

#### Machine Id **PETERBILT 389 215** Component **Diesel Engine** Fluid **TRC PRO-SPEC III SYNTHETIC BLEND 15W40 (12 GAL)**

#### RECOMMENDATION

We recommend that you drain the oil and perform a filter service on this component if not already done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

## **WEAR**

Cylinder, crank, or cam shaft wear is indicated. Bearing wear is indicated.

# CONTAMINATION

No other contaminants were detected in the oil.

## **FLUID CONDITION**

The oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test         UOM         Method         Limit/Ab         Current         History1         History2           Sample Number         Client Info         22 Sep 2021             Machine Age         Client Info         0             Oil Age         Client Info         0             Oil Age         Client Info         0             Filter Age         Client Info         0             Goli Changed         Client Info         N/A             Sample Status         -         SEVERE             Iron         ppm         ASTM D5185m<>-2         3             Nickel         ppm         ASTM D5185m<>-2         -<         1             Silver         ppm         ASTM D5185m<>-25         12              Aluminum         ppm         ASTM D5185m<>-45         A         124             Lead         ppm         ASTM D5185m<>-20         A         13							
Sample Number         Client Info         TR05360256             Machine Age         Client Info         0             Machine Age         Client Info         0             Oil Age         Client Info         0             Filter Age         Client Info         N/A             Oil Changed         Client Info         N/A             Sample Status         SEVERE             Iron         ppm         ASTM D5185m<>-21         A         A         7            Chromium         ppm         ASTM D5185m         >22         3             Chromium         ppm         ASTM D5185m         >22         1             Nickel         ppm         ASTM D5185m         >25         12             Aluminum         ppm         ASTM D5185m         >4         622             Vanadium         ppm         ASTM D5185m         >30         13             Vellow M	Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Date         Client Info         22 Sep 2021             Machine Age         Client Info         0             Oil Age         Client Info         0             Oil Changed         Client Info         0             Oil Changed         Client Info         N/A             Filter Age         Client Info         N/A             Gample Status         StM D5185m<>10         A         399             Chromium         ppm         ASTM D5185m<>2         3             Nickel         ppm         ASTM D5185m<>2         1             Aluminum         ppm         ASTM D5185m         >2         12             Lead         ppm         ASTM D5185m         >2         12             Vanadium         ppm         ASTM D5185m         >20         62             Vanadium         ppm         ASTM D5185m         >30         13 <td< th=""><th>Sample Number</th><th></th><th>Client Info</th><th></th><th>TR05360256</th><th>,</th><th></th></td<>	Sample Number		Client Info		TR05360256	,	
Oil Age         Client Info         0             Filter Age         Client Info         N/A             Oil Changed         Client Info         N/A             Sample Status         Client Info         N/A             Iron         ppm         ASTM D5185m         >110         A 399             Nickel         ppm         ASTM D5185m         >22         3             Nickel         ppm         ASTM D5185m         >22         3             Aluminum         ppm         ASTM D5185m         >25         12             Lead         ppm         ASTM D5185m         >4         622             Vanadium         ppm         ASTM D5185m         >4         17             Vanadum         ppm         ASTM D5185m         >30         13             Vanadum         ppm         ASTM D5185m         >30         13             Vanadum         ppm         ASTM D5185	Sample Date		Client Info		22 Sep 2021		
Filter Age         Client Info         0             Cil Changed         Client Info         N/A             Sample Status         Client Info         N/A             Sample Status         SEVERE              Iron         ppm         ASTM D5185m<>-10         A 399             Chromium         ppm         ASTM D5185m         -2         3             Nickel         ppm         ASTM D5185m         -2         1             Silver         ppm         ASTM D5185m         -2         1             Lead         ppm         ASTM D5185m         -2         1             Vanadium         ppm         ASTM D5185m         -2         1             Vanadum         ppm         ASTM D5185m         -20         13             Vanadum         ppm         ASTM D5185m         -20         26             Vellow Metal         scalar			Client Info				
Filter Age         Client Info         0             Cil Changed         Client Info         N/A             Sample Status         Client Info         N/A             Sample Status         SEVERE              Iron         ppm         ASTM D5185m<>-10         A 399             Chromium         ppm         ASTM D5185m         -2         3             Nickel         ppm         ASTM D5185m         -2         1             Silver         ppm         ASTM D5185m         -2         1             Lead         ppm         ASTM D5185m         -2         1             Vanadium         ppm         ASTM D5185m         -2         1             Vanadum         ppm         ASTM D5185m         -20         13             Vanadum         ppm         ASTM D5185m         -20         26             Vellow Metal         scalar	J		Client Info		0		
Oil Changed         Client Info         N/A             Filter Changed         Client Info         N/A             Sample Status         SEVERE             Iron         ppm         ASTM D5185m         >10         A 399             Nickel         ppm         ASTM D5185m         >2         3             Silver         ppm         ASTM D5185m         >2         -1             Aluminum         ppm         ASTM D5185m         >2         -1             Copper         ppm         ASTM D5185m         >2         -1             Vanadium         ppm         ASTM D5185m         >2         -1             Vanadium         ppm         ASTM D5185m         >4         A 17             Vanadium         ppm         ASTM D5185m         >30         13             Veltow Metal         scalar         'Visual         NONE              Veltow Metal <t< th=""><th>0</th><th></th><th>Client Info</th><th></th><th>0</th><th></th><th></th></t<>	0		Client Info		0		
Filter Changed Sample Status         Client Info         N/A             Iron         ppm         ASTM D5185m         >110         A 399             Iron         ppm         ASTM D5185m         >4         A         7             Nickel         ppm         ASTM D5185m         >2         3             Titanium         ppm         ASTM D5185m         >2         1             Aluminum         ppm         ASTM D5185m         >25         12             Lead         ppm         ASTM D5185m         >4         622             Vanadium         ppm         ASTM D5185m         >4         17             Vanadium         ppm         ASTM D5185m         >4         17             Vanadium         ppm         ASTM D5185m         >20         26             Vallow Metal         scalar         *Visual         NONE             Soliticon         ppm         ASTM D5304         >200	Ŭ				-		
Sample Status         SEVERE             Iron         ppm         ASTM D5185m<>110         A 399             Chromium         ppm         ASTM D5185m<>2         3             Nickel         ppm         ASTM D5185m<>2         3             Silver         ppm         ASTM D5185m<>2         1             Lead         ppm         ASTM D5185m<>4         622             Lead         ppm         ASTM D5185m<>4         17             Vanadium         ppm         ASTM D5185m<>4         17             Vanadium         ppm         ASTM D5185m<>4         17             Vanadium         ppm         ASTM D5185m<>20         26             Yellow Metal         scalar         *Visual         NONE             Fuel         WC Method         >5         <1.0             Goto %         % ASTM D5185m         20         23.5             Soot	-		Client Info		N/A		
Iron       ppm       ASTM D5185m       >110       ▲ 399           Chromium       ppm       ASTM D5185m       >2       3           Nickel       ppm       ASTM D5185m       >2       3           Titanium       ppm       ASTM D5185m       >2       1           Silver       ppm       ASTM D5185m       >2       12           Lead       ppm       ASTM D5185m       >45       622           Copper       ppm       ASTM D5185m       >4       17           Vanadium       ppm       ASTM D5185m       >4       17           Vanadium       ppm       ASTM D5185m       >30       13           Vellow Metal       scalar       *Visual       NONE            Silicon       ppm       ASTM D5185m       >20       26           Water       %       ASTM D5185m       >20       21.0           Vater       % <t< th=""><th>Ũ</th><th></th><th>0.101.11.10</th><th></th><th></th><th></th><th></th></t<>	Ũ		0.101.11.10				
Chromium         ppm         ASTM D5185m         >4         A         7             Nickel         ppm         ASTM D5185m         >2         3             Silver         ppm         ASTM D5185m         >2         <1             Aluminum         ppm         ASTM D5185m         >2         <1             Lead         ppm         ASTM D5185m         >2         <1             Vanadium         ppm         ASTM D5185m         >26         124             Vanadium         ppm         ASTM D5185m         >30         13             Vanadium         ppm         ASTM D5185m         >30         13             Vellow Metal         scalar         *Visual         NONE              Yellow Metal         scalar         *Visual         NONE              Silicon         ppm         ASTM D5185m         >20         26             Water         %         ASTM D51							
Nickel         ppm         ASTM D5185m         >2         3             Titanium         ppm         ASTM D5185m         >2         <1             Silver         ppm         ASTM D5185m         >25         12             Lead         ppm         ASTM D5185m         >45         ▲ 622             Copper         ppm         ASTM D5185m         >45         ▲ 17             Vanadium         ppm         ASTM D5185m         >4         ▲ 17             Vanadium         ppm         ASTM D5185m         >4         ▲ 17             Vanadium         ppm         ASTM D5185m         >40         A             Vanadium         ppm         ASTM D5185m         >20         26             Silicon         ppm         ASTM D5185m         >20         1040             Water         %         ASTM D5185m         >20         1040             Giycol         WC Method	Iron	ppm	ASTM D5185m	>110	<b>A</b> 399		
Titanium         ppm         ASTM D5185m         <1	Chromium	ppm	ASTM D5185m	>4	<u> </u>		
Silver         ppm         ASTM D5185m         >2         <1	Nickel	ppm	ASTM D5185m	>2	3		
Aluminum         ppm         ASTM D5185m         >25         12             Lead         ppm         ASTM D5185m         >45         ▲ 622             Copper         ppm         ASTM D5185m         >4         124             Vanadium         ppm         ASTM D5185m          124             White Metal         scalar         *Visual         NONE              White Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D5185m         >30         13             Potassium         ppm         ASTM D5185m         >20         26             Fuel         WC Method         Sol               Water         pm         ASTM D6304         >0.20         1040             Glycol         WC Method         NEG            Sol s', '            Soti % <th>Titanium</th> <th>ppm</th> <th>ASTM D5185m</th> <th></th> <th>&lt;1</th> <th></th> <th></th>	Titanium	ppm	ASTM D5185m		<1		
Lead         ppm         ASTM D5185m         >45         ▲ 622             Copper         ppm         ASTM D5185m         >85         ▲ 124             Tin         ppm         ASTM D5185m         >4         ▲ 17             White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D5185m         >30         13             Silicon         ppm         ASTM D5185m         >20         26             Fuel         WC Method         >5         <1.0              Water         %         ASTM D6304         >2000         1040             Giycol         WC Method         NEG               Sulfation         Abs/rm         *ASTM D7644         >3         1.5             Sulfation         Abs/rm <th>Silver</th> <th>ppm</th> <th>ASTM D5185m</th> <th>&gt;2</th> <th>&lt;1</th> <th></th> <th></th>	Silver	ppm	ASTM D5185m	>2	<1		
Copper         ppm         ASTM D5185m         >85         ▲ 124             Tin         ppm         ASTM D5185m         >4         ▲ 17             Vanadium         ppm         ASTM D5185m         <1             White Metal         scalar         *Visual         NONE         NONE            Yellow Metal         scalar         *Visual         NONE         NONE            Silicon         ppm         ASTM D5185m<>-20         26             Potassium         ppm         ASTM D5185m<>-20         26             Water         %         ASTM D6304<>-0.2         0.104             gypm Water         ppm         ASTM D6304         >2000         1040             Glycol         WC Method         NEG               Sout %         %         'ASTM D7624         >20         23.5             Silt         scalar         *Visual         NONE         NONE	Aluminum	ppm	ASTM D5185m	>25	12		
Copper         ppm         ASTM D5185m         >85         ▲ 124             Tin         ppm         ASTM D5185m         >4         ▲ 17             Vanadium         ppm         ASTM D5185m         >4         ▲ 17             White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D5185m<>-20         26             Potassium         ppm         ASTM D5185m<>-20         26             Water         %         ASTM D6304<>-0.2         0.104             Water         %         ASTM D7844<>-20         23.5             Soit %         %         *ASTM D7624<>-20         23.5             Silt         scalar         *Visual         NONE         NONE             Soit %         %         *ASTM D7624<>-20         23.5	Lead	ppm	ASTM D5185m	>45	<b>622</b>		
Tin         ppm         ASTM D5185m         >4         ▲ 17             Vanadium         ppm         ASTM D5185m          <1             White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D5185m         >20         26             Potassium         ppm         ASTM D5185m         >20         26             Fuel         WC Method         >5         <1.0              Water         %         ASTM D6304         >0.2         0.104             Glycol         WC Method         NEG               Soot %         %         'ASTM D744         >3         1.5             Sulfation         Abs/:Imm 'ASTM D7415         >30         42.1             Soot %         % 'Stisual         NONE </th <th>Copper</th> <th></th> <th>ASTM D5185m</th> <th>&gt;85</th> <th><b>124</b></th> <th></th> <th></th>	Copper		ASTM D5185m	>85	<b>124</b>		
Vanadium         ppm         ASTM D5185m         <1				>4	<b>1</b> 7		
White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Silicon         ppm         ASTM D5185m         >30         13             Potassium         ppm         ASTM D5185m         >20         26             Fuel         WC Method         >5         <1.0              Water         %         ASTM D6304         >0.2         0.1040             ppm Water         ppm         ASTM D6304         >200         1040             Soot %         %         'ASTM D7844         >3         1.5             Sulfation         Abs/cm< "ASTM D7624         20         23.5             Sulfation         Abs/cm< "ASTM D7152         >30         42.1             Sulfation         Abs/lmm "ASTM D7145         >30         42.1             Sulfation         scalar         *Visual <th>Vanadium</th> <th></th> <th>ASTM D5185m</th> <th></th> <th>&lt;1</th> <th></th> <th></th>	Vanadium		ASTM D5185m		<1		
Yellow Metal         scalar         *Visual         NONE             Silicon         ppm         ASTM D5185m         >30         13             Potassium         ppm         ASTM D5185m         >20         26             Fuel         WC Method         >5         <1.0             Water         %         ASTM D6304         >0.2         0.104             gpm Water         ppm         ASTM D6304         >2000         1040             Glycol         WC Method         NEG               Soot %         %         *ASTM D7844         >3         1.5             Soot %         %         *ASTM D7642         >20         23.5             Sulfation         Abs/rmm *ASTM D7115         >30         42.1             Debris         scalar         *Visual         NONE              Appearance         scalar         *Visual         NORML	White Metal		*Visual	NONE	NONE		
Silicon         ppm         ASTM D5185m         >30         13             Potassium         ppm         ASTM D5185m         >20         26             Fuel         WC Method         >5         <1.0             Water         %         ASTM D6304         >2.00         1040             Glycol         WC Method         NEG               Soot %         %         'ASTM D7634         >3         1.5             Soot %         %         'ASTM D7644         >3         1.5             Sulfation         Abs/.1mm< 'ASTM D7415         >30         42.1             Sulfation         Abs/.1mm         'ASTM D7644         >30         42.1             Sulfation         scalar         'Visual         NONE         NONE             Sulfation         scalar         'Visual         NORM         NORM             Sodium         ppm         ASTM D5185m <t< th=""><th>Yellow Metal</th><th>scalar</th><th>*Visual</th><th>NONE</th><th></th><th></th><th></th></t<>	Yellow Metal	scalar	*Visual	NONE			
Potassium         ppm         ASTM D5185m         >20         26             Fuel         WC Method         >5         <1.0             Water         %         ASTM D6304         >0.2         0.104             ppm Water         ppm         ASTM D6304         >2000         1040             Glycol         WC Method         NEG              Soot %         %         *ASTM D7844         >3         1.5             Nitration         Abs/.mm         *ASTM D7624         >20         23.5             Sulfation         Abs/.tmm         *ASTM D7624         >20         23.5             Sulfation         Abs/.tmm         *ASTM D7624         >0         42.1             Sulfation         Abs/.tmm         *ASTM D7624         >0         RASTM D7624         >0             Sulfation         Abs/.tmm         *ASTM D7624         NONE         NONE             Debris         sc							
Fuel         WC Method         >5         <1.0	Silicon	ppm	ASTM D5185m	>30	13		
Water         %         ASTM D6304         >0.2         0.104            ppm Water         ppm         ASTM D6304         >2000         1040            Glycol         WC Method         NEG             Soot %         %         *ASTM D7844         >3         1.5            Nitration         Abs/cm         *ASTM D7624         >20         23.5            Sulfation         Abs/.1mm         *ASTM D76125         >30         42.1            Sulfation         Abs/.1mm         *ASTM D76126         NONE             Sand/Dirt         scalar         *Visual         NORH         NORML             Appearance         scalar         *Visual	Potassium	ppm	ASTM D5185m	>20	26		
ppm Water         ppm         ASTM D6304         >2000         1040             Glycol         WC Method         NEG             Soot %         %         *ASTM D7844         >3         1.5             Nitration         Abs/cm         *ASTM D7624         >20         23.5             Sulfation         Abs/cm         *ASTM D7624         >20         23.5             Sulfation         Abs/.1mm         *ASTM D7624         >20         R2.1             Sulfation         scalar         *Visual         NONE         NONE             Sad/Dirt         scalar         *Visual         NORM         NORML         NORE            Glor         scalar	Fuel		WC Method	>5	<1.0		
Glycol         WC Method         NEG             Soot %         % *ASTM D7844<>3         1.5             Nitration         Abs/cm<*ASTM D7624<>20         23.5             Sulfation         Abs/cm<*ASTM D7615<>30         42.1             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             Sodium         ppm         ASTM D5185m         0              Boron         ppm         ASTM D5185m         0              Magnesium         ppm         ASTM D5185m         166             Magnesium         ppm	Water	%	ASTM D6304	>0.2	0.104		
Soot %         %         *ASTM D7844         >3         1.5             Nitration         Abs/cm         *ASTM D7624         >20         23.5             Sulfation         Abs/cm         *ASTM D7624         >20         23.5             Sulfation         Abs/cm         *ASTM D7624         >30         42.1             Silt         scalar         *Visual         NONE         NONE             Debris         scalar         *Visual         NONE         NONE             Sand/Dirt         scalar         *Visual         NOR         NORML             Appearance         scalar         *Visual         NORML         NORML             Odor         scalar         *Visual         NORML         NORML             Odor         scalar         *Visual         NORML         NORML             Boron         ppm         ASTM D5185m         0              Magnesium	ppm Water	ppm	ASTM D6304	>2000	1040		
Nitration         Abs/cm         *ASTM D7624         >20         23.5             Sulfation         Abs/.1mm         *ASTM D7615         >30         42.1             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             Odor         scalar         *Visual         NORML         NORML             Odor         scalar         *Visual         >0.2         NEG             Sodium         ppm         ASTM D5185m         0              Boron         ppm         ASTM D5185m         0              Malganese <t< th=""><th>Glycol</th><th></th><th>WC Method</th><th></th><th>NEG</th><th></th><th></th></t<>	Glycol		WC Method		NEG		
Sulfation         Abs/.1mm         *ASTM D7415         >30         42.1             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             Odor         scalar         *Visual         NORML         NORML             Odor         scalar         *Visual         NORML         NORML             Emulsified Water         scalar         *Visual         >0.2         NEG             Sodium         ppm         ASTM D5185m         0              Boron         ppm         ASTM D5185m         0              Malgnesium	Soot %	%	*ASTM D7844	>3	1.5		
Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*VisualNORMLNORMLSodiumppmASTM D5185m20BoronppmASTM D5185m0BariumppmASTM D5185m0MolybdenumppmASTM D5185m9MagnesiumppmASTM D5185m1166CalciumppmASTM D5185m11268PhosphorusppmASTM D5185m11376SulfurppmASTM D5185m4105SulfurppmASTM D5185m11376SulfurppmASTM D5185m110.8Base Number (BN)mg KOHlgASTM D2896110.8	Nitration	Abs/cm	*ASTM D7624	>20	23.5		
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             Emulsified Water         scalar         *Visual         >0.2         NEG             Sodium         ppm         ASTM D5185m         0              Boron         ppm         ASTM D5185m         0              Barium         ppm         ASTM D5185m         0              Molybdenum         ppm         ASTM D5185m         9             Magnesium         ppm         ASTM D5185m         151             Phosphorus         ppm         ASTM D5185m         1268	Sulfation	Abs/.1mm	*ASTM D7415	>30	42.1		
Sand/Dirt         scalar         *Visual         NONE             Appearance         scalar         *Visual         NORML         NORML             Odor         scalar         *Visual         NORML         NORML             Odor         scalar         *Visual         NORML         NORML             Emulsified Water         scalar         *Visual         >0.2         NEG             Sodium         ppm         ASTM D5185m         20              Boron         ppm         ASTM D5185m         0              Barium         ppm         ASTM D5185m         0              Molybdenum         ppm         ASTM D5185m         9              Magnesium         ppm         ASTM D5185m         151             Calcium         ppm         ASTM D5185m         1268             Phosphorus         ppm         ASTM D5185m         1376	Silt	scalar	*Visual	NONE	NONE		
Appearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGSodiumppmASTM D5185m20BoronppmASTM D5185m0BariumppmASTM D5185m0MolybdenumppmASTM D5185m9MagnesiumppmASTM D5185m151CalciumppmASTM D5185m5379PhosphorusppmASTM D5185m1376SulfurppmASTM D5185m1376SulfurppmASTM D5185mSulfurppmASTM D5185mSulfurppmASTM D5185mSulfurppmASTM D5185mSulfurppmASTM D5185mBase Number (BN)mg KOH/gASTM D289610.8	Debris	scalar	*Visual	NONE	NONE		
Odor         scalar         *Visual         NORML             Emulsified Water         scalar         *Visual         >0.2         NEG             Sodium         ppm         ASTM D5185m         20             Boron         ppm         ASTM D5185m         0             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         9             Magnesium         ppm         ASTM D5185m         166             Calcium         ppm         ASTM D5185m         9             Phosphorus         ppm         ASTM D5185m         151             Zinc         ppm         ASTM D5185m         1268             Sulfur         ppm         ASTM D5185m         1376             Qxidation         Abs/.1mm *ASTM D7414         >25         39.6             Base Number (BN)         mg KOH/g         ASTM D2896	Sand/Dirt	scalar	*Visual	NONE	NONE		
Emulsified Water         scalar         *Visual         >0.2         NEG             Sodium         ppm         ASTM D5185m         20             Boron         ppm         ASTM D5185m         0             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         9             Magnesium         ppm         ASTM D5185m         9             Calcium         ppm         ASTM D5185m         151             Phosphorus         ppm         ASTM D5185m         5379             Zinc         ppm         ASTM D5185m         1268             Sulfur         ppm         ASTM D5185m         1376             Qxidation         Abs/.1mm<*ASTM D7414         >25         39.6             Base Number (BN)         mg KOHlg         ASTM D2896         10.8	Appearance	scalar	*Visual	NORML	NORML		
Sodium         ppm         ASTM D5185m         20            Boron         ppm         ASTM D5185m         0            Barium         ppm         ASTM D5185m         0            Barium         ppm         ASTM D5185m         0            Molybdenum         ppm         ASTM D5185m         0            Maganese         ppm         ASTM D5185m         9            Magnesium         ppm         ASTM D5185m         9            Calcium         ppm         ASTM D5185m         151            Phosphorus         ppm         ASTM D5185m         5379            Zinc         ppm         ASTM D5185m         1268            Sulfur         ppm         ASTM D5185m         1376            Qxidation         Abs/1mm *ASTM D7414<>25         39.6             Base Number (BN)         mg KOHg         ASTM D2896         10.8	Odor	scalar	*Visual	NORML	NORML		
Boron         ppm         ASTM D5185m         0             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         166             Manganese         ppm         ASTM D5185m         9             Magnesium         ppm         ASTM D5185m         151             Calcium         ppm         ASTM D5185m         5379             Phosphorus         ppm         ASTM D5185m         1268             Zinc         ppm         ASTM D5185m         1376             Sulfur         ppm         ASTM D5185m         4105             Oxidation         Abs/.1mm *ASTM D7414<>25         39.6              Base Number (BN)         mg KOH/g         ASTM D2896         10.8	Emulsified Water	scalar	*Visual	>0.2	NEG		
Boron         ppm         ASTM D5185m         0             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         166             Manganese         ppm         ASTM D5185m         9             Magnesium         ppm         ASTM D5185m         151             Calcium         ppm         ASTM D5185m         5379             Phosphorus         ppm         ASTM D5185m         1268             Zinc         ppm         ASTM D5185m         1376             Sulfur         ppm         ASTM D5185m         4105             Oxidation         Abs/.1mm *ASTM D7414<>25         39.6              Base Number (BN)         mg KOH/g         ASTM D2896         10.8							
Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         166             Manganese         ppm         ASTM D5185m         9             Magnesium         ppm         ASTM D5185m         151             Calcium         ppm         ASTM D5185m         5379             Phosphorus         ppm         ASTM D5185m         1268             Zinc         ppm         ASTM D5185m         1376             Sulfur         ppm         ASTM D5185m         4105             Oxidation         Abs/1mm *ASTM D7414<>25         39.6             Base Number (BN)         mg KOHlg         ASTM D2896         10.8	Sodium				20		
Molybdenum         ppm         ASTM D5185m         166             Manganese         ppm         ASTM D5185m         9             Magnesium         ppm         ASTM D5185m         151             Calcium         ppm         ASTM D5185m         5379             Phosphorus         ppm         ASTM D5185m         1268             Zinc         ppm         ASTM D5185m         1376             Sulfur         ppm         ASTM D5185m         4105             Oxidation         Abs/1mm<*ASTM D7414<>25         39.6             Base Number (BN)         mg KOH/g         ASTM D2896         10.8		ppm					
Manganese         ppm         ASTM D5185m         9             Magnesium         ppm         ASTM D5185m         151             Calcium         ppm         ASTM D5185m         5379             Phosphorus         ppm         ASTM D5185m         1268             Zinc         ppm         ASTM D5185m         1376             Sulfur         ppm         ASTM D5185m         4105             Oxidation         Abs/.1mm         *ASTM D7414         >25         39.6             Base Number (BN)         mg KOH/g         ASTM D2896         10.8							
Magnesium         ppm         ASTM D5185m         151             Calcium         ppm         ASTM D5185m         5379             Phosphorus         ppm         ASTM D5185m         1268             Zinc         ppm         ASTM D5185m         1376             Sulfur         ppm         ASTM D5185m         4105             Oxidation         Abs/.1mm         *ASTM D7414         >25         39.6             Base Number (BN)         mg KOH/g         ASTM D2896         10.8		ppm					
Calcium         ppm         ASTM D5185m         5379             Phosphorus         ppm         ASTM D5185m         1268             Zinc         ppm         ASTM D5185m         1376             Sulfur         ppm         ASTM D5185m         4105             Oxidation         Abs/.1mm         *ASTM D7414         >25         39.6             Base Number (BN)         mg KOH/g         ASTM D2896         10.8	•						
Phosphorus         ppm         ASTM D5185m         1268             Zinc         ppm         ASTM D5185m         1376             Sulfur         ppm         ASTM D5185m         4105             Oxidation         Abs/.1mm<*ASTM D7414         >25         39.6             Base Number (BN)         mg KOH/g         ASTM D2896         10.8	-	ppm					
Zinc         ppm         ASTM D5185m         1376             Sulfur         ppm         ASTM D5185m         4105             Oxidation         Abs/.1mm         *ASTM D7414         >25         39.6             Base Number (BN)         mg KOH/g         ASTM D2896         10.8							
Sulfur         ppm         ASTM D5185m         4105             Oxidation         Abs/.1mm         *ASTM D7414         >25         39.6             Base Number (BN)         mg KOH/g         ASTM D2896         10.8	Phosphorus	ppm	ASTM D5185m		1268		
Oxidation         Abs/.1mm         *ASTM D7414         >25 <b>39.6</b> Base Number (BN)         mg KOH/g         ASTM D2896 <b>10.8</b>		ppm					
Base Number (BN)         mg KOH/g         ASTM D2896         10.8	Sulfur	ppm	ASTM D5185m		4105		
	Oxidation	Abs/.1mm	*ASTM D7414	>25	39.6		
Visc @ 100°C cSt ASTM D445 15.5 🔶 20.0 /	Base Number (BN)	mg KOH/g	ASTM D2896		10.8		
	Visc @ 100°C	cSt	ASTM D445	15.5	🔺 20.0 🌙		



To discuss this sample report, contact Customer Service at 1-800-827-0711. \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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