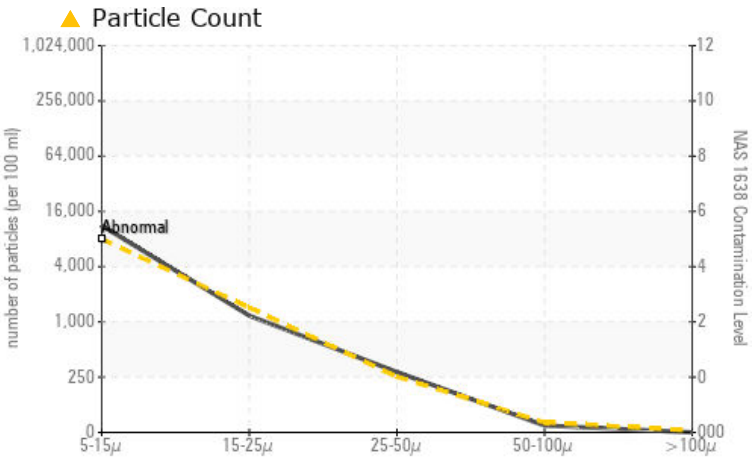
# PROBLEM SUMMARY

Sample Rating Trend

ISO

Area
**37865 TRACE PO 37552 [37865]**
Machine Id
**PAOTS0003-11202023TS3B**
Component
**Hydraulic System**
Fluid
**0001728166 CASTROL BRAYCO MICRONIC 889 (--- GAL)**

## COMPONENT CONDITION SUMMARY




## RECOMMENDATION

No corrective action is recommended at this time.
Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

| | | | | | | |
|---|---|---|---|---|---|---|
| Sample Status | | | | **MARGINAL** | --- | --- |
| Particles 5-15µm | count | *NAS 1638 | >8000 | ▲ **11209** | --- | --- |
| Particles 25-50µm | count | *NAS 1638 | >253 | ▲ **284** | --- | --- |

**Customer Id:** RIDHAM
**Sample No.:** WC06015968
**Lab Number:** 06015968
**Test Package:** IND 2

*To manage this report scan the QR code*

*To discuss the diagnosis or test data:*
Doug Bogart +1 (800)237-1369 x4016
dougb@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

Area
## 37865 TRACE PO 37552 [37865]
Machine Id
## PAOTS0003-11202023TS3B
Component
**Hydraulic System**
Fluid
**0001728166 CASTROL BRAYCO MICRONIC 889 (--- GAL)**

## DIAGNOSIS

**Recommendation**
No corrective action is recommended at this time. 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. The system cleanliness is above the acceptable limit for the target SAE AS4059 (replaces NAS 1638) cleanliness code. 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 | | **WC06015968** | --- | --- |
| Sample Date | | Client Info | | **21 Nov 2023** | --- | --- |
| Machine Age | hrs | Client Info | | **0** | --- | --- |
| Oil Age | hrs | Client Info | | **0** | --- | --- |
| Oil Changed | | Client Info | | **N/A** | --- | --- |
| Sample Status | | | | **MARGINAL** | --- | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >20 | **0** | --- | --- |
| Chromium | ppm | ASTM D5185m | >20 | **0** | --- | --- |
| Nickel | ppm | ASTM D5185m | >20 | **0** | --- | --- |
| Titanium | ppm | ASTM D5185m | | **0** | --- | --- |
| Silver | ppm | ASTM D5185m | | **0** | --- | --- |
| Aluminum | ppm | ASTM D5185m | >20 | **0** | --- | --- |
| Lead | ppm | ASTM D5185m | >20 | **0** | --- | --- |
| Copper | ppm | ASTM D5185m | >20 | **0** | --- | --- |
| Tin | ppm | ASTM D5185m | >20 | **0** | --- | --- |
| Vanadium | ppm | ASTM D5185m | | **0** | --- | --- |
| Cadmium | ppm | ASTM D5185m | | **0** | --- | --- |

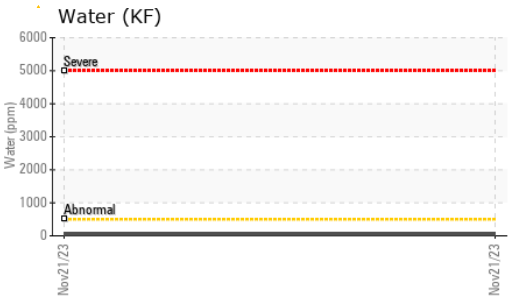
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **0** | --- | --- |
| Barium | ppm | ASTM D5185m | | **0** | --- | --- |
| Molybdenum | ppm | ASTM D5185m | | **0** | --- | --- |
| Manganese | ppm | ASTM D5185m | | **<1** | --- | --- |
| Magnesium | ppm | ASTM D5185m | | **0** | --- | --- |
| Calcium | ppm | ASTM D5185m | | **0** | --- | --- |
| Phosphorus | ppm | ASTM D5185m | | **1** | --- | --- |
| Zinc | ppm | ASTM D5185m | | **0** | --- | --- |
| Sulfur | ppm | ASTM D5185m | | **0** | --- | --- |

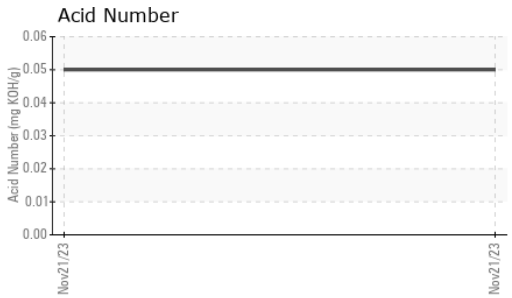
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >15 | **14** | --- | --- |
| Sodium | ppm | ASTM D5185m | | **1** | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | **0** | --- | --- |
| Water | % | ASTM D6304 | >0.05 | **0.004** | --- | --- |
| ppm Water | ppm | ASTM D6304 | >500 | **46** | --- | --- |

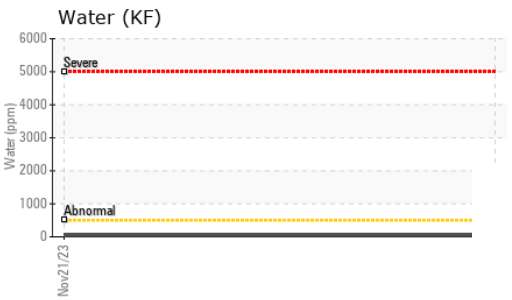
| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles 5-15µm | count | *NAS 1638 | >8000 | ▲ **11209** | --- | --- |
| Particles 15-25µm | count | *NAS 1638 | >1425 | **1168** | --- | --- |
| Particles 25-50µm | count | *NAS 1638 | >253 | ▲ **284** | --- | --- |
| Particles 50-100µm | count | *NAS 1638 | >45 | **31** | --- | --- |
| Particles >100µm | count | *NAS 1638 | >8 | **0** | --- | --- |
| NAS 1638 | Class | *NAS 1638 | >5 | **6** | --- | --- |

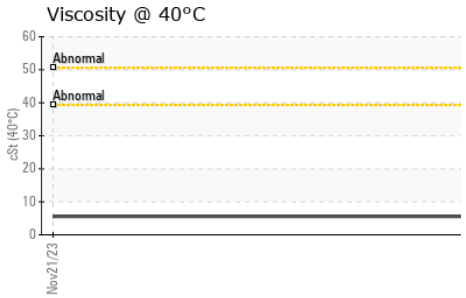
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | **0.05** | --- | --- |

# OIL ANALYSIS REPORT



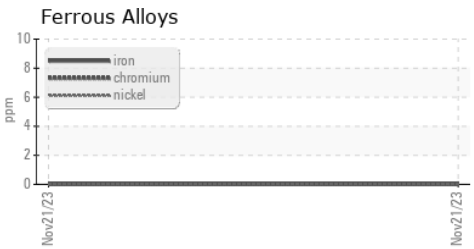




| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Precipitate | scalar | *Visual | NONE | **NONE** | --- | --- |
| Silt |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

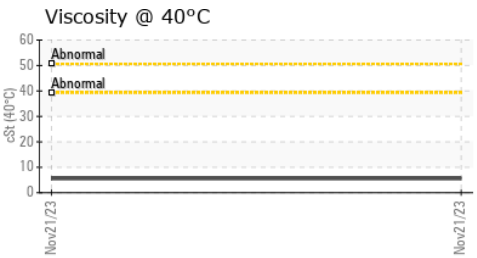
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | | **5.56** | --- | --- |

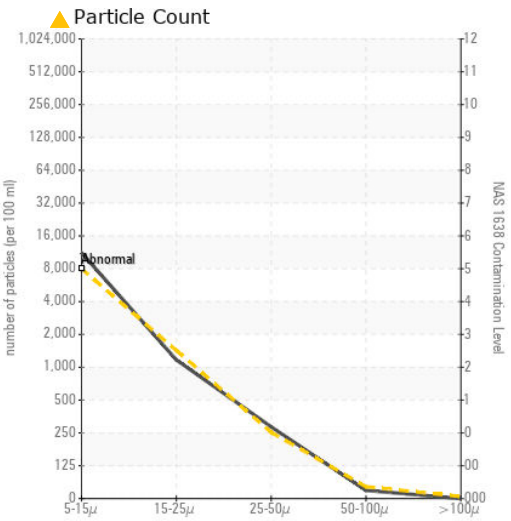
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | *no image* | *no image* |
| Bottom | | |  | *no image* | *no image* |

## GRAPHS









Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC06015968 **Received** : 22 Nov 2023
**Lab Number** : 06015968 **Diagnosed** : 13 Dec 2023
**Unique Number** : 10755112 **Diagnostician** : Doug Bogart
**Test Package** : IND 2 ( Additional Tests: KF, PrtCountNAS )

*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)*

**RIDGE ENGINEERING**
3987 HAMPSTEAD-MEXICO RD
HAMPSTEAD, MD
US 21074
Contact: BETHANY HUGHES*
bethany@ridgeeng.com
T:
F: