



Oilfield Labs of America
3302 Pilot Ave
Midland, Texas 79706
1-855-OIL-LAB1

Report Date: 2/23/2018

Complete Water Analysis

Customer:	Pine Island Chemical	Account Rep:	Chase Cornelius
Operator:	Solaris	Sample ID:	1180219179
Lease:	Brown	Sample Date:	2/15/2018
Sample Point:	Downstream	Received Date:	2/19/2018
Region:	Permian	Log Out Date:	2/23/2018

Pine Island Chemical, Solaris, Brown ,Downstream

Field Data			Analysis of Sample						
		Anions:		mg/L	meq/L	Cations:		mg/L	meq/L
Initial Temperature (°F):	190	Chloride (Cl ⁻):	54000	1523.3	Sodium (Na ⁺):	30656	1334.0		
Final Temperature (°F):	80	Sulfate (SO ₄ ²⁻):	320	6.7	Potassium (K ⁺):	382	9.8		
Initial Pressure (psi):	1250	Borate (H ₃ BO ₃):	333	5.4	Magnesium (Mg ²⁺):	358	29.5		
Final Pressure (psi):	15	Silica (SiO ₂):	53.2	0.9	Calcium (Ca ²⁺):	2144	107.0		
Sample Specifics									
pH:	7.0					Strontium (Sr ²⁺):	561	12.8	
						Barium (Ba ²⁺):	2.2	0.0	
						Iron (Fe ²⁺):	8.8	0.3	
		Phosphate (PO ₄ ³⁻):	1.3	0.0	Manganese (Mn ²⁺):	0.5	0.0		
						Lead (Pb ²⁺):	ND		
						Zinc (Zn ²⁺):	ND		
						Lithium (Li ⁺):	19.4	2.8	
						Aluminum (Al ³⁺):	ND		
Alkalinity by Titration:			mg/L	meq/L					
Bicarbonate (HCO ₃ ⁻):	415	6.8							
Carbonate (CO ₃ ²⁻):	0.0	0.0							
Hydroxide (OH ⁻):	ND								
aqueous CO ₂ (ppm):	180				Total Hardness (CaCO ₃):		7473		
aqueous H ₂ S (ppm):	2.0								
Calculated TDS (mg/L):	89235								
Calculated Density (g/cm ³):	1.0568								
Resistivity (Ωcm):	N/A								
Conductivity (mS/cm):	N/A								
Turbidity (NTU):	N/A								
				Anion EPM Total:		1542	Cation EPM Total:		1493
N/A - Not Applicable			% RPD of Cations/Anions:		3.2%	ND = Not Detected			

