

WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL NORMAL

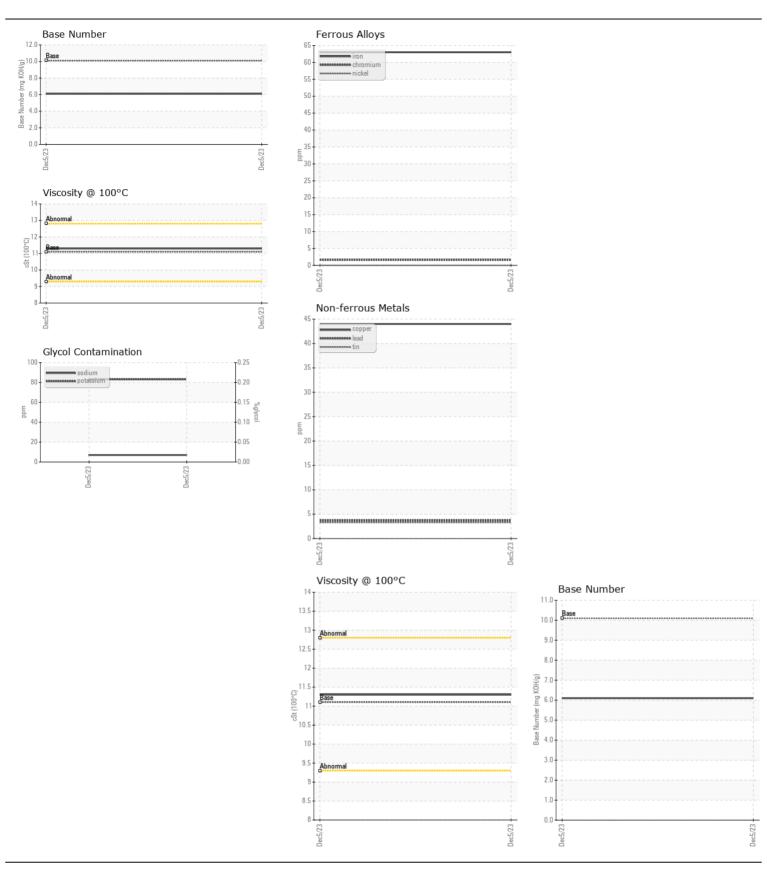
Machine Id

857-5204

Component

Diesel Engine

Sample Number   Client Info   RPL0014069   Component make and model with your next sample.   Sample Date   Client Info   65 Dec 2023   Component make and model with your next sample.   Sample Date   Client Info   65 Dec 2023   Client Info   67 Dec 2023	el Engine						
Resample at the next service interval to monitor. Please specify the component make and model with your next sample.   Sample Date   Client Info   05 Dec 2023							 
Sample Date	Resample at the next service interval to monitor. Please specify the		UOM		Limit/Abn		 History2
Machine Age   hrs   Cilient Info   0   .		•					
Oil Age   hrs   Client Info   O			laua				
Filter Age							
Oil Changed   Client Info   N/A		, and the second					
Filter Changed   Sample Status   Status   N/A   NORMAL   NORMAL		•	1115				
VEAR							
All component wear rates are normal.    Chromium   ppm   ASTM D5185m   >20   2       Nickel   ppm   ASTM D5185m   >4   0       Titanium   ppm   ASTM D5185m   >3   0       Silver   ppm   ASTM D5185m   >20   19       Aluminum   ppm   ASTM D5185m   >20   19       Lead   ppm   ASTM D5185m   >20   19       Lead   ppm   ASTM D5185m   >30   44       Copper   ppm   ASTM D5185m   >30   44       Tin   ppm   ASTM D5185m   >30   44       Vanadium   ppm   ASTM D5185m   >30   44       Value   Scalar   *Visual   NONE   NONE       Value   NONE   NONE       Value   NONE   NONE       Value   None   Non		_		Chefft IIIIO			
All component wear rates are normal.    Chromium   ppm   ASTM D5185m   >20   2       Nickel   ppm   ASTM D5185m   >4   0       Titanium   ppm   ASTM D5185m   >3   0       Silver   ppm   ASTM D5185m   >20   19       Aluminum   ppm   ASTM D5185m   >20   19       Lead   ppm   ASTM D5185m   >20   19       Lead   ppm   ASTM D5185m   >30   44       Copper   ppm   ASTM D5185m   >30   44       Tin   ppm   ASTM D5185m   >15   3       Vanadium   ppm   ASTM D5185m   >15   3       Value   Scalar   Visual   NONE   NONE       Value   NONE   NONE       Value   NONE   NONE       Value   None   No	\B	Iron	nom	ASTM D5185m	>100	63	 
All component wear rates are normal.    Nickel							 
Titanium   ppm   ASTM D5185m   3   0	All component wear rates are normal.						
Silver   ppm   ASTM D5185m   >3   0					77		 
Aluminum   ppm   ASTM D5185m   >20   19					>3	_	
Lead						-	
Copper							
Tin							
Vanadium   ppm   ASTM D5185m   0       White Metal   scalar   *Visual   NONE   NONE   NONE   Yellow Metal   scalar   *Visual   NONE   NO							 
White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON							 
Yellow Metal scalar *Visual NONE NONE  Silicon ppm ASTM D5185m >25 54 Potassium ppm ASTM D5185m >20 83 Potassi					NONE	-	 
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.  Potassium ppm ASTM D5185m > 20 83    Fuel WC Method > 5 < 1.0    Water WC Method > 0.2 NEG    Glycol % *ASTM D2982 NEG    Soot % % *ASTM D7844 > 3 0.3    Nitration Abs/cm *ASTM D7624 > 20 10.2    Sulfation Abs/.1mm *ASTM D7415 > 30 21.8    Silt scalar *Visual NONE NONE    Debris scalar *Visual NONE NONE    Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML    Emulsified Water scalar *Visual NORML NORML    Emulsified Water scalar *Visual NORML NORML    NEG		Yellow Metal	scalar	*Visual	NONE		 
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.  Potassium ppm ASTM D5185m >20 83 Fuel WC Method >5 <1.0 Water WC Method >0.2 NEG Glycol % *ASTM D2982 NEG Soot % % *ASTM D7844 >3 0.3 Nitration Abs/cm *ASTM D7844 >3 0.3 Sulfation Abs/cm *ASTM D7624 >20 10.2 Sulfation Abs/.1mm *ASTM D7415 >30 21.8 Debris scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Appearance scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG	T A MINIA TION	Ciliana		ACTM DE10E	٥٦	54	 
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.  Fuel WC Method >5	ITAMINATION						
your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.  Water  Glycol % *ASTM D2982 NEG  Soot % % *ASTM D7844 >3 0.3  Nitration Abs/cm *ASTM D7624 >20 10.2  Sulfation Abs/.1mm *ASTM D7415 >30 21.8  Silt scalar *Visual NONE NONE NONE  Debris scalar *Visual NONE NONE NONE  Sand/Dirt scalar *Visual NONE NONE NONE  Appearance scalar *Visual NONE NORML NORML NORML NORML NORML  Appearance scalar *Visual NORML NORML NORML NORML NORML NORML  Emulsified Water scalar *Visual NORML NORML NORML  Emulsified Water scalar *Visual NORML NORML  NORML  NORML  NORML  NORML  NORML  NORML  NORML  NORML  Emulsified Water scalar *Visual >0.2 NEG	your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no		ppm				
Glycol   %   *ASTM D2982   NEG							
Soot %			0/		>0.2		
Nitration		•			. 0		
Sulfation         Abs/.1mm         *ASTM D7415         >30         21.8            Silt         scalar         *Visual         NONE            Debris         scalar         *Visual         NONE            Sand/Dirt         scalar         *Visual         NONE            Appearance         scalar         *Visual         NORML         NORML           Odor         scalar         *Visual         NORML         NORML           Emulsified Water         scalar         *Visual         >0.2         NEG							
Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG							
Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Scalar *Visual NORML NORML Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG							
Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG							
Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML NORML  Emulsified Water scalar *Visual >0.2 NEG							
Odor scalar *Visual NORML Emulsified Water scalar *Visual >0.2 NEG							
Emulsified Water scalar *Visual >0.2 NEG		• •					
FLUID CONDITION Sodium ppm ASTM D5185m 7	ID CONDITION						 
Boron ppm ASTM D5185m 34	The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.						 
oil. The condition of the oil is suitable for further service							 
Molybdenum ppm ASTM D5185m 15		•					 
Manganese ppm ASTM D5185m 4							
Magnesium   ppm   ASTM D5185m   852		9					
Calcium         ppm         ASTM D5185m         1492					1000		
Phosphorus ppm ASTM D5185m 1260 815							
Zinc ppm ASTM D5185m 1400 <b>967</b>					1400		
Sulfur         ppm         ASTM D5185m         3396					05		
Oxidation							
Base Number (BN) mg KOH/g   ASTM D2896   10.1   6.1		, ,	0 0				
Visc @ 100°C cSt ASTM D445 11.1 11.3		visc @ 100°C	160	ASTIVI D445	11.1	11.3	 







Laboratory Sample No. Lab Number Unique Number

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : RPL0014069

: 06056226 : 10822175

Recieved Diagnosed Diagnostician : Angela Borella

: 10 Jan 2024

: 11 Jan 2024

Test Package : FLEET ( Additional Tests: Glycol ) To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - 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)

RTL PACLEASE - 7001 - Houston

6300 N. Loop East Houston, TX US 77026 Contact: RODNEY BRIGGS

briggsr@rushenterprises.com

T:

F: