

## **OIL ANALYSIS REPORT**

Sample Rating Trend





### Machine Id JOHN DEERE 700K 6X75 (S/N 1T0700KXVGF302245) Component Diesel Engine

Thuid XTREME 15W40 (--- QTS)

## DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a new component breaking in.

#### Contamination

There is no indication of any contamination in the oil.

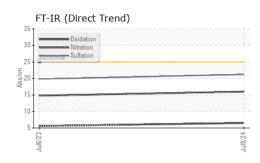
#### Fluid Condition

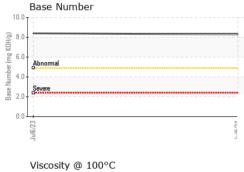
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

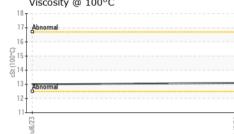
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		JR0197045	JR0141356	
Sample Date		Client Info		09 Jul 2024	06 Jul 2023	
Machine Age	hrs	Client Info		671	603	
Oil Age	hrs	Client Info		519	519	
Oil Changed		Client Info		Not Changd	Not Changd	
Sample Status				NORMAL	NORMAL	
CONTAMINATION	۷	method	limit/base	current	history1	history2
Fuel		WC Method	>2.1	<1.0	<1.0	
Water		WC Method	>0.21	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>51	14	8	
Chromium	ppm	ASTM D5185m	>11	0	<1	
Nickel	ppm	ASTM D5185m	>5	0	<1	
Titanium	ppm	ASTM D5185m		0	0	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>31	2	1	
Lead	ppm	ASTM D5185m	>26	0	0	
Copper	ppm	ASTM D5185m	>26	<1	0	
Tin	ppm	ASTM D5185m	>4	0	0	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 478	history1 641	history2
	ppm ppm		limit/base			
Boron		ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	478	641	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	478 0	641 0 90 0	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	478 0 87	641 0 90 0 494	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	478 0 87 <1 438 1442	641 0 90 0	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	478 0 87 <1 438 1442 1050	641 0 90 0 494 1534 1194	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	478 0 87 <1 438 1442 1050 1257	641 0 90 0 494 1534 1194 1513	   
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	478 0 87 <1 438 1442 1050	641 0 90 0 494 1534 1194 1513 5010	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	478 0 87 <1 438 1442 1050 1257 4031 current	641 0 90 0 494 1534 1194 1513 5010 history1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m		478 0 87 <1 438 1442 1050 1257 4031 current 5	641 0 90 0 494 1534 1194 1513 5010 history1 3	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	limit/base >22 >31	478 0 87 <1 438 1442 1050 1257 4031 current 5 3	641 0 90 0 494 1534 1194 1513 5010 history1 3 0	      history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	limit/base	478 0 87 <1 438 1442 1050 1257 4031 current 5	641 0 90 0 494 1534 1194 1513 5010 history1 3	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >22 >31 >20 limit/base	478 0 87 <1 438 1442 1050 1257 4031 <i>current</i> 5 3 <1 <i>current</i>	641 0 90 0 494 1534 1194 1513 5010 history1 3 0 0 0	      history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	limit/base >22 >31 >20 limit/base >3	478 0 87 <1 438 1442 1050 1257 4031 <i>current</i> 5 3 <1 <i>current</i> 0.1	641 0 90 0 494 1534 1194 1513 5010 history1 3 0 0 history1 0.1	      history2  history2  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >22 >31 >20 limit/base >3 >20	478 0 87 <1 438 1442 1050 1257 4031 <i>current</i> 5 3 <1 <i>current</i> 0.1 6.5	641 0 90 0 494 1534 1194 1513 5010 history1 3 0 0 history1 0.1 5.6	      history2  history2  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	limit/base >22 >31 >20 limit/base >3	478 0 87 <1 438 1442 1050 1257 4031 <i>current</i> 5 3 <1 <i>current</i> 0.1	641 0 90 0 494 1534 1194 1513 5010 history1 3 0 0 history1 0.1	      history2  history2  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >22 >31 >20 limit/base >3 >20	478 0 87 <1 438 1442 1050 1257 4031 <i>current</i> 5 3 <1 <i>current</i> 0.1 6.5	641 0 90 0 494 1534 1194 1513 5010 history1 3 0 0 history1 0.1 5.6	      history2  history2  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	Imit/base >22 >31 >20 Imit/base >3 >20 >30	478 0 87 <1 438 1442 1050 1257 4031 <b>current</b> 5 3 <1 <b>current</b> 0.1 6.5 21.2	641 0 90 0 494 1534 1194 1513 5010 history1 3 0 0 history1 0.1 5.6 19.8	      history2  history2  history2



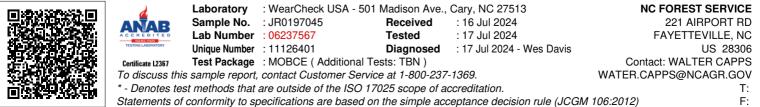
# **OIL ANALYSIS REPORT**







NONE \*Visual NONE NONE White Metal scalar Yellow Metal \*Visual NONE NONE NONE scalar Precipitate scalar \*Visual NONE NONE NONE Silt scalar \*Visual NONE NONE NONE Debris \*Visual NONE NONE NONE scalar Sand/Dirt NONE NONE NONE scalar \*Visual scalar NORML NORML Appearance \*Visual NORML Odor \*Visual NORML NORML scalar NORML **Emulsified Water** scalar \*Visual >0.21 NEG NEG Free Water scalar \*Visual NEG NEG FLUID PROPERTIES Visc @ 100°C cSt ASTM D445 13.1 13.0 GRAPHS Iron (ppm) Lead (ppm) 200 100 Severe 80 150 60 E 100 ppm Δſ 50 20 Aluminum (ppm) Chromium (ppm) 60 2 Severe 50 20 40 15 ۲<u>ط</u> 30 20 10 0 0 Silicon (ppm) Copper (ppm) 150 4( 100 ۲ מ 50 10 Abnorm Viscosity @ 100°C Base Number 18 10.0 (mg KOH/g) Abno 8.0 10 St (100°C) 6.0 **Base Number** 4. 2.0 10 0.0 Jul9/24 5C/9111



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