

# **PROBLEM SUMMARY**

### Sample Rating Trend



# **JOHN DEERE 944K 703680**

**Hydraulic System** 

JOHN DEERE HYDRAU (--- GAL)

#### **COMPONENT CONDITION SUMMARY**



#### **RECOMMENDATION**

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.

PROBLEMATIC T	EST RESULTS			
Sample Status			SEVERE	 
Particles >4µm	ASTM D7647	>5000	<b>46670</b>	 
Particles >6µm	ASTM D7647	>1300	<b>17537</b>	 
Particles >14µm	ASTM D7647	>160	<b>1246</b>	 
Particles >21µm	ASTM D7647	>40	<b>237</b>	 
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>23/21/17</b>	 

Customer Id: MURCAM Sample No.: MT0005844 Lab Number: 06075618 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data: Wes Davis +1 905-569-8600 x223 wesd@wearcheck.ca

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED ACTIONS						
Action	Status	Date	Done By	Description		
Change Filter			?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.		
Resample			?	Resample in 30-45 days to monitor this situation.		
Check Breathers			?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.		
Check Dirt Access			?	We advise that you check all areas where contaminants can enter the system.		
Filter Fluid			?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.		

# HISTORICAL DIAGNOSIS

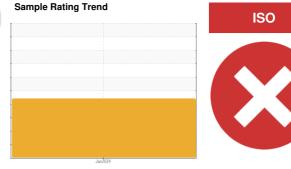


# **OIL ANALYSIS REPORT**

**JOHN DEERE 944K 703680** 

**Hydraulic System** 

**JOHN DEERE HYDRAU (--- GAL)** 



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### Recommendation

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.

#### Wear

All component wear rates are normal.

#### Contamination

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

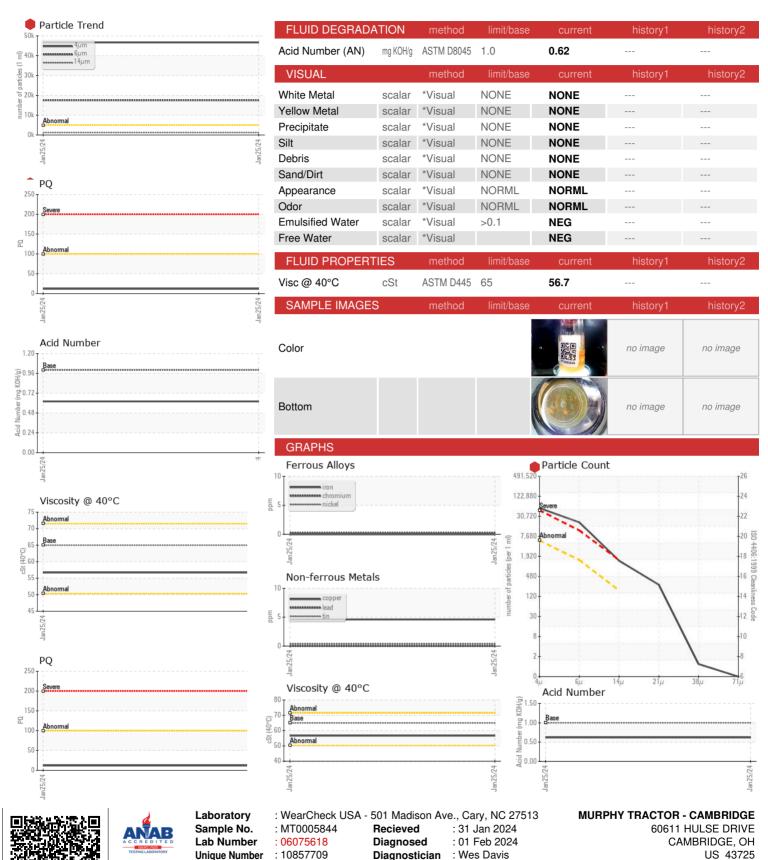
### **Fluid Condition**

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

			J	lan 2024		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
	n/(TIOIN		IIIIII/Dasc			•
Sample Number		Client Info		MT0005844		
Sample Date	lawa	Client Info		25 Jan 2024 1997		
Machine Age	hrs	Client Info				
Oil Age	hrs	Client Info		0 N/A		
Oil Changed		Client into		SEVERE		
Sample Status				SEVERE		
CONTAMINATIO	٧	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG		
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		12		
Iron	ppm	ASTM D5185m	>20	0		
Chromium	ppm	ASTM D5185m	>10	<1		
Nickel	ppm	ASTM D5185m	>10	0		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>10	<1		
Lead	ppm	ASTM D5185m	>10	0		
Copper	ppm	ASTM D5185m	>75	5		
Tin	ppm	ASTM D5185m	>10	<1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	10 10 100	AOTH DELOE				
Caumum	ppm	ASTM D5185m		<1		
ADDITIVES	ррпі	method	limit/base	<1 current	history1	history2
	ppm		limit/base			
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 0	history1	history2
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base	current 0 0	history1	history2
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 0 0 0	history1	history2
ADDITIVES  Boron Barium Molybdenum Manganese	ppm ppm ppm	method  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m	limit/base	current 0 0 0 <	history1	history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium	ppm ppm ppm ppm	method  ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		current 0 0 0 <-1 0	history1	history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium	ppm ppm ppm ppm ppm	method  ASTM D5185m	87	current 0 0 0 0 <1 0 92	history1	history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185m	87 727	current 0 0 0 0 <1 0 92 608	history1	history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	87 727 900	current 0 0 0 -<1 0 92 608 813	history1	history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	87 727 900 1500 limit/base	current 0 0 0	history1	history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	87 727 900 1500 limit/base	current 0 0 0 0 <1 0 92 608 813 1606 current	history1	history2 history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	87 727 900 1500 limit/base >20	current 0 0 0 0 <1 0 92 608 813 1606 current 5	history1	history2 history2
ADDITIVES  Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	87 727 900 1500 limit/base >20	current 0 0 0 0 <1 0 92 608 813 1606 current 5	history1 history1	history2 history2 history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium  Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	87 727 900 1500 limit/base >20	current 0 0 0 0 <1 0 92 608 813 1606 current 5 2	history1 history1	history2 history2 history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium  Potassium  FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	87 727 900 1500 limit/base >20 >20	current  0 0 0 0 <1 0 92 608 813 1606 current 5 2 2 current	history1 history1 history1	history2 history2 history2 history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium  Potassium  FLUID CLEANLIN  Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m  method ASTM D5185m	87 727 900 1500 limit/base >20 >20 limit/base >5000	current  0 0 0 -<1 0 92 608 813 1606 current  5 2 current  46670	history1 history1 history1	history2 history2 history2 history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium  Potassium  FLUID CLEANLIN  Particles >4µm  Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m  method ASTM D5185m	87 727 900 1500 limit/base >20	current  0 0 0 0 <1 0 92 608 813 1606 current 5 2 2 current 46670 17537	history1 history1 history1	history2 history2 history2 history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium  Potassium  FLUID CLEANLIN  Particles >6µm  Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m  method ASTM D5185m ASTM D7647 ASTM D7647	87 727 900 1500 limit/base >20 >20 limit/base >5000 >1300 >160	current  0 0 0 0 <1 0 92 608 813 1606 current 5 2 2 current 46670 17537 1246	history1 history1 history1	history2 history2 history2 history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium  Potassium  FLUID CLEANLIN  Particles >4µm  Particles >14µm  Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m  method ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	87 727 900 1500 limit/base >20 >20 limit/base >5000 >1300 >160 >40	current  0 0 0 0 <1 0 92 608 813 1606 current 5 2 2 current 46670 17537 1246 237	history1 history1 history1	history2 history2 history2



### **OIL ANALYSIS REPORT**



Certificate L2367

Test Package : CONST ( Additional Tests: PQ )

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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.

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