

LIEBHERR

CONSTRUCTION EQUIPMENT



096750-1204 - Hydraulic System

Sample No: LH0274879

Oil Type: PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL



SAMPLE INFORMATION

| Sample Number | LH0274879 | LH0270241 | LH0270242 | LH0216226 |
|---------------|-------------|-------------|-------------|-------------|
| Sample Date | 31 Oct 2023 | 17 Oct 2023 | 16 Oct 2023 | 02 May 2023 |
| Machine Hours | 10469 | 10394 | 10590 | 9957 |
| Oil Hours | 0 | 0 | 0 | 0 |
| Oil Changed | Not Changd | Changed | Not Changd | Changed |
| Sample Status | NORMAL | NORMAL | NORMAL | NORMAL |

American Iron and Metal

120 Bentley Avenue
Ottawa, ON
CA K2E 6T9
Contact: Yvon Lalonde



OIL CONDITION

| Visc @ 40°C | cSt | 39.8 | 43.5 | 37.8 | 39.6 |
|-------------|-----|------|------|------|------|
| | | | | | |

T: (819)230-7247
F:



CONTAMINATION

| | | | | | |
|-------------------|-----|----------|----------|---------|----------|
| Particles >4µm | | 4761 | 2975 | 138 | 246 |
| Particles >6µm | | 469 | 641 | 37 | 70 |
| Particles >14µm | | 12 | 19 | 4 | 6 |
| ISO 4406:1999 (c) | | 19/16/11 | 19/17/11 | 14/12/9 | 15/13/10 |
| Silicon | ppm | <1 | <1 | 1 | <1 |
| Sodium | ppm | 1 | <1 | 2 | <1 |
| Potassium | ppm | 0 | 0 | <1 | <1 |

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The oil viscosity is lower than typical, possibly indicating the addition of lighter grade oil. The condition of the oil is acceptable for the time in service.



WEAR METALS

| | | | | | |
|------------|-----|----|----|----|----|
| Iron | ppm | 7 | 3 | 8 | 9 |
| Copper | ppm | 2 | 1 | 2 | 3 |
| Lead | ppm | <1 | <1 | <1 | <1 |
| Tin | ppm | 0 | 0 | 0 | 0 |
| Aluminum | ppm | <1 | 0 | <1 | <1 |
| Chromium | ppm | <1 | 0 | <1 | <1 |
| Molybdenum | ppm | 2 | <1 | 3 | 7 |
| Nickel | ppm | 0 | <1 | <1 | <1 |
| Titanium | ppm | 0 | 0 | 0 | 0 |
| Silver | ppm | <1 | <1 | <1 | 0 |
| Manganese | ppm | 0 | 0 | 0 | <1 |
| Vanadium | ppm | 0 | 0 | 0 | 0 |



ADDITIVES

| | | | | | |
|------------|-----|-----|-----|-----|-----|
| Calcium | ppm | 213 | 154 | 228 | 52 |
| Magnesium | ppm | 3 | 2 | 3 | 1 |
| Zinc | ppm | 762 | 811 | 644 | 656 |
| Phosphorus | ppm | 612 | 628 | 511 | 595 |
| Barium | ppm | <1 | <1 | <1 | 0 |
| Boron | ppm | <1 | <1 | 1 | <1 |

Depot: AME120OTT
Unique No: 5671027
Signed: Kevin Marson
Report Date: 03 Nov 2023

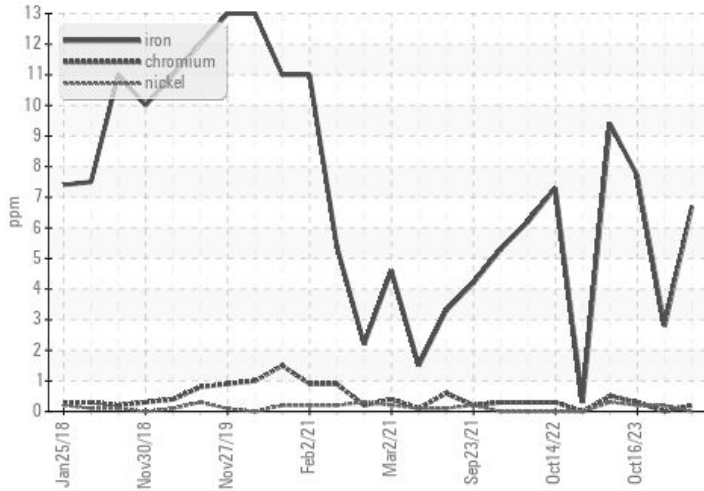
LIEBHERR

CONSTRUCTION EQUIPMENT

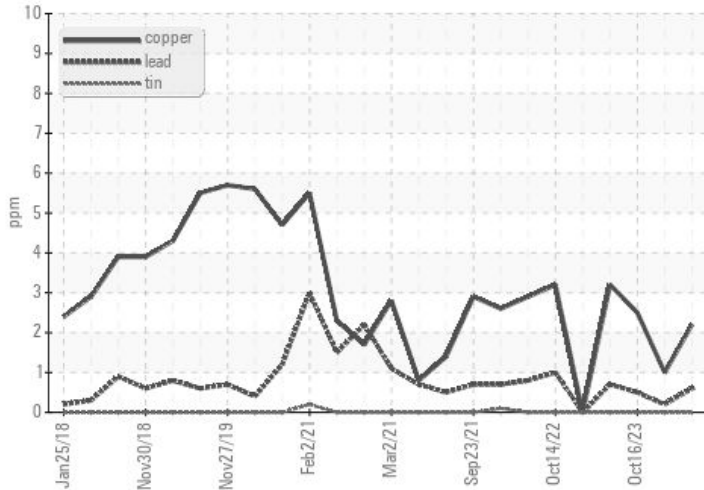


GRAPHS

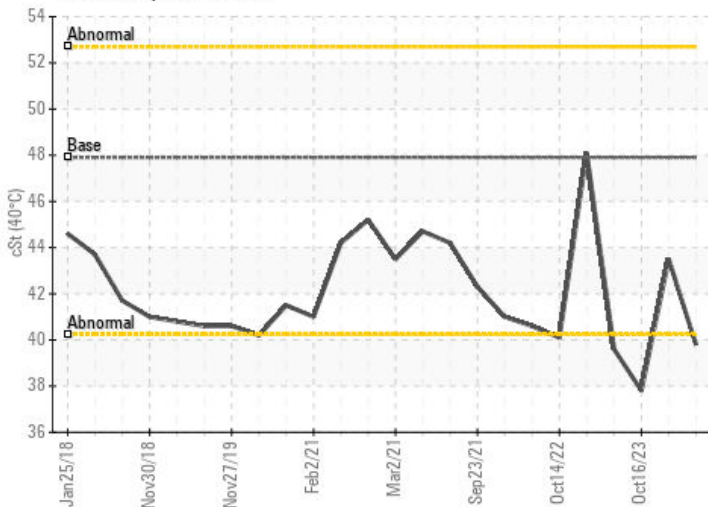
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count

