THE G. W. VAN KEPPEL CO.	WEAR					NORMAL		
Image: State of the state			CONTAMINATION				NORMAL	
			FLUID CONDITION			NORMAL		
						NORMAL		
[BUILDEX]								
Component								
VOLVO ULTRA DIESEL ENGIN	IE OIL 15W4	0 VDS	6-3 ( C	iAL)				
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2	
Resample at the next service interval to monitor.	Sample Number		Client Info		VKC0000987	VKC0000918		
	Sample Date		Client Info		22 Mar 2024	19 Jun 2023		
	Machine Age	hrs	Client Info		14762	14384		
	Oil Age	hrs	Client Info		500	1000		
	Filter Age	hrs	Client Info		500	1000		
	Oil Changed		Client Info		Changed	Changed		
	Filter Changed		Client Info		Changed	Changed		
	Sample Status				NORMAL	NORMAL		
WEAR	Iron	ppm	ASTM D5185m	>100	29	43		
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>10	<1	1		
	Nickel	ppm	ASTM D5185m		4	8		
	Titanium	ppm	ASTM D5185m		1	<1		
	Silver	ppm	ASTM D5185m	>2	0	0		
	Aluminum	ppm	ASTM D5185m	>10	1	2		
	Lead	ppm	ASTM D5185m		<1	1		
	Copper	ppm	ASTM D5185m		6	10		
	Tin	ppm	ASTM D5185m	>10	1	1		
	Vanadium White Metal	ppm	ASTM D5185m		0	0 NONE		
	Yellow Metal	scalar scalar	*Visual *Visual	NONE NONE	NONE NONE	NONE		
		304141	•15001	NONE		NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	8	7		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	0	2		
	Fuel		WC Method		<1.0	<1.0		
	Water		WC Method	>0.1	NEG	NEG		
	Glycol		WC Method	0	NEG	NEG		
	Soot %	%	*ASTM D7844		1.2	1.3		
	Nitration Sulfation	Abs/cm Abs/.1mm	*ASTM D7624 *ASTM D7415		10.8 26.4	13.0 28.4		
	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		
	Codium				л	0		
FLUID CONDITION	Sodium Boron	ppm	ASTM D5185m ASTM D5185m	25	4 87	0 82		
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 ppm	ASTM D5185m		0	0		
	Molybdenum	ppm	ASTM D5185m		60	82		
	Manganese	ppm	ASTM D5185m		1	1		
	Magnesium	ppm	ASTM D5185m		564	583		
	Calcium	ppm	ASTM D5185m		1728	1787		
	Phosphorus	ppm	ASTM D5185m	935	975	903		
	Zinc	ppm	ASTM D5185m	1223	1111	1099		
	Sulfur	ppm	ASTM D5185m		3241	3010		
	Ovidation	Abo/ 1mm	*ACTM D7/1/	- 0E	120	25.0		

Oxidation

Abs/.1mm \*ASTM D7414 >25

Base Number (BN) mg KOH/g ASTM D2896 10

Visc @ 100°C cSt ASTM D445 15.0

25.8

13.8

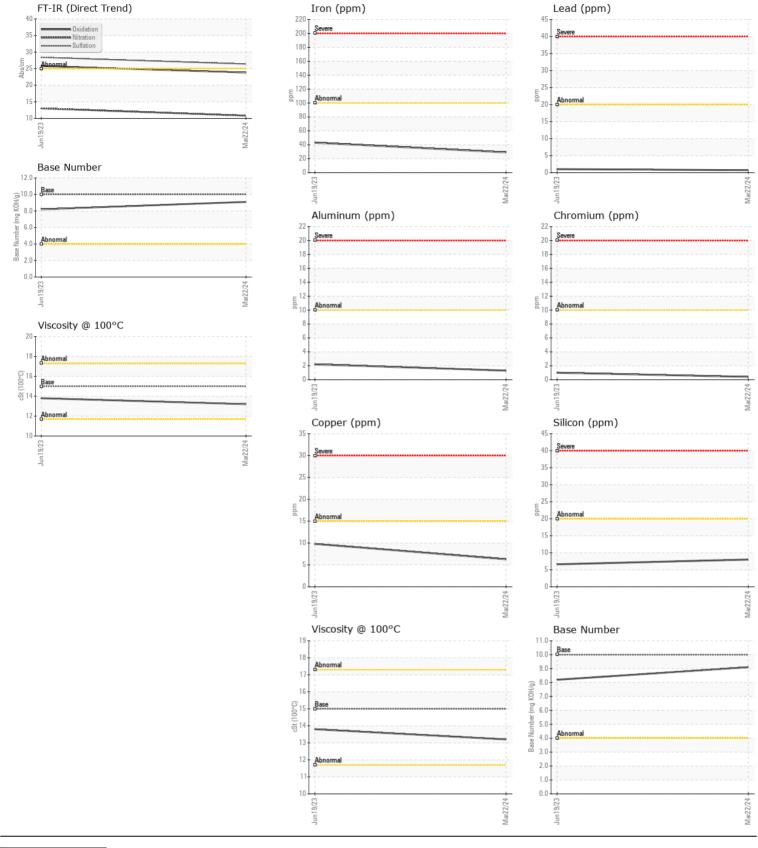
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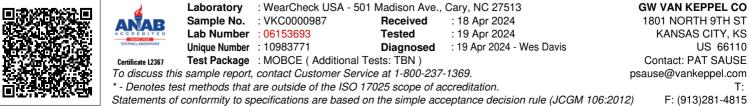
8.2 ---

23.8

9.1

13.2





Contact/Location: PAT SAUSE - GWVKAN Page 2 of 2