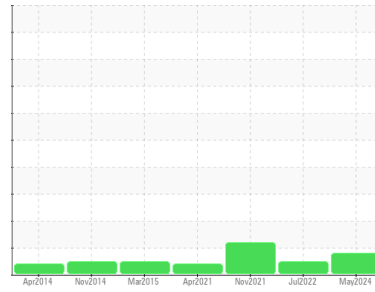




# OIL ANALYSIS REPORT

## Sample Rating Trend



ISO



Machine Id  
**KAESER BSD40 2849154 (S/N 1095)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) FG-460 (--- GAL)**

### DIAGNOSIS

#### Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. 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>KCPA017643</b>	KCP49708	KCP38789
Sample Date	Client Info			<b>10 May 2024</b>	20 Jul 2022	05 Nov 2021
Machine Age	hrs	Client Info		<b>122577</b>	109179	103328
Oil Age	hrs	Client Info		<b>0</b>	5850	4019
Oil Changed	Client Info			<b>Changed</b>	Changed	Changed
Sample Status				<b>ATTENTION</b>	NORMAL	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>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>1</b>	1	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
Antimony	ppm	ASTM D5185m		<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

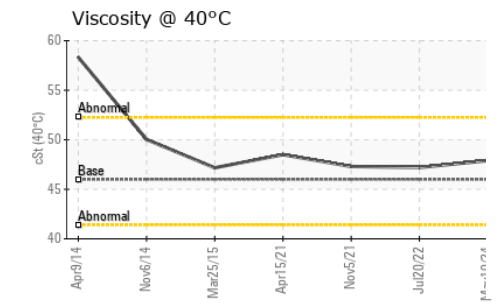
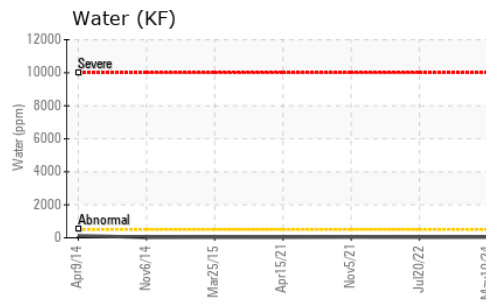
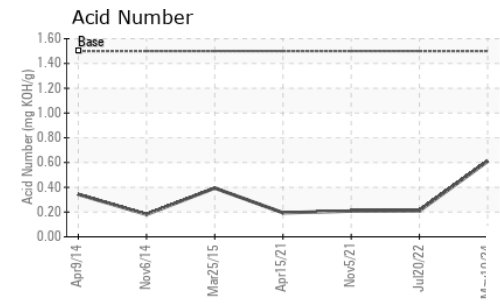
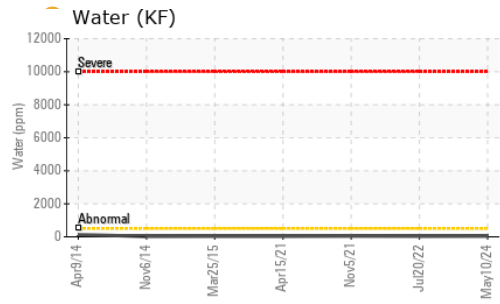
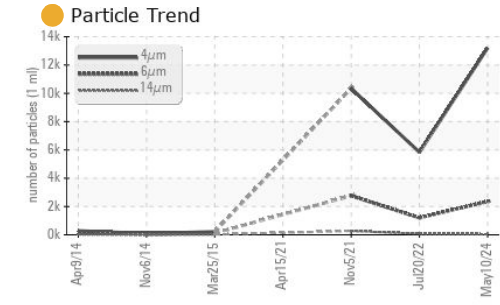
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	1
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m		<b>0</b>	0	0
Calcium	ppm	ASTM D5185m		<b>0</b>	0	0
Phosphorus	ppm	ASTM D5185m	500	<b>0</b>	18	28
Zinc	ppm	ASTM D5185m		<b>0</b>	0	2
Sulfur	ppm	ASTM D5185m		<b>362</b>	907	1400

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>&lt;1</b>	0	0
Sodium	ppm	ASTM D5185m		<b>2</b>	<1	<1
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	2
Water	%	ASTM D6304	>0.05	<b>0.004</b>	0.003	0.004
ppm Water	ppm	ASTM D6304	>500	<b>41</b>	32.5	42.0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		<b>13206</b>	5834	10346
Particles >6µm		ASTM D7647	>1300	<b>2349</b>	1203	▲ 2767
Particles >14µm		ASTM D7647	>80	<b>38</b>	74	▲ 273
Particles >21µm		ASTM D7647	>20	<b>6</b>	11	▲ 83
Particles >38µm		ASTM D7647	>4	<b>1</b>	1	4
Particles >71µm		ASTM D7647	>3	<b>1</b>	1	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	<b>21/18/12</b>	20/17/13	▲ 19/15

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.5	<b>0.61</b>	0.21	0.208

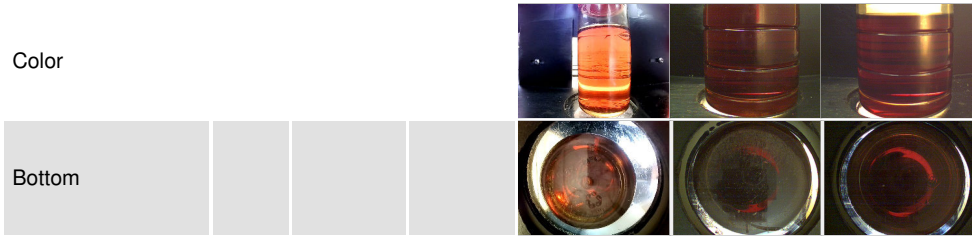
# OIL ANALYSIS REPORT



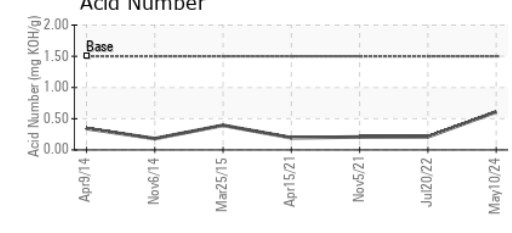
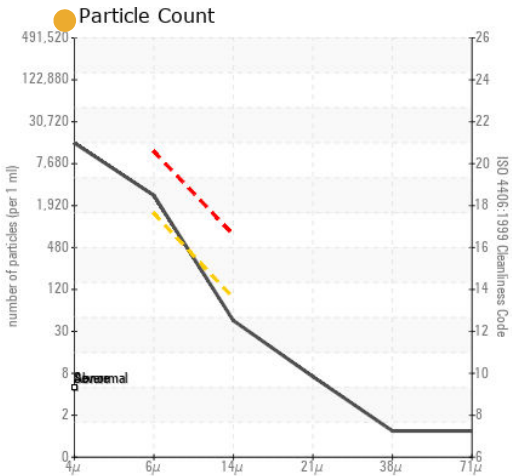
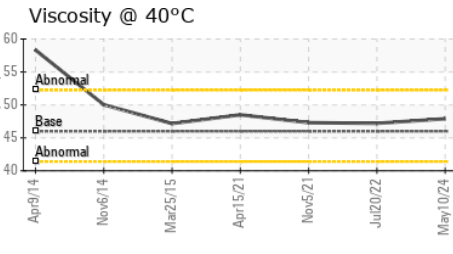
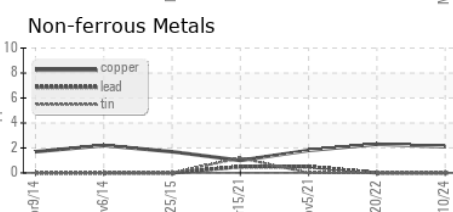
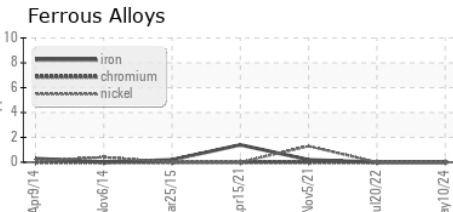
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	47.9	47.2

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA017643 **Received** : 16 May 2024  
**Lab Number** : 06182026 **Tested** : 20 May 2024  
**Unique Number** : 11033352 **Diagnosed** : 20 May 2024 - Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**TTL INC**  
 3516 GREENSBORO AVE  
 TUSCALOOSA, AL  
 US 35401  
 Contact: R. COSTANZO  
 rcostanzo@ttlusa.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)