



**ANNUAL REPORT OF PRESSURE MONITORING,
 FLUID INJECTION AND ENHANCED RECOVERY**

Complete all blanks - add pages if needed. Copy to be retained for five (5) years after filing date.

OPERATOR: License # _____
 Name: _____
 Address 1: _____
 Address 2: _____
 City: _____ State: _____ Zip: _____ + _____
 Contact Person: _____
 Phone: (_____) _____
 Lease Name: _____
 Well Number: _____

API No.: _____
 Permit No.: _____
 Reporting Year: _____
 (January 1 to December 31)
 _____ - _____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ E W
 (a/a/a/a)
 _____ feet from N / S Line of Section
 _____ feet from E / W Line of Section
 County: _____

I. Injection Fluid:

Type (Pick one): Fresh Water Treated Brine Untreated Brine Water/Brine
 Source: Produced Water Other (Attach list)
 Quality: Total Dissolved Solids: _____ mg/l Specific Gravity: _____ Additives: _____
 (Attach water analysis, if available)

II. Well Data:

Maximum Authorized Injection Pressure: _____ psi Injection Zone: _____
 Maximum Authorized Injection Rate: _____ barrels per day
 Total Number of Enhanced Recovery Injection Wells Covered by this Permit: _____ (Include TA's)

III.	Month:	Total Fluid Injected BBL	Maximum Fluid Pressure	Total Gas Injected MCF	Maximum Gas Pressure	# Days of Injection
	January	_____	_____	_____	_____	_____
	February	_____	_____	_____	_____	_____
	March	_____	_____	_____	_____	_____
	April	_____	_____	_____	_____	_____
	May	_____	_____	_____	_____	_____
	June	_____	_____	_____	_____	_____
	July	_____	_____	_____	_____	_____
	August	_____	_____	_____	_____	_____
	September	_____	_____	_____	_____	_____
	October	_____	_____	_____	_____	_____
	November	_____	_____	_____	_____	_____
	December	_____	_____	_____	_____	_____
	TOTAL	_____	_____	_____	_____	_____



BAKER PETROLITE
HAYS KANSAS, 67601

Report Date: 2/8/2017

Complete Water Analysis Report SSP v.8

Customer:	DOUBLE K OIL	Sample Date:	2/8/2017
District:	GREAT BEND	Log Out Date:	2/8/2017
Area:	RIGA	Sample ID:	Sample ID
Lease:	KOHL SWD	Analyst:	DANNY GROSS
Sample Point Name	WATER TANK	Chemical Used:	
Sales Rep:	DANNY GROSS	Comments:	

DOUBLE K OIL, KOHL SWD, WATER TANK

Field Data		Analysis of Sample											
		Anions:		mg/L		meq/L		Cations:		mg/L		meq/L	
Initial Temperature (°F):	140	Chloride (Cl):	35500	1000.0	Sodium (Na ⁺):	21177	924.7						
Final Temperature (°F):	70	Sulfate (SO ₄ ²⁻):	1750	36.4	Potassium (K ⁺):	0	0.0						
Initial Pressure (psi):	15	Borate (H ₂ BO ₃):	0.0	0.0	Magnesium (Mg ²⁺):	140	11.5						
Final Pressure (psi):	15	Fluoride (F):	0.0	0.0	Calcium (Ca ²⁺):	2088	104.2						
		Bromide (Br):	0.0	0.0	Strontium (Sr ²⁺):	0	0.0						
pH:		Nitrite (NO ₂):	0.0	0.0	Barium (Ba ²⁺):	0.0	0.0						
pH at time of sampling:	6.8	Nitrate (NO ₃):	0.0	0.0	Iron (Fe ²⁺):	0.0	0.0						
pH at time of analysis:	6.8	Phosphate (PO ₄ ²⁻):	0.0	0.0	Manganese (Mn ²⁺):	0.00	0.0						
pH used in Calcs:	6.8	Silica (SiO ₂):	0.0	0.0	Lead (Pb ²⁺):	0.00	0.0						
					Zinc (Zn ²⁺):	0.0	0.0						
Alkalinity by Titration:	mg/L meq/L				Aluminum (Al ³⁺):	0.0	0.0						
Bicarbonate (HCO ₃ ⁻):	671 11.0				Chromium (Cr ²⁺):	0.0	0.0						
Carbonate (CO ₃ ²⁻):	0 0.0				Cobalt (Co ²⁺):	0.0	0.0						
Hydroxide (OH ⁻):	0 0.0				Copper (Cu ²⁺):	0.0	0.0						
aqueous CO ₂ (ppm):	0.0	Organic Acids:	mg/L meq/L		Formate:	0.0	0.0						
aqueous H ₂ S (ppm):	0.0	Acetate:	0.0	0.0	Molybdenum (Mo ²⁺):	0.0	0.0						
aqueous O ₂ (ppb):	0.0	Propionate:	0.0	0.0	Nickel (Ni ²⁺):	0.0	0.0						
Calculated TDS (mg/L):	61326	Butyrate:	0.0	0.0	Tin (Sn ²⁺):	0.0	0.0						
Density/Specific Gravity (g/cm ³):	1.0391	Valerate:	0.0	0.0	Titanium (Ti ²⁺):	0.0	0.0						
Measured Density/Specific Gravity	0				Vanadium (V ²⁺):	0.0	0.0						
Conductivity (umhos):	0				Zirconium (Zr ²⁺):	0.0	0.0						
MCF/D:	0				Total Hardness:	5800	N/A						
BOPD:	0	Anion/Cation Ratio:		1.01									
BWPD:	0												

Conditions		Barite (BaSO ₄)		Calcite (CaCO ₃)		Gypsum (CaSO ₄ ·2H ₂ O)		Anhydrite (CaSO ₄)	
Temp	Press.	Index	Amt (PTB)	Index	Amt (PTB)	Index	Amount	Index	Amt (PTB)
70°F	15 psi	0.000	0.000	0.89	106.246	-0.23	0.000	-0.49	0.000
78°F	15 psi	0.000	0.000	0.96	112.128	-0.23	0.000	-0.46	0.000
86°F	15 psi	0.000	0.000	1.02	117.603	-0.23	0.000	-0.42	0.000
93°F	15 psi	0.000	0.000	1.09	122.704	-0.22	0.000	-0.39	0.000
101°F	15 psi	0.000	0.000	1.16	127.456	-0.22	0.000	-0.35	0.000
109°F	15 psi	0.000	0.000	1.22	131.883	-0.21	0.000	-0.31	0.000
117°F	15 psi	0.000	0.000	1.29	136.007	-0.21	0.000	-0.27	0.000
124°F	15 psi	0.000	0.000	1.35	139.848	-0.21	0.000	-0.23	0.000
132°F	15 psi	0.000	0.000	1.42	143.428	-0.20	0.000	-0.19	0.000
140°F	15 psi	0.000	0.000	1.48	146.763	-0.19	0.000	-0.14	0.000

Conditions		Celestite (SrSO ₄)		Halite (NaCl)		Iron Sulfide (FeS)		Iron Carbonate (FeCO ₃)	
Temp	Press.	Index	Amt (PTB)	Index	Amt (PTB)	Index	Amt (PTB)	Index	Amt (PTB)
70°F	15 psi	0.000	0.000	-1.96	0.000	0	0.000		0.000
78°F	15 psi	0.000	0.000	-1.97	0.000	0	0.000		0.000
86°F	15 psi	0.000	0.000	-1.98	0.000	0	0.000		0.000
93°F	15 psi	0.000	0.000	-1.98	0.000	0	0.000		0.000
101°F	15 psi	0.000	0.000	-1.99	0.000	0	0.000		0.000
109°F	15 psi	0.000	0.000	-1.99	0.000	0	0.000		0.000
117°F	15 psi	0.000	0.000	-2.00	0.000	0	0.000		0.000
124°F	15 psi	0.000	0.000	-2.00	0.000	0	0.000		0.000
132°F	15 psi	0.000	0.000	-2.01	0.000	0	0.000		0.000
140°F	15 psi	0.000	0.000	-2.01	0.000	0	0.000		0.000

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 eight (8) scales.
 Note 3: Saturation index predictions on this sheet use pH and alkalinity. %CO₂ is not included in the calculations.



ScaleSoftPitzer™
SSP2010