



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL



Area
Store 2 - Beaver [RO#152201]
Machine Id
JOHN DEERE 470GL 1FF470GXCJF235366
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (11 GAL)

RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0051127	LEC0048449	LEC0043543
Sample Date		Client Info		18 Jun 2024	23 Feb 2024	13 Sep 2023
Machine Age	hrs	Client Info		7439	6956	6447
Oil Age	hrs	Client Info		483	509	494
Filter Age	hrs	Client Info		483	509	494
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>58	29	31	29
Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>49	4	4	6
Lead	ppm	ASTM D5185m	>10	19	16	17
Copper	ppm	ASTM D5185m	>26	7	6	7
Tin	ppm	ASTM D5185m	>4	1	2	2
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

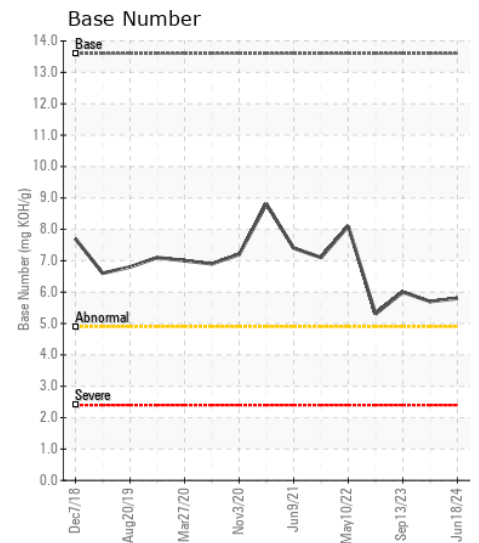
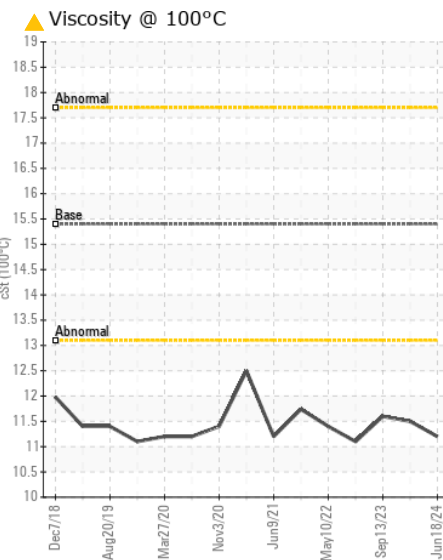
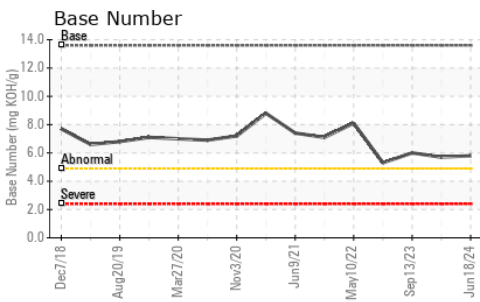
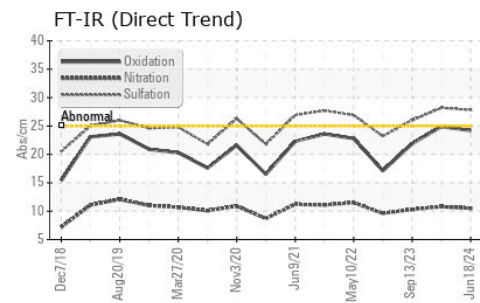
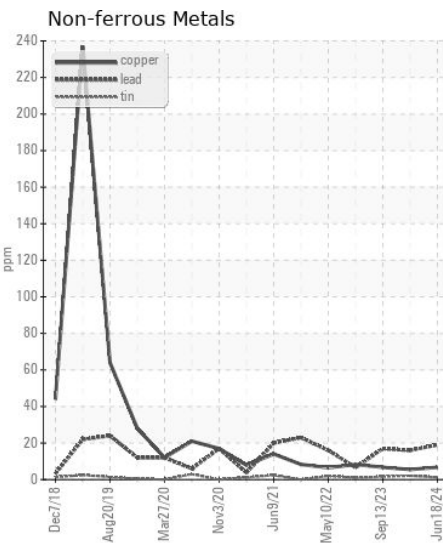
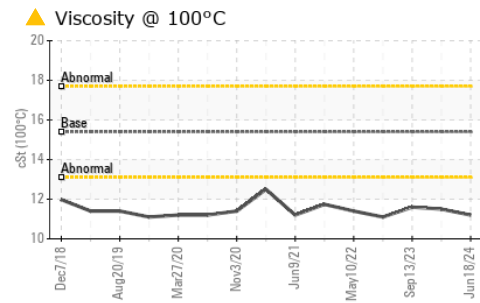
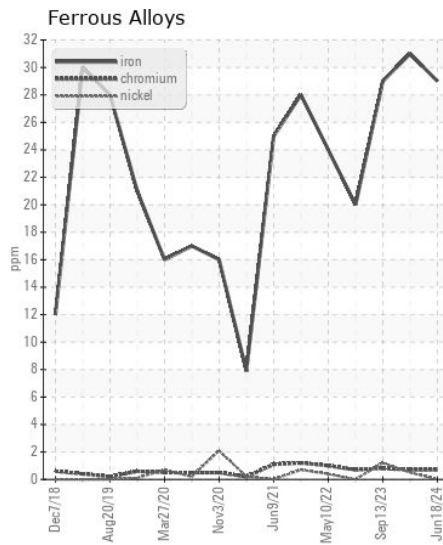
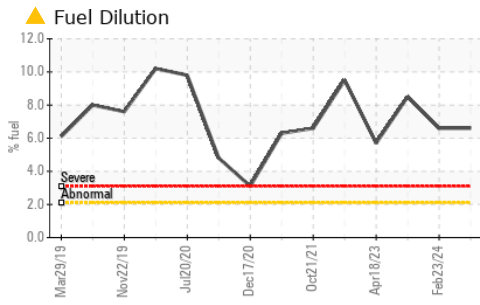
There is a moderate amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>120	12	11	13
Potassium	ppm	ASTM D5185m	>20	5	5	10
Fuel	%	ASTM D3524	>2.1	▲ 6.6	▲ 6.6	▲ 8.5
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	10.5	10.8	10.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	27.8	28.2	26.0
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

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m	>31	10	9	13
Boron	ppm	ASTM D5185m		37	37	39
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		242	239	221
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		818	905	725
Calcium	ppm	ASTM D5185m		1497	1583	1481
Phosphorus	ppm	ASTM D5185m		900	859	873
Zinc	ppm	ASTM D5185m		1100	1191	1090
Sulfur	ppm	ASTM D5185m		3250	3019	2860
Oxidation	Abs/.1mm	*ASTM D7414	>25	24.2	24.9	21.9
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	5.8	5.7	6.0
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.2	▲ 11.5	▲ 11.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0051127 **Received** : 20 Jun 2024
Lab Number : 06215676 **Tested** : 24 Jun 2024
Unique Number : 11088540 **Diagnosed** : 24 Jun 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: PercentFuel, TBN)

LESLIE EQUIPMENT COMPANY
 105 TENNIS CENTER DR.
 MARIETTA, OH
 US 45750-9765
 Contact: LEANNE KENDALL
 KendalLeanne@lec1.com

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)

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