



WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ATTENTION



Machine Id
8973
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (20 LTR)

RECOMMENDATION

We advise that you check the fuel injection system. We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0124653	GFL0116358	GFL0077473
Sample Date		Client Info		30 May 2024	14 Mar 2024	11 Apr 2023
Machine Age	kms	Client Info		191633	191158	176315
Oil Age	kms	Client Info		0	24946	0
Filter Age	kms	Client Info		0	24946	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	SEVERE	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	32	35	68
Chromium	ppm	ASTM D5185(m)	>20	1	2	2
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	1
Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	2	5	4
Lead	ppm	ASTM D5185(m)	>40	12	5	1
Copper	ppm	ASTM D5185(m)	>330	2	3	2
Tin	ppm	ASTM D5185(m)	>15	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

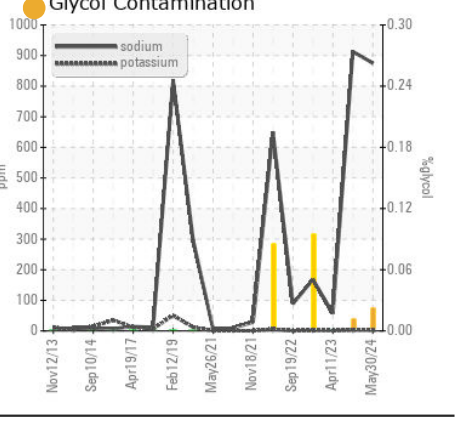
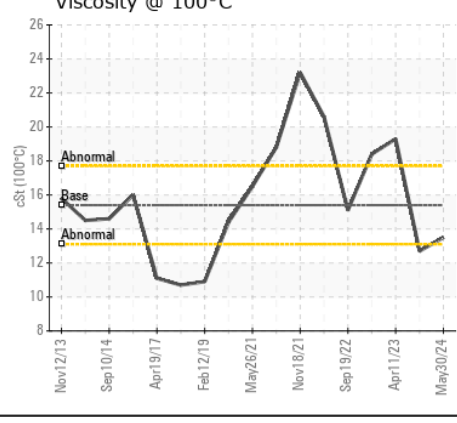
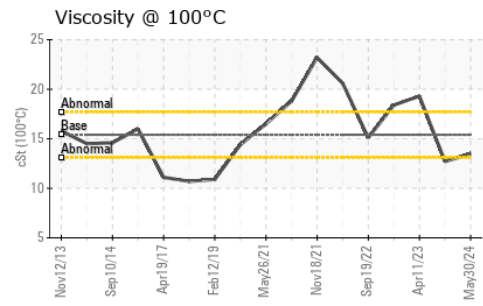
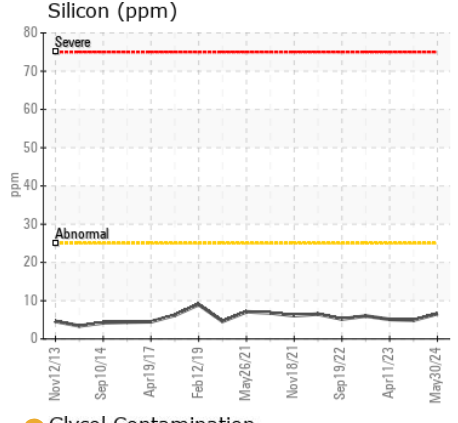
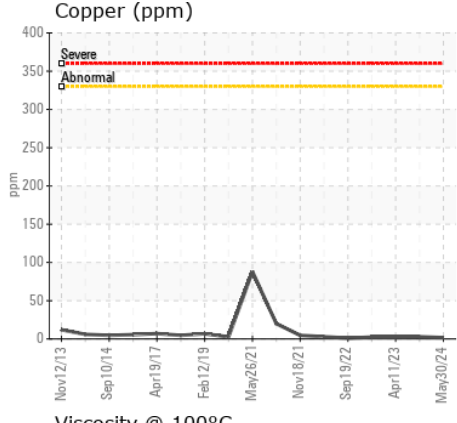
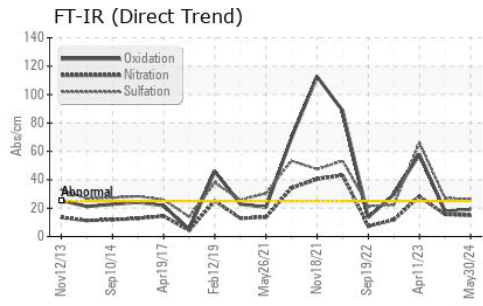
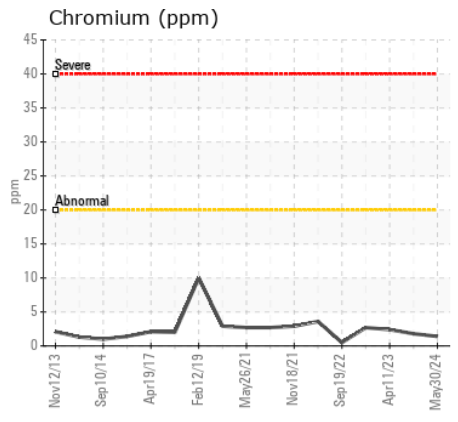
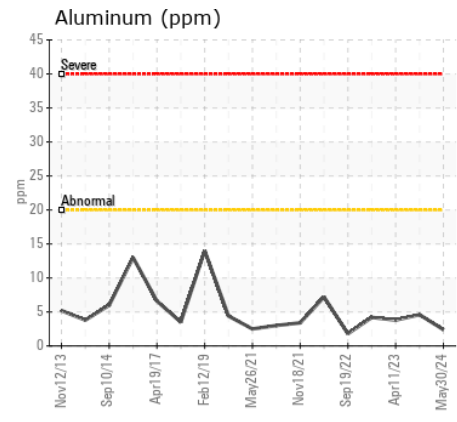
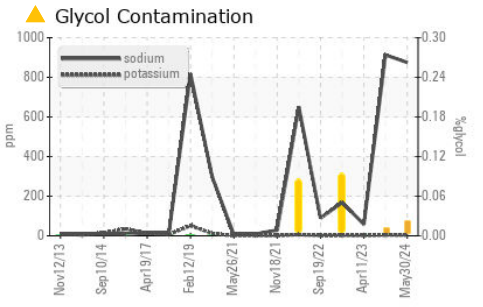
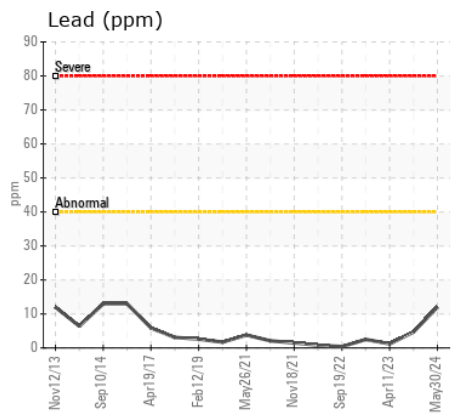
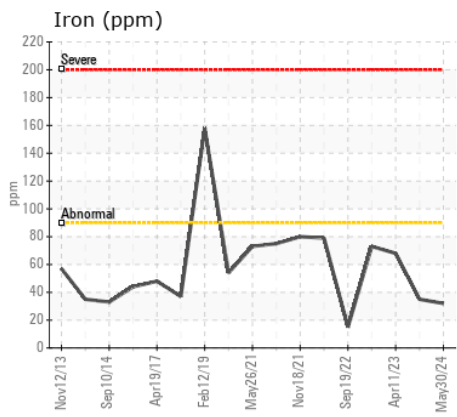
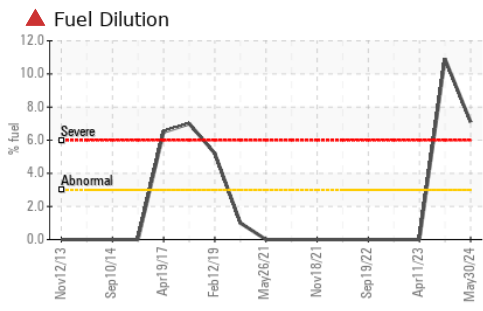
Test for glycol is positive. There is a high amount of fuel present in the oil. There is a light concentration of glycol present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	7	5	5
Potassium	ppm	ASTM D5185(m)	>20	3	4	<1
Fuel	%	ASTM D7593*	>3.0	▲ 7.1	▲ 10.9	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		▲ 0.022	▲ 0.011	0.0
Soot %	%	ASTM D7844*	>6	3.1	3.6	▲ 6.9
Nitration	Abs/cm	ASTM D7624*	>20	14.9	15.6	28.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	26.4	27.0	66.0
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		● 875	● 913	58
Boron	ppm	ASTM D5185(m)	0	2	2	2
Barium	ppm	ASTM D5185(m)	0	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	60	51	50	61
Manganese	ppm	ASTM D5185(m)	0	<1	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	796	728	978
Calcium	ppm	ASTM D5185(m)	1070	853	819	1122
Phosphorus	ppm	ASTM D5185(m)	1150	820	795	1073
Zinc	ppm	ASTM D5185(m)	1270	990	928	1213
Sulfur	ppm	ASTM D5185(m)	2060	2129	2218	2413
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.1	17.8	57.8
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.5	▲ 12.7	▲ 19.3



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0124653 **Received** : 03 Jun 2024
Lab Number : 02639315 **Tested** : 04 Jun 2024
Unique Number : 5788477 **Diagnosed** : 04 Jun 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: Glycol, PercentFuel, Visual)

GFL Environmental - 225 - COT(D2)
 20 Brydon Drive
 Etobicoke, ON
 CA M9W 5R6
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 rphilip@gflenv.com
 T: (416)745-8080
 F:

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.