



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL



Area
[8-390659]

Machine Id
633406

Component
Diesel Engine

Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP393164	VCP394802	---
Sample Date		Client Info		16 Jan 2024	12 Sep 2023	---
Machine Age	hrs	Client Info		916	509	---
Oil Age	hrs	Client Info		1000	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Not Chngd	---
Filter Changed		Client Info		N/A	Not Chngd	---
Sample Status				ABNORMAL	NORMAL	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>200	26	17	---
Chromium	ppm	ASTM D5185(m)	>20	2	2	---
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	---
Titanium	ppm	ASTM D5185(m)		0	<1	---
Silver	ppm	ASTM D5185(m)	>2	1	<1	---
Aluminum	ppm	ASTM D5185(m)	>30	31	29	---
Lead	ppm	ASTM D5185(m)	>40	4	3	---
Copper	ppm	ASTM D5185(m)	>20	21	13	---
Tin	ppm	ASTM D5185(m)	>20	3	2	---
Vanadium	ppm	ASTM D5185(m)		0	0	---

CONTAMINATION

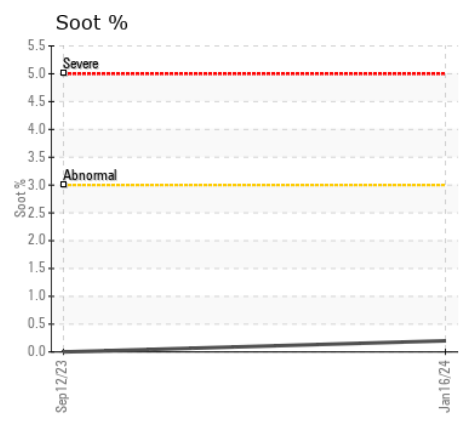
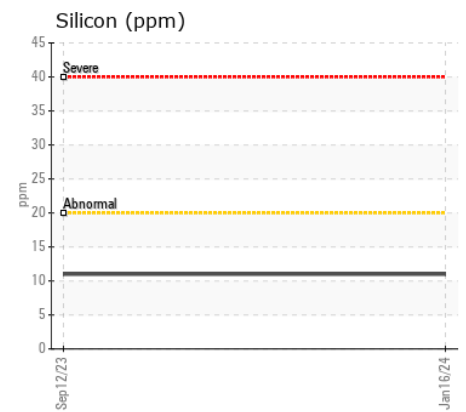
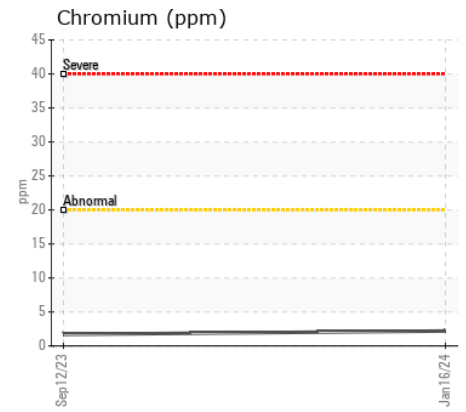
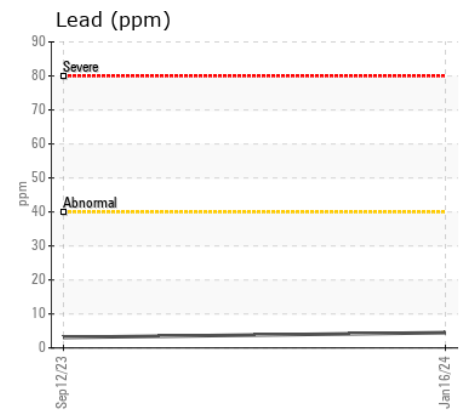
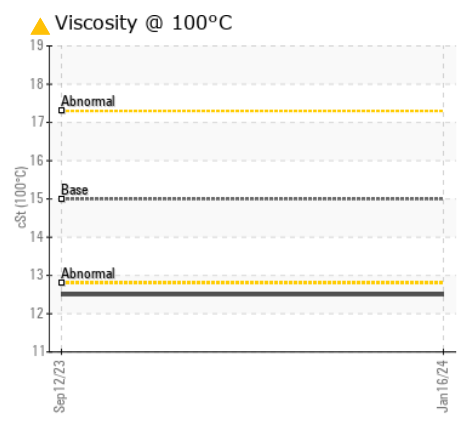
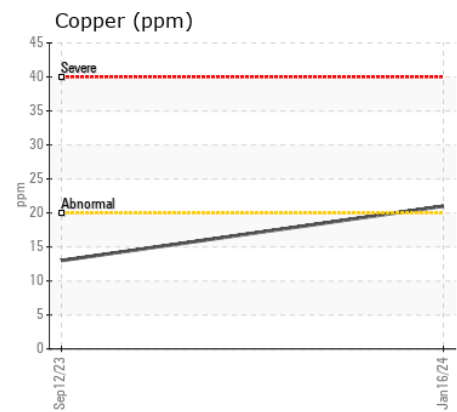
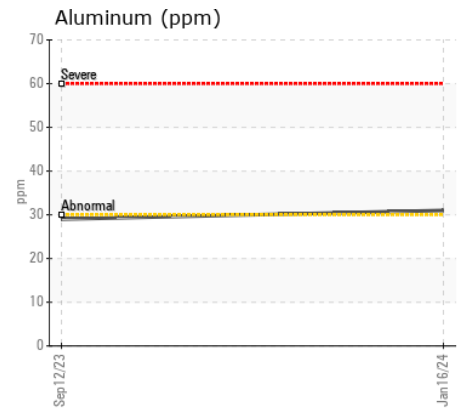
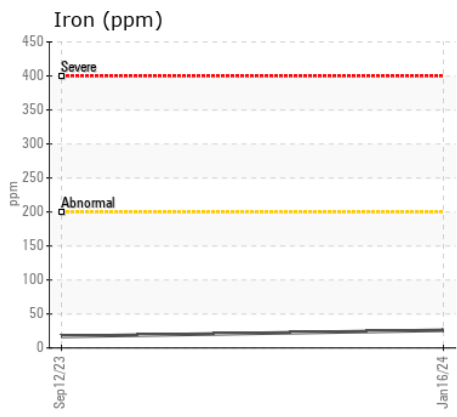
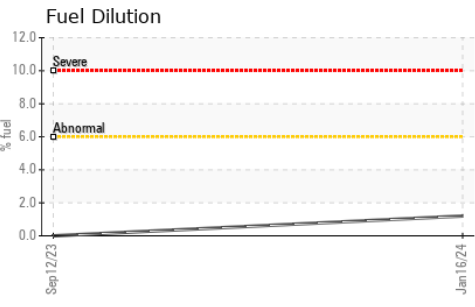
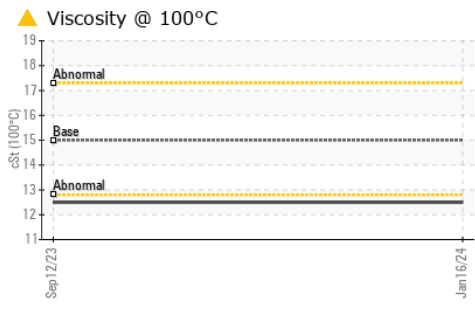
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>20	11	11	---
Potassium	ppm	ASTM D5185(m)	>20	2	1	---
Fuel	%	ASTM D7593*	>6.0	1.2	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	ASTM D7844*	>3	0.2	0	---
Nitration	Abs/cm	ASTM D7624*	>20	7.5	6.1	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.8	21.0	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	---

FLUID CONDITION

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		4	4	---
Boron	ppm	ASTM D5185(m)	2.5	30	40	---
Barium	ppm	ASTM D5185(m)	0.0	6	6	---
Molybdenum	ppm	ASTM D5185(m)	0.7	39	39	---
Manganese	ppm	ASTM D5185(m)	0.0	2	2	---
Magnesium	ppm	ASTM D5185(m)	256	644	649	---
Calcium	ppm	ASTM D5185(m)	2057	1456	1408	---
Phosphorus	ppm	ASTM D5185(m)	935	945	1018	---
Zinc	ppm	ASTM D5185(m)	1223	1087	1083	---
Sulfur	ppm	ASTM D5185(m)	4079	3052	2966	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.9	17.7	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.0	▲ 12.5	12.5	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : VCP393164 **Received** : 27 Feb 2024
Lab Number : 02618239 **Tested** : 28 Feb 2024
Unique Number : 5735349 **Diagnosed** : 28 Feb 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

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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.