

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### MS20 - Swing Drive

Sample No: LH0244843

Oil Type: NOT GIVEN



#### SAMPLE INFORMATION

Sample Number	LH0244843	---	---	---
Sample Date	14 Dec 2023	---	---	---
Machine Hours	3388	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Not Chngd	---	---	---
Sample Status	ABNORMAL	---	---	---

**OSCAR WINSKI CO. INC**  
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#### OIL CONDITION

Visc @ 40°C	cSt	232	---	---	---
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#### CONTAMINATION

Water	%	NEG	---	---	---
Silicon	ppm	6	---	---	---
Sodium	ppm	0	---	---	---
Potassium	ppm	2	---	---	---

#### Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of visible silt present in the sample. The condition of the oil is acceptable for the time in service.



#### WEAR METALS

Iron	ppm	72	---	---	---
Copper	ppm	46	---	---	---
Lead	ppm	0	---	---	---
Tin	ppm	6	---	---	---
Aluminum	ppm	<1	---	---	---
Chromium	ppm	<1	---	---	---
Molybdenum	ppm	0	---	---	---
Nickel	ppm	<1	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	<1	---	---	---
Vanadium	ppm	0	---	---	---



#### ADDITIVES

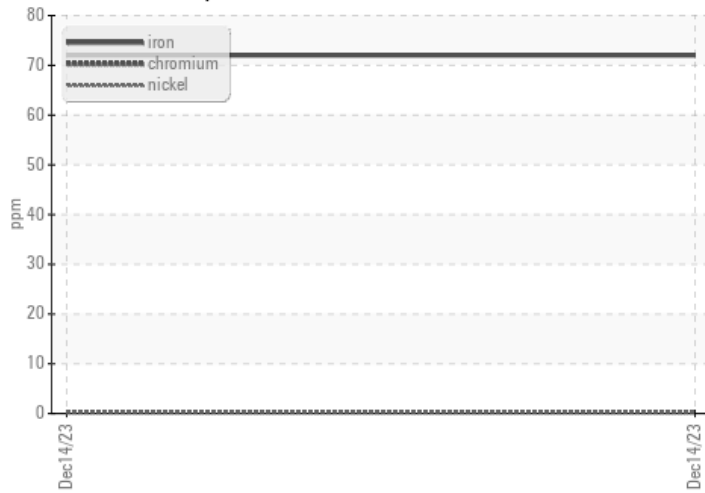
Calcium	ppm	18	---	---	---
Magnesium	ppm	2	---	---	---
Zinc	ppm	10	---	---	---
Phosphorus	ppm	382	---	---	---
Barium	ppm	0	---	---	---
Boron	ppm	7	---	---	---

**Depot:** OSCLAF  
**Unique No:** 10807074  
**Signed:** Jonathan Hester  
**Report Date:** 29 Dec 2023

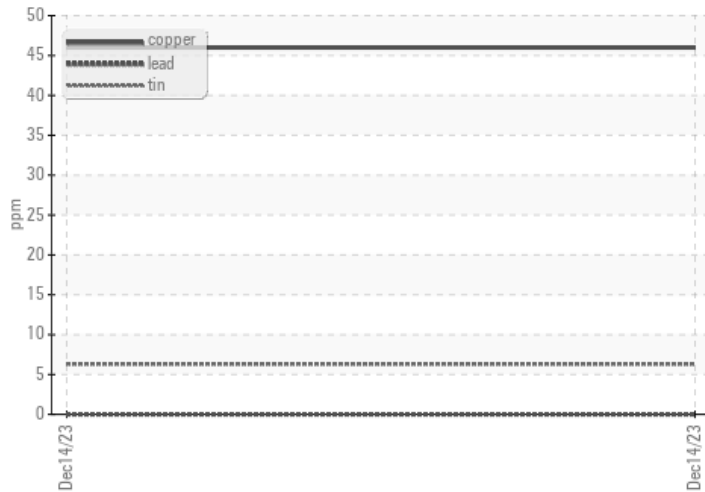


### GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

