



ASCENDUM

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
Ascendum Machinery/500 Hour CSA
Machine Id
VOLVO L70H 2185 (S/N 624437)
Component
Diesel Engine
Fluid
VOLVO VDS-4.5 Premium Motor Oil 15W40 (6 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0001598	VCP420377	VCP398122
Sample Date		Client Info		08 Feb 2024	31 May 2023	12 Jan 2023
Machine Age	hrs	Client Info		1922	1445	1124
Oil Age	hrs	Client Info		477	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

The aluminum level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	32	8	18
Chromium	ppm	ASTM D5185m	>10	3	<1	1
Nickel	ppm	ASTM D5185m	>10	1	0	<1
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	▲ 13	2	8
Lead	ppm	ASTM D5185m	>20	<1	0	<1
Copper	ppm	ASTM D5185m	>15	3	2	3
Tin	ppm	ASTM D5185m	>10	2	<1	2
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

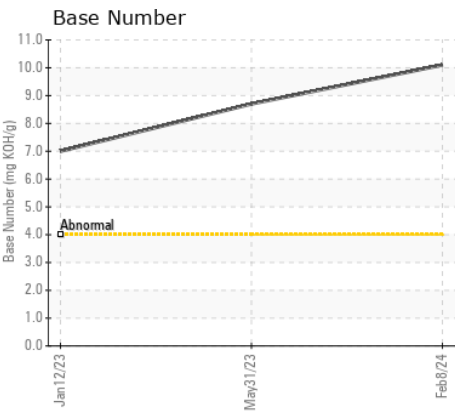
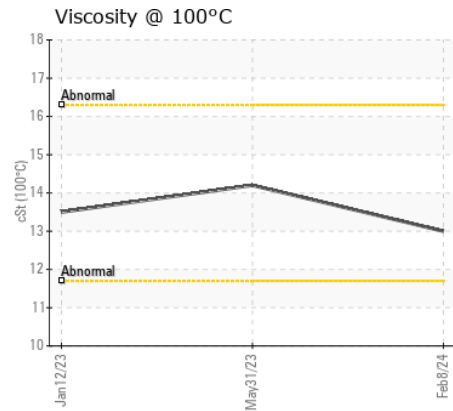
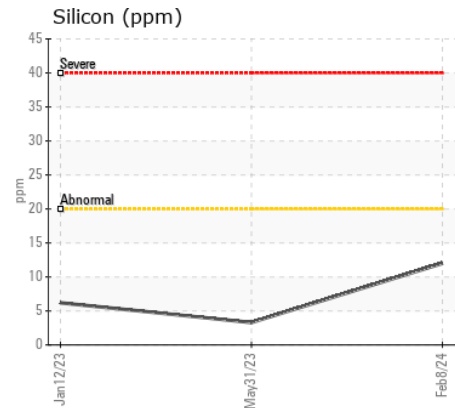
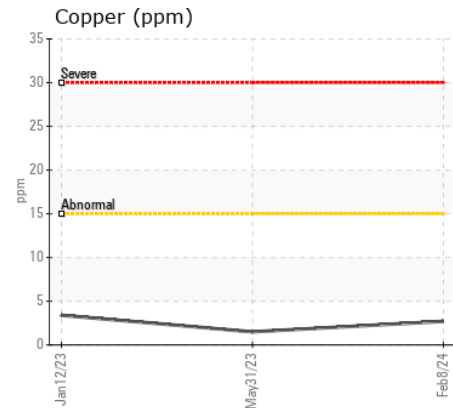
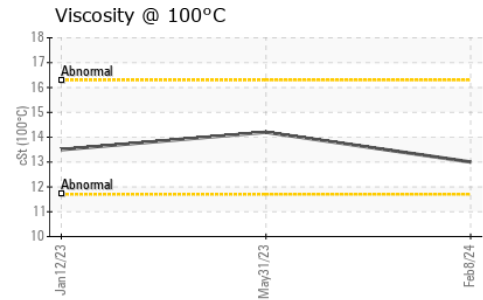
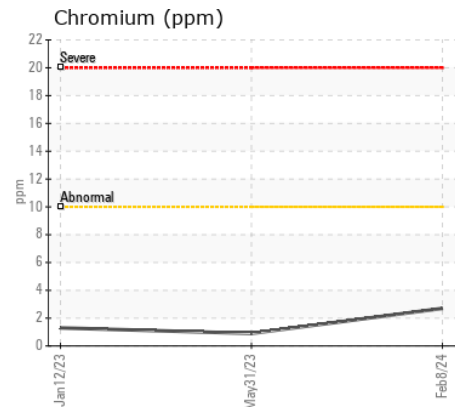
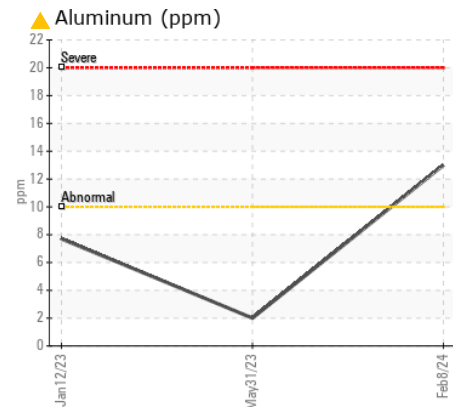
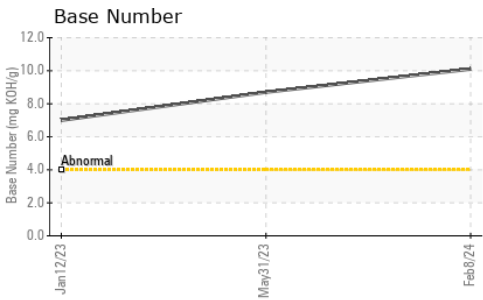
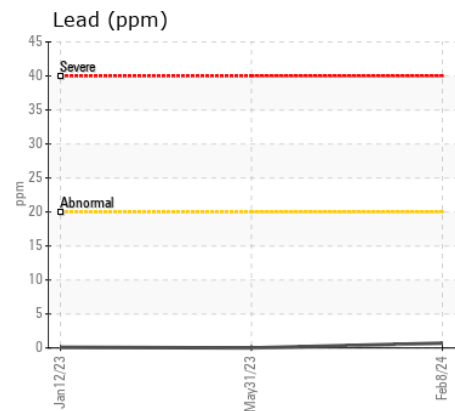
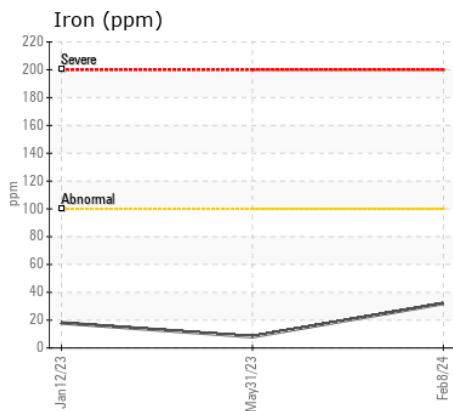
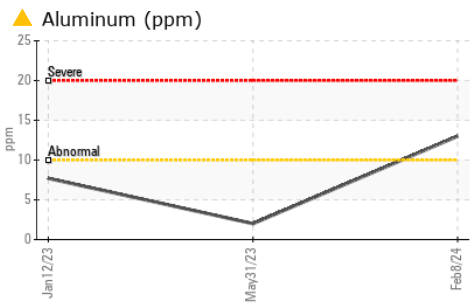
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	12	3	6
Potassium	ppm	ASTM D5185m	>20	2	0	6
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	6.7	6.0	8.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.8	18.6	20.6
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	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		2	2	2
Boron	ppm	ASTM D5185m		68	14	103
Barium	ppm	ASTM D5185m		14	0	0
Molybdenum	ppm	ASTM D5185m		61	57	18
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m		761	932	188
Calcium	ppm	ASTM D5185m		2229	1264	2005
Phosphorus	ppm	ASTM D5185m		1425	1036	943
Zinc	ppm	ASTM D5185m		1570	1277	1151
Sulfur	ppm	ASTM D5185m		5146	3878	3526
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.0	15.4	17.2
Base Number (BN)	mg KOH/g	ASTM D2896		10.1	8.7	7.0
Visc @ 100°C	cSt	ASTM D445		13.0	14.2	13.5



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0001598 **Received** : 12 Feb 2024
Lab Number : 06085691 **Tested** : 12 Feb 2024
Unique Number : 10873136 **Diagnosed** : 13 Feb 2024 - Jonathan Hester
Test Package : MOBCE (Additional Tests: TBN)

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Certificate L2367
 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)