



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**934083**  
 Component  
**Natural Gas Engine**  
 Fluid  
**PETRO CANADA 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0121837</b>	GFL0106735	---
Sample Date		Client Info		<b>02 Jul 2024</b>	18 Apr 2024	---
Machine Age	hrs	Client Info		<b>1097</b>	552	---
Oil Age	hrs	Client Info		<b>600</b>	552	---
Filter Age	hrs	Client Info		<b>600</b>	552	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>13</b>	34	---
Chromium	ppm	ASTM D5185m	>4	<b>1</b>	2	---
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	2	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	---
Aluminum	ppm	ASTM D5185m	>9	<b>14</b>	23	---
Lead	ppm	ASTM D5185m	>30	<b>0</b>	2	---
Copper	ppm	ASTM D5185m	>35	<b>3</b>	18	---
Tin	ppm	ASTM D5185m	>4	<b>0</b>	2	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

**CONTAMINATION**

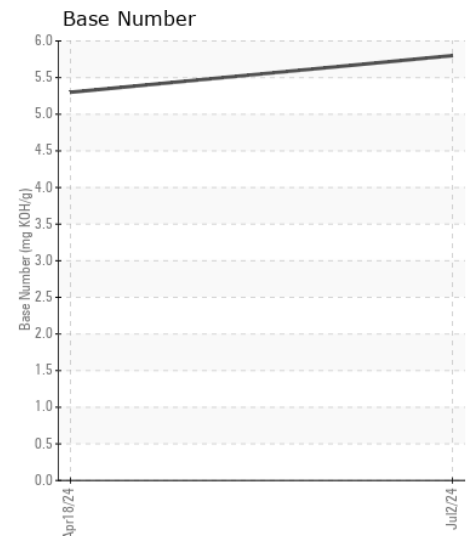
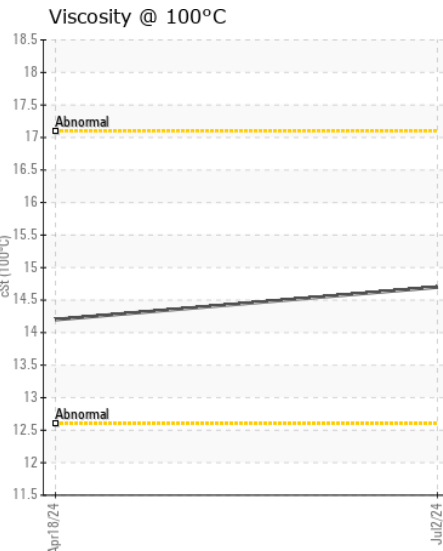
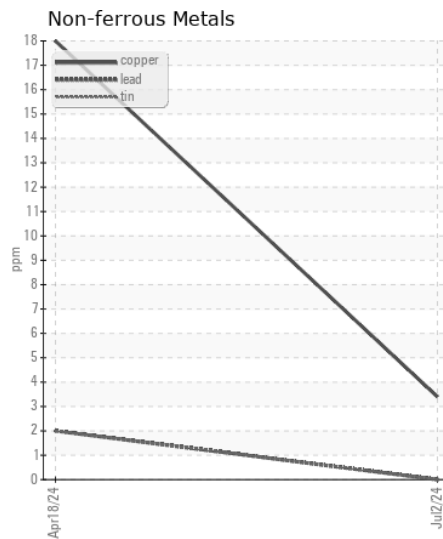
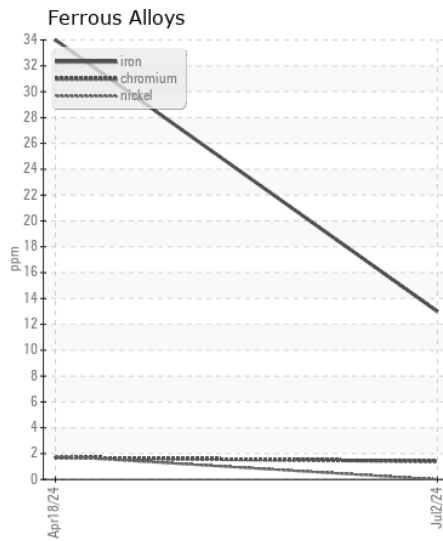
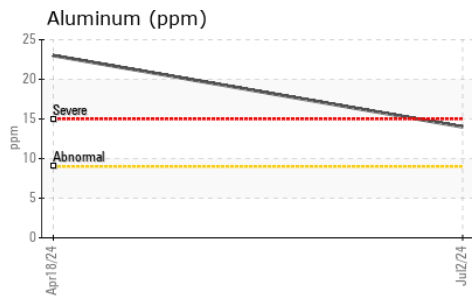
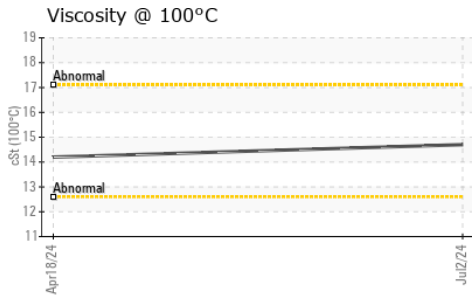
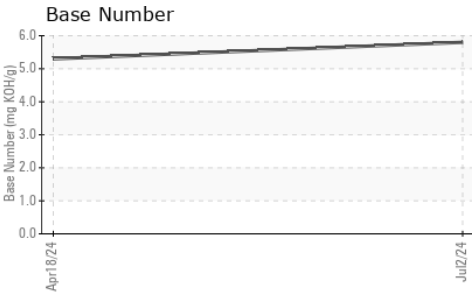
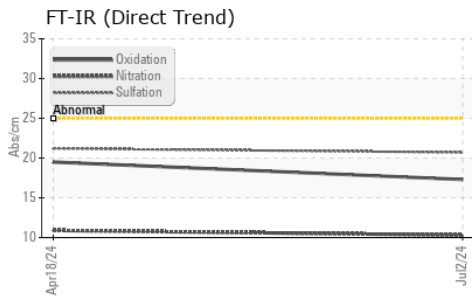
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>+100	<b>5</b>	29	---
Potassium	ppm	ASTM D5185m	>20	<b>42</b>	85	---
Water		WC Method	>0.1	<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844		<b>0</b>	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.3</b>	10.9	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.7</b>	21.2	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	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		<b>10</b>	5	---
Boron	ppm	ASTM D5185m		<b>14</b>	25	---
Barium	ppm	ASTM D5185m		<b>0</b>	2	---
Molybdenum	ppm	ASTM D5185m		<b>56</b>	62	---
Manganese	ppm	ASTM D5185m		<b>2</b>	10	---
Magnesium	ppm	ASTM D5185m		<b>575</b>	721	---
Calcium	ppm	ASTM D5185m		<b>1695</b>	1299	---
Phosphorus	ppm	ASTM D5185m		<b>681</b>	668	---
Zinc	ppm	ASTM D5185m		<b>863</b>	881	---
Sulfur	ppm	ASTM D5185m		<b>2494</b>	2599	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.3</b>	19.5	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>5.8</b>	5.3	---
Visc @ 100°C	cSt	ASTM D445		<b>14.7</b>	14.2	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0121837  
**Lab Number** : 06228390  
**Unique Number** : 11111883  
**Test Package** : FLEET

**Received** : 05 Jul 2024  
**Tested** : 08 Jul 2024  
**Diagnosed** : 08 Jul 2024 - Wes Davis

**GFL Environmental - 856 - Houston South**  
 8515 Highway 6 South  
 Houston, TX  
 US 77083  
 Contact: Jose Gonzalez  
 jgonzalez2@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)

T:  
F: