



# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id  
**526100 - SWNSYM02 OTTAWA 30 SHUNT TRUCK**

Component  
**Diesel Engine**

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

## DIAGNOSIS

### ▲ Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### ▲ Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

### ▲ Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0066581</b>	---	---
Sample Date	Client Info		<b>28 Dec 2023</b>	---	---
Machine Age	mls	Client Info	<b>0</b>	---	---
Oil Age	mls	Client Info	<b>0</b>	---	---
Oil Changed	Client Info		<b>N/A</b>	---	---
Sample Status			<b>ABNORMAL</b>	---	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	---	---
Glycol	WC Method		<b>NEG</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>11</b>	---	---
Chromium	ppm	ASTM D5185m >20	<b>1</b>	---	---
Nickel	ppm	ASTM D5185m >4	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m	<b>0</b>	---	---
Silver	ppm	ASTM D5185m >3	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m >20	<b>&lt;1</b>	---	---
Lead	ppm	ASTM D5185m >40	<b>0</b>	---	---
Copper	ppm	ASTM D5185m >330	<b>3</b>	---	---
Tin	ppm	ASTM D5185m >15	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	---	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>21</b>	---	---
Barium	ppm	ASTM D5185m 0	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m 60	<b>60</b>	---	---
Manganese	ppm	ASTM D5185m 0	<b>0</b>	---	---
Magnesium	ppm	ASTM D5185m 1010	<b>930</b>	---	---
Calcium	ppm	ASTM D5185m 1070	<b>1156</b>	---	---
Phosphorus	ppm	ASTM D5185m 1150	<b>1011</b>	---	---
Zinc	ppm	ASTM D5185m 1270	<b>1262</b>	---	---
Sulfur	ppm	ASTM D5185m 2060	<b>3733</b>	---	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>9</b>	---	---
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	---	---
Fuel	%	ASTM D3524 >5	<b>▲ 5.0</b>	---	---

## INFRA-RED

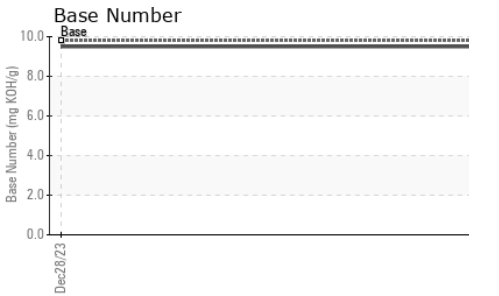
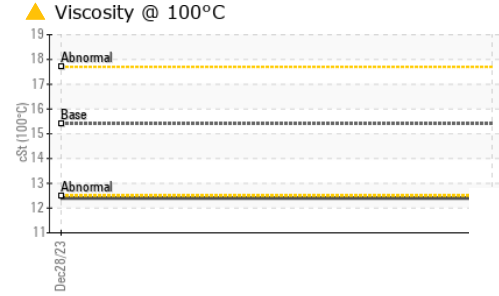
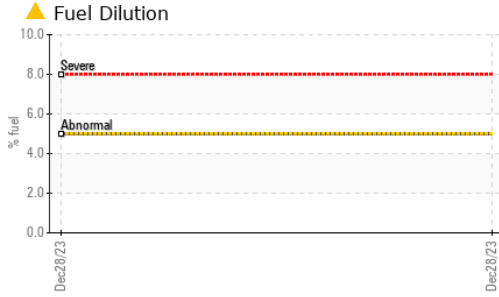
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.2</b>	---	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.8</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.0</b>	---	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.1</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>9.5</b>	---	---



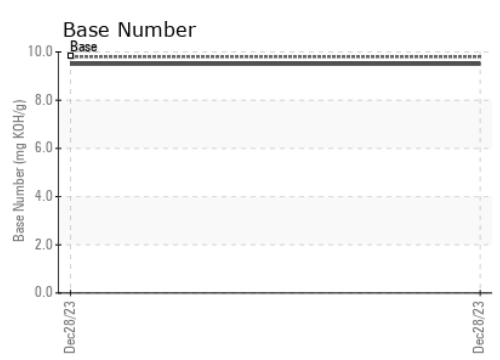
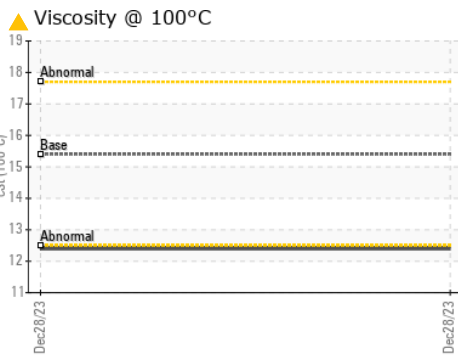
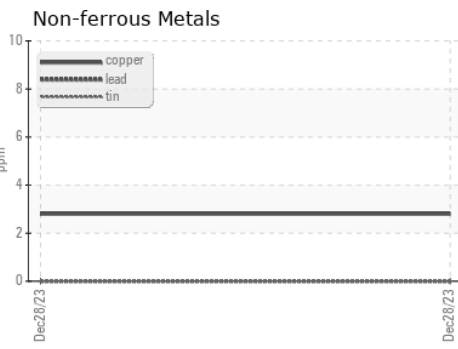
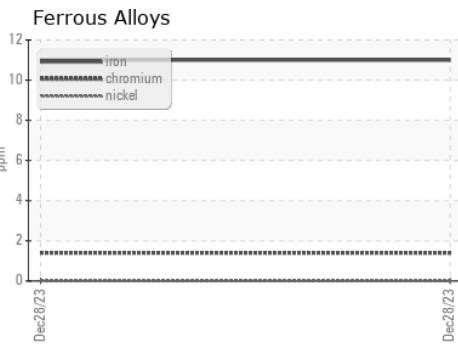
# OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445 15.4	<b>▲ 12.4</b>	---	---

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0066581 **Received** : 05 Jan 2024  
**Lab Number** : **06051748** **Diagnosed** : 09 Jan 2024  
**Unique Number** : 10817697 **Diagnostician** : Wes Davis  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 980 - Northside Hauling**  
 1820 Candle Ridge Park Dr  
 Houston, TX  
 US 77073  
 Contact: Edwin Collins  
 ecolins@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)