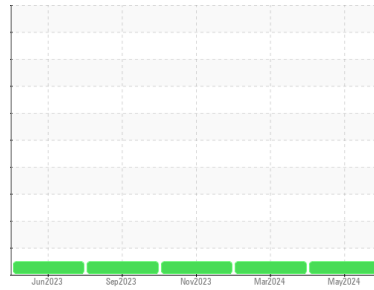




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**723049**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 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>GFL0086990</b>	GFL0086980	GFL0086917
Sample Date	Client Info		<b>23 May 2024</b>	08 Mar 2024	08 Nov 2023
Machine Age	hrs	Client Info	<b>16015</b>	14286	14282
Oil Age	hrs	Client Info	<b>1733</b>	600	600
Oil Changed	Client Info		<b>N/A</b>	Not Changd	Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >80	<b>26</b>	10	19
Chromium	ppm	ASTM D5185m >5	<b>1</b>	<1	<1
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>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m >30	<b>2</b>	<1	2
Lead	ppm	ASTM D5185m >30	<b>6</b>	1	5
Copper	ppm	ASTM D5185m >150	<b>2</b>	<1	2
Tin	ppm	ASTM D5185m >5	<b>1</b>	0	<1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>2</b>	3	5
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>61</b>	60	57
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m 1010	<b>917</b>	1006	926
Calcium	ppm	ASTM D5185m 1070	<b>1116</b>	1114	1017
Phosphorus	ppm	ASTM D5185m 1150	<b>1036</b>	1047	961
Zinc	ppm	ASTM D5185m 1270	<b>1205</b>	1286	1236
Sulfur	ppm	ASTM D5185m 2060	<b>3266</b>	3695	2840

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	<b>5</b>	3	3
Sodium	ppm	ASTM D5185m	<b>6</b>	2	3
Potassium	ppm	ASTM D5185m >20	<b>1</b>	0	0

## INFRA-RED

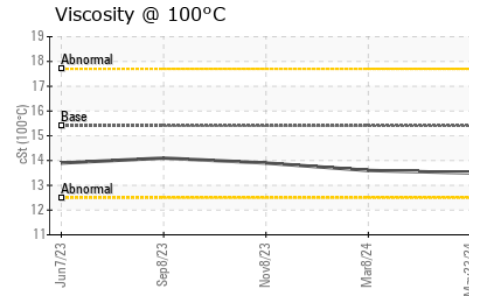
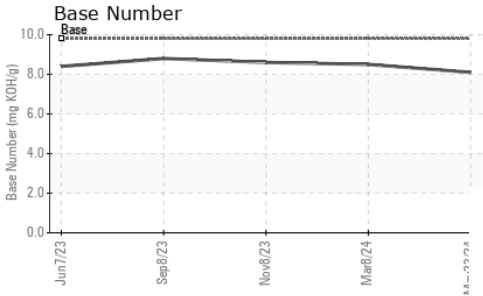
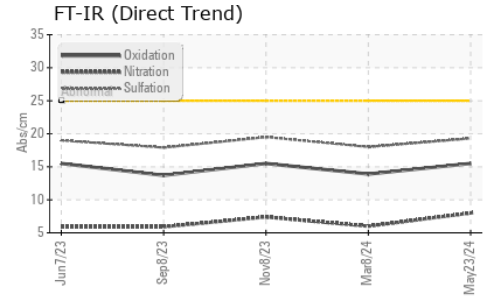
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.3</b>	0.2	0.4
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.0</b>	6.0	7.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.3</b>	18.0	19.5

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.5</b>	13.9	15.5
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.1</b>	8.5	8.6



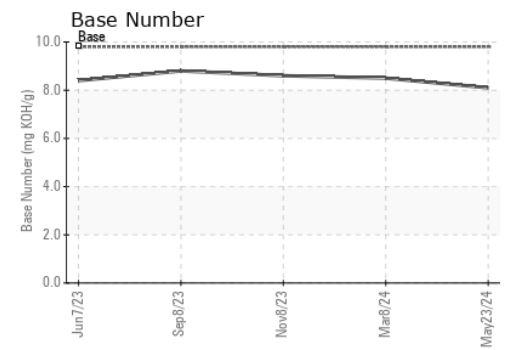
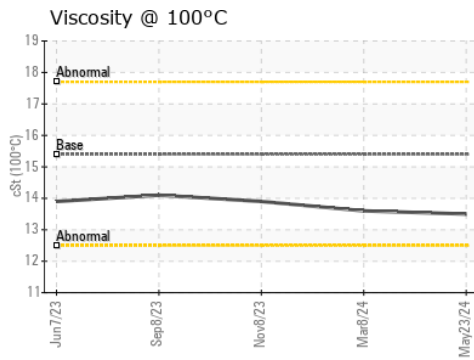
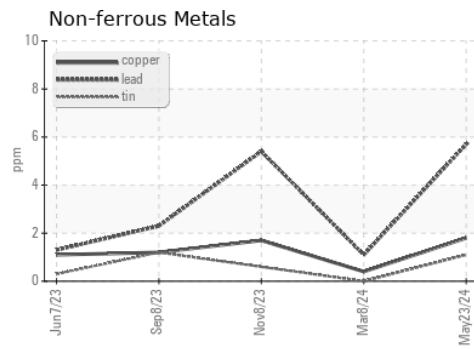
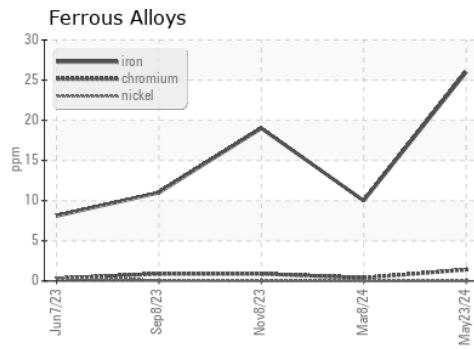
# OIL ANALYSIS REPORT



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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.5</b>	13.6	13.9

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0086990      **Received** : 29 May 2024  
**Lab Number** : **06194778**      **Tested** : 30 May 2024  
**Unique Number** : 11056901      **Diagnosed** : 30 May 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 408 - Brown City**  
 4235 M-53  
 BROWN CITY, MI  
 US 48416  
 Contact: MARK WOMBLE

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)

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F: