



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
Store 2 - Beaver [RO#152712]
Machine Id
JOHN DEERE 210G 1FF210GXCHF525223
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (6 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0051314	LEC0023206	LEC0014097
Sample Date		Client Info		09 Jul 2024	02 Nov 2021	19 Aug 2021
Machine Age	hrs	Client Info		4051	2980	2719
Oil Age	hrs	Client Info		1071	621	360
Filter Age	hrs	Client Info		1071	621	360
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

The copper level is abnormal. All other component wear rates are normal for time on oil.

Iron	ppm	ASTM D5185m	>51	51	42	29
Chromium	ppm	ASTM D5185m	>11	<1	2	1
Nickel	ppm	ASTM D5185m	>5	0	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	3	5	3
Lead	ppm	ASTM D5185m	>26	0	0	0
Copper	ppm	ASTM D5185m	>26	▲ 31	3	2
Tin	ppm	ASTM D5185m	>4	0	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

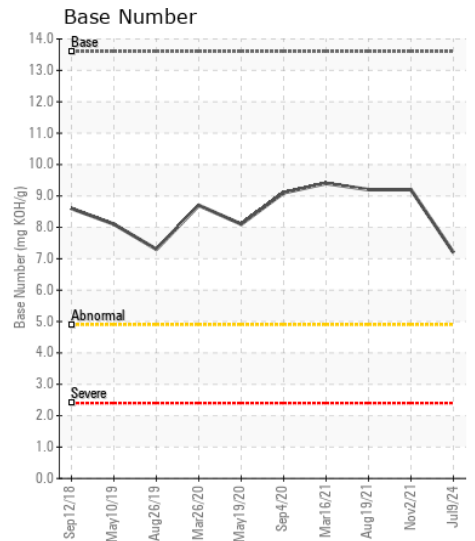
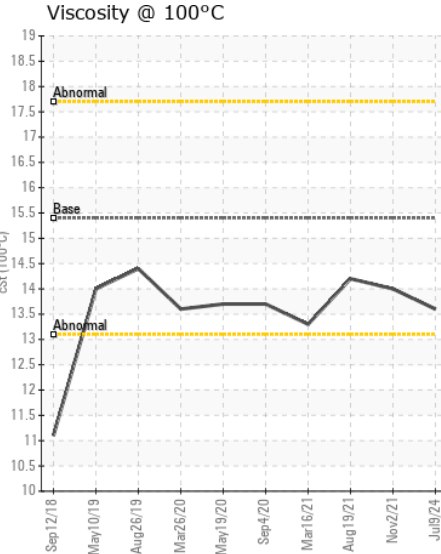
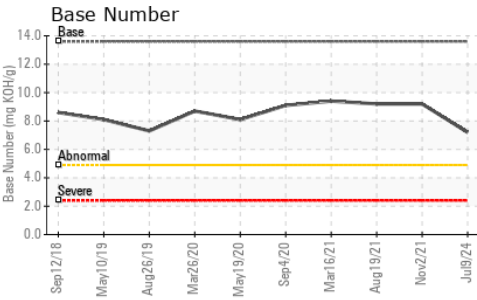
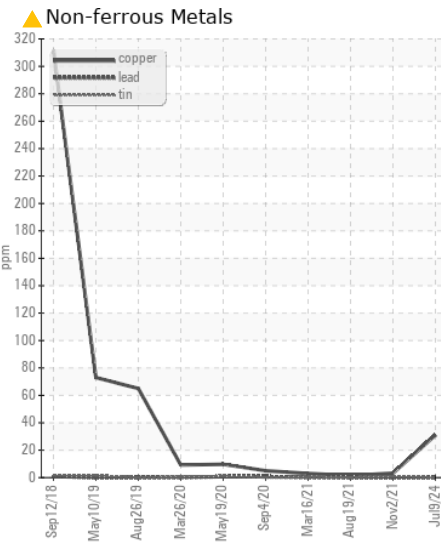
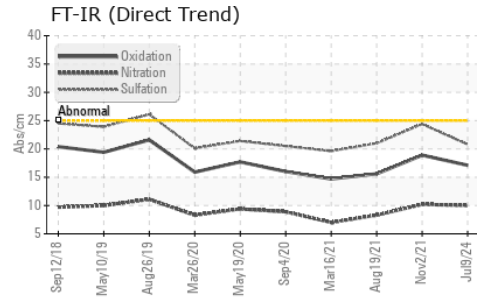
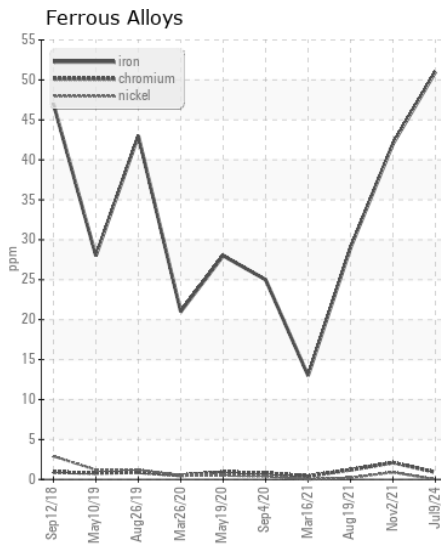
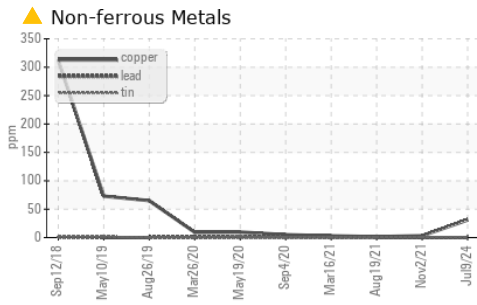
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>120	8	10	8
Potassium	ppm	ASTM D5185m	>20	0	<1	1
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.7	0.4
Nitration	Abs/cm	*ASTM D7624	>20	10.0	10.2	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.8	24.4	21
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	>0.21	NEG	NEG	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	>31	5	3	2
Boron	ppm	ASTM D5185m		4	184	271
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		65	279	265
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m		848	888	813
Calcium	ppm	ASTM D5185m		1296	1577	1399
Phosphorus	ppm	ASTM D5185m		989	934	863
Zinc	ppm	ASTM D5185m		1200	1076	979
Sulfur	ppm	ASTM D5185m		2985	2702	2385
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.1	18.9	15.6
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.2	9.2	9.2
Visc @ 100°C	cSt	ASTM D445	15.4	13.6	14.0	14.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0051314 **Received** : 11 Jul 2024
Lab Number : 06234280 **Tested** : 12 Jul 2024
Unique Number : 11123114 **Diagnosed** : 14 Jul 2024 - Don Baldridge
Test Package : CONST (Additional Tests: TBN)

ASPEN CORP
 2400 RITTER DR
 DANIELS, WV
 US 25832
 Contact: JASON ST CLAIR
 jstclair@aspen-golf.com
 T: (304)688-8753
 F:

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)