

# CERTIFIED MILL TEST REPORT

LOG NO. F0000000054445

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**BONNEY FORGE CORPORATION**

P.O. BOX 330 • 14496 CROGHAN PIKE • MOUNT UNION, PA 17066-0330

(814) 542-2545 • (800) 345-7546 • FAX (814) 542-4906

www.bonneyforge.com

CUSTOMER: WFI INTERNATIONAL, INC.

DATE 02/21/2014

CUSTOMER

BONNEY ORDER NO. B000161312

ORDER NO.: BW00069675

SHIP TO: WFI INTERNATIONAL, INC.  
4407 HAYGOOD  
HOUSTON TX 77022  
United States

ITEM	QUANTITY	LOT NO.	GRADE OR SPECIFICATION NO.	CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS:
1	50	59313	11/2 3000 A105 TEE T	SA/A105 Al 0.024 C 0.210 Co 0.005 Cr 0.050 Cu 0.070 Mn 0.980 Mo 0.006 N 0.003 Nb 0.010 Ni 0.030 P 0.005 S 0.018 Si 0.170 V 0.003 CE(Long Formula) = 0.39 T/S(PSI) 79,422 Y/S(PSI) 52,178 EL(%) 33.50 RA(%) 61.47 Brinell 141 BHN 141 BHN
2	10	59319	2 X2 X 1/2 3000 A105 TEE T	SA/A105 Al 0.023 C 0.200 Co 0.004 Cr 0.040 Cu 0.070 Mn 1.020 Mo 0.005 N 0.003 Nb 0.014 Ni 0.020 P 0.006 S 0.019 Si 0.200 V 0.003 CE(Long Formula) = 0.39 T/S(PSI) 77,335 Y/S(PSI) 52,250 EL(%) 32.15 RA(%) 62.45 Brinell 139 BHN 139 BHN
3		M1AI	11/2 3000 A105 UNAR T	SA/A105 Al 0.031 C 0.200 Co 0.000 Cr 0.140 Cu 0.160 Mn 1.010 Mo 0.030 Nb 0.002 Ni 0.080 P 0.013 S 0.020 Si 0.230 V 0.003 CE(Long Formula) = 0.42 T/S(PSI) 77,200 Y/S(PSI) 43,800 EL(%) 31.50 RA(%) 58.50 Brinell 156 BHN 156 BHN
		6402	11/2 3000 A105 UNAR T	SA/A105 Al 0.022 C 0.210 Co 0.003 Cr 0.030 Cu 0.070 Mn 1.050 Mo 0.004 N 0.003 Nb 0.012 Ni 0.020 P 0.006 S 0.020 Si 0.190 V 0.003 CE(Long Formula) = 0.40 T/S(PSI) 78,700 Y/S(PSI) 47,600 EL(%) 26.00 RA(%) 43.80 Brinell 170 BHN 170 BHN

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory checks.

by Kylee Ruiz  
Kylee Ruiz  
QUALITY PROCESS MANAGER

CMTR: REV2

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ITEM	QUANTITY	LOT NO.	GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS:
3	50	6419	11/2 3000 A105 UNAR T SA/A105 Al 0.027 C 0.210 Co 0.003 Cr 0.020 Cu 0.080 Mn 1.050 Mo 0.006 N 0.004 Nb 0.012 Ni 0.030 P 0.006 S 0.019 Si 0.200 V 0.003 CE(Long Formula) = 0.40 T/S(PSI) 78,200 Y/S(PSI) 47,300 EL(%) 23.50 RA(%) 32.40 Brinell 158 BHN 159 BHN
4		6208	11/4 3000 A105 UNAR T SA/A105 FEMALE Al 0.025 C 0.208 Co 0.003 Cr 0.060 Cu 0.070 Mn 1.000 Mo 0.007 N 0.004 Nb 0.015 Ni 0.030 P 0.005 S 0.017 Si 0.200 V 0.003 CE(Long Formula) = 0.40 T/S(PSI) 78,400 Y/S(PSI) 47,400 EL(%) 27.50 RA(%) 46.80 Brinell 156 BHN 156 BHN
		5089	11/4 3000 A105 UNAR T SA/A105 NUT-EK Al 0.023 C 0.185 Cb 0.000 Co 0.000 Cr 0.140 Cu 0.120 Mn 0.990 Mo 0.030 N 0.007 Nb 0.001 Ni 0.100 P 0.012 S 0.024 Si 0.240 V 0.003 CE(Long Formula) = 0.40 T/S(PSI) 74,984 Y/S(PSI) 51,343 EL(%) 32.00 RA(%) 53.00 Brinell 172 BHN 172 BHN
4	20	4839	11/4 3000 A105 UNAR T SA/A105 MALE Al 0.020 C 0.210 Co 0.003 Cr 0.040 Cu 0.130 Mn 1.000 Mo 0.010 N 0.008 Nb 0.015 Ni 0.030 P 0.006 S 0.024 Si 0.190 V 0.004 CE(Long Formula) = 0.40 T/S(PSI) 76,500 Y/S(PSI) 44,400 EL(%) 25.00 RA(%) 40.10 Brinell 153 BHN 152 BHN

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ITEM	QUANTITY	LOT NO.	GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS:
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1. THE MATERIAL SUPPLIED IS FREE FROM MERCURY AND RADIUM CONTAMINATION.
2. THE FITTINGS SUPPLIED ARE IN ACCORDANCE WITH PURCHASE ORDER SPECIFICATIONS.
3. THE MATERIAL SUPPLIED MEETS THE REQUIREMENTS OF NACE MRO175/ISO 15156-2.
4. CERTIFYING ASTM A105-10 / ASME SA105-10 EDITION.
5. THE FITTINGS SUPPLIED WERE NOT SUBJECTED TO ANY FORM OF WELD REPAIR.
6. THE PRODUCT SUPPLIED WAS INSPECTED IN ACCORDANCE WITH EN 10204:2004 EDITION TYPE 3.1 INSPECTION DOCUMENT. (EUROPEAN STANDARD)
7. ELONGATION TEST RESULTS ARE OBTAINED USING STANDARD ROUND SPECIMEN, 2 INCH OR 50 MM GAGE LENGTH.
8. THE MATERIAL SUPPLIED IS IN THE AS-ROLLED CONDITION.
9. THE MATERIAL SUPPLIED IS IN THE AS-FORGED CONDITION.

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