James River Equipment

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 350P 1FF350PAHNF000281
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

Cylinder, crank, or cam shaft wear is indicated. Bearing and/or bushing wear is indicated. Valve wear is indicated.

CONTAMINATION

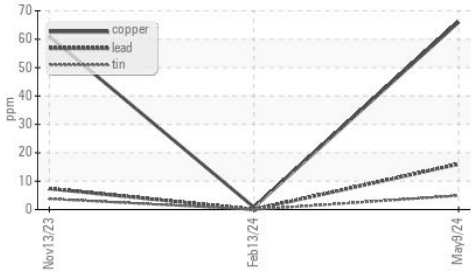
There is no indication of any contamination in the oil.

FLUID CONDITION

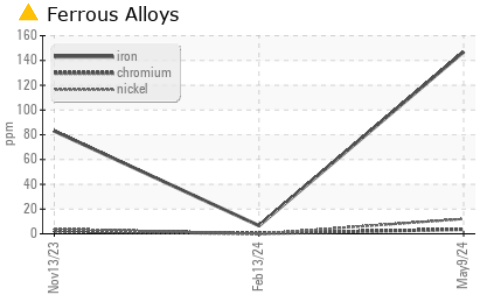
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0213029	JR0202195	JR0190724
Sample Date		Client Info		09 May 2024	13 Feb 2024	13 Nov 2023
Machine Age	hrs	Client Info		2012	1551	1091
Oil Age	hrs	Client Info		461	460	1091
Filter Age	hrs	Client Info		461	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>51	▲ 147	7	▲ 83
Chromium	ppm	ASTM D5185m	>11	4	<1	2
Nickel	ppm	ASTM D5185m	>5	▲ 12	0	4
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	0	<1
Aluminum	ppm	ASTM D5185m	>31	8	6	6
Lead	ppm	ASTM D5185m	>26	▲ 16	0	7
Copper	ppm	ASTM D5185m	>26	▲ 66	<1	▲ 61
Tin	ppm	ASTM D5185m	>4	5	0	4
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	20	14	16
Potassium	ppm	ASTM D5185m	>20	9	3	8
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	1	0.1	0.6
Nitration	Abs/cm	*ASTM D7624	>20	12.8	5.7	10.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.8	19.4	27.0
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	12	1	9
Boron	ppm	ASTM D5185m		14	437	44
Barium	ppm	ASTM D5185m		1	14	0
Molybdenum	ppm	ASTM D5185m		183	367	175
Manganese	ppm	ASTM D5185m		2	<1	2
Magnesium	ppm	ASTM D5185m		701	1171	686
Calcium	ppm	ASTM D5185m		1648	1977	1607
Phosphorus	ppm	ASTM D5185m		984	1399	920
Zinc	ppm	ASTM D5185m		1240	1501	1168
Sulfur	ppm	ASTM D5185m		2797	5558	2666
Oxidation	Abs/.1mm	*ASTM D7414	>25	28.9	14.0	25.1
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	6.3	9.8	7.0
Visc @ 100°C	cSt	ASTM D445	15.4	13.3	14.3	12.2

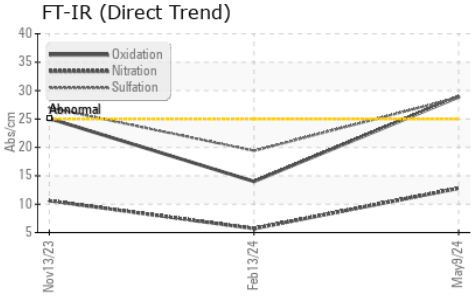
Non-ferrous Metals



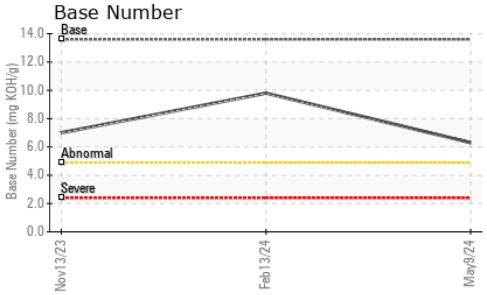
Ferrous Alloys



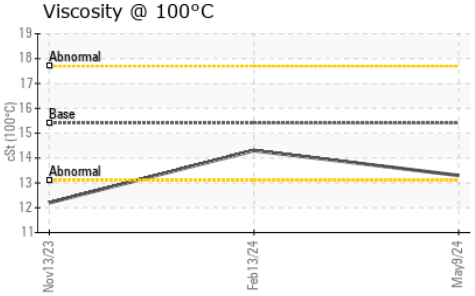
FT-IR (Direct Trend)



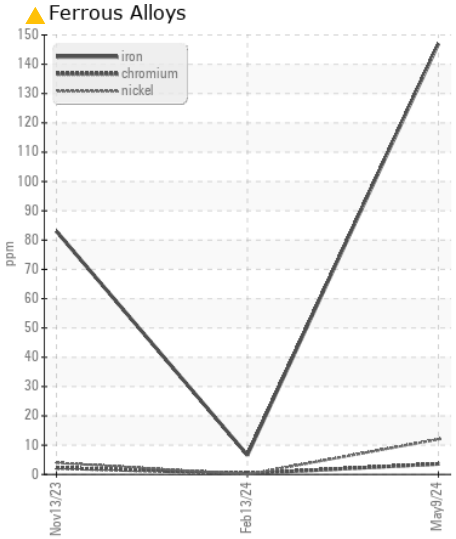
Base Number



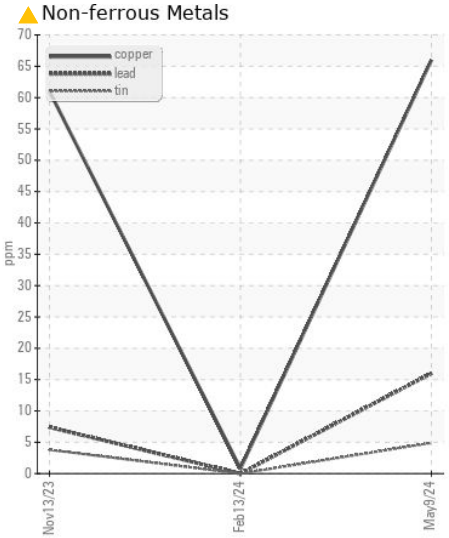
Viscosity @ 100°C



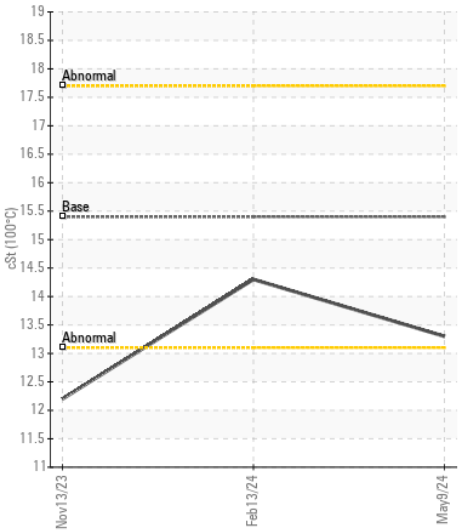
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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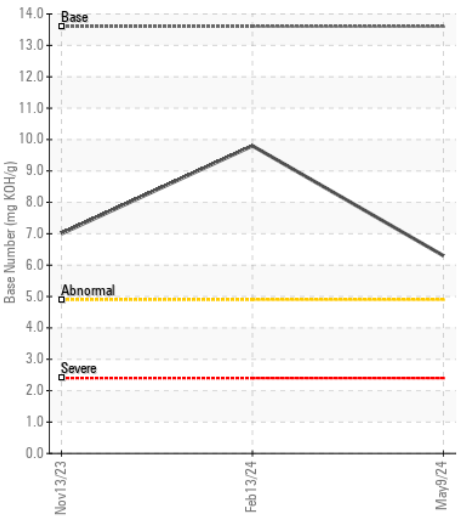

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0213029
Lab Number : 06178520
Unique Number : 11029846
Test Package : CONST (Additional Tests: TBN)

Received : 14 May 2024
Tested : 15 May 2024
Diagnosed : 17 May 2024 - Jonathan Hester

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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