



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

Machine Id  
**420020-402465**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (--- LTR)**

**RECOMMENDATION**

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0074651</b>	GFL0064687	GFL0046879
Sample Date		Client Info		<b>15 Mar 2023</b>	16 Feb 2023	02 Nov 2022
Machine Age	hrs	Client Info		<b>4854</b>	4723	1125
Oil Age	hrs	Client Info		<b>4854</b>	4723	1125
Filter Age	hrs	Client Info		<b>0</b>	0	0
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>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	<b>13</b>	8	28
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>8</b>	4	9
Lead	ppm	ASTM D5185m	>45	<b>1</b>	0	0
Copper	ppm	ASTM D5185m	>85	<b>3</b>	2	4
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<1
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**

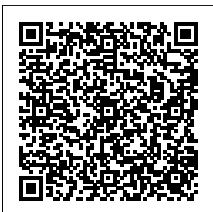
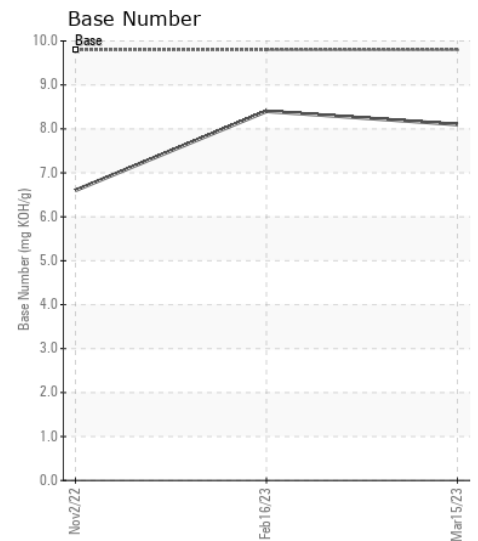
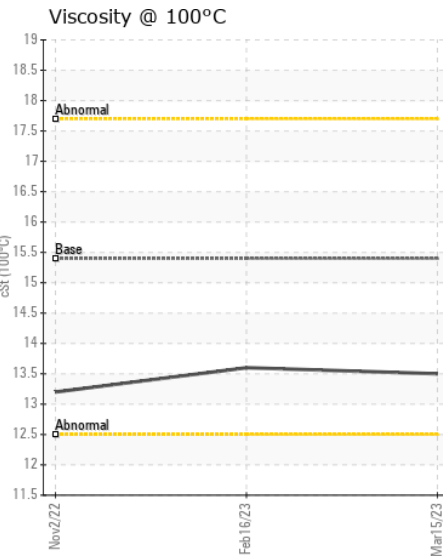
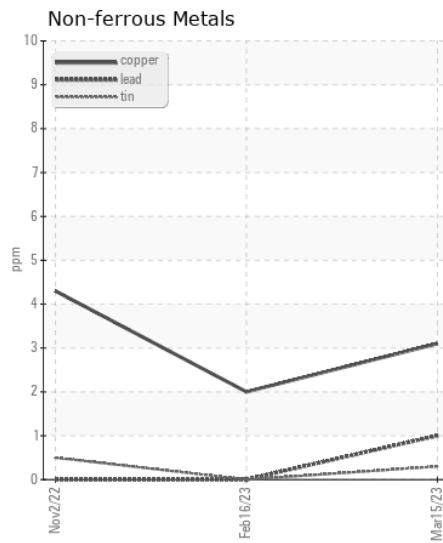
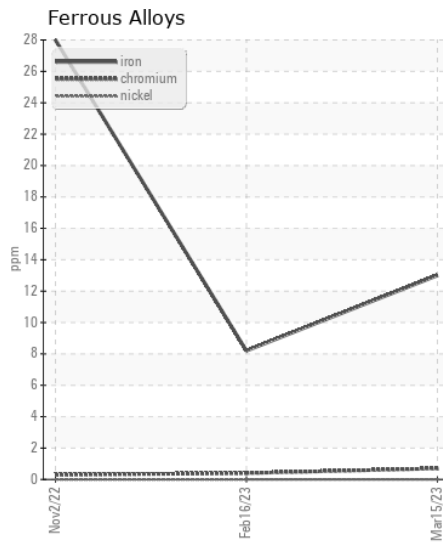
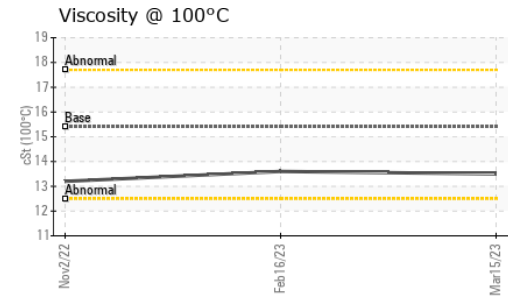
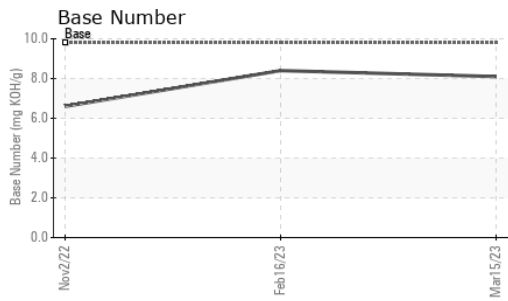
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	<b>5</b>	4	4
Potassium	ppm	ASTM D5185m	>20	<b>11</b>	6	15
Fuel		WC Method	>5	<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>0.3</b>	0.2	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.6</b>	6.9	10.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.1</b>	18.6	24.4
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>3</b>	2	<1
Boron	ppm	ASTM D5185m	0	<b>4</b>	0	2
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>60</b>	60	66
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>926</b>	873	972
Calcium	ppm	ASTM D5185m	1070	<b>1135</b>	1044	1134
Phosphorus	ppm	ASTM D5185m	1150	<b>1015</b>	929	1046
Zinc	ppm	ASTM D5185m	1270	<b>1225</b>	1120	1295
Sulfur	ppm	ASTM D5185m	2060	<b>2915</b>	3336	3303
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.7</b>	14.2	20.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.1</b>	8.4	6.6
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.5</b>	13.6	13.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0074651 **Received** : 20 Mar 2023  
**Lab Number** : 05796527 **Diagnosed** : 21 Mar 2023  
**Unique Number** : 10386211 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 814 - Little Rock Hauling**  
 4005 Hwy 161 N.  
 Little Rock, AR  
 US 72117  
 Contact: Brad Koenig  
 bkoenig@gflenv.com

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)

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F: