



CONSTRUCTION EQUIPMENT

BACKHUS WT-4 - HYDRAULIC SYSTEM



Sample No: VCP393446
Oil Type: ESSO NUTO H ISO 46
Job No:



SAMPLE INFORMATION

Sample Number	VCP393446	VCP341185	VCP361257	VCP293392
Sample Date	18 Sep 2023	12 Jun 2023	24 Aug 2022	13 Sep 2021
Machine Hours	1982	1736	1477	1235
Oil Hours	990	736	485	243
Oil Changed	Changed	Not Changd	Not Changd	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 40°C	cSt	46.8	44.2	44.2	44.3
Acid Number (AN)	mg KOH/g	0.46	0.49	0.50	0.505

CONTAMINATION

Particles >4µm		1637	1269	2325	2839
Particles >6µm		131	203	208	526
Particles >14µm		10	15	18	63
ISO 4406:1999 (c)		18/14/10	17/15/11	18/15/11	19/16/13
Silicon	ppm	2	2	2	2
Sodium	ppm	<1	<1	0	0
Potassium	ppm	2	<1	2	<1

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

WEAR METALS

Iron	ppm	25	24	22	17
Copper	ppm	7	6	6	4
Lead	ppm	<1	<1	1	<1
Tin	ppm	<1	0	<1	<1
Aluminum	ppm	3	<1	<1	4
Chromium	ppm	0	0	0	0
Molybdenum	ppm	40	48	49	54
Nickel	ppm	0	0	0	0
Titanium	ppm	<1	<1	0	0
Silver	ppm	0	0	0	<1
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	<1	0	0

ADDITIVES

Calcium	ppm	57	65	62	69
Magnesium	ppm	2	<1	2	2
Zinc	ppm	441	477	452	488
Phosphorus	ppm	398	422	320	404
Barium	ppm	0	0	0	0
Boron	ppm	0	0	<1	2

Depot: MARDIC
Unique No: 10662928
Signed: Don Baldrige
Report Date: 28 Sep 2023

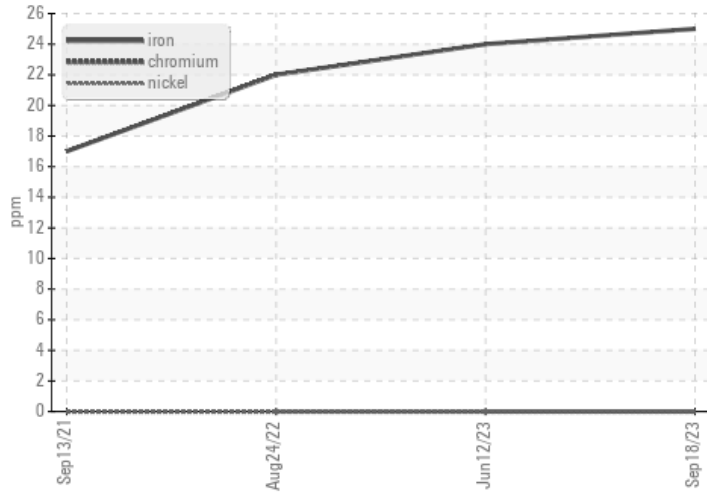


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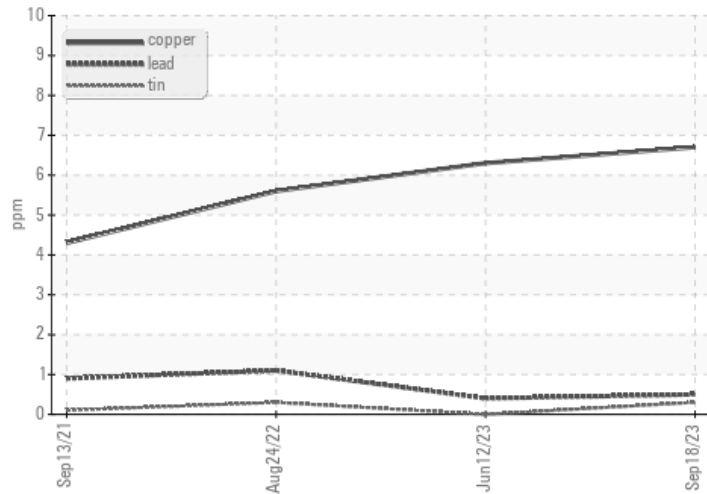


GRAPHS

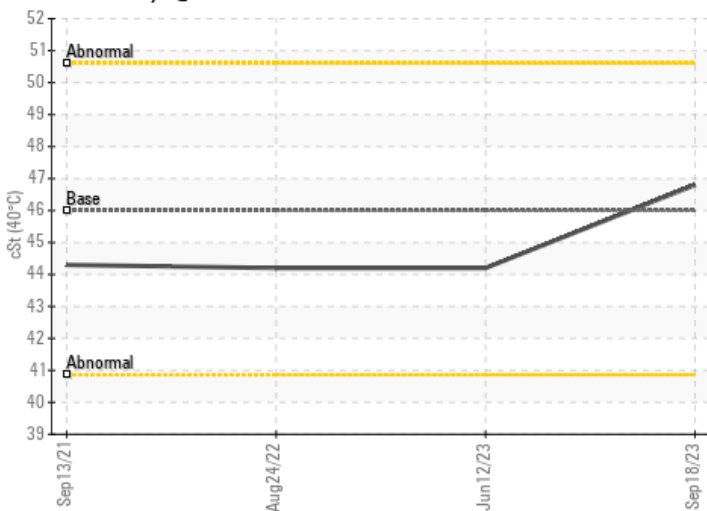
Ferrous Alloys



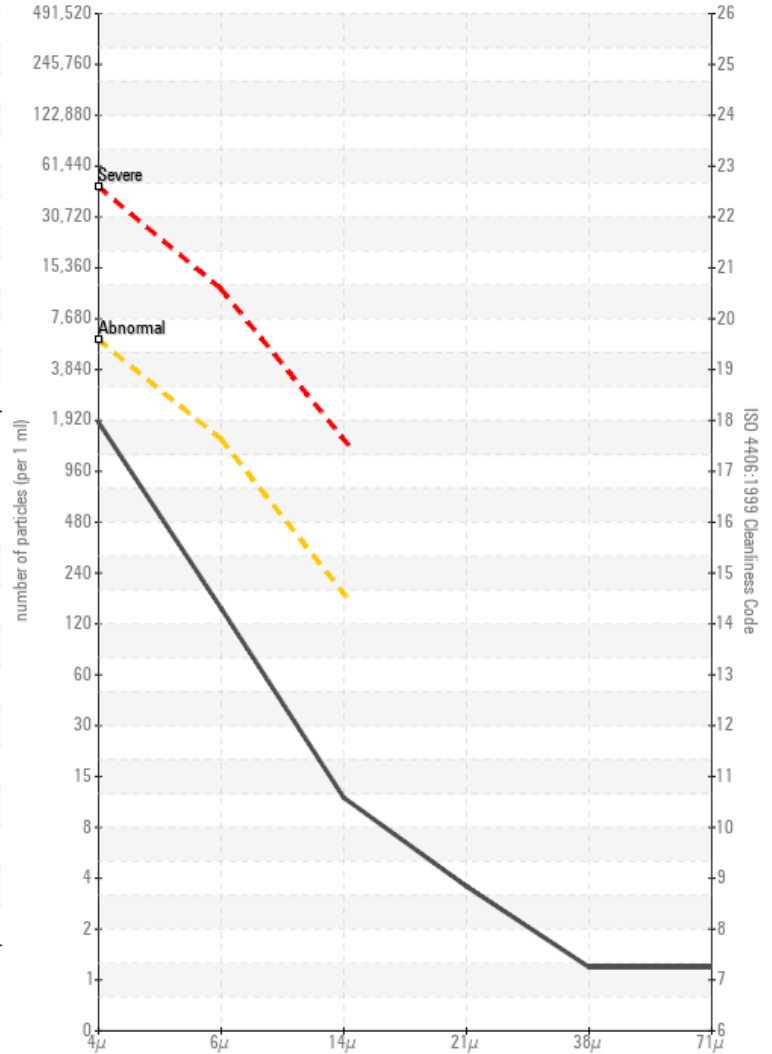
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

