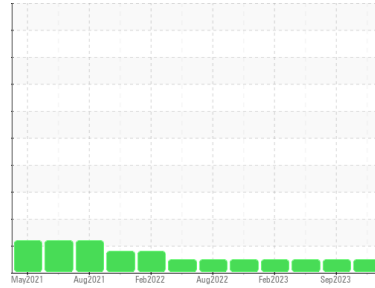




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**944012**

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>GFL0106964</b>	GFL0089720	GFL0077337
Sample Date	Client Info		<b>16 Dec 2023</b>	12 Sep 2023	19 Apr 2023
Machine Age	hrs	Client Info	<b>15170</b>	14620	13596
Oil Age	hrs	Client Info	<b>550</b>	1024	0
Oil Changed	Client Info		<b>Changed</b>	Changed	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>20</b>	4	14
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >9	<b>&lt;1</b>	3	2
Lead	ppm	ASTM D5185m >30	<b>1</b>	<1	0
Copper	ppm	ASTM D5185m >35	<b>&lt;1</b>	<1	<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>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	<b>1</b>	27	16
Barium	ppm	ASTM D5185m 5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 50	<b>56</b>	51	52
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 560	<b>816</b>	600	623
Calcium	ppm	ASTM D5185m 1510	<b>998</b>	1640	1508
Phosphorus	ppm	ASTM D5185m 780	<b>898</b>	793	792
Zinc	ppm	ASTM D5185m 870	<b>1102</b>	996	1027
Sulfur	ppm	ASTM D5185m 2040	<b>2742</b>	2992	2755

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	<b>3</b>	3	5
Sodium	ppm	ASTM D5185m	<b>17</b>	5	3
Potassium	ppm	ASTM D5185m >20	<b>6</b>	2	<1

## INFRA-RED

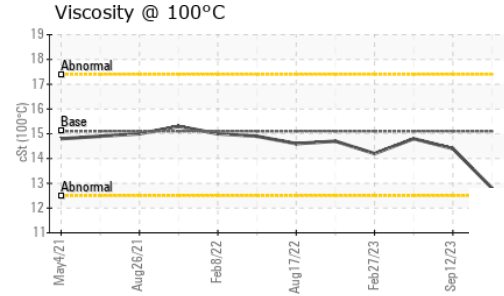
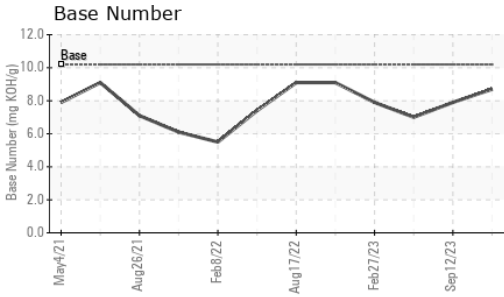
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>1.5</b>	0.1	0
Nitration	Abs/cm	*ASTM D7624 >20	<b>10.0</b>	8.7	8.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>21.0</b>	17.5	19.1

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.7</b>	14.6	16.4
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>8.7</b>	7.9	7.0



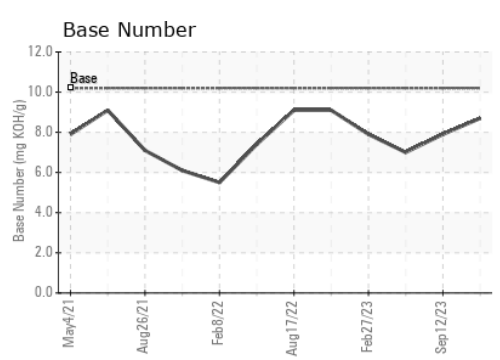
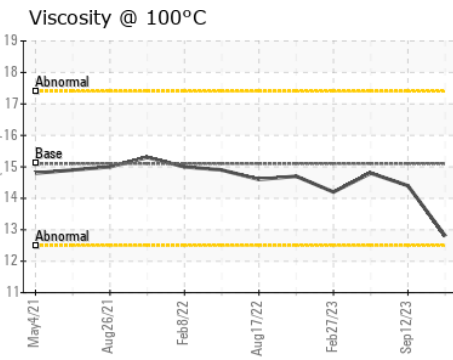
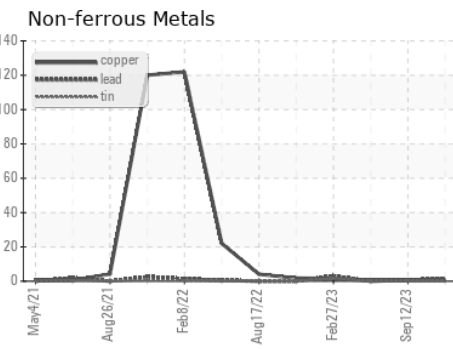
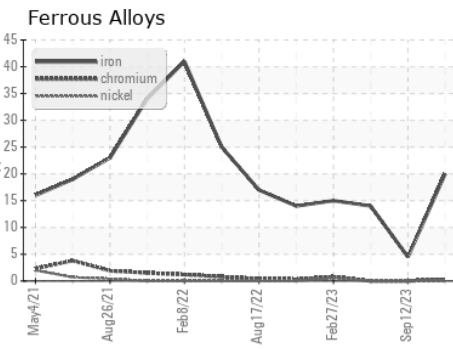
# OIL ANALYSIS REPORT



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>12.8</b>	14.4	14.8

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0106964 **Received** : 20 Dec 2023  
**Lab Number** : 06040350 **Diagnosed** : 21 Dec 2023  
**Unique Number** : 10795579 **Diagnostician** : Sean Felton  
**Test Package** : FLEET ( Additional Tests: FT-IR(Diff) )

**GFL Environmental - 882 - Gainesville**  
 5002 SW 41st Blvd  
 Gainesville, FL  
 US 32608  
 Contact: ROBERT CLARK  
 robert.clark@gflenv.com

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)