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Sandvik Materials Technology

Product Area Tube P.O. Box 1220 Scranton PA USA 18501

201035359

www.smt.sandvik.com/nafta Page 1 570-585-7500 Plant Location: 982 Griffin Pond Road, Clarks Summit, PA 18411 Sold To: 632580 Ship To: SANDVIK DE MEXICO GAISA FORWARDING INC TLALNEPANTLA, EDO MEXICO LAREDO TX Customer Order No: 450960 Certification Date: 20101013 Sandvik Order No: 21680/1 Work Order/Lot: 527588 ASTM A312-09a, ASME SA-312, ASTM A376-06, ASME SA-376, ASME Section II 2010 Edition, NACE MR0175 / ISO 15156, First edition 2003-12-15 (Austenitic) Hot Finished PROCESS ANNEALED AND PICKLED Seamless Pipe Type TP316/TP316L (UNS S31600/S31603) Size: 2" SCH 40 Heat: 525852 Material Manufacturer: Pennsylvania Extruded Tube Co. USA ANALYSIS % Ni С Sí Mn \mathtt{Cr} .009 .39 1.63 .029 .007 16.95 11.20 Heat Prod .010 .39 1.65 .030 .007 16.96 11.27 Fe Mo CuΑl Pb Heat 2.02 .30 .003 .31 .004 Prod 2.03 Mechanical Tests: Yield Strength Tensile Elongation Reduction 1.0% Of Area Strength in % psí MPa E2" psí MPa MPa E10" E4d E5d psí 46500 320.7 N/A86800 598.6 N/A N/A N/A 46 N/A 79HRB, 82HRB Hardness Test Results: Hydrostatic Test (psi): 2000 Flattening Test per ASTM A999: Acceptable Tensile Test sample width (1=Full-Size 2=1/2" Strip): 2

This Material complies with DFARS 252.225-7014 & Alternate 1 Corrosion Test per ASTM A262 Pr.E: Acceptable Country Of Origin: United States This Material complies with FAR BAA (FAR 52.225-1) This Material complies with DFARS BAA (DFARS 252.225-7001) and FAR TAA(FAR 52.225-5) All material subjected to a final solution annealing heat treatment with material at a temperature of 1900 deg. F minimum followed by rapid quenching. The material has not come in contact with Mercury or Mercury containing compounds. No welding has been performed on this material. Material has been manufactured/supplied in accordance with Sandvik Materials Technology Quality Manual-Standard Products Revision 11 dated Nov 09, 2009. Quality system has been approved to ISO 9001:2008. Certificate produced in accordance with EN 10204 3.1 (formerly EN 10204 3.1.B)

Melt Source: AB SANDVIK MT, SWEDEN

Melt Method: Electric Arc Furnace-AOD Refining

This is to certify that the contents of this certificate

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are correct and accurate as contained in Sandvik's records, and that all above test results and operations performed are in compliance with the requirements of the purchase order and the specification(s) listed above.

Electronically Generated Certificate-Valid without signature Audrey Kakareka, Quality Engr. 10 (STKA312/376 R31) (32) (US36541)