

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH50M 110225-1216 - Diesel Engine

Sample No: LH06212720

Oil Type: MOBIL DELVAC 1300 SUPER15W40



**VERSO CORP - QUINNESEC MILL**  
 W6791 US HWY 2  
 QUINNESEC, MI  
 US 49876  
 Contact: ERIC LARSON  
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#### Sample Information

Sample Number	LH06212720	LH06091573	LH06048278	LH05999673
Sample Date	17 Jun 2024	15 Feb 2024	01 Jan 2024	05 Nov 2023
Machine Hours	14251	13730	13471	0
Oil Hours	0	0	0	13239
Oil Changed	Not Changd	Not Changd	Not Changd	Not Changd
Sample Status	ATTENTION	ATTENTION	ATTENTION	ATTENTION



#### Oil Condition

Visc @ 100°C	cSt	11.4	11.0	11.2	11.5
Base Number (BN)	mg KOH/g	15.2	11.2	13.5	14.6
Oxidation (PA)	%	43	60	51	43



#### Contamination

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	99	110	108	94
Sulfation (PA)	%	42	50	45	42
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	9	7	8	8
Sodium	ppm	3	2	2	1
Potassium	ppm	2	<1	<1	0



#### Wear Metals

Iron	ppm	5	8	6	4
Copper	ppm	1	2	5	0
Lead	ppm	0	0	<1	0
Tin	ppm	0	<1	<1	<1
Aluminum	ppm	2	2	2	2
Chromium	ppm	0	<1	<1	0
Molybdenum	ppm	<1	1	2	0
Nickel	ppm	0	0	0	0
Titanium	ppm	0	<1	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0



#### Additives

Calcium	ppm	4397	3677	4044	4020
Magnesium	ppm	44	86	85	87
Zinc	ppm	1219	1094	1256	1193
Phosphorus	ppm	1091	950	939	1051
Barium	ppm	0	0	0	0
Boron	ppm	230	208	209	222

#### 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 no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Depot: VERQUI  
 Unique No: 11085584  
 Signed: Sean Felton  
 Report Date: 20 Jun 2024

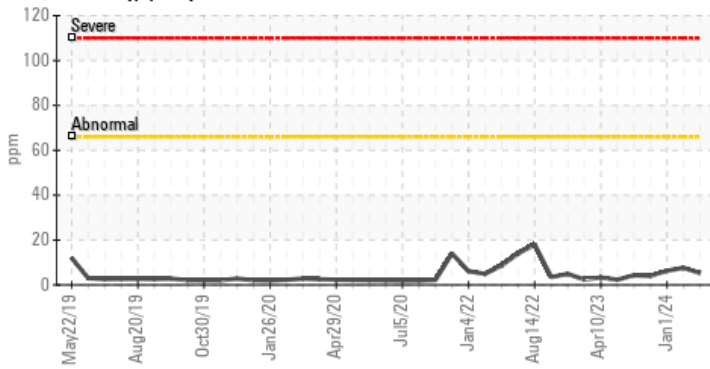
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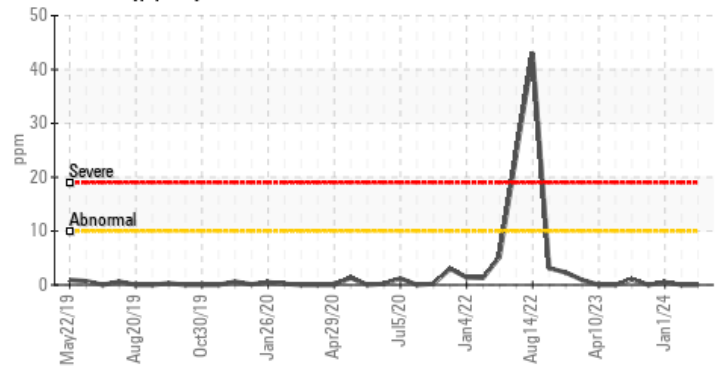


### Graphs

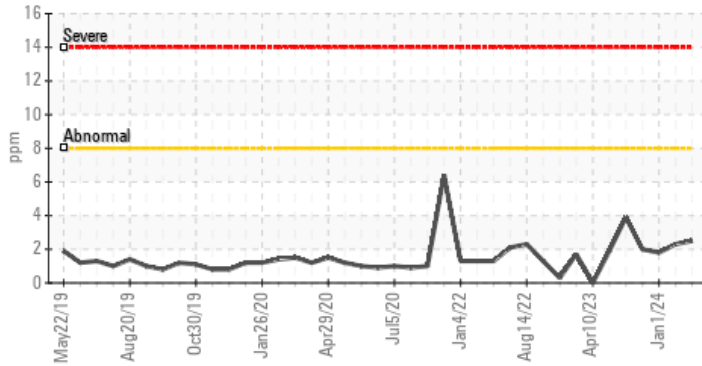
Iron (ppm)



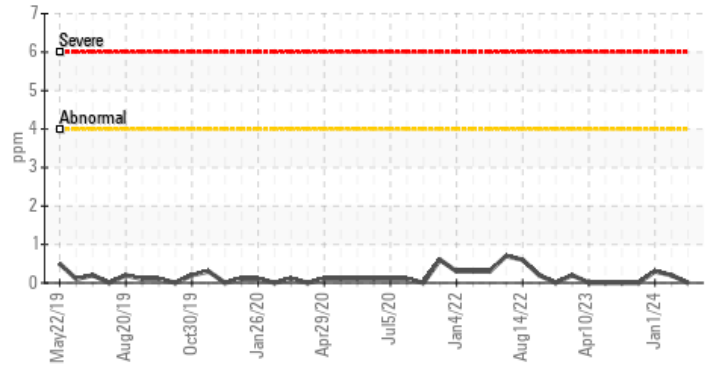
Lead (ppm)



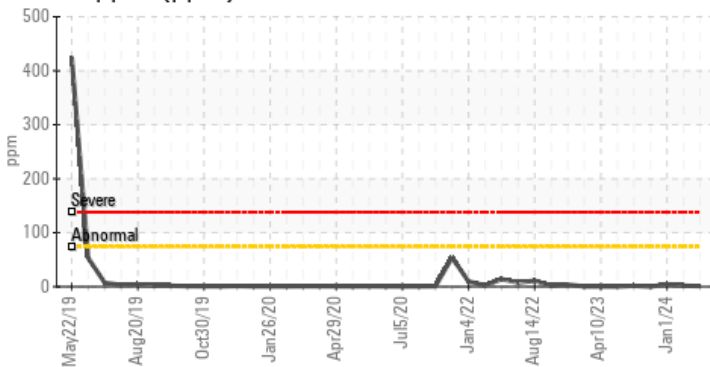
Aluminum (ppm)



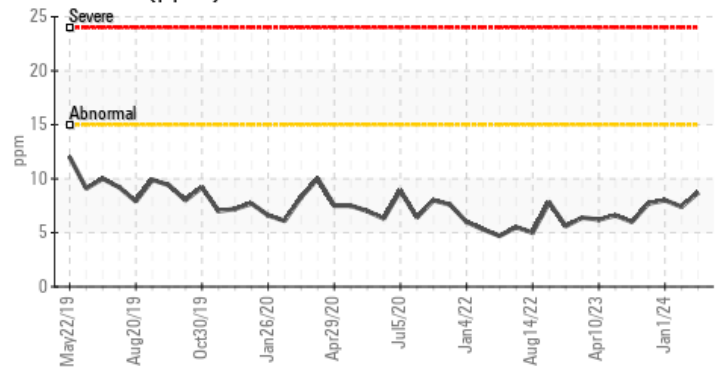
Chromium (ppm)



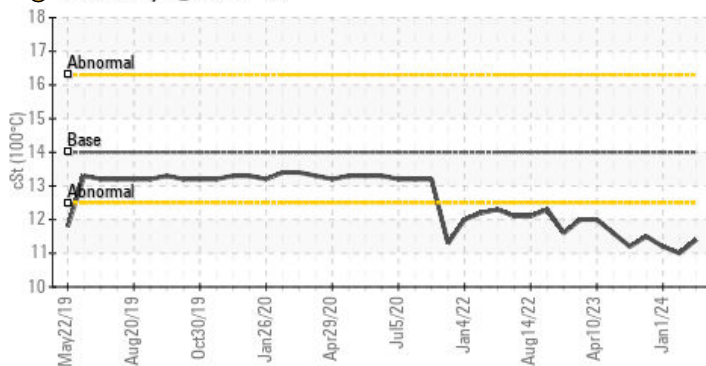
Copper (ppm)



Silicon (ppm)



● Viscosity @ 100°C



Base Number

