

PACKING LIST NO. : _____
 ORDER NO. : _____
 REFERENCE NO. : _____

PACKING LIST

JFE STEEL CORPORATION, CHITA WORKS
 1-1, KAWASAKI-CHO, HANDA-CITY, JAPAN

CUSTOMER'S CONTROL NO. 3 : _____
 ORDER NO. : _____

DESTINATION : USA GULF -HOUSTON

CUSTOMER : _____

DATE : August 13, 2015

COMMODITY : ERW STEEL PIPE, BLACK, PLAIN ENDS BEVELED

ITEM NO.	SIZE (O. D. × W. T. × LENGTH) (SPECIFICATION) (TOTAL LENGTH)	NO. OF PIECES	NO. OF BUNDLES	CALCULATED MASS		BUNDLE NO. OR PIECE NO. (DETAILS OF BUNDLES)
				NET MASS	GROSS MASS	
				Kg (LBS)	Kg (LBS)	
01	OD22" X0.75" X40' 5LX80M-PSL2	155		479105 (1056244)	479570 (1057270)	1/155 (BARE IN LOOSE)

REMARKS
 01--->BPE-BVL
 BOTH ENDS STEEL PROTECTORS
 STENCILED ON PIPE

SHIPPING MARK
 (1) FRANK'S INTERNATIONAL
 (2) PO NO. 336997
 (3) LBU10583
 (4) 170.37LBS/FT
 (5) UT LAMINATION SCAN OK
 (6) H-NO.
 (7) TESTED
 (8) MADE IN JAPAN

305121003

上條昌紀

MANAGER, PROCESS CONTROL

INSPECTION CERTIFICATE



JFE Steel Corporation

CHITA WORKS
1, Kawasaki-cho 1-chome, Handa-City, Aichi Pref. 475-8611
Japan

Date : AUGUST 13, 2015 Page 1 / 3

Certificate No.	Invoice No.	JFE Code	SC16
Order No.	Shipper's Reference No.	KPF	
Shipper			
Customer			
Commodity	ERW STEEL PIPE, BLACK, PLAIN ENDS BEVELED		
Specification	API 5L GR. X80M-PSL2 (45TH EDITION DECEMBER, 2012)		
Size	OD22" X0.75" X40'		
Project Name			
Construction No.	Ship No.		
Reference No.			
Customer's Control No.1			
Customer's Control No.3			

Quantity	155	Mass	479,105 kg (1,056,244 lbs)	Total Length	
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MFG. No.	Heat No.	Products	
S6196-01	3-K1638 (E)		55
S6196-02	3-K1641 (E)		44
S6196-03	3-K1802 (E)		27
S6196-04	3-K1807 (E)		29

(E) Steelmaking : East Japan Works in the Kanto district. Coil rolling : East Japan Works in the Kanto district.
Pipe manufacturing : Chita Works in the Chubu district.

Chemical Composition (%)

MFG. No.			C	Si	Mn	P *1	S *1	Cu	Ni	Cr	Mo	
	Max	L	10	45	195	25	15	50	100	50	50	L : Ladle Analysis
	Min	L										P : Product Analysis
	Max	P	10	45	195	25	15	50	100	50	50	Sampling Position : Base Metal
	Min	P										CEQ1 (PCM) : C+Si/30+ (Mn+Cu+Cr)/20+Ni/60
												+Mo/15+V/10+5B
S6196-01	L		5	19	159	3	1	2	2	2	26	3NB1:Nb+V+Ti
	P		5	20	161	4	<1	2	1	3	25	*1 : ×1000
	P		5	20	161	4	<1	2	1	3	25	Other : ×100
MFG. No.			V	Nb	Ti	B *1	CEQ1	3NB1				
	Max	L				1		15				
	Min	L										
	Max	P				1	25	15				
	Min	P										
S6196-01	L		<1	7	2	<1		10				
	P		<1	7	2	<1	16	10				
	P		<1	7	2	<1	16	10				

MFG. No.			C	Si	Mn	P *1	S *1	Cu	Ni	Cr	Mo	
	Max	L	10	45	195	25	15	50	100	50	50	L : Ladle Analysis
	Min	L										P : Product Analysis
	Max	P	10	45	195	25	15	50	100	50	50	Sampling Position : Base Metal
	Min	P										CEQ1 (PCM) : C+Si/30+ (Mn+Cu+Cr)/20+Ni/60
												+Mo/15+V/10+5B
S6196-02	L		5	18	156	3	1	1	1	3	26	3NB1:Nb+V+Ti
	P		5	20	160	4	<1	1	1	3	25	*1 : ×1000
	P		5	19	160	5	<1	1	1	3	26	Other : ×100
MFG. No.			V	Nb	Ti	B *1	CEQ1	3NB1				
	Max	L				1		15				
	Min	L										
	Max	P				1	25	15				
	Min	P										
S6196-02	L		<1	7	2	<1		10				
	P		<1	7	2	<1	16	10				
	P		<1	7	2	<1	16	10				

WE HEREBY CERTIFY THAT THE MATERIALS DESCRIBED HEREIN HAVE BEEN MANUFACTURED, INSPECTED AND TESTED IN ACCORDANCE WITH THE CUSTOMER'S SPECIFICATION(S), AND THAT THEY SATISFY THE REQUIREMENTS.

Takahashi K.
Kazunari TAKAHASHI
Manager, Quality Assurance Sec.

INSPECTION CERTIFICATE



JFE Steel Corporation

CHITA WORKS
1, Kawasaki-cho 1-chome, Handa-City, Aichi Pref. 475-8611
Japan

Date : AUGUST 13, 2015 Page 2 / 3

Certificate No. :

Order No. :

Chemical Composition (%)

MFG. No.			C	Si	Mn	P *1	S *1	Cu	Ni	Cr	Mo	
	Max	L	10	45	195	25	15	50	100	50	50	L : Ladle Analysis
	Min	L										P : Product Analysis
	Max	P	10	45	195	25	15	50	100	50	50	Sampling Position : Base Metal
	Min	P										CEQ1(PCM) : C+Si/30+(Mn+Cu+Cr)/20+Ni/60
S6196-03	L		5	20	160	6	1	3	1	3	27	+Mo/15+V/10+5B
	P		5	21	160	7	<1	2	1	4	26	3NB1:Nb+V+Ti
	P		5	21	160	8	<1	2	1	4	26	*1 : ×1000
												Other : ×100
MFG. No.			V	Nb	Ti	B *1	CEQ1	3NB1				
	Max	L				1		15				
	Min	L										
	Max	P				1	25	15				
	Min	P										
S6196-03	L		<1	7	2	<1		10				
	P		<1	7	2	<1	16	10				
	P		<1	7	2	<1	16	10				

MFG. No.			C	Si	Mn	P *1	S *1	Cu	Ni	Cr	Mo	
	Max	L	10	45	195	25	15	50	100	50	50	L : Ladle Analysis
	Min	L										P : Product Analysis
	Max	P	10	45	195	25	15	50	100	50	50	Sampling Position : Base Metal
	Min	P										CEQ1(PCM) : C+Si/30+(Mn+Cu+Cr)/20+Ni/60
S6196-04	L		5	20	162	7	1	2	1	3	26	+Mo/15+V/10+5B
	P		5	20	161	9	<1	2	1	4	26	3NB1:Nb+V+Ti
	P		5	20	161	8	<1	2	1	4	26	*1 : ×1000
												Other : ×100
MFG. No.			V	Nb	Ti	B *1	CEQ1	3NB1				
	Max	L				1		15				
	Min	L										
	Max	P				1	25	15				
	Min	P										
S6196-04	L		<1	7	2	<1		10				
	P		<1	7	2	<1	16	10				
	P		<1	7	2	<1	16	10				

Tensile Test

MFG. No.		YS	Variation	TS	EL(%)	YR(%)	
	Max	102300		119700		93	Sampling Position : Base Metal
	Min	80500		90600	20		Direction : Transverse
S6196-01		83832		98336	38	85	Type of Specimen : Plate 1-1/2inch
S6196-02		80931		96450	38	84	G.L. : 2inch
S6196-03		82672		102832	36	80	Unit : psi
S6196-04		83107		99496	39	84	Kind of YS : 0.5% Extension Under Load

MFG. No.			TS				
	Max						Sampling Position : Weld
	Min		90600				Direction : Transverse
S6196-01			100076				Type of Specimen : Plate 1-1/2inch
S6196-02			98916				Unit : psi
S6196-03			102107				
S6196-04			101962				

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Certificate No. :

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Impact Test

MFG. No.	Min	Absorbed Energy			Shear Area(%)				Sampling Position : Base Metal Direction : Transverse Type of Specimen : 2V 10X10 Test Temperature : +32° F Unit : ft-lbf
		Each	2pcs	Avg.	Each	Avg.			
S6196-01		23		30					
		354		354	100	100			
		353			100				
S6196-02		354			100				
		350		349	100	100			
		350			100				
S6196-03		348			100				
		358		357	100	100			
		353			100				
S6196-04		359			100				
		340		347	100	100			
		350			100				
		351			100				

MFG. No.	Min	Absorbed Energy				Shear Area(%)				Sampling Position : Base Metal Direction : Transverse Type of Specimen : 2V 10X10 Test Temperature : 0° F Unit : ft-lbf
		Each	2pcs	Avg.	AH. Avg.	Each	Avg.	AH. Avg.		
S6196-01		35		45	50		60	80		
		345		347	344	100	100	100		
		348				100				
S6196-02		347				100				
		348		347		100	100			AH. Avg. : All Heat Average
		348				100				
S6196-03		345				100				
		353		347		100	100			
		345				100				
S6196-04		343				100				
		324		334		100	100			
		347				100				
		330				100				

Flattening Test	GOOD
N.D.E.	UT:GOOD
Hydrostatic Test	2970PSI × 10S GOOD
Visual & Dimension	GOOD

Remarks

ROUNDNESS & CIRCUMFERENCE ARE IN ACC. WITH API 2B OR API SPECIFICATION 5L, WHICHEVER IS MORE STRINGENT. LATEST EDITIONS OF EACH AT THE TIME OF ORDER ARE THE GOVERNING EDITIONS. STRAIGHTNESS TOLERANCE IS AS PER SECTION 5.7 IN FCC SPECIFICATION 029. EN10204.3.1 UT: N5 GOOD
THERMOMECHANICAL ROLLED

HEAT TREATMENT OF WELD SEAM: MIN 1650 DEG. F

Data indicated in US customary units were converted from data measured in SI units.

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Kazunori
Manager, Quality Assurance Dept.