

Quality Documentation Package

Customer: WOODHOUSE INTERNATIONAL

Customer Purchase Order Number: WDO-50531-1-1

NOV GP Order Confirmation Number: 1000106960

5.5"OD 0.415" WT 24.7LB./FT." IEU R2 S135 DRILL PIPE
GPDS55 PIN 7"OD×3.5"ID & 10" PIN OD LENGTH & H-SERIES BENCHMARK
ARNCO 300XT HARDBANDING FOR GPDS55 PIN
GPDS55 BOX 7"OD×3.5"ID & 12"BOX OD LENGTH & H-SERIES BENCHMARK
ARNCO 300XT HARDBANDING FOR GPDS55 BOX
TK-34 INTERNAL COATING

NOV GRANT PRIDECO
JIANGYAN,JIANGSU CHINA

<http://www.nov.com/GrantPrideco/CustomerFeedback>



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Date: September 2, 2012

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Description: 5.5"OD 0.415" WT 24.7LB./FT." IEU R2 S135 DRILL PIPE

GPDS55 PIN 7"OD×3.5"ID & 10" PIN OD LENGTH & H-SERIES BENCHMARK

ARNCO 300XT HARDBANDING FOR GPDS55 PIN

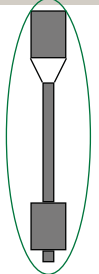
GPDS55 BOX 7"OD×3.5"ID & 12"BOX OD LENGTH & H-SERIES BENCHMARK

ARNCO 300XT HARDBANDING FOR GPDS55 BOX

TK-34 INTERNAL COATING

Quality Documentation Package

Drill Pipe Configuration



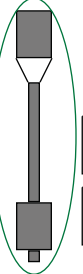
Pipe Body OD	(in)	5.500
Pipe Body Wall Thickness	(in)	0.415
Pipe Body Grade		S-135
Drill Pipe Length		Range2
Connection		GPDS55
Tool Joint OD	(in)	7.000
Tool Joint ID	(in)	3.500
Pin Tong	(in)	10
Box Tong	(in)	12

Nominal Weight Designation		24.70
Drill Pipe Approximate Length	(ft)	31.6
SmoothEdge Height	(in)	Not Raised
Tool Joint SMYS	(psi)	120,000
Upset Type		IEU
Max Upset OD (DTE)	(in)	5.688

Note: Tong space may include hardfacing.

Drill Pipe Performance

Drill-Pipe Length Range2



Performance of Drill Pipe with Pipe Body at 80 % Inspection Class

Applied Make-up Torque (ft-lbs)	Operational Torque (ft-lbs)	Max Tension (lbs)
Recommended MUT 55,800	Tension Only 0	704,300
	Combined Loading 51,800	535,400
Minimum MUT 46,500	Tension Only 0	704,300
	Combined Loading 42,100	598,400

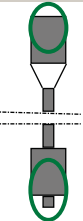
	Best Estimates (without Coating)	Best Estimates (with Coating)	Nominal (least accurate)
Drill Pipe Adjusted Weight (lbs/ft)	29.62		28.60
Fluid Displacement (gal/ft)	0.45		0.44
Fluid Displacement (Bbls/ft)	0.0108		0.0104
Fluid Capacity (gal/ft)	0.84	0.84	0.86
Fluid Capacity (Bbls/ft)	0.0201	0.0199	0.0204
Drift Size (in)	3.375		

Note: Oil field barrel equals 42 US gallons.

Note: Drill pipe assembly values are best estimates and may vary due to pipe body mill tolerance, internal plastic coating, and other factors.

Connection Performance

GPDS55 (7.000 (in) OD X 3.500 (in) ID) 120,000 (psi)



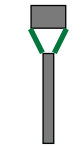
Applied Make-up Torque (ft-lbs)	Tension at Shoulder Separation (lbs)	Tension at Connection Yield (lbs)
Recommended Make-up Torque 55,800	Tensile Limited	1,398,600
Minimum Make-up Torque 46,500	1,507,900	1,597,900
Tool Joint Torsional Strength (ft-lbs)	93,100	
Tool Joint Tensile Strength (lbs)	1,597,900	

Note: Recommended make-up torque is the maximum make-up torque that should be applied.
Note: To maximize connection operational tensile, a MUT (T4) = 49,300 (ft-lbs) should be applied.

Tool Joint Dimensions	
Balanced OD (in)	7.193
Minimum Tool Joint OD for API Premium Class (in)	6.555
Minimum Tool Joint OD for Counterbore (in)	6.523

Elevator Shoulder Information

Elevator OD Not Raised 7.000 (in)



	SmoothEdge Height Not Raised	Nominal Tool Joint OD	Worn to Bevel Diameter	Worn to Min TJ OD for API Premium Class
Box OD (in)	7.000	7.000	6.719	6.555
Elevator Capacity (lbs)	1,315,600	1,315,600	982,300	794,000
Assumed Elevator Bore Diameter (in)	5.812			

Note: Elevator capacity based on assumed Elevator Bore, no wear factor, and contact stress of 110,100psi.
Note: A raised elevator OD increases elevator capacity without affecting make-up torque.

Pipe Body Slip Crushing Capacity

Pipe Body Configuration (5.5 (in) OD 0.415 (in) Wall S-135)

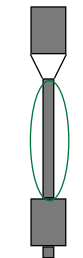


	Nominal	80 % Inspection Class	API Premium Class
Slip Crushing Capacity (lbs)	604,700	481,400	481,400
Assumed Slip Length (in)	16.5		
Transverse Load Factor (K)	4.2		

Note: Slip Crushing: Slip crushing load is calculated with the Spiri-Reinhold equation from "Why Does Drill Pipe Fail in the Slip Area" World Oil, 1959 for the slip length and transverse load factor shown and is for reference only. Slip crushing is dependent on the slip design and condition, coefficient of friction, loading conditions, time in slips, drill pipe OD and wall variation, and other factors. Consult with the slip manufacturer for additional information.

Pipe Body Performance

Pipe Body Configuration (5.5 (in) OD 0.415 (in) Wall S-135)



	Nominal	80 % Inspection Class	API Premium Class
Pipe Tensile Strength (lbs)	895,000	704,300	704,300
Pipe Torsional Strength (ft-lbs)	101,800	79,800	79,800
TJ/PipeBody Torsional Ratio	0.91	1.17	1.17
80% Pipe Torsional Strength (ft-lbs)	81,500	63,800	63,800
Burst (psi)	17,826	16,298	16,298
Collapse (psi)	17,023	11,177	11,177
Pipe OD (in)	5.500	5.334	5.334
Wall Thickness (in)	0.415	0.332	0.332
Nominal Pipe ID (in)	4.670	4.670	4.670
Cross Sectional Area of Pipe Body (in^2)	6.630	5.217	5.217
Cross Sectional Area of OD (in^2)	23.758	22.346	22.346
Cross Sectional Area of ID (in^2)	17.129	17.129	17.129
Section Modulus (in^3)	7.844	6.145	6.145
Polar Section Modulus (in^3)	15.688	12.290	12.290

Note: Nominal Burst calculated at 87.5% RBW per API.



Note: The technical information contained herein, including the product performance sheet and other attached documents, is for reference only and should not be construed as a recommendation. The user is fully responsible for the accuracy and suitability of use of the technical information. NOV Grant Prideco cannot assume responsibility for the results obtained through the use of this material. No expressed or implied warranty is intended. Drill pipe assembly properties are calculated based on uniform OD and wall thickness. No safety factor is applied. The information provided for various inspection classes and for various wear conditions (remaining body wall) is for information only and does not represent or imply acceptable operating limits. It is the responsibility of the customer and the end user to determine the appropriate performance ratings, acceptable use of the product, maintain safe operational practices, and to apply a prudent safety factor suitable for the application. For API connections that have different pin and box ID's, tool joint ID refers to the pin ID. Per Chapter B, Section 4 VII of the IADC drilling manual, it is recommended that drilling torque should not exceed 80% of MUT.

Certificate of Compliance

American Petroleum Institute

Specification 5DP, Latest Edition

NOV Grant Prideco/GPJ Specification for Grade:

S-135

Special Requirements: NOT HAVE

Customer: WOODHOUSE INTERNATIONAL

Customer Purchase Order Number: WDO-50531-1-1

NOV GP Order Confirmation Number: 1000106960

570 Joints Total Length(FT): 17990.42

This hereby certifies that GPJ has met or exceeded the manufacturing and quality requirements of the above referenced specification(s) in Manufacturing the following below described material for:

5.5"OD 0.415" WT 24.7LB./FT." IEU R2 S135 DRILL PIPE

GPDS55 PIN 7"OD×3.5"ID & 10" PIN OD LENGTH & H-SERIES BENCHMARK

ARNCO 300XT HARDBANDING FOR GPDS55 PIN

GPDS55 BOX 7"OD×3.5"ID & 12"BOX OD LENGTH & H-SERIES BENCHMARK

ARNCO 300XT HARDBANDING FOR GPDS55 BOX

TK-34 INTERNAL COATING



NOV Grant Prideco Representative



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TK-34 INTERNAL COATING

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Certificate of Make and Break

Customer: WOODHOUSE INTERNATIONAL

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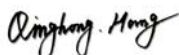
This hereby certifies that the Make and Break Operation has been performed on the following:

GPDS55 PIN 7"OD×3.5"ID & 10" TONG SPACE WITH ARNCO 300XT 3/32" RAISED 1-1/2" WIDTH HARDBANDING & WITH H-SERIES BENCHMARK

GPDS55 BOX 7"OD×3.5"ID & 12" TONG SPACE WITH ARNCO 300XT 3/32" RAISED 3" WIDTH HARDBANDING & WITH H-SERIES BENCHMARK

in strict compliance with the Applicable Nov Grant Prideco Standard Operating Procedure No.DS-OP-31 Rev.10 for the Make and Break Operation, Latest Revision and Customer's Requirements. The issuance of this certificate indicates that the Make and Break Operation was completed.

570 Joints of Torque: List in Performance Sheet Times: 3 (100%)



NOV Grant Prideco Representative

September 2, 2012

Date

Customer: WOODHOUSE INTERNATIONAL

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ARNCO 300XT HARDBANDING FOR GPDS55 BOX

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Certificate of Hardbanding Inspection

Customer: WOODHOUSE INTERNATIONAL

Customer Purchase Order Number: WDO-50531-1-1

NOV GP Order Confirmation Number: 1000106960

This is to certify that ARNCO 300XT Hardband has been applied on the following :

GPDS55 PIN 7"OD×3.5"ID & 10" TONG SPACE WITH ARNCO 300XT 3/32"RAISED 1-1/2"WIDTH HARDBANDING &
WITH H-SERIES BENCHMARK

GPDS55 BOX 7"OD×3.5"ID & 12" TONG SPACE WITH ARNCO 300XT 3/32"RAISED 3"WIDTH HARDBANDING &
WITH H-SERIES BENCHMARK

in strict compliance with the Applicable Grant Prideco/GPJ Operating Procedure for the
Hardband Operation, Latest Revision and Customer's Requirements. The issuance of this
certificate indicates that the Hardband Operation was completed.



NOV Grant Prideco Representative

September 2, 2012

Date

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ARNCO 300XT HARDBANDING FOR GPDS55 BOX

TK-34 INTERNAL COATING

Quality Documentation Package



TGP Certificate of Inspection

检验报告

Customer: GPJ

顾客

P.O. #: TGP.CN201226

订单号

Product: ☒ Drill Pipe ☐ Tubing

产品

PIPE SIZE	PIPE WEIGHT	NOMINAL WALL	GRADE	RANGE	UPSET TYPE
规格	重量	壁厚	钢级	长度范围	加厚形式
5.5"	24.70	0.415	S135	R2	IEU

INSPECTION TYPE PERFORMED:

检验类型

IN CONJUNCTION WITH THE LATEST EDITION OF THE FOLLOWING SPECIFICATION:

符合下列规范要求

☐	STD.5CT	☐	5CT SR-2	☒	EMI Inspection
☒	STD.5DP	☒	5DP SR-2	☒	SEA Inspection

REMAINING BODY WALL MEETS OR EXCEED 95%

AND INCLUDES THE FOLLOWING INSPECTIONS PERFORMED PER THE ABOVE REFERENCED

SPECIFICATION, TGP STANDARD OPERATING PROCEDURES, AND ANY APPLICABLE

CUSTOMER SPECIFICATIONS DEFINED HEREIN:

包括根据上述规范进行的以下检查、格兰特标准规范和用户要求

LONGITUDINAL

TRANSVERSE

WALL THICKNESS

纵向

横向

壁厚

130

TOTAL JOINTS INSPECTED 检验支数

130

JOINTS FREE OF DEFECTS 合格支数

CHECKER: WANG, CHENGLONG

GRADE: II

检验人员: 王承龙

等级: 2级

程序文件号PROCEDURE NO.: ZU309-01-1 R1

Remarks: HEAT NUMBER: 炉号/批号: 829073/485

TGP REPRESENTATIVE: TGP质量代表

DATE: 日期

2012. 5. 31



TGP Certificate of Inspection

检验报告

Customer: GPJ

顾客

P.O. #: TGP.CN201226

订单号

Product:

☒

Drill Pipe

☐

Tubing

产品

PIPE SIZE	PIPE WEIGHT	NOMINAL WALL	GRADE	RANGE	UPSET TYPE
规格	重量	壁厚	钢级	长度范围	加厚形式
5.5"	24.70	0.415	S135	R2	IEU

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LONGITUDINAL

TRANSVERSE

WALL THICKNESS

纵向

横向

壁厚

249

TOTAL JOINTS INSPECTED 检验支数

249

JOINTS FREE OF DEFECTS 合格支数

CHECKER: WANG, CHENGLONG

GRADE: II

检验人员: 王承龙

等级: 2级

程序文件号PROCEDURE NO.: ZU309-01-1 R1

Remarks: HEAT NUMBER: 炉号/批号: 829074/483/484

TGP REPRESENTATIVE: TGP质量代表

DATE: 日期

2012. 5. 31



TGP Certificate of Inspection

检验报告

Customer: GPJ

顾客

P.O. #: TGP.CN201226

订单号

Product:

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Drill Pipe

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Tubing

产品

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5.5"	24.70	0.415	S135	R2	IEU

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LONGITUDINAL

TRANSVERSE

WALL THICKNESS

纵向

横向

壁厚

86

TOTAL JOINTS INSPECTED 检验支数

86

JOINTS FREE OF DEFECTS 合格支数

CHECKER: WANG, CHENGLONG

GRADE: II

检验人员: 王承龙

等级: 2级

程序文件号PROCEDURE NO.: ZU309-01-1 R1

Remarks: HEAT NUMBER: 炉号/批号: 829075/486

TGP REPRESENTATIVE: TGP质量代表

DATE: 日期

2012. 5. 31



TGP Certificate of Inspection

检验报告

Customer: GPJ

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P.O. #: TGP.CN201226

订单号

Product:

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Drill Pipe

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Tubing

产品

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TRANSVERSE

WALL THICKNESS

纵向

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壁厚

38

TOTAL JOINTS INSPECTED 检验支数

38

JOINTS FREE OF DEFECTS 合格支数

CHECKER: WANG, CHENGLONG

GRADE: II

检验人员: 王承龙

等级: 2级

程序文件号PROCEDURE NO.: ZU309-01-1 R1

Remarks: HEAT NUMBER: 炉号/批号: 829076/487

TGP REPRESENTATIVE: TGP质量代表

DATE: 日期

2012. 5. 31



TGP Certificate of Inspection

检验报告

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顾客

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订单号

Product:

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Drill Pipe

☐

Tubing

产品

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5

TOTAL JOINTS INSPECTED 检验支数

5

JOINTS FREE OF DEFECTS 合格支数

CHECKER: WANG, CHENGLONG

GRADE: II

检验人员: 王承龙

等级: 2级

程序文件号PROCEDURE NO.: ZU309-01-1 R1

Remarks: HEAT NUMBER: 炉号/批号: 829040/342/343/344

TGP REPRESENTATIVE: TGP质量代表

DATE: 日期

2012. 5. 31



TGP Certificate of Inspection

检验报告

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顾客

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订单号

Product:

☒

Drill Pipe

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Tubing

产品

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壁厚

9

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9

JOINTS FREE OF DEFECTS 合格支数

CHECKER: WANG, CHENGLONG

GRADE: II

检验人员: 王承龙

等级: 2级

程序文件号PROCEDURE NO.: ZU309-01-1 R1

Remarks: HEAT NUMBER: 炉号/批号: 829041/350

TGP REPRESENTATIVE: TGP质量代表

DATE: 日期

2012. 5. 31



TGP Certificate of Inspection

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SPECIFICATION, TGP STANDARD OPERATING PROCEDURES, AND ANY APPLICABLE

CUSTOMER SPECIFICATIONS DEFINED HEREIN:

包括根据上述规范进行的以下检查、格兰特标准规范和用户要求

LONGITUDINAL

TRANSVERSE

WALL THICKNESS

纵向

横向

壁厚

1

TOTAL JOINTS INSPECTED 检验支数

1

JOINTS FREE OF DEFECTS 合格支数

CHECKER: WANG, CHENGLONG

GRADE: II

检验人员: 王承龙

等级: 2级

程序文件号PROCEDURE NO.: ZU309-01-1 R1

Remarks: HEAT NUMBER: 炉号/批号: 819016/180

TGP REPRESENTATIVE: TGP质量代表

DATE: 日期

2012. 5. 31



TGP Certificate of Inspection

检验报告

Customer: GPJ

顾客

P.O. #: TGP.CN201226

订单号

Product:

☒

Drill Pipe

☐

Tubing

产品

PIPE SIZE	PIPE WEIGHT	NOMINAL WALL	GRADE	RANGE	UPSET TYPE
规格	重量	壁厚	钢级	长度范围	加厚形式
5.5"	24.70	0.415	S135	R2	IEU

INSPECTION TYPE PERFORMED:

检验类型

IN CONJUNCTION WITH THE LATEST EDITION OF THE FOLLOWING SPECIFICATION:

符合下列规范要求

☐	STD.5CT	☐	5CT SR-2	☒	EMI Inspection
☒	STD.5DP	☒	5DP SR-2	☒	SEA Inspection

REMAINING BODY WALL MEETS OR EXCEED 95%

AND INCLUDES THE FOLLOWING INSPECTIONS PERFORMED PER THE ABOVE REFERENCED

SPECIFICATION, TGP STANDARD OPERATING PROCEDURES, AND ANY APPLICABLE

CUSTOMER SPECIFICATIONS DEFINED HEREIN:

包括根据上述规范进行的以下检查、格兰特标准规范和用户要求

LONGITUDINAL

TRANSVERSE

WALL THICKNESS

纵向

横向

壁厚

1

TOTAL JOINTS INSPECTED 检验支数

1

JOINTS FREE OF DEFECTS 合格支数

CHECKER: WANG, CHENGLONG

GRADE: II

检验人员: 王承龙

等级: 2级

程序文件号PROCEDURE NO.: ZU309-01-1 R1

Remarks: HEAT NUMBER: 炉号/批号:

809037/52

TGP REPRESENTATIVE: TGP质量代表

DATE: 日期

2012. 5. 31



TGP Certificate of Inspection

检验报告

Customer: GPJ

顾客

P.O. #: TGP.CN201226

订单号

Product:

☒

Drill Pipe

☐

Tubing

产品

PIPE SIZE	PIPE WEIGHT	NOMINAL WALL	GRADE	RANGE	UPSET TYPE
规格	重量	壁厚	钢级	长度范围	加厚形式
5.5"	24.70	0.415	S135	R2	IEU

INSPECTION TYPE PERFORMED:

检验类型

IN CONJUNCTION WITH THE LATEST EDITION OF THE FOLLOWING SPECIFICATION:

符合下列规范要求

☐	STD.5CT	☐	5CT SR-2	☒	EMI Inspection
☒	STD.5DP	☒	5DP SR-2	☒	SEA Inspection

REMAINING BODY WALL MEETS OR EXCEED 95%

AND INCLUDES THE FOLLOWING INSPECTIONS PERFORMED PER THE ABOVE REFERENCED

SPECIFICATION, TGP STANDARD OPERATING PROCEDURES, AND ANY APPLICABLE

CUSTOMER SPECIFICATIONS DEFINED HEREIN:

包括根据上述规范进行的以下检查、格兰特标准规范和用户要求

LONGITUDINAL

TRANSVERSE

WALL THICKNESS

纵向

横向

壁厚

46

TOTAL JOINTS INSPECTED 检验支数

46

JOINTS FREE OF DEFECTS 合格支数

CHECKER: WANG, CHENGLONG

GRADE: II

检验人员: 王承龙

等级: 2级

程序文件号PROCEDURE NO.: ZU309-01-1 R1

Remarks: HEAT NUMBER: 炉号/批号: 819044/948

TGP REPRESENTATIVE: TGP质量代表

DATE: 日期

2012. 5. 31



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 Drilling Products & Services
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NOV Grant Prideco DPS Bulletin

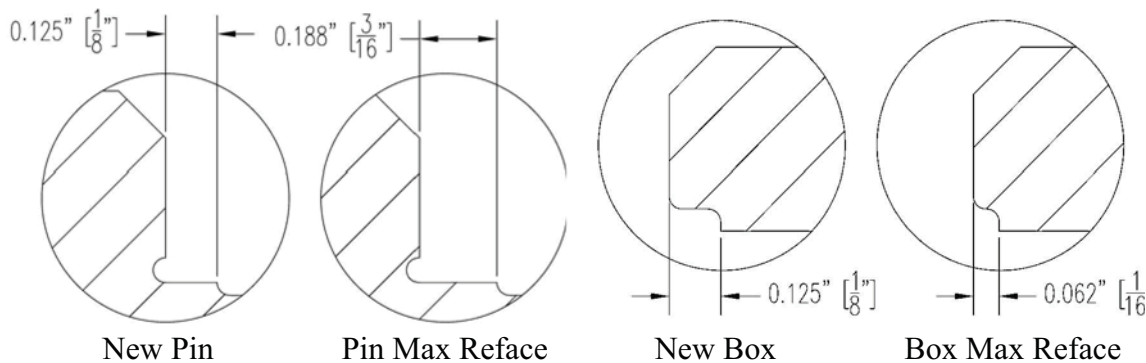
Bulletin Information	Title:	Field Inspection Procedure for Used GPDS Connections	Approval	DPS Manager, Marketing & Product Mgmt:	Jim Brock
	Bulletin Type:	PC-Procedural Bulletin			
	Bulletin Designation:	PC-6.4-2009Feb11-EXT			
	Rev. Number:	4		Approval Date:	Oct 17, 2007
	Rev. Date:	Feb 11, 2009		Distribution:	EXT - External
	Authored By:	NOV Grant Prideco		Distribution Date:	Oct 17, 2007

Field Inspection Procedure for Used GPDS Connections

1. Scope: The following procedure stipulates the equipment, inspection methods, and acceptance criteria for field inspection and repair of NOV Grant Prideco GPDS connections. This inspection shall encompass both visual and dimensional methods.
2. Equipment: The equipment listed below shall be required to perform these inspections.
 - 2.1. 12" Steel Rule graduated in 1/64"
 - 2.2. Outside and Inside Diameter Spring Calipers
 - 2.3. Long Stroke Depth Micrometer
 - 2.4. Setting Standards for Depth Micrometer
 - 2.5. Profile Gage
 - 2.6. Lead Gage
 - 2.7. Lead Gage Standard
 - 2.8. GPDS Connection Field Inspection Dimension Drawing
3. Preparation: All thread and make-up shoulder surfaces shall be cleaned sufficiently to allow for visual inspection.
4. Visual inspection:
 - 4.1. Primary Shoulder (Seal): Refer to the NOV Grant Prideco "GPDS Field Inspection Dimension" drawing for terminology and shoulder locations. The seal surface should be free of galls, nicks, washes, fins, or other conditions that would adversely affect its stability or pressure holding capacity.

4.1.1. Damage that does not exceed 1/32" in depth and crosses less than 30% of the radial width of the seal is acceptable. If the damage exceeds these limits, refacing shall be used to repair the seal surface.

4.1.2. The refacing repair should only remove enough material to repair the damage. A maximum of 1/32" of material may be removed during each refacing operation and a maximum of 1/16" may be removed from the connection before re-threading is required. **After refacing repair, a minimum length of 1/16" (.062") shall remain on the box refacing benchmark, and 3/16" maximum (.188") shall remain on the pin refacing benchmark. See sketch.**



4.2. Secondary Shoulder (Mechanical Stop): The Secondary Shoulder is not a sealing surface. Damage to this surface is not critical unless the damage interferes with the make-up, driftability, or torque capacity of the connection. Dents, scratches, and cuts do not affect this surface unless these exceed 1" in width and cause the connection to be rejected due to shortening of the shoulder-to-shoulder length. Filing may be used to repair material protrusions, which extend from the face. Connection length readings shall not be taken in damaged areas.

4.3. Threads: Thread flank surfaces should be free of damage that exceeds 1/16" in depth or 1/8" in diameter. Thread roots should be free of damage that extends below the radius. Thread crest should be free of damage that would interfere with make-up. Material that protrudes beyond the thread profile should be removed using a round cornered triangle hand file or soft buffing wheel.

4.4. Profile: The thread profile shall be verified along the full length of complete threads in two locations at least 90° apart. The profile gage should mesh evenly in the threads and show normal contact. If the profile gage does not mesh in the threads, lead measurements shall be taken.

4.5. Coating: Threads and shoulders that are repaired by filing or refacing must be phosphate coated or by using copper sulfate.

5. Dimensional Inspection:

- 5.1. Lead: The thread lead should be verified, if the profile gage indicates that thread stretch has occurred. The thread lead shall be measured over a 2" interval and shall not exceed 0.006". Connections failing this inspection should be inspected for cracks and, if none are found, re-threaded.
- 5.2. Box Outside Diameter: The outside diameter of the box shall be measured at a distance of 5/8" +/-1/4" from the primary make-up shoulder. Measurements shall be taken around the circumference to determine the minimum diameter. This dimension shall be compared to the minimum diameter for the connection being inspected to determine acceptance or rejection.
- 5.3. Box Counterbore Diameter: The inside diameter of the box counterbore shall be verified. This dimension is not used to determine acceptance or rejection, but to test for box swell and the need to verify connection length
- 5.4. Box Connection Length: The distance between the primary and secondary make-up shoulders shall be verified in two locations 180° apart. This distance shall be compared to requirement for the connection being inspected to determine acceptance or rejection.
 - 5.4.1. If the connection length exceeds the specified dimension, repair may be made by refacing the primary make-up shoulder.
 - 5.4.2. If the connection length is less than the specified dimension, refacing the secondary make-up shoulder may be adequate to repair this condition.
 - 5.4.3. Refacing limits are the same as for repair of damaged shoulders.
- 5.5. Pin Nose Diameter: The outside diameter of the pin nose shall be verified. This dimension is not used to determine acceptance or rejection, but to test for pin nose swell and the need to verify connection length.
- 5.6. Pin Connection Length: The distance between the primary and secondary makeup shoulders shall be verified in two locations 180° apart. This distance shall be compared to requirement for the connection being inspected to determine acceptance or rejection.
 - 5.6.1. If the connection length exceeds the specified dimension, repair may be made by refacing the secondary make-up shoulder (pin nose).
 - 5.6.2. If the connection length is less than the specified dimension, refacing the primary make-up shoulder may be adequate to repair this condition.
 - 5.6.3. Refacing limits are the same as for repair of damaged shoulders.

5.7. Tong Length: a minimum tong space requirement of 6" for pins and a minimum box tong space equal to the connection length +1" or 8" minimum, whichever is greater.

6. Re-threading: This method shall be used to repair connections that fail to meet the requirements stipulated in this inspection procedure after field repair is completed. Performance of this operation may not require complete removal of the thread profile if sufficient material can be removed to comply with the new product requirements. (The connection does not have to be "reblanked", however all torque shoulders, seal surfaces, and thread elements must be machined to 100% "bright metal". This is not necessary for cylindrical diameters). After completion the connection must be phosphate coated. (Copper Sulfate is not an acceptable substitute for phosphate for "re-threaded" connections.)

Certificate of Testing for Drill Pipe

管体检验证书

Mill Chemistry 化学性能(%) L:熔炼成份 P:成品成份

Mill 生产厂	Type形式	HeatNo. 炉号	C	Si	Mn	P	S	Ni	Cr	Mo	Cu	Al	B	H
TPCO	L	829073	0.27	0.23	0.89	0.010	0.002	0.04	0.99	0.43	0.06	0.014	0.0006	
TPCO	P	829073	0.26	0.23	0.87	0.009	0.003	0.04	0.99	0.42	0.06	0.020	0.0006	0.00008
TPCO	P	829073	0.27	0.22	0.88	0.009	0.002	0.04	1.00	0.41	0.06	0.019	0.0006	0.00007

Note: Heat No 829073 is corresponding to TPCO ORIGINAL HEAT NO. 522139

备注: 炉号829073的TPCO原始炉号为 522139

Mechanical Test Data 机械性能 (Type: Rt0.7)

Specimen 试样	Pos No. 件号	Size 尺寸	Heat 炉号	Lot 批号	Tensile 抗拉强度 PSI	Yield 屈服强度 PSI	Elong %	RA%
Tube 管体	35P	1"	829073	485	155,762	146,335	19.9	59.0
Upset 加厚	35U	.500"	829073	485	161,999	149,961	19.3	59.0

SPECIFICATION REQUIREMENTS 规范要求 145 KSI MIN 135-165 KSI

Longitudinal Charpy-V Notch Impact Data 冲击功(FT-LBS)

Specimen 试样	Size 尺寸 (mm)	Temp (F) 温度	Heat 炉号	Lot 批号	AK1	AK2	AK3	AVG	Shear (%)
Tube 管体	35P 10*7.5	70	829073	485	75.24	73.02	63.43	70.56	100

SPECIFICATION REQUIREMENTS 规范要求 70°F Min.Avg.: 40 ft/lb(fullsize)

All properties meet the requirements of API Specification 5DP Latest Edition, GPJ specification GPJ1010 R0 for Grade S135, and remaining body wall meets or exceed 95% , I certify that these tests were conducted in accordance with applicable specifications and that the data contained herein is true 所有的产品满足API 5 DP 规范、GPJ1010 R0规范的要求, 管体最小壁厚95%, 我证明这些实验是按照相关的规范要求加工, 并且提供的数据是真实的正确的。



Tianjin Grant Prideco Representative

31-May-12

Date



Customer 客户: GPJ

Sales Order #: 销售单号 TGP.CN201226

DESCRIPTION 描述: 5.5" 24.70# 0.415" WT H-SERIES RANGE 2 SMLS DRILL PIPE QUENCHED AND TEMPERED TO GRADE S135

QUALITY DOCUMENTATION PACKAGE

Certificate of Testing for Drill Pipe

管体检验证书

Mill Chemistry 化学性能(%) L:熔炼成份 P:成品成份

Mill 生产厂	Type形式	HeatNo. 炉号	C	Si	Mn	P	S	Ni	Cr	Mo	Cu	Al	B	H
TPCO	L	829074	0.26	0.23	0.87	0.010	0.002	0.04	0.97	0.42	0.06	0.024	0.0006	
TPCO	P	829074	0.27	0.22	0.88	0.008	0.002	0.03	1.01	0.41	0.06	0.019	0.0006	0.00008
TPCO	P	829074	0.27	0.22	0.88	0.008	0.002	0.03	1.02	0.41	0.06	0.019	0.0006	0.00007

Note: Heat No 829074 is corresponding to TPCO ORIGINAL HEAT NO. 522138

备注: 炉号829074的TPCO原始炉号为 522138

Mechanical Test Data 机械性能 (Type: Rt0.7)

Specimen 试样Pos No. 件号	Size 尺寸	Heat 炉号	Lot 批号	Tensile 抗拉强度 PSI	Yield 屈服强度 PSI	Elong %	RA%
Tube 管体 10P	1"	829074	483	156,777	147,205	20.4	59.0
Tube 管体 49P	1"	829074	484	154,602	146,770	20.1	59.0
Upset 加厚 10U	.500"	829074	483	156,052	147,496	19.7	59.0
Upset 加厚 49U	.500"	829074	484	164,174	150,396	20.3	59.0

SPECIFICATION REQUIREMENTS 规范要求 145 KSI MIN 135-165 KSI

Longitudinal Charpy-V Notch Impact Data 冲击功(FT-LBS)

Specimen试样Size尺寸(mm)	Temp (F) 温度	Heat炉号	Lot批号	AK1	AK2	AK3	AVG	Shear (%)	
Tube管体 10P	10*7.5	70	829074	483	88.51	84.09	88.51	87.04	100
Tube管体 49P	10*7.5	70	829074	484	78.19	76.71	78.92	77.94	100

SPECIFICATION REQUIREMENTS 规范要求 70°F Min.Avg.: 40 ft/lb(fullsize)

All properties meet the requirements of API Specification 5DP Latest Edition, GPJ specification GPJ1010 R0 for Grade S135, and remaining body wall meets or exceeds 95%, I certify that these tests were conducted in accordance with applicable specifications and that the data contained herein is true 所有的产品满足API 5 DP 规范、GPJ1010 R0规范的要求, 管体最小壁厚95%, 我证明这些实验是按照相关的规范要求加工, 并且提供的数据是真实的正确的。



Tianjin Grant Prideco Representative

31-May-12

Date



Customer 客户: GPJ

Sales Order #: 销售单号 TGP.CN201226

DESCRIPTION 描述: 5.5" 24.70# 0.415" WT H-SERIES RANGE 2 SMLS DRILL PIPE QUENCHED AND TEMPERED TO GRADE S135

QUALITY DOCUMENTATION PACKAGE

Certificate of Testing for Drill Pipe

管体检验证书

Mill Chemistry 化学性能(%) L:熔炼成份 P:成品成份

Mill 生产厂	Type形式	HeatNo. 炉号	C	Si	Mn	P	S	Ni	Cr	Mo	Cu	Al	B	H
TPCO	L	829075	0.26	0.21	0.89	0.009	0.002	0.04	0.96	0.42	0.05	0.020	0.0007	
TPCO	P	829075	0.26	0.20	0.86	0.010	0.002	0.03	0.96	0.41	0.05	0.019	0.0007	0.00011
TPCO	P	829075	0.26	0.19	0.86	0.009	0.002	0.03	0.94	0.41	0.05	0.018	0.0005	0.00009

Note: Heat No 829075 is corresponding to TPCO ORIGINAL HEAT NO. 522198

备注: 炉号829075的TPCO原始炉号为 522198

Mechanical Test Data 机械性能 (Type: Rt0.7)

Specimen 试样	Pos No. 件号	Size 尺寸	Heat 炉号	Lot 批号	Tensile 抗拉强度 PSI	Yield 屈服强度 PSI	Elong %	RA%
Tube 管体	60P	1"	829075	486	155,617	145,030	19.1	59.0
Upset 加厚	60U	.500"	829075	486	161,708	150,686	18.5	59.0

SPECIFICATION REQUIREMENTS 规范要求 145 KSI MIN 135-165 KSI

Longitudinal Charpy-V Notch Impact Data 冲击功(FT-LBS)

Specimen 试样	Size 尺寸 (mm)	Temp (F) 温度	Heat 炉号	Lot 批号	AK1	AK2	AK3	AVG	Shear (%)
Tube 管体	60P 10*7.5	70	829075	486	68.60	72.28	69.33	70.07	100

SPECIFICATION REQUIREMENTS 规范要求 70°F Min.Avg.: 40 ft/lb(fullsize)

All properties meet the requirements of API Specification 5DP Latest Edition, GPJ specification GPJ1010 R0 for Grade S135. and remaining body wall meets or exceed 95% , I certify that these tests were conducted in accordance with applicable specifications and that the data contained herein is true 所有的产品满足API 5 DP 规范、GPJ1010 R0规范的要求, 管体最小壁厚95%, 我证明这些实验是按照相关的规范要求加工, 并且提供的数据是真实的正确的。



Tianjin Grant Prideco Representative

31-May-12

Date



Customer 客户: GPJ

Sales Order #: 销售单号 TGP.CN201226

DESCRIPTION 描述: 5.5" 24.70# 0.415" WT H-SERIES RANGE 2 SMLS DRILL PIPE QUENCHED AND TEMPERED TO GRADE S135

QUALITY DOCUMENTATION PACKAGE

Certificate of Testing for Drill Pipe

管体检验证书

Mill Chemistry 化学性能(%) L:熔炼成份 P:成品成份

Mill 生产厂	Type形式	HeatNo. 炉号	C	Si	Mn	P	S	Ni	Cr	Mo	Cu	Al	B	H
TPCO	L	829076	0.28	0.26	0.87	0.010	0.007	0.05	0.95	0.42	0.14	0.016	0.0006	
TPCO	P	829076	0.27	0.26	0.86	0.010	0.005	0.04	0.96	0.42	0.13	0.015	0.0006	0.00001
TPCO	P	829076	0.27	0.24	0.83	0.010	0.005	0.04	0.97	0.41	0.11	0.021	<0.0005	0.00007

Note: Heat No 829076 is corresponding to TPCO ORIGINAL HEAT NO. 017247

备注: 炉号829076的TPCO原始炉号为 017247

Mechanical Test Data 机械性能 (Type: Rt0.7)

Specimen 试样	Pos No. 件号	Size 尺寸	Heat 炉号	Lot 批号	Tensile 抗拉强度 PSI	Yield 屈服强度 PSI	Elong %	RA%
Tube 管体	38P	1"	829076	487	163,304	153,152	19.5	59.0
Upset 加厚	38U	.500"	829076	487	171,861	155,182	20.8	59.0

SPECIFICATION REQUIREMENTS 规范要求 145 KSI MIN 135-165 KSI

Longitudinal Charpy-V Notch Impact Data 冲击功(FT-LBS)

Specimen 试样	Size 尺寸 (mm)	Temp (F) 温度	Heat 炉号	Lot 批号	AK1	AK2	AK3	AVG	Shear (%)
Tube 管体 38P	10*7.5	70	829076	487	58.27	54.58	57.53	56.80	100

SPECIFICATION REQUIREMENTS 规范要求 70°F Min.Avg.: 40 ft/lb(fullsize)

All properties meet the requirements of API Specification 5DP Latest Edition, GPJ specification GPJ1010 R0 for Grade S135. and remaining body wall meets or exceed 95% , I certify that these tests were conducted in accordance with applicable specifications and that the data contained herein is true 所有的产品满足API 5 DP 规范、GPJ1010 R0规范的要求, 管体最小壁厚95%, 我证明这些实验是按照相关的规范要求加工, 并且提供的数据是真实的正确的。



Tianjin Grant Prideco Representative

31-May-12

Date



Customer 客户: GPJ

Sales Order #: 销售单号 TGP.CN201226

DESCRIPTION 描述: 5.5" 24.70# 0.415" WT H-SERIES RANGE 2 SMLS DRILL PIPE QUENCHED AND TEMPERED TO GRADE S135

QUALITY DOCUMENTATION PACKAGE

Certificate of Testing for Drill Pipe

管体检验证书

Mill Chemistry 化学性能(%) L:熔炼成份 P:成品成份

Mill 生产厂	Type形式	HeatNo. 炉号	C	Si	Mn	P	S	Ni	Cr	Mo	Cu	Al	B	H
TPCO	L	829040	0.27	0.24	0.86	0.008	0.004	0.03	0.98	0.41	0.06	0.021	0.0006	
TPCO	P	829040	0.27	0.23	0.93	0.008	0.003	0.03	1.00	0.40	0.06	0.015	0.0005	0.00006
TPCO	P	829040	0.26	0.22	0.94	0.009	0.003	0.04	1.00	0.40	0.06	0.014	0.0005	0.00003

Note: Heat No 829040 is corresponding to TPCO ORIGINAL HEAT NO. 021549

备注: 炉号829040的TPCO原始炉号为 021549

Mechanical Test Data 机械性能 (Type: Rt0.7)

Specimen 试样 Pos No. 件号	Size 尺寸	Heat 炉号	Lot 批号	Tensile 抗拉强度 PSI	Yield 屈服强度 PSI	Elong %	RA%
Tube 管体 16P	1"	829040	342	162,724	148,656	18.1	58.0
Tube 管体 46P	1"	829040	343	163,594	149,961	20.9	58.0
Tube 管体 20P	1"	829040	344	162,869	152,572	20.3	59.0
Upset 加厚 16U	.500"	829040	342	161,273	147,205	18.3	59.0
Upset 加厚 46U	.500"	829040	343	170,555	156,487	21.2	58.0
Upset 加厚 20U	.500"	829040	344	168,670	151,846	21.1	59.0

SPECIFICATION REQUIREMENTS 规范要求 145 KSI MIN 135-165 KSI

Longitudinal Charpy-V Notch Impact Data 冲击功(FT-LBS)

Specimen 试样	Size 尺寸 (mm)	Temp (F) 温度	Heat 炉号	Lot 批号	AK1	AK2	AK3	AVG	Shear (%)
Tube 管体 16P	10*7.5	70	829040	342	73.76	74.50	72.28	73.51	100
Tube 管体 46P	10*7.5	70	829040	343	76.71	78.19	78.19	77.69	100
Tube 管体 20P	10*7.5	70	829040	344	75.24	74.50	75.97	75.24	100

SPECIFICATION REQUIREMENTS 规范要求 70°F Min.Avg.: 40 ft/lb(fullsize)

All properties meet the requirements of API Specification 5DP Latest Edition, GPJ specification GPJ1010 R0 for Grade S135, and remaining body wall meets or exceeds 95%, I certify that these tests were conducted in accordance with applicable specifications and that the data contained herein is true 所有的产品满足API 5 DP 规范、GPJ1010 R0规范的要求, 管体最小壁厚95%, 我证明这些实验是按照相关的规范要求加工, 并且提供的数据是真实的正确的。



Tianjin Grant Prideco Representative

31-May-12

Date



Customer 客户: GPJ

Sales Order #: 销售单号 TGP.CN201226

DESCRIPTION 描述: 5.5" 24.70# 0.415" WT H-SERIES RANGE 2 SMLS DRILL PIPE QUENCHED AND TEMPERED TO GRADE S135

QUALITY DOCUMENTATION PACKAGE

Certificate of Testing for Drill Pipe

管体检验证书

Mill Chemistry 化学性能(%) L:熔炼成份 P:成品成份

Mill 生产厂	Type形式	HeatNo. 炉号	C	Si	Mn	P	S	Ni	Cr	Mo	Cu	Al	B	H
TPCO	L	829041	0.27	0.22	0.94	0.009	0.003	0.04	0.97	0.41	0.07	0.015	0.0005	
TPCO	P	829041	0.27	0.22	0.93	0.009	0.003	0.03	0.97	0.40	0.06	0.014	0.0005	0.00008
TPCO	P	829041	0.27	0.22	0.93	0.009	0.003	0.04	0.99	0.40	0.06	0.014	0.0005	0.00007

Note: Heat No 829041 is corresponding to TPCO ORIGINAL HEAT NO. 521739

备注: 炉号829041的TPCO原始炉号为 521739

Mechanical Test Data 机械性能 (Type: Rt0.7)

Specimen 试样	Pos No. 件号	Size 尺寸	Heat 炉号	Lot 批号	Tensile 抗拉强度 PSI	Yield 屈服强度 PSI	Elong %	RA%
Tube 管体	45P	1"	829041	350	159,823	147,350	19.7	58.0
Upset 加厚	45U	.500"	829041	350	163,014	150,541	17.1	58.0

SPECIFICATION REQUIREMENTS 规范要求 145 KSI MIN 135-165 KSI

Longitudinal Charpy-V Notch Impact Data 冲击功(FT-LBS)

Specimen 试样	Size 尺寸 (mm)	Temp (F) 温度	Heat 炉号	Lot 批号	AK1	AK2	AK3	AVG	Shear (%)
Tube 管体 45P	10*7.5	70	829041	350	87.04	80.40	81.14	82.86	100

SPECIFICATION REQUIREMENTS 规范要求 70°F Min.Avg.: 40 ft/lb(fullsize)

All properties meet the requirements of API Specification 5DP Latest Edition, GPJ specification GPJ1010 R0 for Grade S135. and remaining body wall meets or exceed 95% , I certify that these tests were conducted in accordance with applicable specifications and that the data contained herein is true 所有的产品满足API 5 DP 规范、GPJ1010 R0规范的要求, 管体最小壁厚95%, 我证明这些实验是按照相关的规范要求加工, 并且提供的数据是真实的正确的。



Tianjin Grant Prideco Representative

31-May-12

Date



Customer 客户: GPJ

Sales Order #: 销售单号 TGP.CN201226

DESCRIPTION 描述: 5.5" 24.70# 0.415" WT H-SERIES RANGE 2 SMLS DRILL PIPE QUENCHED AND TEMPERED TO GRADE S135

QUALITY DOCUMENTATION PACKAGE

Certificate of Testing for Drill Pipe

管体检验证书

Mill Chemistry 化学性能(%) L:熔炼成份 P:成品成份

Mill 生产厂	Type形式	HeatNo. 炉号	C	Si	Mn	P	S	Ni	Cr	Mo	Cu	Al	B	H
TPCO	L	819016	0.27	0.23	0.84	0.008	0.003	0.03	0.97	0.41	0.08	0.022	0.01	
TPCO	P	819016	0.26	0.23	0.84	0.008	0.003	0.03	0.97	0.40	0.05	0.020	<0.0005	
TPCO	P	819016	0.28	0.24	0.85	0.008	0.003	0.03	0.96	0.41	0.05	0.020	<0.0005	

Note: Heat No 819016 is corresponding to TPCO ORIGINAL HEAT NO. 010418

备注: 炉号819016的TPCO原始炉号为 010418

Mechanical Test Data 机械性能 (Type: Rt0.7)

Specimen试样Pos No.件号	Size 尺寸	Heat炉号	Lot批号	Tensile抗拉强度 PSI	Yield屈服强度 PSI	Elong %	RA%
Tube管体 180-001-1	1"	819016	180	155, 182	145, 175	21.5	42.0
Upset加厚 180-001-3	.500"	819016	180	159, 098	144, 160	20.0	56.0

SPECIFICATION REQUIREMENTS 规范要求 145 KSI MIN 135-165 KSI

Longitudinal Charpy-V Notch Impact Data 冲击功(FT-LBS)

Specimen试样Size尺寸(mm)	Temp (F) 温度	Heat炉号	Lot批号	AK1	AK2	AK3	AVG	Shear (%)
Tube管体 180-001-1 10*7.5	70	819016	180	59.75	61.96	58.27	59.99	100

SPECIFICATION REQUIREMENTS 规范要求 70°F Min.Avg.: 40 ft/lb(fullsize)

All properties meet the requirements of API Specification 5DP Latest Edition, GPJ specification GPJ1010 R0 for Grade S135. and remaining body wall meets or exceed 95% , I certify that these tests were conducted in accordance with applicable specifications and that the data contained herein is true 所有的产品满足API 5 DP 规范、GPJ1010 R0规范的要求, 管体最小壁厚95%, 我证明这些实验是按照相关的规范要求加工, 并且提供的数据是真实的正确的。



Tianjin Grant Prideco Representative

31-May-12

Date



Customer客户: GPJ

Sales Order #:销售单号 TGP.CN201226

DESCRIPTION 描述: 5.5" 24.70# 0.415"WT H-SERIES RANGE 2 SMLS DRILL PIPE QUENCHED AND TEMPERED TO GRADE S135

QUALITY DOCUMENTATION PACKAGE

Certificate of Testing for Drill Pipe

管体检验证书

Mill Chemistry 化学性能(%) L:熔炼成份 P:成品成份

Mill 生产厂	Type形式	HeatNo. 炉号	C	Si	Mn	P	S	Ni	Cr	Mo	Cu	Al	B	H
TPCO	L	809037	0.26	0.25	0.90	0.010	0.002	0.03	0.97	0.40	0.06	0.014	0.0004	
TPCO	P	809037	0.26	0.26	0.90	0.010	0.002	0.02	0.96	0.40	0.05	0.015	<0.0005	
TPCO	P	809037	0.28	0.26	0.90	0.010	0.002	0.03	0.94	0.40	0.05	0.015	<0.0005	

Note: Heat No 809037 is corresponding to TPCO ORIGINAL HEAT NO. 501310

备注: 炉号809037的TPCO原始炉号为 501310

Mechanical Test Data 机械性能 (Type: Rt0.7)

Specimen试样Pos No.件号	Size 尺寸	Heat炉号	Lot批号	Tensile抗拉强度 PSI	Yield屈服强度 PSI	Elong %	RA%
Tube管体 52-156-2	1"	809037	52	159,968	141,839	22.5	49.0
Upset加厚 52-156-4	.500"	809037	52	164,754	152,282	20.5	59.0

SPECIFICATION REQUIREMENTS 规范要求 145 KSI MIN 135-165 KSI

Longitudinal Charpy-V Notch Impact Data 冲击功(FT-LBS)

Specimen试样Size尺寸(mm)	Temp (F) 温度	Heat炉号	Lot批号	AK1	AK2	AK3	AVG	Shear (%)
Tube管体 52-156-2 10*7.5	70	809037	52	58.27	56.80	56.06	57.04	100

SPECIFICATION REQUIREMENTS 规范要求 70°F Min.Avg.: 40 ft/lb(fullsize)

All properties meet the requirements of API Specification 5DP Latest Edition, GPJ specification GPJ1010 R0 for Grade S135. and remaining body wall meets or exceed 95% , I certify that these tests were conducted in accordance with applicable specifications and that the data contained herein is true 所有的产品满足API 5 DP 规范、GPJ1010 R0规范的要求, 管体最小壁厚95%, 我证明这些实验是按照相关的规范要求加工, 并且提供的数据是真实的正确的。



Tianjin Grant Prideco Representative

31-May-12

Date



Customer客户: GPJ

Sales Order #:销售单号 TGP.CN201226

DESCRIPTION 描述: 5.5" 24.70# 0.415"WT H-SERIES RANGE 2 SMLS DRILL PIPE QUENCHED AND TEMPERED TO GRADE S135

QUALITY DOCUMENTATION PACKAGE

Certificate of Testing for Drill Pipe

管体检验证书

Mill Chemistry 化学性能(%) L:熔炼成份 P:成品成份

Mill 生产厂	Type形式	HeatNo. 炉号	C	Si	Mn	P	S	Ni	Cr	Mo	Cu	Al	B	H
TPCO	L	819044	0.30	0.23	0.85	0.007	0.004	0.04	0.95	0.42	0.08	0.008	0.0004	0.00008
TPCO	P	819044	0.27	0.24	0.88	0.007	0.004	0.03	0.96	0.43	0.08	0.021	<0.0005	
TPCO	P	819044	0.26	0.24	0.90	0.006	0.004	0.03	0.98	0.43	0.08	0.022	<0.0005	

Note: Heat No 819044 is corresponding to TPCO ORIGINAL HEAT NO. 410128

备注: 炉号819044的TPCO原始炉号为 410128

Mechanical Test Data 机械性能 (Type: Rt0.7)

Specimen 试样	Pos No. 件号	Size 尺寸	Heat 炉号	Lot 批号	Tensile 抗拉强度 PSI	Yield 屈服强度 PSI	Elong %	RA%
Tube 管体	14P	1"	819044	948	156,342	147,931	20.9	58.0
Upset 加厚	14U	.500"	819044	948	162,869	151,266	21.5	58.0

SPECIFICATION REQUIREMENTS 规范要求 145 KSI MIN 135-165 KSI

Longitudinal Charpy-V Notch Impact Data 冲击功(FT-LBS)

Specimen 试样	Size 尺寸 (mm)	Temp (F) 温度	Heat 炉号	Lot 批号	AK1	AK2	AK3	AVG	Shear (%)
Tube 管体	14P 10*7.5	70	819044	948	87.04	81.14	84.09	84.09	97

SPECIFICATION REQUIREMENTS 规范要求 70°F Min.Avg.: 40 ft/lb(fullsize)

All properties meet the requirements of API Specification 5DP Latest Edition, GPJ specification GPJ1010 R0 for Grade S135. and remaining body wall meets or exceed 95% , I certify that these tests were conducted in accordance with applicable specifications and that the data contained herein is true 所有的产品满足API 5 DP 规范、GPJ1010 R0规范的要求, 管体最小壁厚95%, 我证明这些实验是按照相关的规范要求加工, 并且提供的数据是真实的正确的。



Tianjin Grant Prideco Representative

31-May-12

Date



Customer 客户: GPJ

Sales Order #: 销售单号 TGP.CN201226

DESCRIPTION 描述: 5.5" 24.70# 0.415" WT H-SERIES RANGE 2 SMLS DRILL PIPE QUENCHED AND TEMPERED TO GRADE S135

QUALITY DOCUMENTATION PACKAGE

公接头试验证书

Certificate of Testing for Pin Tool Joints

化学成份Mill Chemistry(%)

制造商Mill	冶炼炉号Heat No.	C	SI	MN	P	S	CR	NI	MO	CU	CA	N	H(ppm)
JSD	12700628	0.37	0.27	0.89	0.006	0.001	1.12	0.09	0.31	0.07	0.0010	0.0048	1.0
		0.35-0.38	0.15-0.35	0.85-1.00	0.015 MAX	0.008 MAX	0.90-1.20	0.25 MAX	0.28-0.33	0.25 MAX	0.005 MAX	0.009 MAX	2ppm MAX

机械性能试验数据Mechanical Test Data

试样号	尺寸	冶炼炉号	热处理号	抗拉强度ksi	屈服强度ksi	延伸率%	断面收缩率%	外圆布氏硬度	API位置布氏硬度
Position	Size	Heat No.	Heat Code	Tensile	Yield	Elong	RA	OD BHN	API Location BHN
12HB00011	0.500"	12700628	1206785	144.0	124.9	19.0	64.0	293	304
12HB00317	0.500"	12700628	1206839	154.9	137.1	18.0	65.0	326	300
12HB00651	0.500"	12700628	1206937	152.7	134.6	18.0	66.0	293	300
12HB00553	0.500"	12700628	1206954	158.1	140.8	17.0	61.0	329	315
12HB00843	0.500"	12700628	1206891	151.7	134.3	18.0	64.0	300	300
12HB00767	0.500"	12700628	1206896	159.4	144.9	18.0	63.0	331	331
		140-160ksi(965-1103Mpa)		120-145ksi(828-1000Mpa)		13.0%MIN	46.0%MIN	293-331HBW	293-331HBW

纵向夏比-V槽冲击数据Longitudinal Charpy-V Notch Impact Data (Ft-lbs)

尺寸(mm)	温度(T)	试样号	冶炼炉号	热处理号	单个A	单个B	单个C	平均值	剪切面积比%
Size	Temp	Position	Heat No.	Heat Code	A	B	C	Avg	Shear(%)
10 x 10 mm	-4 °F	12HB00011	12700628	1206785	81.1	81.1	82.6	81.6	36.0
10 x 10 mm	-4 °F	12HB00317	12700628	1206839	76.7	74.5	75.2	75.5	35.0
10 x 10 mm	-4 °F	12HB00651	12700628	1206937	97.4	83.3	83.3	88.0	58.0
10 x 10 mm	-4 °F	12HB00553	12700628	1206954	69.3	70.1	69.3	69.6	33.0
10 x 10 mm	-4 °F	12HB00843	12700628	1206891	85.6	78.2	73.8	79.2	37.0
10 x 10 mm	-4 °F	12HB00767	12700628	1206896	66.4	66.4	68.6	67.1	26.0
平均值AVG:50Ft-lbs MIN(68J MIN), 单个值SINGLE44Ft-lbs MIN(60J MIN)									

(GPDS55) 公接头PIN7"OD外径×3-1/2"ID内径 10"外径长度LENGTH OF OD

所有机械性能满足格兰特(江苏)钻具有限公司GPJ1070接头规范要求。

All properties meet the requirements of GPJ1070 tool joint Specification.

我保证这些试验是根据适用的规范进行的, 并且此证明书包含的数据是真实和正确的。

I certify that these tests were conducted in accordance with applicable specifications and that the data contained herein is true and correct.



06/29/2012
日期Date

代码Code:QI-15-①-2012

销售订单号Sales Order #:2012-X32

描述Description: (GPDS55) 公接头PIN7"外径OD×3-1/2"ID内径 10"外径长度LENGTH OF OD

顾客Customer:GPJ

采购订单号Purchase Order #:12-ED052

质量文件包裹QUALITY DOCUMENTATION PACKAGE

母接头试验证书

Certificate of Testing for Box Tool Joints

化学成份Mill Chemistry(%)

制造商Mill	冶炼炉号Heat No.	C	SI	MN	P	S	CR	NI	MO	CU	CA	N	H(ppm)
JSD	E21201657XX	0.35	0.30	0.95	0.014	0.004	1.15	0.12	0.31	0.02	0.0005	0.0036	0.5
		0.35-0.38	0.15-0.35	0.85-1.00	0.015 MAX	0.008 MAX	0.90-1.20	0.25 MAX	0.28-0.33	0.25 MAX	0.005 MAX	0.009 MAX	2ppm MAX

机械性能试验数据Mechanical Test Data

试样号	尺寸	冶炼炉号	热处理号	抗拉强度ksi	屈服强度ksi	延伸率%	断面收缩率%	外圆布氏硬度	API位置布氏硬度
Position	Size	Heat No.	Heat Code	Tensile	Yield	Elong	RA	OD BHN	API Location BHN
12BD00048	0.500"	E21201657XX	1204282	156.6	142.0	17.0	61.0	331	326
12BD00266	0.500"	E21201657XX	1204278	146.2	130.5	18.0	67.0	293	331
12BD00024	0.500"	E21201657XX	1204500	153.9	139.5	17.0	61.0	331	307
12BD00012	0.500"	E21201657XX	1204078	147.8	131.5	18.0	68.0	300	306
12BD00384	0.500"	E21201657XX	1204499	146.5	130.1	19.0	67.0	293	298
12BD01148	0.500"	E21201657XX	1204501	150.8	135.2	19.0	65.0	331	300
				140-160ksi(965-1103Mpa)	120-145ksi(828-1000Mpa)	13.0%MIN	45.0%MIN	293-331HBW	293-331HBW

夏比-V槽冲击数据Charpy-V Notch Impact Data (Ft-lbs)

尺寸(mm)	温度(T)	试样号	冶炼炉号	热处理号	单个A	单个B	单个C	横向平均值	剪切面积比%	单个A	单个B	单个C	纵向平均值	剪切面积比%
Size	Temp	Position	Heat No.	Heat Code	A	B	C	Avg Transversal	Shear (%)	A	B	C	Avg Longitudinal	Shear (%)
10 x 10 mm	-4 °F	12BD00048	E21201657XX	1204282	66.4	69.3	68.6	68.1	23.0	68.6	68.6	70.8	69.3	26.0
10 x 10 mm	-4 °F	12BD00266	E21201657XX	1204278	67.1	65.6	71.5	68.1	33.0	88.5	93.7	86.3	89.5	36.0
10 x 10 mm	-4 °F	12BD00024	E21201657XX	1204500	63.4	60.5	66.4	63.4	22.0	91.5	82.6	82.6	85.6	42.0
10 x 10 mm	-4 °F	12BD00012	E21201657XX	1204078	70.8	77.4	67.1	71.8	21.0	97.4	85.6	103.3	95.4	45.0
10 x 10 mm	-4 °F	12BD00384	E21201657XX	1204499	70.1	76.0	73.8	73.3	28.0	105.5	96.6	100.3	100.8	51.0
10 x 10 mm	-4 °F	12BD01148	E21201657XX	1204501	64.2	67.9	60.5	64.2	22.0	82.6	90.0	84.1	85.6	41.0
横向平均值Transversal AVG.40Ft-lbs MIN(54J MIN),单个值SINGLE35Ft-lbs MIN(47J MIN); 纵向平均值Longitudinal AVG.50Ft-lbs MIN(68J MIN),单个值SINGLE44Ft-lbs MIN(60J MIN)														

(GPDS55) 母接头BOX7"OD外径×3-1/2"ID内径 12"外径长度LENGTH OF OD

所有机械性能满足格兰特(江苏)钻具有限公司GPJ1070接头规范要求。

All properties meet the requirements of GPJ1070 tool joint Specification.

我保证这些试验是根据适用的规范进行的,并且此证明书包含的数据是真实和正确的。

I certify that these tests were conducted in accordance with applicable specifications and that the data contained herein is true and correct.



06/29/2012
日期Date

代码Code:Q1-15-②-2012

销售订单号Sales Order #:2012-X32

描述Description: (GPDS55) 母接头BOX7"外径OD×3-1/2"ID内径 12"外径长度LENGTH OF OD

顾客Customer:GPJ

采购订单号Purchase Order #:12-ED052

质量文件包Quality Documentation Package

Certificate of Testing for Weld Area

Mechanical Test Data

Specimen	Position	Size	Tensile PSI	Yield PSI	Elong%	RA%	Remark
Weld-box	12-06-020	0.5"	129224	111240	16	65	
Weld-pin	12-06-021	0.5"	127339	111240	16	68	
Weld-box	12-06-022	0.5"	124583	106889	18	67	

180 Degree Bend Test and Microstructure Verification

	Side Bend1	Side Bend2	Microstructure Verified	Remark
All Test Sample	Passed	Passed	OK	

Longitudinal Charpy-V Notch Impct Data(FT-LB)

Size(mm)	Temp(⁰ F)	Position	A	B	C	Avg	shear%	Remark
10X10	-4	12-06-020	46	55	49	50	26	
10X10	-4	12-06-021	55	88	52	65	46	
10X10	-4	12-06-022	81	66	66	71	53	

Throughwall Hardness HRC

Production Number		Pipe Average			Tool Joint Average			
	Pos. No	OD	MD	ID	OD	MD	ID	
570	12-06-020	27	27	28.5	31	33	33	
	12-06-021	27	26	24	29	31	32	
	12-06-022	26	25.5	27	30.5	29	30.5	

All properties meet the requirements of API specification 5DP, Latest Edition, and Grant Prideco/GPJ2000 specification for Weld Area, I certify that these tests were conducted in accordance with applicable specifications and that the data contained herein is true and correct.



September 2, 2012

NOV Grant Prideco Representative

Date

Customer: WOODHOUSE INTERNATIONAL

Customer Purchase Order Number: WDO-50531-1-1

NOV GP Order Confirmation Number: 1000106960



Description: 5.5"OD 0.415" WT 24.7LB./FT." IEU R2 S135 DRILL PIPE

GPDS55 PIN 7"OD×3.5"ID & 10" PIN OD LENGTH & H-SERIES BENCHMARK

ARNCO 300XT HARDBANDING FOR GPDS55 PIN

GPDS55 BOX 7"OD×3.5"ID & 12"BOX OD LENGTH & H-SERIES BENCHMARK

ARNCO 300XT HARDBANDING FOR GPDS55 BOX

TK-34 INTERNAL COATING

Quality Documentation Package



JQF7528/120401

产品质量证明书

QUALITY INSPECTION AND TESTING CERTIFICATE

HEBEI HUAYOUYIJI TUBOSCOPE COATING CO., LTD.

收货单位: 格兰特 (江苏) 钻具有限公司

Customer:

货物名称: 钻杆内涂层

Commodity: Drill pipe internal coating

合同号(Contract No.): -

生产编号(Production No.): JNT120618

本批钻杆, 经本公司质量检验部门, 依据 内涂层工程规范 (GPJ501)
标准检验合格。特发此证。

The internal coating products of drill pipes have passed the
technical inspection according to GPJ501. Hereby we issued the
certification of fitness as proof.

Certificate No.: J120913214

Produced by Tuboscope USA

Type of coating: TK34

quality supervisor:

原管号 Original tube No.	规格型号 Pipe Specification	材质 Steel Material	数量 Quantity			干膜厚度 Dry film thickness	漏点检测 Holiday inspection	目视检验 Visual inspection	涂层颜色 Coating color	附着力 Adhesion test
			根数 Joints	长度 Total length	重量 Total Weight					
12-ED052	5-1/2"钻杆	S135	570	17990.42FT	236.805T	合格 Qualified	合格 passed	无缺陷 No Defects	浅棕色 Light Brown	合格 Qualified

说明: 运输装卸损坏不在检查范围内。
Note: The damages during shipping and loading are not included in the range of inspection.

检验员 Inspector: 刘桂美

负责人 Director: 王科辉

生产日期: Production date: 2012-09-02





Certificate of Weld Area Ultrasonic Shear Wave and Magnetic Particle Inspection

Customer: WOODHOUSE INTERNATIONAL

Customer Purchase Order Number: WDO-50531-1-1

NOV GP Order Confirmation Number: 1000106960

This hereby certifies that Weld Area U/T and MPI Inspection have been performed on the following and in strict compliance with the Applicable Grant Prideco/GPJ Operating Procedure for Weld Area U/T and MPI Inspection, Latest Revision. The issuance of this certificate indicates that the Weld Area U/T and MPI Inspection was completed.

Weld Area UT Procedure: UT-1 Rev 0

Weld Area MPI Procedure: MPI-1 Rev 0

570 Joints

NOV Grant Prideco Representative

September 2, 2012

Date

Customer: WOODHOUSE INTERNATIONAL

Customer Purchase Order Number: WDO-50531-1-1

NOV GP Order Confirmation Number: 1000106960



Description: 5.5"OD 0.415" WT 24.7LB./FT." IEU R2 S135 DRILL PIPE

GPDS55 PIN 7"OD×3.5"ID & 10" PIN OD LENGTH & H-SERIES BENCHMARK

ARNCO 300XT HARBANDING FOR GPDS55 PIN

GPDS55 BOX 7"OD×3.5"ID & 12"BOX OD LENGTH & H-SERIES BENCHMARK

ARNCO 300XT HARBANDING FOR GPDS55 BOX

TK-34 INTERNAL COATING

Quality Documentation Package



Weight(KG) Total Length(FT) Total Weight(LB) Total Joints
236805 17990.42 522155.025 570

SERIALIZATION LOG

Work order: 12-ED052

Date: 09.02.2012

Inspected By: GPJ

Customer: WOODHOUSE INTERNATIONAL

CO: 1000106960

Product Description: 5.5" S135

Production SN.	Pipe Heat no.	Pipe SN.	Pin Heat Numbers	Pin Heat Code	Box Heat Numbers	Box Heat Code	Length(FT)	Mass(LB)	OD	ID	BD	VT	U.T.Mag
J52841	829073	485049	12HB00593	12700628	12BD00504	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J52842	829073	485012	12HB00221	12700628	12BD00616	E21201657XX	31.66	919.485	✓	✓	✓	✓	✓
J52843	829040	344017	12HB00639	12700628	12BD01028	E21201657XX	31.59	923.895	✓	✓	✓	✓	✓
J52844	829073	485053	12HB00547	12700628	12BD01050	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓
J52845	829073	485006	12HB00089	12700628	12BD00580	E21201657XX	31.56	923.895	✓	✓	✓	✓	✓
J52846	829073	485074	12HB01081	12700628	12BD01026	E21201657XX	31.59	912.870	✓	✓	✓	✓	✓
J52847	829073	485038	12HB00113	12700628	12BD01016	E21201657XX	31.56	919.485	✓	✓	✓	✓	✓
J52848	829073	485059	12HB00243	12700628	12BD00178	E21201657XX	31.56	919.485	✓	✓	✓	✓	✓
J52849	829073	485095	12HB01001	12700628	12BD00430	E21201657XX	31.53	921.690	✓	✓	✓	✓	✓
J52850	829073	485086	12HB01149	12700628	12BD00418	E21201657XX	31.56	923.895	✓	✓	✓	✓	✓
J52851	829073	485072	12HB00313	12700628	12BD00538	E21201657XX	31.63	917.280	✓	✓	✓	✓	✓
J52852	829073	485051	12HB00491	12700628	12BD00690	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J52853	829073	485010	12HB00947	12700628	12BD00922	E21201657XX	31.53	919.485	✓	✓	✓	✓	✓
J52854	829073	485071	12HB00943	12700628	12BD00548	E21201657XX	31.53	923.895	✓	✓	✓	✓	✓
J52855	829074	484043	12HB00399	12700628	12BD01098	E21201657XX	31.59	921.690	✓	✓	✓	✓	✓
J52856	829074	484013	12HB00365	12700628	12BD00802	E21201657XX	31.50	919.485	✓	✓	✓	✓	✓
J52857	829074	484050	12HB00435	12700628	12BD00471	E21201657XX	31.56	923.895	✓	✓	✓	✓	✓
J52858	829074	484017	12HB00623	12700628	12BD00520	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓
J52859	829074	484033	12HB00337	12700628	12BD00088	E21201657XX	31.53	921.690	✓	✓	✓	✓	✓
J52860	829073	485082	12HB00999	12700628	12BD01142	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J52861	829074	484029	12HB00905	12700628	12BD00416	E21201657XX	31.53	919.485	✓	✓	✓	✓	✓
J52862	829074	484035	12HB00935	12700628	12BD00648	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓
J52863	829074	484014	12HB01023	12700628	12BD00394	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J52864	829073	485021	12HB00823	12700628	12BD00570	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓
J52865	829073	485115	12HB00259	12700628	12BD00628	E21201657XX	31.53	919.485	✓	✓	✓	✓	✓
J52866	829073	485039	12HB00883	12700628	12BD00100	E21201657XX	31.53	919.485	✓	✓	✓	✓	✓
J52867	829073	485109	12HB00353	12700628	12BD00112	E21201657XX	31.59	912.870	✓	✓	✓	✓	✓
J52868	829073	485122	12HB00431	12700628	12BD00314	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J52869	829073	485130	12HB01011	12700628	12BD01150	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J52870	829073	485056	12HB00415	12700628	12BD00278	E21201657XX	31.53	919.485	✓	✓	✓	✓	✓
J52871	829073	485064	12HB00355	12700628	12BD00958	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J52872	829073	485024	12HB00369	12700628	12BD00970	E21201657XX	31.63	917.280	✓	✓	✓	✓	✓
J52873	829073	485026	12HB00327	12700628	12BD00844	E21201657XX	31.59	912.870	✓	✓	✓	✓	✓
J52874	829073	485073	12HB00271	12700628	12BD00164	E21201657XX	31.56	912.870	✓	✓	✓	✓	✓
J52875	829076	487112	12HB00103	12700628	12BD00118	E21201657XX	31.56	923.895	✓	✓	✓	✓	✓
J52876	829074	484042	12HB00915	12700628	12BD00262	E21201657XX	31.56	919.485	✓	✓	✓	✓	✓
J52877	829074	484027	12HB00153	12700628	12BD00682	E21201657XX	31.53	919.485	✓	✓	✓	✓	✓
J52878	829074	484024	12HB00385	12700628	12BD00820	E21201657XX	31.63	919.485	✓	✓	✓	✓	✓
J52879	829073	485036	12HB00633	12700628	12BD00600	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J52880	829073	485065	12HB00683	12700628	12BD00660	E21201657XX	31.59	921.690	✓	✓	✓	✓	✓
J52881	819044	948056	12HB00839	12700628	12BD00074	E21201657XX	31.40	932.715	✓	✓	✓	✓	✓
J52882	819044	948061	12HB01013	12700628	12BD00090	E21201657XX	31.33	917.280	✓	✓	✓	✓	✓
J52883	829073	485084	12HB00143	12700628	12BD01160	E21201657XX	31.46	923.895	✓	✓	✓	✓	✓
J52884	819044	948048	12HB00117	12700628	12BD00654	E21201657XX	31.40	923.895	✓	✓	✓	✓	✓
J52885	819044	948055	12HB00349	12700628	12BD01002	E21201657XX	31.43	919.485	✓	✓	✓	✓	✓
J52886	819044	948047	12HB00987	12700628	12BD00764	E21201657XX	31.40	915.075	✓	✓	✓	✓	✓
J52887	819044	948059	12HB00681	12700628	12BD00246	E21201657XX	31.40	917.280	✓	✓	✓	✓	✓
J52888	819044	948054	12HB00691	12700628	12BD01140	E21201657XX	31.36	919.485	✓	✓	✓	✓	✓
J52889	829074	484031	12HB00939	12700628	12BD00454	E21201657XX	31.53	921.690	✓	✓	✓	✓	✓
J52890	829075	486043	12HB01091	12700628	12BD01152	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J52891	819044	948087	12HB01037	12700628	12BD00460	E21201657XX	31.36	921.690	✓	✓	✓	✓	✓
J52892	829073	485131	12HB00743	12700628	12BD00228	E21201657XX	31.59	923.895	✓	✓	✓	✓	✓
J52893	819044	948090	12HB00073	12700628	12BD00756	E21201657XX	31.36	912.870	✓	✓	✓	✓	✓
J52894	819044	948091	12HB00219	12700628	12BD00212	E21201657XX	31.40	919.485	✓	✓	✓	✓	✓
J52895	829074	484025	12HB00123	12700628	12BD00456	E21201657XX	31.63	921.690	✓	✓	✓	✓	✓
J52896	819044	948092	12HB00215	12700628	12BD00440	E21201657XX	31.36	917.280	✓	✓	✓	✓	✓
J52897	829074	484023	12HB00081	12700628	12BD00264	E21201657XX	31.56	926.100	✓	✓	✓	✓	✓
J52898	829073	485050	12HB00787	12700628	12BD00712	E21201657XX	31.66	915.075	✓	✓	✓	✓	✓
J52899	829074	484021	12HB00303	12700628	12BD00462	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓



Weight(KG) Total Length(FT) Total Weight(LB) Total Joints
236805 17990.42 522155.025 570

SERIALIZATION LOG

Work order: 12-ED052

Date: 09.02.2012

Inspected By: GPJ

Customer: WOODHOUSE INTERNATIONAL

CO: 1000106960

Product Description: 5.5" S135

Production SN.	Pipe Heat no.	Pipe SN.	Pin Heat Numbers	Pin Heat Code	Box Heat Numbers	Box Heat Code	Length(FT)	Mass(LB)	OD	ID	BD	VT	U.T.Mag
J52900	829074	484030	12HB00263	12700628	12BD00816	E21201657XX	31.56	919.485	✓	✓	✓	✓	✓
J52901	819044	948079	12HB00655	12700628	12BD00688	E21201657XX	31.40	923.895	✓	✓	✓	✓	✓
J52902	829074	484041	12HB01005	12700628	12BD01076	E21201657XX	31.53	919.485	✓	✓	✓	✓	✓
J52903	829075	486016	12HB00923	12700628	12BD00972	E21201657XX	31.59	919.485	✓	✓	✓	✓	✓
J52904	829074	484005	12HB01097	12700628	12BD00056	E21201657XX	31.53	919.485	✓	✓	✓	✓	✓
J52905	829040	342035	12HB00909	12700628	12BD00484	E21201657XX	31.73	926.100	✓	✓	✓	✓	✓
J52906	819044	948086	12HB00375	12700628	12BD00754	E21201657XX	31.40	917.280	✓	✓	✓	✓	✓
J52907	829040	342022	12HB00973	12700628	12BD00940	E21201657XX	31.79	928.305	✓	✓	✓	✓	✓
J52908	829073	485108	12HB00277	12700628	12BD00774	E21201657XX	31.53	921.690	✓	✓	✓	✓	✓
J52909	819044	948078	12HB00299	12700628	12BD00644	E21201657XX	31.40	919.485	✓	✓	✓	✓	✓
J52910	829074	484040	12HB00715	12700628	12BD00960	E21201657XX	31.56	921.690	✓	✓	✓	✓	✓
J52911	829073	485104	12HB00911	12700628	12BD00748	E21201657XX	31.56	921.690	✓	✓	✓	✓	✓
J52912	829074	484055	12HB00423	12700628	12BD00722	E21201657XX	31.50	915.075	✓	✓	✓	✓	✓
J52913	829073	485083	12HB00105	12700628	12BD00450	E21201657XX	31.59	919.485	✓	✓	✓	✓	✓
J52914	829074	484051	12HB00667	12700628	12BD00990	E21201657XX	31.59	912.870	✓	✓	✓	✓	✓
J52915	829074	484037	12HB00373	12700628	12BD00172	E21201657XX	31.36	910.665	✓	✓	✓	✓	✓
J52916	829074	484060	12HB00659	12700628	12BD00862	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J52917	829074	484038	12HB00927	12700628	12BD00290	E21201657XX	31.59	919.485	✓	✓	✓	✓	✓
J52918	829074	484026	12HB00957	12700628	12BD00380	E21201657XX	31.63	915.075	✓	✓	✓	✓	✓
J52919	829040	342061	12HB01139	12700628	12BD00680	E21201657XX	31.73	923.895	✓	✓	✓	✓	✓
J52920	829073	485091	12HB00325	12700628	12BD00920	E21201657XX	31.63	919.485	✓	✓	✓	✓	✓
J52921	829074	484003	12HB00107	12700628	12BD00322	E21201657XX	31.59	923.895	✓	✓	✓	✓	✓
J52922	829073	485116	12HB00989	12700628	12BD00238	E21201657XX	31.66	917.280	✓	✓	✓	✓	✓
J52923	829073	485029	12HB00955	12700628	12BD00866	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J52924	829073	485055	12HB00101	12700628	12BD00244	E21201657XX	31.59	912.870	✓	✓	✓	✓	✓
J52925	829073	485016	12HB01017	12700628	12BD00588	E21201657XX	31.53	926.100	✓	✓	✓	✓	✓
J52926	829073	485042	12HB00679	12700628	12BD00134	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J52927	829073	485121	12HB00055	12700628	12BD01162	E21201657XX	31.56	926.100	✓	✓	✓	✓	✓
J52928	829073	485100	12HB00855	12700628	12BD00546	E21201657XX	31.53	921.690	✓	✓	✓	✓	✓
J52929	829073	485092	12HB00125	12700628	12BD00242	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J52930	829073	485117	12HB01107	12700628	12BD00762	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J52931	829073	485041	12HB00155	12700628	12BD00038	E21201657XX	31.53	915.075	✓	✓	✓	✓	✓
J52932	829073	485106	12HB00799	12700628	12BD00700	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J52933	829073	485008	12HB00097	12700628	12BD00378	E21201657XX	31.53	919.485	✓	✓	✓	✓	✓
J52934	829073	485044	12HB00371	12700628	12BD00544	E21201657XX	31.56	921.690	✓	✓	✓	✓	✓
J52935	829073	485120	12HB00941	12700628	12BD01084	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J52936	829073	485078	12HB00937	12700628	12BD00390	E21201657XX	31.50	921.690	✓	✓	✓	✓	✓
J52937	829073	485099	12HB01099	12700628	12BD00716	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J52938	829073	485080	12HB01121	12700628	12BD00412	E21201657XX	31.56	919.485	✓	✓	✓	✓	✓
J52939	819044	948057	12HB00305	12700628	12BD00132	E21201657XX	31.40	915.075	✓	✓	✓	✓	✓
J52940	829073	485124	12HB00525	12700628	12BD00068	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J52941	829073	485048	12HB01117	12700628	12BD00508	E21201657XX	31.56	921.690	✓	✓	✓	✓	✓
J52942	829073	485040	12HB00717	12700628	12BD00182	E21201657XX	31.50	919.485	✓	✓	✓	✓	✓
J52943	829073	485125	12HB01093	12700628	12BD01072	E21201657XX	31.50	921.690	✓	✓	✓	✓	✓
J52944	829073	485020	12HB00131	12700628	12BD00766	E21201657XX	31.53	921.690	✓	✓	✓	✓	✓
J52945	829073	485093	12HB00321	12700628	12BD00708	E21201657XX	31.59	923.895	✓	✓	✓	✓	✓
J52946	829073	485027	12HB00407	12700628	12BD00624	E21201657XX	31.59	912.870	✓	✓	✓	✓	✓
J52947	819044	948095	12HB00057	12700628	12BD00956	E21201657XX	31.36	923.895	✓	✓	✓	✓	✓
J52948	829074	484064	12HB01071	12700628	12BD00656	E21201657XX	31.50	921.690	✓	✓	✓	✓	✓
J52949	819044	948093	12HB00793	12700628	12BD00900	E21201657XX	31.36	921.690	✓	✓	✓	✓	✓
J52950	829074	484056	12HB00119	12700628	12BD01094	E21201657XX	31.40	912.870	✓	✓	✓	✓	✓
J52951	829073	485028	12HB01075	12700628	12BD00194	E21201657XX	31.53	928.305	✓	✓	✓	✓	✓
J52952	829073	485058	12HB00847	12700628	12BD00780	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J52953	829073	485113	12HB00287	12700628	12BD00026	E21201657XX	31.50	910.665	✓	✓	✓	✓	✓
J52954	819044	948062	12HB00061	12700628	12BD00670	E21201657XX	31.43	932.715	✓	✓	✓	✓	✓
J52955	829073	485085	12HB01135	12700628	12BD00464	E21201657XX	31.56	912.870	✓	✓	✓	✓	✓
J52956	829073	485061	12HB01031	12700628	12BD00702	E21201657XX	31.56	919.485	✓	✓	✓	✓	✓
J52957	829073	485088	12HB00685	12700628	12BD00664	E21201657XX	31.53	917.280	✓	✓	✓	✓	✓
J52958	829073	485031	12HB00393	12700628	12BD00082	E21201657XX	31.53	919.485	✓	✓	✓	✓	✓



Weight(KG) Total Length(FT) Total Weight(LB) Total Joints
236805 17990.42 522155.025 570

SERIALIZATION LOG

Work order: 12-ED052

Date: 09.02.2012

Inspected By: GPJ

Customer: WOODHOUSE INTERNATIONAL

CO: 1000106960

Product Description: 5.5" S135

Production SN.	Pipe Heat no.	Pipe SN.	Pin Heat Numbers	Pin Heat Code	Box Heat Numbers	Box Heat Code	Length(FT)	Mass(LB)	OD	ID	BD	VT	U.T.Mag
J52959	829074	484096	12HB00769	12700628	12BD00220	E21201657XX	31.53	921.690	✓	✓	✓	✓	✓
J52960	829073	485023	12HB00273	12700628	12BD01006	E21201657XX	31.53	912.870	✓	✓	✓	✓	✓
J52961	829041	350040	12HB00023	12700628	12BD00320	E21201657XX	31.69	926.100	✓	✓	✓	✓	✓
J52962	829074	484022	12HB00721	12700628	12BD00078	E21201657XX	31.63	926.100	✓	✓	✓	✓	✓
J52963	819044	948033	12HB01111	12700628	12BD00770	E21201657XX	31.40	910.665	✓	✓	✓	✓	✓
J52964	829041	350045	12HB01087	12700628	12BD00122	E21201657XX	31.73	910.665	✓	✓	✓	✓	✓
J52965	829041	350107	12HB00913	12700628	12BD00634	E21201657XX	31.73	923.895	✓	✓	✓	✓	✓
J52966	819044	948039	12HB00527	12700628	12BD01036	E21201657XX	31.43	926.100	✓	✓	✓	✓	✓
J52967	829041	350017	12HB01125	12700628	12BD00040	E21201657XX	31.73	917.280	✓	✓	✓	✓	✓
J52968	819044	948031	12HB00315	12700628	12BD01010	E21201657XX	31.36	915.075	✓	✓	✓	✓	✓
J52969	819044	948036	12HB00671	12700628	12BD01082	E21201657XX	31.40	923.895	✓	✓	✓	✓	✓
J52970	819044	948029	12HB00331	12700628	12BD00740	E21201657XX	31.36	921.690	✓	✓	✓	✓	✓
J52971	819044	948041	12HB00899	12700628	12BD00138	E21201657XX	31.40	928.305	✓	✓	✓	✓	✓
J52972	819044	948035	12HB00045	12700628	12BD00622	E21201657XX	31.36	923.895	✓	✓	✓	✓	✓
J52973	819044	948028	12HB00065	12700628	12BD00230	E21201657XX	31.40	921.690	✓	✓	✓	✓	✓
J52974	829074	484004	12HB00129	12700628	12BD00098	E21201657XX	31.46	917.280	✓	✓	✓	✓	✓
J52975	829041	350047	12HB00791	12700628	12BD00984	E21201657XX	31.73	926.100	✓	✓	✓	✓	✓
J52976	829074	484028	12HB00831	12700628	12BD00930	E21201657XX	31.53	919.485	✓	✓	✓	✓	✓
J52977	829074	484072	12HB00661	12700628	12BD00224	E21201657XX	31.53	919.485	✓	✓	✓	✓	✓
J52978	819044	948053	12HB01119	12700628	12BD00250	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J52979	829074	484019	12HB01085	12700628	12BD00120	E21201657XX	31.56	923.895	✓	✓	✓	✓	✓
J52980	829075	486099	12HB00041	12700628	12BD00030	E21201657XX	31.59	921.690	✓	✓	✓	✓	✓
J52981	819044	948042	12HB00077	12700628	12BD00064	E21201657XX	31.40	917.280	✓	✓	✓	✓	✓
J52982	829041	350046	12HB00729	12700628	12BD00778	E21201657XX	31.73	926.100	✓	✓	✓	✓	✓
J52983	829074	484091	12HB00085	12700628	12BD01040	E21201657XX	31.53	919.485	✓	✓	✓	✓	✓
J52984	819044	948097	12HB01089	12700628	12BD00066	E21201657XX	31.27	915.075	✓	✓	✓	✓	✓
J52985	829041	350039	12HB00995	12700628	12BD00198	E21201657XX	31.73	923.895	✓	✓	✓	✓	✓
J52986	829074	484032	12HB00429	12700628	12BD00800	E21201657XX	31.56	926.100	✓	✓	✓	✓	✓
J52987	829041	350011	12HB01063	12700628	12BD00772	E21201657XX	31.73	921.690	✓	✓	✓	✓	✓
J52988	829074	484089	12HB01143	12700628	12BD00020	E21201657XX	31.66	915.075	✓	✓	✓	✓	✓
J52989	829041	350055	12HB00289	12700628	12BD00364	E21201657XX	31.69	921.690	✓	✓	✓	✓	✓
J52990	829073	485007	12HB00929	12700628	12BD00124	E21201657XX	31.63	921.690	✓	✓	✓	✓	✓
J52991	829073	485013	12HB00555	12700628	12BD00152	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J52992	829073	485094	12HB01029	12700628	12BD00076	E21201657XX	31.56	921.690	✓	✓	✓	✓	✓
J52993	829073	485123	12HB00647	12700628	12BD00168	E21201657XX	31.63	917.280	✓	✓	✓	✓	✓
J52994	829073	485069	12HB00627	12700628	12BD00190	E21201657XX	31.59	912.870	✓	✓	✓	✓	✓
J52995	829073	485127	12HB00157	12700628	12BD00140	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J52996	829073	485046	12HB00609	12700628	12BD00094	E21201657XX	31.50	917.280	✓	✓	✓	✓	✓
J52997	829073	485003	12HB01049	12700628	12BD00606	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓
J52998	829073	485081	12HB00959	12700628	12BD00050	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J52999	829073	485030	12HB00067	12700628	12BD00610	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53000	829073	485089	12HB00529	12700628	12BD00174	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53001	829073	485014	12HB00761	12700628	12BD01146	E21201657XX	31.53	917.280	✓	✓	✓	✓	✓
J53002	829073	485060	12HB00741	12700628	12BD00528	E21201657XX	31.53	917.280	✓	✓	✓	✓	✓
J53003	829075	486061	12HB00389	12700628	12BD00446	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53004	829073	485004	12HB00919	12700628	12BD00910	E21201657XX	31.59	919.485	✓	✓	✓	✓	✓
J53005	829040	343191	12HB01105	12700628	12BD00500	E21201657XX	31.73	926.100	✓	✓	✓	✓	✓
J53006	829073	485114	12HB00771	12700628	12BD01034	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53007	829073	485015	12HB00707	12700628	12BD00676	E21201657XX	31.56	923.895	✓	✓	✓	✓	✓
J53008	829073	485019	12HB00541	12700628	12BD00814	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53009	829075	486066	12HB01065	12700628	12BD00338	E21201657XX	31.59	921.690	✓	✓	✓	✓	✓
J53010	829073	485067	12HB01077	12700628	12BD00130	E21201657XX	31.63	919.485	✓	✓	✓	✓	✓
J53011	829073	485077	12HB01115	12700628	12BD00850	E21201657XX	31.63	915.075	✓	✓	✓	✓	✓
J53012	829073	485017	12HB00783	12700628	12BD00568	E21201657XX	31.50	915.075	✓	✓	✓	✓	✓
J53013	829073	485129	12HB01095	12700628	12BD00968	E21201657XX	31.59	923.895	✓	✓	✓	✓	✓
J53014	829073	485097	12HB00723	12700628	12BD00502	E21201657XX	31.59	921.690	✓	✓	✓	✓	✓
J53015	829073	485057	12HB00759	12700628	12BD00376	E21201657XX	31.56	923.895	✓	✓	✓	✓	✓
J53016	829073	485034	12HB00307	12700628	12BD00514	E21201657XX	31.59	923.895	✓	✓	✓	✓	✓
J53017	829073	485110	12HB01145	12700628	12BD00070	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓



Weight(KG) Total Length(FT) Total Weight(LB) Total Joints
236805 17990.42 522155.025 570

SERIALIZATION LOG

Work order: 12-ED052

Date: 09.02.2012

Inspected By: GPJ

Customer: WOODHOUSE INTERNATIONAL

CO: 1000106960

Product Description: 5.5" S135

Production SN.	Pipe Heat no.	Pipe SN.	Pin Heat Numbers	Pin Heat Code	Box Heat Numbers	Box Heat Code	Length(FT)	Mass(LB)	OD	ID	BD	VT	U.T.Mag
J53018	829073	485075	12HB01039	12700628	12BD00192	E21201657XX	31.56	926.100	✓	✓	✓	✓	✓
J53019	829073	485087	12HB01103	12700628	12BD00594	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53020	829073	485105	12HB00333	12700628	12BD00710	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53021	829073	485102	12HB00135	12700628	12BD00590	E21201657XX	31.53	919.485	✓	✓	✓	✓	✓
J53022	829073	485118	12HB01131	12700628	12BD00052	E21201657XX	31.50	921.690	✓	✓	✓	✓	✓
J53023	829074	484077	12HB00019	12700628	12BD00234	E21201657XX	31.59	928.305	✓	✓	✓	✓	✓
J53024	829074	484100	12HB00991	12700628	12BD00620	E21201657XX	31.63	915.075	✓	✓	✓	✓	✓
J53025	829074	484053	12HB00703	12700628	12BD00370	E21201657XX	31.53	923.895	✓	✓	✓	✓	✓
J53026	829074	484101	12HB01027	12700628	12BD00436	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53027	829073	485047	12HB00669	12700628	12BD01164	E21201657XX	31.50	917.280	✓	✓	✓	✓	✓
J53028	829073	485011	12HB01133	12700628	12BD00044	E21201657XX	31.53	919.485	✓	✓	✓	✓	✓
J53029	829073	485076	12HB01019	12700628	12BD00270	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53030	829073	485001	12HB00377	12700628	12BD00170	E21201657XX	31.56	921.690	✓	✓	✓	✓	✓
J53031	829073	485090	12HB01035	12700628	12BD00330	E21201657XX	31.56	912.870	✓	✓	✓	✓	✓
J53032	829073	485062	12HB00137	12700628	12BD01108	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53033	829073	485107	12HB00775	12700628	12BD00636	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53034	829073	485063	12HB01129	12700628	12BD00110	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53035	829073	485128	12HB01109	12700628	12BD00386	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53036	829073	485052	12HB00417	12700628	12BD00540	E21201657XX	31.53	917.280	✓	✓	✓	✓	✓
J53037	829073	485032	12HB00361	12700628	12BD00830	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53038	829073	485066	12HB00829	12700628	12BD00840	E21201657XX	31.56	926.100	✓	✓	✓	✓	✓
J53039	829073	485035	12HB00961	12700628	12BD01074	E21201657XX	31.56	919.485	✓	✓	✓	✓	✓
J53040	829073	485054	12HB00357	12700628	12BD01038	E21201657XX	31.56	919.485	✓	✓	✓	✓	✓
J53041	829073	485043	12HB00747	12700628	12BD01080	E21201657XX	31.56	921.690	✓	✓	✓	✓	✓
J53042	829073	485079	12HB00309	12700628	12BD00730	E21201657XX	31.56	901.845	✓	✓	✓	✓	✓
J53043	829073	485119	12HB01069	12700628	12BD00326	E21201657XX	31.59	919.485	✓	✓	✓	✓	✓
J53044	829073	485101	12HB00275	12700628	12BD01018	E21201657XX	31.50	921.690	✓	✓	✓	✓	✓
J53045	829073	485111	12HB01113	12700628	12BD00046	E21201657XX	31.56	923.895	✓	✓	✓	✓	✓
J53046	829073	485068	12HB00087	12700628	12BD00092	E21201657XX	31.53	919.485	✓	✓	✓	✓	✓
J53047	829073	485045	12HB00697	12700628	12BD00736	E21201657XX	31.59	923.895	✓	✓	✓	✓	✓
J53048	829073	485033	12HB00139	12700628	12BD00698	E21201657XX	31.53	921.690	✓	✓	✓	✓	✓
J53049	829076	487019	12HB00853	12700628	12BD00556	E21201657XX	31.73	912.870	✓	✓	✓	✓	✓
J53050	819044	948072	12HB00301	12700628	12BD00638	E21201657XX	31.40	912.870	✓	✓	✓	✓	✓
J53051	819044	948073	12HB00713	12700628	12BD00396	E21201657XX	31.43	919.485	✓	✓	✓	✓	✓
J53052	819044	948070	12HB00559	12700628	12BD00596	E21201657XX	31.43	917.280	✓	✓	✓	✓	✓
J53053	819044	948064	12HB00969	12700628	12BD00744	E21201657XX	31.40	928.305	✓	✓	✓	✓	✓
J53054	819044	948074	12HB00477	12700628	12BD00848	E21201657XX	31.36	908.460	✓	✓	✓	✓	✓
J53055	819044	948069	12HB01079	12700628	12BD00776	E21201657XX	31.40	908.460	✓	✓	✓	✓	✓
J53056	819044	948066	12HB00063	12700628	12BD00574	E21201657XX	31.36	910.665	✓	✓	✓	✓	✓
J53057	819044	948071	12HB00811	12700628	12BD00298	E21201657XX	31.40	917.280	✓	✓	✓	✓	✓
J53058	819044	948067	12HB01067	12700628	12BD00784	E21201657XX	31.40	910.665	✓	✓	✓	✓	✓
J53059	829073	485018	12HB00533	12700628	12BD01058	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53060	829073	485002	12HB00819	12700628	12BD01168	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53061	829073	485126	12HB00227	12700628	12BD00938	E21201657XX	31.56	908.460	✓	✓	✓	✓	✓
J53062	829074	484068	12HB00649	12700628	12BD00276	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53063	829076	487013	12HB00205	12700628	12BD00216	E21201657XX	31.73	910.665	✓	✓	✓	✓	✓
J53064	829073	485005	12HB00111	12700628	12BD00896	E21201657XX	31.53	919.485	✓	✓	✓	✓	✓
J53065	829074	484102	12HB00613	12700628	12BD00414	E21201657XX	31.59	910.665	✓	✓	✓	✓	✓
J53066	829074	484105	12HB00619	12700628	12BD00004	E21201657XX	31.63	908.460	✓	✓	✓	✓	✓
J53067	829074	484076	12HB00689	12700628	12BD00876	E21201657XX	31.66	908.460	✓	✓	✓	✓	✓
J53068	829074	484097	12HB00335	12700628	12BD00154	E21201657XX	31.66	906.255	✓	✓	✓	✓	✓
J53069	829074	484070	12HB00255	12700628	12BD01158	E21201657XX	31.66	915.075	✓	✓	✓	✓	✓
J53070	829075	486077	12HB00967	12700628	12BD00932	E21201657XX	31.63	912.870	✓	✓	✓	✓	✓
J53071	829075	486088	12HB01045	12700628	12BD01060	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53072	829073	485025	12HB00091	12700628	12BD00890	E21201657XX	31.56	912.870	✓	✓	✓	✓	✓
J53073	829075	486025	12HB00701	12700628	12BD00424	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53074	829073	485022	12HB00053	12700628	12BD01112	E21201657XX	31.59	910.665	✓	✓	✓	✓	✓
J53075	829073	485098	12HB00735	12700628	12BD00684	E21201657XX	31.59	908.460	✓	✓	✓	✓	✓
J53076	829073	485009	12HB00725	12700628	12BD00576	E21201657XX	31.59	912.870	✓	✓	✓	✓	✓



Weight(KG) Total Length(FT) Total Weight(LB) Total Joints
236805 17990.42 522155.025 570

SERIALIZATION LOG

Work order: 12-ED052

Date: 09.02.2012

Inspected By: GPJ

Customer: WOODHOUSE INTERNATIONAL

CO: 1000106960

Product Description: 5.5" S135

Production SN.	Pipe Heat no.	Pipe SN.	Pin Heat Numbers	Pin Heat Code	Box Heat Numbers	Box Heat Code	Length(FT)	Mass(LB)	OD	ID	BD	VT	U.T.Mag
J53077	829073	485103	12HB00173	12700628	12BD00888	E21201657XX	31.63	910.665	✓	✓	✓	✓	✓
J53078	829074	484075	12HB00519	12700628	12BD01120	E21201657XX	31.56	919.485	✓	✓	✓	✓	✓
J53079	829074	484069	12HB00835	12700628	12BD01088	E21201657XX	31.56	908.460	✓	✓	✓	✓	✓
J53080	829074	484104	12HB00543	12700628	12BD01124	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓
J53081	829074	484074	12HB00657	12700628	12BD00114	E21201657XX	31.66	908.460	✓	✓	✓	✓	✓
J53082	829074	484080	12HB00151	12700628	12BD00860	E21201657XX	31.66	908.460	✓	✓	✓	✓	✓
J53083	829074	484082	12HB00029	12700628	12BD00726	E21201657XX	31.63	912.870	✓	✓	✓	✓	✓
J53084	829074	484079	12HB00595	12700628	12BD00550	E21201657XX	31.66	906.255	✓	✓	✓	✓	✓
J53085	829074	484067	12HB00199	12700628	12BD00354	E21201657XX	31.63	910.665	✓	✓	✓	✓	✓
J53086	829074	484078	12HB01059	12700628	12BD01128	E21201657XX	31.63	906.255	✓	✓	✓	✓	✓
J53087	829074	484085	12HB00165	12700628	12BD00562	E21201657XX	31.56	912.870	✓	✓	✓	✓	✓
J53088	829074	484009	12HB01147	12700628	12BD00358	E21201657XX	31.56	919.485	✓	✓	✓	✓	✓
J53089	829074	484073	12HB00901	12700628	12BD00218	E21201657XX	31.50	915.075	✓	✓	✓	✓	✓
J53090	829074	484095	12HB01025	12700628	12BD00672	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓
J53091	829074	484099	12HB00387	12700628	12BD00084	E21201657XX	31.56	910.665	✓	✓	✓	✓	✓
J53092	829076	487022	12HB00163	12700628	12BD00790	E21201657XX	31.56	912.870	✓	✓	✓	✓	✓
J53093	819044	948101	12HB00611	12700628	12BD00240	E21201657XX	31.36	908.460	✓	✓	✓	✓	✓
J53094	829075	486035	12HB00677	12700628	12BD00798	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53095	829075	486029	12HB00033	12700628	12BD00176	E21201657XX	31.50	915.075	✓	✓	✓	✓	✓
J53096	829074	484093	12HB00879	12700628	12BD00714	E21201657XX	31.53	912.870	✓	✓	✓	✓	✓
J53097	829074	484094	12HB00189	12700628	12BD00202	E21201657XX	31.59	908.460	✓	✓	✓	✓	✓
J53098	819044	948038	12HB00051	12700628	12BD00750	E21201657XX	31.36	910.665	✓	✓	✓	✓	✓
J53099	829074	484084	12HB00549	12700628	12BD00904	E21201657XX	31.59	910.665	✓	✓	✓	✓	✓
J53100	829073	485037	12HB01015	12700628	12BD00810	E21201657XX	31.56	919.485	✓	✓	✓	✓	✓
J53101	829074	484071	12HB01157	12700628	12BD00294	E21201657XX	31.59	910.665	✓	✓	✓	✓	✓
J53102	829074	484008	12HB00197	12700628	12BD00652	E21201657XX	31.59	912.870	✓	✓	✓	✓	✓
J53103	829075	486019	12HB00391	12700628	12BD00372	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53104	829074	484057	12HB00483	12700628	12BD00646	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53105	829075	486085	12HB00079	12700628	12BD00734	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓
J53106	829075	486045	12HB00133	12700628	12BD00806	E21201657XX	31.53	912.870	✓	✓	✓	✓	✓
J53107	829074	484015	12HB00571	12700628	12BD01012	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓
J53108	829074	484034	12HB00267	12700628	12BD01042	E21201657XX	31.56	919.485	✓	✓	✓	✓	✓
J53109	829075	486078	12HB00127	12700628	12BD00282	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53110	829075	486063	12HB00891	12700628	12BD00786	E21201657XX	31.53	917.280	✓	✓	✓	✓	✓
J53111	829075	486111	12HB00161	12700628	12BD00826	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53112	829074	484098	12HB00625	12700628	12BD00918	E21201657XX	31.56	912.870	✓	✓	✓	✓	✓
J53113	829074	484092	12HB00589	12700628	12BD00962	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53114	829074	484103	12HB00765	12700628	12BD01068	E21201657XX	31.53	908.460	✓	✓	✓	✓	✓
J53115	829074	484087	12HB00167	12700628	12BD00310	E21201657XX	31.56	912.870	✓	✓	✓	✓	✓
J53116	829074	484049	12HB00859	12700628	12BD00662	E21201657XX	31.59	912.870	✓	✓	✓	✓	✓
J53117	829075	486120	12HB00251	12700628	12BD00532	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53118	829075	486023	12HB00379	12700628	12BD00206	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53119	829075	486096	12HB00297	12700628	12BD00822	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53120	829074	484036	12HB01053	12700628	12BD00586	E21201657XX	31.56	919.485	✓	✓	✓	✓	✓
J53121	829074	484044	12HB00461	12700628	12BD00302	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53122	829075	486008	12HB00269	12700628	12BD00408	E21201657XX	31.59	912.870	✓	✓	✓	✓	✓
J53123	829075	486052	12HB00059	12700628	12BD00828	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53124	829075	486083	12HB00921	12700628	12BD00486	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53125	829075	486074	12HB00445	12700628	12BD00306	E21201657XX	31.63	917.280	✓	✓	✓	✓	✓
J53126	829074	484006	12HB00711	12700628	12BD01144	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53127	829075	486107	12HB00795	12700628	12BD00104	E21201657XX	31.59	919.485	✓	✓	✓	✓	✓
J53128	829074	484063	12HB00821	12700628	12BD00752	E21201657XX	31.56	912.870	✓	✓	✓	✓	✓
J53129	829075	486013	12HB00207	12700628	12BD00964	E21201657XX	31.53	917.280	✓	✓	✓	✓	✓
J53130	829075	486094	12HB00827	12700628	12BD00530	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53131	829076	487045	12HB00293	12700628	12BD00346	E21201657XX	31.73	917.280	✓	✓	✓	✓	✓
J53132	829076	487012	12HB00229	12700628	12BD01048	E21201657XX	31.73	910.665	✓	✓	✓	✓	✓
J53133	829076	487023	12HB01043	12700628	12BD01044	E21201657XX	31.73	917.280	✓	✓	✓	✓	✓
J53134	829075	486117	12HB00245	12700628	12BD00898	E21201657XX	31.73	915.075	✓	✓	✓	✓	✓
J53135	829075	486011	12HB00295	12700628	12BD00506	E21201657XX	31.53	908.460	✓	✓	✓	✓	✓



Weight(KG) Total Length(FT) Total Weight(LB) Total Joints
236805 17990.42 522155.025 570

SERIALIZATION LOG

Work order: 12-ED052

Date: 09.02.2012

Inspected By: GPJ

Customer: WOODHOUSE INTERNATIONAL

CO: 1000106960

Product Description: 5.5" S135

Production SN.	Pipe Heat no.	Pipe SN.	Pin Heat Numbers	Pin Heat Code	Box Heat Numbers	Box Heat Code	Length(FT)	Mass(LB)	OD	ID	BD	VT	U.T.Mag
J53136	829075	486015	12HB00249	12700628	12BD01136	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53137	829075	486042	12HB00043	12700628	12BD00686	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓
J53138	829076	487017	12HB00539	12700628	12BD00258	E21201657XX	31.63	910.665	✓	✓	✓	✓	✓
J53139	829075	486022	12HB00557	12700628	12BD00934	E21201657XX	31.73	915.075	✓	✓	✓	✓	✓
J53140	829075	486101	12HB00581	12700628	12BD01130	E21201657XX	31.59	908.460	✓	✓	✓	✓	✓
J53141	829075	486118	12HB00425	12700628	12BD00886	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53142	829076	487014	12HB00217	12700628	12BD00694	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53143	829076	487009	12HB00763	12700628	12BD00838	E21201657XX	31.73	917.280	✓	✓	✓	✓	✓
J53144	829076	487010	12HB00979	12700628	12BD00388	E21201657XX	31.69	910.665	✓	✓	✓	✓	✓
J53145	829076	487015	12HB00731	12700628	12BD00300	E21201657XX	31.69	912.870	✓	✓	✓	✓	✓
J53146	829076	487018	12HB00451	12700628	12BD00080	E21201657XX	31.69	910.665	✓	✓	✓	✓	✓
J53147	829074	484010	12HB00777	12700628	12BD00348	E21201657XX	31.69	912.870	✓	✓	✓	✓	✓
J53148	829074	484062	12HB01159	12700628	12BD00966	E21201657XX	31.63	915.075	✓	✓	✓	✓	✓
J53149	829074	484065	12HB00573	12700628	12BD00106	E21201657XX	31.50	917.280	✓	✓	✓	✓	✓
J53150	829075	486070	12HB00867	12700628	12BD00566	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53151	829075	486027	12HB00615	12700628	12BD00666	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53152	829075	486112	12HB00665	12700628	12BD01092	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53153	829075	486010	12HB00069	12700628	12BD00312	E21201657XX	31.63	917.280	✓	✓	✓	✓	✓
J53154	829075	486093	12HB00807	12700628	12BD00908	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53155	829074	484020	12HB00241	12700628	12BD00758	E21201657XX	31.63	915.075	✓	✓	✓	✓	✓
J53156	829074	484061	12HB00841	12700628	12BD00706	E21201657XX	31.63	910.665	✓	✓	✓	✓	✓
J53157	829074	484047	12HB00865	12700628	12BD00208	E21201657XX	31.59	910.665	✓	✓	✓	✓	✓
J53158	829074	484012	12HB00985	12700628	12BD00494	E21201657XX	31.63	912.870	✓	✓	✓	✓	✓
J53159	829074	484058	12HB00805	12700628	12BD01020	E21201657XX	31.59	908.460	✓	✓	✓	✓	✓
J53160	829074	484045	12HB00861	12700628	12BD00148	E21201657XX	31.63	919.485	✓	✓	✓	✓	✓
J53161	829074	484001	12HB00493	12700628	12BD00658	E21201657XX	31.53	921.690	✓	✓	✓	✓	✓
J53162	829074	484016	12HB00459	12700628	12BD01078	E21201657XX	31.56	921.690	✓	✓	✓	✓	✓
J53163	829074	484018	12HB00071	12700628	12BD00434	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓
J53164	829074	484011	12HB00469	12700628	12BD00260	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53165	829074	484059	12HB00223	12700628	12BD00946	E21201657XX	31.63	919.485	✓	✓	✓	✓	✓
J53166	829074	484048	12HB00233	12700628	12BD00526	E21201657XX	31.53	912.870	✓	✓	✓	✓	✓
J53167	829074	484039	12HB00283	12700628	12BD01156	E21201657XX	31.53	921.690	✓	✓	✓	✓	✓
J53168	829074	484088	12HB00465	12700628	12BD00304	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53169	829074	484052	12HB00653	12700628	12BD00796	E21201657XX	31.56	908.460	✓	✓	✓	✓	✓
J53170	829074	484007	12HB00437	12700628	12BD00280	E21201657XX	31.59	908.460	✓	✓	✓	✓	✓
J53171	829075	486014	12HB00203	12700628	12BD00362	E21201657XX	31.59	904.050	✓	✓	✓	✓	✓
J53172	829075	486082	12HB00147	12700628	12BD00704	E21201657XX	31.63	915.075	✓	✓	✓	✓	✓
J53173	829075	486005	12HB00037	12700628	12BD00252	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53174	829075	486062	12HB00925	12700628	12BD00196	E21201657XX	31.56	910.665	✓	✓	✓	✓	✓
J53175	829075	486003	12HB00617	12700628	12BD00988	E21201657XX	31.63	919.485	✓	✓	✓	✓	✓
J53176	829075	486055	12HB00645	12700628	12BD00022	E21201657XX	31.56	908.460	✓	✓	✓	✓	✓
J53177	829075	486106	12HB00499	12700628	12BD00720	E21201657XX	31.59	921.690	✓	✓	✓	✓	✓
J53178	829075	486090	12HB00977	12700628	12BD00614	E21201657XX	31.56	919.485	✓	✓	✓	✓	✓
J53179	829073	485070	12HB00015	12700628	12BD00204	E21201657XX	31.53	917.280	✓	✓	✓	✓	✓
J53180	829075	486054	12HB00083	12700628	12BD00678	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53181	829075	486018	12HB00755	12700628	12BD00360	E21201657XX	31.63	912.870	✓	✓	✓	✓	✓
J53182	829075	486050	12HB01141	12700628	12BD00572	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓
J53183	829075	486119	12HB00339	12700628	12BD00296	E21201657XX	31.53	919.485	✓	✓	✓	✓	✓
J53184	829075	486051	12HB00479	12700628	12BD00592	E21201657XX	31.69	910.665	✓	✓	✓	✓	✓
J53185	829075	486089	12HB00367	12700628	12BD00166	E21201657XX	31.63	910.665	✓	✓	✓	✓	✓
J53186	829075	486110	12HB00575	12700628	12BD00344	E21201657XX	31.59	919.485	✓	✓	✓	✓	✓
J53187	829074	484081	12HB00291	12700628	12BD01000	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53188	829075	486038	12HB00815	12700628	12BD00324	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53189	829075	486104	12HB00605	12700628	12BD00248	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53190	829075	486004	12HB00851	12700628	12BD00366	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53191	829075	486068	12HB00237	12700628	12BD00400	E21201657XX	31.53	915.075	✓	✓	✓	✓	✓
J53192	829075	486009	12HB00401	12700628	12BD00096	E21201657XX	31.63	912.870	✓	✓	✓	✓	✓
J53193	829075	486071	12HB00001	12700628	12BD00926	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53194	829075	486017	12HB00213	12700628	12BD00210	E21201657XX	31.56	919.485	✓	✓	✓	✓	✓



Weight(KG) Total Length(FT) Total Weight(LB) Total Joints
236805 17990.42 522155.025 570

SERIALIZATION LOG

Work order: 12-ED052

Date: 09.02.2012

Inspected By: GPJ

Customer: WOODHOUSE INTERNATIONAL

CO: 1000106960

Product Description: 5.5" S135

Production SN.	Pipe Heat no.	Pipe SN.	Pin Heat Numbers	Pin Heat Code	Box Heat Numbers	Box Heat Code	Length(FT)	Mass(LB)	OD	ID	BD	VT	U.T.Mag
J53195	829074	484002	12HB00039	12700628	12BD00618	E21201657XX	31.50	915.075	✓	✓	✓	✓	✓
J53196	829074	484046	12HB00587	12700628	12BD00254	E21201657XX	31.63	912.870	✓	✓	✓	✓	✓
J53197	829074	484054	12HB00419	12700628	12BD00236	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53198	819044	948099	12HB00405	12700628	12BD00336	E21201657XX	31.33	910.665	✓	✓	✓	✓	✓
J53199	819044	948100	12HB00607	12700628	12BD00490	E21201657XX	31.40	915.075	✓	✓	✓	✓	✓
J53200	819044	948098	12HB00785	12700628	12BD00108	E21201657XX	31.36	910.665	✓	✓	✓	✓	✓
J53201	829075	486058	12HB00797	12700628	12BD00200	E21201657XX	31.50	912.870	✓	✓	✓	✓	✓
J53202	819044	948103	12HB01165	12700628	12BD00836	E21201657XX	31.33	908.460	✓	✓	✓	✓	✓
J53203	819044	948102	12HB00887	12700628	12BD00034	E21201657XX	31.33	908.460	✓	✓	✓	✓	✓
J53204	819044	948068	12HB00453	12700628	12BD00632	E21201657XX	31.36	921.690	✓	✓	✓	✓	✓
J53205	829075	486079	12HB00931	12700628	12BD00522	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53206	829076	487037	12HB00523	12700628	12BD00998	E21201657XX	31.69	912.870	✓	✓	✓	✓	✓
J53207	829076	487048	12HB00409	12700628	12BD00432	E21201657XX	31.73	910.665	✓	✓	✓	✓	✓
J53208	829076	487021	12HB00323	12700628	12BD00846	E21201657XX	31.73	915.075	✓	✓	✓	✓	✓
J53209	829076	487028	12HB00411	12700628	12BD00554	E21201657XX	31.73	912.870	✓	✓	✓	✓	✓
J53210	829076	487047	12HB00585	12700628	12BD00010	E21201657XX	31.73	910.665	✓	✓	✓	✓	✓
J53211	829076	487030	12HB00511	12700628	12BD00058	E21201657XX	31.73	915.075	✓	✓	✓	✓	✓
J53212	829076	487046	12HB00545	12700628	12BD01032	E21201657XX	31.69	910.665	✓	✓	✓	✓	✓
J53213	829076	487044	12HB00945	12700628	12BD00808	E21201657XX	31.73	917.280	✓	✓	✓	✓	✓
J53214	829074	483053	12HB00709	12700628	12BD00498	E21201657XX	31.59	919.485	✓	✓	✓	✓	✓
J53215	829074	483126	12HB00845	12700628	12BD00512	E21201657XX	31.56	910.665	✓	✓	✓	✓	✓
J53216	829075	486087	12HB00179	12700628	12BD00162	E21201657XX	31.56	919.485	✓	✓	✓	✓	✓
J53217	829075	486067	12HB00903	12700628	12BD00116	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓
J53218	829075	486036	12HB00567	12700628	12BD01024	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53219	829074	483109	12HB01051	12700628	12BD00928	E21201657XX	31.53	917.280	✓	✓	✓	✓	✓
J53220	829074	483083	12HB00503	12700628	12BD00884	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓
J53221	829074	483117	12HB00075	12700628	12BD00032	E21201657XX	31.63	908.460	✓	✓	✓	✓	✓
J53222	829074	483042	12HB00705	12700628	12BD01110	E21201657XX	31.50	910.665	✓	✓	✓	✓	✓
J53223	829074	483142	12HB00381	12700628	12BD00792	E21201657XX	31.63	912.870	✓	✓	✓	✓	✓
J53224	829074	483129	12HB00877	12700628	12BD00018	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53225	829074	483103	12HB00953	12700628	12BD00912	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53226	829074	483035	12HB00383	12700628	12BD00016	E21201657XX	31.59	923.895	✓	✓	✓	✓	✓
J53227	829074	483067	12HB01083	12700628	12BD00374	E21201657XX	31.53	912.870	✓	✓	✓	✓	✓
J53228	829075	486081	12HB00997	12700628	12BD00510	E21201657XX	31.53	917.280	✓	✓	✓	✓	✓
J53229	829075	486109	12HB00363	12700628	12BD00470	E21201657XX	31.53	917.280	✓	✓	✓	✓	✓
J53230	829075	486076	12HB00185	12700628	12BD00350	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53231	829075	486080	12HB00737	12700628	12BD00332	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓
J53232	829075	486069	12HB00803	12700628	12BD00028	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53233	829075	486105	12HB00809	12700628	12BD00476	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53234	829074	483047	12HB00563	12700628	12BD00534	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53235	829074	483112	12HB00017	12700628	12BD00992	E21201657XX	31.53	915.075	✓	✓	✓	✓	✓
J53236	829075	486028	12HB00341	12700628	12BD00422	E21201657XX	31.59	921.690	✓	✓	✓	✓	✓
J53237	829075	486012	12HB01163	12700628	12BD00036	E21201657XX	31.56	910.665	✓	✓	✓	✓	✓
J53238	829074	483107	12HB00897	12700628	12BD00560	E21201657XX	31.53	917.280	✓	✓	✓	✓	✓
J53239	829074	483062	12HB00963	12700628	12BD00142	E21201657XX	31.56	908.460	✓	✓	✓	✓	✓
J53240	829074	483132	12HB00675	12700628	12BD00136	E21201657XX	31.59	910.665	✓	✓	✓	✓	✓
J53241	829074	483104	12HB00403	12700628	12BD00482	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53242	829074	483072	12HB00781	12700628	12BD00128	E21201657XX	31.50	910.665	✓	✓	✓	✓	✓
J53243	829074	483076	12HB00473	12700628	12BD00794	E21201657XX	31.53	917.280	✓	✓	✓	✓	✓
J53244	829074	483061	12HB00495	12700628	12BD00976	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53245	829075	486053	12HB00343	12700628	12BD00402	E21201657XX	31.53	917.280	✓	✓	✓	✓	✓
J53246	829075	486034	12HB00463	12700628	12BD00674	E21201657XX	31.59	910.665	✓	✓	✓	✓	✓
J53247	829074	483099	12HB00005	12700628	12BD00948	E21201657XX	31.59	912.870	✓	✓	✓	✓	✓
J53248	829075	486039	12HB00035	12700628	12BD00328	E21201657XX	31.53	915.075	✓	✓	✓	✓	✓
J53249	829075	486098	12HB00993	12700628	12BD00724	E21201657XX	31.63	917.280	✓	✓	✓	✓	✓
J53250	829074	483074	12HB00193	12700628	12BD00042	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓
J53251	829075	486046	12HB00719	12700628	12BD01014	E21201657XX	31.56	910.665	✓	✓	✓	✓	✓
J53252	829074	483119	12HB00329	12700628	12BD00284	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53253	829075	486056	12HB00501	12700628	12BD00598	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓



Weight(KG) Total Length(FT) Total Weight(LB) Total Joints
236805 17990.42 522155.025 570

SERIALIZATION LOG

Work order: 12-ED052

Date: 09.02.2012

Inspected By: GPJ

Customer: WOODHOUSE INTERNATIONAL

CO: 1000106960

Product Description: 5.5" S135

Production SN.	Pipe Heat no.	Pipe SN.	Pin Heat Numbers	Pin Heat Code	Box Heat Numbers	Box Heat Code	Length(FT)	Mass(LB)	OD	ID	BD	VT	U.T.Mag
J53254	829074	483089	12HB00603	12700628	12BD00072	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓
J53255	829074	483123	12HB00211	12700628	12BD00842	E21201657XX	31.63	921.690	✓	✓	✓	✓	✓
J53256	829074	483051	12HB00569	12700628	12BD01134	E21201657XX	31.63	912.870	✓	✓	✓	✓	✓
J53257	829074	483046	12HB00467	12700628	12BD00186	E21201657XX	31.59	910.665	✓	✓	✓	✓	✓
J53258	829074	483097	12HB00579	12700628	12BD00608	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53259	829074	483077	12HB00457	12700628	12BD00630	E21201657XX	31.59	912.870	✓	✓	✓	✓	✓
J53260	829074	483006	12HB00561	12700628	12BD00742	E21201657XX	31.63	910.665	✓	✓	✓	✓	✓
J53261	829074	483090	12HB00171	12700628	12BD00488	E21201657XX	31.56	912.870	✓	✓	✓	✓	✓
J53262	829074	483136	12HB00121	12700628	12BD00226	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53263	829074	483081	12HB00413	12700628	12BD00442	E21201657XX	31.56	921.690	✓	✓	✓	✓	✓
J53264	829074	483100	12HB00021	12700628	12BD00472	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53265	829074	483073	12HB00235	12700628	12BD00156	E21201657XX	31.56	919.485	✓	✓	✓	✓	✓
J53266	829074	483008	12HB00871	12700628	12BD01090	E21201657XX	31.59	912.870	✓	✓	✓	✓	✓
J53267	829074	483147	12HB00875	12700628	12BD01062	E21201657XX	31.59	910.665	✓	✓	✓	✓	✓
J53268	829074	483146	12HB00773	12700628	12BD01114	E21201657XX	31.59	910.665	✓	✓	✓	✓	✓
J53269	829074	483137	12HB00531	12700628	12BD00936	E21201657XX	31.50	910.665	✓	✓	✓	✓	✓
J53270	829074	483092	12HB00837	12700628	12BD00852	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53271	829074	483102	12HB01007	12700628	12BD00916	E21201657XX	31.63	910.665	✓	✓	✓	✓	✓
J53272	829074	483144	12HB00141	12700628	12BD00954	E21201657XX	31.53	921.690	✓	✓	✓	✓	✓
J53273	829074	483130	12HB01041	12700628	12BD01102	E21201657XX	31.59	912.870	✓	✓	✓	✓	✓
J53274	829074	483115	12HB01055	12700628	12BD01122	E21201657XX	31.66	910.665	✓	✓	✓	✓	✓
J53275	829076	487038	12HB00169	12700628	12BD00732	E21201657XX	31.69	910.665	✓	✓	✓	✓	✓
J53276	829076	487020	12HB00099	12700628	12BD00466	E21201657XX	31.69	910.665	✓	✓	✓	✓	✓
J53277	829076	487005	12HB00983	12700628	12BD00542	E21201657XX	31.36	923.895	✓	✓	✓	✓	✓
J53278	829076	487008	12HB00933	12700628	12BD00536	E21201657XX	31.73	901.845	✓	✓	✓	✓	✓
J53279	829076	487004	12HB00673	12700628	12BD00558	E21201657XX	31.66	912.870	✓	✓	✓	✓	✓
J53280	829076	487033	12HB00583	12700628	12BD00054	E21201657XX	31.73	910.665	✓	✓	✓	✓	✓
J53281	829076	487043	12HB00449	12700628	12BD00944	E21201657XX	31.56	912.870	✓	✓	✓	✓	✓
J53282	829074	483041	12HB00201	12700628	12BD01008	E21201657XX	31.73	912.870	✓	✓	✓	✓	✓
J53283	829076	487025	12HB00183	12700628	12BD00426	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓
J53284	829074	483004	12HB00857	12700628	12BD00368	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53285	829074	483111	12HB00475	12700628	12BD00982	E21201657XX	31.50	910.665	✓	✓	✓	✓	✓
J53286	829074	483022	12HB01073	12700628	12BD01118	E21201657XX	31.56	912.870	✓	✓	✓	✓	✓
J53287	829074	483017	12HB00965	12700628	12BD00584	E21201657XX	31.59	919.485	✓	✓	✓	✓	✓
J53288	829074	483071	12HB00009	12700628	12BD00640	E21201657XX	31.59	912.870	✓	✓	✓	✓	✓
J53289	829074	483084	12HB00833	12700628	12BD00942	E21201657XX	31.56	919.485	✓	✓	✓	✓	✓
J53290	829074	483060	12HB00687	12700628	12BD00914	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓
J53291	829074	483014	12HB00907	12700628	12BD00268	E21201657XX	31.59	910.665	✓	✓	✓	✓	✓
J53292	829074	483048	12HB01161	12700628	12BD00892	E21201657XX	31.50	915.075	✓	✓	✓	✓	✓
J53293	829074	483080	12HB01009	12700628	12BD00288	E21201657XX	31.59	910.665	✓	✓	✓	✓	✓
J53294	829074	483018	12HB00031	12700628	12BD00406	E21201657XX	31.59	910.665	✓	✓	✓	✓	✓
J53295	829074	483012	12HB00597	12700628	12BD00612	E21201657XX	31.59	912.870	✓	✓	✓	✓	✓
J53296	819044	948034	12HB00695	12700628	12BD00008	E21201657XX	31.36	917.280	✓	✓	✓	✓	✓
J53297	819044	948002	12HB01101	12700628	12BD00158	E21201657XX	31.36	917.280	✓	✓	✓	✓	✓
J53298	819044	948081	12HB00109	12700628	12BD00746	E21201657XX	31.36	926.100	✓	✓	✓	✓	✓
J53299	819044	948111	12HB00485	12700628	12BD00274	E21201657XX	31.40	915.075	✓	✓	✓	✓	✓
J53300	829074	483098	12HB00397	12700628	12BD01086	E21201657XX	31.63	912.870	✓	✓	✓	✓	✓
J53301	829074	483149	12HB00873	12700628	12BD00478	E21201657XX	31.59	908.460	✓	✓	✓	✓	✓
J53302	829074	483039	12HB00693	12700628	12BD01104	E21201657XX	31.59	919.485	✓	✓	✓	✓	✓
J53303	829074	483029	12HB00507	12700628	12BD00864	E21201657XX	31.53	915.075	✓	✓	✓	✓	✓
J53304	829074	483010	12HB00231	12700628	12BD00518	E21201657XX	31.53	917.280	✓	✓	✓	✓	✓
J53305	819044	948075	12HB01127	12700628	12BD00564	E21201657XX	31.40	917.280	✓	✓	✓	✓	✓
J53306	819044	948044	12HB00145	12700628	12BD00014	E21201657XX	31.33	908.460	✓	✓	✓	✓	✓
J53307	819044	948076	12HB00247	12700628	12BD00256	E21201657XX	31.36	917.280	✓	✓	✓	✓	✓
J53308	819044	948096	12HB00509	12700628	12BD01022	E21201657XX	31.36	910.665	✓	✓	✓	✓	✓
J53309	819044	948009	12HB00621	12700628	12BD00974	E21201657XX	31.33	908.460	✓	✓	✓	✓	✓
J53310	819044	948012	12HB00395	12700628	12BD00728	E21201657XX	31.36	910.665	✓	✓	✓	✓	✓
J53311	819044	948016	12HB00917	12700628	12BD01052	E21201657XX	31.36	915.075	✓	✓	✓	✓	✓
J53312	819044	948083	12HB00351	12700628	12BD01004	E21201657XX	31.36	917.280	✓	✓	✓	✓	✓



Weight(KG) Total Length(FT) Total Weight(LB) Total Joints
236805 17990.42 522155.025 570

SERIALIZATION LOG

Work order: 12-ED052

Date: 09.02.2012

Inspected By: GPJ

Customer: WOODHOUSE INTERNATIONAL

CO: 1000106960

Product Description: 5.5" S135

Production SN.	Pipe Heat no.	Pipe SN.	Pin Heat Numbers	Pin Heat Code	Box Heat Numbers	Box Heat Code	Length(FT)	Mass(LB)	OD	ID	BD	VT	U.T.Mag
J53313	829074	483023	12HB00489	12700628	12BD00872	E21201657XX	31.63	910.665	✓	✓	✓	✓	✓
J53314	829074	483016	12HB00265	12700628	12BD00950	E21201657XX	31.59	910.665	✓	✓	✓	✓	✓
J53315	829075	486007	12HB00191	12700628	12BD00878	E21201657XX	31.50	908.460	✓	✓	✓	✓	✓
J53316	829075	486032	12HB00591	12700628	12BD00420	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53317	829074	483037	12HB00239	12700628	12BD00382	E21201657XX	31.59	912.870	✓	✓	✓	✓	✓
J53318	829074	483121	12HB00631	12700628	12BD00428	E21201657XX	31.53	917.280	✓	✓	✓	✓	✓
J53319	829074	483079	12HB00889	12700628	12BD00356	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53320	829075	486048	12HB00849	12700628	12BD01096	E21201657XX	31.59	917.280	✓	✓	✓	✓	✓
J53321	829074	483118	12HB00187	12700628	12BD00308	E21201657XX	31.59	921.690	✓	✓	✓	✓	✓
J53322	829075	486072	12HB00345	12700628	12BD00524	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓
J53323	829074	483106	12HB00753	12700628	12BD00924	E21201657XX	31.50	917.280	✓	✓	✓	✓	✓
J53324	829075	486031	12HB00981	12700628	12BD00858	E21201657XX	31.59	919.485	✓	✓	✓	✓	✓
J53325	819044	948058	12HB00279	12700628	12BD00318	E21201657XX	31.33	908.460	✓	✓	✓	✓	✓
J53326	819044	948030	12HB00159	12700628	12BD00856	E21201657XX	31.30	910.665	✓	✓	✓	✓	✓
J53327	819044	948013	12HB00817	12700628	12BD00214	E21201657XX	31.36	923.895	✓	✓	✓	✓	✓
J53328	819044	948084	12HB00515	12700628	12BD00492	E21201657XX	31.36	912.870	✓	✓	✓	✓	✓
J53329	829074	483088	12HB00209	12700628	12BD01030	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53330	829074	483019	12HB00253	12700628	12BD00788	E21201657XX	31.36	904.050	✓	✓	✓	✓	✓
J53331	829074	483069	12HB00285	12700628	12BD00516	E21201657XX	31.50	912.870	✓	✓	✓	✓	✓
J53332	829074	483113	12HB00801	12700628	12BD00804	E21201657XX	31.63	910.665	✓	✓	✓	✓	✓
J53333	829075	486037	12HB00601	12700628	12BD00602	E21201657XX	31.59	919.485	✓	✓	✓	✓	✓
J53334	829074	483128	12HB00455	12700628	12BD00668	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53335	829074	483052	12HB00257	12700628	12BD00102	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53336	829074	483150	12HB00177	12700628	12BD00232	E21201657XX	31.53	919.485	✓	✓	✓	✓	✓
J53337	829074	483085	12HB00433	12700628	12BD00480	E21201657XX	31.53	919.485	✓	✓	✓	✓	✓
J53338	829074	483075	12HB01047	12700628	12BD00906	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓
J53339	829074	483124	12HB00537	12700628	12BD00818	E21201657XX	31.53	912.870	✓	✓	✓	✓	✓
J53340	829074	483063	12HB00441	12700628	12BD00832	E21201657XX	31.56	919.485	✓	✓	✓	✓	✓
J53341	829074	483114	12HB00319	12700628	12BD00410	E21201657XX	31.53	917.280	✓	✓	✓	✓	✓
J53342	829074	483024	12HB01061	12700628	12BD00438	E21201657XX	31.53	912.870	✓	✓	✓	✓	✓
J53343	829074	483027	12HB00175	12700628	12BD00768	E21201657XX	31.59	908.460	✓	✓	✓	✓	✓
J53344	829074	483020	12HB00749	12700628	12BD00996	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53345	829074	483127	12HB00751	12700628	12BD01166	E21201657XX	31.59	910.665	✓	✓	✓	✓	✓
J53346	829074	483135	12HB01021	12700628	12BD00188	E21201657XX	31.59	912.870	✓	✓	✓	✓	✓
J53347	829074	483032	12HB00733	12700628	12BD00642	E21201657XX	31.63	912.870	✓	✓	✓	✓	✓
J53348	829076	487024	12HB00115	12700628	12BD00882	E21201657XX	31.76	910.665	✓	✓	✓	✓	✓
J53349	829074	483005	12HB00481	12700628	12BD00146	E21201657XX	31.59	908.460	✓	✓	✓	✓	✓
J53350	829074	483133	12HB00975	12700628	12BD01106	E21201657XX	31.63	912.870	✓	✓	✓	✓	✓
J53351	829074	483086	12HB00863	12700628	12BD00874	E21201657XX	31.56	919.485	✓	✓	✓	✓	✓
J53352	829074	483148	12HB00505	12700628	12BD00718	E21201657XX	31.53	921.690	✓	✓	✓	✓	✓
J53353	829074	483110	12HB00971	12700628	12BD00978	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53354	829074	483050	12HB00195	12700628	12BD00604	E21201657XX	31.59	910.665	✓	✓	✓	✓	✓
J53355	829074	483094	12HB00663	12700628	12BD00552	E21201657XX	31.63	910.665	✓	✓	✓	✓	✓
J53356	829074	483145	12HB00359	12700628	12BD01154	E21201657XX	31.63	912.870	✓	✓	✓	✓	✓
J53357	829074	483026	12HB00727	12700628	12BD00452	E21201657XX	31.59	910.665	✓	✓	✓	✓	✓
J53358	829074	483091	12HB00471	12700628	12BD00062	E21201657XX	31.59	910.665	✓	✓	✓	✓	✓
J53359	829074	483101	12HB00629	12700628	12BD00144	E21201657XX	31.59	910.665	✓	✓	✓	✓	✓
J53360	829074	483015	12HB00551	12700628	12BD01054	E21201657XX	31.53	917.280	✓	✓	✓	✓	✓
J53361	829074	483001	12HB00517	12700628	12BD01100	E21201657XX	31.59	910.665	✓	✓	✓	✓	✓
J53362	829074	483034	12HB00881	12700628	12BD00870	E21201657XX	31.59	908.460	✓	✓	✓	✓	✓
J53363	829074	483139	12HB01123	12700628	12BD01116	E21201657XX	31.50	917.280	✓	✓	✓	✓	✓
J53364	829074	483131	12HB00225	12700628	12BD01070	E21201657XX	31.53	919.485	✓	✓	✓	✓	✓
J53365	829074	483043	12HB00951	12700628	12BD00316	E21201657XX	31.56	919.485	✓	✓	✓	✓	✓
J53366	829074	483045	12HB01153	12700628	12BD01046	E21201657XX	31.56	912.870	✓	✓	✓	✓	✓
J53367	829074	483021	12HB00421	12700628	12BD01056	E21201657XX	31.56	912.870	✓	✓	✓	✓	✓
J53368	829074	483116	12HB00577	12700628	12BD00086	E21201657XX	31.63	919.485	✓	✓	✓	✓	✓
J53369	829076	487034	12HB00789	12700628	12BD00994	E21201657XX	31.69	912.870	✓	✓	✓	✓	✓
J53370	829076	487006	12HB00637	12700628	12BD00578	E21201657XX	31.73	912.870	✓	✓	✓	✓	✓
J53372	829076	487039	12HB00443	12700628	12BD00352	E21201657XX	31.69	915.075	✓	✓	✓	✓	✓



Weight(KG) Total Length(FT) Total Weight(LB) Total Joints
236805 17990.42 522155.025 570

SERIALIZATION LOG

Work order: 12-ED052

Date: 09.02.2012

Inspected By: GPJ

Customer: WOODHOUSE INTERNATIONAL

CO: 1000106960

Product Description: 5.5" S135

Production SN.	Pipe Heat no.	Pipe SN.	Pin Heat Numbers	Pin Heat Code	Box Heat Numbers	Box Heat Code	Length(FT)	Mass(LB)	OD	ID	BD	VT	U.T.Mag
J53373	829076	487031	12HB01033	12700628	12BD00444	E21201657XX	31.76	915.075	✓	✓	✓	✓	✓
J53374	829076	487029	12HB00181	12700628	12BD00902	E21201657XX	31.73	912.870	✓	✓	✓	✓	✓
J53375	829076	487040	12HB01137	12700628	12BD00496	E21201657XX	31.73	915.075	✓	✓	✓	✓	✓
J53376	829076	487026	12HB00439	12700628	12BD00222	E21201657XX	31.69	910.665	✓	✓	✓	✓	✓
J53377	829074	483025	12HB00497	12700628	12BD00760	E21201657XX	31.59	912.870	✓	✓	✓	✓	✓
J53378	829074	483105	12HB00013	12700628	12BD00468	E21201657XX	31.59	919.485	✓	✓	✓	✓	✓
J53379	829074	483070	12HB00487	12700628	12BD00180	E21201657XX	31.63	906.255	✓	✓	✓	✓	✓
J53380	829074	483093	12HB00825	12700628	12BD00334	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53381	829074	483038	12HB00893	12700628	12BD00834	E21201657XX	31.63	908.460	✓	✓	✓	✓	✓
J53382	829074	483141	12HB00093	12700628	12BD00404	E21201657XX	31.59	919.485	✓	✓	✓	✓	✓
J53383	829074	483078	12HB00427	12700628	12BD00986	E21201657XX	31.59	910.665	✓	✓	✓	✓	✓
J53384	829076	487002	12HB01151	12700628	12BD00812	E21201657XX	31.59	908.460	✓	✓	✓	✓	✓
J53385	829074	483056	12HB00281	12700628	12BD00392	E21201657XX	31.56	912.870	✓	✓	✓	✓	✓
J53386	829074	483068	12HB00535	12700628	12BD01126	E21201657XX	31.50	906.255	✓	✓	✓	✓	✓
J53387	829074	483009	12HB00869	12700628	12BD01132	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓
J53388	829074	483036	12HB00635	12700628	12BD00002	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53389	829074	483031	12HB00739	12700628	12BD00150	E21201657XX	31.53	915.075	✓	✓	✓	✓	✓
J53390	829074	483087	12HB00521	12700628	12BD00448	E21201657XX	31.53	917.280	✓	✓	✓	✓	✓
J53391	829074	483064	12HB00149	12700628	12BD00980	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓
J53392	829074	483013	12HB00641	12700628	12BD00738	E21201657XX	31.53	915.075	✓	✓	✓	✓	✓
J53393	829074	483030	12HB00643	12700628	12BD00626	E21201657XX	31.59	908.460	✓	✓	✓	✓	✓
J53394	819016	180186	12HB00779	12700628	12BD00582	E21201657XX	31.50	908.460	✓	✓	✓	✓	✓
J53395	809037	52091	12HB00311	12700628	12BD00458	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53396	829074	483140	12HB00003	12700628	12BD00868	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53397	829074	483040	12HB00699	12700628	12BD00650	E21201657XX	31.53	904.050	✓	✓	✓	✓	✓
J53398	829074	483120	12HB00895	12700628	12BD00894	E21201657XX	31.56	921.690	✓	✓	✓	✓	✓
J53399	829074	483054	12HB00885	12700628	12BD00398	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53400	829074	483049	12HB00049	12700628	12BD01066	E21201657XX	31.59	910.665	✓	✓	✓	✓	✓
J53401	829074	483125	12HB00745	12700628	12BD00342	E21201657XX	31.59	915.075	✓	✓	✓	✓	✓
J53402	829074	483003	12HB00813	12700628	12BD00340	E21201657XX	31.56	919.485	✓	✓	✓	✓	✓
J53403	829074	483059	12HB00565	12700628	12BD00696	E21201657XX	31.63	908.460	✓	✓	✓	✓	✓
J53404	829074	483095	12HB00513	12700628	12BD00272	E21201657XX	31.59	908.460	✓	✓	✓	✓	✓
J53405	829074	483096	12HB00025	12700628	12BD00184	E21201657XX	31.56	919.485	✓	✓	✓	✓	✓
J53406	829074	483055	12HB00949	12700628	12BD00126	E21201657XX	31.53	915.075	✓	✓	✓	✓	✓
J53407	829074	483007	12HB00447	12700628	12BD01064	E21201657XX	31.56	915.075	✓	✓	✓	✓	✓
J53408	829074	483057	12HB00047	12700628	12BD00854	E21201657XX	31.36	906.255	✓	✓	✓	✓	✓
J53409	829074	483138	12HB00757	12700628	12BD00160	E21201657XX	31.59	912.870	✓	✓	✓	✓	✓
J53410	829074	483058	12HB00007	12700628	12BD00006	E21201657XX	31.50	915.075	✓	✓	✓	✓	✓
J53411	829074	483033	12HB00599	12700628	12BD00782	E21201657XX	31.56	917.280	✓	✓	✓	✓	✓



Export Classification

ECCN# EAR99

HTS# 8431.43.10

COUNTRY OF ORIGIN: CHN

Customer: WOODHOUSE INTERNATIONAL

Customer Purchase Order Number: WDO-50531-1-1

NOV GP Order Confirmation Number: 1000106960

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5.5"OD 0.415" WT 24.7LB./FT." IEU R2 S135 DRILL PIPE
GPDS55 PIN 7"OD×3.5"ID & 10" PIN OD LENGTH & H-SERIES BENCHMARK
ARNCO 300XT HARDBANDING FOR GPDS55 PIN
GPDS55 BOX 7"OD×3.5"ID & 12"BOX OD LENGTH & H-SERIES BENCHMARK
ARNCO 300XT HARDBANDING FOR GPDS55 BOX
TK-34 INTERNAL COATING

NOV Grant Prideco Representative

September 2, 2012

Date

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