

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR HS895HD 188297 - Hydraulic System

Sample No: LH0277011

Oil Type: AW HYDRAULIC OIL ISO 32



Harbor Development Inc
 300 Union Street, Po Box 57777
 Saint John, NB
 CA E2L 5B6
 Contact: Service Manager



Sample Information

Sample Number	LH0277011	LH0195190	LH0183398	LH0183538
Sample Date	01 Nov 2023	18 Mar 2021	29 Jan 2021	20 Nov 2020
Machine Hours	15287	6156	5501	4454
Oil Hours	0	0	0	0
Oil Changed	N/A	Changed	Not Changd	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL



Oil Condition

Visc @ 40°C	cSt	34.8	34.5	34.2	34.9



Contamination

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		1451	1416	1301	7464
Particles >6µm		249	286	339	1264
Particles >14µm		12	17	27	33
ISO 4406:1999 (c)		18/15/11	18/15/11	18/16/12	20/17/12
Silicon	ppm	2	4	4	5
Sodium	ppm	2	2	2	2
Potassium	ppm	<1	<1	<1	<1



Wear Metals

Iron	ppm	4	3	3	3
Copper	ppm	11	17	17	16
Lead	ppm	1	2	2	2
Tin	ppm	0	<1	<1	<1
Aluminum	ppm	<1	<1	<1	<1
Chromium	ppm	0	0	0	0
Molybdenum	ppm	0	<1	<1	<1
Nickel	ppm	0	<1	<1	<1
Titanium	ppm	0	0	0	0
Silver	ppm	<1	<1	<1	<1
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0



Additives

Calcium	ppm	288	517	523	509
Magnesium	ppm	5	10	10	10
Zinc	ppm	442	500	496	485
Phosphorus	ppm	351	392	393	385
Barium	ppm	<1	<1	<1	<1
Boron	ppm	6	13	14	14

T:
F:

Diagnosis

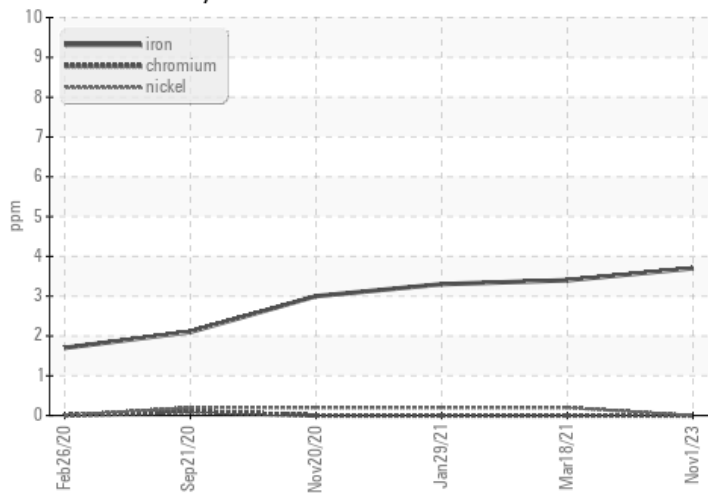
Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The condition of the oil is acceptable for the time in service.

Depot: HAR300SAI
 Unique No: 5672455
 Signed: Bill Quesnel
 Report Date: 10 Nov 2023

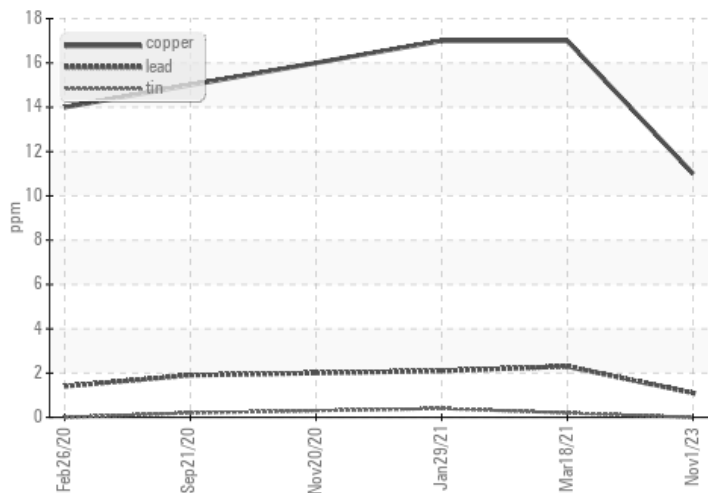


Graphs

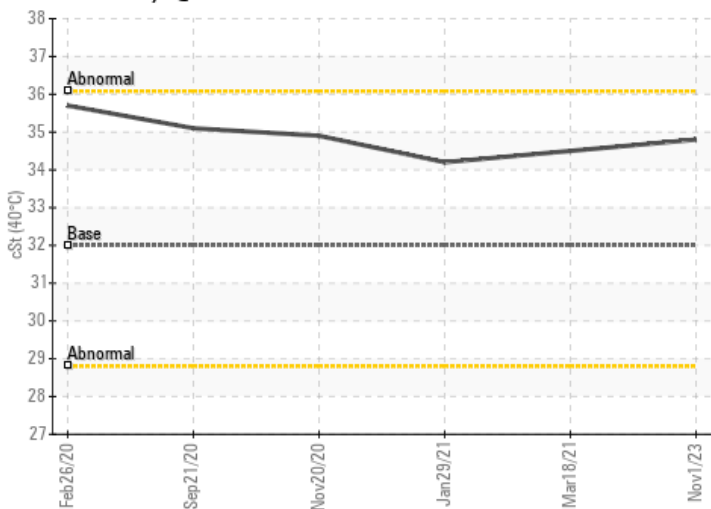
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count

