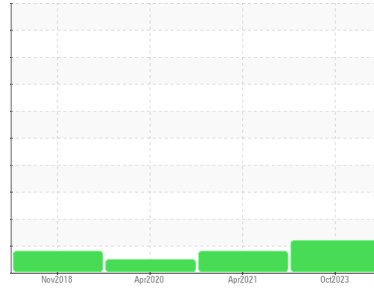
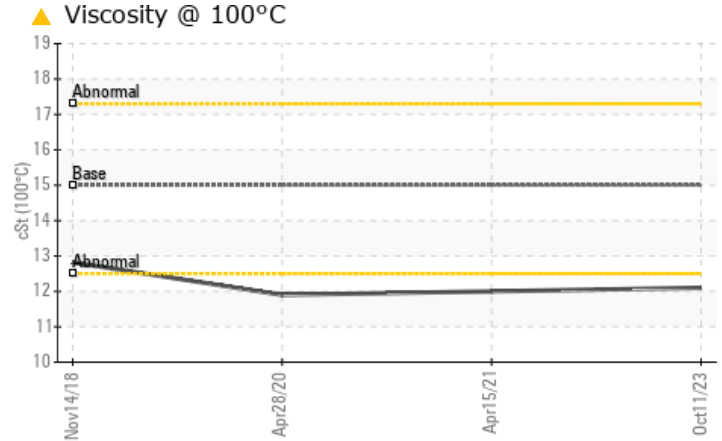
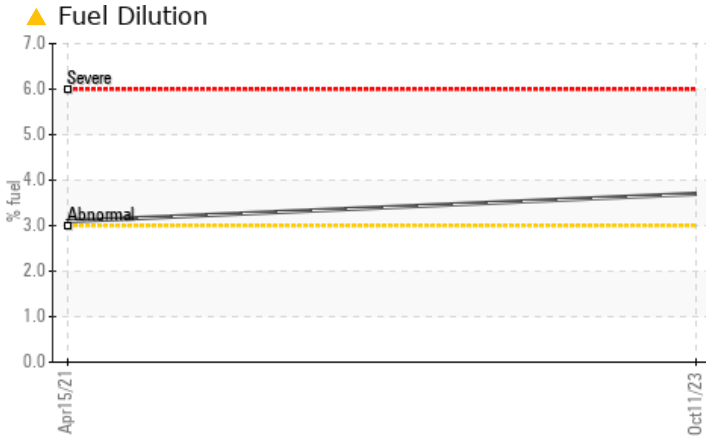




Machine Id
VOLVO A25D 15845
 Component
Diesel Engine
 Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	MARGINAL	NORMAL
Fuel	%	ASTM D3524	>3.0	▲ 3.7	▲ 3.1	<1.0
Visc @ 100°C	cSt	ASTM D445	15.0	▲ 12.1	12.0	11.9

Customer Id: WHIBRE
 Sample No.: ASC0003241
 Lab Number: 05979386
 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

15 Apr 2021 Diag: Jonathan Hester

FUEL



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. Light fuel dilution occurring. The condition of the oil is acceptable for the time in service.

[view report](#)



28 Apr 2020 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the component. The condition of the oil is acceptable for the time in service.

[view report](#)



14 Nov 2018 Diag: Don Baldrige

WEAR



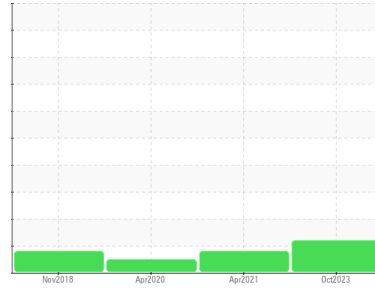
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)





Machine Id
VOLVO A25D 15845
 Component
Diesel Engine
 Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)



DIAGNOSIS

Recommendation
 The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear
 All component wear rates are normal.

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

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.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	ASC0003241	VCP308066	VCP281714
Sample Date	Client Info	11 Oct 2023	15 Apr 2021	28 Apr 2020
Machine Age	hrs	7015	5990	5548
Oil Age	hrs	500	0	0
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		ABNORMAL	MARGINAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	8	9	12
Chromium	ppm ASTM D5185m >10	<1	<1	<1
Nickel	ppm ASTM D5185m >10	<1	<1	<1
Titanium	ppm ASTM D5185m	0	0	0
Silver	ppm ASTM D5185m >2	0	0	0
Aluminum	ppm ASTM D5185m >10	0	1	2
Lead	ppm ASTM D5185m >20	<1	<1	<1
Copper	ppm ASTM D5185m >15	2	4	11
Tin	ppm ASTM D5185m >10	<1	<1	<1
Antimony	ppm ASTM D5185m	---	<1	0
Vanadium	ppm ASTM D5185m	0	0	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 2.5	52	61	35
Barium	ppm ASTM D5185m 0.0	2	0	0
Molybdenum	ppm ASTM D5185m 0.7	38	15	37
Manganese	ppm ASTM D5185m 0.0	<1	<1	<1
Magnesium	ppm ASTM D5185m 256	446	624	461
Calcium	ppm ASTM D5185m 2057	1528	1401	1537
Phosphorus	ppm ASTM D5185m 935	867	712	695
Zinc	ppm ASTM D5185m 1223	976	820	767
Sulfur	ppm ASTM D5185m 4079	2568	2447	2600

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >20	5	<1	4
Sodium	ppm ASTM D5185m	0	1	3
Potassium	ppm ASTM D5185m >20	<1	2	0
Fuel	% ASTM D3524 >3.0	▲ 3.7	▲ 3.1	<1.0

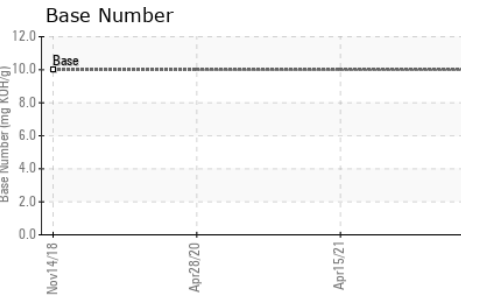
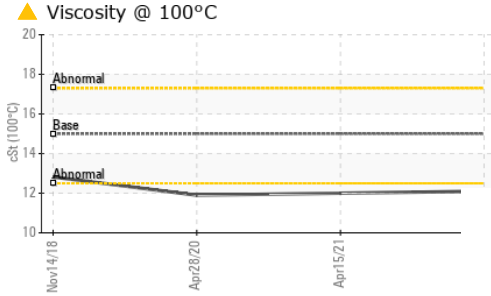
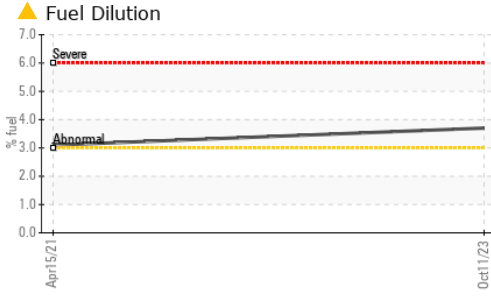
INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.7	0.9	1.2
Nitration	Abs/cm *ASTM D7624 >20	7.2	9	8
Sulfation	Abs/.1mm *ASTM D7415 >30	22.4	22.4	23.6

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	19.0	16.9	19.8
Base Number (BN)	mg KOH/g ASTM D2896 10	9.3	---	---

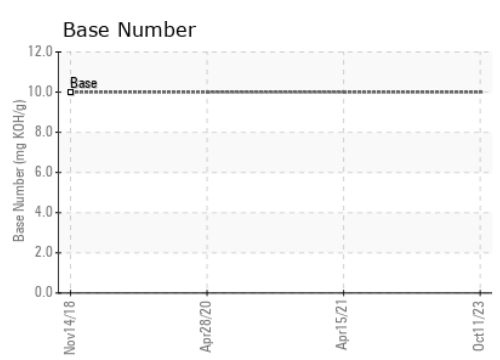
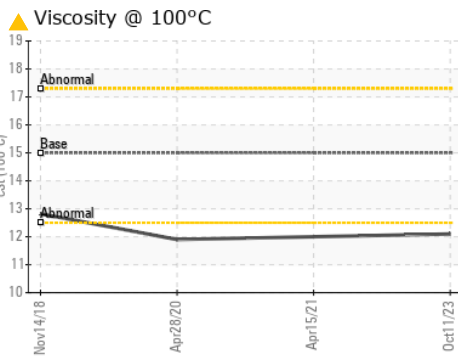
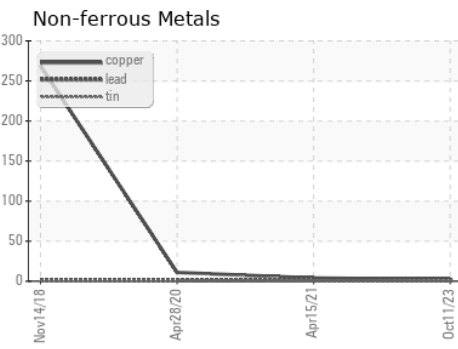
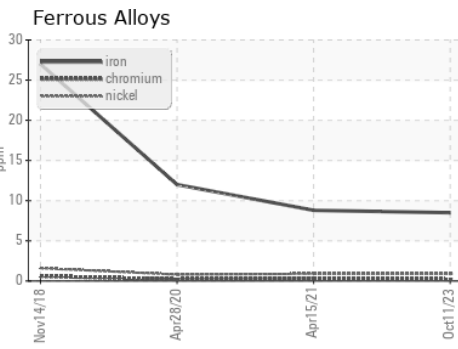
OIL ANALYSIS REPORT



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	▲ 12.1	12.0	11.9

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0003241 **Received** : 16 Oct 2023
Lab Number : 05979386 **Diagnosed** : 17 Oct 2023
Unique Number : 10696681 **Diagnostician** : Wes Davis
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)
 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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