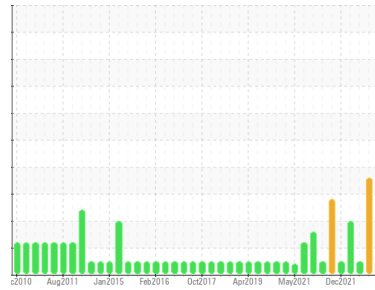




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id

**2295**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON SHP 15W40 (48 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	history 1	history 2
Sample Number	Client Info		<b>GFL0072398</b>	GFL0072349	GFL0040233
Sample Date	Client Info		<b>15 Jun 2023</b>	24 Jan 2023	21 Apr 2022
Machine Age	mls	Client Info	<b>455994</b>	455994	0
Oil Age	mls	Client Info	<b>455994</b>	253	659
Oil Changed	Client Info		<b>Changed</b>	N/A	Changed
Sample Status			<b>NORMAL</b>	SEVERE	NORMAL

## CONTAMINATION

	method	limit/base	current	history 1	history 2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >120	<b>12</b>	117	40
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	2	<1
Nickel	ppm	ASTM D5185m >5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	6	1
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	5	1
Copper	ppm	ASTM D5185m >330	<b>2</b>	24	3
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	2	<1
Antimony	ppm	ASTM D5185m	<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m 0	<b>144</b>	3	10
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>74</b>	54	59
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>207</b>	856	936
Calcium	ppm	ASTM D5185m 1070	<b>1743</b>	978	1111
Phosphorus	ppm	ASTM D5185m 1150	<b>955</b>	848	1042
Zinc	ppm	ASTM D5185m 1270	<b>1116</b>	1055	1179
Sulfur	ppm	ASTM D5185m 2060	<b>3566</b>	2825	2811

## CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	<b>8</b>	16	3
Sodium	ppm	ASTM D5185m	<b>2</b>	3	1
Potassium	ppm	ASTM D5185m >20	<b>2</b>	1	0

## INFRA-RED

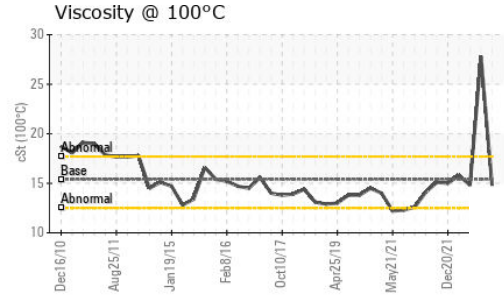
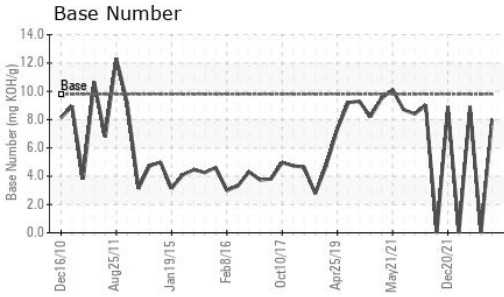
	method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844 >4	<b>0.9</b>	7.3	3.6
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.6</b>	27.2	8.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.3</b>	55.7	25.2

## FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>13.9</b>	68.4	15.1
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.0</b>	0.0	8.9



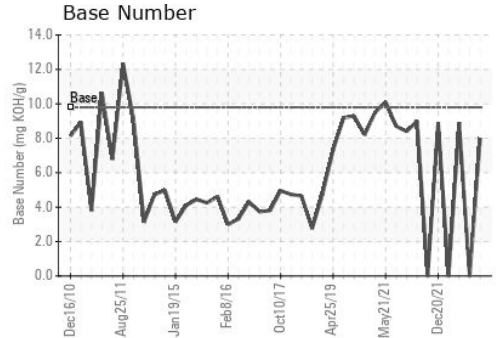
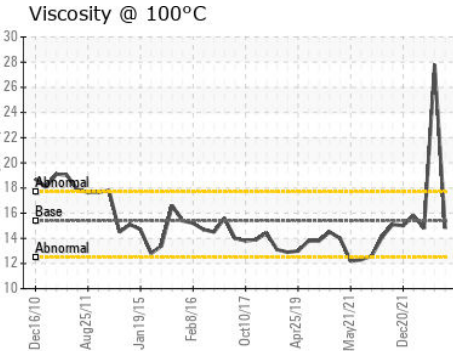
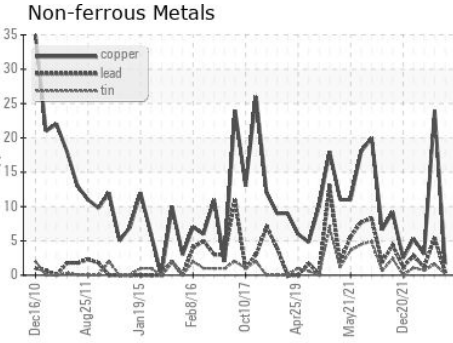
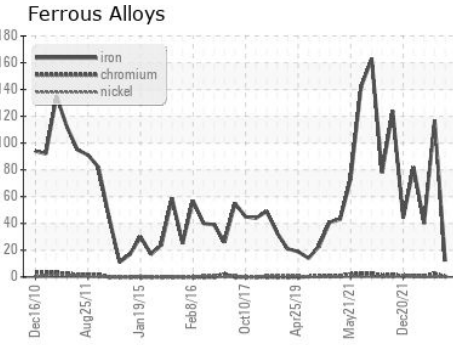
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2
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	history 1	history 2	
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.8</b>	▲ 27.8	14.8

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0072398 **Received** : 30 Jun 2023  
**Lab Number** : **05887744** **Diagnosed** : 04 Jul 2023  
**Unique Number** : 10538227 **Diagnostician** : Don Baldrige  
**Test Package** : FLEET

**GFL Environmental - 005 - Wilson/Tri-East(CNG)**  
 2810 Contentnea Road S  
 Wilson, NC  
 US 27893-8501  
 Contact: SPENCER LIGGON  
 spencer.liggon@gflenv.com  
 T: (800)207-6618  
 F:

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)