

OIL ANALYSIS REPORT

Sample Rating Trend





Machine Id MACK 1 Component Diesel Engine

CHEVRON DELO 400 SAE 10W30 (--- GAL)

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.

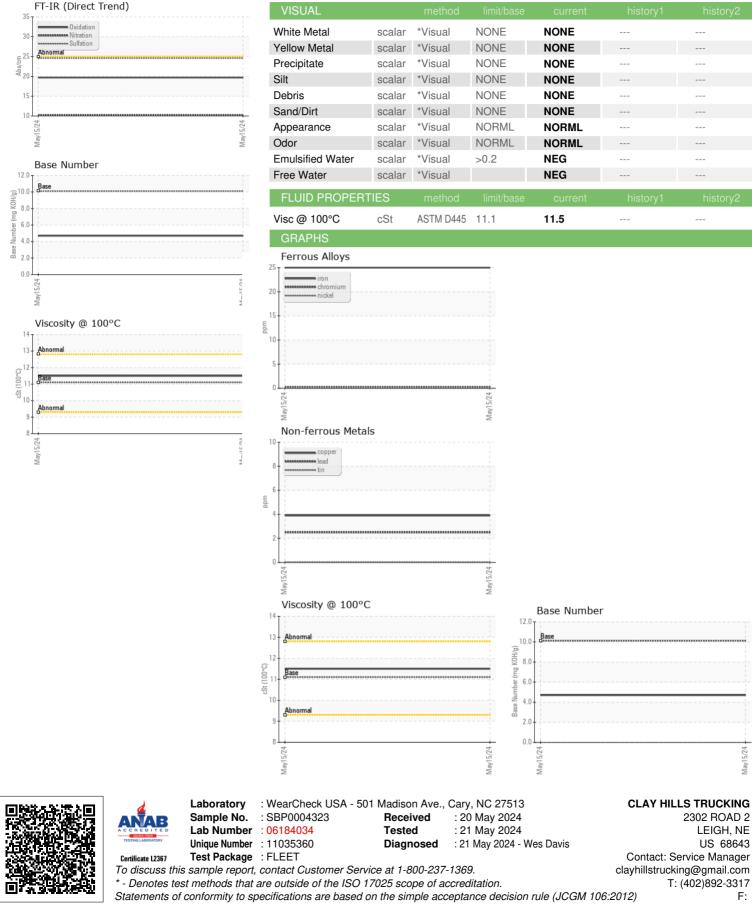
Fluid Condition

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

| | IATION | method | limit/base | current | history1 | history2 |
|---|--|--|--|---|--|--|
| Sample Number | | Client Info | | SBP0004323 | | |
| Sample Date | | Client Info | | 15 May 2024 | | |
| Machine Age | mls | Client Info | | 334716 | | |
| Oil Age | mls | Client Info | | 33569 | | |
| Oil Changed | | Client Info | | Changed | | |
| Sample Status | | | | NORMAL | | |
| CONTAMINATION | ٧ | method | limit/base | current | history1 | history2 |
| Fuel | | WC Method | >3.0 | <1.0 | | |
| Water | | WC Method | >0.2 | NEG | | |
| Glycol | | WC Method | | NEG | | |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >120 | 25 | | |
| Chromium | ppm | ASTM D5185m | >20 | <1 | | |
| Nickel | ppm | ASTM D5185m | >5 | 0 | | |
| Titanium | ppm | ASTM D5185m | >2 | 3 | | |
| Silver | ppm | ASTM D5185m | >2 | 0 | | |
| Aluminum | ppm | ASTM D5185m | >20 | 3 | | |
| Lead | ppm | ASTM D5185m | >40 | 2 | | |
| Copper | ppm | ASTM D5185m | >330 | 4 | | |
| Tin | ppm | ASTM D5185m | >15 | 0 | | |
| Vanadium | ppm | ASTM D5185m | | 0 | | |
| Cadmium | ppm | ASTM D5185m | | 0 | | |
| | | | | | | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| ADDITIVES Boron | ppm | method ASTM D5185m | limit/base | current 17 | history1 | history2 |
| | ppm ppm | | limit/base | | | |
| Boron | | ASTM D5185m | limit/base | 17 | | |
| Boron Barium | ppm | ASTM D5185m ASTM D5185m | limit/base | 17 0 | | |
| Boron Barium Molybdenum | ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m | limit/base | 17 0 3 | | |
| Boron Barium Molybdenum Manganese | ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | limit/base | 17 0 3 <1 | | |
| Boron Barium Molybdenum Manganese Magnesium | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | limit/base | 17 0 3 <1 672 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium | ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | | 17 0 3 <1 672 1522 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 1260 | 17 0 3 <1 672 1522 803 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 1260 | 17 0 3 <1 672 1522 803 909 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 1260 1400 | 17 0 3 <1 672 1522 803 909 3540 | | |
| Boron 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 | 1260 1400 limit/base | 17 0 3 <1 672 1522 803 909 3540 current | history1 | history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon | 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 | 1260 1400 limit/base | 17 0 3 <1 672 1522 803 909 3540 current 6 | history1 | history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium | ppm 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 | 1260 1400 limit/base >25 | 17 0 3 <1 672 1522 803 909 3540 current 6 3 | history1 | history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m | 1260 1400 limit/base >25 >20 | 17 0 3 <1 672 1522 803 909 3540 current 6 3 3 | history1 | history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m | 1260 1400 limit/base >25 >20 limit/base | 17 0 3 <1 672 1522 803 909 3540 current 6 3 3 3 | history1 history1 | history2 history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % | ppm | ASTM D5185m ASTM D5185m | 1260 1400 limit/base >25 >20 limit/base >4 | 17 0 3 <1 672 1522 803 909 3540 current 6 3 3 3 Current 0.5 | history1 history1 | history2 history2 history2 |
| Boron 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 ASTM D5185m | 1260 1400 1400 225 >225 >20 Iimit/base >20 Iimit/base >4 >20 | 17 0 3 <1 672 1522 803 909 3540 <i>current</i> 6 3 3 3 <i>current</i> 0.5 10.2 | history1 history1 | history2 history2 history2 |
| Boron 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 ASTM D5185m | 1260 1400 1400 225 >20 1imit/base >20 1imit/base >4 >20 >30 | 17 0 3 <1 672 1522 803 909 3540 <u>current</u> 6 3 3 3 2 <u>current</u> 0.5 10.2 24.6 | history1 history1 history1 | history2 history2 history2 |



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Contact/Location: Service Manager - CLALEI