



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 848L 1DW848LBVNF713287
 Component
Diesel Engine
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (30 QTS)

RECOMMENDATION

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0221020	JR0176740	JR0164193
Sample Date		Client Info		08 Jul 2024	18 Jul 2023	08 Mar 2023
Machine Age	hrs	Client Info		3463	2473	1786
Oil Age	hrs	Client Info		500	687	770
Filter Age	hrs	Client Info		500	687	770
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	ATTENTION

WEAR

Iron	ppm	ASTM D5185m	>51	19	20	24
Chromium	ppm	ASTM D5185m	>11	<1	<1	1
Nickel	ppm	ASTM D5185m	>5	▲ 9	2	4
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	7	6	7
Lead	ppm	ASTM D5185m	>26	1	0	<1
Copper	ppm	ASTM D5185m	>26	2	2	3
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

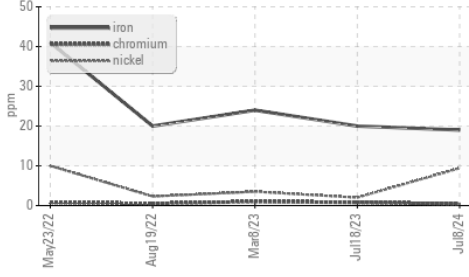
CONTAMINATION

Silicon	ppm	ASTM D5185m	>22	8	6	8
Potassium	ppm	ASTM D5185m	>20	7	8	12
Fuel		WC Method	>2.1	<1.0	<1.0	0.2
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.4	8.7	10.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.4	22.1	21.4
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

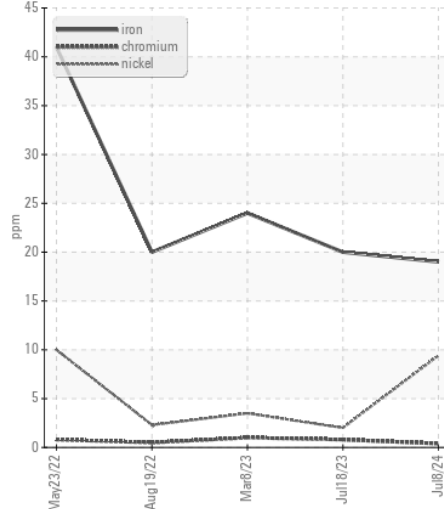
FLUID CONDITION

Sodium	ppm	ASTM D5185m	>31	3	2	3
Boron	ppm	ASTM D5185m		241	204	166
Barium	ppm	ASTM D5185m		0	0	<1
Molybdenum	ppm	ASTM D5185m		266	235	223
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m		818	818	774
Calcium	ppm	ASTM D5185m		1470	1410	1582
Phosphorus	ppm	ASTM D5185m		996	839	871
Zinc	ppm	ASTM D5185m		1132	1061	1125
Sulfur	ppm	ASTM D5185m		3736	3392	3685
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.4	16.3	18.3
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	9.0	8.8	10.7
Visc @ 100°C	cSt	ASTM D445	15.4	13.0	13.1	● 12.1

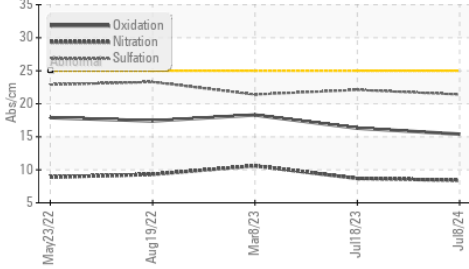
▲ Ferrous Alloys



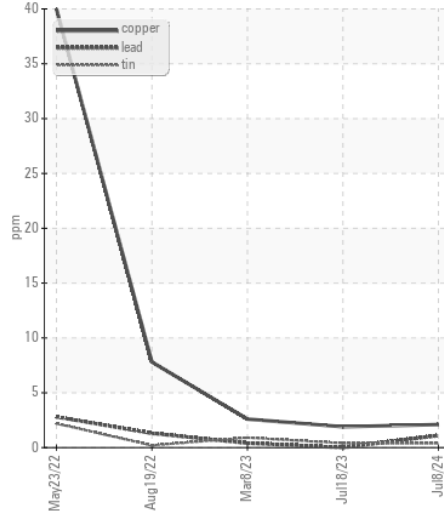
▲ Ferrous Alloys



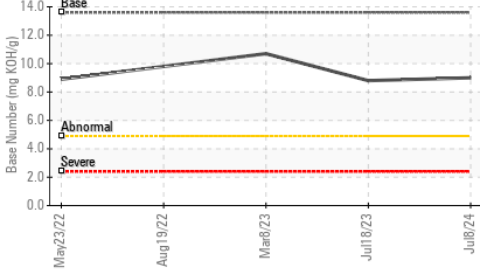
FT-IR (Direct Trend)



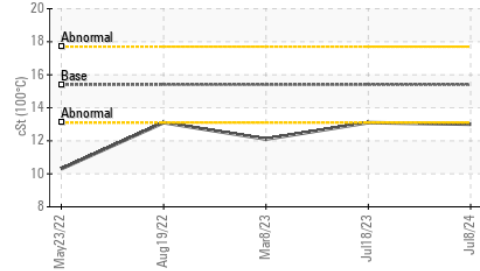
Non-ferrous Metals



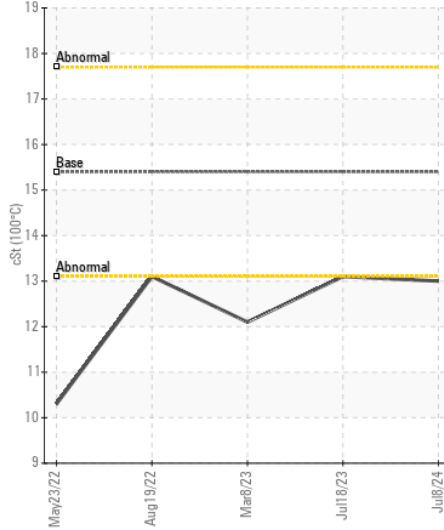
Base Number



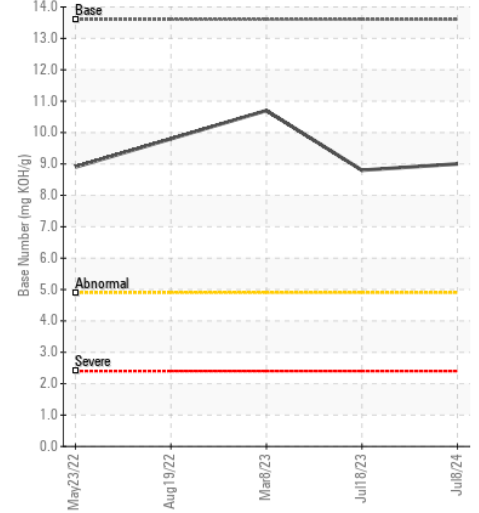
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0221020 **Received** : 09 Jul 2024
Lab Number : 06231252 **Tested** : 10 Jul 2024
Unique Number : 11114745 **Diagnosed** : 10 Jul 2024 - Don Baldrige
Test Package : CONST (Additional Tests: TBN)

JRE - NEW BERN
 3816 MARTIN LUTHER KING BLVD
 NEW BERN, NC
 US 28562
 Contact: NEW BERN SHOP
 nick.etheridge@jamesriverequipment.com; canastasio@wearcheckusa.com

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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