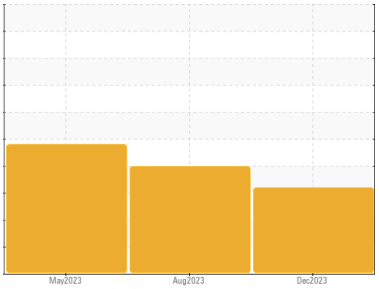
PROBLEM SUMMARY

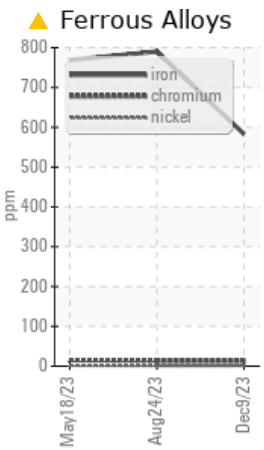
Sample Rating Trend

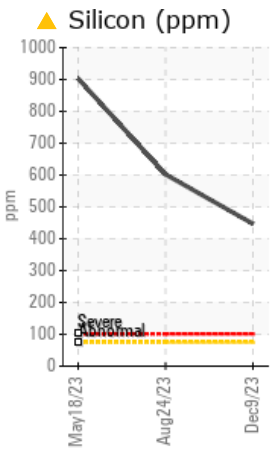


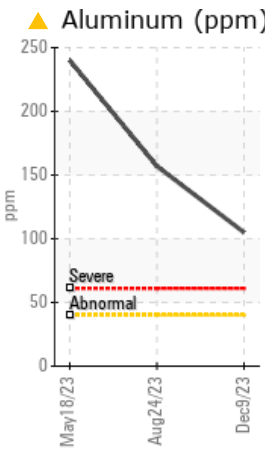
DIRT

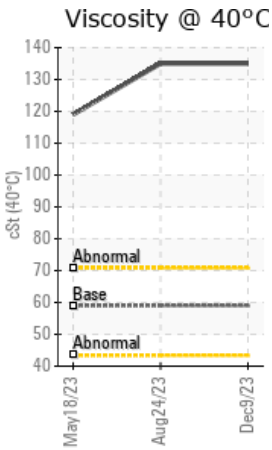
Area
ORIN CONTRACTORS
Machine Id
881
Component
Right Final Drive
Fluid
JOHN DEERE HY-GARD HYDRAULIC/RANSMISSION (--- GAL)

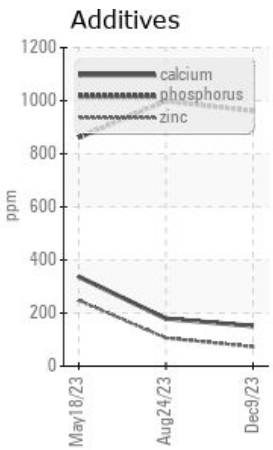
COMPONENT CONDITION SUMMARY











RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL
Chromium	ppm	ASTM D5185(m)	>9	▲ **13**	▲ 13	▲ 15
Aluminum	ppm	ASTM D5185(m)	>40	▲ **105**	▲ 157	▲ 240
Silicon	ppm	ASTM D5185(m)	>75	▲ **447**	▲ 602	▲ 903

Customer Id: RONVAU
Sample No.: WC0872891
Lab Number: 02603322
Test Package: MOBCE

To manage this report scan the QR code

To discuss the diagnosis or test data:
Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Dirt Access	---	---	?	We advise that you check all areas where dirt can enter the system.
Check Fluid Source	---	---	?	Confirm the source of the lubricant being utilized for top-up/fill.

HISTORICAL DIAGNOSIS

24 Aug 2023 Diag: Kevin Marson

DIRT

We advise that you check all areas where dirt can enter the system. 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) GEAR OIL SAE 80W90. Please confirm.Chromium and iron ppm levels are abnormal. Aluminum ppm levels are noted. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. High amount of ingressed dirt has caused abrasive wear to the component. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

view report

18 May 2023 Diag: Kevin Marson

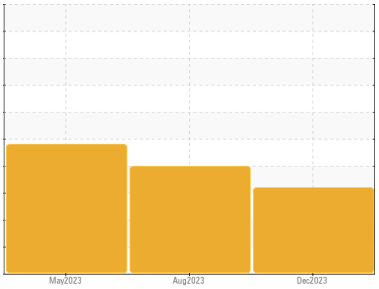
DIRT

We advise that you check all areas where dirt can enter the system. 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) GEAR OIL LS 80W90. Please confirm.Chromium and iron and titanium ppm levels are abnormal. Aluminum ppm levels are noted. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. High amount of ingressed dirt has caused abrasive wear to the component. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Area
ORIN CONTRACTORS
Machine Id
881
Component
Right Final Drive
Fluid
JOHN DEERE HY-GARD HYDRAULIC/RANSMISSION (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

Wear

Chromium ppm levels are abnormal. Aluminum ppm levels are noted.

Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. High amount of ingressed dirt has caused abrasive wear to the component.

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. Viscosity of sample indicates oil is within SAE 90 range, advise investigate. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0872891**	LH0275300	LH0256632
Sample Date		Client Info		**09 Dec 2023**	24 Aug 2023	18 May 2023
Machine Age	hrs	Client Info		**0**	1382	1145
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.075	**NEG**	NEG	NEG

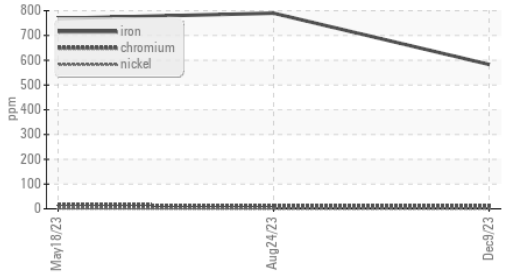
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>750	**583**	▲ 790	▲ 769
Chromium	ppm	ASTM D5185(m)	>9	▲ **13**	▲ 13	▲ 15
Nickel	ppm	ASTM D5185(m)	>10	**1**	<1	2
Titanium	ppm	ASTM D5185(m)		**7**	10	▲ 16
Silver	ppm	ASTM D5185(m)		**<1**	0	0
Aluminum	ppm	ASTM D5185(m)	>40	▲ **105**	▲ 157	▲ 240
Lead	ppm	ASTM D5185(m)	>15	**<1**	<1	5
Copper	ppm	ASTM D5185(m)	>40	**1**	1	2
Tin	ppm	ASTM D5185(m)	>10	**0**	0	0
Antimony	ppm	ASTM D5185(m)	>5	**0**	0	0
Vanadium	ppm	ASTM D5185(m)		**0**	<1	<1
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**188**	168	64
Barium	ppm	ASTM D5185(m)		**1**	3	3
Molybdenum	ppm	ASTM D5185(m)		**<1**	1	1
Manganese	ppm	ASTM D5185(m)		**8**	11	16
Magnesium	ppm	ASTM D5185(m)		**42**	58	98
Calcium	ppm	ASTM D5185(m)		**151**	179	337
Phosphorus	ppm	ASTM D5185(m)		**961**	999	861
Zinc	ppm	ASTM D5185(m)		**73**	106	248
Sulfur	ppm	ASTM D5185(m)		**16793**	16382	15138
Lithium	ppm	ASTM D5185(m)		**<1**	<1	1

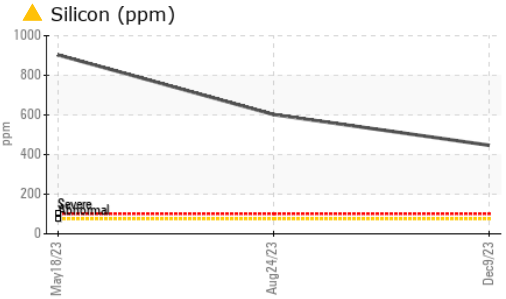
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>75	▲ **447**	▲ 602	▲ 903
Sodium	ppm	ASTM D5185(m)	>51	**18**	23	38
Potassium	ppm	ASTM D5185(m)	>20	**35**	54	89

OIL ANALYSIS REPORT

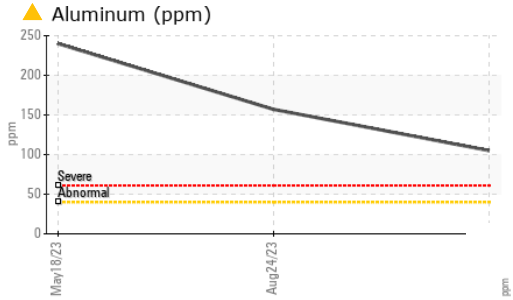
Ferrous Alloys



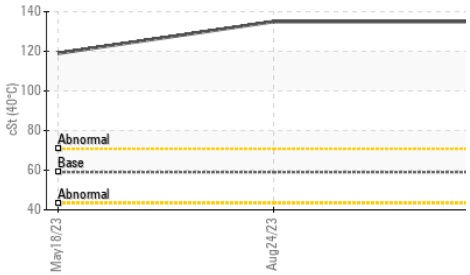
Silicon (ppm)



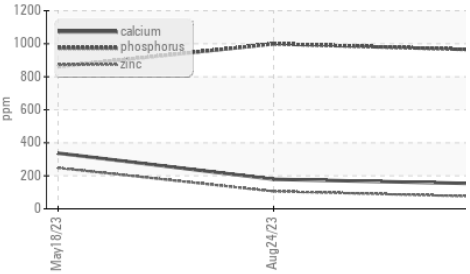
Aluminum (ppm)



Viscosity @ 40°C

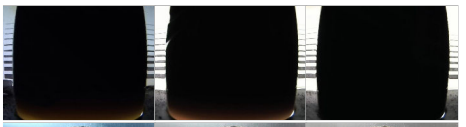


Additives



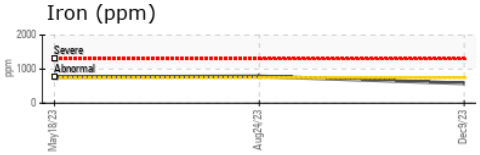
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	NONE
Silt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Debris	scalar	Visual*	NONE	**NONE**	VLITE	NONE
Sand/Dirt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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	59	**135**	135	119

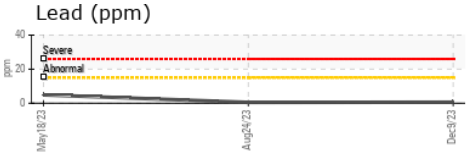
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

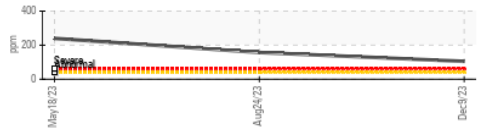
Iron (ppm)



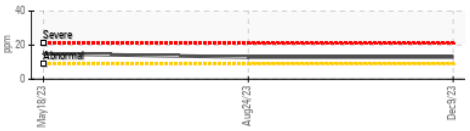
Lead (ppm)



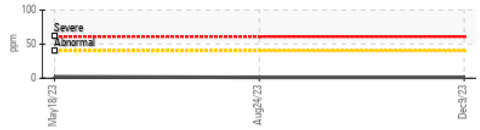
Aluminum (ppm)



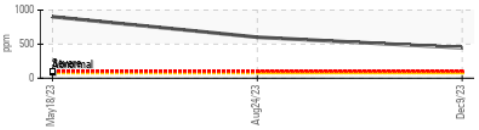
Chromium (ppm)



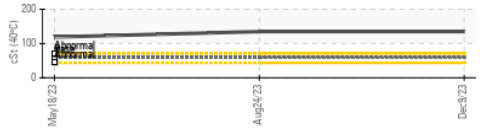
Copper (ppm)



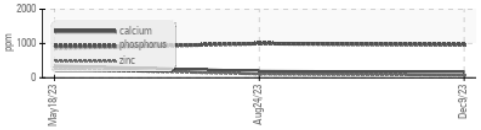
Silicon (ppm)



Viscosity @ 40°C



Additives



CALA
ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **RONI/IRON SHORE EXCAVATING LTD.**
Sample No. : WC0872891 **Recieved** : 14 Dec 2023 100 MACINTOSH BLVD
Lab Number : 02603322 **Diagnosed** : 18 Dec 2023 VAUGHAN, ON
Unique Number : 5696407 **Diagnostician** : Kevin Marson CA L4K 4P3
Test Package : MOBCE (Additional Tests: Visual) Contact: Service Team

To discuss this sample report, contact Customer Service at 1-800-268-2131. service.team@roni.ca
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T:
Validity of results and interpretation are based on the sample and information as supplied. F: