

Machine Id  
**15155**  
Component  
**Front Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 10W30 (18 LTR)**

**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.

**WEAR**

All component wear rates are normal.

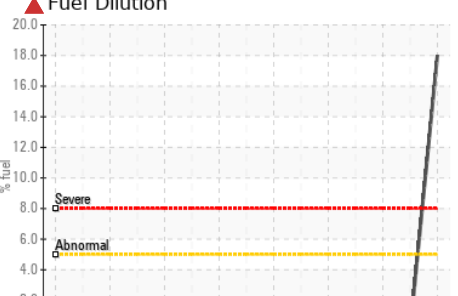
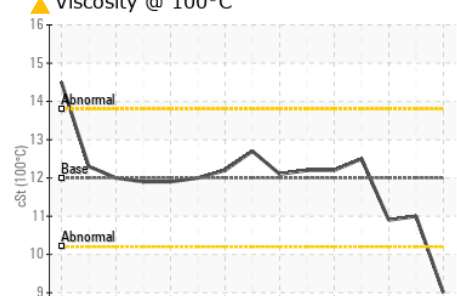
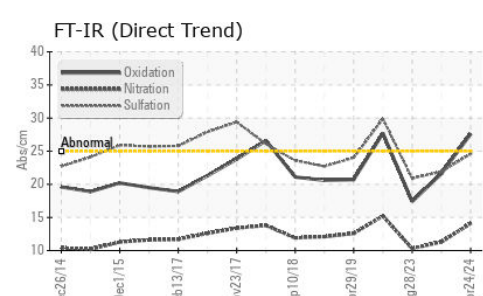
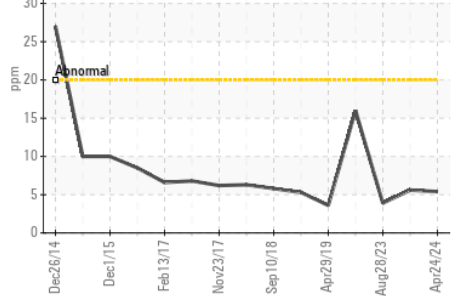
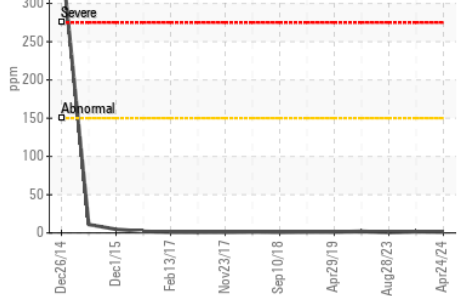
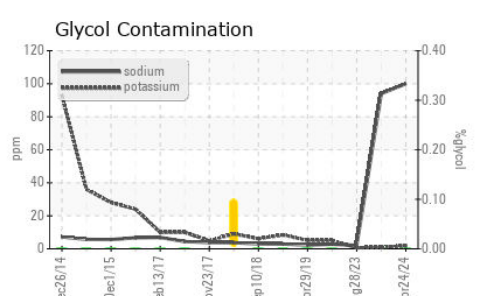
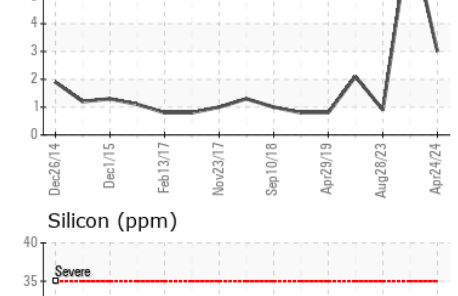
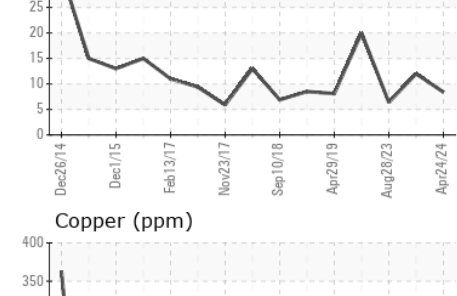
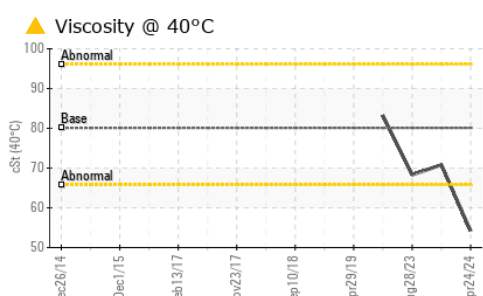
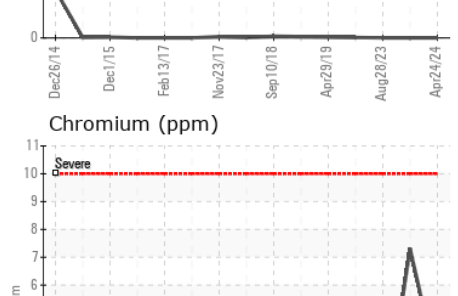
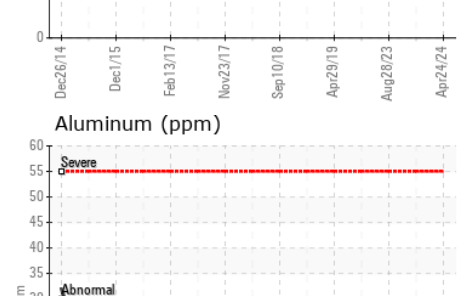
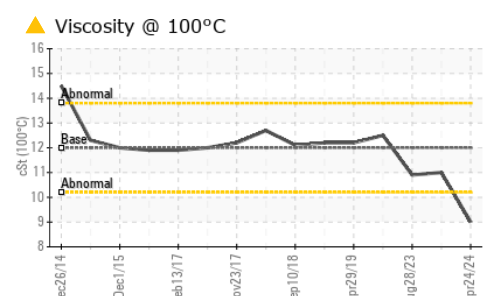
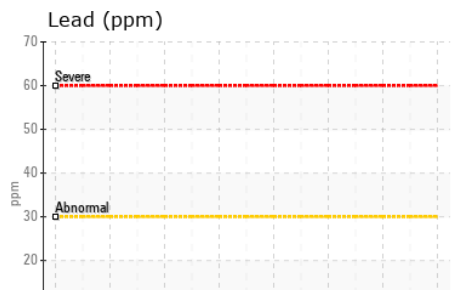
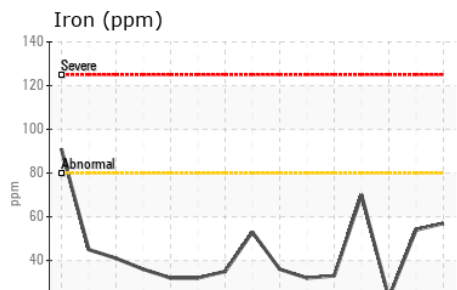
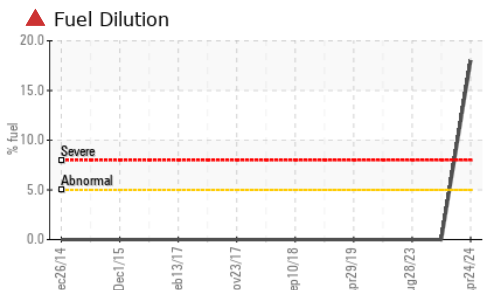
**CONTAMINATION**

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

**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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PC0083060</b>	PC0071272	PC0071882
Sample Date		Client Info		<b>24 Apr 2024</b>	09 Nov 2023	28 Aug 2023
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>SEVERE</b>	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>80	<b>57</b>	54	23
Chromium	ppm	ASTM D5185(m)	>5	<b>3</b>	▲ 7	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	0
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)	>30	<b>8</b>	12	6
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>150	<b>1</b>	2	<1
Tin	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>VLITE</b>	NONE	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Silicon	ppm	ASTM D5185(m)	>20	<b>5</b>	6	4
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	<1	<1
Fuel	%	ASTM D7593*	>5	<b>▲ 18</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	ASTM D7922*		<b>0.0</b>	0.0	NEG
Soot %	%	ASTM D7844*	>3	<b>0.7</b>	0.4	0.5
Nitration	Abs/cm	ASTM D7624*	>20	<b>14.1</b>	11.3	10.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>24.6</b>	21.9	20.9
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Sodium	ppm	ASTM D5185(m)		<b>100</b>	94	2
Boron	ppm	ASTM D5185(m)	2	<b>6</b>	5	8
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)	50	<b>49</b>	58	60
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	950	<b>751</b>	903	946
Calcium	ppm	ASTM D5185(m)	1050	<b>846</b>	987	1046
Phosphorus	ppm	ASTM D5185(m)	995	<b>771</b>	936	1024
Zinc	ppm	ASTM D5185(m)	1180	<b>922</b>	1106	1172
Sulfur	ppm	ASTM D5185(m)	2600	<b>1910</b>	2325	2509
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>27.6</b>	21.6	17.4
Visc @ 40°C	cSt	ASTM D7279(m)	80.1	<b>▲ 54.2</b>	70.8	68.3
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	<b>▲ 9.0</b>	11.0	10.9
Viscosity Index (VI)	Scale	ASTM D2270*	144	<b>146</b>	145	150



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0083060 **Received** : 29 Apr 2024  
**Lab Number** : 02631869 **Tested** : 30 Apr 2024  
**Unique Number** : 5773022 **Diagnosed** : 30 Apr 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, Glycol, KV40, PercentFuel, VI, Visual )

**Wasteco**  
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 sandrade@wasteco.com  
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 F: (416)787-6210

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.