



OIL ANALYSIS REPORT

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

Area
MCAVOY MCDUGAL

Machine Id
783 783

Component
Hydraulic System

Fluid
SAE 10W (65 GAL)

RECOMMENDATION

No corrective action is recommended at this time. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | WC0939229 | WC0819113 | WC0770840 |
| Sample Date | | Client Info | | 24 May 2024 | 15 Jun 2023 | 16 Dec 2022 |
| Machine Age | hrs | Client Info | | 3226 | 3033 | 2652 |
| Oil Age | hrs | Client Info | | 1366 | 1173 | 471 |
| Filter Age | hrs | Client Info | | 1366 | 1173 | 471 |
| Oil Changed | | Client Info | | Changed | Changed | Not Changed |
| Filter Changed | | Client Info | | Not Changed | Changed | Changed |
| Sample Status | | | | ABNORMAL | ABNORMAL | ABNORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|---------|------|
| Iron | ppm | ASTM D5185m | >20 | 3 | 8 | 8 |
| Chromium | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| 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 | <1 |
| Lead | ppm | ASTM D5185m | >10 | 0 | 3 | 3 |
| Copper | ppm | ASTM D5185m | >75 | 2 | 5 | 4 |
| Tin | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | ▲ MODER | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

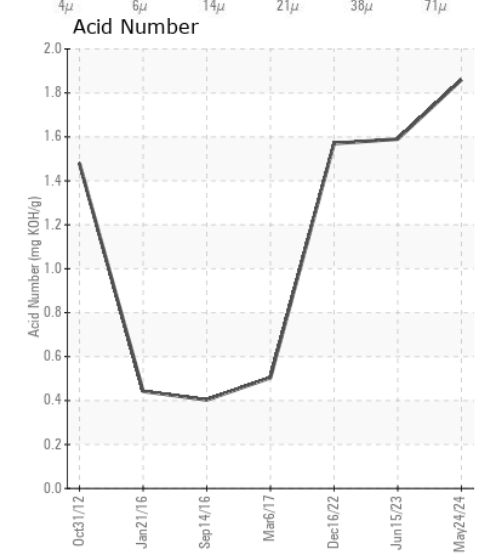
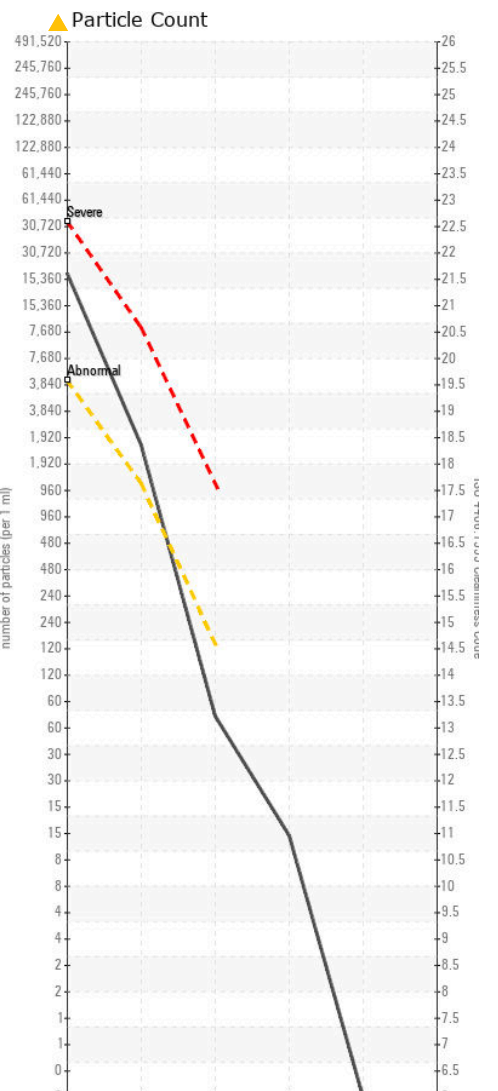
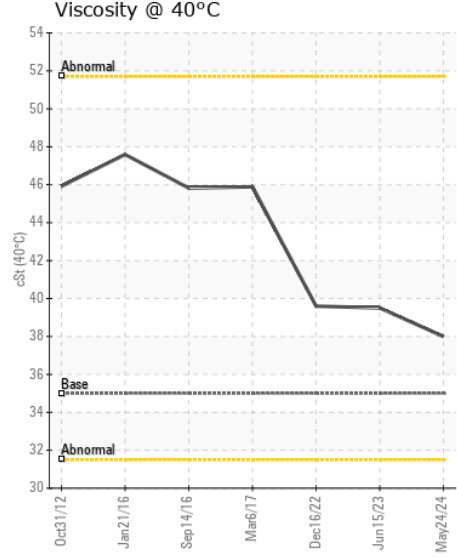
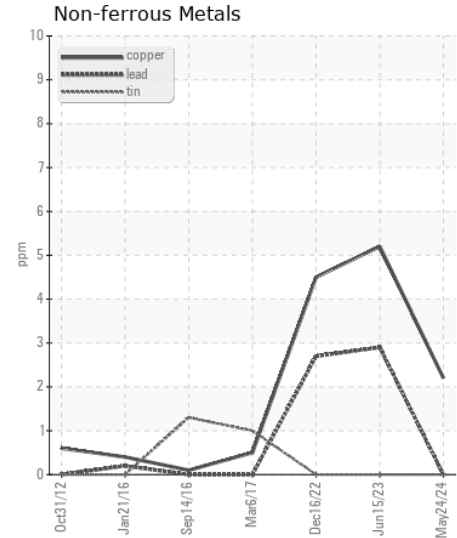
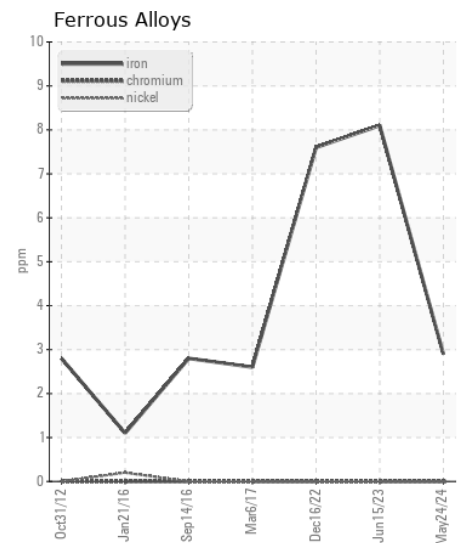
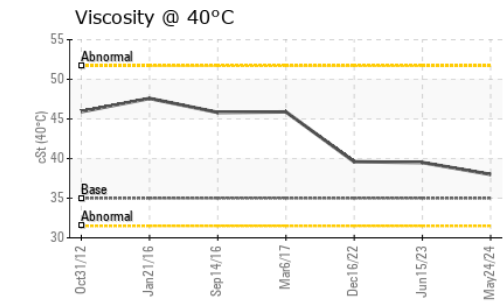
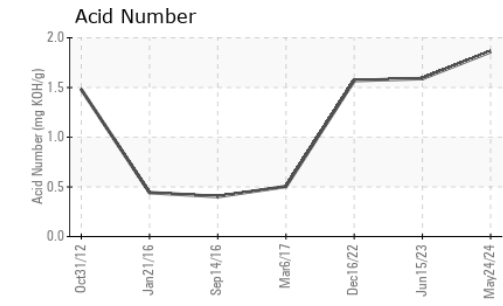
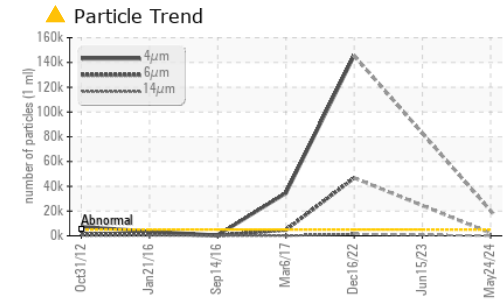
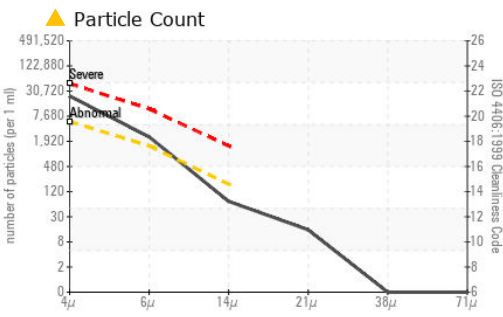
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

| | | | | | | |
|------------------|--------|--------------|-----------|-------------------|-------|------------|
| Silicon | ppm | ASTM D5185m | >20 | 3 | 3 | 4 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 2 | 0 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Particles >4µm | | ASTM D7647 | >5000 | ▲ 20294 | --- | ▲ 145468 |
| Particles >6µm | | ASTM D7647 | >1300 | ● 2147 | --- | ▲ 46784 |
| Particles >14µm | | ASTM D7647 | >160 | 62 | --- | ▲ 1495 |
| Particles >21µm | | ASTM D7647 | >40 | 13 | --- | ▲ 209 |
| Particles >38µm | | ASTM D7647 | >10 | 0 | --- | 0 |
| Particles >71µm | | ASTM D7647 | >3 | 0 | --- | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | ▲ 22/18/13 | --- | ▲ 24/23/18 |
| 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 | >0.1 | 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 | | <1 | 0 | 2 |
| Boron | ppm | ASTM D5185m | | 0 | 5 | 4 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Molybdenum | ppm | ASTM D5185m | | 3 | 1 | 1 |
| Manganese | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | | 763 | 617 | 614 |
| Calcium | ppm | ASTM D5185m | | 154 | 424 | 441 |
| Phosphorus | ppm | ASTM D5185m | | 1220 | 1049 | 996 |
| Zinc | ppm | ASTM D5185m | | 1361 | 1202 | 1153 |
| Sulfur | ppm | ASTM D5185m | | 8742 | 7634 | 7740 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 1.86 | 1.59 | 1.57 |
| Visc @ 40°C | cSt | ASTM D445 | 35.0 | 38.0 | 39.5 | 39.6 |



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0939229
Lab Number : 06193854
Unique Number : 11055977
Test Package : CONST
Received : 29 May 2024
Tested : 30 May 2024
Diagnosed : 31 May 2024 - Jonathan Hester

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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)