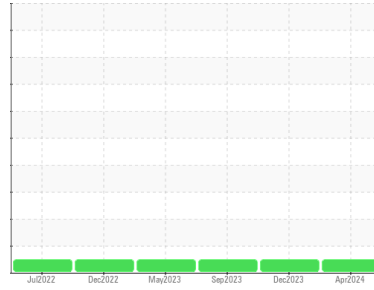




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
E-169
 Component
Left Final Drive
 Fluid
PHILLIPS 80W90 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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 | | | WC0828448 | WC0878677 | WC0828465 |
| Sample Date | Client Info | | | 08 Apr 2024 | 17 Dec 2023 | 07 Sep 2023 |
| Machine Age | hrs | Client Info | | 3367 | 2795 | 2226 |
| Oil Age | hrs | Client Info | | 1141 | 569 | 1201 |
| Oil Changed | Client Info | | | Changed | Not Changd | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---------------|-----------|--------|------------|------------|----------|----------|
| Water | WC Method | | >0.2 | NEG | NEG | NEG |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m | >500 | 48 | 38 | 154 |
| Chromium | ppm | ASTM D5185m | >10 | 1 | <1 | 2 |
| Nickel | ppm | ASTM D5185m | >10 | <1 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | <1 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 2 | 2 | <1 |
| Lead | ppm | ASTM D5185m | >25 | <1 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >50 | 1 | 0 | 0 |
| Tin | ppm | ASTM D5185m | >10 | 1 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | <1 | 0 | 0 |

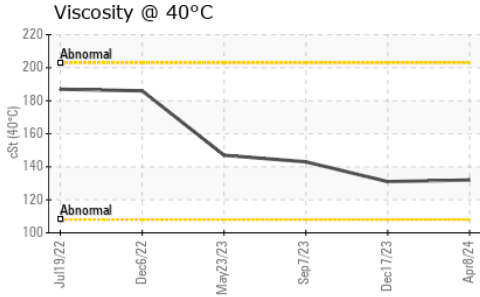
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | | 220 | 226 | 12 |
| Barium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 2 | <1 | 0 |
| Manganese | ppm | ASTM D5185m | | 2 | <1 | 3 |
| Magnesium | ppm | ASTM D5185m | | 5 | 5 | 7 |
| Calcium | ppm | ASTM D5185m | | 25 | 21 | 39 |
| Phosphorus | ppm | ASTM D5185m | | 917 | 794 | 341 |
| Zinc | ppm | ASTM D5185m | | 20 | 1 | 13 |
| Sulfur | ppm | ASTM D5185m | | 22627 | 19314 | 19535 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >75 | 4 | 3 | 9 |
| Sodium | ppm | ASTM D5185m | | <1 | 0 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 1 | <1 |

| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|---------|------------|--------------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | LIGHT |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |



OIL ANALYSIS REPORT



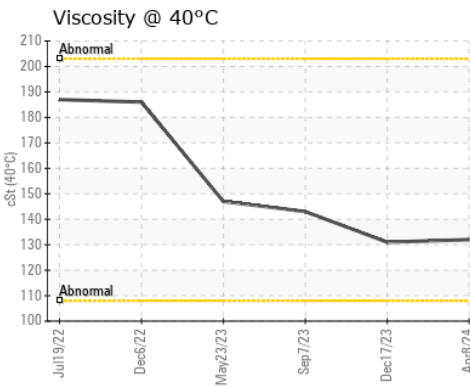
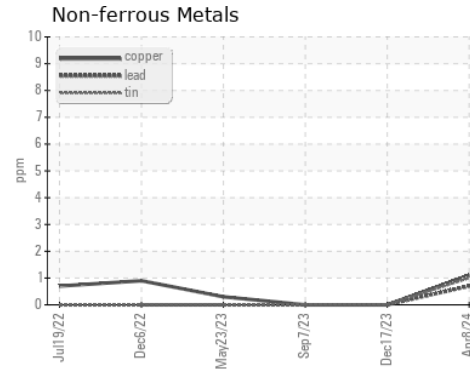
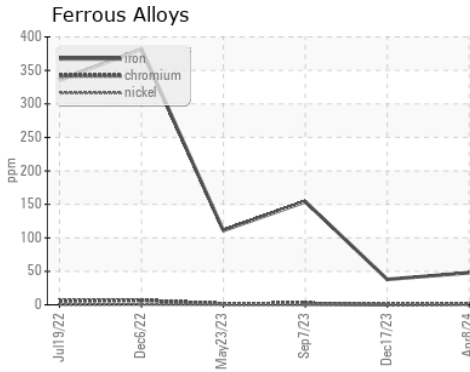
| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
|------------------|--------|------------|---------|----------|----------|

| | | | | | |
|-------------|-----|-----------|------------|-----|-----|
| Visc @ 40°C | cSt | ASTM D445 | 132 | 131 | 143 |
|-------------|-----|-----------|------------|-----|-----|

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

| | | | |
|--------|----------|----------|----------|
| Color | no image | no image | no image |
| Bottom | no image | no image | no image |

| GRAPHS |
|--------|
|--------|



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0828448
Lab Number : 06143444
Unique Number : 10968252
Test Package : CONST

Received : 09 Apr 2024
Tested : 10 Apr 2024
Diagnosed : 10 Apr 2024 - Wes Davis

DUKE LAZZARA
 4201 FAYETTEVILLE RD
 RALEIGH, NC
 US 27603

Contact: NICK DIXON
 NICK.DIXON@DUKELAZZAM.COM
 T: (919)760-7797

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)