

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR L580 053605-1464 - Diesel Engine

Sample No: LH0254639

Oil Type: DIESEL ENGINE OIL SAE 5W40



#### SAMPLE INFORMATION

Sample Number	LH0254639	LH0236151	LHMC115809	LHMC97131
Sample Date	29 Jul 2023	17 Oct 2022	29 Jul 2021	25 Nov 2020
Machine Hours	5793	4649	2223	1545
Oil Hours	0	0	0	460
Oil Changed	Changed	Changed	N/A	Changed
Sample Status	NORMAL	ABNORMAL	ABNORMAL	NORMAL

**BUILDERS ASPHALT**  
321 CENTER STREET  
HILLSIDE, IL  
US 60162  
Contact: Service Manager



#### OIL CONDITION

Visc @ 100°C	cSt	13.8	12.8	12.1	12.2
Base Number (BN)	mg KOH/g	5.7	5.2	---	---
Oxidation (PA)	%	63	98	61	73

T:  
F:



#### CONTAMINATION

Soot %	%	0.1	0.2	0.1	0.1
Nitration (PA)	%	76	103	78	81
Sulfation (PA)	%	58	70	53	60
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	0.9	<1.0
Silicon	ppm	9	9	7	5
Sodium	ppm	2	3	4	0
Potassium	ppm	6	6	3	2

#### 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	5	18	5	7
Copper	ppm	12	221	279	14
Lead	ppm	<1	8	<1	<1
Tin	ppm	<1	1	<1	<1
Aluminum	ppm	3	4	0	0
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	8	20	<1	2
Nickel	ppm	<1	0	<1	0
Titanium	ppm	<1	<1	<1	<1
Silver	ppm	0	0	<1	<1
Manganese	ppm	0	1	<1	<1
Vanadium	ppm	0	0	0	0



#### ADDITIVES

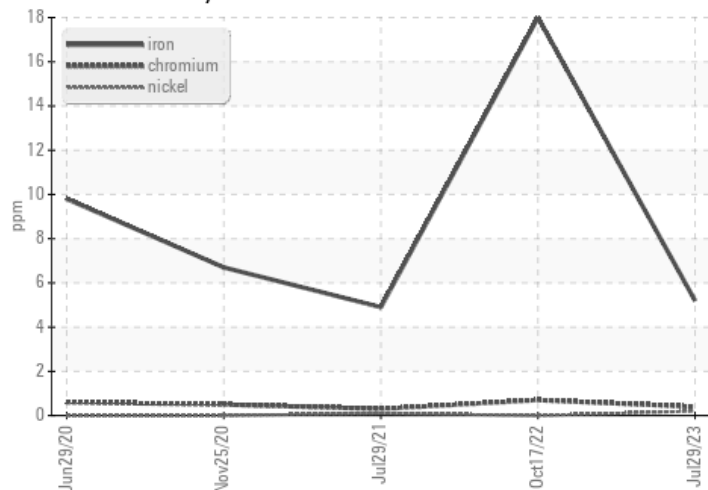
Calcium	ppm	1274	1391	1567	2507
Magnesium	ppm	666	699	562	43
Zinc	ppm	837	859	791	798
Phosphorus	ppm	745	718	726	705
Barium	ppm	0	0	0	0
Boron	ppm	47	25	70	4

Depot: BUIHIL  
Unique No: 10716149  
Signed: Wes Davis  
Report Date: 31 Oct 2023

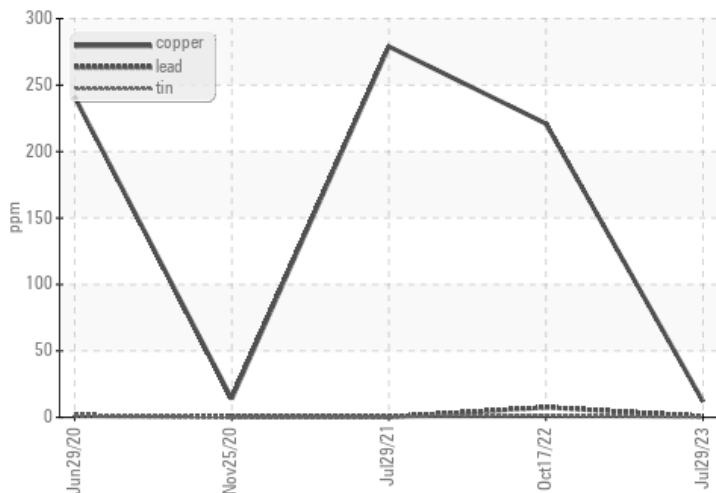


### GRAPHS

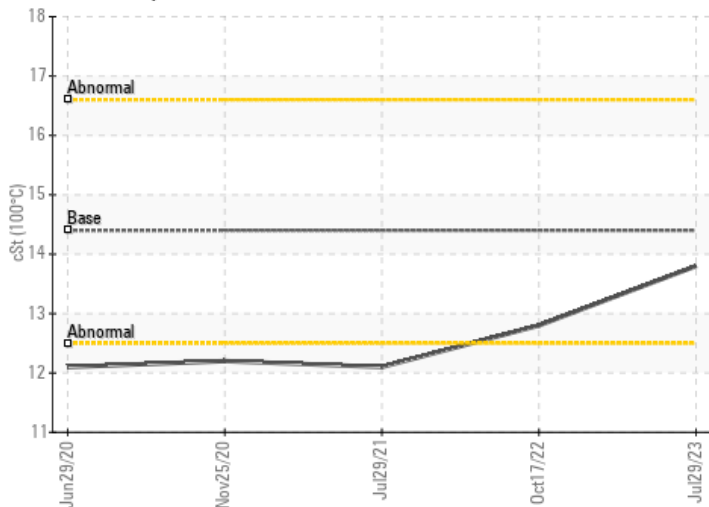
#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 100°C



#### Base Number

