



ASCENDUM

OIL ANALYSIS REPORT



Area

Raleigh, NC/Ascendum Machinery Service Agreement

Machine Id

VOLVO L90H 623127

Component

Diesel Engine

Fluid

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

WEAR

NORMAL

CONTAMINATION

ABNORMAL

FLUID CONDITION

NORMAL

RECOMMENDATION

We advise that you check for the source of water entry. Resample at the next service interval to monitor. Please note that this is a corrected copy for laboratory data updates to add KF results.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0002878	ASC0008832	VCP418466
Sample Date		Client Info		09 Apr 2024	29 Feb 2024	03 Jul 2023
Machine Age	hrs	Client Info		10643	10477	9812
Oil Age	hrs	Client Info		0	10477	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	40	67	16
Chromium	ppm	ASTM D5185m	>10	2	9	1
Nickel	ppm	ASTM D5185m	>10	<1	1	<1
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	5	19	5
Lead	ppm	ASTM D5185m	>20	<1	<1	<1
Copper	ppm	ASTM D5185m	>15	2	8	1
Tin	ppm	ASTM D5185m	>10	<1	3	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

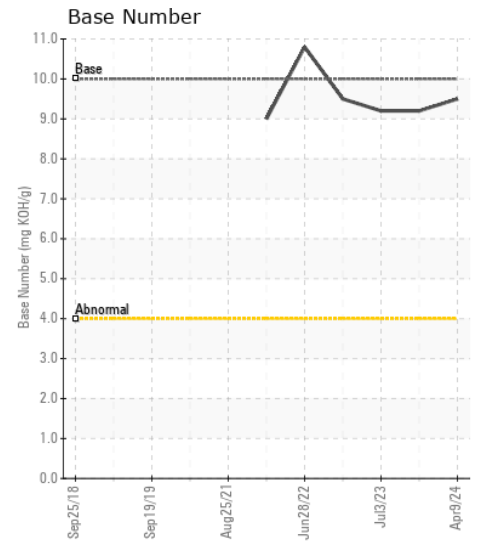
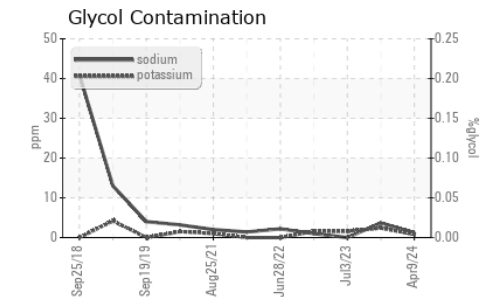
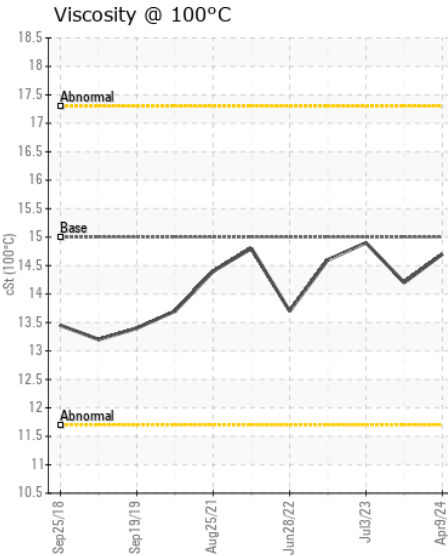
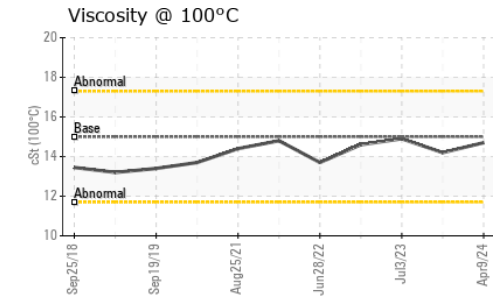
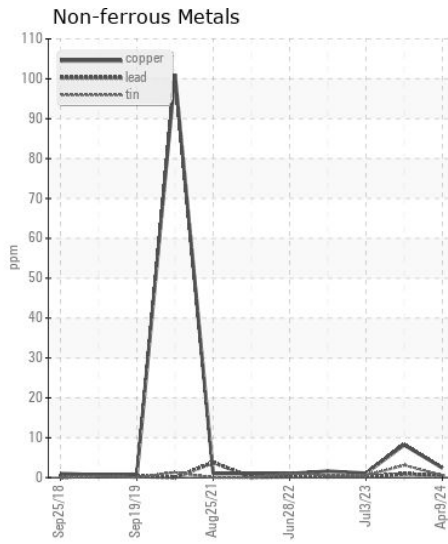
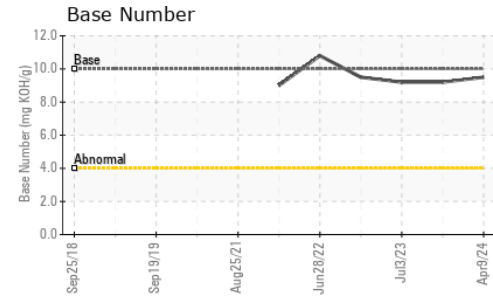
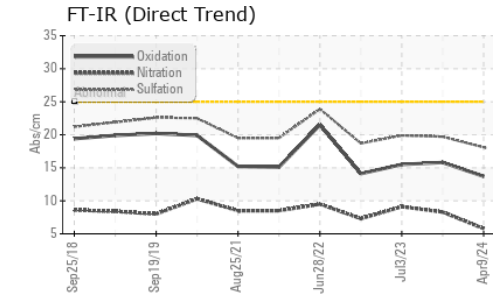
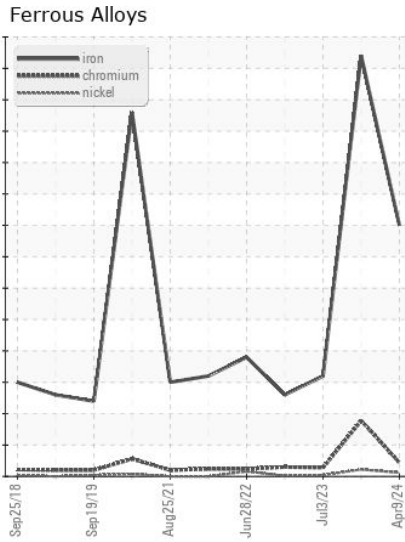
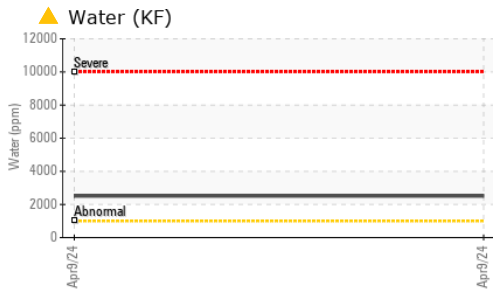
There is a light concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>20	8	34	6
Potassium	ppm	ASTM D5185m	>20	<1	2	2
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water	%	ASTM D6304	>0.1	0.251	---	---
ppm Water	ppm	ASTM D6304	>1000	2510	---	---
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.9	1
Nitration	Abs/cm	*ASTM D7624	>20	5.8	8.3	9.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.1	19.7	19.9
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	>0.1	0.2%	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		1	4	0
Boron	ppm	ASTM D5185m	2.5	0	9	0
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.7	61	61	65
Manganese	ppm	ASTM D5185m	0.0	<1	1	<1
Magnesium	ppm	ASTM D5185m	256	1021	962	959
Calcium	ppm	ASTM D5185m	2057	1163	1271	1126
Phosphorus	ppm	ASTM D5185m	935	1116	1140	1083
Zinc	ppm	ASTM D5185m	1223	1351	1329	1290
Sulfur	ppm	ASTM D5185m	4079	3910	3523	3302
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.7	15.8	15.5
Base Number (BN)	mg KOH/g	ASTM D2896	10	9.5	9.2	9.2
Visc @ 100°C	cSt	ASTM D445	15.0	14.7	14.2	14.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0002878
Lab Number : 06145590
Unique Number : 10970398
Test Package : CONST (Additional Tests: Glycol, KF, TBN)

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

Received : 11 Apr 2024
Tested : 15 Apr 2024
Diagnosed : 15 Apr 2024 - Jonathan Hester

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: