James River Equipment

OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	SEVERE
FLUID CONDITION	ATTENTION

Machine Id
HITACHI HCMJAG60C00061687
Component
Right Final Drive
Fluid
JOHN DEERE GL-5 80W90 (--- QTS)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

WEAR

The iron, chrome and nickel levels are severe. Gear wear is indicated.

CONTAMINATION

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a moderate concentration of water present in the oil.

FLUID CONDITION

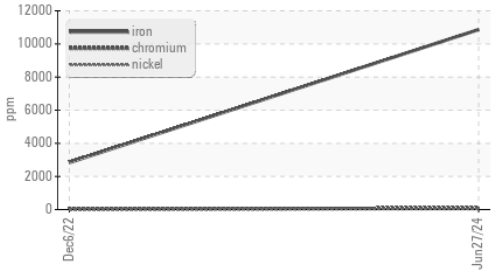
The oil viscosity is higher than normal. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**JR0224469**	JR0146932	---
Sample Date		Client Info		**27 Jun 2024**	06 Dec 2022	---
Machine Age	hrs	Client Info		**4195**	1958	---
Oil Age	hrs	Client Info		**0**	1958	---
Filter Age	hrs	Client Info		**0**	0	---
Oil Changed		Client Info		**Changed**	Changed	---
Filter Changed		Client Info		**N/A**	N/A	---
Sample Status				**SEVERE**	SEVERE	---
PQ		ASTM D8184		**1761**	923	---
Iron	ppm	ASTM D5185m	>500	▲ **10867**	▲ 2836	---
Chromium	ppm	ASTM D5185m	>10	▲ **84**	▲ 30	---
Nickel	ppm	ASTM D5185m	>10	▲ **30**	8	---
Titanium	ppm	ASTM D5185m		**67**	20	---
Silver	ppm	ASTM D5185m		**<1**	0	---
Aluminum	ppm	ASTM D5185m	>25	● **760**	● 120	---
Lead	ppm	ASTM D5185m	>25	**2**	<1	---
Copper	ppm	ASTM D5185m	>50	**16**	4	---
Tin	ppm	ASTM D5185m	>10	**0**	<1	---
Vanadium	ppm	ASTM D5185m		**3**	1	---
White Metal	scalar	*Visual	NONE	**NONE**	MODER	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Silicon	ppm	ASTM D5185m	>75	▲ **4939**	▲ 1323	---
Potassium	ppm	ASTM D5185m	>20	**189**	69	---
Water	%	ASTM D6304	>0.2	▲ **0.444**	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ **4440**	---	---
Silt	scalar	*Visual	NONE	**NONE**	NONE	---
Debris	scalar	*Visual	NONE	**NONE**	NONE	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	---
Appearance	scalar	*Visual	NORML	**NORML**	NORML	---
Odor	scalar	*Visual	NORML	**NORML**	NORML	---
Emulsified Water	scalar	*Visual	>0.2	▲ **0.2%**	NEG	---
Sodium	ppm	ASTM D5185m		**48**	10	---
Boron	ppm	ASTM D5185m		**48**	63	---
Barium	ppm	ASTM D5185m		**6**	11	---
Molybdenum	ppm	ASTM D5185m		**8**	2	---
Manganese	ppm	ASTM D5185m		**87**	30	---
Magnesium	ppm	ASTM D5185m		**90**	29	---
Calcium	ppm	ASTM D5185m		**204**	62	---
Phosphorus	ppm	ASTM D5185m		**559**	471	---
Zinc	ppm	ASTM D5185m		**10**	33	---
Sulfur	ppm	ASTM D5185m		**89711**	23407	---
Visc @ 40°C	cSt	ASTM D445		● **1598**	224	---

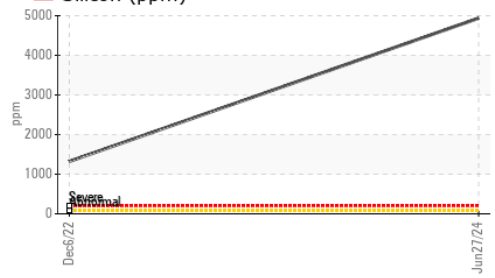
Report Id: JAMASH [WUSCAR] 06223689 (Generated: 07/01/2024 14:06:24) Rev: 1

Contact/Location: DAVID ZIEG - JAMASH

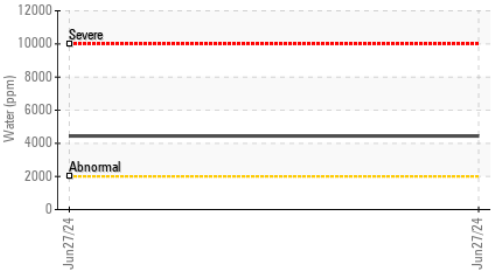
Ferrous Alloys



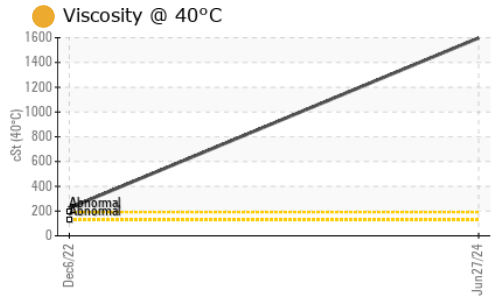
Silicon (ppm)



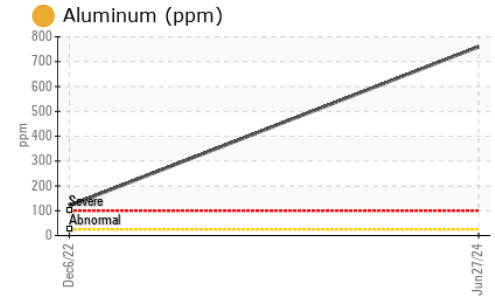
Water (KF)



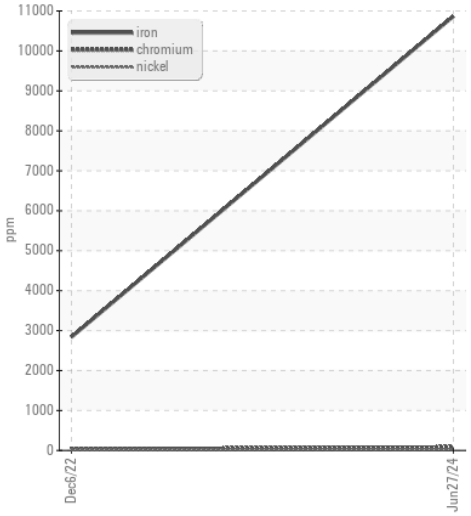
Viscosity @ 40°C



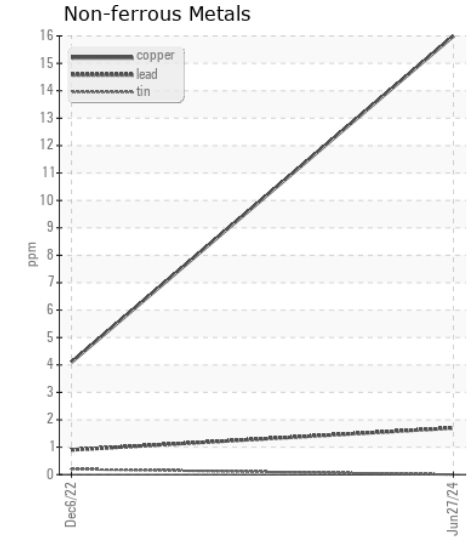
Aluminum (ppm)



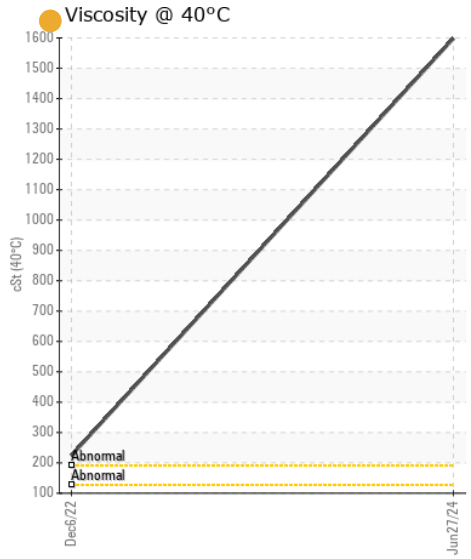
Ferrous Alloys



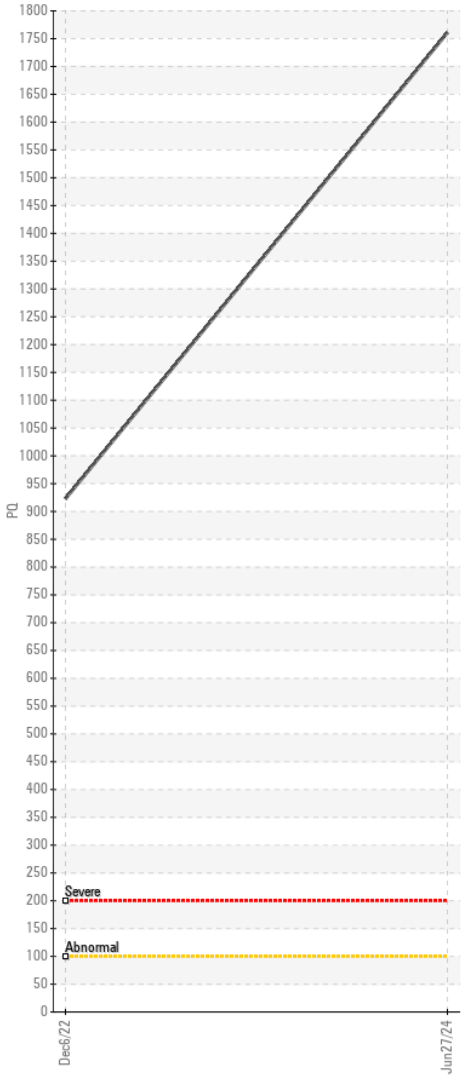
Non-ferrous Metals



Viscosity @ 40°C



PQ



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0224469 **Received** : 28 Jun 2024
Lab Number : 06223689 **Tested** : 01 Jul 2024
Unique Number : 11101886 **Diagnosed** : 01 Jul 2024 - Don Baldridge
Test Package : CONST (Additional Tests: KF, PQ)

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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