



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



Machine Id  
**834051**  
Component  
**Natural Gas 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>GFL0114147</b>	GFL0108068	GFL0108128
Sample Date		Client Info		<b>12 Mar 2024</b>	20 Feb 2024	25 Jan 2024
Machine Age	hrs	Client Info		<b>1051</b>	926	761
Oil Age	hrs	Client Info		<b>1051</b>	926	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**

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>50	<b>62</b>	54	58
Chromium	ppm	ASTM D5185m	>5	<b>2</b>	1	2
Nickel	ppm	ASTM D5185m	>4	<b>2</b>	2	2
Titanium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>4</b>	4	3
Lead	ppm	ASTM D5185m	>40	<b>4</b>	4	3
Copper	ppm	ASTM D5185m	>150	<b>17</b>	16	19
Tin	ppm	ASTM D5185m	>4	<b>3</b>	2	3
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.

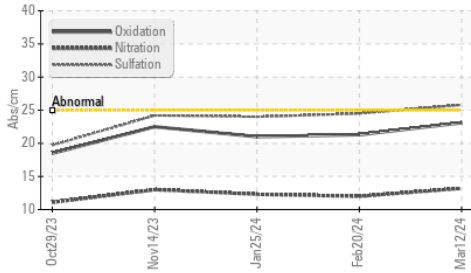
Silicon	ppm	ASTM D5185m	>25	<b>25</b>	26	32
Potassium	ppm	ASTM D5185m	>20	<b>20</b>	4	5
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0</b>	0	0
Nitration	Abs/cm	*ASTM D7624	>20	<b>13.2</b>	12.0	12.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.8</b>	24.5	24.0
Silt	scalar	*Visual	NONE	<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**

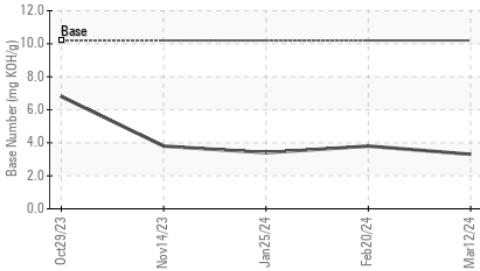
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>8</b>	6	<1
Boron	ppm	ASTM D5185m	50	<b>4</b>	8	5
Barium	ppm	ASTM D5185m	5	<b>3</b>	3	0
Molybdenum	ppm	ASTM D5185m	50	<b>60</b>	60	60
Manganese	ppm	ASTM D5185m	0	<b>13</b>	13	15
Magnesium	ppm	ASTM D5185m	560	<b>814</b>	879	856
Calcium	ppm	ASTM D5185m	1510	<b>1350</b>	1386	1124
Phosphorus	ppm	ASTM D5185m	780	<b>788</b>	828	676
Zinc	ppm	ASTM D5185m	870	<b>1003</b>	1080	1037
Sulfur	ppm	ASTM D5185m	2040	<b>2708</b>	2382	2181
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>23.1</b>	21.3	21.0
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	<b>3.3</b>	3.8	3.4
Visc @ 100°C	cSt	ASTM D445	15.1	<b>14.5</b>	14.4	14.4

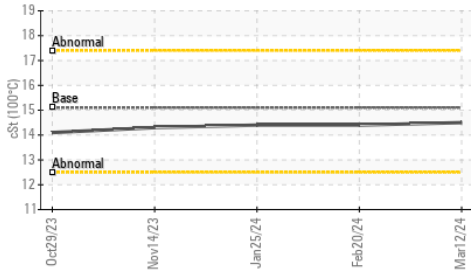
**FT-IR (Direct Trend)**



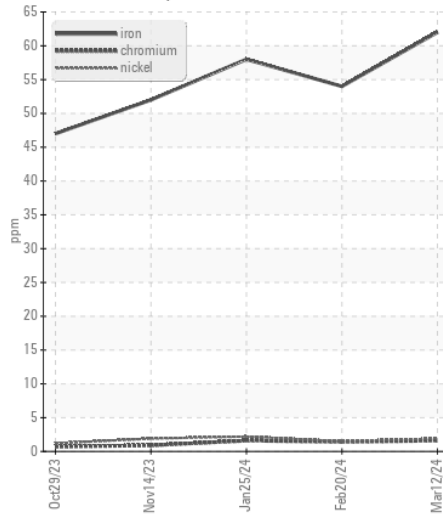
**Base Number**



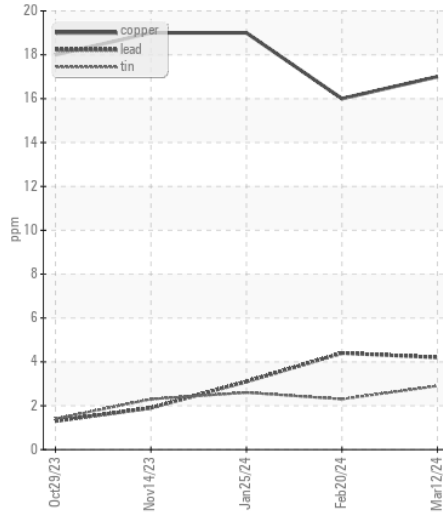
**Viscosity @ 100°C**



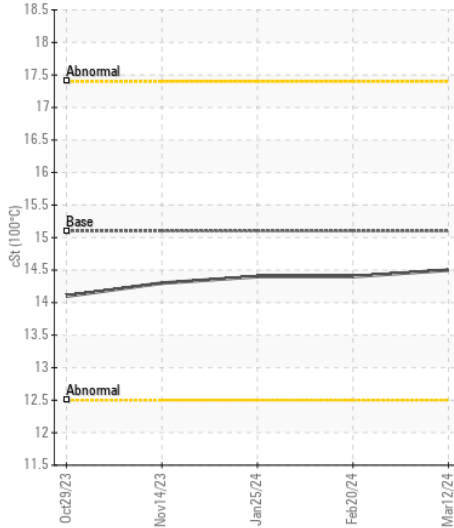
**Ferrous Alloys**



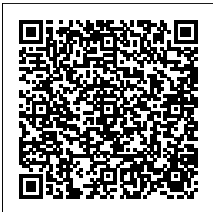
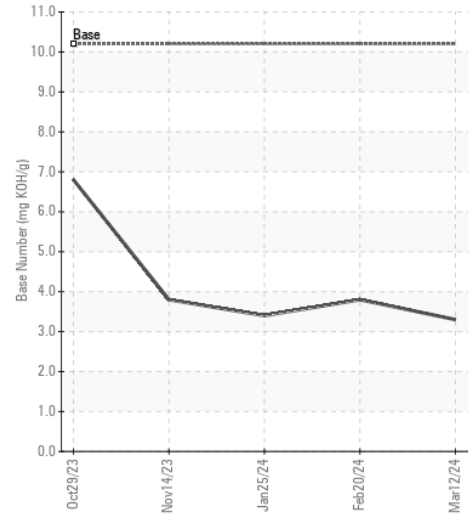
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0114147  
**Lab Number** : 06150968  
**Unique Number** : 10981046  
**Test Package** : FLEET

**Received** : 16 Apr 2024  
**Tested** : 17 Apr 2024  
**Diagnosed** : 19 Apr 2024 - Don Baldrige

**GFL Environmental - 837 - Harrison TS**  
 22820 S State Route 291  
 Harrisonville, MO  
 US 64701  
 Contact: Robert Hart

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)

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F: