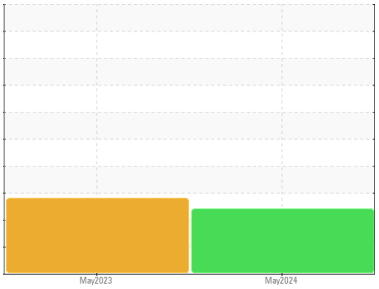
OIL ANALYSIS REPORT

Area
[SV2405100169]
Machine Id
TRANE UMW WILLARD CIRC 2 CH 1 (S/N U19C03320)
Component
Refrigeration Compressor
Fluid
{not provided} (--- GAL)

Sample Rating Trend



WATER

DIAGNOSIS

▲ Recommendation
Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

▲ Wear
The tin level is abnormal. All other component wear rates are normal.

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

Fluid Condition
Viscosity of sample indicates oil is within ISO 46 range, advise investigate. Confirm oil type.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0487363**	WC0487366	---
Sample Date		Client Info		**14 May 2024**	05 May 2023	---
Machine Age	hrs	Client Info		**12625**	10621	---
Oil Age	hrs	Client Info		**12625**	10621	---
Oil Changed		Client Info		**N/A**	N/A	---
Sample Status				**ABNORMAL**	ABNORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	**6**	1	---
Chromium	ppm	ASTM D5185m	>2	**0**	0	---
Nickel	ppm	ASTM D5185m		**0**	<1	---
Titanium	ppm	ASTM D5185m		**<1**	0	---
Silver	ppm	ASTM D5185m	>2	**0**	0	---
Aluminum	ppm	ASTM D5185m	>3	**0**	<1	---
Lead	ppm	ASTM D5185m	>2	**<1**	0	---
Copper	ppm	ASTM D5185m	>8	**<1**	0	---
Tin	ppm	ASTM D5185m	>4	▲ **9**	2	---
Vanadium	ppm	ASTM D5185m		**<1**	0	---
Cadmium	ppm	ASTM D5185m		**0**	0	---

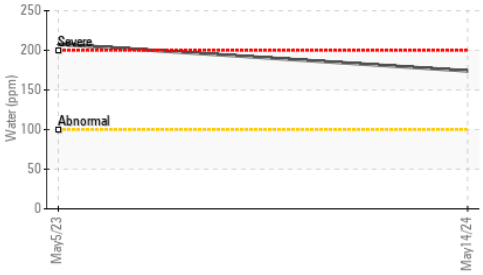
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	3	---
Barium	ppm	ASTM D5185m		**0**	0	---
Molybdenum	ppm	ASTM D5185m		**0**	0	---
Manganese	ppm	ASTM D5185m		**<1**	<1	---
Magnesium	ppm	ASTM D5185m		**0**	2	---
Calcium	ppm	ASTM D5185m		**0**	0	---
Phosphorus	ppm	ASTM D5185m		**0**	2	---
Zinc	ppm	ASTM D5185m		**0**	0	---
Sulfur	ppm	ASTM D5185m		**0**	0	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**3**	14	---
Sodium	ppm	ASTM D5185m		**2**	<1	---
Potassium	ppm	ASTM D5185m	>20	**<1**	<1	---
Water	%	ASTM D6304	>0.01	▲ **0.017**	▲ 0.020	---
ppm Water	ppm	ASTM D6304	>100	▲ **174**	▲ 207.7	---

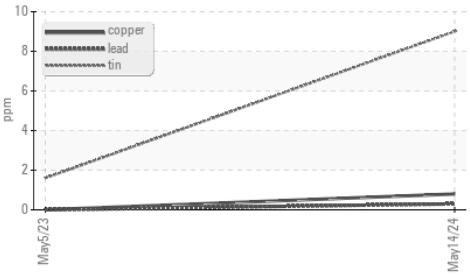
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974		**0.241**	▲ 0.136	---

OIL ANALYSIS REPORT

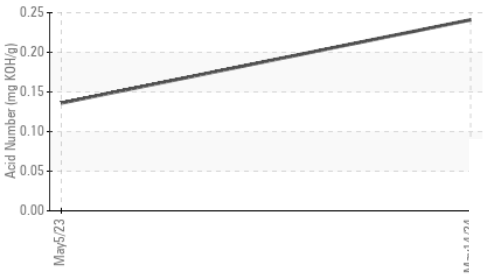
Water (KF)



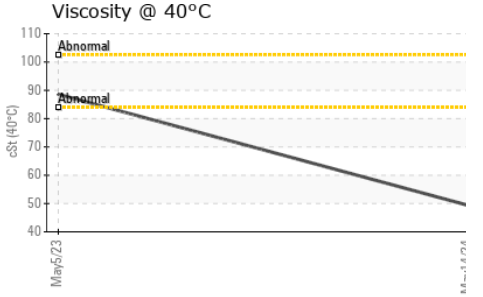
Non-ferrous Metals



Acid Number

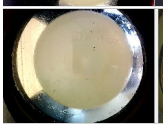
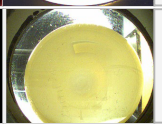


Viscosity @ 40°C



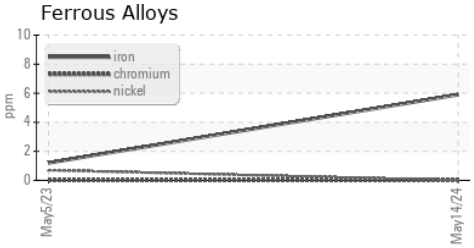
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
Silt	scalar	*Visual	NONE	**NONE**	NONE	---
Debris	scalar	*Visual	NONE	**NONE**	NONE	---
Sand/Dirt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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**49.4**	88.6	---

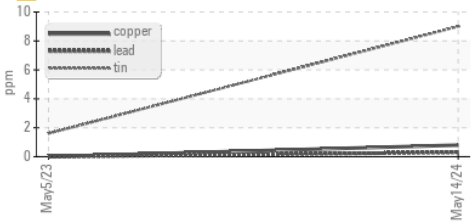
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					*no image*
Bottom					*no image*

GRAPHS

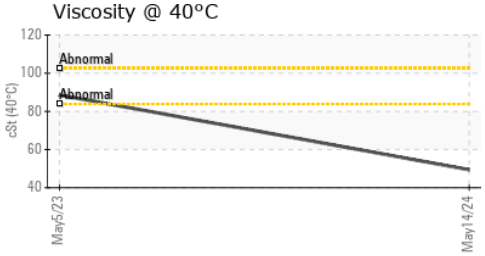
Ferrous Alloys



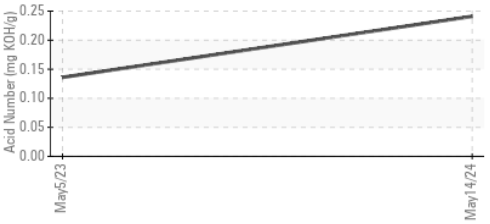
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0487363
Lab Number : 06204766
Unique Number : 11072227
Test Package : IND 2

Received : 10 Jun 2024
Tested : 12 Jun 2024
Diagnosed : 12 Jun 2024 - Angela Borella

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)

DAIKIN APPLIED-RICHMOND
8991 OLD STAPLES MILL ROAD
HENRICO, VA
US 23228
Contact: AMANDA CARRIER
amanda.carrier@daikinapplied.com
T: (804)747-4822
F: (804)747-6686

Report Id: MCQRIC [WUSCAR] 06204766 (Generated: 06/12/2024 18:16:55) Rev: 1

Contact/Location: AMANDA CARRIER - MCQRIC