

Machine Id
401024
Component
Diesel Engine
Fluid
PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)

RECOMMENDATION

Check for low coolant level. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. No other corrective action is recommended at this time.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0117296	GFL0112414	GFL0099582
Sample Date		Client Info		02 May 2024	15 Feb 2024	21 Nov 2023
Machine Age	hrs	Client Info		20662	20083	537126
Oil Age	hrs	Client Info		582	619	0
Filter Age	hrs	Client Info		582	619	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	ATTENTION	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>110	26	30	26
Chromium	ppm	ASTM D5185(m)	>4	1	1	1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>25	5	5	4
Lead	ppm	ASTM D5185(m)	>45	0	<1	<1
Copper	ppm	ASTM D5185(m)	>85	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>4	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

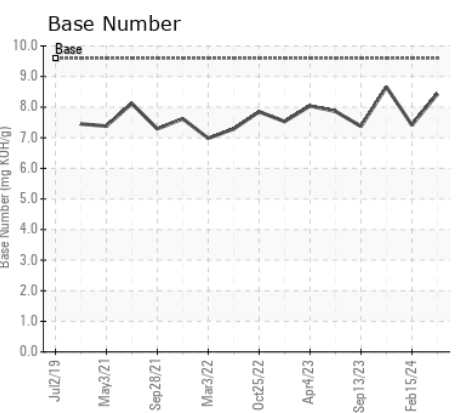
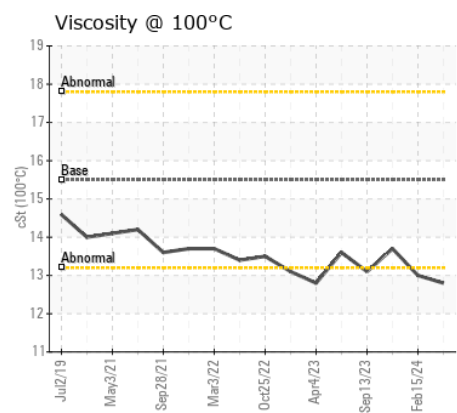
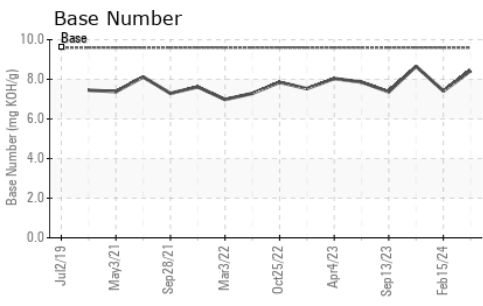
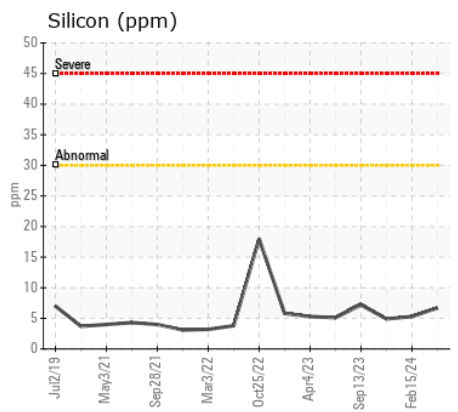
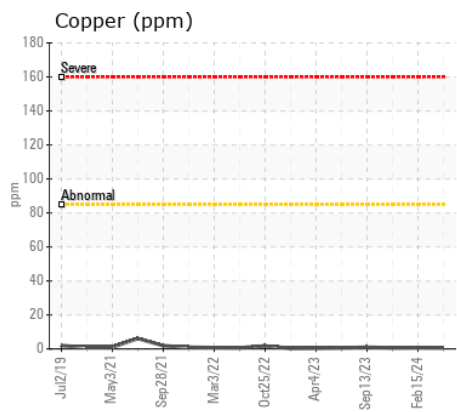
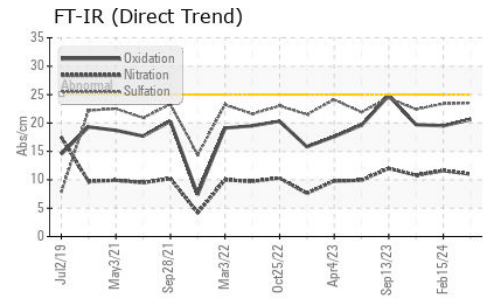
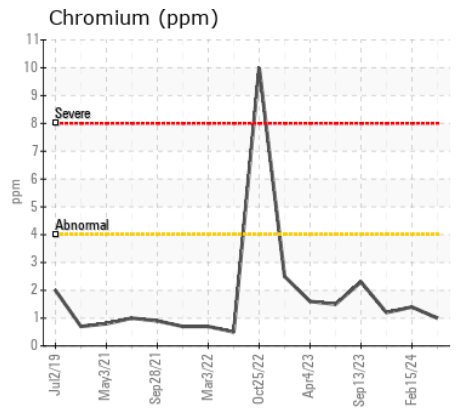
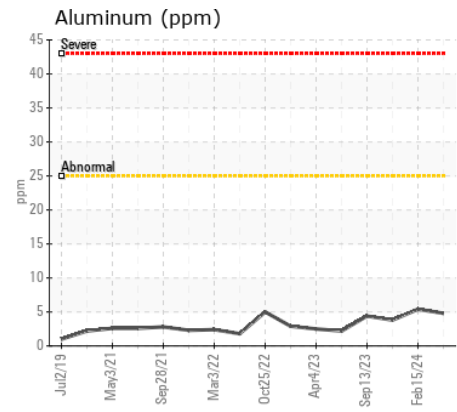
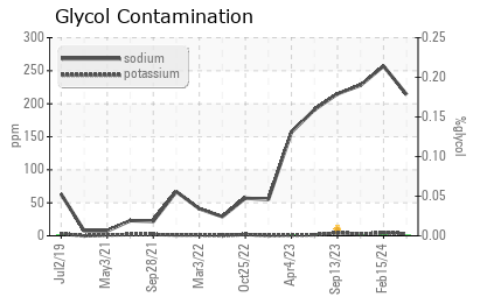
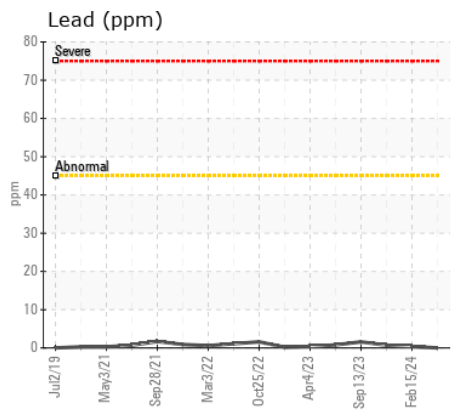
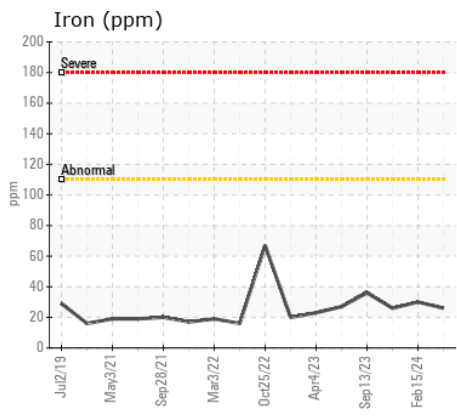
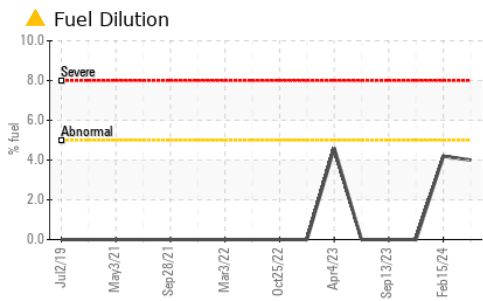
Light fuel dilution occurring. Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>30	7	5	5
Potassium	ppm	ASTM D5185(m)	>20	3	4	3
Fuel	%	ASTM D7593*	>5	▲ 4	▲ 4.2	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		0.0	0.0	0.0
Soot %	%	ASTM D7844*	>3	0.8	0.9	0.7
Nitration	Abs/cm	ASTM D7624*	>20	11.0	11.6	10.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	23.5	23.4	22.4
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service (see recommendation).

Sodium	ppm	ASTM D5185(m)		● 214	● 257	● 228
Boron	ppm	ASTM D5185(m)	1	2	<1	1
Barium	ppm	ASTM D5185(m)	1	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	64	64	65
Manganese	ppm	ASTM D5185(m)	1	<1	0	0
Magnesium	ppm	ASTM D5185(m)	1010	922	883	915
Calcium	ppm	ASTM D5185(m)	1070	1025	1020	1022
Phosphorus	ppm	ASTM D5185(m)	1150	944	958	948
Zinc	ppm	ASTM D5185(m)	1270	1133	1112	1151
Sulfur	ppm	ASTM D5185(m)	2060	2298	2424	2389
Oxidation	Abs/.1mm	ASTM D7414*	>25	20.6	19.5	19.7
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	8.43	7.41	8.66
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	12.8	13.0	13.7



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0117296
Lab Number : 02633821
Unique Number : 5774974
Test Package : MOB 2 (Additional Tests: FuelDilution, Glycol, PercentFuel)

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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.