

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### [EARTH BORING] LIEBHERR LB28 115607 - Coolant

Sample No: LH0286847

Oil Type: HYBRID (HOAT) COOLANT



#### SAMPLE INFORMATION

Sample Number	LH0286847	LH0136082	LH0161559	LH0161557
Sample Date	13 Mar 2024	08 Jun 2020	28 Feb 2020	28 Feb 2020
Machine Hours	9668	5768	4681	4681
Sample Status	ABNORMAL	NORMAL	NORMAL	NORMAL



#### COOLANT CONDITION

Boron	ppm	128	1079	1175	1143
Phosphorus	ppm	14	23	22	20
Sodium	ppm	2311	3761	4228	4180
Potassium	ppm	16334	349	357	336
Silicon	ppm	23	60	74	74
pH	Scale 0-14	7.05	7.12	7.15	7.03
Reserve Alkalinity	Scale 0-20	3.6	8.7	9.1	8.8
Molybdenum	ppm	437	30	29	28
Nitrites	ppm	360	1040	760	800
Percentage Glycol	%	54.9	60.5	64.2	62.5
Freezing Point	°C	-43	-57	-60	-60

#### Liebherr Canada

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 Richmond, BC  
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#### Diagnosis

The coolant change at the time of sampling has been noted. Resample at the next service interval to monitor. All metal levels are normal indicating no corrosion in the cooling system. There is no indication of any contamination in the coolant. The coolant is cloudy indicating either an overconcentration of coolant additives, or a mixing of incompatible coolant technologies. The pH level of this fluid is within the acceptable limits. The reserve alkalinity of this fluid is acceptable.



#### CONTAMINATION

Magnesium	ppm	4	4	4	4
Calcium	ppm	7	28	28	24
Coolant Appearance		Very cld	Clear	Clear	Clear
Coolant Color		Yellow	Green	Blue	Blue
Sand/Dirt	scalar	NONE	NONE	NONE	NONE
Debris	scalar	NONE	NONE	NONE	NONE
Precipitate	scalar	NONE	NONE	NONE	NONE
Silt	scalar	NONE	NONE	NONE	NONE



#### CORROSION

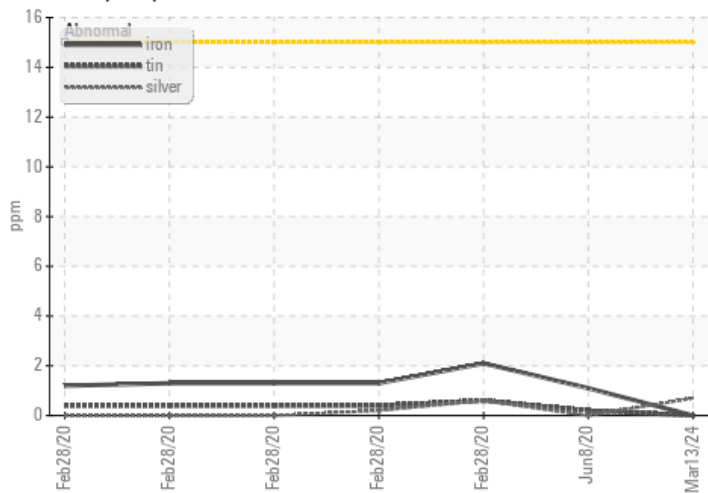
Iron	ppm	0	1	1	1
Aluminum	ppm	4	2	5	5
Copper	ppm	<1	5	4	4
Lead	ppm	0	<1	3	<1
Tin	ppm	0	<1	<1	<1

Depot: LIERIC  
 Unique No: 5747270  
 Signed: Kevin Marson  
 Report Date: 15 Mar 2024

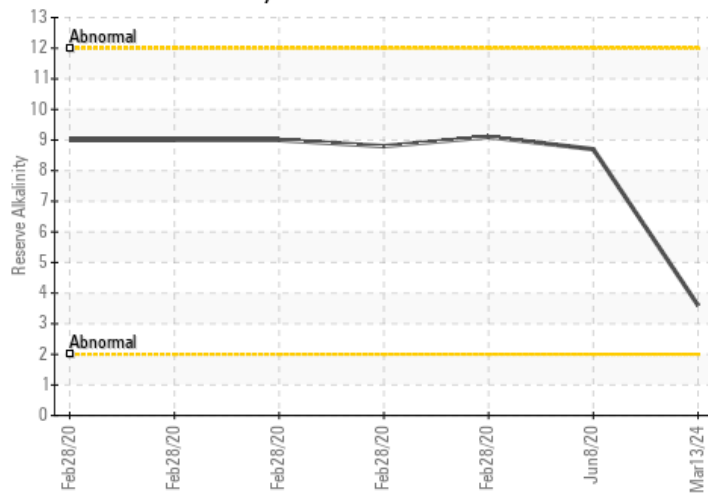


### GRAPHS

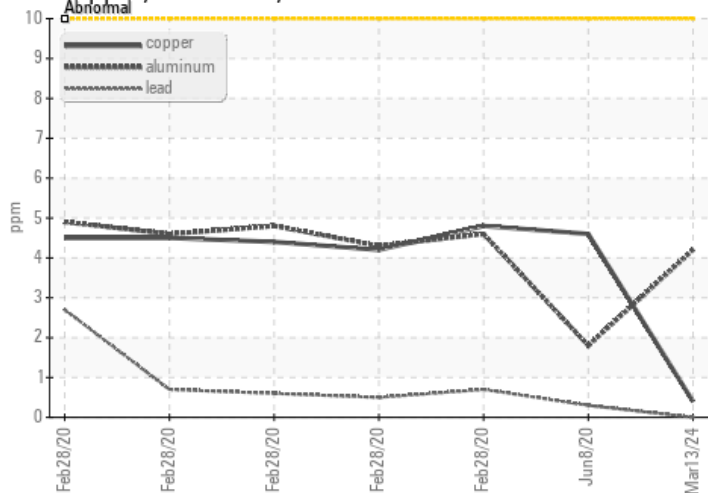
Iron/Tin/Silver



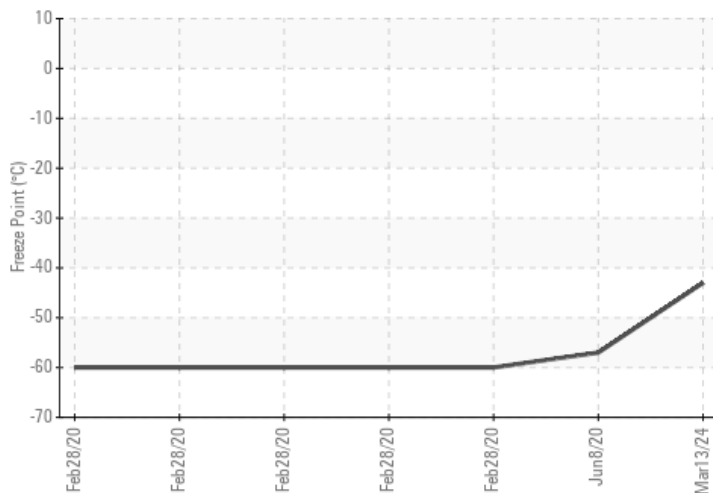
Reserve Alkalinity



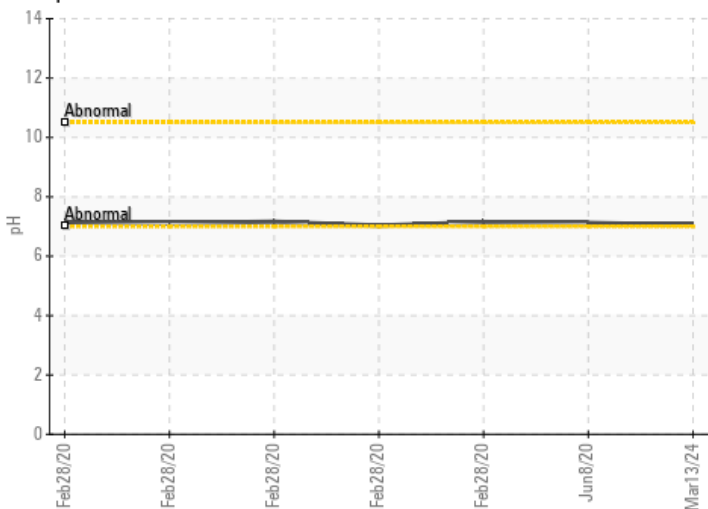
Copper/Aluminum/Lead



Freeze Point



pH



Nitrites

