

## Machine Id VIBRO CAT 177 4850008 Component Diesel Engine Fluid

## CHEVRON DELO 400 MULTIGRADE 15W40 (--- QTS)

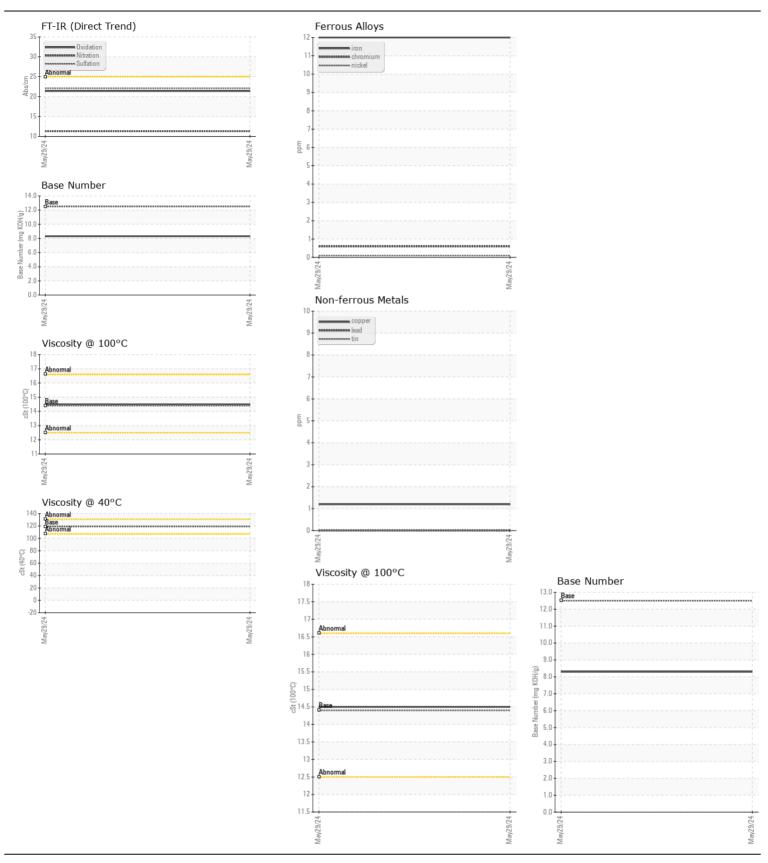
Sample at the next service interval to monitor.         Sample Date Sample Date         Client Info         WC0825169             Machine Age         hrs         Client Info         29 May 202             Machine Age         hrs         Client Info         0              Oil Age         hrs         Client Info         0              Oil Age         hrs         Client Info         0 <th></th>	
Sample Number         Client Info         WC0225169	
Sampe bar         Sampe bar <t< th=""><th></th></t<>	
Oil Age         hrs         Client Info         0             Filter Age         hrs         Client Info         0 <th></th>	
Filter Age         hrs         Client Info         0             Oil Changed         Client Info         Changed  <	
Oil Changed         Client Info         Changed <td></td>	
Filter Changed Sample Status         Client Info         Changed NORMAL             WEAR         Iron         pp         ASTM D5185m         >100         12          Icon           All component wear rates are normal.         Iron         pp         ASTM D5185m         >20         <1          Icon         <	
WEAR       Iron       pm       ASTM D51850       >100       12           All component wear rates are normal.       Iron       pm       ASTM D51850       >20       <1   <	      
WEAR         Iron         ppm         ASTM D5185m         >100         12            All component wear rates are normal.         Inckel         ppm         ASTM D5185m         >20         <1          I           Nickel         ppm         ASTM D5185m         >4         <1          I <td< th=""><th>      </th></td<>	      
All component wear rates are normal.         Chromium         ppm         ASTM D5185m         >20         <1	    
All component wear rates are normal.         Chromium         ppm         ASTM D5185m         >20         <1	    
All component wear rates are normal.       Nickel       ppm       ASTM D5185m       >4       <1          Titanium       ppm       ASTM D5185m       >3       1           Silver       ppm       ASTM D5185m       >3       1            Aluminum       ppm       ASTM D5185m       >20       6            Lead       ppm       ASTM D5185m       >40       0	   
Titanium         ppm         ASTM D5185m          <1	   
Silver       ppm       ASTM D5185m       >3       1          Aluminum       ppm       ASTM D5185m       >20       6        1         Lead       ppm       ASTM D5185m       >40       00        1       1        1       1        1       1       1        1	   
Aluminum       ppm       ASTM D5185m       >20       6          Lead       ppm       ASTM D5185m       >40       0          Copper       ppm       ASTM D5185m       >330       1        1         Tin       ppm       ASTM D5185m       >15       0        1       1        1       1        1       1        1       1        1       1        1       1       1       1 <th>  </th>	  
LeadppmASTM D5185m>400CopperppmASTM D5185m>3301TinppmASTM D5185m>150VanadiumppmASTM D5185m>150White Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONEPotassiumppmASTM D5185m>2014FuelWC Method>5<1.0WaterUW C Method>0.2NEEGGlycolWC Method>0.2NEEGSolt %%*ASTM D7844>30.1SulfationAbs/tm*ASTM D7844>322.1SulfationAbs/tm*ASTM D7844>322.1SulfationAbs/tm*ASTM D7845>3022.1SulfationAbs/tm*ASTM D7845>3022.1SulfationAbs/tm*ASTM D7845>3022.1SulfationAbs/tm*ASTM D7845>3022.1Debrisscalar*VisualNONENONENONENONENONENONENONESulfationAbs/tm	  
Copper         ppm         ASTM D5185m         >330         1            Tin         ppm         ASTM D5185m         >15         0            Vanadium         ppm         ASTM D5185m         <         <1            White Metal         scalar         *Visual         NONE         NONE            Yellow Metal         scalar         *Visual         NONE         NONE            There is no indication of any contamination in the oil.         Silicon         ppm         ASTM D5185m         >20         14            Water         WC Method         >5         <1.0              Glycol         WC Method         >0.2         NEG              Soot %         %         *ASTM D7844         >3         0.1             Soot %         %         *ASTM D7415         >30         22.1             Sulfation         Abs/cm         *ASTM D7415         >30         22.1             Silt         scalar         *Visual         NONE         NONE	
TinppmASTM D5185m>150VanadiumppmASTM D5185mI<1IWhite Metalscalar*VisualNONENONEIII	
White Metal Yellow Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONE14	
Yellow Metalscalar*VisualNONENONECONTAMINATIONSiliconppmASTM D5185m>2514PotassiumppmASTM D5185m>20141FuelWC Method>5<1.01WaterWC Method>0.2NEG1GlycolWC Method>0.2NEG1Soot %%*ASTM D7844>30.11NitrationAbs/cm*ASTM D7624>2011.31SulfationAbs/tm*ASTM D7644>3022.11Siltscalar*VisualNONENONE1Debrisscalar*VisualNONENONE1	
Silicon       ppm       ASTM D5185m       >25       14          Potassium       ppm       ASTM D5185m       >20       14        15       14        14        14        14        14        14        14        14        14       14        14       14       14       14       16 </th <th></th>	
Potassium       ppm       ASTM D5185m       >20       14          There is no indication of any contamination in the oil.       Fuel       WC Method       >5       <1.0          Water       WC Method       >0.2       NEG        Image: Soot %       %C Method       >0.2       NEG        Image: Soot %       %C Method       >0.1        Image: Soot %       %C Method       >30       0.1        Image: Soot %       Soot %       *ASTM D7844       >30       0.1        Image: Soot %       Soot %       *ASTM D7644       >20       11.3        Image: Soot %       Soo	
Potassium       ppm       ASTM D5185m       >20       14          There is no indication of any contamination in the oil.       Fuel       WC Method       >5       <1.0          Water       WC Method       >0.2       NEG        Image: Soot %       %C Method       >0.2       NEG        Image: Soot %       %C Method       >0.1        Image: Soot %       %C Method       >30       0.1        Image: Soot %       Soot %       %ASTM D7844       >30       0.1        Image: Soot %       %Sitt       %ASTM D7844       >30       0.1        Image: Soot %       %Sitt       %ASTM D7844       >30       0.1        Image: Soot %       %Sitt       %Sitt       Soot %       %Sitt       %Sitt       Soot %       Soot %       Soot % <td< th=""><th></th></td<>	
Fuel       WC Method       >5       <1.0	
WaterWC Method>0.2NEGGlycolWC MethodWC MethodNEGSoot %%*ASTM D7844>30.1NitrationAbs/cm*ASTM D7624>2011.3SulfationAbs/lmm*ASTM D7415>3022.1Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONE	
GlycolWC MethodNEGSoot %%*ASTM D7844>30.1NitrationAbs/cm*ASTM D7624>2011.3SulfationAbs/1mm*ASTM D7415>3022.1Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONE	
Soot %       *ASTM D7844       >3       0.1          Nitration       Abs/cm       *ASTM D7624       >20       11.3          Sulfation       Abs/1mm       *ASTM D7415       >30       22.1          Silt       scalar       *Visual       NONE       NONE          Debris       scalar       *Visual       NONE       NONE	
NitrationAbs/cm*ASTM D7624>2011.3SulfationAbs/.1mm*ASTM D7415>3022.1Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONE	
Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONE	
Debris scalar *Visual NONE NONE	
Sand/Dirt scalar *Visual NONE NONE	
Appearance scalar *Visual NORML NORML	
Odor scalar *Visual NORML NORML	
Emulsified Water     scalar     *Visual     >0.2     NEG	
FLUID CONDITION Sodium ppm ASTM D5185m 5	
Boron ppm ASTM D5185m 151 84	
The BN result indicates that there is suitable alkalinity remaining in the Barium prom ASTM 05185m 0.4	
oil. The condition of the oil is suitable for further service.  Molybdenum ppm ASTM D5185m 250 65	
Manganese ppm ASTM D5185m <1	
Magnesium ppm ASTM D5185m 0 864	
Calcium ppm ASTM D5185m 2046 1412	
Phosphorus ppm ASTM D5185m 1043 863	
Zinc ppm ASTM D5185m 943 1052	
Sulfur ppm ASTM D5185m 5012 2462	
Oxidation Abs/.1mm *ASTM D7414 >25 21.4	
Base Number (BN)         mg KOH/g         ASTM D2896         12.5         8.3	

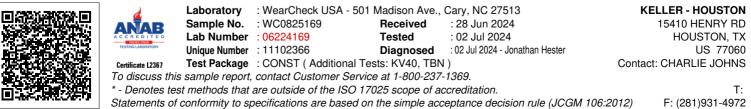
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14.5

ASTM D445 14.4

Visc @ 100°C cSt





Contact/Location: CHARLIE JOHNS - HAYHOUTX Page 2 of 2