

WEAR CONTAMINATION FLUID CONDITION

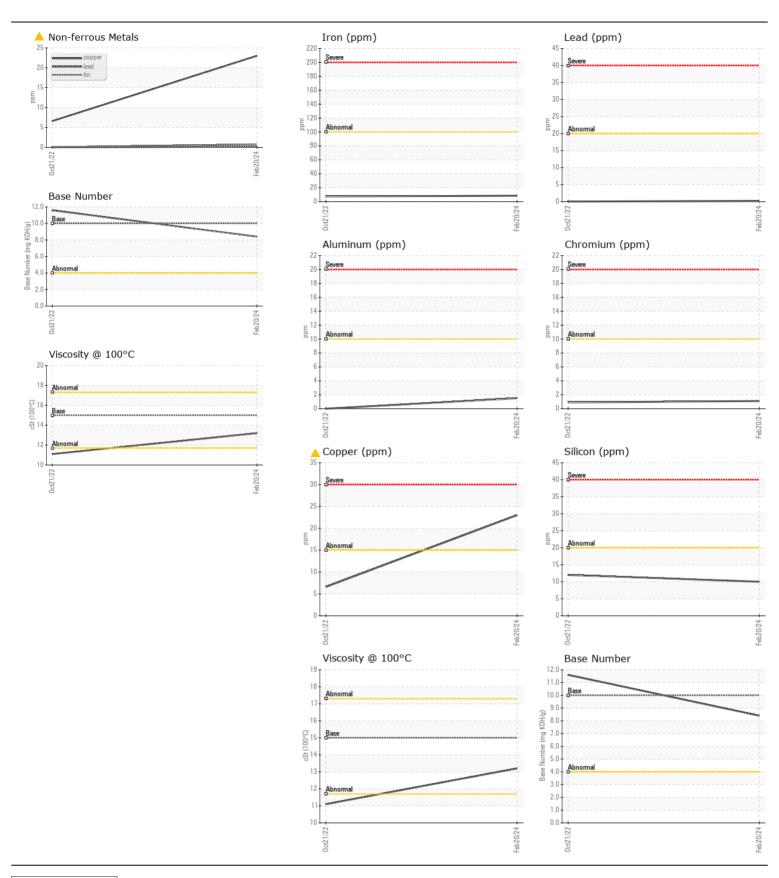
ABNORMAL NORMAL NORMAL



[674847 LAKE CONWAY] Machine Id VOLVO L20H 1220453

Diesel Engine

	IL OIL 13117	O VD	S-3 (G	iAL)			
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.	Sample Number		Client Info		VCP446898	VCP366204	
	Sample Date		Client Info		20 Feb 2024	21 Oct 2022	
	Machine Age	hrs	Client Info		1164	307	
	Oil Age	hrs	Client Info		0	0	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				ABNORMAL	ATTENTION	
WEAR	Iron	ppm	ASTM D5185m	>100	8	7	
The aluminum level is abnormal. All other component wear rates are normal.	Chromium	ppm	ASTM D5185m	>10	1	<1	
	Nickel	ppm	ASTM D5185m	>10	<1	0	
	Titanium	ppm	ASTM D5185m		<1	<1	
	Silver	ppm	ASTM D5185m	>2	0	0	
	Aluminum	ppm	ASTM D5185m	>10	2	0	
	Lead	ppm	ASTM D5185m	>20	<1	0	
	Copper	ppm	ASTM D5185m	>15	4 23	7	
	Tin	ppm	ASTM D5185m	>10	<1	<1	
	Vanadium	ppm	ASTM D5185m		<1	<1	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	10	12	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	3	0	
	Fuel		WC Method	>6.0	<1.0	0.2	
	Water		WC Method	>0.1	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844	>3	0	0.1	
	Nitration	Abs/cm	*ASTM D7624	>20	10.4	7.0	
	Sulfation	Abs/.1mm	*ASTM D7415	>30	22.1	22.9	
	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	
		coalar	*Visual	>0.1	NEG	NEG	
	Emulsified Water	Scalai					
FLUID CONDITION	Sodium	ppm	ASTM D5185m		3	2	
FLUID CONDITION The PN result indicates that there is quitable alkalinity remaining in the						2 46	
The BN result indicates that there is suitable alkalinity remaining in the	Sodium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2.5	3 32 2		
	Sodium Boron	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2.5 0.0 0.7	3 32	46 0 34	
The BN result indicates that there is suitable alkalinity remaining in the	Sodium Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2.5 0.0 0.7 0.0	3 32 2	46 0 34 2	
The BN result indicates that there is suitable alkalinity remaining in the	Sodium Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2.5 0.0 0.7 0.0 256	3 32 2 45 1 469	46 0 34	
The BN result indicates that there is suitable alkalinity remaining in the	Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2.5 0.0 0.7 0.0 256 2057	3 32 2 45 1 469 1509	46 0 34 2 413 1795	
The BN result indicates that there is suitable alkalinity remaining in the	Sodium Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2.5 0.0 0.7 0.0 256 2057	3 32 2 45 1 469	46 0 34 2 413	
The BN result indicates that there is suitable alkalinity remaining in the	Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2.5 0.0 0.7 0.0 256 2057 935 1223	3 32 2 45 1 469 1509	46 0 34 2 413 1795	
The BN result indicates that there is suitable alkalinity remaining in the	Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2.5 0.0 0.7 0.0 256 2057 935 1223 4079	3 32 2 45 1 469 1509 828	46 0 34 2 413 1795 815	
The BN result indicates that there is suitable alkalinity remaining in the	Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2.5 0.0 0.7 0.0 256 2057 935 1223 4079 >25	3 32 2 45 1 469 1509 828 1033 2836 23.3	46 0 34 2 413 1795 815 1050	
The BN result indicates that there is suitable alkalinity remaining in the	Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2.5 0.0 0.7 0.0 256 2057 935 1223 4079 >25 10	3 32 2 45 1 469 1509 828 1033 2836	46 0 34 2 413 1795 815 1050 3634	





Laboratory Sample No.

Lab Number : 06101428

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : VCP446898

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

Received **Tested** Unique Number: 10899658

: 27 Feb 2024 : 28 Feb 2024 Diagnosed Test Package : MOB 1 (Additional Tests: TBN)

: 28 Feb 2024 - Sean Felton

ALTA EQUIPMENT/FLAGLER EQUIPMENT LLC 9601 BOGGY CREEK RD ORLANDO, FL US 32824

Contact: Robert LaPlante robert.laplante@altg.com T: (407)508-9736

* - 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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