



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**210006**

Component  
**9 Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (5 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0109070</b>	GFL0086258	GFL0086212
Sample Date		Client Info		<b>06 Feb 2024</b>	27 Dec 2023	07 Sep 2023
Machine Age	hrs	Client Info		<b>4024</b>	3915	3611
Oil Age	hrs	Client Info		<b>2542</b>	3915	3611
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	ATTENTION	ATTENTION

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>4</b>	15	16
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	<1	1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	18	3
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>0</b>	1	20
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

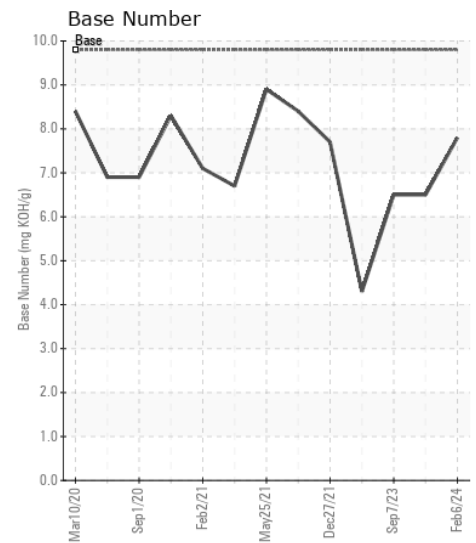
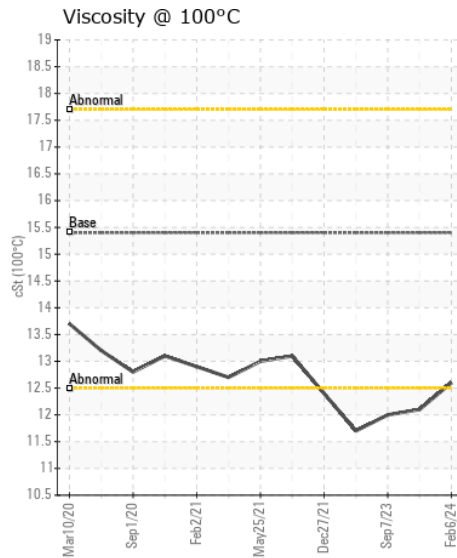
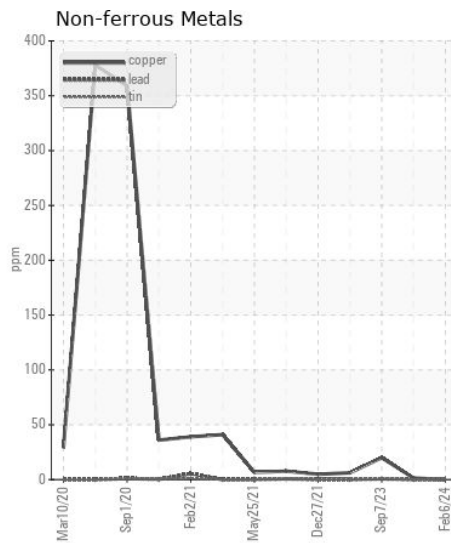
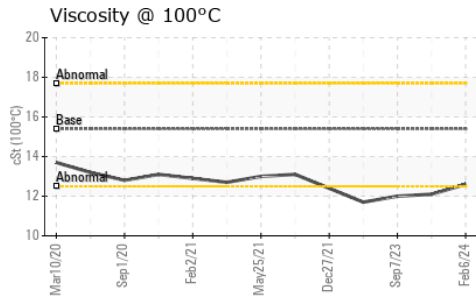
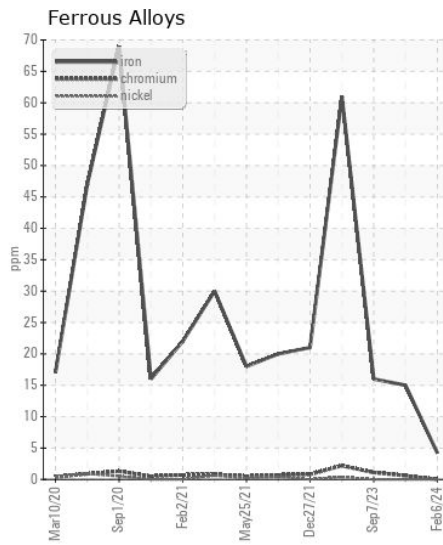
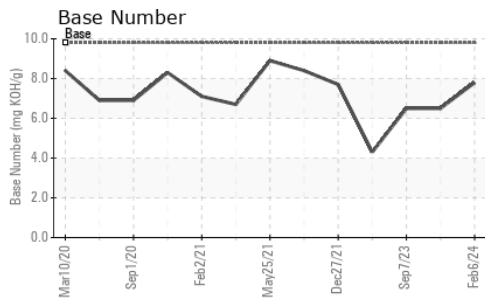
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>3</b>	4	4
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	43	11
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
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.2	0.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.2</b>	8.0	8.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>16.6</b>	17.5	18.9
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

**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.

Sodium	ppm	ASTM D5185m		<b>1</b>	1	5
Boron	ppm	ASTM D5185m	0	<b>21</b>	14	9
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>61</b>	60	60
Manganese	ppm	ASTM D5185m	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>790</b>	761	770
Calcium	ppm	ASTM D5185m	1070	<b>1085</b>	1103	1155
Phosphorus	ppm	ASTM D5185m	1150	<b>964</b>	885	916
Zinc	ppm	ASTM D5185m	1270	<b>1127</b>	1153	1129
Sulfur	ppm	ASTM D5185m	2060	<b>2941</b>	2805	3249
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>12.0</b>	14.1	13.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.8</b>	6.5	6.5
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.6</b>	▲ 12.1	▲ 12.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0109070  
**Lab Number** : 06084481  
**Unique Number** : 10871926  
**Test Package** : FLEET

**Received** : 09 Feb 2024  
**Tested** : 09 Feb 2024  
**Diagnosed** : 09 Feb 2024 - Wes Davis

**GFL Environmental - 009 - Fairburn**  
 6905 Roosevelt Hwy  
 Fairburn, GA  
 US 30213  
 Contact: Eric Jones  
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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)