| **Ultrasonic Thickness Measurement report**  **Протокол по результатам проведения ультразвуковой толщинометрии** | | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **JOB DETAILS / РАБОЧАЯ ИНФОРМАЦИЯ** | | | | | | | | | | | | | | |
| **Client**  Клиент | | | **NCOC N. V.** | | | | | **Project**  Проект | | | | **ESKENE WEST** | | |
| **Work location**  Место работы | | | **KUT 560** | | | | | **Control object**  Объект контроля | | | | **A1-560-TA-080** | | |
| **Material**  Марка стали | | | **SA 240 TYPE 316L** | | | | | **Dimension**  Размер | | | | **ID=2900** | | |
| **Calibration Temperature**  Температура калибровочного блока | | | **+1°C** | | | | | **Object Temperature**  Температура объекта контроля | | | | **+1°C** | | |
| **Surface condition**  Состояние поверхности | | | **Uncoated, Nozzles are coated** | | | | | **Couplant**  Контактная жидкость | | | | **UT Gel** | | |
| **Correction factors**  Поправочные факторы | | | **n/a** | | | | | **Roughness**  Шероховатость | | | | **-** | | |
| **INSPECTION PROCEDURE / НОРМАТИВНЫЕ ДОКУМЕНТЫ** | | | | | | | | | | | | | | |
| **Procedure**  Процедура | | **QP-11-UTT-Q01**  **Rev 04** | | | | **Standard for testing**  Стандарт по контролю | | | **GOST 28702-90** | | **Standard for item**  Стандарт для ОК | | | **API 650** |
| **EQIPMENT PARAMETERS / ПАРАМЕТРЫ ОБОРУДОВАНИЯ** | | | | | | | | | | | | | | |
| **Probe, S/N**  Датчик, № | | | | | **D790, №1306596** | | | **Size**  Размер | | | | **11 mm** | | |
| **Angle**  Угол ввода | | | | | **0º** | | | **Crystal**  ПЭ | | | | **Dual** | | |
| **Frequency**  Частота преобразователя | | | | | **5 MHz** | | | **Accuracy**  Точность | | | | **± 0,1 mm** | | |
| **CALIBRATION BLOCK DETAILS / ПАРАМЕТРЫ КАЛИБРОВОЧНОГО БЛОКА** | | | | | | | | | | | | | | |
| **Calibration Block**  Калибровочный блок | | | | | **Step wedge** | | | **Calibration Block Range**  Диапазон толщин калибровочного блока | | | | **5.0-40.0 mm** | | |
| **INSPECTION EQUIPMENT / ОБОРУДОВАНИЕ ИНСПЕКЦИОННОГО КОНТРОЛЯ** | | | | | | | | | | | | | | |
| **№** | **Equipment**  Оборудование | | | **Manufacture** Изготовитель | | | **Serial number**  Серийный номер | | | **Certificate**  Сертификат поверке | | | **Expire date**  Дата истечения поверки | |
|  | DL-38 | | | OLYMPUS | | | 171421601 | | | KZ-01-21-Ж-0169 | | | 01.03.2022 | |
|  | Step wedge calibration blocks  5-10-20-40 mm | | | Fizpribor | | | 3255-20 | | | - | | | - | |
| **Job description:**   1. UT spot check performed in according to provided Scope of work. 2. Standard technique was used. 3. Inspection performed on South, North, West, East, Top and Bottom sides related to object position. | | | | | | | | | | | | | | |
| **Notes** / Примечания: | | | | | | | | | | | | | | |

| **INSPECTION RESULTS / РЕЗУЛЬТАТЫ КОНТРОЛЯ** | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Line / Tag N / Номер** | **Item description/**  **Участок контроля** | **Section number/**  **Номер сечения** | **Diameter, inch /**  **Диаметр, дюйм** | **Nominal thickness, mm/**  **Номинальная толщина, мм** | **South, mm/**  **Юг, мм** | **North, mm /**  **Север, мм** | **West, mm /**  **Запад, мм** | **East, mm /**  **Восток, мм** | **Top, mm /**  **Верх, мм** | **Bottom, mm /**  **Низ, мм** | **Extrados, mm /**  **Внешний радиус, мм** | **Intrados, mm /**  **Внутренний радиус, мм** |
| **A1-560-TA-080** | N2 | - | 2’’ | 5.54 | 5.40 | 5.42 | - | - | 5.40 | 5.44 | - | - |
| N5 | - | 2’’ | 5.54 | 5.46 | 5.47 | - | - | 5.41 | 5.43 | - | - |
| K3 | - | 2’’ | 5.54 | - | - | 5.56 | 5.54 | 5.59 | 5.60 | - | - |
| K5 | - | 2’’ | 5.54 | - | - | 5.78 | 5.68 | 5.70 | 5.64 | - | - |
| N4 | - | 6’’ | 7.11 | 6.96 | 6.94 | - | - | 6.98 | 6.91 | - | - |
| K2B | - | 2’’ | 5.54 | 5.65 | 5.70 | - | - | 5.72 | 5.58 | - | - |
| K1 | - | 5’’ | 7.11 | 7.36 | - | 7.18 | 7.22 | - | - | - | - |
| K4 | - | 6’’ | 7.11 | 7.06 | - | 7.15 | 7.28 | - | - | - | - |
| N3 | - | 4’’ | 6.02 | 5.78 | 5.80 | 5.65 | 5.74 | - | - | - | - |
| N1 | - | 2’’ | 5.54 | 5.96 | 5.91 | - | - | 5.92 | 5.92 | - | - |
| N6 | - | 2’’ | 5.54 | 5.61 | 5.88 | - | - | 5.72 | 5.84 | - | - |
| K2A | - | 2’’ | 5.54 | 5.72 | 5.82 | - | - | 5.86 | 5.65 | - | - |
| M1 | - | 24’’ | 6 | - | - | 6.05 | 6.07 | 6.05 | 6.06 | - | - |
| M2 | - | 24’’ | 6 | 6.12 | 6.15 | 6.11 | 6.13 | - | - | - | - |
| Bottom shell | - | - | 6 | 6.10 | 6.09 | 6.08 | 6.10 | - | - | - | - |
| Top shell | - | - | 6 | 6.22 | 6.23 | 6.24 | 6.23 | - | - | - | - |
| Bottom | - | - | 6 | 6.01 | 6.04 | 6.02 | 6.02 | - | - | - | - |
| Roof | - | - | 6 | 6.25 | 6.21 | 6.26 | 6.25 | - | - | - | - |
| Sump bottom | - | 610mm | 12 | 12.26 | 12.20 | 12.22 | 12.23 | - | - | - | - |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Examined by / Контроль провёл: | | | Approved by / Протокол утвердил: | | Client representative /  Представитель клиента | | |
| Name / ФИО | | Utashev Mirambek | Name / ФИО | Kuryanau Dzmitry | Name / ФИО |  | |
| Signature / Подпись | |  | Signature / Подпись |  | Signature / Подпись |  | |
| Date / Дата | | 14.02.2022 | Date / Дата | 14.02.2022 | Date / Дата |  | |
| Cert. № /  № серт-та | | UT L II cert. No. 817C-21  expire date: 30.06.2024 | Cert. № /  № серт-та | UT Level II  cert. No 2B 230/20  expire date: 31.05.2025 | Cert. № /  № серт-та |  | |
| Annex 1 / Приложение 1  Inspection Drawing / Схема контроля | | | | | |
|  | | | | | |
| **A1-560-A-080** | | | | | |