# OIL ANALYSIS REPORT

Sample Rating Trend


ISO

Area
**38061 TRACE 37284**
Machine Id
**PAOTS0003-01082024TS3A**
Component
**Hydraulic System**
Fluid
**0001748229 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.

**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 | | **WC06057094** | --- | --- |
| Sample Date | | Client Info | | **09 Jan 2024** | --- | --- |
| Machine Age | hrs | Client Info | | **0** | --- | --- |
| Oil Age | hrs | Client Info | | **0** | --- | --- |
| Oil Changed | | Client Info | | **N/A** | --- | --- |
| Sample Status | | | | **ATTENTION** | --- | --- |

| 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 | **1** | --- | --- |
| Copper | ppm | ASTM D5185m | >20 | **<1** | --- | --- |
| Tin | ppm | ASTM D5185m | >20 | **1** | --- | --- |
| Vanadium | ppm | ASTM D5185m | | **0** | --- | --- |
| Cadmium | ppm | ASTM D5185m | | **0** | --- | --- |

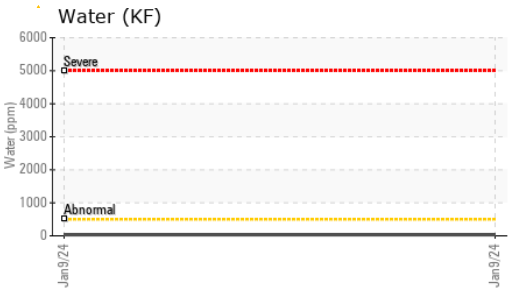
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **0** | --- | --- |
| Barium | ppm | ASTM D5185m | | **0** | --- | --- |
| Molybdenum | ppm | ASTM D5185m | | **0** | --- | --- |
| Manganese | ppm | ASTM D5185m | | **<1** | --- | --- |
| Magnesium | ppm | ASTM D5185m | | **<1** | --- | --- |
| Calcium | ppm | ASTM D5185m | | **0** | --- | --- |
| Phosphorus | ppm | ASTM D5185m | | **3** | --- | --- |
| Zinc | ppm | ASTM D5185m | | **0** | --- | --- |
| Sulfur | ppm | ASTM D5185m | | **0** | --- | --- |

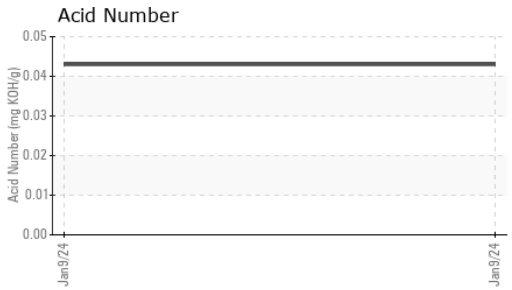
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >15 | **8** | --- | --- |
| Sodium | ppm | ASTM D5185m | | **1** | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | **1** | --- | --- |
| Water | % | ASTM D6304 | >0.05 | **0.003** | --- | --- |
| ppm Water | ppm | ASTM D6304 | >500 | **33** | --- | --- |

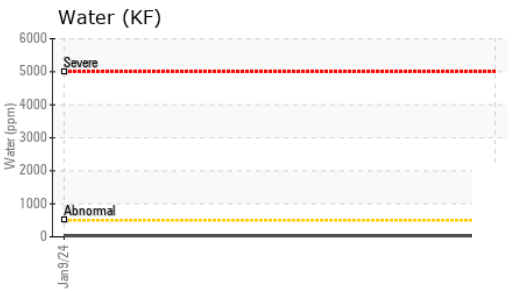
| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles 5-15µm | count | *NAS 1638 | >8000 | ▲ **15407** | --- | --- |
| Particles 15-25µm | count | *NAS 1638 | >1425 | **1108** | --- | --- |
| Particles 25-50µm | count | *NAS 1638 | >253 | ▲ **483** | --- | --- |
| Particles 50-100µm | count | *NAS 1638 | >45 | **18** | --- | --- |
| Particles >100µm | count | *NAS 1638 | >8 | **0** | --- | --- |
| NAS 1638 | Class | *NAS 1638 | >5 | **6** | --- | --- |

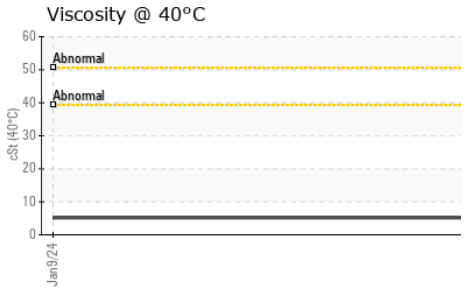
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | **0.043** | --- | --- |

# OIL ANALYSIS REPORT



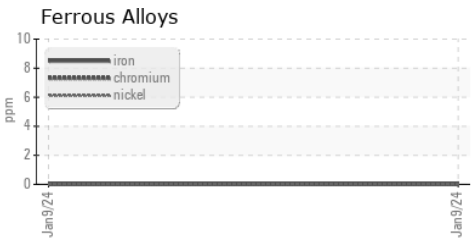



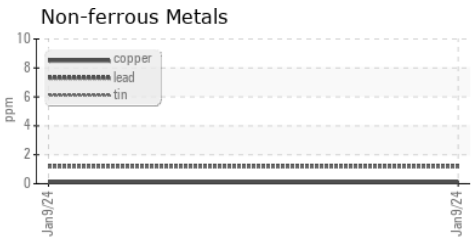

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Precipitate | scalar | *Visual | NONE | **NONE** | --- | --- |
| Silt |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

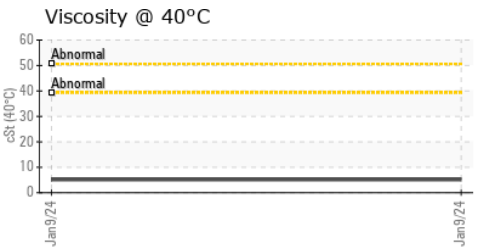
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | | **5.15** | --- | --- |

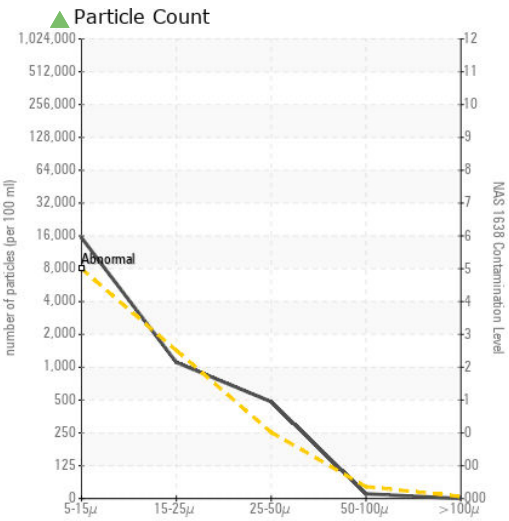
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | *no image* | *no image* |
| Bottom | | |  | *no image* | *no image* |

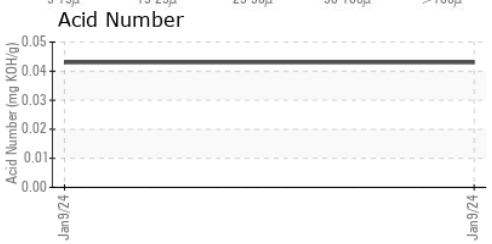
## GRAPHS




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC06057094 **Recieved** : 10 Jan 2024
**Lab Number** : 06057094 **Diagnosed** : 15 Jan 2024
**Unique Number** : 10823043 **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: