



# CONSTRUCTION EQUIPMENT

SW-27393 VOLVO L90H 625 190 - DIESEL ENGINE



**Sample No:** VCP435898  
**Oil Type:** MOBIL 15W40  
**Job No:** SW-27393



## SAMPLE INFORMATION

Sample Number	<b>VCP435898</b>	VCP375278	VCP355904	---
Sample Date	<b>04 Jan 2024</b>	22 Aug 2022	12 Jul 2022	---
Machine Hours	<b>4000</b>	1748	1502	---
Oil Hours	<b>0</b>	0	0	---
Oil Changed	<b>Not Changd</b>	Not Changd	Not Changd	---
Sample Status	<b>SEVERE</b>	NORMAL	ABNORMAL	---

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## OIL CONDITION

Visc @ 100°C	cSt	<b>▲ 7.8</b>	■ 13.5	■ 14.1	---
Base Number (BN)	mg KOH/g	<b>■ 8.7</b>	■ 9.5	■ 8.4	---
Oxidation (PA)	%	<b>48</b>	57	81	---



## CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	---
Soot %	%	<b>■ 0.5</b>	■ 0.4	■ 1.7	---
Nitration (PA)	%	<b>49</b>	55	103	---
Sulfation (PA)	%	<b>50</b>	57	77	---
Glycol	%	<b>NEG</b>	NEG	NEG	---
Fuel	%	<b>● 16.9</b>	<1.0	<1.0	---
Silicon	ppm	<b>▲ 28</b>	■ 6	■ 18	---
Sodium	ppm	<b>■ 0</b>	■ 2	■ 3	---
Potassium	ppm	<b>■ 1</b>	■ 2	■ 5	---



## WEAR METALS

Iron	ppm	<b>■ 16</b>	■ 18	■ 107	---
Copper	ppm	<b>■ 1</b>	■ 2	■ 17	---
Lead	ppm	<b>■ &lt;1</b>	■ <1	■ 4	---
Tin	ppm	<b>■ &lt;1</b>	■ <1	■ 4	---
Aluminum	ppm	<b>▲ 10</b>	■ 9	<b>▲ 58</b>	---
Chromium	ppm	<b>■ 2</b>	■ 2	■ 8	---
Molybdenum	ppm	<b>■ 48</b>	■ 65	■ 37	---
Nickel	ppm	<b>■ &lt;1</b>	■ 1	■ 0	---
Titanium	ppm	<b>&lt;1</b>	0	<1	---
Silver	ppm	<b>■ 0</b>	<1	0	---
Manganese	ppm	<b>■ &lt;1</b>	■ <1	■ 5	---
Vanadium	ppm	<b>0</b>	<1	0	---



## ADDITIVES

Calcium	ppm	<b>■ 843</b>	■ 1237	■ 1283	---
Magnesium	ppm	<b>■ 714</b>	■ 630	■ 758	---
Zinc	ppm	<b>■ 967</b>	■ 1194	■ 1082	---
Phosphorus	ppm	<b>■ 797</b>	■ 994	■ 899	---
Barium	ppm	<b>■ 0</b>	■ 0	■ 0	---
Boron	ppm	<b>■ 5</b>	■ 154	■ 32	---

## Diagnosis

We advise that you check the fuel injection system. We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a high amount of fuel present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

**Depot:** VOLVO8770  
**Unique No:** 10829973  
**Signed:** Jonathan Hester  
**Report Date:** 15 Jan 2024



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## GRAPHS

