



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Area
[ASH]
 Machine Id
VOLVO A60H 350269

Component
Diesel Engine

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

RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP393186	VCP393192	VCP401102
Sample Date		Client Info		20 Jul 2023	13 Jul 2023	15 Jun 2023
Machine Age	hrs	Client Info		1787	1658	1648
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	ABNORMAL	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	5	2	3
Chromium	ppm	ASTM D5185m	>20	<1	0	0
Nickel	ppm	ASTM D5185m	>2	<1	1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	<1	10
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	2	2	13
Tin	ppm	ASTM D5185m	>15	0	0	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

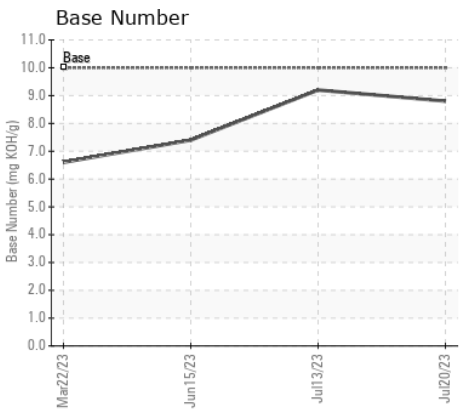
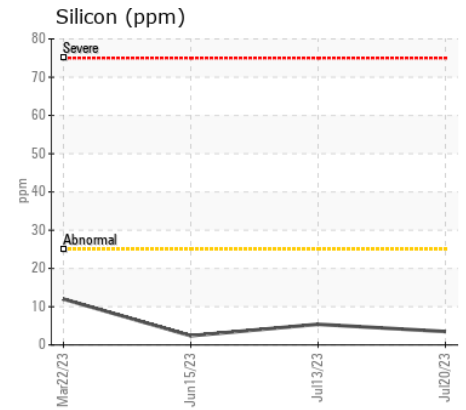
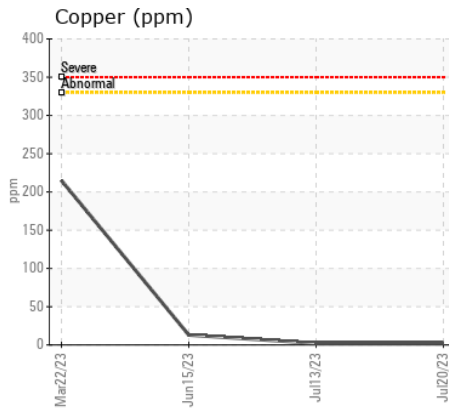
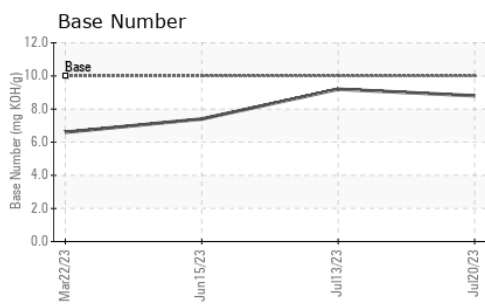
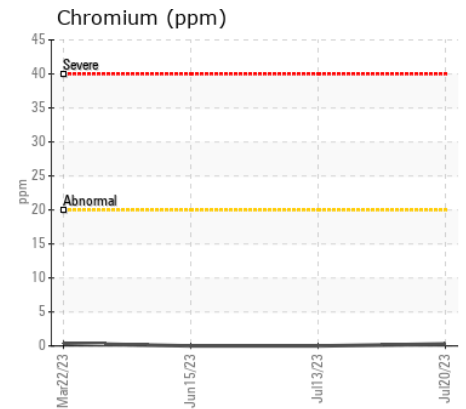
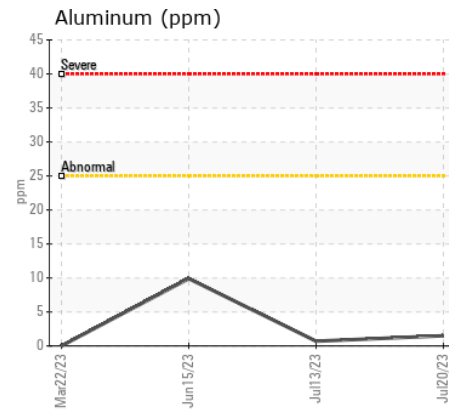
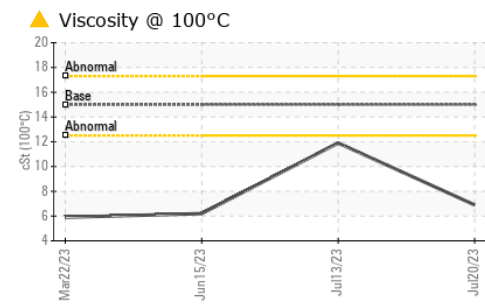
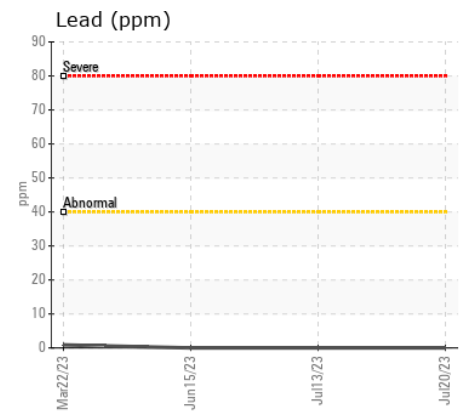
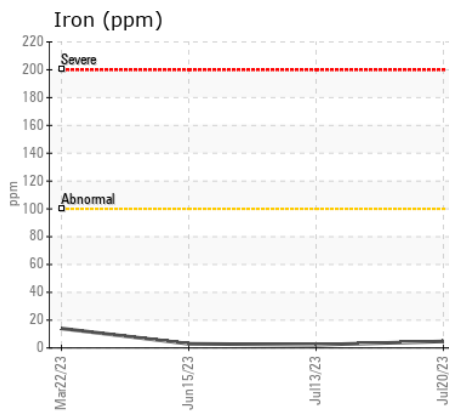
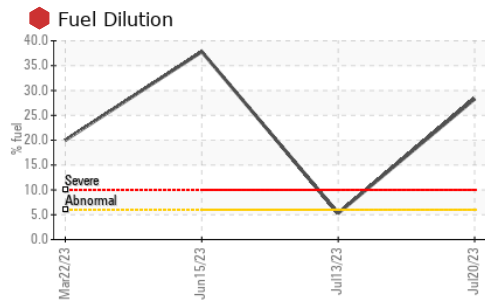
There is a high amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>25	4	5	2
Potassium	ppm	ASTM D5185m	>20	0	0	<1
Fuel	%	ASTM D3524	>6.0	28.3	5.3	37.8
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	7.6	5.6	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.4	18.5	19.1
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

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		2	3	1
Boron	ppm	ASTM D5185m	2.5	123	254	111
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.7	55	73	61
Manganese	ppm	ASTM D5185m	0.0	<1	<1	0
Magnesium	ppm	ASTM D5185m	256	520	699	435
Calcium	ppm	ASTM D5185m	2057	1065	1401	938
Phosphorus	ppm	ASTM D5185m	935	592	740	500
Zinc	ppm	ASTM D5185m	1223	683	883	559
Sulfur	ppm	ASTM D5185m	4079	2556	3322	1812
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.3	13.2	14.1
Base Number (BN)	mg KOH/g	ASTM D2896	10	8.8	9.2	7.4
Visc @ 100°C	cSt	ASTM D445	15.0	6.9	11.9	6.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP393186 **Received** : 21 Jul 2023
Lab Number : 05904255 **Tested** : 24 Jul 2023
Unique Number : 10565611 **Diagnosed** : 26 Jul 2023 - Don Baldrige

403 - ASCENDUM MACHINERY INC - FARGO
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 FARGO, ND
 US 58104
 Contact: JESSE SCHEELE
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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) F: (701)356-4072