



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
Store 1 - Cowen [143801]
Machine Id
JOHN DEERE 210G 1FF210GXCF526717 (S/N 003173)
Component
Hydraulic System
Fluid
HITACHI HYDRAULIC SUPER EX 46HN (63 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0043641	LEC0036912	LEC0035069
Sample Date		Client Info		05 Oct 2023	09 May 2023	01 Feb 2023
Machine Age	hrs	Client Info		8187	7618	7062
Oil Age	hrs	Client Info		1751	1182	626
Filter Age	hrs	Client Info		1125	556	626
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	15	12	14
Iron	ppm	ASTM D5185m	>32	4	7	6
Chromium	ppm	ASTM D5185m	>9	0	<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	0	<1
Lead	ppm	ASTM D5185m	>28	0	0	0
Copper	ppm	ASTM D5185m	>50	1	<1	<1
Tin	ppm	ASTM D5185m	>5	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	LIGHT	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

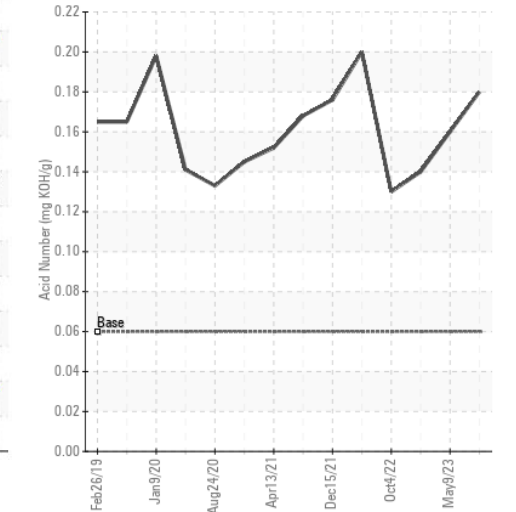
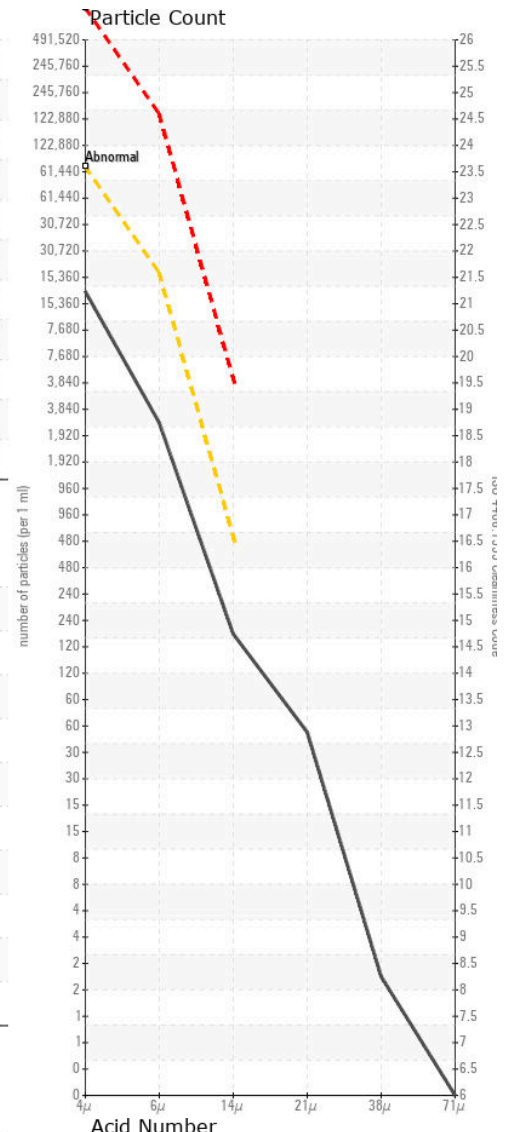
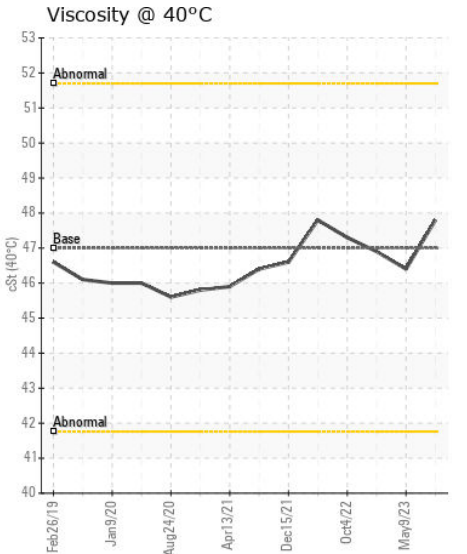
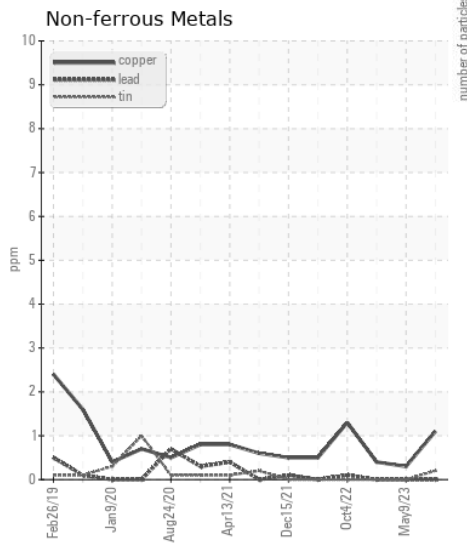
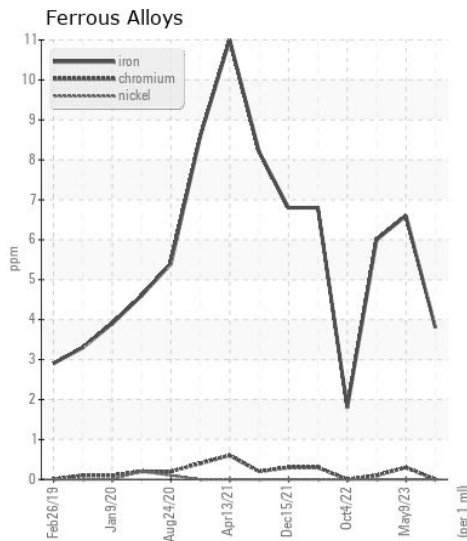
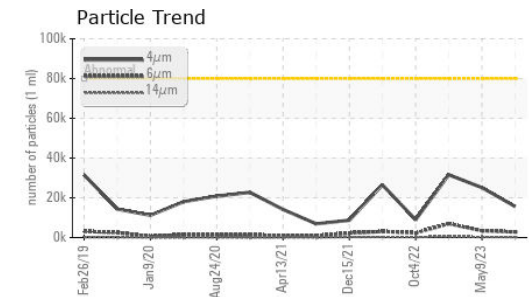
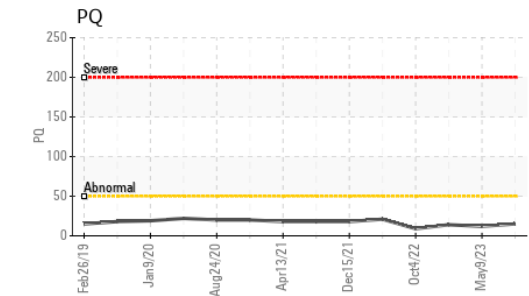
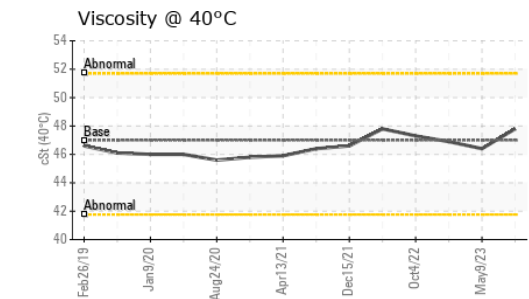
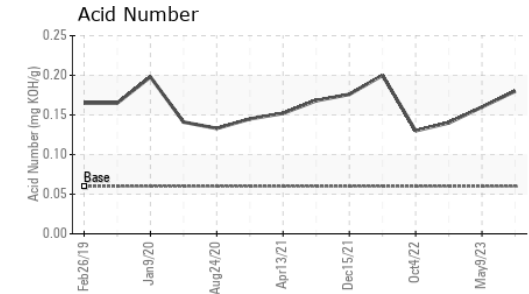
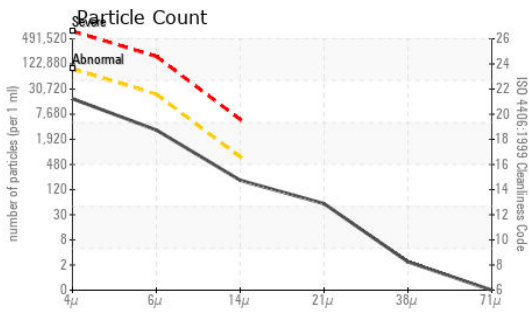
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>11	<1	<1	<1
Potassium	ppm	ASTM D5185m	>20	0	<1	0
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	15660	25138	31594
Particles >6µm		ASTM D7647	>20000	2803	3402	6975
Particles >14µm		ASTM D7647	>640	177	240	451
Particles >21µm		ASTM D7647	>160	49	77	97
Particles >38µm		ASTM D7647	>40	2	4	10
Particles >71µm		ASTM D7647	>10	0	0	1
Oil Cleanliness		ISO 4406 (c)	>23/21/16	21/19/15	22/19/15	22/20/16
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	0	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	0	0
Magnesium	ppm	ASTM D5185m		0	<1	0
Calcium	ppm	ASTM D5185m		6	0	<1
Phosphorus	ppm	ASTM D5185m	827	566	528	539
Zinc	ppm	ASTM D5185m	0	52	2	4
Sulfur	ppm	ASTM D5185m	13	217	30	75
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.18	0.16	0.14
Visc @ 40°C	cSt	ASTM D445	47	47.8	46.4	46.9



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0043641 **Received** : 10 Oct 2023
Lab Number : 05973985 **Diagnosed** : 12 Oct 2023
Unique Number : 10685935 **Diagnostician** : Don Baldrige
Test Package : CONST (Additional Tests: PQ)

LESLIE EQUIPMENT COMPANY
 105 TENNIS CENTER DR.
 MARIETTA, OH
 US 45750-9765
 Contact: LEANNE KENDALL
 KendalLeanne@lec1.com
 T:
 F: (740)373-5570

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)