CONST

James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE PM061170
Component
Hydraulic System
Fluid
JOHN DEERE HYDRAU (--- QTS)

RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.

WEAR

All component wear rates are normal.

CONTAMINATION

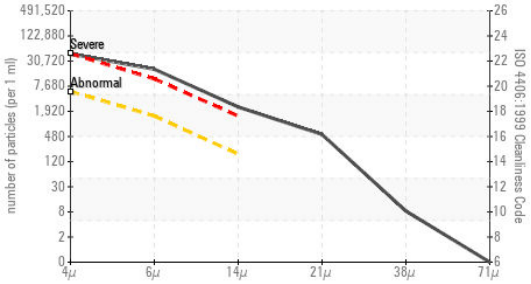
There is a high amount of particulates (2 to 100 microns in size) present in the oil.

FLUID CONDITION

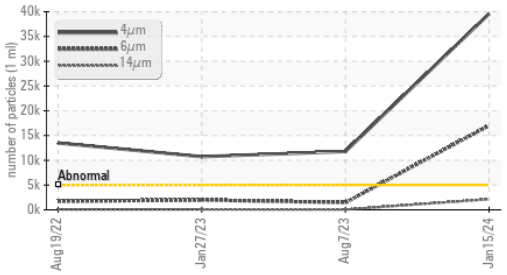
The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0199482	JR0169004	JR0160035
Sample Date		Client Info		15 Jan 2024	07 Aug 2023	27 Jan 2023
Machine Age	hrs	Client Info		2468	1992	1452
Oil Age	hrs	Client Info		2468	1992	1452
Filter Age	hrs	Client Info		0	0	1452
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				SEVERE	ABNORMAL	ABNORMAL
PQ		ASTM D8184		12	12	12
Iron	ppm	ASTM D5185m	>20	3	3	2
Chromium	ppm	ASTM D5185m	>10	1	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	<1	<1
Lead	ppm	ASTM D5185m	>10	0	0	<1
Copper	ppm	ASTM D5185m	>75	3	4	5
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>20	6	8	7
Potassium	ppm	ASTM D5185m	>20	4	3	3
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	▲ 39581	▲ 11782	▲ 10726
Particles >6µm		ASTM D7647	>1300	⬢ 17016	▲ 1460	▲ 1981
Particles >14µm		ASTM D7647	>160	⬢ 2136	49	91
Particles >21µm		ASTM D7647	>40	⬢ 472	6	14
Particles >38µm		ASTM D7647	>10	7	0	1
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	⬢ 22/21/18	▲ 21/18/13	▲ 21/18/14
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	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		0	2	1
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		3	0	<1
Molybdenum	ppm	ASTM D5185m		0	0	<1
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		4	2	1
Calcium	ppm	ASTM D5185m	87	220	122	110
Phosphorus	ppm	ASTM D5185m	727	682	654	594
Zinc	ppm	ASTM D5185m	900	849	870	820
Sulfur	ppm	ASTM D5185m	1500	1780	2003	1865
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.52	0.61	0.60
Visc @ 40°C	cSt	ASTM D445	65	55.3	56.3	57.8

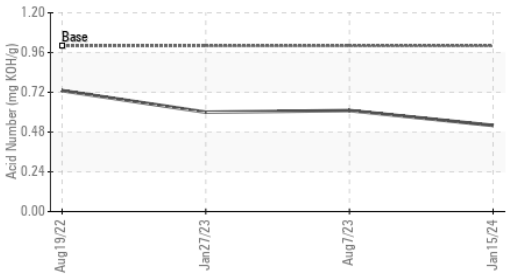
Particle Count



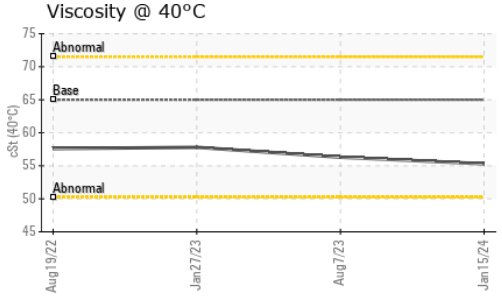
Particle Trend



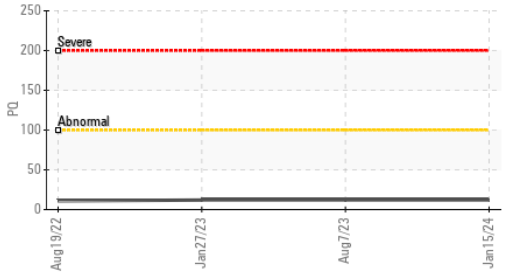
Acid Number



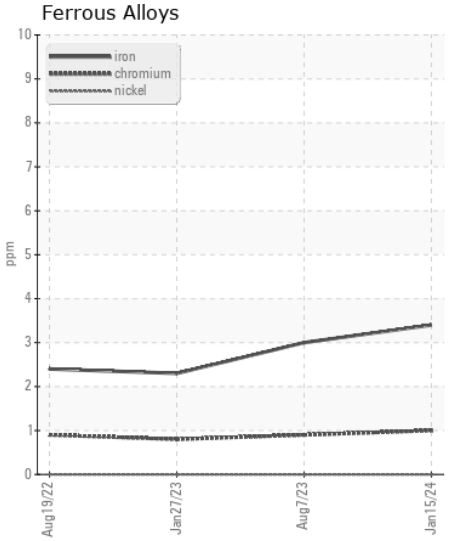
Viscosity @ 40°C



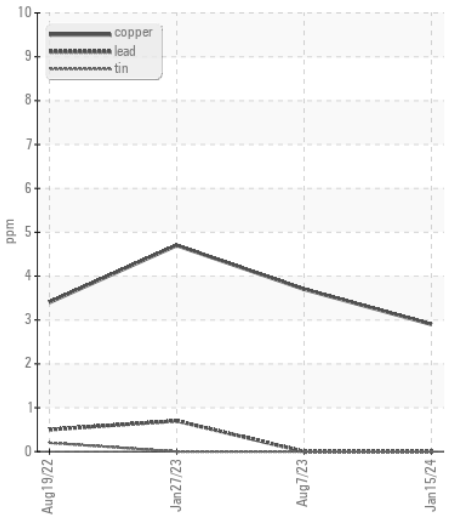
PQ



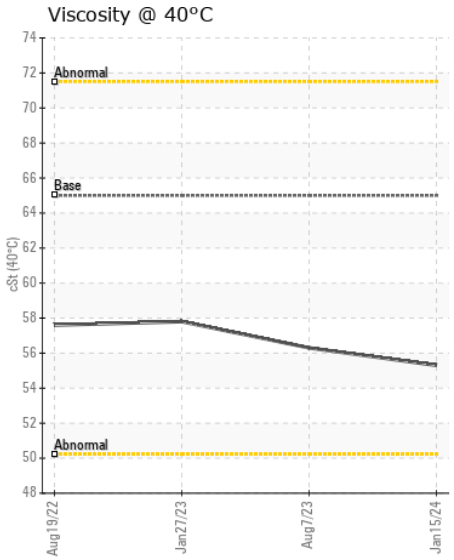
Ferrous Alloys



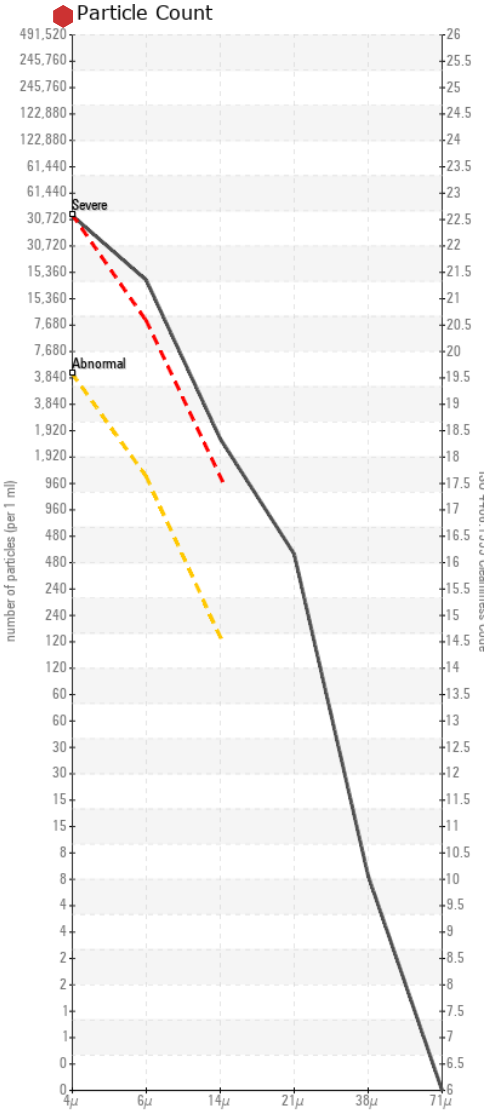
Non-ferrous Metals



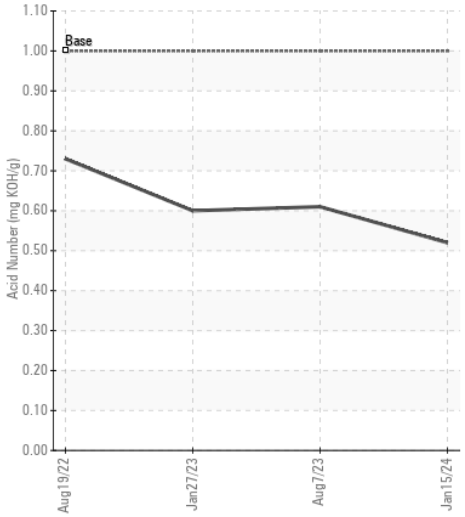
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0199482 **Recieved** : 17 Jan 2024
Lab Number : 06063497 **Diagnosed** : 19 Jan 2024
Unique Number : 10834879 **Diagnostician** : Wes Davis
Test Package : CONST (Additional Tests: 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)

FITZGERALD EXCAVATING
PO BOX 2168
WINCHESTER, VA
US 22604
Contact: Service Manager

T:
F: