VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[SWA60052-10 ALTER PE]
Machine Id
SENNEBOGEN 835 835.0.2949
Component
Diesel Engine
Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

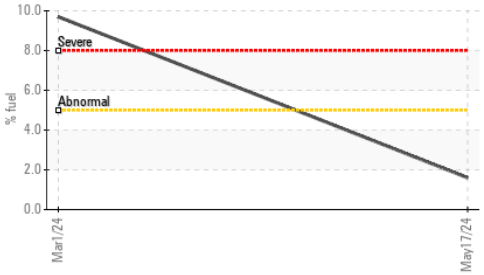
Fuel content negligible. There is no indication of any contamination in the oil.

FLUID CONDITION

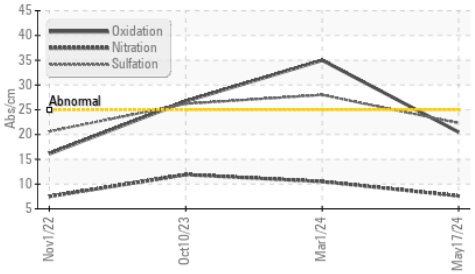
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP438902	VCP434632	VCP396390
Sample Date		Client Info		17 May 2024	01 Mar 2024	10 Oct 2023
Machine Age	hrs	Client Info		5900	5345	4362
Oil Age	hrs	Client Info		500	1000	500
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	SEVERE	NORMAL
Iron	ppm	ASTM D5185m	>100	7	26	73
Chromium	ppm	ASTM D5185m	>20	<1	1	3
Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	<1	<1	0
Aluminum	ppm	ASTM D5185m	>20	2	3	8
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	<1	2	2
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	3	4	6
Potassium	ppm	ASTM D5185m	>20	4	6	22
Fuel	%	ASTM D3524	>5	1.6	▲ 9.7	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.2	0.4
Nitration	Abs/cm	*ASTM D7624	>20	7.6	10.5	11.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.3	28.0	26.2
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	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		<1	<1	1
Boron	ppm	ASTM D5185m	2.5	0	0	6
Barium	ppm	ASTM D5185m	0.0	0	0	1
Molybdenum	ppm	ASTM D5185m	0.7	56	58	63
Manganese	ppm	ASTM D5185m	0.0	0	<1	<1
Magnesium	ppm	ASTM D5185m	256	922	859	909
Calcium	ppm	ASTM D5185m	2057	1031	1006	1227
Phosphorus	ppm	ASTM D5185m	935	952	919	1062
Zinc	ppm	ASTM D5185m	1223	1154	1095	1343
Sulfur	ppm	ASTM D5185m	4079	3097	2632	2843
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.5	35.0	26.7
Base Number (BN)	mg KOH/g	ASTM D2896	10	8.6	4.1	5.7
Visc @ 100°C	cSt	ASTM D445	15.0	13.1	▲ 10.7	13.6

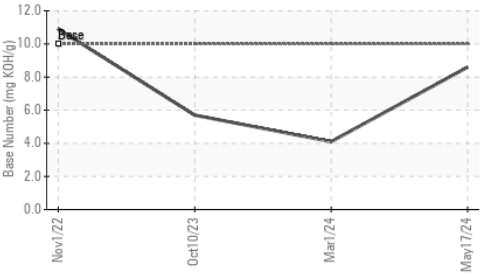
Fuel Dilution



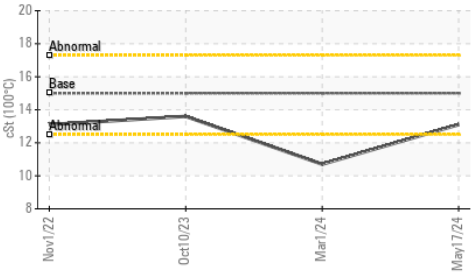
FT-IR (Direct Trend)



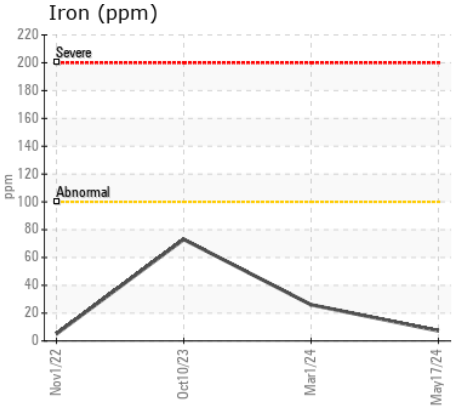
Base Number



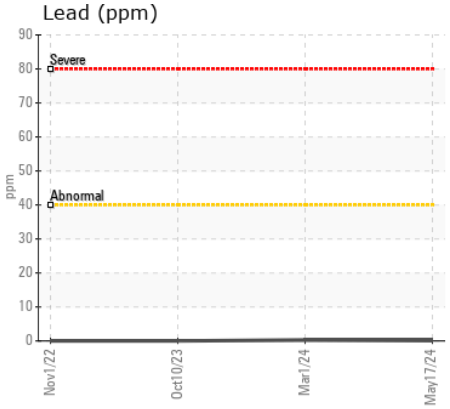
Viscosity @ 100°C



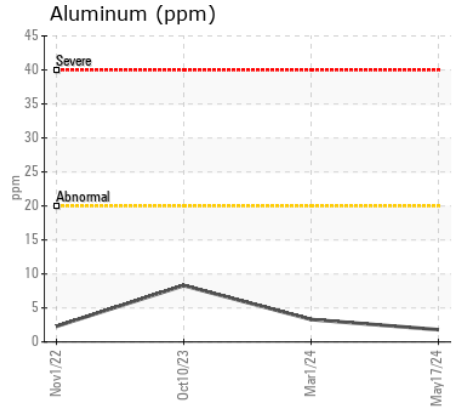
Iron (ppm)



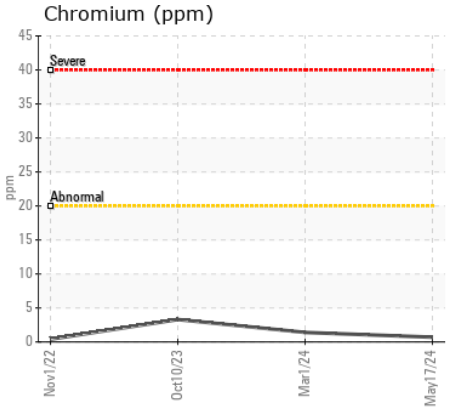
Lead (ppm)



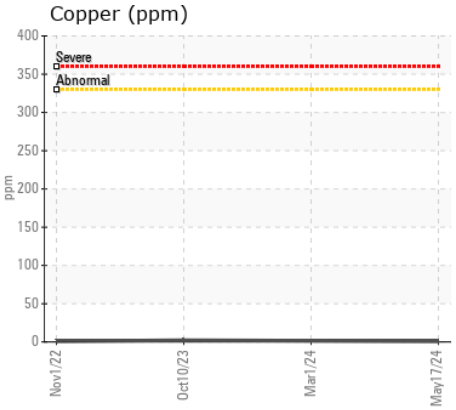
Aluminum (ppm)



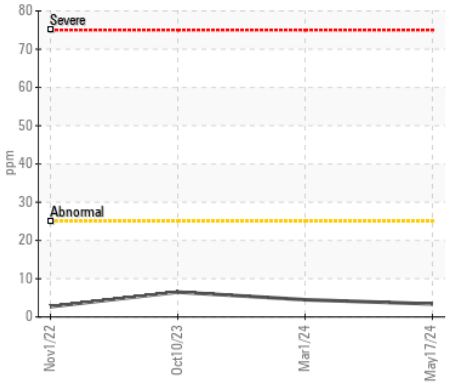
Chromium (ppm)



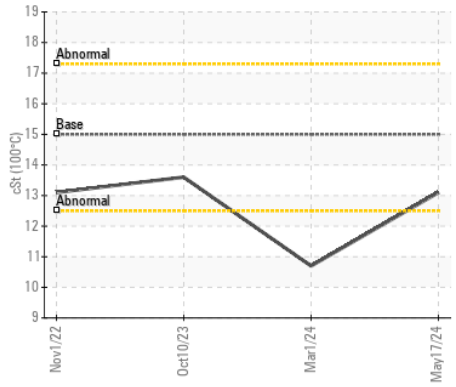
Copper (ppm)



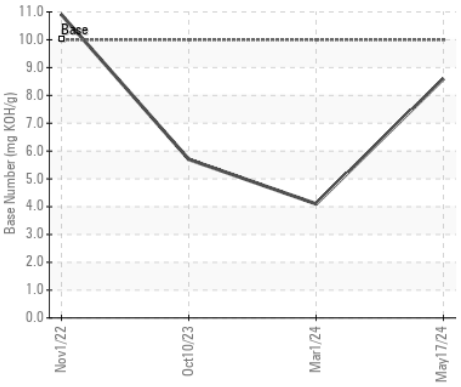
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP438902 **Received** : 23 May 2024
Lab Number : 06188759 **Tested** : 28 May 2024
Unique Number : 11045511 **Diagnosed** : 28 May 2024 - Sean Felton
Test Package : MOB 1 (Additional Tests: PercentFuel, TBN)

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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