



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

Machine Id  
**948006-205261**  
 Component  
**Natural Gas Engine**  
 Fluid  
**PETRO CANADA DURON GEO LD 15W40 (--- LTR)**

**RECOMMENDATION**

Oil and filter change at the time of sampling has been noted. 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>GFL0096048</b>	GFL0095979	GFL0071719
Sample Date		Client Info		<b>07 Feb 2024</b>	11 Oct 2023	11 Jul 2023
Machine Age	hrs	Client Info		<b>16035</b>	66756	14855
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	Oil Added
Filter Changed		Client Info		<b>Changed</b>	Changed	Cleaned
Sample Status				<b>ABNORMAL</b>	NORMAL	ABNORMAL

**WEAR**

The copper level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>9</b>	30	10
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	2	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>2</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>9	<b>1</b>	3	3
Lead	ppm	ASTM D5185m	>30	<b>2</b>	<1	<1
Copper	ppm	ASTM D5185m	>35	<b>▲ 54</b>	2	1
Tin	ppm	ASTM D5185m	>4	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	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.

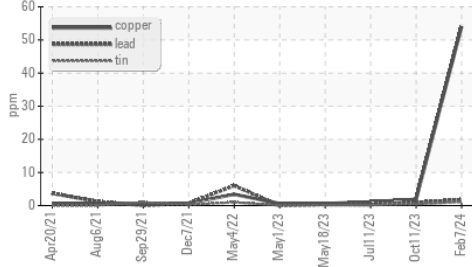
Silicon	ppm	ASTM D5185m	>+100	<b>14</b>	11	3
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	5	3
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0</b>	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.0</b>	9.0	10.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.7</b>	19.0	20.6
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	▲ MODER
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	0.2%

**FLUID CONDITION**

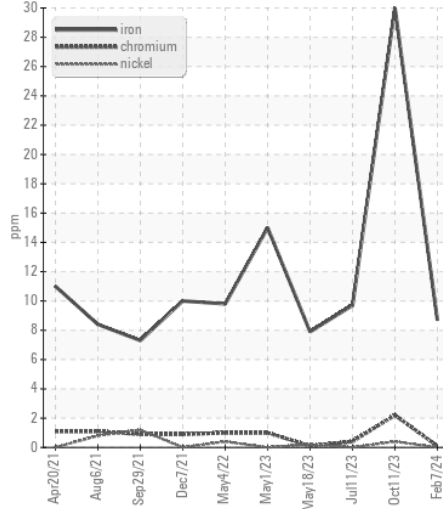
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>19</b>	18	12
Boron	ppm	ASTM D5185m	50	<b>30</b>	16	11
Barium	ppm	ASTM D5185m	5	<b>1</b>	0	0
Molybdenum	ppm	ASTM D5185m	50	<b>52</b>	55	54
Manganese	ppm	ASTM D5185m	0	<b>7</b>	1	<1
Magnesium	ppm	ASTM D5185m	560	<b>829</b>	571	489
Calcium	ppm	ASTM D5185m	1510	<b>1151</b>	1522	1540
Phosphorus	ppm	ASTM D5185m	780	<b>722</b>	797	724
Zinc	ppm	ASTM D5185m	870	<b>852</b>	993	962
Sulfur	ppm	ASTM D5185m	2040	<b>2401</b>	2436	2796
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.5</b>	15.7	18.2
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	<b>9.0</b>	7.2	6.1
Visc @ 100°C	cSt	ASTM D445	15.1	<b>14.1</b>	14.6	14.7

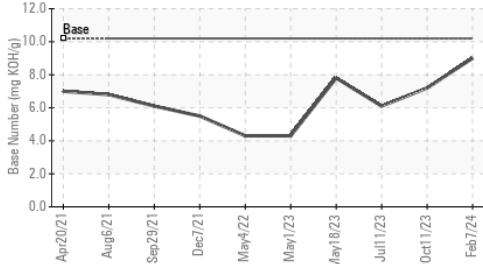
▲ Non-ferrous Metals



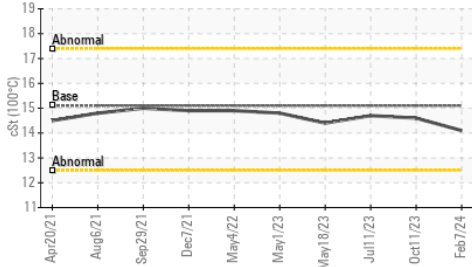
Ferrous Alloys



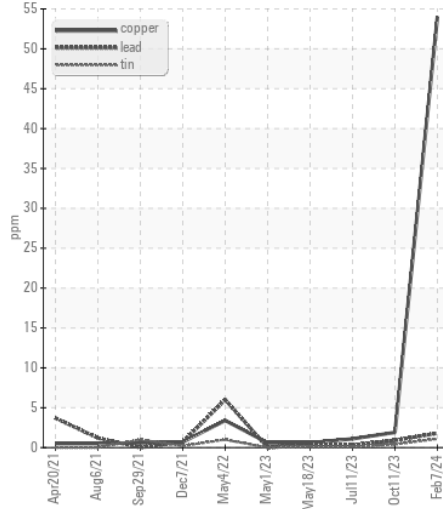
Base Number



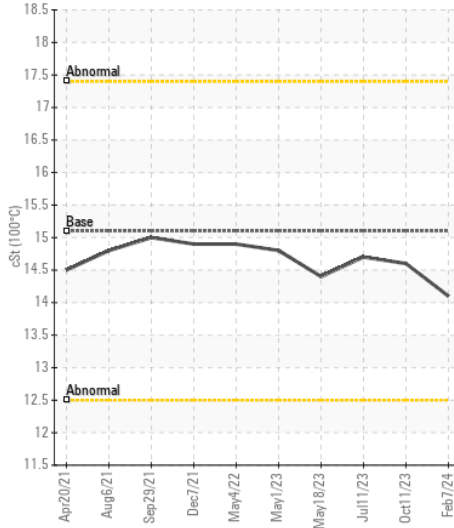
Viscosity @ 100°C



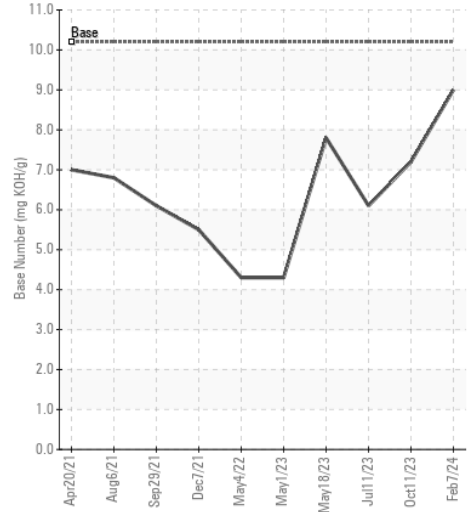
▲ Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : GFL0096048

Lab Number : 06084247

Unique Number : 10871692

Test Package : FLEET

Received : 08 Feb 2024

Tested : 09 Feb 2024

Diagnosed : 12 Feb 2024 - Don Baldrige

GFL Environmental - 883 - Orange City

1378 South Volusia Ave

Orange City, FL

US 32763

Contact: JEFF COOPERSMITH

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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)