



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Area
[W35164]
 Machine Id
JOHN DEERE 944K 1DW944KXAML703645
 Component
Diesel Engine
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (12 GAL)

RECOMMENDATION

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		JR0139412	JR0129988	JR0121370
Sample Date		Client Info		05 Aug 2022	11 May 2022	01 Apr 2022
Machine Age	hrs	Client Info		1036	493	310
Oil Age	hrs	Client Info		0	0	310
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

Bearing and/or bushing wear is indicated.

Iron	ppm	ASTM D5185m	>51	52	50	42
Chromium	ppm	ASTM D5185m	>11	1	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		<1	<1	<1
Aluminum	ppm	ASTM D5185m	>31	12	6	4
Lead	ppm	ASTM D5185m	>26	▲ 86	50	35
Copper	ppm	ASTM D5185m	>26	▲ 78	▲ 159	▲ 325
Tin	ppm	ASTM D5185m	>4	▲ 7	9	10
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

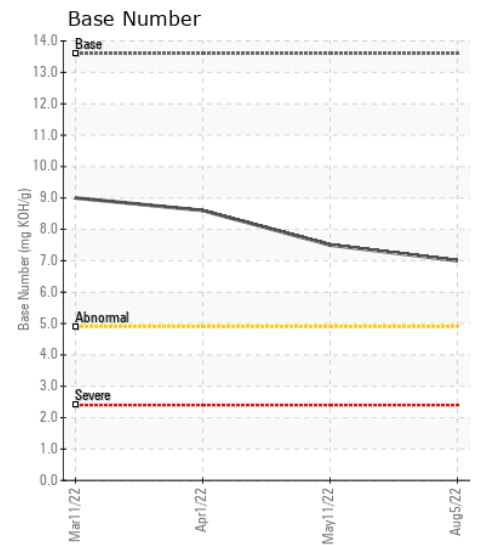
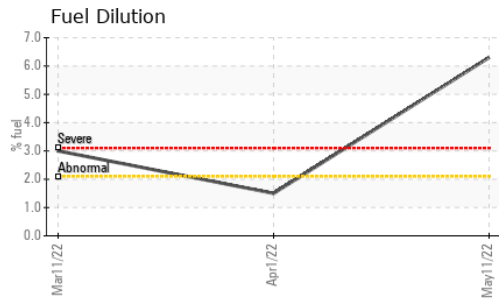
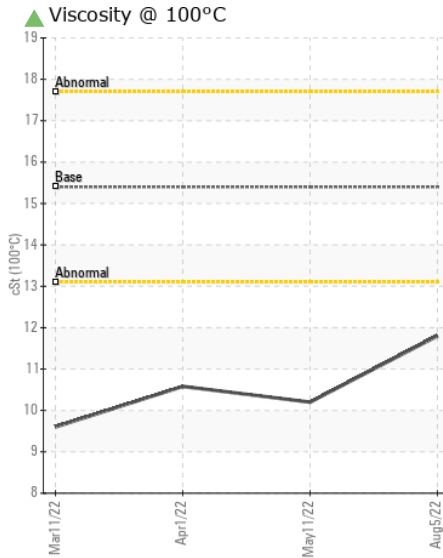
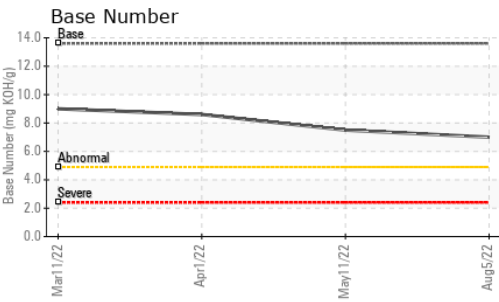
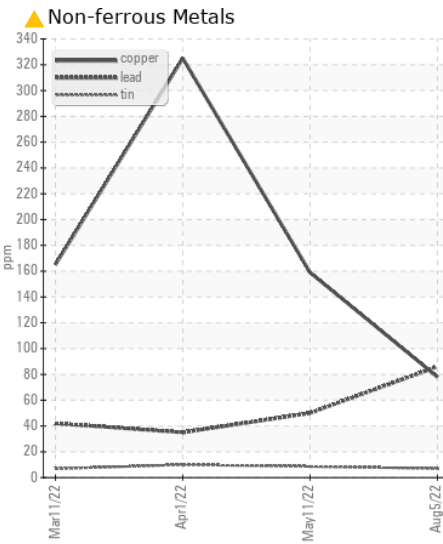
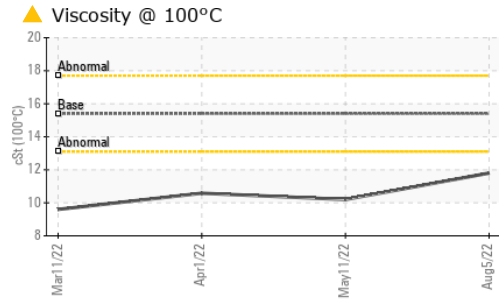
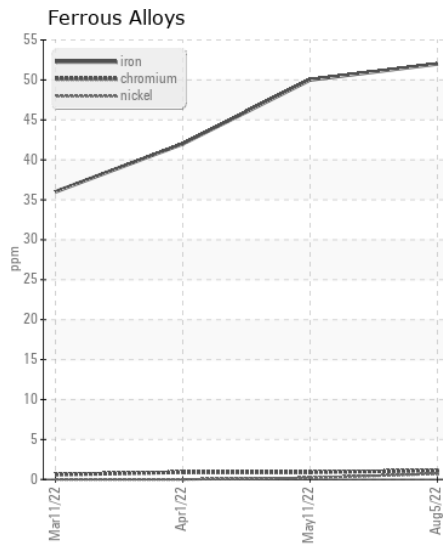
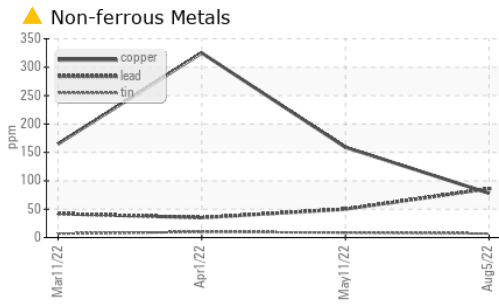
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	10	10	11
Potassium	ppm	ASTM D5185m	>20	26	10	10
Fuel	%	ASTM D3524	>2.1	<1.0	▲ 6.3	1.5
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1	0.8	0.4
Nitration	Abs/cm	*ASTM D7624	>20	14.5	13.1	11.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	32.7	29.4	25.6
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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>31	7	9	5
Boron	ppm	ASTM D5185m		15	24	81
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		240	201	227
Manganese	ppm	ASTM D5185m		4	9	10
Magnesium	ppm	ASTM D5185m		769	783	738
Calcium	ppm	ASTM D5185m		1391	1558	1588
Phosphorus	ppm	ASTM D5185m		807	866	960
Zinc	ppm	ASTM D5185m		1055	1068	1110
Sulfur	ppm	ASTM D5185m		2749	2485	2606
Oxidation	Abs/.1mm	*ASTM D7414	>25	28.6	25.5	20.7
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.0	7.5	8.6
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.8	▲ 10.2	▲ 10.58



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0139412 **Received** : 09 Aug 2022
Lab Number : 05612474 **Diagnosed** : 10 Aug 2022
Unique Number : 10086968 **Diagnostician** : Jonathan Hester
Test Package : CONST (Additional Tests: TBN)

WAKE STONE CORP
 6811 HWY 64 EAST
 KNIGHTDALE, NC
 US 27545

Contact: PAUL SPRUILL
 paulspruill@wakestonecorp.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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F: