

WEAR CONTAMINATION FLUID CONDITION

NORMAL

ABNORMAL

NORMAL



[RYAN GOLF]
Machine Id
VOLVO EC480 314884

Component Diesel Engine

{not provided} (--- GAL)

DEA	ORABACKII	DATION
KEC	OMMENI	DAHUN

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. Please specify the brand, type, and viscosity of the oil on your next sample.

rest	UOM	Method	Limit/Abn	Current	History I	History2
Sample Number		Client Info		VCP432072		
Sample Date		Client Info		07 Nov 2023		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Filter Age	hrs	Client Info		0		
Oil Changed		Client Info		Changed		
Filter Changed		Client Info		Changed		
Sample Status				ABNORMAL		
		10TH DE (05	400			
Iron	ppm	ASTM D5185m	>100	21		
Chromium	ppm	ASTM D5185m	>10	1		
Nickel	mag	ASTM D5185m	>10	6		

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	21	
Chromium	ppm	ASTM D5185m	>10	1	
Nickel	ppm	ASTM D5185m	>10	6	
Titanium	ppm	ASTM D5185m		<1	
Silver	ppm	ASTM D5185m	>2	0	
Aluminum	ppm	ASTM D5185m	>10	3	
Lead	ppm	ASTM D5185m	>20	2	
Copper	ppm	ASTM D5185m	>15	16	
Tin	ppm	ASTM D5185m	>10	2	
Vanadium	ppm	ASTM D5185m		<1	
White Metal	scalar	*Visual	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	
Silicon	nnm	ΔSTM D5185m	~20	A 24	

CONTAMINATION

Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of dirt/seal material.

Silicon	ppm	ASTM D5185m	>20	<u> </u>	
Potassium	ppm	ASTM D5185m	>20	2	
Fuel	%	ASTM D3524	>6.0	0.8	
Water		WC Method	>0.1	NEG	
Glycol		WC Method		NEG	
Soot %	%	*ASTM D7844	>3	0.2	
Nitration	Abs/cm	*ASTM D7624	>20	10.4	
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.9	
Silt	scalar	*Visual	NONE	NONE	
Debris	scalar	*Visual	NONE	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	
Appearance	scalar	*Visual	NORML	NORML	
Odor	scalar	*Visual	NORML	NORML	
Emulsified Water	scalar	*Visual	>0.1	NEG	
Sodium	ppm	ASTM D5185m		<1	

FLUID CONDITION

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

	Emulsified Water	scalar	*Visual	>0.1	NEG	
	Sodium	ppm	ASTM D5185m		<1	
	Boron	ppm	ASTM D5185m		11	
	Barium	ppm	ASTM D5185m		<1	
	Molybdenum	ppm	ASTM D5185m		71	
	Manganese	ppm	ASTM D5185m		1	
	Magnesium	ppm	ASTM D5185m		886	
	Calcium	ppm	ASTM D5185m		2183	
	Phosphorus	ppm	ASTM D5185m		1280	
	Zinc	ppm	ASTM D5185m		1607	
	Sulfur	ppm	ASTM D5185m		4294	
	Oxidation	Abs/.1mm	*ASTM D7414	>25	20.2	
	Base Number (BN)	mg KOH/g	ASTM D2896		7.5	
	Visc @ 100°C	cSt	ASTM D445		12.2	





Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : VCP432072 Lab Number : 06083341

Unique Number: 10870786

Received : 08 Feb 2024 **Tested** Diagnosed

Test Package: MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN)

: 09 Feb 2024 - Don Baldridge To discuss this sample report, contact Customer Service at 1-800-237-1369.

: 09 Feb 2024

US 33619 Contact: KENNY HANEY khaney@flaglerce.com

* - 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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