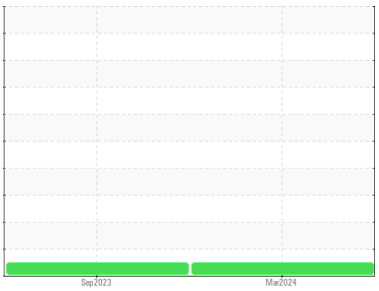
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
812089
Component
Diesel Engine
Fluid
PETRO CANADA DURON CLASSIC 15W40 (--- GAL)

DIAGNOSIS

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

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
Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0088351**	GFL0088347	---
Sample Date		Client Info		**05 Mar 2024**	28 Sep 2023	---
Machine Age	hrs	Client Info		**2810**	2174	---
Oil Age	hrs	Client Info		**0**	600	---
Oil Changed		Client Info		**Changed**	Changed	---
Sample Status				**NORMAL**	NORMAL	---

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	**29**	37	---
Chromium	ppm	ASTM D5185(m)	>20	**<1**	<1	---
Nickel	ppm	ASTM D5185(m)	>4	**<1**	0	---
Titanium	ppm	ASTM D5185(m)		**0**	0	---
Silver	ppm	ASTM D5185(m)	>3	**0**	<1	---
Aluminum	ppm	ASTM D5185(m)	>20	**14**	34	---
Lead	ppm	ASTM D5185(m)	>40	**<1**	0	---
Copper	ppm	ASTM D5185(m)	>330	**<1**	2	---
Tin	ppm	ASTM D5185(m)	>15	**0**	<1	---
Antimony	ppm	ASTM D5185(m)		**0**	0	---
Vanadium	ppm	ASTM D5185(m)		**0**	0	---
Beryllium	ppm	ASTM D5185(m)		**0**	0	---
Cadmium	ppm	ASTM D5185(m)		**0**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	**1**	6	---
Barium	ppm	ASTM D5185(m)	0	**0**	<1	---
Molybdenum	ppm	ASTM D5185(m)	0	**61**	62	---
Manganese	ppm	ASTM D5185(m)	0	**0**	0	---
Magnesium	ppm	ASTM D5185(m)	15	**1001**	976	---
Calcium	ppm	ASTM D5185(m)	2540	**1099**	1092	---
Phosphorus	ppm	ASTM D5185(m)	1000	**1024**	970	---
Zinc	ppm	ASTM D5185(m)	1100	**1211**	1218	---
Sulfur	ppm	ASTM D5185(m)	3800	**2609**	2481	---
Lithium	ppm	ASTM D5185(m)		**<1**	<1	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**5**	5	---
Sodium	ppm	ASTM D5185(m)		**2**	2	---
Potassium	ppm	ASTM D5185(m)	>20	**23**	74	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0.6**	0.7	---
Nitration	Abs/cm	ASTM D7624*	>20	**9.2**	9.6	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	**20.3**	20.8	---

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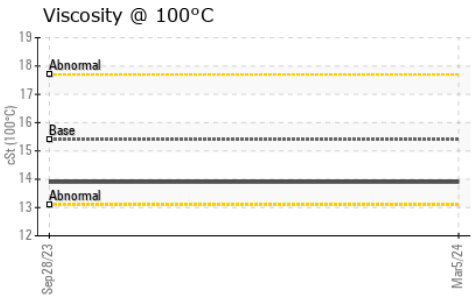
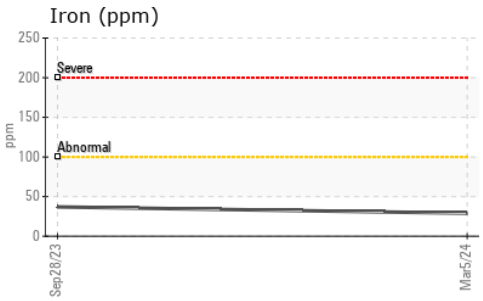


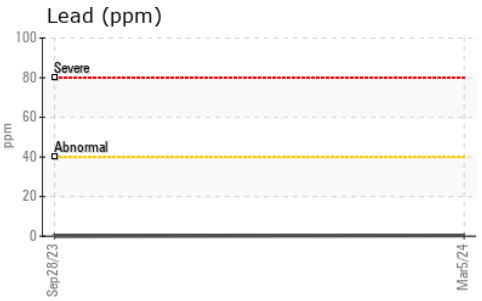
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**16.6**	16.8	---

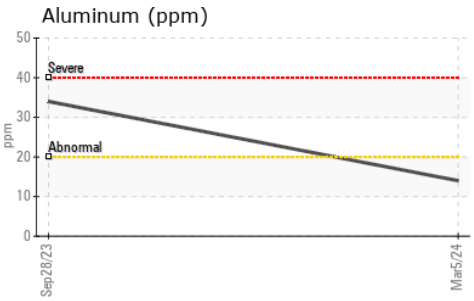
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	---
Free Water	scalar	Visual*		**NEG**	NEG	---

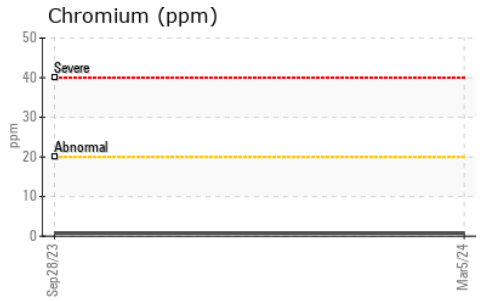
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	**13.9**	13.9	---

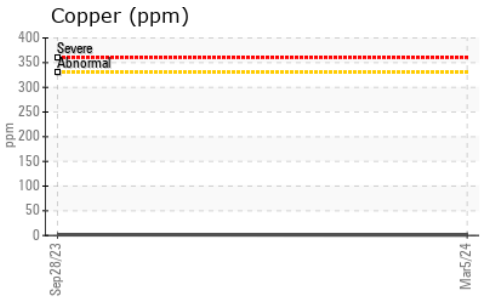
GRAPHS

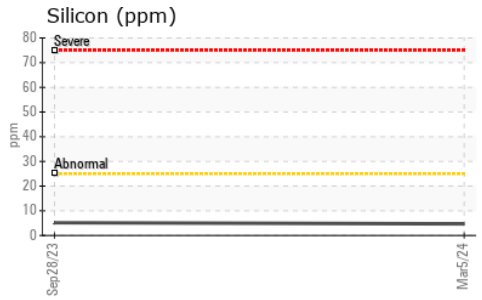


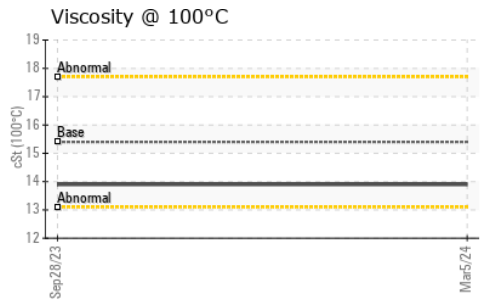


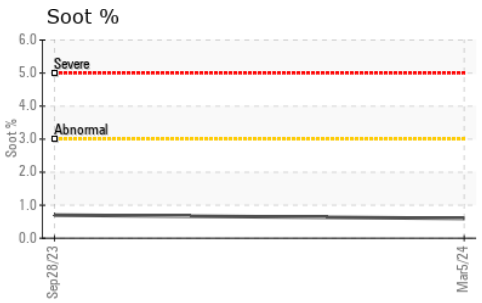












ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0088351
Lab Number : 02620077
Unique Number : 5737187
Test Package : MOB 1

Received : 06 Mar 2024
Tested : 06 Mar 2024
Diagnosed : 06 Mar 2024 - Wes Davis

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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