ACL 009803

DATE	10/29/11
INVOICE NO.	441658
BILL OF LADING	42548
CUSTOMER NO.	0829
CUSTOMER P.O.	4500081825

NUCOR-YAMATO STEEL CO.

P.O. BOX 1228 ● BLYTHEVILLE,AR 72316

CERTIFIED MILL TEST REPORT

100% MELTED AND MANUFACTURED IN U.S.A.
All shapes produced by Nucor-Yamato Steel are cast and rolled to a fully killed and fine grain practice.

SHIP TO
FORTACERO C/O GULF PORT MARINE
PORT OF BROWNSVILLE

BROWNSVILLE, TX

SPECIFICATIONS
ASTM A992/A992M-06a A572/A572M GR50-07
ASTM A709/A709M-09 GR50 (345)
ASTM A709/A709M-09 GR50S (345S)
ASTM A6/A6M-09

SOLD TO
FORTACERO S.A. DE CV
BLVD CARLOS SALINAS DE GORTARI
KM 8.8
APODACA, N.L. MEXICO 66600

ITEM #	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES: YIELD TO TENSILE RATIO	YIELD STRENGTH PSI / MPa	TENSILE STRENGTH PSI / MPa	ELONG % / %	CHARPY IMPACT TEMP °F / °C	IMPACT ENERGY FT-LBS / JOULES	C	Mn	P	S	Si	Cu	Ni	Cr	Mo / Sn	V / Pcm	Cb	CE / Cl
1	W24 -104.0	31	374084	.79	55000	70000	29			.08	.92	.022	.018	.26	.34	.11	.17	.03	.00	.016	.30
	40'			.81	57000	70000	27											.01	.17		
	W610 x155.0				379	483	29														
	12.192 M				393	483	27														
2	W24 -104.0	3	374085	.82	58000	71000	28			.07	.90	.021	.025	.23	.30	.11	.15	.03	.00	.015	.29
	40'			.80	57000	71000	26											.01	.15		
	W610 x155.0				400	490	28														
	12.192 M				393	490	26														
3	W24 -104.0	24	374087	.83	58000	70000	26			.07	.92	.021	.027	.23	.30	.12	.16	.03	.00	.019	.29
	40'			.81	57000	70000	27											.01	.15		
	W610 x155.0				400	483	26														
	12.192 M				393	483	27														
4	W24 -104.0	31	374089	.82	58000	71000	28			.07	.90	.020	.021	.23	.31	.12	.15	.04	.00	.019	.29
	40'			.77	55000	71000	27											.01	.15		
	W610 x155.0				400	490	28														
	12.192 M				379	490	27														
5	W24 -104.0	28	374091	.80	57000	71000	28			.07	.90	.020	.026	.24	.31	.12	.13	.03	.00	.016	.28
	40'			.82	58000	71000	26											.01	.15		
	W610 x155.0				393	490	28														
	12.192 M				400	490	26														
6	W24 -104.0	17	374093	.79	55000	70000	28			.07	.90	.018	.023	.22	.30	.11	.11	.03	.00	.015	.28
	40'			.81	56000	69000	26											.01	.15		
	W610 x155.0				379	483	28														
	12.192 M				386	476	26														
7	W24 -104.0	20	374095	.80	57000	71000	25			.07	.90	.019	.025	.23	.30	.11	.14	.03	.00	.015	.28
	40'			.83	59000	71000	27											.01	.15		
	W610 x155.0				393	490	25														
	12.192 M				407	490	27														
8	W24 -104.0	32	374097	.81	57000	70000	27			.07	.92	.017	.023	.23	.28	.12	.10	.04	.00	.016	.28
	40'			.80	56000	70000	27											.01	.15		
	W610 x155.0				393	483	27														
	12.192 M				386	483	27														
9	W24 -104.0	44	374099	.79	55000	70000	25			.07	.91	.016	.026	.21	.30	.12	.10	.04	.00	.015	.28
	40'			.80	56000	70000	26											.01	.15		
	W610 x155.0				379	483	25														
	12.192 M				386	483	26														

Pcm = C + Si/30 + Mn/20 + Cu/20 + Ni/60 + Cr/20 + Mo/15 + V/10 + 5 B B=Approx..0005

CARBON EQUIVALENT: CE = CE(IIW) = C + Mn/6 + (Cr+Mo+V)/5 + (Ni +Cu)/15

Mercury has not been used in the direct manufacturing of this material.

Corrosion Index: CI=26.01(%Cu)+3.88(%Ni)+1.20(%Cr)+1.49(%Si)+17.28(%P)-7.29(%Cu)(%Ni)-8.10(%Ni)(%P)-33.39(%Cu)^2

ELONGATION BASED ON 8.00 INCH GAUGE LENGTH

I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by this material manufacturer are in compliance with the requirements of the material specifications listed in the Specifications Block above.

Gary Lemmell

QUALITY ASSURANCE

CUSTOMER COPY

STATE OF ARKANSAS COUNTY OF MISSISSIPPI
SWORN TO AND SUBSCRIBED BEFORE ME THIS 31 Day of 10/11

Charlene Wallis NOTARY PUBLIC

MY COMMISSION EXPIRES 10/21/2013

CHARLENE WALLIS MY Comm. Exp. NOTARY PUBLIC 10-21-2013 MISSISSIPPI CO. ARKANSAS