



# VOLVO

## OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>SEVERE</b>
FLUID CONDITION	<b>SEVERE</b>



Area  
**REGION OF WATERLOO [388565]**

Machine Id  
**VOLVO L120H 633154**

Component  
**Hydraulic System**

Fluid  
**VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)**

### RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP380365</b>	VCP391791	VCP353215
Sample Date		Client Info		<b>11 Jan 2024</b>	30 Aug 2023	12 Apr 2023
Machine Age	hrs	Client Info		<b>4039</b>	3000	2000
Oil Age	hrs	Client Info		<b>4000</b>	3000	2000
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Sample Status				<b>SEVERE</b>	SEVERE	SEVERE

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>50	<b>19</b>	15	14
Chromium	ppm	ASTM D5185(m)	>20	<b>10</b>	7	7
Nickel	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>1</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>20	<b>1</b>	1	1
Copper	ppm	ASTM D5185(m)	>20	<b>6</b>	5	5
Tin	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

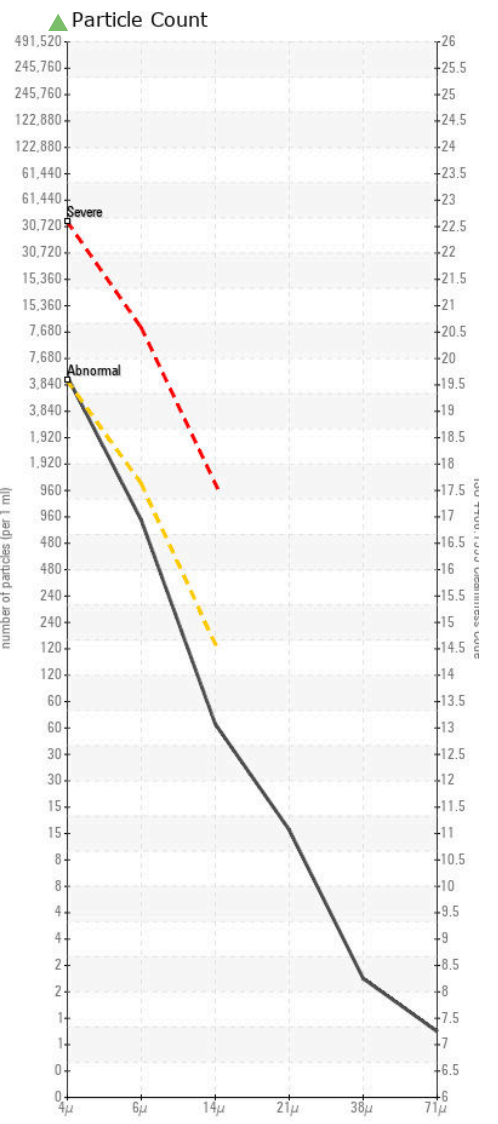
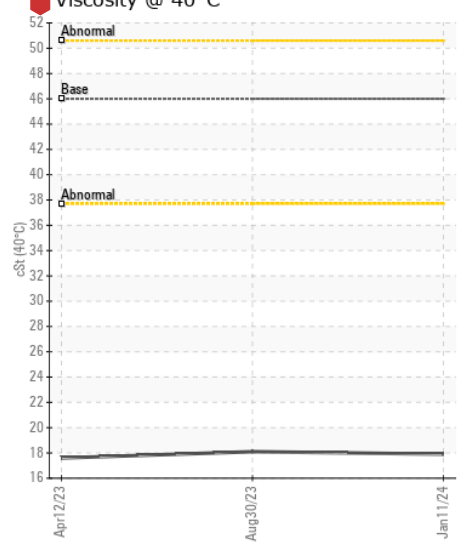
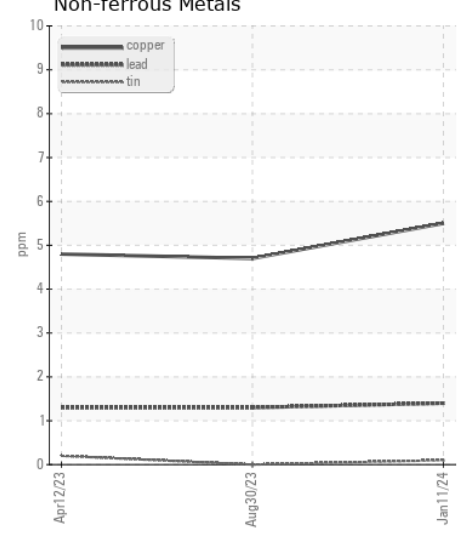
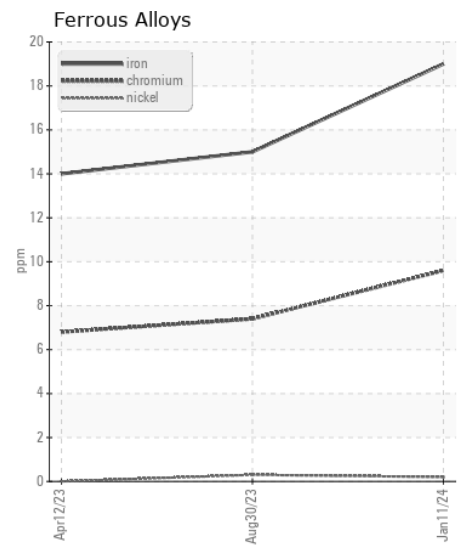
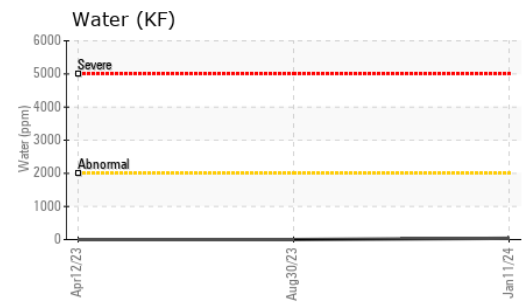
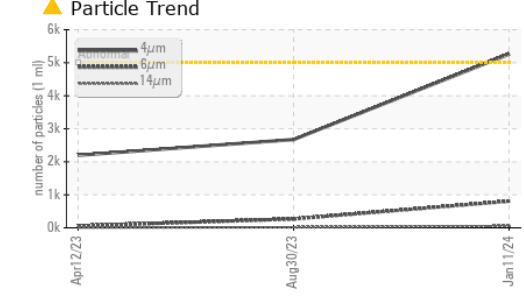
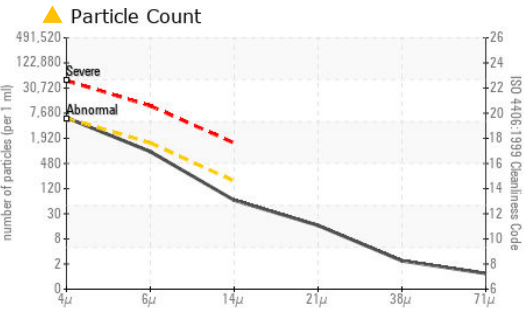
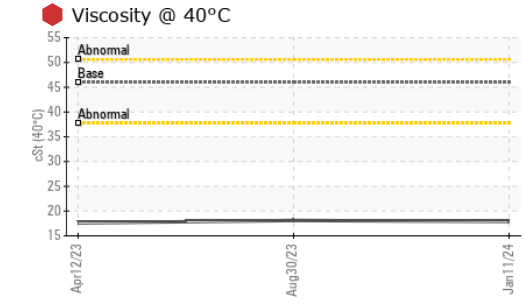
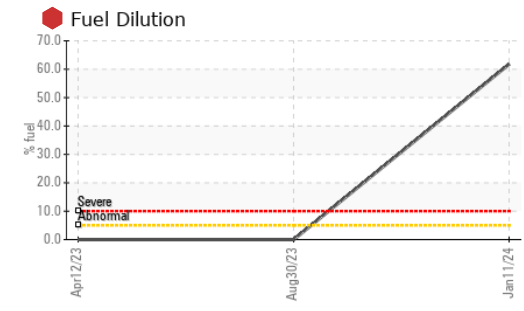
There is a light amount of silt (particulates < 14 microns in size) present in the oil. There is a high amount of fuel present in the oil. The water content is negligible. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>20	<b>4</b>	4	4
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	1	<1
Fuel	%	ASTM D7593*		<b>61.8</b>	---	---
Water	%	ASTM D6304*	>0.2	<b>0.003</b>	---	---
ppm Water	ppm	ASTM D6304*	>2000	<b>39</b>	---	---
Particles >4µm		ASTM D7647	>5000	<b>5262</b>	2673	2197
Particles >6µm		ASTM D7647	>1300	<b>807</b>	268	59
Particles >14µm		ASTM D7647	>160	<b>56</b>	17	8
Particles >21µm		ASTM D7647	>40	<b>14</b>	6	2
Particles >38µm		ASTM D7647	>10	<b>2</b>	1	0
Particles >71µm		ASTM D7647	>3	<b>1</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>20/17/13</b>	19/15/11	18/13/10
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	<b>.2%</b>	NEG	NEG

### FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		<b>5</b>	4	4
Boron	ppm	ASTM D5185(m)	14	<b>&lt;1</b>	<1	<1
Barium	ppm	ASTM D5185(m)	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	0.0	<b>0</b>	0	<1
Manganese	ppm	ASTM D5185(m)	0.0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	2.6	<b>2</b>	2	2
Calcium	ppm	ASTM D5185(m)	49	<b>57</b>	54	55
Phosphorus	ppm	ASTM D5185(m)	354	<b>354</b>	376	385
Zinc	ppm	ASTM D5185(m)	419	<b>450</b>	456	458
Sulfur	ppm	ASTM D5185(m)	3719	<b>1316</b>	1206	1094
Visc @ 40°C	cSt	ASTM D7279(m)	46	<b>17.9</b>	18.1	17.6



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : VCP380365 **Received** : 23 Jan 2024  
**Lab Number** : 02610622 **Diagnosed** : 26 Jan 2024  
**Unique Number** : 5711708 **Diagnostician** : Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: FUELDILUTION, KF, PercentFuel, PrtCount )

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.

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