

# ANALYSIS CERTIFICATE

Date: October 05 2015

Certificate No.: GW-201510

Certificate Order:GW-036

Customer		Empresas Carbone International S.A.			Contract No. (Invoice No.)		GW-036		Specification		ASTM A554		
Product		Welded Stainless Steel Round Tubes			Grade		AISI 304		State		WELDED		
No.		Size(mm)	Quantity (pcs)	Finish	Length (mm)	Chemical Composition(%)							
						Item	C	Si	Mn	P	S	Ni	Cr
						Standard	≤0.08	≤1.00	≤2.00	≤0.035	≤0.030	8.00-10.00	17-19
1		11.8*0.9	800	180#	6000	No.							
2		19*1.5	170	180#	6000	1--20	0.04718	0.35787	0.7661	0.0256	0.01980	8.097	17.8920
3		25.4*1.5	500	180#	6000	Mechanical Test							
4		31.8*1.5	200	180#	6000	Item	Elongation(%)	T.S(Rm) N/m m <sup>3</sup>	Y.S(Rp)0.2%N/m m <sup>3</sup>	Hardness(HV)	Stave Test		
5		38.1*1.5	500	180#	6000	Standard	≥35	≥520	≥205	≤200	Eligible		
6		50.8*1.5	250	180#	6000	No.							
7		63.5*1.5	10	180#	6000	1	43	630	380	154	Eligible		
8		76.2*1.5	5	180#	6000	2	47	630	370	155	Eligible		
9		25.4*2.0	50	180#	6000	3	43	640	380	155	Eligible		
10		44.45*1.5	50	180#	6000	4	42	650	370	154	Eligible		
11		42.4*1.5	500	180#	6000	5	43	640	380	155	Eligible		
12		42.4*2.0	40	180#	6000	6	42	650	360	154	Eligible		
13		11.8*0.9	150	600#	6000	7	44	640	370	156	Eligible		
14		19*1.5	160	600#	6000	8	42	640	360	153	Eligible		
15		25.4*1.5	300	600#	6000	9	42	630	370	154	Eligible		
16		31.8*1.5	30	600#	6000	10	43	640	370	153	Eligible		
17		38.1*1.5	200	600#	6000	11	44	630	380	154	Eligible		
18		50.8*1.5	160	600#	6000	12	47	630	370	150	Eligible		
19		63.5*1.5	35	600#	6000	13	47	640	370	155	Eligible		
20		76.2*1.5	15	600#	6000	14	42	640	370	154	Eligible		
						15	43	650	380	155	Eligible		
						16	42	630	360	156	Eligible		
						17	44	650	380	154	Eligible		
						18	43	630	360	153	Eligible		
						19	44	630	380	153	Eligible		
						20	42	650	370	154	Eligible		

Stamp: