## OIL ANALYSIS REPORT

## [16W15458]

## JOHN DEERE 6135 NC State Ports Dredge Pump engine John Deere 6135 (S/N RG6135L036793)

## Component Front Diesel Engine

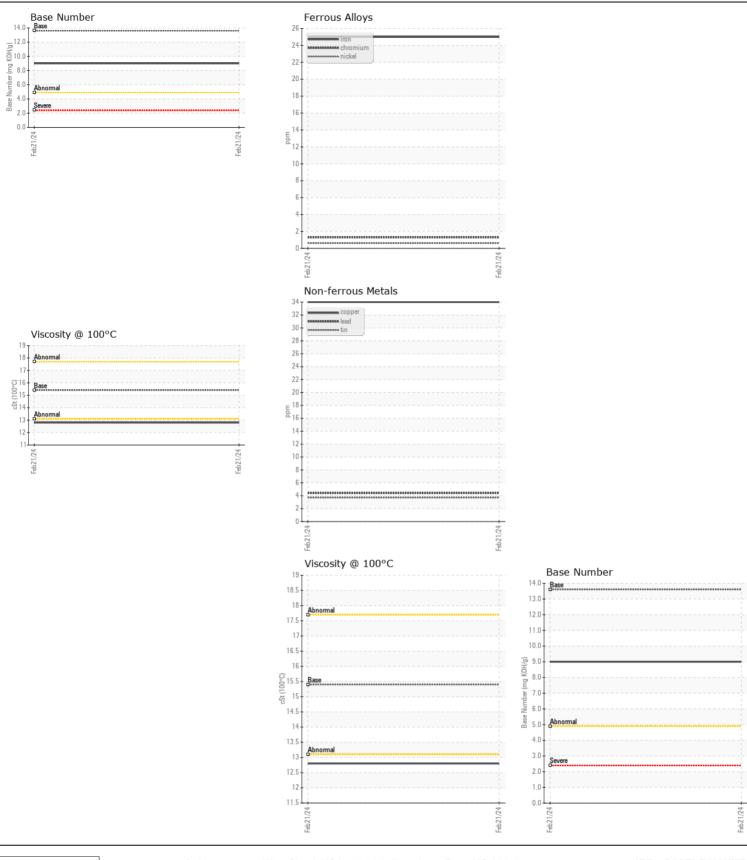
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (41 QTS)

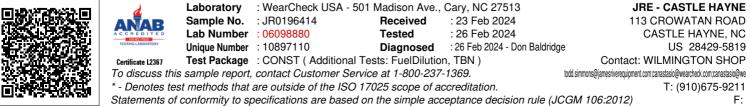
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (4	+1 (215)						
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		JR0196414		
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. ( Customer Sample Comment: 16W15458)	Sample Date		Client Info		21 Feb 2024		
	Machine Age	hrs	Client Info		487		
	Oil Age	hrs	Client Info		487		
	Filter Age	hrs	Client Info		487		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
WEAR	Iron		ASTM D5185m	. 51	25		
WEAN	Chromium	ppm	ASTM D5185m		1		
Metal levels are typical for a new component breaking in.	Nickel	ppm	ASTM D5185m				
		ppm		>0	<1		
	Titanium	ppm	ASTM D5185m	0	<1		
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m		2		
	Lead	ppm	ASTM D5185m ASTM D5185m		4		
	Copper Tin	ppm	ASTM D5185m ASTM D5185m		34 4		
		ppm	ASTM D5185m	>4	4		
	Vanadium White Metal	ppm	*Visual	NONE	-		
		scalar			NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m	>22	11		
	Potassium	ppm	ASTM D5185m	>20	1		
There is no indication of any contamination in the oil.	Fuel	%	ASTM D3524	>2.1	<1.0		
	Water		WC Method	>0.21	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844	>3	0.2		
	Nitration	Abs/cm	*ASTM D7624	>20	6.2		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.0		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
	Appearance	scalar	*Visual	NORML	NORML		
	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.21	NEG		
FLUID CONDITION	Sodium	ppm	ASTM D5185m	<u>_</u> 31	2		
	Boron	ppm	ASTM D5185m	201	12		
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium		ASTM D5185m		0		
	Molybdenum	ppm ppm	ASTM D5185m		78		
	Manganese	ppm	ASTM D5185m		/0 <1		
	Magnesium	ppm	ASTM D5185m		994		
	Calcium	ppm	ASTM D5185m		1157		
	Phosphorus	ppm	ASTM D5185m		1029		
	Zinc		ASTM D5185m		1029		
	Sulfur	ppm ppm	ASTM D5185m		3040		
	Oxidation	Abs/.1mm	*ASTM D3185111	>25	14.2		
	Base Number (BN)				9.0		
	Dase Multiber (DIN)	niy KOn/g	A01101 D2030	10.0	5.0		

Visc @ 100°C cSt

ASTM D445 15.4

12.8





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