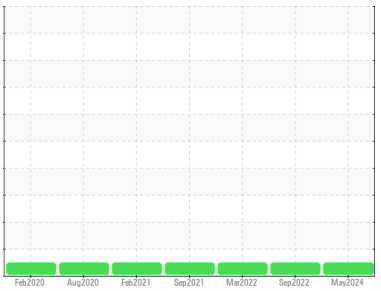
JAMES RIVER EQUIPMENT

OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
JOHN DEERE 310E 1DW310EXTKF697898
Component
Hydraulic System
Fluid
JOHN DEERE HYDRAU (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Fluid Condition
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**JR0211657**	JR0135956	JR0110280
Sample Date		Client Info		**28 May 2024**	01 Sep 2022	04 Mar 2022
Machine Age	hrs	Client Info		**4359**	3515	2957
Oil Age	hrs	Client Info		**4359**	3515	2957
Oil Changed		Client Info		**Changed**	Not Changd	Not Changd
Sample Status				**NORMAL**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.075	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184	>50	**14**	7	19
Iron	ppm	ASTM D5185m	>71	**8**	4	4
Chromium	ppm	ASTM D5185m	>11	**2**	1	1
Nickel	ppm	ASTM D5185m	>6	**<1**	<1	0
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m		**1**	<1	0
Aluminum	ppm	ASTM D5185m	>11	**1**	<1	1
Lead	ppm	ASTM D5185m	>13	**<1**	<1	0
Copper	ppm	ASTM D5185m	>21	**3**	1	<1
Tin	ppm	ASTM D5185m	>5	**<1**	1	1
Antimony	ppm	ASTM D5185m		**---**	---	---
Vanadium	ppm	ASTM D5185m		**<1**	<1	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

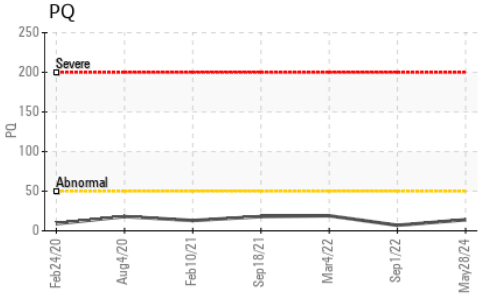
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	<1	<1
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**<1**	<1	<1
Manganese	ppm	ASTM D5185m		**<1**	0	0
Magnesium	ppm	ASTM D5185m		**1**	0	0
Calcium	ppm	ASTM D5185m	87	**73**	68	83
Phosphorus	ppm	ASTM D5185m	727	**586**	507	628
Zinc	ppm	ASTM D5185m	900	**745**	688	742
Sulfur	ppm	ASTM D5185m	1500	**1660**	1317	1304

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>24	**3**	1	2
Sodium	ppm	ASTM D5185m	>21	**0**	0	0
Potassium	ppm	ASTM D5185m	>20	**<1**	2	0

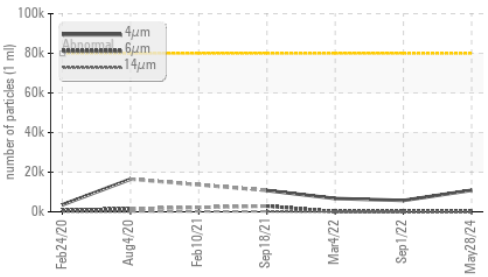
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>80000	**10882**	5729	6714
Particles >6µm		ASTM D7647	>5000	**157**	24	46
Particles >14µm		ASTM D7647	>640	**16**	5	7
Particles >21µm		ASTM D7647	>160	**4**	1	2
Particles >38µm		ASTM D7647	>40	**0**	0	0
Particles >71µm		ASTM D7647	>10	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>23/19/16	**21/14/11**	20/12/10	20/13/10

OIL ANALYSIS REPORT

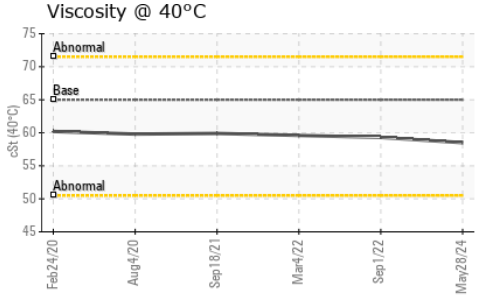
PQ



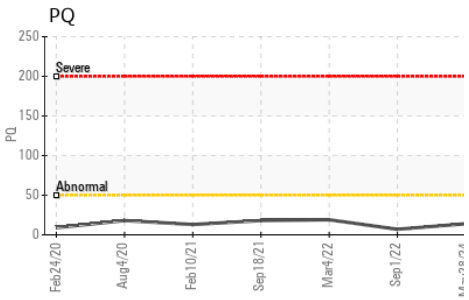
Particle Trend



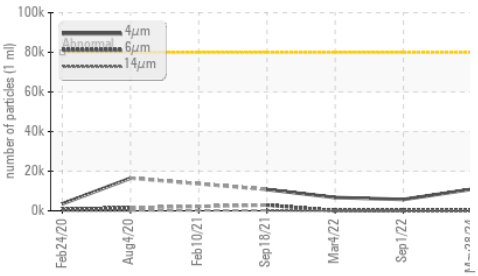
Viscosity @ 40°C



PQ



Particle Trend

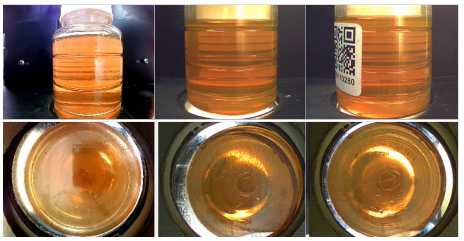


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	**0.59**	0.70	0.62

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
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	>0.075	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

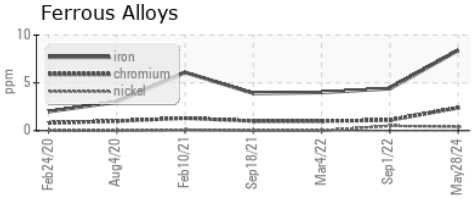
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	65	**58.5**	59.3	59.6

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

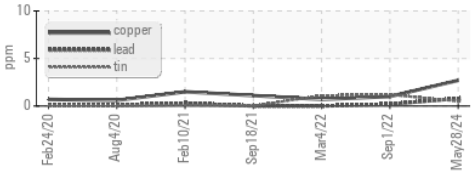


GRAPHS

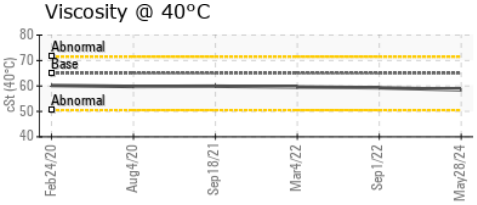
Ferrous Alloys



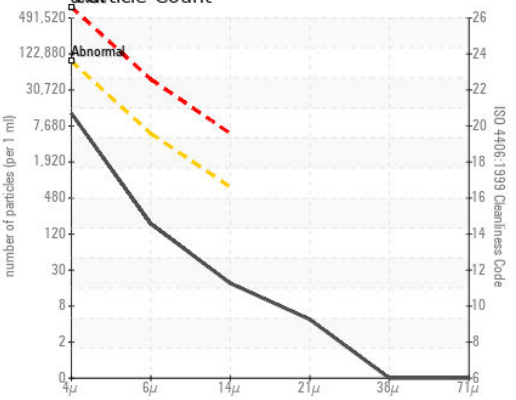
Non-ferrous Metals



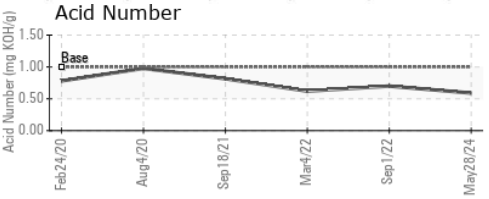
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0211657
Lab Number : 06194600
Unique Number : 11056723
Test Package : CONST (Additional Tests: PQ)

Received : 29 May 2024
Tested : 30 May 2024
Diagnosed : 30 May 2024 - Wes Davis

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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US 23005
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F: (804)798-0292

Report Id: JAMASH [WUSCAR] 06194600 (Generated: 06/03/2024 07:04:53) Rev: 1

Submitted By: ?