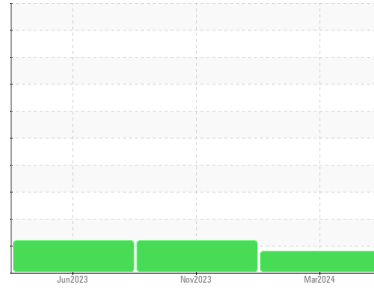




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**8754768 (S/N 2187)**

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 moderate amount of silt (particulates < 14 microns in size) 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			<b>KC121248</b>	KC120767	KC101675
Sample Date	Client Info			<b>12 Mar 2024</b>	01 Nov 2023	15 Jun 2023
Machine Age	hrs	Client Info		<b>9825</b>	6657	3324
Oil Age	hrs	Client Info		<b>0</b>	0	3324
Oil Changed	Client Info			<b>N/A</b>	N/A	Changed
Sample Status				<b>ATTENTION</b>	ABNORMAL	ABNORMAL

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

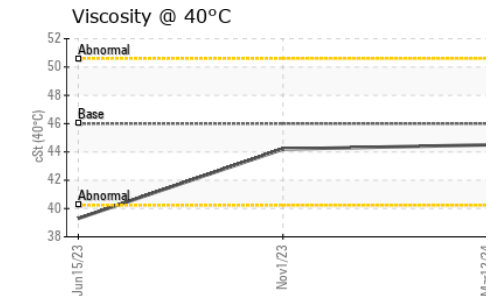
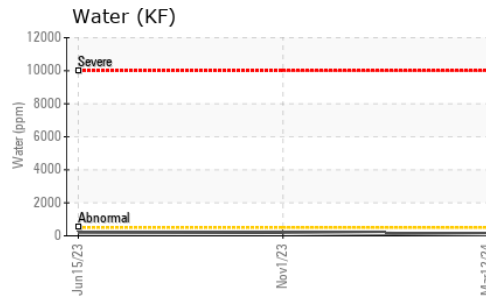
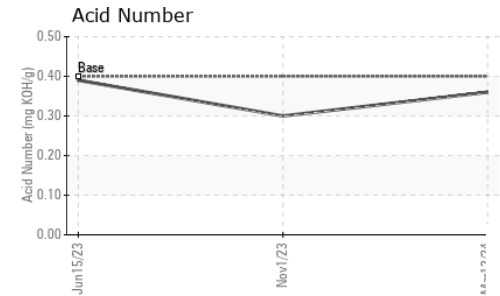
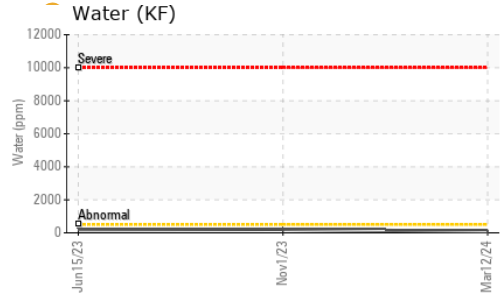
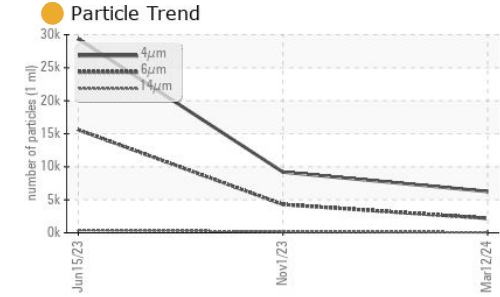
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m	90	<b>&lt;1</b>	15	68
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	90	<b>39</b>	63	72
Calcium	ppm	ASTM D5185m	2	<b>0</b>	<1	3
Phosphorus	ppm	ASTM D5185m		<b>0</b>	<1	2
Zinc	ppm	ASTM D5185m		<b>0</b>	0	4

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>4</b>	5	<1
Sodium	ppm	ASTM D5185m		<b>15</b>	16	13
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	5	8
Water	%	ASTM D6304	>0.05	<b>0.008</b>	0.021	0.019
ppm Water	ppm	ASTM D6304	>500	<b>81</b>	213.4	196.4

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		<b>6255</b>	9198	29351
Particles >6µm		ASTM D7647	>1300	<b>2191</b>	▲ 4285	▲ 15597
Particles >14µm		ASTM D7647	>80	<b>64</b>	▲ 184	▲ 413
Particles >21µm		ASTM D7647	>20	<b>10</b>	20	18
Particles >38µm		ASTM D7647	>4	<b>1</b>	2	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	<b>20/18/13</b>	▲ 20/19/15	▲ 22/21/16

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	<b>0.36</b>	0.30	0.39

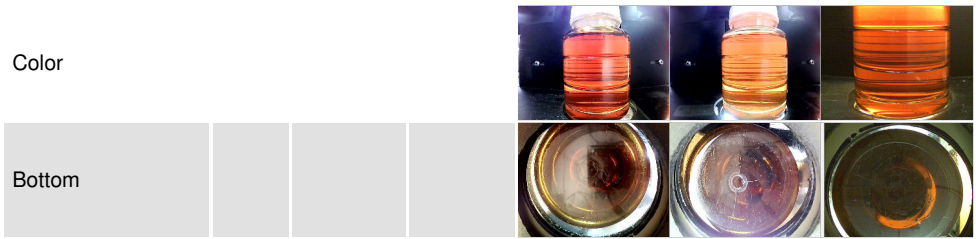
# OIL ANALYSIS REPORT



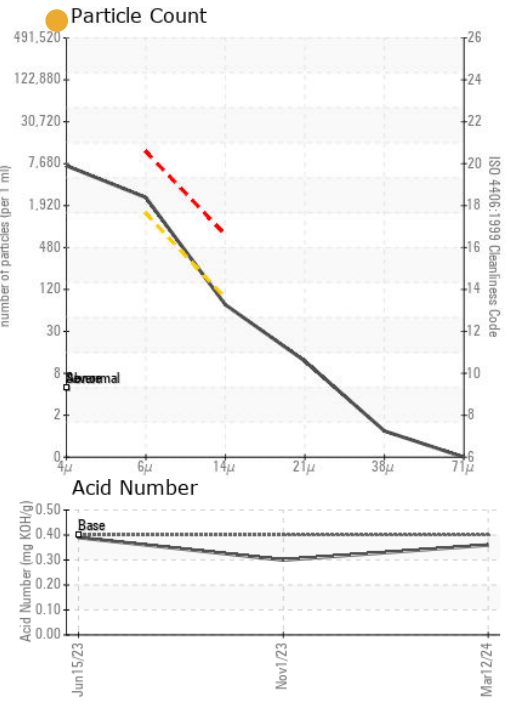
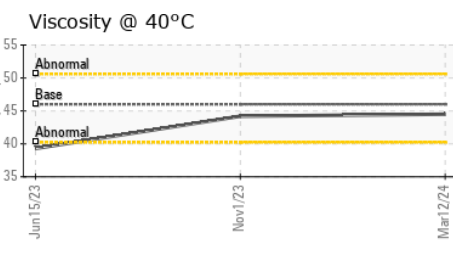
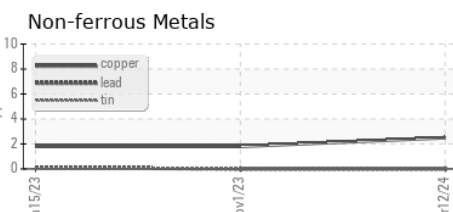
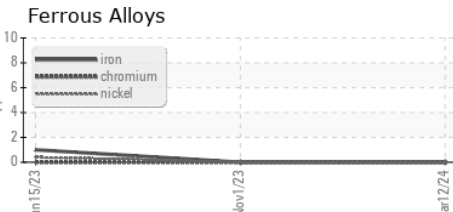
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	44.5	44.2	39.3

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KC121248  
**Lab Number** : 06122386  
**Unique Number** : 10936537  
**Test Package** : IND 2  
**Received** : 19 Mar 2024  
**Tested** : 20 Mar 2024  
**Diagnosed** : 21 Mar 2024 - Jonathan Hester

**HKM DIRECT**  
 5501 CASS AVE  
 CLEVELAND, OH  
 US 44102  
 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)