

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form U3C
June 2015
Form must be Typed
Form must be completed
on a per well basis

**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	_____	_____	_____	_____	_____



HAYS LAB
Address
HAYS KANSAS, 67801

Report Date: 2/13/2019

Complete Water Analysis Report SSP v.8

Customer:	DOUBLE K	Sample Date:	2/13/2019
District:	GREAT BEND	Log Out Date:	2/13/2019
Area:	HAYS KANSAS	Sample ID:	Sample ID
Lease:	KOHL SWD	Analyst:	DANNY GROSS PHIL BENEDICK
Sample Point Name	WATER TANK	Chemical Used:	
Sales Rep:	DANNY GROSS PHIL BENEDICK	Comments:	

DOUBLE K, KOHL SWD, WATER TANK

		Anions:		Cations:	
		mg/L	meq/L	mg/L	meq/L
Initial Temperature (°F):	140	Chloride (Cl ⁻):	29400	Sodium (Na ⁺):	16866
Final Temperature (°F):	70	Sulfate (SO ₄ ²⁻):	1775	Potassium (K ⁺):	0
Initial Pressure (psi):	15	Borate (H ₂ BO ₃):	0.0	Magnesium (Mg ²⁺):	608
Final Pressure (psi):	15	Fluoride (F ⁻):	0.0	Calcium (Ca ²⁺):	1640
		Bromide (Br ⁻):	0.0	Strontium (Sr ²⁺):	0
		Nitrite (NO ₂ ⁻):	0.0	Barium (Ba ²⁺):	0.0
pH:		Nitrate (NO ₃ ⁻):	0.0	Iron (Fe ²⁺):	0.0
pH at time of sampling:	7.0	Phosphate (PO ₄ ³⁻):	0.0	Manganese (Mn ²⁺):	0.00
pH at time of analysis:	7.0	Silica (SiO ₂):	0.0	Lead (Pb ²⁺):	0.00
pH used in Calcs:	7.0			Zinc (Zn ²⁺):	0.0
				Aluminum (Al ³⁺):	0.0
				Chromium (Cr ³⁺):	0.0
				Cobalt (Co ²⁺):	0.0
				Copper (Cu ²⁺):	0.0
				Molybdenum (Mo ²⁺):	0.0
				Nickel (Ni ²⁺):	0.0
				Tin (Sn ²⁺):	0.0
				Titanium (Ti ²⁺):	0.0
				Vanadium (V ²⁺):	0.0
				Zirconium (Zr ²⁺):	0.0
				Total Hardness:	6600
					N/A
Alkalinity by Titration:					
Bicarbonate (HCO ₃ ⁻):	305		5.0		
Carbonate (CO ₃ ²⁻):	0		0.0		
Hydroxide (OH ⁻):	0		0.0		
aqueous CO ₂ (ppm):	0.0	Organic Acids:			
aqueous H ₂ S (ppm):	0.0	Formate:	0.0	0.0	
aqueous O ₂ (ppb):	0.0	Acetate:	0.0	0.0	
		Propionate:	0.0	0.0	
		Butyrate:	0.0	0.0	
		Valerate:	0.0	0.0	
Calculated TDS (mg/L):	50593				
Density/Specific Gravity (g/cm ³):	1.0322				
Measured Density/Specific Gravity	0				
Conductivity (µmhos):	0				
MCF/D:	0				
BOPD:	0				
BWPD:	0	Anion/Cation Ratio:	1.00		

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	0.62	34.226	-0.29	0.000	-0.55	0.000
78°F	15 psi		0.000	0.69	37.460	-0.28	0.000	-0.52	0.000
86°F	15 psi		0.000	0.75	40.537	-0.28	0.000	-0.49	0.000
93°F	15 psi		0.000	0.82	43.457	-0.28	0.000	-0.45	0.000
101°F	15 psi		0.000	0.89	46.223	-0.28	0.000	-0.41	0.000
109°F	15 psi		0.000	0.95	48.839	-0.27	0.000	-0.38	0.000
117°F	15 psi		0.000	1.01	51.308	-0.27	0.000	-0.34	0.000
124°F	15 psi		0.000	1.08	53.634	-0.26	0.000	-0.30	0.000
132°F	15 psi		0.000	1.14	55.824	-0.26	0.000	-0.25	0.000
140°F	15 psi		0.000	1.21	57.884	-0.25	0.000	-0.21	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	-2.14	0.000	0	0.000		0.000
78°F	15 psi		0.000	-2.15	0.000	0	0.000		0.000
86°F	15 psi		0.000	-2.16	0.000	0	0.000		0.000
93°F	15 psi		0.000	-2.16	0.000	0	0.000		0.000
101°F	15 psi		0.000	-2.17	0.000	0	0.000		0.000
109°F	15 psi		0.000	-2.18	0.000	0	0.000		0.000
117°F	15 psi		0.000	-2.18	0.000	0	0.000		0.000
124°F	15 psi		0.000	-2.19	0.000	0	0.000		0.000
132°F	15 psi		0.000	-2.19	0.000	0	0.000		0.000
140°F	15 psi		0.000	-2.19	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.



ScaleSoft Pitzer™
SSP2010