



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Store 3 - Norton
Machine Id
JOHN DEERE 160G EX22 (S/N HF056770)
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0049254	LEC0020534	---
Sample Date		Client Info		24 Jun 2024	10 May 2021	---
Machine Age	hrs	Client Info		3927	1990	---
Oil Age	hrs	Client Info		500	500	---
Filter Age	hrs	Client Info		500	500	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	27	54	---
Chromium	ppm	ASTM D5185m	>11	0	1	---
Nickel	ppm	ASTM D5185m	>5	<1	<1	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>31	3	<1	---
Lead	ppm	ASTM D5185m	>26	<1	30	---
Copper	ppm	ASTM D5185m	>26	4	12	---
Tin	ppm	ASTM D5185m	>4	<1	2	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

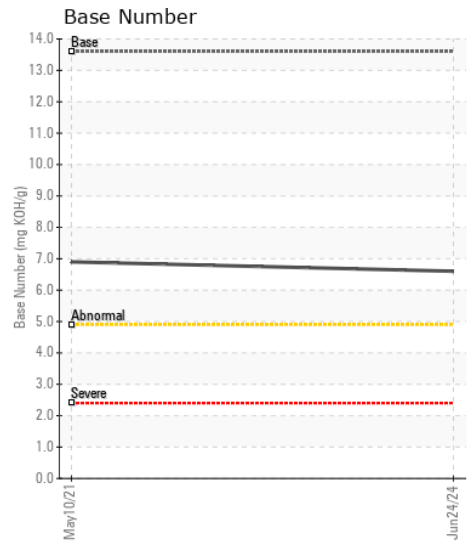
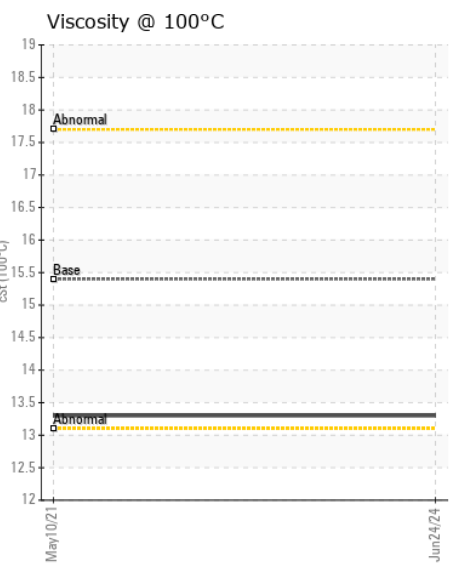
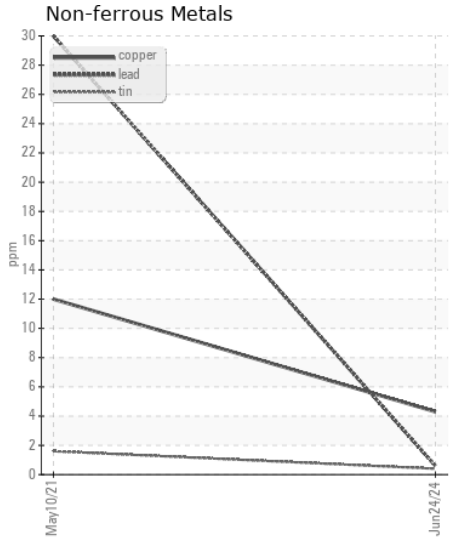
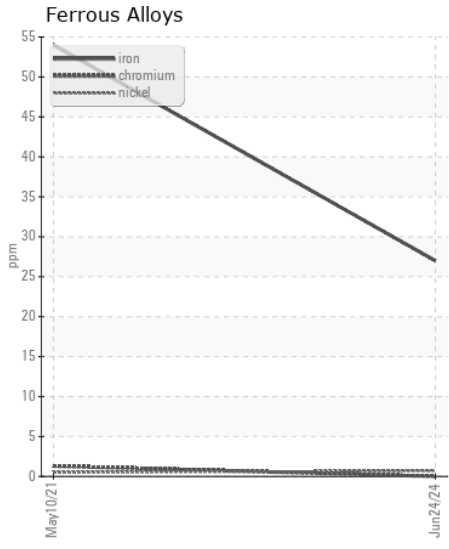
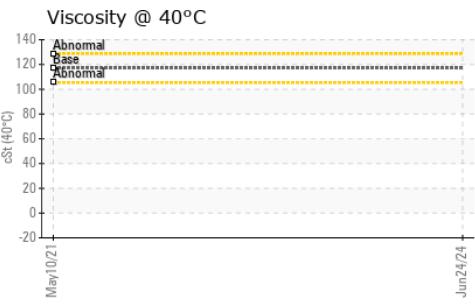
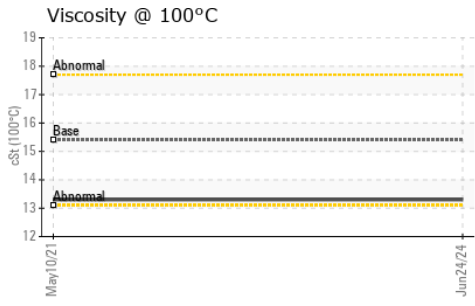
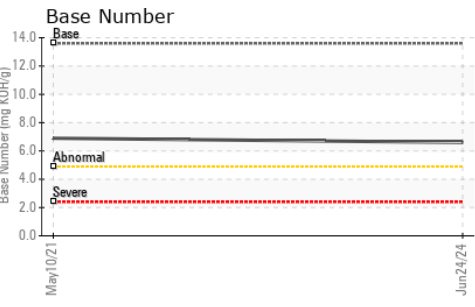
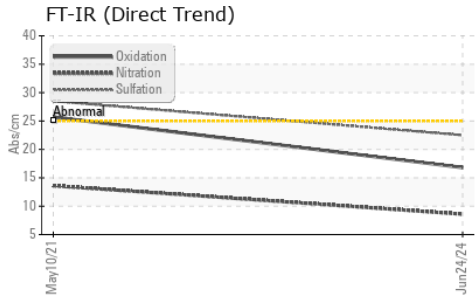
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>120	7	8	---
Potassium	ppm	ASTM D5185m	>20	2	<1	---
Fuel		WC Method	>2.1	<1.0	<1.0	---
Water		WC Method	>0.21	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.3	0.6	---
Nitration	Abs/cm	*ASTM D7624	>20	8.6	13.6	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.5	28.5	---
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	>0.21	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	4	7	---
Boron	ppm	ASTM D5185m		256	107	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		83	151	---
Manganese	ppm	ASTM D5185m		<1	2	---
Magnesium	ppm	ASTM D5185m		395	696	---
Calcium	ppm	ASTM D5185m		1453	1654	---
Phosphorus	ppm	ASTM D5185m		1054	715	---
Zinc	ppm	ASTM D5185m		1293	865	---
Sulfur	ppm	ASTM D5185m		3657	2122	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.8	25.7	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	6.6	6.9	---
Visc @ 100°C	cSt	ASTM D445	15.4	13.3	13.3	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0049254 **Received** : 03 Jul 2024
Lab Number : 06227169 **Tested** : 05 Jul 2024
Unique Number : 11110662 **Diagnosed** : 05 Jul 2024 - Don Baldrige
Test Package : CONST (Additional Tests: TBN, KV40)

LANE PIPELINE
 2946 E MAIN ST
 BRIDGEPORT, WV
 US 26330

Contact: JESSE WILBURN
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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)