



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 944K 1DW944KXAML703645

Component
Diesel Engine

Fluid
{not provided} (12 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0222588	JR0202774	JR0197570
Sample Date		Client Info		24 Jun 2024	15 Feb 2024	05 Feb 2024
Machine Age	hrs	Client Info		5072	4497	4494
Oil Age	hrs	Client Info		5072	3	378
Filter Age	hrs	Client Info		0	3	378
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	SEVERE

WEAR

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core).

Iron	ppm	ASTM D5185m	>51	67	4	40
Chromium	ppm	ASTM D5185m	>11	2	<1	<1
Nickel	ppm	ASTM D5185m	>5	1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>31	8	3	4
Lead	ppm	ASTM D5185m	>26	12	<1	▲ 53
Copper	ppm	ASTM D5185m	>26	▲ 454	4	15
Tin	ppm	ASTM D5185m	>4	8	0	2
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

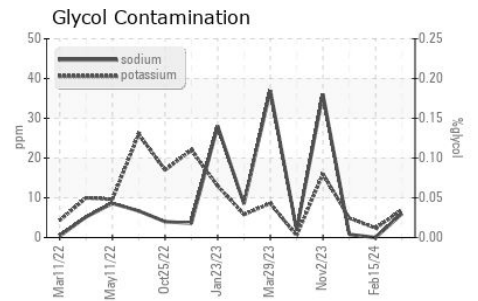
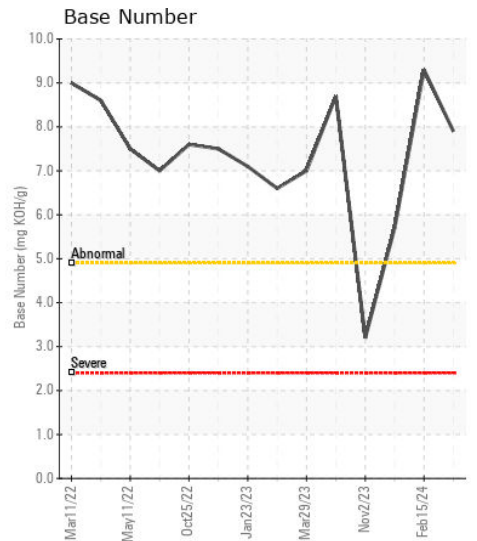
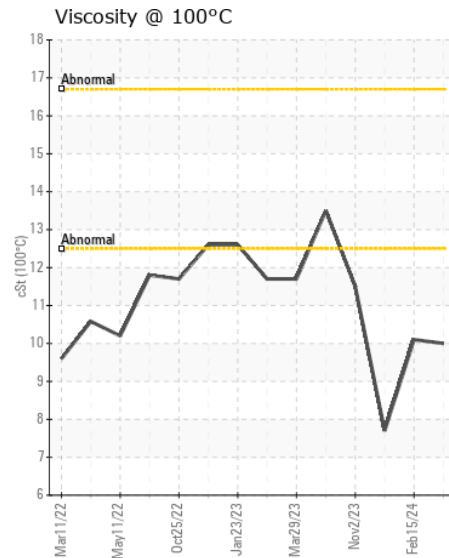
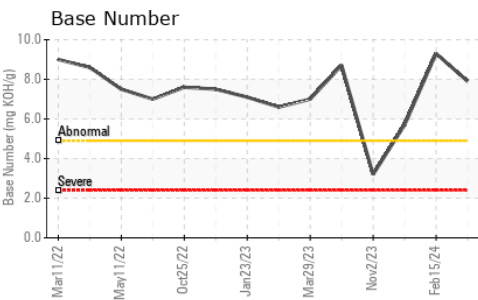
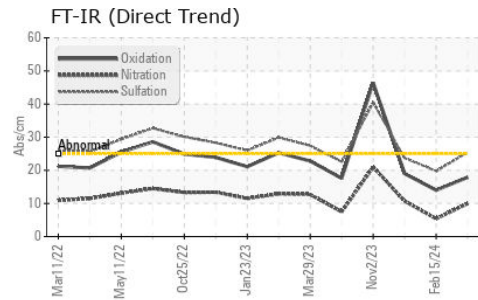
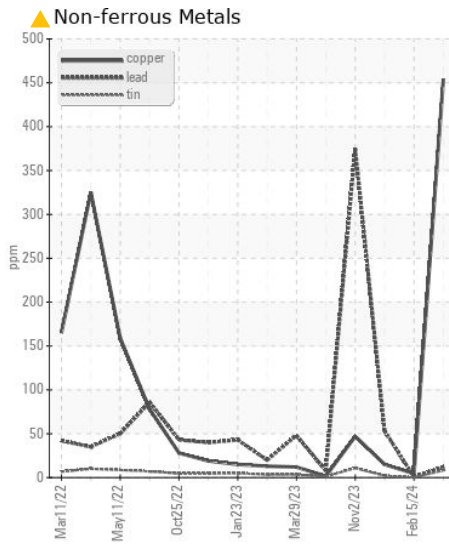
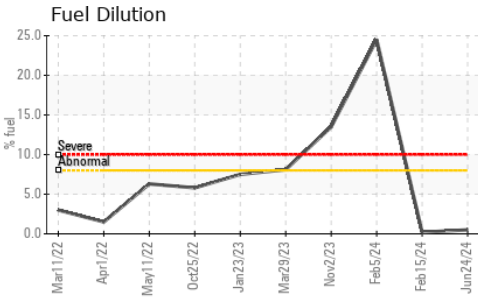
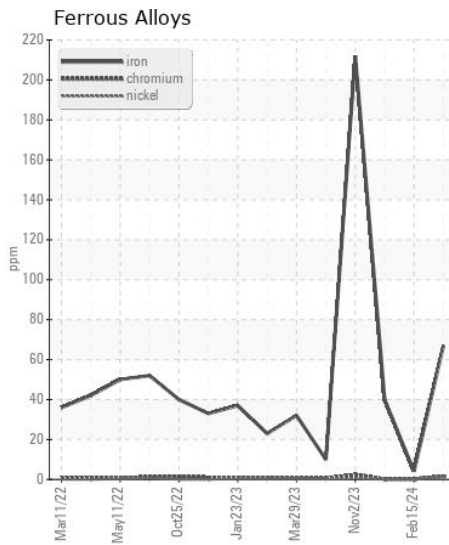
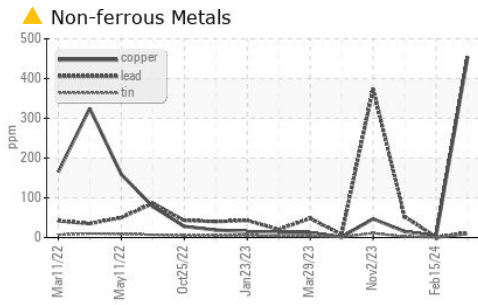
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	14	7	11
Potassium	ppm	ASTM D5185m	>20	7	2	5
Fuel	%	ASTM D3524	>8.0	0.5	0.2	▲ 24.5
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1	0	0.7
Nitration	Abs/cm	*ASTM D7624	>20	10.0	5.4	10.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.4	19.8	23.7
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 acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>31	6	0	<1
Boron	ppm	ASTM D5185m		47	283	26
Barium	ppm	ASTM D5185m		3	4	6
Molybdenum	ppm	ASTM D5185m		266	237	203
Manganese	ppm	ASTM D5185m		11	3	<1
Magnesium	ppm	ASTM D5185m		791	709	660
Calcium	ppm	ASTM D5185m		1361	1206	1012
Phosphorus	ppm	ASTM D5185m		810	868	585
Zinc	ppm	ASTM D5185m		1054	946	774
Sulfur	ppm	ASTM D5185m		2733	3295	2167
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.9	14.0	19.0
Base Number (BN)	mg KOH/g	ASTM D2896		7.9	9.3	5.7
Visc @ 100°C	cSt	ASTM D445		10.0	10.1	▲ 7.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0222588
Lab Number : 06219533
Unique Number : 11097730
Test Package : CONST (Additional Tests: FuelDilution, Glycol, PercentFuel, TBN)

Received : 25 Jun 2024
Tested : 28 Jun 2024
Diagnosed : 28 Jun 2024 - Jonathan Hester

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: