SLOFEC LS120 Pipe Inspection

Client: Client a
Facility: Site b
Items Inspected: 6” pipeline
Inspection Method: SLOFEC
Commencement Date: 14th April 2016
Completion Date: 19th April 2016
Type of Report: Final
Report Number: K00x-16US
Job Number: J00x-16US
SLOFEC™ PIPE / VESSEL INSPECTION REPORT (LS120)
Executive Summary

Innospection Ltd was requested by Client a, to conduct a SLOFEC™ (Saturation Low Frequency Eddy Current) inspection on the 6” LPG to LSFO pipeline.

The inspection was conducted at the site b on 14th April 2016 and was completed on 19th April 2016.

This inspection report documents in detail the specific inspection that has been conducted; the individual technique and equipment utilised, and the results, observations and conclusions obtained.

Indications above 40% wall loss were deemed as significant and instructed by Client to be directly marked on the pipeline. The SLOFEC™ inspection indicated no significant defects above 40%.

Four sections (22, 40, 48 & 49) of this pipeline were found to have isolated random indications with 20%-30% wall loss.

The inspection was carried out with the assistance of rope access and scissor lift, resulting in many short sections of scanned areas.

The specific pipeline had many adjacent pipelines and welds which the scanner couldn’t pass resulting in a dead-zone for SLOFEC™.

Where the painted surface had broken down topside scale was present – this scale produced an out of phase signal in the SLOFEC™ software. All spurious signals have been removed from the BMP images present within this report.
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Appendix

Appendix 1 : Scanned Sections 1-59
1. **Test Object Data**

Object Identification: 6" Pipeline  
Location of Object: 123  
Orientation of Scan: Longitudinal  
Wall Thickness: Nominal 7.11 mm  
Material: Carbon Steel  
Surface Condition: Generally clean and free from loose debris – painted surface. Some areas the painted surface had broken down and topside scale was present and required light scraping.

2. **Inspection Task**

As requested by Client a, a SLOFEC™ (Saturation Low Frequency Eddy Current) inspection was performed on the 6" pipeline located at site b from 14th April 2016 to 19th April 2016.

The inspection was performed with a SLOFEC™ technology scanner, type LS120.

SLOFEC™ is regarded as a fast corrosion screening technique, detecting corrosion on either side of the wall inspected. This method of testing makes it practical to inspect the pipes from the external surface, whilst they are still in service and at operating temperatures.

The SLOFEC™ inspection team consisted of qualified engineers from Innospection Ltd.

All areas described in Section 4 – Inspection Volume were inspected with the SLOFEC™ scanner.

The inspection was carried out as a general inspection.

3. **Inspection Personnel**

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>PCN L2 ET/UT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspection Operator</td>
<td>Technician a</td>
<td>L2 ET/UT - 000000</td>
</tr>
<tr>
<td>Inspection Assistant</td>
<td>Technician b</td>
<td>L2 ET - 000000</td>
</tr>
</tbody>
</table>

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4. **Inspection Volume**

The SLOFEC™ scans were taken over 360° coverage of the general pipe body. The seam welds including the heat affected zones were not scanned.

All accessible areas of the pipe were targeted for inspection with the exception of specific dead zones, which could not be inspected due to the design of the scanner i.e. the wheels of the scanner butted against a circumferential weld bead.

The Dead Zone refers to the following areas:

- 130mm on either side of the pipe ends
- 130mm on either side of any weld
- 130mm on either side of any pipe supports
- Any other obstructions that interfered with the access

In discussion with the client areas with defects greater than 40% of the indicated wall thickness, would be directly identified and marked on the pipeline surface. This using the circumferential welds as a reference datum.

5. **Inspection Equipment**

5.1. **SLOFEC™ Equipment**

The inspection system consisted of the following SLOFEC™ equipment and accessories:

- **Scanner**: SLOFEC™ LS120 Scanner (width 120mm)

  **Description of Scanner**: The SLOFEC™ LS120 Scanner is a handheld system equipped with permanent magnets and multiplexed electronics. Four (4) sensors each with a width of 30mm are located between the pole shoes. A trigger encoder is connected via a belt drive to one wheel. The two (2) wheels at the front and two (2) wheels at the rear are adjustable in height for lift off.

- **Scanning Speed**: 100% (approx. 24m/min)

- **Eddy Current Instrument**: IBM-AT-compatible computer with 2-frequency Eddy Current plug-in cards
  - **Type**: Beltronic EMC07/08.01

- **Eddy Current Sensors**: 4 x EC-B-30 mm

- **Software Version**: Slofec™ V5
Cable : 20 metres of specific cable connection between the computer Eddy Current instrument and SLOFEC™ LS120 Scanner

Reference Plate : 7.11mm from Innospection, Serial No. 267

Reference Defect : 20%, 40%, 60%, 80% FBH

5.2. Ultrasonic Equipment

The Ultrasonic equipment consisted of the following accessories:

Panametrics-NDT EPOCH 4 Ultrasonic Flaw Detector
Serial No. 110097203

Capable of both “A” scan display and digital thickness readout
5.0 MHz 10mm Ø twin crystal transducer
2mm – 12mm carbon steel calibration step wedge

6. SLOFEC™ Equipment Setting

In general, the SLOFEC™ system is calibrated using sample test samples with artificial reference defects. The reference samples should be of the same material and thickness as the surface to be inspected.

In the case of a coating being present on the surface to be inspected, the average thickness of the coating (if applicable) should also be simulated on the reference sample for the calibration.

Typical reference defects that are used are flat bottom holes or conical bottom holes having a diameter of 5mm, 10mm and 20mm.

The depths of the artificial reference defects are typically 20%, 40%, 60%, 80% and 100%.

For calibration, the SLOFEC™ system is driven over the reference defects and the channels are set (one sensor per channel) to give a sufficient sensitivity level for the detection of internal and external corrosion defects. The calibration is performed at the beginning, after breaks, at the end of every shift and when significant changes are made to the settings of the equipment.

The calibration results and reference defect data from the calibration sample is always stored in the system.

The Eddy Current signal analysis is done online. The computerised equipment and the software allow the analysis of the signal amplitude [in div.] and signal phase [in °].
In discussion with the individual client, indications comparable with the reference defect indications can be marked on the pipeline and are usually recommended to be re-inspected by Ultrasonic (UT) examination.

7. **SLOFEC™ Equipment Calibration**

7.1. **Equipment Calibration**

For internal corrosion detection, the differential mode was used. The frequency setting used for Channel 1−4 (differential mode) was 80−100 kHz.

The amplitude of the signals was set so that the artificial reference defect (Ø 8mm 80% depth) was set to 8 screen divisions. This is only classed as the initial pre-calibration setup and may then be further adjusted when the first true indication is detected and evaluated for depth, this by utilising the Ultrasonic pulse echo technique.

Optimum signal/noise ratio and signal phase separation between the internal defect indications and other indications were considered when selecting a suitable test frequency.

The differential channels of all the sensors were set so that internal defects were indicated in the vertical signal phase direction as shown in the diagram below. By moving the scanner in the positive forward direction, the internal defect signal would show the first peak down, followed by the second peak up with an upward movement.

![Sample signal display of internal defect](image)

7.2. **Calibration Control**

The general setting and calibration was performed at the beginning of the inspection and all the calibration data was stored digitally. Calibration controls were performed at the beginning and end of each working shift as well as after any other significant interruption (i.e. breaks or lunch). Re-calibration is also deemed necessary when significant changes are made to the settings of the equipment.
Calibration samples are used for the initial set-up and for the random check of operator’s settings. Accuracy of sensitivity settings can only be evaluated and achieved, when the first true indication found on the item undergoing the test is verified by an UT operator, with the corresponding depth of indication and SLOFEC™ sensitivity being adjusted accordingly. With this setting, external corrosion defects would be detected and distinguished by phase separation from the internal defects.

7.3. Calibration Samples

The calibration samples are manufactured by Innospection Ltd in accordance to the setting standard requirements.

7.4. Change of Settings

In the event of any scanner adjustment, re-calibration is performed.

8. Inspection Procedures

The inspection was performed according to the following valid procedure:

SLOFEC™ Pipe Procedure No. InnoPSloPIP-001-08 – Current Issue

9. Inspection Performance

9.1. Scanner Movement

The scanner assistant, who was in permanent communication with the SLOFEC™ operator, was responsible for positioning and moving the scanner on the pipe surface. The SLOFEC™ LS120 Scanner is marked clearly on the top with the FORWARD and BACKWARD directions so that all scan directions are made clear to the operator and assistant at all times. The use of Bluetooth headsets was required for communication between technician, assistant and rope access team.

The scanner was moved manually with the scanned tracks being overlapped at all times.

All scans for the inspection were recorded in the forward position.
9.2. **Scan Track Positioning**

The pipelines were marked circumferentially into 5 equal tracks. The tracks were numbered in a clockwise direction while facing the direction of flow. Where no longitudinal seam weld was present, the top of the pipeline was used as a reference.

9.3. **Parameter Storage**

The Eddy Current testing parameter was set during the calibration and digitally stored according to the scan direction and lift off.

10. **Defect Analysis**

All indications which showed a clear signal phase direction similar to that of the reference defects and had signal amplitude equivalent to that of the test piece were subjected to analysis.

Signals that are clearly out of the corrosion phase direction were not reported.

11. **Comments to Inspection**

The pipeline was generally clean however, some areas of the painted surface had broken down and topside scale was present. This required rope access to gently scrape this surface away to reduce spurious signals observed in the SLOFEC software.

The pipeline was within a pipe rack with many adjacent pipelines. Where the adjacent pipelines were in close proximity to the line being inspected, this restricted the scanner and certain tracks were not possible to scan.
12. **Result Overview**

12.1. **Sensitivity Settings**

The general overview of the inspected areas with the results is presented in the attached colour scan reports with wall loss being represented in colour classes as shown in the Wall Loss Legend below:

![Wall Loss Legend](image)

**Note**

Eddy Current inspection is an evaluation method of NDT; hence all results obtained are based upon the test piece used. Material and wall thickness of the test piece should be as near as reasonably practicable to the item under inspection. Artificial defects should be as near in size and shape as to the type sought.

Because SLOFEC™ signal amplitudes are an indication of defect depth and volume, the defect depth analysis by signal amplitude can only be done in comparison with artificial reference defects having varying depths.

12.2. **Result Overview**

A summary of the inspection findings in each of the scanned section is given below:

<table>
<thead>
<tr>
<th>Pipe Section No.</th>
<th>Pipe Length (mm)</th>
<th>Comments</th>
<th>Max % Wall Loss in Pipe Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2000</td>
<td>No Significant Indications</td>
<td>0 - 20%</td>
</tr>
<tr>
<td>2</td>
<td>2000</td>
<td>No Significant Indications</td>
<td>0 - 20%</td>
</tr>
<tr>
<td>3</td>
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<tr>
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<tr>
<td>5</td>
<td>2740</td>
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<td>0 - 20%</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>0 - 20%</td>
</tr>
<tr>
<td>40</td>
<td>2500</td>
<td>No Significant Indications</td>
<td>20 - 30%</td>
</tr>
<tr>
<td>41</td>
<td>2000</td>
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<tr>
<td>45</td>
<td>3300</td>
<td>No Significant Indications</td>
<td>0 - 20%</td>
</tr>
</tbody>
</table>
13. **Inspection Summary**

Indications above 40% were deemed significant and were to be directly marked on the pipeline.

No sections were observed with indications above 40%.

Four pipe sections of numbers 22, 40, 48 & 49, were found with isolated 20-30% wall loss random indications. Ultrasonic's was carried out on these areas however with the manual UT equipment available and difficult access in these areas, no confirmation was possible. These signals were classic Differential Eddy Current lissajous (Slofec) signals and repeatable, hence these have been left in for reference.

14. **Documentation**

The inspection result, parameters and data are stored in the Innospection Limited archive database system.

---

<table>
<thead>
<tr>
<th>Section</th>
<th>Length (mm)</th>
<th>Indications</th>
<th>Wall Loss</th>
</tr>
</thead>
<tbody>
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<td>5400</td>
<td>No Significant Indications</td>
<td>0 - 20%</td>
</tr>
<tr>
<td>47</td>
<td>3300</td>
<td>No Significant Indications</td>
<td>0 - 20%</td>
</tr>
<tr>
<td>48</td>
<td>5400</td>
<td>No Significant Indications</td>
<td>20 - 30%</td>
</tr>
<tr>
<td>49</td>
<td>2500</td>
<td>No Significant Indications</td>
<td>20 - 30%</td>
</tr>
<tr>
<td>50</td>
<td>3300</td>
<td>No Significant Indications</td>
<td>0 - 20%</td>
</tr>
<tr>
<td>51</td>
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<td>0 - 20%</td>
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<tr>
<td>58</td>
<td>3200</td>
<td>No Significant Indications</td>
<td>0 - 20%</td>
</tr>
<tr>
<td>59</td>
<td>2500</td>
<td>No Significant Indications</td>
<td>0 - 20%</td>
</tr>
</tbody>
</table>

*Sections 10, 11, 28 are not present.*
15. **Signature**

Technician a  
ET/UT Level 2  
Innospection Limited

Level 3 Senior Engineer  
PCN 00000  
Innospection Limited
APPENDIX 01

Scanned Sections 1-59
Client: Client a
Location: Site b
Pipe Identif.: 6 Pipeline
Drawing: 01
Area: 5
Section: Section 1 (2.00 Metre)
Date: 26 April 2016
K-No.: 00-16

Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information:

- < 20%
- 20-30%
- 30-40%
- 40-50%
- > 50%

Note:
This is a signal image BMP that is produced automatically at the time of the inspection.

See Previous Drawing For Location Details
**Client:** Client a  
**Location:** site b  
**Pipe Identif.:** 6 pipeline  
**Drawing:** 01  
**Area:** 5  
**Section:** Section 2 (2.00 Metre)  
**Date:** 26 April 2016  
**K-No.:** 00-16

---

**SLOFEC/MEC™**  
**Internal Surface PipeScan Report**

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**Flow Direction**

**Weld**

**Signal Y-component / angle analysis window**

- < 20%
- 20-30%
- 30-40%
- 40-50%
- >50%

---

**Note:**

This is a signal image BMP that is produced automatically at the time of the inspection

---

**See Previous Drawing For Location Details**
SLOFEC/MEC™
Internal Surface PipeScan Report

Note:
This is a signal image BMP that is produced automatically at the time of the inspection.

See Previous Drawing For Location Details
Note:
This is a signal image BMP that is produced automatically at the time of the inspection.

See Previous Drawing For Location Details
**SLOFEC/MEC™**

**Internal Surface PipeScan Report**

---

**Note:**

This is a signal image BMP that is produced automatically at the time of the inspection.

---

*Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information*

<table>
<thead>
<tr>
<th>Signal Amplitude [div]</th>
<th>&lt; 20%</th>
<th>20-30%</th>
<th>30-40%</th>
<th>40-50%</th>
<th>&gt;50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>0.0</td>
<td>0.5</td>
<td>1.0</td>
<td>1.5</td>
<td>2.0</td>
</tr>
</tbody>
</table>

---

*See Previous Drawing For Location Details*
Internal Surface PipeScan Report

Note:
This is a signal image BMP that is produced automatically at the time of the inspection.

SLOFEC/MEC™

Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information

< 20% 20-30% 30-40% 40-50% >50%

0,0 0,5 1,0 1,5 2,0 2,5 3,0 3,5 4,0 4,5 5,0
Signal amplitude [div]

Circumferential Windup

Flow Direction
Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information.

Note:
This is a signal image BMP that is produced automatically at the time of the inspection.
Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information:

- < 20%
- 20-30%
- 30-40%
- 40-50%
- > 50%

**Note:**

This is a signal image BMP that is produced automatically at the time of the inspection.

---

**Client:** Client a  
**Location:** site b  
**Pipe Identif.:** 6  
**Drawing:** 01  
**Area:** 5H  
**Section:** Section 8 (1.50 Metre)  
**Date:** 26 April 2016  
**K-No.:** 00-16
Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information.

Note:
This is a signal image BMP that is produced automatically at the time of the inspection.
Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information

Note:
This is a signal image BMP that is produced automatically at the time of the inspection

See Previous Drawing For Location Details
Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information.

Note:
This is a signal image BMP that is produced automatically at the time of the inspection.

See Previous Drawing For Location Details.
SLOFEC/MEC™
Internal Surface PipeScan Report

Note:
This is a signal image BMP that is produced automatically at the time of the inspection.

See Previous Drawing For Location Details
SLOFEC/MEC™
Internal Surface PipeScan Report

Note:
This is a signal image BMP that is produced automatically at the time of the inspection

See Previous Drawing For Location Details
Note:

This is a signal image BMP that is produced automatically at the time of the inspection.

See Previous Drawing For Location Details.
Note:
This is a signal image BMP that is produced automatically at the time of the inspection.
**SLOFEC/MEC™**

**Internal Surface PipeScan Report**

- Client: Client a
- Location: site b
- Pipe Identif.: 6
- Drawing: 01
- Area: 5H
- Section: Section 18 (1.00 Metre)
- Date: 26 April 2016
- K-No.: 00-16

**Note:**
This is a signal image BMP that is produced automatically at the time of the inspection.

**Signal Y-component / angle analysis window**

- < 20%
- 20-30%
- 30-40%
- 40-50%
- >50%

Signal amplitude [div]

**Flow Direction**

- 0mm
- 200mm
- 400mm
- 600mm
- 800mm
- 1000mm

- 12 o'clock
- 9 o'clock
- 6 o'clock
- 3 o'clock
- Weld
- Support

**See Previous Drawing For Location Details**
**SLOFEC/MEC™**  
**Internal Surface PipeScan Report**

**Note:**  
This is a signal image BMP that is produced automatically at the time of the inspection.
Note:

This is a signal image BMP that is produced automatically at the time of the inspection.

See Previous Drawing For Location Details
**Signal Y-component / angle analysis window**

Set for indication of internal defects with approx. depth information:

- < 20%<br>- 20-30%<br>- 30-40%<br>- 40-50%<br>- >50%

**Note:**

This is a signal image BMP that is produced automatically at the time of the inspection.

**See Previous Drawing For Location Details**
Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information

**Note:**
This is a signal image BMP that is produced automatically at the time of the inspection

---

**SLOFEC/MEC™**

*Internal Surface PipeScan Report*

---

**Client:** Client a  
**Location:** site b  
**Pipe Identif.:** 6  
**Drawing:** 01  
**Area:** 5H  
**Section:** Section 22 (2.84 Metre)  
**Date:** 26 April 2016  
**K-No.:** 00-16
Note:

This is a signal image BMP that is produced automatically at the time of the inspection.
Internal Surface PipeScan Report:

Note:
This is a signal image BMP that is produced automatically at the time of the inspection.

See Previous Drawing For Location Details.
<table>
<thead>
<tr>
<th>Client</th>
<th>Client a</th>
</tr>
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<tr>
<td>Location</td>
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<tr>
<td>Pipe Identif.</td>
<td>6</td>
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<td>Drawing</td>
<td>01</td>
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<td>Area</td>
<td>5H</td>
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<tr>
<td>Section</td>
<td>Section 25 (3.20 Metre)</td>
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<td>Date</td>
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<td>00-16</td>
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**Internal Surface PipeScan Report**

**Signal Y-component / angle analysis window**

- Set for indication of internal defects with approx. depth information

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<tr>
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<th>&lt; 20%</th>
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**Note:**

This is a signal image BMP that is produced automatically at the time of the inspection.

See Previous Drawing For Location Details
Internal Surface PipeScan Report

Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information

Note:
This is a signal image BMP that is produced automatically at the time of the inspection

See Previous Drawing For Location Details
SLOFEC/MEC™
Internal Surface PipeScan Report

Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information

< 20% 20-30% 30-40% 40-50% >50%

0,0 0,5 1,0 1,5 2,0 2,5 3,0 3,5 4,0 4,5 5,0
SignalAmplitude [div]

Note:
This is a signal image BMP that is produced automatically at the time of the inspection

See Previous Drawing For Location Details
**SLOFEC/MEC™**

*Internal Surface PipeScan Report*

**Client:** Client a  
**Location:** Site b  
**Pipe Identif.:** 6  
**Drawing:** 01  
**Area:** 5H  
**Section:** Section 29 (2.00 Metre)  
**Date:** 26 April 2016  
**K-No.:** 00-16

---

Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information:

- < 20%  
- 20-30%  
- 30-40%  
- 40-50%  
- >50%

**Note:**

This is a signal image BMP that is produced automatically at the time of the inspection.

**See Previous Drawing For Location Details**
Note:
This is a signal image BMP that is produced automatically at the time of the inspection.

See Previous Drawing For Location Details.
Signal Y-component / angle analysis window
set for indication of internal defects with
approx. depth information

Note:
This is a signal image BMP
that is produced automatically
at the time of the inspection

SLOFEC/MEC™
Internal Surface PipeScan Report

See Previous Drawing For
Location Details
Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information

**Note:**
This is a signal image BMP that is produced automatically at the time of the inspection

**SLOFEC/MEC™**
Internal Surface PipeScan Report

---

**Client:** Client a  
**Location:** site b  
**Pipe Identif.:** 6  
**Drawing:** 01  
**Area:** 5H  
**Section:** Section 32 (5.50 Metre)  
**Date:** 26 April 2016  
**K-No.:** 00-16

---

**Drawing For Location Details**
SLOFEC/MEC™
Internal Surface PipeScan Report

Note:
This is a signal image BMP that is produced automatically at the time of the inspection

See Previous Drawing For Location Details
**Internal Surface PipeScan Report**

**Signal Y-component / angle analysis window**
set for indication of internal defects with approx. depth information

**Note:**
This is a signal image BMP that is produced automatically at the time of the inspection

**See Previous Drawing For Location Details**
### SLOFEC/MEC™ Internal Surface PipeScan Report

**Client:** Client a  
**Location:** site b  
**Pipe Identif.:** 6  
**Drawing:** 01  
**Area:** 5H  
**Section:** Section 35 (3.20 Metre)  
**Date:** 26 April 2016  
**K-No.:** 00-16

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**Signal Y-component / angle analysis window**  
set for indication of internal defects with approx. depth information

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**Note:**  
This is a signal image BMP that is produced automatically at the time of the inspection.
**NOTE:**

This is a signal image BMP that is produced automatically at the time of the inspection.

See Previous Drawing For Location Details
Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information

Note:
This is a signal image BMP that is produced automatically at the time of the inspection
Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information

Note:
This is a signal image BMP that is produced automatically at the time of the inspection
Internal Surface PipeScan Report

Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information

Note:
This is a signal image BMP that is produced automatically at the time of the inspection
**SLOFEC/MEC™**
*Internal Surface PipeScan Report*

**Internal Surface PipeScan Report**

**Note:**
This is a signal image BMP that is produced automatically at the time of the inspection.

**See Previous Drawing For Location Details**
SLOFEC/MEC™
Internal Surface PipeScan Report

Note:
This is a signal image BMP that is produced automatically at the time of the inspection

See Previous Drawing For Location Details
**Note:**

This is a signal image BMP that is produced automatically at the time of the inspection.
Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information.

Note:
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See Previous Drawing For Location Details.
SLOFEC/MEC™
Internal Surface PipeScan Report

Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information

< 20% 20-30% 30-40% 40-50% >50%

0.0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0
Signalamplitude [div]

Note:
This is a signal image BMP that is produced automatically at the time of the inspection

See Previous Drawing For Location Details
Signal Y-component / angle analysis window
set for indication of internal defects with
approx. depth information

Note:
This is a signal image BMP
that is produced automatically
at the time of the inspection
SLOFEC/MEC™
Internal Surface Pipe Scan Report

Note:
This is a signal image BMP that is produced automatically at the time of the inspection.
Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information.

Note:
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See Previous Drawing For Location Details.
Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information.

Note:
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See Previous Drawing For Location Details
Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information

Note:
This is a signal image BMP that is produced automatically at the time of the inspection.

See Previous Drawing For Location Details
**Internal Surface PipeScan Report**

**Client:** Client a  
**Location:** site b  
**Pipe Identif.:** 6  
**Drawing:** 01  
**Area:** 5H  
**Section:** Section 50 (3.30 Metre)  
**Date:** 26 April 2016  
**K-No.:** 00-16

---

**Signal Y-component / angle analysis window**

Set for indication of internal defects with approx. depth information.

![Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information](image)

**Note:**

This is a signal image BMP that is produced automatically at the time of the inspection.

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**See Previous Drawing For Location Details**
Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information.

Note:
This is a signal image BMP that is produced automatically at the time of the inspection.
Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information.

Note:
This is a signal image BMP that is produced automatically at the time of the inspection.

See Previous Drawing For Location Details
SLOFEC/MEC™
Internal Surface PipeScan Report

Note:
This is a signal image BMP that is produced automatically at the time of the inspection

See Previous Drawing For Location Details
**Note:**

This is a signal image BMP that is produced automatically at the time of the inspection.

**SLOFEC/MEC™**

*Internal Surface PipeScan Report*

**Client**: a

**Location**: site b

**Pipe Identif.**: 6

**Drawing**: 01

**Area**: 5H

**Section**: Section 54 (2.00 Metre)

**Date**: 26 April 2016

**K-No.**: 00-16

---

Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information.

- <20%
- 20-30%
- 30-40%
- 40-50%
- >50%

---

See Previous Drawing For Location Details
Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information.

Note:
This is a signal image BMP that is produced automatically at the time of the inspection.
Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information.

Note:
This is a signal image BMP that is produced automatically at the time of the inspection.

See Previous Drawing For Location Details.
Internal Surface PipeScan Report

SLOFEC/MEC™

Note:
This is a signal image BMP that is produced automatically at the time of the inspection

See Previous Drawing For Location Details
Note:
This is a signal image BMP that is produced automatically at the time of the inspection.
Signal Y-component / angle analysis window set for indication of internal defects with approx. depth information.

Note:
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See Previous Drawing For Location Details.