



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Contracting

Machine Id
5533 5533

Component
Diesel Engine

Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (3 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0861724	WC0809014	WC0744793
Sample Date		Client Info		08 Jan 2024	18 May 2023	17 Oct 2022
Machine Age	hrs	Client Info		1842	1164	602
Oil Age	hrs	Client Info		678	662	602
Filter Age	hrs	Client Info		678	662	602
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ATTENTION	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	22	17	28
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	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	4	5	5
Lead	ppm	ASTM D5185m	>26	0	<1	<1
Copper	ppm	ASTM D5185m	>26	2	0	2
Tin	ppm	ASTM D5185m	>4	<1	1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

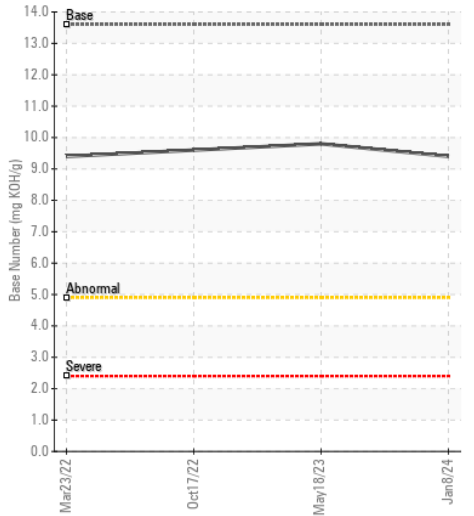
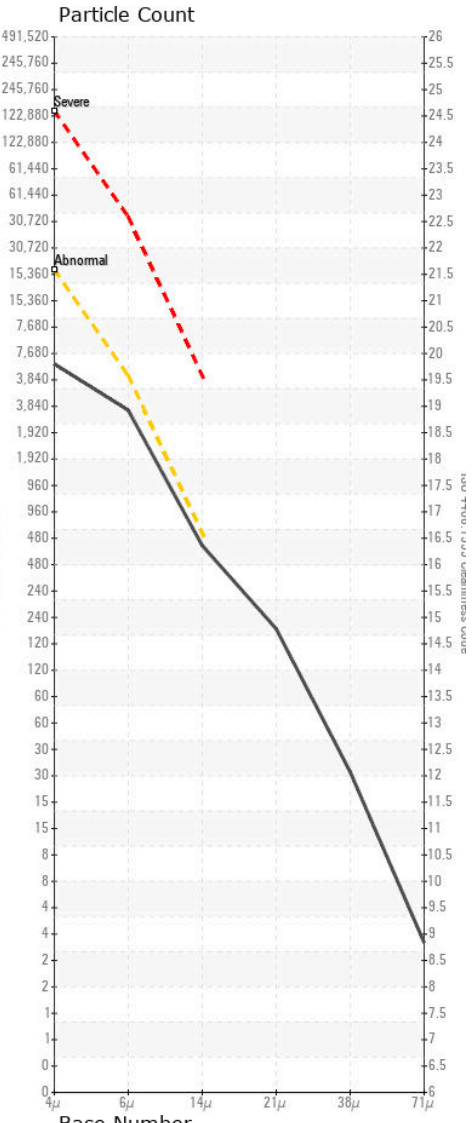
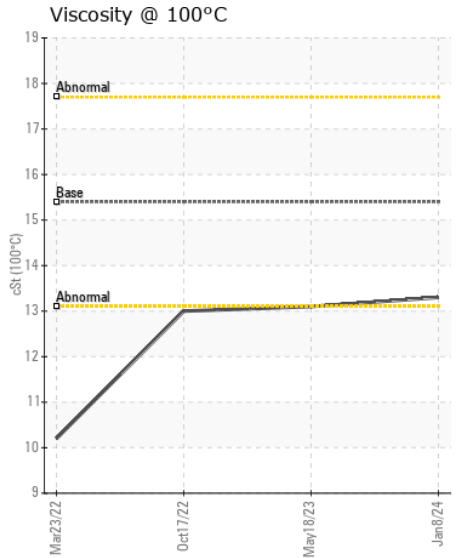
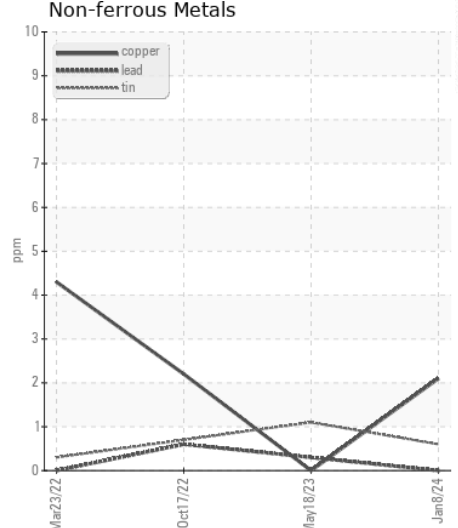
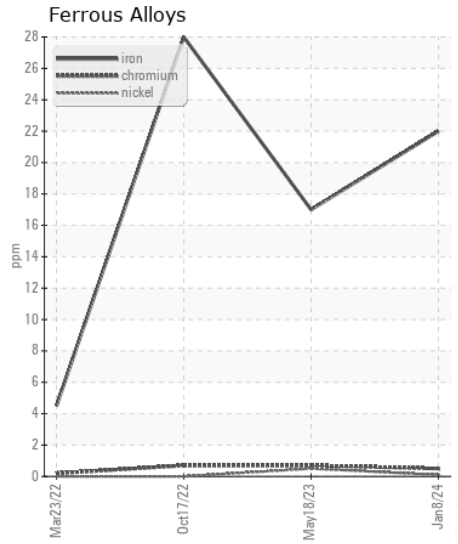
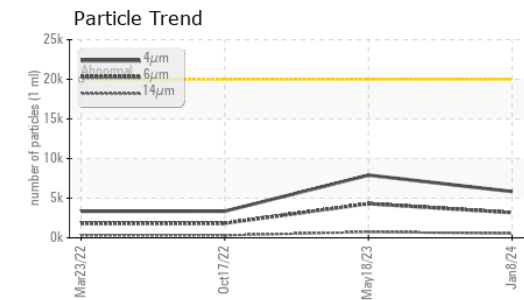
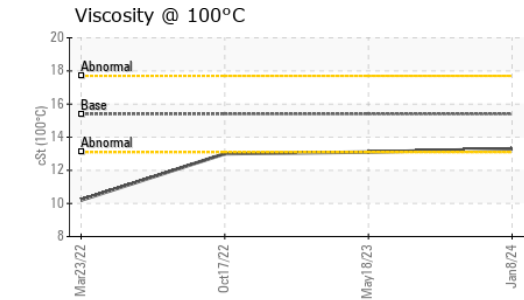
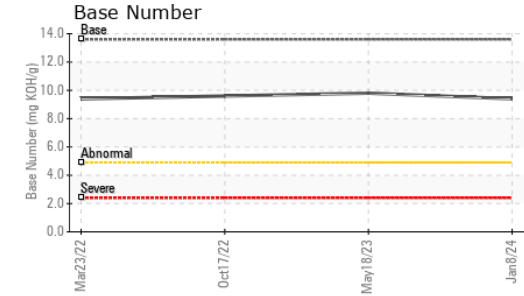
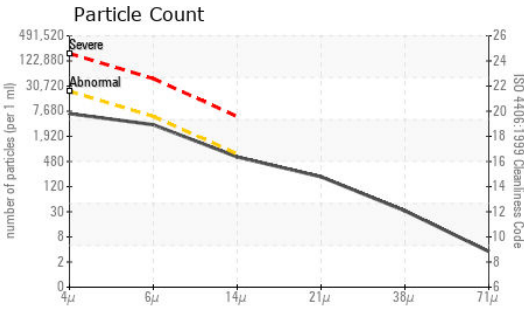
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	12	13	20
Potassium	ppm	ASTM D5185m	>20	<1	2	10
Fuel		WC Method	>2.1	<1.0	<1.0	0.3
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.7	0.5	0.6
Nitration	Abs/cm	*ASTM D7624	>20	9.3	9.0	10.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.6	21.6	24.9
Particles >4µm		ASTM D7647	>20000	5837	7908	3354
Particles >6µm		ASTM D7647	>5000	3180	4308	1827
Particles >14µm		ASTM D7647	>640	541	▲ 733	311
Particles >21µm		ASTM D7647	>160	182	▲ 247	105
Particles >38µm		ASTM D7647	>40	28	38	16
Particles >71µm		ASTM D7647	>10	3	4	2
Oil Cleanliness		ISO 4406 (c)	>21/19/16	20/19/16	▲ 20/19/17	19/18/15
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 suitable for further service.

Sodium	ppm	ASTM D5185m	>31	2	2	1
Boron	ppm	ASTM D5185m		33	51	187
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		49	65	236
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		533	595	797
Calcium	ppm	ASTM D5185m		1672	1768	1566
Phosphorus	ppm	ASTM D5185m		797	828	891
Zinc	ppm	ASTM D5185m		962	1045	1082
Sulfur	ppm	ASTM D5185m		2425	3257	3414
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.4	21.1	20.1
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	9.4	9.8	9.6
Visc @ 100°C	cSt	ASTM D445	15.4	13.3	13.1	13.0



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0861724 **Received** : 10 Jan 2024
Lab Number : 06056567 **Diagnosed** : 11 Jan 2024
Unique Number : 10822516 **Diagnostician** : Don Baldrige
Test Package : CONST (Additional Tests: PrtCount, TBN)

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Certificate L2367
 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)