



# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**7148581 (S/N 1108)**

Component  
**Compressor**  
Fluid  
**KAESER SIGMA (OEM) M-460 (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

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			<b>KCPA013806</b>	---	---
Sample Date	Client Info			<b>12 Mar 2024</b>	---	---
Machine Age	hrs	Client Info		<b>8140</b>	---	---
Oil Age	hrs	Client Info		<b>8140</b>	---	---
Oil Changed	Client Info			<b>Changed</b>	---	---
Sample Status				<b>ABNORMAL</b>	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<b>0</b>	---	---
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	---	---
Nickel	ppm	ASTM D5185m	>3	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m	>3	<b>0</b>	---	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>10	<b>3</b>	---	---
Lead	ppm	ASTM D5185m	>10	<b>0</b>	---	---
Copper	ppm	ASTM D5185m	>50	<b>4</b>	---	---
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>0</b>	---	---
Barium	ppm	ASTM D5185m	90	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	---	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185m	100	<b>17</b>	---	---
Calcium	ppm	ASTM D5185m	0	<b>0</b>	---	---
Phosphorus	ppm	ASTM D5185m	0	<b>0</b>	---	---
Zinc	ppm	ASTM D5185m	0	<b>&lt;1</b>	---	---
Sulfur	ppm	ASTM D5185m	23500	<b>20827</b>	---	---

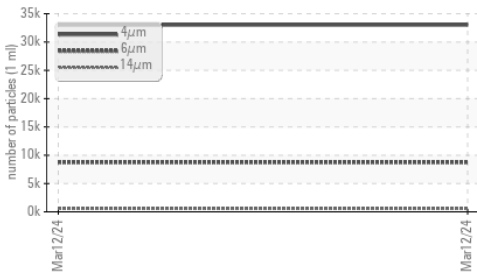
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>&lt;1</b>	---	---
Sodium	ppm	ASTM D5185m		<b>2</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	---	---
Water	%	ASTM D6304	>0.05	<b>0.006</b>	---	---
ppm Water	ppm	ASTM D6304	>500	<b>69</b>	---	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		<b>33013</b>	---	---
Particles >6µm		ASTM D7647	>1300	<b>▲ 8744</b>	---	---
Particles >14µm		ASTM D7647	>80	<b>▲ 558</b>	---	---
Particles >21µm		ASTM D7647	>20	<b>▲ 133</b>	---	---
Particles >38µm		ASTM D7647	>4	<b>3</b>	---	---
Particles >71µm		ASTM D7647	>3	<b>0</b>	---	---
Oil Cleanliness		ISO 4406 (c)	>--/17/13	<b>▲ 22/20/16</b>	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	<b>0.35</b>	---	---

# OIL ANALYSIS REPORT

## ▲ Particle Trend



## Water (KF)



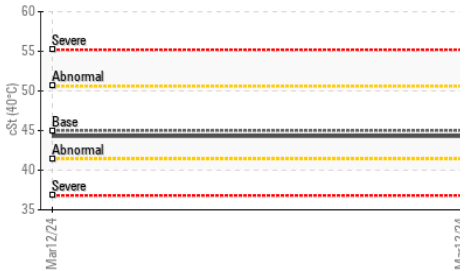
## Acid Number



## Water (KF)



## Viscosity @ 40°C



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.05	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	44.3	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color



no image

no image

Bottom



no image

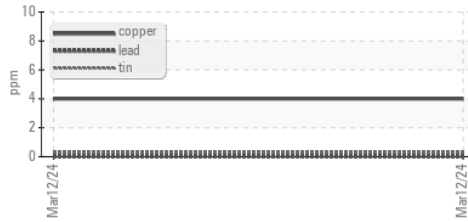
no image

## GRAPHS

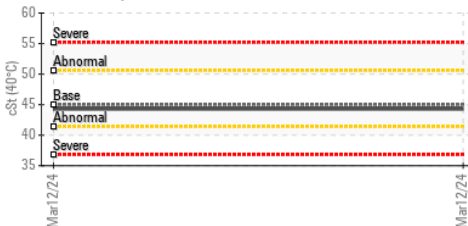
### Ferrous Alloys



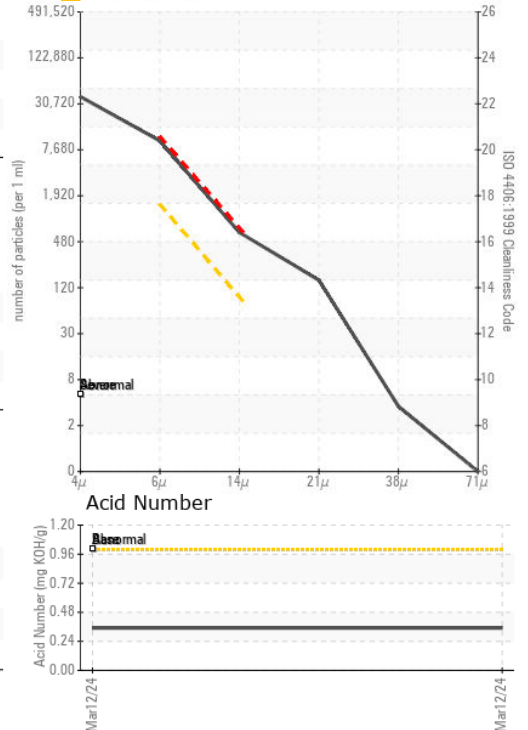
### Non-ferrous Metals



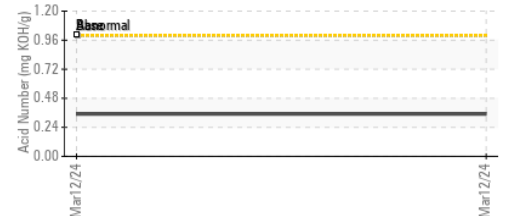
### Viscosity @ 40°C



### ▲ Particle Count



### Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : KCPA013806

Lab Number : 06123657

Unique Number : 10937808

Test Package : IND 2 ( Additional Tests: KF, PrtCount )

Received : 20 Mar 2024

Tested : 25 Mar 2024

Diagnosed : 25 Mar 2024 - Jonathan Hester

EAST CHERRY CREEK VALLEY WATER & SANITATION DISTRICT

21850 E I-76 FRONTAGE RD

BRIGHTON, CO

US 80603

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)

T:

F: