

# WEAR NORMAL CONTAMINATION ABNORMAL FLUID CONDITION NORMAL

#### FLEET Machine Id VOLVO 2227124 (S/N 4V4NC9EH1RN631411) Component

### Component Diesel Engine

{not provided} (42 QTS)

# RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

# WEAR

Metal levels are typical for a new component breaking in.

CON	MIN		JN
COF		АП	

Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of seal material. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components.

Test         UOM         Method         Limit/Ab         Current         History1         History2           Sample Number         Client Info         04 Jan 2024             Sample Date         Client Info         21067             Oil Age         mis         Client Info         21067             Oil Age         mis         Client Info         21067             Oil Changed         Client Info         Changed             Filter Age         mis         Client Info         Changed             Sample Status          ABNORMAL             Iron         ppm         ASTM D5185m<>20         <1             Nickel         ppm         ASTM D5185m<>22         19             Silver         ppm         ASTM D5185m<>24         0             Qapper         ppm         ASTM D5185m<>30         272             Vanatium         ppm         ASTM D5185m<>25         4         7					~~~~~		
Sample Date         Client Info         04 Jan 2024             Machine Age         mls         Client Info         21067             Oil Age         mls         Client Info         21067             Oil Changed         Client Info         Changed             Sample Status         ABNORMAL             Iron         ppm         ASTM D5185m         >20         <1            Nickel         ppm         ASTM D5185m         >20         <1             Nickel         ppm         ASTM D5185m         >20         <1             Silver         ppm         ASTM D5185m         >20         1             Aluminum         ppm         ASTM D5185m         >25         47             Lead         ppm         ASTM D5185m<>25         47             Vanadium         ppm         ASTM D5185m<>25         73             Yellow Metal         scalar         Yuisual         NONE <th>Test</th> <th>UOM</th> <th>Method</th> <th>Limit/Abn</th> <th>Current</th> <th>History1</th> <th>History2</th>	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine Age         mis         Client Info         21067             Filter Age         mis         Client Info         21067             Filter Age         mis         Client Info         Changed             Filter Changed         Client Info         Changed             Sample Status         ASTM D5185m         >20         <1             Iron         ppm         ASTM D5185m         >20         <1             Nickel         ppm         ASTM D5185m         >20         <1             Aluminum         ppm         ASTM D5185m         >2         19             Aluminum         ppm         ASTM D5185m         >2         19             Aluminum         ppm         ASTM D5185m         >30         0             Vanadium         ppm         ASTM D5185m         >20         127             Vanadium         ppm         ASTM D5185m         >20         127 <tr< th=""><th>Sample Number</th><th></th><th>Client Info</th><th></th><th>PCA0113714</th><th></th><th></th></tr<>	Sample Number		Client Info		PCA0113714		
Oil Age         mis         Client Info         21067             Filter Age         mis         Client Info         Changed             Gil Changed         Client Info         Changed              Filter Changed         Client Info         Changed              Sample Status         ASTM D5185m         >20         -1             Nickel         ppm         ASTM D5185m         >20         -1             Nickel         ppm         ASTM D5185m         >2         19             Aluminum         ppm         ASTM D5185m         >2         19             Copper         ppm         ASTM D5185m         >2         77             Vanadium         ppm         ASTM D5185m         >2         73             Yellow Metal         scalar         Yisual         NONE             Yellow Metal         scalar         Yisual         NONE             Yel	Sample Date		Client Info		04 Jan 2024		
Filter Age         mis         Client Info         21067             Filter Changed         Client Info         Changed             Sample Status         ABNORMAL              Iron         ppm         ASTM D5185m         >100         32             Iron         ppm         ASTM D5185m         >20         <1             Chromium         ppm         ASTM D5185m         >20         <1             Nickel         ppm         ASTM D5185m         >2         19             Titanium         ppm         ASTM D5185m         >2         19             Aluminum         ppm         ASTM D5185m         >20              Vanadium         ppm         ASTM D5185m         >300         272             Yellow Metal         scalar         'Visual         NONE             Yellow Metal         scalar         'Visual         NONE             Yellow Metal	Machine Age	mls	Client Info		21067		
Oil Changed         Client Info         Changed            Filter Changed         Client Info         Changed             Sample Status         ABNORMAL             Iron         ppm         ASTM D5185m         >100         32             Nickel         ppm         ASTM D5185m         >20         <1             Nickel         ppm         ASTM D5185m         >20         1             Silver         ppm         ASTM D5185m         >20         10             Aluminum         ppm         ASTM D5185m         >20         17             Qopper         ppm         ASTM D5185m         >20         10             Vanadium         ppm         ASTM D5185m         >10              Vanadium         ppm         ASTM D5185m         >20         127             Vanadium         ppm         ASTM D5185m         >20         127             Vanadium </th <th>Oil Age</th> <th>mls</th> <th>Client Info</th> <th></th> <th>21067</th> <th></th> <th></th>	Oil Age	mls	Client Info		21067		
Oil Changed         Client Info         Changed            Filter Changed         Client Info         Changed             Sample Status         ABNORMAL             Iron         ppm         ASTM D5185m         >100         32             Nickel         ppm         ASTM D5185m         >20         <1             Nickel         ppm         ASTM D5185m         >20         1             Silver         ppm         ASTM D5185m         >20         10             Aluminum         ppm         ASTM D5185m         >20         17             Qopper         ppm         ASTM D5185m         >20         10             Vanadium         ppm         ASTM D5185m         >10              Vanadium         ppm         ASTM D5185m         >20         127             Vanadium         ppm         ASTM D5185m         >20         127             Vanadium </th <th>Filter Age</th> <th>mls</th> <th>Client Info</th> <th></th> <th>21067</th> <th></th> <th></th>	Filter Age	mls	Client Info		21067		
Sample Status         ABNORMAL             Iron         ppm         ASTM D5185m<>100         32             Chromium         ppm         ASTM D5185m         >20         <1             Nickel         ppm         ASTM D5185m         >2         1             Titanium         ppm         ASTM D5185m         >2         19             Aluminum         ppm         ASTM D5185m         >2         19             Lead         ppm         ASTM D5185m         >40         0             Copper         ppm         ASTM D5185m         >30         272             Vanadium         ppm         ASTM D5185m         >15         2             Valeadium         ppm         ASTM D5185m         >20         127             Valout         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D5185m<>20         127			Client Info		Changed		
Sample Status         ABNORMAL             Iron         ppm         ASTM D5185m<>100         32             Chromium         ppm         ASTM D5185m<>20         1             Nickel         ppm         ASTM D5185m<>2         1             Titanium         ppm         ASTM D5185m<>2         19             Aluminum         ppm         ASTM D5185m<>2         47             Lead         ppm         ASTM D5185m<>300         272             Vanadium         ppm         ASTM D5185m<>15         2             Vanadium         ppm         ASTM D5185m<>15         2             Vanadium         ppm         ASTM D5185m<>25         A 73             Veltow Metal         scalar         Visual         NONE             Veltow Metal         scalar         Visual         NONE             Silicon         ppm         ASTM D5185m<>20         9.2	Filter Changed		Client Info		Changed		
Chromium         ppm         ASTM D5185m         >20         <1	Sample Status				-		
Chromium         ppm         ASTM D5185m         >20         <1							
Nickel         ppm         ASTM D5185m         >2         1             Titanium         ppm         ASTM D5185m         0             Silver         ppm         ASTM D5185m         >25         47             Lead         ppm         ASTM D5185m         >25         47             Lead         ppm         ASTM D5185m         >40         0             Lead         ppm         ASTM D5185m         >40         0             Vanadium         ppm         ASTM D5185m         >15         2             Vanadium         ppm         ASTM D5185m         >10              Vanadium         ppm         ASTM D5185m         >20         127             Vallow Metal         scalar         *Visual         NONE             Fuel         %         ASTM D5185m         >20         127             Fuel         %         ASTM D5185m         >20         22	Iron	ppm	ASTM D5185m	>100	32		
Titanium         ppm         ASTM D5185m         0             Silver         ppm         ASTM D5185m<>2         19             Aluminum         ppm         ASTM D5185m<>25         47             Lead         ppm         ASTM D5185m         >20         0             Copper         ppm         ASTM D5185m         >330         272             Vanadium         ppm         ASTM D5185m         >15         2             White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D5185m         >20         127             Fuel         %         ASTM D5185m         >20         127             Fuel         %         ASTM D784         >3         0.2             Glycol         WC Method         >0.2 </th <th>Chromium</th> <th>ppm</th> <th>ASTM D5185m</th> <th>&gt;20</th> <th>&lt;1</th> <th></th> <th></th>	Chromium	ppm	ASTM D5185m	>20	<1		
Silver         ppm         ASTM D5185m         >2         19             Aluminum         ppm         ASTM D5185m         >25         47             Lead         ppm         ASTM D5185m         >20         0             Copper         ppm         ASTM D5185m         >330         272             Vanadium         ppm         ASTM D5185m         >15         2             White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D5185m<>25         A 73             Silicon         ppm         ASTM D5185m<>20         127             Fuel         %         ASTM D5185m<>20         NEG             Water         WC Method         SO.2         NEG             Soti %         %         'ASTM D7184<>30         0.2 <td< th=""><th>Nickel</th><th>ppm</th><th>ASTM D5185m</th><th>&gt;2</th><th>1</th><th></th><th></th></td<>	Nickel	ppm	ASTM D5185m	>2	1		
Aluminum         ppm         ASTM D5185m         >25         47             Lead         ppm         ASTM D5185m         >300         272             Copper         ppm         ASTM D5185m         >330         272             Vanadium         ppm         ASTM D5185m         >15         2             White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D5185m         >20         127             Yellow Metal         scalar         *Visual         NONE         NONE             Suifoon         ppm         ASTM D5185m         >20         127             Fuel         %         ASTM D5185m         >20         127             Gilycol         WC Method         >0.2         NEG             Sott %         %         ASTM D76	Titanium	ppm	ASTM D5185m		0		
Lead         ppm         ASTM D5185m         >40         0             Copper         ppm         ASTM D5185m         >330         272             Tin         ppm         ASTM D5185m         >15         2             Vanadium         ppm         ASTM D5185m         0             White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Solicon         ppm         ASTM D5185m<>20         127              Fuel         %         ASTM D5185m<>20         127              Glycol         WC Method         >0.2         NEG              Glycol         WC Method         >0.2         NEG              Solf %         %         'ASTM D7624<>20         9.2              Sulfation         Abs/.m         <	Silver	ppm	ASTM D5185m	>2	19		
Copper         ppm         ASTM D5185m         >330         272             Tin         ppm         ASTM D5185m         >15         2             Vanadium         ppm         ASTM D5185m         0             White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D5185m<>25         ▲ 73             Potassium         ppm         ASTM D5185m<>20         127             Water         WC Method         0.2              Glycol         WC Method         NEG             Sott %         %         'ASTM D7624<>20         9.2            Sulfation         Abs/.tm< 'ASTM D7614<>30         24.1	Aluminum	ppm	ASTM D5185m	>25	47		
Tin         ppm         ASTM D5185m         >15         2             Vanadium         ppm         ASTM D5185m         0             White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE              Silicon         ppm         ASTM D5185m         >20         127             Potassium         ppm         ASTM D5185m         >20         127             Water         WC Method         0.2               Water         WC Method         0.2         NEG              Sott %         %         'ASTM D7844         >3         0.2             Sulfation         Abs/cm< 'ASTM D7624         >0         9.2             Sulfation         Abs/cm< 'ASTM D7624         >0         24.1             Sulfation         Abs/cm< 'Visual         NONE <th>Lead</th> <th>ppm</th> <th>ASTM D5185m</th> <th>&gt;40</th> <th>0</th> <th></th> <th></th>	Lead	ppm	ASTM D5185m	>40	0		
Vanadium         ppm         ASTM D5185m         0             White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D5185m         >25         A         73             Potassium         ppm         ASTM D5185m         >20         127             Fuel         %         ASTM D5185m         >20         127             Water         WC Method         >0.2         NEG              Glycol         WC Method         >0.2         NEG              Soot %         %         'ASTM D7624         >20         9.2             Sulfation         Abs/.1mm         'ASTM D715         >30         24.1             Sulfation         scalar         'Visual         NONE         NONE             Sad/Dirt         scalar	Copper	ppm	ASTM D5185m	>330	272		
White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D5185m         >20         127             Potassium         ppm         ASTM D5185m         >20         127             Fuel         %         ASTM D5185m         >20         NEG             Water         WC Method         >0.2         NEG             Soot %         %         *ASTM D7842         >20         9.2             Sulfation         Abs/.mm         *ASTM D7844         >30         24.1             Sulfation         Abs/.1mm         *ASTM D7815         >30         24.1             Debris         scalar         *Visual         NONE              Sand/Dirt         scalar         *Visual         NORML         NORML             Appearance         scalar	Tin	ppm	ASTM D5185m	>15	2		
Yellow Metal         scalar         *Visual         NONE         NONE            Silicon         ppm         ASTM D5185m<>20         127             Potassium         ppm         ASTM D5185m<>20         127             Fuel         %         ASTM D5185m<>20         0.2             Water         WC Method         >0.2         NEG             Glycol         WC Method         >0.2         NEG             Soot %         %         *ASTM D7844<>3         0.2             Solt %         %         *ASTM D7824<>20         9.2             Sulfation         Abs/tmm<*ASTM D7814<>30         24.1             Sulfation         Abs/tmm<*ASTM D7814         >30         24.1             Sulfation         Abs/tmm<*ASTM D7814         >30         24.1             Sulfation         scalar<*Visual         NONE         NONE             Sand/Dirt         scalar<*Visual         NORM	Vanadium	ppm	ASTM D5185m		0		
Silicon       ppm       ASTM D5185m< >25       ▲       73           Potassium       ppm       ASTM D5185m       >20       127           Fuel       %       ASTM D5185m       >20       0.2           Water       WC Method       >0.2       NEG           Glycol       WC Method       >0.2       NEG           Soot %       %       *ASTM D7844       >3       0.2           Sulfation       Abs/cm       *ASTM D7624       >20       9.2           Sulfation       Abs/cm       *ASTM D715       >30       24.1           Sulfation       Abs/cm       *ASTM D7145       >30       24.1           Sulfation       Abs/cm       *Visual       NONE       NONE           Sulfation       scalar       *Visual       NONE       NORE           Sand/Dirt       scalar       *Visual       NORM       NORML           Appearance       scalar	White Metal	scalar	*Visual		NONE		
Potassium         ppm         ASTM D5185m         >20         127             Fuel         %         ASTM D3524         >6.0         0.2             Water         WC Method         >0.2         NEG             Glycol         WC Method         >0.2         NEG             Soot %         %         *ASTM D7844         >3         0.2             Nitration         Abs/cm<*ASTM D7624         >20         9.2             Sulfation         Abs/rm<*ASTM D7624         >20         9.2             Sulfation         Abs/rm<*ASTM D7145         >30         24.1             Sulfation         Abs/rm<*ASTM D7145         >30         24.1             Sulfation         Abs/rm<*Visual         NONE         NONE             Sand/Dirt         scalar<*Visual         NORM         NORML             Appearance         scalar<*Visual         NORM         NORML             Bo	Yellow Metal	scalar	*Visual	NONE	NONE		
Potassium         ppm         ASTM D5185m         >20         127             Fuel         %         ASTM D3524         >6.0         0.2             Water         WC Method         >0.2         NEG             Glycol         WC Method         >0.2         NEG             Soot %         %         *ASTM D7844         >3         0.2             Nitration         Abs/cm<*ASTM D7624         >20         9.2             Sulfation         Abs/rm<*ASTM D7624         >20         9.2             Sulfation         Abs/rm<*ASTM D7145         >30         24.1             Sulfation         Abs/rm<*ASTM D7145         >30         24.1             Sulfation         Abs/rm<*Visual         NONE         NONE             Sand/Dirt         scalar<*Visual         NORM         NORML             Appearance         scalar<*Visual         NORM         NORML             Bo	0.11						
Fuel         %         ASTM D3524         >6.0         0.2            Water         WC Method         >0.2         NEG            Glycol         WC Method         NEG             Soot %         %         *ASTM D7844         >3         0.2             Nitration         Abs/cm         *ASTM D7624         >20         9.2             Sulfation         Abs/rm         *ASTM D7624         >20         9.2             Sulfation         Ascalar         *Visual         NONE              Sand/Dirt         scalar         *Visual         NORML         NORML					-		
Water         WC Method         >0.2         NEG             Glycol         WC Method         NEG              Soot %         %         *ASTM D7844         >3         0.2             Nitration         Abs/cm         *ASTM D7624         >20         9.2             Sulfation         Abs/rm         *ASTM D7618         NONE              Debris         scalar         *Visual         NONE         NORML             Appearance         scalar         *Visual         NORML         NORML             Gdyor         scalar         *Visual<							
Glycol         WC Method         NEG            Soot %         %         *ASTM D7844         >3         0.2            Nitration         Abs/cm         *ASTM D7624         >20         9.2            Sulfation         Abs/cm         *ASTM D7624         >20         9.2            Sulfation         Abs/cm         *ASTM D7624         >20         9.2            Sulfation         Abs/cm         *ASTM D7615         >30         24.1            Sulfation         Abs/cm         *ASTM D7615         >30         24.1            Sulfation         Abs/cm         *ASTM D7615         >30         24.1            Sulfation         Abs/cm         *Visual         NONE         NONE            Debris         scalar         *Visual         NOR         NORE             Appearance         scalar         *Visual         NORM         NORML             Odor         scalar         *Visual         NORM         NORML             Sodium         ppm         ASTM D5185m         <		%			•		
Soot %         %         *ASTM D7844         >3         0.2             Nitration         Abs/cm         *ASTM D7624         >20         9.2             Sulfation         Abs/1mm         *ASTM D7615         >30         24.1             Debris         scalar         *Visual         NONE              Sand/Dirt         scalar         *Visual         NORML         NORML             Appearance         scalar         *Visual         NORML         NORML             Odor         scalar         *Visual         >0.2         NEG             Bor				>0.2			
Nitration         Abs/cm         *ASTM D7624         >20         9.2             Sulfation         Abs/1mm         *ASTM D7415         >30         24.1             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         >0.2         NEG             Sodium         ppm         ASTM D5185m         3              Boron         ppm         ASTM D5185m         245             Malganese         ppm         ASTM D5185m         2             Magnesium         ppm         ASTM D5185m </th <th>,</th> <th>0/</th> <th></th> <th>0</th> <th></th> <th></th> <th></th>	,	0/		0			
Sulfation         Abs/.1mm         *ASTM D7415         >30         24.1             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         >0.2         NEG             Sodium         ppm         ASTM D5185m         3              Boron         ppm         ASTM D5185m         0              Malganese         ppm         ASTM D5185m         123             Magnesium         ppm         ASTM D5185m         1424             Phosphorus         ppm         ASTM D5185m<					•		
Siltscalar*VisualNONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGSodiumppmASTM D5185m3BoronppmASTM D5185m0MalganeseppmASTM D5185m0MagnesiumppmASTM D5185m22PhosphorusppmASTM D5185m735ZincppmASTM D5185m1424SulfurppmASTM D5185m815SulfurppmASTM D5185m2510SulfurppmASTM D5185m22.1SulfurppmASTM D5185m210Astm D5185m525105210SulfurppmASTM D5185m52122.1 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>							
Debrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGSodiumppmASTM D5185m3BoronppmASTM D5185m0BariumppmASTM D5185m0MolybdenumppmASTM D5185m22MagnesiumppmASTM D5185m22CalciumppmASTM D5185m735PhosphorusppmASTM D5185m758ZincppmASTM D5185m210SulfurppmASTM D5185m2210SulfurppmASTM D5185m2210SulfurppmASTM D5185m2210SulfurppmASTM D5185m2211SulfurppmASTM D5185m2211SulfurppmASTM D5185m2211SulfurppmASTM D5185m2211Sulfurppm<							
Sand/Dirt         scalar         *Visual         NONE         NONE            Appearance         scalar         *Visual         NORML         NORML             Odor         scalar         *Visual         NORML         NORML             Emulsified Water         scalar         *Visual         >0.2         NEG             Sodium         ppm         ASTM D5185m         3             Boron         ppm         ASTM D5185m         0             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         22             Magnesium         ppm         ASTM D5185m         2             Magnesium         ppm         ASTM D5185m         2             Calcium         ppm         ASTM D5185m         1424             Zinc         ppm         ASTM D5185m         815             Sulfur         ppm	••						
Appearance         scalar         *Visual         NORML         NORML            Odor         scalar         *Visual         NORML         NORML             Emulsified Water         scalar         *Visual         >0.2         NEG             Sodium         ppm         ASTM D5185m         3             Boron         ppm         ASTM D5185m         245             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         2             Manganese         ppm         ASTM D5185m         2             Magnesium         ppm         ASTM D5185m         2             Calcium         ppm         ASTM D5185m         1424             Phosphorus         ppm         ASTM D5185m         815             Zinc         ppm         ASTM D5185m         2510             Sulfur         ppm         ASTM D5185m				-	-		
Odor         scalar         *Visual         NORML         NORML            Emulsified Water         scalar         *Visual         >0.2         NEG             Sodium         ppm         ASTM D5185m         3             Boron         ppm         ASTM D5185m         245             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         0             Manganese         ppm         ASTM D5185m         2             Magnesium         ppm         ASTM D5185m         2             Calcium         ppm         ASTM D5185m         2             Phosphorus         ppm         ASTM D5185m         1424             Zinc         ppm         ASTM D5185m         815             Sulfur         ppm         ASTM D5185m         2510             Qxidation         Abs/.1mm         *ASTM D2896         7.9							
Emulsified Water         scalar         *Visual         >0.2         NEG            Sodium         ppm         ASTM D5185m         3             Boron         ppm         ASTM D5185m         245             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         0             Manganese         ppm         ASTM D5185m         2             Magnesium         ppm         ASTM D5185m         2             Calcium         ppm         ASTM D5185m         2             Phosphorus         ppm         ASTM D5185m         735             Zinc         ppm         ASTM D5185m         1424             Sulfur         ppm         ASTM D5185m         815             Sulfur         ppm         ASTM D5185m         2510             Oxidation         Abs/.1mm<*ASTM D7414<>25         22.1					-		
Sodium         ppm         ASTM D5185m         3            Boron         ppm         ASTM D5185m         245            Barium         ppm         ASTM D5185m         0            Barium         ppm         ASTM D5185m         0            Molybdenum         ppm         ASTM D5185m         123            Manganese         ppm         ASTM D5185m         2            Magnesium         ppm         ASTM D5185m         123            Calcium         ppm         ASTM D5185m         1424            Phosphorus         ppm         ASTM D5185m         758            Zinc         ppm         ASTM D5185m         815            Sulfur         ppm         ASTM D5185m         2510            Oxidation         Abs/.1mm<*ASTM D7414 >25         22.1							
Boron         ppm         ASTM D5185m         245            Barium         ppm         ASTM D5185m         0             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         123             Manganese         ppm         ASTM D5185m         2             Magnesium         ppm         ASTM D5185m         735             Calcium         ppm         ASTM D5185m         1424             Phosphorus         ppm         ASTM D5185m         758             Zinc         ppm         ASTM D5185m         815             Sulfur         ppm         ASTM D5185m         2510             Oxidation         Abs/.1mm<*ASTM D7414 >25         22.1             Base Number (BN)         mg KOH/g         ASTM D2896         7.9		scalar	visual	>0.2	NEG		
Boron         ppm         ASTM D5185m         245            Barium         ppm         ASTM D5185m         0             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         123             Manganese         ppm         ASTM D5185m         2             Magnesium         ppm         ASTM D5185m         735             Calcium         ppm         ASTM D5185m         1424             Phosphorus         ppm         ASTM D5185m         758             Zinc         ppm         ASTM D5185m         815             Sulfur         ppm         ASTM D5185m         2510             Oxidation         Abs/.1mm<*ASTM D7414 >25         22.1             Base Number (BN)         mg KOH/g         ASTM D2896         7.9	Sodium	mqq	ASTM D5185m		3		
Barium         ppm         ASTM D5185m         0            Molybdenum         ppm         ASTM D5185m         123            Manganese         ppm         ASTM D5185m         2            Magnesium         ppm         ASTM D5185m         2            Magnesium         ppm         ASTM D5185m         735            Calcium         ppm         ASTM D5185m         1424            Phosphorus         ppm         ASTM D5185m         758            Zinc         ppm         ASTM D5185m         815            Sulfur         ppm         ASTM D5185m         2510            Oxidation         Abs/.1mm<*ASTM D7414 >25         22.1             Base Number (BN)         mg KOHg         ASTM D2896         7.9	_				-		
Molybdenum         ppm         ASTM D5185m         123            Manganese         ppm         ASTM D5185m         2             Magnesium         ppm         ASTM D5185m         2             Magnesium         ppm         ASTM D5185m         735             Calcium         ppm         ASTM D5185m         1424             Phosphorus         ppm         ASTM D5185m         758             Zinc         ppm         ASTM D5185m         815             Sulfur         ppm         ASTM D5185m         2510             Oxidation         Abs/.1mm<*ASTM D7414 >25         22.1             Base Number (BN)         mg KOH/g         ASTM D2896         7.9							
Manganese         ppm         ASTM D5185m         2            Magnesium         ppm         ASTM D5185m         735            Calcium         ppm         ASTM D5185m         1424            Phosphorus         ppm         ASTM D5185m         758            Zinc         ppm         ASTM D5185m         815            Sulfur         ppm         ASTM D5185m         2210            Oxidation         Abs/.1mm         *ASTM D7141 >25         22.1            Base Number (BN)         mg KOHg         ASTM D2896         7.9							
Magnesium         ppm         ASTM D5185m         735            Calcium         ppm         ASTM D5185m         1424            Phosphorus         ppm         ASTM D5185m         758            Zinc         ppm         ASTM D5185m         815            Sulfur         ppm         ASTM D5185m         2510            Oxidation         Abs/.1mm         *ASTM D7414 >25         22.1            Base Number (BN)         mg KOH/g         ASTM D2896         7.9							
Calcium         ppm         ASTM D5185m         1424            Phosphorus         ppm         ASTM D5185m         758            Zinc         ppm         ASTM D5185m         815            Sulfur         ppm         ASTM D5185m         2510            Oxidation         Abs/.1mm         *ASTM D7414 >25         22.1            Base Number (BN)         mg KOH/g         ASTM D2896         7.9	-						
Phosphorus         ppm         ASTM D5185m <b>758</b> Zinc         ppm         ASTM D5185m <b>815</b> Sulfur         ppm         ASTM D5185m <b>2510</b> Oxidation         Abs/.1mm         *ASTM D7414<>25 <b>22.1</b> Base Number (BN)         mg KOH/g         ASTM D2896 <b>7.9</b>	-						
Zinc         ppm         ASTM D5185m         815            Sulfur         ppm         ASTM D5185m         2510            Oxidation         Abs/.1mm         *ASTM D7414         >25         22.1            Base Number (BN)         mg KOH/g         ASTM D2896         7.9			ASTM D5185m				
Sulfur         ppm         ASTM D5185m         2510            Oxidation         Abs/.1mm         *ASTM D7414         >25         22.1            Base Number (BN)         mg KOH/g         ASTM D2896         7.9	•						
Oxidation         Abs/.1mm         *ASTM D7414         >25         22.1            Base Number (BN)         mg KOH/g         ASTM D2896         7.9	Sulfur		ASTM D5185m				
			*ASTM D7414	>25			
	Base Number (BN)	mg KOH/g	ASTM D2896		7.9		
	Visc @ 100°C		ASTM D445		9.3		

# FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.



**PERDUE FARMS - ACCOMAC** Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : PCA0113714 Recieved : 09 Jan 2024 22520 LANKFORD HWY Lab Number : 06055806 Diagnosed : 14 Jan 2024 ACCOMAC, VA : 10821755 US 23301 Unique Number Diagnostician : Don Baldridge Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel) Contact: PEGGY KIMES Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. peggy.kimes@perdue.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (757)787-5304 F: (757)787-5208 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Submitted By: RANDY PARKER

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