



CONSTRUCTION EQUIPMENT

2019 VOLVO L120H 632554 - HYDRAULIC SYSTEM



Sample No: VCP383160
Oil Type: CASTROL HD AW ISO 46
Job No: 2019



SAMPLE INFORMATION

Sample Number	VCP383160	VCP382944	VCP358407	VCP373547
Sample Date	03 Jan 2024	10 Jun 2023	30 Mar 2023	06 Dec 2022
Machine Hours	6905	5855	5340	4825
Oil Hours	0	0	0	1000
Oil Changed	Not Chngd	Not Chngd	Not Chngd	Not Chngd
Sample Status	NORMAL	ABNORMAL	ABNORMAL	NORMAL

LEONARDS CONTRACTING
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 MADISON HEIGHTS, MI
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OIL CONDITION

Visc @ 40°C	cSt	43.1	41.5	42.0	41.2
Acid Number (AN)	mg KOH/g	0.27	0.35	0.28	0.34

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		2835	19047	20214	4419
Particles >6µm		485	5460	3892	363
Particles >14µm		27	295	204	10
ISO 4406:1999 (c)		19/16/12	21/20/15	22/19/15	19/16/10
Silicon	ppm	3	4	4	3
Sodium	ppm	3	0	2	2
Potassium	ppm	0	2	<1	0

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

WEAR METALS

Iron	ppm	6	10	8	8
Copper	ppm	2	3	2	2
Lead	ppm	0	1	0	1
Tin	ppm	<1	<1	0	<1
Aluminum	ppm	<1	<1	1	2
Chromium	ppm	2	3	3	3
Molybdenum	ppm	<1	0	<1	<1
Nickel	ppm	0	0	0	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	0	<1	<1
Vanadium	ppm	<1	0	0	0

ADDITIVES

Calcium	ppm	51	63	52	58
Magnesium	ppm	<1	7	10	5
Zinc	ppm	317	414	349	391
Phosphorus	ppm	267	307	284	305
Barium	ppm	0	0	0	0
Boron	ppm	0	<1	0	0

Depot: LEOMAD
Unique No: 10847084
Signed: Wes Davis
Report Date: 26 Jan 2024

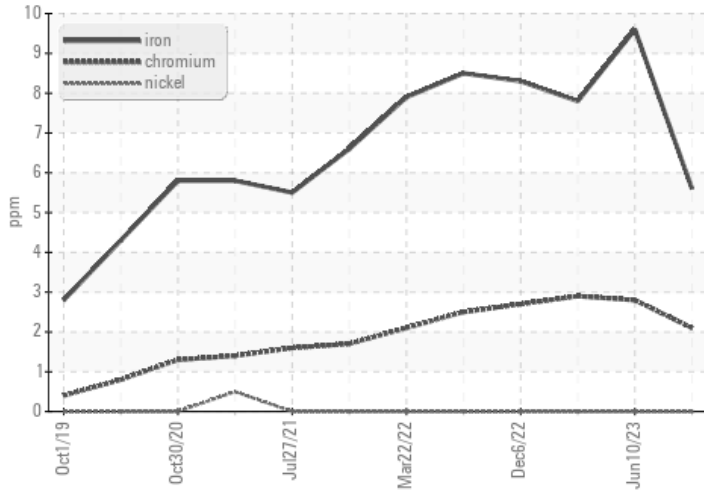


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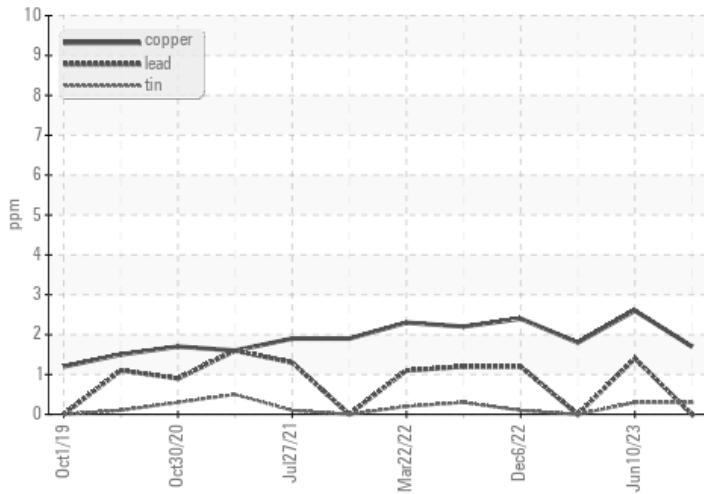


GRAPHS

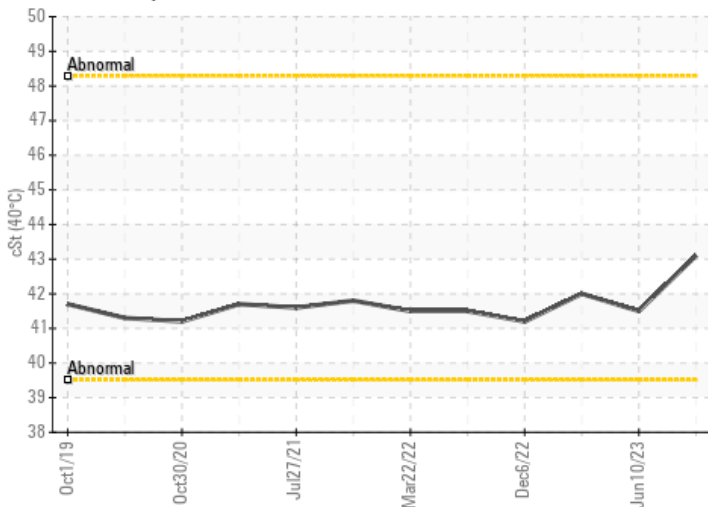
Ferrous Alloys



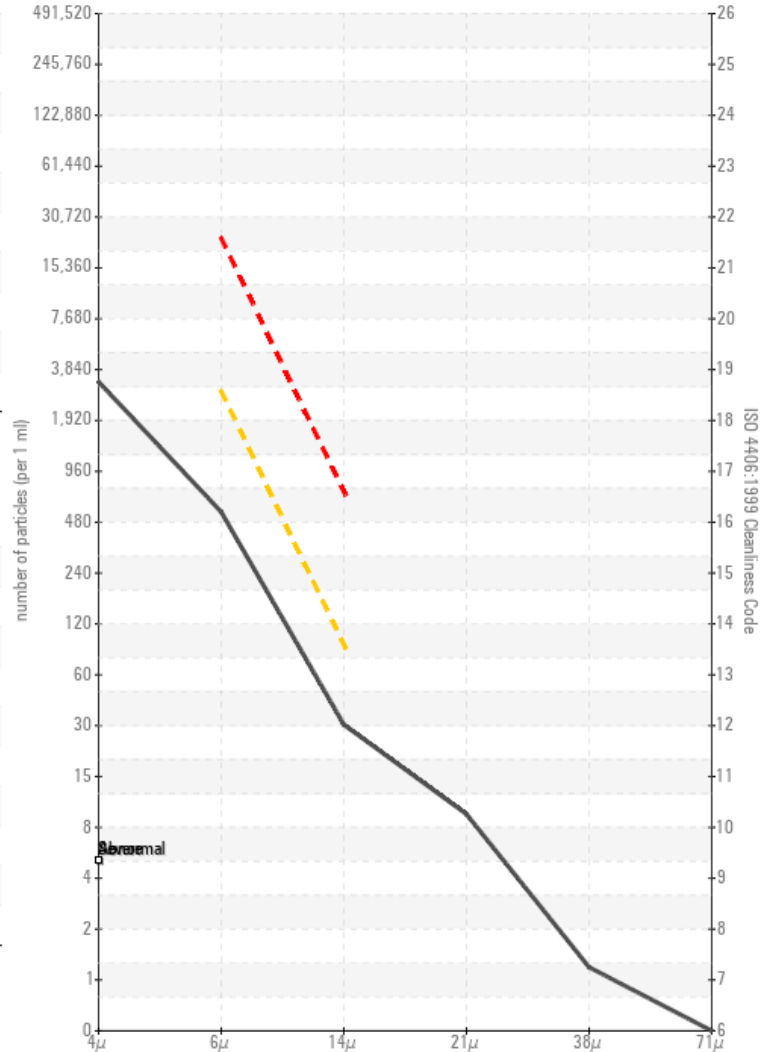
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

