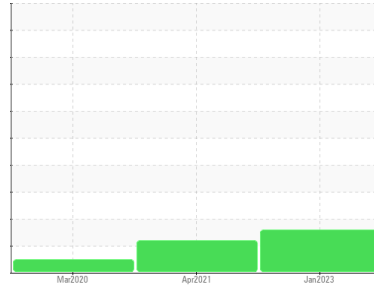


PROBLEM SUMMARY

Sample Rating Trend



ISO



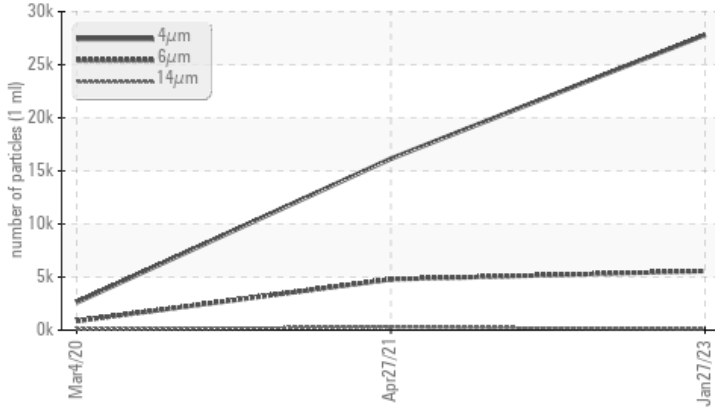
Machine Id
KAESER AS 20T 6269970 (S/N 1047)

Component
Compressor

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

COMPONENT CONDITION SUMMARY

▲ Particle Trend



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.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ABNORMAL	NORMAL
Particles >6µm	ASTM D7647	>1300	▲ 5568	▲ 4786	862
Particles >14µm	ASTM D7647	>80	▲ 109	▲ 284	76
Particles >21µm	ASTM D7647	>20	▲ 21	▲ 96	25
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 22/20/14	▲ 19/15	17/13

Customer Id: MARFORCO
Sample No.: KCP54893
Lab Number: 05768126
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 Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS

27 Apr 2021 Diag: Don Baldrige

ISO



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. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



04 Mar 2020 Diag: Don Baldrige

NORMAL

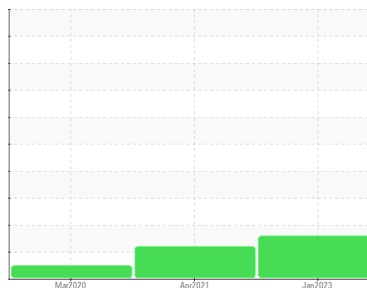


Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for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

[view report](#)



Machine Id
KAESER AS 20T 6269970 (S/N 1047)
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)



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			KCP54893	KCP32679	KCP24272
Sample Date	Client Info			27 Jan 2023	27 Apr 2021	04 Mar 2020
Machine Age	hrs	Client Info		12793	11301	8228
Oil Age	hrs	Client Info		2752	3073	4000
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	2	0	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	<1
Lead	ppm	ASTM D5185m	>10	0	2	<1
Copper	ppm	ASTM D5185m	>50	13	4	5
Tin	ppm	ASTM D5185m	>10	0	0	0
Antimony	ppm	ASTM D5185m		---	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

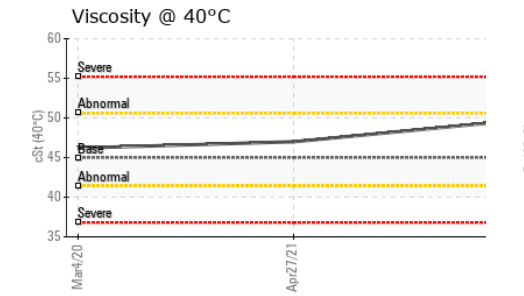
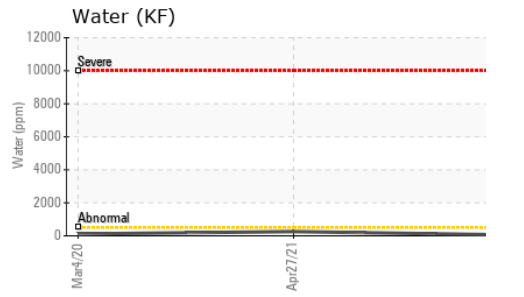
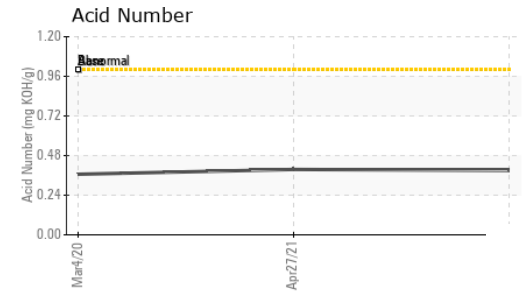
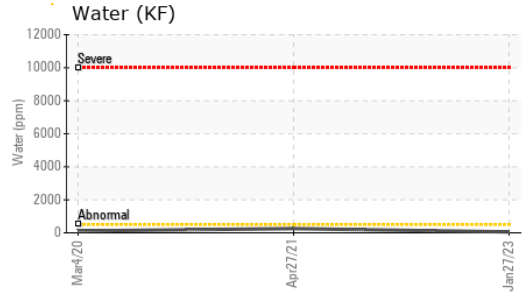
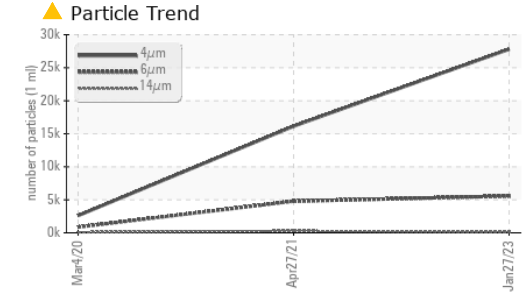
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	22	0
Barium	ppm	ASTM D5185m	90	0	30	28
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m	100	2	73	72
Calcium	ppm	ASTM D5185m	0	0	0	2
Phosphorus	ppm	ASTM D5185m	0	4	1	4
Zinc	ppm	ASTM D5185m	0	0	3	9
Sulfur	ppm	ASTM D5185m	23500	17643	20467	17360

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<1	2	0
Sodium	ppm	ASTM D5185m		0	20	27
Potassium	ppm	ASTM D5185m	>20	0	7	2
Water	%	ASTM D6304	>0.05	0.005	0.025	0.011
ppm Water	ppm	ASTM D6304	>500	55.2	256.3	114.8

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		27810	16148	2605
Particles >6µm		ASTM D7647	>1300	▲ 5568	▲ 4786	862
Particles >14µm		ASTM D7647	>80	▲ 109	▲ 284	76
Particles >21µm		ASTM D7647	>20	▲ 21	▲ 96	25
Particles >38µm		ASTM D7647	>4	1	3	2
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	▲ 22/20/14	▲ 19/15	17/13

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.39	0.396	0.367

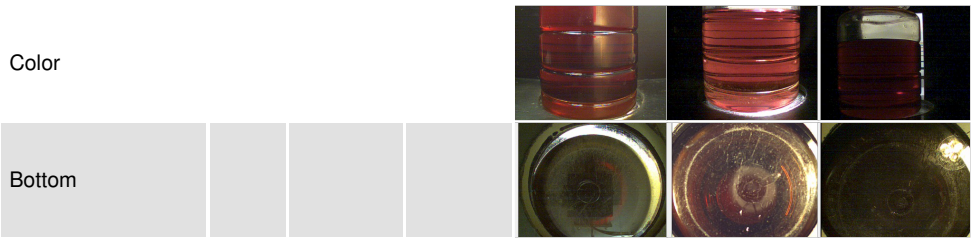
OIL ANALYSIS REPORT



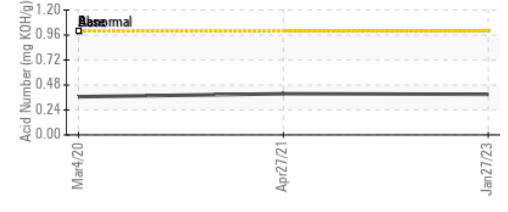
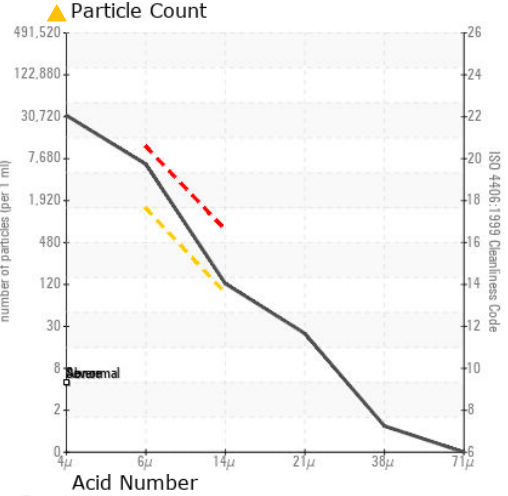
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	49.6	47.0

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCP54893 **Received** : 15 Feb 2023
Lab Number : 05768126 **Diagnosed** : 16 Feb 2023
Unique Number : 10337734 **Diagnostician** : Doug Bogart
Test Package : IND 2 (Additional Tests: KF, PrtCount)

MARKLEY MOTORS
 3401 S COLLEGE AVE
 FORT COLLINS, CO
 US 80525
 Contact: G. DEGROOT
 gdegroot@markleymotors.com
 T:
 F:

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)