



CONSTRUCTION EQUIPMENT

SWO-067478 VOLVO EC380EL 310443 - HYDRAULIC SYSTEM



Sample No: VCP445753
Oil Type: AW HYDRAULIC OIL ISO 46
Job No: SWO-067478



SAMPLE INFORMATION

Sample Number	VCP445753	VCP395109	VCP365627	VCP366798
Sample Date	08 Nov 2023	14 Feb 2023	08 Nov 2022	19 Jul 2022
Machine Hours	10940	10082	9587	9113
Oil Hours	0	0	0	0
Oil Changed	Not Chngd	Not Chngd	Not Chngd	Not Chngd
Sample Status	ABNORMAL	NORMAL	NORMAL	ATTENTION

WHITAKER CONTRACTING

692 CONVICT CAMP RD
 GUNTERVILLE, AL
 US 35976
 Contact: BROTHER WHITAKER
 BrotherWhitaker@whitaker-contracting.com
 T: (256)298-3905
 F:



OIL CONDITION

Visc @ 40°C	cSt	42.8	42.0	41.1	41.1
Acid Number (AN)	mg KOH/g	0.37	0.47	0.53	0.58



CONTAMINATION

Particles >4µm		---	32350	26508	61175
Particles >6µm		---	6133	6708	11241
Particles >14µm		---	409	132	646
ISO 4406:1999 (c)		---	22/20/16	22/20/14	23/21/17
Silicon	ppm	11	9	6	6
Sodium	ppm	0	0	<1	<1
Potassium	ppm	1	0	0	<1

Diagnosis

We recommend you service the filters on this component. We advise that you inspect for the source(s) of metal. Resample at the next service interval to monitor. We were unable to perform a particle count due to metal particles present in this sample. Moderate concentration of visible metal present. All component wear rates are normal. No other contaminants were detected in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	24	12	8	6
Copper	ppm	11	11	12	9
Lead	ppm	<1	0	<1	<1
Tin	ppm	0	0	0	0
Aluminum	ppm	1	2	2	2
Chromium	ppm	3	3	3	3
Molybdenum	ppm	3	4	5	5
Nickel	ppm	0	0	0	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	0	0
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	245	365	431	439
Magnesium	ppm	16	11	12	13
Zinc	ppm	458	498	483	524
Phosphorus	ppm	379	425	455	454
Barium	ppm	7	0	0	0
Boron	ppm	0	0	<1	7

Depot: WHIGUN
Unique No: 10743356
Signed: Don Baldrige
Report Date: 19 Nov 2023

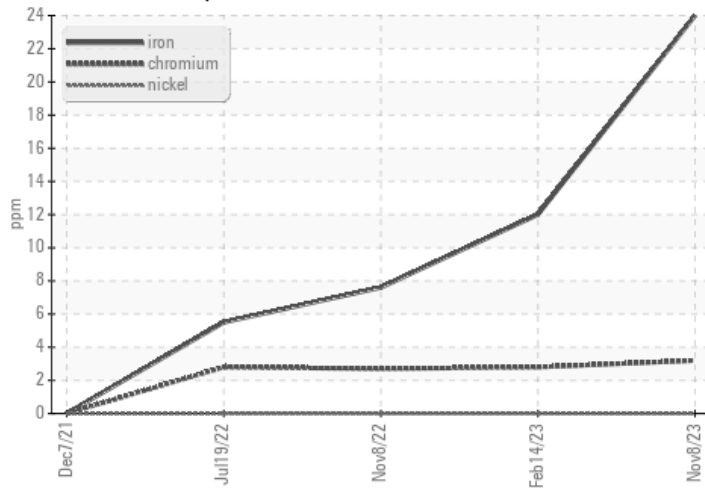


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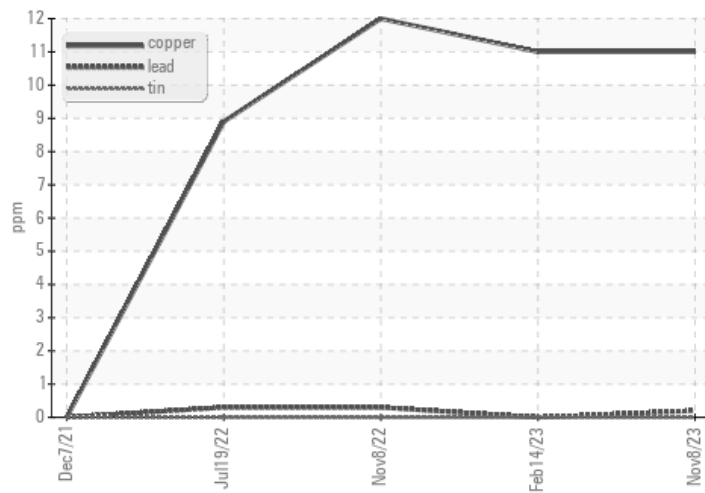


GRAPHS

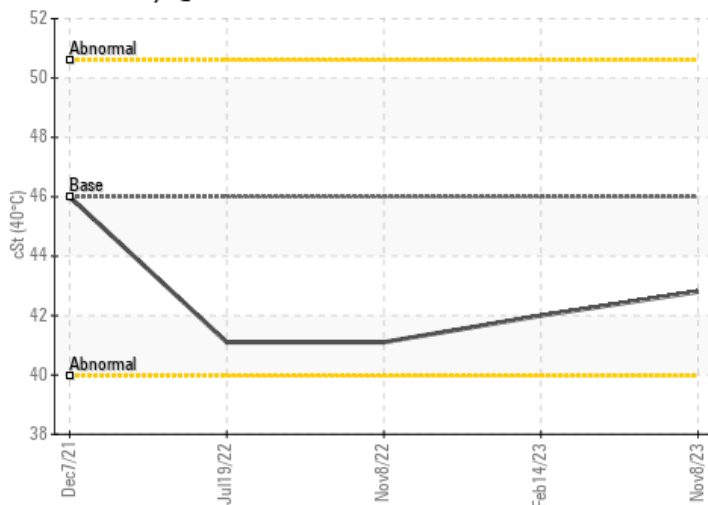
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Acid Number

