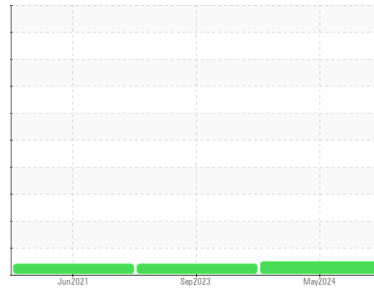




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**6297840 (S/N 1004)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) M-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>KCPA014476</b>	KCPA000863	KCP33201
Sample Date	Client Info			<b>13 May 2024</b>	29 Sep 2023	29 Jun 2021
Machine Age	hrs	Client Info		<b>27566</b>	23469	11449
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<b>0</b>	0	0
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185m	>10	<b>1</b>	<1	<1
Lead	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>10</b>	11	16
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Antimony	ppm	ASTM D5185m		<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

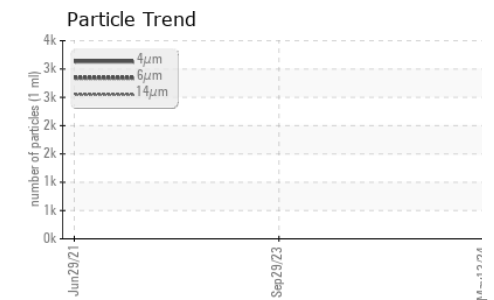
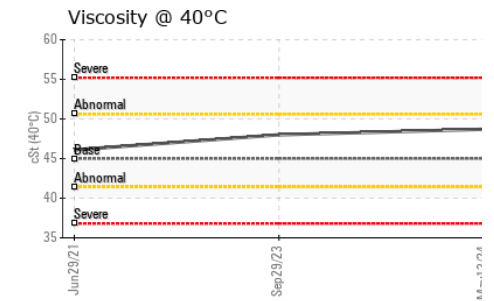
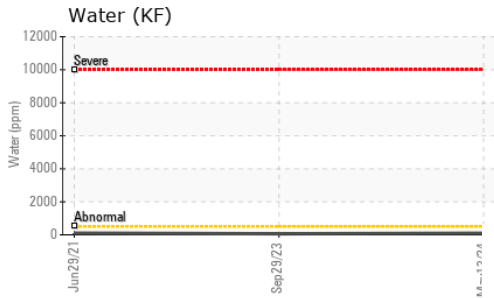
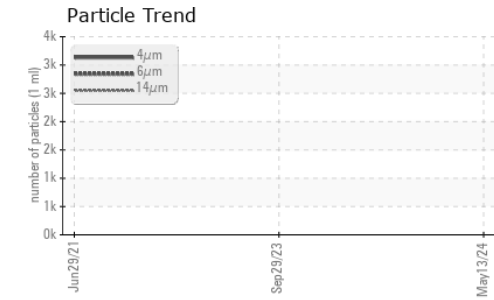
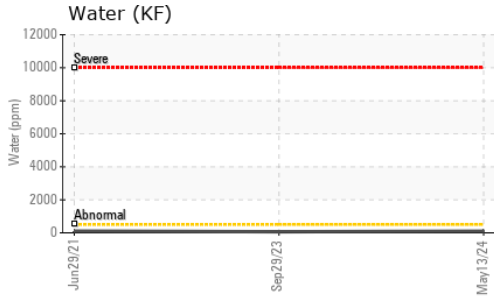
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	90	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m	100	<b>0</b>	3	4
Calcium	ppm	ASTM D5185m	0	<b>0</b>	1	0
Phosphorus	ppm	ASTM D5185m	0	<b>0</b>	<1	14
Zinc	ppm	ASTM D5185m	0	<b>29</b>	75	81
Sulfur	ppm	ASTM D5185m	23500	<b>22987</b>	21075	17713

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>&lt;1</b>	0	<1
Sodium	ppm	ASTM D5185m		<b>2</b>	0	1
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	0
Water	%	ASTM D6304	>0.05	<b>0.010</b>	0.006	0.010
ppm Water	ppm	ASTM D6304	>500	<b>103</b>	63.9	108.5

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		<b>3393</b>	---	---
Particles >6µm		ASTM D7647	>1300	<b>906</b>	---	---
Particles >14µm		ASTM D7647	>80	<b>52</b>	---	---
Particles >21µm		ASTM D7647	>20	<b>13</b>	---	---
Particles >38µm		ASTM D7647	>4	<b>1</b>	---	---
Particles >71µm		ASTM D7647	>3	<b>1</b>	---	---
Oil Cleanliness		ISO 4406 (c)	>--/17/13	<b>19/17/13</b>	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	<b>0.52</b>	0.48	0.392

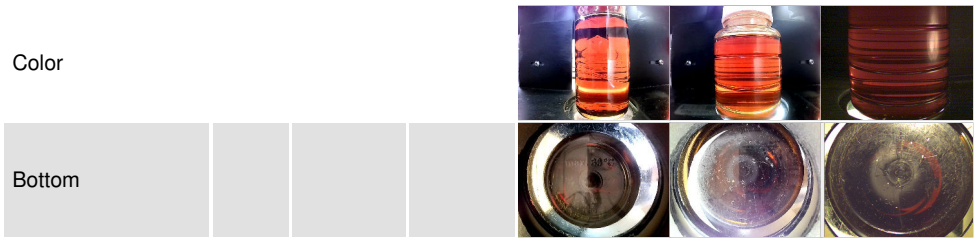
# OIL ANALYSIS REPORT



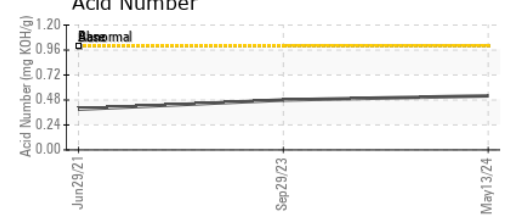
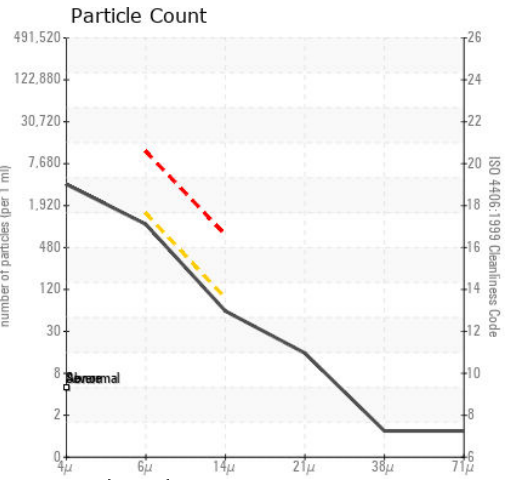
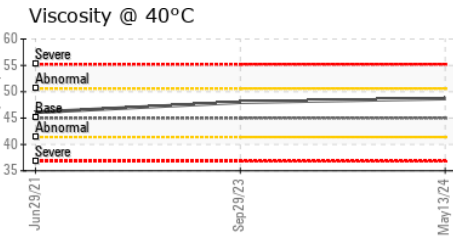
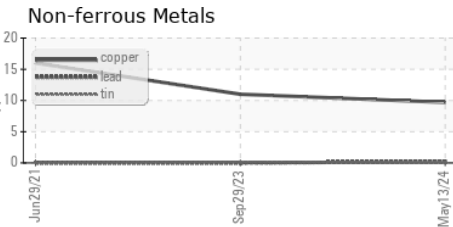
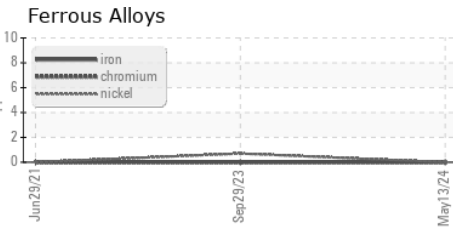
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	45	48.7	48.0	46.1

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA014476 **Received** : 16 May 2024  
**Lab Number** : 06182010 **Tested** : 20 May 2024  
**Unique Number** : 11033336 **Diagnosed** : 20 May 2024 - Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**KETTMANN MACHINING INC**  
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 SAN JOSE, CA  
 US 95136  
 Contact: GREG  
 greg@kettmannmachining.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)