



WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL



Machine Id
WL0112
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- 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		GFL0100621	GFL0100648	GFL0054630
Sample Date		Client Info		07 Apr 2024	28 Dec 2023	10 Jun 2023
Machine Age	hrs	Client Info		8836	8011	6677
Oil Age	hrs	Client Info		825	1334	800
Filter Age	hrs	Client Info		825	1334	800
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	SEVERE	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	14	36	16
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	0	<1	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<1	2	2
Lead	ppm	ASTM D5185(m)	>40	0	<1	0
Copper	ppm	ASTM D5185(m)	>330	1	2	1
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

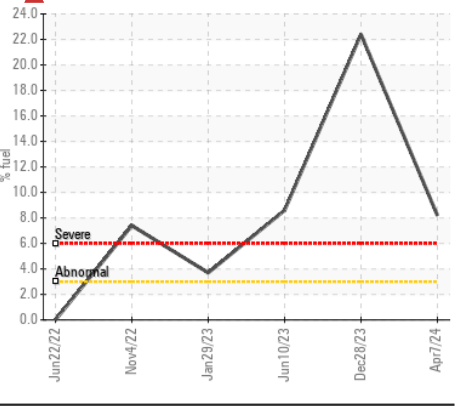
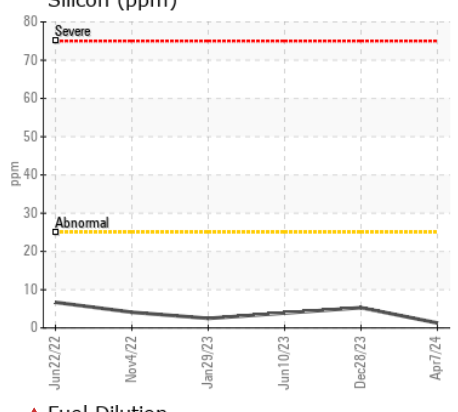
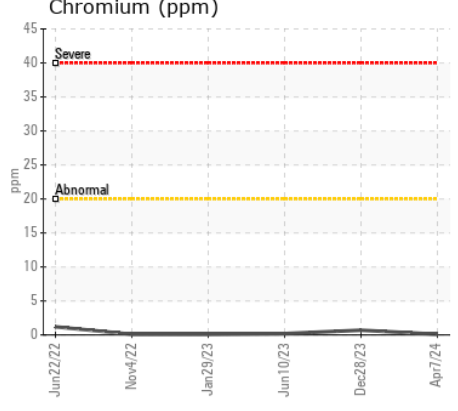
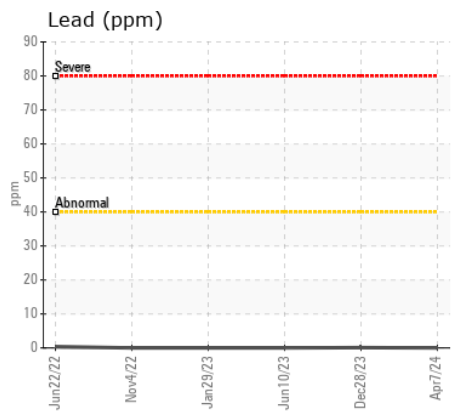
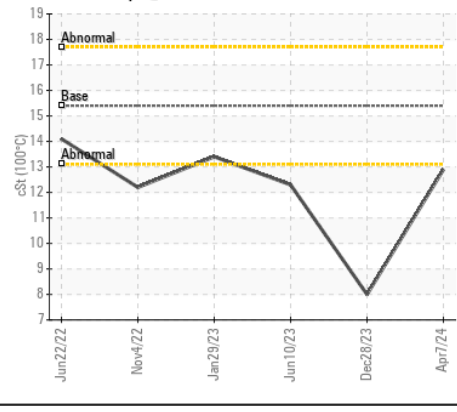
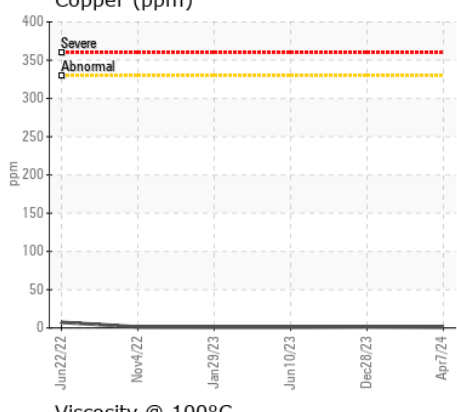
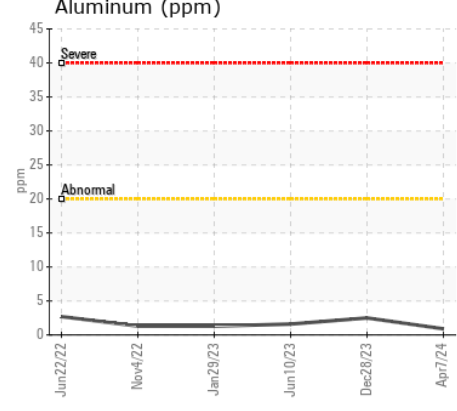
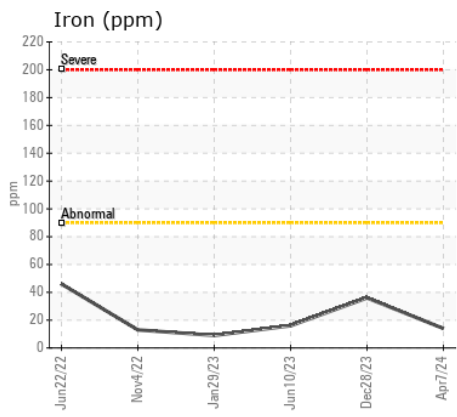
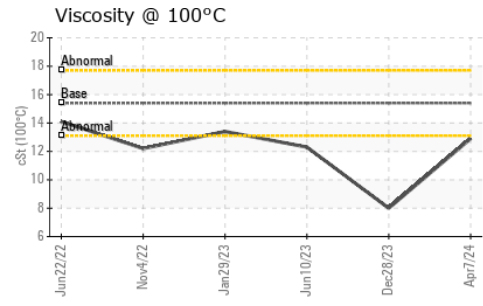
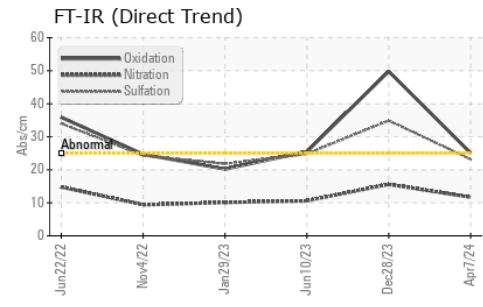
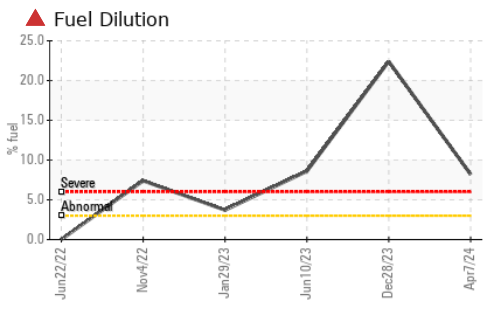
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	1	5	4
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Fuel	%	ASTM D7593*	>3.0	▲ 8.2	▲ 22.4	▲ 8.6
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>6	0.1	0.2	0.1
Nitration	Abs/cm	ASTM D7624*	>20	11.7	15.6	10.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	23.2	34.9	24.8
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)		2	8	3
Boron	ppm	ASTM D5185(m)	0	1	2	1
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	57	46	58
Manganese	ppm	ASTM D5185(m)	0	0	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	938	741	942
Calcium	ppm	ASTM D5185(m)	1070	1023	802	1072
Phosphorus	ppm	ASTM D5185(m)	1150	931	752	1018
Zinc	ppm	ASTM D5185(m)	1270	1131	898	1152
Sulfur	ppm	ASTM D5185(m)	2060	2242	1838	2286
Oxidation	Abs/.1mm	ASTM D7414*	>25	25.1	49.8	25.5
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	12.9	▲ 8	▲ 12.3



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0100621 **Received** : 19 Apr 2024
Lab Number : 02630059 **Tested** : 22 Apr 2024
Unique Number : 5763191 **Diagnosed** : 22 Apr 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: PercentFuel)

GFL Environmental - 575 - Squamish Hauling
 38950 Queens Way,
 Squamish, BC
 CA V8B 0K8
 Contact: Dean Imbeau
 dimbeau@gflenv.com
 T: (604)892-5604
 F: (604)892-5238

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.