

LIEBHERR

CONSTRUCTION EQUIPMENT



[(375856)] LIEBHERR R930 049712-1716 - Hydraulic System

Sample No: LH0231974

Oil Type: AW HYDRAULIC OIL ISO 32



SAMPLE INFORMATION

| | | | | |
|---------------|-------------|-------------|-----|-----|
| Sample Number | LH0231974 | LH0231967 | --- | --- |
| Sample Date | 05 Jan 2024 | 22 Sep 2022 | --- | --- |
| Machine Hours | 2014 | 1000 | --- | --- |
| Oil Hours | 0 | 0 | --- | --- |
| Oil Changed | Changed | Not Changd | --- | --- |
| Sample Status | ABNORMAL | NORMAL | --- | --- |

COUNTY OF ST. PAUL NO. 19
5015 - 49 AVENUE
ST. PAUL, AB
CA T0A 3A4
Contact: Brent Lilje
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F:



OIL CONDITION

| | | | | | |
|------------------|----------|------|------|-----|-----|
| Visc @ 40°C | cSt | 38.6 | 42.5 | --- | --- |
| Acid Number (AN) | mg KOH/g | 1.41 | 1.15 | --- | --- |



CONTAMINATION

| | | | | | |
|-------------------|-----|----------|----------|-----|-----|
| Water | % | NEG | NEG | --- | --- |
| Particles >4µm | | 14019 | 5207 | --- | --- |
| Particles >6µm | | 4998 | 1729 | --- | --- |
| Particles >14µm | | 459 | 133 | --- | --- |
| ISO 4406:1999 (c) | | 21/19/16 | 20/18/14 | --- | --- |
| Silicon | ppm | 4 | 4 | --- | --- |
| Sodium | ppm | 3 | 2 | --- | --- |
| Potassium | ppm | 1 | 0 | --- | --- |



WEAR METALS

| | | | | | |
|------------|-----|----|----|-----|-----|
| Iron | ppm | 8 | 6 | --- | --- |
| Copper | ppm | 6 | 5 | --- | --- |
| Lead | ppm | 1 | <1 | --- | --- |
| Tin | ppm | 0 | 0 | --- | --- |
| Aluminum | ppm | <1 | <1 | --- | --- |
| Chromium | ppm | 0 | 0 | --- | --- |
| Molybdenum | ppm | 0 | 0 | --- | --- |
| Nickel | ppm | <1 | 0 | --- | --- |
| Titanium | ppm | 0 | 0 | --- | --- |
| Silver | ppm | 0 | 0 | --- | --- |
| Manganese | ppm | 0 | <1 | --- | --- |
| Vanadium | ppm | 0 | 0 | --- | --- |



ADDITIVES

| | | | | | |
|------------|-----|------|------|-----|-----|
| Calcium | ppm | 1071 | 1187 | --- | --- |
| Magnesium | ppm | 5 | 4 | --- | --- |
| Zinc | ppm | 686 | 720 | --- | --- |
| Phosphorus | ppm | 588 | 682 | --- | --- |
| Barium | ppm | 0 | 0 | --- | --- |
| Boron | ppm | <1 | <1 | --- | --- |

Diagnosis

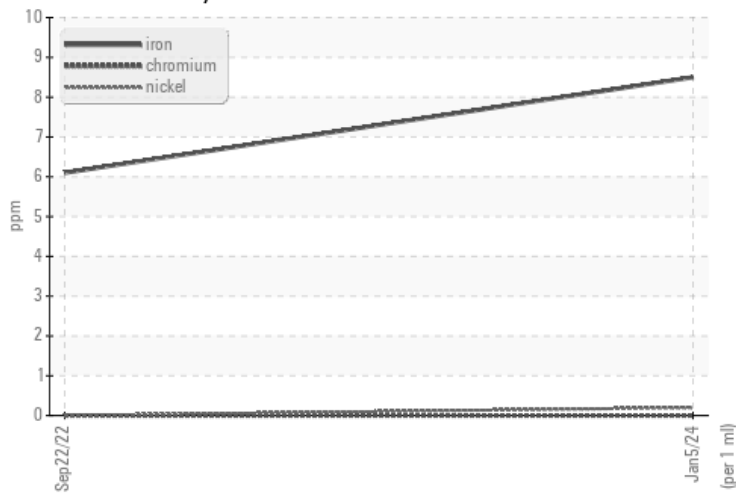
The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as (GENERIC) AW HYDRAULIC OIL ISO 32, however, a fluid match indicates that this fluid is SAE 10W Low-Ash Natural Gas Engine Oil. Please confirm the oil type and grade on your next sample. 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 AN level is above the recommended limit. The oil viscosity is higher than normal. Viscosity of sample indicates oil is within SAE 10W range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The oil is no longer serviceable.

Depot: COU501STP
Unique No: 5721278
Signed: Bill Quesnel
Report Date: 31 Jan 2024

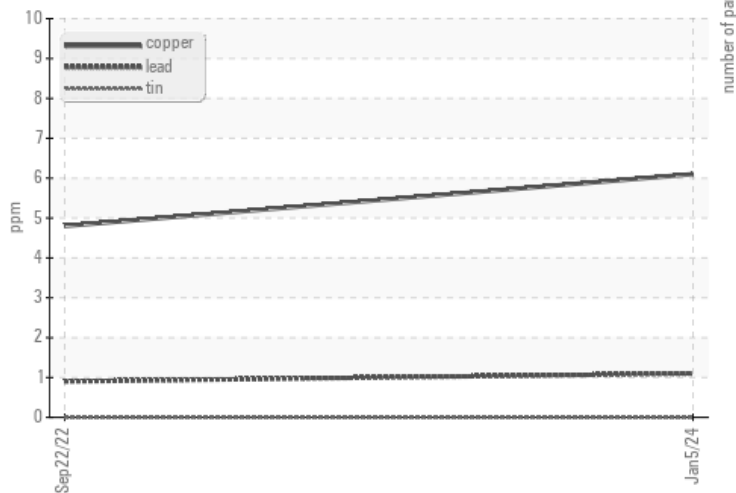


GRAPHS

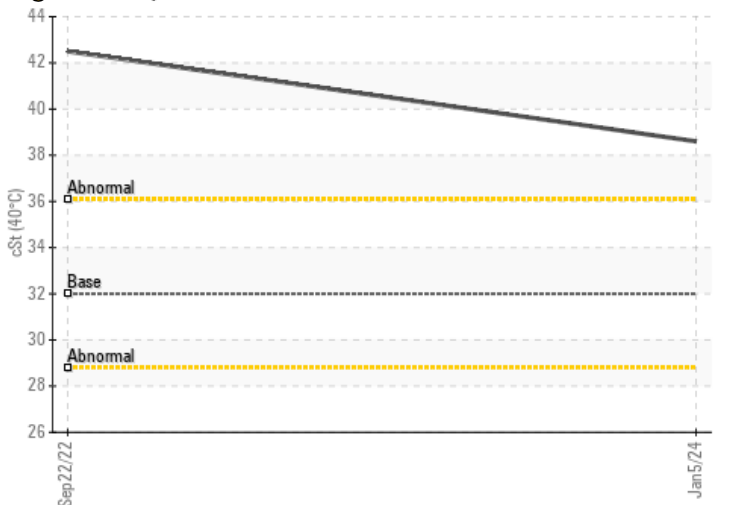
Ferrous Alloys



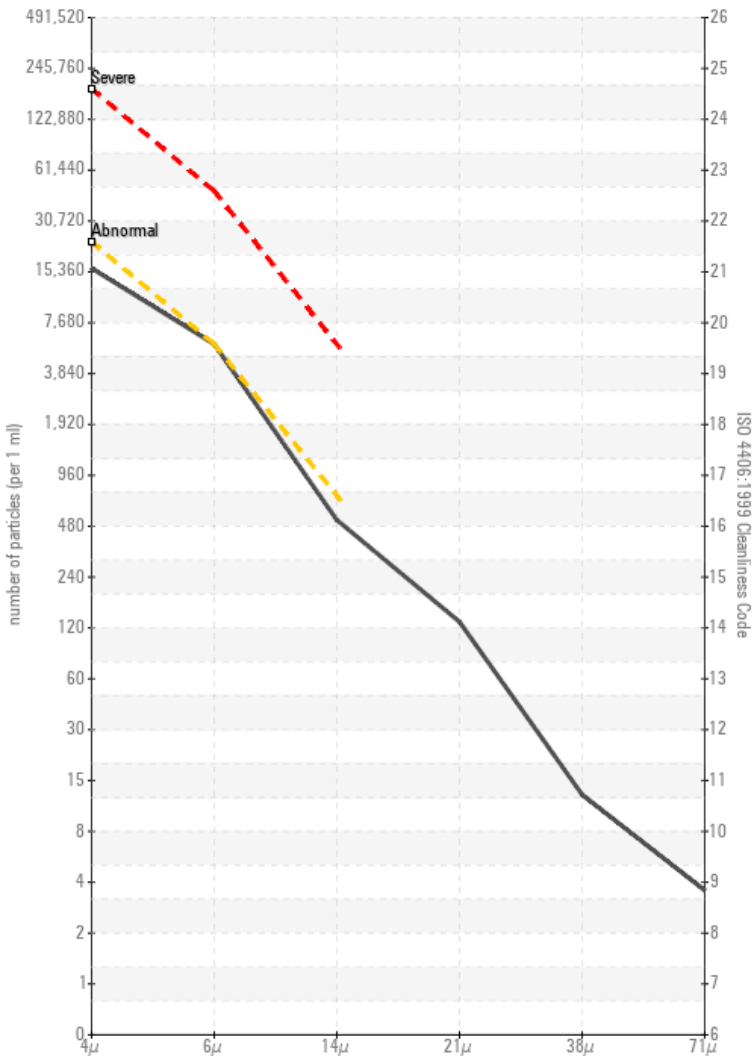
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

