

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR R974 9744 - Hydraulic System

Sample No: LH0260189

Oil Type: PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL



**Gerdau - Mandak Metal Processors Ltd.,**  
 1 Railway St., P.O. Box 334  
 Selkirk, MB  
 CA R1A 2B3  
 Contact: Santiago Giraldo  
 santiago.giraldo@gerdau.com  
 T:  
 F: (204)482-8241



#### SAMPLE INFORMATION

|               |             |             |             |     |
|---------------|-------------|-------------|-------------|-----|
| Sample Number | LH0260189   | LH0199521   | LH0242786   | --- |
| Sample Date   | 03 Aug 2023 | 28 Mar 2023 | 31 Jan 2023 | --- |
| Machine Hours | 0           | 0           | 0           | --- |
| Oil Hours     | 0           | 0           | 0           | --- |
| Oil Changed   | Not Changd  | Not Changd  | Not Changd  | --- |
| Sample Status | ABNORMAL    | ATTENTION   | ATTENTION   | --- |



#### OIL CONDITION

|             |     |      |      |      |     |
|-------------|-----|------|------|------|-----|
| Visc @ 40°C | cSt | 44.3 | 44.8 | 45.1 | --- |
|-------------|-----|------|------|------|-----|



#### CONTAMINATION

|                   |     |          |          |          |     |
|-------------------|-----|----------|----------|----------|-----|
| Particles >4µm    |     | 41952    | 21839    | 20988    | --- |
| Particles >6µm    |     | 6438     | 5258     | 3152     | --- |
| Particles >14µm   |     | 384      | 344      | 116      | --- |
| ISO 4406:1999 (c) |     | 23/20/16 | 22/20/16 | 22/19/14 | --- |
| Silicon           | ppm | <1       | <1       | <1       | --- |
| Sodium            | ppm | <1       | 0        | <1       | --- |
| Potassium         | ppm | <1       | 0        | <1       | --- |



#### WEAR METALS

|            |     |    |    |    |     |
|------------|-----|----|----|----|-----|
| Iron       | ppm | 4  | 2  | 5  | --- |
| Copper     | ppm | 1  | <1 | <1 | --- |
| Lead       | ppm | 0  | <1 | <1 | --- |
| Tin        | ppm | 0  | 0  | 0  | --- |
| Aluminum   | ppm | <1 | <1 | <1 | --- |
| Chromium   | ppm | 1  | <1 | 2  | --- |
| Molybdenum | ppm | 0  | 0  | 0  | --- |
| Nickel     | ppm | <1 | 0  | 0  | --- |
| Titanium   | ppm | 0  | 0  | 0  | --- |
| Silver     | ppm | 0  | 0  | 0  | --- |
| Manganese  | ppm | 0  | 0  | 0  | --- |
| Vanadium   | ppm | 0  | 0  | 0  | --- |



#### ADDITIVES

|            |     |     |     |     |     |
|------------|-----|-----|-----|-----|-----|
| Calcium    | ppm | 80  | 104 | 99  | --- |
| Magnesium  | ppm | 31  | 3   | 4   | --- |
| Zinc       | ppm | 705 | 833 | 821 | --- |
| Phosphorus | ppm | 563 | 703 | 691 | --- |
| Barium     | ppm | <1  | 0   | 0   | --- |
| Boron      | ppm | <1  | <1  | <1  | --- |

#### Diagnosis

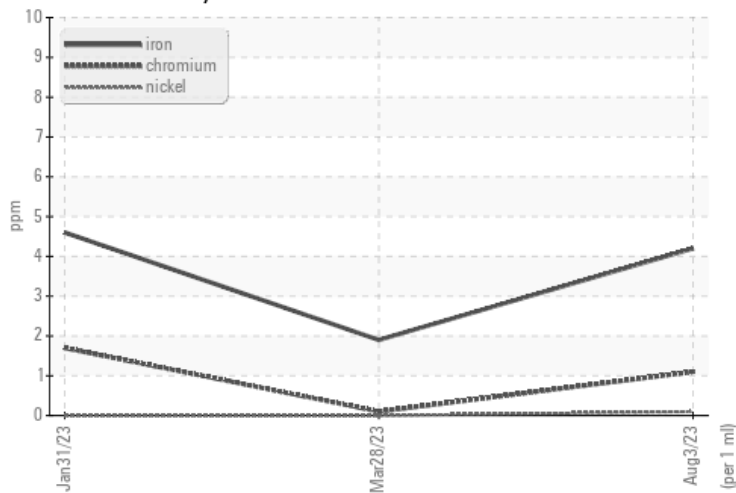
We recommend you service the filters on this component. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Depot: MANSEL  
 Unique No: 5631874  
 Signed: Wes Davis  
 Report Date: 29 Aug 2023

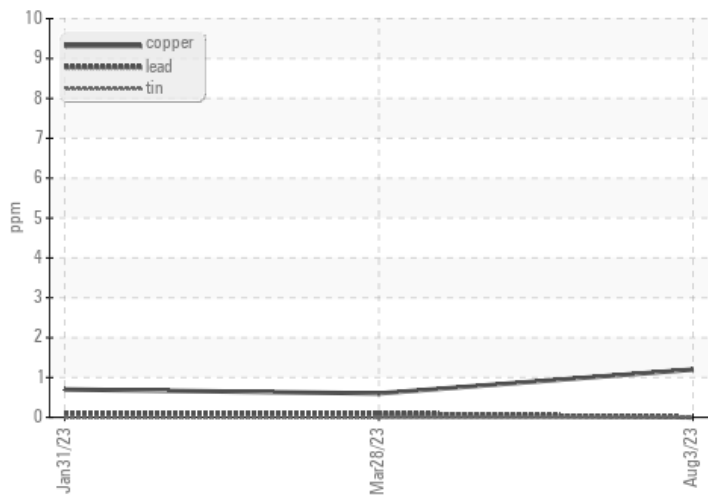


### GRAPHS

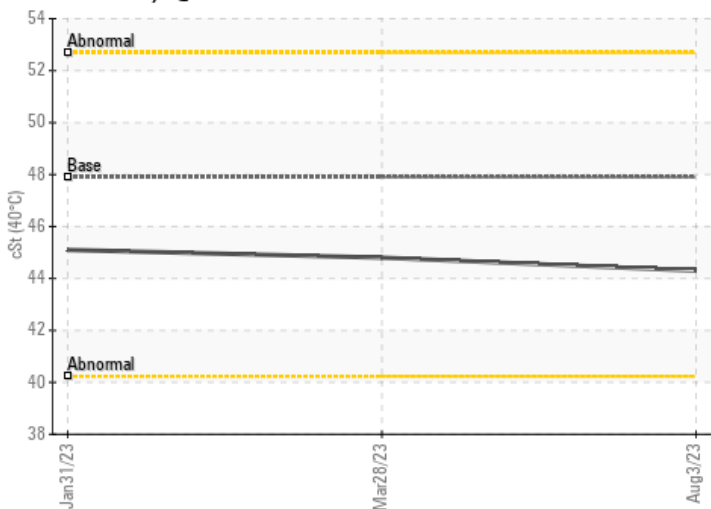
#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 40°C



#### Particle Count

