



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



Machine Id  
**834044**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON GEO LD 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0122833</b>	GFL0118850	GFL0114180
Sample Date		Client Info		<b>24 May 2024</b>	01 May 2024	09 Apr 2024
Machine Age	hrs	Client Info		<b>1717</b>	1574	1441
Oil Age	hrs	Client Info		<b>1717</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>57</b>	60	57
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	2	2
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>5</b>	5	6
Lead	ppm	ASTM D5185m	>40	<b>4</b>	5	3
Copper	ppm	ASTM D5185m	>330	<b>12</b>	12	16
Tin	ppm	ASTM D5185m	>15	<b>2</b>	2	2
Vanadium	ppm	ASTM D5185m		<b>0</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.

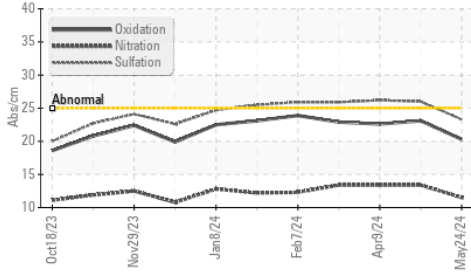
Silicon	ppm	ASTM D5185m	>25	<b>19</b>	20	21
Potassium	ppm	ASTM D5185m	>20	<b>9</b>	9	10
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>4	<b>0.3</b>	0.1	0
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.5</b>	13.4	13.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.3</b>	26.0	26.2
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	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

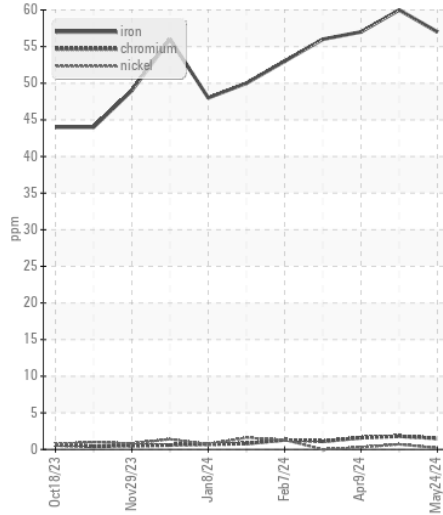
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>6</b>	5	6
Boron	ppm	ASTM D5185m	50	<b>10</b>	4	12
Barium	ppm	ASTM D5185m	5	<b>0</b>	3	3
Molybdenum	ppm	ASTM D5185m	50	<b>72</b>	74	75
Manganese	ppm	ASTM D5185m	0	<b>10</b>	11	12
Magnesium	ppm	ASTM D5185m	560	<b>821</b>	919	841
Calcium	ppm	ASTM D5185m	1510	<b>1583</b>	1734	1592
Phosphorus	ppm	ASTM D5185m	780	<b>860</b>	946	865
Zinc	ppm	ASTM D5185m	870	<b>1068</b>	1188	1060
Sulfur	ppm	ASTM D5185m	2040	<b>2695</b>	3127	2782
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.3</b>	23.1	22.6
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	<b>4.7</b>	3.5	4.1
Visc @ 100°C	cSt	ASTM D445	15.1	<b>14.6</b>	14.6	14.6

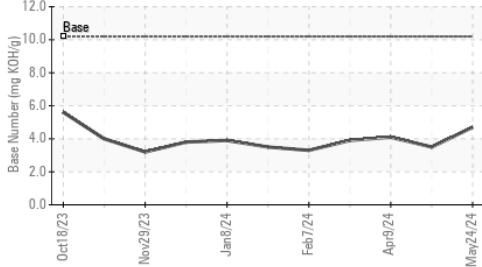
**FT-IR (Direct Trend)**



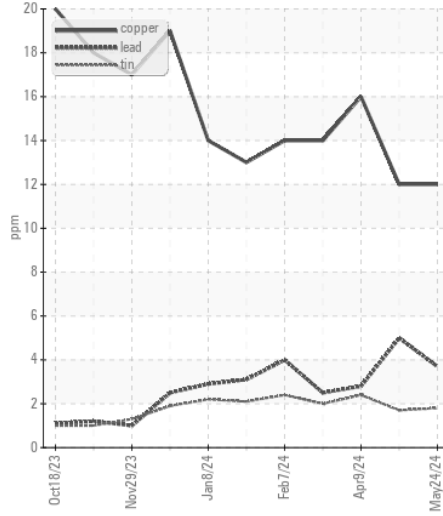
**Ferrous Alloys**



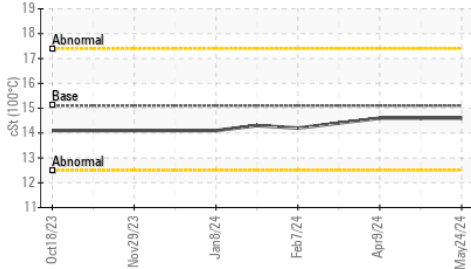
**Base Number**



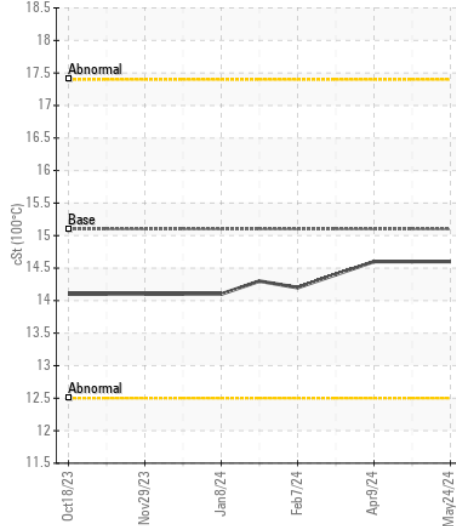
**Non-ferrous Metals**



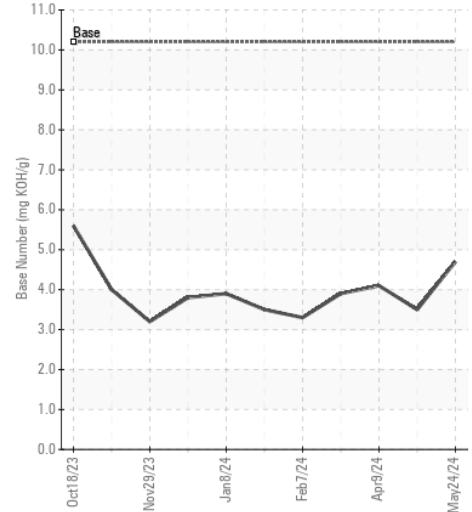
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0122833  
**Lab Number** : 06195183  
**Unique Number** : 11057306  
**Test Package** : FLEET

**Received** : 30 May 2024  
**Tested** : 31 May 2024  
**Diagnosed** : 31 May 2024 - Wes Davis

**GFL Environmental - 837 - Harrison TS**  
 22820 S State Route 291  
 Harrisonville, MO  
 US 64701  
 Contact: JEREMY BROWN  
 jeremyb@gflenv.com

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)

T:  
F: