# OIL ANALYSIS REPORT

| | |
|---|---|
| WEAR | NORMAL |
| CONTAMINATION | ATTENTION |
| FLUID CONDITION | NORMAL |

Area
**Mobile Fleet**
Machine Id
**6450 6450**
Component
**Diesel Engine**
Fluid
**MOBIL DELVAC 1300 SUPER15W40 (10 GAL)**

## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

## CONTAMINATION

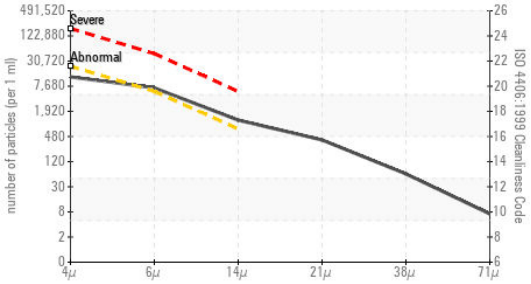
There is a moderate amount of particulates present in the oil. Fuel content negligible.

## FLUID CONDITION

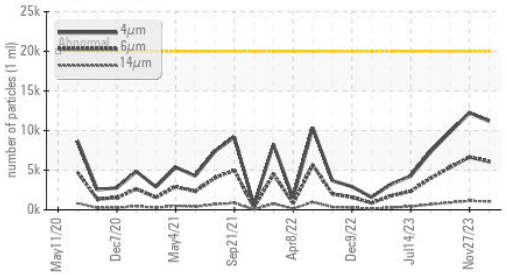
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | WC0861834 | WC0861628 | WC0862009 |
| Sample Date | | Client Info | | 16 Jan 2024 | 27 Nov 2023 | 06 Oct 2023 |
| Machine Age | hrs | Client Info | | 8253 | 8013 | 7691 |
| Oil Age | hrs | Client Info | | 240 | 341 | 303 |
| Filter Age | hrs | Client Info | | 240 | 341 | 303 |
| Oil Changed | | Client Info | | Changed | Changed | Not Changd |
| Filter Changed | | Client Info | | Changed | Changed | Not Changd |
| Sample Status | | | | ATTENTION | ATTENTION | ATTENTION |
| Iron | ppm | ASTM D5185m | >100 | 8 | 5 | 0 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 2 | 3 | 10 |
| Lead | ppm | ASTM D5185m | >40 | 0 | <1 | 0 |
| Copper | ppm | ASTM D5185m | >330 | 10 | 7 | 6 |
| Tin | ppm | ASTM D5185m | >15 | <1 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | | <1 | <1 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silicon | ppm | ASTM D5185m | >25 | 9 | 4 | 5 |
| Potassium | ppm | ASTM D5185m | >20 | 4 | 5 | 5 |
| Fuel | % | ASTM D3524 | >5 | 0.4 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.1 | 0.3 | 0.2 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 6.0 | 7.4 | 6.2 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 21.6 | 21.7 | 20.9 |
| Particles >4µm | | ASTM D7647 | >20000 | 11188 | 12223 | 9796 |
| Particles >6µm | | ASTM D7647 | >5000 | ▲ 6095 | ▲ 6659 | ▲ 5336 |
| Particles >14µm | | ASTM D7647 | >640 | ▲ 1037 | ▲ 1133 | ▲ 908 |
| Particles >21µm | | ASTM D7647 | >160 | ▲ 349 | ▲ 382 | ▲ 306 |
| Particles >38µm | | ASTM D7647 | >40 | ▲ 54 | ▲ 59 | ▲ 47 |
| Particles >71µm | | ASTM D7647 | >10 | 6 | 6 | 5 |
| Oil Cleanliness | | ISO 4406 (c) | >21/19/16 | ▲ 21/20/17 | ▲ 21/20/17 | ▲ 20/20/17 |
| 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 | | 2 | 6 | 2 |
| Boron | ppm | ASTM D5185m | 0 | 50 | 37 | 52 |
| Barium | ppm | ASTM D5185m | 0 | <1 | 0 | 2 |
| Molybdenum | ppm | ASTM D5185m | 0 | 47 | 42 | 46 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 0 | 520 | 504 | 493 |
| Calcium | ppm | ASTM D5185m | | 1591 | 1674 | 1571 |
| Phosphorus | ppm | ASTM D5185m | | 756 | 701 | 750 |
| Zinc | ppm | ASTM D5185m | | 926 | 931 | 929 |
| Sulfur | ppm | ASTM D5185m | | 2498 | 2290 | 2807 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 19.4 | 20.7 | 19.1 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.4 | 9.5 | 9.2 | 9.0 |
| Visc @ 100°C | cSt | ASTM D445 | 14 | 10.6 | 11.3 | 11.2 |

## Particle Count

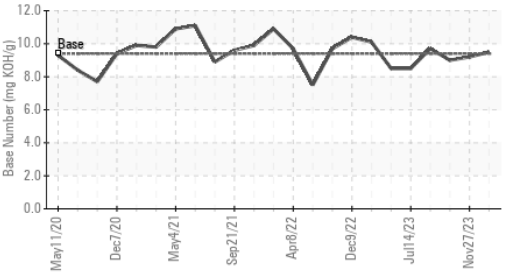



## Particle Trend

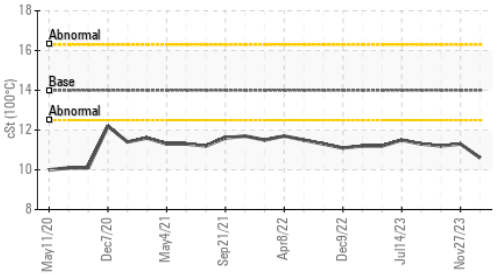



## Fuel Dilution

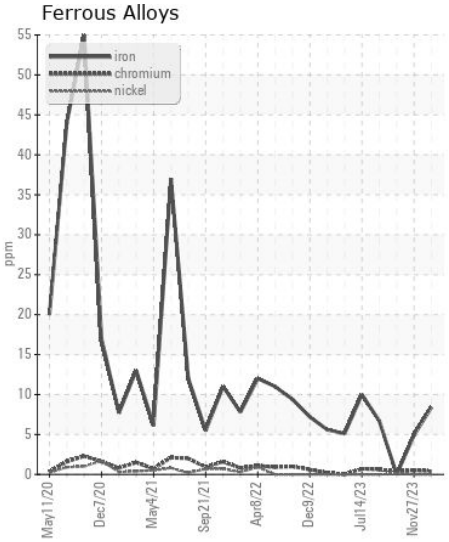

## Base Number



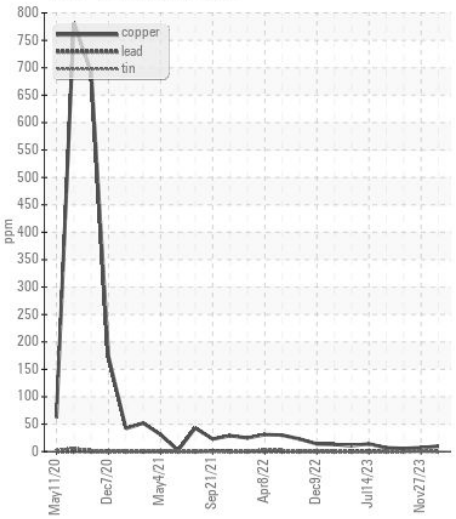

## Viscosity @ 100°C



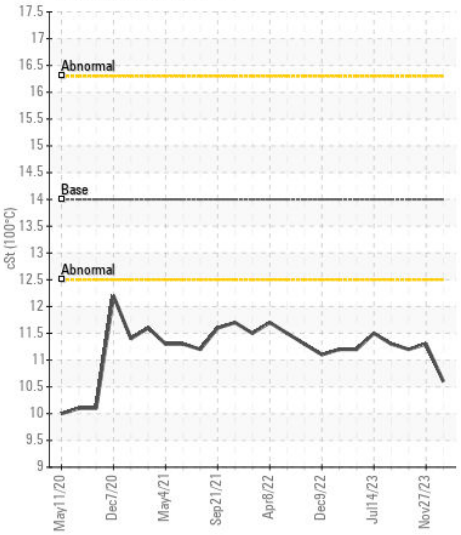

## Ferrous Alloys



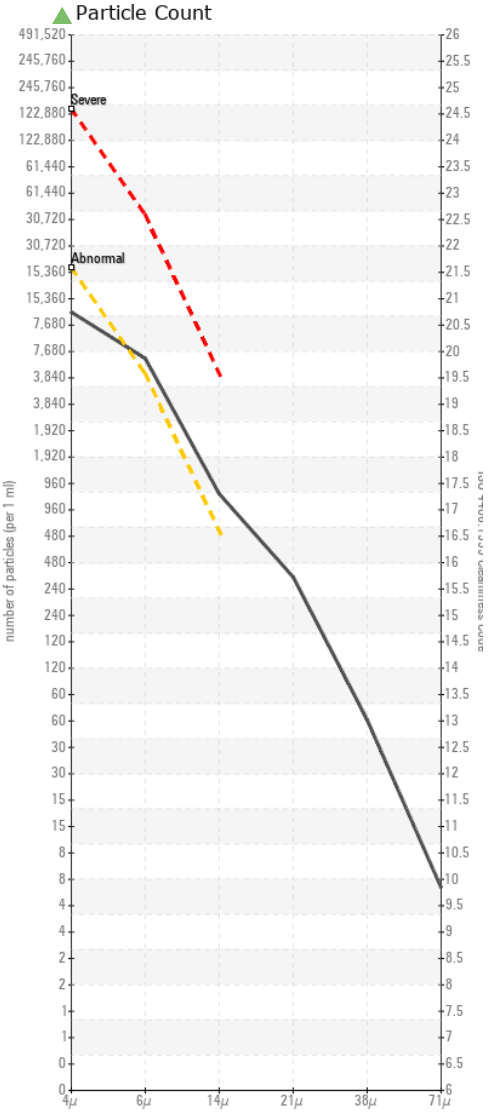

## Non-ferrous Metals



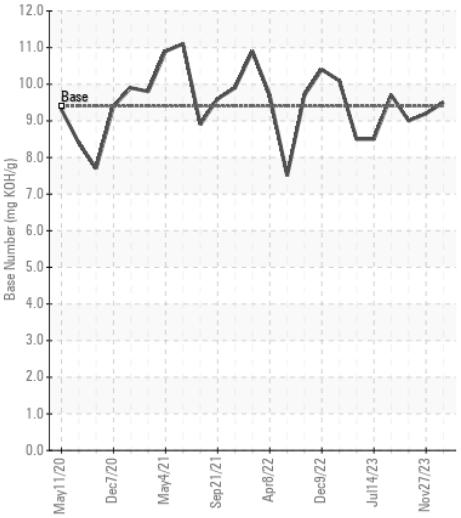

## Viscosity @ 100°C




## Particle Count




## Base Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC0861834 **Recieved** : 19 Jan 2024
**Lab Number** : 06065477 **Diagnosed** : 24 Jan 2024
**Unique Number** : 10836859 **Diagnostician** : Doug Bogart
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, PrtCount, 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)*

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