

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR PR776 021879-1860 - Coolant

Sample No: LH0174052

Oil Type: CONVENTIONAL COOLANT



LIEBHERR MINING EQUIPMENT CO
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SAMPLE INFORMATION

Sample Number	LH0174052	LH0220561	LHMC129612	LHMC129605
Sample Date	10 Oct 2023	18 Mar 2023	01 Feb 2023	23 Nov 2022
Machine Hours	2436	0	1470	938
Sample Status	NORMAL	MARGINAL	ABNORMAL	NORMAL



COOLANT CONDITION

Boron	ppm	287	639	642	562
Phosphorus	ppm	80	0	2	0
Sodium	ppm	1892	3646	3363	3225
Potassium	ppm	148	607	1513	401
Silicon	ppm	12	25	56	104
pH	Scale 0-14	10.1	10.5	10.6	9.66
Reserve Alkalinity	Scale 0-20	---	---	---	---
Molybdenum	ppm	273	543	537	439
Nitrites	ppm	1240	1124	936	1728
Percentage Glycol	%	49.4	49.7	49.6	52.2
Freezing Point	°C	-33	-33	-33	-40

Diagnosis

The fluid is suitable for further service. All metal levels are normal indicating no corrosion in the cooling system. There is no indication of any contamination in the coolant. Glycol and nitrite levels are acceptable. The pH level of this fluid is within the acceptable limits. Boiling Point approximately 127C.



CONTAMINATION

Magnesium	ppm	2	0	0	0
Calcium	ppm	1	<1	2	2
Coolant Appearance		normal	normal	normal	normal
Coolant Color		Pink	Pink	Pink	Red



CORROSION

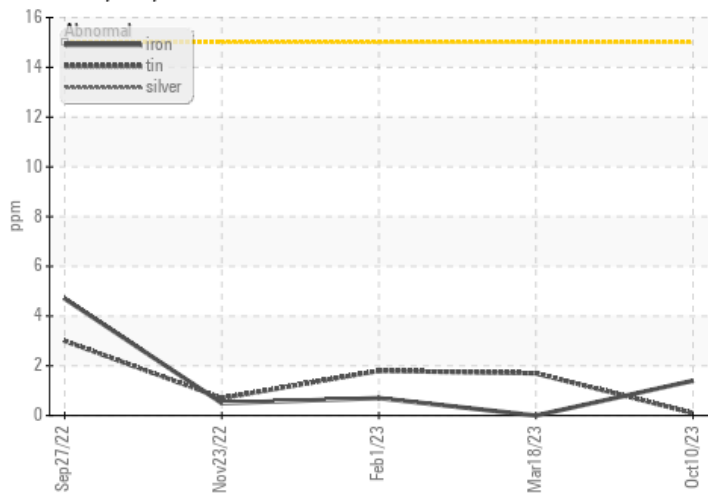
Iron	ppm	1	0	<1	<1
Aluminum	ppm	4	34	60	8
Copper	ppm	<1	<1	5	0
Lead	ppm	0	0	13	<1
Tin	ppm	<1	2	2	<1

Depot: LIEGIL
 Unique No: 10710327
 Signed: Jonathan Hester
 Report Date: 31 Oct 2023

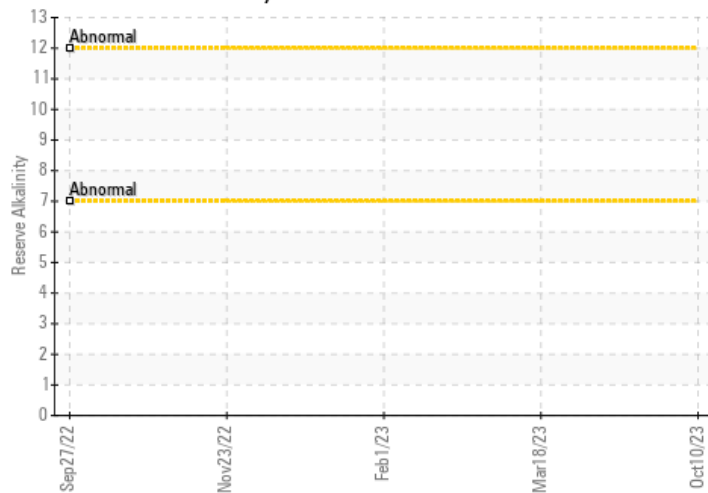


GRAPHS

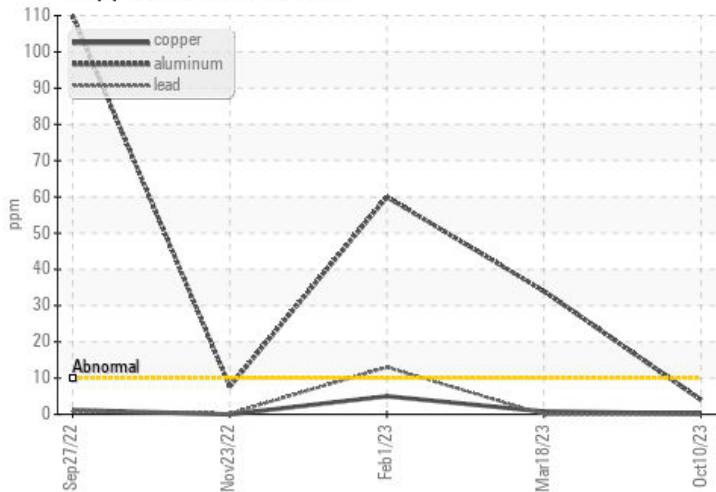
Iron/Tin/Silver



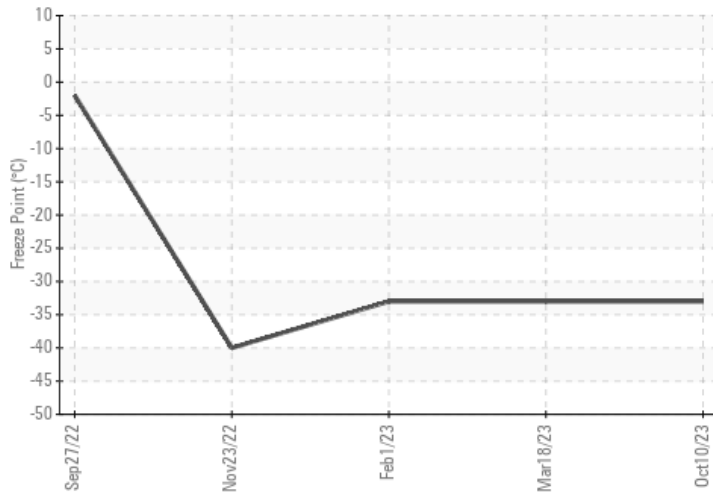
Reserve Alkalinity



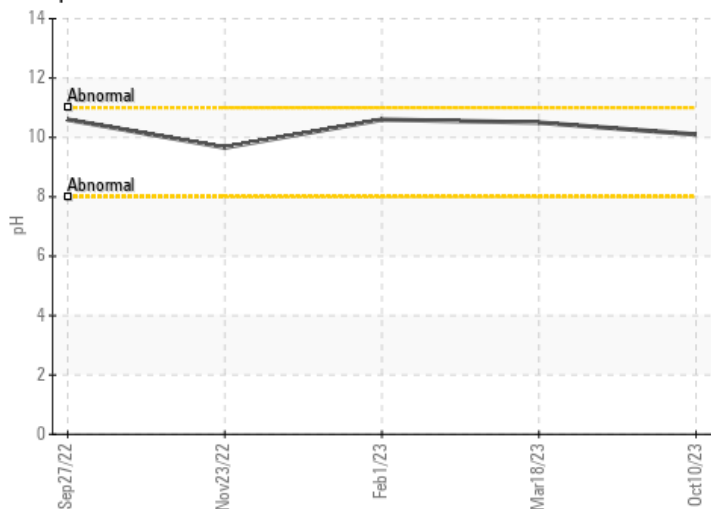
Copper/Aluminum/Lead



Freeze Point



pH



Nitrites

