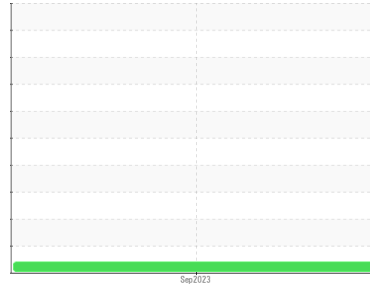




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
923003

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as PETRO CANADA DURON SHP 15W40, however, a fluid match indicates that this fluid is SAE 30 Diesel Engine Oil. Please confirm the oil type and grade on your next sample.

Wear

All component wear rates are normal.

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.

Fluid Condition

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0064788	---	---
Sample Date	Client Info		20 Sep 2023	---	---
Machine Age	hrs	Client Info	4538	---	---
Oil Age	hrs	Client Info	600	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	---	---
Glycol	WC Method		NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >100	15	---	---
Chromium	ppm	ASTM D5185(m) >20	<1	---	---
Nickel	ppm	ASTM D5185(m) >4	<1	---	---
Titanium	ppm	ASTM D5185(m)	<1	---	---
Silver	ppm	ASTM D5185(m) >3	0	---	---
Aluminum	ppm	ASTM D5185(m) >20	4	---	---
Lead	ppm	ASTM D5185(m) >40	<1	---	---
Copper	ppm	ASTM D5185(m) >330	5	---	---
Tin	ppm	ASTM D5185(m) >15	0	---	---
Antimony	ppm	ASTM D5185(m)	0	---	---
Vanadium	ppm	ASTM D5185(m)	0	---	---
Beryllium	ppm	ASTM D5185(m)	0	---	---
Cadmium	ppm	ASTM D5185(m)	0	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 0	45	---	---
Barium	ppm	ASTM D5185(m) 0	0	---	---
Molybdenum	ppm	ASTM D5185(m) 60	81	---	---
Manganese	ppm	ASTM D5185(m) 0	<1	---	---
Magnesium	ppm	ASTM D5185(m) 1010	83	---	---
Calcium	ppm	ASTM D5185(m) 1070	2105	---	---
Phosphorus	ppm	ASTM D5185(m) 1150	1087	---	---
Zinc	ppm	ASTM D5185(m) 1270	1173	---	---
Sulfur	ppm	ASTM D5185(m) 2060	3316	---	---
Lithium	ppm	ASTM D5185(m)	<1	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	5	---	---
Sodium	ppm	ASTM D5185(m)	4	---	---
Potassium	ppm	ASTM D5185(m) >20	6	---	---

INFRA-RED

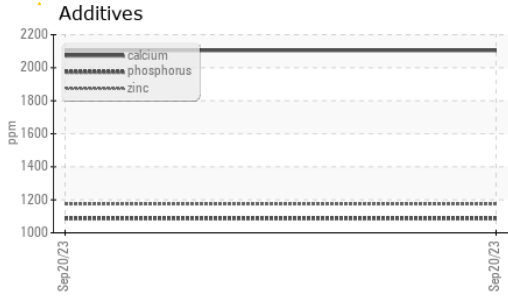
	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	0.4	---	---
Nitration	Abs/cm	ASTM D7624* >20	9.6	---	---
Sulfation	Abs/.1mm	ASTM D7415* >30	19.5	---	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	14.5	---	---



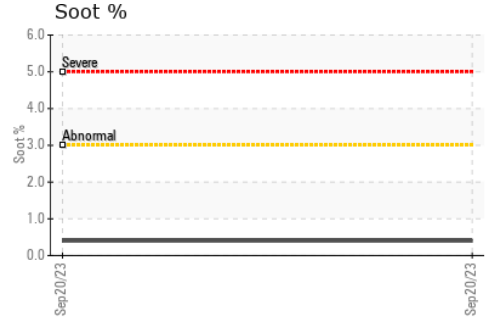
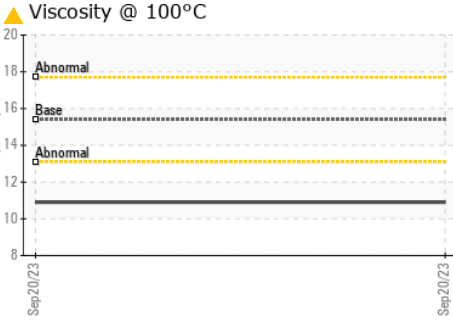
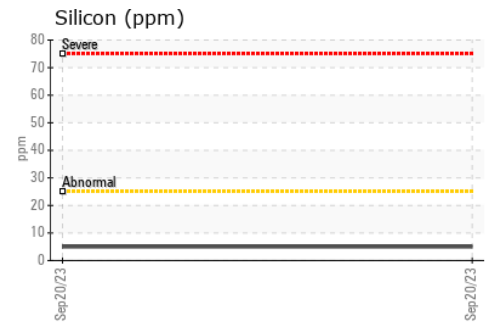
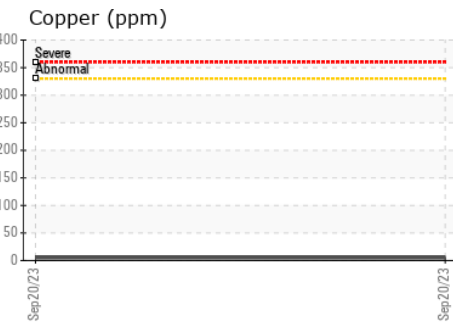
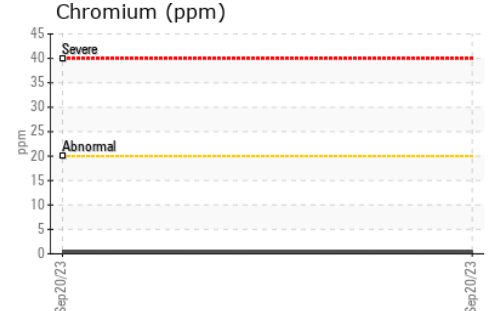
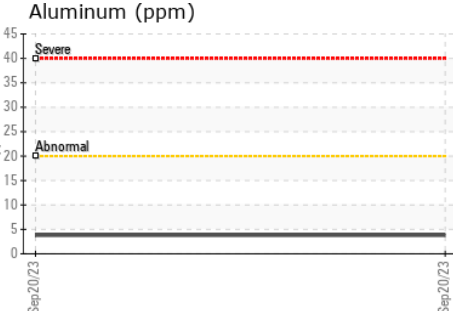
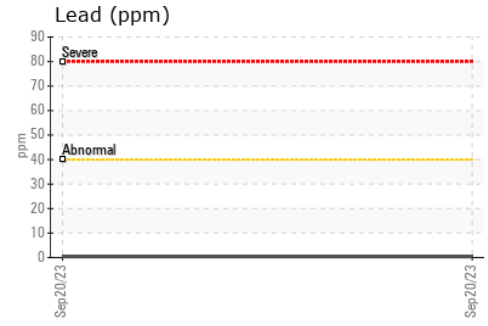
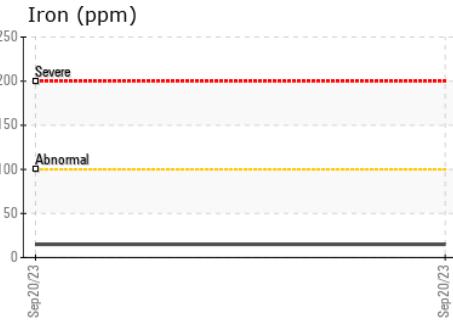
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	---
Free Water	scalar	Visual*		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 10.9	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 213 - Kitchener**
Sample No. : GFL0064788 **Received** : 21 Sep 2023 **16 Centennial Road, Kitchener Yard**
Lab Number : 02584331 **Diagnosed** : 22 Sep 2023 **Kitchener, ON**
Unique Number : 5645396 **Diagnostician** : Bill Quesnel **CA N2B 3G1**
Test Package : MOB 1 **Contact:** Keith Zehr

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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