

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH110 155976-1227 - Hydraulic System

Sample No: LH0267537

Oil Type: TDH



KINDER MORGAN
 4301 IVERSON
 TRINITY, AL
 US 35601
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Sample Information

| | | | | |
|---------------|-------------|-------------|-----|-----|
| Sample Number | LH0267537 | LH0280573 | --- | --- |
| Sample Date | 18 Apr 2024 | 23 Feb 2024 | --- | --- |
| Machine Hours | 1623 | 995 | --- | --- |
| Oil Hours | 628 | 0 | --- | --- |
| Oil Changed | Not Changd | Not Changd | --- | --- |
| Sample Status | NORMAL | ATTENTION | --- | --- |



Oil Condition

| | | | | | |
|------------------|----------|--------|--------|-----|-----|
| Visc @ 40°C | cSt | ● 41.8 | ● 43.2 | --- | --- |
| Acid Number (AN) | mg KOH/g | ● 1.15 | ● 1.47 | --- | --- |



Contamination

| | | | | | |
|-------------------|-----|----------|----------|-----|-----|
| Water | % | NEG | NEG | --- | --- |
| Particles >4µm | | ● 1873 | ● 31382 | --- | --- |
| Particles >6µm | | ● 182 | ● 7078 | --- | --- |
| Particles >14µm | | ● 5 | ● 536 | --- | --- |
| ISO 4406:1999 (c) | | 18/15/10 | 22/20/16 | --- | --- |
| Silicon | ppm | ● 7 | ● 7 | --- | --- |
| Sodium | ppm | ● <1 | ● <1 | --- | --- |
| Potassium | ppm | ● 2 | ● 2 | --- | --- |



Wear Metals

| | | | | | |
|------------|-----|------|------|-----|-----|
| Iron | ppm | ● 10 | ● 12 | --- | --- |
| Copper | ppm | ● 3 | ● 2 | --- | --- |
| Lead | ppm | ● <1 | ● <1 | --- | --- |
| Tin | ppm | ● <1 | ● <1 | --- | --- |
| Aluminum | ppm | ● 2 | ● 1 | --- | --- |
| Chromium | ppm | ● 1 | ● 1 | --- | --- |
| Molybdenum | ppm | 2 | 2 | --- | --- |
| Nickel | ppm | ● <1 | ● <1 | --- | --- |
| Titanium | ppm | <1 | <1 | --- | --- |
| Silver | ppm | <1 | 0 | --- | --- |
| Manganese | ppm | <1 | <1 | --- | --- |
| Vanadium | ppm | <1 | 0 | --- | --- |



Additives

| | | | | | |
|------------|-----|------|------|-----|-----|
| Calcium | ppm | 1586 | 1503 | --- | --- |
| Magnesium | ppm | 16 | 15 | --- | --- |
| Zinc | ppm | 824 | 784 | --- | --- |
| Phosphorus | ppm | 742 | 669 | --- | --- |
| Barium | ppm | 0 | 0 | --- | --- |
| Boron | ppm | 3 | 4 | --- | --- |

Diagnosis

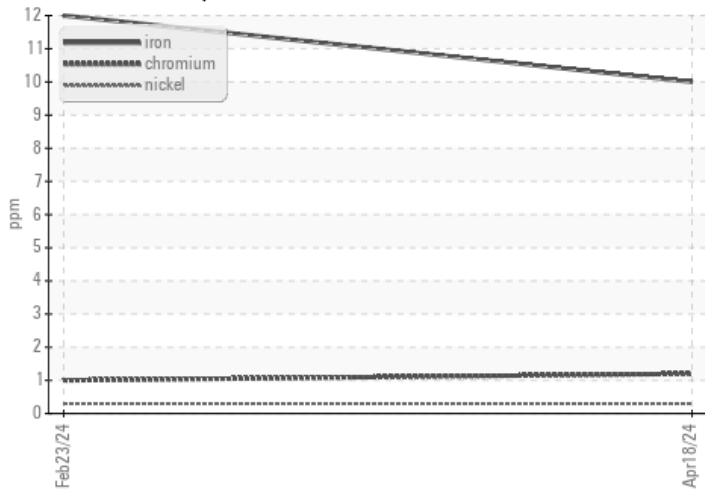
Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Depot: KINTRI
 Unique No: 11031429
 Signed: Wes Davis
 Report Date: 16 May 2024

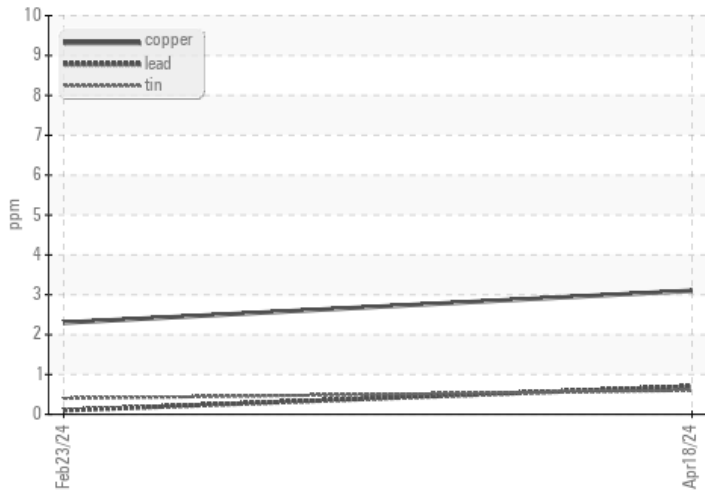


Graphs

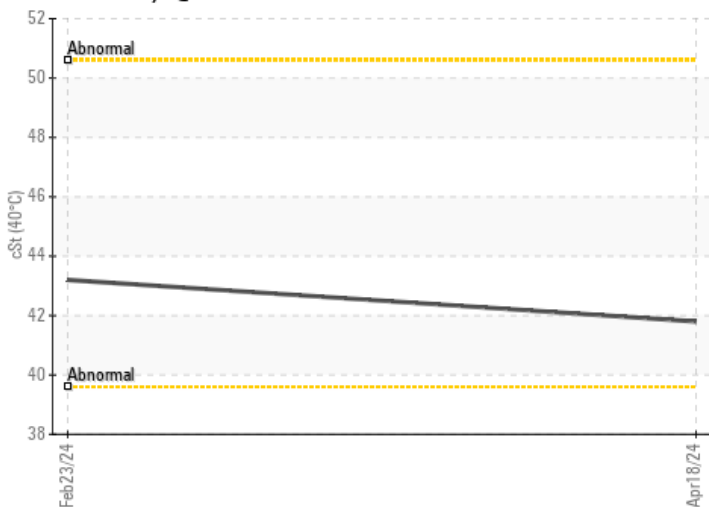
Ferrous Alloys



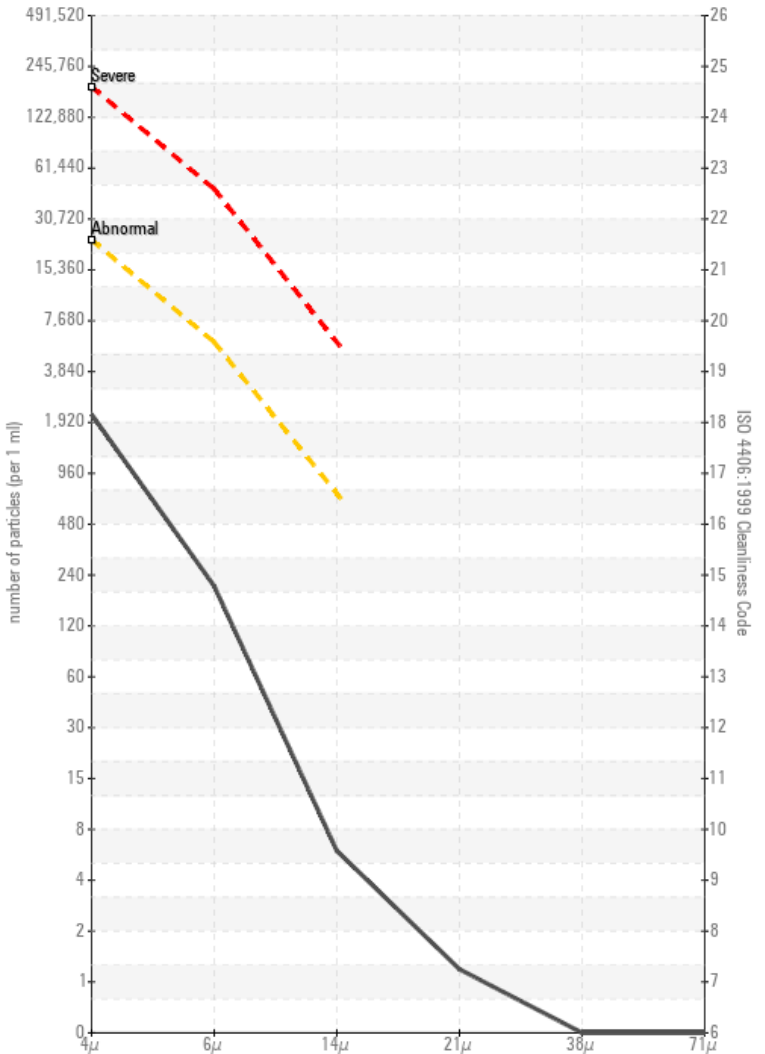
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

