



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

Machine Id  
**522012**  
 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>GFL0092972</b>	GFL0092978	GFL0092937
Sample Date		Client Info		<b>05 Jan 2024</b>	27 Nov 2023	12 Sep 2023
Machine Age	hrs	Client Info		<b>17310</b>	17264	17013
Oil Age	hrs	Client Info		<b>16558</b>	16558	16558
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>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>24</b>	25	13
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	2	2
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	<1
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	4	2
Lead	ppm	ASTM D5185m	>40	<b>2</b>	0	1
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	1	1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	2
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

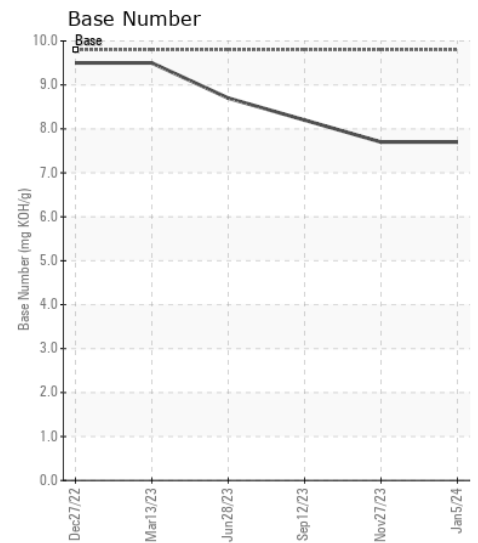
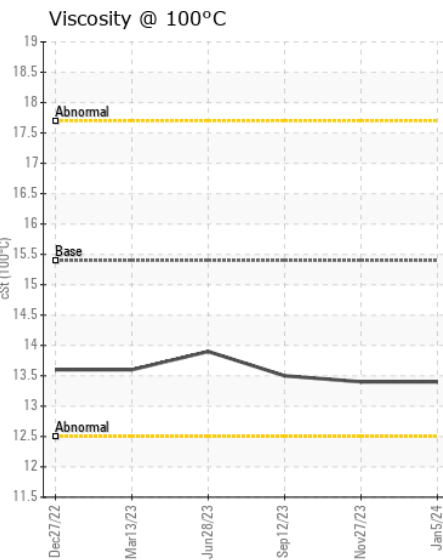
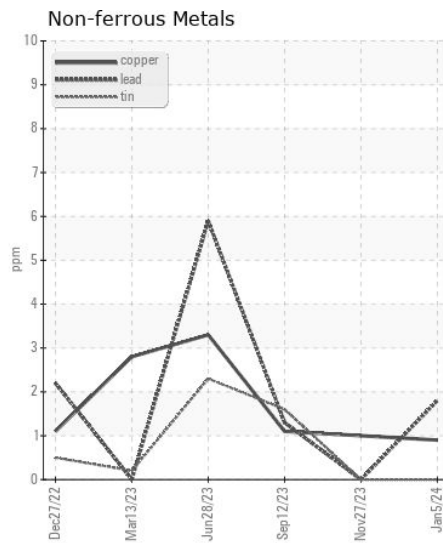
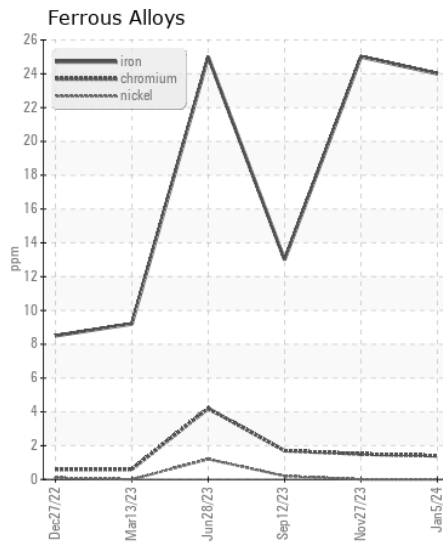
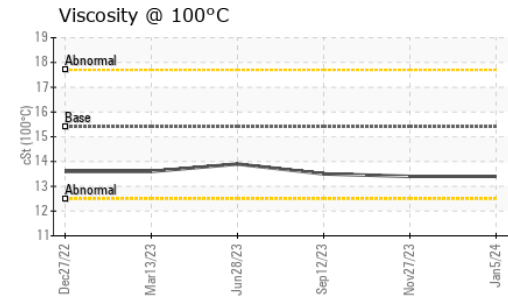
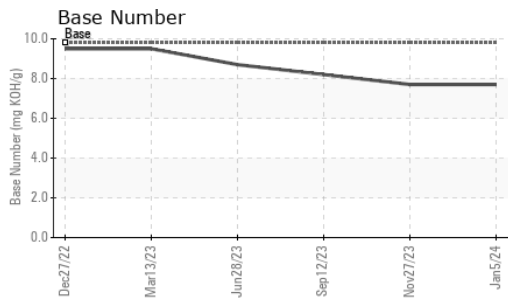
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	6	6
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	2	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>0.9</b>	0.8	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.7</b>	9.0	7.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.9</b>	19.8	18.1
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>9</b>	8	6
Boron	ppm	ASTM D5185m	0	<b>5</b>	7	9
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	44
Molybdenum	ppm	ASTM D5185m	60	<b>59</b>	61	57
Manganese	ppm	ASTM D5185m	0	<b>0</b>	<1	1
Magnesium	ppm	ASTM D5185m	1010	<b>923</b>	980	851
Calcium	ppm	ASTM D5185m	1070	<b>1089</b>	1154	1013
Phosphorus	ppm	ASTM D5185m	1150	<b>945</b>	1000	913
Zinc	ppm	ASTM D5185m	1270	<b>1270</b>	1285	1135
Sulfur	ppm	ASTM D5185m	2060	<b>2838</b>	3010	3205
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.1</b>	14.8	13.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.7</b>	7.7	8.2
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.4</b>	13.4	13.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0092972 **Received** : 11 Jan 2024  
**Lab Number** : 06057723 **Diagnosed** : 11 Jan 2024  
**Unique Number** : 10823672 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 463 - Cheboygan**  
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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)