



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
914060
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0086991	GFL0086975	---
Sample Date		Client Info		23 May 2024	08 Mar 2024	---
Machine Age	hrs	Client Info		1639	600	---
Oil Age	hrs	Client Info		339	600	---
Filter Age	hrs	Client Info		339	600	---
Oil Changed		Client Info		Not Changd	Not Changd	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				NORMAL	ATTENTION	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>120	22	37	---
Chromium	ppm	ASTM D5185m	>20	1	1	---
Nickel	ppm	ASTM D5185m	>5	2	2	---
Titanium	ppm	ASTM D5185m	>2	<1	0	---
Silver	ppm	ASTM D5185m	>2	1	0	---
Aluminum	ppm	ASTM D5185m	>20	3	5	---
Lead	ppm	ASTM D5185m	>40	3	1	---
Copper	ppm	ASTM D5185m	>330	234	128	---
Tin	ppm	ASTM D5185m	>15	2	2	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

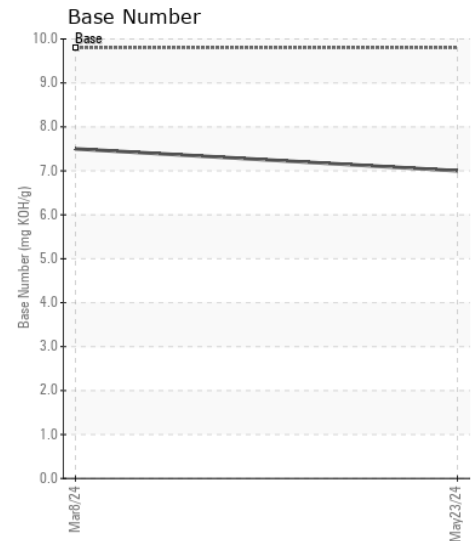
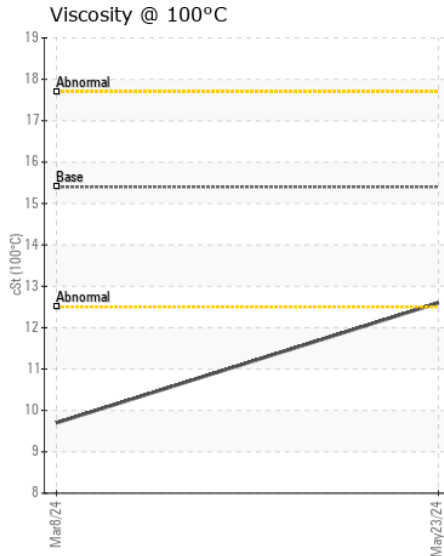
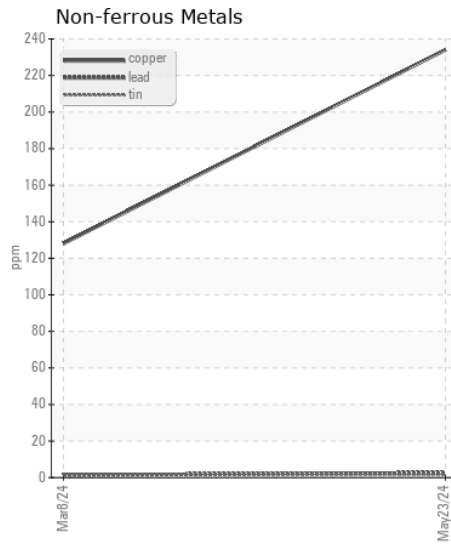
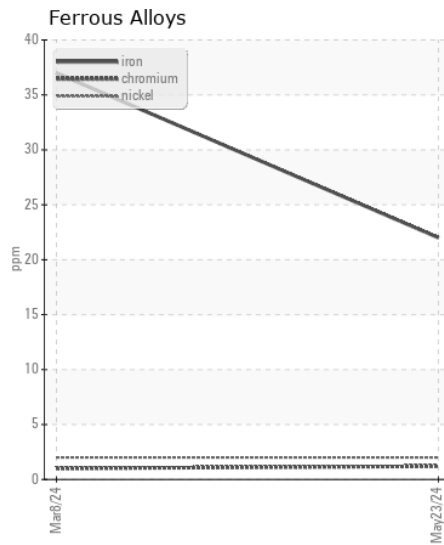
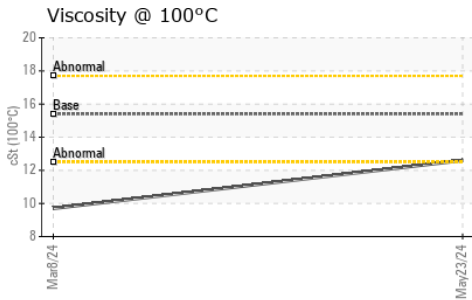
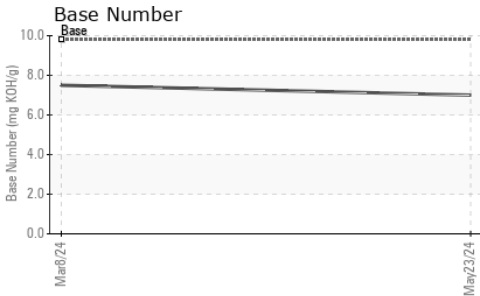
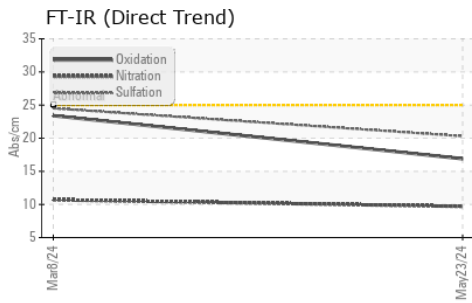
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	11	68	---
Potassium	ppm	ASTM D5185m	>20	10	8	---
Fuel		WC Method	>3.0	<1.0	0.5	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>4	0.5	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	9.7	10.7	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.3	24.5	---
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. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		4	2	---
Boron	ppm	ASTM D5185m	0	10	219	---
Barium	ppm	ASTM D5185m	0	0	1	---
Molybdenum	ppm	ASTM D5185m	60	67	117	---
Manganese	ppm	ASTM D5185m	0	2	6	---
Magnesium	ppm	ASTM D5185m	1010	908	678	---
Calcium	ppm	ASTM D5185m	1070	1151	1474	---
Phosphorus	ppm	ASTM D5185m	1150	1001	664	---
Zinc	ppm	ASTM D5185m	1270	1154	787	---
Sulfur	ppm	ASTM D5185m	2060	2946	2573	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.9	23.4	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.0	7.5	---
Visc @ 100°C	cSt	ASTM D445	15.4	12.6	9.7	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0086991
Lab Number : 06194774
Unique Number : 11056897
Test Package : FLEET

Received : 29 May 2024
Tested : 30 May 2024
Diagnosed : 30 May 2024 - Wes Davis

GFL Environmental - 408 - Brown City
 4235 M-53
 BROWN CITY, MI
 US 48416

Contact: WILLIAM DEOLA
 bdeola@gflenv.com

T: (810)238-2836

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)