

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

Machine Id **110022** Component **Diesel Engine** Fluid **PETRO CANADA DURON SHP 10W30 (--- GAL)**

Feat U.M Method Imme Current History History Resample at the next service interval to monitor. Sample Data Client in C 04 par 20 13 Ag 202 Machine Age hrs Client in C 04 par 20 610.001.00 01 Ag 202 01 Ag 202 01.001.00 04.001.00 04.001.00 01.001.00 01.001.00 01.001.00 01.001.00 01.001.00 01.001.00 01.001.00 01.001.00 01.001.00 01.001.00 01.001.00 01.001.00 01.001.00 01.001.00 01.001.00 01.001.00 0.001.00 01.001.00 0.001.00 0.001.00 01.001.00 0.001.00 0.001.00 0.001.00 0.001.00 0.001.00 0.001.00 0.001.00 0.001.00 0.001.00 0.001.00 0.001.00 0.001.00 0.001.00	PETRO CANADA DORON SHP 100050 (GA	- /							
Sample Date Client Info Sp 2024 Sp 2024 <thsp 2024<="" th=""> Sp 2024 Sp 2024</thsp>	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2	
Machine Age ns Client Info Inf131 6161 ··· Oil Age hrs Client Info 500 616 ··· Filter Age hrs Client Info 500 616 ··· Oil Changed Icient Info 500 616 ··· Changed ··· Oil Changed Client Info Changed Changed ··· Changed ··· Machine Age pm ASM 05888 > 6 4 -·· ··· Machine Age pm ASM 05888 > < <td>1 ··· ··· Machine Age pm ASM 05888 > ··· ··· Machine Age pm ASM 058888 ></td> <td rowspan="8">Resample at the next service interval to monitor.</td> <th>Sample Number</th> <td></td> <td>Client Info</td> <td></td> <th>GFL0108211</th> <td>GFL0024278</td> <td></td>	1 ··· ··· Machine Age pm ASM 05888 > ··· ··· Machine Age pm ASM 058888 >	Resample at the next service interval to monitor.	Sample Number		Client Info		GFL0108211	GFL0024278	
Oil AgehrsClient Info500616500616500Filter AgehrsClient InfoClient Info500616500616500OIC AgedClient InfoClient InfoClient InfoChanged500616500Sample StatusVVNORMAL700700700700700MICE AREIronpmSTIU 51805061310	Sample Date			Client Info		03 Apr 2024	31 Aug 2021		
Filter AgainsClient InfoinsS00616intOil ChangedClient InfoChangedChangedChangedChangedintFilter ChangedClient InfointChangedChangedChangedChangedChangedChangedintSample StautSinder SinderNORMALIntIntint<	Machine Age		hrs	Client Info		11413	616		
Oil Changed ○ Client Info Changed <th>Oil Age</th> <td>hrs</td> <td>Client Info</td> <td></td> <th>500</th> <td>616</td> <td></td>	Oil Age		hrs	Client Info		500	616		
Filter Changed Sample Status Client Into Sample Status Changed NORMAL	Filter Age		hrs	Client Info		500	616		
NORMALNORMALNORMALNORMALNORMALWEARIronpmSTU (DISEs)S837-All component wear rates are normal.IronPMSTU (DISEs)S41-NickelpmSTU (DISEs)S41NickelpmSTU (DISEs)S41NickelpmSTU (DISEs)S0AuminumpmSTU (DISEs)S0AuminumpmSTU (DISEs)S0610CopperpmSTU (DISEs)S0610NanadiumpmSTU (DISEs)S0610NanadiumpmSTU (DISEs)S36.0610-NanadiumpmSTU (DISEs)S36.0610-NanadiumpmSTU (DISEs)S36.0610-NanadiumpmSTU (DISEs)S36.0610-NanadiumpmSTU (DISEs)S36.0610-NanadiumpmSTU (DISEs)S36.0610-NanadiumpmSTU (DISEs)S36.0610-NanadiumpmSTU (DISEs)S36.0610-NanadiumpmSTU (DISEs)S3	Oil Changed			Client Info		Changed	Changed		
WEAR Iron pm ASTM D5185m >68 37 All component wear rates are normal. Chromium ppm ASTM D5185m >3 <1	Filter Changed			Client Info		Changed	Changed		
All component wear rates are normal. Chromium ppm ASTU 0358/m >3 <1	Sample Status					NORMAL	NORMAL		
Nickel ppm ASTL05185/m >3 <1 1	WEAR	Iron	ppm	ASTM D5185(m)	>65	8	37		
Nickel pm ASTL0 518(in) -3 -1 1	All component wear rates are normal.	Chromium	ppm	ASTM D5185(m)	>5	<1	<1		
Silver ppm ASTM 0568m >2 0 <1 Aluminum ppm ASTM 0568m >350 2 10 0 Lead ppm ASTM 0568m >10 0 17 Copper ppm ASTM 0568m >10 0 0 17 Tim ppm ASTM 0568m >10 0		Nickel	ppm	ASTM D5185(m)	>3	<1	1		
Aluminum ppm ASTM D516/m >35 2 10 Lead ppm ASTM D516/m >10 0 17 Copper pm ASTM D516/m >10 559 Tin pm ASTM D516/m >8 0 6 Tin pm ASTM D516/m >8 0 CONTAMINATION Silicon pm ASTM D516/m >15 3 6 There is no indication of any contamination in the oil. Silicon pm ASTM D516/m >20 QL QL Fuel WC Method >.20 NEG NEG NEG Glycol WC Method .20 NEG NEG Sot % % ASTM D7161 30 GL2 QL Sot % % ASTM D7161 NEG NEG NEG Silidation<		Titanium	ppm	ASTM D5185(m)	>5	0	0		
Lead pm ASTM D5185m >10 0 17 Copper pm ASTM D5185m >180 569 Tin pm ASTM D5185m >80 0 61 CONTAMINATION Silicon pm ASTM D5185m >15 3 61 Contamination of any contamination in the oil. Potassium pm ASTM D5185m >10 61 Water pm ASTM D5185m >10 61 61 Solicon pm ASTM D5185m >10 61 61 Contamination of any contamination in the oil. Potassium pm ASTM D5185m >10 61 91		Silver	ppm	ASTM D5185(m)	>2	0	<1		
Copper ASTM D5185im >180 55 569 Tin ppm ASTM D5185im >8 0 6 Vanadium ppm ASTM D5185im >8 0 6 CONTAMINATION psin ASTM D5185im >15 3 6 There is no indication of any contamination in the oil. Potassium ppm ASTM D5185im >15 3 6 Value ppm ASTM D5185im >10 0.0 Value ppm ASTM D5185im >0 0.0 Gig col WC Method >0.0 NEG NEG NEG NEG Ntation Abs/m ASTM D7844i >0 0.0 Ntation Abs/m ASTM D7844i >0 0.0 Ntation Abs/m ASTM D7844i >0 0		Aluminum	ppm	ASTM D5185(m)	>35	2	10		
Trin ppm ASTM D5185(m) >8 0 6		Lead	ppm	ASTM D5185(m)	>10	0	17		
Vanadium ppm ASTM D5185(m) Image: Constraints and the oil. Potassium pm ASTM D5185(m) >15 3 6 Potassium pm ASTM D5185(m) >10 2 21 Fuel WC Method >3.0 <1.0		Copper	ppm	ASTM D5185(m)	>180	5	569		
Silicon ppm ASTM D5185(m) >15 3 6 Potassium pm ASTM D5185(m) >20 2 21 Fuel WC Method >3.0 <1.0		Tin	ppm	ASTM D5185(m)	>8	0	6		
Potassium ppm ASTM D5185/m >20 2 21 Fuel WC Method >3.0 <1.0		Vanadium	ppm	ASTM D5185(m)		0	<1		
Fuel WC Method >3.0 <1.0	CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>15	3	6		
WaterWC Method\$0.2NEGNEG\$GlycolWC MethodWC MethodNEGNEG\$Soot %%ASTM 07844\$30.20\$NitrationAbs/mASM 07824\$206.58.5\$SulfationAbs/mASTM 07624\$2018.820.4\$BuifationAbs/mASTM 07415\$3018.820.4\$FLUID CONDITIONSodiumppmASTM 05165m16.5\$BoronppmASTM 05165m216.3\$BariumppmASTM 05165m00<1	There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)	>20	2	21		
GiycolWC MethodNEGNEGSoot %%ASTM D7844>30.20NitrationAbs/cmASTM D7624*>206.58.5SulfationAbs/lmASTM D7624*>3018.820.4Emulsified WaterscalarVisual*>0.2NEGNEGFLUID CONDITIONSodiumppmASTM D5185//14BoronppmASTM D5185//01630BariumppmASTM D5185//00<1		Fuel		WC Method	>3.0	<1.0	0.0		
Soot % % ASTM D7844 >3 0.2 0 Nitration Abs/ ASTM D7624' >20 6.5 8.5 Sulfation Abs/.1mm ASTM D7624' >20 18.8 20.4 Emulsified Water scalar Visual* >0.2 NEG NEG FLUID CONDITION Sodium ppm ASTM D5185/m 2.0 1 4.4 Boron ppm ASTM D5185/m 2.0 1 6.3 Molybdenum ppm ASTM D5185/m 0.0 0 <1 Maganese ppm ASTM D5185/m 0.0 0 <1 Maganese ppm ASTM D5185/m 0.0 0 <1 Magnesium ppm ASTM D5185/m 0.0 0 <1 Phosphorus ppm ASTM D5185/m 0.0 0 <1 Sulfur <td< th=""><th>Water</th><th></th><th>WC Method</th><th>>0.2</th><th>NEG</th><th>NEG</th><th></th></td<>		Water		WC Method	>0.2	NEG	NEG		
NitrationAbs/cmASTM D762*>206.58.5SulfationAbs/1mmASTM D7145>3018.820.4Emulsified WatescalarVisual*>0.2NEGNEGNEGppmASTM D5185(m)14.4ELUID CONDITIONppmASTM D5185(m)216.3SodiumppmASTM D5185(m)00<1		Glycol		WC Method		NEG	NEG		
SulfationAbs/1mmASTM D7415*>3018.820.4Emulsified WaterscalarVisual*>0.2NEGNEGFLUID CONDITIONSodiumppmASTM D5185(m)214BoronppmASTM D5185(m)2163.0BariumppmASTM D5185(m)00<1		Soot %	%	ASTM D7844*	>3	0.2	0		
Emulsified WaterscalarVisual*>0.2NEGNEGFLUID CONDITIONSodiumppmASTM D5185(m)14BoronppmASTM D5185(m)2163BariumppmASTM D5185(m)00<1		Nitration	Abs/cm	ASTM D7624*	>20	6.5	8.5		
FLUID CONDITION Sodium ppm ASTM D5185(m) 1 4 Boron ppm ASTM D5185(m) 2 1 633 Barium ppm ASTM D5185(m) 0 0 Molybdenum ppm ASTM D5185(m) 0 0 Marganese ppm ASTM D5185(m) 0 0 4 Marganesu ppm ASTM D5185(m) 0 0 44 Marganesu ppm ASTM D5185(m) 0 0 4625 Marganesu ppm ASTM D5185(m) 1054 1612 Zinic ppm ASTM D5185(m)		Sulfation	Abs/.1mm	ASTM D7415*	>30	18.8	20.4		
Boron ppm ASTM D5185(m) 2 1 63 Barium ppm ASTM D5185(m) 0 0 <1		Emulsified Water	scalar	Visual*	>0.2	NEG	NEG		
Barium ppm ASTM D5185(m) 0 0 <1 Molybdenum ppm ASTM D5185(m) 50 59 53 Manganese ppm ASTM D5185(m) 0 0 4 Magnesium ppm ASTM D5185(m) 950 976 6253 Calcium ppm ASTM D5185(m) 1050 1054 1612 Phosphorus ppm ASTM D5185(m) 9983 8044 Zinc ppm ASTM D5185(m) 1180 11177 8900 Sulfur ppm ASTM D5185(m) 2600 2451 23244	FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		1	4		
Molybdenum ppm ASTM D5185(m) 50 53 Manganese ppm ASTM D5185(m) 0 0 4 Magnesium ppm ASTM D5185(m) 950 976 6253 Calcium ppm ASTM D5185(m) 1054 1612 Phosphorus ppm ASTM D5185(m) 995 983 804 Zinc ppm ASTM D5185(m) 1180 1177 8900 Sulfur ppm ASTM D5185(m) 2600 2451 23244	The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185(m)	2	1	63		
Manganese ppm ASTM D5185(m) 0 0 4 Magnesium ppm ASTM D5185(m) 950 976 6250 < Calcium ppm ASTM D5185(m) 1050 1054 1612 Phosphorus ppm ASTM D5185(m) 995 983 804 Zinc ppm ASTM D5185(m) 1180 1177 890 Sulfur ppm ASTM D5185(m) 2600 2451 2324		Barium	ppm	ASTM D5185(m)	0	0	<1		
Magnesium ppm ASTM D5185(m) 950 976 625 Calcium ppm ASTM D5185(m) 1050 1054 1612 Phosphorus ppm ASTM D5185(m) 995 983 804 Zinc ppm ASTM D5185(m) 1180 11177 8900 Sulfur ppm ASTM D5185(m) 2600 2451 2324		Molybdenum	ppm	ASTM D5185(m)	50	59	53		
Calcium ppm ASTM D5185(m) 1050 1054 1612 Phosphorus ppm ASTM D5185(m) 995 983 804 Zinc ppm ASTM D5185(m) 1180 1177 890 Sulfur ppm ASTM D5185(m) 2600 2451 2324		Manganese	ppm	ASTM D5185(m)	0	0	4		
Phosphorus ppm ASTM D5185(m) 995 983 804 Zinc ppm ASTM D5185(m) 1180 1177 890 Sulfur ppm ASTM D5185(m) 2600 2451 2324		Magnesium	ppm	ASTM D5185(m)	950	976	625		
Zinc ppm ASTM D5185(m) 1180 1177 890 Sulfur ppm ASTM D5185(m) 2600 2451 2324		Calcium	ppm	ASTM D5185(m)	1050	1054	1612		
Sulfur ppm ASTM D5185(m) 2600 2451 2324		Phosphorus	ppm	ASTM D5185(m)	995	983	804		
		Zinc	ppm	ASTM D5185(m)	1180	1177	890		
Oxidation Abs/.1mm ASTM D7414* >25 14.6 16.3		Sulfur	ppm	ASTM D5185(m)	2600	2451	2324		
		Oxidation	Abs/.1mm	ASTM D7414*	>25	14.6	16.3		

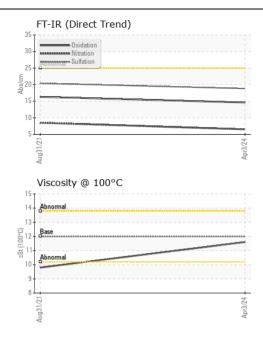
Visc @ 100°C cSt

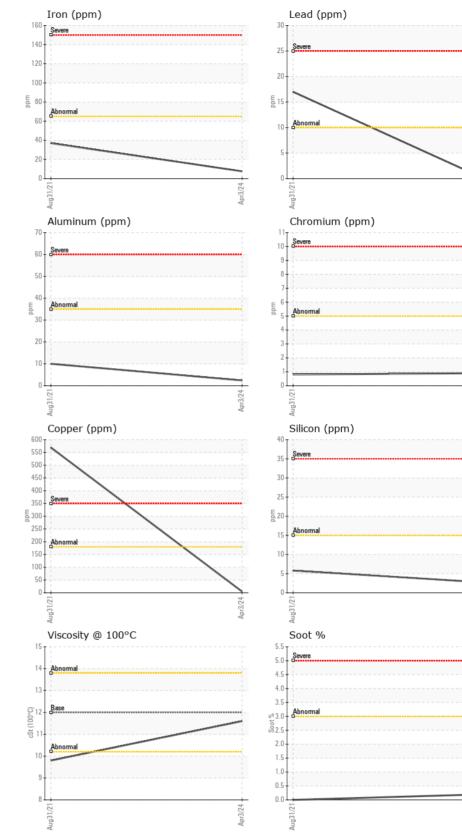
Contact/Location: Ryan Polichuk - GFL355

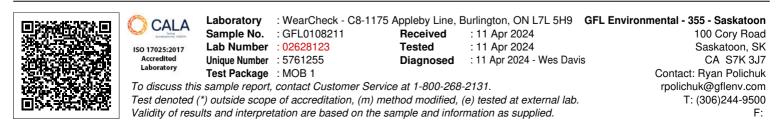
11.6

9.8

ASTM D7279(m) 12.00







Contact/Location: Ryan Polichuk - GFL355 Page 2 of 2

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