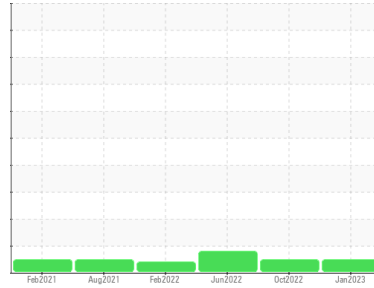




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**KAESER BSD 60 4127445 (S/N 1003)**

Component  
**Compressor**

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

**DIAGNOSIS**

**Recommendation**

Resample at the next service interval to monitor.

**Wear**

All component wear rates are normal.

**Contamination**

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination 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>KC108108</b>	KC107883	KC95179
Sample Date	Client Info			<b>16 Jan 2023</b>	14 Oct 2022	23 Jun 2022
Machine Age	hrs	Client Info		<b>43137</b>	41922	40408
Oil Age	hrs	Client Info		<b>2000</b>	4626	3743
Oil Changed	Client Info			<b>Not Chngd</b>	Changed	Not Chngd
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<b>&lt;1</b>	<1	<1
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>3	<b>0</b>	0	0
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>0</b>	0	<1
Lead	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>2</b>	5	2
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Antimony	ppm	ASTM D5185m		<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

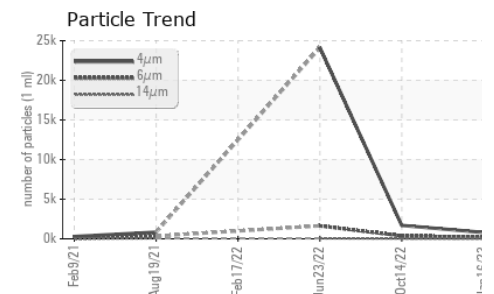
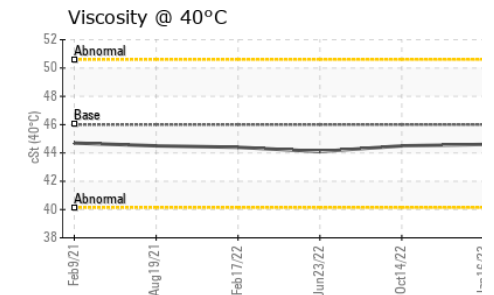
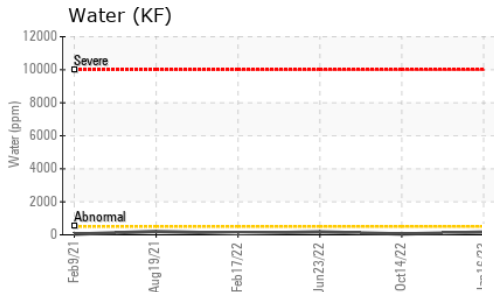
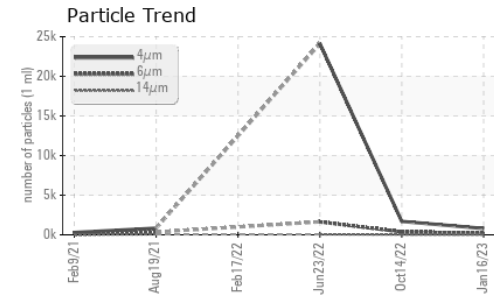
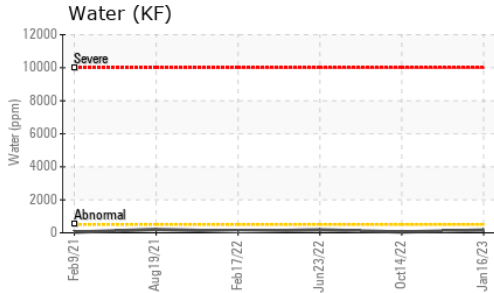
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>0</b>	0	1
Barium	ppm	ASTM D5185m	90	<b>66</b>	2	38
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	90	<b>70</b>	13	64
Calcium	ppm	ASTM D5185m	2	<b>2</b>	0	2
Phosphorus	ppm	ASTM D5185m		<b>4</b>	8	4
Zinc	ppm	ASTM D5185m		<b>4</b>	3	6

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>2</b>	<1	<1
Sodium	ppm	ASTM D5185m		<b>25</b>	2	20
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	1	2
Water	%	ASTM D6304	>0.05	<b>0.016</b>	0.004	0.018
ppm Water	ppm	ASTM D6304	>500	<b>165.9</b>	49.8	180.4

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		<b>802</b>	1691	24119
Particles >6µm		ASTM D7647	>1300	<b>186</b>	368	▲ 1634
Particles >14µm		ASTM D7647	>80	<b>12</b>	27	63
Particles >21µm		ASTM D7647	>20	<b>3</b>	12	14
Particles >38µm		ASTM D7647	>4	<b>0</b>	1	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	<b>17/15/11</b>	18/16/12	▲ 22/18/13

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	<b>0.45</b>	0.38	0.40

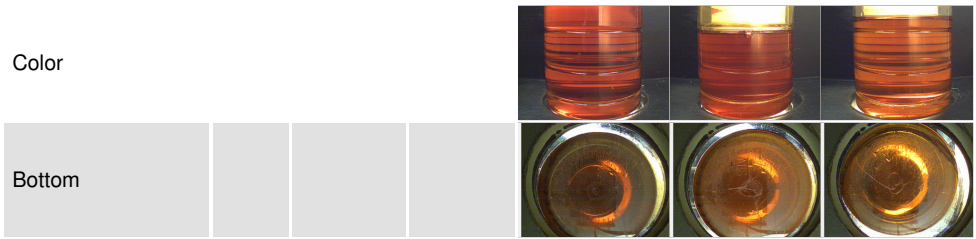
# OIL ANALYSIS REPORT



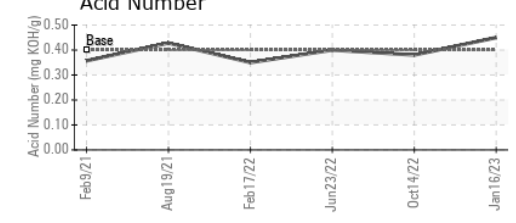
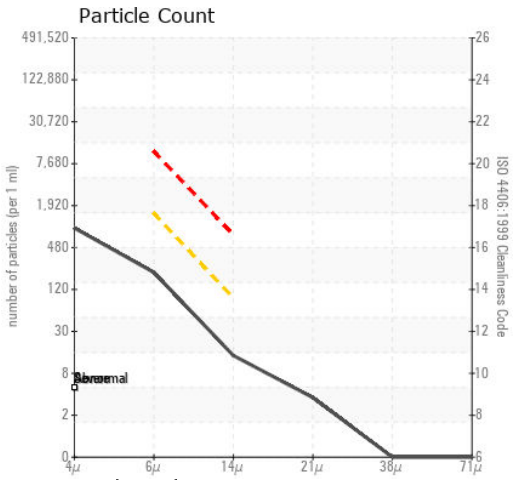
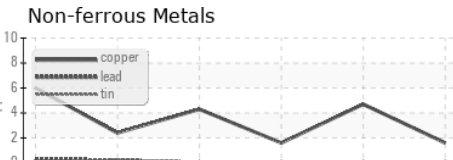
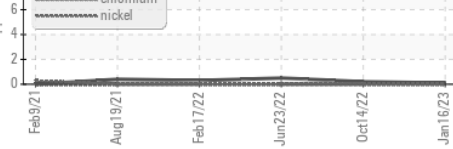
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	44.6	44.5	44.1

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KC108108  
**Lab Number** : 05746298  
**Unique Number** : 10305902  
**Test Package** : IND 2  
**Received** : 23 Jan 2023  
**Tested** : 24 Jan 2023  
**Diagnosed** : 25 Jan 2023 - Don Baldrige

**NORMAN NOBLE**  
 5340 AVION PKWY  
 HIGHLAND HEIGHTS, OH  
 US 44143  
 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)