



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**FREIGHTLINER 459**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SAE 10W30 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PC0047508</b>	PC0036824	PC0036821
Sample Date		Client Info		<b>24 Jun 2021</b>	13 Jan 2021	24 Nov 2020
Machine Age	kms	Client Info		<b>858838</b>	1088187	772035
Oil Age	kms	Client Info		<b>86803</b>	103613	92058
Filter Age	kms	Client Info		<b>86803</b>	103613	92058
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>33</b>	50	38
Chromium	ppm	ASTM D5185(m)	>5	<b>2</b>	2	3
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>30	<b>22</b>	22	22
Lead	ppm	ASTM D5185(m)	>30	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>150	<b>10</b>	5	12
Tin	ppm	ASTM D5185(m)	>5	<b>1</b>	<1	1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	<1	<1

**CONTAMINATION**

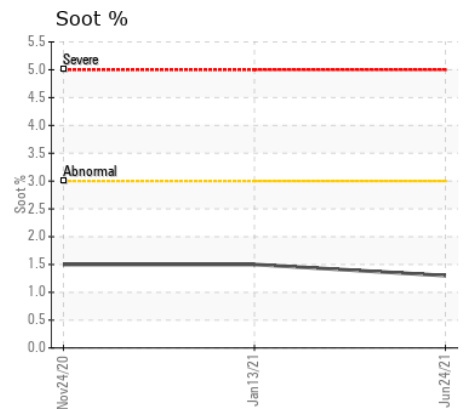
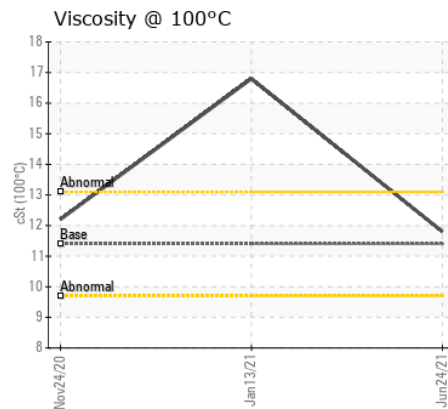
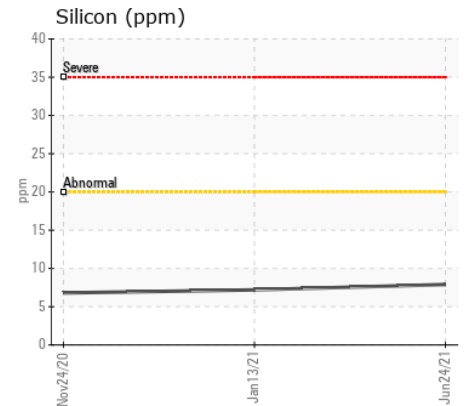
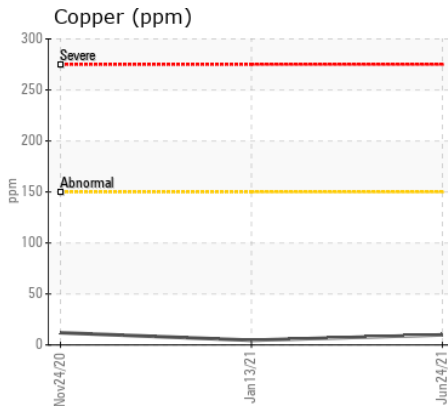
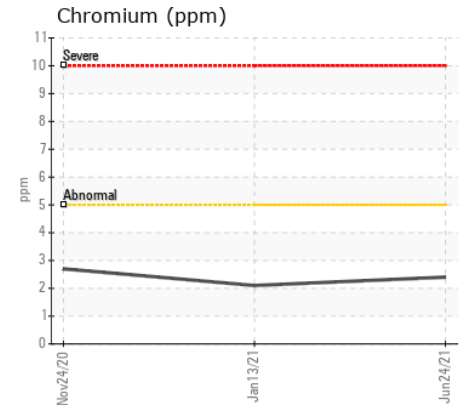
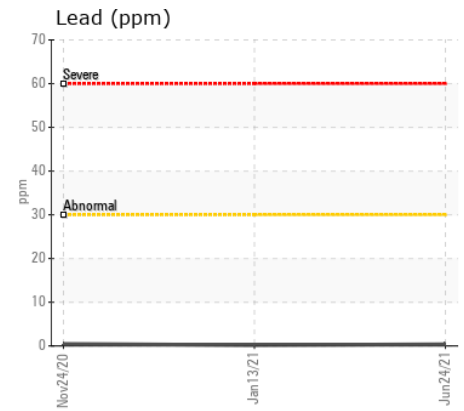
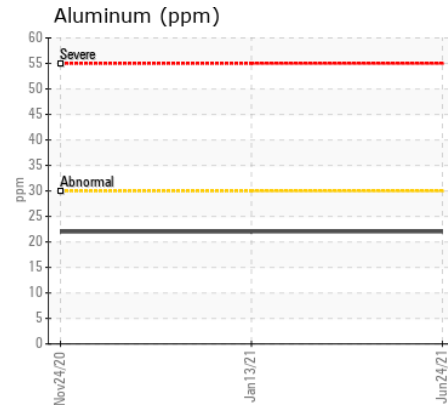
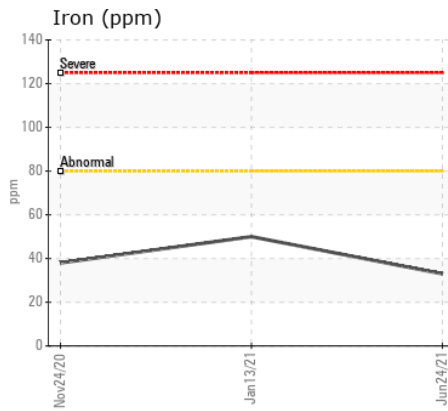
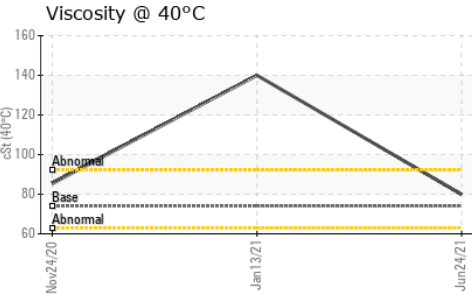
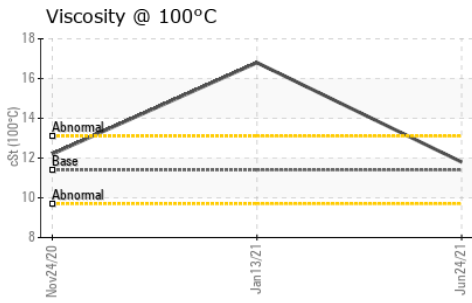
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>20	<b>8</b>	7	7
Potassium	ppm	ASTM D5185(m)	>20	<b>3</b>	3	5
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	0.0
Soot %	%	ASTM D7844*	>3	<b>1.3</b>	1.5	1.5
Nitration	Abs/cm	ASTM D7624*	>20	<b>11.0</b>	12.9	11.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>26.0</b>	31.9	27.0
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>8</b>	5	18
Boron	ppm	ASTM D5185(m)	1	<b>4</b>	84	9
Barium	ppm	ASTM D5185(m)	1	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)	1	<b>57</b>	90	52
Manganese	ppm	ASTM D5185(m)	1	<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185(m)	10	<b>945</b>	568	910
Calcium	ppm	ASTM D5185(m)	2942	<b>1075</b>	1644	1241
Phosphorus	ppm	ASTM D5185(m)	1102	<b>954</b>	1067	969
Zinc	ppm	ASTM D5185(m)	1351	<b>1205</b>	1374	1231
Sulfur	ppm	ASTM D5185(m)	3903	<b>2145</b>	2722	2248
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>20.4</b>	29.3	21.8
Visc @ 40°C	cSt	ASTM D7279(m)	74.0	<b>79.9</b>	140	85.4
Visc @ 100°C	cSt	ASTM D7279(m)	11.4	<b>11.8</b>	16.8	12.2
Viscosity Index (VI)	Scale	ASTM D2270*	146	<b>141</b>	129	137



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0047508 **Received** : 28 Jun 2021  
**Lab Number** : **02429752** **Tested** : 28 Jun 2021  
**Unique Number** : 5241253 **Diagnosed** : 28 Jun 2021 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI )

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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.