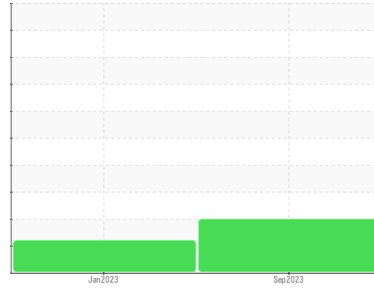




PROBLEM SUMMARY

Sample Rating Trend



ISO



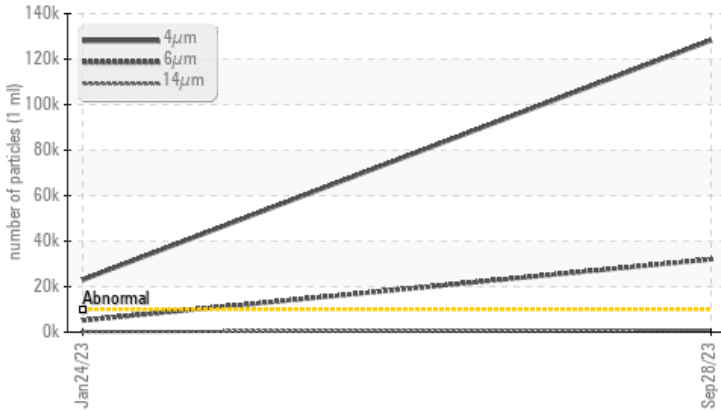
Machine Id
SWING - 920471

Component
Refrigeration Compressor

Fluid
REFRIG COMP OIL ISO 68 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ABNORMAL	---
Particles >4µm	ASTM D7647	>10000	▲ 128257	▲ 22981	---
Particles >6µm	ASTM D7647	>2500	▲ 32017	▲ 5165	---
Particles >14µm	ASTM D7647	>320	▲ 921	165	---
Particles >21µm	ASTM D7647	>80	▲ 127	23	---
Oil Cleanliness	ISO 4406 (c)	>20/18/15	▲ 24/22/17	▲ 22/20/15	---

Customer Id: AMEEAS_USP
Sample No.: USP0001818
Lab Number: 05964226
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Doug Bogart +1 (800)237-1369 x4016
dougb@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
Change Filter	---	---	?	We recommend you service the filters on this component.

HISTORICAL DIAGNOSIS

24 Jan 2023 Diag: Doug Bogart

ISO



Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

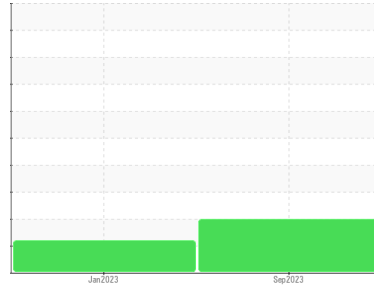
view report





OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
SWING - 920471

Component
Refrigeration Compressor

Fluid
REFRIG COMP OIL ISO 68 (--- GAL)

DIAGNOSIS

▲ Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

▲ Contamination

There is a high amount of particulates present 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	USP0001818	USP246513	---
Sample Date	Client Info	28 Sep 2023	24 Jan 2023	---
Machine Age	hrs	Client Info	0	25200
Oil Age	hrs	Client Info	0	0
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	4	0
Chromium	ppm	ASTM D5185m >2	0	0
Nickel	ppm	ASTM D5185m	0	0
Titanium	ppm	ASTM D5185m	0	0
Silver	ppm	ASTM D5185m >2	0	0
Aluminum	ppm	ASTM D5185m >3	0	0
Lead	ppm	ASTM D5185m >2	0	0
Copper	ppm	ASTM D5185m >8	0	0
Tin	ppm	ASTM D5185m >4	0	0
Vanadium	ppm	ASTM D5185m	0	0
Cadmium	ppm	ASTM D5185m	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 5	0	0
Barium	ppm	ASTM D5185m 5	0	0
Molybdenum	ppm	ASTM D5185m 5	0	0
Manganese	ppm	ASTM D5185m	<1	0
Magnesium	ppm	ASTM D5185m 5	0	0
Calcium	ppm	ASTM D5185m 12	0	0
Phosphorus	ppm	ASTM D5185m 12	0	1
Zinc	ppm	ASTM D5185m 12	0	0
Sulfur	ppm	ASTM D5185m 1000	10	0

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<1	0
Sodium	ppm	ASTM D5185m	0	0
Potassium	ppm	ASTM D5185m >20	1	<1
Water	%	ASTM D6304 >0.01	0.001	0.003
ppm Water	ppm	ASTM D6304 >100	0.00	32.3

FLUID CLEANLINESS

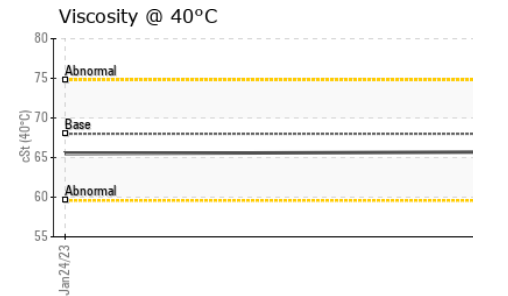
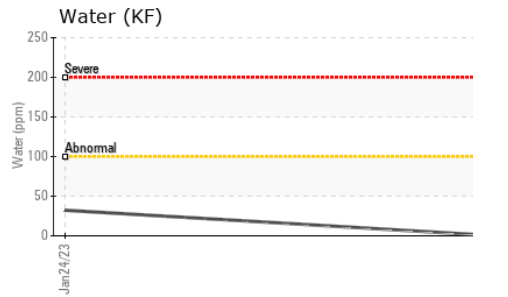
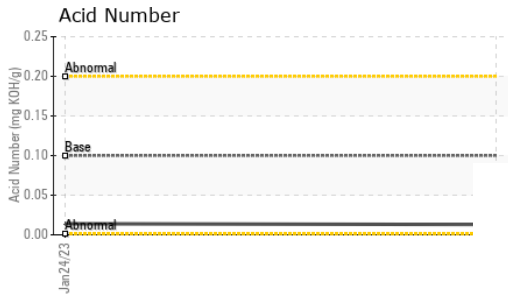
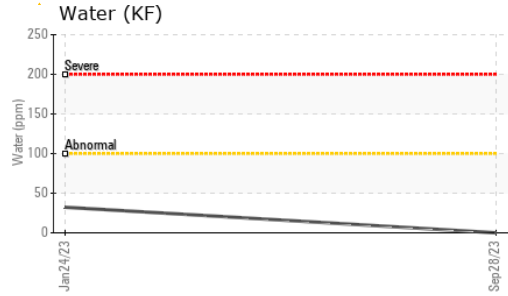
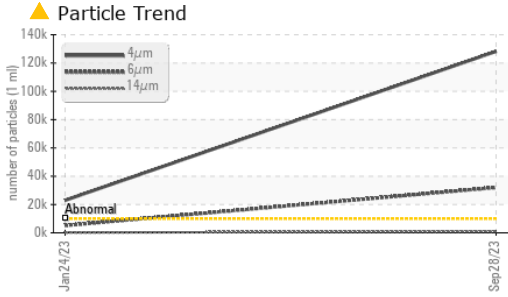
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >10000	▲ 128257	▲ 22981	---
Particles >6µm	ASTM D7647 >2500	▲ 32017	▲ 5165	---
Particles >14µm	ASTM D7647 >320	▲ 921	165	---
Particles >21µm	ASTM D7647 >80	▲ 127	23	---
Particles >38µm	ASTM D7647 >20	1	1	---
Particles >71µm	ASTM D7647 >4	0	0	---
Oil Cleanliness	ISO 4406 (c) >20/18/15	▲ 24/22/17	▲ 22/20/15	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974 0.10	0.013	0.014



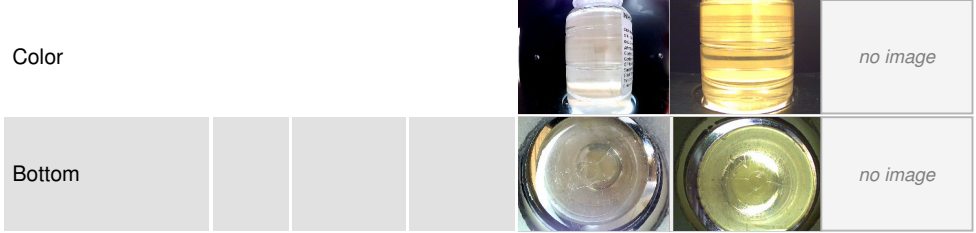
OIL ANALYSIS REPORT



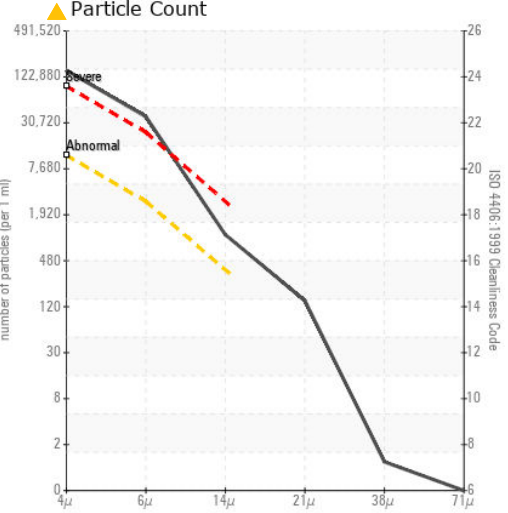
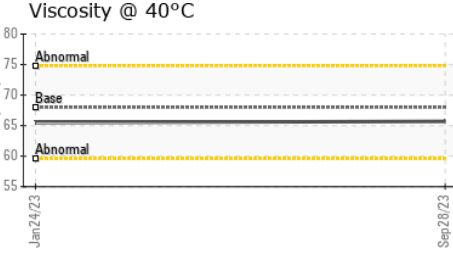
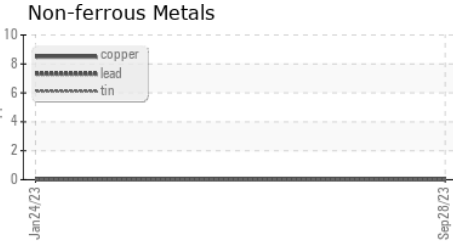
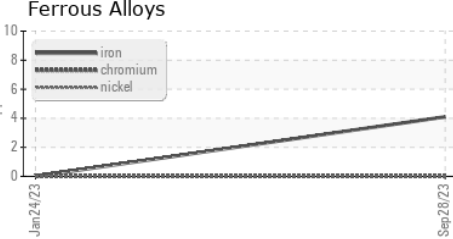
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	65.7	65.5	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP0001818 **Received** : 28 Sep 2023
Lab Number : 05964226 **Diagnosed** : 29 Sep 2023
Unique Number : 10670777 **Diagnostician** : Doug Bogart
Test Package : IND 2

AMERICOLD
 18531 US HWY 20 W
 EAST DUBUQUE, IL
 US 61025
 Contact: Service Manager

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)