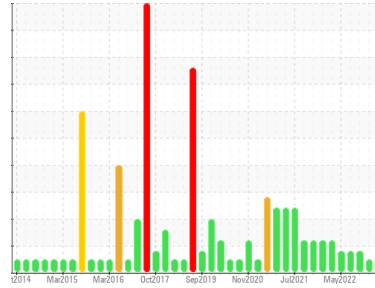




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**3443C**  
 Component  
**Natural Gas Engine**  
 Fluid

**PETRO CANADA DURON GEO LD 15W40 (28 QTS)**

## 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>GFL0069399</b>	GFL0061166	GFL0065771
Sample Date	Client Info	<b>17 Jul 2023</b>	09 May 2023	13 Dec 2022
Machine Age	hrs	Client Info	<b>14818</b>	14818
Oil Age	hrs	Client Info	<b>425</b>	14818
Oil Changed	Client Info	<b>N/A</b>	N/A	Changed
Sample Status		<b>NORMAL</b>	NORMAL	ABNORMAL

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	<b>8</b>	10	12
Chromium	ppm	ASTM D5185m >4	<b>1</b>	<1	1
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >9	<b>3</b>	1	3
Lead	ppm	ASTM D5185m >30	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m >35	<b>&lt;1</b>	4	▲ 51
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	1	<1
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>25</b>	20	35
Barium	ppm	ASTM D5185m 5	<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m 50	<b>49</b>	50	56
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 560	<b>581</b>	586	605
Calcium	ppm	ASTM D5185m 1510	<b>1623</b>	1560	1750
Phosphorus	ppm	ASTM D5185m 780	<b>757</b>	779	834
Zinc	ppm	ASTM D5185m 870	<b>954</b>	974	998
Sulfur	ppm	ASTM D5185m 2040	<b>2836</b>	2870	2901

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >+100	<b>6</b>	6	7
Sodium	ppm	ASTM D5185m	<b>4</b>	6	8
Potassium	ppm	ASTM D5185m >20	<b>6</b>	2	0

## INFRA-RED

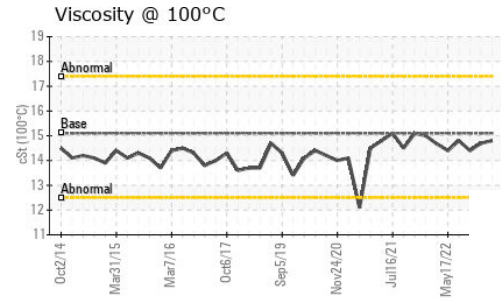
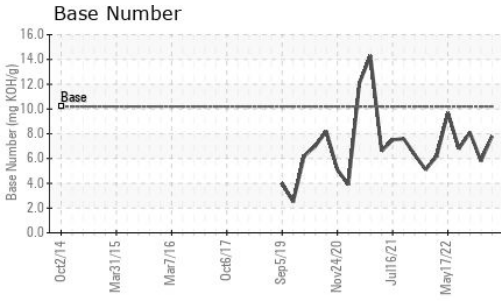
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	<b>0</b>	0	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.2</b>	8.4	9.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.4</b>	18.0	21.9

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.6</b>	15.9	18.2
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>7.8</b>	5.8	8.1



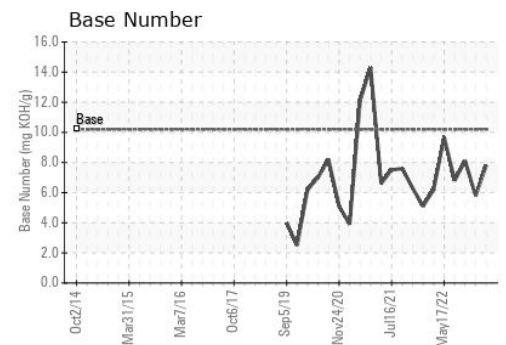
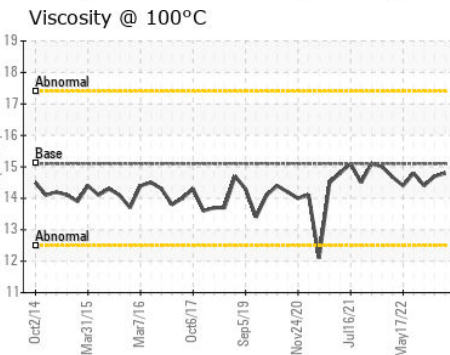
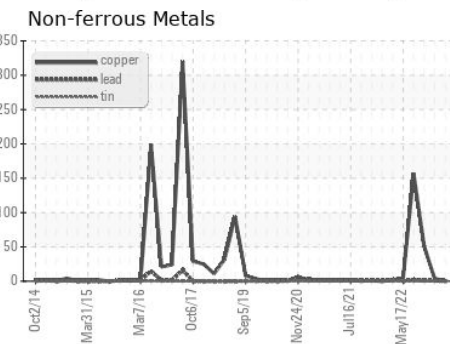
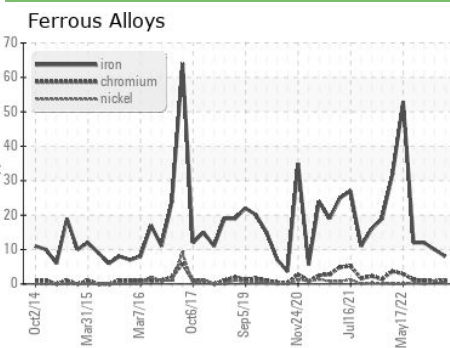
# OIL ANALYSIS REPORT



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>14.8</b>	14.7	14.4

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0069399  
 Lab Number : **05900646**  
 Unique Number : 10562002  
 Test Package : FLEET

**GFL Environmental - 017 - Durham**  
 148 Stone Park Court  
 Durham, NC  
 US 27703  
 Contact: Shane Parks  
 shane.parks@gflenv.com  
 T: (919)596-1363  
 F: (919)598-1852

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)