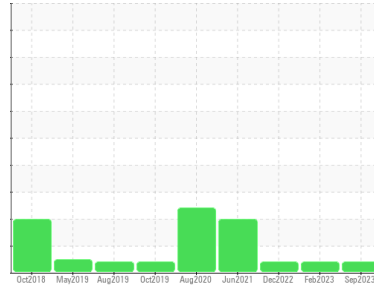


PROBLEM SUMMARY

Sample Rating Trend



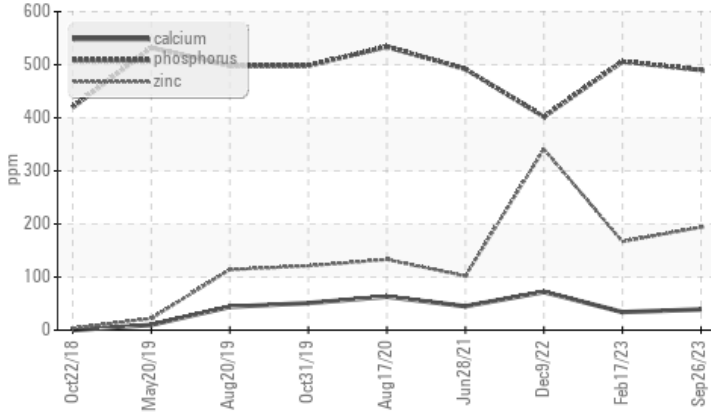
ADDITIVES



Machine Id
JOHN DEERE 350G 1FF350GXVCE808679
Component
Hydraulic System
Fluid
HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Additives



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	ABNORMAL	ABNORMAL
Zinc	ppm	ASTM D5185m	0	▲ 194	▲ 167	▲ 341

Customer Id: JAMASH
Sample No.: JR0179315
Lab Number: 05966166
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

17 Feb 2023 Diag: Don Baldrige

ADDITIVES



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. The amount and size of particulates present in the system are acceptable. Zinc level above manufacturer's recommendations. The AN level is acceptable for this fluid.

[view report](#)



09 Dec 2022 Diag: Jonathan Hester

ADDITIVES



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. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. Zinc level above manufacturer's recommendations. The AN level is acceptable for this fluid.

[view report](#)



28 Jun 2021 Diag: Don Baldrige

WEAR



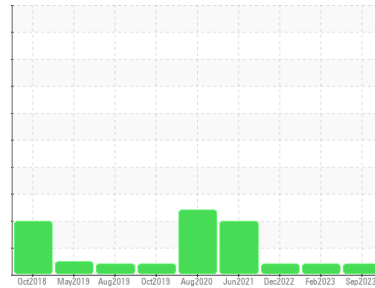
Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil. The iron level is abnormal. The aluminum level is abnormal. The amount and size of particulates present in the system are acceptable. Zinc level above manufacturer's recommendations. The AN level is acceptable for this fluid.

[view report](#)



OIL ANALYSIS REPORT

Sample Rating Trend



ADDITIVES



Machine Id
JOHN DEERE 350G 1FF350GXVCE808679
Component
Hydraulic System
Fluid
HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)

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

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		JR0179315	JR0147995	JR0148243
Sample Date	Client Info		26 Sep 2023	17 Feb 2023	09 Dec 2022
Machine Age	hrs	Client Info	8979	8468	8350
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		Not Chngd	Not Chngd	Changed
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2	
PQ	ASTM D8184	>50	15	8	12	
Iron	ppm	ASTM D5185m	>32	5	5	9
Chromium	ppm	ASTM D5185m	>9	1	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>9	<1	1	2
Lead	ppm	ASTM D5185m	>28	0	0	0
Copper	ppm	ASTM D5185m	>50	<1	<1	1
Tin	ppm	ASTM D5185m	>5	0	<1	0
Antimony	ppm	ASTM D5185m		---	---	---
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	0	0	5	
Barium	ppm	ASTM D5185m	0	0	0	
Molybdenum	ppm	ASTM D5185m	2	2	4	
Manganese	ppm	ASTM D5185m	0	0	<1	
Magnesium	ppm	ASTM D5185m	8	6	14	
Calcium	ppm	ASTM D5185m	39	34	72	
Phosphorus	ppm	ASTM D5185m	827	490	506	402
Zinc	ppm	ASTM D5185m	0	▲ 194	▲ 167	▲ 341
Sulfur	ppm	ASTM D5185m	13	614	672	1277

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>11	2	1	2
Sodium	ppm	ASTM D5185m	>21	0	<1	0
Potassium	ppm	ASTM D5185m	>20	<1	0	1

FLUID CLEANLINESS

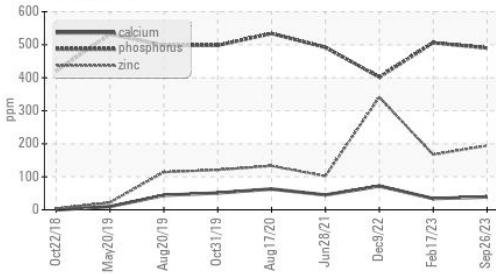
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>80000	8426	20658	32661
Particles >6µm	ASTM D7647	>20000	703	2196	2576
Particles >14µm	ASTM D7647	>640	32	97	28
Particles >21µm	ASTM D7647	>160	8	21	5
Particles >38µm	ASTM D7647	>40	0	2	0
Particles >71µm	ASTM D7647	>10	0	0	0
Oil Cleanliness	ISO 4406 (c)	>23/21/16	20/17/12	22/18/14	22/19/12

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.26	0.26	0.38

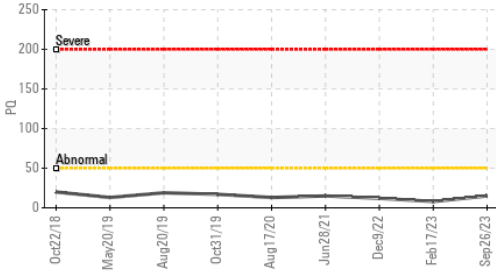
OIL ANALYSIS REPORT

Additives



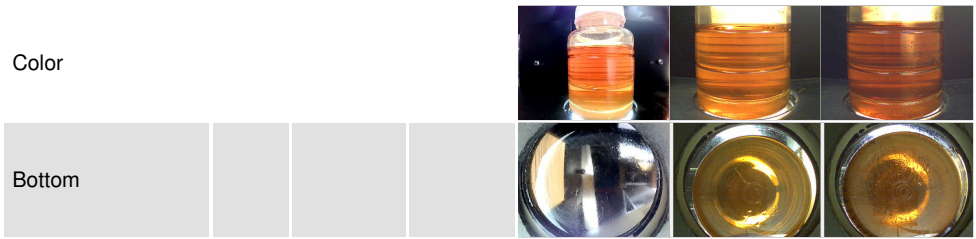
PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

PQ

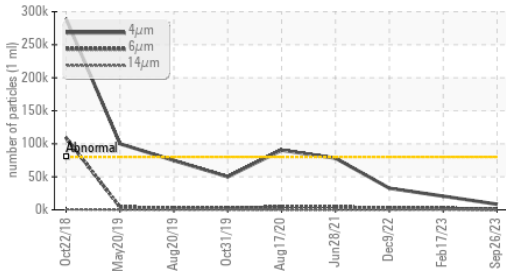


FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	47	44.6	45.4

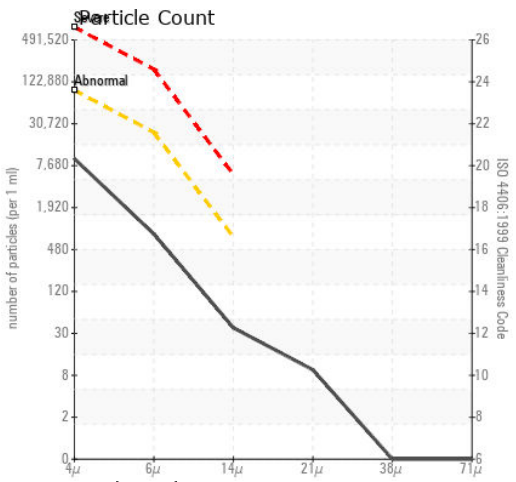
SAMPLE IMAGES	method	limit/base	current	history1	history2
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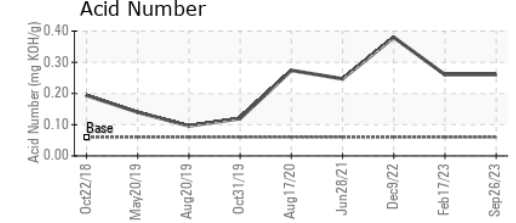
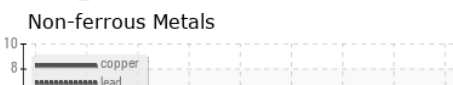
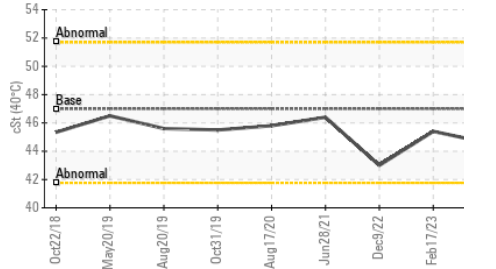
Particle Trend



GRAPHS



Viscosity @ 40°C



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0179315 **Received** : 02 Oct 2023
Lab Number : 05966166 **Diagnosed** : 03 Oct 2023
Unique Number : 10672717 **Diagnostician** : Don Baldrige
Test Package : CONST (Additional Tests: PQ)

JRE - ASHLAND
 11047 LEADBETTER RD
 ASHLAND, VA
 US 23005
 Contact: DAVID ZIEG
 dzieg@jamesriverequipment.com
 T: (804)798-6001
 F: (804)798-0292

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)