



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
[CARMUSE]

Machine Id
John Deere 410K 1T0410KXEEE269840

Component
Hydraulic System

Fluid
TDH FLUID SAE 75W80 (--- QTS)

RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) TDH FLUID SAE 75W80. Please confirm.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0221330	JR0120453	JR0104332
Sample Date		Client Info		15 Jul 2024	23 Feb 2022	11 Oct 2021
Machine Age	hrs	Client Info		4340	3068	2916
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		19	23	26
Iron	ppm	ASTM D5185m	>20	12	20	▲ 22
Chromium	ppm	ASTM D5185m	>10	8	1	1
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		<1	0	1
Aluminum	ppm	ASTM D5185m	>10	4	6	6
Lead	ppm	ASTM D5185m	>10	<1	3	1
Copper	ppm	ASTM D5185m	>75	2	▲ 60	12
Tin	ppm	ASTM D5185m	>10	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	▲ MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

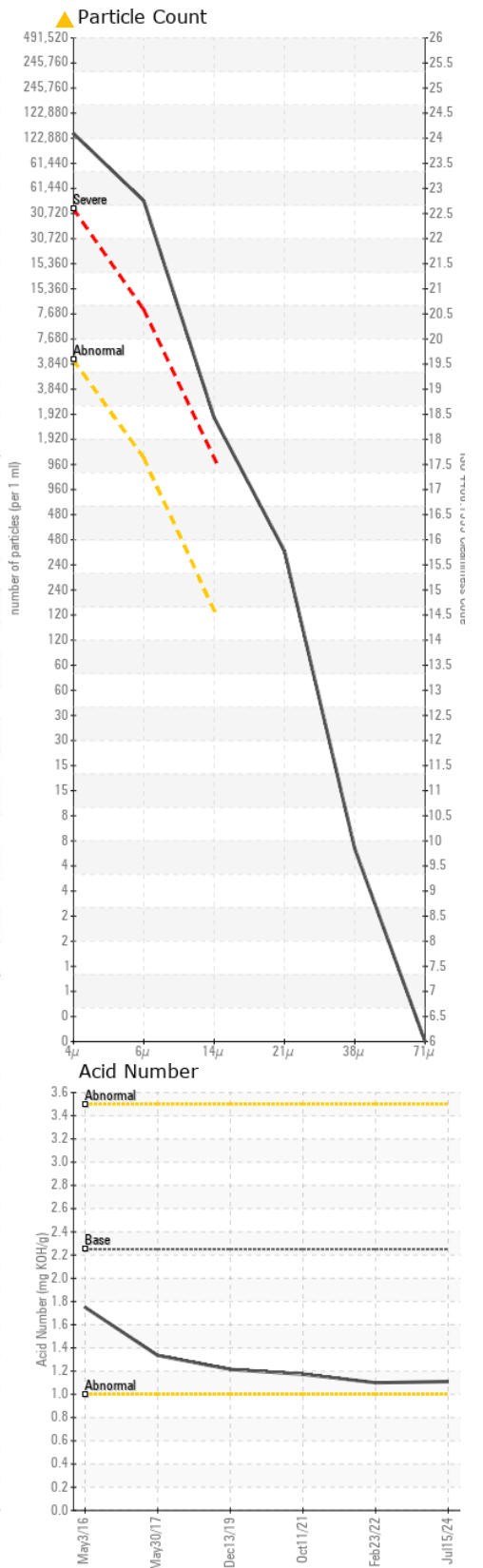
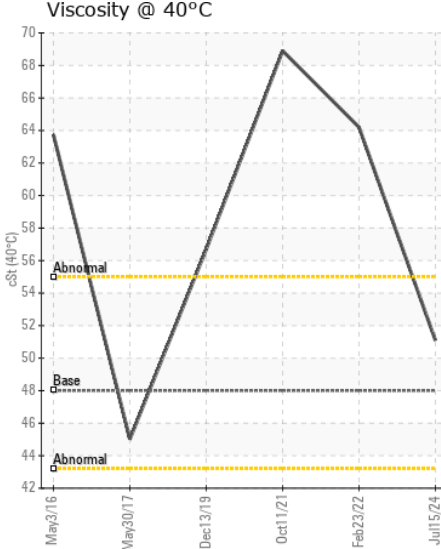
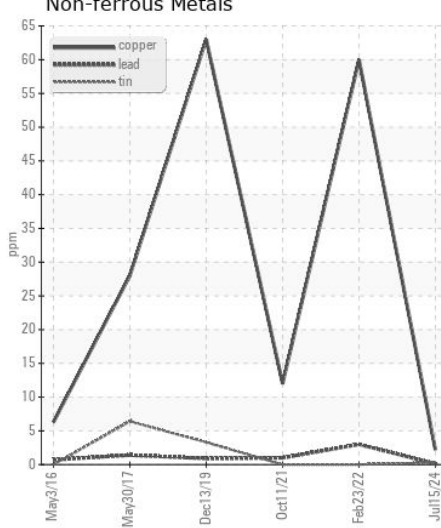
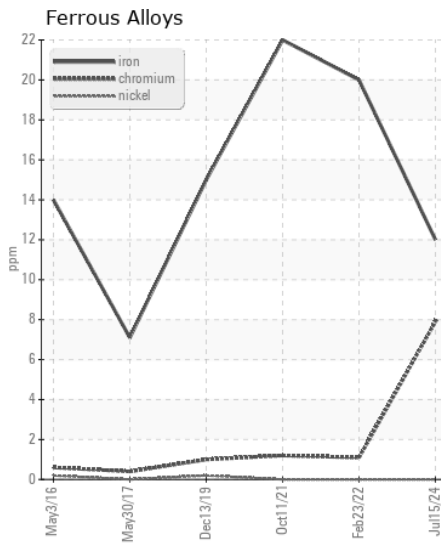
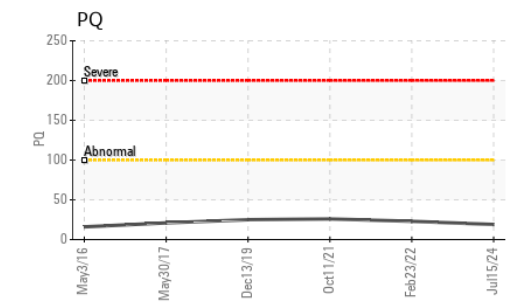
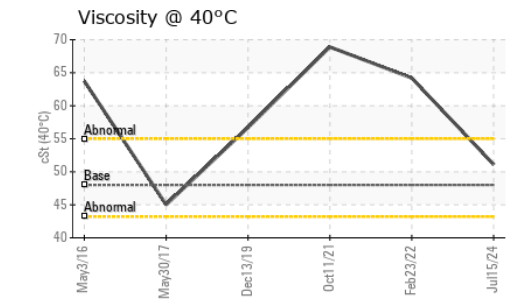
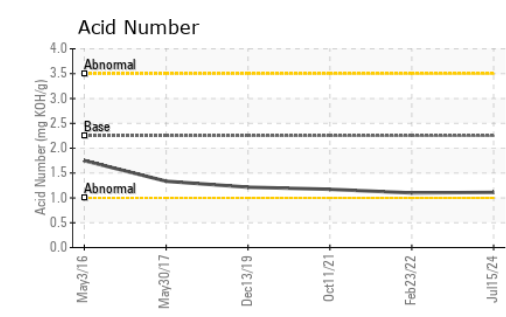
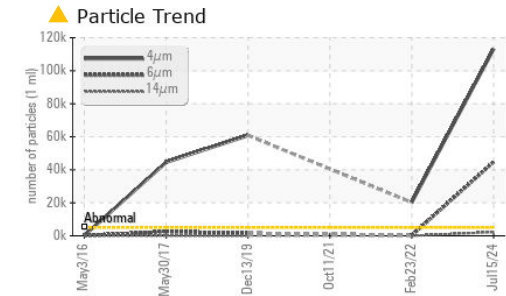
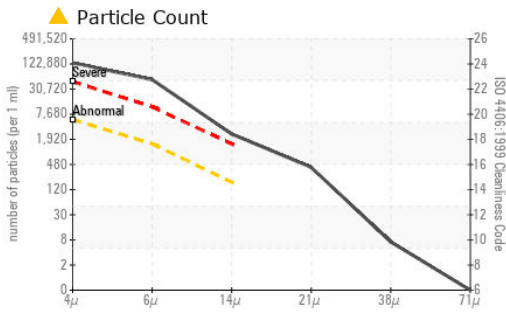
There is a moderate amount of particulates (2 to 100 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	6	12	11
Potassium	ppm	ASTM D5185m	>20	4	2	7
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	▲ 113124	▲ 20212	---
Particles >6µm		ASTM D7647	>1300	▲ 44699	279	---
Particles >14µm		ASTM D7647	>160	▲ 2263	13	---
Particles >21µm		ASTM D7647	>40	▲ 361	5	---
Particles >38µm		ASTM D7647	>10	6	0	---
Particles >71µm		ASTM D7647	>3	0	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 24/23/18	▲ 22/15/11	---
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

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.

Sodium	ppm	ASTM D5185m		0	3	1
Boron	ppm	ASTM D5185m	10	10	86	131
Barium	ppm	ASTM D5185m	10	0	0	<1
Molybdenum	ppm	ASTM D5185m	10	2	74	105
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	100	85	456	482
Calcium	ppm	ASTM D5185m	3500	3071	2042	1985
Phosphorus	ppm	ASTM D5185m	1150	929	909	983
Zinc	ppm	ASTM D5185m	1150	1096	1098	1194
Sulfur	ppm	ASTM D5185m	5000	3438	2873	3078
Acid Number (AN)	mg KOH/g	ASTM D8045	2.25	1.11	1.10	1.173
Visc @ 40°C	cSt	ASTM D445	48	51.1	64.2	68.9



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0221330 **Received** : 18 Jul 2024
Lab Number : 06240208 **Tested** : 19 Jul 2024
Unique Number : 11129042 **Diagnosed** : 20 Jul 2024 - Wes Davis
Test Package : CONST (Additional Tests: PQ)

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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)