ASCENDUM

OIL ANALYSIS REPORT

Sample Rating Trend

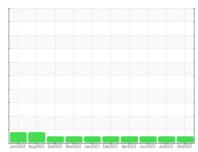




Ascendum Machinery Machine Id VOLVO L180H 43 (S/N 5598)

Component
Diesel Engine

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





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Moor

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil

Fluid Condition

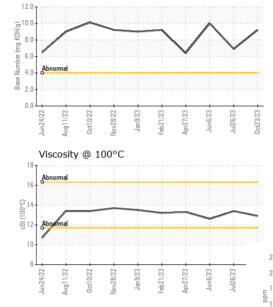
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		ASC0001129	ASC0000356	ASC0000277
Sample Date		Client Info		23 Oct 2023	26 Jul 2023	06 Jun 2023
Machine Age	hrs	Client Info		5507	4503	4039
Oil Age	hrs	Client Info		500	464	493
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	٧	method	limit/base	current	history1	history2
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	2	3	4
Chromium	ppm	ASTM D5185m	>10	0	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	1	2	<1
Lead	ppm	ASTM D5185m	>20	0	0	0
Copper	ppm	ASTM D5185m	>15	0	<1	<1
Tin	ppm	ASTM D5185m	>10	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
Guarmann	1-1			· ·	0	-
ADDITIVES	le le tra	method	limit/base	current	history1	history2
	ppm		limit/base			
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 36	history1	history2
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base	current 36 0	history1 38	history2 39
ADDITIVES Boron Barium Molybdenum	ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 36 0 39	history1 38 0 72	history2 39 0 44
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 36 0 39 0	history1 38 0 72 <1	history2 39 0 44 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 36 0 39 0 508	history1 38 0 72 <1 136	history2 39 0 44 <1 495
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 36 0 39 0 508 1638	history1 38 0 72 <1 136 1920	history2 39 0 44 <1 495 1703
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current 36 0 39 0 508 1638 943	history1 38 0 72 <1 136 1920 924	history2 39 0 44 <1 495 1703 884
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current 36 0 39 0 508 1638 943 1141	history1 38 0 72 <1 136 1920 924 1132	history2 39 0 44 <1 495 1703 884 1100
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current 36 0 39 0 508 1638 943 1141 2906	history1 38 0 72 <1 136 1920 924 1132 3960	history2 39 0 44 <1 495 1703 884 1100 3391
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current 36 0 39 0 508 1638 943 1141 2906 current	history1 38 0 72 <1 136 1920 924 1132 3960 history1	history2 39 0 44 <1 495 1703 884 1100 3391 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >20	current 36 0 39 0 508 1638 943 1141 2906 current 5	history1 38 0 72 <1 136 1920 924 1132 3960 history1 8	history2 39 0 44 <1 495 1703 884 1100 3391 history2 5
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >20	current 36 0 39 0 508 1638 943 1141 2906 current 5 <1	history1 38 0 72 <1 136 1920 924 1132 3960 history1 8 2	history2 39 0 44 <1 495 1703 884 1100 3391 history2 5
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >20 >20 limit/base	current 36 0 39 0 508 1638 943 1141 2906 current 5 <1 <1	history1 38 0 72 <1 136 1920 924 1132 3960 history1 8 2 <1	history2 39 0 44 <1 495 1703 884 1100 3391 history2 5 2 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >20 >20 limit/base >3	current 36 0 39 0 508 1638 943 1141 2906 current 5 <1 <1	history1 38 0 72 <1 136 1920 924 1132 3960 history1 8 2 <1	history2 39 0 44 <1 495 1703 884 1100 3391 history2 5 2 0 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >20 >20 limit/base >3	current 36 0 39 0 508 1638 943 1141 2906 current 5 <1 <1 current 0.2	history1 38 0 72 <1 136 1920 924 1132 3960 history1 8 2 <1 history1 0.1	history2 39 0 44 <1 495 1703 884 1100 3391 history2 5 2 0 history2 0.1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >20 >20 limit/base >3 >20	current 36 0 39 0 508 1638 943 1141 2906 current 5 <1 <1 current 0.2 7.2	history1 38 0 72 <1 136 1920 924 1132 3960 history1 8 2 <1 history1 0.1 8.4	history2 39 0 44 <1 495 1703 884 1100 3391 history2 5 2 0 history2 0.1 7.6
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m method ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D76145	limit/base >20	current 36 0 39 0 508 1638 943 1141 2906 current 5 <1 <1 current 0.2 7.2 21.9	history1 38 0 72 <1 136 1920 924 1132 3960 history1 8 2 <1 history1 0.1 8.4 18.3	history2 39 0 44 <1 495 1703 884 1100 3391 history2 5 2 0 history2 0.1 7.6 21.6

ASCENDUM

Base Number

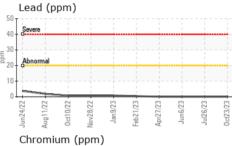
OIL ANALYSIS REPORT

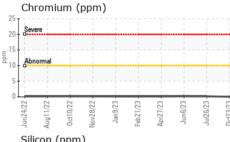


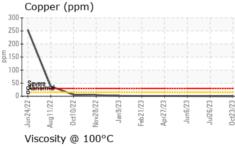
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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
Free Water	scalar	*Visual		NEG	NEG	NEG

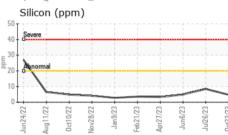
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Visc @ 100°C	cSt	ASTM D445	12.9	13.4	12.6

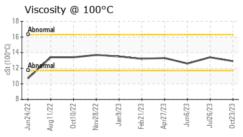
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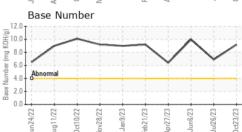














Laboratory Sample No. Lab Number **Unique Number**

: ASC0001129 : 06006902 : 10740664

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 14 Nov 2023 Diagnosed : 15 Nov 2023 Diagnostician : Wes Davis

Test Package : MOBCE (Additional Tests: TBN)

* - 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)

To discuss this sample report, contact Customer Service at 1-800-237-1369.

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T:

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Report Id: EGGLIN [WUSCAR] 06006902 (Generated: 11/15/2023 15:28:11) Rev: 1