WEAR CONTAMINATION **FLUID CONDITION** **NORMAL NORMAL NORMAL**

DARLING HOME [155202]

A170135688

Diesel Engine

component make and model with your next sample. Sample Date Client Info O5 Jun 2024 Client Info Oil Age hrs Client Info Oil Changed Client Info Oil Changed Client Info N/A	COMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Date Client Info Q02 Q0 And Anchine Age hrs Client Info Q02 Q0 Q0 Q0 Q0 Q0 Q0 Q	Resample at the next service interval to monitor. Please specify the	Sample Number		Client Info		CU0022817		
Oil Age hrs Client Info O		Sample Date		Client Info		05 Jun 2024		
Filter Age		Machine Age	hrs	Client Info		202		
Oil Changed Client Info N/A N/A		Oil Age	hrs	Client Info		0		
Filter Changed Sample Status		Filter Age	hrs	Client Info		0		
Sample Status		Oil Changed		Client Info		N/A		
Iron		Filter Changed		Client Info		N/A		
Chromium ppm ASTM 05185m >20 0		Sample Status				NORMAL		
Chromium ppm ASTM D5185 m 20 0	AB	Iron	nnm	ASTM D5185/m)	~100	4		
Nickel ppm ASTM D5185/m >4 0 Titanium ppm ASTM D5185/m >3 0 Aluminum ppm ASTM D5185/m >20 <1 Lead ppm ASTM D5185/m >40 0 Lead ppm ASTM D5185/m >40 0 Copper ppm ASTM D5185/m >40 0 Copper ppm ASTM D5185/m >15 0 Tin ppm ASTM D5185/m >15 0 Vanadium ppm ASTM D5185/m >15 0 Vanadium ppm ASTM D5185/m >25 4 Tin ppm ASTM D5185/m >25 4 Tin ppm ASTM D5185/m >20 <1 Water WC Method >5 <1.0 Water WC Method >5 <1.0 Glycol WC Method >0.2 NEG Glycol WC Method >3 0 Nitration Abs/m ASTM D7824* >20 7.6 Sulfation Abs/m ASTM D7824* >20 7.6 Sulfation Abs/m ASTM D7824* >0.2 NEG Emulsified Water scalar Visual* >0.2 NEG The condition of the oil is acceptable for the time in service. Boron ppm ASTM D5185/m 41 Manganese ppm ASTM D5185/m 47 Manganese ppm ASTM D5185/m 47 Manganese ppm ASTM D5185/m 47 Manganese ppm ASTM D5185/m 41 Manganese ppm				, ,				
Titanium ppm ASTM D5185(m) >3 0				, ,				
Silver ppm ASTM D5185(m) >3 0				. ,				
Aluminum ppm ASTM D5185(m) >20 <1					>3			
Lead				, ,				
Copper				, ,				
Tin						4		
Vanadium ppm ASTM D5185(m) >25 4						0		
Potassium ppm ASTM D5185(m) >20 <1 Fuel		Vanadium	ppm	ASTM D5185(m)		0		
Potassium ppm ASTM D5185(m) >20 <1 Here is no indication of any contamination in the oil. Potassium ppm ASTM D5185(m) >20 <1 Here is no indication of any contamination in the oil. Puel WC Method >5 <1.0 Water WC Method >0.2 NEG Glycol WC Method NEG Soot % % ASTM D7844* >3 0 Nitration Abs/cm ASTM D7624* >20 7.6 Sulfation Abs/.mm ASTM D7415* >30 20.0 Emulsified Water scalar Visual* >0.2 NEG Sodium ppm ASTM D5185(m) >57 3 Barium ppm ASTM D5185(m) 0 Molybdenum ppm ASTM D5185(m) 0 Molybdenum ppm ASTM D5185(m) 47 Manganese ppm ASTM D5185(m) <1 Manganesium ppm ASTM D5185(m)	IT A MINI A TION							
Fuel	NTAMINATION							
Water WC Method >0.2 NEG	There is no indication of any contamination in the oil.		ppm					
Glycol WC Method NEG								
Soot %					>0.2			
Nitration		-	0/		. 2			
Sulfation Abs/.1mm ASTM D7415* >30 20.0 Emulsified Water scalar Visual* >0.2 NEG The condition of the oil is acceptable for the time in service.								
Emulsified Water scalar Visual* >0.2 NEG								
Sodium ppm ASTM D5185(m) >57 3								
Boron ppm ASTM D5185(m) 41 Barium ppm ASTM D5185(m) 0 Molybdenum ppm ASTM D5185(m) 47 Manganese ppm ASTM D5185(m) 47 Magnesium ppm ASTM D5185(m) 41 Magnesium ppm ASTM D5185(m) 41 Magnesium ppm ASTM D5185(m) 803 Calcium ppm ASTM D5185(m) 1200 Phosphorus ppm ASTM D5185(m) 728 Zinc ppm ASTM D5185(m) 824								
Barium ppm ASTM D5185(m) 0 Molybdenum ppm ASTM D5185(m) 47 Manganese ppm ASTM D5185(m) <1 Magnesium ppm ASTM D5185(m) 803 Calcium ppm ASTM D5185(m) 1200 Phosphorus ppm ASTM D5185(m) 728 Zinc ppm ASTM D5185(m) 824	ID CONDITION	Sodium	ppm	ASTM D5185(m)	>57	3		
Molybdenum ppm ASTM D5185(m) 47 Manganese ppm ASTM D5185(m) <1	The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185(m)		41		
Manganese ppm ASTM D5185(m) <1 Magnesium ppm ASTM D5185(m) 803 Calcium ppm ASTM D5185(m) 1200 Phosphorus ppm ASTM D5185(m) 728 Zinc ppm ASTM D5185(m) 824		Barium	ppm	ASTM D5185(m)		0		
Magnesium ppm ASTM D5185(m) 803 Calcium ppm ASTM D5185(m) 1200 Phosphorus ppm ASTM D5185(m) 728 Zinc ppm ASTM D5185(m) 824		Molybdenum	ppm			47		
Calcium ppm ASTM D5185(m) 1200 Phosphorus ppm ASTM D5185(m) 728 Zinc ppm ASTM D5185(m) 824		Manganese	ppm			<1		
Phosphorus ppm ASTM D5185(m) 728 Zinc ppm ASTM D5185(m) 824		_	ppm					
Zinc ppm ASTM D5185(m) 824								
		•						
Sulfur ppm ASTM D5185(m) 1944								
Oxidation Abs/.1mm ASTM D7414* >25 18.3 Visc @ 100°C cSt ASTM D7279(m) 14.5 13.5								





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

: CU0022817 Lab Number : 02640713 Unique Number : 5789875

Received **Tested** Test Package : MOB 1

: 10 Jun 2024 : 10 Jun 2024 Diagnosed

: 10 Jun 2024 - Wes Davis

: 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

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Validity of results and interpretation are based on the sample and information as supplied.