James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Machine Id
JOHN DEERE 368
Component
Hydraulic System
Fluid
HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil. Oil and filter change at the time of sampling has been noted.

WEAR

All component wear rates are normal.

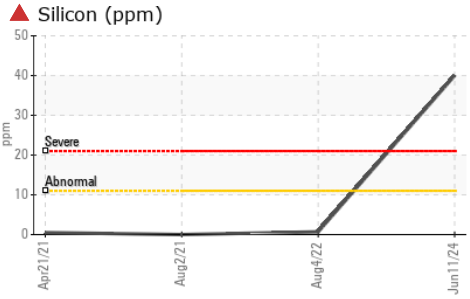
CONTAMINATION

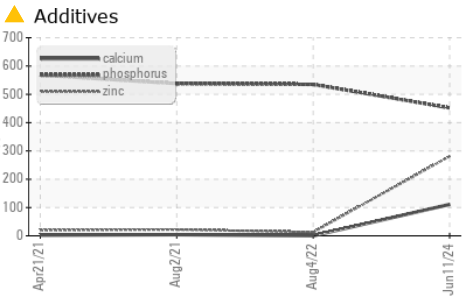
There is a moderate amount of particulates present in the oil. Elemental level of silicon (Si) above normal. There is a high amount of visible silt present in the sample.

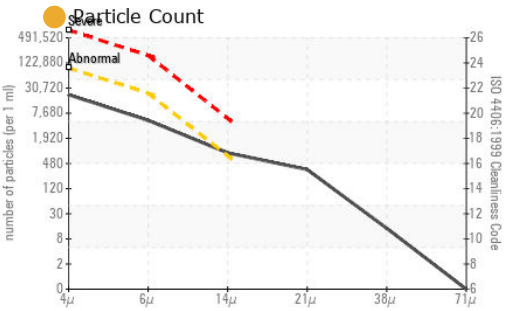
FLUID CONDITION

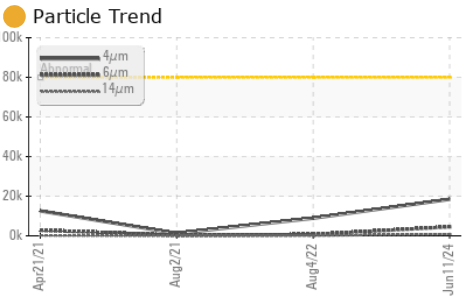
Zinc level above manufacturer's recommendations. The AN level is acceptable for this fluid.

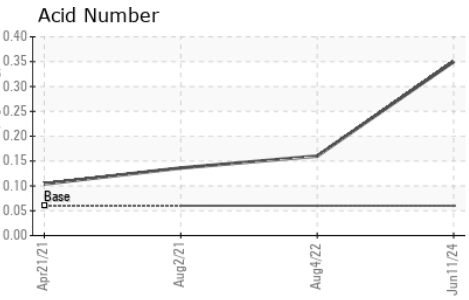
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0217853	JR0139619	JR0094682
Sample Date		Client Info		11 Jun 2024	04 Aug 2022	02 Aug 2021
Machine Age	hrs	Client Info		5947	2356	935
Oil Age	hrs	Client Info		1000	0	0
Filter Age	hrs	Client Info		1000	0	0
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	NORMAL	NORMAL
PQ		ASTM D8184	>50	14	12	21
Iron	ppm	ASTM D5185m	>32	4	3	2
Chromium	ppm	ASTM D5185m	>9	0	0	0
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>9	2	<1	0
Lead	ppm	ASTM D5185m	>28	<1	0	0
Copper	ppm	ASTM D5185m	>50	0	<1	<1
Tin	ppm	ASTM D5185m	>5	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>11	▲ 40	<1	0
Potassium	ppm	ASTM D5185m	>20	1	0	0
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	18466	8893	1222
Particles >6µm		ASTM D7647	>20000	4513	658	245
Particles >14µm		ASTM D7647	>640	● 756	29	13
Particles >21µm		ASTM D7647	>160	● 302	8	3
Particles >38µm		ASTM D7647	>40	12	0	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	● 21/19/17	20/17/12	17/15/11
Silt	scalar	*Visual	NONE	▲ HEAVY	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
Sodium	ppm	ASTM D5185m	>21	0	<1	<1
Boron	ppm	ASTM D5185m		3	<1	<1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		2	0	0
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m		32	0	0
Calcium	ppm	ASTM D5185m		111	<1	4
Phosphorus	ppm	ASTM D5185m	827	452	535	538
Zinc	ppm	ASTM D5185m	0	▲ 281	13	22
Sulfur	ppm	ASTM D5185m	13	731	93	68
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.35	0.16	0.136
Visc @ 40°C	cSt	ASTM D445	47	45.4	46.3	46.4

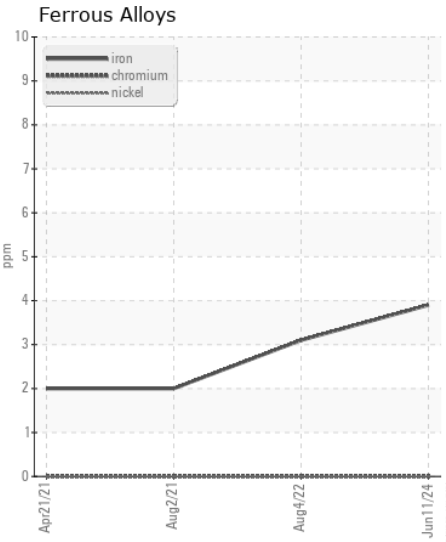


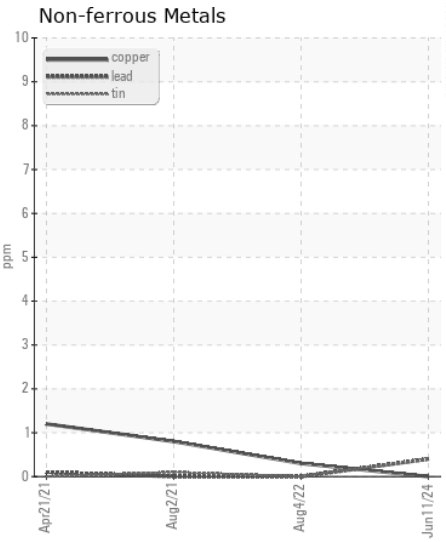


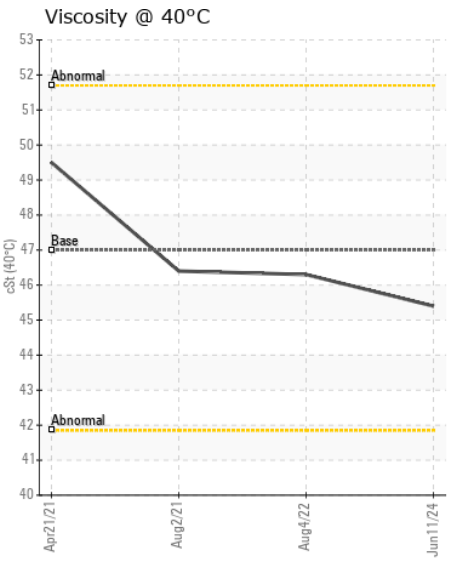


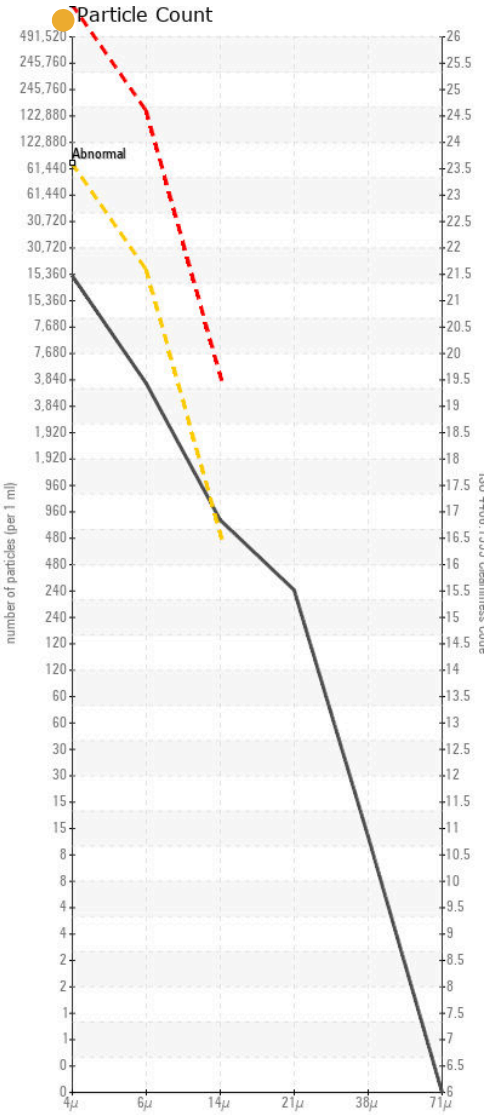


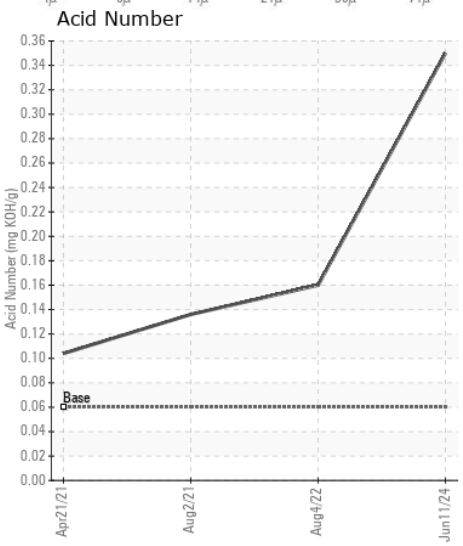












Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0217853
Lab Number : 06224448
Unique Number : 11102645
Test Package : CONST (Additional Tests: PQ)
Received : 01 Jul 2024
Tested : 02 Jul 2024
Diagnosed : 02 Jul 2024 - Don Baldridge

TOTAL DEVELOPMENT SOLUTIONS LLC
7805 PROGRESS CT
GAINESVILLE, VA
US 20155
Contact: JOE SEALE
T: (571)220-7763
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Certificate L2367

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)