



Indian Trail, NC #803 Machine Id VOLVO L30G L30GS3224649

Diesel Engine

VOLVO VDS-4.5 Premium Motor Oil 15W40 (--- GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		ASC0009604		ASC0005499
	Sample Date		Client Info		22 May 2024	08 Feb 2024	09 Oct 2023
	Machine Age	hrs	Client Info		4041	3580	2958
	Oil Age	hrs	Client Info		461	622	2958
	Filter Age	hrs	Client Info		0	0	0
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185m	>100	5	6	6
	Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
	Nickel	ppm	ASTM D5185m	>10	0	<1	0
	Titanium	ppm	ASTM D5185m		<1	<1	0
	Silver	ppm	ASTM D5185m	>2	<1	0	0
	Aluminum	ppm	ASTM D5185m	>10	2	2	<1
	Lead	ppm	ASTM D5185m		<1	<1	0
	Copper	ppm	ASTM D5185m		<1	<1	<1
	Tin	ppm	ASTM D5185m		<1	<1	<1
	Vanadium	ppm	ASTM D5185m		<1	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION There is no indication of any contamination in the oil.	Silicon	ppm	ASTM D5185m		5	4	4
	Potassium		ASTM D5185m		3	6	0
	Fuel	ppm	WC Method			<1.0	<1.0
	Water		WC Method		NEG	NEG	NEG
	Glycol		WC Method	>0.1	NEG	NEG	NEG
	Soot %	%	*ASTM D7844	. 0	0.1		
	Nitration		*ASTM D7644		9.3	0.1 9.4	0.1
	Sulfation	Abs/cm		>20		9.4 22.0	
		Abs/.1mm	*ASTM D7415		20.0		18.6
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m		2	0	2
	Boron	ppm	ASTM D5185m		72	94	42
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	13	0
	Molybdenum	ppm	ASTM D5185m		55	26	63
	Manganese	ppm	ASTM D5185m		<1	<1	0
	Magnesium	ppm	ASTM D5185m		172	213	796
	Calcium	ppm	ASTM D5185m		2181	1905	1355
	Phosphorus	ppm	ASTM D5185m		1047	969	1044
	Zinc	ppm	ASTM D5185m		1231	1134	1312
	Sulfur	ppm	ASTM D5185m		4111	3672	3282
	Oxidation	Abs/.1mm	*ASTM D310311	>25	17.3	20.4	14.6
	Base Number (BN)			~	6.6	6.7	8.6
	Dase Mulliber (DIN)	niy KOn/g	A01101D2030		0.0	0.7	0.0

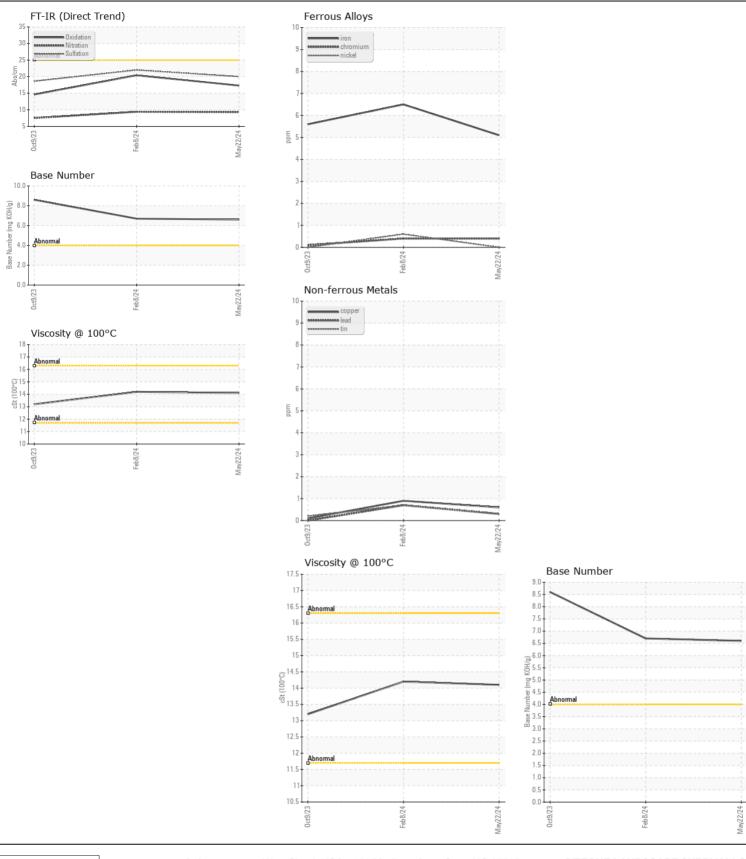
Visc @ 100°C cSt

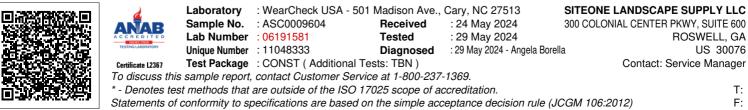
ASTM D445

14.2

13.2

14.1





Submitted By: CLAYTON SMITH Page 2 of 2