

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

Form C-103
Revised July 18, 2013

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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.)		WELL API NO. 30-025-46685
1. Type of Well: Oil Well ☐ Gas Well ☐ Other ☒ SWD		5. Indicate Type of Lease FEDERAL ☒ STATE ☐ FEE ☐
2. Name of Operator Permian Oilfield Partners LLC		6. State Oil & Gas Lease No.
3. Address of Operator PO Box 3329, Hobbs, NM 88241		7. Lease Name or Unit Agreement Name Cyclone Federal SWD
4. Well Location Unit Letter <u>H</u> : <u>1494</u> feet from the <u>North</u> line and <u>291</u> feet from the <u>East</u> line Section <u>11</u> Township <u>25S</u> Range <u>32E</u> NMPM County <u>Lea</u>		8. Well Number <u>1</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3544' RKB		9. OGRID Number 328259
		10. Pool name or Wildcat SWD; DEVONIAN-SILURIAN

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 of Perm. Oilfield Antitrust CC
Signature:	<i>[Signature]</i>
Date:	3/5/20
Location:	Cyclone Fed. SWD #1 Flowline.

Sample transferred to:	Imperative - Aaron Bleyenberg
Signature:	<i>[Signature]</i>
Date:	3-5-20
Sample ID#:	W22264

Analysis by:	Imperative - Aaron Bleyenberg
Signature:	<i>[Signature]</i>
Date:	3-9-20
Sample ID#:	W22264

Imperative Water Analysis Report



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

Calcium(as Ca)	8753
Magnesium(as Mg)	1294
Barium(as Ba)	2.28
Strontium(as Sr)	470.90
Sodium(as Na)	0.00
Potassium(as K)	650.30
Lithium(as Li)	7.89
Iron(as Fe)	26.39
Manganese(as Mn)	4.76

ANIONS

Chloride(as Cl)	19839
Sulfate(as SO ₄)	499.00
Dissolved CO ₂ (as CO ₂)	60.00
Bicarbonate(as HCO ₃)	97.60
H ₂ S (as H ₂ S)	6.84
Boron(as B)	18.30

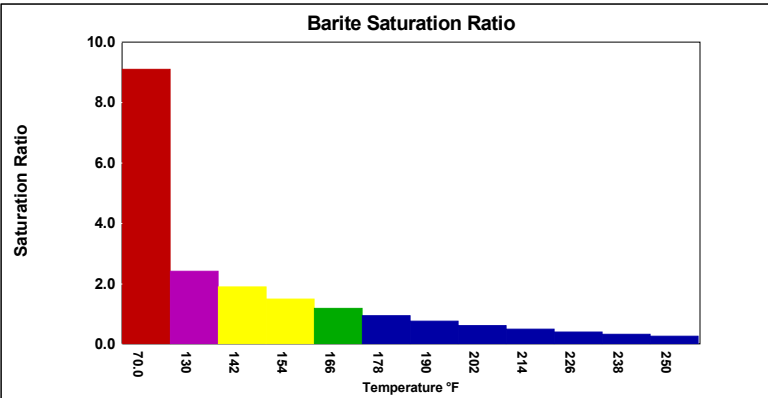
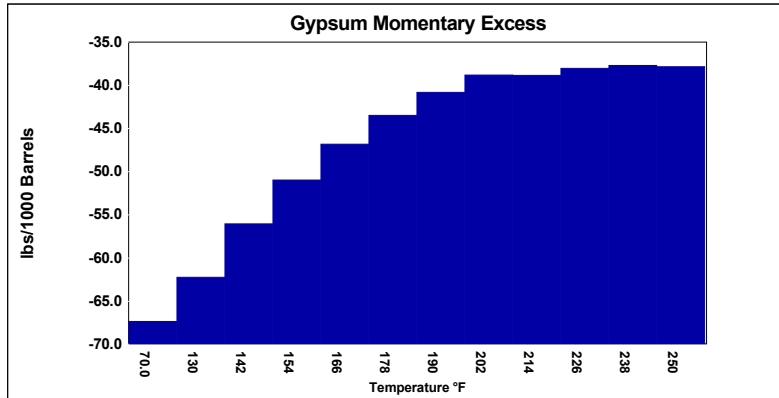
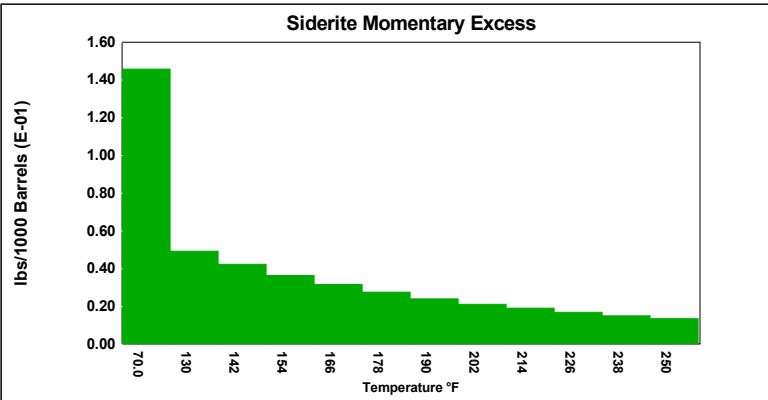
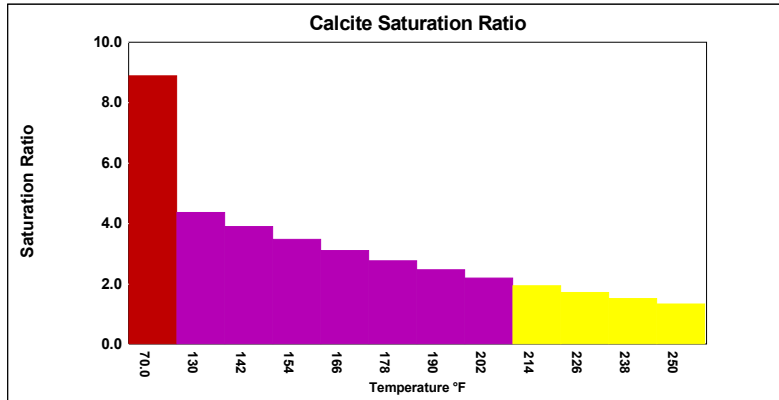
PARAMETERS

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 ₂ O		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}{CO₃}/K_{sp}. pCO₂ (atm) is the partial pressure of CO₂ in the gas phase.
Lbs/1000 Barrels scale is the quantity of precipitation (or dissolution) required to instantaneously bring the water to equilibrium.



IMPERATIVE
CHEMICAL PARTNERS

Account Rep:

[illegible]

Date: 3/9/2020

ATP



Company: Permian OilField Partners

Account Rep:

[illegible]

Comments: _____

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

