

## WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

Machine Id 728084 Component

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## PETRO CANADA DURON SHP 15W40 (--- GAL)

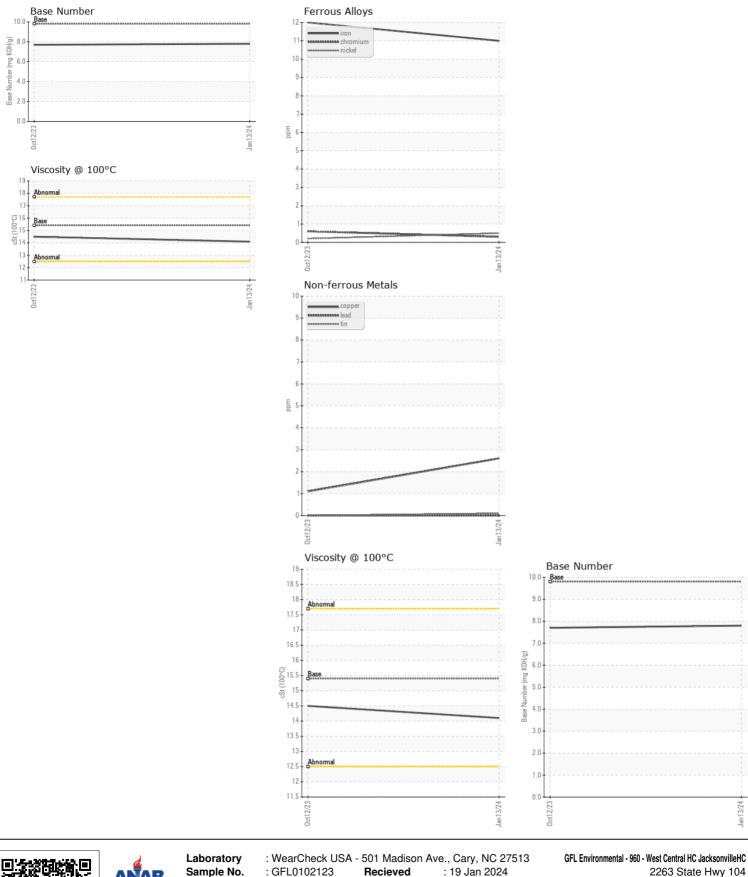
Resample at the next service interval to monitor.       Sample Number       Client Info       GFL010213       GFL010213         Machine Age       hrs       Client Info       13 Jan 2024       12 Oct 2020         Machine Age       hrs       Client Info       600       600         Oil Age       hrs       Client Info       600       600         Oil Changed       Client Info       Changed       Changed       Changed         Sample Status       NORMAL       NORMAL       NORMAL       NORMAL         All component wear rates are normal.       Iron       ppm       ASTM 0518m       >80       11       12         All component wear rates are normal.       Iron       ppm       ASTM 0518m       >30       <1       <1         Nickel       ppm       ASTM 0518m       >30       <1       <1       <1         Silver       ppm       ASTM 0518m       >30       <1       <1       <1         Nokel       ppm       ASTM 0518m       >30       <1       <1       <1       <1         Comport       ppm       ASTM 0518m       >30       <1       <1       <1       <1       <1       <1       <1       <1       <1       <1       <1		
Machine Age         Institution         Institution <thinstitution< th=""> <thinstitution< th=""></thinstitution<></thinstitution<>	   	
Oil Age         hrs         Client Info         600         600         600           Filter Age         hrs         Client Info         600		
Filter Age Oil Changed         hrs         Client Info         600         600           Oil Changed         Client Info         Changed         NORMAL         <		
Oil Changed         Client Info         Changed         Changed           Filter Changed         Client Info         Changed         NORMAI           WEAR         Normal         NORMAI         NORMAI           All component wear rates are normal.         In         Ppm         ASTM D5185n         >80         11         12           Itamium         ppm         ASTM D5185n         >2         4-1         <-1           Nickel         ppm         ASTM D5185n         >3         0         0           All component wear rates are normal.         Itamium         ppm         ASTM D5185n         >30         0         0           Silver         ppm         ASTM D5185n         >30         0         0         0           Aluminum         ppm         ASTM D5185n         >30         0         0         0           Copper         ppm         ASTM D5185n         >30         0         0         0           Vanadium         ppm         ASTM D5185n         >50         4         1         0           There is no indication of any contamination in the oil.         Silicon         pm         ASTM D5185n         20         1         0           Glycol		
Filter Changed Sample Status         Client Info         Changed NORMAL         Changed NORMAL           WEAR         Iron         pp         ASTM D5185n         >80         11         12           All component wear rates are normal.         Iron         pp         ASTM D5185n         >2         <1         <1           Nickel         pp         ASTM D5185n         >2         <1         <1           Nickel         pp         ASTM D5185n         >2         <1         <1           Nickel         pp         ASTM D5185n         >3         0         <1         <1           Silver         pp         ASTM D5185n         >3         0         <1         <1           Lead         pp         ASTM D5185n         >30         0         <1         <1           Lead         pp         ASTM D5185n         >30         0         <1         <1           Lead         pp         ASTM D5185n         >30         0         <1         <1           Visual         NONE         NONE         NONE         NONE         NONE         NONE           Tin         pellow Metal         scalar         "Visual         NONE         NONE         NONE		
Sample Status         NORMAL         NORMAL           WEAR         Iron         pp         ASTM D518m         >50         11         12           All component wear rates are normal.         Nickel         pp         ASTM D518m         >52         <1         <1           Nickel         pp         MSTM D518m         >2         <1         <1           Silver         pp         MSTM D518m         >30         <1         <1           Lead         pp         MSTM D518m         >30         <1         1           Lead         pp         MSTM D518m         >30         <1         1           Lead         pp         MSTM D518m         >50         <1         1           Vanadium         pp         MSTM D518m         >50         <1         1           Vanadium         pp         MSTM D518m         >50         <1         0           Vanadium         pp         MSTM D518m         >50         <1         0           Trin         pp         MSTM D518m         >50         <1         0           Trin         pp         MSTM D518m         >20         S         <1         0           Trin <td< th=""><th></th></td<>		
WEAR       Iron       ppm       ASTM D5185m       >80       11       12         All component wear rates are normal.       Chromium       ppm       ASTM D5185m       >5       <1       <1         Nickel       ppm       ASTM D5185m       >2       <1       <1       <1         Nickel       ppm       ASTM D5185m       >2       <1       <1       <1         Silver       ppm       ASTM D5185m       >3       0       <1       <1         Silver       ppm       ASTM D5185m       >30       <1       1       <1         Silver       ppm       ASTM D5185m       >30       0       0       <1       1         Lead       ppm       ASTM D5185m       >30       0       0       <1       1       <1         Lead       ppm       ASTM D5185m       >30       0       0       <1       0       <1       0       <1       0       <1       0       <1       0       <1       0       <1       0       <1       0       <1       0       <1       0       <1       0       <1       0       <1       0       <1       0       <1       0       <1       <		
All component wear rates are normal.         Chromium         ppm         ASTM D5185m         >5         <1		
All component wear rates are normal.         Chromium         ppm         ASTM D5185m         >S         <1         <1           Nickel         ppm         ASTM D5185m         >2         <1		
Nicket         pptn         ASIM D5185m         >2         <1         <1           Titanium         ppm         ASTM D5185m         0         <1		
Silver         ppm         ASTM D5185m         >3         0         0           Aluminum         ppm         ASTM D5185m         >30         <1		
Aluminum         ppm         ASTM D5185m         >30         <1           Lead         ppm         ASTM D5185m         >30         0         0           Copper         ppm         ASTM D5185m         >150         3         1           Tin         ppm         ASTM D5185m         >150         3         1           Vanadium         ppm         ASTM D5185m         >10         0           Vanadium         ppm         ASTM D5185m         >10         1           Vanadium         ppm         ASTM D5185m         >10         1           Vanadium         ppm         ASTM D5185m         >         <1		
Lead         ppm         ASTM D5185m         >30         0         0           Copper         ppm         ASTM D5185m         >150         3         1           Tin         ppm         ASTM D5185m         >55         <1		
Copper         ppm         ASTM D5185m         > 150         3         1           Tin         ppm         ASTM D5185m         >5         <1		
Copper TinppmASTM D5185m>15031TinppmASTM D5185m>5<1		
Tin         ppm         ASTM D5185m         >5         <1         0           Vanadium         ppm         ASTM D5185m         < <td><td< td=""><td></td></td<></td>	<td< td=""><td></td></td<>	
White Metal Yellow Metal       scalar       *Visual       NONE       NONE       NONE         CONTAMINATION       Silicon       ppm       ASTM D5185m       >20       5       6         Potassium       ppm       ASTM D5185m       >20       1       0         Fuel       WC Method       >5       <1.0       <1.0         Water       WC Method       >0.2       NEG       NEG         Glycol       WC Method       >0.2       NEG       NEG         Solifation       Abs/m       *ASTM D7844       >3       0.4       0.3         Nitration       Abs/m       *ASTM D7844       >3       0.4       0.3         Sulfation       Abs/m       *ASTM D7844       >3       0.4       0.3         Silt       scalar       *Visual       NONE       NONE       NONE         Sulfation       Abs/m       *ASTM D7844       >3       0.4       0.3         Silt       scalar       *Visual       NONE       NONE       NONE         Debris       scalar       *Visual       NONE       NONE       NONE         Appearance       scalar       *Visual       NORM       NORM       NORM		
Yellow Metalscalar*VisualNONENONENONECONTAMINATIONThere is no indication of any contamination in the oil.SiliconppmASTM D5185m>2010FuelWC Method>5<1.0<1.0WaterWC Method>5<1.0<1.0WaterIWC Method>0.2NEGNEGNEGNEGNEGGlycolWC Method>0.2NEGNEGNEGNEGSoot %%*ASTM D7844>30.40.30.30.40.3NitrationAbs/cm*ASTM D7624>208.77.97.9019.719.719.719.719.719.719.7NONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMNORMLNORMNORMLCONDITIONSodiumppmASTM D5185m57		
Silicon       ppm       ASTM D5185m       >20       5       6         Potassium       ppm       ASTM D5185m       >20       1       0         Fuel       WC Method       >5       <1.0       <1.0         Water       Image: WC Method       >0.2       NEG       NEG         Glycol       WC Method       >0.2       NEG       NEG         Soot %       %       'ASTM D7844       >3       0.4       0.3         Nitration       Abs/m       'ASTM D7844       >3       0.4       0.3         Siltation       Abs/m       'ASTM D7624       >0       8.7       7.9         Sulfation       Abs/m       'ASTM D7624       >0       19.0       19.7         Silt       scalar       'Visual       NONE       NONE       NONE         Debris       scalar       'Visual       NONE       NONE       NONE         Appearance       scalar       'Visual       NORM       NORM       NORM         Odor       scalar       'Visual       NORM       NORM       NORM         Appearance       scalar       'Visual       NORM       NORM         MORM       calar       'Visual		
Potassium       ppm       ASTM D5185m       >20       1       0         Fuel       WC Method       >5       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0       <1.0		
Potassium       ppm       ASTM D5185m       >20       1       0         Fuel       WC Method       >5       <1.0		
There is no indication of any contamination in the oil.       Fuel       WC Method       >5       <1.0		
Water       W       WC Method       >0.2       NEG       NEG         Glycol       WC Method       >0.2       NEG       NEG         Soot %       %       *ASTM D7844       >3       0.4       0.3         Nitration       Abs/cm       *ASTM D7624       >20       8.7       7.9         Sulfation       Abs/cm       *ASTM D7615       >30       19.0       19.7         Silt       scalar       *Visual       NONE       NONE       NONE         Debris       scalar       *Visual       NONE       NONE       NONE         Sand/Dirt       scalar       *Visual       NOR       NORM       NORM         Appearance       scalar       *Visual       NOR       NORM       NORM         Odor       scalar       *Visual       NORM       NORM       NORM         Modor       scalar       *Visual       NORM       NORM       NORM         Odor       scalar       *Visual       NORM       NORM       NORM         Bublified Water       scalar       *Visual       >0.2       NEG       NEG         Sodium       ppm       ASTM D5185m       5       7		
Glycol       WC Method       NEG       NEG         Soot %       %       *ASTM D7844       >3       0.4       0.3         Nitration       Abs/cm       *ASTM D7844       >20       8.7       7.9         Sulfation       Abs/cm       *ASTM D7845       >30       19.0       19.7         Sulfation       Abs/cm       *Visual       NONE       NONE       NONE         Silt       scalar       *Visual       NONE       NONE       NONE         Debris       scalar       *Visual       NONE       NONE       NONE         Appearance       scalar       *Visual       NOR       NORM       NORM         Odor       scalar       *Visual       NOR       NORM       NORM         More       Scalar       *Visual       NOR       NORM       NORM         Imulsified Water       scalar       *Visual       NOR       NORM       NORM         Sodium       ppm       ASTM D5185m       5       7		
Soot %       %       *ASTM D7844       >3       0.4       0.3         Nitration       Abs/cm       *ASTM D7624       >20       8.7       7.9         Sulfation       Abs/.1mm       *ASTM D7624       >20       8.7       7.9         Sulfation       Abs/.1mm       *ASTM D7415       >30       19.0       19.7         Silt       scalar       *Visual       NONE       NONE       NONE         Debris       scalar       *Visual       NONE       NONE       NONE         Sand/Dirt       scalar       *Visual       NONE       NONE       NONE         Appearance       scalar       *Visual       NOR       NORML       NORM         Odor       scalar       *Visual       NOR       NORML       NORM         Odor       scalar       *Visual       NOR       NORML       NORM         Emulsified Water       scalar       *Visual       NOR       NORM       NORM         Sodium       ppm       ASTM D5185m       5       7		
Nitration       Abs/cm       *ASTM D7624       >20       8.7       7.9         Sulfation       Abs/1mm       *ASTM D7415       >30       19.0       19.7         Silt       scalar       *Visual       NONE       NONE       NONE         Debris       scalar       *Visual       NOE       NONE       NONE         Sand/Dirt       scalar       *Visual       NOE       NONE       NONE         Appearance       scalar       *Visual       NOR       NORM       NORM         Odor       scalar       *Visual       NOR       NORM       NORM         Emulsified Water       scalar       *Visual       >0.2       NEG       NEG		
Sulfation       Abs/.1mm       *ASTM D7415       >-30       19.0       19.7         Silt       scalar       *Visual       NONE       NONE       NONE         Debris       scalar       *Visual       NONE       NONE       NONE         Sand/Dirt       scalar       *Visual       NONE       NONE       NONE         Appearance       scalar       *Visual       NOR       NORML       NORM         Odor       scalar       *Visual       NOR       NORML       NORML         Emulsified Water       scalar       *Visual       >0.2       NEG       NEG		
Silt       scalar       *Visual       NONE       NONE       NONE         Debris       scalar       *Visual       NONE       NONE       NONE         Sand/Dirt       scalar       *Visual       NONE       NONE       NONE         Appearance       scalar       *Visual       NOR       NORML       NORML         Odor       scalar       *Visual       NORML       NORML       NORML         Emulsified Water       scalar       *Visual       >0.2       NEG       NEG		
Sand/Dirt       scalar       *Visual       NONE       NONE       NONE         Appearance       scalar       *Visual       NORM       NORML       NORML       NORML         Odor       scalar       *Visual       NORM       NORML       NORML       NORML         Emulsified Water       scalar       *Visual       >0.2       NEG       NEG         FLUID CONDITION       Sodium       ppm       ASTM D5185m       5       7		
Sand/Dirt       scalar       *Visual       NONE       NONE       NONE         Appearance       scalar       *Visual       NORML       NORML       NORML       NORML         Odor       scalar       *Visual       NORML       NORML       NORML       NORML         Emulsified Water       scalar       *Visual       >0.2       NEG       NEG         FLUID CONDITION       Sodium       ppm       ASTM D5185m       5       7		
Appearance       scalar       *Visual       NORML       NORML       NORML       NORML         Odor       scalar       *Visual       NORML		
Emulsified Water     scalar     *Visual     >0.2     NEG       FLUID CONDITION     Sodium     ppm     ASTM D5185m     5     7		
FLUID CONDITION Sodium ppm ASTM D5185m 5 7		
Boron ppm ASTM D5185m 0 2 2		
The BN result indicates that there is suitable alkalinity remaining in the Barium ppm ASTM D5185m 0 0 0		
oil. The condition of the oil is suitable for further service. Molybdenum ppm ASTM D5185m 60 57 58		
MonybecentinipprintAntimizeriosimcolcitcolManganesepprintASTM D5185m0<1		
Magnesium         ppm         ASTM D5185m         1010         971         911		
Calcium         ppm         ASTM D5185m         1070         1010         1015		
Phosphorus         ppm         ASTM D5185m         1150         1061         974		
Zinc ppm ASTM D5185m 1270 <b>1257</b> 1142		
Sulfur         ppm         ASTM D5185m         2060         3011         2857		
Oxidation         Abs/.1mm         *ASTM D7414         >25         16.3         16.7		
Base Number (BN)         mg KOH/g         ASTM D2896         9.8         7.8         7.7		

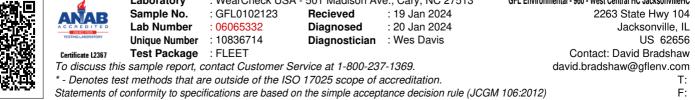
Visc @ 100°C cSt

14.1

14.5

ASTM D445 15.4





Submitted By: See also GFL960B, 960C, 960D - David Bradshaw