

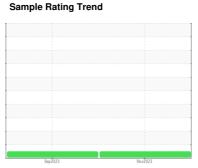
OIL ANALYSIS REPORT



Ewing Hauling **MACK 2570**

Component **Diesel Engine**

GIBRALTAR 15W/40 SUPER S-3 LX (11)





Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

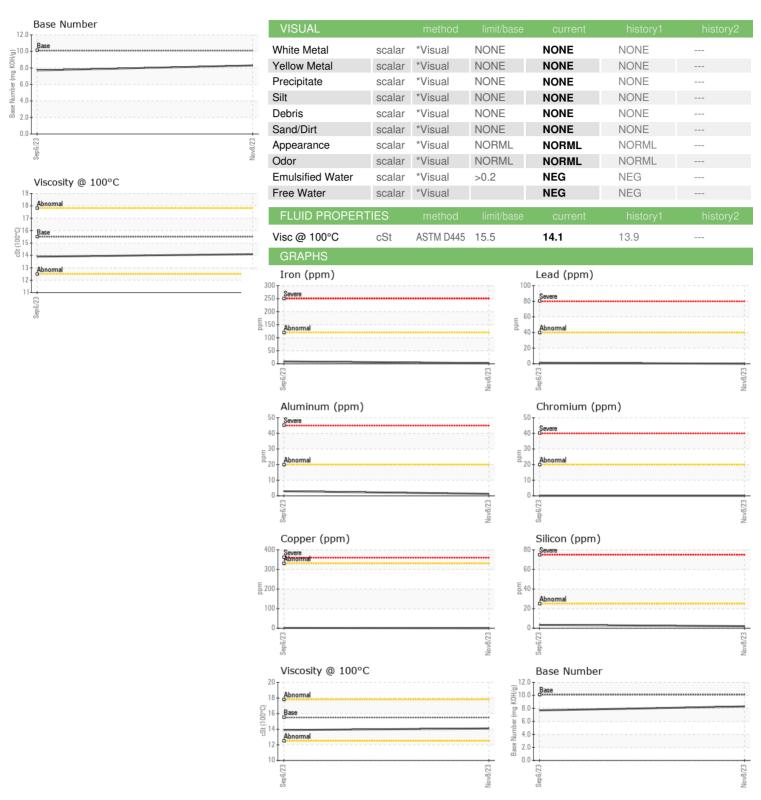
Fluid Condition

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

| SAMPLE INFORM | | | Sep2023 | Nov2023 | | |
|---|--|---|--|--|---|--------------------------|
| SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | WC0863239 | WC0840446 | |
| Sample Date | | Client Info | | 08 Nov 2023 | 06 Sep 2023 | |
| Machine Age | hrs | Client Info | | 2008 | 1596 | |
| Oil Age | hrs | Client Info | | 412 | 450 | |
| Oil Changed | | Client Info | | Changed | Changed | |
| Sample Status | | | | NORMAL | NORMAL | |
| CONTAMINATIO | N | method | limit/base | current | history1 | history2 |
| Fuel | | WC Method | >3.0 | <1.0 | <1.0 | |
| Glycol | | WC Method | | NEG | NEG | |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >120 | 2 | 9 | |
| Chromium | ppm | ASTM D5185m | >20 | 0 | 0 | |
| Nickel | ppm | ASTM D5185m | >5 | 0 | 0 | |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | |
| Aluminum | ppm | ASTM D5185m | >20 | 1 | 3 | |
| Lead | ppm | ASTM D5185m | >40 | 0 | 1 | |
| Copper | ppm | ASTM D5185m | >330 | 0 | 2 | |
| Tin | ppm | ASTM D5185m | >15 | 0 | <1 | |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| _ | | ASTM D5185m | | 6 | 10 | |
| Boron | ppm | HOTIVI DO TOOTII | | | | |
| | ppm | ASTM D5185m | | 0 | 0 | |
| Barium | | | 66 | 0 53 | | |
| Barium Molybdenum | ppm | ASTM D5185m | 66 | | 0 | |
| Barium Molybdenum Manganese | ppm ppm | ASTM D5185m ASTM D5185m | 66 | 53 | 0 56 | |
| Barium Molybdenum Manganese Magnesium | ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m | | 53 <1 | 0 56 <1 | |
| Barium Molybdenum Manganese Magnesium Calcium | ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 1000 | 53 <1 653 | 0 56 <1 710 | |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 1000 1050 | 53 <1 653 1337 | 0 56 <1 710 1325 | |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc | ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 1000 1050 1150 | 53 <1 653 1337 977 | 0 56 <1 710 1325 902 | |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc | ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 1000 1050 1150 | 53 <1 653 1337 977 1163 | 0 56 <1 710 1325 902 1124 | |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS | ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 1000 1050 1150 1270 | 53 <1 653 1337 977 1163 3115 | 0 56 <1 710 1325 902 1124 3526 | |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS | ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 1000 1050 1150 1270 | 53 <1 653 1337 977 1163 3115 | 0 56 <1 710 1325 902 1124 3526 history1 | history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m | 1000 1050 1150 1270 | 53 <1 653 1337 977 1163 3115 current | 0 56 <1 710 1325 902 1124 3526 history1 | history2 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m | 1000 1050 1150 1270 limit/base | 53 <1 653 1337 977 1163 3115 current 2 0 | 0 56 <1 710 1325 902 1124 3526 history1 | history2 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m | 1000 1050 1150 1270 limit/base >25 >20 | 53 <1 653 1337 977 1163 3115 current 2 0 <1 | 0 56 <1 710 1325 902 1124 3526 history1 3 2 | history2 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m | 1000 1050 1150 1270 limit/base >25 >20 limit/base | 53 <1 653 1337 977 1163 3115 current 2 0 <1 current | 0 56 <1 710 1325 902 1124 3526 history1 3 2 2 | history2 history2 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 1000 1050 1150 1270 limit/base >25 >20 limit/base | 53 <1 653 1337 977 1163 3115 current 2 0 <1 current | 0 56 <1 710 1325 902 1124 3526 history1 3 2 2 history1 2.1 | history2 history2 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m method ASTM D5185m | 1000 1050 1150 1270 limit/base >25 >20 limit/base >4 >20 | 53 <1 653 1337 977 1163 3115 current 2 0 <1 current 2 7.8 | 0 56 <1 710 1325 902 1124 3526 history1 3 2 2 history1 2.1 8.8 | history2 history2 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m Method ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D76145 | 1000 1050 1150 1270 limit/base >25 >20 limit/base >4 >20 >30 | 53 <1 653 1337 977 1163 3115 current 2 0 <1 current 2 7.8 20.5 | 0 56 <1 710 1325 902 1124 3526 history1 3 2 2 history1 2.1 8.8 21.2 | history2 history2 |



OIL ANALYSIS REPORT







Certificate L2367

Laboratory Sample No. Lab Number

Unique Number

: WC0863239 : 06010119 : 10749263

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 16 Nov 2023 Diagnosed

: 17 Nov 2023 Diagnostician : Wes Davis Test Package : MOB 1 (Additional Tests: 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)

INTERSTATE WASTE-EWING

432 STOKES AVENUE EWING TOWNSHIP, NJ US 08638

Contact: Carlos Evans CEvans@interstatewaste.com

T:

F: