

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR R924LC 049297-1487 - Diesel Engine

Sample No: LH0258221

Oil Type: LIEBHERR MOTOROIL 5W-30 LOW ASH



SAMPLE INFORMATION

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

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



OIL CONDITION

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

T: (703)843-3986
F:



CONTAMINATION

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



ADDITIVES

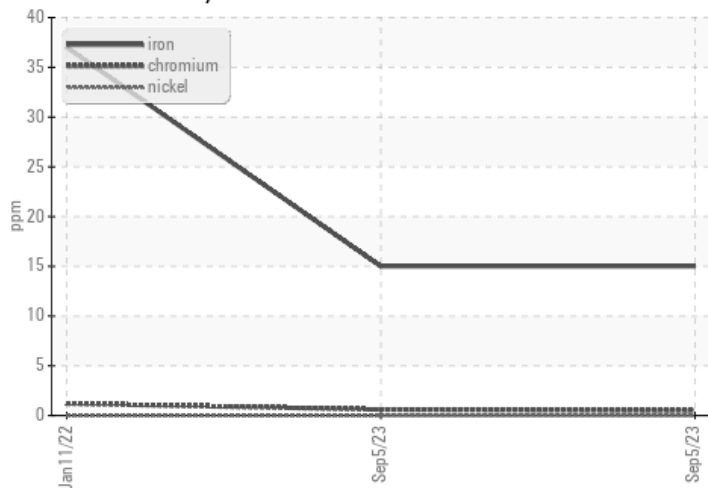
Calcium	ppm	1346	1337	1777	---
Magnesium	ppm	787	796	506	---
Zinc	ppm	841	830	854	---
Phosphorus	ppm	716	713	676	---
Barium	ppm	0	0	4	---
Boron	ppm	45	62	71	---

Depot: MERCAT
Unique No: 10669325
Signed: Jonathan Hester
Report Date: 28 Sep 2023

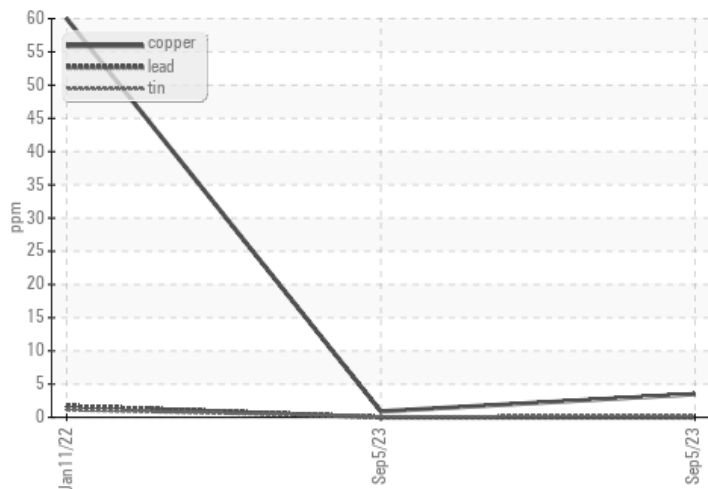


GRAPHS

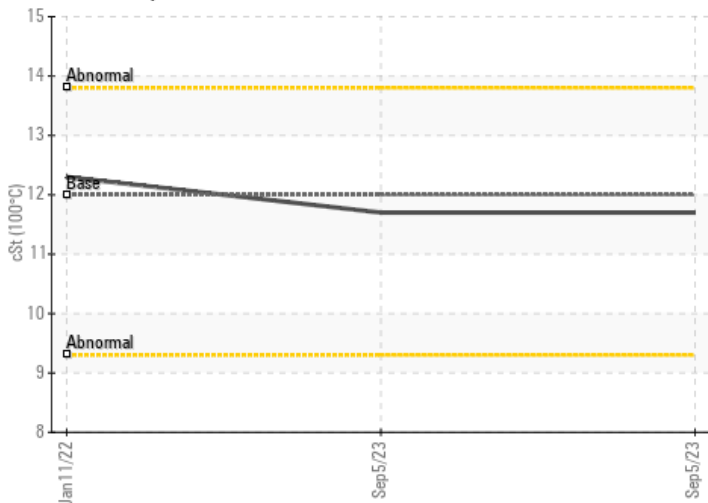
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

