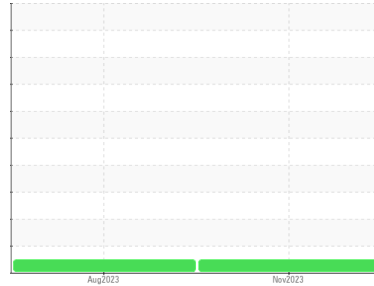




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**Ewing Hauling**  
 Machine Id  
**MACK 2564**  
 Component  
**Diesel Engine**  
 Fluid  
**GIBRALTAR 15W/40 SUPER S-3 LX (11)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### 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.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0863226</b>	WC0840498	---
Sample Date	Client Info		<b>03 Nov 2023</b>	21 Aug 2023	---
Machine Age	hrs	Client Info	<b>4901</b>	4455	---
Oil Age	hrs	Client Info	<b>446</b>	450	---
Oil Changed	Client Info		<b>Changed</b>	Changed	---
Sample Status			<b>NORMAL</b>	NORMAL	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	<1.0	---
Glycol	WC Method		<b>NEG</b>	NEG	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >120	<b>11</b>	21	---
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m >5	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	---
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	1	---
Lead	ppm	ASTM D5185m >40	<b>0</b>	<1	---
Copper	ppm	ASTM D5185m >330	<b>17</b>	8	---
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>10</b>	8	---
Barium	ppm	ASTM D5185m	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m 66	<b>54</b>	68	---
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m 1000	<b>527</b>	1036	---
Calcium	ppm	ASTM D5185m 1050	<b>1373</b>	1453	---
Phosphorus	ppm	ASTM D5185m 1150	<b>938</b>	1134	---
Zinc	ppm	ASTM D5185m 1270	<b>1098</b>	1408	---
Sulfur	ppm	ASTM D5185m	<b>2989</b>	4238	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>3</b>	5	---
Sodium	ppm	ASTM D5185m	<b>0</b>	1	---
Potassium	ppm	ASTM D5185m >20	<b>0</b>	1	---

## INFRA-RED

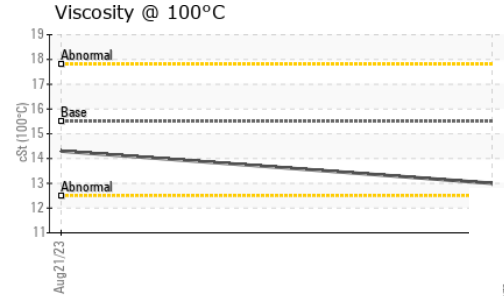
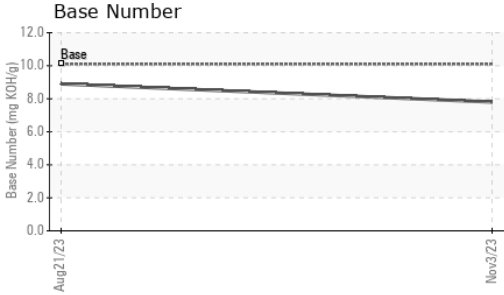
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>2.1</b>	1.8	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.8</b>	8.0	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.8</b>	20.0	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>12.9</b>	12.7	---
Base Number (BN)	mg KOH/g	ASTM D2896 10.1	<b>7.8</b>	8.9	---



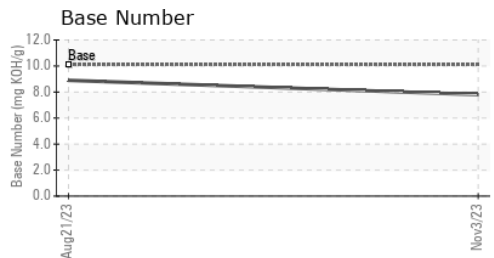
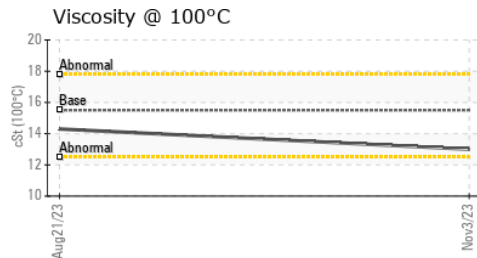
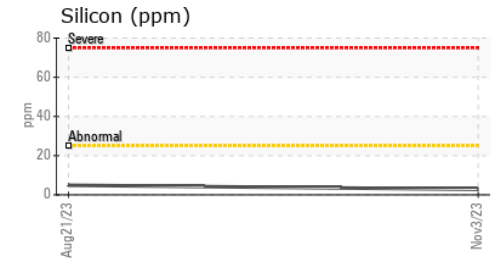
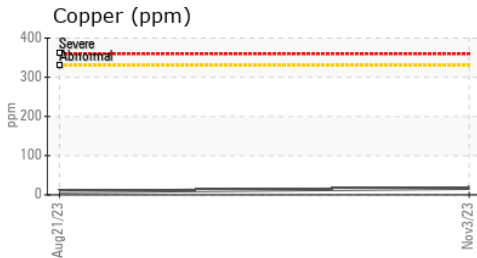
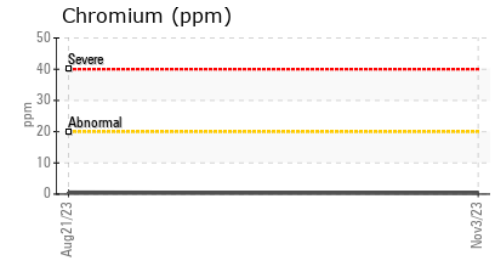
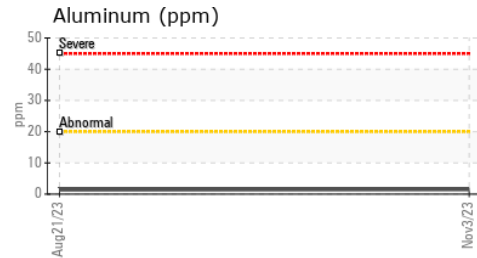
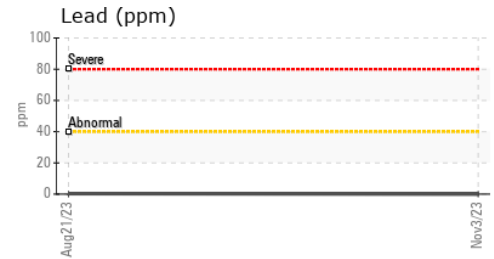
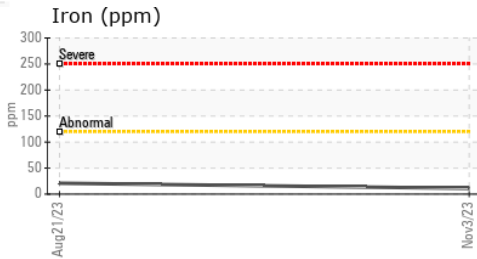
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.5	<b>13.0</b>	14.3	---

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0863226      **Received** : 16 Nov 2023  
**Lab Number** : **06010116**      **Diagnosed** : 17 Nov 2023  
**Unique Number** : 10749260      **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**INTERSTATE WASTE-EWING**  
 432 STOKES AVENUE  
 EWING TOWNSHIP, NJ  
 US 08638  
 Contact: Carlos Evans  
 CEvans@interstatewaste.com

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)

T:  
F: