





| GROUNDWATER LEVEL | SAMPLING NO. AND TYPE | DEPTH (m) | PROFILE | N VALUE | MOISTURE CONTENT (%) | GRADATION | | | | | PLASTICITY | | CLASSIFICATION | DESCRIPTION |
|-------------------|-----------------------|-----------|---------|---------|--|------------|----------|----------|----------|----------------------|------------|----|--|-------------|
| | | | | | | GRAVEL (%) | SAND (%) | SILT (%) | CLAY (%) | D ₆₀ (mm) | LL (%) | IP | | |
| | SPT1 | 0.50 | | | 6.4 | 0 | 85 | 15 | 0.14 | NP | - | SM | Light brown, very fine sand with little silt (loose) | |
| | SPT2 | 1.50 | | | | | | | | | 36 | 10 | Light brown and grey, medium compressible silt with trace sand (stiff) | |
| | SPT3 | 2.50 | | | 22.1 | 0 | 28 | 72 | 0.055 | NP | - | ML | Light brown, fine sand and silt (loose) | |
| | SPT4 | 3.50 | | | | | | | | | | | | |
| | SPT5 | 4.50 | | | 19.3 | 0 | 53 | 47 | 0.079 | NP | - | SM | Light brown & grey, silt with some sand (soft) | |
| | SPT6 | 5.50 | | | | | | | | | | | | |
| | SPT7 | 6.50 | | | 19.8 | 0 | 23 | 77 | 0.044 | NP | - | ML | Grey, silt with some fine sand, trace decomposed wood (soft) | |
| | SPT8 | 7.50 | | | | | | | | | | | | |
| | SPT9 | 8.50 | | | 28.7 | 0 | 10 | 90 | 0.024 | NP | - | ML | Grey, silt with trace fine sand (stiff) | |
| | SPT10 | 9.50 | | | | | | | | | | | | |
| | | 10.00 | | | Height of Existing Embankment : 2.83 m | | | | | | | | | |
| | | 10.50 | | | | | | | | | | | | |
| | | 11.00 | | | | | | | | | | | | |
| | | 11.50 | | | | | | | | | | | | |
| | | 12.00 | | | | | | | | | | | | |
| | | 12.50 | | | | | | | | | | | | |
| | | 13.00 | | | | | | | | | | | | |
| | | 13.50 | | | | | | | | | | | | |
| | | 14.00 | | | | | | | | | | | | |
| | | 14.50 | | | | | | | | | | | | |
| | | 15.00 | | | | | | | | | | | | |
| | | 15.50 | | | | | | | | | | | | |
| | | 16.00 | | | | | | | | | | | | |
| | | 16.50 | | | | | | | | | | | | |
| | | 17.00 | | | | | | | | | | | | |
| | | 17.50 | | | | | | | | | | | | |
| | | 18.00 | | | | | | | | | | | | |
| | | 18.50 | | | | | | | | | | | | |
| | | 19.00 | | | | | | | | | | | | |
| | | 19.50 | | | | | | | | | | | | |
| | | 20.00 | | | | | | | | | | | | |

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|  DISTURBED SAMPLING (SPT)  UNDISTURBED SAMPLING | BORING <u>B2</u> ELEVATION <u>30.08</u> m | Figure A.1-3 LOG OF CORE BORING, BOREHOLE B2 |
|--|--|---|

| GROUNDWATER LEVEL | SAMPLING NO. AND TYPE | DEPTH (m) | PROFILE | N VALUE | | | | MOISTURE CONTENT (%) | GRADATION | | | | | PLASTICITY | | CLASSIFICATION | DESCRIPTION | |
|-------------------|-----------------------|-----------|---------|---------|----|----|----|----------------------|-----------|------------|----------|----------|----------|----------------------|--------|----------------|-------------|--|
| | | | | 10 | 20 | 30 | 40 | | 50 | GRAVEL (%) | SAND (%) | SILT (%) | CLAY (%) | D ₁₀ (mm) | LL (%) | | | IP |
| 0.54 | SP11 | 1.00 | 3 | | | | | | | | | | | | | | ML | Grey, silt with some fine sand (soft) |
| | SP12 | 2.50 | 16 | | | | | | | | | | | | | | | Light grey, fine sand with little silt (loose to med. dense) |
| | SP13 | 4.50 | 8 | | | | | | | | | | | | | | SP-SM | |
| | SP14 | 6.00 | 17 | | | | | | | | | | | | | | | Light grey, fine sand with little silt (med. dense) |
| | SP15 | 7.50 | 16 | | | | | | | | | | | | | | | SM |
| | SP16 | 8.50 | 15 | | | | | | | | | | | | | | | |
| | SP17 | 10.00 | 14 | | | | | | | | | | | | | | | SP-SM |
| | SP18 | 12.00 | 18 | | | | | | | | | | | | | | | |
| | SP19 | 13.50 | 27 | | | | | | | | | | | | | | | SP-SM |
| | SP20 | 15.00 | 28 | | | | | | | | | | | | | | | |
| | SP21 | 16.50 | 25 | | | | | | | | | | | | | | | SP-SM |
| | SP22 | 18.00 | 30 | | | | | | | | | | | | | | | |
| | SP23 | 19.50 | 30 | | | | | | | | | | | | | | | |
| | SP24 | 20.00 | | | | | | | | | | | | | | | | |
| | SP25 | | | | | | | | | | | | | | | | | |
| | SP26 | | | | | | | | | | | | | | | | | |
| | SP27 | | | | | | | | | | | | | | | | | |
| | SP28 | | | | | | | | | | | | | | | | | |
| | SP29 | | | | | | | | | | | | | | | | | |
| | SP30 | | | | | | | | | | | | | | | | | |
| | SP31 | | | | | | | | | | | | | | | | | |
| | SP32 | | | | | | | | | | | | | | | | | |
| | SP33 | | | | | | | | | | | | | | | | | |
| | SP34 | | | | | | | | | | | | | | | | | |
| | SP35 | | | | | | | | | | | | | | | | | |
| | SP36 | | | | | | | | | | | | | | | | | |
| | SP37 | | | | | | | | | | | | | | | | | |
| | SP38 | | | | | | | | | | | | | | | | | |
| | SP39 | | | | | | | | | | | | | | | | | |
| | SP40 | | | | | | | | | | | | | | | | | |
| | SP41 | | | | | | | | | | | | | | | | | |
| | SP42 | | | | | | | | | | | | | | | | | |
| | SP43 | | | | | | | | | | | | | | | | | |
| | SP44 | | | | | | | | | | | | | | | | | |
| | SP45 | | | | | | | | | | | | | | | | | |
| | SP46 | | | | | | | | | | | | | | | | | |
| | SP47 | | | | | | | | | | | | | | | | | |
| | SP48 | | | | | | | | | | | | | | | | | |
| | SP49 | | | | | | | | | | | | | | | | | |
| | SP50 | | | | | | | | | | | | | | | | | |
| | SP51 | | | | | | | | | | | | | | | | | |
| | SP52 | | | | | | | | | | | | | | | | | |
| | SP53 | | | | | | | | | | | | | | | | | |
| | SP54 | | | | | | | | | | | | | | | | | |
| | SP55 | | | | | | | | | | | | | | | | | |
| | SP56 | | | | | | | | | | | | | | | | | |
| | SP57 | | | | | | | | | | | | | | | | | |
| | SP58 | | | | | | | | | | | | | | | | | |
| | SP59 | | | | | | | | | | | | | | | | | |
| | SP60 | | | | | | | | | | | | | | | | | |
| | SP61 | | | | | | | | | | | | | | | | | |
| | SP62 | | | | | | | | | | | | | | | | | |
| | SP63 | | | | | | | | | | | | | | | | | |
| | SP64 | | | | | | | | | | | | | | | | | |
| | SP65 | | | | | | | | | | | | | | | | | |
| | SP66 | | | | | | | | | | | | | | | | | |
| | SP67 | | | | | | | | | | | | | | | | | |
| | SP68 | | | | | | | | | | | | | | | | | |
| | SP69 | | | | | | | | | | | | | | | | | |
| | SP70 | | | | | | | | | | | | | | | | | |
| | SP71 | | | | | | | | | | | | | | | | | |
| | SP72 | | | | | | | | | | | | | | | | | |
| | SP73 | | | | | | | | | | | | | | | | | |
| | SP74 | | | | | | | | | | | | | | | | | |
| | SP75 | | | | | | | | | | | | | | | | | |
| | SP76 | | | | | | | | | | | | | | | | | |
| | SP77 | | | | | | | | | | | | | | | | | |
| | SP78 | | | | | | | | | | | | | | | | | |
| | SP79 | | | | | | | | | | | | | | | | | |
| | SP80 | | | | | | | | | | | | | | | | | |
| | SP81 | | | | | | | | | | | | | | | | | |
| | SP82 | | | | | | | | | | | | | | | | | |
| | SP83 | | | | | | | | | | | | | | | | | |
| | SP84 | | | | | | | | | | | | | | | | | |
| | SP85 | | | | | | | | | | | | | | | | | |
| | SP86 | | | | | | | | | | | | | | | | | |
| | SP87 | | | | | | | | | | | | | | | | | |
| | SP88 | | | | | | | | | | | | | | | | | |
| | SP89 | | | | | | | | | | | | | | | | | |
| | SP90 | | | | | | | | | | | | | | | | | |
| | SP91 | | | | | | | | | | | | | | | | | |
| | SP92 | | | | | | | | | | | | | | | | | |
| | SP93 | | | | | | | | | | | | | | | | | |
| | SP94 | | | | | | | | | | | | | | | | | |
| | SP95 | | | | | | | | | | | | | | | | | |
| | SP96 | | | | | | | | | | | | | | | | | |
| | SP97 | | | | | | | | | | | | | | | | | |
| | SP98 | | | | | | | | | | | | | | | | | |
| | SP99 | | | | | | | | | | | | | | | | | |
| | SP100 | | | | | | | | | | | | | | | | | |

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| <input type="checkbox"/> DISTURBED SAMPLING (SPT) <input checked="" type="checkbox"/> UNDISTURBED SAMPLING | BORING <u>B3</u> ELEVATION <u>23.50</u> m | Figure A.1-4 LOG OF CORE BORING, BOREHOLE B3 |
|---|--|---|

| GROUNDWATER LEVEL | SAMPLING NO. AND TYPE | DEPTH (m) | PROFILE | N VALUE | MOISTURE CONTENT (%) | GRADATION | | | | | PLASTICITY | | CLASSIFICATION | DESCRIPTION |
|--|-----------------------|---------------|---------|---------|----------------------|------------|----------|----------|----------|----------------------|------------|--|----------------|-------------|
| | | | | | | GRAVEL (%) | SAND (%) | SILT (%) | CLAY (%) | D ₆₀ (mm) | LL (%) | IP | | |
| | SPT1 | 0.50 - 1.50 | 4 | 24.2 | 0 | 56 | 44 | 0.092 | NP | - | SM | Light brown, fine sand and silt (loose) | | |
| | SPT2 | 1.50 - 3.00 | 6 | 16.0 | 0 | 9 | 91 | 0.031 | NP | - | ML | Light brown and grey, non plastic silt with trace fine sand (firm) | | |
| | SPT3 | 3.00 - 4.50 | 6 | 35.0 | 0 | 87 | 13 | 0.15 | NP | - | SM | Light brown, fine sand with little silt (loose to med. dense) | | |
| 5.65 | SPT4 | 4.50 - 6.00 | 17 | 24.4 | 0 | 97 | 3 | 0.18 | NP | - | SP | Grey, fine sand with little silt (loose) | | |
| | SPT5 | 6.00 - 7.50 | 9 | 23.6 | 0 | 95 | 5 | 0.15 | NP | - | SP-SM | Grey, fine sand with trace silt (med. dense) | | |
| | SPT6 | 7.50 - 9.00 | 16 | 25.2 | 0 | 96 | 4 | 0.13 | NP | - | SP | Light grey, fine sand with trace silt (med. dense) | | |
| | SPT7 | 9.00 - 10.50 | 27 | 25.2 | 0 | 95 | 5 | 0.19 | NP | - | SP-SM | Grey, fine sand with trace silt (dense) | | |
| | SPT8 | 10.50 - 12.00 | 21 | | | | | | | | | Light grey, fine sand with trace silt (dense) | | |
| | SPT9 | 12.00 - 13.50 | 22 | | | | | | | | | Light grey, fine sand with trace silt (dense) | | |
| | SPT10 | 13.50 - 15.00 | 26 | | | | | | | | | Light grey, fine sand with trace silt (dense) | | |
| | SPT11 | 15.00 - 16.50 | 36 | | | | | | | | | Light grey, fine sand with trace silt (dense) | | |
| | SPT12 | 16.50 - 18.00 | 32 | | | | | | | | | Light grey, fine sand with trace silt (dense) | | |
| | SPT13 | 18.00 - 20.00 | 38 | | | | | | | | | Light grey, fine sand with trace silt (dense) | | |
| Height of Existing Embankment : 2.80 m | | | | | | | | | | | | | | |

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|  DISTURBED SAMPLING (SPT)  UNDISTURBED SAMPLING | BORING <u>B3'</u> | Figure A.1-5 | LOG OF CORE BORING, BOREHOLE B3' |
| | ELEVATION <u>29.40</u> m | | |

| GROUNDWATER LEVEL | SAMPLING NO. AND TYPE | DEPTH (m) | PROFILE | N VALUE | MOISTURE CONTENT (%) | GRADATION | | | | | PLASTICITY | | CLASSIFICATION | DESCRIPTION |
|-------------------|-----------------------|-----------|---------|---------|----------------------|------------|----------|----------|----------|----------------------|------------|--|---|--|
| | | | | | | GRAVEL (%) | SAND (%) | SILT (%) | CLAY (%) | D ₁₀ (mm) | LL (%) | IP | | |
| | | 0.50 | | 6 | | | | | | | | | | Light brown and grey, non plastic silt with little fine sand |
| 1.89 | SPT1 | 1.00 | | 6 | 39.0 | 0 | 8 | 92 | 0.024 | 42 | 13 | ML | Light brown and grey, medium compressible silt with trace sand (firm) | |
| | U-1 | 1.50 | | | | | | | | | | | | |
| | SPT2 | 2.00 | | 6 | 28.2 | 0 | 3 | 97 | 0.019 | 43 | 14 | ML | Dark brown and grey, medium plastic clay (firm) | |
| | SPT3 | 3.00 | | 5 | 28.9 | 0 | 47 | 53 | 0.071 | NP | - | ML | Light brown, non plastic silt and sand (firm) | |
| | SPT4 | 4.00 | | 10 | | | | | | | | | | Light brown, fine sand with little silt (loose) |
| | SPT5 | 5.50 | | 13 | 26.4 | 0 | 85 | 15 | 0.15 | NP | - | SM | Light grey, fine sand with little silt (med. dense) | |
| | SPT6 | 6.50 | | 23 | | | | | | | | | | |
| | SPT7 | 7.50 | | 23 | 22.0 | 0 | 90 | 10 | 0.18 | NP | - | SP-SM | | |
| | SPT8 | 8.50 | | 20 | | | | | | | | | | |
| | SPT9 | 9.50 | | 18 | 29.6 | 0 | 95 | 5 | 0.19 | NP | - | SP-SM | Grey, fine sand with trace silt (med. dense) | |
| | SPT10 | 10.50 | | 16 | | | | | | | | | | |
| | SPT11 | 11.50 | | 18 | 28.9 | 0 | 94 | 6 | 0.13 | NP | - | SP-SM | | |
| | SPT12 | 12.50 | 24 | | | | | | | | | | | |
| | SPT13 | 13.50 | 26 | 27.7 | 0 | 97 | 3 | 0.17 | NP | - | SP | Light grey, fine sand with trace silt (med. dense) | | |
| | | 14.50 | | | | | | | | | | | | |
| | | 15.50 | | | | | | | | | | | | |
| | | 16.50 | | | | | | | | | | | | |
| | | 17.50 | | | | | | | | | | | | |
| | | 18.50 | | | | | | | | | | | | |
| | | 19.50 | | | | | | | | | | | | |
| | | 20.00 | | | | | | | | | | | | |

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| DISTURBED SAMPLING (SPT) UNDISTURBED SAMPLING | BORING <u>B4</u> | Figure A.1-6 |
| | ELEVATION <u>23.60</u> m | |

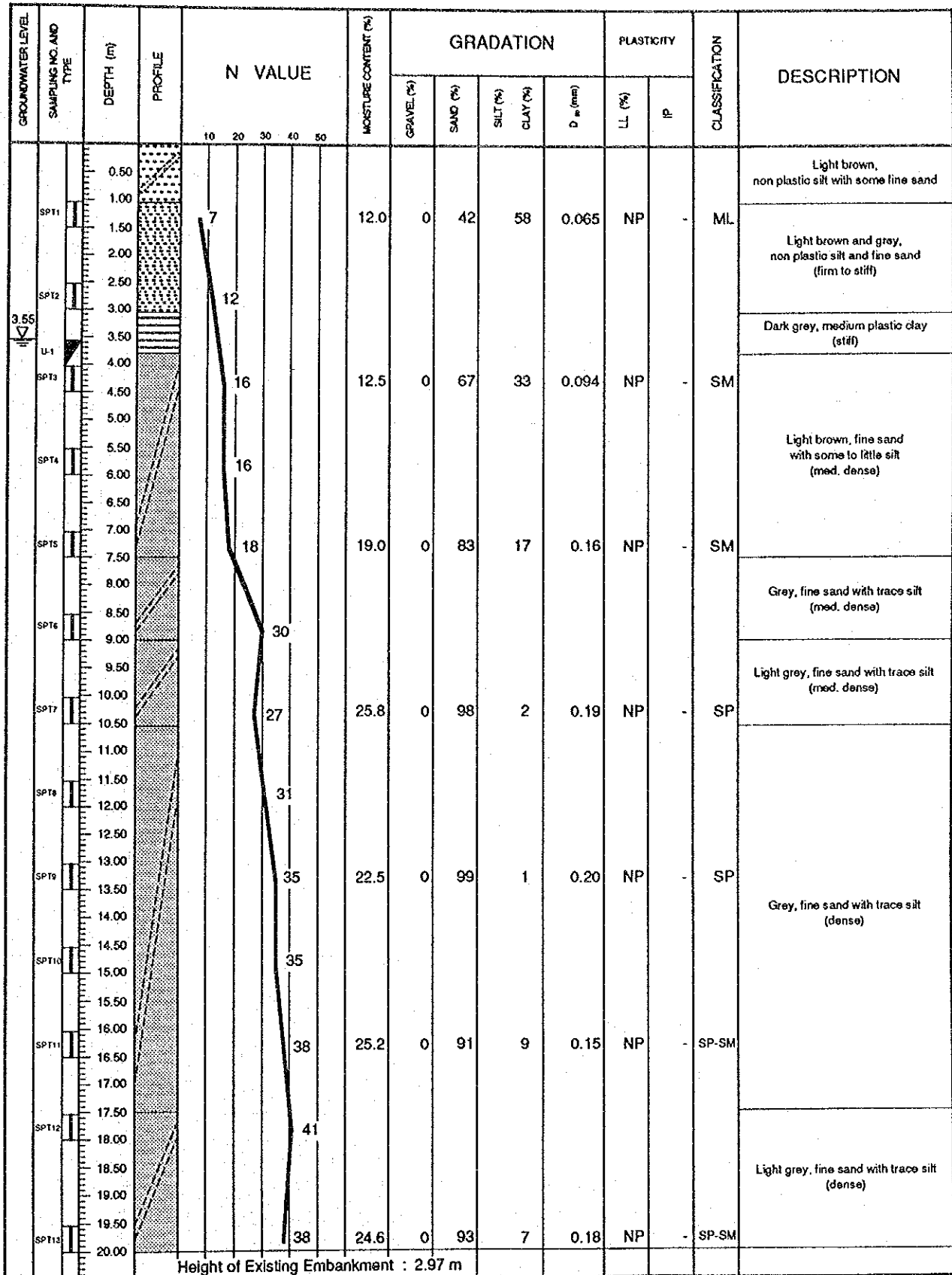
| GROUNDWATER LEVEL | SAMPLING NO. AND TYPE | DEPTH (m) | PROFILE | N VALUE | MOISTURE CONTENT (%) | GRADATION | | | | | PLASTICITY | | CLASSIFICATION | DESCRIPTION |
|-------------------|-----------------------|-----------|--|---------|----------------------|------------|----------|----------|----------|----------------------|------------|-------|--|-------------|
| | | | | | | GRAVEL (%) | SAND (%) | SILT (%) | CLAY (%) | D ₆₀ (mm) | LL (%) | IP | | |
| | SPT1 | 0.50 | | 6 | 17.8 | 0 | 32 | 68 | 0.054 | NP | - | ML | Yellowish brown, silt with some fine sand (firm) | |
| | SPT2 | 1.50 | | 5 | | | | | | | | | Light brown, very fine sand with trace silt (loose) | |
| | SPT3 | 2.50 | | 5 | 6.9 | 0 | 90 | 10 | 0.16 | NP | - | SP-SM | Light brown and grey, medium plastic clay with little fine sand (firm) | |
| | SPT4 | 3.50 | | 9 | | | | | | | | | Light brown, fine sand with little silt (loose) | |
| | SPT5 | 4.50 | | 8 | 5.2 | 0 | 89 | 11 | 0.18 | NP | - | SP-SM | | |
| | SPT6 | 5.50 | | 11 | | | | | | | | | Light brown and grey, silt and sand (stiff) | |
| 6.80 | SPT7 | 6.50 | | 10 | 24.8 | 0 | 37 | 63 | 0.059 | NP | - | ML | | |
| | SPT8 | 7.50 | | 14 | | | | | | | | | | |
| | SPT9 | 8.50 | | 21 | 24.3 | 0 | 30 | 70 | 0.048 | NP | - | ML | Light brown and grey, silt with some fine sand (very stiff) | |
| | SPT10 | 9.50 | | 17 | | | | | | | | | | |
| | | 10.00 | Height of Existing Embankment : 2.80 m | | | | | | | | | | | |
| | | 10.50 | | | | | | | | | | | | |
| | | 11.00 | | | | | | | | | | | | |
| | | 11.50 | | | | | | | | | | | | |
| | | 12.00 | | | | | | | | | | | | |
| | | 12.50 | | | | | | | | | | | | |
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| | | 14.00 | | | | | | | | | | | | |
| | | 14.50 | | | | | | | | | | | | |
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| | | 18.00 | | | | | | | | | | | | |
| | | 18.50 | | | | | | | | | | | | |
| | | 19.00 | | | | | | | | | | | | |
| | | 19.50 | | | | | | | | | | | | |
| | | 20.00 | | | | | | | | | | | | |

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| DISTURBED SAMPLING (SPT) UNDISTURBED SAMPLING | BORING <u>B5</u> | Figure A.1-7 |
| | ELEVATION <u>25.50</u> m | |

| GROUNDWATER LEVEL | SAMPLING NO AND TYPE | DEPTH (m) | PROFILE | N VALUE | MOISTURE CONTENT (%) | GRADATION | | | | | PLASTICITY | | CLASSIFICATION | DESCRIPTION |
|-------------------|----------------------|-----------|---------|---------|----------------------|------------|----------|----------|----------|----------------------|------------|-------|---|-------------|
| | | | | | | GRAVEL (%) | SAND (%) | SILT (%) | CLAY (%) | D ₆₀ (mm) | LL (%) | IP | | |
| | SPT1 | 0.50 | | 5 | 16.6 | 0 | 15 | 85 | 0.049 | NP | - | ML | Light brown and grey, non plastic silt with little fine sand (firm) | |
| | SPT2 | 2.50 | | 9 | | | | | | | | | Light brown and grey, non plastic silt with some fine sand (stiff) | |
| 4.20 | SPT3 | 4.00 | | 9 | 20.7 | 0 | 23 | 77 | 0.058 | NP | - | ML | Light brown and grey, fine sand with some silt (med. dense) | |
| | SPT4 | 6.00 | | 12 | | | | | | | | | Grey, medium compressible silt with trace fine sand (firm) | |
| | SPT5 | 7.50 | | 6 | 31.1 | 0 | 10 | 90 | 0.034 | 34 | 7 | ML | Light brown and grey, medium compressible silt with trace sand (firm) | |
| | SPT6 | 9.50 | | 4 | | | | | | | | | Grey, non plastic silt with little fine sand (firm to stiff) | |
| | SPT7 | 10.50 | | 6 | 32.6 | 0 | 13 | 87 | 0.038 | NP | - | ML | Grey, non plastic silt with little fine sand (stiff) | |
| | SPT8 | 12.50 | | 9 | | | | | | | | | Grey, non plastic silt with little fine sand (stiff) | |
| | SPT9 | 13.50 | | 13 | 33.8 | 0 | 13 | 87 | 0.037 | NP | - | ML | Grey, non plastic silt with little fine sand (stiff) | |
| | SPT10 | 15.00 | | 31 | | | | | | | | | Light grey, fine sand with trace silt (med. dense to dense) | |
| | SPT11 | 16.50 | | 40 | 25.0 | 0 | 92 | 8 | 0.13 | NP | - | SP-SM | | |
| | SPT12 | 18.00 | | 44 | | | | | | | | | | |
| | SPT13 | 20.00 | | 48 | 22.9 | 0 | 97 | 3 | 0.18 | NP | - | SP | | |

Height of Existing Embankment : 3.80 m

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| DISTURBED SAMPLING (SPT) UNDISTURBED SAMPLING | BORING <u>B6</u> ELEVATION <u>23.50</u> m | Figure A.1-8 LOG OF CORE BORING, BOREHOLE B6 |
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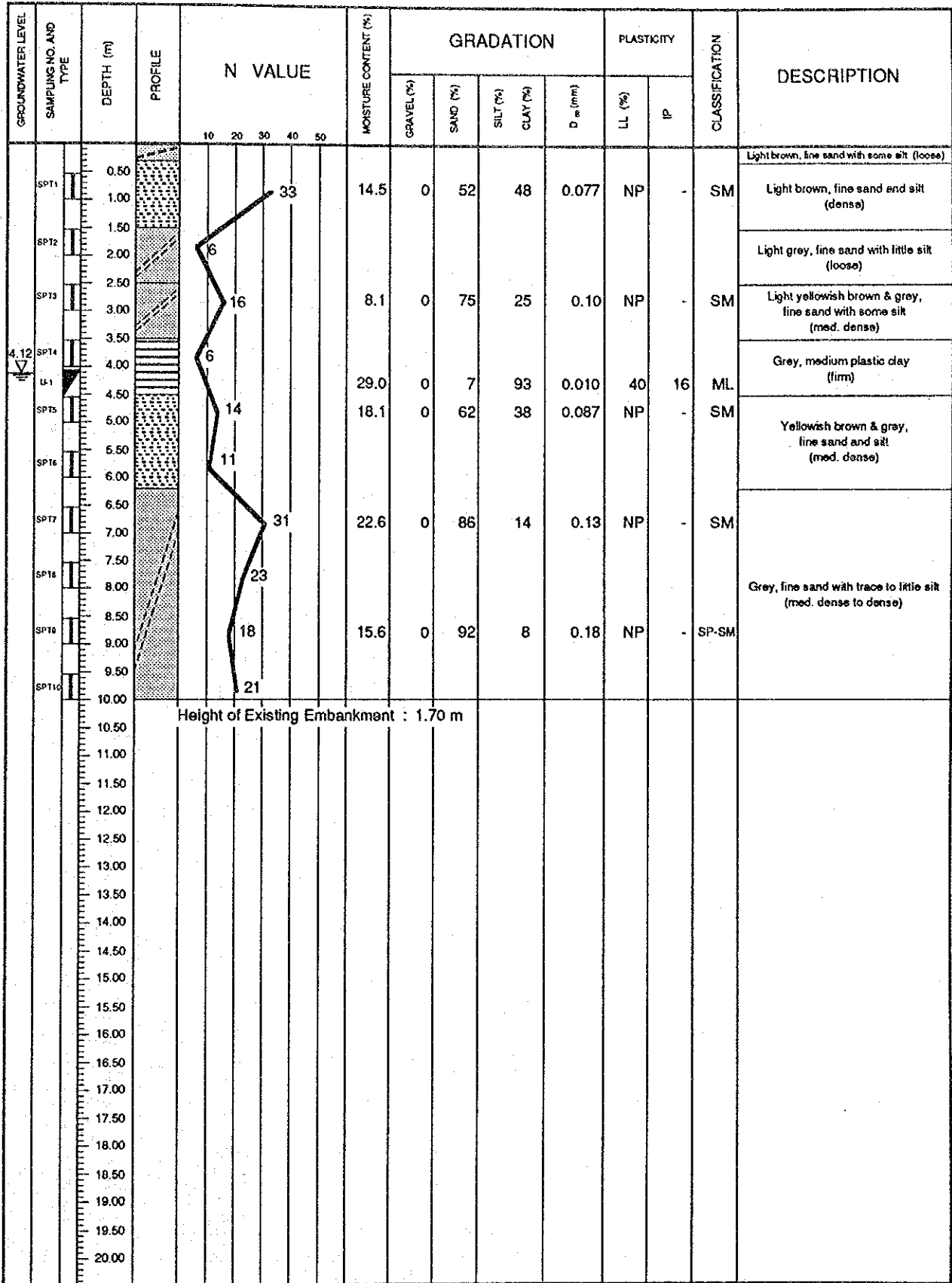
| | | |
|--|---|--|
| DISTURBED SAMPLING (SPT) UNDISTURBED SAMPLING | BORING <u>B6'</u> ELEVATION <u>21.75</u> m | Figure A.1-9 LOG OF CORE BORING, BOREHOLE B6' |
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| GROUNDWATER LEVEL | SAMPLING NO AND TYPE | DEPTH (m) | PROFILE | N VALUE | | | | | MOISTURE CONTENT (%) | GRADATION | | | | | PLASTICITY | | CLASSIFICATION | DESCRIPTION |
|-------------------|----------------------|-----------|---------|---------|----|----|----|------|----------------------|------------|----------|----------|----------|----------------------|------------|----|---|-------------|
| | | | | 10 | 20 | 30 | 40 | 50 | | GRAVEL (%) | SAND (%) | SILT (%) | CLAY (%) | D ₅₀ (mm) | LL (%) | IP | | |
| | SPT1 | 0.50 | | 6 | | | | | 28.7 | 0 | 26 | 74 | 0.054 | NP | - | ML | Light brown and grey, non plastic silt with some fine sand (firm) | |
| | SPT2 | 1.00 | | 6 | | | | | | | | | | | | | Light brown, non plastic silt with little fine sand (firm) | |
| | SPT3 | 1.50 | | | | | | | | | | | | | | | | |
| | SPT4 | 2.00 | | | | | | | | | | | | | | | | |
| | SPT5 | 2.50 | | 11 | | | | | 27.0 | 0 | 64 | 36 | 0.089 | NP | - | SM | Light brown, fine sand with some silt (loose to med. dense) | |
| | SPT6 | 3.00 | | 8 | | | | | | | | | | | | | | |
| | SPT7 | 3.50 | | 8 | | | | | 30.3 | 0 | 84 | 16 | 0.16 | NP | - | SM | Light grey, fine sand with little silt (med. dense) | |
| | SPT8 | 4.00 | | 13 | | | | | | | | | | | | | | |
| | SPT9 | 4.50 | | 9 | | | | | 19.3 | 0 | 85 | 15 | 0.13 | NP | - | SM | Grey, fine sand with trace to little silt (loose to med. dense) | |
| | SPT10 | 5.00 | | 12 | | | | | | | | | | | | | | |
| | SPT11 | 5.50 | 18 | | | | | 12.9 | 0 | 92 | 8 | 0.20 | NP | - | SP-SM | | | |
| | SPT12 | 6.00 | 19 | | | | | | | | | | | | | | | |
| | | 6.50 | | | | | | | | | | | | | | | | |
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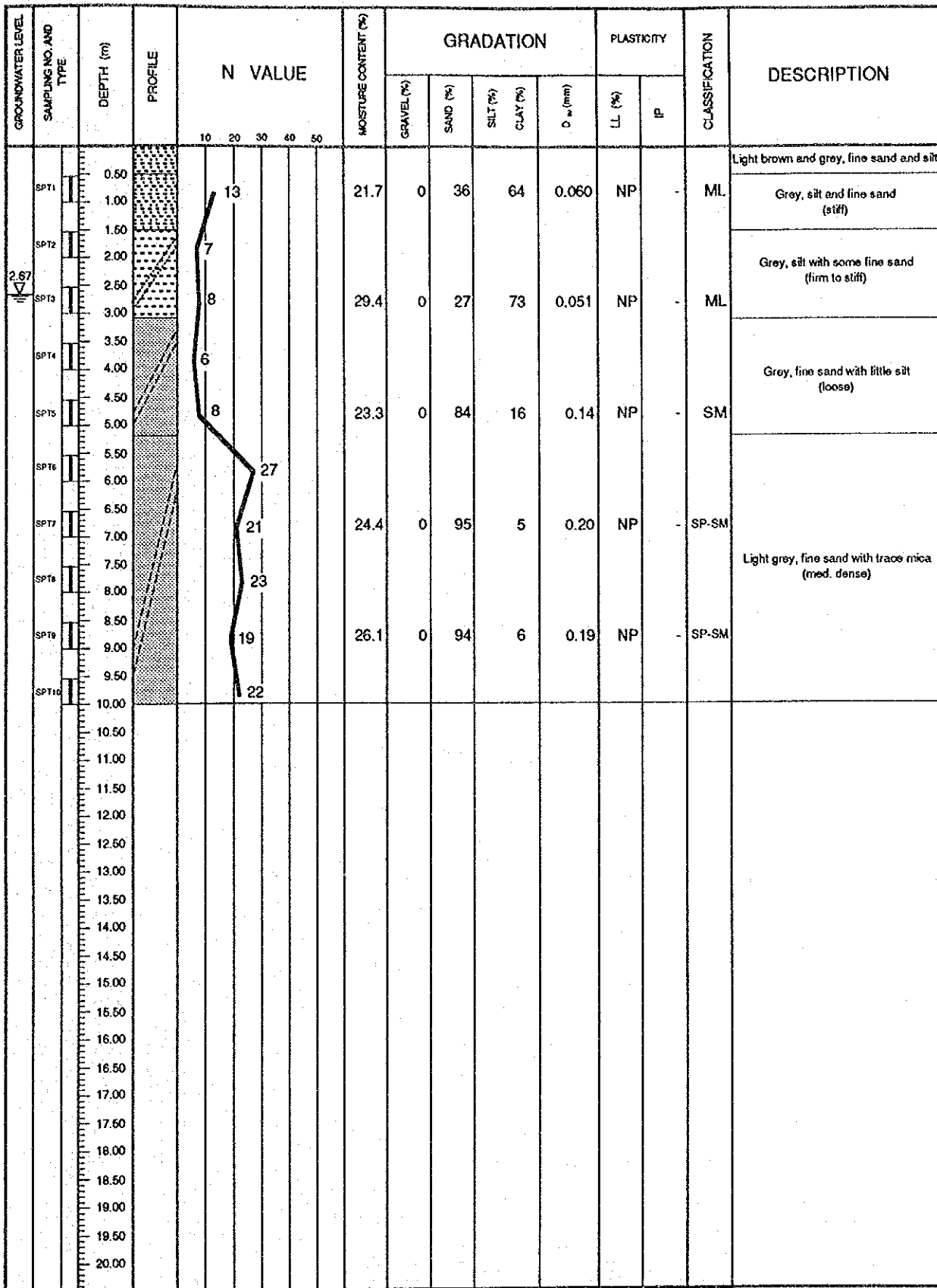
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| | BORING <u>B7</u> | Figure A.1-10 |
| | ELEVATION <u>20.40</u> m | |

| GROUNDWATER LEVEL | SAMPLING NO. AND TYPE | DEPTH (m) | PROFILE | N VALUE | MOISTURE CONTENT (%) | GRADATION | | | | | PLASTICITY | | CLASSIFICATION | DESCRIPTION |
|--|-----------------------|-----------|---------|---------|----------------------|------------|----------|----------|----------|----------------------|------------|----|--|---|
| | | | | | | GRAVEL (%) | SAND (%) | SILT (%) | CLAY (%) | D ₆₀ (mm) | LL (%) | IP | | |
| | SPT11 | 0.50 | | | 41.7 | 0 | 5 | 95 | 0.020 | 43 | 13 | ML | Light grey, medium compressible silt with trace fine sand (soft) | |
| | SPT12 | 1.00 | | | | | | | | | | | | Light brown and grey, non plastic silt with trace sand (firm) |
| | SPT13 | 1.50 | | | | | | | | | | | | Light brown, medium compressible silt with trace sand (firm) |
| | SPT14 | 2.00 | | | | | | | | | | | | |
| | SPT15 | 2.50 | | | | | | | | | | | | |
| | SPT16 | 3.00 | | | | 34.4 | 0 | 6 | 94 | 0.022 | 36 | 9 | ML | |
| | SPT17 | 3.50 | | | | | | | | | | | | |
| | SPT18 | 4.00 | | | | | | | | | | | | |
| | SPT19 | 4.50 | | | | 25.6 | 0 | 22 | 78 | 0.045 | NP | - | ML | Light brown and grey, non plastic silt with some fine sand (firm) |
| | SPT20 | 5.00 | | | | | | | | | | | | |
| | SPT21 | 5.50 | | | | | | | | | | | | |
| | SPT22 | 6.00 | | | | | | | | | | | | |
| | SPT23 | 6.50 | | | 32.9 | 0 | 2 | 98 | 0.018 | 37 | 11 | ML | Grey, non plastic silt with some fine sand (firm) | |
| | SPT24 | 7.00 | | | | | | | | | | | | |
| | SPT25 | 7.50 | | | | | | | | | | | | |
| | SPT26 | 8.00 | | | | | | | | | | | | |
| | SPT27 | 8.50 | | | | | | | | | | | | |
| | SPT28 | 9.00 | | | 25.1 | 0 | 9 | 91 | 0.026 | NP | - | ML | Grey, medium compressible silt with trace sand (firm) | |
| | SPT29 | 9.50 | | | | | | | | | | | | |
| | SPT30 | 10.00 | | | | | | | | | | | | |
| | | 10.50 | | | | | | | | | | | | |
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| | | 19.50 | | | | | | | | | | | | |
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| Height of Existing Embankment : 3.10 m | | | | | | | | | | | | | | |

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| DISTURBED SAMPLING (SPT) UNDISTURBED SAMPLING | BORING <u>B8</u> ELEVATION <u>23.50</u> m | Figure A.1-11 LOG OF CORE BORING, BOREHOLE B8 |
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| DISTURBED SAMPLING (SPT) UNDISTURBED SAMPLING | BORING <u>B9</u> ELEVATION <u>25.49</u> m | Figure A.1-12 LOG OF CORE BORING, BOREHOLE B9 |
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| DISTURBED SAMPLING (SPT) UNDISTURBED SAMPLING | BORING <u>B10</u> | Figure A.1-13 |
| | ELEVATION <u>25.70</u> m | |

| GROUNDWATER LEVEL | SAMPLING NO. AND TYPE | DEPTH (m) | PROFILE | N VALUE | MOISTURE CONTENT (%) | GRADATION | | | | | PLASTICITY | | CLASSIFICATION | DESCRIPTION |
|-------------------|-----------------------|-----------|---------|---------|----------------------|------------|----------|----------|----------|----------------------|------------|----|--|-------------|
| | | | | | | GRAVEL (%) | SAND (%) | SILT (%) | CLAY (%) | D ₆₀ (mm) | LL (%) | IP | | |
| | SPT1 | 0.60 | | 5 | 12.5 | 0 | 56 | 44 | 0.083 | NP | - | SM | Light brown, fine sand and silt (loose) | |
| | U-1 | 1.00 | | | | | | | | | | | | |
| | SP12 | 1.50 | | 6 | 29.9 | 0 | 4 | 94 | 0.010 | 43 | 17 | CL | Light brown, medium plastic clay (firm) | |
| | SP13 | 2.00 | | | | | | | | | | | | |
| 2.84 | | 2.50 | | 10 | 25.6 | 0 | 39 | 61 | 0.061 | NP | - | ML | Light yellowish brown and grey, silt and fine sand (stiff) | |
| | SP14 | 3.00 | | | | | | | | | | | | |
| | SP15 | 3.50 | | 9 | | | | | | | | | | |
| | SP16 | 4.00 | | | | | | | | | | | | |
| | SP17 | 4.50 | | 8 | 23.8 | 0 | 33 | 67 | 0.054 | NP | - | ML | Grey, silt with some fine sand (stiff) | |
| | SP18 | 5.00 | | | | | | | | | | | | |
| | SP19 | 5.50 | | 28 | | | | | | | | | | |
| | SP20 | 6.00 | | | | | | | | | | | | |
| | SP21 | 6.50 | | 27 | 25.2 | 0 | 87 | 13 | 0.18 | NP | - | SM | Grey, fine sand with little silt (mod. dense) | |
| | SP22 | 7.00 | | | | | | | | | | | | |
| | SP23 | 7.50 | | 24 | | | | | | | | | | |
| | SP24 | 8.00 | | | | | | | | | | | | |
| | SP25 | 8.50 | | 26 | 29.0 | 0 | 96 | 4 | 0.14 | NP | - | SP | Light grey, fine sand with trace silt (mod. dense) | |
| | SP26 | 9.00 | | | | | | | | | | | | |
| | SP27 | 9.50 | | 24 | | | | | | | | | | |
| | | 10.00 | | | | | | | | | | | | |
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| DISTURBED SAMPLING (SPT) UNDISTURBED SAMPLING | BORING <u>B11</u> | Figure A.1-14 |
| | ELEVATION <u>28.10</u> m | |

| GROUNDWATER LEVEL | SAMPLING NO. AND TYPE | DEPTH (m) | PROFILE | N VALUE | MOISTURE CONTENT (%) | GRADATION | | | | | PLASTICITY | | CLASSIFICATION | DESCRIPTION |
|-------------------|-----------------------|-----------|---------|---------|----------------------|------------|----------|----------|----------|----------------------|------------|-------|---|-------------|
| | | | | | | GRAVEL (%) | SAND (%) | SILT (%) | CLAY (%) | D ₆₀ (mm) | LL (%) | IP | | |
| 0.87 | U-1 | 0.50 | | | | | | | | | | | Light brown and grey, fine sand and silt | |
| | SPT1 | 1.00 | | 2 | 41.8 | 0 | 1 | 99 | 0.016 | 46 | 20 | CL | Dark grey, medium compressible silt with trace sand and organic matter (soft) | |
| | | 1.50 | | | 46.4 | 0 | 10 | 90 | 0.026 | 49 | 19 | ML | | |
| | SPT2 | 2.50 | | 5 | | | | | | | | | Grey, fine sand with little silt (loose) | |
| | | 3.00 | | | | | | | | | | | | |
| | SPT3 | 4.00 | | 5 | 28.9 | 0 | 72 | 28 | 0.10 | NP | - | SM | Grey, fine sand with some silt (loose) | |
| | | 4.50 | | | | | | | | | | | | |
| | SPT4 | 5.50 | | 13 | | | | | | | | | | |
| | | 6.00 | | | | | | | | | | | | |
| | SPT5 | 7.50 | | 20 | 19.7 | 0 | 90 | 10 | 0.19 | NP | - | SP-SM | Grey, fine sand with trace silt (mod. dense) | |
| | | 8.00 | | | | | | | | | | | | |
| | SPT6 | 8.50 | | 14 | | | | | | | | | | |
| | | 9.00 | | | | | | | | | | | | |
| | SPT7 | 10.00 | | 22 | 22.9 | 0 | 83 | 17 | 0.15 | NP | - | SM | Light grey, fine sand with little silt (mod. dense) | |
| | | 10.50 | | | | | | | | | | | | |
| | SPT8 | 11.50 | | 20 | | | | | | | | | | |
| | | 12.00 | | | | | | | | | | | | |
| | SPT9 | 13.00 | | 18 | 23.0 | 0 | 99 | 1 | 0.20 | NP | - | SP | Light grey, fine sand with trace silt (mod. dense) | |
| | | 13.50 | | | | | | | | | | | | |
| | SPT10 | 14.50 | | 20 | | | | | | | | | | |
| | | 14.50 | | | | | | | | | | | | |
| | SPT11 | 16.00 | | 19 | 24.3 | 0 | 20 | 80 | 0.047 | NP | - | ML | Grey, non plastic silt with little fine sand (very stiff) | |
| | | 16.50 | | | | | | | | | | | | |
| | SPT12 | 17.50 | | 24 | | | | | | | | | Bluish grey, fine sand with little silt (mod. dense) | |
| | | 18.00 | | | | | | | | | | | | |
| | SPT13 | 18.50 | | | | | | | | | | | | |
| | | 19.00 | | | | | | | | | | | | |
| | | 19.50 | | | | | | | | | | | | |
| | SPT13 | 20.00 | | 25 | 21.3 | 0 | 97 | 3 | 0.17 | NP | - | SP | Light grey, fine sand with trace silt (mod. dense) | |

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|  DISTURBED SAMPLING (SPT)  UNDISTURBED SAMPLING | BORING <u>B12</u> | Figure A.1-15 |
| | ELEVATION <u>23.00</u> m | |

| GROUNDWATER LEVEL | SAMPLING NO. AND TYPE | DEPTH (m) | PROFILE | N VALUE | MOISTURE CONTENT (%) | GRADATION | | | | | PLASTICITY | | CLASSIFICATION | DESCRIPTION |
|-------------------|-----------------------|-----------|---------|---------|----------------------|------------|----------|----------|----------|----------------------|------------|-------|--|-------------|
| | | | | | | GRAVEL (%) | SAND (%) | SILT (%) | CLAY (%) | D ₆₀ (mm) | LL (%) | IP | | |
| 0.92 | U-1 | 0.50 | | | 29.0 | 0 | 9 | 91 | 0.015 | 32 | 6 | ML | Grey, medium compressible silt with trace sand (firm) | |
| | SPT1 | 1.00 | | | 29.5 | 0 | 25 | 75 | 0.042 | NP | - | ML | Grey, non plastic silt with some fine sand (firm) | |
| | SPT2 | 2.50 | | | | | | | | | | | Grey, medium compressible silt with trace sand (firm) | |
| | SPT3 | 4.50 | | | 31.4 | 0 | 43 | 57 | 0.067 | NP | - | ML | Grey, silt and fine sand (firm) | |
| | SPT4 | 6.00 | | | | | | | | | | | Grey, fine sand with trace silt (loose) | |
| | SPT5 | 7.50 | | | 18.5 | 0 | 88 | 12 | 0.18 | NP | - | SP-SM | Grey, fine sand with little silt (med. dense) | |
| | SPT6 | 8.50 | | | | | | | | | | | | |
| | SPT7 | 10.00 | | | 21.5 | 0 | 85 | 15 | 0.16 | NP | - | SM | Light grey, fine sand with little silt (med. dense to dense) | |
| | SPT8 | 11.50 | | | | | | | | | | | | |
| | SPT9 | 13.00 | | | 21.4 | 0 | 84 | 16 | 0.12 | NP | - | SM | | |
| | SPT10 | 14.50 | | | | | | | | | | | | |
| | SPT11 | 16.50 | | | 21.9 | 0 | 83 | 17 | 0.17 | NP | - | SM | | |
| | SPT12 | 17.50 | | | | | | | | | | | | |
| | SPT13 | 20.00 | | | 22.8 | 0 | 88 | 12 | 0.13 | NP | - | SP-SM | | |

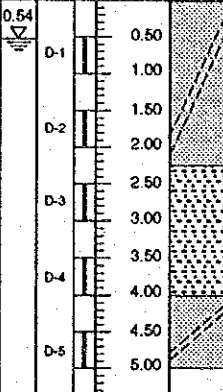
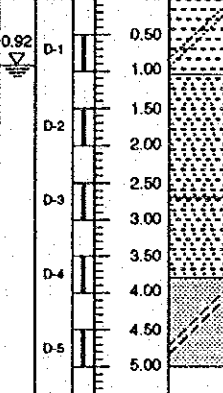
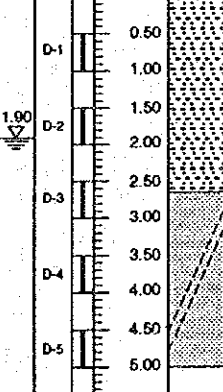
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| DISTURBED SAMPLING (SPT) UNDISTURBED SAMPLING | BORING <u>B13</u> ELEVATION <u>23.00</u> m | Figure A.1-16 LOG OF CORE BORING, BOREHOLE B13 |
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| GROUNDWATER LEVEL | SAMPLING NO. AND TYPE | DEPTH (m) | PROFILE | N VALUE | | | | | MOISTURE CONTENT (%) | GRADATION | | | | | PLASTICITY | | CLASSIFICATION | DESCRIPTION | |
|-------------------|-----------------------|-----------|---------|---------|----|----|----|----|----------------------|------------|----------|----------|----------|----------------------|------------|----|--|--|--|
| | | | | 10 | 20 | 30 | 40 | 50 | | GRAVEL (%) | SAND (%) | SILT (%) | CLAY (%) | D ₅₀ (mm) | LL (%) | IP | | | |
| | | | | | | | | | | | | | | | | | | | |
| | SPT1 | 0.50 | | | | | | | 33.6 | 0 | 9 | 91 | 0.024 | 38 | 10 | ML | Light brown and grey, non plastic silt | | |
| | | 1.00 | | 5 | | | | | | | | | | | | | | Light brown, medium compressible silt with trace sand (firm) | |
| | SPT2 | 1.50 | | 4 | | | | | | | | | | | | | | Light brown, non plastic silt and fine sand (firm) | |
| | | 2.00 | | | | | | | | | | | | | | | | | |
| | SPT3 | 2.50 | | 6 | | | | | | 27.5 | 0 | 73 | 27 | 0.10 | NP | - | SM | Light brown, fine sand with some silt (loose) | |
| | | 3.00 | | | | | | | | | | | | | | | | | |
| | SPT4 | 3.50 | | 10 | | | | | | | | | | | | | | | |
| | | 4.00 | | | | | | | | | | | | | | | | | |
| | SPT5 | 4.50 | | 7 | | | | | | 30.6 | 0 | 8 | 92 | 0.022 | 33 | 7 | ML | Grey, medium compressible silt with trace fine sand (firm) | |
| | | 5.00 | | | | | | | | | | | | | | | | | |
| | SPT6 | 5.50 | 6 | | | | | | | | | | | | | | | | |
| | | 6.00 | | | | | | | | | | | | | | | | | |
| | SPT7 | 6.50 | 8 | | | | | | 32.0 | 0 | 6 | 94 | 0.018 | NP | - | ML | | | |
| | | 7.00 | | | | | | | | | | | | | | | | | |
| | SPT8 | 7.50 | 16 | | | | | | | | | | | | | | | | |
| | | 8.00 | | | | | | | | | | | | | | | | | |
| | SPT9 | 8.50 | 18 | | | | | | 25.9 | 0 | 61 | 39 | 0.084 | NP | - | SM | Grey, fine sand and silt (med. dense) | | |
| | | 9.00 | | | | | | | | | | | | | | | | | |
| | SPT10 | 9.50 | 20 | | | | | | | | | | | | | | | | |
| | | 10.00 | | | | | | | | | | | | | | | | | |
| | | 10.50 | | | | | | | | | | | | | | | | | |
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| | | 18.50 | | | | | | | | | | | | | | | | | |
| | | 19.00 | | | | | | | | | | | | | | | | | |
| | | 19.50 | | | | | | | | | | | | | | | | | |
| | | 20.00 | | | | | | | | | | | | | | | | | |

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| DISTURBED SAMPLING (SPT) UNDISTURBED SAMPLING | BORING <u>B15</u> ELEVATION <u>22.50</u> m | Figure A.1-17 LOG OF CORE BORING, BOREHOLE B15 |
|--|---|---|

| GROUNDWATER LEVEL | SAMPLING NO. AND TYPE | DEPTH (m) | PROFILE | N VALUE | MOISTURE CONTENT (%) | GRADATION | | | | | PLASTICITY | | CLASSIFICATION | DESCRIPTION | |
|-------------------|-----------------------|-----------|---------|---------|----------------------|------------|----------|----------|----------|----------------------|------------|---|---|---|--|
| | | | | | | GRAVEL (%) | SAND (%) | SILT (%) | CLAY (%) | D ₆₀ (mm) | LL (%) | IP | | | |
| | SP11 | 0.50 | | | | | | | | | | | | Light brown, non plastic silt with little fine sand | |
| | SP12 | 1.00 | | | 22.9 | 0 | 16 | 84 | 0.036 | NP | - | ML | Light brown, silt with little fine sand (firm) | | |
| | SP13 | 1.50 | | | | | | | | | | | | | |
| | SP14 | 2.00 | | | | | | | | | | | | | |
| | SP15 | 2.50 | | | 32.8 | 0 | 9 | 91 | 0.023 | 36 | 8 | ML | Light brown and grey, medium compressible silt with trace sand (soft to firm) | | |
| | SP16 | 3.00 | | | | | | | | | | | | | |
| | SP17 | 3.50 | | | | | | | | | | | | | |
| | SP18 | 4.00 | | | | | | | | | | | | | |
| | SP19 | 4.50 | | | 26.4 | 0 | 11 | 89 | 0.032 | NP | - | ML | Grey, non plastic silt with little fine sand (soft) | | |
| | SP20 | 5.00 | | | | | | | | | | | | | |
| | SP21 | 5.50 | | | | | | | | | | | | | |
| | SP22 | 6.00 | | | | | | | | | | | | | |
| | SP23 | 6.50 | | 27.3 | 0 | 18 | 82 | 0.047 | NP | - | ML | Grey, fine sand with some silt (med. dense) | | | |
| | SP24 | 7.00 | | | | | | | | | | | | | |
| | SP25 | 7.50 | | | | | | | | | | | | | |
| | SP26 | 8.00 | | | | | | | | | | | | | |
| | SP27 | 8.50 | | 29.9 | 0 | 76 | 24 | 0.10 | NP | - | SM | | | | |
| | SP28 | 9.00 | | | | | | | | | | | | | |
| | SP29 | 9.50 | | | | | | | | | | | | | |
| | SP30 | 10.00 | | | | | | | | | | | | | |

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|--|---|---|
| DISTURBED SAMPLING (SPT) UNDISTURBED SAMPLING | BORING <u>B17</u> ELEVATION <u>26.40</u> m | Figure A.1-18 LOG OF CORE BORING, BOREHOLE B17 |
|--|---|---|

| GROUNDWATER LEVEL | SAMPLING NO. AND TYPE | DEPTH (m) | PROFILE | MOISTURE CONTENT (%) | GRADATION | | | | | PLASTICITY | | CLASSIFICATION | DESCRIPTION |
|---|-----------------------|-----------|---------|----------------------|------------|----------|----------|----------|----------------------|------------|-------|--|-------------|
| | | | | | GRAVEL (%) | SAND (%) | SILT (%) | CLAY (%) | D ₅₀ (mm) | LL (%) | IP | | |
| Auger Hole No. A1 Elevation 28.30 m  | | | | | | | | | | | | | |
| | | 0.50 | | 26.1 | 0 | 90 | 10 | 0.13 | NP | - | SP-SM | Light grey, fine sand with trace silt | |
| | | 1.00 | | | | | | | | | | | |
| | | 1.50 | | | | | | | | | | | |
| | | 2.00 | | | | | | | | | | | |
| | | 2.50 | | 27.4 | 0 | 62 | 38 | 0.091 | NP | - | SM | Grey, silt and fine sand | |
| | | 3.00 | | | | | | | | | | | |
| | | 3.50 | | | | | | | | | | | |
| | | 4.00 | | | | | | | | | | | |
| | | 4.50 | | | | | | | | | | | |
| | | 5.00 | | 27.8 | 0 | 82 | 18 | 0.12 | NP | - | SM | Light grey, fine sand with little silt | |
| Auger Hole No. A2 Elevation 27.50 m  | | | | | | | | | | | | | |
| | | 0.50 | | 25.3 | 0 | 4 | 96 | 0.021 | 35 | 8 | ML | Light grey, medium compressible silt with trace sand | |
| | | 1.00 | | | | | | | | | | | |
| | | 1.50 | | | | | | | | | | | |
| | | 2.00 | | | | | | | | | | | |
| | | 2.50 | | 25.3 | 0 | 48 | 52 | 0.072 | NP | - | ML | Yellowish brown, fine sand and silt | |
| | | 3.00 | | | | | | | | | | | |
| | | 3.50 | | | | | | | | | | | |
| | | 4.00 | | | | | | | | | | | |
| | | 4.50 | | | | | | | | | | | |
| | | 5.00 | | 28.2 | 0 | 90 | 10 | 0.18 | NP | - | SP-SM | Light grey, fine sand with trace silt | |
| Auger Hole No. A3 Elevation 25.70 m  | | | | | | | | | | | | | |
| | | 0.50 | | 32.9 | 0 | 35 | 65 | 0.059 | NP | - | ML | Light brown, silt and fine sand | |
| | | 1.00 | | | | | | | | | | | |
| | | 1.50 | | | | | | | | | | | |
| | | 2.00 | | | | | | | | | | | |
| | | 2.50 | | 31.9 | 0 | 31 | 69 | 0.050 | NP | - | ML | Grey, fine sand with some silt | |
| | | 3.00 | | | | | | | | | | | |
| | | 3.50 | | | | | | | | | | | |
| | | 4.00 | | | | | | | | | | | |
| | | 4.50 | | | | | | | | | | | |
| | | 5.00 | | 26.0 | 0 | 65 | 35 | 0.093 | NP | - | SM | | |


DISTURBED SAMPLING
Figure A.1-19
LOG OF AUGER BORING, BOREHOLES A1, A2 AND A3

| GROUNDWATER LEVEL SAMPLING NO. AND TYPE | DEPTH (m) | PROFILE | MOISTURE CONTENT (%) | GRADATION | | | | | PLASTICITY | | CLASSIFICATION | DESCRIPTION |
|---|-----------|---------|----------------------|------------|----------|----------|----------|----------------------|------------|----|--|-------------|
| | | | | GRAVEL (%) | SAND (%) | SILT (%) | CLAY (%) | D ₅₀ (mm) | LL (%) | IP | | |
| Auger Hole No. A4 Elevation 22.40 m | | | | | | | | | | | | |
| | 0.50 | | 30.0 | 0 | 19 | 81 | 0.037 | NP | - | ML | Light brown and grey, non plastic silt with little fine sand | |
| | 1.00 | | | | | | | | | | Light grey, fine sand with trace silt and mica | |
| | 1.50 | | 26.6 | 0 | 49 | 51 | 0.071 | NP | - | ML | Light grey, silt and fine sand | |
| | 2.00 | | | | | | | | | | | |
| | 2.50 | | 33.0 | 0 | 58 | 42 | 0.086 | NP | - | SM | | |
| 3.00 | | | | | | | | | | | | |
| 3.50 | | | | | | | | | | | | |
| 4.00 | | | | | | | | | | | | |
| 4.50 | | | | | | | | | | | | |
| 5.00 | | | | | | | | | | | | |
| Auger Hole No. A5 Elevation 20.50 m | | | | | | | | | | | | |
| | 0.50 | | 28.8 | 0 | 2 | 98 | 0.023 | 36 | 8 | ML | Light brown, non plastic silt with trace sand | |
| | 1.00 | | | | | | | | | | Light brown and grey, medium compressible silt with trace sand | |
| | 1.50 | | 27.5 | 0 | 25 | 75 | 0.052 | NP | - | ML | Light brown, non plastic silt with some fine sand | |
| | 2.00 | | | | | | | | | | | |
| | 2.50 | | 34.3 | 0 | 2 | 98 | 0.020 | 37 | 9 | ML | Grey, medium compressible silt with trace sand | |
| 3.00 | | | | | | | | | | | | |
| 3.50 | | | | | | | | | | | | |
| 4.00 | | | | | | | | | | | | |
| 4.50 | | | | | | | | | | | | |
| 5.00 | | | | | | | | | | | | |
| Auger Hole No. A6 Elevation 22.40 m | | | | | | | | | | | | |
| | 0.50 | | 17.8 | 0 | 58 | 42 | 0.084 | NP | - | SM | Light brown, non plastic silt and fine sand | |
| | 1.00 | | | | | | | | | | Yellowish brown, fine sand with some silt | |
| | 1.50 | | 16.4 | 0 | 78 | 22 | 0.12 | NP | - | SM | Grey, non plastic silt and fine sand | |
| | 2.00 | | | | | | | | | | | |
| | 2.50 | | 18.3 | 0 | 37 | 63 | 0.054 | NP | - | ML | | |
| 3.00 | | | | | | | | | | | | |
| 3.50 | | | | | | | | | | | | |
| 4.00 | | | | | | | | | | | | |
| 4.50 | | | | | | | | | | | | |
| 5.00 | | | | | | | | | | | | |

DISTURBED SAMPLING
 Figure A.1-20
LOG OF AUGER BORING, BOREHOLES A4, A5 AND A6

| GROUNDWATER LEVEL | SAMPLING NO. AND TYPE | DEPTH (m) | PROFILE | MOISTURE CONTENT (%) | GRADATION | | | | | PLASTICITY | | CLASSIFICATION | DESCRIPTION | | | | | | | |
|-------------------------------------|-----------------------|-----------|---------|----------------------|------------|----------|----------|----------|----------------------|------------|------|---|-------------|----|----|-------|----|---|----|--|
| | | | | | GRAVEL (%) | SAND (%) | SILT (%) | CLAY (%) | D ₁₀ (mm) | LL (%) | IP | | | | | | | | | |
| Auger Hole No. A7 Elevation 24.30 m | | | | | | | | | | | | | | | | | | | | |
| 2.35 | 0-1 | 0.50 | | 23.9 | 0 | 38 | 62 | 0.060 | NP | - | ML | Light brown, non plastic silt and fine sand | | | | | | | | |
| | | 1.00 | | | | | | | | | | Light brown, non plastic silt with little fine sand | | | | | | | | |
| | | 2.50 | | | | | | | | | | 34.2 | 0 | 2 | 98 | 0.022 | 36 | 8 | ML | Light brown and grey, medium compressible silt with trace sand |
| | | 4.00 | | | | | | | | | | Grey, silt and fine sand | | | | | | | | |
| 0-5 | 5.00 | 24.3 | 0 | 50 | 50 | 0.074 | NP | - | SMML | | | | | | | | | | | |
| Auger Hole No. A8 Elevation 25.40 m | | | | | | | | | | | | | | | | | | | | |
| 2.85 | 0-1 | 0.50 | | 15.7 | 0 | 50 | 50 | 0.074 | NP | - | SMML | Light brown, silt and fine sand | | | | | | | | |
| | | 1.50 | | | | | | | | | | Light brown and grey, fine sand and silt | | | | | | | | |
| | | 2.50 | | | | | | | | | | 24.7 | 0 | 33 | 67 | 0.053 | NP | - | ML | Grey, silt with some fine sand |
| | | 5.00 | | | | | | | | | | 28.2 | 0 | 40 | 60 | 0.061 | NP | - | ML | |
| Auger Hole No. A9 Elevation 25.20 m | | | | | | | | | | | | | | | | | | | | |
| 2.82 | 0-1 | 0.50 | | 14.9 | 0 | 38 | 62 | 0.059 | NP | - | ML | Light brown, non plastic silt with some fine sand | | | | | | | | |
| | | 1.50 | | | | | | | | | | Light brown, non plastic silt and fine sand | | | | | | | | |
| | | 2.50 | | | | | | | | | | 16.9 | 0 | 73 | 27 | 0.10 | NP | - | SM | Yellowish brown, fine sand with some silt |
| | | 5.00 | | | | | | | | | | 36.2 | 0 | 2 | 98 | 0.022 | 39 | 9 | ML | Grey, medium compressible silt with trace fine sand |

DISTURBED SAMPLING Figure A.1-21 LOG OF AUGER BORING, BOREHOLES A7, A8 AND A9

| GROUNDWATER LEVEL | SAMPLING NO. AND TYPE | DEPTH (m) | PROFILE | MOISTURE CONTENT (%) | GRADATION | | | | PLASTICITY | | CLASSIFICATION | DESCRIPTION |
|--|-----------------------|-----------|---------|----------------------|------------|----------|----------|----------|----------------------|--------|--|-------------|
| | | | | | GRAVEL (%) | SAND (%) | SILT (%) | CLAY (%) | D ₆₀ (mm) | LL (%) | | |
| Auger Hole No. A10 Elevation 28.00 m | | | | | | | | | | | | |
| | | 0.50 | 28.2 | 0 | 7 | 93 | 0.019 | NP | - | ML | Light brown and grey, non plastic silt with little fine sand | |
| | | 1.00 | | | | | | | | | Light brown, medium compressible silt with trace sand | |
| | | 2.00 | 23.9 | 0 | 9 | 91 | 0.022 | 35 | 7 | ML | Light grey, non plastic silt with little fine sand | |
| | | 3.00 | | | | | | | | | | |
| | | 4.00 | 23.7 | 0 | 12 | 88 | 0.033 | NP | - | ML | | |
| 5.00 | | | | | | | | | | | | |
| Auger Hole No. Elevation m | | | | | | | | | | | | |
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| Auger Hole No. Elevation m | | | | | | | | | | | | |
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DISTURBED SAMPLING Figure A.1-22 LOG OF AUGER BORING, BOREHOLE A10

**ATTACHMENT-2 : RESULT OF LABORATORY TEST FOR SOIL
SAMPLES COLLECTED BY CORE BORING**

List of Figures

| Fig. No. | Title |
|----------|--|
| A.2-1 | Results of Laboratory Tests for Soil Samples of Borehole B1 |
| A.2-2 | Results of Laboratory Tests for Soil Samples of Borehole B2 |
| A.2-3 | Results of Laboratory Tests for Soil Samples of Borehole B3 |
| A.2-4 | Results of Laboratory Tests for Soil Samples of Borehole B3' |
| A.2-5 | Results of Laboratory Tests for Soil Samples of Borehole B4 |
| A.2-6 | Results of Laboratory Tests for Soil Samples of Borehole B5 |
| A.2-7 | Results of Laboratory Tests for Soil Samples of Borehole B6 |
| A.2-8 | Results of Laboratory Tests for Soil Samples of Borehole B6' |
| A.2-9 | Results of Laboratory Tests for Soil Samples of Borehole B7 |
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| A.2-14 | Results of Laboratory Tests for Soil Samples of Borehole B12 |
| A.2-15 | Results of Laboratory Tests for Soil Samples of Borehole B13 |
| A.2-16 | Results of Laboratory Tests for Soil Samples of Borehole B15 |
| A.2-17 | Results of Laboratory Tests for Soil Samples of Borehole B17 |
| A.2-18 | Summary of All Data |
| A.2-19 | Summary of Foundation Data |

Table A.2-1 RESULTS OF LABORATORY TESTS (B1)

Location of Sampling Borehole B1

| Sample No. | | D1 | D3 | D5 | D7 | D9 |
|-----------------------------|------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Depth | | 0.54 to 1.00 | 2.54 to 3.00 | 4.54 to 5.00 | 6.54 to 7.00 | 8.54 to 9.00 |
| Specific gravity | Gs | 2.667 | 2.670 | 2.656 | 2.668 | 2.656 |
| Gradation | Gravel (%) | 0 | 0 | 0 | 0 | 0 |
| | Sand (%) | 28 | 15 | 90 | 18 | 93 |
| | Fine (%) | 72 | 85 | 10 | 82 | 7 |
| Mean particle size | D50 (mm) | 0.055 | 0.036 | 0.16 | 0.042 | 0.19 |
| Liquid limit | LL (%) | NP | NP | NP | NP | NP |
| Plasticity index | PI | - | - | - | - | - |
| Unified soil classification | | ML | ML | SP-SM | ML | SP-SM |
| Natural moisture content | (%) | 17.9 | 25.0 | 23.2 | 25.1 | 23.9 |

Table A.2-2 RESULTS OF LABORATORY TESTS (B2)

Location of Sampling Borehole B2

| Sample No. | | D1 | D2 | D3 | D5 | D7 | D9 |
|-----------------------------|------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Depth | | 0.54 to 1.00 | 1.54 to 2.00 | 2.54 to 3.00 | 4.54 to 5.00 | 6.54 to 7.00 | 8.54 to 9.00 |
| Specific gravity | Gs | 2.658 | | 2.664 | 2.660 | 2.667 | 2.670 |
| Gradation | Gravel (%) | 0 | | 0 | 0 | 0 | 0 |
| | Sand (%) | 85 | | 28 | 53 | 23 | 10 |
| | Fine (%) | 15 | | 72 | 47 | 77 | 90 |
| Mean particle size | D50 (mm) | 0.14 | | 0.055 | 0.079 | 0.044 | 0.024 |
| Liquid limit | LL (%) | NP | 36 | NP | NP | NP | NP |
| Plasticity index | PI | - | 10 | - | - | - | - |
| Unified soil classification | | SM | | ML | SM | ML | ML |
| Natural moisture content | (%) | 6.4 | | 22.1 | 19.3 | 19.8 | 28.7 |

Table A.2-3 RESULTS OF LABORATORY TESTS (B3)

Location of Sampling Borehole B3

| Sample No. | | D1 | D3 | D5 | D7 | D9 | D11 | D13 |
|-----------------------------|------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|----------------------|
| Depth | | 1.04 to 1.50 | 4.04 to 4.50 | 7.04 to 7.50 | 10.04 to 10.50 | 13.04 to 13.50 | 16.04 to 16.50 | 19.54 to 20.00 |
| Specific gravity | Gs | 2.666 | 2.657 | 2.658 | 2.655 | 2.657 | 2.650 | 2.656 |
| Gradation | Gravel (%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sand (%) | 22 | 89 | 85 | 91 | 90 | 91 | 92 |
| | Fine (%) | 78 | 11 | 15 | 9 | 10 | 9 | 8 |
| Mean particle size | D50 (mm) | 0.047 | 0.12 | 0.16 | 0.18 | 0.13 | 0.16 | 0.17 |
| Liquid limit | LL (%) | NP | NP | NP | NP | NP | NP | NP |
| Plasticity index | PI | - | - | - | - | - | - | - |
| Unified soil classification | | ML | SP-SM | SM | SP-SM | SP-SM | SP-SM | SP-SM |
| Natural moisture content | (%) | 23.5 | 29.0 | 25.4 | 19.0 | 21.5 | 23.9 | 25.4 |

Table A.2-4 RESULTS OF LABORATORY TESTS (B3')

Location of Sampling Borehole B3'

| Sample No. | | D1 | D3 | D5 | D7 | D9 | D11 | D13 |
|-----------------------------|------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|----------------------|
| Depth | | 1.04 to 1.50 | 4.04 to 4.50 | 7.04 to 7.50 | 10.04 to 10.50 | 13.04 to 13.50 | 16.04 to 16.50 | 19.54 to 20.00 |
| Specific gravity | Gs | 2.600 | 2.669 | 2.659 | 2.655 | 2.654 | 2.655 | 2.653 |
| Gradation | Gravel (%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sand (%) | 56 | 9 | 87 | 97 | 95 | 96 | 95 |
| | Fine (%) | 44 | 91 | 13 | 3 | 5 | 4 | 5 |
| Mean particle size | D50 (mm) | 0.082 | 0.031 | 0.15 | 0.18 | 0.15 | 0.13 | 0.19 |
| Liquid limit | LL (%) | NP | NP | NP | NP | NP | NP | NP |
| Plasticity index | PI | - | - | - | - | - | - | - |
| Unified soil classification | | SM | ML | SM | SP | SP-SM | SP | SP-SM |
| Natural moisture content | (%) | 24.2 | 16.0 | 35.0 | 24.4 | 23.6 | 25.2 | 25.2 |

Table A.2-5 RESULTS OF LABORATORY TESTS (B4)

Location of Sampling Borehole B4

| Sample No. Depth | | D1 1.04 to 1.50 | D3 4.04 to 4.50 | D5 7.04 to 7.50 | D7 10.04 to 10.50 | D9 13.04 to 13.50 | D11 16.04 to 16.50 | D13 19.54 to 20.00 |
|-----------------------------|------------|--------------------------|--------------------------|--------------------------|----------------------------|----------------------------|-----------------------------|-----------------------------|
| Specific gravity | Gs | 2.673 | 2.662 | 2.659 | 2.657 | 2.655 | 2.656 | 2.654 |
| Gradation | Gravel (%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sand (%) | 8 | 47 | 85 | 90 | 95 | 94 | 97 |
| | Fine (%) | 92 | 53 | 15 | 10 | 5 | 6 | 3 |
| Mean particle size | D50 (mm) | 0.024 | 0.071 | 0.15 | 0.18 | 0.19 | 0.13 | 0.17 |
| Liquid limit | LL (%) | 42 | NP | NP | NP | NP | NP | NP |
| Plasticity index | PI | 13 | - | - | - | - | - | - |
| Unified soil classification | | ML | ML | SM | SP-SM | SP-SM | SP-SM | SP |
| Natural moisture content | (%) | 39.0 | 28.9 | 26.4 | 22.0 | 29.6 | 28.9 | 27.7 |

Table A.2-6 RESULTS OF LABORATORY TESTS (B5)

Location of Sampling Borehole B5

| Sample No. Depth | | D1 0.54 to 1.00 | D3 2.54 to 3.00 | D5 4.54 to 5.00 | D7 6.54 to 7.00 | D9 8.54 to 9.00 |
|-----------------------------|------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Specific gravity | Gs | 2.668 | 2.657 | 2.659 | 2.667 | 2.666 |
| Gradation | Gravel (%) | 0 | 0 | 0 | 0 | 0 |
| | Sand (%) | 32 | 90 | 89 | 37 | 30 |
| | Fine (%) | 68 | 10 | 11 | 63 | 70 |
| Mean particle size | D50 (mm) | 0.054 | 0.16 | 0.18 | 0.059 | 0.048 |
| Liquid limit | LL (%) | NP | NP | NP | NP | NP |
| Plasticity index | PI | - | - | - | - | - |
| Unified soil classification | | ML | SP-SM | SP-SM | ML | ML |
| Natural moisture content | (%) | 17.8 | 6.9 | 5.2 | 24.8 | 24.3 |

Table A.2-7 RESULTS OF LABORATORY TESTS (B6)

Location of Sampling Borehole B6

| Sample No. Depth | | D1 1.04 to 1.50 | D3 4.04 to 4.50 | D5 7.04 to 7.50 | D7 10.04 to 10.50 | D9 13.04 to 13.50 | D11 16.04 to 16.50 | D13 19.54 to 20.00 |
|-----------------------------|------------|--------------------------|--------------------------|--------------------------|----------------------------|----------------------------|-----------------------------|-----------------------------|
| Specific gravity | Gs | 2.668 | 2.665 | 2.672 | 2.668 | 2.669 | 2.658 | 2.656 |
| Gradation | Gravel (%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sand (%) | 15 | 23 | 10 | 13 | 13 | 92 | 97 |
| | Fine (%) | 85 | 77 | 90 | 87 | 87 | 8 | 3 |
| Mean particle size | D50 (mm) | 0.049 | 0.058 | 0.034 | 0.038 | 0.037 | 0.13 | 0.18 |
| Liquid limit | LL (%) | NP | NP | 34 | NP | NP | NP | NP |
| Plasticity index | PI | - | - | 7 | - | - | - | - |
| Unified soil classification | | ML | ML | ML | ML | ML | SP-SM | SP |
| Natural moisture content | (%) | 16.6 | 20.7 | 31.1 | 32.6 | 33.8 | 25.0 | 22.9 |

Table A.2-8 RESULTS OF LABORATORY TESTS (B6')

Location of Sampling Borehole B6'

| Sample No. Depth | | D1 1.04 to 1.50 | D3 4.04 to 4.50 | D5 7.04 to 7.50 | D7 10.04 to 10.50 | D9 13.04 to 13.50 | D11 16.04 to 16.50 | D13 19.54 to 20.00 |
|-----------------------------|------------|--------------------------|--------------------------|--------------------------|----------------------------|----------------------------|-----------------------------|-----------------------------|
| Specific gravity | Gs | 2.663 | 2.660 | 2.657 | 2.650 | 2.650 | 2.656 | 2.654 |
| Gradation | Gravel (%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sand (%) | 42 | 67 | 83 | 98 | 99 | 91 | 93 |
| | Fine (%) | 58 | 33 | 17 | 2 | 1 | 9 | 7 |
| Mean particle size | D50 (mm) | 0.065 | 0.094 | 0.16 | 0.19 | 0.20 | 0.15 | 0.18 |
| Liquid limit | LL (%) | NP | NP | NP | NP | NP | NP | NP |
| Plasticity index | PI | - | - | - | - | - | - | - |
| Unified soil classification | | ML | SM | SM | SP | SP | SP-SM | SP-SM |
| Natural moisture content | (%) | 12.0 | 12.5 | 19.0 | 25.8 | 22.5 | 25.2 | 24.6 |

Table A.2-9 RESULTS OF LABORATORY TESTS (B7)

Location of Sampling Borehole B7

| Sample No. | | D1 | D3 | D5 | D7 | D9 |
|-----------------------------|------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Depth | | 0.54 to 1.00 | 2.54 to 3.00 | 4.54 to 5.00 | 6.54 to 7.00 | 8.54 to 9.00 |
| Specific gravity | Gs | 2.666 | 2.662 | 2.657 | 2.658 | 2.657 |
| Gradation | Gravel (%) | 0 | 0 | 0 | 0 | 0 |
| | Sand (%) | 26 | 64 | 84 | 85 | 92 |
| | Fine (%) | 74 | 36 | 16 | 15 | 8 |
| Mean particle size | D50 (mm) | 0.054 | 0.089 | 0.16 | 0.13 | 0.20 |
| Liquid limit | LL (%) | NP | NP | NP | NP | NP |
| Plasticity index | PI | - | - | - | - | - |
| Unified soil classification | | ML | SM | SM | SM | SP-SM |
| Natural moisture content | (%) | 28.7 | 27.0 | 30.3 | 19.3 | 12.9 |

Table A.2-10 RESULTS OF LABORATORY TESTS (B8)

Location of Sampling Borehole B8

| Sample No. | | D1 | D3 | D5 | D7 | D9 |
|-----------------------------|------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Depth | | 0.54 to 1.00 | 2.54 to 3.00 | 4.54 to 5.00 | 6.54 to 7.00 | 8.54 to 9.00 |
| Specific gravity | Gs | 2.674 | 2.673 | 2.668 | 2.672 | 2.668 |
| Gradation | Gravel (%) | 0 | 0 | 0 | 0 | 0 |
| | Sand (%) | 5 | 6 | 22 | 2 | 9 |
| | Fine (%) | 95 | 94 | 78 | 98 | 91 |
| Mean particle size | D50 (mm) | 0.020 | 0.022 | 0.045 | 0.018 | 0.026 |
| Liquid limit | LL (%) | 43 | 36 | NP | 37 | NP |
| Plasticity index | PI | 13 | 9 | - | 11 | - |
| Unified soil classification | | ML | ML | ML | ML | ML |
| Natural moisture content | (%) | 41.7 | 34.4 | 25.6 | 32.9 | 25.1 |

Table A.2-11 RESULTS OF LABORATORY TESTS (B9)

Location of Sampling Borehole B9

| Sample No. Depth | | D1 0.54 to 1.00 | D3 2.54 to 3.00 | D5 4.54 to 5.00 | D7 6.54 to 7.00 | D9 8.54 to 9.00 |
|-----------------------------|------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Specific gravity | Gs | 2.660 | 2.658 | 2.663 | 2.658 | 2.656 |
| Gradation | Gravel (%) | 0 | 0 | 0 | 0 | 0 |
| | Sand (%) | 52 | 75 | 62 | 86 | 92 |
| | Fine (%) | 48 | 25 | 38 | 14 | 8 |
| Mean particle size | D50 (mm) | 0.077 | 0.10 | 0.087 | 0.13 | 0.18 |
| Liquid limit | LL (%) | NP | NP | NP | NP | NP |
| Plasticity index | PI | - | - | - | - | - |
| Unified soil classification | | SM | SM | SM | SM | SP-SM |
| Natural moisture content | (%) | 14.5 | 8.1 | 18.1 | 22.6 | 15.6 |

Table A.2-12 RESULTS OF LABORATORY TESTS (B10)

Location of Sampling Borehole B10

| Sample No. Depth | | D1 0.54 to 1.00 | D3 2.54 to 3.00 | D5 4.54 to 5.00 | D7 6.54 to 7.00 | D9 8.54 to 9.00 |
|-----------------------------|------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Specific gravity | Gs | 2.668 | 2.669 | 2.657 | 2.654 | 2.653 |
| Gradation | Gravel (%) | 0 | 0 | 0 | 0 | 0 |
| | Sand (%) | 36 | 27 | 84 | 95 | 94 |
| | Fine (%) | 64 | 73 | 16 | 5 | 6 |
| Mean particle size | D50 (mm) | 0.060 | 0.051 | 0.14 | 0.20 | 0.19 |
| Liquid limit | LL (%) | NP | NP | NP | NP | NP |
| Plasticity index | PI | - | - | - | - | - |
| Unified soil classification | | ML | ML | SM | SP-SM | SP-SM |
| Natural moisture content | (%) | 21.7 | 29.4 | 23.3 | 24.4 | 26.1 |

Table A.2-13 RESULTS OF LABORATORY TESTS (B11)

Location of Sampling Borehole B11

| Sample No. | | D1 | D3 | D5 | D7 | D9 |
|-----------------------------|------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Depth | | 0.54 to 1.00 | 2.54 to 3.00 | 4.54 to 5.00 | 6.54 to 7.00 | 8.54 to 9.00 |
| Specific gravity | Gs | 2.660 | 2.665 | 2.667 | 2.659 | 2.653 |
| Gradation | Gravel (%) | 0 | 0 | 0 | 0 | 0 |
| | Sand (%) | 56 | 39 | 33 | 87 | 96 |
| | Fine (%) | 44 | 61 | 67 | 13 | 4 |
| Mean particle size | D50 (mm) | 0.083 | 0.06 | 0.054 | 0.18 | 0.14 |
| Liquid limit | LL (%) | NP | NP | NP | NP | NP |
| Plasticity index | PI | - | - | - | - | - |
| Unified soil classification | | SM | ML | ML | SM | SP |
| Natural moisture content | (%) | 12.5 | 25.6 | 23.8 | 25.2 | 29.0 |

Table A.2-14 RESULTS OF LABORATORY TESTS (B12)

Location of Sampling Borehole B12

| Sample No. | | D1 | D3 | D5 | D7 | D9 | D11 | D13 |
|-----------------------------|------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|----------------------|
| Depth | | 1.04 to 1.50 | 4.04 to 4.50 | 7.04 to 7.50 | 10.04 to 10.50 | 13.04 to 13.50 | 16.04 to 16.50 | 19.54 to 20.00 |
| Specific gravity | Gs | 2.678 | 2.663 | 2.657 | 2.659 | 2.650 | 2.668 | 2.652 |
| Gradation | Gravel (%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sand (%) | 10 | 72 | 90 | 83 | 99 | 20 | 97 |
| | Fine (%) | 90 | 28 | 10 | 17 | 1 | 80 | 3 |
| Mean particle size | D50 (mm) | 0.026 | 0.10 | 0.19 | 0.15 | 0.20 | 0.047 | 0.17 |
| Liquid limit | LL (%) | 49 | NP | NP | NP | NP | NP | NP |
| Plasticity index | PI | 19 | - | - | - | - | - | - |
| Unified soil classification | | ML | SM | SP-SM | SM | SP | ML | SP |
| Natural moisture content | (%) | 46.4 | 28.9 | 19.7 | 22.9 | 23.0 | 24.3 | 21.3 |

Table A.2-15 RESULTS OF LABORATORY TESTS (B13)

Location of Sampling Borehole B13

| Sample No. | | D1 | D3 | D5 | D7 | D9 | D11 | D13 |
|-----------------------------|------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|----------------------|
| Depth | | 1.04 to 1.50 | 4.04 to 4.50 | 7.04 to 7.50 | 10.04 to 10.50 | 13.04 to 13.50 | 16.04 to 16.50 | 19.54 to 20.00 |
| Specific gravity | Gs | 2.672 | 2.663 | 2.658 | 2.656 | 2.654 | 2.656 | 2.655 |
| Gradation | Gravel (%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sand (%) | 25 | 43 | 88 | 85 | 84 | 83 | 88 |
| | Fine (%) | 75 | 57 | 12 | 15 | 16 | 17 | 12 |
| Mean particle size | D50 (mm) | 0.042 | 0.067 | 0.18 | 0.16 | 0.12 | 0.17 | 0.13 |
| Liquid limit | LL (%) | NP | NP | NP | NP | NP | NP | NP |
| Plasticity index | PI | - | - | - | - | - | - | - |
| Unified soil classification | | ML | ML | SP-SM | SM | SM | SM | SP-SM |
| Natural moisture content | (%) | 29.5 | 31.4 | 18.5 | 21.5 | 21.4 | 21.9 | 22.8 |

Table A.2-16 RESULTS OF LABORATORY TESTS (B15)

Location of Sampling Borehole B15

| Sample No. | | D1 | D3 | D5 | D7 | D9 |
|-----------------------------|------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Depth | | 0.54 to 1.00 | 2.54 to 3.00 | 4.54 to 5.00 | 6.54 to 7.00 | 8.54 to 9.00 |
| Specific gravity | Gs | 2.672 | 2.660 | 2.673 | 2.674 | 2.660 |
| Gradation | Gravel (%) | 0 | 0 | 0 | 0 | 0 |
| | Sand (%) | 9 | 73 | 8 | 6 | 61 |
| | Fine (%) | 91 | 27 | 92 | 94 | 39 |
| Mean particle size | D50 (mm) | 0.024 | 0.10 | 0.022 | 0.018 | 0.084 |
| Liquid limit | LL (%) | 38 | NP | NP | NP | NP |
| Plasticity index | PI | 10 | - | - | - | - |
| Unified soil classification | | ML | SM | ML | ML | SM |
| Natural moisture content | (%) | 33.6 | 27.5 | 30.6 | 32.0 | 25.9 |

Table A.2-17 RESULTS OF LABORATORY TESTS (B17)

Location of Sampling Borehole B17

| Sample No. | | D1 | D3 | D5 | D7 | D9 |
|-----------------------------|------------|--------------------|--------------------|--------------------|----------------------|----------------------|
| Depth | | 1.04 to 1.50 | 4.04 to 4.50 | 7.04 to 7.50 | 10.04 to 10.50 | 13.04 to 13.50 |
| Specific gravity | Gs | 2.666 | 2.673 | 2.668 | 2.665 | 2.661 |
| Gradation | Gravel (%) | 0 | 0 | 0 | 0 | 0 |
| | Sand (%) | 16 | 9 | 11 | 18 | 76 |
| | Fine (%) | 84 | 91 | 89 | 82 | 24 |
| Mean particle size | D50 (mm) | 0.036 | 0.023 | 0.032 | 0.047 | 0.10 |
| Liquid limit | LL (%) | NP | 36 | NP | NP | NP |
| Plasticity index | PI | - | 8 | - | - | - |
| Unified soil classification | | ML | ML | ML | ML | SM |
| Natural moisture content | (%) | 22.9 | 32.8 | 26.4 | 27.3 | 29.9 |

Table A.2-18 SUMMARY OF ALL DATA

| Sample No. | | No. | Min. | Max. | Average |
|--------------------------|------------|-----|-------|-------|---------|
| Specific gravity | Gs | 99 | 2.600 | 2.678 | 2.661 |
| | Gravel (%) | 99 | 0 | 0 | 0 |
| Gradation | Sand (%) | 99 | 2 | 99 | 59 |
| | Fine (%) | 99 | 1 | 98 | 41 |
| Mean particle size | D50 (mm) | 99 | 0.018 | 0.2 | 0.105 |
| Liquid limit | LL (%) | 9 | 34 | 49 | 39 |
| Plasticity index | PI | 9 | 7 | 19 | 11 |
| Natural moisture content | (%) | 99 | 5.2 | 46.4 | 24.2 |

Table A.2-19 SUMMARY OF FOUNDATION DATA

| Sample No. | | No. | Min. | Max. | Average |
|--------------------------|------------|-----|-------|-------|---------|
| Specific gravity | Gs | 82 | 2.650 | 2.678 | 2.661 |
| | Gravel (%) | 82 | 0 | 0 | 0 |
| Gradation | Sand (%) | 82 | 2 | 99 | 63 |
| | Fine (%) | 82 | 1 | 98 | 37 |
| Mean particle size | D50 (mm) | 82 | 0.018 | 0.2 | 0.112 |
| Liquid limit | LL (%) | 5 | 36 | 49 | 40 |
| Plasticity index | PI | 5 | 8 | 19 | 12 |
| Natural moisture content | (%) | 82 | 5.2 | 46.4 | 24.6 |

ATTACHMENT-3 : MOHR'S CIRCLES AND DIRECT SHEAR TEST RESULTS FOR UNDISTURBED SOIL SAMPLES COLLECTED BY CORE BORING

List of Figures

| Fig. No. | Title |
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| A.3-1 | Mohr's Circles of Undisturbed Samples of Borehole (B4) |
| A.3-2 | Mohr's Circles of Undisturbed Samples of Borehole (B9) |
| A.3-3 | Mohr's Circles of Undisturbed Samples of Borehole (B11) |
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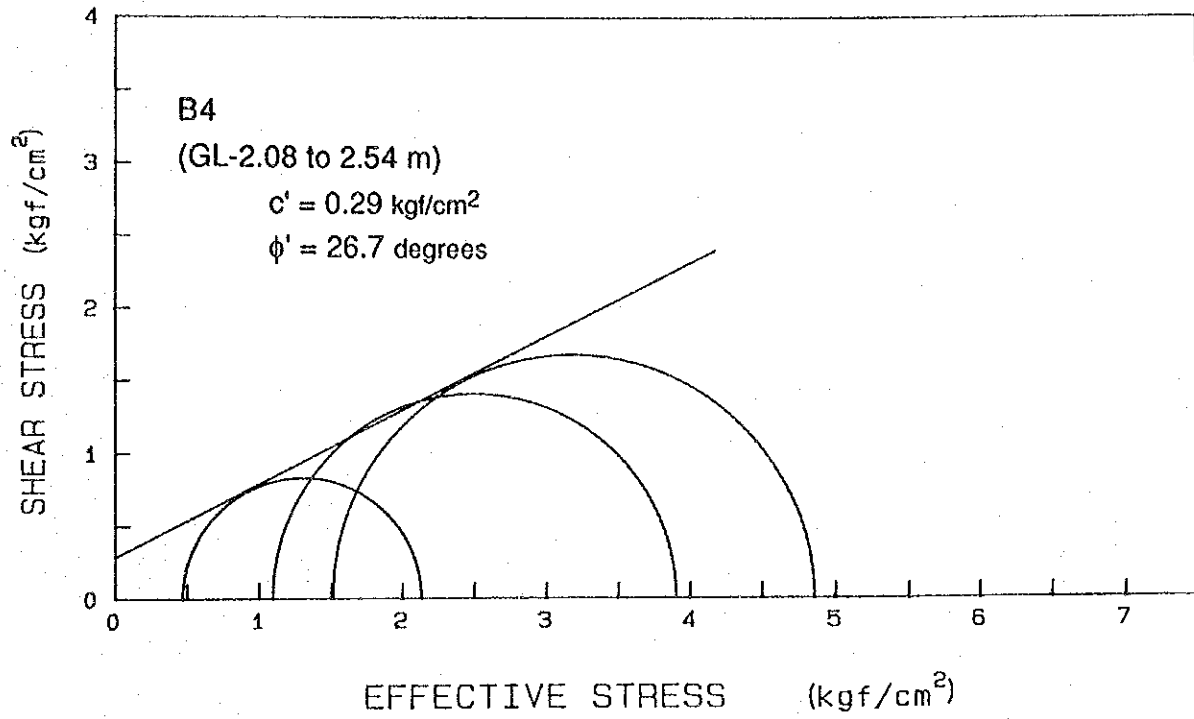


Figure A.3-1 MOHR'S CIRCLES OF UNDISTURBED SAMPLES OF BOREHOLE (B4)

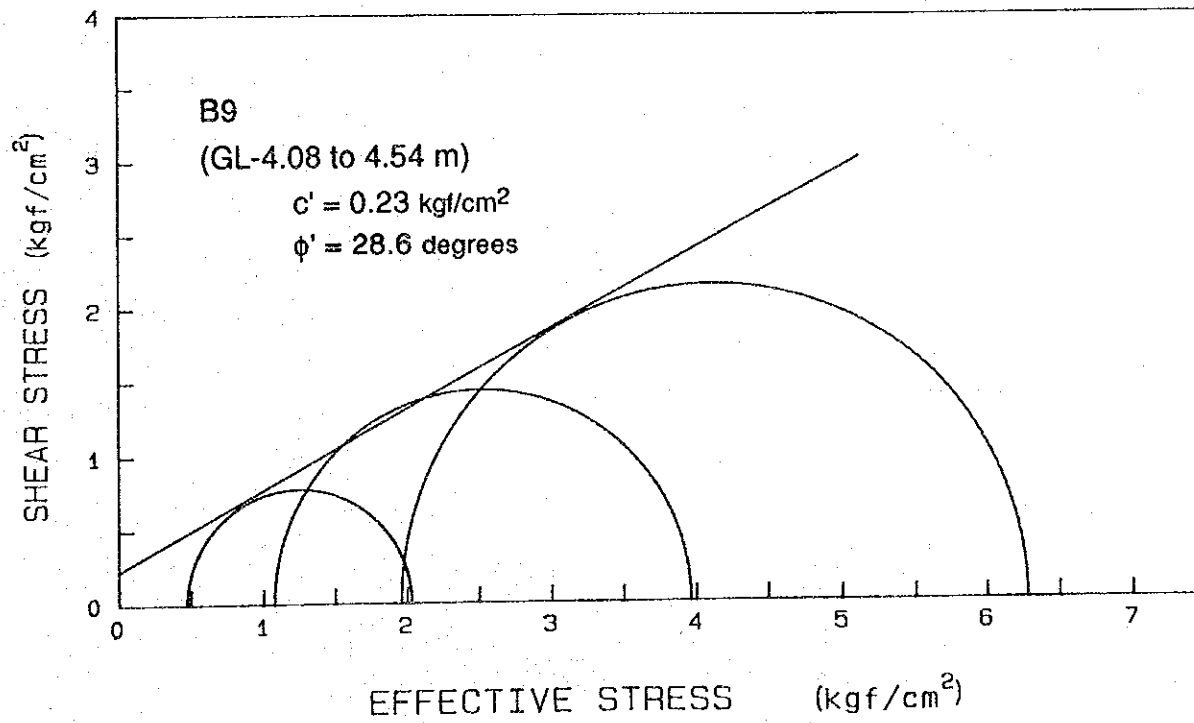


Figure A.3-2 MOHR'S CIRCLES OF UNDISTURBED SAMPLES OF BOREHOLE (B9)

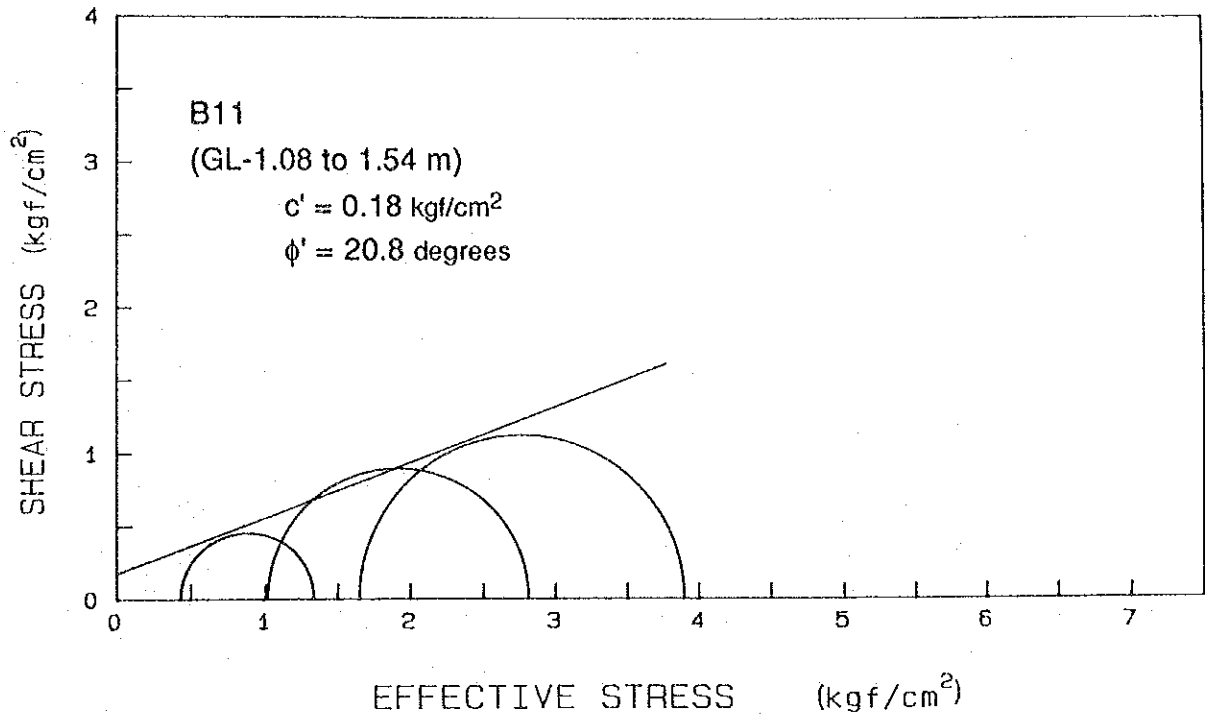


Figure A.3-3 MOHR'S CIRCLES OF UNDISTURBED SAMPLES OF BOREHOLE (B11)

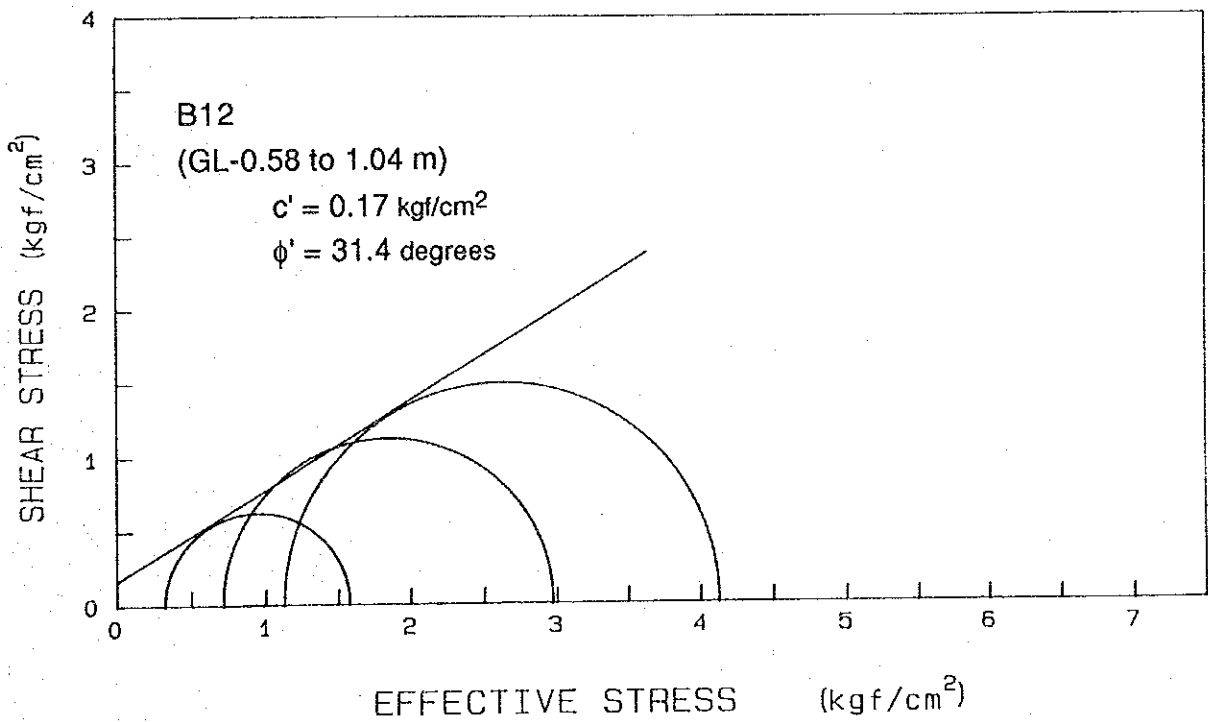


Figure A.3-4 MOHR'S CIRCLES OF UNDISTURBED SAMPLES OF BOREHOLE (B12)

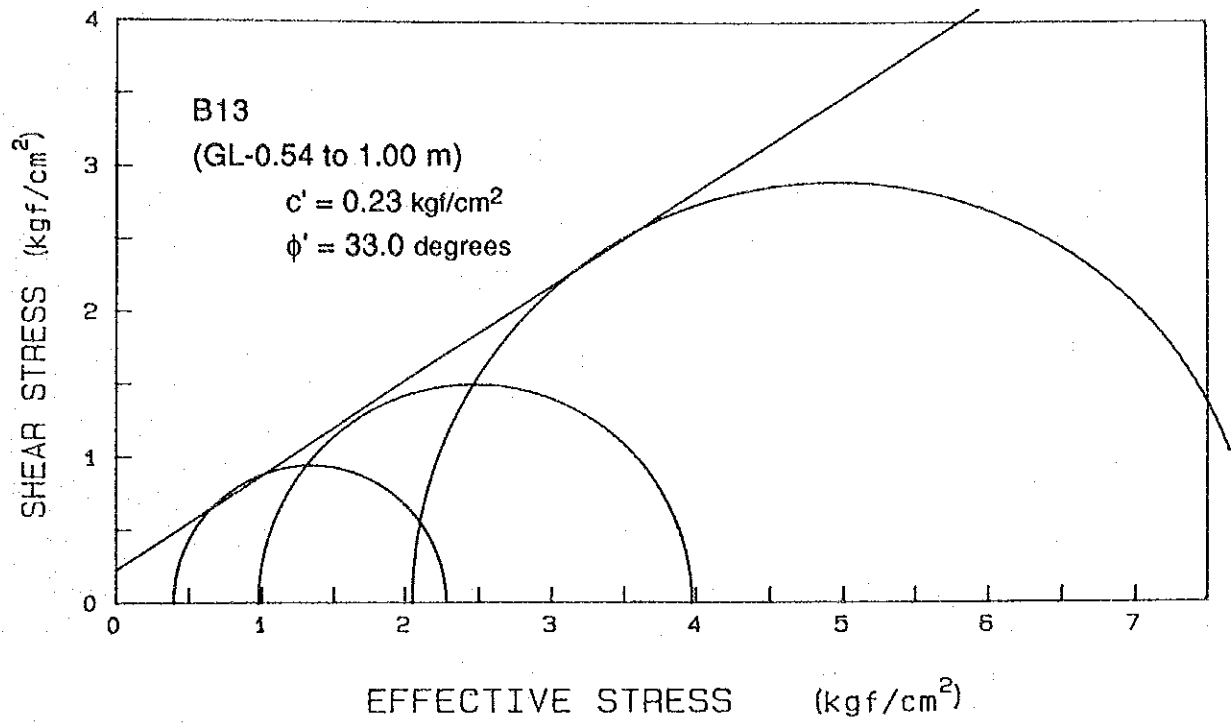


Figure A.3-5 MOHR'S CIRCLES OF UNDISTURBED SAMPLES OF BOREHOLE (B13)

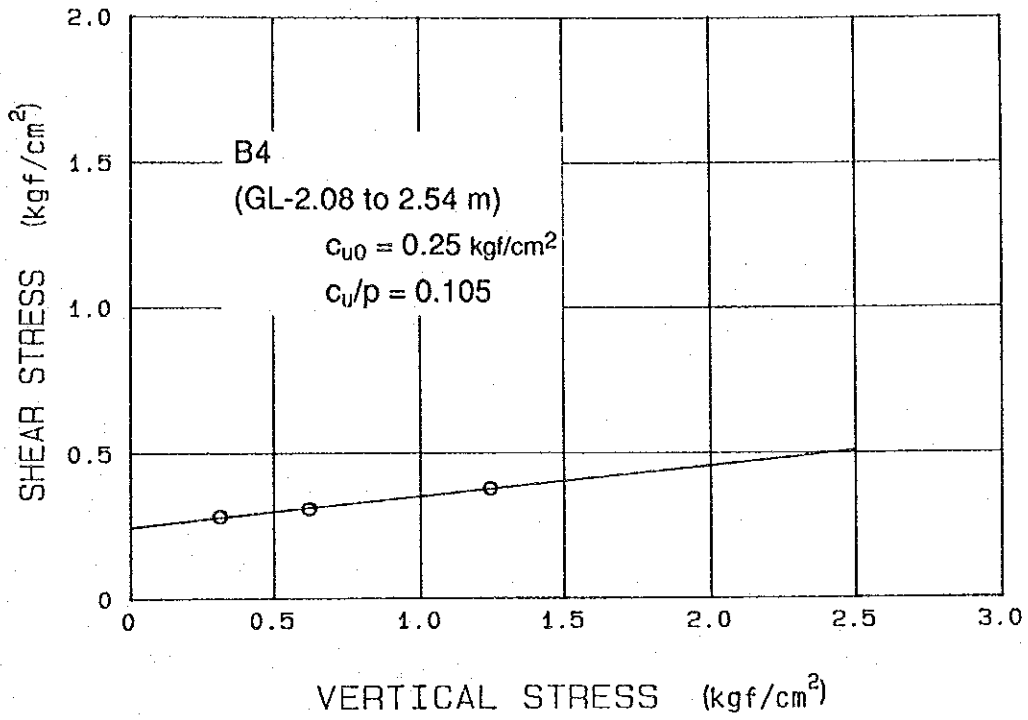


Figure A.3-6 DIRECT SHEAR TEST RESULTS OF UNDISTURBED SAMPLES (B4)

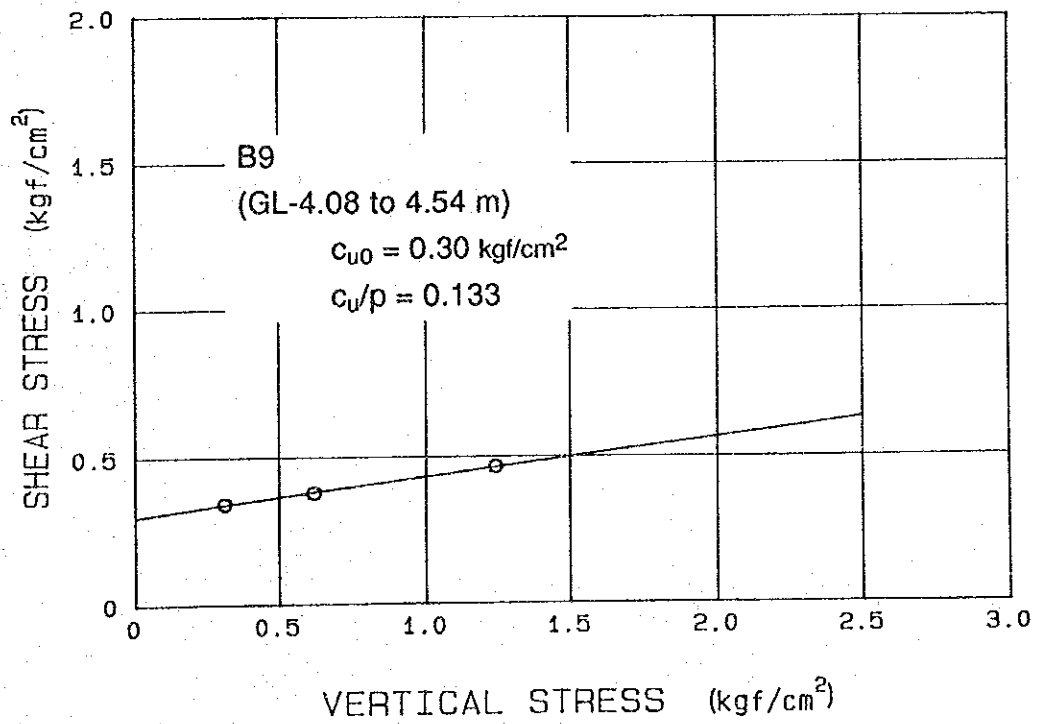


Figure A.3-7 DIRECT SHEAR TEST RESULTS OF UNDISTURBED SAMPLES (B9)

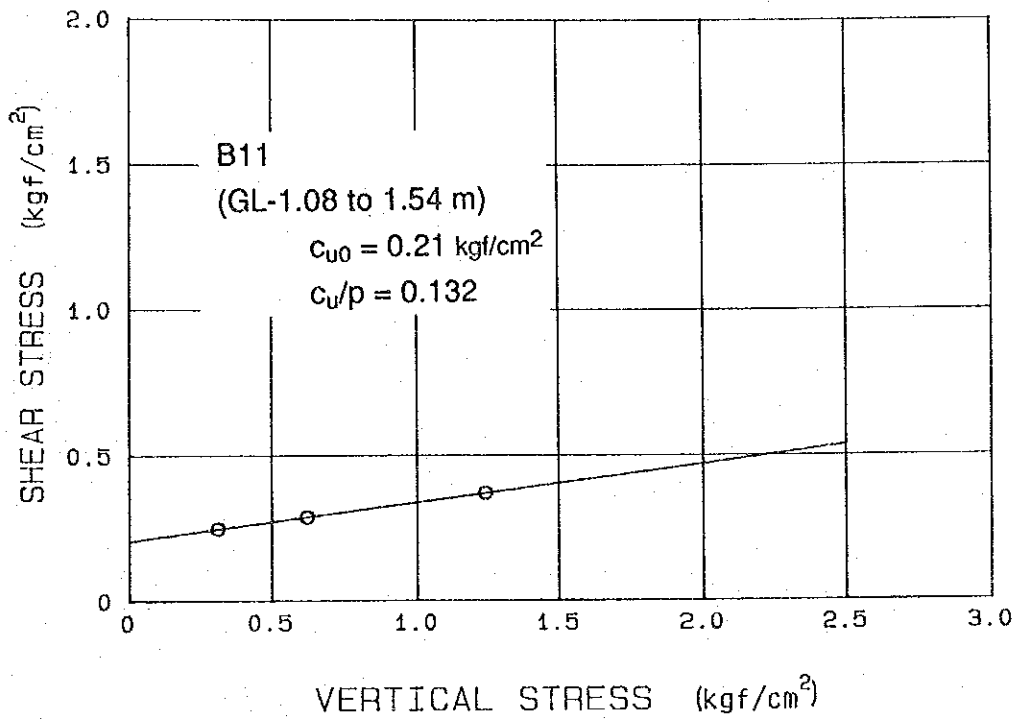


Figure A.3-8 DIRECT SHEAR TEST RESULTS OF UNDISTURBED SAMPLES (B11)

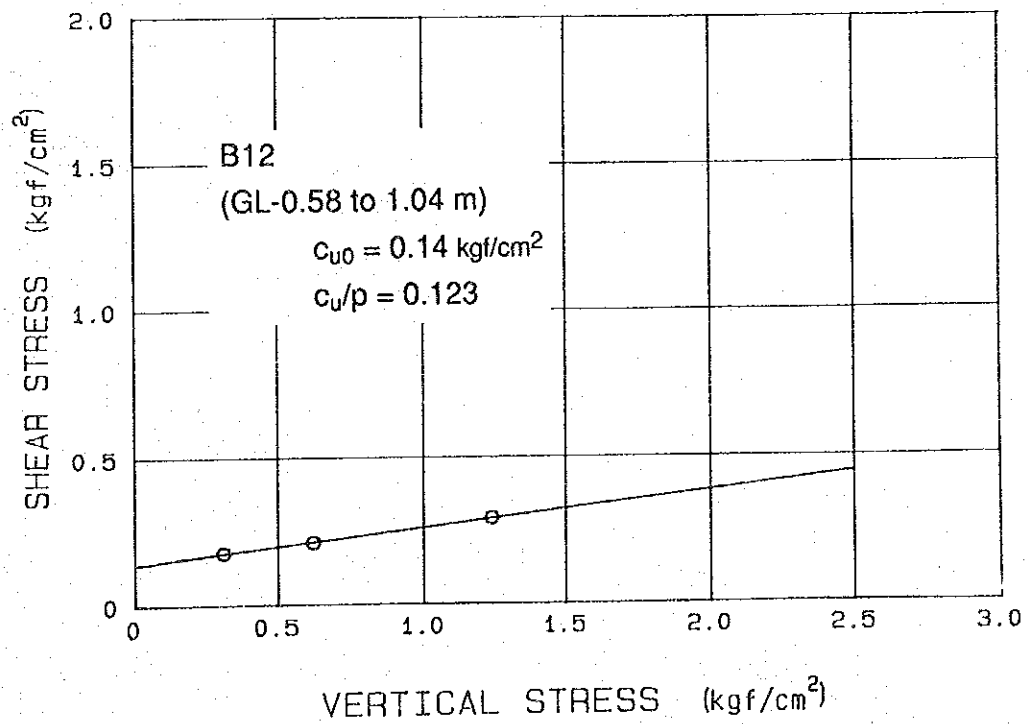


Figure A.3-9 DIRECT SHEAR TEST RESULTS OF UNDISTURBED SAMPLES (B12)

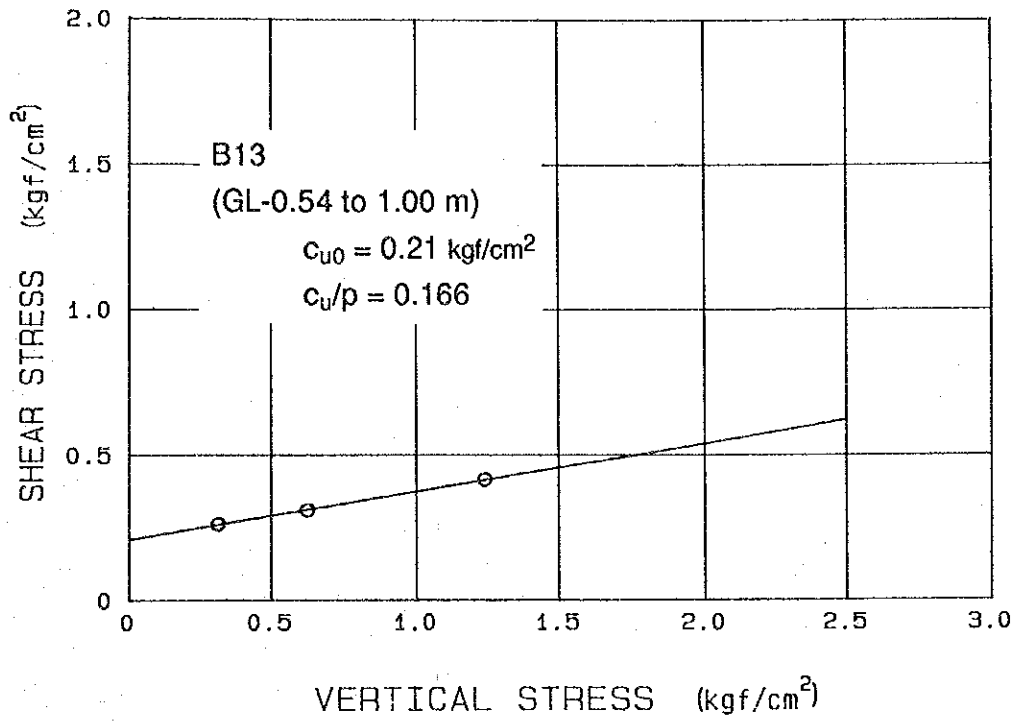


Figure A.3-10

DIRECT SHEAR TEST RESULTS OF UNDISTURBED SAMPLES (B13)

**ATTACHMENT-4 : MOHR'S CIRCLES AND DIRECT SHEAR TEST
RESULTS FOR REMOLDED SOIL SAMPLES
COLLECTED BY TEST PITTING**

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| A.4-5 | Mohr's Circles of Materials of Test Pit (T6) |
| A.4-6 | Mohr's Circles of Materials of Test Pit (T7) |
| A.4-7 | Direct Shear Test Results (T1) |
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| A.4-11 | Direct Shear Test Results (T5) |
| A.4-12 | Direct Shear Test Results (T6) |
| A.4-13 | Direct Shear Test Results (T7) |

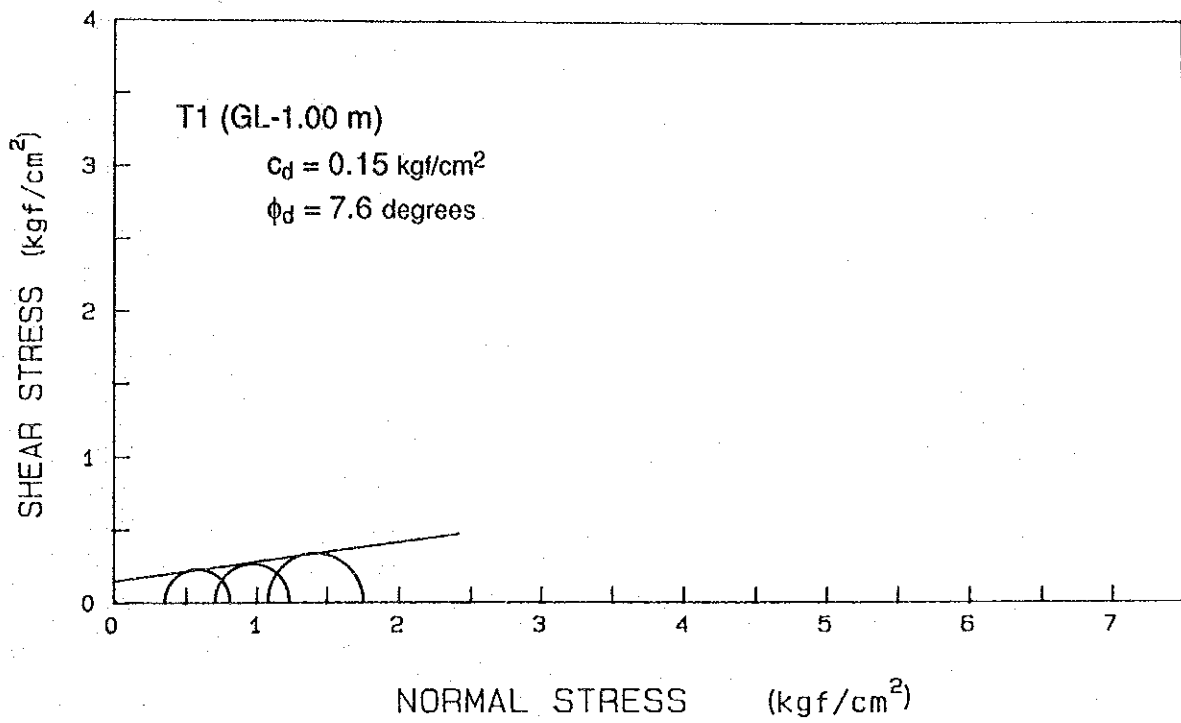


Figure A.4-1 MOHR'S CIRCLES OF MATERIALS OF TEST PIT (T1)

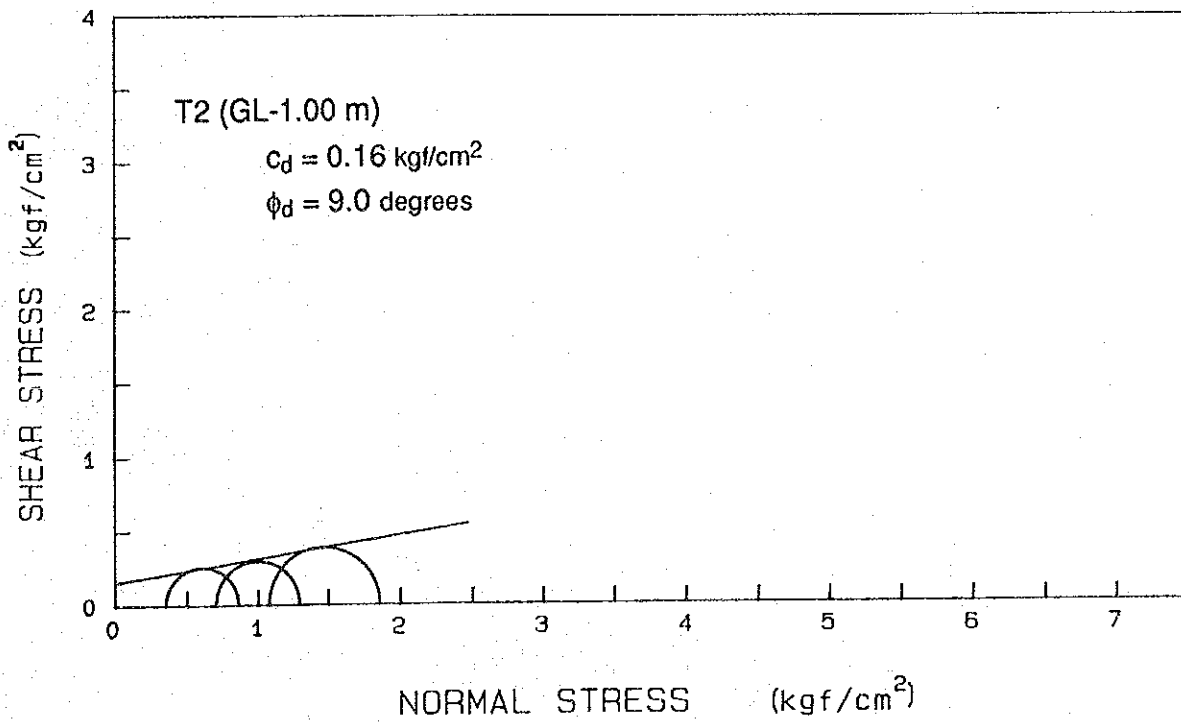


Figure A.4-2 MOHR'S CIRCLES OF MATERIALS OF TEST PIT (T2)

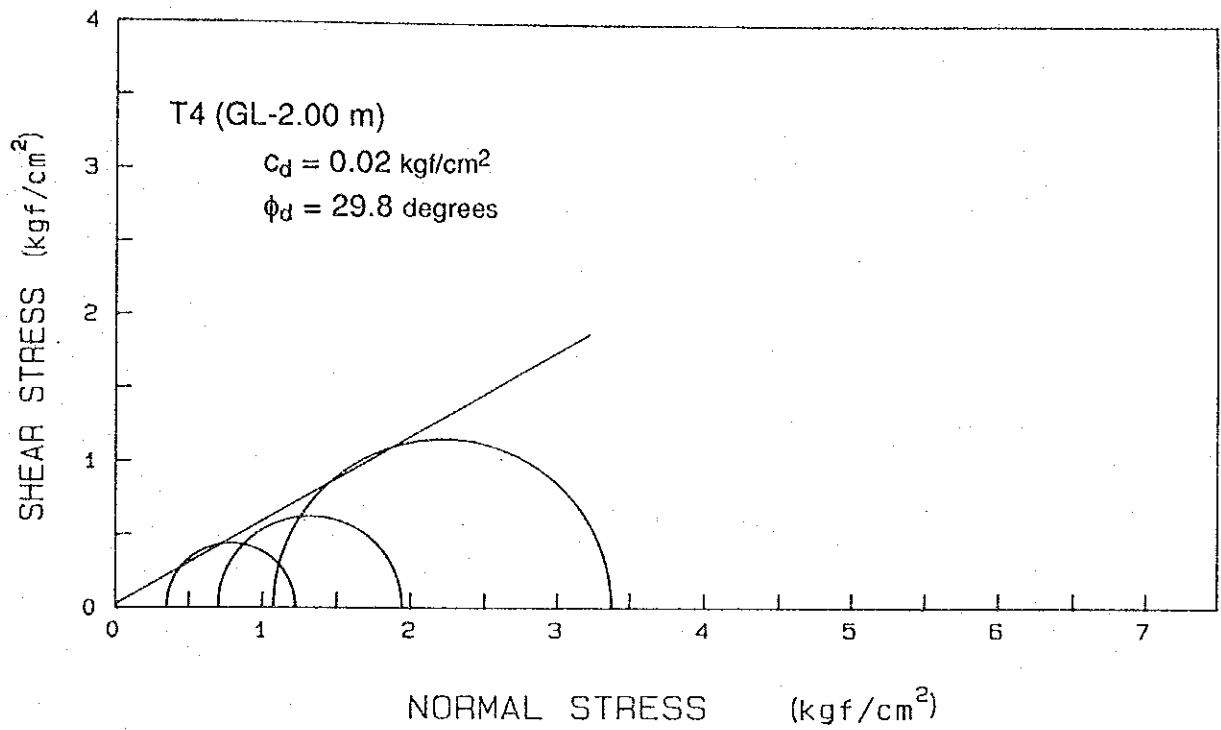


Figure A.4-3 MOHR'S CIRCLES OF MATERIALS OF TEST PIT (T4)

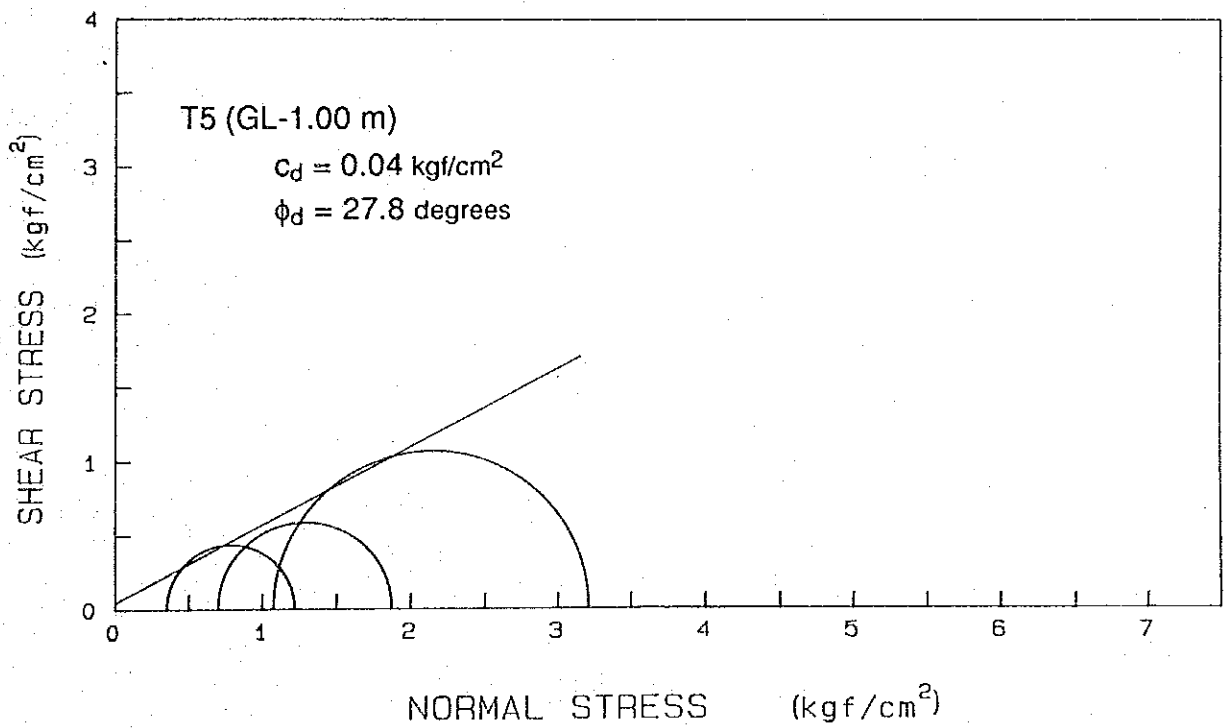


Figure A.4-4 MOHR'S CIRCLES OF MATERIALS OF TEST PIT (T5)

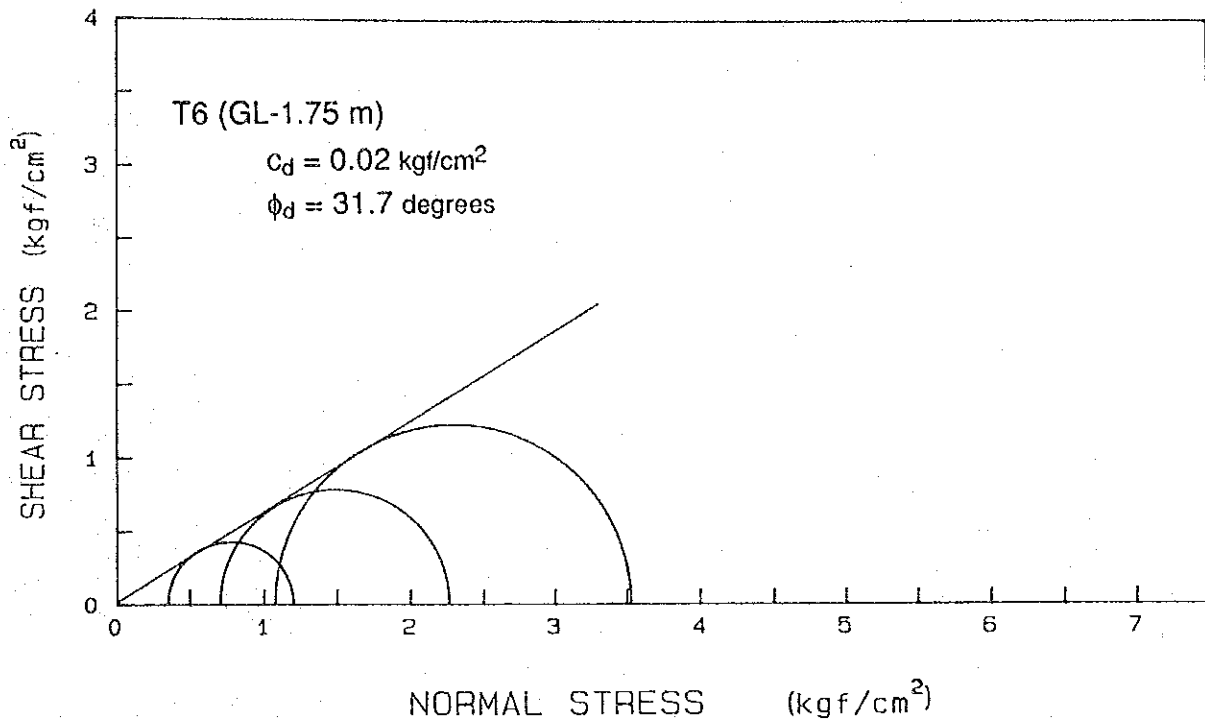


Figure A.4-5 MOHR'S CIRCLES OF MATERIALS OF TEST PIT (T6)

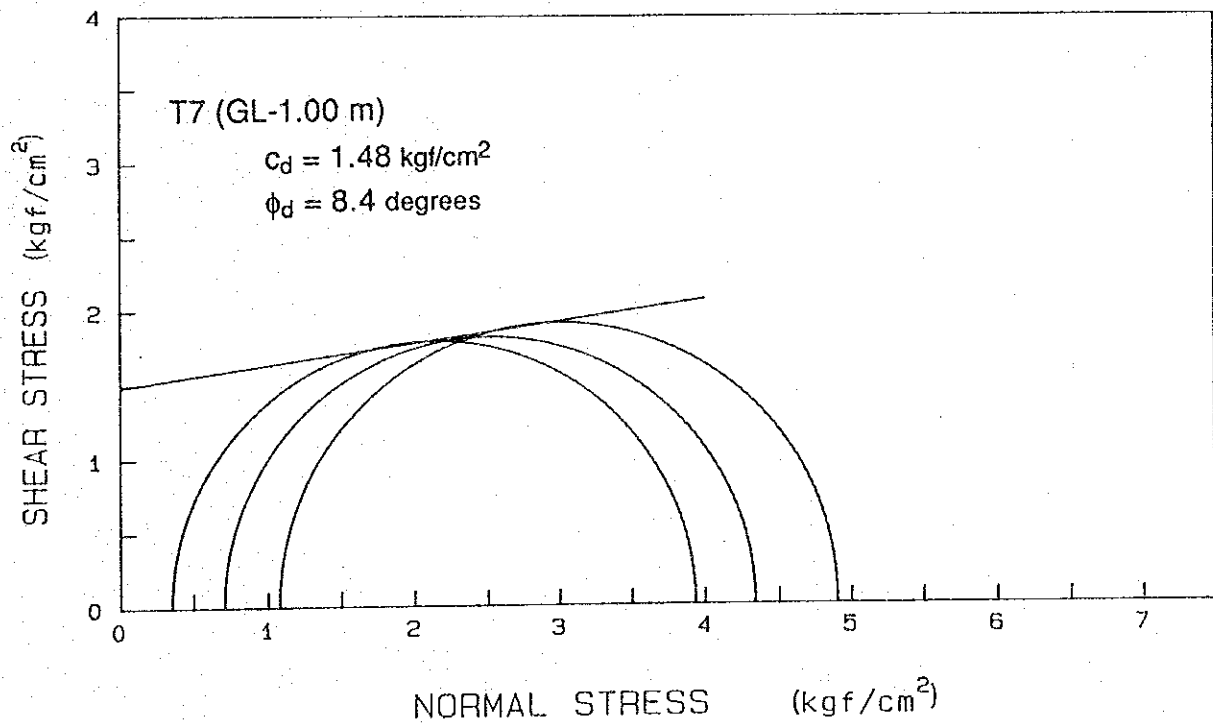


Figure A.4-6 MOHR'S CIRCLES OF MATERIALS OF TEST PIT (T7)

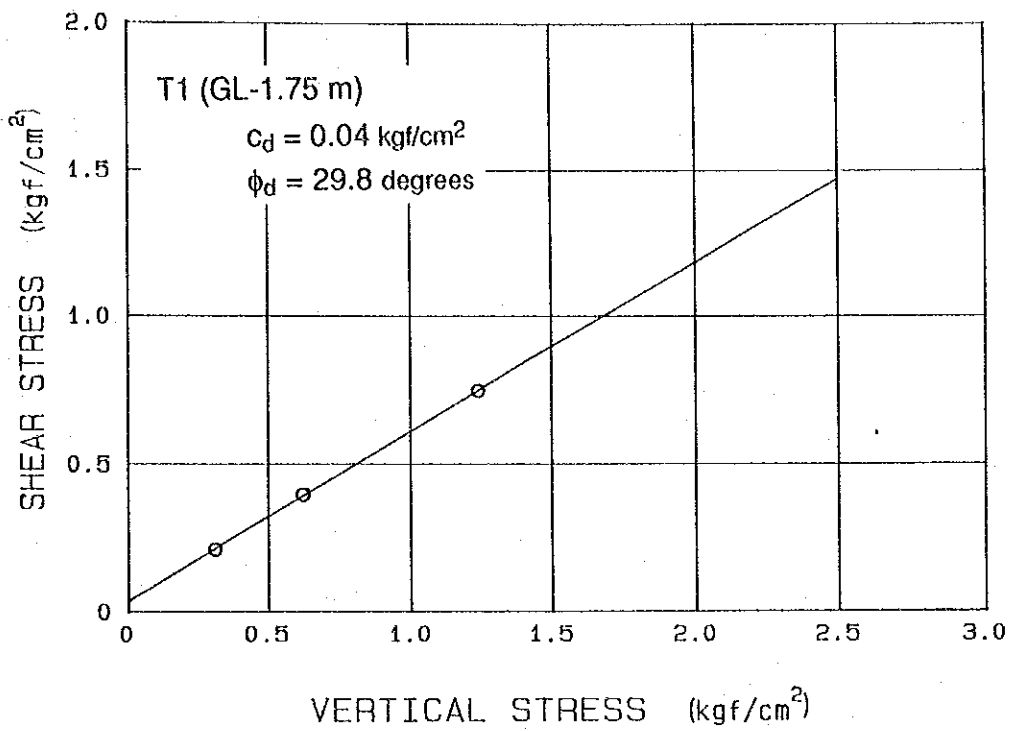


Figure A.4-7 DIRECT SHEAR TEST RESULTS (T1)

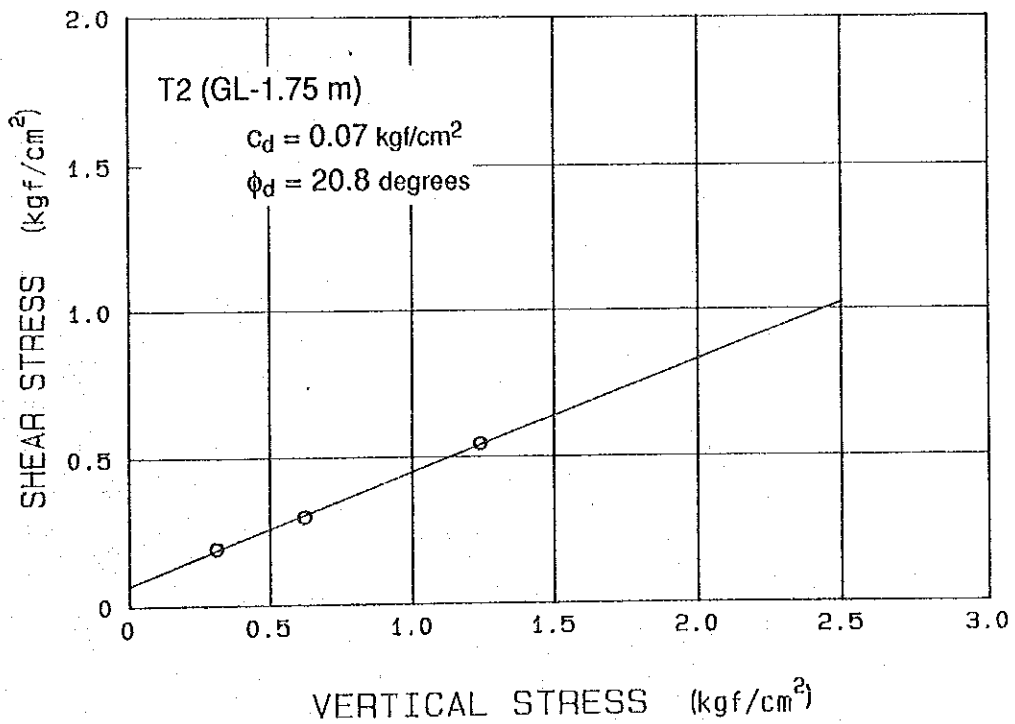


Figure A.4-8 DIRECT SHEAR TEST RESULTS (T2)

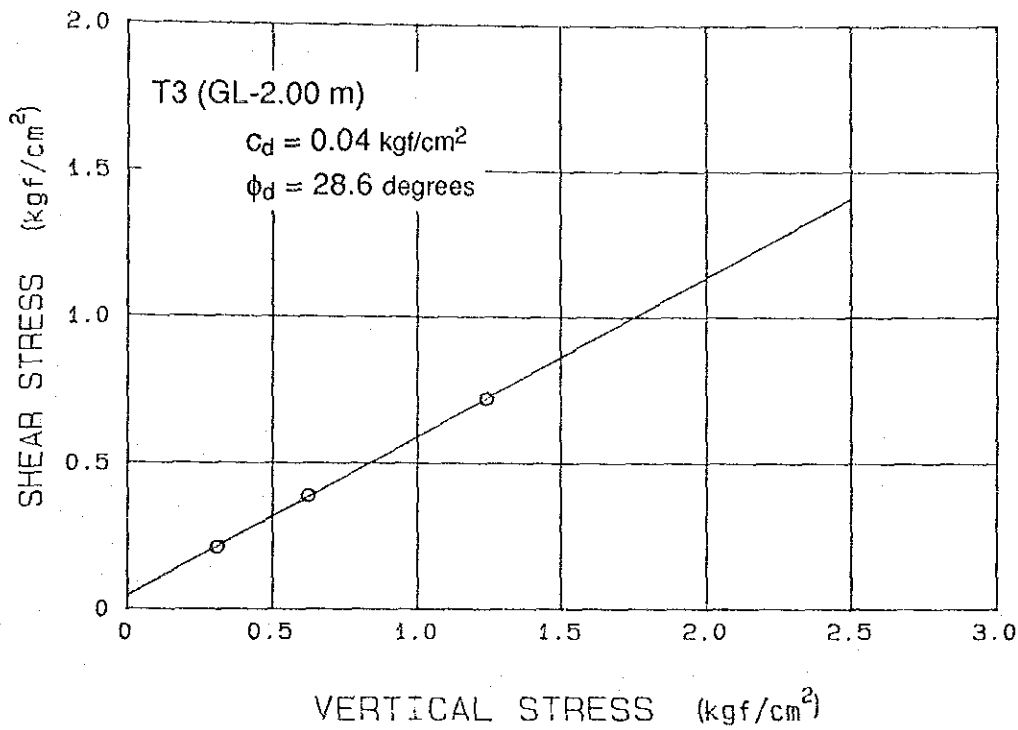


Figure A.4-9 DIRECT SHEAR TEST RESULTS (T3)

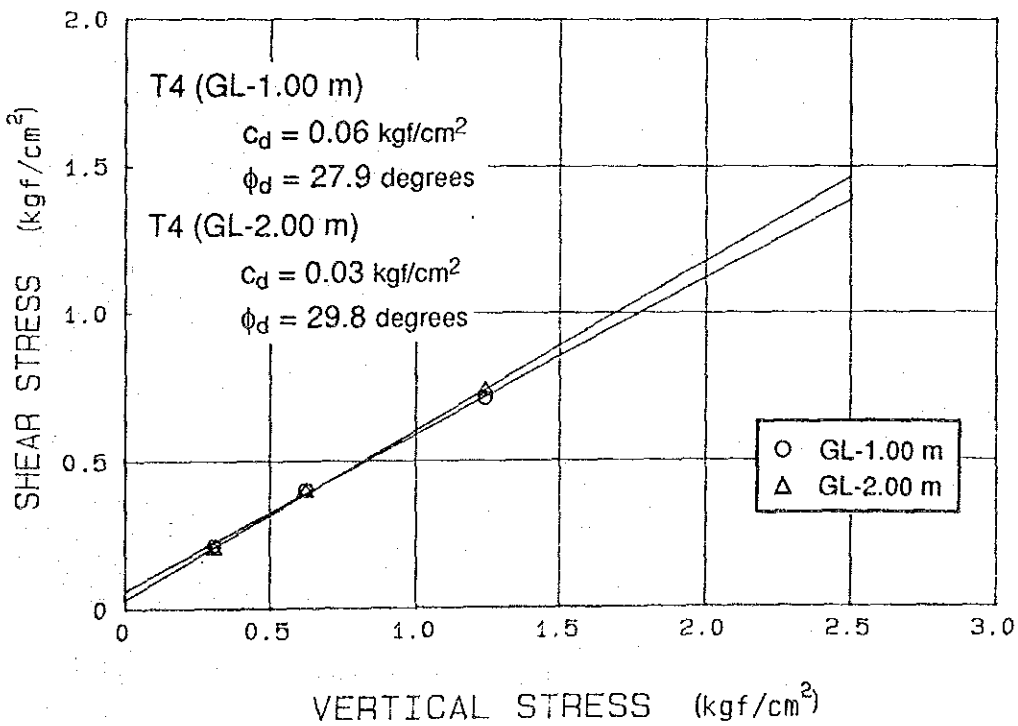


Figure A.4-10 DIRECT SHEAR TEST RESULTS (T4)

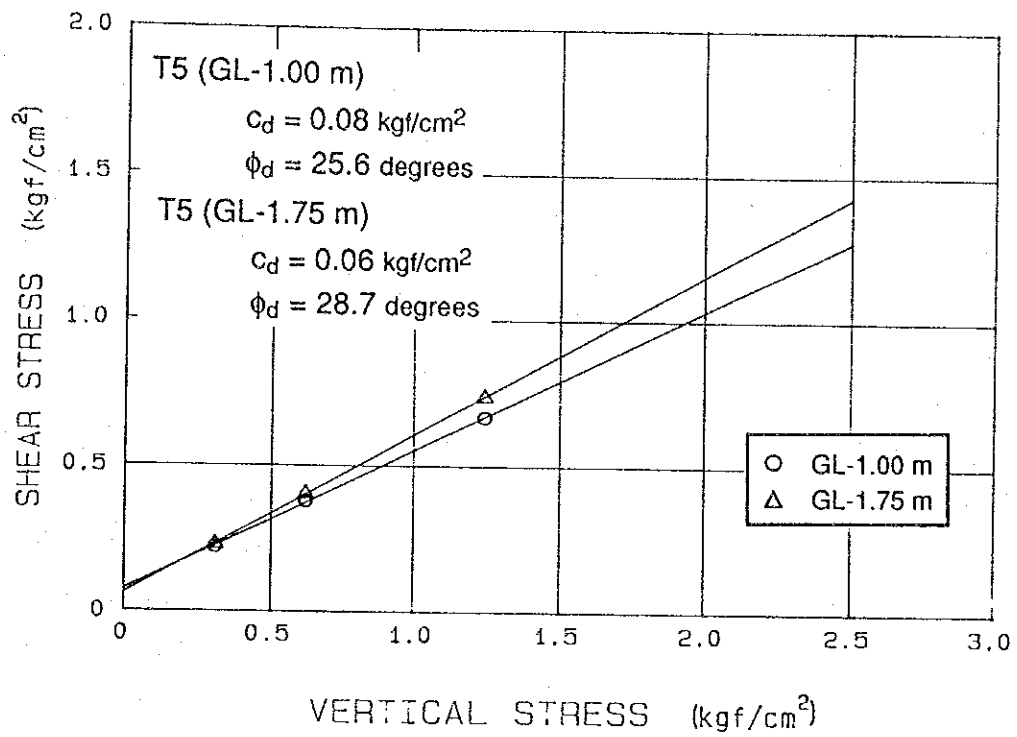


Figure A.4-11 DIRECT SHEAR TEST RESULTS (T5)

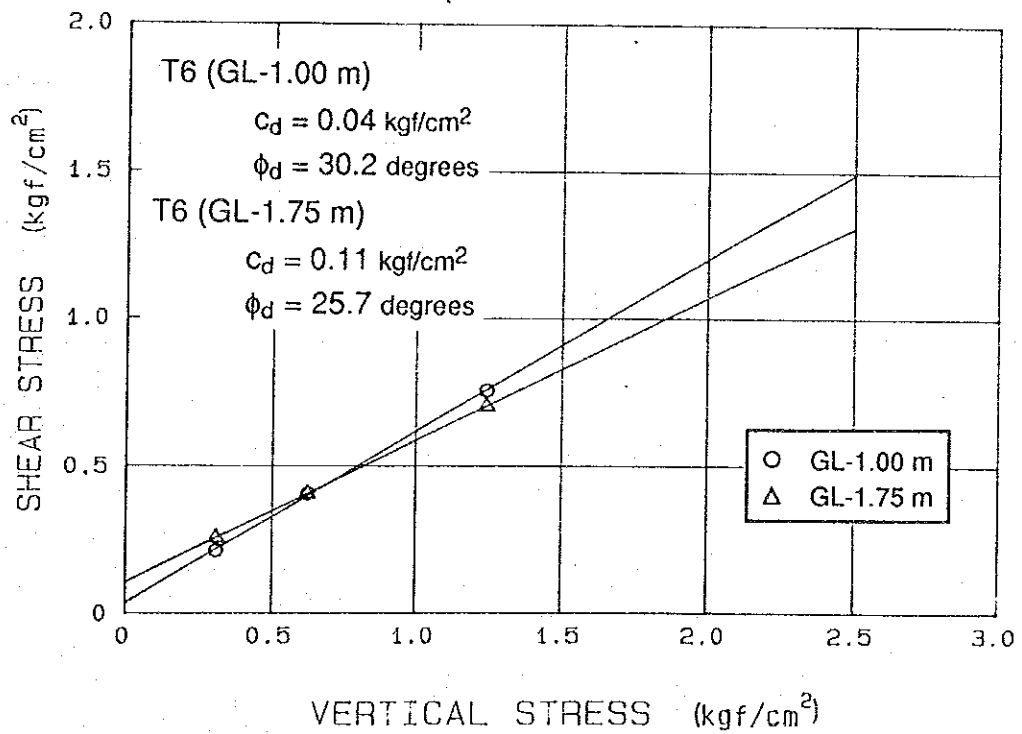


Figure A.4-12 DIRECT SHEAR TEST RESULTS (T6)

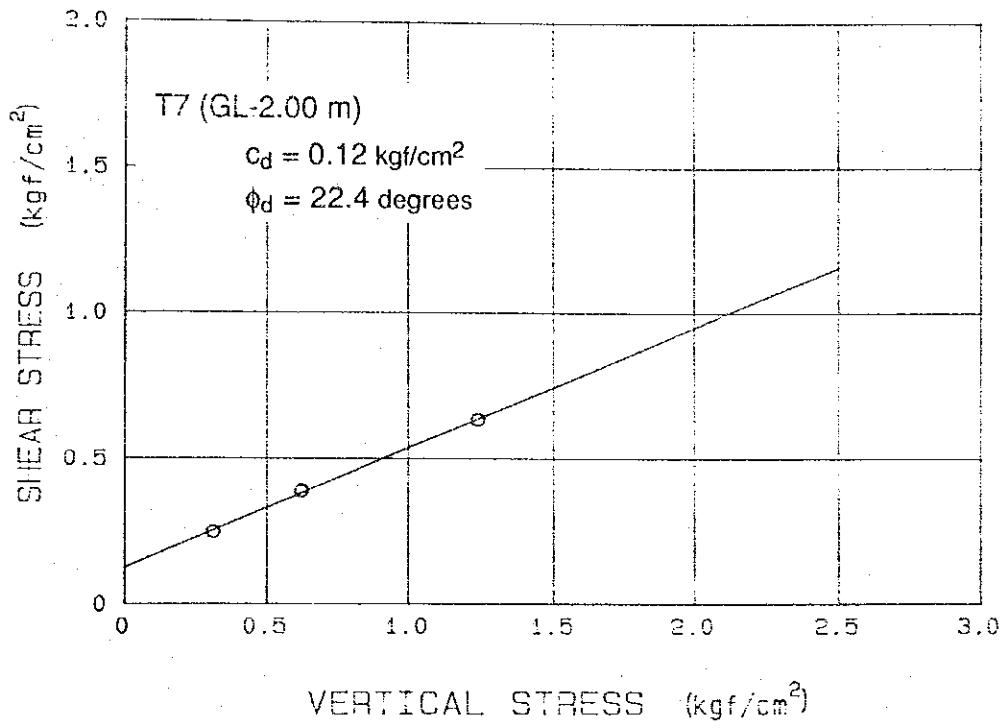


Figure A.4-13 DIRECT SHEAR TEST RESULTS (T7)

