### Notes:

**Project Name:** Ground Failure and Building Performance in Adapazari, Turkey

**Location:** Site A - Tul and Yakin Streets, Cumhuriyet District, Adapazari

**GPS Coordinates:** 40.77922°N 30.39487°E

**Elevation:** -14 cm with respect to CPT-A3

**Drilling Equipment:** Custom made, equivalent to Crealius XC90H

**Notes:**

**SPT System:** Rope, pulley and cathead method. AWJ rods. Safety Hammer (per Kovacs et al. 1983)

**Ground Failure and Building Performance in Adapazari, Turkey**

**Site A - Tul and Yakin Streets, Cumhuriyet District, Adapazari**

**Date:** July 24, 2000

**Operator:** Rodolfo B. Sancio

**Drilling Method:** Rotary wash with 9 cm-diameter tricone bit

**Water Table Elevation:** GWL = 0.82m 07/25/00

**Test ID:** SPT-A4

**Sponsored by:**

- NSF, Caltrans
- CEC, PG&E

---

<table>
<thead>
<tr>
<th>Depth Scale (m)</th>
<th>USCS</th>
<th>Sample Type and No.</th>
<th>Recovery Length (cm)</th>
<th>SPT</th>
<th>Blower 15 cm</th>
<th>Casing Depth (m)</th>
<th>Rod Length (m)</th>
<th>Energy Ratio (%)</th>
<th>Description</th>
<th>Sｂ</th>
<th>S’a</th>
<th>Torvane (kPa)</th>
<th>Moisture Content (%)</th>
<th>Plasticity Index</th>
<th>% fines &lt; 75 µm</th>
<th>% fines &lt; 5 µm (%)</th>
<th>% fines &lt; 2 µm (%)</th>
<th>D50 (mm)</th>
<th>D10 (mm)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td></td>
<td>SH-A4-1A</td>
<td>39/42</td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>FILL: Asphalt, pavement and fill on Yakin Street</td>
<td>75</td>
<td>41</td>
<td>24</td>
<td>34</td>
<td>11</td>
<td>80</td>
<td>35</td>
<td>24</td>
<td>0.017</td>
<td>&lt;2µm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SH-A4-1B</td>
<td>33/42</td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>CL: Low to high plasticity, brown silty clay to clayey silt with traces of fine sand. Soil is highly inhomogeneous, showing variable FC</td>
<td>75</td>
<td>41</td>
<td>33</td>
<td>42</td>
<td>17</td>
<td>94</td>
<td>45</td>
<td>34</td>
<td>0.006</td>
<td>&lt;2µm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SH-A4-2</td>
<td>41/42</td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>CL: Low to high plasticity gray silty clay to clayey silt with traces of fine sand</td>
<td>60</td>
<td>32</td>
<td>35</td>
<td>48</td>
<td>24</td>
<td>99</td>
<td>32</td>
<td>25</td>
<td>0.02</td>
<td>&lt;2µm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>S-A4-4</td>
<td>28/45</td>
<td>3-1-2</td>
<td>4.95</td>
<td>8.84</td>
<td>53</td>
<td>-</td>
<td>-</td>
<td>ML: Brown low plasticity silt with traces of fine sand</td>
<td>70</td>
<td>26</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S-A4-5</td>
<td>30/45</td>
<td>3-3-3</td>
<td>4.05</td>
<td>7.32</td>
<td>51</td>
<td>-</td>
<td>-</td>
<td>CL: Low to high plasticity clayey silt with traces of fine sand</td>
<td>-</td>
<td>-</td>
<td>32</td>
<td>36</td>
<td>10</td>
<td>97</td>
<td>24</td>
<td>18</td>
<td>0.017</td>
<td>&lt;2µm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S-A4-6</td>
<td>40/45</td>
<td>23-36</td>
<td>9.45</td>
<td>12.82</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>SANDY SILT: Gray low plasticity sandy silt</td>
<td>440</td>
<td>-</td>
<td>25</td>
<td>25</td>
<td>-</td>
<td>66</td>
<td>35</td>
<td>32</td>
<td>0.018</td>
<td>&lt;2µm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S-A4-7</td>
<td>42/45</td>
<td>24-38-36</td>
<td>9.45</td>
<td>12.82</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>SAND: Gray poorly to well graded sand with silt. 22% gravel content in S-A4-9, very low (&lt; 5%) in other samples.</td>
<td>-</td>
<td>-</td>
<td>18</td>
<td>-</td>
<td>8</td>
<td>-</td>
<td>-</td>
<td>0.3</td>
<td>0.185</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>S-A4-8</td>
<td>50/45</td>
<td>30-48</td>
<td>9.45</td>
<td>12.82</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Legend**

- S: Spit Spoon (SPT)
- SH: Shelby tube

---

**Remarks**

- Shear Vane @ 1.65 m. Peak = 16 kPa, Residual = 4 kPa
- Shear Vane @ 2.45 m. Peak = 29 kPa, Residual = 9 kPa
- Shear Vane @ 3.45 m. Peak = 15 kPa, Residual = 5 kPa

Initially no sample was recovered at a depth of 6.5 m. In a second attempt, a sample was obtained at 6.6 m with the aid of a sand catcher.
### Project Name:
Ground Failure and Building Performance in Adapazari, Turkey

### Location:
Site A - Tul and Yakin Streets, Cumhuriyet District, Adapazari

### Date:
July 24, 2000

### Field Log by:
Rodolfo B. Sancio

### Operator:
ZETAS (Zemin Teknolojisi, A. S.)

### Drilling Method:
Rotary wash with 9 cm-diameter tricone bit

### Drilling Equipment:
Custom made, equivalent to Crealius XC90H

### Water Table Elevation:
GWL = 0.82m 07/25/00

### Notes:

### Test ID:
SPT-A4

### GPS Coordinates:
40.77922°N 30.39487°E

### Elevation:
-14 cm with respect to CPT-A3

### SPT System:
Rope, pulley and cathead method. AWJ rods. Safety Hammer (per Kovacs et al. 1983)

### Rod Length (m):
- S-A4-9: 14-18-20
- S-A4-10: 14-17-18
- S-A4-11: 4-4-7

### Depth Scale (m):
- 12
- 13
- 14
- 15

### Lithology and USCS:

<table>
<thead>
<tr>
<th>Depth</th>
<th>USCS</th>
<th>Sample Type</th>
<th>Recovery Length (cm)</th>
<th>SPT Blower 15 cm</th>
<th>Casing Depth (m)</th>
<th>Rod Length (m)</th>
<th>Energy Ratio (%)</th>
<th>Description</th>
<th>SPT Blows/15 cm</th>
<th>Recovery/15 cm</th>
<th>qu (kPa)</th>
<th>%&lt;0.05 mm</th>
<th>%&lt;5 µm</th>
<th>Plasticity Index</th>
<th>%&lt;2 µm</th>
<th>D&lt;50 (mm)</th>
<th>D&lt;10 (mm)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>SW-SM</td>
<td>S-A4-9</td>
<td>39/45</td>
<td>14-18-20</td>
<td>10.95</td>
<td>14.94</td>
<td>54</td>
<td></td>
<td>-</td>
<td>-</td>
<td>17</td>
<td>-</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>0.61</td>
<td>0.074</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>SP-SM</td>
<td>S-A4-10</td>
<td>33/45</td>
<td>14-17-18</td>
<td>12.45</td>
<td>16.46</td>
<td>62</td>
<td></td>
<td>-</td>
<td>-</td>
<td>16</td>
<td>-</td>
<td>7</td>
<td>-</td>
<td>-</td>
<td>0.5</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>CH</td>
<td>S-A4-11</td>
<td>26/45</td>
<td>4-4-7</td>
<td>14.95</td>
<td>17.92</td>
<td>62</td>
<td></td>
<td>250</td>
<td>53</td>
<td>37</td>
<td>69</td>
<td>45</td>
<td>100</td>
<td>86</td>
<td>73</td>
<td>&lt;2µm</td>
<td>&lt;2µm</td>
</tr>
</tbody>
</table>

**Legend**
- S: Spit Spoon (SPT)  
- SH: Shelby tube

**CH:** Gray, high plasticity stiff clay.

**Remarks:**
- BW rods were used for the SPT at 15 m