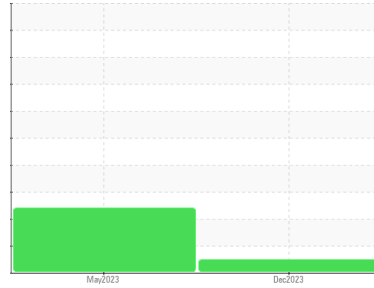




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**512028**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

Fuel content negligible. 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>GFL0105850</b>	GFL0069857	---
Sample Date	Client Info		<b>20 Dec 2023</b>	09 May 2023	---
Machine Age	hrs	Client Info	<b>0</b>	3332	---
Oil Age	hrs	Client Info	<b>0</b>	600	---
Oil Changed	Client Info		<b>Not Changed</b>	Changed	---
Sample Status			<b>NORMAL</b>	SEVERE	---

## CONTAMINATION

	method	limit/base	current	history1	history2
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 >120	<b>0</b>	34	---
Chromium	ppm	ASTM D5185m >20	<b>0</b>	2	---
Nickel	ppm	ASTM D5185m >5	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185m >2	<b>0</b>	<1	---
Silver	ppm	ASTM D5185m >2	<b>0</b>	<1	---
Aluminum	ppm	ASTM D5185m >20	<b>&lt;1</b>	6	---
Lead	ppm	ASTM D5185m >40	<b>0</b>	0	---
Copper	ppm	ASTM D5185m >330	<b>&lt;1</b>	<1	---
Tin	ppm	ASTM D5185m >15	<b>0</b>	<1	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>4</b>	10	---
Barium	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	---
Molybdenum	ppm	ASTM D5185m 60	<b>60</b>	53	---
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m 1010	<b>945</b>	828	---
Calcium	ppm	ASTM D5185m 1070	<b>1031</b>	957	---
Phosphorus	ppm	ASTM D5185m 1150	<b>1119</b>	964	---
Zinc	ppm	ASTM D5185m 1270	<b>1284</b>	1121	---
Sulfur	ppm	ASTM D5185m 2060	<b>3226</b>	3941	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>5</b>	13	---
Sodium	ppm	ASTM D5185m	<b>2</b>	16	---
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	2	---
Fuel	%	ASTM D3524 >3.0	<b>0.3</b>	6.2	---

## INFRA-RED

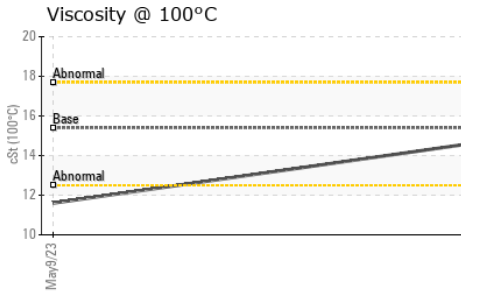
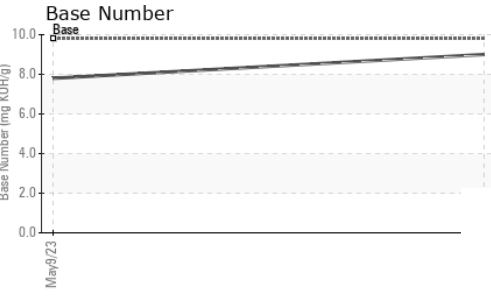
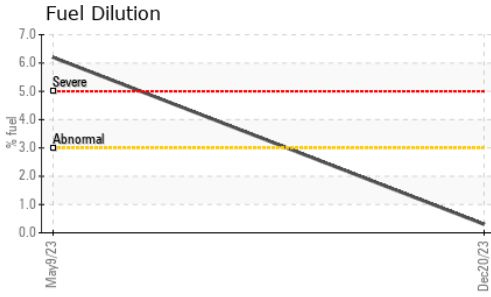
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0</b>	0.5	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>4.2</b>	9.1	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>17.2</b>	22.1	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>12.8</b>	19.0	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>9.0</b>	7.8	---



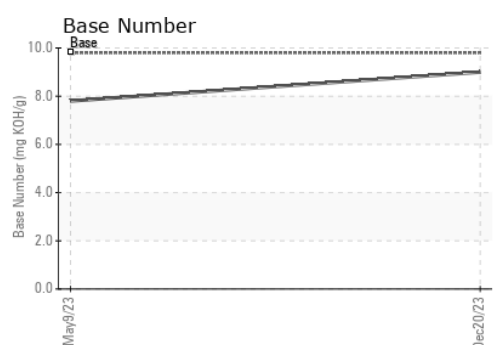
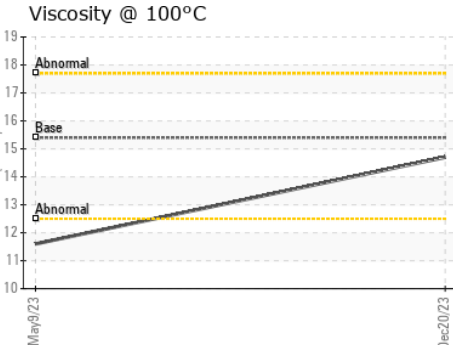
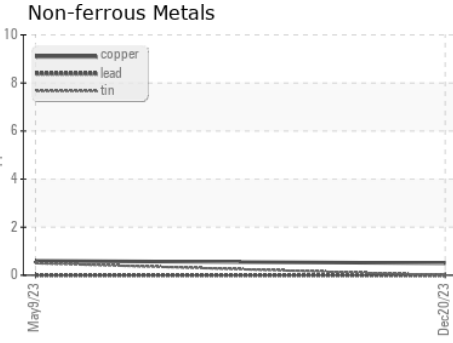
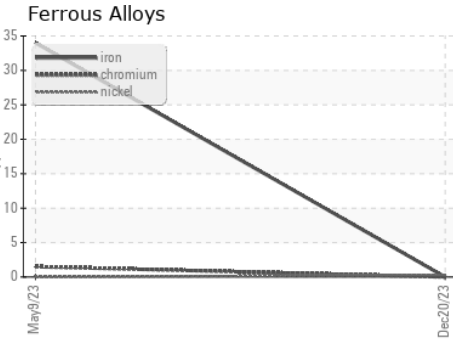
# OIL ANALYSIS REPORT



VISUAL	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	14.7	▲ 11.6

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0105850 **Received** : 22 Dec 2023  
**Lab Number** : 06043855 **Diagnosed** : 27 Dec 2023  
**Unique Number** : 10804463 **Diagnostician** : Wes Davis  
**Test Package** : FLEET ( Additional Tests: PercentFuel )

**GFL Environmental - 415 - Michigan East**  
 6200 Elmridge  
 Sterling Heights, MI  
 US 48313  
 Contact: Frank Wolak  
 fwolak@gflenv.com  
 T: (586)825-9514  
 F:

Certificate L2367  
 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)