



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

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		WC0892038	WC0837208	WC0854788
Sample Date		Client Info		11 Jan 2024	14 Nov 2023	31 Oct 2023
Machine Age	mls	Client Info		856123	843287	5285
Oil Age	mls	Client Info		12837	8929	5285
Filter Age	mls	Client Info		12837	0	5285
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>200	34	27	17
Chromium	ppm	ASTM D5185(m)	>10	3	2	1
Nickel	ppm	ASTM D5185(m)	>4	<1	0	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	<1	<1	<1
Aluminum	ppm	ASTM D5185(m)	>30	6	2	2
Lead	ppm	ASTM D5185(m)	>30	6	5	3
Copper	ppm	ASTM D5185(m)	>30	1	1	<1
Tin	ppm	ASTM D5185(m)	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

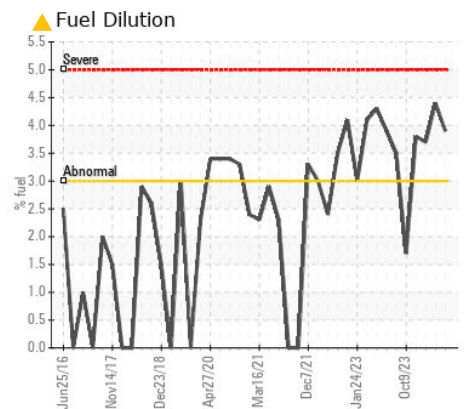
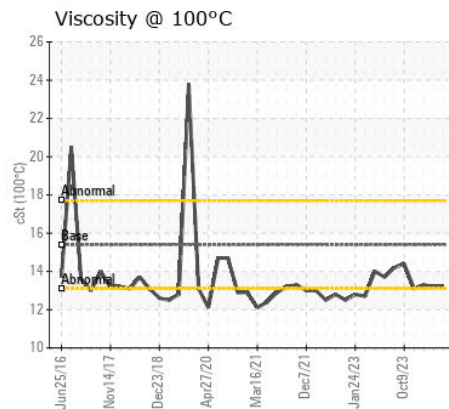
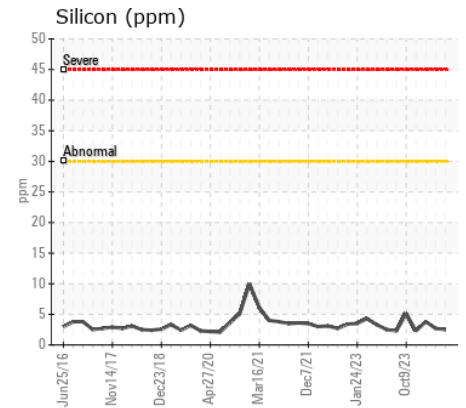
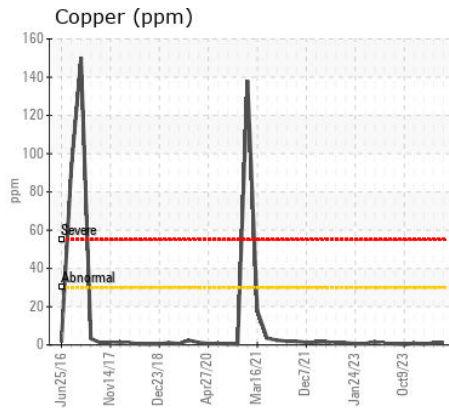
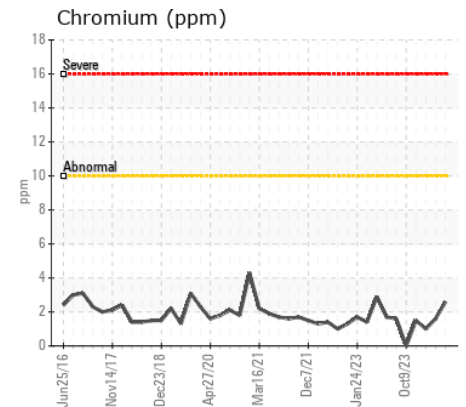
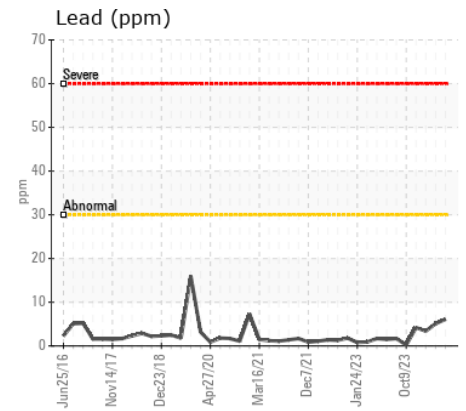
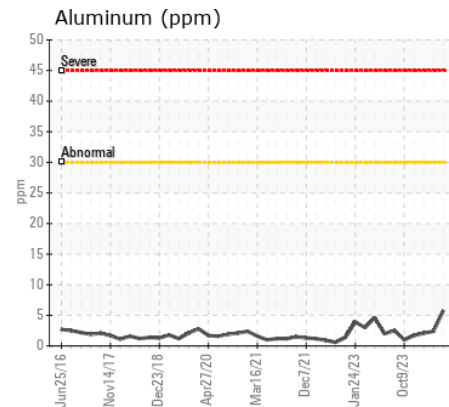
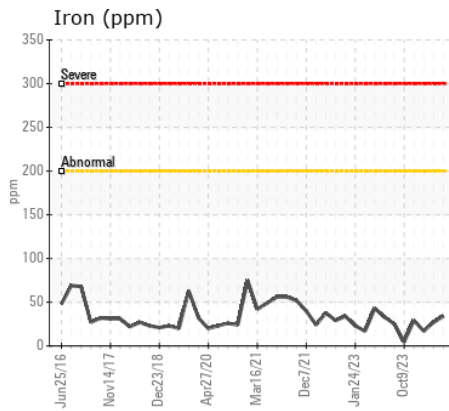
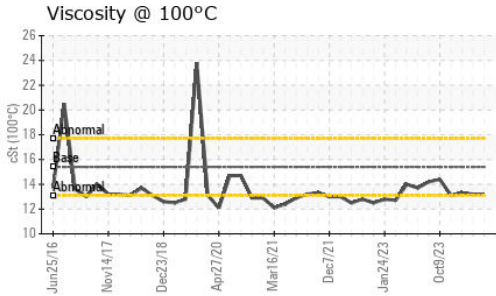
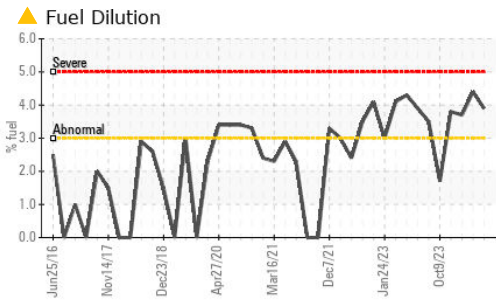
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>30	2	3	4
Potassium	ppm	ASTM D5185(m)	>20	2	0	0
Fuel	%	ASTM D7593*	>3.0	▲ 3.9	▲ 4.4	▲ 3.7
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	2.4	2.3	1.3
Nitration	Abs/cm	ASTM D7624*	>20	8.3	7.7	6.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.2	22.1	19.5
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		63	66	8
Boron	ppm	ASTM D5185(m)	0	4	1	1
Barium	ppm	ASTM D5185(m)	0	0	<1	<1
Molybdenum	ppm	ASTM D5185(m)	60	55	58	62
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	1010	901	934	1010
Calcium	ppm	ASTM D5185(m)	1070	1057	1010	1093
Phosphorus	ppm	ASTM D5185(m)	1150	947	948	1035
Zinc	ppm	ASTM D5185(m)	1270	1092	1132	1232
Sulfur	ppm	ASTM D5185(m)	2060	2545	2407	2675
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.7	13.6	12.9
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.2	13.2	13.3



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0892038 **Received** : 18 Jan 2024
Lab Number : 02609650 **Diagnosed** : 19 Jan 2024
Unique Number : 5710736 **Diagnostician** : 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.