



# CONSTRUCTION EQUIPMENT

## VOLVO A45G OT58 - DIESEL ENGINE



**Sample No:** VCP437778  
**Oil Type:** CITGARD 15W40  
**Job No:**



### SAMPLE INFORMATION

Sample Number	VCP437778	---	---	---
Sample Date	18 Jan 2024	---	---	---
Machine Hours	500	---	---	---
Oil Hours	500	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

**MITCHELL & STARK CONSTRUCTION CO**  
 6001 Shirley St  
 NAPLES, FL  
 US 34109  
 Contact: SERVICE MANAGER



### OIL CONDITION

Visc @ 100°C	cSt	▲ 12.1	---	---	---
Base Number (BN)	mg KOH/g	■ 8.8	---	---	---
Oxidation (PA)	%	■ 59	---	---	---

T: (239)597-2165  
 F: (239)566-7865

### Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. Sodium and/or potassium levels are high. Fuel content negligible. Test for glycol is negative. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.



### CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	■ 0.4	---	---	---
Nitration (PA)	%	■ 67	---	---	---
Sulfation (PA)	%	■ 55	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	■ 0.4	---	---	---
Silicon	ppm	■ 17	---	---	---
Sodium	ppm	▲ 318	---	---	---
Potassium	ppm	▲ 77	---	---	---



### WEAR METALS

Iron	ppm	■ 28	---	---	---
Copper	ppm	■ 14	---	---	---
Lead	ppm	■ 4	---	---	---
Tin	ppm	■ <1	---	---	---
Aluminum	ppm	■ 14	---	---	---
Chromium	ppm	■ <1	---	---	---
Molybdenum	ppm	■ 62	---	---	---
Nickel	ppm	■ 7	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	■ 0	---	---	---
Manganese	ppm	■ 2	---	---	---
Vanadium	ppm	■ 0	---	---	---



### ADDITIVES

Calcium	ppm	■ 1655	---	---	---
Magnesium	ppm	■ 399	---	---	---
Zinc	ppm	■ 1228	---	---	---
Phosphorus	ppm	■ 1060	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 16	---	---	---

**Depot:** MITNAP  
**Unique No:** 10849246  
**Signed:** Jonathan Hester  
**Report Date:** 31 Jan 2024

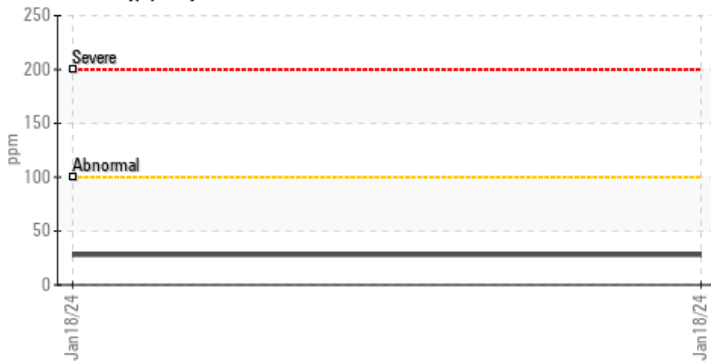


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## GRAPHS

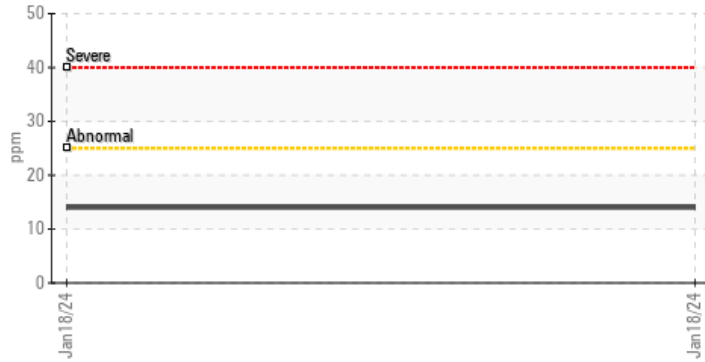
### Iron (ppm)



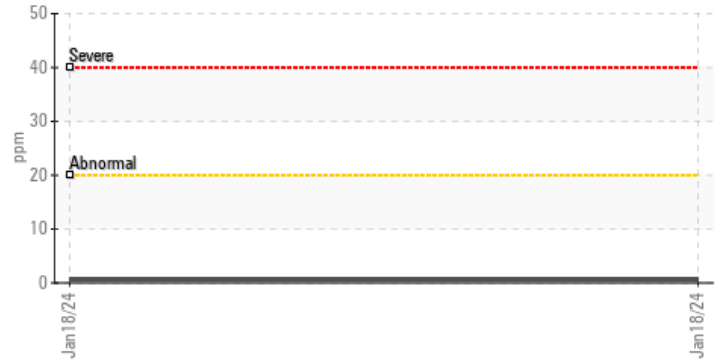
### Lead (ppm)



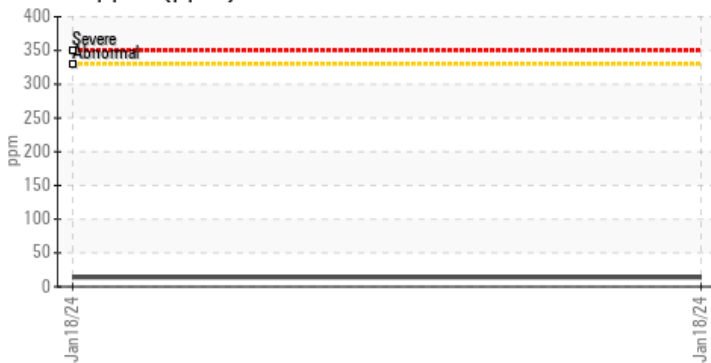
### Aluminum (ppm)



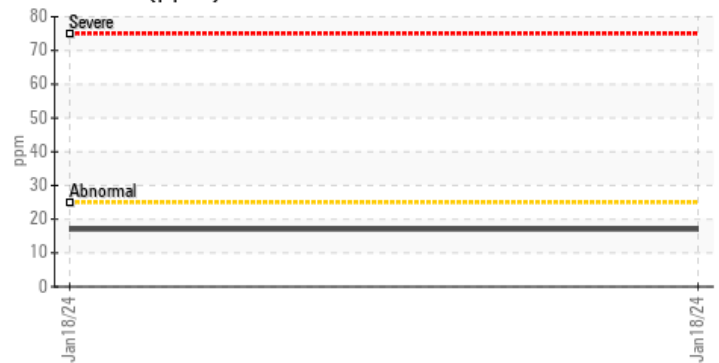
### Chromium (ppm)



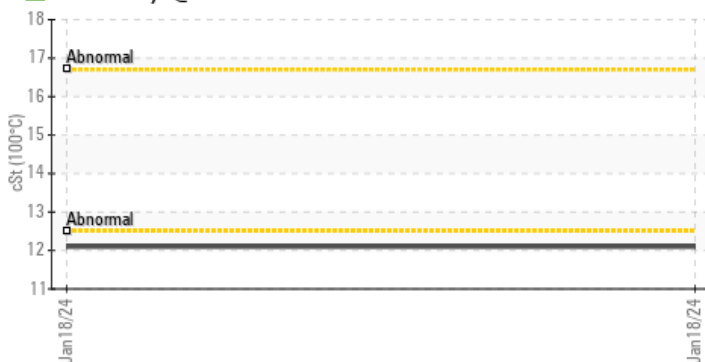
### Copper (ppm)



### Silicon (ppm)



### ▲ Viscosity @ 100°C



### Base Number

