



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

Machine Id  
**828027-3502**

Component  
**Diesel Engine**

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

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0103852</b>	GFL0097356	GFL0089531
Sample Date		Client Info		<b>29 Jan 2024</b>	28 Nov 2023	28 Sep 2023
Machine Age	hrs	Client Info		<b>11889</b>	10796	10796
Oil Age	hrs	Client Info		<b>353</b>	9235	9235
Filter Age	hrs	Client Info		<b>353</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	N/A	N/A
Filter Changed		Client Info		<b>Changed</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	<b>5</b>	13	9
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>2</b>	3	0
Lead	ppm	ASTM D5185m	>30	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>150	<b>1</b>	1	1
Tin	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

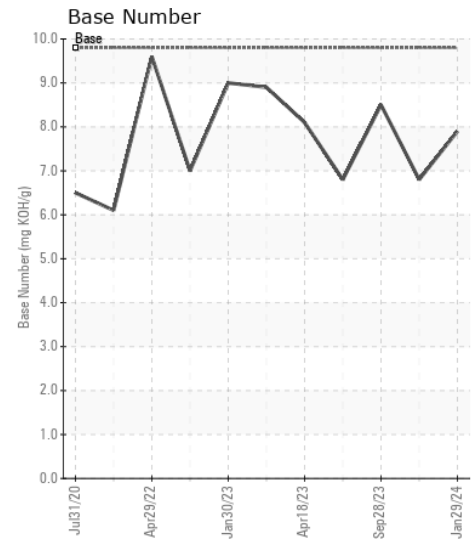
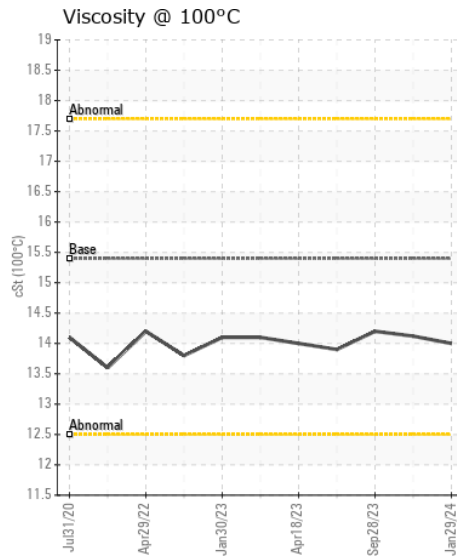
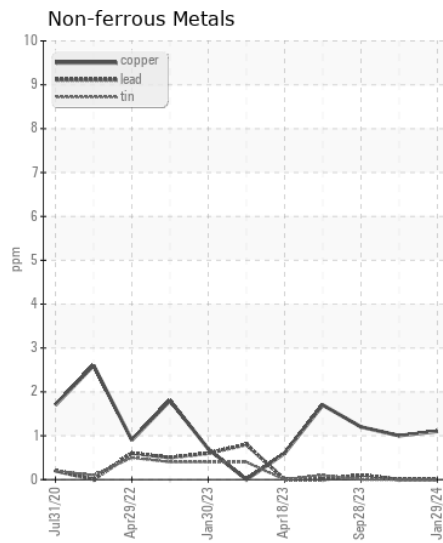
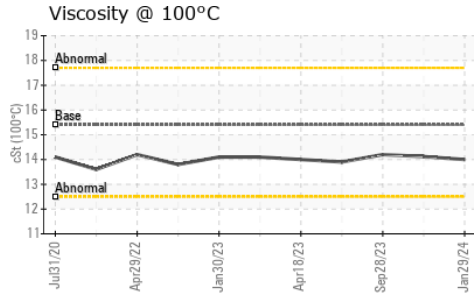
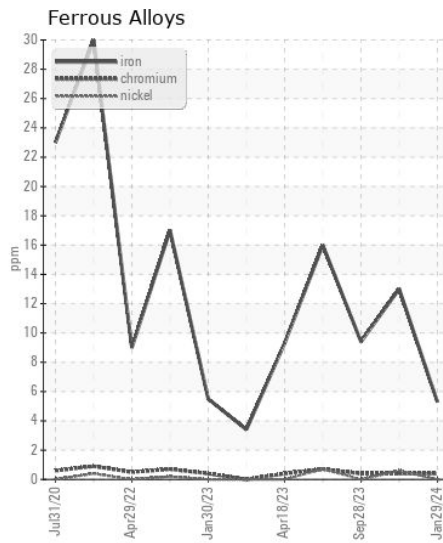
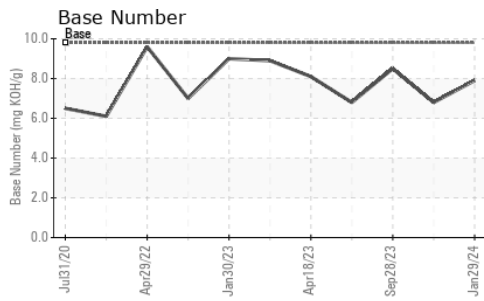
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>2</b>	6	6
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	4	<1
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>0.4</b>	0.5	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.5</b>	9.8	7.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.0</b>	20.3	19.0
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>3</b>	6	5
Boron	ppm	ASTM D5185m	0	<b>4</b>	5	4
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>62</b>	59	61
Manganese	ppm	ASTM D5185m	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>897</b>	923	980
Calcium	ppm	ASTM D5185m	1070	<b>1093</b>	1017	1059
Phosphorus	ppm	ASTM D5185m	1150	<b>962</b>	1058	1028
Zinc	ppm	ASTM D5185m	1270	<b>1228</b>	1278	1270
Sulfur	ppm	ASTM D5185m	2060	<b>2951</b>	3009	3142
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.5</b>	17.3	15.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.9</b>	6.8	8.5
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.0</b>	14.12	14.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0103852  
**Lab Number** : 06077592  
**Unique Number** : 10859683  
**Test Package** : FLEET

**Received** : 01 Feb 2024  
**Tested** : 02 Feb 2024  
**Diagnosed** : 02 Feb 2024 - Wes Davis

**GFL Environmental - 654S - Midlothian**  
 12230 Deergrove Road  
 Midlothian, VA  
 US 23112  
 Contact: Corbin Umphlet  
 cumphlet@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)

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F: