



ASCENDUM

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
VOLVO L60H 623204

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		ASC0003152	ASC0003386	ASC0003243
Sample Date		Client Info		17 May 2024	30 Jan 2024	28 Sep 2023
Machine Age	hrs	Client Info		2004	994	994
Oil Age	hrs	Client Info		2004	1546	500
Filter Age	hrs	Client Info		0	0	500
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	12	13	19
Chromium	ppm	ASTM D5185m	>10	<1	<1	2
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	6	6	7
Lead	ppm	ASTM D5185m	>20	<1	<1	0
Copper	ppm	ASTM D5185m	>15	<1	<1	<1
Tin	ppm	ASTM D5185m	>10	1	1	2
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.

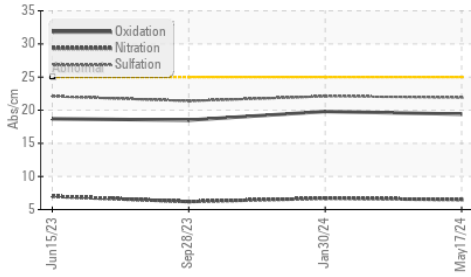
Silicon	ppm	ASTM D5185m	>20	10	8	10
Potassium	ppm	ASTM D5185m	>20	0	<1	<1
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.3	0.4
Nitration	Abs/cm	*ASTM D7624	>20	6.5	6.7	6.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.9	22.1	21.4
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

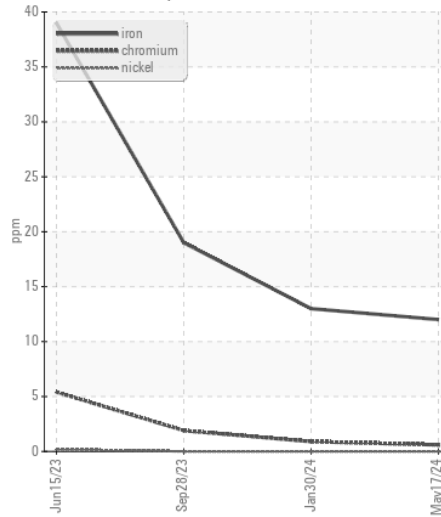
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	2	2
Boron	ppm	ASTM D5185m	2.5	55	45	48
Barium	ppm	ASTM D5185m	0.0	0	0	<1
Molybdenum	ppm	ASTM D5185m	0.7	42	38	44
Manganese	ppm	ASTM D5185m	0.0	<1	<1	1
Magnesium	ppm	ASTM D5185m	256	535	490	577
Calcium	ppm	ASTM D5185m	2057	1709	1564	1723
Phosphorus	ppm	ASTM D5185m	935	1012	922	1003
Zinc	ppm	ASTM D5185m	1223	1153	1096	1208
Sulfur	ppm	ASTM D5185m	4079	3420	2891	3167
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.4	19.8	18.5
Base Number (BN)	mg KOH/g	ASTM D2896	10	10.1	10.5	9.7
Visc @ 100°C	cSt	ASTM D445	15.0	12.9	13.0	13.2

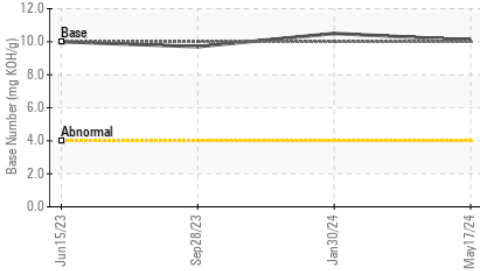
FT-IR (Direct Trend)



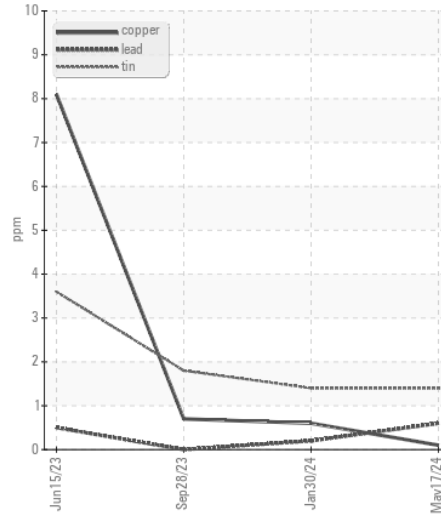
Ferrous Alloys



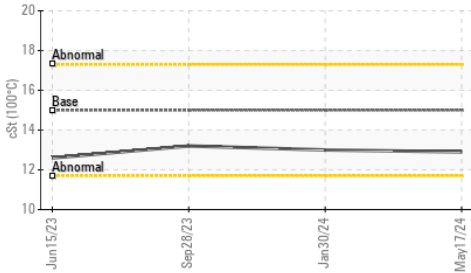
Base Number



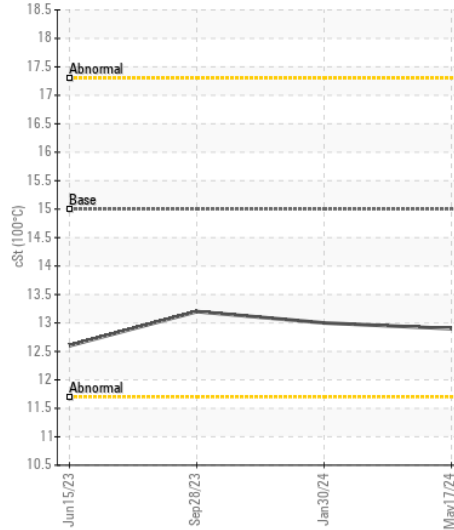
Non-ferrous Metals



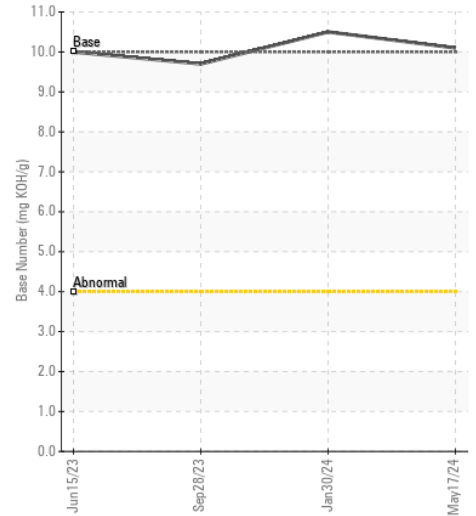
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0003152
Lab Number : 06187045
Unique Number : 11043797
Test Package : CONST (Additional Tests: TBN)

Received : 21 May 2024
Tested : 23 May 2024
Diagnosed : 23 May 2024 - Wes Davis

160 - ASCENDUM MACHINERY INC - MILLS RIVER
 215 FANNING FIELDS RD
 MILLS RIVER, NC
 US 28759

Contact: BRANDON DRAKE
 brandon.drake@ascendummachinery.com

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)

T: 8(286)687-0620

F: (828)687-0622