



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

Area

**(YA134217)**

Machine Id

**10753C**

Component

**Natural Gas Engine**

Fluid

**PETRO CANADA DURON GEO LD 15W40 (28 QTS)**

**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>GFL0118400</b>	GFL0112917	GFL0098142
Sample Date		Client Info		<b>30 May 2024</b>	07 May 2024	06 Feb 2024
Machine Age	hrs	Client Info		<b>6764</b>	6764	6764
Oil Age	hrs	Client Info		<b>172</b>	579	224
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

**WEAR**

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>9</b>	9	19
Chromium	ppm	ASTM D5185m	>4	<b>1</b>	1	3
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>9	<b>2</b>	1	3
Lead	ppm	ASTM D5185m	>30	<b>2</b>	1	0
Copper	ppm	ASTM D5185m	>35	<b>▲ 68</b>	▲ 82	<1
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

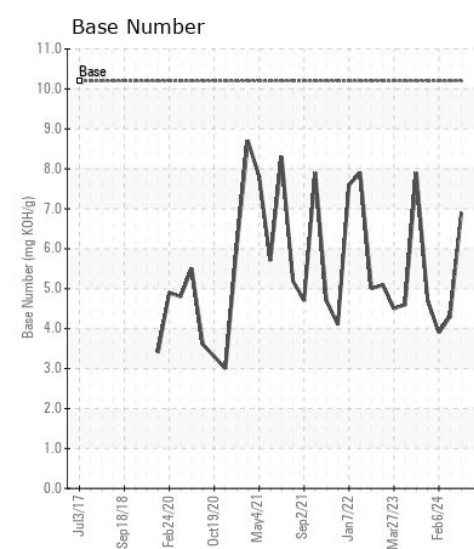
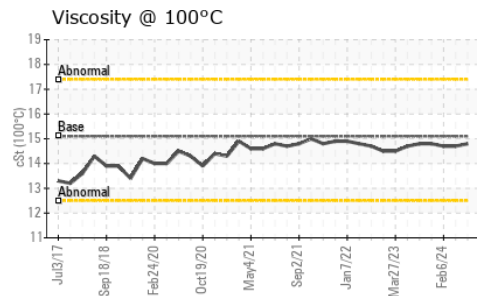
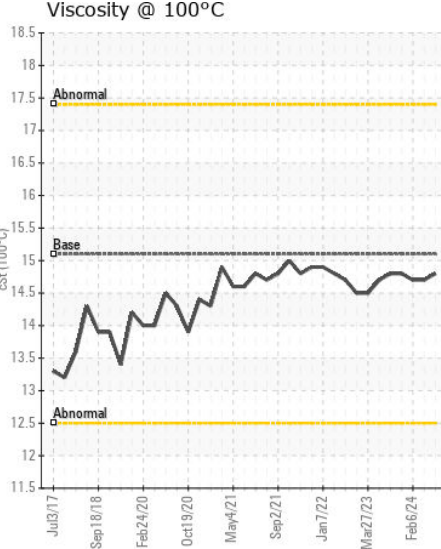
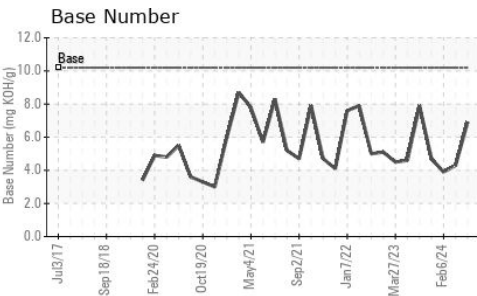
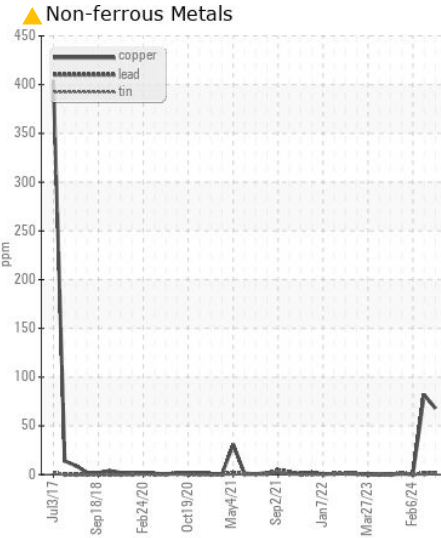
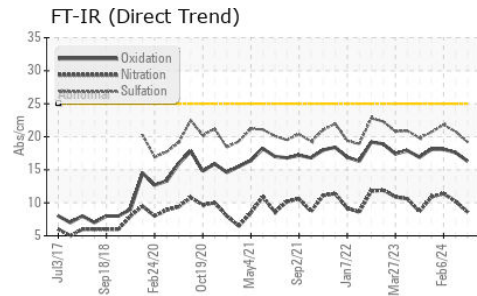
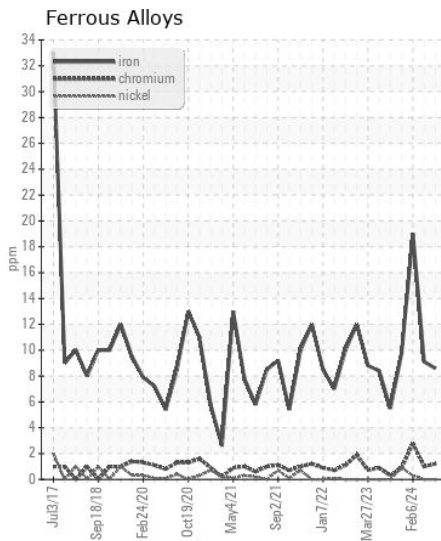
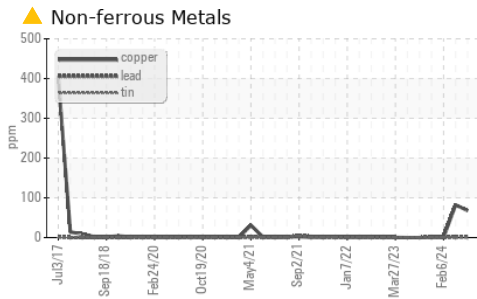
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>+100	<b>4</b>	3	8
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	22	▲ 100
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0</b>	0	0
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.6</b>	10.2	11.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.2</b>	20.8	21.8
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 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>4</b>	8	16
Boron	ppm	ASTM D5185m	50	<b>23</b>	4	8
Barium	ppm	ASTM D5185m	5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	50	<b>52</b>	48	52
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	560	<b>630</b>	532	557
Calcium	ppm	ASTM D5185m	1510	<b>1737</b>	1596	1451
Phosphorus	ppm	ASTM D5185m	780	<b>922</b>	694	718
Zinc	ppm	ASTM D5185m	870	<b>1045</b>	939	949
Sulfur	ppm	ASTM D5185m	2040	<b>3029</b>	2766	2325
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.3</b>	17.6	18.1
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	<b>6.9</b>	4.3	3.9
Visc @ 100°C	cSt	ASTM D445	15.1	<b>14.8</b>	14.7	14.7



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0118400  
**Lab Number** : 06195092  
**Unique Number** : 11057215  
**Test Package** : FLEET  
**Received** : 30 May 2024  
**Tested** : 31 May 2024  
**Diagnosed** : 31 May 2024 - Sean Felton

**GFL Environmental - 017 - Durham**  
 148 Stone Park Court  
 Durham, NC  
 US 27703  
 Contact:

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)