



# OIL ANALYSIS REPORT

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

Area  
**55000 Series**  
 Machine Id  
**Toronto Freightliner 55016**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (40 LTR)**

## RECOMMENDATION

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>WC0915497</b>	WC0892038	WC0837208
Sample Date		Client Info		<b>16 Mar 2024</b>	11 Jan 2024	14 Nov 2023
Machine Age	mls	Client Info		<b>8280</b>	856123	843287
Oil Age	mls	Client Info		<b>8280</b>	12837	8929
Filter Age	mls	Client Info		<b>8280</b>	12837	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>200	<b>34</b>	34	27
Chromium	ppm	ASTM D5185(m)	>10	<b>2</b>	3	2
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>30	<b>3</b>	6	2
Lead	ppm	ASTM D5185(m)	>30	<b>6</b>	6	5
Copper	ppm	ASTM D5185(m)	>30	<b>1</b>	1	1
Tin	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## CONTAMINATION

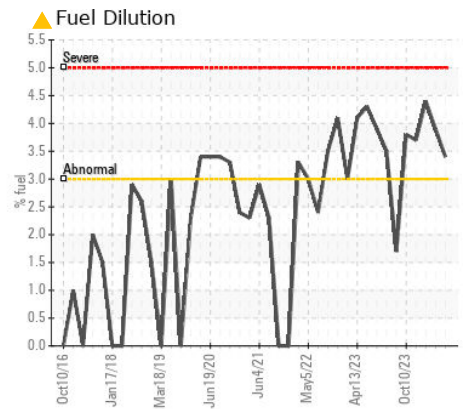
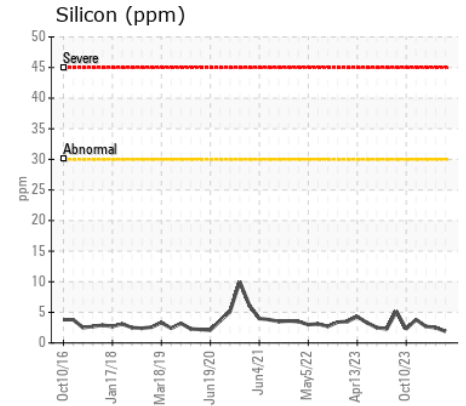
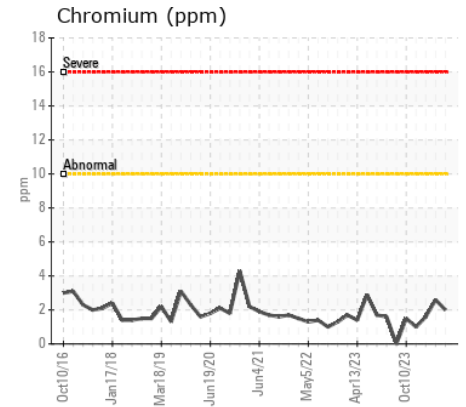
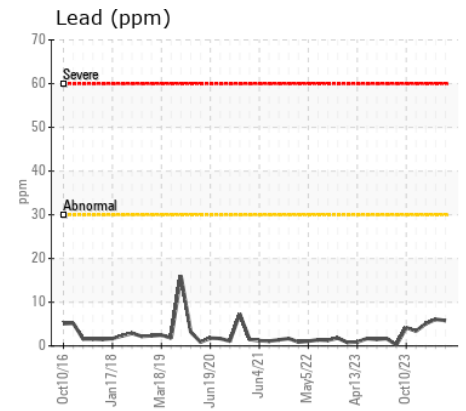
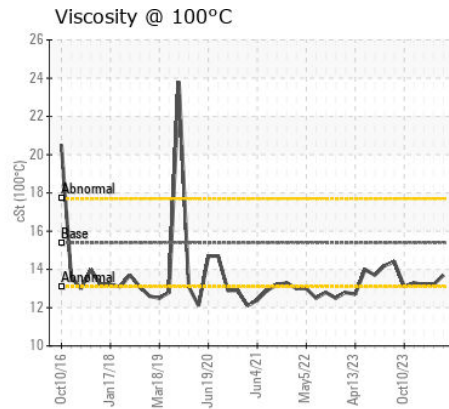
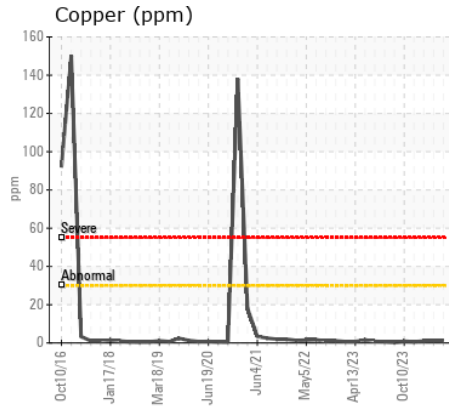
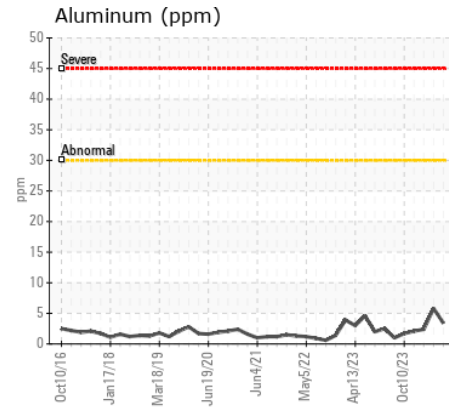
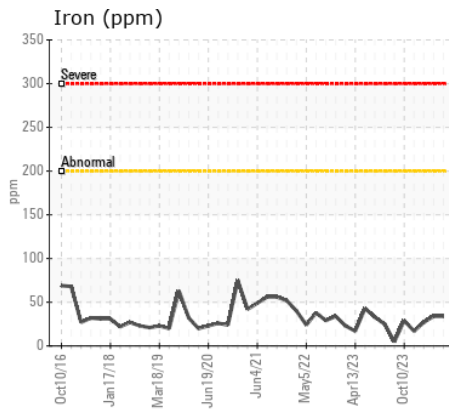
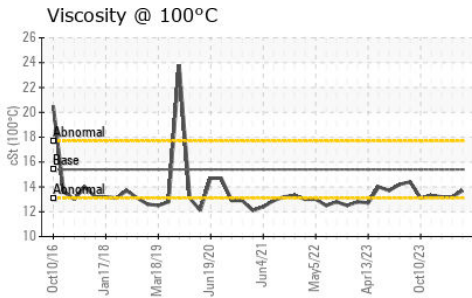
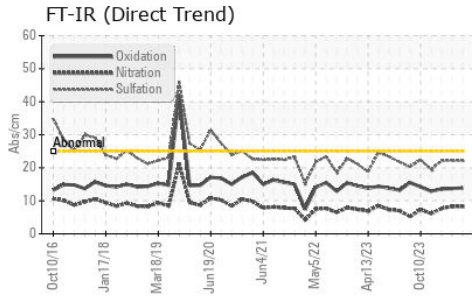
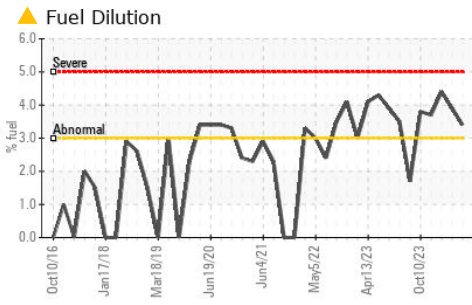
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>30	<b>2</b>	2	3
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	2	0
Fuel	%	ASTM D7593*	>3.0	<b>▲ 3.4</b>	▲ 3.9	▲ 4.4
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>3	<b>2.3</b>	2.4	2.3
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.3</b>	8.3	7.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>22.1</b>	22.2	22.1
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		<b>43</b>	63	66
Boron	ppm	ASTM D5185(m)	0	<b>2</b>	4	1
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	<b>59</b>	55	58
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	1010	<b>960</b>	901	934
Calcium	ppm	ASTM D5185(m)	1070	<b>1063</b>	1057	1010
Phosphorus	ppm	ASTM D5185(m)	1150	<b>972</b>	947	948
Zinc	ppm	ASTM D5185(m)	1270	<b>1181</b>	1092	1132
Sulfur	ppm	ASTM D5185(m)	2060	<b>2424</b>	2545	2407
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>13.9</b>	13.7	13.6
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	<b>13.7</b>	13.2	13.2



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0915497 **Received** : 08 Apr 2024  
**Lab Number** : 02627264 **Tested** : 10 Apr 2024  
**Unique Number** : 5760396 **Diagnosed** : 10 Apr 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: PercentFuel )

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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.