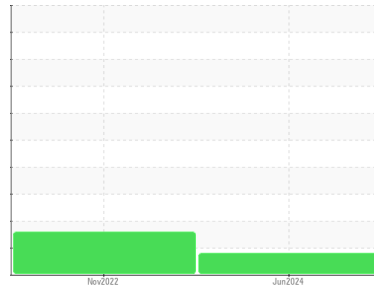




OIL ANALYSIS REPORT

Area
UOIT Ch# HTA Comp #1 [GTT224-469 450126169]
 Machine Id
BITZER W02178K1-AE-1(1)
 Component
Chiller
 Fluid
BITZER BSE 170 (--- GAL)

Sample Rating Trend



DIAGNOSIS

Recommendation

We recommend an early resample to monitor this condition.

Wear

Iron ppm levels are abnormal. Compressor rotor wear, rotor thrust bearing wear, compressor rotor main bearing wear or possibly slide valve wear indicated.

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		GTT0003563	GTT81922	---
Sample Date	Client Info		09 Jun 2024	23 Nov 2022	---
Machine Age	hrs	Client Info	0	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		N/A	N/A	---
Sample Status			ABNORMAL	ABNORMAL	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >8	▲ 17	10	---
Chromium	ppm	ASTM D5185(m) >2	0	<1	---
Nickel	ppm	ASTM D5185(m)	0	---	---
Titanium	ppm	ASTM D5185(m)	0	---	---
Silver	ppm	ASTM D5185(m) >2	0	---	---
Aluminum	ppm	ASTM D5185(m) >3	<1	<1	---
Lead	ppm	ASTM D5185(m) >2	0	<1	---
Copper	ppm	ASTM D5185(m) >8	<1	<1	---
Tin	ppm	ASTM D5185(m) >4	0	<1	---
Antimony	ppm	ASTM D5185(m)	0	---	---
Vanadium	ppm	ASTM D5185(m)	0	---	---
Beryllium	ppm	ASTM D5185(m)	0	---	---
Cadmium	ppm	ASTM D5185(m)	0	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 1	<1	---	---
Barium	ppm	ASTM D5185(m) 0	0	---	---
Molybdenum	ppm	ASTM D5185(m) 0	0	---	---
Manganese	ppm	ASTM D5185(m) 0	<1	---	---
Magnesium	ppm	ASTM D5185(m) 0	0	---	---
Calcium	ppm	ASTM D5185(m) 0	0	---	---
Phosphorus	ppm	ASTM D5185(m) 0	2	---	---
Zinc	ppm	ASTM D5185(m) 0	4	1	---
Sulfur	ppm	ASTM D5185(m) 5	4	---	---
Lithium	ppm	ASTM D5185(m)	<1	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	4	---	---
Sodium	ppm	ASTM D5185(m)	0	---	---
Potassium	ppm	ASTM D5185(m) >20	<1	---	---
ppm Water	ppm	ASTM D6304* >200	57	▲ 344	---



FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974* 0.015	0.03	0.006	---

OIL ANALYSIS REPORT

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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	170	154	---	---

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

GRAPHS



Sample No. : GTT0003563
Lab Number : 02645701
Unique Number : 5803240
Test Package : IND 2 (Additional Tests: KF, TAN Man)
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.

Received : 04 Jul 2024
Tested : 09 Jul 2024
Diagnosed : 09 Jul 2024 - Bill Quesnel

Cimco Refrigeration
 1551 Corporate Drive
 Burlington, ON
 CA L7L 6M3
 Contact: Service Manager
 cimcoap@toromont.com
 T: (416)465-7581
 F: