

OIL ANALYSIS REPORT

[W/O 11061] VOLVO Ecr145 E 317114

Diesel Engine

Fluic **VOLVO ULTRA DIESEL ENGINE OIL 15W40**

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

Area

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

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

VDS-3 (4 GAL)			Jul2024			
SAMPLE INFOR		method	limit/booo	ourroat	biotorrut	biotom	
	MATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		ML0002029			
Sample Date		Client Info		03 Jul 2024			
Machine Age	hrs	Client Info		491			
Dil Age	hrs	Client Info		491			
Dil Changed		Client Info		Changed			
Sample Status				NORMAL			
CONTAMINATIC	N	method	limit/base	current	history1	history2	
uel		WC Method	>6.0	<1.0			
Vater		WC Method	>0.2	NEG			
âlycol		WC Method		NEG			
WEAR METALS		method	limit/base	current	history1	history2	
ron	ppm	ASTM D5185m	>100	29			
Chromium	ppm	ASTM D5185m	>20	1			
lickel	ppm	ASTM D5185m	>2	8			
ītanium	ppm	ASTM D5185m		0			
Silver	ppm	ASTM D5185m	>2	0			
Aluminum	ppm	ASTM D5185m	>25	8			
ead	ppm	ASTM D5185m	>40	<1			
Copper	ppm	ASTM D5185m	>330	9			
în	ppm	ASTM D5185m	>15	2			
/anadium	ppm	ASTM D5185m		0			
Cadmium	ppm	ASTM D5185m		0			
ADDITIVES		method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	2.5	<1			
Barium	ppm	ASTM D5185m	0.0	<1			
/lolybdenum	ppm	ASTM D5185m	0.7	5			
Manganese	ppm	ASTM D5185m	0.0	3			
/agnesium	ppm	ASTM D5185m	256	103			
Calcium	ppm	ASTM D5185m	2057	2325			
Phosphorus	ppm	ASTM D5185m	935	933			
Zinc	ppm	ASTM D5185m		1023			
Sulfur	ppm	ASTM D5185m		4245			
CONTAMINANT	S	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	18			
Sodium	ppm	ASTM D5185m		3			
Potassium	ppm	ASTM D5185m	>20	1			
INFRA-RED		method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844		0.1			
Vitration	Abs/cm	*ASTM D7624		6.8			
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.8			
FLUID DEGRAD	ATION	method	limit/base	current	history1	history2	
Dxidation	Abs/.1mm	*ASTM D7414	>25	10.2			
Base Number (BN)	mg KOH/g	ASTM D7414 ASTM D2896		6.9			
	ing iton/y	AOTIM D2030	10	0.3			

Sample Rating Trend



NORMAL



35

30

25 Abs/cm

> 10 5 Jul3/24

12.0

0.01 (mg KOH/g) 0.6 0.6 4.0

Base 2.0 0.0

> 19-18 Abnorma 17 () 16 () 15 14 Base

> > 13 A 12 11 Jul3/24

OIL ANALYSIS REPORT

COMPANY								
FT-IR (Direct Trend)		VISUAL		method	limit/base	current	history1	history2
Oxidation		White Metal	scalar	*Visual	NONE	NONE		
Romonnam Sulfation		Yellow Metal	scalar	*Visual	NONE	NONE		
		Precipitate	scalar	*Visual	NONE	NONE		
		Silt	scalar	*Visual	NONE	NONE		
		Debris	scalar	*Visual	NONE	NONE		
		Sand/Dirt	scalar	*Visual	NONE	NONE		
42/člut	Jul3/24	Appearance	scalar	*Visual	NORML	NORML		
7	٦٢	Odor	scalar	*Visual	NORML	NORML		
Base Number		Emulsified Water	scalar	*Visual	>0.2	NEG		
		Free Water	scalar	*Visual		NEG		
Base		FLUID PROPER	TIES	method	limit/base	current	history1	history2
1	1	Visc @ 100°C	cSt	ASTM D445	15.0	13.0		
		GRAPHS						
		Ferrous Alloys						
	ę	30 iron						
Jul3/24	.c. ci	25 - chromium						
		20						
Viscosity @ 100°C		틆 15-						
Abnormal		10						
		5						
Base								
		Jul3/24			3/24 -			
Abnormal		1			Jul3/24			
		Non-ferrous Meta	ls					
Jul3/24	10 G.	10 copper						
7	-	8 - energy lead						
		6						
		udd						
		4						
		2						
		045		****	24			
		Jul3/2			Jul3/2			
		Viscosity @ 100°0	2			_		
		¹⁹	-		12.	Base Number		
		18 - Abnormal				Page		
		17-			10. Ş	U + d		
		0 ¹⁶			.8 .6 .4 .4	0		
		016 015 15 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8			<u>لة</u> مو	0-		
		^ч 14			N 4.	o -		
		13 - Abnormal			ase 8 2.	0		
		12-						
		114			.0			- 24
		Jul3/24			Jul3/24	Jul3/24		Jul3/24
	Laboratory	: WearCheck USA - 50)1 Madiso	on Ave., Carv	, NC 27513		RELIABLE C	ONTRACTING
	Sample No.	: ML0002029	Rece	ived :11	l Jul 2024	2410		RD SUITE 200
	Lab Number		Teste		2 Jul 2024	B	GA	MBRILLS, MD
	Unique Number		Diagr	nosed :14	Jul 2024 - Don		Contact: DUCC	US 21054
Certificate L2367	Test Package	: CONST (Additional 1	iests: IB	N)	2		Jontact: RUSS	

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

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