



# WEAR CHECK

## OIL ANALYSIS REPORT

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



Machine Id  
**MACK 222474**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (41 QTS)**

### RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0898715</b>	WC0827117	WC0810780
Sample Date		Client Info		<b>10 Jan 2024</b>	07 Jun 2023	12 Apr 2023
Machine Age	mls	Client Info		<b>25180</b>	20558	18486
Oil Age	mls	Client Info		<b>4622</b>	2072	0
Filter Age	mls	Client Info		<b>4622</b>	2072	0
Oil Changed		Client Info		<b>Changed</b>	Changed	N/A
Filter Changed		Client Info		<b>Changed</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>120	<b>14</b>	7	10
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>9</b>	4	5
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	1	0
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>2</b>	3	3
Tin	ppm	ASTM D5185m	>15	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

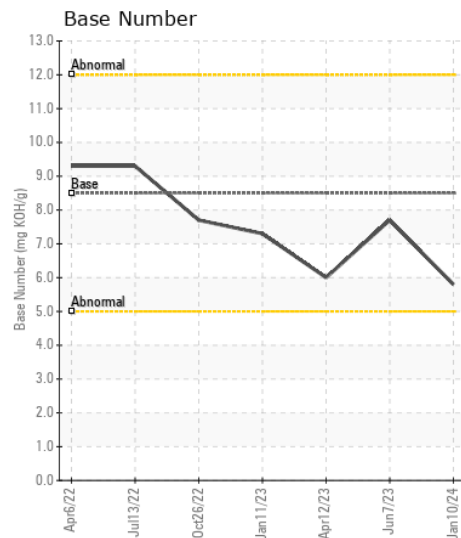
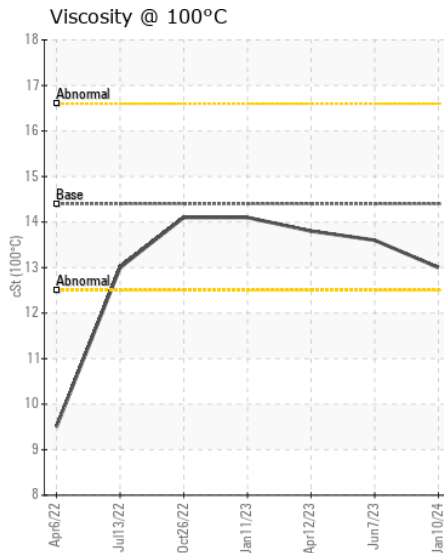
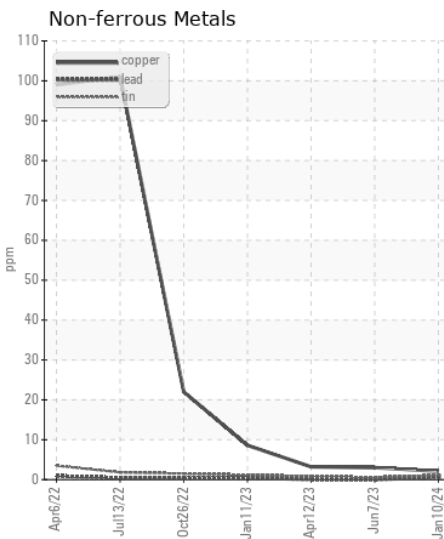
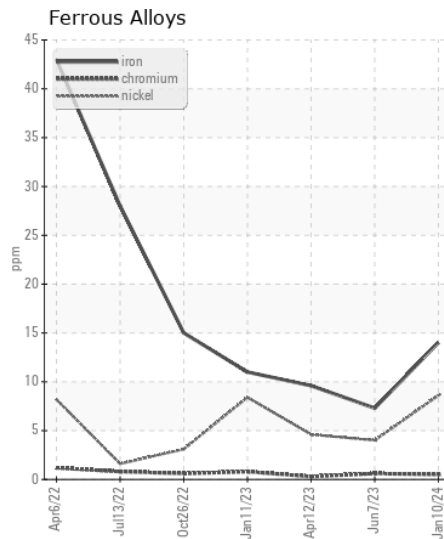
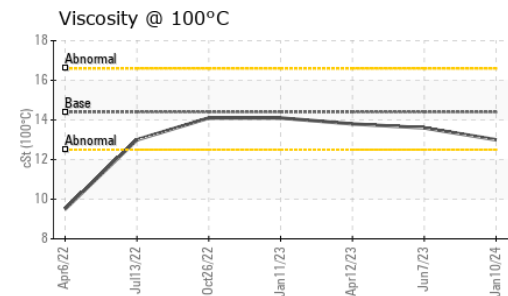
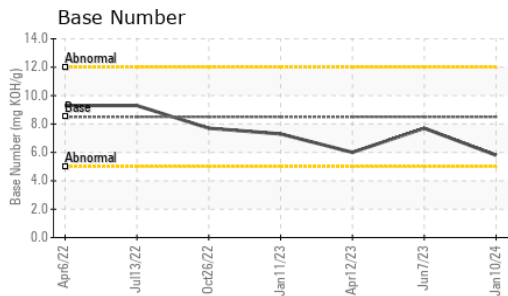
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	6	4
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	<1	2
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>4	<b>0.6</b>	0.3	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.6</b>	8.4	9.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.1</b>	20.0	19.9
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	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	>158	<b>2</b>	6	<1
Boron	ppm	ASTM D5185m	250	<b>20</b>	61	23
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>49</b>	99	53
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>703</b>	731	734
Calcium	ppm	ASTM D5185m	3000	<b>1200</b>	2271	1225
Phosphorus	ppm	ASTM D5185m	1150	<b>723</b>	1242	684
Zinc	ppm	ASTM D5185m	1350	<b>883</b>	1522	892
Sulfur	ppm	ASTM D5185m	4250	<b>2229</b>	5093	2291
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.6</b>	15.9	18.8
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>5.8</b>	7.7	6.0
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.0</b>	13.6	13.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0898715 **Received** : 17 Jan 2024  
**Lab Number** : 06063439 **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10834821 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

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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