CONST

WEAR CHECK

OIL ANALYSIS REPORT

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

Area
**Mobile Fleet**
Machine Id
**8111 8111**
Component
**Diesel Engine**
Fluid
**MOBIL DELVAC 1300 SUPER 10W30 (10 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

## CONTAMINATION

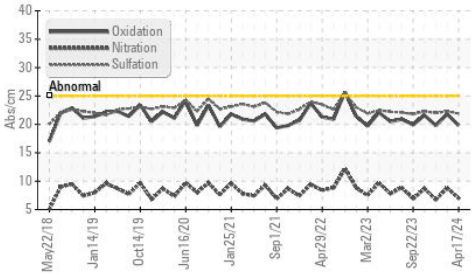
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

## FLUID CONDITION

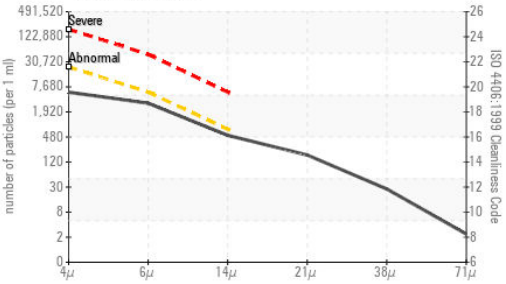
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | WC0919137 | WC0902915 | WC0885962 |
| Sample Date | | Client Info | | 17 Apr 2024 | 07 Mar 2024 | 24 Jan 2024 |
| Machine Age | hrs | Client Info | | 12866 | 12600 | 12301 |
| Oil Age | hrs | Client Info | | 267 | 553 | 255 |
| Filter Age | hrs | Client Info | | 267 | 553 | 255 |
| Oil Changed | | Client Info | | Not Changd | Changed | Not Changd |
| Filter Changed | | Client Info | | Not Changd | Changed | Not Changd |
| Sample Status | | | | NORMAL | ABNORMAL | ABNORMAL |
| Iron | ppm | ASTM D5185m | >100 | 4 | 14 | 11 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | 1 | 0 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185m | >3 | 0 | <1 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 3 | 6 | 4 |
| Lead | ppm | ASTM D5185m | >40 | 0 | <1 | 0 |
| Copper | ppm | ASTM D5185m | >330 | 0 | 7 | 2 |
| Tin | ppm | ASTM D5185m | >15 | <1 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silicon | ppm | ASTM D5185m | >25 | 8 | 10 | 12 |
| Potassium | ppm | ASTM D5185m | >20 | 12 | 26 | 5 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.3 | 0.5 | 0.3 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 7.0 | 8.8 | 6.7 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 21.9 | 22.3 | 22.0 |
| Particles >4µm | | ASTM D7647 | >20000 | 4985 | 16416 | 14668 |
| Particles >6µm | | ASTM D7647 | >5000 | 2716 | ▲ 8943 | ▲ 7990 |
| Particles >14µm | | ASTM D7647 | >640 | 462 | ▲ 1522 | ▲ 1360 |
| Particles >21µm | | ASTM D7647 | >160 | 156 | ▲ 513 | ▲ 458 |
| Particles >38µm | | ASTM D7647 | >40 | 24 | ▲ 79 | ▲ 71 |
| Particles >71µm | | ASTM D7647 | >10 | 2 | 8 | 7 |
| Oil Cleanliness | | ISO 4406 (c) | >21/19/16 | 19/19/16 | ▲ 21/20/18 | ▲ 21/20/18 |
| 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 | | 17 | 37 | 11 |
| Boron | ppm | ASTM D5185m | | 43 | 38 | 49 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 48 | 58 | 48 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 526 | 552 | 507 |
| Calcium | ppm | ASTM D5185m | | 1763 | 1817 | 1702 |
| Phosphorus | ppm | ASTM D5185m | | 801 | 874 | 737 |
| Zinc | ppm | ASTM D5185m | | 940 | 1010 | 895 |
| Sulfur | ppm | ASTM D5185m | | 2863 | 2880 | 2481 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 19.8 | 21.8 | 19.8 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 10.5 | 9.4 | 8.8 | 9.4 |
| Visc @ 100°C | cSt | ASTM D445 | 11.9 | 11.5 | 11.7 | 11.3 |

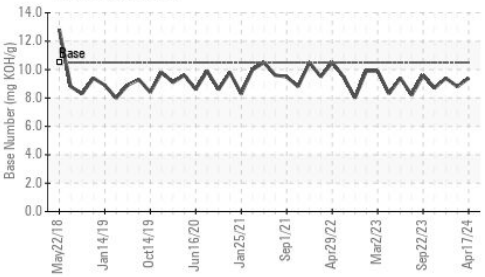
FT-IR (Direct Trend)



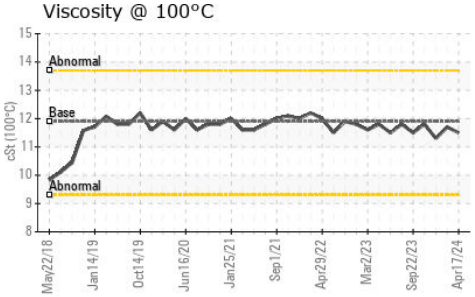

Particle Count



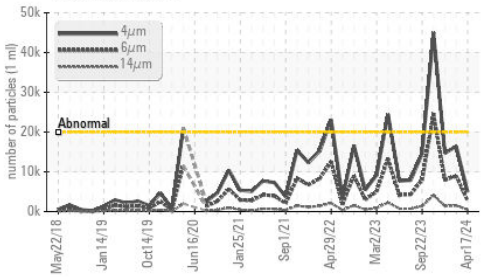

Base Number



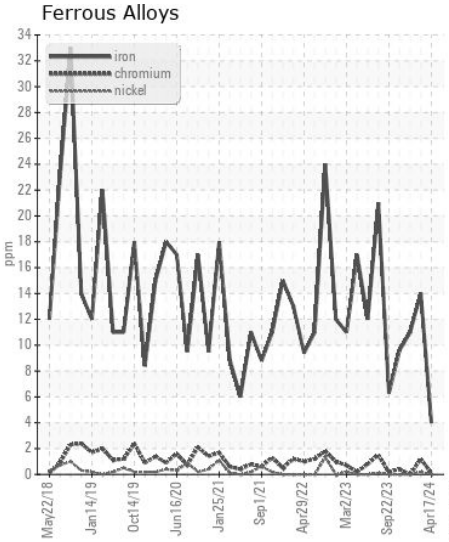

Viscosity @ 100°C



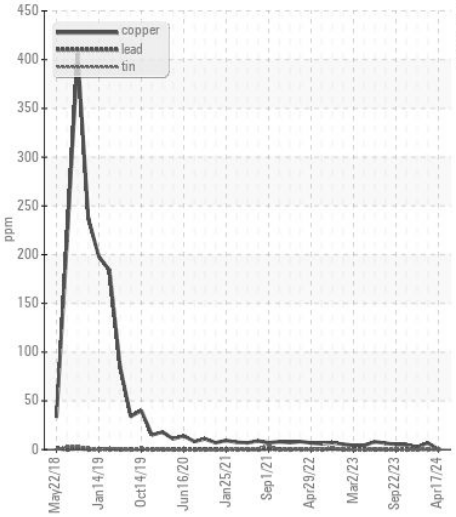

Particle Trend



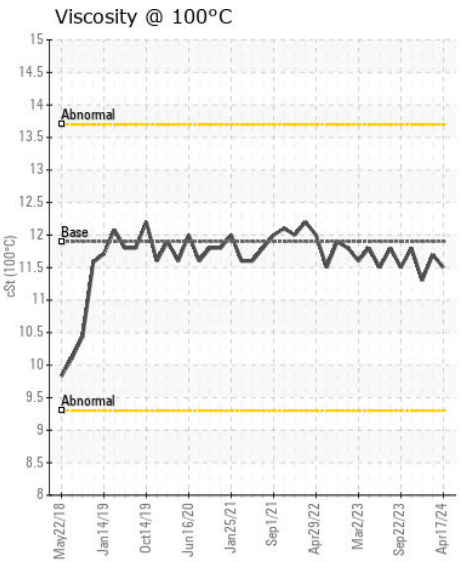

Ferrous Alloys



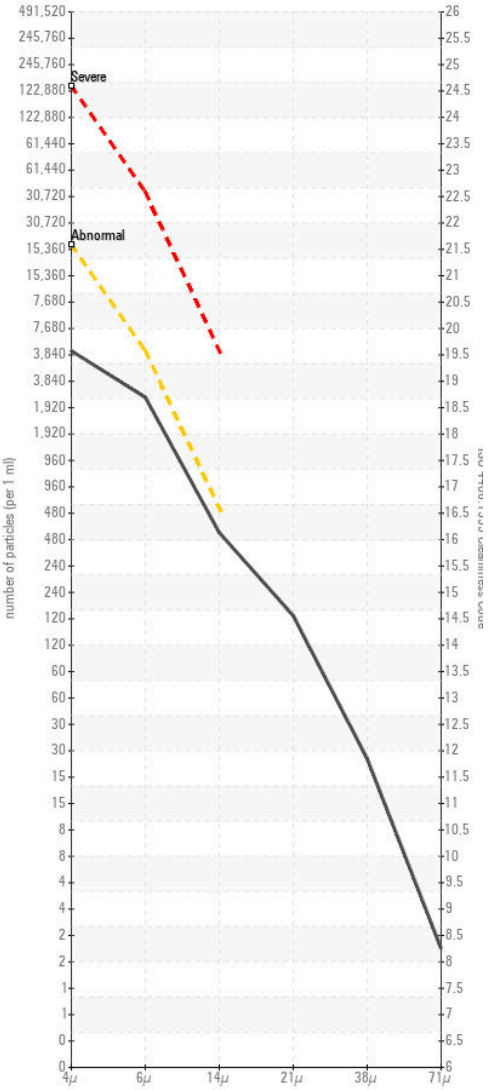

Non-ferrous Metals




Viscosity @ 100°C




Particle Count

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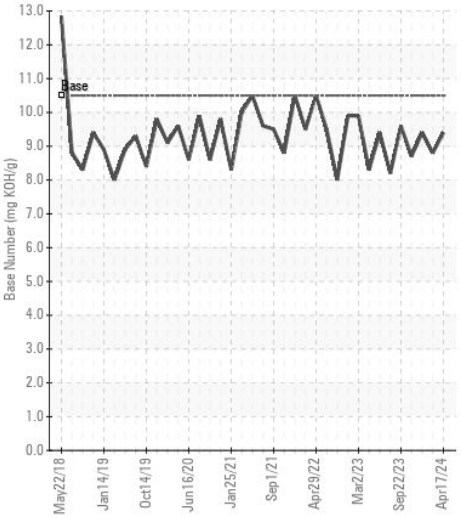


Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC0919137 **Received** : 22 Apr 2024
**Lab Number** : 06156805 **Tested** : 24 Apr 2024
**Unique Number** : 10992228 **Diagnosed** : 24 Apr 2024 - Sean Felton
**Test Package** : CONST ( Additional Tests: 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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