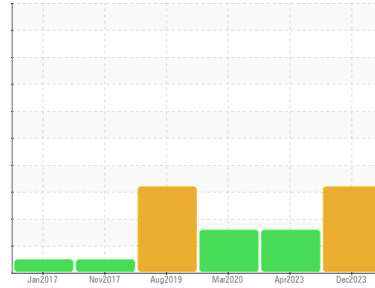




OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id
MCQUAY VA MEDICAL CENTER CHILLER 1 (S/N STNU110700045)
 Component
Refrigeration Compressor
 Fluid
EMKARATE RL 32H (--- GAL)

DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

▲ Contamination

There is a trace of moisture present in the oil. Elemental level of silicon (Si) above normal.

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	WC0814472	WCI2277797	WCI2309363
Sample Date	Client Info	26 Dec 2023	26 Apr 2023	25 Mar 2020
Machine Age	hrs	17800	0	0
Oil Age	hrs	0	3	0
Oil Changed	Client Info	Not Changed	Not Changed	N/A
Sample Status		ABNORMAL	MARGINAL	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >8	14	<1	5
Chromium	ppm ASTM D5185m >2	0	<1	0
Nickel	ppm ASTM D5185m	0	<1	<1
Titanium	ppm ASTM D5185m	0	0	0
Silver	ppm ASTM D5185m >2	0	<1	0
Aluminum	ppm ASTM D5185m >3	<1	0	<1
Lead	ppm ASTM D5185m >2	3	0	2
Copper	ppm ASTM D5185m >8	10	<1	16
Tin	ppm ASTM D5185m >4	2	<1	0
Antimony	ppm ASTM D5185m	---	---	0
Vanadium	ppm ASTM D5185m	0	<1	0
Cadmium	ppm ASTM D5185m	0	<1	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	0	4	<1
Barium	ppm ASTM D5185m 0	0	0	0
Molybdenum	ppm ASTM D5185m 0	0	0	0
Manganese	ppm ASTM D5185m	<1	0	0
Magnesium	ppm ASTM D5185m 0	0	2	0
Calcium	ppm ASTM D5185m 0	0	2	0
Phosphorus	ppm ASTM D5185m 5	4	441	0
Zinc	ppm ASTM D5185m 10	4	6	8
Sulfur	ppm ASTM D5185m 50	32	958	32

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >15	▲ 21	<1	▲ 29
Sodium	ppm ASTM D5185m	0	17	<1
Potassium	ppm ASTM D5185m >20	2	<1	0
Water	% ASTM D6304 >0.01	▲ 0.013	▲ 0.013	0.006
ppm Water	ppm ASTM D6304 >100	▲ 139	▲ 136.3	67.3

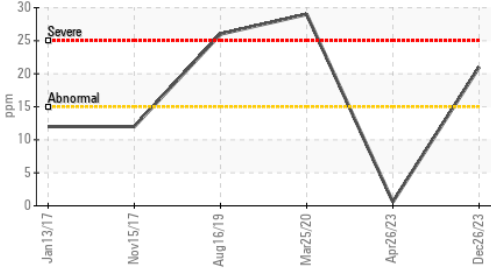
FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974 .05	0.042	0.111	0.06

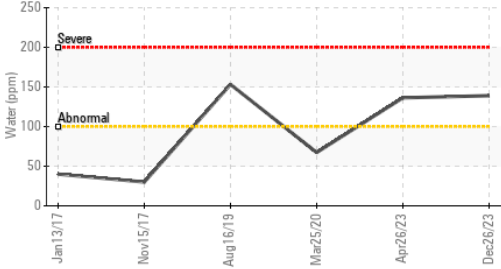


OIL ANALYSIS REPORT

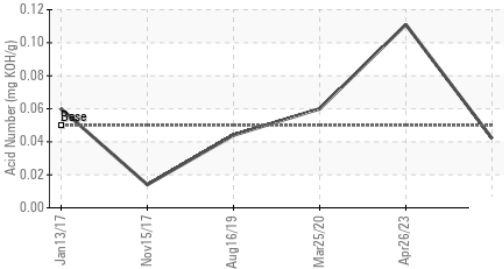
▲ Silicon (ppm)



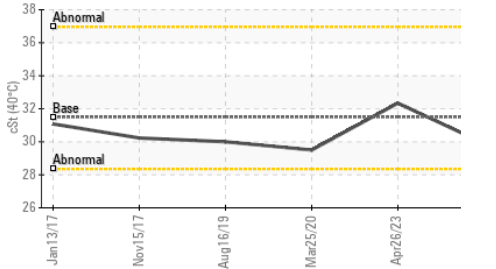
▲ Water (KF)



Acid Number



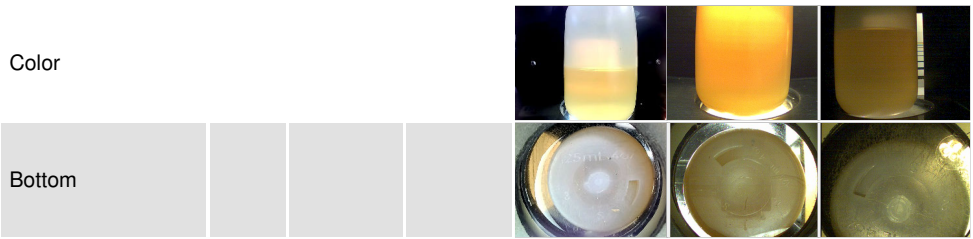
Viscosity @ 40°C



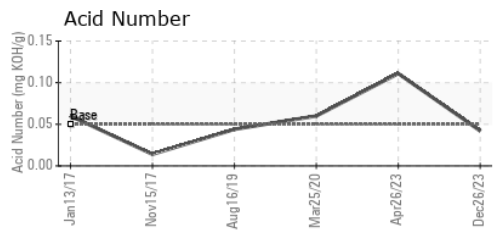
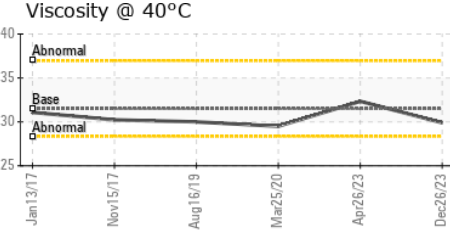
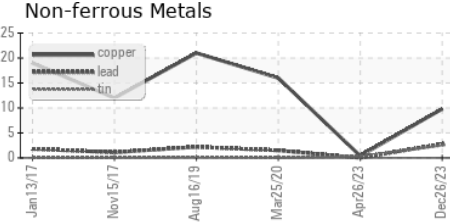
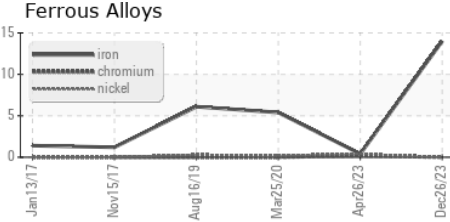
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	31.5	29.9	32.34	29.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0814472 **Recieved** : 10 Jan 2024
Lab Number : 06056766 **Diagnosed** : 11 Jan 2024
Unique Number : 10822715 **Diagnostician** : Don Baldrige
Test Package : IND 2

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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)