



# VOLVO

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Machine Id  
**VOLVO L110H 05632247**  
Component  
**Diesel Engine**  
Fluid  
**VALVOLINE 15W40 (--- GAL)**

### RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP453895	VCP438764	VCP436454
Sample Date		Client Info		11 Jun 2024	10 May 2024	09 Apr 2024
Machine Age	hrs	Client Info		7473	7201	6919
Oil Age	hrs	Client Info		0	0	250
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	ABNORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<1	6	4
Chromium	ppm	ASTM D5185m	>10	<1	3	0
Nickel	ppm	ASTM D5185m	>10	0	3	0
Titanium	ppm	ASTM D5185m		0	2	0
Silver	ppm	ASTM D5185m	>2	0	3	0
Aluminum	ppm	ASTM D5185m	>10	3	6	2
Lead	ppm	ASTM D5185m	>20	0	3	0
Copper	ppm	ASTM D5185m	>15	0	3	<1
Tin	ppm	ASTM D5185m	>10	0	3	1
Vanadium	ppm	ASTM D5185m		0	2	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

### CONTAMINATION

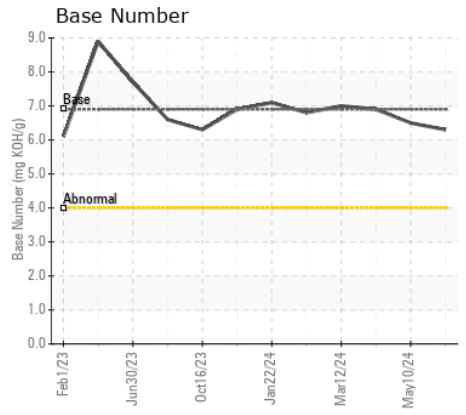
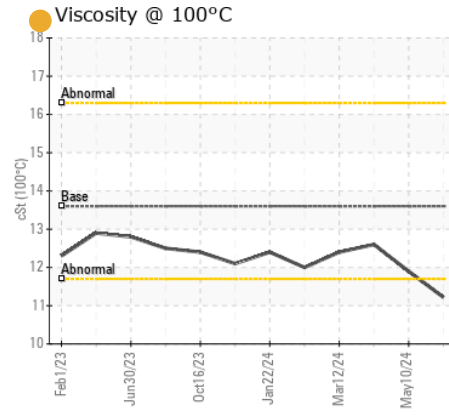
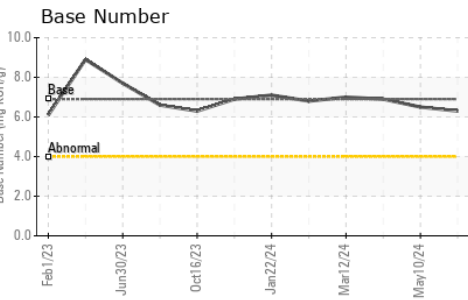
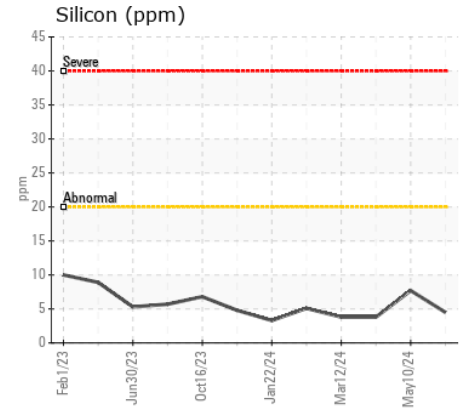
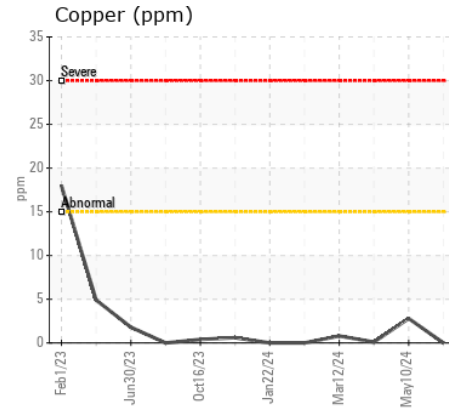
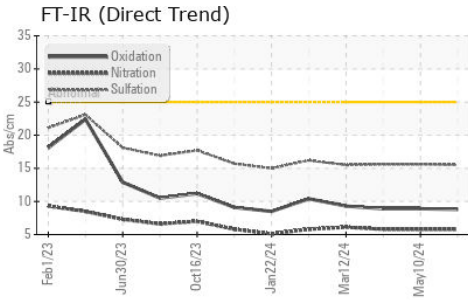
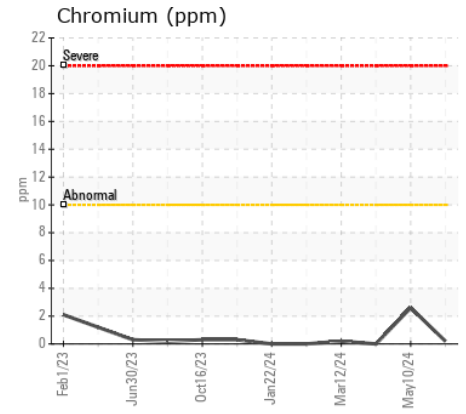
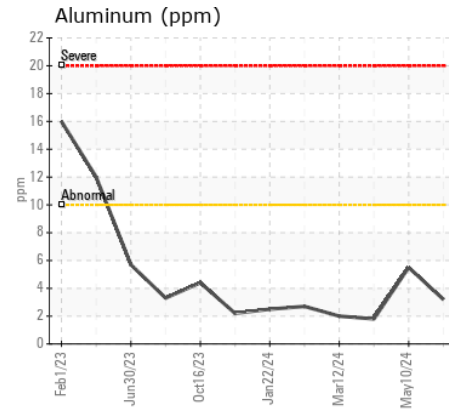
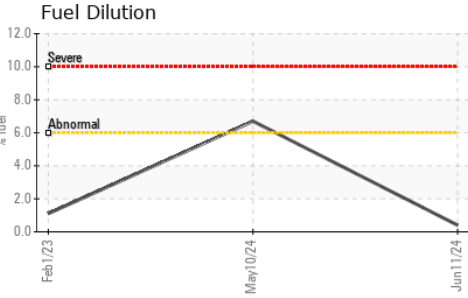
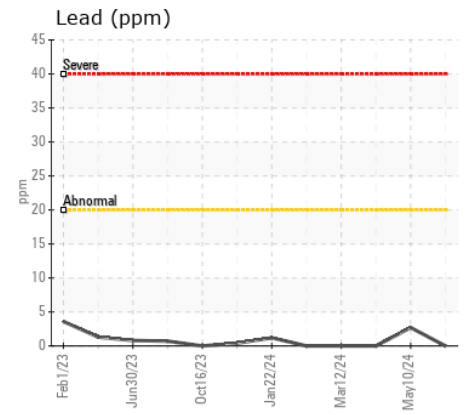
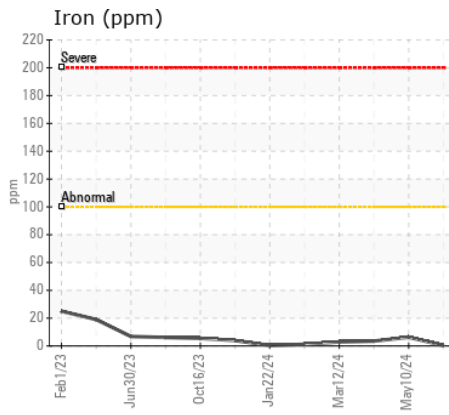
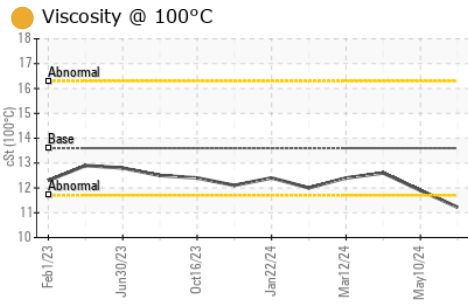
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	4	8	4
Potassium	ppm	ASTM D5185m	>20	2	4	<1
Fuel	%	ASTM D3524	>6.0	0.4	▲ 6.7	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	5.8	5.8	5.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	15.5	15.6	15.6
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG

### FLUID CONDITION

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		<1	3	<1
Boron	ppm	ASTM D5185m	39	41	36	31
Barium	ppm	ASTM D5185m	1	0	2	0
Molybdenum	ppm	ASTM D5185m	49	71	47	22
Manganese	ppm	ASTM D5185m	1	0	2	0
Magnesium	ppm	ASTM D5185m	616	234	167	150
Calcium	ppm	ASTM D5185m	1554	1772	1879	2069
Phosphorus	ppm	ASTM D5185m	899	773	788	792
Zinc	ppm	ASTM D5185m	1069	995	922	944
Sulfur	ppm	ASTM D5185m	2624	3013	3398	3848
Oxidation	Abs/.1mm	*ASTM D7414	>25	8.8	8.9	8.9
Base Number (BN)	mg KOH/g	ASTM D2896	6.9	6.3	6.5	6.9
Visc @ 100°C	cSt	ASTM D445	13.6	● 11.22	▲ 11.9	12.6



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP453895 **Received** : 26 Jun 2024  
**Lab Number** : 06220765 **Tested** : 01 Jul 2024  
**Unique Number** : 11098962 **Diagnosed** : 01 Jul 2024 - Jonathan Hester  
**Test Package** : MOB 1 ( Additional Tests: PercentFuel, TBN )

**CITY CARTING**  
 221 OLD GATE LN  
 MILFORD, CT  
 US 06460  
 Contact: TAVINS BANKS  
 tavins@citycart.net  
 T: (203)223-3885  
 F:

Certificate L2367  
 To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)