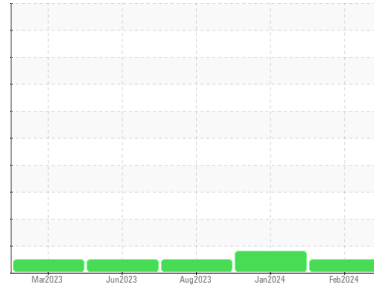




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**427123**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (40 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>GFL0098407</b>	GFL0098402	GFL0085655
Sample Date	Client Info	<b>19 Feb 2024</b>	04 Jan 2024	24 Aug 2023
Machine Age	hrs	<b>4091</b>	3904	8309
Oil Age	hrs	<b>4091</b>	3904	8309
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed
Sample Status		<b>NORMAL</b>	ABNORMAL	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 >100	<b>2</b>	31	19
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	3	1
Nickel	ppm ASTM D5185m >4	<b>0</b>	<1	0
Titanium	ppm ASTM D5185m	<b>0</b>	<1	<1
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>3</b>	4	5
Lead	ppm ASTM D5185m >40	<b>2</b>	8	3
Copper	ppm ASTM D5185m >330	<b>0</b>	3	2
Tin	ppm ASTM D5185m >15	<b>0</b>	<1	0
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	0	<1
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>74</b>	87	262
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>67</b>	92	123
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>913</b>	763	683
Calcium	ppm ASTM D5185m 1070	<b>1316</b>	1246	1640
Phosphorus	ppm ASTM D5185m 1150	<b>1039</b>	854	689
Zinc	ppm ASTM D5185m 1270	<b>1223</b>	1001	857
Sulfur	ppm ASTM D5185m 2060	<b>3141</b>	2830	2846

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>3</b>	6	7
Sodium	ppm ASTM D5185m	<b>5</b>	5	6
Potassium	ppm ASTM D5185m >20	<b>37</b>	19	2

## INFRA-RED

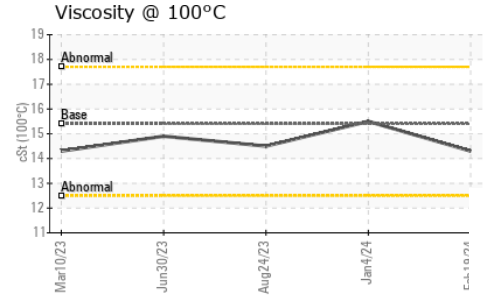
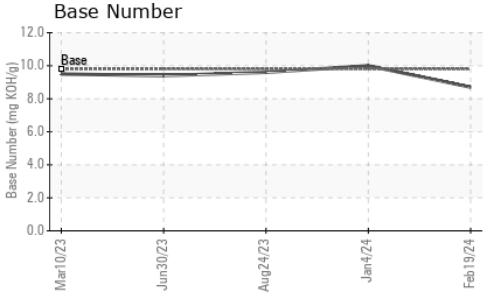
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>1.2</b>	▲ 3.3	2.3
Nitration	Abs/cm *ASTM D7624 >20	<b>7.8</b>	14.0	11.2
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>20.7</b>	30.2	27.9

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>14.6</b>	23.1	20.3
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.7</b>	10.0	9.6



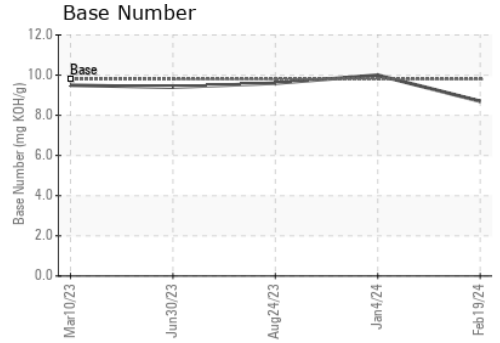
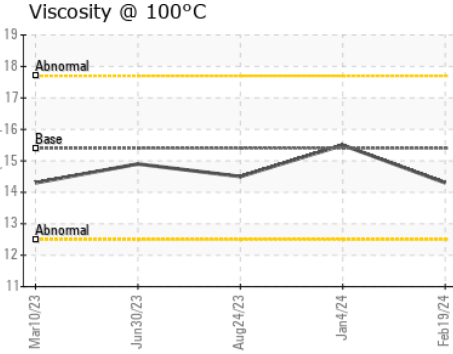
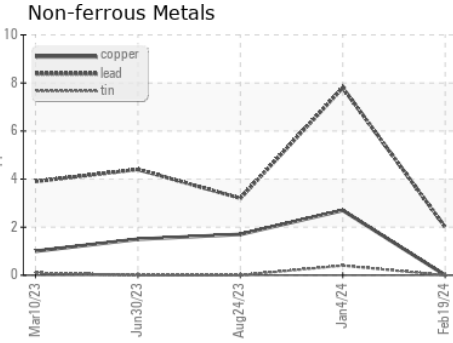
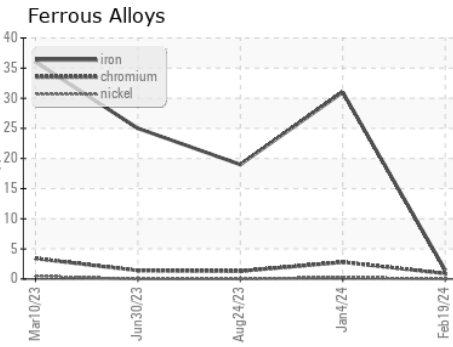
# OIL ANALYSIS REPORT



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>14.3</b>	15.5	14.5

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0098407  
**Lab Number** : **06100778**  
**Unique Number** : 10899008  
**Test Package** : FLEET

**GFL Environmental - 409 - Wood Island LF**  
 E10081 State Hwy M28  
 Wetmore, MI  
 US 49895  
 Contact: Service Manager

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: