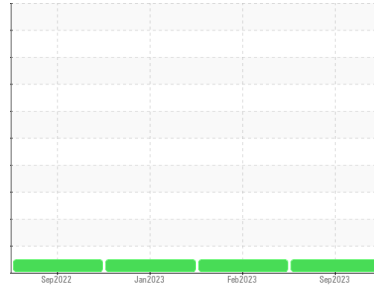




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**831053**  
 Component  
**Diesel 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>GFL0091640</b>	GFL0070716	GFL0063717
Sample Date	Client Info		<b>29 Sep 2023</b>	17 Feb 2023	11 Jan 2023
Machine Age	hrs	Client Info	<b>2867</b>	1828	1655
Oil Age	hrs	Client Info	<b>0</b>	788	615
Oil Changed	Client Info		<b>Changed</b>	N/A	Not Changd
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>120	<b>23</b>	14	14
Chromium	ppm	ASTM D5185(m)	>20	<b>2</b>	2	1
Nickel	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>3</b>	3	3
Lead	ppm	ASTM D5185(m)	>40	<b>6</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<b>2</b>	2	2
Tin	ppm	ASTM D5185(m)	>15	<b>1</b>	<1	<1
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	50	<b>9</b>	20	15
Barium	ppm	ASTM D5185(m)	5	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	50	<b>58</b>	53	53
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	1	1
Magnesium	ppm	ASTM D5185(m)	560	<b>603</b>	588	577
Calcium	ppm	ASTM D5185(m)	1510	<b>1666</b>	1683	1629
Phosphorus	ppm	ASTM D5185(m)	780	<b>750</b>	827	779
Zinc	ppm	ASTM D5185(m)	870	<b>950</b>	922	896
Sulfur	ppm	ASTM D5185(m)	2040	<b>1999</b>	2093	2019
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

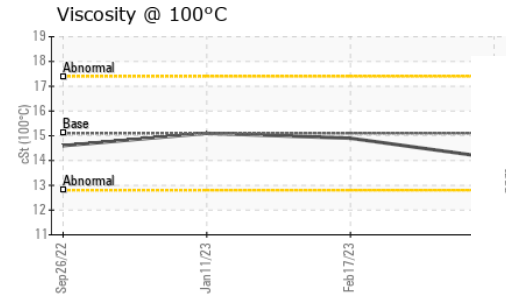
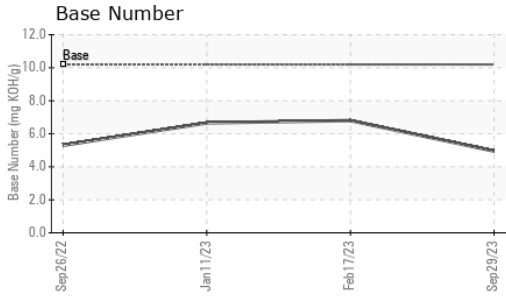
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	<b>8</b>	16	13
Sodium	ppm	ASTM D5185(m)		<b>9</b>	5	6
Potassium	ppm	ASTM D5185(m)	>20	<b>4</b>	2	2

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>4	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>11.5</b>	6.0	7.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>27.5</b>	17.5	19.4



# OIL ANALYSIS REPORT

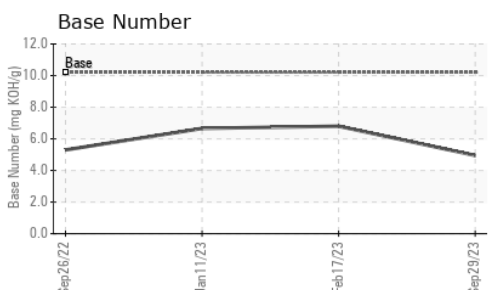
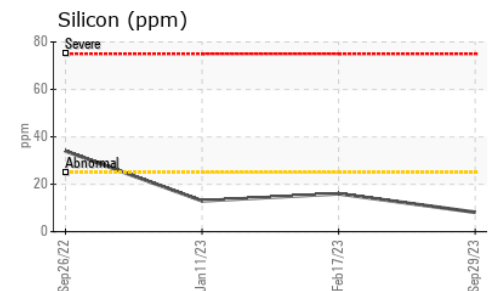
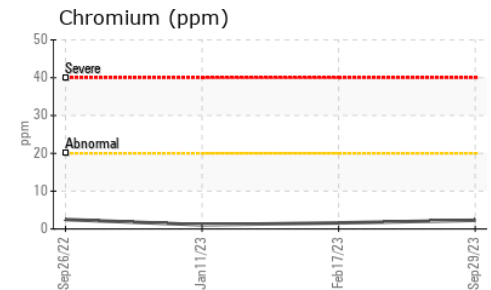
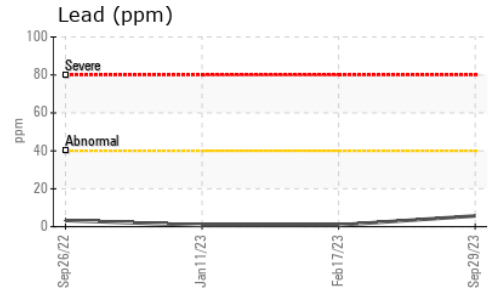
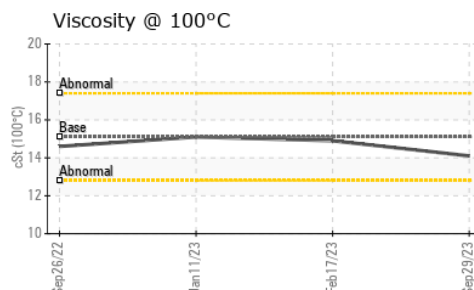
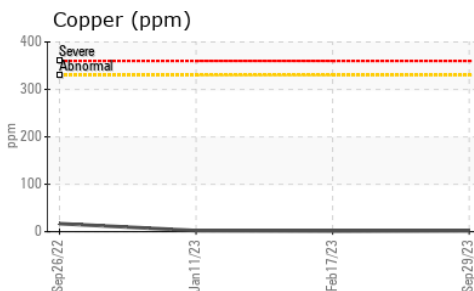
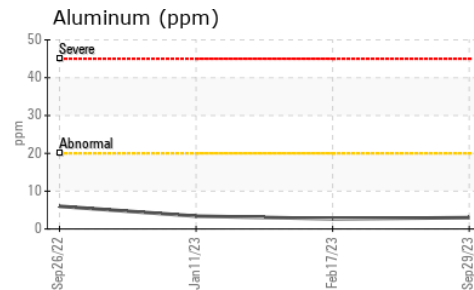
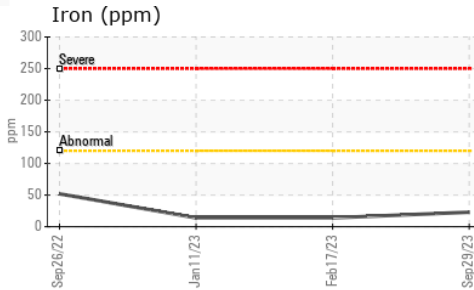


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>24.2</b>	10.4	13.8
Base Number (BN)	mg KOH/g	ASTM D2896*	10.2	<b>4.95</b>	6.80	6.66

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	<b>14.1</b>	14.9	15.1

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County  
**Sample No.** : GFL0091640 **Received** : 11 Oct 2023  
**Lab Number** : **02588264** **Diagnosed** : 16 Oct 2023  
**Unique Number** : 5657330 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.

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