

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR R924LC 049297-1487 - Diesel Engine

Sample No: LH0267369

Oil Type: LIEBHERR MOTOROIL 5W-30 LOW ASH



SAMPLE INFORMATION

Sample Number	LH0267369	LH0258221	LH0267368	LH0191142
Sample Date	15 Sep 2023	05 Sep 2023	05 Sep 2023	11 Jan 2022
Machine Hours	2000	3000	2500	665
Oil Hours	2000	500	500	665
Oil Changed	Not Changd	Not Changd	Not Changd	Changed
Sample Status	NORMAL	NORMAL	NORMAL	ABNORMAL

MERRIFIELD GARDEN
10757 SHENANDOGH PATH
CATLETT, VA
US 20119
Contact: MARK HUFFMAN



OIL CONDITION

Visc @ 100°C	cSt	10.6	11.7	11.7	12.3
Base Number (BN)	mg KOH/g	6.0	6.4	6.6	6.9
Oxidation (PA)	%	68	61	61	157

T: (703)843-3986
F:



CONTAMINATION

Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	90	83	84	91
Sulfation (PA)	%	63	56	58	94
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	9	23	6	49
Sodium	ppm	4	2	3	5
Potassium	ppm	<1	2	3	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 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	22	15	15	37
Copper	ppm	15	<1	4	60
Lead	ppm	1	0	0	2
Tin	ppm	<1	<1	<1	1
Aluminum	ppm	6	4	4	3
Chromium	ppm	<1	<1	<1	1
Molybdenum	ppm	2	0	0	28
Nickel	ppm	0	0	0	0
Titanium	ppm	<1	<1	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	1	<1	<1	2
Vanadium	ppm	0	0	0	0



ADDITIVES

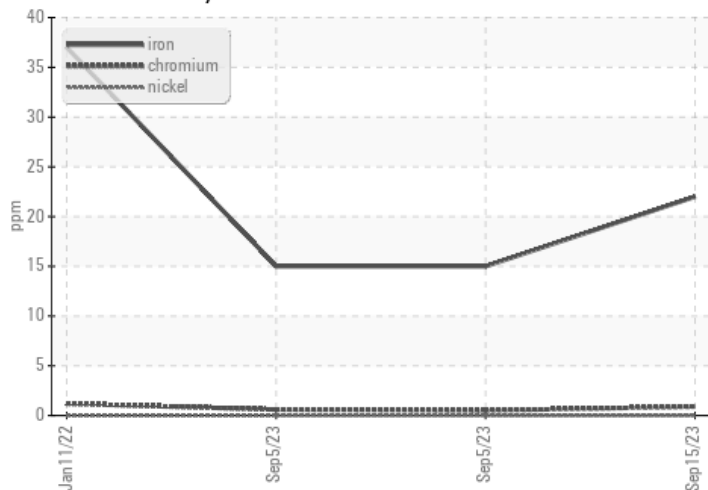
Calcium	ppm	1419	1346	1337	1777
Magnesium	ppm	766	787	796	506
Zinc	ppm	902	841	830	854
Phosphorus	ppm	751	716	713	676
Barium	ppm	0	0	0	4
Boron	ppm	42	45	62	71

Depot: MERCAT
Unique No: 10669324
Signed: Wes Davis
Report Date: 28 Sep 2023

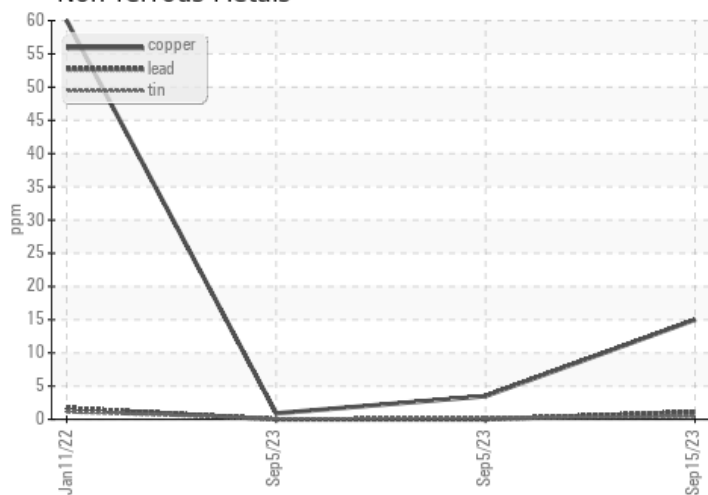


GRAPHS

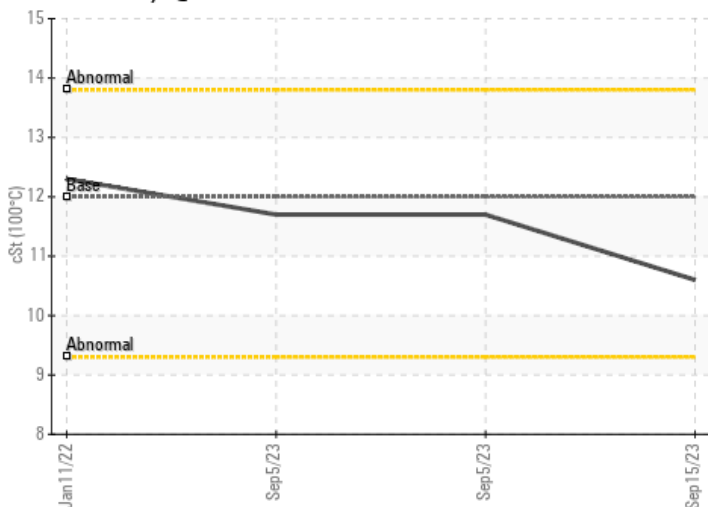
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

