

## Machine Id **JOHN DEERE 524L 1DW524LTPKF694269** Component Brake JOHN DEERE HY-GARD HYD/TRANS (--- GAL)

## R

Beasample at the next service interval to monitor.     Sample Date Sample Date     Client Info     MR02008     File Correct Date     MR02008     SSI	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Nample DateClient Info1909700Machine AgehrsClient Info1000Filter AgehrsClient Info1000Client Info10Client Info1000Client Info10Client Info10No10Client Info10Client Info10NoNoClient Info10Client InfoNoNoNo	Besample at the next service interval to monitor	Sample Number		Client Info		JR0207889		
Oil AgehrsCilent IndoSide0i.e.<		Sample Date		Client Info		09 Apr 2024		
Filter Age     fris     Client info     0		Machine Age	hrs	Client Info		3040		
Oil Changed     Client Info     Name     number       Filte Changed     Client Info     NR     NR     NR     NR       WEAR     PQ     ASTM DBIS     S65		Oil Age	hrs	Client Info		3040		
Filter Changed Image Image<		Filter Age	hrs	Client Info		0		
Sample StatusNo RNALVEARPQSTM 25%S3098All component wear rates are normal.IronpmSTM 25%S3098NormalpmSTM 25%S511NormalpmSTM 25%S511NormalpmSTM 25%S511NormalpmSTM 25%S511SilverpmSTM 25%S511All wearpmSTM 25%S5101CoperpmSTM 25%S15511VanadiumpmSTM 25%S16511		Oil Changed		Client Info		Changed		
WEAR     PQ     ATM D814     56         All component wear rates are normal.     Iron     pm     ATM D8158     >-50     98         Nickel     ppm     ATM D8158     >-5     -1         Nickel     ppm     ATM D8158     >5     1         Nickel     ppm     ATM D8158     >5     1         Nickel     ppm     ATM D8158     >5     1         Silver     ppm     ATM D8158     >1     0         Auminum     ppm     ASTM D8158     >1     0         Auminum     ppm     ASTM D8158     >10     5     2         Auminum     pm     ASTM D8158     >10     5     2         Auminum     pm     ASTM D8158     >10     5     2		Filter Changed		Client Info		N/A		
Iron     ppn     ASTM 0515m     350     98      4       All component wear rates are normal.     Chromium     ppn     ASTM 0515m     -5     I         Nickel     ppm     ASTM 0515m     -5     I         Nickel     ppm     ASTM 0515m     -6     I         Silver     ppm     ASTM 0515m     -8     I         Aluminum     ppm     ASTM 0515m     -8     I      I        Copper     ppm     ASTM 0515m     -10     5     I      I        Copper     ppm     ASTM 0515m     -10     5     I <td< th=""><th></th><th>Sample Status</th><th></th><th></th><th></th><th>NORMAL</th><th></th><th></th></td<>		Sample Status				NORMAL		
Iron     ppn     ASTM 0515m     350     98      4       All component wear rates are normal.     Chromium     ppn     ASTM 0515m     -5     I         Nickel     ppm     ASTM 0515m     -5     I         Nickel     ppm     ASTM 0515m     -6     I         Silver     ppm     ASTM 0515m     -8     I         Aluminum     ppm     ASTM 0515m     -8     I      I        Copper     ppm     ASTM 0515m     -10     5     I      I        Copper     ppm     ASTM 0515m     -10     5     I <td< th=""><th>WEAR</th><th>PQ</th><th></th><th>ASTM D8184</th><th></th><th>56</th><th></th><th></th></td<>	WEAR	PQ		ASTM D8184		56		
$\begin{tabular}{ c c c c c c c } \hline Product in the column is acceptable for the time in service. \\ \hline Controlumn is acceptable for the time in service. \\ \hline $			maa		>350			
Nickel     ppm     ASTM D5185m     >5     1         Titanium     ppm     ASTM D5185m     C     7         Silver     ppm     ASTM D5185m     S     3         Aluminum     ppm     ASTM D5185m     >10     S         Aluminum     ppm     ASTM D5185m     >10     S	All component wear rates are normal.							
Titanium   ppm   ASTM 05185n   7       Silver   ppm   ASTM 05185n    0      Aluminum   ppm   ASTM 05185n        Lead   ppm   ASTM 05185n         Copper   Ppm   ASTM 05185n         Tin   ppm   ASTM 05185n								
Silver     ppm     ASTM D5185n     Image: Silver     Silver     ppm     ASTM D5185n     >8     3        Aluminum     ppm     ASTM D5185n     >80     5     3         Lead     ppm     ASTM D5185n     >10     5     2         Copper     ppm     ASTM D5185n     >5     2         Tin     ppm     ASTM D5185n     >5     2         Vanadium     ppm     ASTM D5185n     >5     2         Vanadium     ppm     ASTM D5185n     >50     2         Vanadium     ppm     ASTM D5185n     >400     NONE     NONE     NONE        Visual     NONE     NONE     NONE     NONE     NONE         Solit     scalar     Visual     NONE     NONE     NONE         Solid     scalar     Visual								
AluminumpmASTM D5180m>83LeadpmASTM D5180m>100552CopperppmASTM D5180m>1502TimppmASTM D5180m>52VanadiumppmASTM D5180m>52VanadiumppmASTM D5180m>52VanadiumppmASTM D5180m>521Wite MetalscalarVisualNONENONEVellow MetalscalarVisualNONENONE1NerreSiliconppmASTM D5180m>400191ValuerVisualNONENONENONENONEDebrisscalarVisualNONENONENONENONEAppearancescalarVisualNONENONENONEFLUID CONDITIONScalarVisualNONENORESoluringpmASTM D5180m03MolybdenumppmASTM D5180m03SolurinppmASTM D5180m03								
Lead   pm   ASTM 05185m   >10   5      Copper   pm   ASTM 05185m   >150   2      Tin   pm   ASTM 05185m   >5   2      Vanioum   pm   ASTM 05185m   NONE   2      While Metal   scalar   Visual   NONE   AC1      While Metal   scalar   Visual   NONE   AC1      Value   scalar   Visual   NONE   ACN      Yellow Metal   scalar   Visual   NONE   ACN      There is no indication of any contamination in the oil.   Silicon   pm   ASTM 05185m   >-400   9      Water   Visual   NONE   ANDE   ANDE       Solicon   scalar   Visual   NONE   NONE   ANDE      Solar   Scalar   Visual   NONE   ANDE       Solar   Scalar   Visual   NONE   NONE					>8			
Copper TinpmASTM D5165m>1002TinpmASTM D5185m>52VanadiumpmASTM D5185mVanadiumppmASTM D5185mNONENONEWhite Metalscalar'VisualNONENONEVellow Metalscalar'VisualNONENONESiliconppmASTM D5185m>-00191PotassiumppmASTM D5185m>-00NONEWaterscalar'VisualNONENONENONEDebrisscalar'VisualNONENONESand/Dirtscalar'VisualNONENONEAppearancescalar'VisualNONENONEFLUID CONDITIONSodiumppmASTM D5185m681The condition of the oil is acceptable for the time in service.BoronppmASTM D5185m025MarganeseppmASTM D5185m681MarganeseppmASTM D5185m148MarganeseppmASTM D5185m150148MarganeseppmAS								
Tin     ppm     ASTM D5185m     >5     2        Vanadium     ppm     ASTM D5185m     <1         White Metal     scalar     "Visual     NONE     NONE         Vellow Metal     scalar     "Visual     NONE     NONE         CONTAMINATION     Silicon     ppm     ASTM D5185m     >400     191         There is no indication of any contamination in the oil.     Silicon     ppm     ASTM D5185m     >20     9         Water     WCMethod     >-2     NEG          Sand/Dirt     scalar     "Visual     NONE     NONE         Odor     scalar     "Visual     NORM     NORM         The condition of the oil is acceptable for the time in service.     Sodium     ppm     ASTM D5185m     6     81        Barium     ppm     ASTM D5185m     148								
VanadiumppmASTM D5189-c-1White Metalscalar*UsualNONENONENONEVellow Metalscalar*UsualNONENONENonepmASTM D5189>-400191NonepmASTM D5189>-2009NonepmASTM D5189>-2009NonepmASTM D5189>-200NONEWaterWaterWC Method>-202NEGDebrisscalar*VisualNONENONEAppearancescalar*VisualNORHNONEAppearancescalar*VisualNORHNORHModybdenurppmASTM D518903.0ANonepmScalar*VisualNORHNORHAppearancescalar*VisualNORHNORHModybdenurpmASTM D518903.03.0ManganesupmASTM D518903.03.0ManganesupmASTM D518903.03.0 <tr< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></tr<>								
White Metal   scalar   Visual   NONE   NONE      Yellow Metal   scalar   'Visual   NONE   NONE      NONE   NONE   NONE   NONE       CONTAMINATION   Silicon   pp   ASTM D5185n   >400   191       There is no indication of any contamination in the oil.   Potassium   pp   ASTM D5185n   >400   9       Water   Visual   NONE   NONE   -								
Yellow Metalscalar*VisualNONENONECONTAMINATIONThere is no indication of any contamination in the oil.MaterWaterWaterVisualNONE9VisualNONENONE0.2NEGSiltscalar*VisualNONENONESiltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMNORMLOdorscalar*VisualNORMLNORMLDebrisscalar*VisualNORMLNORMLAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLFLUID CONDITIONSodiumppmASTM D5185m681The condition of the oil is acceptable for the time in service.BoronppmASTM D5185m03BariumppmASTM D5185m02MalganesiumppmASTM D5185m145148MalganesiumppmASTM D5185m145148ColucumppmASTM D5185m145148MalganesiumppmASTM D5185m145148 <th></th> <th></th> <th></th> <th></th> <th>NONE</th> <th></th> <th></th> <th></th>					NONE			
CONTAMINATION   Silicon   ppm   ASTM D5185n   >400   191       There is no indication of any contamination in the oil.   Potassium   ppm   ASTM D5185n   >20   9       Water   WC Mehod   >.0.2   NEG        Silt   scalar   'Visual   NONE   NONE       Debris   scalar   'Visual   NONE   NONE       Sand/Dirt   scalar   'Visual   NORM   NONE       Appearance   scalar   'Visual   NORM   NORML       Odor   scalar   'Visual   NORM   NORML       Odor   scalar   'Visual   NORM   NORML       FLUID CONDITION   Sodium   pm   ASTM D5185n   -   28       Molybdenum   pm   ASTM D5185n   0   3       Molybdenum   pm   ASTM D5185n   0   <								
Potassium ppm ASTM D5185m >20 9    Water WC Method >0.2 NEG    Silt scalar *Visual NONE NONE    Debris scalar *Visual NONE NONE    Sand/Dirt scalar *Visual NONE NONE    Appearance scalar *Visual NORE NORE    Odor scalar *Visual NORE NORE    Nore NORE      Odor scalar *Visual NORE NORE    Nore Scolum ppm ASTM D5185m 0.2 NEG    None Poson ppm ASTM D5185m 6 81    None Poson ppm ASTM D5185m 0 3    Maganesium ppm ASTM D5185m 148 -								
WaterWC Method>.0.2NEGSiltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORLNORLOdorscalar*VisualNORLNORLDebrisscalar*VisualNORENOREAppearancescalar*VisualNORLNORLOdorscalar*VisualNORLNORLEmulsified Waterscalar*VisualNORLNORLBoronppmASTM D5185m681BariumppmASTM D5185m03.3MolybdenumppmASTM D5185m03.6ManganeseppmASTM D5185m14.8MagnesiumppmASTM D5185m14.91.1PhosphorusppmASTM D5185m15.01.162ZincppmASTM D5185m16.401162PhosphorusppmASTM D5185m16.401162	CONTAMINATION	Silicon	ppm			191		
Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMNORMOdorscalar*VisualNORMNORMOdorscalar*VisualNORMNORMEmulsified Waterscalar*VisualNORMNORMSodiumscalar*VisualNORMBoronppmASTM D5185m681BariumppmASTM D5185m03MolybdenumppmASTM D5185m03ManganeseppmASTM D5185m145148CalciumppmASTM D5185m145148PhosphorusppmASTM D5185m1521162ZincppmASTM D5185m1601162	There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	9		
Debrisscalar'VisualNONENONESand/Dirtscalar'VisualNONENONEAppearancescalar'VisualNORMNORMOdorscalar'VisualNORMNORMBundsifiedWatescalar'VisualNORMNORMFLUID CONDITIONSodiumppmASTM D5185m28BoronppmASTM D5185m681BariumppmASTM D5185m03MolybdenumppmASTM D5185m03ManganeseppmASTM D5185m148MangensiumppmASTM D5185m1481448CalciumppmASTM D5185m12010377PhosphorusppmASTM D5185m1401162ZincppmASTM D5185m1401162								
Sand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMNORMLAppearancescalar*VisualNORMNORMLOdorscalar*VisualNORMNORMLEmulsified Watescalar*VisualNORNORMLFLUID CONDITIONSodiumppmASTM D5185m681BoronppmASTM D5185m036BariumppmASTM D5185m036MolybdenumppmASTM D5185m025ManganeseppmASTM D5185m145148MagnesiumppmASTM D5185m145148CalciumppmASTM D5185m1451162PhosphorusppmASTM D5185m16401162ZincppmASTM D5185m16401162		Silt	scalar	*Visual	NONE			
Appearance Odorscalar*VisualNORMLNORMLIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII			scalar	*Visual		NONE		
Odorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGFLUID CONDITIONSodiumppmASTM D5185m681BoronppmASTM D5185m681BariumppmASTM D5185m03MolybdenumppmASTM D5185m025MagnesiumppmASTM D5185m145148CalciumppmASTM D5185m35702748PhosphorusppmASTM D5185m16401162		Sand/Dirt	scalar	*Visual	NONE	NONE		
Emulsified Waterscalar*Visual>0.2NEGFLUID CONDITIONSodiumppmASTM D5185m28BoronppmASTM D5185m681BariumppmASTM D5185m03MolybdenumppmASTM D5185m03MaganeseeppmASTM D5185m025MagnesiumppmASTM D5185m145148MagnesiumppmASTM D5185m35702748PhosphorusppmASTM D5185m12901037ZincppmASTM D5185m16401162			scalar					
FLUID CONDITION   Sodium   ppm   ASTM D5185m   28      Boron   ppm   ASTM D5185m   6   81       Barium   ppm   ASTM D5185m   0   3       Molybdenum   ppm   ASTM D5185m   0   25       Manganese   ppm   ASTM D5185m   145   148       Magnesium   ppm   ASTM D5185m   3570   2748       Calcium   ppm   ASTM D5185m   3570   2748       Phosphorus   ppm   ASTM D5185m   1290   10377       Zinc   ppm   ASTM D5185m   1640   1162			scalar	*Visual	NORML			
Boron   ppm   ASTM D5185m   6   81       Barium   ppm   ASTM D5185m   0   3       Molybdenum   ppm   ASTM D5185m   0   25       Manganese   ppm   ASTM D5185m   145   148       Magnesium   ppm   ASTM D5185m   145   148       Calcium   ppm   ASTM D5185m   3570   2748       Phosphorus   ppm   ASTM D5185m   1640   1162       Zinc   ppm   ASTM D5185m   1640   1162		Emulsified Water	scalar	*Visual	>0.2	NEG		
Boron   ppm   ASTM D5185m   6   81       Barium   ppm   ASTM D5185m   0   3       Molybdenum   ppm   ASTM D5185m   0   25       Manganese   ppm   ASTM D5185m   145   148       Magnesium   ppm   ASTM D5185m   145   148       Calcium   ppm   ASTM D5185m   3570   2748       Phosphorus   ppm   ASTM D5185m   1640   1162       Zinc   ppm   ASTM D5185m   1640   1162	FLUID CONDITION	Sodium	ppm	ASTM D5185m		28		
Barium   ppm   ASTM D5185m   0   3       Molybdenum   ppm   ASTM D5185m   0   25       Manganese   ppm   ASTM D5185m   145   148       Magnesium   ppm   ASTM D5185m   145   148       Calcium   ppm   ASTM D5185m   3570   2748       Phosphorus   ppm   ASTM D5185m   1290   1037       Zinc   ppm   ASTM D5185m   1640   1162		Boron			6			
MolybdenumppmASTM D5185m025ManganeseppmASTM D5185m1452MagnesiumppmASTM D5185m145148CalciumppmASTM D5185m35702748PhosphorusppmASTM D5185m12901037ZincppmASTM D5185m16401162	The condition of the on is acceptable for the time in service.	Barium				3		
Manganese   ppm   ASTM D5185m   2       Magnesium   ppm   ASTM D5185m   145   148       Calcium   ppm   ASTM D5185m   3570   2748       Phosphorus   ppm   ASTM D5185m   1290   1037       Zinc   ppm   ASTM D5185m   1640   1162								
Magnesium   ppm   ASTM D5185m   145   148       Calcium   ppm   ASTM D5185m   3570   2748       Phosphorus   ppm   ASTM D5185m   1290   1037       Zinc   ppm   ASTM D5185m   1640   1162								
Calcium   ppm   ASTM D5185m   3570   2748       Phosphorus   ppm   ASTM D5185m   1290   1037       Zinc   ppm   ASTM D5185m   1640   1162		Magnesium		ASTM D5185m	145	148		
Phosphorus     ppm     ASTM D5185m     1290     1037         Zinc     ppm     ASTM D5185m     1640     1162		-						
Zinc ppm ASTM D5185m 1640 1162				ASTM D5185m	1290			
						1162		
		Sulfur		ASTM D5185m		4616		

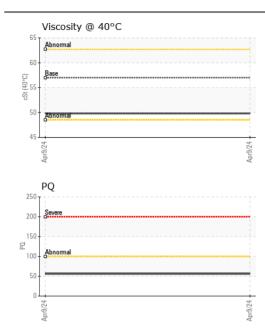
Visc @ 40°C

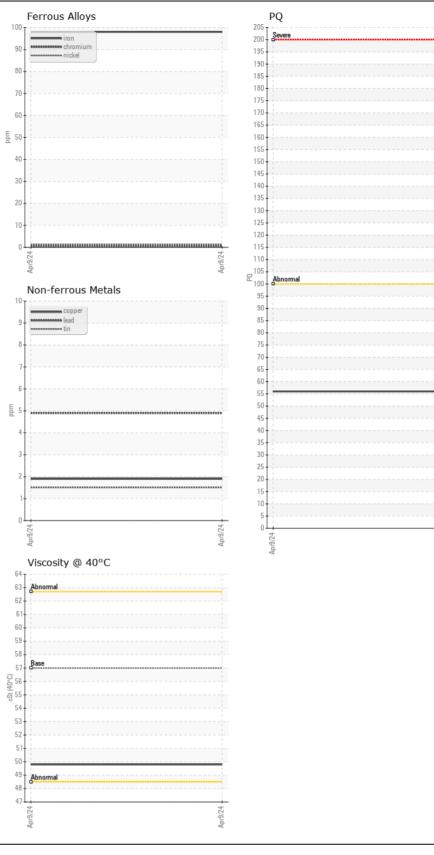
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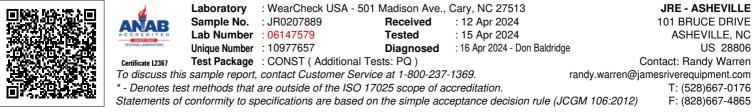
Contact/Location: Randy Warren - VANASH

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ASTM D445 57.0







Contact/Location: Randy Warren - VANASH Page 2 of 2

Apr9/24