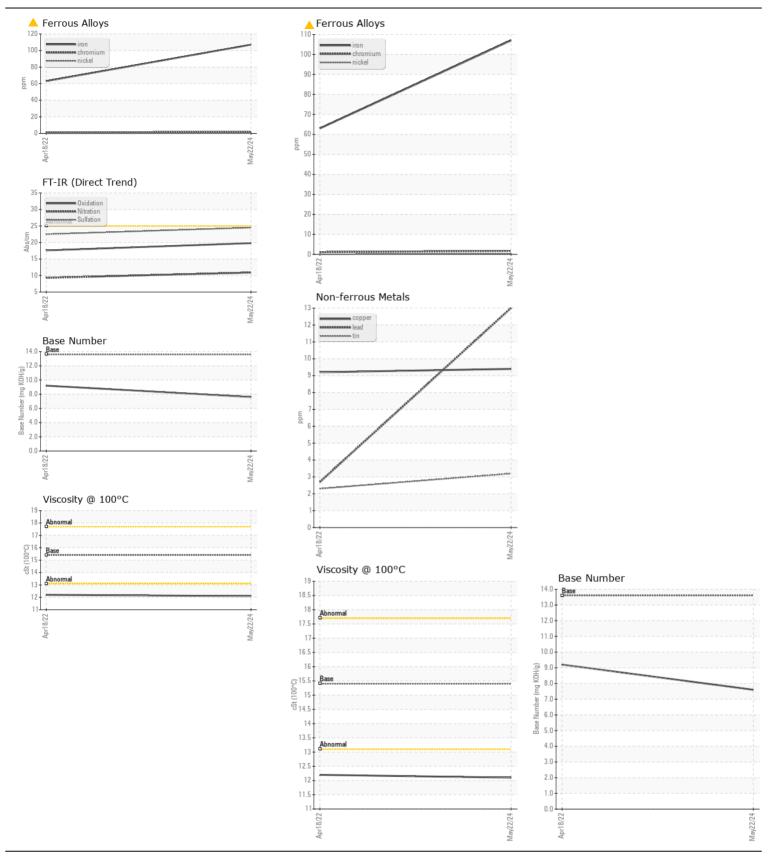
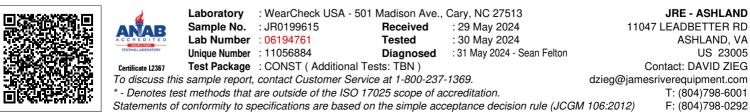


Machine Id WIRTGEN W50R 1505-0209 Component Diesel Engine Fluid JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.	Sample Number		Client Info		JR0199615	JR0124905	
	Sample Date		Client Info		22 May 2024	18 Apr 2022	
	Machine Age	hrs	Client Info		1161	476	
	Oil Age	hrs	Client Info		0	400	
	Filter Age	hrs	Client Info		0	400	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				ABNORMAL	MARGINAL	
WEAR	Iron		ASTM D5185m	× 100	107	63	
		ppm			2	1	
Cylinder, crank, or cam shaft wear is indicated.	Chromium Nickel	ppm	ASTM D5185m				
		ppm	ASTM D5185m	>4	<1	0	
	Titanium	ppm	ASTM D5185m	0	<1	<1	
	Silver	ppm	ASTM D5185m		<1	<1	
	Aluminum	ppm	ASTM D5185m		18	12	
	Lead	ppm	ASTM D5185m		13	3	
	Copper	ppm	ASTM D5185m		9	9	
	Tin	ppm	ASTM D5185m	>15	3	2	
	Vanadium	ppm	ASTM D5185m		<1	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	19	25	
	Potassium	ppm	ASTM D5185m		2	<1	
There is no indication of any contamination in the oil.	Fuel	PP	WC Method		- <1.0	▲ 3.6	
	Water		WC Method		NEG	NEG	
	Glycol		WC Method	, o.1	NEG	NEG	
	Soot %	%	*ASTM D7844	>3	0.3	0.3	
	Nitration	Abs/cm	*ASTM D7624	>20	10.9	9.3	
	Sulfation	Abs/.1mm	*ASTM D7415		24.5	22.5	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
		Scalai	visuai	20.2		NLG	
FLUID CONDITION	Sodium	ppm	ASTM D5185m		4	3	
	Boron	ppm	ASTM D5185m		80	180	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.	Barium	ppm	ASTM D5185m		<1	0	
	Molybdenum	ppm	ASTM D5185m		235	196	
	Manganese	ppm	ASTM D5185m		2	2	
	Magnesium	ppm	ASTM D5185m		757	761	
	Calcium	ppm	ASTM D5185m		1555	1453	
	Phosphorus	ppm	ASTM D5185m		840	904	
	Zinc	ppm	ASTM D5185m		968	1026	
	Sulfur	ppm	ASTM D5185m		3386	2886	
				0.5			
	Oxidation	Ahs/ 1mm	*ASTM D7414	>25	198	1/6	
	Oxidation Base Number (BN)	Abs/.1mm mg KOH/g	*ASTM D7414 ASTM D2896		19.8 7.6	17.6 9.2	





Contact/Location: DAVID ZIEG - JAMASH Page 2 of 2