

#### Area [153460] Machine Id E171A 030909 2462150 Component Diesel Engine Fluid SAE 5W30 (--- GAL)

#### RECOMMENDATION

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We advise that you check for the source of the coolant leak. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. We recommend an early resample to monitor this condition.

### WEAR

Metal levels are typical for a new component breaking in.

### CONTAMINATION

Test for glycol is positive. There is a high concentration of glycol present in the oil. There is a moderate concentration of water present in the oil.

# FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Test         UOM         Method         LimitAn         Current         History1         History2           Sample Number         Client Info         26 Feb 2024             Machine Age         hrs         Client Info         28 Feb 2024             Oil Age         hrs         Client Info         0             Oil Age         hrs         Client Info         Not Changd             Oil Changed         Client Info         Not Changd              Sample Status         SEVERE               Iron         pp         ASTM D5185/m         >20         <-1             Nickel         pp         ASTM D5185/m         >2         4             Silver         pm         ASTM D5185/m         >2         0             Silver         pm         ASTM D5185/m         >2         2             Goper         pm         ASTM D5185/m         >20         6							
Sample Date         Client Info         26 Feb 2024             Machine Age         hrs         Client Info         0             Oil Age         hrs         Client Info         0             Oil Changed         Client Info         Not Changd             Oil Changed         Client Info         Not Changd             Filter Changed         Client Info         Not Changd             Sample Status         SEVERE              Iron         ppm         ASTM05185(m)         >20         -1             Nickel         ppm         ASTM05185(m)         >2         0             Silver         ppm         ASTM05185(m)         >2         0             Lead         ppm         ASTM05185(m)         >2         1             Vanadium         ppm         ASTM05185(m)         >2         1             Valead         scalar         Visual*         NONE         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         hrs         Client Info         295             Oil Age         hrs         Client Info         0             Oil Changed         Client Info         0              Oil Changed         Client Info         Not Changd              Sample Status         Client Info         Not Changd              Sither         ppm         ASTM 05185(m)         >100         19             Chromium         ppm         ASTM 05185(m)         >20         <-1             Nickel         ppm         ASTM 05185(m)         >2         0             Aluminum         ppm         ASTM 05185(m)         >2         0             Vanadium         ppm         ASTM 05185(m)         >2         0             Vanadium         ppm         ASTM 05185(m)         >2         11             Vanadium         ppm         ASTM 05185(m)         >2         1.33          <	Sample Number		Client Info		CU0022779		
Oil Age         hrs         Client Info         O             Filter Age         hrs         Client Info         Not Changd             Gil Changed         Client Info         Not Changd             Sample Status         SEVERE             Iron         ppm         ASTM D5185(m)         >20         <1            Nickel         ppm         ASTM D5185(m)         >2         <1            Nickel         ppm         ASTM D5185(m)         >2         0            Titanium         ppm         ASTM D5185(m)         >2         0            Silver         ppm         ASTM D5185(m)         >2         0            Lead         ppm         ASTM D5185(m)         >330         14            Vanadium         ppm         ASTM D5185(m)         0             Valead         scalar         Visual*         NONE         NONE            Veltow Metal         scalar         Visual*         NONE             Silicon <t< th=""><th>Sample Date</th><th></th><th>Client Info</th><th></th><th>26 Feb 2024</th><th></th><th></th></t<>	Sample Date		Client Info		26 Feb 2024		
Filter Åge Dil Changed         hrs         Client Info         0             Dil Changed         Client Info         Not Changd             Sample Status         SEVERE             Iron         ppm         ASTM 05185(m)         >20         <1            Iron         ppm         ASTM 05185(m)         >20         <1            Nickel         ppm         ASTM 05185(m)         >2         <1            Nickel         ppm         ASTM 05185(m)         >2         0            Silver         ppm         ASTM 05185(m)         >25         2             Aluminum         ppm         ASTM 05185(m)         >40         6             Copper         ppm         ASTM 05185(m)         >15         <1             Vanadium         ppm         ASTM 05185(m)         >20         A         38             Veltow Metal         scalar         Visual*         NONE         NONE             Silito         scalar         Vis	Machine Age	hrs	Client Info		295		
Oil Changed         Client Info         Not Changd             Filter Changed         Client Info         Not Changd             Sample Status         SEVERE             Iron         ppm         ASTM D5185(m)         >20         <1            Nickel         ppm         ASTM D5185(m)         >2         0            Nickel         ppm         ASTM D5185(m)         >2         0            Aluminum         ppm         ASTM D5185(m)         >2         0            Aluminum         ppm         ASTM D5185(m)         >20             Vanadium         ppm         ASTM D5185(m)         >20             Vanadum         ppm         ASTM D5185(m)         >30         14             Vanadum         ppm         ASTM D5185(m)         >30         14             Vanadum         ppm         ASTM D5185(m)         >25         11             Vanadum         ppm         ASTM D5185(m)         >20         A         38<	Oil Age	hrs	Client Info		0		
Filter Changed         Client Info         Not Changed             Sample Status         SEVERE              Iron         ppm         ASTM D5185(m)         >100         19             Iron         ppm         ASTM D5185(m)         >20         <1             Nickel         ppm         ASTM D5185(m)         >2         0             Silver         ppm         ASTM D5185(m)         >2         0             Aluminum         ppm         ASTM D5185(m)         >2         0             Lead         ppm         ASTM D5185(m)         >30         14             Vanadium         ppm         ASTM D5185(m)         >30         14             Vanadium         ppm         ASTM D5185(m)         >20         ASTM             Vanadium         ppm         ASTM D5185(m)         >20         ASTM             Vellow Metal         scalar         Visual*         NONE         NONE <t< th=""><th>Filter Age</th><th>hrs</th><th>Client Info</th><th></th><th>0</th><th></th><th></th></t<>	Filter Age	hrs	Client Info		0		
Sample Status         SEVERE             Iron         ppm         ASTM D5185(m)         >100         19             Chromium         ppm         ASTM D5185(m)         >20         <1             Nickel         ppm         ASTM D5185(m)         >2         <1             Titanium         ppm         ASTM D5185(m)         >2         0             Silver         ppm         ASTM D5185(m)         >2         0             Aluminum         ppm         ASTM D5185(m)         >20         0             Copper         ppm         ASTM D5185(m)         >300         14             Vanadium         ppm         ASTM D5185(m)         >300         110             Vanadium         ppm         ASTM D5185(m)         >20 <b>A</b> 38             Vellow Metal         scalar         Visual*         NONE             Silicon         ppm         ASTM D5185(m)         >20 <b>NEG</b>	Oil Changed		Client Info		Not Changd		
Iron         ppm         ASTM D5185(m)         >100         19             Chromium         ppm         ASTM D5185(m)         >20         <1             Nickel         ppm         ASTM D5185(m)         >2         0             Silver         ppm         ASTM D5185(m)         >2         0             Aluminum         ppm         ASTM D5185(m)         >2         0             Aluminum         ppm         ASTM D5185(m)         >20         0             Lead         ppm         ASTM D5185(m)         >40         6             Vanadium         ppm         ASTM D5185(m)         >10              Wated         scalar         Visua!*         NONE         NONE             Solicon         ppm         ASTM D5185(m)         >20         AST         38             Vallow Metal         scalar         Visua!*         NONE         NONE             Vater	Filter Changed		Client Info		Not Changd		
Chromium         ppm         ASTM D5185(m)         >20         <1	Sample Status				SEVERE		
Chromium         ppm         ASTM D5185(m)         >20         <1							
Nickel         ppm         ASTM D5185(m)         >2         <1	-		. ,				
Titanium         ppm         ASTM D5185(m)         >2         0            Silver         ppm         ASTM D5185(m)         >2         0            Aluminum         ppm         ASTM D5185(m)         >25         2            Lead         ppm         ASTM D5185(m)         >40         6            Copper         ppm         ASTM D5185(m)         >11            Vanadium         ppm         ASTM D5185(m)         0            Vanadium         ppm         ASTM D5185(m)         0            Vanadium         ppm         ASTM D5185(m)         20         A         38            Vellow Metal         scalar         Visual*         NONE             Silicon         ppm         ASTM D5185(m)         >20         A         38            Water         %         ASTM D5185(m)         >20         A         1.232            Glycol         %         ASTM D7624*         >20         T.9             Sulfation         Abs/.mm         ASTM D7624*         >30         1.8.			( )				
Silver         ppm         ASTM D5185(m)         >2         0            Aluminum         ppm         ASTM D5185(m)         >25         2            Lead         ppm         ASTM D5185(m)         >330         14            Copper         ppm         ASTM D5185(m)         >330         14            Vanadium         ppm         ASTM D5185(m)         >330         14            Vanadium         ppm         ASTM D5185(m)         >30         14            Vanadium         ppm         ASTM D5185(m)         >15         <1			( )				
Aluminum         ppm         ASTM D5185(m)         >25         2             Lead         ppm         ASTM D5185(m)         >330         14             Copper         ppm         ASTM D5185(m)         >330         14             Vanadium         ppm         ASTM D5185(m)         >15         <1             Vanadium         ppm         ASTM D5185(m)         >15         <1             Vanadium         ppm         ASTM D5185(m)         >10              Vanadium         ppm         ASTM D5185(m)         >25         11             Vellow Metal         scalar         Visual*         NONE              Solicon         ppm         ASTM D5185(m)         >20         A 38             Water         %         ASTM D78185(m)         >20         NEG             Glycol         %         ASTM D7844*         >3         0             Sulfation			( )				
Lead         ppm         ASTM D5185(m)         >A0         6            Copper         ppm         ASTM D5185(m)         >330         14            Tin         ppm         ASTM D5185(m)         >15         <1            Vanadium         ppm         ASTM D5185(m)         0             White Metal         scalar         Visual*         NONE             Yellow Metal         scalar         Visual*         NONE             Silicon         ppm         ASTM D5185(m)         >20         A 38             Potassium         ppm         ASTM D5185(m)         >20         A 38             Water         %         ASTM D5185(m)         >20         A 38             Water         %         ASTM D5185(m)         >20         A 38             Sulfation         Abs/rm         ASTM D7844*<>3         0             Sulfation         Abs/rm         ASTM D745*<>30         18.1			. ,		-		
Copper         ppm         ASTM D5185(m)         >330         14            Tin         ppm         ASTM D5185(m)         >15         <1            Vanadium         ppm         ASTM D5185(m)         0             White Metal         scalar         Visual*         NONE         NONE            Yellow Metal         scalar         Visual*         NONE             Silicon         ppm         ASTM D5185(m)         >25         11             Potassium         ppm         ASTM D5185(m)         >20         A 38             Water         %         ASTM D5185(m)         >20         A 1232             Glycol         %         ASTM D7922*         A 1.232             Sot %         %         ASTM D7624*         >20         7.9             Sulfation         Abs/rm         ASTM D7624*         >20         7.9             Sulfation         Abs/rm         ASTM D7624*         >20         7.9		ppm	( )		_		
Tin         ppm         ASTM D5185(m)         >15         <1			( )		-		
Vanadium         ppm         ASTM D5185(m)         0             White Metal         scalar         Visual*         NONE         NONE             Yellow Metal         scalar         Visual*         NONE         NONE             Silicon         ppm         ASTM D5185(m)         >20         ▲ 38             Potassium         ppm         ASTM D5185(m)         >20         ▲ 38             Fuel         WC Method         >5         <1.0             Water         %         ASTM D792*         ▲ 1.232             Soot %         %         ASTM D782*         20         7.9             Sulfation         Abs/cm         ASTM D7415*         >30         18.1             Sulfation         Abs/cm         ASTM D7415*         >30         18.1             Debris         scalar         Visual*         NONE         NONE             Appearance         scalar         Visual*         NORM <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>							
White Metal         scalar         Visual*         NONE         NONE         NONE            Yellow Metal         scalar         Visual*         NONE         NONE             Silicon         ppm         ASTM D5185(m)         >20         A 38             Potassium         ppm         ASTM D5185(m)         >20         A 38             Fuel         WC Method         >5         <1.0             Water         %         ASTM D5804*         >0.2         NEG             Glycol         %         ASTM D7844*         >3         0             Soot %         %         ASTM D7844*         >3         0             Sulfation         Abs/.mm         ASTM D7624*         >0         18.1             Sulfation         Abs/.mm         ASTM D7152*         30         18.1			( )	>15			
Yellow Metal         scalar         Visual*         NONE         NONE             Silicon         ppm         ASTM D5185(m) >20         A 38             Potassium         ppm         ASTM D5185(m) >20         A 38             Fuel         WC Method >5         <1.0             Water         %         ASTM D50304*         >0.2         NEG            Glycol         %         ASTM D7824*         >0             Soot %         %         ASTM D7844*         >3         0             Sulfation         Abs/cm         ASTM D7624*         >20         7.9             Sulfation         Abs/rm         ASTM D7624*         >20         7.9             Sulfation         Abs/rm         ASTM D7624*         >20         7.9             Sulfation         Abs/rm         ASTM D71624*         >0         NONE			( )		-		
Silicon       ppm       ASTM D5185(m)       >25       11           Potassium       ppm       ASTM D5185(m)       >20       ▲ 38           Fuel       WC Method       >5       <1.0           Water       %       ASTM D5044*       >0.2       NEG           Glycol       %       ASTM D7922*       ▲ 1.232           Soot %       %       ASTM D7624*       >20       7.9           Sulfation       Abs/.m       ASTM D7624*       >20       7.9           Sulfation       Abs/.imm       ASTM D7415*       >30       18.1           Sulfation       Abs/.imm       ASTM D7415*       >30       18.1           Debris       scalar       Visual*       NONE       NONE           Appearance       scalar       Visual*       NORML       MORML           Sodium       ppm       ASTM D5185(m)       18           Boron       ppm       ASTM D518							
Potassium         ppm         ASTM D5185(m)         >20         ▲ 38             Fuel         WC Method         >5         <1.0             Water         %         ASTM D6304*         >0.2         NEG             Glycol         %         ASTM D7922*         ▲ 1.232             Soot %         %         ASTM D7624*         >3         0             Nitration         Abs/.m         ASTM D7624*         >20         7.9             Sulfation         Abs/.m         ASTM D7624*         >20         7.9             Sulfation         Abs/.m         ASTM D7624*         >20         7.9             Sulfation         Abs/.m         ASTM D7145*         >30         18.1             Sulfation         Abs/.m         ASTM D7145*         >30         18.1             Debris         scalar         Visual*         NORE              Appearance         scalar         Visual*	Yellow Metal	scalar	Visual*	NONE	NONE		
Potassium         ppm         ASTM D5185(m)         >20         ▲ 38             Fuel         WC Method         >5         <1.0             Water         %         ASTM D6304*         >0.2         NEG             Glycol         %         ASTM D7922*         ▲ 1.232             Soot %         %         ASTM D7624*         >3         0             Nitration         Abs/.m         ASTM D7624*         >20         7.9             Sulfation         Abs/.m         ASTM D7624*         >20         7.9             Sulfation         Abs/.m         ASTM D7624*         >20         7.9             Sulfation         Abs/.m         ASTM D7145*         >30         18.1             Sulfation         Abs/.m         ASTM D7145*         >30         18.1             Debris         scalar         Visual*         NORE              Appearance         scalar         Visual*	Silicon	nnm	∆STM D5185(m)	<u>\</u> 25	11		
Fuel         WC Method >5         <1.0			( )				
Water         %         ASTM D6304*         >0.2         NEG             Glycol         %         ASTM D7922*         ▲         1.232             Soot %         %         ASTM D7844*         >3         0             Nitration         Abs/cm         ASTM D7844*         >20         7.9             Sulfation         Abs/cm         ASTM D7624*         >20         7.9             Sulfation         Abs/cm         ASTM D7624*         >20         7.9             Sulfation         Abs/cm         ASTM D715*         >30         18.1             Sulfation         scalar         Visual*         NONE         NONE             Debris         scalar         Visual*         NOR         NORE             Appearance         scalar         Visual*         NORM         MCROL             Odor         scalar         Visual*         NORM         NORML             Boron		ppin					
Glycol         %         ASTM D7922*         ▲ 1.232             Soot %         %         ASTM D7844*         >3         0             Nitration         Abs/cm         ASTM D7624*         >20         7.9             Sulfation         Abs/cm         ASTM D7624*         >20         7.9             Sulfation         Abs/cm         ASTM D7624*         >30         18.1             Sulfation         Abs/cm         ASTM D7415*         >30         18.1             Sulfation         scalar         Visual*         NONE         NONE             Debris         scalar         Visual*         NONE         NONE             Appearance         scalar         Visual*         NORML         MORML             Odor         scalar         Visual*         NORML         NORML             Boron         ppm         ASTM D5185(m)         0             Molybdenum         ppm         AST		0/2					
Soot %         %         ASTM D7844*         >3         0             Nitration         Abs/cm         ASTM D7624*         >20         7.9             Sulfation         Abs/.1mm         ASTM D7624*         >30         18.1             Sulfation         Abs/.1mm         ASTM D7615*         >30         18.1             Silt         scalar         Visual*         NONE         NONE             Debris         scalar         Visual*         NONE         NONE             Sand/Dirt         scalar         Visual*         NORM         NORME             Appearance         scalar         Visual*         NORM         MGOIL             Odor         scalar         Visual*         >0.2         .5%             Boron         ppm         ASTM D5185(m)         18             Barium         ppm         ASTM D5185(m)         0             Molybdenum         ppm         ASTM D5185(m)				20.L			
NitrationAbs/cmASTM D7624*>207.9SulfationAbs/.1mmASTM D7415*>3018.1SiltscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLMGOILOdorscalarVisual*NORMLMORMLCodorscalarVisual*NORMLMORMLBoronppmASTM D5185(m)6570BariumppmASTM D5185(m)0MagneseppmASTM D5185(m)3MagnesiumppmASTM D5185(m)3PhosphorusppmASTM D5185(m)631ZincppmASTM D5185(m)820SulfurppmASTM D5185(m)820SulfurppmASTM D5185(m)SulfurppmASTM D5185(m)CalciumppmASTM D5185(m)820SulfurppmASTM D5185(m)SulfurppmASTM D5185(m)				>3			
SulfationAbs/.1mmASTM D7415*>3018.1SiltscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLMGOILOdorscalarVisual*NORMLMORMLOdorscalarVisual*NORMLNORMLBoronppmASTM D5185(m) $\bullet$ 570BoronppmASTM D5185(m)0BariumppmASTM D5185(m)0MolybdenumppmASTM D5185(m)3MagnesiumppmASTM D5185(m)1194PhosphorusppmASTM D5185(m)631ZincppmASTM D5185(m)820SulfurppmASTM D5185(m)2403OxidationAbs/.1mmASTM D7141*>2511.1					-		
SiltscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMMGOILOdorscalarVisual*NORMMORMLOdorscalarVisual*NORMNORMLBusified WaterscalarVisual*>0.2 <b>&gt;</b> 570BoronppmASTM D5185(m)6570BariumppmASTM D5185(m)0MolybdenumppmASTM D5185(m)655ManganeseppmASTM D5185(m)3MagnesiumppmASTM D5185(m)1194PhosphorusppmASTM D5185(m)631ZincppmASTM D5185(m)820SulfurppmASTM D5185(m)2403OxidationAbs/1mASTM D5185(m)52511.1					-		
DebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMMOREOdorscalarVisual*NORMLMORMLOdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*NORMLNORMLSodiumppmASTM D5185(m)BoronppmASTM D5185(m)0BariumppmASTM D5185(m)0MolybdenumppmASTM D5185(m)0ManganeseppmASTM D5185(m)3MagnesiumppmASTM D5185(m)11090PhosphorusppmASTM D5185(m)631ZincppmASTM D5185(m)820SulfurppmASTM D5185(m)2403OxidationAbs/.1mmASTM D5185(m)211.1					-		
Sand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLMGOILOdorscalarVisual*NORMLMORMLEmulsified WaterscalarVisual*>0.2▲ 5%BoronppmASTM D5185(m)●570BariumppmASTM D5185(m)0MolybdenumppmASTM D5185(m)0MagneseppmASTM D5185(m)1090MagnesiumppmASTM D5185(m)1090PhosphorusppmASTM D5185(m)631ZincppmASTM D5185(m)820SulfurppmASTM D5185(m)24403OxidationAbs/.1mmASTM D5185(m)11.1							
AppearancescalarVisual*NORML✓ WGOILOdorscalarVisual*NORMLNORMLNORMLEmulsified WaterscalarVisual*>0.2▲.5%SodiumppmASTM D5185(m)●570BoronppmASTM D5185(m)0BariumppmASTM D5185(m)0MolybdenumppmASTM D5185(m)65MagneseppmASTM D5185(m)3MagnesiumppmASTM D5185(m)1090PhosphorusppmASTM D5185(m)631ZincppmASTM D5185(m)820SulfurppmASTM D5185(m)2403OxidationAbs/.1mmASTM D7141*>2511.1					_		
OdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>0.2▲.5%SodiumppmASTM D5185(m)●570BoronppmASTM D5185(m)0BariumppmASTM D5185(m)0MolybdenumppmASTM D5185(m)0MagneseppmASTM D5185(m)65MagnesiumppmASTM D5185(m)1090PhosphorusppmASTM D5185(m)631ZincppmASTM D5185(m)820SulfurppmASTM D5185(m)2403OxidationAbs/.1mmASTM D7141*>2511.1							
Emulsified Water         scalar         Visual*         >0.2         .5%             Sodium         ppm         ASTM D5185(m)         •         570             Boron         ppm         ASTM D5185(m)         18             Barium         ppm         ASTM D5185(m)         0             Molybdenum         ppm         ASTM D5185(m)         0             Magnese         ppm         ASTM D5185(m)         65             Magnesium         ppm         ASTM D5185(m)         3             Calcium         ppm         ASTM D5185(m)         194             Phosphorus         ppm         ASTM D5185(m)         631             Zinc         ppm         ASTM D5185(m)         820             Sulfur         ppm         ASTM D5185(m)         2403             Oxidation         Abs/.1mm         ASTM D7414*         >25         11.1							
Sodium         ppm         ASTM D5185(m)         • 570             Boron         ppm         ASTM D5185(m)         18             Barium         ppm         ASTM D5185(m)         0             Molybdenum         ppm         ASTM D5185(m)         0             Molybdenum         ppm         ASTM D5185(m)         655             Manganese         ppm         ASTM D5185(m)         3             Magnesium         ppm         ASTM D5185(m)         194             Calcium         ppm         ASTM D5185(m)         1090             Phosphorus         ppm         ASTM D5185(m)         631             Zinc         ppm         ASTM D5185(m)         820             Sulfur         ppm         ASTM D5185(m)         2403             Oxidation         Abs/.1mm         ASTM D7414*         >25         11.1					-		
Boron         ppm         ASTM D5185(m)         18            Barium         ppm         ASTM D5185(m)         0            Molybdenum         ppm         ASTM D5185(m)         0            Molybdenum         ppm         ASTM D5185(m)         65            Manganese         ppm         ASTM D5185(m)         3            Magnesium         ppm         ASTM D5185(m)         194            Calcium         ppm         ASTM D5185(m)         1090            Phosphorus         ppm         ASTM D5185(m)         631            Zinc         ppm         ASTM D5185(m)         820            Sulfur         ppm         ASTM D5185(m)         2403            Oxidation         Abs/.1mm         ASTM D7414*         >25         11.1							
Barium         ppm         ASTM D5185(m)         0             Molybdenum         ppm         ASTM D5185(m)         655             Manganese         ppm         ASTM D5185(m)         3             Magnesium         ppm         ASTM D5185(m)         194             Calcium         ppm         ASTM D5185(m)         631             Phosphorus         ppm         ASTM D5185(m)         631             Zinc         ppm         ASTM D5185(m)         820             Sulfur         ppm         ASTM D5185(m)         2403             Oxidation         Abs/.1mm         ASTM D7414*         >25         11.1	Sodium	ppm	ASTM D5185(m)		<b>6</b> 570		
Molybdenum         ppm         ASTM D5185(m)         65            Manganese         ppm         ASTM D5185(m)         3             Magnesium         ppm         ASTM D5185(m)         194             Calcium         ppm         ASTM D5185(m)         1090             Phosphorus         ppm         ASTM D5185(m)         631             Zinc         ppm         ASTM D5185(m)         820             Sulfur         ppm         ASTM D5185(m)         2403             Oxidation         Abs/.1mm         ASTM D7414*         >25         11.1	Boron	ppm	ASTM D5185(m)		18		
Manganese         ppm         ASTM D5185(m)         3             Magnesium         ppm         ASTM D5185(m)         194             Calcium         ppm         ASTM D5185(m)         1090             Phosphorus         ppm         ASTM D5185(m)         631             Zinc         ppm         ASTM D5185(m)         820             Sulfur         ppm         ASTM D5185(m)         2403             Oxidation         Abs/.1mm         ASTM D7414*<>25         11.1	Barium	ppm	ASTM D5185(m)		0		
Magnesium         ppm         ASTM D5185(m)         194             Calcium         ppm         ASTM D5185(m)         1090             Phosphorus         ppm         ASTM D5185(m)         631             Zinc         ppm         ASTM D5185(m)         820             Sulfur         ppm         ASTM D5185(m)         2403             Oxidation         Abs/.1mm         ASTM D7414*         >25         11.1	Molybdenum	ppm	ASTM D5185(m)		65		
Calcium         ppm         ASTM D5185(m)         1090             Phosphorus         ppm         ASTM D5185(m)         631             Zinc         ppm         ASTM D5185(m)         820             Sulfur         ppm         ASTM D5185(m)         2403             Oxidation         Abs/.1mm         ASTM D7414*         >25         11.1	Manganese	ppm	ASTM D5185(m)		3		
Phosphorus         ppm         ASTM D5185(m)         631             Zinc         ppm         ASTM D5185(m)         820             Sulfur         ppm         ASTM D5185(m)         2403             Oxidation         Abs/.1mm         ASTM D7414*         >25         11.1	Magnesium	ppm	ASTM D5185(m)		194		
Zinc         ppm         ASTM D5185(m)         820             Sulfur         ppm         ASTM D5185(m)         2403             Oxidation         Abs/.1mm         ASTM D7414*         >25         11.1	Calcium	ppm	ASTM D5185(m)		1090		
Sulfur         ppm         ASTM D5185(m)         2403             Oxidation         Abs/.1mm         ASTM D7414*         >25         11.1	Phosphorus	ppm	ASTM D5185(m)		631		
Oxidation Abs/.1mm ASTM D7414* >25 11.1	Zinc	ppm			820		
	Sulfur	ppm			2403		
Visc @ 100°C cSt ASTM D7279(m) 11.0 9.8	Oxidation	Abs/.1mm	ASTM D7414*	>25	11.1		
	Visc @ 100°C	cSt	ASTM D7279(m)	11.0	9.8		

Contact/Location: Elisia Johnson - CUMMISGEN

# WEAR NORMAL CONTAMINATION SEVERE FLUID CONDITION ATTENTION



