

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR R934CEW 036784-027 - Coolant

Sample No: LH0094096

Oil Type: EXTENDED LIFE COOLANT



SAMPLE INFORMATION

Sample Number	LH0094096	LH0094101	LH0089046	LH0086281
Sample Date	12 May 2016	24 Nov 2015	04 Mar 2015	21 Jan 2015
Machine Hours	4368	3482	2427	2144
Sample Status	ABNORMAL	ABNORMAL	NORMAL	NORMAL

RICHMOND STEEL RECYCLING
 11760 MITCHELL ROAD
 RICHMOND, BC
 CA V6V 1V8
 Contact: Aaron Kaetler
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 T:
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COOLANT CONDITION

Boron	ppm	207	273	368	448
Phosphorus	ppm	59	105	161	144
Sodium	ppm	3009	2865	2959	3451
Potassium	ppm	556	649	1009	1132
Silicon	ppm	36	62	47	39
pH	Scale 0-14	8.09	8.10	8.74	8.64
Reserve Alkalinity	Scale 0-20	3.0	3.1	4.9	5.1
Molybdenum	ppm	264	172	84	121
Nitrites	ppm	1200	1160	1680	2000
Percentage Glycol	%	50.0	49.0	52.0	52.0
Freezing Point	°C	-37	-35	-41	-40

Diagnosis

We recommend that you drain the system and refill with a 50/50 long-life coolant/water mixture. We recommend an early resample to monitor this condition. Copper ppm levels are abnormal. The high metal levels indicate corrosion in the system. There is no indication of any contamination in the component. The nitrite level is acceptable. The pH level of this fluid is within the acceptable limits. The reserve alkalinity of this fluid is acceptable.



CONTAMINATION

Magnesium	ppm	0	3	6	4
Calcium	ppm	1	2	9	2
Coolant Appearance		Clear	Cloudy	Clear	Cloudy
Coolant Color		Orange	Red	Red	Pink
Sand/Dirt	scalar	NONE	NONE	NONE	NONE
Debris	scalar	VLITE	VLITE	VLITE	VLITE
Precipitate	scalar	NONE	NONE	NONE	NONE
Silt	scalar	NONE	NONE	NONE	NONE



CORROSION

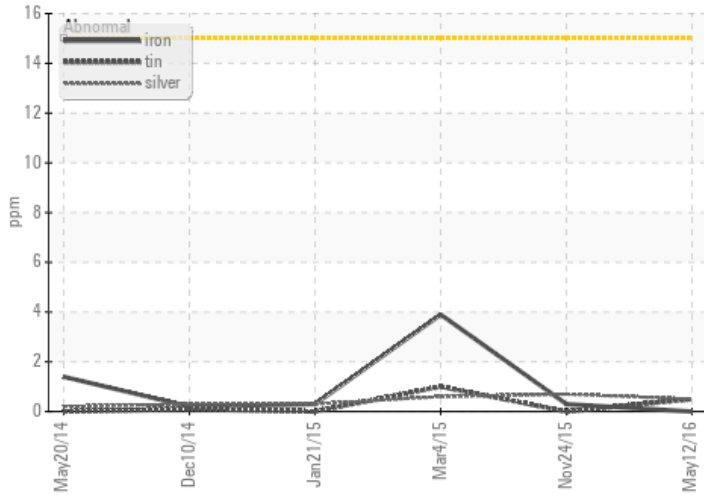
Iron	ppm	0	<1	4	<1
Aluminum	ppm	<1	2	0	<1
Copper	ppm	16	16	10	4
Lead	ppm	<1	<1	0	0
Tin	ppm	<1	0	1	0

Depot: RIC117RIC
 Unique No: 4315444
 Signed: Kevin Marson
 Report Date: 19 May 2016

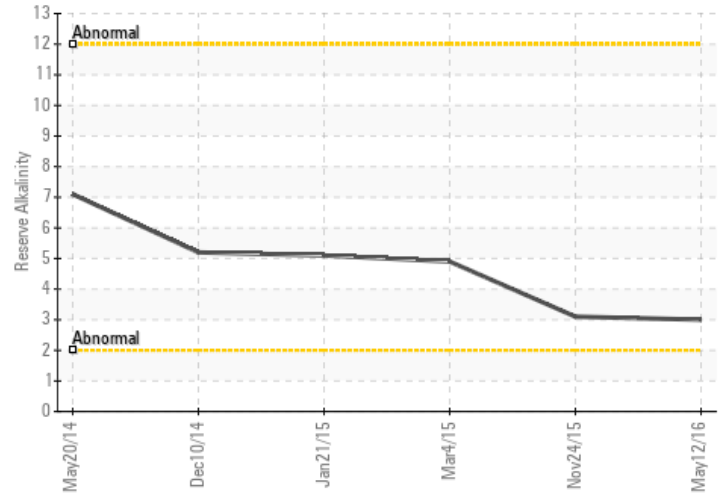


GRAPHS

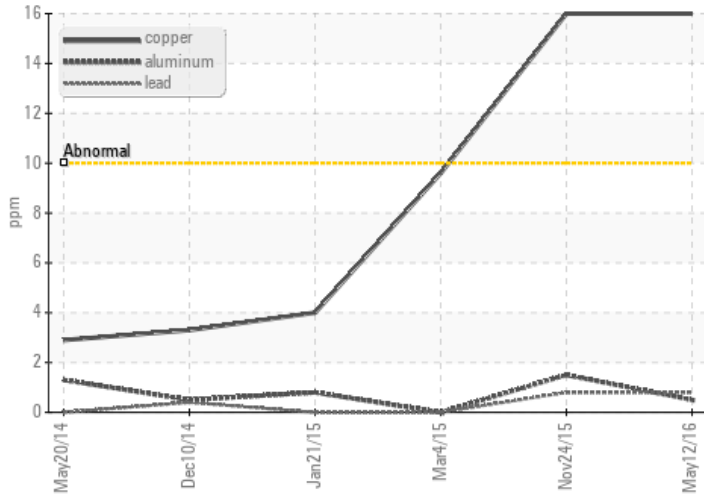
Iron/Tin/Silver



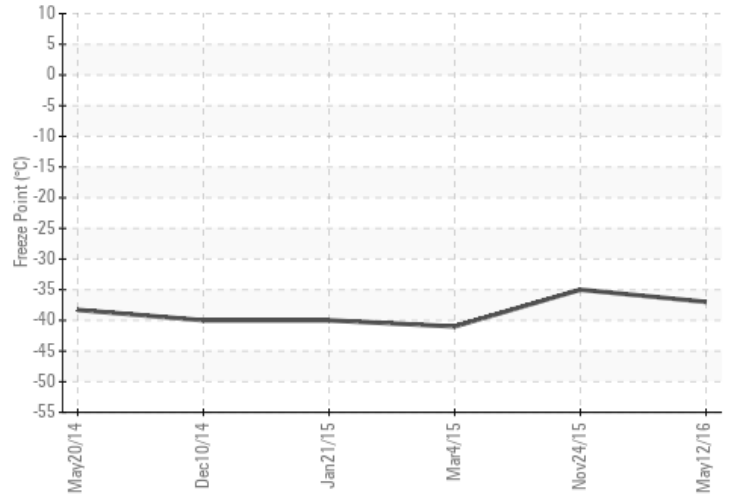
Reserve Alkalinity



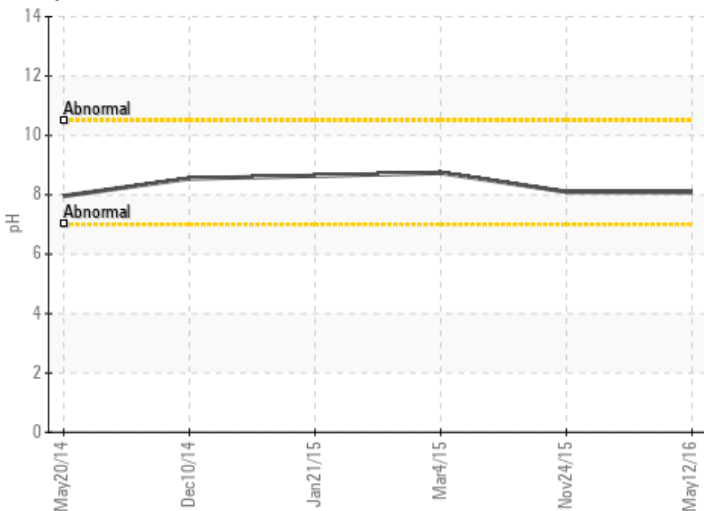
Copper/Aluminum/Lead



Freeze Point



pH



Nitrites

