



ASCENDUM

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
VOLVO L90H 624539
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		ASC0009028	VCP423879	VCP425388
Sample Date		Client Info		09 Jul 2024	03 Aug 2023	06 Jul 2023
Machine Age	hrs	Client Info		9543	8483	8365
Oil Age	hrs	Client Info		500	0	0
Filter Age	hrs	Client Info		500	0	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	46	4	11
Chromium	ppm	ASTM D5185m	>20	4	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>30	12	2	4
Lead	ppm	ASTM D5185m	>40	<1	<1	<1
Copper	ppm	ASTM D5185m	>20	6	<1	<1
Tin	ppm	ASTM D5185m	>20	3	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

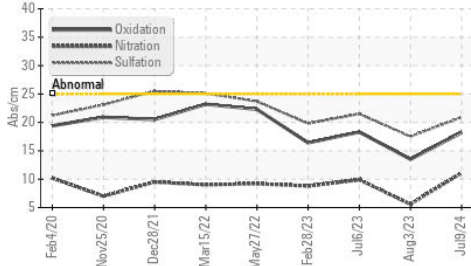
Silicon	ppm	ASTM D5185m	>20	18	3	4
Potassium	ppm	ASTM D5185m	>20	4	1	9
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.9	0.2	0.7
Nitration	Abs/cm	*ASTM D7624	>20	11.1	5.6	9.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.9	17.5	21.5
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

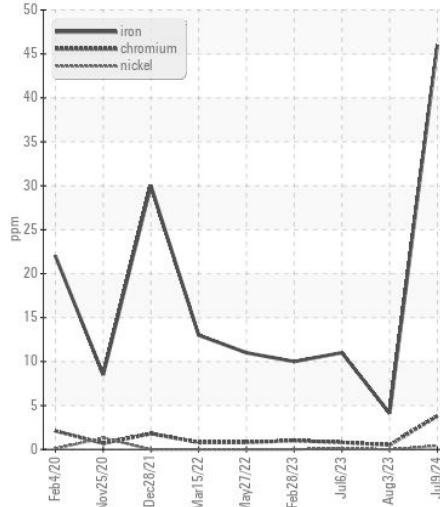
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		4	<1	3
Boron	ppm	ASTM D5185m	2.5	11	6	7
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.7	60	62	64
Manganese	ppm	ASTM D5185m	0.0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	256	953	921	911
Calcium	ppm	ASTM D5185m	2057	1302	1188	1226
Phosphorus	ppm	ASTM D5185m	935	1134	1055	1087
Zinc	ppm	ASTM D5185m	1223	1366	1220	1291
Sulfur	ppm	ASTM D5185m	4079	3762	3128	3190
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.2	13.5	18.3
Base Number (BN)	mg KOH/g	ASTM D2896	10	7.4	9.1	9.4
Visc @ 100°C	cSt	ASTM D445	15.0	15.1	14.4	14.7

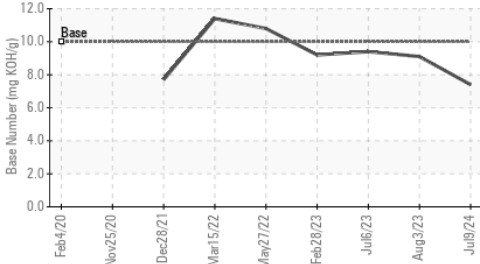
FT-IR (Direct Trend)



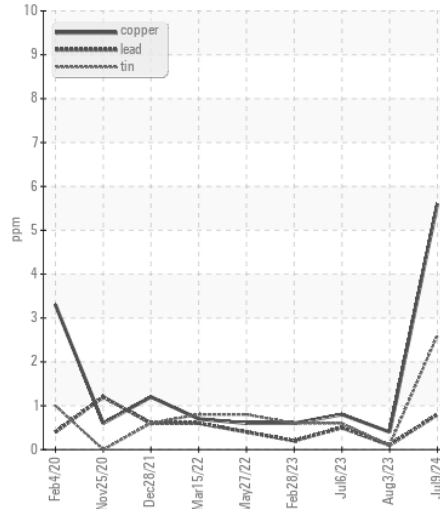
Ferrous Alloys



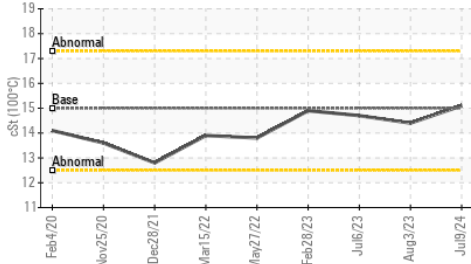
Base Number



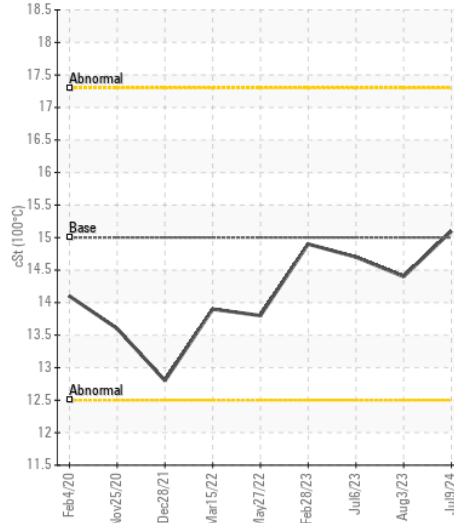
Non-ferrous Metals



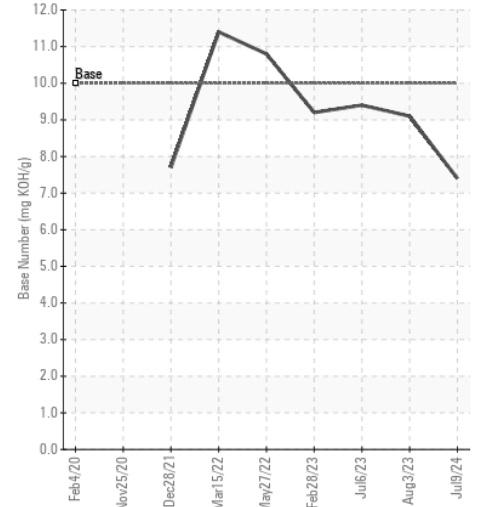
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : ASC0009028
 Lab Number : 06231917
 Unique Number : 11115410
 Test Package : CONST (Additional Tests: TBN)

IAA - INSURANCE AUTO AUCTIONS - CLAYTON
 60 SADISCO RD
 CLAYTON, NC
 US 27520
 Contact: Service Manager

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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