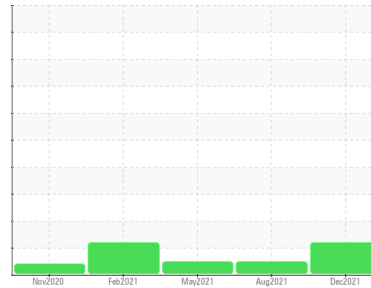


OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
KAESER AS 20 6521559 (S/N 1098)

Component
Compressor

Fluid
KAESER SIGMA (OEM) S-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	KC95117	KC100454	KC90144
Sample Date	Client Info	01 Dec 2021	19 Aug 2021	14 May 2021
Machine Age	hrs	24281	22055	20063
Oil Age	hrs	4218	1992	7662
Oil Changed	Client Info	Not Chngd	Not Chngd	Changed
Sample Status		ABNORMAL	NORMAL	NORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	0	0	0
Chromium	ppm	ASTM D5185m >10	0	0	0
Nickel	ppm	ASTM D5185m >3	0	<1	0
Titanium	ppm	ASTM D5185m >3	0	0	0
Silver	ppm	ASTM D5185m >2	0	0	<1
Aluminum	ppm	ASTM D5185m >10	0	<1	<1
Lead	ppm	ASTM D5185m >10	0	0	0
Copper	ppm	ASTM D5185m >50	7	7	5
Tin	ppm	ASTM D5185m >10	0	0	0
Antimony	ppm	ASTM D5185m	0	0	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	<1	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	<1	15	1
Barium	ppm	ASTM D5185m 90	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m 90	0	<1	<1
Calcium	ppm	ASTM D5185m 2	0	0	0
Phosphorus	ppm	ASTM D5185m	4	0	1
Zinc	ppm	ASTM D5185m	0	0	0

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	4	4	1
Sodium	ppm	ASTM D5185m	0	<1	0
Potassium	ppm	ASTM D5185m >20	0	6	0
Water	%	ASTM D6304 >0.05	0.006	0.005	0.009
ppm Water	ppm	ASTM D6304 >500	64.4	56.6	93.3

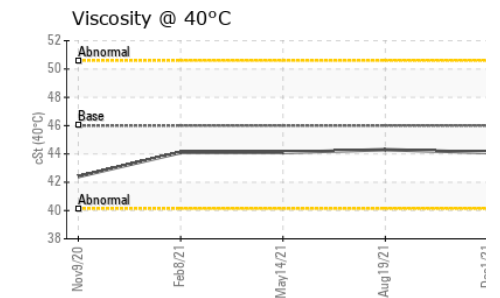
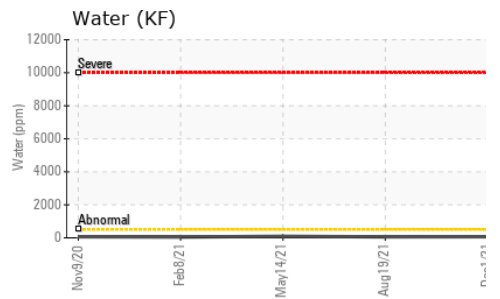
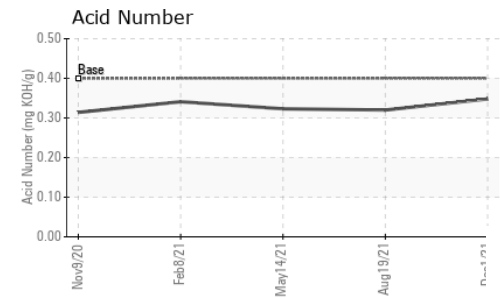
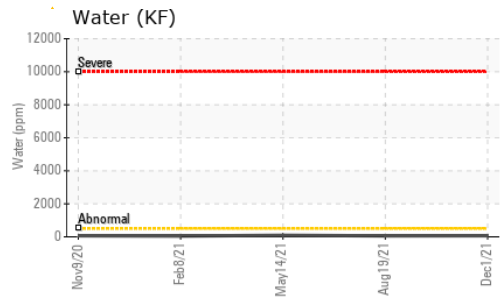
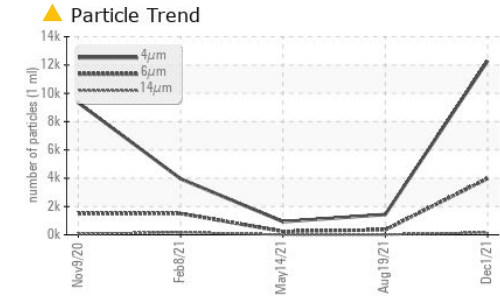
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	12298	1436	928
Particles >6µm	ASTM D7647 >1300	▲ 3984	353	234
Particles >14µm	ASTM D7647 >80	▲ 162	15	9
Particles >21µm	ASTM D7647 >20	▲ 23	5	3
Particles >38µm	ASTM D7647 >4	0	0	0
Particles >71µm	ASTM D7647 >3	0	0	0
Oil Cleanliness	ISO 4406 (c) >--/17/13	▲ 19/15	16/11	15/10

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.4	0.348	0.320	0.323

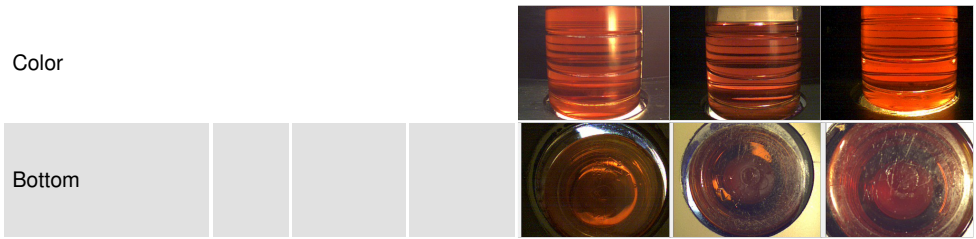
OIL ANALYSIS REPORT



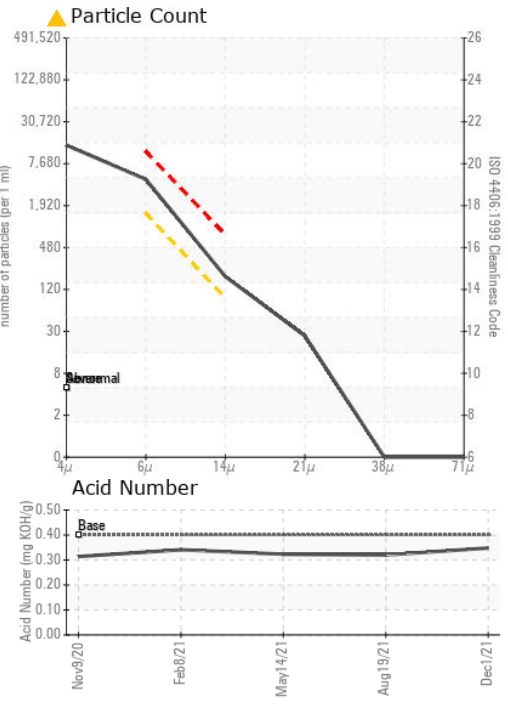
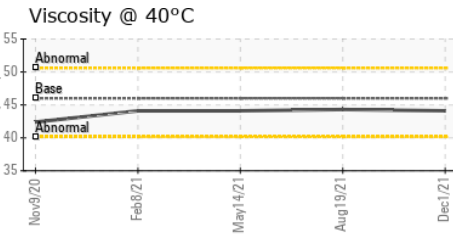
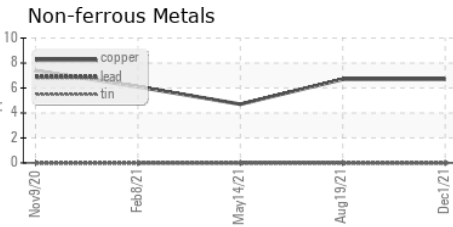
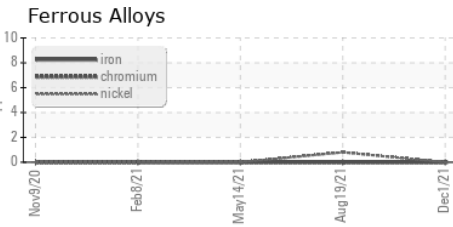
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	44.1	44.3	44.1

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KC95117
Lab Number : 05416527
Unique Number : 9765715
Test Package : IND 2
Received : 07 Dec 2021
Tested : 08 Dec 2021
Diagnosed : 08 Dec 2021 - Doug Bogart

NORMAN NOBLE
 5340 AVION PKWY
 HIGHLAND HEIGHTS, OH
 US 44143
 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)