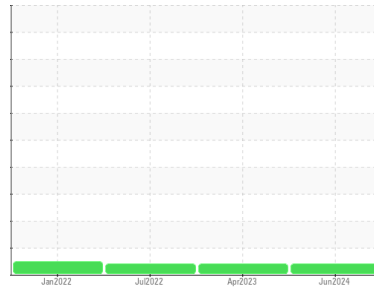


OIL ANALYSIS REPORT

Area
[W52507 IRON HORSE]
 Machine Id
JOHN DEERE 30G 1FF030GXJJK266195
 Component
Hydraulic System
 Fluid
HITACHI HYDRAULIC SUPER EX 46HN (--- QTS)

Sample Rating Trend



ADDITIVES



DIAGNOSIS

▲ Recommendation

Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil.

Wear

All component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable.

▲ Fluid Condition

Zinc level above manufacturer's recommendations. The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			JR0211621	JR0147601	JR0125613
Sample Date	Client Info			17 Jun 2024	25 Apr 2023	11 Jul 2022
Machine Age	hrs	Client Info		2111	1405	863
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			N/A	Not Changd	Not Changd
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.075	NEG	NEG	NEG

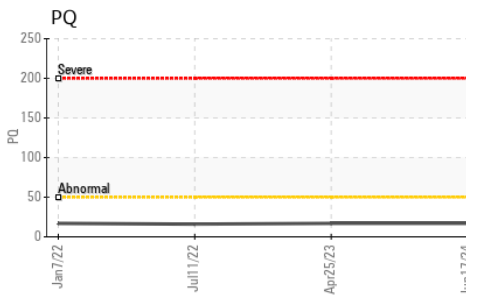
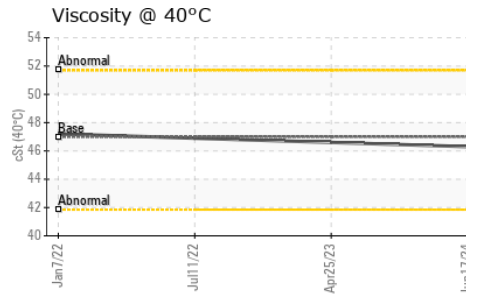
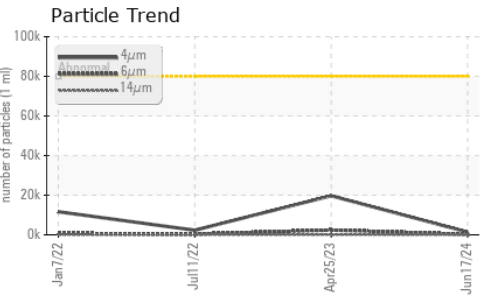
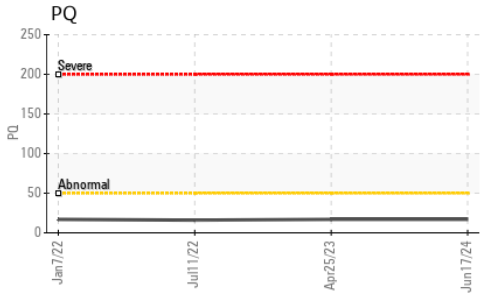
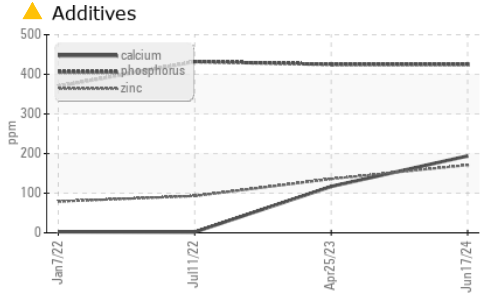
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184	>50	17	17	16
Iron	ppm	ASTM D5185m	>32	9	8	5
Chromium	ppm	ASTM D5185m	>9	<1	0	0
Nickel	ppm	ASTM D5185m	>5	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>9	3	<1	0
Lead	ppm	ASTM D5185m	>28	1	0	0
Copper	ppm	ASTM D5185m	>50	14	5	5
Tin	ppm	ASTM D5185m	>5	<1	0	0
Antimony	ppm	ASTM D5185m		---	---	---
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<1	0	0
Barium	ppm	ASTM D5185m		1	0	0
Molybdenum	ppm	ASTM D5185m		<1	<1	0
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		6	0	2
Calcium	ppm	ASTM D5185m		194	117	2
Phosphorus	ppm	ASTM D5185m	827	425	425	432
Zinc	ppm	ASTM D5185m	0	▲ 171	▲ 136	▲ 93
Sulfur	ppm	ASTM D5185m	13	1027	595	919

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>11	4	1	<1
Sodium	ppm	ASTM D5185m	>21	0	<1	<1
Potassium	ppm	ASTM D5185m	>20	2	0	0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>80000	1375	19722	2333
Particles >6µm		ASTM D7647	>20000	187	2377	323
Particles >14µm		ASTM D7647	>640	6	30	17
Particles >21µm		ASTM D7647	>160	1	5	4
Particles >38µm		ASTM D7647	>40	0	0	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	18/15/10	21/18/12	18/16/11

OIL ANALYSIS REPORT

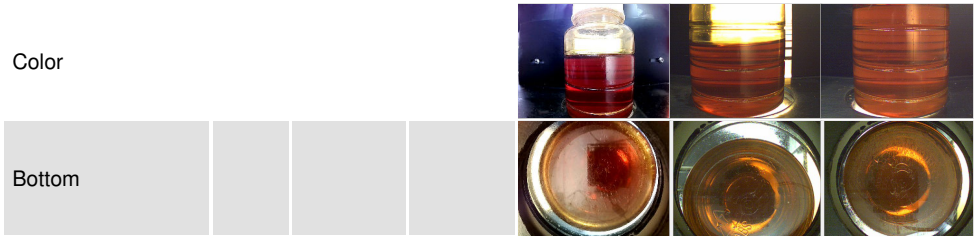


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.23	0.19	0.18

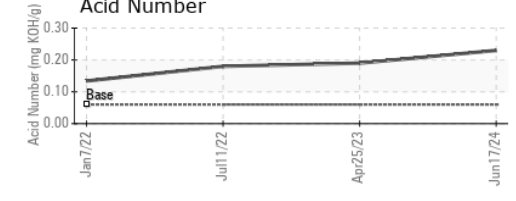
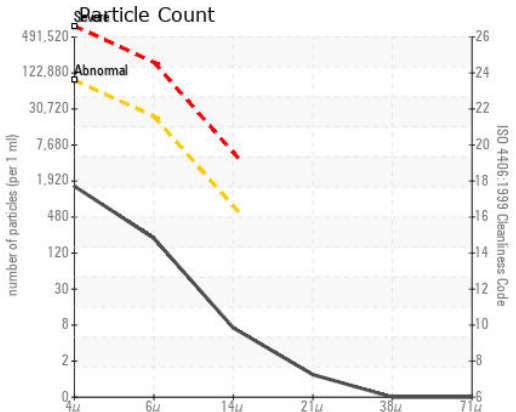
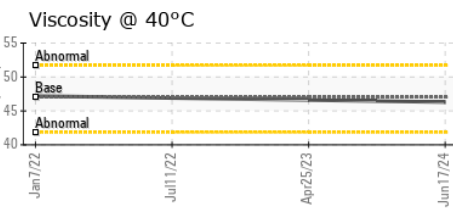
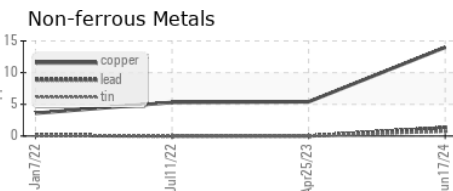
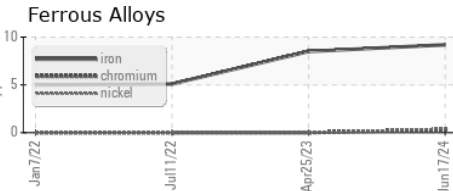
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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
Free Water	scalar	*Visual		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	47	46.3	46.6	46.9

SAMPLE IMAGES		method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0211621 **Received** : 21 Jun 2024
Lab Number : **06216758** **Tested** : 24 Jun 2024
Unique Number : 11089622 **Diagnosed** : 24 Jun 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

JRE - ASHLAND
 11047 LEADBETTER RD
 ASHLAND, VA
 US 23005
 Contact: DAVID ZIEG
 dzieg@jamesriverequipment.com
 T: (804)798-6001
 F: (804)798-0292

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)