



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

Machine Id  
**727066-310046**

Component  
**Diesel Engine**

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

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0098717</b>	GFL0098770	GFL0098749
Sample Date		Client Info		<b>16 Jan 2024</b>	22 Dec 2023	24 Nov 2023
Machine Age	hrs	Client Info		<b>16846</b>	16715	16575
Oil Age	hrs	Client Info		<b>150</b>	150	600
Filter Age	hrs	Client Info		<b>150</b>	150	600
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Changed
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>9</b>	8	17
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>1</b>	2	2
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	<1	1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

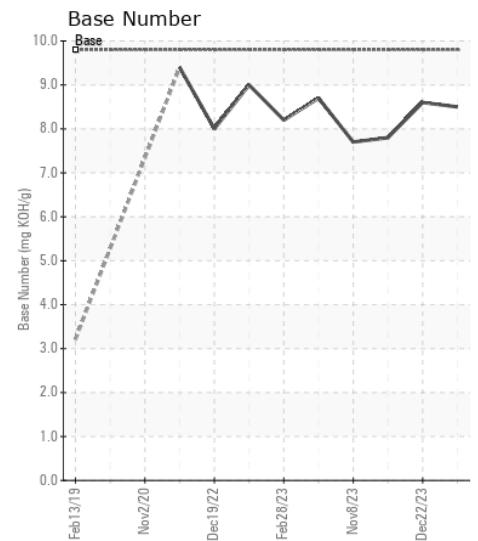
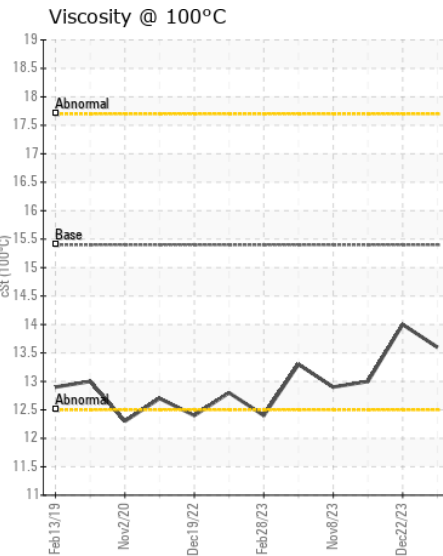
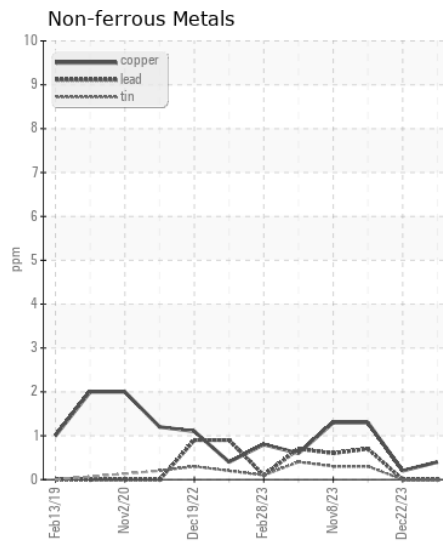
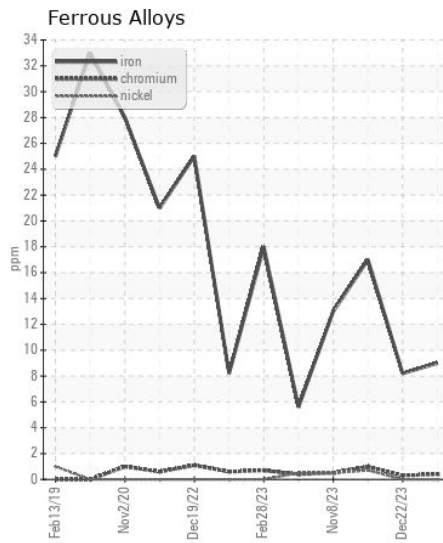
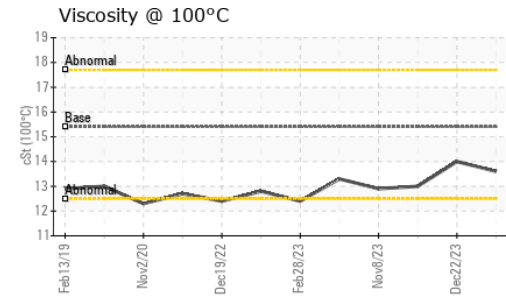
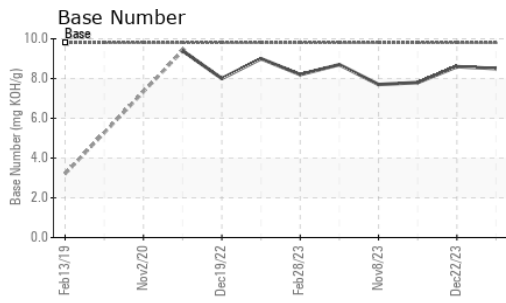
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	4	7
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	3	5
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>0.5</b>	0.4	0.8
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.7</b>	6.6	10.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.2</b>	18.8	20.9
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>5</b>	5	6
Boron	ppm	ASTM D5185m	0	<b>0</b>	<1	0
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m	60	<b>57</b>	75	55
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	1010	<b>982</b>	1194	859
Calcium	ppm	ASTM D5185m	1070	<b>983</b>	1287	961
Phosphorus	ppm	ASTM D5185m	1150	<b>1059</b>	1197	885
Zinc	ppm	ASTM D5185m	1270	<b>1267</b>	1565	1105
Sulfur	ppm	ASTM D5185m	2060	<b>3082</b>	3875	3141
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.3</b>	14.4	18.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.5</b>	8.6	7.8
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.6</b>	14.0	13.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0098717 **Received** : 18 Jan 2024  
**Lab Number** : 06064852 **Diagnosed** : 19 Jan 2024  
**Unique Number** : 10836234 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 829 - Wilco Hauling**  
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 Hartville, MO  
 US 65667  
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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)