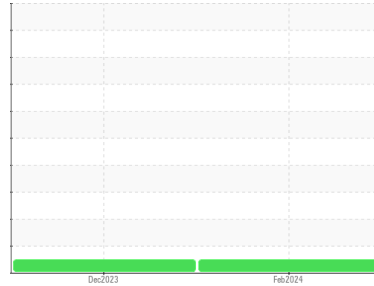




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**420108**

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>GFL0104960</b>	GFL0088121	---
Sample Date	Client Info		<b>28 Feb 2024</b>	18 Dec 2023	---
Machine Age	hrs	Client Info	<b>60851</b>	0	---
Oil Age	hrs	Client Info	<b>0</b>	0	---
Oil Changed	Client Info		<b>Not Changed</b>	N/A	---
Sample Status			<b>NORMAL</b>	NORMAL	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	---
Water	WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol	WC Method		<b>NEG</b>	NEG	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>10</b>	6	---
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185m	<b>0</b>	0	---
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m >20	<b>8</b>	5	---
Lead	ppm	ASTM D5185m >40	<b>0</b>	<1	---
Copper	ppm	ASTM D5185m >330	<b>&lt;1</b>	<1	---
Tin	ppm	ASTM D5185m >15	<b>1</b>	0	---
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	---
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	---
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m 60	<b>53</b>	55	---
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	---
Magnesium	ppm	ASTM D5185m 1010	<b>903</b>	882	---
Calcium	ppm	ASTM D5185m 1070	<b>1020</b>	941	---
Phosphorus	ppm	ASTM D5185m 1150	<b>920</b>	874	---
Zinc	ppm	ASTM D5185m 1270	<b>1181</b>	1170	---
Sulfur	ppm	ASTM D5185m 2060	<b>3480</b>	2983	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>4</b>	3	---
Sodium	ppm	ASTM D5185m	<b>2</b>	0	---
Potassium	ppm	ASTM D5185m >20	<b>9</b>	5	---

## INFRA-RED

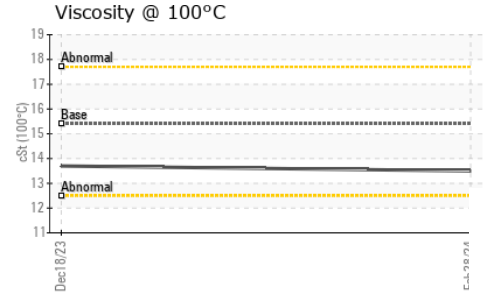
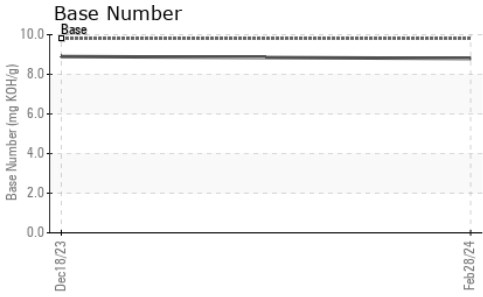
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.1</b>	0.1	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>5.5</b>	4.9	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>17.4</b>	17.3	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>13.9</b>	13.3	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.8</b>	8.9	---



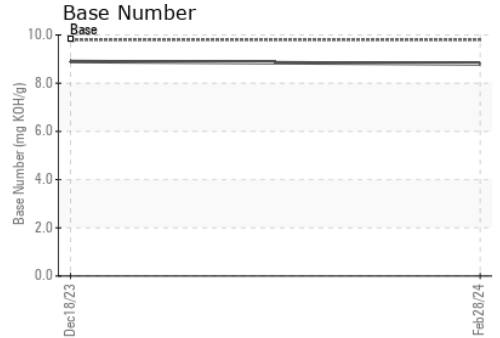
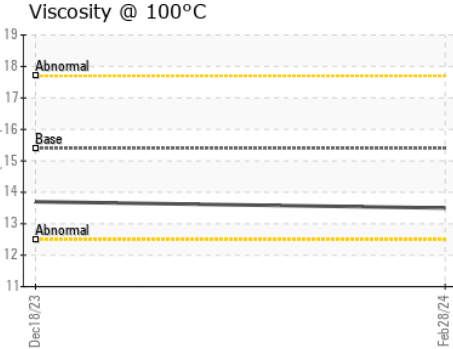
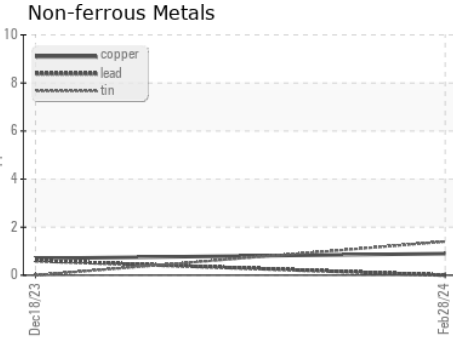
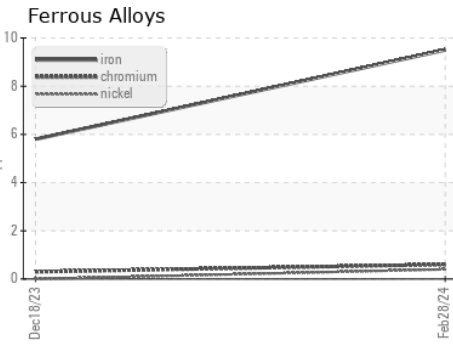
# OIL ANALYSIS REPORT



PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.5</b>	13.7	---

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0104960  
 Lab Number : **06131551**  
 Unique Number : 10951016  
 Test Package : FLEET

Received : 28 Mar 2024  
 Tested : 28 Mar 2024  
 Diagnosed : 28 Mar 2024 - Wes Davis

**GFL Environmental - 820 - Joplin Hauling**  
 3700 West 7th Street  
 Joplin, MO  
 US 64801

Contact: James Jarrett  
 jjarrett@gflenv.com

T: (417)310-2802

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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