



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Area
[05W45500]
 Machine Id
JOHN DEERE 245G 1FF245GXTLF801761
 Component
Hydraulic System
 Fluid
HITACHI HYDRAULIC SUPER EX 46HN (35 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		JR0208344	JR0181949	JR0157287
Sample Date		Client Info		18 Mar 2024	15 Aug 2023	19 Jan 2023
Machine Age	hrs	Client Info		2441	1942	1478
Oil Age	hrs	Client Info		2441	1942	1478
Filter Age	hrs	Client Info		500	0	0
Oil Changed		Client Info		Not Chngd	N/A	N/A
Filter Changed		Client Info		Not Chngd	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	11	15	12
Iron	ppm	ASTM D5185m	>32	11	9	9
Chromium	ppm	ASTM D5185m	>9	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	1	0
Aluminum	ppm	ASTM D5185m	>9	0	<1	0
Lead	ppm	ASTM D5185m	>28	0	<1	<1
Copper	ppm	ASTM D5185m	>50	8	5	1
Tin	ppm	ASTM D5185m	>5	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

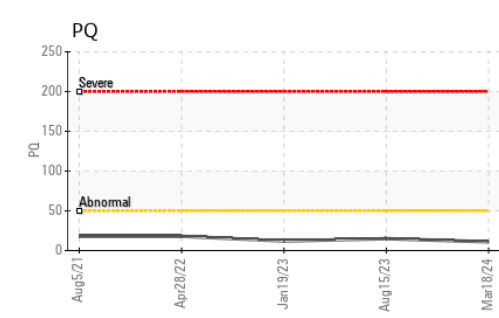
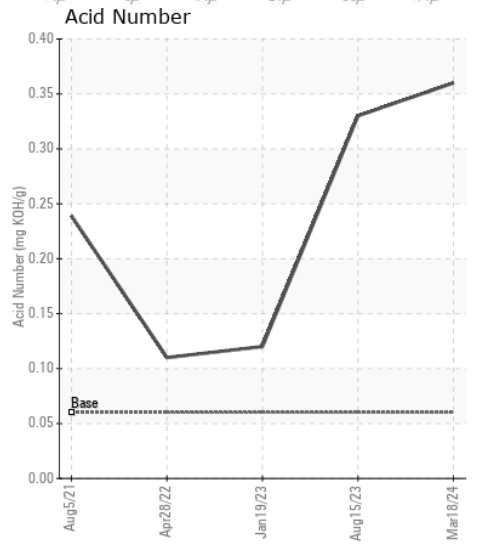
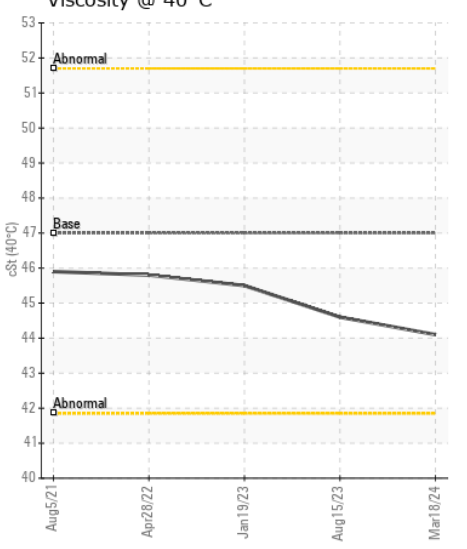
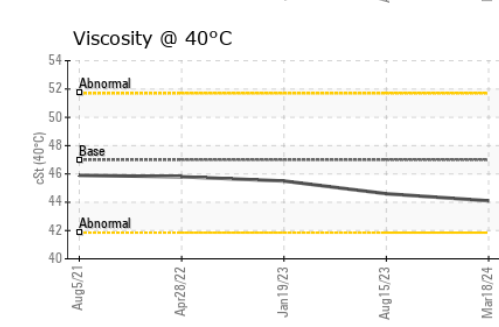
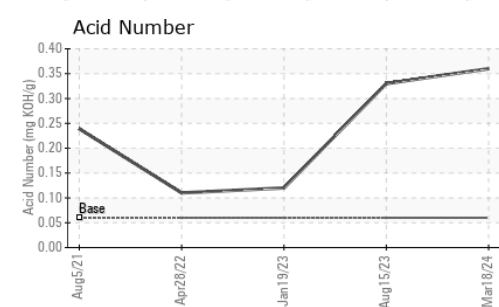
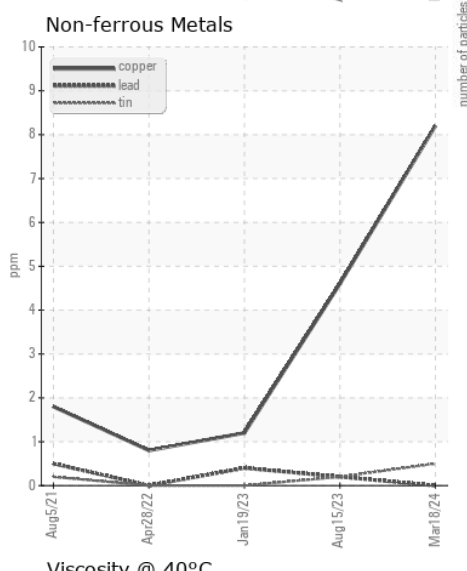
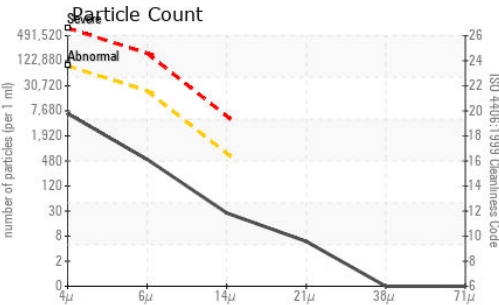
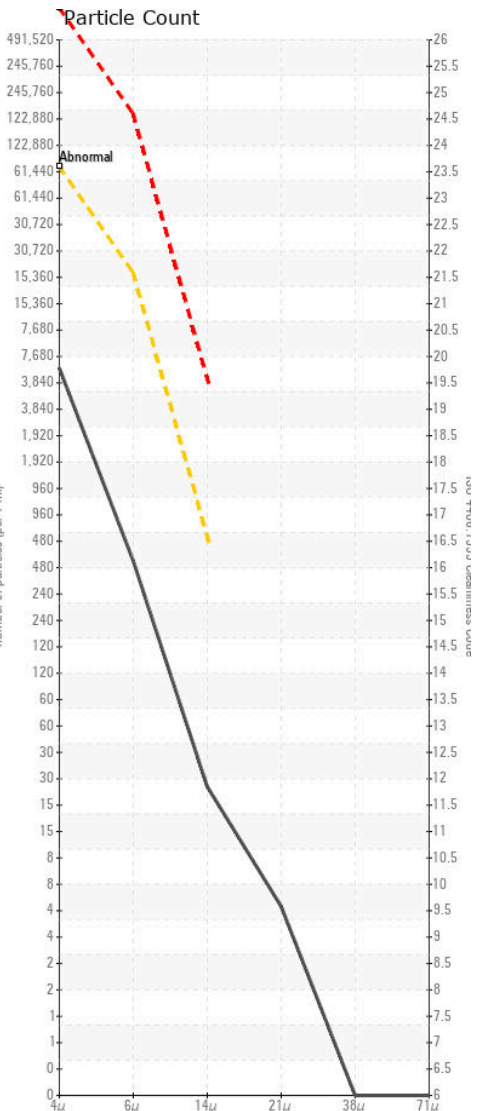
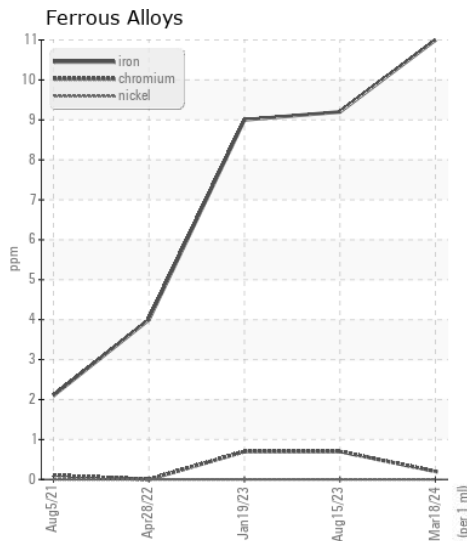
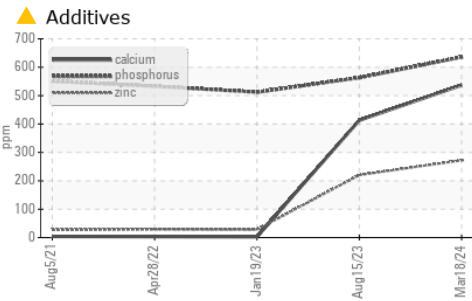
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	3	3	1
Potassium	ppm	ASTM D5185m	>20	0	3	1
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	5746	35224	3284
Particles >6µm		ASTM D7647	>20000	460	10625	623
Particles >14µm		ASTM D7647	>640	24	1054	54
Particles >21µm		ASTM D7647	>160	5	330	11
Particles >38µm		ASTM D7647	>40	0	16	2
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	20/16/12	22/21/17	19/16/13
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	2	2	<1
Boron	ppm	ASTM D5185m		15	14	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		4	2	0
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		18	16	0
Calcium	ppm	ASTM D5185m		537	413	3
Phosphorus	ppm	ASTM D5185m	827	636	563	512
Zinc	ppm	ASTM D5185m	0	272	220	28
Sulfur	ppm	ASTM D5185m	13	681	528	0
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.36	0.33	0.12
Visc @ 40°C	cSt	ASTM D445	47	44.1	44.6	45.5



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0208344 **Received** : 21 Mar 2024
Lab Number : 06125586 **Tested** : 26 Mar 2024
Unique Number : 10939737 **Diagnosed** : 26 Mar 2024 - Jonathan Hester
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)