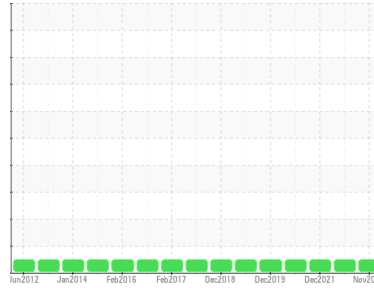




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
[SV2309071134/1]
 Machine Id
MCQUAY MARYMOUNT UNIVERSITY CHILLER 1 WSC063 (S/N STNU091200049)
 Component
Refrigeration Compressor
 Fluid
ICI EMKARATE RL 46H (6 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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		WC0783414	WC0660654	WC0525381
Sample Date	Client Info		29 Nov 2023	12 Dec 2022	01 Dec 2021
Machine Age	hrs	Client Info	38220	35410	33660
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		Not Changed	Not Changed	Not Changed
Sample Status			NORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	31	31	31
Chromium	ppm	ASTM D5185m >2	0	0	<1
Nickel	ppm	ASTM D5185m	<1	<1	1
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m >2	0	0	<1
Aluminum	ppm	ASTM D5185m >50	<1	1	0
Lead	ppm	ASTM D5185m >2	0	0	<1
Copper	ppm	ASTM D5185m >100	10	13	14
Tin	ppm	ASTM D5185m >4	3	3	2
Antimony	ppm	ASTM D5185m	---	---	0
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	0	0	2
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 0	0	0	0
Manganese	ppm	ASTM D5185m 0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 0	0	0	0
Calcium	ppm	ASTM D5185m 0	0	<1	<1
Phosphorus	ppm	ASTM D5185m 1900	1	6	7
Zinc	ppm	ASTM D5185m 0	41	41	35
Sulfur	ppm	ASTM D5185m 25	36	42	0

CONTAMINANTS

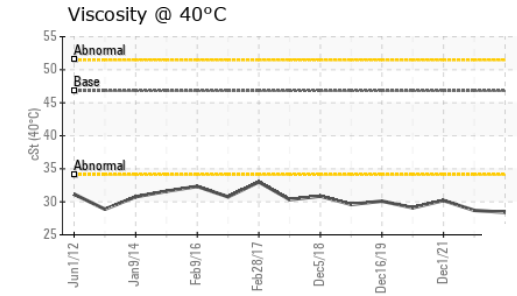
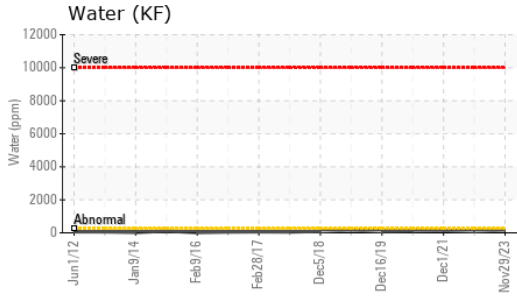
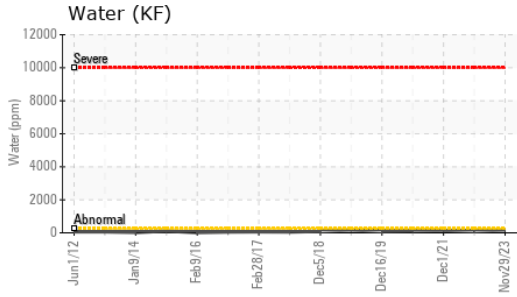
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	12	13	14
Sodium	ppm	ASTM D5185m	2	2	<1
Potassium	ppm	ASTM D5185m >20	2	0	<1
Water	%	ASTM D6304 >0.02	0.017	0.009	0.014
ppm Water	ppm	ASTM D6304 >250	172	96.7	147.5

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974 0.03	0.159	0.014	0.12



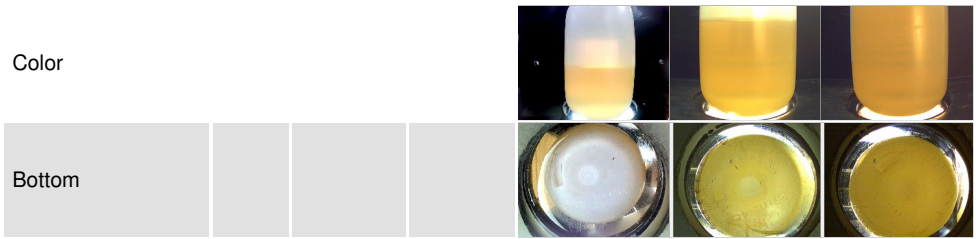
OIL ANALYSIS REPORT



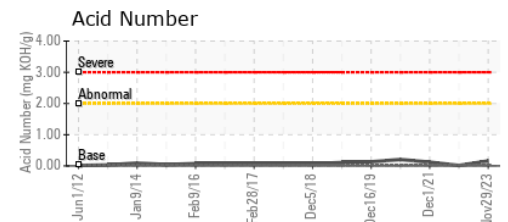
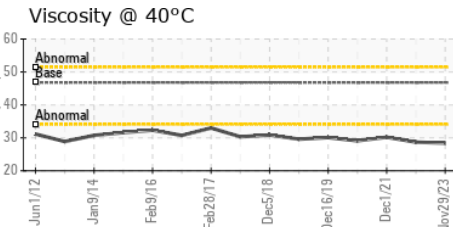
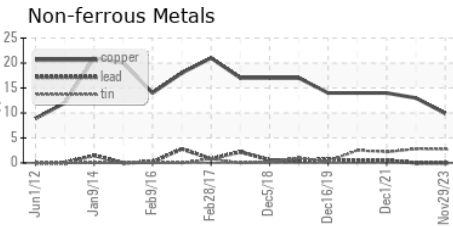
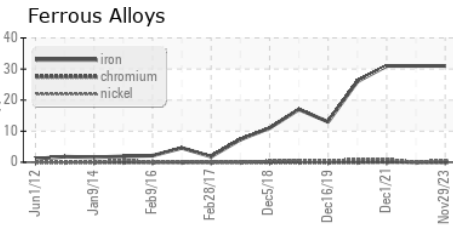
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.02	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46.8	28.4	28.7

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0783414 **Recieved** : 10 Jan 2024
Lab Number : 06056775 **Diagnosed** : 11 Jan 2024
Unique Number : 10822724 **Diagnostician** : Don Baldrige
Test Package : IND 2

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 US 20715
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Certificate L2367
 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)