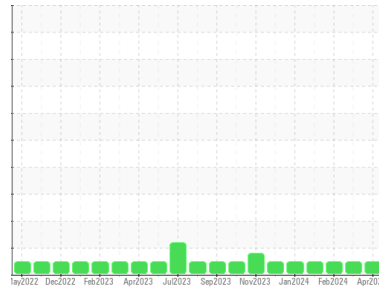




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**731112-310100**

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>GFL0117180</b>	GFL0114086	GFL0109793
Sample Date	Client Info	<b>12 Apr 2024</b>	18 Mar 2024	27 Feb 2024
Machine Age	hrs	<b>6738</b>	6585	6451
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>Not Changed</b>	Not Changed	Not Changed
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.1	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >50	<b>8</b>	14	11
Chromium	ppm ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185m >2	<b>&lt;1</b>	0	<1
Titanium	ppm ASTM D5185m	<b>0</b>	0	0
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >9	<b>1</b>	2	2
Lead	ppm ASTM D5185m >30	<b>&lt;1</b>	1	4
Copper	ppm ASTM D5185m >35	<b>1</b>	12	<1
Tin	ppm ASTM D5185m >4	<b>0</b>	0	<1
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	0	<1
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 50	<b>8</b>	14	9
Barium	ppm ASTM D5185m 5	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 50	<b>47</b>	55	55
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	0	<1
Magnesium	ppm ASTM D5185m 560	<b>462</b>	563	734
Calcium	ppm ASTM D5185m 1510	<b>1582</b>	1711	1880
Phosphorus	ppm ASTM D5185m 780	<b>680</b>	848	850
Zinc	ppm ASTM D5185m 870	<b>863</b>	1034	1299
Sulfur	ppm ASTM D5185m 2040	<b>2731</b>	3035	3094

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >+100	<b>4</b>	5	4
Sodium	ppm ASTM D5185m	<b>7</b>	4	5
Potassium	ppm ASTM D5185m >20	<b>8</b>	<1	<1

## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844	<b>0</b>	0.1	0
Nitration	Abs/cm *ASTM D7624 >20	<b>11.1</b>	10.9	10.3
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>22.4</b>	18.7	21.0

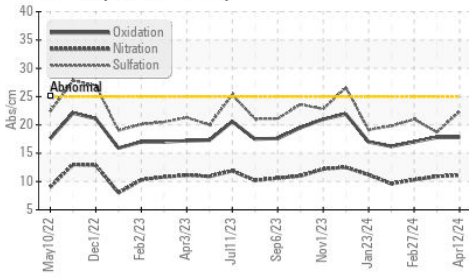
## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>17.8</b>	17.8	17.0
Base Number (BN)	mg KOH/g ASTM D2896 10.2	<b>3.6</b>	6.4	4.9

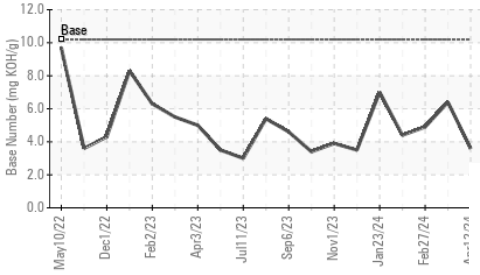


# OIL ANALYSIS REPORT

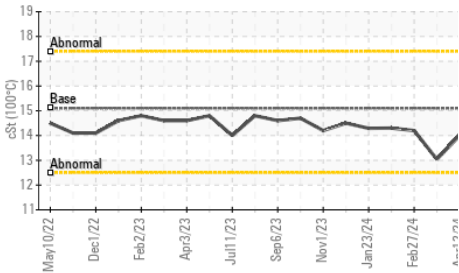
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C



## VISUAL

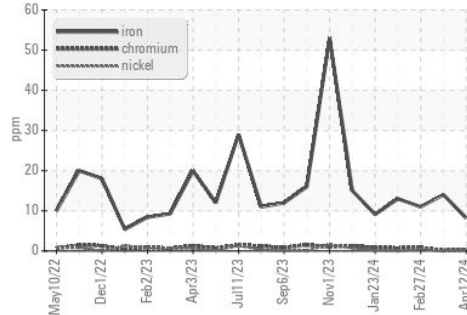
	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*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

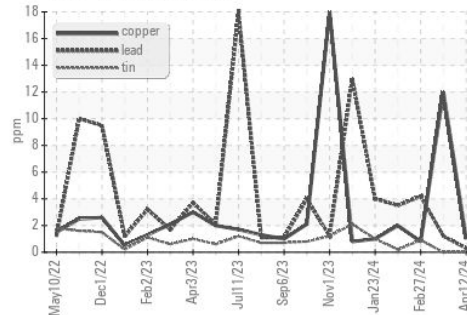
	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.0	14.2

## GRAPHS

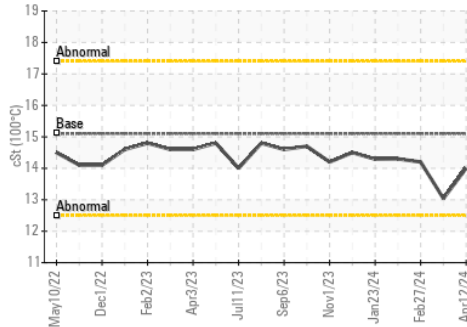
Ferrous Alloys



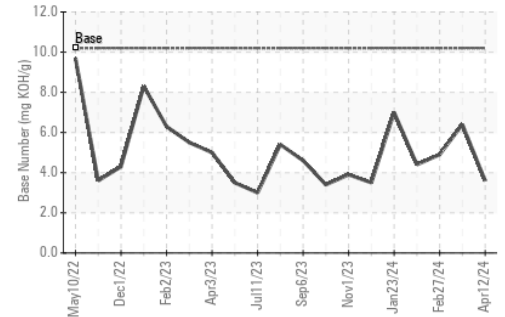
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0117180  
 Lab Number : 06151031  
 Unique Number : 10981109  
 Test Package : FLEET

GFL Environmental - 836 - Kansas City Hauling  
 7801 East Truman Road  
 Kansas City, MO  
 US 64126  
 Contact: Loyce Stewart  
 loyce.stewart@gflen.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: