



# VOLVO

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Machine Id  
**VOLVO A45G 353323**  
Component  
**Diesel Engine**  
Fluid  
**VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)**

### RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP435533	VCP386696	---
Sample Date		Client Info		06 Jan 2024	30 Aug 2023	---
Machine Age	hrs	Client Info		1771	1291	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ATTENTION	ATTENTION	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	8	12	---
Chromium	ppm	ASTM D5185m	>20	0	<1	---
Nickel	ppm	ASTM D5185m	>2	1	2	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>25	<1	2	---
Lead	ppm	ASTM D5185m	>40	<1	0	---
Copper	ppm	ASTM D5185m	>330	11	52	---
Tin	ppm	ASTM D5185m	>15	1	2	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

### CONTAMINATION

There is no indication of any contamination in the oil.

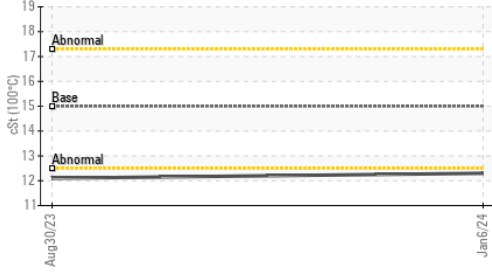
Silicon	ppm	ASTM D5185m	>25	6	11	---
Potassium	ppm	ASTM D5185m	>20	0	<1	---
Fuel		WC Method	>6.0	<1.0	0.2	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.2	0.2	---
Nitration	Abs/cm	*ASTM D7624	>20	6.6	7.6	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.7	22.4	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---

### FLUID CONDITION

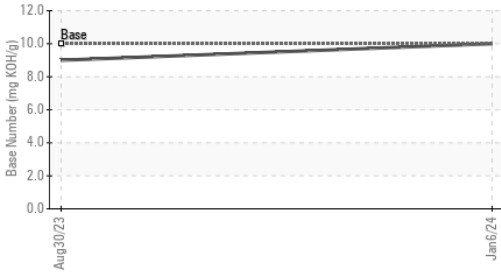
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		2	3	---
Boron	ppm	ASTM D5185m	2.5	49	42	---
Barium	ppm	ASTM D5185m	0.0	0	0	---
Molybdenum	ppm	ASTM D5185m	0.7	51	53	---
Manganese	ppm	ASTM D5185m	0.0	<1	<1	---
Magnesium	ppm	ASTM D5185m	256	484	508	---
Calcium	ppm	ASTM D5185m	2057	1635	1812	---
Phosphorus	ppm	ASTM D5185m	935	929	967	---
Zinc	ppm	ASTM D5185m	1223	1100	1186	---
Sulfur	ppm	ASTM D5185m	4079	2898	3695	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.6	19.4	---
Base Number (BN)	mg KOH/g	ASTM D2896	10	10.0	9.0	---
Visc @ 100°C	cSt	ASTM D445	15.0	▲ 12.3	▲ 12.1	---

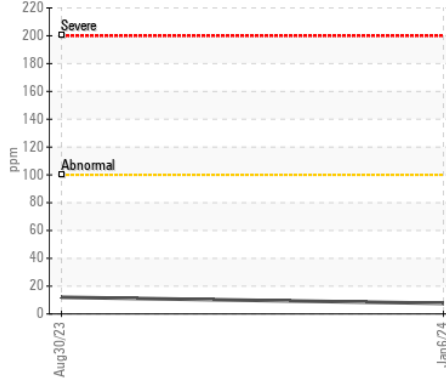
▲ Viscosity @ 100°C



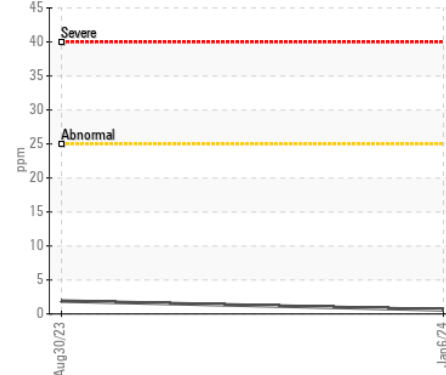
Base Number



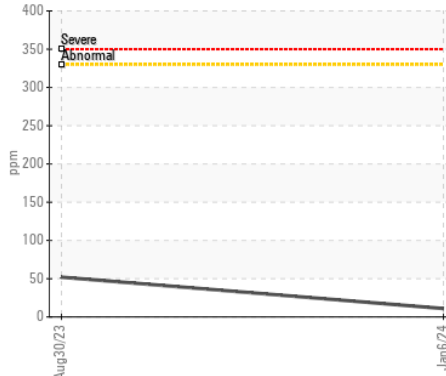
Iron (ppm)



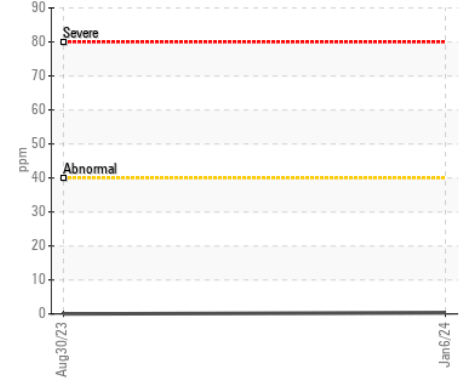
Aluminum (ppm)



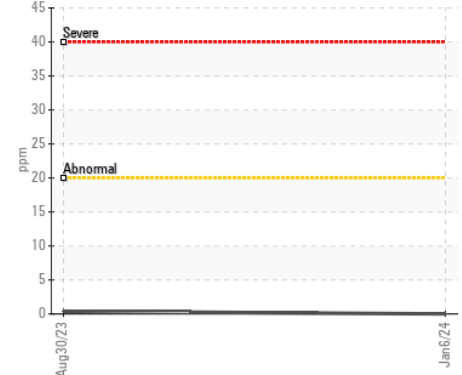
Copper (ppm)



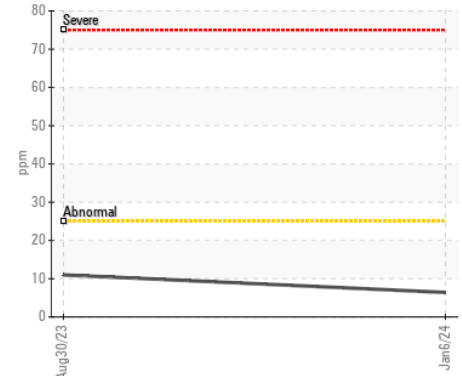
Lead (ppm)



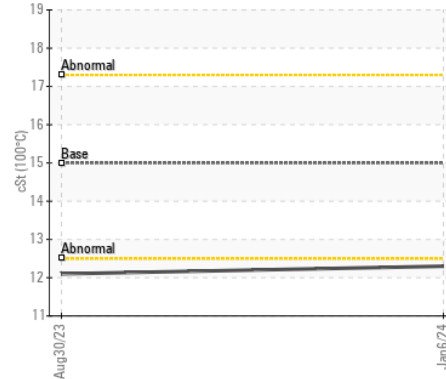
Chromium (ppm)



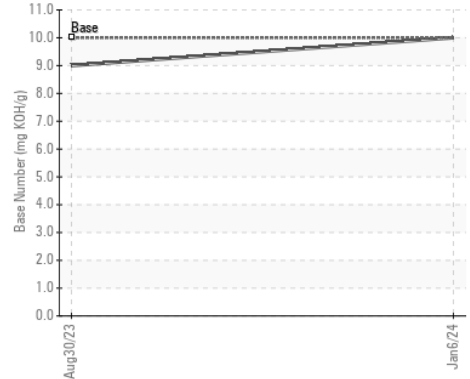
Silicon (ppm)



▲ Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP435533 **Received** : 10 Jan 2024  
**Lab Number** : 06056462 **Diagnosed** : 11 Jan 2024  
**Unique Number** : 10822411 **Diagnostician** : Don Baldrige  
**Test Package** : MOB 1 ( Additional Tests: TBN )

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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