



CONSTRUCTION EQUIPMENT

YALE FORKLIFT 4 - HYDRAULIC SYSTEM



Sample No: VCP442894
Oil Type: FACTORY
Job No:



SAMPLE INFORMATION

Sample Number	VCP442894	VCP408920	VCP416329	VCP399941
Sample Date	24 Jan 2024	26 Oct 2023	08 Aug 2023	13 Apr 2023
Machine Hours	3239	3009	2739	2504
Oil Hours	3239	3009	739	502
Oil Changed	Not Chngd	Not Chngd	Not Chngd	Not Chngd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 40°C	cSt	46.2	46.2	46.1	45.8
Acid Number (AN)	mg KOH/g	0.53	0.44	0.43	0.42



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		930	552	451	631
Particles >6µm		122	135	152	305
Particles >14µm		14	17	21	48
ISO 4406:1999 (c)		17/14/11	16/14/11	16/14/12	16/15/13
Silicon	ppm	2	2	2	1
Sodium	ppm	0	1	1	0
Potassium	ppm	3	1	0	2

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	7	4	5	5
Copper	ppm	3	2	2	2
Lead	ppm	0	0	0	0
Tin	ppm	<1	0	0	0
Aluminum	ppm	2	<1	2	0
Chromium	ppm	<1	0	0	<1
Molybdenum	ppm	<1	<1	<1	<1
Nickel	ppm	0	0	0	0
Titanium	ppm	<1	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	<1	0



ADDITIVES

Calcium	ppm	446	416	437	180
Magnesium	ppm	5	0	4	3
Zinc	ppm	485	468	459	392
Phosphorus	ppm	330	359	379	300
Barium	ppm	0	0	0	0
Boron	ppm	12	13	13	4

Depot: MARDIC
Unique No: 10856726
Signed: Wes Davis
Report Date: 31 Jan 2024

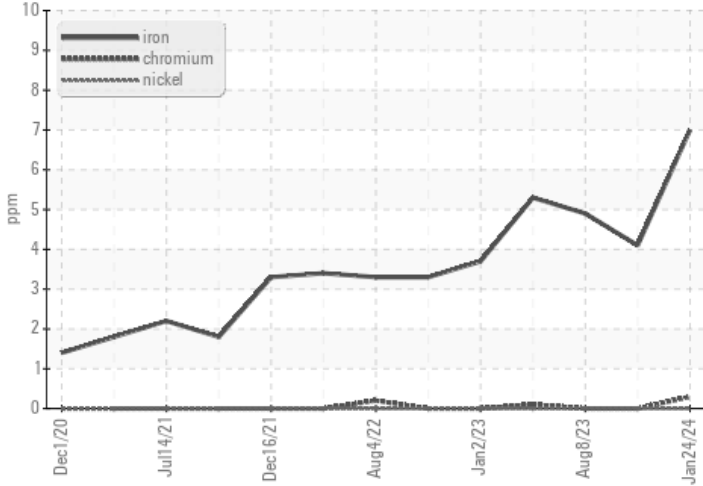


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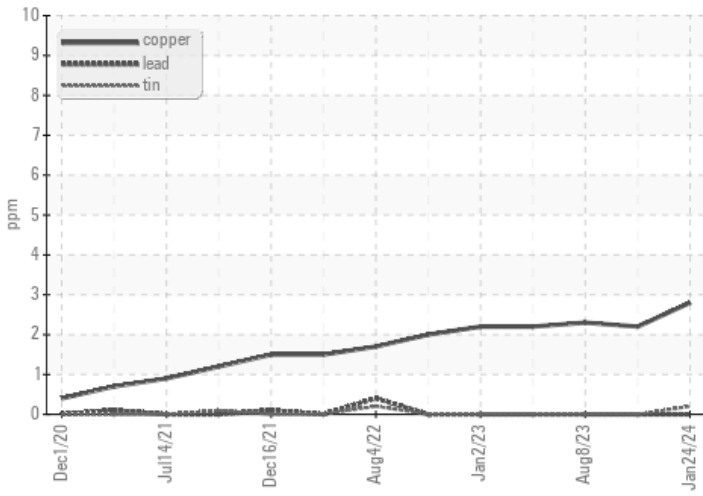


GRAPHS

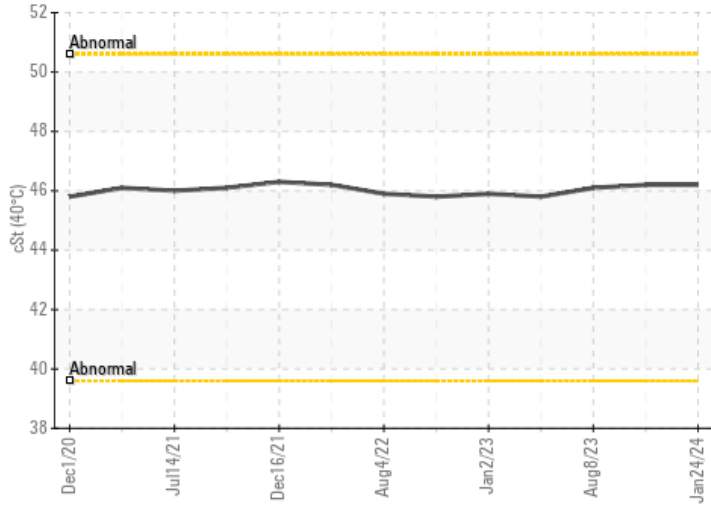
Ferrous Alloys



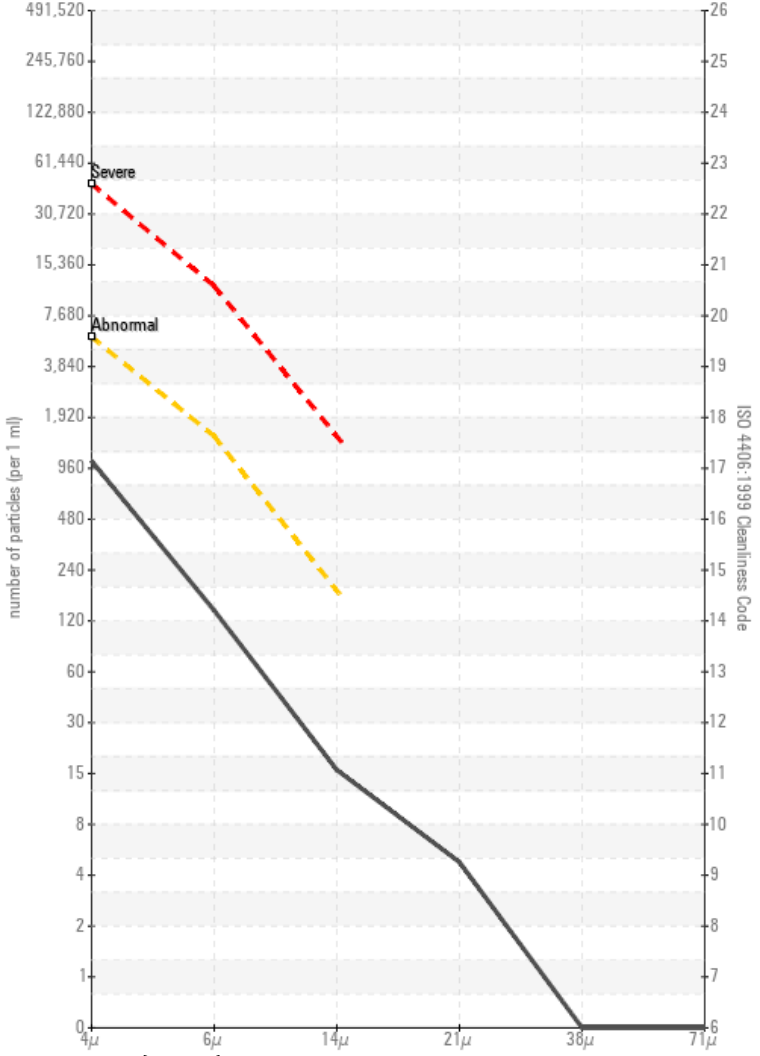
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

