

WEAR NORMAL CONTAMINATION ABNORMAL FLUID CONDITION NORMAL

## Machine Id **CASE 170B 017005 96 74373** Component **Hydraulic System** Fluid **{not provided} (100 GAL)**

## RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. ( Customer Sample Comment: Testing to decide between changing and topping up. )



All component wear rates are normal.

## CONTAMINATION

There is a high amount of particulates present in the oil. Chlorine not detected.

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## FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Test         UOM         Method         Limit/AD         Current         History1         History2           Sample Number         Client Info         18 May 2024             Machine Age         hrs         Client Info         0             Oil Age         hrs         Client Info         0             Oil Changed         Client Info         0             Oil Changed         Client Info         Not Changd             Sample Status          ABNORMA             Sample Status          ASTM D5185m         >65         3             Chromium ppm         ASTM D5185m         >10         0              Nickel         ppm         ASTM D5185m         >10         0             Aluminum         ppm         ASTM D5185m         >5         <1             Aluminum         ppm         ASTM D5185m         >4         9             Vanadium         ppm         ASTM D518							
Sample Date         Client Info         18 May 2024             Machine Age         hrs         Client Info         0             Oil Age         hrs         Client Info         0             Oil Changed         Client Info         Not Changd             Filter Changed         Client Info         Not Changd             Sample Status         ASTM D5185m         >65         3             Iron         ppm         ASTM D5185m         >10         0             Nickel         ppm         ASTM D5185m         <1              Aluminum         ppm         ASTM D5185m         <1              Aluminum         ppm         ASTM D5185m         >5         <1             Astm D5185m         >45         9               Astm D5185m         >45         9               Vanadium         ppm         ASTM D5	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine Age Oil Age Filter Age Filter Age Filter Changed Client Info         7221             Filter Age Filter Changed Sample Status         Client Info         Not Changd Not Changd             Iron         ppm         ASTM D5185m Sample Status         >65         16             Iron         ppm         ASTM D5185m Nickel         >65         16             Nickel         ppm         ASTM D5185m Nickel         >65         1             Nickel         ppm         ASTM D5185m Silver         >6         3             Aluminum         ppm         ASTM D5185m Silver         >5         <1             Aluminum         ppm         ASTM D5185m         >4         0             Vanadium         ppm         ASTM D5185m         >4         0             Visual         NONE         NONE              Vellow Metal         scalar         *Visual         NONE             Silicon         ppm         ASTM D5185m         >25	Sample Number		Client Info		ASC0000547		
Oil Age         hrs         Client Info         0             Filter Age         hrs         Client Info         0         Not Changd             Oil Changed         Client Info         Not Changd              Sample Status         ABNORMAL              Iron         ppm         ASTM D5185m         >65         16             Chromium         ppm         ASTM D5185m         >66         3             Silver         ppm         ASTM D5185m         >66         1             Aluminum         ppm         ASTM D5185m         <1              Aluminum         ppm         ASTM D5185m         <1              Vanadium         ppm         ASTM D5185m         >40              Vanadium         ppm         ASTM D5185m         >20         0             Vanadium         ppm         ASTM D5185m         >20         0 <td< th=""><th>Sample Date</th><th></th><th>Client Info</th><th></th><th>18 May 2024</th><th></th><th></th></td<>	Sample Date		Client Info		18 May 2024		
Filter Age         hrs         Client Info         0             Oil Changed         Client Info         Not Changd             Sample Status         ABNORMAL             Iron         ppm         ASTM D5185m         >6         3            Chromium         ppm         ASTM D5185m         >6         3             Nickel         ppm         ASTM D5185m         <1              Silver         ppm         ASTM D5185m         <1              Lead         ppm         ASTM D5185m         >5         <1             Vanadium         ppm         ASTM D5185m         >5         <1             Vanadium         ppm         ASTM D5185m         >4         <1             Vanadium         ppm         ASTM D5185m         >25         6             Vanadium         ppm         ASTM D5185m         >25         6             Vellow Metal         scalar<*Vi	Machine Age	hrs	Client Info		7221		
Filter Age         hrs         Client Info         0             Oil Changed         Client Info         Not Changd             Sample Status         ABNORMAL             Iron         ppm         ASTM D5185m         >6         3            Chromium         ppm         ASTM D5185m         >6         3             Nickel         ppm         ASTM D5185m         <1              Silver         ppm         ASTM D5185m         <1              Lead         ppm         ASTM D5185m         >5         <1             Vanadium         ppm         ASTM D5185m         >5         <1             Vanadium         ppm         ASTM D5185m         >4         <1             Vanadium         ppm         ASTM D5185m         >25         6             Vanadium         ppm         ASTM D5185m         >25         6             Vellow Metal         scalar<*Vi	Oil Age	hrs	Client Info		0		
Oil Changed Filter Changed         Client Info         Not Changed Not Changed            Sample Status         ASTM D5185m         >65         16            Iron         ppm         ASTM D5185m         >66         3            Nickel         ppm         ASTM D5185m         >60         3            Nickel         ppm         ASTM D5185m         >61             Silver         ppm         ASTM D5185m         <1             Silver         ppm         ASTM D5185m         >5         <1             Lead         ppm         ASTM D5185m         >5         <1             Vanadium         ppm         ASTM D5185m         >120         27             Yellow Metal         scalar         *Visual         NONE             Yellow Metal         scalar         *Visual         NONE             Yellow Metal         scalar         *Visual         NONE             Yellow Metal         scalar         *Visual <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		
Filter Changed Sample Status         Client Info         Not Changd ABNORMAL             Iron         ppm         ASTM D5185m         >65         16             Iron         ppm         ASTM D5185m         >66         3             Nickel         ppm         ASTM D5185m         >66         3             Titanium         ppm         ASTM D5185m         <1              Aluminum         ppm         ASTM D5185m         <5         <1             Auminum         ppm         ASTM D5185m         >5         <1             Copper         ppm         ASTM D5185m         >45         9             Tin         ppm         ASTM D5185m         >27         1             White Metal         scalar         *Visual         NONE             Vellow Metal         scalar         *Visual         NONE             Silicon         ppm         ASTM D5185m         >20         0 <th>Oil Changed</th> <th></th> <th>Client Info</th> <th></th> <th>Not Changd</th> <th></th> <th></th>	Oil Changed		Client Info		Not Changd		
Sample Status         ABNORMAL             Iron         ppm         ASTM D5185m         >65         16             Chromium         ppm         ASTM D5185m         >6         3             Nickel         ppm         ASTM D5185m         >10         0             Silver         ppm         ASTM D5185m         >10         0             Silver         ppm         ASTM D5185m         >10         0             Lead         ppm         ASTM D5185m         >45         9             Vanadium         ppm         ASTM D5185m         >41              Vanadium         ppm         ASTM D5185m         >25         6             Valeo         %         ASTM D5185m         >25         6             Silicon         ppm         ASTM D5185m         >20         0             Valeo         %         ASTM D5185m         >20         0	•		Client Info		v		
Iron         ppm         ASTM D5185m         >65         16             Chromium         ppm         ASTM D5185m         >10         0             Nickel         ppm         ASTM D5185m         >10         0             Titanium         ppm         ASTM D5185m         >5         <1             Aluminum         ppm         ASTM D5185m         >5         <1             Lead         ppm         ASTM D5185m         >120         27             Copper         ppm         ASTM D5185m         >4         0             White Metal         scalar         *Visual         NONE             White Metal         scalar         *Visual         NONE             Silicon         ppm         ASTM D5185m         >25         6             Vater         %         ASTM D6304         >0.1         0.065             Particles >4µm         ASTM D7647         >100         & 8786	•				Ū,		
Chromium         ppm         ASTM D5185m         >6         3             Nickel         ppm         ASTM D5185m         >10         0             Silver         ppm         ASTM D5185m         <1             Silver         ppm         ASTM D5185m         >5         <1             Lead         ppm         ASTM D5185m         >40             Lead         ppm         ASTM D5185m         >40             Vanadium         ppm         ASTM D5185m         >40             Vanadium         ppm         ASTM D5185m         >20         0             Vanadium         ppm         ASTM D5185m         >25         6             Yellow Metal         scalar         *Visual         NONE             Yellow Metal         scalar         *Visual         NONE             Particles >6µm         ASTM D7647         >100         655             Particles >6µm <t< th=""><th></th><th></th><th></th><th></th><th></th></t<>							
Nickel         ppm         ASTM D5185m         >10         0             Titanium         ppm         ASTM D5185m         <1             Silver         ppm         ASTM D5185m         >5         <1             Aluminum         ppm         ASTM D5185m         >55         <1             Lead         ppm         ASTM D5185m         >5         <1             Copper         ppm         ASTM D5185m         >120         27             Vanadium         ppm         ASTM D5185m         >4         0             Vanadium         ppm         ASTM D5185m         >20         NONE             Vanadium         ppm         ASTM D5185m         >20         0         0655             Silicon         ppm         ASTM D6304         >0.0         655             Particles >4µm         ASTM D7647         >100         & 87366             Particles >54µm         ASTM D7647         >	Iron	ppm	ASTM D5185m	>65	16		
Titanium         ppm         ASTM D5185m         <1	Chromium	ppm	ASTM D5185m	>6	3		
Titanium         ppm         ASTM D5185m         <1	Nickel		ASTM D5185m	>10	0		
Silver         ppm         ASTM D5185m         <1	Titanium		ASTM D5185m		<1		
Aluminum         ppm         ASTM D5185m         >5         <1							
Lead         ppm         ASTM D5185m         >45         9             Copper         ppm         ASTM D5185m         >120         27             Tin         ppm         ASTM D5185m         >4         0             Waradium         ppm         ASTM D5185m         >4         0             White Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D5185m         >25         6             Potassium         ppm         ASTM D5185m         >20         0             Water         %         ASTM D504         >0.00         655             Particles >4µm         ASTM D7647         >1000         655             Particles >4µm         ASTM D7647         >1000         4         8786             Particles >4µm         ASTM D7647         >10         2              Particles >21µm         ASTM D7647 <t< th=""><th>Aluminum</th><th></th><th></th><th>&gt;5</th><th></th><th></th><th></th></t<>	Aluminum			>5			
Copper         ppm         ASTM D5185m         >120         27             Tin         ppm         ASTM D5185m         >4         0             Vanadium         ppm         ASTM D5185m         <1             White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D5185m<>20         0             Water         %         ASTM D5185m<>20         0             Water         %         ASTM D6304         >0.1         0.0655             Particles >4µm         ASTM D7647         >100         ▲ 82346             Particles >4µm         ASTM D7647         >100         ▲ 876             Particles >21µm         ASTM D7647         >10         2             Particles >21µm         ASTM D7647         >3         0							
Tin         ppm         ASTM D5185m         >4         0             Vanadium         ppm         ASTM D5185m         <1             White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D5185m         >20         0             Potassium         ppm         ASTM D5185m         >20         0             Water         %         ASTM D5185m         >20         0             ppm Water         ppm         ASTM D6304         >0.0         655             Particles >4µm         ASTM D7647         >100 <b>A</b> 8786             Particles >21µm         ASTM D7647         >40 <b>38</b> Particles >21µm         ASTM D7647         >3 <b>0</b> Oil Cleanliness         ISO 4406 (c)         >19/1714 <b>A</b> 24/20/15 <th></th> <th></th> <th></th> <th></th> <th>-</th> <th></th> <th></th>					-		
Vanadium         ppm         ASTM D5185m         <1							
White Metal         scalar         *Visual         NONE             Yellow Metal         scalar         *Visual         NONE             Silicon         ppm         ASTM D5185m         >20         0             Potassium         ppm         ASTM D6304         >0.1         0.0655             Water         %         ASTM D6304         >0.0         655             Particles >4µm         ASTM D6304         >1000         655             Particles >4µm         ASTM D7647         >5000         A 8786             Particles >4µm         ASTM D7647         >100         A 8786             Particles >38µm         ASTM D7647         >10         2             Particles >71µm         ASTM D7647         >30         0             Silt         scalar         *Visual         NONE         NONE             Sand/Dirt         scalar         *Visual         NORE         <				~	-		
Yellow Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D5185m<>20         0             Potassium         ppm         ASTM D5185m<>20         0             Water         %         ASTM D6304         >0.1         0.0655             ppm Water         ppm         ASTM D6304         >1000         6555             Particles >4µm         ASTM D7647         >1300         & 823466             Particles >14µm         ASTM D7647         >1600         A 169             Particles >14µm         ASTM D7647         >10         2             Particles >38µm         ASTM D7647         >3         0             Particles >71µm         ASTM D7647         >3         0             Particles >21µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >191714         4242015 </th <th></th> <th></th> <th></th> <th>NONE</th> <th></th> <th></th> <th></th>				NONE			
Silicon         ppm         ASTM D5185m         >25         6             Potassium         ppm         ASTM D5185m         >20         0             Water         %         ASTM D5185m         >20         0             Particles >4µm         ASTM D6304         >0.00         655             Particles >4µm         ASTM D7647         >5000         ▲ 82346             Particles >6µm         ASTM D7647         >1300         ▲ 8786             Particles >21µm         ASTM D7647         >40         38             Particles >21µm         ASTM D7647         >10         2             Particles >71µm         ASTM D7647         >3         0             Particles >71µm         ASTM D7647         >3         0             Silt         scalar         *Visual         NONE         NONE             Sodiu/Dirt         scalar         *Visual         NORML         NORML					-		
Potassium         ppm         ASTM D5185m         >20         0             Water         %         ASTM D6304         >0.1         0.0655             ppm Water         ppm         ASTM D6304         >1000         6555             Particles >4µm         ASTM D7647         >5000         ▲ 82346             Particles >6µm         ASTM D7647         >100         ▲ 8786             Particles >14µm         ASTM D7647         >10         ▲ 169             Particles >21µm         ASTM D7647         >10         2             Particles >38µm         ASTM D7647         >3         0             Particles >71µm         ASTM D7647         >3         0             Silt         scalar         *Visual         NONE             Silt         scalar         *Visual         NONE             Sand/Dirt         scalar         *Visual         NORML         NORML            App		scalar	visual	NONE	NONE		
Potassium         ppm         ASTM D5185m         >20         0             Water         %         ASTM D6304         >0.1         0.0655             ppm Water         ppm         ASTM D6304         >1000         6555             Particles >4µm         ASTM D7647         >5000         ▲ 82346             Particles >6µm         ASTM D7647         >160         ▲ 169             Particles >14µm         ASTM D7647         >10         2             Particles >21µm         ASTM D7647         >10         2             Particles >71µm         ASTM D7647         >3         0             Particles >71µm         ASTM D7647         >3         0             Silt         scalar         *Visual         NONE             Silt         scalar         *Visual         NONE             Sand/Dirt         scalar         *Visual         NORML         NORML            Appear	Silicon	nnm	ASTM D5185m	>25	6		
Water         %         ASTM D6304         >0.1         0.065             ppm Water         ppm         ASTM D6304         >1000         655             Particles >4µm         ASTM D7647         >5000         A 82346             Particles >6µm         ASTM D7647         >1300         A 8786             Particles >14µm         ASTM D7647         >160         A 169             Particles >21µm         ASTM D7647         >10         2             Particles >38µm         ASTM D7647         >10         2             Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         4 24/20/15             Silt         scalar         *Visual         NONE         NONE             Debris         scalar         *Visual         NORM         NORML             Appearance         scalar         *Visual         NORM         NORML <t< th=""><th></th><th></th><th></th><th></th><th>-</th><th></th><th></th></t<>					-		
ppm         ASTM D6304         >1000         655             Particles >4µm         ASTM D7647         >5000         ▲ 82346             Particles >6µm         ASTM D7647         >1300         ▲ 8786             Particles >14µm         ASTM D7647         >160         ▲ 169             Particles >21µm         ASTM D7647         >40         38             Particles >38µm         ASTM D7647         >10         2             Particles >38µm         ASTM D7647         >3         0             Particles >71µm         ASTM D7647         >3         0             Particles >71µm         ASTM D7647         >3         0             Silt         scalar         *Visual         NONE         NONE             Sand/Dirt         scalar         *Visual         NORML         NORML             Appearance         scalar         *Visual         NORM         NORML					-		
Particles >4µm       ASTM D7647       >5000       ▲ 82346          Particles >6µm       ASTM D7647       >1300       ▲ 8786          Particles >6µm       ASTM D7647       >160       ▲ 169          Particles >14µm       ASTM D7647       >10       2          Particles >21µm       ASTM D7647       >10       2          Particles >38µm       ASTM D7647       >10       2          Particles >71µm       ASTM D7647       >3       0          Particles >71µm       ASTM D7647       >3       0          Oil Cleanliness       ISO 4406 (c)       >19/17/14       24/20/15           Silt       scalar       *Visual       NONE           Sand/Dirt       scalar       *Visual       NORK       NORML          Appearance       scalar       *Visual       NORK       NORML           Appearance       scalar       *Visual       NORK       NORML           Sodium       ppm       ASTM D5185m       4							
Particles >6µm         ASTM D7647         >1300         ▲ 8786             Particles >14µm         ASTM D7647         >160         ▲ 169             Particles >21µm         ASTM D7647         >40         38             Particles >38µm         ASTM D7647         >10         2             Particles >71µm         ASTM D7647         >3         0             Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         ▲ 24/20/15             Silt         scalar         *Visual         NONE             Sand/Dirt         scalar         *Visual         NONE             Appearance         scalar         *Visual         NORML         NORML             Odor         scalar         *Visual         NORML         NORML             Boron         ppm         ASTM D5185m         4 <t< th=""><th>••</th><th>ppiii</th><th></th><th></th><th></th><th></th><th></th></t<>	••	ppiii					
Particles >14µm       ASTM D7647       >160       ▲ 169           Particles >21µm       ASTM D7647       >40       38           Particles >38µm       ASTM D7647       >10       2           Particles >71µm       ASTM D7647       >3       0           Oil Cleanliness       ISO 4406 (c)       >19/17/14       ▲ 24/20/15           Silt       scalar       *Visual       NONE       NONE           Debris       scalar       *Visual       NONE       NONE           Sand/Dirt       scalar       *Visual       NOR       NORE           Appearance       scalar       *Visual       NOR       NORML           Odor       scalar       *Visual       >0.1       0.2%           Sodium       ppm       ASTM D5185m       4           Boron       ppm       ASTM D5185m       1           Magnesium       ppm       ASTM D5185m       <1							
Particles >21µm         ASTM D7647         >40         38            Particles >38µm         ASTM D7647         >10         2            Particles >71µm         ASTM D7647         >3         0            Oil Cleanliness         ISO 4406 (c)         >19/17/14         ▲ 24/20/15            Silt         scalar         *Visual         NONE             Debris         scalar         *Visual         NONE         NONE             Sand/Dirt         scalar         *Visual         NONE         NONE             Appearance         scalar         *Visual         NOR         NORML             Odor         scalar         *Visual         NOR              Codor         scalar         *Visual         NOR         NORML             Sodium         ppm         ASTM D5185m         4             Boron         ppm         ASTM D5185m         1             Malganese         ppm         ASTM D5185m </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>							
Particles >38µm         ASTM D7647         >10         2             Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         ▲ 24/20/15             Silt         scalar         *Visual         NONE         NONE             Debris         scalar         *Visual         NONE         NONE             Sand/Dirt         scalar         *Visual         NONE         NONE             Appearance         scalar         *Visual         NORM         NORML             Odor         scalar         *Visual         NORM         NORML             Odor         scalar         *Visual         >0.1         0.2%             Sodium         ppm         ASTM D5185m         4             Boron         ppm         ASTM D5185m         1             Malganese         ppm         ASTM D5185m         1          -							
Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         ▲ 24/20/15             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             Odor         scalar         *Visual         NORML         NORML             Odor         scalar         *Visual         >0.1         0.2%             Sodium         ppm         ASTM D5185m         4             Boron         ppm         ASTM D5185m         1             Malganese         ppm         ASTM D5185m         <1        <							
Oil CleanlinessISO 4406 (c)>19/17/1424/20/15Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLCodorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.10.2%SodiumppmASTM D5185m4BoronppmASTM D5185m1BariumppmASTM D5185m<1MaganeseppmASTM D5185m<1MagnesiumppmASTM D5185m<1PhosphorusppmASTM D5185m318ZincppmASTM D5185m503SulfurppmASTM D5185m573Acid Number (AN)mg KOHgASTM D5185m4283Acid Number (AN)mg KOHgASTM D50450.70							
Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.10.2%SodiumppmASTM D5185m4BoronppmASTM D5185m29BariumppmASTM D5185m1MolybdenumppmASTM D5185m<1MagnesiumppmASTM D5185m<191MagnesiumppmASTM D5185m318PhosphorusppmASTM D5185m503ZincppmASTM D5185m573SulfurppmASTM D5185m4283Acid Number (AN)mg KOHgASTM D50450.70					-		
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Appearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.10.2%SodiumppmASTM D5185m4BoronppmASTM D5185m29BariumppmASTM D5185m1MolybdenumppmASTM D5185m<1MagneseppmASTM D5185m<1MagnesiumppmASTM D5185m<191PhosphorusppmASTM D5185m503ZincppmASTM D5185m573SulfurppmASTM D5185m4283Acid Number (AN)mg KOHgASTM D80450.70					-		
Odor         scalar         *Visual         NORML         NORML            Emulsified Water         scalar         *Visual         >0.1         0.2%             Sodium         ppm         ASTM D5185m         4             Boron         ppm         ASTM D5185m         29             Barium         ppm         ASTM D5185m         1             Molybdenum         ppm         ASTM D5185m         <1             Magnesium         ppm         ASTM D5185m         <1             Magnesium         ppm         ASTM D5185m         <1             Phosphorus         ppm         ASTM D5185m         <1             Zinc         ppm         ASTM D5185m         318             Zinc         ppm         ASTM D5185m         503             Sulfur         ppm         ASTM D5185m         573             Sulfur         ppm         ASTM D5185m         4283 <td< th=""><th></th><th></th><th></th><th>-</th><th>_</th><th></th><th></th></td<>				-	_		
Emulsified Water         scalar         *Visual         >0.1         0.2%            Sodium         ppm         ASTM D5185m         4             Boron         ppm         ASTM D5185m         29             Barium         ppm         ASTM D5185m         1             Molybdenum         ppm         ASTM D5185m         <1             Magnesium         ppm         ASTM D5185m         <1             Magnesium         ppm         ASTM D5185m         <1             Calcium         ppm         ASTM D5185m         318             Phosphorus         ppm         ASTM D5185m         503             Zinc         ppm         ASTM D5185m         573             Sulfur         ppm         ASTM D5185m         4283             Acid Number (AN)         mg KOHg         ASTM D8045         0.70							
Sodium         ppm         ASTM D5185m         4            Boron         ppm         ASTM D5185m         29            Barium         ppm         ASTM D5185m         1            Molybdenum         ppm         ASTM D5185m         1            Magnese         ppm         ASTM D5185m         <1            Magnesium         ppm         ASTM D5185m         <1            Calcium         ppm         ASTM D5185m         191            Phosphorus         ppm         ASTM D5185m         318            Zinc         ppm         ASTM D5185m         503            Sulfur         ppm         ASTM D5185m         573            Acid Number (AN)         mg KOHg         ASTM D8045         0.70							
Boron         ppm         ASTM D5185m         29            Barium         ppm         ASTM D5185m         1            Molybdenum         ppm         ASTM D5185m         1            Manganese         ppm         ASTM D5185m         <1            Magnesium         ppm         ASTM D5185m         <1            Calcium         ppm         ASTM D5185m         191            Phosphorus         ppm         ASTM D5185m         318            Zinc         ppm         ASTM D5185m         503            Sulfur         ppm         ASTM D5185m         573            Acid Number (AN)         mg KOH/g         ASTM D8045         0.70	Emulsified Water	scalar	*Visual	>0.1	0.2%		
Boron         ppm         ASTM D5185m         29            Barium         ppm         ASTM D5185m         1            Molybdenum         ppm         ASTM D5185m         1            Manganese         ppm         ASTM D5185m         <1            Magnesium         ppm         ASTM D5185m         <1            Calcium         ppm         ASTM D5185m         191            Phosphorus         ppm         ASTM D5185m         318            Zinc         ppm         ASTM D5185m         503            Sulfur         ppm         ASTM D5185m         573            Acid Number (AN)         mg KOH/g         ASTM D5045         0.70	Rodium				4		
Barium         ppm         ASTM D5185m         1            Molybdenum         ppm         ASTM D5185m         <1							
Molybdenum         ppm         ASTM D5185m         <1							
Manganese         ppm         ASTM D5185m         <1							
Magnesium         ppm         ASTM D5185m         191            Calcium         ppm         ASTM D5185m         318             Phosphorus         ppm         ASTM D5185m         503             Zinc         ppm         ASTM D5185m         573             Sulfur         ppm         ASTM D5185m         4283             Acid Number (AN)         mg KOH/g         ASTM D8045         0.70	•						
Calcium         ppm         ASTM D5185m         318             Phosphorus         ppm         ASTM D5185m         503             Zinc         ppm         ASTM D5185m         573             Sulfur         ppm         ASTM D5185m         4283             Acid Number (AN)         mg KOH/g         ASTM D8045         0.70	U						
Phosphorus         ppm         ASTM D5185m         503             Zinc         ppm         ASTM D5185m         573             Sulfur         ppm         ASTM D5185m         4283             Acid Number (AN)         mg KOHg         ASTM D8045         0.70	Ũ						
Zinc         ppm         ASTM D5185m         573             Sulfur         ppm         ASTM D5185m         4283             Acid Number (AN)         mg KOH/g         ASTM D8045         0.70		ppm					
Sulfur         ppm         ASTM D5185m         4283             Acid Number (AN)         mg KOH/g         ASTM D8045         0.70		ppm					
Acid Number (AN) mg KOH/g ASTM D8045 0.70		ppm			573		
	Sulfur	ppm	ASTM D5185m		4283		
Visc @ 40°C cSt ASTM D445 45.7	Acid Number (AN)	mg KOH/g	ASTM D8045		0.70		
	Visc @ 40°C	cSt	ASTM D445		45.7		



