



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

Machine Id  
**728057-34**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0121139</b>	GFL0103143	GFL0091977
Sample Date		Client Info		<b>10 May 2024</b>	21 Feb 2024	20 Nov 2023
Machine Age	hrs	Client Info		<b>17831</b>	17654	17084
Oil Age	hrs	Client Info		<b>177</b>	570	221
Filter Age	hrs	Client Info		<b>177</b>	570	221
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ATTENTION</b>	ATTENTION	ATTENTION

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	<b>7</b>	12	8
Chromium	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185m	>70	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m	>175	<b>0</b>	1	1
Tin	ppm	ASTM D5185m	>5	<b>0</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**

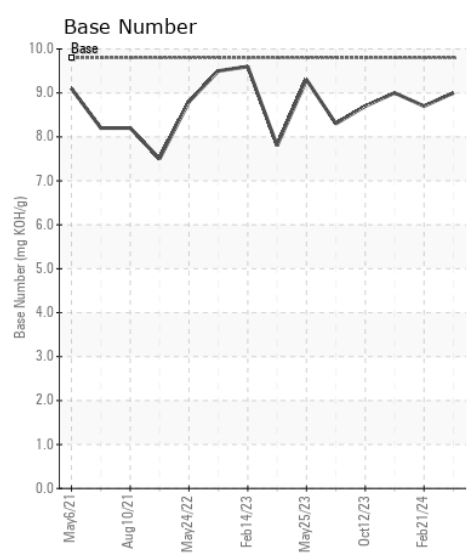
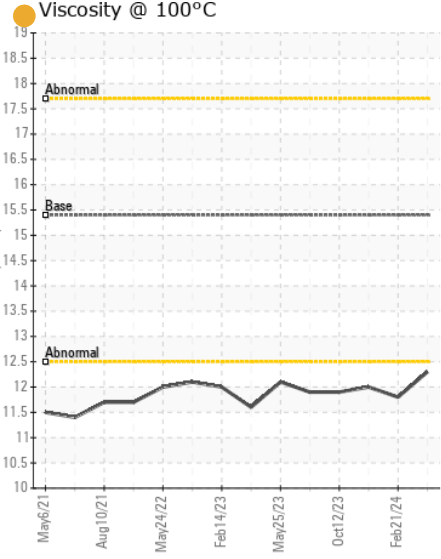
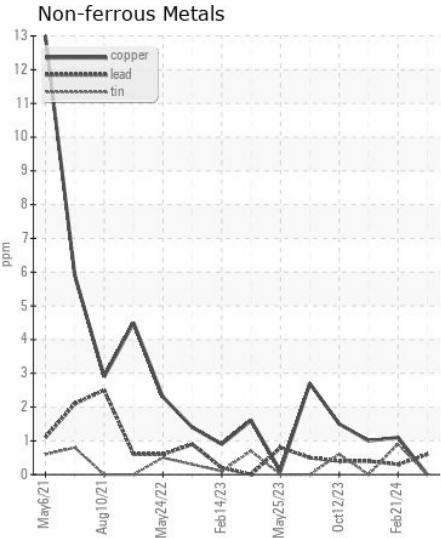
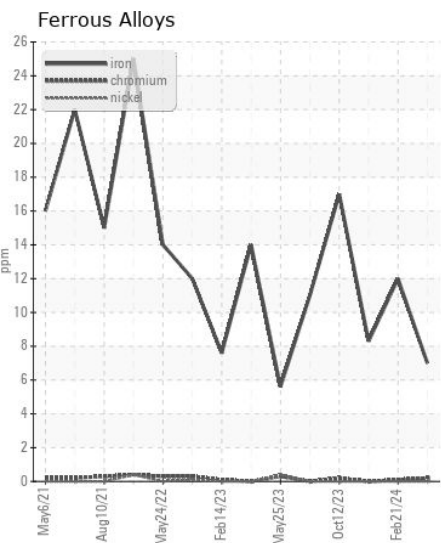
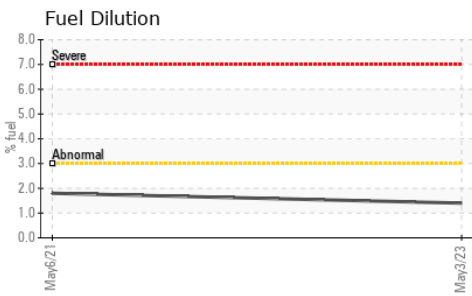
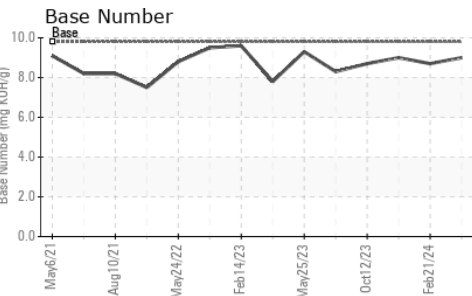
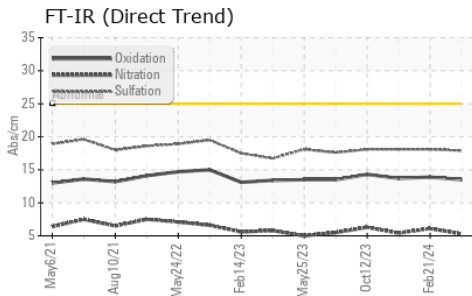
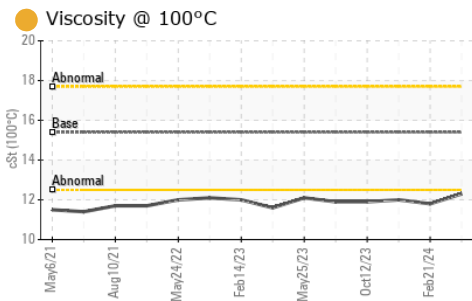
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>3</b>	3	5
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Fuel	%	ASTM D3524	>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	>3	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.3</b>	6.1	5.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.9</b>	18.1	18.1
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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		<b>3</b>	3	4
Boron	ppm	ASTM D5185m	0	<b>17</b>	7	3
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>62</b>	57	61
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>983</b>	874	1035
Calcium	ppm	ASTM D5185m	1070	<b>1147</b>	1004	1131
Phosphorus	ppm	ASTM D5185m	1150	<b>1090</b>	966	1059
Zinc	ppm	ASTM D5185m	1270	<b>1287</b>	1109	1258
Sulfur	ppm	ASTM D5185m	2060	<b>3751</b>	2732	3291
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.5</b>	13.9	13.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>9.0</b>	8.7	9.0
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.3</b>	11.8	12.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0121139 **Received** : 13 May 2024  
**Lab Number** : 06176880 **Tested** : 14 May 2024  
**Unique Number** : 11022933 **Diagnosed** : 14 May 2024 - Sean Felton  
**Test Package** : FLEET ( Additional Tests: FuelDilution )

**GFL Environmental - 683 - Ruckersville Hauling**  
 261 INDUSTRIAL DR  
 Ruckersville, VA  
 US 22698  
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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)