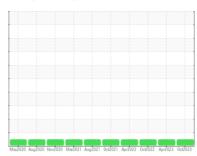


OIL ANALYSIS REPORT

Sample Rating Trend





WOLVO L 90H-2 (S/N 623778)

Component
Poor Diocol Engir

Rear Diesel Engine

DIESEL ENGINE OIL SAE 40 (7 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil

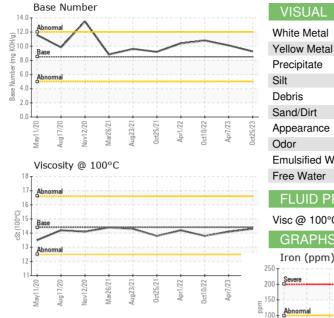
Fluid Condition

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

				021 Oct2021 Apr2022 Oct2022 Apr2		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0098371	PCA0090599	PCA0072073
Sample Date		Client Info		25 Oct 2023	07 Apr 2023	10 Oct 2022
Machine Age	hrs	Client Info		3408	3183	2900
Oil Age	hrs	Client Info		225	283	313
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	6	10	9
Chromium	ppm	ASTM D5185m	>20	<1	<1	1
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>25	4	6	5
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	<1	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
				ū	0	
ADDITIVES	''	method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base			history2
				current	history1	
Boron	ppm	ASTM D5185m	250	current 3	history1	9
Boron Barium	ppm	ASTM D5185m ASTM D5185m	250 10	current 3 0	history1 5 0	9
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	250 10	current 3 0 57	history1 5 0 59	9 0 56
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100	current 3 0 57 0	history1 5 0 59	9 0 56
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450	current 3 0 57 0 932	history1 5 0 59 1 941	9 0 56 1 941
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000	current 3 0 57 0 932 1044	history1 5 0 59 1 941 1067	9 0 56 1 941 1259
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150	current 3 0 57 0 932 1044 1036	history1 5 0 59 1 941 1067 1006	9 0 56 1 941 1259 1040
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350	current 3 0 57 0 932 1044 1036 1233	history1 5 0 59 1 941 1067 1006 1244	9 0 56 1 941 1259 1040 1302
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250	current 3 0 57 0 932 1044 1036 1233 3114	history1 5 0 59 1 941 1067 1006 1244 3324	9 0 56 1 941 1259 1040 1302 3650
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base	current 3 0 57 0 932 1044 1036 1233 3114 current	history1 5 0 59 1 941 1067 1006 1244 3324 history1	9 0 56 1 941 1259 1040 1302 3650 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25	current 3 0 57 0 932 1044 1036 1233 3114 current	history1 5 0 59 1 941 1067 1006 1244 3324 history1 4	9 0 56 1 941 1259 1040 1302 3650 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216	current 3 0 57 0 932 1044 1036 1233 3114 current 3 <1	history1 5 0 59 1 941 1067 1006 1244 3324 history1 4 <1	9 0 56 1 941 1259 1040 1302 3650 history2 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216 >20	current 3 0 57 0 932 1044 1036 1233 3114 current 3 <1 <1	history1 5 0 59 1 941 1067 1006 1244 3324 history1 4 <1 <1	9 0 56 1 941 1259 1040 1302 3650 history2 4 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216 >20 limit/base	current 3 0 57 0 932 1044 1036 1233 3114 current 3 <1 <1	history1 5 0 59 1 941 1067 1006 1244 3324 history1 4 <1 <1	9 0 56 1 941 1259 1040 1302 3650 history2 4 1 0 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method *ASTM D5185m ASTM D5185m Method *ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216 >20 limit/base >3	current 3 0 57 0 932 1044 1036 1233 3114 current 3 <1 <1 current 0.2	history1 5 0 59 1 941 1067 1006 1244 3324 history1 4 <1 <1 history1 0.2	9 0 56 1 941 1259 1040 1302 3650 history2 4 1 0 history2 0.2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method *ASTM D7844 *ASTM D7624 *ASTM D76145	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216 >20 limit/base >3 >20	current 3 0 57 0 932 1044 1036 1233 3114 current 3 <1 <1 current 0.2 5.9	history1 5 0 59 1 941 1067 1006 1244 3324 history1 4 <1 1 0.2 6.1	9 0 56 1 941 1259 1040 1302 3650 history2 4 1 0 history2 0.2 6.9
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method *ASTM D7844 *ASTM D7624 *ASTM D76145	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216 >20 limit/base >3 >20 >30	current 3 0 57 0 932 1044 1036 1233 3114 current 3 <1 <1 current 0.2 5.9 17.4	history1 5 0 59 1 941 1067 1006 1244 3324 history1 4 <1 <1 history1 0.2 6.1 16.1	9 0 56 1 941 1259 1040 1302 3650 history2 4 1 0 history2 0.2 6.9 19.1



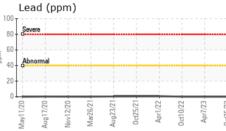
OIL ANALYSIS REPORT

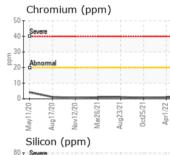


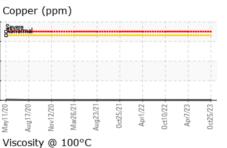
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
	DTIEC	mothod	limit/basa	current	history1	history?

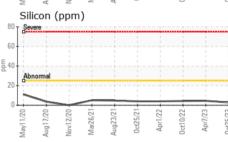
Visc @ 100°C	cSt	ASTM D445	14.4	14.3	14.1	13.8

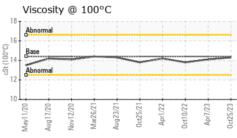
ai iA	1 110							
Iron (ppm)							
Severe								
.Jl								
Abnormal	<u> </u>							
\								
20 -	20	12	21+	21	22	22	23	73
May11/20 Aug17/20	Nov12/20	Mar26/21	Aug23/2	Oct25/21	Apr1/22	Oct10/22	Apr7/23	0~425/23
Alumir								
Severe								
-			-			-		
Abnormal								-
		-	_		_			

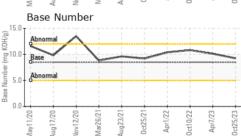














Laboratory Sample No. Lab Number **Unique Number**

: PCA0098371 : 05994519

E 200 100

: 10722879

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 31 Oct 2023 : 01 Nov 2023 Diagnosed

Diagnostician : Wes Davis

Test Package : MOB 2 Certificate L2367 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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