



# ASCENDUM

## OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Area  
**Ascendum Machinery**  
Machine Id  
**VOLVO L220H 3075**  
Component  
**Diesel Engine**  
Fluid  
**VOLVO VDS-4.5 Premium Motor Oil 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ASC0007670</b>	ASC0000354	VCP0005379
Sample Date		Client Info		<b>22 Feb 2024</b>	26 Jul 2023	13 Mar 2023
Machine Age	hrs	Client Info		<b>7496</b>	6505	6005
Oil Age	hrs	Client Info		<b>991</b>	500	996
Filter Age	hrs	Client Info		<b>0</b>	500	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	SEVERE	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	<b>5</b>	92	3
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	▲ 18	0
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	3	0
Titanium	ppm	ASTM D5185m		<b>0</b>	2	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>&lt;1</b>	▲ 37	1
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>20	<b>2</b>	6	1
Tin	ppm	ASTM D5185m	>20	<b>0</b>	1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

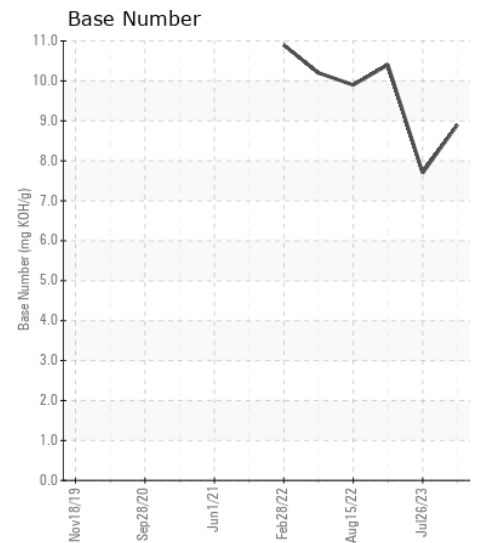
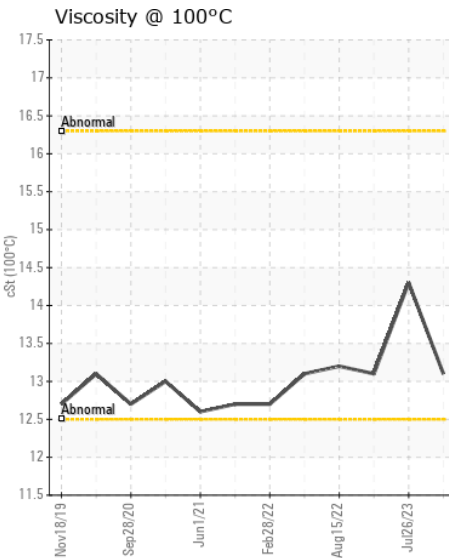
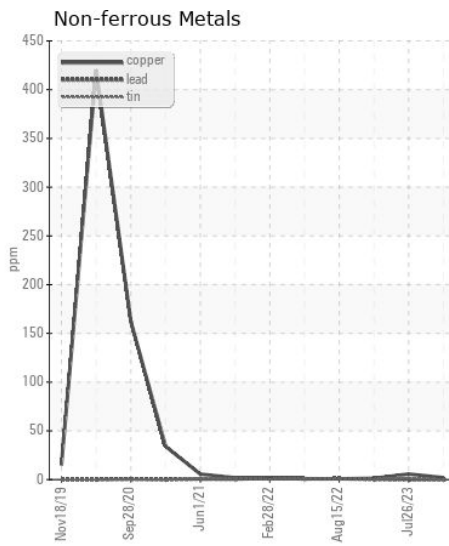
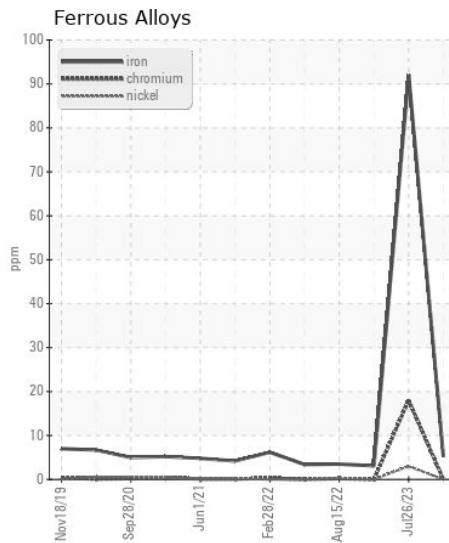
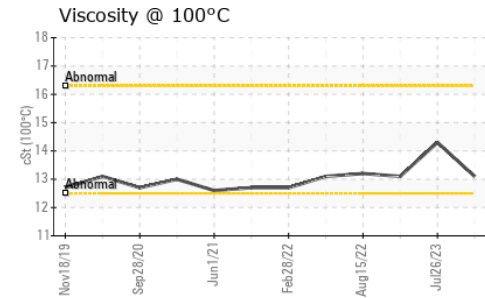
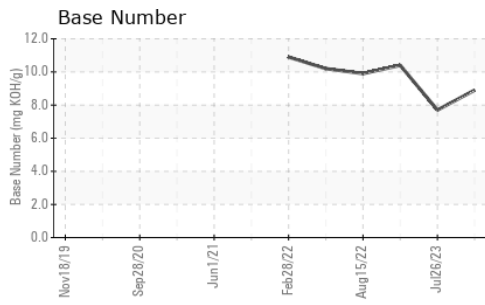
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>4</b>	● 67	3
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	2
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.5	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.2</b>	8.7	6.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.7</b>	18.5	20.7
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	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		<b>2</b>	3	0
Boron	ppm	ASTM D5185m		<b>42</b>	4	43
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>43</b>	57	42
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m		<b>483</b>	919	559
Calcium	ppm	ASTM D5185m		<b>1779</b>	1084	1588
Phosphorus	ppm	ASTM D5185m		<b>971</b>	990	928
Zinc	ppm	ASTM D5185m		<b>1118</b>	1224	1109
Sulfur	ppm	ASTM D5185m		<b>3111</b>	3484	2944
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.3</b>	15.2	17.6
Base Number (BN)	mg KOH/g	ASTM D2896		<b>8.9</b>	7.7	10.4
Visc @ 100°C	cSt	ASTM D445		<b>13.1</b>	14.3	13.1



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ASC0007670 **Received** : 27 Feb 2024  
**Lab Number** : 06101305 **Tested** : 28 Feb 2024  
**Unique Number** : 10899535 **Diagnosed** : 28 Feb 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**GERDAU AMERISTEEL**  
 4221 W BOY SCOUT BLVD #600  
 TAMPA, FL  
 US 33607  
 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: