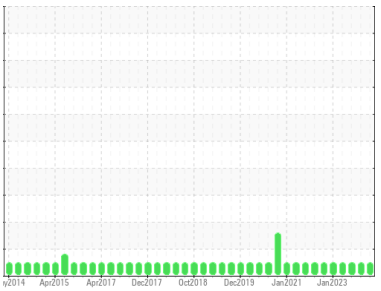
CCECO A Y2K Fluid Power Brand

# OIL ANALYSIS REPORT

Sample Rating Trend




**NORMAL**

Machine Id
## SWRTSSSI2500 2 H (S/N C3014)
Component
**Hydraulic System**
Fluid
**AW HYDRAULIC OIL ISO 46 (--- GAL)**

## DIAGNOSIS

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

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

**Contamination**
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is 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 | | **Y2K0000729** | Y2K0000864 | Y2K0000847 |
| Sample Date | | Client Info | | **25 Jan 2024** | 26 Sep 2023 | 26 Jul 2023 |
| Machine Age | hrs | Client Info | | **0** | 0 | 0 |
| Oil Age | hrs | Client Info | | **0** | 0 | 0 |
| Oil Changed | | Client Info | | **N/A** | N/A | N/A |
| Sample Status | | | | **NORMAL** | NORMAL | NORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >20 | **<1** | 2 | 0 |
| Chromium | ppm | ASTM D5185m | >20 | **5** | 9 | 9 |
| Nickel | ppm | ASTM D5185m | >20 | **0** | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | **<1** | 0 | <1 |
| Silver | ppm | ASTM D5185m | | **0** | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >20 | **<1** | 2 | <1 |
| Lead | ppm | ASTM D5185m | >20 | **0** | 0 | <1 |
| Copper | ppm | ASTM D5185m | >20 | **2** | 3 | 3 |
| Tin | ppm | ASTM D5185m | >20 | **<1** | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | 5 | **0** | 0 | 0 |
| Barium | ppm | ASTM D5185m | 5 | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 5 | **0** | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | 25 | **0** | 1 | 0 |
| Calcium | ppm | ASTM D5185m | 200 | **41** | 46 | 43 |
| Phosphorus | ppm | ASTM D5185m | 300 | **308** | 333 | 345 |
| Zinc | ppm | ASTM D5185m | 370 | **356** | 427 | 427 |
| Sulfur | ppm | ASTM D5185m | 2500 | **698** | 927 | 840 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >15 | **2** | 3 | 3 |
| Sodium | ppm | ASTM D5185m | | **<1** | 0 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | **<1** | 1 | <1 |
| Water | % | ASTM D6304 | >0.05 | **0.011** | 0.003 | 0.009 |
| ppm Water | ppm | ASTM D6304 | >500 | **113** | 26.6 | 96.9 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >5000 | **3662** | 2659 | 1792 |
| Particles >6µm | | ASTM D7647 | >1300 | **980** | 520 | 378 |
| Particles >14µm | | ASTM D7647 | >160 | **80** | 34 | 27 |
| Particles >21µm | | ASTM D7647 | >40 | **20** | 11 | 7 |
| Particles >38µm | | ASTM D7647 | >10 | **1** | 2 | 1 |
| Particles >71µm | | ASTM D7647 | >3 | **0** | 1 | 1 |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | **19/17/13** | 19/16/12 | 18/16/12 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.57 | **0.31** | 0.34 | 0.34 |

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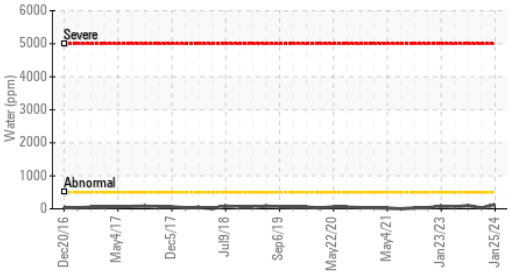
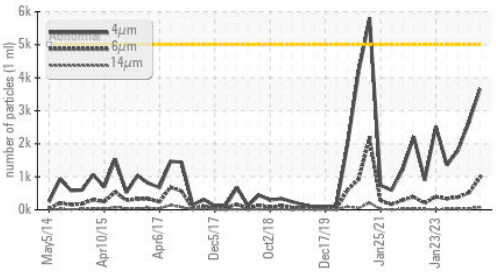
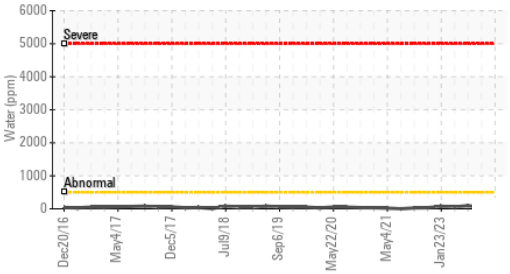
Water (KF)



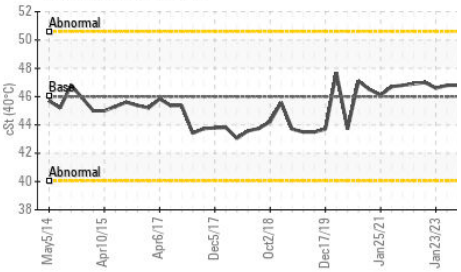

Particle Trend



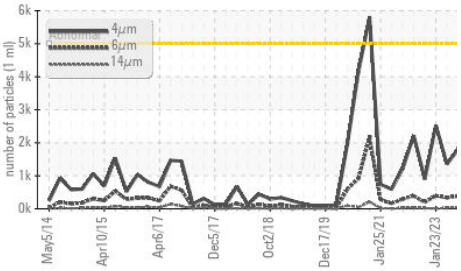

Water (KF)




Viscosity @ 40°C

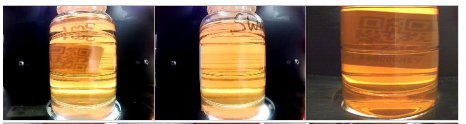
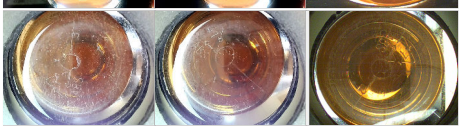



Particle Trend



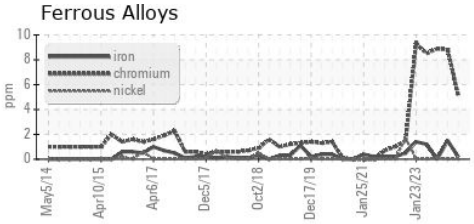

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | LIGHT |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| 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 | >0.05 | **NEG** | NEG | NEG |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 46 | **46.9** | 46.8 | 46.8 |

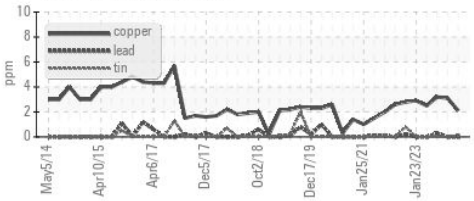
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | | |
| Bottom | | |  | | |

## GRAPHS

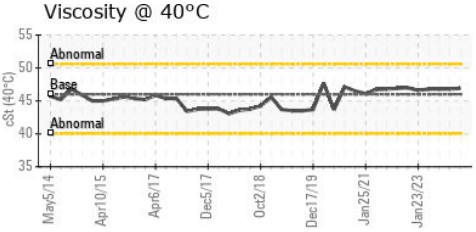
Ferrous Alloys



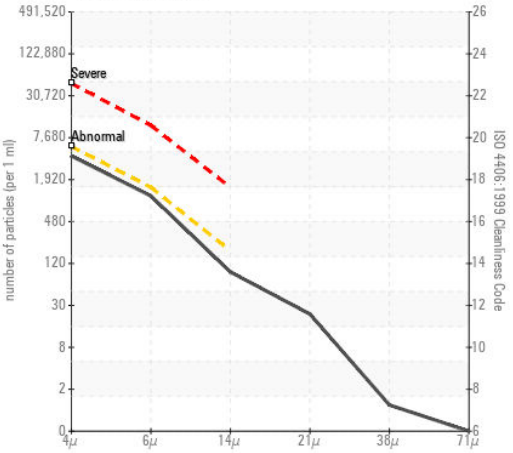

Non-ferrous Metals



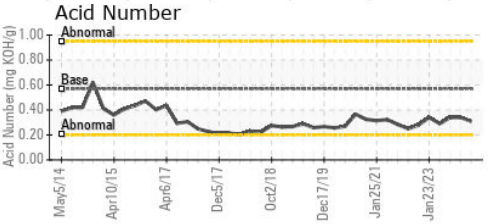

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : Y2K0000729 **Recieved** : 31 Jan 2024
**Lab Number** : 06075801 **Diagnosed** : 01 Feb 2024
**Unique Number** : 10857892 **Diagnostician** : Wes Davis
**Test Package** : MOB 2 ( Additional Tests: KF )

*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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