TFG FILES INVENTORY

DATE: 12-15-05

Box Number: 49285542 Alternate Number: 16 Other Identification: LN191

Contents Associated With:

 Contract DACW29-94-C-0079, Rec & Environmental Con Rec, LK Pontchartrain LA & VIC London Avenue Outfall Canal Mirabeau; Section B, Folder 6, Item 37C

> A0006551 A0006552 A0006554 A0006556

370

CELMN-ED-TM (CELMN-CD-NO-Q / 7 Dec 94) 1st End Bonura/2653 SUBJECT: Contract No. DACW29-94-c-0079, Lake Pontchartrain and Vicinity, High Level Plan, London Avenue Outfall Canal, Parallel Protection, Mirabeau Avenue to Leon C. Simon Bouelevard Floodwall, Orleans Parish, Louisiana

CELMN-ED-TM

8 Dec 94

FOR CELMN-CD-NO-Q

We have reviewed the mill certificates relative to the structural aspects and found that the steel used to form the sheet piling appears structurally adequate.

Encl nc W. EUGENE TICKNER

Chief, Engineering Division

VEL

MEMORANDUM THRU C/Const Div

FOR C/Engr Div

SUBJECT: Contract No. DACW29-94-C-0079, Lake Pontchartrain and Vicinity, High Level Plan, London Avenue Outfall Canal, Parallel Protection, Mirabeau Avenue to Leon C. Simon Boulevard Floodwall, Orleans Parish, Louisiana

- 1. Forwarded herewith is contract correspondence relative to steel sheetpile acceptance.
- 2. Request your office review and provide NOAO a technical analysis as to whether or not the mill certificates meet all of our contract requirements.
- 3. The first sheetpile was delivered to the jobsite 5 Dec 94; therefore, to avoid any contractor delays a timely response is appreciated.

4. NOAO POC is Dennis Duhon, X1212 or Chris Wagner, x1222.

Enc1

CHESTER ASHLEY Area Engineer

New Orleans Area Office

CF:

Proj Engr (Wagner) Proj Insp (Bryant)



DEPARTMENT OF THE ARMY

NEW ORLEANS DISTRICT, CORPS OF ENGINEERS

P.O. BOX 60267

NEW ORLEANS, LOUISIANA 70160-0267

December 5, 1994

REPLY TO ATTENTION OF:

New Orleans Area Office

SUBJECT: Contract No. 94-C-0079, Lake Pontchartrain, Louisiana and Vicinity, High Level Plan, London Avenue Outfall Canal, Parallel Protection, Mirabeau Avenue to Leon C. Simon Boulevard Floodwall, Orleans Parish, Louisiana

B & K Construction Company, Incorporated 1905 Highway 59 Mandeville, Louisiana 70448

Gentlemen:

Reference my letter dated November 30, 1994, as well as the telephone conservation between your Mr. Mike Tassin and Mr. Dennis Duhon of my staff on December 5, 1994, regarding the steel sheet piling for the subject contract.

You have elected to deliver the sheet piling without the required certification. In lieu of this, no payment will be made for the sheet piling stored on-site until all submittal requirements referenced in my November 30, 1994 letter, are approved. Furthermore, any costs associated with the removal of sheet piling that does not meet the specifications will be borne by you at no expense to the Government.

If you have any further questions, contact Mr. Duhon at 862-1212.

BERNARD CELMN-CD-NO

Sincerely,

HILL CELMN-CD

Richard T. Hill Contracting Officer's Authorized Representative B-28

November 30, 1994

DUHONA CELMN-CD-NO-Q

New Orleans Area Office

R 2 4 yets CELMN-CD-NO

SUBJECT: Contract No. DACW29-94-C-0079, Lake Pontchartrain and Vicinity, High Level Plan, London Avenue Outfall Canal, BERNARD Parallel Protection, Mirabeau Avenue to Leon C. Simon CELMN-CD-NO Boulevard Floodwall, Orleans Parish, Louisiana

ASHLEY CELMN-CD-NO

B & K Construction Company, Incorporated 1905 Highway 59 Mandeville, Louisiana 70448

Gentlemen:

This letter is to confirm the telephone conversation the between your Mr. Boone Kenyon and Mr. Dennis Duhon of this office on November 29, 1994, regarding the steel sheet piling for the subject contract.

As discussed, the following items must be provided prior to acceptance of the sheet piling:

- 1. The original mill test reports must be furnished for the test samples that were taken when the steel was hot-rolled in order to show conformance with the contract requirements. The heat analysis sample shall be in accordance with ASTM A 6.
- 2. The heat numbers on Casteel's QC certificates must correspond to those on the original mill test reports. (The heat numbers on Casteel's QC certificate and the metallurgical lab report from Weirton Steel Corporation furnished to this office on November 18, 1994, did not coincide with each other.)
- 3. Address the inconsistencies regarding the Weirton Steel Corporation metallurgical lab report showing ASTM A 570, Grade 50 and Casteel's QC certificate showing ASTM A 572. Grade 50.
- 4. The mill test reports should address the total number of pieces for the entire job. The Casteel QC report addresses only 46 pieces of 26'-9" length.

In closing, our records indicate that you were informed numerous times as to what steel sheetpile submittals are

required. In particular, we discussed mill test reports at the Preconstruction Conference on August 16, 1994 and you were notified in writing in our return comments to your sheetpile submittals, dated September 7, 1994 and October 25, 1994 respectively. If you have any further questions, contact Mr. Duhon at 862-1212.

Sincerely,

and the control of the party of the comparation.

Richard T. Hill Contracting Offi Contracting Officer's Authorized Representative

CF:
Proj Engr (Wagner)
Proj Insp (Bryant)

A GUERRA

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CONSTRUCTION COMPANY, INC.

6 December 1994

Mr. Chester Ashley, Contracting Officer

U.S. Army Corps of Engineers

New Orleans District

P.O. Box 60167

New Orleans, LA 70160-0267

RE:

Contract No DACW29-94-C-0079 Lake Pontchartrain & Vicinity High Level Plan, London Avenue

Outfall Canal, Parallel

Protection Mirabeau Ave to Leon

C. Simon Blvd Floodwall -

Orleans Parish, LA. B & K Job No 9402

Dear Mr. Ashley:

We have enclosed a notarized copy of the Original Mill Certificates from Weirton Steel in accordance with ASTM A-6.

We have enclosed the Original Certificates from Casteel as per the contract documents.

We have enclosed a heat number key so you can cross-reference Casteel's numbers with Weirton Steel numbers. We have included all of the Weirton coil reports for the September rolling of approximately 224 pieces but have included the Casteel reports covering only the 3 truckloads of steel sheet piling shipped.

We have enclosed the letter of explanation from Casteel explaining the Weirton steel reports and the purchase and the manufacture of the material to obtain ASTM A-572, Grade 50 steel sheet piling.

We have also enclosed other letters from Weirton Steel that are pertinent.

If this documentation is not acceptable please indicate as soon as possible (in writing) the specification it , violates so that we may take the appropriate action and please set up a meeting with the Contracting Officer at once.

We received the approved submittal on the steel sheet piling on 23 November 1994 and will be delayed if this is not reconciled as soon as possible.

Mr. Chester Ashley Page Two 6 December 1994

If you have any questions please contact us at any time.

CONSTRUCTION COMPANY, INC.

H.B. (Kentyo President

HBK/hk enclosures

cc: Mr. Lee Wilczynski, Skyline Steel

Mr. Fred Zalenski, Casteel Group

9402/CA120694



December 1, 1994

Skyline Steel Corporation Attn: Lee Wilczynski 126 Tchefuncte Drive Covington, LA 70433

Dear Lee:

We would like to address the questions raised by the Corps of Engineers in their letter dated November 30, 1994, and addressed to B & K Construction Company, Inc.

Original mill test reports from our suppliers have not 1) been submitted for the following reason. Casteel receives only one original test report from our suppliers. This original must remain in our possession to endorse the Casteel "Quality Control Certificates" submitted for any one project. Should a failure happen on a given project, Casteel would need the original test report to substantiate our Quality Control Certificates. Furthermore, original test reports can not be released since certain heats of steel are often shipped to more than one project. For example, a heat of 500 tons may end up on 5 projects of 100 tons each. Casteel must retain the one original test report to verify the Quality Control Certificates issued for all 5 projects. In addition, the documents you've requested contain privileged and proprietary information.

Conforming to your requests would mean changing our procedures as well as our suppliers procedures. We feel this is an unreasonable request. This request by the Corps of Engineers is unusual and seems to question the integrity of the Casteel "Quality Control Certificate," normally submitted to the satisfaction of various authorities throughout the country.

However, in this instance, to satisfy your request regarding original test reports, we've submitted to you a certified copy of the original Mill Test Report from our supplier. If this is not satisfactory, we suggest one of the following.

- A) The Corps of Engineers visit our office to examine our suppliers test reports first hand.
- B) Casteel will send their representative to meet with the Corps of Engineers to review the originals and make copies for their records.

We believe the alternatives noted above are suitable to alleviate concerns the Corps of Engineers may have in this matter.

Lastly, the testing and heat analysis performed by our supplier were done as per contract requirements. The testing and heat analysis specifications used by our supplier are in agreement with A572 and A6 requirements. (See copy of Weirton's letter dated December 1, 1994).

2) As the manufacturer of steel sheet piling, Casteel reassigns a Casteel heat number to each heat number provided by our various suppliers including Weirton Steel Corporation. The Casteel heat number appears on the finished product and on our Quality Control Certificates.

You will find herewith Casteel's letter dated November 18, 1994, which establishes the correlation between the two sets of heat numbers based on information contained in the records of our company. The information on Casteel's Quality Control Certificates and Weirton's lab reports corresponds to each other.

3) The inconsistencies pointed out between the lab reports showing A570 and Casteel's Quality Control Certificates showing A572 are due to the manner in which we order steel. Casteel has to purchase steel coils to manufacture steel sheet piling.

A572 is a specification covering "structural steel shapes, plates, sheet piling and bars." Coils are not covered by A572. We have to purchase coils to A570 for the above reasons and also because we need to guaranty that materials received will meet certain coils standards needed for our manufacturing operation (tolerances, finished condition, identification, packaging, etc.). Since we have to use A570 coils to manufacture sheet piling to A572, we specify to our suppliers that the A570 coils must meet the mechanical



and chemical requirements of A572 grade 50. Based on the above, the lab reports issued by Weirton describes materials fully meeting the requirements (mechanical and chemical) of ASTM A572 grade 50.

Our Quality Control Certificates and Weirton's lab reports do not indicate any specific TYPE for the A572 steel because no TYPE was designated or required by the specification and subsequent purchase order. However, the review of the chemical composition of the steel reveals the presence of alloys in conformity with A572 type 1, 2, 3 or 4. You should note that the addition for Columbium and/or Vanadium is mainly used to provide increase of the yield point and to a lesser extent the tensile strength of carbon steel. In that regard, our steel always meets or exceeds the mechanical requirements of A572 grade 50.

4) Mill test reports from Casteel can only be issued after conversion of coils into steel sheet piling. Only then, can we produce a Quality Control report indicating the number of pieces produced for a given heat. Complete reports will be submitted as the material is produced for this order.

We remain available to provide clarifications or address additional questions.

Sincerely,

The Casteel Group, Inc

Fred Zalenski

Enclosure





FAX 614-423-8541

December 1, 1994

Mr. Fred Zalenski The Casteel Group, Inc. Route 1, Box 374-A Belpre, Oh 45714

Dear Fred:

Further to our discussion regarding the testing of the steel provided by Weirton, we would like to confirm the following:

- a. The mechanical testing is done in accordance with ASTM A370.
- b. The chemical analysis or heat analysis is done in accordance with ASTM A751. The heat analysis sample is taken in accordance with ASTM A6.

You will find herewith signed copies of original mill test reports confirming the results of Weirton's testing and analysis done as per the above specifications requirements.

Most cordially yours,

George F. Lahr

Pittsburgh District Sales Representative

GFL/bwb





WHERE IT ALL BEGINS

November 18, 1994

Skyline Steel Corporation Attn: Lee Wilczynski 126 Tchefuncte Drive Covington, LA 70433

Re: London Avenue Outfall Canal

Dear Lee:

The following list shows Casteel's Heat Nos. with corresponding Heat Nos. from Weirton Steel.

<u>Casteel Heat No.</u>	<u>Weirton Heat No.</u>
92664	78341
92665	78340
92666	45818
92667	45819
92668	78338
92669	78339
92670	78519
92671	78337
92672	78335
92673	77869

If you need further information, please contact me.

Sincerely,

Fred Zalenski



November 14, 1994

FAX: 614-423-8541

Mr. Fred Zalinski The Casteel Group, Inc. Route #1, Box 374-A Belpre, OH 45714

Dear Fred:

Subject: Corps of Engineers

Please be advised our steel Spec ASTM A-570 Grade 50 meets the chemical and mechanical requirements for the piling Spec A-572 Grade 50.

Should you wish for any additional information pertaining to this matter, please call.

Most cordially yours,

George F. Lahr

Pittsburgh District Sales Representative

GFL:/bwb

LONDON AVENUE OUTFALL CANAL CONTRACT NO. DACW29-94-C-0079 U.S. ARMY CORPS OF ENGINEERS B & K JOB NO. 9402

ORIGINAL MILL TEST CERTIFICATE FROM CASTEEL TO COVER THE STEEL SHEET PILE DELIVERED TO THE LONDON AVENUE JOBSITE ON MONDAY, DECEMBER 5, 1994. (SP3871, SP3872 & SP3873)

ADDITIONAL ORIGINAL CERTIFICATES WILL FOLLOW UPON DELIVERY OF ADDITIONAL STEEL SHEET PILE.



The Casteel Group, Inc.

QUALITY CONTROL CERTIFICATE

Plant Rt. 1. Box 374-A

> Belpre, Ohio U.S.A. 45714

Tel: (614) 423-8544 Fax: (614) 423-8541

Pag	е	_1	of _	1_	
Date	N	OVEMBER	90	1004	

Bill(s) of Lading SP3871

Customer

SKYLINE STEEL CORPORATION 11550 FUQUA, SUITE 345 HOUSTON, TX 77034

PROJECT:

LONDON AVENUE OUTFALL CANAL

ORLEANS PARISH, LA

Specification Description

> NEW STEEL SHEET PILING ASTM A 572, GR. 50 CZ101

HEAT NUMBERS WERE PRINTED ON ENDS OF PILING BY THE MILL.

Purchase Order Your P.O. 487592 Our W.O. 95-044

Ship to: CPU

		TENSILE TEST				CHEMICAL ANALYSIS								(%)	
Heat No.	Yield Point Psi	Tensile Strength Psi	% Elongation 8 in □ 2 in X	# of PCS.	# of FT.	С	Mn	Р	s	Si	Cu	Ni	Cr	v	СВ
92666 92669	60900 *** 55000 ***		33.5 35.5	17 27	26.75 26.75	0.17 0.15			6 0.009 0.001				0.017 0.018		
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	*** MANUFAC	TURED IN THE	U.S.A. ***												

We hereby certify that the material described has been tested in accordance with specification and that the results are correct as contained in the records of the Company. We also certify that the chemical (heat) analysis recorded herein is as certified by the steel producer.

By tula 00



Customer

PROJECT:

SKYLINE STEEL CORPORATION

11550 FUQUA, SUITE 345

HOUSTON, TX 77034

The Casteel Group, Inc.

QUALITY CONTROL CERTIFICATE

Plant Rt. 1, Box 374-A Belpre, Ohio U.S.A. 45714

Tel: (614) 423-8544 Fax: (614) 423-8541

	Page		(of	
)ata		DECEMBER	5.	1994	

Bill(s) of Lading

SP 3873

Your P.O. 487592

Our W.O. 95-044 Ship to: CPU

Specification Description

> NEW STEEL SHEET PILING ASTM A 572, GR. 50

CZ101

LONDON AVENUE
OUTFALL CANAL

ORLEANS PARISH, LA

HEAT NUMBERS WERE PRINTED ON ENDS OF PILING BY THE MILL.

		TENSILE TEST		`				C	HEMIC	AL ANAI	LYSIS			(%)	
Heat No.	Yield Point Psi	Tensile Strength Psi	% Elongation 8 in □ 2 in	# of PCS.	# of FT.	С	Mn	Р	s	Si	Cu	Ni	Cr	v	
92665 92666 92668	61500 **** 60900 **** 58600 ****	75900	34.5 33.5 33	29	26.75 26.75 26.75	0.16 0.17 0.15	0.76	0.006	0.009	0.012 0.013 0.013	0.043	0.031	0.017	1	þ

We hereby certify that the material described has been tested in accordance with specification and that the results are correct as contained in the records of the Company. We also certify that the chemical (heat) analysis recorded herein is as certified by the steel producer.

*** MANUFACTURED IN THE U.S.A.



LONDON AVENUE OUTFALL CANAL CONTRACT NO. DACW29-94-C-0079 U.S. ARMY CORPS OF ENGINEERS B & K JOB NO. 9402

CERTIFIED TRUE COPIES OF THE COIL REPORTS FROM WEIRTON STEEL CORPORATION TO COVER ALL STEEL SHEET PILE ORDERED FOR THE LONDON AVENUE PROJECT. (21 Pages)

METALLURGICAL LABORATORY REPORT OF TEST

WEIRTON STEEL CORPORATION WEIRTON, WEST VIRGINIA 26062

INDEX MILL ORDER BUYER'S NO 002764 002764-003

1050

ITEM NO CUST SPEC

ASTM A 570 GRADE 50

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MODE: TRUCK DATE: 09/15/94

SOLD TO: 20016 THE CASTEEL GROUP INC. ROUTE 1, BOX 374A BELPRE, OHIO 45714

SHIP TO: 20021 THE CASTEEL GROUP INC BELPRE, OHIO 45714

VEHICLE ID:

ROUTE/CARRIER: COMPASS TRANSPORTATION INC.

PRODUCT: WSG-50 HOT ROLLED STEEL SHEETS NON-TEMPERPASSED

IPM NUMBER 0395423 0397414	HEAT NUMBER 78339 78519	YIEL STRE LBS/ SG. 55,0 40,6	NCTH IN. 00	ULTIMA STRENG LBS/ SG. IN. 71.300 74,700	тн	PER CENT ELUNGATION IN 2 INS. 35.5 34.0	CTG N DZ. SQ.	WGT PER FT. RW. B	BENDS
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THE ABOVE STEEL CONFORMS TO THE PILLING SPEC A-572 GRADE 50. (HIGH STRENGTH LOW-ALLOY COLUMBIUM-VANADIUM STRUCTURAL QUALITY)

BY:

WEIRTON CORP.

SEP 2 2 1994

THIS IS TO CERTIFY THE ABOVE TESTS ARE TRUE AS CONTAINED IN THE COMPANY RECORDS.

SIGNED

METALLURGIST.

Signed in my presence by Frederick Zalenski, Customer Service Manager of The Casteel Group, Inc.

Brian L. Billetdeaux

METALLURGICAL LABORATORY REPORT OF TEST

WEIRTON STEEL CORPORATION WEIRTON, WEST VIRGINIA 26062

INDEX

MILL ORDER : BUYER'S NO : ITEM NO : CUST SPEC :

002764

1050

ASTM A 570 GRADE 50

CTG WGT

PER CENT

MODE: BARGE DATE: 09/23/94

SOLD TO: 20016 THE CASTEEL GROUP INC. ROUTE 1, BOX 374A BELPRE, OHIO 45714

SHIP TO: 20248
THE CASTEEL GROUP INC
C/O MARIETTA INDUSTRIAL ENTERPRS.
MILE 179 ON OHIO RIVER
MARIETTA, OHIO 45750

VEHICLE ID: NM324

ROUTE/CARRIER: NM

PRODUCT: WSQ-50 HOT ROLLED STEEL SHEETS NON-TEMPERPASSED

STRENGTH

YIELD

IPM NUMBER 0395418 0395421 0395422 0395430 0395431 0395444 0397413 0397413 0397420 0397420 0397420	HEAT NUMBER 78335 78335 78335 78335 78341 78337 78336 78519 78518 78518 78518	5189 189 189 189 189 189 189 189 189 189	IN. 000 000 000 000 000 000 000 000	STRENG LBS/ SQ. IN 75,70 75,70 75,70 75,70 71,90 74,70 75,00 75,00 75,00	.00000000000000000000000000000000000000	ELONGATIO IN 2 INS. 10	ON OZ.		BENDS
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78341	. 160 . 008	. 71 . 036	. 009 NT	. 009	. 010 . 020	. 002 NT	. 024 NT	. 024 25	. 024 45
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ULTIMATE

STRENGTH

THIS IS TO CERTIFY THE ABOVE TESTS ARE TRUE AS CONTAINED IN THE COMPANY RECORDS. SIGNED METALLURGIST.

THE ABOVE STEEL CONFORMS TO THE PILING SPEC A-572 GRADE 50. (HIGH STRENGTH LOW-ALLOY COLUMBIUM-VANADIUM STEELS OF STRUCTURAL QUALITY)

BY:

WEXRTON/STEEL/

DATE

Signed in my presence by Frederick Zalenski, Customer Service Manager of The Casteel Group, Inc.

Brian L. Billetdeaux

METALLURGICAL LABORATORY REPORT OF TEST

WEIRTON STEEL CORPORATION WEIRTON, WEST VIRGINIA 26062

INDEX

002764

MILL ORDER :

002764-003

BUYER'S NO : ITEM NO : CUST SPEC :

1050

ASTM A 570 GRADE 50

Andron of the control of the control

MODE: BARGE DATE: 09/23/94

SOLD TO: 20016 THE CASTEEL GROUP INC. ROUTE 1, BOX 374A BELPRE, OHIO 45714

SHIP TO: 20248
THE CASTEEL GROUP INC
C/O MARIETTA INDUSTRIAL ENTERPRS.
MILE 179 ON OHIO RIVER

MARIETTA, OHIO 45750

VEHICLE ID: NM324

ROUTE/CARRIER: NM

PRODUCT:

WSQ-50 HOT ROLLED STEEL SHEETS NON-TEMPERPASSED

YIELD

IPM NUMBER 0395441 0397416 0397417 0397419	HEAT NUMBER 78338 78519 78519 78518	LBS	IN. 000 000	LBS/ SQ. IN 75,10 74,70 74,70 75,00	0 0	ELONGATION IN 2 INS. 33.0 34.0 34.0 33.0	N OZ.	WG1 PER FT. RW.B	BENDS
******* HEAT 78338		******** MN/AL . 72 . 042	S/ZR .008 NT	H E M I C P/V .016 .002	A L SI/CB . 013 . 021	A N A L Y SN/TI .003 NT	S I S CU/B . 026 NT	********* CR/OPPM . 028 21	********* NI/NPPN . 023 43
78518	. 140	. 73	. 007	. 011	. 014	. 002	. 012	. 021	. 014
	. 004	. 049	NT	. 002	. 023	NT	NT	26	43
78519	. 150	. 74	. 008	. 011	. 012	. 003	. 022	. 025	. 016
	. 005	. 030	TN	. 003	. 020	. 001	NT	28	42

ULTIMATE

THE ABOVE STEEL CONFORMS TO THE PILING SPEC A-572 GRADE 50. (HIGH STRENGTH LOW-ALLOY COLUMBIUM-VANADIUM STEELS OF STRUCTURAL QUALITY)

THIS IS TO CERTIFY THE ABOVE TESTS ARE TRUE AS CONTAINED IN THE COMPANY RECORDS.

SIGNED

METALLURGIST.

Signed in my presence by Frederick Zalenski, Customer Service Manager of The Casteel Group, Inc.

Brian L. Billetdeaux

METALLURGICAL LABORATORY REPORT OF TEST

WEIRTON STEEL CORPORATION WEIRTON, WEST VIRGINIA 26062

INDEX

002764

INDEX : MILL ORDER : BUYER'S NO :

002764-003 1050

ITEM NO CUST SPEC

ASTM A 570 GRADE 50

MODE: TRUCK DATE: 09/15/94

SOLD TO: 20016 THE CASTEEL GROUP INC. ROUTE 1, BOX 374A BELPRE, OHIO 45714 SHIP TO: 20021 THE CASTEEL GROUP INC ROUTE 7 NORTH BELPRE, OHIO 45714

VEHICLE ID:

ROUTE/CARRIER: COMPASS TRANSPORTATION INC.

PRODUCT: WSQ-50 HOT ROLLED STEEL SHEETS NON-TEMPERPASSED

IPM NUMBER 0395445 0397418	HEAT NUMBER 78338 78339	YIELD STRENG LBS/ SG. II 58,600 55,000	N. 0	ULTIMA STRENG LBS/ SG. IN. 75,100 71,300	TH D	PER CENT ELONGATION IN 2 INS. 33.0 35.5	CTG OZ. SQ.	WGT PER FT. RW.B	BENDS
******* HEAT 78338		MN/AL 5	C H S/ZR .008 NT	E M I C P/V .016 .002	A L SI/CB . 013 . 021	Y A A A IT/NZ EOO.	S I S CU/B . 026 NT	********* CR/OPPM . 028 21	******* NI/NPP . 023 43
78 339	. 150 . 008	. 70 . 043 i	. 007 NT	. 010 . 002	. 010 . 022	E00.	.022 NT	. 018 23	. 021 55

THE ABOVE STEEL CONFORMS TO THE PILING SPEC A-572 GRADE 50. (HIGH STRENGTH LOW-ALLOY COLUMBIUM-VANADIUM STEELS OF STRUCTURAL QUALITY)

WEIPTON STEEL CORP.

THIS IS TO CERTIFY THE ABOVE TESTS ARE TRUE AS CONTAINED IN THE COMPANY RECORDS. METALLURGIST.

SIGNED

Signed in my presence by Frederick Zalenski, Customer Service Manager of The Casteel Group, Inc.

Brian L. Billetdeaux

METALLURGICAL LABORATORY REPORT OF TEST

WEIRTON STEEL CORPORATION WEIRTON, WEST VIRGINIA 26062

INDEX

002758 002758-005

MILL ORDER : BUYER'S NO : ITEM NO :

1002-7

ITEM NO CUST SPEC

01

: ASTM A 570 GRADE 50

CTG WGT

MODE: BARGE DATE: 08/27/94

SOLD TO: 20016 THE CASTEEL GROUP INC. ROUTE 1, BOX 374A BELPRE, OHIO 45714

SHIP TO: 20248

PER CENT

THE CASTEEL GROUP INC C/O MARIETTA INDUSTRIAL ENTERPRS. MILE 179 ON OHIO RIVER MARIETTA, OHIO 45750

VEHICLE ID: SER106

ROUTE/CARRIER: NM

PRODUCT:

WSQ-50 HOT ROLLED STEEL SHEETS NON-TEMPERPASSED

STRENGTH

YIELD

IPM NUMBER 0381462 0386399 0386409 0386400 0386400 0386400 0386400	77876 77874 77875 77875 77875 4 77874 5 77873 7 77874 4 45815		IN. 500 500 500 500 500 500 500 500	LBS/ SQ. IN 73,00 71,00 72,50 71,50 72,50 73,40 72,50 74,10	00000000	ELUNGATI IN 2 INS 36.5 35.5 35.0 34.0 35.0 35.0 35.0 35.0	ION OZ.	PĚŘ FT. RW.B	BENDS
*****	*****	****	С	HEMIC	AL	ANAL	YSIS	******	*****
HEAT 45815	C/MD . 140 . 010	MN/AL .72 .040	S/ZŘ . 007 NT	P/V . 008 . 003	SI/CB . 009 . 024	SN/TI .006 NT	CU/B . 029 NT	CR/OPPM . 024 34	NI/NPPN . 026 . 38
45819	. 150 . 009	. 74 . 041	.008	. 007 . 002	. 009 . 024	.004 NT	. 03 1 NT	. 022 31	. 026 43
77869	. 150 . 013	. 73 . 042	. 007 NT	. 012	. 009 . 022	. 003 TM	. 04 <i>9</i> NT	. 051 25	. 030 45
77873	. 150 . 008	. 75 . 036	. 006 NT	. 012 . 003	. 008 . 021	. 005	EEO. Tn	. 043 26	. 022 38
77874	. 140 . 010	. 74 . 038	. 006 NT	. 009 . 003	. 008 . 021	. 006 . 001	. 04 1 NT	. 0 42 28	. 024 37
77875	. 150 . 010	. 75 . 047	.007 NT	. 009	. 010 . 024	. 005 NT	.040 NT	. 041 31	. 023 41
77876	. 160	. 69 . 064	. 006 NT	. 010 . 002	. 009 . 016	~ 002 NT	.019 NT	. 028 20	. 016 42
77.76	10 70 000		A D OL 15	TECTO 40		AC CONTAT	NEW THE	E COMOLÉN D	ECOODE

ULTIMATE

STRENGTH

THIS IS TO CERTIFY THE ABOVE TESTS ARE TRUE AS CONTAINED IN THE COMPANY RECORDS. SIGNED METALLURGIST.

THE ABOVE STEEL CONFORMS TO THE PILING SPEC A-572 GRADE 50. (HIGH STRENGTH LOW-ALLOY COLUMBIUM-VANADIUM STEELS OF STRUCTURAL QUALITY)

BY:

WEARTON STEEL CORP.

DATE

Signed in my presence by Frederick Zalenski, Customer Service Manager of The Casteel Group, Inc.

Brian L. Billetdeaux

METALLURGICAL LABORATORY REPORT OF TEST

WEIRTON STEEL CORPORATION WEIRTON, WEST VIRGINIA 26062

002764 002764-003 1050

INDEX : MILL ORDER : BUYER'S NO : ITEM NO CUST SPEC

01

ASTM A 570 GRADE 50

MODE: BARGE

DATE: 08/27/94

SOLD TO: 20016 THE CASTEEL GROUP INC. ROUTE 1, BOX 374A BELPRE, OHIO 45714

SHIP TO: 20248
THE CASTEEL GROUP INC
C/O MARIETTA INDUSTRIAL ENTERPRS.
MILE 179 ON OHIO RIVER
MARIETTA, OHIO 45750

VEHICLE ID: SER106

ROUTE/CARRIER: NM

PRODUCT: W\$Q-50 HOT ROLLED STEEL SHEETS NON-TEMPERPASSED

YIELD

	HEAT NUMBEF 78341 78335 78338 78338 78337 *********************	LBS 8 SQ. 62, 56, 58,	IN. 800 800 600 600 900	STRENG LBS/ IN 78,70 75,70 75,10 71,90 H E M I C .008 .002 .002 .002	0 0 0 0	PER CENT ELUNGATIONS 1N 5 33.55 33.50 33.50 33.50 33.00 31.50 N/TO2 NT .006 NT .003 NT .003	ON OZ.	WGT PER FT. RW. B ************************************	**************************************
338 ; 341	. 160 . 008	. 042 . 71 . 036	NT				NT . 024 NT	. 024 . 25	43 . 024 45

ULTIMATE

THE ABOVE STEEL CONFORMS TO THE PILING SPEC A-572 GRADE 50. (HIGH STRENGTH LOW-ALLOY COLUMBIUM-VANADIUM STEELS OF STRUCTURAL OUALITY)

STÉEL CORP. WEIRTON

DATE

THIS IS TO CERTIFY THE ABOVE TESTS ARE TRUE AS CONTAINED IN THE COMPANY RECORDS.

SIGNED

METALLURGIST.

Signed in my presence by Frederick Zalenski, Customer Service Manager of The Casteel Group, Inc.

Brian L. Billetdeaux

METALLURGICAL LABORATORY REPORT OF TEST

WEIRTON STEEL CORPORATION WEIRTON, WEST VIRGINIA 26062

INDEX 002764 MILL ORDER BUYER'S NO ITEM NO CUST SPEC 002764-001

1002-6 ŌĪ

ASTM A 570 GRADE 50

DATE: 08/27/94 MODE: BARGE

SOLD TO: 20016 THE CASTEEL GROUP INC. ROUTE 1, BOX 374A BELPRE, OHIO 45714

SHIP TO: 20248
THE CASTEEL GROUP INC
C/O MARIETTA INDUSTRIAL ENTERPRS.
MILE 179 ON OHIO RIVER
MARIETTA, OHIO 45750

VEHICLE ID: SER106

ROUTE/CARRIER: NM

PRODUCT: WSQ-50 HOT ROLLED STEEL SHEETS NON-TEMPERPASSED

YIELD

IPM NUMBER 0386380 0386381 0386382 0386383 0386384 0386385	HEAT NUMBER 45818 45817 45817 45819 45819 45818	LBS	IN. 200 200 200 200 200 200	STRENG LBS/ SQ. IN. 75, 900 75, 900 75, 900 73, 400 75, 900		PER CENT ELONGATIONS. IN 2 INS. 33.5 35.0 33.5 32.5 32.5 33.5	ON 02.	WGT PER FT. RW.B	BENDS
	******* C/MO . 150 . 009	******** MN/AL . 73 . 041	S/ZR .007 NT	H E M I C P/V .011 .002	A L SI/CB .008 .022	A N A L Y SN/TI .004 NT	/ S I S CU/B .025 NT	******* CR/OPPM . 026 27	******** NI/NPPM . 024 . 39
45818	. 170 . 011	. 76 . 048	. 00 9 NT	. 006 . 002	. 013 . 025	. 009 NT	. 043 NT	. 017 30	. 031 42
45819	. 150 . 009	. 74 . 041	. 008	. 007 . 002	. 009 . 024	. 004 NT	. 031 NT	. 022 31	. 026 43

ULTIMATE

THE ABOVE STEEL CONFORMS TO THE PILING SPEC A-572 GRADE 50. (HIGH STRENGTH LOW-ALLOY COLUMBIUM-VANADIUM STEELS OF STRUCTURAL QUALITY)

WEARTON STEEL CORP

THIS IS TO CERTIFY THE ABOVE TESTS ARE TRUE AS CONTAINED IN THE COMPANY RECORDS.

SIGNED

METALLURGIST.

Signed in my presence by Frederick Zalenski, Customer Service Manager of The Casteel Group, Inc.

Brian L. Billetdeaux

METALLURGICAL LABORATORY REPORT OF TEST

WEIRTON STEEL CORPORATION WEIRTON, WEST VIRGINIA 26062

INDEX

002764

MILL ORDER :

002764-003 1050

BUYER'S NO : ITEM NO : CUST SPEC :

ASTM A 570 GRADE 50

MODE: TRUCK DATE: 09/16/94

SOLD TO: 20016 THE CASTEEL GROUP INC. ROUTE 1, BOX 374A BELPRE, OHIO 45714

SHIP TO: 20021 THE CASTEEL GROUP INC ROUTE 7 NORTH

BELPRE, OHIO 45714

VEHICLE ID:

ROUTE/CARRIER: COMPASS TRANSPORTATION INC.

PRODUCT: WSG-50 HOT ROLLED STEEL SHEETS NON-TEMPERPASSED

IPM NUMBER 03 95424 03 95434	HEAT NUMBER 78339 78341	YIELI STREN LBS/ SQ. : 55,00 62,80	NGTH IN. DO	ULTIMAT STRENGT LBS/ SG. IN. 71,300 78,500	H	PER CENT ELONGATION IN 2 INS. 35.5 33.5	l OZ.	WGT PER FT. RW.B	BENDS
******** HEAT 78339	C/MO .150 .008	******** MN/AL . 70 . 043	C H S/ZR . 007 NT		A L SI/CB . 010 . 022	A N A L Y SN/TI .003 NT	S I S CU/B .022 NT	********* CR/OPPM . 018 23	************** NI/NPP: . 021 . 55
78341	. 160 . 008	. 71 . 036	.009 NT	. 009 . 002	. 010 . 020	. 002 NT	. 024 NT	. 024 25	. 024 45

THE ABOVE STEEL CONFORMS TO THE PILING SPEC A-572 GRADE 50. (HIGH STRENGTH LOW-ALLOY COLUMBIUM-VANADIUM STEELS OF STRUCTURAL QUALITY)

BY:

WEIRTON STEEL CORP.

THIS IS TO CERTIFY THE ABOVE TESTS ARE TRUE AS CONTAINED IN THE COMPANY RECORDS.

SIGNED

METALLURGIST.

SEP 2 9 1994

Signed in my presence by Frederick Zalenski, Customer Service Manager of The Casteel Group, Inc.

Brian L. Billetdeaux

METALLURGICAL LABORATORY REPORT OF TEST

WEIRTON STEEL CORPORATION WEIRTON, WEST VIRGINIA 26062

INDEX

MILL ORDER BUYER'S NO 002764

1050 01

ITEM NO CUST SPEC

ASTM A 570 GRADE 50

MODE: BARGE

DATE: 08/27/94

SOLD TO: 20016 THE CASTEEL GROUP INC. ROUTE 1, BOX 374A BELPRE, OHIO 45714

SHIP TO: 20248 THE CASTEEL GROUP INC C/O MARIETTA INDUSTRIAL ENTERPRS. MILE 179 ON OHIO RIVER MARIETTA, OHIO 45750

VEHICLE ID: SER106

ROUTE/CARRIER: NM

PRODUCT: WSQ-50 HOT ROLLED STEEL SHEETS NON-TEMPERPASSED

YIELD

HEAT C/MD MN/AL S/ZR P/V SI/CB SN/TI CU/B CR/DPPM NI/NPPM 16937 .160 .71 .007 .008 .012 .006 .024 .018 .025 .025 .007 .009 NT .002 .022 NT NT NT .24 .51 .025 .025 .008 .042 NT .002 .021 NT NT NT .21 .43 .023 .008 .043 NT .002 .021 NT NT NT .23 .021 .021 .008 .043 NT .002 .022 NT NT NT .23 .55 .024 .020 .007 .038 NT .002 .022 NT NT NT .23 .020 .020 .020 .020 NT .024 .020 .020 .007 .038 NT .002 .021 .002 .018 .024 .020 .020 .007 .038 NT .002 .021 .002 NT .002 .023 .024 .020 .020 .007 .038 NT .002 .021 .002 NT .002 .023 .024 .020 .020 .007 .038 NT .002 .021 .002 NT .002 .024 .020 .020 .007 .038 NT .002 .021 .002 NT .002 .024 .020 .020 .007 .008 .009 NT .0002 .0002 NT .0002 .0	PM IUMBER 1395419 1395425 1395425 1395426 1395427 1395429 1395433 1395433 1395436 1395436 1395436	HEAT NUMBEF 78340 78338 78340 78339 78340 78340 78337 78337 78340 78337 78341	LBS	IN. 500 400 500 800 800 500 500 900 500 900 800	STRENG LBS/ SQ. IN 74,100 75,100 74,100 71,300 74,100 74,100 71,900 74,100 71,900 74,100 71,900 74,100	.00000000000000000000000000000000000000	PER CENT ELN 25 11 1 25 12 25 13 25 13 25 13 25 14 25 15 25 15 25 16 25 17 26 17 26 18 26	ON OZ.	WGT PER FT. RW. B	BENDS	
. 008 . 042 NT . 002 . 021 NT NT 21 43 (8339 . 150 . 70 . 007 . 010 . 010 . 003 . 022 . 018 . 021 . 008 . 043 NT . 002 . 022 NT NT 23 55 (8340 . 160 . 71 . 007 . 011 . 012 . 002 . 018 . 024 . 020 . 007 . 038 NT . 002 . 021 . 002 NT 27 39	HEAT 18337	. 160	. 71	S/ZR . 007	P/V 800.	. 012	. 006	. 024	. 018	. 025	
1008 .043 NT .002 .022 NT NT 23 55 78340 .160 .71 .007 .011 .012 .002 .018 .024 .020 .007 .038 NT .002 .021 .002 NT 27 39	78338			800.	. 016	. 013 . 021	E00.		. 028 21		
.007 .038 NT .002 .021 .002 NT 27 39	8339			. 007 NT	. 010 . 002				. 018 23	. 021 55	
78341 .160 .71 .009 .009 .010 .002 .024 .024 .024 .024 .008 .036 NT .002 .020 NT NT .2545	78340		. 71 . 038						27	. 0 20 37	
	8341	. 160 . 008			. 009 . 002	. 010 . 020			. 024 25		

ULTIMATE

THIS IS TO CERTIFY THE ABOVE TESTS ARE TRUE AS CONTAINED IN THE COMPANY RECORDS. METALLURGIST. SIGNED

THE ABOVE STEEL CONFORMS TO THE PILING SPEC A-572 GRADE 50. (HIGH STRENGTH LOW-ALLOY COLUMBIUM-VANADIUM STEELS OF STRUCTURAL QUALITY)

RY:

WEIRTON STREL CORP.

DATE

Signed in my presence by Frederick Zalenski, Customer Service Manager of The Casteel Group, Inc.

Brian L. Billetdeaux



The Casteel Group, Inc.

QUALITY CONTROL CERTIFICATE

Specification

CZ101

Description

Plant Rt. 1, Box 374-A Belpre, Ohio U.S.A. 45714

Tel: (614) 423-8544 Fax: (614) 423-8541

	Page _	1		of _	
	_				
ate		DECEMBER	5.	1994	

Bill(s) of Lading

SP 3872

Purchase Order Your P.O. 487592

Our W.O. 95-044 Ship to: CPU

Customer

SKYLINE STEEL CORPORATION 11550 FUQUA, SUITE 345 HOUSTON, TX 77034

PROJECT:

OUTFALL CANAL

LONDON AVENUE

ORLEANS PARISH, LA

HEAT NUMBERS WERE PRINTED ON ENDS OF PILING BY THE MILL.

NEW STEEL SHEET PILING

ASTM A 572, GR. 50

	TENSILE TEST					CHEMICAL ANALYSIS									(%)
Heat No.	Yield Point Psi	Tensile Strength Psi	% Elongation 8 in ☐ 2 in	# of PCS.	# of FT.	С	Mn	Р	s	Si	Cu	Ni	Cr	v	СВ
92665 92666	61500 **** 60900 ****	1	34.5 33.5		26.75 26.75	0.16 0.17				0.012 0.013				0.002 0.002	0.021 0.025
	*** MANUFACTU	RED IN THE U	S.A. ***												

We hereby certify that the material described has been tested in accordance with specification and that the results are correct as contained in the records of the Company. We also certify that the chemical (heat) analysis recorded herein is as certified by the steel producer.

