



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

Machine Id  
**FREIGHTLINER 137**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 10W30 (40 LTR)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PC0083931</b>	PC0075179	PC0071031
Sample Date		Client Info		<b>19 Feb 2024</b>	24 Jul 2023	24 Mar 2023
Machine Age	kms	Client Info		<b>708741</b>	673662	643555
Oil Age	kms	Client Info		<b>35079</b>	30107	35160
Filter Age	kms	Client Info		<b>35079</b>	30107	35160
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>80	<b>18</b>	19	20
Chromium	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	1	2
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>30	<b>4</b>	4	5
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>150	<b>2</b>	3	4
Tin	ppm	ASTM D5185(m)	>5	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---

**CONTAMINATION**

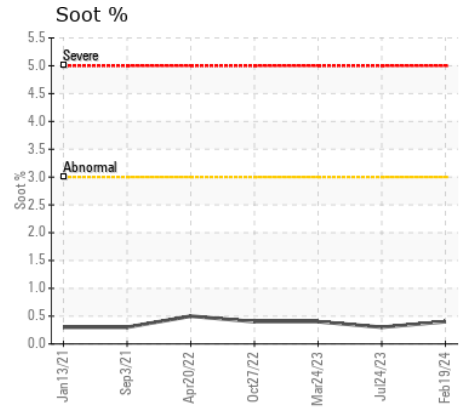
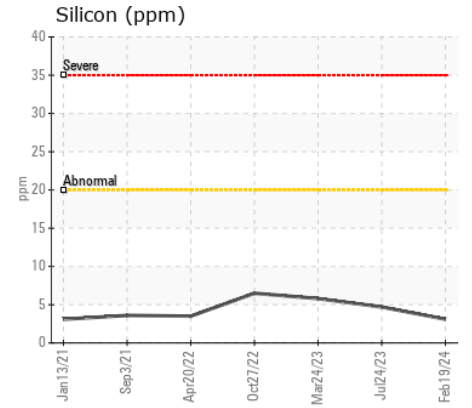
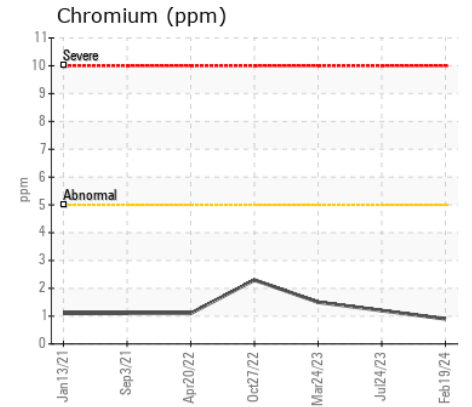
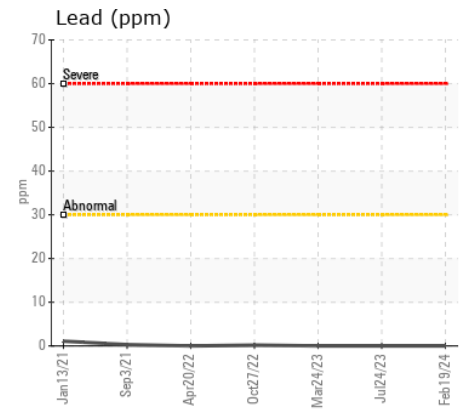
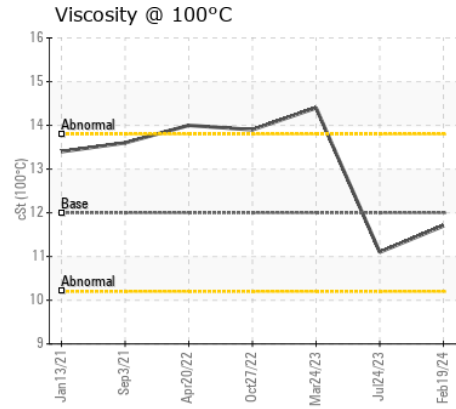
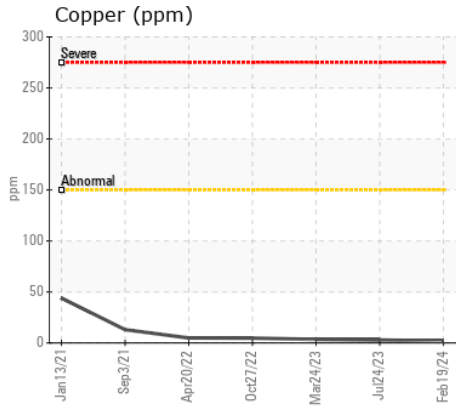
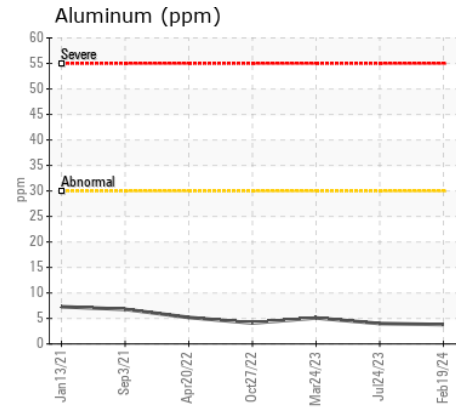
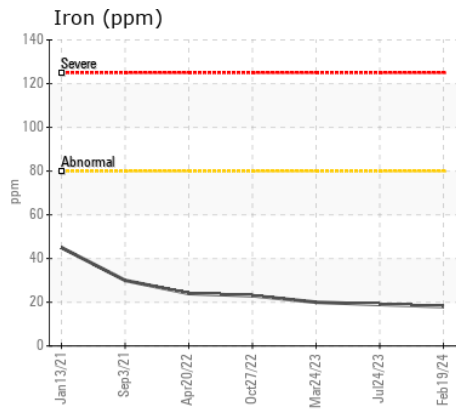
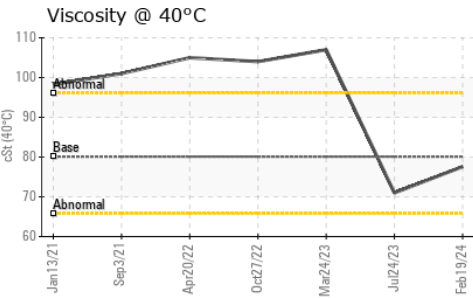
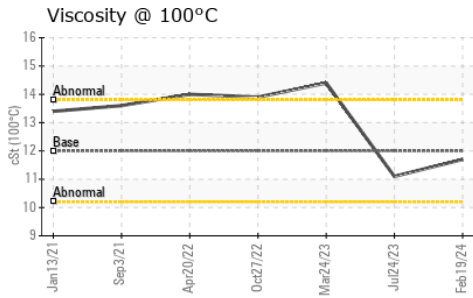
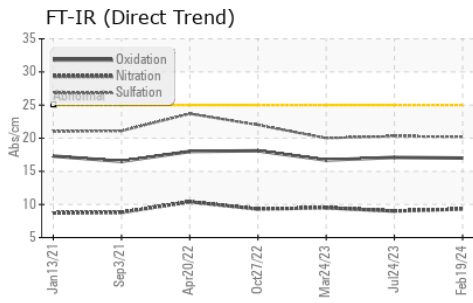
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>20	<b>3</b>	5	6
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	2	<1
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>0.4</b>	0.3	0.4
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.3</b>	9.0	9.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>20.2</b>	20.3	20.0
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Debris	scalar	Visual*	NONE	<b>VLITE</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

**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)	2	<b>&lt;1</b>	2	1
Barium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	50	<b>60</b>	59	61
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	950	<b>979</b>	977	989
Calcium	ppm	ASTM D5185(m)	1050	<b>1074</b>	1017	1135
Phosphorus	ppm	ASTM D5185(m)	995	<b>974</b>	1019	1073
Zinc	ppm	ASTM D5185(m)	1180	<b>1196</b>	1151	1205
Sulfur	ppm	ASTM D5185(m)	2600	<b>2355</b>	2415	2534
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>17.0</b>	17.1	16.7
Visc @ 40°C	cSt	ASTM D7279(m)	80.1	<b>77.6</b>	71.0	107
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	<b>11.7</b>	11.1	14.4
Viscosity Index (VI)	Scale	ASTM D2270*	144	<b>144</b>	147	137



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0083931  
**Lab Number** : 02626846  
**Unique Number** : 5759978  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI, Visual )

**ROSS TOWING & TRANSPORTATION SERVICES INC**  
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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.*