

Machine Id
512020
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0102742	GFL0094506	---
Sample Date		Client Info		15 Feb 2024	10 Oct 2023	---
Machine Age	hrs	Client Info		4114	3546	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		N/A	N/A	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	12	12	---
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	---
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)	>3	0	<1	---
Aluminum	ppm	ASTM D5185(m)	>20	4	5	---
Lead	ppm	ASTM D5185(m)	>40	<1	<1	---
Copper	ppm	ASTM D5185(m)	>330	<1	<1	---
Tin	ppm	ASTM D5185(m)	>15	<1	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

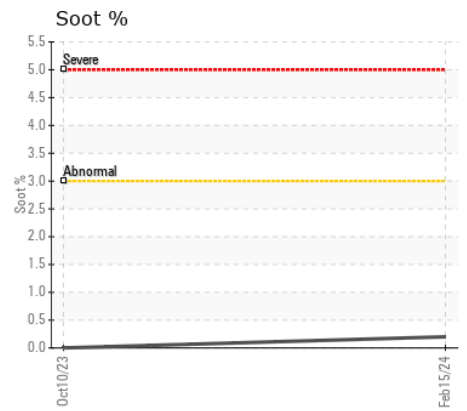
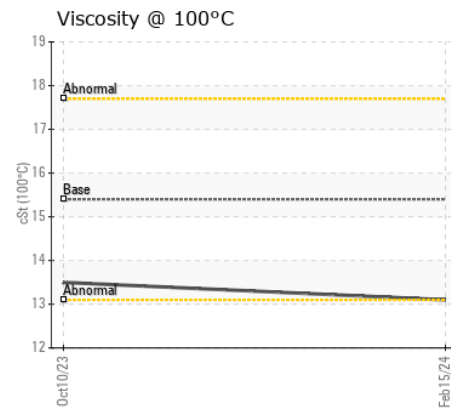
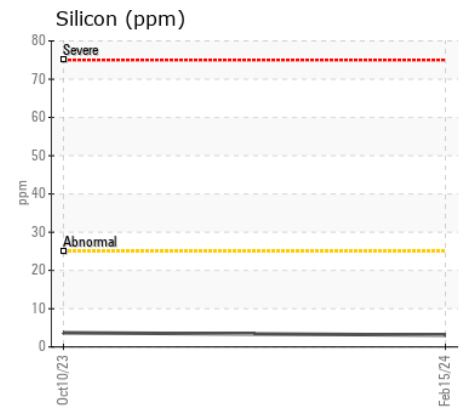
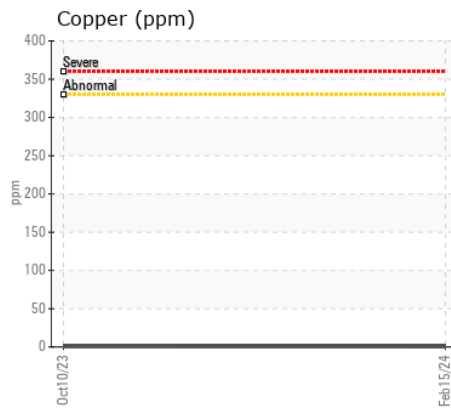
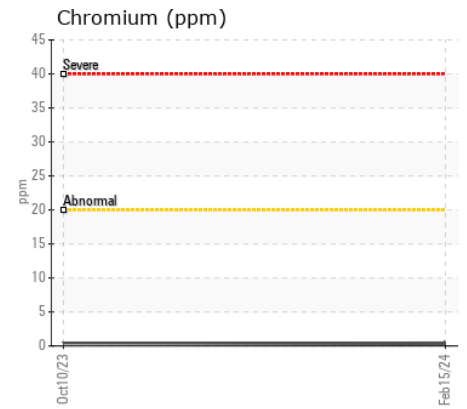
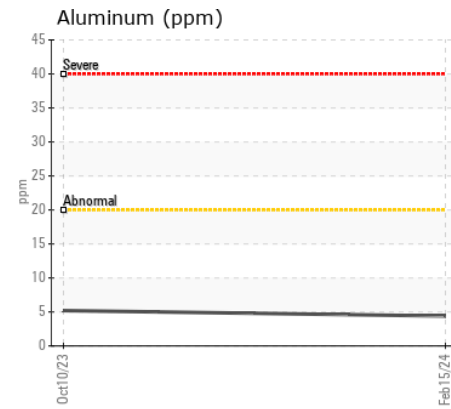
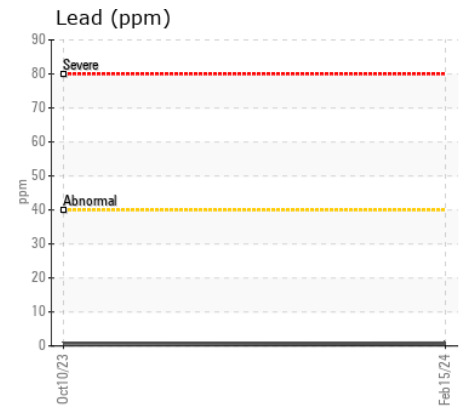
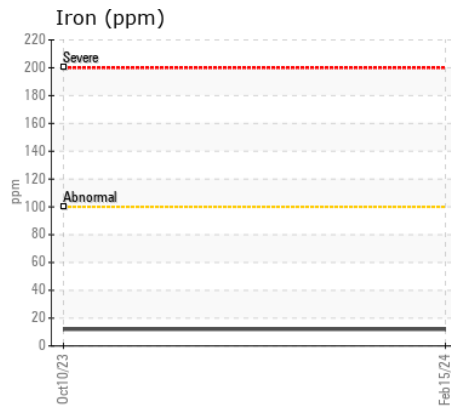
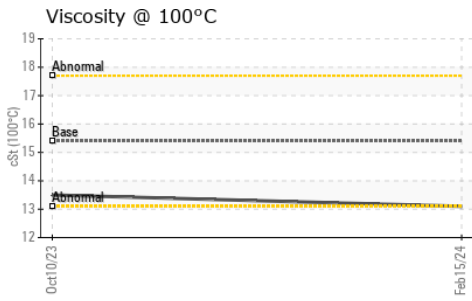
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	3	4	---
Potassium	ppm	ASTM D5185(m)	>20	9	14	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	ASTM D7844*	>3	0.2	0	---
Nitration	Abs/cm	ASTM D7624*	>20	8.1	6.3	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.2	19.0	---
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	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	---

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		4	4	---
Boron	ppm	ASTM D5185(m)	0	1	2	---
Barium	ppm	ASTM D5185(m)	0	0	<1	---
Molybdenum	ppm	ASTM D5185(m)	60	59	61	---
Manganese	ppm	ASTM D5185(m)	0	0	0	---
Magnesium	ppm	ASTM D5185(m)	1010	957	960	---
Calcium	ppm	ASTM D5185(m)	1070	1072	1046	---
Phosphorus	ppm	ASTM D5185(m)	1150	1004	1001	---
Zinc	ppm	ASTM D5185(m)	1270	1173	1189	---
Sulfur	ppm	ASTM D5185(m)	2060	2662	2562	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.1	14.6	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.1	13.5	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0102742 **Received** : 20 Feb 2024
Lab Number : 02616607 **Tested** : 20 Feb 2024
Unique Number : 5733717 **Diagnosed** : 20 Feb 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: Visual)

GFL Environmental - 207 - Pickering SW
 1034 TOY AVENUE, PICKERING YARD
 PICKERING, ON
 CA L1W 3P1
 Contact: Ian Patton
 ipatton@gflenv.com
 T: (905)831-6297
 F: (905)426-3577

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.