WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL

Area

## CN BRAMPTON

74965017

Diesel Engine

VALVOLINE PREMIUM BLUE EXTREME 5W40 (--- GAL)

VALVOLINE PREMIUM BLUE EXTREME 5W	40 ( GAL)						
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		CU0022790		
	Sample Date		Client Info		11 Jun 2024		
	Machine Age	hrs	Client Info		3550		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185(m)	>90	17		
	Chromium	ppm	ASTM D5185(m)	>20	<1		
	Nickel	ppm	ASTM D5185(m)	>2	<1		
	Titanium	ppm	ASTM D5185(m)		0		
	Silver	ppm	ASTM D5185(m)	>2	0		
	Aluminum	ppm	ASTM D5185(m)	>20	1		
	Lead	ppm	ASTM D5185(m)	>40	0		
	Copper	ppm	ASTM D5185(m)	>330	<1		
	Tin	ppm	ASTM D5185(m)	>15	0		
	Vanadium	ppm	ASTM D5185(m)		0		
	White Metal	scalar	Visual*	NONE	VLITE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>25	3		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)	>20	0		
	Fuel		WC Method	>3.0	<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	ASTM D7844*		0		
	Nitration	Abs/cm	ASTM D7624*	>20	12.5		
	Sulfation	Abs/.1mm	ASTM D7415*	>30	24.3		
	Silt	scalar	Visual*	NONE	NONE		
	Debris Sand/Dist	scalar	Visual*	NONE	NONE		
	Sand/Dirt	scalar	Visual* Visual*	NONE NORML	NONE NORML		
	Appearance Odor	scalar scalar	Visual*	NORML	NORML		
	Emulsified Water		Visual*	>0.2	NEG		
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FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		5		
The condition of the cilia acceptable for the time in comis-	Boron	ppm	ASTM D5185(m)		40		
The condition of the oil is acceptable for the time in service.	Barium	ppm	ASTM D5185(m)		0		
	Molybdenum	ppm	ASTM D5185(m)		62		
	Manganese	ppm	ASTM D5185(m)		<1		
	Magnesium	ppm	ASTM D5185(m)		1081		
	Calcium	ppm	ASTM D5185(m)		816		
	Phosphorus	ppm	ASTM D5185(m)		948		
	Zinc	ppm	ASTM D5185(m)		1200		
	Sulfur	ppm Aha/1	ASTM D5185(m)	0.5	2601		
	Oxidation	Abs/.1mm	ASTM D7414*		28.6		
	Visc @ 40°C Visc @ 100°C	cSt cSt	ASTM D7279(m)		92.5 14.1		
	Viscosity Index (VI)		ASTM D7279(m) ASTM D2270*		14.1		
	viscosity illuex (VI)	Juale	AUTIVI DZZ/U	170	150		





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

: CU0022790 Lab Number : 02642276

Unique Number : 5799815

To discuss this sample report, contact Customer Service at 1-800-268-2131.

Received **Tested** Diagnosed Test Package : MOB 1 (Additional Tests: KV40, VI, Visual)

: 17 Jun 2024 : 18 Jun 2024

: 18 Jun 2024 - Kevin Marson

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CUMMINS CANADA ULC - GENERATOR DIVISION 7175 PACIFIC CIRCLE MISSISSAUGA, ON CA L5T 2A5

Contact: Elisia Johnson elisia.johnson@cummins.com T: (905)795-0050

Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. F: (905)795-9252 Validity of results and interpretation are based on the sample and information as supplied.