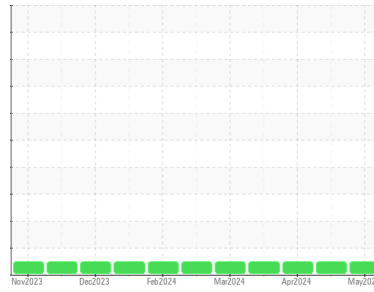




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**(58C686)**

Machine Id  
**814050**

Component  
**Diesel Engine**

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

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. 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>GFL0117942</b>	GFL0117932	GFL0117952
Sample Date	Client Info		<b>28 May 2024</b>	16 May 2024	26 Apr 2024
Machine Age	hrs	Client Info	<b>1617</b>	1533	1433
Oil Age	hrs	Client Info	<b>588</b>	504	404
Oil Changed	Client Info		<b>Changed</b>	Not Changd	Not Changd
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	>100	<b>14</b>	11	9
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>20	<b>21</b>	15	12
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>1</b>	<1	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	0	<b>5</b>	0	2
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m	60	<b>66</b>	62	59
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>948</b>	1035	910
Calcium	ppm	ASTM D5185m	1070	<b>1140</b>	1154	1097
Phosphorus	ppm	ASTM D5185m	1150	<b>1044</b>	1067	1084
Zinc	ppm	ASTM D5185m	1270	<b>1219</b>	1313	1240
Sulfur	ppm	ASTM D5185m	2060	<b>3405</b>	3729	3301

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	<b>4</b>	5	7
Sodium	ppm	ASTM D5185m		<b>6</b>	5	4
Potassium	ppm	ASTM D5185m	>20	<b>51</b>	37	24

## INFRA-RED

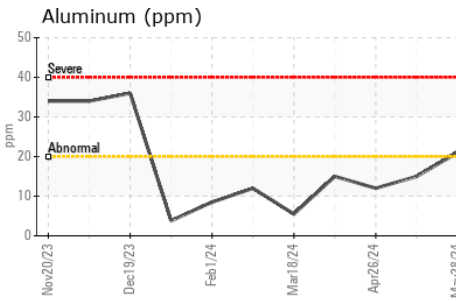
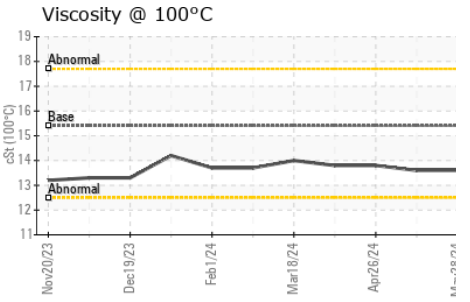
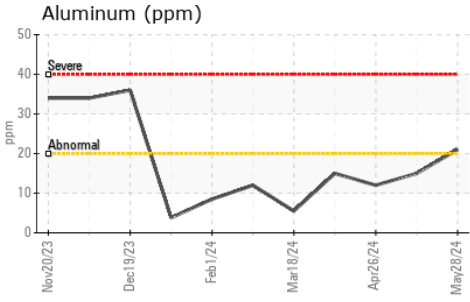
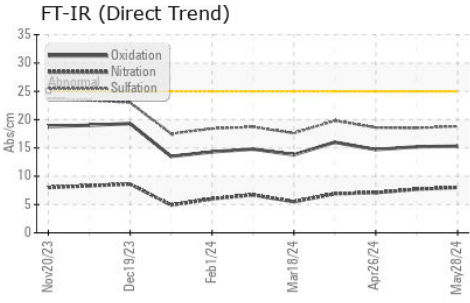
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.0</b>	7.7	7.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.8</b>	18.5	18.6

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.3</b>	15.2	14.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.7</b>	7.7	8.6



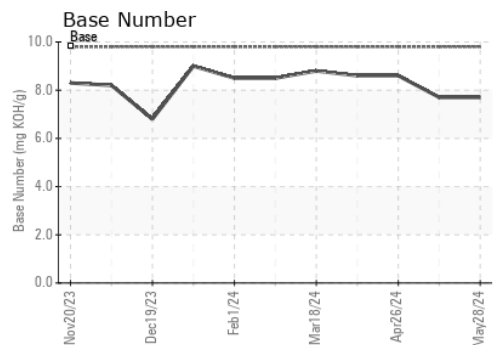
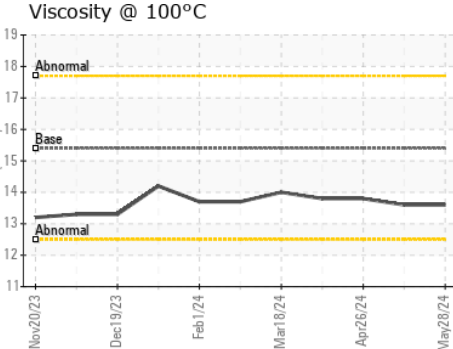
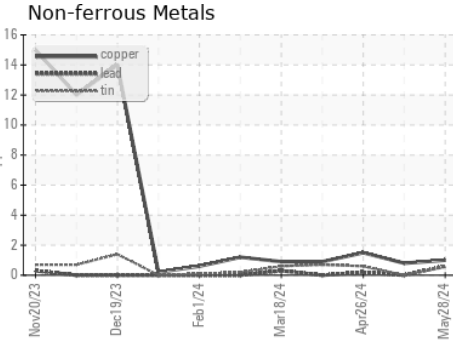
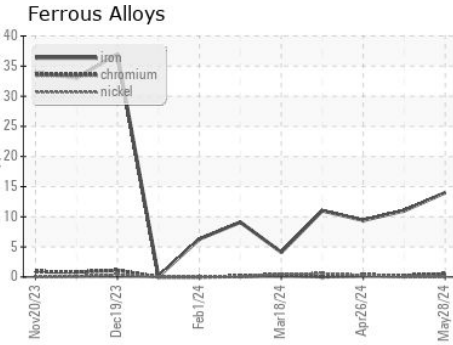
# OIL ANALYSIS REPORT



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	LIGHT
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>13.6</b>	13.6	13.8

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0117942      **Received** : 29 May 2024  
**Lab Number** : **06194772**      **Tested** : 30 May 2024  
**Unique Number** : 11056895      **Diagnosed** : 30 May 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 892 - Pauls Valley Hauling**  
 1910 S CHICKASAW STREET  
 Pauls Valley, OK  
 US 73075  
 Contact: Tony Graham  
 tgraham2@wcamerica.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)