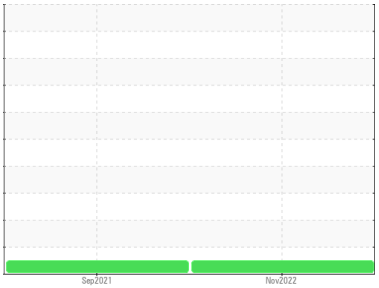
# OIL ANALYSIS REPORT

Sample Rating Trend




NORMAL

Machine Id
**100425584**
Component
**Hydraulic System**
Fluid
**AW HYDRAULIC OIL ISO 32 (--- GAL)**

## DIAGNOSIS

**Recommendation**
Resample at the next service interval to monitor.

**Wear**
All component wear rates are normal.

**Contamination**
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

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

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **WC0695577** | WC0573369 | --- |
| Sample Date | | Client Info | | **02 Nov 2022** | 13 Sep 2021 | --- |
| Machine Age | hrs | Client Info | | **0** | 0 | --- |
| Oil Age | hrs | Client Info | | **0** | 0 | --- |
| Oil Changed | | Client Info | | **N/A** | N/A | --- |
| Sample Status | | | | **NORMAL** | NORMAL | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >20 | **2** | 1 | --- |
| Chromium | ppm | ASTM D5185m | >10 | **<1** | <1 | --- |
| Nickel | ppm | ASTM D5185m | >10 | **0** | <1 | --- |
| Titanium | ppm | ASTM D5185m | | **0** | 0 | --- |
| Silver | ppm | ASTM D5185m | | **<1** | 0 | --- |
| Aluminum | ppm | ASTM D5185m | >10 | **0** | 0 | --- |
| Lead | ppm | ASTM D5185m | >10 | **0** | 0 | --- |
| Copper | ppm | ASTM D5185m | >75 | **2** | 2 | --- |
| Tin | ppm | ASTM D5185m | >10 | **<1** | 0 | --- |
| Antimony | ppm | ASTM D5185m | | **---** | 0 | --- |
| Vanadium | ppm | ASTM D5185m | | **0** | 0 | --- |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | --- |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | 5 | **0** | 1 | --- |
| Barium | ppm | ASTM D5185m | 5 | **<1** | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | 5 | **<1** | <1 | --- |
| Manganese | ppm | ASTM D5185m | | **<1** | 0 | --- |
| Magnesium | ppm | ASTM D5185m | 25 | **6** | 5 | --- |
| Calcium | ppm | ASTM D5185m | 200 | **63** | 66 | --- |
| Phosphorus | ppm | ASTM D5185m | 300 | **277** | 274 | --- |
| Zinc | ppm | ASTM D5185m | 370 | **352** | 337 | --- |
| Sulfur | ppm | ASTM D5185m | 2500 | **1399** | 1898 | --- |

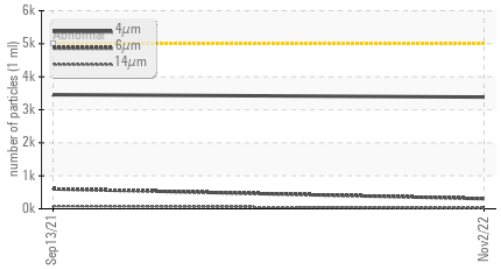
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >20 | **<1** | <1 | --- |
| Sodium | ppm | ASTM D5185m | | **<1** | <1 | --- |
| Potassium | ppm | ASTM D5185m | >20 | **0** | 4 | --- |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >5000 | **3385** | 3456 | --- |
| Particles >6µm | | ASTM D7647 | >1300 | **306** | 603 | --- |
| Particles >14µm | | ASTM D7647 | >160 | **20** | 82 | --- |
| Particles >21µm | | ASTM D7647 | >40 | **7** | 22 | --- |
| Particles >38µm | | ASTM D7647 | >10 | **1** | 3 | --- |
| Particles >71µm | | ASTM D7647 | >3 | **0** | 0 | --- |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | **19/15/11** | 19/16/14 | --- |

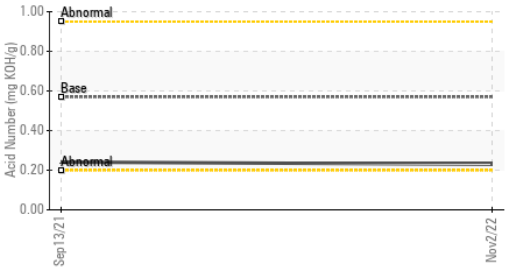
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.57 | **0.23** | 0.241 | --- |

# OIL ANALYSIS REPORT

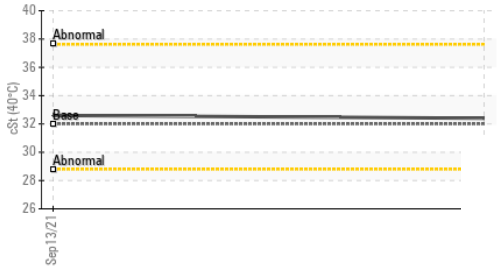
Particle Trend



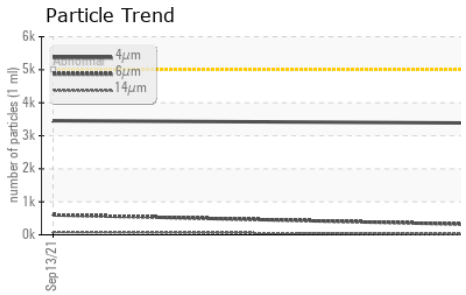

Acid Number




Viscosity @ 40°C

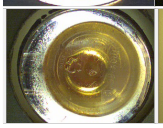



Particle Trend



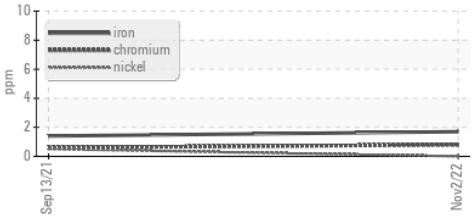

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Silt | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Debris | scalar | *Visual | NONE | **NONE** | LIGHT | --- |
| Sand/Dirt | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Appearance | scalar | *Visual | NORML | **NORML** | NORML | --- |
| Odor | scalar | *Visual | NORML | **NORML** | NORML | --- |
| Emulsified Water | scalar | *Visual | >0.1 | **NEG** | NEG | --- |
| Free Water | scalar | *Visual | | **NEG** | NEG | --- |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 32 | **32.4** | 32.6 | --- |

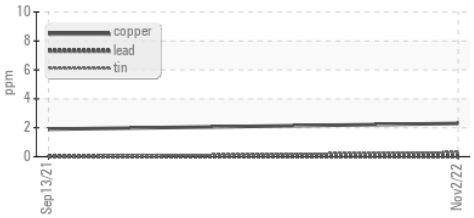
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  |  | *no image* |
| Bottom | | |  |  | *no image* |

## GRAPHS

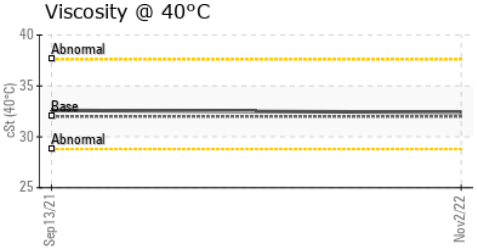
Ferrous Alloys



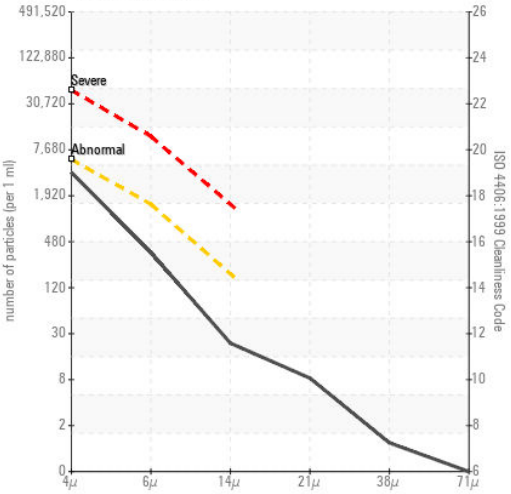

Non-ferrous Metals




Viscosity @ 40°C




Particle Count




Acid Number


Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC0695577
**Lab Number** : 05721949
**Unique Number** : 10266530
**Test Package** : CONST

**Received** : 20 Dec 2022
**Diagnosed** : 21 Dec 2022
**Diagnostician** : Don Baldridge

*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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