



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



Machine Id  
**4699M**  
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>GFL0108839</b>	GFL0101529	GFL0086669
Sample Date		Client Info		<b>15 Jan 2024</b>	16 Nov 2023	27 Jul 2023
Machine Age	hrs	Client Info		<b>12058</b>	11651	10898
Oil Age	hrs	Client Info		<b>11651</b>	10898	9700
Filter Age	hrs	Client Info		<b>11651</b>	0	9700
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	<b>45</b>	28	53
Chromium	ppm	ASTM D5185m	>5	<b>2</b>	1	2
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>15	<b>5</b>	3	6
Lead	ppm	ASTM D5185m	>25	<b>1</b>	<1	<1
Copper	ppm	ASTM D5185m	>100	<b>3</b>	2	2
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<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**

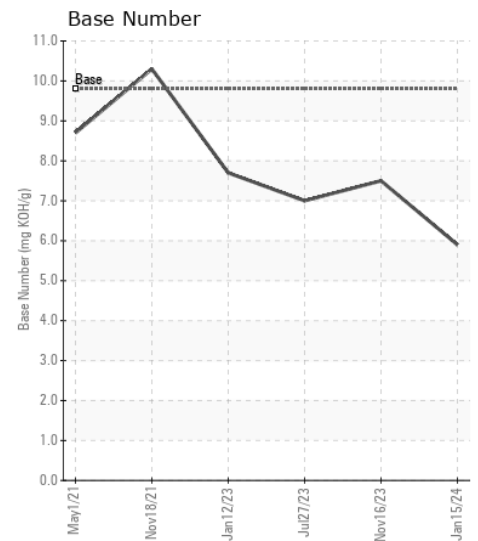
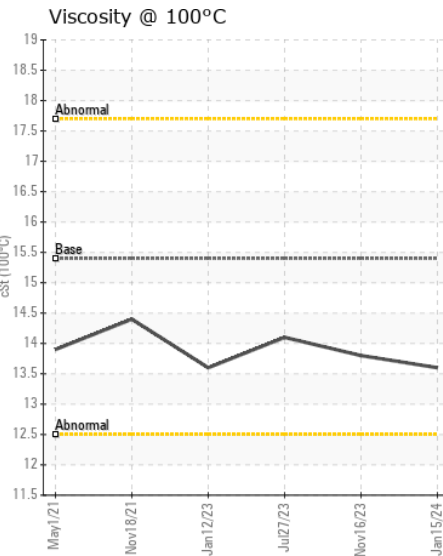
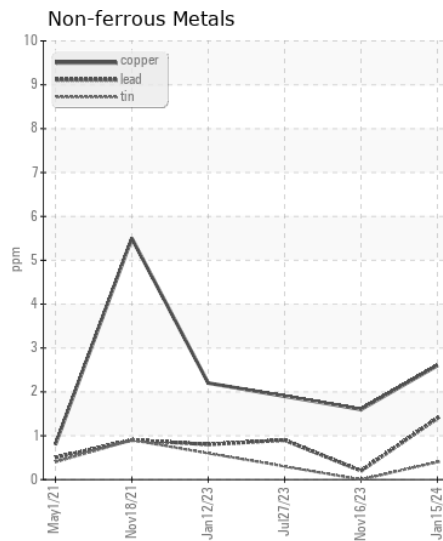
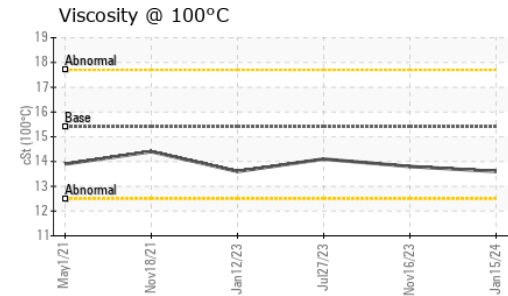
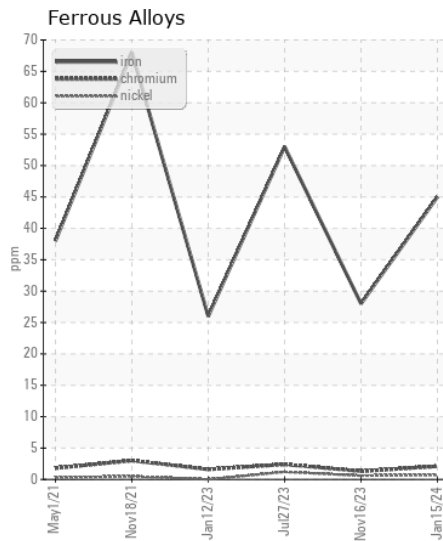
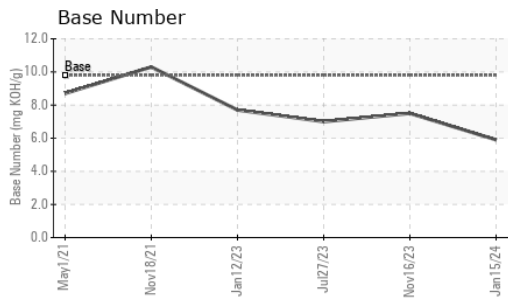
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>7</b>	5	8
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	3	4
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>1</b>	0.6	0.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.3</b>	9.4	9.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.5</b>	21.0	21.8
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>8</b>	4	17
Boron	ppm	ASTM D5185m	0	<b>2</b>	0	3
Barium	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	1
Molybdenum	ppm	ASTM D5185m	60	<b>63</b>	62	61
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	1010	<b>1039</b>	911	919
Calcium	ppm	ASTM D5185m	1070	<b>1137</b>	1078	1079
Phosphorus	ppm	ASTM D5185m	1150	<b>1088</b>	984	992
Zinc	ppm	ASTM D5185m	1270	<b>1348</b>	1203	1243
Sulfur	ppm	ASTM D5185m	2060	<b>2839</b>	2660	2865
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>21.4</b>	17.7	18.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>5.9</b>	7.5	7.0
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.6</b>	13.8	14.1



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0108839 **Received** : 18 Jan 2024  
**Lab Number** : 06064863 **Diagnosed** : 19 Jan 2024  
**Unique Number** : 10836245 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 415 - Michigan East**  
 6200 Elmridge  
 Sterling Heights, MI  
 US 48313  
 Contact: Frank Wolak  
 fwolak@gflenv.com  
 T: (586)825-9514  
 F:

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)