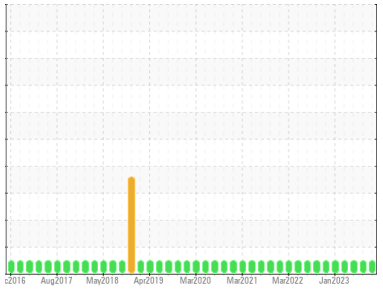
# OIL ANALYSIS REPORT

Sample Rating Trend




NORMAL

Machine Id
**149**
Component
**Rear Transmission (Auto)**
Fluid
**CASTROL TRANSYND (--- GAL)**

## DIAGNOSIS

**Recommendation**
Resample at the next service interval to monitor.

**Wear**
All component wear rates are normal.

**Contamination**
There is no indication of any contamination in the fluid.

**Fluid Condition**
The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **WC0866491** | WC0730830 | WC0730865 |
| Sample Date | | Client Info | | **20 Dec 2023** | 12 Sep 2023 | 18 Apr 2023 |
| Machine Age | kms | Client Info | | **0** | 0 | 0 |
| Oil Age | kms | Client Info | | **19625** | 9821 | 47112 |
| Oil Changed | | Client Info | | **Not Changd** | Not Changd | Not Changd |
| Sample Status | | | | **NORMAL** | NORMAL | NORMAL |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Water | | WC Method | >0.1 | **NEG** | NEG | NEG |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185(m) | >230 | **25** | 31 | 51 |
| 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 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >65 | **5** | 6 | 12 |
| Lead | ppm | ASTM D5185(m) | >55 | **2** | 1 | 2 |
| Copper | ppm | ASTM D5185(m) | >85 | **4** | 6 | 11 |
| Tin | ppm | ASTM D5185(m) | >5 | **0** | <1 | <1 |
| Antimony | ppm | ASTM D5185(m) | | **0** | 0 | <1 |
| Vanadium | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Beryllium | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Cadmium | ppm | ASTM D5185(m) | | **0** | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185(m) | 150 | **67** | 70 | 80 |
| Barium | ppm | ASTM D5185(m) | 0 | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 0 | **2** | <1 | <1 |
| Manganese | ppm | ASTM D5185(m) | | **0** | <1 | <1 |
| Magnesium | ppm | ASTM D5185(m) | 0 | **1** | 1 | 2 |
| Calcium | ppm | ASTM D5185(m) | 40 | **124** | 116 | 114 |
| Phosphorus | ppm | ASTM D5185(m) | 320 | **233** | 261 | 296 |
| Zinc | ppm | ASTM D5185(m) | 5 | **5** | 6 | 7 |
| Sulfur | ppm | ASTM D5185(m) | 1050 | **1424** | 1396 | 1362 |
| Lithium | ppm | ASTM D5185(m) | | **<1** | <1 | <1 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185(m) | >20 | **4** | 3 | 4 |
| Sodium | ppm | ASTM D5185(m) | | **3** | 4 | 6 |
| Potassium | ppm | ASTM D5185(m) | >20 | **<1** | 2 | 1 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >10000 | **50752** | --- | --- |
| Particles >6µm | | ASTM D7647 | >2500 | **7126** | --- | --- |
| Particles >14µm | | ASTM D7647 | >320 | **128** | --- | --- |
| Particles >21µm | | ASTM D7647 | >80 | **13** | --- | --- |
| Particles >38µm | | ASTM D7647 | >20 | **1** | --- | --- |
| Particles >71µm | | ASTM D7647 | >4 | **0** | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >20/18/15 | **23/20/14** | --- | --- |

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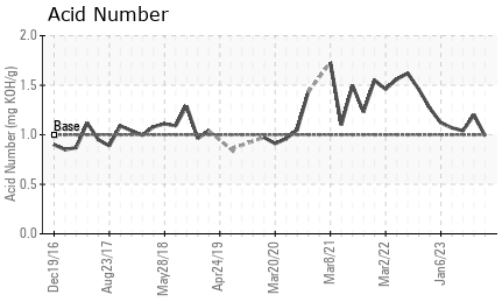
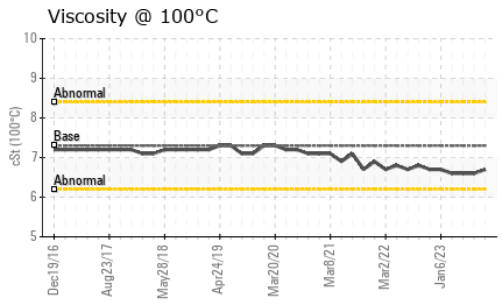
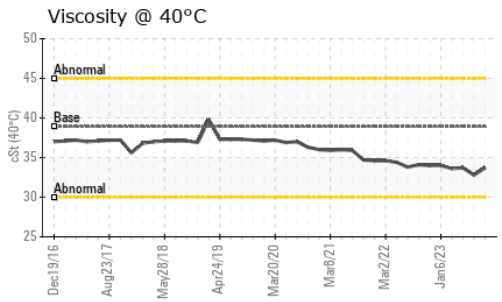


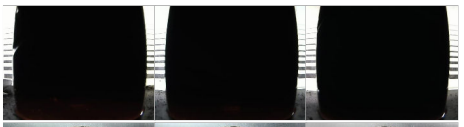




| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D974* | 1.0 | **0.99** | 1.20 | 1.04 |

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

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D7279(m) | 38.9 | **33.7** | 32.8 | 33.7 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 7.3 | **6.7** | 6.6 | 6.6 |
| Viscosity Index (VI) | Scale | ASTM D2270* | 168 | **160** | 161 | 155 |

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

ISO 17025:2017 Accredited Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
**Sample No.** : WC0866491 **Recieved** : 27 Dec 2023
**Lab Number** : 02605334 **Diagnosed** : 28 Dec 2023
**Unique Number** : 5698419 **Diagnostician** : Kevin Marson
**Test Package** : MOB 2 ( Additional Tests: KV100, PrtCount, VI )

*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.*

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