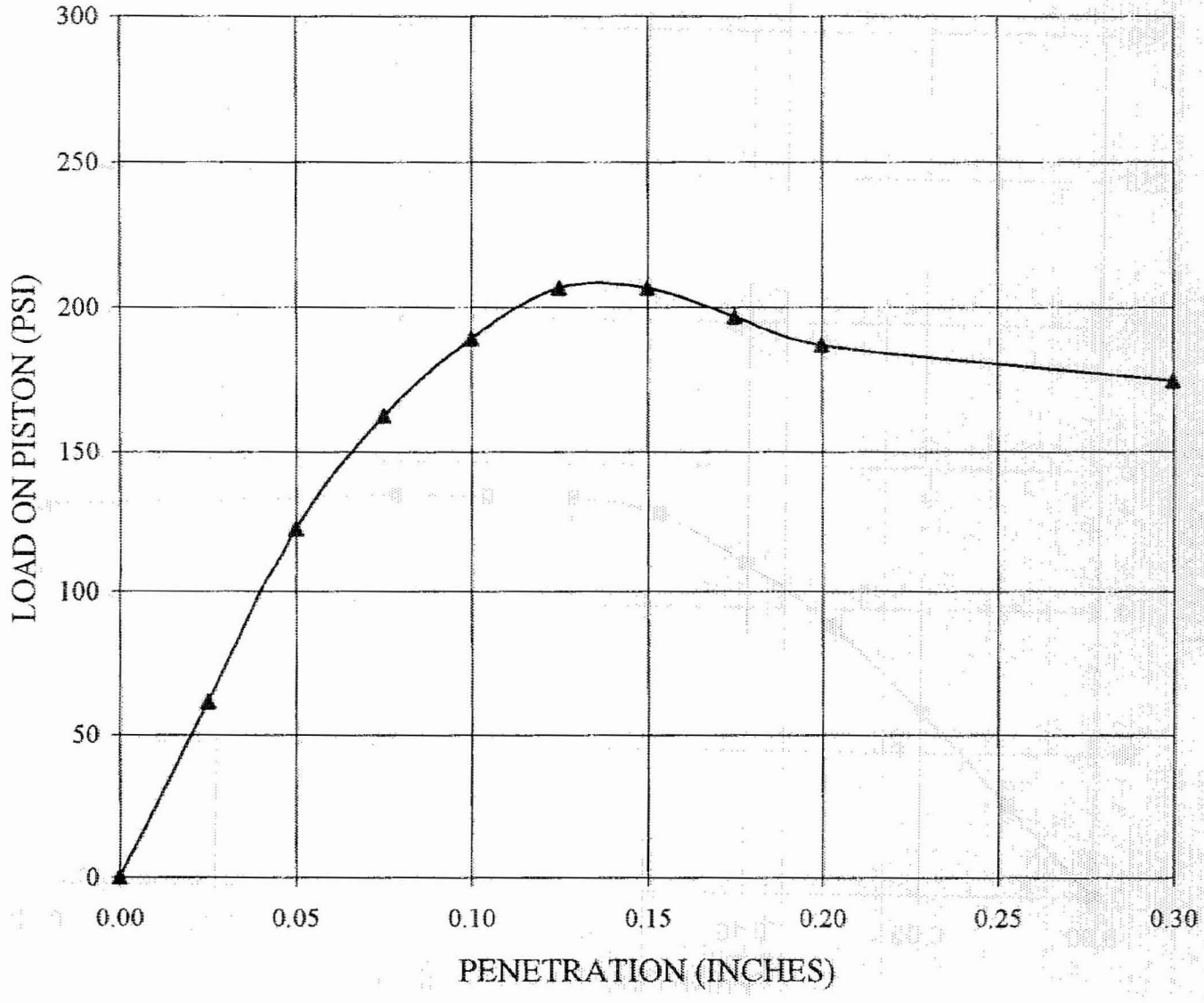
## SOAKED CBR




## CALIFORNIA BEARING RATIO

ASTM D-1883

| | | | | | |
|---|---|---|---|---|---|
| Project: | Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland | Contract No.: | 06120048.00 | Date: | 9/26/2006 |

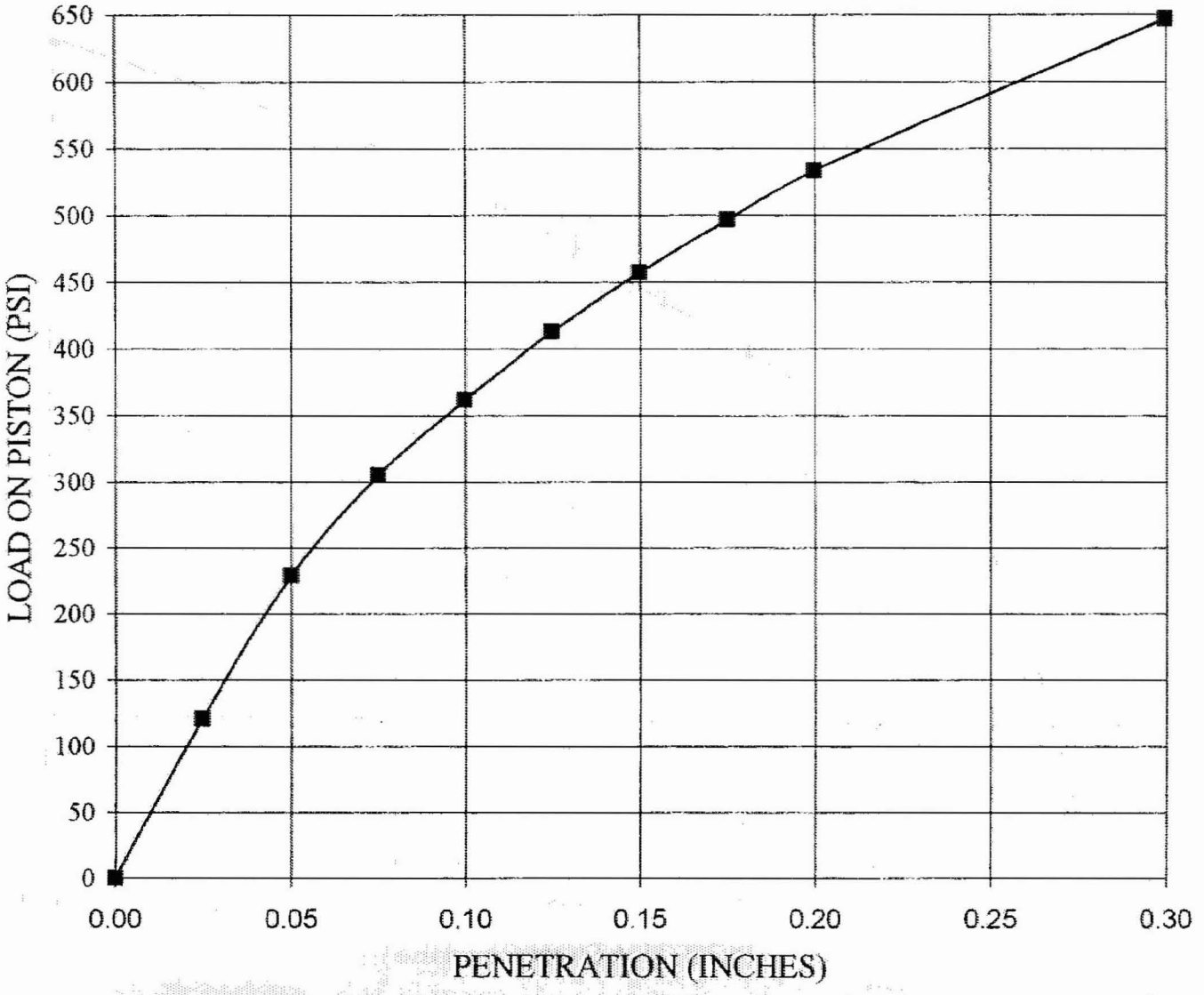
| Boring No. | Depth (ft) | Sample Description |
|---|---|---|
| TP-B-315 | 6.0-7.0 | Poorly Graded SAND, with silt, tan |

| | | | |
|---|---|---|---|
| **CBR (Soaked):** | **18.9** | Soaking Time: | 4 Days |
| Surcharge: | 50 PSF | Swell: | |

| DRY DENSITY, PCF | | MOISTURE CONTENT, % | |
|---|---|---|---|
| Before Soaking: | 109.2 | Before Soaking: | 11.6 |
| After Soaking: | 109.1 | After Soaking: | 12.3 |
| Max. Dry Density: | 114.9 | Optimum Moisture: | 11.4 |

Schnabel Engineering

## UNSOAKED CBR




## CALIFORNIA BEARING RATIO

ASTM D-1883

| | | | | | |
|---|---|---|---|---|---|
| Project: | Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland | Contract No.: | 06120048.00 | Date: | 9/27/2006 |

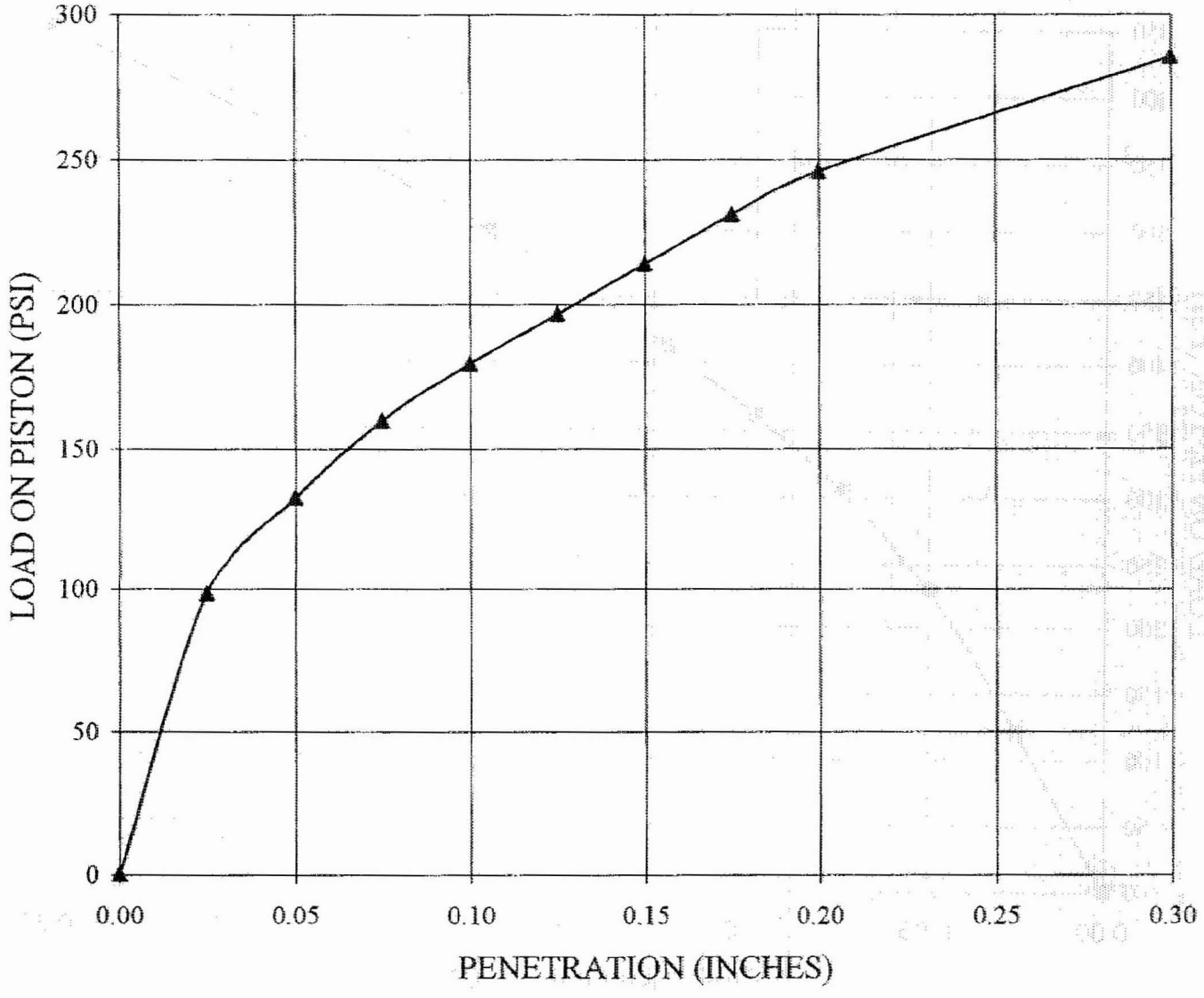
| Boring No. | Depth (ft) | Sample Description |
|---|---|---|
| TP-B-335 | 5.0-6.0 | Silty SAND, brown |

| | | | |
|---|---|---|---|
| **CBR (Unsoaked):** | **36.2** | Soaking Time: | N/A |
| Surcharge: | 50 PSF | Swell: | N/A |

| DRY DENSITY, PCF | | MOISTURE CONTENT, % | |
|---|---|---|---|
| Before Soaking: | 124.0 | Before Soaking: | 7.6 |
| After Soaking: | N/A | After Soaking: | N/A |
| Max. Dry Density: | 130.5 | Optimum Moisture: | 7.6 |

Schnabel Engineering

## SOAKED CBR




## CALIFORNIA BEARING RATIO

ASTM D-1883

| Project: | Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland | Contract No.: | 06120048.00 | Date: | 9/27/2006 |
|---|---|---|---|---|---|

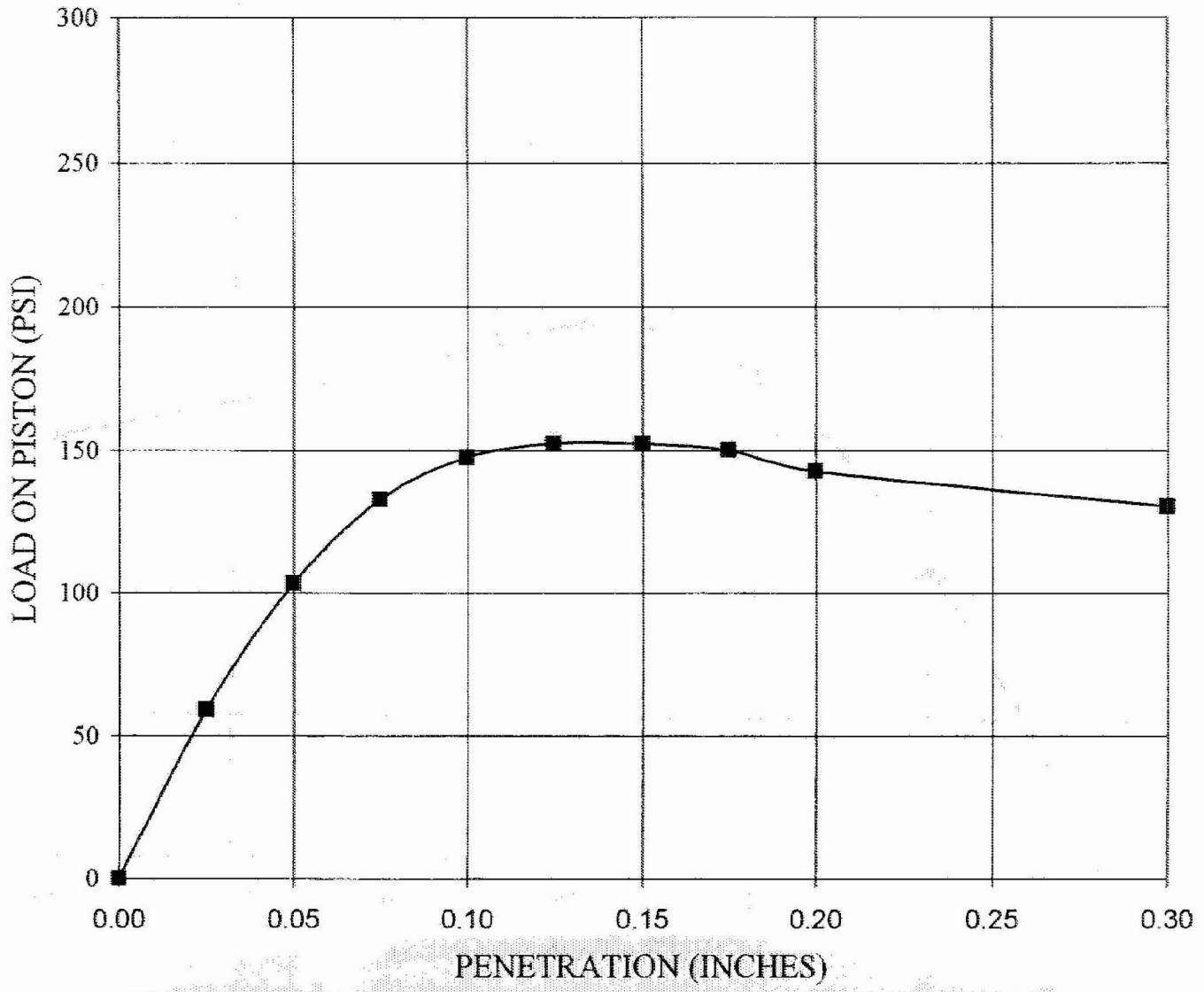
| Boring No. | Depth (ft) | Sample Description |
|---|---|---|
| TP-B-335 | 5.0-6.0 | Silty SAND, brown |

| | | | |
|---|---|---|---|
| **CBR (Soaked):** | **18.0** | Soaking Time: | 4 Days |
| Surcharge: | 50 PSF | Swell: | 0.0% |

| DRY DENSITY, PCF | | MOISTURE CONTENT, % | |
|---|---|---|---|
| Before Soaking: | 124.0 | Before Soaking: | 7.6 |
| After Soaking: | 123.8 | After Soaking: | 9.0 |
| Max. Dry Density: | 130.5 | Optimum Moisture: | 7.6 |

Schnabel Engineering

## UNSOAKED CBR




## CALIFORNIA BEARING RATIO

ASTM D-1883

| | | | | | |
|---|---|---|---|---|---|
| Project: | Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland | Contract No.: | 06120048.00 | Date: | 9/25/2006 |

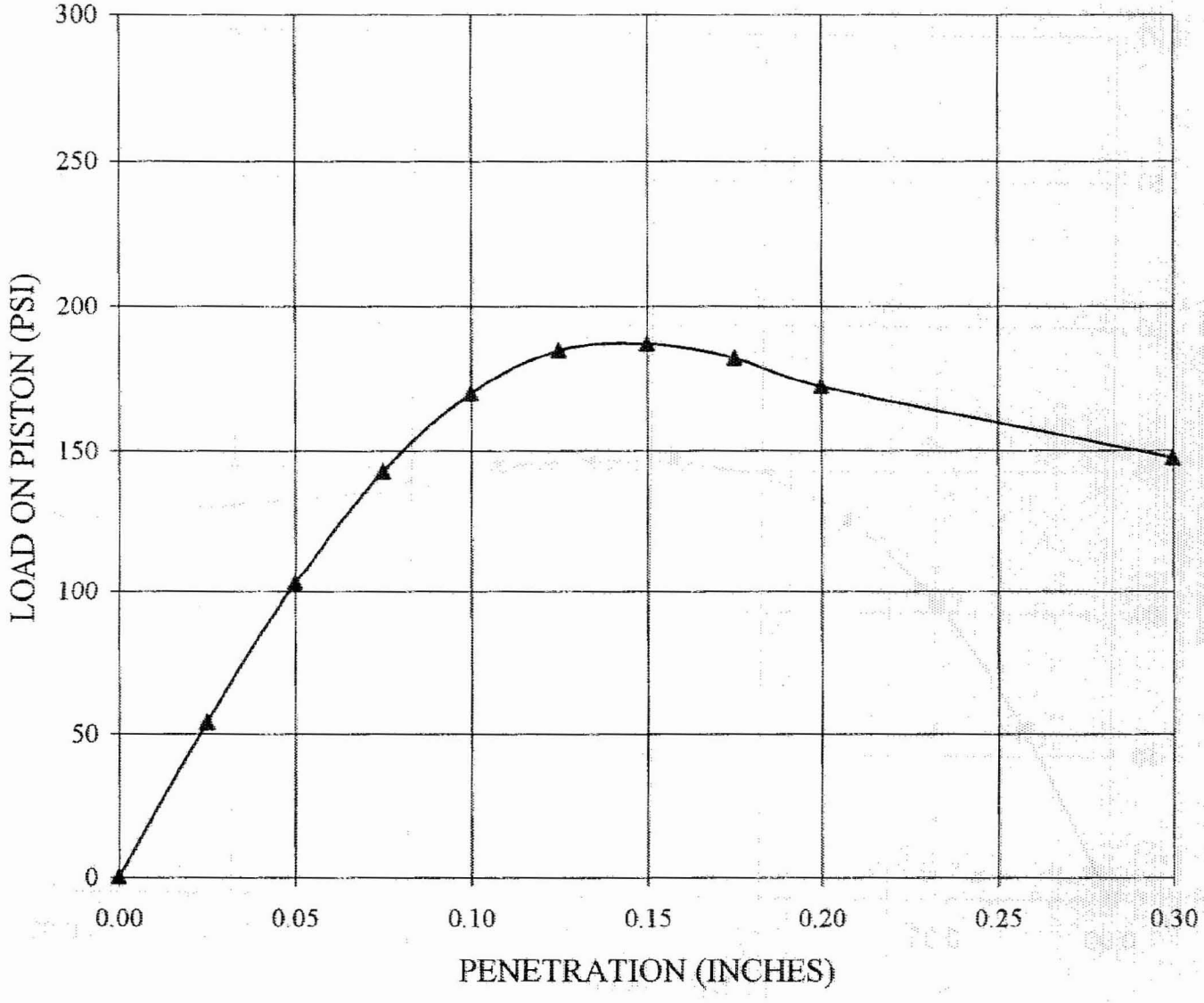
| Boring No. | Depth (ft) | Sample Description |
|---|---|---|
| TP-B-407 | 4.5-5.5 | Well Graded SAND, with silt, trace gravel, dark |

| | | | |
|---|---|---|---|
| **CBR (Unsoaked):** | **14.8** | Soaking Time: | N/A |
| Surcharge: | 50 PSF | Swell: | N/A |

| DRY DENSITY, PCF | | MOISTURE CONTENT, % | |
|---|---|---|---|
| Before Soaking: | 113.1 | Before Soaking: | 8.7 |
| After Soaking: | N/A | After Soaking: | N/A |
| Max. Dry Density: | 119.1 | Optimum Moisture: | 8.6 |

Schnabel Engineering

## SOAKED CBR




## CALIFORNIA BEARING RATIO

ASTM D-1883

| | | | | | |
|---|---|---|---|---|---|
| Project: | Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland | Contract No.: | 06120048.00 | Date: | 9/25/2006 |

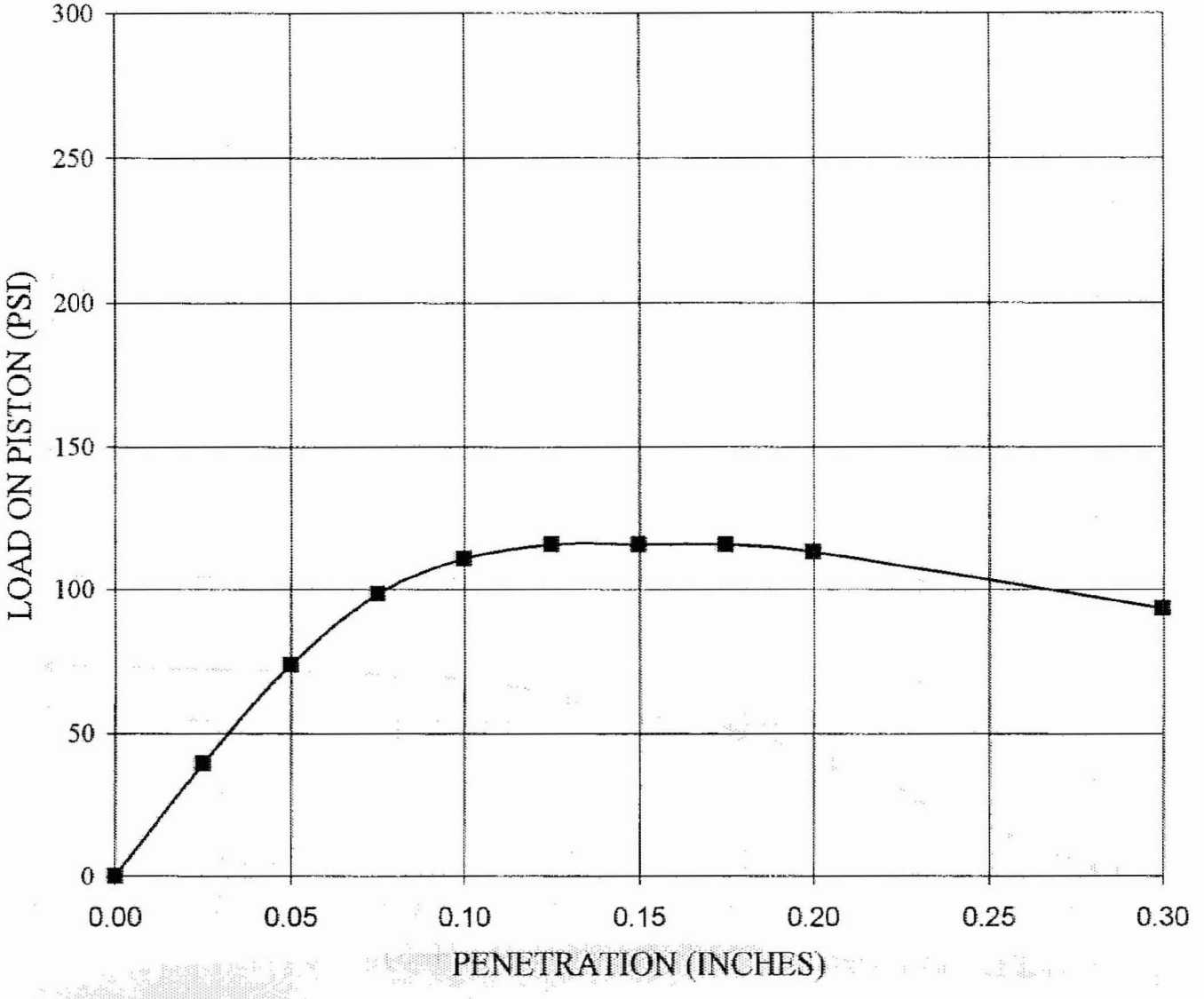
| Boring No. | Depth (ft) | Sample Description |
|---|---|---|
| TP-B-407 | 4.5-5.5 | Well Graded SAND, with silt, trace gravel, dark |

| | | | |
|---|---|---|---|
| **CBR (Soaked):** | **17.0** | Soaking Time: | 4 Days |
| Surcharge: | 50 PSF | Swell: | |

| DRY DENSITY, PCF | | MOISTURE CONTENT, % | |
|---|---|---|---|
| Before Soaking: | 113.1 | Before Soaking: | 8.7 |
| After Soaking: | 113.0 | After Soaking: | 11.9 |
| Max. Dry Density: | 119.1 | Optimum Moisture: | 8.6 |

Schnabel Engineering

## UNSOAKED CBR




## CALIFORNIA BEARING RATIO

ASTM D-1883

| | | | | | |
|---|---|---|---|---|---|
| Project: | Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland | Contract No.: | 06120048.00 | Date: | 9/25/2006 |

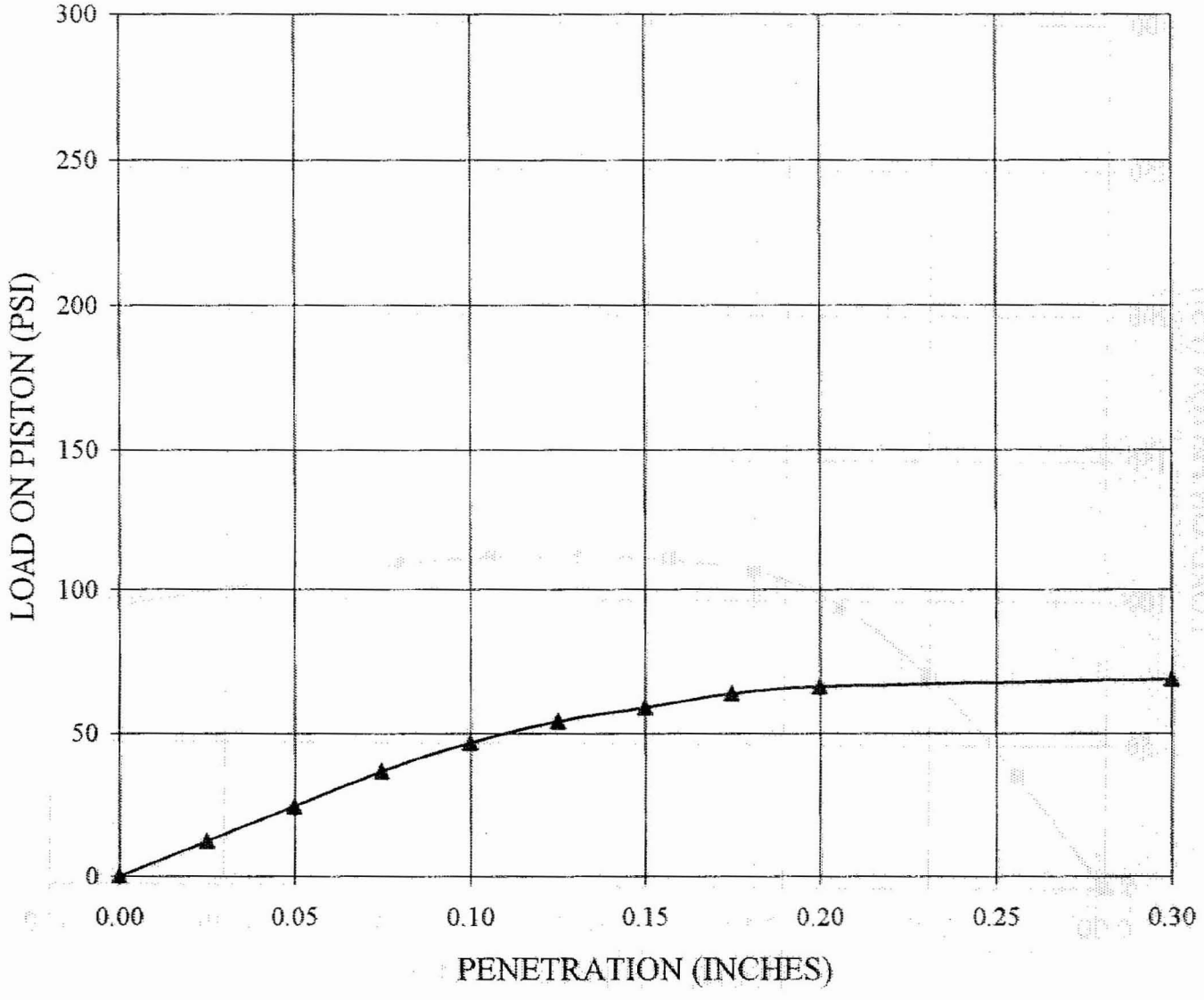
| Boring No. | Depth (ft) | Sample Description |
|---|---|---|
| TP-B-415 | 3.0-4.0 | Poorly Graded SAND, trace silt, light brown |

| | | | |
|---|---|---|---|
| **CBR (Unsoaked):** | **11.1** | Soaking Time: | N/A |
| Surcharge: | 50 PSF | Swell: | N/A |

| DRY DENSITY, PCF | | MOISTURE CONTENT, % | |
|---|---|---|---|
| Before Soaking: | 111.1 | Before Soaking: | 9.7 |
| After Soaking: | N/A | After Soaking: | N/A |
| Max. Dry Density: | 116.7 | Optimum Moisture: | 9.8 |

Schnabel Engineering

## SOAKED CBR




## CALIFORNIA BEARING RATIO

ASTM D-1883

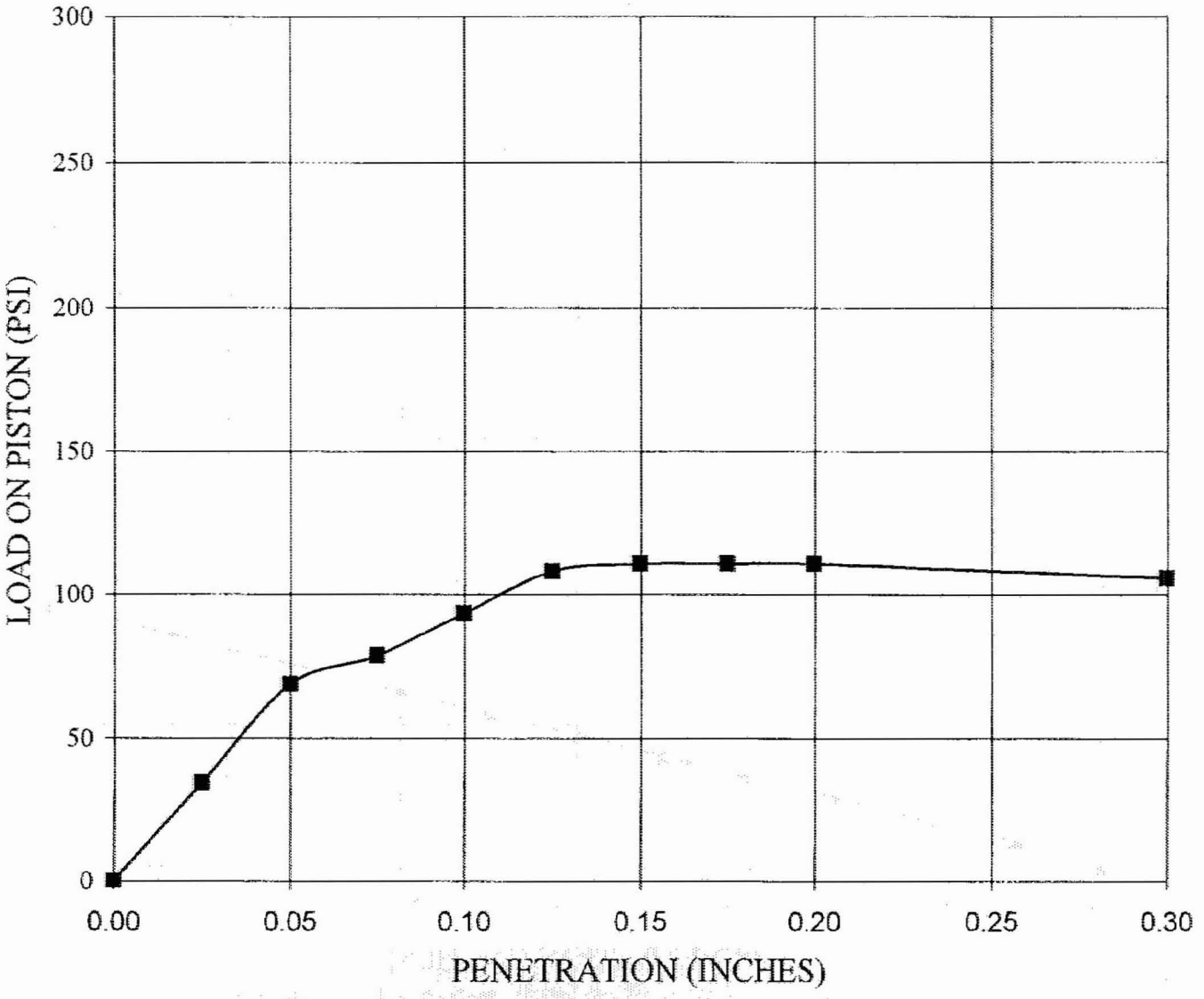
| | | | | | |
|---|---|---|---|---|---|
| Project: | Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland | Contract No.: | 06120048.00 | Date: | 9/25/2006 |

| Boring No. | Depth (ft) | Sample Description |
|---|---|---|
| TP-B-415 | 3.0-4.0 | Poorly Graded SAND, trace silt, light brown |

| | | | | | |
|---|---|---|---|---|---|
| **CBR (Soaked):** | 4.7 | | Soaking Time: | 4 Days | |
| Surcharge: | 50 | PSF | Swell: | | |
| DRY DENSITY, PCF | | | MOISTURE CONTENT, % | | |
| Before Soaking: | 111.1 | | Before Soaking: | 9.7 | |
| After Soaking: | 111.0 | | After Soaking: | 13.0 | |
| Max. Dry Density: | 116.7 | | Optimum Moisture: | 9.8 | |

Schnabel Engineering

## UNSOAKED CBR




## CALIFORNIA BEARING RATIO

ASTM D-1883

| Project: | Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland | Contract No.: | 06120048.00 | Date: | 9/27/2006 |
|---|---|---|---|---|---|

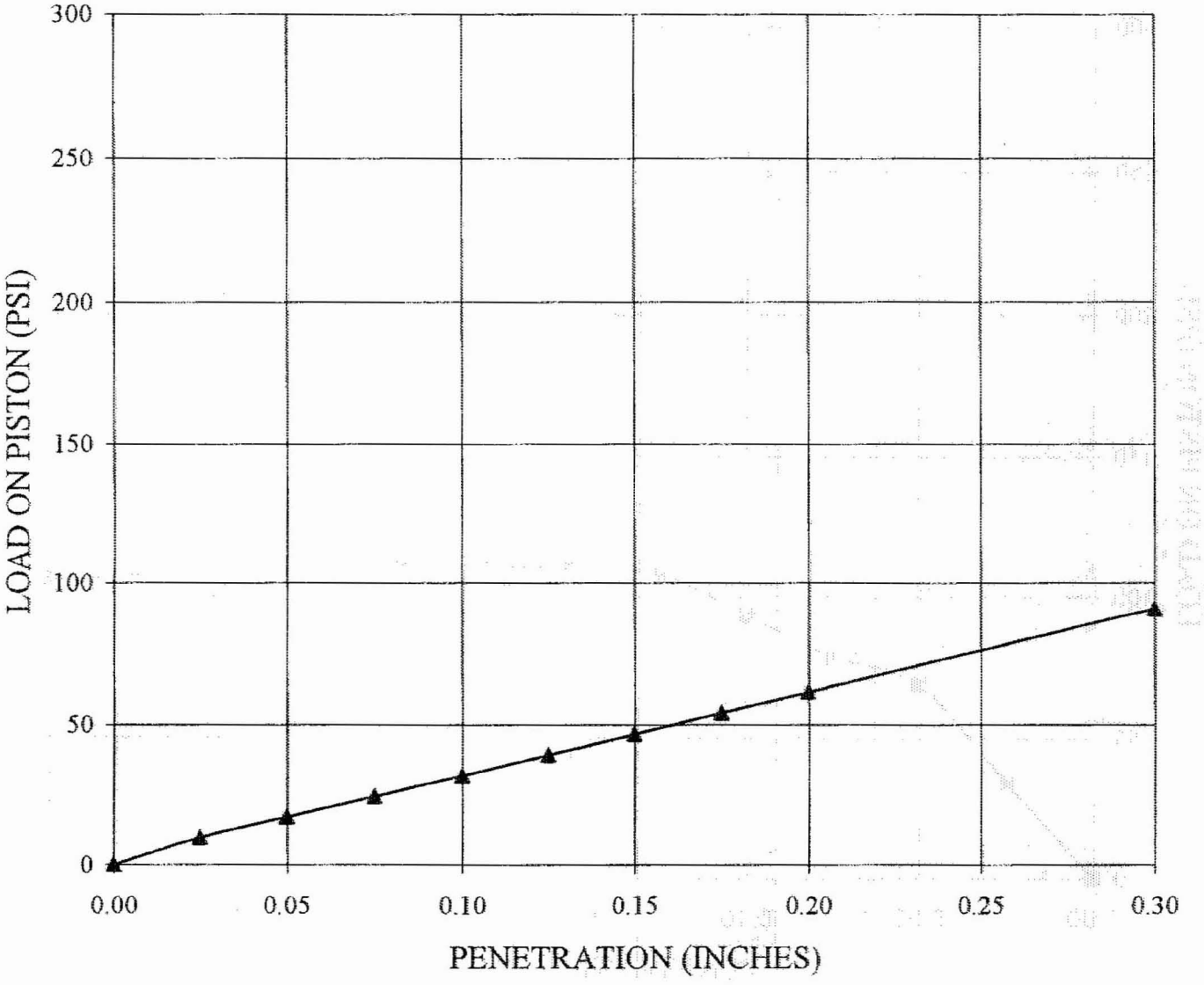
| Boring No. | Depth (ft) | Sample Description |
|---|---|---|
| TP-B-434 | 2.0-3.0 | Sandy LEAN CLAY, dark brown |

| | | | |
|---|---|---|---|
| **CBR (Unsoaked):** | **9.3** | Soaking Time: | N/A |
| Surcharge: | 50 PSF | Swell: | N/A |

| DRY DENSITY, PCF | | MOISTURE CONTENT, % | |
|---|---|---|---|
| Before Soaking: | 120.6 | Before Soaking: | 10.1 |
| After Soaking: | N/A | After Soaking: | N/A |
| Max. Dry Density: | 127.1 | Optimum Moisture: | 10.1 |

Schnabel Engineering

# SOAKED CBR




## CALIFORNIA BEARING RATIO

ASTM D-1883

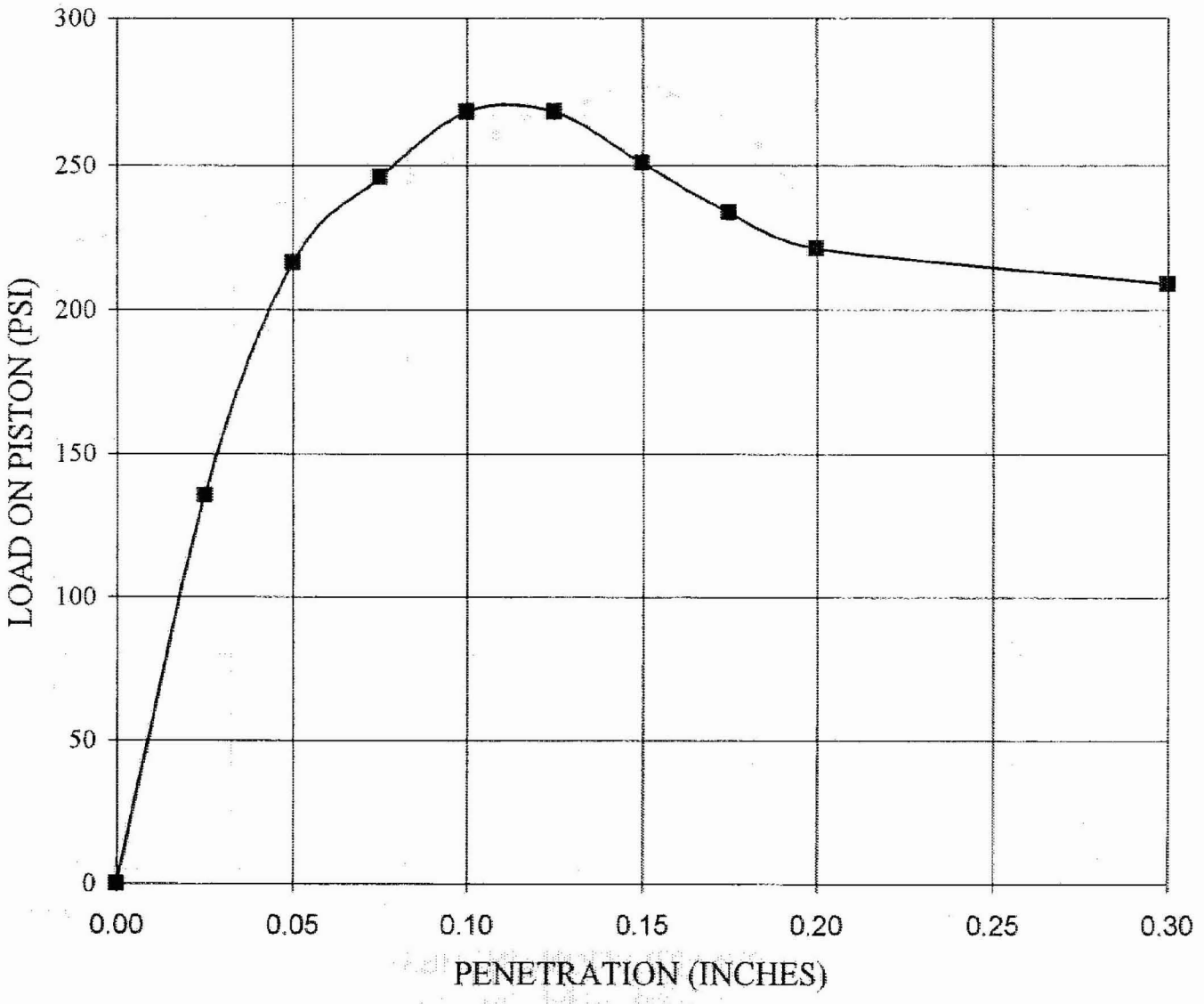
| Project: | Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland | Contract No.: | 06120048.00 | Date: | 9/27/2006 |
|---|---|---|---|---|---|

| Boring No. | Depth (ft) | Sample Description |
|---|---|---|
| TP-B-434 | 2.0-3.0 | Sandy LEAN CLAY, dark brown |

| | | | | | |
|---|---|---|---|---|---|
| **CBR (Soaked):** | **3.2** | | Soaking Time: | 4 Days | |
| Surcharge: | 10 | PSF | Swell: | 0.0% | |
| DRY DENSITY, PCF | | | MOISTURE CONTENT, % | | |
| Before Soaking: | 120.6 | | Before Soaking: | 10.1 | |
| After Soaking: | 120.5 | | After Soaking: | 13.3 | |
| Max. Dry Density: | 127.1 | | Optimum Moisture: | 10.1 | |

Schnabel Engineering

## UNSOAKED CBR




## CALIFORNIA BEARING RATIO

ASTM D-1883

| | | | | | |
|---|---|---|---|---|---|
| Project: | Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland | Contract No.: | 06120048.00 | Date: | 9/25/2006 |

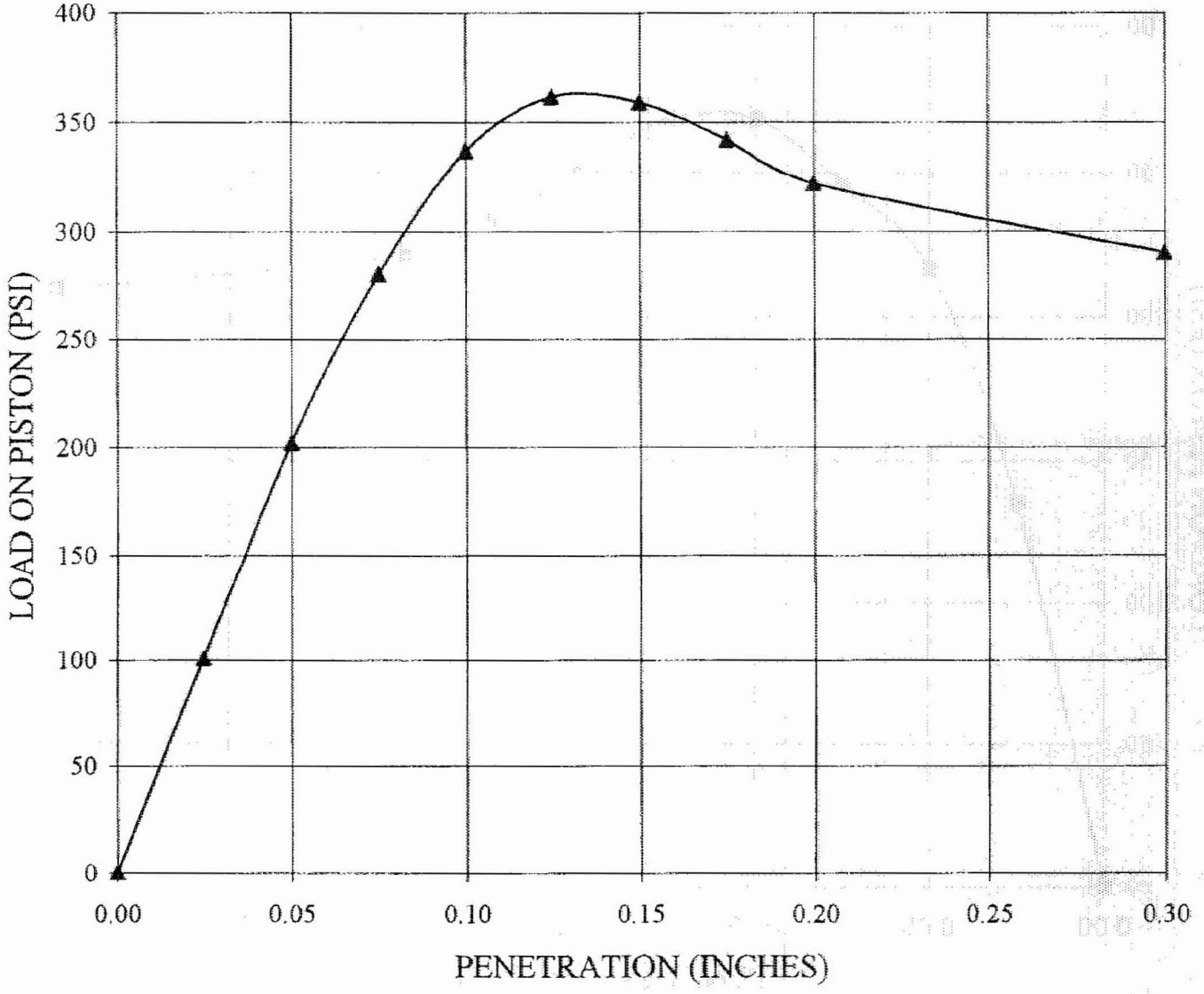
| Boring No. | Depth (ft) | Sample Description |
|---|---|---|
| B-435 | 7.0-8.0 | Poorly Graded SAND, with silt, trace gravel, light brown |

| | | | |
|---|---|---|---|
| **CBR (Unsoaked):** | **26.8** | Soaking Time: | N/A |
| Surcharge: | 50 PSF | Swell: | N/A |

| DRY DENSITY, PCF | | MOISTURE CONTENT, % | |
|---|---|---|---|
| Before Soaking: | 118.2 | Before Soaking: | 8.9 |
| After Soaking: | N/A | After Soaking: | N/A |
| Max. Dry Density: | 123.9 | Optimum Moisture: | 8.9 |

Schnabel Engineering

## SOAKED CBR




## CALIFORNIA BEARING RATIO

ASTM D-1883

| Project: | Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland | Contract No.: | 06120048.00 | Date: | 9/25/2006 |
|---|---|---|---|---|---|

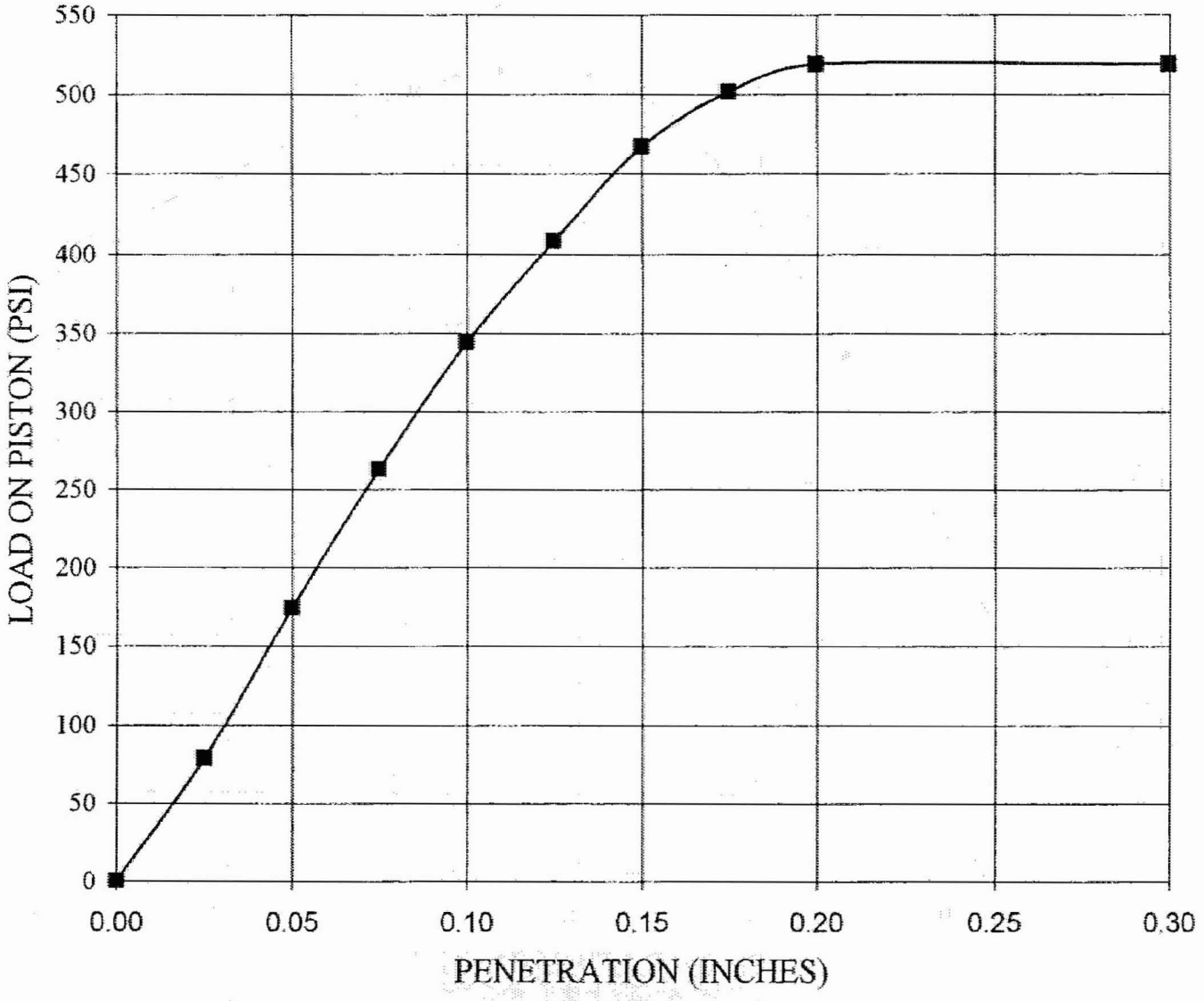
| Boring No. | Depth (ft) | Sample Description |
|---|---|---|
| B-435 | 7.0-8.0 | Poorly Graded SAND, with silt, trace gravel, light brown |

| | | | |
|---|---|---|---|
| **CBR (Soaked):** | **33.7** | Soaking Time: | 4 Days |
| Surcharge: | 50 PSF | Swell: | 0.0% |

| DRY DENSITY, PCF | | MOISTURE CONTENT, % | |
|---|---|---|---|
| Before Soaking: | 118.2 | Before Soaking: | 8.9 |
| After Soaking: | 118.1 | After Soaking: | 12.0 |
| Max. Dry Density: | 123.9 | Optimum Moisture: | 8.9 |

Schnabel Engineering

## UNSOAKED CBR




## CALIFORNIA BEARING RATIO

ASTM D-1883

| | | | | | |
|---|---|---|---|---|---|
| Project: | Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland | Contract No.: | 06120048.00 | Date: | 9/26/2006 |

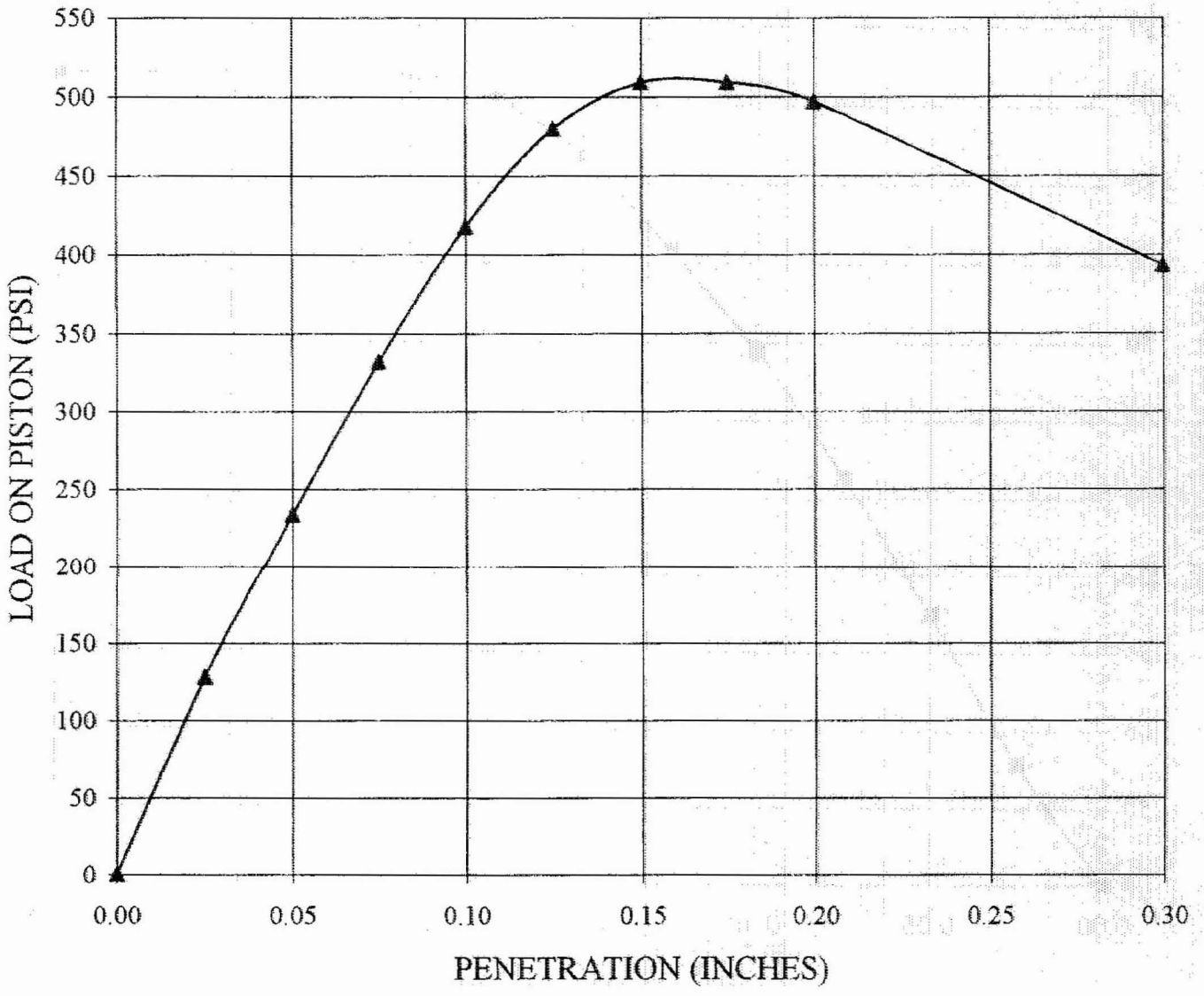
| Boring No. | Depth (ft) | Sample Description |
|---|---|---|
| B-435 | 9.0-10.0 | Clayey SAND, brown |

| | | | |
|---|---|---|---|
| **CBR (Soaked):** | **34.4** | Soaking Time: | N/A |
| Surcharge: | 50 PSF | Swell: | N/A |

| DRY DENSITY, PCF | | MOISTURE CONTENT, % | |
|---|---|---|---|
| Before Soaking: | 124.4 | Before Soaking: | 6.9 |
| After Soaking: | N/A | After Soaking: | N/A |
| Max. Dry Density: | 130.2 | Optimum Moisture: | 7.3 |

Schnabel Engineering

# SOAKED CBR




## CALIFORNIA BEARING RATIO

ASTM D-1883

| | | | | | |
|---|---|---|---|---|---|
| Project: | Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland | Contract No.: | 06120048.00 | Date: | 9/26/2006 |

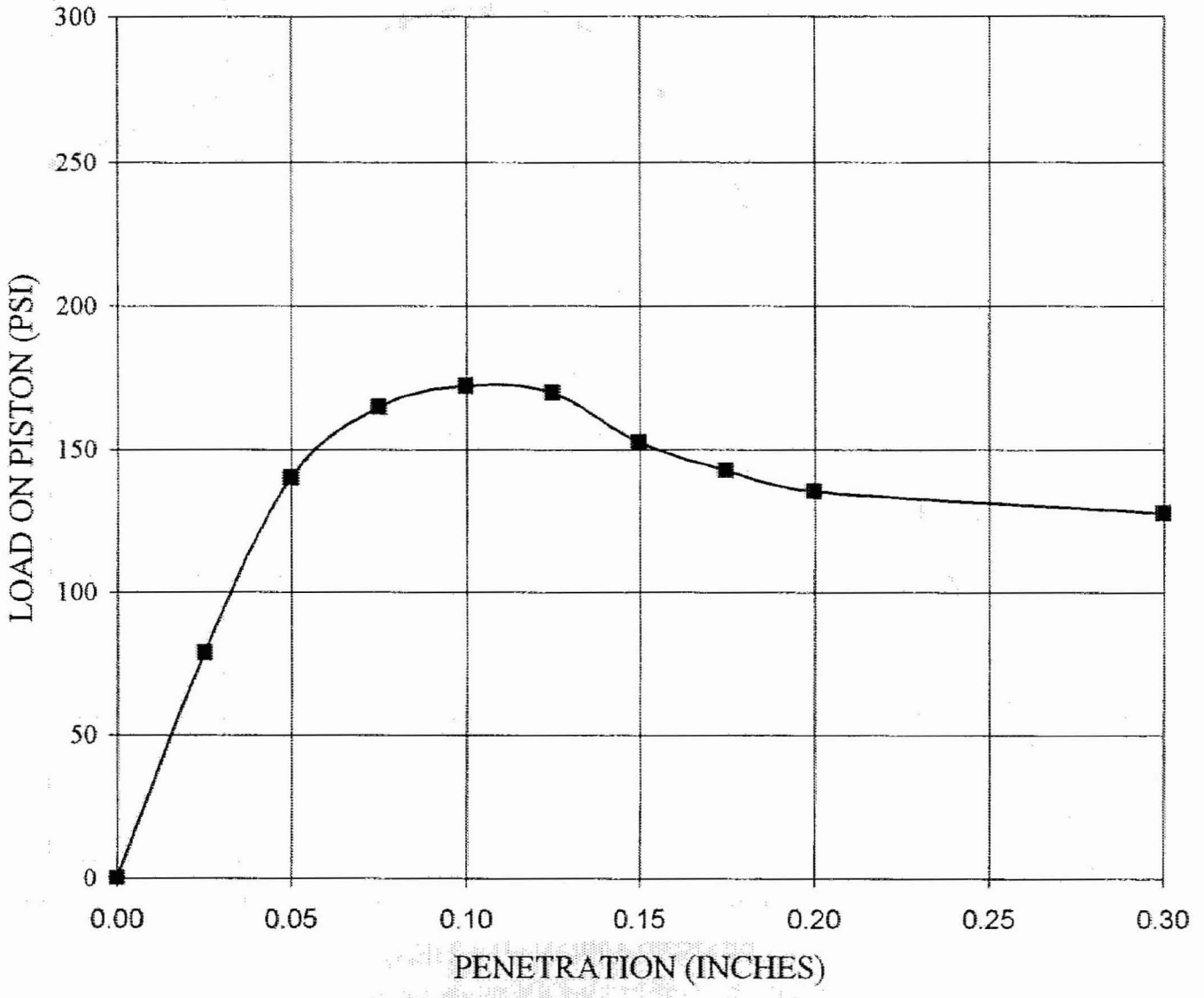
| Boring No. | Depth (ft) | Sample Description |
|---|---|---|
| B-435 | 9.0-10.0 | Clayey SAND, brown |

| | | | |
|---|---|---|---|
| **CBR (Unsoaked):** | **41.8** | Soaking Time: | 4 Days |
| Surcharge: | 50 PSF | Swell: | 0.0% |

| DRY DENSITY, PCF | | MOISTURE CONTENT, % | |
|---|---|---|---|
| Before Soaking: | 124.4 | Before Soaking: | 6.9 |
| After Soaking: | 124.2 | After Soaking: | 7.9 |
| Max. Dry Density: | 130.2 | Optimum Moisture: | 7.3 |

Schnabel Engineering

## UNSOAKED CBR




## CALIFORNIA BEARING RATIO

ASTM D-1883

| Project: | Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland | Contract No.: | 06120048.00 | Date: | 9/26/2006 |
|---|---|---|---|---|---|

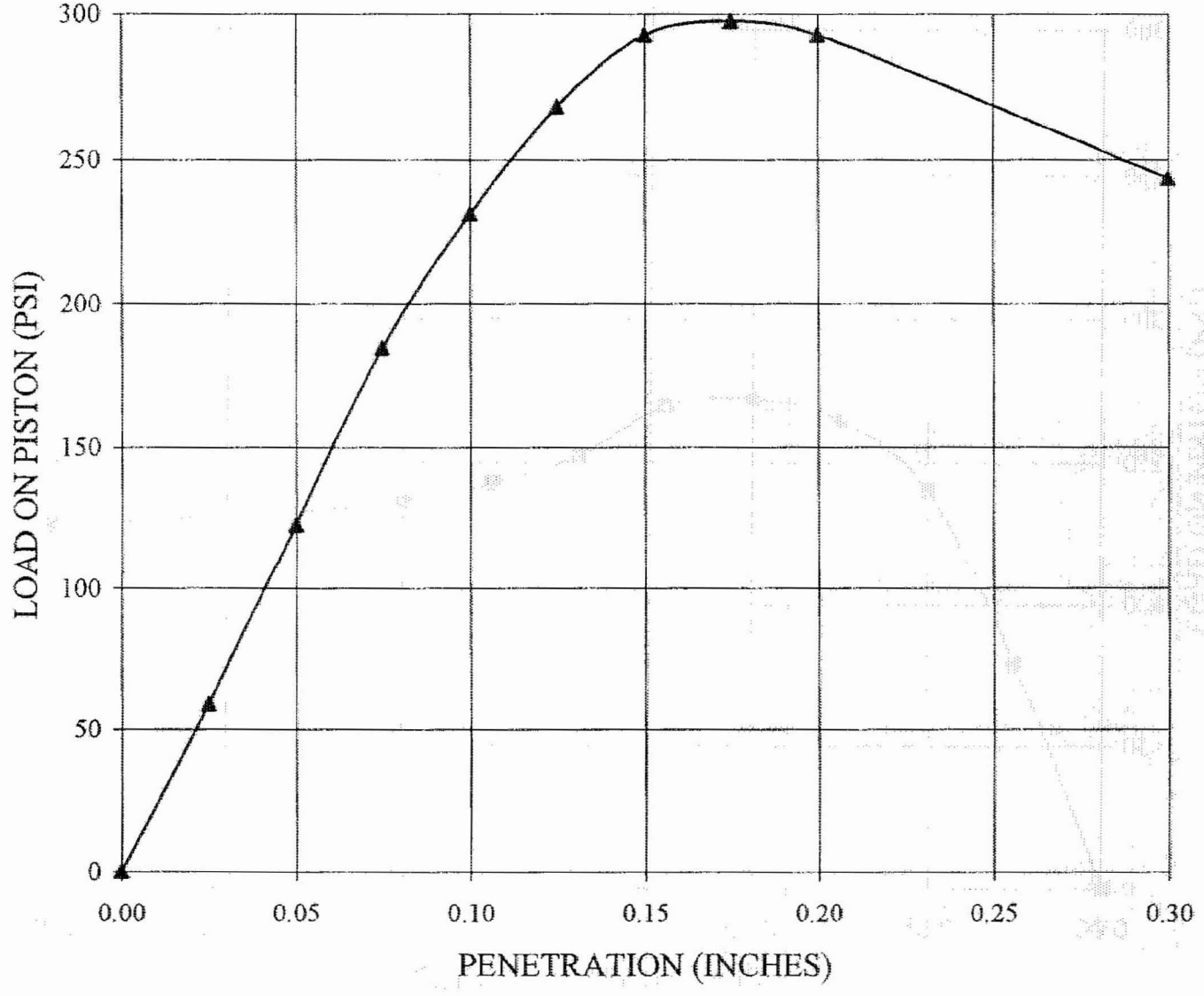
| Boring No. | Depth (ft) | Sample Description |
|---|---|---|
| TP-B-717 | 7.0-8.0 | Poorly Graded SAND, with silt, trace gravel, light brown |

| | | | |
|---|---|---|---|
| **CBR (Unsoaked):** | **17.2** | Soaking Time: | N/A |
| Surcharge: | 50 PSF | Swell: | N/A |

| DRY DENSITY, PCF | | MOISTURE CONTENT, % | |
|---|---|---|---|
| Before Soaking: | 117.8 | Before Soaking: | 10.0 |
| After Soaking: | N/A | After Soaking: | N/A |
| Max. Dry Density: | 123.8 | Optimum Moisture: | 10.2 |

Schnabel Engineering

## SOAKED CBR




## CALIFORNIA BEARING RATIO

ASTM D-1883

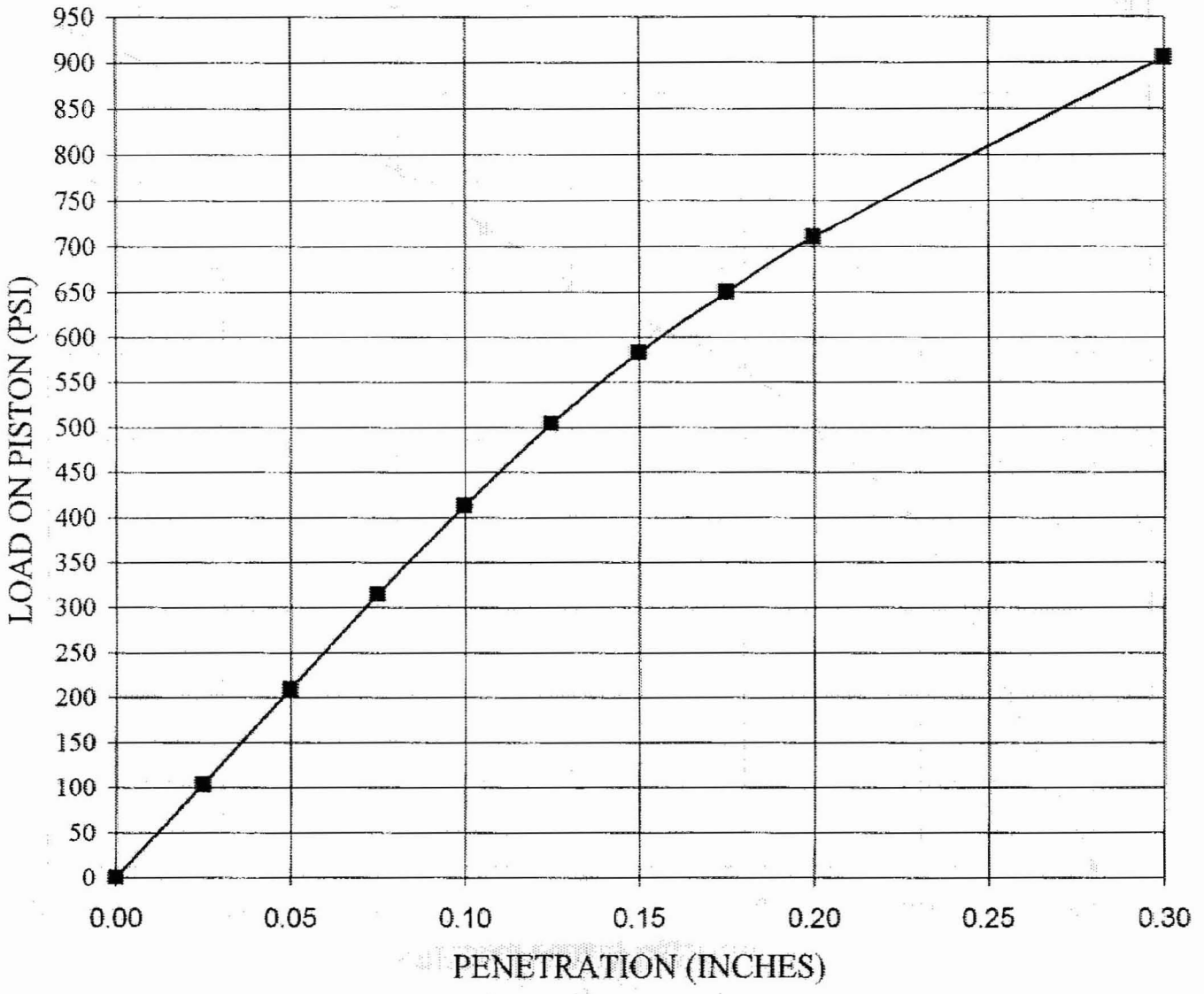
| | | | | | |
|---|---|---|---|---|---|
| Project: | Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland | Contract No.: | 06120048.00 | Date: | 9/26/2006 |

| Boring No. | Depth (ft) | Sample Description |
|---|---|---|
| TP-B-717 | 7.0-8.0 | Poorly Graded SAND, with silt, trace gravel, light brown |

| | | | | | |
|---|---|---|---|---|---|
| **CBR (Soaked):** | **23.1** | | Soaking Time: | 4 Days | |
| Surcharge: | 50 | PSF | Swell: | 0.0% | |
| DRY DENSITY, PCF | | | MOISTURE CONTENT, % | | |
| Before Soaking: | 117.8 | | Before Soaking: | 10.0 | |
| After Soaking: | 117.7 | | After Soaking: | 10.5 | |
| Max. Dry Density: | 123.8 | | Optimum Moisture: | 10.2 | |

Schnabel Engineering

## UNSOAKED CBR




## CALIFORNIA BEARING RATIO

ASTM D-1883

| | | | | | |
|---|---|---|---|---|---|
| Project: | Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland | Contract No.: | 06120048.00 | Date: | 9/26/2006 |

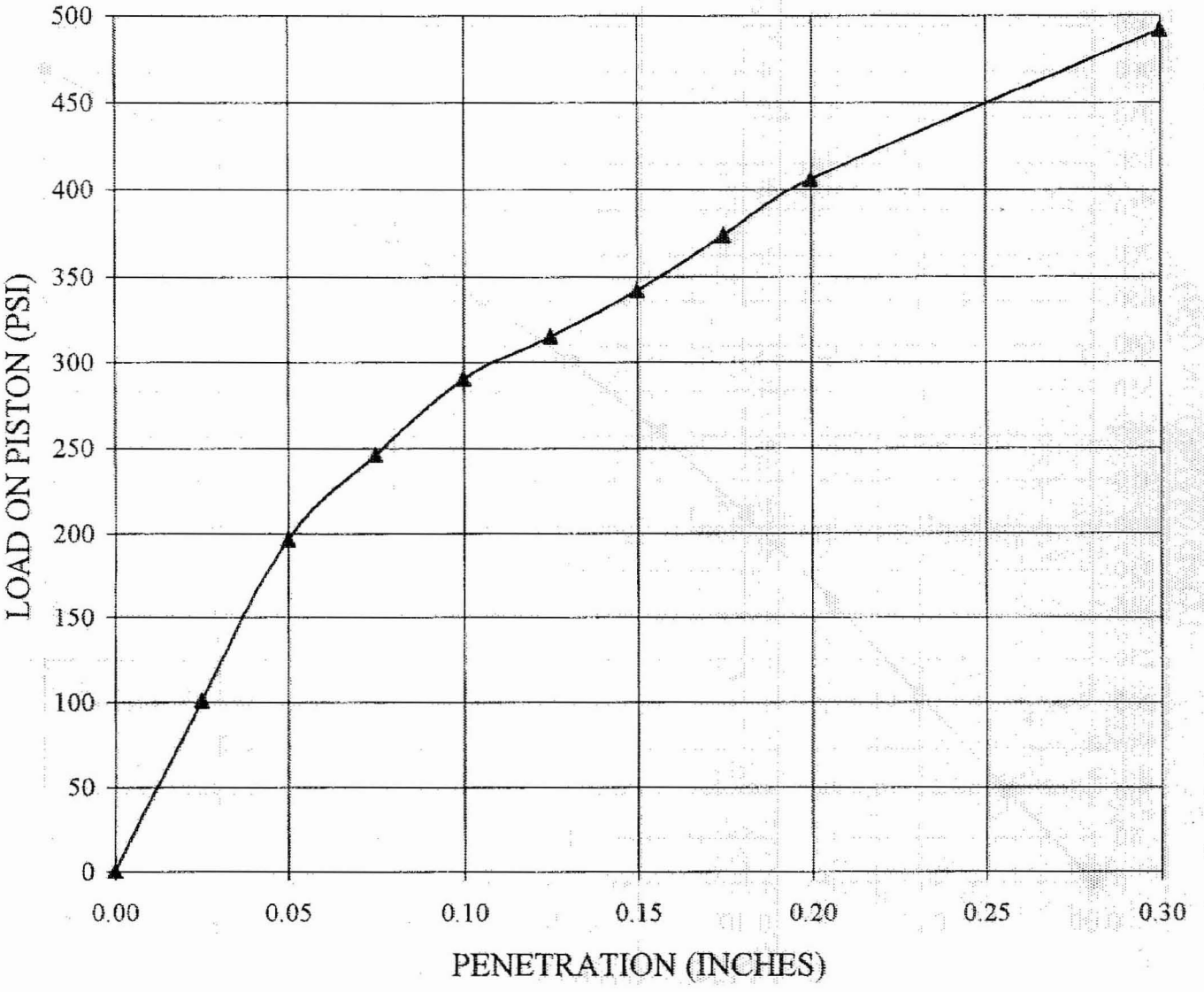
| Boring No. | Depth (ft) | Sample Description |
|---|---|---|
| TP-B-719 | 7.0-8.0 | Silty SAND, gray |

| | | | |
|---|---|---|---|
| **CBR (Unsoaked):** | **41.3** | Soaking Time: | N/A |
| Surcharge: | 50 PSF | Swell: | N/A |

| DRY DENSITY, PCF | | MOISTURE CONTENT, % | |
|---|---|---|---|
| Before Soaking: | 113.5 | Before Soaking: | 10.1 |
| After Soaking: | N/A | After Soaking: | N/A |
| Max. Dry Density: | 119.6 | Optimum Moisture: | 10.0 |

Schnabel Engineering

# SOAKED CBR




## CALIFORNIA BEARING RATIO

ASTM D-1883

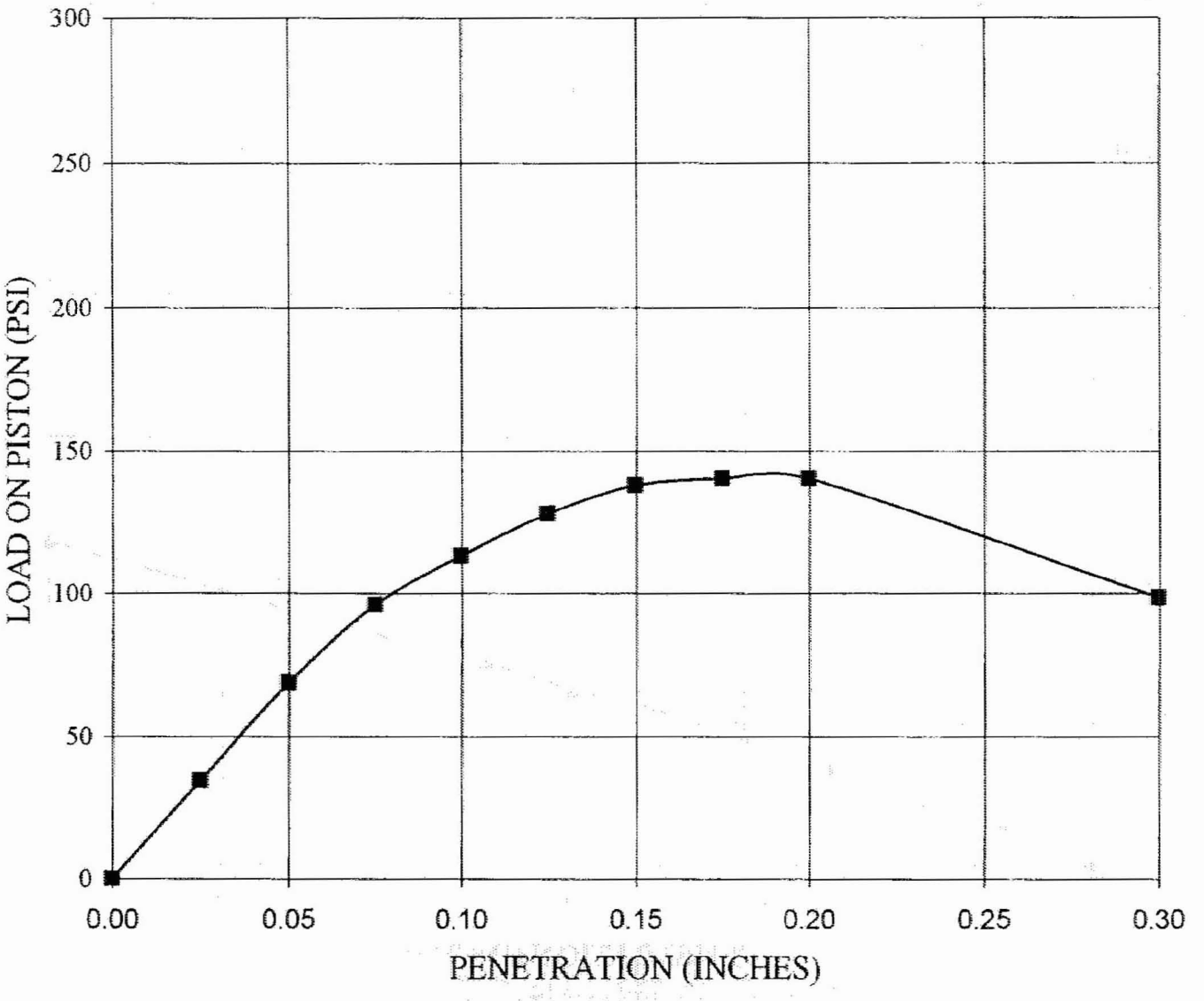
| Project: | Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland | Contract No.: | 06120048.00 | Date: | 9/26/2006 |
|---|---|---|---|---|---|

| Boring No. | Depth (ft) | Sample Description |
|---|---|---|
| TP-B-719 | 7.0-8.0 | Silty SAND, gray |

| | | | | | |
|---|---|---|---|---|---|
| **CBR (Soaked):** | **29.0** | | Soaking Time: | 4 Days | |
| Surcharge: | 50 | PSF | Swell: | 0.1% | |
| DRY DENSITY, PCF | | | MOISTURE CONTENT, % | | |
| Before Soaking: | 113.5 | | Before Soaking: | 10.1 | |
| After Soaking: | 113.2 | | After Soaking: | 10.8 | |
| Max. Dry Density: | 119.6 | | Optimum Moisture: | 10.0 | |

Schnabel Engineering

## UNSOAKED CBR




## CALIFORNIA BEARING RATIO

ASTM D-1883

| | | | | | |
|---|---|---|---|---|---|
| Project: | Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland | Contract No.: | 06120048.00 | Date: | 9/27/2006 |

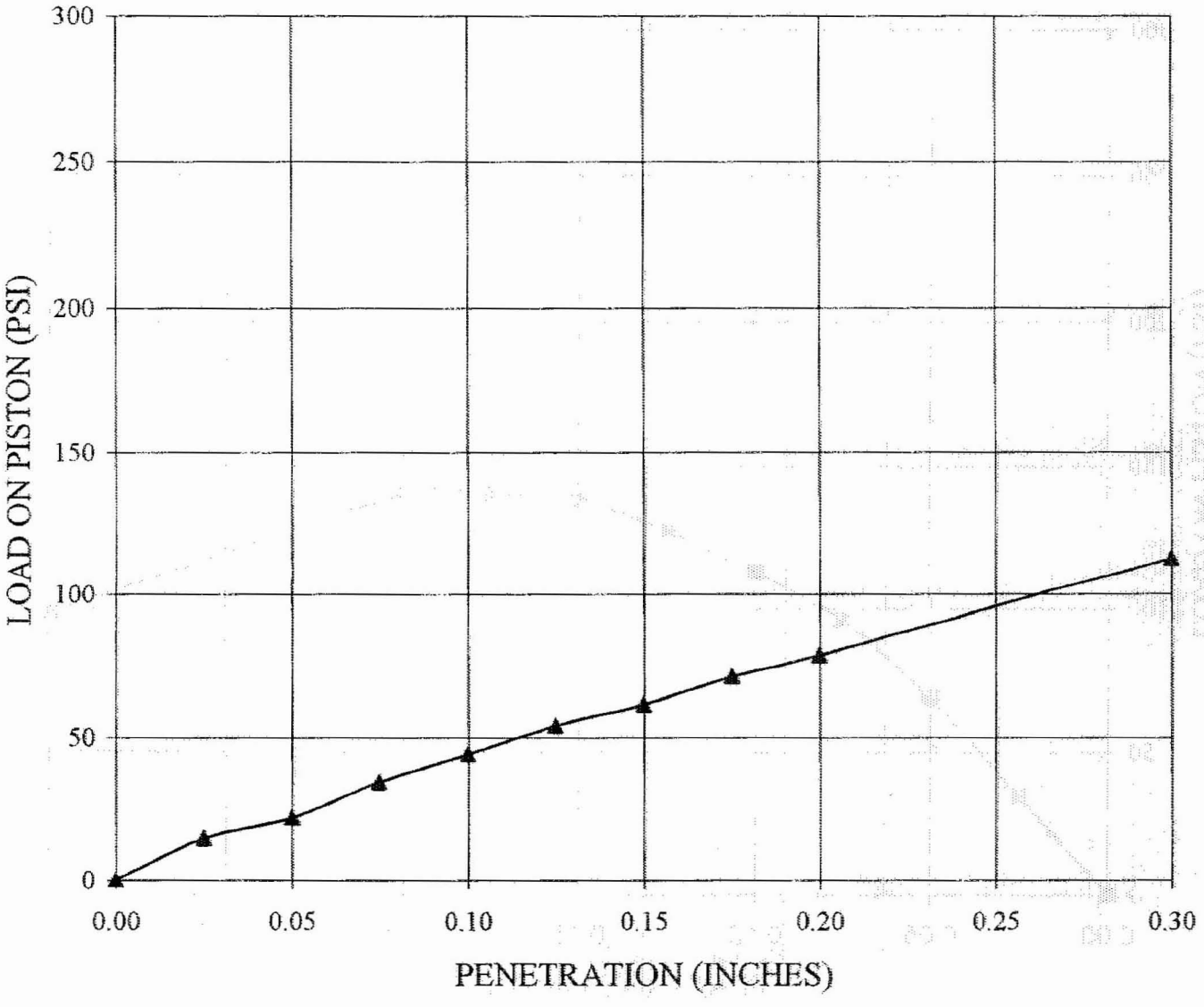
| Boring No. | Depth (ft) | Sample Description |
|---|---|---|
| TP-B-758 | 7.5-8.5 | Silty SAND, trace gravel, light brown |

| | | | |
|---|---|---|---|
| **CBR (Unsoaked):** | **11.3** | Soaking Time: | N/A |
| Surcharge: | 50 PSF | Swell: | N/A |

| DRY DENSITY, PCF | | MOISTURE CONTENT, % | |
|---|---|---|---|
| Before Soaking: | 121.2 | Before Soaking: | 8.9 |
| After Soaking: | N/A | After Soaking: | N/A |
| Max. Dry Density: | 127.3 | Optimum Moisture: | 8.9 |

Schnabel Engineering

## SOAKED CBR




## CALIFORNIA BEARING RATIO

ASTM D-1883

| Project: | Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland | Contract No.: | 06120048.00 | Date: | 9/27/2006 |
|---|---|---|---|---|---|

| Boring No. | Depth (ft) | Sample Description |
|---|---|---|
| TP-B-758 | 7.5-8.5 | Silty SAND, trace gravel, light brown |

| | | | |
|---|---|---|---|
| **CBR (Soaked):** | **4.4** | Soaking Time: | 4 Days |
| Surcharge: | 50 PSF | Swell: | 0.2% |

| DRY DENSITY, PCF | | MOISTURE CONTENT, % | |
|---|---|---|---|
| Before Soaking: | 121.2 | Before Soaking: | 8.9 |
| After Soaking: | 120.9 | After Soaking: | 11.1 |
| Max. Dry Density: | 127.3 | Optimum Moisture: | 8.9 |

Schnabel Engineering