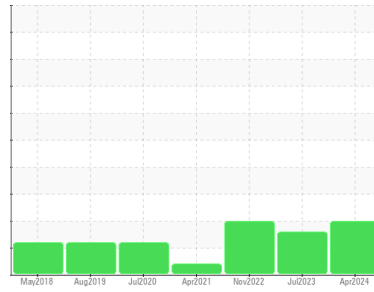




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**4762247 (S/N 1003)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) M-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 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>KCPA015913</b>	KCPA004261	KCP47723	
Sample Date	Client Info	<b>12 Apr 2024</b>	10 Jul 2023	09 Nov 2022	
Machine Age	hrs	Client Info	<b>61219</b>	87234	53520
Oil Age	hrs	Client Info	<b>3000</b>	0	3446
Oil Changed	Client Info	<b>Not Chngd</b>	N/A	Not Chngd	
Sample Status		<b>ABNORMAL</b>	ABNORMAL	ABNORMAL	

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	<b>1</b>	2	2
Chromium	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m >10	<b>3</b>	2	1
Lead	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m >50	<b>12</b>	14	14
Tin	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	<1
Antimony	ppm	ASTM D5185m	<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</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>&lt;1</b>	0	0
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m 100	<b>19</b>	4	24
Calcium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Phosphorus	ppm	ASTM D5185m 0	<b>0</b>	0	7
Zinc	ppm	ASTM D5185m 0	<b>12</b>	0	30
Sulfur	ppm	ASTM D5185m 23500	<b>22076</b>	26545	25056

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	<b>&lt;1</b>	<1	1
Sodium	ppm	ASTM D5185m	<b>4</b>	2	9
Potassium	ppm	ASTM D5185m >20	<b>4</b>	0	2
Water	%	ASTM D6304 >0.05	<b>0.012</b>	0.007	0.014
ppm Water	ppm	ASTM D6304 >500	<b>122</b>	79.2	146.7

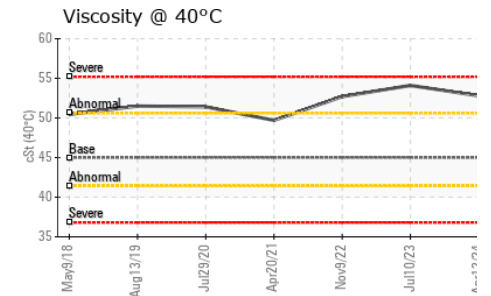
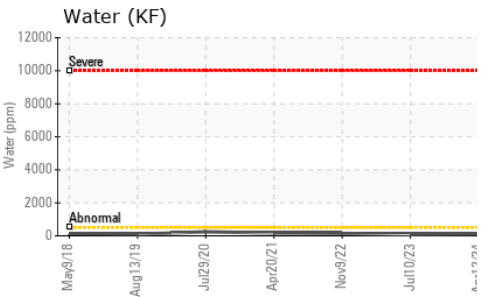
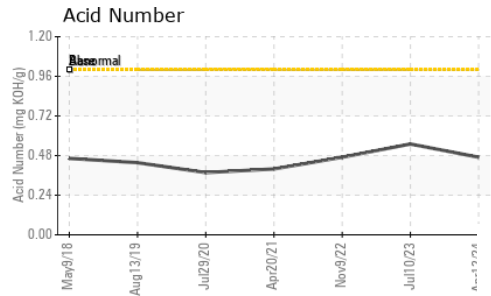
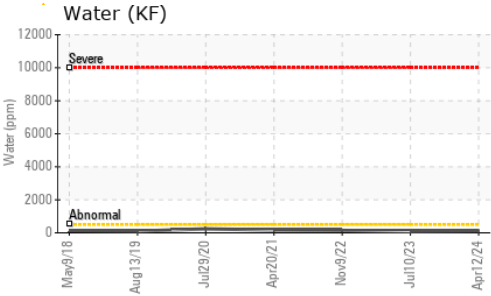
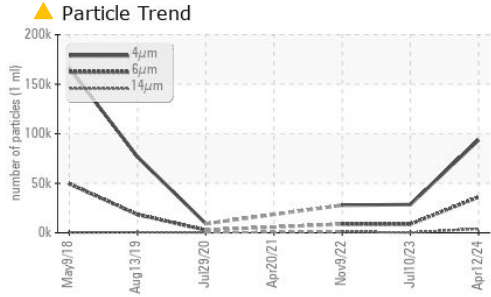
## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	<b>93737</b>	28532	27888
Particles >6µm	ASTM D7647 >1300	<b>▲ 36043</b>	▲ 8690	▲ 8864
Particles >14µm	ASTM D7647 >80	<b>▲ 3986</b>	▲ 312	▲ 920
Particles >21µm	ASTM D7647 >20	<b>▲ 1224</b>	▲ 67	▲ 307
Particles >38µm	ASTM D7647 >4	<b>▲ 53</b>	2	▲ 17
Particles >71µm	ASTM D7647 >3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c) >--/17/13	<b>▲ 24/22/19</b>	▲ 22/20/15	▲ 22/20/17

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	<b>0.47</b>	0.55	0.47

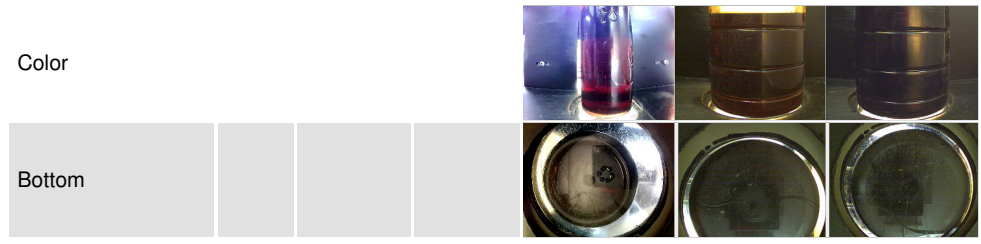
# OIL ANALYSIS REPORT



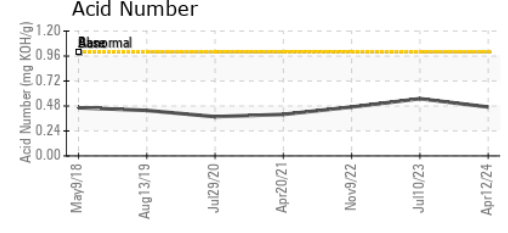
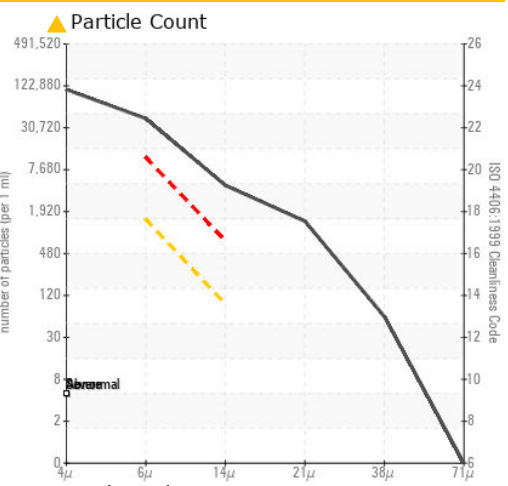
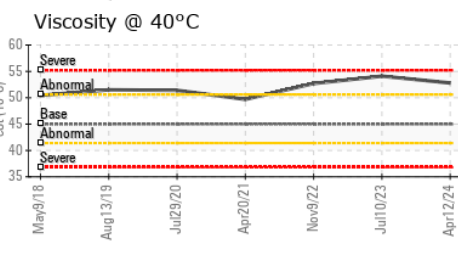
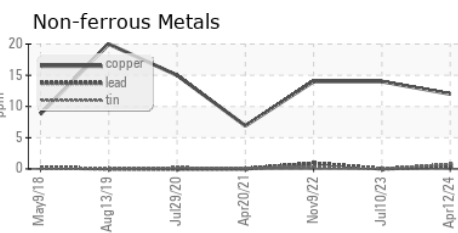
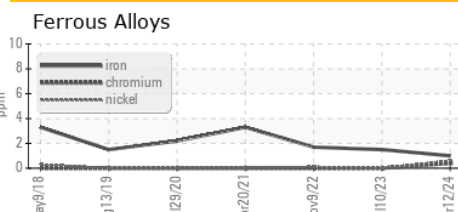
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	45	52.8	54.1

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA015913  
**Lab Number** : 06156911  
**Unique Number** : 10992334  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )  
**Received** : 22 Apr 2024  
**Tested** : 23 Apr 2024  
**Diagnosed** : 24 Apr 2024 - Angela Borella

**CHEP USA**  
 3030 WATERVIEW AVE, SUITE 200  
 BALTIMORE, MD  
 US 21230  
 Contact: KENNETH WAGNER  
 kenneth.wagner@chep.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)