

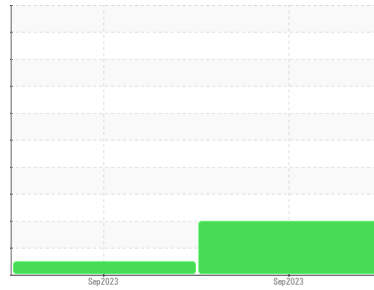


PROBLEM SUMMARY



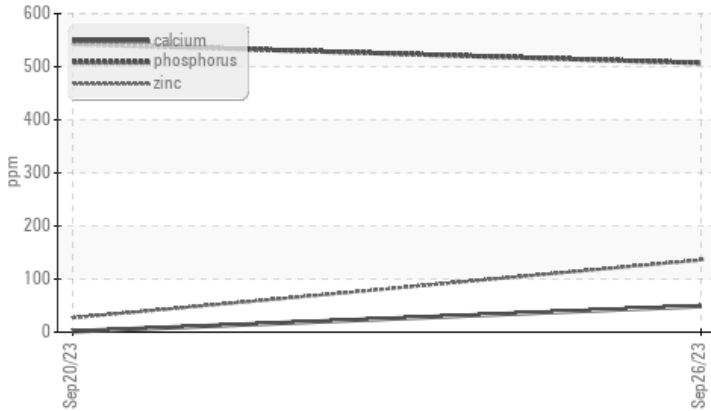
Area
Store 3 - Norton
 Machine Id
JOHN DEERE 300GL 1FF300GXHNF732106
 Component
Hydraulic System
 Fluid
HITACHI HYDRAULIC SUPER EX 46HN (77 GAL)

Sample Rating Trend

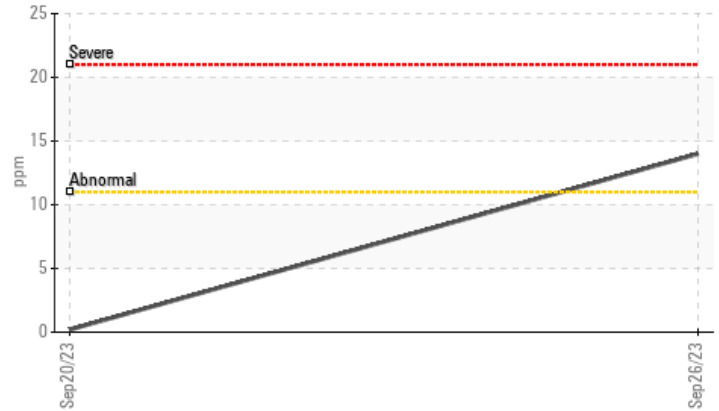


COMPONENT CONDITION SUMMARY

▲ Additives



▲ Silicon (ppm)



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	---
Zinc	ppm	ASTM D5185m	0	▲ 136	27	---
Silicon	ppm	ASTM D5185m	>11	▲ 14	<1	---

Customer Id: LESMAROH
 Sample No.: LEC0043243
 Lab Number: 05963481
 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Don Baldrige +1
don.b505@comcast.net

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil.
Flush System	---	---	?	Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil.

HISTORICAL DIAGNOSIS

20 Sep 2023 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



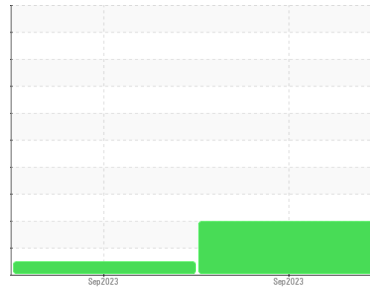


OIL ANALYSIS REPORT



Area
Store 3 - Norton
 Machine Id
JOHN DEERE 300GL 1FF300GXHNF732106
 Component
Hydraulic System
 Fluid
HITACHI HYDRAULIC SUPER EX 46HN (77 GAL)

Sample Rating Trend



DIRT



DIAGNOSIS

▲ Recommendation

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

Wear

All component wear rates are normal.

▲ Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material. 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.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		LEC0043243	LEC0042723	---
Sample Date	Client Info		26 Sep 2023	20 Sep 2023	---
Machine Age	hrs	Client Info	930	471	---
Oil Age	hrs	Client Info	930	471	---
Oil Changed	Client Info		Not Chngd	Not Chngd	---
Sample Status			ABNORMAL	NORMAL	---

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184	>50	12	11	---
Iron	ppm	ASTM D5185m	>32	2	2
Chromium	ppm	ASTM D5185m	>9	0	0
Nickel	ppm	ASTM D5185m	>5	0	0
Titanium	ppm	ASTM D5185m		<1	0
Silver	ppm	ASTM D5185m		0	0
Aluminum	ppm	ASTM D5185m	>9	<1	1
Lead	ppm	ASTM D5185m	>28	<1	0
Copper	ppm	ASTM D5185m	>50	7	2
Tin	ppm	ASTM D5185m	>5	0	0
Vanadium	ppm	ASTM D5185m		0	0
Cadmium	ppm	ASTM D5185m		0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0
Barium	ppm	ASTM D5185m		0	0
Molybdenum	ppm	ASTM D5185m		1	0
Manganese	ppm	ASTM D5185m		<1	0
Magnesium	ppm	ASTM D5185m		<1	2
Calcium	ppm	ASTM D5185m		49	1
Phosphorus	ppm	ASTM D5185m	827	507	543
Zinc	ppm	ASTM D5185m	0	▲ 136	27
Sulfur	ppm	ASTM D5185m	13	651	106

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>11	▲ 14	<1
Sodium	ppm	ASTM D5185m	>21	1	2
Potassium	ppm	ASTM D5185m	>20	<1	4

FLUID CLEANLINESS

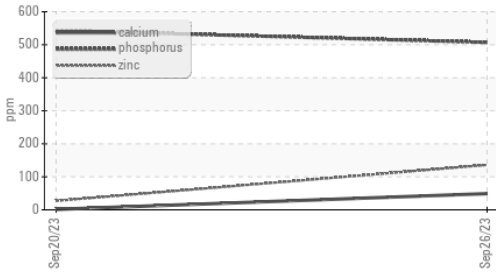
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>80000	6353	4938	---
Particles >6µm	ASTM D7647	>20000	1681	1121	---
Particles >14µm	ASTM D7647	>640	56	65	---
Particles >21µm	ASTM D7647	>160	12	14	---
Particles >38µm	ASTM D7647	>40	0	1	---
Particles >71µm	ASTM D7647	>10	0	0	---
Oil Cleanliness	ISO 4406 (c)	>23/21/16	20/18/13	19/17/13	---

FLUID DEGRADATION

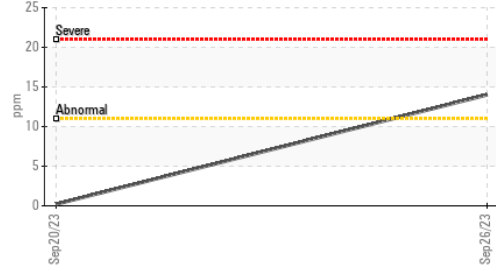
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.25	0.14

OIL ANALYSIS REPORT

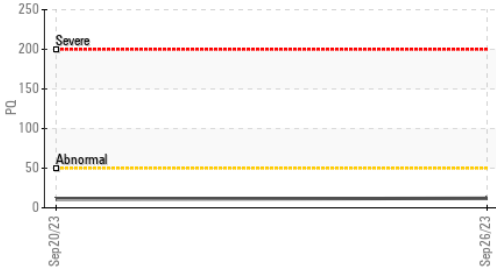
▲ Additives



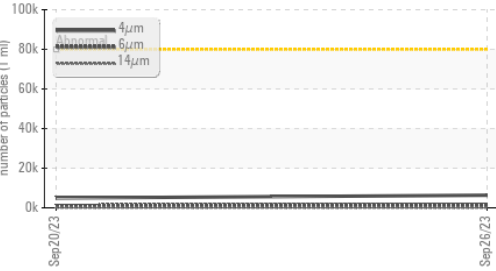
▲ Silicon (ppm)



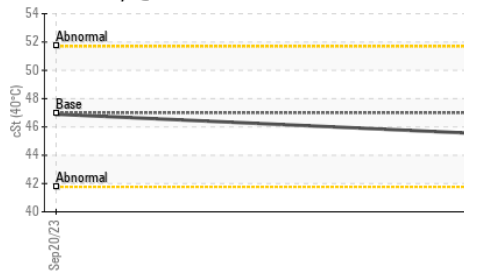
PQ



Particle Trend



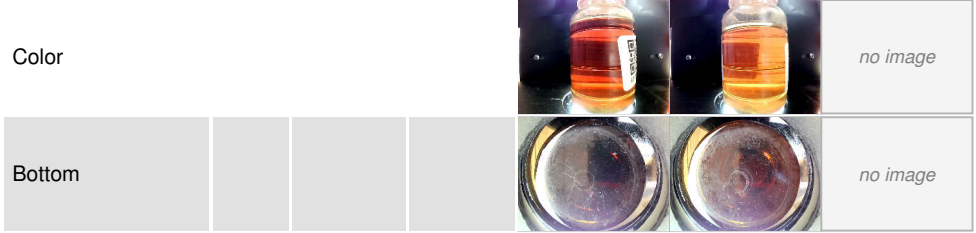
Viscosity @ 40°C



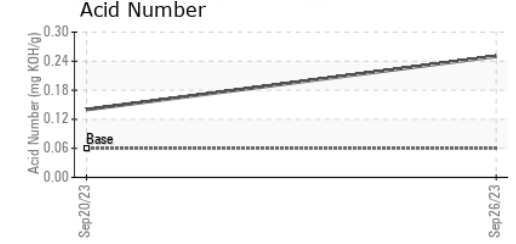
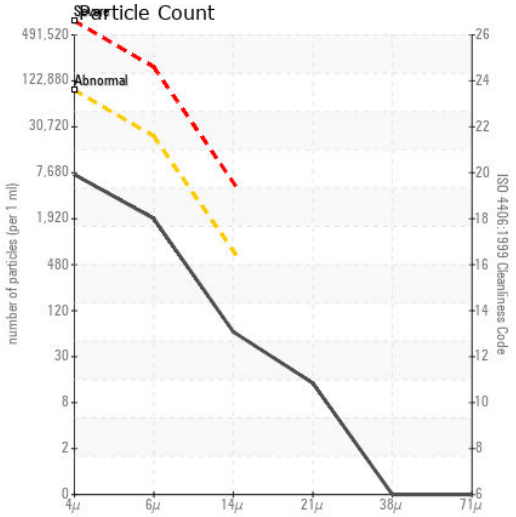
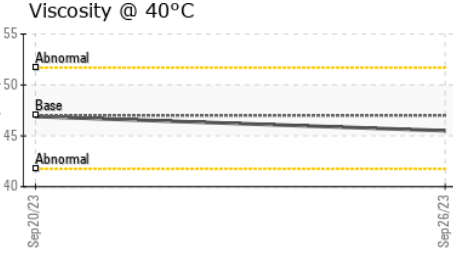
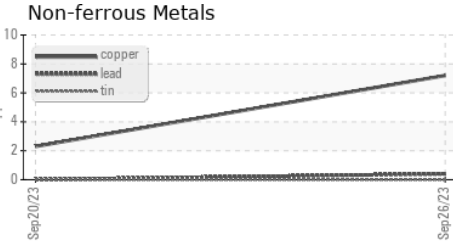
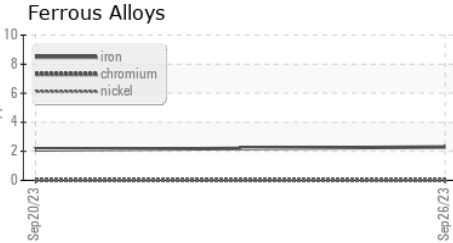
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.075	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 47	45.5	46.9	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0043243 **Received** : 28 Sep 2023
Lab Number : **05963481** **Diagnosed** : 29 Sep 2023
Unique Number : 10670032 **Diagnostician** : Don Baldrige
Test Package : CONST (Additional Tests: PQ)

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 Contact: LEANNE KENDALL
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 F: (740)373-5570

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)