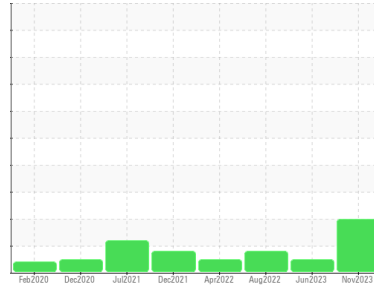




PROBLEM SUMMARY

Sample Rating Trend

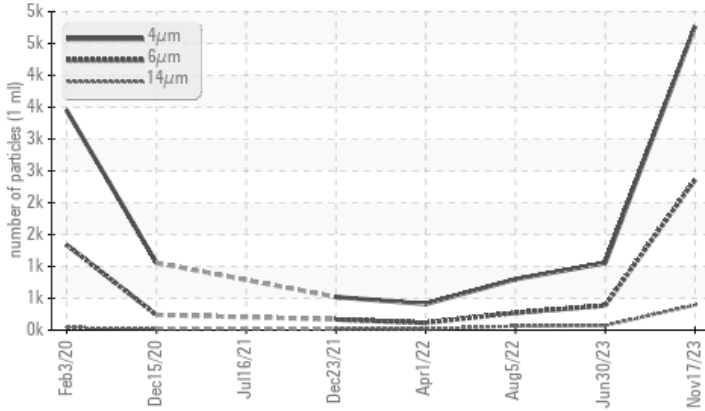


Machine Id
KAESER 6893358

Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	NORMAL	ABNORMAL
Particles >6µm	ASTM D7647	>1300	▲ 2360	386	271
Particles >14µm	ASTM D7647	>80	▲ 394	72	62
Particles >21µm	ASTM D7647	>20	▲ 120	28	18
Particles >38µm	ASTM D7647	>4	▲ 5	2	0
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 19/18/16	17/16/13	17/15/13

Customer Id: GLEGLEKC
Sample No.: KCPA006571
Lab Number: 06029382
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldrige +1
don.b505@comcast.net

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

30 Jun 2023 Diag: Jonathan Hester

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



05 Aug 2022 Diag: Jonathan Hester

WEAR



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The copper level is abnormal. All other component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



01 Apr 2022 Diag: Doug Bogart

NORMAL



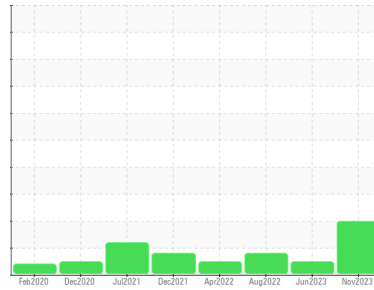
Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
KAESER 6893358

Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. 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		KCPA006571	KCPA005422	KC102838
Sample Date	Client Info		17 Nov 2023	30 Jun 2023	05 Aug 2022
Machine Age	hrs	Client Info	31951	28197	20351
Oil Age	hrs	Client Info	0	0	2800
Oil Changed	Client Info		N/A	N/A	Changed
Sample Status			ABNORMAL	NORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	0	0	0
Chromium	ppm	ASTM D5185m >10	<1	0	0
Nickel	ppm	ASTM D5185m >3	<1	<1	2
Titanium	ppm	ASTM D5185m >3	<1	0	0
Silver	ppm	ASTM D5185m >2	0	<1	<1
Aluminum	ppm	ASTM D5185m >10	2	0	<1
Lead	ppm	ASTM D5185m >10	0	0	<1
Copper	ppm	ASTM D5185m >50	2	11	▲ 103
Tin	ppm	ASTM D5185m >10	<1	<1	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	0	0	0
Barium	ppm	ASTM D5185m 90	0	0	0
Molybdenum	ppm	ASTM D5185m 0	<1	0	0
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m 100	0	<1	<1
Calcium	ppm	ASTM D5185m 0	15	0	0
Phosphorus	ppm	ASTM D5185m 0	0	4	2
Zinc	ppm	ASTM D5185m 0	0	0	9
Sulfur	ppm	ASTM D5185m 23500	7740	10789	15810

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<1	0	0
Sodium	ppm	ASTM D5185m	0	0	0
Potassium	ppm	ASTM D5185m >20	<1	1	0
Water	%	ASTM D6304 >0.05	0.003	0.006	0.005
ppm Water	ppm	ASTM D6304 >500	38	67.2	56.3

FLUID CLEANLINESS

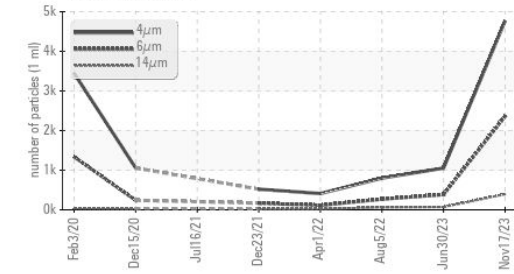
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		4769	1053	800
Particles >6µm	ASTM D7647	>1300	▲ 2360	386	271
Particles >14µm	ASTM D7647	>80	▲ 394	72	62
Particles >21µm	ASTM D7647	>20	▲ 120	28	18
Particles >38µm	ASTM D7647	>4	▲ 5	2	0
Particles >71µm	ASTM D7647	>3	1	0	0
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 19/18/16	17/16/13	17/15/13

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	0.60	0.43	0.42

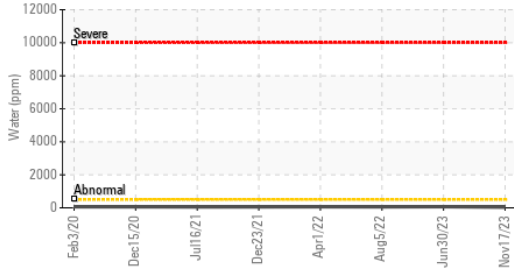
OIL ANALYSIS REPORT

▲ Particle Trend



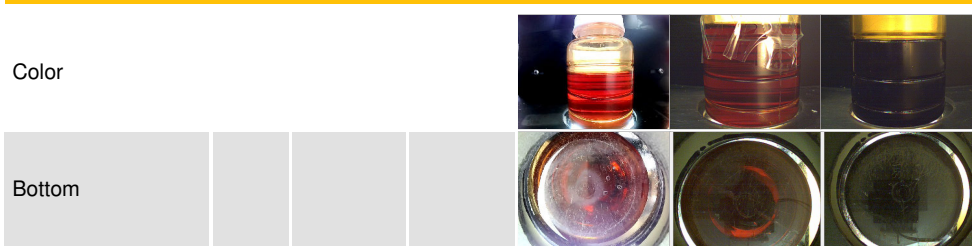
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

Water (KF)

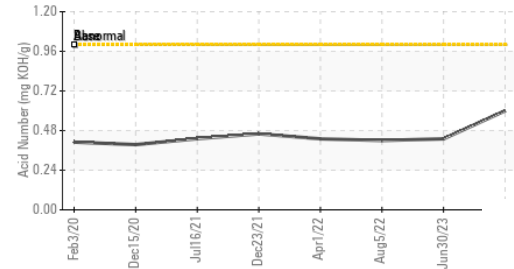


FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	46.1	43.4

SAMPLE IMAGES

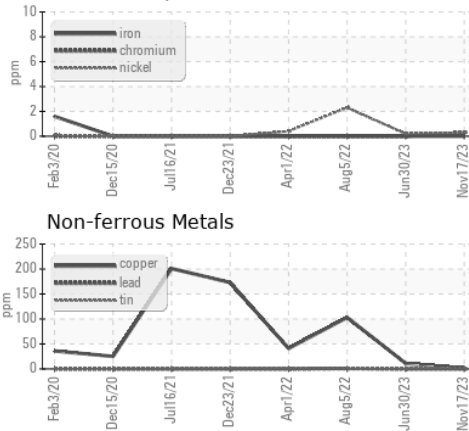


Acid Number

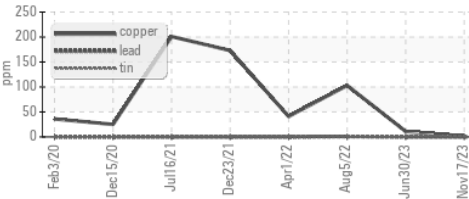


GRAPHS

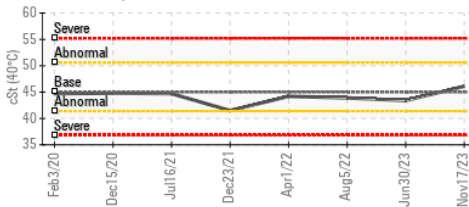
Ferrous Alloys



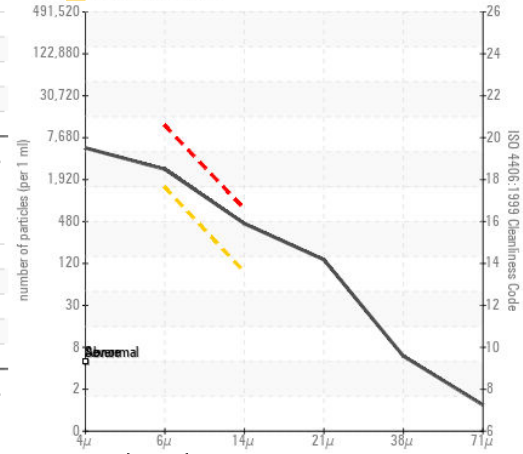
Non-ferrous Metals



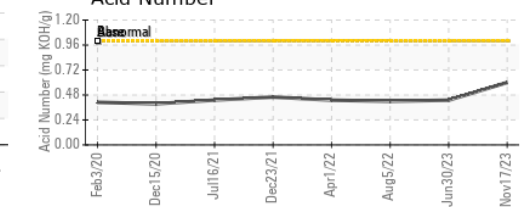
Viscosity @ 40°C



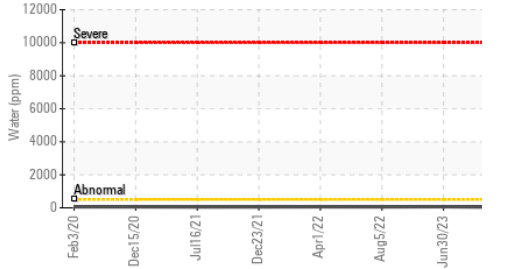
▲ Particle Count



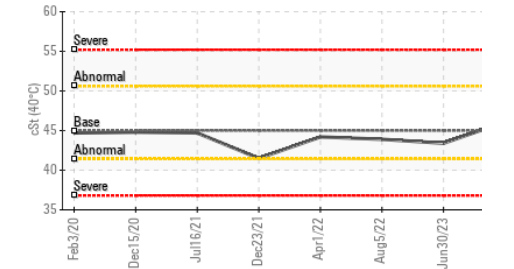
Acid Number



Water (KF)



Viscosity @ 40°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA006571 **Received** : 08 Dec 2023
Lab Number : 06029382 **Diagnosed** : 12 Dec 2023
Unique Number : 10779173 **Diagnostician** : Don Baldrige

THE GLENWOOD HOT SPRINGS
 401 N RIVER ST
 GLENWOOD SPRINGS, CO
 US 81601

Contact: Service Manager
 BAMMERMAN@HOTSPRINGSPPOOL.COM

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)

T:
F: