

Machine Id  
**FREIGHTLINER 124**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 10W30 (24 LTR)**

**RECOMMENDATION**

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PC0081960</b>	PC0071663	PC0065601
Sample Date		Client Info		<b>24 Nov 2023</b>	14 Jun 2023	04 Nov 2022
Machine Age	kms	Client Info		<b>497986</b>	465573	425581
Oil Age	kms	Client Info		<b>32413</b>	39992	29644
Filter Age	kms	Client Info		<b>32413</b>	39992	29644
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>MARGINAL</b>	ABNORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	<b>64</b>	70	29
Chromium	ppm	ASTM D5185(m)	>20	<b>2</b>	3	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	1	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>7</b>	6	4
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185(m)	>330	<b>2</b>	3	2
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	<1	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

**CONTAMINATION**

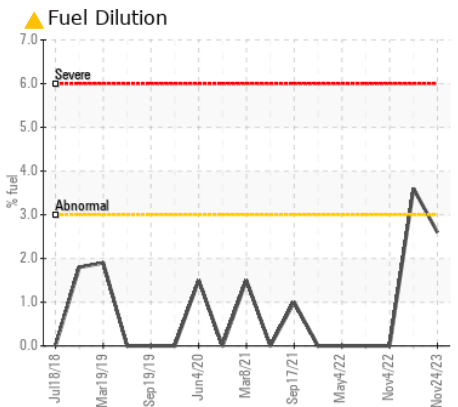
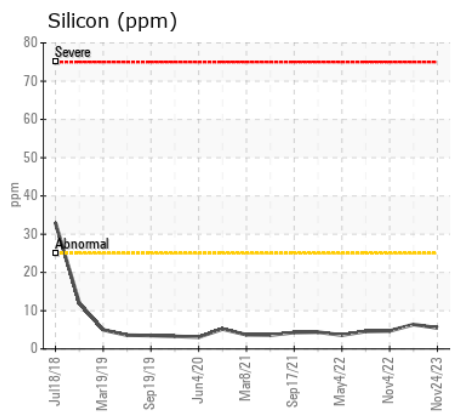
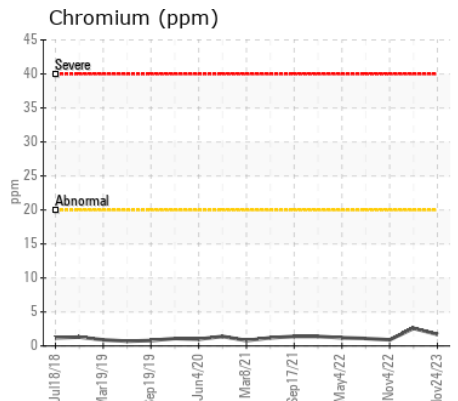
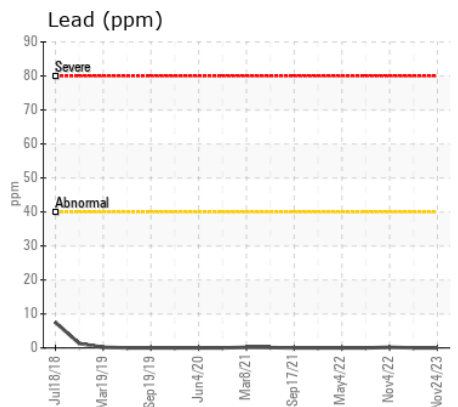
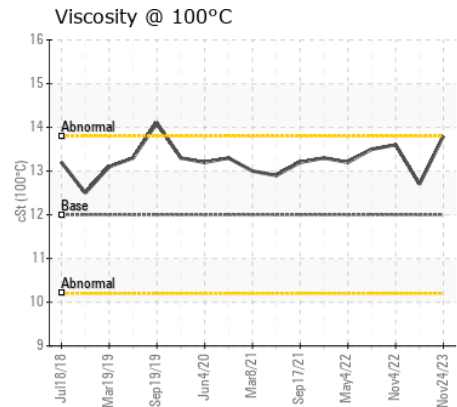
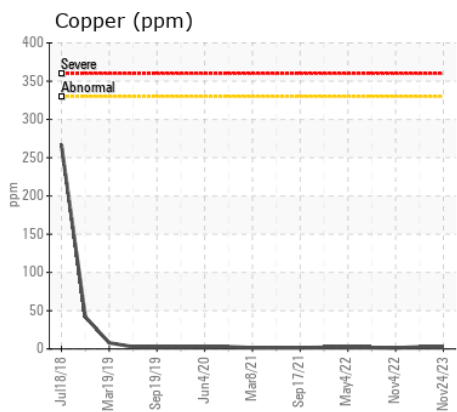
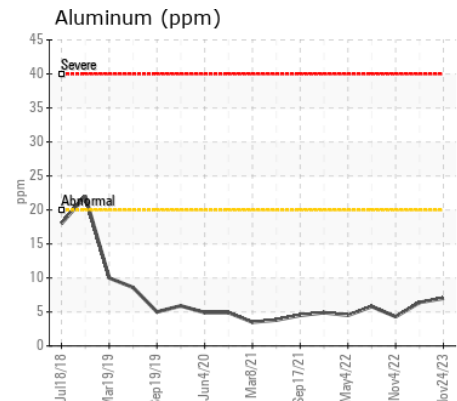
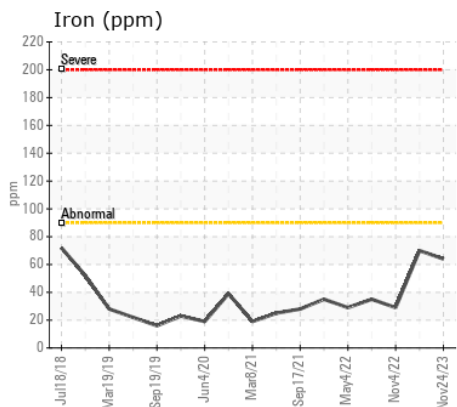
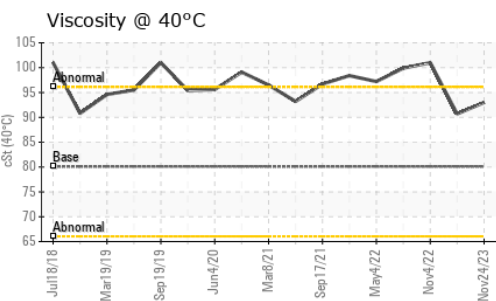
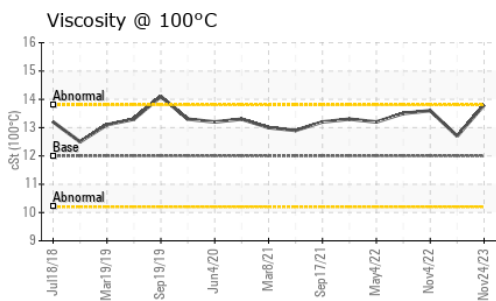
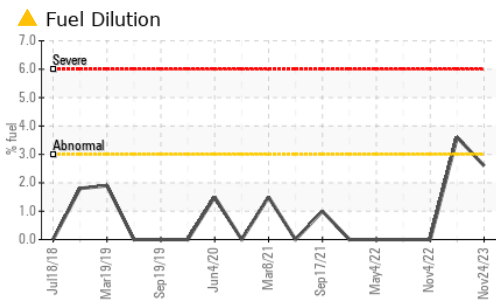
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>6</b>	6	5
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	4	4
Fuel	%	ASTM D7593*	>3.0	<b>▲ 2.6</b>	▲ 3.6	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>6	<b>0.7</b>	0.8	0.3
Nitration	Abs/cm	ASTM D7624*	>20	<b>13.4</b>	16.8	12.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>45.0</b>	31.6	26.2
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
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>7</b>	6	5
Boron	ppm	ASTM D5185(m)	2	<b>25</b>	2	3
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	50	<b>47</b>	59	58
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	950	<b>758</b>	913	938
Calcium	ppm	ASTM D5185(m)	1050	<b>857</b>	1049	1119
Phosphorus	ppm	ASTM D5185(m)	995	<b>853</b>	1009	1010
Zinc	ppm	ASTM D5185(m)	1180	<b>948</b>	1179	1180
Sulfur	ppm	ASTM D5185(m)	2600	<b>2277</b>	2269	2505
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>47.1</b>	37.0	26.5
Visc @ 40°C	cSt	ASTM D7279(m)	80.1	<b>93.0</b>	90.7	101
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	<b>13.8</b>	12.7	13.6
Viscosity Index (VI)	Scale	ASTM D2270*	144	<b>151</b>	136	134



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 ROSS TOWING & TRANSPORTATION SERVICES INC  
**Sample No.** : PC0081960 **Received** : 04 Jan 2024  
**Lab Number** : 02606429 **Diagnosed** : 05 Jan 2024  
**Unique Number** : 5707515 **Diagnostician** : Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: KV40, PercentFuel, VI, Visual )

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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.