



Machine Id

5599

Component

Diesel Engine

Fluid

PETRO CANADA DURON SHP 10W30 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. 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		GFL0118959	GFL0102588	GFL0101712
Sample Date		Client Info		03 May 2024	05 Feb 2024	22 Nov 2023
Machine Age	hrs	Client Info		21234	0	20429
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				SEVERE	NORMAL	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	7	12	12
Chromium	ppm	ASTM D5185(m)	>20	0	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	3	3	5
Lead	ppm	ASTM D5185(m)	>40	0	<1	2
Copper	ppm	ASTM D5185(m)	>330	1	3	2
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

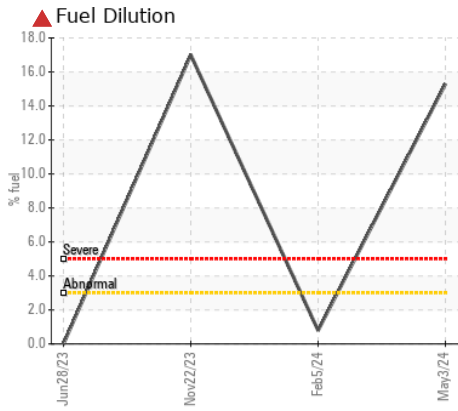
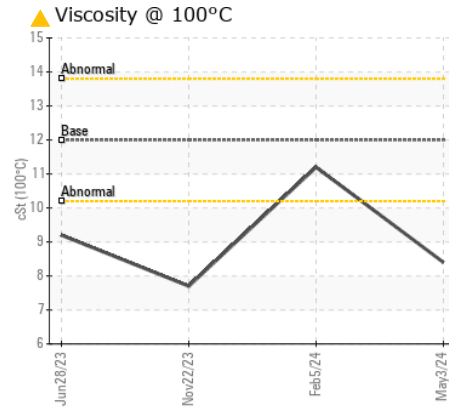
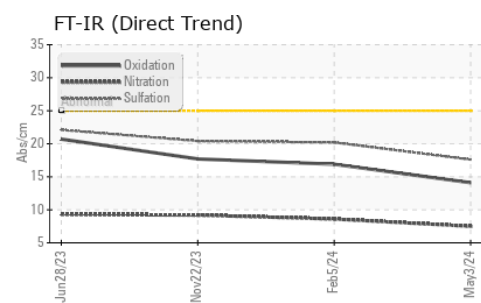
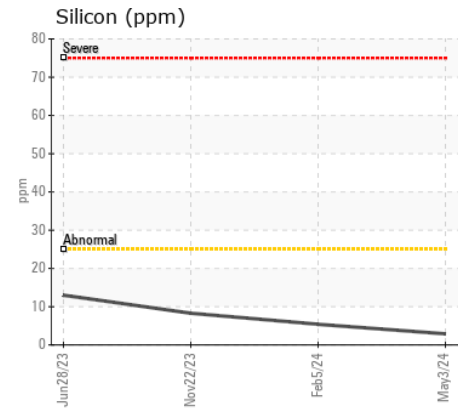
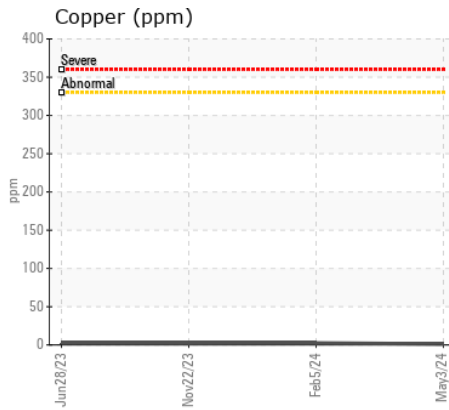
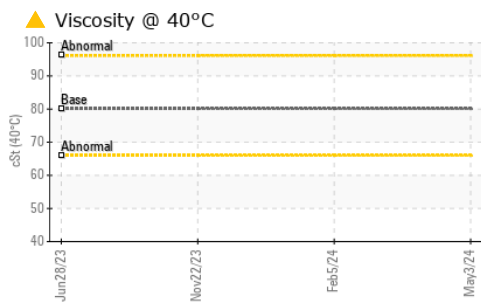
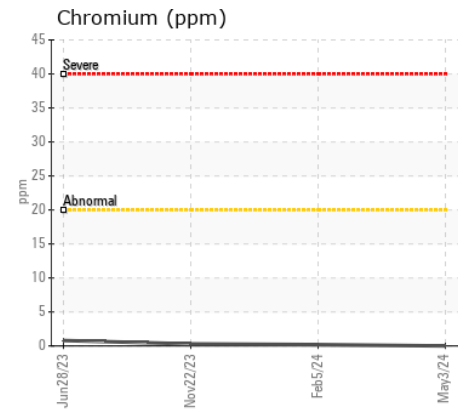
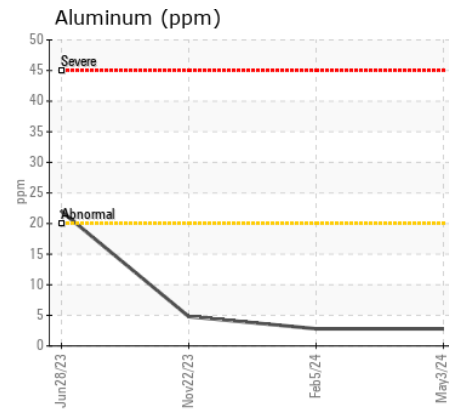
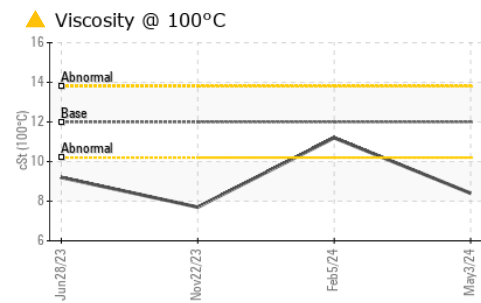
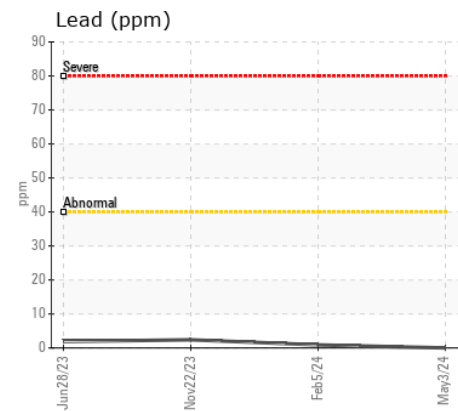
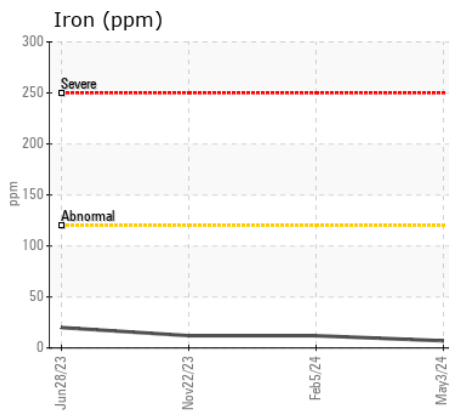
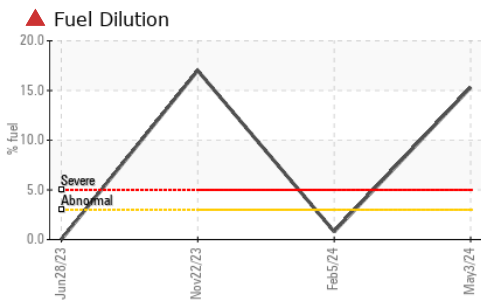
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	3	5	8
Potassium	ppm	ASTM D5185(m)	>20	2	5	4
Fuel	%	ASTM D7593*	>3.0	▲ 15.3	0.8	▲ 17
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>4	0	0.2	0.3
Nitration	Abs/cm	ASTM D7624*	>20	7.5	8.6	9.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	17.6	20.2	20.4
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		45	9	15
Boron	ppm	ASTM D5185(m)	2	1	2	2
Barium	ppm	ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	50	50	60	46
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	950	810	979	692
Calcium	ppm	ASTM D5185(m)	1050	890	1092	786
Phosphorus	ppm	ASTM D5185(m)	995	858	990	698
Zinc	ppm	ASTM D5185(m)	1180	997	1186	861
Sulfur	ppm	ASTM D5185(m)	2600	2223	2478	1958
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.1	16.9	17.7
Visc @ 40°C	cSt	ASTM D7279(m)	80.1	▲ 48.5	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	▲ 8.4	11.2	▲ 7.7
Viscosity Index (VI)	Scale	ASTM D2270*	144	149	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0118959 **Received** : 08 May 2024
Lab Number : 02634039 **Tested** : 09 May 2024
Unique Number : 5775192 **Diagnosed** : 09 May 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: FuelDilution, KV40, PercentFuel, VI)

GFL Environmental - 554 - Edmonton SW
 8409 -15th Street NW
 Edmonton, AB
 CA T6P 0B8
 Contact: Tim Greig
 tgreig@gflenv.com
 T: (780)231-0521
 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.