

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH30 115841-1253 - Diesel Engine

Sample No: LH0285578

Oil Type: LIEBHERR MOTOROIL 5W30



SPARTAN RECYCLING
 3071 HOWARD ST
 SPARTANBURG, SC
 US 29303
 Contact: SERVICE MANAGER

T:
 F:



Sample Information

Sample Number	LH0285578	LH0272809	LH06062460	LH0235741
Sample Date	20 Jun 2024	08 Mar 2024	11 Jan 2024	28 Sep 2023
Machine Hours	12685	11903	11390	10707
Oil Hours	500	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	ABNORMAL



Oil Condition

Visc @ 100°C	cSt	12.2	11.9	11.9	12.4
Base Number (BN)	mg KOH/g	13.5	13.8	12.1	10.0
Oxidation (PA)	%	67	64	68	102



Contamination

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	134	132	136	182
Sulfation (PA)	%	57	52	55	70
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	10	9	8	11
Sodium	ppm	6	3	2	2
Potassium	ppm	9	4	2	8



Wear Metals

Iron	ppm	12	10	11	16
Copper	ppm	2	1	2	4
Lead	ppm	3	0	3	26
Tin	ppm	<1	0	<1	1
Aluminum	ppm	7	5	3	4
Chromium	ppm	<1	<1	<1	1
Molybdenum	ppm	<1	<1	2	1
Nickel	ppm	<1	0	0	0
Titanium	ppm	<1	0	0	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	0	<1	<1
Vanadium	ppm	<1	0	<1	<1



Additives

Calcium	ppm	5272	4684	4813	5279
Magnesium	ppm	35	26	33	24
Zinc	ppm	1469	1212	1342	1474
Phosphorus	ppm	1252	1084	1105	1194
Barium	ppm	0	0	0	0
Boron	ppm	255	239	241	242

Diagnosis

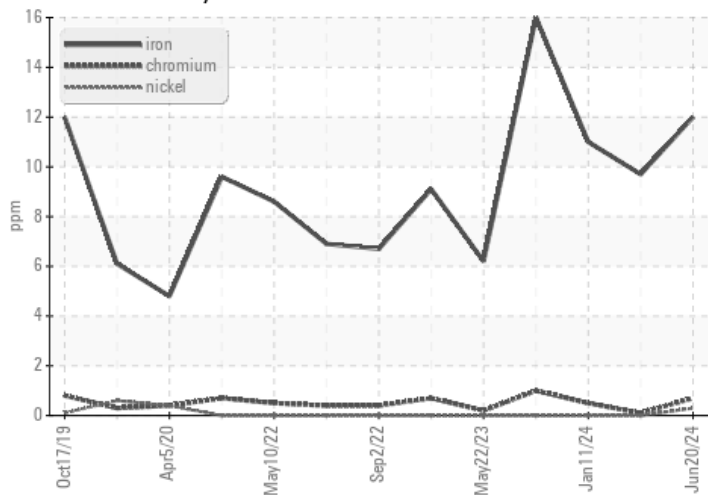
Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Depot: SPASPALH
 Unique No: 11100218
 Signed: Wes Davis
 Report Date: 27 Jun 2024

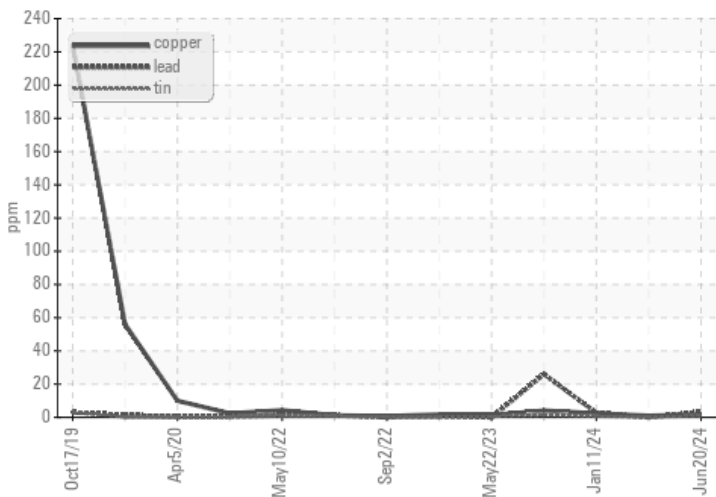


Graphs

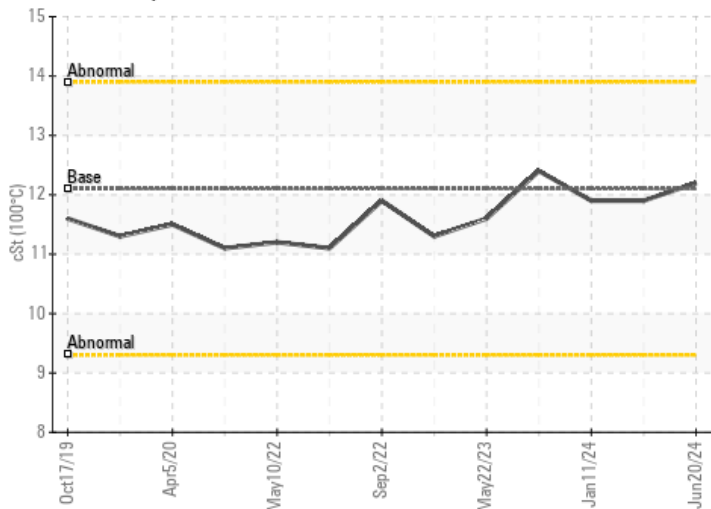
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

