



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



Area  
**020**  
Machine Id  
**2336**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (54 QTS)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0103816</b>	GFL0091178	GFL0076954
Sample Date		Client Info		<b>10 Jan 2024</b>	17 Aug 2023	21 Jul 2023
Machine Age	hrs	Client Info		<b>35369</b>	0	463051
Oil Age	hrs	Client Info		<b>602</b>	600	600
Filter Age	hrs	Client Info		<b>602</b>	600	600
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Changed</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>15</b>	29	2
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	0
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>1</b>	2	<1
Lead	ppm	ASTM D5185m	>40	<b>2</b>	2	0
Copper	ppm	ASTM D5185m	>330	<b>3</b>	2	0
Tin	ppm	ASTM D5185m	>15	<b>1</b>	<1	<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**

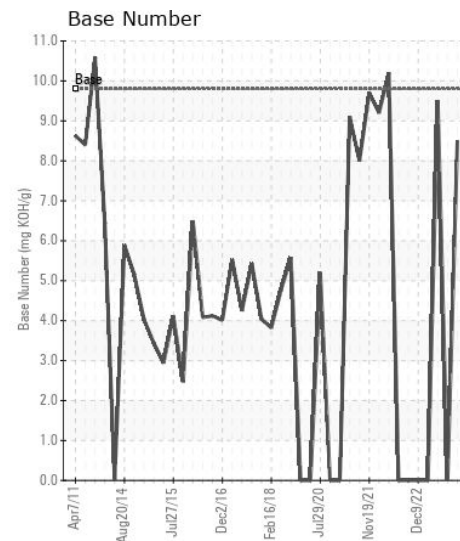
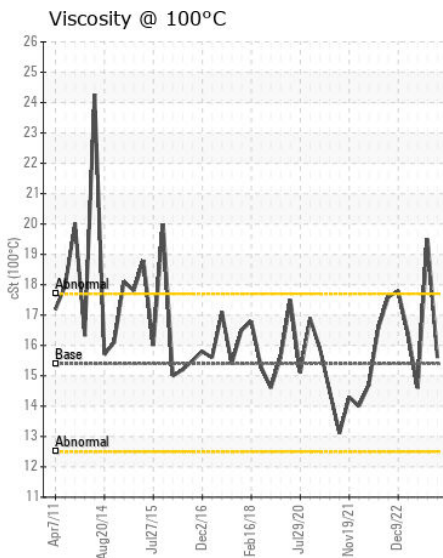
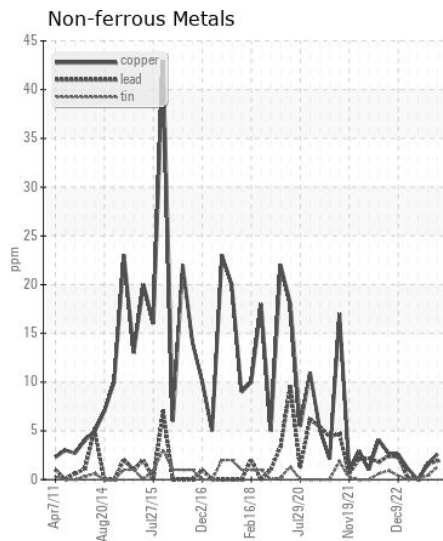
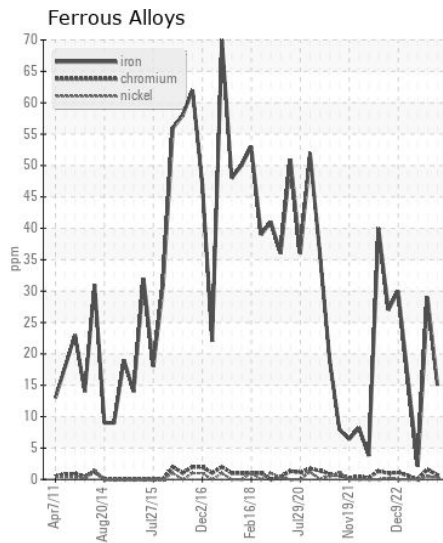
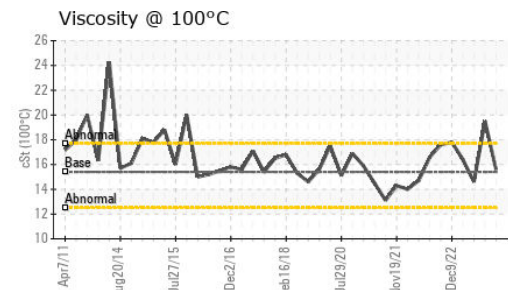
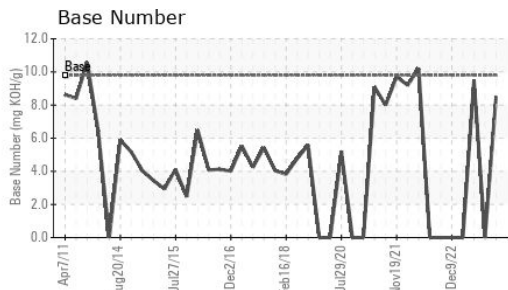
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	<1	4
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	<1
Fuel		WC Method	>3.0	<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	>5	<b>4.4</b>	▲ 6.4	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.1</b>	23.3	4.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>26.7</b>	61.7	17.3
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>1</b>	<1	<1
Boron	ppm	ASTM D5185m	0	<b>11</b>	6	9
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>64</b>	58	63
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>995</b>	854	1017
Calcium	ppm	ASTM D5185m	1070	<b>1179</b>	1021	1188
Phosphorus	ppm	ASTM D5185m	1150	<b>1093</b>	931	1132
Zinc	ppm	ASTM D5185m	1270	<b>1330</b>	1150	1361
Sulfur	ppm	ASTM D5185m	2060	<b>3398</b>	2925	4110
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.1</b>	47.8	13.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.5</b>	▲ 0.0	9.5
Visc @ 100°C	cSt	ASTM D445	15.4	<b>15.6</b>	▲ 19.5	14.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0103816 **Received** : 12 Jan 2024  
**Lab Number** : 06058983 **Diagnosed** : 12 Jan 2024  
**Unique Number** : 10830365 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 020 - Alamance**  
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 Graham, NC  
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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)