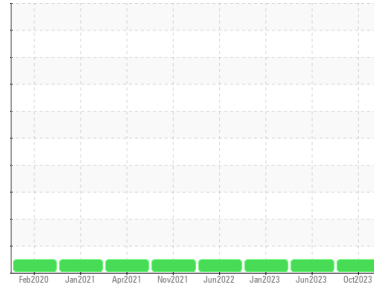




Area  
**Ascendum Machinery**  
 Machine Id  
**VOLVO L70H 623725**  
 Component  
**Diesel Engine**  
 Fluid  
**VOLVO VDS-4.5 Premium Motor Oil 15W40 (5 GAL)**



DIAGNOSIS

**Recommendation**

Resample at the next service interval to monitor.

**Wear**

All component wear rates are normal.

**Contamination**

There is no indication of any contamination in the oil.

**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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>ASC0001385</b>	ASC0000189	VCP0007113
Sample Date	Client Info			<b>02 Oct 2023</b>	12 Jun 2023	10 Jan 2023
Machine Age	hrs	Client Info		<b>5924</b>	5522	4835
Oil Age	hrs	Client Info		<b>402</b>	687	610
Oil Changed	Client Info			<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>6.0		<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method			<b>NEG</b>	NEG	NEG

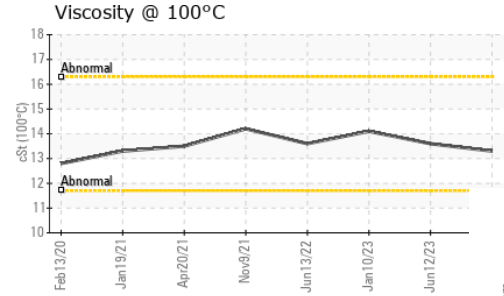
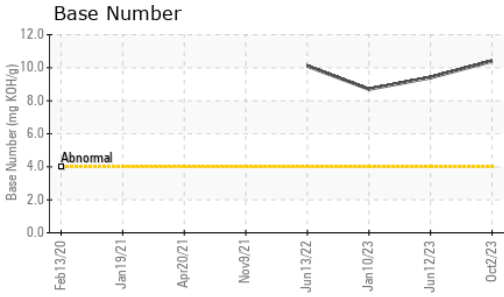
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	<b>9</b>	8	14
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	1	1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>10	<b>4</b>	7	6
Lead	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>15	<b>&lt;1</b>	3	2
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	2	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>30</b>	26	10
Barium	ppm	ASTM D5185m		<b>0</b>	0	1
Molybdenum	ppm	ASTM D5185m		<b>42</b>	47	59
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m		<b>529</b>	670	746
Calcium	ppm	ASTM D5185m		<b>1711</b>	1724	1189
Phosphorus	ppm	ASTM D5185m		<b>950</b>	1047	959
Zinc	ppm	ASTM D5185m		<b>1169</b>	1287	1150
Sulfur	ppm	ASTM D5185m		<b>3021</b>	3938	3051

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	<b>7</b>	6	5
Sodium	ppm	ASTM D5185m		<b>2</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	<1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.6</b>	0.6	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.8</b>	8.3	8.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.7</b>	22.1	19.3

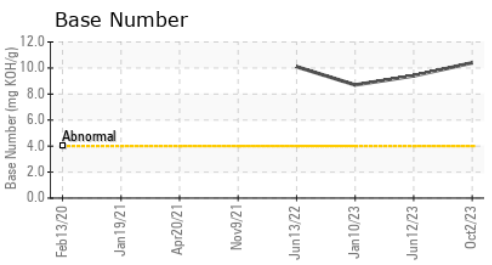
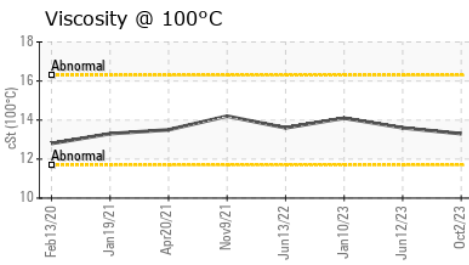
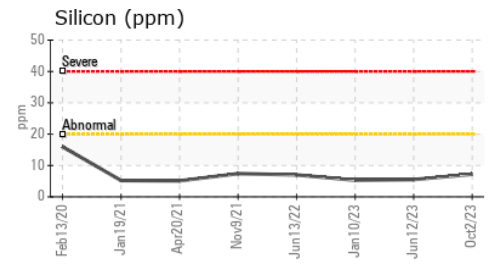
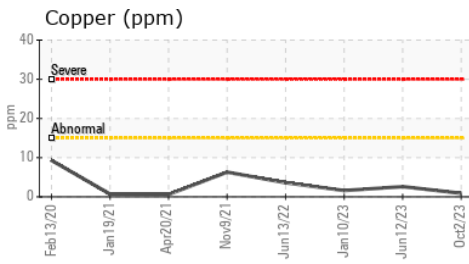
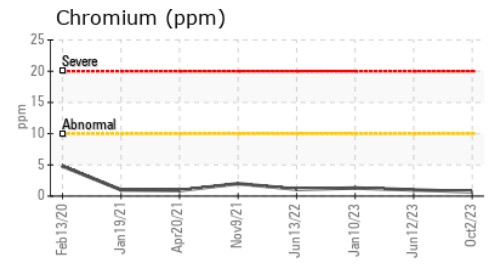
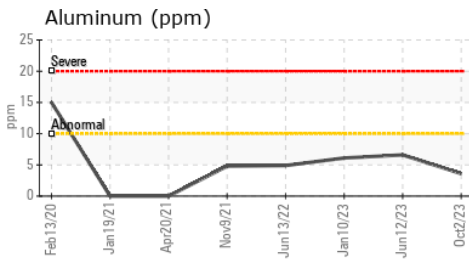
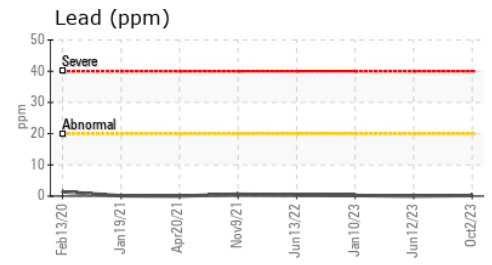
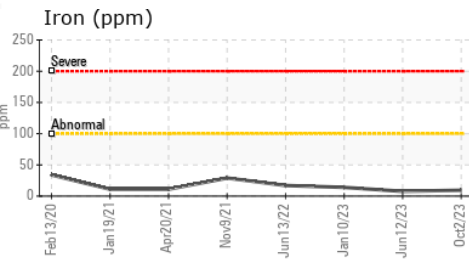
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.7</b>	20.4	15.6
Base Number (BN)	mg KOH/g	ASTM D2896		<b>10.4</b>	9.4	8.7



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	13.3	13.6	14.1

**GRAPHS**



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ASC0001385 **Received** : 03 Oct 2023  
**Lab Number** : 05967586 **Diagnosed** : 04 Oct 2023  
**Unique Number** : 10674137 **Diagnostician** : Wes Davis  
**Test Package** : MOBCE ( Additional Tests: TBN )

**EGGER TIMBERPAK**  
 1801 COTTONWOOD ST  
 CHARLOTTE, NC  
 US 28206  
 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)

T:  
F: