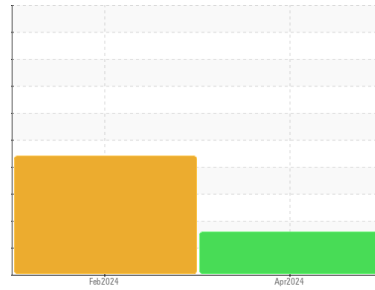


# OIL ANALYSIS REPORT

## Sample Rating Trend



ISO



Machine Id  
**SENNEBOGEN 835 MH-87**  
 Component  
**Hydraulic System**  
 Fluid  
**AW HYDRAULIC OIL ISO 46 (--- GAL)**

### DIAGNOSIS

#### Recommendation

The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

#### Wear

All component wear rates are normal.

#### Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

#### Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

| SAMPLE INFORMATION |             | method      | limit/base | current            | history1    | history2 |
|--------------------|-------------|-------------|------------|--------------------|-------------|----------|
| Sample Number      | Client Info |             |            | <b>PCA0120881</b>  | PCA0113825  | ---      |
| Sample Date        | Client Info |             |            | <b>11 Apr 2024</b> | 12 Feb 2024 | ---      |
| Machine Age        | hrs         | Client Info |            | <b>3964</b>        | 3476        | ---      |
| Oil Age            | hrs         | Client Info |            | <b>0</b>           | 250         | ---      |
| Oil Changed        | Client Info |             |            | <b>Changed</b>     | N/A         | ---      |
| Sample Status      |             |             |            | <b>ABNORMAL</b>    | SEVERE      | ---      |

| CONTAMINATION |           | method | limit/base | current    | history1 | history2 |
|---------------|-----------|--------|------------|------------|----------|----------|
| Water         | WC Method |        | >0.1       | <b>NEG</b> | NEG      | ---      |

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

| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m | 5          | <b>0</b>     | 0        | ---      |
| Barium     | ppm | ASTM D5185m | 5          | <b>&lt;1</b> | 0        | ---      |
| Molybdenum | ppm | ASTM D5185m | 5          | <b>1</b>     | 0        | ---      |
| Manganese  | ppm | ASTM D5185m |            | <b>&lt;1</b> | <1       | ---      |
| Magnesium  | ppm | ASTM D5185m | 25         | <b>&lt;1</b> | 2        | ---      |
| Calcium    | ppm | ASTM D5185m | 200        | <b>55</b>    | 103      | ---      |
| Phosphorus | ppm | ASTM D5185m | 300        | <b>327</b>   | 316      | ---      |
| Zinc       | ppm | ASTM D5185m | 370        | <b>422</b>   | 438      | ---      |
| Sulfur     | ppm | ASTM D5185m | 2500       | <b>860</b>   | 880      | ---      |

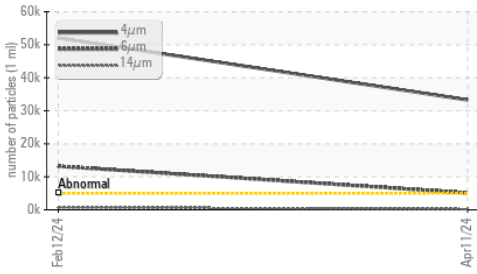
| CONTAMINANTS |     | method      | limit/base | current  | history1 | history2 |
|--------------|-----|-------------|------------|----------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >20        | <b>2</b> | <1       | ---      |
| Sodium       | ppm | ASTM D5185m |            | <b>0</b> | 2        | ---      |
| Potassium    | ppm | ASTM D5185m | >20        | <b>1</b> | <1       | ---      |

| FLUID CLEANLINESS |              | method    | limit/base        | current    | history1 | history2 |
|-------------------|--------------|-----------|-------------------|------------|----------|----------|
| Particles >4µm    | ASTM D7647   | >5000     | <b>▲ 33284</b>    | ▲ 52029    | ---      |          |
| Particles >6µm    | ASTM D7647   | >1300     | <b>▲ 5121</b>     | ▲ 13192    | ---      |          |
| Particles >14µm   | ASTM D7647   | >160      | <b>● 166</b>      | ▲ 745      | ---      |          |
| Particles >21µm   | ASTM D7647   | >40       | <b>51</b>         | ▲ 163      | ---      |          |
| Particles >38µm   | ASTM D7647   | >10       | <b>4</b>          | 3          | ---      |          |
| Particles >71µm   | ASTM D7647   | >3        | <b>0</b>          | 0          | ---      |          |
| Oil Cleanliness   | ISO 4406 (c) | >19/17/14 | <b>▲ 22/20/15</b> | ▲ 23/21/17 | ---      |          |

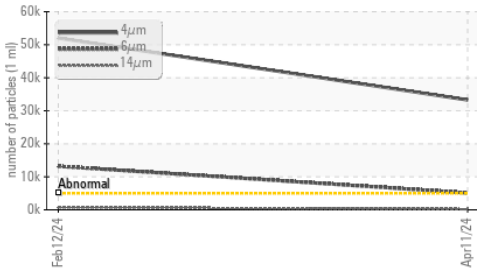
| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 | 0.57       | <b>0.43</b> | 0.41     | ---      |

# OIL ANALYSIS REPORT

**▲ Particle Trend**



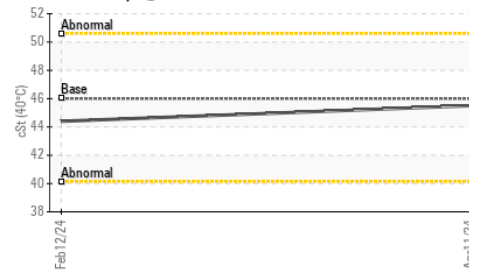
**▲ Particle Trend**



**Acid Number**



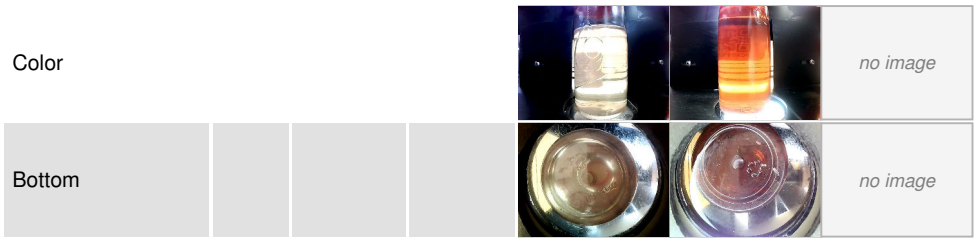
**Viscosity @ 40°C**



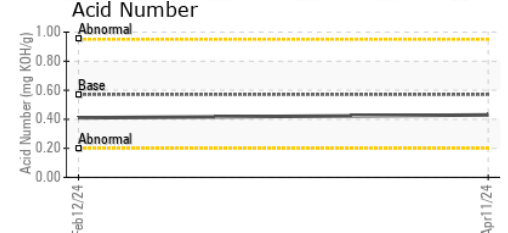
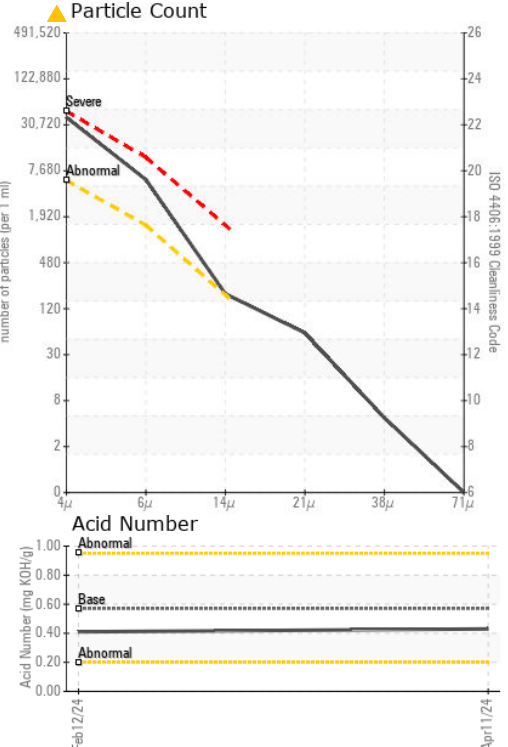
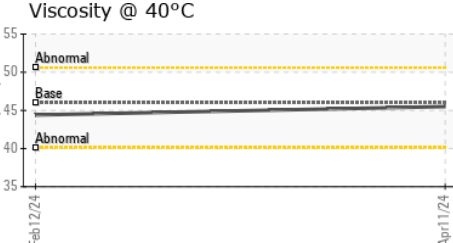
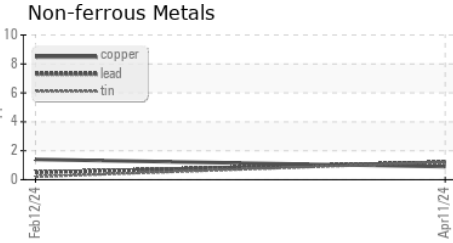
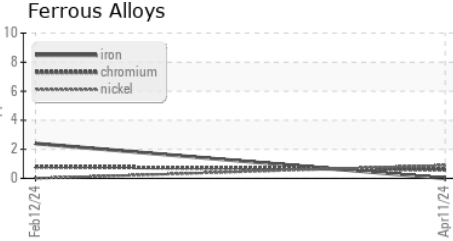
| VISUAL           | method | limit/base | current | history1     | history2 |
|------------------|--------|------------|---------|--------------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE         | ---      |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE      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

| FLUID PROPERTIES | method | limit/base   | current     | history1 | history2 |
|------------------|--------|--------------|-------------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445 46 | <b>45.5</b> | 44.4     | ---      |

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



**GRAPHS**



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0120881  
**Lab Number** : 06159780  
**Unique Number** : 10995203  
**Test Package** : MOB 2

**Received** : 24 Apr 2024  
**Tested** : 25 Apr 2024  
**Diagnosed** : 25 Apr 2024 - Wes Davis

**SCRAP METAL SERVICES NON-FERROUS DIVISION**  
 3000 W 139TH ST  
 BLUE ISLAND, IL  
 US 60406  
 Contact: SERGIO FERNANDEZ  
 sfernandez@scrapmetalservices.com

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)