CONSTRUCTION EQUIPMENT 3988H0 VOLVO EC380E VCP 435203 (S/N NOT GIVEN) - DIESEL EN

 Sample No:
 VCP435203

 Oil Type:
 VOLVO ULT

VOIN

vpe: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3lo: 3988HO

Job No:

## SAMPLE INFORMATION

Sample Number		VCP435203					
Sample Date		06 Jul 2023					
Machine Hours		985					
Oil Hours		500					
Oil Changed		Changed					
Sample Status		ABNORMAL					
OIL CONDI							
		<u>.</u>	<u>.</u> .	<u>.</u>			
Visc @ 100°C	cSt	<b>12.1</b>					
Base Number (BN)	mg KOH/g	8.6					
Oxidation (PA)	%	82					
CONTAMINATION							
				-			
Soot %	%	0.1					
Nitration (PA)	%	68					
Sulfation (PA)	%	62					
Glycol	%	NEG					
Fuel	%	0.4					
Silicon	ppm	<b>10</b>					
Sodium	ppm	2					
Potassium	ppm ppm	<b>□</b> 2 <b>□</b> <1					

WFAR METAL

WEAN I	METAL3			
Iron	ppm	6	 	
Copper	ppm	<b>102</b>	 	
Lead	ppm	<b>□</b> <1	 	
Tin	ppm	∎1	 	
Aluminum	ppm	<b>1</b>	 	
Chromium	ppm		 	
Molybdenum	ppm	<b>4</b> 9	 	
Nickel	ppm	0	 	
Titanium	ppm	0	 	
Silver	ppm	0	 	
Manganese	ppm	<b>1</b>	 	
Vanadium	ppm	0	 	

ADDITIVES							
Calcium	ppm	<b>1840</b>					
Magnesium	ppm	521					
Zinc	ppm	<b>1212</b>					
Phosphorus	ppm	976					
Barium	ppm	0					
Boron	ppm	■31					



PENNSY SUPPLY

200 BURKHOLDER DRIVE EPHRATA, PA US 17522 Contact: TYLER MADENFORD

T: (717)859-2132 F:

## Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

 Depot:
 PENEPH

 Unique No:
 10559749

 Signed:
 Don Baldridge

 Report Date:
 17 Jul 2023

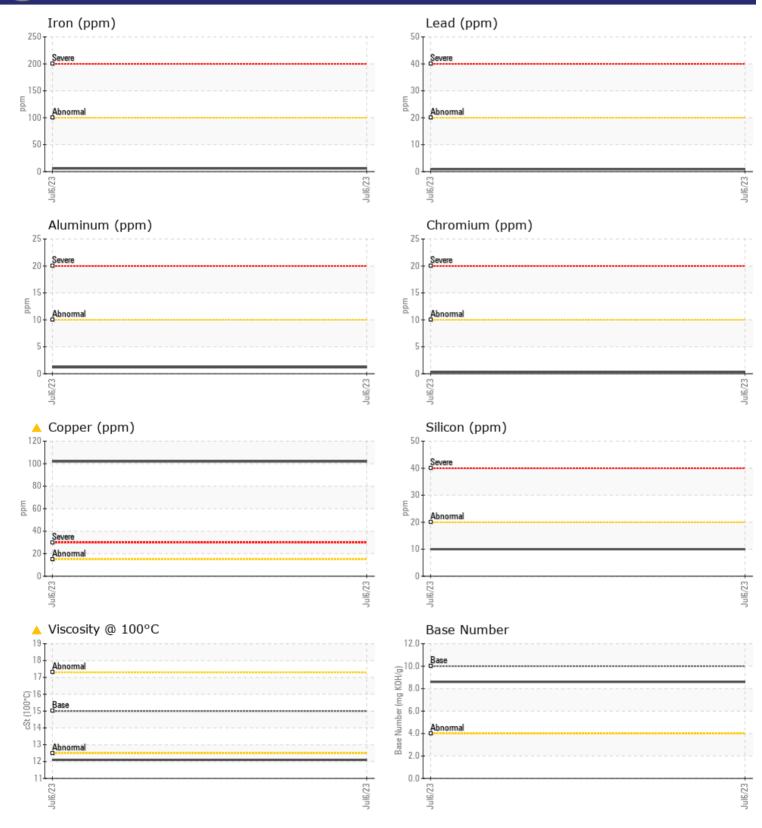
Contact/Location: TYLER MADENFORD - PENEPH

## **CONSTRUCTION EQUIPMENT**



GRAPHS

VOLVO



Contact/Location: TYLER MADENFORD - PENEPH