



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[38542]
 Machine Id
JOHN DEERE 245G 1FF245GXLHF800470
 Component
Hydraulic System
 Fluid
HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0160212	JR0132142	JR0111471
Sample Date		Client Info		16 Feb 2023	26 May 2022	02 Nov 2021
Machine Age	hrs	Client Info		4440	3958	3468
Oil Age	hrs	Client Info		4440	3468	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Not Changd	Not Changd
Filter Changed		Client Info		N/A	Changed	Not Changd
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	12	21	16
Iron	ppm	ASTM D5185m	>32	11	11	10
Chromium	ppm	ASTM D5185m	>9	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	<1	0
Aluminum	ppm	ASTM D5185m	>9	<1	1	0
Lead	ppm	ASTM D5185m	>28	<1	0	<1
Copper	ppm	ASTM D5185m	>50	1	1	1
Tin	ppm	ASTM D5185m	>5	0	<1	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

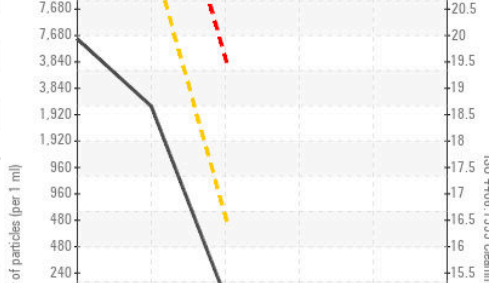
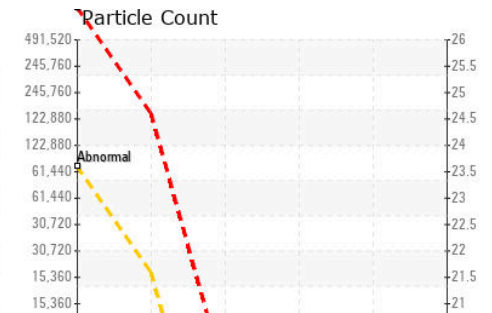
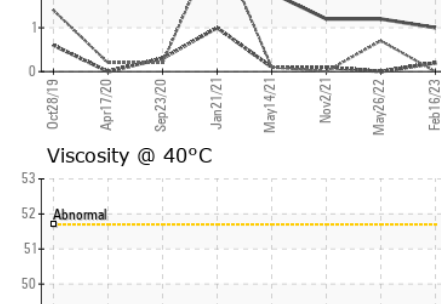
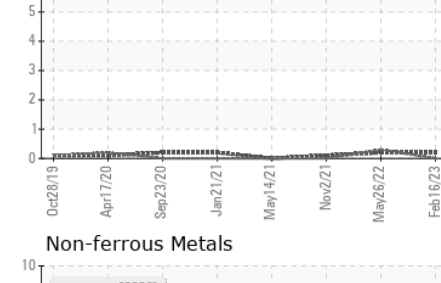
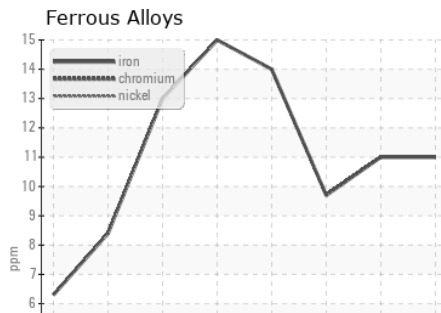
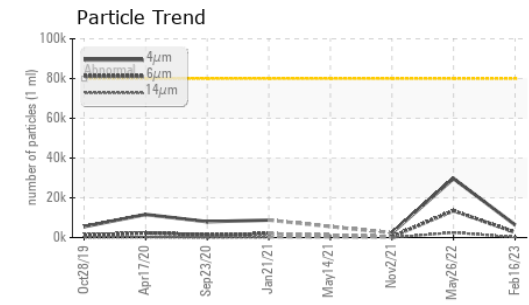
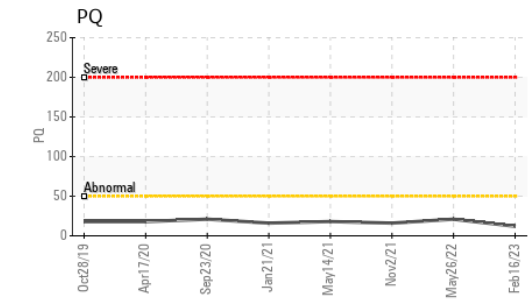
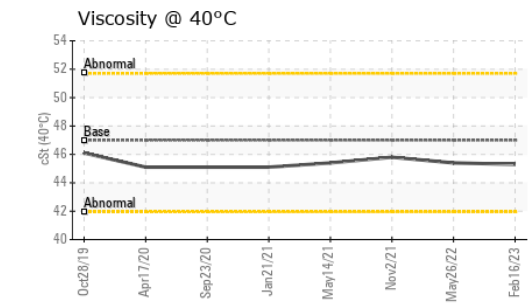
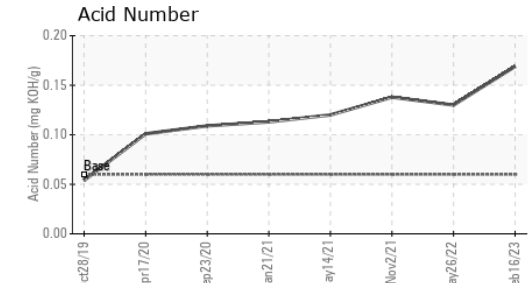
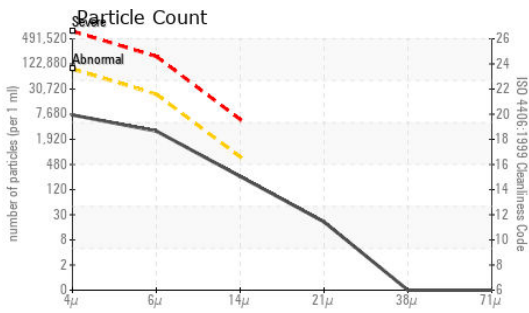
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>11	2	2	<1
Potassium	ppm	ASTM D5185m	>20	2	0	<1
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	6390	29700	2318
Particles >6µm		ASTM D7647	>20000	2648	13490	430
Particles >14µm		ASTM D7647	>640	219	▲ 2530	28
Particles >21µm		ASTM D7647	>160	18	▲ 587	8
Particles >38µm		ASTM D7647	>40	0	38	0
Particles >71µm		ASTM D7647	>10	0	1	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	20/19/15	▲ 22/21/19	18/16/12
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	MODER
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 suitable for further service.

Sodium	ppm	ASTM D5185m	>21	0	<1	0
Boron	ppm	ASTM D5185m		0	0	1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	<1
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		<1	0	<1
Calcium	ppm	ASTM D5185m		14	0	28
Phosphorus	ppm	ASTM D5185m	827	472	455	530
Zinc	ppm	ASTM D5185m	0	24	23	26
Sulfur	ppm	ASTM D5185m	13	130	0	229
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.169	0.13	0.138
Visc @ 40°C	cSt	ASTM D445	47	45.3	45.4	45.8



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0160212 **Received** : 20 Feb 2023
Lab Number : 05771871 **Diagnosed** : 21 Feb 2023
Unique Number : 10346488 **Diagnostician** : 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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