

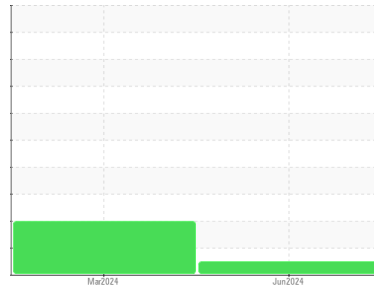


OIL ANALYSIS REPORT



Area
(GGJ473)
Machine Id
934030
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

Sample Rating Trend



NORMAL



DIAGNOSIS

Recommendation

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

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0122661	GFL0103435	---
Sample Date	Client Info		25 Jun 2024	20 Mar 2024	---
Machine Age	hrs	Client Info	1144	1144	---
Oil Age	hrs	Client Info	757	1144	---
Oil Changed	Client Info		Not Changed	Changed	---
Sample Status			NORMAL	ABNORMAL	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	27	▲ 67	---
Chromium	ppm	ASTM D5185m >4	2	3	---
Nickel	ppm	ASTM D5185m >2	<1	3	---
Titanium	ppm	ASTM D5185m	<1	<1	---
Silver	ppm	ASTM D5185m >3	0	<1	---
Aluminum	ppm	ASTM D5185m >9	21	38	---
Lead	ppm	ASTM D5185m >30	1	3	---
Copper	ppm	ASTM D5185m >35	5	25	---
Tin	ppm	ASTM D5185m >4	<1	2	---
Vanadium	ppm	ASTM D5185m	<1	<1	---
Cadmium	ppm	ASTM D5185m	0	<1	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	2	4	---
Barium	ppm	ASTM D5185m 0	0	3	---
Molybdenum	ppm	ASTM D5185m 60	71	69	---
Manganese	ppm	ASTM D5185m 0	3	17	---
Magnesium	ppm	ASTM D5185m 1010	1047	932	---
Calcium	ppm	ASTM D5185m 1070	1302	1275	---
Phosphorus	ppm	ASTM D5185m 1150	1062	944	---
Zinc	ppm	ASTM D5185m 1270	1436	1099	---
Sulfur	ppm	ASTM D5185m 2060	3351	2558	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	9	32	---
Sodium	ppm	ASTM D5185m	8	7	---
Potassium	ppm	ASTM D5185m >20	46	109	---

INFRA-RED

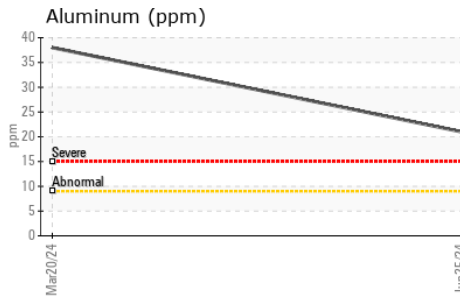
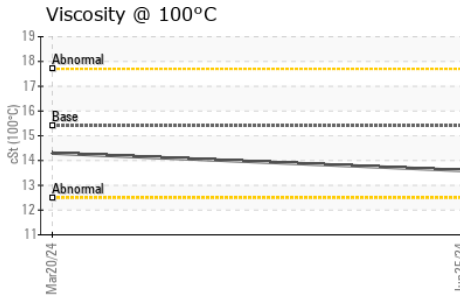
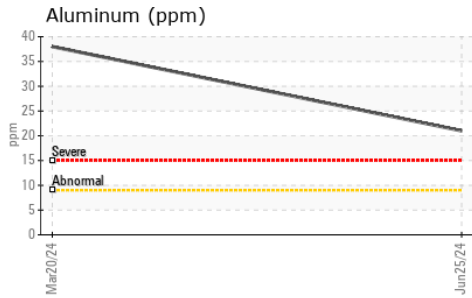
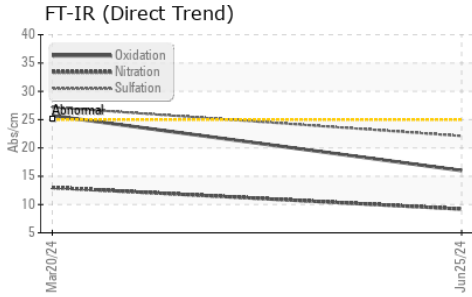
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0	0	---
Nitration	Abs/cm	*ASTM D7624 >20	9.2	13.0	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	22.1	27.2	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	16.0	25.7	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	4.8	▲ 2.5	---



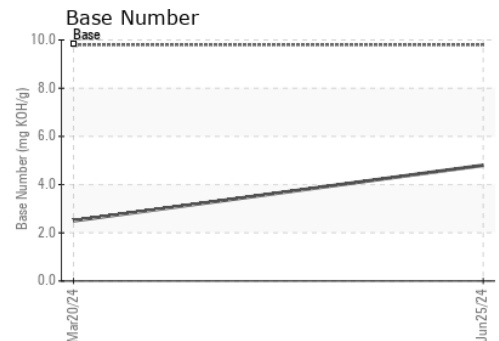
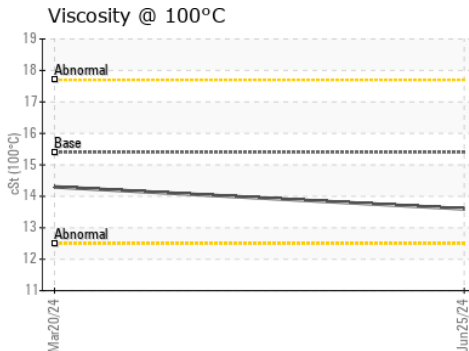
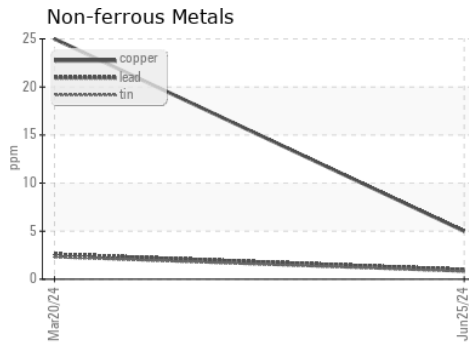
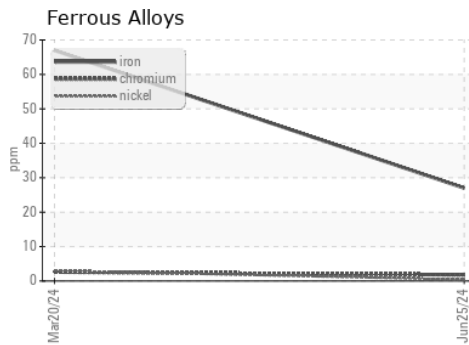
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	13.6	14.3	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0122661
Lab Number : 06223353
Unique Number : 11101550
Test Package : FLEET

Received : 28 Jun 2024
Tested : 01 Jul 2024
Diagnosed : 01 Jul 2024 - Wes Davis

GFL Environmental - 095 - Atlanta West
 2699 Cochran Industrial Blvd
 Douglasville, GA
 US 30127-1332
 Contact: Darrell Welch
 darrell.welch@gflenv.com
 T: (800)207-6618
 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)