



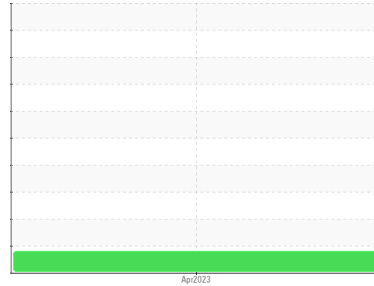
PROBLEM SUMMARY

Sample Rating Trend

WEAR

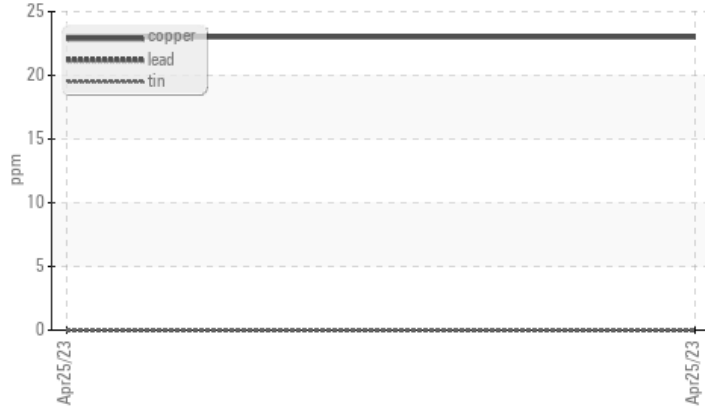


Machine Id
088-19 WC-44 (S/N 188729)
Component
Hydraulic System
Fluid
CHEVRON RANDO HD 46 (69 GAL)



COMPONENT CONDITION SUMMARY

▲ Non-ferrous Metals



RECOMMENDATION

No corrective action is recommended at this time.
Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

| | | | | | | |
|---------------|-----|-------------|-----|-----------------|----------|----------|
| Sample Status | | | | ABNORMAL | --- | --- |
| Copper | ppm | ASTM D5185m | >20 | ▲ 23 | --- | --- |
| PrtFilter | | | | | no image | no image |

Customer Id: SMCSAN
Sample No.: PH0000599
Lab Number: 05837736
Test Package: PLANT



To manage this report scan the QR code

To discuss the diagnosis or test data:
Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
088-19 WC-44 (S/N 188729)

Component
Hydraulic System

Fluid
CHEVRON RANDO HD 46 (69 GAL)

DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

▲ Wear

The copper level is abnormal. All other component wear rates are normal.

Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

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 | | PH0000599 | --- | --- |
| Sample Date | Client Info | | 25 Apr 2023 | --- | --- |
| Machine Age | hrs | Client Info | 9909 | --- | --- |
| Oil Age | hrs | Client Info | 9909 | --- | --- |
| Oil Changed | Client Info | | N/A | --- | --- |
| Sample Status | | | ABNORMAL | --- | --- |

| WEAR METALS | method | limit/base | current | history1 | history2 |
|-------------|--------|-----------------|-------------|----------|----------|
| Iron | ppm | ASTM D5185m >20 | 2 | --- | --- |
| 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 | 0 | --- | --- |
| Copper | ppm | ASTM D5185m >20 | ▲ 23 | --- | --- |
| Tin | ppm | ASTM D5185m >20 | 0 | --- | --- |
| Vanadium | ppm | ASTM D5185m | 0 | --- | --- |
| Cadmium | ppm | ASTM D5185m | 0 | --- | --- |

| ADDITIVES | method | limit/base | current | history1 | history2 |
|------------|--------|-------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | 1 | --- | --- |
| Barium | ppm | ASTM D5185m | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | 2 | --- | --- |
| Manganese | ppm | ASTM D5185m | <1 | --- | --- |
| Magnesium | ppm | ASTM D5185m | 10 | --- | --- |
| Calcium | ppm | ASTM D5185m | 69 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | 321 | --- | --- |
| Zinc | ppm | ASTM D5185m | 365 | --- | --- |
| Sulfur | ppm | ASTM D5185m | 826 | --- | --- |

| CONTAMINANTS | method | limit/base | current | history1 | history2 |
|--------------|--------|-----------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m >15 | <1 | --- | --- |
| Sodium | ppm | ASTM D5185m | <1 | --- | --- |
| Potassium | ppm | ASTM D5185m >20 | <1 | --- | --- |

| FLUID CLEANLINESS | method | limit/base | current | history1 | history2 |
|-------------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm | ASTM D7647 | >2500 | 550 | --- | --- |
| Particles >6µm | ASTM D7647 | >640 | 104 | --- | --- |
| Particles >14µm | ASTM D7647 | >160 | 8 | --- | --- |
| Particles >21µm | ASTM D7647 | >40 | 3 | --- | --- |
| Particles >38µm | ASTM D7647 | >10 | 0 | --- | --- |
| Particles >71µm | ASTM D7647 | >3 | 0 | --- | --- |
| Oil Cleanliness | ISO 4406 (c) | >18/16/14 | 16/14/10 | --- | --- |

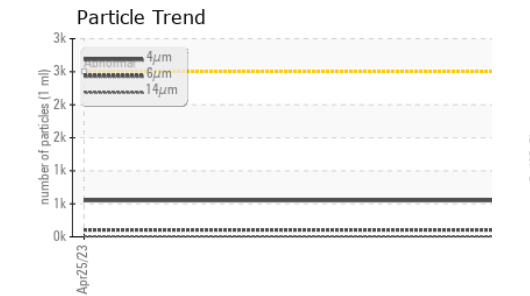
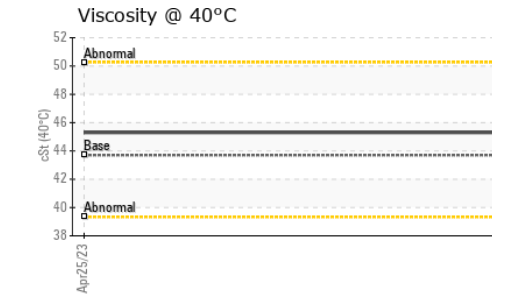
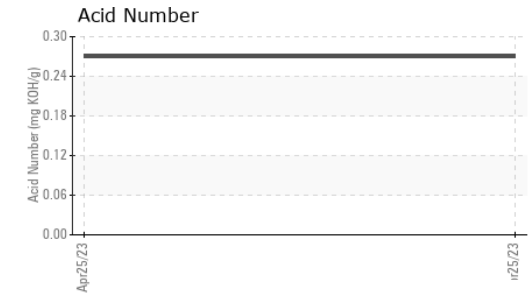
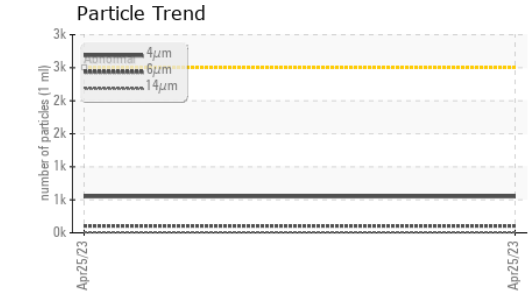
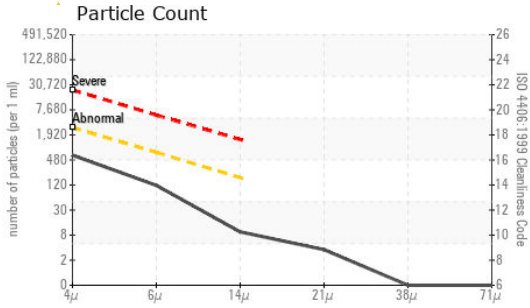
| FLUID DEGRADATION | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.27 | --- | --- |

Particle Filter (Magn: x)





OIL ANALYSIS REPORT

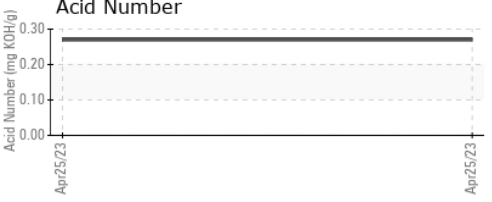
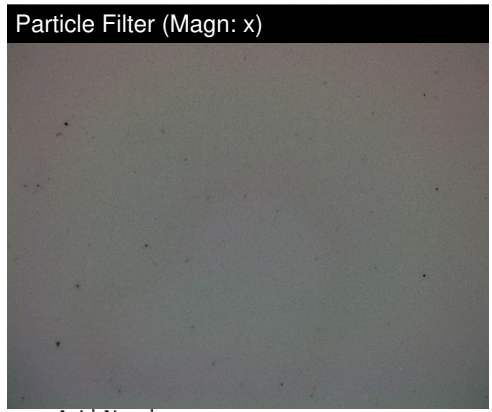
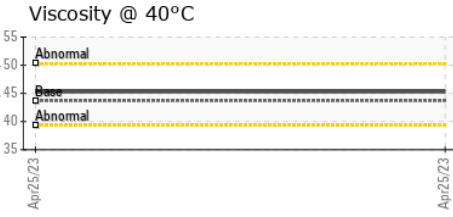
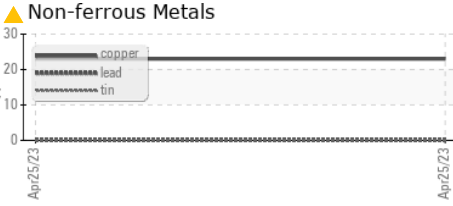
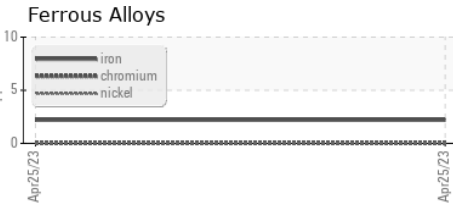


| VISUAL | method | limit/base | current | history1 | history2 | |
|------------------|--------|------------|---------|----------|----------|-----|
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Precipitate | scalar | *Visual | 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 | 43.7 | 45.3 | --- | --- |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
| Color | | | | | |
| Bottom | | | | | |
| PrtFilter | | | | | |

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PH0000599 **Received** : 04 May 2023
Lab Number : 05837736 **Diagnosed** : 09 May 2023
Unique Number : 10456539 **Diagnostician** : Doug Bogart
Test Package : PLANT (Additional Tests: KF)

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 US 95403
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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)