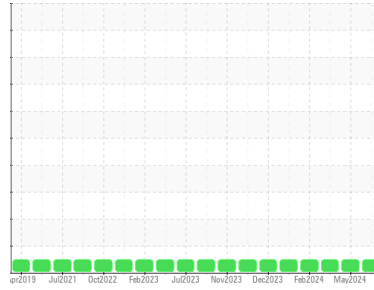




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**429051-402453**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 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>GFL0118219</b>	GFL0118220	GFL0109131
Sample Date	Client Info		<b>08 Jun 2024</b>	17 May 2024	13 Mar 2024
Machine Age	hrs	Client Info	<b>16036</b>	15887	15297
Oil Age	hrs	Client Info	<b>700</b>	600	600
Oil Changed	Client Info		<b>Not Changed</b>	Changed	Changed
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
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 >165	<b>3</b>	8	8
Chromium	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>&lt;1</b>	2	<1
Lead	ppm	ASTM D5185m >150	<b>&lt;1</b>	2	0
Copper	ppm	ASTM D5185m >90	<b>&lt;1</b>	<1	0
Tin	ppm	ASTM D5185m >5	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

### ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>1</b>	0	0
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>57</b>	60	61
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m 1010	<b>1029</b>	923	1026
Calcium	ppm	ASTM D5185m 1070	<b>1191</b>	1080	1140
Phosphorus	ppm	ASTM D5185m 1150	<b>1146</b>	1018	1106
Zinc	ppm	ASTM D5185m 1270	<b>1381</b>	1222	1336
Sulfur	ppm	ASTM D5185m 2060	<b>4043</b>	3056	3613

### CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >35	<b>3</b>	3	2
Sodium	ppm	ASTM D5185m	<b>3</b>	3	4
Potassium	ppm	ASTM D5185m >20	<b>0</b>	2	<1

### INFRA-RED

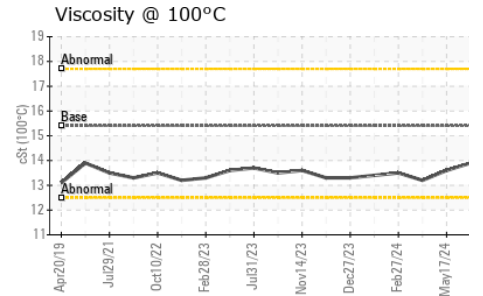
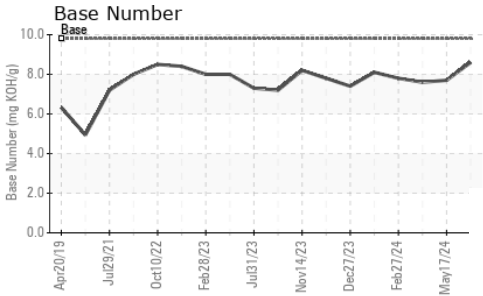
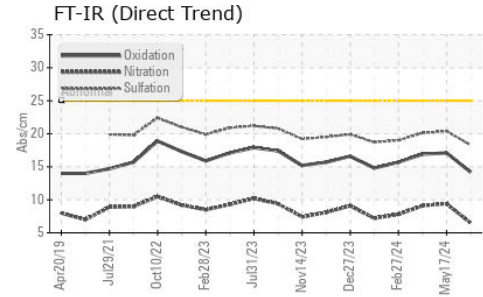
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >7.5	<b>0.2</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.5</b>	9.4	9.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.3</b>	20.4	20.1

### FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.2</b>	17.1	16.9
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.6</b>	7.7	7.6



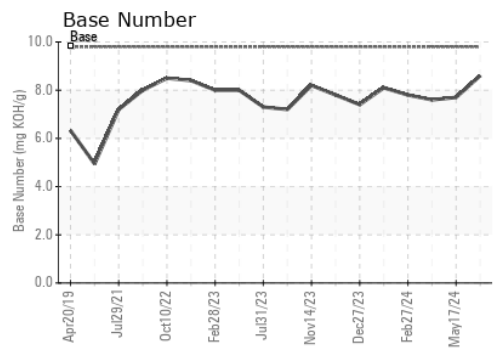
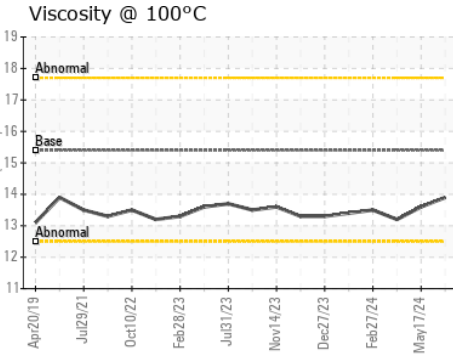
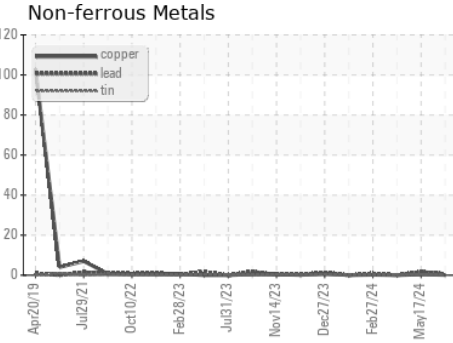
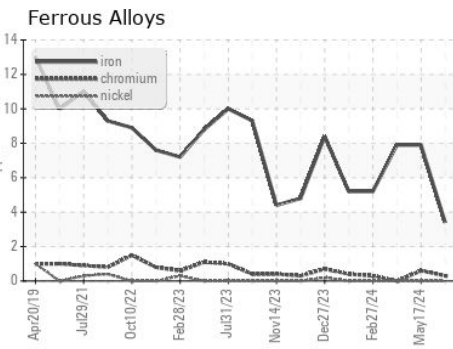
# OIL ANALYSIS REPORT



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>13.9</b>	13.6	13.2

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0118219  
**Lab Number** : **06224339**  
**Unique Number** : 11102536  
**Test Package** : FLEET

**GFL Environmental - 822 - Springfield Hauling**  
 2120 West Bennett Street  
 Springfield, MO  
 US 65807

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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