



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	SEVERE



Area
[2707-1 MT FUELS]
Machine Id
VOLVO EC210CL 111723
Component
Diesel Engine
Fluid
{not provided} (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP441062	VCP234776	VCP122149
Sample Date		Client Info		09 Jan 2024	08 Oct 2019	13 Feb 2015
Machine Age	hrs	Client Info		12413	0	3218
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	ATTENTION	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	6	5	62
Chromium	ppm	ASTM D5185m	>10	1	<1	2
Nickel	ppm	ASTM D5185m	>10	1	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	<1
Aluminum	ppm	ASTM D5185m	>10	2	1	4
Lead	ppm	ASTM D5185m	>20	1	0	7
Copper	ppm	ASTM D5185m	>15	5	<1	1
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

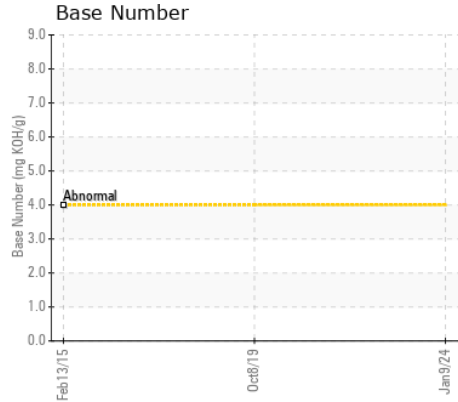
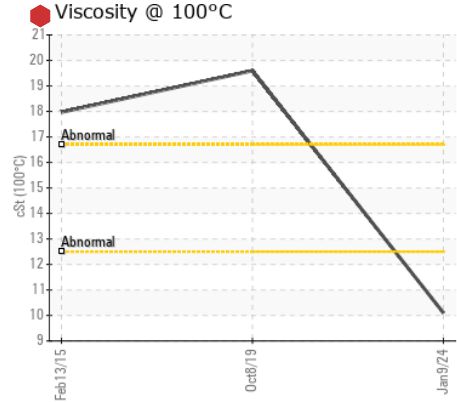
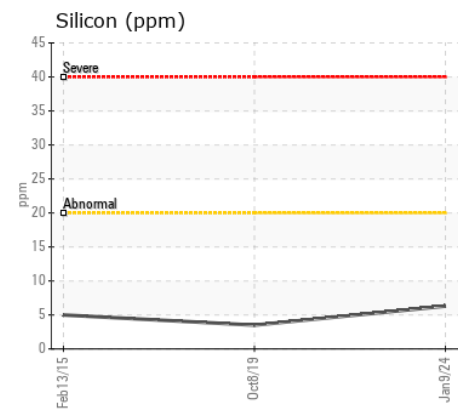
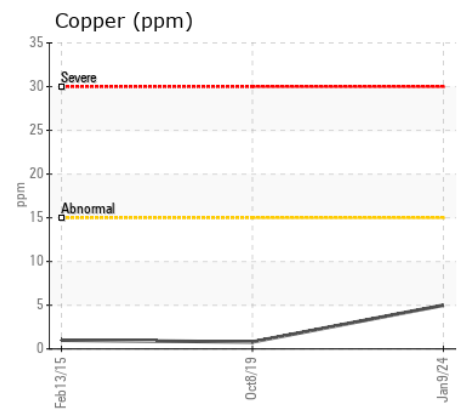
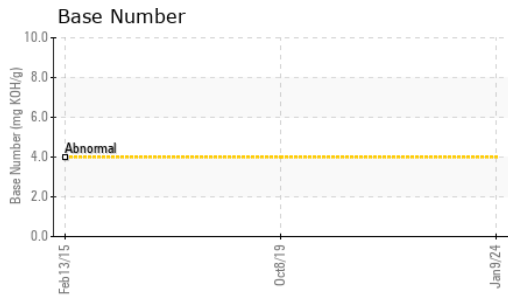
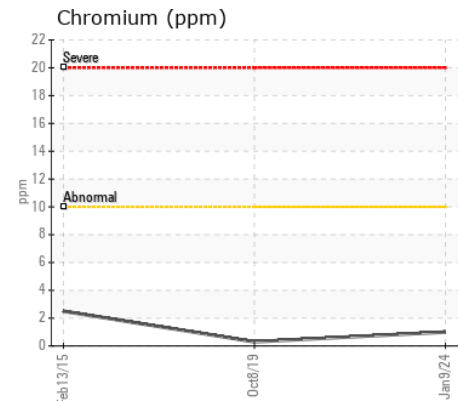
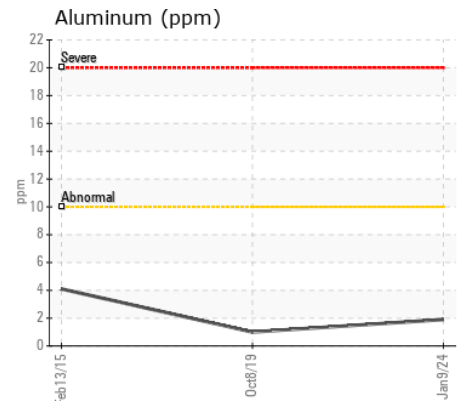
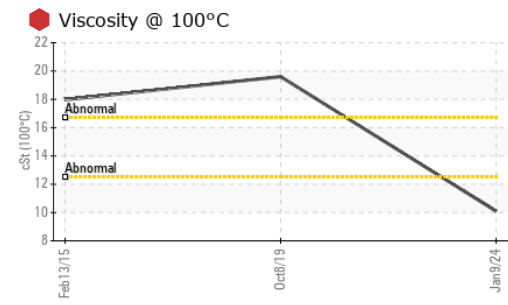
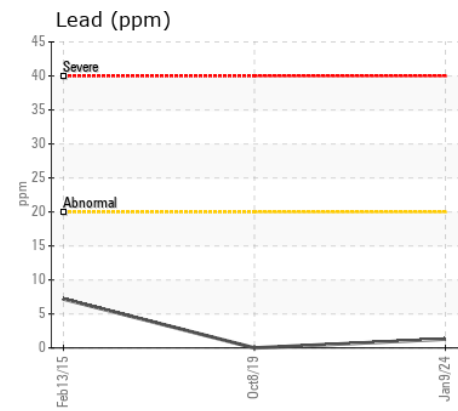
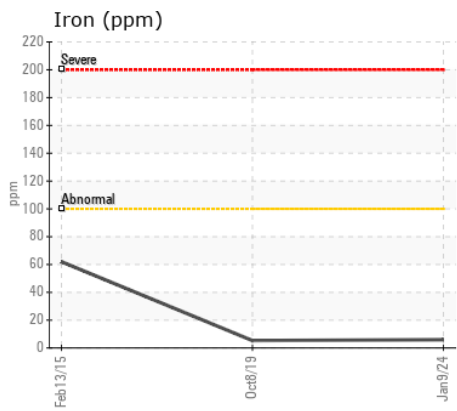
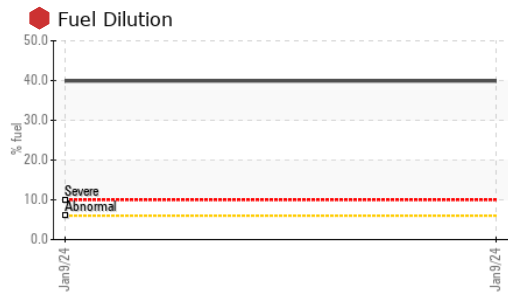
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185m	>20	6	4	5
Potassium	ppm	ASTM D5185m	>20	<1	5	0
Fuel	%	ASTM D3524	>6.0	39.9	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0	0.3	0
Nitration	Abs/cm	*ASTM D7624	>20	5.2	6.5	4.
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.1	20.6	13.
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. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		<1	<1	5
Boron	ppm	ASTM D5185m		24	132	35
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		19	<1	44
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		257	9	759
Calcium	ppm	ASTM D5185m		798	1730	1212
Phosphorus	ppm	ASTM D5185m		509	712	684
Zinc	ppm	ASTM D5185m		625	876	971
Sulfur	ppm	ASTM D5185m		1674	2678	1334
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.4	15.7	7.
Base Number (BN)	mg KOH/g	ASTM D2896		8.6	---	---
Visc @ 100°C	cSt	ASTM D445		10.1	▲ 19.6	▲ 17.97



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP441062 **Received** : 12 Jan 2024
Lab Number : 06059073 **Diagnosed** : 16 Jan 2024
Unique Number : 10830455 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN)

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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)