LIEBHERR
CONSTRUCTION EQUIPMENT

LIEBHERR LH50 1216-121548 - Hydraulic System

Sample No: LH0267186

Oil Type: LIEBHERR HYDRAULIC HVI

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

Sample Information

Sample Number		**LH0267186**	LH0272703	LH0243396	LH0263851
Sample Date		**25 Apr 2024**	18 Jan 2024	05 Oct 2023	18 Jul 2023
Machine Hours		**4279**	3594	2969	2422
Oil Hours		**0**	0	0	0
Oil Changed		**Not Changd**	Not Changd	Not Changd	Not Changd
Sample Status		**ABNORMAL**	NORMAL	NORMAL	NORMAL

Oil Condition

Visc @ 40°C	cSt	**42.7**	42.5	42.4	42.5
Acid Number (AN)	mg KOH/g	**0.64**	0.76	0.79	0.89

Contamination

Water	%	**NEG**	NEG	NEG	NEG
Particles >4µm		**851**	3427	1445	977
Particles >6µm		**70**	673	279	261
Particles >14µm		**8**	31	16	20
ISO 4406:1999 (c)		**17/13/10**	19/17/12	18/15/11	17/15/11
Silicon	ppm	**3**	<1	1	<1
Sodium	ppm	**<1**	1	1	2
Potassium	ppm	**2**	0	0	0

Wear Metals

Iron	ppm	**65**	43	40	34
Copper	ppm	**4**	2	3	3
Lead	ppm	**2**	0	<1	0
Tin	ppm	**1**	0	0	0
Aluminum	ppm	**<1**	0	<1	<1
Chromium	ppm	**3**	1	1	1
Molybdenum	ppm	**5**	3	3	4
Nickel	ppm	**<1**	0	0	0
Titanium	ppm	**1**	<1	<1	<1
Silver	ppm	**0**	0	0	0
Manganese	ppm	**2**	<1	<1	<1
Vanadium	ppm	**<1**	0	0	0

Additives

Calcium	ppm	**734**	601	716	822
Magnesium	ppm	**25**	7	18	22
Zinc	ppm	**767**	527	571	616
Phosphorus	ppm	**603**	411	479	502
Barium	ppm	**0**	0	0	0
Boron	ppm	**4**	2	3	4

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor.The iron level is abnormal. All other component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

Depot: LEC0008
Unique No: 11019163
Signed: Don Baldridge
Report Date: 10 May 2024

Report Id: LEC0008 [WUSCAR] 06173110 (Generated: 05/11/2024 22:54:18) Rev: 1

Submitted By: ?

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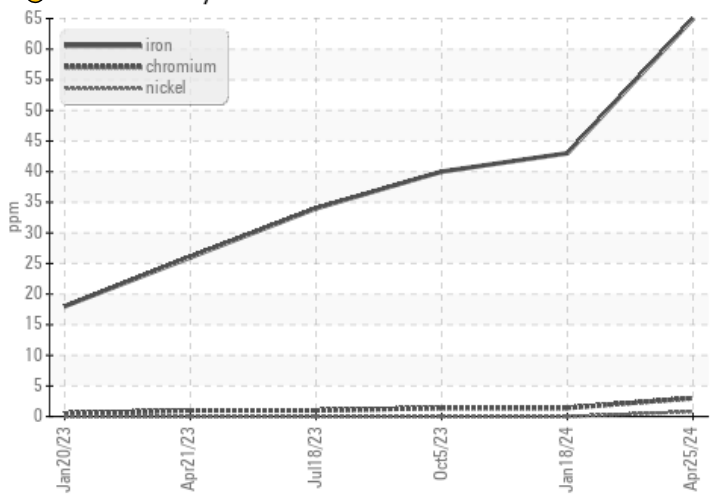
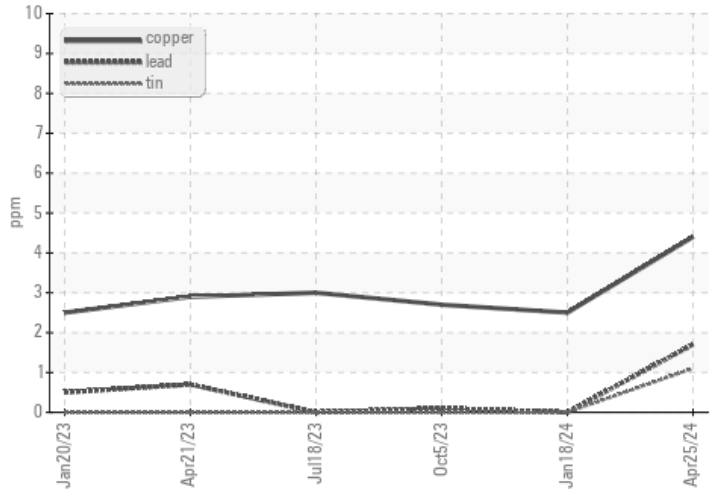
Graphs

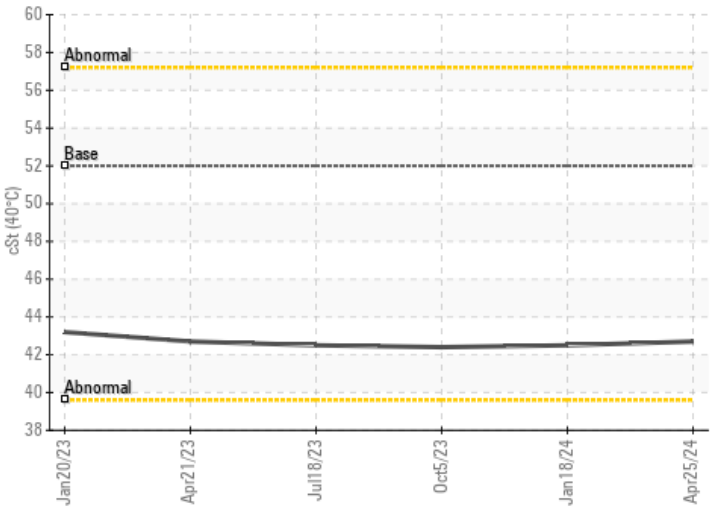
Ferrous Alloys



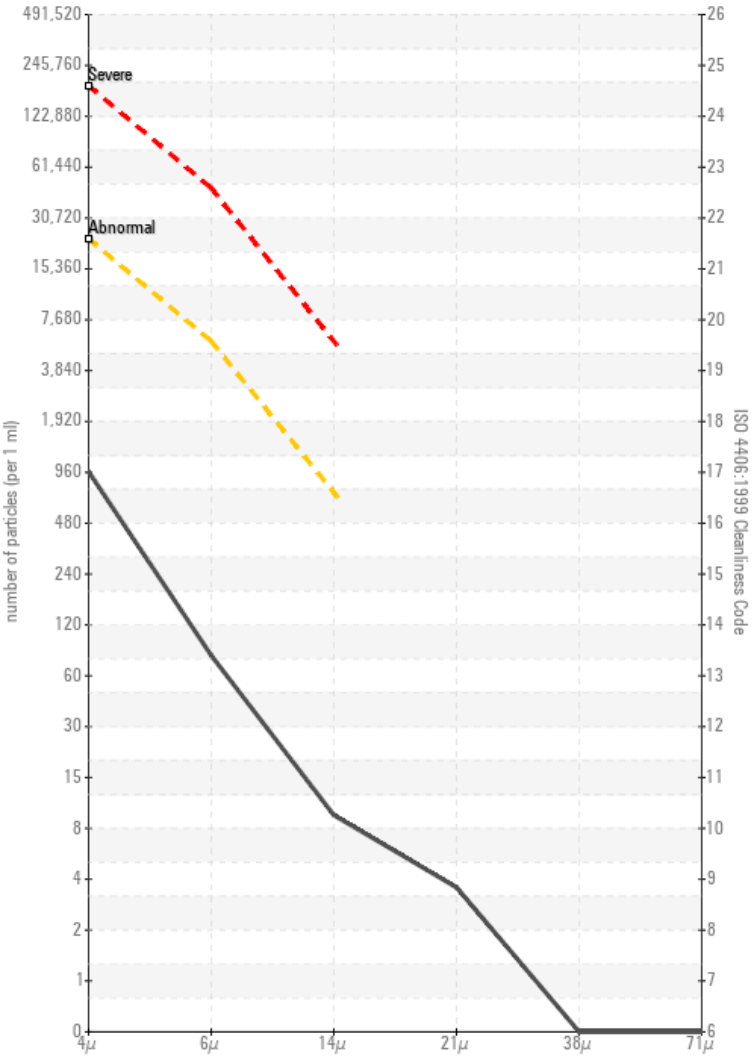
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number