



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

Machine Id  
**801186**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0100579</b>	GFL0100605	GFL0054672
Sample Date		Client Info		<b>23 Jun 2024</b>	26 Mar 2024	30 Oct 2022
Machine Age	hrs	Client Info		<b>18999</b>	18430	15346
Oil Age	hrs	Client Info		<b>0</b>	904	1256
Filter Age	hrs	Client Info		<b>0</b>	904	1256
Oil Changed		Client Info		<b>Not Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Not Changed</b>	Changed	Changed
Sample Status				<b>SEVERE</b>	SEVERE	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	<b>44</b>	71	▲ 102
Chromium	ppm	ASTM D5185(m)	>20	<b>3</b>	3	4
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>5</b>	6	6
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185(m)	>330	<b>2</b>	2	5
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	<1

**CONTAMINATION**

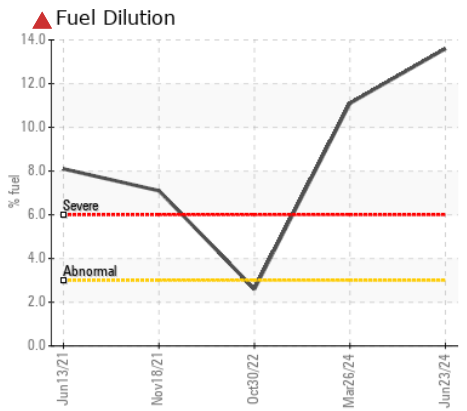
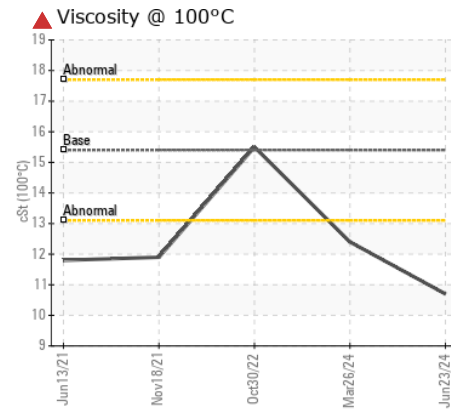
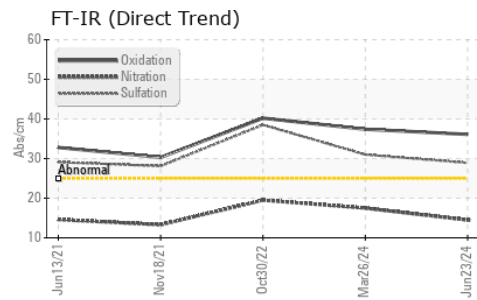
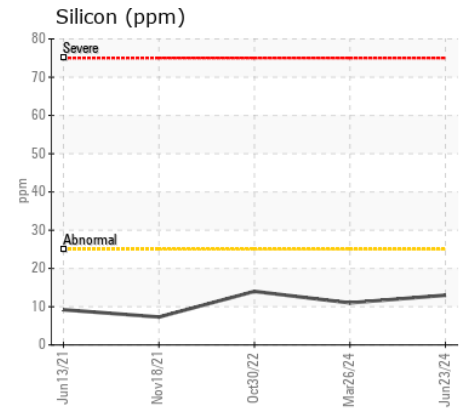
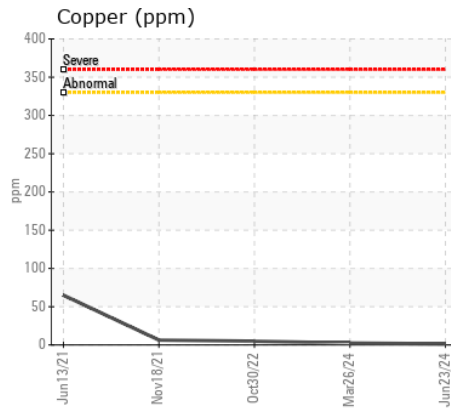
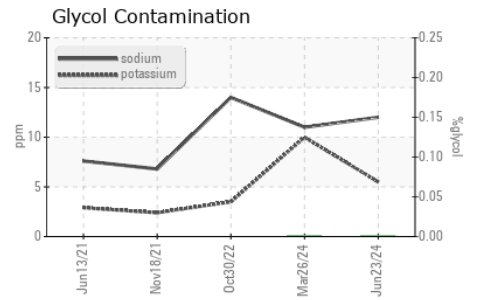
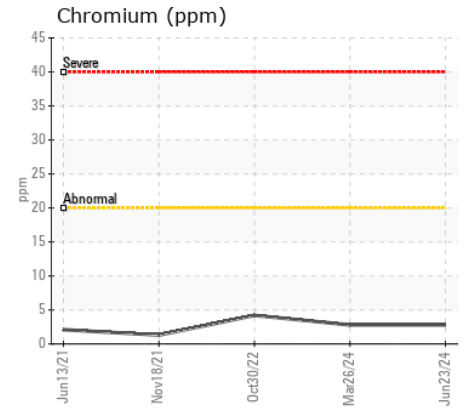
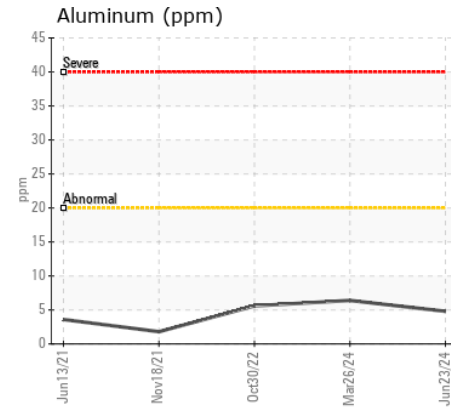
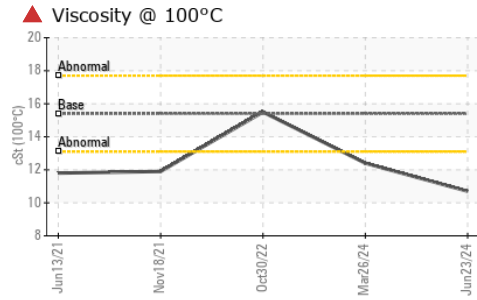
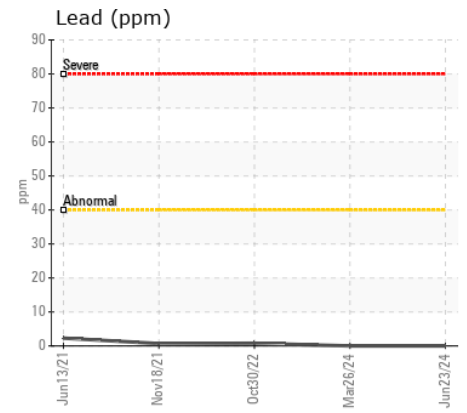
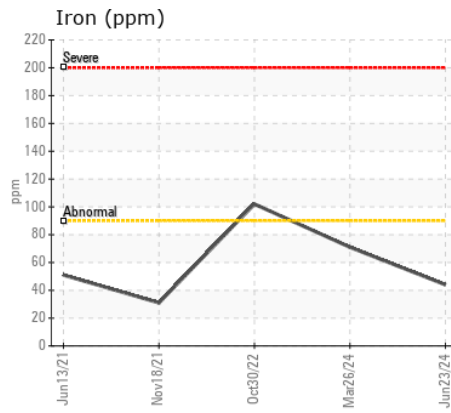
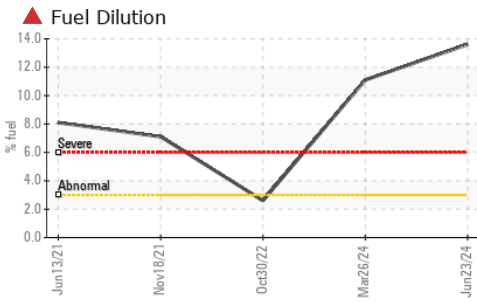
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>13</b>	11	14
Potassium	ppm	ASTM D5185(m)	>20	<b>6</b>	10	4
Fuel	%	ASTM D7593*	>3.0	<b>▲ 13.6</b>	▲ 11.1	▲ 2.6
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	ASTM D7922*		<b>0.0</b>	0.0	NEG
Soot %	%	ASTM D7844*	>6	<b>0.7</b>	1.1	1.7
Nitration	Abs/cm	ASTM D7624*	>20	<b>14.5</b>	17.5	19.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>28.9</b>	31.0	38.5
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		<b>12</b>	11	14
Boron	ppm	ASTM D5185(m)	0	<b>2</b>	2	4
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>46</b>	51	60
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	1
Magnesium	ppm	ASTM D5185(m)	1010	<b>742</b>	825	982
Calcium	ppm	ASTM D5185(m)	1070	<b>808</b>	909	1106
Phosphorus	ppm	ASTM D5185(m)	1150	<b>741</b>	832	1074
Zinc	ppm	ASTM D5185(m)	1270	<b>919</b>	1005	1242
Sulfur	ppm	ASTM D5185(m)	2060	<b>1876</b>	1934	2324
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>36.1</b>	37.4	40.2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	<b>▲ 10.7</b>	▲ 12.4	15.5



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0100579 **Received** : 26 Jun 2024  
**Lab Number** : 02644096 **Tested** : 27 Jun 2024  
**Unique Number** : 5801635 **Diagnosed** : 27 Jun 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: Glycol, PercentFuel )

**GFL Environmental - 575 - Squamish Hauling**  
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To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.