

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

JOHN DEERE 116

Diesel Engine Fluid MOBIL 15W40 (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

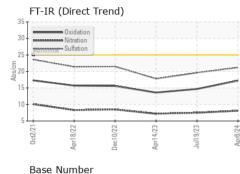
Fluid Condition

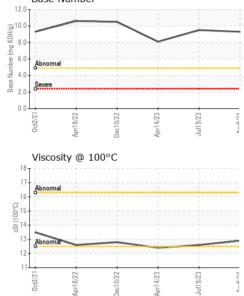
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		JR0172461	JR0172473	JR0117818
Sample Date		Client Info		08 Apr 2024	19 Jul 2023	14 Apr 2023
Machine Age	hrs	Client Info		7008	5789	5194
Oil Age	hrs	Client Info		552	500	550
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	N	method	limit/base	current	history1	history2
Fuel		WC Method	>2.1	<1.0	<1.0	1.6
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>51	12	14	16
Chromium	ppm	ASTM D5185m	>11	0	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	0	<1	<1
Lead	ppm	ASTM D5185m	>26	0	0	0
Copper	ppm	ASTM D5185m	>26	0	1	<1
Tin	ppm	ASTM D5185m	>4	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	nnm	ACTM DE10Em		-		0
	ppm	ASTM D5185m		0	0	0
ADDITIVES	ppin	method	limit/base	0 current	0 history1	0 history2
	ppm	method ASTM D5185m	limit/base	current 14	history1 6	history2 5
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 14 0 49	history1 6 0 59	history2 5 0 55
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base	current 14 0 49 0	history1 6 0	history2 5 0 55 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 14 0 49 0 758	history1 6 0 59 <1 947	history2 5 0 55 <1 896
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	Current 14 0 49 0 758 1363	history1 6 0 59 <1 947 1247	history2 5 0 55 <1 896 1303
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	Current 14 0 49 0 758 1363 1009	history1 6 0 59 <1 947 1247 1094	history2 5 0 55 <1 896 1303 1079
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 14 0 49 0 758 1363 1009 1166	history1 6 0 59 <1 947 1247 1094 1341	history2 5 0 55 <1 896 1303 1079 1316
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		Current 14 0 49 0 758 1363 1009	history1 6 0 59 <1 947 1247 1094	history2 5 0 55 <1 896 1303 1079
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 14 0 49 0 758 1363 1009 1166	history1 6 0 59 <1 947 1247 1094 1341	history2 5 0 55 <1 896 1303 1079 1316 4438 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m		current 14 0 49 0 758 1363 1009 1166 3385 current 4	history1 6 0 59 <1 947 1247 1094 1341 4132 history1 4	history2 5 0 55 <1 896 1303 1079 1316 4438 history2 4
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >22 >118	current 14 0 49 0 758 1363 1009 1166 3385 current 4 1	history1 6 0 59 <1 947 1247 1094 1341 4132 history1 4 2	history2 5 0 55 <1 896 1303 1079 1316 4438 history2 4 3
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >22 >118 >20	current 14 0 49 0 758 1363 1009 1166 3385 current 4	history1 6 0 59 <1 947 1247 1094 1341 4132 history1 4	history2 5 0 55 <1 896 1303 1079 1316 4438 history2 4
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	limit/base >22 >118	Current 14 0 49 0 758 1363 1009 1166 3385 Current 4 1 0 Current	history1 6 0 59 <1 947 1247 1094 1341 4132 history1 4 2	history2 5 0 55 <1 896 1303 1079 1316 4438 history2 4 3 0 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >22 >118 >20	current 14 0 49 0 758 1363 1009 1166 3385 current 4 1 0 current 0 current 0.6	history1 6 0 59 <1 947 1247 1094 1341 4132 history1 4 2 0 history1 0 0.5	history2 5 0 55 <1 896 1303 1079 1316 4438 history2 4 3 0 history2 0 0.4
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Sulfur Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >22 >118 >20 limit/base	current 14 0 49 0 758 1363 1009 1166 3385 current 4 1 0 current 4 1 0 current 0.6 8.1	history1 6 0 59 <1 947 1247 1094 1341 4132 history1 4 2 0 history1 0.5 7.5	history2 5 0 55 <1 896 1303 1079 1316 4438 history2 4 3 0 history2 0 0.4 7.2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >22 >118 >20 limit/base >3	current 14 0 49 0 758 1363 1009 1166 3385 current 4 1 0 current 0 current 0.6	history1 6 0 59 <1 947 1247 1094 1341 4132 history1 4 2 0 history1 0 0.5	history2 5 0 55 <1 896 1303 1079 1316 4438 history2 4 3 0 history2 0 0.4
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Sulfur Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >22 >118 >20 limit/base >3 >20	current 14 0 49 0 758 1363 1009 1166 3385 current 4 1 0 current 4 1 0 current 0.6 8.1	history1 6 0 59 <1 947 1247 1094 1341 4132 history1 4 2 0 history1 0.5 7.5	history2 5 0 55 <1 896 1303 1079 1316 4438 history2 4 3 0 history2 0 0.4 7.2
ADDITIVES 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	method ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415 method	Imit/base >22 >118 >20 Imit/base >3 >20 >30	current 14 0 49 0 758 1363 1009 1166 3385 current 4 1 0 current 0 current 0.6 8.1 21.2	history1 6 0 59 <1 947 1247 1094 1341 4132 history1 4 2 0 history1 0.5 7.5 19.6	history2 5 0 55 <1 896 1303 1079 1316 4438 history2 4 3 0 history2 0.4 7.2 17.8



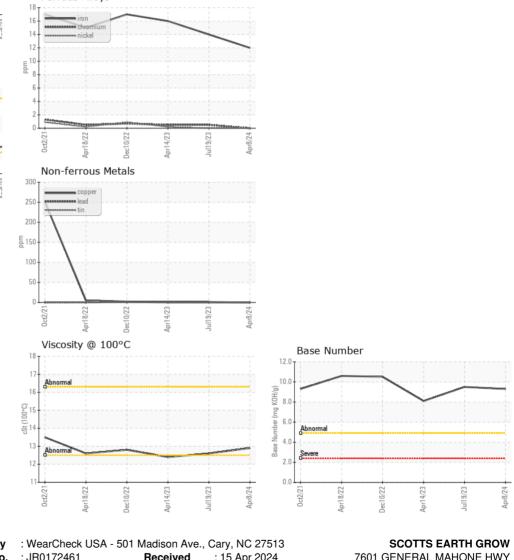
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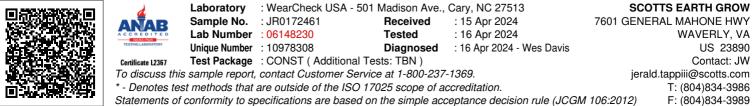




VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.21	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445		12.9	12.6	12.4
GRAPHS						

Ferrous Alloys





Contact/Location: JW - SCOWAV

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