Y10-12

ABSA
the pressure equipment safety authority

# MANUFACTURER'S DATA REPORT FOR INDIRECT FIRED HEATER COILS

AB-28 2006-02

PARTIAL ☐ A# 586322

**Manufactured By:** Bluestar Welding, A Division of 570147 AB Ltd., R.R. 2, Site 7, Box 20, Grande Prairie, Alberta T8V 2Z9

**Manufactured For:** Bluestar Investments, Box 22055, Grande Prairie, Alberta T8V 6X1

**Ultimate Owner:** Bluestar Investments, Box 22055, Grande Prairie, Alberta T8V 6X1

**Location of Installation:** Portable Equipment

| Manufacturer's Serial No. | Construction Drawing No. | CODE: ASME B31.3 | | | | Year Built |
|---|---|---|---|---|---|---|
| BSC-1038 | 2080-01 Rev 1 | Edition | 2007 | Addenda | 2007 | 2008 |

## CONSTRUCTION

| | Coil ID/Purpose | Design Pressure | Design Temp | Design Minimum Temp | Corrosion Allowance | Registered Drawing No. | CRN |
|---|---|---|---|---|---|---|---|
| a | Coil | 5031 PSI | 200 F | -2 F | 1/8" | 2080-01 Rev 1 | T3046.2 |
| b | | | | | | | |
| c | | | | | | | |
| d | | | | | | | |
| e | | | | | | | |

## COIL

| | Tubes | | | End Closures | | | | Openings | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Return Bend | | Flanges | | | | |
| | Mat'l Spec. | Diameter | Thickness | Mat'l Spec. | Thickness | Mat'l Spec. | Rating | Mat'l Spec. | Size/Type | Rating |
| a | A333 Gr 6 | 3.5" OD | 0.600 " | A420 WPL6 | 0.600" | | | | | |
| b | | | | | | | | | | |
| c | | | | | | | | | | |
| d | | | | | | | | | | |
| e | | | | | | | | | | |

## HEADERS/MANIFOLDS

| | Purpose | Size | Shell | | Ends | | | Openings | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Mat'l Spec. | Thickness | Mat'l Spec. | Thickness | No | Mat'l Spec | Size/Type | Rating |
| f | | | | | | | | | | |
| g | | | | | | | | | | |

## TEST PRESSURE, NDE, POSTWELD HEAT TREATMENT AND SIZE

| | Hydrostatic Test Pressure | Radiography (100% or % Random) | Other NDE (MT) (PT) (UT) | Postweld Heat Treatment | | Overall Length | Heating Surface | Volume |
|---|---|---|---|---|---|---|---|---|
| | | | | Temp. | Time | | | |
| a | 7500 PSI | 100% | | 1150 F | 1 Hour | 151 Feet | 138 FT2 | 2.18 FT3 |
| b | | | | | | | | |
| c | | | | | | | | |
| d | | | | | | | | |
| e | | | | | | | | |
| f | | | | | | | | |
| g | | | | | | | | |

IMPACT TESTING: Exempt per Table 323.2.2 Column A

REMARKS: This coil may not be pressurized when its temperature is colder than -2 F.

### CERTIFICATE OF COMPLIANCE

We certify that the statements in this report are correct and that all details of design, material, construction, and workmanship of this coil bundle are in accordance with the above Provincial Registered Design.

Date April 10/08 Signed [signature] (Representative) For Bluestar Welding (Manufacturer)

### CERTIFICATE OF SHOP INSPECTION

I, the undersigned, a duly authorized Safety Codes Officer employed by ABSA has inspected the above Heater Coils and state that, to the best of my knowledge and belief, the construction is in accordance with the Alberta Safety Codes Act and Regulations.

Date April 10/08 Signed [signature] AB-183A

LH-3
A#586322

12 Dunham Close
Red Deer, AB
t4r 2j5
403-505-0378

| | | | |
|---|---|---|---|
| ***Client:*** | BLUESTAR | ***Units :*** | LH-3 |
| ***Inspection Date:*** | MAY 25,2026 | ***W0 #:*** | |
| ***Client Rep:*** | WADE BRANDVOLD | ***Technician:*** | GEOFF FENTON |

***Flaw Detector/Thickness Gauge***

| | | | |
|---|---|---|---|
| Make: Dakota | Model: DFX-8 | Serial #: 20193 | Calibration: May 2026 |

***Ultrasonic Transducer***

| | | | |
|---|---|---|---|
| Manufacturer: Olympus S/N 737AB | Size/Type: 0.250"/Lemo | Mhz: 5 | Mode:Longitudinal P-E |

***Calibration Block***

| | | | |
|---|---|---|---|
| Type: Step Block | Material: Carbon Steel | Thickness: 0.100" - 0.500" | Serial #: 15-1035 |

Client Equipment Inspected: 3"5K LINEHEATER BUNDLE, carbon steel, the Temperature was approx. 15 Deg C.
Client should refer to applicable ASME Code or IRP for Guidelines on Pressure Rating for pipe.
Only small areas are tested for remaining wall thickness. Areas prone to erosion/corrosion are checked(IE. elbows,tee crotches,pipe and vessel walls).
Visual Corrosion in vessel and/or on steam coil is NOT a requirement of this report, that is the Owners responsibility.
Each area was scanned to determine the Minimum and Maximum value, therefore creating an average thickness for the scan.
Any CML found to be thin will be in yellow print, so the Owner can determine if its below their minimum specifications.
All components are coated/painted, approx. paint thickness: 0.001" - 0.050"
This report is information only, the Owner has the sole Responsibility to determine Minimum wall thickness allowable.

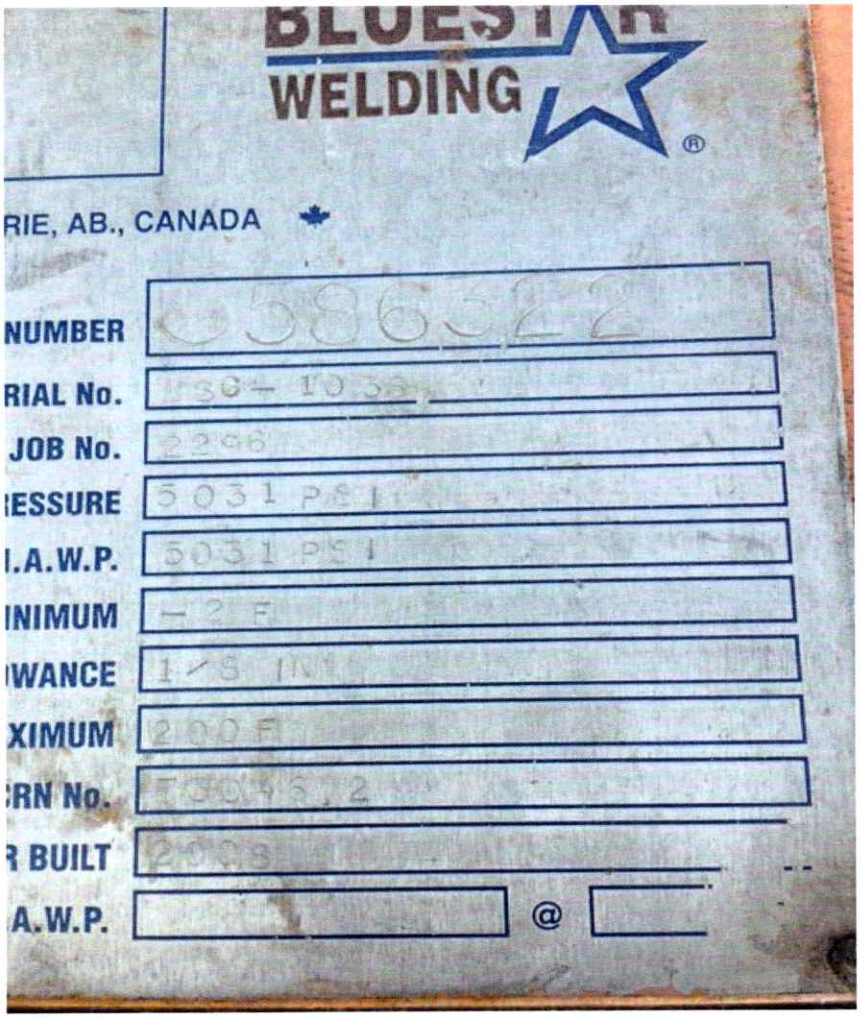
GEOFF FENTON , CGSB# 21365
Carmaco Inspections



carmaco
Inspections

LH-3
A#586322

12 Dunham Close
Red Deer, AB
t4r 2j5
403-505-0378





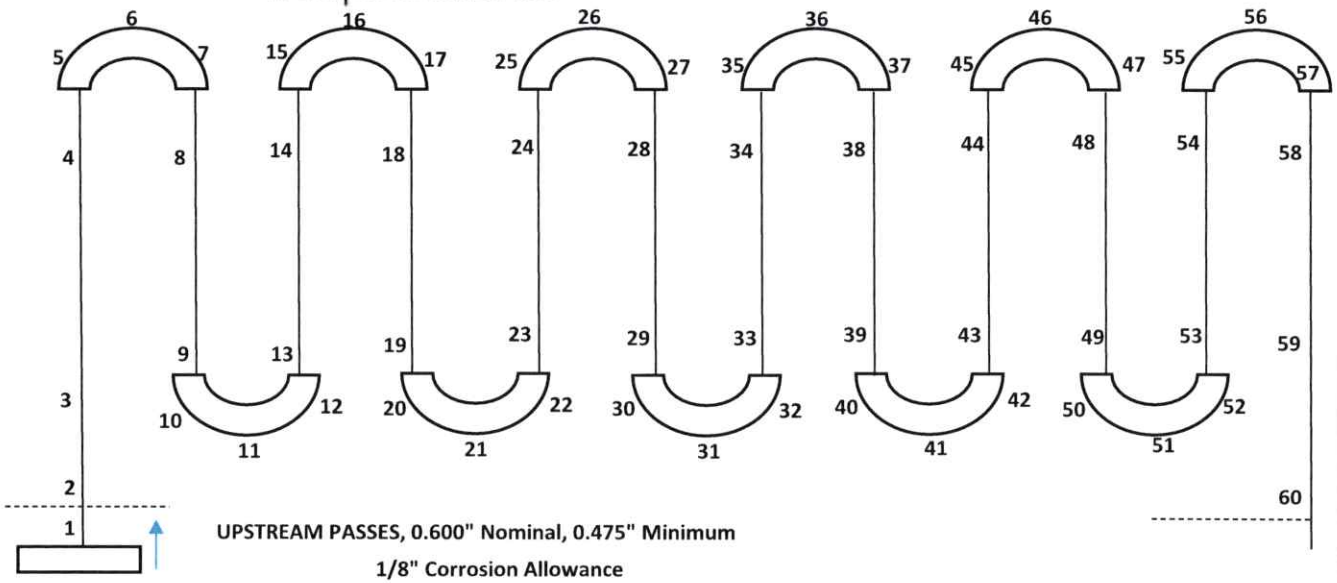



LH-3
A#586322

12 Dunham Close
Red Deer, AB
t4r 2j5
403-505-0378

carmaco Inspections

UPSTREAM




**UPSTREAM PASSES, 0.600" Nominal, 0.475" Minimum**

**1/8" Corrosion Allowance**

| Loc # | Min. Inches | Avg. Inches |
|---|---|---|
| 45 | 0.537 | 0.560 |
| 46 | 0.532 | 0.560 |
| 47 | 0.540 | 0.562 |
| 48 | 0.540 | 0.559 |
| 49 | 0.542 | 0.560 |
| 50 | 0.545 | 0.564 |
| 51 | 0.542 | 0.560 |
| 52 | 0.545 | 0.567 |
| 53 | 0.540 | 0.568 |
| 54 | 0.540 | 0.567 |
| 55 | 0.540 | 0.570 |
| 56 | 0.540 | 0.570 |
| 57 | 0.539 | 0.569 |
| 58 | 0.542 | 0.574 |
| 59 | 0.547 | 0.568 |
| 60 | 0.540 | 0.570 |

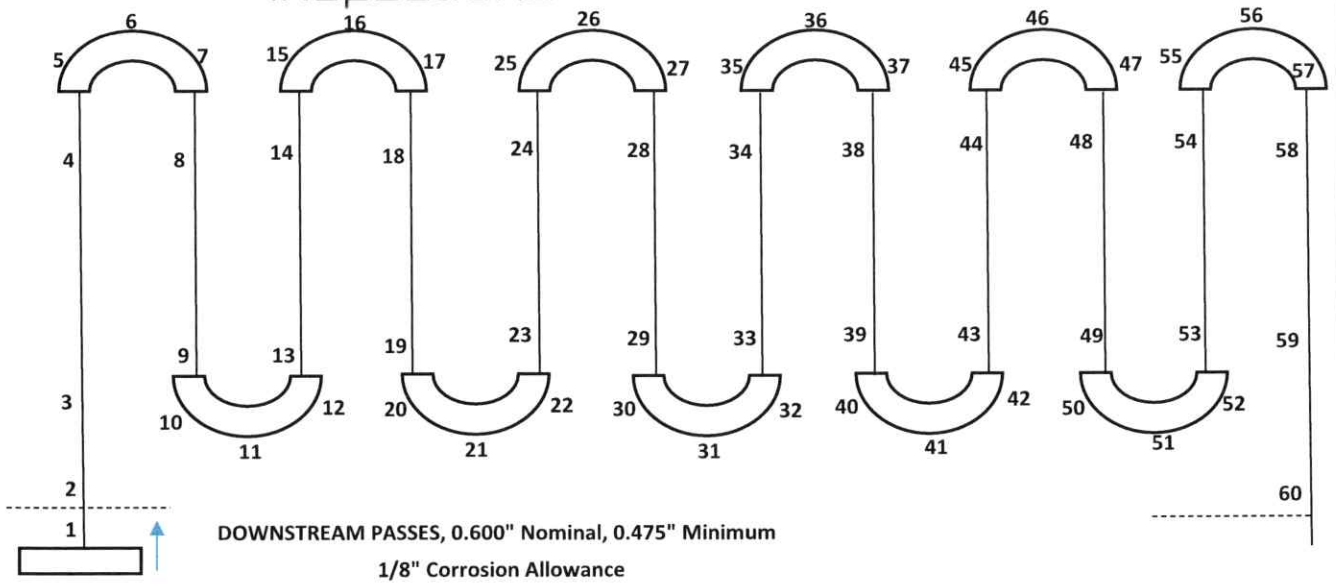
| Loc # | Min. Inches | Avg. Inches | Loc # | Min. Inches | Avg. Inches | Loc # | Min. Inches | Avg. Inches | Loc # | Min. Inches | Avg. Inches |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.536 | 0.558 | 12 | 0.540 | 0.560 | 23 | 0.547 | 0.568 | 34 | 0.530 | 0.562 |
| 2 | 0.552 | 0.570 | 13 | 0.540 | 0.558 | 24 | 0.535 | 0.564 | 35 | 0.536 | 0.560 |
| 3 | 0.550 | 0.569 | 14 | 0.536 | 0.562 | 25 | 0.560 | 0.562 | 36 | 0.535 | 0.570 |
| 4 | 0.548 | 0.570 | 15 | 0.535 | 0.568 | 26 | 0.560 | 0.562 | 37 | 0.532 | 0.568 |
| 5 | 0.560 | 0.564 | 16 | 0.545 | 0.570 | 27 | 0.478 | 0.525 | 38 | 0.541 | 0.570 |
| 6 | 0.540 | 0.566 | 17 | 0.560 | 0.563 | 28 | 0.528 | 0.563 | 39 | 0.545 | 0.564 |
| 7 | 0.542 | 0.559 | 18 | 0.550 | 0.568 | 29 | 0.540 | 0.564 | 40 | 0.550 | 0.570 |
| 8 | 0.541 | 0.566 | 19 | 0.552 | 0.569 | 30 | 0.542 | 0.559 | 41 | 0.545 | 0.562 |
| 9 | 0.542 | 0.565 | 20 | 0.545 | 0.570 | 31 | 0.540 | 0.562 | 42 | 0.540 | 0.563 |
| 10 | 0.545 | 0.564 | 21 | 0.540 | 0.570 | 32 | 0.539 | 0.561 | 43 | 0.542 | 0.564 |
| 11 | 0.545 | 0.561 | 22 | 0.542 | 0.562 | 33 | 0.540 | 0.564 | 44 | 0.542 | 0.568 |

LH-3
A#586322

12 Dunham Close
Red Deer, AB
t4r 2j5
403-505-0378

carmaco Inspections

DOWNSTREAM




**DOWNSTREAM PASSES, 0.600" Nominal, 0.475" Minimum**

**1/8" Corrosion Allowance**

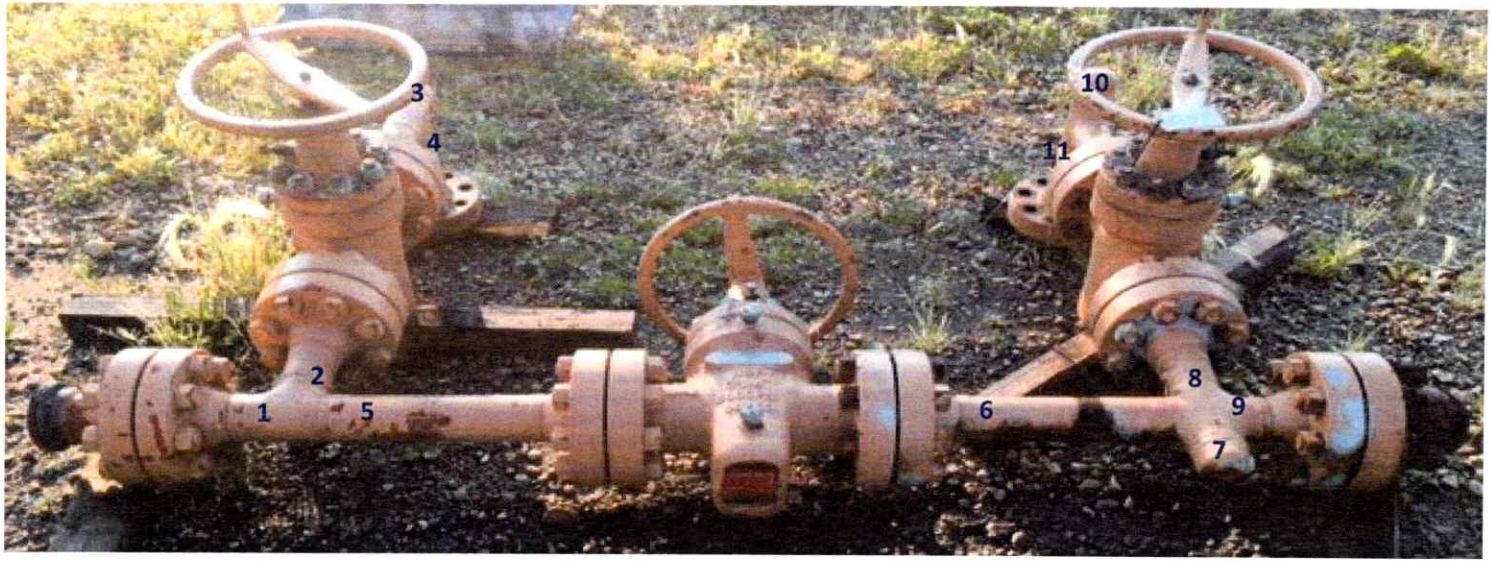
| Loc # | Min. Inches | Avg. Inches |
|---|---|---|
| 45 | 0.543 | 0.572 |
| 46 | 0.492 | 0.543 |
| 47 | 0.530 | 0.564 |
| 48 | 0.520 | 0.565 |
| 49 | 0.520 | 0.567 |
| 50 | 0.540 | 0.568 |
| 51 | 0.537 | 0.564 |
| 52 | 0.535 | 0.564 |
| 53 | 0.541 | 0.568 |
| 54 | 0.538 | 0.566 |
| 55 | 0.538 | 0.570 |
| 56 | 0.535 | 0.571 |
| 57 | 0.540 | 0.569 |
| 58 | 0.541 | 0.568 |
| 59 | 0.538 | 0.570 |
| 60 | 0.537 | 0.571 |

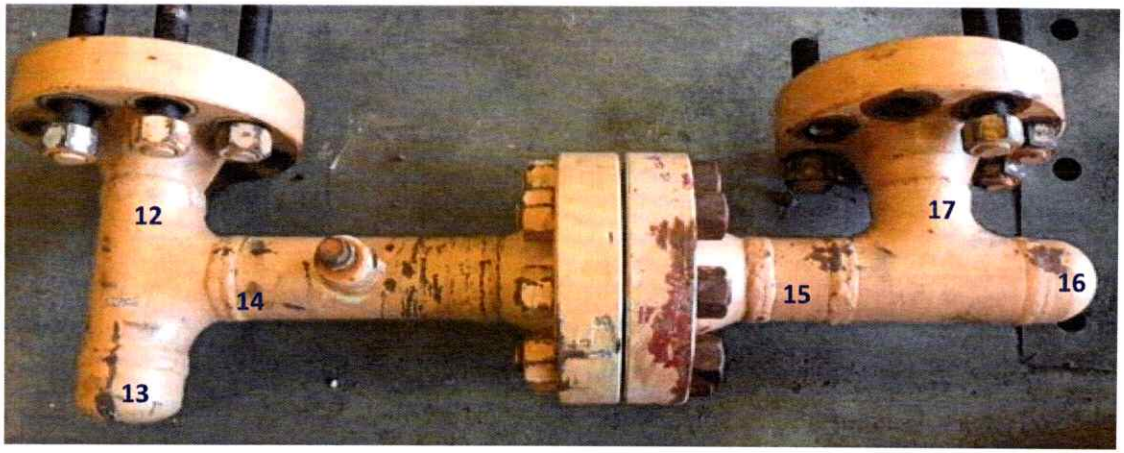
| Loc # | Min. Inches | Avg. Inches | Loc # | Min. Inches | Avg. Inches | Loc # | Min. Inches | Avg. Inches | Loc # | Min. Inches | Avg. Inches |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.530 | 0.572 | 12 | 0.541 | 0.559 | 23 | 0.540 | 0.568 | 34 | 0.536 | 0.564 |
| 2 | 0.530 | 0.570 | 13 | 0.539 | 0.568 | 24 | 0.545 | 0.570 | 35 | 0.542 | 0.568 |
| 3 | 0.532 | 0.568 | 14 | 0.540 | 0.574 | 25 | 0.540 | 0.560 | 36 | 0.498 | 0.546 |
| 4 | 0.537 | 0.558 | 15 | 0.529 | 0.568 | 26 | 0.527 | 0.574 | 37 | 0.540 | 0.569 |
| 5 | 0.536 | 0.568 | 16 | 0.536 | 0.572 | 27 | 0.536 | 0.580 | 38 | 0.536 | 0.570 |
| 6 | 0.540 | 0.568 | 17 | 0.538 | 0.570 | 28 | 0.539 | 0.574 | 39 | 0.535 | 0.565 |
| 7 | 0.538 | 0.571 | 18 | 0.539 | 0.573 | 29 | 0.542 | 0.574 | 40 | 0.538 | 0.564 |
| 8 | 0.539 | 0.572 | 19 | 0.542 | 0.570 | 30 | 0.536 | 0.575 | 41 | 0.540 | 0.568 |
| 9 | 0.541 | 0.572 | 20 | 0.541 | 0.570 | 31 | 0.537 | 0.574 | 42 | 0.539 | 0.570 |
| 10 | 0.541 | 0.570 | 21 | 0.540 | 0.569 | 32 | 0.538 | 0.576 | 43 | 0.538 | 0.568 |
| 11 | 0.540 | 0.568 | 22 | 0.538 | 0.574 | 33 | 0.540 | 0.575 | 44 | 0.540 | 0.566 |

carmaco Inspections

LH-3
A#586322

12 Dunham Close
Red Deer, AB
t4r 2j5
403-505-0378



carmaco Inspections

LH-3
A#586322

12 Dunham Close
Red Deer, AB
t4r 2j5
403-505-0378

Manifold Pipe Nominal Thickness 0.600" , Min. Thickness 0.475"

| LOC # | Description | Min. Inches | Avg. Inches |
|---|---|---|---|
| 1 | TEE | 0.650 | 0.690 |
| 2 | PIPE | 0.550 | 0.560 |
| 3 | CAP | 0.625 | 0.660 |
| 4 | PIPE | 0.536 | 0.568 |
| 5 | PIPE | 0.535 | 0.560 |
| 6 | PIPE | 0.540 | 0.562 |
| 7 | CAP | 0.670 | 0.690 |
| 8 | PIPE | 0.543 | 0.564 |
| 9 | CROSS BRANCH | 0.710 | 0.740 |
| 10 | CAP | 0.660 | 0.680 |
| 11 | PIPE | 0.550 | 0.560 |
| 12 | TEE | 0.600 | 0.640 |
| 13 | CAP | 0.650 | 0.660 |
| 14 | PIPE | 0.550 | 0.560 |
| 15 | PIPE | 0.545 | 0.563 |
| 16 | CAP | 0.600 | 0.630 |
| 17 | TEE | 0.700 | 0.730 |