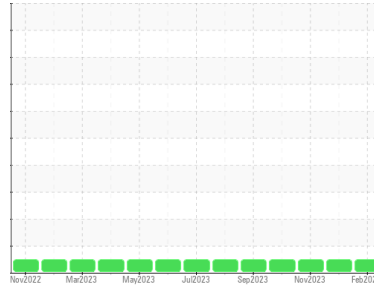




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**420020-402465**

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>GFL0110913</b>	GFL0103011	GFL0098841
Sample Date	Client Info		<b>07 Feb 2024</b>	22 Nov 2023	01 Nov 2023
Machine Age	hrs	Client Info	<b>6241</b>	6109	5964
Oil Age	hrs	Client Info	<b>132</b>	145	164
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	>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 >110	<b>6</b>	4	7
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>4</b>	2	5
Lead	ppm	ASTM D5185m >45	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m >85	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</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>	3	0
Barium	ppm	ASTM D5185m 0	<b>0</b>	<1	5
Molybdenum	ppm	ASTM D5185m 60	<b>57</b>	59	61
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m 1010	<b>984</b>	935	905
Calcium	ppm	ASTM D5185m 1070	<b>1010</b>	1049	975
Phosphorus	ppm	ASTM D5185m 1150	<b>1065</b>	1001	958
Zinc	ppm	ASTM D5185m 1270	<b>1257</b>	1194	1210
Sulfur	ppm	ASTM D5185m 2060	<b>3184</b>	3332	3249

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	<b>4</b>	4	4
Sodium	ppm	ASTM D5185m	<b>4</b>	<1	4
Potassium	ppm	ASTM D5185m >20	<b>6</b>	4	10

## INFRA-RED

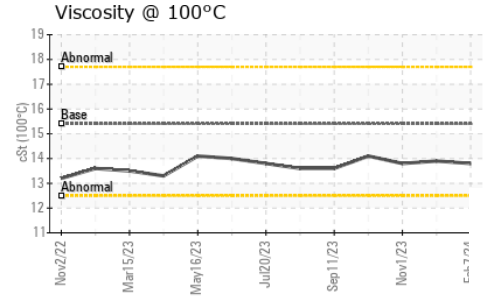
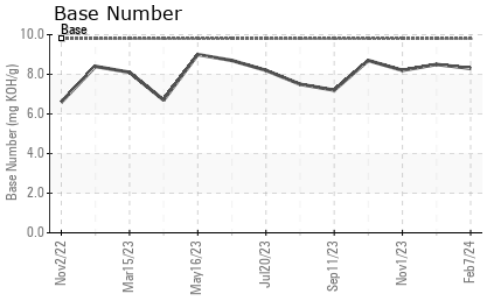
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.2</b>	0.1	0.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.6</b>	5.8	7.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.4</b>	17.9	19.1

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.4</b>	14.0	15.1
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.3</b>	8.5	8.2



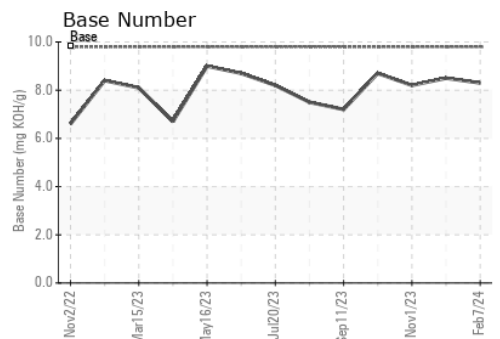
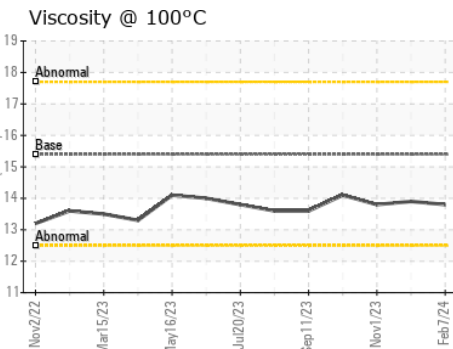
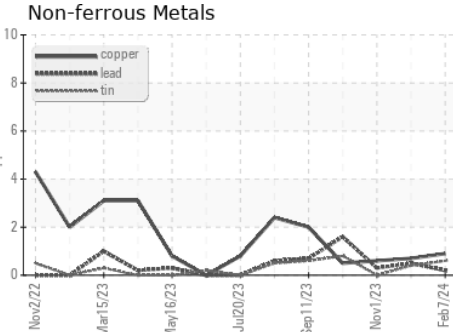
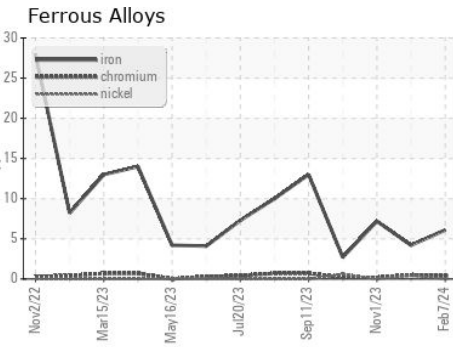
# OIL ANALYSIS REPORT



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>13.8</b>	13.9	13.8

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0110913  
**Lab Number** : 06089323  
**Unique Number** : 10876768  
**Test Package** : FLEET

**Received** : 14 Feb 2024  
**Tested** : 15 Feb 2024  
**Diagnosed** : 15 Feb 2024 - Wes Davis

**GFL Environmental - 814 - Little Rock Hauling**  
 4005 Hwy 161 N.  
 Little Rock, AR  
 US 72117  
 Contact: Brad Koenig  
 bkoenig@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)

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F: