reported:
19-Dec-12 15:56

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2112104 - General Prep - Wet Chem

Blank (2112104-BLK1)

Prepared & Analyzed: 26-Nov-12

Chloride ND 4.00 mg/L

LCS (2112104-BS1)

Prepared & Analyzed: 26-Nov-12

Chloride 104 4.00 mg/L 100 104 80-120

LCS Dup (2112104-BSD1)

Prepared & Analyzed: 26-Nov-12

Chloride 104 4.00 mg/L 100 104 80-120 0.00 20

Batch 2112602 - Filtration

Blank (2112602-BLK1)

Prepared: 21-Nov-12 Analyzed: 29-Nov-12

TDS ND 5.00 mg/L

LCS (2112602-BS1)

Prepared: 21-Nov-12 Analyzed: 29-Nov-12

TDS 239 mg/L 240 99.6 80-120

Duplicate (2112602-DUP1)

Source: H202812-03

Prepared: 21-Nov-12 Analyzed: 29-Nov-12

TDS 1560 5.00 mg/L 1660 6.21 20

Batch 2112607 - General Prep - Wet Chem

LCS (2112607-BS1)

Prepared & Analyzed: 26-Nov-12

pH 7.05 pH Units 7.00 101 90-110

Conductivity 1410 uS/cm 1410 100 80-120

Duplicate (2112607-DUP1)

Source: H202825-01

Prepared & Analyzed: 26-Nov-12

Conductivity 40300 1.00 uS/cm 40300 0.00 20

pH 6.14 0.100 pH Units 6.11 0.490 20

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

SUNDOWN ENERGY P. O. BOX 277 WICKETT TX, 79788	Project: REEVES QUEEN WATERFLOOD UN Project Number: NOT GIVEN Project Manager: KYLE PAXTON Fax To: NOT GIVEN	Reported: 19-Dec-12 15:56
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Inorganic Compounds - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2112703 - General Prep - Wet Chem										
Blank (2112703-BLK1)				Prepared & Analyzed: 27-Nov-12						
Sulfate	ND	10.0	mg/L							
LCS (2112703-BS1)				Prepared & Analyzed: 27-Nov-12						
Sulfate	16.9	10.0	mg/L	20.0		84.6	80-120			
LCS Dup (2112703-BSD1)				Prepared & Analyzed: 27-Nov-12						
Sulfate	19.4	10.0	mg/L	20.0		97.2	80-120	13.8	20	
Batch 2120501 - General Prep - Wet Chem										
Blank (2120501-BLK1)				Prepared & Analyzed: 10-Dec-12						
Sulfate	ND	10.0	mg/L							
LCS (2120501-BS1)				Prepared & Analyzed: 10-Dec-12						
Sulfate	16.7	10.0	mg/L	20.0		83.7	80-120			
LCS Dup (2120501-BSD1)				Prepared & Analyzed: 10-Dec-12						
Sulfate	18.1	10.0	mg/L	20.0		90.4	80-120	7.64	20	
Batch 2120605 - Filtration										
Blank (2120605-BLK1)				Prepared & Analyzed: 06-Dec-12						
TDS	ND	5.00	mg/L							
LCS (2120605-BS1)				Prepared & Analyzed: 06-Dec-12						
TDS	223		mg/L	240		92.9	80-120			

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

SUNDOWN ENERGY
P. O. BOX 277
WICKETT TX, 79788

Project: REEVES QUEEN WATERFLOOD UN
Project Number: NOT GIVEN
Project Manager: KYLE PAXTON
Fax To: NOT GIVEN

Reported:
19-Dec-12 15:56

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2120605 - Filtration										
Duplicate (2120605-DUP1)		Source: H202905-01		Prepared & Analyzed: 06-Dec-12						
TDS	1200	5.00	mg/L		1140			5.13	20	
Batch 2121806 - General Prep - Wet Chem										
LCS (2121806-BS1)		Prepared & Analyzed: 18-Dec-12								
Conductivity	478		uS/cm	500		95.6	80-120			
Duplicate (2121806-DUP1)		Source: H203018-01		Prepared & Analyzed: 18-Dec-12						
Conductivity	1530	1.00	uS/cm		1530			0.00	20	
Batch 2121905 - General Prep - Wet Chem										
Blank (2121905-BLK1)		Prepared & Analyzed: 19-Dec-12								
Chloride	ND	4.00	mg/L							
LCS (2121905-BS1)		Prepared & Analyzed: 19-Dec-12								
Chloride	100	4.00	mg/L	100		100	80-120			
LCS Dup (2121905-BSD1)		Prepared & Analyzed: 19-Dec-12								
Chloride	108	4.00	mg/L	100		108	80-120	7.69	20	
Batch 2121909 - General Prep - Wet Chem										
Duplicate (2121909-DUP1)		Source: H202825-03		Prepared & Analyzed: 19-Dec-12						
Specific Gravity @ 60° F	1.014	0.000	[blank]		1.016			0.216	200	

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:SUNDOWN ENERGY
P. O. BOX 277
WICKETT TX, 79788Project: REEVES QUEEN WATERFLOOD UN
Project Number: NOT GIVEN
Project Manager: KYLE PAXTON
Fax To: NOT GIVENReported:
19-Dec-12 15:56**Inorganic Compounds - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2121910 - General Prep - Wet Chem										
LCS (2121910-BS1)				Prepared & Analyzed: 11-Dec-12						
pH	7.00		pH Units	7.00		100	90-110			
Duplicate (2121910-DUP1)				Source: H202825-03 Prepared & Analyzed: 11-Dec-12						
pH	7.61	0.100	pH Units		7.57			0.527	20	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

SUNDOWN ENERGY
P. O. BOX 277
WICKETT TX, 79788

Project: REEVES QUEEN WATERFLOOD UN
Project Number: NOT GIVEN
Project Manager: KYLE PAXTON
Fax To: NOT GIVEN

Reported:
19-Dec-12 15:56

Dissolved Metals - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 2121907 - Dissolved/Potentially Dissolved Metals

Blank (2121907-BLK1)

Prepared: 12-Dec-12 Analyzed: 13-Dec-12

Calcium	ND	1.00	mg/L						
Sodium	ND	1.00	mg/L						
Magnesium	ND	1.00	mg/L						
Potassium	ND	1.00	mg/L						
Iron	ND	0.050	mg/L						
Barium	ND	0.010	mg/L						

LCS (2121907-BS1)

Prepared: 12-Dec-12 Analyzed: 13-Dec-12

Sodium	7.88		mg/L	8.10		97.3	85-115		
Magnesium	26.3		mg/L	25.0		105	85-115		
Calcium	4.68		mg/L	5.00		93.6	85-115		
Barium	2.36		mg/L	2.50		94.4	85-115		
Potassium	9.85		mg/L	10.0		98.5	85-115		
Iron	4.87		mg/L	5.00		97.4	85-115		

LCS Dup (2121907-BSD1)

Prepared: 12-Dec-12 Analyzed: 13-Dec-12

Calcium	4.71		mg/L	5.00		94.2	85-115	0.639	20
Magnesium	26.3		mg/L	25.0		105	85-115	0.00	20
Sodium	7.87		mg/L	8.10		97.2	85-115	0.127	20
Potassium	9.69		mg/L	10.0		96.9	85-115	1.64	20
Iron	4.91		mg/L	5.00		98.2	85-115	0.818	20
Barium	2.36		mg/L	2.50		94.4	85-115	0.00	20

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Celest D. Keene, Lab Director/Quality Manager

Notes and Definitions

GAL	Analysis subcontracted to Green Analytical Laboratories, a subsidiary of Cardinal Laboratories.
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**

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Celey D. Keene, Lab Director/Quality Manager



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

CARDINAL LABORATORIES **SCALE INDEX WATER ANALYSIS REPORT**

Company : SUNDOWN ENERGY	Date Sampled : 11/20/12
Lease Name : REEVES QUEEN WATERFLOOD UNIT	Company Rep. : KYLE PAXTON
Well Number : COMPOSITE OF S VACUUM & LEA 403	
Location : NOT GIVEN	

ANALYSIS

1. pH	7.57	
2. Specific Gravity @ 60/60 F.	1.0160	
3. CaCO ₃ Saturation Index @ 80 F.	+0.546	'Calcium Carbonate Scale Possible'
@ 140 F.	+1.476	'Calcium Carbonate Scale Possible'

Dissolved Gasses

4. Hydrogen Sulfide	ND	PPM
5. Carbon Dioxide	ND	PPM
6. Dissolved Oxygen	Not Determined	

Cations

	mg/L	/	Eq. Wt.	=	MEQ/L
7. Calcium (Ca++)	2,200.00	/	20.1	=	109.45
8. Magnesium (Mg++)	619.00	/	12.2	=	50.74
9. Sodium (Na+)	7,650	/	23.0	=	321.49
10. Barium (Ba++)	0.000	/	68.7	=	0.00

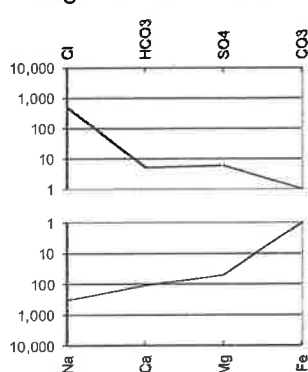
Anions

11. Hydroxyl (OH-)	0	/	17.0	=	0.00
12. Carbonate (CO ₃ =)	0	/	30.0	=	0.00
13. Bicarbonate (HCO ₃ -)	317	/	61.1	=	5.19
14. Sulfate (SO ₄ =)	296	/	48.8	=	6.07
15. Chloride (Cl-)	16,700	/	35.5	=	470.42

Other

16. Soluble Iron (Fe)	0.000	/	18.2	=	0.00
17. Total Dissolved Solids	33,300				
18. Total Hardness As CaCO ₃	8,042.0				
19. Calcium Sulfate Solubility @ 90 F.	2,270				
20. Resistivity (Measured)	0.196	Ohm/Meters	@ 77	Degrees (F)	

Logarithmic Water Pattern



PROBABLE MINERAL COMPOSITION

COMPOUND	Eq. Wt.	X	MEQ/L	=	mg/L
Ca(HCO ₃) ₂	81.04	X	5.19	=	420
CaSO ₄	68.07	X	6.07	=	413
CaCl ₂	55.50	X	98.20	=	5,450
Mg(HCO ₃) ₂	73.17	X	0.00	=	0
MgSO ₄	60.19	X	0.00	=	0
MgCl ₂	47.62	X	50.74	=	2,416
NaHCO ₃	84.00	X	0.00	=	0
NaSO ₄	71.03	X	0.00	=	0
NaCl	58.46	X	321.49	=	18,794