

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50 1203-77107 - Hydraulic System

Sample No: LH0229289

Oil Type: LIEBHERR HYDRAULIC HVI



SAMPLE INFORMATION

Sample Number	LH0229289	LH0254818	LH0254032	LH0243170
Sample Date	30 Aug 2023	16 Jun 2023	28 Mar 2023	22 Dec 2022
Machine Hours	19522	18994	18616	17940
Oil Hours	0	0	0	0
Oil Changed	Not Chngd	Not Chngd	Not Chngd	Not Chngd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

AMERICAN STATE EQUIPMENT CO.
 2400 NORTH 14TH AVENUE
 WAUSAU, WI
 US 54401
 Contact: CHRIS BARTNIK
 cbartnik@amstate.com
 T: (715)675-6900
 F: (715)675-9748



OIL CONDITION

Visc @ 40°C	cSt	43.0	43.6	44.0	42.3
Acid Number (AN)	mg KOH/g	0.67	0.51	0.42	0.64



CONTAMINATION

Particles >4µm		691	946	1073	2663
Particles >6µm		109	73	371	320
Particles >14µm		12	3	33	29
ISO 4406:1999 (c)		17/14/11	17/13/9	17/16/12	19/15/12
Silicon	ppm	4	4	4	3
Sodium	ppm	0	<1	<1	<1
Potassium	ppm	<1	<1	0	1

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 amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



WEAR METALS

Iron	ppm	7	6	6	17
Copper	ppm	<1	<1	0	2
Lead	ppm	0	0	0	<1
Tin	ppm	0	0	0	0
Aluminum	ppm	<1	0	0	1
Chromium	ppm	<1	<1	0	<1
Molybdenum	ppm	<1	<1	0	<1
Nickel	ppm	0	0	0	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	0	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

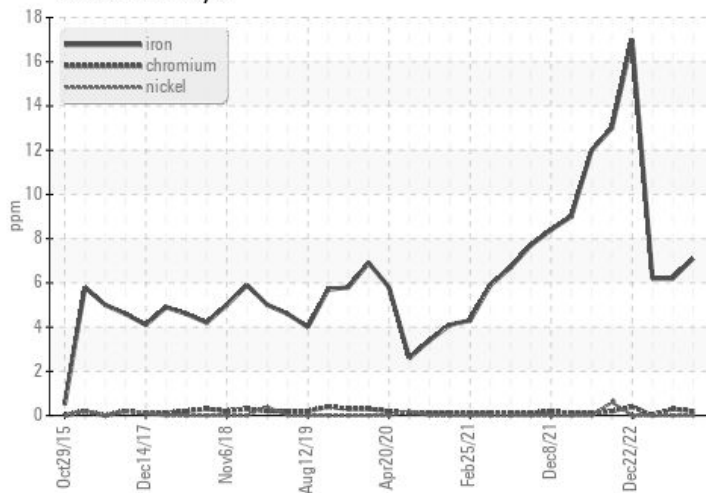
Calcium	ppm	1276	1161	1087	732
Magnesium	ppm	6	3	14	4
Zinc	ppm	779	743	769	634
Phosphorus	ppm	627	586	566	518
Barium	ppm	2	0	0	0
Boron	ppm	38	36	31	14

Depot: LEC0008
 Unique No: 10633561
 Signed: Don Baldrige
 Report Date: 08 Sep 2023

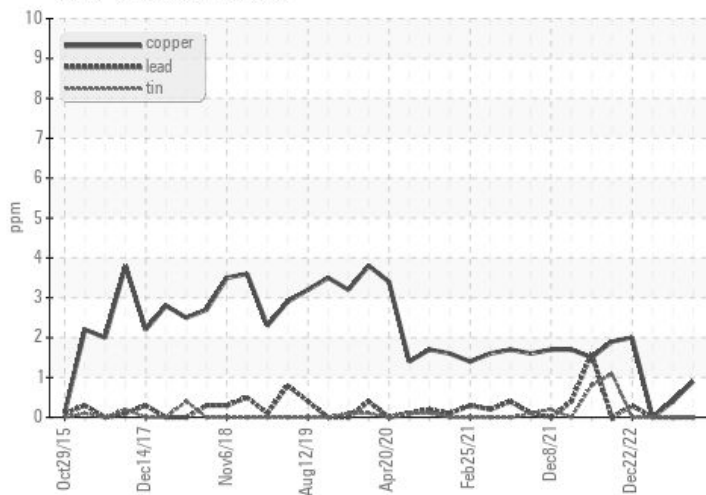


GRAPHS

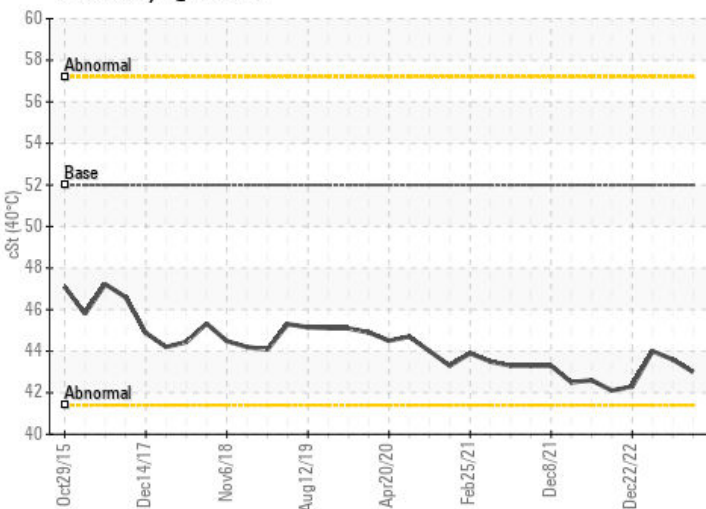
Ferrous Alloys



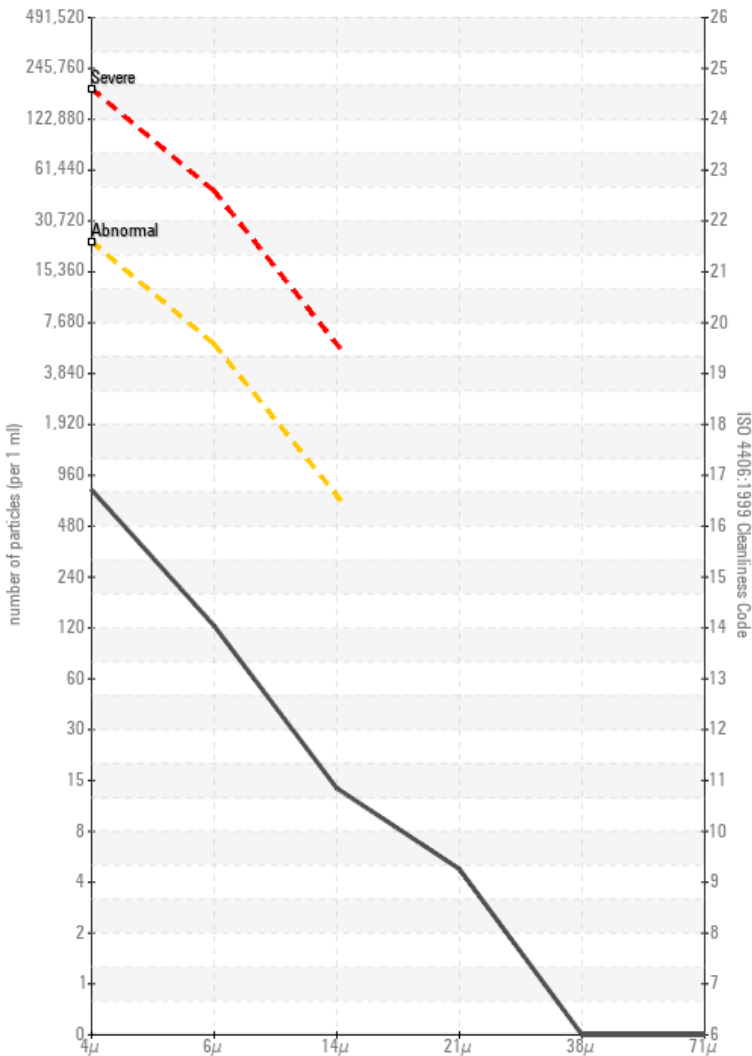
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

