



# ASCENDUM

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Area

**Ascendum Machinery**

Machine Id

**VOLVO L220H 3075**

Component

**Hydraulic System**

Fluid

**VOLVO SUPER HYDRAULIC OIL 46 (--- 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		<b>ASC0009787</b>	ASC0007675	VCP0005380
Sample Date		Client Info		<b>17 Jun 2024</b>	22 Feb 2024	13 Mar 2023
Machine Age	hrs	Client Info		<b>8014</b>	7496	6005
Oil Age	hrs	Client Info		<b>4716</b>	5189	5194
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Changed</b>	Not Changd	Changed
Sample Status				<b>ATTENTION</b>	ATTENTION	ABNORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>4</b>	0	2
Chromium	ppm	ASTM D5185m	>20	<b>6</b>	5	3
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	0	0
Lead	ppm	ASTM D5185m	>20	<b>3</b>	1	<1
Copper	ppm	ASTM D5185m	>20	<b>7</b>	6	4
Tin	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

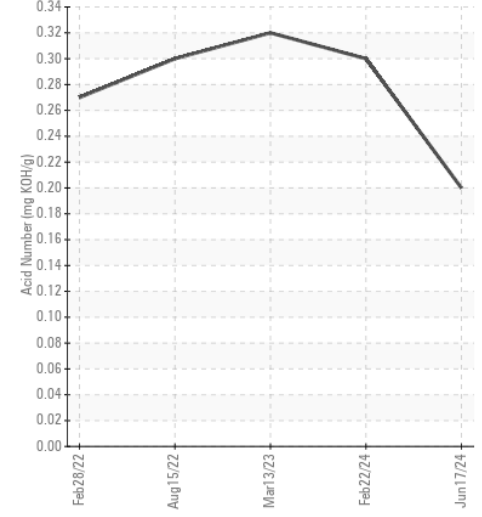
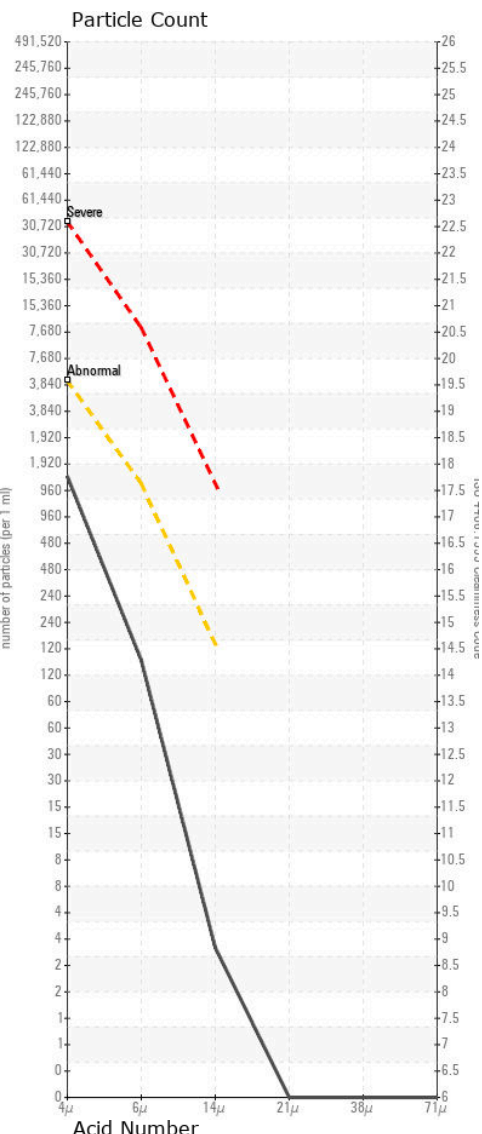
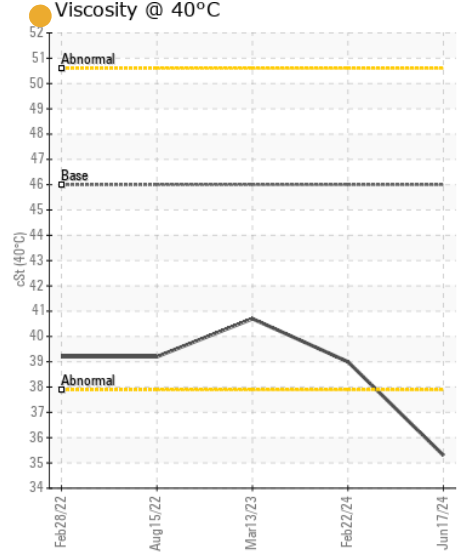
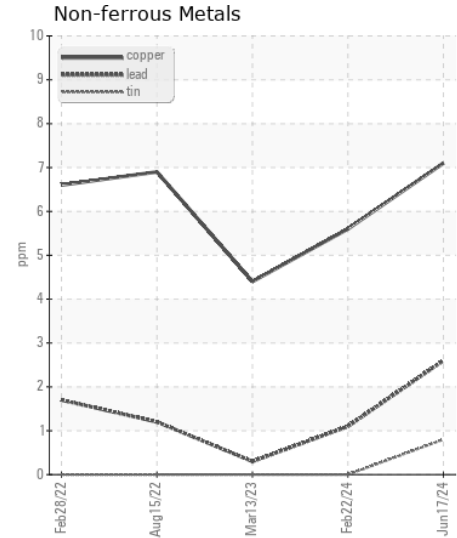
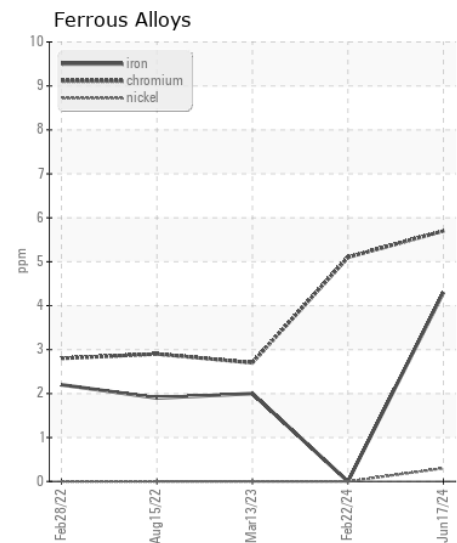
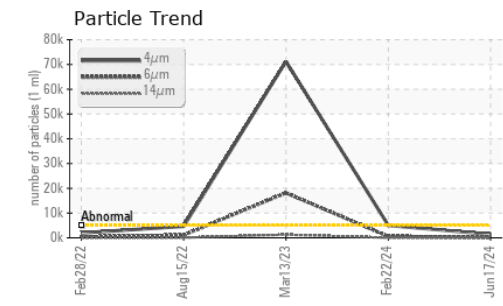
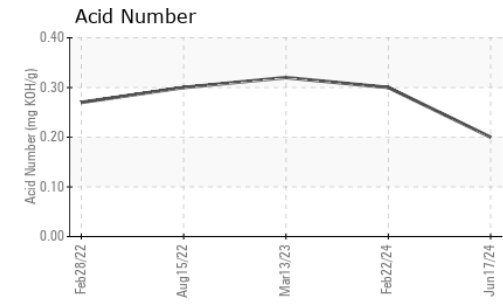
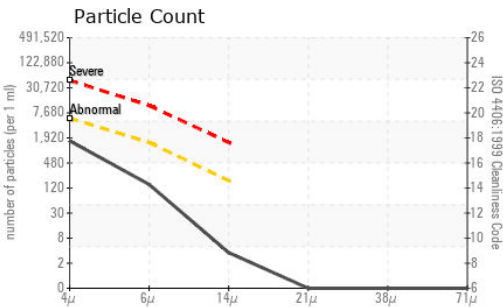
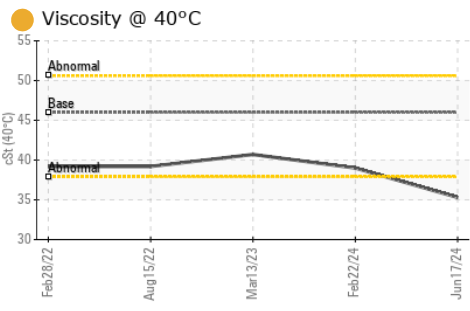
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>20	<b>2</b>	<1	2
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	0	0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>5000	<b>1431</b>	5011	71226
Particles >6µm		ASTM D7647	>1300	<b>129</b>	581	18143
Particles >14µm		ASTM D7647	>160	<b>3</b>	21	1268
Particles >21µm		ASTM D7647	>40	<b>0</b>	3	311
Particles >38µm		ASTM D7647	>10	<b>0</b>	0	31
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	2
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>18/14/9</b>	20/16/12	23/21/17
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	LIGHT
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 oil viscosity is lower than normal. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		<b>0</b>	0	1
Boron	ppm	ASTM D5185m	14	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	0.0	<b>1</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	0	0
Manganese	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	2.6	<b>&lt;1</b>	1	11
Calcium	ppm	ASTM D5185m	49	<b>38</b>	42	36
Phosphorus	ppm	ASTM D5185m	354	<b>336</b>	290	263
Zinc	ppm	ASTM D5185m	419	<b>412</b>	398	347
Sulfur	ppm	ASTM D5185m	3719	<b>3061</b>	2879	3132
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.20</b>	0.30	0.32
Visc @ 40°C	cSt	ASTM D445	46	<b>35.3</b>	39.0	40.7



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ASC0009787  
**Lab Number** : 06216799  
**Unique Number** : 11089663  
**Test Package** : CONST  
**Received** : 21 Jun 2024  
**Tested** : 24 Jun 2024  
**Diagnosed** : 24 Jun 2024 - Don Baldrige

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

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)