



# ASCENDUM

## OIL ANALYSIS REPORT

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

Area

**Ascendum Machinery**

Machine Id

**VOLVO EC220E 310380**

Component

**Right Travel**

Fluid

**VOLVO PREMIUM GEAR OIL 85W-140 GL-5 (--- GAL)**

### RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

### WEAR

The iron level has decreased, but is still abnormal. Gear wear is indicated.

### CONTAMINATION

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

### FLUID CONDITION

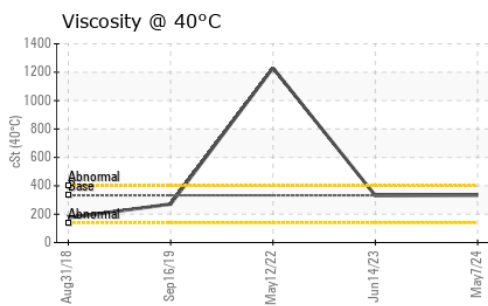
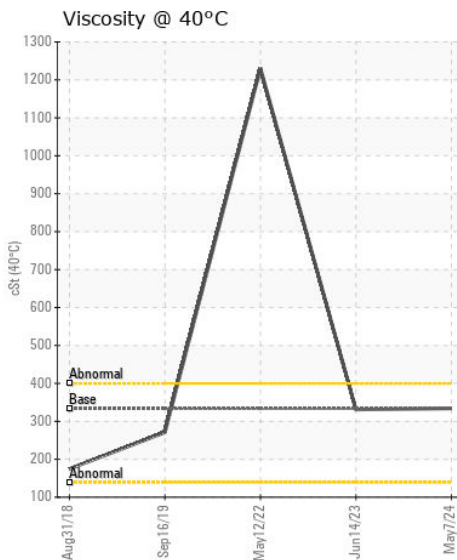
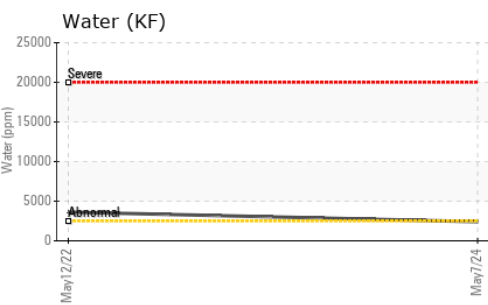
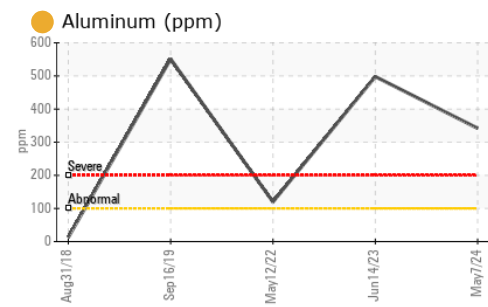
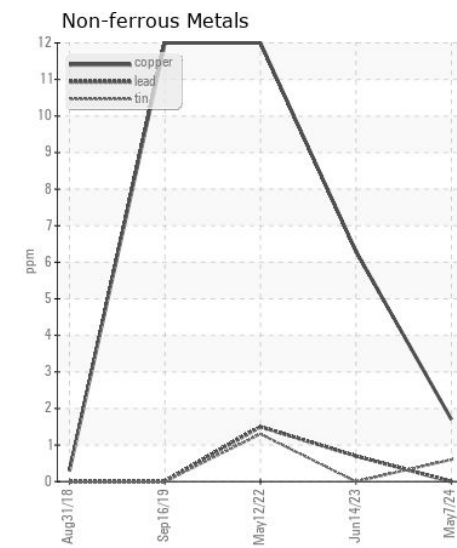
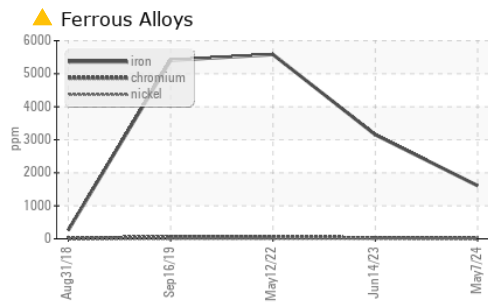
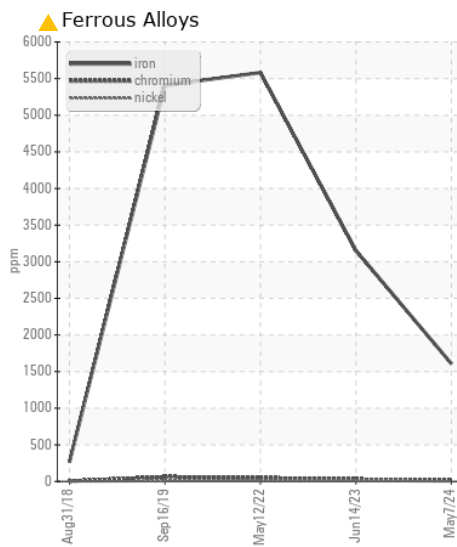
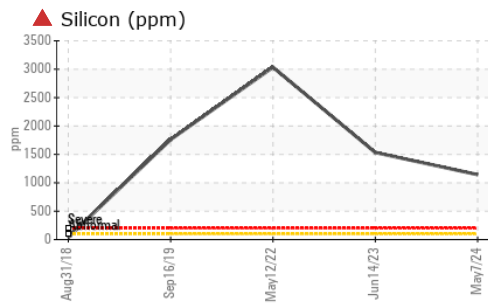
The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ASC0009950</b>	ASC0000222	VCP377021
Sample Date		Client Info		<b>07 May 2024</b>	14 Jun 2023	12 May 2022
Machine Age	hrs	Client Info		<b>4432</b>	4052	3458
Oil Age	hrs	Client Info		<b>380</b>	594	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>None</b>	N/A	Not Changed
Sample Status				<b>SEVERE</b>	SEVERE	SEVERE

Iron	ppm	ASTM D5185m	>1200	<b>▲ 1608</b>	▲ 3152	▲ 5582
Chromium	ppm	ASTM D5185m	>20	<b>17</b>	▲ 29	▲ 49
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	▲ 7	4
Titanium	ppm	ASTM D5185m		<b>22</b>	25	61
Silver	ppm	ASTM D5185m		<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>100	<b>● 342</b>	● 498	● 120
Lead	ppm	ASTM D5185m	>50	<b>0</b>	<1	2
Copper	ppm	ASTM D5185m	>50	<b>2</b>	6	12
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	1	2
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

Silicon	ppm	ASTM D5185m	>100	<b>▲ 1143</b>	▲ 1533	▲ 3035
Potassium	ppm	ASTM D5185m	>20	<b>52</b>	85	173
Water	%	ASTM D6304	>0.25	<b>0.241</b>	---	▲ 0.363
ppm Water	ppm	ASTM D6304	>2500	<b>2410</b>	---	▲ 3630
Silt	scalar	*Visual	NONE	<b>MODER</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	>0.25	<b>0.2%</b>	NEG	0.2%

Sodium	ppm	ASTM D5185m		<b>34</b>	47	135
Boron	ppm	ASTM D5185m	111	<b>173</b>	157	113
Barium	ppm	ASTM D5185m	0.0	<b>3</b>	2	6
Molybdenum	ppm	ASTM D5185m	0.9	<b>0</b>	4	6
Manganese	ppm	ASTM D5185m	0.0	<b>12</b>	19	36
Magnesium	ppm	ASTM D5185m	39	<b>29</b>	51	142
Calcium	ppm	ASTM D5185m	93	<b>62</b>	153	258
Phosphorus	ppm	ASTM D5185m	920	<b>1107</b>	1034	881
Zinc	ppm	ASTM D5185m	104	<b>5</b>	30	25
Sulfur	ppm	ASTM D5185m	20179	<b>34334</b>	32315	31259
Visc @ 40°C	cSt	ASTM D445	333	<b>334</b>	331	● 1230



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ASC0009950  
**Lab Number** : 06177602  
**Unique Number** : 11023655  
**Test Package** : CONST ( Additional Tests: KF )

**Received** : 13 May 2024  
**Tested** : 15 May 2024  
**Diagnosed** : 15 May 2024 - Don Baldrige

**BRS INC**  
 208 STATE HWY 49  
 RICHFIELD, NC  
 US 28137  
 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: (704)463-1700