



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
(UC16232)
Machine Id
Component
Mack MD
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (17 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0114586	GFL0096499	---
Sample Date		Client Info		12 Jun 2024	20 Mar 2024	---
Machine Age	hrs	Client Info		1155	612	---
Oil Age	hrs	Client Info		543	612	---
Filter Age	hrs	Client Info		543	612	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	ATTENTION	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	44	80	---
Chromium	ppm	ASTM D5185m	>20	2	3	---
Nickel	ppm	ASTM D5185m	>2	<1	1	---
Titanium	ppm	ASTM D5185m	>2	0	<1	---
Silver	ppm	ASTM D5185m	>2	0	<1	---
Aluminum	ppm	ASTM D5185m	>20	4	11	---
Lead	ppm	ASTM D5185m	>40	0	3	---
Copper	ppm	ASTM D5185m	>330	10	47	---
Tin	ppm	ASTM D5185m	>15	<1	3	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

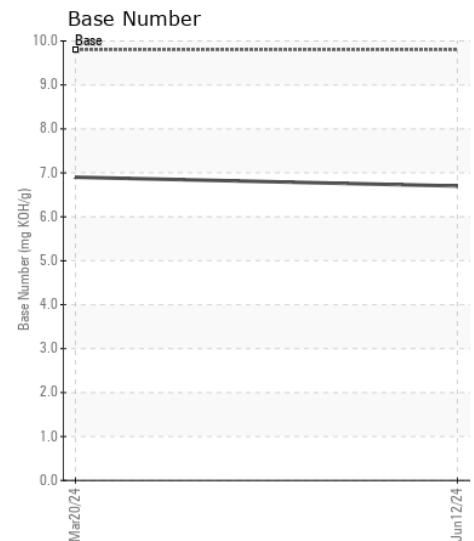
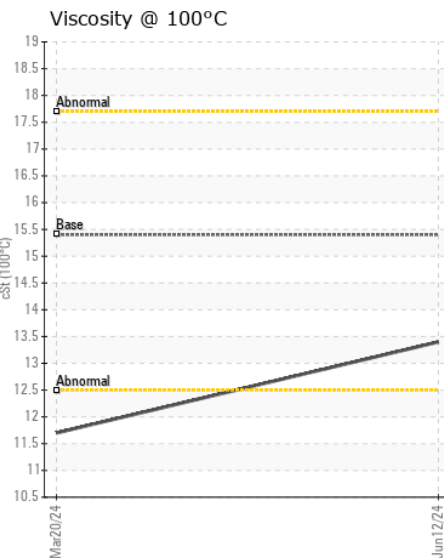
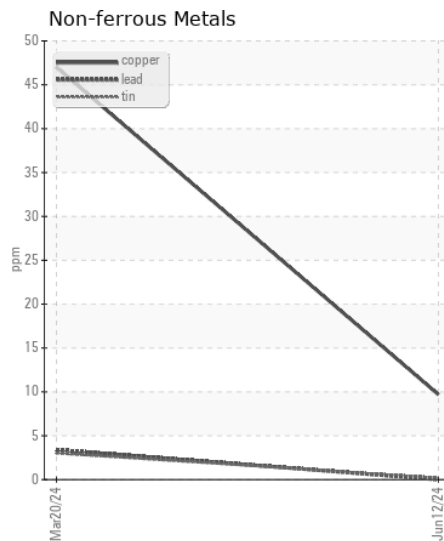
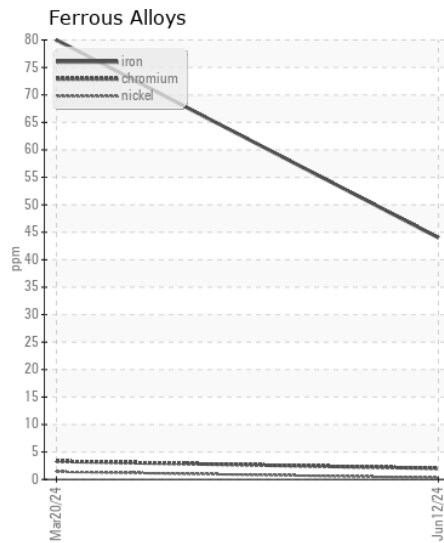
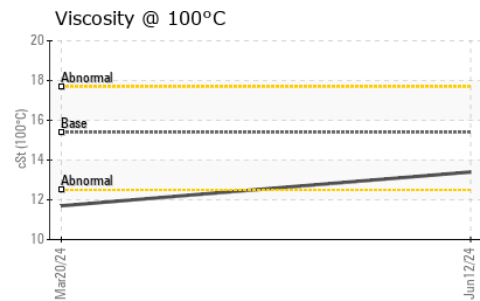
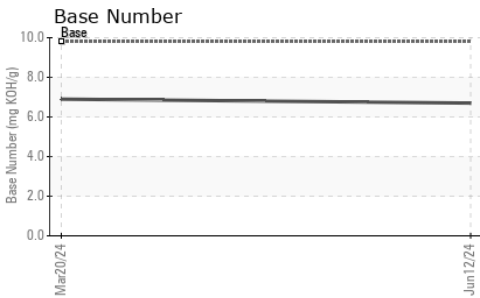
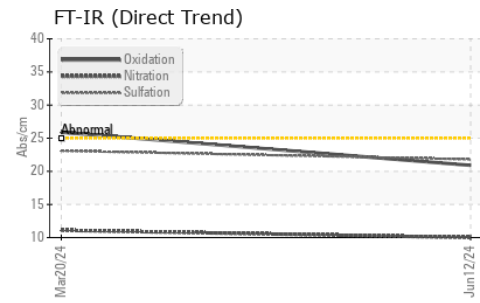
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	13	41	---
Potassium	ppm	ASTM D5185m	>20	5	28	---
Fuel		WC Method	>3.0	<1.0	1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>6	0.5	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	10.0	11.1	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.8	23.1	---
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	8	---
Boron	ppm	ASTM D5185m	0	6	39	---
Barium	ppm	ASTM D5185m	0	0	8	---
Molybdenum	ppm	ASTM D5185m	60	58	48	---
Manganese	ppm	ASTM D5185m	0	2	7	---
Magnesium	ppm	ASTM D5185m	1010	936	575	---
Calcium	ppm	ASTM D5185m	1070	1180	1689	---
Phosphorus	ppm	ASTM D5185m	1150	1009	892	---
Zinc	ppm	ASTM D5185m	1270	1244	954	---
Sulfur	ppm	ASTM D5185m	2060	3057	2482	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.9	25.9	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.7	6.9	---
Visc @ 100°C	cSt	ASTM D445	15.4	13.4	11.7	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0114586
Lab Number : 06212770
Unique Number : 11085634
Test Package : FLEET

Received : 17 Jun 2024
Tested : 19 Jun 2024
Diagnosed : 19 Jun 2024 - Wes Davis

GFL Environmental - 656 - Culpeper Hauling
 15490 Montanus Drive
 Culpeper, VA
 US 22701

Contact: Matt Hanna
 mhanna@gflenv.com

T: (540)727-0887

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)