

LIEBHERR

CONSTRUCTION EQUIPMENT



[[HAWAIIAN CEMENT]] LIEBHERR R9150B 45.1992301(S/N 38178) - Left Final Drive

Sample No: LH0267637

Oil Type: BP ENERGEAR HYPO 80W90



SAMPLE INFORMATION

Sample Number	LH0267637	---	---	---
Sample Date	04 Dec 2023	---	---	---
Machine Hours	424	---	---	---
Oil Hours	424	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ATTENTION	---	---	---

LIEBHERR MINING EQUIPMENT CO
 5800 S DOUGLAS HWY
 GILLETTE, WY
 US 82718
 Contact: SCOTT BRADLEY
 scott.bradley@liebherr.com
 T:
 F:



OIL CONDITION

Visc @ 40°C	cSt	● 446	---	---	---
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CONTAMINATION

Water	%	NEG	---	---	---
Silicon	ppm	● 4	---	---	---
Sodium	ppm	● 0	---	---	---
Potassium	ppm	● 0	---	---	---



WEAR METALS

Iron	ppm	● 34	---	---	---
Copper	ppm	● 5	---	---	---
Lead	ppm	● 0	---	---	---
Tin	ppm	● <1	---	---	---
Aluminum	ppm	● 1	---	---	---
Chromium	ppm	● <1	---	---	---
Molybdenum	ppm	0	---	---	---
Nickel	ppm	● 0	---	---	---
Titanium	ppm	3	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	<1	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

Calcium	ppm	22	---	---	---
Magnesium	ppm	<1	---	---	---
Zinc	ppm	0	---	---	---
Phosphorus	ppm	353	---	---	---
Barium	ppm	0	---	---	---
Boron	ppm	12	---	---	---

Diagnosis

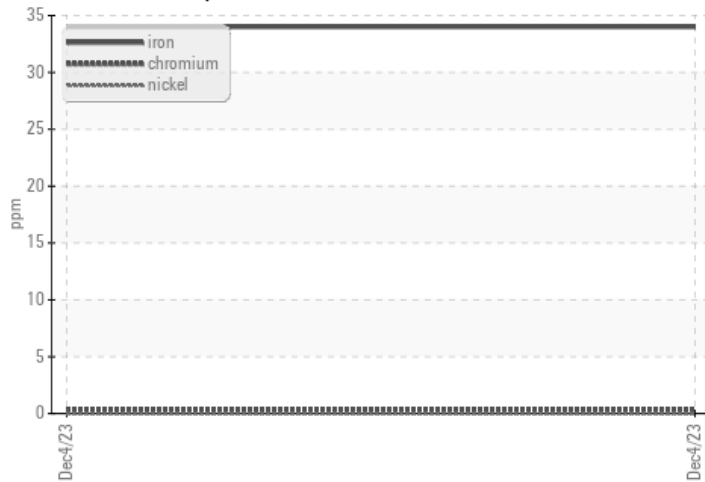
The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is higher than normal. Confirm oil type.

Depot: LIEGIL
 Unique No: 10781651
 Signed: Sean Felton
 Report Date: 14 Dec 2023

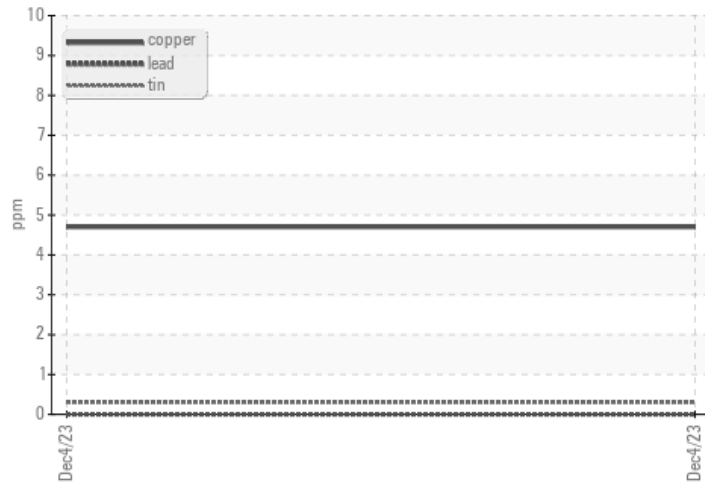


GRAPHS

Ferrous Alloys



Non-ferrous Metals



● Viscosity @ 40°C

