



ASCENDUM

OIL ANALYSIS REPORT

WEAR

ABNORMAL

CONTAMINATION

NORMAL

FLUID CONDITION

NORMAL



Area

Blythe & Zachary JV CSA - I85 SC

Machine Id

VOLVO L35G 3105626 (S/N L35GS3424213)

Component

Diesel Engine

Fluid

VOLVO VDS-4.5 Premium Motor Oil 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0003329	ASC0003405	ASC0003493
Sample Date		Client Info		02 Jul 2024	02 Feb 2024	05 Dec 2023
Machine Age	hrs	Client Info		4559	4181	4003
Oil Age	hrs	Client Info		4559	4003	2479
Filter Age	hrs	Client Info		0	0	2479
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

The copper level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	12	24	8
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	3	▲ 12	1
Lead	ppm	ASTM D5185m	>20	0	<1	0
Copper	ppm	ASTM D5185m	>15	▲ 20	4	<1
Tin	ppm	ASTM D5185m	>10	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	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.

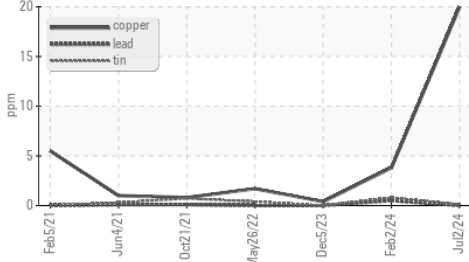
Silicon	ppm	ASTM D5185m	>20	12	12	6
Potassium	ppm	ASTM D5185m	>20	3	3	1
Fuel		WC Method	>6.0	<1.0	▲ 3.6	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.9	7.9	11.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.5	21.8	22.4
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

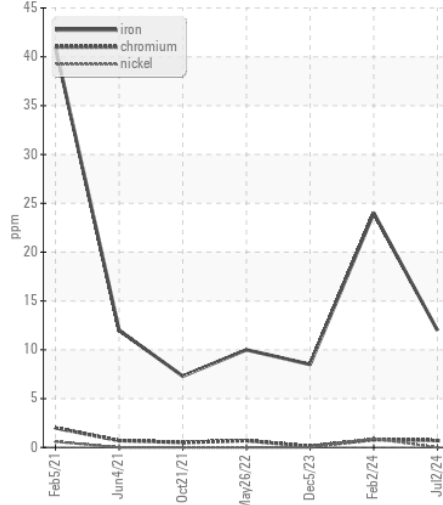
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		4	3	1
Boron	ppm	ASTM D5185m		38	52	29
Barium	ppm	ASTM D5185m		2	0	2
Molybdenum	ppm	ASTM D5185m		39	39	43
Manganese	ppm	ASTM D5185m		1	1	0
Magnesium	ppm	ASTM D5185m		457	492	497
Calcium	ppm	ASTM D5185m		1780	1583	1704
Phosphorus	ppm	ASTM D5185m		913	940	879
Zinc	ppm	ASTM D5185m		1109	1088	1112
Sulfur	ppm	ASTM D5185m		2984	2823	3133
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.8	20.8	23.9
Base Number (BN)	mg KOH/g	ASTM D2896		9.3	9.8	8.5
Visc @ 100°C	cSt	ASTM D445		12.7	▲ 11.6	13.8

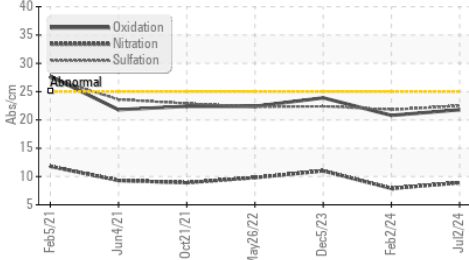
▲ Non-ferrous Metals



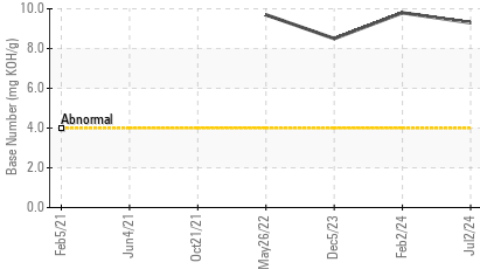
Ferrous Alloys



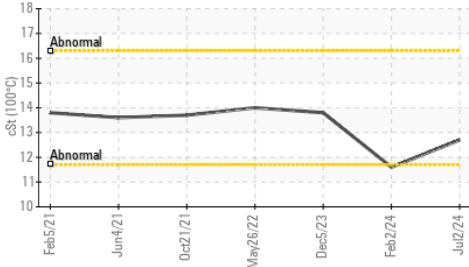
FT-IR (Direct Trend)



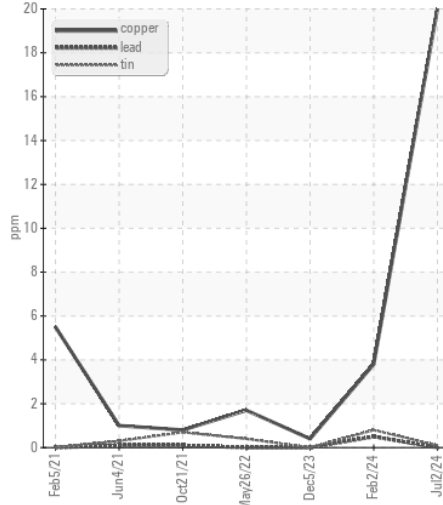
Base Number



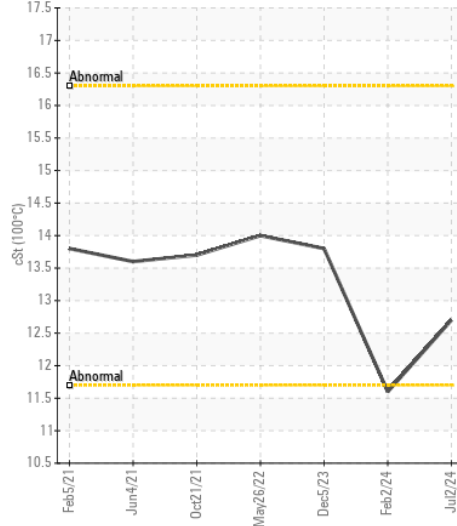
Viscosity @ 100°C



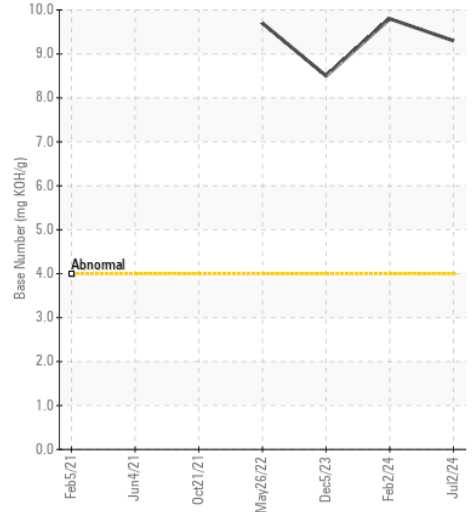
▲ Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : ASC0003329 Received : 03 Jul 2024
 Lab Number : 06226989 Tested : 03 Jul 2024
 Unique Number : 11110482 Diagnosed : 05 Jul 2024 - Don Baldrige
 Test Package : CONST (Additional Tests: TBN)

BLYTHE CONSTRUCTION INC
 2911 N GRAHAM STREET
 CHARLOTTE, NC
 US 28231
 Contact: Service Manager

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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