

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH60M 117421-1217 - Hydraulic System

Sample No: LH0267282
 Oil Type: CONOCO AW 68



SAMPLE INFORMATION

Sample Number	LH0267282	LH0244335	LH0247838	LH0229344
Sample Date	26 Dec 2023	27 Jun 2023	24 Feb 2023	13 Jun 2022
Machine Hours	5377	4239	3454	1958
Oil Hours	0	4000	3400	2000
Oil Changed	Not Changd	Not Changd	Not Changd	Not Changd
Sample Status	MARGINAL	NORMAL	NORMAL	NORMAL

TT & E IRON
 1529 WEST GARNER RD
 GARNER, NC
 US 27529
 Contact: MICHAEL STANCIL
 culaterprowler@aol.com
 T: (919)524-4326
 F:



OIL CONDITION

Visc @ 40°C	cSt	37.5	38.5	42.5	43.6
Acid Number (AN)	mg KOH/g	0.47	0.51	0.54	0.59



CONTAMINATION

Water	%	0.161	NEG	NEG	NEG
Particles >4µm		8853	15338	15147	6898
Particles >6µm		1559	4362	2420	1061
Particles >14µm		76	247	169	64
ISO 4406:1999 (c)		20/18/13	21/19/15	21/18/15	20/17/13
Silicon	ppm	1	2	2	1
Sodium	ppm	<1	0	0	1
Potassium	ppm	2	6	0	0

Diagnosis
 The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a light concentration of water present in the oil. The amount and size of particulates present in the system are acceptable. Confirm oil type. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



WEAR METALS

Iron	ppm	32	13	35	21
Copper	ppm	11	3	5	2
Lead	ppm	<1	<1	<1	0
Tin	ppm	<1	0	0	0
Aluminum	ppm	2	<1	1	<1
Chromium	ppm	2	<1	2	<1
Molybdenum	ppm	2	<1	2	2
Nickel	ppm	<1	2	0	0
Titanium	ppm	<1	0	0	0
Silver	ppm	0	<1	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	<1	0	0



ADDITIVES

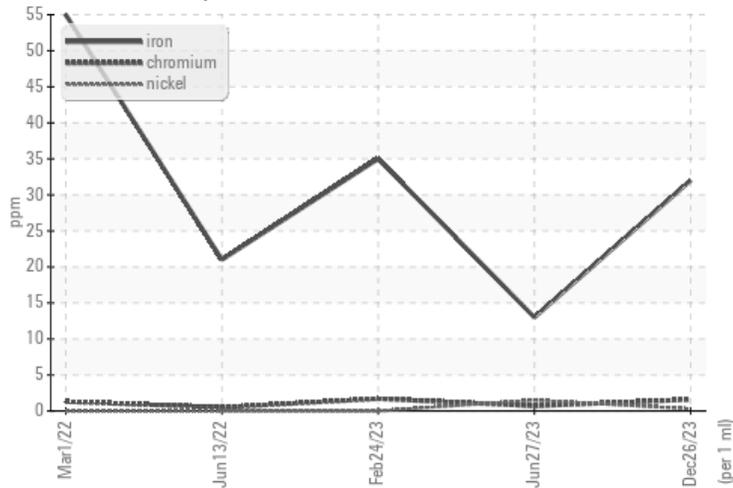
Calcium	ppm	115	127	241	304
Magnesium	ppm	11	8	8	8
Zinc	ppm	385	213	436	409
Phosphorus	ppm	337	128	339	338
Barium	ppm	10	0	0	0
Boron	ppm	0	0	1	3

Depot: TTENEW
Unique No: 10816742
Signed: Don Baldrige
Report Date: 05 Jan 2024

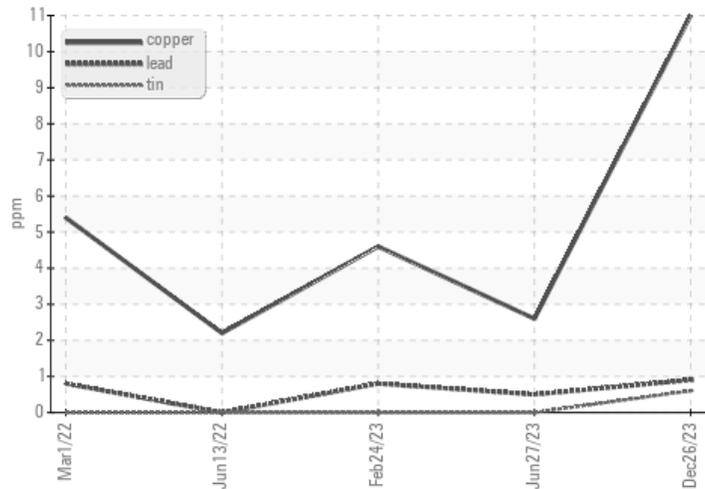


GRAPHS

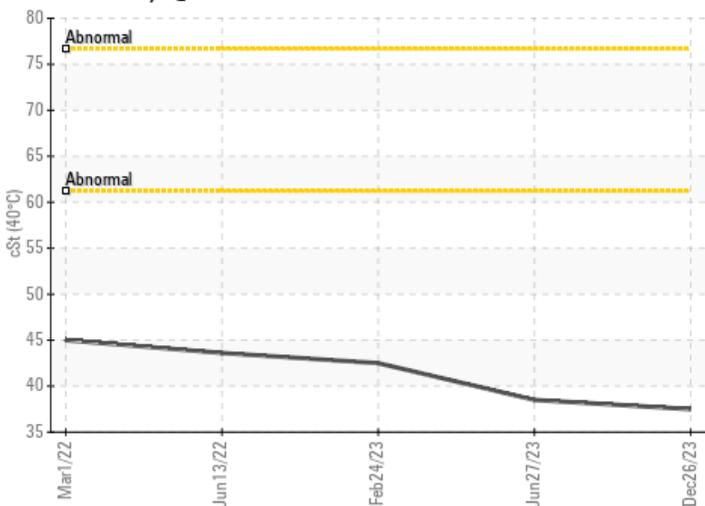
Ferrous Alloys



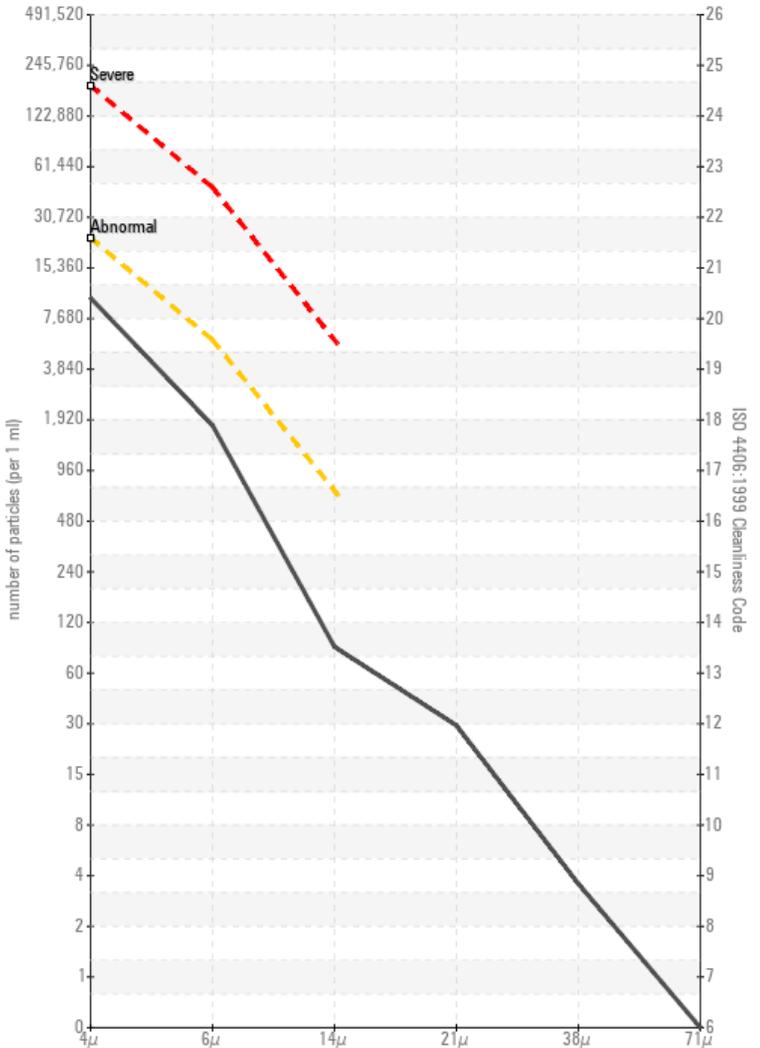
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

