

## Auditing Test Report

Test Report No. 258816/22

Date: 21/07/2024

### Client

Saudi Vitrified Clay Pipe Co.

P.O. Box 6415

Riyadh 11442

Kingdom of Saudi Arabia

Sampling Date: 17/07/2024

Test Date: 18/07/2024

### Auditing Purpose:

Testing of Vitrified Clay Pipes jointed by system C according to EN 295-1:2013

### Size Description:

Nominal Size: DN 200 SS \* 2000 mm

Jointing System: System C

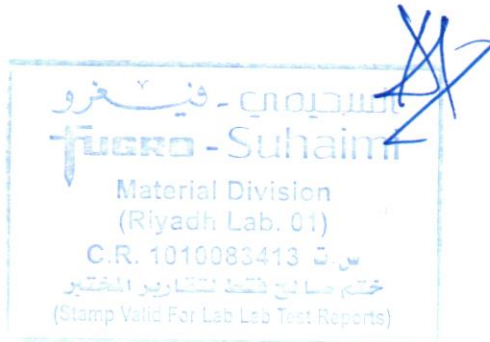
Class: 200 - Class B

### Description of Sampling

Samples were collected randomly from the stock at the client's manufacturing works in Riyadh (Kingdom of Saudi Arabia) by the agent of the Suhaimi - Fugro

### Underlying specification /description of the tests

|                   |   |
|-------------------|---|
| EN 295-1:2013     | "Vitrified clay pipe systems for drains and sewers - Part 1: Requirements for pipes, fittings & joints" |
| GSO EN 295-1:2008 | "Vitrified clay pipe systems for drains and sewers - Part 1: Requirements for pipes, fittings & joints" |
| EN 295-2:2013     | "Vitrified clay pipe systems for drains and sewers - Part 2: Evaluation of conformity and sampling"     |
| EN 295-3:2012     | "Vitrified clay pipe systems for drains and sewers - Part 3: Test Methods"                              |



**Test Results of DN 200 SS 2.0m - Class B**

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| Test Type                 |   | Unit             | Sample 1   | Sample 2 | Sample 3 | Req.                               | Result |   |
|---------------------------|---|------------------|--|----------|----------|------------------------------------|--------|---|
| Pipes                     | Marking (visual Inspection)             | -                | ✓  | ✓        | ✓        | ✓                                  | ✓      |   |
|                           | Crushing Strength                       | KN/m             | 68   | 61       | 59       | ≥ 45                               | ✓      |   |
|                           | Internal Barrel Diameter "D1"           | mm               | 202  | 202      | 205      | ≥ 195                              | ✓      |   |
|                           | Length                                  | mm               | 2015   | 2020     | 2010     | 2000 <sup>+4%</sup> <sub>-1%</sub> | ✓      |   |
|                           | Water Tightness                         | L/m <sup>2</sup> | 0.02   | 0.03     | 0.03     | ≤ 0.04                             | ✓      |   |
|                           | Deviation from Straightness             | mm               | 2.8  | 2.7      | 2.8      | < 4.0                              | ✓      |   |
|                           | Squareness of Ends                      | Socket           | mm   | 1.6      | 1.5      | 1.8                                | < 6.0  | ✓ |
|                           |   | Spigot           | mm   | 1.8      | 1.7      | 1.9                                |        |   |
|                           | Airtightness                            | mm               | 8  | 6        | 10       | Drops ≤ 25                         | ✓      |   |
|                           | Chemical Resistance                     | %                | 0.18   | 0.12     | 0.15     | 0.10-0.25%                         | ✓      |   |
|                           | Water Absorption                        | %                | 3.4  | 3.4      | 3.5      | ≤ 6 %                              | ✓      |   |
| Bending Moment Resistance | KNm                                     | 15.6             | 15.8   | 16.4     | ≥ 8.6    | ✓                                  |        |   |
| Joint Assembly            | Joint Interchangeability (D4)           | mm               | 260.3  | 260.4    | 260.4    | 260 ± 0.5                          | ✓      |   |
|                           | Watertightness under Angular Deflection | 0.5 bar          | No leak, Deflection applied is 80 mm/m for 5 min.  |          |          | No visible leakage                 | ✓      |   |
|                           | Watertightness under Shear              | 0.5 bar          | No leak, Shear force applied is 5.0 KN for 15 min. |          |          | No visible leakage                 | ✓      |   |
|                           | Continuity of Invert                    | mm               | 2.5  | 2.2      | 2.3      | ≤ 4                                | ✓      |   |

FUGRO - SUHAIMI LTD

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