



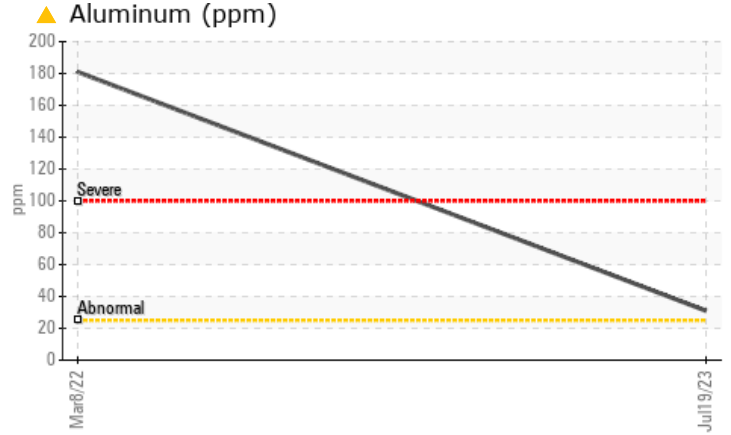
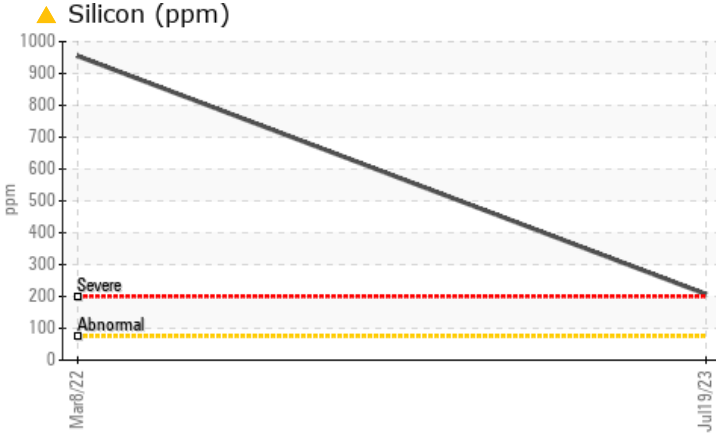
PROBLEM SUMMARY

Area
[16882]
 Machine Id
20-69
 Component
Left Final Drive
 Fluid
ConocoPhillips 80/90w gear oil (--- GAL)

Sample Rating Trend



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

| Sample Status | | | | ABNORMAL | SEVERE | --- |
|---------------|-----|-------------|-----|-----------------|---------------|-----|
| Aluminum | ppm | ASTM D5185m | >25 | ▲ 31 | ▲ 181 | --- |
| Silicon | ppm | ASTM D5185m | >75 | ▲ 207 | ● 955 | --- |

Customer Id: MANTUL
 Sample No.: WC0818667
 Lab Number: 05938013
 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Don Baldrige +1
don.b505@comcast.net

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|-------------------|--------|------|---------|---|
| Check Dirt Access | --- | --- | ? | We advise that you check all areas where dirt can enter the system. |

HISTORICAL DIAGNOSIS

08 Mar 2022 Diag: Don Baldrige

DIRT



We advise that you check for the source of water entry. We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Gear wear is indicated. 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. The oil is no longer serviceable due to the presence of contaminants.

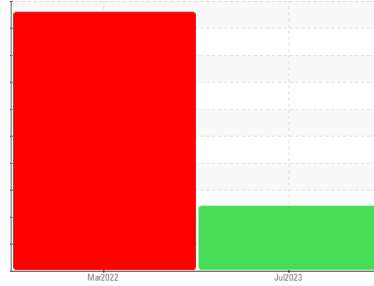
view report





OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Area
[16882]
 Machine Id
20-69

Component
Left Final Drive
 Fluid

ConocoPhillips 80/90w gear oil (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The water content is negligible.

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 | WC0818667 | WC0619413 | --- |
| Sample Date | Client Info | 19 Jul 2023 | 08 Mar 2022 | --- |
| Machine Age | hrs | Client Info | 12621 | 11342 |
| Oil Age | hrs | Client Info | 1279 | 0 |
| Oil Changed | Client Info | Not Chngd | Changed | --- |
| Sample Status | | ABNORMAL | SEVERE | --- |

WEAR METALS

| method | limit/base | current | history1 | history2 | |
|----------|------------|------------------|--------------|----------|-----|
| Iron | ppm | ASTM D5185m >500 | 381 | ▲ 623 | --- |
| Chromium | ppm | ASTM D5185m >10 | 5 | 7 | --- |
| Nickel | ppm | ASTM D5185m >10 | 1 | <1 | --- |
| Titanium | ppm | ASTM D5185m | 2 | 8 | --- |
| Silver | ppm | ASTM D5185m | 0 | 0 | --- |
| Aluminum | ppm | ASTM D5185m >25 | ▲ 31 | ▲ 181 | --- |
| Lead | ppm | ASTM D5185m >25 | <1 | <1 | --- |
| Copper | ppm | ASTM D5185m >50 | 1 | 3 | --- |
| Tin | ppm | ASTM D5185m >10 | 0 | <1 | --- |
| Vanadium | ppm | ASTM D5185m | 0 | <1 | --- |
| Cadmium | ppm | ASTM D5185m | 0 | <1 | --- |

ADDITIVES

| method | limit/base | current | history1 | history2 | |
|------------|------------|-------------|--------------|----------|-----|
| Boron | ppm | ASTM D5185m | 19 | 60 | --- |
| Barium | ppm | ASTM D5185m | 3 | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | <1 | <1 | --- |
| Manganese | ppm | ASTM D5185m | 3 | 6 | --- |
| Magnesium | ppm | ASTM D5185m | 12 | 39 | --- |
| Calcium | ppm | ASTM D5185m | 35 | 81 | --- |
| Phosphorus | ppm | ASTM D5185m | 279 | 245 | --- |
| Zinc | ppm | ASTM D5185m | 14 | 22 | --- |
| Sulfur | ppm | ASTM D5185m | 18566 | 15606 | --- |

CONTAMINANTS

| method | limit/base | current | history1 | history2 | |
|-----------|------------|-----------------|--------------|----------|-----|
| Silicon | ppm | ASTM D5185m >75 | ▲ 207 | ◆ 955 | --- |
| Sodium | ppm | ASTM D5185m | 1 | 22 | --- |
| Potassium | ppm | ASTM D5185m >20 | 14 | 68 | --- |

VISUAL

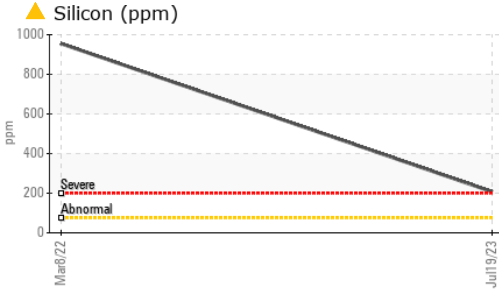
| method | limit/base | current | history1 | history2 | |
|------------------|------------|---------------|--------------|----------|-----|
| White Metal | scalar | *Visual NONE | NONE | LIGHT | --- |
| Yellow Metal | scalar | *Visual NONE | NONE | NONE | --- |
| Precipitate | scalar | *Visual NONE | 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 | NEG | ◆ 0.2% | --- |
| Free Water | scalar | *Visual | NEG | NEG | --- |

FLUID PROPERTIES

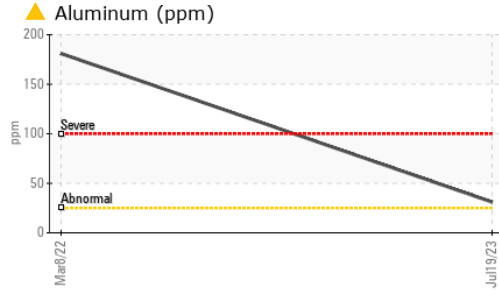
| method | limit/base | current | history1 | history2 | |
|-------------|------------|-----------|------------|----------|-----|
| Visc @ 40°C | cSt | ASTM D445 | 146 | 152 | --- |



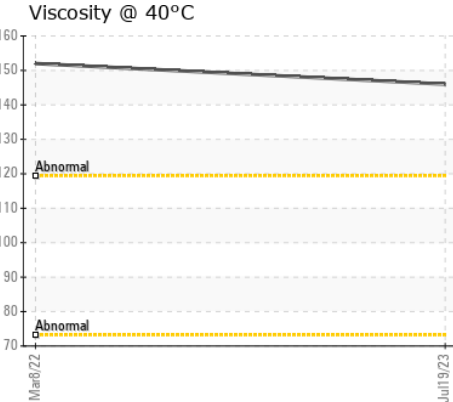
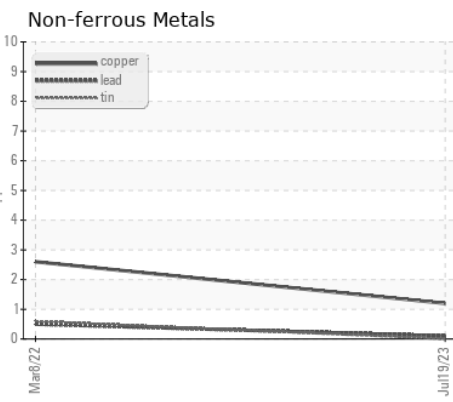
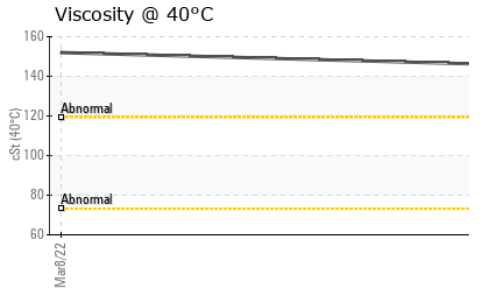
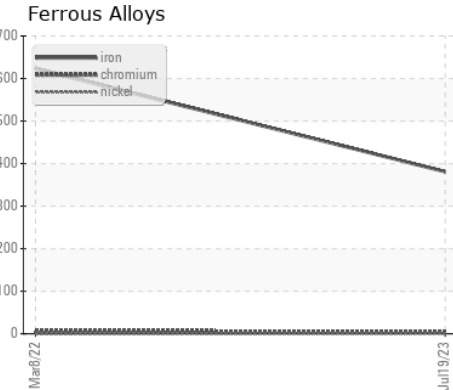
OIL ANALYSIS REPORT



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



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0818667 **Received** : 29 Aug 2023
Lab Number : **05938013** **Diagnosed** : 31 Aug 2023
Unique Number : 10628625 **Diagnostician** : Don Baldrige
Test Package : CONST

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Certificate L2367
 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)