



Machine Id  
**514050 PETERBILT 567**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

We advise that you check the fuel injection system. 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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0066585</b>	GFL0066601	---
Sample Date		Client Info		<b>20 Feb 2024</b>	16 Dec 2023	---
Machine Age	mls	Client Info		<b>0</b>	0	---
Oil Age	mls	Client Info		<b>0</b>	0	---
Filter Age	mls	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>N/A</b>	N/A	---
Filter Changed		Client Info		<b>N/A</b>	N/A	---
Sample Status				<b>SEVERE</b>	SEVERE	---

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	<b>9</b>	▲ 1391	---
Chromium	ppm	ASTM D5185m	>4	<b>0</b>	▲ 8	---
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>25	<b>5</b>	● 10	---
Lead	ppm	ASTM D5185m	>45	<b>1</b>	0	---
Copper	ppm	ASTM D5185m	>85	<b>3</b>	9	---
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

**CONTAMINATION**

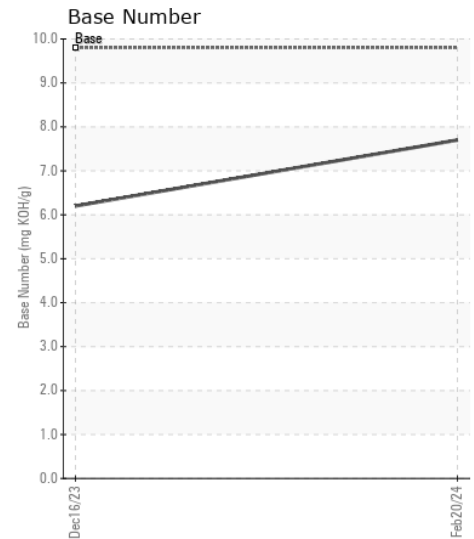
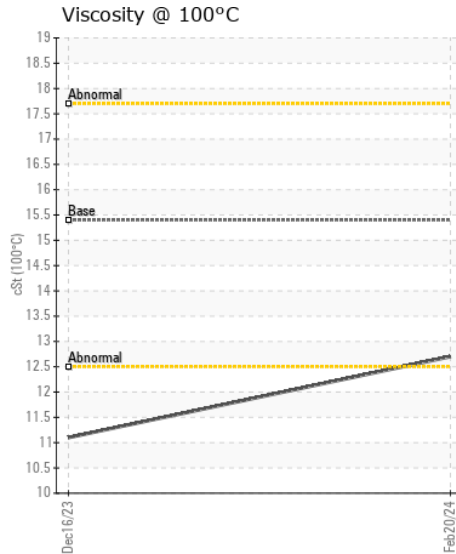
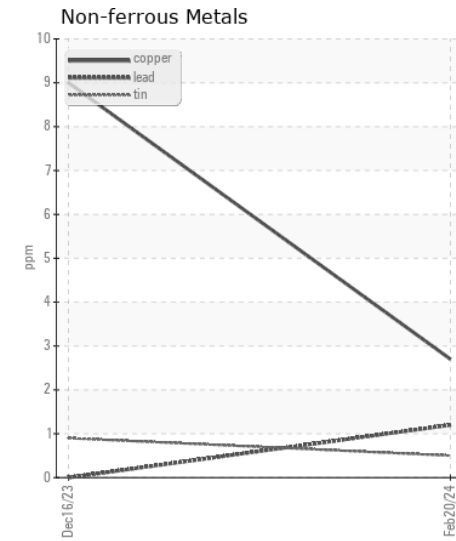
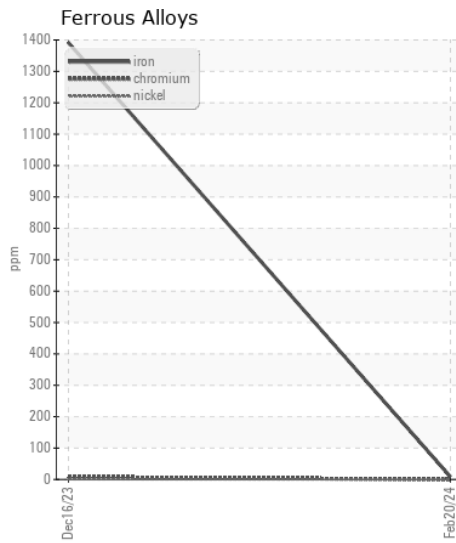
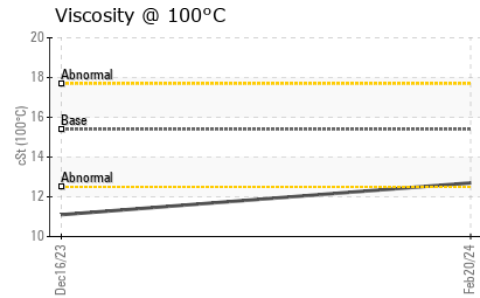
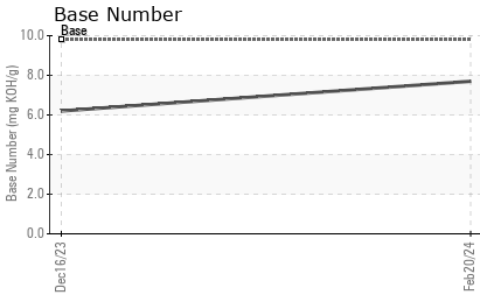
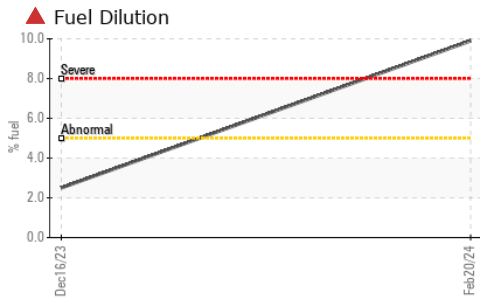
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185m	>30	<b>9</b>	▲ 28	---
Potassium	ppm	ASTM D5185m	>20	<b>19</b>	23	---
Fuel	%	ASTM D3524	>5	▲ <b>9.9</b>	▲ 2.5	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.1</b>	6.8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>15.5</b>	16.7	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	---

**FLUID CONDITION**

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

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	4	---
Boron	ppm	ASTM D5185m	0	<b>9</b>	73	---
Barium	ppm	ASTM D5185m	0	<b>0</b>	3	---
Molybdenum	ppm	ASTM D5185m	60	<b>45</b>	2	---
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	8	---
Magnesium	ppm	ASTM D5185m	1010	<b>220</b>	456	---
Calcium	ppm	ASTM D5185m	1070	<b>2604</b>	819	---
Phosphorus	ppm	ASTM D5185m	1150	<b>1076</b>	720	---
Zinc	ppm	ASTM D5185m	1270	<b>1479</b>	534	---
Sulfur	ppm	ASTM D5185m	2060	<b>3832</b>	9708	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>9.0</b>	10.9	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.7</b>	6.2	---
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.7</b>	▲ 11.1	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0066585  
**Lab Number** : 06104157  
**Unique Number** : 10902387  
**Test Package** : FLEET ( Additional Tests: PercentFuel )

**Received** : 29 Feb 2024  
**Tested** : 04 Mar 2024  
**Diagnosed** : 04 Mar 2024 - Wes Davis

**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)

T:  
F: