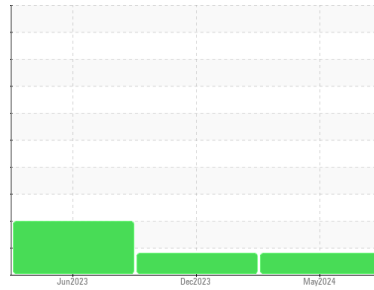




OIL ANALYSIS REPORT

Sample Rating Trend



SEDIMENT



Machine Id

KAESER 8384273

Component

Compressor

Fluid

KAESER SIGMA (OEM) S-460 (--- GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of visible silt present in the sample.

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	KC130261	KC122902	KC101257
Sample Date	Client Info	22 May 2024	07 Dec 2023	05 Jun 2023
Machine Age	hrs	8757	7512	5433
Oil Age	hrs	1246	0	5433
Oil Changed	Client Info	Changed	N/A	Changed
Sample Status		ABNORMAL	ATTENTION	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	5	0	0
Chromium	ppm	ASTM D5185m >10	0	<1	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	2	0
Lead	ppm	ASTM D5185m >10	0	0	0
Copper	ppm	ASTM D5185m >50	16	13	22
Tin	ppm	ASTM D5185m >10	0	0	0
Vanadium	ppm	ASTM D5185m	<1	0	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	0	0	2
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m 90	<1	<1	<1
Calcium	ppm	ASTM D5185m 2	0	0	0
Phosphorus	ppm	ASTM D5185m	<1	40	<1
Zinc	ppm	ASTM D5185m	2	0	0

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	0	0	0
Sodium	ppm	ASTM D5185m	2	0	0
Potassium	ppm	ASTM D5185m >20	0	<1	<1
Water	%	ASTM D6304 >0.05	0.004	0.007	0.006
ppm Water	ppm	ASTM D6304 >500	41	76	68.3

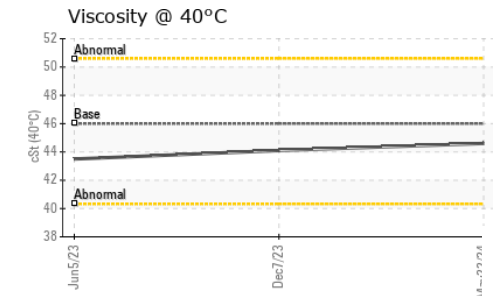
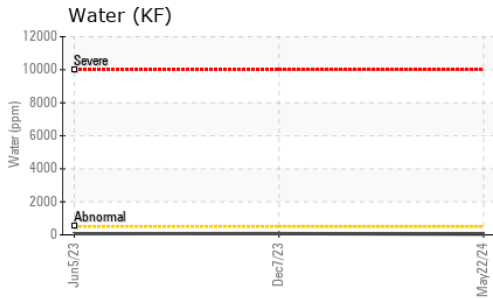
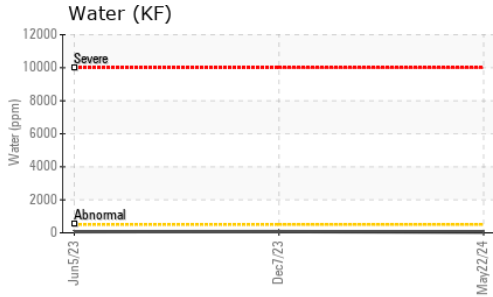
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	---	7584	67915
Particles >6µm	ASTM D7647 >1300	---	● 1404	▲ 25456
Particles >14µm	ASTM D7647 >80	---	42	▲ 2174
Particles >21µm	ASTM D7647 >20	---	10	▲ 689
Particles >38µm	ASTM D7647 >4	---	1	▲ 31
Particles >71µm	ASTM D7647 >3	---	0	1
Oil Cleanliness	ISO 4406 (c) >--/17/13	---	● 20/18/13	▲ 23/22/18

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.4	0.32	0.26	0.25

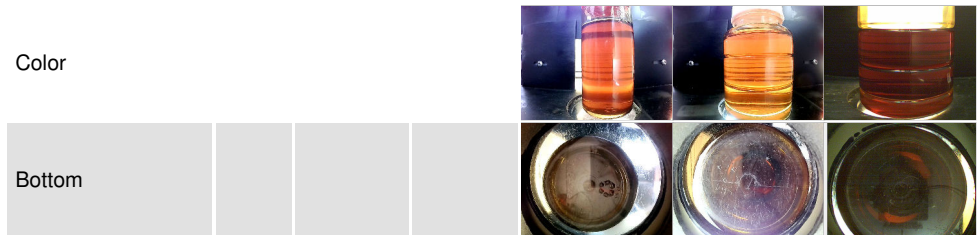
OIL ANALYSIS REPORT



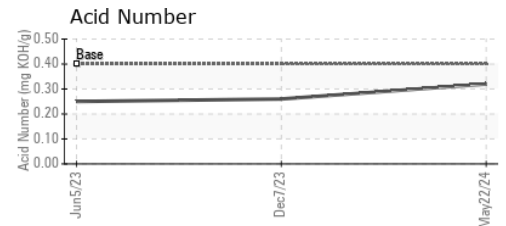
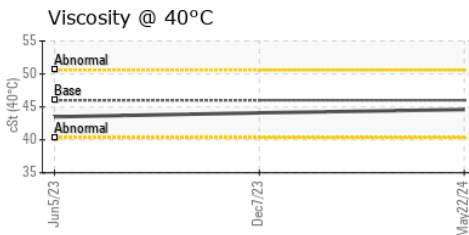
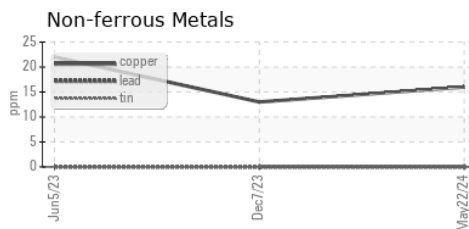
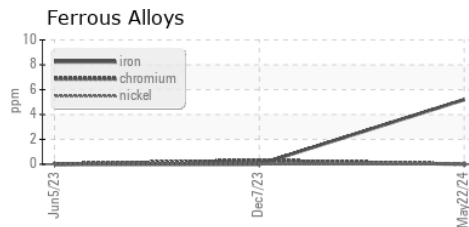
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	▲ MODER	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	44.6	44.1	43.5

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. : KC130261
Lab Number : 06196679
Unique Number : 11058802
Test Package : IND 2

Received : 31 May 2024
Tested : 03 Jun 2024
Diagnosed : 03 Jun 2024 - Angela Borella

LAKELAND TOYOTA
 2625 MALL HILL DR
 LAKELAND, FL
 US 33810
 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)

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F: