



# CONSTRUCTION EQUIPMENT

## VOLVO EC380EL 310195 - HYDRAULIC SYSTEM



**Sample No:** VCP433663

**Oil Type:** BP AW 46

**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP433663</b>	VCP382956	VCP358383	VCP304973
Sample Date	<b>14 Jun 2024</b>	04 Jan 2024	09 Jan 2023	09 Feb 2021
Machine Hours	<b>6300</b>	5715	4735	3030
Oil Hours	<b>0</b>	0	1000	0
Oil Changed	<b>Not Changd</b>	N/A	Not Changd	Not Changd
Sample Status	<b>NORMAL</b>	ABNORMAL	ATTENTION	ATTENTION

**LEONARDS CONTRACTING**  
 30850 STEPHENSON HWY  
 MADISON HEIGHTS, MI  
 US 48071  
 Contact: LARRY SCHRADER  
 larry.schrade@sdevelop.com  
 T: (810)499-1953  
 F: x:



### OIL CONDITION

Visc @ 40°C	cSt	<b>42.6</b>	45.2	45.2	46.1
Acid Number (AN)	mg KOH/g	<b>0.10</b>	0.18	0.16	0.126



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Particles >4µm		<b>763</b>	6255	1112	43514
Particles >6µm		<b>191</b>	854	327	11057
Particles >14µm		<b>13</b>	32	25	615
ISO 4406:1999 (c)		<b>17/15/11</b>	20/17/12	17/16/12	23/21/16
Silicon	ppm	<b>2</b>	5	3	<1
Sodium	ppm	<b>0</b>	3	1	0
Potassium	ppm	<b>2</b>	0	0	<1

### Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



### WEAR METALS

Iron	ppm	<b>10</b>	15	10	5
Copper	ppm	<b>8</b>	15	15	7
Lead	ppm	<b>0</b>	0	0	<1
Tin	ppm	<b>0</b>	<1	<1	<1
Aluminum	ppm	<b>2</b>	2	<1	1
Chromium	ppm	<b>4</b>	6	4	2
Molybdenum	ppm	<b>0</b>	<1	<1	0
Nickel	ppm	<b>0</b>	0	0	0
Titanium	ppm	<b>0</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	<1
Manganese	ppm	<b>0</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	<1	0	0



### ADDITIVES

Calcium	ppm	<b>16</b>	53	56	12
Magnesium	ppm	<b>2</b>	1	3	<1
Zinc	ppm	<b>83</b>	88	101	69
Phosphorus	ppm	<b>95</b>	110	121	87
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>0</b>	0	0	<1

**Depot:** LEOMAD  
**Unique No:** 11087439  
**Signed:** Wes Davis  
**Report Date:** 20 Jun 2024

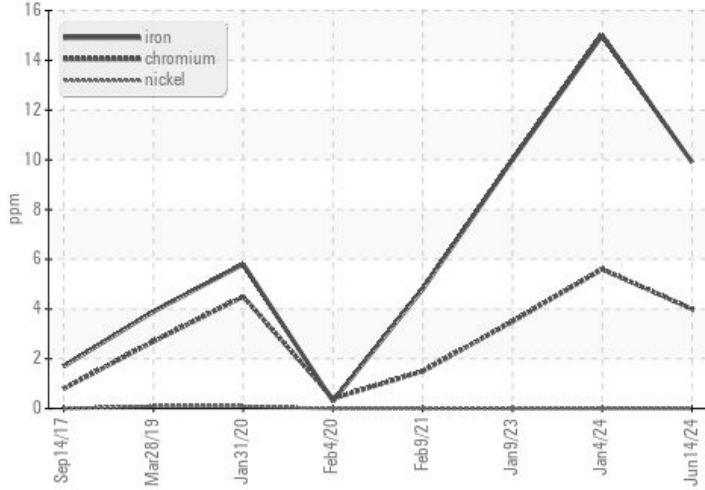


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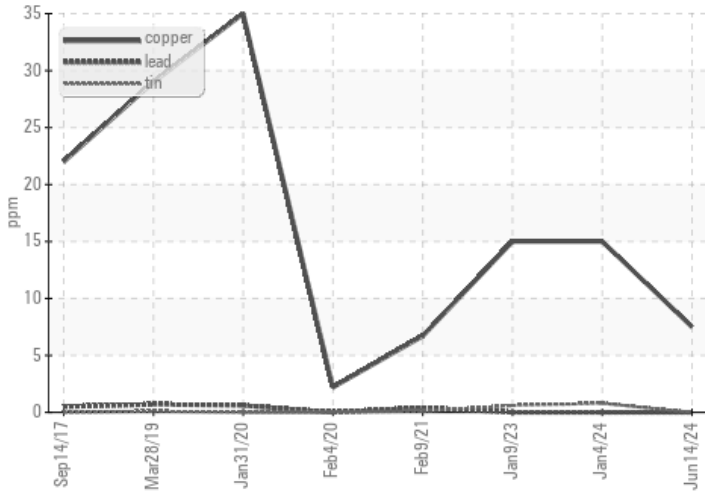


## GRAPHS

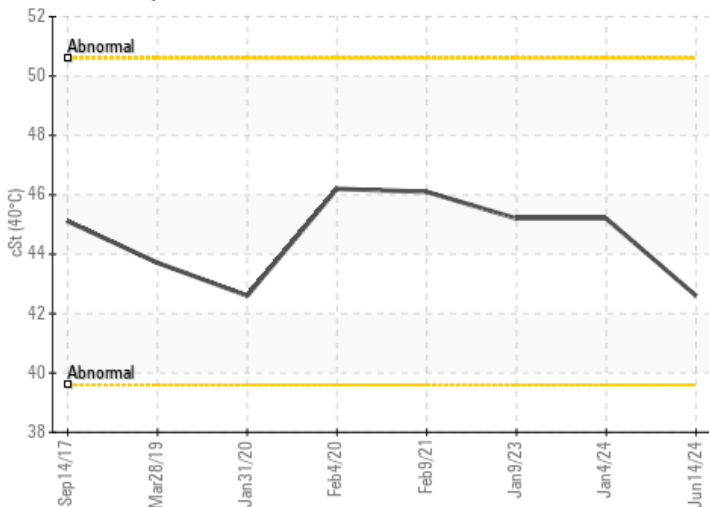
### Ferrous Alloys



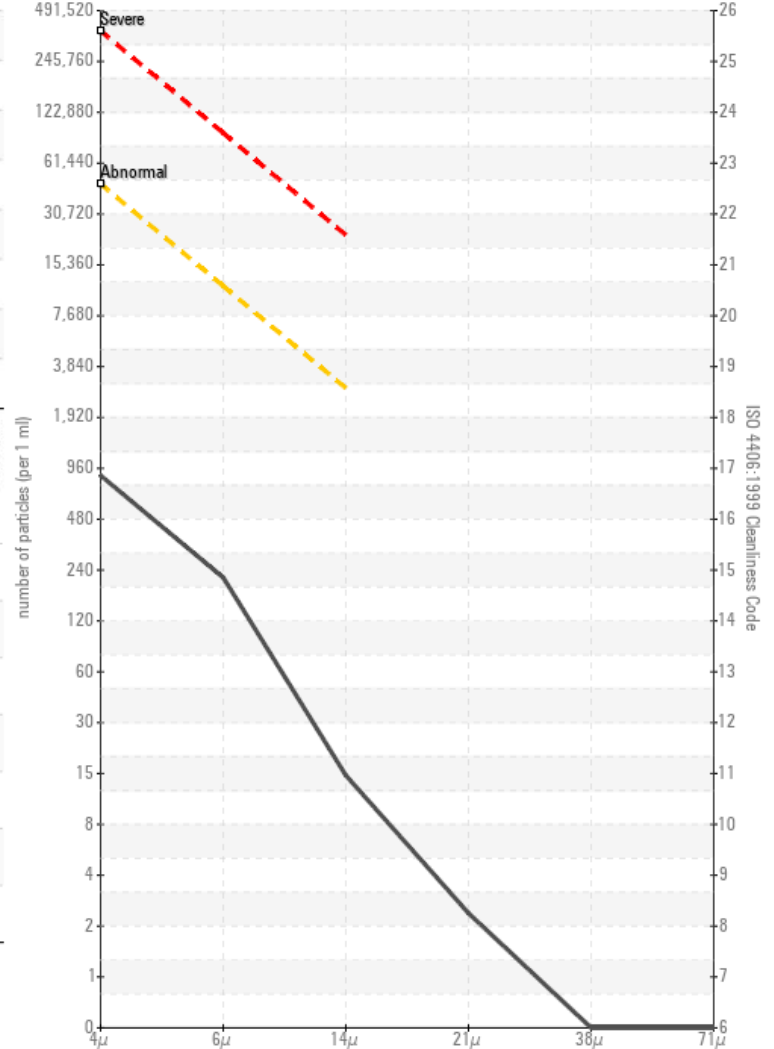
### Non-ferrous Metals



### Viscosity @ 40°C



### Particle Count



### Acid Number

