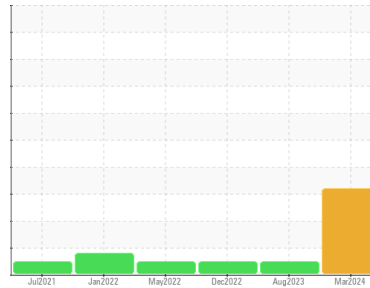




OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id
KAESER 3462043 (S/N 1053)

Component
Compressor

Fluid
KAESER SIGMA (OEM) S-460 (--- LTR)

DIAGNOSIS

▲ Recommendation

The filter change at the time of sampling has been noted. We were unable to perform a particle count due to a high concentration of particles present in this sample. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

Wear

All component wear rates are normal.

▲ Contamination

Appearance is hazy. There is a moderate amount of visible silt present in the sample. There is a light concentration of water 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			KCPA013268	KCP48006D	KCP52665
Sample Date	Client Info			04 Mar 2024	07 Aug 2023	06 Dec 2022
Machine Age	hrs	Client Info		3683	3260	3042
Oil Age	hrs	Client Info		423	399	181
Oil Changed	Client Info			Not Chngd	Changed	Not Chngd
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	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	0	0
Copper	ppm	ASTM D5185m	>50	0	<1	<1
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0

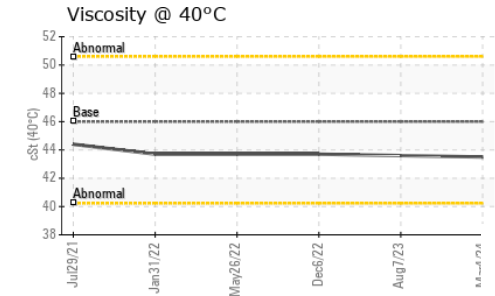
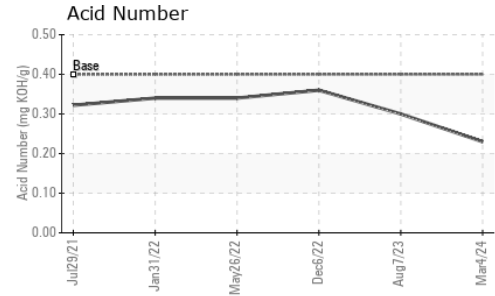
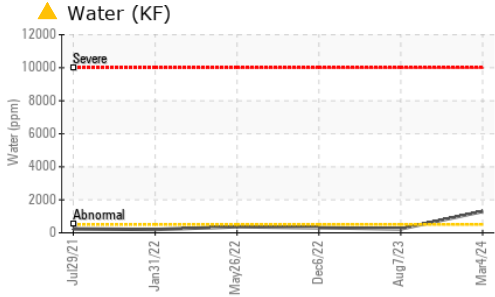
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m	90	28	0	11
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m	90	20	60	66
Calcium	ppm	ASTM D5185m	2	0	0	<1
Phosphorus	ppm	ASTM D5185m		0	0	26
Zinc	ppm	ASTM D5185m		0	0	9
Sulfur	ppm	ASTM D5185m		21217	22678	21462

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	0	<1	2
Sodium	ppm	ASTM D5185m		3	16	17
Potassium	ppm	ASTM D5185m	>20	0	2	1
Water	%	ASTM D6304	>0.05	▲ 0.130	0.023	0.030
ppm Water	ppm	ASTM D6304	>500	▲ 1300	238.3	309.5

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		---	1733	2722
Particles >6µm		ASTM D7647	>1300	---	380	551
Particles >14µm		ASTM D7647	>80	---	19	37
Particles >21µm		ASTM D7647	>20	---	4	16
Particles >38µm		ASTM D7647	>4	---	0	7
Particles >71µm		ASTM D7647	>3	---	0	3
Oil Cleanliness		ISO 4406 (c)	>--/17/13	---	18/16/11	19/16/12

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	0.23	0.30	0.36

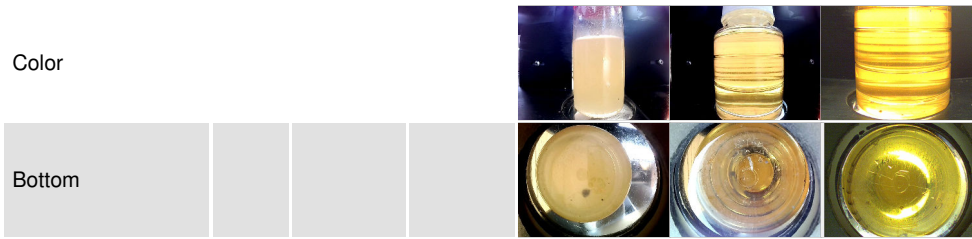
OIL ANALYSIS REPORT



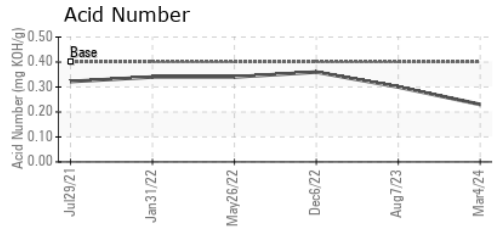
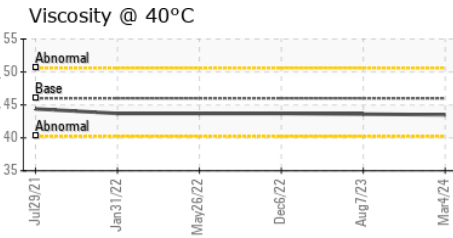
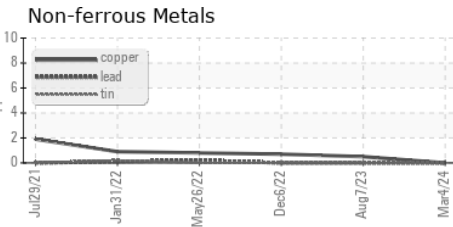
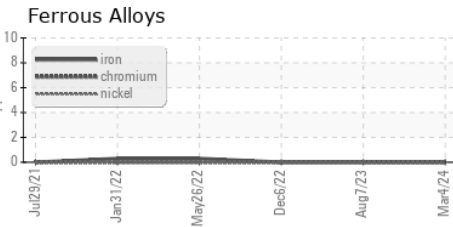
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	▲ MODER	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	● HAZY	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	0.2%	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	43.5	43.6

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA013268 **Received** : 21 Mar 2024
Lab Number : 06125708 **Tested** : 26 Mar 2024
Unique Number : 10939859 **Diagnosed** : 26 Mar 2024 - Jonathan Hester
Test Package : IND 2 (Additional Tests: KF, PrtCount)

LOCKHEED MARTIN
 6801 ROSELL ST
 FORT BENNING, GA
 US 31905

Contact: FRANK SOLARES
 frank.solares@onevaliant.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: