CONST

James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

[16W16293]

Machine Id

JOHN DEERE 544 P 1DW544PAHNLZ15954

Component

Diesel Engine

Fluid

JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (5 GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: 16W16293)

WEAR

All component wear rates are normal.

CONTAMINATION

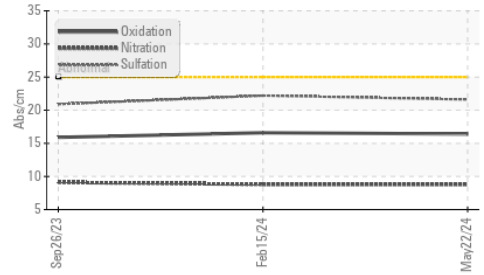
There is no indication of any contamination in the oil.

FLUID CONDITION

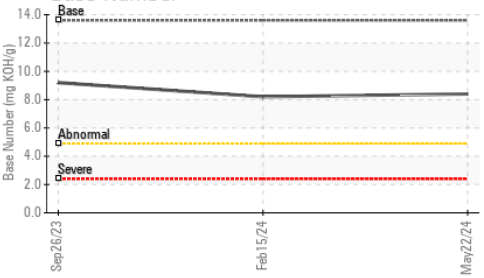
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0207185	JR0196351	JR0185355
Sample Date		Client Info		22 May 2024	15 Feb 2024	26 Sep 2023
Machine Age	hrs	Client Info		1476	982	472
Oil Age	hrs	Client Info		494	510	472
Filter Age	hrs	Client Info		494	510	472
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>51	13	19	25
Chromium	ppm	ASTM D5185m	>11	0	<1	<1
Nickel	ppm	ASTM D5185m	>5	2	3	3
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	<1	0	<1
Aluminum	ppm	ASTM D5185m	>31	6	5	4
Lead	ppm	ASTM D5185m	>26	<1	1	1
Copper	ppm	ASTM D5185m	>26	6	▲ 55	▲ 387
Tin	ppm	ASTM D5185m	>4	1	<1	2
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	7	7	10
Potassium	ppm	ASTM D5185m	>20	2	2	2
Fuel		WC Method	>2.1	<1.0	<1.0	0.4
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	8.8	8.8	9.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.6	22.2	20.9
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	3	3	3
Boron	ppm	ASTM D5185m		242	209	219
Barium	ppm	ASTM D5185m		0	<1	1
Molybdenum	ppm	ASTM D5185m		255	250	240
Manganese	ppm	ASTM D5185m		<1	1	4
Magnesium	ppm	ASTM D5185m		882	793	860
Calcium	ppm	ASTM D5185m		1417	1323	1413
Phosphorus	ppm	ASTM D5185m		886	849	875
Zinc	ppm	ASTM D5185m		1133	1071	1138
Sulfur	ppm	ASTM D5185m		3485	2845	3089
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.4	16.6	15.9
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.4	8.2	9.2
Visc @ 100°C	cSt	ASTM D445	15.4	13.3	13.1	● 10.4

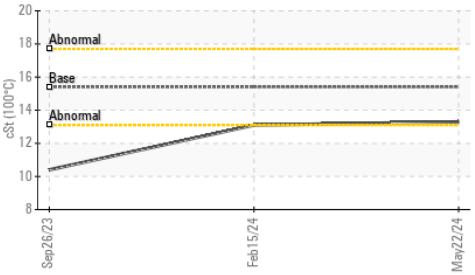
FT-IR (Direct Trend)



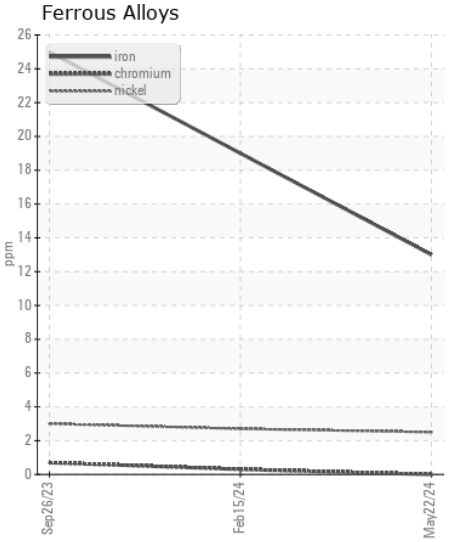
Base Number



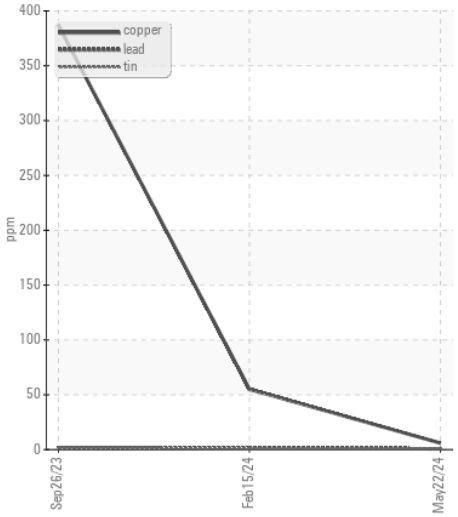
Viscosity @ 100°C



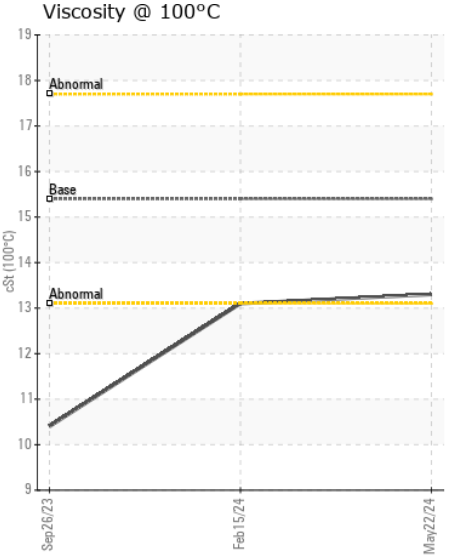
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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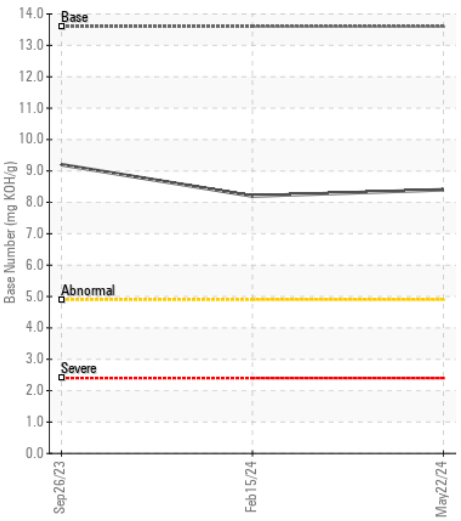

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0207185
Lab Number : 06190167
Unique Number : 11046919
Test Package : CONST (Additional Tests: TBN)

Received : 24 May 2024
Tested : 29 May 2024
Diagnosed : 29 May 2024 - Angela Borella

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)

JRE - CASTLE HAYNE
113 CROWATAN ROAD
CASTLE HAYNE, NC
US 28429-5819
Contact: WILMINGTON SHOP
todd.simmons@jamesriverequipment.com;canastasio@wearcheck.com;canastasio@we
T: (910)675-9211
F: