MOB II

VOLVO

# OIL ANALYSIS REPORT

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

Area
**[ACTION ENV]**
Machine Id
**VOLVO EC140B 11614**
Component
**Hydraulic System**
Fluid
**VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)**

## RECOMMENDATION

We advise that you check for the source of fuel entry. The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

## WEAR

All component wear rates are normal.

## CONTAMINATION

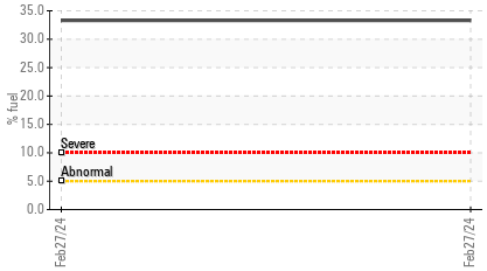
There is a high amount of particulates present in the oil. There is a high amount of fuel present in the oil.

## FLUID CONDITION

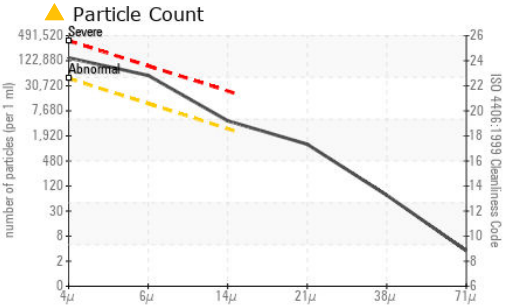
Fuel is present in the oil and is lowering the viscosity. The AN level is acceptable for this fluid.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | VCP437879 | VCP330040 | --- |
| Sample Date | | Client Info | | 27 Feb 2024 | 28 Feb 2022 | --- |
| Machine Age | hrs | Client Info | | 49 | 4627 | --- |
| Oil Age | hrs | Client Info | | 0 | 0 | --- |
| Filter Age | hrs | Client Info | | 0 | 0 | --- |
| Oil Changed | | Client Info | | N/A | Not Changd | --- |
| Filter Changed | | Client Info | | Changed | Changed | --- |
| Sample Status | | | | SEVERE | NORMAL | --- |
| Iron | ppm | ASTM D5185m | >25 | 3 | 8 | --- |
| Chromium | ppm | ASTM D5185m | >10 | <1 | 1 | --- |
| Nickel | ppm | ASTM D5185m | >10 | 0 | 0 | --- |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | --- |
| Silver | ppm | ASTM D5185m | | 0 | 0 | --- |
| Aluminum | ppm | ASTM D5185m | >20 | 0 | <1 | --- |
| Lead | ppm | ASTM D5185m | >20 | 0 | <1 | --- |
| Copper | ppm | ASTM D5185m | >150 | 2 | 6 | --- |
| Tin | ppm | ASTM D5185m | >10 | 0 | 0 | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | --- |
| White Metal | scalar | *Visual | NONE | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | --- |
| Silicon | ppm | ASTM D5185m | >50 | 2 | 4 | --- |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 0 | --- |
| Fuel | % | ASTM D3524 | | ▲ 33.3 | --- | --- |
| Water | | WC Method | >0.1 | NEG | NEG | --- |
| Particles >4µm | | ASTM D7647 | >40000 | ▲ 124313 | 18708 | --- |
| Particles >6µm | | ASTM D7647 | >10000 | ▲ 47201 | 659 | --- |
| Particles >14µm | | ASTM D7647 | >2500 | ▲ 3861 | 38 | --- |
| Particles >21µm | | ASTM D7647 | >640 | ▲ 1062 | 14 | --- |
| Particles >38µm | | ASTM D7647 | >160 | 64 | 0 | --- |
| Particles >71µm | | ASTM D7647 | >40 | 3 | 0 | --- |
| Oil Cleanliness | | ISO 4406 (c) | >22/20/18 | ▲ 24/23/19 | 21/17/12 | --- |
| Silt | scalar | *Visual | NONE | NONE | NONE | --- |
| Debris | scalar | *Visual | NONE | LIGHT | NONE | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | --- |
| Appearance | scalar | *Visual | NORML | NORML | NORML | --- |
| Odor | scalar | *Visual | NORML | NORML | NORML | --- |
| Emulsified Water | scalar | *Visual | >0.1 | NEG | NEG | --- |
| Sodium | ppm | ASTM D5185m | | 1 | 0 | --- |
| Boron | ppm | ASTM D5185m | 14 | 0 | 1 | --- |
| Barium | ppm | ASTM D5185m | 0.0 | 0 | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | 0.0 | <1 | 1 | --- |
| Manganese | ppm | ASTM D5185m | 0.0 | 0 | 0 | --- |
| Magnesium | ppm | ASTM D5185m | 2.6 | 1 | 0 | --- |
| Calcium | ppm | ASTM D5185m | 49 | 52 | 97 | --- |
| Phosphorus | ppm | ASTM D5185m | 354 | 212 | 383 | --- |
| Zinc | ppm | ASTM D5185m | 419 | 248 | 339 | --- |
| Sulfur | ppm | ASTM D5185m | 3719 | 1808 | 2181 | --- |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.36 | 0.52 | --- |
| Visc @ 40°C | cSt | ASTM D445 | 46 | ▲ 13.9 | 42.8 | --- |

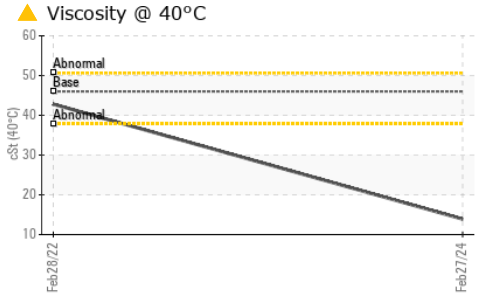
## Fuel Dilution



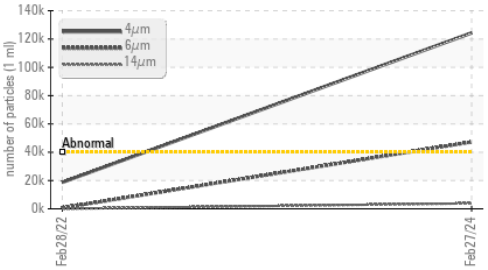

## Particle Count



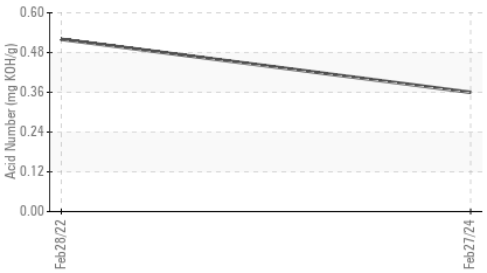

## Viscosity @ 40°C



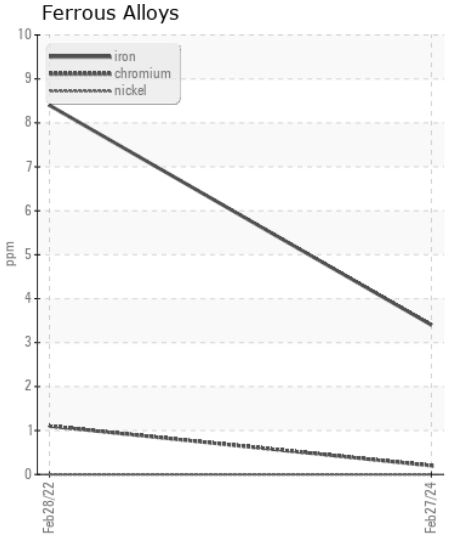

## Particle Trend



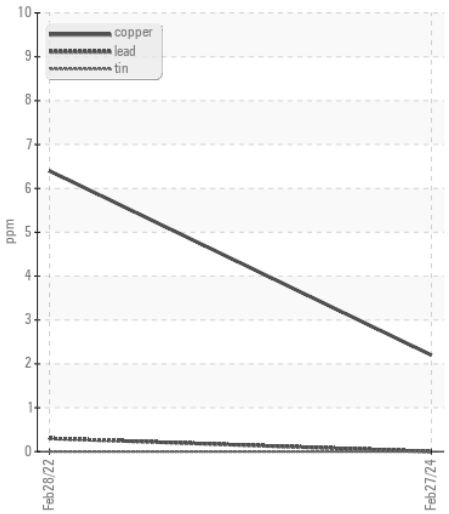

## Acid Number



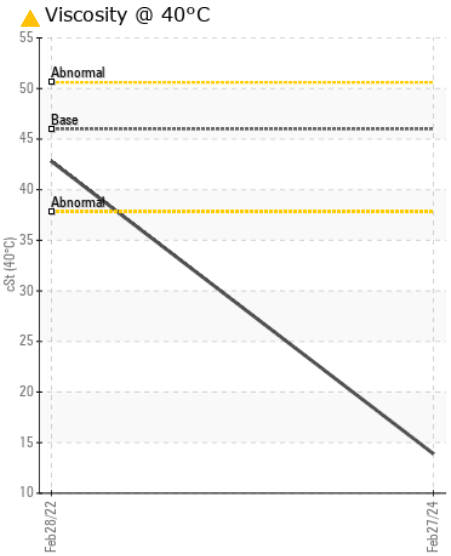

## Ferrous Alloys



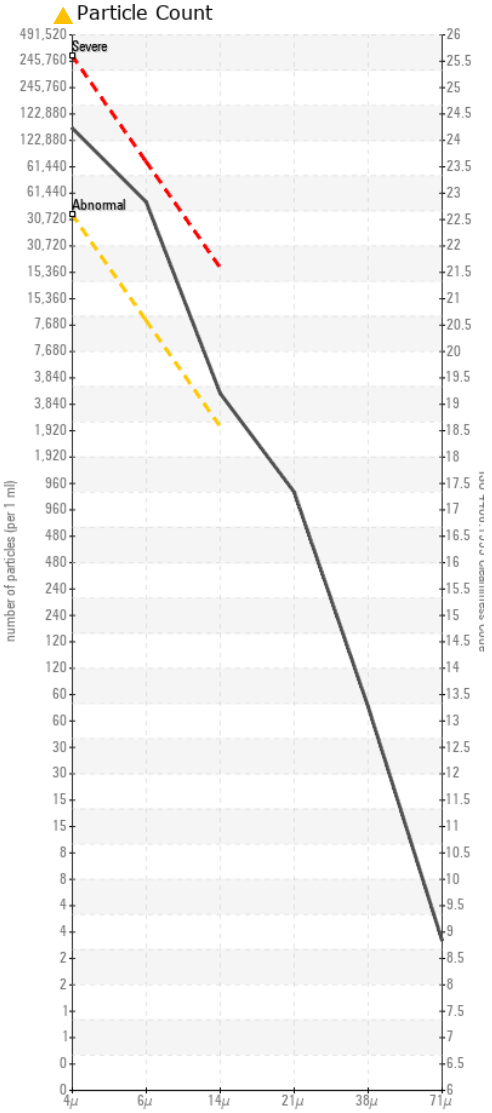

## Non-ferrous Metals



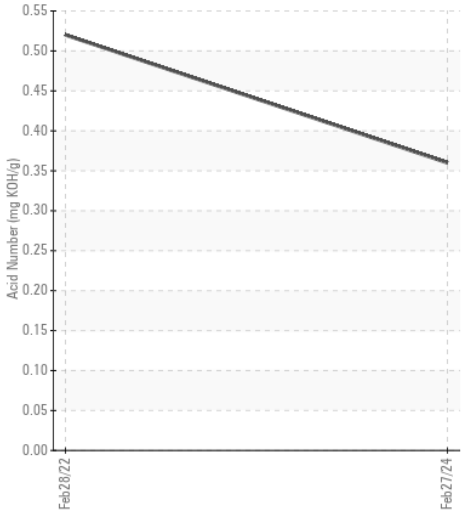

## Viscosity @ 40°C




## Particle Count




## Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : VCP437879
**Lab Number** : 06160291
**Unique Number** : 10995714
**Test Package** : MOB 2 ( Additional Tests: FUELDILUTION, PercentFuel )

**Received** : 25 Apr 2024
**Tested** : 02 May 2024
**Diagnosed** : 02 May 2024 - Jonathan Hester

*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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