LIEBHERR
CONSTRUCTION EQUIPMENT

LIEBHERR A934C 064064-1007 - Hydraulic System

Sample No: LH0258837

Oil Type: LIEBHERR HYDRAULIC HVI

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SAMPLE INFORMATION

Sample Number		**LH0258837**	LH0272770	LH0243357	LH0254760
Sample Date		**20 Feb 2024**	21 Dec 2023	02 Oct 2023	23 Jun 2023
Machine Hours		**26421**	25949	25481	24973
Oil Hours		**0**	0	0	0
Oil Changed		**Not Changd**	Not Changd	Not Changd	Not Changd
Sample Status		**ATTENTION**	NORMAL	NORMAL	NORMAL

OIL CONDITION

Visc @ 40°C	cSt	**44.6**	43.8	46.4	43.7
Acid Number (AN)	mg KOH/g	**1.17**	0.81	0.88	0.80

CONTAMINATION

Water	%	**NEG**	NEG	NEG	NEG
Particles >4µm		**27461**	1728	1111	2882
Particles >6µm		**120**	353	282	816
Particles >14µm		**18**	30	23	72
ISO 4406:1999 (c)		**22/14/11**	18/16/12	17/15/12	19/17/13
Silicon	ppm	**8**	7	6	5
Sodium	ppm	**3**	0	4	<1
Potassium	ppm	**<1**	3	<1	2

WEAR METALS

Iron	ppm	**7**	8	6	7
Copper	ppm	**2**	3	2	2
Lead	ppm	**2**	<1	0	<1
Tin	ppm	**2**	<1	<1	0
Aluminum	ppm	**<1**	2	<1	<1
Chromium	ppm	**<1**	<1	<1	<1
Molybdenum	ppm	**0**	<1	<1	<1
Nickel	ppm	**<1**	<1	0	<1
Titanium	ppm	**<1**	<1	<1	0
Silver	ppm	**0**	0	0	0
Manganese	ppm	**<1**	<1	0	<1
Vanadium	ppm	**<1**	0	0	0

ADDITIVES

Calcium	ppm	**2270**	1947	1690	1607
Magnesium	ppm	**14**	11	13	5
Zinc	ppm	**1072**	947	886	833
Phosphorus	ppm	**879**	811	708	694
Barium	ppm	**0**	7	0	0
Boron	ppm	**54**	51	44	44

Diagnosis

No corrective action is recommended at this time. 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 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: LEC0008
Unique No: 10901868
Signed: Jonathan Hester
Report Date: 06 Mar 2024

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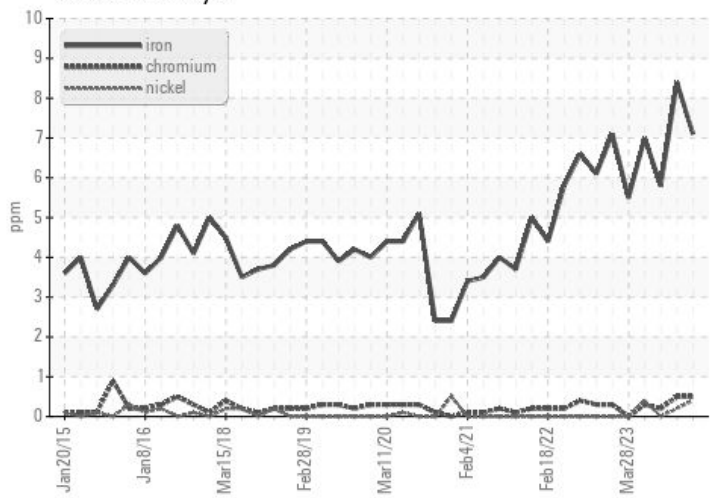
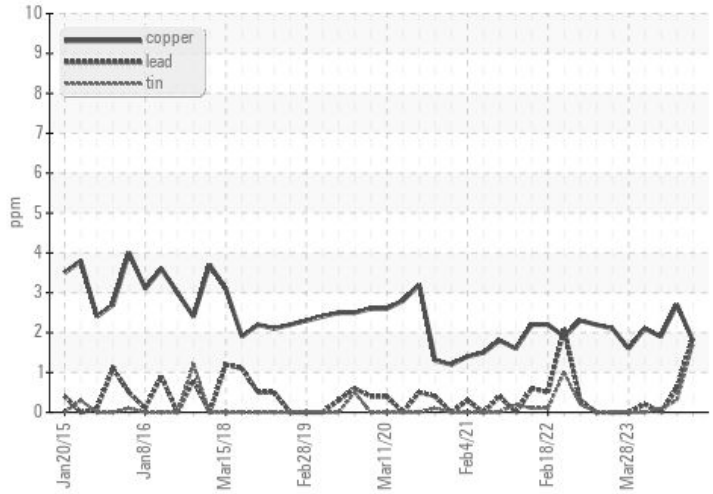
GRAPHS

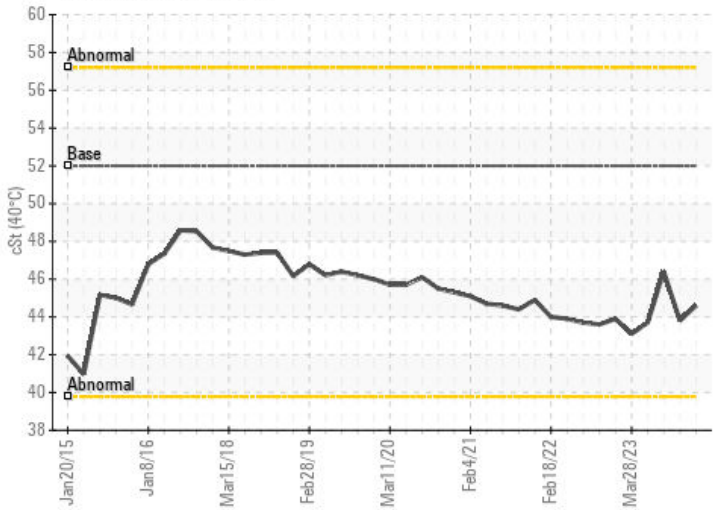
Ferrous Alloys



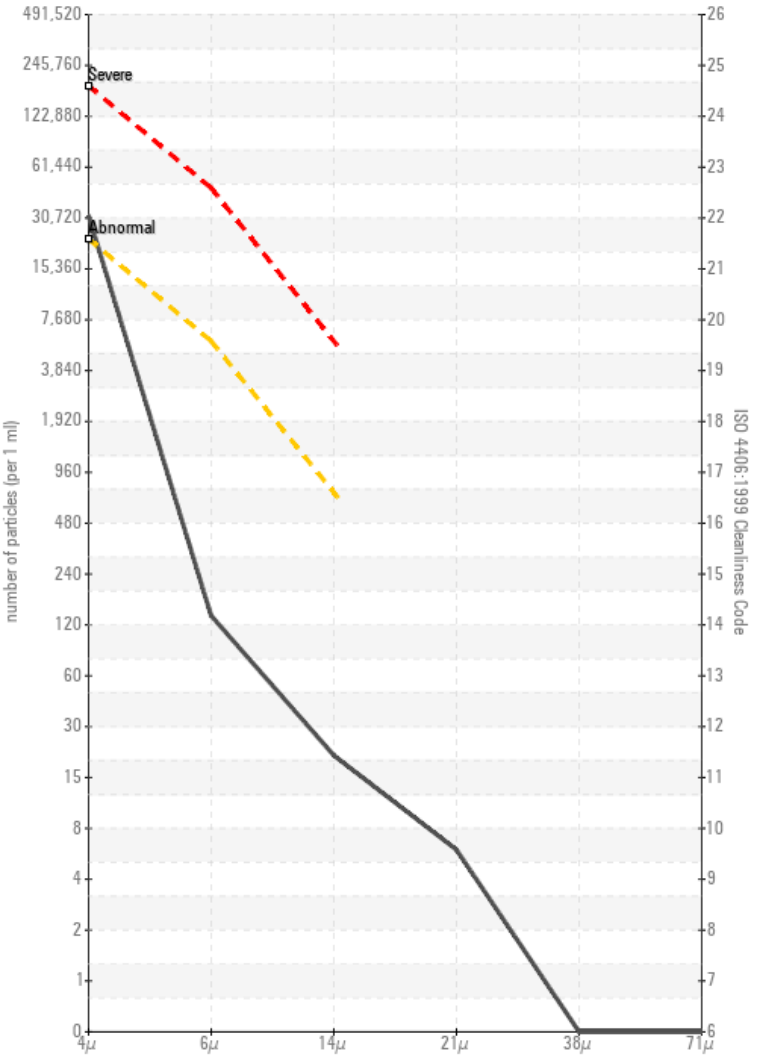
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number