

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR L566 1332-62108 - Diesel Engine

Sample No: LH0268216

Oil Type: DIESEL ENGINE OIL SAE 5W40



SAMPLE INFORMATION

Sample Number	LH0268216	LH0264018	LH0176282	LH0236722
Sample Date	18 Dec 2023	16 Aug 2023	23 Mar 2023	11 Jan 2023
Machine Hours	7565	6834	5480	0
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

ALTER SCRAP

1640 BRUCE STREET
MILWAUKEE, WI
US 53227
Contact: JEFF KOENIGS



OIL CONDITION

Visc @ 100°C	cSt	13.3	12.9	12.7	13.2
Base Number (BN)	mg KOH/g	7.5	4.7	6.9	6.0
Oxidation (PA)	%	66	87	67	77

T: 541-8700

F: (414)541-1892



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	69	89	73	80
Sulfation (PA)	%	55	68	55	64
Glycol	%	NEG	0.0	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	11	13	8	10
Sodium	ppm	3	3	<1	<1
Potassium	ppm	8	10	2	0

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	12	5	6
Copper	ppm	4	10	2	6
Lead	ppm	2	0	<1	<1
Tin	ppm	1	0	<1	0
Aluminum	ppm	3	2	1	<1
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	5	19	33	3
Nickel	ppm	0	0	0	0
Titanium	ppm	88	70	46	92
Silver	ppm	<1	<1	0	<1
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	<1	<1	<1



ADDITIVES

Calcium	ppm	1396	1298	1178	1397
Magnesium	ppm	819	818	741	651
Zinc	ppm	1390	1263	1146	1125
Phosphorus	ppm	1165	989	949	929
Barium	ppm	0	0	0	0
Boron	ppm	45	11	37	53

Depot: ALTMILWI

Unique No: 10820514

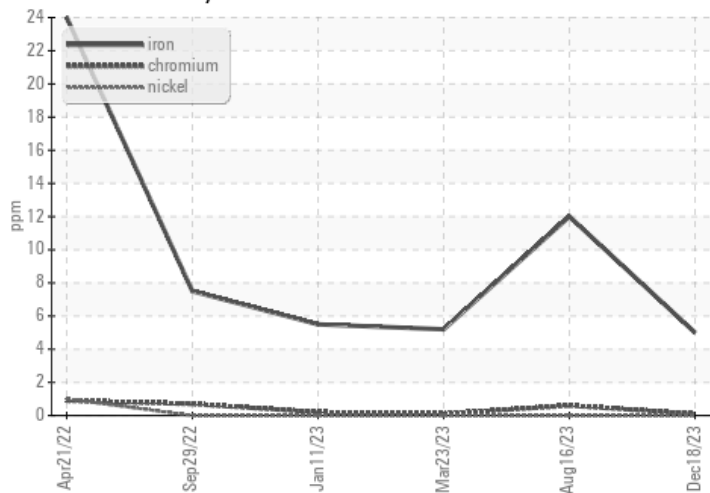
Signed: Wes Davis

Report Date: 09 Jan 2024

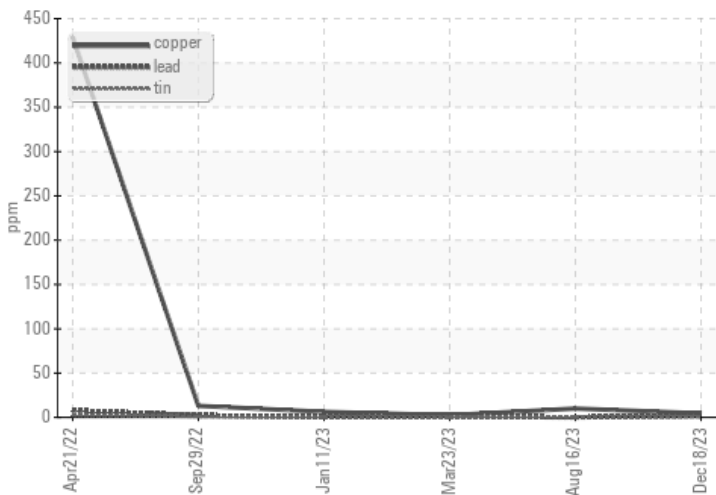


GRAPHS

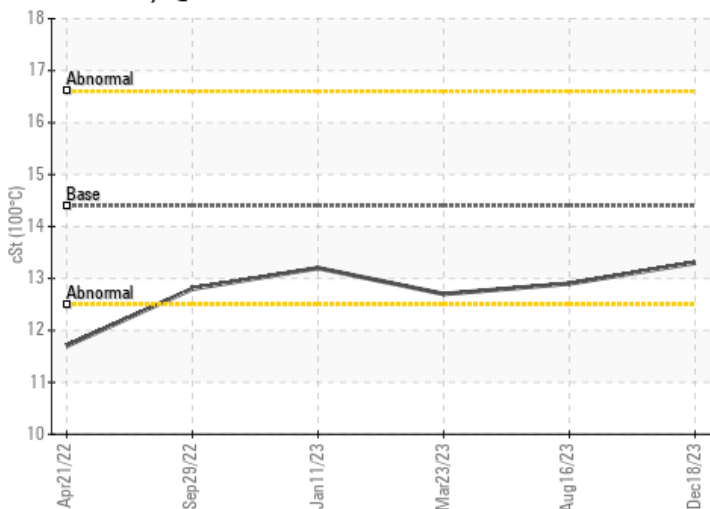
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

