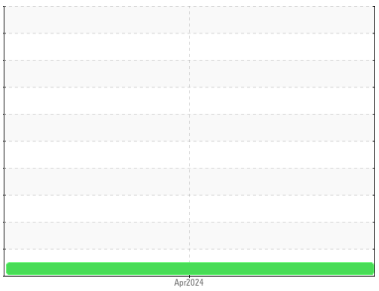
# OIL ANALYSIS REPORT

Sample Rating Trend




NORMAL

Machine Id
**B9497**
Component
**Bulk Fluid Tank**
Fluid
**AW HYDRAULIC OIL ISO 46 (--- QTS)**

## DIAGNOSIS

**Recommendation**
This is a baseline read-out on the submitted sample.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **WC0914009** | --- | --- |
| Sample Date | | Client Info | | **06 Apr 2024** | --- | --- |
| Machine Age | hrs | Client Info | | **0** | --- | --- |
| Oil Age | hrs | Client Info | | **0** | --- | --- |
| Oil Changed | | Client Info | | **N/A** | --- | --- |
| Sample Status | | | | **NORMAL** | --- | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | | **0** | --- | --- |
| Chromium | ppm | ASTM D5185m | | **0** | --- | --- |
| Nickel | ppm | ASTM D5185m | | **0** | --- | --- |
| Titanium | ppm | ASTM D5185m | | **0** | --- | --- |
| Silver | ppm | ASTM D5185m | | **0** | --- | --- |
| Aluminum | ppm | ASTM D5185m | | **0** | --- | --- |
| Lead | ppm | ASTM D5185m | | **0** | --- | --- |
| Copper | ppm | ASTM D5185m | | **0** | --- | --- |
| Tin | ppm | ASTM D5185m | | **0** | --- | --- |
| Vanadium | ppm | ASTM D5185m | | **0** | --- | --- |
| Cadmium | ppm | ASTM D5185m | | **0** | --- | --- |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | 5 | **0** | --- | --- |
| Barium | ppm | ASTM D5185m | 5 | **0** | --- | --- |
| Molybdenum | ppm | ASTM D5185m | 5 | **0** | --- | --- |
| Manganese | ppm | ASTM D5185m | | **0** | --- | --- |
| Magnesium | ppm | ASTM D5185m | 25 | **<1** | --- | --- |
| Calcium | ppm | ASTM D5185m | 200 | **0** | --- | --- |
| Phosphorus | ppm | ASTM D5185m | 300 | **508** | --- | --- |
| Zinc | ppm | ASTM D5185m | 370 | **0** | --- | --- |
| Sulfur | ppm | ASTM D5185m | 2500 | **548** | --- | --- |

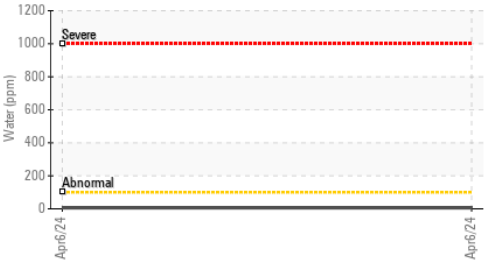
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | | **4** | --- | --- |
| Sodium | ppm | ASTM D5185m | | **<1** | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | **0** | --- | --- |
| Water | % | ASTM D6304 | | **0.001** | --- | --- |
| ppm Water | ppm | ASTM D6304 | | **6** | --- | --- |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >5000 | **407** | --- | --- |
| Particles >6µm | | ASTM D7647 | >1300 | **111** | --- | --- |
| Particles >14µm | | ASTM D7647 | >160 | **16** | --- | --- |
| Particles >21µm | | ASTM D7647 | >40 | **5** | --- | --- |
| Particles >38µm | | ASTM D7647 | >10 | **0** | --- | --- |
| Particles >71µm | | ASTM D7647 | >3 | **0** | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | **16/14/11** | --- | --- |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.57 | **0.28** | --- | --- |

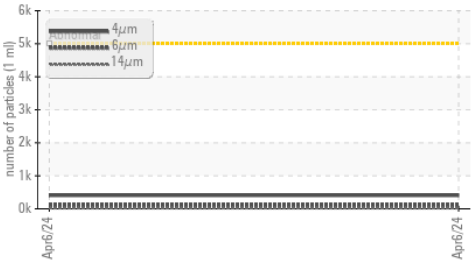
# OIL ANALYSIS REPORT

Water (KF)




Viscosity @ 100°C


Particle Trend

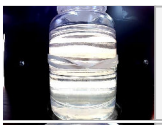
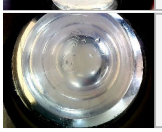



Viscosity @ 100°C


Viscosity @ 40°C

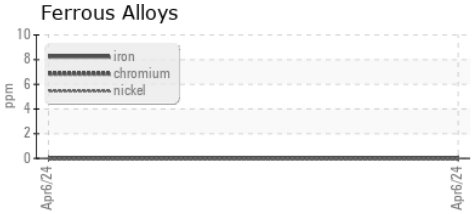

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Precipitate | scalar | *Visual | NONE | **NONE** | --- | --- |
| Silt | scalar | *Visual | NONE | **NONE** | --- | --- |
| Debris | scalar | *Visual | NONE | **NONE** | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | **NONE** | --- | --- |
| Appearance | scalar | *Visual | NORML | **NORML** | --- | --- |
| Odor | scalar | *Visual | NORML | **NORML** | --- | --- |
| Emulsified Water | scalar | *Visual | | **NEG** | --- | --- |
| Free Water | scalar | *Visual | | **NEG** | --- | --- |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 46 | **45.23** | --- | --- |
| Visc @ 100°C | cSt | ASTM D445 | 6.7 | **7.06** | --- | --- |
| Viscosity Index (VI) | Scale | ASTM D2270 | 97 | **114** | --- | --- |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | *no image* | *no image* |
| Bottom | | |  | *no image* | *no image* |

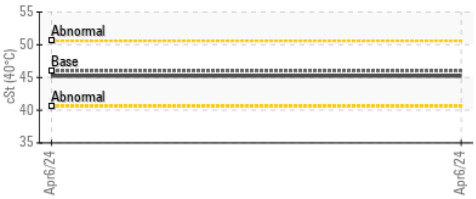
## GRAPHS

Ferrous Alloys

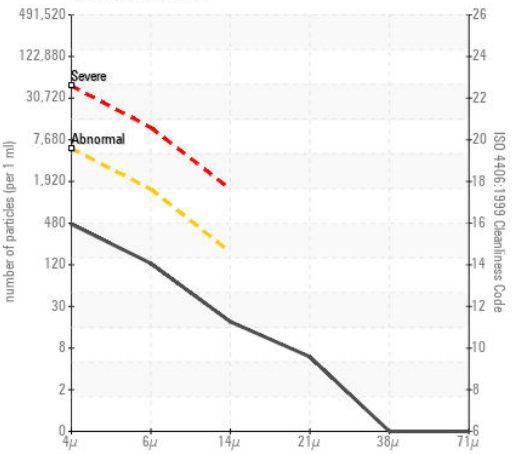



Non-ferrous Metals

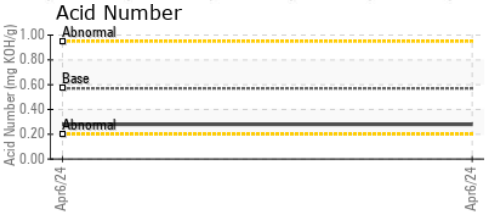

Viscosity @ 40°C




Particle Count




Acid Number




**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC0914009 **Received** : 05 Apr 2024
**Lab Number** : 06140402 **Tested** : 09 Apr 2024
**Unique Number** : 10965210 **Diagnosed** : 10 Apr 2024 - Jonathan Hester
**Test Package** : IND 2 ( Additional Tests: KF, KV100, PrtCount, VI )

Certificate L2367

*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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