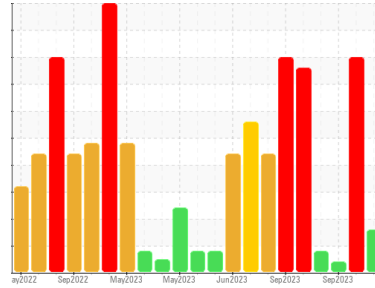




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area
BRUCE B/0B/54300
 Machine Id
0B-54300-EPG1-E2

Component
Diesel Engine
 Fluid
SHELL ROTELLA T4 15W40 (30 LTR)

DIAGNOSIS

Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear

Silver ppm levels are abnormal.

Contamination

Light fuel dilution occurring. Test for glycol is negative. No other contaminants were detected in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0642815	WC0642813	WC04642810
Sample Date	Client Info		19 Oct 2023	04 Oct 2023	13 Sep 2023
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	SEVERE	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>200	2	5	---
Chromium	ppm	ASTM D5185(m)	>20	0	0	---
Nickel	ppm	ASTM D5185(m)	>2	0	0	---
Titanium	ppm	ASTM D5185(m)	>2	0	0	---
Silver	ppm	ASTM D5185(m)	>2	▲ 4	1	---
Aluminum	ppm	ASTM D5185(m)	>30	<1	<1	---
Lead	ppm	ASTM D5185(m)	>30	<1	<1	---
Copper	ppm	ASTM D5185(m)	>30	<1	2	---
Tin	ppm	ASTM D5185(m)	>15	0	<1	---
Antimony	ppm	ASTM D5185(m)		0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
Beryllium	ppm	ASTM D5185(m)		0	0	---
Cadmium	ppm	ASTM D5185(m)		0	0	---

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		175	168	---
Barium	ppm	ASTM D5185(m)		<1	<1	---
Molybdenum	ppm	ASTM D5185(m)		0	0	---
Manganese	ppm	ASTM D5185(m)		0	0	---
Magnesium	ppm	ASTM D5185(m)		10	13	---
Calcium	ppm	ASTM D5185(m)		2022	2009	---
Phosphorus	ppm	ASTM D5185(m)		920	899	---
Zinc	ppm	ASTM D5185(m)		1054	1027	---
Sulfur	ppm	ASTM D5185(m)		2752	2745	---
Lithium	ppm	ASTM D5185(m)		<1	<1	---

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>30	▲ 11	▲ 37	---
Sodium	ppm	ASTM D5185(m)		2	2	---
Potassium	ppm	ASTM D5185(m)	>20	▲ 6	▲ 5	---
Fuel	%	ASTM D7593*	>3.0	▲ 2.6	● 9.8	<1.0
Glycol	%	ASTM D7922*		0.0	▲ 0.023	NEG

INFRA-RED

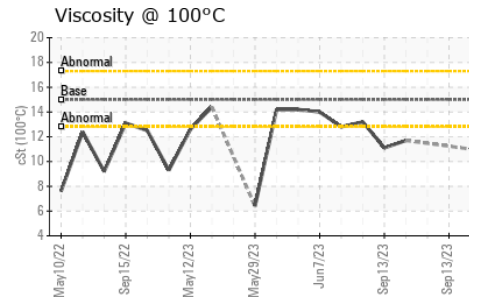
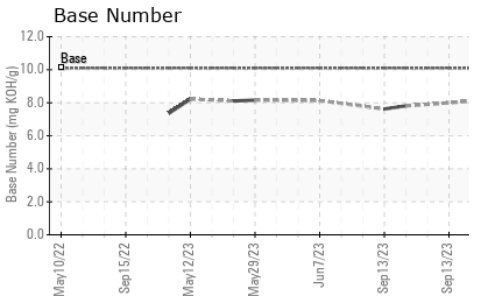
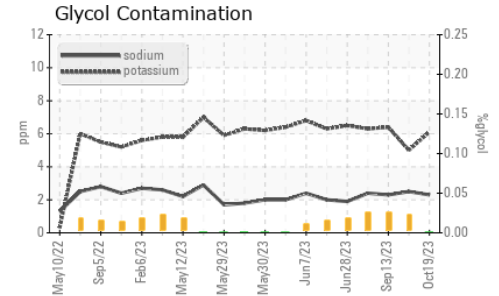
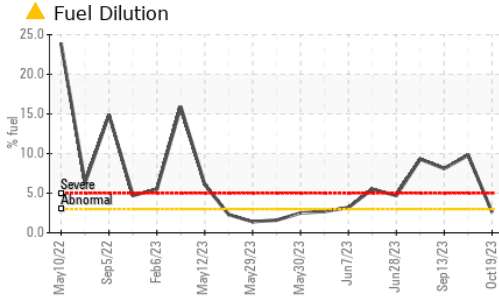
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0	0	---
Nitration	Abs/cm	ASTM D7624*	>20	4.9	5.1	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.4	19.9	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.2	15.5	---
Base Number (BN)	mg KOH/g	ASTM D2896*	10.1	8.19	---	---

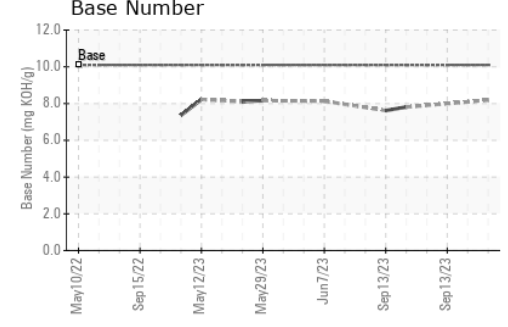
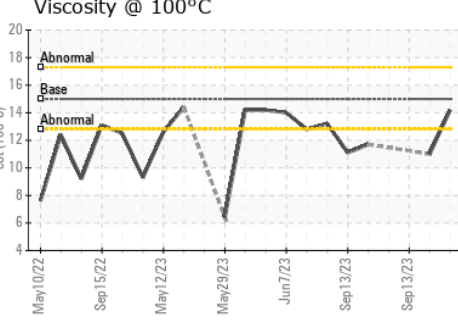
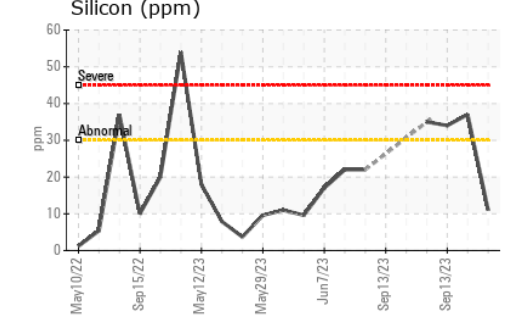
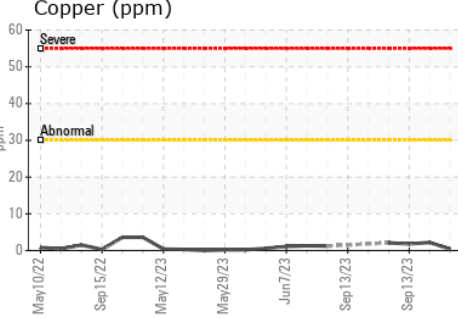
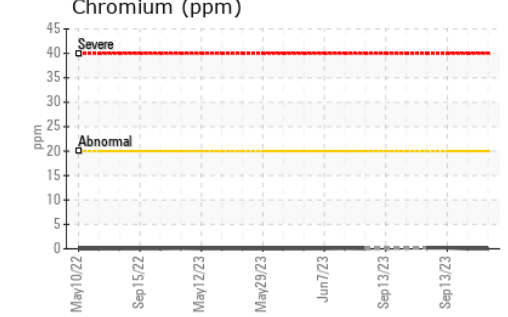
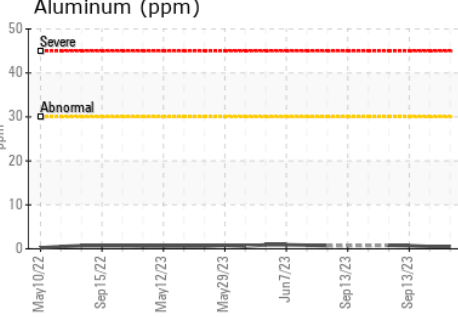
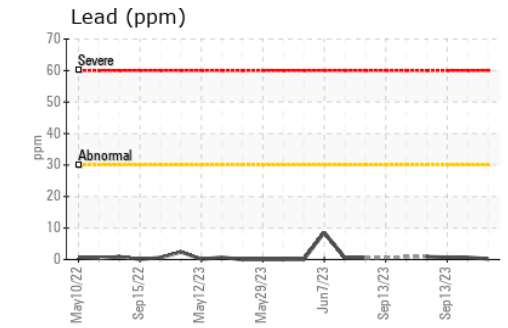
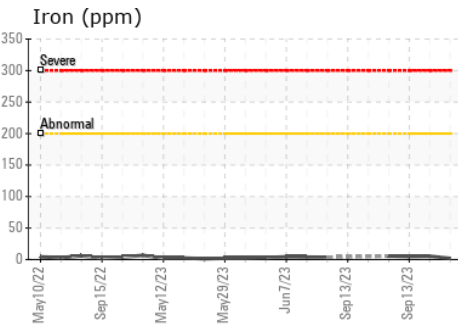


OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15	14.2	▲ 11.0



ISO 17025:2017 Accredited Laboratory
 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.

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
 Sample No. : WC0642815
 Lab Number : 02590895
 Unique Number : 5667974
 Test Package : MOB 2 (Additional Tests: Glycol, PercentFuel)

Received : 23 Oct 2023
 Diagnosed : 24 Oct 2023
 Diagnostician : Kevin Marson
 Bruce Power - Bruce A PdM
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