



# CONSTRUCTION EQUIPMENT

## 689018 IAA VOLVO L90H 623069 (S/N 617072) - DIESEL ENGINE



**Sample No:** VCP431417  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 689018 IAA



### SAMPLE INFORMATION

Sample Number	<b>VCP431417</b>	VCP435396	VCP411165	VCP388728
Sample Date	<b>04 Apr 2024</b>	08 Dec 2023	13 Apr 2023	01 Sep 2022
Machine Hours	<b>16355</b>	15837	14780	13640
Oil Hours	<b>500</b>	500	500	500
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

**ALTA EQUIPMENT COMPANY - METRO WEST**  
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### OIL CONDITION

Visc @ 100°C	cSt	<b>13.9</b>	14.2	14.8	14.6
Base Number (BN)	mg KOH/g	<b>9.2</b>	9.1	8.8	11.6
Oxidation (PA)	%	<b>66</b>	63	63	65

### 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>0.5</b>	0.4	0.9	1
Nitration (PA)	%	<b>74</b>	67	71	83
Sulfation (PA)	%	<b>54</b>	53	55	59
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>3</b>	3	3	4
Sodium	ppm	<b>1</b>	<1	<1	2
Potassium	ppm	<b>0</b>	1	0	0



### WEAR METALS

Iron	ppm	<b>10</b>	6	22	16
Copper	ppm	<b>1</b>	<1	0	<1
Lead	ppm	<b>&lt;1</b>	0	0	0
Tin	ppm	<b>0</b>	<1	0	<1
Aluminum	ppm	<b>3</b>	4	4	2
Chromium	ppm	<b>&lt;1</b>	<1	<1	<1
Molybdenum	ppm	<b>54</b>	61	64	59
Nickel	ppm	<b>0</b>	<1	0	0
Titanium	ppm	<b>0</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	<1
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>&lt;1</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>1152</b>	1064	1114	1269
Magnesium	ppm	<b>1002</b>	966	914	994
Zinc	ppm	<b>1213</b>	1316	1293	1380
Phosphorus	ppm	<b>1094</b>	1091	1040	1099
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>0</b>	1	18	3

**Depot:** VOLVO2990  
**Unique No:** 10968720  
**Signed:** Angela Borella  
**Report Date:** 12 Apr 2024

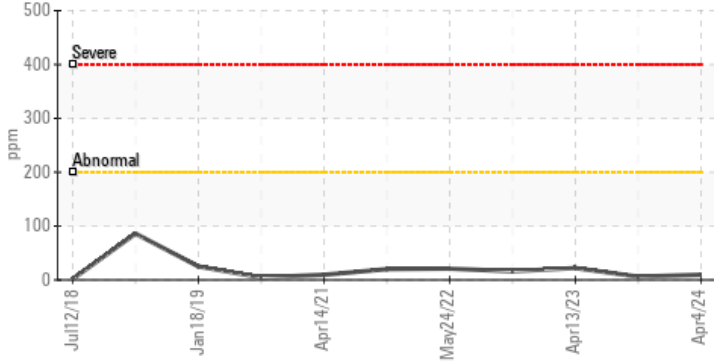


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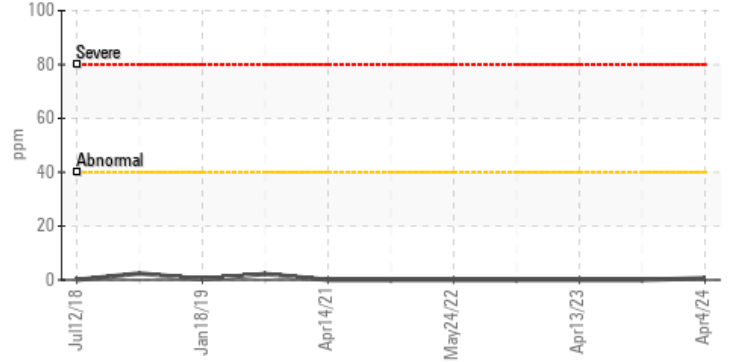


## GRAPHS

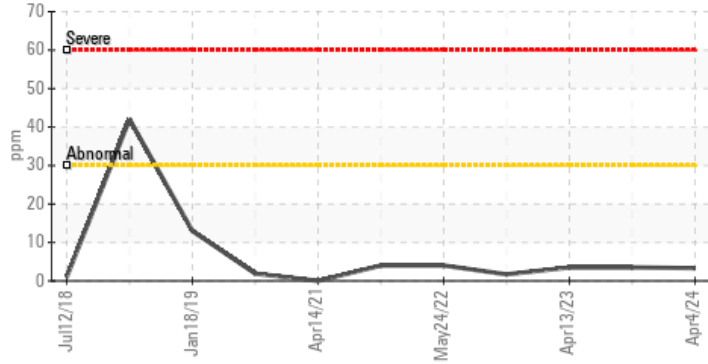
### Iron (ppm)



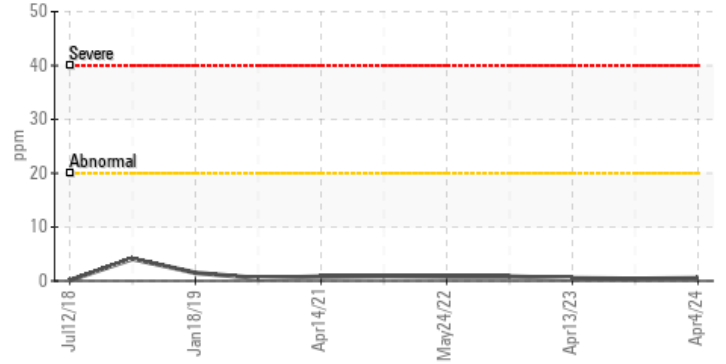
### Lead (ppm)



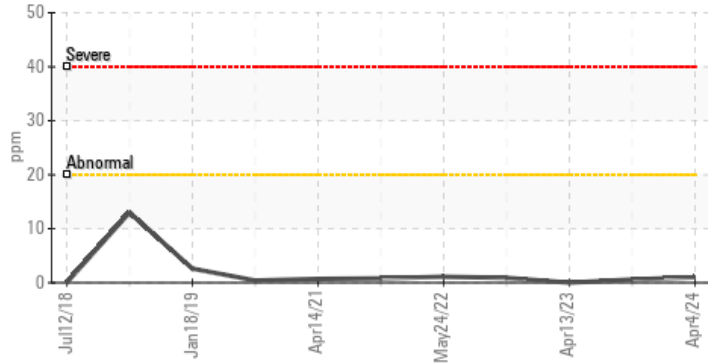
### Aluminum (ppm)



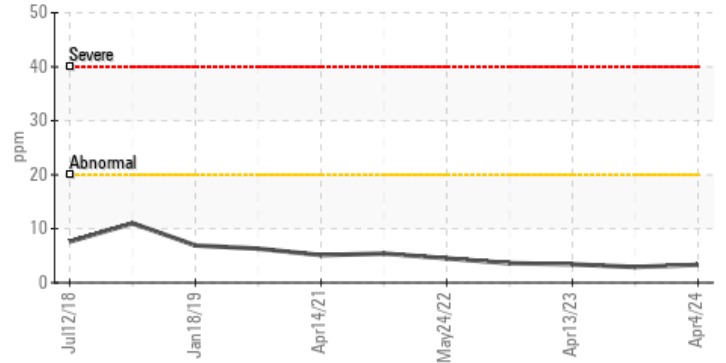
### Chromium (ppm)



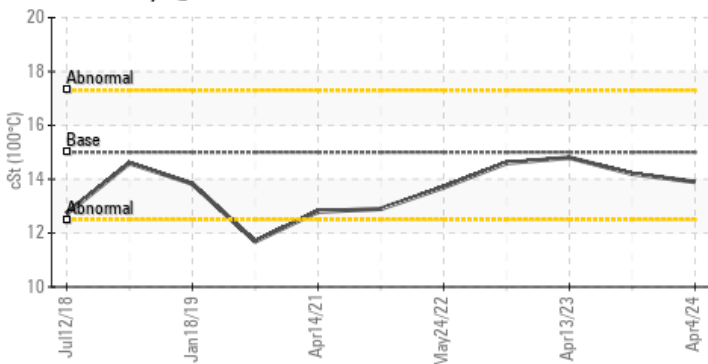
### Copper (ppm)



### Silicon (ppm)



### Viscosity @ 100°C



### Base Number

