



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

Machine Id  
**123013-1059**

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>GFL0054116</b>	GFL0054138	GFL0029274
Sample Date		Client Info		<b>01 Feb 2024</b>	18 Aug 2022	31 Aug 2021
Machine Age	hrs	Client Info		<b>14402</b>	0	12615
Oil Age	hrs	Client Info		<b>902</b>	0	813
Filter Age	hrs	Client Info		<b>902</b>	0	813
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>43</b>	17	22
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	<1	1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	4
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	2	3
Lead	ppm	ASTM D5185m	>40	<b>7</b>	1	2
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>1</b>	<1	<1
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**

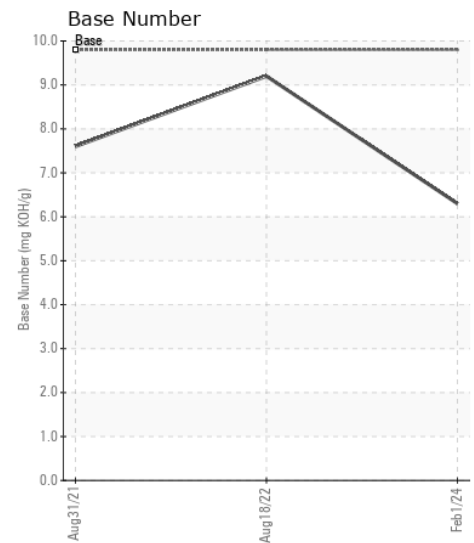
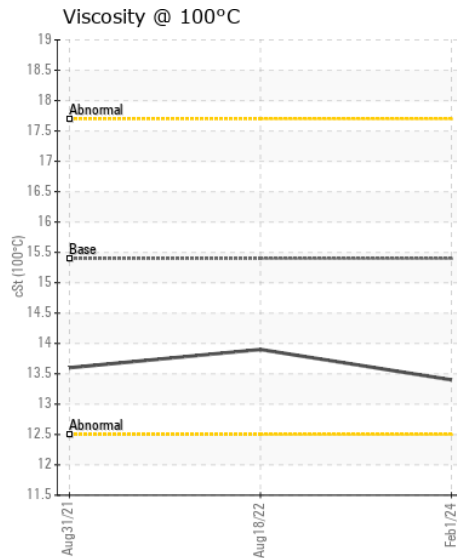
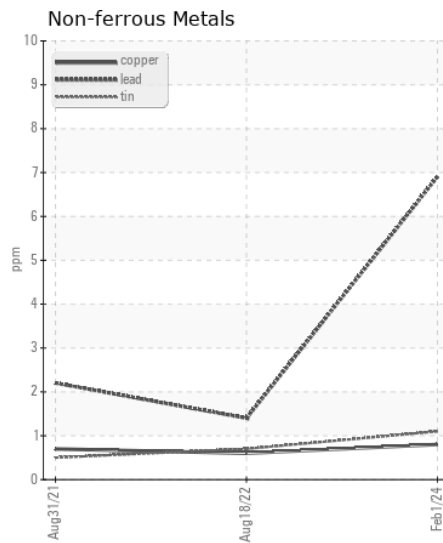
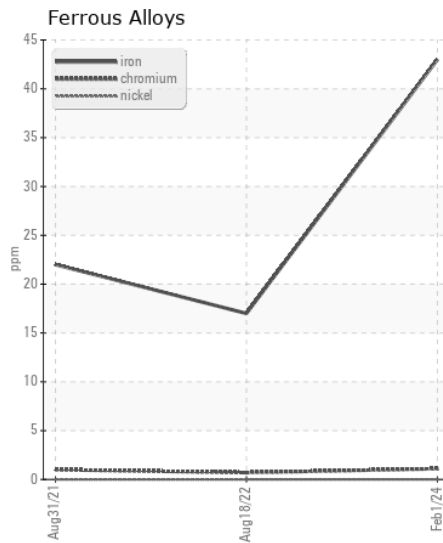
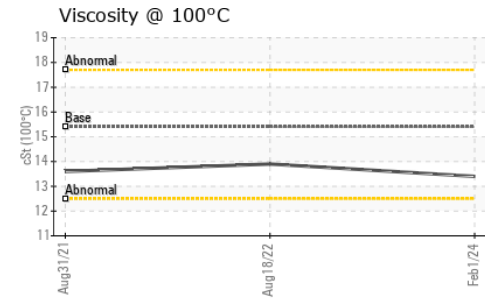
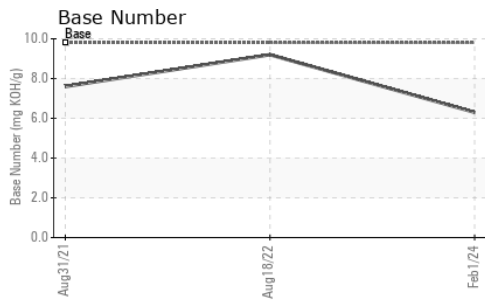
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>8</b>	4	6
Potassium	ppm	ASTM D5185m	>20	<b>29</b>	16	30
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>1</b>	0.5	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.4</b>	9.8	10.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.8</b>	21.0	21.4
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>29</b>	18	34
Boron	ppm	ASTM D5185m	0	<b>8</b>	7	9
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>68</b>	64	70
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>929</b>	971	969
Calcium	ppm	ASTM D5185m	1070	<b>1102</b>	1100	1220
Phosphorus	ppm	ASTM D5185m	1150	<b>1054</b>	1086	1075
Zinc	ppm	ASTM D5185m	1270	<b>1305</b>	1231	1313
Sulfur	ppm	ASTM D5185m	2060	<b>2855</b>	3265	2755
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.1</b>	16.4	16.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>6.3</b>	9.2	7.6
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.4</b>	13.9	13.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0054116  
**Lab Number** : 06082971  
**Unique Number** : 10870416  
**Test Package** : FLEET

**Received** : 07 Feb 2024  
**Tested** : 08 Feb 2024  
**Diagnosed** : 08 Feb 2024 - Wes Davis

**GFL Environmental - 630 - Northern A1 PA**  
 117 Moonlite Dr  
 Smithfield, PA  
 US 15478

Contact: MIKE NEWMAN  
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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)

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