



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
MACK 923048
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- QTS)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0091679	GFL0036663	---
Sample Date		Client Info		23 Apr 2024	29 Apr 2022	---
Machine Age	hrs	Client Info		13138	98169	---
Oil Age	hrs	Client Info		98169	600	---
Filter Age	hrs	Client Info		0	600	---
Oil Changed		Client Info		N/A	Changed	---
Filter Changed		Client Info		N/A	Changed	---
Sample Status				NORMAL	ABNORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	10	13	---
Chromium	ppm	ASTM D5185m	>20	<1	<1	---
Nickel	ppm	ASTM D5185m	>5	2	1	---
Titanium	ppm	ASTM D5185m	>2	<1	<1	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>20	6	7	---
Lead	ppm	ASTM D5185m	>40	<1	1	---
Copper	ppm	ASTM D5185m	>330	41	2	---
Tin	ppm	ASTM D5185m	>15	<1	1	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	LIGHT	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

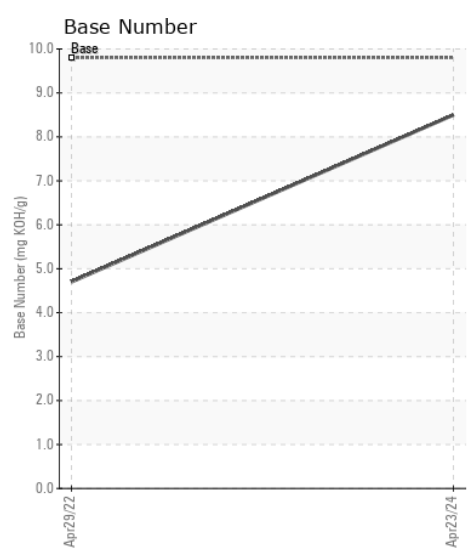
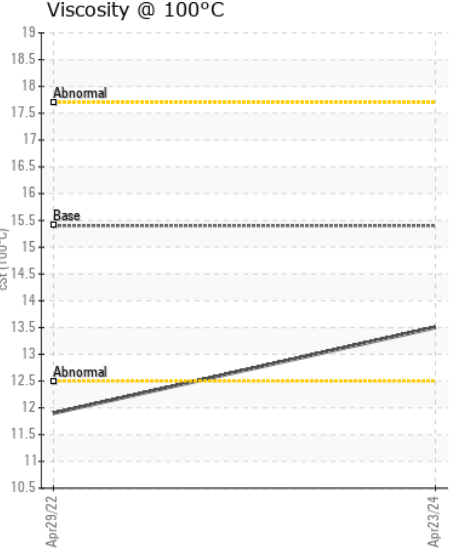
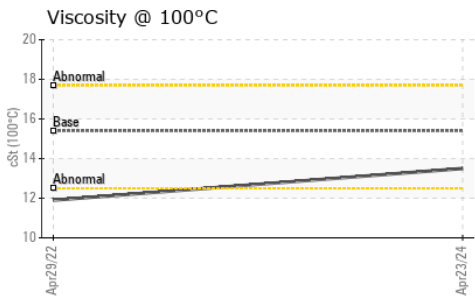
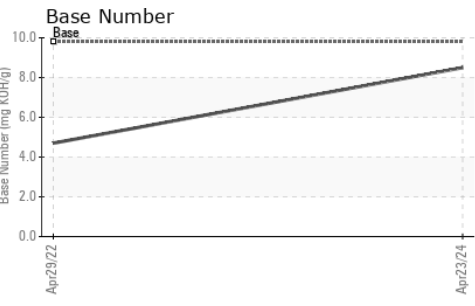
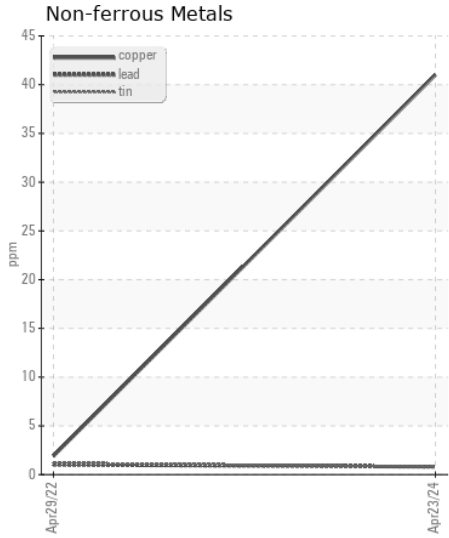
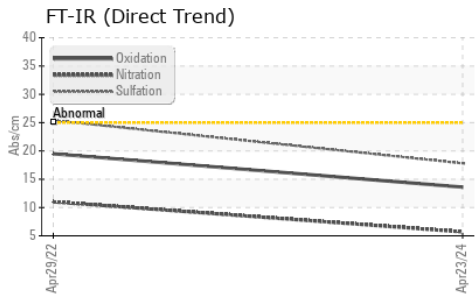
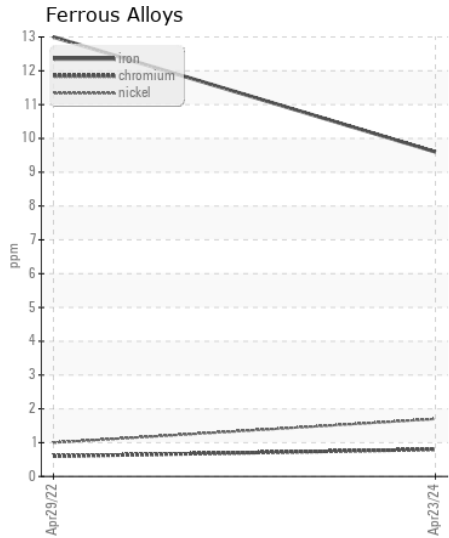
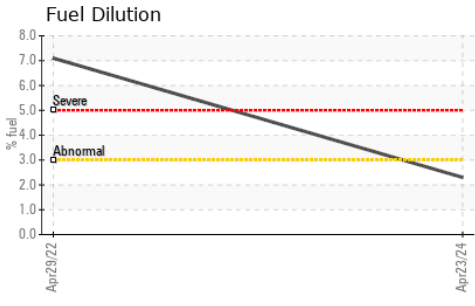
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>25	8	6	---
Potassium	ppm	ASTM D5185m	>20	11	▲ 46	---
Fuel	%	ASTM D3524	>3.0	2.3	▲ 7.1	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>4	0.1	0.2	---
Nitration	Abs/cm	*ASTM D7624	>20	5.7	11.0	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.8	25.4	---
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		6	12	---
Boron	ppm	ASTM D5185m	0	1	12	---
Barium	ppm	ASTM D5185m	0	0	0	---
Molybdenum	ppm	ASTM D5185m	60	57	36	---
Manganese	ppm	ASTM D5185m	0	<1	<1	---
Magnesium	ppm	ASTM D5185m	1010	920	514	---
Calcium	ppm	ASTM D5185m	1070	1040	1419	---
Phosphorus	ppm	ASTM D5185m	1150	1094	887	---
Zinc	ppm	ASTM D5185m	1270	1190	1156	---
Sulfur	ppm	ASTM D5185m	2060	3562	2542	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.6	19.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.5	4.7	---
Visc @ 100°C	cSt	ASTM D445	15.4	13.5	▲ 11.9	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0091679 **Received** : 25 Apr 2024
Lab Number : 06161076 **Tested** : 29 Apr 2024
Unique Number : 10996499 **Diagnosed** : 29 Apr 2024 - Wes Davis
Test Package : FLEET (Additional Tests: PercentFuel)

GFL Environmental - 036 - North Wilksboro
 489 Boone Trail
 Wilkesboro, NC
 US 28659
 Contact: JAMES KRESGE
 jkresge@gflenv.com

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)