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Current

4978

973

LEC0031577 13 Nov 2023 History1

4005

1997

History2

3471

1463

LEC0038502 LEC0034089

09 May 2023 28 Nov 2022

Limit/Abn

Machine Id JOHN DEERE 944k 1DW944KSKLF703589

Rear Right Final Drive

JOHN DEERE HY-GARD HYD/TRANS (14 GAL)

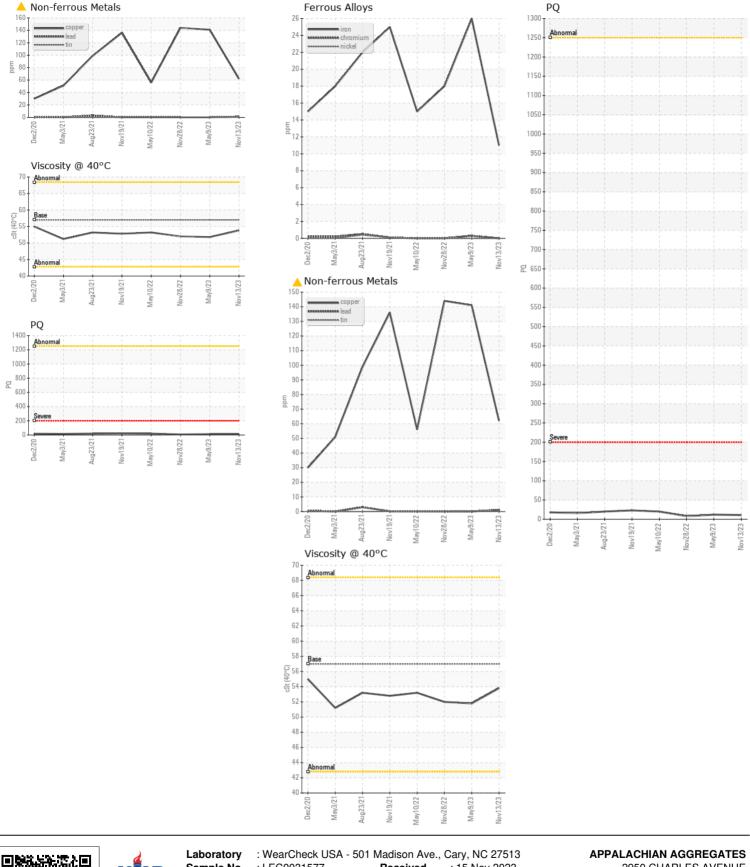
RECOMMENDATION	Test	UOM	Method	
No corrective action is recommended at this time. Resample at the	Sample Number		Client Info	
next service interval to monitor.	Sample Date		Client Info	
	Machine Age	hrs	Client Info	
	Oil Age	hrs	Client Info	
	Filter Age	hrs	Client Info	
	Oil Changed		Client Info	
	Filter Changed		Client Info	
	Sample Status			
WEAR	PQ		ASTM D8184	
The copper level has decreased, but is still abnormal. All other	Iron	ppm	ASTM D5185m	
component wear rates are normal.	Chromium	ppm	ASTM D5185m	
	Nickel	ppm	ASTM D5185m	
	Titanium	ppm	ASTM D5185m	
	Silver	ppm	ASTM D5185m	
	Aluminum	ppm	ASTM D5185m	
	Lead	ppm	ASTM D5185m	
	Copper	ppm	ASTM D5185m	
	Tin	ppm	ASTM D5185m	
	Vanadium	ppm	ASTM D5185m	
	White Metal	scalar	*Visual	
	Yellow Metal	scalar	*Visual	
CONTAMINATION	Silicon	ppm	ASTM D5185m	i185m :
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	
there is no indication of any containing to the first of the	Water		WC Method	
	Silt	scalar	*Visual	
	Debris	scalar	*Visual	

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Filter AgehrsClient IntoNoNot ChangedNot Chan	enrige	1110			0.0	1007	1100	
Filter Changed Client Info N/A N/A N/A Sample Status ABNORMAL ABNORMAL ABNORMAL ABNORMAL PQ ASTM D8184<>1250 11 12 8 Iron ppm ASTM D5185m<>750 11 26 18 Chromium ppm ASTM D5185m<>9 0 <1 0 Nickel ppm ASTM D5185m< 0 0 0 Silver ppm ASTM D5185m 10 0 0 Aluminum ppm ASTM D5185m 40 1 4 <1 Lead ppm ASTM D5185m 40 62 141 144 Tin ppm ASTM D5185m 1 0 0 Vanadium ppm ASTM D5185m 1 1 0 0 Vanadium ppm ASTM D5185m 75 15 35 31 Yellow Metal scalar 'Visual NONE NONE NONE	Filter Age	hrs	Client Info		0	0	0	
Sample StatusABNORMALABNORMALABNORMALABNORMALABNORMALPQASTM D8184>125011128IronppmASTM D6185m>750112618ChromiumppmASTM D6185m>90<10NickelppmASTM D6185m>10000SilverppmASTM D6185m>10000AluminumppmASTM D5185m>4014<1LeadppmASTM D5185m>404621414TinppmASTM D5185m>404621414VanadiumppmASTM D5185m>404621414VanadiumppmASTM D5185m>404621414444TinppmASTM D5185m>40<1100VanadiumppmASTM D5185m>40<1100VanadiumppmASTM D5185m>10<<1000VanadiumppmASTM D5185m>202<100VanadiumppmASTM D5185m>202<100VanadiumppmASTM D5185m>202<100VanadiumppmASTM D5185m>202<100VaterWC Method>0.075NEGNONENONE	Oil Changed		Client Info		Not Changd	Changed	Not Changd	
PQ ASTM D8184 >1250 11 12 8 Iron ppm ASTM D5185m >750 11 260 18 Chromium ppm ASTM D5185m >9 0 <1 0 Nickel ppm ASTM D5185m >9 0 0 0 Nickel ppm ASTM D5185m >10 0 0 0 Silver ppm ASTM D5185m >40 1 4 <1 Lead ppm ASTM D5185m >40 1 4 141 144 Tin ppm ASTM D5185m >10 <1 1 0 0 Vanadium ppm ASTM D5185m >10 <1 1 0 0 Vanadium ppm ASTM D5185m <15 35 31 0 Vanadium ppm ASTM D5185m >75 15 35 31 Yellow Metal scalar<'Visual NONE NONE<	Filter Changed		Client Info		N/A	N/A	N/A	
IronppmASTM DS185m ASTM DS185m P0112618ChromiumppmASTM DS185m ASTM DS185m0000NickelppmASTM DS185m ASTM DS185m0000TitaniumppmASTM DS185m ASTM DS185m0000AluminumppmASTM DS185m ASTM DS185m>1014<1LeadppmASTM DS185m ASTM DS185m>10<100CopperppmASTM DS185m ASTM DS185m>10<1<100VanadiumppmASTM DS185m ASTM DS185m>10<1<100VanadiumppmASTM DS185m ASTM DS185m>10<1<100Vendedalscalar*VisualNONENONENONENONENONEVellow Metalscalar*VisualNONENONENONENONENONESiliconppmASTM DS185m Visual>202<10VaterWC Method scalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLAppearancescalar*VisualNORMNORMLNORMLNORMLBoronppmASTM DS185m>51220BariumppmASTM D	Sample Status				ABNORMAL	ABNORMAL	ABNORMAL	
IronppmASTM DS185m ASTM DS185m P0112618ChromiumppmASTM DS185m ASTM DS185m0000NickelppmASTM DS185m ASTM DS185m0000TitaniumppmASTM DS185m ASTM DS185m0000AluminumppmASTM DS185m ASTM DS185m>1014<1LeadppmASTM DS185m ASTM DS185m>10<100CopperppmASTM DS185m ASTM DS185m>10<1<100VanadiumppmASTM DS185m ASTM DS185m>10<1<100VanadiumppmASTM DS185m ASTM DS185m>10<1<100Vendedalscalar*VisualNONENONENONENONENONEVellow Metalscalar*VisualNONENONENONENONENONESiliconppmASTM DS185m Visual>202<10VaterWC Method scalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLAppearancescalar*VisualNORMNORMLNORMLNORMLBoronppmASTM DS185m>51220BariumppmASTM D	PQ		ASTM D8184	>1250	11	12	8	
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NickelppmASTM DS185m>10000TitaniumppmASTM DS185m000SilverppmASTM DS185m>4014<1LeadppmASTM DS185m>4014<1LeadppmASTM DS185m>4014<1CopperppmASTM DS185m>10<100CopperppmASTM DS185m>10<100VanadiumppmASTM DS185m>10<100VanadiumppmASTM DS185m>75153531Yellow Metalscalar*VisualNONENONENONENONESiliconppmASTM DS185m>75153531PotassiumppmASTM DS185m>202<10WaterWC Method>0.075NEGNEGNEGSilitscalar*VisualNONENONENONENONEDebrisscalar*VisualNORNORENORENOREAppearancescalar*VisualNORNORMLNORMLNORMLAddrscalar*VisualNORNORMLNEGNEGBoronppmASTM D5185m>51220BoronppmASTM D5185m000<11MagnesiumppmASTM D5185m16020Magnesium <td< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th></td<>								
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SilverppmASTM D5185m0000AluminumppmASTM D5185m>4014<1LeadppmASTM D5185m>15100CopperppmASTM D5185m>4062▲ 1411▲ 144TinppmASTM D5185m>10<1<10VanadiumppmASTM D5185m>10<1<10VanadiumppmASTM D5185m>10<100White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONESiliconppmASTM D5185m>75153531PotassiumppmASTM D5185m>202<10WaterWC Method>0.075NEGNEGNEGSilitscalar*VisualNONENONENONENONEDebrisscalar*VisualNORNORENONENONEAgpearancescalar*VisualNORMNORMLNORMLNORMLGdorscalar*VisualNORNORMNORMLNORMLBoronppmASTM D5185m000<1MolybdenumppmASTM D5185m000<1MagnesiumppmASTM D5185m14510293345PhosphorusppmASTM D5185m145102<				210	-			
AluminumppmASTM D5185m>4014<1								
Lead ppm ASTM D5185m >15 1 0 0 Copper ppm ASTM D5185m >40 62 141 144 Tin ppm ASTM D5185m >10 <1 0 0 Vanadium ppm ASTM D5185m <1 0 0 White Metal scalar *Visual NONE NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Silicon ppm ASTM D5185m >75 15 35 31 Potassium ppm ASTM D5185m >20 2 <1 0 Water WC Method >0.075 NEG NEG NORE Sand/Dirt scalar *Visual NONE NONE NONE NORE Appearance scalar *Visual NORML NORML NORML NORML Gdor scalar <t< th=""><th></th><th></th><th></th><th><u>\40</u></th><th></th><th></th><th></th></t<>				<u>\40</u>				
Copper ppm ASTM D5185m >40 ▲ 62 ▲ 141 ▲ 144 Tin ppm ASTM D5185m >10 <1 0 0 Vanadium ppm ASTM D5185m >10 <1 0 0 White Metal scalar *Visual NONE NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Silicon ppm ASTM D5185m >75 15 35 31 Potassium ppm ASTM D5185m >20 2 <1 0 Water wC Method >0.075 NEG NEG NEG Silit scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NORM NORML NORML NORML Appearance scalar *Visual NORML NORML NORML NORML Gdor scal								
TinppmASTM D5185m>10<1								
VanadiumppmASTM D5185m<								
White Metal Yellow Metalscalar*VisualNONENONENONENONESiliconppmASTM D5185m>75153531PotassiumppmASTM D5185m>202<10WaterWC Method>0.075NEGNEGNEGSilitscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*VisualNORMNORMLNORMLNORMLBoronppmASTM D5185m51220BariumppmASTM D5185m000<1MolybdenumppmASTM D5185m1451029384CalciumppmASTM D5185m129011111011955PhosphorusppmASTM D5185m1640134712271102SulfurppmASTM D5185m1640389242793791Visc @ 40°CcStASTM D44557.053.851.852.0				210				
Yellow Metalscalar*VisualNONENONENONENONESiliconppmASTM D5185m>75153531PotassiumppmASTM D5185m>202<10WaterWC Method>0.075NEGNEGNEGSiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.075NEGNEGSodiumppmASTM D5185m>51220BoronppmASTM D5185m000<11MolybdenumppmASTM D5185m00<110ManganeseppmASTM D5185m1451029384CalciumppmASTM D5185m129011111011955PhosphorusppmASTM D5185m1640134712271102SulfurppmASTM D5185m1640134712273791Visc @ 40°CcStASTM D5185m57.053.851.852.0								
SiliconppmASTM D5185m >751535531PotassiumppmASTM D5185m>202<1								
PotassiumppmASTM D5185m>202<1		Scalai	visuai		NONE	NONL	NONL	
WaterWC Method >0.075NEGNEGNEGSiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMNORMLNORMLNORMLOdorscalar*VisualNORMNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.075NEGNEGSodiumppmASTM D5185m51220BoronppmASTM D5185m00<<10BariumppmASTM D5185m00<10ManganeseppmASTM D5185m1451029384CalciumppmASTM D5185m129011111011955ZincppmASTM D5185m1640134712271102SulfurppmASTM D5185m57.053.851.852.0	Silicon	ppm	ASTM D5185m	>75	15	35	31	
Siltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.075NEGNEGNEGSodiumppmASTM D5185m51220BoronppmASTM D5185m6020BariumppmASTM D5185m00<110MalganeseppmASTM D5185m1451029384CalciumppmASTM D5185m154102933325PhosphorusppmASTM D5185m1640134712271102SulfurppmASTM D5185m1640389242793791Visc @ 40°CcStASTM D518557.053.851.852.0	Potassium	ppm	ASTM D5185m	>20	2	<1	0	
Debrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.075NEGNEGNEGSodiumppmASTM D5185m>51220BoronppmASTM D5185m6020BariumppmASTM D5185m00<110MolybdenumppmASTM D5185m00<11101MagnesiumppmASTM D5185m145102933325PhosphorusppmASTM D5185m129011111011955ZincppmASTM D5185m1640134712271102SulfurppmASTM D5185m57.053.851.852.0	Water		WC Method	>0.075	NEG	NEG	NEG	
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.075NEGNEGNEGSodiumppmASTM D5185m>51220BoronppmASTM D5185m6020BariumppmASTM D5185m00<10MolybdenumppmASTM D5185m00<10ManganeseppmASTM D5185m145102933844CalciumppmASTM D5185m3570345933353325PhosphorusppmASTM D5185m1640134712271102SulfurppmASTM D5185m57.053.851.852.0	Silt	scalar	*Visual	NONE	NONE	NONE	NONE	
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLNORMLNORMLNORMLOdorscalar*Visual>0.075NEGNEGNEGNEGEmulsified Waterscalar*Visual>0.075NEGNEGNEGSodiumppmASTM D5185m>51220BoronppmASTM D5185m6020BariumppmASTM D5185m00<10MolybdenumppmASTM D5185m00<10ManganeseppmASTM D5185m1451029384CalciumppmASTM D5185m3570345933353325PhosphorusppmASTM D5185m1640134712271102SulfurppmASTM D5185m57.053.851.852.0	Debris	scalar	*Visual	NONE	NONE	NONE	NONE	
Odorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.075NEGNEGNEGSodiumppmASTM D5185m>51220BoronppmASTM D5185m6020BariumppmASTM D5185m000<1MolybdenumppmASTM D5185m00<10ManganeseppmASTM D5185m1451029384CalciumppmASTM D5185m3570345933353325PhosphorusppmASTM D5185m129011111011955ZincppmASTM D5185m1640134712271102SulfurppmASTM D5185m57.053.851.852.0	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE	
Emulsified Waterscalar*Visual>0.075NEGNEGNEGSodiumppmASTM D5185m>51220BoronppmASTM D5185m6020BariumppmASTM D5185m000<1MolybdenumppmASTM D5185m00<10ManganeseppmASTM D5185m1451029384CalciumppmASTM D5185m3570345933353325PhosphorusppmASTM D5185m129011111011955ZincppmASTM D5185m1640134712271102SulfurppmASTM D5185m57.053.851.852.0	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML	
Sodium ppm ASTM D5185m<>51 2 2 0 Boron ppm ASTM D5185m 6 0 2 0 Barium ppm ASTM D5185m 0 0 2 0 Barium ppm ASTM D5185m 0 0 0 <1 Molybdenum ppm ASTM D5185m 0 0 <1 0 Manganese ppm ASTM D5185m 0 0 <1 <1 <1 Magnesium ppm ASTM D5185m 145 102 93 84 Calcium ppm ASTM D5185m 3570 3459 3335 3325 Phosphorus ppm ASTM D5185m 1290 1111 1011 955 Zinc ppm ASTM D5185m 1640 1347 1227 1102 Sulfur ppm ASTM D5185m 57.0 53.8 51.8 52.0	Odor	scalar	*Visual	NORML	NORML	NORML	NORML	
Boron ppm ASTM D5185m 6 0 2 0 Barium ppm ASTM D5185m 0 0 0 <1 Molybdenum ppm ASTM D5185m 0 0 <1 0 Manganese ppm ASTM D5185m 0 0 <1 0 Magnesium ppm ASTM D5185m 145 102 93 84 Calcium ppm ASTM D5185m 3570 3459 3335 3325 Phosphorus ppm ASTM D5185m 1290 1111 1011 955 Zinc ppm ASTM D5185m 1640 1347 1227 1102 Sulfur ppm ASTM D5185m 63.8 51.8 52.0	Emulsified Water	scalar	*Visual	>0.075	NEG	NEG	NEG	
Barium ppm ASTM D5185m 0 0 0 <1	Sodium	ppm	ASTM D5185m	>51	2	2	0	
Molybdenum ppm ASTM D5185m 0 0 <1	Boron	ppm	ASTM D5185m	6	0	2	0	
Manganese ppm ASTM D5185m <1	Barium	ppm	ASTM D5185m	0	0	0	<1	
Magnesium ppm ASTM D5185m 145 102 93 84 Calcium ppm ASTM D5185m 3570 3459 3335 3325 Phosphorus ppm ASTM D5185m 1290 1111 1011 955 Zinc ppm ASTM D5185m 1640 1347 1227 1102 Sulfur ppm ASTM D5185m C 3892 4279 3791 Visc @ 40°C cSt ASTM D445 57.0 53.8 51.8 52.0	Molybdenum	ppm	ASTM D5185m	0	0	<1	0	
Calcium ppm ASTM D5185m 3570 3459 3335 3325 Phosphorus ppm ASTM D5185m 1290 1111 1011 955 Zinc ppm ASTM D5185m 1640 1347 1227 1102 Sulfur ppm ASTM D5185m C 3892 4279 3791 Visc @ 40°C cSt ASTM D445 57.0 53.8 51.8 52.0	Manganese	ppm	ASTM D5185m		<1	<1	<1	
Phosphorus ppm ASTM D5185m 1290 1111 1011 955 Zinc ppm ASTM D5185m 1640 1347 1227 1102 Sulfur ppm ASTM D5185m C 3892 4279 3791 Visc @ 40°C cSt ASTM D445 57.0 53.8 51.8 52.0	Magnesium	ppm	ASTM D5185m	145	102	93	84	
Zinc ppm ASTM D5185m 1640 1347 1227 1102 Sulfur ppm ASTM D5185m 640 3892 4279 3791 Visc @ 40°C cSt ASTM D445 57.0 53.8 51.8 52.0	Calcium	ppm	ASTM D5185m	3570	3459	3335	3325	
Zinc ppm ASTM D5185m 1640 1347 1227 1102 Sulfur ppm ASTM D5185m 640 3892 4279 3791 Visc @ 40°C cSt ASTM D445 57.0 53.8 51.8 52.0	Phosphorus	ppm	ASTM D5185m	1290	1111	1011	955	
Visc @ 40°C cSt ASTM D445 57.0 53.8 51.8 52.0	Zinc		ASTM D5185m	1640	1347	1227	1102	
Visc @ 40°C cSt ASTM D445 57.0 53.8 51.8 52.0	Sulfur		ASTM D5185m		3892	4279	3791	
Submitted By: STORE 3 - NORTON - BRIAN YOUTZY	Visc @ 40°C		ASTM D445	57.0	53.8	51.8	52.0	
			Submitted	By: STC	RE 3 - NOR	TON - BRIA	N YOUTZY	

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Sample No. Received : 15 Nov 2023 2950 CHARLES AVENUE : LEC0031577 Lab Number : 06008662 Tested : 16 Nov 2023 DUNBAR, WV Unique Number : 10742424 : 17 Nov 2023 - Sean Felton US 25064 Diagnosed Test Package : CONST (Additional Tests: PQ) Contact: VERNON SPARKS Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. vernon.sparks@appagg.wv.com Т: * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. F: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Submitted By: STORE 3 - NORTON - BRIAN YOUTZY Page 2 of 2