Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
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-103
Revised July 18, 2013

WELL API NO. 30-025-46685
5. Indicate Type of Lease FEDERAL ✓ STATE ☐ FEE ☐
6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☐ Other ✓ SWD
2. Name of Operator Permian Oilfield Partners LLC
3. Address of Operator PO Box 3329, Hobbs, NM 88241
4. Well Location
Unit Letter H : 1494 feet from the North line and 291 feet from the East line
Section 11 Township 25S Range 32E NMPM County Lea

7. Lease Name or Unit Agreement Name Cyclone Federal SWD
8. Well Number 1
9. OGRID Number 328259
10. Pool name or Wildcat SWD; DEVONIAN-SILURIAN
11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 3544' RKB

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
CLOSED-LOOP SYSTEM ☐			
OTHER: ☐		OTHER: ☒	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

NMOCD Order #R-20833 requires that a mudlog and a water sample analysis from the injection interval be obtained prior to commencing injection operations. The top of the Devonian formation was encountered @ 17366', and 7 5/8" casing shoe is @ 17380' (wireline log depths).

A copy of the mudlog across the interval is attached.
A copy of the wireline CNL-GR log from TD to surface is attached, as well as the wireline HDIL-GR log across the injection interval.
A copy of the water sample analysis is attached, including general water chemistry and hydrocarbon content. Sample TDS was 31923 mg/L (31959 ppm), which is consistent with the Porosity/Resistivity Pickett plot-derived NaCl equivalent concentration of 31000 ppm, also attached.

Spud Date: Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Gary E Fisher TITLE President DATE 3/14/2020

Type or print name Gary E Fisher E-mail address: gfisher@popmidstream.com PHONE: 817-606-7630

For State Use Only

APPROVED BY:________ TITLE________ DATE________
Conditions of Approval (if any):

Water Sample Tracking

Sample obtained by:	Gary Fisher - Perm. Oilfield Partners LLC
Signature:	
Date:	3/5/20
Location:	Cyclone Fed. SWD#1 Flowline.

Sample transferred to:	Imperative - Aaron Bleyenberg
Signature:	X
Date:	3-5-20
Sample ID#:	W22264

Analysis by:	Imperative - Aaron Bleyenberg
Signature:	
Date:	3-9-20
Sample ID#:	W22264

Imperative Water Analysis Report

IMPERATIVE
CHEMICAL PARTNERS
201 W. Wall Street, Suite 900
Midland, TX 79701

SYSTEM IDENTIFICATION

Company: Permian Oilfield Partners LLC
Location: Cyclone Federal SWD 1 Well 1
Sample Source: Wellhead
Account Rep:

Sample ID#: W-22264

Sample Date: 03-05-2020
Report Date: 03-09-2020

WATER CHEMISTRY (Represented as mg/L)

CATIONS		ANIONS	
Calcium(as Ca)	8753	Chloride(as Cl)	19839
Magnesium(as Mg)	1294	Sulfate(as SO_4)	499.00
Barium(as Ba)	2.28	Dissolved CO_2(as CO_2)	60.00
Strontium(as Sr)	470.90	Bicarbonate(as HCO_3)	97.60
Sodium(as Na)	0.00	H_2S (as H_2S)	6.84
Potassium(as K)	650.30	Boron(as B)	18.30
Lithium(as Li)	7.89		
Iron(as Fe)	26.39		
Manganese(as Mn)	4.76		

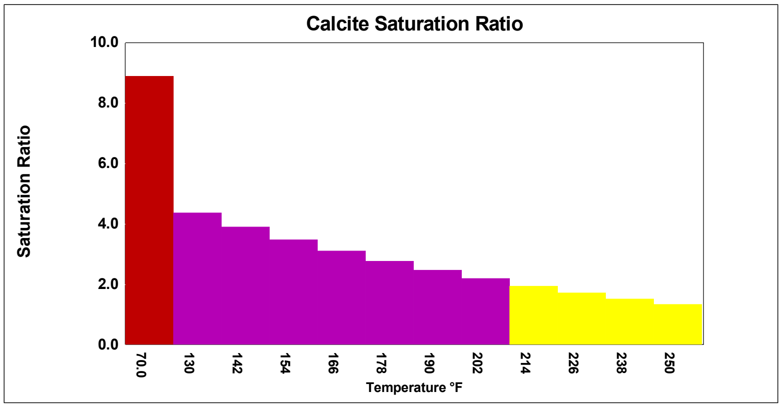
PARAMETERS

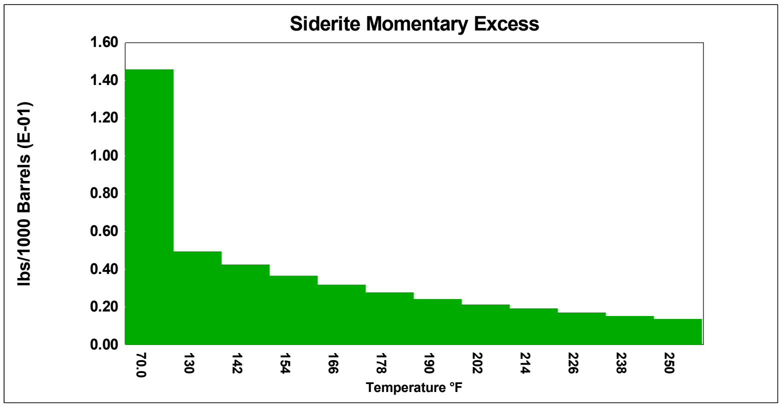
Temperature(°F)	70.20	Sample pH	7.37
Conductivity	30989	Sp.Gr.(g/mL)	1.005
Resistivity	32.27	T.D.S.	31923

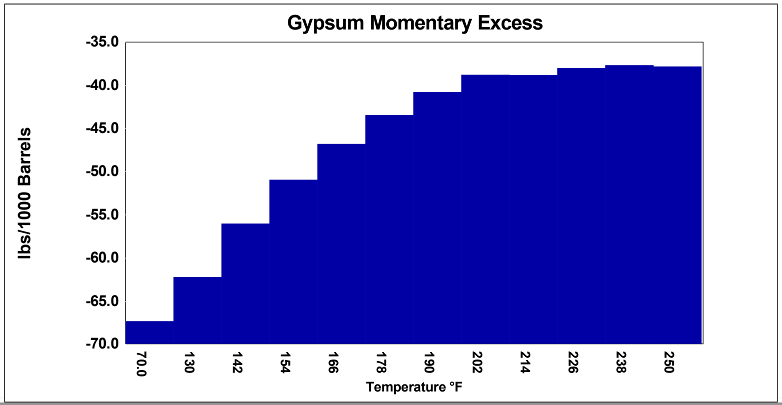
SCALE AND CORROSION POTENTIAL

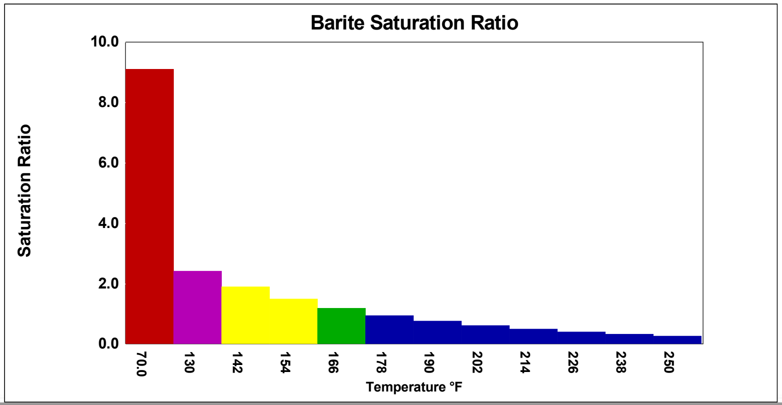
Temp. (°F)	Press. (atm)	Calcite $CaCO_3$		Anhydrite $CaSO_4$		Gypsum $CaSO_4$*$2H_2O$		Barite $BaSO_4$		Celestite $SrSO_4$		Siderite $FeCO_3$		Mackinawite FeS		CO_2 (mpy)	pCO_2 (atm)
70.00	1.000	8.88	0.115	0.337	-147.96	0.561	-67.40	9.10	1.20	1.20	13.51	37.31	0.146	202.32	1.85	0.00734	0.00302
130.00	10.000	4.36	0.0341	0.419	-87.91	0.536	-62.26	2.41	0.789	1.11	6.76	27.11	0.0493	31.88	1.54	0.0338	0.0302
142.00	19.000	3.89	0.0282	0.462	-71.32	0.553	-56.09	1.89	0.633	1.07	4.65	26.09	0.0422	23.68	1.46	0.0343	0.0573
154.00	28.000	3.47	0.0233	0.520	-54.77	0.568	-51.00	1.49	0.440	1.04	2.52	25.08	0.0364	17.77	1.38	0.0383	0.0844
166.00	37.000	3.10	0.0193	0.596	-39.04	0.582	-46.85	1.18	0.204	1.01	0.335	24.05	0.0316	13.46	1.30	0.0412	0.112
178.00	46.000	2.76	0.0159	0.694	-24.64	0.593	-43.50	0.942	-0.0834	0.971	-1.91	23.01	0.0275	10.27	1.21	0.0423	0.139
190.00	55.000	2.46	0.0129	0.822	-11.85	0.602	-40.86	0.755	-0.432	0.935	-4.25	21.94	0.0240	7.89	1.11	0.0244	0.166
202.00	64.000	2.19	0.0104	0.986	-0.768	0.608	-38.85	0.608	-0.854	0.898	-6.70	20.85	0.0211	6.09	1.01	0.0226	0.193
214.00	73.000	1.93	0.00834	1.19	8.53	0.608	-38.87	0.488	-1.38	0.856	-9.88	19.70	0.0190	4.63	0.888	0.0290	0.220
226.00	82.000	1.71	0.00637	1.46	16.60	0.610	-38.05	0.396	-1.99	0.818	-12.77	18.61	0.0169	3.61	0.771	0.0364	0.247
238.00	91.000	1.51	0.00462	1.81	23.28	0.609	-37.71	0.322	-2.72	0.781	-15.85	17.55	0.0150	2.83	0.646	0.0451	0.274
250.00	100.000	1.33	0.00305	2.26	28.76	0.605	-37.86	0.263	-3.59	0.743	-19.21	16.52	0.0134	2.22	0.514	0.0235	0.302
		xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels		

Saturation Ratios (xSAT) are the ratio of ion activity to solubility, e.g. $\{Ca\}\{CO_3\}/K_{sp}$. pCO_2 (atm) is the partial pressure of CO_2 in the gas phase.
Lbs/1000 Barrels scale is the quantity of precipitation (or dissolution) required to instantaneously bring the water to equilibrium.


Calcite Saturation Ratio


Siderite Momentary Excess


Gypsum Momentary Excess


Barite Saturation Ratio

Total Percent Hydrocarbons
Analytical Report

IMPERATIVE
CHEMICAL PARTNERS

Customer: Permian OilField Partners

Account Rep: ______________________

Lease/Well Number	Sample Source	Sample Number	Sample Date	TPH (PPM)
Cyclone Federal SWD 1	AST Post	TPH-6951	3/9/2020	10

Date: 3/9/2020

Bacteria Report

ATP

IMPERATIVE
CHEMICAL PARTNERS

Company: Permian OilField Partners

Account Rep:

Lease/Well Number	Sample Source	Sample Number	Sample Date	ATP/mL (picograms)	Microbes
Cyclone Federal SWD 1	Tubing	B-32491	3/9/2020	BDL	0.00

Comments: ____________________

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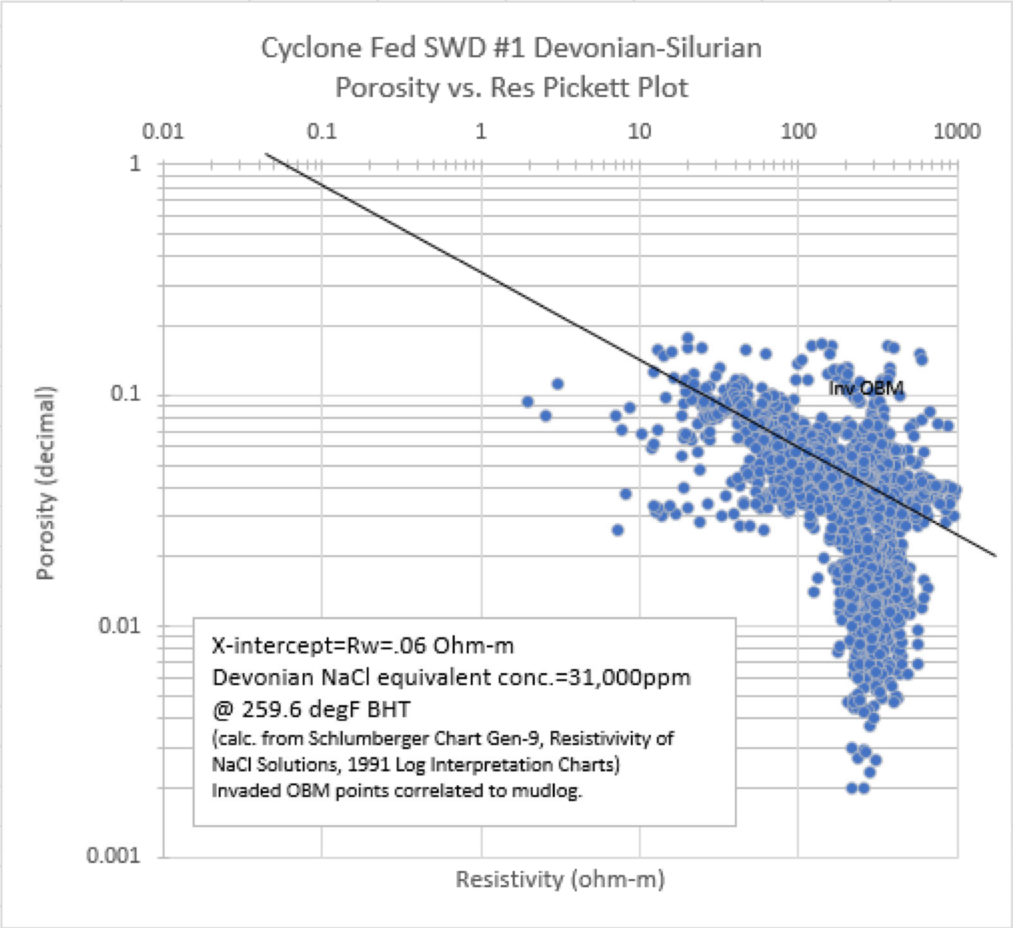

Cyclone Fed SWD #1 Devonian-Silurian
Porosity vs. Res Pickett Plot

X-intercept=Rw=.06 Ohm-m
Devonian NaCl equivalent conc.=31,000ppm
@ 259.6 degF BHT
(calc. from Schlumberger Chart Gen-9, Resistivivity of NaCl Solutions, 1991 Log Interpretation Charts)
Invaded OBM points correlated to mudlog.