

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION ABNORMAL

RECOMMENDATION

## Store 9 - Marietta JOHN DEERE 130GL 1FF130GXKJF042064 Component Hydraulic System

HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)

Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil.



All component wear rates are normal.

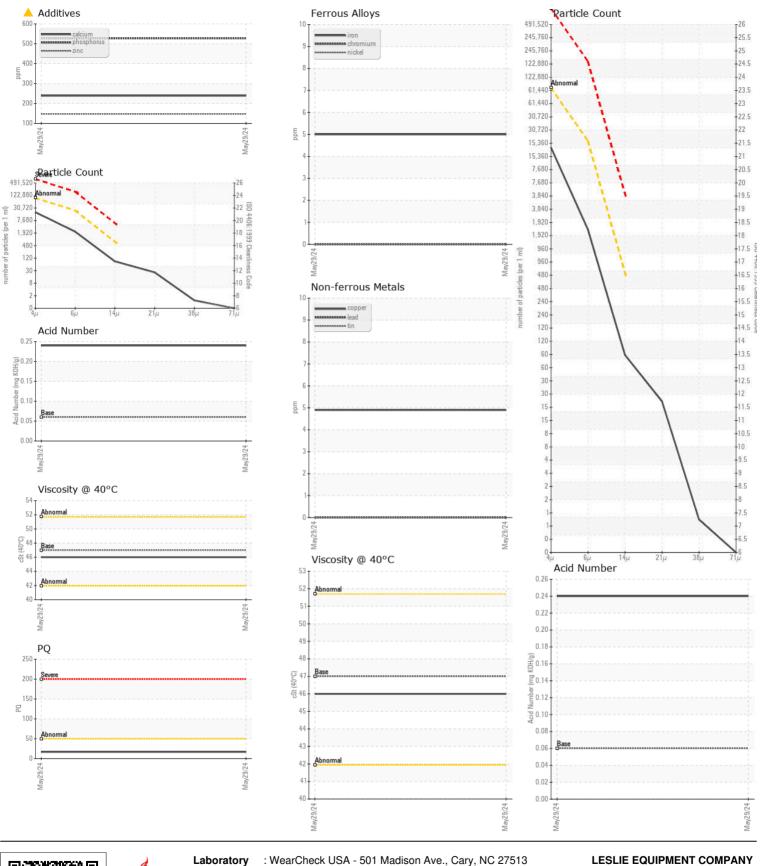
## CONTAMINATION

The amount and size of particulates present in the system are acceptable.

## FLUID CONDITION

Zinc level above manufacturer's recommendations. The AN level is acceptable for this fluid.

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Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0050108		
Sample Date		Client Info		29 May 2024		
Machine Age	hrs	Client Info		2220		
Oil Age	hrs	Client Info		2220		
Filter Age	hrs	Client Info		220		
Oil Changed		Client Info		Not Changd		
Filter Changed		Client Info		Not Changd		
Sample Status				ABNORMAL		
DO		ASTM D8184	50	47		
PQ	000		>50	17 5		
Iron Chromium	ppm	ASTM D5185m ASTM D5185m	>32 >9	5 0		
Nickel	ppm			0		
Titanium	ppm	ASTM D5185m ASTM D5185m	>5	0		
	ppm			•		
Silver Aluminum	ppm	ASTM D5185m	>9	0 <1		
Lead	ppm	ASTM D5185m ASTM D5185m	>9 >28	<1		
	ppm		-	-		
Copper Tin	ppm	ASTM D5185m ASTM D5185m	>50	5 0		
	ppm		>5	0		
Vanadium White Metal	ppm	ASTM D5185m	NONE	U NONE		
	scalar	*Visual	NONE			
Yellow Metal	scalar	*Visual	NUNE	NONE		
Silicon	ppm	ASTM D5185m	>11	2		
Potassium	ppm	ASTM D5185m		- <1		
Water		WC Method	>0.075	NEG		
Particles >4µm		ASTM D7647	>80000	16836		
Particles >6µm		ASTM D7647	>20000	1962		
Particles >14µm		ASTM D7647	>640	74		
Particles >21µm		ASTM D7647	>160	22		
Particles >38µm		ASTM D7647	>40	1		
Particles >71µm		ASTM D7647	>10	0		
Oil Cleanliness		ISO 4406 (c)	>23/21/16	21/18/13		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water	scalar	*Visual	>0.075	NEG		
Sodium	ppm	ASTM D5185m	>21	<1		
Boron	ppm	ASTM D5185m		0		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m		0		
Manganese	ppm	ASTM D5185m		0		
Magnesium	ppm	ASTM D5185m		1		
Calcium	ppm	ASTM D5185m		239		
Phosphorus	ppm	ASTM D5185m	827	527		
Zinc	ppm	ASTM D5185m	0	🔺 147		
Sulfur	ppm	ASTM D5185m	13	388		
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.24		
Visc @ 40°C	cSt	ASTM D445	47	46.0		



回清 Sample No. 105 TENNIS CENTER DR. : LEC0050108 Received : 31 May 2024 Lab Number : 06196555 MARIETTA, OH Tested : 03 Jun 2024 Unique Number : 11058678 : 03 Jun 2024 - Don Baldridge US 45750-9765 Diagnosed Test Package : CONST (Additional Tests: PQ) Contact: LEANNE KENDALL Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. KendalLeanne@lec1.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (740)373-5570

Submitted By: STORE 3 - NORTON - BRIAN YOUTZY Page 2 of 2