

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### MS20 - Transmission (Manual)

Sample No: LH0244840

Oil Type: TDTO FLUID SAE 10W



#### SAMPLE INFORMATION

Sample Number	LH0244840	---	---	---
Sample Date	14 Dec 2023	---	---	---
Machine Hours	3388	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Not Chngd	---	---	---
Sample Status	NORMAL	---	---	---

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#### OIL CONDITION

Visc @ 40°C	cSt	● 44.9	---	---	---
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#### CONTAMINATION

Water	%	NEG	---	---	---
Silicon	ppm	● 14	---	---	---
Sodium	ppm	● 30	---	---	---
Potassium	ppm	● 3	---	---	---

#### Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the fluid. The condition of the fluid is acceptable for the time in service.



#### WEAR METALS

Iron	ppm	● 45	---	---	---
Copper	ppm	● 41	---	---	---
Lead	ppm	● 0	---	---	---
Tin	ppm	● <1	---	---	---
Aluminum	ppm	● 6	---	---	---
Chromium	ppm	● <1	---	---	---
Molybdenum	ppm	● 0	---	---	---
Nickel	ppm	● 0	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	● 0	---	---	---
Manganese	ppm	24	---	---	---
Vanadium	ppm	<1	---	---	---



#### ADDITIVES

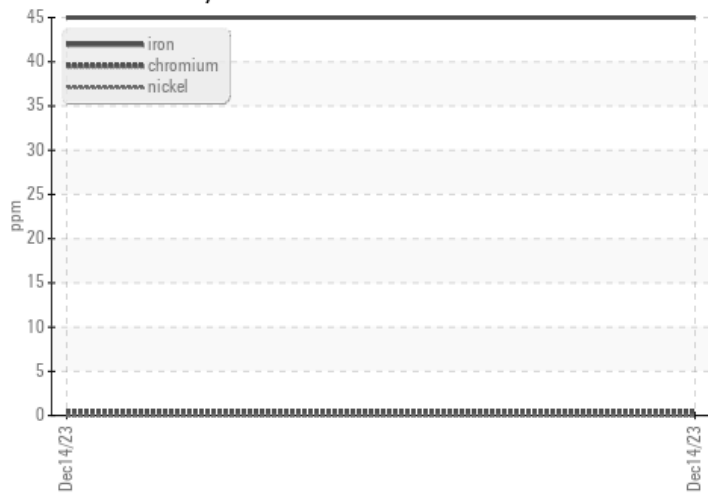
Calcium	ppm	● 3240	---	---	---
Magnesium	ppm	● 12	---	---	---
Zinc	ppm	● 1146	---	---	---
Phosphorus	ppm	● 1052	---	---	---
Barium	ppm	● 0	---	---	---
Boron	ppm	● 6	---	---	---

**Depot:** OSCLAF  
**Unique No:** 10807072  
**Signed:** Jonathan Hester  
**Report Date:** 29 Dec 2023

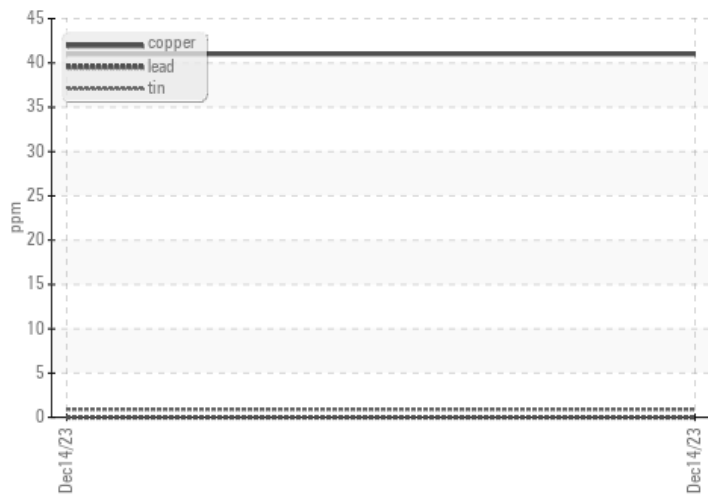


### GRAPHS

#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 40°C

