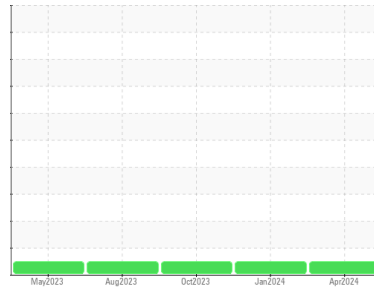




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id

**913048**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON SHP 15W40 (--- 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>GFL0113940</b>	GFL0093744	GFL0093728
Sample Date	Client Info		<b>17 Apr 2024</b>	24 Jan 2024	27 Oct 2023
Machine Age	hrs	Client Info	<b>2951</b>	2378	1793
Oil Age	hrs	Client Info	<b>2378</b>	1793	1177
Oil Changed	Client Info		<b>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 >90	<b>16</b>	15	15
Chromium	ppm	ASTM D5185m >20	<b>1</b>	1	2
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>4</b>	4	8
Lead	ppm	ASTM D5185m >40	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m >330	<b>&lt;1</b>	1	1
Tin	ppm	ASTM D5185m >15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>2</b>	9	2
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>59</b>	51	57
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>986</b>	867	853
Calcium	ppm	ASTM D5185m 1070	<b>1120</b>	1023	990
Phosphorus	ppm	ASTM D5185m 1150	<b>1004</b>	917	1021
Zinc	ppm	ASTM D5185m 1270	<b>1328</b>	1201	1183
Sulfur	ppm	ASTM D5185m 2060	<b>3848</b>	2993	3291

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>4</b>	4	5
Sodium	ppm	ASTM D5185m	<b>2</b>	<1	3
Potassium	ppm	ASTM D5185m >20	<b>7</b>	10	22

## INFRA-RED

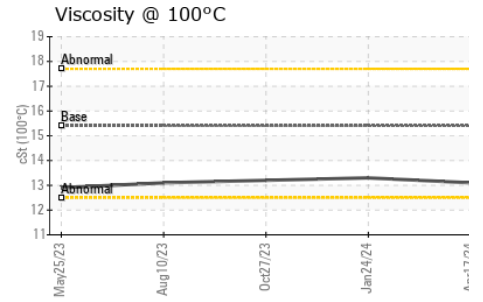
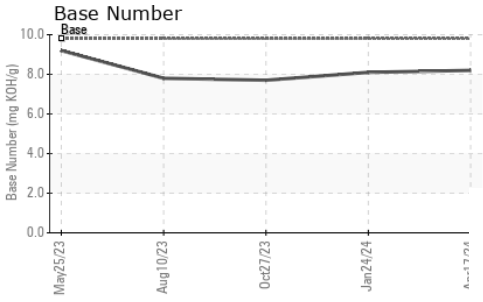
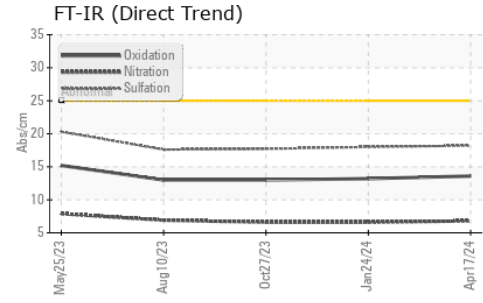
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >6	<b>0.4</b>	0.4	0.4
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.8</b>	6.6	6.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.2</b>	18.0	17.7

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>13.6</b>	13.2	13.0
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.2</b>	8.1	7.7



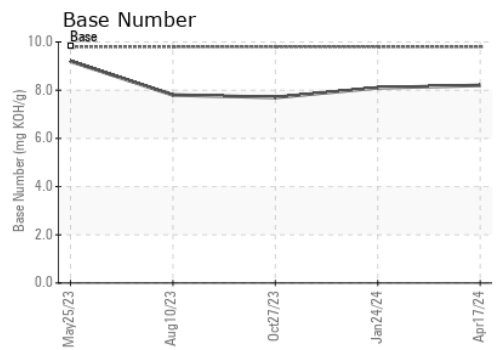
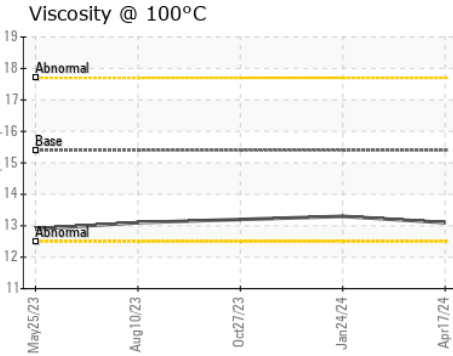
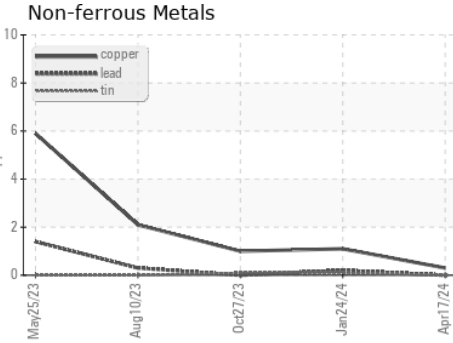
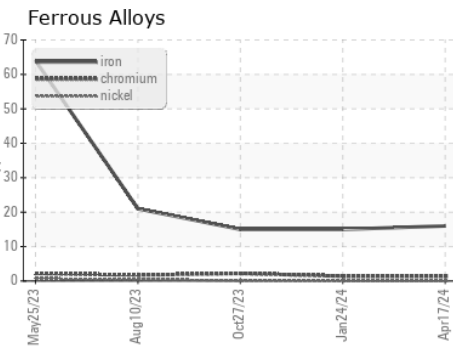
# OIL ANALYSIS REPORT



PARAMETER	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>13.1</b>	13.3	13.2

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0113940  
**Lab Number** : **06159655**  
**Unique Number** : 10995078  
**Test Package** : FLEET  
**Received** : 24 Apr 2024  
**Tested** : 25 Apr 2024  
**Diagnosed** : 25 Apr 2024 - Wes Davis

**GFL Environmental - 029 - Wytheville**  
 2390 North 4th Street  
 Wytheville, VA  
 US 24382  
 Contact: CHARLES CORVIN  
 charles.corvin@gflenv.com; canastasio@wearcheckusa.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)

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