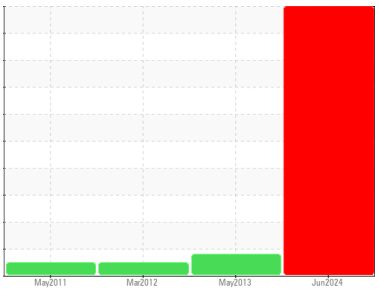
KAESER COMPRESSORS
*Built for a lifetime.*

# PROBLEM SUMMARY

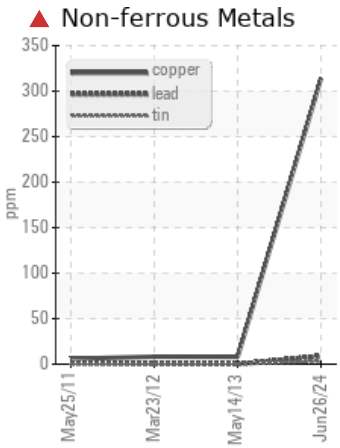
**Sample Rating Trend**

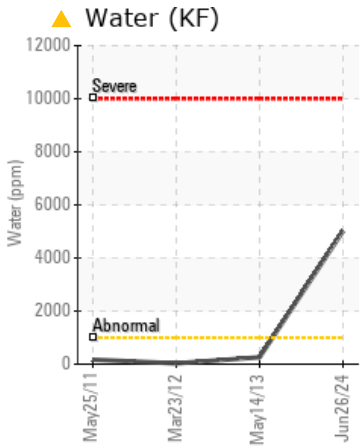


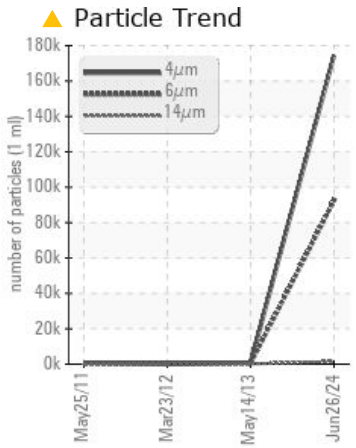

**WEAR**

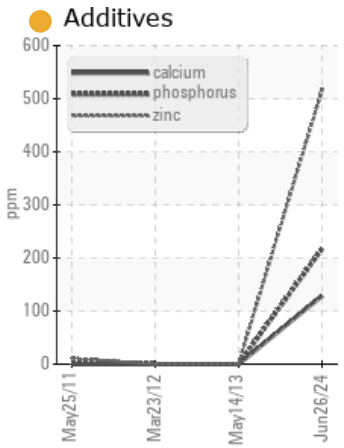
Machine Id
## KAESER CSD 100T 3931971 (S/N 1085)
Component
**Compressor**
Fluid
**INGERSOLL-RAND SSR ULTRA COOLANT (--- LTR)**

## COMPONENT CONDITION SUMMARY




## RECOMMENDATION

We recommend you service the filters on this component. We advise that you inspect for the source(s) of wear. 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 | | | | SEVERE | MARGINAL | NORMAL |
|---|---|---|---|---|---|---|
| Copper | ppm | ASTM D5185m | >65 | ▲ **314** | 8 | 8 |
| Water | % | ASTM D6304 | >0.1 | ▲ **0.501** | 0.026 | 0.003 |
| ppm Water | ppm | ASTM D6304 | >1000 | ▲ **5012** | 260 | 30 |
| Particles >6µm | | ASTM D7647 | >1300 | ▲ **92453** | 502 | 55 |
| Particles >14µm | | ASTM D7647 | >80 | ▲ **1493** | ▲ 85 | 9 |
| Particles >21µm | | ASTM D7647 | >20 | ▲ **151** | ▲ 28 | 3 |
| Particles >38µm | | ASTM D7647 | >4 | ▲ **5** | 4 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >--/17/13 | ▲ **25/24/18** | ▲ 16/14 | 13/10 |
| Debris | scalar | *Visual | NONE | ▲ **MODER** | LIGHT | VLITE |


**Customer Id:** COTFTW
**Sample No.:** KCP06235966
**Lab Number:** 06235966
**Test Package:** IND 2

*To manage this report scan the QR code*

*To discuss the diagnosis or test data:*
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

*To change component or sample information:*
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

## RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---|---|---|---|---|
| Inspect Wear Source | --- | --- | ? | We advise that you inspect for the source(s) of wear. |
| Change Filter | --- | --- | ? | We recommend you service the filters on this component. |

## HISTORICAL DIAGNOSIS

ISO

**14 May 2013 Diag: Jonathan Hester**
No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of particulates present in the oil. The condition of the oil is suitable for further service.

view report

NORMAL

**23 Mar 2012 Diag: Jonathan Hester**
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable. The condition of oil is suitable for further service.

view report

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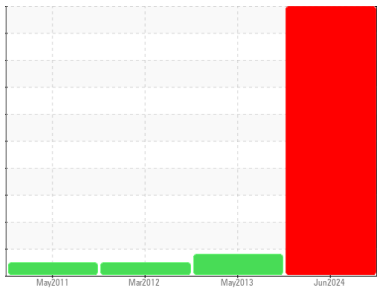
# OIL ANALYSIS REPORT

Sample Rating Trend




**WEAR**

Machine Id
## KAESER CSD 100T 3931971 (S/N 1085)
Component
**Compressor**
Fluid
**INGERSOLL-RAND SSR ULTRA COOLANT (--- LTR)**

## DIAGNOSIS

**▲ Recommendation**
We recommend you service the filters on this component. We advise that you inspect for the source(s) of wear. 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**
The copper level is severe.

**▲ Contamination**
There is a high amount of particulates present in the oil. There is a moderate concentration of water present in the oil. Moderate concentration of visible dirt/debris present in the oil.

**● Fluid Condition**
The oil viscosity is higher than normal. Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **KCP06235966** | KC39043 | KC30223 |
| Sample Date | | Client Info | | **26 Jun 2024** | 14 May 2013 | 23 Mar 2012 |
| Machine Age | hrs | Client Info | | **91905** | 12957 | 6522 |
| Oil Age | hrs | Client Info | | **9999** | 0 | 0 |
| Oil Changed | | Client Info | | **Not Changd** | N/A | N/A |
| Sample Status | | | | **SEVERE** | MARGINAL | NORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >50 | **7** | <1 | 0 |
| Chromium | ppm | ASTM D5185m | >5 | **<1** | 0 | 0 |
| Nickel | ppm | ASTM D5185m | | **2** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Silver | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >15 | **4** | <1 | 0 |
| Lead | ppm | ASTM D5185m | >65 | **9** | 0 | <1 |
| Copper | ppm | ASTM D5185m | >65 | ▲ **314** | 8 | 8 |
| Tin | ppm | ASTM D5185m | >10 | **3** | 0 | 0 |
| Antimony | ppm | ASTM D5185m | | **---** | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | **<1** | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | 0 | **8** | 0 | 0 |
| Barium | ppm | ASTM D5185m | 500 | **520** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | **3** | 0 | <1 |
| Manganese | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | 0 | ● **24** | 0 | 0 |
| Calcium | ppm | ASTM D5185m | 0 | ● **129** | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | 20 | ● **217** | 0 | 0 |
| Zinc | ppm | ASTM D5185m | 0 | ● **515** | 0 | 0 |
| Sulfur | ppm | ASTM D5185m | 200 | ● **887** | 16279 | 12794 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >35 | **2** | <1 | 0 |
| Sodium | ppm | ASTM D5185m | | **73** | 0 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | **15** | 4 | 0 |
| Water | % | ASTM D6304 | >0.1 | ▲ **0.501** | 0.026 | 0.003 |
| ppm Water | ppm | ASTM D6304 | >1000 | ▲ **5012** | 260 | 30 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | | **174433** | 923 | 102 |
| Particles >6µm | | ASTM D7647 | >1300 | ▲ **92453** | 502 | 55 |
| Particles >14µm | | ASTM D7647 | >80 | ▲ **1493** | ▲ 85 | 9 |
| Particles >21µm | | ASTM D7647 | >20 | ▲ **151** | ▲ 28 | 3 |
| Particles >38µm | | ASTM D7647 | >4 | ▲ **5** | 4 | 0 |
| Particles >71µm | | ASTM D7647 | >3 | **0** | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >--/17/13 | ▲ **25/24/18** | ▲ 16/14 | 13/10 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | **1.02** | 0.384 | 0.460 |

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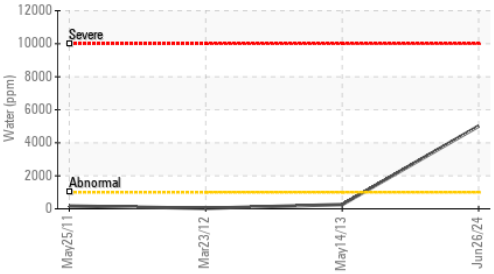
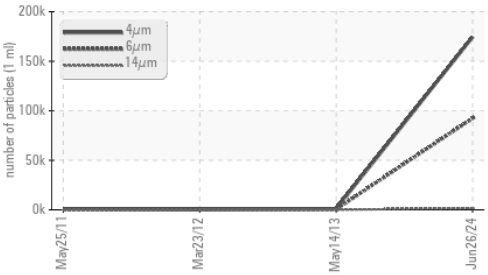
# OIL ANALYSIS REPORT

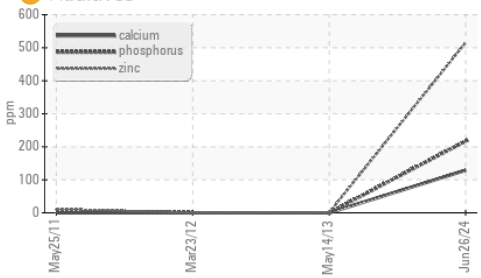
Water (KF)



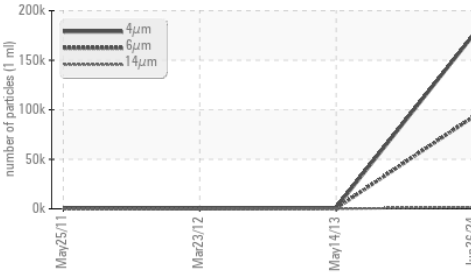

Particle Trend



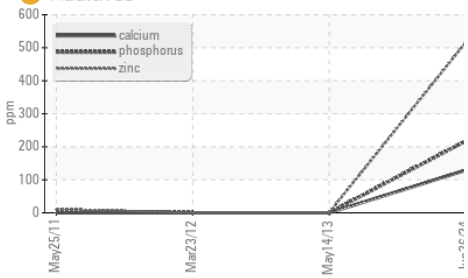

Additives




Particle Trend

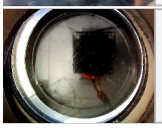



Additives



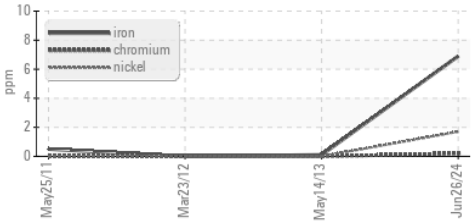

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Silt | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Debris | scalar | *Visual | NONE | ▲ **MODER** | LIGHT | VLITE |
| Sand/Dirt | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Appearance | scalar | *Visual | NORML | **NORML** | NORML | NORML |
| Odor | scalar | *Visual | NORML | **NORML** | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.1 | **NEG** | NEG | NEG |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 49.4 | **57.97** | 45.94 | 45.64 |

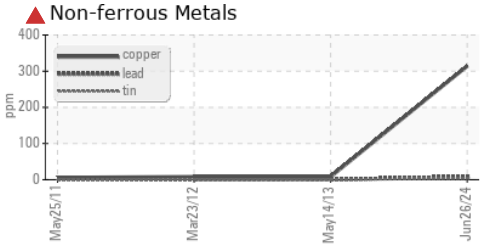
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | *no image* | *no image* |
| Bottom | | |  | *no image* | *no image* |

## GRAPHS

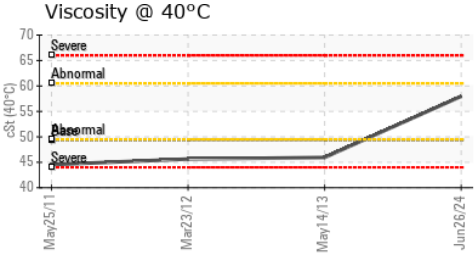
Ferrous Alloys



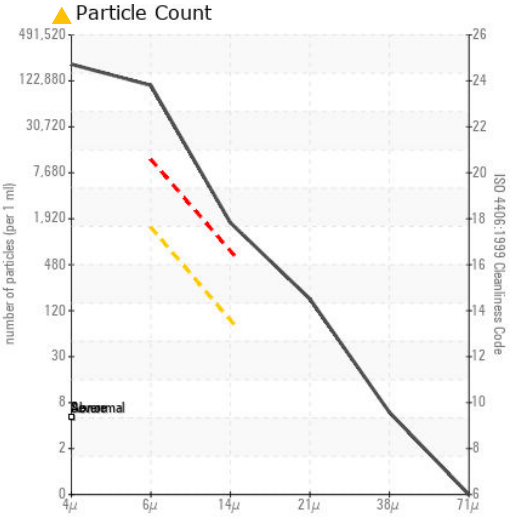

Non-ferrous Metals



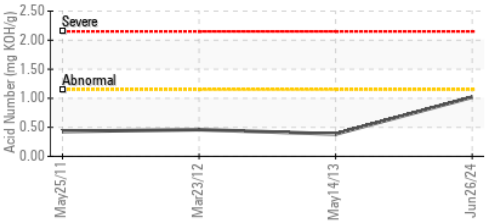

Viscosity @ 40°C




Particle Count




Acid Number




ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : KCP06235966
**Lab Number** : 06235966
**Unique Number** : 11124800
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**Received** : 15 Jul 2024
**Tested** : 18 Jul 2024
**Diagnosed** : 19 Jul 2024 - Jonathan Hester

**COTT BEVERAGE**
15200 TRINITY BLVD
FT WORTH, TX
US 76155
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: