



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area

[44506]

Machine Id

JOHN DEERE 85G 1FF085GXAMJ022510

Component

Hydraulic System

Fluid

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

RECOMMENDATION

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0199102	JR0182103	JR0149960
Sample Date		Client Info		12 Feb 2024	09 Aug 2023	17 Mar 2023
Machine Age	hrs	Client Info		2914	2407	1919
Oil Age	hrs	Client Info		1456	1437	1424
Filter Age	hrs	Client Info		0	1437	0
Oil Changed		Client Info		Not Changd	Not Changd	N/A
Filter Changed		Client Info		Changed	Not Changd	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Test	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184	>50	16	12	13
Iron	ppm	ASTM D5185m	>32	16	5	22
Chromium	ppm	ASTM D5185m	>9	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>9	1	<1	1
Lead	ppm	ASTM D5185m	>28	0	0	0
Copper	ppm	ASTM D5185m	>50	<1	0	2
Tin	ppm	ASTM D5185m	>5	0	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

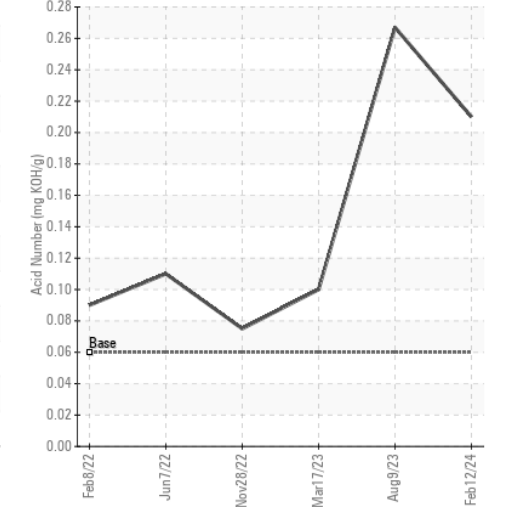
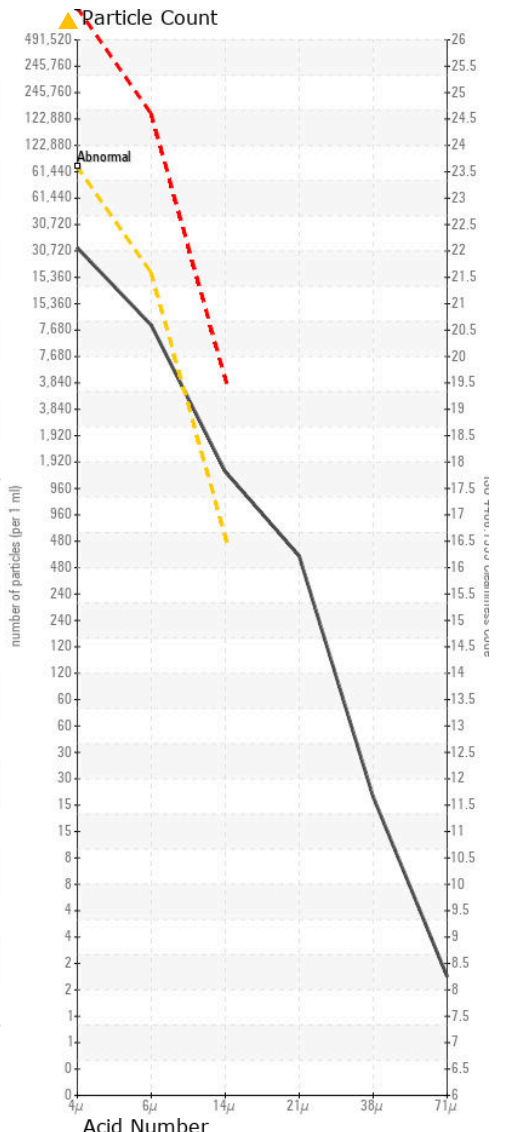
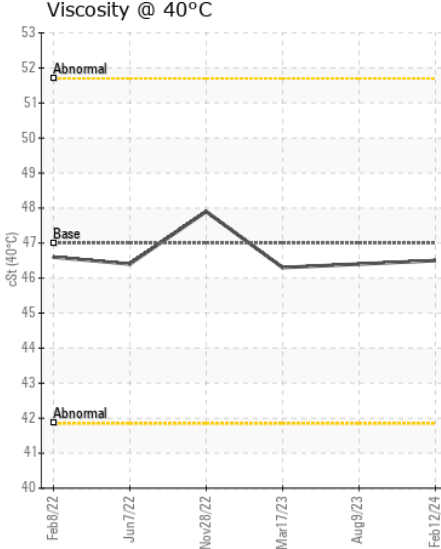
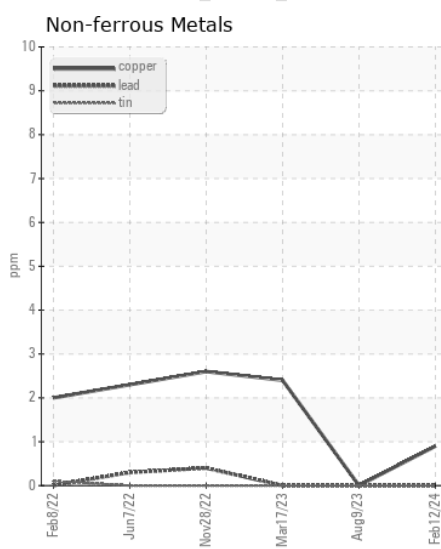
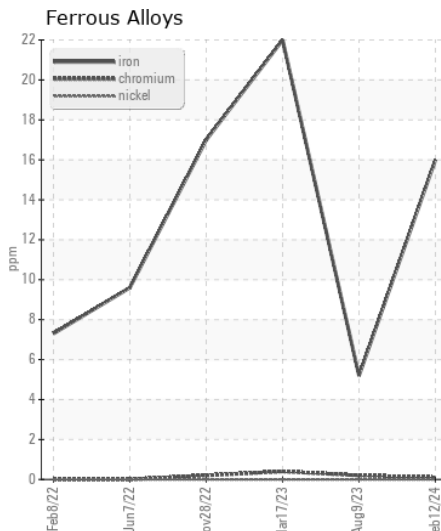
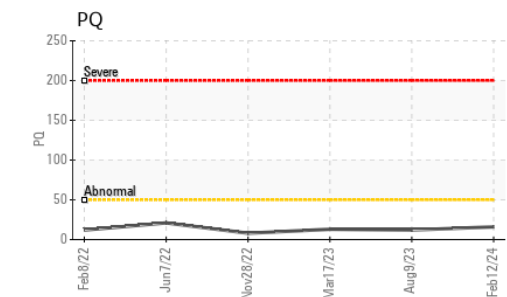
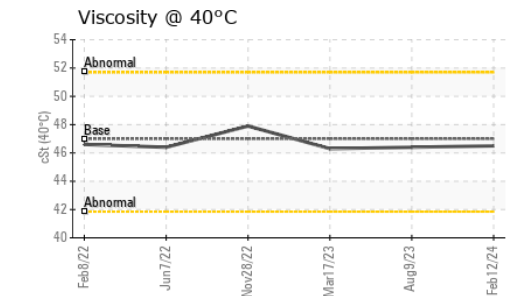
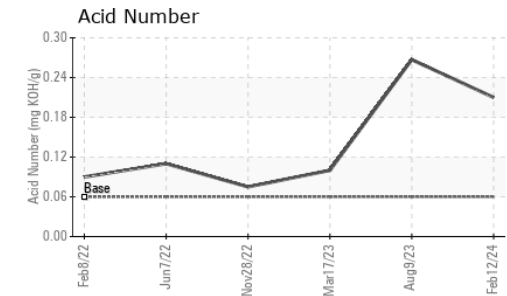
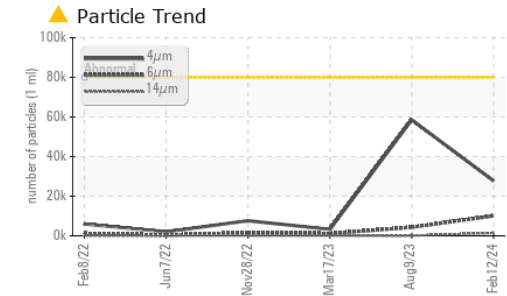
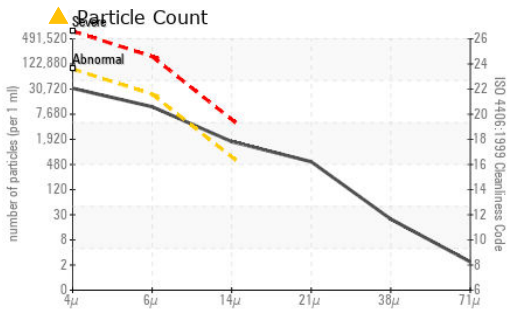
There is a moderate amount of particulates (2 to 100 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>11	2	<1	1
Potassium	ppm	ASTM D5185m	>20	1	0	<1
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	27722	58550	3260
Particles >6µm		ASTM D7647	>20000	10076	4324	1135
Particles >14µm		ASTM D7647	>640	▲ 1483	43	124
Particles >21µm		ASTM D7647	>160	▲ 491	9	35
Particles >38µm		ASTM D7647	>40	21	0	1
Particles >71µm		ASTM D7647	>10	2	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	▲ 22/21/18	23/19/13	19/17/14
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

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sodium	ppm	ASTM D5185m	>21	0	0	2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		2	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		2	0	1
Calcium	ppm	ASTM D5185m		65	0	2
Phosphorus	ppm	ASTM D5185m	827	243	546	427
Zinc	ppm	ASTM D5185m	0	65	0	50
Sulfur	ppm	ASTM D5185m	13	305	54	551
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.21	0.267	0.10
Visc @ 40°C	cSt	ASTM D445	47	46.5	46.4	46.3



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0199102 **Received** : 14 Feb 2024
Lab Number : 06089516 **Tested** : 15 Feb 2024
Unique Number : 10876961 **Diagnosed** : 15 Feb 2024 - Wes Davis
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)