



# VOLVO

## OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Area

**[701481]**

Machine Id

**VOLVO A45G 352411**

Component

**Diesel Engine**

Fluid

**VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP446497</b>	VCP430739	VCP427066
Sample Date		Client Info		<b>10 Apr 2024</b>	22 Nov 2023	19 Jun 2023
Machine Age	hrs	Client Info		<b>6878</b>	6275	5591
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>9</b>	10	20
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>2	<b>1</b>	1	4
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>1</b>	2	<1
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	3	7
Copper	ppm	ASTM D5185m	>330	<b>1</b>	4	20
Tin	ppm	ASTM D5185m	>15	<b>2</b>	1	2
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

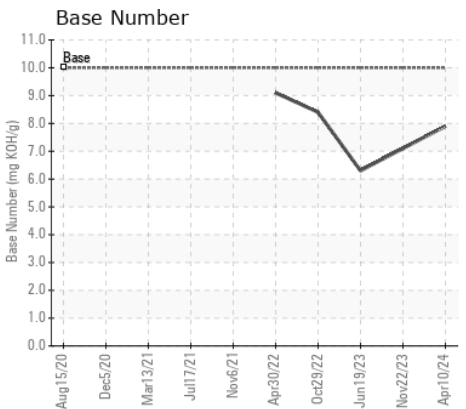
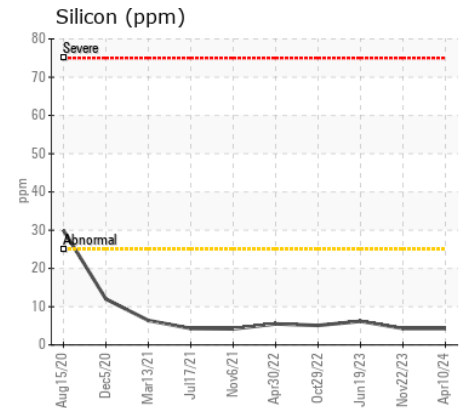
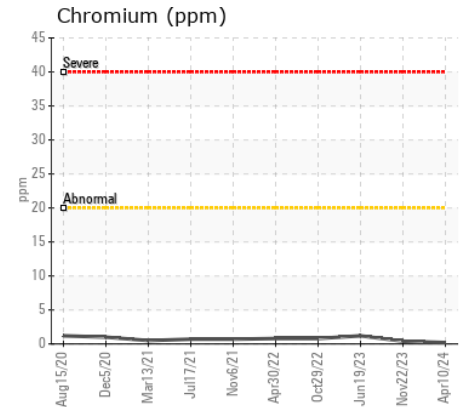
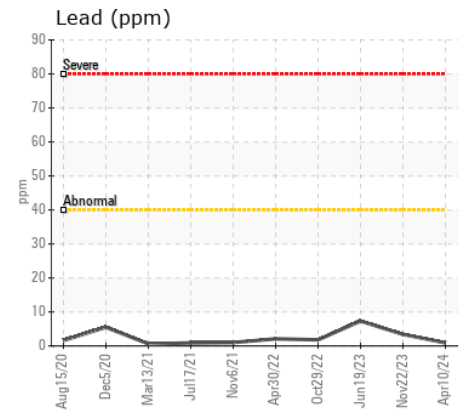
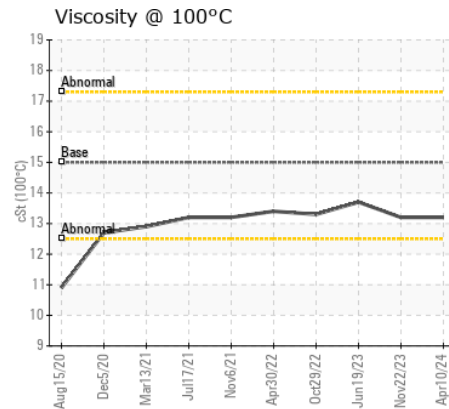
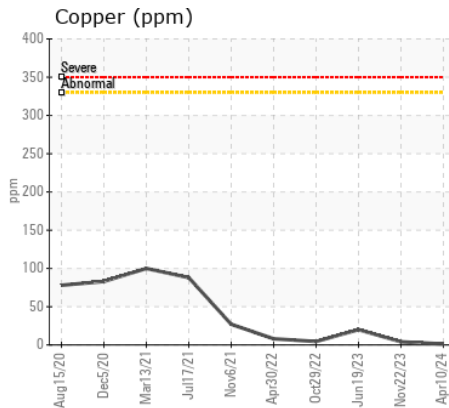
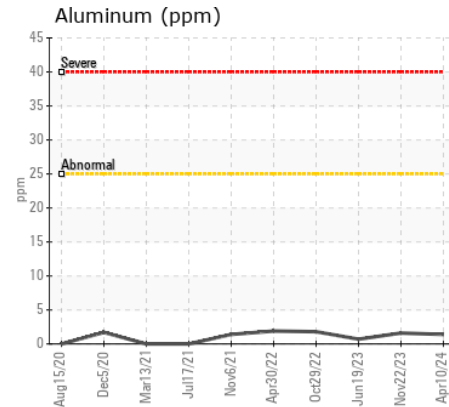
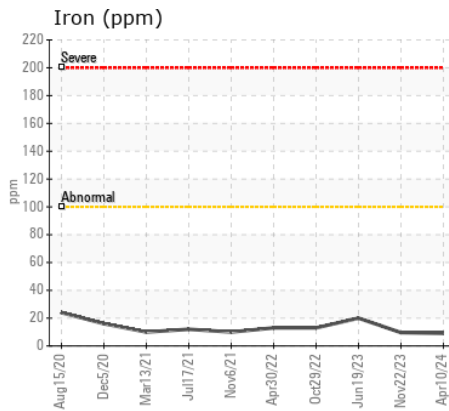
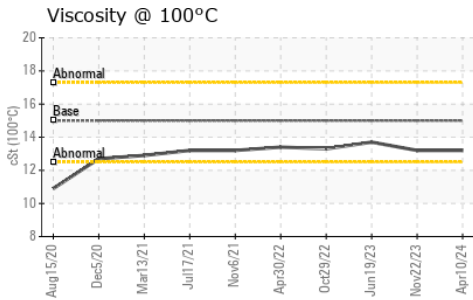
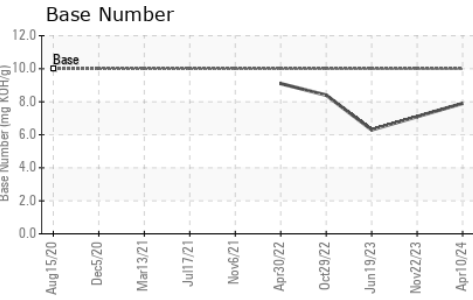
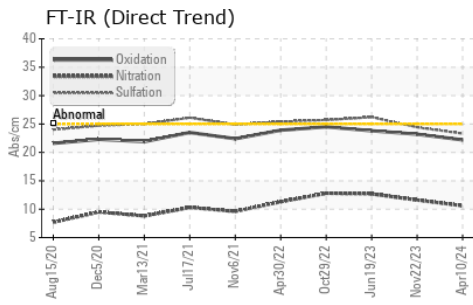
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	4	6
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	3
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.5	0.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.6</b>	11.6	12.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.3</b>	24.4	26.2
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>2</b>	3	6
Boron	ppm	ASTM D5185m	2.5	<b>26</b>	20	16
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m	0.7	<b>44</b>	46	52
Manganese	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	256	<b>510</b>	414	396
Calcium	ppm	ASTM D5185m	2057	<b>2005</b>	1832	2000
Phosphorus	ppm	ASTM D5185m	935	<b>986</b>	962	971
Zinc	ppm	ASTM D5185m	1223	<b>1208</b>	1149	1228
Sulfur	ppm	ASTM D5185m	4079	<b>3781</b>	3012	4280
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>22.2</b>	23.2	23.8
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>7.9</b>	7.1	6.3
Visc @ 100°C	cSt	ASTM D445	15.0	<b>13.2</b>	13.2	13.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP446497  
**Lab Number** : 06150147  
**Unique Number** : 10980225  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**ORANGE COUNTY SOLID WASTE**  
 5901 YOUNG PINE ROAD  
 ORLANDO, FL  
 US 32829  
 Contact: MICHAEL BEEBE  
 michael.beebe@ocfl.net  
 T: (407)836-6652  
 F: (407)836-6650

*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)*