



# VOLVO

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id  
**VOLVO L90H 5624326**  
Component  
**Diesel Engine**  
Fluid  
**VALVOLINE 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP438664	VCP430819	VCP407158
Sample Date		Client Info		24 Jan 2024	01 Dec 2023	19 Oct 2023
Machine Age	hrs	Client Info		0	8030	7750
Oil Age	hrs	Client Info		0	280	219
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

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

### CONTAMINATION

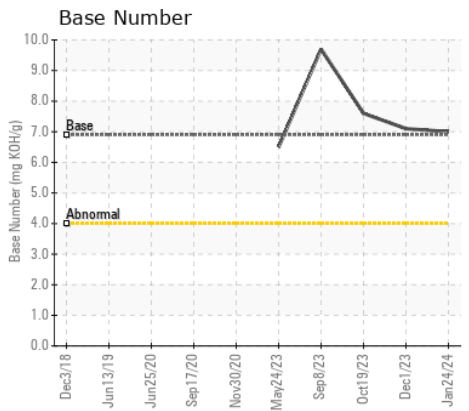
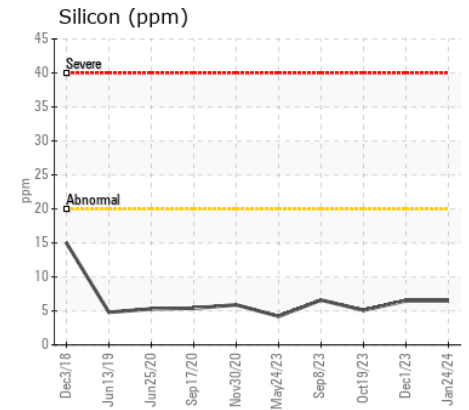
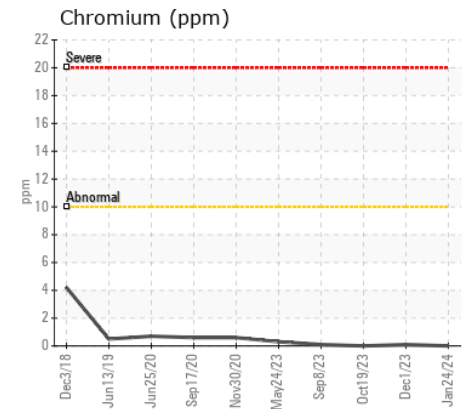
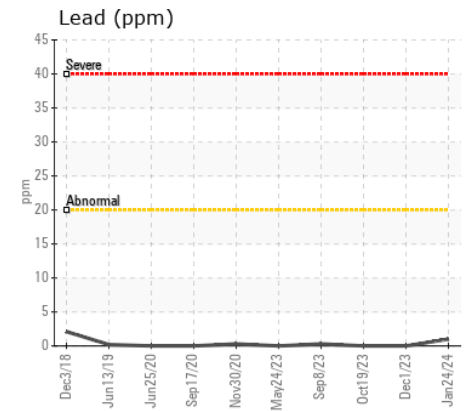
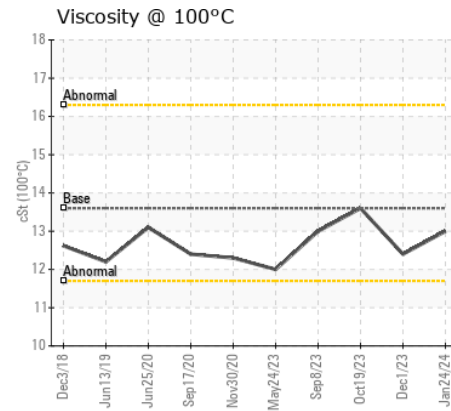
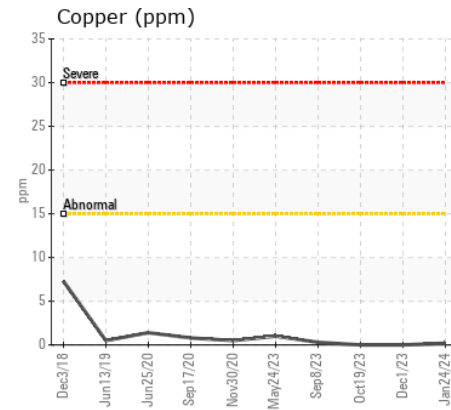
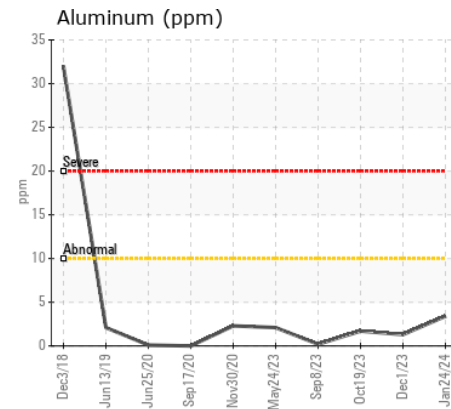
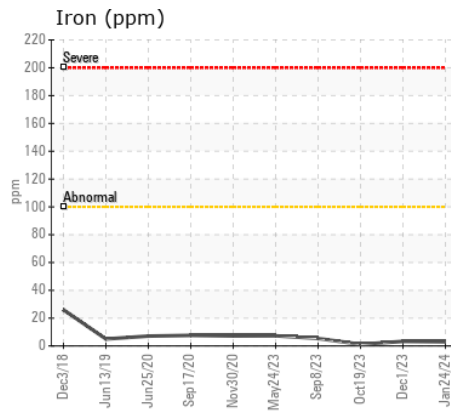
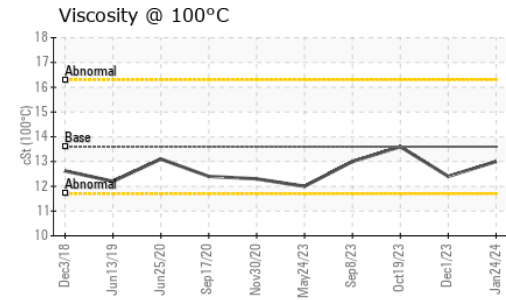
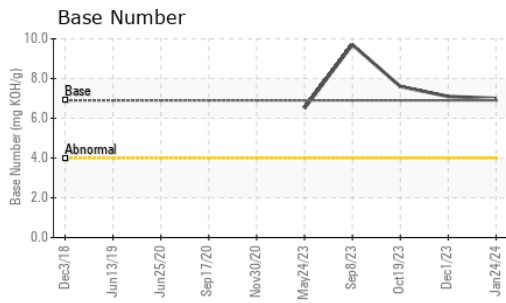
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	6	6	5
Potassium	ppm	ASTM D5185m	>20	4	2	0
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	6.3	5.9	6.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.3	15.9	16.5
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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<1	0	<1
Boron	ppm	ASTM D5185m	39	17	30	12
Barium	ppm	ASTM D5185m	1	0	4	4
Molybdenum	ppm	ASTM D5185m	49	29	57	18
Manganese	ppm	ASTM D5185m	1	<1	0	<1
Magnesium	ppm	ASTM D5185m	616	123	176	172
Calcium	ppm	ASTM D5185m	1554	2000	1938	1856
Phosphorus	ppm	ASTM D5185m	899	891	741	881
Zinc	ppm	ASTM D5185m	1069	1029	932	954
Sulfur	ppm	ASTM D5185m	2624	3519	3549	2997
Oxidation	Abs/.1mm	*ASTM D7414	>25	9.1	8.9	10.8
Base Number (BN)	mg KOH/g	ASTM D2896	6.9	7.0	7.1	7.6
Visc @ 100°C	cSt	ASTM D445	13.6	13.0	12.4	13.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP438664 **Received** : 31 Jan 2024  
**Lab Number** : 06075488 **Diagnosed** : 01 Feb 2024  
**Unique Number** : 10857579 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

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)

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