



ASCENDUM

OIL ANALYSIS REPORT

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



Machine Id
VOLVO A45G 752180
Component
Diesel Engine
Fluid
NOT GIVEN (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. 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 | | ASC0008660 | VCP430733 | --- |
| Sample Date | | Client Info | | 03 Jun 2024 | 15 Feb 2024 | --- |
| Machine Age | hrs | Client Info | | 2216 | 585 | --- |
| Oil Age | hrs | Client Info | | 1631 | 0 | --- |
| Filter Age | hrs | Client Info | | 0 | 0 | --- |
| Oil Changed | | Client Info | | Changed | Changed | --- |
| Filter Changed | | Client Info | | Changed | Changed | --- |
| Sample Status | | | | NORMAL | NORMAL | --- |

WEAR

Metal levels are typical for a new component breaking in.

| | | | | | | |
|--------------|--------|-------------|------|------|------|-----|
| Iron | ppm | ASTM D5185m | >100 | 27 | 27 | --- |
| Chromium | ppm | ASTM D5185m | >20 | 1 | <1 | --- |
| Nickel | ppm | ASTM D5185m | >2 | 3 | 3 | --- |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | --- |
| Silver | ppm | ASTM D5185m | >2 | 0 | <1 | --- |
| Aluminum | ppm | ASTM D5185m | >25 | 4 | 3 | --- |
| Lead | ppm | ASTM D5185m | >40 | <1 | <1 | --- |
| Copper | ppm | ASTM D5185m | >330 | 45 | 261 | --- |
| Tin | ppm | ASTM D5185m | >15 | 2 | 6 | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | --- |
| White Metal | scalar | *Visual | NONE | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | --- |

CONTAMINATION

Fuel content negligible. There is no indication of any contamination in the oil.

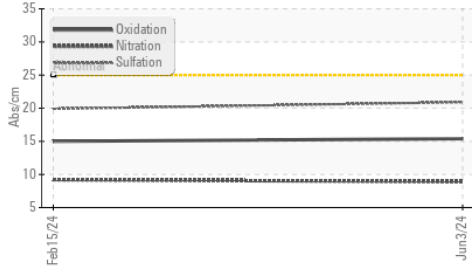
| | | | | | | |
|------------------|----------|-------------|-------|-------|-------|-----|
| Silicon | ppm | ASTM D5185m | >25 | 6 | 25 | --- |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 2 | --- |
| Fuel | % | ASTM D3524 | >6.0 | <1.0 | 0.7 | --- |
| Water | | WC Method | >0.2 | NEG | NEG | --- |
| Glycol | | WC Method | | NEG | NEG | --- |
| Soot % | % | *ASTM D7844 | >3 | 1 | 0.5 | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 8.9 | 9.2 | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 20.9 | 19.9 | --- |
| Silt | scalar | *Visual | NONE | NONE | NONE | --- |
| Debris | scalar | *Visual | NONE | NONE | NONE | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | --- |
| Appearance | scalar | *Visual | NORML | NORML | NORML | --- |
| Odor | scalar | *Visual | NORML | NORML | NORML | --- |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG | --- |

FLUID CONDITION

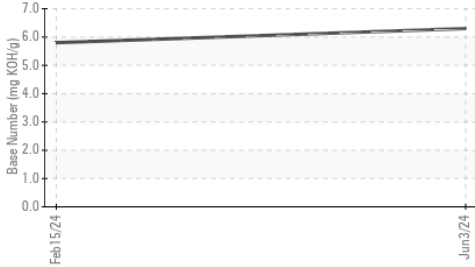
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

| | | | | | | |
|------------------|----------|-------------|-----|------|------|-----|
| Sodium | ppm | ASTM D5185m | | 3 | 4 | --- |
| Boron | ppm | ASTM D5185m | | 4 | 31 | --- |
| Barium | ppm | ASTM D5185m | | 0 | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | | 61 | 83 | --- |
| Manganese | ppm | ASTM D5185m | | 1 | 2 | --- |
| Magnesium | ppm | ASTM D5185m | | 913 | 22 | --- |
| Calcium | ppm | ASTM D5185m | | 1131 | 2022 | --- |
| Phosphorus | ppm | ASTM D5185m | | 907 | 942 | --- |
| Zinc | ppm | ASTM D5185m | | 1203 | 1128 | --- |
| Sulfur | ppm | ASTM D5185m | | 2856 | 3150 | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 15.4 | 15.0 | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 6.3 | 5.8 | --- |
| Visc @ 100°C | cSt | ASTM D445 | | 12.0 | 10.7 | --- |

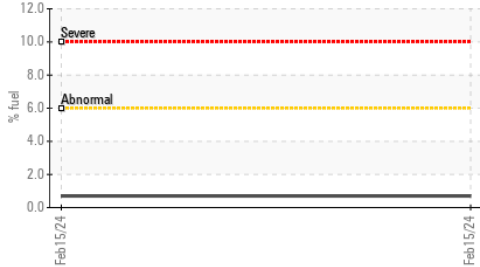
FT-IR (Direct Trend)



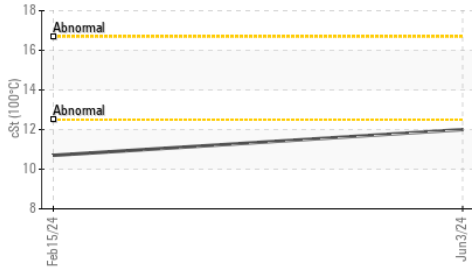
Base Number



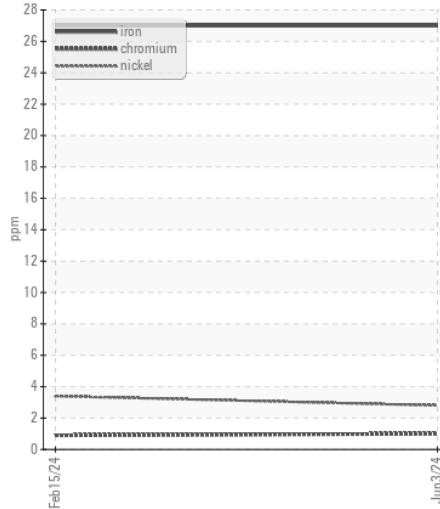
Fuel Dilution



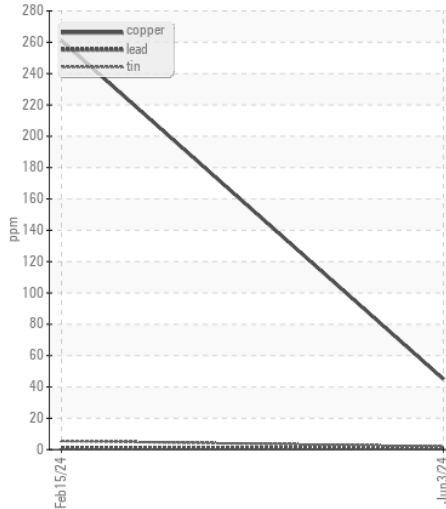
Viscosity @ 100°C



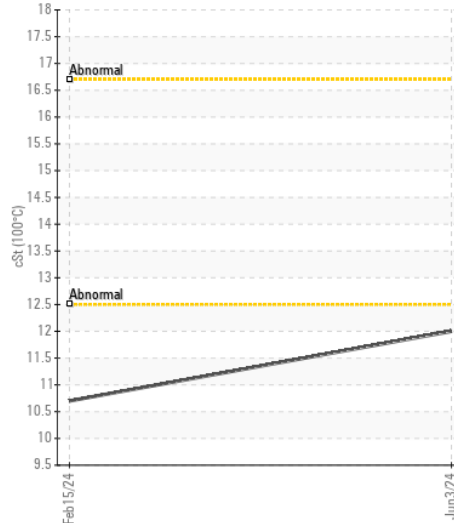
Ferrous Alloys



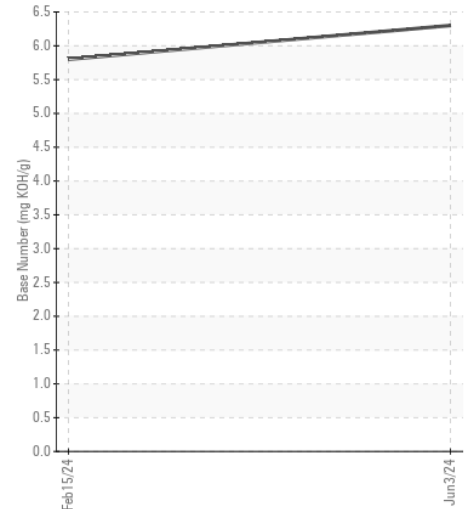
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0008660 **Received** : 17 Jun 2024
Lab Number : 06212746 **Tested** : 19 Jun 2024
Unique Number : 11085610 **Diagnosed** : 19 Jun 2024 - Angela Borella
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

117 - ASCENDUM MACHINERY INC - GREENVILLE
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 US 27834
 Contact: ALLEN WILLIAMS
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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)

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