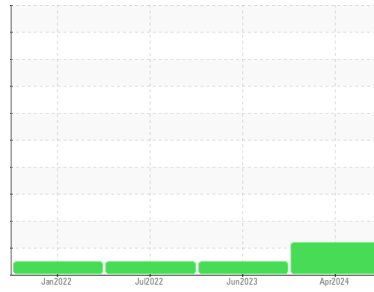




# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Area  
**[W/O 10638]**  
 Machine Id  
**VOLVO A45G 342692**  
 Component  
**Diesel Engine**  
 Fluid  
**CHEVRON 15W40 (14 GAL)**



## DIAGNOSIS

### ▲ Recommendation

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

### ▲ Wear

Valve wear is indicated.

### Contamination

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

### ● 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.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>ML0001161</b>	VCP408850	VCP338133
Sample Date	Client Info		<b>15 Apr 2024</b>	13 Jun 2023	14 Jul 2022
Machine Age	hrs	Client Info	<b>5553</b>	5022	4208
Oil Age	hrs	Client Info	<b>531</b>	0	0
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>ABNORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>46</b>	9	8
Chromium	ppm	ASTM D5185m >20	<b>2</b>	<1	<1
Nickel	ppm	ASTM D5185m >2	<b>▲ 10</b>	1	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185m >25	<b>4</b>	1	2
Lead	ppm	ASTM D5185m >40	<b>1</b>	0	<1
Copper	ppm	ASTM D5185m >330	<b>89</b>	10	4
Tin	ppm	ASTM D5185m >15	<b>3</b>	<1	<1
Antimony	ppm	ASTM D5185m	<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>96</b>	26	41
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>92</b>	43	46
Manganese	ppm	ASTM D5185m	<b>2</b>	<1	<1
Magnesium	ppm	ASTM D5185m	<b>395</b>	154	617
Calcium	ppm	ASTM D5185m	<b>1546</b>	2167	1262
Phosphorus	ppm	ASTM D5185m	<b>1124</b>	933	686
Zinc	ppm	ASTM D5185m	<b>1273</b>	1130	818
Sulfur	ppm	ASTM D5185m	<b>3343</b>	4199	2655

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>14</b>	4	3
Sodium	ppm	ASTM D5185m >50	<b>1</b>	2	<1
Potassium	ppm	ASTM D5185m >20	<b>2</b>	<1	1
Fuel	%	ASTM D3524 >6.0	<b>0.4</b>	<1.0	<1.0

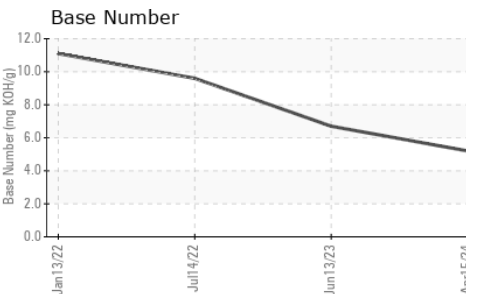
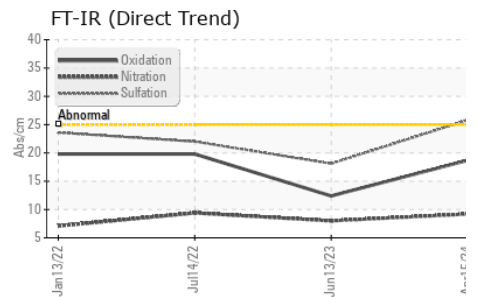
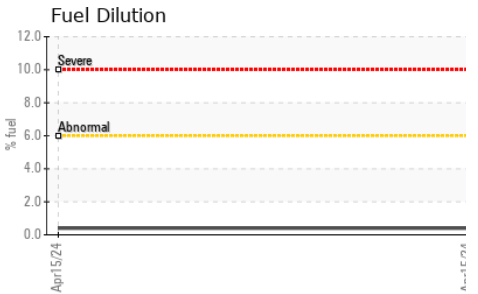
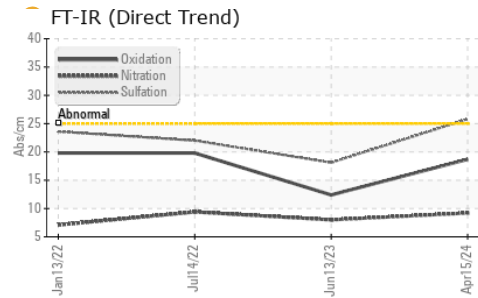
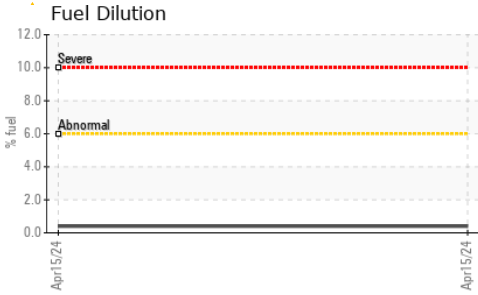
## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.7</b>	0.3	0.2
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.2</b>	8.0	9.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>25.8</b>	18.1	22.0

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>18.7</b>	12.4	19.8
Base Number (BN)	mg KOH/g	ASTM D2896	<b>5.2</b>	6.7	9.6

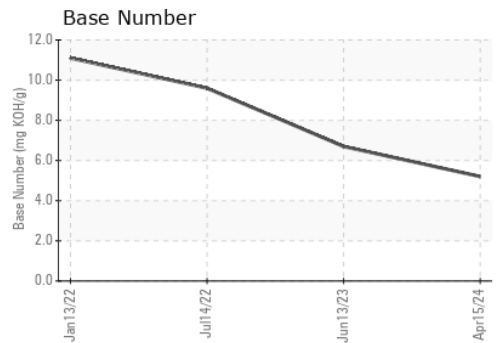
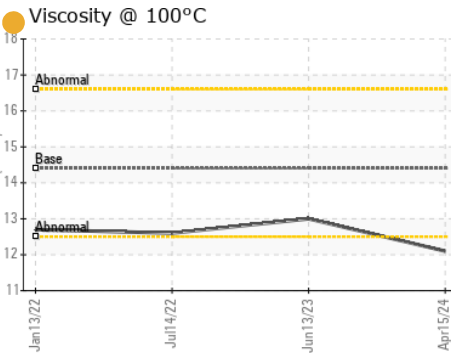
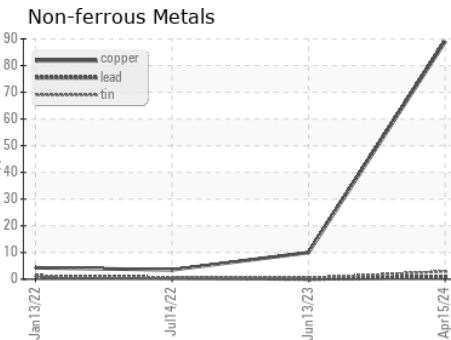
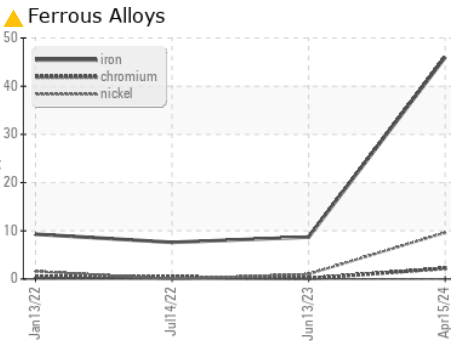
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4 <span style="color: orange;">●</span> 12.1	13.0	12.6

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ML0001161 **Received** : 19 Apr 2024  
**Lab Number** : 06155080 **Tested** : 24 Apr 2024  
**Unique Number** : 10990503 **Diagnosed** : 24 Apr 2024 - Jonathan Hester  
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, TBN )

**McCLUNG-LOGAN EQUIPMENT CO - RICHMOND**  
 1345 MOUNTAIN ROAD  
 GLEN ALLEN, VA  
 US 23060  
 Contact: KYLE RATLIFF  
 KRATLIFFE@McCLUNG-LOGAN.COM

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)

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