LIEBHERR
CONSTRUCTION EQUIPMENT

LIEBHERR LH30M 117414-1253 - Hydraulic System

Sample No: LH0272892

Oil Type: AW HYDRAULIC OIL ISO 46

SPARTAN RECYCLING
3071 HOWARD ST
SPARTANBURG, SC
US 29303
Contact: SERVICE MANAGER

T:
F:

SAMPLE INFORMATION

Sample Number		**LH0272892**	LH0235760	LH0217603	LHMC160751
Sample Date		**10 Jan 2024**	26 Sep 2023	14 Jul 2022	03 Mar 2022
Machine Hours		**8285**	0	0	4332
Oil Hours		**0**	0	0	4332
Oil Changed		**Not Changd**	N/A	N/A	Not Changd
Sample Status		**ABNORMAL**	ABNORMAL	ATTENTION	ABNORMAL

OIL CONDITION

Visc @ 40°C	cSt	**59.5**	56.4	52.9	49.4
Acid Number (AN)	mg KOH/g	**0.40**	0.47	0.66	0.76

CONTAMINATION

Water	%	**NEG**	0.071	NEG	NEG
Particles >4µm		**4365**	---	27155	1978
Particles >6µm		**745**	---	6381	465
Particles >14µm		**43**	---	352	39
ISO 4406:1999 (c)		**19/17/13**	---	22/20/16	18/16/12
Silicon	ppm	**2**	2	1	2
Sodium	ppm	**<1**	0	0	0
Potassium	ppm	**<1**	<1	0	2

WEAR METALS

Iron	ppm	**72**	93	37	92
Copper	ppm	**4**	5	2	6
Lead	ppm	**<1**	<1	<1	1
Tin	ppm	**0**	0	<1	<1
Aluminum	ppm	**1**	0	0	2
Chromium	ppm	**2**	2	<1	2
Molybdenum	ppm	**0**	<1	<1	<1
Nickel	ppm	**0**	0	0	0
Titanium	ppm	**0**	0	0	0
Silver	ppm	**0**	0	0	<1
Manganese	ppm	**<1**	2	<1	2
Vanadium	ppm	**0**	0	0	0

ADDITIVES

Calcium	ppm	**143**	158	315	860
Magnesium	ppm	**56**	48	9	12
Zinc	ppm	**362**	366	198	615
Phosphorus	ppm	**296**	282	170	469
Barium	ppm	**0**	0	0	0
Boron	ppm	**0**	0	<1	<1

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 amount and size of particulates present in the system are acceptable. The oil viscosity is higher than normal. Confirm oil type. The AN level is acceptable for this fluid.

Depot: SPASPALH
Unique No: 10833948
Signed: Jonathan Hester
Report Date: 19 Jan 2024

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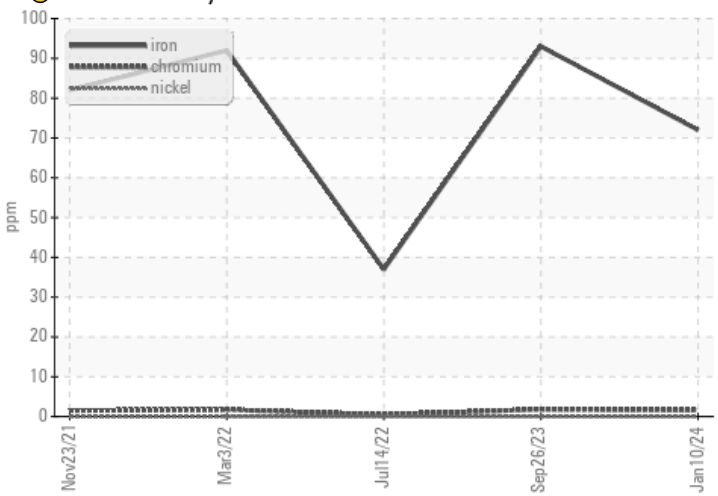
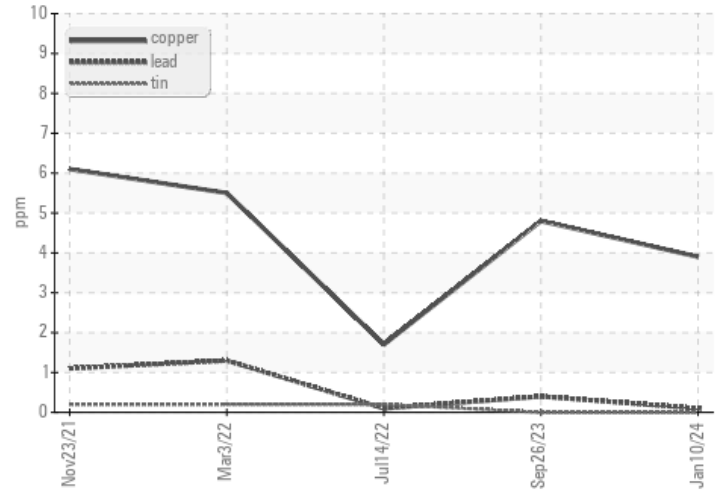
GRAPHS

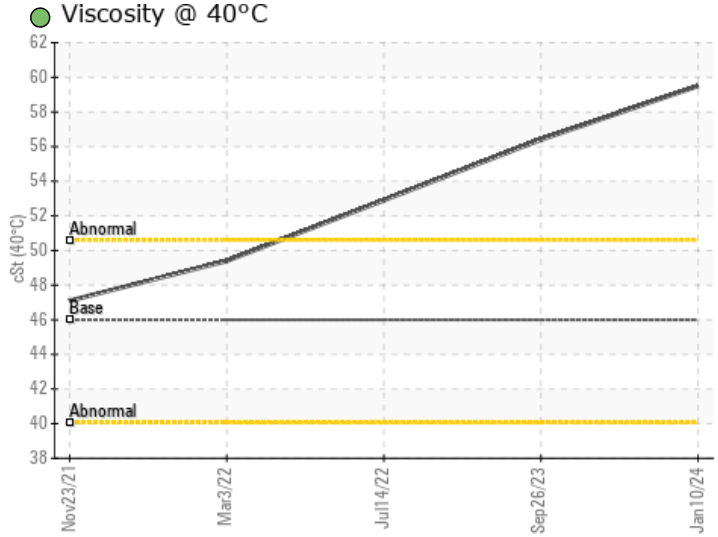
Ferrous Alloys



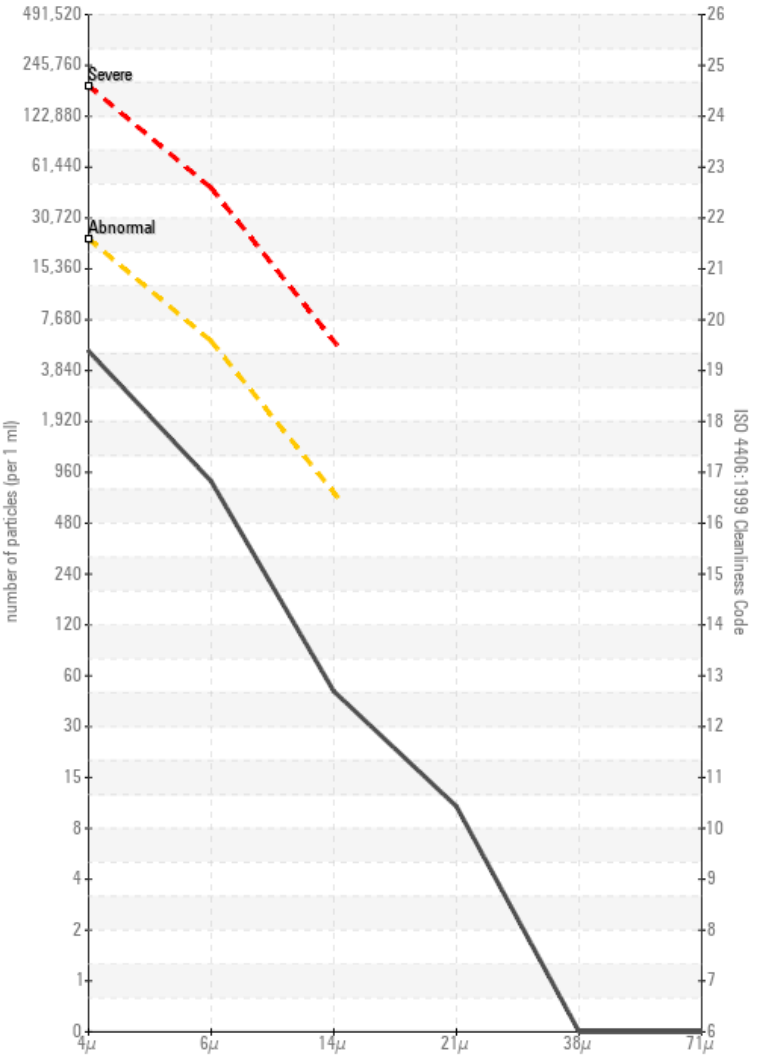
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number