



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

Machine Id  
**153000**

Component  
**Gasoline Engine**

Fluid  
**PETRO CANADA 15W40 (--- GAL)**

**RECOMMENDATION**

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0100606</b>	GFL0100642	GFL0100635
Sample Date		Client Info		<b>16 Mar 2024</b>	01 Jan 2024	16 Nov 2023
Machine Age	hrs	Client Info		<b>1615</b>	24759	17755
Oil Age	hrs	Client Info		<b>0</b>	0	3099
Filter Age	hrs	Client Info		<b>0</b>	0	3099
Oil Changed		Client Info		<b>Changed</b>	N/A	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>150	<b>11</b>	18	66
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	2
Nickel	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>40	<b>2</b>	5	11
Lead	ppm	ASTM D5185(m)	>50	<b>0</b>	<1	2
Copper	ppm	ASTM D5185(m)	>155	<b>1</b>	6	43
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

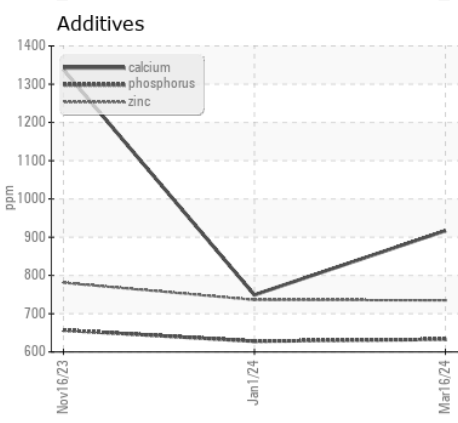
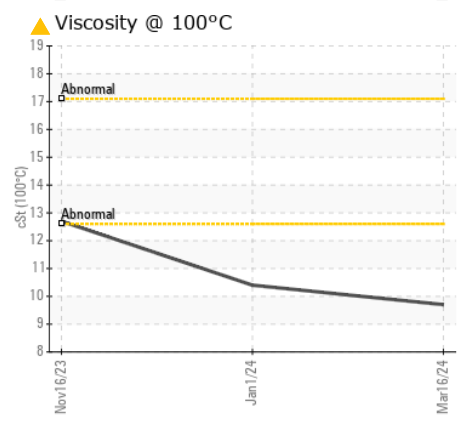
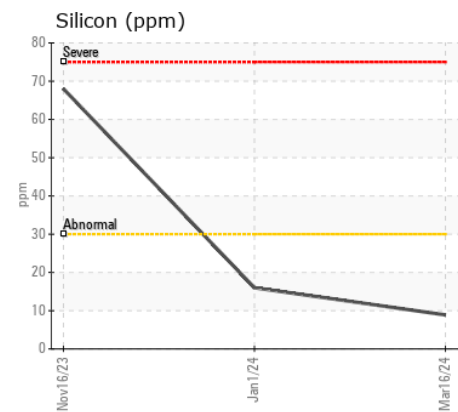
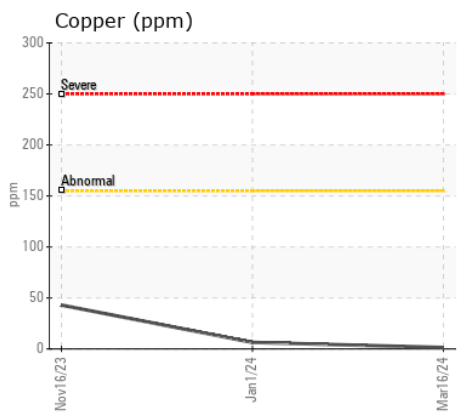
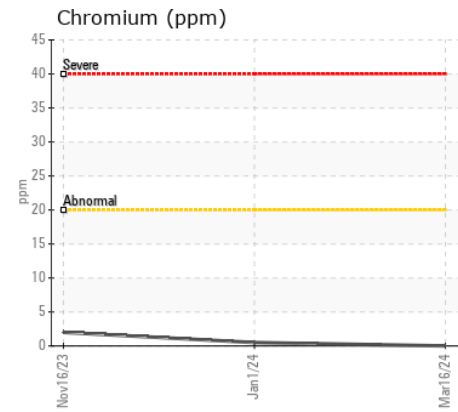
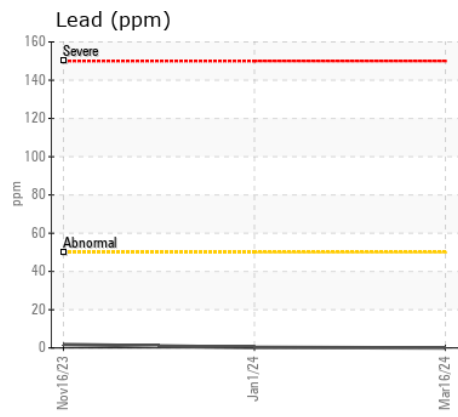
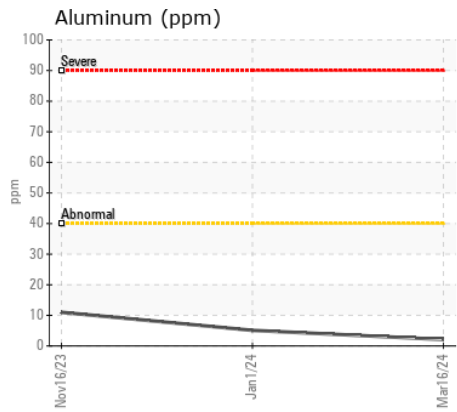
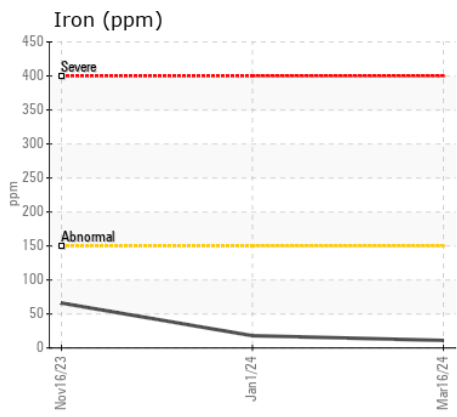
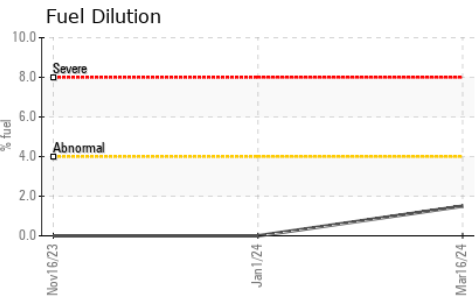
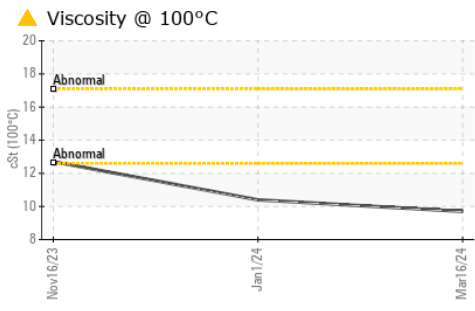
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>30	<b>9</b>	16	68
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	5
Fuel	%	ASTM D7593*	>4.0	<b>1.5</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	0.0
Soot %	%	ASTM D7844*		<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>11.9</b>	15.4	20.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>31.2</b>	31.2	48.2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>4</b>	4	11
Boron	ppm	ASTM D5185(m)		<b>33</b>	33	28
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	1
Molybdenum	ppm	ASTM D5185(m)		<b>68</b>	97	143
Manganese	ppm	ASTM D5185(m)		<b>0</b>	<1	5
Magnesium	ppm	ASTM D5185(m)		<b>515</b>	634	405
Calcium	ppm	ASTM D5185(m)		<b>917</b>	749	1338
Phosphorus	ppm	ASTM D5185(m)		<b>633</b>	628	657
Zinc	ppm	ASTM D5185(m)		<b>735</b>	736	781
Sulfur	ppm	ASTM D5185(m)		<b>2257</b>	1834	2222
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>20.0</b>	25.3	42.1
Visc @ 100°C	cSt	ASTM D7279(m)		<b>▲ 9.7</b>	10.4	12.7



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0100606 **Received** : 01 Apr 2024  
**Lab Number** : 02625672 **Tested** : 02 Apr 2024  
**Unique Number** : 5750791 **Diagnosed** : 02 Apr 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 575 - Squamish Hauling**  
 38950 Queens Way,  
 Squamish, BC  
 CA V8B 0K8  
 Contact: Jonas Araujo  
 jaraujo@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.

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F: