



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

Machine Id  
**420033-44**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- LTR)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0103125</b>	GFL0075101	GFL0091961
Sample Date		Client Info		<b>13 Feb 2024</b>	13 Nov 2023	29 Aug 2023
Machine Age	hrs	Client Info		<b>5176</b>	5091	4852
Oil Age	hrs	Client Info		<b>85</b>	239	605
Filter Age	hrs	Client Info		<b>85</b>	239	605
Oil Changed		Client Info		<b>Not Changd</b>	Changed	Changed
Filter Changed		Client Info		<b>Not Changd</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	<b>4</b>	10	27
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>15	<b>2</b>	2	5
Lead	ppm	ASTM D5185m	>25	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>100	<b>&lt;1</b>	1	4
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	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**

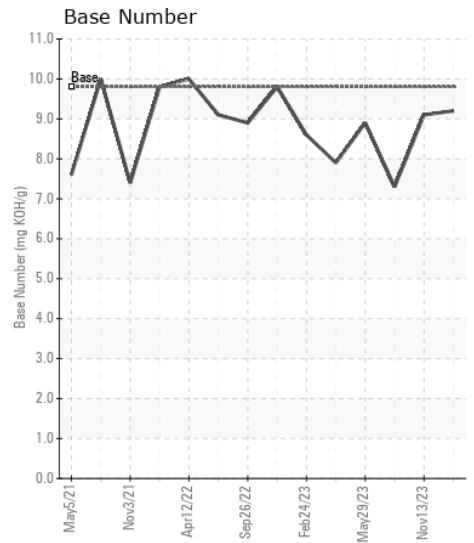
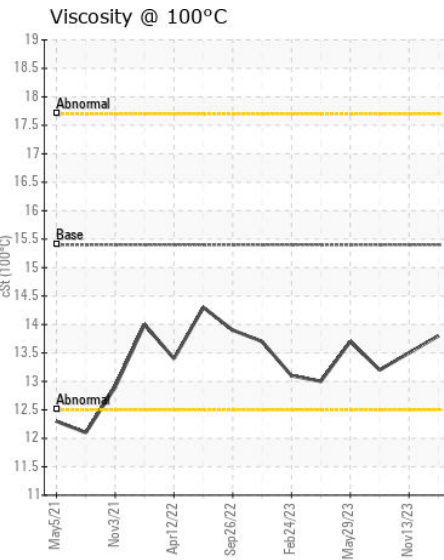
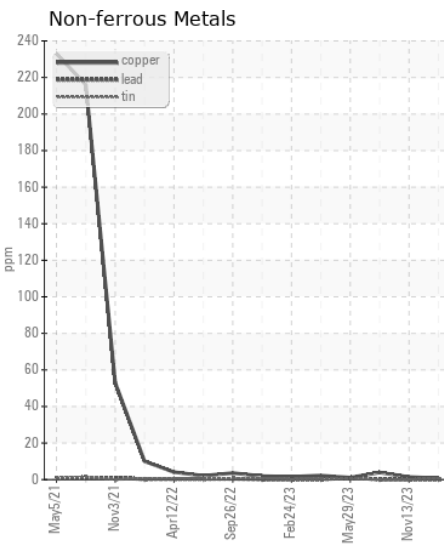
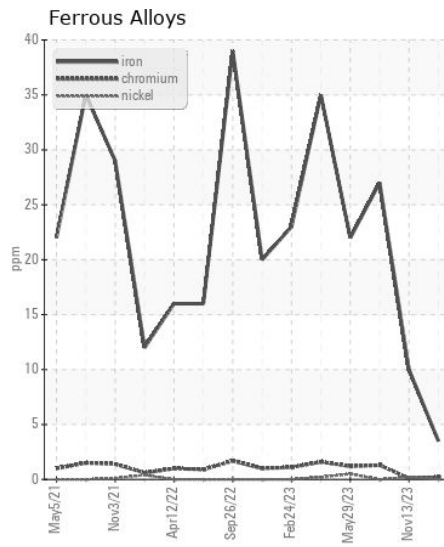
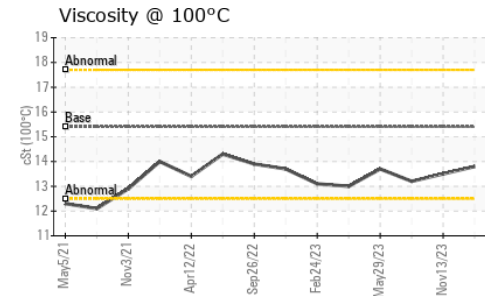
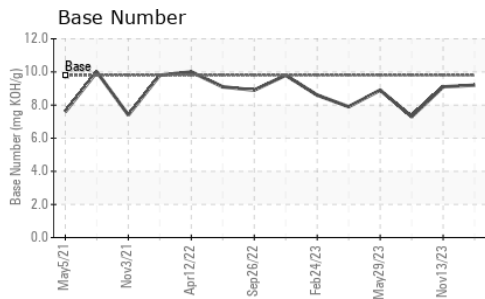
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>3</b>	4	6
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	4	10
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>0.2</b>	0.4	0.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.6</b>	7.9	11.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.8</b>	19.4	21.9
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>2</b>	<1	7
Boron	ppm	ASTM D5185m	0	<b>3</b>	1	0
Barium	ppm	ASTM D5185m	0	<b>0</b>	6	0
Molybdenum	ppm	ASTM D5185m	60	<b>58</b>	59	61
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	1010	<b>995</b>	886	967
Calcium	ppm	ASTM D5185m	1070	<b>1015</b>	1014	1060
Phosphorus	ppm	ASTM D5185m	1150	<b>1073</b>	1056	1016
Zinc	ppm	ASTM D5185m	1270	<b>1264</b>	1170	1285
Sulfur	ppm	ASTM D5185m	2060	<b>3245</b>	3362	3451
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.7</b>	15.6	19.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>9.2</b>	9.1	7.3
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.8</b>	13.5	13.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0103125 **Received** : 14 Feb 2024  
**Lab Number** : 06089317 **Tested** : 15 Feb 2024  
**Unique Number** : 10876762 **Diagnosed** : 15 Feb 2024 - Wes Davis  
**Test Package** : FLEET

**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)