



# CONSTRUCTION EQUIPMENT

SWA510210 VOLVO L220H 12011 - COOLANT



**Sample No:** VCP370394  
**Oil Type:** VOLVO COOLANT VCS (YELLOW)  
**Job No:** SWA510210



## SAMPLE INFORMATION

Sample Number	<b>VCP370394</b>	VCP430844	VCP386449	VCP320143
Sample Date	<b>20 Mar 2024</b>	22 Nov 2023	07 Oct 2022	25 Sep 2021
Machine Hours	<b>21938</b>	21516	19623	18543
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

**ALTA EQUIPMENT**  
 5985 COURT STREET ROAD  
 SYRACUSE, NY  
 US 13206  
 Contact: JIM STRIGLE  
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 F: (315)434-9471



## COOLANT CONDITION

pH	Scale 0-14	<b>7.65</b>	7.59	7.56	7.78
Reserve Alkalinity	Scale 0-20	---	---	---	---
Nitrites	ppm	<b>NT</b>	NT	0	0
Percentage Glycol	%	<b>54.3</b>	57.7	66.5	56
Freezing Point	°C	<b>-45</b>	-52	-65	-53

## Diagnosis

No corrective action is recommended at this time. The fluid is suitable for further service. There is no indication of any contamination in the coolant. Carboxylate test failed. The glycol level is acceptable. The pH level of this fluid is within the acceptable limits.



## CONTAMINATION

Coolant Appearance	<b>normal</b>	normal	normal	normal
Coolant Color	<b>Yllow</b>	Yllow	Yllow	Yllow

**Depot:** VOLVO0142  
**Unique No:** 10942505  
**Signed:** Jonathan Hester  
**Report Date:** 28 Mar 2024

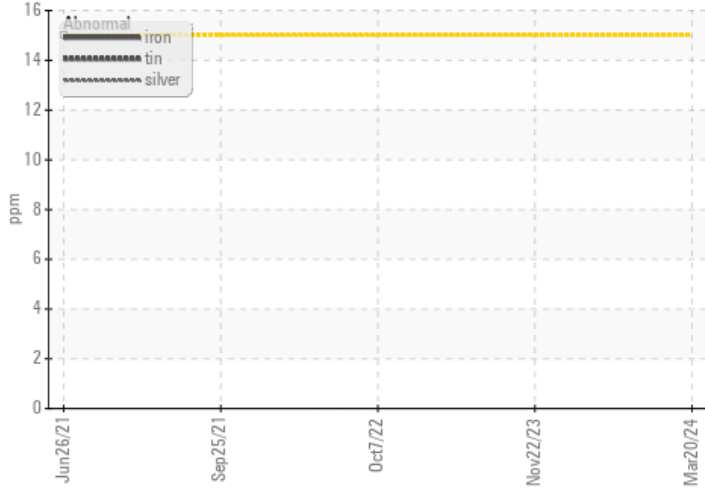


# CONSTRUCTION EQUIPMENT

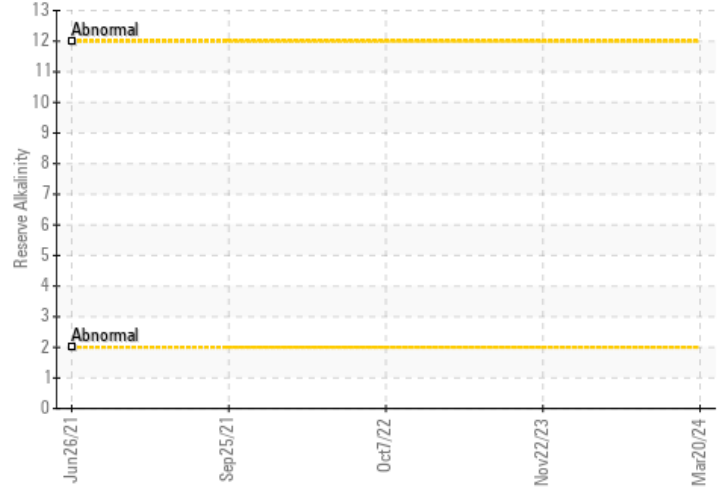


## VOLVO GRAPHS

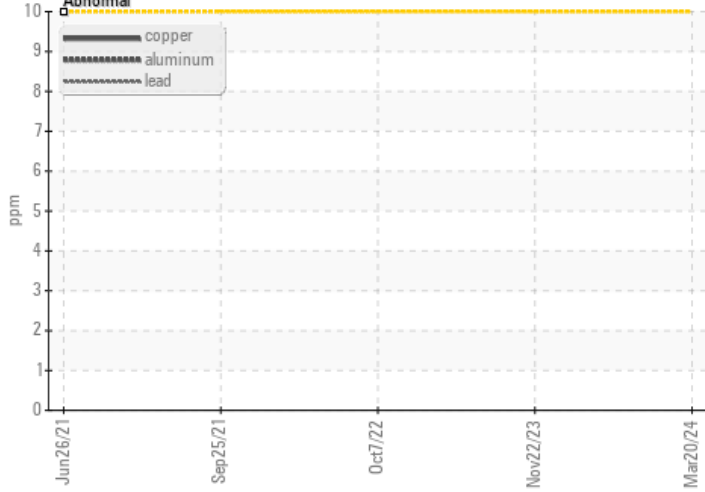
### Iron/Tin/Silver



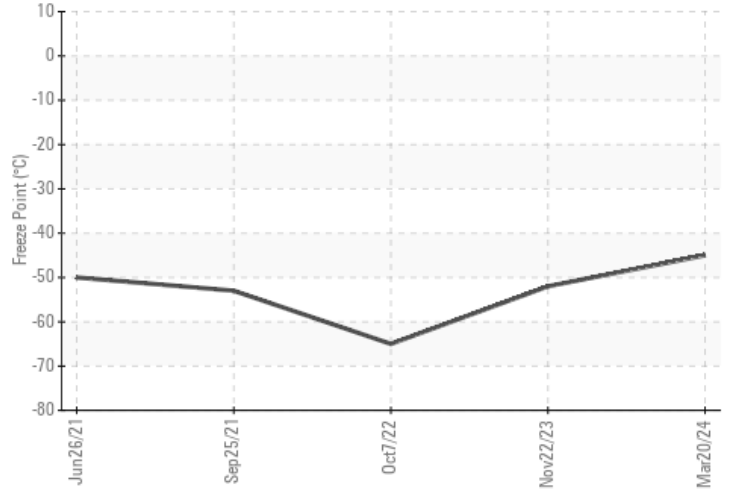
### Reserve Alkalinity



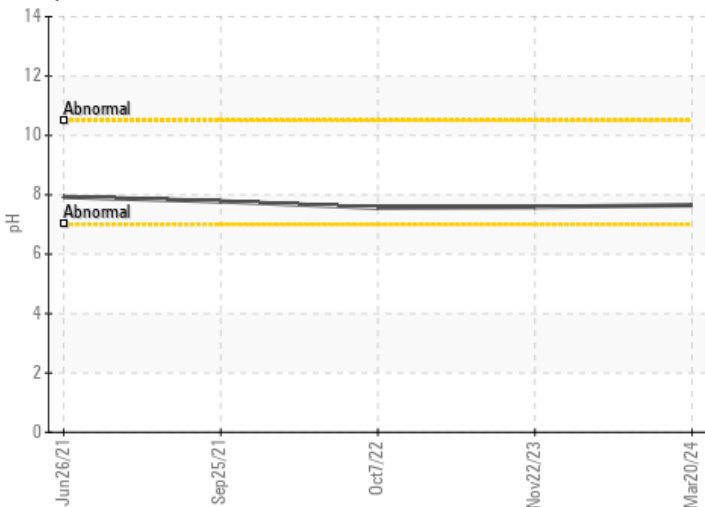
### Copper/Aluminum/Lead



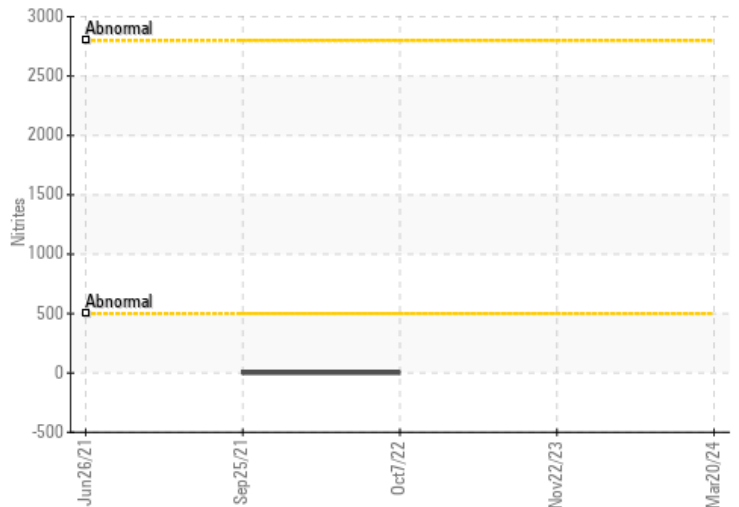
### Freeze Point



### pH



### Nitrites





# CONSTRUCTION EQUIPMENT

## SWA510210 VOLVO L220H 12011 - TRANSMISSION (AUTO)



**Sample No:** VCP370395  
**Oil Type:** VOLVO AUTOMATIC TRANSMISSION FLUID AT102  
**Job No:** SWA510210



### SAMPLE INFORMATION

Sample Number	<b>VCP370395</b>	VCP442826	VCP386453	VCP325611
Sample Date	<b>20 Mar 2024</b>	22 Nov 2023	07 Oct 2022	19 Oct 2021
Machine Hours	<b>21938</b>	21516	19623	18817
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Not Chngd</b>	Not Chngd	N/A	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

### ALTA EQUIPMENT

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### OIL CONDITION

Visc @ 40°C	cSt	<b>27.8</b>	27.8	28.1	28.3
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### CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	<b>10</b>	9	9	5
Sodium	ppm	<b>2</b>	2	6	6
Potassium	ppm	<b>8</b>	8	8	4

### Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the fluid. The condition of the fluid is acceptable for the time in service.



### WEAR METALS

Iron	ppm	<b>54</b>	50	19	63
Copper	ppm	<b>8</b>	6	4	10
Lead	ppm	<b>&lt;1</b>	0	0	<1
Tin	ppm	<b>&lt;1</b>	0	<1	0
Aluminum	ppm	<b>3</b>	2	0	1
Chromium	ppm	<b>&lt;1</b>	<1	<1	<1
Molybdenum	ppm	<b>1</b>	<1	1	1
Nickel	ppm	<b>&lt;1</b>	<1	0	<1
Titanium	ppm	<b>&lt;1</b>	0	<1	0
Silver	ppm	<b>0</b>	0	<1	<1
Manganese	ppm	<b>3</b>	2	3	1
Vanadium	ppm	<b>&lt;1</b>	0	1	<1



### ADDITIVES

Calcium	ppm	<b>90</b>	73	70	552
Magnesium	ppm	<b>3</b>	2	10	15
Zinc	ppm	<b>17</b>	6	8	237
Phosphorus	ppm	<b>225</b>	191	190	322
Barium	ppm	<b>1</b>	2	0	0
Boron	ppm	<b>76</b>	70	73	78

**Depot:** VOLV00142  
**Unique No:** 10942433  
**Signed:** Jonathan Hester  
**Report Date:** 28 Mar 2024

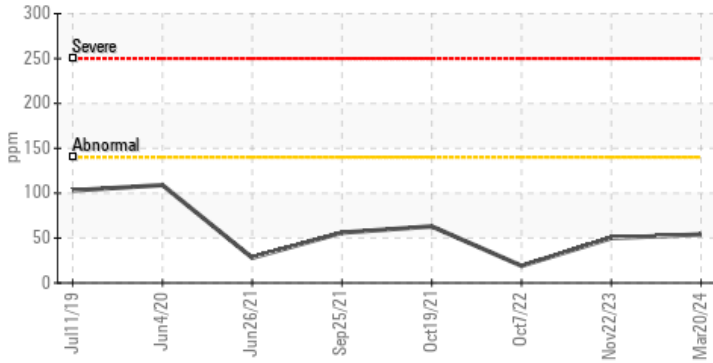


# CONSTRUCTION EQUIPMENT

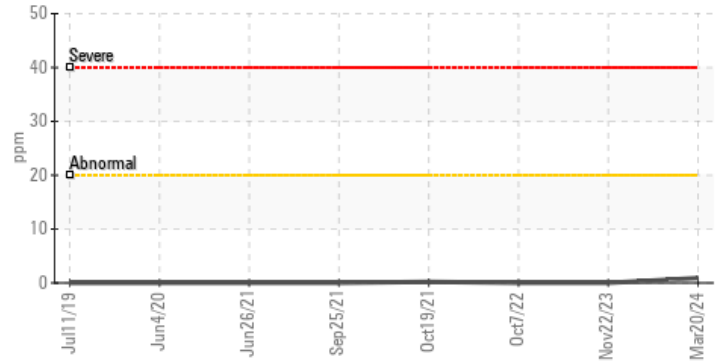


## GRAPHS

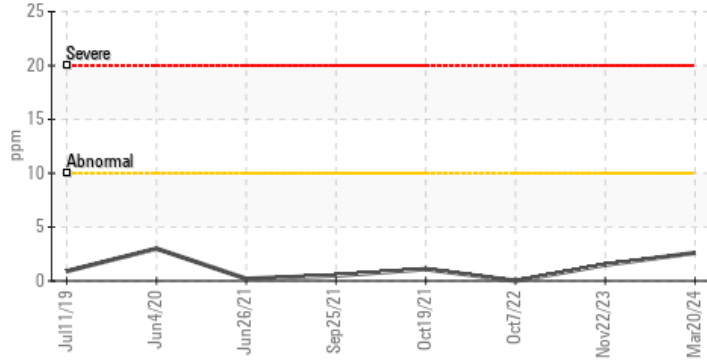
### Iron (ppm)



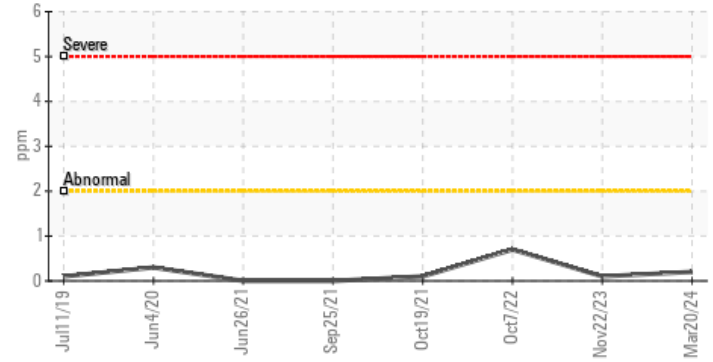
### Lead (ppm)



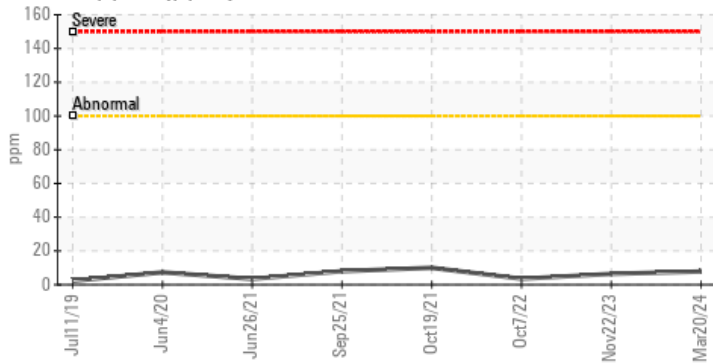
### Aluminum (ppm)



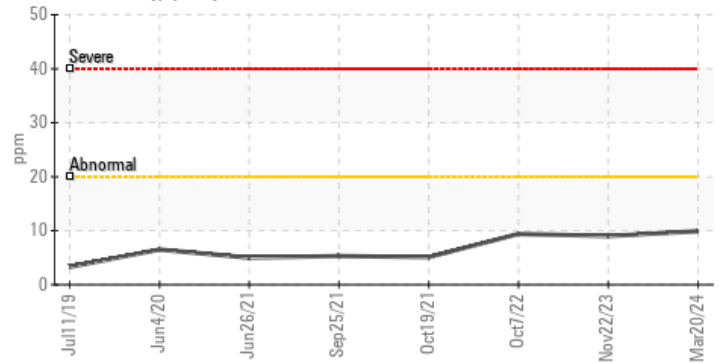
### Chromium (ppm)



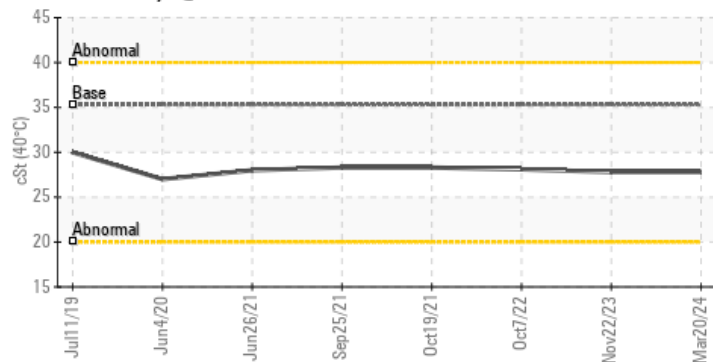
### Copper (ppm)



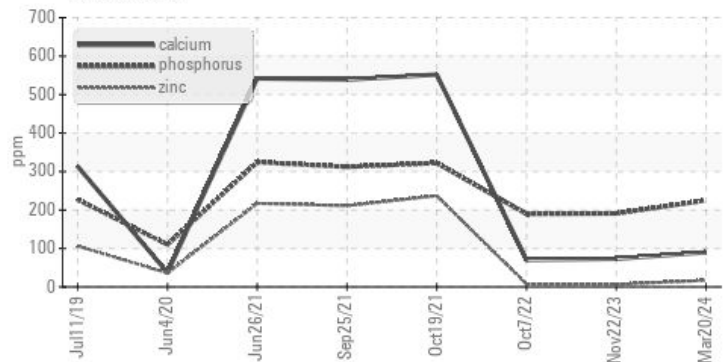
### Silicon (ppm)



### Viscosity @ 40°C



### Additives





# CONSTRUCTION EQUIPMENT

SWA510210 VOLVO L220H 12011 - FRONT AXLE



**Sample No:** VCP370391  
**Oil Type:** VOLVO WB 102  
**Job No:** SWA510210



## SAMPLE INFORMATION

Sample Number	<b>VCP370391</b>	VCP442827	VCP386448	VCP320137
Sample Date	<b>20 Mar 2024</b>	22 Nov 2023	07 Oct 2022	25 Sep 2021
Machine Hours	<b>21938</b>	21516	19623	18543
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Not Chngd</b>	Not Chngd	N/A	N/A
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

## ALTA EQUIPMENT

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 SYRACUSE, NY  
 US 13206  
 Contact: JIM STRIGLE  
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 T: (315)437-2611  
 F: (315)434-9471



## OIL CONDITION

Visc @ 40°C	cSt	<b>42.0</b>	42.3	42.5	41.0
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## CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	<b>12</b>	12	14	8
Sodium	ppm	<b>0</b>	3	2	0
Potassium	ppm	<b>3</b>	0	1	<1

## 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 condition of the oil is acceptable for the time in service.



## WEAR METALS

Iron	ppm	<b>56</b>	79	42	72
Copper	ppm	<b>7</b>	4	3	12
Lead	ppm	<b>1</b>	0	3	<1
Tin	ppm	<b>&lt;1</b>	0	<1	0
Aluminum	ppm	<b>3</b>	<1	0	0
Chromium	ppm	<b>&lt;1</b>	<1	2	<1
Molybdenum	ppm	<b>1</b>	<1	2	2
Nickel	ppm	<b>&lt;1</b>	0	<1	<1
Titanium	ppm	<b>&lt;1</b>	0	1	1
Silver	ppm	<b>0</b>	0	<1	0
Manganese	ppm	<b>1</b>	<1	2	<1
Vanadium	ppm	<b>&lt;1</b>	0	1	<1



## ADDITIVES

Calcium	ppm	<b>3842</b>	3864	4104	2676
Magnesium	ppm	<b>11</b>	12	17	12
Zinc	ppm	<b>1528</b>	1543	1649	1174
Phosphorus	ppm	<b>1363</b>	1204	1225	1052
Barium	ppm	<b>1</b>	0	0	0
Boron	ppm	<b>136</b>	128	133	75

**Depot:** VOLV00142  
**Unique No:** 10942420  
**Signed:** Wes Davis  
**Report Date:** 26 Mar 2024

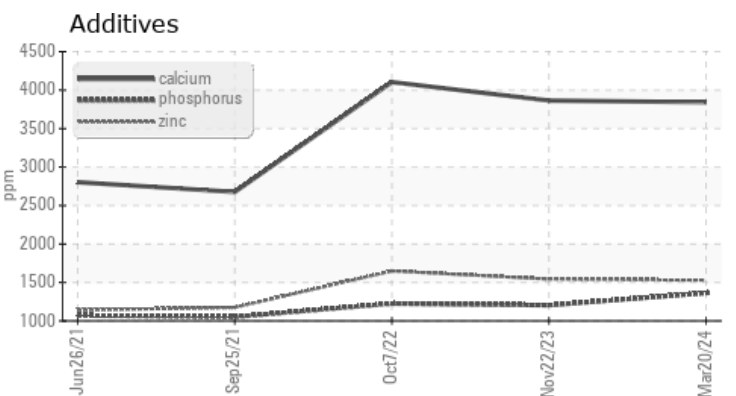
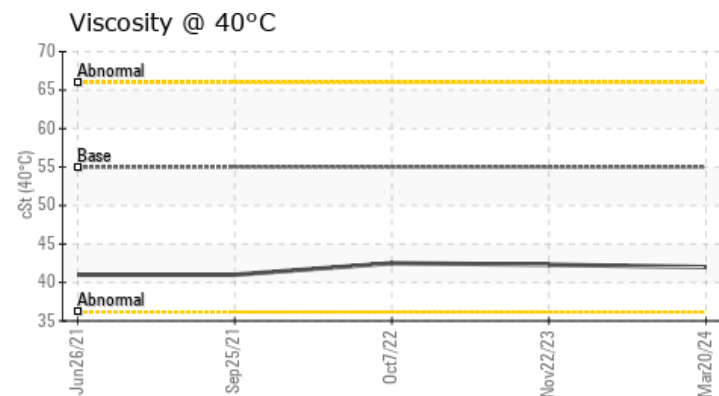
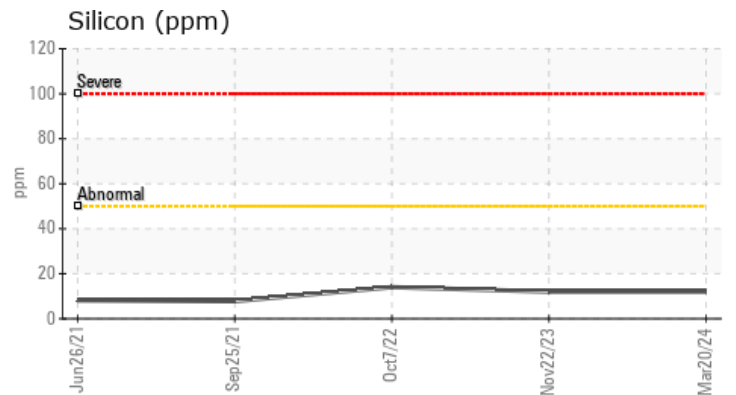
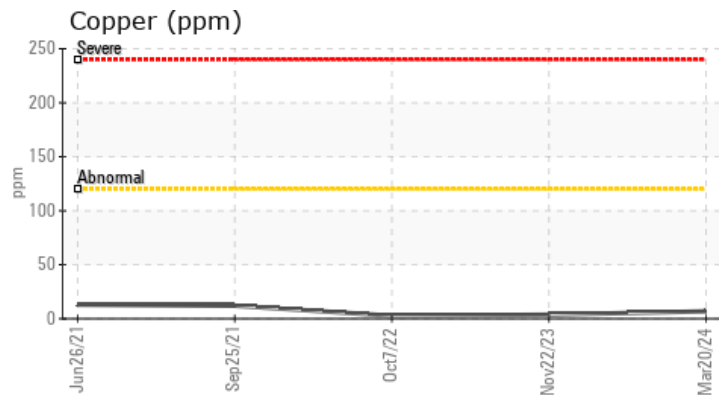
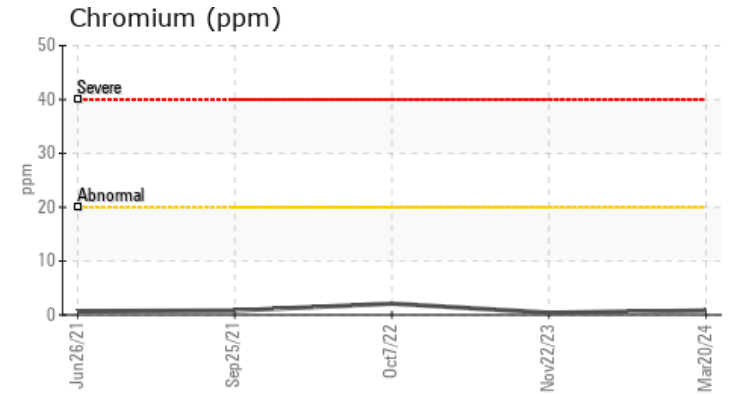
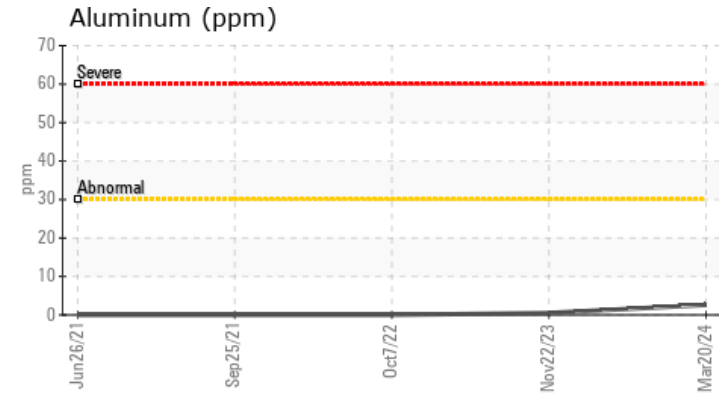
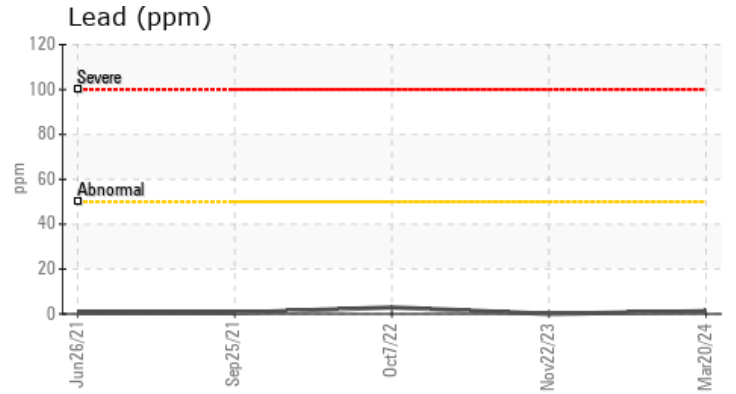
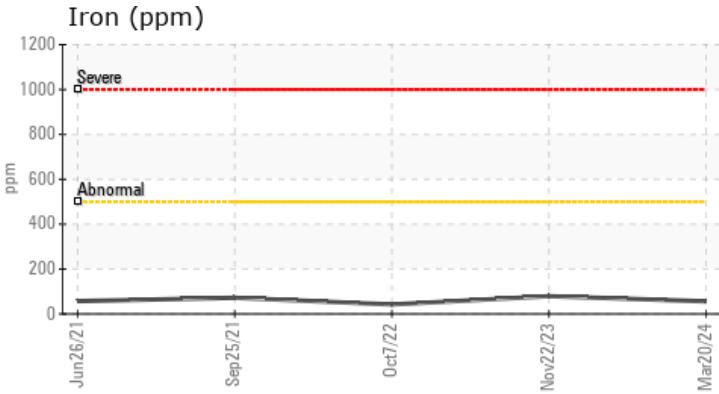




# CONSTRUCTION EQUIPMENT



## VOLVO GRAPHS





# CONSTRUCTION EQUIPMENT

SWA510210 VOLVO L220H 12011 - REAR AXLE



**Sample No:** VCP370396  
**Oil Type:** VOLVO WB 102  
**Job No:** SWA510210



## SAMPLE INFORMATION

Sample Number	<b>VCP370396</b>	VCP430845	VCP386452	VCP291777
Sample Date	<b>20 Mar 2024</b>	22 Nov 2023	07 Oct 2022	25 Sep 2021
Machine Hours	<b>21938</b>	21516	19623	18543
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Not Chngd</b>	Not Chngd	N/A	Not Chngd
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

## ALTA EQUIPMENT

5985 COURT STREET ROAD  
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 US 13206  
 Contact: JIM STRIGLE  
 JIM.STRIGLE@ALTG.COM  
 T: (315)437-2611  
 F: (315)434-9471



## OIL CONDITION

Visc @ 40°C	cSt	<b>43.6</b>	41.9	42.6	41.8
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## CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	<b>11</b>	12	16	7
Sodium	ppm	<b>0</b>	3	5	0
Potassium	ppm	<b>3</b>	0	2	<1

## 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 condition of the oil is acceptable for the time in service.



## WEAR METALS

Iron	ppm	<b>59</b>	85	28	63
Copper	ppm	<b>5</b>	4	2	13
Lead	ppm	<b>1</b>	0	3	<1
Tin	ppm	<b>&lt;1</b>	0	1	0
Aluminum	ppm	<b>3</b>	<1	0	0
Chromium	ppm	<b>&lt;1</b>	<1	2	<1
Molybdenum	ppm	<b>1</b>	<1	2	2
Nickel	ppm	<b>&lt;1</b>	0	<1	0
Titanium	ppm	<b>&lt;1</b>	0	1	1
Silver	ppm	<b>0</b>	0	<1	0
Manganese	ppm	<b>1</b>	<1	3	<1
Vanadium	ppm	<b>&lt;1</b>	0	1	<1



## ADDITIVES

Calcium	ppm	<b>3883</b>	3932	4126	2627
Magnesium	ppm	<b>11</b>	14	17	12
Zinc	ppm	<b>1571</b>	1530	1655	1156
Phosphorus	ppm	<b>1420</b>	1173	1237	1028
Barium	ppm	<b>1</b>	0	0	0
Boron	ppm	<b>137</b>	129	138	74

**Depot:** VOLVO0142  
**Unique No:** 10942421  
**Signed:** Wes Davis  
**Report Date:** 26 Mar 2024



# CONSTRUCTION EQUIPMENT



## GRAPHS

