



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

Machine Id  
**632122-229056**

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>GFL0096039</b>	GFL0071715	GFL0071746
Sample Date		Client Info		<b>09 Jan 2024</b>	08 Aug 2023	12 Jun 2023
Machine Age	hrs	Client Info		<b>3837</b>	3213	2987
Oil Age	hrs	Client Info		<b>600</b>	600	600
Filter Age	hrs	Client Info		<b>600</b>	600	600
Oil Changed		Client Info		<b>Changed</b>	Changed	Oil Added
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	>100	<b>37</b>	15	25
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>8</b>	6	5
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

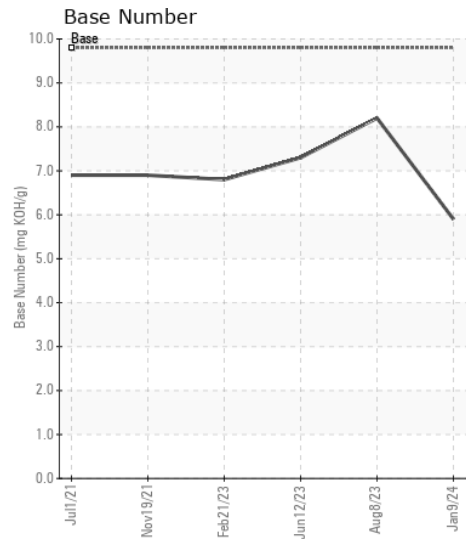
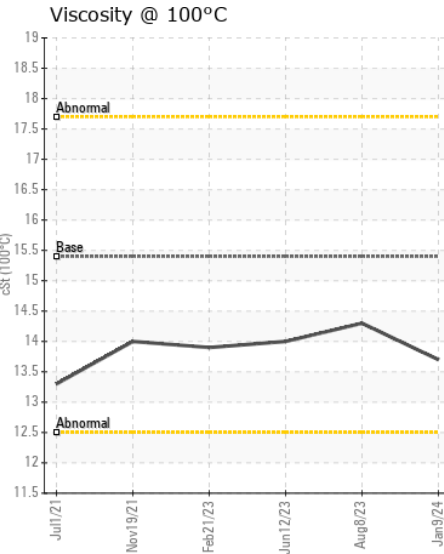
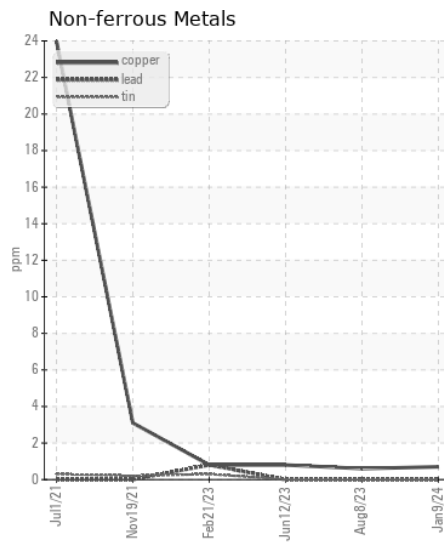
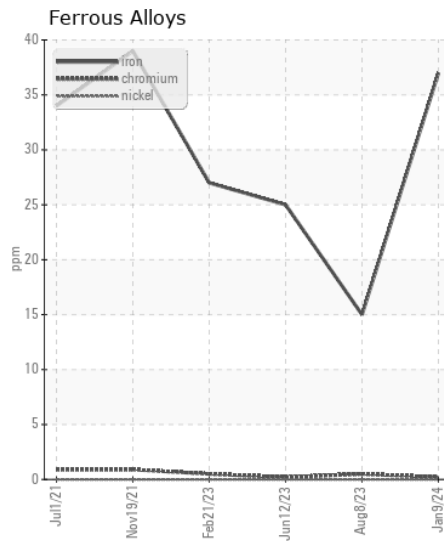
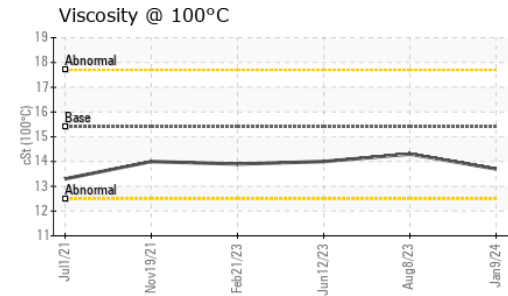
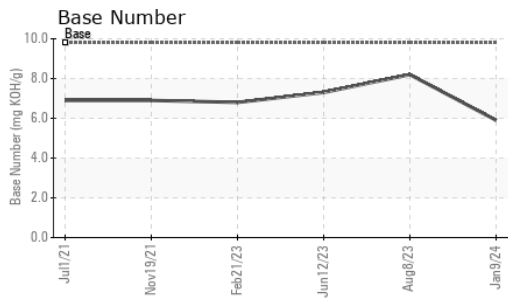
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	10	8
Potassium	ppm	ASTM D5185m	>20	<b>18</b>	9	12
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>0.6</b>	0.2	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.8</b>	7.1	9.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.6</b>	18.9	21.0
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 acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>2</b>	4	4
Boron	ppm	ASTM D5185m	0	<b>17</b>	54	20
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>51</b>	70	50
Manganese	ppm	ASTM D5185m	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>552</b>	726	529
Calcium	ppm	ASTM D5185m	1070	<b>1475</b>	2089	1554
Phosphorus	ppm	ASTM D5185m	1150	<b>744</b>	1195	768
Zinc	ppm	ASTM D5185m	1270	<b>931</b>	1310	936
Sulfur	ppm	ASTM D5185m	2060	<b>2584</b>	3579	2888
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.0</b>	16.0	18.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>5.9</b>	8.2	7.3
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.7</b>	14.3	14.0



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0096039 **Received** : 10 Jan 2024  
**Lab Number** : 06057214 **Diagnosed** : 11 Jan 2024  
**Unique Number** : 10823163 **Diagnostician** : Sean Felton  
**Test Package** : FLEET

**GFL Environmental - 883 - Orange City**  
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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)