

LIEBHERR

CONSTRUCTION EQUIPMENT



MS20 - Front Differential

Sample No: LH0244838

Oil Type: GEAR OIL SAE 80W90



SAMPLE INFORMATION

Sample Number	LH0244838	---	---	---
Sample Date	14 Dec 2023	---	---	---
Machine Hours	3388	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Not Chngd	---	---	---
Sample Status	NORMAL	---	---	---

OSCAR WINSKI CO. INC
 2407 N. 9TH STREET
 LAFAYETTE, IN
 US 47904
 Contact: JAYSON FRAZIER
 frazierj@oscarwinski.com
 T: (765)376-1230
 F: x:



OIL CONDITION

Visc @ 40°C	cSt	● 132	---	---	---
-------------	-----	-------	-----	-----	-----



CONTAMINATION

Water	%	NEG	---	---	---
Silicon	ppm	● 1	---	---	---
Sodium	ppm	● 0	---	---	---
Potassium	ppm	● 0	---	---	---

Diagnosis

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



WEAR METALS

Iron	ppm	● 7	---	---	---
Copper	ppm	● 0	---	---	---
Lead	ppm	● 0	---	---	---
Tin	ppm	● 0	---	---	---
Aluminum	ppm	● 0	---	---	---
Chromium	ppm	● 0	---	---	---
Molybdenum	ppm	● 0	---	---	---
Nickel	ppm	● 0	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	<1	---	---	---
Manganese	ppm	● <1	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

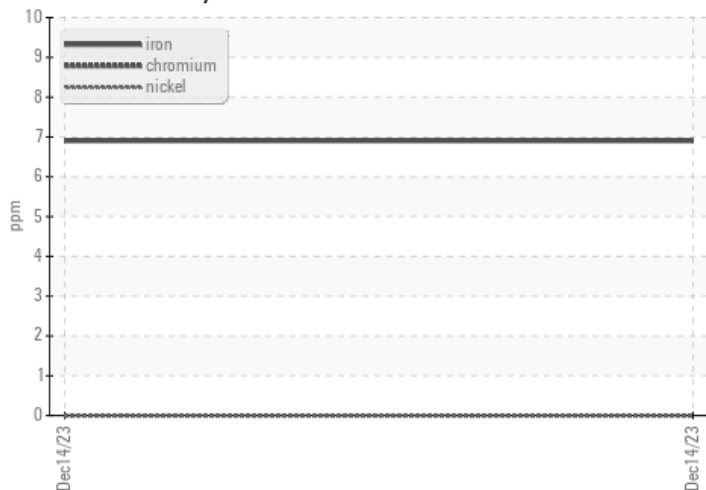
Calcium	ppm	● 18	---	---	---
Magnesium	ppm	● 0	---	---	---
Zinc	ppm	● 3	---	---	---
Phosphorus	ppm	● 968	---	---	---
Barium	ppm	● 0	---	---	---
Boron	ppm	● 268	---	---	---

Depot: OSCLAF
Unique No: 10807061
Signed: Jonathan Hester
Report Date: 29 Dec 2023

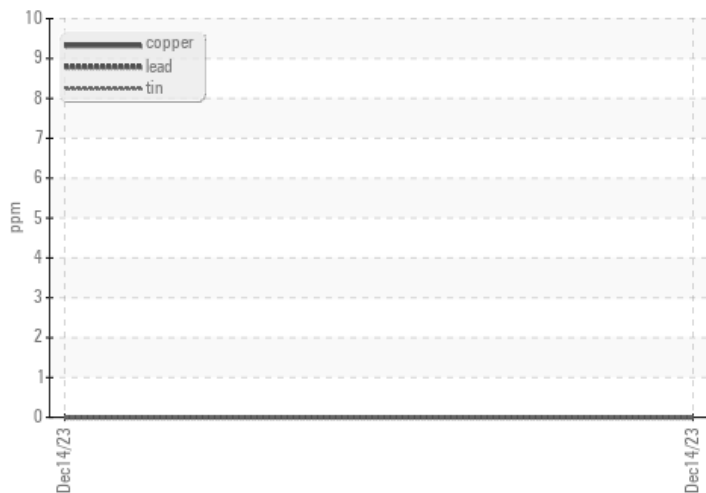


GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

