MOB BELL

OIL ANALYSIS REPORT

| | |
|---|---|
| WEAR | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION | ABNORMAL |

Machine Id
## BELL B45E B93A645EA03308060
Component
## Diesel Engine
Fluid
## DIESEL ENGINE OIL SAE 15W40 (--- GAL)

## RECOMMENDATION

Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

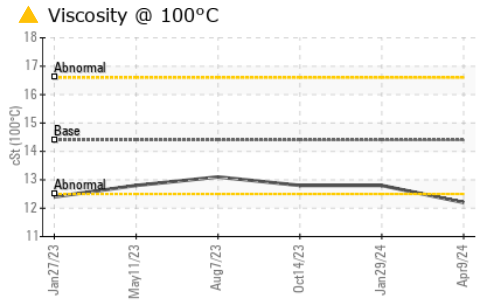
## CONTAMINATION

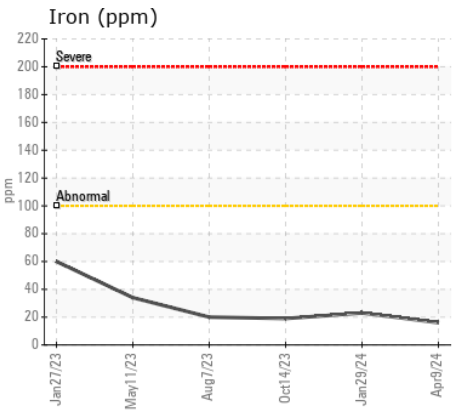
Fuel content negligible. There is no indication of any contamination in the oil.

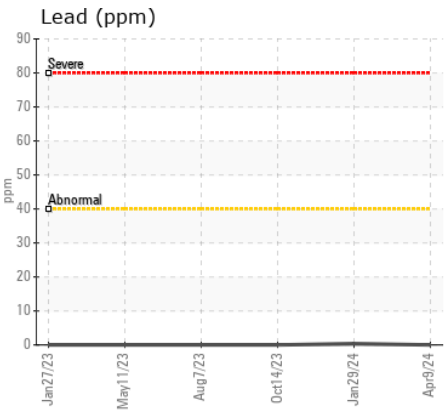
## FLUID CONDITION

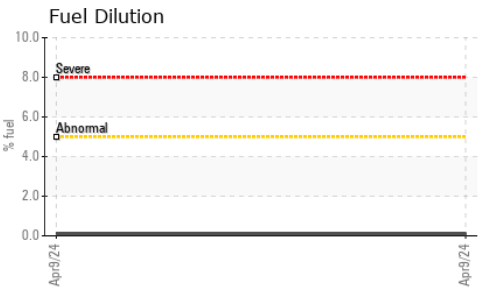
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type. The condition of the oil is acceptable for the time in service.

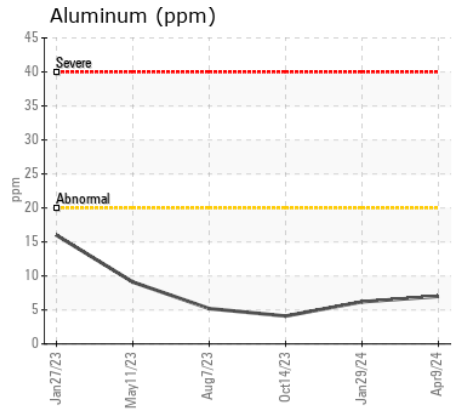
| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | BE0014880 | BE0014879 | BE0014869 |
| Sample Date | | Client Info | | 09 Apr 2024 | 29 Jan 2024 | 14 Oct 2023 |
| Machine Age | hrs | Client Info | | 3039 | 2519 | 2022 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | ABNORMAL | NORMAL | NORMAL |
| PQ | | ASTM D8184 | >79 | 21 | 15 | 7 |
| Iron | ppm | ASTM D5185m | >100 | 16 | 23 | 19 |
| Chromium | ppm | ASTM D5185m | >20 | 1 | 3 | 2 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >20 | 7 | 6 | 4 |
| Lead | ppm | ASTM D5185m | >40 | 0 | <1 | 0 |
| Copper | ppm | ASTM D5185m | >330 | 8 | 24 | 50 |
| Tin | ppm | ASTM D5185m | >15 | <1 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silicon | ppm | ASTM D5185m | >25 | 6 | 7 | 8 |
| Potassium | ppm | ASTM D5185m | >20 | 15 | 17 | 0 |
| Fuel | % | ASTM D3524 | >5 | 0.1 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.7 | 0.7 | 0.7 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 7.5 | 7.9 | 7.2 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 19.9 | 20.6 | 19.9 |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG | NEG |
| Sodium | ppm | ASTM D5185m | >158 | 1 | 0 | 2 |
| Boron | ppm | ASTM D5185m | 250 | 6 | 0 | 13 |
| Barium | ppm | ASTM D5185m | 10 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 100 | 50 | 54 | 56 |
| Manganese | ppm | ASTM D5185m | | <1 | 1 | 1 |
| Magnesium | ppm | ASTM D5185m | 450 | 354 | 369 | 385 |
| Calcium | ppm | ASTM D5185m | 3000 | 1379 | 1494 | 1542 |
| Phosphorus | ppm | ASTM D5185m | 1150 | 885 | 918 | 782 |
| Zinc | ppm | ASTM D5185m | 1350 | 1083 | 1156 | 1177 |
| Sulfur | ppm | ASTM D5185m | 4250 | 2734 | 2563 | 2548 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 14.4 | 15.7 | 14.6 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 8.5 | 5.1 | 5.7 | 6.3 |
| Visc @ 40°C | cSt | ASTM D445 | 115 | 90.5 | 93.8 | 92.8 |
| Visc @ 100°C | cSt | ASTM D445 | 14.4 | ▲ 12.2 | 12.8 | 12.8 |
| Viscosity Index (VI) | Scale | ASTM D2270 | 126 | 128 | 133 | 134 |

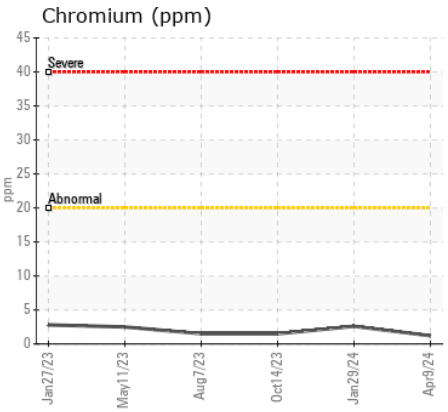


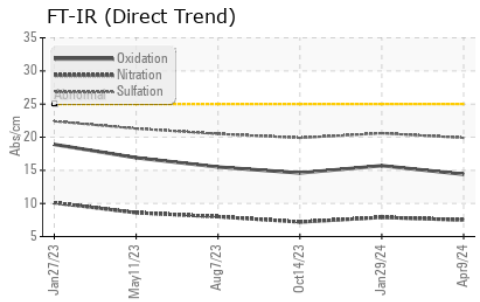



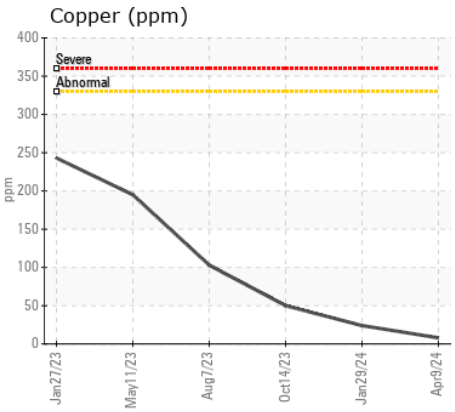



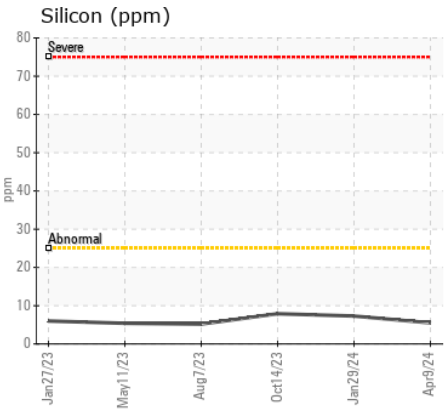



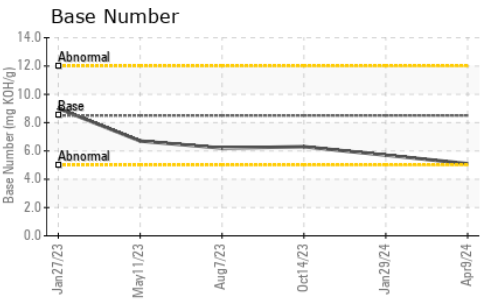



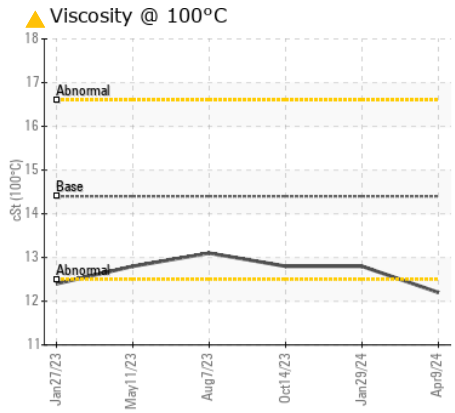



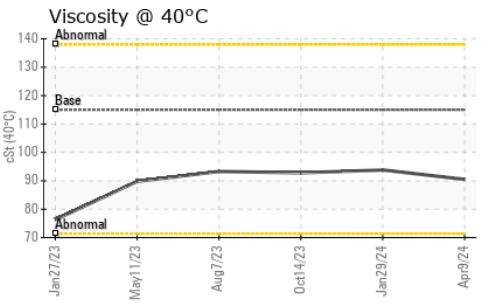



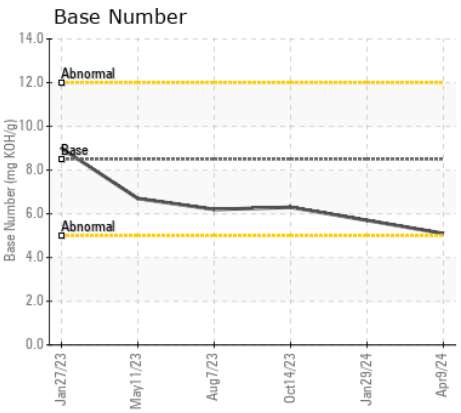





**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : BE0014880
**Lab Number** : 06156799
**Unique Number** : 10992222
**Test Package** : MOBCE ( Additional Tests: FuelDilution, PercentFuel )

**Received** : 22 Apr 2024
**Tested** : 25 Apr 2024
**Diagnosed** : 25 Apr 2024 - Angela Borella

Certificate L2367

**National Equipment Dealers LLC NE**
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US 27292
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sgawthrop@nedealers.com
T:
F:


*To discuss this sample report, contact Customer Service at 1-800-237-1369.*
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*Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)*