

Machine Id
226085
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (40 LTR)

RECOMMENDATION

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		GFL0107272	GFL0057891	GFL0057897
Sample Date		Client Info		03 May 2024	01 Jun 2023	30 Nov 2022
Machine Age	kms	Client Info		510757	600	487304
Oil Age	kms	Client Info		0	600	600
Filter Age	kms	Client Info		0	600	600
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

Silver ppm levels are abnormal.

Iron	ppm	ASTM D5185(m)	>90	49	11	13
Chromium	ppm	ASTM D5185(m)	>20	2	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	0	0	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	▲ 2	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	3	2	2
Lead	ppm	ASTM D5185(m)	>40	0	<1	<1
Copper	ppm	ASTM D5185(m)	>330	2	<1	<1
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

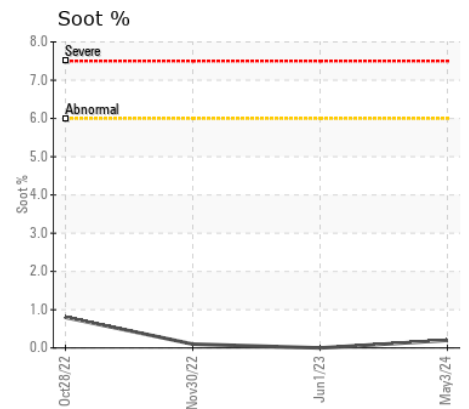
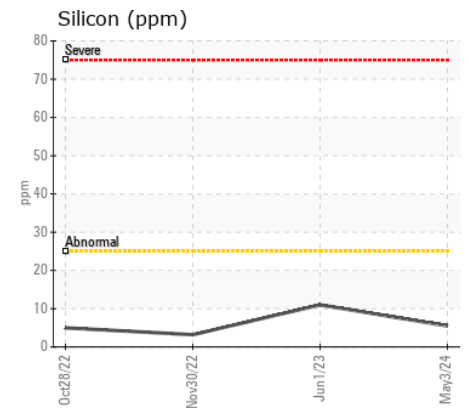
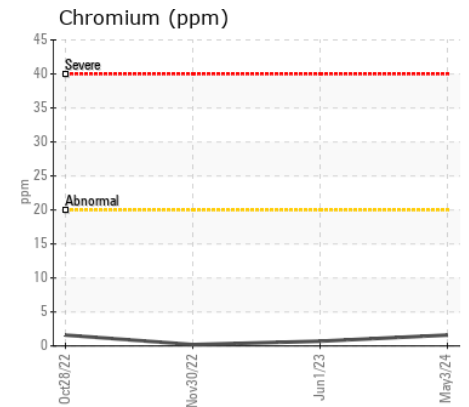
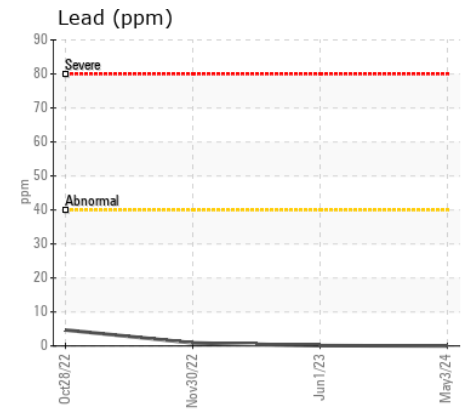
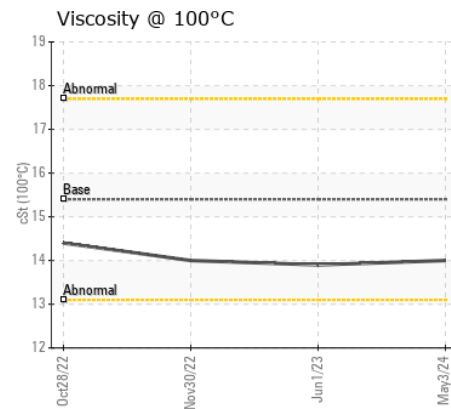
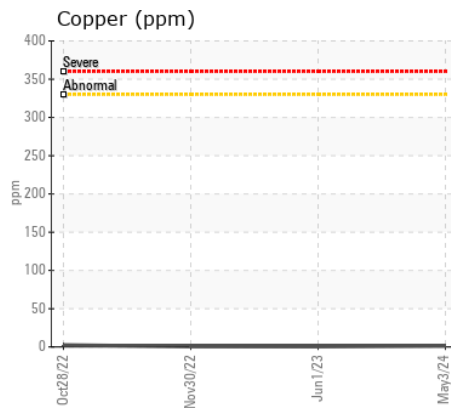
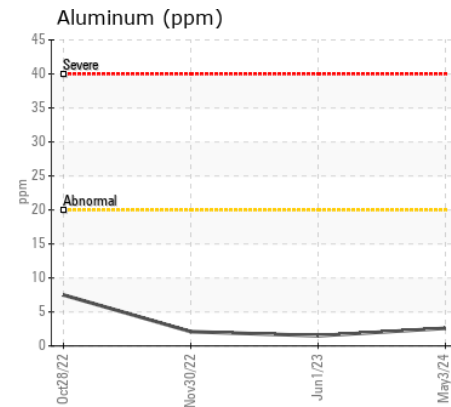
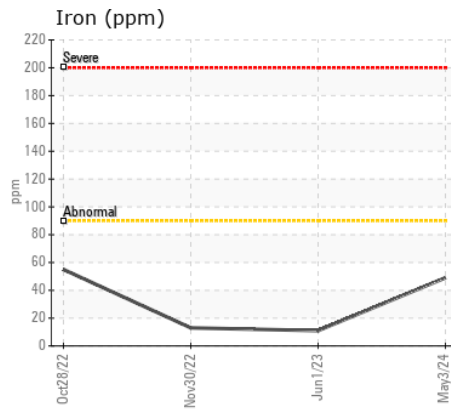
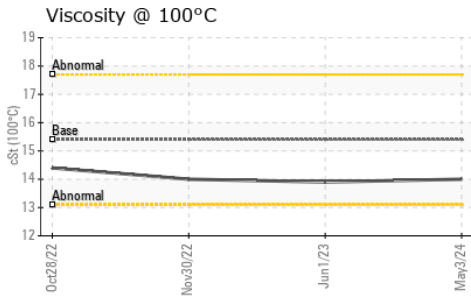
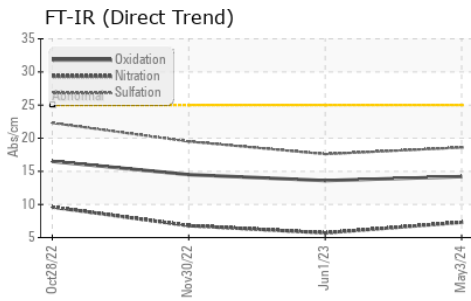
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	6	11	3
Potassium	ppm	ASTM D5185(m)	>20	8	<1	3
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>6	0.2	0	0.1
Nitration	Abs/cm	ASTM D7624*	>20	7.3	5.7	6.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.6	17.6	19.5
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 as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		4	4	3
Boron	ppm	ASTM D5185(m)	0	4	12	2
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	62	59	60
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	977	948	966
Calcium	ppm	ASTM D5185(m)	1070	1066	1036	1146
Phosphorus	ppm	ASTM D5185(m)	1150	1014	1052	1123
Zinc	ppm	ASTM D5185(m)	1270	1197	1143	1222
Sulfur	ppm	ASTM D5185(m)	2060	2577	2593	2786
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.2	13.6	14.5
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	14.0	13.9	14.0



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0107272
Lab Number : 02637049
Unique Number : 5786211
Test Package : MOB 1 (Additional Tests: Visual)

Received : 23 May 2024
Tested : 23 May 2024
Diagnosed : 23 May 2024 - Kevin Marson
GFL Environmental - 250 - Sault Ste Marie Hauling + MRF
 86 Sackville Rd,
 Sault Ste. Marie, ON
 CA P6B 4T6
 Contact: Mike Pelletier
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 T: (705)945-7554
 F: (705)945-7857

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.