



# VOLVO

## OIL ANALYSIS REPORT

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



Area  
**[SPM646635-00]**  
 Machine Id  
**VOLVO EC350EL 314018**  
 Component  
**Rear Right Final Drive**  
 Fluid  
**VOLVO PREMIUM GEAR OIL 85W-140 GL-5 (--- GAL)**

### RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

### WEAR

Gear wear is indicated. Moderate concentration of visible metal present.

### CONTAMINATION

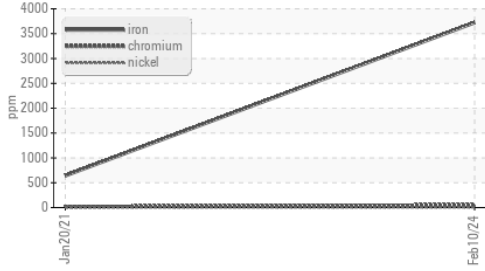
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

### FLUID CONDITION

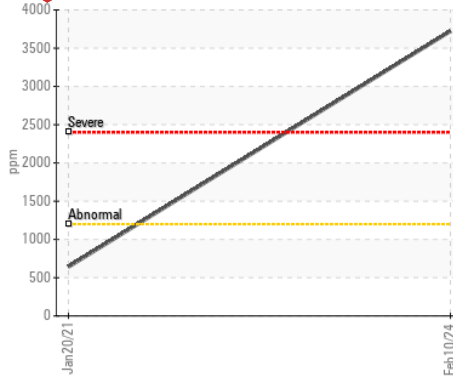
The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP421337</b>	VCP299506	---
Sample Date		Client Info		<b>10 Feb 2024</b>	20 Jan 2021	---
Machine Age	hrs	Client Info		<b>4219</b>	1299	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>N/A</b>	Changed	---
Filter Changed		Client Info		<b>N/A</b>	N/A	---
Sample Status				<b>SEVERE</b>	ABNORMAL	---
Iron	ppm	ASTM D5185m	>1200	<b>3721</b>	640	---
Chromium	ppm	ASTM D5185m	>10	<b>52</b>	18	---
Nickel	ppm	ASTM D5185m	>10	<b>4</b>	<1	---
Titanium	ppm	ASTM D5185m		<b>6</b>	<1	---
Silver	ppm	ASTM D5185m		<b>0</b>	2	---
Aluminum	ppm	ASTM D5185m	>100	<b>66</b>	3	---
Lead	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	---
Copper	ppm	ASTM D5185m	>200	<b>5</b>	1	---
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
White Metal	scalar	*Visual	NONE	<b>MODER</b>	MODER	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Silicon	ppm	ASTM D5185m	>100	<b>824</b>	26	---
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	<1	---
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	---
Sodium	ppm	ASTM D5185m		<b>1</b>	3	---
Boron	ppm	ASTM D5185m	111	<b>127</b>	8	---
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	0.9	<b>10</b>	2	---
Manganese	ppm	ASTM D5185m	0.0	<b>28</b>	8	---
Magnesium	ppm	ASTM D5185m	39	<b>24</b>	2	---
Calcium	ppm	ASTM D5185m	93	<b>83</b>	4	---
Phosphorus	ppm	ASTM D5185m	920	<b>971</b>	393	---
Zinc	ppm	ASTM D5185m	104	<b>59</b>	25	---
Sulfur	ppm	ASTM D5185m	20179	<b>34791</b>	12389	---
Visc @ 40°C	cSt	ASTM D445	333	<b>345</b>	170	---

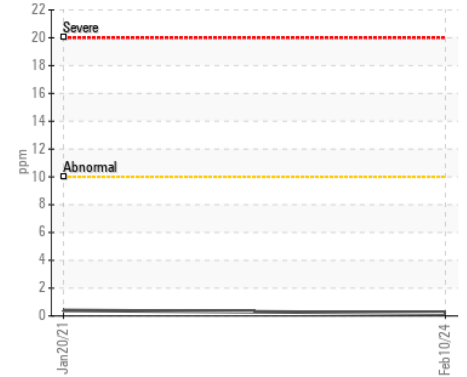
**Ferrous Alloys**



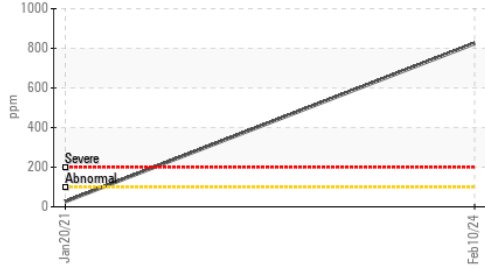
**Iron (ppm)**



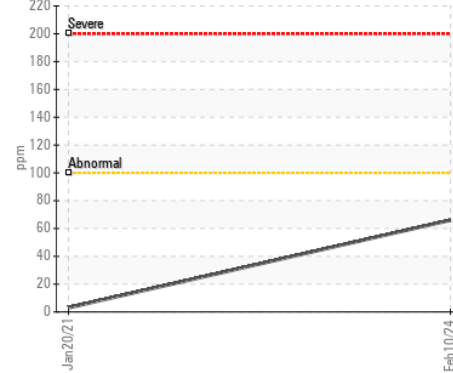
**Lead (ppm)**



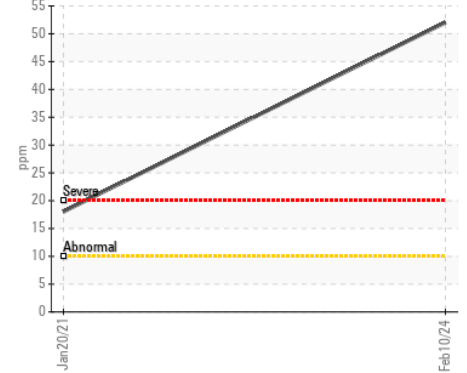
**Silicon (ppm)**



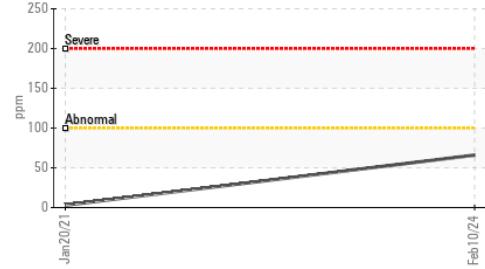
**Aluminum (ppm)**



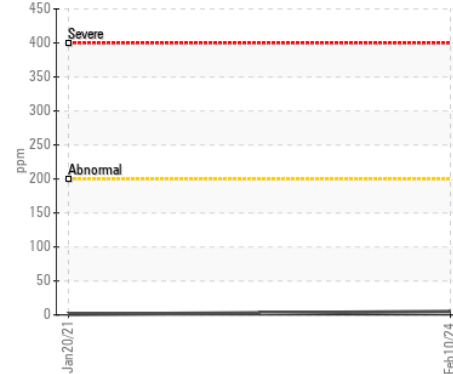
**Chromium (ppm)**



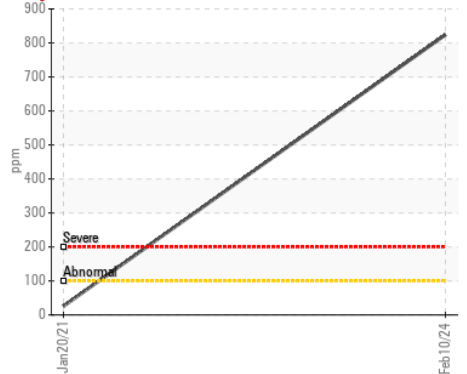
**Aluminum (ppm)**



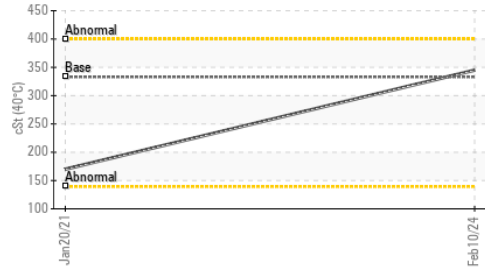
**Copper (ppm)**



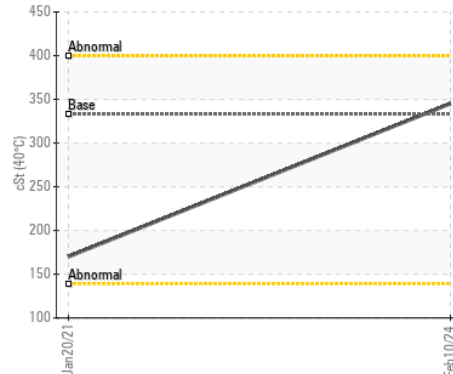
**Silicon (ppm)**



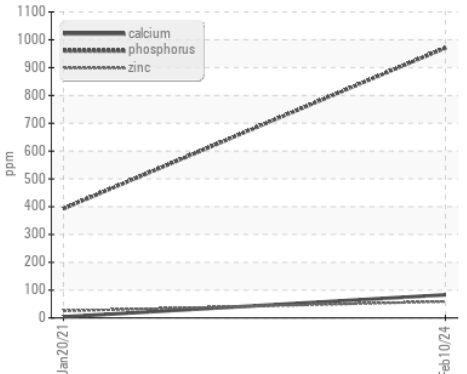
**Viscosity @ 40°C**



**Viscosity @ 40°C**



**Additives**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP421337  
**Lab Number** : 06088371  
**Unique Number** : 10875816  
**Test Package** : MOBCE

**Received** : 13 Feb 2024  
**Tested** : 14 Feb 2024  
**Diagnosed** : 15 Feb 2024 - Sean Felton

ALTA EQUIPMENT/FLAGLER CONSTRUCTION EQUIPMENT LLC  
 8418 PALM RIVER ROAD  
 TAMPA, FL  
 US 33619  
 Contact: KENNY HANEY  
 khaney@flaglerce.com  
 T: (813)630-0077  
 F: (813)630-2233

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)