

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH24 1251-107721 - Diesel Engine

Sample No: LH0254095

Oil Type: LIEBHERR MOTOROIL 5W-30 LOW ASH



SAMPLE INFORMATION

Sample Number	LH0254095	LH0243983	LH0229667	LH0217268
Sample Date	27 Apr 2023	03 Jan 2023	13 Sep 2022	15 Jun 2022
Machine Hours	8247	7421	6696	6100
Oil Hours	826	728	596	596
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

POTOMAC METALS INC

410 16TH AVENUE

RANSON, WV

US 25438

Contact: Service Manager



OIL CONDITION

Visc @ 100°C	cSt	13.8	12.3	12.3	12.3
Base Number (BN)	mg KOH/g	7.8	7.0	7.7	7.9
Oxidation (PA)	%	79	56	59	62

T:

F:

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.



CONTAMINATION

Soot %	%	0.1	0.2	0.2	0.2
Nitration (PA)	%	81	77	83	84
Sulfation (PA)	%	54	52	57	58
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	5	7	6
Sodium	ppm	2	2	1	2
Potassium	ppm	3	2	<1	<1



WEAR METALS

Iron	ppm	12	9	10	11
Copper	ppm	<1	<1	2	1
Lead	ppm	<1	<1	<1	<1
Tin	ppm	<1	<1	0	<1
Aluminum	ppm	2	1	2	3
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	<1	<1	<1	0
Nickel	ppm	0	0	0	0
Titanium	ppm	<1	<1	1	1
Silver	ppm	<1	0	0	0
Manganese	ppm	1	<1	<1	<1
Vanadium	ppm	<1	<1	0	0



ADDITIVES

Calcium	ppm	1470	1283	1294	1456
Magnesium	ppm	880	736	650	761
Zinc	ppm	946	800	813	875
Phosphorus	ppm	823	678	704	771
Barium	ppm	0	0	2	0
Boron	ppm	174	84	60	77

Depot: POTRAN

Unique No: 10608533

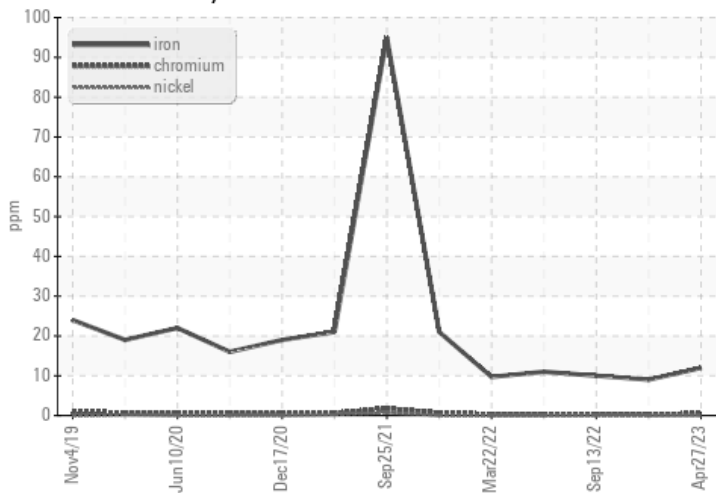
Signed: Wes Davis

Report Date: 21 Aug 2023

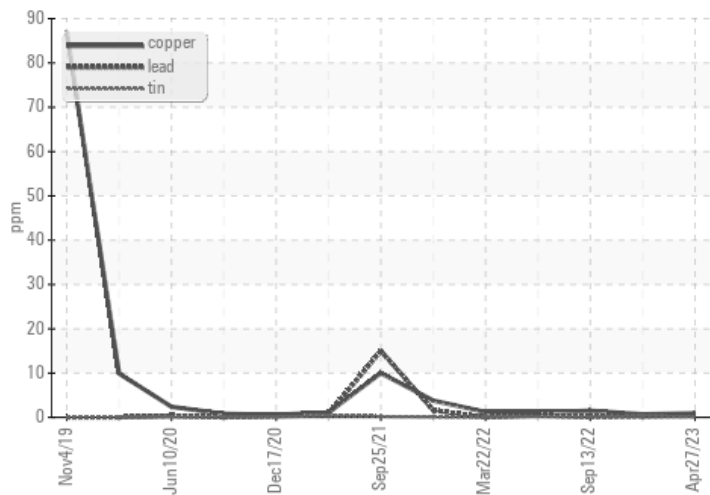


GRAPHS

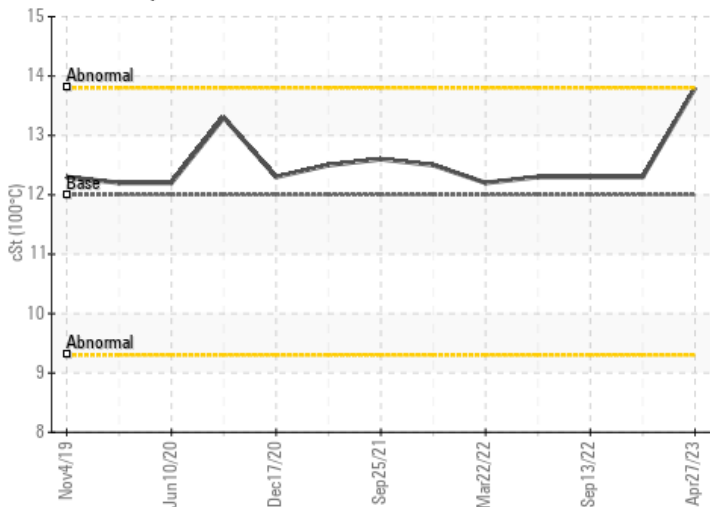
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

