CONST

James River Equipment

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

[W51963]

Machine Id

JOHN DEERE 824L 1DW824LXKNL713524

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

WEAR

The nickel level has decreased, but is still abnormal. All other component wear rates are normal.

CONTAMINATION

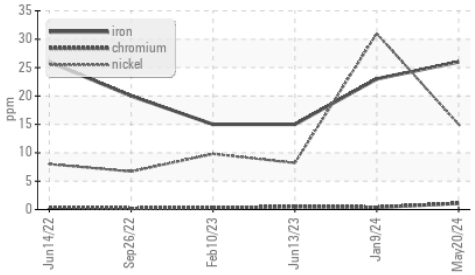
There is no indication of any contamination in the oil.

FLUID CONDITION

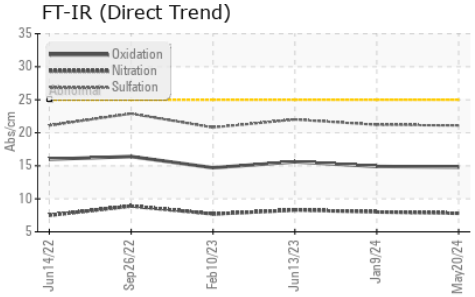
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0212123	JR0180727	JR0165586
Sample Date		Client Info		20 May 2024	09 Jan 2024	13 Jun 2023
Machine Age	hrs	Client Info		2949	2471	1992
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185m	>51	26	23	15
Chromium	ppm	ASTM D5185m	>11	1	<1	<1
Nickel	ppm	ASTM D5185m	>5	▲ 15	▲ 31	8
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	1	0	0
Aluminum	ppm	ASTM D5185m	>31	7	4	4
Lead	ppm	ASTM D5185m	>26	<1	<1	0
Copper	ppm	ASTM D5185m	>26	2	1	<1
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
Silicon	ppm	ASTM D5185m	>22	10	8	7
Potassium	ppm	ASTM D5185m	>20	4	2	1
Fuel	%	ASTM D3524	>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	0.3	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	7.8	8.0	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.1	21.2	22.0
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	3	0	2
Boron	ppm	ASTM D5185m		329	274	201
Barium	ppm	ASTM D5185m		3	3	0
Molybdenum	ppm	ASTM D5185m		337	266	221
Manganese	ppm	ASTM D5185m		1	1	<1
Magnesium	ppm	ASTM D5185m		1108	824	746
Calcium	ppm	ASTM D5185m		1893	1447	1387
Phosphorus	ppm	ASTM D5185m		1223	924	868
Zinc	ppm	ASTM D5185m		1443	1124	1093
Sulfur	ppm	ASTM D5185m		4299	3495	3679
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.8	14.9	15.6
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	9.0	8.4	8.6
Visc @ 100°C	cSt	ASTM D445	15.4	13.0	13.6	12.9

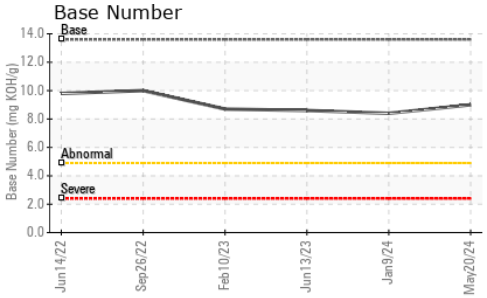
Ferrous Alloys



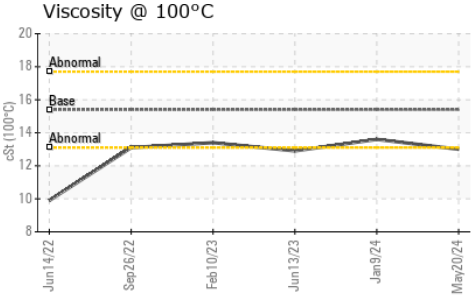
FT-IR (Direct Trend)



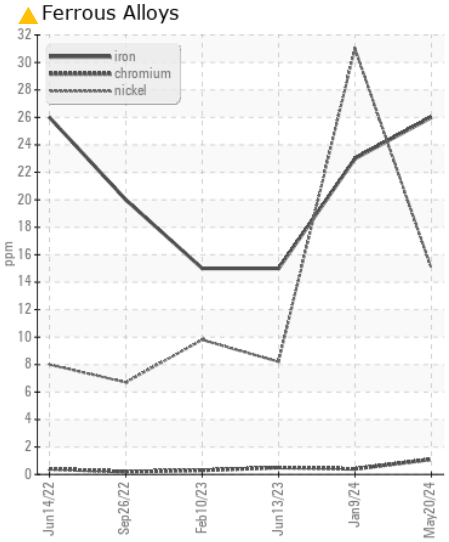
Base Number



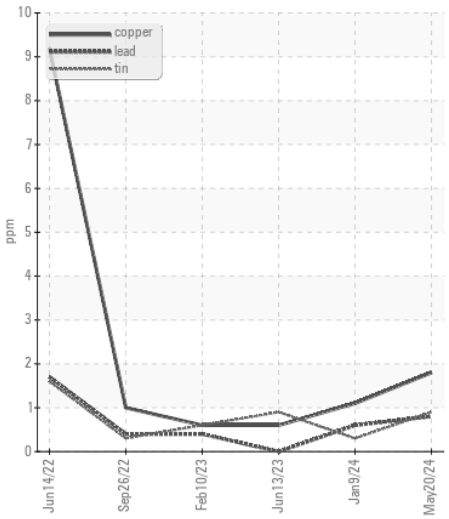
Viscosity @ 100°C



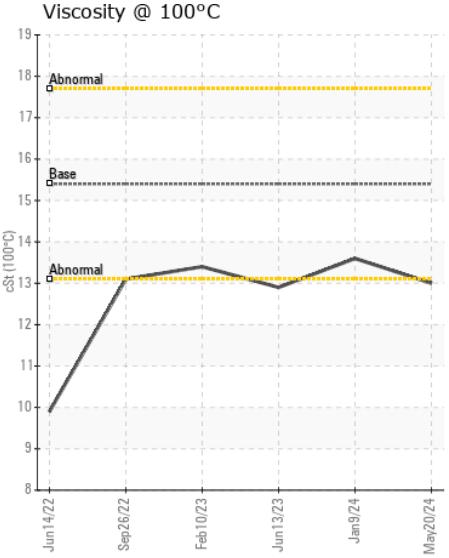
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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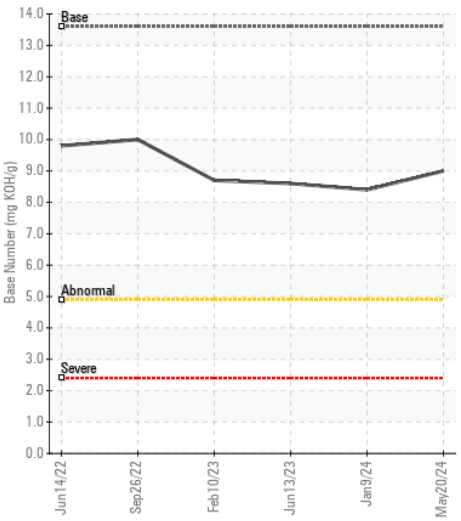

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0212123
Lab Number : 06191973
Unique Number : 11048725
Test Package : CONST (Additional Tests: FuelDilution, TBN)

Received : 28 May 2024
Tested : 29 May 2024
Diagnosed : 30 May 2024 - Don Baldridge

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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