



VOLVO

OIL ANALYSIS REPORT

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



Area
[20019]
Machine Id
VOLVO A45G 353454
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 30. Please confirm.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | VCP368268 | VCP416868 | VCP408088 |
| Sample Date | | Client Info | | 01 Nov 2023 | 03 Aug 2023 | 01 Jun 2023 |
| Machine Age | hrs | Client Info | | 3329 | 2143 | 1467 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|-------------|------|------|
| Iron | ppm | ASTM D5185m | >100 | 28 | 14 | 20 |
| Chromium | ppm | ASTM D5185m | >20 | 0 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >2 | 3 | 2 | 2 |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 2 | 2 | 0 |
| Lead | ppm | ASTM D5185m | >40 | 3 | 2 | 2 |
| Copper | ppm | ASTM D5185m | >330 | 114 | 6 | 21 |
| Tin | ppm | ASTM D5185m | >15 | 1 | 2 | 2 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

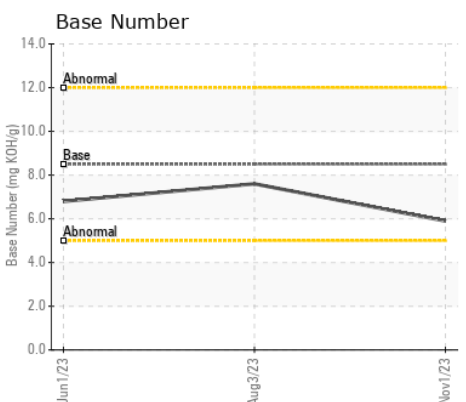
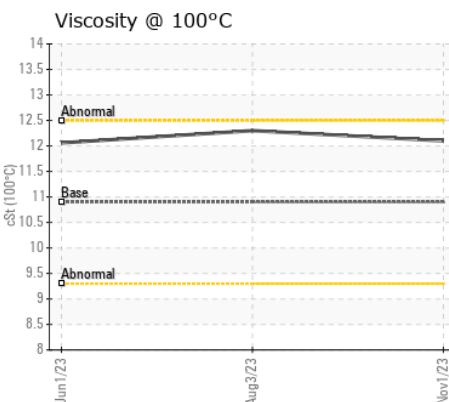
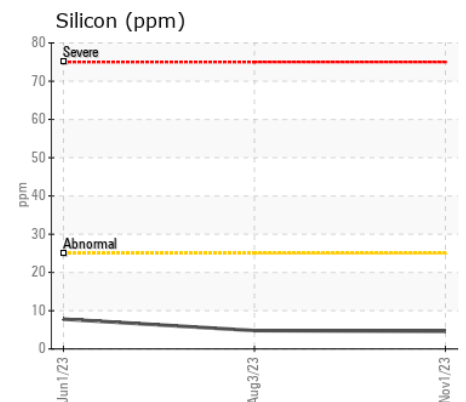
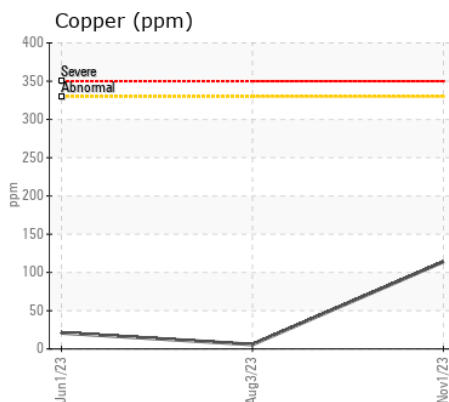
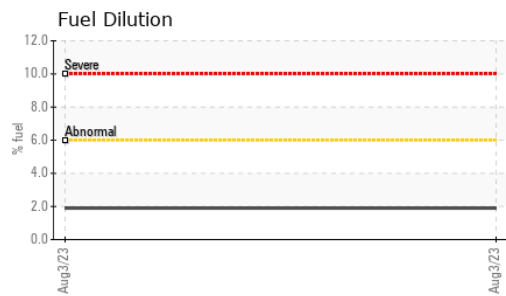
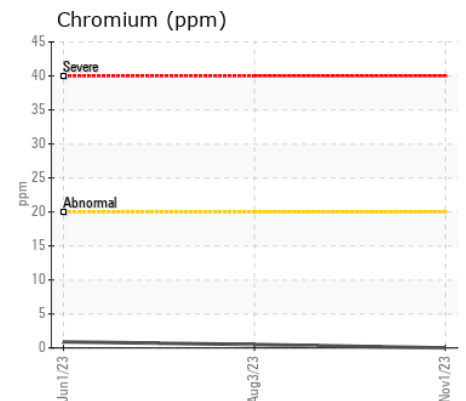
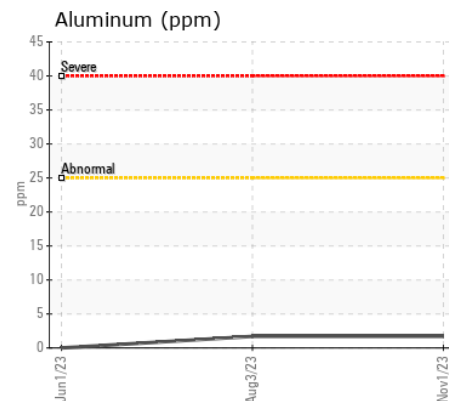
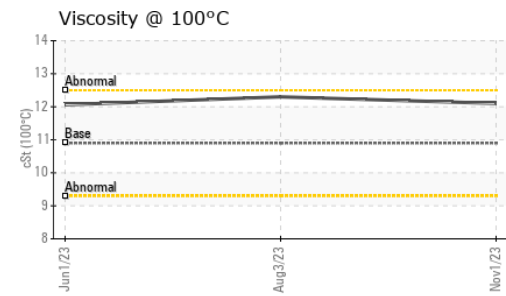
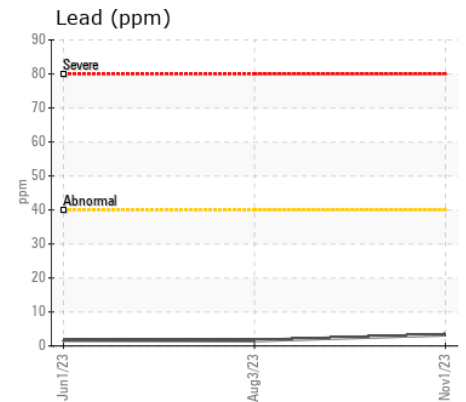
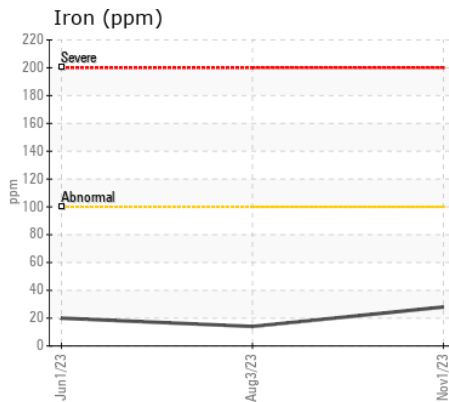
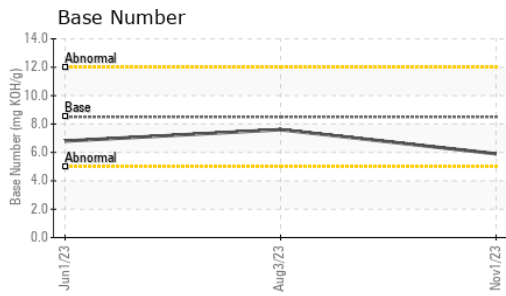
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 5 | 5 | 8 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 3 | <1 |
| Fuel | % | ASTM D3524 | >6.0 | <1.0 | 1.9 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 1.2 | 0.6 | 0.6 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 10.1 | 8.0 | 8.4 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 21.6 | 18.5 | 20.6 |
| 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 | >75 | 1 | 2 | <1 |
| Boron | ppm | ASTM D5185m | 250 | <1 | 2 | 2 |
| Barium | ppm | ASTM D5185m | 10 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 100 | 57 | 62 | 65 |
| Manganese | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 450 | 879 | 949 | 802 |
| Calcium | ppm | ASTM D5185m | 3000 | 1048 | 1114 | 1155 |
| Phosphorus | ppm | ASTM D5185m | 1150 | 809 | 995 | 978 |
| Zinc | ppm | ASTM D5185m | 1350 | 1125 | 1215 | 1199 |
| Sulfur | ppm | ASTM D5185m | 4250 | 2123 | 3461 | 3167 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 17.0 | 13.8 | 16.5 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 8.5 | 5.9 | 7.6 | 6.8 |
| Visc @ 100°C | cSt | ASTM D445 | 10.9 | 12.1 | 12.3 | 12.06 |



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP368268 **Received** : 11 Jan 2024
Lab Number : 06057641 **Diagnosed** : 11 Jan 2024
Unique Number : 10823590 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: FuelDilution, TBN)

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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)