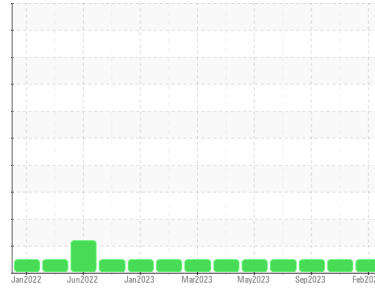




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**811010**  
 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>GFL0103914</b>	GFL0097368	GFL0089551
Sample Date	Client Info		<b>02 Feb 2024</b>	20 Nov 2023	05 Sep 2023
Machine Age	hrs	Client Info	<b>36745</b>	36745	6393
Oil Age	hrs	Client Info	<b>36745</b>	36745	630
Oil Changed	Client Info		<b>N/A</b>	N/A	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 >120	<b>11</b>	39	11
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m >5	<b>2</b>	2	<1
Titanium	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	2	<1
Lead	ppm	ASTM D5185m >40	<b>2</b>	<1	<1
Copper	ppm	ASTM D5185m >330	<b>2</b>	4	14
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	<1	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>3</b>	4	5
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>59</b>	55	60
Manganese	ppm	ASTM D5185m 0	<b>1</b>	1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>890</b>	870	946
Calcium	ppm	ASTM D5185m 1070	<b>1045</b>	1029	1047
Phosphorus	ppm	ASTM D5185m 1150	<b>980</b>	805	949
Zinc	ppm	ASTM D5185m 1270	<b>1229</b>	1141	1208
Sulfur	ppm	ASTM D5185m 2060	<b>2774</b>	3078	3084

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>4</b>	6	4
Sodium	ppm	ASTM D5185m	<b>4</b>	3	5
Potassium	ppm	ASTM D5185m >20	<b>4</b>	2	2

## INFRA-RED

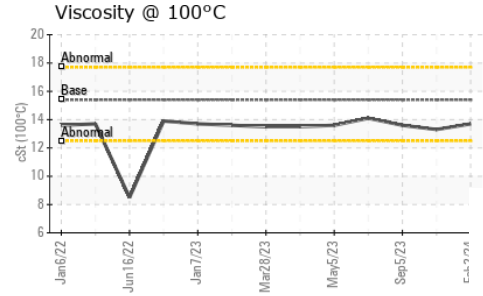
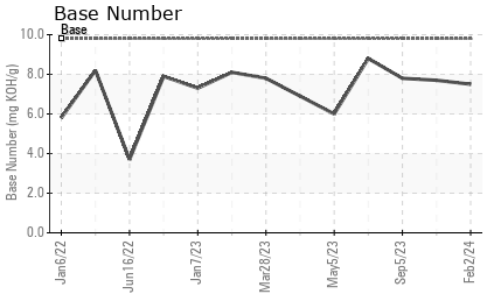
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.7</b>	0.6	0.6
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.6</b>	7.5	7.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.7</b>	19.6	19.3

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.1</b>	15.3	14.8
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.5</b>	7.7	7.8



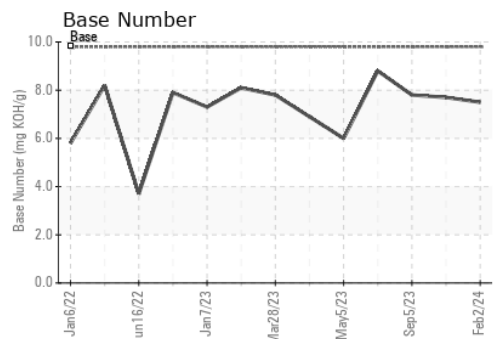
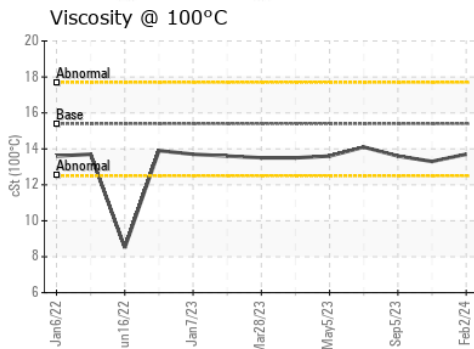
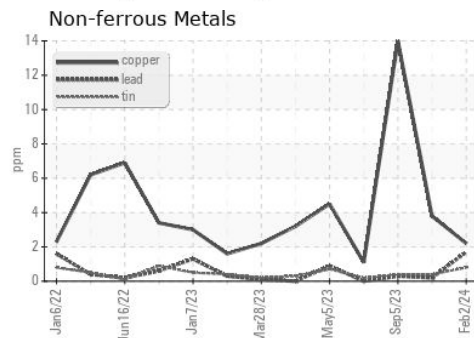
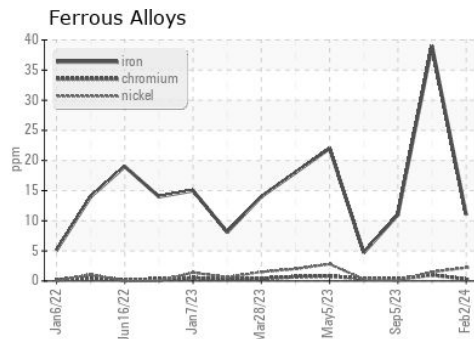
# OIL ANALYSIS REPORT



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>	13.3	13.6

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0103914      **Received** : 06 Feb 2024  
**Lab Number** : 06081940      **Tested** : 07 Feb 2024  
**Unique Number** : 10869385      **Diagnosed** : 07 Feb 2024 - Wes Davis  
**Test Package** : FLEET

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

Certificate L2367  
 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)