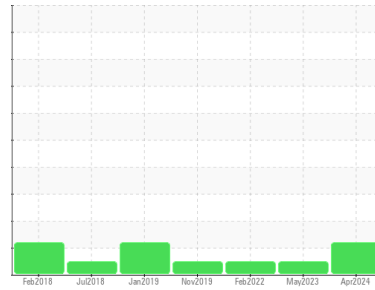




# OIL ANALYSIS REPORT

## Sample Rating Trend



Machine Id  
**KAESER BSD 50 5950179 (S/N 1717)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) M-460 (--- QTS)**

### DIAGNOSIS

**Recommendation**  
 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 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>KCPA012699</b>  | KCP53429    | KCP42084    |
| Sample Date        | Client Info |             |            | <b>17 Apr 2024</b> | 15 May 2023 | 11 Feb 2022 |
| Machine Age        | hrs         | Client Info |            | <b>54673</b>       | 47169       | 37355       |
| Oil Age            | hrs         | Client Info |            | <b>5662</b>        | 9813        | 2000        |
| Oil Changed        | Client Info |             |            | <b>Changed</b>     | Changed     | Changed     |
| Sample Status      |             |             |            | <b>ATTENTION</b>   | NORMAL      | NORMAL      |

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >50        | <b>0</b>     | 0        | <1       |
| Chromium    | ppm | ASTM D5185m | >10        | <b>&lt;1</b> | 0        | 0        |
| Nickel      | ppm | ASTM D5185m | >3         | <b>&lt;1</b> | <1       | 0        |
| 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>     | 0        | <1       |
| Lead        | ppm | ASTM D5185m | >10        | <b>&lt;1</b> | 0        | 0        |
| Copper      | ppm | ASTM D5185m | >50        | <b>5</b>     | 9        | 2        |
| Tin         | ppm | ASTM D5185m | >10        | <b>&lt;1</b> | <1       | 0        |
| Antimony    | ppm | ASTM D5185m |            | <b>---</b>   | ---      | 0        |
| Vanadium    | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |
| Cadmium     | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |

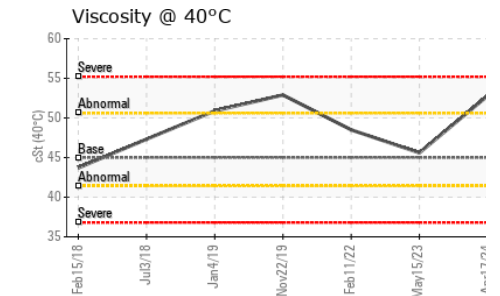
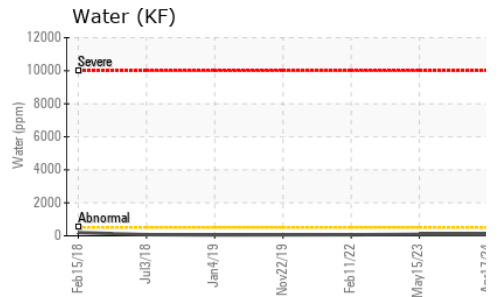
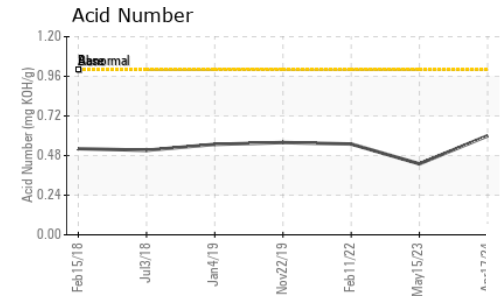
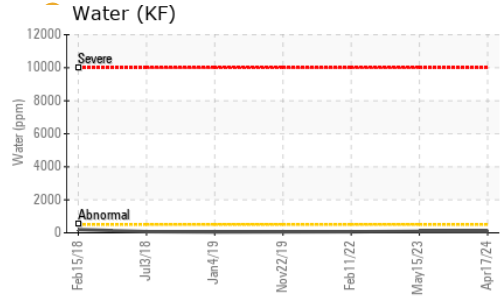
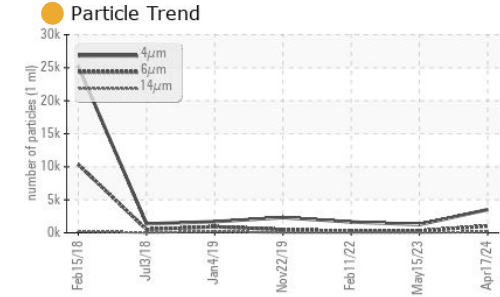
| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m | 0          | <b>0</b>     | 0        | 1        |
| Barium     | ppm | ASTM D5185m | 90         | <b>&lt;1</b> | 0        | 0        |
| Molybdenum | ppm | ASTM D5185m | 0          | <b>&lt;1</b> | 0        | 0        |
| Manganese  | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |
| Magnesium  | ppm | ASTM D5185m | 100        | <b>&lt;1</b> | <1       | 0        |
| Calcium    | ppm | ASTM D5185m | 0          | <b>0</b>     | 0        | 0        |
| Phosphorus | ppm | ASTM D5185m | 0          | <b>0</b>     | 1        | 5        |
| Zinc       | ppm | ASTM D5185m | 0          | <b>0</b>     | 0        | 0        |
| Sulfur     | ppm | ASTM D5185m | 23500      | <b>20515</b> | 17104    | 14544    |

| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>&lt;1</b> | <1       | <1       |
| Sodium       | ppm | ASTM D5185m |            | <b>0</b>     | 0        | <1       |
| Potassium    | ppm | ASTM D5185m | >20        | <b>2</b>     | <1       | 0        |
| Water        | %   | ASTM D6304  | >0.05      | <b>0.008</b> | 0.009    | 0.006    |
| ppm Water    | ppm | ASTM D6304  | >500       | <b>83</b>    | 91.2     | 64.0     |

| FLUID CLEANLINESS |  | method       | limit/base | current         | history1 | history2 |
|-------------------|--|--------------|------------|-----------------|----------|----------|
| Particles >4µm    |  | ASTM D7647   |            | <b>3521</b>     | 1242     | 1648     |
| Particles >6µm    |  | ASTM D7647   | >1300      | <b>1016</b>     | 278      | 231      |
| Particles >14µm   |  | ASTM D7647   | >80        | <b>128</b>      | 29       | 23       |
| Particles >21µm   |  | ASTM D7647   | >20        | <b>46</b>       | 12       | 7        |
| Particles >38µm   |  | ASTM D7647   | >4         | <b>2</b>        | 1        | 0        |
| Particles >71µm   |  | ASTM D7647   | >3         | <b>0</b>        | 0        | 0        |
| Oil Cleanliness   |  | ISO 4406 (c) | >--/17/13  | <b>19/17/14</b> | 17/15/12 | 15/12    |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 | 1.0        | <b>0.60</b> | 0.43     | 0.55     |

# OIL ANALYSIS REPORT

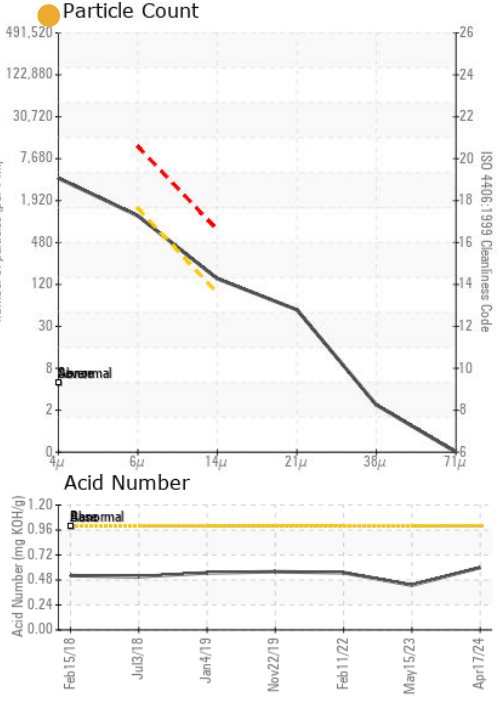
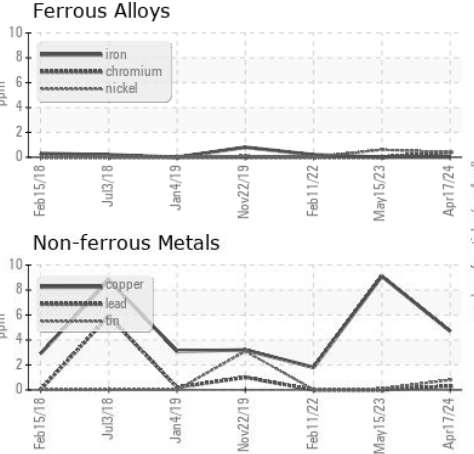


| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | LIGHT    | 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     | 45.6     |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
| Color         |        |            |         |          |          |
| Bottom        |        |            |         |          |          |

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA012699 **Received** : 22 Apr 2024  
**Lab Number** : 06156912 **Tested** : 23 Apr 2024  
**Unique Number** : 10992335 **Diagnosed** : 24 Apr 2024 - Angela Borella  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**UACJ AUTOMOTIVE WHITEHALL**  
 5600 COMMERCE DR  
 PADUCAH, KY  
 US 42001  
 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)