

Machine Id  
**1831**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON HP 15W40 (24 LTR)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PC0082736</b>	PC0076687	PC0052057
Sample Date		Client Info		<b>02 Feb 2024</b>	22 Nov 2023	08 Nov 2021
Machine Age	kms	Client Info		<b>166163</b>	153832	142429
Oil Age	kms	Client Info		<b>12492</b>	11403	9995
Filter Age	kms	Client Info		<b>12492</b>	11403	9995
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	<b>33</b>	49	36
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>13</b>	▲ 27	12
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	<1	0
Copper	ppm	ASTM D5185(m)	>330	<b>2</b>	2	1
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

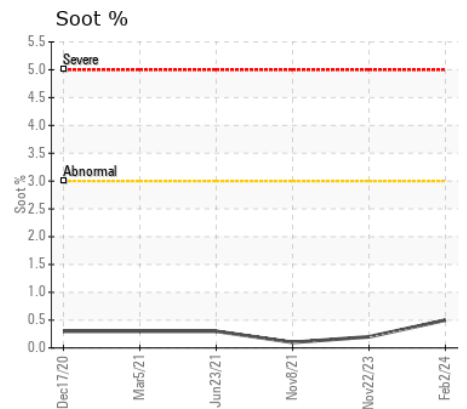
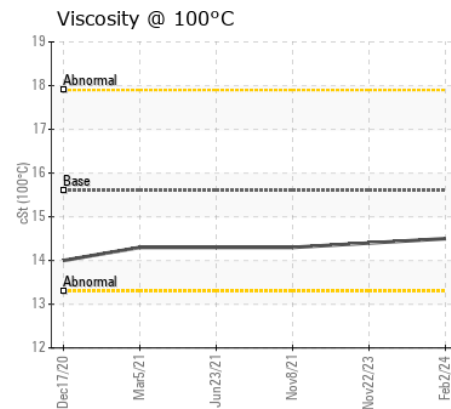
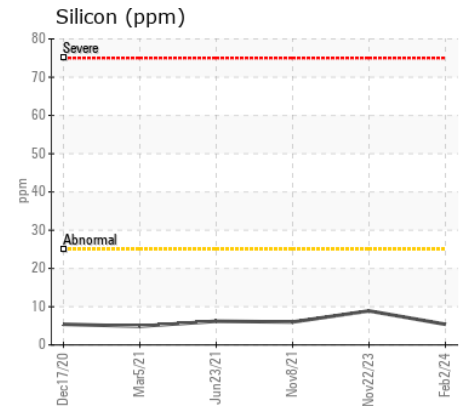
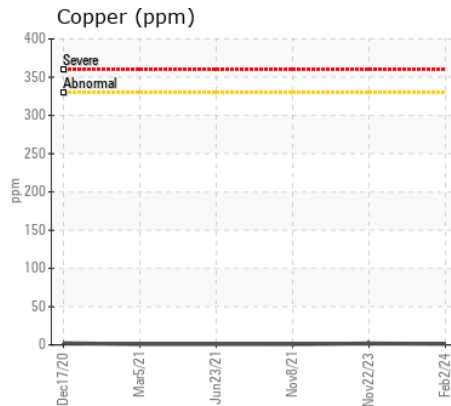
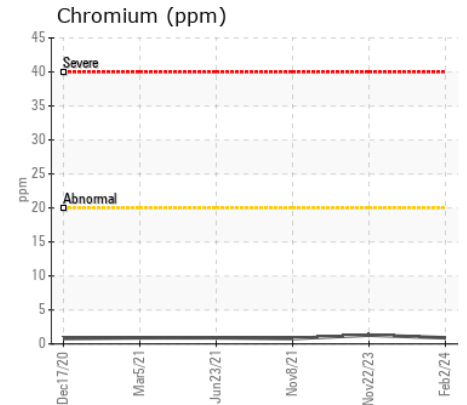
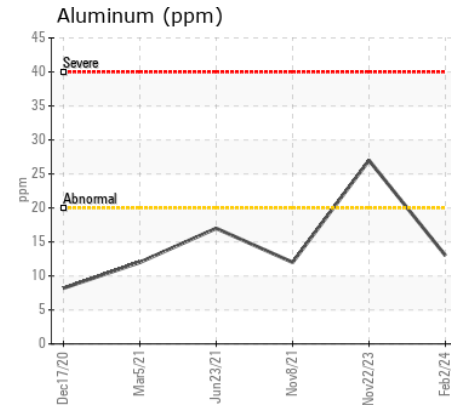
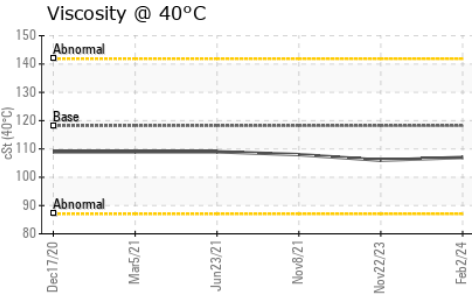
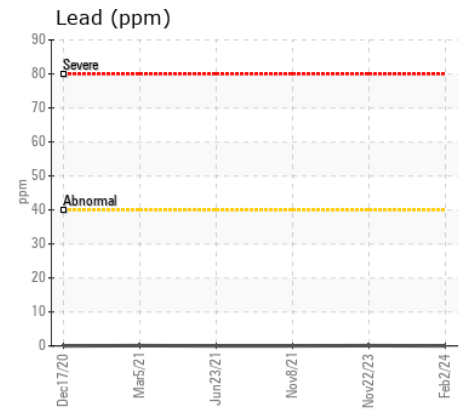
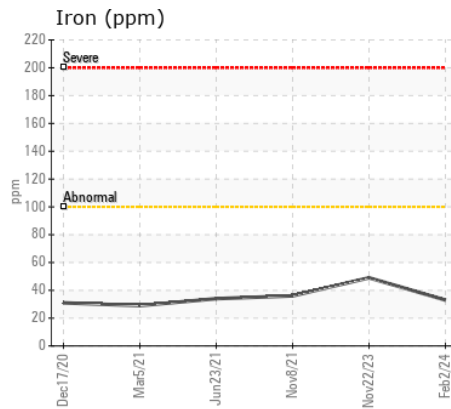
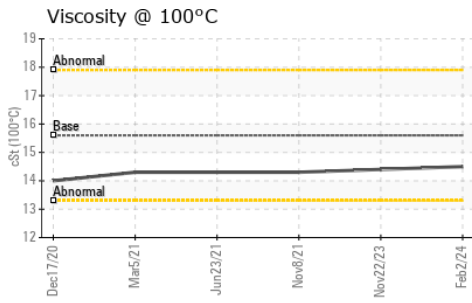
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>5</b>	9	6
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	<1	2
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>0.5</b>	0.2	0.1
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.9</b>	7.5	8.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>21.3</b>	19.8	20.5
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>2</b>	4	2
Boron	ppm	ASTM D5185(m)	0	<b>3</b>	5	1
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>61</b>	58	59
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	<b>990</b>	937	1017
Calcium	ppm	ASTM D5185(m)	1070	<b>1103</b>	1083	1046
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1036</b>	1020	1070
Zinc	ppm	ASTM D5185(m)	1270	<b>1221</b>	1203	1250
Sulfur	ppm	ASTM D5185(m)	2060	<b>2582</b>	2510	2503
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>18.3</b>	15.6	16.2
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	<b>107</b>	106	108
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	<b>14.5</b>	14.4	14.3
Viscosity Index (VI)	Scale	ASTM D2270*	139	<b>139</b>	139	134



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0082736 **Received** : 23 Feb 2024  
**Lab Number** : 02617601 **Tested** : 23 Feb 2024  
**Unique Number** : 5734711 **Diagnosed** : 23 Feb 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI )

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.

**Metrobus Transit**  
 25 Messenger Drive  
 St. John's, NL  
 CA A1B 0H6  
 Contact: Danny Oliver  
 danny.oliver@metrobus.com  
 T: (709)570-2025  
 F: