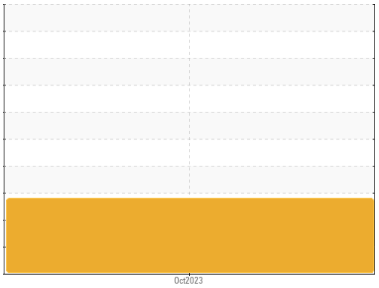
# PROBLEM SUMMARY

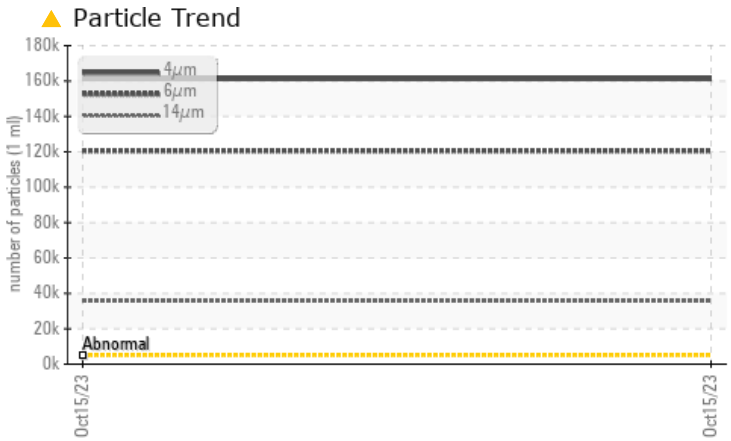
Sample Rating Trend




ISO

Machine Id
## GIBALRALTER 200 - KOCH FERT
Component
**New (Unused) Oil**
Fluid
**{not provided} (--- QTS)**

## COMPONENT CONDITION SUMMARY




## RECOMMENDATION

This is a baseline read-out on the submitted sample.

## PROBLEMATIC TEST RESULTS

| | | | | | | |
|---|---|---|---|---|---|---|
| Sample Status | | | | **ABNORMAL** | --- | --- |
| Particles >4µm | | ASTM D7647 | >5000 | ▲ **161203** | --- | --- |
| Particles >6µm | | ASTM D7647 | >1300 | ▲ **120544** | --- | --- |
| Particles >14µm | | ASTM D7647 | >160 | ▲ **35636** | --- | --- |
| Particles >21µm | | ASTM D7647 | >40 | ▲ **13090** | --- | --- |
| Particles >38µm | | ASTM D7647 | >10 | ▲ **990** | --- | --- |
| Particles >71µm | | ASTM D7647 | >3 | ▲ **39** | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | ▲ **25/24/22** | --- | --- |

**Customer Id:** UCTULTUL
**Sample No.:** TO10002643
**Lab Number:** 05980066
**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

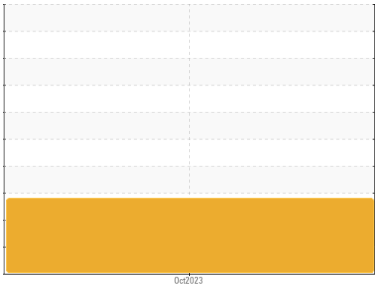
## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

# OIL ANALYSIS REPORT

Sample Rating Trend




ISO

Machine Id
## GIBALRALTER 200 - KOCH FERT
Component
**New (Unused) Oil**
Fluid
**{not provided} (--- QTS)**

## DIAGNOSIS

**Recommendation**
This is a baseline read-out on the submitted sample.

**Contamination**
There is a high amount of particulates present in the oil.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **TO10002643** | --- | --- |
| Sample Date | | Client Info | | **15 Oct 2023** | --- | --- |
| Machine Age | hrs | Client Info | | **0** | --- | --- |
| Oil Age | hrs | Client Info | | **0** | --- | --- |
| Oil Changed | | Client Info | | **N/A** | --- | --- |
| Sample Status | | | | **ABNORMAL** | --- | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >5 | **0** | --- | --- |
| Chromium | ppm | ASTM D5185m | >5 | **0** | --- | --- |
| Nickel | ppm | ASTM D5185m | >5 | **0** | --- | --- |
| Titanium | ppm | ASTM D5185m | | **0** | --- | --- |
| Silver | ppm | ASTM D5185m | >5 | **0** | --- | --- |
| Aluminum | ppm | ASTM D5185m | >5 | **0** | --- | --- |
| Lead | ppm | ASTM D5185m | >5 | **0** | --- | --- |
| Copper | ppm | ASTM D5185m | >5 | **<1** | --- | --- |
| Tin | ppm | ASTM D5185m | >5 | **0** | --- | --- |
| Vanadium | ppm | ASTM D5185m | | **0** | --- | --- |
| Cadmium | ppm | ASTM D5185m | | **0** | --- | --- |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **0** | --- | --- |
| Barium | ppm | ASTM D5185m | | **1022** | --- | --- |
| Molybdenum | ppm | ASTM D5185m | | **0** | --- | --- |
| Manganese | ppm | ASTM D5185m | | **0** | --- | --- |
| Magnesium | ppm | ASTM D5185m | | **0** | --- | --- |
| Calcium | ppm | ASTM D5185m | | **0** | --- | --- |
| Phosphorus | ppm | ASTM D5185m | | **0** | --- | --- |
| Zinc | ppm | ASTM D5185m | | **0** | --- | --- |
| Sulfur | ppm | ASTM D5185m | | **556** | --- | --- |

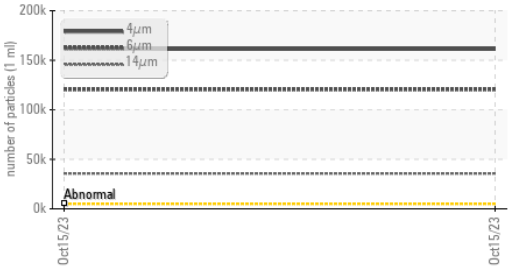
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >15 | **0** | --- | --- |
| Sodium | ppm | ASTM D5185m | | **3** | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | **<1** | --- | --- |
| Water | % | ASTM D6304 | | **0.018** | --- | --- |
| ppm Water | ppm | ASTM D6304 | | **188.1** | --- | --- |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >5000 | ▲ **161203** | --- | --- |
| Particles >6µm | | ASTM D7647 | >1300 | ▲ **120544** | --- | --- |
| Particles >14µm | | ASTM D7647 | >160 | ▲ **35636** | --- | --- |
| Particles >21µm | | ASTM D7647 | >40 | ▲ **13090** | --- | --- |
| Particles >38µm | | ASTM D7647 | >10 | ▲ **990** | --- | --- |
| Particles >71µm | | ASTM D7647 | >3 | ▲ **39** | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | ▲ **25/24/22** | --- | --- |

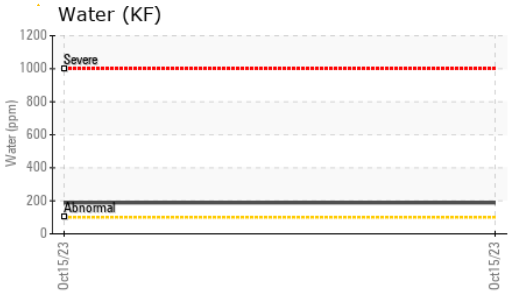
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | **0.76** | --- | --- |

# OIL ANALYSIS REPORT

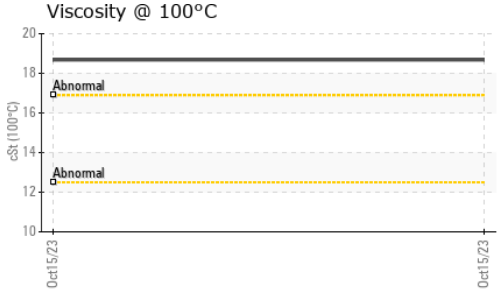
Particle Trend



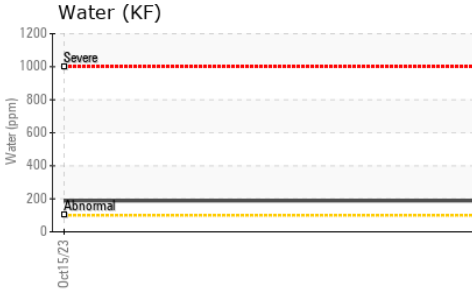

Water (KF)



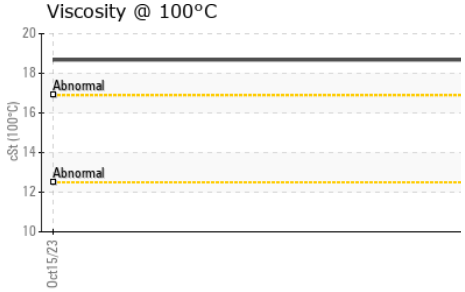

Viscosity @ 100°C




Water (KF)

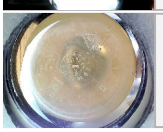



Viscosity @ 100°C




| 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 | **NONE** | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | **NONE** | --- | --- |
| Appearance | scalar | *Visual | NORML | **NORML** | --- | --- |
| Odor | scalar | *Visual | NORML | **NORML** | --- | --- |
| Emulsified Water | scalar | *Visual | | **NEG** | --- | --- |
| Free Water | scalar | *Visual | | **NEG** | --- | --- |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | | **135.1** | --- | --- |
| Visc @ 100°C | cSt | ASTM D445 | | **18.68** | --- | --- |
| Viscosity Index (VI) | Scale | ASTM D2270 | | **156** | --- | --- |

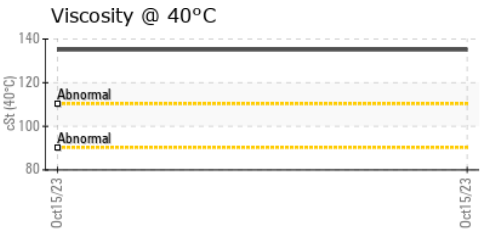
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | *no image* | *no image* |
| Bottom | | |  | *no image* | *no image* |

GRAPHS

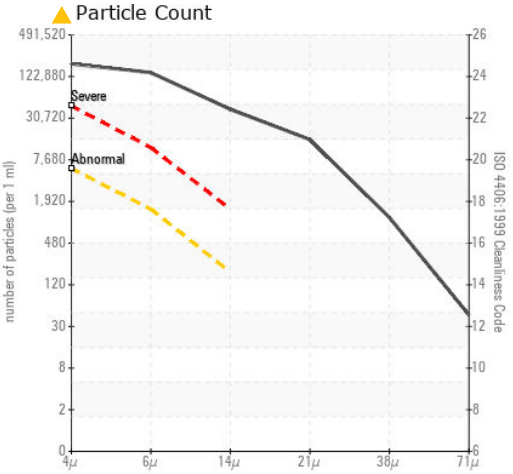
Ferrous Alloys


Non-ferrous Metals

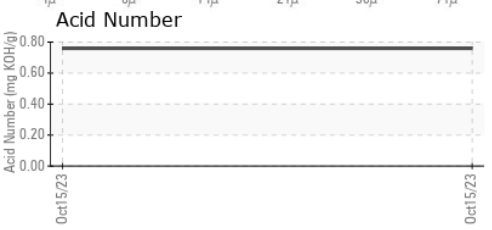

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : TO10002643
**Lab Number** : 05980066
**Unique Number** : 10697361
**Test Package** : IND 2 ( Additional Tests: FT-IR, ICP-NewOil, KF, KV100, PrtCount, VI )

**Received** : 16 Oct 2023
**Diagnosed** : 18 Oct 2023
**Diagnostician** : Jonathan Hester

*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)*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