WEAR CONTAMINATION FLUID CONDITION

NORMAL

ABNORMAL

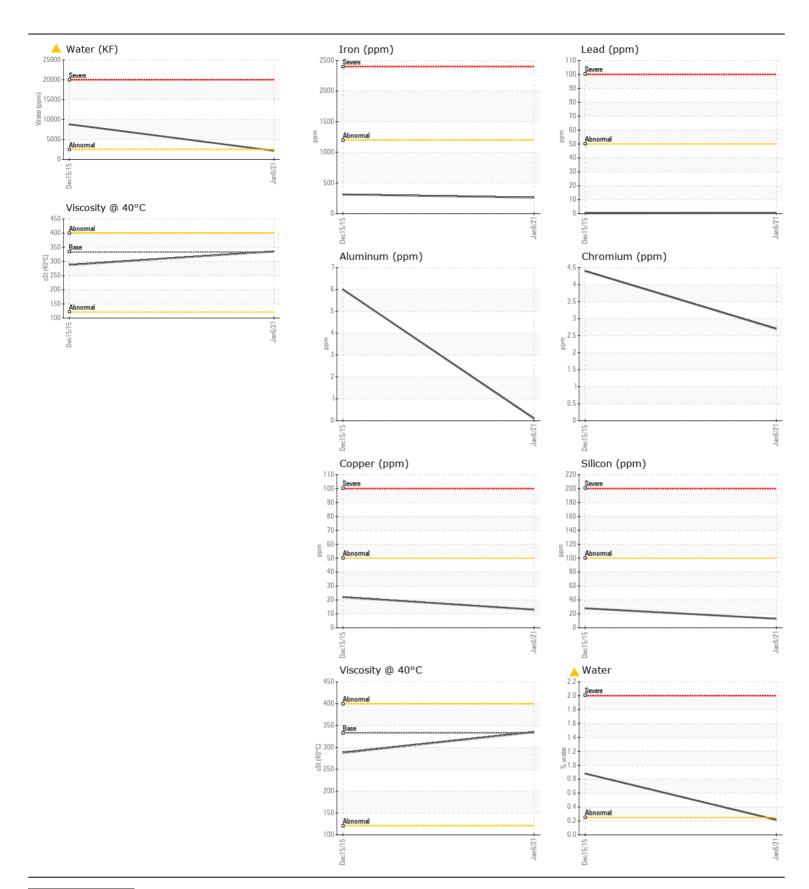
NORMAL



[5586]
Machine Id
VOLVO EC460CL 110437

Left Swing Drive

VOLVO PREMIUM GEAR OIL 8							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.	Sample Number		Client Info		VCP290605	VCP171921	
	Sample Date		Client Info		06 Jan 2021	15 Dec 2015	
	Machine Age	hrs	Client Info		6082	4194	
	Oil Age	hrs	Client Info		0	0	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Not Changd	N/A	
	Sample Status				ABNORMAL	ABNORMAL	
WEAR	Iron	ppm	ASTM D5185m	>1200	260	312	
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		3	4	
	Nickel	ppm	ASTM D5185m		<1	<1	
	Titanium	ppm	ASTM D5185m		<1	<1	
	Silver	ppm	ASTM D5185m		1	0	
	Aluminum	ppm	ASTM D5185m		<1	6	
	Lead	ppm	ASTM D5185m	>50	<1	<1	
	Copper	ppm	ASTM D5185m	>50	13	22	
	Tin	ppm	ASTM D5185m		<1	0	
	Vanadium	ppm	ASTM D5185m		0	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION Appearance is milky. There is a light concentration of water present in	Silicon	ppm	ASTM D5185m	>100	13	28	
	Potassium	ppm	ASTM D5185m	>20	<1	0	
the oil.	Water	%	ASTM D6304	>0.25	4 0.216	▲ 0.882	
	Water ppm Water	% ppm	ASTM D6304 ASTM D6304		△ 0.216 △ 2160		
						▲ 0.882	
	ppm Water	ppm	ASTM D6304	>2500	<u> </u>	▲ 0.882 ▲ 8820	
	ppm Water Silt	ppm scalar	ASTM D6304 *Visual	>2500 NONE	▲ 2160 NONE	▲ 0.882 ▲ 8820 NONE	
	ppm Water Silt Debris	ppm scalar scalar	*Visual	>2500 NONE NONE	▲ 2160 NONE LIGHT	▲ 0.882 ▲ 8820 NONE	
	ppm Water Silt Debris Sand/Dirt	ppm scalar scalar scalar	*Visual *Visual *Visual	>2500 NONE NONE NONE	A 2160 NONE LIGHT NONE	▲ 0.882 ▲ 8820 NONE NONE	
	ppm Water Silt Debris Sand/Dirt Appearance	ppm scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual	>2500 NONE NONE NONE NORML	A 2160 NONE LIGHT NONE A MILKY	▲ 0.882 ▲ 8820 NONE NONE NONE	
	ppm Water Silt Debris Sand/Dirt Appearance Odor	ppm scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual *Visual	>2500 NONE NONE NONE NORML	A 2160 NONE LIGHT NONE MILKY NORML	▲ 0.882 ▲ 8820 NONE NONE NONE ▲ MILKY NORML	
FLUID CONDITION	ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>2500 NONE NONE NORML NORML >0.25	A 2160 NONE LIGHT NONE MILKY NORML 0.2%	▲ 0.882 ▲ 8820 NONE NONE NONE NONE A MILKY NORML ▲ 1.0%	
the oil.	ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual *Visual *Visual *ASTM D5185m	>2500 NONE NONE NORML NORML >0.25	A 2160 NONE LIGHT NONE MILKY NORML 0.2%	▲ 0.882 ▲ 8820 NONE NONE NONE ▲ MILKY NORML ▲ 1.0%	
FLUID CONDITION	ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm scalar scalar scalar scalar scalar scalar	ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *ASTM D5185m	>2500 NONE NONE NONE NORML NORML >0.25	A 2160 NONE LIGHT NONE MILKY NORML 0.2% 3 128	 ▲ 0.882 ▲ 8820 NONE NONE NONE MILKY NORML ▲ 1.0% 2 82 	
FLUID CONDITION	ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm scalar scalar scalar scalar scalar ppm ppm	ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>2500 NONE NONE NORML NORML >0.25	A 2160 NONE LIGHT NONE MILKY NORML 0.2% 3 128 <1	 ▲ 0.882 ▲ 8820 NONE NONE NORML ▲ 1.0% 2 82 <1 	
FLUID CONDITION	ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm scalar scalar scalar scalar scalar ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual *Visual *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>2500 NONE NONE NORML NORML >0.25 1111 0.0 0.9 0.0	A 2160 NONE LIGHT NONE MILKY NORML 0.2% 3 128 <1 <1	 ▲ 0.882 ▲ 8820 NONE NONE NONE ▲ MILKY NORML ▲ 1.0% 2 82 <1 0 	
FLUID CONDITION	ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm	ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>2500 NONE NONE NORML NORML >0.25 1111 0.0 0.9 0.0 39	A 2160 NONE LIGHT NONE A MILKY NORML 0.2% 3 128 <1 <1 <1 3	 ▲ 0.882 ▲ 8820 NONE NONE NONE ▲ MILKY NORML ▲ 1.0% 2 82 <1 0 4 	
FLUID CONDITION	ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>2500 NONE NONE NONE NORML NORML >0.25 1111 0.0 0.9 0.0 39 93	A 2160 NONE LIGHT NONE A MILKY NORML 0.2% 3 128 <1 <1 <1 3 6	 ▲ 0.882 ▲ 8820 NONE NONE NORML ▲ 1.0% 2 82 <1 0 4 4 	
FLUID CONDITION	ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>2500 NONE NONE NORML NORML >0.25 1111 0.0 0.9 0.0 39 93	▲ 2160 NONE LIGHT NONE ▲ MILKY NORML 0.2% 3 128 <1 <1 <1 3 6 25	 ▲ 0.882 ▲ 8820 NONE NONE NORML ▲ 1.0% 2 82 <1 0 4 4 39 	
FLUID CONDITION	ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Tisual *Visual *ASTM D5185m ASTM D5185m	>2500 NONE NONE NORML NORML >0.25 1111 0.0 0.9 0.0 39 93 920 104	▲ 2160 NONE LIGHT NONE ▲ MILKY NORML 0.2% 3 128 <1 <1 3 6 25 917	 ▲ 0.882 ▲ 8820 NONE NONE NONE ▲ MILKY NORML ▲ 1.0% 2 82 <1 0 4 4 39 768 	





Certificate L2367

Laboratory Sample No.

Lab Number : 05152928

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : VCP290605

Test Package: MOB 1 (Additional Tests: KF)

Received **Tested** Unique Number : 9313208 Diagnosed

: 08 Jan 2021 : 12 Jan 2021 : 12 Jan 2021 - Jonathan Hester

MCCLUNG-LOGAN EQUIPMENT CO - RICHMOND 1345 MOUNTAIN ROAD GLEN ALLEN, VA

US 23060

Contact: KYLE RATLIFFE KRATLIFFE@MCCLUNG-LOGAN.COM

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.

F: (804)266-1611

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: KYLE RATLIFFE - VOLVO8882

T: