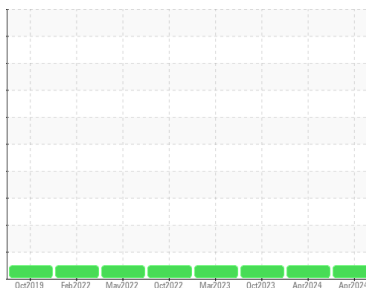




# OIL ANALYSIS REPORT

Area  
**CS300**  
 Machine Id  
**HYDROVANE D119062 - KNAUZ MOTORS**  
 Component  
**Compressor**

### Sample Rating Trend



**NORMAL**



### 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.

#### 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>UCZ06184430</b> | UCZ06184420 | UCZ05995079 |
| Sample Date        | Client Info |             |            | <b>30 Apr 2024</b> | 29 Apr 2024 | 26 Oct 2023 |
| Machine Age        | hrs         | Client Info |            | <b>7170</b>        | 7172        | 6627        |
| Oil Age            | hrs         | Client Info |            | <b>1900</b>        | 500         | 1           |
| Oil Changed        | Client Info |             |            | <b>Not Changed</b> | Not Changed | Not Changed |
| Sample Status      |             |             |            | <b>NORMAL</b>      | NORMAL      | NORMAL      |

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

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >50        | <b>2</b>     | <1       | 0        |
| Chromium    | ppm | ASTM D5185m | >10        | <b>&lt;1</b> | <1       | 0        |
| Nickel      | ppm | ASTM D5185m |            | <b>&lt;1</b> | <1       | 0        |
| Titanium    | ppm | ASTM D5185m |            | <b>&lt;1</b> | <1       | <1       |
| Silver      | ppm | ASTM D5185m |            | <b>&lt;1</b> | <1       | 0        |
| Aluminum    | ppm | ASTM D5185m | >25        | <b>2</b>     | 2        | 0        |
| Lead        | ppm | ASTM D5185m | >25        | <b>&lt;1</b> | <1       | 0        |
| Copper      | ppm | ASTM D5185m | >50        | <b>1</b>     | <1       | 0        |
| Tin         | ppm | ASTM D5185m | >15        | <b>1</b>     | <1       | 0        |
| Vanadium    | ppm | ASTM D5185m |            | <b>&lt;1</b> | <1       | 0        |
| Cadmium     | ppm | ASTM D5185m |            | <b>&lt;1</b> | <1       | 0        |

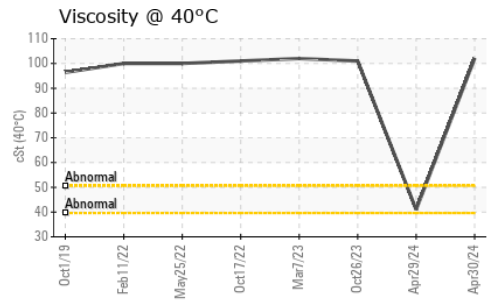
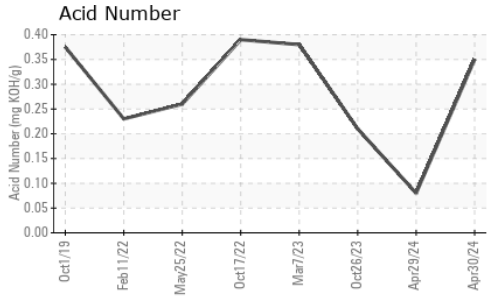
| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Barium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Molybdenum | ppm | ASTM D5185m |            | <b>&lt;1</b> | <1       | 0        |
| Manganese  | ppm | ASTM D5185m |            | <b>&lt;1</b> | <1       | 0        |
| Magnesium  | ppm | ASTM D5185m |            | <b>&lt;1</b> | <1       | 0        |
| Calcium    | ppm | ASTM D5185m |            | <b>4</b>     | 4        | 0        |
| Phosphorus | ppm | ASTM D5185m |            | <b>2</b>     | 234      | 0        |
| Zinc       | ppm | ASTM D5185m |            | <b>9</b>     | 3        | 4        |
| Sulfur     | ppm | ASTM D5185m |            | <b>0</b>     | 843      | 0        |

| CONTAMINANTS |     | method      | limit/base | current  | history1 | history2 |
|--------------|-----|-------------|------------|----------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>2</b> | 3        | <1       |
| Sodium       | ppm | ASTM D5185m |            | <b>1</b> | 0        | 0        |
| Potassium    | ppm | ASTM D5185m | >20        | <b>2</b> | 2        | <1       |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 |            | <b>0.35</b> | 0.08     | 0.21     |



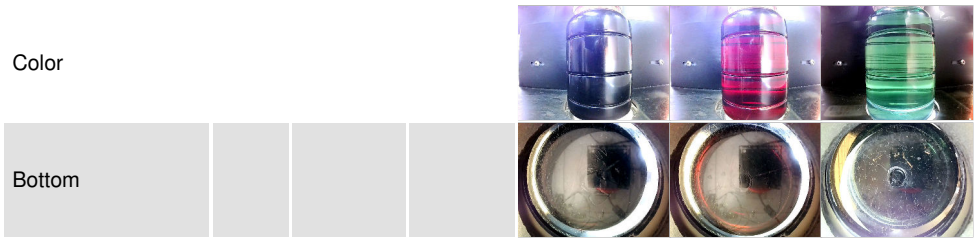
# OIL ANALYSIS REPORT



| 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    | LIGHT    | NONE     |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | NONE     |
| Appearance       | scalar | *Visual    | NORML   | NORML    | NORML    |
| Odor             | scalar | *Visual    | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual    | >0.1    | NEG      | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

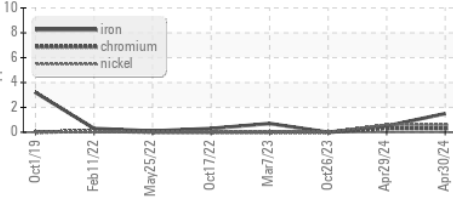
| FLUID PROPERTIES | method | limit/base | current    | history1 | history2 |
|------------------|--------|------------|------------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | <b>102</b> | 41.0     | 101      |

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

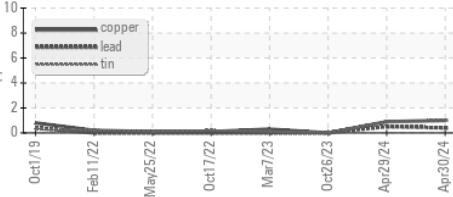


## GRAPHS

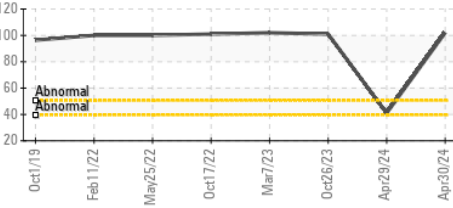
**Ferrous Alloys**



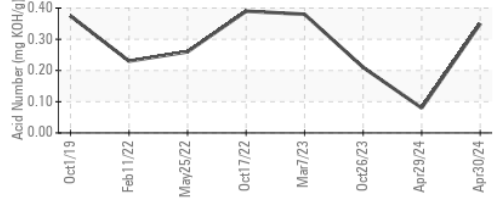
**Non-ferrous Metals**



**Viscosity @ 40°C**



**Acid Number**



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : UCZ06184430      **Received** : 20 May 2024  
**Lab Number** : **06184430**      **Tested** : 21 May 2024  
**Unique Number** : 11035756      **Diagnosed** : 22 May 2024 - Don Baldrige  
**Test Package** : IND 2

**ZORN COMPRESSOR EQUIPMENT**  
 227 AMBROSIO DR, SUITE A  
 GURNEE, IL  
 US 60031  
 Contact: Rachel Pesnikov  
 rachel.pesnikov@zornair.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)

T: (847)599-1333

F: x: