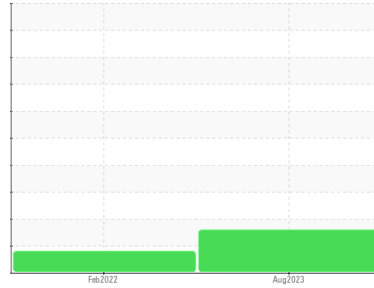




# PROBLEM SUMMARY

Sample Rating Trend

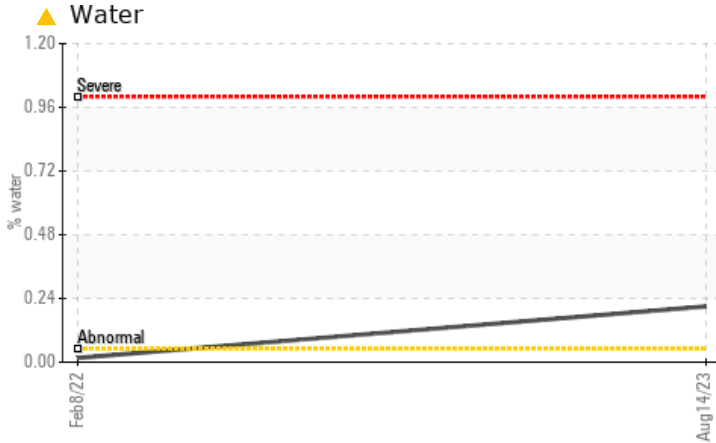


**WATER**



Machine Id  
**7627785 (S/N 1787)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) M-460 (--- GAL)**

## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status				<b>ABNORMAL</b>	ATTENTION	---
Water	%	ASTM D6304	>0.05	<b>▲ 0.210</b>	0.016	---
ppm Water	ppm	ASTM D6304	>500	<b>▲ 2100</b>	164.2	---

Customer Id: TESDEN  
 Sample No.: KCPA005106  
 Lab Number: 05934370  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Angela Borella +1 800-237-1369  
[angela.borella@wearcheckusa.com](mailto:angela.borella@wearcheckusa.com)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

### 08 Feb 2022 Diag: Angela Borella

ISO



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. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

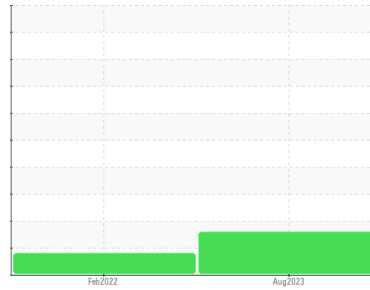
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



**WATER**



Machine Id  
**7627785 (S/N 1787)**

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

## DIAGNOSIS

### ▲ Recommendation

We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

### Wear

All component wear rates are normal.

### ▲ Contamination

There is a light concentration of water present in the oil. The amount and size of particulates present in the system are acceptable.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>KCPA005106</b>	KCP48658	---
Sample Date	Client Info			<b>14 Aug 2023</b>	08 Feb 2022	---
Machine Age	hrs	Client Info		<b>6710</b>	2622	---
Oil Age	hrs	Client Info		<b>0</b>	2622	---
Oil Changed	Client Info			<b>N/A</b>	Changed	---
Sample Status				<b>ABNORMAL</b>	ATTENTION	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<b>&lt;1</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>2</b>	2	---
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Antimony	ppm	ASTM D5185m		<b>---</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	---

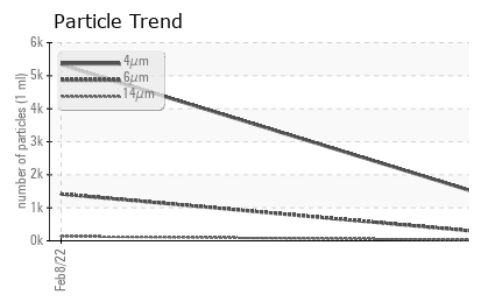
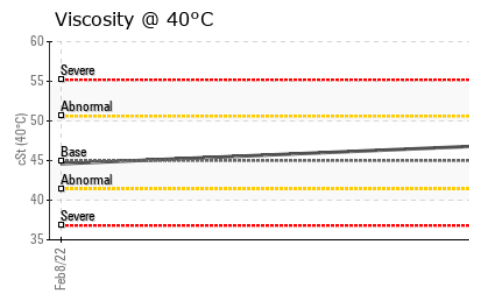
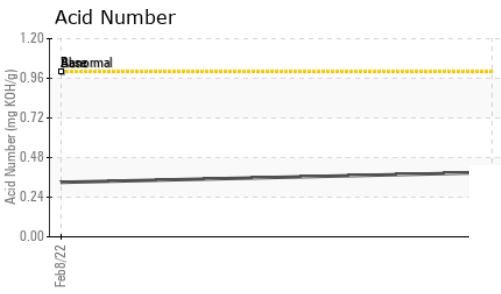
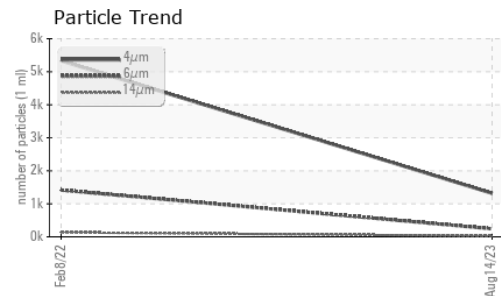
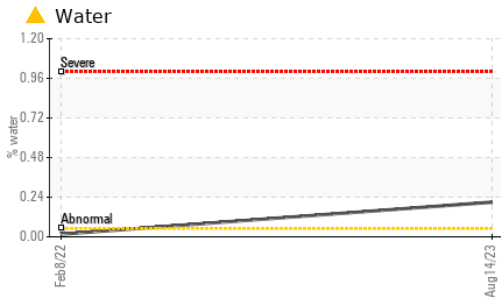
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>0</b>	<1	---
Barium	ppm	ASTM D5185m	90	<b>30</b>	4	---
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	0	---
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	---
Magnesium	ppm	ASTM D5185m	100	<b>42</b>	64	---
Calcium	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	---
Phosphorus	ppm	ASTM D5185m	0	<b>2</b>	14	---
Zinc	ppm	ASTM D5185m	0	<b>2</b>	0	---
Sulfur	ppm	ASTM D5185m	23500	<b>19777</b>	14965	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>&lt;1</b>	<1	---
Sodium	ppm	ASTM D5185m		<b>2</b>	14	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	---
Water	%	ASTM D6304	>0.05	<b>▲ 0.210</b>	0.016	---
ppm Water	ppm	ASTM D6304	>500	<b>▲ 2100</b>	164.2	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		<b>1318</b>	5334	---
Particles >6µm		ASTM D7647	>1300	<b>242</b>	<b>▲ 1416</b>	---
Particles >14µm		ASTM D7647	>80	<b>23</b>	<b>▲ 134</b>	---
Particles >21µm		ASTM D7647	>20	<b>4</b>	28	---
Particles >38µm		ASTM D7647	>4	<b>0</b>	2	---
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	---
Oil Cleanliness		ISO 4406 (c)	>--/17/13	<b>18/15/12</b>	<b>▲ 18/14</b>	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	<b>0.39</b>	0.33	---

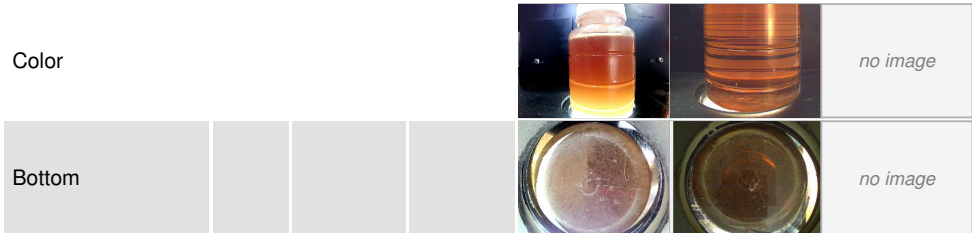
# OIL ANALYSIS REPORT



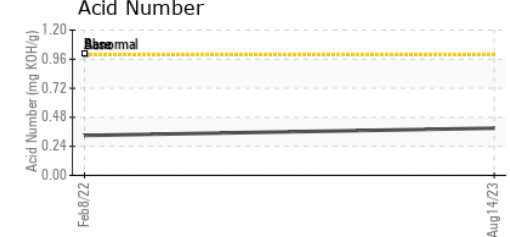
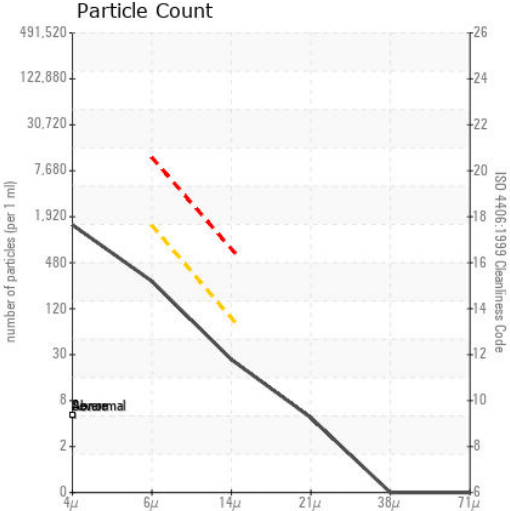
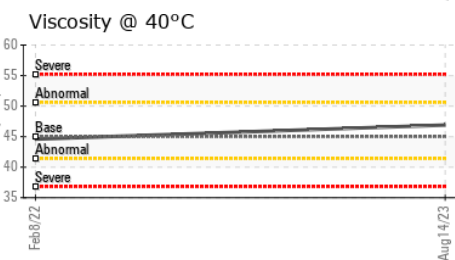
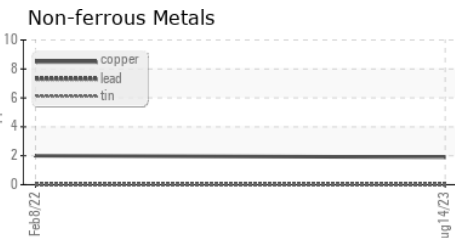
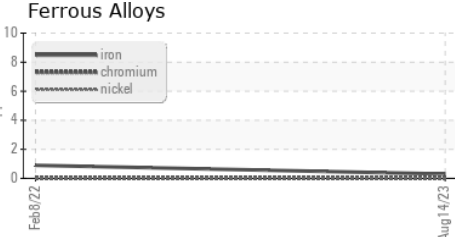
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	0.2%	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	46.9	44.6

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



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA005106 **Received** : 24 Aug 2023  
**Lab Number** : 05934370 **Diagnosed** : 30 Aug 2023  
**Unique Number** : 10619641 **Diagnostician** : Angela Borella  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**TESLA MOTOR**  
 450 E 52ND AVE  
 DENVER, CO  
 US 80216  
 Contact: Service Manager

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)

T:  
F: