



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
9970
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

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. No other corrective action is recommended at this time.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0111778	GFL0063205	GFL0039077
Sample Date		Client Info		11 Apr 2024	06 Dec 2022	22 Dec 2021
Machine Age	hrs	Client Info		4169	2683	1595
Oil Age	hrs	Client Info		550	200	600
Filter Age	hrs	Client Info		550	200	600
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	MARGINAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>75	56	38	31
Chromium	ppm	ASTM D5185(m)	>5	3	2	2
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	<1	0
Silver	ppm	ASTM D5185(m)	>2	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>15	8	4	3
Lead	ppm	ASTM D5185(m)	>25	2	1	1
Copper	ppm	ASTM D5185(m)	>100	19	3	2
Tin	ppm	ASTM D5185(m)	>4	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

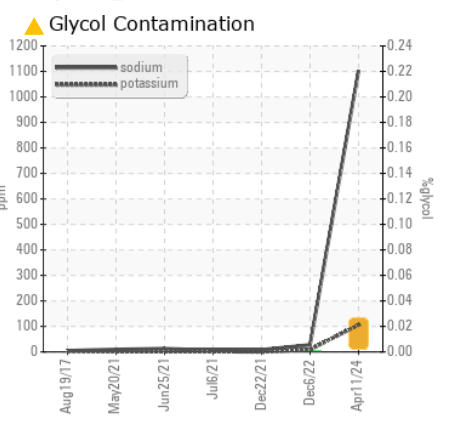
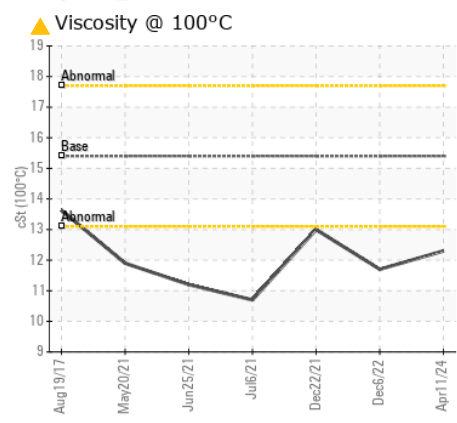
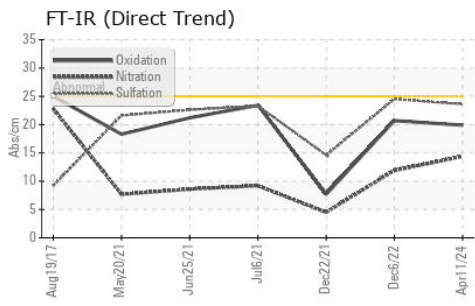
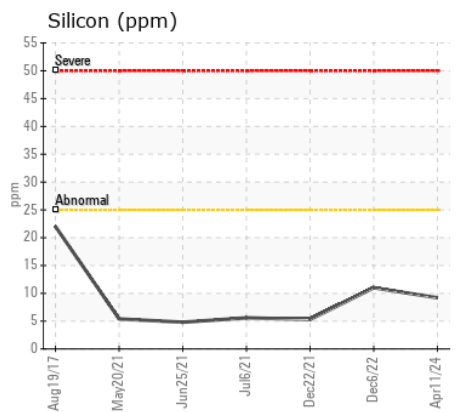
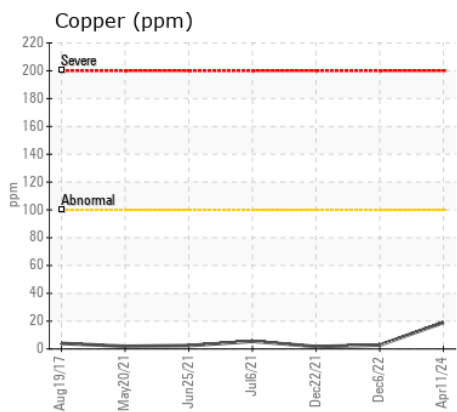
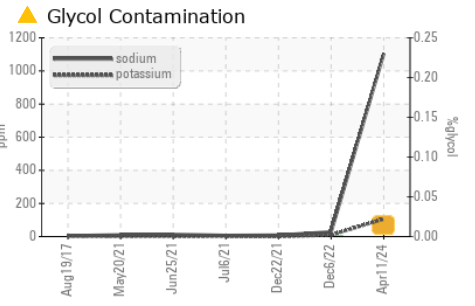
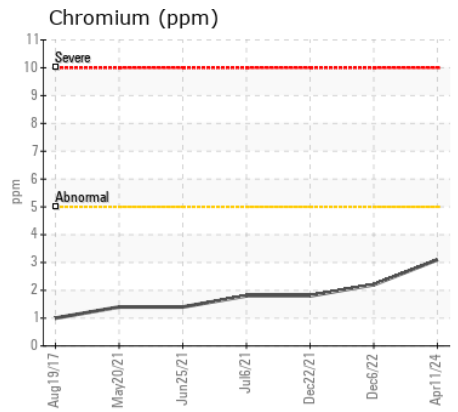
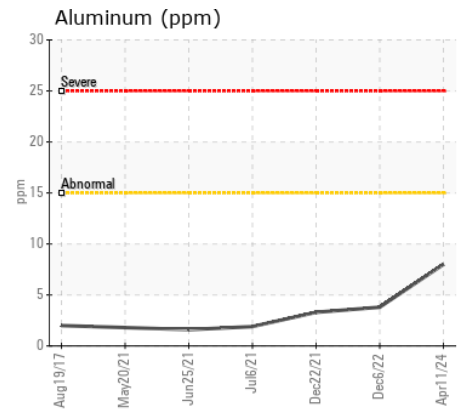
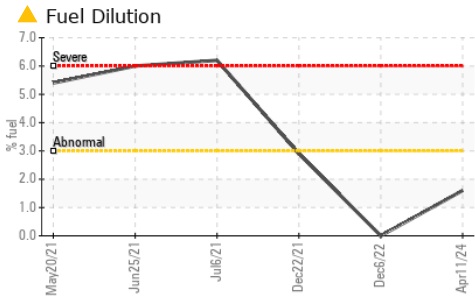
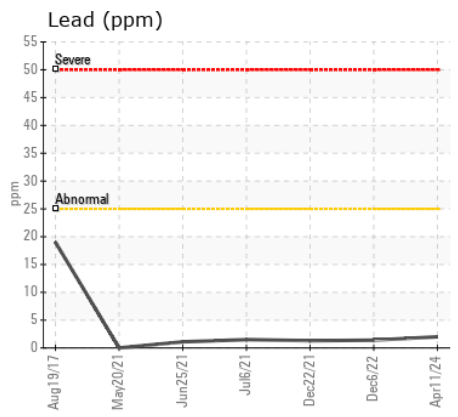
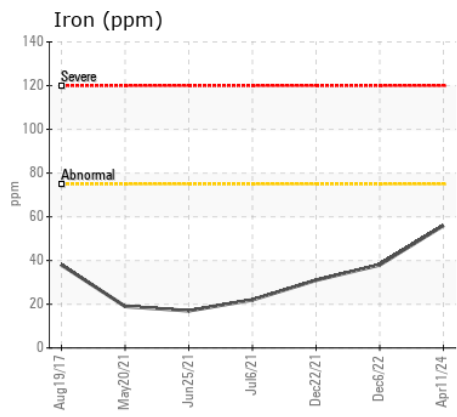
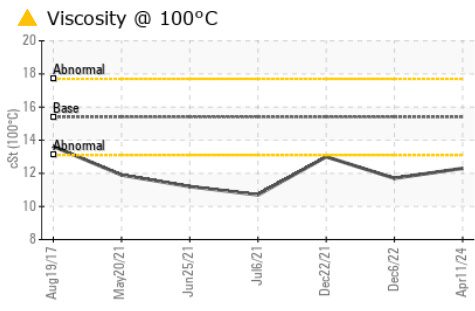
Test for glycol is positive. Light fuel dilution occurring. There is a light concentration of glycol present in the oil. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>25	9	11	5
Potassium	ppm	ASTM D5185(m)	>20	▲ 106	10	0
Fuel	%	ASTM D7593*	>3.0	▲ 1.6	<1.0	▲ 2.9
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		▲ 0.026	0.0	NEG
Soot %	%	ASTM D7844*	>6	1.2	1.1	0
Nitration	Abs/cm	ASTM D7624*	>20	14.4	11.9	4.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	23.6	24.5	14.6
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

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		● 1104	28	9
Boron	ppm	ASTM D5185(m)	0	2	2	11
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	103	58	66
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	812	910	375
Calcium	ppm	ASTM D5185(m)	1070	945	1114	1741
Phosphorus	ppm	ASTM D5185(m)	1150	741	1034	1048
Zinc	ppm	ASTM D5185(m)	1270	1049	1151	1214
Sulfur	ppm	ASTM D5185(m)	2060	2143	2490	2877
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.9	20.7	7.7
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 12.3	11.7	13.0



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0111778 **Received** : 02 May 2024
Lab Number : 02632727 **Tested** : 03 May 2024
Unique Number : 5773880 **Diagnosed** : 03 May 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: FuelDilution, Glycol, PercentFuel, Visual)

GFL Environmental - 557 - Edson
 6615 - 4th Ave,
 Edson, AB
 CA T7E 1M5
 Contact: GFL Tech
 wcgfldemo@gmail.com

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.

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F: