



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**MACK GR64F XT2511 (S/N 1M2GR4GC8LM016161)**  
 Component  
**Diesel Engine**  
 Fluid  
**DURALENE Dura-Max Xtreme 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DC0031870</b>	DC0031176	---
Sample Date		Client Info		<b>05 Jul 2024</b>	12 Jan 2024	---
Machine Age	mls	Client Info		<b>151553</b>	133664	---
Oil Age	mls	Client Info		<b>151553</b>	28000	---
Filter Age	mls	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>17</b>	9	---
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	<1	---
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	2	---
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	---
Copper	ppm	ASTM D5185m	>330	<b>2</b>	3	---
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

## CONTAMINATION

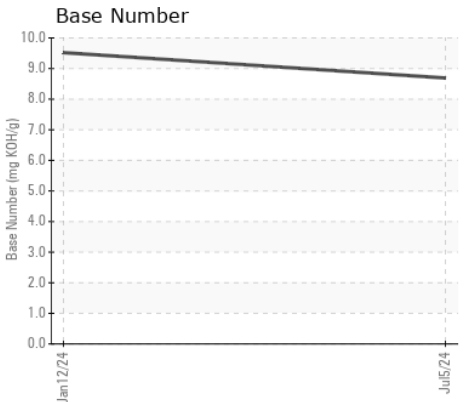
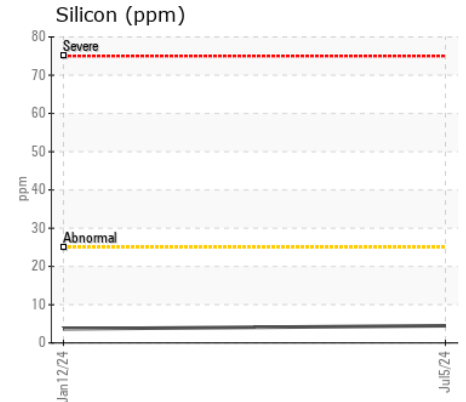
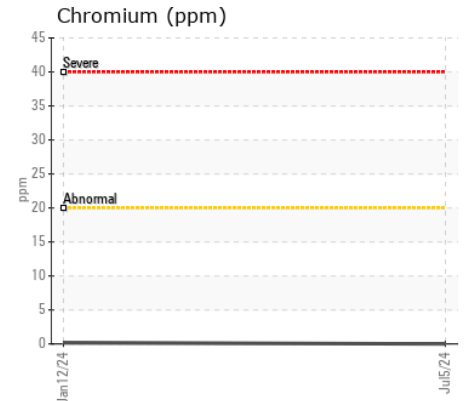
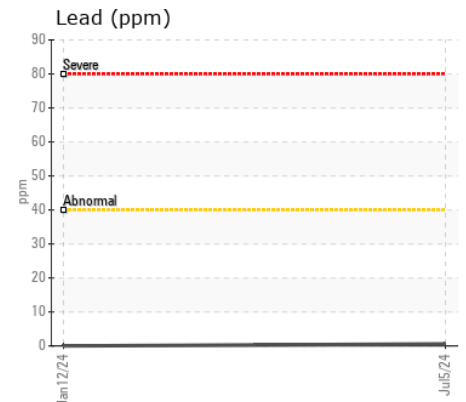
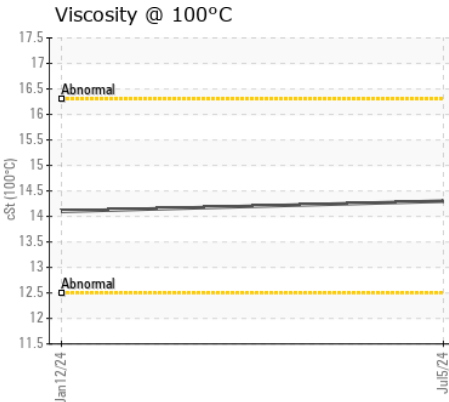
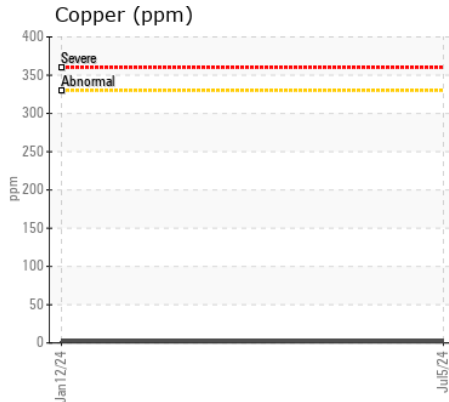
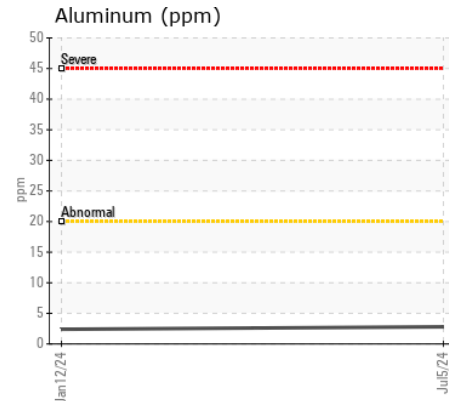
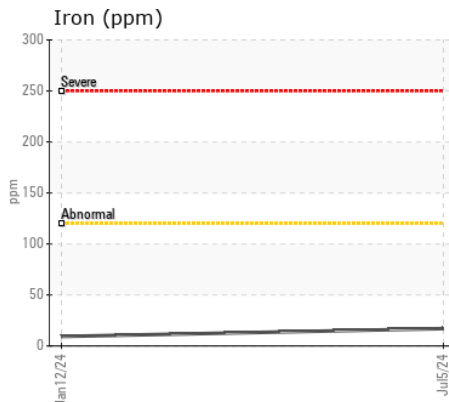
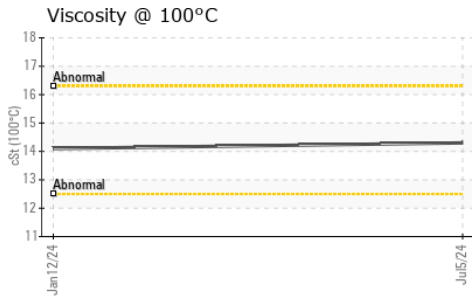
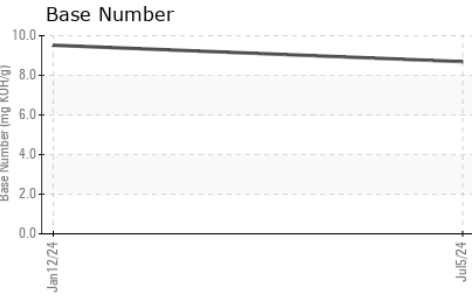
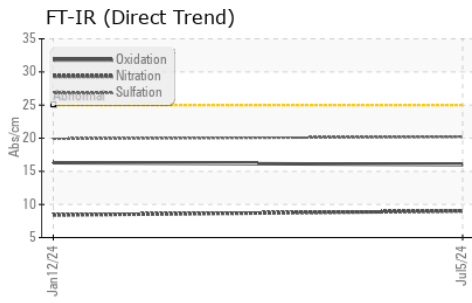
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	4	---
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	2	---
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>4	<b>0.5</b>	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.0</b>	8.4	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.2</b>	19.9	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	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		<b>1</b>	0	---
Boron	ppm	ASTM D5185m		<b>7</b>	3	---
Barium	ppm	ASTM D5185m		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>56</b>	53	---
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	---
Magnesium	ppm	ASTM D5185m		<b>873</b>	779	---
Calcium	ppm	ASTM D5185m		<b>1237</b>	1264	---
Phosphorus	ppm	ASTM D5185m		<b>1035</b>	972	---
Zinc	ppm	ASTM D5185m		<b>1310</b>	1159	---
Sulfur	ppm	ASTM D5185m		<b>3651</b>	2836	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.0</b>	16.3	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>8.69</b>	9.52	---
Visc @ 100°C	cSt	ASTM D445		<b>14.3</b>	14.1	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DC0031870 **Received** : 12 Jul 2024  
**Lab Number** : **06235132** **Tested** : 15 Jul 2024  
**Unique Number** : 11123966 **Diagnosed** : 15 Jul 2024 - Sean Felton  
**Test Package** : MOB 2

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)

**COMER CONSTRUCTION**  
 2100 SLADE LANE  
 FOREST HILL, MD  
 US 21050  
 Contact: DONALD FOX  
 dfox@comerconstruction.com  
 T: (443)269-1379  
 F: (410)638-0289