MOB I

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Area
Rockaway
Machine Id
MACK 2672
Component
Diesel Engine
Fluid
GIBRALTAR 15W/40 SUPER S-3 LX (11)

RECOMMENDATION

We advise that you check for faulty combustion, plugged air filters, or aftercoolers. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. NOTE: High solids (carbon/soot) in the sample have limited the accuracy of Infra-Red data including Total Base Number (TBN) value.

WEAR

All component wear rates are normal.

CONTAMINATION

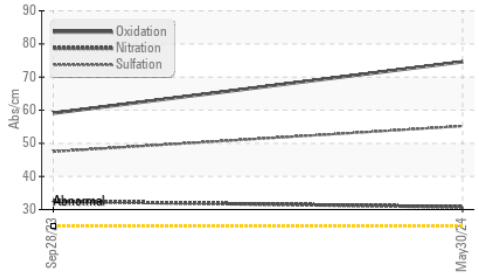
There is an abnormal amount of solids and carbon present in the oil.

FLUID CONDITION

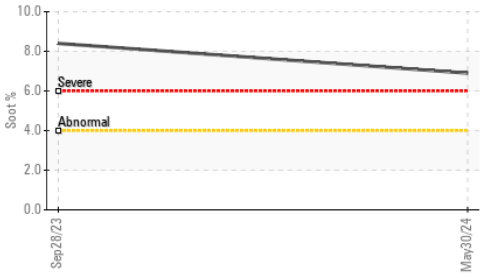
The oil viscosity is higher than normal. The BN level is low.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0858418	WC0850693	---
Sample Date		Client Info		30 May 2024	28 Sep 2023	---
Machine Age	hrs	Client Info		2351	2351	---
Oil Age	hrs	Client Info		2351	416	---
Filter Age	hrs	Client Info		2351	416	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				SEVERE	SEVERE	---
Iron	ppm	ASTM D5185m	>120	34	22	---
Chromium	ppm	ASTM D5185m	>20	2	1	---
Nickel	ppm	ASTM D5185m	>5	<1	0	---
Titanium	ppm	ASTM D5185m	>2	<1	<1	---
Silver	ppm	ASTM D5185m	>2	<1	0	---
Aluminum	ppm	ASTM D5185m	>20	2	<1	---
Lead	ppm	ASTM D5185m	>40	3	2	---
Copper	ppm	ASTM D5185m	>330	3	4	---
Tin	ppm	ASTM D5185m	>15	<1	<1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>25	4	4	---
Potassium	ppm	ASTM D5185m	>20	2	1	---
Fuel	%	ASTM D3524	>3.0	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>4	▲ 6.9	▲ 8.4	---
Nitration	Abs/cm	*ASTM D7624	>20	30.8	32.5	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	55.2	47.5	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---
Sodium	ppm	ASTM D5185m		1	2	---
Boron	ppm	ASTM D5185m		10	9	---
Barium	ppm	ASTM D5185m		1	0	---
Molybdenum	ppm	ASTM D5185m	66	55	59	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m	1000	717	883	---
Calcium	ppm	ASTM D5185m	1050	1167	1412	---
Phosphorus	ppm	ASTM D5185m	1150	873	1001	---
Zinc	ppm	ASTM D5185m	1270	1086	1285	---
Sulfur	ppm	ASTM D5185m		2749	3464	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	74.6	59.1	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	▲ 0.0	▲ 0.0	---
Visc @ 100°C	cSt	ASTM D445	15.5	▲ 26.4	▲ 17.6	---

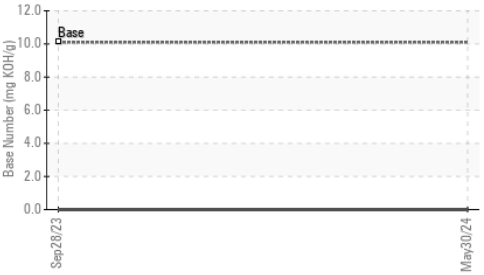
FT-IR (Direct Trend)



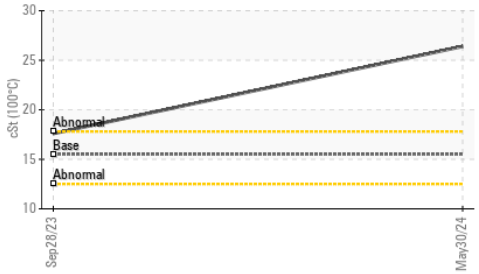
Soot %



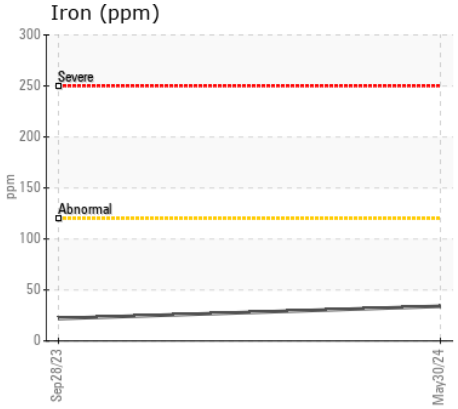
Base Number



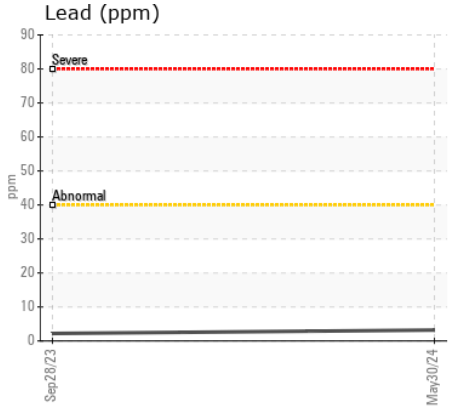
Viscosity @ 100°C



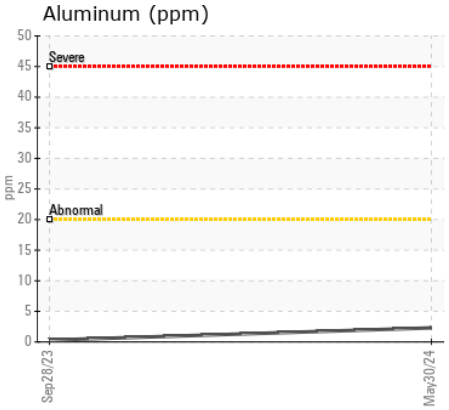
Iron (ppm)



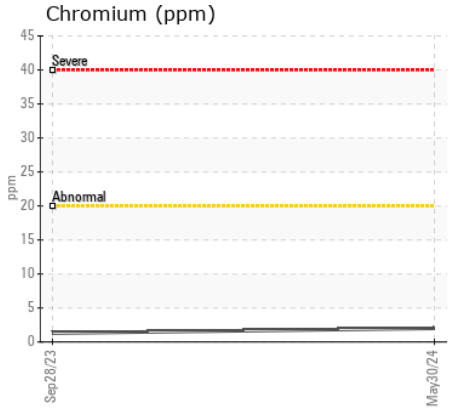
Lead (ppm)



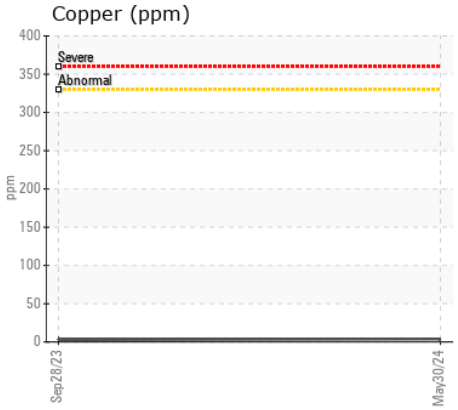
Aluminum (ppm)



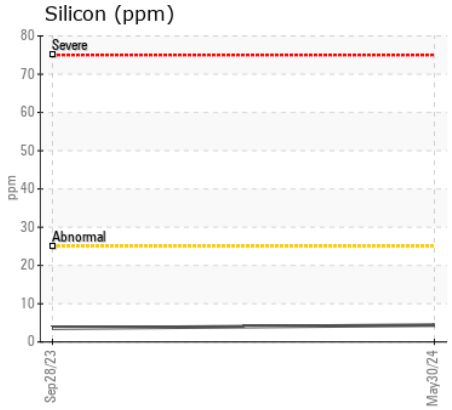
Chromium (ppm)



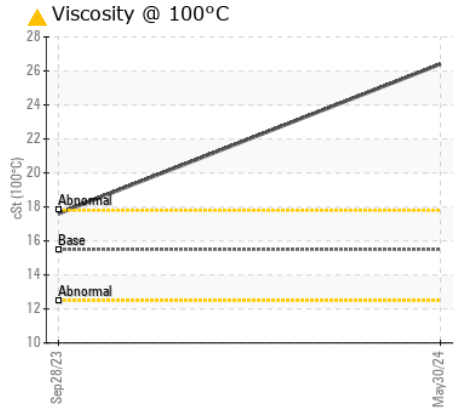
Copper (ppm)



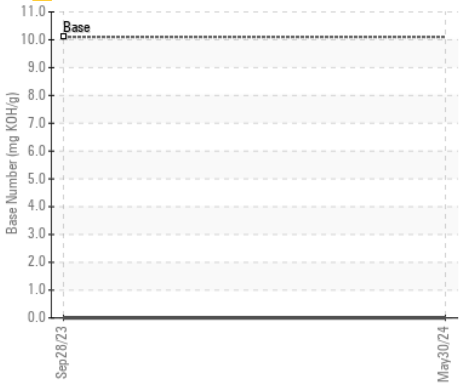
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0858418 **Received** : 28 Jun 2024
Lab Number : 06223151 **Tested** : 30 Jun 2024
Unique Number : 11101348 **Diagnosed** : 30 Jun 2024 - Don Baldridge
Test Package : MOB 1 (Additional Tests: FuelDilution, TBN)

To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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