



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[W68517]

Machine Id
HAMM HC 200I C WGH0H256CHAA00118

Component
Diesel Engine

Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (4 GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: W68517)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0220169	---	---
Sample Date		Client Info		16 Jul 2024	---	---
Machine Age	hrs	Client Info		0	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				NORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	24	---	---
Chromium	ppm	ASTM D5185m	>20	1	---	---
Nickel	ppm	ASTM D5185m	>4	1	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m	>3	<1	---	---
Aluminum	ppm	ASTM D5185m	>20	6	---	---
Lead	ppm	ASTM D5185m	>40	4	---	---
Copper	ppm	ASTM D5185m	>330	9	---	---
Tin	ppm	ASTM D5185m	>15	4	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

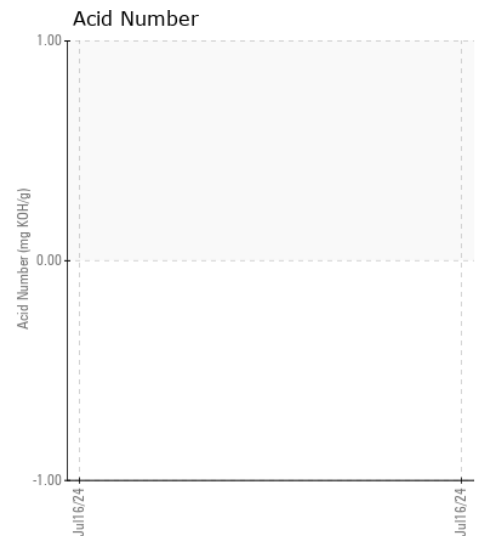
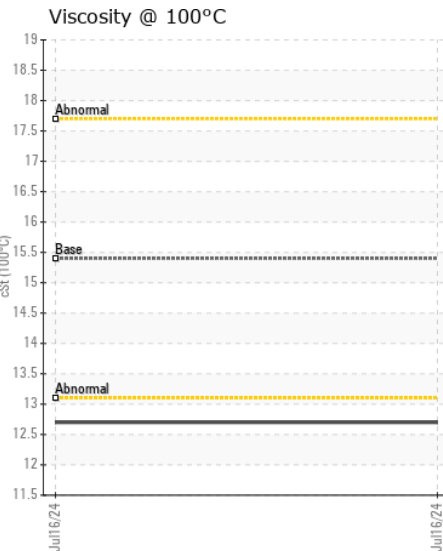
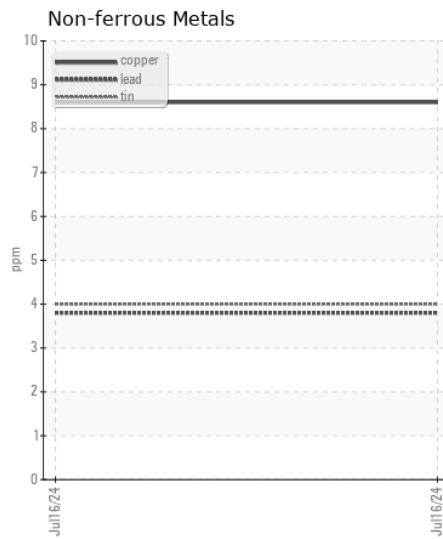
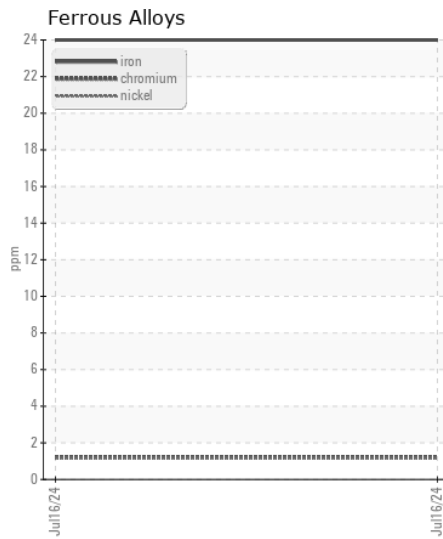
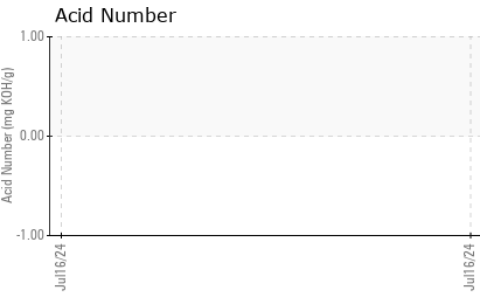
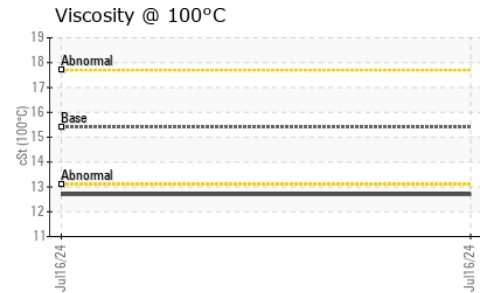
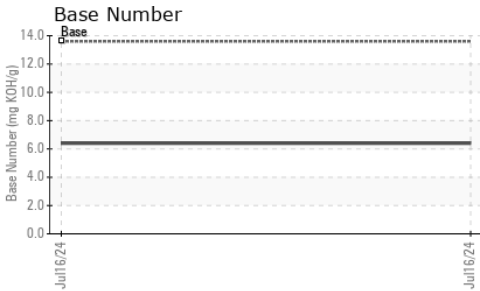
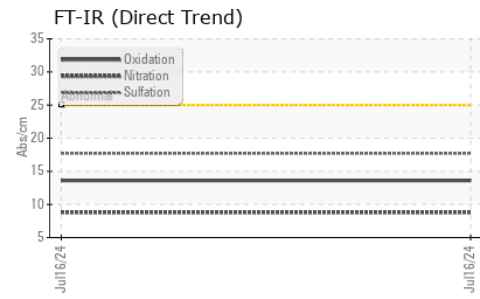
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	23	---	---
Potassium	ppm	ASTM D5185m	>20	6	---	---
Fuel	%	ASTM D3524	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.2	---	---
Nitration	Abs/cm	*ASTM D7624	>20	8.8	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.7	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		3	---	---
Boron	ppm	ASTM D5185m		60	---	---
Barium	ppm	ASTM D5185m		4	---	---
Molybdenum	ppm	ASTM D5185m		79	---	---
Manganese	ppm	ASTM D5185m		4	---	---
Magnesium	ppm	ASTM D5185m		161	---	---
Calcium	ppm	ASTM D5185m		2195	---	---
Phosphorus	ppm	ASTM D5185m		1038	---	---
Zinc	ppm	ASTM D5185m		1258	---	---
Sulfur	ppm	ASTM D5185m		5023	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.6	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	6.4	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	12.7	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : JR0220169

Lab Number : 06239922

Unique Number : 11128756

Test Package : CONST (Additional Tests: FuelDilution, KV40, PQ, PrtCount, TAN Man, **CBNA**)

Received : 18 Jul 2024

Tested : 19 Jul 2024

Diagnosed : 19 Jul 2024 - Jonathan Hester

JRE - CHARLOTTE

9550 STATESVILLE ROAD

CHARLOTTE, NC

US 28269

Contact: CHARLOTTE SHOP

myoung@jamesriverequipment.com

T: (704)597-0211

F: (704)596-6198

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)