



# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**

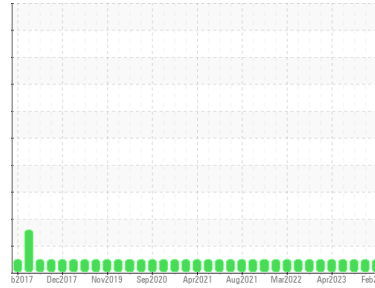


Area  
**(YA133498)**

Machine Id  
**2649C**

Component  
**Natural Gas Engine**

Fluid  
**PETRO CANADA DURON GEO LD 15W40 (12 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>GFL0088508</b>	GFL0088540	GFL0079606	
Sample Date	Client Info	<b>19 Feb 2024</b>	13 Sep 2023	03 Aug 2023	
Machine Age	hrs	Client Info	<b>7587</b>	7587	7587
Oil Age	hrs	Client Info	<b>181</b>	257	499
Oil Changed	Client Info	<b>Not Chngd</b>	N/A	N/A	
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>13</b>	6	7
Chromium	ppm	ASTM D5185m >4	<b>1</b>	1	2
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >9	<b>2</b>	<1	1
Lead	ppm	ASTM D5185m >30	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m >35	<b>0</b>	0	0
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</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>24</b>	24	18
Barium	ppm	ASTM D5185m 5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 50	<b>52</b>	56	51
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 560	<b>591</b>	660	613
Calcium	ppm	ASTM D5185m 1510	<b>1474</b>	1796	1706
Phosphorus	ppm	ASTM D5185m 780	<b>819</b>	845	794
Zinc	ppm	ASTM D5185m 870	<b>946</b>	1039	1044
Sulfur	ppm	ASTM D5185m 2040	<b>2354</b>	3069	2987

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >+100	<b>9</b>	7	4
Sodium	ppm	ASTM D5185m	<b>74</b>	31	19
Potassium	ppm	ASTM D5185m >20	<b>25</b>	7	4

## INFRA-RED

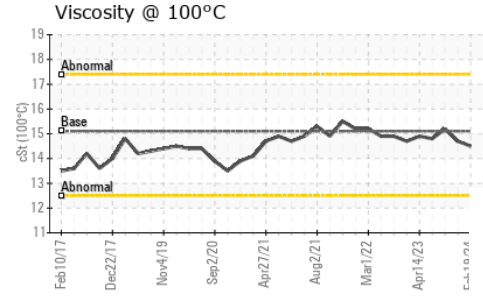
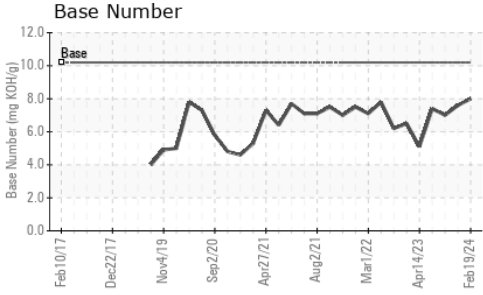
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.4</b>	8.7	9.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.2</b>	20.7	21.0

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.6</b>	17.2	17.6
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>8.0</b>	7.6	7.0



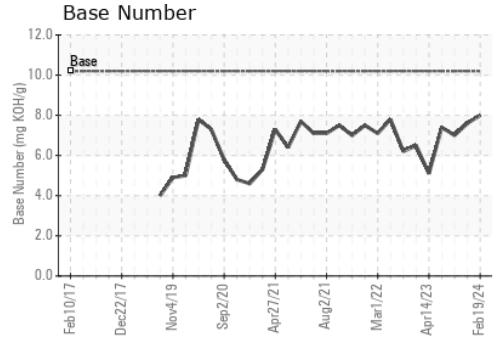
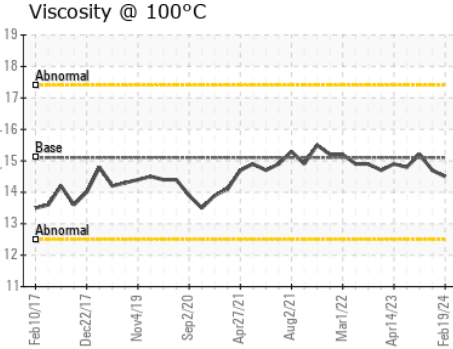
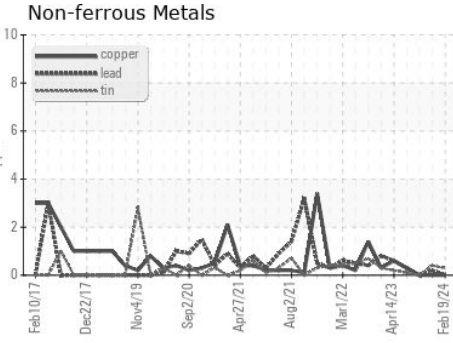
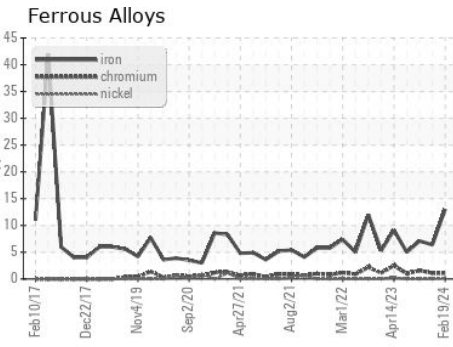
# OIL ANALYSIS REPORT



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>14.5</b>	14.7	15.2

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0088508  
**Lab Number** : 06094885  
**Unique Number** : 10887738  
**Test Package** : FLEET

**Received** : 20 Feb 2024  
**Tested** : 21 Feb 2024  
**Diagnosed** : 21 Feb 2024 - Wes Davis

**GFL Environmental - 017 - Durham**  
 148 Stone Park Court  
 Durham, NC  
 US 27703  
 Contact:

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)

bill.waring@wearcheck.com  
 T: (919)596-1363  
 F: (919)598-1852