

LIEBHERR

CONSTRUCTION EQUIPMENT



[DNA] LIEBHERR R934CT-Rex (S/N 20279) - Hydraulic System

Sample No: LH0290916

Oil Type: KENDALL FOUR SEASONS AW ISO 46



Sample Information

Sample Number	LH0290916	LH0178239	LH0214170	---
Sample Date	13 May 2024	14 Nov 2023	15 Sep 2022	---
Machine Hours	11000	10334	9870	---
Oil Hours	5000	2000	2000	---
Oil Changed	Not Chngd	Not Chngd	Filtered	---
Sample Status	ABNORMAL	ABNORMAL	NORMAL	---

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Oil Condition

Visc @ 40°C	cSt	44.1	41.3	43.9	---
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Contamination

Water	%	NEG	NEG	NEG	---
Particles >4µm		43763	32539	9697	---
Particles >6µm		1248	918	1210	---
Particles >14µm		51	14	50	---
ISO 4406:1999 (c)		23/17/13	22/17/11	20/17/13	---
Silicon	ppm	<1	<1	<1	---
Sodium	ppm	<1	<1	0	---
Potassium	ppm	<1	0	<1	---

Diagnosis

The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Chromium ppm levels are abnormal. Ring wear is indicated. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.



Wear Metals

Iron	ppm	11	14	7	---
Copper	ppm	4	4	3	---
Lead	ppm	0	<1	<1	---
Tin	ppm	0	0	0	---
Aluminum	ppm	<1	0	0	---
Chromium	ppm	20	20	13	---
Molybdenum	ppm	0	0	0	---
Nickel	ppm	2	2	<1	---
Titanium	ppm	0	0	0	---
Silver	ppm	0	<1	0	---
Manganese	ppm	<1	0	<1	---
Vanadium	ppm	0	0	0	---



Additives

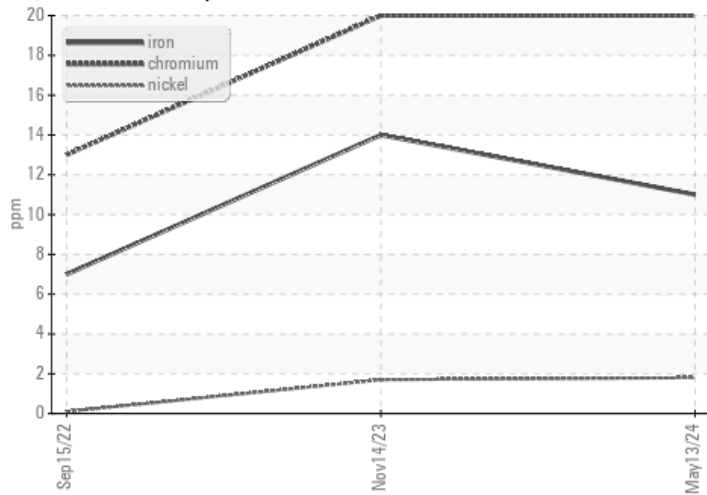
Calcium	ppm	67	69	65	---
Magnesium	ppm	1	2	<1	---
Zinc	ppm	436	446	453	---
Phosphorus	ppm	347	359	404	---
Barium	ppm	0	<1	0	---
Boron	ppm	<1	<1	0	---

Depot: DOMBUR
 Unique No: 5801727
 Signed: Kevin Marson
 Report Date: 27 Jun 2024

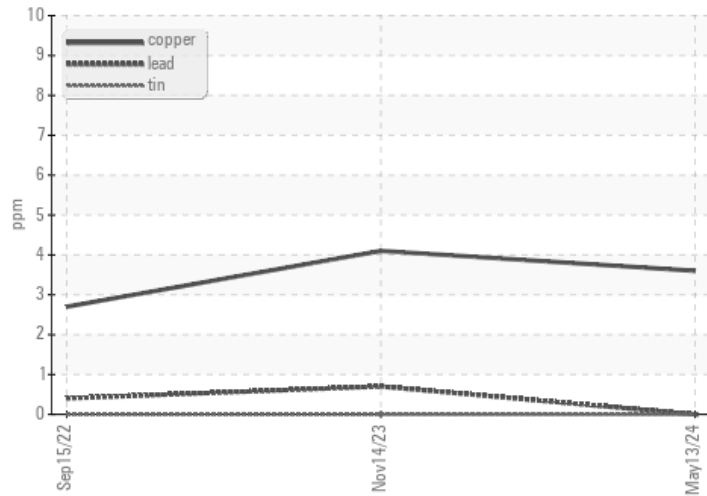


Graphs

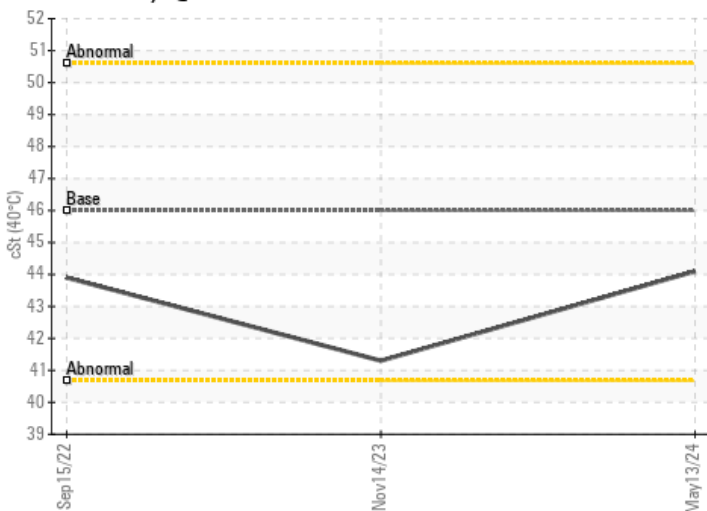
● Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



● Particle Count

