



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
MACK FL-50
Component
Diesel Engine
Fluid
GIBRALTAR 15W/40 SUPER S-3 LX (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0941099	WC0875521	---
Sample Date		Client Info		22 Jun 2024	02 Apr 2024	---
Machine Age	hrs	Client Info		8146	7518	---
Oil Age	hrs	Client Info		600	0	---
Filter Age	hrs	Client Info		600	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	13	6	---
Chromium	ppm	ASTM D5185m	>20	0	0	---
Nickel	ppm	ASTM D5185m	>5	0	0	---
Titanium	ppm	ASTM D5185m	>2	0	0	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>20	1	2	---
Lead	ppm	ASTM D5185m	>40	0	0	---
Copper	ppm	ASTM D5185m	>330	4	1	---
Tin	ppm	ASTM D5185m	>15	0	<1	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

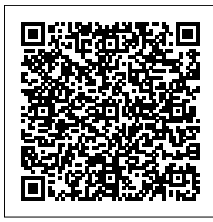
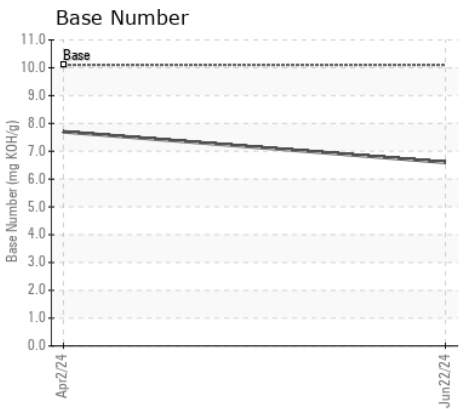
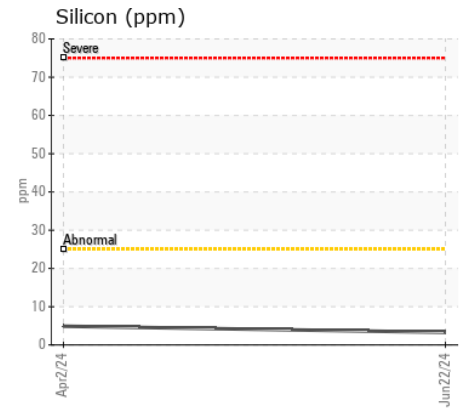
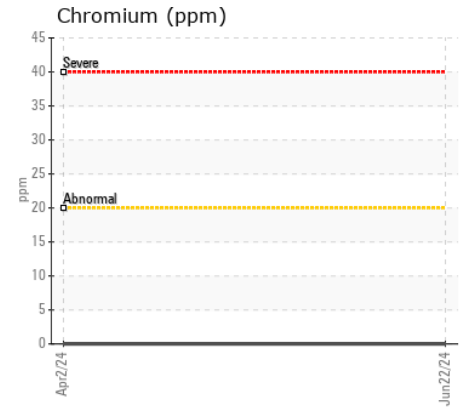
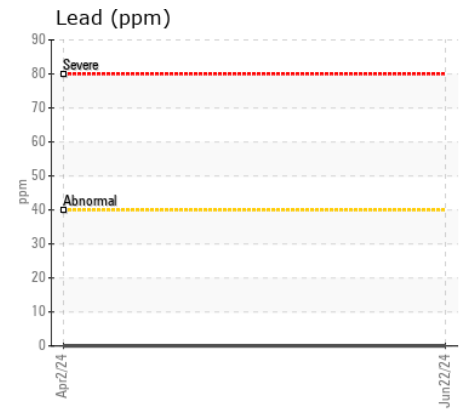
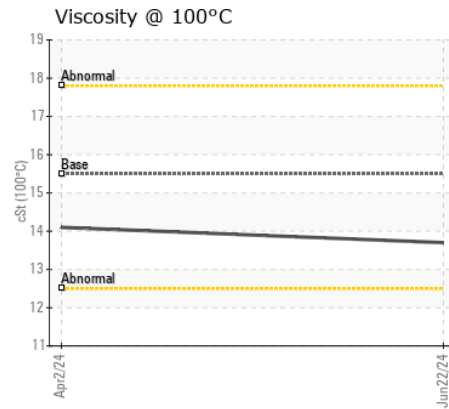
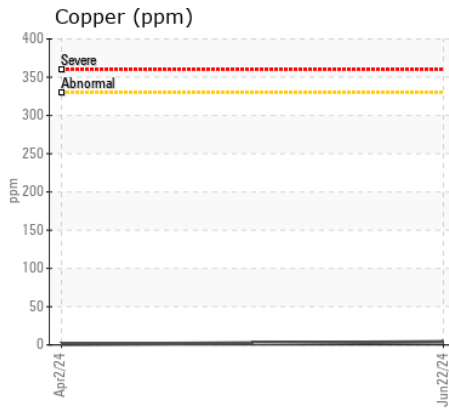
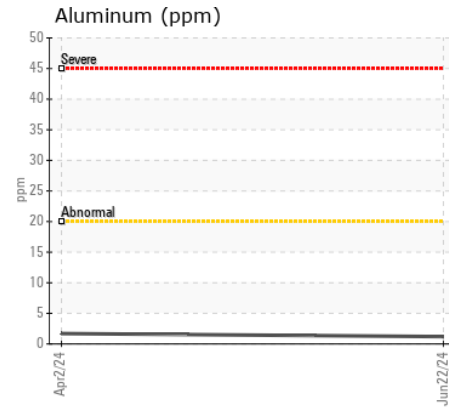
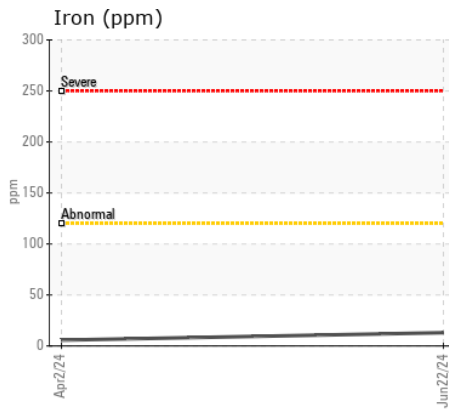
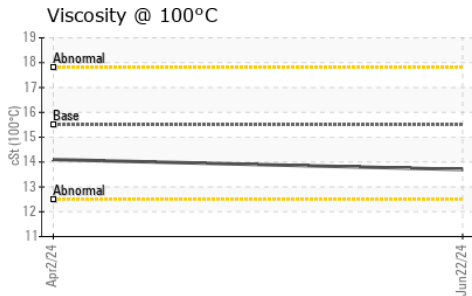
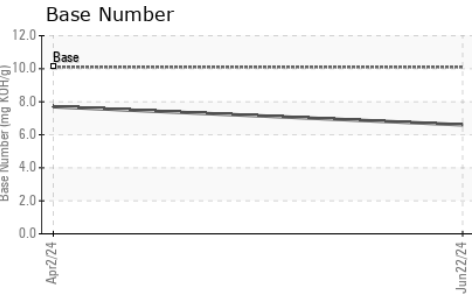
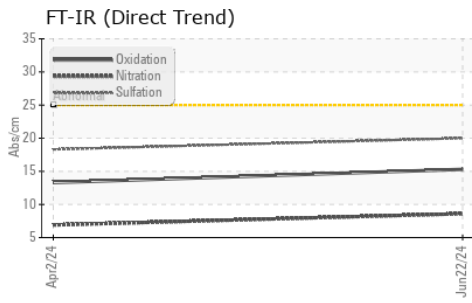
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	3	5	---
Potassium	ppm	ASTM D5185m	>20	<1	0	---
Fuel		WC Method	>3.0	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>4	0.8	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	8.6	6.9	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.0	18.3	---
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	---

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		4	<1	---
Boron	ppm	ASTM D5185m		4	10	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m	66	69	82	---
Manganese	ppm	ASTM D5185m		0	0	---
Magnesium	ppm	ASTM D5185m	1000	875	851	---
Calcium	ppm	ASTM D5185m	1050	1281	1176	---
Phosphorus	ppm	ASTM D5185m	1150	1034	1058	---
Zinc	ppm	ASTM D5185m	1270	1308	1228	---
Sulfur	ppm	ASTM D5185m		3586	3522	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.3	13.3	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	6.6	7.7	---
Visc @ 100°C	cSt	ASTM D445	15.5	13.7	14.1	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0941099 **Received** : 01 Jul 2024
Lab Number : 06224422 **Tested** : 02 Jul 2024
Unique Number : 11102619 **Diagnosed** : 02 Jul 2024 - Jonathan Hester
Test Package : MOB 1 (Additional Tests: TBN)

OAKRIDGE WASTE
 307 WHITE ST
 DANBURY, CT
 US 06810

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Contact: CHRIS CONTI
 chris.conti@oakridgewaste.com

* - 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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