



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
VOLVO VN610 98
Component
Diesel Engine
Fluid
CASTROL TECTION EXTRA SAE 15W-40 (38 LTR)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0781404	WC0679996	WC0679994
Sample Date		Client Info		03 May 2024	09 Jan 2024	11 Sep 2023
Machine Age	kms	Client Info		5608961	5544094	5477959
Oil Age	kms	Client Info		64867	66135	24833
Filter Age	kms	Client Info		64867	66135	24833
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>200	91	116	42
Chromium	ppm	ASTM D5185(m)	>10	2	4	3
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>30	2	2	4
Lead	ppm	ASTM D5185(m)	>30	7	5	2
Copper	ppm	ASTM D5185(m)	>30	2	4	4
Tin	ppm	ASTM D5185(m)	>4	3	▲ 4	3
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

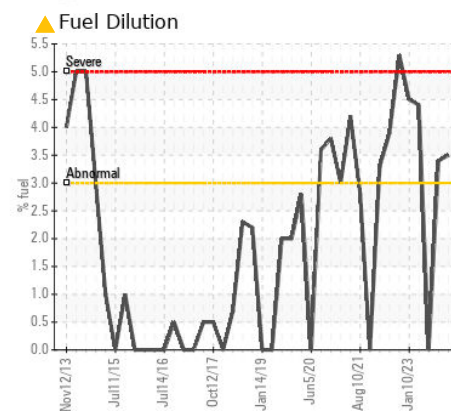
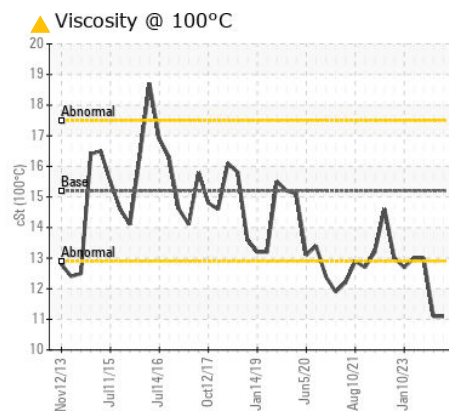
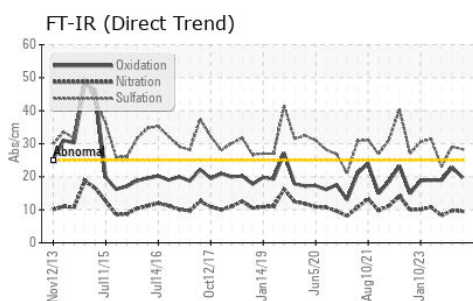
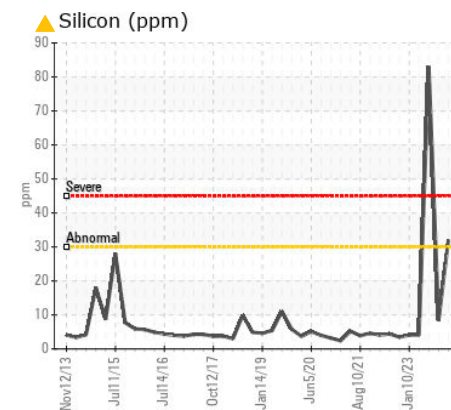
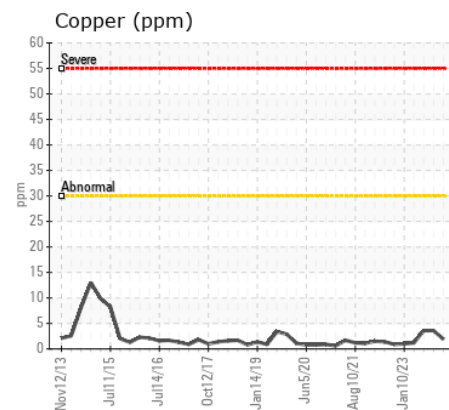
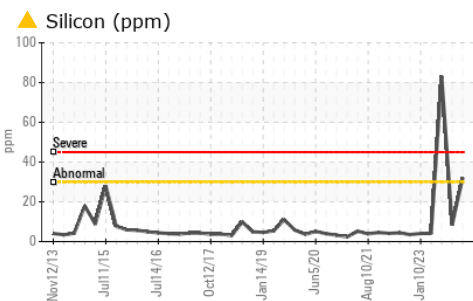
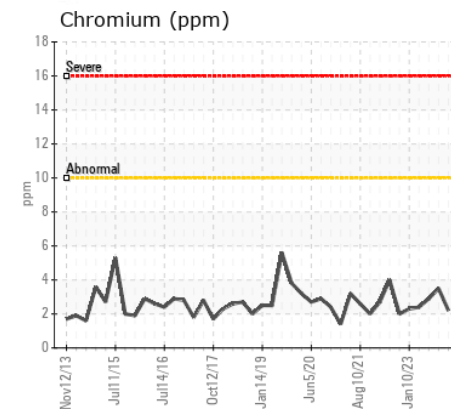
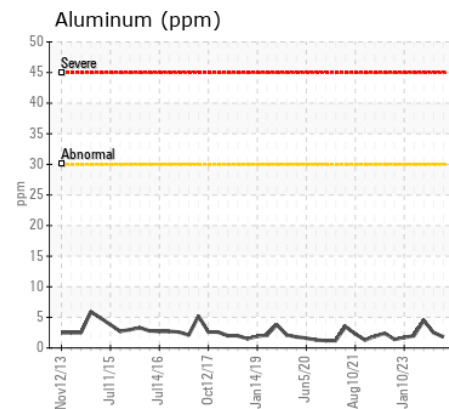
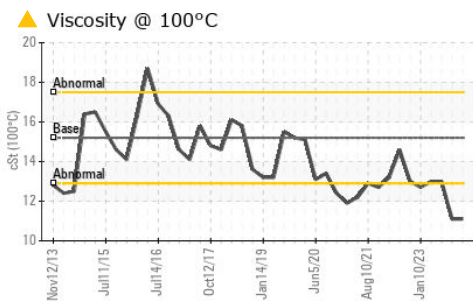
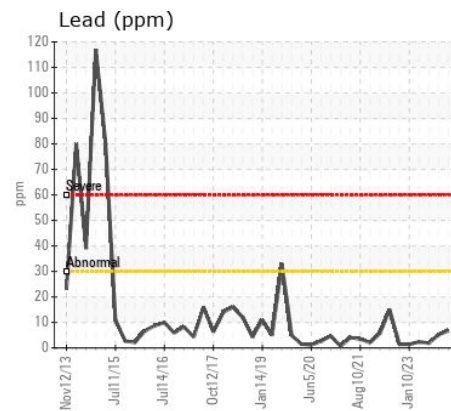
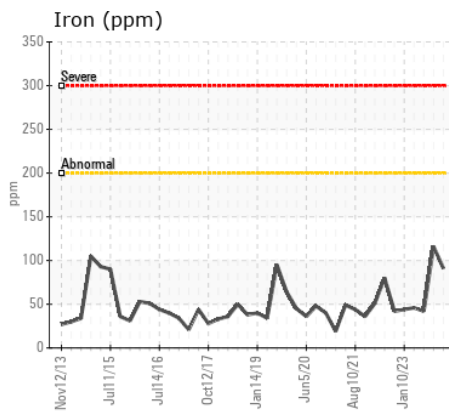
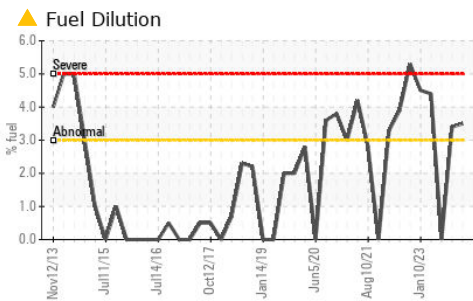
There is a moderate amount of fuel present in the oil. There is a moderate concentration of dirt present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>30	▲ 32	8	83
Potassium	ppm	ASTM D5185(m)	>20	1	3	10
Fuel	%	ASTM D7593*	>3.0	▲ 3.5	▲ 3.4	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	1.9	1.4	0.7
Nitration	Abs/cm	ASTM D7624*	>20	9.5	9.8	8.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	28.3	29.1	23.1
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		3	4	9
Boron	ppm	ASTM D5185(m)	30	12	15	85
Barium	ppm	ASTM D5185(m)		0	0	4
Molybdenum	ppm	ASTM D5185(m)		13	13	7
Manganese	ppm	ASTM D5185(m)		<1	<1	2
Magnesium	ppm	ASTM D5185(m)	110	93	96	77
Calcium	ppm	ASTM D5185(m)	2740	2116	2110	2076
Phosphorus	ppm	ASTM D5185(m)	1240	813	846	931
Zinc	ppm	ASTM D5185(m)	1350	941	975	1118
Sulfur	ppm	ASTM D5185(m)	3520	2682	2895	2764
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.7	22.8	18.9
Visc @ 100°C	cSt	ASTM D7279(m)	15.2	▲ 11.1	▲ 11.1	13.0



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0781404
Lab Number : 02635190
Unique Number : 5776343
Test Package : MOB 1 (Additional Tests: PercentFuel)

Received : 14 May 2024
Tested : 15 May 2024
Diagnosed : 15 May 2024 - Kevin Marson

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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.