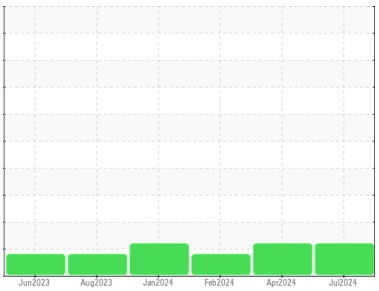
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
JOHN DEERE 644K LDR009
Component
Hydraulic System
Fluid
JOHN DEERE HYDRAU XR (--- GAL)

DIAGNOSIS

Recommendation
We recommend that you drain the oil from the component if this has not already been done. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using MOB 2 test kits, this testkit includes Particle Count to determine the ISO cleanliness of the fluid.

Wear
Chromium ppm levels are abnormal. Ring wear is indicated.

Contamination
There is no indication of any contamination in the component(unconfirmed).

Fluid Condition
Viscosity of sample indicates oil is within SAE 75W80 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. 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		**WC0925819**	WC0920176	WC0904234
Sample Date		Client Info		**01 Jul 2024**	11 Apr 2024	10 Feb 2024
Machine Age	hrs	Client Info		**13081**	12657	12116
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	Not Changd	Not Changd
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

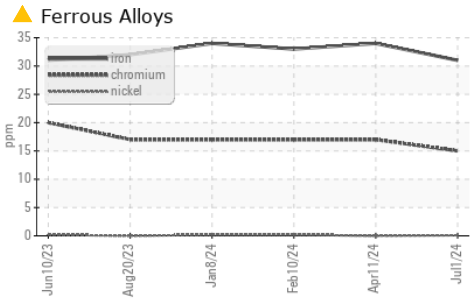
CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.075	**NEG**	NEG	NEG

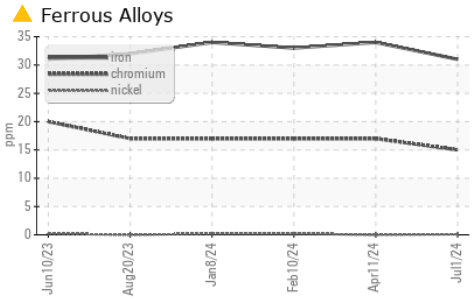
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>71	**31**	34	33
Chromium	ppm	ASTM D5185(m)	>11	▲ **15**	▲ 17	▲ 17
Nickel	ppm	ASTM D5185(m)	>6	**<1**	0	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**<1**	0	<1
Aluminum	ppm	ASTM D5185(m)	>11	**4**	4	4
Lead	ppm	ASTM D5185(m)	>13	**0**	0	<1
Copper	ppm	ASTM D5185(m)	>21	**2**	2	2
Tin	ppm	ASTM D5185(m)	>5	**0**	0	0
Antimony	ppm	ASTM D5185(m)		**0**	0	0
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

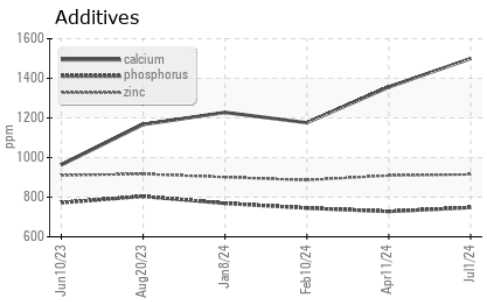
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**37**	32	34
Barium	ppm	ASTM D5185(m)		**<1**	0	0
Molybdenum	ppm	ASTM D5185(m)		**10**	10	11
Manganese	ppm	ASTM D5185(m)		**<1**	<1	0
Magnesium	ppm	ASTM D5185(m)		**137**	146	157
Calcium	ppm	ASTM D5185(m)		**1500**	1356	1176
Phosphorus	ppm	ASTM D5185(m)		**748**	728	745
Zinc	ppm	ASTM D5185(m)		**915**	909	886
Sulfur	ppm	ASTM D5185(m)		**2609**	2399	2270
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>24	**7**	7	6
Sodium	ppm	ASTM D5185(m)	>21	**6**	9	6
Potassium	ppm	ASTM D5185(m)	>20	**4**	2	3

OIL ANALYSIS REPORT

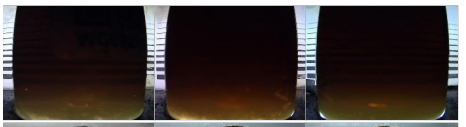






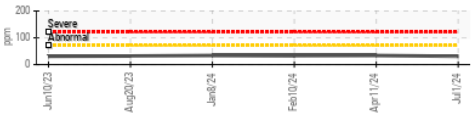
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**VLITE**	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	NONE
Silt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Debris	scalar	Visual*	NONE	**NONE**	VLITE	NONE
Sand/Dirt	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)	43.1	▲ **48.2**	▲ 48.2	48.5

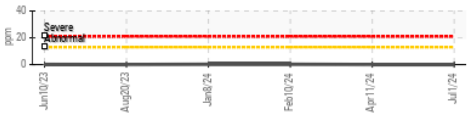
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					
PrtFilter			*no image*	*no image*	*no image*

GRAPHS

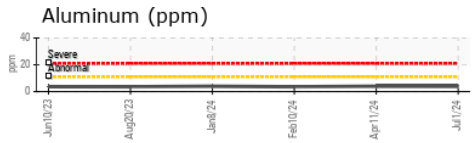
Iron (ppm)



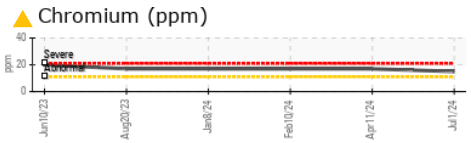
Lead (ppm)



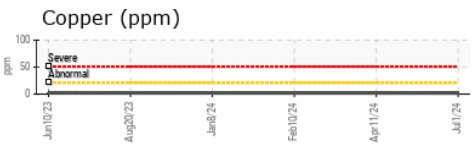
Aluminum (ppm)



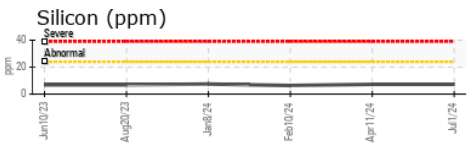
▲ Chromium (ppm)



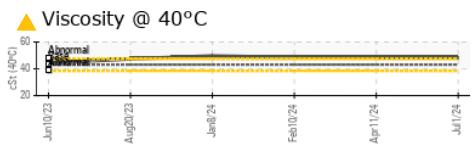
Copper (ppm)



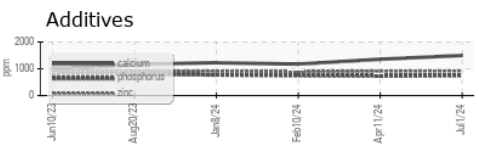
Silicon (ppm)



▲ Viscosity @ 40°C



Additives



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0925819 **Received** : 04 Jul 2024
Lab Number : 02645520 **Tested** : 05 Jul 2024
Unique Number : 5803059 **Diagnosed** : 05 Jul 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: Bottom, FilterPatch)

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

Agnico Eagle Canada
1350 Government Rd. W, MACASSA COMPLEX
Kirkland Lake, ON
CA P2N 3J1
Contact: Mitch Lamontagne
AEM_KL_macassaoilsampleresults@agnicoeagle.com
T: (705)567-5208
F: (705)567-5221