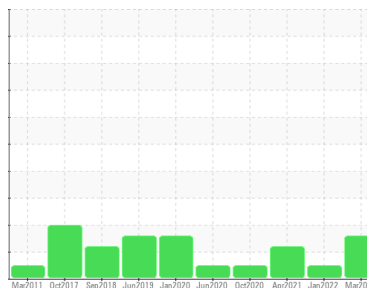


Machine Id
KAESER CSD 75 3547713 (S/N 1522)

Component
Compressor

Fluid
KAESER SIGMA (OEM) M-460 (--- QTS)



DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Oil and 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			KCPA013839	KCP43506	KCP35922
Sample Date	Client Info			11 Mar 2024	06 Jan 2022	08 Apr 2021
Machine Age	hrs	Client Info		44536	40671	38896
Oil Age	hrs	Client Info		0	1775	872
Oil Changed	Client Info			Changed	Changed	Not Changed
Sample Status				ABNORMAL	NORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	0	<1	<1
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>3	0	0	0
Titanium	ppm	ASTM D5185m	>3	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	0	<1	0
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>50	6	6	<1
Tin	ppm	ASTM D5185m	>10	0	<1	0
Antimony	ppm	ASTM D5185m		---	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

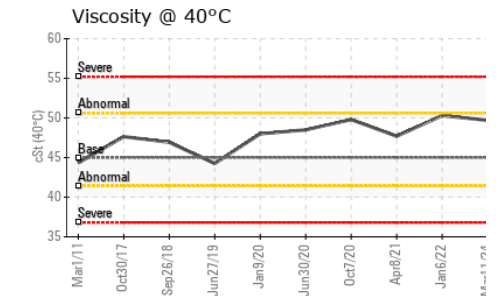
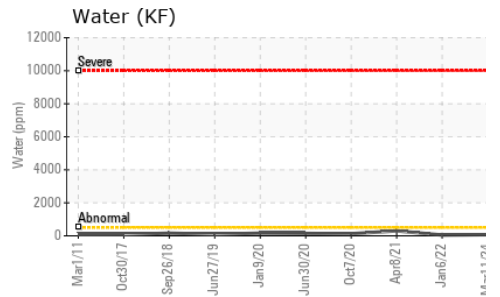
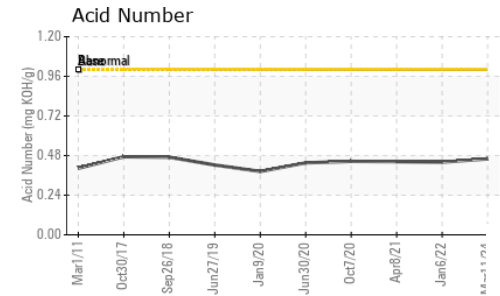
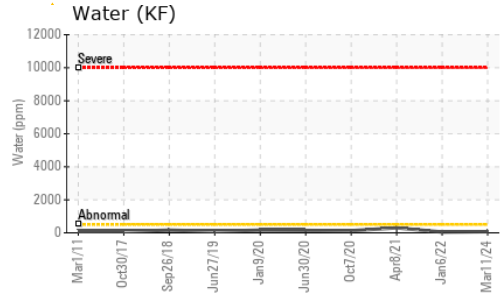
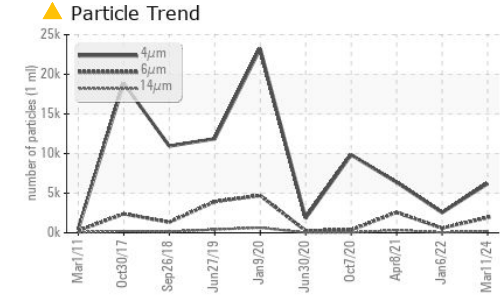
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0	<1
Barium	ppm	ASTM D5185m	90	0	0	73
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	100	6	2	86
Calcium	ppm	ASTM D5185m	0	0	0	2
Phosphorus	ppm	ASTM D5185m	0	0	2	2
Zinc	ppm	ASTM D5185m	0	2	<1	0
Sulfur	ppm	ASTM D5185m	23500	21677	18667	17257

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	0	1	2
Sodium	ppm	ASTM D5185m		4	2	17
Potassium	ppm	ASTM D5185m	>20	0	<1	2
Water	%	ASTM D6304	>0.05	0.007	0.004	0.029
ppm Water	ppm	ASTM D6304	>500	71	47.4	299.7

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		6214	2547	6361
Particles >6µm		ASTM D7647	>1300	▲ 1933	585	▲ 2581
Particles >14µm		ASTM D7647	>80	▲ 203	46	▲ 326
Particles >21µm		ASTM D7647	>20	▲ 55	7	▲ 93
Particles >38µm		ASTM D7647	>4	3	1	2
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	▲ 20/18/15	16/13	▲ 19/16

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.46	0.44	0.443

OIL ANALYSIS REPORT



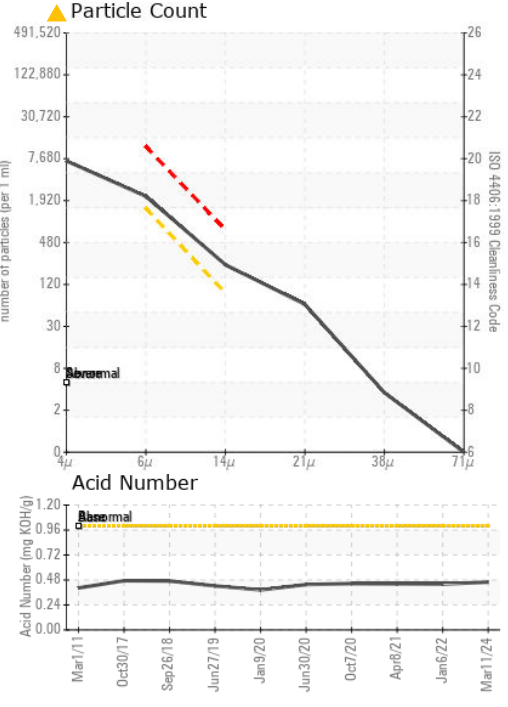
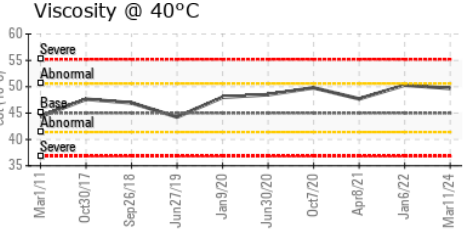
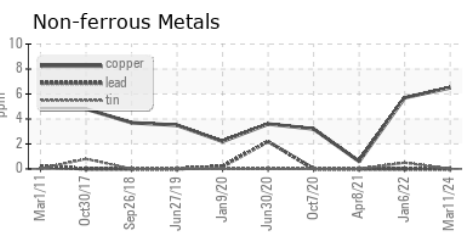
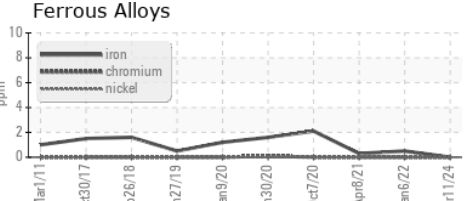
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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 45	49.7	50.3	47.7

SAMPLE IMAGES

method	limit/base	current	history1	history2
Color				
Bottom				

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA013839 **Received** : 20 Mar 2024
Lab Number : 06124315 **Tested** : 21 Mar 2024
Unique Number : 10938466 **Diagnosed** : 23 Mar 2024 - Don Baldrige
Test Package : IND 2 (Additional Tests: KF, PriCount)

ALTEC HILINE
 1255 PORT TERMINAL RD
 DULUTH, MN
 US 55802
 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)