



OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id

710036

Component

Diesel Engine

Fluid

PETRO CANADA DURON SAE 15W40 (--- GAL)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. No other corrective action is recommended at this time. The fluid was specified as PETRO CANADA DURON SAE 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. Light fuel dilution occurring. No other contaminants were detected 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		GFL0088356	---	---
Sample Date	Client Info		03 May 2024	---	---
Machine Age	hrs	Client Info	3775	---	---
Oil Age	hrs	Client Info	600	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	---	---
Glycol	WC Method		NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >100	37	---	---
Chromium	ppm	ASTM D5185(m) >20	2	---	---
Nickel	ppm	ASTM D5185(m) >4	<1	---	---
Titanium	ppm	ASTM D5185(m)	0	---	---
Silver	ppm	ASTM D5185(m) >3	0	---	---
Aluminum	ppm	ASTM D5185(m) >20	5	---	---
Lead	ppm	ASTM D5185(m) >40	0	---	---
Copper	ppm	ASTM D5185(m) >330	3	---	---
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) 1	1	---	---
Barium	ppm	ASTM D5185(m) 1	0	---	---
Molybdenum	ppm	ASTM D5185(m) 60	9	---	---
Manganese	ppm	ASTM D5185(m) 1	<1	---	---
Magnesium	ppm	ASTM D5185(m) 1010	156	---	---
Calcium	ppm	ASTM D5185(m) 1070	2234	---	---
Phosphorus	ppm	ASTM D5185(m) 1150	864	---	---
Zinc	ppm	ASTM D5185(m) 1270	1064	---	---
Sulfur	ppm	ASTM D5185(m) 2060	2776	---	---
Lithium	ppm	ASTM D5185(m)	<1	---	---

CONTAMINANTS

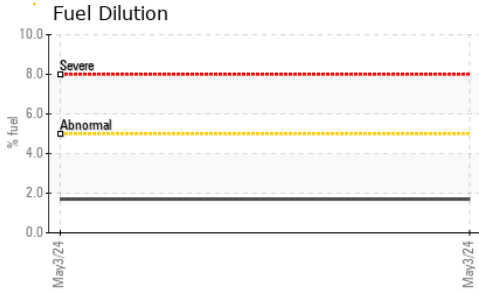
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	6	---	---
Sodium	ppm	ASTM D5185(m)	2	---	---
Potassium	ppm	ASTM D5185(m) >20	6	---	---
Fuel	%	ASTM D7593* >5	1.7	---	---

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	0.4	---	---
Nitration	Abs/cm	ASTM D7624* >20	9.3	---	---
Sulfation	Abs.1mm	ASTM D7415* >30	22.9	---	---



OIL ANALYSIS REPORT



FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs./1mm ASTM D7414*	>25	15.6	---	---

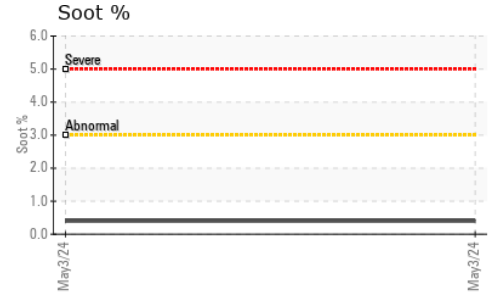
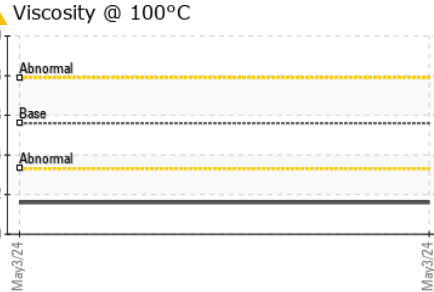
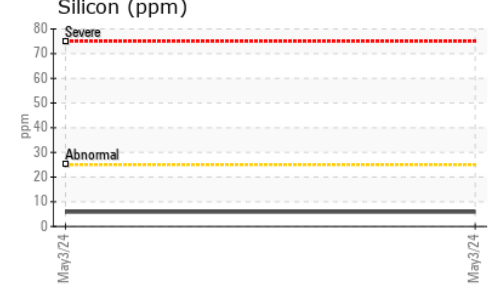
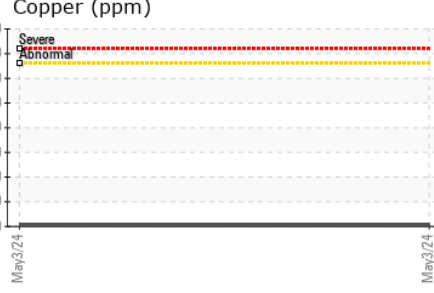
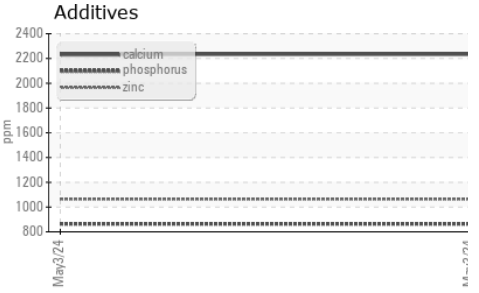
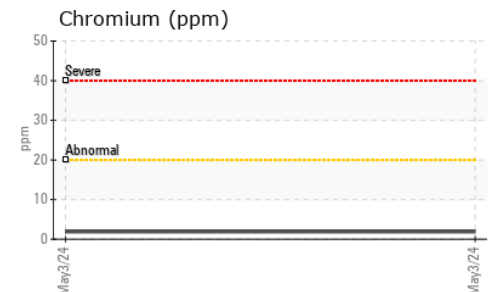
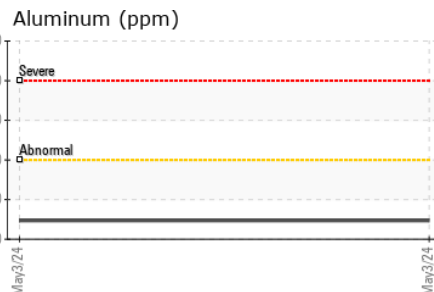
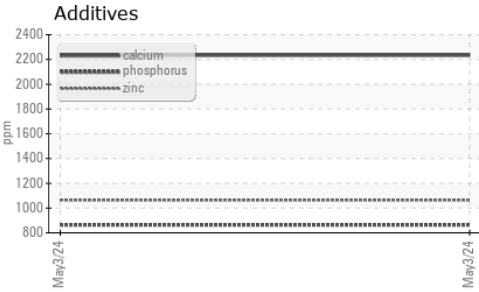
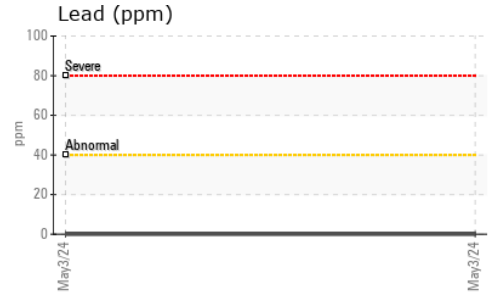
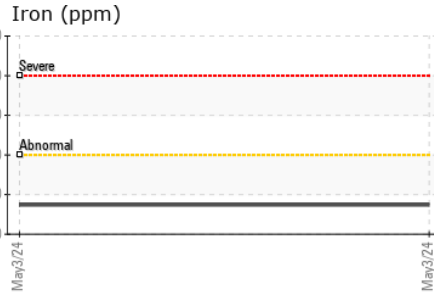
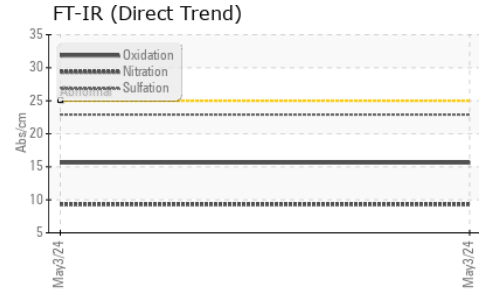
VISUAL

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)	15.6	▲ 11.6	---	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0088356 **Received** : 08 May 2024
Lab Number : 02633995 **Tested** : 09 May 2024
Unique Number : 5775148 **Diagnosed** : 09 May 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 508
 1926 hWY 17 West
 North Bay, ON
 CA P1B 2H3
 Contact: Angele Labonte
 angele.labonte@gflenv.com
 T: (705)472-1768
 F:

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.