

OIL ANALYSIS REPORT

Sample Rating Trend





VOLVO A30G 752469

Component Diesel Engine Fluid MOBIL 15W40 (--- GAL)

Machine Id

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.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		ML0002002	VCP397761	
Sample Date		Client Info		04 Jun 2024	28 Apr 2023	
Machine Age	hrs	Client Info		1889	985	
Oil Age	hrs	Client Info		0	500	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINATION	١	method	limit/base	current	history1	history2
Fuel		WC Method	>6.0	<1.0	0.6	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method	20.2	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
						Thistory 2
Iron	ppm	ASTM D5185m	>100	5	8	
Chromium	ppm		>20	<1	0	
Nickel	ppm	ASTM D5185m	>2	<1	0	
Titanium	ppm	ASTM D5185m	0	<1	0	
Silver	ppm	ASTM D5185m	>2	0	0	
Aluminum	ppm	ASTM D5185m		3	<1	
Lead	ppm	ASTM D5185m	>40	0	0	
Copper	ppm	ASTM D5185m		<1	2	
Tin	ppm	ASTM D5185m	>15	<1	0	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 77	74	history2
	ppm ppm		limit/base			
Boron		ASTM D5185m	limit/base	77	74 0 48	
Boron Barium Molybdenum Manganese	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	77 <1	74 0	
Boron Barium Molybdenum	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	77 <1 49 <1 538	74 0 48 <1 566	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	77 <1 49 <1	74 0 48 <1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	77 <1 49 <1 538 1775 857	74 0 48 <1 566 1768 823	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	77 <1 49 <1 538 1775	74 0 48 <1 566 1768 823 988	
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	limit/base	77 <1 49 <1 538 1775 857	74 0 48 <1 566 1768 823	
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	limit/base	77 <1 49 <1 538 1775 857 979	74 0 48 <1 566 1768 823 988	
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		77 <1 49 <1 538 1775 857 979 2927	74 0 48 <1 566 1768 823 988 2941	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	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	limit/base	77 <1 49 <1 538 1775 857 979 2927 current	74 0 48 <1 566 1768 823 988 2941 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	limit/base	77 <1 49 <1 538 1775 857 979 2927 2927 current 4	74 0 48 <1 566 1768 823 988 2941 history1 7	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >25 >118	77 <1 49 <1 538 1775 857 979 2927 2927 current 4 <1	74 0 48 <1 566 1768 823 988 2941 history1 7 2	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm	ASTM D5185m ASTM D5185m	limit/base >25 >118 >20	77 <1 49 <1 538 1775 857 979 2927 current 4 <	74 0 48 <1 566 1768 823 988 2941 history1 7 2 2 0	 history2
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	ASTM D5185m ASTM D5185m	limit/base >25 >118 >20 limit/base	77 <1 49 <1 538 1775 857 979 2927 current 4 <1 2 current	74 0 48 <1 566 1768 823 988 2941 history1 7 2 0 0 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	limit/base >25 >118 >20 limit/base >3	77 <1 49 <1 538 1775 857 979 2927 current 4 <1 2 current 0.1	74 0 48 <1 566 1768 823 988 2941 history1 7 2 0 history1 0.1	 history2 history2 history2
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	ASTM D5185m ASTM D5185m	limit/base >25 >118 >20 limit/base >3 >20	77 <1 49 <1 538 1775 857 979 2927 current 4 <1 2 current 0.1 5.7	74 0 48 <1 566 1768 823 988 2941 history1 7 2 2 0 history1 0.1 5.2	 history2 history2
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	ASTM D5185m ASTM D5185m	Imit/base >25 >118 >20 Imit/base >3 >20 >30	77 <1 49 <1 538 1775 857 979 2927 current 4 <1 2 current 0.1 5.7 21.1	74 0 48 <1 566 1768 823 988 2941 history1 7 2 2 0 history1 0.1 5.2 19.6	 history2 history2 history2
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	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	limit/base >25 >118 >20 limit/base >3 >20 >30 limit/base	77 <1 49 <1 538 1775 857 979 2927 current 4 <1 2 current 0.1 5.7 21.1 current	74 0 48 <1 566 1768 823 988 2941 history1 7 2 2 0 history1 0.1 5.2 19.6 history1	 history2 history2 history2 history2



10.0

Base Number (mg KOH/g) 0.5 0.6 0.6 0.8

0.0 Apr28/23

OIL ANALYSIS REPORT

FT-IR (Direct Trend)	VISUAL		method	limit/base	current	history1	history2
0 - Oxidation	White Metal	scalar	*Visual	NONE	NONE	NONE	
5 - Contraction	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
0-	Precipitate	scalar	*Visual	NONE	NONE	NONE	
5	Silt	scalar	*Visual	NONE	NONE	NONE	
0	Debris	scalar	*Visual	NONE	NONE	NONE	
5	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Apr28/23	Appearance	scalar	*Visual	NORML	NORML	NORML	
Aprá Jur	Odor	scalar	*Visual	NORML	NORML	NORML	
Base Number	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
	Free Water	scalar	*Visual		NEG	NEG	
0	FLUID PROPERT	IES	method	limit/base	current	history1	history2
0	Visc @ 100°C	cSt	ASTM D445		12.6	12.0	
0 -	GRAPHS						
0 -	Ferrous Alloys						
	10 iron						
Aşı 28/28/28	8 - newsaning chromium						
₹							
Viscosity @ 100°C ⁸ -	ud d			_			
7 Abnormal	4						
6 - Abnormal	2						
5	0						
2	Apr28/23			Jun4/24 -			
Abnomal	Apr2			Jun			
	Non-ferrous Metals	5					
Apr28/23	10 copper						
Ap	8 - Beautification lead						
	6						
	шdd						
	4						
	2-						
	0						
	128/23			4/24			
	Apr2			Jun			
	Viscosity @ 100°C				Base Number		
			10.0				
	17- Abnormal			<u> </u>	-		
	16			KOH			
	0215- 02 7 7 7 14			6.0 Bull 1a			
	5 ¹⁴			4.0			
	13 - Abnormal			6.0 6.0 8 Base Mrmper 4.0 8 2.0			
	12-						
	114			0.0	53		24 +
	Apr28/23			Jun4/24	Apr28/23		Jun4/24
		Madiaar					
	: WearCheck USA - 501 : ML0002002	Receiv		, NC 27513) Jun 2024	MCCLUNG-	LOGAN EQUIPMENT (160 KENTN	IERE COURT
Lab Number	: 06204114	Tested	d :11	Jun 2024			HESTER, VA
TESTING LABORATORY Unique Number		Diagno		Jun 2024 - Sea		Contract: DAKO	US 22603
Certificate L2367 Test Package To discuss this sample report,	: CONST (Additional Te contact Customer Service			9.		Contact: DAKO dhartley@mcclu	
* - Denotes test methods that a	are outside of the ISO 17	7025 scop	be of accred	litation.		-	T:
Statements of conformity to sp					rule (JCGM 106:	<i>2012)</i> F: (540)722-4441

Contact/Location: DAKOTA HARTLEY - VOLVO4589