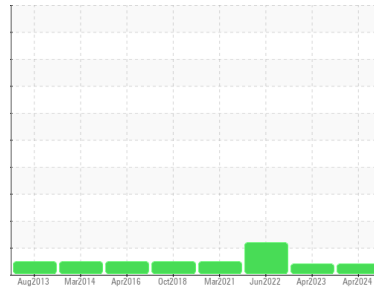


# OIL ANALYSIS REPORT

## Sample Rating Trend



## VISCOSITY



Machine Id  
**VOLVO A25D 72022**  
 Component  
**Diesel Engine**  
 Fluid  
**VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)**

### DIAGNOSIS

#### Recommendation

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

#### Wear

All component wear rates are normal.

#### Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

#### 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.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>ML0001423</b>	VCP422371	VCP289679
Sample Date	Client Info		<b>16 Apr 2024</b>	18 Apr 2023	03 Jun 2022
Machine Age	hrs	Client Info	<b>11479</b>	11178	10638
Oil Age	hrs	Client Info	<b>301</b>	0	0
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>ATTENTION</b>	ATTENTION	ATTENTION

### CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

### WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>9</b>	6	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>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	1
Aluminum	ppm	ASTM D5185m >10	<b>2</b>	0	2
Lead	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	1
Copper	ppm	ASTM D5185m >15	<b>5</b>	<1	<1
Tin	ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	1
Antimony	ppm	ASTM D5185m	<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

### ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2.5	<b>45</b>	61	10
Barium	ppm	ASTM D5185m 0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 0.7	<b>41</b>	39	55
Manganese	ppm	ASTM D5185m 0.0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 256	<b>614</b>	531	870
Calcium	ppm	ASTM D5185m 2057	<b>1312</b>	1789	1233
Phosphorus	ppm	ASTM D5185m 935	<b>676</b>	938	1010
Zinc	ppm	ASTM D5185m 1223	<b>808</b>	1117	1280
Sulfur	ppm	ASTM D5185m 4079	<b>2617</b>	3249	3324

### CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	<b>9</b>	5	5
Sodium	ppm	ASTM D5185m	<b>3</b>	1	3
Potassium	ppm	ASTM D5185m >20	<b>0</b>	<1	<1
Fuel	%	ASTM D3524 >3.0	<b>0.8</b>	<1.0	▲ 2.9

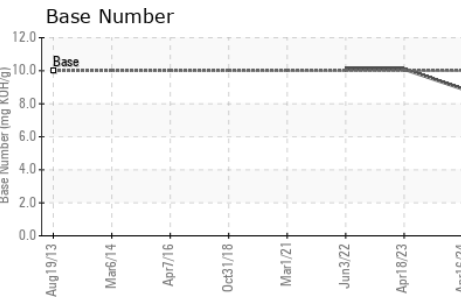
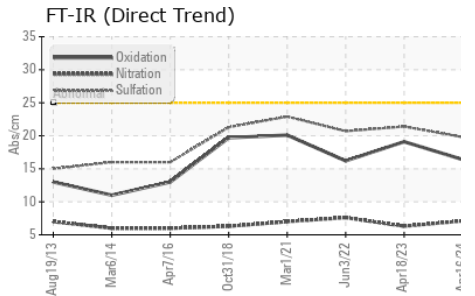
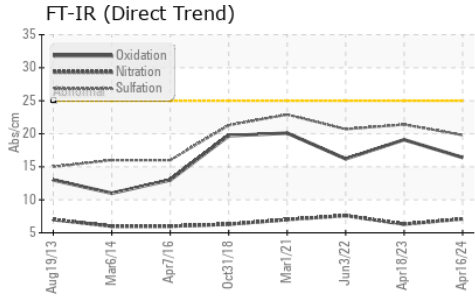
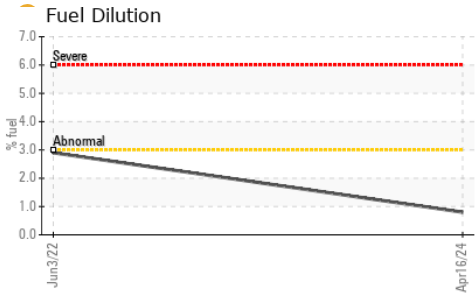
### INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.1</b>	0.1	0.2
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.1</b>	6.3	7.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.8</b>	21.4	20.7

### FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.4</b>	19.1	16.2
Base Number (BN)	mg KOH/g	ASTM D2896 10	<b>8.9</b>	10.1	10.1

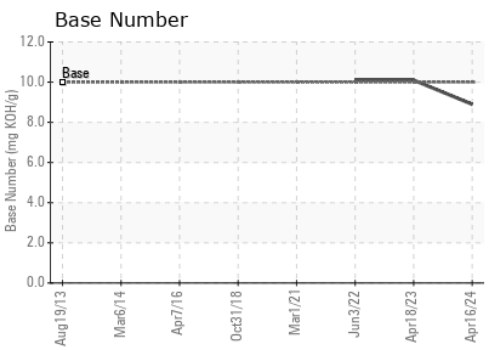
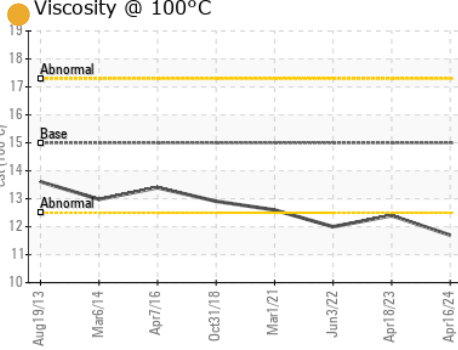
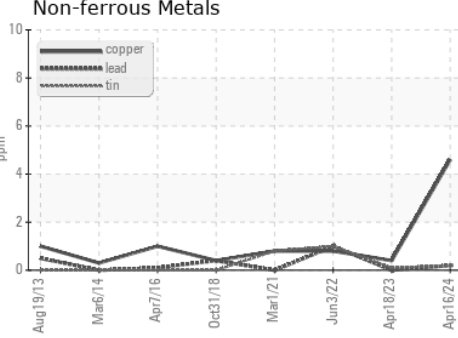
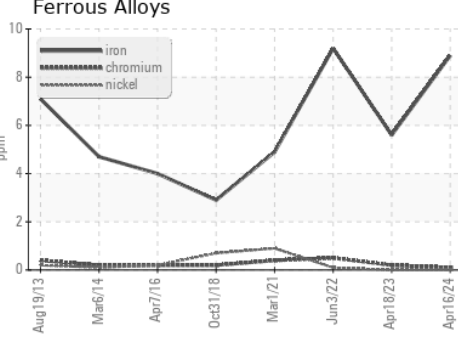
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.0	● 11.7	● 12.4	● 12.0

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ML0001423      **Received** : 22 Apr 2024  
**Lab Number** : 06155557      **Tested** : 25 Apr 2024  
**Unique Number** : 10990980      **Diagnosed** : 25 Apr 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, TBN )

**McCLUNG-LOGAN EQUIPMENT CO - RICHMOND**  
 1345 MOUNTAIN ROAD  
 GLEN ALLEN, VA  
 US 23060  
 Contact: KYLE RATLIFF  
 KRATLIFFE@McCLUNG-LOGAN.COM

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: (804)266-1611