



# VOLVO

## OIL ANALYSIS REPORT

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



Machine Id  
**VOLVO ECR145EL 314907**  
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>VCP449701</b>	VCP444095	VCP424821
Sample Date		Client Info		<b>22 Jun 2024</b>	06 Feb 2024	27 Mar 2023
Machine Age	hrs	Client Info		<b>3676</b>	3067	2045
Oil Age	hrs	Client Info		<b>0</b>	500	500
Filter Age	hrs	Client Info		<b>0</b>	0	500
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>11</b>	17	9
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	1
Aluminum	ppm	ASTM D5185m	>10	<b>4</b>	3	2
Lead	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>15	<b>2</b>	5	2
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

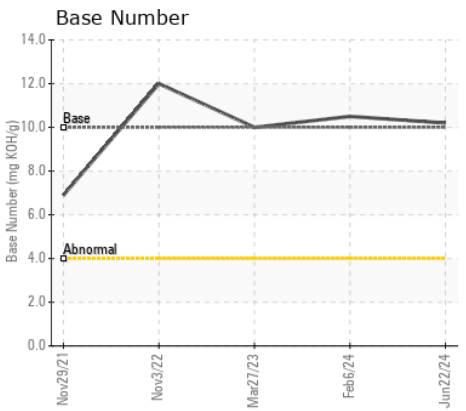
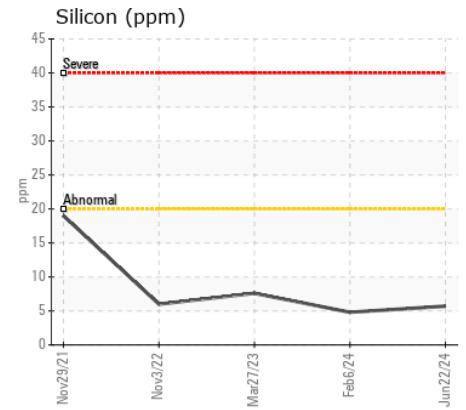
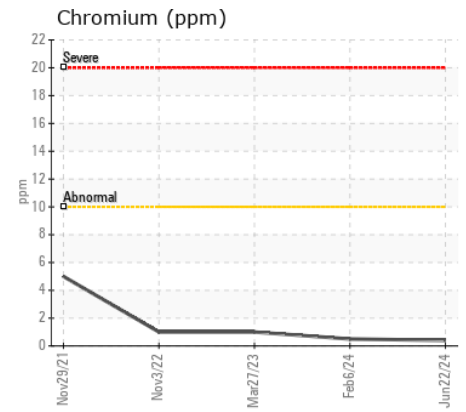
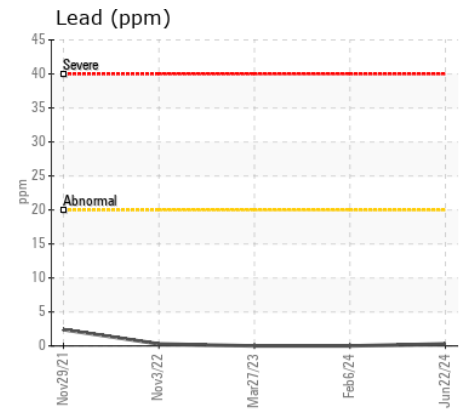
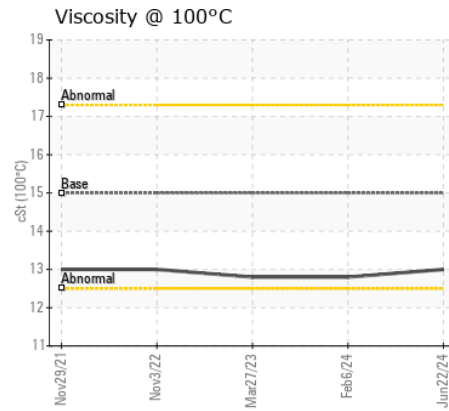
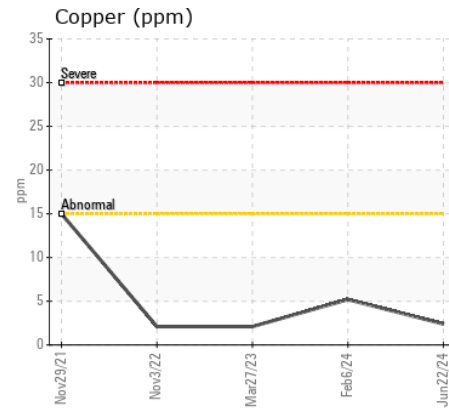
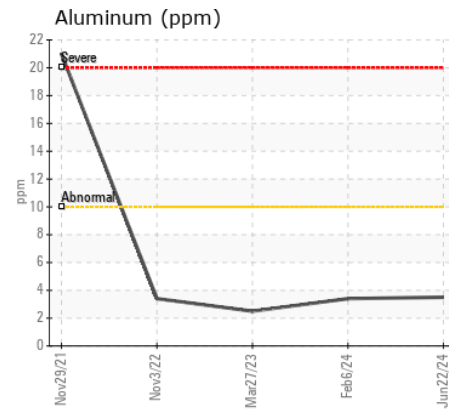
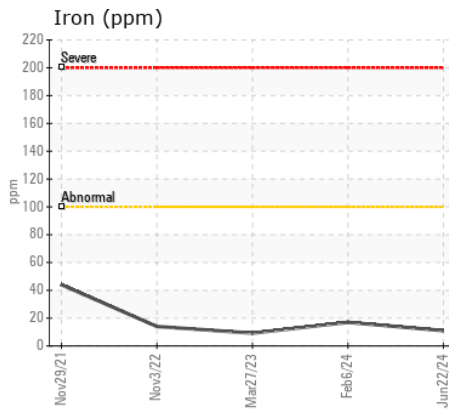
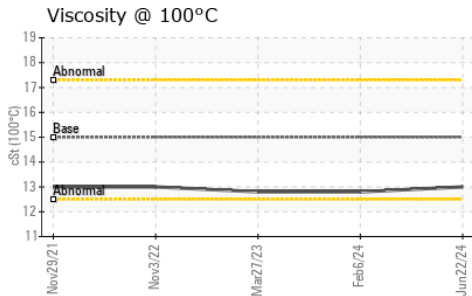
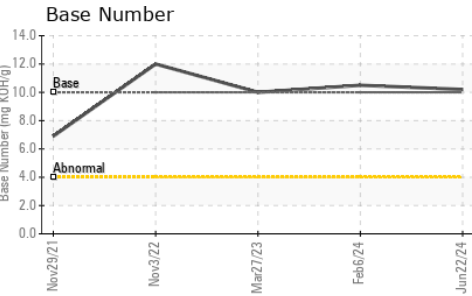
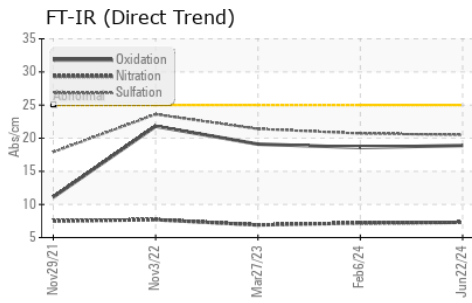
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>6</b>	5	8
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	0	<1
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>0.3</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.3</b>	7.2	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.5</b>	20.7	21.4
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>2</b>	2	4
Boron	ppm	ASTM D5185m	2.5	<b>30</b>	34	30
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.7	<b>45</b>	42	45
Manganese	ppm	ASTM D5185m	0.0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	256	<b>491</b>	484	458
Calcium	ppm	ASTM D5185m	2057	<b>1800</b>	1744	1271
Phosphorus	ppm	ASTM D5185m	935	<b>1018</b>	987	913
Zinc	ppm	ASTM D5185m	1223	<b>1215</b>	1125	905
Sulfur	ppm	ASTM D5185m	4079	<b>3715</b>	3062	2851
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.9</b>	18.6	19.1
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>10.2</b>	10.5	10.0
Visc @ 100°C	cSt	ASTM D445	15.0	<b>13.0</b>	12.8	12.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP449701 **Received** : 08 Jul 2024  
**Lab Number** : 06229779 **Tested** : 09 Jul 2024  
**Unique Number** : 11113272 **Diagnosed** : 09 Jul 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

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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)