



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
4458
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (40 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0059110	GFL0059055	GFL0012164
Sample Date		Client Info		02 Jan 2024	27 Sep 2022	21 Oct 2020
Machine Age	hrs	Client Info		49067	600	8469
Oil Age	hrs	Client Info		600	600	0
Filter Age	hrs	Client Info		600	600	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	27	17	5
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	0	<1
Titanium	ppm	ASTM D5185(m)		0	<1	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	4	9	1
Lead	ppm	ASTM D5185(m)	>40	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>330	4	1	1
Tin	ppm	ASTM D5185(m)	>15	<1	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

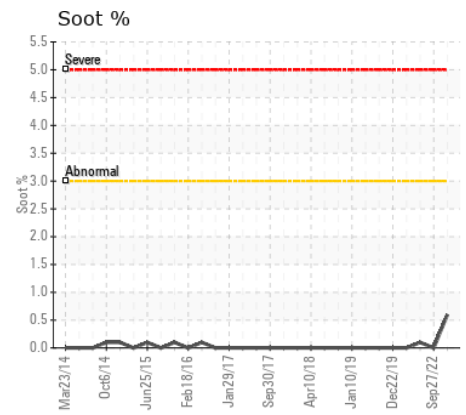
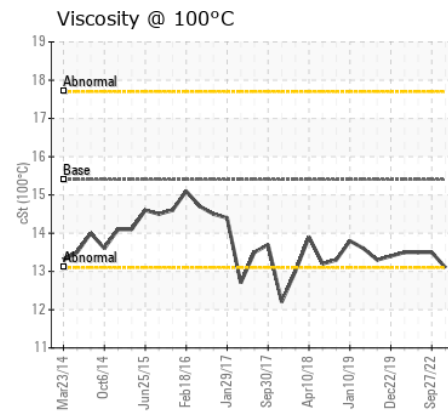
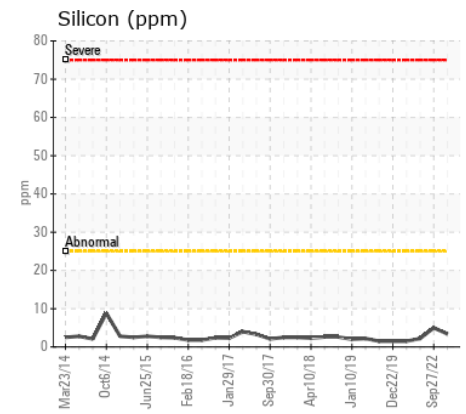
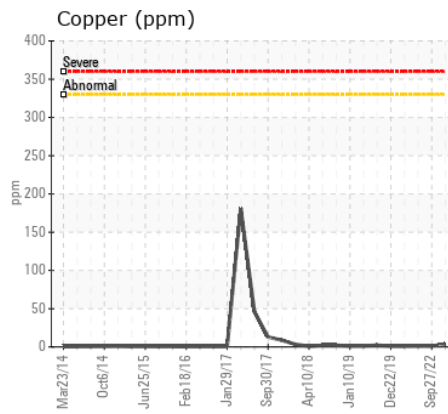
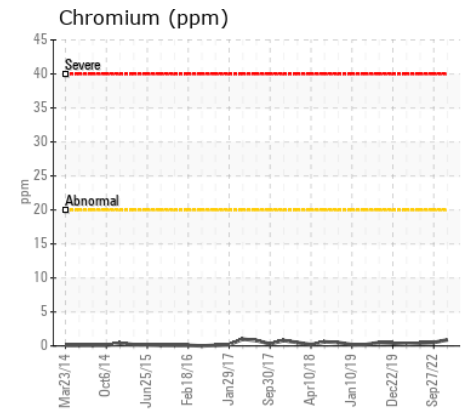
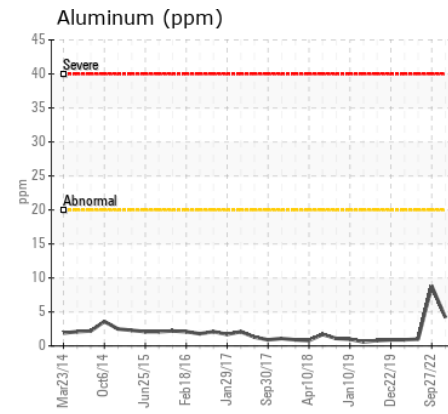
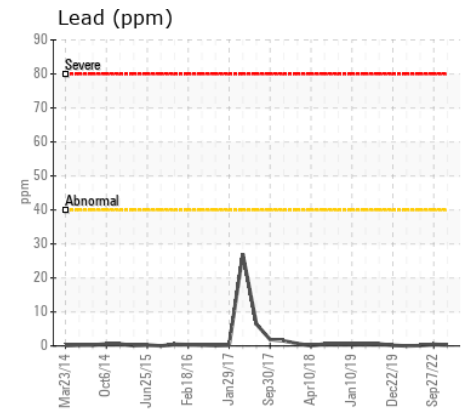
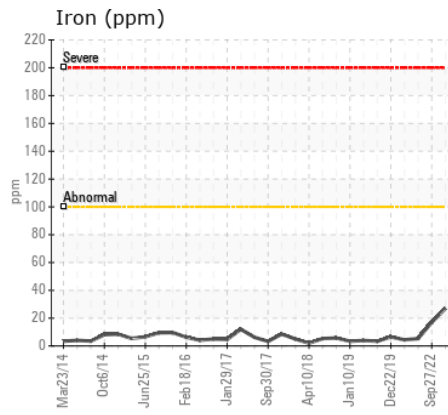
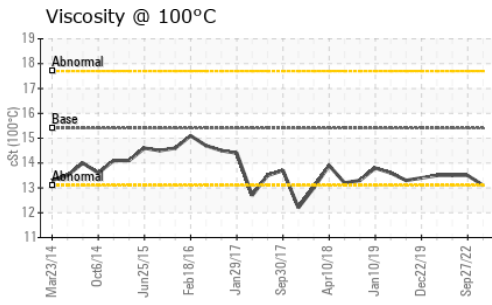
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	3	5	2
Potassium	ppm	ASTM D5185(m)	>20	2	2	<1
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	0.6	0	0.1
Nitration	Abs/cm	ASTM D7624*	>20	7.4	5.8	6.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.5	18.3	18.4
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)		2	8	2
Boron	ppm	ASTM D5185(m)	0	5	12	2
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	58	58	55
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	932	926	917
Calcium	ppm	ASTM D5185(m)	1070	1014	1052	1001
Phosphorus	ppm	ASTM D5185(m)	1150	980	1043	944
Zinc	ppm	ASTM D5185(m)	1270	1137	1167	1213
Sulfur	ppm	ASTM D5185(m)	2060	2566	2635	2541
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.2	13.4	13.8
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.1	13.5	13.5



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 570 - Thunder Bay**
Sample No. : GFL0059110 **Received** : 12 Jan 2024 3000 Highway 61,
Lab Number : 02608347 **Diagnosed** : 15 Jan 2024 Slate River, ON
Unique Number : 5709433 **Diagnostician** : Wes Davis CA P7J 0G8
Test Package : MOB 1

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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