



Machine Id
801036
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (19 LTR)

RECOMMENDATION

Check for low coolant level. The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0117875	GFL011738	GFL011718
Sample Date		Client Info		23 May 2024	19 Mar 2024	05 Mar 2024
Machine Age	hrs	Client Info		120211	120211	0
Oil Age	hrs	Client Info		600	600	600
Filter Age	hrs	Client Info		0	600	600
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				ATTENTION	ATTENTION	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>80	17	14	10
Chromium	ppm	ASTM D5185(m)	>5	<1	0	0
Nickel	ppm	ASTM D5185(m)	>2	0	0	<1
Titanium	ppm	ASTM D5185(m)		2	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>30	3	1	2
Lead	ppm	ASTM D5185(m)	>30	0	0	0
Copper	ppm	ASTM D5185(m)	>150	1	<1	<1
Tin	ppm	ASTM D5185(m)	>5	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	---	NONE

CONTAMINATION

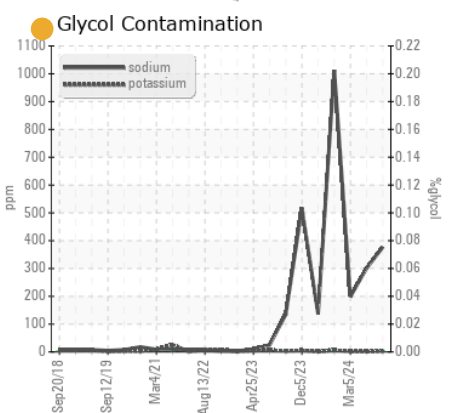
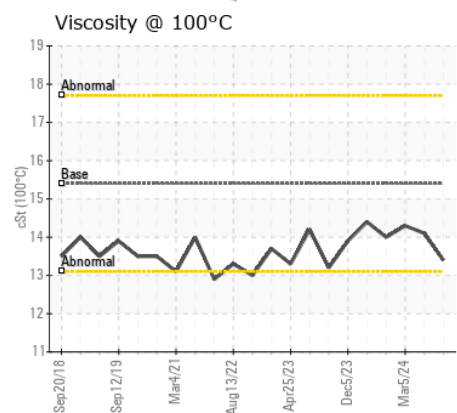
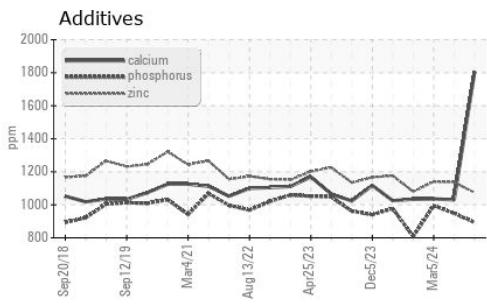
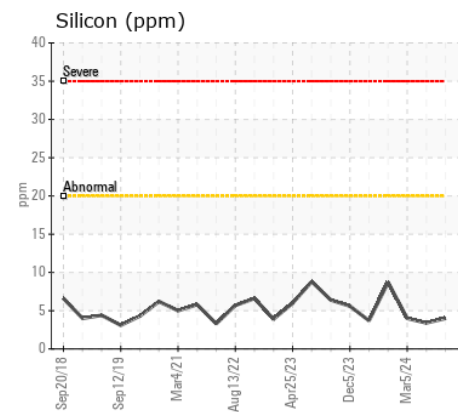
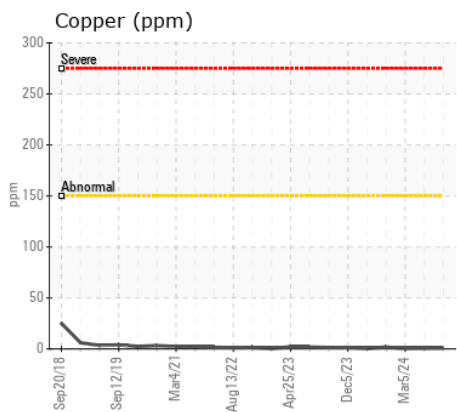
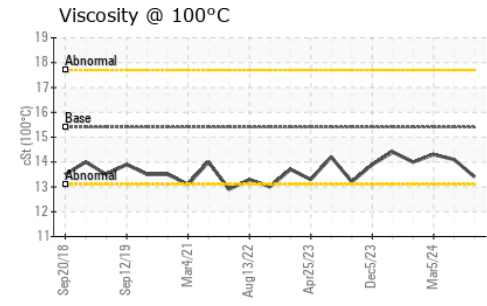
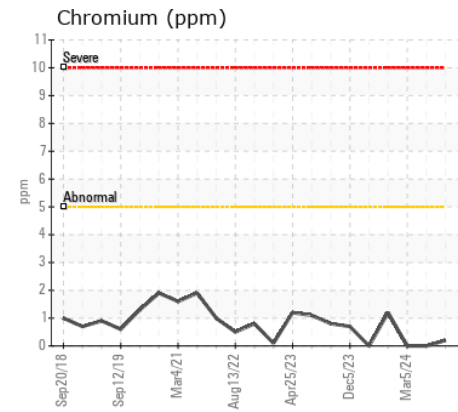
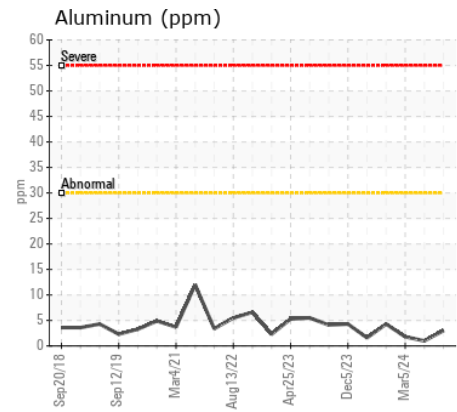
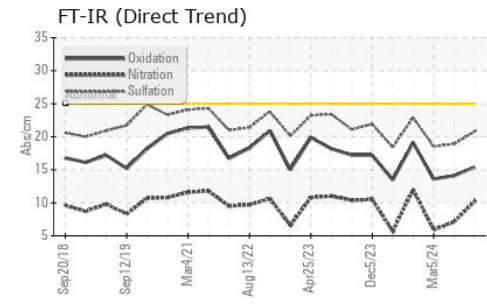
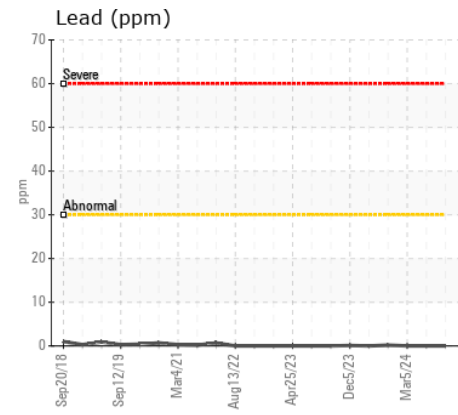
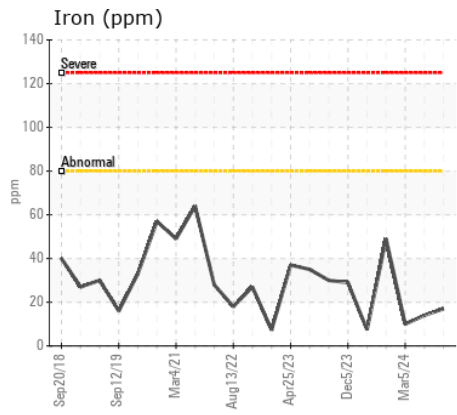
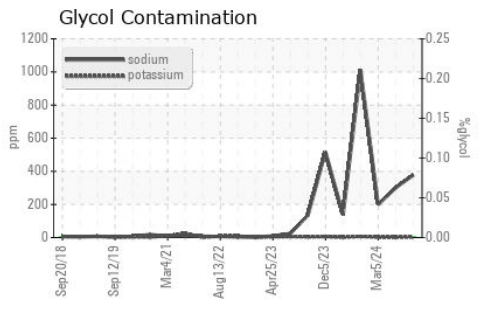
Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>20	4	3	4
Potassium	ppm	ASTM D5185(m)	>20	3	1	2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		0.0	0.0	0.0
Soot %	%	ASTM D7844*	>3	0.4	0.2	0.1
Nitration	Abs/cm	ASTM D7624*	>20	10.2	7.1	5.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.8	18.9	18.5
Silt	scalar	Visual*	NONE	VLITE	---	NONE
Debris	scalar	Visual*	NONE	NONE	---	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	---	NONE
Appearance	scalar	Visual*	NORML	NORML	---	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service (see recommendation).

Sodium	ppm	ASTM D5185(m)		377	301	199
Boron	ppm	ASTM D5185(m)	0	19	4	8
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	78	57	57
Manganese	ppm	ASTM D5185(m)	0	<1	0	0
Magnesium	ppm	ASTM D5185(m)	1010	265	920	914
Calcium	ppm	ASTM D5185(m)	1070	1805	1030	1036
Phosphorus	ppm	ASTM D5185(m)	1150	893	948	995
Zinc	ppm	ASTM D5185(m)	1270	1074	1136	1140
Sulfur	ppm	ASTM D5185(m)	2060	2729	2526	2764
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.4	14.1	13.6
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.4	14.1	14.3



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0117875 **Received** : 28 May 2024
Lab Number : 02637891 **Tested** : 29 May 2024
Unique Number : 5787053 **Diagnosed** : 30 May 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: Glycol, Visual)

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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.