



Machine Id  
**714025**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA 15W40 (--- GAL)**

**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		<b>GFL0116056</b>	---	---
Sample Date		Client Info		<b>22 May 2024</b>	---	---
Machine Age	hrs	Client Info		<b>30</b>	---	---
Oil Age	hrs	Client Info		<b>30</b>	---	---
Filter Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>N/A</b>	---	---
Filter Changed		Client Info		<b>N/A</b>	---	---
Sample Status				<b>ABNORMAL</b>	---	---

**WEAR**

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>120	<b>24</b>	---	---
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	---	---
Nickel	ppm	ASTM D5185m	>5	<b>3</b>	---	---
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m	>2	<b>2</b>	---	---
Aluminum	ppm	ASTM D5185m	>20	<b>6</b>	---	---
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185m	>330	<b>60</b>	---	---
Tin	ppm	ASTM D5185m	>15	<b>2</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

**CONTAMINATION**

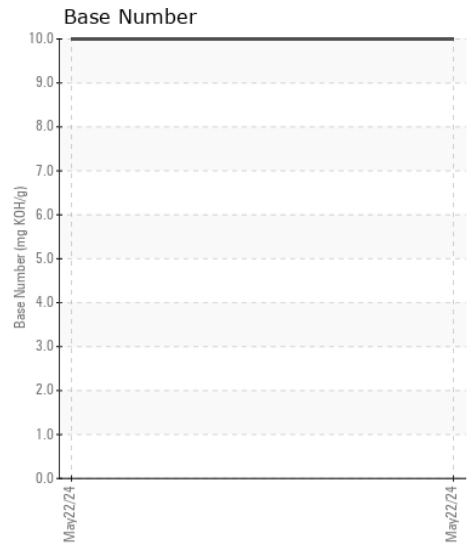
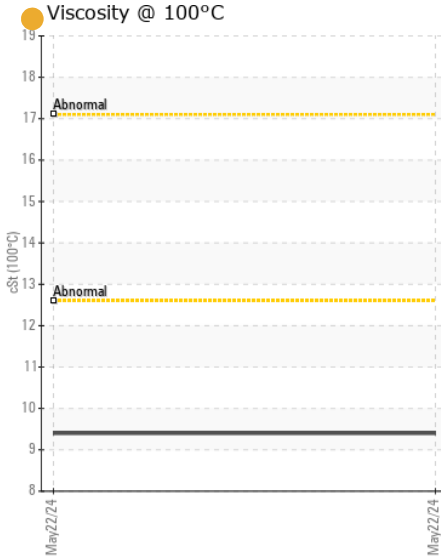
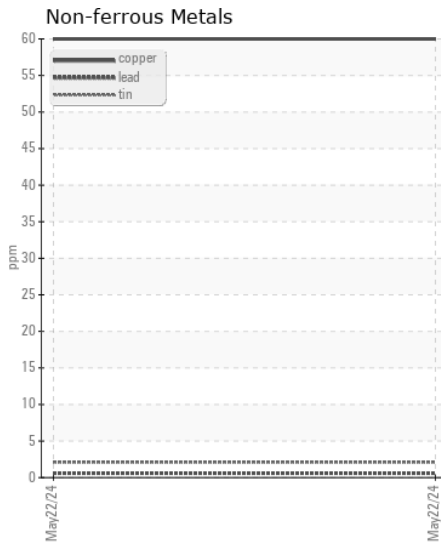
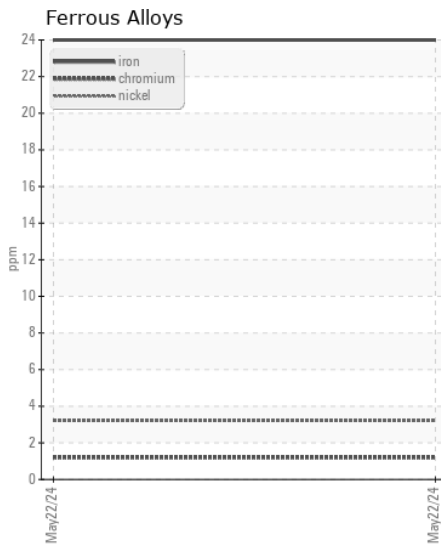
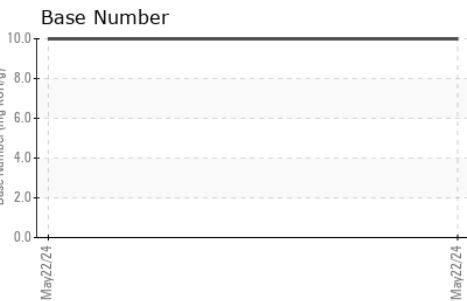
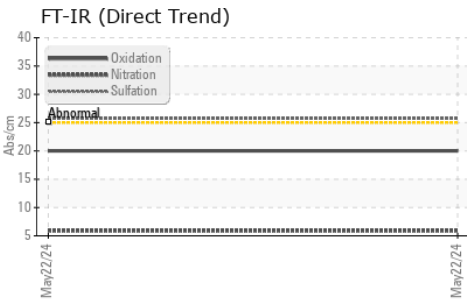
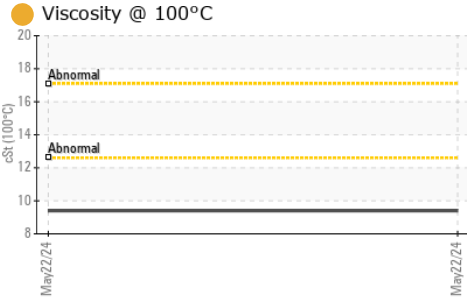
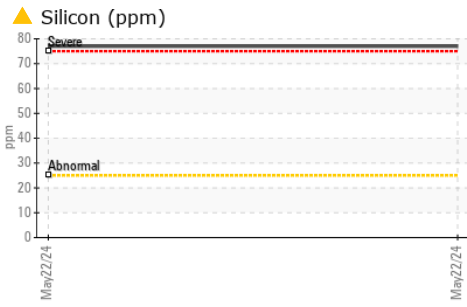
Elemental level of silicon (Si) above normal indicating ingress of seal material. Tests indicate that there is no fuel present in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>▲ 77</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>7</b>	---	---
Fuel	%	ASTM D3524	>3.0	<b>0.3</b>	---	---
Water		WC Method	>0.2	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	*ASTM D7844	>4	<b>0.1</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.9</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.7</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	---	---

**FLUID CONDITION**

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		<b>3</b>	---	---
Boron	ppm	ASTM D5185m		<b>448</b>	---	---
Barium	ppm	ASTM D5185m		<b>2</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>125</b>	---	---
Manganese	ppm	ASTM D5185m		<b>4</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>668</b>	---	---
Calcium	ppm	ASTM D5185m		<b>1391</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>655</b>	---	---
Zinc	ppm	ASTM D5185m		<b>780</b>	---	---
Sulfur	ppm	ASTM D5185m		<b>2380</b>	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.0</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>10.0</b>	---	---
Visc @ 100°C	cSt	ASTM D445		<b>● 9.4</b>	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0116056 **Received** : 28 May 2024  
**Lab Number** : 06191890 **Tested** : 30 May 2024  
**Unique Number** : 11048642 **Diagnosed** : 30 May 2024 - Sean Felton  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 463 - Cheboygan**  
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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)