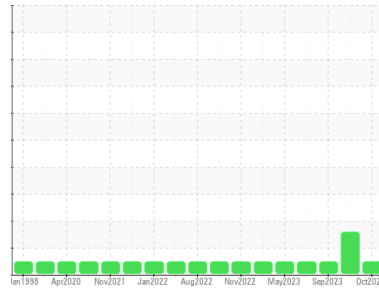




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
PRESS 3

Component
Hydraulic System

Fluid
AW HYDRAULIC OIL ISO 46 (9000 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is 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 | WC | WC | WC |
| Sample Date | Client Info | 10 Oct 2023 | 07 Sep 2023 | 05 Sep 2023 |
| Machine Age | hrs | Client Info | 0 | 0 |
| Oil Age | hrs | Client Info | 0 | 0 |
| Oil Changed | Client Info | N/A | N/A | N/A |
| Sample Status | | NORMAL | ABNORMAL | NORMAL |

WEAR METALS

| method | limit/base | current | history1 | history2 | | |
|-----------|------------|---------------|----------|--------------|----|----|
| Iron | ppm | ASTM D5185(m) | >20 | 3 | 2 | 2 |
| Chromium | ppm | ASTM D5185(m) | >20 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185(m) | >20 | <1 | 0 | 0 |
| Titanium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | | <1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >20 | <1 | <1 | <1 |
| Lead | ppm | ASTM D5185(m) | >20 | <1 | <1 | <1 |
| Copper | ppm | ASTM D5185(m) | >20 | 14 | 13 | 13 |
| Tin | ppm | ASTM D5185(m) | >20 | 0 | 0 | 0 |
| Antimony | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| 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) | 5 | <1 | <1 | <1 |
| Barium | ppm | ASTM D5185(m) | 5 | <1 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 5 | 0 | <1 | <1 |
| Manganese | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) | 25 | 2 | 2 | 2 |
| Calcium | ppm | ASTM D5185(m) | 200 | 59 | 58 | 56 |
| Phosphorus | ppm | ASTM D5185(m) | 300 | 358 | 376 | 362 |
| Zinc | ppm | ASTM D5185(m) | 370 | 449 | 447 | 433 |
| Sulfur | ppm | ASTM D5185(m) | 2500 | 1001 | 807 | 780 |
| Lithium | ppm | ASTM D5185(m) | | <1 | <1 | <1 |

CONTAMINANTS

| method | limit/base | current | history1 | history2 | | |
|-----------|------------|---------------|----------|--------------|----|----|
| Silicon | ppm | ASTM D5185(m) | >15 | <1 | 0 | <1 |
| Sodium | ppm | ASTM D5185(m) | | <1 | <1 | <1 |
| Potassium | ppm | ASTM D5185(m) | >20 | 0 | 0 | <1 |

FLUID CLEANLINESS

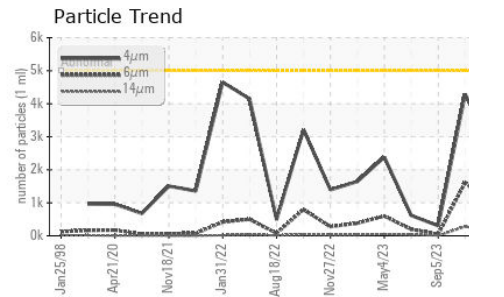
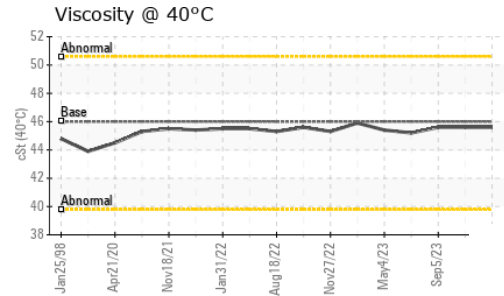
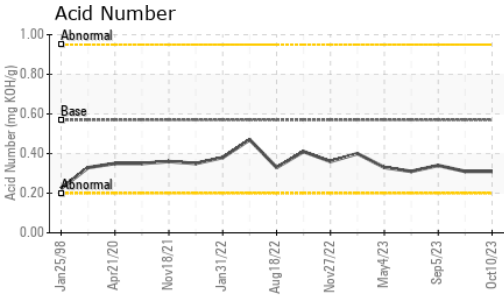
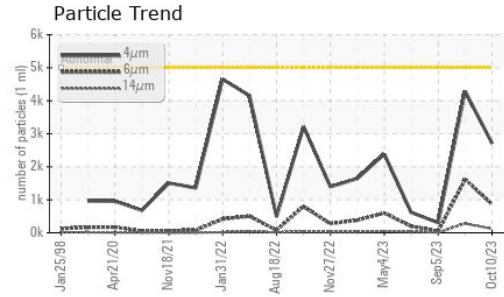
| method | limit/base | current | history1 | history2 | |
|-----------------|--------------|-----------|-----------------|------------|----------|
| Particles >4µm | ASTM D7647 | >5000 | 2710 | 4289 | 304 |
| Particles >6µm | ASTM D7647 | >1300 | 861 | ▲ 1622 | 47 |
| Particles >14µm | ASTM D7647 | >160 | 122 | ▲ 279 | 8 |
| Particles >21µm | ASTM D7647 | >40 | 42 | ▲ 115 | 3 |
| Particles >38µm | ASTM D7647 | >10 | 4 | 8 | 0 |
| Particles >71µm | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >19/17/14 | 19/17/14 | ▲ 19/18/15 | 15/13/10 |

FLUID DEGRADATION

| method | limit/base | current | history1 | history2 | | |
|------------------|------------|------------|----------|-------------|------|------|
| Acid Number (AN) | mg KOH/g | ASTM D974* | 0.57 | 0.31 | 0.31 | 0.34 |



OIL ANALYSIS REPORT

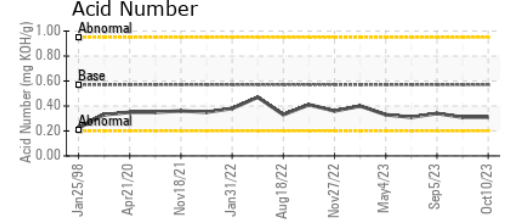
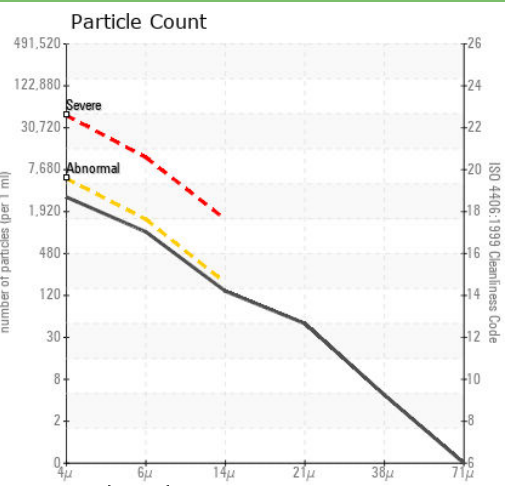
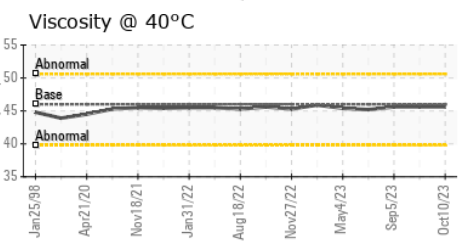
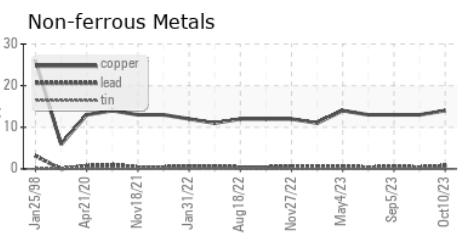
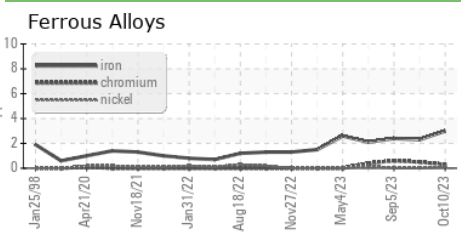


| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | Visual* | NONE | NONE | NONE |
| Yellow Metal | scalar | Visual* | NONE | NONE | NONE |
| Precipitate | scalar | Visual* | NONE | NONE | NONE |
| Silt | scalar | Visual* | NONE | VLITE | NONE |
| Debris | scalar | Visual* | NONE | NONE | NONE |
| Sand/Dirt | scalar | Visual* | NONE | NONE | NONE |
| Appearance | scalar | Visual* | NORML | NORML | NORML |
| Odor | scalar | Visual* | NORML | NORML | NORML |
| Emulsified Water | scalar | Visual* | >0.05 | NEG | NEG |
| Free Water | scalar | Visual* | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|---------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D7279(m) | 46 | 45.6 | 45.6 |

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

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC
Lab Number : 02588398
Unique Number : 5657464
Test Package : IND 2 (Additional Tests: TAN Man)
Received : 11 Oct 2023
Diagnosed : 12 Oct 2023
Diagnostician : Wes Davis

Hydro Extrusion North
 5675 Kennedy Road
 Mississauga, ON
 CA L4Z 2H9
 Contact: Harsh Murria
 Harsh.murria@hydro.com
 T: (819)462-0479
 F: (866)462-6478

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.