



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

Machine Id  
**VOLVO EC220E 314841**  
 Component  
**Front Right Final Drive**  
 Fluid  
**VOLVO PREMIUM GEAR OIL 85W-140 GL-5 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ASC0003315</b>	VCP420158	---
Sample Date		Client Info		<b>08 Jul 2024</b>	18 May 2023	---
Machine Age	hrs	Client Info		<b>0</b>	553	---
Oil Age	hrs	Client Info		<b>1033</b>	0	---
Filter Age	hrs	Client Info		<b>1033</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>N/A</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	<b>187</b>	280	---
Chromium	ppm	ASTM D5185m	>10	<b>2</b>	4	---
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	<1	---
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>25	<b>&lt;1</b>	0	---
Lead	ppm	ASTM D5185m	>25	<b>0</b>	0	---
Copper	ppm	ASTM D5185m	>50	<b>&lt;1</b>	3	---
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	MODER	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

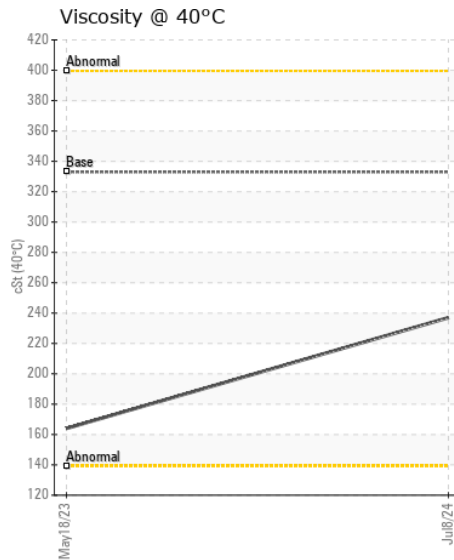
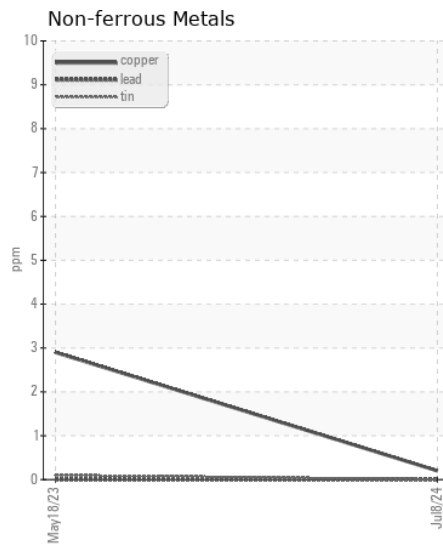
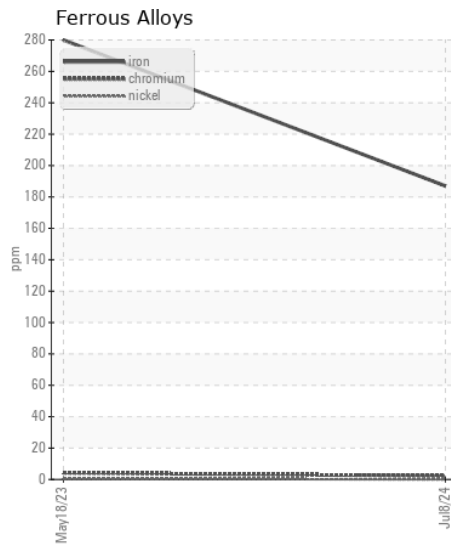
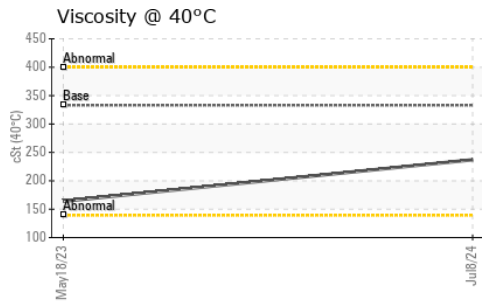
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>11</b>	13	---
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	6	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	---

### FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>3</b>	2	---
Boron	ppm	ASTM D5185m	111	<b>54</b>	0	---
Barium	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	0	---
Molybdenum	ppm	ASTM D5185m	0.9	<b>1</b>	2	---
Manganese	ppm	ASTM D5185m	0.0	<b>3</b>	6	---
Magnesium	ppm	ASTM D5185m	39	<b>8</b>	1	---
Calcium	ppm	ASTM D5185m	93	<b>20</b>	13	---
Phosphorus	ppm	ASTM D5185m	920	<b>693</b>	345	---
Zinc	ppm	ASTM D5185m	104	<b>26</b>	13	---
Sulfur	ppm	ASTM D5185m	20179	<b>25887</b>	19452	---
Visc @ 40°C	cSt	ASTM D445	333	<b>237</b>	164	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ASC0003315      **Received** : 10 Jul 2024  
**Lab Number** : 06232613      **Tested** : 11 Jul 2024  
**Unique Number** : 11116106      **Diagnosed** : 12 Jul 2024 - Don Baldrige  
**Test Package** : CONST

**WHITMIRE GRADING**  
 130 BULLDOZER LANE  
 BREVARD, NC  
 US 28712

Contact: DENNY WHITMIRE  
 denny@whitmiregrading.com

T: (828)883-3867  
 F: (828)885-8323

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)