



# CONSTRUCTION EQUIPMENT

## D13114 VOLVO L120H 632883 - DIESEL ENGINE



**Sample No:** VCP440570  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** D13114



### SAMPLE INFORMATION

Sample Number	<b>VCP440570</b>	VCP414088	VCP419547	VCP382350
Sample Date	<b>20 Dec 2023</b>	05 Oct 2023	12 Jun 2023	17 Jan 2023
Machine Hours	<b>6529</b>	6027	5382	4350
Oil Hours	<b>502</b>	1632	490	684
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	ABNORMAL	NORMAL	NORMAL

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### OIL CONDITION

Visc @ 100°C	cSt	<b>12.5</b>	11.8	13.0	13.4
Base Number (BN)	mg KOH/g	<b>9.7</b>	8.0	9.5	10.5
Oxidation (PA)	%	<b>84</b>	92	93	84

### Diagnosis

Resample at the next service interval to monitor. All 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 suitable for further service.



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.3</b>	0.6	0.5	0.3
Nitration (PA)	%	<b>58</b>	65	73	66
Sulfation (PA)	%	<b>64</b>	71	65	63
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	0.5	<1.0	<1.0
Silicon	ppm	<b>6</b>	10	9	7
Sodium	ppm	<b>&lt;1</b>	2	3	2
Potassium	ppm	<b>1</b>	0	0	0



### WEAR METALS

Iron	ppm	<b>9</b>	13	16	11
Copper	ppm	<b>&lt;1</b>	2	1	<1
Lead	ppm	<b>0</b>	0	0	0
Tin	ppm	<b>0</b>	<1	<1	<1
Aluminum	ppm	<b>7</b>	8	6	5
Chromium	ppm	<b>&lt;1</b>	<1	<1	<1
Molybdenum	ppm	<b>39</b>	32	47	39
Nickel	ppm	<b>&lt;1</b>	0	0	<1
Titanium	ppm	<b>0</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>0</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>1553</b>	1245	1742	1479
Magnesium	ppm	<b>468</b>	336	533	454
Zinc	ppm	<b>1052</b>	854	1120	983
Phosphorus	ppm	<b>894</b>	710	919	808
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>42</b>	27	41	38

**Depot:** VOLVO0069  
**Unique No:** 10806380  
**Signed:** Wes Davis  
**Report Date:** 28 Dec 2023

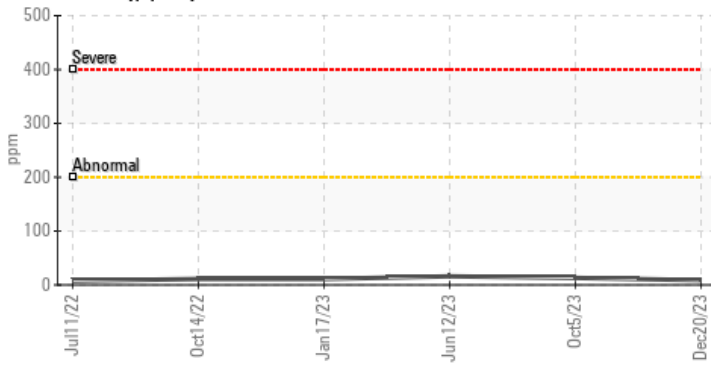


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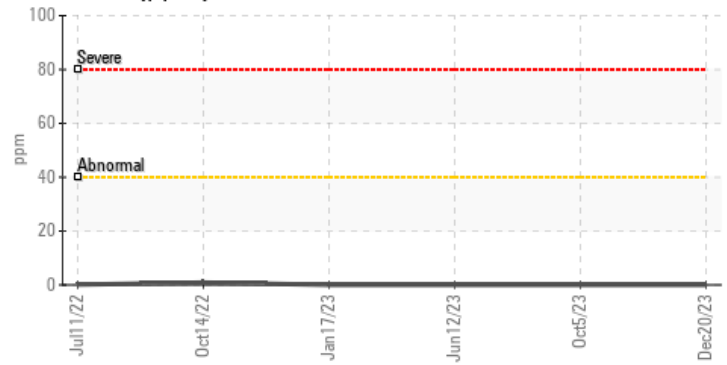


## GRAPHS

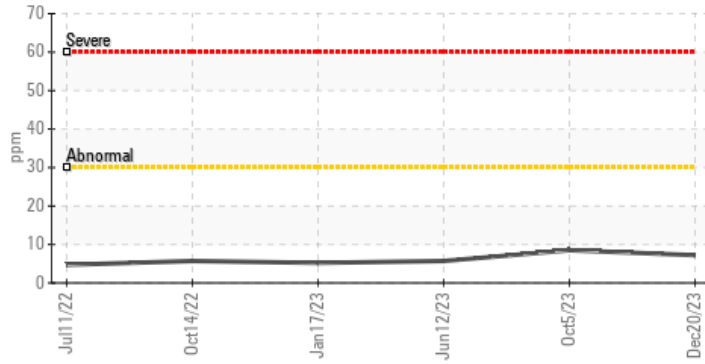
### Iron (ppm)



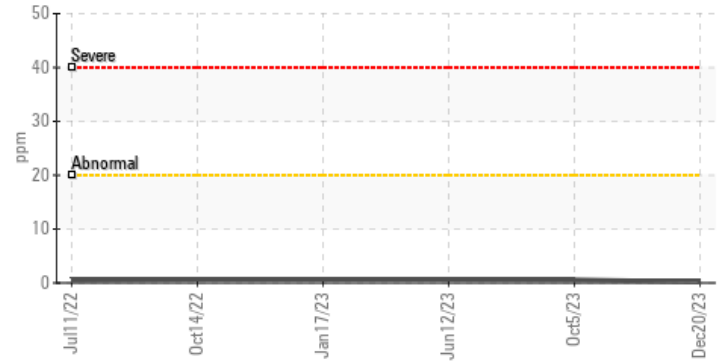
### Lead (ppm)



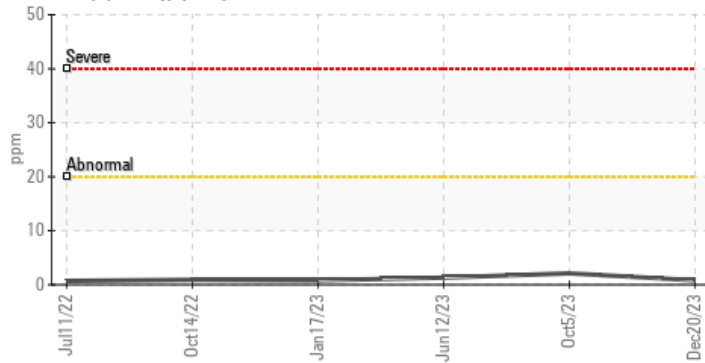
### Aluminum (ppm)



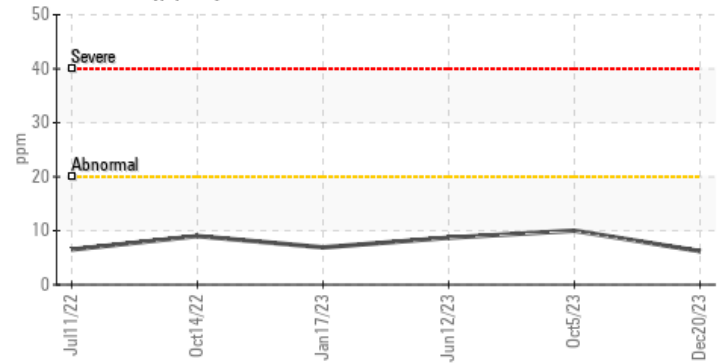
### Chromium (ppm)



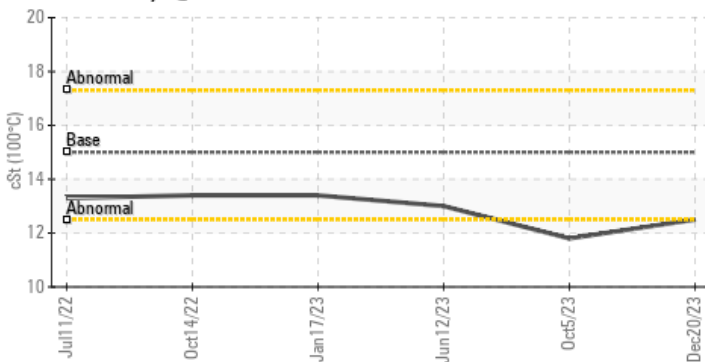
### Copper (ppm)



### Silicon (ppm)



### Viscosity @ 100°C



### Base Number

