



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 310E 1DW310EXVMF712829
Component
Center Axle
Fluid
JOHN DEERE HY-GARD HYD/TRANS (39 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0218464	JR0211094	JR0199497
Sample Date		Client Info		09 Jul 2024	01 Apr 2024	04 Jan 2024
Machine Age	hrs	Client Info		5727	5087	4470
Oil Age	hrs	Client Info		5110	617	2749
Filter Age	hrs	Client Info		5110	0	1000
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184		42	50	63
Iron	ppm	ASTM D5185m	>1501	88	72	162
Chromium	ppm	ASTM D5185m	>11	<1	<1	1
Nickel	ppm	ASTM D5185m	>10	<1	<1	1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>21	2	1	2
Lead	ppm	ASTM D5185m	>51	9	7	19
Copper	ppm	ASTM D5185m	>101	138	87	156
Tin	ppm	ASTM D5185m	>10	4	4	6
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

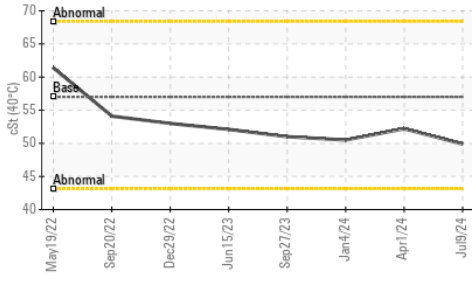
Silicon	ppm	ASTM D5185m	>31	7	6	9
Potassium	ppm	ASTM D5185m	>20	2	<1	0
Water		WC Method	>0.1	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG

FLUID CONDITION

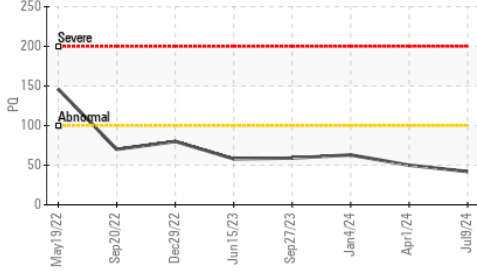
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>51	0	3	5
Boron	ppm	ASTM D5185m	6	12	11	19
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	6	5	6
Manganese	ppm	ASTM D5185m		4	4	11
Magnesium	ppm	ASTM D5185m	145	113	113	121
Calcium	ppm	ASTM D5185m	3570	3448	3209	3304
Phosphorus	ppm	ASTM D5185m	1290	1053	939	1073
Zinc	ppm	ASTM D5185m	1640	1268	1211	1237
Sulfur	ppm	ASTM D5185m		4333	4333	3715
Visc @ 40°C	cSt	ASTM D445	57.0	49.9	52.2	50.5

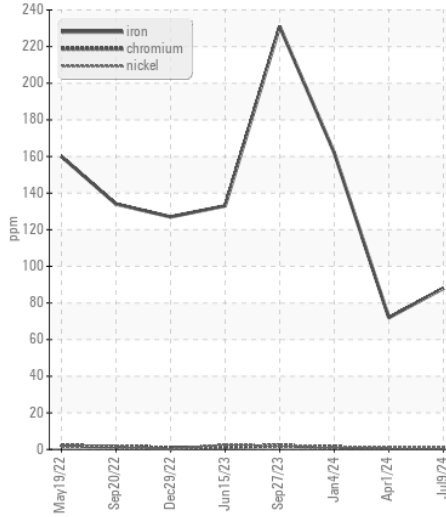
Viscosity @ 40°C



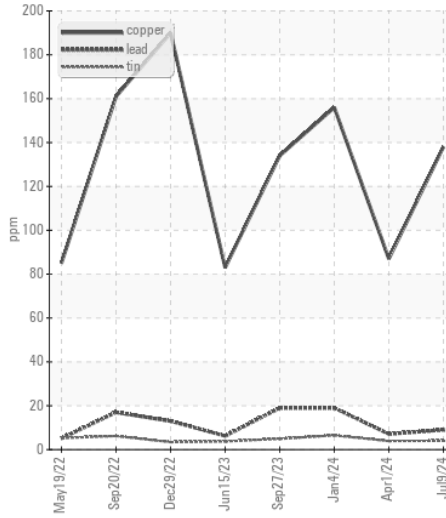
PQ



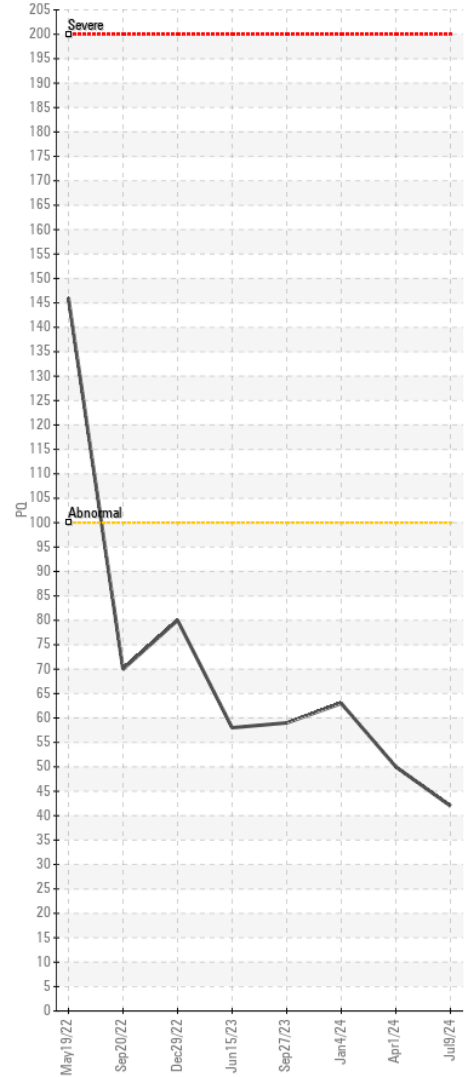
Ferrous Alloys



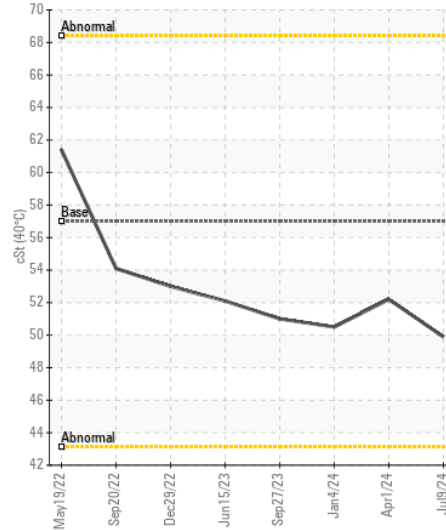
Non-ferrous Metals



PQ



Viscosity @ 40°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : JR0218464

Lab Number : 06233462

Unique Number : 11116955

Test Package : CONST (Additional Tests: PQ)

Received : 11 Jul 2024

Tested : 12 Jul 2024

Diagnosed : 13 Jul 2024 - Don Baldrige

JRE - MANASSAS PARK

9107 OWENS DRIVE

MANASSAS PARK, VA

US 20111

Contact: DON VEST

dvest@jamesriverequipment.com

T: (703)631-8500

F: (703)631-4715

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)