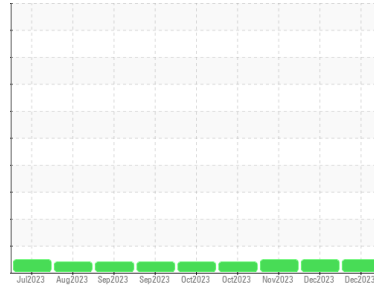




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**433003**

Component  
**Natural Gas Engine**

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

## 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>GFL0099923</b>	GFL0099948	GFL0099892
Sample Date	Client Info		<b>19 Dec 2023</b>	01 Dec 2023	15 Nov 2023
Machine Age	hrs	Client Info	<b>1844</b>	1658	1488
Oil Age	hrs	Client Info	<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>	8	18
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >9	<b>2</b>	2	3
Lead	ppm	ASTM D5185m >30	<b>&lt;1</b>	1	4
Copper	ppm	ASTM D5185m >35	<b>3</b>	8	10
Tin	ppm	ASTM D5185m >4	<b>1</b>	<1	2
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	<b>21</b>	27	25
Barium	ppm	ASTM D5185m 5	<b>&lt;1</b>	3	0
Molybdenum	ppm	ASTM D5185m 50	<b>53</b>	49	53
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	2
Magnesium	ppm	ASTM D5185m 560	<b>595</b>	529	720
Calcium	ppm	ASTM D5185m 1510	<b>1495</b>	1401	1399
Phosphorus	ppm	ASTM D5185m 780	<b>806</b>	685	781
Zinc	ppm	ASTM D5185m 870	<b>983</b>	886	968
Sulfur	ppm	ASTM D5185m 2040	<b>2608</b>	3649	2395

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	<b>17</b>	15	48
Sodium	ppm	ASTM D5185m	<b>3</b>	<1	4
Potassium	ppm	ASTM D5185m >20	<b>2</b>	2	3

## INFRA-RED

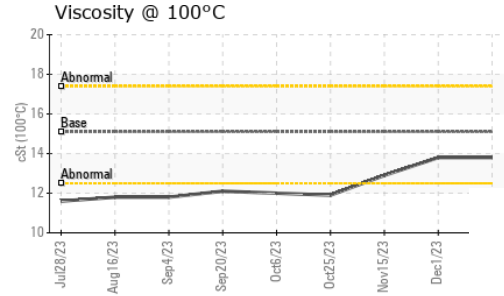
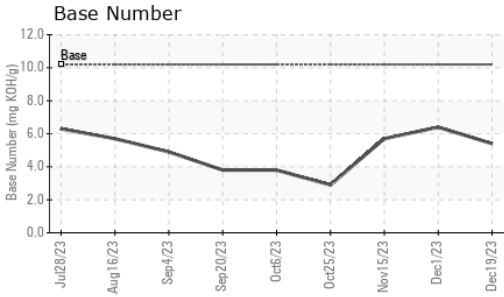
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0</b>	0	0
Nitration	Abs/cm	*ASTM D7624 >20	<b>10.0</b>	9.4	10.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.5</b>	20.5	23.3

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>18.0</b>	17.6	20.6
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>5.4</b>	6.4	5.7



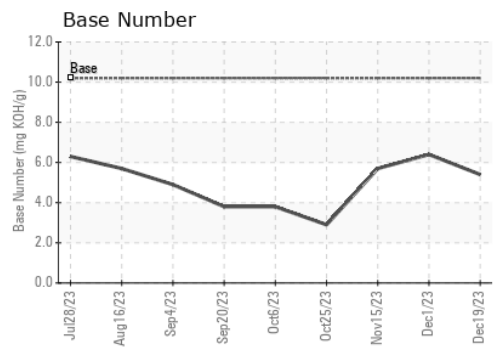
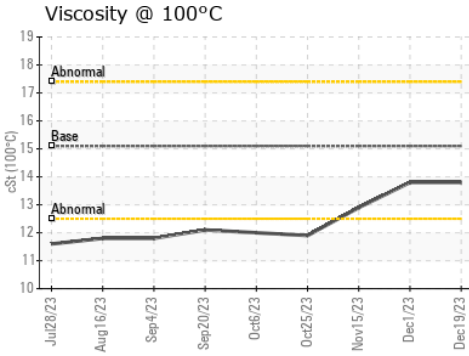
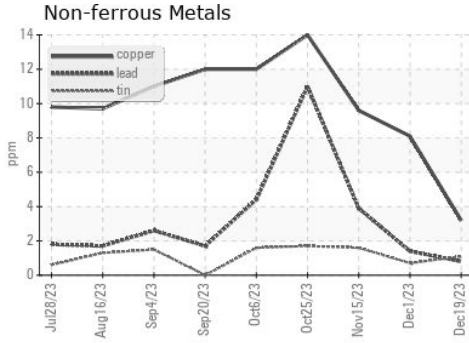
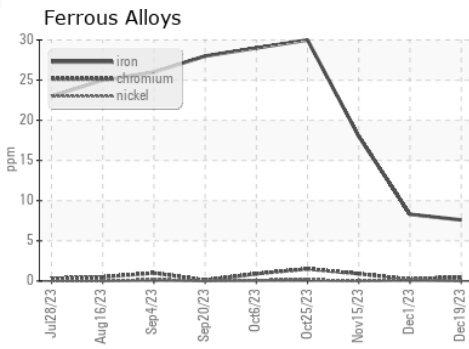
# OIL ANALYSIS REPORT



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>13.8</b>	13.8	12.9

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0099923 **Received** : 21 Dec 2023  
**Lab Number** : **06041821** **Diagnosed** : 22 Dec 2023  
**Unique Number** : 10802429 **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:

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)