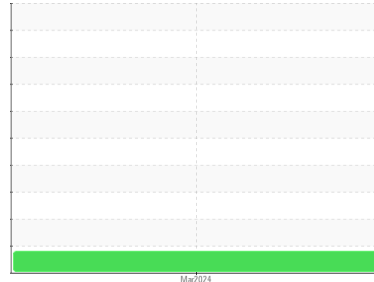




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**9122158 (S/N 2285)**

Component  
**Compressor**

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

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. 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 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>KCPA013816</b>	---	---
Sample Date	Client Info	<b>13 Mar 2024</b>	---	---
Machine Age	hrs	Client Info	<b>4283</b>	---
Oil Age	hrs	Client Info	<b>4283</b>	---
Oil Changed	Client Info	<b>Changed</b>	---	---
Sample Status		<b>ATTENTION</b>	---	---

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>4</b>	---
Chromium	ppm	ASTM D5185m >10	<b>&lt;1</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>&lt;1</b>	---
Lead	ppm	ASTM D5185m >10	<b>0</b>	---
Copper	ppm	ASTM D5185m >50	<b>11</b>	---
Tin	ppm	ASTM D5185m >10	<b>0</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>2</b>	---
Molybdenum	ppm	ASTM D5185m 0	<b>3</b>	---
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	---
Magnesium	ppm	ASTM D5185m 100	<b>35</b>	---
Calcium	ppm	ASTM D5185m 0	<b>2</b>	---
Phosphorus	ppm	ASTM D5185m 0	<b>&lt;1</b>	---
Zinc	ppm	ASTM D5185m 0	<b>4</b>	---
Sulfur	ppm	ASTM D5185m 23500	<b>20139</b>	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>0</b>	---
Sodium	ppm	ASTM D5185m	<b>21</b>	---
Potassium	ppm	ASTM D5185m >20	<b>7</b>	---
Water	%	ASTM D6304 >0.05	<b>0.009</b>	---
ppm Water	ppm	ASTM D6304 >500	<b>96</b>	---

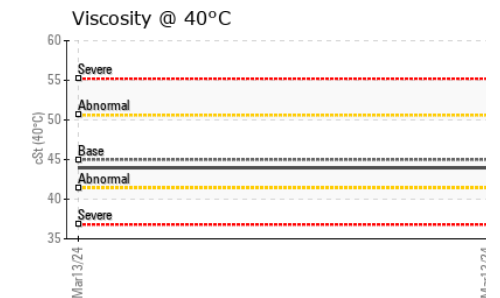
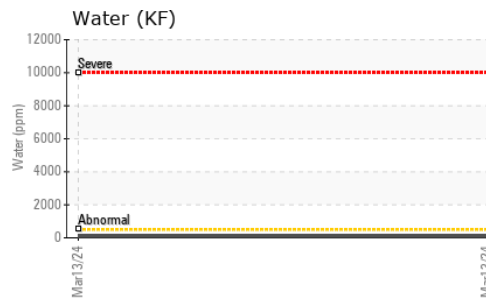
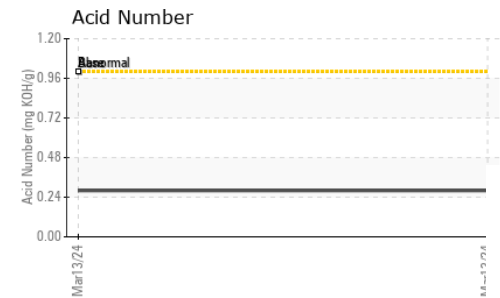
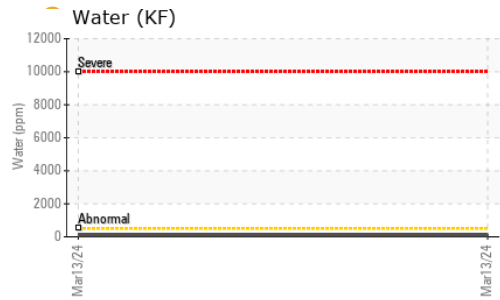
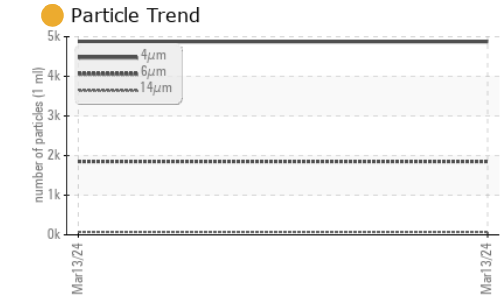
## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	<b>4875</b>	---	---
Particles >6µm	ASTM D7647 >1300	<b>1851</b>	---	---
Particles >14µm	ASTM D7647 >80	<b>72</b>	---	---
Particles >21µm	ASTM D7647 >20	<b>5</b>	---	---
Particles >38µm	ASTM D7647 >4	<b>0</b>	---	---
Particles >71µm	ASTM D7647 >3	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c) >--/17/13	<b>19/18/13</b>	---	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	<b>0.28</b>	---

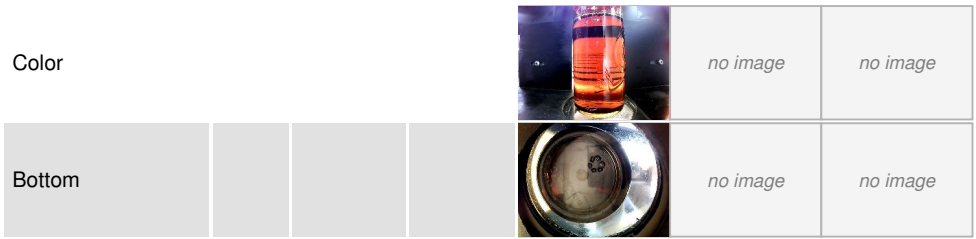
# OIL ANALYSIS REPORT



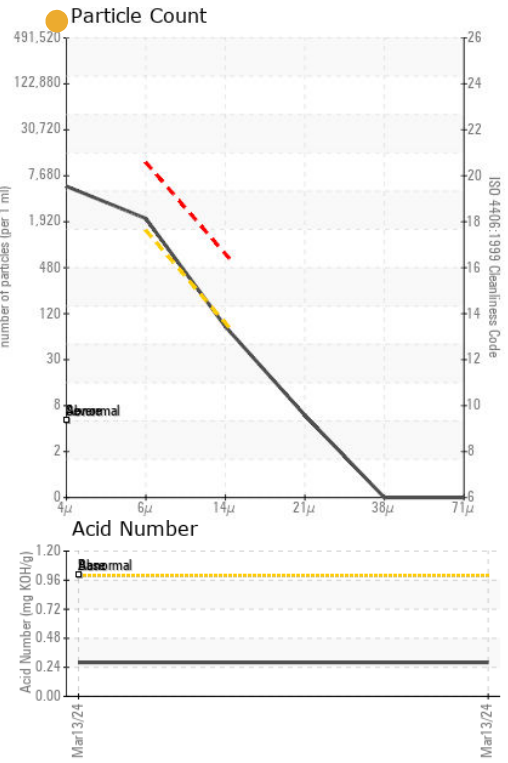
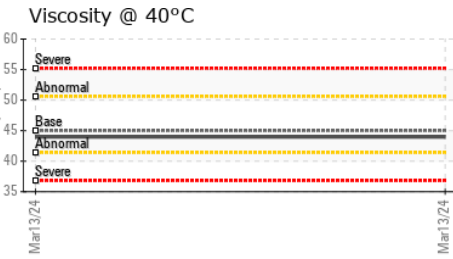
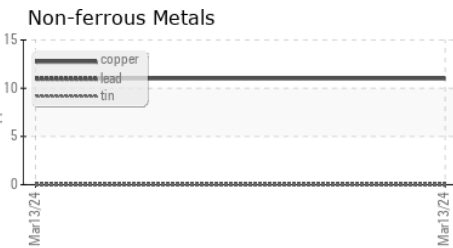
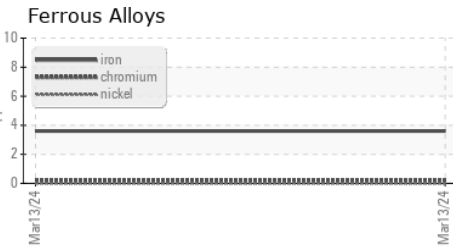
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---
Sand/Dirt	scalar	*Visual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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	<b>43.97</b>	---

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA013816 **Received** : 19 Mar 2024  
**Lab Number** : 06123195 **Tested** : 25 Mar 2024  
**Unique Number** : 10937346 **Diagnosed** : 25 Mar 2024 - Doug Bogart  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**MARMON KEYSTONE**  
 4250 BLUE RIDGE IND PKWY  
 NORCROSS, GA  
 US 30071  
 Contact: M CASSELL  
 MCASELL@MARMONKEYSTONE.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)