



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

[05W48014]

Machine Id

JOHN DEERE 345G 1FF345GXLKF020612

Component

Hydraulic System

Fluid

HITACHI HYDRAULIC SUPER EX 46HN (220 QTS)

RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to metal particles present in this sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0225535	JR0187485	JR0168908
Sample Date		Client Info		11 Jul 2024	26 Sep 2023	24 Apr 2023
Machine Age	hrs	Client Info		2453	1942	1440
Oil Age	hrs	Client Info		2453	1942	1440
Filter Age	hrs	Client Info		511	0	490
Oil Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Filter Changed		Client Info		Not Chngd	Changed	Not Chngd
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

Moderate concentration of visible metal present. All component wear rates are normal.

Test	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184	>50	14	10	11
Iron	ppm	ASTM D5185m	>32	15	11	10
Chromium	ppm	ASTM D5185m	>9	<1	0	0
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>9	3	0	0
Lead	ppm	ASTM D5185m	>28	<1	0	<1
Copper	ppm	ASTM D5185m	>50	2	2	2
Tin	ppm	ASTM D5185m	>5	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	MODER	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

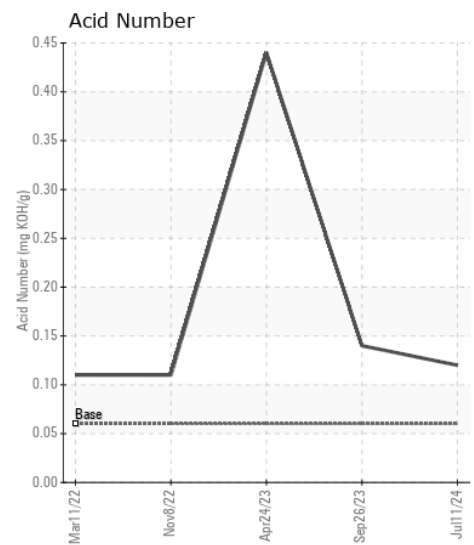
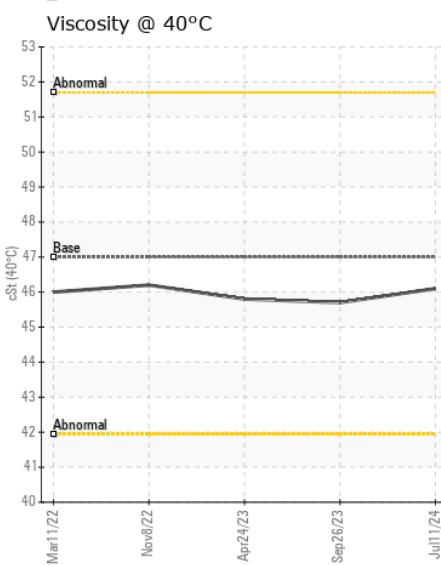
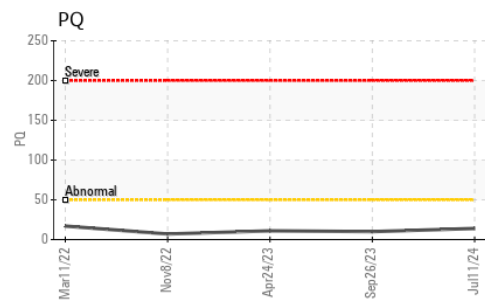
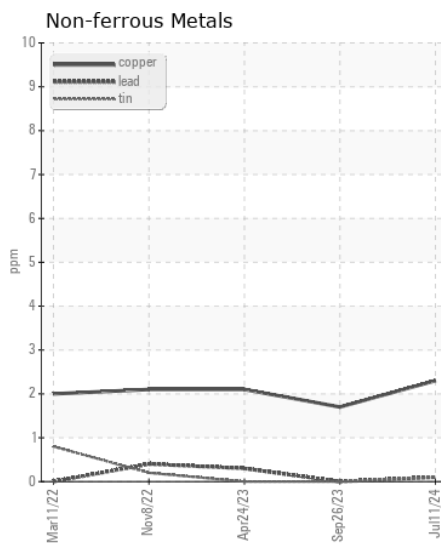
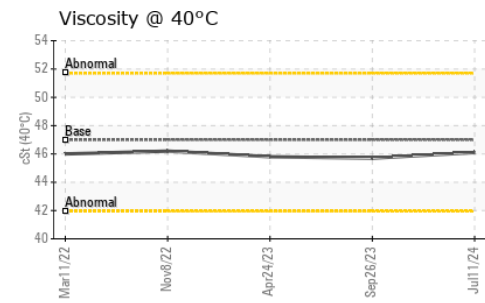
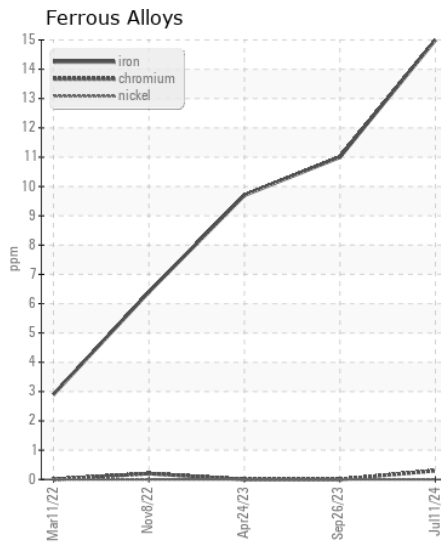
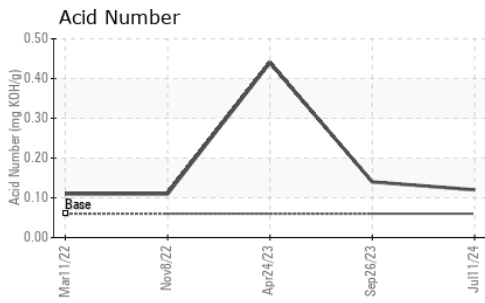
No other contaminants were detected in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Silicon	ppm	ASTM D5185m	>11	2	1	2
Potassium	ppm	ASTM D5185m	>20	2	0	1
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	---	7547	1374
Particles >6µm		ASTM D7647	>20000	---	2711	240
Particles >14µm		ASTM D7647	>640	---	288	19
Particles >21µm		ASTM D7647	>160	---	70	7
Particles >38µm		ASTM D7647	>40	---	1	0
Particles >71µm		ASTM D7647	>10	---	1	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	---	20/19/15	18/15/11
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.075	NEG	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sodium	ppm	ASTM D5185m	>21	0	1	0
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		1	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		1	0	1
Calcium	ppm	ASTM D5185m		0	3	5
Phosphorus	ppm	ASTM D5185m	827	436	527	494
Zinc	ppm	ASTM D5185m	0	54	35	45
Sulfur	ppm	ASTM D5185m	13	142	165	148
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.12	0.14	0.44
Visc @ 40°C	cSt	ASTM D445	47	46.1	45.7	45.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0225535 **Received** : 15 Jul 2024
Lab Number : 06235793 **Tested** : 16 Jul 2024
Unique Number : 11124627 **Diagnosed** : 16 Jul 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

JRE - MANASSAS PARK
 9107 OWENS DRIVE
 MANASSAS PARK, VA
 US 20111

Contact: BRANDON RATLIFF
 brandon.ratliff@jamesriverequipment.com

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)

T:
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