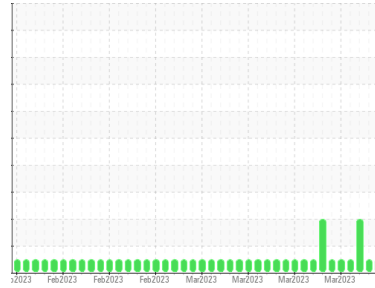




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
WCLSNC
 Machine Id
QC HY NC 08012022
 Component
Hydraulic System
 Fluid
JOHN DEERE HY-GARD HYD/TRANS (--- GAL)

DIAGNOSIS

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0796959	WC0796958	WC0796957
Sample Date	Client Info			31 Mar 2023	30 Mar 2023	29 Mar 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		10	7	▲ 51
Iron	ppm	ASTM D5185m		12	12	11
Chromium	ppm	ASTM D5185m		<1	<1	<1
Nickel	ppm	ASTM D5185m		<1	<1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m		<1	2	<1
Lead	ppm	ASTM D5185m		0	<1	<1
Copper	ppm	ASTM D5185m		7	7	7
Tin	ppm	ASTM D5185m		0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		<1	<1	0
Molybdenum	ppm	ASTM D5185m		<1	<1	<1
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		2	2	2
Calcium	ppm	ASTM D5185m		86	85	84
Phosphorus	ppm	ASTM D5185m		627	590	582
Zinc	ppm	ASTM D5185m		788	804	797
Sulfur	ppm	ASTM D5185m		1824	1706	1880

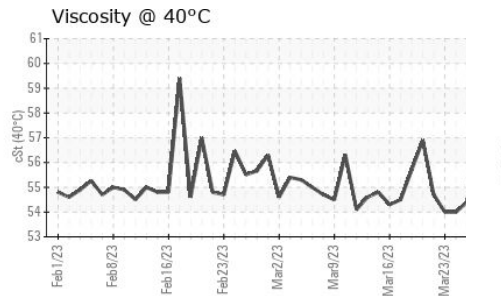
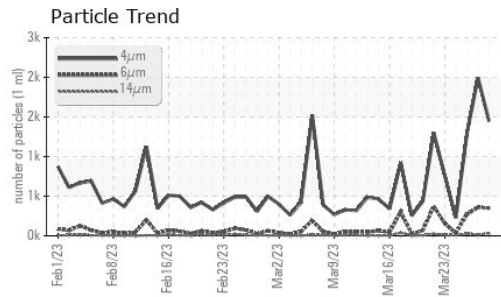
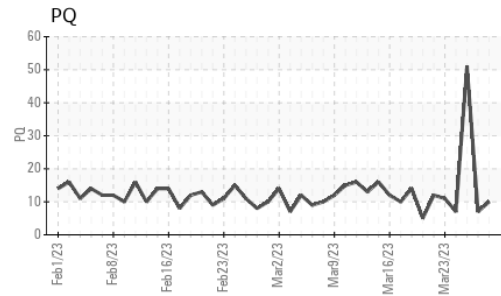
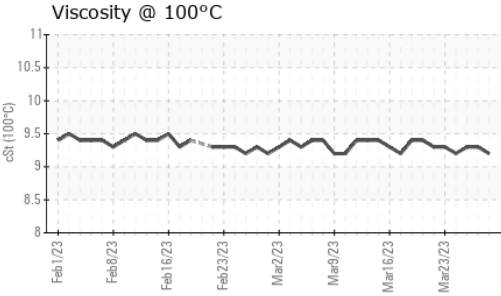
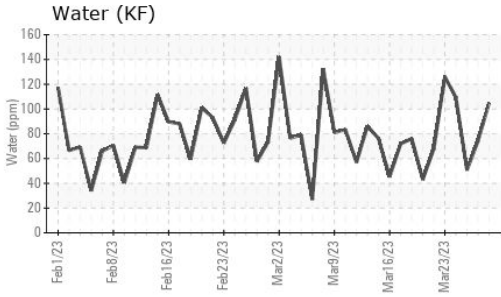
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m		4	2	2
Sodium	ppm	ASTM D5185m		1	0	<1
Potassium	ppm	ASTM D5185m		2	4	3
Water	%	ASTM D6304		0.010	0.007	0.005
ppm Water	ppm	ASTM D6304		104.8	74.3	50.7

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		1447	1995	1295
Particles >6µm		ASTM D7647		349	359	270
Particles >14µm		ASTM D7647		30	16	28
Particles >21µm		ASTM D7647		6	3	9
Particles >38µm		ASTM D7647		1	1	1
Particles >71µm		ASTM D7647		0	0	0
Oil Cleanliness		ISO 4406 (c)		18/16/12	18/16/11	17/15/12

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.65	0.59	0.55



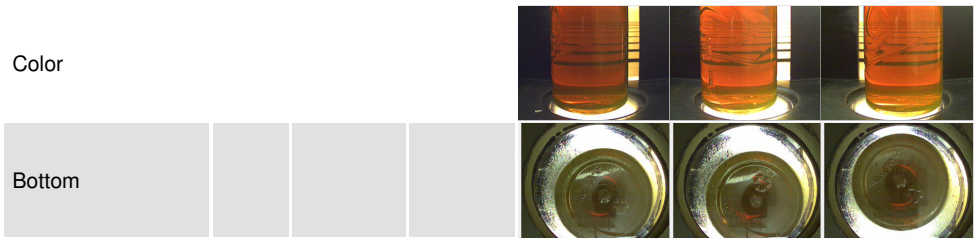
OIL ANALYSIS REPORT



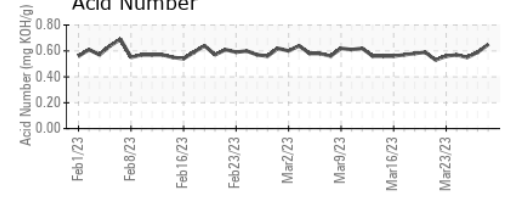
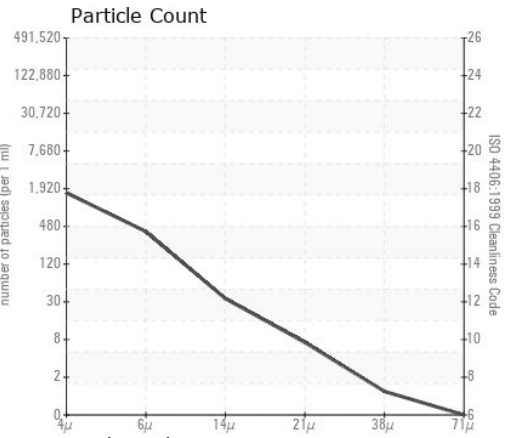
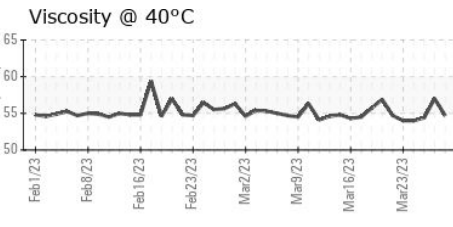
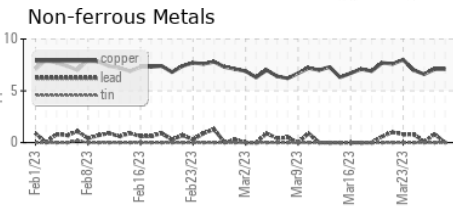
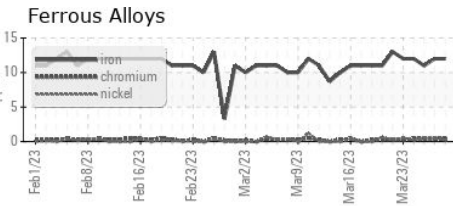
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	NEG	NEG	NEG
Free Water	scalar	*Visual	NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	54.7	57.0	54.4
Visc @ 100°C	cSt	ASTM D445	9.2	9.3	9.3
Viscosity Index (VI)	Scale	ASTM D2270	149	144	153

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0796959 **Received** : 31 Mar 2023
Lab Number : 05807560 **Diagnosed** : 02 Oct 2023
Unique Number : 10405089 **Diagnostician** : System
Test Package : PLANT (Additional Tests: KV100, VI)

WEARCHECK LUBRICATION SERVICES QA ACCOUNT
 501 Madison Ave
 Cary, NC
 US 27513
 Contact: WCLS CARY NC

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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