



**WEAR CONTAMINATION FLUID CONDITION** 

**NORMAL ABNORMAL NORMAL** 

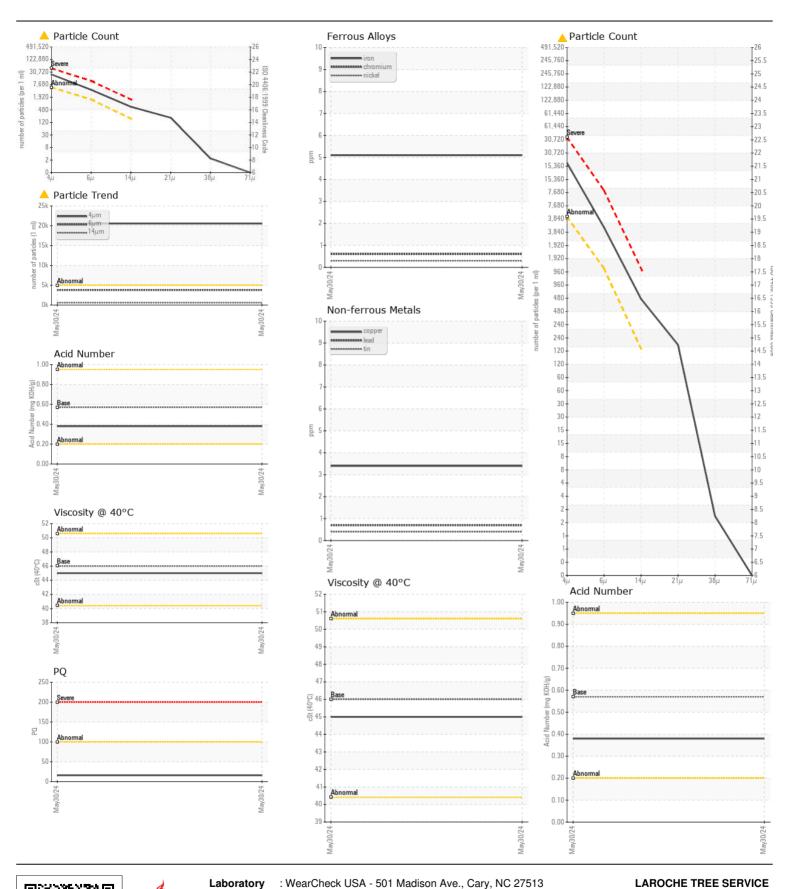
Store 9 - Marietta

5082 Component

**Hydraulic System** 

AW HYDRAULIC OIL ISO 46 (--- GAL)

No. corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.    No. corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.    Filter Age	AW HYDRAULIC OIL ISO 46 ( GAL)							
No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.    Machine Age   hrs   Client Info   1020       Cli Age   hrs   Client Info   1020       Changed   Client Info   1020       Chan	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
No corrective action is recommended at this time. The filter changed at the time of sampling has been noted. Resample at the next service interval to monitor.    Sample Date   Machine &   No collent Info   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020	No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service						,	
the time of sampling has been noted. Resample at the next service interval to monitor.    Machinine Age   hrs								
Interval to monitor.   Oi   Age   hrs   Client Info   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   1020   10			hrs			•		
Filter Age   hrs   Client Info   102		-						
Oil Changed   Client Info								
Pitter Changed   Client Info   Changed   Cha		-				Not Changd		
Name				Client Info				
Iron		_				_		
Iron								
All component wear rates are normal.    Chromium   ppm   ASTM DSISS   1-0   -1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -	WEAR							
Nickel   ppm   NSTM DiSider   -10   -1	All component wear rates are normal.							
Titanium   ppm   ASTM D5185m   <1         Aluminum   ppm   ASTM D5185m   <1         Aluminum   ppm   ASTM D5185m   <10   <1         Aluminum   ppm   ASTM D5185m   >10   <1         Copper   ppm   ASTM D5185m   >10   <1         Copper   ppm   ASTM D5185m   >10   <1         Vanadium   ppm   ASTM D5185m   >20   2         Vanadium   ppm   ASTM D5185m   >20   1         Vanadium   ppm   ASTM D5185m   >20         Vanadium   ppm								
Silver   ppm   ASTM D5185m   >10   2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .					>10			
Aluminum   ppm   ASTM D5185m   10   2           Lead   ppm   ASTM D5185m   10   -1         Copper   ppm   ASTM D5185m   10   -1         Vanadium   ppm   ASTM D5185m   10   -1         Vanadium   ppm   ASTM D5185m   10   -1         Vanadium   ppm   ASTM D5185m   10   -1         White Metal   scalar   Visual   NONE   NONE   NONE     Valow Metal   scalar   Visual   NONE   NONE   NONE   NONE     Valow Metal   Scalar   Visual   NONE								
Lead					1.0			
Copper   ppm   ASTM 05185m   >75   3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .								
Tin								
Vanadium								
White Metal Yellow Metal Scalar   Visual NONE NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NONE   NO					>10			
Vellow Metal   Scalar   Visual   NONE   N					NONE	-		
Silicon   ppm   ASTM D5185m   >20   2								
Potassium   ppm   ASTM D5185m   ≥20   1		reliow ivietal	Scalar	visuai	INOINE	NONE		
Potassium   ppm   ASTM D5185m   ≥20   1	CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	2		
Particles >4µm		Potassium	ppm	ASTM D5185m	>20	1		
Particles >6μm   ASTM D7647   >1300   A 3799           Particles >14μm   Particles >14μm   ASTM D7647   >160   A 586           Particles >38μm   ASTM D7647   >10   2           Particles >38μm   ASTM D7647   >10   2           Particles >71μm   ASTM D7647   >10   2           Particles >71μm   ASTM D7647   >3   0           Particles >71μm   ASTM D5185m   Solution   So	There is a high amount of particulates present in the oil.	Water		WC Method	>0.1	NEG		
Particles >14μm   ASTM D7647   >160   ▲ 586         Particles >21μm   ASTM D7647   >40   ▲ 176         Particles >71μm   ASTM D7647   >10   2         Particles >71μm   ASTM D7647   >3   0   0         Particles >71μm   ASTM D7647   >3   0   0         Oil Cleanliness   ISO 4406 (c)   >191/1/14   ♣ 22/19/16         Silt   Scalar   *Visual   NONE   NONE   NONE         Debris   Scalar   *Visual   NONE   NONE   NONE         Sand/Dirt   Scalar   *Visual   NORM		Particles >4µm		ASTM D7647	>5000	<b>20550</b>		
Particles >21 µm		Particles >6µm		ASTM D7647	>1300	<b>4</b> 3799		
Particles > 38µm		Particles >14μm		ASTM D7647	>160	<b>586</b>		
Particles >71 μm						<b>176</b>		
Oil Cleanliness   SO 4406 (c)   51917/14   22/19/16           Silt   scalar   *Visual   NONE   NONE         Debris   scalar   *Visual   NONE   LIGHT         Sand/Dirt   scalar   *Visual   NONE   LIGHT         Sand/Dirt   scalar   *Visual   NONE   NONE         Appearance   scalar   *Visual   NORML   NORML   NORML   NORML     More   More   More   NORML   NORML   NORML   NORML   NORML     More   More   NORML						2		
Silt   Scalar   *Visual   NONE   LIGHT         Debris   Scalar   *Visual   NONE   LIGHT         Sand/Dirt   Scalar   *Visual   NONE   NONE   NONE         Sand/Dirt   Scalar   *Visual   NORML   NOR		Particles >71µm				0		
Debris   Scalar   *Visual   NONE				\ /	>19/17/14	<u>^</u> 22/19/16		
Sand/Dirt   Scalar   *Visual   NONE   NONE   NORML								
Appearance   Scalar   *Visual   NORML   NORM								
Odor   Scalar   *Visual   NORML   NO								
Emulsified Water   scalar *Visual   >0.1   NEG								
Sodium   ppm   ASTM D5185m   5   0								
Boron   ppm   ASTM D5185m   5   0             Barium   ppm   ASTM D5185m   5   <1           Molybdenum   ppm   ASTM D5185m   5   <1           Manganese   ppm   ASTM D5185m   5   <1           Manganese   ppm   ASTM D5185m   5   <1           Manganese   ppm   ASTM D5185m   25   42           Calcium   ppm   ASTM D5185m   200   22           Phosphorus   ppm   ASTM D5185m   300   285           Sulfur   ppm   ASTM D5185m   370   349           Acid Number (AN)   mg KOHg   ASTM D8045   0.57   0.38		Emuisined water	Scalar	visuai	>0.1	NEG		
Boron   ppm   ASTM D5185m   5   0             Barium   ppm   ASTM D5185m   5   <1           Molybdenum   ppm   ASTM D5185m   5   <1           Manganese   ppm   ASTM D5185m   5   <1           Manganese   ppm   ASTM D5185m   5   <1           Manganese   ppm   ASTM D5185m   25   42           Calcium   ppm   ASTM D5185m   200   22           Phosphorus   ppm   ASTM D5185m   300   285           Sulfur   ppm   ASTM D5185m   370   349           Acid Number (AN)   mg KOHg   ASTM D8045   0.57   0.38	FLUID CONDITION	Sodium	maa	ASTM D5185m		0		
Barium   ppm   ASTM D5185m   5   <1         Molybdenum   ppm   ASTM D5185m   5   <1         Manganese   ppm   ASTM D5185m   5   <1         Magnesium   ppm   ASTM D5185m   25   42         Magnesium   ppm   ASTM D5185m   25   42         Calcium   ppm   ASTM D5185m   200   22         Phosphorus   ppm   ASTM D5185m   300   285         Zinc   ppm   ASTM D5185m   370   349         Sulfur   ppm   ASTM D5185m   2500   772         Acid Number (AN)   mg KOHg   ASTM D8045   0.57   0.38	TESID CONDITION				5			
Molybdenum         ppm         ASTM D5185m         5         <1	'							
Manganese         ppm         ASTM D5185m         <1								
Magnesium         ppm         ASTM D5185m         25         42             Calcium         ppm         ASTM D5185m         200         22             Phosphorus         ppm         ASTM D5185m         300         285             Zinc         ppm         ASTM D5185m         370         349             Sulfur         ppm         ASTM D5185m         2500         772             Acid Number (AN)         mg KOH/g         ASTM D8045         0.57         0.38		•						
Calcium         ppm         ASTM D5185m         200         22             Phosphorus         ppm         ASTM D5185m         300         285             Zinc         ppm         ASTM D5185m         370         349             Sulfur         ppm         ASTM D5185m         2500         772             Acid Number (AN)         mg KOH/g         ASTM D8045         0.57         0.38		_			25			
Phosphorus         ppm         ASTM D5185m         300         285             Zinc         ppm         ASTM D5185m         370         349             Sulfur         ppm         ASTM D5185m         2500         772             Acid Number (AN)         mg KOH/g         ASTM D8045         0.57         0.38		•						
Zinc         ppm         ASTM D5185m         370         349             Sulfur         ppm         ASTM D5185m         2500         772             Acid Number (AN)         mg KOH/g         ASTM D8045         0.57         0.38				ASTM D5185m				
Sulfur         ppm         ASTM D5185m         2500         772             Acid Number (AN)         mg KOH/g         ASTM D8045         0.57         0.38		•						
		Sulfur		ASTM D5185m	2500	772		
Visc @ 40°C		Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.38		
		Visc @ 40°C		ASTM D445	46	45.0		





Certificate L2367

Laboratory Sample No.

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

Lab Number : 06213372 Unique Number : 11086236 Test Package : CONST ( Additional Tests: PQ )

: LEC0049501

Received : 18 Jun 2024 **Tested** Diagnosed

: 19 Jun 2024

: 20 Jun 2024 - Don Baldridge

US 43906 Contact: GLEN VARGO glen.vargo@larochetree.com T:

7 COMMERCE PKWY

BELLAIRE, OH

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)

F: