



# VOLVO

## OIL ANALYSIS REPORT

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



Area

**[731174]**

Machine Id

**VOLVO L220H 3352**

Component

**Diesel Engine**

Fluid

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

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP432981</b>	VCP453519	VCP444147
Sample Date		Client Info		<b>27 Jun 2024</b>	01 May 2024	05 Mar 2024
Machine Age	hrs	Client Info		<b>9590</b>	9182	8740
Oil Age	hrs	Client Info		<b>500</b>	500	500
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	N/A
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>3</b>	6	4
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	2	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	2	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	2	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	3	<1
Aluminum	ppm	ASTM D5185m	>10	<b>2</b>	4	2
Lead	ppm	ASTM D5185m	>20	<b>&lt;1</b>	3	<1
Copper	ppm	ASTM D5185m	>15	<b>1</b>	3	2
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	3	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	2	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

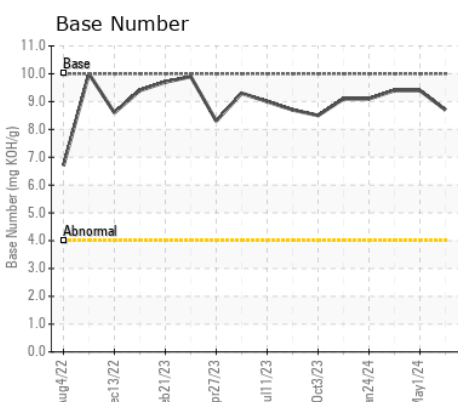
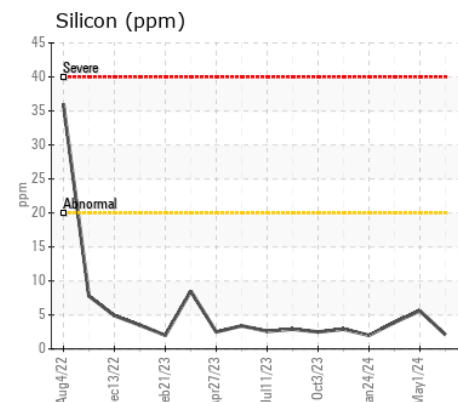
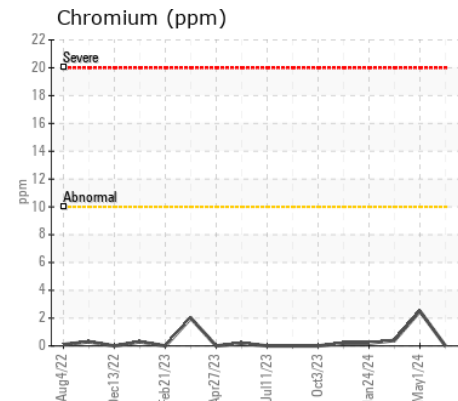
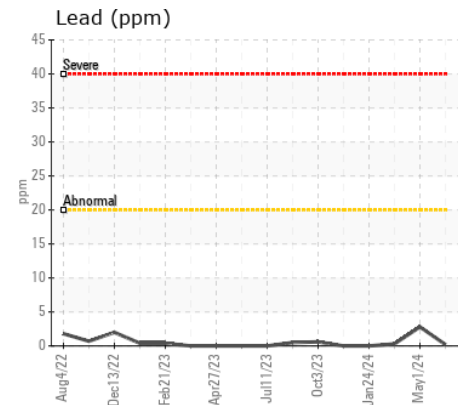
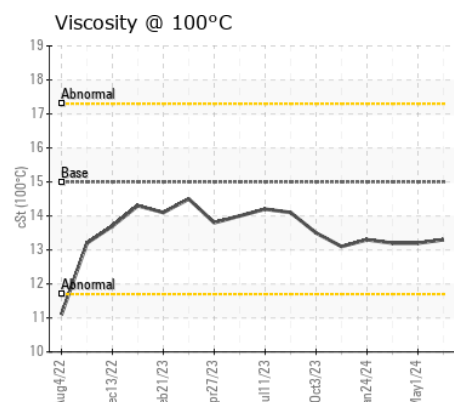
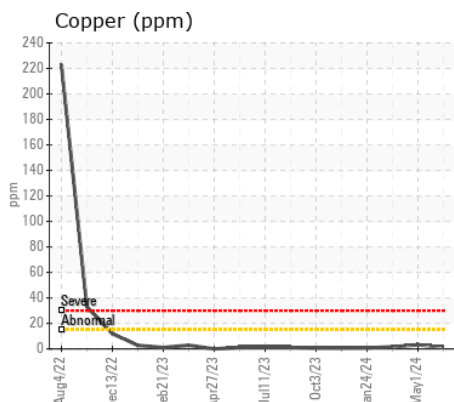
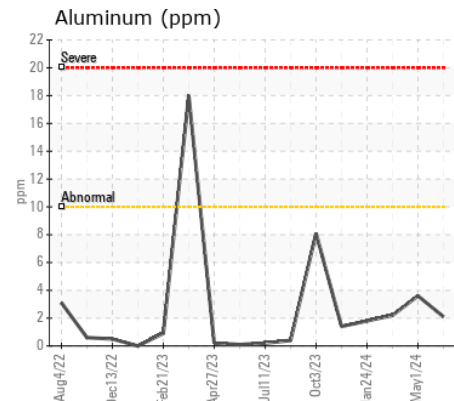
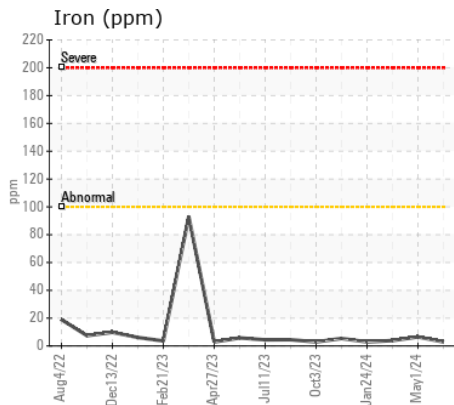
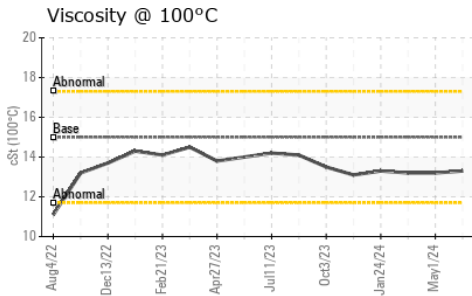
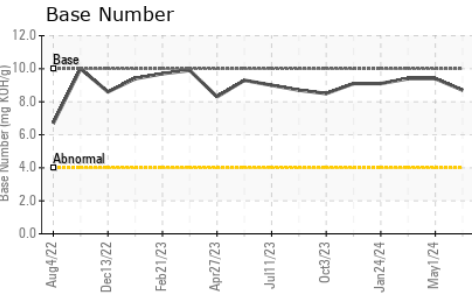
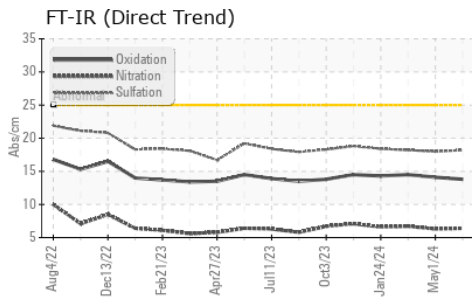
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>2</b>	6	4
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	4	2
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.4</b>	6.3	6.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.2</b>	18.0	18.2
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	>0.1	<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>1</b>	3	<1
Boron	ppm	ASTM D5185m	2.5	<b>27</b>	2	1
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	1	0
Molybdenum	ppm	ASTM D5185m	0.7	<b>62</b>	61	64
Manganese	ppm	ASTM D5185m	0.0	<b>0</b>	2	<1
Magnesium	ppm	ASTM D5185m	256	<b>793</b>	943	1044
Calcium	ppm	ASTM D5185m	2057	<b>1203</b>	1074	1154
Phosphorus	ppm	ASTM D5185m	935	<b>1118</b>	1006	1188
Zinc	ppm	ASTM D5185m	1223	<b>1292</b>	1206	1334
Sulfur	ppm	ASTM D5185m	4079	<b>3934</b>	3418	3816
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.8</b>	14.1	14.5
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>8.7</b>	9.4	9.4
Visc @ 100°C	cSt	ASTM D445	15.0	<b>13.3</b>	13.2	13.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP432981 **Received** : 08 Jul 2024  
**Lab Number** : 06229775 **Tested** : 09 Jul 2024  
**Unique Number** : 11113268 **Diagnosed** : 09 Jul 2024 - Sean Felton  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**ALTA EQUIPMENT COMPANY - METRO WEST**  
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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)