

## Machine Id **JOHN DEERE 245P 1FF245PAVNF000093** nponen

Pump Drive

JOHN DEERE GL-5 80W90 (--- GAL)

Sample butthe next service interval to monitor.     Sample bate     Client Info     JR020301     IIII and iteration in the output of the context of the cont	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Date     Client Info     21 Apr 232     Image of the second		Sample Number						
Machine Age     Ins     Client Info     480         Oil Age     hrs     Client Info     800      800        Filter Age     Ins     Client Info     Not Change      Not Change         Sample Size     Client Info     Not Change      Not Change         NEACH     PO     ASTM D5136     >151     400         Nonponent wear rates are normal.     PO     ASTM D5135     >151     400         Nicked     ppm     ASTM D5135     >10	הפסמווקוב מו נווש וופגו ספויונט ווונפוימו נט וווטווונטו.	•						
Filter Age     hrs     Client Info     No     n=     n=       Oil Changed     Client Info     Not Changed     Not Change		Machine Age	hrs	Client Info		480		
Oil Changed     Client Indo     Net Changed     Filter Changed     Client Indo     Net Changed     Filter Changed		Oil Age	hrs	Client Info		480		
Filter Changed     Client Into     Met Change     Image     Met Change     Image     Met Change     Image     Met Change     Met Change     Image     Met Change     Image     Met Change     Met Change     Image		Filter Age	hrs	Client Info		0		
Sample Status     NTENTION		Oil Changed		Client Info		Not Changd		
PQ     ASTM 05884     28         All component wear rates are normal.     iron     pm     ASTM 05165     >11     40         Nickel     pm     ASTM 05165     >11          Nickel     pm     ASTM 05165     >10     0         Tanalum     pm     ASTM 05165     >10     0         Silver     ppm     ASTM 05165     >1     0         Aluminum     pm     ASTM 05165     >1     0         Ladd     ppm     ASTM 05165     >1     0         Copper     ppm     ASTM 05165     >1     0         Vanadum     ppm     ASTM 05165     >1     0         The is no indication of any contamination in the oil.     Silicon     ppm     ASTM 05165     >31     8        Silicon     ppm		Filter Changed		Client Info		Not Changd		
Iron     ppm     ASTM D5150     >151     40        Chromium     ppm     ASTM D5150     >11     <1     <       Nickel     ppm     ASTM D5150     >10     <     <       Nickel     ppm     ASTM D5150     <0     <     <       Nickel     ppm     ASTM D5150     <0     <     <       Silver     ppm     ASTM D5150     <0     <     <       Aluminum     ppm     ASTM D5150     <0     <     <       Aluminum     ppm     ASTM D5150     <0     <     <       Copper     ppm     ASTM D5150     <0     <     <       Copper     ppm     ASTM D5150     <0     <     <       Valow Metal     scalar     Visual     NONE     NONE     <       There is no indication of any contamination in the oil.     Potassium     pm     ASTM D5150     S1     S0     <       Silto     scalar     Visual     <		Sample Status				ATTENTION		
Iron     ppm     ASTM D5150     >151     40        Chromium     ppm     ASTM D5150     >11     <1     <       Nickel     ppm     ASTM D5150     >10     <     <       Nickel     ppm     ASTM D5150     <0     <     <       Nickel     ppm     ASTM D5150     <0     <     <       Silver     ppm     ASTM D5150     <0     <     <       Aluminum     ppm     ASTM D5150     <0     <     <       Aluminum     ppm     ASTM D5150     <0     <     <       Copper     ppm     ASTM D5150     <0     <     <       Copper     ppm     ASTM D5150     <0     <     <       Valow Metal     scalar     Visual     NONE     NONE     <       There is no indication of any contamination in the oil.     Potassium     pm     ASTM D5150     S1     S0     <       Silto     scalar     Visual     <	WEAD	DO						
An component wear lates are number.     Chromium     ppm     ASTM D5185n     1         Nickei     ppm     ASTM D5185n     0     0         Titanium     ppm     ASTM D5185n     0     0         Aluminum     ppm     ASTM D5185n     >10     0         Aluminum     ppm     ASTM D5185n     >10     0         Auminum     ppm     ASTM D5185n     >10     0         Auminum     ppm     ASTM D5185n     >10     0         Auminum     ppm     ASTM D5185n     >10     0         Visual     NDNE     NONE     NONE     NONE     NONE        Visual     NDNE     NONE     NONE     NONE         Tobe Moriza     scalar     Visual     NONE     NONE         Silicon     scalar	WEAR				454			
Nickel     ppm     ASTM D5185m     >10     0         Titanium     ppm     ASTM D5185m     0     0         Silver     ppm     ASTM D5185m     21     0.0         Silver     ppm     ASTM D5185m     >21     0.0         Aluminum     ppm     ASTM D5185m     >51     0.0         Lead     ppm     ASTM D5185m     >21     0.0         Vanadium     ppm     ASTM D5185m     >4     0.0         Visual     NONE     NONE     NONE          Theeits no indication of any contamination in the oil.	All component wear rates are normal.							
Titanium   ppm   ASTM D5185m   0       Silver   ppm   ASTM D5185m    0      Aluminum   ppm   ASTM D5185m   >   3       Aluminum   ppm   ASTM D5185m   >-51   0       Aluminum   ppm   ASTM D5185m   >-51   0       Copper   ppm   ASTM D5185m   >-4   -1       Vanadium   ppm   ASTM D5185m   >-4         Vanadium   ppm   ASTM D5185m   >   NONE        There is no indication of any contamination in the oil.   Silicon   ppm   ASTM D5185m   Soff   NONE <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>								
Silver     ppm     ASTM D5188n     0         Aluminum     ppm     ASTM D5188n     -51     3         Lead     ppm     ASTM D5188n     -51     0         Copper     ppm     ASTM D5188n     -51     0         Copper     ppm     ASTM D5188n     -54     -1         Vanadium     ppm     ASTM D5188n     -4     -1         Vanadium     ppm     ASTM D5188n     -4     -1         Vanadium     ppm     ASTM D5188n     -34         Vanadium     ppm     ASTM D5188n     -34     S         Velow Metal     scalar     'Visual     NONE     NONE         Silicon     ppm     ASTM D5188n     -20     S         Solicon     potassium     pota     ASTM D5188n     -01					>10			
Aluminum     ppm     ASTM D5185n     5-21     3         Lead     ppm     ASTM D5185n     5-51     0         Copper     ppm     ASTM D5185n     5-1     0         Tin     ppm     ASTM D5185n     50     0         Vanadium     ppm     ASTM D5185n     -4     0         Vanadium     ppm     ASTM D5185n     -4     0         Vanadium     ppm     ASTM D5185n     -4     0         Vanadium     ppm     ASTM D5185n     -31     8         CONTAMINATION     Solicon     ppm     ASTM D5185n     -31     8         There is no indication of any contamination in the oil.     Potassium     ppm     ASTM D5185n     -31     8         Solicon     ppm     ASTM D5185n     -31     8 <tr< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></tr<>								
Lead     pm     ASTM D5185n     >51     0         Copper     ppm     ASTM D5185n     >51     0         Tin     ppm     ASTM D5185n     >4     C0         Vanadium     ppm     ASTM D5185n     >4     C0         White Metal     scalar     'Visual     NONE          White Metal     scalar     'Visual     NONE     NONE         CONTAMINATION     Silicon     ppm     ASTM D5185n     >31     8         Mater     WC Method     >.01     NONE     A         Silit     scalar     'Visual     NONE     NONE         Sand/DTM     scalar     'Visual     NONE     NONE         Sand/DTM     scalar     'Visual     NORH     NORH         Soliom     ppm					01			
Copper     ppm     ASTM D518m     >51     0         Tin     ppm     ASTM D518m     >4     <1         Vanadium     ppm     ASTM D518m     0          Vanadium     ppm     ASTM D518m     0          Vanadium     ppm     ASTM D518m     NONE     NONE     NONE        Vellow Metal     scalar     Visual     NONE     NONE         There is no indication of any contamination in the oil.     Silicon     ppm     ASTM D518m     >31     8         Vater     Visual     NONE     NONE           Obtris     scalar     Visual     NONE     NONE          Odor     scalar     Visual     NORM     NORM          The oil viscosity is lower than normal. This plus the additive levels indidate therest the additive nor al different brand, o								
Tin     ppm     ASTM D5185m     4     <1								
Vanadium     ppm     ASTM D5185     0        White Metal     scalar     'Visual     NONE     NONE        Vellow Metal     scalar     'Visual     NONE     NONE        CONTAMINATION     Silicon     ppm     ASTM D5185     >31     8        CONTAMINATION     Potassium     ppm     ASTM D5185     >20     <1        Mater     Water     WC Method     >0.1     NEG         Solido     scalar     'Visual     NONE     NONE         Sada/Dirt     scalar     'Visual     NOR     NORE         Sada/Dirt     scalar     'Visual     NOR     NORE         Sada/Dirt     scalar     'Visual     NOR     NORE         Sodium     ppm     ASTM D5185     A     A         Indidates the addition of a different brand, or type of oil. Confirm oil     Boron								
White Metal Yellow Metalscalar'Visual VisualNONENONENONENONENONENONECONTAMINATIONSiliconpmASTM D5185m-318SiliconpmASTM D5185m-20<1VaterWC Method>0.1NONENONESilitscalar'VisualNONENONESilitscalar'VisualNONENONESilitscalar'VisualNONENONEAppearancescalar'VisualNOREAppearancescalar'VisualNORMThe oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Confirm oilSodiumpmASTM D5185m<4MolybdenumpmASTM D5185m61ManganesepmASTM D5185m61ManganesepmASTM D5185m1516ManganesepmASTM D5185m61ManganesepmASTM D5185m61ManganesepmASTM D5185m61ManganesepmASTM D5185m61					>4			
Yellow Metalscalar'VisualNONENONECONTAMINATIONThere is no indication of any contamination in the oil.SiliconppmASTM D5185m>318VaterWaterVC Method>0.1NEGSilitscalar'VisualNONENONESiltscalar'VisualNONENONESiltscalar'VisualNONENONESand/Dirtscalar'VisualNONENONEAppearancescalar'VisualNORMNORMLCodorscalar'VisualNORMLNORMLFLUID CONDITIONSodiumppmASTM D5185m>514Nepe.SodiumppmASTM D5185m-514MolybdenumppmASTM D5185m514MolybdenumppmASTM D5185m-514MagnesiumppmASTM D5185m-514MadgneseppmASTM D5185m-115MagnesiumppmASTM D5185m-1-15The oil viscosity is lower than normal. This plus the additive levelspmASTM D5185m-115Molybdenum								
Silicon   ppm   ASTM D5185m   >31   8      Potassium   ppm   ASTM D5185m   >20   <1      Water   WC Method   >0.1   NEG       Water   WC Method   >0.1   NEG       Silt   scalar   Visual   NONE   MONE       Debris   scalar   Visual   NONE   MONE       Appearance   scalar   Visual   NORM   MORML       Appearance   scalar   Visual   NORML   MORML       Cdor   scalar   Visual   NORML        Molvideomus   ppm   ASTM D5185m   >0.1   NEG       Sodium   ppm   ASTM D5185m   >0.1   NEG       Indicates the addition of a different brand, or type of oil. Confirm oil type.   Sodium   ppm   ASTM D5185m   I   4       Molybdenum   ppm								
Potassium   ppm   ASTM D5185m   >20   <1			scalar	visual	NONE	NONE		
Potassium   ppm   ASTM D5185m   >20   <1	CONTAMINATION	Silicon	ppm	ASTM D5185m	>31	8		
Water   WC Method   >0.1   NEG      Silt   scalar   *Visual   NONE   NONE      Debris   scalar   *Visual   NONE   NONE      Sand/Dirt   scalar   *Visual   NONE   NONE      Appearance   scalar   *Visual   NORE   NONE      Odor   scalar   *Visual   NORE   NORE      Emulsified Wate   scalar   *Visual   NORE   NORE      FLUID CONDITION   Sodium   ppm   ASTM D5185m   >51   A      Boron   ppm   ASTM D5185m   51   A       Molybdenum   ppm   ASTM D5185m   A       Magnesium   ppm   ASTM D5185m   A		Potassium	ppm	ASTM D5185m	>20	<1		
Debrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMNORMAppearancescalar*VisualNORMNORMCdorscalar*VisualNORMNORMEmulsified Waterscalar*VisualNORMNORMFLUID CONDITIONSodiumppmASTM D5185m>514<		Water		WC Method	>0.1	NEG		
Sand/Dirtscalar*VisualNONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGFLUID CONDITIONSodiumppmASTM D5185m>514FLUID condition of a different brand, or type of oil. Confirm oilBoronppmASTM D5185m>514BariumppmASTM D5185m5161MolybdenumppmASTM D5185m5161MaganeseppmASTM D5185m51615MagnesiumppmASTM D5185m51615CalciumppmASTM D5185m51615PhosphorusppmASTM D5185m516120SulfurppmASTM D5185m5161336SulfurppmASTM D5185m5163538		Silt	scalar	*Visual	NONE	NONE		
Appearance Odorscalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*VisualNORNORMLFLUID CONDITIONSodiumppmASTM D5185>51ABoronppmASTM D518551ABariumppmASTM D518551AMolybdenumppmASTM D5185IMagnesiumppmASTM D5185I107IIIMagnesiumppmASTM D5185I15IIIIMagnesiumppmASTM D5185IIIIIIIPhosphorusppmASTM D5185IIIIIIIISilfurppmASTM D5185III<		Debris	scalar	*Visual	NONE	NONE		
Odorscalar*VisualNORMLNORMLNORMLNormLEmulsified Waterscalar*Visual>0.1NEGNEGSodiumppmASTM D5185m>514FLUID CONDITIONppmASTM D5185m>514BoronppmASTM D5185m5161BariumppmASTM D5185m57MolybdenumppmASTM D5185mI0107MaganeseppmASTM D5185mI0155MagnesiumppmASTM D5185mI0115PhosphorusppmASTM D5185mI00ZincppmASTM D5185mI01209SulfurppmASTM D5185mI0136SulfurppmASTM D5185mI00SulfurppmASTM D5185mI00SulfurppmASTM D5185mI00SulfurppmASTM D5185mI00SulfurppmASTM D5185mI00SulfurppmASTM D5185mI00		Sand/Dirt	scalar	*Visual	NONE	NONE		
Emulsified Waterscalar*Visual>0.1NEGFLUID CONDITIONSodiumppmASTM D5185m>514BoronppmASTM D5185m>5161BariumppmASTM D5185m<61MolybdenumppmASTM D5185m<7MaganeseppmASTM D5185m2MagnesiumppmASTM D5185m2PhosphorusppmASTM D5185m15ZincppmASTM D5185m1209SulfurppmASTM D5185m1336SulfurppmASTM D5185mSulfurppmASTM D5185mSulfurppmASTM D5185mSulfurppmASTM D5185mSulfurppmASTM D5185mSulfurppmASTM D5185mSulfurppmASTM D5185mSulfurppmASTM D5185mSulfurppmASTM D5185m </th <th></th> <th>Appearance</th> <th>scalar</th> <th>*Visual</th> <th>NORML</th> <th>NORML</th> <th></th> <th></th>		Appearance	scalar	*Visual	NORML	NORML		
Sodium   ppm   ASTM D5185m   51   4      Boron   ppm   ASTM D5185m   61       Barium   ppm   ASTM D5185m   7       Molybdenum   ppm   ASTM D5185m   0   107      Manganese   ppm   ASTM D5185m   2       Magnesium   ppm   ASTM D5185m   15       Manganese   ppm   ASTM D5185m   0   107       Manganese   ppm   ASTM D5185m   15        Calcium   ppm   ASTM D5185m   0   107       The oppm   ASTM D5185m   0   155       Manganese   ppm   ASTM D5185m   0   107       Manganese   ppm   ASTM D5185m   0   0   0      Calcium   ppm   ASTM D5185m   0   1209       Zinc   ppm		Odor	scalar	*Visual	NORML	NORML		
Boron   ppm   ASTM D5185m   61      Barium   ppm   ASTM D5185m   7      Molybdenum   ppm   ASTM D5185m   7      Manganese   ppm   ASTM D5185m   2      Magnesium   ppm   ASTM D5185m   15       Magnesium   ppm   ASTM D5185m   15       Magnesium   ppm   ASTM D5185m   15       Phosphorus   ppm   ASTM D5185m   15       Zinc   ppm   ASTM D5185m   1336       Sulfur   ppm   ASTM D5185m   1336		Emulsified Water	scalar	*Visual	>0.1	NEG		
Boron   ppm   ASTM D5185m   61      Barium   ppm   ASTM D5185m   7      Molybdenum   ppm   ASTM D5185m   7      Manganese   ppm   ASTM D5185m   2      Magnesium   ppm   ASTM D5185m   15       Magnesium   ppm   ASTM D5185m   15       Magnesium   ppm   ASTM D5185m   15       Phosphorus   ppm   ASTM D5185m   15       Zinc   ppm   ASTM D5185m   1336       Sulfur   ppm   ASTM D5185m   1336		Codium			. 51			
Barium   ppm   ASTM D5185m   7      Molybdenum   ppm   ASTM D5185m   0   0   0   0     Manganese   ppm   ASTM D5185m   2   0   0     Magnesium   ppm   ASTM D5185m   2   0   0     Magnesium   ppm   ASTM D5185m   0   15   0   0     Calcium   ppm   ASTM D5185m   0   0-107   0   0     Phosphorus   ppm   ASTM D5185m   0   0-107   0   0     Zinc   ppm   ASTM D5185m   0   0-102   0   0     Sulfur   ppm   ASTM D5185m   0   0-102   0   0	The oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Confirm oil type.				I C<			
MolybdenumppmASTM D5185mIIIIManganeseppmASTM D5185m2IIIMagnesiumppmASTM D5185mIIIIICalciumppmASTM D5185mIIIIIIPhosphorusppmASTM D5185mIIIIIIIZincppmASTM D5185mIIIIIIIIISulfurppmASTM D5185mIII <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>								
ManganeseppmASTM D5185m2MagnesiumppmASTM D5185m15MagnesiumppmASTM D5185m64126CalciumppmASTM D5185m61209PhosphorusppmASTM D5185m61336ZincppmASTM D5185m68358SulfurppmASTM D5185m68358								
Magnesium   ppm   ASTM D5185m   15       Calcium   ppm   ASTM D5185m   -4126       Phosphorus   ppm   ASTM D5185m   -1209       Zinc   ppm   ASTM D5185m   1336       Sulfur   ppm   ASTM D5185m   -8358								
Calcium   ppm   ASTM D5185m   ● 4126      Phosphorus   ppm   ASTM D5185m   ● 1209       Zinc   ppm   ASTM D5185m   ● 1336       Sulfur   ppm   ASTM D5185m   ● 8358		-						
Phosphorus   ppm   ASTM D5185m   1209      Zinc   ppm   ASTM D5185m   1336       Sulfur   ppm   ASTM D5185m   8358		-						
Zinc   ppm   ASTM D5185m   Image: 1336       Sulfur   ppm   ASTM D5185m   Image: 8358						-		
Sulfur     ppm     ASTM D5185m								
		Visc @ 40°C	cSt	ASTM D5185m ASTM D445		66.2		



