



# ASCENDUM

## OIL ANALYSIS REPORT



Area  
**Ascendum Machinery/250 Hour CSA**  
Machine Id  
**VOLVO EC290B 892 (S/N 10108)**  
Component  
**Hydraulic System**  
Fluid  
**VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)**

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

### RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ASC0001602</b>	VCP410354	VCP0004149
Sample Date		Client Info		<b>26 Jan 2024</b>	18 May 2023	27 Sep 2022
Machine Age	hrs	Client Info		<b>2287</b>	0	2287
Oil Age	hrs	Client Info		<b>2287</b>	0	2287
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Filter Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<b>2</b>	9	11
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	1	1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>1</b>	<1	2
Lead	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>75	<b>2</b>	11	12
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>LIGHT</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

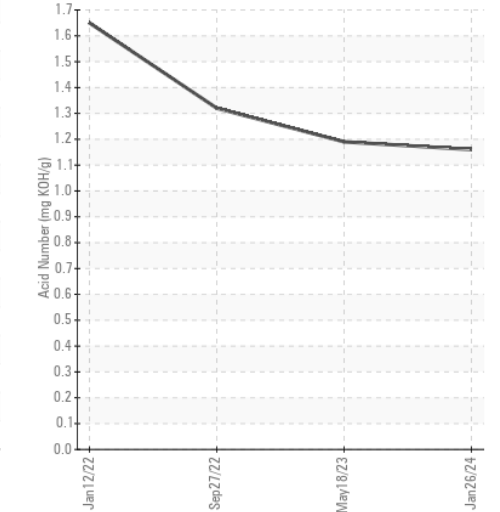
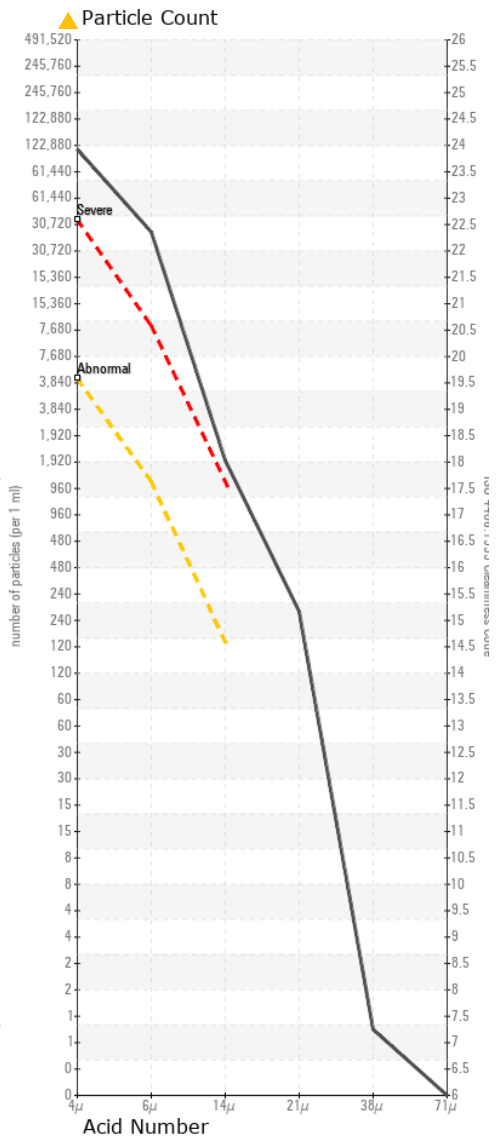
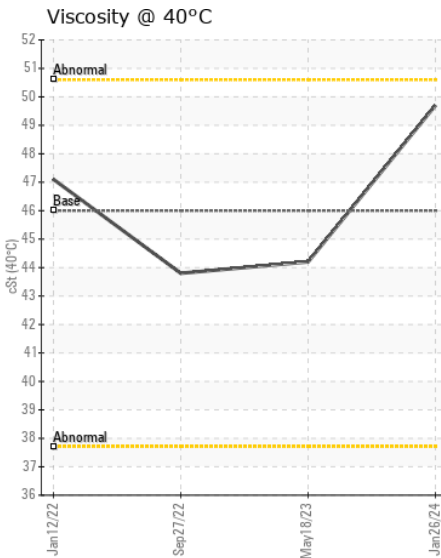
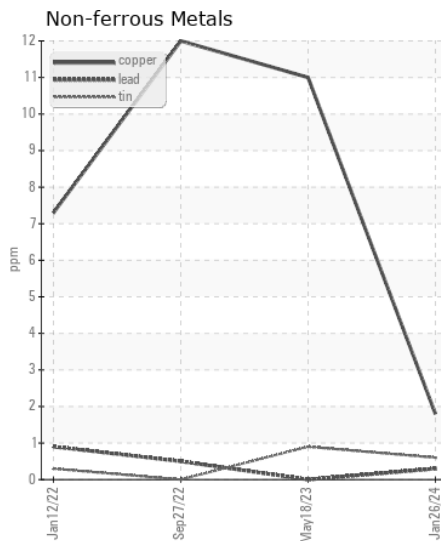
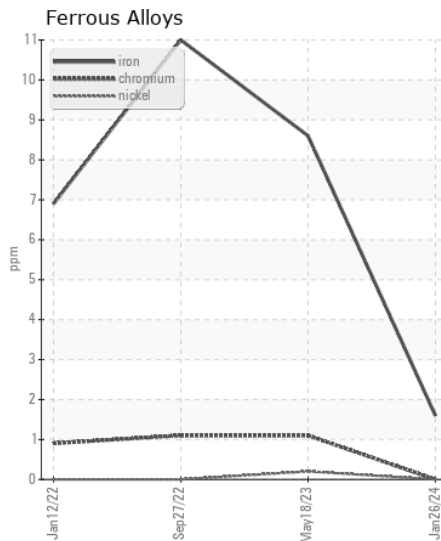
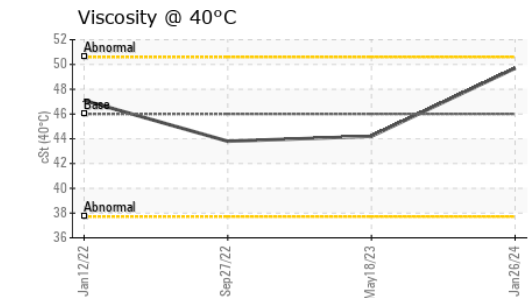
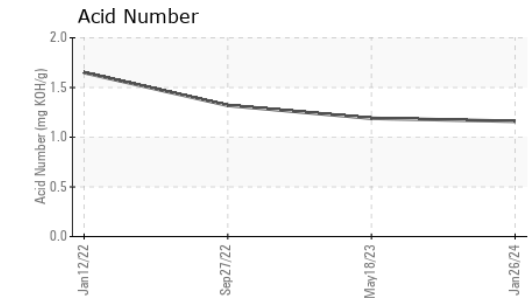
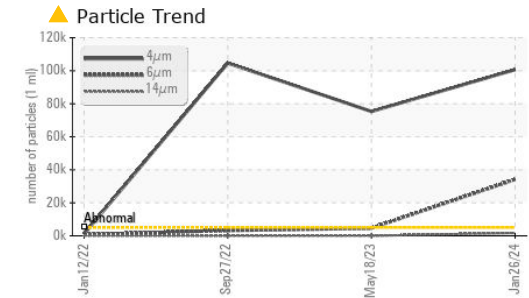
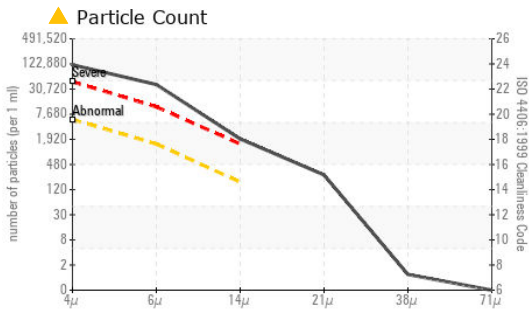
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>7</b>	7	6
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	4	5
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>5000	<b>▲ 100678</b>	▲ 75338	▲ 104645
Particles >6µm		ASTM D7647	>1300	<b>▲ 34143</b>	▲ 4630	▲ 3244
Particles >14µm		ASTM D7647	>160	<b>▲ 1719</b>	20	54
Particles >21µm		ASTM D7647	>40	<b>▲ 237</b>	6	14
Particles >38µm		ASTM D7647	>10	<b>1</b>	0	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>▲ 24/22/18</b>	▲ 23/19/11	▲ 24/19/13
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	VLITE
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	>0.1	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>1</b>	2	0
Boron	ppm	ASTM D5185m	14	<b>19</b>	9	10
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.0	<b>3</b>	4	4
Manganese	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	2.6	<b>30</b>	323	344
Calcium	ppm	ASTM D5185m	49	<b>1689</b>	1669	1734
Phosphorus	ppm	ASTM D5185m	354	<b>703</b>	937	954
Zinc	ppm	ASTM D5185m	419	<b>872</b>	1106	1077
Sulfur	ppm	ASTM D5185m	3719	<b>2781</b>	3878	3777
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.16</b>	1.19	1.32
Visc @ 40°C	cSt	ASTM D445	46	<b>49.7</b>	44.2	43.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ASC0001602 **Received** : 31 Jan 2024  
**Lab Number** : 06075649 **Diagnosed** : 01 Feb 2024  
**Unique Number** : 10857740 **Diagnostician** : Don Baldrige  
**Test Package** : MOBCE

**TRIANGLE GRADING AND PAVING INC**  
 1521 Huffman Mill Rd  
 BURLINGTON, NC  
 US 27216  
 Contact: KAREN HILLIARD  
 khilliard@trianglegradingpaving.com  
 T: (336)584-1745  
 F: (336)584-0145

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)