



OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Area

[7503]

Machine Id

9762

Component

Diesel Engine

Fluid

DISEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS

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. Please specify the component make and model with your next sample.

Wear

Metal levels are typical for a new component breaking in.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Light fuel dilution occurring. No other contaminants were detected in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0853471	WC0853511	WC0796203
Sample Date	Client Info		25 Feb 2024	23 Oct 2023	26 Jun 2023
Machine Age	kms	Client Info	68815	45330	23627
Oil Age	kms	Client Info	0	0	0
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>100	35	39	73
Chromium	ppm	ASTM D5185(m)	>20	3	3	4
Nickel	ppm	ASTM D5185(m)	>4	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	57	94	36
Lead	ppm	ASTM D5185(m)	>40	0	<1	2
Copper	ppm	ASTM D5185(m)	>330	2	9	65
Tin	ppm	ASTM D5185(m)	>15	0	0	<1
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	250	44	38	29
Barium	ppm	ASTM D5185(m)	10	0	<1	4
Molybdenum	ppm	ASTM D5185(m)	100	2	5	47
Manganese	ppm	ASTM D5185(m)		<1	<1	6
Magnesium	ppm	ASTM D5185(m)	450	721	713	830
Calcium	ppm	ASTM D5185(m)	3000	1290	1289	1201
Phosphorus	ppm	ASTM D5185(m)	1150	620	632	686
Zinc	ppm	ASTM D5185(m)	1350	715	737	827
Sulfur	ppm	ASTM D5185(m)	4250	2413	2335	1813
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

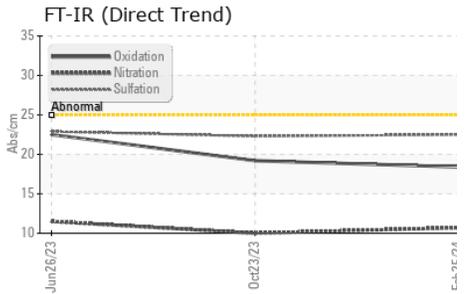
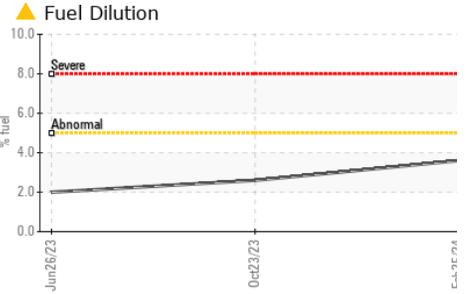
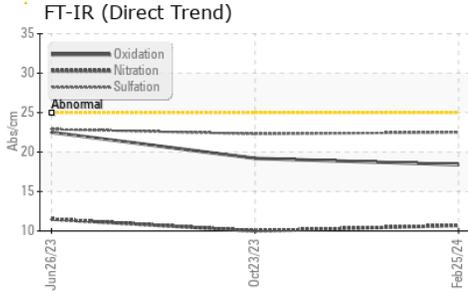
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	4	9	25
Sodium	ppm	ASTM D5185(m)	>158	3	3	8
Potassium	ppm	ASTM D5185(m)	>20	108	226	96
Fuel	%	ASTM D7593*	>5	▲ 3.6	▲ 2.6	▲ 2

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.4	0.3	0.3
Nitration	Abs/cm	ASTM D7624*	>20	10.7	10.0	11.5
Sulfation	Abs./1mm	ASTM D7415*	>30	22.5	22.3	22.9



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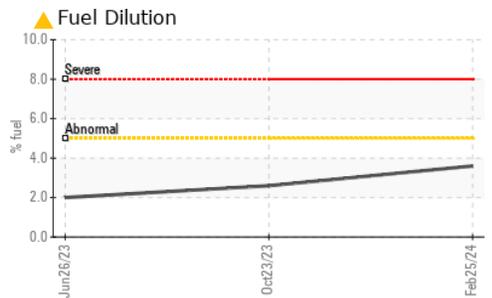
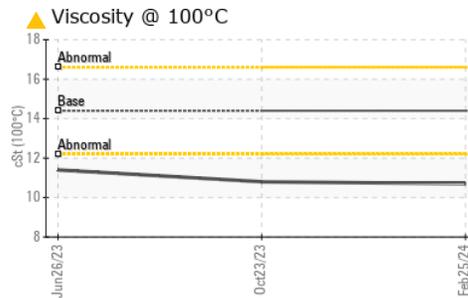
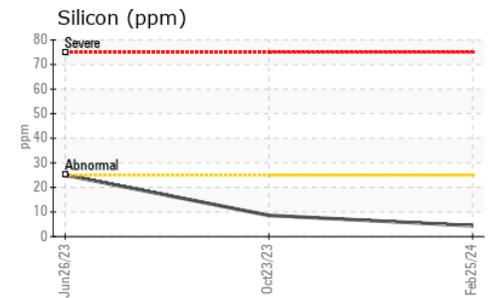
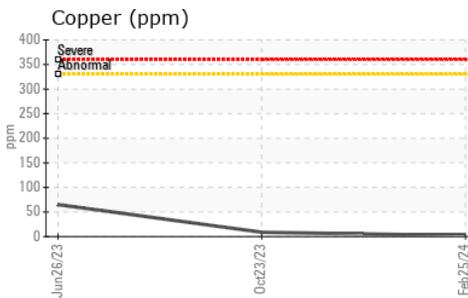
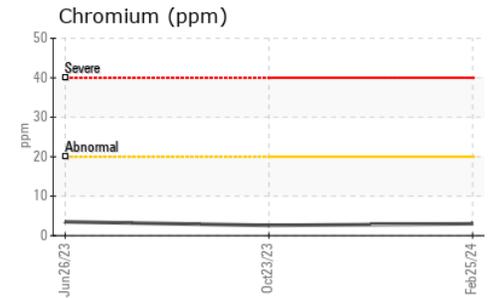
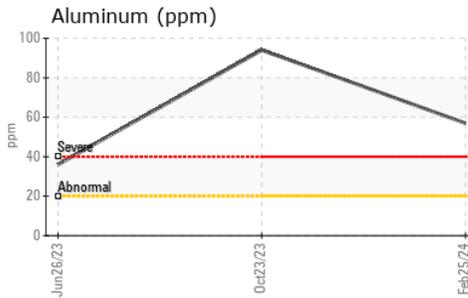
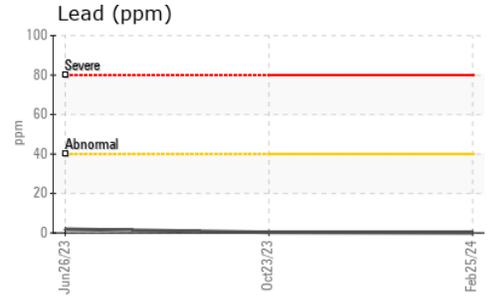
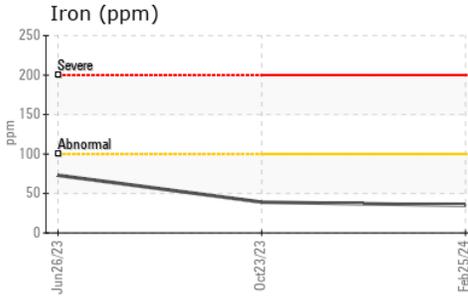


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	18.4	19.2	22.5

VISUAL	method	limit/base	current	history1	history2	
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	▲ 10.7	▲ 10.8	▲ 11.4

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0853471 **Received** : 17 Apr 2024
Lab Number : **02629556** **Tested** : 19 Apr 2024
Unique Number : 5762688 **Diagnosed** : 19 Apr 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: FUELDILUTION, PercentFuel)

Rush Truck Centres
 7450 Torbram Rd.
 Mississauga, ON
 CA L4T 1G9
 Contact: Serdar Okur
 sokur@rushtruckcentres.ca
 T: (905)671-7600
 F:

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.