# CONSTRUCTION EQUIPMENT

## SWO-069745 APAC AL VOLVO L150H 6816 - HYDRAULIC SYSTEM

**Sample No:** VCP444454
**Oil Type:** VOLVO SUPER HYDRAULIC OIL 46
**Job No:** SWO-069745 APAC AL


**COWIN EQUIPMENT COMPANY**
2238 PINSON VALLEY PARKWAY
BIRMINGHAM, AL
US 35217
Contact: BRANTLY CLAY
bclay@cowin.com
T:
F: (205)856-2106


### SAMPLE INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| Sample Number | | **VCP444454** | VCP289490 | VCP271673 | --- |
| Sample Date | | **15 Feb 2024** | 06 Oct 2020 | 28 May 2020 | --- |
| Machine Hours | | **7536** | 2531 | 2006 | --- |
| Oil Hours | | **0** | 0 | 0 | --- |
| Oil Changed | | **Changed** | N/A | N/A | --- |
| Sample Status | | **ABNORMAL** | ABNORMAL | ATTENTION | --- |

### OIL CONDITION

| | | | | | |
|---|---|---|---|---|---|
| Visc @ 40°C | cSt | **42.9** | 39.2 | 39.4 | --- |
| Acid Number (AN) | mg KOH/g | **0.34** | 0.225 | 0.350 | --- |

### CONTAMINATION

| | | | | | |
|---|---|---|---|---|---|
| Water | % | **NEG** | NEG | NEG | --- |
| Particles >4µm | | **7690** | 23179 | 6003 | --- |
| Particles >6µm | | **2163** | 9956 | 1380 | --- |
| Particles >14µm | | **166** | 1795 | 114 | --- |
| ISO 4406:1999 (c) | | **20/18/15** | 22/20/18 | 20/18/14 | --- |
| Silicon | ppm | **3** | 2 | 2 | --- |
| Sodium | ppm | **2** | 0 | <1 | --- |
| Potassium | ppm | **0** | <1 | <1 | --- |

### WEAR METALS

| | | | | | |
|---|---|---|---|---|---|
| Iron | ppm | **5** | 4 | 3 | --- |
| Copper | ppm | **2** | 5 | 5 | --- |
| Lead | ppm | **<1** | 3 | 2 | --- |
| Tin | ppm | **0** | <1 | <1 | --- |
| Aluminum | ppm | **<1** | 0 | <1 | --- |
| Chromium | ppm | **2** | <1 | <1 | --- |
| Molybdenum | ppm | **<1** | <1 | 0 | --- |
| Nickel | ppm | **0** | 0 | 0 | --- |
| Titanium | ppm | **0** | 0 | 0 | --- |
| Silver | ppm | **0** | 0 | 0 | --- |
| Manganese | ppm | **0** | <1 | <1 | --- |
| Vanadium | ppm | **0** | 0 | 0 | --- |

### ADDITIVES

| | | | | | |
|---|---|---|---|---|---|
| Calcium | ppm | **100** | 47 | 42 | --- |
| Magnesium | ppm | **5** | 2 | <1 | --- |
| Zinc | ppm | **438** | 434 | 421 | --- |
| Phosphorus | ppm | **355** | 320 | 313 | --- |
| Barium | ppm | **0** | 0 | 0 | --- |
| Boron | ppm | **4** | <1 | <1 | --- |

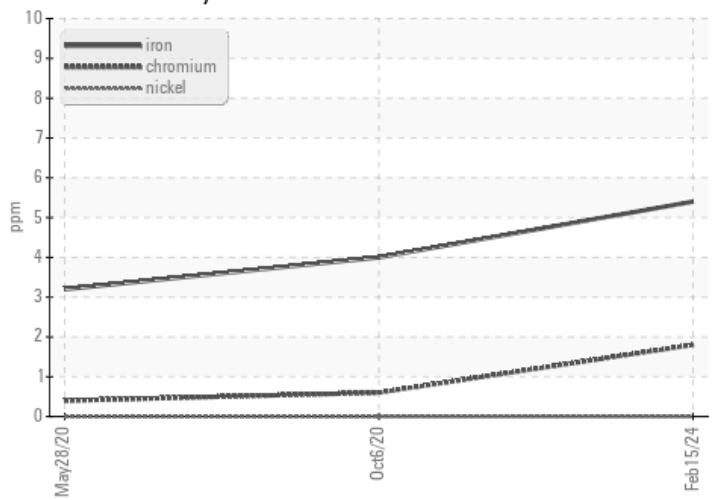
## Diagnosis

The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

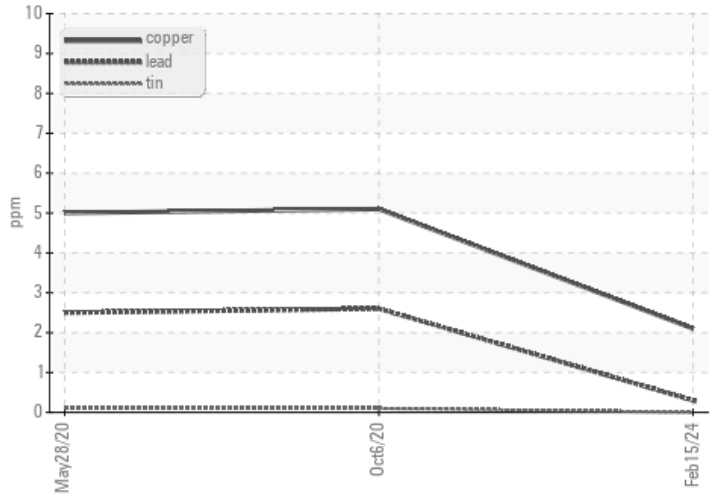
**Depot:** VOLVO8528
**Unique No:** 10886965
**Signed:** Wes Davis
**Report Date:** 21 Feb 2024

## GRAPHS

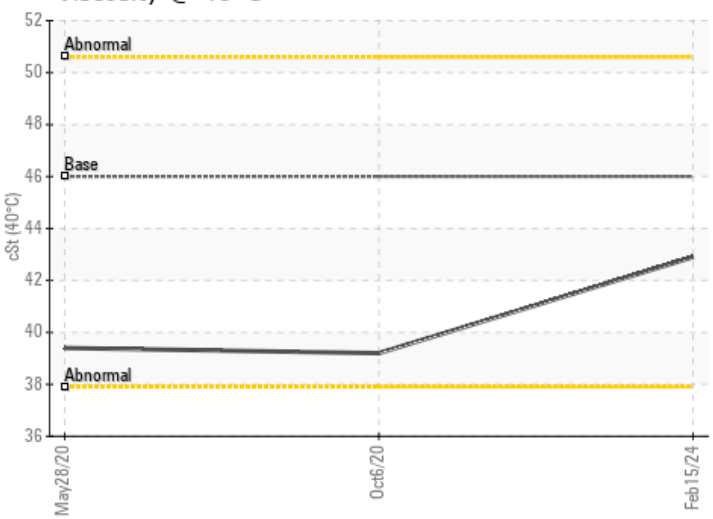
### Ferrous Alloys



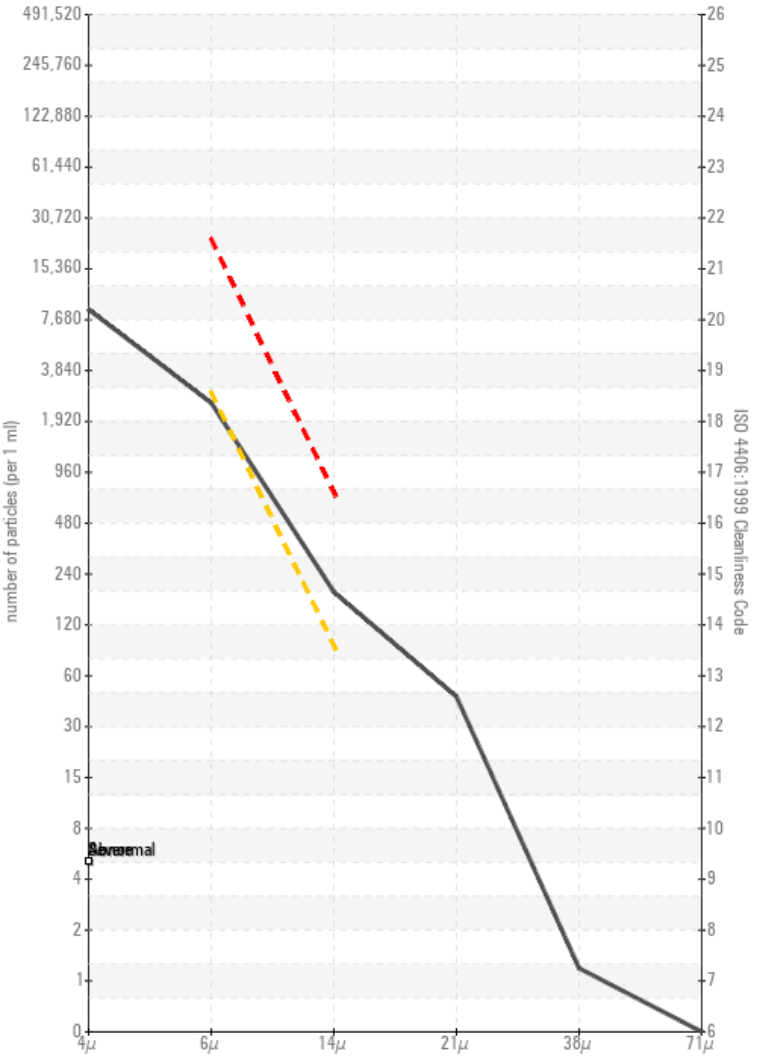

### Non-ferrous Metals




### Viscosity @ 40°C




### Particle Count




### Acid Number