

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH60M 1204-75634 - Hydraulic System

Sample No: LH0229291

Oil Type: CHEVRON RANDO HD 46



**AMERICAN STATE EQUIPMENT CO.**  
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#### SAMPLE INFORMATION

Sample Number	LH0229291	LH0204729	LH0207641	LH0185369
Sample Date	10 Aug 2023	24 May 2022	16 Mar 2022	27 Aug 2021
Machine Hours	15947	15600	15048	13973
Oil Hours	0	0	0	0
Oil Changed	Not Changd	Not Changd	Not Changd	Not Changd
Sample Status	NORMAL	NORMAL	ABNORMAL	NORMAL



#### OIL CONDITION

Visc @ 40°C	cSt	43.7	43.4	42.5	44.0
Acid Number (AN)	mg KOH/g	0.42	0.48	0.50	0.366



#### CONTAMINATION

Particles >4µm		2410	13709	5553	10480
Particles >6µm		103	3530	796	1744
Particles >14µm		3	252	71	118
ISO 4406:1999 (c)		18/14/9	21/19/15	20/17/13	21/18/14
Silicon	ppm	<1	<1	33	0
Sodium	ppm	0	<1	0	0
Potassium	ppm	0	0	<1	0



#### WEAR METALS

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



#### ADDITIVES

Calcium	ppm	108	115	118	95
Magnesium	ppm	25	28	28	18
Zinc	ppm	466	425	465	419
Phosphorus	ppm	355	348	353	355
Barium	ppm	0	0	0	0
Boron	ppm	4	9	7	0

#### Diagnosis

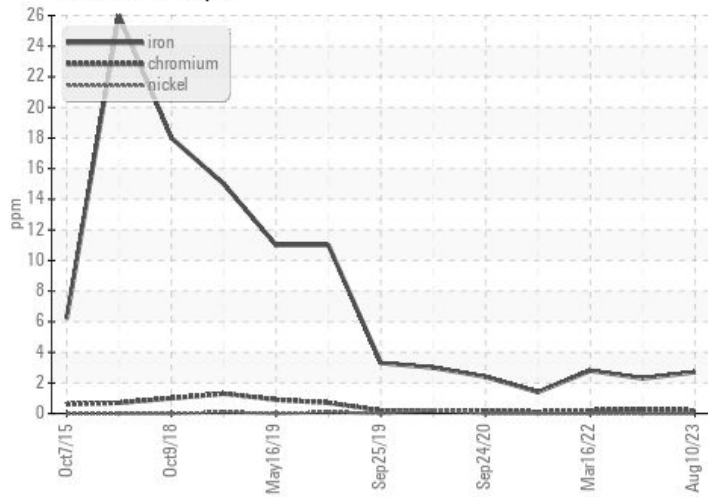
Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further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

Depot: LEC0008  
 Unique No: 10608704  
 Signed: Wes Davis  
 Report Date: 22 Aug 2023

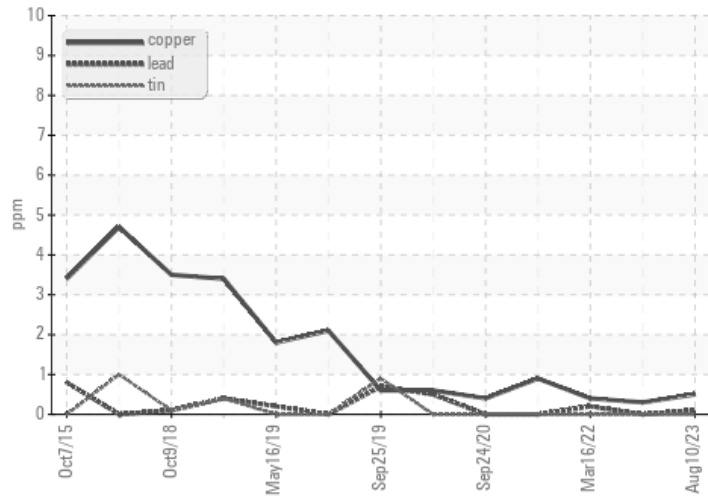


### GRAPHS

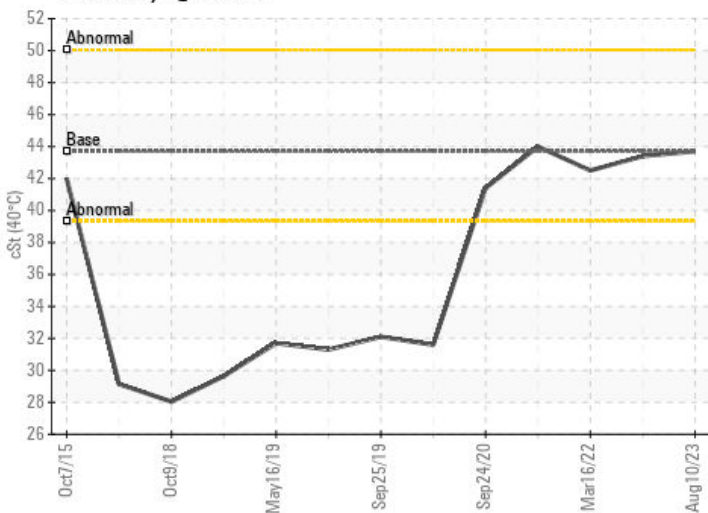
#### Ferrous Alloys



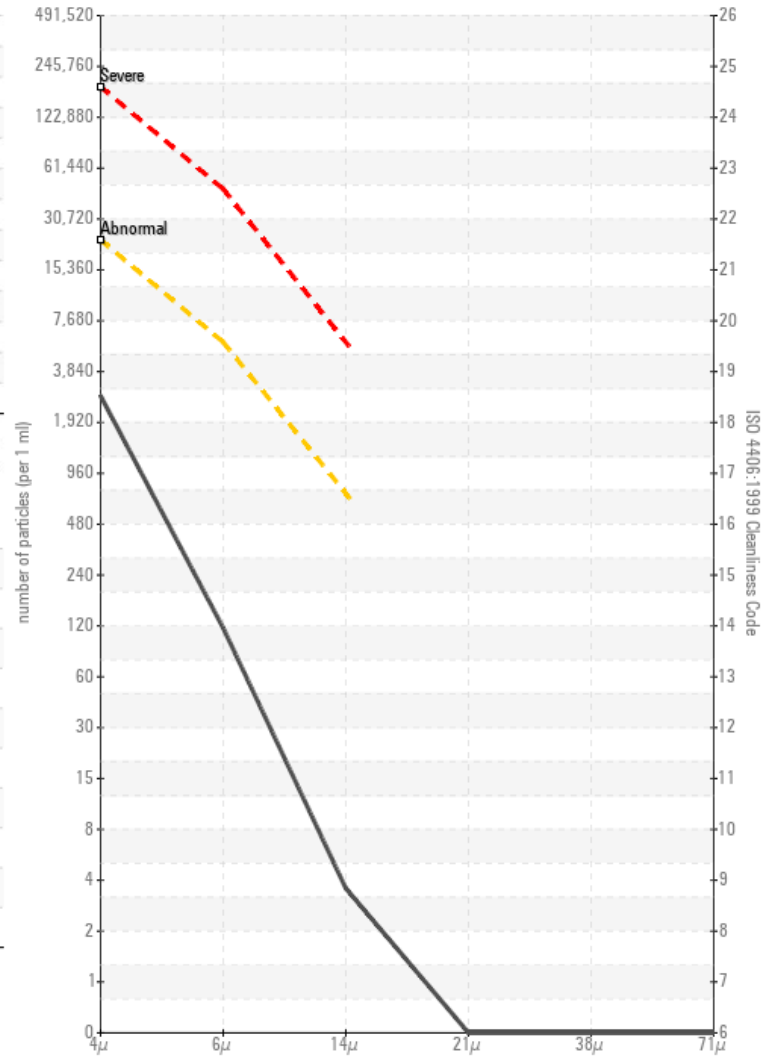
#### Non-ferrous Metals



#### Viscosity @ 40°C



#### Particle Count



#### Acid Number

