



VOLVO

OIL ANALYSIS REPORT

WEAR
CONTAMINATION
FLUID CONDITION

ABNORMAL

SEVERE

ABNORMAL



Machine Id

VOLVO G960 43149

Component

Rear Axle

Fluid

VOLVO PREMIUM GEAR OIL 85W-140 GL-5 (--- GAL)

RECOMMENDATION

We advise that you check for the source of water entry. We recommend that you drain the oil from the component if this has not already been done. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

WEAR

Chromium, copper, iron, nickel and tin ppm levels are abnormal. Bearing and/or bushing wear is indicated. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

CONTAMINATION

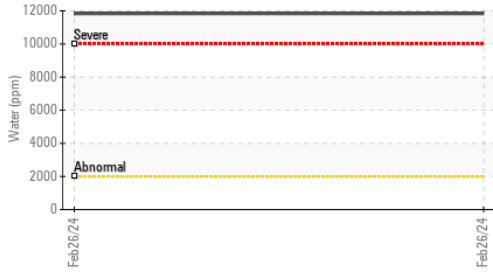
There is a high concentration of water present in the oil.

FLUID CONDITION

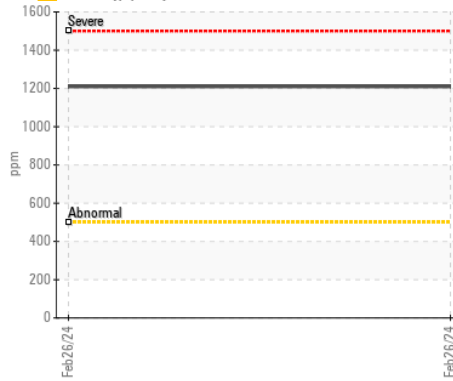
The white residue present in the sample is oil additive precipitate. Viscosity of sample indicates oil is within SAE 80 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|------------------|--------|---------------|-----------|-------------|----------|----------|
| Sample Number | | Client Info | | VCP394094 | --- | --- |
| Sample Date | | Client Info | | 26 Feb 2024 | --- | --- |
| Machine Age | hrs | Client Info | | 6405 | --- | --- |
| Oil Age | hrs | Client Info | | 6405 | --- | --- |
| Filter Age | hrs | Client Info | | 0 | --- | --- |
| Oil Changed | | Client Info | | Not Changd | --- | --- |
| Filter Changed | | Client Info | | N/A | --- | --- |
| Sample Status | | | | SEVERE | --- | --- |
| PQ | | ASTM D8184* | | 917 | --- | --- |
| Iron | ppm | ASTM D5185(m) | >500 | ▲ 1210 | --- | --- |
| Chromium | ppm | ASTM D5185(m) | >10 | ▲ 12 | --- | --- |
| Nickel | ppm | ASTM D5185(m) | >10 | ▲ 29 | --- | --- |
| Titanium | ppm | ASTM D5185(m) | | 0 | --- | --- |
| Silver | ppm | ASTM D5185(m) | | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185(m) | >25 | 16 | --- | --- |
| Lead | ppm | ASTM D5185(m) | >25 | 23 | --- | --- |
| Copper | ppm | ASTM D5185(m) | >50 | ▲ 851 | --- | --- |
| Tin | ppm | ASTM D5185(m) | >10 | ▲ 14 | --- | --- |
| Vanadium | ppm | ASTM D5185(m) | | 0 | --- | --- |
| White Metal | scalar | Visual* | NONE | NONE | --- | --- |
| Yellow Metal | scalar | Visual* | NONE | NONE | --- | --- |
| Silicon | ppm | ASTM D5185(m) | >75 | 39 | --- | --- |
| Potassium | ppm | ASTM D5185(m) | >20 | 2 | --- | --- |
| Water | % | ASTM D6304* | >0.2 | ▲ 1.183 | --- | --- |
| ppm Water | ppm | ASTM D6304* | >2000 | ▲ 11835 | --- | --- |
| Silt | scalar | Visual* | NONE | NONE | --- | --- |
| Debris | scalar | Visual* | NONE | NONE | --- | --- |
| Sand/Dirt | scalar | Visual* | NONE | VLITE | --- | --- |
| Appearance | scalar | Visual* | NORML | NORML | --- | --- |
| Odor | scalar | Visual* | NORML | NORML | --- | --- |
| Emulsified Water | scalar | Visual* | >0.2 | ▲ .5% | --- | --- |
| Sodium | ppm | ASTM D5185(m) | | 7 | --- | --- |
| Boron | ppm | ASTM D5185(m) | 111 | 84 | --- | --- |
| Barium | ppm | ASTM D5185(m) | 0.0 | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185(m) | 0.9 | ● 39 | --- | --- |
| Manganese | ppm | ASTM D5185(m) | 0.0 | 15 | --- | --- |
| Magnesium | ppm | ASTM D5185(m) | 39 | 11 | --- | --- |
| Calcium | ppm | ASTM D5185(m) | 93 | ● 3335 | --- | --- |
| Phosphorus | ppm | ASTM D5185(m) | 920 | ● 1232 | --- | --- |
| Zinc | ppm | ASTM D5185(m) | 104 | ● 1421 | --- | --- |
| Sulfur | ppm | ASTM D5185(m) | 20179 | ● 10424 | --- | --- |
| Visc @ 40°C | cSt | ASTM D7279(m) | 333 | ▲ 67.7 | --- | --- |

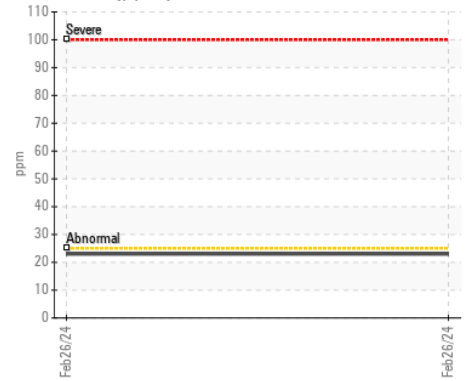
Water (KF)



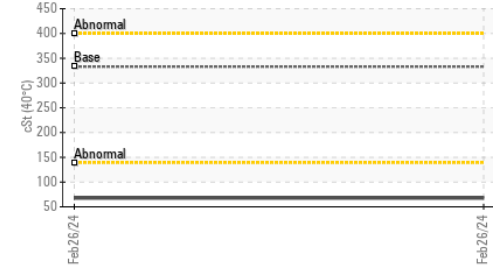
Iron (ppm)



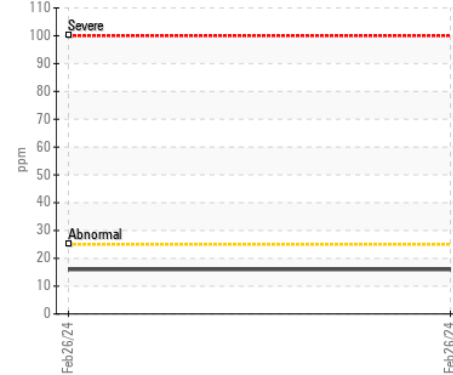
Lead (ppm)



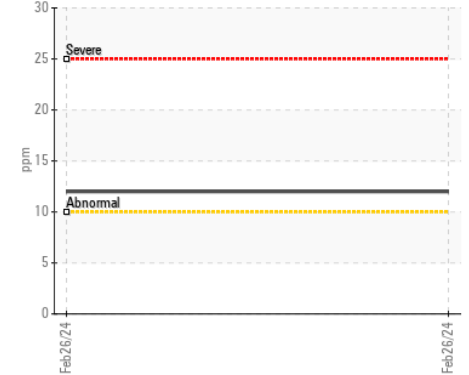
Viscosity @ 40°C



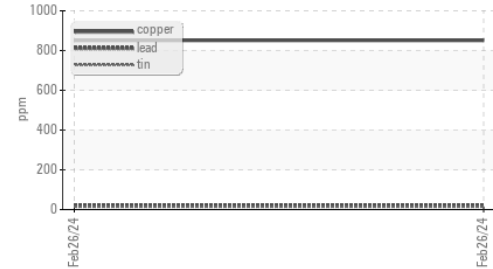
Aluminum (ppm)



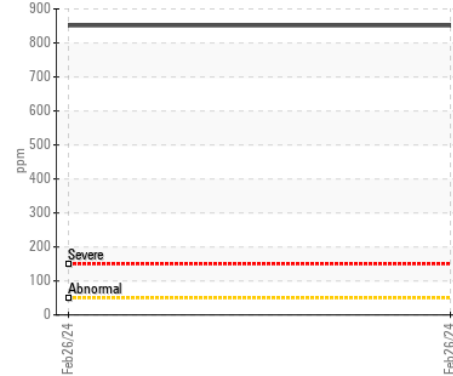
Chromium (ppm)



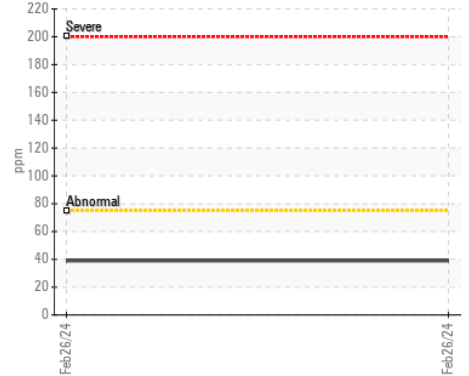
Non-ferrous Metals



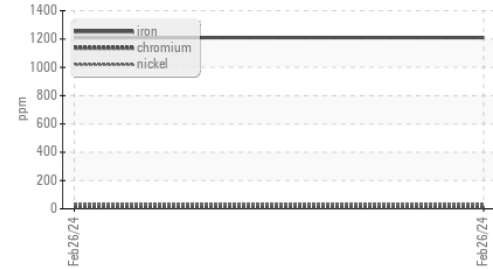
Copper (ppm)



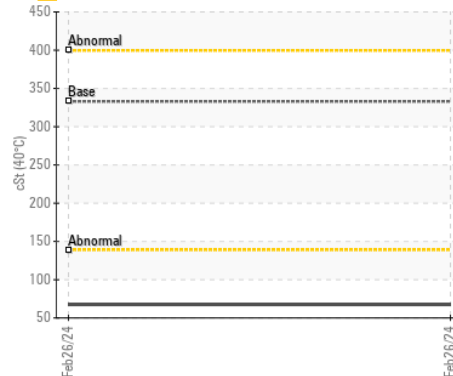
Silicon (ppm)



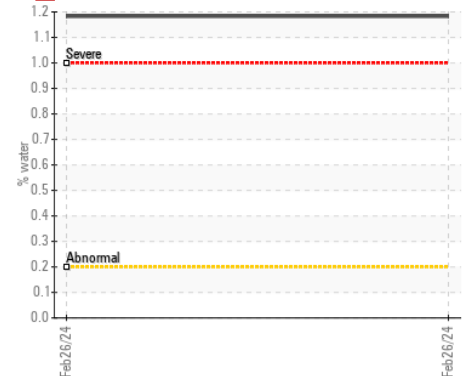
Ferrous Alloys



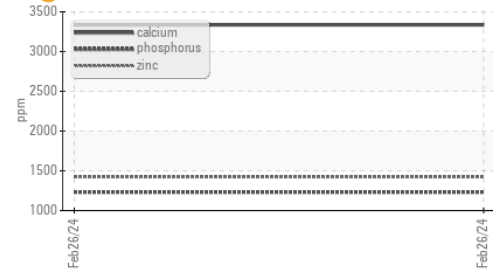
Viscosity @ 40°C



Water



Additives



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : VCP394094 **Received** : 27 Feb 2024
Lab Number : 02618440 **Tested** : 28 Feb 2024
Unique Number : 5735550 **Diagnosed** : 28 Feb 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: Bottom, KF, PQ)

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 RED DEER COUNTY, AB
 CA T4S 2L4
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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.