



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



Machine Id  
**VOLVO L90H 627124**  
Component  
**1 Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 30 (--- GAL)**

**RECOMMENDATION**

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ML0001383</b>	---	---
Sample Date		Client Info		<b>23 Apr 2024</b>	---	---
Machine Age	hrs	Client Info		<b>395</b>	---	---
Oil Age	hrs	Client Info		<b>395</b>	---	---
Filter Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>N/A</b>	---	---
Filter Changed		Client Info		<b>N/A</b>	---	---
Sample Status				<b>ABNORMAL</b>	---	---

**WEAR**

The aluminum level is abnormal. All other metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	<b>32</b>	---	---
Chromium	ppm	ASTM D5185m	>10	<b>10</b>	---	---
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m		<b>0</b>	---	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>10	<b>▲ 71</b>	---	---
Lead	ppm	ASTM D5185m	>20	<b>0</b>	---	---
Copper	ppm	ASTM D5185m	>15	<b>8</b>	---	---
Tin	ppm	ASTM D5185m	>10	<b>3</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

**CONTAMINATION**

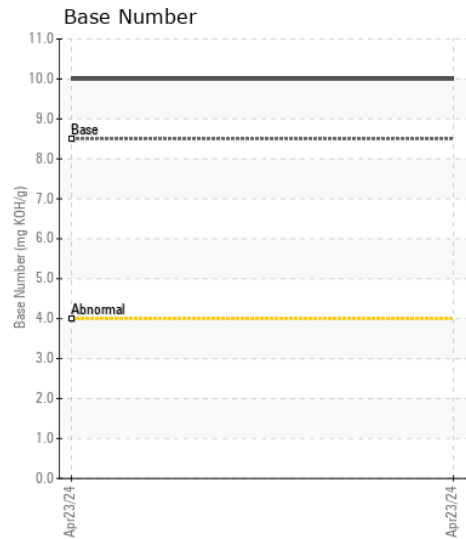
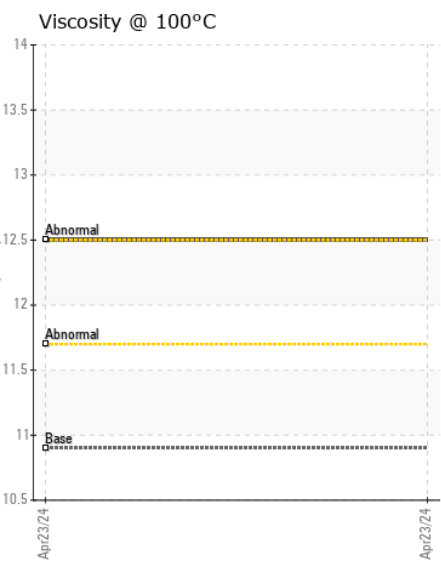
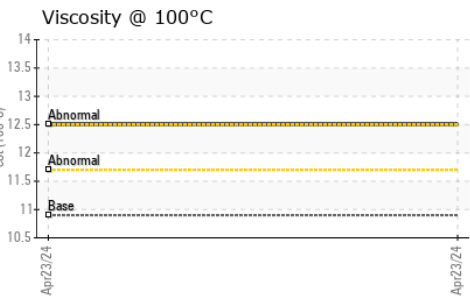
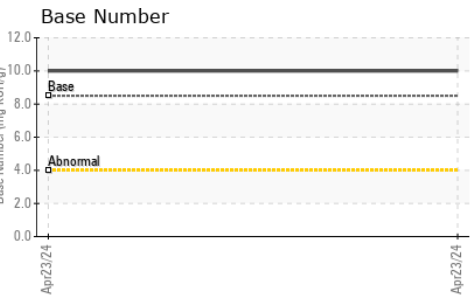
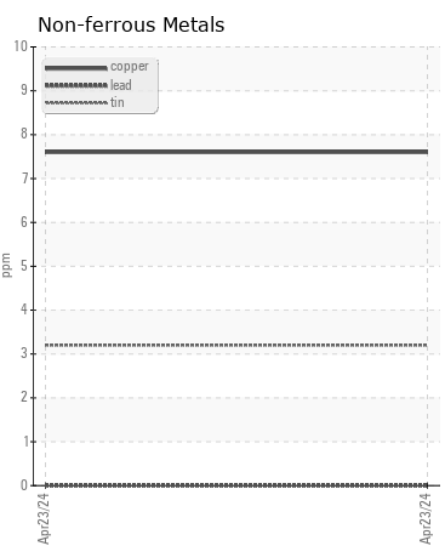
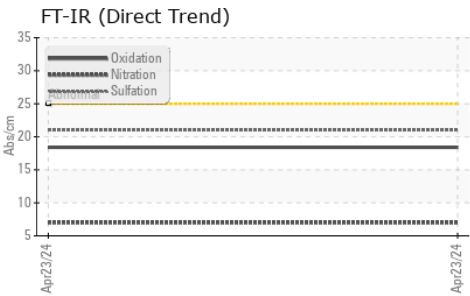
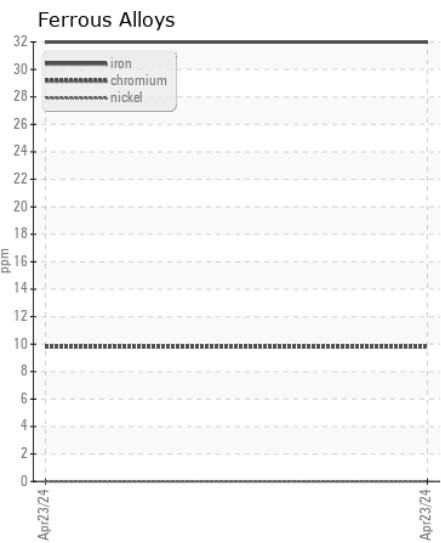
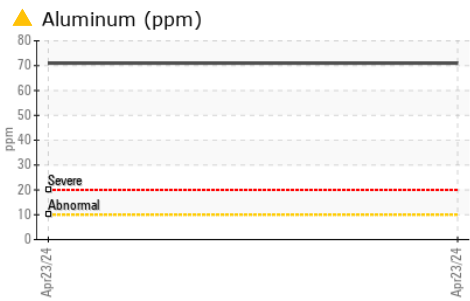
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>20</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	---	---
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	---	---
Water		WC Method	>0.1	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.0</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.0</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	---	---

**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	>75	<b>3</b>	---	---
Boron	ppm	ASTM D5185m	250	<b>60</b>	---	---
Barium	ppm	ASTM D5185m	10	<b>2</b>	---	---
Molybdenum	ppm	ASTM D5185m	100	<b>39</b>	---	---
Manganese	ppm	ASTM D5185m		<b>5</b>	---	---
Magnesium	ppm	ASTM D5185m	450	<b>636</b>	---	---
Calcium	ppm	ASTM D5185m	3000	<b>1582</b>	---	---
Phosphorus	ppm	ASTM D5185m	1150	<b>1057</b>	---	---
Zinc	ppm	ASTM D5185m	1350	<b>1176</b>	---	---
Sulfur	ppm	ASTM D5185m	4250	<b>3927</b>	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.4</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>10.0</b>	---	---
Visc @ 100°C	cSt	ASTM D445	10.9	<b>12.5</b>	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ML0001383  
**Lab Number** : 06160091  
**Unique Number** : 10995514  
**Test Package** : CONST ( Additional Tests: TBN )

**MCCLEUNG-LOGAN EQUIPMENT CO - RICHMOND**  
 1345 MOUNTAIN ROAD  
 GLEN ALLEN, VA  
 US 23060  
 Contact: KYLE RATLIFFE  
 KRATLIFFE@MCCLEUNG-LOGAN.COM  
 T:  
 F: (804)266-1611

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)