



Machine Id  
**931016**  
 Component  
**Natural Gas Engine**  
 Fluid  
**PETRO CANADA DURON GEO LD 15W40 (--- GAL)**

**RECOMMENDATION**

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0096054</b>	GFL0095999	GFL0095985
Sample Date		Client Info		<b>21 May 2024</b>	29 Jan 2024	11 Oct 2023
Machine Age	hrs	Client Info		<b>9842</b>	9000	8147
Oil Age	hrs	Client Info		<b>600</b>	600	600
Filter Age	hrs	Client Info		<b>600</b>	600	600
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ATTENTION</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>21</b>	15	11
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	1	2
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>9	<b>2</b>	4	2
Lead	ppm	ASTM D5185m	>30	<b>2</b>	18	15
Copper	ppm	ASTM D5185m	>35	<b>6</b>	3	2
Tin	ppm	ASTM D5185m	>4	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

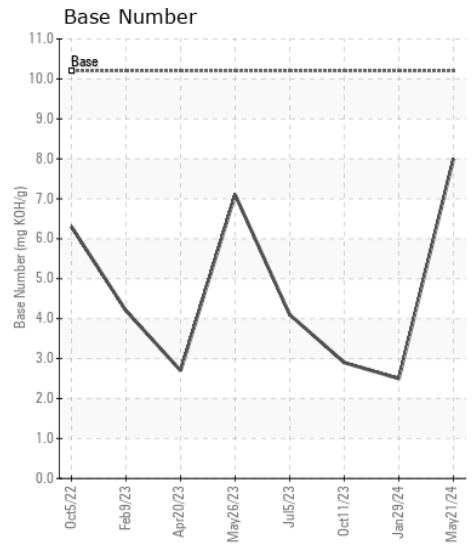
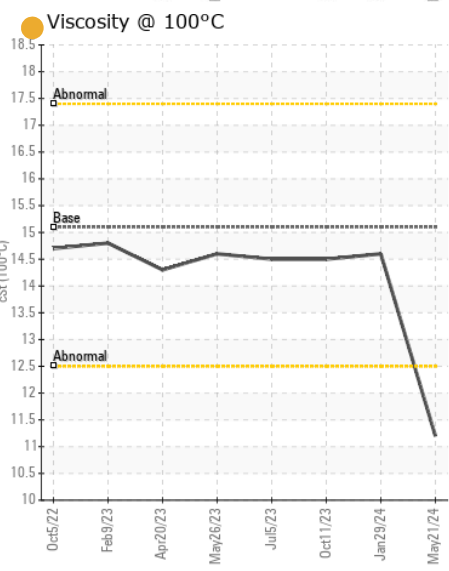
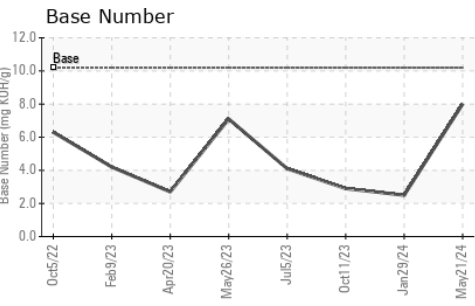
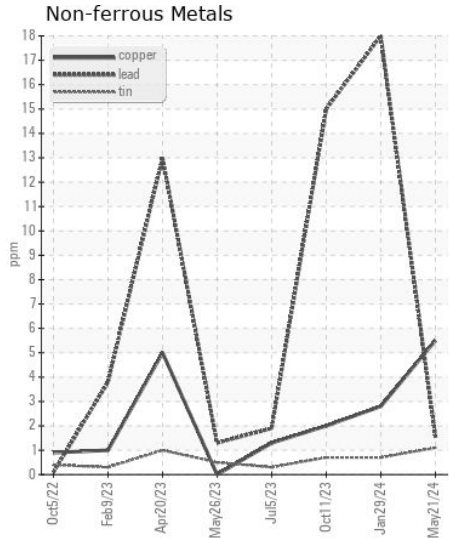
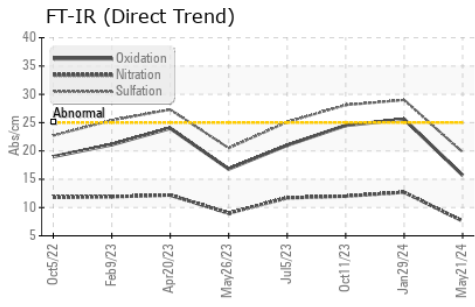
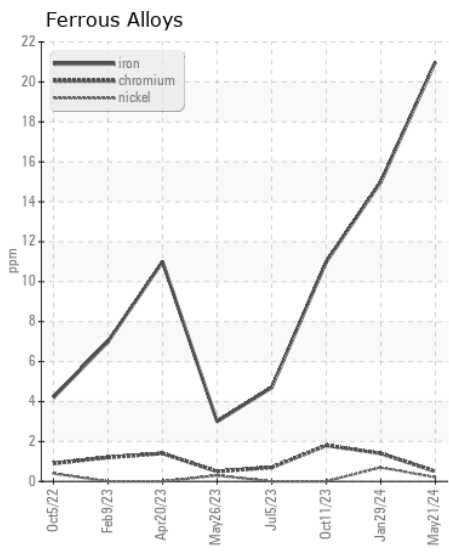
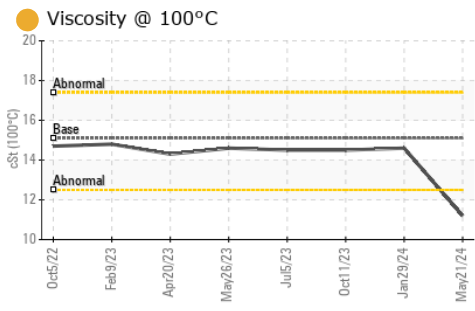
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>+100	<b>4</b>	7	6
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0.7</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.6</b>	12.7	12.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.8</b>	29.0	28.1
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG

**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>2</b>	8	9
Boron	ppm	ASTM D5185m	50	<b>27</b>	13	8
Barium	ppm	ASTM D5185m	5	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	50	<b>48</b>	59	60
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	560	<b>573</b>	666	632
Calcium	ppm	ASTM D5185m	1510	<b>1317</b>	1769	1674
Phosphorus	ppm	ASTM D5185m	780	<b>885</b>	900	865
Zinc	ppm	ASTM D5185m	870	<b>998</b>	1170	1107
Sulfur	ppm	ASTM D5185m	2040	<b>2834</b>	2621	2575
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.7</b>	25.6	24.5
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	<b>8.0</b>	2.5	2.9
Visc @ 100°C	cSt	ASTM D445	15.1	<b>11.2</b>	14.6	14.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0096054  
**Lab Number** : 06187408  
**Unique Number** : 11044160  
**Test Package** : FLEET

**Received** : 22 May 2024  
**Tested** : 31 May 2024  
**Diagnosed** : 31 May 2024 - Jonathan Hester

**GFL Environmental - 883 - Orange City**  
 1378 South Volusia Ave  
 Orange City, FL  
 US 32763  
 Contact: JEFF COOPERSMITH  
 JCOOPERSMITH@GFLENV.COM  
 T: (386)503-8468  
 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)