



| | |
|-----------------|-----------------|
| WEAR | NORMAL |
| CONTAMINATION | ABNORMAL |
| FLUID CONDITION | NORMAL |

Area
CEN
Machine Id
CEN
Component
Hydraulic System
Fluid
CHEVRON RANDO HD 68 (275 GAL)

RECOMMENDATION

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

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | MW0065462 | MW0061134 | MW0060912 |
| Sample Date | | Client Info | | 29 Jun 2024 | 20 Jan 2024 | 22 Dec 2023 |
| Machine Age | hrs | Client Info | | 0 | 0 | 5178 |
| Oil Age | hrs | Client Info | | 36479 | 0 | 0 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Not Changd | N/A | Not Changd |
| Filter Changed | | Client Info | | N/A | N/A | Not Changd |
| Sample Status | | | | ABNORMAL | NORMAL | ABNORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|-------------|------|------|
| Iron | ppm | ASTM D5185m | >20 | 10 | <1 | 13 |
| Chromium | ppm | ASTM D5185m | >10 | 0 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Lead | ppm | ASTM D5185m | >20 | 0 | <1 | 0 |
| Copper | ppm | ASTM D5185m | >20 | 0 | 2 | 2 |
| Tin | ppm | ASTM D5185m | >10 | 0 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

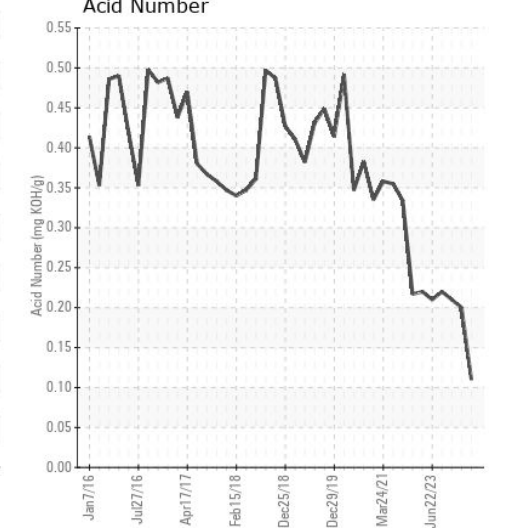
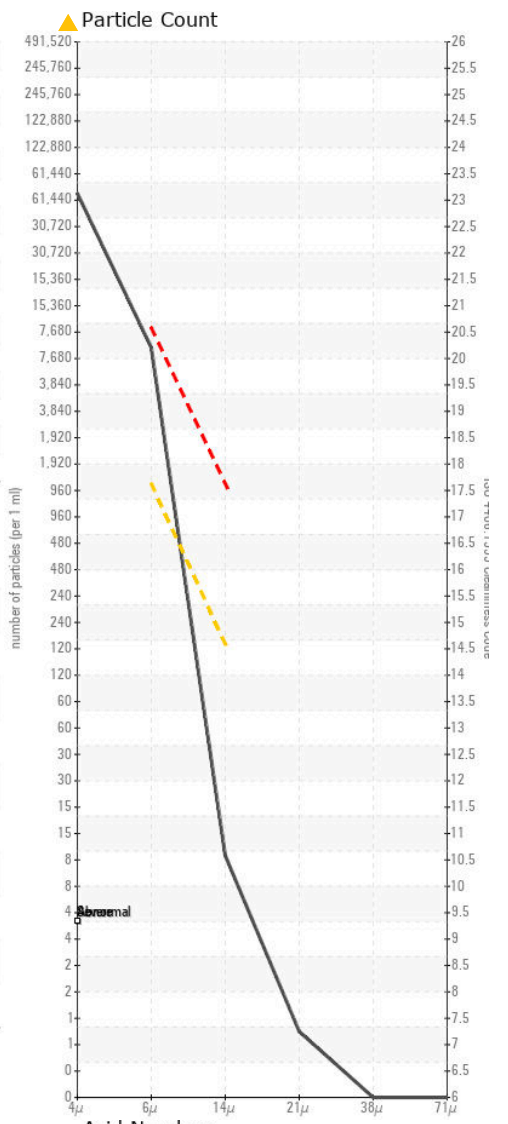
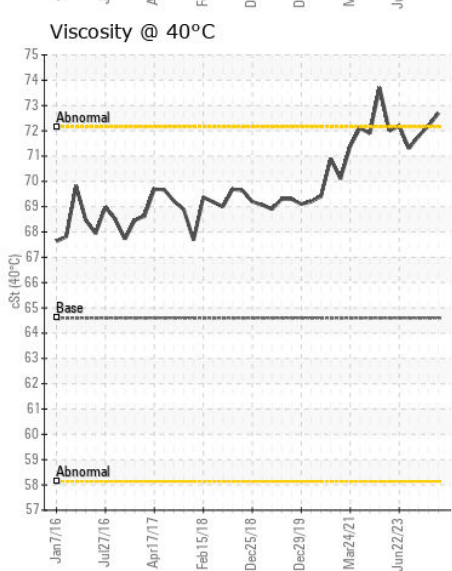
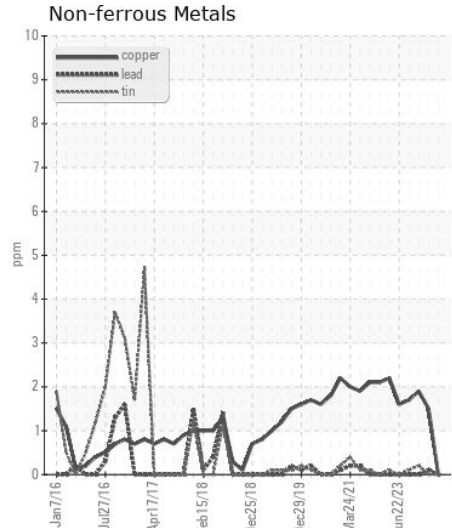
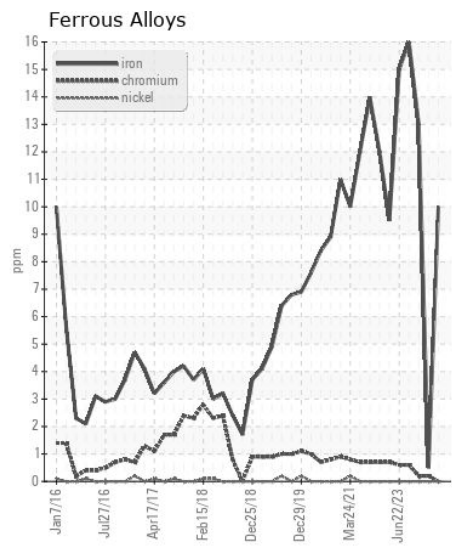
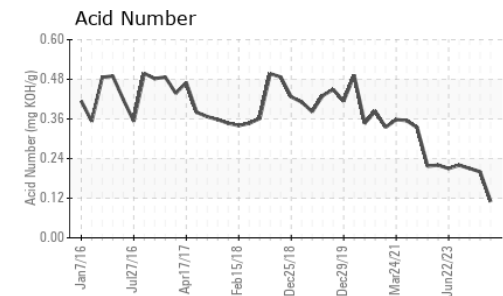
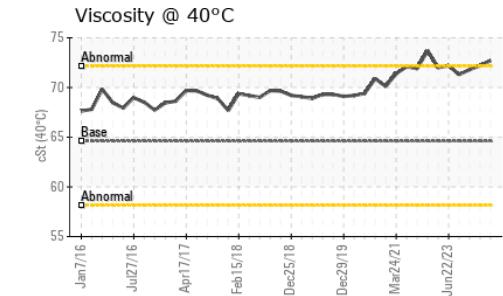
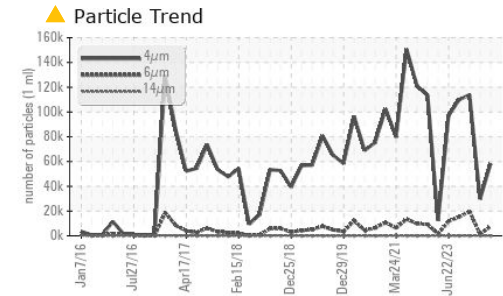
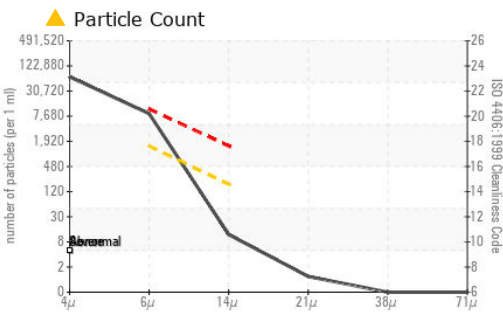
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

| | | | | | | |
|------------------|--------|--------------|----------|-------------------|----------|------------|
| Silicon | ppm | ASTM D5185m | >15 | 0 | 0 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Water | | WC Method | >0.05 | NEG | NEG | NEG |
| Particles >4µm | | ASTM D7647 | | 58132 | 29809 | 113907 |
| Particles >6µm | | ASTM D7647 | >1300 | ▲ 7710 | 1267 | ▲ 19725 |
| Particles >14µm | | ASTM D7647 | >160 | 10 | 14 | 56 |
| Particles >21µm | | ASTM D7647 | >40 | 1 | 4 | 5 |
| Particles >38µm | | ASTM D7647 | >10 | 0 | 0 | 0 |
| Particles >71µm | | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >-/17/14 | ▲ 23/20/10 | 22/17/11 | ▲ 24/21/13 |
| 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 | >0.05 | NEG | NEG | NEG |

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|-------------|------|-------------|------|------|
| Sodium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Boron | ppm | ASTM D5185m | | 4 | <1 | 2 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 3 | 5 | 6 |
| Manganese | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | | 3 | 1 | 0 |
| Calcium | ppm | ASTM D5185m | | 536 | 407 | 396 |
| Phosphorus | ppm | ASTM D5185m | | 330 | 288 | 286 |
| Zinc | ppm | ASTM D5185m | | 415 | 374 | 364 |
| Sulfur | ppm | ASTM D5185m | | 1280 | 911 | 757 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.11 | 0.20 | 0.21 |
| Visc @ 40°C | cSt | ASTM D445 | 64.6 | 72.7 | 72.2 | 71.8 |



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0065462
Lab Number : 06233821
Unique Number : 11122655
Test Package : MAR 2
Received : 11 Jul 2024
Tested : 12 Jul 2024
Diagnosed : 13 Jul 2024 - Don Baldrige

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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)