



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



Machine Id  
**4519M**  
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>GFL017661</b>	GFL0108837	GFL0105874
Sample Date		Client Info		<b>11 Apr 2024</b>	08 Jan 2024	20 Dec 2023
Machine Age	hrs	Client Info		<b>27384</b>	0	26560
Oil Age	hrs	Client Info		<b>23016</b>	0	26560
Filter Age	hrs	Client Info		<b>0</b>	0	26560
Oil Changed		Client Info		<b>Not Changd</b>	Changed	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Changed	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	<b>12</b>	4	0
Chromium	ppm	ASTM D5185m	>5	<b>1</b>	<1	0
Nickel	ppm	ASTM D5185m	>2	<b>1</b>	0	<1
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>3</b>	1	<1
Lead	ppm	ASTM D5185m	>30	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>150	<b>1</b>	0	<1
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</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**

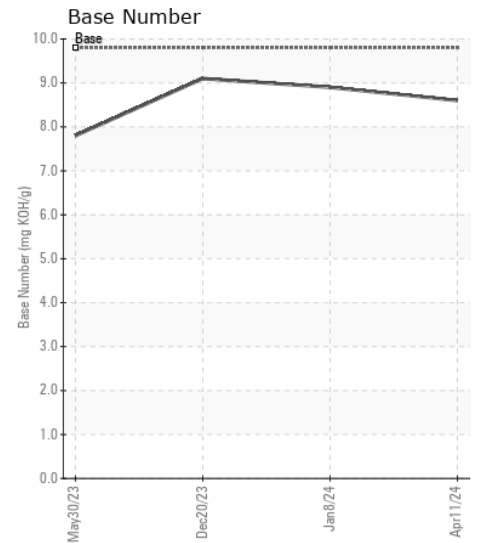
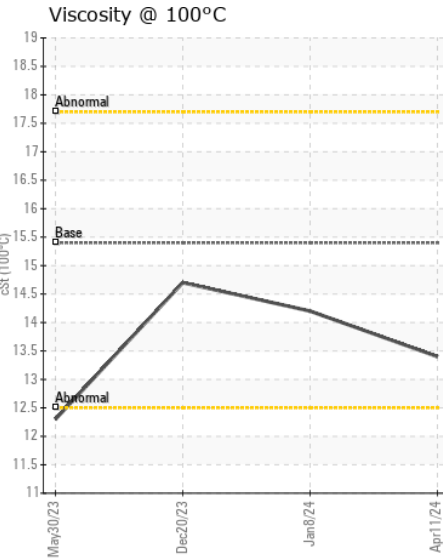
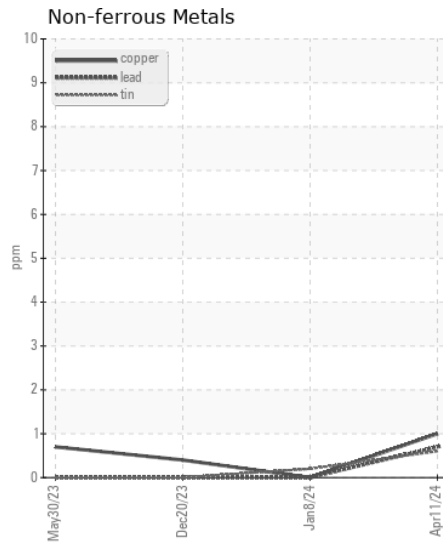
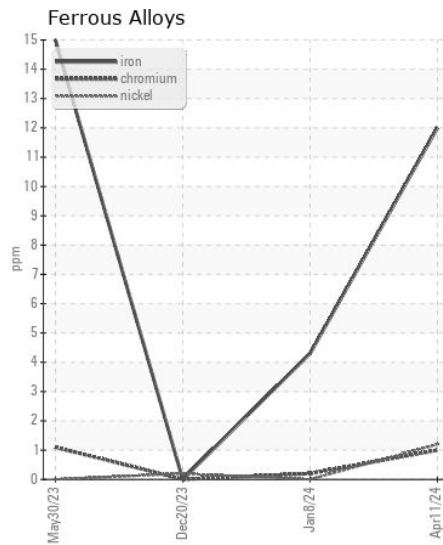
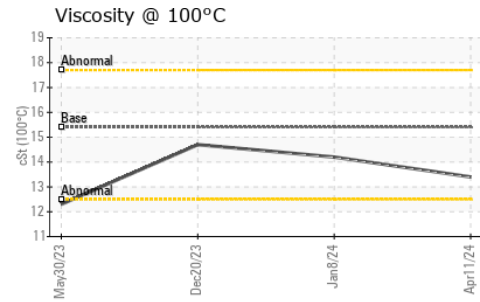
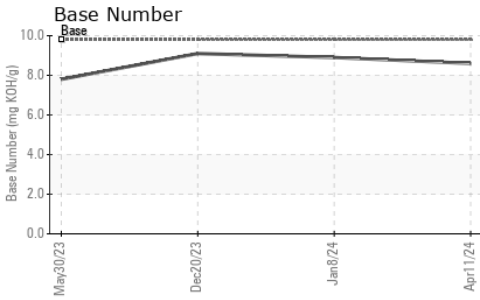
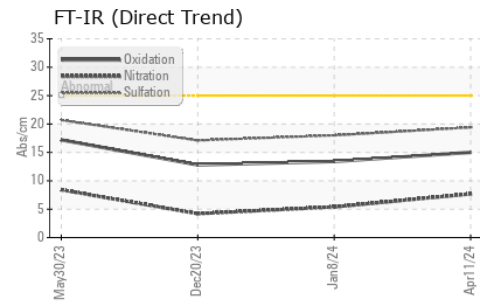
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>6</b>	3	5
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	1	<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>0.5</b>	0.3	0
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.7</b>	5.4	4.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.4</b>	18.0	17.1
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>6</b>	12	2
Boron	ppm	ASTM D5185m	0	<b>0</b>	3	4
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>59</b>	57	59
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>929</b>	938	950
Calcium	ppm	ASTM D5185m	1070	<b>1090</b>	1014	1033
Phosphorus	ppm	ASTM D5185m	1150	<b>1074</b>	1090	1122
Zinc	ppm	ASTM D5185m	1270	<b>1202</b>	1281	1284
Sulfur	ppm	ASTM D5185m	2060	<b>3243</b>	3173	3257
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.0</b>	13.4	12.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.6</b>	8.9	9.1
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.4</b>	14.2	14.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0117661  
**Lab Number** : 06148393  
**Unique Number** : 10978471  
**Test Package** : FLEET

**Received** : 15 Apr 2024  
**Tested** : 16 Apr 2024  
**Diagnosed** : 16 Apr 2024 - Wes Davis

**GFL Environmental - 415 - Michigan East**  
 6200 Elmridge  
 Sterling Heights, MI  
 US 48313  
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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)