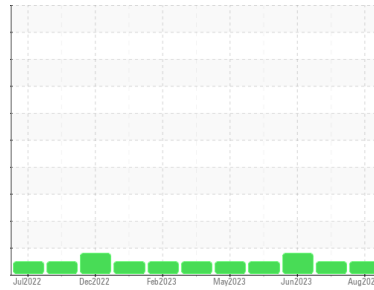




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**731122**

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>GFL0087200</b>	GFL0087154	GFL0083763
Sample Date	Client Info	<b>15 Aug 2023</b>	20 Jul 2023	28 Jun 2023
Machine Age	hrs	<b>3553</b>	3384	3222
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	ABNORMAL

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	<b>14</b>	24	▲ 61
Chromium	ppm	ASTM D5185m >4	<b>1</b>	2	<1
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	1
Titanium	ppm	ASTM D5185m	<b>0</b>	0	3
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >9	<b>2</b>	2	2
Lead	ppm	ASTM D5185m >30	<b>4</b>	15	<1
Copper	ppm	ASTM D5185m >35	<b>1</b>	3	18
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	2	1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 50	<b>26</b>	5	10
Barium	ppm	ASTM D5185m 5	<b>0</b>	2	0
Molybdenum	ppm	ASTM D5185m 50	<b>58</b>	67	52
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	1	6
Magnesium	ppm	ASTM D5185m 560	<b>645</b>	626	682
Calcium	ppm	ASTM D5185m 1510	<b>1872</b>	1890	1307
Phosphorus	ppm	ASTM D5185m 780	<b>888</b>	788	613
Zinc	ppm	ASTM D5185m 870	<b>1086</b>	1073	867
Sulfur	ppm	ASTM D5185m 2040	<b>3020</b>	2690	2534

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >+100	<b>6</b>	0	43
Sodium	ppm	ASTM D5185m	<b>7</b>	8	7
Potassium	ppm	ASTM D5185m >20	<b>0</b>	2	9

## INFRA-RED

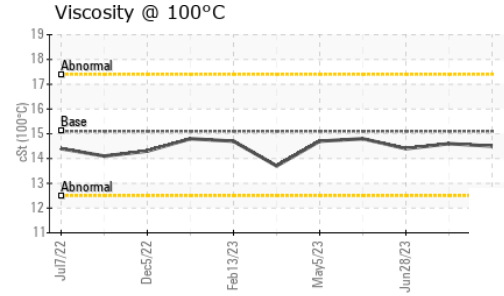
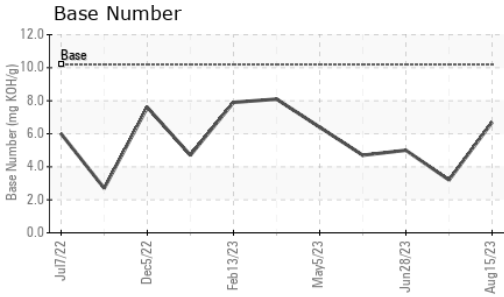
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	<b>0</b>	0	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.6</b>	12.7	11.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.3</b>	26.5	23.6

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.8</b>	22.8	19.2
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>6.7</b>	3.2	5.0



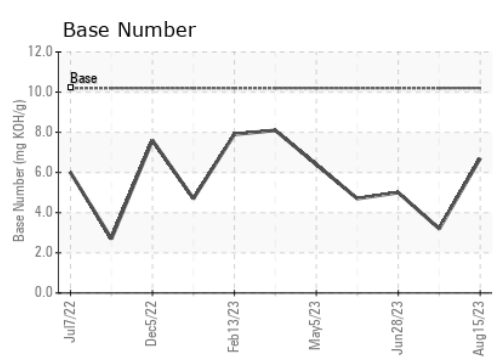
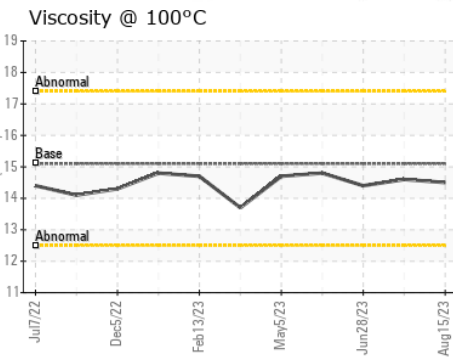
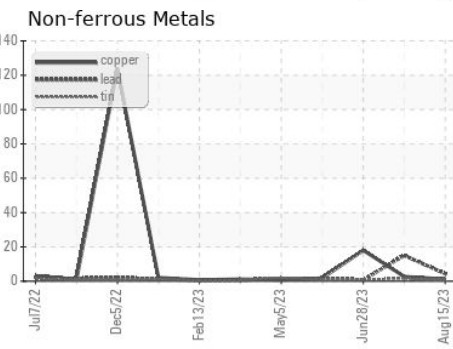
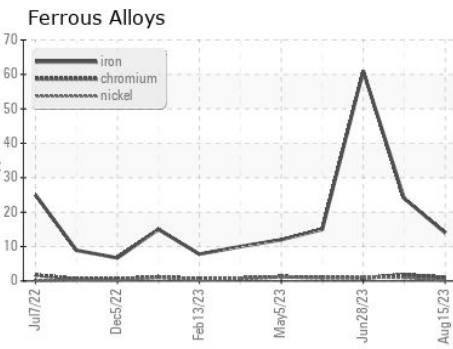
# OIL ANALYSIS REPORT



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	<b>14.5</b>	14.6	14.4

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0087200 **Received** : 22 Aug 2023  
**Lab Number** : **05931403** **Diagnosed** : 23 Aug 2023  
**Unique Number** : 10616674 **Diagnostician** : Wes Davis  
**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:

Certificate L2367  
 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)