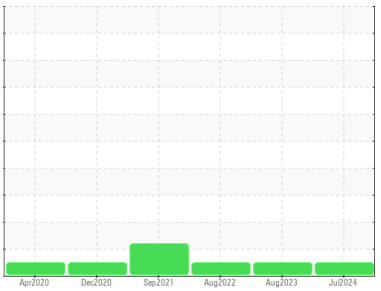
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
JOHN DEERE 644K 8617 (S/N 1DW644KZHHF682386)
Component
Hydraulic System
Fluid
JOHN DEERE HYDRAU (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear
All component wear rates are normal.

Contamination
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Fluid Condition
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC0076098**	PC0061428	PC0030463
Sample Date		Client Info		**09 Jul 2024**	09 Aug 2023	02 Aug 2022
Machine Age	hrs	Client Info		**8737**	7418	6300
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	Not Changd	Not Changd
Sample Status				**NORMAL**	NORMAL	NORMAL

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	**20**	9	23
Chromium	ppm	ASTM D5185(m)	>11	**9**	0	9
Nickel	ppm	ASTM D5185(m)	>6	**<1**	0	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	<1
Silver	ppm	ASTM D5185(m)		**<1**	2	0
Aluminum	ppm	ASTM D5185(m)	>11	**1**	<1	2
Lead	ppm	ASTM D5185(m)	>13	**0**	<1	<1
Copper	ppm	ASTM D5185(m)	>21	**4**	11	5
Tin	ppm	ASTM D5185(m)	>5	**0**	<1	0
Antimony	ppm	ASTM D5185(m)		**0**	0	<1
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

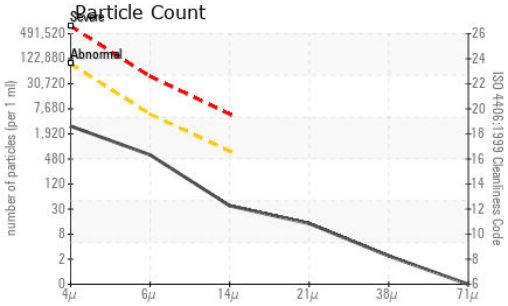
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**2**	91	3
Barium	ppm	ASTM D5185(m)		**0**	0	0
Molybdenum	ppm	ASTM D5185(m)		**2**	<1	3
Manganese	ppm	ASTM D5185(m)		**0**	<1	<1
Magnesium	ppm	ASTM D5185(m)		**21**	10	32
Calcium	ppm	ASTM D5185(m)	87	**314**	3044	418
Phosphorus	ppm	ASTM D5185(m)	727	**651**	1148	670
Zinc	ppm	ASTM D5185(m)	900	**843**	1288	835
Sulfur	ppm	ASTM D5185(m)	1500	**1591**	2697	1726
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>24	**1**	6	3
Sodium	ppm	ASTM D5185(m)	>21	**4**	2	5
Potassium	ppm	ASTM D5185(m)	>20	**<1**	<1	2

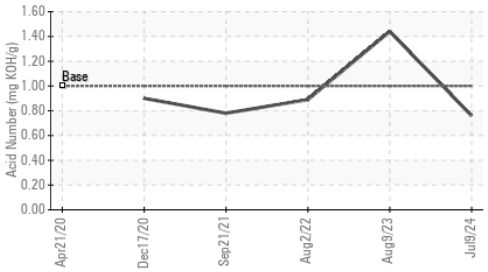
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>80000	**2579**	2320	8361
Particles >6µm		ASTM D7647	>5000	**527**	109	1981
Particles >14µm		ASTM D7647	>640	**32**	7	212
Particles >21µm		ASTM D7647	>160	**12**	3	55
Particles >38µm		ASTM D7647	>40	**2**	0	2
Particles >71µm		ASTM D7647	>10	**0**	0	1
Oil Cleanliness		ISO 4406 (c)	>23/19/16	**19/16/12**	18/14/10	20/18/15

OIL ANALYSIS REPORT

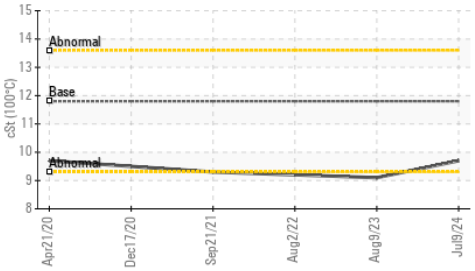
Particle Count



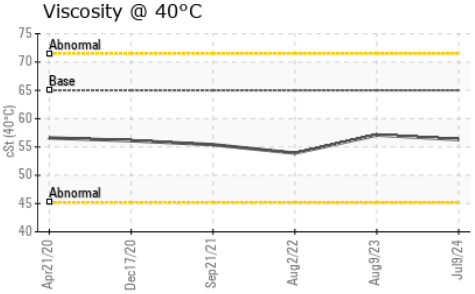
Acid Number



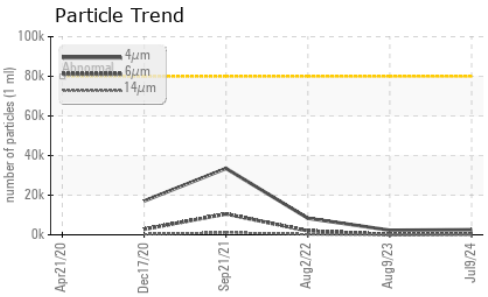
Viscosity @ 100°C



Viscosity @ 40°C



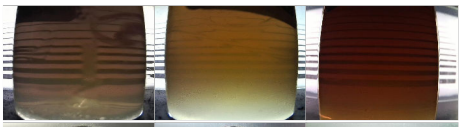
Particle Trend



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	1.0	**0.76**	1.44	0.89

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**	LIGHT	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*	>0.075	**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)	65	**56.3**	57.1	53.9
Visc @ 100°C	cSt	ASTM D7279(m)	11.8	**9.7**	9.1	9.2
Viscosity Index (VI)	Scale	ASTM D2270*	178	**158**	138	152

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0076098
Lab Number : 02647820
Unique Number : 5813372
Test Package : IND 2 (Additional Tests: Bottom, KV100, VI)

Received : 15 Jul 2024
Tested : 16 Jul 2024
Diagnosed : 16 Jul 2024 - Kevin Marson

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.

TRUCK AND EQUIPMENT SOLUTION
2 BERTRAM INDUSTRIAL PKWY.
MIDHURST, ON
CA L9X 1L2
Contact: Julie Holden
parts@tesbarrie.com
T: (705)792-7620
F: (705)725-5425