CONST

MileGuard™

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
John Deere 650J 650J-3 (S/N 1T0650JXVBD204237)
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

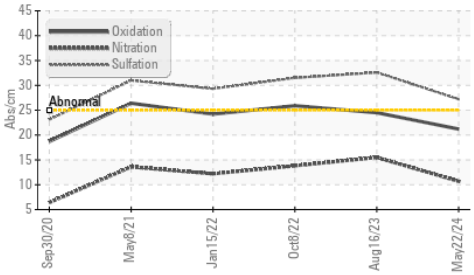
There is an abnormal amount of solids and carbon present in the oil.

FLUID CONDITION

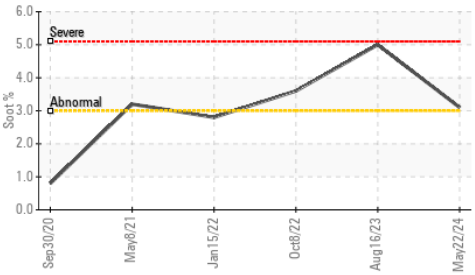
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TLY0002443	TLY0001782	TLY0001259
Sample Date		Client Info		22 May 2024	16 Aug 2023	08 Oct 2022
Machine Age	hrs	Client Info		12097	11607	10754
Oil Age	hrs	Client Info		11607	853	500
Filter Age	hrs	Client Info		11607	853	500
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>51	55	▲ 104	▲ 64
Chromium	ppm	ASTM D5185m	>11	<1	2	1
Nickel	ppm	ASTM D5185m	>5	<1	2	1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>31	5	10	6
Lead	ppm	ASTM D5185m	>26	2	21	9
Copper	ppm	ASTM D5185m	>26	2	4	2
Tin	ppm	ASTM D5185m	>4	0	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	7	8	8
Potassium	ppm	ASTM D5185m	>20	0	0	<1
Fuel	%	ASTM D3524	>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	▲ 3.1	▲ 5	▲ 3.6
Nitration	Abs/cm	*ASTM D7624	>20	10.7	15.5	13.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	27.2	32.6	31.5
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
Sodium	ppm	ASTM D5185m	>158	2	3	2
Boron	ppm	ASTM D5185m	250	45	30	34
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	56	66	50
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m	450	585	818	556
Calcium	ppm	ASTM D5185m	3000	1989	1736	1714
Phosphorus	ppm	ASTM D5185m	1150	881	952	773
Zinc	ppm	ASTM D5185m	1350	1051	1190	973
Sulfur	ppm	ASTM D5185m	4250	3129	3270	2871
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.2	24.5	25.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.7	▲ 0.0	8.4
Visc @ 100°C	cSt	ASTM D445	14.4	14.9	▲ 16.9	15.0

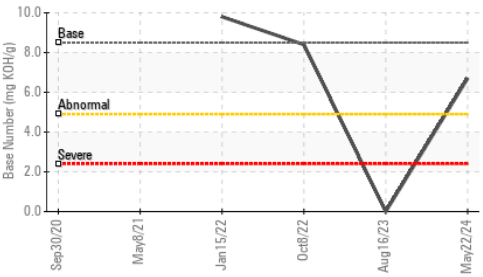
FT-IR (Direct Trend)



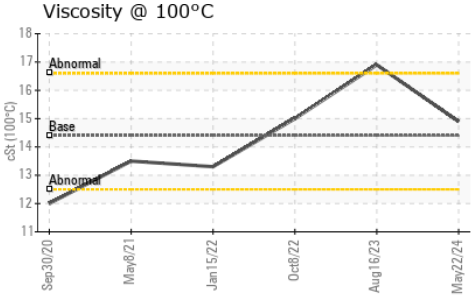
Soot %



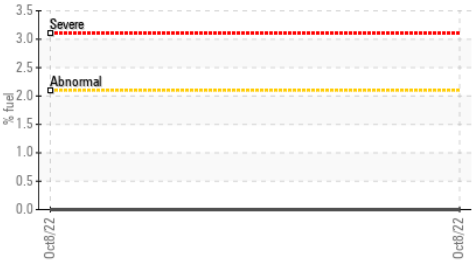
Base Number



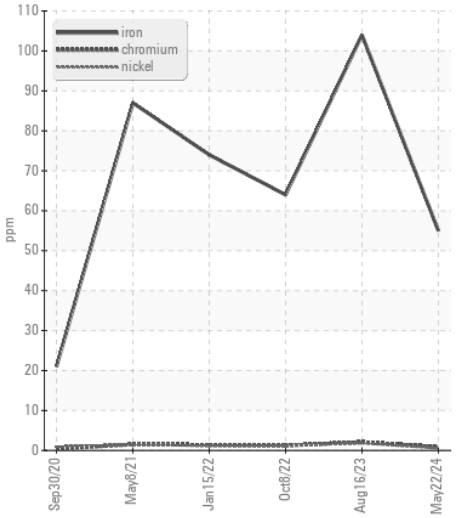
Viscosity @ 100°C



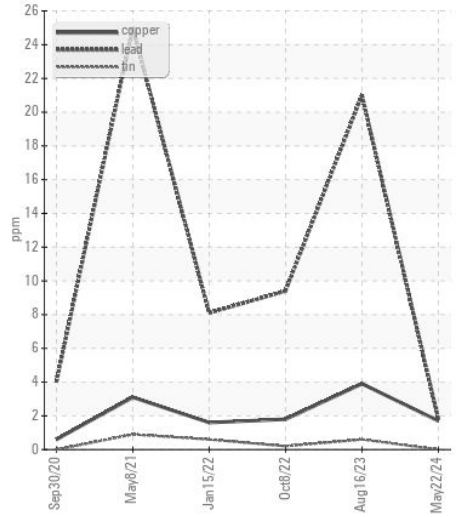
Fuel Dilution



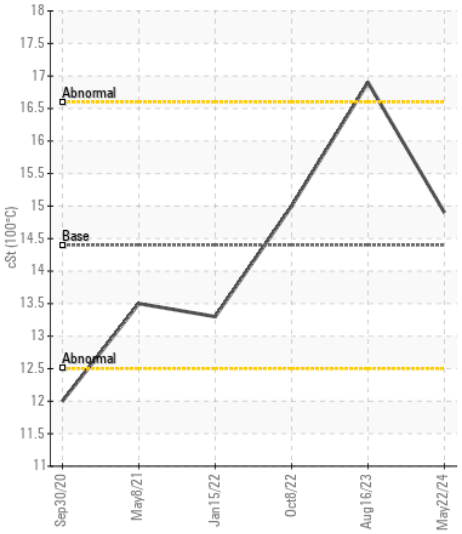
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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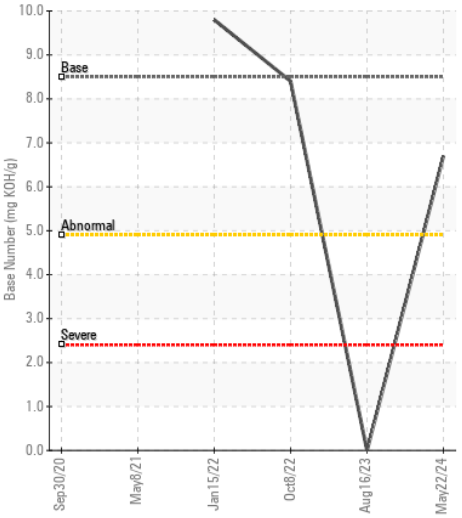

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TLY0002443
Lab Number : 06193545
Unique Number : 11050297
Test Package : CONST (Additional Tests: FuelDilution, TBN)

Received : 29 May 2024
Tested : 30 May 2024
Diagnosed : 30 May 2024 - Jonathan Hester

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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