



WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	SEVERE



Machine Id
920007
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0069935	GFL0059597	---
Sample Date		Client Info		06 Mar 2024	05 Apr 2023	---
Machine Age	hrs	Client Info		7848	6603	---
Oil Age	hrs	Client Info		600	6603	---
Filter Age	hrs	Client Info		0	6603	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				SEVERE	SEVERE	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	32	21	---
Chromium	ppm	ASTM D5185m	>20	<1	<1	---
Nickel	ppm	ASTM D5185m	>5	0	<1	---
Titanium	ppm	ASTM D5185m	>2	<1	0	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>20	2	1	---
Lead	ppm	ASTM D5185m	>40	2	4	---
Copper	ppm	ASTM D5185m	>330	19	277	---
Tin	ppm	ASTM D5185m	>15	1	2	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

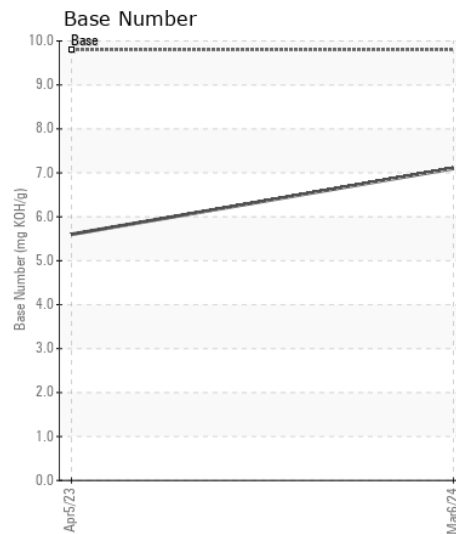
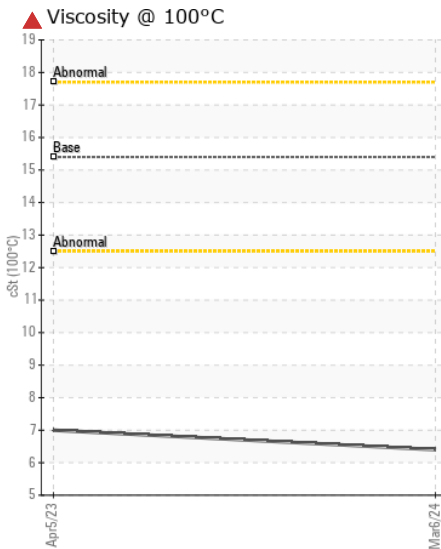
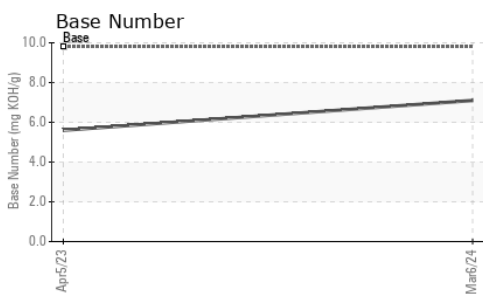
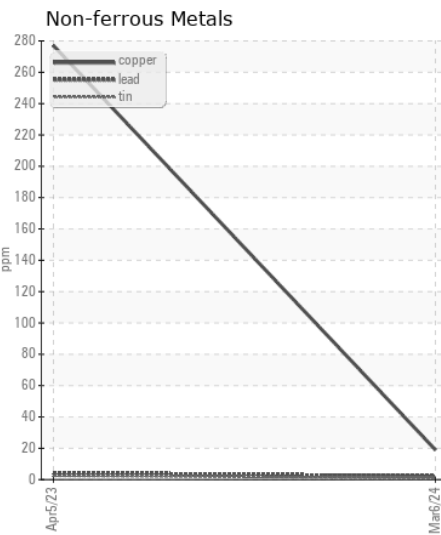
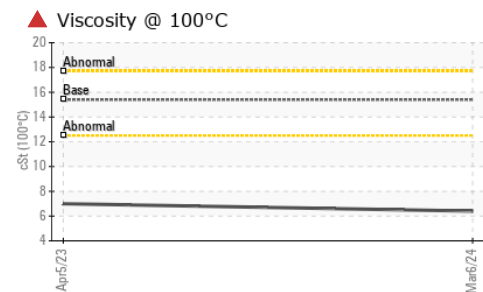
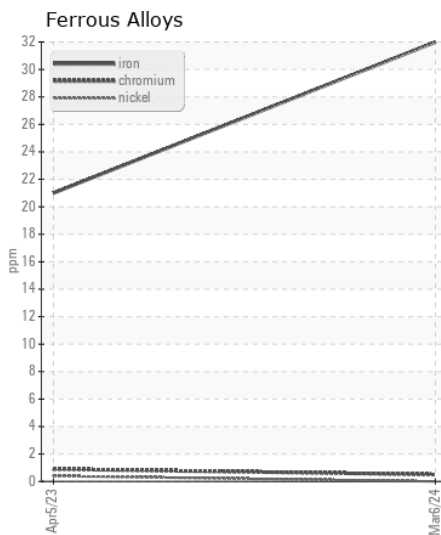
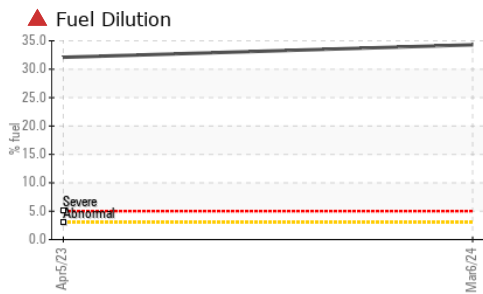
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185m	>25	4	8	---
Potassium	ppm	ASTM D5185m	>20	2	15	---
Fuel	%	ASTM D3524	>3.0	▲ 34.3	▲ 32.1	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>4	0.4	0.2	---
Nitration	Abs/cm	*ASTM D7624	>20	9.6	10.2	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.3	19.2	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		1	16	---
Boron	ppm	ASTM D5185m	0	0	20	---
Barium	ppm	ASTM D5185m	0	0	0	---
Molybdenum	ppm	ASTM D5185m	60	38	21	---
Manganese	ppm	ASTM D5185m	0	<1	<1	---
Magnesium	ppm	ASTM D5185m	1010	606	387	---
Calcium	ppm	ASTM D5185m	1070	695	1018	---
Phosphorus	ppm	ASTM D5185m	1150	681	491	---
Zinc	ppm	ASTM D5185m	1270	816	578	---
Sulfur	ppm	ASTM D5185m	2060	1818	1874	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.3	17.8	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.1	5.6	---
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 6.4	▲ 7	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : GFL0069935

Lab Number : 06125492

Unique Number : 10939643

Test Package : FLEET (Additional Tests: PercentFuel)

Received : 21 Mar 2024

Tested : 26 Mar 2024

Diagnosed : 26 Mar 2024 - Wes Davis

GFL Environmental - 902 - Chilton HC

428 High St

Chilton, WI

US 53014

Contact: Keith Mueller

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F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)