



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 1FF075GXEFJ015782
 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		JR0218045	JR0166514	JR0149666
Sample Date		Client Info		23 May 2024	13 Apr 2023	21 Oct 2022
Machine Age	hrs	Client Info		5345	4807	4675
Oil Age	hrs	Client Info		2417	0	4675
Filter Age	hrs	Client Info		0	0	4675
Oil Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Filter Changed		Client Info		Not Chngd	Changed	Not Chngd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	14	12	2
Iron	ppm	ASTM D5185m	>32	4	5	4
Chromium	ppm	ASTM D5185m	>9	0	0	0
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	0
Lead	ppm	ASTM D5185m	>28	0	0	0
Copper	ppm	ASTM D5185m	>50	<1	<1	<1
Tin	ppm	ASTM D5185m	>5	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

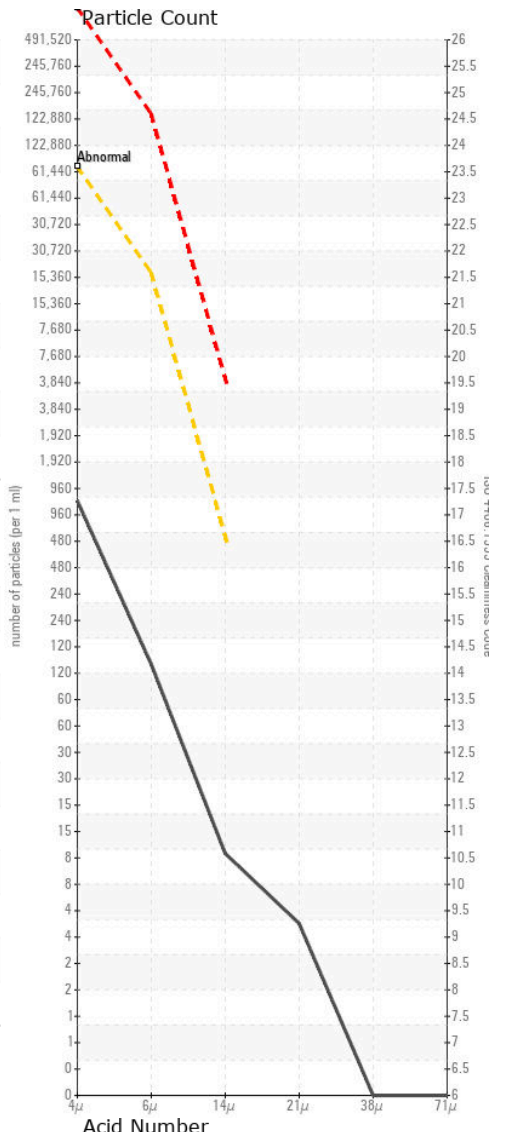
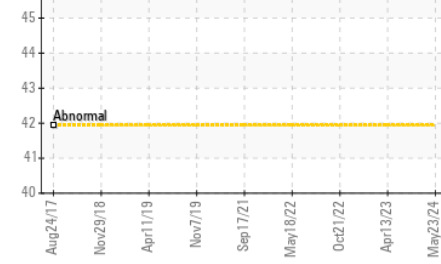
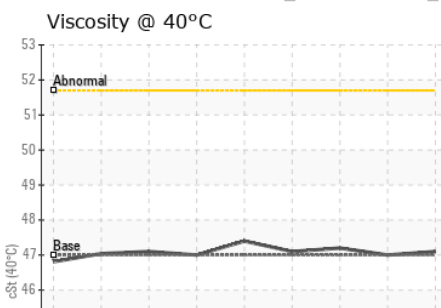
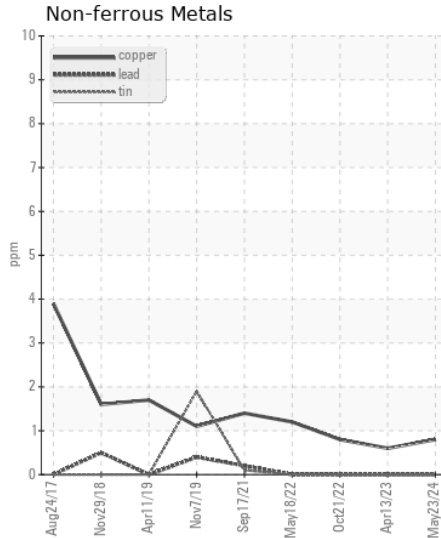
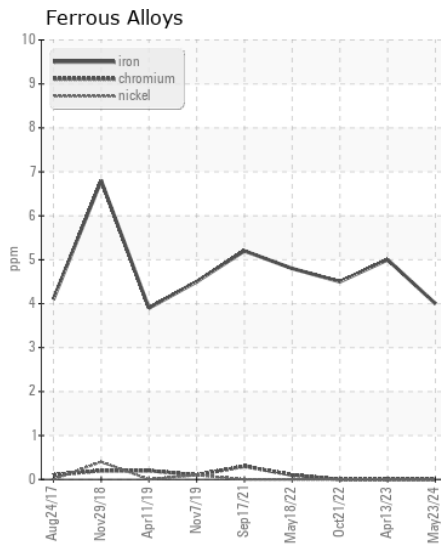
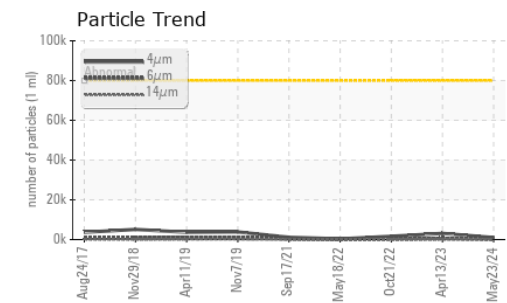
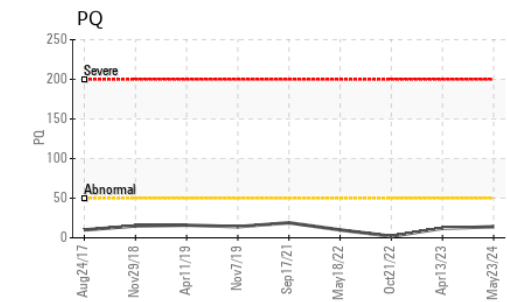
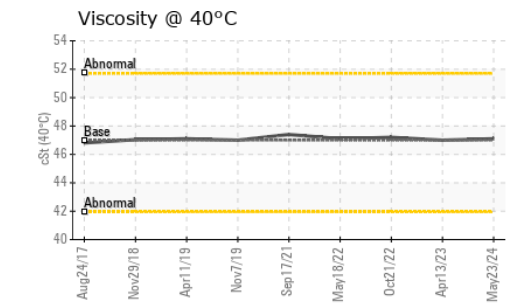
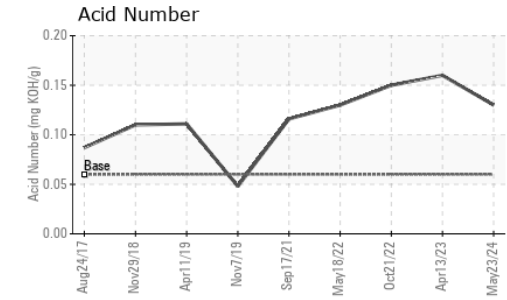
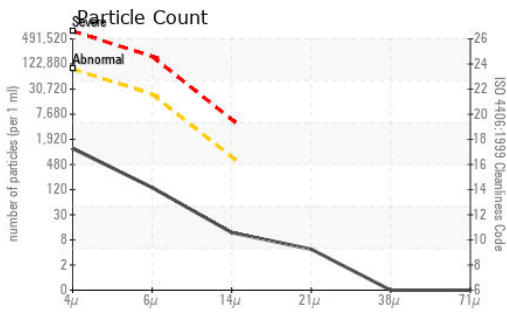
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>11	3	2	2
Potassium	ppm	ASTM D5185m	>20	<1	0	0
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	1013	3114	1649
Particles >6µm		ASTM D7647	>20000	119	612	231
Particles >14µm		ASTM D7647	>640	10	16	17
Particles >21µm		ASTM D7647	>160	4	3	6
Particles >38µm		ASTM D7647	>40	0	0	1
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	17/14/10	19/16/11	18/15/11
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

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>21	2	0	<1
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		<1	2	0
Calcium	ppm	ASTM D5185m		<1	13	0
Phosphorus	ppm	ASTM D5185m	827	438	449	437
Zinc	ppm	ASTM D5185m	0	22	20	22
Sulfur	ppm	ASTM D5185m	13	258	0	84
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.13	0.16	0.15
Visc @ 40°C	cSt	ASTM D445	47	47.1	47.0	47.2



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0218045 **Received** : 24 May 2024
Lab Number : 06190960 **Tested** : 30 May 2024
Unique Number : 11047712 **Diagnosed** : 30 May 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

NPL CONSTRUCTION
 7611 COPPERMINE DR
 MANASSAS, VA
 US 20109-2668
 Contact: BRANDON

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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F: