



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

Machine Id  
**227011-1056**  
 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>GFL0054118</b>	GFL0029253	GFL0029273
Sample Date		Client Info		<b>01 Feb 2024</b>	08 Jun 2022	03 Sep 2021
Machine Age	hrs	Client Info		<b>11037</b>	8391	7011
Oil Age	hrs	Client Info		<b>1634</b>	0	607
Filter Age	hrs	Client Info		<b>1634</b>	0	607
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	>110	<b>88</b>	54	22
Chromium	ppm	ASTM D5185m	>4	<b>4</b>	2	1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	3
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>25	<b>9</b>	7	5
Lead	ppm	ASTM D5185m	>45	<b>12</b>	8	2
Copper	ppm	ASTM D5185m	>85	<b>2</b>	2	<1
Tin	ppm	ASTM D5185m	>4	<b>2</b>	1	0
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**

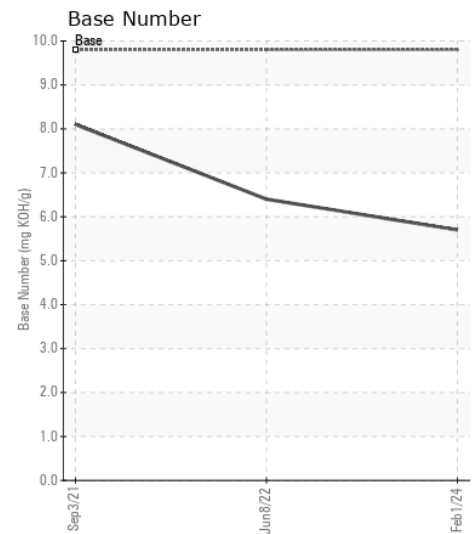
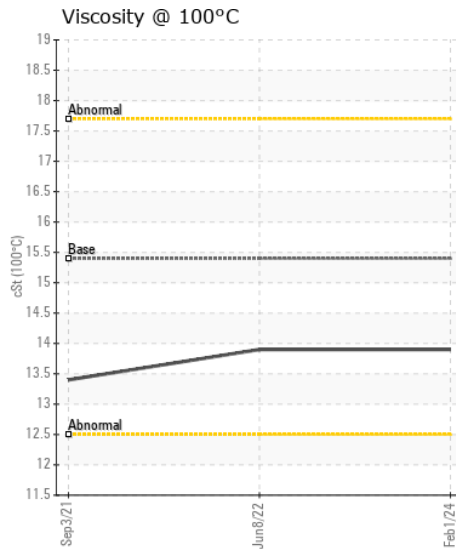
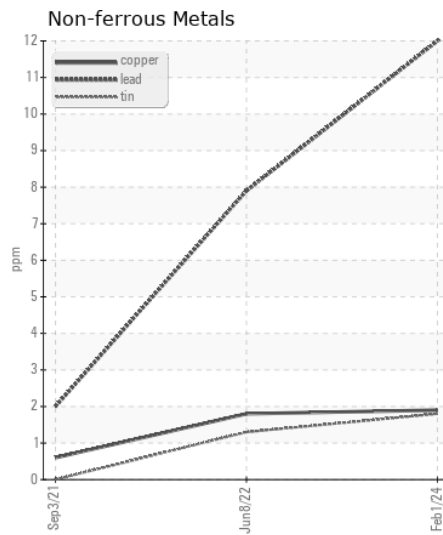
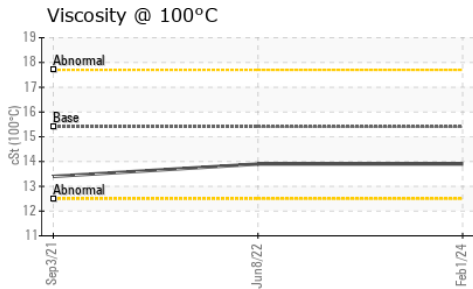
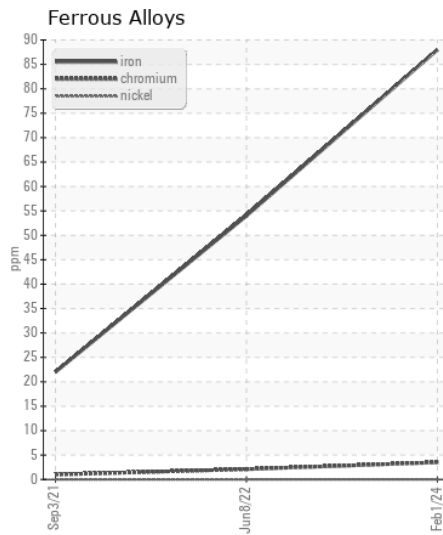
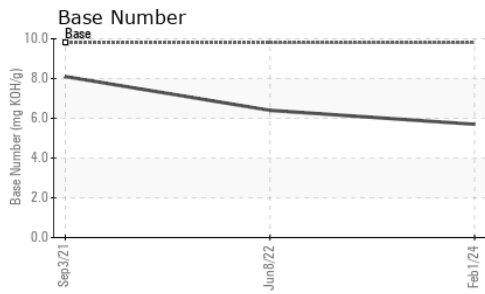
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	<b>15</b>	8	6
Potassium	ppm	ASTM D5185m	>20	<b>18</b>	16	14
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>1.1</b>	0.9	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.8</b>	13.0	10.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>26.2</b>	24.9	20.6
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>	3	2
Boron	ppm	ASTM D5185m	0	<b>6</b>	5	8
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>67</b>	71	66
Manganese	ppm	ASTM D5185m	0	<b>2</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>900</b>	1056	1054
Calcium	ppm	ASTM D5185m	1070	<b>1265</b>	1253	1195
Phosphorus	ppm	ASTM D5185m	1150	<b>1126</b>	1166	1080
Zinc	ppm	ASTM D5185m	1270	<b>1366</b>	1424	1241
Sulfur	ppm	ASTM D5185m	2060	<b>2854</b>	3179	2647
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>21.1</b>	20.9	16.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>5.7</b>	6.4	8.1
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.9</b>	13.9	13.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0054118  
**Lab Number** : 06082972  
**Unique Number** : 10870417  
**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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