

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL



[702216 RENTAL] Wachine Id VOLVO A30G 753623

Hydraulic System

VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)

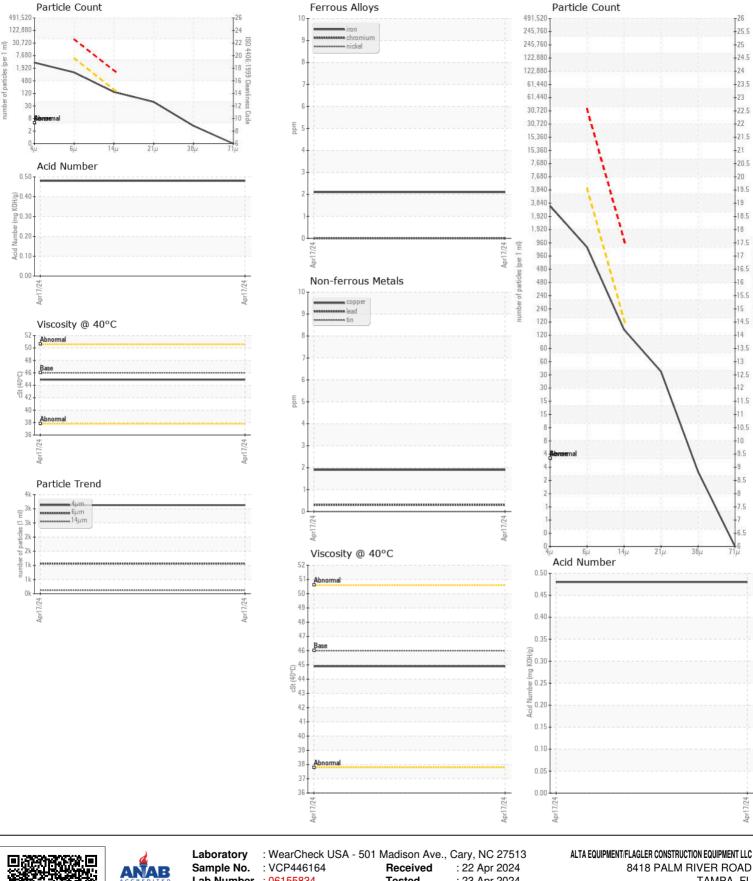
Recommendation Test Sample Date U.M.M. Method Linkity Current Content Info History1 History1 History1 Resample at the next service interval to monitor. Sample Date Client Info 17 Apr 202 Machine Age fors Client Info Not Change 0 Oil Age hrs Client Info Not Change 0 Oil Changed Client Info Not Change Not Change Sample Status Normal MEAD Component wear rates are normal. Norkel pm ASM 25868 >50 2 Norkel ppm ASM 25868 >20 0 Norkel ppm ASM 25868 >20 0 Norkel ppm ASM 25868 >20 1 Norkel ppm								
Barnyle Number Client Info VCP44516 ···· ···· ···· Sample Number Sample Number Client Info 17.49 203 ··· ··· Machine Age ins Client Info 0 ···· ···· ···· ···	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine Age hrs Olient Into 7 Parket		Sample Number		Client Info		VCP446164		
Oil Age hrs Client Info 0 Filter Changed Client Info Not Change Sample Status Not Change Client Info Not Change WEAR Iron ppm ASTI D5185n -SO 2 All component wear rates are normal. Iron ppm ASTI D5185n -SO 2 Nicke ppm ASTI D5185n -SO 2 All component wear rates are normal. Iron ppm ASTI D5185n -SO 2 Aluminum ppm ASTI D5185n -SO 2 Aluminum ppm ASTI D5185n -SO 1 Vanadium ppm ASTI D5185n -SO 1 Vanadium ppm ASTI D5185n -SO 2 Vanadium ppm AST		Sample Date		Client Info		17 Apr 2024		
Filter Age Pirs Client Info O		Machine Age	hrs	Client Info		749		
Oil Changed Filter Changed Sample Status Client Into Not Changed NORMAL ··· ··· WEAR Iron pm ATU D1956 >50 2 - - All component wear rates are normal. Iron pm ATU D1956 >10 0 - - - Nickel ppm ASTU D1956 >10 0 -		Oil Age	hrs	Client Info		0		
Filter Changed Sample Status Clean Info NotRend NORMA		Filter Age	hrs	Client Info		0		
Sample Status NORMA		Oil Changed		Client Info		Not Changd		
WEAR Iron ppm ASTM D515m >50 2 All component wear rates are normal. ppm ASTM D515m >20 0 Nickel ppm ASTM D515m >10 0 Silver ppm ASTM D515m 20 0 All component wear rates are normal. ASTM D515m 20 0 Silver ppm ASTM D515m 20 0 Lead ppm ASTM D515m 20 0 Tin ppm ASTM D515m 20 0 Vaadum ppm ASTM D515m 20 0 Vaadum ppm ASTM D515m 20 2 Vaadum ppm ASTM D515m 20 2 Velow Metal scalar		Filter Changed		Client Info		Not Changd		
All component wear rates are normal. Chromium ppm ASTM 25186 >20 0 Nickel ppm ASTM 25186 0 Silver ppm ASTM 25186 20 0 Silver ppm ASTM 25186 20 0 Lead ppm ASTM 25186 >20 0 Copper ppm ASTM 25186 >20 0 Vanadium ppm ASTM 25186 >20 2 Vanadium ppm ASTM 25186 >20 2		Sample Status				NORMAL		
All component wear rates are normal. Chromium ppm ASTM 05185m 200 0 Nickel ppm ASTM 05185m 0 Silver ppm ASTM 05185m 0 Silver ppm ASTM 05185m 20 0 Silver ppm ASTM 05185m 200 0 Lead ppm ASTM 05185m 200 0 Usadium ppm ASTM 05185m -200 0								
All component wear rates are normal. Nickel ppm ASTM 0516m -10 Titanium ppm ASTM 0516m - All uminum ppm ASTM 0516m - All uminum ppm ASTM 0516m -20 0 All uminum ppm ASTM 0516m -20 0 Copper ppm ASTM 0516m -20 0 Variadium ppm ASTM 0516m -20 0 Variadium ppm ASTM 0516m -20 0 Variadium ppm ASTM 0516m -20 2 The system cleanliness is acceptable. paticles salum ASTM 0516m >20 2 Paticles salum ASTM 0516m -20 1 The system cleanliness is acceptable for your target ISO 4406 Paticles salum ASTM 07647 -500 1063	WEAR							
Function ppm ASTM D5185m C Silver ppm ASTM D5185m 20 Aluminum ppm ASTM D5185m 20 Lead ppm ASTM D5185m >20 Lead ppm ASTM D5185m >20 Vanadium ppm ASTM D5185m >20 0 Vanadium ppm ASTM D5185m >20 0 Vanadium ppm ASTM D5185m >20 2 Value NoNE Value NONE Value NoNE Value NONE Value NoNE Value NONE Paticles >20 m ASTM D7647 >10 31 Particles >	All component wear rates are normal.							
Silver pp ASTM D5180 0 Aluminum ppm ASTM D5185 >20 0 Aluminum ppm ASTM D5185 >20 0 Copper ppm ASTM D5185 >20 0 Vanadium ppm ASTM D5185 >20 0					>10	-		
Aluminum ppm ASTM D5185m >20 0 Lead ppm ASTM D5185m >20 <1								
Lead pp ASTM DS185n >20 <1								
Copper ppm ASTM D6185m >150 2								
Tin ppm ASTM D5185m >20 0 Vanadium ppm ASTM D5185m <1								
Vanadium ppm ASTM D5185m <1 White Metal vellow Metal scalar visual NONE NONE NONE CONTAMINATION Silicon particles scalar NONE NONE 20 The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. Silicon Particles >4µm ASTM D5185m 20 2 Particles >4µm ASTM D7647 500 1063 Particles >4µm ASTM D7647 500 1063 Particles >4µm ASTM D7647 10 3 Particles >4µm ASTM D7647 10 3 Particles >1µm ASTM D7647 10 3 Particles >21µm ASTM D7647 10 3 Oil Cleantiness ISO 4406 (c) >-10*II			ppm					
White Metal Yellow Metal scalar Visual NONE NONE			ppm		>20			
Yellow Metal scalar *Visual NONE CONTAMINATION Silicon ppm ASTM D5185m >20 2 Potassium ppm ASTM D5185m >20 <1			ppm					
Silicon ppm ASTM D5185m >20 2 Potassium ppm ASTM D5185m >20 <1			scalar			-		
Potassium ppm ASTM D518m >20 <1 Water WC Method >0.1 NEG Water WC Method >0.1 NEG Particles source ASTM D7647 >5000 1063 Particles source ASTM D7647 >100 123 Particles source ASTM D7647 >100 1063 Particles source ASTM D7647 >100 123 Particles source ASTM D7647 >100 13 Particles source ISO 4406 (o) >-1914 19171/14 Silt scalar *Visual NONE ILGHT Silt scalar *Visual NORE ILGHT Sand/Dirt scalar *Visual NORE ILGHT </td <td>Yellow Metal</td> <td>scalar</td> <td>*Visual</td> <td>NONE</td> <th>NONE</th> <td></td> <td></td>		Yellow Metal	scalar	*Visual	NONE	NONE		
Potassium ppm ASTM D518m >20 <1 Water WC Method >0.1 NEG Water WC Method >0.1 NEG Particles source ASTM D7647 >5000 1063 Particles source ASTM D7647 >100 123 Particles source ASTM D7647 >100 1063 Particles source ASTM D7647 >100 123 Particles source ASTM D7647 >100 13 Particles source ISO 4406 (o) >-1914 19171/14 Silt scalar *Visual NONE ILGHT Silt scalar *Visual NORE ILGHT Sand/Dirt scalar *Visual NORE ILGHT </td <td></td> <td>0:11:</td> <td></td> <td></td> <td></td> <th>•</th> <td></td> <td></td>		0:11:				•		
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. Water WC Method >0.1 NEG Particles >4µm ASTM D7647 Image: Signed Si	The system cleanliness is acceptable for your target ISO 4406							
cleanliness code. The system and fluid cleanliness is acceptable. Tricles >4µm ASTM D7647 S127 Particles >4µm ASTM D7647 >5000 1063 Particles >4µm ASTM D7647 >10 32 Particles >4µm ASTM D7647 >10 3 Particles >4µm ASTM D7647 >10 3 Particles >4µm ASTM D7647 >10 3 Particles >4µm ASTM D7647 >3 0 Particles >50µm ASTM D7647 >3 0 Particles >71µm ASTM D7647 >3 0 Silt scalar *0/sual NONE NONE Silt scalar *0/sual NONE NORE Appearance scalar *0/sual NORHL NORML NORML The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.			ppm					
Particles >4µiii ASTM D7647 3127 Particles >14µm ASTM D7647 >5000 1063 Particles >14µm ASTM D7647 >160 123 Particles >21µm ASTM D7647 >40 41 Particles >21µm ASTM D7647 >3 0 Particles >38µm ASTM D7647 >3 0 Particles >21µm ASTM D7647 >3 0 OIl Cleanliness ISO 4406 (c) >1914 19/1714 Silt scalar *Visual NONE NONE Sand Orit scalar Visual NORML NORML Sodium ppm <td></td> <td></td> <td></td> <td>>0.1</td> <th></th> <td></td> <td></td>					>0.1			
Particles >14µm ASTM D7647 >160 123 Particles >21µm ASTM D7647 >40 41 Particles >38µm ASTM D7647 >10 3 Particles >38µm ISO 4406 (c) >-//914 19/17/14 Oil Cleanliness ISO 4406 (c) >-//914 19/17/14 Silt scalar *Visual NONE NONE ISO 4406 (c) >-//914 19/17/14 Silt scalar *Visual NONE ISO 4406 (c) >-//914 ISO 4406 (c) -//914 ISO 4406 (c) -//914 ISO 4406 (c) ISO 4406 (c) <t< td=""><td></td><td></td><td></td><td></td><th></th><td></td><td></td></t<>								
Particles >21µm ASTM D7647 >40 41 Particles >38µm ASTM D7647 >10 3 Particles >37µm ASTM D7647 >3 0 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness Iso 4406 (c) >-/191/4 191/71/4 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE LIGHT Sand/Dirt scalar *Visual NORE NONE Sand/Dirt scalar *Visual NOR NORM Appearance scalar *Visual NORM NORM Boron ppm ASTM D5185m 0.0 0 Molybdenum pm ASTM D5185m 0.0 0								
Particles >88µm ASTM D7647 >10 3 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >-/19/4 19/17/14 Silt scalar *Visual NONE NONE ILGHT Silt scalar *Visual NONE LIGHT Sand/Dirt scalar *Visual NONE LIGHT Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Odor scalar *Visual NORML NORML The AN level is acceptable for this fluid. The condition of the oil is suitable for further service. Sodium pm ASTM D5185m 1.4 0 Manganese								
Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >-/19/14 19/17/14 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE LIGHT Sand/Dirt scalar *Visual NONE NORM Appearance scalar *Visual NORM NORM Odor scalar *Visual NORM NORM Bronn ppm ASTM D5185m 14 0 Molybdenum ppm ASTM D5185m 0.								
Oil CleanlinessISO 4406 (c)/19/1419/17/14Siltscalar*VisualNONENONEDebrisscalar*VisualNONELIGHTSand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m140BoronppmASTM D5185m0.00BariumppmASTM D5185m0.00MarganeseppmASTM D5185m0.00MarganeseppmASTM D5185m0.00PhosphorusppmASTM D5185m96ZincppmASTM D5185m554325SulfurppmASTM D5185m37191906								
Siltscalar*VisualNONENONEDebrisscalar*VisualNONELIGHTSand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLEmulsified Waterscalar*VisualNORMLNORMLBoronppmASTM D5185m140BariumppmASTM D5185m0.00MolybdenumppmASTM D5185m0.00ManganeseppmASTM D5185m0.00ManganeseppmASTM D5185m0.00ManganeseppmASTM D5185m4.9966PhosphorusppmASTM D5185m4.94.37SulfurppmASTM D5185m4.94.37SulfurppmASTM D5185m4.194.37SulfurppmASTM D5185m3.711906SulfurppmASTM D5185m3.711906SulfurppmASTM D5185m3.711906SulfurppmASTM D5185m3.711906 <t< td=""><td></td><td></td><td></td><td></td><th>-</th><td></td><td></td></t<>						-		
Debrisscalar*VisualNONELIGHTSand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLDdorscalar*VisualNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGBoronppmASTM D5185m140BariumppmASTM D5185m0.00MolybdenumppmASTM D5185m0.00MaganeseppmASTM D5185m0.00MaganeseppmASTM D5185m0.00MaganeseppmASTM D5185m0.00MaganeseppmASTM D5185m0.00MagnesiumppmASTM D5185m4.996.6PhosphorusppmASTM D5185m35.4325ZincppmASTM D5185m37.19100.6SulfurppmASTM D5185m37.19100.6								
Sand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*VisualNORMLNORMLFLUID CONDITIONSodiumppmASTM D5185m140BoronppmASTM D5185m140BariumppmASTM D5185m0.00MolybdenumppmASTM D5185m0.00MarganeseppmASTM D5185m0.00MarganesumppmASTM D5185m2.6<1						-		
Appearance Odorscalar*VisualNORMLOdorscalar*VisualNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGFLUID CONDITIONSodiumppmASTM D5185m1400BoronppmASTM D5185m1400BariumppmASTM D5185m0.000MolybdenumppmASTM D5185m0.000ManganeseppmASTM D5185m0.000MagnesiumppmASTM D5185m0.000ManganeseppmASTM D5185m2.6<-1								
Odorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEGFLUID CONDITIONSodiumppmASTM D5185m140BoronppmASTM D5185m140BariumppmASTM D5185m0.00MolybdenumppmASTM D5185m0.00ManganeseppmASTM D5185m0.00MagnesiumppmASTM D5185m0.00MagnesiumppmASTM D5185m2.6<1								
Emulsified Waterscalar*Visual>0.1NEGFLUID CONDITIONThe AN level is acceptable for this fluid. The condition of the oil is suitable for further service.SodiumppmASTM D5185m140BoronppmASTM D5185m0.00BariumppmASTM D5185m0.00MolybdenumppmASTM D5185m0.00ManganeseppmASTM D5185m0.00MagnesiumppmASTM D5185m2.6<1						-		
FLUID CONDITIONSodiumppmASTM D5185m0BoronppmASTM D5185m140BariumppmASTM D5185m0.00MolybdenumppmASTM D5185m0.00ManganeseppmASTM D5185m0.00MagnesiumppmASTM D5185m2.6<1								
BoronppmASTM D5185m140BariumppmASTM D5185m0.00BariumppmASTM D5185m0.00MolybdenumppmASTM D5185m0.00ManganeseppmASTM D5185m0.00MagnesiumppmASTM D5185m2.6<1		Emulsified water	scalar	" visuai	>0.1	NEG		
BoronppmASTM D5185m140BariumppmASTM D5185m0.00BariumppmASTM D5185m0.00MolybdenumppmASTM D5185m0.00ManganeseppmASTM D5185m0.00MagnesiumppmASTM D5185m2.6<1		Sodium	nnm	ASTM D5185m		0		
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service. Barium ppm ASTM D5185m 0.0 0 Molybdenum ppm ASTM D5185m 0.0 0 Manganese ppm ASTM D5185m 0.0 0 Magnesium ppm ASTM D5185m 0.0 0 Calcium ppm ASTM D5185m 2.6 <1					14	-		
Suitable for further service. Molybdenum ppm ASTM D5185m 0.0 0 Manganese ppm ASTM D5185m 0.0 0 Magnesium ppm ASTM D5185m 0.0 0 Calcium ppm ASTM D5185m 2.6 <1	•							
Manganese ppm ASTM D5185m 0.0 0 Magnesium ppm ASTM D5185m 2.6 <1 Calcium ppm ASTM D5185m 4.9 96 Phosphorus ppm ASTM D5185m 35.4 32.5 Zinc ppm ASTM D5185m 41.9 43.7 Sulfur ppm ASTM D5185m 37.19 1906								
Magnesium ppm ASTM D5185m 2.6 <1 Calcium ppm ASTM D5185m 49 96 Phosphorus ppm ASTM D5185m 354 325 Zinc ppm ASTM D5185m 419 437 Sulfur ppm ASTM D5185m 3719 1906								
Calcium ppm ASTM D5185m 49 96 Phosphorus ppm ASTM D5185m 354 325 Zinc ppm ASTM D5185m 419 437 Sulfur ppm ASTM D5185m 3719 1906		-						
Phosphorus ppm ASTM D5185m 354 325 Zinc ppm ASTM D5185m 419 437 Sulfur ppm ASTM D5185m 3719 1906		•						
Zinc ppm ASTM D5185m 419 437 Sulfur ppm ASTM D5185m 3719 1906								
Sulfur ppm ASTM D5185m 3719 1906								
		Sulfur Acid Number (AN)			3/19	1906		

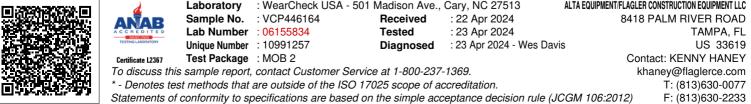
Acid Number (AN) mg KOH/g ASTM D8045

Visc @ 40°C cSt ASTM D445 46

0.48

44.9





Contact/Location: KENNY HANEY - VOLVO0093