



# CONSTRUCTION EQUIPMENT

## 580547 VOLVO A40G 3525 13 - BRAKE COOLING SYSTEM



**Sample No:** VCP422950  
**Oil Type:** VOLVO WB 102  
**Job No:** 580547



### SAMPLE INFORMATION

Sample Number	<b>VCP422950</b>	VCP390674	VCP360246	VCP320486
Sample Date	<b>31 Jul 2023</b>	26 Sep 2022	16 Mar 2022	18 Aug 2021
Machine Hours	<b>5166</b>	3603	2597	1430
Oil Hours	<b>5166</b>	500	1597	500
Oil Changed	<b>Changed</b>	Not Changd	Not Changd	Not Changd
Sample Status	<b>NORMAL</b>	ABNORMAL	ABNORMAL	ABNORMAL

### RIPA AND ASSOCIATES

10149 FISHER AVENUE  
TAMPA, FL  
US 33619  
Contact: ROBERT TURNER  
rturner@ripatampa.com  
T:  
F:



### OIL CONDITION

Visc @ 40°C	cSt	<b>40.9</b>	39.7	42.3	40.0
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### CONTAMINATION

Silicon	ppm	<b>17</b>	18	18	17
Sodium	ppm	<b>6</b>	8	11	10
Potassium	ppm	<b>1</b>	1	<1	<1



### WEAR METALS

Iron	ppm	<b>20</b>	19	19	11
Copper	ppm	<b>165</b>	▲ 193	▲ 165	▲ 119
Lead	ppm	<b>&lt;1</b>	0	<1	<1
Tin	ppm	<b>0</b>	0	<1	<1
Aluminum	ppm	<b>2</b>	2	1	0
Chromium	ppm	<b>&lt;1</b>	<1	<1	<1
Molybdenum	ppm	<b>&lt;1</b>	<1	<1	<1
Nickel	ppm	<b>6</b>	5	6	5
Titanium	ppm	<b>0</b>	0	0	<1
Silver	ppm	<b>0</b>	0	<1	0
Manganese	ppm	<b>1</b>	1	1	<1
Vanadium	ppm	<b>0</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>3389</b>	3275	3656	3804
Magnesium	ppm	<b>10</b>	7	12	9
Zinc	ppm	<b>1431</b>	1411	1536	1486
Phosphorus	ppm	<b>1285</b>	1253	1380	1277
Barium	ppm	<b>1</b>	0	0	0
Boron	ppm	<b>127</b>	126	111	163

### 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.

**Depot:** RIPTAM  
**Unique No:** 10602491  
**Signed:** Don Baldrige  
**Report Date:** 14 Aug 2023

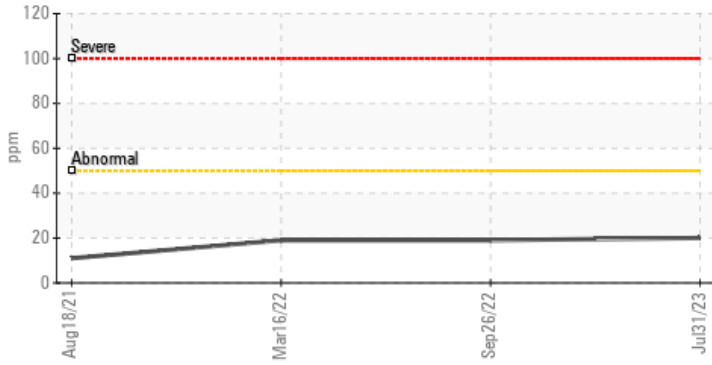


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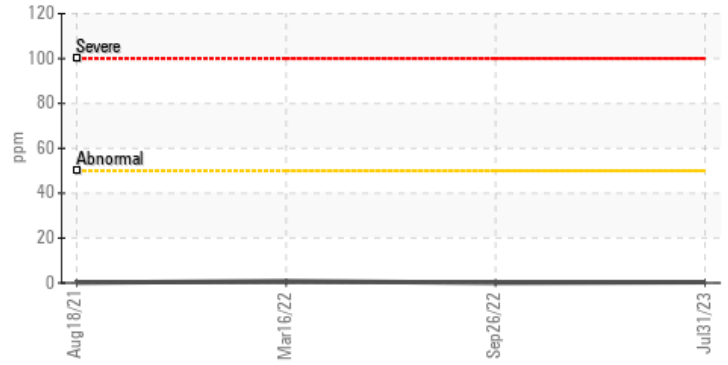


## GRAPHS

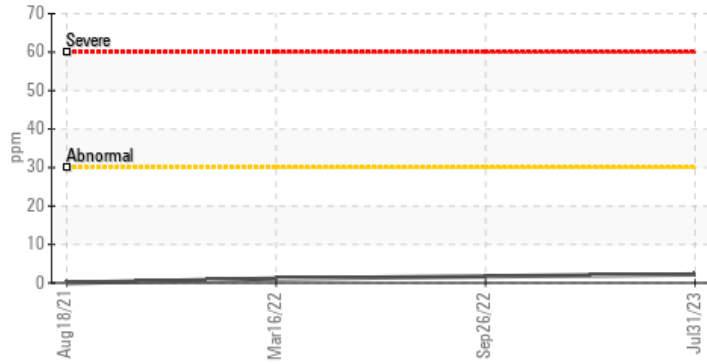
### Iron (ppm)



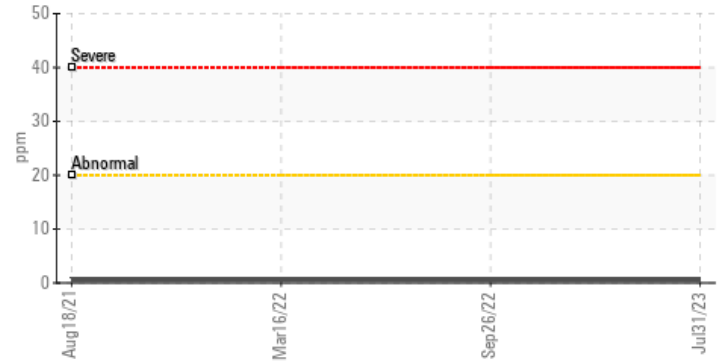
### Lead (ppm)



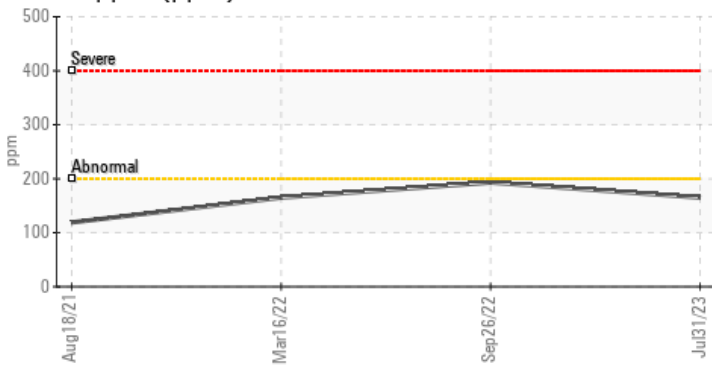
### Aluminum (ppm)



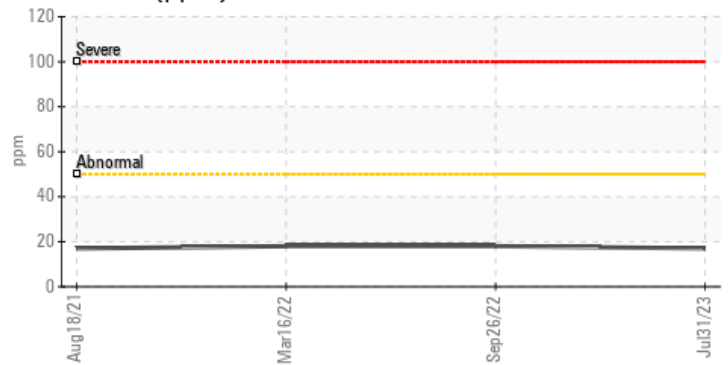
### Chromium (ppm)



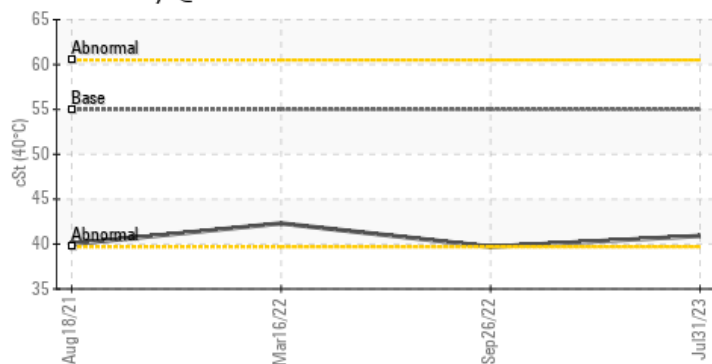
### Copper (ppm)



### Silicon (ppm)



### Viscosity @ 40°C



### Additives

