



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Area

[46758]

Machine Id

JOHN DEERE 245G 1FF245GXLNF802693

Component

Hydraulic System

Fluid

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

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		JR0214480	JR0132176	JR0199491
Sample Date		Client Info		20 May 2024	14 Mar 2024	27 Dec 2023
Machine Age	hrs	Client Info		3511	2990	2467
Oil Age	hrs	Client Info		3511	2990	2467
Filter Age	hrs	Client Info		0	0	2467
Oil Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Filter Changed		Client Info		Not Chngd	Changed	Not Chngd
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>20	5	4	6
Chromium	ppm	ASTM D5185m	>10	0	0	<1
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	<1	0	2
Lead	ppm	ASTM D5185m	>10	<1	0	0
Copper	ppm	ASTM D5185m	>75	4	4	5
Tin	ppm	ASTM D5185m	>10	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

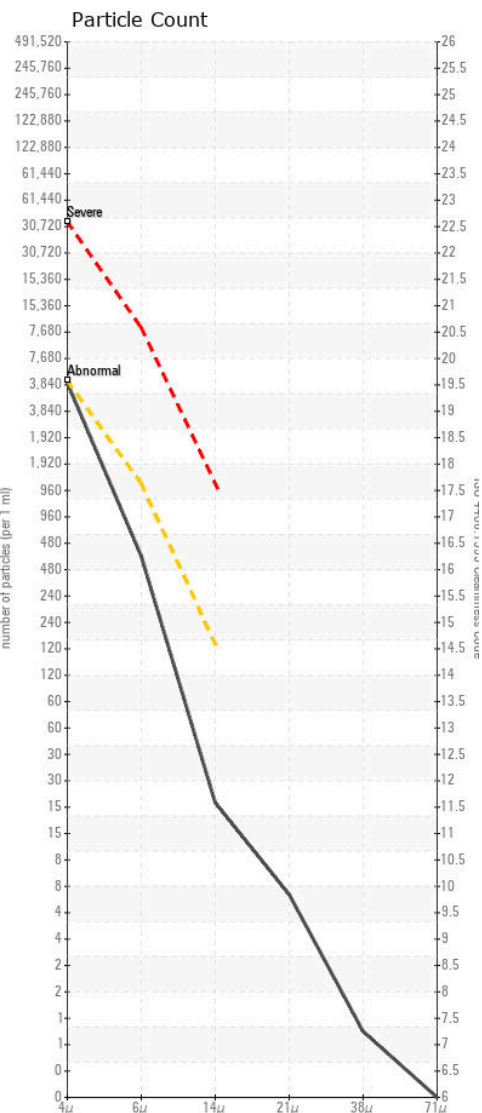
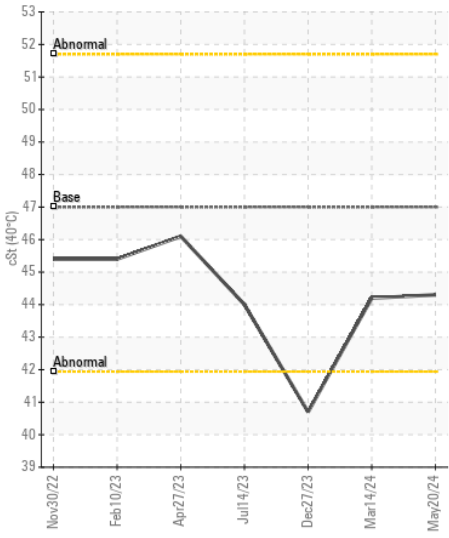
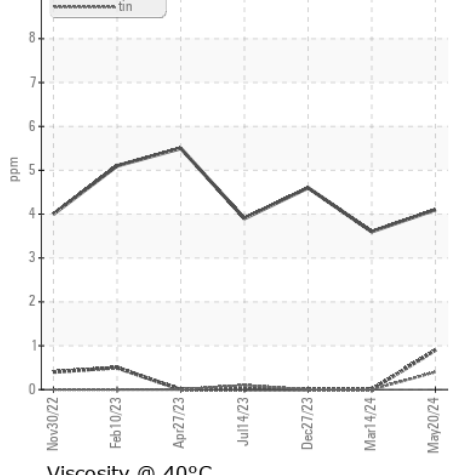
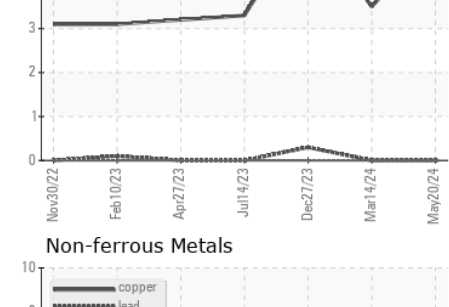
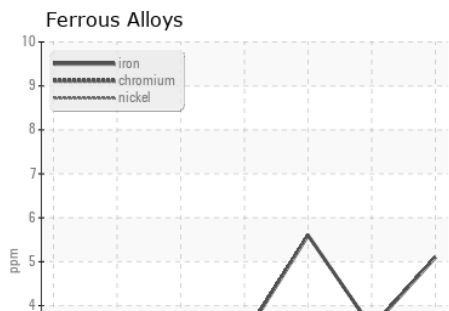
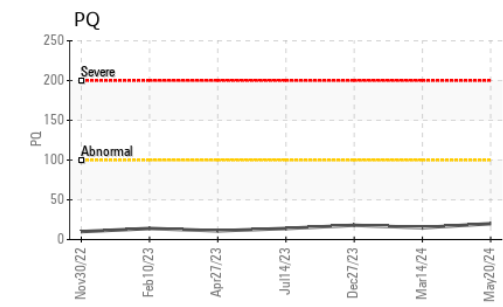
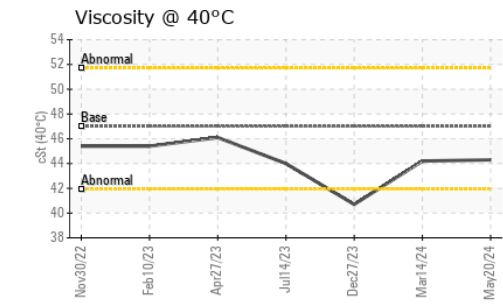
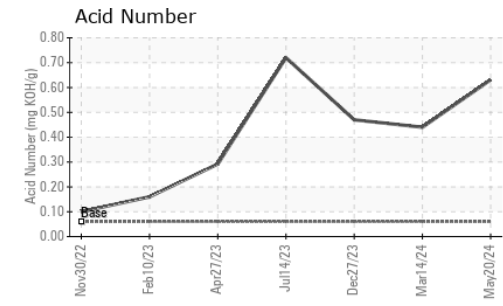
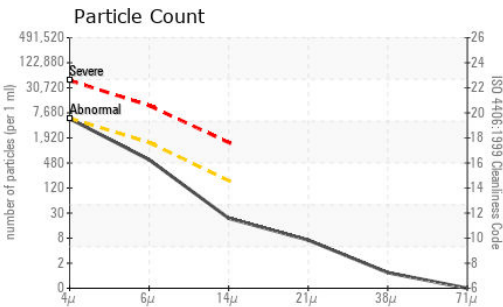
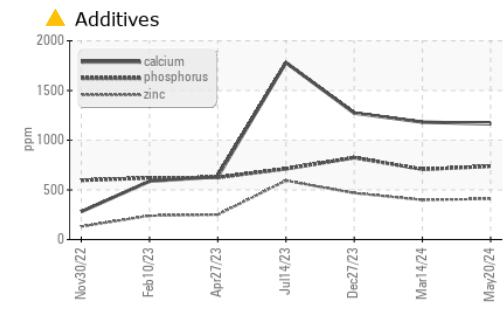
The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>20	3	2	4
Potassium	ppm	ASTM D5185m	>20	0	0	2
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	4865	▲ 10706	▲ 204184
Particles >6µm		ASTM D7647	>1300	504	▲ 2000	▲ 142713
Particles >14µm		ASTM D7647	>160	20	155	▲ 36508
Particles >21µm		ASTM D7647	>40	6	44	▲ 13137
Particles >38µm		ASTM D7647	>10	1	3	▲ 861
Particles >71µm		ASTM D7647	>3	0	0	▲ 33
Oil Cleanliness		ISO 4406 (c)	>19/17/14	19/16/11	▲ 21/18/14	▲ 25/24/22
Silt	scalar	*Visual	NONE	NONE	NONE	LIGHT
Debris	scalar	*Visual	NONE	LIGHT	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	>0.1	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		1	<1	<1
Boron	ppm	ASTM D5185m		4	5	6
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		6	4	6
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m		33	27	41
Calcium	ppm	ASTM D5185m		1165	1182	1273
Phosphorus	ppm	ASTM D5185m	827	738	707	824
Zinc	ppm	ASTM D5185m	0	▲ 410	▲ 398	▲ 468
Sulfur	ppm	ASTM D5185m	13	2696	2549	2758
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.631	0.44	0.47
Visc @ 40°C	cSt	ASTM D445	47	44.3	44.2	40.7



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0214480 **Received** : 21 May 2024
Lab Number : 06186055 **Tested** : 22 May 2024
Unique Number : 11042807 **Diagnosed** : 23 May 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

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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)