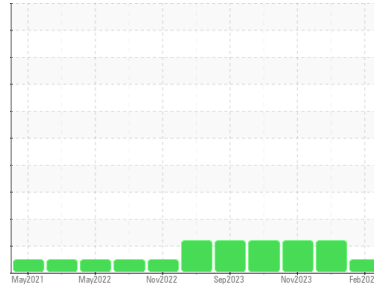




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**727024**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (24 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>GFL0110272</b>	GFL0102812	GFL0090476
Sample Date	Client Info		<b>14 Feb 2024</b>	01 Dec 2023	03 Nov 2023
Machine Age	hrs	Client Info	<b>15024</b>	14583	14420
Oil Age	hrs	Client Info	<b>586</b>	14420	580
Oil Changed	Client Info		<b>Changed</b>	Not Changd	Changed
Sample Status			<b>NORMAL</b>	MARGINAL	ATTENTION

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	▲ 3.7	<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>30</b>	9	17
Chromium	ppm	ASTM D5185m	>5	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>4</b>	4	3
Lead	ppm	ASTM D5185m	>30	<b>1</b>	<1	0
Copper	ppm	ASTM D5185m	>150	<b>&lt;1</b>	0	<1
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</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>6</b>	9	4
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	5
Molybdenum	ppm	ASTM D5185m	60	<b>58</b>	60	62
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	1010	<b>817</b>	882	840
Calcium	ppm	ASTM D5185m	1070	<b>985</b>	1037	996
Phosphorus	ppm	ASTM D5185m	1150	<b>918</b>	1013	904
Zinc	ppm	ASTM D5185m	1270	<b>1143</b>	1213	1144
Sulfur	ppm	ASTM D5185m	2060	<b>2559</b>	3009	2979

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>20	<b>6</b>	10	6
Sodium	ppm	ASTM D5185m		<b>35</b>	21	▲ 87
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	2	4

## INFRA-RED

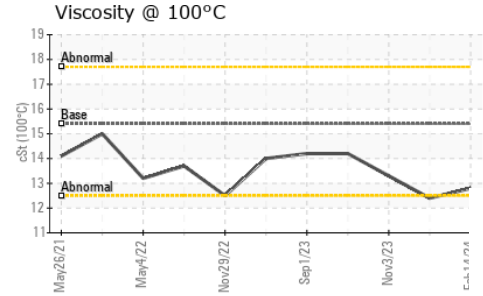
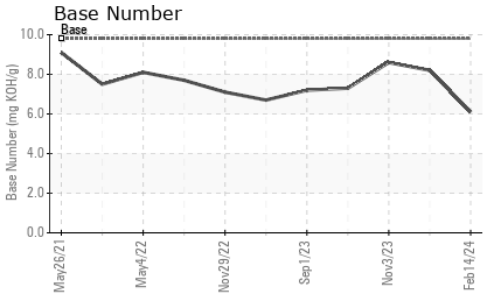
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	<b>0.7</b>	0.3	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.3</b>	7.5	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.1</b>	18.1	19.8

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.0</b>	13.8	15.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>6.1</b>	8.2	8.6



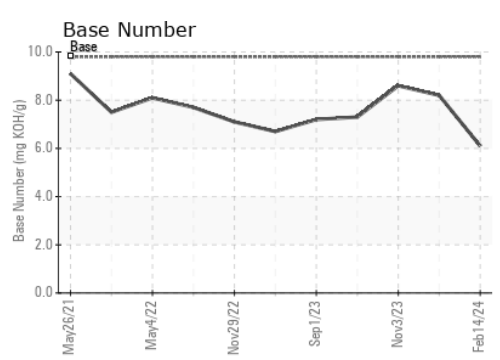
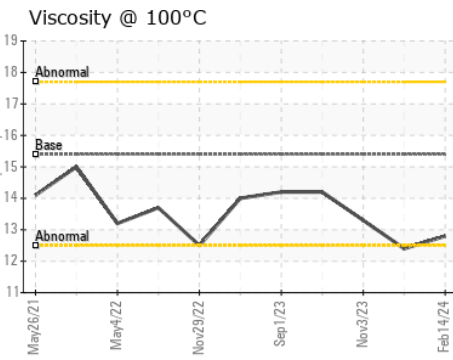
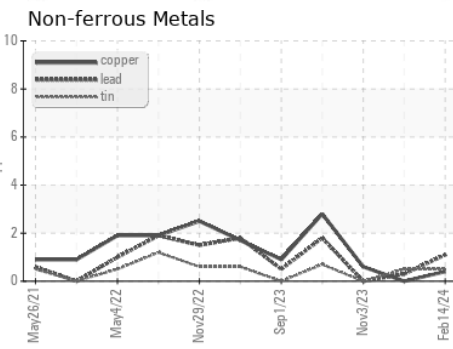
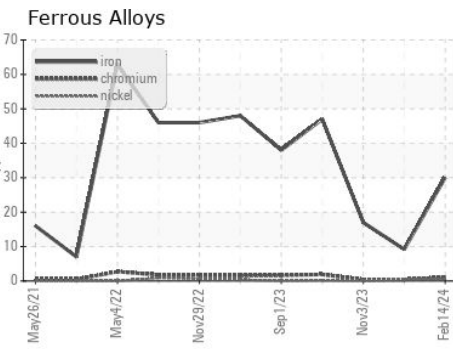
# OIL ANALYSIS REPORT



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>12.8</b>	▲ 12.4	13.3

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0110272  
**Lab Number** : 06096112  
**Unique Number** : 10888965  
**Test Package** : FLEET

**GFL Environmental - 622 - Traverse City Hauling**  
 160 Hughes Dr  
 Traverse City, MI  
 US 49686  
 Contact: GARY BREWER

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: