



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



Machine Id  
**4702M**  
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>GFL0122384</b>	GFL0117643	GFL0108882
Sample Date		Client Info		<b>18 Jun 2024</b>	25 Mar 2024	19 Mar 2024
Machine Age	hrs	Client Info		<b>13313</b>	12672	12670
Oil Age	hrs	Client Info		<b>12672</b>	12189	12189
Filter Age	hrs	Client Info		<b>6476</b>	6476	6476
Oil Changed		Client Info		<b>Changed</b>	Changed	Not Changd
Filter Changed		Client Info		<b>Changed</b>	Changed	Not Changd
Sample Status				<b>NORMAL</b>	SEVERE	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	<b>50</b>	▲ 172	6
Chromium	ppm	ASTM D5185m	>5	<b>1</b>	3	0
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	1	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>5</b>	11	<1
Lead	ppm	ASTM D5185m	>25	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>100	<b>6</b>	8	0
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	3	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

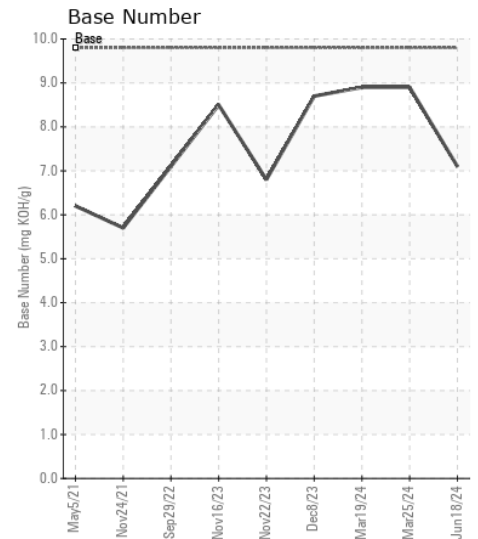
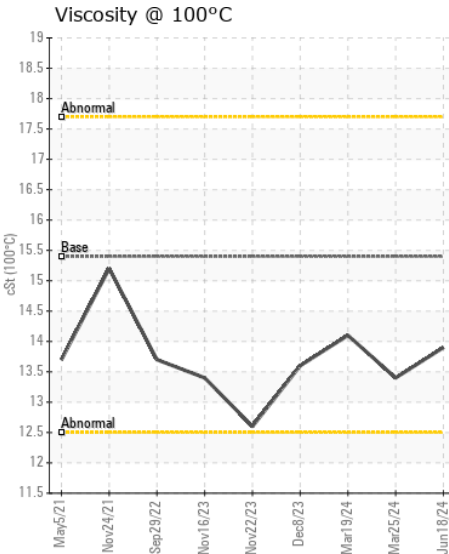
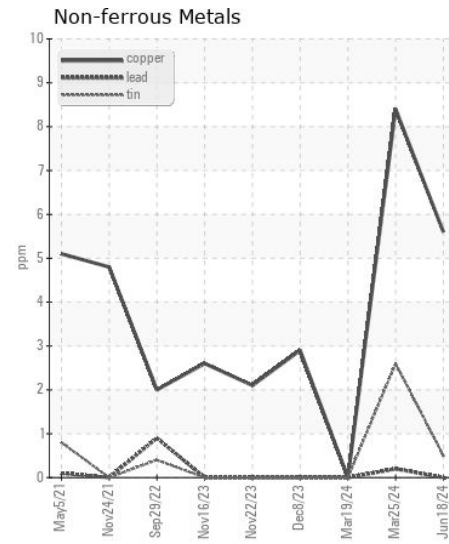
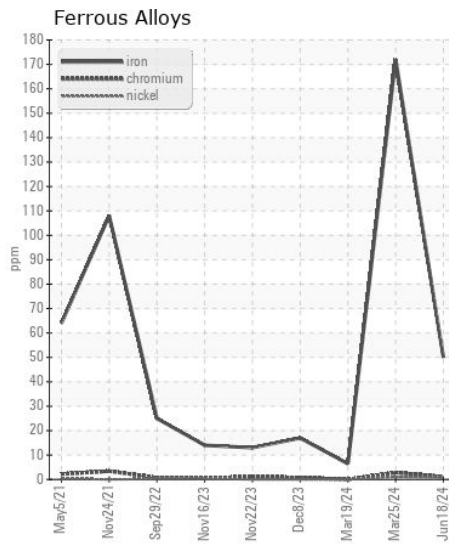
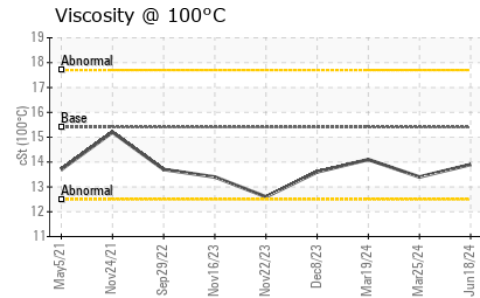
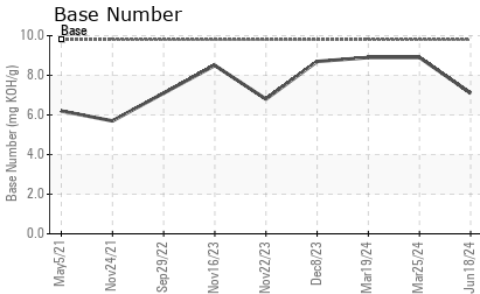
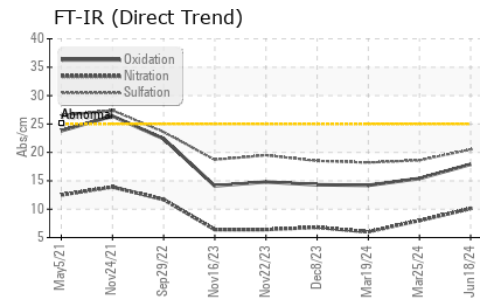
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>7</b>	6	2
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	2	0
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	>6	<b>0.6</b>	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.1</b>	8.0	6.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.5</b>	18.6	18.2
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>7</b>	2	2
Boron	ppm	ASTM D5185m	0	<b>4</b>	1	<1
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>56</b>	58	56
Manganese	ppm	ASTM D5185m	0	<b>1</b>	1	0
Magnesium	ppm	ASTM D5185m	1010	<b>963</b>	954	969
Calcium	ppm	ASTM D5185m	1070	<b>1078</b>	1080	1067
Phosphorus	ppm	ASTM D5185m	1150	<b>1067</b>	1036	1049
Zinc	ppm	ASTM D5185m	1270	<b>1320</b>	1283	1272
Sulfur	ppm	ASTM D5185m	2060	<b>3441</b>	3732	3622
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.9</b>	15.4	14.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.1</b>	8.9	8.9
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.9</b>	13.4	14.1



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0122384  
**Lab Number** : 06215370  
**Unique Number** : 11088234  
**Test Package** : FLEET  
**Received** : 20 Jun 2024  
**Tested** : 21 Jun 2024  
**Diagnosed** : 21 Jun 2024 - Wes Davis

**GFL Environmental - 415 - Michigan East**  
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 Sterling Heights, MI  
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 Contact: Frank Wolak  
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 T: (586)825-9514  
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Certificate L2367  
 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)