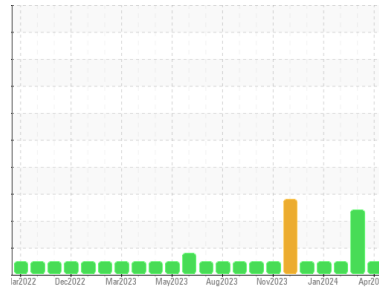




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id

**731114**

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>GFL0117183</b>	GFL0114072	GFL0114095	
Sample Date	Client Info	<b>12 Apr 2024</b>	25 Mar 2024	06 Mar 2024	
Machine Age	hrs	Client Info	<b>7303</b>	7176	7059
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info	<b>Not Changed</b>	Not Changd	Not Changed	
Sample Status		<b>NORMAL</b>	ABNORMAL	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>	24	13
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	2	0
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>9	<b>1</b>	4	1
Lead	ppm	ASTM D5185m	>30	<b>&lt;1</b>	4	2
Copper	ppm	ASTM D5185m	>35	<b>1</b>	23	<1
Tin	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	<1	0

## ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185m	50	<b>7</b>	15	6
Barium	ppm	ASTM D5185m	5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	50	<b>47</b>	79	57
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	1	0
Magnesium	ppm	ASTM D5185m	560	<b>460</b>	738	534
Calcium	ppm	ASTM D5185m	1510	<b>1575</b>	2194	1561
Phosphorus	ppm	ASTM D5185m	780	<b>666</b>	1065	632
Zinc	ppm	ASTM D5185m	870	<b>865</b>	1330	903
Sulfur	ppm	ASTM D5185m	2040	<b>2724</b>	3598	2245

## CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>+100	<b>4</b>	8	4
Sodium	ppm	ASTM D5185m		<b>7</b>	▲ 107	3
Potassium	ppm	ASTM D5185m	>20	<b>9</b>	▲ 33	0

## INFRA-RED

method	limit/base	current	history1	history2		
Soot %	%	*ASTM D7844		<b>0</b>	0	0
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.1</b>	10.4	11.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.4</b>	19.6	24.4

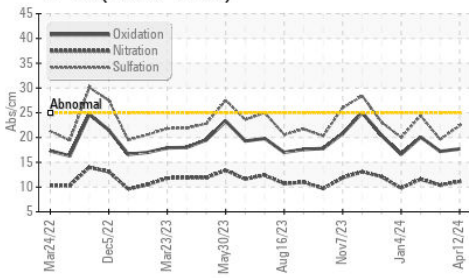
## FLUID DEGRADATION

method	limit/base	current	history1	history2		
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.7</b>	17.2	20.1
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	<b>3.6</b>	5.5	3.4

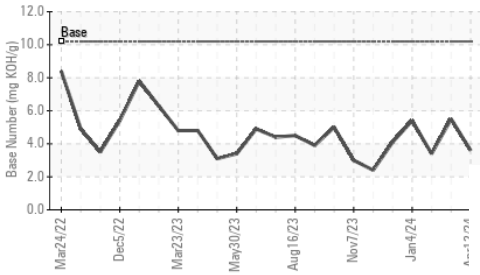


# OIL ANALYSIS REPORT

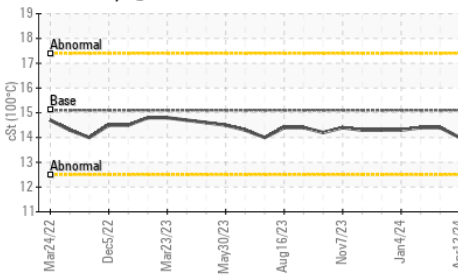
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

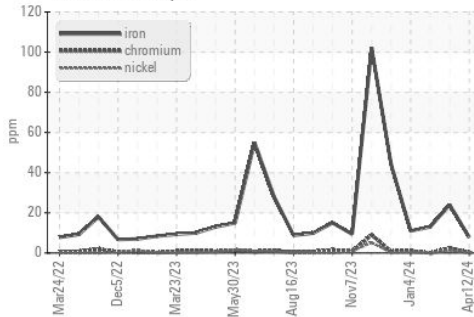


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

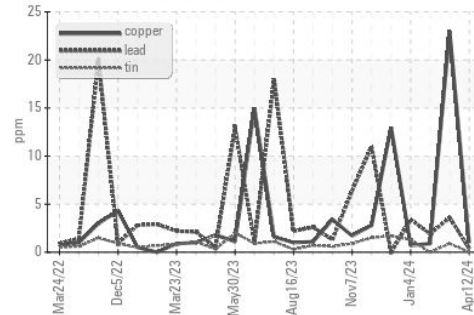
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.0	14.4

## GRAPHS

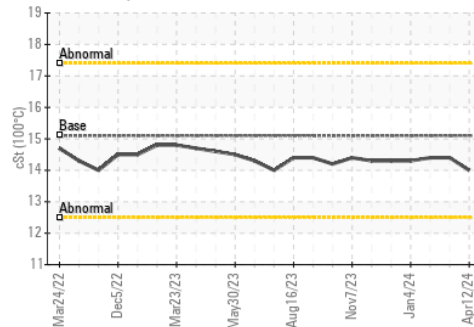
Ferrous Alloys



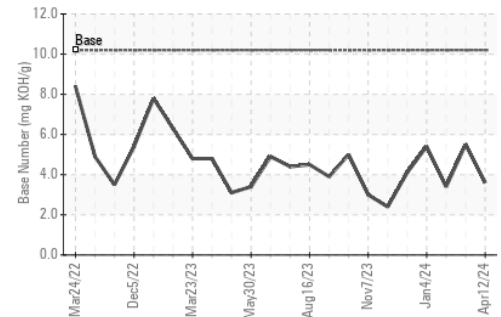
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0117183  
 Lab Number : 06151032  
 Unique Number : 10981110  
 Test Package : FLEET

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

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F: