



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
JOHN DEERE 350G 1FF350GXCKF814067

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		JR0197445	JR0190790	JR0121970
Sample Date		Client Info		28 Jan 2024	27 Nov 2023	16 Feb 2023
Machine Age	hrs	Client Info		4571	4023	3222
Oil Age	hrs	Client Info		4571	4023	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Chngd	Not Chngd	N/A
Filter Changed		Client Info		Not Chngd	Changed	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>32	17	23	12
Chromium	ppm	ASTM D5185m	>9	<1	<1	0
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>9	6	6	2
Lead	ppm	ASTM D5185m	>28	<1	1	<1
Copper	ppm	ASTM D5185m	>50	2	3	2
Tin	ppm	ASTM D5185m	>5	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

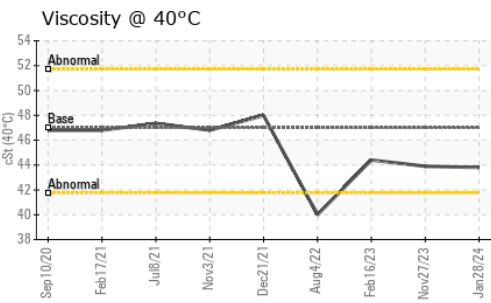
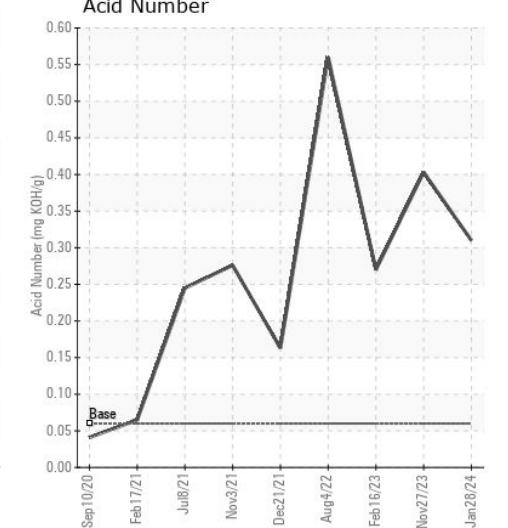
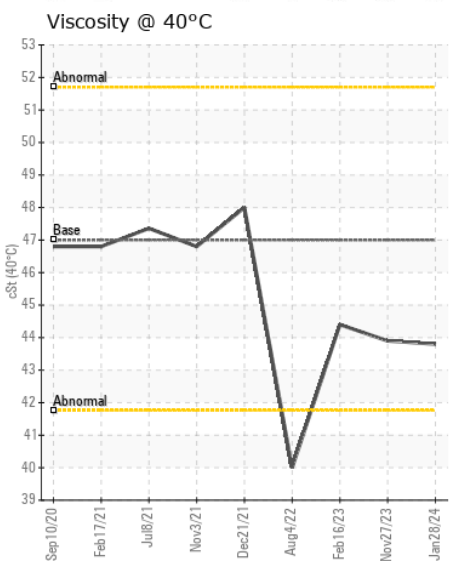
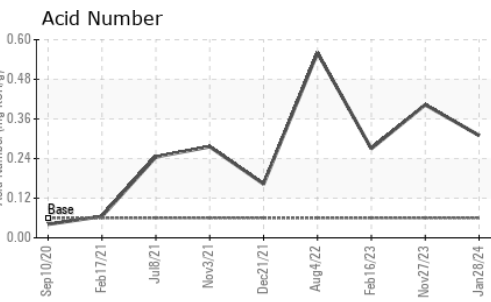
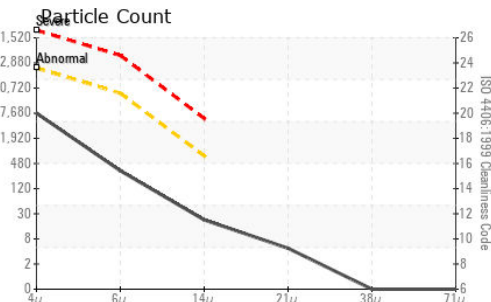
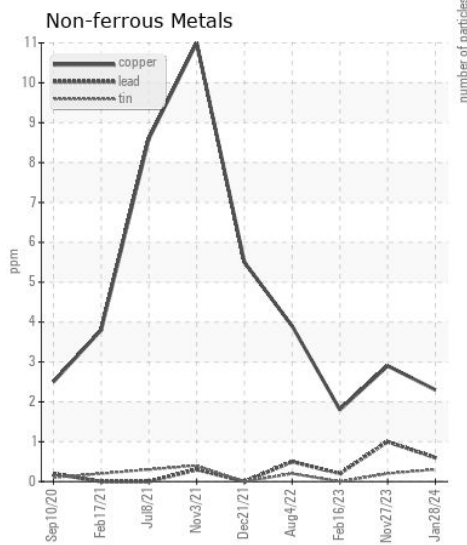
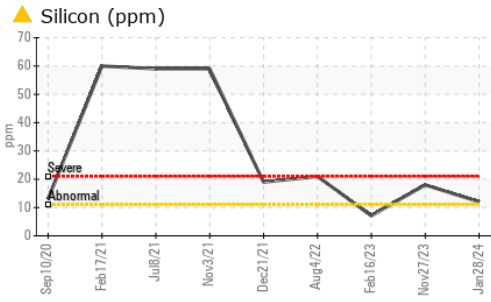
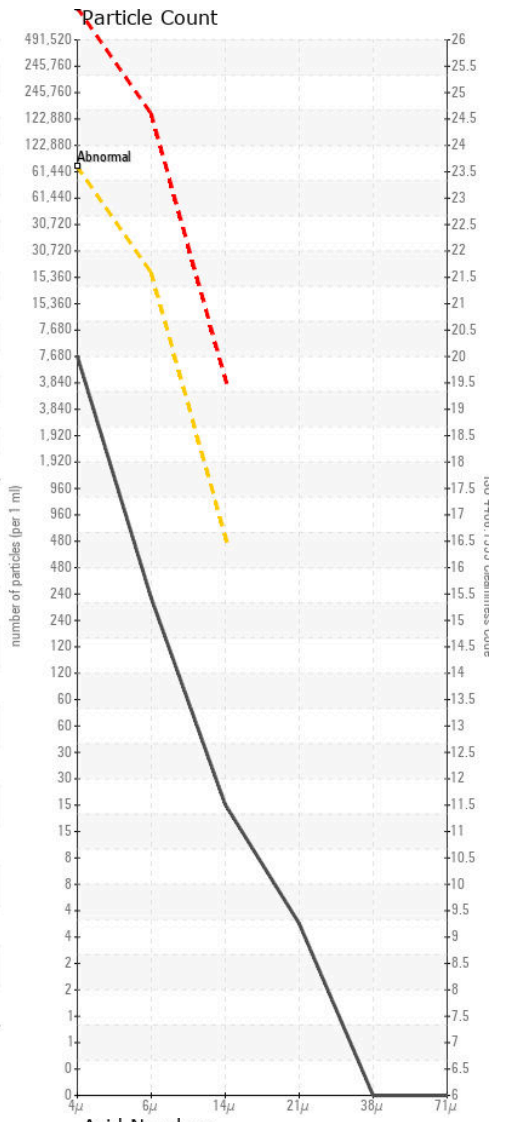
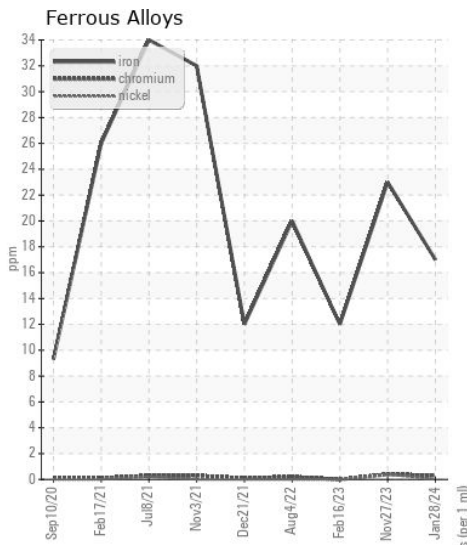
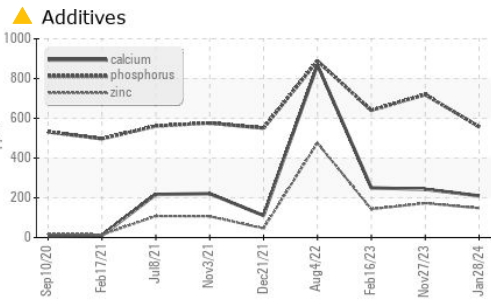
Elemental level of silicon (Si) above normal. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	▲ 12	▲ 18	7
Potassium	ppm	ASTM D5185m	>20	3	3	2
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	6726	43111	46571
Particles >6µm		ASTM D7647	>20000	283	667	1281
Particles >14µm		ASTM D7647	>640	19	32	12
Particles >21µm		ASTM D7647	>160	4	9	4
Particles >38µm		ASTM D7647	>40	0	1	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	20/15/11	23/17/12	23/17/11
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	0	0
Boron	ppm	ASTM D5185m		7	11	13
Barium	ppm	ASTM D5185m		0	4	0
Molybdenum	ppm	ASTM D5185m		<1	<1	<1
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m		6	8	6
Calcium	ppm	ASTM D5185m		210	243	250
Phosphorus	ppm	ASTM D5185m	827	558	719	640
Zinc	ppm	ASTM D5185m	0	▲ 148	▲ 173	▲ 143
Sulfur	ppm	ASTM D5185m	13	367	472	372
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.31	0.403	0.27
Visc @ 40°C	cSt	ASTM D445	47	43.8	43.9	44.4



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0197445 **Received** : 30 Jan 2024
Lab Number : 06074626 **Diagnosed** : 01 Feb 2024
Unique Number : 10856717 **Diagnostician** : Don Baldrige
Test Package : CONST (Additional Tests: PQ)

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 T: (919)614-2260
 F: (919)779-5432

Certificate L2367
 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)