

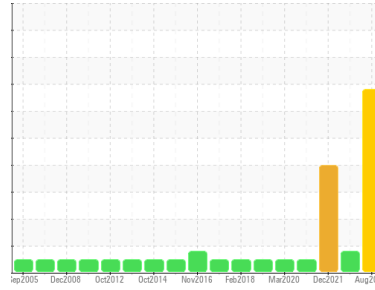


# PROBLEM SUMMARY



Area  
**1941 Robertson Rd.#1 [4500054809]**  
 Machine Id  
**CARRIER 3303Q68387**  
 Component  
**Chiller**  
 Fluid  
**ICI EMKARATE RL 68H (--- GAL)**

Sample Rating Trend



**WEAR**



## COMPONENT CONDITION SUMMARY

No relevant graphs to display

### RECOMMENDATION

The operation of this unit should be reviewed by a service engineer. We recommend an early resample to monitor this condition.

### PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	ABNORMAL	SEVERE
Lead	ppm	ASTM D5185(m) >2	▲ 2	<1	<1
Tin	ppm	ASTM D5185(m) >4	● 57	▲ 8	▲ 7

**Customer Id:** GTT0000224  
**Sample No.:** GTT0001370  
**Lab Number:** 02605640  
**Test Package:** IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
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To change component or sample information:  
 Gloria Gonzalez +1 (289)291-4643 x4643  
[gloria.gonzalez@wearcheck.com](mailto:gloria.gonzalez@wearcheck.com)

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

05 Apr 2023 Diag: Wes Davis

WEAR



The tin reading shows moderate wear occurring on the compressor bearings or the motor bearings. All other tests show normal range readings.

view report



07 Dec 2021 Diag: Wes Davis

WATER



The tin reading shows moderate wear occurring on the motor bearings or compressor bearings. Moisture is in high range and may possibly indicate an internal water leak. Alternatively, possible moisture contamination of the sample may have occurred after obtaining it from the chiller. Recommend to resample immediately to confirm the high moisture condition.

view report



01 Mar 2021 Diag: Wes Davis

NORMAL



The test results indicate normal wear patterns for this type of unit with moisture and acidity in the acceptable range. The elevated moisture is associated with synthetic oils.

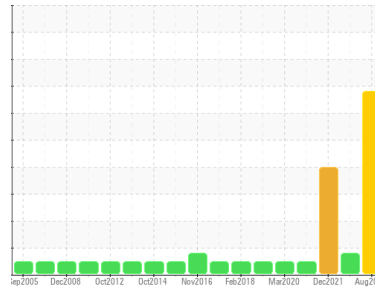
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Area  
**1941 Robertson Rd.#1 [4500054809]**  
 Machine Id  
**CARRIER 3303Q68387**  
 Component  
**Chiller**  
 Fluid  
**ICI EMKARATE RL 68H (--- GAL)**

## DIAGNOSIS

**Recommendation**  
 The operation of this unit should be reviewed by a service engineer. We recommend an early resample to monitor this condition.

**Wear**  
 Tin ppm levels are severe. Lead ppm levels are abnormal. The results suggest wear in the high speed assembly. The tin reading suggests advanced bearing wear.

**Contamination**  
 The water content is negligible. There is no indication of any contamination in the oil.

**Fluid Condition**  
 The AN level is acceptable for this fluid.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GTT0001370</b>	GTT11254	GTT11255
Sample Date	Client Info		<b>03 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>SEVERE</b>	ABNORMAL	SEVERE

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >8	<b>3</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>2</b>	<1	<1
Copper	ppm	ASTM D5185(m) >8	<b>3</b>	<1	1
Tin	ppm	ASTM D5185(m) >4	<b>57</b>	8	7
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>&lt;1</b>	---	---
Calcium	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	---	---
Phosphorus	ppm	ASTM D5185(m) 1900	<b>1381</b>	---	---
Zinc	ppm	ASTM D5185(m) 0	<b>8</b>	2	3
Sulfur	ppm	ASTM D5185(m) 25	<b>0</b>	---	---
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	---	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	<b>13</b>	---	---
Sodium	ppm	ASTM D5185(m)	<b>1</b>	---	---
Potassium	ppm	ASTM D5185(m) >20	<b>0</b>	---	---
ppm Water	ppm	ASTM D6304* >200	<b>149</b>	283	1286


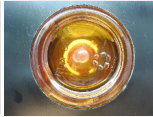
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974* 0.02	<b>0.07</b>	0.029	0.019

# 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>	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	72.3	<b>78.8</b>	---

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

## GRAPHS



**Sample No.** : GTT0001370      **Recieved** : 28 Dec 2023  
**Lab Number** : **02605640**      **Diagnosed** : 05 Jan 2024  
**Unique Number** : 5698725      **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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