



OIL ANALYSIS REPORT

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



Area
[W02008180]
Machine Id
VOLVO L70H 624465
Component
Diesel Engine
Fluid
MOBIL 15W40 (5 GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: W02008180)

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | ML0000434 | VCP416121 | VCP419398 |
| Sample Date | | Client Info | | 12 Apr 2024 | 26 Sep 2023 | 28 Jun 2023 |
| Machine Age | hrs | Client Info | | 3042 | 2477 | 2154 |
| Oil Age | hrs | Client Info | | 500 | 500 | 500 |
| Filter Age | hrs | Client Info | | 500 | 0 | 0 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | N/A | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >200 | 7 | 4 | 8 |
| Chromium | ppm | ASTM D5185m | >20 | 1 | <1 | 1 |
| Nickel | ppm | ASTM D5185m | >5 | <1 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >30 | 5 | 3 | 5 |
| Lead | ppm | ASTM D5185m | >40 | <1 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >20 | 1 | <1 | 1 |
| Tin | ppm | ASTM D5185m | >20 | 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 |

CONTAMINATION

There is no indication of any contamination in the oil.

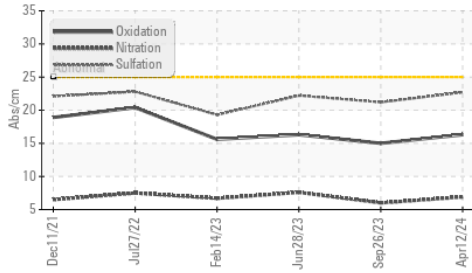
| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >20 | 7 | 6 | 8 |
| Potassium | ppm | ASTM D5185m | >20 | 4 | 0 | 2 |
| Fuel | | WC Method | >6.0 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.1 | 0.1 | 0.1 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 6.9 | 6.0 | 7.6 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 22.7 | 21.2 | 22.2 |
| 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 |

FLUID CONDITION

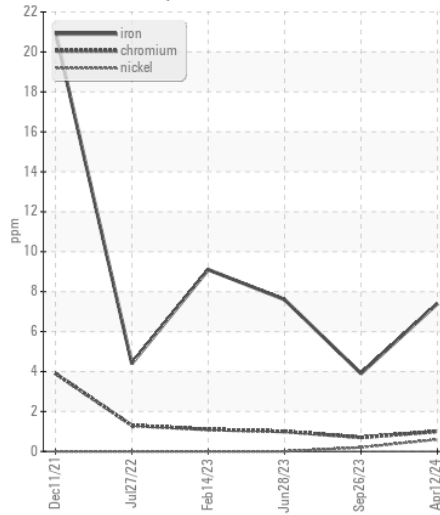
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185m | >118 | <1 | 2 | <1 |
| Boron | ppm | ASTM D5185m | | 398 | 322 | 318 |
| Barium | ppm | ASTM D5185m | | 2 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 129 | 118 | 111 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 665 | 582 | 716 |
| Calcium | ppm | ASTM D5185m | | 1588 | 1430 | 1551 |
| Phosphorus | ppm | ASTM D5185m | | 806 | 662 | 774 |
| Zinc | ppm | ASTM D5185m | | 926 | 785 | 953 |
| Sulfur | ppm | ASTM D5185m | | 2890 | 2272 | 3158 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 16.3 | 15.0 | 16.3 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 8.7 | 8.6 | 9.0 |
| Visc @ 100°C | cSt | ASTM D445 | | 13.3 | 13.4 | 13.1 |

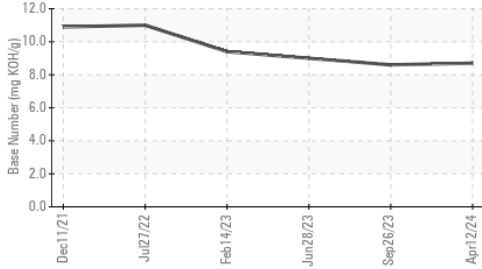
FT-IR (Direct Trend)



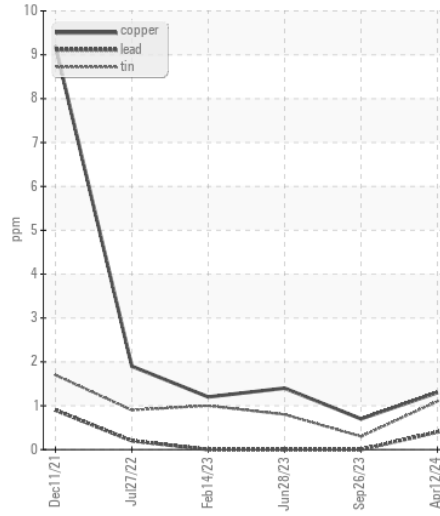
Ferrous Alloys



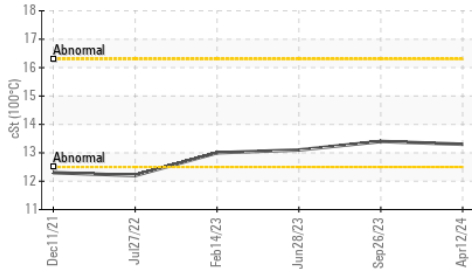
Base Number



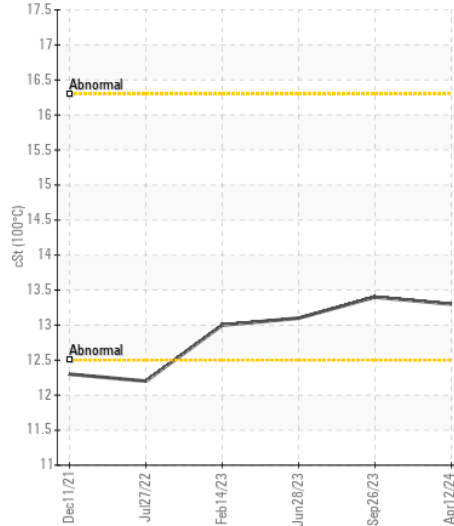
Non-ferrous Metals



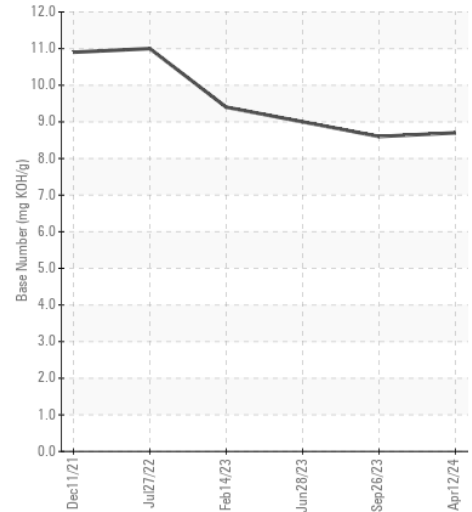
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : ML0000434

Lab Number : 06149843

Unique Number : 10979921

Test Package : CONST (Additional Tests: TBN)

Received : 16 Apr 2024

Tested : 17 Apr 2024

Diagnosed : 18 Apr 2024 - Don Baldrige

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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)