



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

Machine Id  
**10987**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (11 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0104035</b>	GFL0082193	GFL0082204
Sample Date		Client Info		<b>19 Feb 2024</b>	04 Oct 2023	07 Jun 2023
Machine Age	hrs	Client Info		<b>91969</b>	12961	12112
Oil Age	hrs	Client Info		<b>13898</b>	12961	12112
Filter Age	hrs	Client Info		<b>650</b>	0	650
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	>165	<b>2</b>	5	28
Chromium	ppm	ASTM D5185m	>5	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	1	4
Lead	ppm	ASTM D5185m	>150	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>90	<b>0</b>	<1	1
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	0
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**

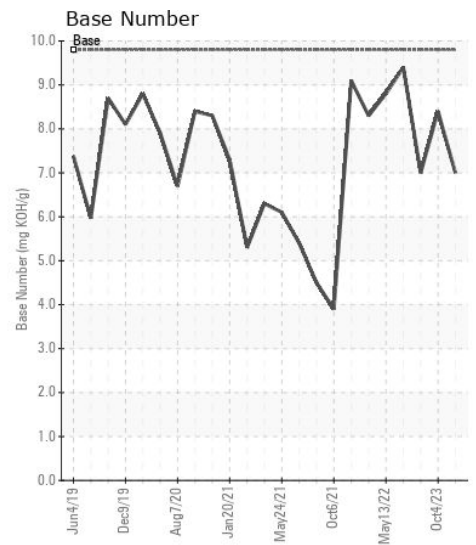
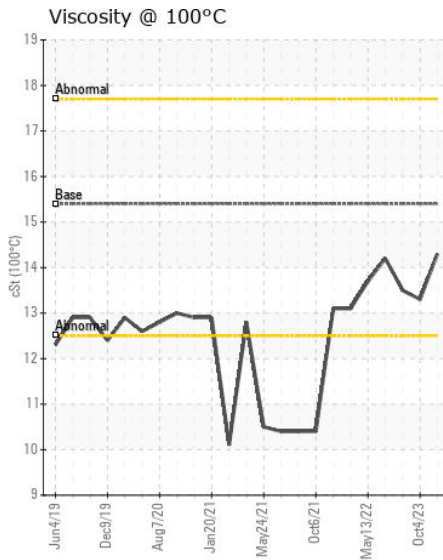
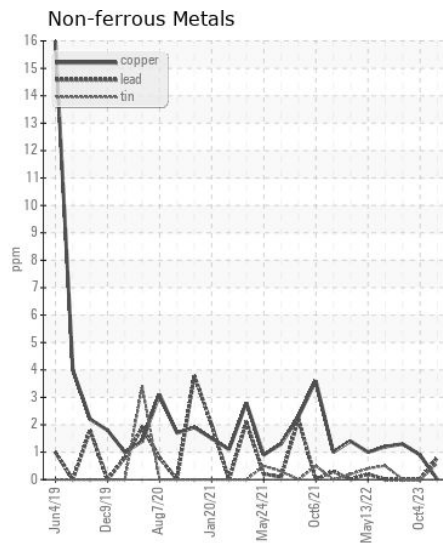
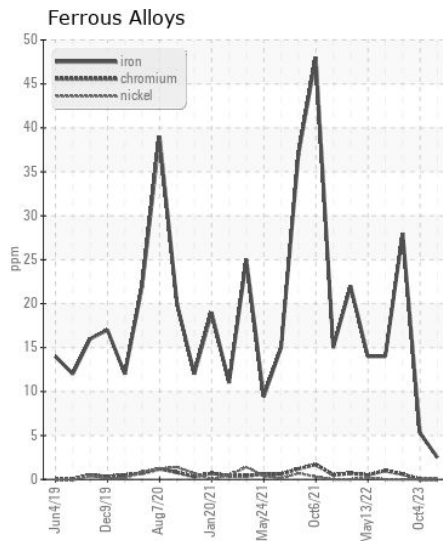
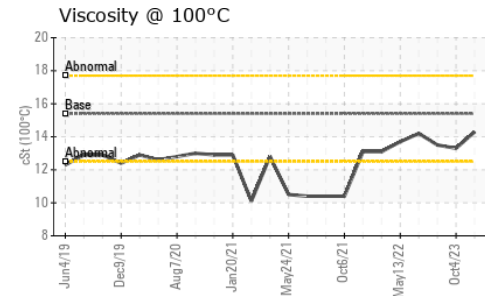
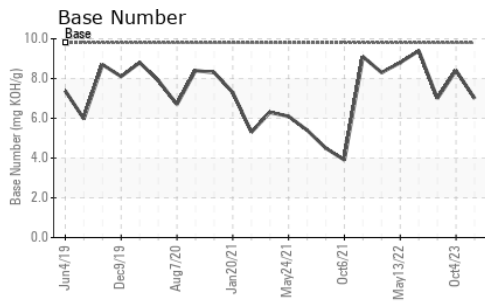
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>35	<b>4</b>	4	7
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	7
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	>7.5	<b>0.1</b>	0.1	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.1</b>	6.0	9.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.9</b>	18.2	21.5
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>	4	7
Boron	ppm	ASTM D5185m	0	<b>51</b>	11	5
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>87</b>	65	60
Manganese	ppm	ASTM D5185m	0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	1010	<b>208</b>	908	947
Calcium	ppm	ASTM D5185m	1070	<b>2506</b>	1135	1135
Phosphorus	ppm	ASTM D5185m	1150	<b>1080</b>	978	1018
Zinc	ppm	ASTM D5185m	1270	<b>1547</b>	1218	1264
Sulfur	ppm	ASTM D5185m	2060	<b>4357</b>	3101	3550
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.6</b>	14.2	19.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.0</b>	8.4	7.0
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.3</b>	13.3	13.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0104035  
**Lab Number** : 06104200  
**Unique Number** : 10902430  
**Test Package** : FLEET

**Received** : 29 Feb 2024  
**Tested** : 01 Mar 2024  
**Diagnosed** : 02 Mar 2024 - Don Baldrige

**GFL Environmental - 015 - Columbia**  
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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)