



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

Machine Id  
**816003**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (20 LTR)**

**RECOMMENDATION**

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0116856</b>	GFL0116840	GFL0097440
Sample Date		Client Info		<b>21 May 2024</b>	12 Apr 2024	22 Jan 2024
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>500</b>	500	500
Filter Age	hrs	Client Info		<b>500</b>	500	500
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	SEVERE	SEVERE

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	<b>22</b>	24	21
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>1</b>	2	3
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

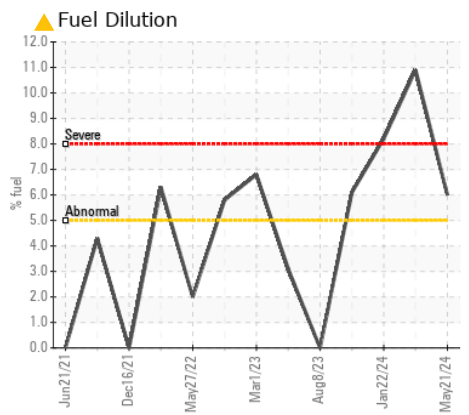
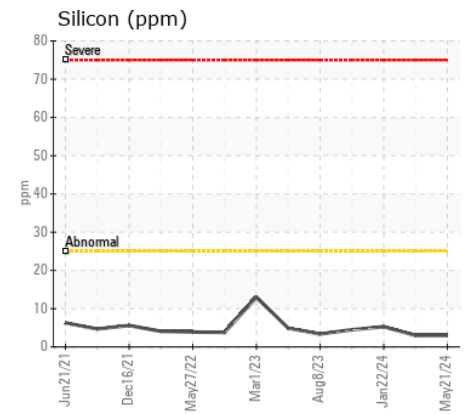
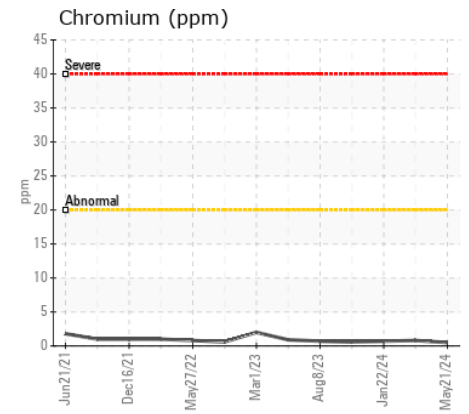
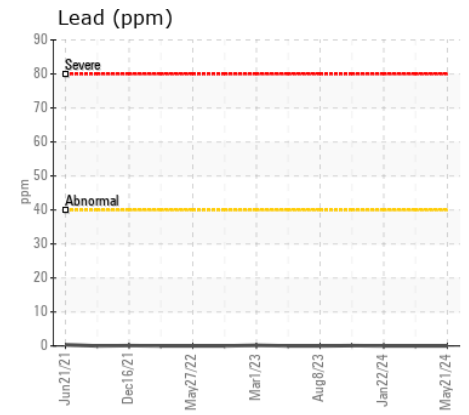
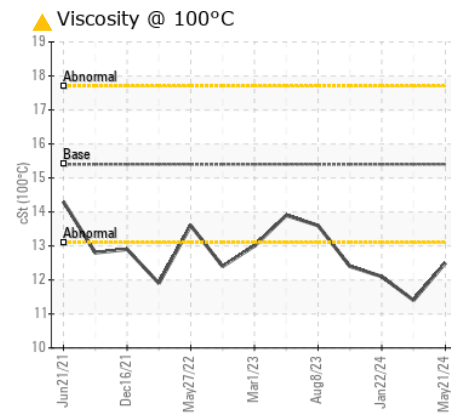
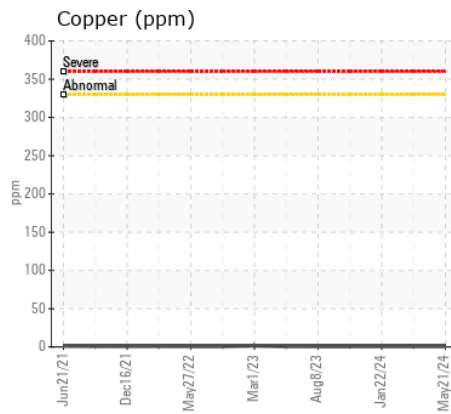
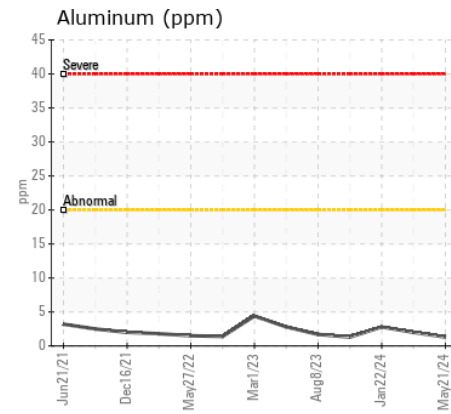
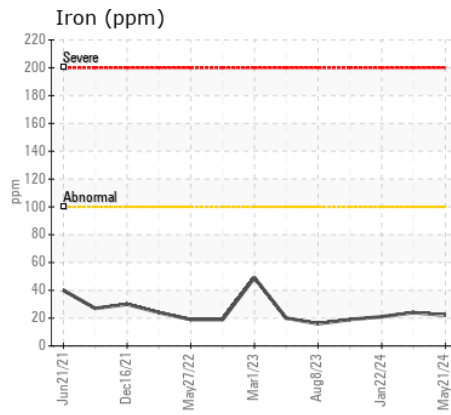
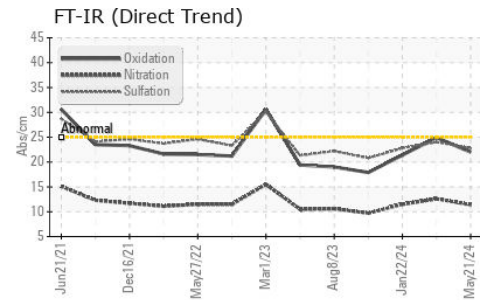
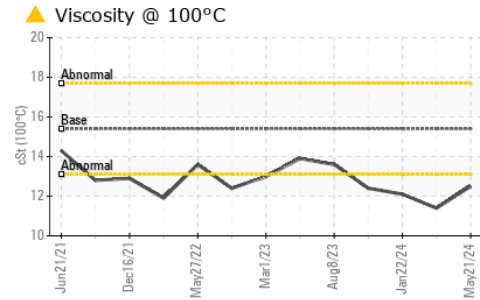
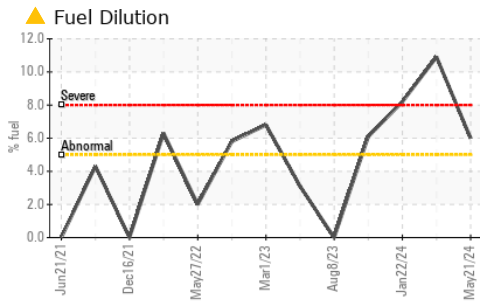
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>3</b>	3	5
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	6
Fuel	%	ASTM D7593*	>5	<b>▲ 6</b>	▲ 10.9	▲ 8.2
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>3	<b>0.5</b>	0.6	0.5
Nitration	Abs/cm	ASTM D7624*	>20	<b>11.4</b>	12.6	11.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>22.8</b>	24.0	22.8
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>2</b>	3	3
Boron	ppm	ASTM D5185(m)	0	<b>3</b>	2	2
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>53</b>	50	53
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185(m)	1010	<b>870</b>	815	841
Calcium	ppm	ASTM D5185(m)	1070	<b>946</b>	855	923
Phosphorus	ppm	ASTM D5185(m)	1150	<b>886</b>	836	899
Zinc	ppm	ASTM D5185(m)	1270	<b>1071</b>	987	1035
Sulfur	ppm	ASTM D5185(m)	2060	<b>2140</b>	2012	2280
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>22.0</b>	24.9	21.4
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	<b>▲ 12.5</b>	▲ 11.4	▲ 12.1



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0116856  
**Lab Number** : 02637083  
**Unique Number** : 5786245  
**Test Package** : MOB 1 ( Additional Tests: PercentFuel )

**Received** : 23 May 2024  
**Tested** : 24 May 2024  
**Diagnosed** : 24 May 2024 - Wes Davis

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.

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