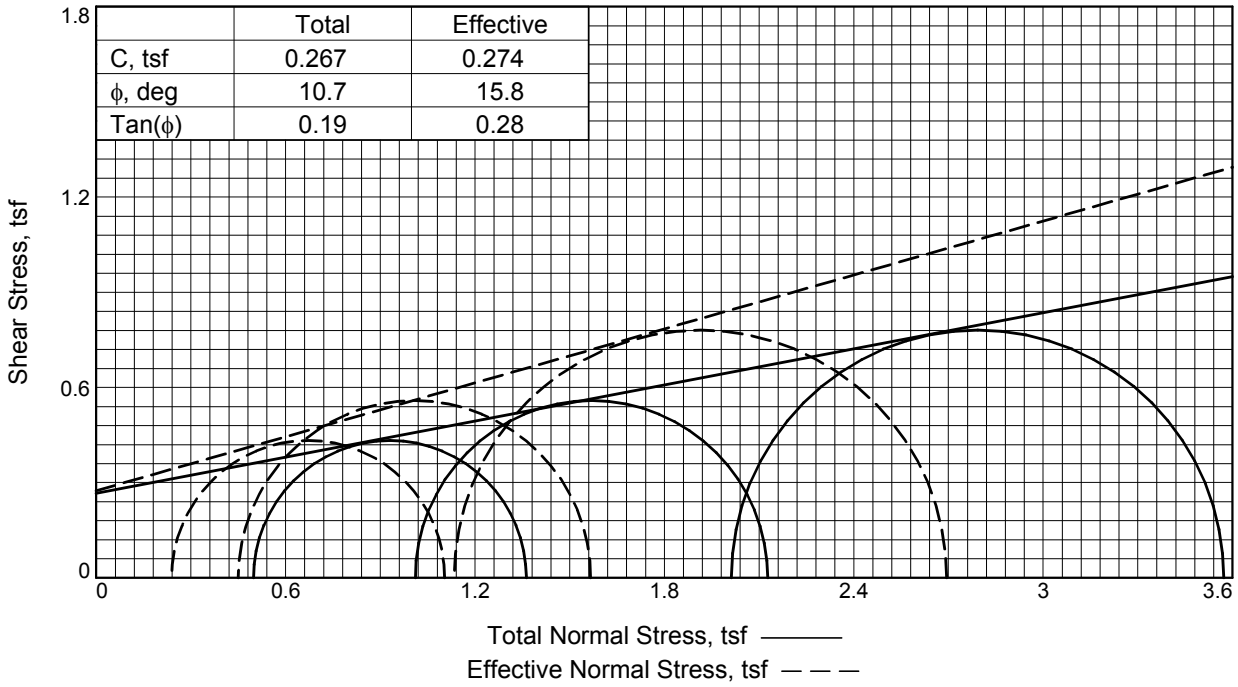
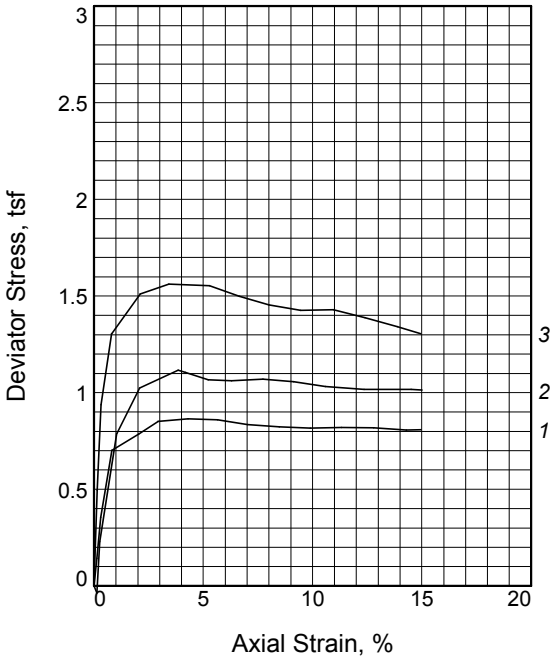


	Total	Effective
C, tsf	0.267	0.274
ϕ, deg	10.7	15.8
Tan(ϕ)	0.19	0.28



Sample No.		1	2	3
Initial	Water Content, %	30.7	30.1	30.5
	Dry Density, pcf	92.3	93.7	93.1
	Saturation, %	98.2	99.3	99.3
	Void Ratio	0.8599	0.8329	0.8450
	Diameter, in.	1.40	1.40	1.40
	Height, in.	2.81	2.82	2.82
At Test	Water Content, %	31.3	30.3	30.7
	Dry Density, pcf	92.3	93.7	93.1
	Saturation, %	100.0	100.0	100.0
	Void Ratio	0.8599	0.8329	0.8450
	Diameter, in.	1.40	1.40	1.40
	Height, in.	2.81	2.82	2.82
Strain rate, %/min.		0.03	0.03	0.03
Back Pressure, tsf		6.64	6.12	5.13
Cell Pressure, tsf		7.14	7.14	7.14
Peak Stress, tsf		0.86	1.12	1.56
Total Pore Pr., tsf		6.90	6.69	6.01
Ult. Stress, tsf		0.81	1.01	1.31
Total Pore Pr., tsf		6.64	6.27	5.60
$\bar{\sigma}_1$ Failure, tsf		1.10	1.57	2.69
$\bar{\sigma}_3$ Failure, tsf		0.24	0.45	1.13

Type of Test:
CU with Pore Pressures

Sample Type: Thinwall

Description: FAT CLAY, brown

Specific Gravity= 2.75

Remarks: Samples were saturated for 10 days and consolidated for 3 days.
ASTM D 4767

Client: Systems Research & Applications

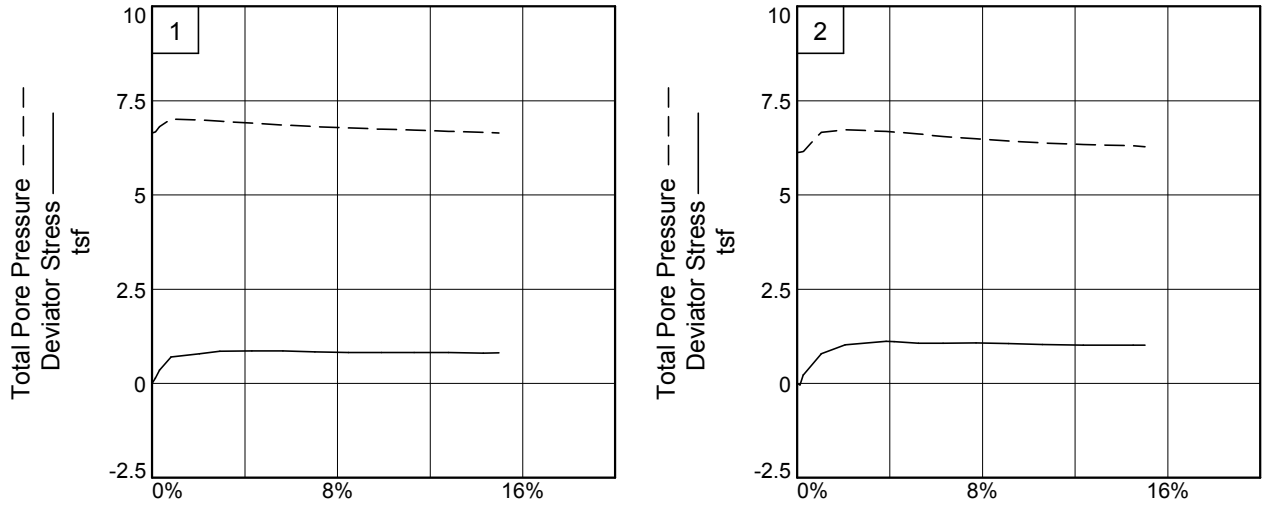
Project: NAPTF Subgraded Soils Testing

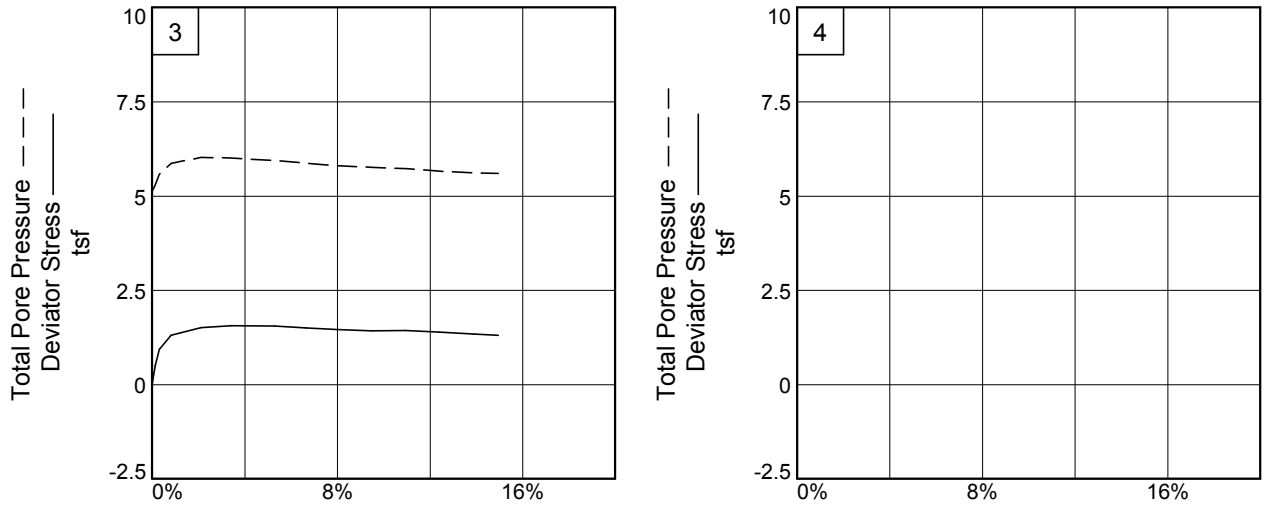
Sample Number: 345N

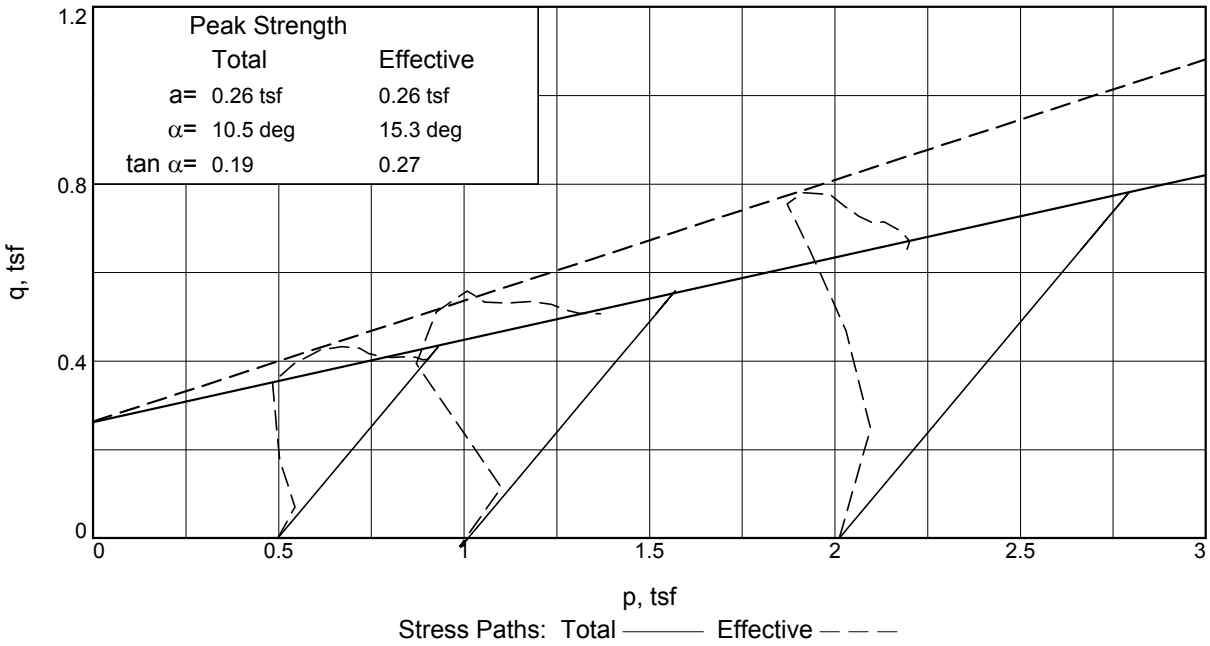
Proj. No.: BL-10-00425 **Date Sampled:**

BRAUN INTERTEC

Figure 1







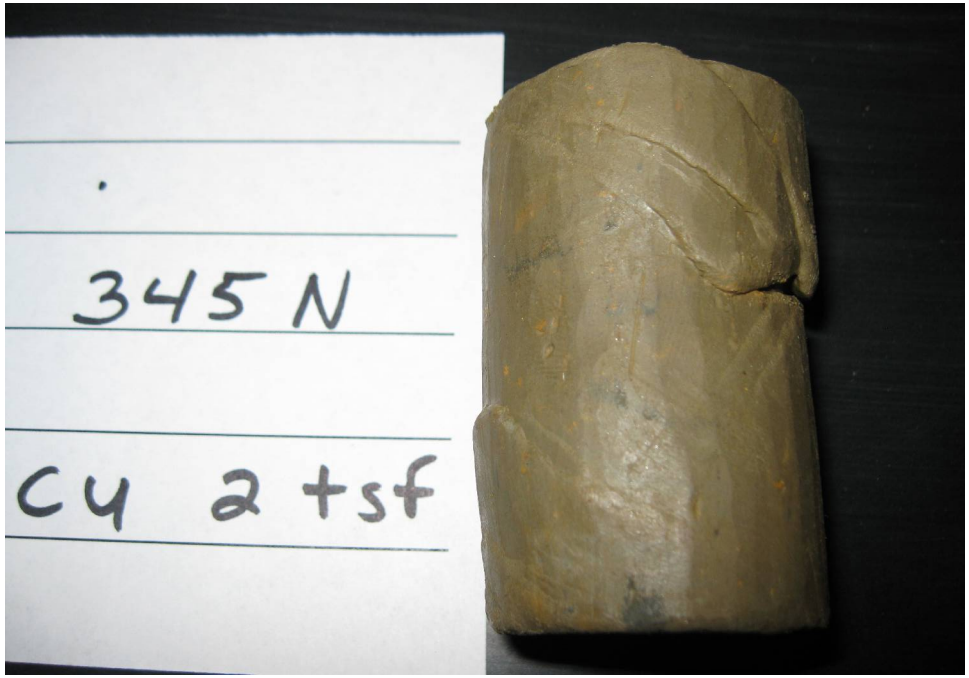
Client: Systems Research & Applications
Project: NAPTF Subgraded Soils Testing
Sample Number: 345N
Project No.: BL-10-00425

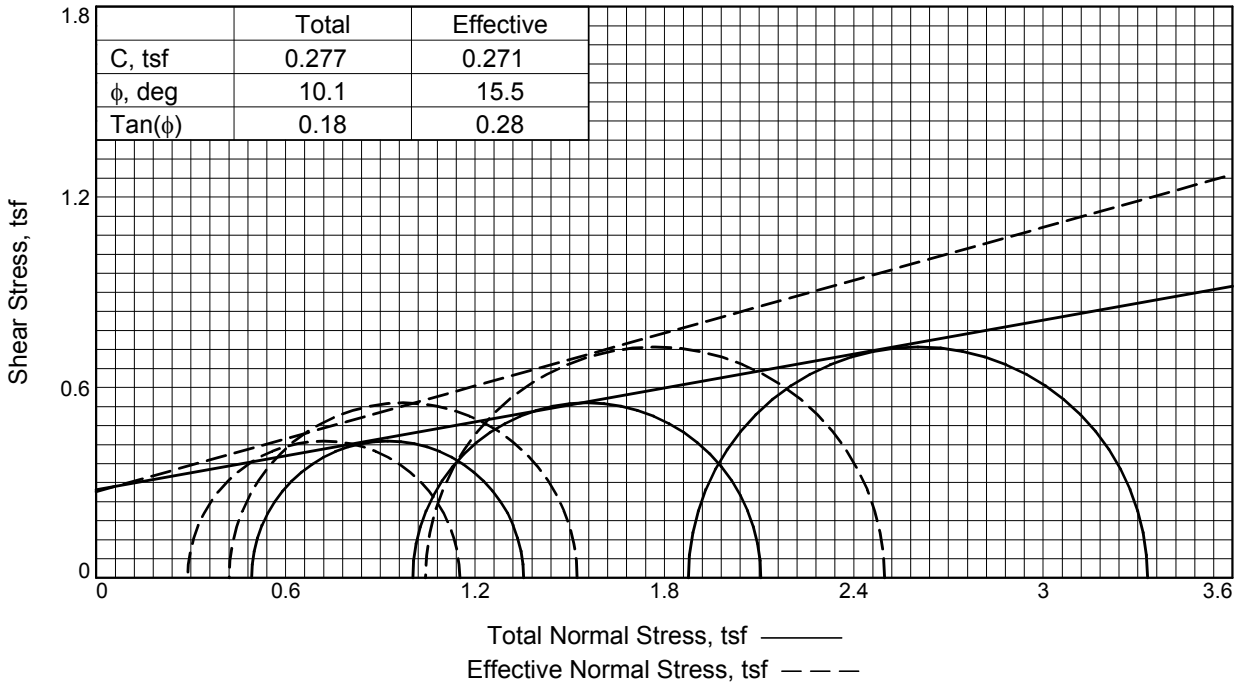
Figure 2

Braun Intertec

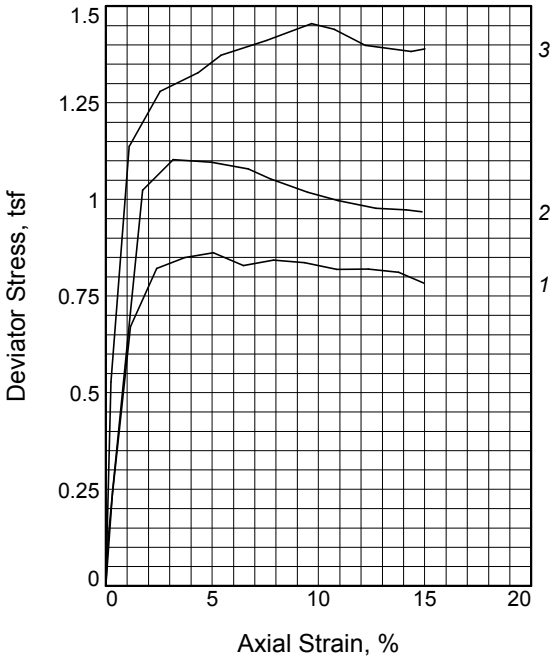
345N
CU 1 tsf

Eng
345N
CU 0.5 tsf
the 1st


345 N
CU 2 tsf



	Total	Effective
C, tsf	0.277	0.271
ϕ, deg	10.1	15.5
Tan(ϕ)	0.18	0.28



Sample No.		1	2	3
Initial	Water Content, %	30.5	30.4	30.6
	Dry Density, pcf	92.4	93.2	93.0
	Saturation, %	97.7	99.3	99.4
	Void Ratio	0.8577	0.8417	0.8463
	Diameter, in.	1.40	1.40	1.40
	Height, in.	2.81	2.81	2.81
At Test	Water Content, %	31.2	30.6	30.8
	Dry Density, pcf	92.4	93.2	93.0
	Saturation, %	100.0	100.0	100.0
	Void Ratio	0.8577	0.8417	0.8463
	Diameter, in.	1.40	1.40	1.40
	Height, in.	2.81	2.81	2.81
Strain rate, %/min.		0.03	0.03	0.03
Back Pressure, tsf		6.65	6.14	5.26
Cell Pressure, tsf		7.14	7.14	7.14
Peak Stress, tsf		0.86	1.10	1.45
Total Pore Pr., tsf		6.85	6.72	6.10
Ult. Stress, tsf		0.78	0.97	1.39
Total Pore Pr., tsf		6.64	6.44	6.05
$\bar{\sigma}_1$ Failure, tsf		1.15	1.52	2.50
$\bar{\sigma}_3$ Failure, tsf		0.29	0.42	1.04

Type of Test:
CU with Pore Pressures

Sample Type: Thinwall

Description: FAT CLAY, brown

Specific Gravity= 2.75

Remarks: Samples were saturated for 10 days and consolidated for 3 days.
ASTM D 4767

Client: Systems Research & Applications

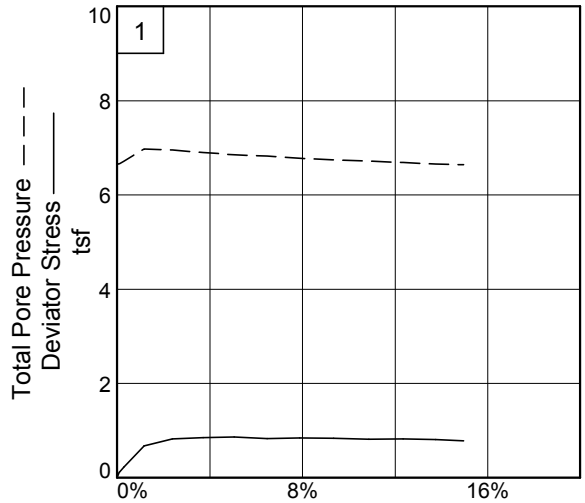
Project: NAPTF Subgraded Soils Testing

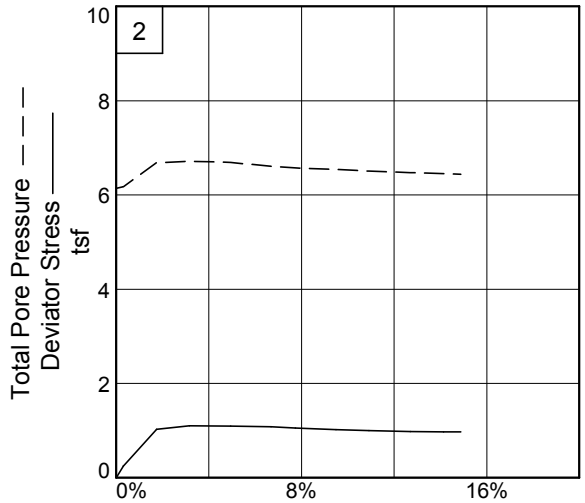
Sample Number: 345S

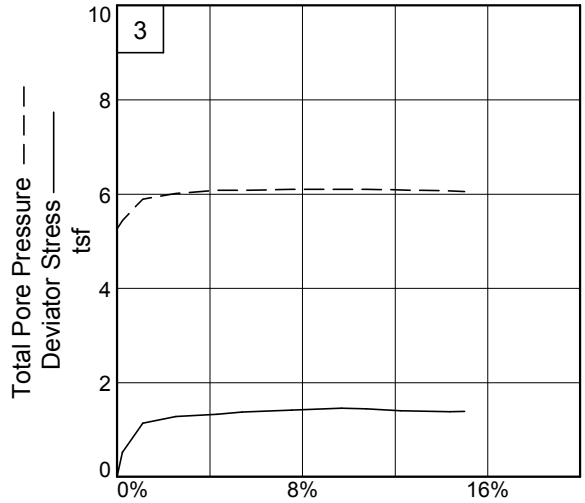
Proj. No.: BL-10-00425 **Date Sampled:**

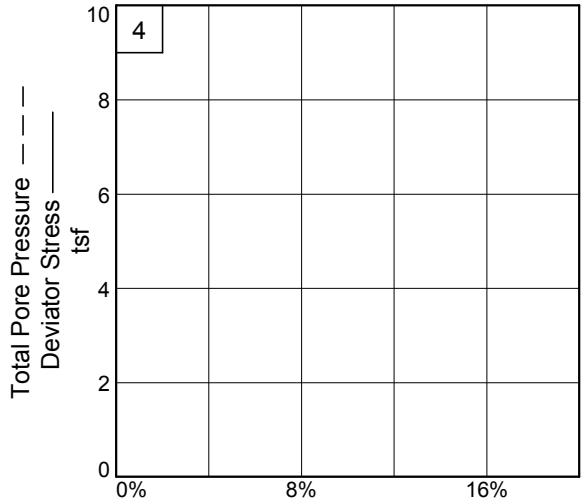
BRAUN INTERTEC

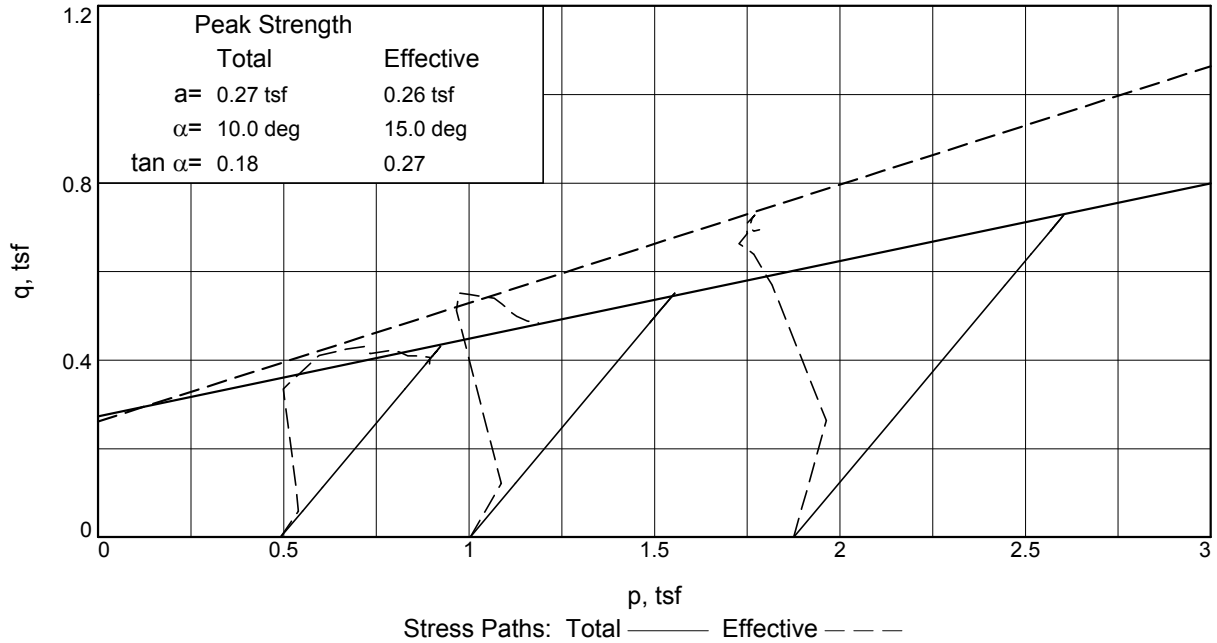
Figure 3









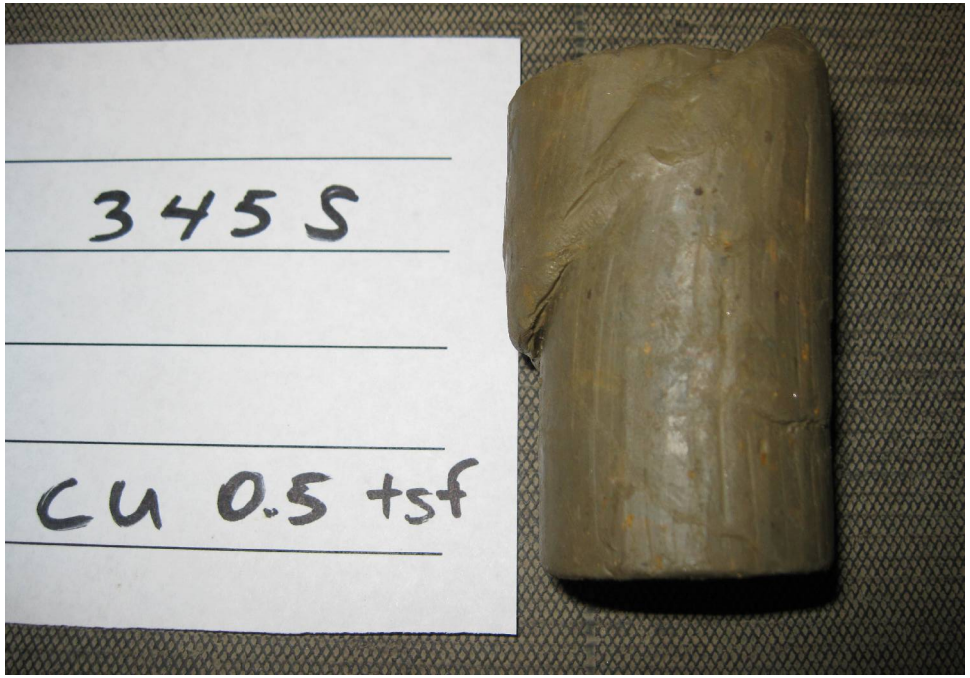


Client: Systems Research & Applications
Project: NAPTF Subgraded Soils Testing
Sample Number: 345S
Project No.: BL-10-00425

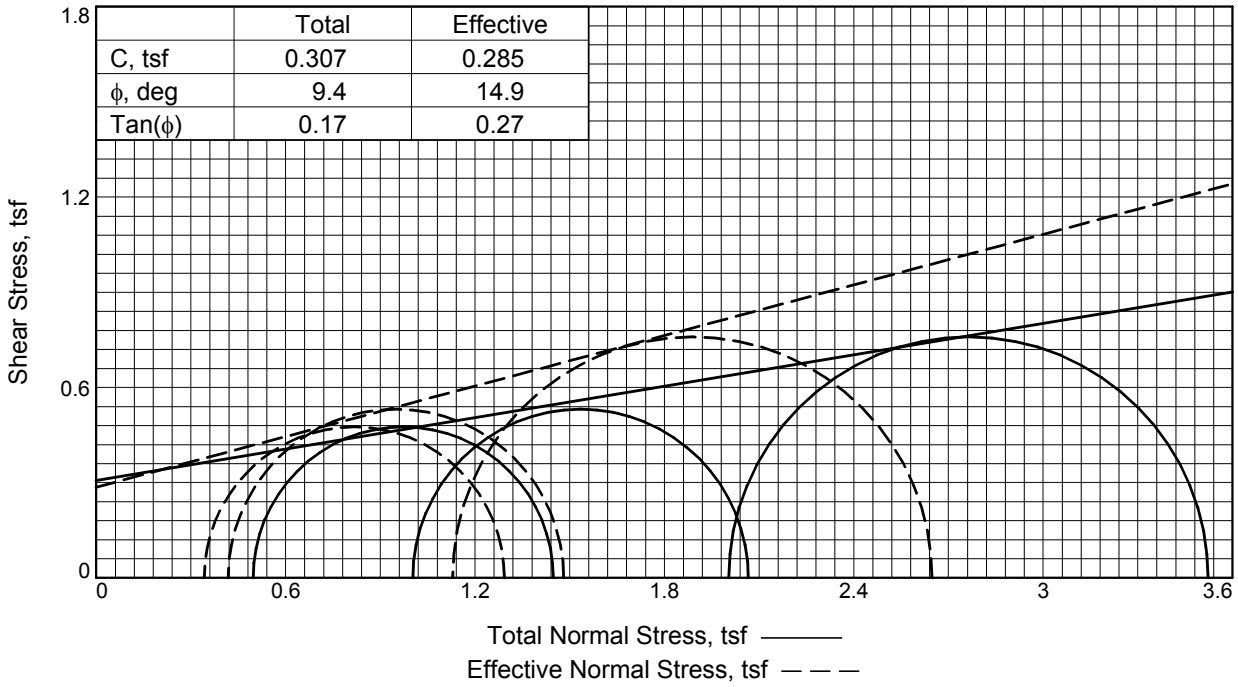
Figure 4

Braun Intertec

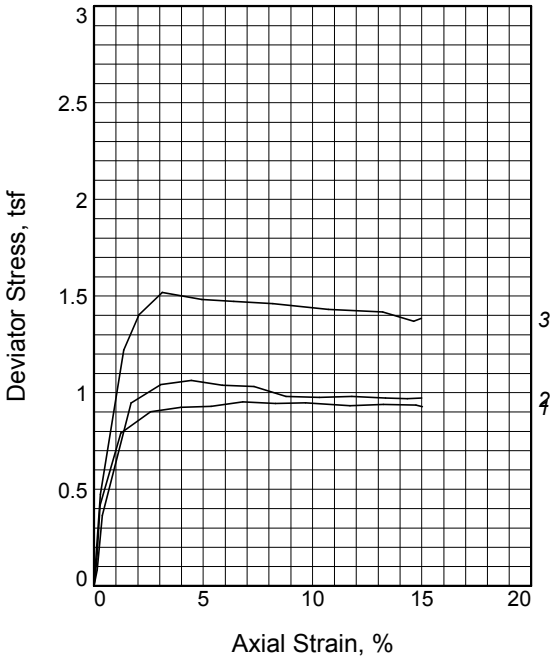
345 S
CU 2 tsf


345 S
CU 0.5 tsf

Eng
345 S
CU 1 tsf
ust be the 1st



	Total	Effective
C, tsf	0.307	0.285
ϕ, deg	9.4	14.9
Tan(ϕ)	0.17	0.27



Sample No.		1	2	3
Initial	Water Content, %	30.4	30.4	31.3
	Dry Density, pcf	93.2	93.4	92.2
	Saturation, %	99.3	99.7	100.0
	Void Ratio	0.8427	0.8390	0.8618
	Diameter, in.	1.40	1.39	1.40
	Height, in.	2.81	2.81	2.80
At Test	Water Content, %	30.6	30.5	31.3
	Dry Density, pcf	93.2	93.4	92.2
	Saturation, %	100.0	100.0	100.0
	Void Ratio	0.8427	0.8390	0.8618
	Diameter, in.	1.40	1.39	1.40
	Height, in.	2.81	2.81	2.80
Strain rate, %/min.		0.03	0.03	0.03
Back Pressure, tsf		6.64	6.14	5.13
Cell Pressure, tsf		7.14	7.14	7.14
Peak Stress, tsf		0.95	1.06	1.52
Total Pore Pr., tsf		6.80	6.72	6.01
Ult. Stress, tsf		0.93	0.97	1.38
Total Pore Pr., tsf		6.60	6.47	5.81
$\bar{\sigma}_1$ Failure, tsf		1.29	1.48	2.65
$\bar{\sigma}_3$ Failure, tsf		0.34	0.42	1.13

Type of Test:
CU with Pore Pressures

Sample Type: Thinwall

Description: FAT CLAY, brown

Specific Gravity= 2.75

Remarks: Samples were saturated for 10 days and consolidated for 3 days.
ASTM D 4767

Client: Systems Research & Applications

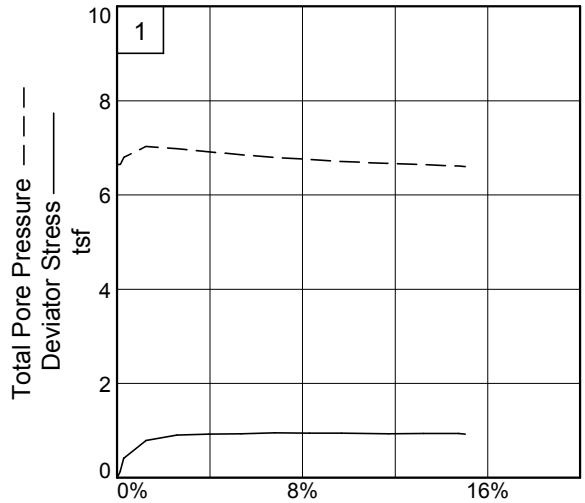
Project: NAPTF Subgraded Soils Testing

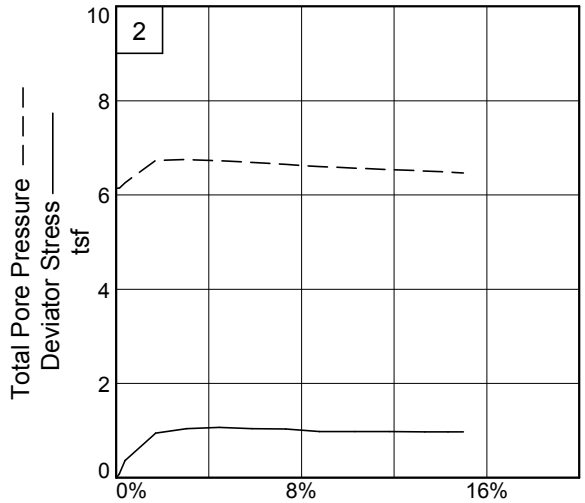
Sample Number: 440N

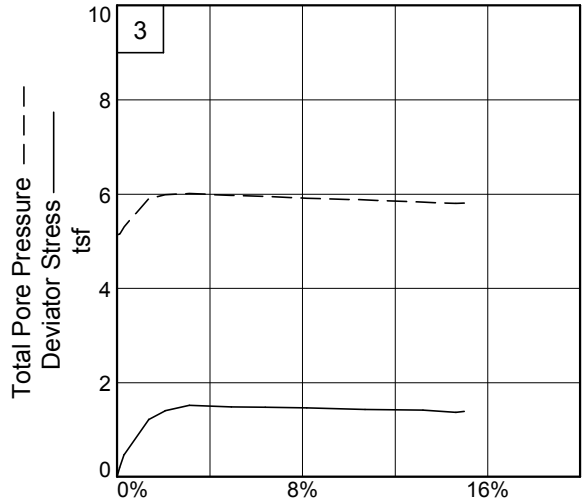
Proj. No.: BL-10-00425 **Date Sampled:**

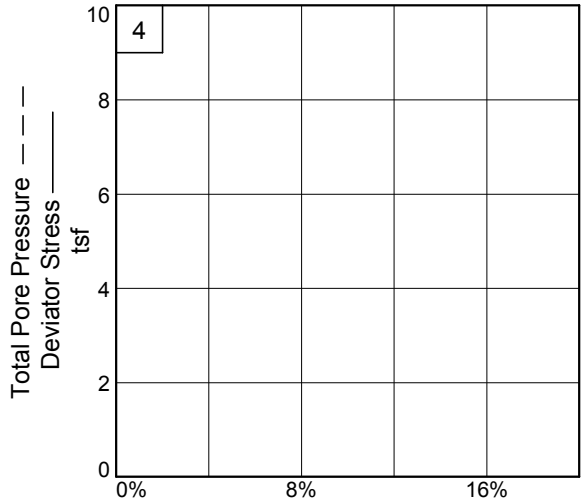
BRAUN INTERTEC

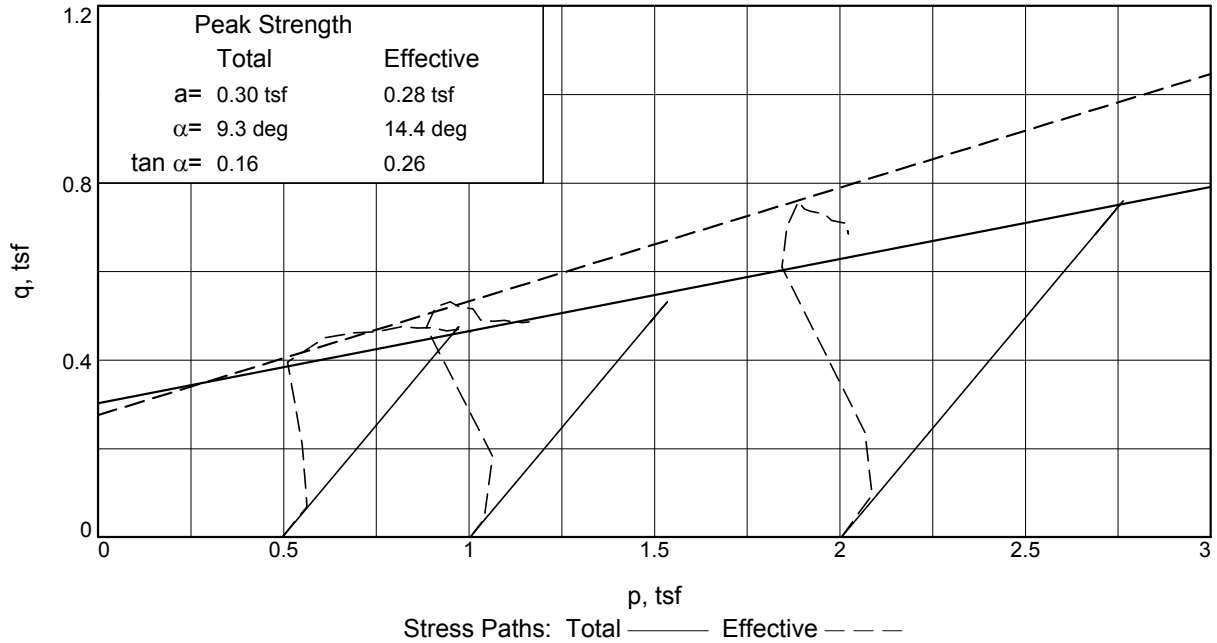
Figure 5











Client: Systems Research & Applications
Project: NAPTF Subgraded Soils Testing
Sample Number: 440N
Project No.: BL-10-00425

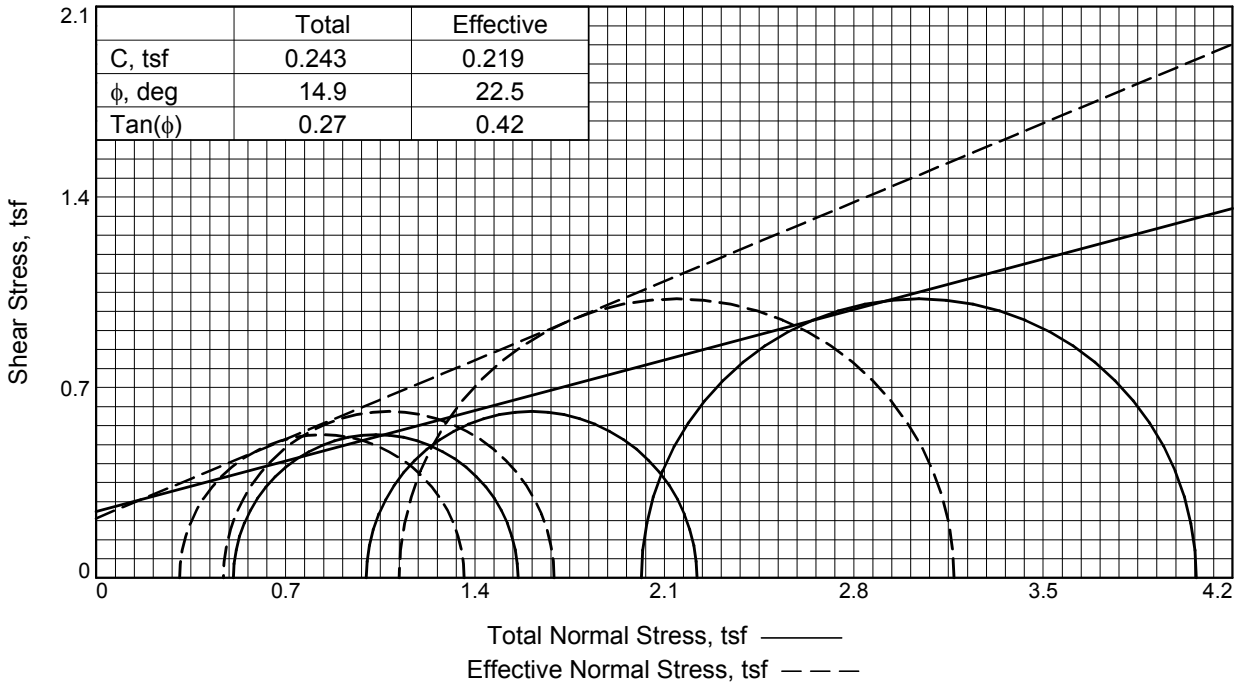
Figure 6

Braun Intertec

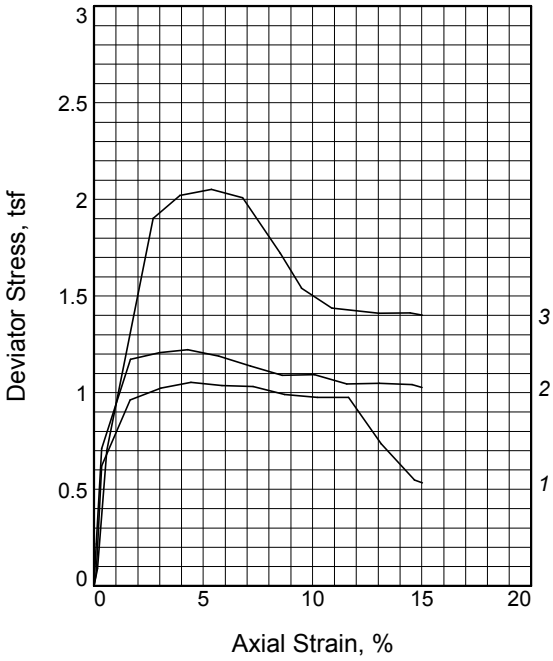
440N
CU 1 tsf

00425
440N
CU 0.5 tsf

440N
CU 2 tsf



	Total	Effective
C, tsf	0.243	0.219
ϕ, deg	14.9	22.5
Tan(ϕ)	0.27	0.42



Sample No.		1	2	3
Initial	Water Content, %	30.1	30.9	29.7
	Dry Density, pcf	93.0	92.8	93.0
	Saturation, %	97.9	100.0	96.8
	Void Ratio	0.8463	0.8502	0.8451
	Diameter, in.	1.40	1.40	1.41
	Height, in.	2.80	2.81	2.80
At Test	Water Content, %	30.8	30.9	30.7
	Dry Density, pcf	93.0	92.8	93.0
	Saturation, %	100.0	100.0	100.0
	Void Ratio	0.8463	0.8502	0.8451
	Diameter, in.	1.40	1.40	1.40
	Height, in.	2.80	2.81	2.80
Strain rate, %/min.		0.03	0.03	0.03
Back Pressure, tsf		6.64	6.14	5.12
Cell Pressure, tsf		7.14	7.14	7.14
Peak Stress, tsf		1.05	1.22	2.05
Total Pore Pr., tsf		6.83	6.67	6.02
Ult. Stress, tsf		0.53	1.03	1.40
Total Pore Pr., tsf		7.11	6.26	5.56
$\bar{\sigma}_1$ Failure, tsf		1.36	1.69	3.17
$\bar{\sigma}_3$ Failure, tsf		0.31	0.47	1.12

Type of Test:
CU with Pore Pressures

Sample Type: Thinwall

Description: FAT CLAY, brown

Specific Gravity= 2.75

Remarks: Samples were saturated for 10 days and consolidated for 3 days.
ASTM D 4767

Client: Systems Research & Applications

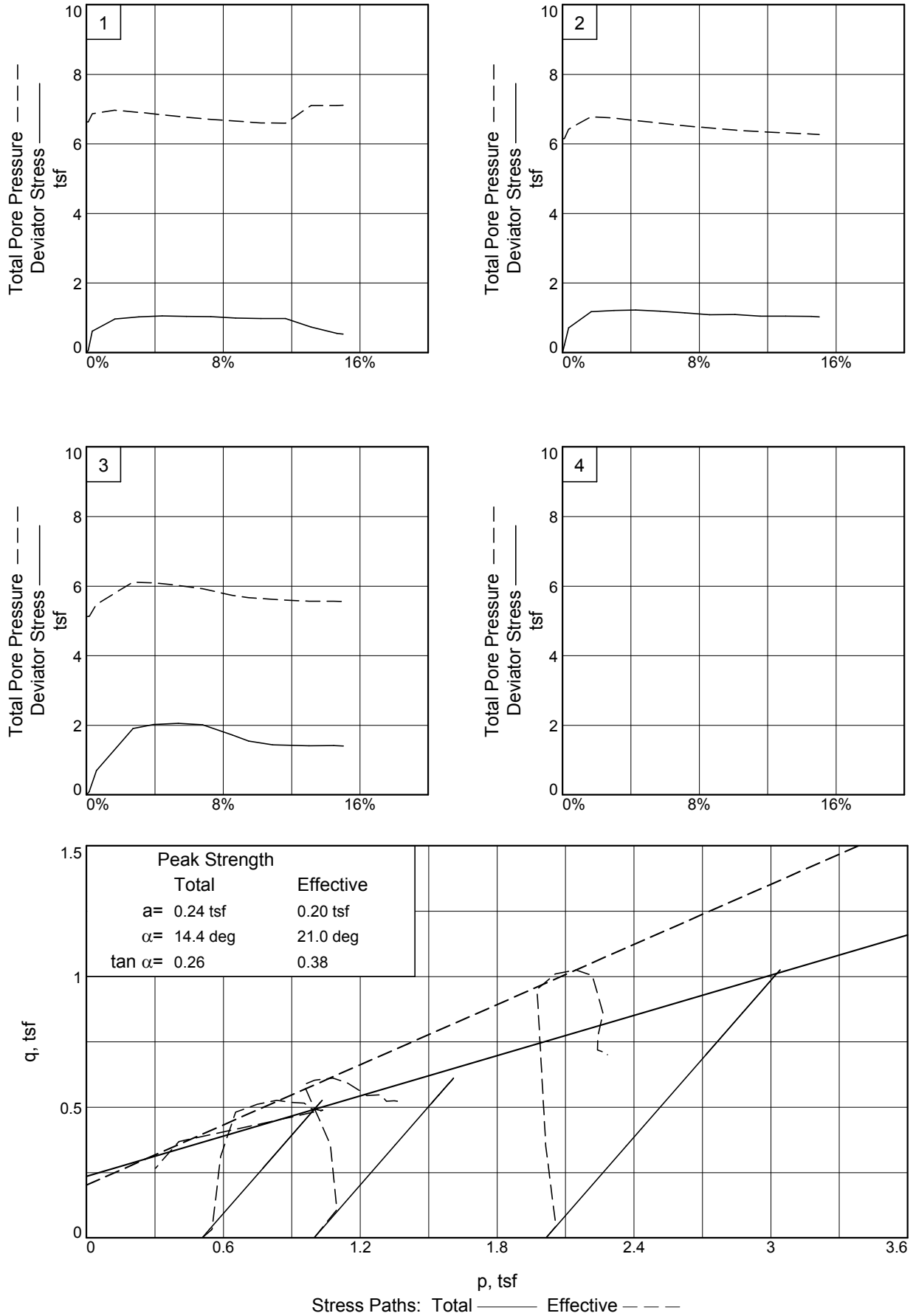
Project: NAPTF Subgraded Soils Testing

Sample Number: 440S

Proj. No.: BL-10-00425 **Date Sampled:**

BRAUN INTERTEC

Figure 7



Client: Systems Research & Applications

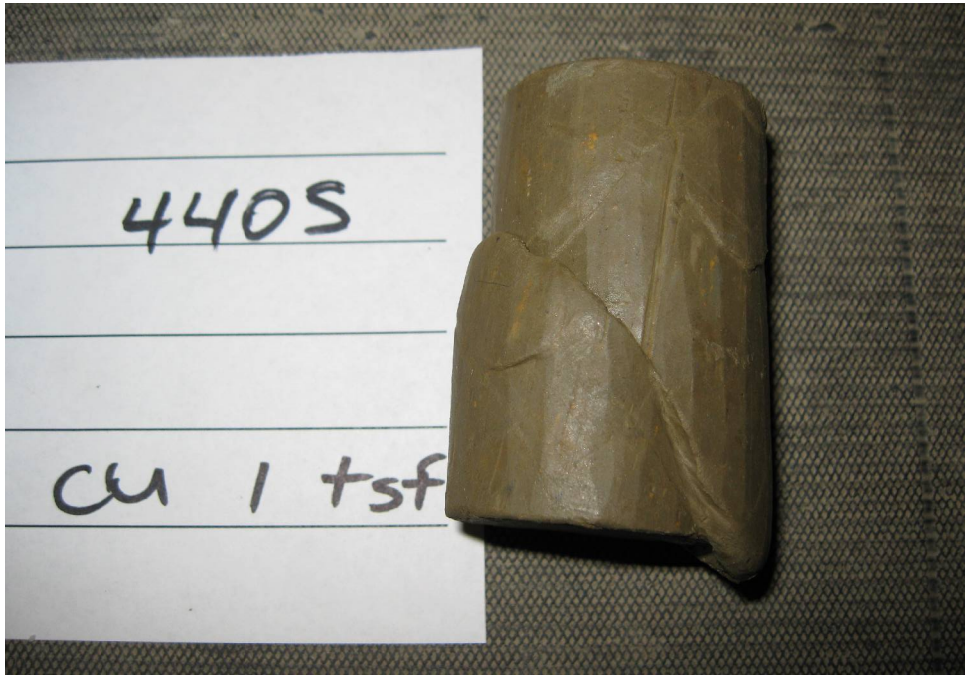
Project: NAPTF Subgraded Soils Testing

Sample Number: 440S

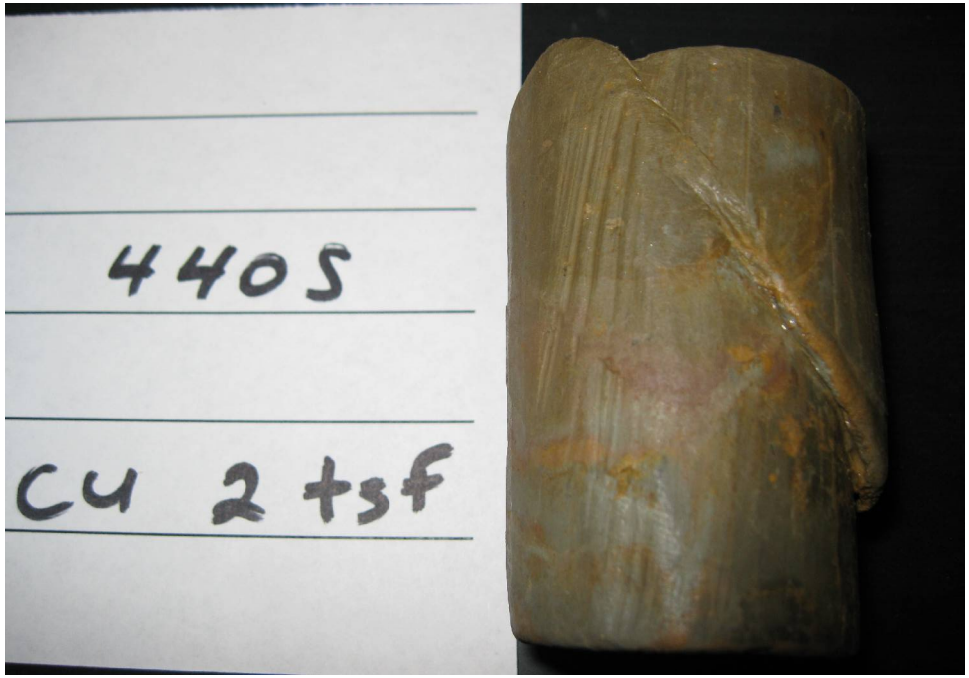
Project No.: BL-10-00425

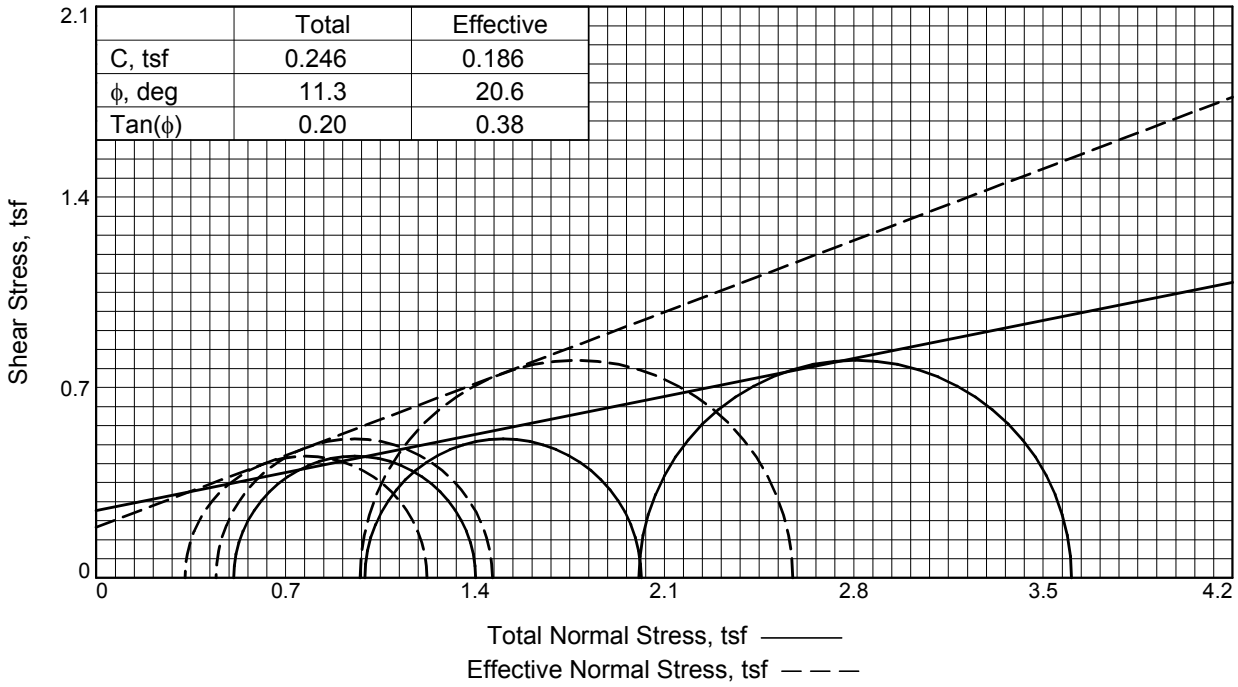
Figure 8

Braun Intertec

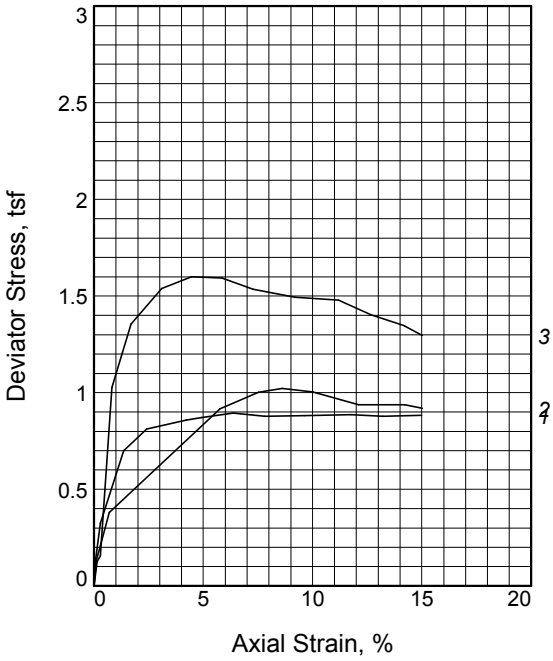

4405
CU 1 tsf

4405
CU 0.5 tsf


4405
CU 2 tsf



	Total	Effective
C, tsf	0.246	0.186
ϕ, deg	11.3	20.6
Tan(ϕ)	0.20	0.38



Sample No.		1	2	3
Initial	Water Content, %	30.9	30.4	30.7
	Dry Density, pcf	92.3	92.6	92.1
	Saturation, %	98.7	97.8	97.8
	Void Ratio	0.8606	0.8545	0.8639
	Diameter, in.	1.41	1.40	1.39
	Height, in.	2.81	2.81	2.81
At Test	Water Content, %	31.3	31.1	31.4
	Dry Density, pcf	92.3	92.6	92.1
	Saturation, %	100.0	100.0	100.0
	Void Ratio	0.8606	0.8545	0.8639
	Diameter, in.	1.41	1.40	1.39
	Height, in.	2.81	2.81	2.81
Strain rate, %/min.		0.03	0.03	0.03
Back Pressure, tsf		6.63	6.14	5.13
Cell Pressure, tsf		7.14	7.14	7.14
Peak Stress, tsf		0.89	1.02	1.60
Total Pore Pr., tsf		6.81	6.69	6.17
Ult. Stress, tsf		0.88	0.92	1.30
Total Pore Pr., tsf		6.62	6.44	5.73
$\bar{\sigma}_1$ Failure, tsf		1.22	1.46	2.57
$\bar{\sigma}_3$ Failure, tsf		0.33	0.44	0.97

Type of Test:
CU with Pore Pressures

Sample Type: Thinwall

Description: FAT CLAY, brown

Specific Gravity= 2.75

Remarks: Samples were saturated for 10 days and consolidated for 3 days.
ASTM D 4767

Client: Systems Research & Applications

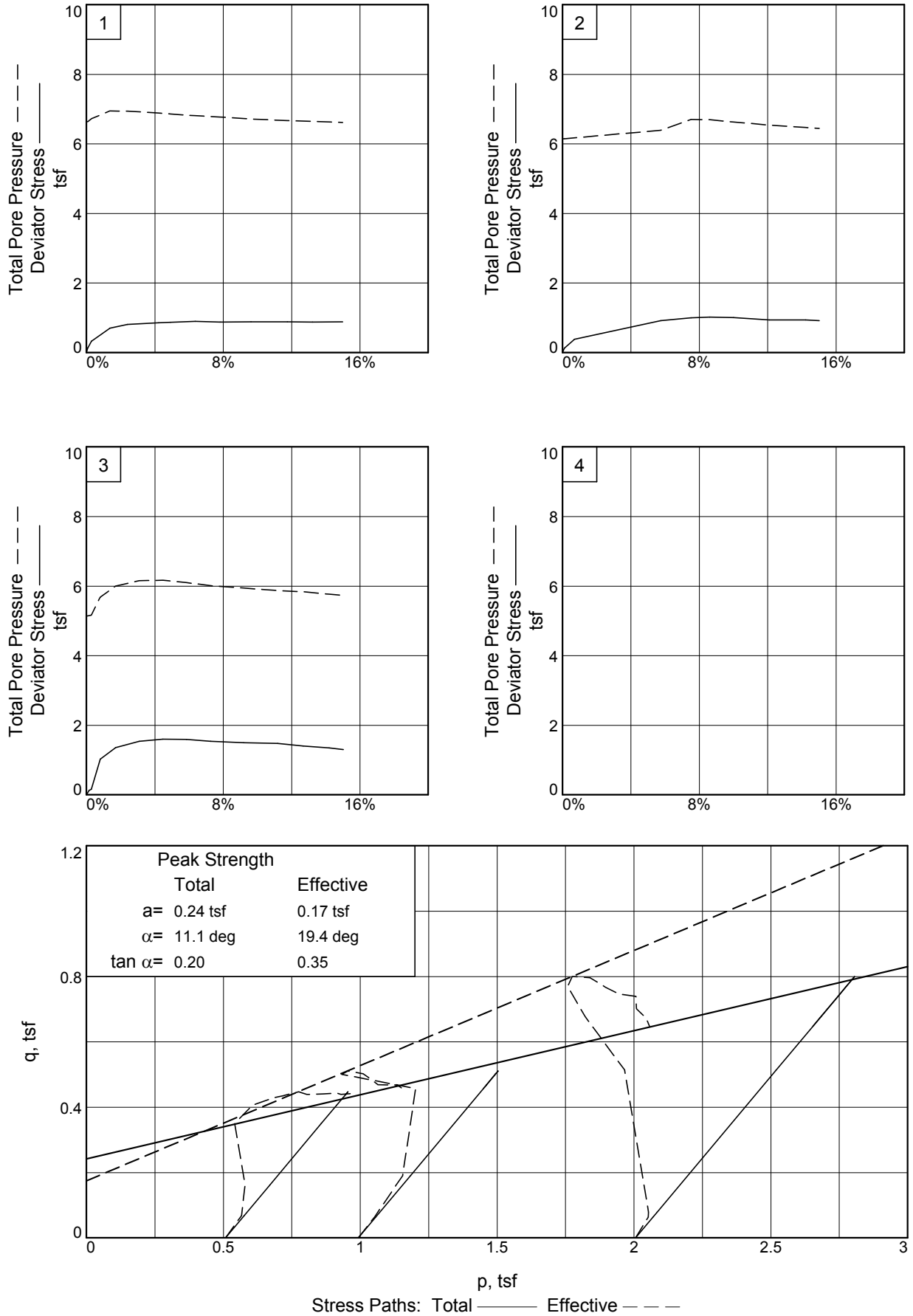
Project: NAPTF Subgraded Soils Testing

Sample Number: N

Proj. No.: BL-10-00425 **Date Sampled:**

BRAUN INTERTEC

Figure 9



Client: Systems Research & Applications

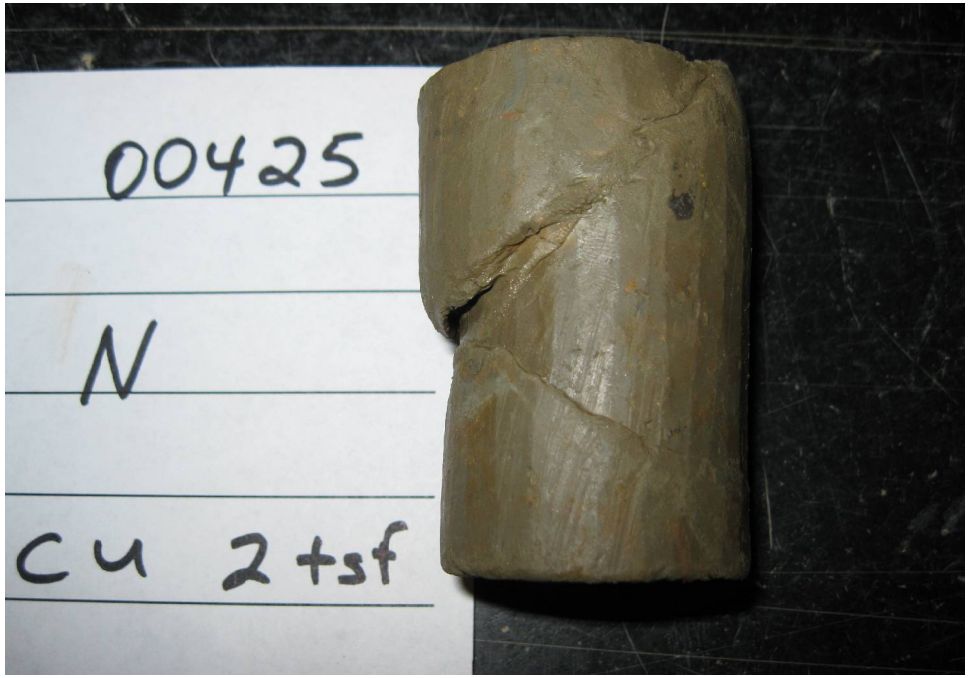
Project: NAPTF Subgraded Soils Testing

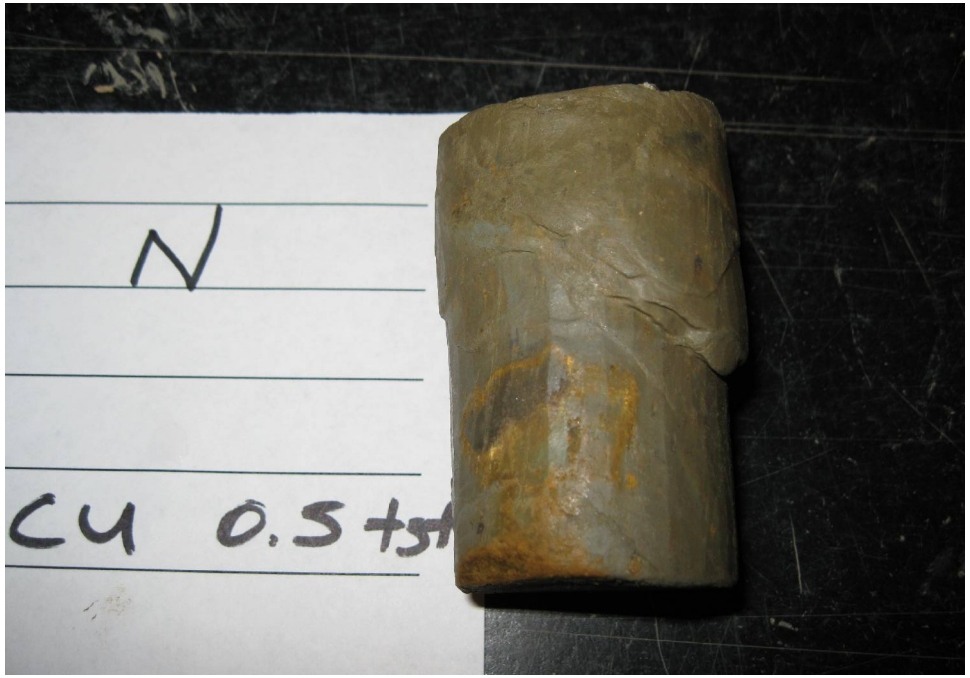
Sample Number: N

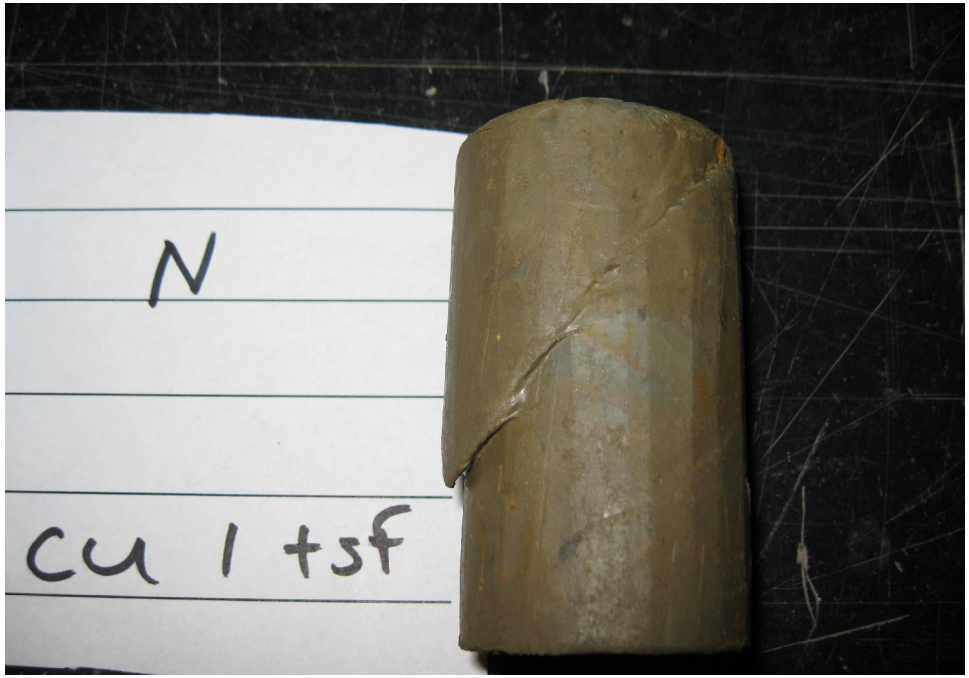
Project No.: BL-10-00425

Figure 10

Braun Intertec


00425
N
cu 2 tsf


N
cu 0.5 tsf


N
cu 1 tsf