OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 22408
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 68 (--- QTS)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

The iron level is abnormal. All other component wear rates are normal.

CONTAMINATION

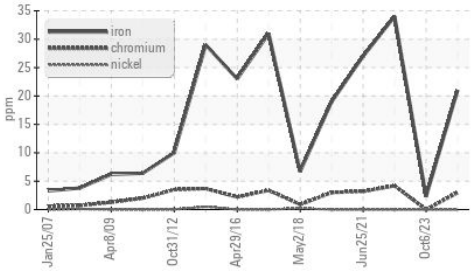
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

FLUID CONDITION

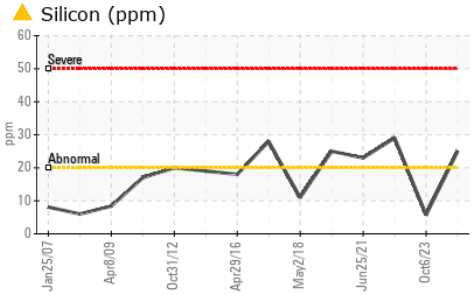
The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0950540	WC0856737	WC0733506
Sample Date		Client Info		10 Jul 2024	06 Oct 2023	26 Oct 2022
Machine Age	hrs	Client Info		13258	12353	12265
Oil Age	hrs	Client Info		1000	1500	1579
Filter Age	hrs	Client Info		1000	1500	1279
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				ABNORMAL	NORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>20	▲ 21	2	▲ 34
Chromium	ppm	ASTM D5185m	>10	3	0	4
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	● 14	2	▲ 16
Lead	ppm	ASTM D5185m	>10	0	1	<1
Copper	ppm	ASTM D5185m	>75	20	4	28
Tin	ppm	ASTM D5185m	>10	0	<1	0
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	>20	▲ 25	6	29
Potassium	ppm	ASTM D5185m	>20	<1	<1	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	● 9909	4264	46014
Particles >6µm		ASTM D7647	>1300	393	1364	261
Particles >14µm		ASTM D7647	>160	14	105	11
Particles >21µm		ASTM D7647	>40	4	24	3
Particles >38µm		ASTM D7647	>10	1	1	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	● 20/16/11	19/18/14	23/15/11
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
Sodium	ppm	ASTM D5185m		2	2	1
Boron	ppm	ASTM D5185m	5	220	417	332
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	5	69	124	118
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	25	290	540	429
Calcium	ppm	ASTM D5185m	200	950	1396	1441
Phosphorus	ppm	ASTM D5185m	300	728	799	725
Zinc	ppm	ASTM D5185m	370	851	901	849
Sulfur	ppm	ASTM D5185m	2500	2566	2655	2906
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	1.06	1.22	1.59
Visc @ 40°C	cSt	ASTM D445	68	67.7	75.8	71.4

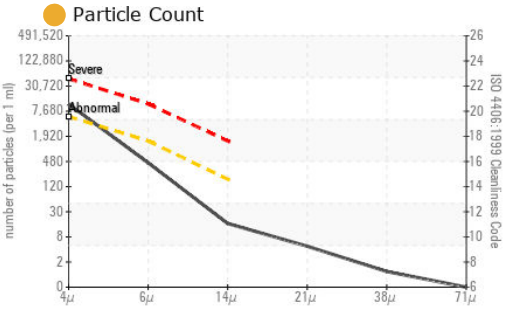
Ferrous Alloys



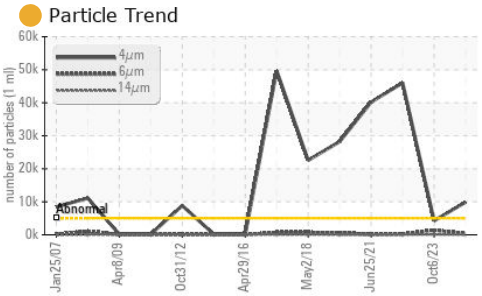
Silicon (ppm)



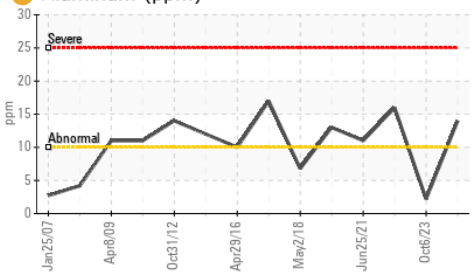
Particle Count



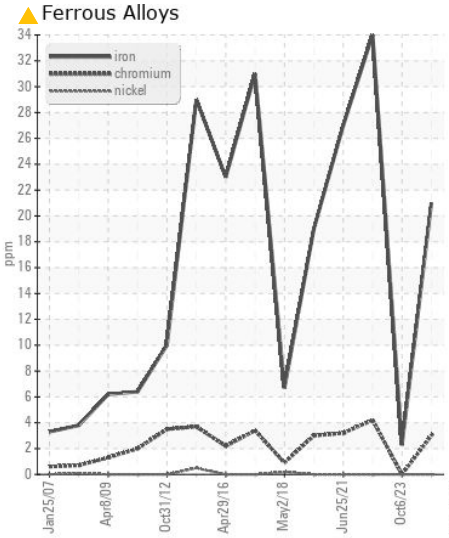
Particle Trend



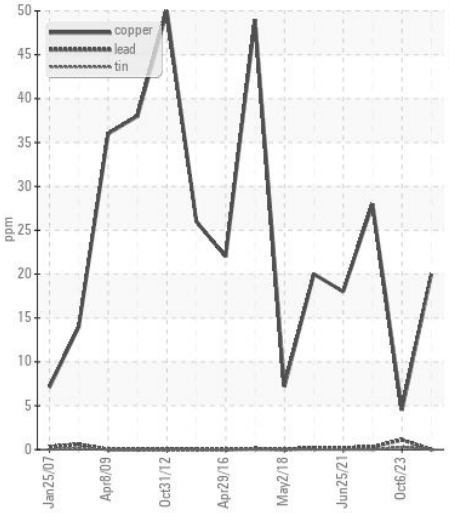
Aluminum (ppm)



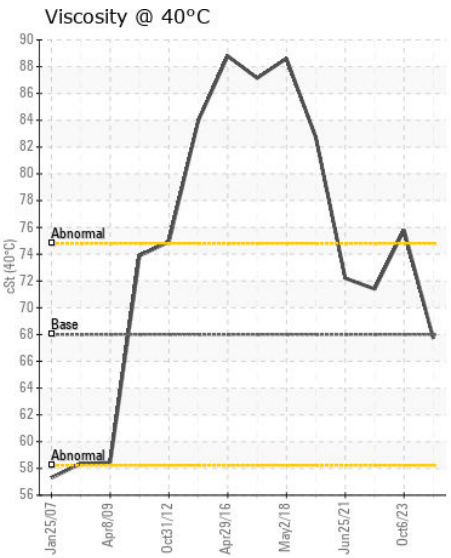
Ferrous Alloys



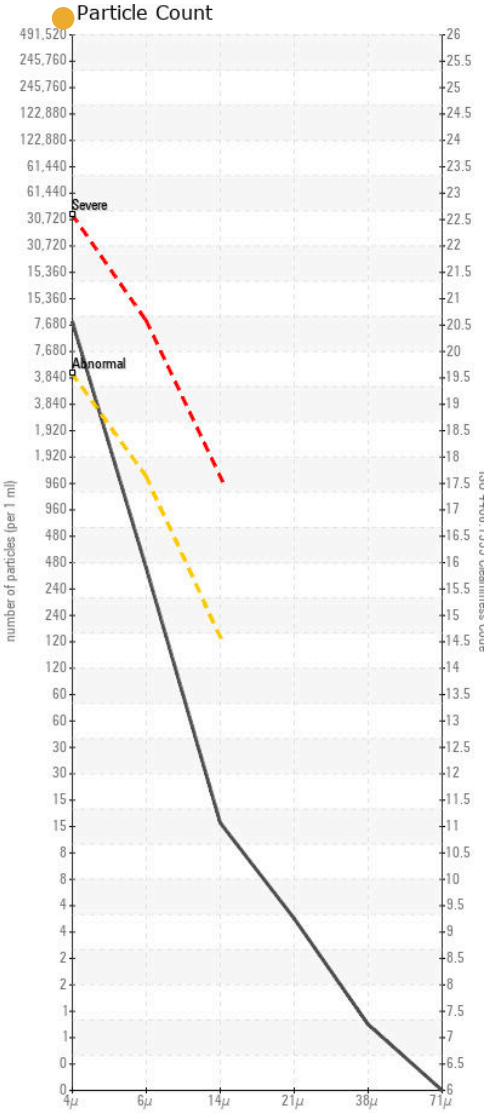
Non-ferrous Metals



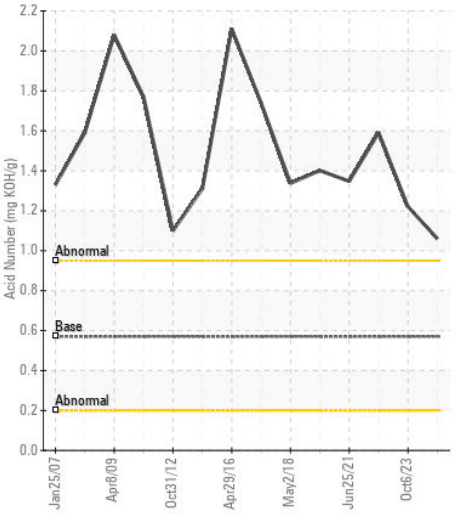
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0950540
Lab Number : 06233212
Unique Number : 11116705
Test Package : CONST

Received : 11 Jul 2024
Tested : 12 Jul 2024
Diagnosed : 12 Jul 2024 - Don Baldridge

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)

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