



**McCLUNG-LOGAN**  
EQUIPMENT COMPANY, INC.

OIL ANALYSIS REPORT

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



Area  
**[W02008168]**  
Machine Id  
**VOLVO EC350 314516**  
Component  
**Diesel Engine**  
Fluid  
**MOBIL 15W40 (14 GAL)**

**RECOMMENDATION**

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. ( Customer Sample Comment: W02008168 )

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ML0001083</b>	VCP418746	VCP418795
Sample Date		Client Info		<b>12 Apr 2024</b>	01 Dec 2023	24 Aug 2023
Machine Age	hrs	Client Info		<b>1942</b>	1479	1005
Oil Age	hrs	Client Info		<b>500</b>	500	500
Filter Age	hrs	Client Info		<b>500</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ATTENTION</b>	ATTENTION	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>9</b>	7	5
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>5</b>	2	4
Lead	ppm	ASTM D5185m	>20	<b>1</b>	0	0
Copper	ppm	ASTM D5185m	>15	<b>11</b>	<1	▲ 86
Tin	ppm	ASTM D5185m	>10	<b>2</b>	0	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

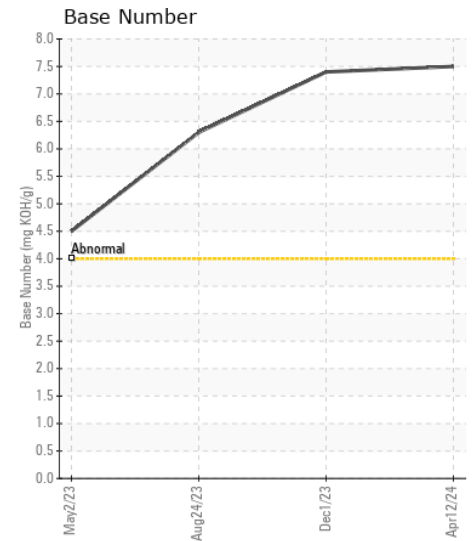
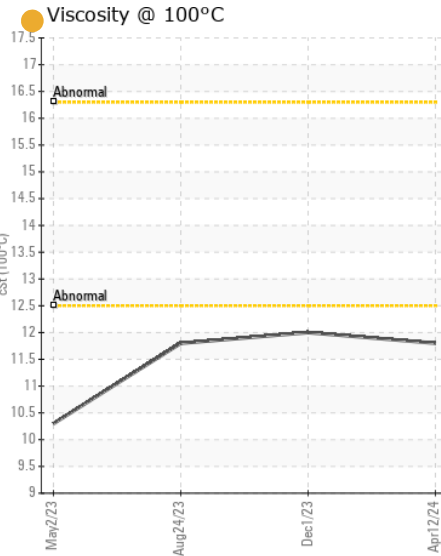
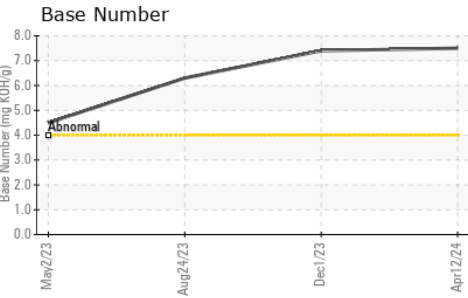
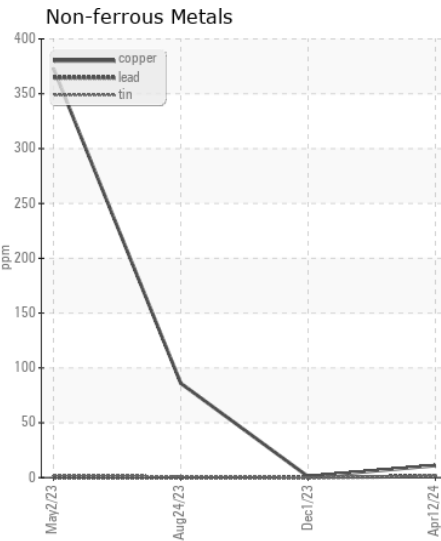
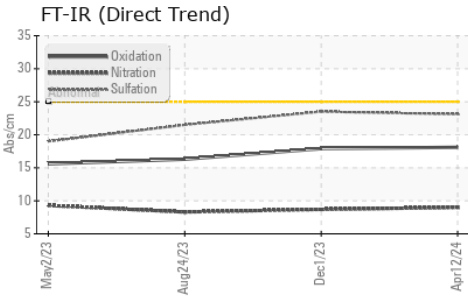
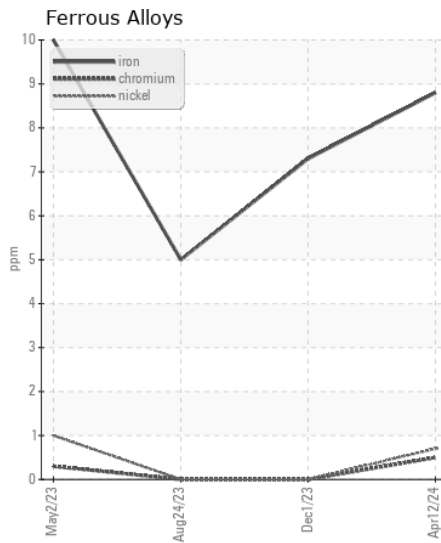
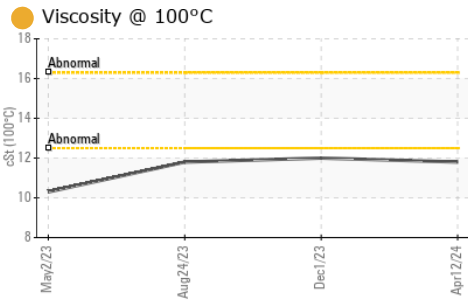
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>13</b>	6	10
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	0
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.0</b>	8.7	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.1</b>	23.5	21.5
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	>0.1	<b>NEG</b>	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	>118	<b>2</b>	27	<1
Boron	ppm	ASTM D5185m		<b>383</b>	1	151
Barium	ppm	ASTM D5185m		<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>175</b>	56	107
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>976</b>	920	512
Calcium	ppm	ASTM D5185m		<b>2195</b>	1067	1853
Phosphorus	ppm	ASTM D5185m		<b>1077</b>	1011	830
Zinc	ppm	ASTM D5185m		<b>1251</b>	1235	1012
Sulfur	ppm	ASTM D5185m		<b>3928</b>	3004	3434
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.1</b>	17.9	16.3
Base Number (BN)	mg KOH/g	ASTM D2896		<b>7.5</b>	7.4	6.3
Visc @ 100°C	cSt	ASTM D445		<b>11.8</b>	12.0	11.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ML0001083 **Received** : 16 Apr 2024  
**Lab Number** : 06149823 **Tested** : 17 Apr 2024  
**Unique Number** : 10979901 **Diagnosed** : 18 Apr 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: TBN )

**MCCLUNG-LOGAN EQUIPMENT CO - MANASSAS**  
 8450 QUARRY ROAD  
 MANASSAS, VA  
 US 20110  
 Contact: MIKE MAYHUGH  
 MMAYHUGH@MCCLUNG-LOGAN.COM  
 T: (703)393-7344  
 F: (703)393-7844

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)