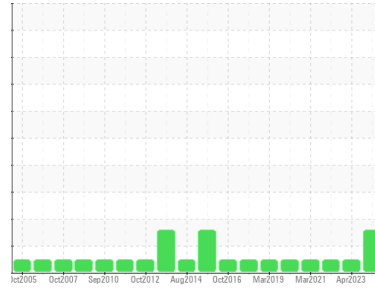




Area  
**Ottawa Airport Ch#1**  
 Machine Id  
**CARRIER 1102Q66784**  
 Component  
**Chiller**  
 Fluid  
**ICI EMKARATE RL 68H (--- GAL)**



## DIAGNOSIS

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

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

**▲ Contamination**  
 The elevated moisture content is associated with POE oils which are hygroscopic, and can absorb moisture from sampling and processing.

**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>GTT0001219</b>  | GTT4017     | GTT4018     |
| Sample Date   | Client Info |             | <b>04 Aug 2023</b> | 05 Apr 2023 | 07 Dec 2021 |
| Machine Age   | hrs         | Client Info | <b>0</b>           | ---         | ---         |
| Oil Age       | hrs         | Client Info | <b>0</b>           | ---         | ---         |
| 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 D5185(m) >8 | <b>1</b>     | <1       | <1       |
| Chromium  | ppm    | ASTM D5185(m) >2 | <b>0</b>     | <1       | <1       |
| Nickel    | ppm    | ASTM D5185(m)    | <b>0</b>     | ---      | ---      |
| Titanium  | ppm    | ASTM D5185(m)    | <b>0</b>     | ---      | ---      |
| Silver    | ppm    | ASTM D5185(m) >2 | <b>0</b>     | ---      | ---      |
| Aluminum  | ppm    | ASTM D5185(m) >3 | <b>&lt;1</b> | <1       | <1       |
| Lead      | ppm    | ASTM D5185(m) >2 | <b>&lt;1</b> | <1       | <1       |
| Copper    | ppm    | ASTM D5185(m) >8 | <b>&lt;1</b> | <1       | <1       |
| Tin       | ppm    | ASTM D5185(m) >4 | <b>&lt;1</b> | <1       | <1       |
| Antimony  | ppm    | ASTM D5185(m)    | <b>0</b>     | ---      | ---      |
| Vanadium  | ppm    | ASTM D5185(m)    | <b>0</b>     | ---      | ---      |
| Beryllium | ppm    | ASTM D5185(m)    | <b>0</b>     | ---      | ---      |
| Cadmium   | ppm    | ASTM D5185(m)    | <b>0</b>     | ---      | ---      |

## ADDITIVES

|            | method | limit/base         | current      | history1 | history2 |
|------------|--------|--------------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185(m) 0    | <b>&lt;1</b> | ---      | ---      |
| Barium     | ppm    | ASTM D5185(m) 0    | <b>0</b>     | ---      | ---      |
| Molybdenum | ppm    | ASTM D5185(m) 0    | <b>0</b>     | ---      | ---      |
| Manganese  | ppm    | ASTM D5185(m)      | <b>0</b>     | ---      | ---      |
| Magnesium  | ppm    | ASTM D5185(m) 0    | <b>0</b>     | ---      | ---      |
| Calcium    | ppm    | ASTM D5185(m) 0    | <b>0</b>     | ---      | ---      |
| Phosphorus | ppm    | ASTM D5185(m) 1900 | <b>1555</b>  | ---      | ---      |
| Zinc       | ppm    | ASTM D5185(m) 0    | <b>2</b>     | 1        | 1        |
| Sulfur     | ppm    | ASTM D5185(m) 25   | <b>7</b>     | ---      | ---      |
| Lithium    | ppm    | ASTM D5185(m)      | <b>&lt;1</b> | ---      | ---      |

## CONTAMINANTS



|           | method | limit/base        | current      | history1 | history2 |
|-----------|--------|-------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185(m) >15 | <b>37</b>    | ---      | ---      |
| Sodium    | ppm    | ASTM D5185(m)     | <b>&lt;1</b> | ---      | ---      |
| Potassium | ppm    | ASTM D5185(m) >20 | <b>0</b>     | ---      | ---      |
| ppm Water | ppm    | ASTM D6304* >200  | <b>▲ 349</b> | 181      | 166      |

## FLUID DEGRADATION

|                  | method   | limit/base      | current     | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D974* 0.02 | <b>0.10</b> | 0.048    | 0.042    |

# OIL ANALYSIS REPORT

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

| SAMPLE IMAGES | method | limit/base | current   | history1 | history2 |
|---------------|--------|------------|---|----------|----------|
| Color         |        |            |  | no image | no image |
| Bottom        |        |            |  | no image | no image |

## GRAPHS



**Sample No.** : GTT0001219      **Recieved** : 28 Dec 2023  
**Lab Number** : 02605626      **Diagnosed** : 05 Jan 2024  
**Unique Number** : 5698711      **Diagnostician** : Bill Quesnel  
**Test Package** : IND 2 ( Additional Tests: KV40 )

*To discuss this sample report, contact Customer Service at 1-905-847-9300 Ext 26.*

*Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.*

*Damages: Seller shall in no event be liable for special, incidental, or consequential damages, of a commercial nature, resulting from any cause.*

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