



OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
213032

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 10W30 (--- LTR)



DIAGNOSIS

Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

Wear

Metal levels are typical for a components first oil change.

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

Additive levels indicate the addition of a different brand, or type of oil. Viscosity of sample indicates oil is within SAE 40 range, advise investigate. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0101718	---	---
Sample Date	Client Info		20 Nov 2023	---	---
Machine Age	hrs	Client Info	392	---	---
Oil Age	hrs	Client Info	392	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			NORMAL	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	---	---
Water	WC Method	>0.2	NEG	---	---
Glycol	WC Method		NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>80	75	---
Chromium	ppm	ASTM D5185(m)	>5	1	---
Nickel	ppm	ASTM D5185(m)	>2	<1	---
Titanium	ppm	ASTM D5185(m)		0	---
Silver	ppm	ASTM D5185(m)	>3	<1	---
Aluminum	ppm	ASTM D5185(m)	>30	8	---
Lead	ppm	ASTM D5185(m)	>30	2	---
Copper	ppm	ASTM D5185(m)	>150	65	---
Tin	ppm	ASTM D5185(m)	>5	<1	---
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)	2	52	---
Barium	ppm	ASTM D5185(m)	0	8	---
Molybdenum	ppm	ASTM D5185(m)	50	44	---
Manganese	ppm	ASTM D5185(m)	0	5	---
Magnesium	ppm	ASTM D5185(m)	950	560	---
Calcium	ppm	ASTM D5185(m)	1050	1626	---
Phosphorus	ppm	ASTM D5185(m)	995	717	---
Zinc	ppm	ASTM D5185(m)	1180	892	---
Sulfur	ppm	ASTM D5185(m)	2600	1933	---
Lithium	ppm	ASTM D5185(m)		<1	---

CONTAMINANTS

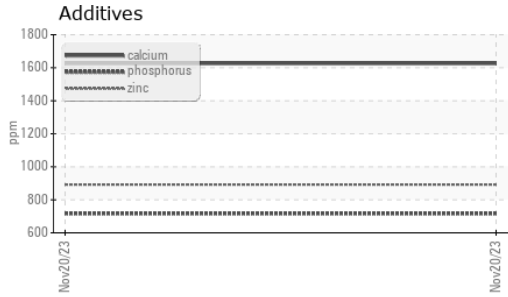
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	25	---
Sodium	ppm	ASTM D5185(m)		6	---
Potassium	ppm	ASTM D5185(m)	>20	8	---

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0.1	---
Nitration	Abs/cm	ASTM D7624*	>20	8.5	---
Sulfation	Abs./1mm	ASTM D7415*	>30	23.5	---



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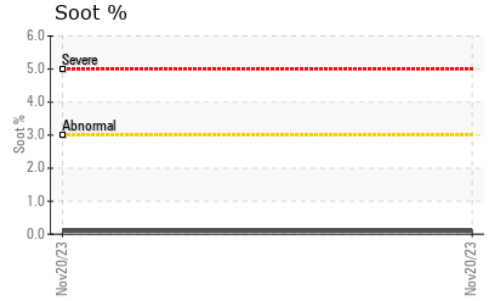
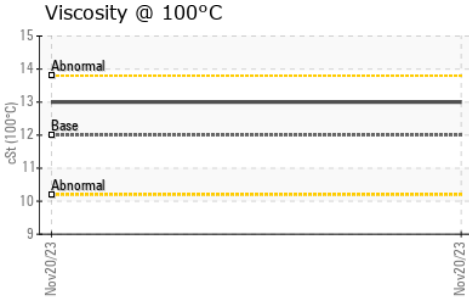
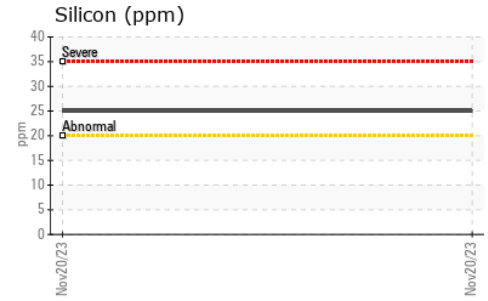
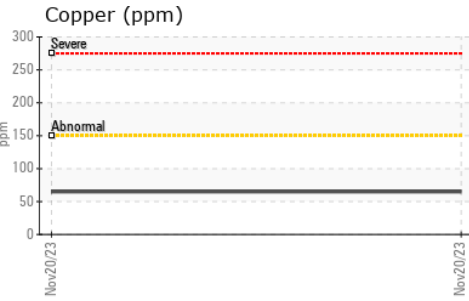
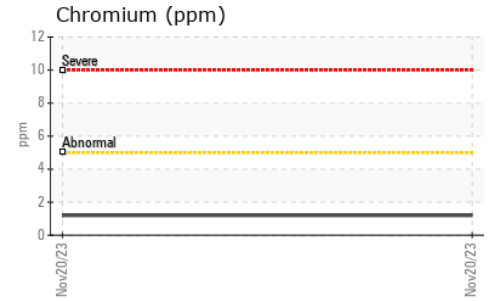
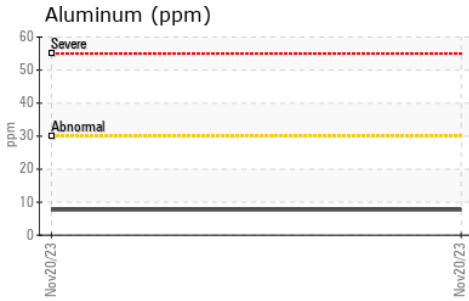
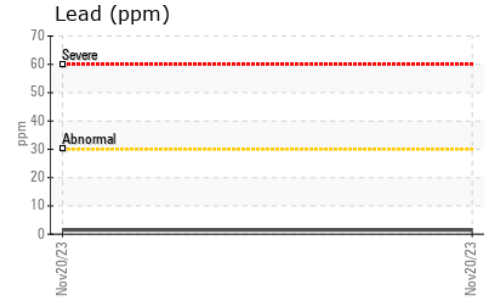
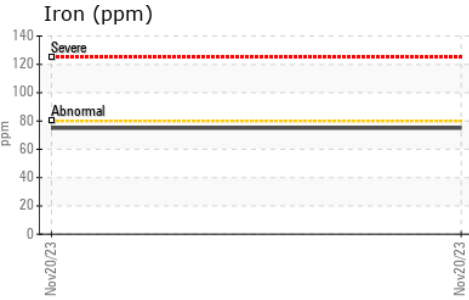
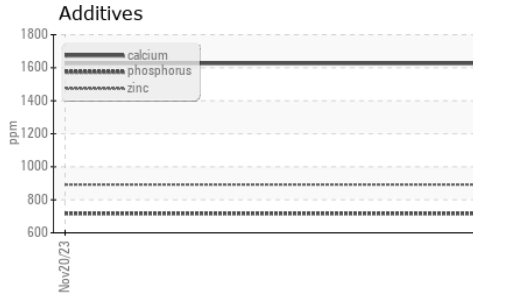


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	22.6	---	---

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)	12.00	13.0	---	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 554 - Edmonton SW**
Sample No. : GFL0101718 **Received** : 24 Nov 2023 **8409 -15th Street NW**
Lab Number : **02598764** **Diagnosed** : 24 Nov 2023 **Edmonton, AB**
Unique Number : 5683844 **Diagnostician** : Kevin Marson **CA T6P 0B8**
Test Package : MOB 1 **Contact:** Tim Greig **tgreig@gflenv.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.