



OIL ANALYSIS REPORT

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

Machine Id
185
Component
Rear Transmission (Auto)
Fluid
CASTROL TRANSYND (24 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | WC0889124 | WC0889176 | WC0866461 |
| Sample Date | | Client Info | | 26 Feb 2024 | 22 Dec 2023 | 03 Nov 2023 |
| Machine Age | kms | Client Info | | 0 | 0 | 0 |
| Oil Age | kms | Client Info | | 18886 | 9226 | 49739 |
| Filter Age | kms | Client Info | | 18886 | 9226 | 49739 |
| Oil Changed | | Client Info | | Not Changd | Not Changd | Not Changd |
| Filter Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | NORMAL | ABNORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|---------------|------|--------------|------|------|
| PQ | | ASTM D8184* | >105 | 0 | --- | 0 |
| Iron | ppm | ASTM D5185(m) | >230 | 22 | 36 | 60 |
| Chromium | ppm | ASTM D5185(m) | >2 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) | >5 | <1 | 0 | <1 |
| Titanium | ppm | ASTM D5185(m) | >2 | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | >5 | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185(m) | >65 | 6 | 8 | 15 |
| Lead | ppm | ASTM D5185(m) | >55 | 3 | 2 | 3 |
| Copper | ppm | ASTM D5185(m) | >85 | 5 | 6 | 10 |
| Tin | ppm | ASTM D5185(m) | >5 | <1 | <1 | <1 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| White Metal | scalar | Visual* | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | Visual* | NONE | NONE | NONE | NONE |

CONTAMINATION

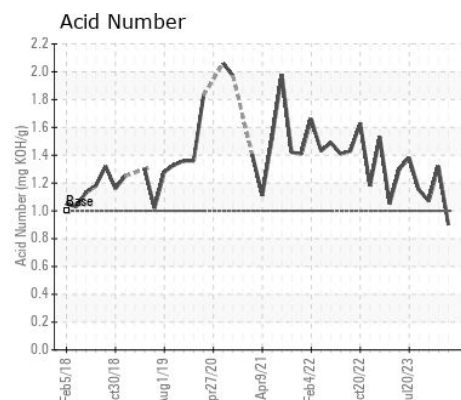
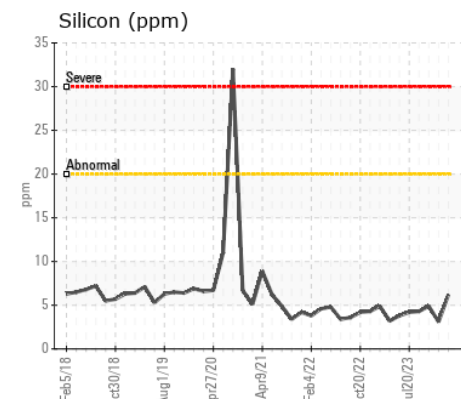
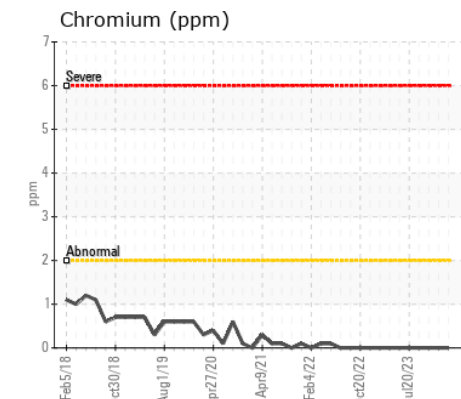
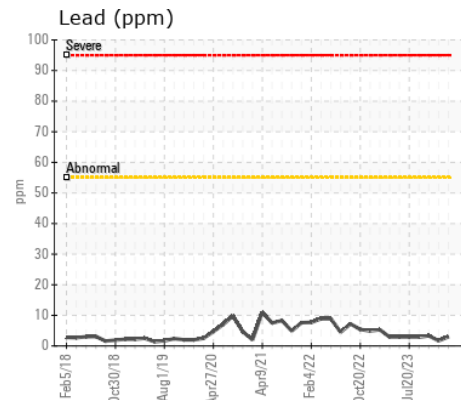
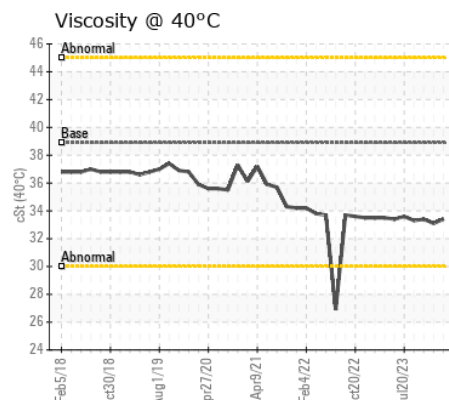
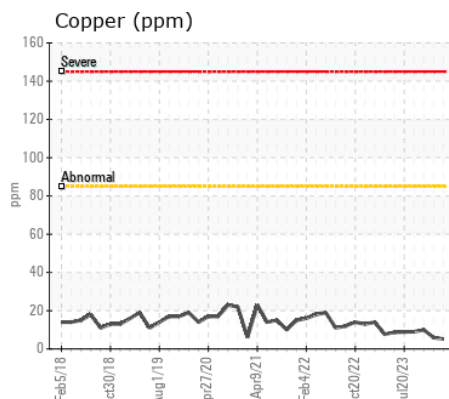
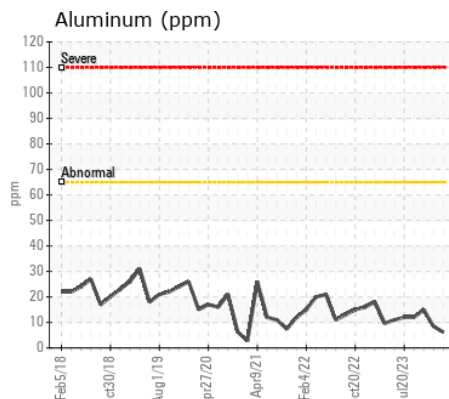
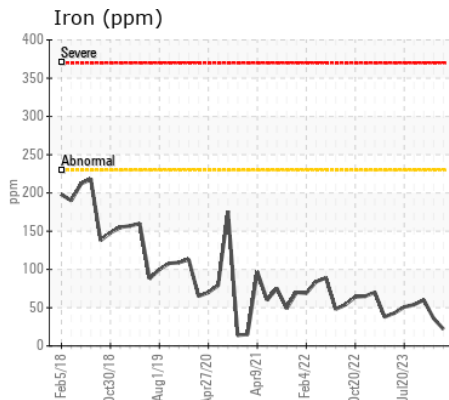
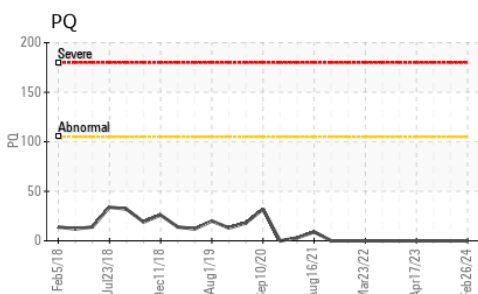
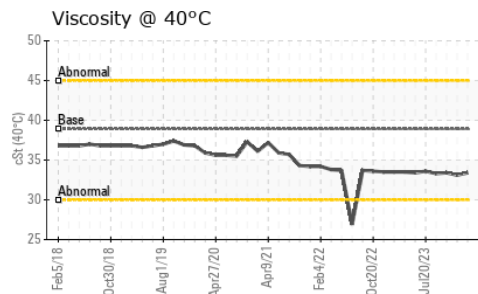
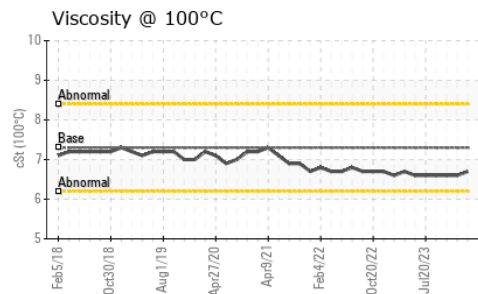
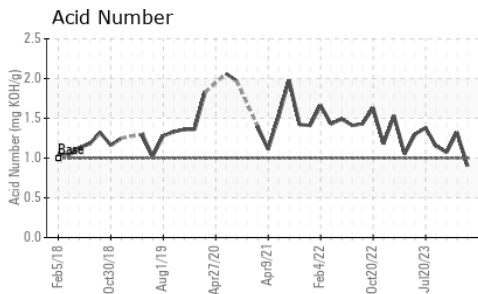
There is no indication of any contamination in the fluid.

| | | | | | | |
|------------------|--------|---------------|-------|--------------|-------|-------|
| Silicon | ppm | ASTM D5185(m) | >20 | 6 | 3 | 5 |
| Potassium | ppm | ASTM D5185(m) | >20 | 2 | 1 | <1 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| 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 fluid is suitable for further service.

| | | | | | | |
|----------------------|----------|---------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185(m) | | 7 | 3 | 5 |
| Boron | ppm | ASTM D5185(m) | 150 | 63 | 70 | 71 |
| Barium | ppm | ASTM D5185(m) | 0 | <1 | 0 | <1 |
| Molybdenum | ppm | ASTM D5185(m) | 0 | <1 | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) | | <1 | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) | 0 | 5 | <1 | <1 |
| Calcium | ppm | ASTM D5185(m) | 40 | 130 | 127 | 122 |
| Phosphorus | ppm | ASTM D5185(m) | 320 | 215 | 235 | 247 |
| Zinc | ppm | ASTM D5185(m) | 5 | 10 | 3 | 5 |
| Sulfur | ppm | ASTM D5185(m) | 1050 | 1507 | 1586 | 1484 |
| Acid Number (AN) | mg KOH/g | ASTM D974* | 1.0 | 0.90 | 1.32 | 1.07 |
| Visc @ 40°C | cSt | ASTM D7279(m) | 38.9 | 33.4 | 33.1 | 33.4 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 7.3 | 6.7 | 6.6 | 6.6 |
| Viscosity Index (VI) | Scale | ASTM D2270* | 168 | 162 | 159 | 157 |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0889124
Lab Number : 02619595
Unique Number : 5736705
Test Package : MOB 2 (Additional Tests: KV100, PQ, VI)
Received : 04 Mar 2024
Tested : 04 Mar 2024
Diagnosed : 04 Mar 2024 - Wes Davis

CITY OF THUNDER BAY
 AUTO MAINTENANCE STORES, 570 FORT WILLIAM ROAD
 THUNDER BAY, ON
 CA P7B 2Z8
 Contact: Sean Malcolm
 sean.malcolm@thunderbay.ca
 T: (807)684-2716
 F: (807)344-0237

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.