

### **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

# VOLVO A60H 350146

Component Drop Box

Fluid VOLVO SUPER GEAR OIL 75W-80-GO102 (2 GAL)

#### DIAGNOSIS

#### 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.

#### Wear

All component wear rates are normal.

#### Contamination

Moderate concentration of visible dirt/debris present in the oil.

#### Fluid Condition

The oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Confirm oil type.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		ML0000048		
Sample Date		Client Info		01 Apr 2024		
Machine Age	hrs	Client Info		3890		
Oil Age	hrs	Client Info		3890		
Oil Changed		Client Info		Changed		
Sample Status				ABNORMAL		
CONTAMINATION	١	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>400	17		
Chromium	ppm	ASTM D5185m	>4	<1		
Nickel	ppm	ASTM D5185m	>3	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>15	<1		
Lead	ppm	ASTM D5185m	>20	<1		
Copper	ppm	ASTM D5185m	>50	2		
Tin	ppm	ASTM D5185m	>3	<1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Paran	000	ACTM DE10Em		100		
DOIDH	ppm	ASTIVI DOTODITI		100		
Barium	ppm	ASTM D5185m		0		
Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0		
Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 2 <1		
Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 2 <1 22	  	 
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 2 <1 22 22 1858		 
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 2 <1 22 1858 1397		
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 2 <1 22 1858 1397 733		   
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		0 2 <1 22 1858 1397 733 16584	    	
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	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	limit/base	0 2 <1 22 1858 1397 733 16584 current	     history1	     history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	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	limit/base >60	0 2 <1 22 1858 1397 733 16584 current	     history1	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >60	0 2 <1 22 1858 1397 733 16584 current 11 5	     history1	    history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >60 >20	0 2 <1 22 1858 1397 733 16584 current 11 5 <<1	     history1	    history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >60 >20 limit/base	0 2 <1 22 1858 1397 733 16584 current 11 5 <1 current	     history1   history1	    history2    history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m XSTM D5185m	limit/base >60 >20 limit/base >20	0 2 <1 22 1858 1397 733 16584 current 11 5 <1 current NONE	      history1  history1 	     history2   history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Yuisual	limit/base >60 >20 limit/base NONE NONE	0 2 <1 22 1858 1397 733 16584 <u>current</u> 11 5 <1 <u>current</u> NONE NONE	      history1   history1	     history2   history2  history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Yisual	limit/base >60 >20 limit/base NONE NONE NONE	0 2 <1 22 1858 1397 733 16584 <i>current</i> 11 5 <1 <i>current</i> NONE NONE NONE	     history1   history1  history1	     history2   history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Yisual *Visual *Visual	limit/base >60 >20 limit/base NONE NONE NONE NONE NONE	0 2 -1 22 1858 1397 733 16584 <i>current</i> 11 5 -1 <i>current</i> NONE NONE NONE NONE NONE	     history1   history1  history1	     history2 history2   history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Yisual *Visual *Visual *Visual *Visual	limit/base >60 >20 limit/base NONE NONE NONE NONE NONE NONE NONE	0 2 <1 22 1858 1397 733 16584 <u>current</u> 11 5 <1 <u>current</u> NONE NONE NONE NONE NONE NONE NONE NONE	     history1   history1   history1	<ul> <li></li> <li></li> <li></li> <li></li> <li></li> <li></li> <li>history2</li> <li></li> <li>history2</li> <li></li> <li< th=""></li<></ul>
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual	limit/base >60 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NON	0 2 <1 22 1858 1397 733 16584 Current 11 5 <1 Current NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE	      history1   history1       	      history2   history2    
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	limit/base           >60           >20           limit/base           NONE           NORML	0 2 <1 22 1858 1397 733 16584 Current 11 5 <1 Current NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE	      history1   history1        -	
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m           ASTM D5	 	0 2 <1 22 1858 1397 733 16584 Current 11 5 <1 Current NONE NORE		     history2    history2        -
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m           *Visual           *Visual           *Visual           *Visual           *Visual           *Visual           *Visual           *Visual	Iimit/base >60 >20 Iimit/base NONE NONE<	0 2 <1 22 1858 1397 733 16584 <i>current</i> 11 5 <1 <i>current</i> NONE NOR NONE NOR NONE NOR NOR NOR NOR NOR NOR NOR NOR	      history1   history1        -	        



## **OIL ANALYSIS REPORT**



	cSt	ASTM D445		<b>55.9</b>		
SAMPLE IMAGE	S	method	limit/base	current	history1	history2
Color				no image	no image	no image
Bottom				no image	no image	no image
GRAPHS						
Ferrous Alloys	ls		Apri/24			
77 76 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7			Apr1/24			
Viscosity @ 40°C						



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