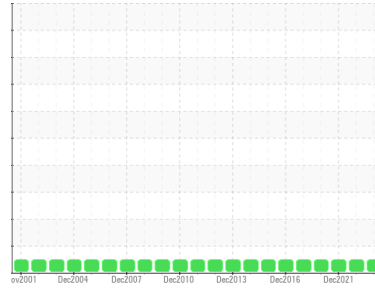




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**MCQUAY CENSUS BUREAU 2 (S/N 56C81065-01)**

Component  
**Refrigeration Compressor**

Fluid  
**ICI EMKARATE RL 46H (10 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 component.

### 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>WC0798463</b>   | WC0603641   | WC0525327   |
| Sample Date        | Client Info |             |            | <b>11 Dec 2023</b> | 06 Dec 2022 | 16 Dec 2021 |
| Machine Age        | hrs         | Client Info |            | <b>46140</b>       | 43400       | 40280       |
| Oil Age            | hrs         | Client Info |            | <b>0</b>           | 0           | 40280       |
| Oil Changed        | Client Info |             |            | <b>Not Changed</b> | Not Changed | Not Changed |
| Sample Status      |             |             |            | <b>NORMAL</b>      | NORMAL      | NORMAL      |

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >100       | <b>0</b>     | 2        | 3        |
| Chromium    | ppm | ASTM D5185m | >2         | <b>0</b>     | 0        | 0        |
| Nickel      | ppm | ASTM D5185m |            | <b>0</b>     | 0        | <1       |
| Titanium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Silver      | ppm | ASTM D5185m | >2         | <b>0</b>     | 0        | 0        |
| Aluminum    | ppm | ASTM D5185m | >50        | <b>0</b>     | 0        | 0        |
| Lead        | ppm | ASTM D5185m | >2         | <b>0</b>     | <1       | <1       |
| Copper      | ppm | ASTM D5185m | >100       | <b>&lt;1</b> | 1        | 1        |
| Tin         | ppm | ASTM D5185m | >4         | <b>1</b>     | <1       | <1       |
| Antimony    | ppm | ASTM D5185m |            | <b>---</b>   | ---      | 0        |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |

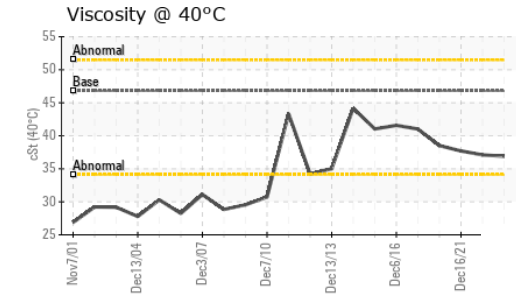
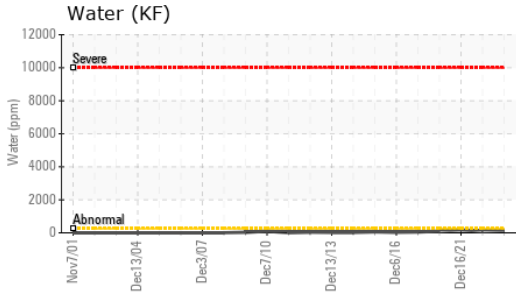
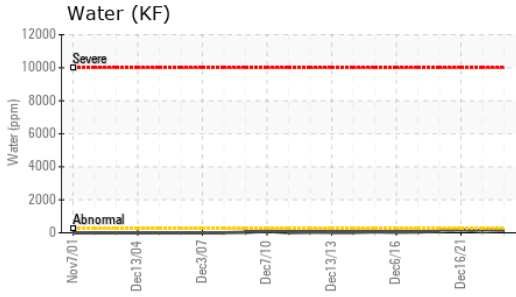
| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m | 0          | <b>0</b>     | 0        | 2        |
| Barium     | ppm | ASTM D5185m | 0          | <b>0</b>     | 0        | 0        |
| Molybdenum | ppm | ASTM D5185m | 0          | <b>0</b>     | 0        | 0        |
| Manganese  | ppm | ASTM D5185m | 0          | <b>&lt;1</b> | <1       | <1       |
| Magnesium  | ppm | ASTM D5185m | 0          | <b>0</b>     | 0        | 0        |
| Calcium    | ppm | ASTM D5185m | 0          | <b>0</b>     | 0        | 0        |
| Phosphorus | ppm | ASTM D5185m | 1900       | <b>464</b>   | 453      | 493      |
| Zinc       | ppm | ASTM D5185m | 0          | <b>0</b>     | 15       | 7        |
| Sulfur     | ppm | ASTM D5185m | 25         | <b>0</b>     | 19       | 0        |

| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >50        | <b>5</b>     | 6        | 6        |
| Sodium       | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Potassium    | ppm | ASTM D5185m | >20        | <b>&lt;1</b> | 0        | 0        |
| Water        | %   | ASTM D6304  | >0.02      | <b>0.014</b> | 0.009    | 0.018    |
| ppm Water    | ppm | ASTM D6304  | >250       | <b>149</b>   | 97.8     | 183.7    |

| FLUID DEGRADATION |          | method    | limit/base | current      | history1 | history2 |
|-------------------|----------|-----------|------------|--------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D974 | 0.03       | <b>0.069</b> | 0.015    | 0.055    |



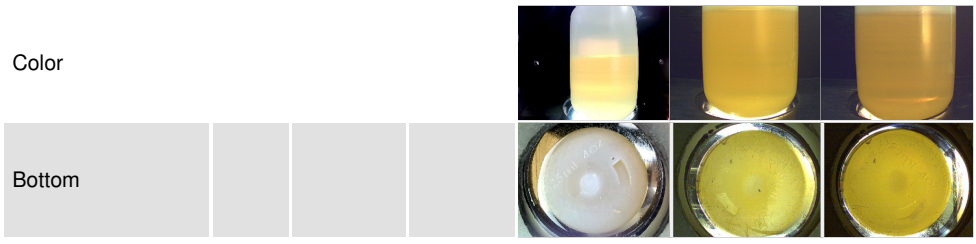
# OIL ANALYSIS REPORT



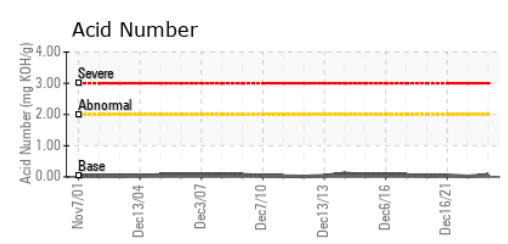
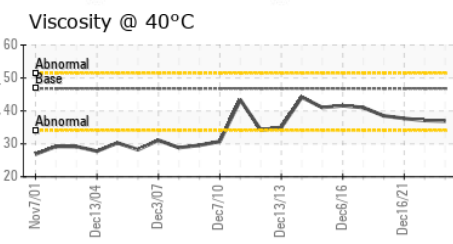
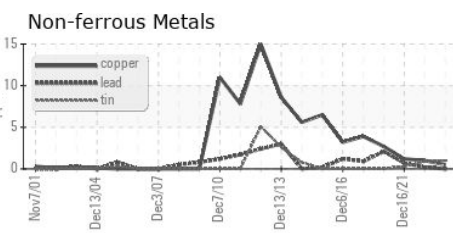
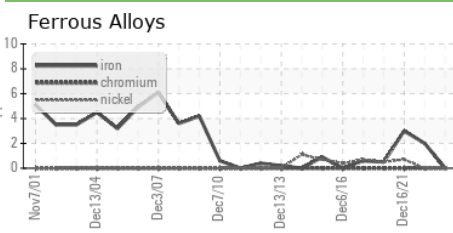
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | 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    | >0.02   | NEG      | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | 46.8    | 36.9     | 37.1     |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0798463 **Recieved** : 10 Jan 2024  
**Lab Number** : 06056768 **Diagnosed** : 11 Jan 2024  
**Unique Number** : 10822717 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2

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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)