

## Machine Id VOLVO A40G 341239

Diesel Engine

VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		ASC0011182	ASC0006139	,
Resample at the next service interval to monitor.	Sample Date		Client Info		18 Jun 2024	06 Dec 2023	23 Aug 2023
	Machine Age	hrs	Client Info		14163	13842	13390
	Oil Age	hrs	Client Info		500	442	0
	Filter Age	hrs	Client Info		500	442	0
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185m	>200	11	14	21
	Chromium	ppm	ASTM D5185m		<1	<1	1
	Nickel	ppm	ASTM D5185m		2	0	1
	Titanium	ppm	ASTM D5185m		3	24	<1
	Silver	ppm	ASTM D5185m	>2	<1	0	0
	Aluminum	ppm	ASTM D5185m		4	5	10
	Lead	ppm	ASTM D5185m	>40	1	3	7
	Copper	ppm	ASTM D5185m	>20	1	2	4
	Tin	ppm	ASTM D5185m	>20	<1	0	1
	Vanadium	ppm	ASTM D5185m		<1	0	<1
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon		ASTM D5185m	. 20	E	6	12
CONTAMINATION	Potassium	ppm ppm	ASTM D5185m		5 2	6 <1	5
There is no indication of any contamination in the oil.	Fuel	ppm	WC Method		<1.0	<1.0	<1.0
	Water		WC Method		NEG	NEG	NEG
	Glycol		WC Method	20.L	NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.3	0.3	0.5
	Nitration	Abs/cm	*ASTM D7624	>20	7.2	12.4	12.3
	Sulfation	Abs/.1mm	*ASTM D7415		18.9	26.9	28.2
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	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		22	12	27
	Boron	ppm	ASTM D5185m	2.5	8	48	38
	Barium	ppm	ASTM D5185m		1	0	0
	Molybdenum	ppm	ASTM D5185m		61	46	53
	Manganese	ppm	ASTM D5185m	0.0	<1	<1	1
	Magnesium	ppm	ASTM D5185m		901	864	708
	Calcium	ppm	ASTM D5185m	2057	1160	1628	1783
	Phosphorus	ppm	ASTM D5185m	935	1142	1129	1017
	Zinc	ppm	ASTM D5185m	1223	1267	1353	1324
	Sulfur	ppm	ASTM D5185m	4079	3419	3618	3674
	Oxidation	Abs/.1mm	*ASTM D7414	>25	14.4	25.2	27.5
	Base Number (BN)	mg KOH/g	ASTM D2896	10	8.8	6.7	6.7
		0.	AOTH DAAF	4 - 0			110

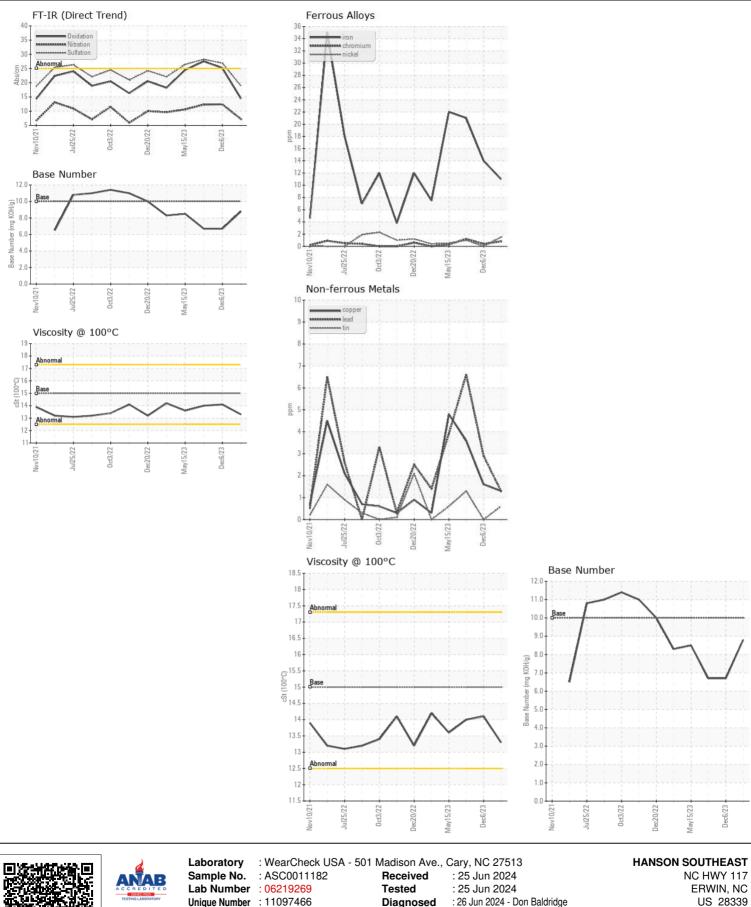
Visc @ 100°C cSt

ASTM D445 15.0

14.1

14.0

13.3



Certificate L2367 Test Package : CONST (Additional Tests: 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)

T: F:

Contact: Service Manager

Contact/Location: Service Manager - HANERW Page 2 of 2