LIEBHERR
CONSTRUCTION EQUIPMENT

LIEBHERR A944 054454-194 - Hydraulic System

Sample No: LH0264434

Oil Type: LIEBHERR HYDRAULIC HVI

UNITED STATES GYPSUM
301 RILEY RD
EAST CHICAGO, IN
US 43612
Contact: Service Manager

T:
F:

Sample Information

Sample Number		**LH0264434**	LHMC130519	LHMC96953	LHMC72745
Sample Date		**29 Mar 2024**	09 Jan 2020	26 Apr 2018	08 Feb 2017
Machine Hours		**7425**	3409	2587	1682
Oil Hours		**0**	3409	0	0
Oil Changed		**Not Changd**	Not Changd	Not Changd	Not Changd
Sample Status		**ATTENTION**	NORMAL	NORMAL	NORMAL

Oil Condition

Visc @ 40°C	cSt	**43.6**	38.6	36.39	36.73
Acid Number (AN)	mg KOH/g	**0.22**	1.139	1.146	1.93

Contamination

Water	%	**NEG**	NEG	NEG	NEG
Particles 5-15µm	count	**---**	---	---	36225
Particles 15-25µm	count	**---**	---	---	3007
Particles 25-50µm	count	**---**	---	---	1298
Particles 50-100µm	count	**---**	---	---	33
Particles >100µm	count	**---**	---	---	0
NAS Code		**---**	---	---	8
Particles >4µm		**34064**	11036	8347	3622
Particles >6µm		**334**	1976	1031	420
Particles >14µm		**12**	80	55	44
ISO 4406:1999 (c)		**22/16/11**	21/18/13	20/17/13	19/16/13
Silicon	ppm	**2**	3	3	4
Sodium	ppm	**1**	4	4	4
Potassium	ppm	**1**	<1	1	2

Wear Metals

Iron	ppm	**11**	9	6	5
Copper	ppm	**8**	16	15	7
Lead	ppm	**<1**	2	2	<1
Tin	ppm	**0**	<1	0	0
Aluminum	ppm	**2**	<1	<1	<1
Chromium	ppm	**<1**	<1	<1	<1
Molybdenum	ppm	**0**	<1	<1	<1
Nickel	ppm	**0**	<1	0	<1
Titanium	ppm	**0**	0	0	0
Silver	ppm	**0**	0	0	0
Manganese	ppm	**0**	<1	<1	<1
Vanadium	ppm	**0**	0	0	0

Additives

Calcium	ppm	**596**	2027	2468	2437
Magnesium	ppm	**7**	8	7	12
Zinc	ppm	**339**	899	1033	989
Phosphorus	ppm	**378**	782	846	910
Barium	ppm	**0**	0	0	<1
Boron	ppm	**0**	2	3	2

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of silt (particulates < 6 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Depot: UNIEASLH
Unique No: 10956800
Signed: Jonathan Hester
Report Date: 05 Apr 2024

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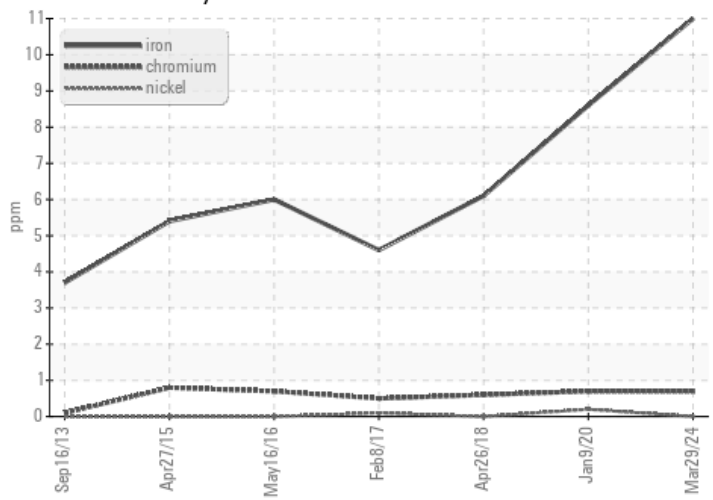
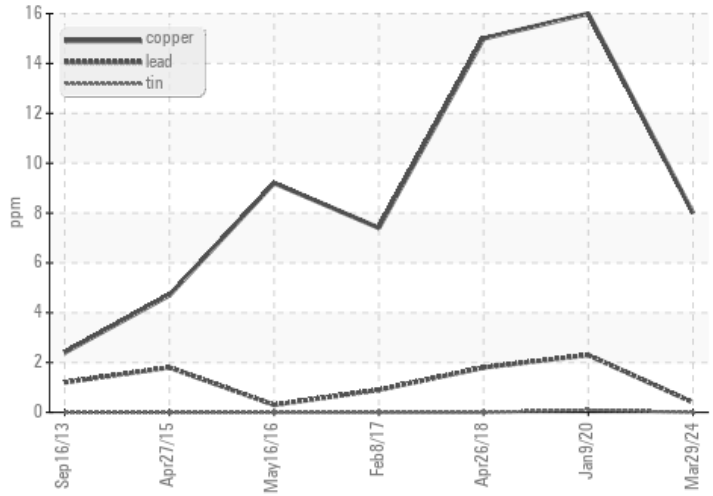
Graphs

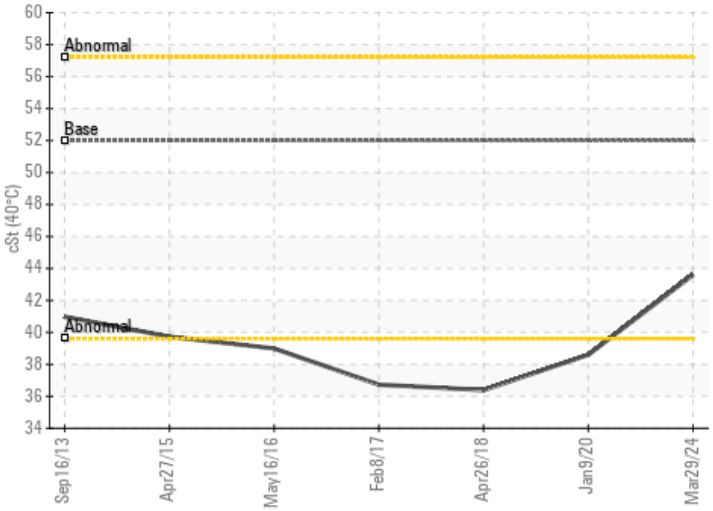
Ferrous Alloys



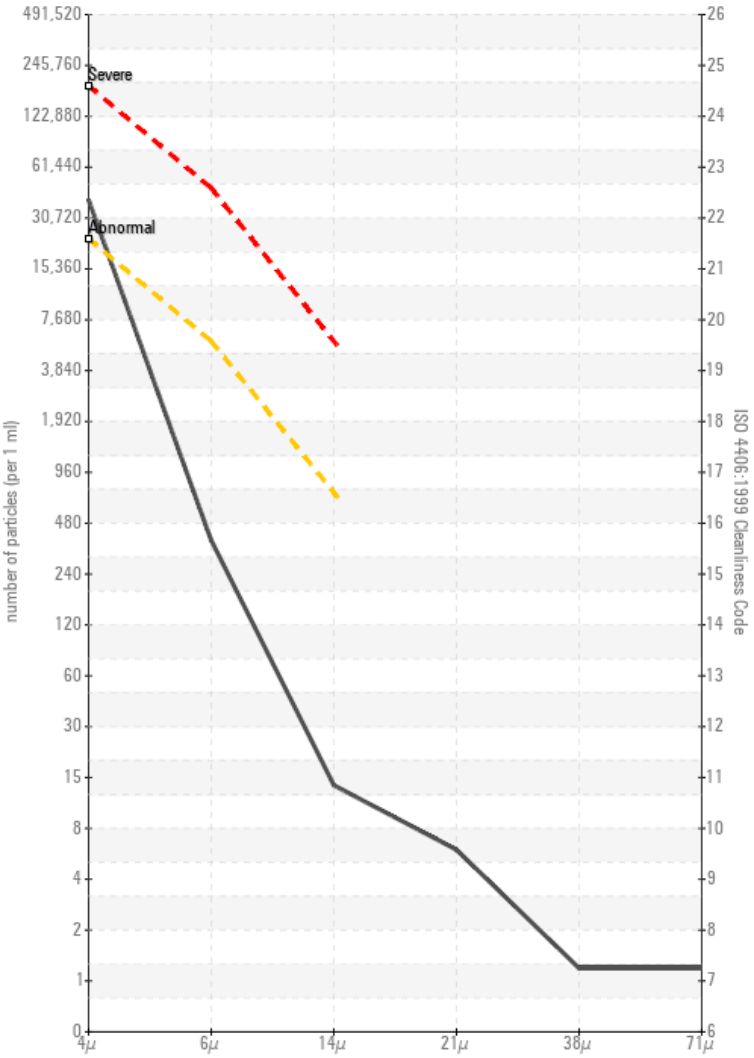
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number