



# CONSTRUCTION EQUIPMENT

S50402341 VOLVO L110H 632408 - DIESEL ENGINE



Sample No: VCP435921

Oil Type: DIESEL ENGINE OIL SAE 15W40

Job No: S50402341



## SAMPLE INFORMATION

Sample Number	VCP435921	VCP418788	VCP402063	VCP396021
Sample Date	20 Dec 2023	21 Jul 2023	24 Mar 2023	16 Jan 2023
Machine Hours	3081	1937	1085	645
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	ABNORMAL	SEVERE	ABNORMAL



## VCES- VOLVO CONSTRUCTION EQUIPMENT

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US 92883

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## OIL CONDITION

Visc @ 100°C	cSt	12.6	13.6	13.4	12.4
Base Number (BN)	mg KOH/g	6.0	8.0	12.7	10.2
Oxidation (PA)	%	60	85	86	73



## CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.3	0.6	0.5	0.1
Nitration (PA)	%	60	66	88	53
Sulfation (PA)	%	56	64	63	59
Glycol	%	NEG	NEG	0.10	NEG
Fuel	%	<1.0	<1.0	<1.0	0.4
Silicon	ppm	7	8	7	16
Sodium	ppm	0	4	789	1
Potassium	ppm	2	113	43	0



## WEAR METALS

Iron	ppm	11	16	14	14
Copper	ppm	2	3	1	8
Lead	ppm	0	<1	4	2
Tin	ppm	<1	<1	0	0
Aluminum	ppm	11	12	5	31
Chromium	ppm	<1	1	<1	2
Molybdenum	ppm	82	350	43	35
Nickel	ppm	<1	<1	<1	0
Titanium	ppm	2	<1	<1	<1
Silver	ppm	0	<1	0	<1
Manganese	ppm	<1	<1	<1	2
Vanadium	ppm	0	<1	0	0



## ADDITIVES

Calcium	ppm	1428	1480	1848	1436
Magnesium	ppm	332	426	556	556
Zinc	ppm	1099	870	1267	997
Phosphorus	ppm	954	694	1054	857
Barium	ppm	9	0	0	28
Boron	ppm	260	222	23	60

## Diagnosis

The oil change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. The aluminum level is abnormal. All other component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Depot: VOLVO4486  
Unique No: 10805966  
Signed: Sean Felton  
Report Date: 28 Dec 2023

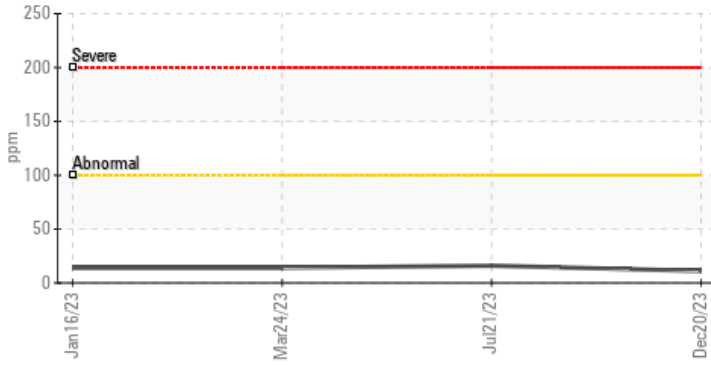


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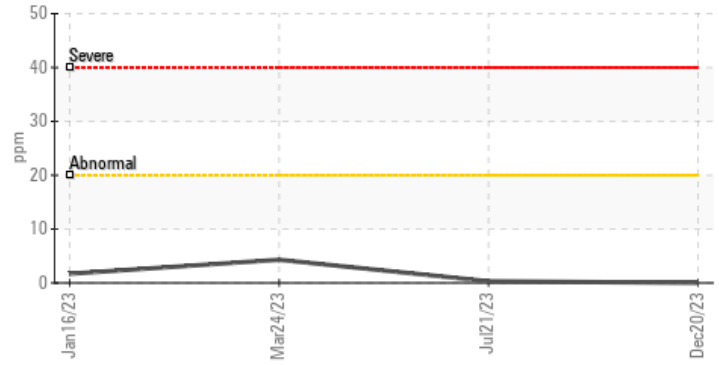


## GRAPHS

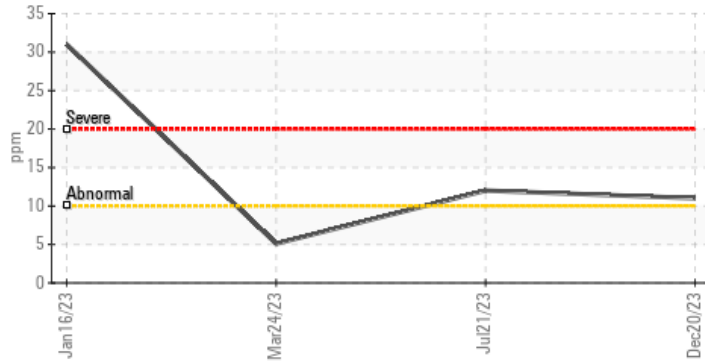
### Iron (ppm)



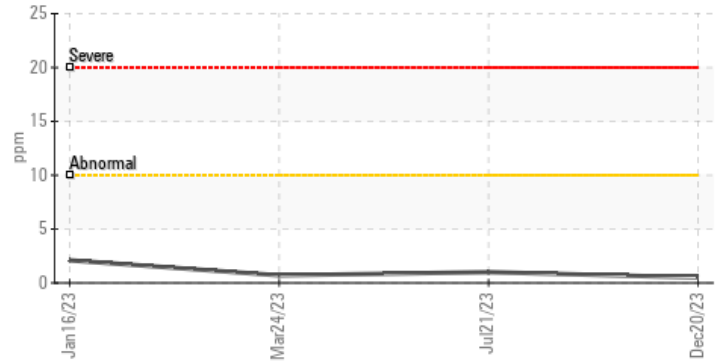
### Lead (ppm)



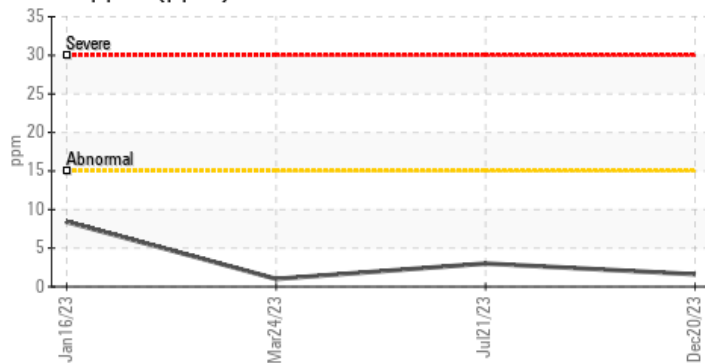
### Aluminum (ppm)



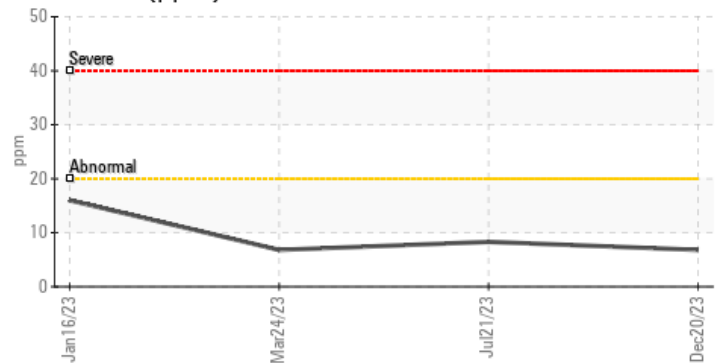
### Chromium (ppm)



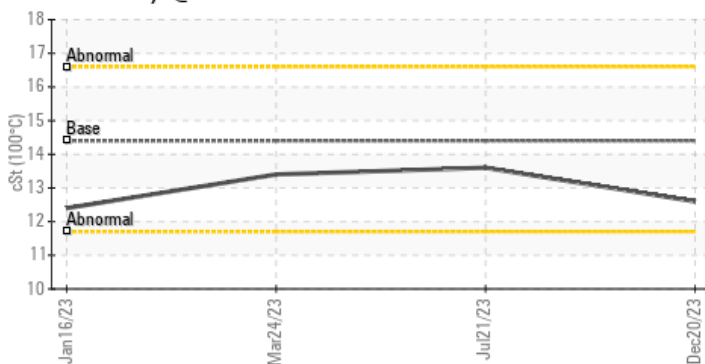
### Copper (ppm)



### Silicon (ppm)



### Viscosity @ 100°C



### Base Number

