WEAR CONTAMINATION FLUID CONDITION **NORMAL NORMAL NORMAL**

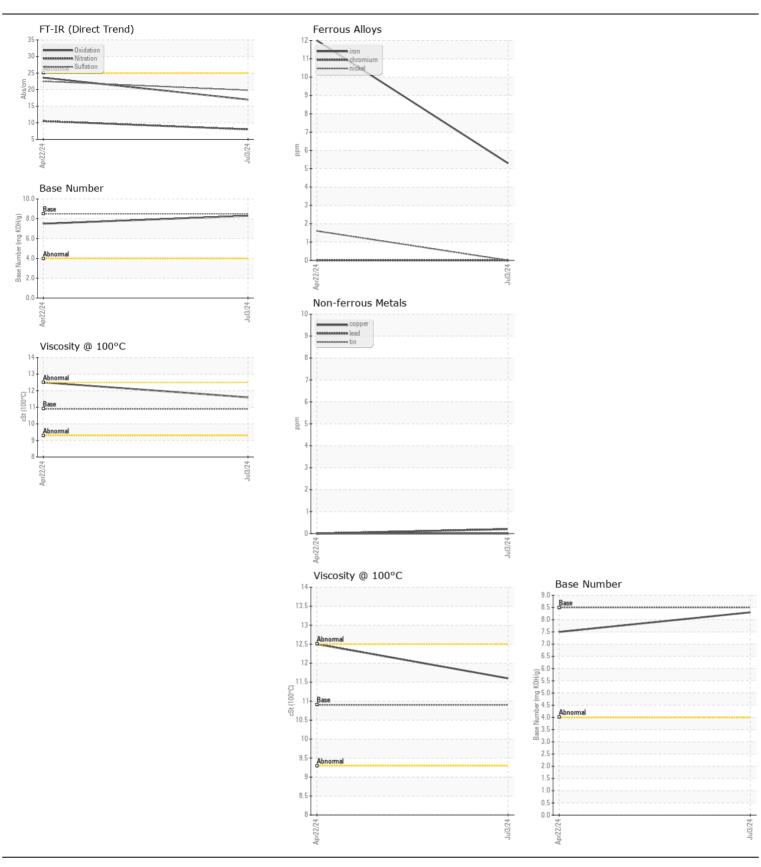
[W02008502]

VOLVO EC480E 310963

Diesel Engine

DIESEL ENGINE OIL SAE 30 (14 GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		ML0001098	ML0001073	
Resample at the next service interval to monitor. (Customer Sample Comment: W02008502)	Sample Date		Client Info		03 Jul 2024	22 Apr 2024	
	Machine Age	hrs	Client Info		9174	8775	
	Oil Age	hrs	Client Info		9174	8775	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		Changed	N/A	
	Filter Changed		Client Info		Changed	N/A	
	Sample Status				NORMAL	NORMAL	
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185m	>100	5	12	
	Chromium	ppm	ASTM D5185m	>10	0	0	
	Nickel	ppm	ASTM D5185m		0	2	
	Titanium	ppm	ASTM D5185m	710	0	0	
	Silver	ppm	ASTM D5185m	\2	0	0	
	Aluminum	ppm	ASTM D5185m		<1	<1	
	Lead	ppm	ASTM D5185m		<1	0	
	Copper	ppm	ASTM D5185m		0	0	
	Tin	ppm	ASTM D5185m		0	0	
	Vanadium	ppm	ASTM D5185m	>10	0	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal		*Visual	NONE	NONE	NONE	
		scalar	visuai	INOINL		INOINE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	5	6	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	<1	0	
	Fuel		WC Method	>6.0	<1.0	<1.0	
	Water		WC Method	>0.1	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844	>3	0.1	0.1	
	Nitration	Abs/cm	*ASTM D7624	>20	8.0	10.5	
	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.8	22.5	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	
LUID CONDITION	Sodium	nnm	ASTM D5185m	> 75	2	2	
LOID CONDITION	Boron	ppm	ASTM D5185m		16	23	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium		ASTM D5185m		0	0	
	Molybdenum	ppm	ASTM D5185m		61	48	
	Manganese	ppm	ASTM D5185m	100	<1	0	
	Magnesium	ppm	ASTM D5185m	450	736	544	
	Calcium	ppm	ASTM D5185m		1384	1914	
	Jaiolaili	ppm	ASTM D5185m		960	809	
	Phoenhorue	DUIT	MOTIVI DOTOSIII				
	Phosphorus		ACTM DE195m	1350	1126	986	
	Zinc	ppm	ASTM D5185m		1126	986 3014	
	Zinc Sulfur	ppm ppm	ASTM D5185m	4250	3309	3014	
	Zinc	ppm ppm Abs/.1mm		4250 >25			







Certificate L2367

Report Id: WILCHA [WUSCAR] 06229403 (Generated: 07/09/2024 13:09:05) Rev: 1

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Lab Number : 06229403

: ML0001098

Unique Number : 11112896 Test Package : CONST (Additional Tests: TBN)

Received : 05 Jul 2024 **Tested** : 09 Jul 2024 Diagnosed

: 09 Jul 2024 - Jonathan Hester

WILLIAM HAZEL PO BOX 600 CHANTILLY, VA US 20153 Contact: SERVICE MANAGER

To discuss this sample report, contact Customer Service at 1-800-237-1369. jimmy_elswick@wahazel.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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