

Machine Id
120004
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0119494	GFL0082123	GFL0046727
Sample Date		Client Info		30 May 2024	25 Jul 2023	13 Apr 2023
Machine Age	kms	Client Info		477886	440540	425375
Oil Age	kms	Client Info		13734	15165	9885
Filter Age	kms	Client Info		13734	15165	9885
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	20	17	13
Chromium	ppm	ASTM D5185(m)	>20	<1	1	1
Nickel	ppm	ASTM D5185(m)	>4	<1	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	2	2	2
Lead	ppm	ASTM D5185(m)	>40	0	<1	0
Copper	ppm	ASTM D5185(m)	>330	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>15	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

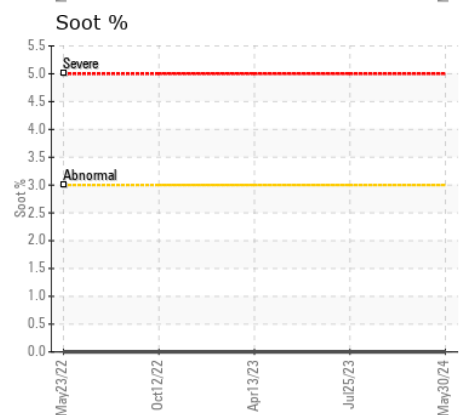
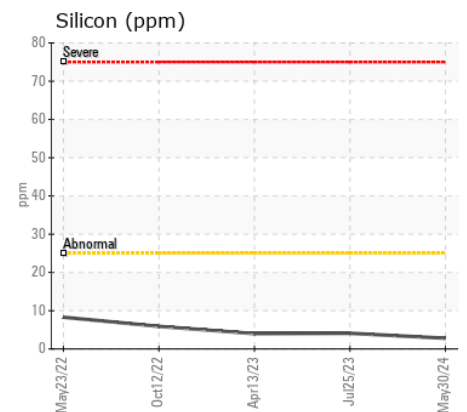
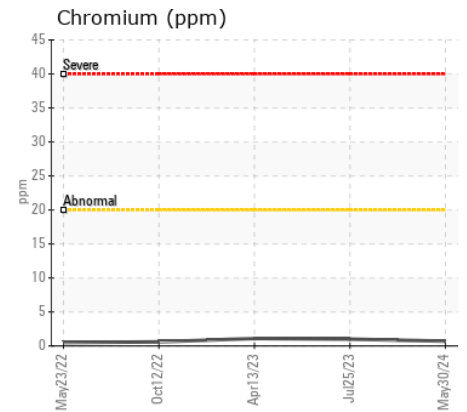
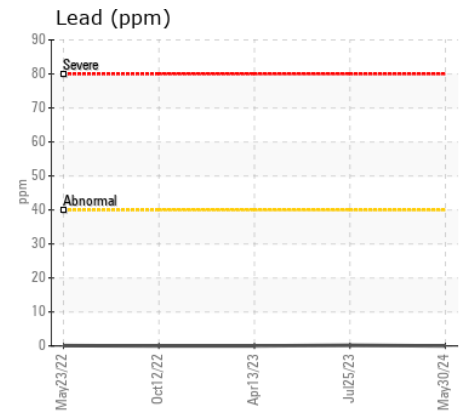
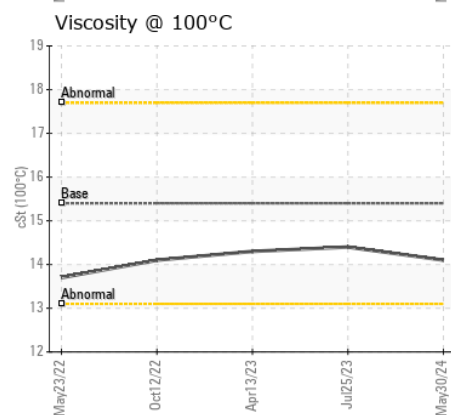
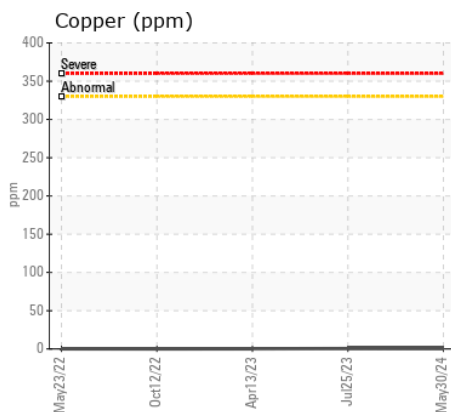
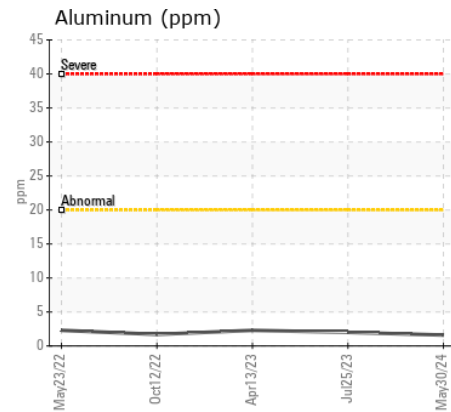
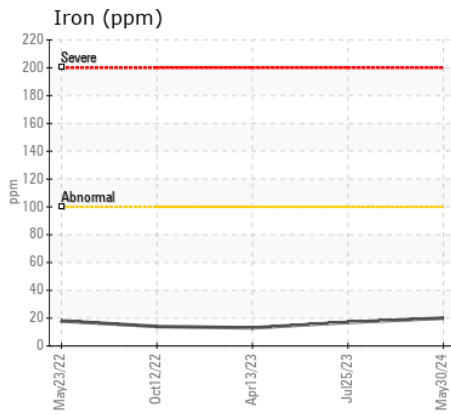
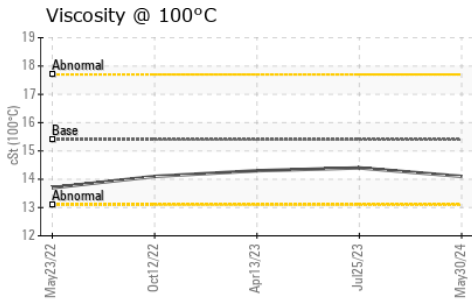
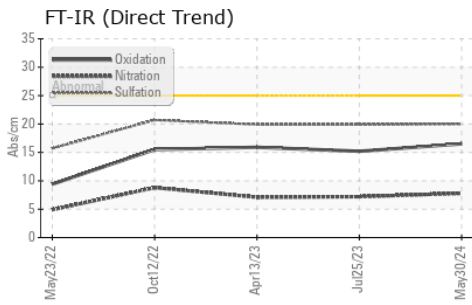
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	3	4	4
Potassium	ppm	ASTM D5185(m)	>20	6	3	2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	7.8	7.2	7.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.0	19.9	19.9
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	VLITE	---	---
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 condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		7	4	4
Boron	ppm	ASTM D5185(m)	0	6	9	15
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	57	56	53
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	959	943	909
Calcium	ppm	ASTM D5185(m)	1070	1117	1113	1221
Phosphorus	ppm	ASTM D5185(m)	1150	965	1047	1037
Zinc	ppm	ASTM D5185(m)	1270	1201	1161	1131
Sulfur	ppm	ASTM D5185(m)	2060	2486	2464	2559
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.5	15.2	15.9
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	14.1	14.4	14.3



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0119494
Lab Number : 02644791
Unique Number : 5802330
Test Package : MOB 1 (Additional Tests: Visual)

GFL Environmental - 582 - Nanaimo
 3469 Aqua Terra Rd.,
 Cassidy, BC
 CA V0R 1H0
 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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