MOB

James River Equipment

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 135D 2258498 (S/N FF135DX302177)
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- QTS)

RECOMMENDATION

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

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). All other component wear rates are normal.

CONTAMINATION

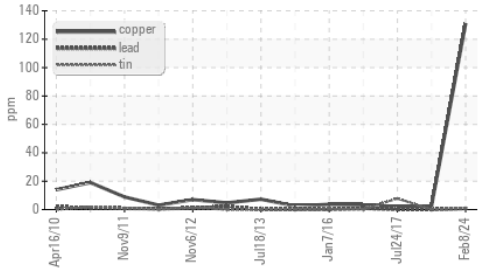
Elemental level of silicon (Si) above normal.

FLUID CONDITION

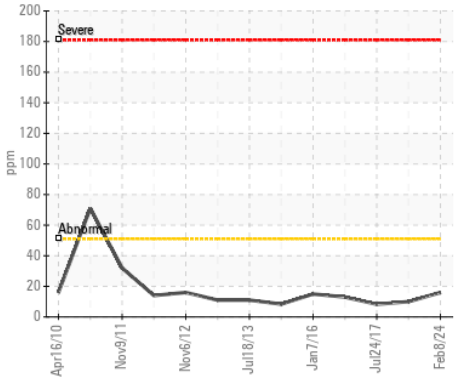
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0074522	JR0020782	JRMC443319
Sample Date		Client Info		08 Feb 2024	29 Oct 2019	24 Jul 2017
Machine Age	hrs	Client Info		12178	8442	6039
Oil Age	hrs	Client Info		12178	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	N/A
Filter Changed		Client Info		N/A	Changed	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>51	16	10	8
Chromium	ppm	ASTM D5185m	>11	<1	<1	0
Nickel	ppm	ASTM D5185m	>5	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>31	4	2	3
Lead	ppm	ASTM D5185m	>26	<1	0	0
Copper	ppm	ASTM D5185m	>26	▲ 131	2	2
Tin	ppm	ASTM D5185m	>4	1	0	8
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	▲ 25	3	4
Potassium	ppm	ASTM D5185m	>20	4	3	4
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.4	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.2	10.5	6.
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.1	24.5	17.
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	>31	0	4	32
Boron	ppm	ASTM D5185m		231	45	76
Barium	ppm	ASTM D5185m		15	0	0
Molybdenum	ppm	ASTM D5185m		226	35	122
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m		701	434	742
Calcium	ppm	ASTM D5185m		1501	1930	1652
Phosphorus	ppm	ASTM D5185m		915	766	852
Zinc	ppm	ASTM D5185m		1002	972	1020
Sulfur	ppm	ASTM D5185m		3325	2218	2566
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.7	24.8	11.
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.9	8.8	11.67
Visc @ 100°C	cSt	ASTM D445	15.4	13.4	14.6	14.42

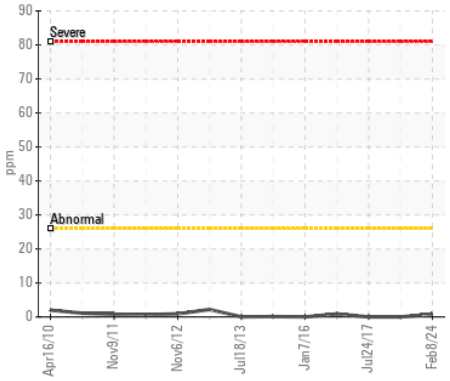
Non-ferrous Metals



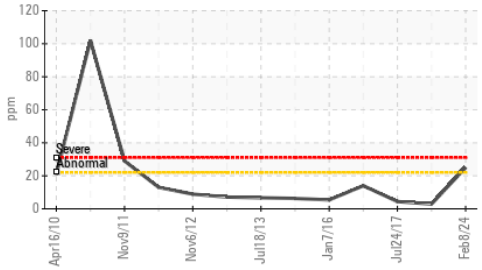
Iron (ppm)



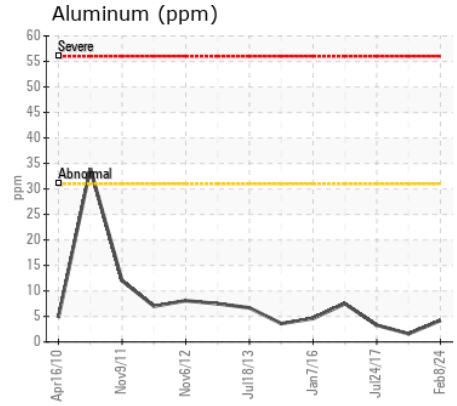
Lead (ppm)



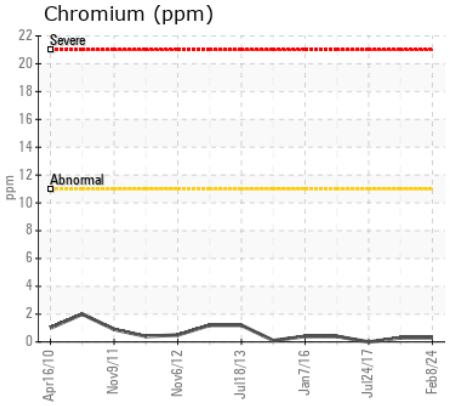
Silicon (ppm)



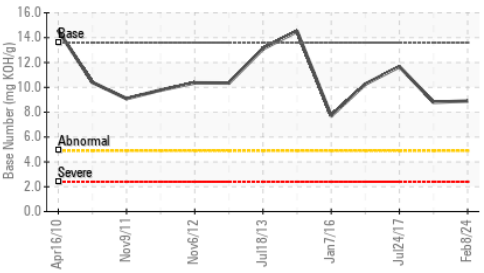
Aluminum (ppm)



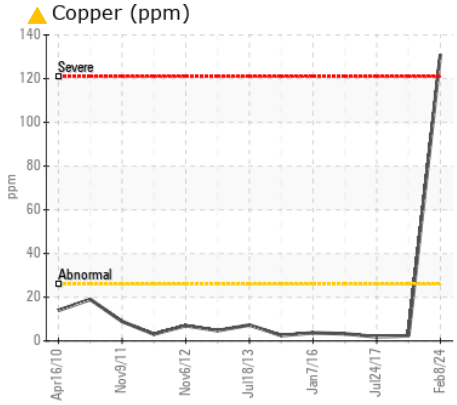
Chromium (ppm)



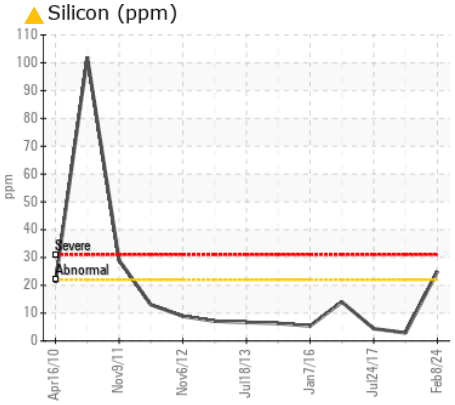
Base Number



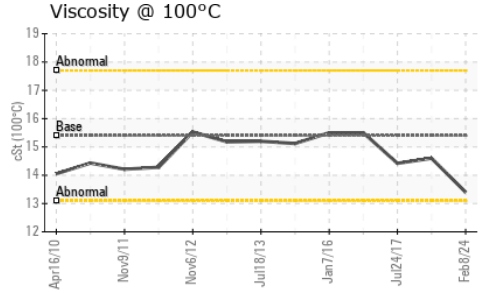
Copper (ppm)



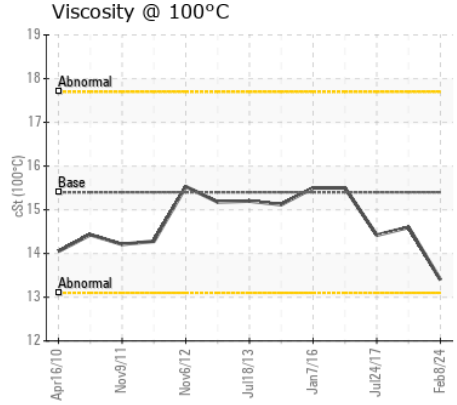
Silicon (ppm)



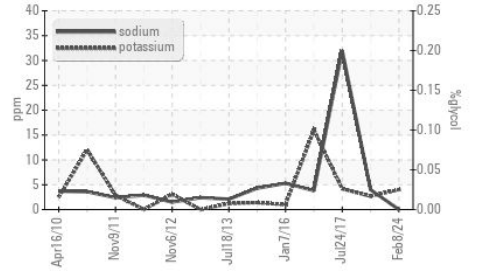
Viscosity @ 100°C



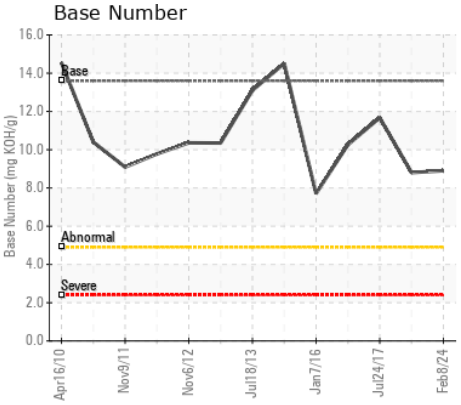
Viscosity @ 100°C



Glycol Contamination



Base Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0074522
Lab Number : 06085717
Unique Number : 10873162
Test Package : MOBCE (Additional Tests: Glycol, TBN)

Received : 12 Feb 2024
Tested : 13 Feb 2024
Diagnosed : 13 Feb 2024 - Don Baldridge

Certificate L2367

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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)