



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
VOLVO EC210C 110262
 Component
Diesel Engine
 Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0003320	ASC0003411	VCE237749
Sample Date		Client Info		25 Jun 2024	06 Feb 2024	04 Dec 2019
Machine Age	hrs	Client Info		9000	8533	6990
Oil Age	hrs	Client Info		9000	8000	500
Filter Age	hrs	Client Info		0	8000	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	19	19	15
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	2	4
Lead	ppm	ASTM D5185m	>20	0	<1	5
Copper	ppm	ASTM D5185m	>15	<1	1	11
Tin	ppm	ASTM D5185m	>10	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

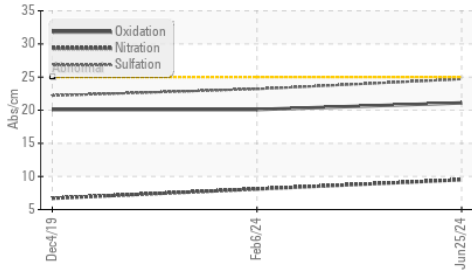
Silicon	ppm	ASTM D5185m	>20	5	6	7
Potassium	ppm	ASTM D5185m	>20	2	3	4
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.6	0.9	0.5
Nitration	Abs/cm	*ASTM D7624	>20	9.5	8.1	6.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.7	23.2	22.2
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	>0.1	NEG	NEG	NEG

FLUID CONDITION

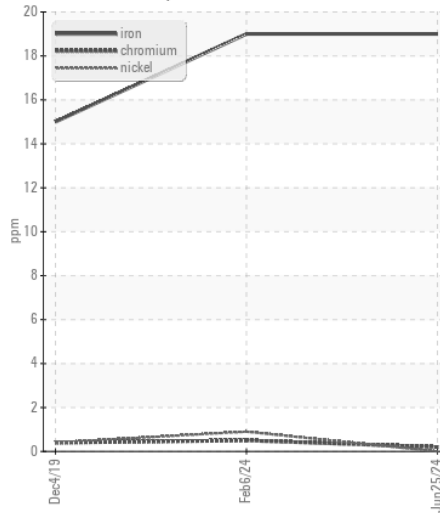
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		3	0	3
Boron	ppm	ASTM D5185m	2.5	27	37	43
Barium	ppm	ASTM D5185m	0.0	0	13	0
Molybdenum	ppm	ASTM D5185m	0.7	47	45	40
Manganese	ppm	ASTM D5185m	0.0	0	<1	1
Magnesium	ppm	ASTM D5185m	256	603	523	521
Calcium	ppm	ASTM D5185m	2057	1770	1628	1744
Phosphorus	ppm	ASTM D5185m	935	962	958	670
Zinc	ppm	ASTM D5185m	1223	1290	1102	850
Sulfur	ppm	ASTM D5185m	4079	2937	3098	1972
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.1	20.1	20.1
Base Number (BN)	mg KOH/g	ASTM D2896	10	10.0	9.9	---
Visc @ 100°C	cSt	ASTM D445	15.0	14.3	13.6	13.8

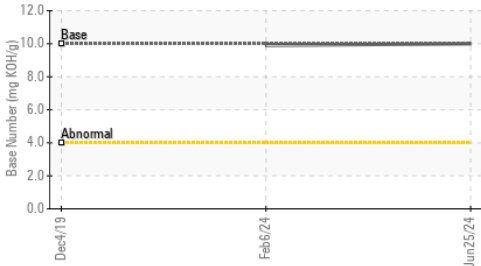
FT-IR (Direct Trend)



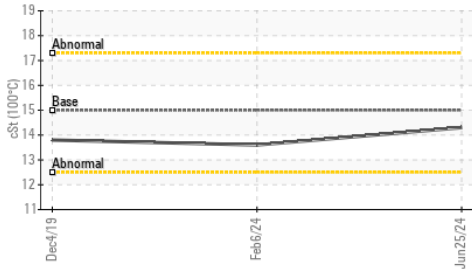
Ferrous Alloys



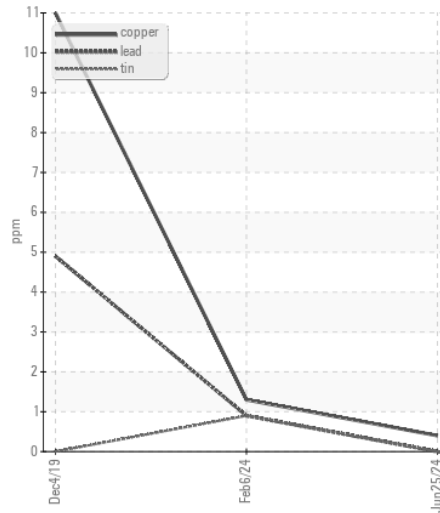
Base Number



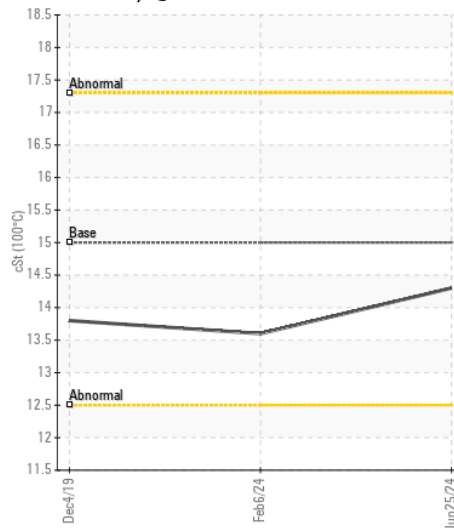
Viscosity @ 100°C



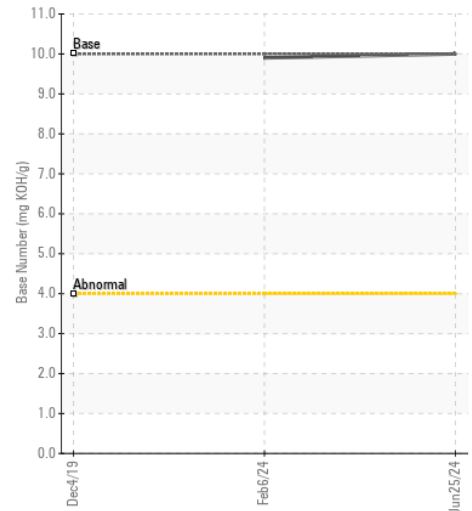
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : ASC0003320

Lab Number : 06220803

Unique Number : 11099000

Test Package : CONST (Additional Tests: TBN)

Received : 26 Jun 2024

Tested : 26 Jun 2024

Diagnosed : 26 Jun 2024 - Wes Davis

160 - ASCENDUM MACHINERY INC - MILLS RIVER

215 FANNING FIELDS RD

MILLS RIVER, NC

US 28759

Contact: BRANDON DRAKE

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F: (828)687-0622

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)