CONST

ASCENDUM

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Area
Ascendum Machinery/250 Hour CSA
Machine Id
VOLVO EW180B 1046 (S/N 8751611)
Component
Diesel Engine
Fluid
VOLVO VDS-4.5 Premium Motor Oil 15W40 (7 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

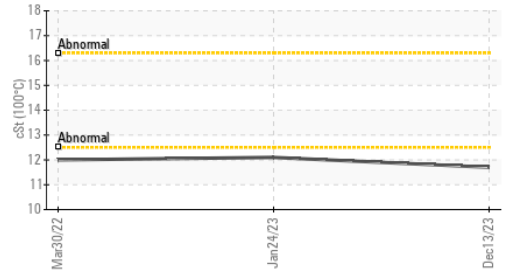
Light fuel dilution occurring. No other contaminants were detected in the oil.

FLUID CONDITION

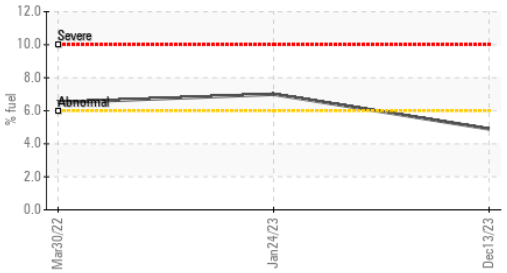
Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0006091	VCP398734	VCP0001599
Sample Date		Client Info		13 Dec 2023	24 Jan 2023	30 Mar 2022
Machine Age	hrs	Client Info		1635	1635	170
Oil Age	hrs	Client Info		1635	0	170
Filter Age	hrs	Client Info		0	0	170
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>100	2	6	4
Chromium	ppm	ASTM D5185m	>10	0	<1	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>10	<1	2	<1
Lead	ppm	ASTM D5185m	>20	0	<1	<1
Copper	ppm	ASTM D5185m	>15	0	0	0
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
Silicon	ppm	ASTM D5185m	>20	3	4	7
Potassium	ppm	ASTM D5185m	>20	<1	3	0
Fuel	%	ASTM D3524	>6.0	▲ 4.9	▲ 7.0	▲ 6.5
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	7.0	8.9	5.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.8	19.1	20.9
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
Sodium	ppm	ASTM D5185m		2	1	<1
Boron	ppm	ASTM D5185m		38	84	64
Barium	ppm	ASTM D5185m		0	1	0
Molybdenum	ppm	ASTM D5185m		39	55	39
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		540	90	468
Calcium	ppm	ASTM D5185m		1388	1911	1593
Phosphorus	ppm	ASTM D5185m		867	923	820
Zinc	ppm	ASTM D5185m		1112	1085	932
Sulfur	ppm	ASTM D5185m		2649	3222	2166
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.4	16.1	18.8
Base Number (BN)	mg KOH/g	ASTM D2896		9.2	6.4	9.7
Visc @ 100°C	cSt	ASTM D445		▲ 11.7	▲ 12.1	▲ 12.0

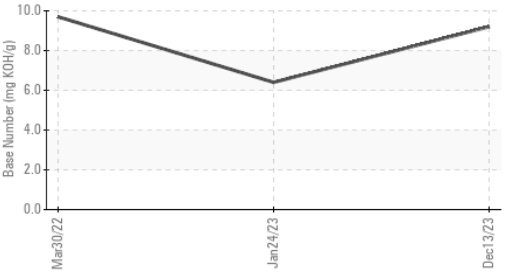
Viscosity @ 100°C



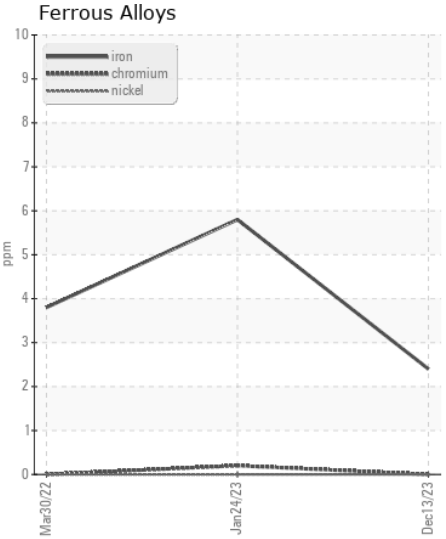
Fuel Dilution



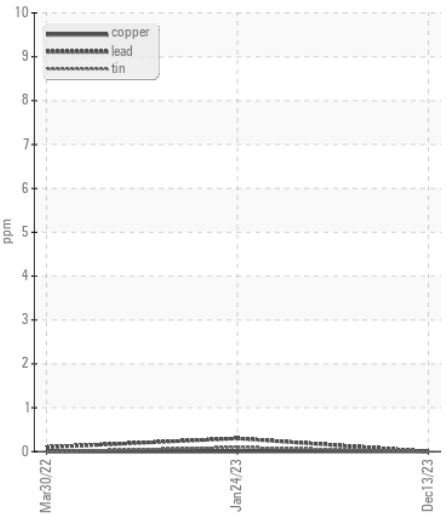
Base Number



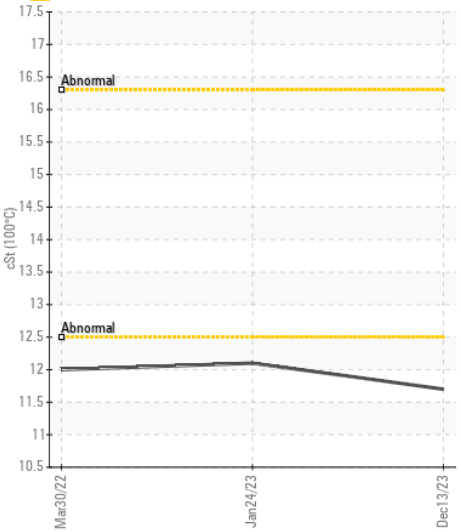
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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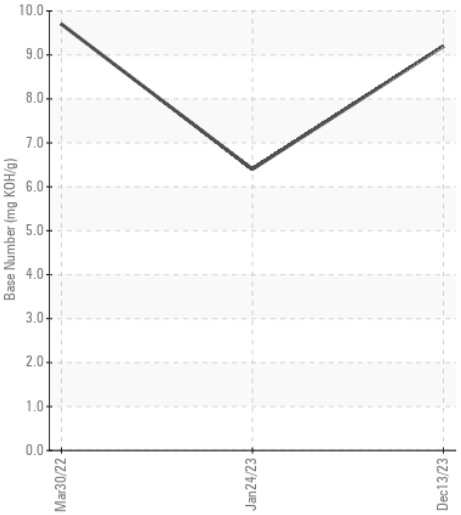

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0006091 **Recieved** : 11 Jan 2024
Lab Number : 06057661 **Diagnosed** : 14 Jan 2024
Unique Number : 10823610 **Diagnostician** : Don Baldridge
Test Package : CONST (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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