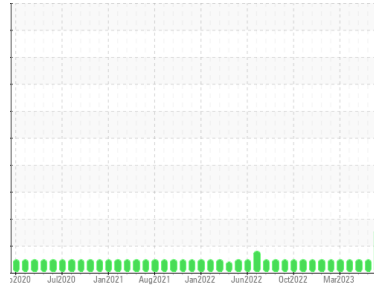




# PROBLEM SUMMARY

## Sample Rating Trend

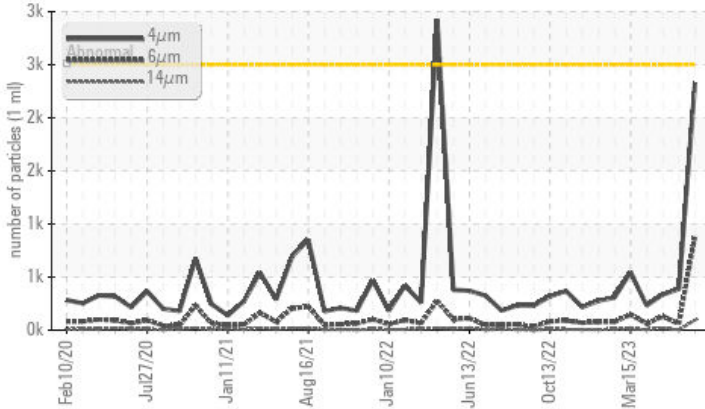
ISO



Area  
**FINISHING**  
 Machine Id  
**TandG Strapper Hydraulic Unit (S/N SA605H10U)**  
 Component  
**Hydraulic System**  
 Fluid  
**VALVOLINE AW HYDRAULIC 68 (--- GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

## PROBLEMATIC TEST RESULTS

| Sample Status   |              |           | ATTENTION         | NORMAL  | NORMAL   |
|-----------------|--------------|-----------|-------------------|---------|----------|
| Particles >6µm  | ASTM D7647   | >640      | ▲ <b>883</b>      | 59      | 131      |
| Particles >14µm | ASTM D7647   | >80       | ▲ <b>95</b>       | 3       | 19       |
| Particles >21µm | ASTM D7647   | >20       | ▲ <b>29</b>       | 1       | 2        |
| Oil Cleanliness | ISO 4406 (c) | >18/16/13 | ▲ <b>18/17/14</b> | 16/13/9 | 16/14/11 |

Customer Id: JMHCRY  
 Sample No.: WC0782976  
 Lab Number: 05899871  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Wes Davis +1 905-569-8600 x223  
[wesd@wearcheck.ca](mailto:wesd@wearcheck.ca)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

| Action               | Status | Date | Done By | Description  |
|----------------------|--------|------|---------|--|
| Change Filter        | ---    | ---  | ?       | We recommend you service the filters on this component.  |
| Information Required | ---    | ---  | ?       | NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. |

## HISTORICAL DIAGNOSIS

### 15 Jun 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 11 May 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 13 Apr 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

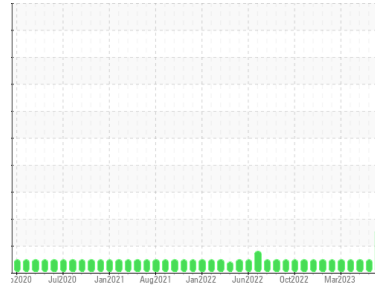
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**FINISHING**  
 Machine Id  
**TandG Strapper Hydraulic Unit (S/N SA605H10U)**  
 Component  
**Hydraulic System**  
 Fluid  
**VALVOLINE AW HYDRAULIC 68 (--- GAL)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

### Wear

All component wear rates are normal.

### Contamination

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

### 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 | <b>WC0782976</b>   | WC0782959   | WC0782885   |
| Sample Date   | Client Info | <b>10 Jul 2023</b> | 15 Jun 2023 | 11 May 2023 |
| Machine Age   | hrs         | Client Info        | 0           | 0           |
| Oil Age       | hrs         | Client Info        | 0           | 0           |
| Oil Changed   | Client Info | <b>N/A</b>         | N/A         | N/A         |
| Sample Status |             | <b>ATTENTION</b>   | NORMAL      | NORMAL      |

## WEAR METALS

| method   | limit/base | current         | history1     | history2 |    |
|----------|------------|-----------------|--------------|----------|----|
| Iron     | ppm        | ASTM D5185m >20 | <b>&lt;1</b> | <1       | <1 |
| Chromium | ppm        | ASTM D5185m >20 | <b>0</b>     | 0        | 0  |
| Nickel   | ppm        | ASTM D5185m >20 | <b>0</b>     | 0        | 0  |
| Titanium | ppm        | ASTM D5185m     | <b>0</b>     | 0        | 0  |
| Silver   | ppm        | ASTM D5185m     | <b>0</b>     | 0        | 0  |
| Aluminum | ppm        | ASTM D5185m >20 | <b>0</b>     | 0        | 1  |
| Lead     | ppm        | ASTM D5185m >20 | <b>0</b>     | <1       | 0  |
| Copper   | ppm        | ASTM D5185m >20 | <b>4</b>     | 4        | 4  |
| Tin      | ppm        | ASTM D5185m >20 | <b>0</b>     | 0        | 0  |
| Vanadium | ppm        | ASTM D5185m     | <b>0</b>     | 0        | 0  |
| Cadmium  | ppm        | ASTM D5185m     | <b>0</b>     | 0        | 0  |

## ADDITIVES

| method     | limit/base | current          | history1    | history2 |     |
|------------|------------|------------------|-------------|----------|-----|
| Boron      | ppm        | ASTM D5185m 2.6  | <b>1</b>    | 0        | 0   |
| Barium     | ppm        | ASTM D5185m 0    | <b>0</b>    | 0        | 0   |
| Molybdenum | ppm        | ASTM D5185m 0    | <b>2</b>    | 1        | 1   |
| Manganese  | ppm        | ASTM D5185m      | <b>0</b>    | 0        | 0   |
| Magnesium  | ppm        | ASTM D5185m 1.9  | <b>8</b>    | 6        | 6   |
| Calcium    | ppm        | ASTM D5185m 81   | <b>117</b>  | 105      | 112 |
| Phosphorus | ppm        | ASTM D5185m 350  | <b>375</b>  | 334      | 348 |
| Zinc       | ppm        | ASTM D5185m 445  | <b>472</b>  | 437      | 405 |
| Sulfur     | ppm        | ASTM D5185m 1850 | <b>1440</b> | 1041     | 807 |

## CONTAMINANTS

| method    | limit/base | current         | history1     | history2 |    |
|-----------|------------|-----------------|--------------|----------|----|
| Silicon   | ppm        | ASTM D5185m >15 | <b>0</b>     | <1       | 0  |
| Sodium    | ppm        | ASTM D5185m     | <b>11</b>    | 11       | 13 |
| Potassium | ppm        | ASTM D5185m >20 | <b>&lt;1</b> | 0        | 0  |

## FLUID CLEANLINESS

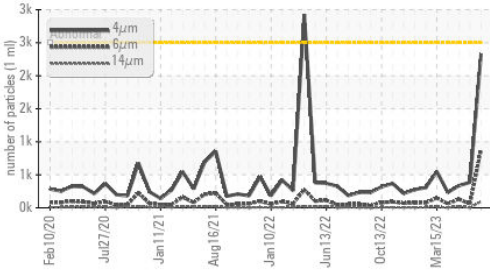
| method          | limit/base   | current   | history1          | history2 |          |
|-----------------|--------------|-----------|-------------------|----------|----------|
| Particles >4µm  | ASTM D7647   | >2500     | <b>2328</b>       | 387      | 336      |
| Particles >6µm  | ASTM D7647   | >640      | <b>▲ 883</b>      | 59       | 131      |
| Particles >14µm | ASTM D7647   | >80       | <b>▲ 95</b>       | 3        | 19       |
| Particles >21µm | ASTM D7647   | >20       | <b>▲ 29</b>       | 1        | 2        |
| Particles >38µm | ASTM D7647   | >4        | <b>1</b>          | 0        | 1        |
| Particles >71µm | ASTM D7647   | >3        | <b>0</b>          | 0        | 0        |
| Oil Cleanliness | ISO 4406 (c) | >18/16/13 | <b>▲ 18/17/14</b> | 16/13/9  | 16/14/11 |

## FLUID DEGRADATION

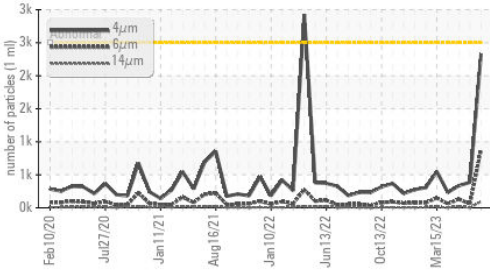
| method           | limit/base | current    | history1    | history2 |      |
|------------------|------------|------------|-------------|----------|------|
| Acid Number (AN) | mg KOH/g   | ASTM D8045 | <b>0.41</b> | 0.40     | 0.41 |

# OIL ANALYSIS REPORT

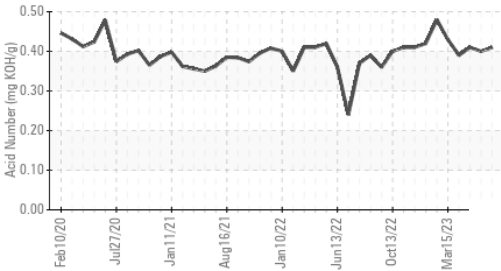
▲ Particle Trend



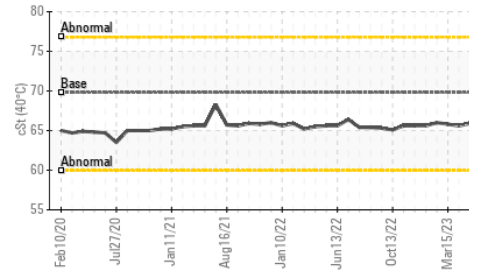
▲ Particle Trend



Acid Number



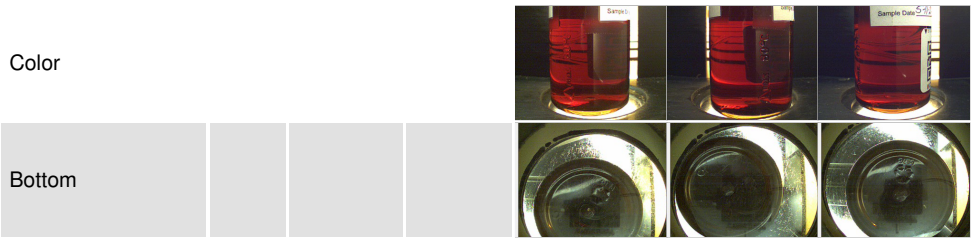
Viscosity @ 40°C



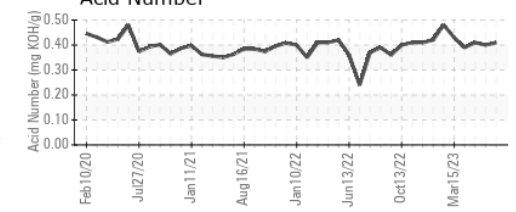
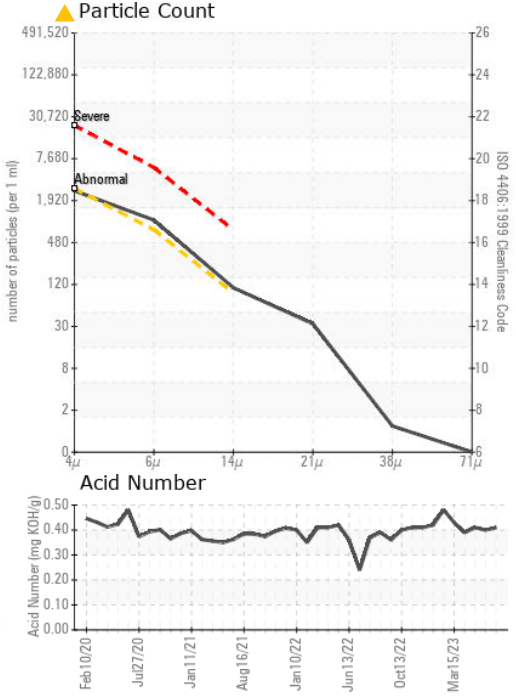
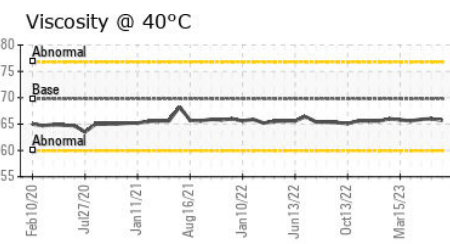
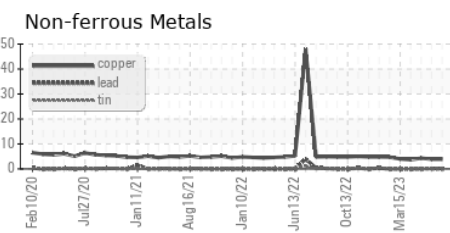
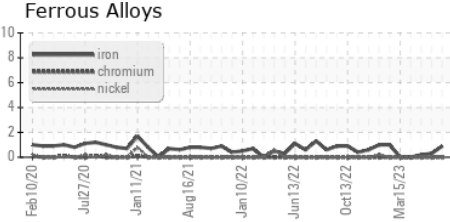
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | NONE     | NONE     |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | NONE     |
| Appearance       | scalar | *Visual    | NORML   | NORML    | NORML    |
| Odor             | scalar | *Visual    | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual    | >0.05   | NEG      | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | 69.8    | 65.7     | 66.0     |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0782976 **Received** : 17 Jul 2023  
**Lab Number** : 05899871 **Diagnosed** : 18 Jul 2023  
**Unique Number** : 10561227 **Diagnostician** : Wes Davis  
**Test Package** : IND 2

**J.M. Huber Corporation**  
 PO BOX 38  
 CRYSTAL HILL, VA  
 US 24539  
 Contact: Ted Hudson  
 ted.hudson@huber.com  
 T: (434)476-6628  
 F: (434)476-8133

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)