



# VOLVO

## OIL ANALYSIS REPORT

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



Area  
**[25023]**  
Machine Id  
**VOLVO L90G 617079**  
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>VCP440954</b>	VCP405643	VCP411022
Sample Date		Client Info		<b>20 Feb 2024</b>	03 Aug 2023	02 May 2023
Machine Age	hrs	Client Info		<b>13412</b>	12863	12413
Oil Age	hrs	Client Info		<b>0</b>	1000	1000
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ATTENTION	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>8</b>	7	7
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>6</b>	2	5
Lead	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>15	<b>1</b>	0	0
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

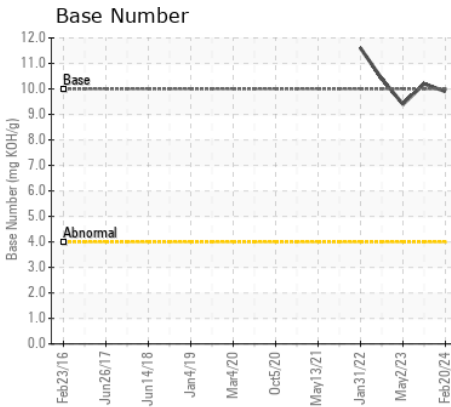
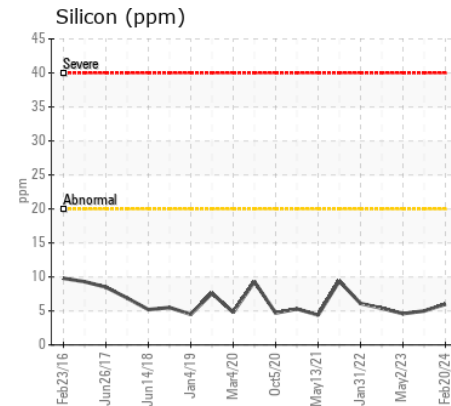
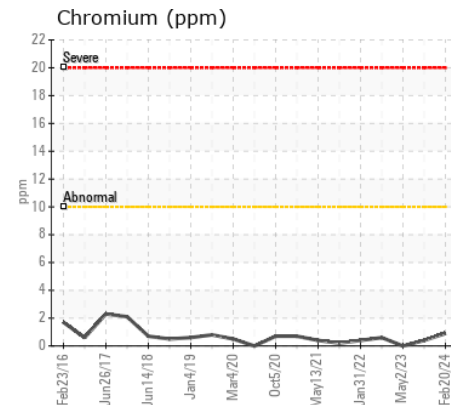
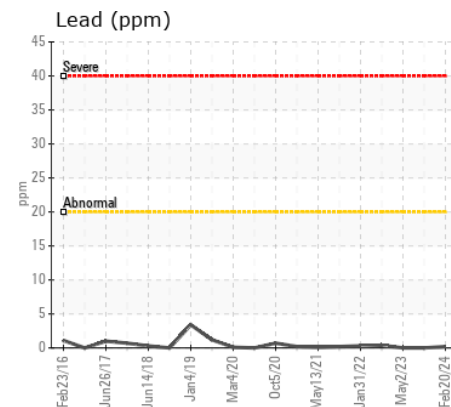
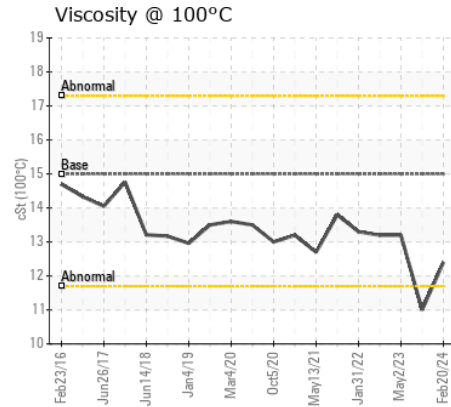
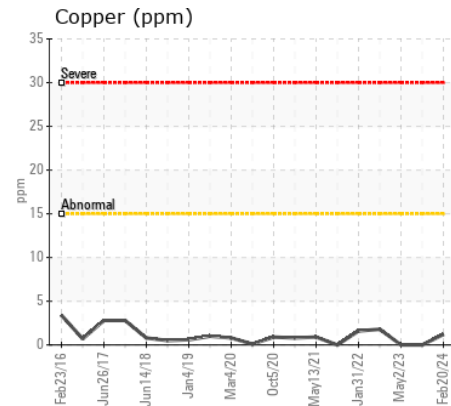
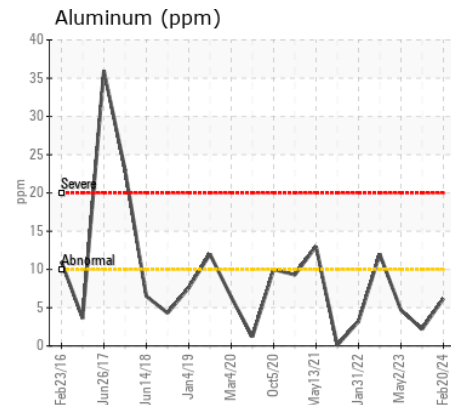
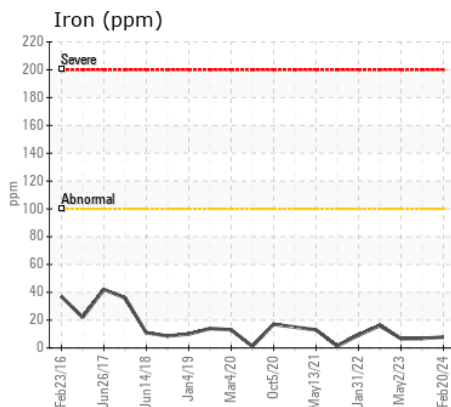
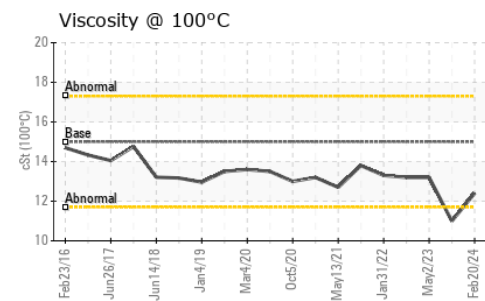
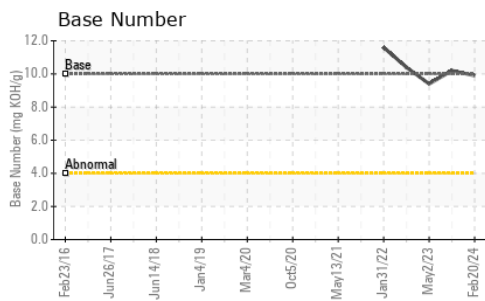
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>6</b>	5	5
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	0
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	2.7	<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>0.2</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.5</b>	5.8	5.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.8</b>	18.5	19.4
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>4</b>	0	1
Boron	ppm	ASTM D5185m	2.5	<b>43</b>	61	46
Barium	ppm	ASTM D5185m	0.0	<b>34</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.7	<b>40</b>	22	43
Manganese	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	256	<b>465</b>	347	578
Calcium	ppm	ASTM D5185m	2057	<b>1493</b>	2481	1767
Phosphorus	ppm	ASTM D5185m	935	<b>826</b>	1008	987
Zinc	ppm	ASTM D5185m	1223	<b>1027</b>	1310	1236
Sulfur	ppm	ASTM D5185m	4079	<b>3053</b>	6942	3475
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.7</b>	14.0	18.2
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>9.9</b>	10.2	9.4
Visc @ 100°C	cSt	ASTM D445	15.0	<b>12.4</b>	▲ 11.0	13.2



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP440954 **Received** : 26 Feb 2024  
**Lab Number** : 06099928 **Tested** : 27 Feb 2024  
**Unique Number** : 10898158 **Diagnosed** : 27 Feb 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**218 - ASCENDUM MACHINERY INC - N. CHARLESTON**  
 7235 CROSS COUNTRY RD.  
 NORTH CHARLESTON, SC  
 US 29418  
 Contact: MATT MITCHAM  
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Certificate L2367  
 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) F: (843)414-1129