



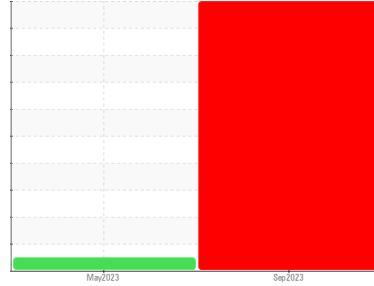
OIL ANALYSIS REPORT

Sample Rating Trend

WEAR



Area
Action Newark
Machine Id
CATERPILLAR 5582
Component
Final Drive
Fluid
NOT GIVEN (--- GAL)



DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear

Gear wear is indicated.

Contamination

There is a high concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|----------|
| Sample Number | Client Info | | WC0850718 | WC0745291 | --- |
| Sample Date | Client Info | | 23 Sep 2023 | 27 May 2023 | --- |
| Machine Age | hrs | Client Info | 28355 | 27770 | --- |
| Oil Age | hrs | Client Info | 0 | 0 | --- |
| Oil Changed | Client Info | | N/A | N/A | --- |
| Sample Status | | | SEVERE | NORMAL | --- |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|------------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >800 | 7995 | 24 | --- |
| Chromium | ppm | ASTM D5185m >10 | 42 | <1 | --- |
| Nickel | ppm | ASTM D5185m >5 | 9 | 0 | --- |
| Titanium | ppm | ASTM D5185m >15 | 22 | <1 | --- |
| Silver | ppm | ASTM D5185m >2 | 0 | 0 | --- |
| Aluminum | ppm | ASTM D5185m >75 | 248 | 3 | --- |
| Lead | ppm | ASTM D5185m >10 | 7 | 1 | --- |
| Copper | ppm | ASTM D5185m >75 | 22 | 2 | --- |
| Tin | ppm | ASTM D5185m >8 | 2 | <1 | --- |
| Vanadium | ppm | ASTM D5185m | 2 | 0 | --- |
| Cadmium | ppm | ASTM D5185m | <1 | <1 | --- |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|-------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | 12 | 13 | --- |
| Barium | ppm | ASTM D5185m | 0 | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | 7 | 63 | --- |
| Manganese | ppm | ASTM D5185m | 94 | <1 | --- |
| Magnesium | ppm | ASTM D5185m | 225 | 794 | --- |
| Calcium | ppm | ASTM D5185m | 3552 | 1283 | --- |
| Phosphorus | ppm | ASTM D5185m | 1005 | 967 | --- |
| Zinc | ppm | ASTM D5185m | 1150 | 1223 | --- |
| Sulfur | ppm | ASTM D5185m | 12289 | 3726 | --- |

CONTAMINANTS

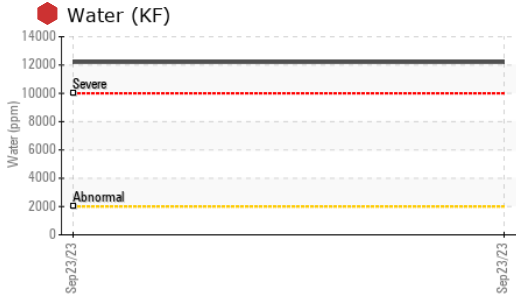
| | method | limit/base | current | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m >400 | 1302 | 5 | --- |
| Sodium | ppm | ASTM D5185m | 166 | 2 | --- |
| Potassium | ppm | ASTM D5185m >20 | 62 | 1 | --- |
| Water | % | ASTM D6304 >0.2 | 1.22 | --- | --- |
| ppm Water | ppm | ASTM D6304 >2000 | 12200 | --- | --- |

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 >0.2 | 0.2% | NEG | --- |
| Free Water | scalar | *Visual | NEG | NEG | --- |

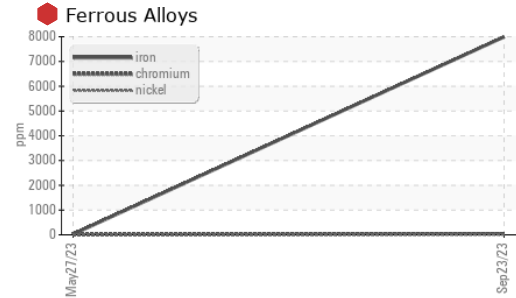


OIL ANALYSIS REPORT

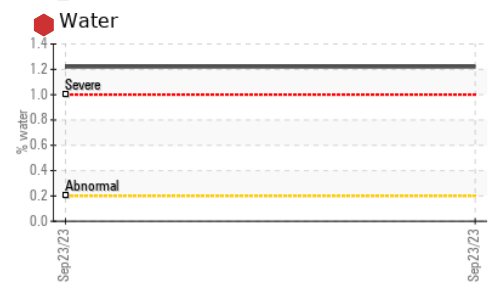
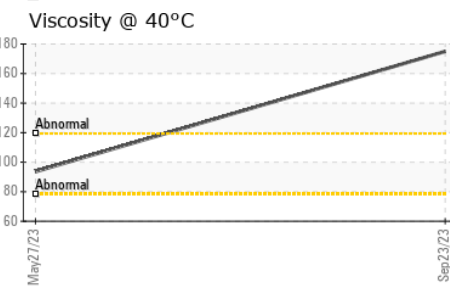
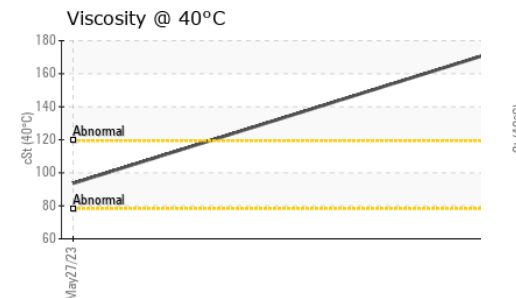
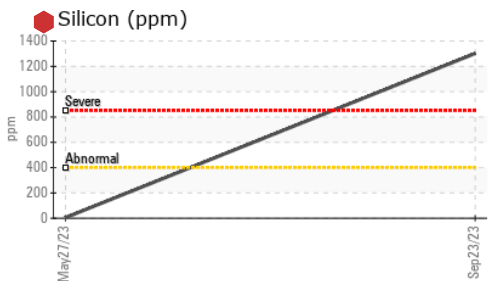
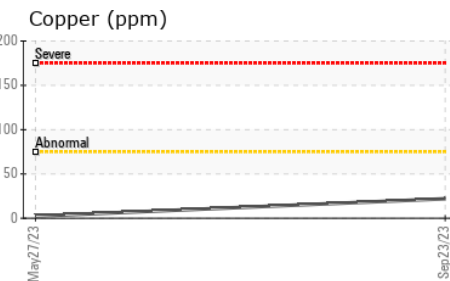
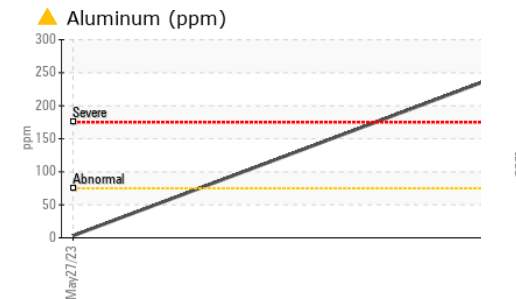
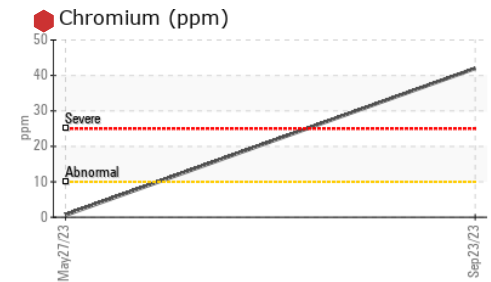
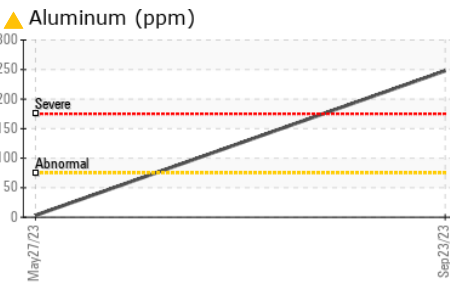
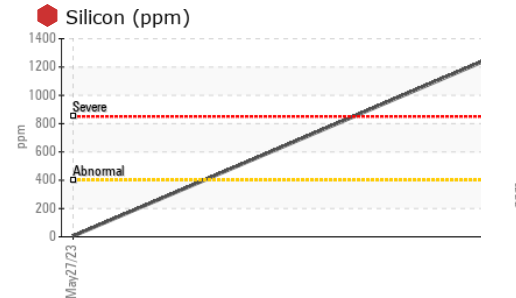
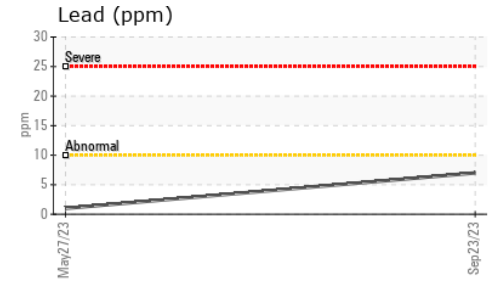
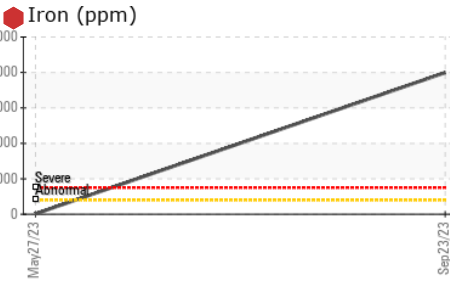


| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|------------------|-----|-----------|------------|------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | | 175 | 93.6 | --- |

| 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. : WC0850718 **Received** : 03 Oct 2023
Lab Number : 05968157 **Diagnosed** : 05 Oct 2023
Unique Number : 10674708 **Diagnostician** : Jonathan Hester
Test Package : MOB 1 (Additional Tests: KF)

INTERSTATE WASTE-NEWARK
 110 EVERGREEN AVE, BAY 3
 NEWARK, NJ
 US 07114
 Contact: Robert Witynski
 RWitynski@interstatewaste.com

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)

T:
F: