



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Store 5 - Cross Lanes [ro##146787]
 Machine Id
JOHN DEERE 210P 1FF210PALPF000760
 Component
Hydraulic System
 Fluid
HITACHI HYDRAULIC SUPER EX 46HN (36 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0045414	LEC0043221	---
Sample Date		Client Info		11 Jan 2024	30 Oct 2023	---
Machine Age	hrs	Client Info		303	153	---
Oil Age	hrs	Client Info		303	153	---
Filter Age	hrs	Client Info		303	153	---
Oil Changed		Client Info		Not Changd	Not Changd	---
Filter Changed		Client Info		Not Changd	Not Changd	---
Sample Status				NORMAL	ATTENTION	---

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	7	11	---
Iron	ppm	ASTM D5185m	>32	6	0	---
Chromium	ppm	ASTM D5185m	>9	<1	0	---
Nickel	ppm	ASTM D5185m	>5	0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>9	2	0	---
Lead	ppm	ASTM D5185m	>28	7	0	---
Copper	ppm	ASTM D5185m	>50	5	2	---
Tin	ppm	ASTM D5185m	>5	0	0	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

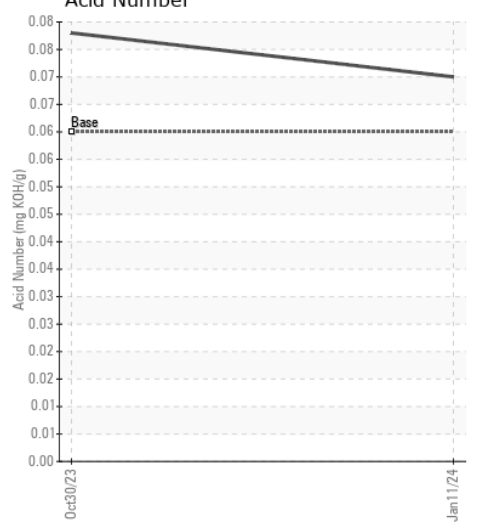
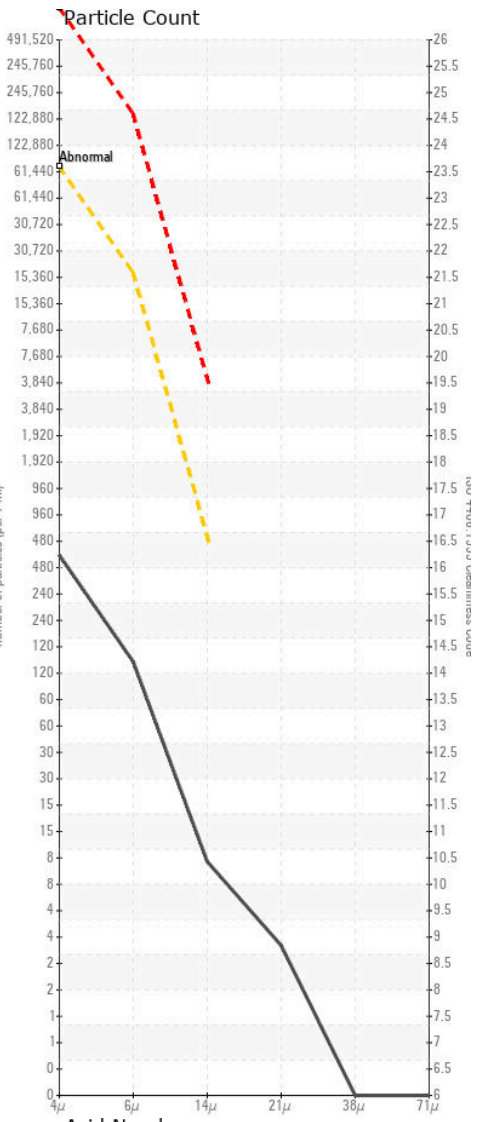
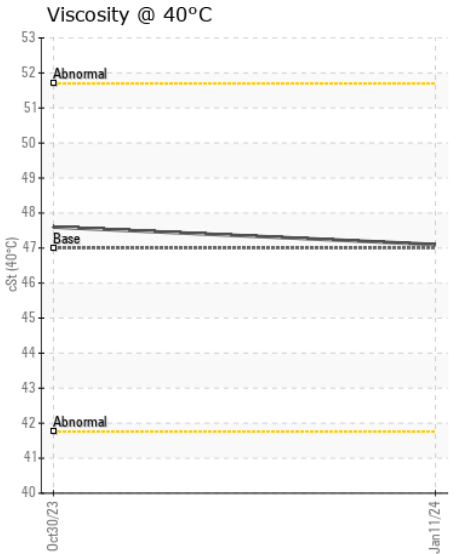
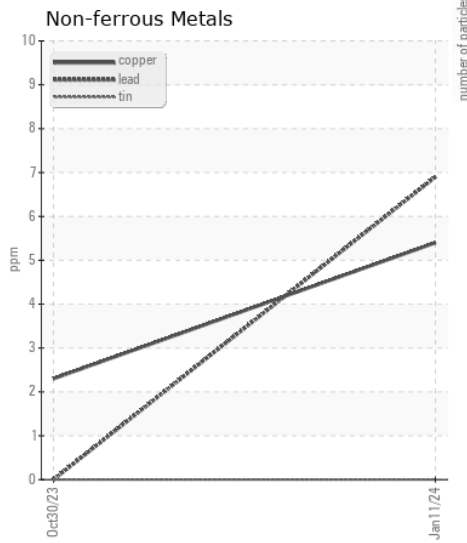
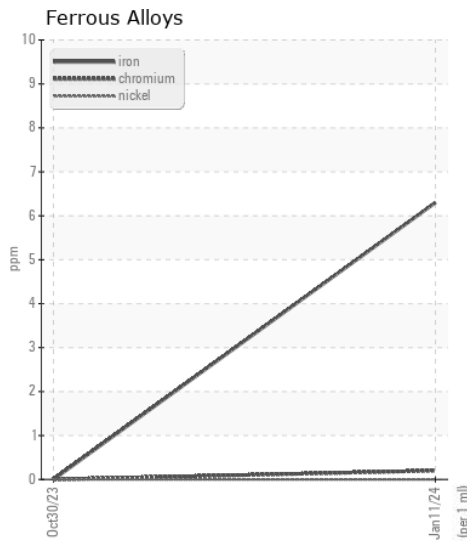
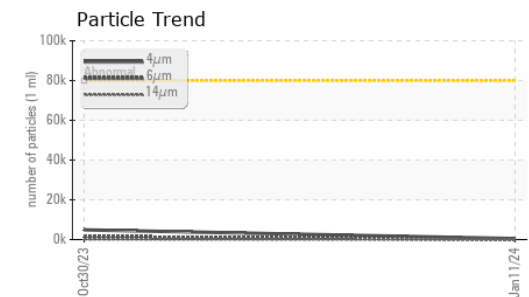
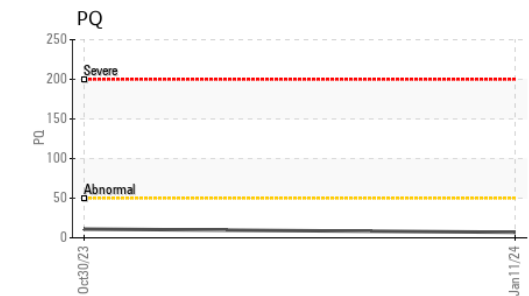
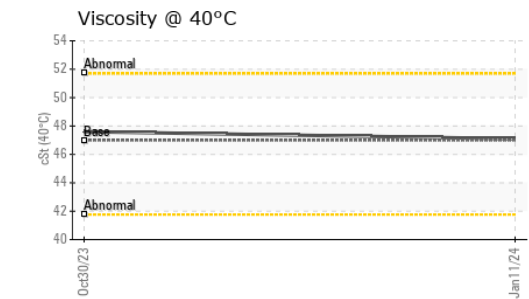
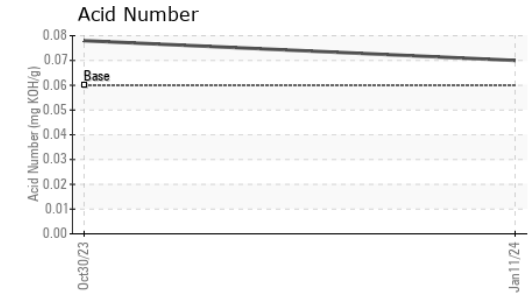
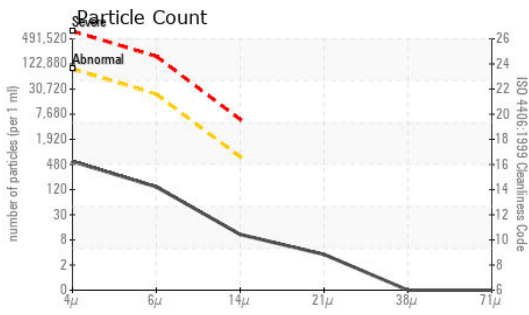
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>11	1	<1	---
Potassium	ppm	ASTM D5185m	>20	<1	2	---
Water		WC Method	>0.075	NEG	NEG	---
Particles >4µm		ASTM D7647	>80000	497	4908	---
Particles >6µm		ASTM D7647	>20000	123	1379	---
Particles >14µm		ASTM D7647	>640	9	110	---
Particles >21µm		ASTM D7647	>160	3	28	---
Particles >38µm		ASTM D7647	>40	0	1	---
Particles >71µm		ASTM D7647	>10	0	0	---
Oil Cleanliness		ISO 4406 (c)	>23/21/16	16/14/10	19/18/14	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.075	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	0	<1	---
Boron	ppm	ASTM D5185m		<1	▲ 0	---
Barium	ppm	ASTM D5185m		0	<1	---
Molybdenum	ppm	ASTM D5185m		0	▲ 0	---
Manganese	ppm	ASTM D5185m		0	0	---
Magnesium	ppm	ASTM D5185m		<1	▲ <1	---
Calcium	ppm	ASTM D5185m		15	▲ 4	---
Phosphorus	ppm	ASTM D5185m	827	609	▲ 513	---
Zinc	ppm	ASTM D5185m	0	10	▲ 31	---
Sulfur	ppm	ASTM D5185m	13	126	▲ 114	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.07	0.078	---
Visc @ 40°C	cSt	ASTM D445	47	47.1	47.6	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0045414 **Received** : 12 Jan 2024
Lab Number : 06060136 **Diagnosed** : 16 Jan 2024
Unique Number : 10831518 **Diagnostician** : Don Baldrige
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)