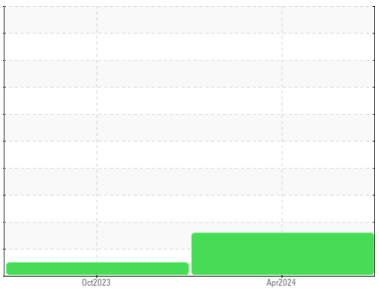
OIL DIAGNOSTICS

# OIL ANALYSIS REPORT

Sample Rating Trend




**DIRT**

Machine Id
**T304**
Component
**Rear Differential**
Fluid
**GEAR OIL SAE 80 (--- 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**
Elemental level of silicon (Si) above normal indicating ingress of seal material.

**Fluid Condition**
The condition of the oil is acceptable for the time in service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **PCA0119973** | PCA0102212 | --- |
| Sample Date | | Client Info | | **09 Apr 2024** | 23 Oct 2023 | --- |
| Machine Age | mls | Client Info | | **275822** | 275822 | --- |
| Oil Age | mls | Client Info | | **275822** | 0 | --- |
| Oil Changed | | Client Info | | **N/A** | N/A | --- |
| Sample Status | | | | **ABNORMAL** | NORMAL | --- |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Water | | WC Method | >.2 | **NEG** | NEG | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >500 | **82** | 50 | --- |
| Chromium | ppm | ASTM D5185m | >10 | **<1** | <1 | --- |
| Nickel | ppm | ASTM D5185m | >10 | **<1** | <1 | --- |
| Titanium | ppm | ASTM D5185m | | **<1** | <1 | --- |
| Silver | ppm | ASTM D5185m | | **0** | 0 | --- |
| Aluminum | ppm | ASTM D5185m | >25 | **6** | 6 | --- |
| Lead | ppm | ASTM D5185m | >25 | **0** | <1 | --- |
| Copper | ppm | ASTM D5185m | >100 | **<1** | <1 | --- |
| Tin | ppm | ASTM D5185m | >10 | **0** | <1 | --- |
| Vanadium | ppm | ASTM D5185m | | **0** | 0 | --- |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | --- |

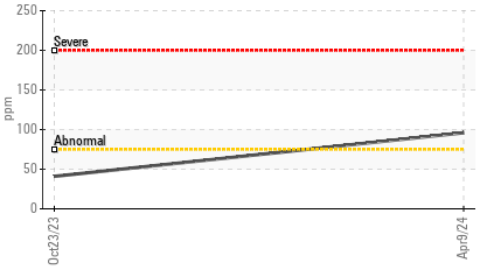
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | 400 | **249** | 208 | --- |
| Barium | ppm | ASTM D5185m | 200 | **<1** | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | 12 | **13** | 12 | --- |
| Manganese | ppm | ASTM D5185m | | **3** | 2 | --- |
| Magnesium | ppm | ASTM D5185m | 12 | **112** | 126 | --- |
| Calcium | ppm | ASTM D5185m | 150 | **226** | 200 | --- |
| Phosphorus | ppm | ASTM D5185m | 1650 | **1388** | 1402 | --- |
| Zinc | ppm | ASTM D5185m | 125 | **191** | 180 | --- |
| Sulfur | ppm | ASTM D5185m | 22500 | **24961** | 21017 | --- |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >75 | ▲ **96** | 41 | --- |
| Sodium | ppm | ASTM D5185m | | **3** | 4 | --- |
| Potassium | ppm | ASTM D5185m | >20 | **2** | 2 | --- |

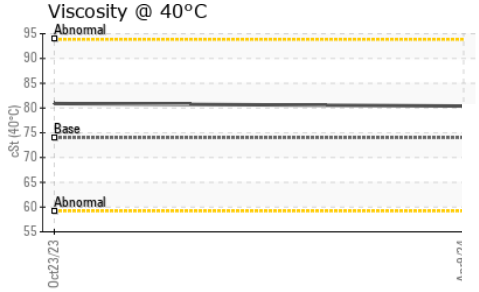
| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Silt | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Debris | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Sand/Dirt | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Appearance | scalar | *Visual | NORML | **NORML** | NORML | --- |
| Odor | scalar | *Visual | NORML | **NORML** | NORML | --- |
| Emulsified Water | scalar | *Visual | >.2 | **NEG** | NEG | --- |
| Free Water | scalar | *Visual | | **NEG** | NEG | --- |

# OIL ANALYSIS REPORT

Silicon (ppm)




Viscosity @ 40°C

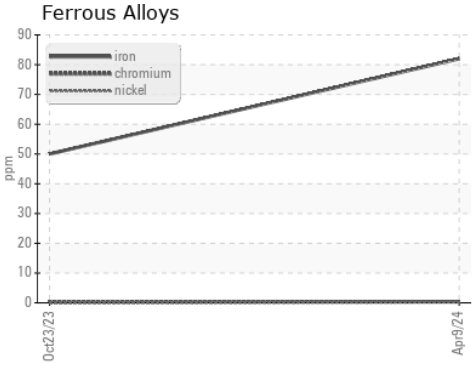



| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 74 | **80.4** | 80.9 | --- |

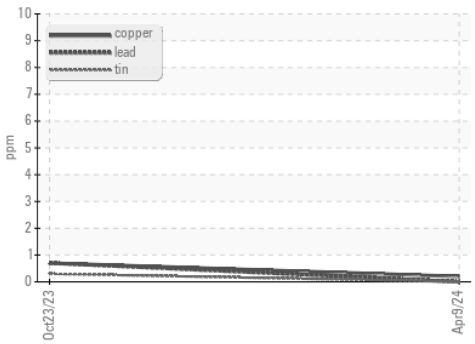
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | | *no image* | *no image* | *no image* |
| Bottom | | | *no image* | *no image* | *no image* |

## GRAPHS

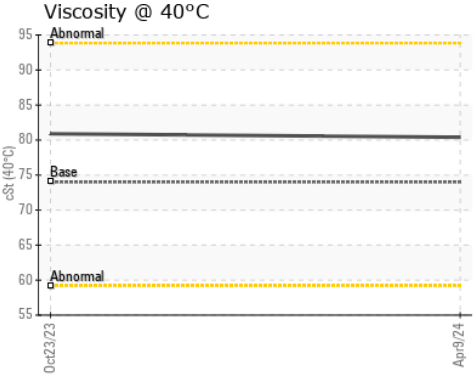
Ferrous Alloys




Non-ferrous Metals




Viscosity @ 40°C




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : PCA0119973
**Lab Number** : 06149164
**Unique Number** : 10979242
**Test Package** : FLEET

**Received** : 15 Apr 2024
**Tested** : 16 Apr 2024
**Diagnosed** : 17 Apr 2024 - Sean Felton

*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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Report Id: NWWCOL [WUSCAR] 06149164 (Generated: 04/17/2024 15:34:38) Rev: 1

Submitted By: Paul Riddick