

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	ARP Production Company, LLC	Contact	Randy L. Madison
Address	309 Silver St., Raton, NM 87740	Telephone No.	Office 575-445-6706 Cell 575-420-1120
Facility Name	VPR D-179	Facility Type	Gas Well
Surface Owner	Vermejo Park Ranch	Mineral Owner	APR Production Company, LLC
		API No.	30-007-20586

### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	23	30N	18E	2000	North	725	East	Colfax

Latitude 36.821889 Longitude 104.992056

### NATURE OF RELEASE

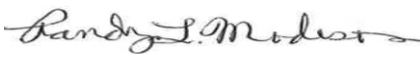

Type of Release	Produced Water	Volume of Release	5.63 Barrels	Volume Recovered	0
Source of Release	Well Head	Date and Hour of Occurrence	Unknown	Date and Hour of Discovery	4/16/15 @ 1207 hrs.
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Leonard Lowe, State of NM		
By Whom?	Randy Madison	Date and Hour	4/16/15 1421 Hrs.		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*  
Stuffing box packing's were loose. The stuffing box was tightened and lubricated.

Describe Area Affected and Cleanup Action Taken.\*  
Water remained on the well pad. The water dissipated into the ground before it could be hydro vacuumed up.

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: 		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Randy L. Madison		Approved by Environmental Specialist: 	
Title: EHS Specialist	Approval Date: 04/27/15	Expiration Date: 07/27/15	
E-mail Address: rmadison@atlasenergy.com	Conditions of Approval: clean up soil.		Attached <input checked="" type="checkbox"/>
Date: 4/20/15	Phone: 575-445-6706		

\* Attach Additional Sheets If Necessary

Rocky Mountain Region  
1675 Broadway, Suite 1500  
Denver, CO 80202  
(303) 573-2772  
Lab Team Leader - Sheila Hernandez  
(432) 495-7240

## Water Analysis Report by Baker Petrolite

Company:	EL PASO E & P	Sales RDT:	44625
Region:	ROCKY MOUNTAINS	Account Manager:	TY CLINESMITH (575) 447-0621
Area:	RATON, NM	Sample #:	50971
Lease/Platform:	VERMEJO PARK RANCH 'D'	Analysis ID #:	119162
Entity (or well #):	179	Analysis Cost:	\$90.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary		Analysis of Sample 50971 @ 75 °F									
Sampling Date:	03/30/12	Anions			mg/l	meq/l	Cations			mg/l	meq/l
Analysis Date:	04/14/12	Chloride:	1169.0		32.97		Sodium:	1176.0		51.15	
Analyst:	STACEY SMITH	Bicarbonate:	1158.0		18.98		Magnesium:	3.5		0.29	
TDS (mg/l or g/m3):	3572.2	Carbonate:	27.0		0.9		Calcium:	24.0		1.2	
Density (g/cm3, tonne/m3):	1.003	Sulfate:	3.0		0.06		Strontium:	3.5		0.08	
Anion/Cation Ratio:	1.0000002	Phosphate:					Barium:	2.0		0.03	
		Borate:					Iron:	0.7		0.03	
		Silicate:					Potassium:	5.5		0.14	
Carbon Dioxide:		Hydrogen Sulfide:					Aluminum:				
Oxygen:		pH at time of sampling:					Chromium:				
Comments:		pH at time of analysis:			8.4		Copper:				
		pH used in Calculation:			8.4		Lead:				
							Manganese:	0.030		0.	
							Nickel:				

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> *2H <sub>2</sub> O		Anhydrite CaSO <sub>4</sub>		Celestite SrSO <sub>4</sub>		Barite BaSO <sub>4</sub>		CO <sub>2</sub> Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	1.06	17.46	-3.93	0.00	-4.00	0.00	-3.00	0.00	-0.14	0.00	0.06
100	0	1.09	17.81	-3.94	0.00	-3.94	0.00	-2.98	0.00	-0.28	0.00	0.11
120	0	1.11	18.16	-3.94	0.00	-3.86	0.00	-2.94	0.00	-0.40	0.00	0.17
140	0	1.15	18.51	-3.93	0.00	-3.76	0.00	-2.90	0.00	-0.48	0.00	0.26

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

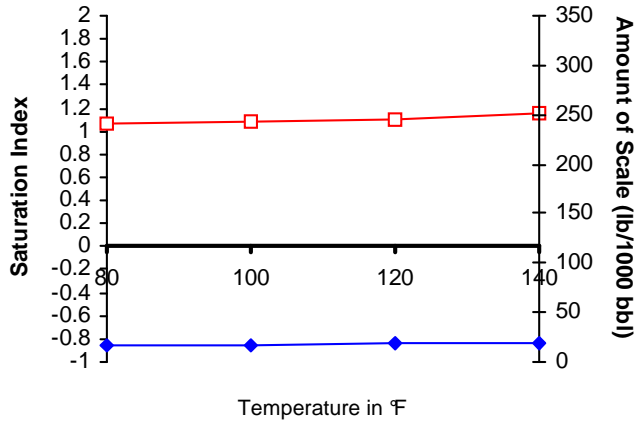
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.

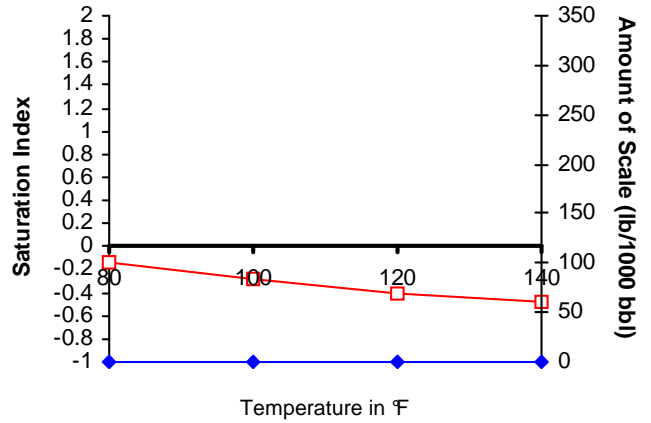
# Scale Predictions from Baker Petrolite

Analysis of Sample 50971 @ 75 °F for EL PASO E & P, 04/14/12

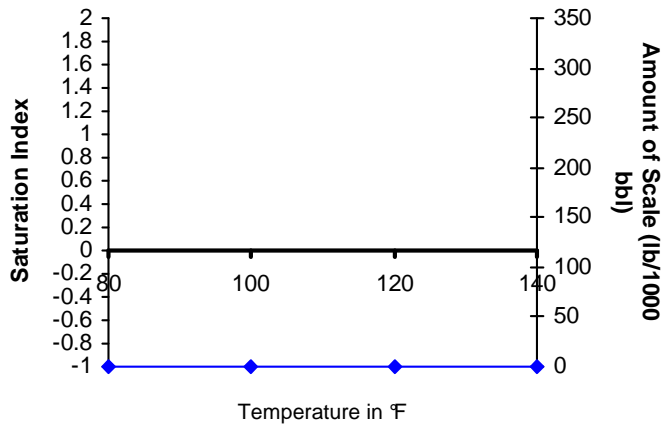
### Calcite - $\text{CaCO}_3$



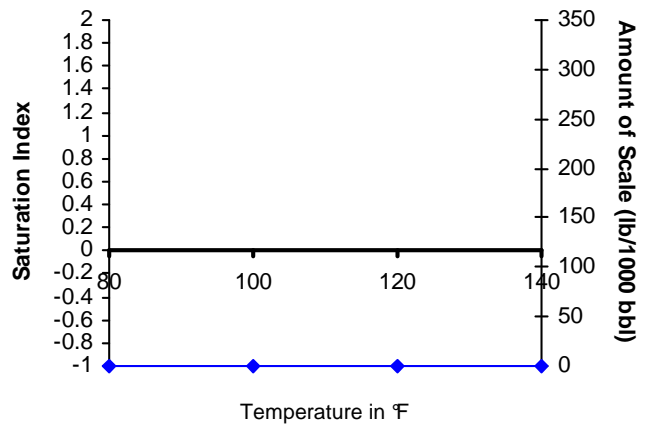
### Barite - $\text{BaSO}_4$



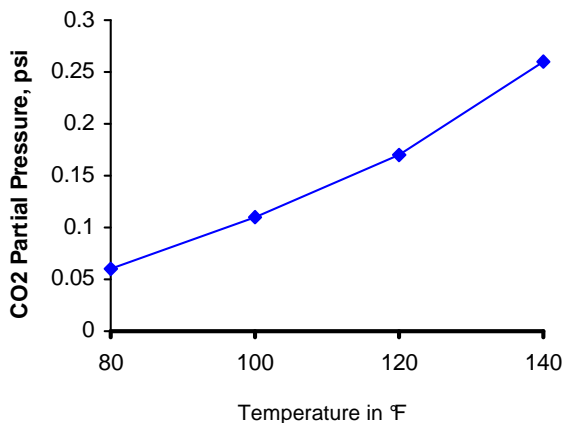
### Gypsum - $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$



### Anhydrite - $\text{CaSO}_4$



### Carbon Dioxide Partial Pressure



### Celestite - $\text{SrSO}_4$

