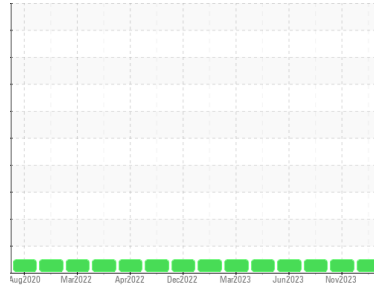




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**828025-3500**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (--- LTR)**

## 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>GFL0103910</b>	GFL0097376	GFL0089542
Sample Date	Client Info		<b>02 Feb 2024</b>	09 Nov 2023	19 Sep 2023
Machine Age	mls	Client Info	<b>86047</b>	86047	86047
Oil Age	mls	Client Info	<b>85808</b>	85808	85808
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
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>18</b>	35	26
Chromium	ppm	ASTM D5185m >5	<b>&lt;1</b>	1	1
Nickel	ppm	ASTM D5185m >2	<b>2</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m >30	<b>6</b>	9	6
Lead	ppm	ASTM D5185m >30	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m >150	<b>5</b>	16	6
Tin	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</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>4</b>	5	5
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>58</b>	58	61
Manganese	ppm	ASTM D5185m 0	<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>884</b>	938	1009
Calcium	ppm	ASTM D5185m 1070	<b>1018</b>	1008	1099
Phosphorus	ppm	ASTM D5185m 1150	<b>1021</b>	1009	1078
Zinc	ppm	ASTM D5185m 1270	<b>1228</b>	1287	1336
Sulfur	ppm	ASTM D5185m 2060	<b>3030</b>	3004	3827

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	<b>6</b>	14	14
Sodium	ppm	ASTM D5185m	<b>5</b>	4	5
Potassium	ppm	ASTM D5185m >20	<b>6</b>	4	4

## INFRA-RED

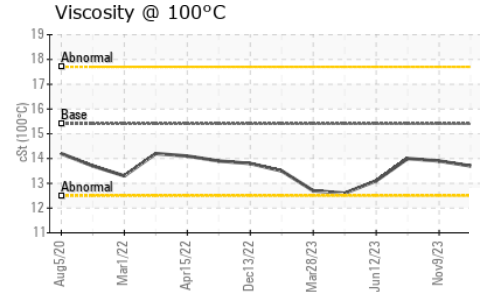
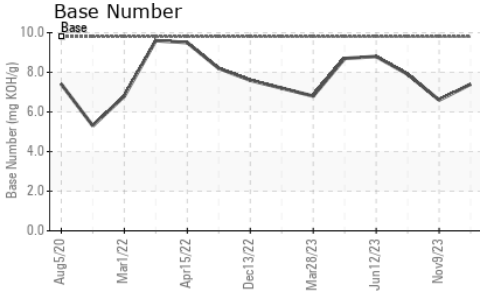
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.5</b>	0.6	0.5
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.2</b>	10.9	9.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.4</b>	20.8	19.5

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.6</b>	17.3	15.8
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.4</b>	6.6	7.9



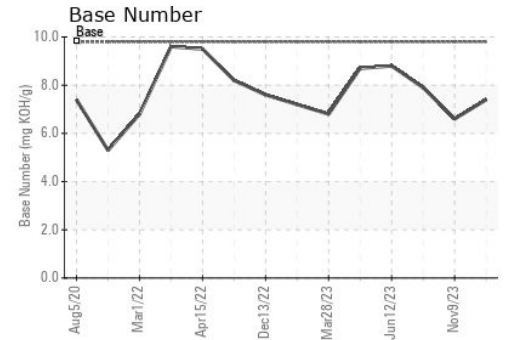
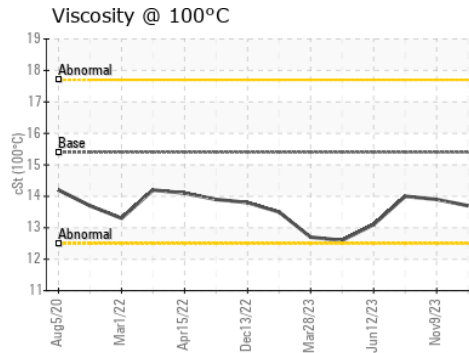
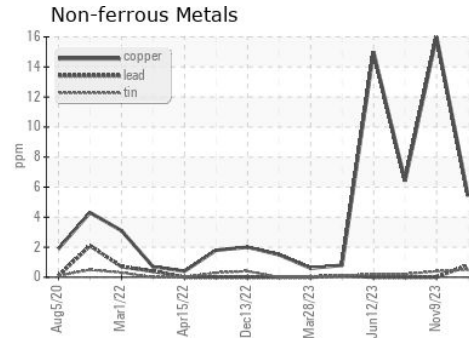
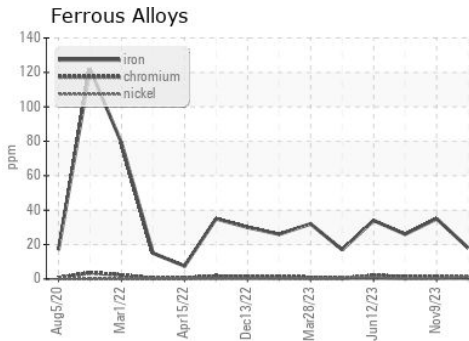
# OIL ANALYSIS REPORT



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>13.7</b>	13.9	14.0

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0103910  
**Lab Number** : **06081917**  
**Unique Number** : 10869362  
**Test Package** : FLEET

**Received** : 06 Feb 2024  
**Tested** : 07 Feb 2024  
**Diagnosed** : 07 Feb 2024 - Wes Davis

**GFL Environmental - 654S - Midlothian**  
 12230 Deergrove Road  
 Midlothian, VA  
 US 23112  
 Contact: Corbin Umphlet  
 cumphlet@gflenv.com

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)

T:  
F: