



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

Machine Id  
**1203**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON HP 15W40 (24 LTR)**

**RECOMMENDATION**

Check for low coolant level. 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>PC0081950</b>	PC0081598	PC0077859
Sample Date		Client Info		<b>25 Apr 2024</b>	15 Feb 2024	29 Nov 2023
Machine Age	kms	Client Info		<b>688383</b>	675250	661820
Oil Age	kms	Client Info		<b>12819</b>	13430	13959
Filter Age	kms	Client Info		<b>12819</b>	13430	13959
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	SEVERE

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	<b>73</b>	69	73
Chromium	ppm	ASTM D5185(m)	>20	<b>2</b>	2	3
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>	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>4</b>	4	3
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<b>4</b>	4	5
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

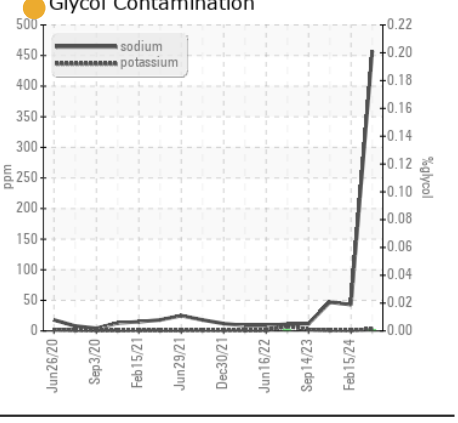
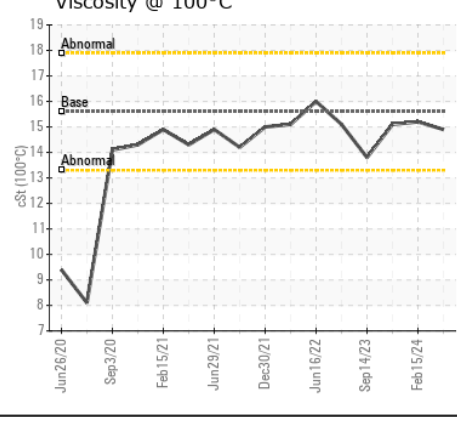
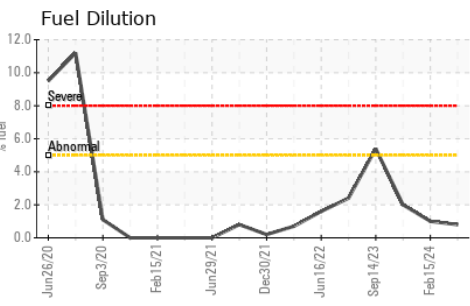
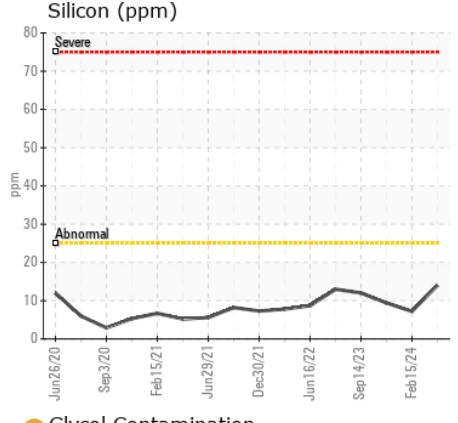
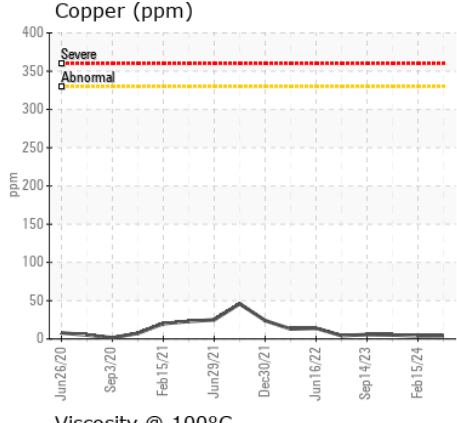
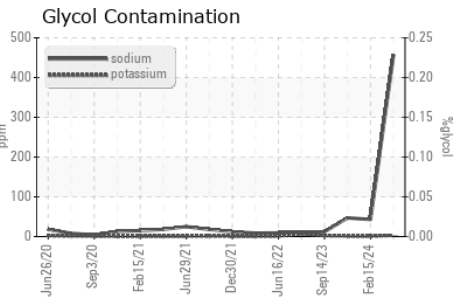
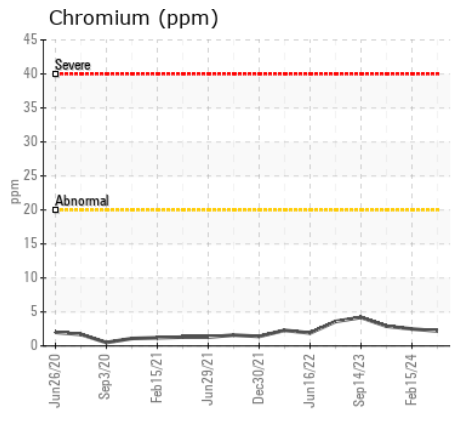
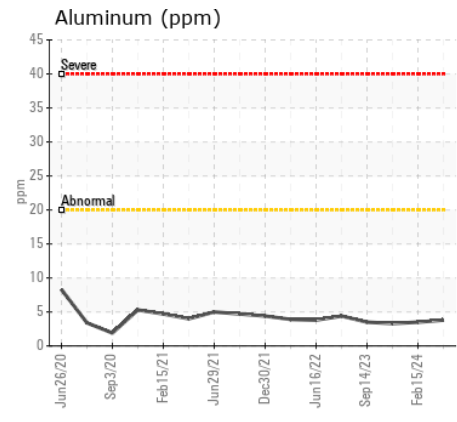
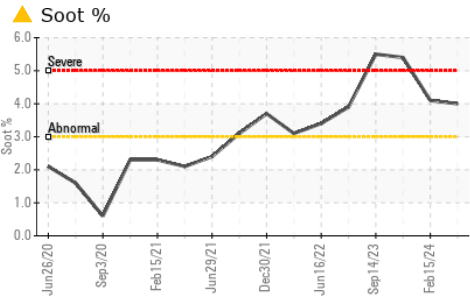
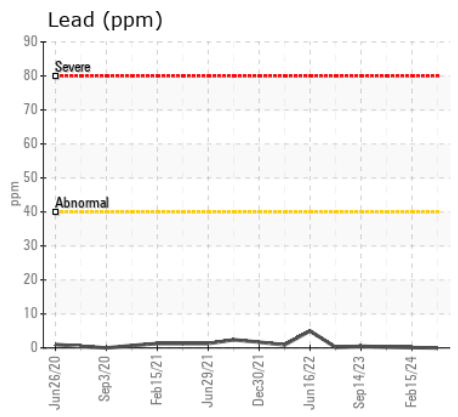
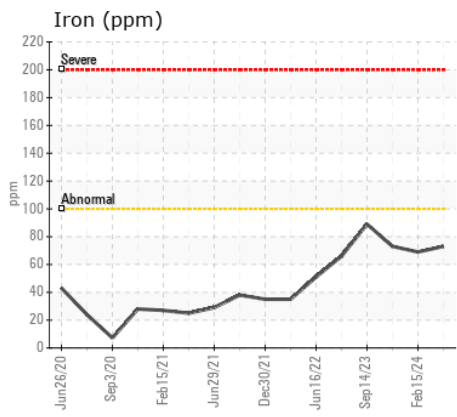
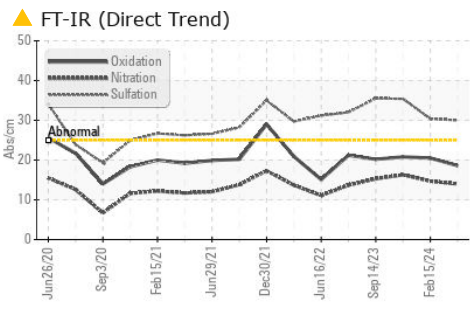
Fuel content negligible. Water treatment chemicals present, indicating slow coolant leak. Light concentration of carbon/soot present in the oil. Test for glycol is negative.

Silicon	ppm	ASTM D5185(m)	>25	<b>14</b>	7	9
Potassium	ppm	ASTM D5185(m)	>20	<b>3</b>	1	1
Fuel	%	ASTM D7593*	>5	<b>0.8</b>	1	▲ 2
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	ASTM D7922*		<b>0.0</b>	NEG	NEG
Soot %	%	ASTM D7844*	>3	▲ <b>4</b>	▲ 4.1	▲ 5.4
Nitration	Abs/cm	ASTM D7624*	>20	<b>14.0</b>	14.7	16.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>30.0</b>	30.4	35.4
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 (see recommendation). The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		● <b>457</b>	43	47
Boron	ppm	ASTM D5185(m)	0	<b>5</b>	3	6
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	<b>79</b>	67	66
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	<b>1079</b>	1067	1053
Calcium	ppm	ASTM D5185(m)	1070	<b>1204</b>	1230	1282
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1088</b>	1108	1110
Zinc	ppm	ASTM D5185(m)	1270	<b>1301</b>	1299	1355
Sulfur	ppm	ASTM D5185(m)	2060	<b>2505</b>	2635	2535
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>18.6</b>	20.5	20.8
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	<b>109</b>	116	114
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	<b>14.9</b>	15.2	15.1
Viscosity Index (VI)	Scale	ASTM D2270*	139	<b>141</b>	136	137



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0081950 **Received** : 03 May 2024  
**Lab Number** : 02633045 **Tested** : 07 May 2024  
**Unique Number** : 5774198 **Diagnosed** : 07 May 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, Glycol, KV40, PercentFuel, 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.

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