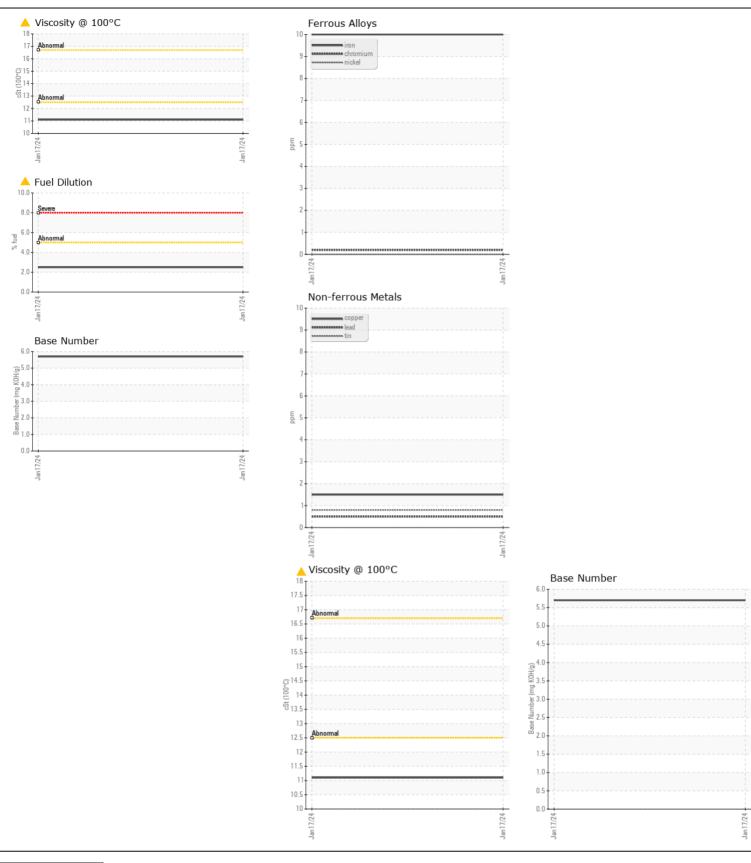


WEAR CONTAMINATION **FLUID CONDITION**

NORMAL MARGINAL ABNORMAL

Machine Id

Test	54							
Test U.O.M Method LeikRe Current History H	Component Discol Engine							
Test	Fluid							
Sample Date Client Info Ty0002194 Sample Date Ty0002194	{not provided} (QTS)							
Sample Date Client Info Ty0002194 Sample Date Ty0002194	RECOMMENDATION	Test	HOM	Method	I imit/∆hn	Current	History1	History2
Resample at the next service interval to monitor. Please specity the pornoncent make and model with your next sample.	TECOMMENDATION		OOW		LITTIOTALIT		-	
Machine Age mis	Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.	•						
Oil Age mis Client Info 0			mls					
Oil Changed Cilent Info NA		Oil Age	mls	Client Info		0		
Filter Changed Sample Status		Filter Age	mls	Client Info		0		
No.		Oil Changed		Client Info		N/A		
VEAR		Filter Changed		Client Info		N/A		
Chromium ppm ASTM D5185m 20 Titanium ppm ASTM D5185m 24 0 Titanium ppm ASTM D5185m 20 Titanium ppm ASTM D5185m 20 2 All minum ppm ASTM D5185m 20 2 ASTM		Sample Status				ABNORMAL		
Chromium ppm ASTM D5185m 20 Titanium ppm ASTM D5185m 24 0 Titanium ppm ASTM D5185m 20 Titanium ppm ASTM D5185m 20 2 All minum ppm ASTM D5185m 20 2 ASTM	WEAR	lua.a		ACTM DE105	100	40		
Nickel ppm ASTM D5185m 0	WEAR		• •					
Nicker Diff No Diff D	Metal levels are typical for a new component breaking in.							
Silver ppm ASTM 05185m >20 2					>4	-		
Aluminum ppm ASTM D588m >40 <1					. 2	-		
Lead ppm ASTM D5185m >40 <1 Copper ppm ASTM D5185m >300 2 Tin ppm ASTM D5185m >300 2 Tin ppm ASTM D5185m >300 2 Vanadium ppm ASTM D5185m >15 <1 Vanadium ppm ASTM D5185m NONE NONE Vellow Metal scalar Visual NONE NO						-		
Copper ppm ASTM D5185m >330 2 Tin ppm ASTM D5185m >15 <1 Vanadium ppm ASTM D5185m >16 0 White Metal scalar "Visual NONE NONE NONE Visual NONE NONE NONE Visual NONE NONE NONE NONE NONE NONE NONE								
Tin			• • • • • • • • • • • • • • • • • • • •					
Vanadium ppm ASTM D5185m NONE NON								
White Metal Scalar Visual NONE NON					>10			
Yellow Metal Scalar Visual NONE NONE					NONE	-		
Silicon ppm ASTM D5185m >25 6								
Potassium ppm ASTM D5165m >20 <1 Fuel % ASTM D524 >5 2.5 Water WC Method >0.2 NEG Glycol WC Method >0.2 NEG Glycol WC Method >0.2 NEG Soot % % *ASTM D7644 >3 0.3 Sulfation Abs/cm *ASTM D7644 >20 10.2 Sulfation Abs/cm *ASTM D7645 >20 22.3 Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Appearance scalar *Visual				v 150aa1	NONE			
Fuel % ASTM D3524 >5 MEG	CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	6		
Water W Water W C Method Solution	Light fuel dilution occurring.	Potassium	ppm	ASTM D5185m	>20	<1		
Glycol WC Method NEG Soot % % *ASTM D7844 >3 0.3 Nitration Abs/cmm *ASTM D7844 >3 0.3 Sulfation Abs/cmm *ASTM D7844 >3 0.3 Sulfation Abs/cmm *ASTM D7844 >3 0.3 Sulfation Abs/cmm *ASTM D7845 >30 22.3 Sulfation Abs/cmm *ASTM D7845 >30 22.3 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NORM NORM NORM Odor scalar *Visual NORM NORM NORM Odor scalar *Visual NORM NORM NORM Debris scalar *Visual NORM NORM NORM Odor scalar *Visual NORM NORM NORM Debris scalar *Visual NORM NORM NORM Odor scalar *Visual NORM NORM NORM Debris Scalar *Visual NORM N		Fuel	%	ASTM D3524	>5	2.5		
Soot %		Water		WC Method	>0.2	NEG		
Nitration		Glycol		WC Method		NEG		
Sulfation Abs/:tmm *ASTM D7415 >30 22.3		Soot %	%		>3	0.3		
Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML		Nitration				10.2		
Debris Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NORML Scalar *Visual NORML NORML NORML Scalar *Visual NORML NORML			Abs/.1mm		>30	-		
Sand/Dirt Scalar *Visual NONE NORML NORML			scalar					
Appearance			scalar					
Odor Scalar *Visual NORML NO		Sand/Dirt						
Emulsified Water scalar *Visual >0.2 NEG		• • •						
Sodium ppm ASTM D5185m 11 Barium ppm ASTM D5185m								
Boron ppm ASTM D5185m D0		Emulsified Water	scalar	*Visual	>0.2	NEG		
Boron ppm ASTM D5185m D0	FLUID CONDITION	Sodium	ppm	ASTM D5185m		11		
Barium ppm ASTM D5185m	TOID SONDITION		• • • • • • • • • • • • • • • • • • • •					
Molybdenum ppm ASTM D5185m 58 Manganese ppm ASTM D5185m 58 Manganese ppm ASTM D5185m 651 Calcium ppm ASTM D5185m 1530 Phosphorus ppm ASTM D5185m 846 Zinc ppm ASTM D5185m 1006 Sulfur ppm ASTM D5185m 2520 Sulfur ppm ASTM D5185m 2520 Sulfur ppm ASTM D5185m 2520 Base Number (BN) mg KOH/g ASTM D2896 5.7	The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.							
Manganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m 651 Calcium ppm ASTM D5185m 1530 Phosphorus ppm ASTM D5185m 846 Zinc ppm ASTM D5185m 1006 Sulfur ppm ASTM D5185m 2520 Sulfur ppm ASTM D5185m 2520 Sulfur ppm ASTM D7414 >25 22.7 Base Number (BN) mg KOH/g ASTM D2896 5.7								
Magnesium ppm ASTM D5185m 651 Calcium ppm ASTM D5185m 1530 Phosphorus ppm ASTM D5185m 846 Zinc ppm ASTM D5185m 1006 Sulfur ppm ASTM D5185m 2520 Oxidation Abs/.1mm *ASTM D7414 >25 22.7 Base Number (BN) mg KOH/g ASTM D2896 5.7		-						
Calcium ppm ASTM D5185m 1530 Phosphorus ppm ASTM D5185m 846 Zinc ppm ASTM D5185m 1006 Sulfur ppm ASTM D5185m 2520 Oxidation Abs/.1mm *ASTM D7414 >25 22.7 Base Number (BN) mg KOH/g ASTM D2896 5.7								
Phosphorus ppm ASTM D5185m 846 Zinc ppm ASTM D5185m 1006 Sulfur ppm ASTM D5185m 2520 Oxidation Abs/.1mm *ASTM D7414 >25 22.7 Base Number (BN) mg KOH/g ASTM D2896 5.7		•						
Zinc ppm ASTM D5185m 1006 Sulfur ppm ASTM D5185m 2520 Oxidation Abs/.1mm *ASTM D7414 >25 22.7 Base Number (BN) mg KOH/g ASTM D2896 5.7								
Sulfur ppm ASTM D5185m 2520 Oxidation Abs/.1mm *ASTM D7414 >25 22.7 Base Number (BN) mg KOH/g ASTM D2896 5.7								
Oxidation Abs/.1mm *ASTM D7414 >25 22.7 Base Number (BN) mg KOH/g ASTM D2896 5.7		Sulfur	• • • • • • • • • • • • • • • • • • • •	ASTM D5185m		2520		
		Oxidation			>25	22.7		
		Base Number (BN)	mg KOH/g	ASTM D2896		5.7		
						<u> </u>		







Laboratory Sample No.

Lab Number : 06103553

Unique Number : 10901783

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : TLY0002194

Received **Tested** Diagnosed

: 04 Mar 2024 : 04 Mar 2024 - Wes Davis

: 28 Feb 2024

Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN) 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)

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F: