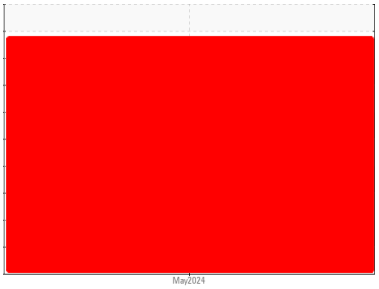
PROBLEM SUMMARY

Sample Rating Trend

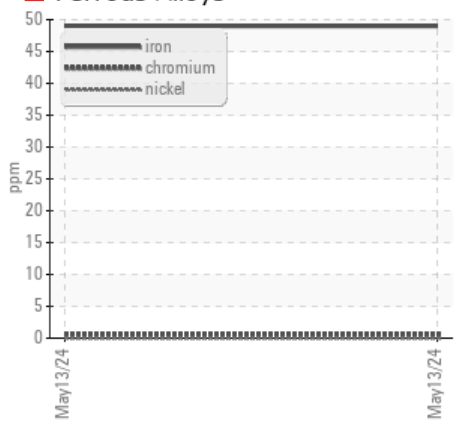


WEAR

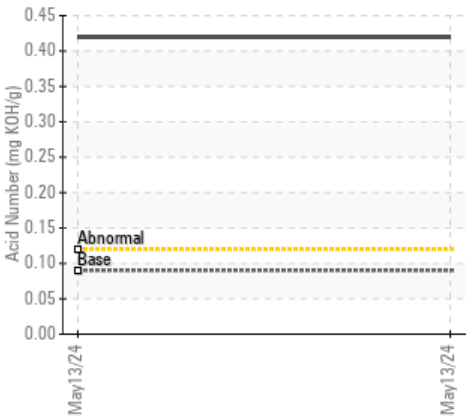
Machine Id
TRANE CFCC NA CHILLER 1 CIRC 1 (S/N U02003601)
Component
Refrigeration Compressor
Fluid
TRANE 0048 (--- GAL)

COMPONENT CONDITION SUMMARY

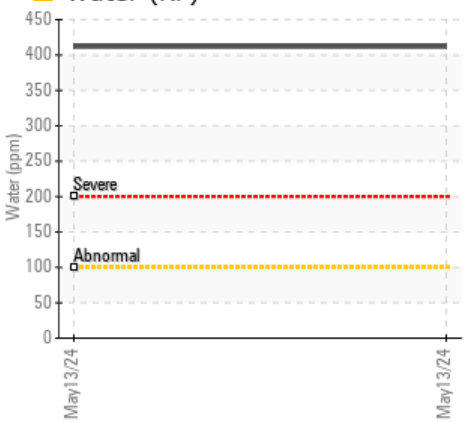
▲ Ferrous Alloys



▲ Acid Number



▲ Water (KF)



RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	---	---
Iron	ppm	ASTM D5185m	>8	▲ **49**	---	---
Water	%	ASTM D6304	>0.01	▲ **0.041**	---	---
ppm Water	ppm	ASTM D6304	>100	▲ **412**	---	---
Acid Number (AN)	mg KOH/g	ASTM D974	0.09	▲ **0.42**	---	---

Customer Id: APPMOR
Sample No.: WC0801208
Lab Number: 06211749
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

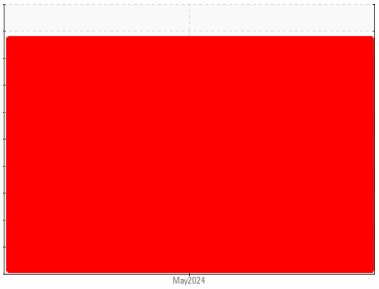
RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
TRANE CFCC NA CHILLER 1 CIRC 1 (S/N U02003601)
Component
Refrigeration Compressor
Fluid
TRANE 0048 (--- GAL)

DIAGNOSIS

▲ Recommendation
We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

▲ Wear
The iron level is severe.

▲ Contamination
There is a trace of moisture present in the oil.

▲ Fluid Condition
The AN level is at the top-end of the recommended limit.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0801208**	---	---
Sample Date		Client Info		**13 May 2024**	---	---
Machine Age	hrs	Client Info		**0**	---	---
Oil Age	hrs	Client Info		**0**	---	---
Oil Changed		Client Info		**Not Changd**	---	---
Sample Status				**SEVERE**	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	▲ **49**	---	---
Chromium	ppm	ASTM D5185m	>2	**<1**	---	---
Nickel	ppm	ASTM D5185m		**0**	---	---
Titanium	ppm	ASTM D5185m		**<1**	---	---
Silver	ppm	ASTM D5185m	>2	**0**	---	---
Aluminum	ppm	ASTM D5185m	>3	**0**	---	---
Lead	ppm	ASTM D5185m	>2	**<1**	---	---
Copper	ppm	ASTM D5185m	>8	**<1**	---	---
Tin	ppm	ASTM D5185m	>4	**3**	---	---
Vanadium	ppm	ASTM D5185m		**<1**	---	---
Cadmium	ppm	ASTM D5185m		**0**	---	---

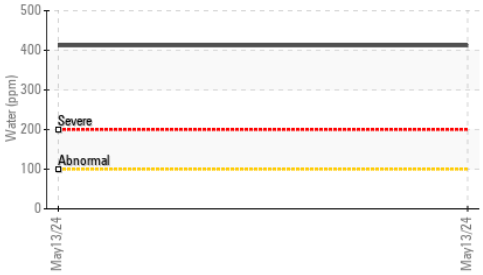
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	1	**8**	---	---
Barium	ppm	ASTM D5185m	0	**0**	---	---
Molybdenum	ppm	ASTM D5185m	0	**0**	---	---
Manganese	ppm	ASTM D5185m	0	**<1**	---	---
Magnesium	ppm	ASTM D5185m	0	**0**	---	---
Calcium	ppm	ASTM D5185m	0	**0**	---	---
Phosphorus	ppm	ASTM D5185m	5	**3**	---	---
Zinc	ppm	ASTM D5185m	0	**66**	---	---
Sulfur	ppm	ASTM D5185m	10	**0**	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**3**	---	---
Sodium	ppm	ASTM D5185m		**1**	---	---
Potassium	ppm	ASTM D5185m	>20	**<1**	---	---
Water	%	ASTM D6304	>0.01	▲ **0.041**	---	---
ppm Water	ppm	ASTM D6304	>100	▲ **412**	---	---

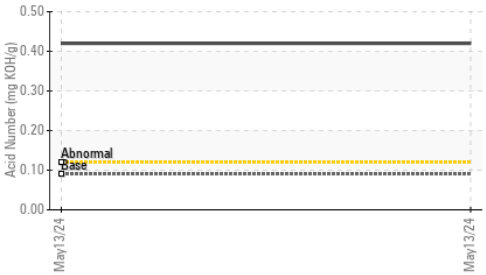
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974	0.09	▲ **0.42**	---	---

OIL ANALYSIS REPORT

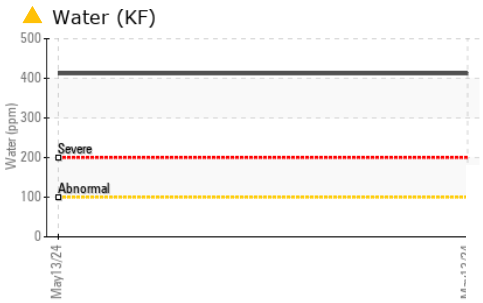
Water (KF)



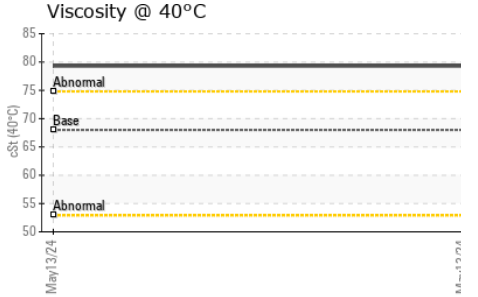
Acid Number



Water (KF)



Viscosity @ 40°C



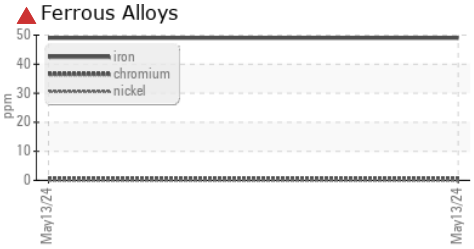
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	---	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	---	---
Precipitate	scalar	*Visual	NONE	**NONE**	---	---
Silt	scalar	*Visual	NONE	**NONE**	---	---
Debris	scalar	*Visual	NONE	**NONE**	---	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	---	---
Appearance	scalar	*Visual	NORML	**NORML**	---	---
Odor	scalar	*Visual	NORML	**NORML**	---	---
Emulsified Water	scalar	*Visual	>0.01	**NEG**	---	---
Free Water	scalar	*Visual		**NEG**	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	68	**79.3**	---	---

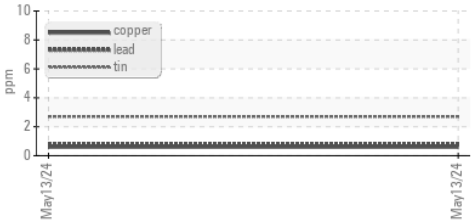
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	*no image*
Bottom				*no image*	*no image*

GRAPHS

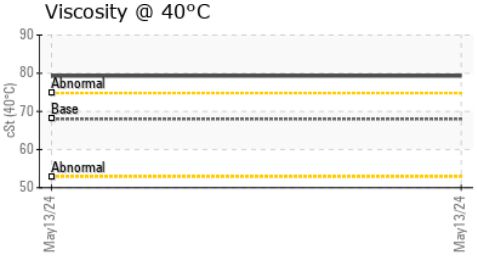
Ferrous Alloys



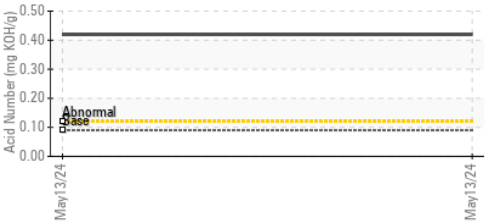
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0801208
Lab Number : 06211749
Unique Number : 11084613
Test Package : IND 2

Received : 17 Jun 2024
Tested : 18 Jun 2024
Diagnosed : 20 Jun 2024 - Jonathan Hester

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)

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