



OIL ANALYSIS REPORT

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



Machine Id  
**VOLVO A25D 1017 (S/N 134424)**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (11 GAL)**

**RECOMMENDATION**

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>CL0005058</b>	CL0004698	CL0003990
Sample Date		Client Info		<b>03 Jan 2024</b>	10 Sep 2023	05 Feb 2023
Machine Age	hrs	Client Info		<b>14280</b>	13830	13330
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>ABNORMAL</b>	NORMAL	ATTENTION

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>4</b>	2	5
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>2</b>	0	2
Lead	ppm	ASTM D5185m	>20	<b>0</b>	0	1
Copper	ppm	ASTM D5185m	>15	<b>0</b>	0	<1
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
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**

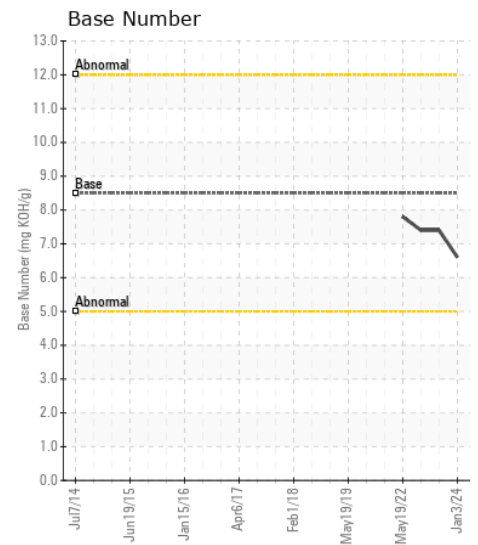
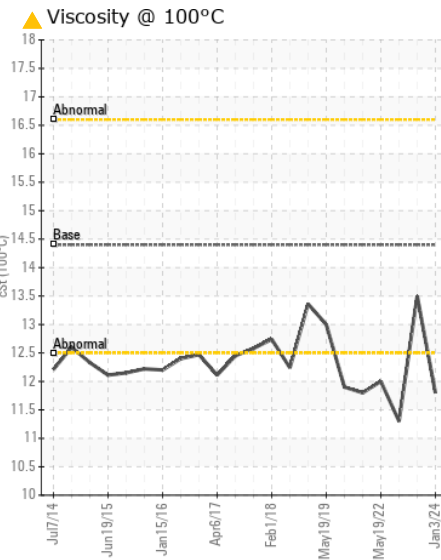
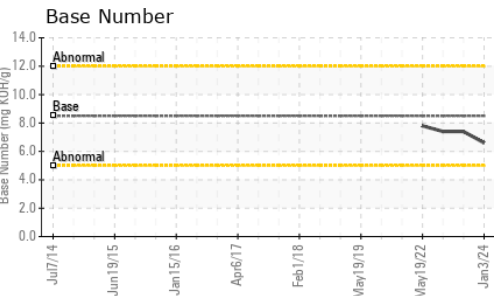
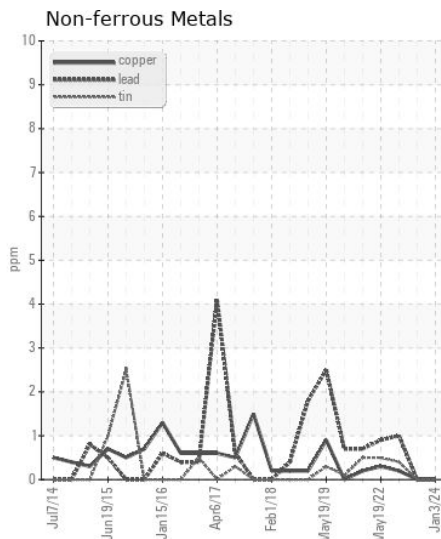
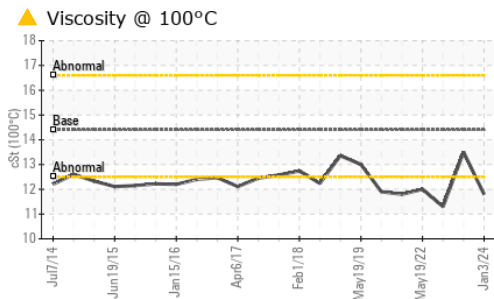
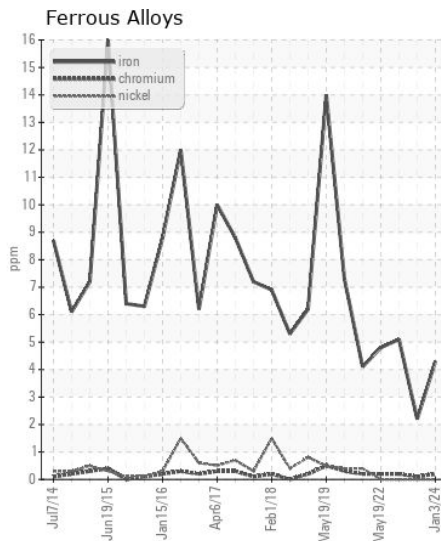
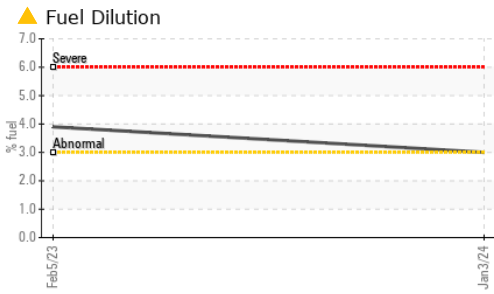
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>3</b>	3	3
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	1	<1
Fuel	%	ASTM D3524	>3.0	<b>▲ 3.0</b>	<1.0	<b>▲ 3.9</b>
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>	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.1</b>	5.1	7.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.7</b>	15.2	18.0
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. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m	>158	<b>&lt;1</b>	2	2
Boron	ppm	ASTM D5185m	250	<b>73</b>	24	89
Barium	ppm	ASTM D5185m	10	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m	100	<b>81</b>	15	76
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>28</b>	135	146
Calcium	ppm	ASTM D5185m	3000	<b>2214</b>	2242	1990
Phosphorus	ppm	ASTM D5185m	1150	<b>1019</b>	921	972
Zinc	ppm	ASTM D5185m	1350	<b>1174</b>	1080	1123
Sulfur	ppm	ASTM D5185m	4250	<b>4081</b>	4323	4089
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.2</b>	9.1	13.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>6.6</b>	7.4	7.4
Visc @ 100°C	cSt	ASTM D445	14.4	<b>▲ 11.8</b>	13.5	<b>▲ 11.3</b>



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : CL0005058 **Received** : 10 Jan 2024  
**Lab Number** : 06057305 **Diagnosed** : 12 Jan 2024  
**Unique Number** : 10823254 **Diagnostician** : Wes Davis  
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, TBN )

**PURCELL CONSTRUCTION**  
 3100 HIGH RIDGE RD  
 CHARLOTTE, NC  
 US 28270  
 Contact: BEN MILKE  
 ben@purcellconst.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)

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F: