

## Area [SWA538421] Machine Id BROCE BROOM FMJ470 BRC 601157 Component Diesel Engine

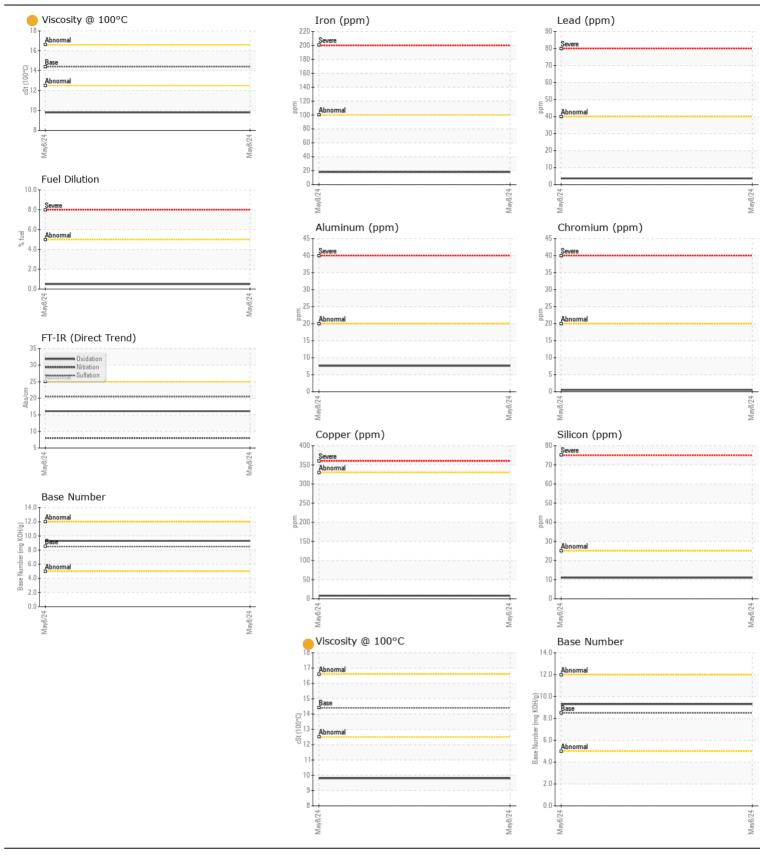
## DIESEL ENGINE OIL SAE 15W40 (--- GAL)

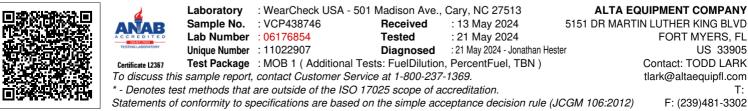
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		VCP438746		
The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.	Sample Date		Client Info		08 May 2024		
	Machine Age	hrs	Client Info		144		
	Oil Age	hrs	Client Info		144		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		N/A		
	Sample Status				ATTENTION		
WEAR	Iron	ppm	ASTM D5185m		18		
Metal levels are typical for a new component breaking in.	Chromium	ppm	ASTM D5185m		<1		
	Nickel	ppm	ASTM D5185m	>4	<1		
	Titanium	ppm	ASTM D5185m		<1		
	Silver	ppm	ASTM D5185m	>3	0		
	Aluminum	ppm	ASTM D5185m	>20	8		
	Lead	ppm	ASTM D5185m	>40	4		
	Copper	ppm	ASTM D5185m	>330	8		
	Tin	ppm	ASTM D5185m	>15	2		
	Vanadium	ppm	ASTM D5185m		<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon		ASTM D5185m	>25	44		
	Potassium	ppm ppm	ASTM D5185m		11 5		
Fuel content negligible. There is no indication of any contamination in the oil.	Fuel	%	ASTM D3103III		0.5		
	Water	70	WC Method		NEG		
	Glycol		WC Method	>0.2	NEG		
	Soot %	%	*ASTM D7844	. ?	0.1		
	Nitration	Abs/cm	*ASTM D7644	>20	8.0		
	Sulfation	Abs/.1mm	*ASTM D7024		20.5		
	Silt		*Visual	NONE	NONE		
	Debris	scalar scalar	*Visual	NONE	NONE		
	Sand/Dirt		*Visual	NONE	NONE		
		scalar scalar	*Visual	NORML	NORML		
	Appearance Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water		*Visual	>0.2	NEG		
		Scalai	visuai	20.2			
FLUID CONDITION	Sodium	ppm	ASTM D5185m	>158	0		
	Boron	ppm	ASTM D5185m	250	312		
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.	Barium	ppm	ASTM D5185m	10	5		
	Molybdenum	ppm	ASTM D5185m	100	271		
	Manganese	ppm	ASTM D5185m		4		
	Magnesium	ppm	ASTM D5185m	450	755		
	Calcium	ppm	ASTM D5185m		1404		
	Phosphorus	ppm	ASTM D5185m	1150	953		
	Zinc	ppm	ASTM D5185m		1027		
	Sulfur	ppm	ASTM D5185m		3194		
	Oxidation	Abs/.1mm	*ASTM D7414		16.1		
	Base Number (BN)				9.3		
		. O:	AOTA DAVE	4.4.4			

Visc @ 100°C cSt

ASTM D445 14.4

9.8





Contact/Location: TODD LARK - VOLVO0090 Page 2 of 2