



ASCENDUM

OIL ANALYSIS REPORT

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



Machine Id
VOLVO EC350 314312
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | ASC0006495 | VCP403331 | VCP398211 |
| Sample Date | | Client Info | | 15 Dec 2023 | 24 May 2023 | 27 Dec 2022 |
| Machine Age | hrs | Client Info | | 3891 | 2748 | 2030 |
| Oil Age | hrs | Client Info | | 3891 | 0 | 0 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Changed | Not Changd | Not Changd |
| Filter Changed | | Client Info | | Changed | Changed | Not Changd |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >25 | 4 | 4 | 3 |
| Chromium | ppm | ASTM D5185m | >10 | <1 | <1 | 0 |
| Nickel | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 2 | 2 | <1 |
| Lead | ppm | ASTM D5185m | >20 | <1 | 0 | <1 |
| Copper | ppm | ASTM D5185m | >150 | 33 | 31 | 29 |
| Tin | ppm | ASTM D5185m | >10 | <1 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

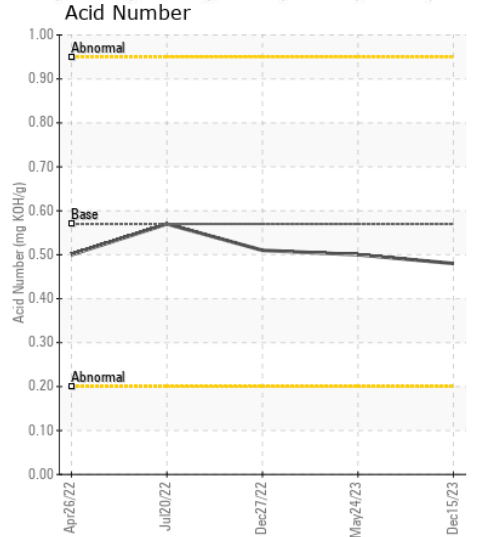
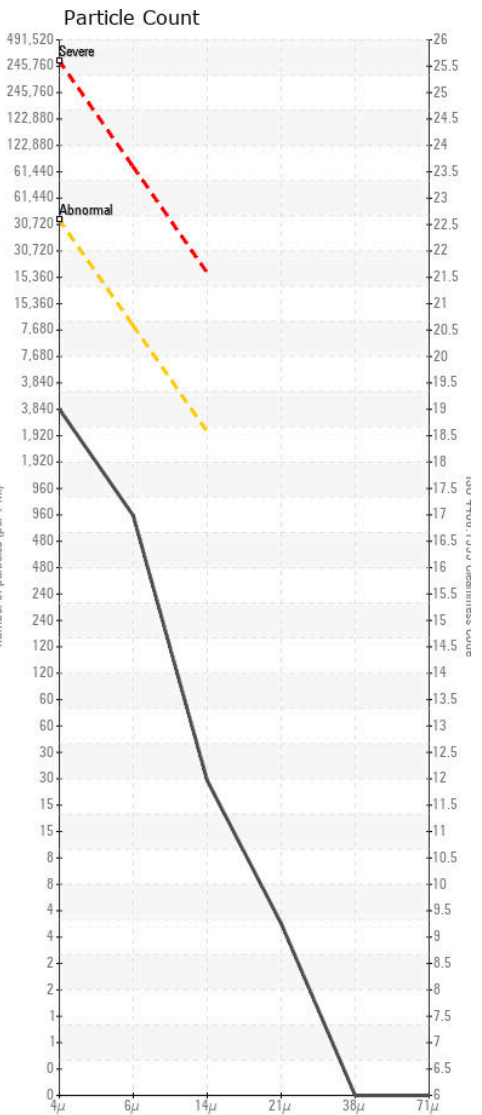
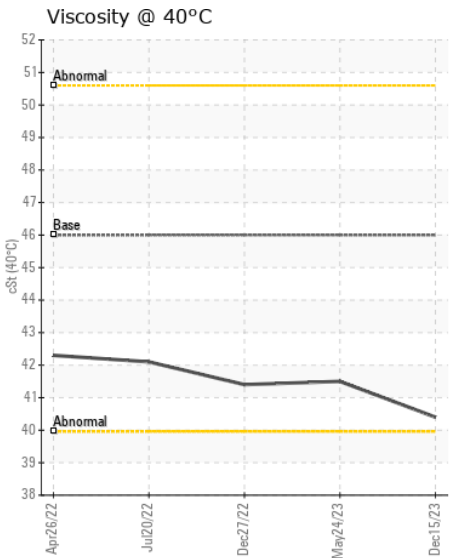
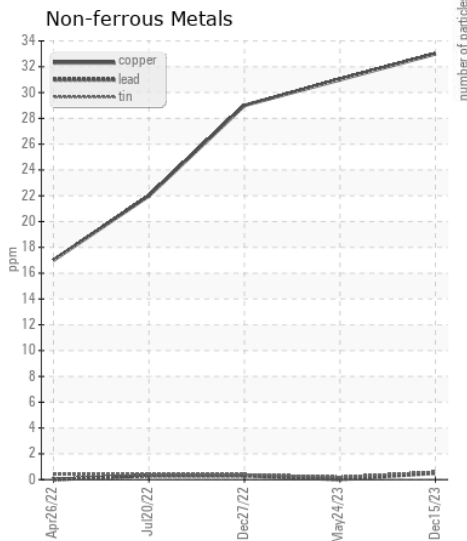
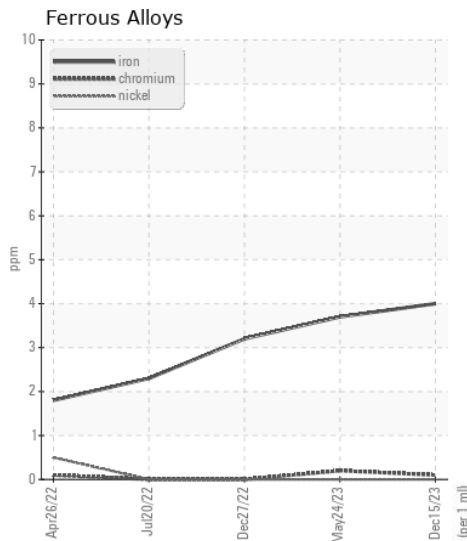
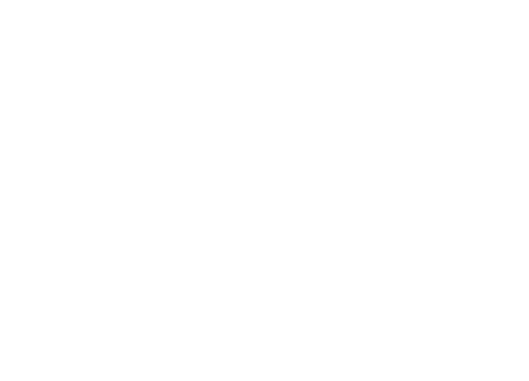
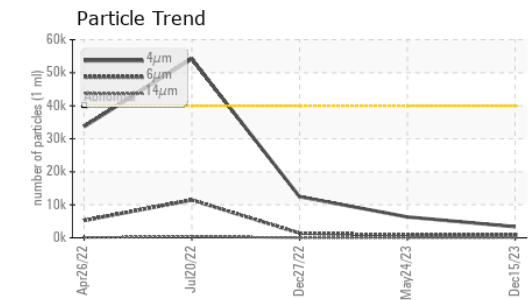
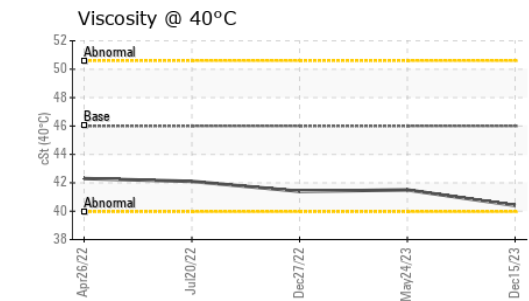
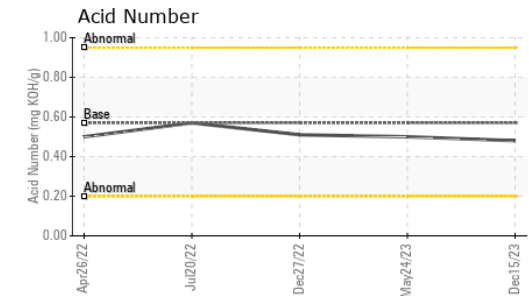
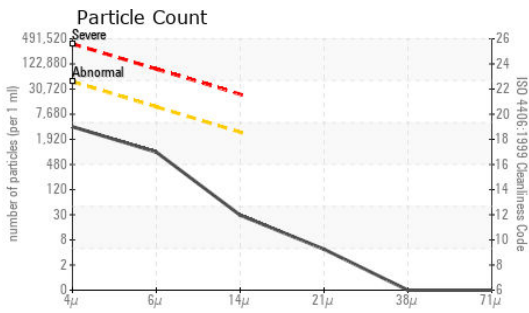
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

| | | | | | | |
|------------------|--------|--------------|-----------|-----------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >50 | 4 | 3 | 3 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | <1 | 0 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Particles >4µm | | ASTM D7647 | >40000 | 3361 | 6314 | 12458 |
| Particles >6µm | | ASTM D7647 | >10000 | 833 | 723 | 1401 |
| Particles >14µm | | ASTM D7647 | >2500 | 26 | 33 | 38 |
| Particles >21µm | | ASTM D7647 | >640 | 4 | 6 | 11 |
| Particles >38µm | | ASTM D7647 | >160 | 0 | 0 | 1 |
| Particles >71µm | | ASTM D7647 | >40 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >22/20/18 | 19/17/12 | 20/17/12 | 21/18/12 |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE | LIGHT |
| 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 | >0.1 | NEG | NEG | NEG |

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Boron | ppm | ASTM D5185m | 5 | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | 5 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 5 | <1 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | 25 | <1 | <1 | 0 |
| Calcium | ppm | ASTM D5185m | 200 | 47 | 62 | 69 |
| Phosphorus | ppm | ASTM D5185m | 300 | 392 | 397 | 415 |
| Zinc | ppm | ASTM D5185m | 370 | 430 | 501 | 520 |
| Sulfur | ppm | ASTM D5185m | 2500 | 1012 | 1176 | 1212 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.57 | 0.48 | 0.50 | 0.51 |
| Visc @ 40°C | cSt | ASTM D445 | 46 | 40.4 | 41.5 | 41.4 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0006495 **Received** : 11 Jan 2024
Lab Number : 06058006 **Diagnosed** : 12 Jan 2024
Unique Number : 10829388 **Diagnostician** : Wes Davis
Test Package : CONST

113 - ASCENDUM MACHINERY INC - GARNER
 3561 JONES SAUSAGE ROAD
 GARNER, NC
 US 27529

Contact: TRENT BROADWELL
 trent.broadwell@ascendummachinery.com
 T: (919)661-8817
 F: (919)661-9038

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)