



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Area
[W52680]

Machine Id
JOHN DEERE 245G 1FF245GXLJF800636

Component
Hydraulic System

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

RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0224545	JR0106311	JRMC454926
Sample Date		Client Info		08 Jul 2024	17 Nov 2021	09 Nov 2018
Machine Age	hrs	Client Info		5657	3984	548
Oil Age	hrs	Client Info		0	0	548
Filter Age	hrs	Client Info		0	0	548
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Changed	Changed	Not Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	20	18	15
Iron	ppm	ASTM D5185m	>32	12	8	2
Chromium	ppm	ASTM D5185m	>9	<1	<1	0
Nickel	ppm	ASTM D5185m	>5	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>9	2	<1	<1
Lead	ppm	ASTM D5185m	>28	1	2	<1
Copper	ppm	ASTM D5185m	>50	4	5	2
Tin	ppm	ASTM D5185m	>5	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

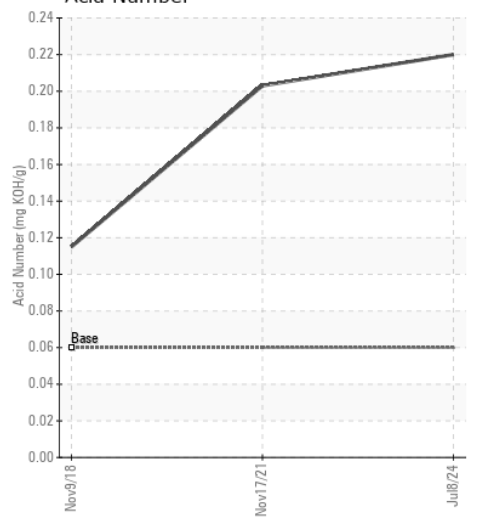
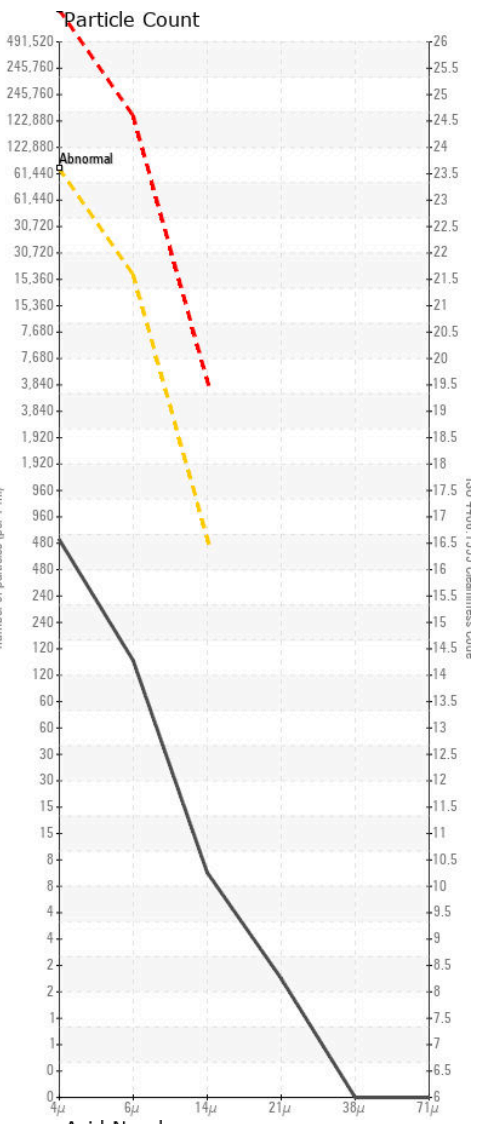
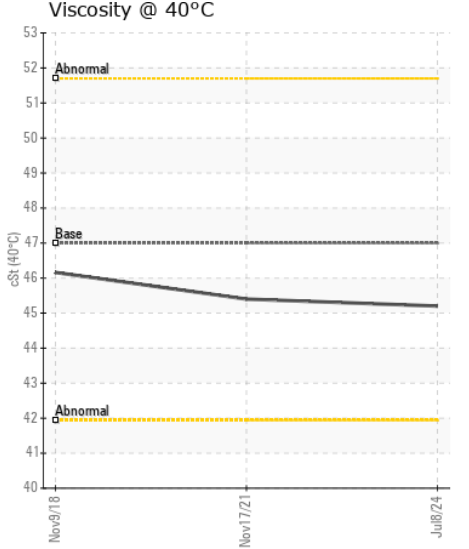
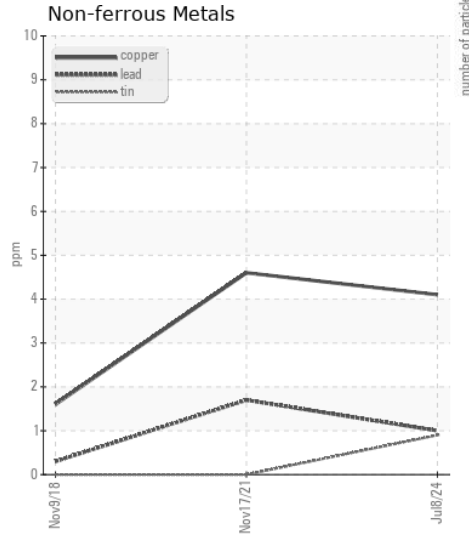
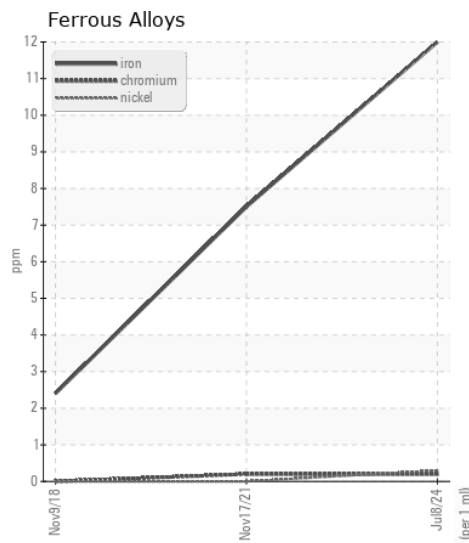
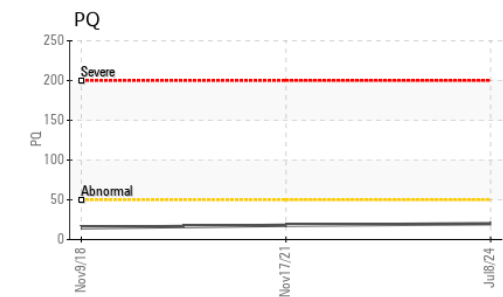
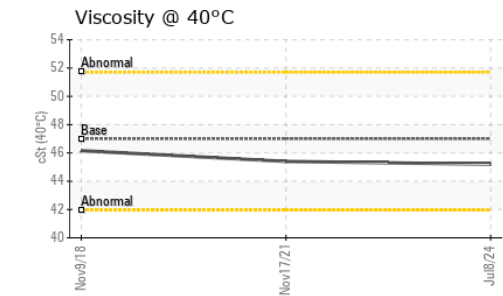
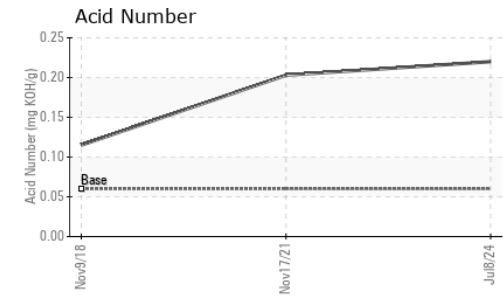
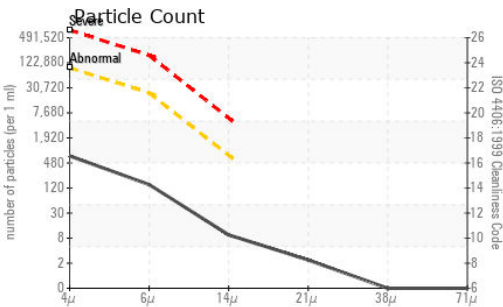
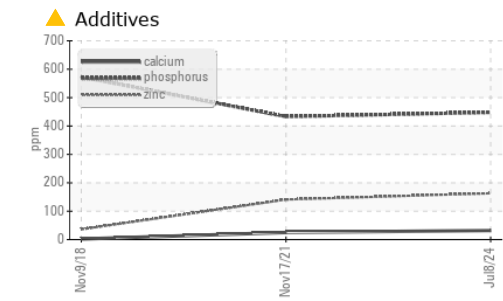
The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	2	1	0
Potassium	ppm	ASTM D5185m	>20	2	4	0
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	624	902	2756
Particles >6µm		ASTM D7647	>20000	128	127	222
Particles >14µm		ASTM D7647	>640	8	16	13
Particles >21µm		ASTM D7647	>160	2	4	2
Particles >38µm		ASTM D7647	>40	0	0	2
Particles >71µm		ASTM D7647	>10	0	0	1
Oil Cleanliness		ISO 4406 (c)	>23/21/16	16/14/10	17/14/11	19/15/11
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

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

Sodium	ppm	ASTM D5185m	>21	0	1	<1
Boron	ppm	ASTM D5185m		0	<1	0
Barium	ppm	ASTM D5185m		1	0	<1
Molybdenum	ppm	ASTM D5185m		1	<1	0
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		6	4	<1
Calcium	ppm	ASTM D5185m		32	25	2
Phosphorus	ppm	ASTM D5185m	827	448	433	573
Zinc	ppm	ASTM D5185m	0	▲ 163	▲ 141	36
Sulfur	ppm	ASTM D5185m	13	320	353	192
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.22	0.203	0.115
Visc @ 40°C	cSt	ASTM D445	47	45.2	45.4	46.16



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0224545 **Received** : 09 Jul 2024
Lab Number : 06231410 **Tested** : 10 Jul 2024
Unique Number : 11114903 **Diagnosed** : 10 Jul 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

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)

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