



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 200DLC 1FF200DXLBD512857
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (6 QTS)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0034390	JRMC393565	JRMC394649
Sample Date		Client Info		03 Feb 2020	22 May 2019	01 Nov 2018
Machine Age	hrs	Client Info		7748	7265	6752
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

Ring and cylinder wear is indicated.

Iron	ppm	ASTM D5185m	>51	▲ 121	50	53
Chromium	ppm	ASTM D5185m	>11	▲ 19	1	2
Nickel	ppm	ASTM D5185m	>5	3	<1	2
Titanium	ppm	ASTM D5185m		<1	1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>31	12	7	6
Lead	ppm	ASTM D5185m	>26	4	0	6
Copper	ppm	ASTM D5185m	>26	6	1	1
Tin	ppm	ASTM D5185m	>4	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	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.

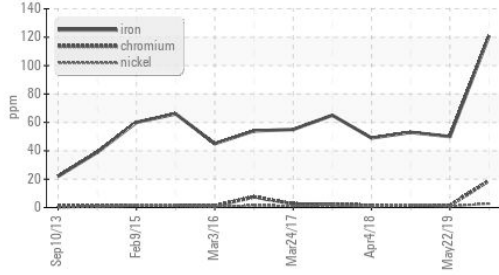
Silicon	ppm	ASTM D5185m	>22	9	7	6
Potassium	ppm	ASTM D5185m	>20	4	8	0
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	2.9	2	2.6
Nitration	Abs/cm	*ASTM D7624	>20	11	9.9	11.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	27.9	25.2	27.4
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

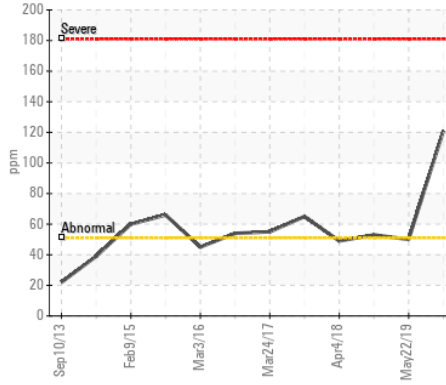
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	18	14	5
Boron	ppm	ASTM D5185m		114	147	110
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		184	196	167
Manganese	ppm	ASTM D5185m		2	<1	<1
Magnesium	ppm	ASTM D5185m		588	690	588
Calcium	ppm	ASTM D5185m		1642	1762	1695
Phosphorus	ppm	ASTM D5185m		822	916	875
Zinc	ppm	ASTM D5185m		942	1069	1008
Sulfur	ppm	ASTM D5185m		3079	2656	2632
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.2	18.3	18.8
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	6.8	8	9.2
Visc @ 100°C	cSt	ASTM D445	15.4	16.2	15.5	16.05

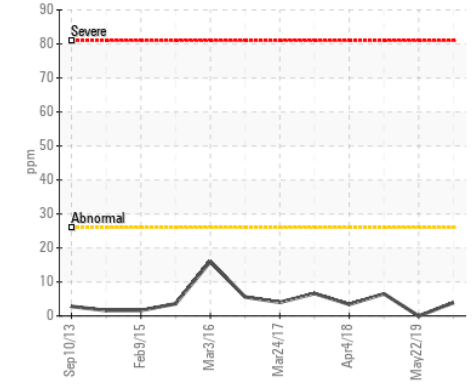
▲ Ferrous Alloys



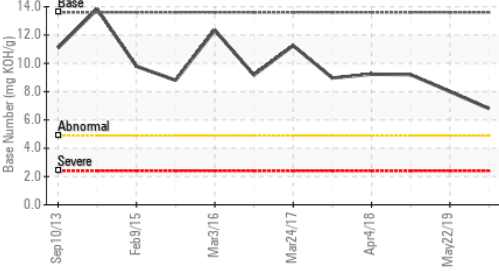
▲ Iron (ppm)



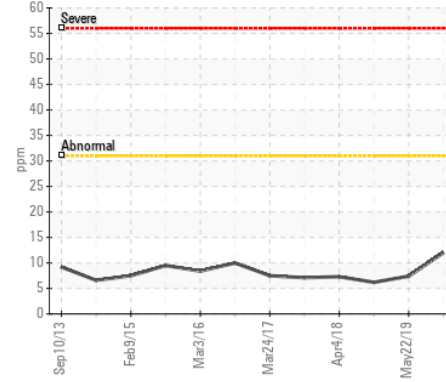
▲ Lead (ppm)



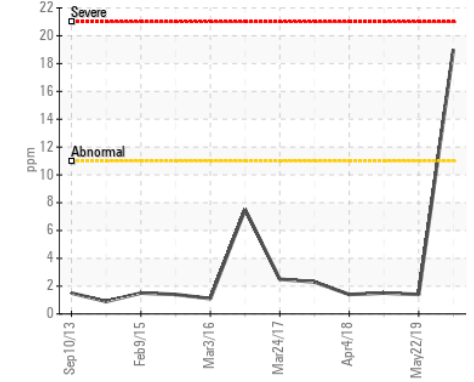
Base Number



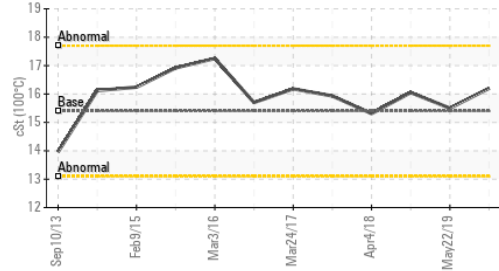
Aluminum (ppm)



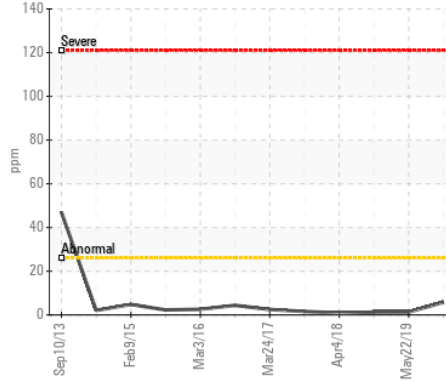
▲ Chromium (ppm)



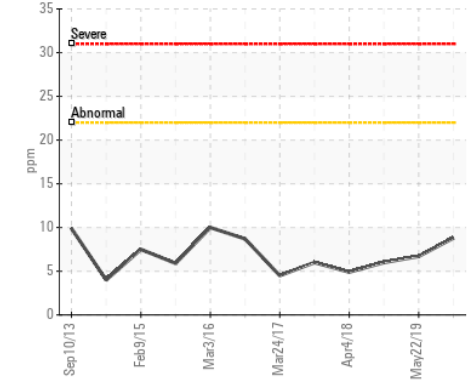
Viscosity @ 100°C



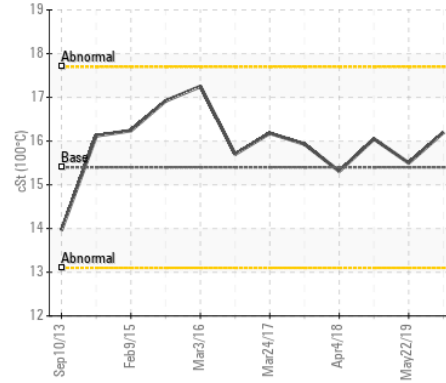
Copper (ppm)



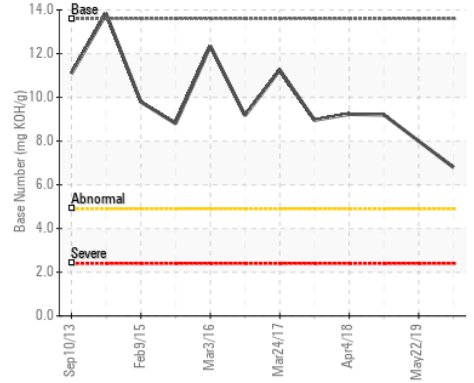
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0034390 **Received** : 03 Feb 2020
Lab Number : 04903465 **Diagnosed** : 05 Feb 2020
Unique Number : 8908526 **Diagnostician** : Jonathan Hester
Test Package : MOBCE (Additional Tests: PQ, TBN)

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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