

Machine Id **70237** Component **Hydraulic System** Fluid **DURALENE Dura-Trans TO-4 10 (--- GAL)**

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

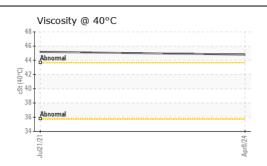
There is no indication of any contamination in the oil.

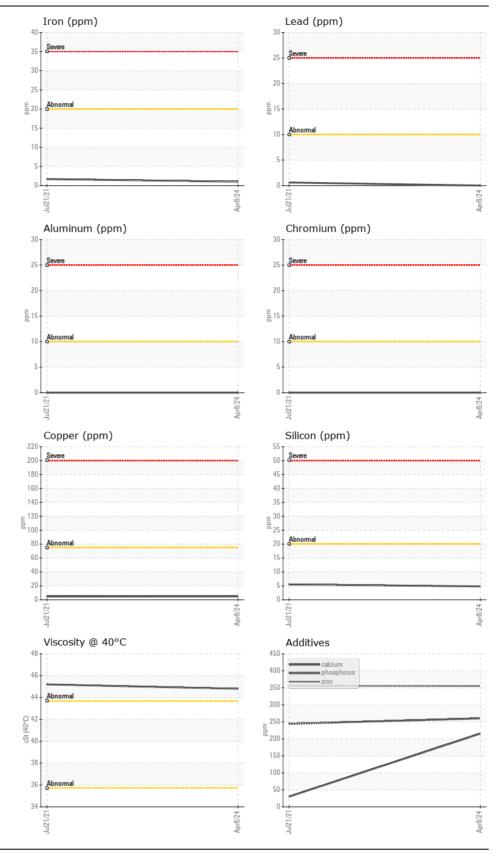
FLUID CONDITION

The condition of the oil is acceptable for the time in service.

| TestUOMMethodLimit/MCurrentHistory1History2Sample NumberClient InfoDC0036028DC0012572Sample DateClient InfoIds Apr 202421 Jul 2021Machine AgehrsClient InfoIds Apr 202421 Jul 2021Oil AgehrsClient InfoIds Apr 2024493Filter AgehrsClient InfoIdChangedMot ChangedFilter ChangedIdClient InfoIdChangedNot ChangedSample StatusClient InfoIdChangedNot ChangedSample StatusViriantSitu StatusSitu StatusNot ChangedIronppmASTM D518sS1000NickelppmASTM D518sS1000SilverppmASTM D518sS1000GapareppmASTM D518sS1000AuminumppmASTM D518sS1000SilverppmASTM D518sS1000CopperppmASTM D518sS1000SilverppmASTM D518sS1000SilverppmASTM D518sS20IsS10Silver | | | | | | | |
|--|------------------|--------|-------------|---|-------------|-------------|----------|
| Sample DateClient InfoIos Apr 202421 Jul 2021Machine AgehrsClient Info998493Oil AgehrsClient Info500493Filter AgehrsClient InfoChangedNot ChangedOil ChangedClient InfoMot ChangedNot ChangedFilter ChangedInfoClient InfoNot ChangedNot ChangedSample StatusClient InfoNor MALIronppmASTM05185>20012NickelppmASTM05185>100NickelppmASTM05185>100NickelppmASTM05185>100AluminumppmASTM05185>100AluminumppmASTM05185>100AganduppmASTM05185>100AnadiumppmASTM05185>100VanadiumppmASTM05185>100VanadiumppmASTM05185>100Vallow Metalscalar*IsualNORENORESiliconppmASTM05185>20IsualNOREVallow Metalscalar*IsualNORENORESiliconppmASTM05185>20IsualNORESiliconppmASTM05185>20 </th <th>Test</th> <th>UOM</th> <th>Method</th> <th>Limit/Abn</th> <th>Current</th> <th>History1</th> <th>History2</th> | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
| Machine Age Machine Age Mission and the strain of the strain o | Sample Number | | Client Info | | DC0036028 | DC0012572 | |
| Oil Age Filter Age HrsClient Info500493Filter Age Oil ChangedClient InfoChangedNot ChangdFilter ChangedIClient InfoChangedN/ASample StatusClient InfoNORMALNORMALNORMALSample StatusSTM D5185>2012IronppmASTM D5185>1000NickelppmASTM D5185>1000NickelppmASTM D51851000SilverppmASTM D5185500<1AluminumppmASTM D5185500<1AluminumppmASTM D51855555YanadiumppmASTM D5185>1000VanadiumppmASTM D5185>2000Yallow Metalscalar*VisualNONENONENONEYallow Metalscalar*VisualNONENONESiliconppmASTM D5185>2000Yallow Metalscalar*VisualNONENONENONESiliconppmASTM D5185>2000SiliconppmASTM D5185>2000Solidurscalar*VisualNONENONENONE | Sample Date | | Client Info | | 08 Apr 2024 | 21 Jul 2021 | |
| Filter Age Oil ChangedInsClient InfoInsChanged493Gil ChangedClient InfoChangedNot ChangedNot ChangedFilter ChangedIClient InfoChangedN/ASample StatusVNORMALNORMALNORMALIronppmASTM D5185>2012NickelppmASTM D5185>1000NickelppmASTM D5185>1000SilverppmASTM D5185500<1AluminumppmASTM D51855100<1AluminumppmASTM D5185>100<1AluminumppmASTM D5185>100<1YanadiumppmASTM D5185>100<1YanadiumppmASTM D5185>100<1Yellow Metalscalar*VisualNONENONENONEYellow Metalscalar*VisualNONENONENONESiliconppmASTM D5185>2000Yellow Metalscalar*VisualNONENONENONESiliconppmASTM D5185>2000SiliconppmASTM D5185NONENONENONESiliconppmASTM D518 | Machine Age | hrs | Client Info | | 998 | 493 | |
| OIClient InfoChangedNot ChangedFilter ChangedClient InfoChangedN/ASample StatusVIIIClient InfoNORIMALNORMALIronppmASTM D5185>2012ChromiumppmASTM D5185>1000NickelppmASTM D5185>1000TitaniumppmASTM D51851000AluminumppmASTM D5185>1000LeadppmASTM D5185>1000CopperppmASTM D5185>1000VanadiumppmASTM D5185>1000VanadiumppmASTM D5185>1000VanadiumppmASTM D5185>1000VanadiumppmASTM D5185>20D56VanadiumppmASTM D5185>20D56Vallow Metalscalar'VisualNONENONENONESiliconppmASTM D5185>20D56SiliconppmASTM D5185>20NONENONESiliconppmASTM D5185>0NONENONESodu/Toitscalar'VisualNONENONENONE <th>Oil Age</th> <th>hrs</th> <th>Client Info</th> <th></th> <th>500</th> <th>493</th> <th></th> | Oil Age | hrs | Client Info | | 500 | 493 | |
| Filter Changed Sample StatusClient InfoChanged N/AN/ASample StatusClient InfoNORMALNORMALNORMALIronppmASTM D5185m>2012ChromiumppmASTM D5185m>1000NickelppmASTM D5185m>1000NickelppmASTM D5185m>1000SilverppmASTM D5185m>100<1AluminumppmASTM D5185m>100<1LeadppmASTM D5185m>1000CopperppmASTM D5185m>1000VanadiumppmASTM D5185m>1000VanadiumppmASTM D5185m>2055Yellow Metalscalar'VisualNONENONENONESiliconppmASTM D5185m>2000VaterWC Method>0So0SiliconppmASTM D5185m>2000SiliconppmASTM D5185m>2000SoliconppmASTM D5185m>2000SoliconppmASTM D5185m>2000SoliconppmASTM D5185m>1 <td< th=""><th>Filter Age</th><th>hrs</th><th>Client Info</th><th></th><th>0</th><th>493</th><th></th></td<> | Filter Age | hrs | Client Info | | 0 | 493 | |
| Sample StatusNORMALNORMALNORMALIronppmASTM D5185m>2012ChromiumppmASTM D5185m>1000NickelppmASTM D5185m>1000TitaniumppmASTM D5185m00SilverppmASTM D5185m>100AluminumppmASTM D5185m>100LeadppmASTM D5185m>100CopperppmASTM D5185m>1000VanadiumppmASTM D5185m>1000VanadiumppmASTM D5185m>1000VanadiumppmASTM D5185m>1000VanadiumppmASTM D5185m>1000VanadiumppmASTM D5185m>2056Yellow Metalscalar"VisualNONENONENONESiliconppmASTM D5185m>2000SiliconppmASTM D5185m>2056SiliconppmASTM D5185m>2000Satidscalar"VisualNONENONENONESatidscalar"VisualNONENONENONE< | Oil Changed | | Client Info | | Changed | Not Changd | |
| IronppmASTM D5185m>2012ChromiumppmASTM D5185m>1000.0NickelppmASTM D5185m>1000.0TitaniumppmASTM D5185m000.0SilverppmASTM D5185m>1000.00.0AluminumppmASTM D5185m>1000.00.0LeadppmASTM D5185m>1000.00.0CopperppmASTM D5185m>1000.00.0VanadiumppmASTM D5185m>1000.00.0VanadiumppmASTM D5185m>100.00.0VanadiumppmASTM D5185m>100.00.0VanadiumppmASTM D5185m>100.00.0VanadiumppmASTM D5185m>2056.6Yellow Metalscalar"VisualNONENONENONESiliconppmASTM D5185m>2000Yellow Metalscalar"VisualNONENONENONESiliconppmASTM D5185m>2000SatarvisualNONENONENONENONESatarvisualNONENONENONENONE | Filter Changed | | Client Info | | Changed | N/A | |
| IntermppmASTM D5185m>1000NickelppmASTM D5185m>1000NickelppmASTM D5185m>1000SilverppmASTM D5185mI00AluminumppmASTM D5185m>1000LeadppmASTM D5185m>100<1CopperppmASTM D5185m>1000VanadiumppmASTM D5185m>1000VanadiumppmASTM D5185m>1000VanadiumppmASTM D5185m>1000VanadiumppmASTM D5185m>2000Yellow Metalscalar*VisualNONENONENONESiliconppmASTM D5185m>2000Silitscalar*VisualNONENONENONESilitscalar*VisualNONENONENONESand/Dirtscalar*VisualNORHNORHNORHAppearancescalar*VisualNORHNORHLNORHSodiumppmASTM D5185m<0<SodiumppmASTM D5185m<0<SodiumppmASTM D5185m0<- | Sample Status | | | | NORMAL | NORMAL | |
| IntermppmASTM D5185m>1000NickelppmASTM D5185m>1000NickelppmASTM D5185m>1000SilverppmASTM D5185mI00AluminumppmASTM D5185m>1000LeadppmASTM D5185m>100<1CopperppmASTM D5185m>1000VanadiumppmASTM D5185m>1000VanadiumppmASTM D5185m>1000VanadiumppmASTM D5185m>1000VanadiumppmASTM D5185m>2000Yellow Metalscalar*VisualNONENONENONESiliconppmASTM D5185m>2000Silitscalar*VisualNONENONENONESilitscalar*VisualNONENONENONESand/Dirtscalar*VisualNORHNORHNORHAppearancescalar*VisualNORHNORHLNORHSodiumppmASTM D5185m<0<SodiumppmASTM D5185m<0<SodiumppmASTM D5185m0<- | Iron | nnm | ASTM D5185m | <20 </th <th>1</th> <th>2</th> <th></th> | 1 | 2 | |
| NickelppmASTM D5185m>1000TitaniumppmASTM D5185mI00SilverppmASTM D5185m>100<1AluminumppmASTM D5185m>100<1LeadppmASTM D5185m>100<1CopperppmASTM D5185m>100<1VanadiumppmASTM D5185m>1000VanadiumppmASTM D5185m>1000VanadiumppmASTM D5185m>1000VanadiumppmASTM D5185m>1000VanadiumppmASTM D5185m>2000Vallow Metalscalar*VisualNONENONENONESiliconppmASTM D5185m>2000VaterWC Method>0.1NEGNONESilitscalar*VisualNONENONENONESand/Dirtscalar*VisualNORNORENONEAppearancescalar*VisualNORMNORMLNORMLGodorscalar*VisualNORMNORMLNORMLBoronppmASTM D5185m<1<1<BoronppmASTM D5185m<0 <th>-</th> <th></th> <th></th> <th></th> <th>-</th> <th>_</th> <th></th> | - | | | | - | _ | |
| Titanium ppm ASTM D5185m 0 0 0 Silver ppm ASTM D5185m 0 <1 Aluminum ppm ASTM D5185m >10 0 0 Lead ppm ASTM D5185m >10 0 <1 Copper ppm ASTM D5185m >10 0 <1 Vanadium ppm ASTM D5185m >10 0 0 Vanadium ppm ASTM D5185m >10 0 0 Vanadium ppm ASTM D5185m >10 0 0 Vanadium ppm ASTM D5185m >20 0 0 Vellow Metal scalar *Visual NONE NONE NONE Silicon ppm ASTM D5185m >20 0 0 Silicon ppm ASTM D5185m >20 0 | | | | | - | | |
| SilverppmASTM D5185mIO<1 | | | | >10 | - | - | |
| AluminumppmASTM D5185m>1000LeadppmASTM D5185m>100<1CopperppmASTM D5185m>7555TinppmASTM D5185m>1000VanadiumppmASTM D5185m>1000White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONESiliconppmASTM D5185m>2056PotassiumppmASTM D5185m>2000WaterWC Method>0.1NEGNEGSilitscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLAppearancescalar*VisualNORMLNORMLNORMLSodiumppmASTM D5185m>00SodiumppmASTM D5185m<00MolybdenumppmASTM D5185m<00ManganeseppmASTM D5185m<0<1ManganesimppmASTM D5185m<0<1ManganesimppmASTM D5185m<0<1 | | | | | | - | |
| LeadppmASTM D5185m>100<1 | | | | ×10 | - | | |
| CopperppmASTM D5185m>75555TinppmASTM D5185m>1000VanadiumppmASTM D5185m>1000White Metalscalar*VisualNONENONENONEYellow Metalscalar*VisualNONENONENONESiliconppmASTM D5185m>2056PotassiumppmASTM D5185m>2056SiliconppmASTM D5185m>2000WaterWC Method>0.1NEGNEGSilitscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMNORMLNORMLSodiumppmASTM D5185m-00SodiumppmASTM D5185mISodiumppmASTM D5185mIBariumppmASTM D5185m00ManganeseppmASTM D5185mI0MagnesiumppmASTM D5185mI0ManganeseppmASTM D5185mI0ManganeseppmASTM D5185mI0< | | | | | - | - | |
| TinppmASTM D5185m>1000VanadiumppmASTM D5185m00White Metalscalar*VisualNONENONENONEYellow Metalscalar*VisualNONENONENONESiliconppmASTM D5185m>2056PotassiumppmASTM D5185m>2000WaterWC Method>0.1NEGNEGSilitscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMNORMLNONEOdorscalar*VisualNORMNORMLNORMLSodiumppmASTM D5185m>0.1NEGNEGSodiumppmASTM D5185mSola1<1BoronppmASTM D5185mI00ManganeseppmASTM D5185mI00MagnesiumppmASTM D5185mI0<1MagnesiumppmASTM D5185mI0<1MagnesiumppmASTM D5185mI0<1MagnesiumppmASTM D5185mI0<1MagnesiumppmASTM D5185mI <th></th> <th></th> <th></th> <th></th> <th>-</th> <th></th> <th></th> | | | | | - | | |
| VanadiumppmASTM D5185moooWhite Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONEYellow Metalscalar*VisualNONENONENONESiliconppmASTM D5185m>2056PotassiumppmASTM D5185m>2000WaterWC Method>0.1NEGNEGSilitscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNORHNORHNORHAppearancescalar*VisualNORHNORMLNORMLGodorscalar*VisualNORHNORMLNORMLSodiumppmASTM D5185m1<1BoronppmASTM D5185m00MalganeseppmASTM D5185m0<1MagnesiumppmASTM D5185m0<1MagnesiumppmASTM D5185m<230 | | | | | - | | |
| White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONESiliconppmASTM D5185m>2056PotassiumppmASTM D5185m>2000WaterWC Method>0.1NEGNEGSiliscalar*VisualNONENONENONESiltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNORENORENOREAppearancescalar*VisualNORMNORMLNORMLOdorscalar*VisualNORMNORMLNORMLSodiumppmASTM D5185m1<1BoronppmASTM D5185m00MalganeseppmASTM D5185m0<1MagnesiumppmASTM D5185m0<1MagnesiumppmASTM D5185m<0<1MagnesiumppmASTM D5185m<0<1MagnesiumppmASTM D5185m<0<1MagnesiumppmASTM D5185m<0<1MagnesiumppmASTM D5185m<0<1Magnesium | | | | >10 | - | - | |
| Yellow Metalscalar*VisualNONENONENONESiliconppmASTM D5185m>2056PotassiumppmASTM D5185m>2000WaterWC Method>0.1NEGNEGSilitscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLSodiumppmASTM D5185m1<BoronppmASTM D5185mIno0MolybdenumppmASTM D5185m00MagnesiumppmASTM D5185mIno30MagnesiumppmASTM D5185mInoMagnesiumppmASTM D5185mInoMagnesiumppmASTM D5185mInoMagnesiumppmASTM D5185mInoMagnesiumppmASTM D5185mInoMagnesiumppmASTM D5185mInoIno </th <th></th> <th></th> <th></th> <th></th> <th>-</th> <th></th> <th></th> | | | | | - | | |
| SiliconppmASTM D5185m>2056PotassiumppmASTM D5185m>2000WaterWC Method>0.1NEGNEGSiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMNORMLNORMLOdorscalar*VisualNORMNORMLNORMLSodiumppmASTM D5185m>0.1NEGNEGBariumppmASTM D5185mInMolybdenumppmASTM D5185mIn0MagnesiumppmASTM D5185mInMagnesiumppmASTM D5185mInMagnesiumppmASTM D5185mInMagnesiumppmASTM D5185mInMagnesiumppmASTM D5185mInMagnesiumppmASTM D5185mInMagnesiumppmASTM D5185mInMagnesiumppmASTM D5185mInMagnesiumppmASTM D5185mInMagnesiumppmAST | | | | | | | |
| PotassiumppmASTM D5185m>2000WaterWC Method>0.1NEGNEGSiltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLFmulsified Waterscalar*Visual>0.1NEGNEGSodiumppmASTM D5185mIn<1<1BariumppmASTM D5185mIn00MalganeseppmASTM D5185mIn0<1MagnesiumppmASTM D5185mIn30MagnesiumppmASTM D5185mIn30 | | Scalal | visuai | | | | |
| WaterWC Method>0.1NEGNEGSiltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGSodiumppmASTM D5185m1<1<1BariumppmASTM D5185m00<1MolybdenumppmASTM D5185m0<1<1MagnesiumppmASTM D5185m0<1<1MagnesiumppmASTM D5185m30<1<1 | Silicon | ppm | ASTM D5185m | >20 | 5 | 6 | |
| Siltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLSodiumppmASTM D5185m1<BoronppmASTM D5185m00BariumppmASTM D5185m00MalganeseppmASTM D5185m0<MagnesiumppmASTM D5185m0<CalciumppmASTM D5185m0<MagnesiumppmASTM D5185m30 | Potassium | ppm | ASTM D5185m | >20 | 0 | 0 | |
| Debrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNORNORMENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGSodiumppmASTM D5185m01<1BoronppmASTM D5185m00<BariumppmASTM D5185m00MalganeseppmASTM D5185m0<11MagnesiumppmASTM D5185m0<11MagnesiumppmASTM D5185m230 | Water | | WC Method | >0.1 | NEG | NEG | |
| Sand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGSodiumppmASTM D5185m1<1BoronppmASTM D5185m0<1BariumppmASTM D5185m00MolybdenumppmASTM D5185m0<1MagnesiumppmASTM D5185m0<1CalciumppmASTM D5185m21530 | Silt | scalar | *Visual | NONE | NONE | NONE | |
| Appearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGSodiumppmASTM D5185m1<1<1BoronppmASTM D5185m00<1BariumppmASTM D5185m00<1MolybdenumppmASTM D5185m00<ManganeseppmASTM D5185m0<1MagnesiumppmASTM D5185m21530 | Debris | scalar | *Visual | NONE | NONE | NONE | |
| Odorscalar*VisualNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGSodiumppmASTM D5185m1<1BoronppmASTM D5185m0<1BariumppmASTM D5185m00MolybdenumppmASTM D5185m00ManganeseppmASTM D5185m0<1MagnesiumppmASTM D5185m<10<CalciumppmASTM D5185m<21530 | Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | |
| Emulsified Waterscalar*Visual>0.1NEGNEGSodiumppmASTM D5185m1<1BoronppmASTM D5185m0<1BariumppmASTM D5185m00<1MolybdenumppmASTM D5185m00ManganeseppmASTM D5185m0<1MagnesiumppmASTM D5185m<10<1CalciumppmASTM D5185m<21530 | Appearance | scalar | *Visual | NORML | NORML | NORML | |
| Sodium ppm ASTM D5185m 1 <1 | Odor | scalar | *Visual | NORML | NORML | NORML | |
| Boron ppm ASTM D5185m 0 <1 | Emulsified Water | scalar | *Visual | >0.1 | NEG | NEG | |
| Boron ppm ASTM D5185m 0 <1 | Sodium | ppm | ASTM D5185m | | 1 | <1 | |
| Barium ppm ASTM D5185m 0 0 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 0 <1 | | | | | | | |
| Molybdenum ppm ASTM D5185m 0 Manganese ppm ASTM D5185m 0 <1 | Barium | | | | 0 | | |
| Manganese ppm ASTM D5185m 0 <1 | Molybdenum | | ASTM D5185m | | 0 | 0 | |
| Magnesium ppm ASTM D5185m <1 | , | | | | 0 | <1 | |
| Calcium ppm ASTM D5185m 215 30 | | | ASTM D5185m | | <1 | 0 | |
| | - | | ASTM D5185m | | 215 | 30 | |
| | Phosphorus | ppm | ASTM D5185m | | 260 | 244 | |
| Zinc ppm ASTM D5185m 355 356 | | | ASTM D5185m | | 355 | 356 | |
| Sulfur ppm ASTM D5185m 1373 821 | Sulfur | ppm | ASTM D5185m | | 1373 | 821 | |
| Visc @ 40°C cSt ASTM D445 44.8 45.2 | Visc @ 40°C | | | | 44.8 | 45.2 | |

Contact/Location: JAMIE FORESTER - FRAROCDC







FRANCIS O DAY Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : DC0036028 Received 14900 SOUTHLAWN LN : 23 Apr 2024 Lab Number : 06158624 ROCKVILLE, MD Tested : 24 Apr 2024 Unique Number : 10994047 : 25 Apr 2024 - Jonathan Hester US 20850 Diagnosed Test Package : MOB 1 Contact: JAMIE FORESTER Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. * - 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)

Contact/Location: JAMIE FORESTER - FRAROCDC Page 2 of 2

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