

OIL ANALYSIS REPORT

Sample Rating Trend

ADDITIVES

Machine Id

JOHN DEERE 85G 1FF085GXCJJ019712

Hydraulic System

HITACHI HYDRAULIC SUPER EX 46HN (15 GAL)

DIAGNOSIS

Recommendation

Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil.

Wear

All component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable.

Fluid Condition

Zinc level above manufacturer's recommendations. The AN level is acceptable for this fluid.

SAMPLE INFORMATION method limitbase current history1 history2 Sample Number Client Info JR0195490 JR0182425 JR0159643 Sample Date Client Info 2543 2240 19 0ct 2023 21 Feb 2023 Machine Age hrs Client Info 2543 2240 0 0 Oil Age hrs Client Info 2543 2240 Not Changd Sample Status Client Info 2543 2240 Not Changd CONTAMINATION method Imitbase current history1 history2 Water WC Method >0.075 NEG NEG NEG Vater WC Method >0.075 NEG NEG 10 Iron ppm ASTM 05155 >2 1 1 0 Nickel ppm ASTM 05155 >2 1 1 1 Iron ppm ASTM 05155 >2 1 1 1 Nickel	GAL)		081201	1602023	012023	1012.02.1	
Sample DateinClient Info15 May 202419 Oct 202321 Feb 2023Machine AgehrsClient Info254322401914Oil AgehrsClient Info224000Oil ChangedClient Info2240NORMALNORMALNORMALSample StatusImImit/basecurrenthistory1Mistory2WaterWC Method>0.075NEGNEGNEGWEAR METALSmethodImit/basecurrenthistory1history2PQASTM D5165>9161110IronppmASTM D5165>9<1<110IronppmASTM D5165>9<1<110IronppmASTM D5165>9<1<110IronppmASTM D5165>9<1<11NickelppmASTM D5165>9211LeadppmASTM D5165>9<1<10AdminumppmASTM D5165>5<1<10ASTM D5165>5<1<1000AdminumppmASTM D5165<1<100ASTM D5165>5<1<1000AdminumppmASTM D5165<1<100Astm D5165<1<10000Astm D5165<1<1000 <t< th=""><th>SAMPLE INFORM</th><th>ATION</th><th>method</th><th>limit/base</th><th>current</th><th>history1</th><th>history2</th></t<>	SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Machine Age Oil AgohrsClient Info25432240914Oil AgoNorNot ChangedNot ChangedNot ChangedSample StatusIInABNORMANORMALCONTAMINATIOmethodsourcenthistory1history2WaterWC Metholsourcenthistory1history2WEAR METALSmethodinitbascurrenthistory1history2PQASTM DB18Sou161110IronpmASTM DB18Sou16110NickelpmASTM DB18Sou16110NickelpmASTM DB18Sou4100NickelpmASTM DB18Sou4100NickelpmASTM DB18Sou4100NickelpmASTM DB18Sou30-1LeadpmASTM DB18Sou30AutiminumpmASTM DB18Sou3000AutimonypmASTM DB18SouAutimonypmASTM DB18SouAutimonypmASTM DB18SouAutimonypmASTM DB18SouAutimonypmASTM DB18SouAutimonypmASTM	Sample Number		Client Info		JR0195490	JR0184245	JR0159643
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Water WC Method >0.075 NEG NEG NEG WEAR METALS method limit/base current history1 history2 PQ ASTM D8184 >50 16 11 10 Iron ppm ASTM D8185 >32 12 9 12 Chromium ppm ASTM D5185 >9 <1	Sample Status				ABNORMAL	NORMAL	NORMAL
WEAR METALS method limit/base current history1 history2 PQ ASTM D8184 >50 16 11 10 Iron ppm ASTM D8185m >32 12 9 12 Chromium ppm ASTM D5185m >32 12 9 12 Chromium ppm ASTM D5185m >5 <1 <1 0 Nickel ppm ASTM D5185m >5 <1 <1 0 Aluminum ppm ASTM D5185m >28 <1 <1 0 0 Aluminum ppm ASTM D5185m >50 3 0 <1 1 Lead ppm ASTM D5185m >5 <1 <1 0 0 Antimony ppm ASTM D5185m <- - - - - - - - - - - - - - - - - -	CONTAMINATION		method	limit/base	current	history1	history2
PQ ASTM D8184 >50 16 11 10 Iron ppm ASTM D5185m >32 12 9 12 Chromium ppm ASTM D5185m >32 12 9 12 Nickel ppm ASTM D5185m >5 <1 <1 0 Titanium ppm ASTM D5185m >5 <1 <1 0 Aluminum ppm ASTM D5185m >9 2 1 1 Lead ppm ASTM D5185m >9 2 1 0 0 Attmomy ppm ASTM D5185m >5 <1 <1 0 0 Attmomy ppm ASTM D5185m <2 <1 0 0 Attmomy ppm ASTM D5185m <<1 <1 0 0 Attmomy ppm ASTM D5185m <1 0 0 0 Attmomy ppm ASTM D5185m <1 0	Water		WC Method	>0.075	NEG	NEG	NEG
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Tin ppm ASTM D5185m >5 <1 <1 0 Antimony ppm ASTM D5185m Vanadium ppm ASTM D5185m <1	Copper	ppm	ASTM D5185m	>50	3	0	<1
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ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 Barium ppm ASTM D5185m <1	Vanadium	ppm	ASTM D5185m		<1	0	0
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Barium ppm ASTM D5185m <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m <1 0 0 Manganese ppm ASTM D5185m <1	Boron	ppm	ASTM D5185m		0	0	0
Manganese ppm ASTM D5185m <1 <1 <1 Magnesium ppm ASTM D5185m 2 7 0 Calcium ppm ASTM D5185m 12 7 0 Phosphorus ppm ASTM D5185m 827 637 441 387 Zinc ppm ASTM D5185m 0 ▲ 225 37 45 Sulfur ppm ASTM D5185m 13 517 286 373 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >11 4 4 2 Sodium ppm ASTM D5185m >21 2 2 2 Potassium ppm ASTM D5185m >20 2 0 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >80000 2972 1429 18736 Particles >4µm ASTM D7647 >640 21 26 37	Barium	ppm	ASTM D5185m		<1	0	0
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Calcium ppm ASTM D5185m 12 7 2 Phosphorus ppm ASTM D5185m 827 637 441 387 Zinc ppm ASTM D5185m 0 ▲ 225 37 45 Sulfur ppm ASTM D5185m 13 517 286 373 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >11 4 4 2 Sodium ppm ASTM D5185m >21 2 2 2 Potassium ppm ASTM D5185m >20 2 2 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >80000 2972 1429 18736 Particles >6µm ASTM D7647 >20000 384 332 2538 Particles >14µm ASTM D7647 >640 21 26 37 Particles >38µm ASTM D7647 40 0 0 0<	Manganese	ppm	ASTM D5185m		<1	<1	<1
Phosphorus ppm ASTM D5185m 827 637 441 387 Zinc ppm ASTM D5185m 0 ▲ 225 37 45 Sulfur ppm ASTM D5185m 13 517 286 373 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >11 4 4 2 Sodium ppm ASTM D5185m >21 2 2 2 Potassium ppm ASTM D5185m >20 2 2 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D5647 >80000 2972 1429 18736 Particles >6µm ASTM D7647 >20000 384 332 2538 Particles >14µm ASTM D7647 >640 21 26 37 Particles >21µm ASTM D7647 40 0 0	Magnesium	ppm	ASTM D5185m		2	7	0
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Sodium ppm ASTM D5185m >21 2 2 2 Potassium ppm ASTM D5185m >20 2 2 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >80000 2972 1429 18736 Particles >6µm ASTM D7647 >20000 384 332 2538 Particles >14µm ASTM D7647 >640 21 26 37 Particles >21µm ASTM D7647 >160 4 7 4 Particles >38µm ASTM D7647 >40 0 0 0 Particles >71µm ASTM D7647 >10 0 0 0	CONTAMINANTS		method	limit/base	current	history1	history2
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Particles >6μm ASTM D7647 >20000 384 332 2538 Particles >14μm ASTM D7647 >640 21 26 37 Particles >21μm ASTM D7647 >160 4 7 4 Particles >38μm ASTM D7647 >40 0 0 0 Particles >71μm ASTM D7647 >10 0 0 0	FLUID CLEANLINE	SS	method	limit/base	current	history1	history2
Particles >6μm ASTM D7647 >20000 384 332 2538 Particles >14μm ASTM D7647 >640 21 26 37 Particles >21μm ASTM D7647 >160 4 7 4 Particles >38μm ASTM D7647 >40 0 0 0 Particles >71μm ASTM D7647 >10 0 0 0	Particles >4µm		ASTM D7647	>80000	2972	1429	18736
Particles >14μm ASTM D7647 >640 21 26 37 Particles >21μm ASTM D7647 >160 4 7 4 Particles >38μm ASTM D7647 >40 0 0 0 Particles >71μm ASTM D7647 >10 0 0 0							
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Particles >38μm ASTM D7647 >40 0 0 0 Particles >71μm ASTM D7647 >10 0 0 0							
Particles >71μm ASTM D7647 >10 0 0							
	Oil Cleanliness		ISO 4406 (c)	>23/21/16	19/16/12	18/16/12	21/19/12



Additives

phosphorus

eb21/23

Feb21/23

Feb21/23

Feb21/23

Feb21/23

Viscosity @ 40°C

Particle Trend

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Oct19/23

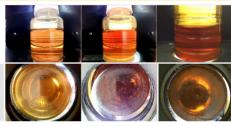
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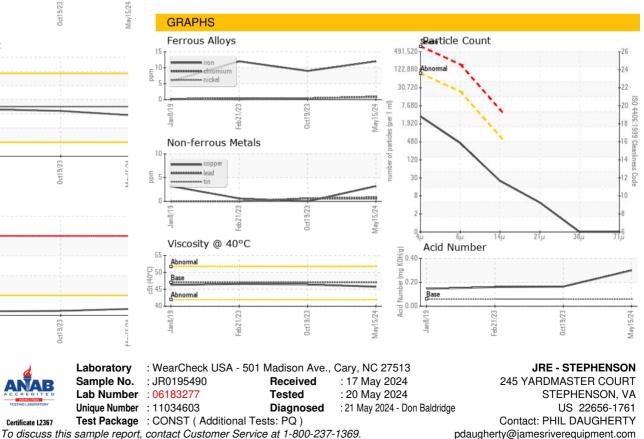
OIL ANALYSIS REPORT

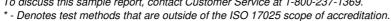
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.30	0.164	0.16
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	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	>0.075	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	47	45.8	46.4	46.6
SAMPLE IMAGES	S	method	limit/base	current	history1	history2

Color



Bottom





Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (540)693-2588

Report Id: JAMWIN [WUSCAR] 06183277 (Generated: 05/23/2024 13:41:18) Rev: 1

Submitted By: COTY MAGAHA

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