



# CONSTRUCTION EQUIPMENT

GFL 8-387321 VOLVO L90H 624665 - DIESEL ENGINE



**Sample No:** VCP380057  
**Oil Type:** DIESEL ENGINE OIL SAE 40  
**Job No:** 8-387321



## SAMPLE INFORMATION

Sample Number	<b>VCP380057</b>	VCP391943	VCP380936	VCP332587
Sample Date	<b>13 Dec 2023</b>	29 May 2023	12 Jan 2023	27 Oct 2022
Machine Hours	<b>8116</b>	7483	7001	6538
Oil Hours	<b>0</b>	0	0	500
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>ABNORMAL</b>	SEVERE	SEVERE	SEVERE



### STRONGCO EQUIPMENT INC.

1640 ENTERPRISE ROAD  
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## OIL CONDITION

Visc @ 100°C	cSt	<b>15.3</b>	14.5	15.1	14.6
Oxidation (PA)	%	<b>80</b>	95	107	89



## CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.2</b>	0.3	0.2	0.2
Nitration (PA)	%	<b>65</b>	83	98	83
Sulfation (PA)	%	<b>60</b>	67	75	67
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>▲ 34</b>	● 40	● 57	● 84
Sodium	ppm	<b>2</b>	2	3	2
Potassium	ppm	<b>0</b>	<1	0	0



## WEAR METALS

Iron	ppm	<b>34</b>	21	26	19
Copper	ppm	<b>2</b>	1	1	1
Lead	ppm	<b>&lt;1</b>	<1	1	1
Tin	ppm	<b>&lt;1</b>	<1	<1	<1
Aluminum	ppm	<b>▲ 24</b>	▲ 21	▲ 18	▲ 27
Chromium	ppm	<b>3</b>	2	3	2
Molybdenum	ppm	<b>55</b>	54	52	55
Nickel	ppm	<b>3</b>	2	4	2
Titanium	ppm	<b>0</b>	<1	<1	<1
Silver	ppm	<b>&lt;1</b>	0	0	0
Manganese	ppm	<b>0</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	0	0	0



## ADDITIVES

Calcium	ppm	<b>1535</b>	1808	1901	1616
Magnesium	ppm	<b>835</b>	762	679	789
Zinc	ppm	<b>1299</b>	1279	1288	1250
Phosphorus	ppm	<b>1047</b>	1127	1124	1087
Barium	ppm	<b>&lt;1</b>	0	0	0
Boron	ppm	<b>13</b>	22	23	16

## Diagnosis

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Aluminum ppm levels are noted. All other component wear rates are normal. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil is no longer serviceable due to the presence of contaminants.

**Depot:** SHEMIS  
**Unique No:** 5696848  
**Signed:** Kevin Marson  
**Report Date:** 18 Dec 2023

**VOLVO** **GRAPHS**

