CONSTRUCTION EQUIPMENT

CAVANAGH 375072 VOLVO EC380EL 314396 - REAR LEFT FINAL DRIVE

Sample No: VCP353461
Oil Type: VOLVO PREMIUM GEAR OIL 80W-90 GL-5
Job No: 375072

STRONGCO EQUIPMENT
54 IBER ROAD
OTTAWA, ON
CA K2S 1E8
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SAMPLE INFORMATION

Sample Number		**VCP353461**	---	---	---
Sample Date		**13 Aug 2023**	---	---	---
Machine Hours		**5173**	---	---	---
Oil Hours		**0**	---	---	---
Oil Changed		**Changed**	---	---	---
Sample Status		**SEVERE**	---	---	---

OIL CONDITION

Visc @ 40°C	cSt	**145**	---	---	---

CONTAMINATION

Water	%	▲ **0.492**	---	---	---
Silicon	ppm	⬢ **3001**	---	---	---
Sodium	ppm	**221**	---	---	---
Potassium	ppm	**255**	---	---	---

WEAR METALS

PQ		**593**	---	---	---
Iron	ppm	▲ **3879**	---	---	---
Copper	ppm	**8**	---	---	---
Lead	ppm	**1**	---	---	---
Tin	ppm	**0**	---	---	---
Aluminum	ppm	▲ **783**	---	---	---
Chromium	ppm	▲ **47**	---	---	---
Molybdenum	ppm	**6**	---	---	---
Nickel	ppm	**2**	---	---	---
Titanium	ppm	▲ **47**	---	---	---
Silver	ppm	**0**	---	---	---
Manganese	ppm	**32**	---	---	---
Vanadium	ppm	**2**	---	---	---

ADDITIVES

Calcium	ppm	**1090**	---	---	---
Magnesium	ppm	**217**	---	---	---
Zinc	ppm	**159**	---	---	---
Phosphorus	ppm	**1663**	---	---	---
Barium	ppm	**10**	---	---	---
Boron	ppm	**71**	---	---	---

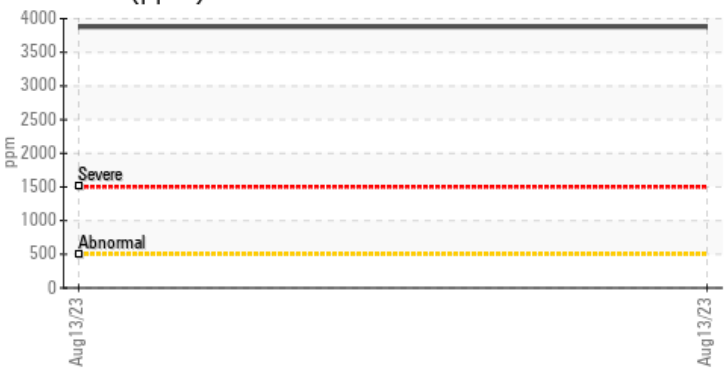
Diagnosis

We advise that you check for the source of water entry. We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.Chromium and iron and titanium ppm levels are abnormal. Aluminum ppm levels are noted. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. There is a moderate concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. High amount of ingressed dirt has caused abrasive wear to the component. Additive levels indicate the addition of a different brand, or type of oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: SHESTI
Unique No: 5629049
Signed: Kevin Marson
Report Date: 17 Aug 2023

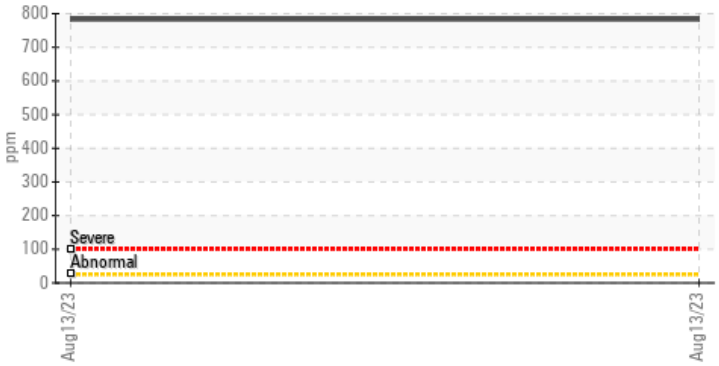
GRAPHS

Iron (ppm)

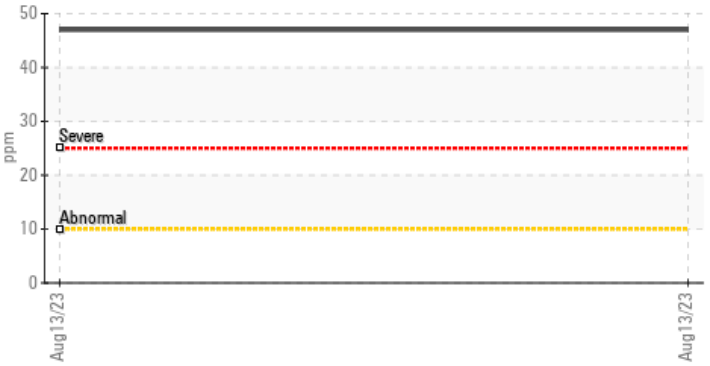


Lead (ppm)

Aluminum (ppm)

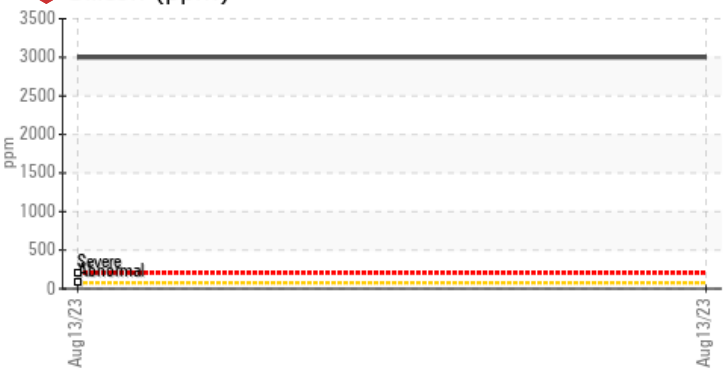


Chromium (ppm)

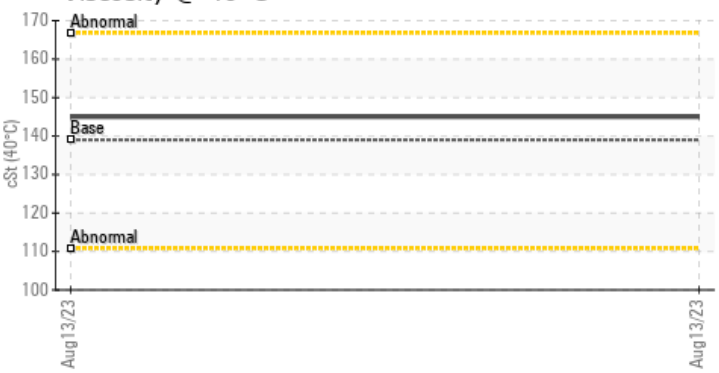


Copper (ppm)

Silicon (ppm)



Viscosity @ 40°C



Water