

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR L550 1756-59860 - Diesel Engine

Sample No: LH0268803

Oil Type: DIESEL ENGINE OIL SAE 5W40



#### SAMPLE INFORMATION

| Sample Number | LH0268803   | LH0257965   | LH0254419   | LH0235982   |
|---------------|-------------|-------------|-------------|-------------|
| Sample Date   | 09 Jan 2024 | 13 Aug 2023 | 09 Jun 2023 | 25 Sep 2022 |
| Machine Hours | 10089       | 8893        | 8466        | 0           |
| Oil Hours     | 500         | 500         | 500         | 0           |
| Oil Changed   | Changed     | Changed     | Changed     | N/A         |
| Sample Status | NORMAL      | NORMAL      | NORMAL      | NORMAL      |

**HOMWOOD DISPOSAL**

1501 175TH ST  
HOMWOOD, IL  
US 60430

Contact: Service Manager



#### OIL CONDITION

| Visc @ 100°C     | cSt      | 14.6 | 14.0 | 13.6 | 13.0 |
|------------------|----------|------|------|------|------|
| Base Number (BN) | mg KOH/g | 7.5  | 6.8  | 7.4  | 6.7  |
| Oxidation (PA)   | %        | 49   | 56   | 55   | 82   |

T:  
F:



#### CONTAMINATION

| Water          | %   | NEG  | NEG  | NEG  | NEG  |
|----------------|-----|------|------|------|------|
| Soot %         | %   | 0.1  | 0.1  | 0.1  | 0.1  |
| Nitration (PA) | %   | 61   | 71   | 71   | 88   |
| Sulfation (PA) | %   | 49   | 52   | 52   | 64   |
| Glycol         | %   | NEG  | NEG  | NEG  | NEG  |
| Fuel           | %   | <1.0 | <1.0 | <1.0 | <1.0 |
| Silicon        | ppm | 9    | 14   | 13   | 13   |
| Sodium         | ppm | 1    | <1   | 2    | 2    |
| Potassium      | ppm | 4    | 4    | 4    | 3    |

#### Diagnosis

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



#### WEAR METALS

|            |     |    |    |    |    |
|------------|-----|----|----|----|----|
| Iron       | ppm | 3  | 3  | 4  | 5  |
| Copper     | ppm | <1 | <1 | <1 | 2  |
| Lead       | ppm | <1 | 0  | 0  | 2  |
| Tin        | ppm | <1 | 0  | <1 | <1 |
| Aluminum   | ppm | 1  | 1  | 2  | 1  |
| Chromium   | ppm | <1 | 0  | <1 | <1 |
| Molybdenum | ppm | 3  | 7  | 8  | 37 |
| Nickel     | ppm | 0  | <1 | 0  | 0  |
| Titanium   | ppm | <1 | <1 | <1 | <1 |
| Silver     | ppm | 0  | 0  | 0  | 0  |
| Manganese  | ppm | <1 | <1 | <1 | <1 |
| Vanadium   | ppm | <1 | 0  | 0  | 0  |



#### ADDITIVES

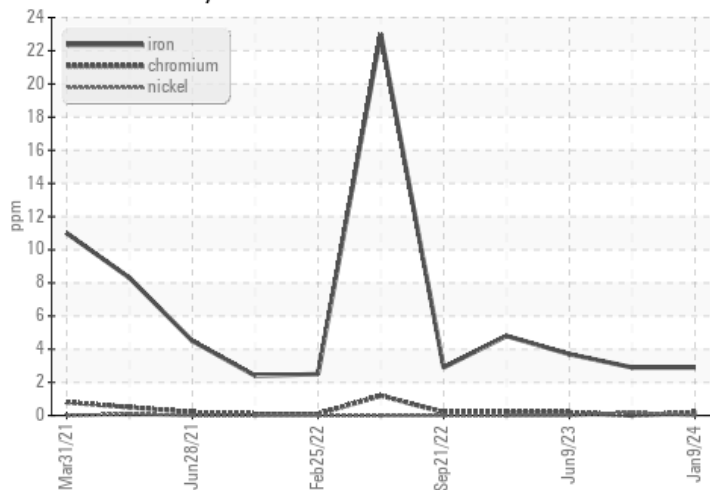
|            |     |      |      |      |      |
|------------|-----|------|------|------|------|
| Calcium    | ppm | 1223 | 1332 | 1443 | 1230 |
| Magnesium  | ppm | 703  | 673  | 791  | 614  |
| Zinc       | ppm | 768  | 833  | 917  | 970  |
| Phosphorus | ppm | 690  | 727  | 799  | 802  |
| Barium     | ppm | 0    | 2    | 0    | 0    |
| Boron      | ppm | 76   | 70   | 95   | 39   |

Depot: HOMHOMLH  
Unique No: 10858406  
Signed: Wes Davis  
Report Date: 01 Feb 2024

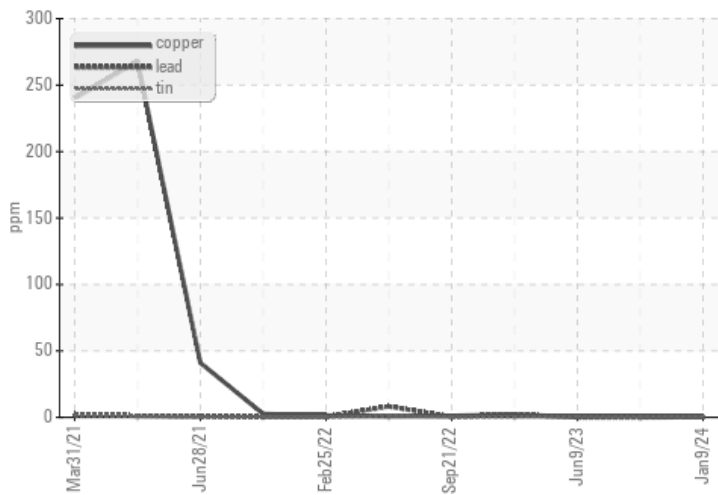


### GRAPHS

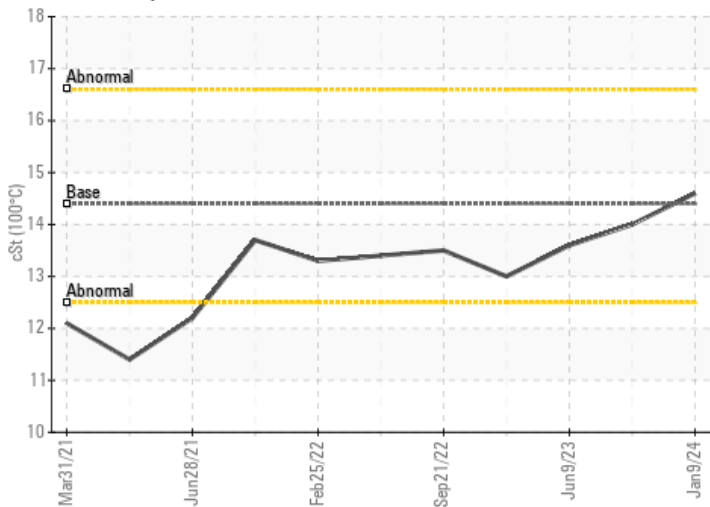
#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 100°C



#### Base Number

