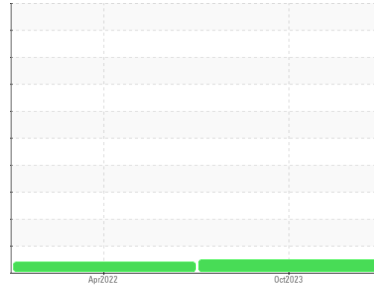




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**8146496 (S/N 1528)**

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>KCPA000802</b>	KCP44497	---
Sample Date	Client Info		<b>09 Oct 2023</b>	18 Apr 2022	---
Machine Age	hrs	Client Info	<b>11543</b>	3436	---
Oil Age	hrs	Client Info	<b>0</b>	3000	---
Oil Changed	Client Info		<b>N/A</b>	Changed	---
Sample Status			<b>NORMAL</b>	ABNORMAL	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>0</b>	1	---
Chromium	ppm	ASTM D5185m >10	<b>0</b>	0	---
Nickel	ppm	ASTM D5185m >3	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m >3	<b>0</b>	0	---
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m >10	<b>0</b>	<1	---
Lead	ppm	ASTM D5185m >10	<b>0</b>	0	---
Copper	ppm	ASTM D5185m >50	<b>17</b>	2	---
Tin	ppm	ASTM D5185m >10	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>0</b>	0	---
Barium	ppm	ASTM D5185m 90	<b>0</b>	45	---
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	0	---
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m 100	<b>&lt;1</b>	73	---
Calcium	ppm	ASTM D5185m 0	<b>2</b>	4	---
Phosphorus	ppm	ASTM D5185m 0	<b>&lt;1</b>	3	---
Zinc	ppm	ASTM D5185m 0	<b>0</b>	1	---
Sulfur	ppm	ASTM D5185m 23500	<b>18047</b>	15224	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>1</b>	<1	---
Sodium	ppm	ASTM D5185m	<b>1</b>	22	---
Potassium	ppm	ASTM D5185m >20	<b>0</b>	0	---
Water	%	ASTM D6304 >0.05	<b>0.003</b>	0.017	---
ppm Water	ppm	ASTM D6304 >500	<b>33.4</b>	170.9	---

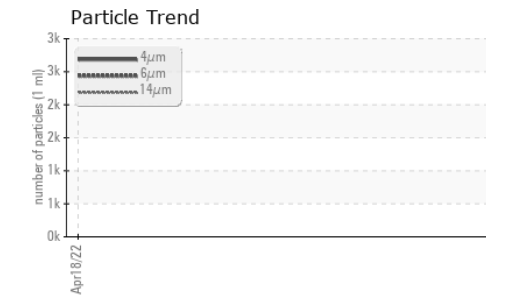
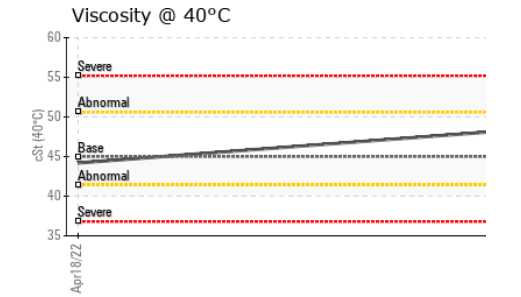
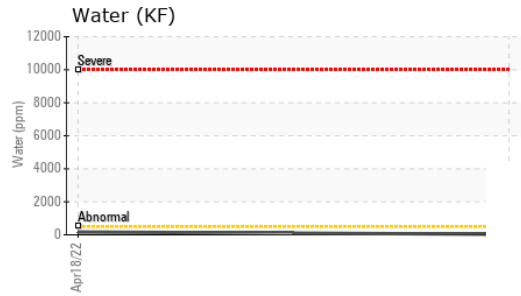
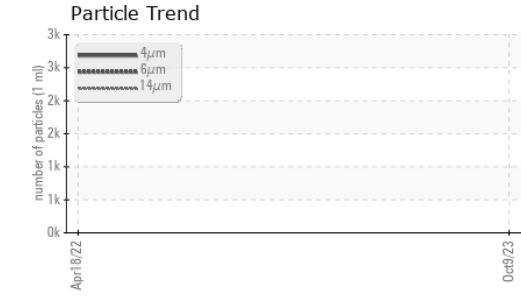
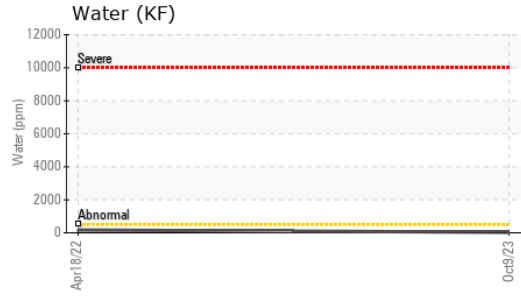
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		<b>2916</b>	---	---
Particles >6µm	ASTM D7647 >1300		<b>959</b>	---	---
Particles >14µm	ASTM D7647 >80		<b>78</b>	---	---
Particles >21µm	ASTM D7647 >20		<b>19</b>	---	---
Particles >38µm	ASTM D7647 >4		<b>2</b>	---	---
Particles >71µm	ASTM D7647 >3		<b>0</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>0.36</b>	0.31	---

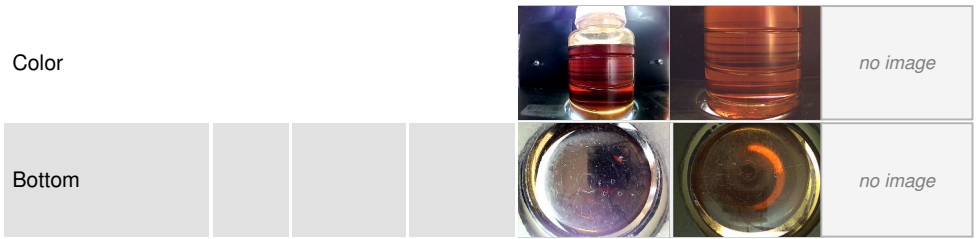
# OIL ANALYSIS REPORT



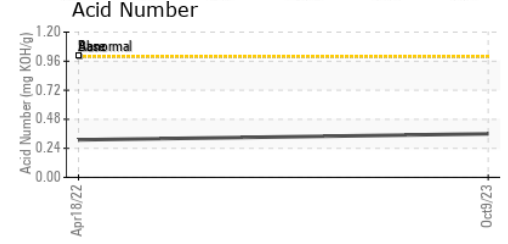
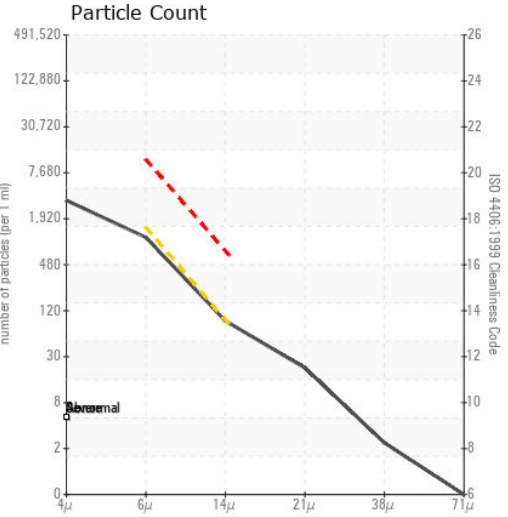
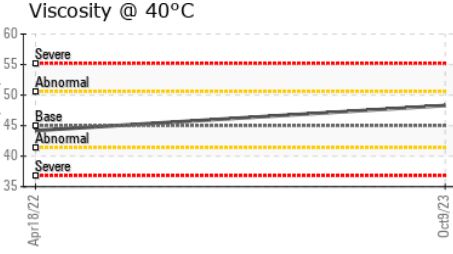
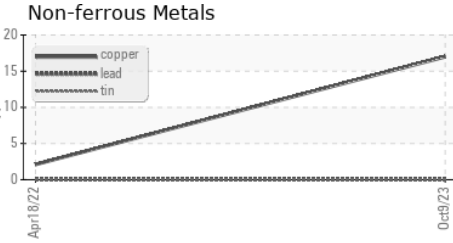
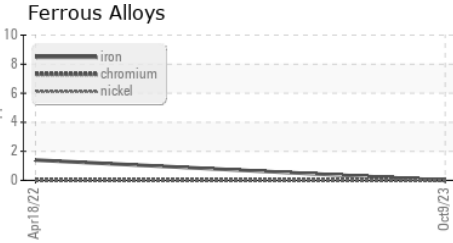
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	<b>LIGHT</b>	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	<b>48.3</b>	44.2

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA000802 **Received** : 13 Oct 2023  
**Lab Number** : 05978929 **Diagnosed** : 17 Oct 2023  
**Unique Number** : 10696224 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**IMD FLUID SYSTEM**  
 3393 W WARREN AVE  
 FREMONT, CA  
 US 94538  
 Contact: ALEX CORTEZ  
 alex.cortez@swagelok.com  
 T:  
 F:

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)