



OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
NO UNIT WC0737759
 Component
Diesel Engine
 Fluid
SHELL ROTELLA T4 15W40 (--- GAL)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

Nickel ppm levels are abnormal. Exhaust valve wear is indicated.

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. There is no indication of any contamination in the oil.

Fluid Condition

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number	Client Info		WC0737759	---	---
Sample Date	Client Info		30 May 2023	---	---
Machine Age	hrs	Client Info	1680	---	---
Oil Age	hrs	Client Info	70	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION

	method	limit/base	current	history 1	history 2
Fuel	WC Method	>6.0	<1.0	---	---
Glycol	WC Method		NEG	---	---

WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185(m)	>100	73	---
Chromium	ppm	ASTM D5185(m)	>20	2	---
Nickel	ppm	ASTM D5185(m)	>2	▲ 3	---
Titanium	ppm	ASTM D5185(m)		0	---
Silver	ppm	ASTM D5185(m)	>2	0	---
Aluminum	ppm	ASTM D5185(m)	>25	4	---
Lead	ppm	ASTM D5185(m)	>40	1	---
Copper	ppm	ASTM D5185(m)	>330	11	---
Tin	ppm	ASTM D5185(m)	>15	1	---
Antimony	ppm	ASTM D5185(m)		1	---
Vanadium	ppm	ASTM D5185(m)		0	---
Beryllium	ppm	ASTM D5185(m)		0	---
Cadmium	ppm	ASTM D5185(m)		0	---

ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185(m)		122	---
Barium	ppm	ASTM D5185(m)		0	---
Molybdenum	ppm	ASTM D5185(m)		16	---
Manganese	ppm	ASTM D5185(m)		<1	---
Magnesium	ppm	ASTM D5185(m)		27	---
Calcium	ppm	ASTM D5185(m)		1999	---
Phosphorus	ppm	ASTM D5185(m)		927	---
Zinc	ppm	ASTM D5185(m)		984	---
Sulfur	ppm	ASTM D5185(m)		2769	---
Lithium	ppm	ASTM D5185(m)		<1	---

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185(m)	>25	21	---
Sodium	ppm	ASTM D5185(m)		3	---
Potassium	ppm	ASTM D5185(m)	>20	6	---

INFRA-RED

	method	limit/base	current	history 1	history 2
Soot %	%	ASTM D7844*	>3	0	---
Nitration	Abs/cm	ASTM D7624*	>20	10.8	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.9	---

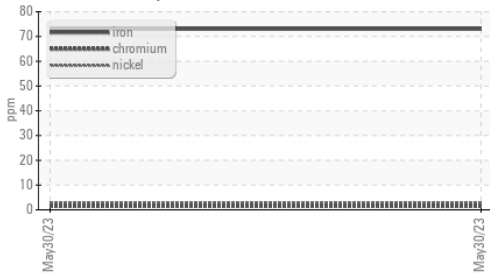
FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	ASTM D7414*	>25	21.9	---

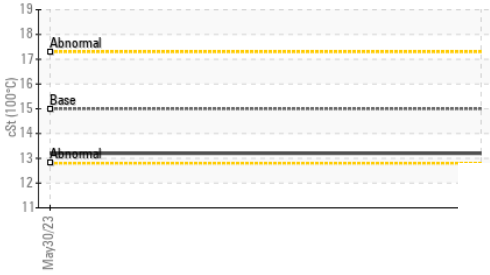


OIL ANALYSIS REPORT

▲ Ferrous Alloys



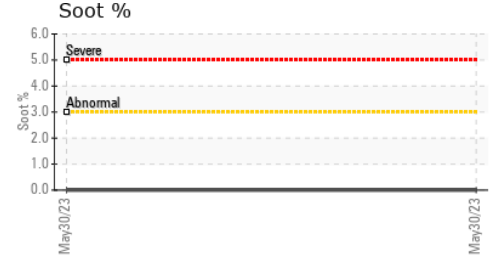
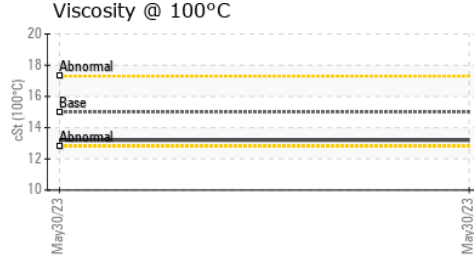
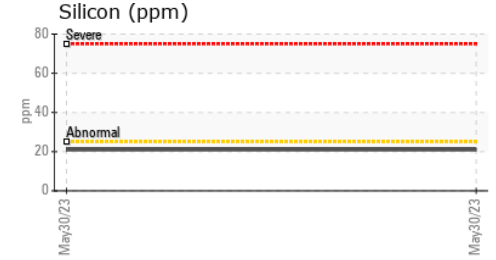
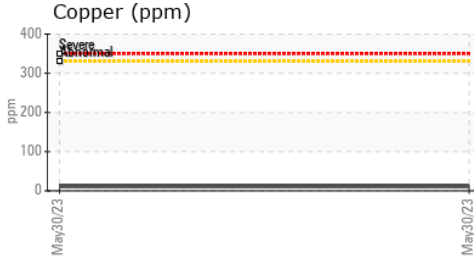
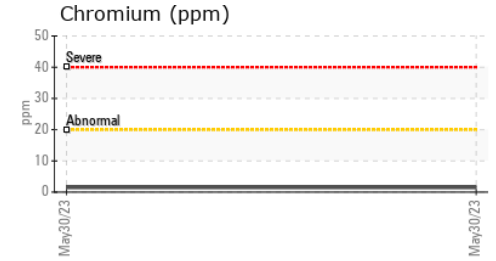
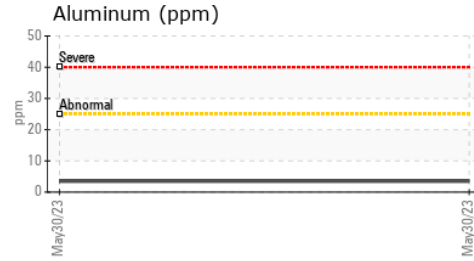
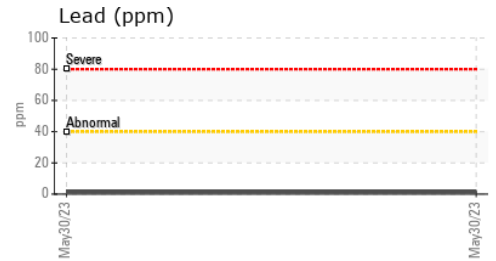
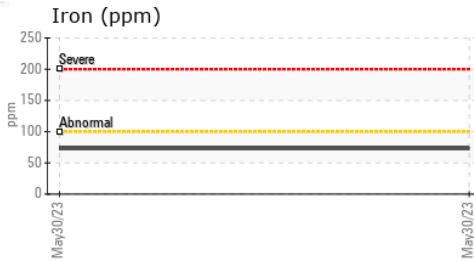
Viscosity @ 100°C



VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---
Free Water	scalar	Visual*		NEG	---

FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D7279(m)	15	13.2	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0737759 **Received** : 05 Jun 2023
Lab Number : 02561518 **Diagnosed** : 05 Jun 2023
Unique Number : 5590559 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: Visual)

Rush Truck Centres
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 Mississauga, ON
 CA L4T 1G9
 Contact: Ideal Lease
 ideal.lease@rushtruckcentres.ca

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.

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F: