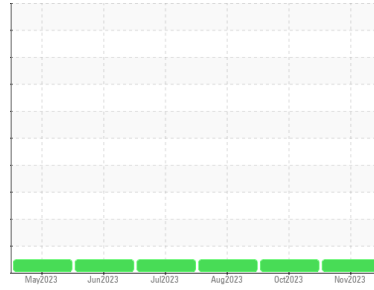




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**934023**

Component  
**Natural Gas Engine**

Fluid  
**PETRO CANADA DURON GEO LD 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### 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.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0095164</b>	GFL0095109	GFL0090689
Sample Date	Client Info	<b>02 Nov 2023</b>	03 Oct 2023	29 Aug 2023
Machine Age	hrs	<b>1127</b>	957	713
Oil Age	hrs	<b>0</b>	957	0
Oil Changed	Client Info	<b>Not Changed</b>	Not Changed	Not Changed
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	<b>78</b>	65	58
Chromium	ppm	ASTM D5185m >4	<b>3</b>	2	2
Nickel	ppm	ASTM D5185m >2	<b>4</b>	2	2
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m >3	<b>&lt;1</b>	<1	<1
Aluminum	ppm	ASTM D5185m >9	<b>35</b>	23	25
Lead	ppm	ASTM D5185m >30	<b>5</b>	4	<1
Copper	ppm	ASTM D5185m >35	<b>24</b>	26	19
Tin	ppm	ASTM D5185m >4	<b>3</b>	4	2
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 50	<b>4</b>	6	10
Barium	ppm	ASTM D5185m 5	<b>10</b>	4	1
Molybdenum	ppm	ASTM D5185m 50	<b>70</b>	80	67
Manganese	ppm	ASTM D5185m 0	<b>17</b>	15	13
Magnesium	ppm	ASTM D5185m 560	<b>850</b>	1063	872
Calcium	ppm	ASTM D5185m 1510	<b>1414</b>	1689	1382
Phosphorus	ppm	ASTM D5185m 780	<b>860</b>	1030	790
Zinc	ppm	ASTM D5185m 870	<b>1045</b>	1317	1010
Sulfur	ppm	ASTM D5185m 2040	<b>2408</b>	3594	2815

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >+100	<b>40</b>	47	43
Sodium	ppm	ASTM D5185m	<b>5</b>	9	6
Potassium	ppm	ASTM D5185m >20	<b>74</b>	18	59

## INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	<b>0.1</b>	0	0
Nitration	Abs/cm	*ASTM D7624 >20	<b>14.2</b>	12.2	11.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>28.9</b>	24.3	24.2

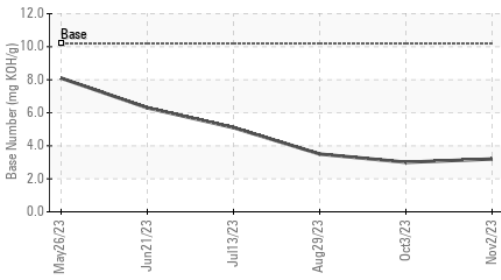
## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>28.0</b>	23.2	22.4
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>3.2</b>	3.0	3.5

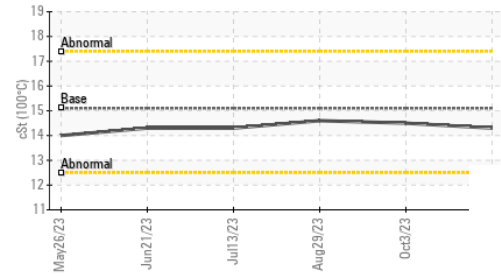


# OIL ANALYSIS REPORT

### Base Number



### Viscosity @ 100°C

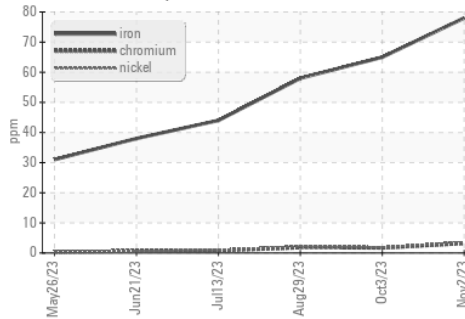


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

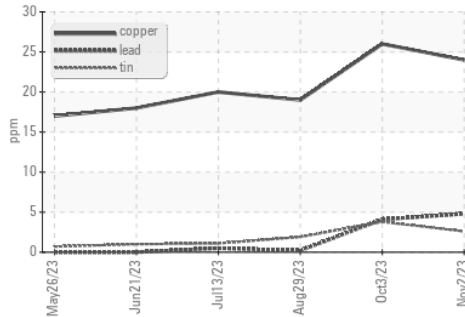
FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.1	<b>14.3</b>	14.5	14.6

### GRAPHS

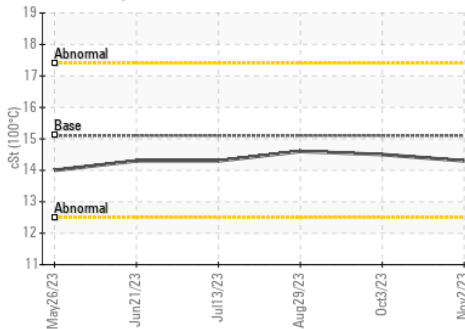
#### Ferrous Alloys



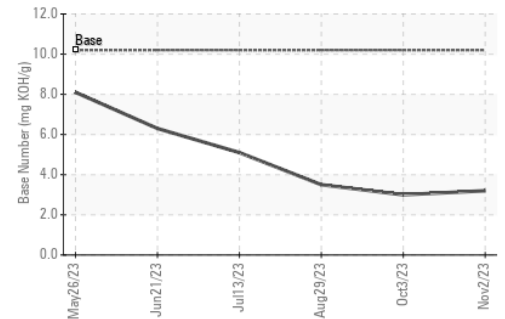
#### Non-ferrous Metals



#### Viscosity @ 100°C



#### Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0095164 **Received** : 07 Nov 2023  
**Lab Number** : 06000309 **Diagnosed** : 09 Nov 2023  
**Unique Number** : 10728669 **Diagnostician** : Jonathan Hester  
**Test Package** : FLEET

**GFL Environmental - 836 - Kansas City Hauling**  
 7801 East Truman Road  
 Kansas City, MO  
 US 64126  
 Contact: Robert Hart  
 rhart@gflenv.com  
 T: (580)461-1509  
 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)