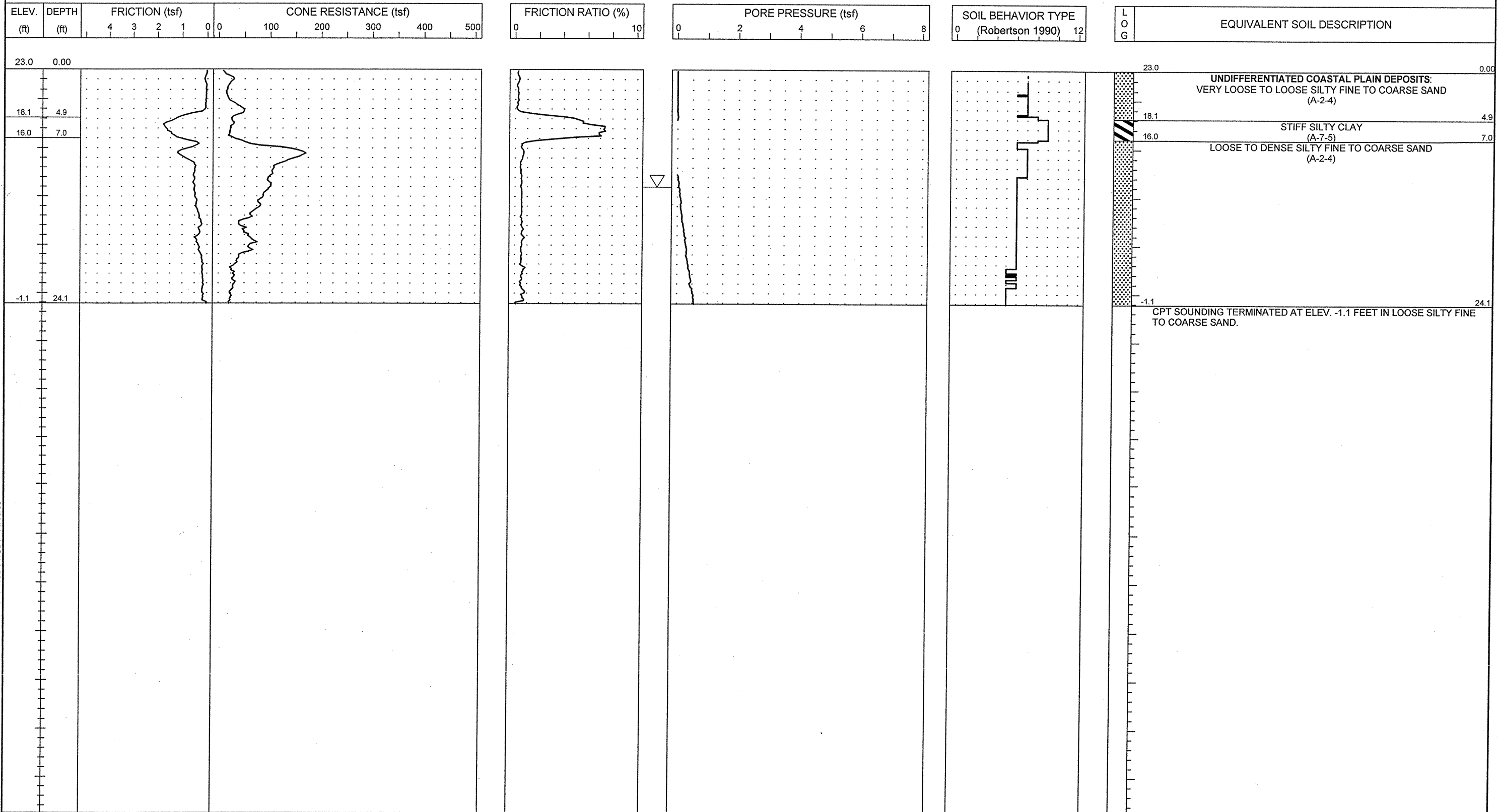




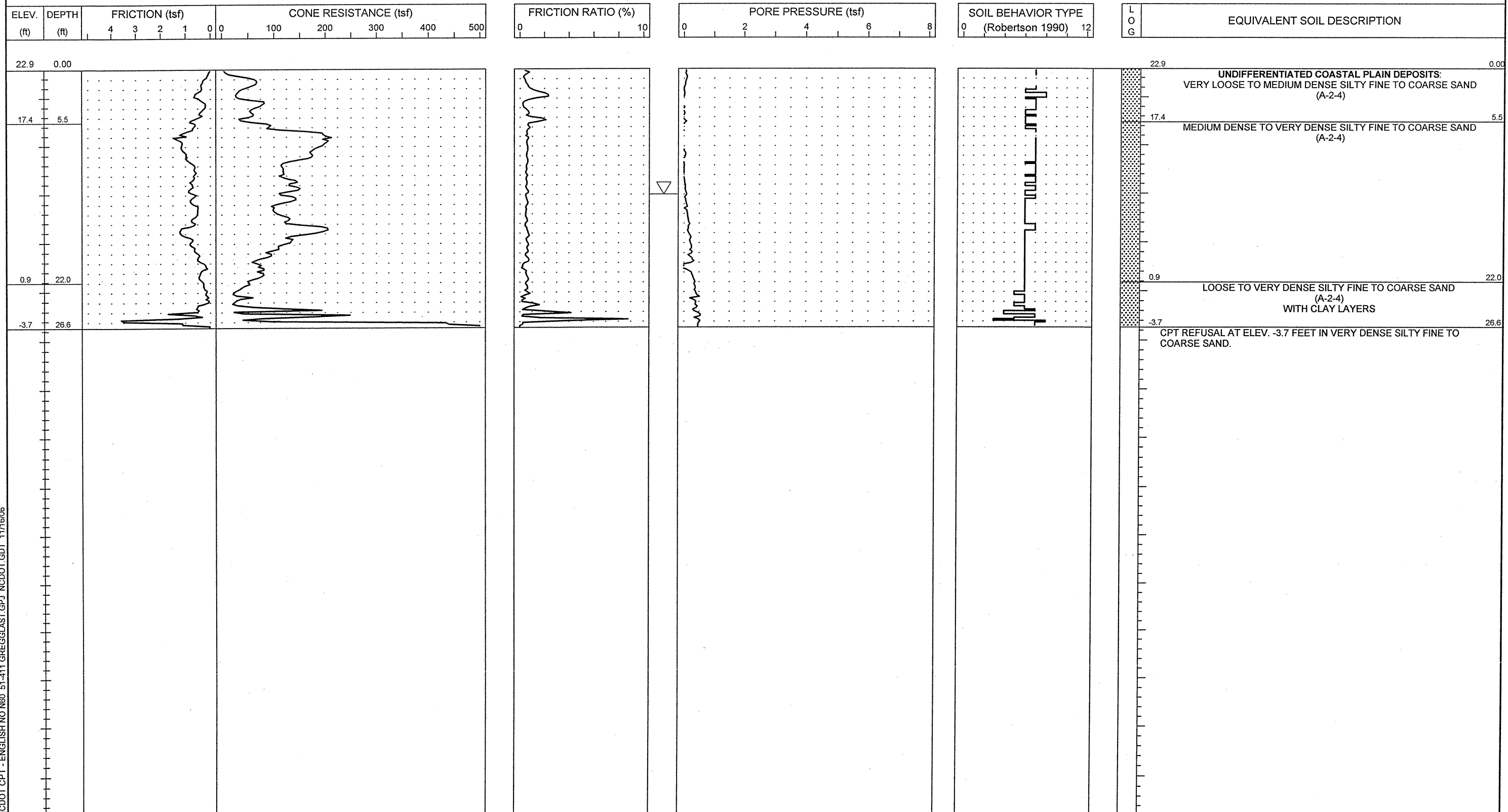
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/ Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 24.1 ft	DRILL MACHINE CPT-ATV
BORING NO. C-117	BORING LOCATION 262+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 12.0	DATE STARTED 10/30/06	COMPLETED 10/30/06
COLLAR ELEV. 23.0 ft	NORTHING 191,781.1	EASTING 2,294,961.0	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A
				HAMMER TYPE N/A		



NCDOT CPT - ENGLISH NO N60 51-411 GREGGLAST.GPJ NCDOT.GDT 11/16/06

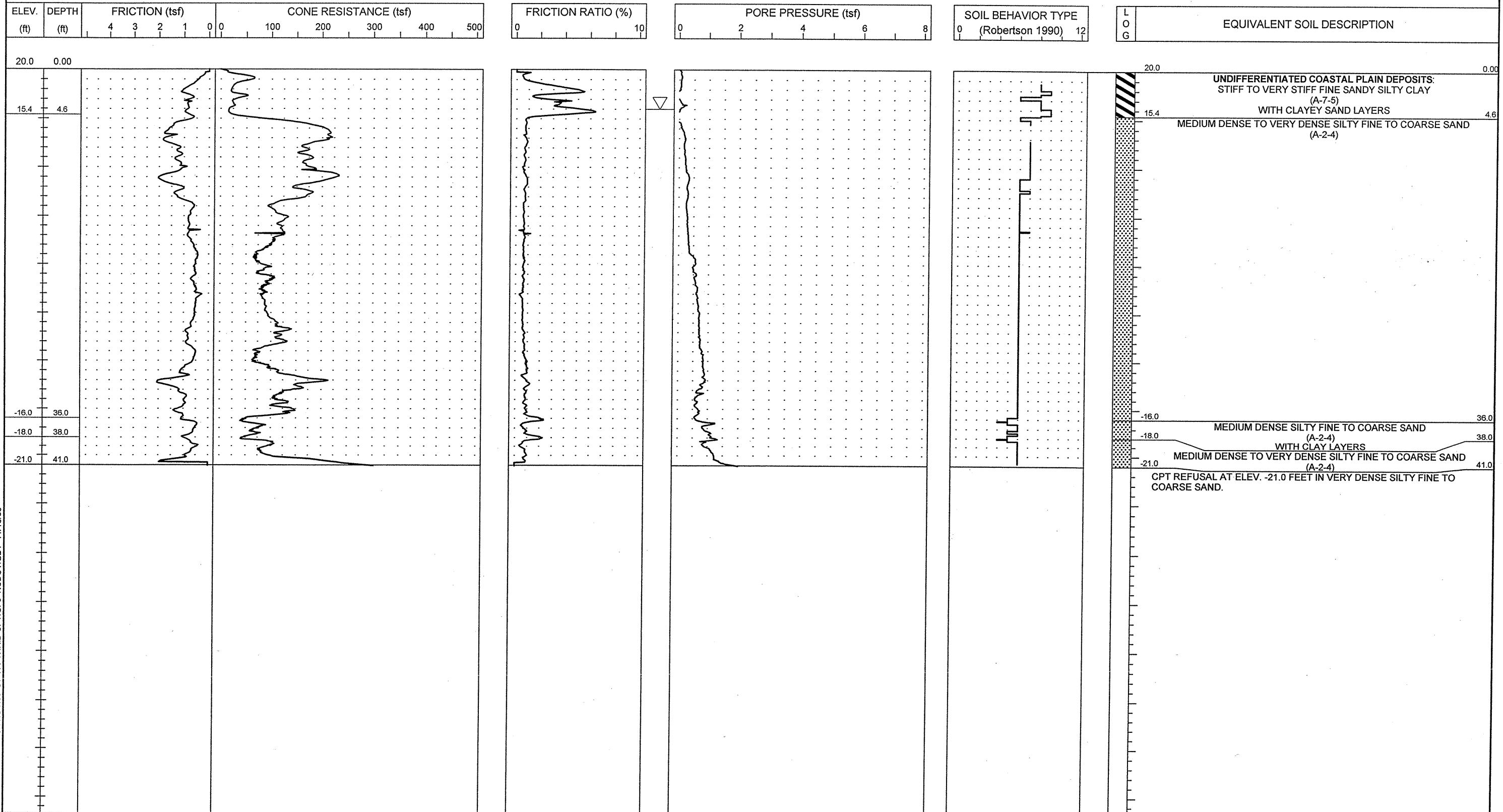


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/ Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 26.6 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-118	BORING LOCATION 264+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 13.0	DATE STARTED 10/30/06	COMPLETED 10/30/06
COLLAR ELEV. 22.9 ft	NORTHING 191,785.2	EASTING 2,295,161.0	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A





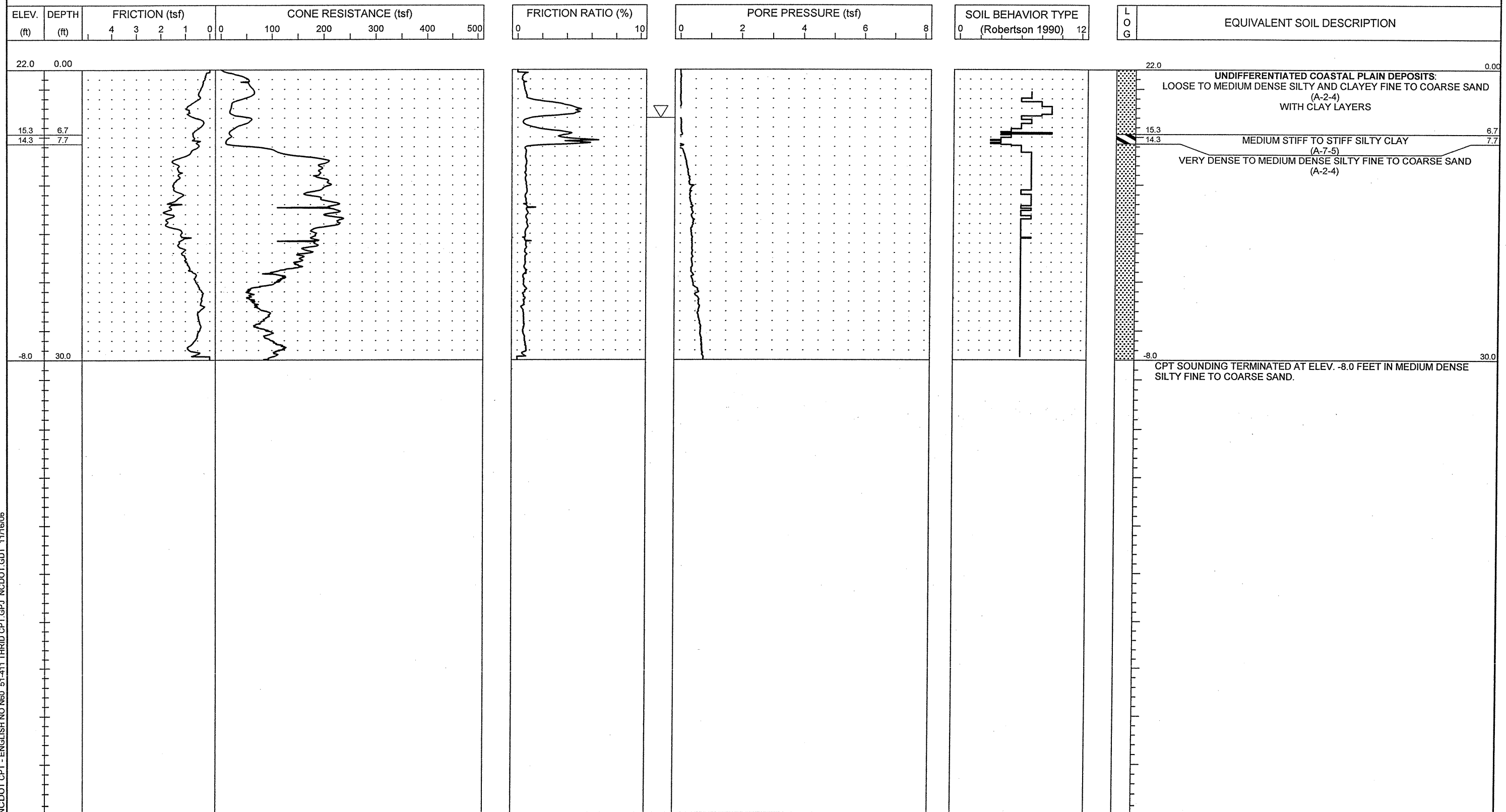
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 41.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-119	BORING LOCATION 267+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 4.0	DATE STARTED 10/16/06	COMPLETED 10/16/06
COLLAR ELEV. 20.0 ft	NORTHING 191,791.3	EASTING 2,295,460.9	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO. 600 51-411 THRID CPT.GPJ NCDOT.GDT 11/16/06



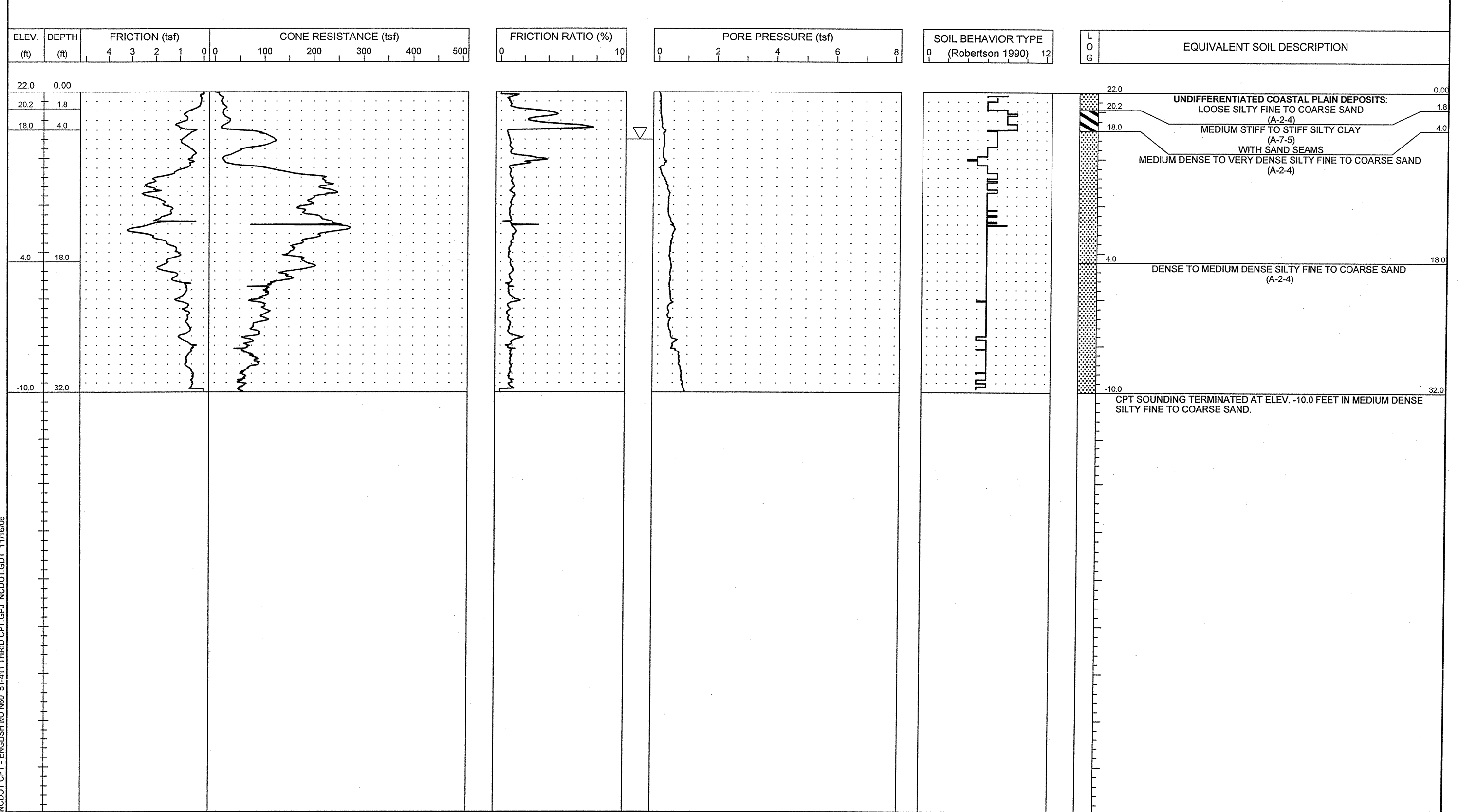
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 30.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-120	BORING LOCATION 269+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 5.0	DATE STARTED 10/16/06	COMPLETED 10/16/06
COLLAR ELEV. 22.0 ft	NORTHING 191,795.4	EASTING 2,295,660.9	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



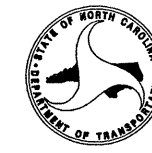
NCDOT CPT - ENGLISH NO. N60 51-411 THRID CPT.GPJ NCDOT.GDT 11/16/06



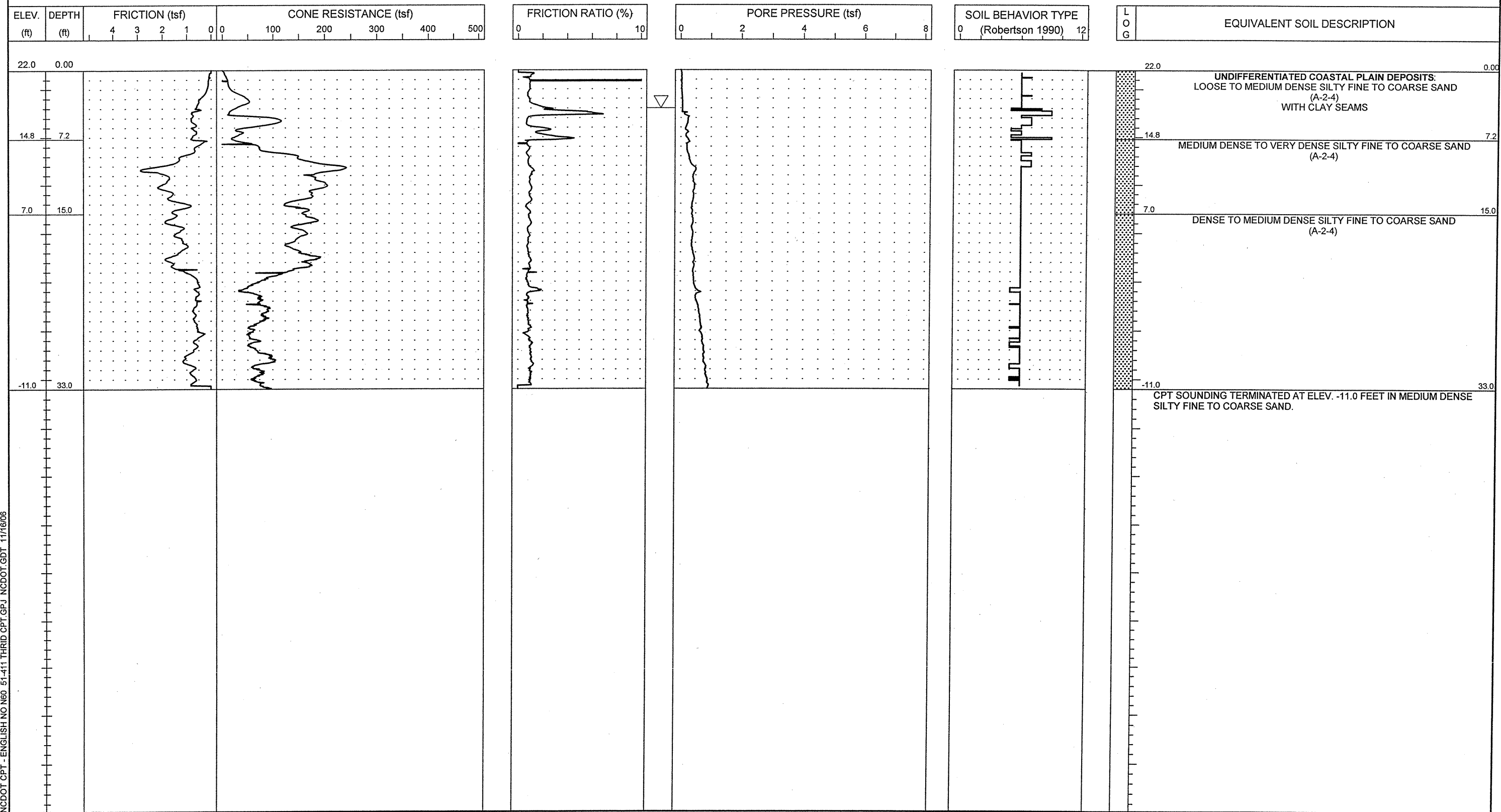
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 32.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-121	BORING LOCATION 271+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 5.0	DATE STARTED 10/16/06	COMPLETED 10/16/06
COLLAR ELEV. 22.0 ft	NORTHING 191,799.5	EASTING 2,295,860.9	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO N60 51-411 THRID CPT.GPJ_NCDOT.GDT 11/16/06



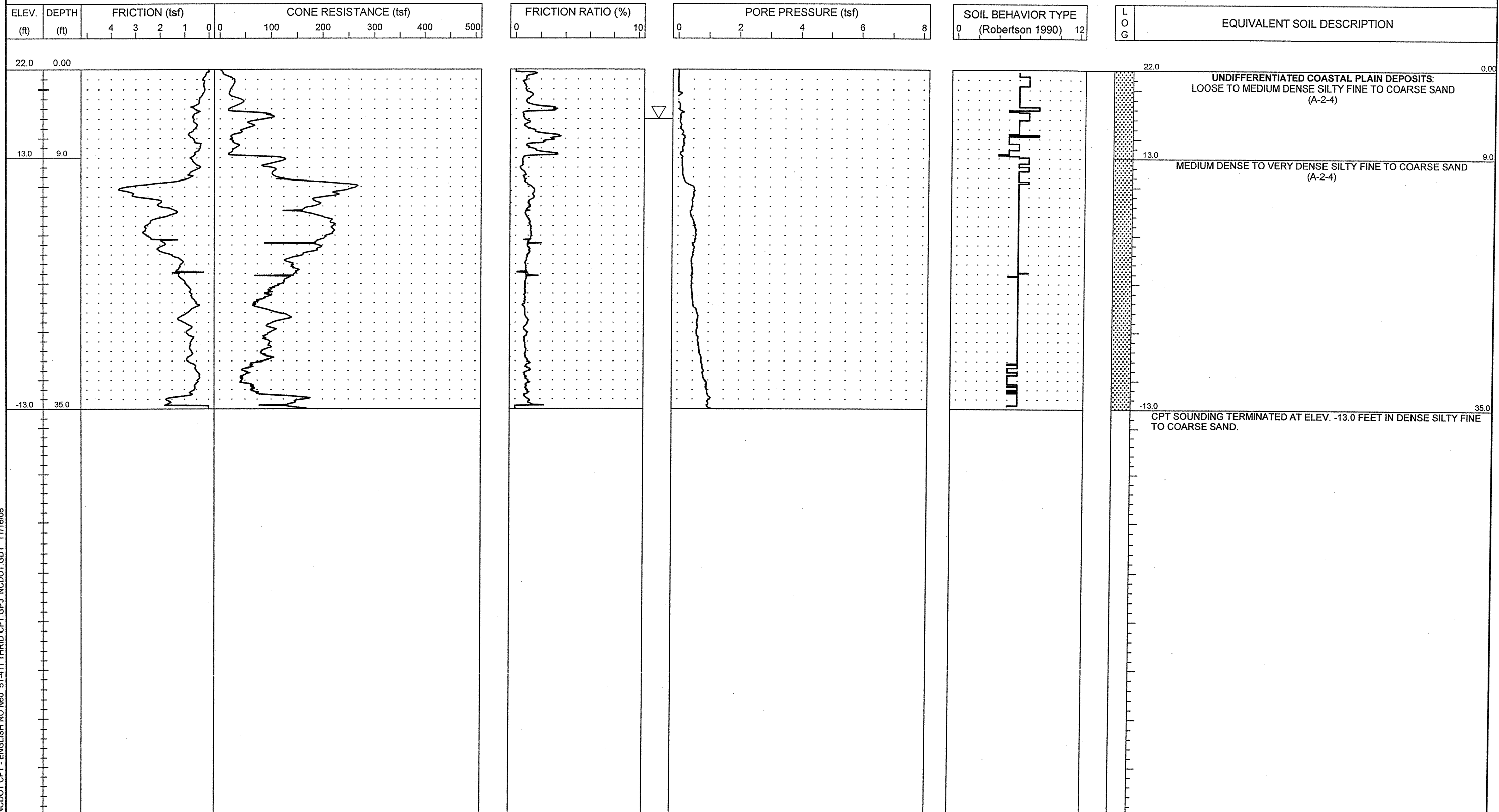
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 33.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-122	BORING LOCATION 273+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 4.0	DATE STARTED 10/16/06	COMPLETED 10/16/06
COLLAR ELEV. 22.0 ft	NORTHING 191,803.6	EASTING 2,296,060.8	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO N60 51-411 THRID CPT.GPJ_NCDOT.GDT 11/16/06



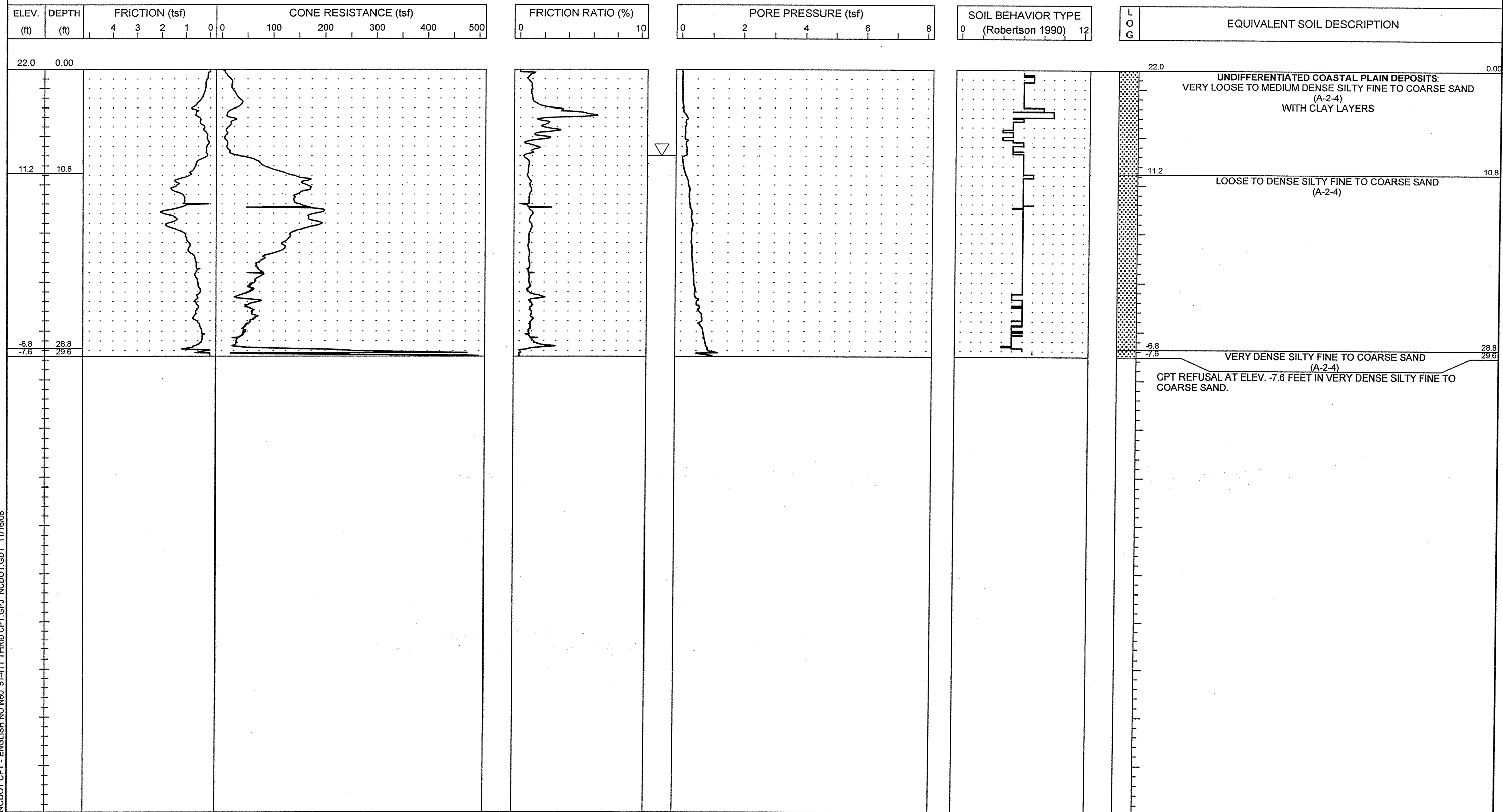
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 35.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-123	BORING LOCATION 275+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 5.0	DATE STARTED 10/16/06	COMPLETED 10/16/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 22.0 ft	NORTHING 191,807.7	EASTING 2,296,260.8		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



NCDOT CPT - ENGLISH NO N60 51-411 THRID CPT.GPJ NCDOT.GDT 11/16/06

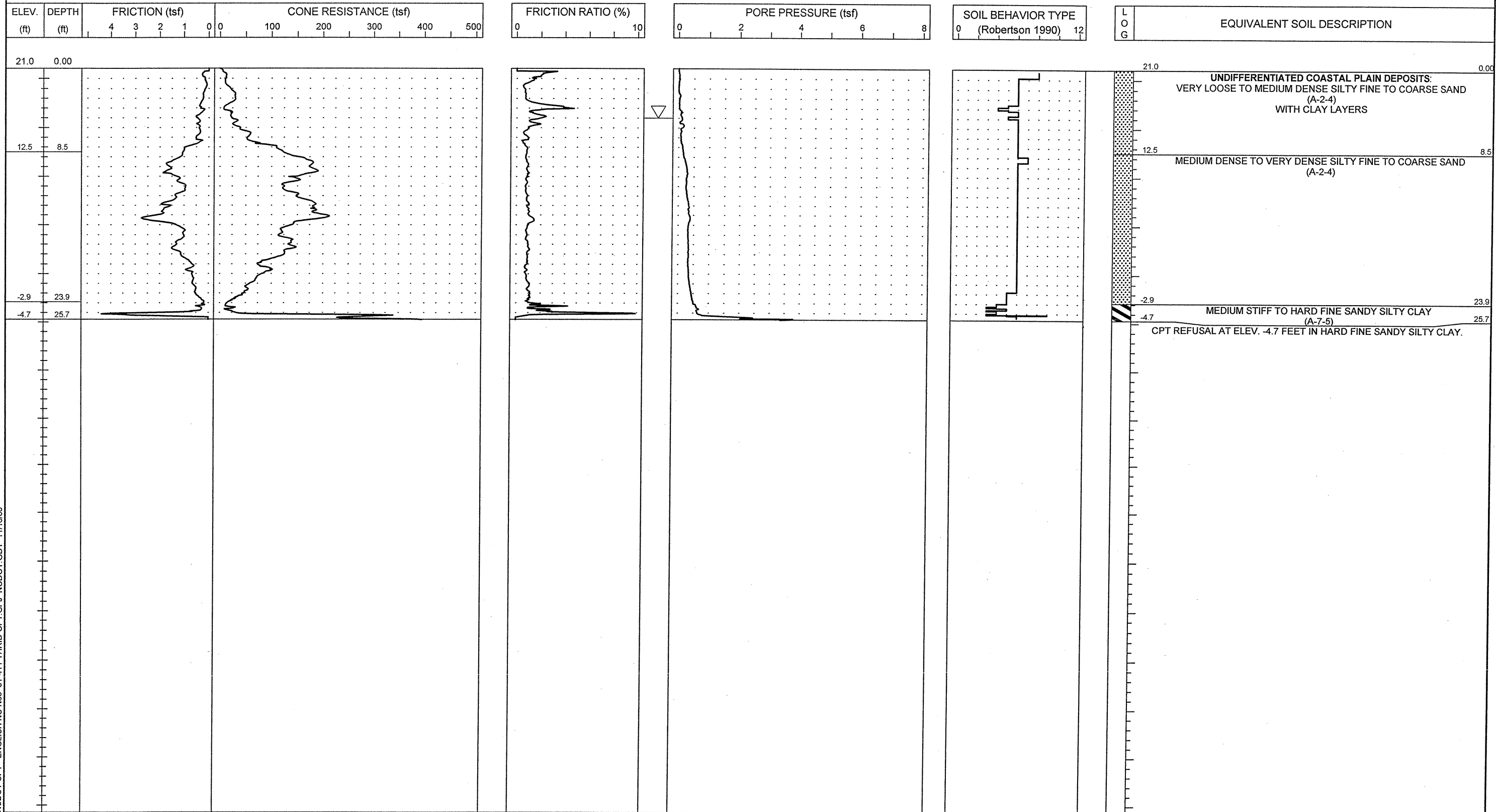


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 29.6 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-124	BORING LOCATION 277+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 9.0	DATE STARTED 10/16/06	COMPLETED 10/16/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 22.0 ft	NORTHING 191,811.7	EASTING 2,296,460.7		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



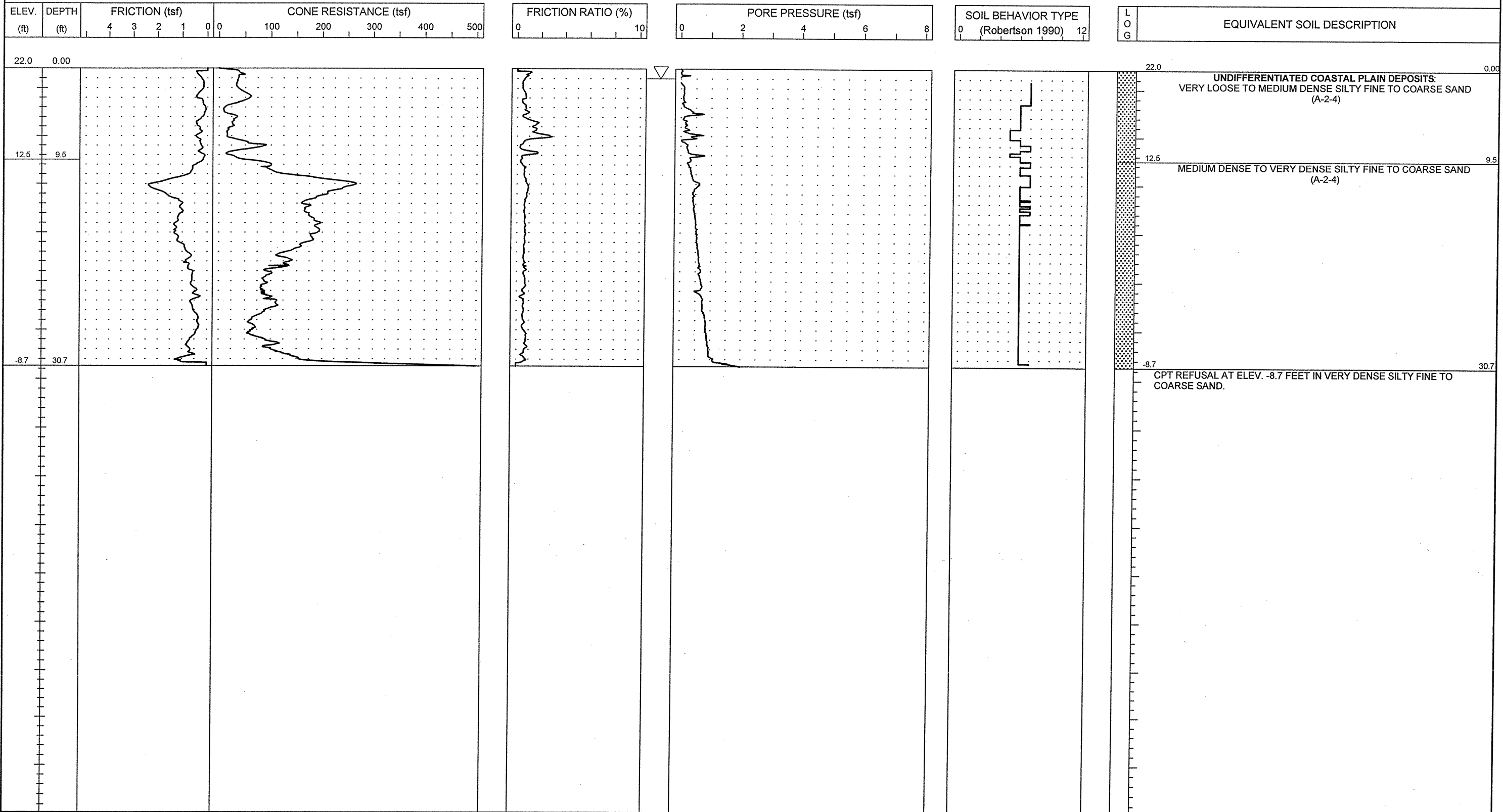
NCDOT CPT - ENGLISH NO N60 51-411_THRID_CPT.GPJ NCDOT.GDT 11/16/06

PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 25.7 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-125	BORING LOCATION 279+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 5.0	DATE STARTED 10/16/06	COMPLETED 10/16/06
COLLAR ELEV. 21.0 ft	NORTHING 191,815.8	EASTING 2,296,660.7	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A





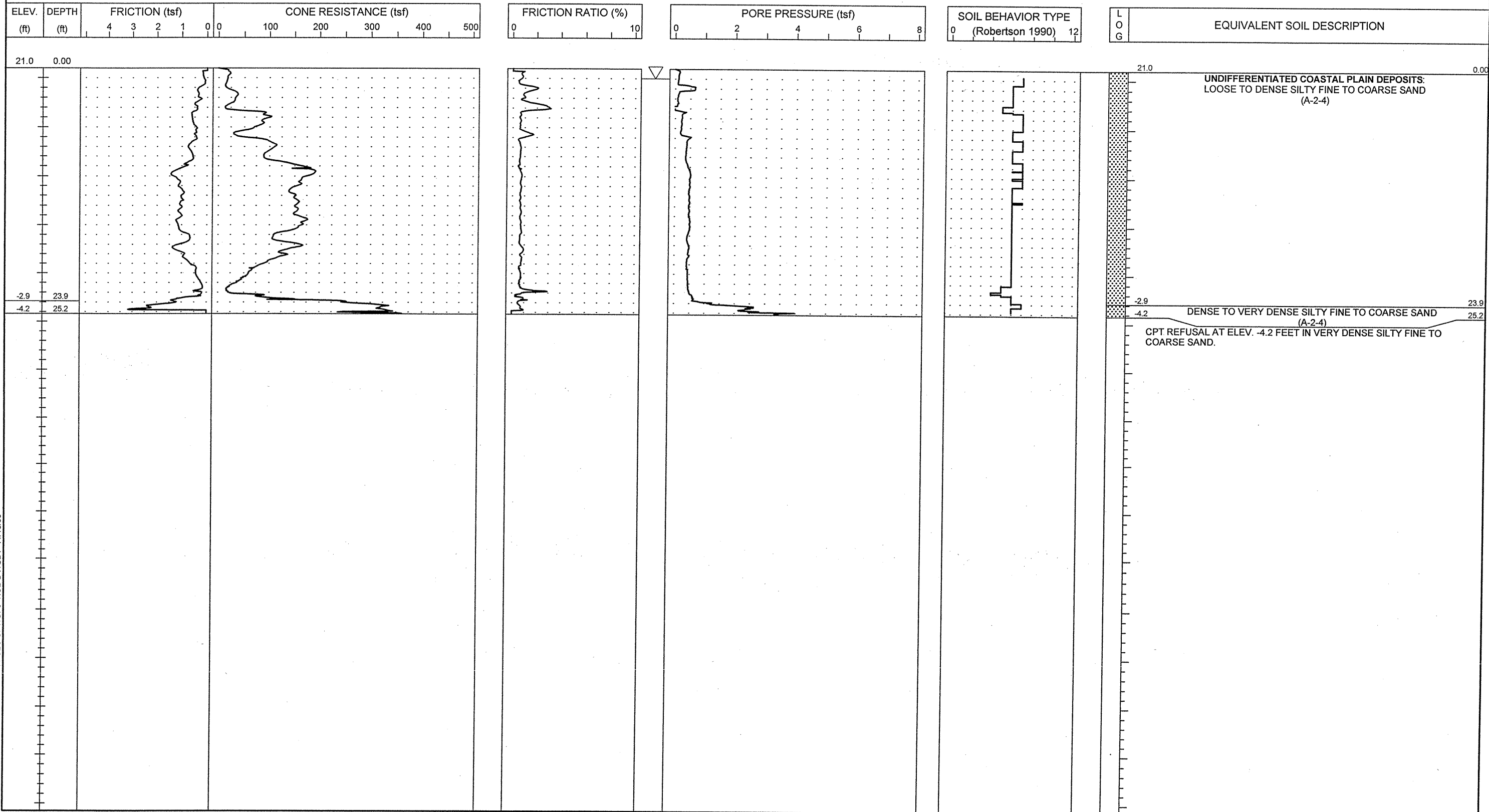
PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 30.7 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-126	BORING LOCATION 280+98	OFFSET 10.0 ft RT	ALIGNMENT -L-	0 HR. 1.0	DATE STARTED 10/12/06	COMPLETED 10/12/06	SURFACE WATER DEPTH N/M	
COLLAR ELEV. 22.0 ft	NORTHING 191,809.9	EASTING 2,296,858.4		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



NCDOT CPT - ENGLISH NO N60 51-411 SEC CPT.GPJ NCDOT.GDT 11/16/08

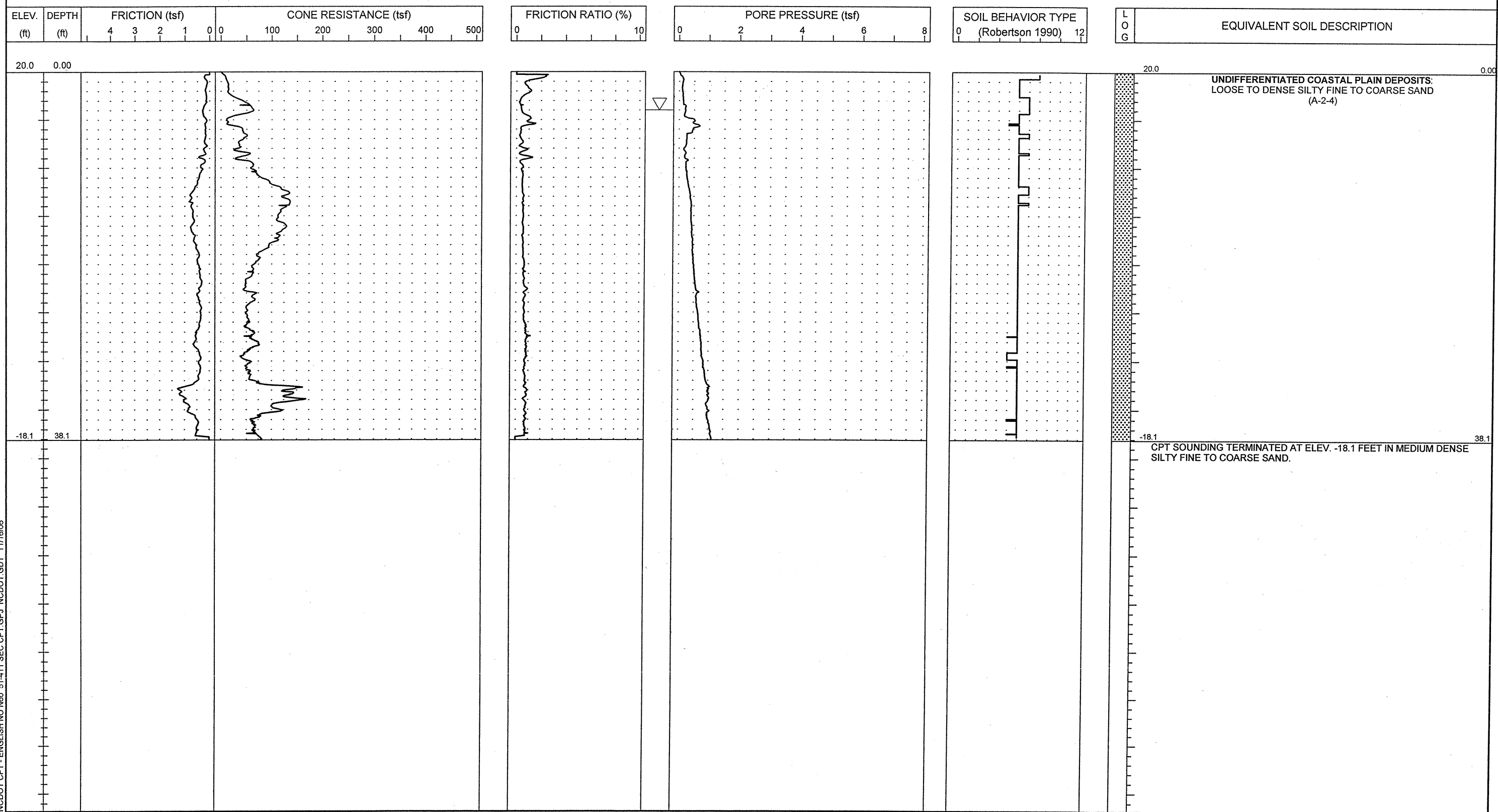


PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 25.2 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-127	BORING LOCATION 282+50	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 1.0	DATE STARTED 10/13/06	COMPLETED 10/13/06	SURFACE WATER DEPTH N/M	
COLLAR ELEV. 21.0 ft	NORTHING 1,918,232.0	EASTING 2,297,010.6		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



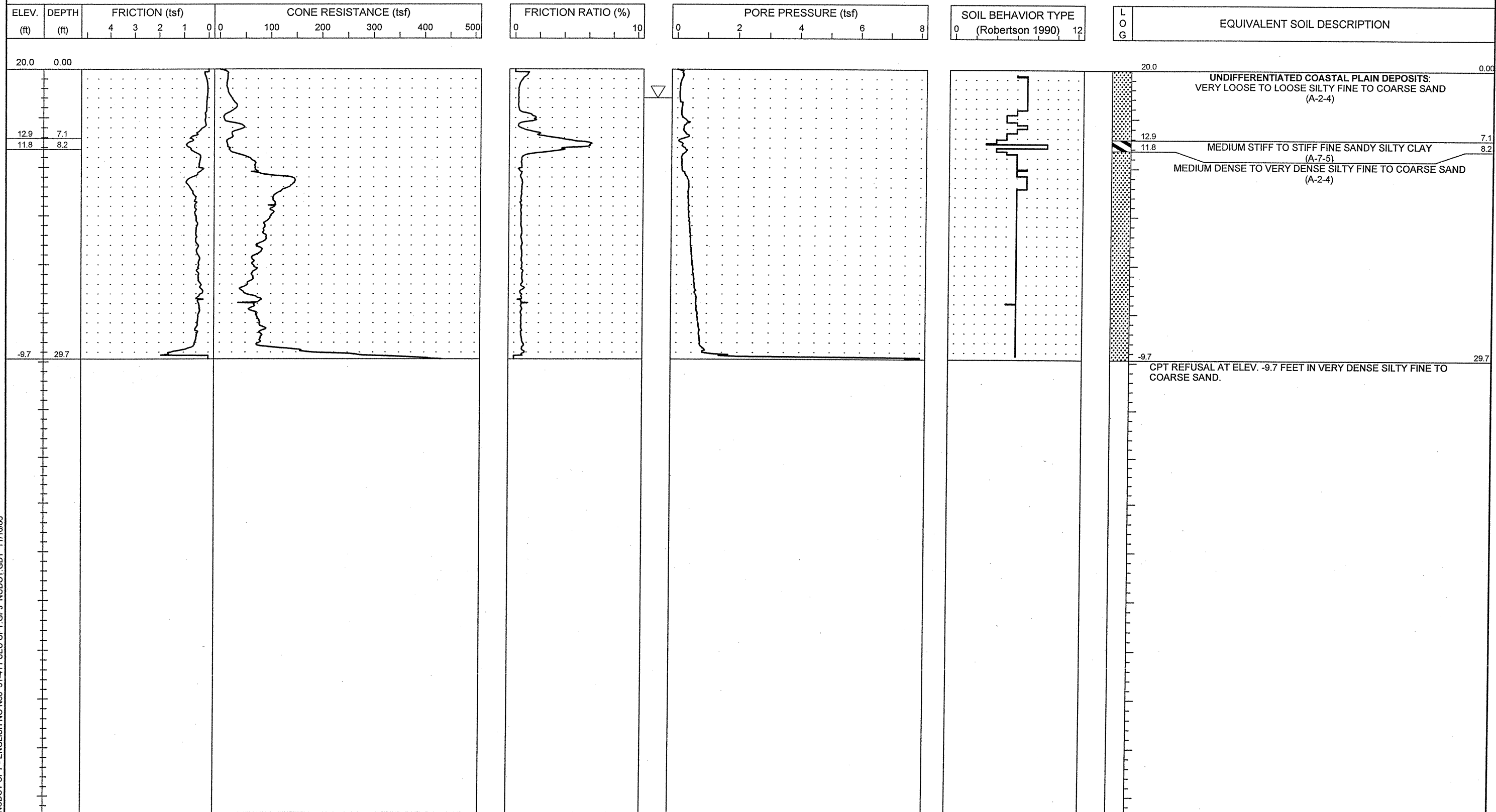


PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 38.1 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-128	BORING LOCATION 285+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 4.0	DATE STARTED 10/13/06	COMPLETED 10/13/06
COLLAR ELEV. 20.0 ft	NORTHING 191,828.1	EASTING 2,297,260.6	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M
						HAMMER TYPE N/A



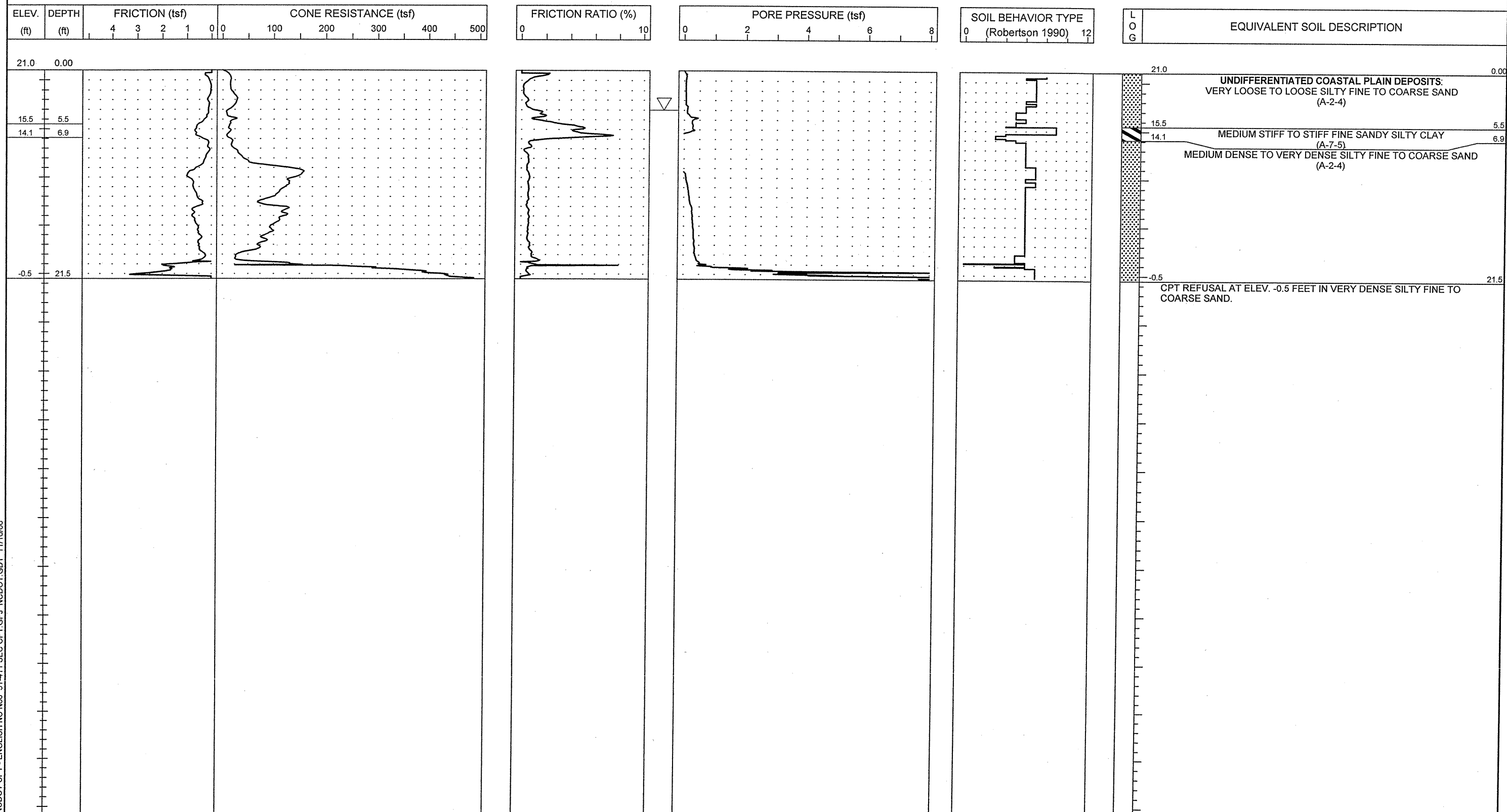
NCDOT CPT - ENGLISH NO N60 51-411_SEC.CPT.GPJ NCDOT.GDT 11/16/06

PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 29.7 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-129	BORING LOCATION 287+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 3.0	DATE STARTED 10/13/06	COMPLETED 10/13/06	SURFACE WATER DEPTH N/M	
COLLAR ELEV. 20.0 ft	NORTHING 191,832.2	EASTING 2,297,460.5		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



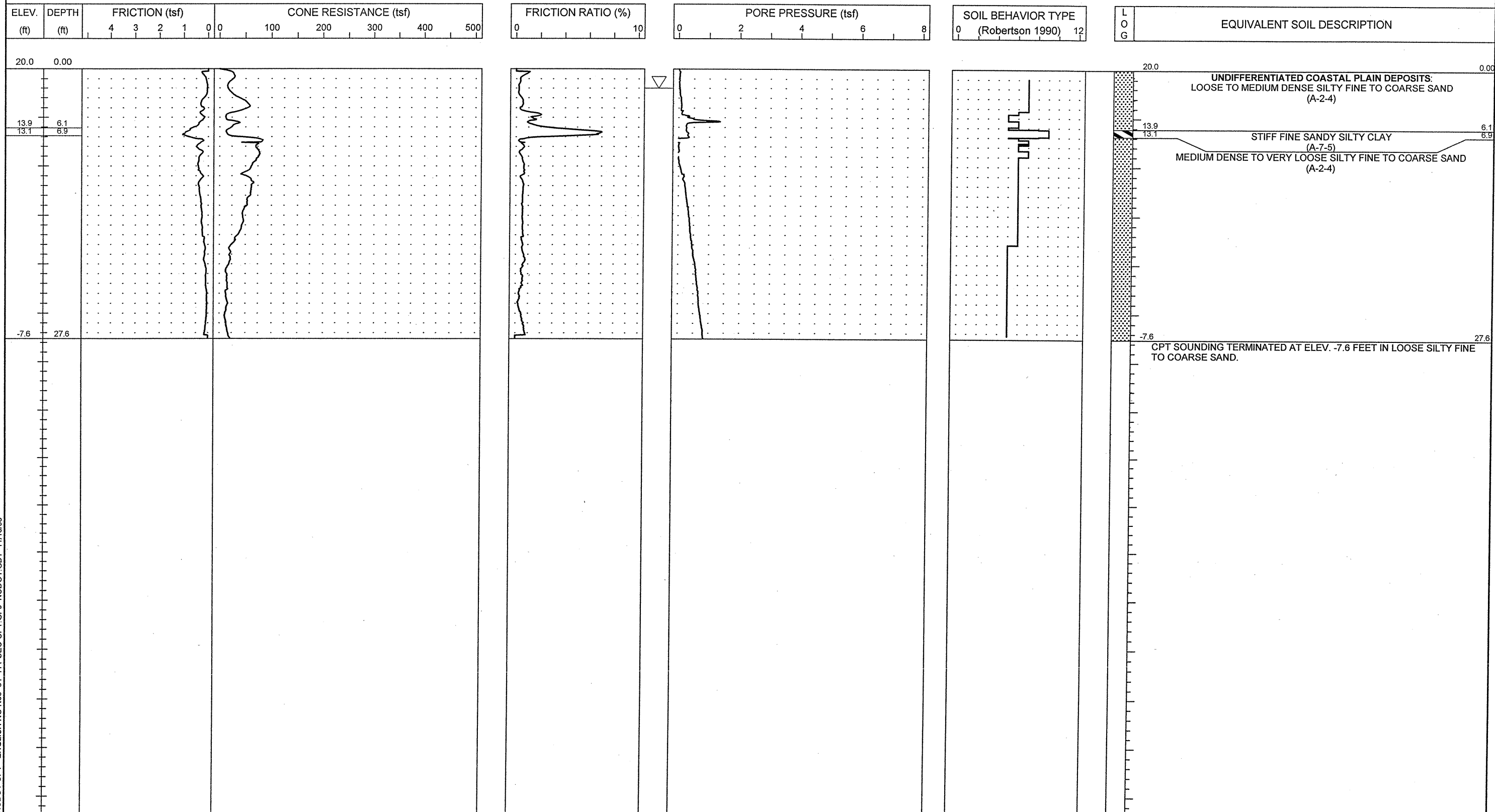


PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 21.5 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-130	BORING LOCATION 289+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 4.0	DATE STARTED 10/13/06	COMPLETED 10/13/06	SURFACE WATER DEPTH N/M	
COLLAR ELEV. 21.0 ft	NORTHING 191,836.3	EASTING 2,297,660.5		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		





PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 27.6 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-131	BORING LOCATION 291+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 2.0	DATE STARTED 10/13/06	COMPLETED 10/13/06
COLLAR ELEV. 20.0 ft	NORTHING 191,840.4	EASTING 2,297,860.4	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M
				HAMMER TYPE N/A		

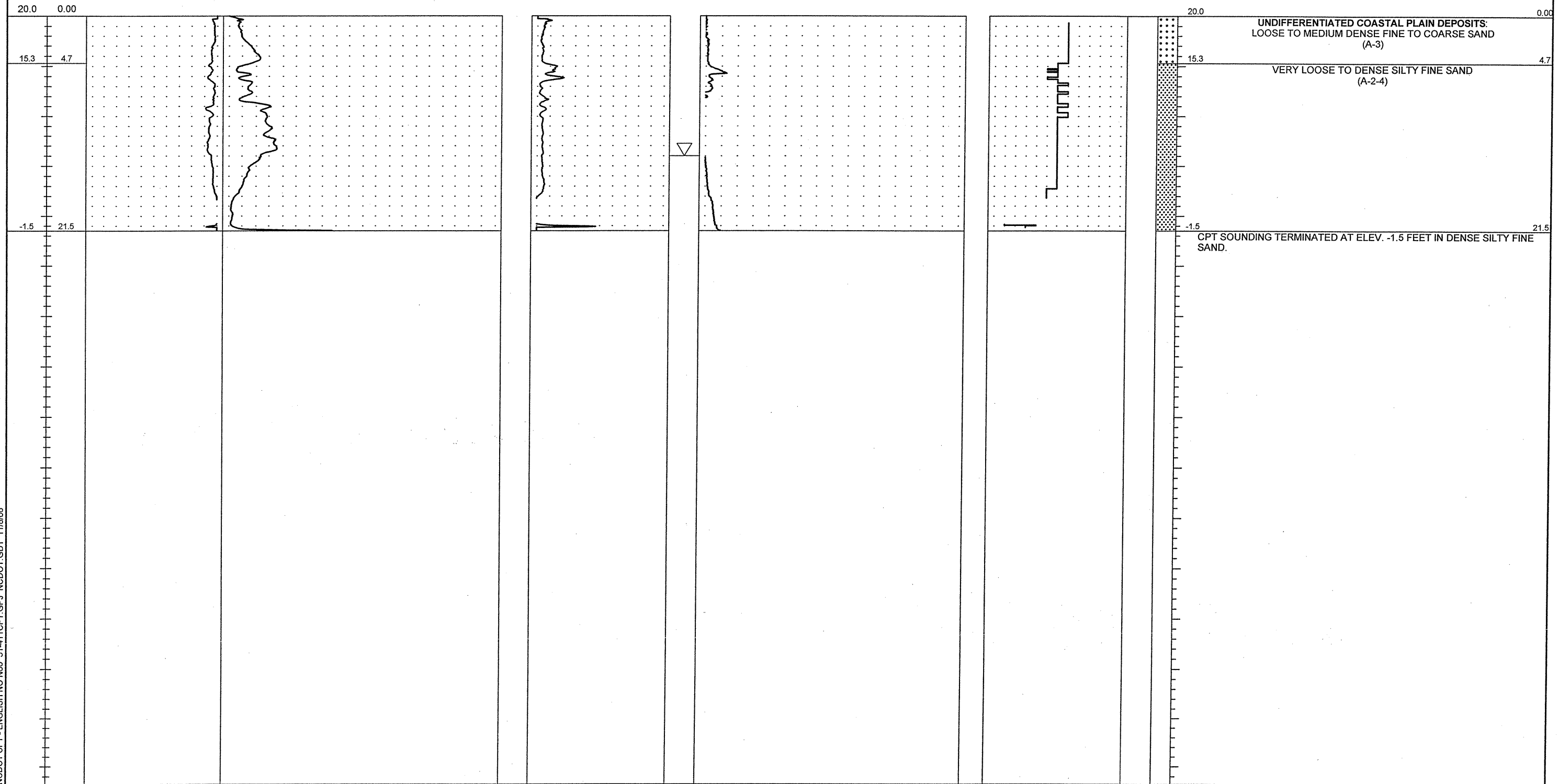


NCDOT CPT - ENGLISH NO N60 51-411 SEC CPT.GPJ NCDOT.GDT 11/16/06



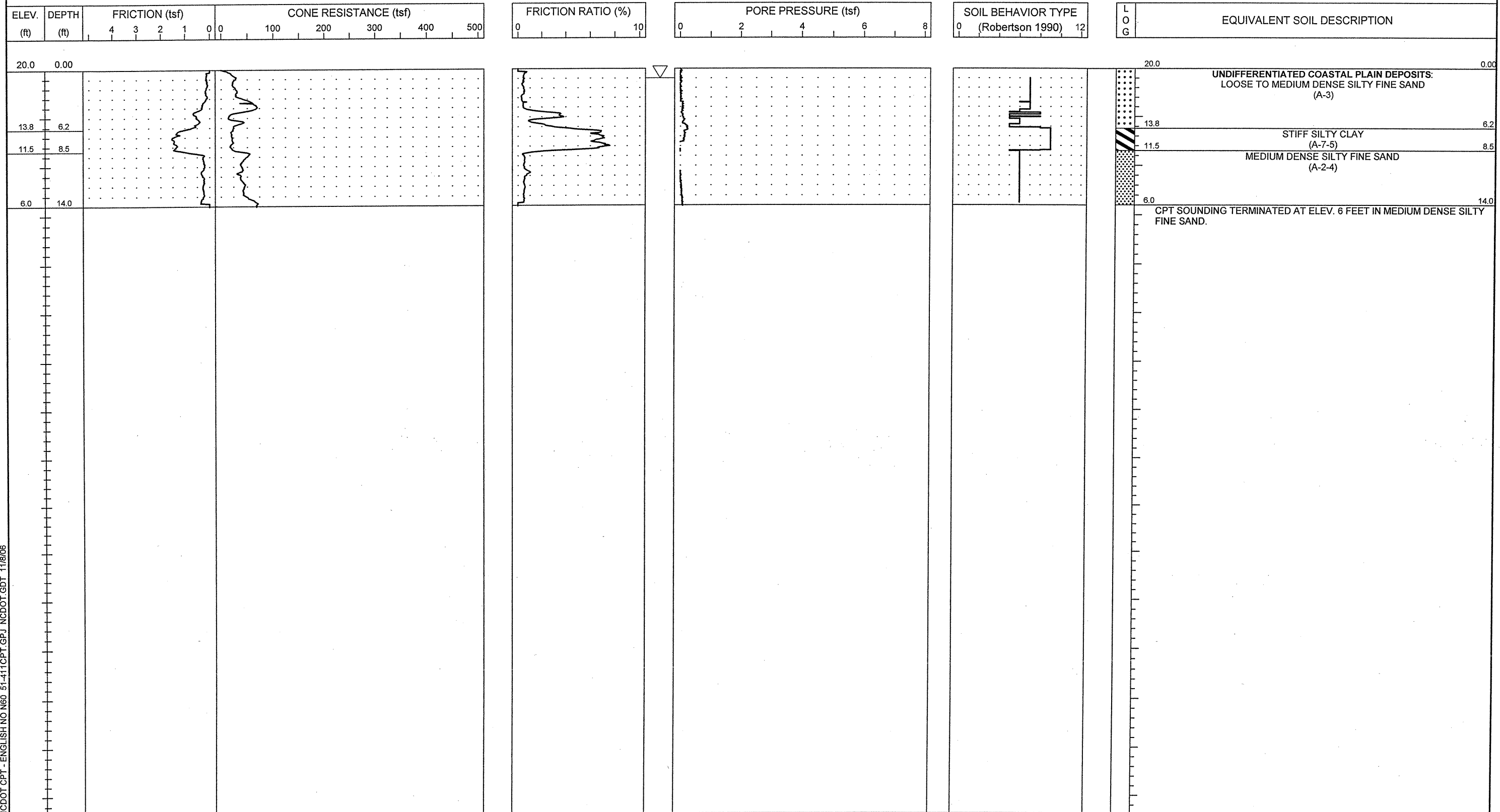
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 21.5 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-132	BORING LOCATION 293+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 14.0	DATE STARTED 9/29/06	COMPLETED 9/29/06
COLLAR ELEV. 20.0 ft	NORTHING 191,844.4	EASTING 2,298,060.4	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A

ELEV. (ft)	DEPTH (ft)	FRICITION (tsf)	CONE RESISTANCE (tsf)	FRICITION RATIO (%)	PORE PRESSURE (tsf)	SOIL BEHAVIOR TYPE (Robertson 1990)	LOG	EQUIVALENT SOIL DESCRIPTION
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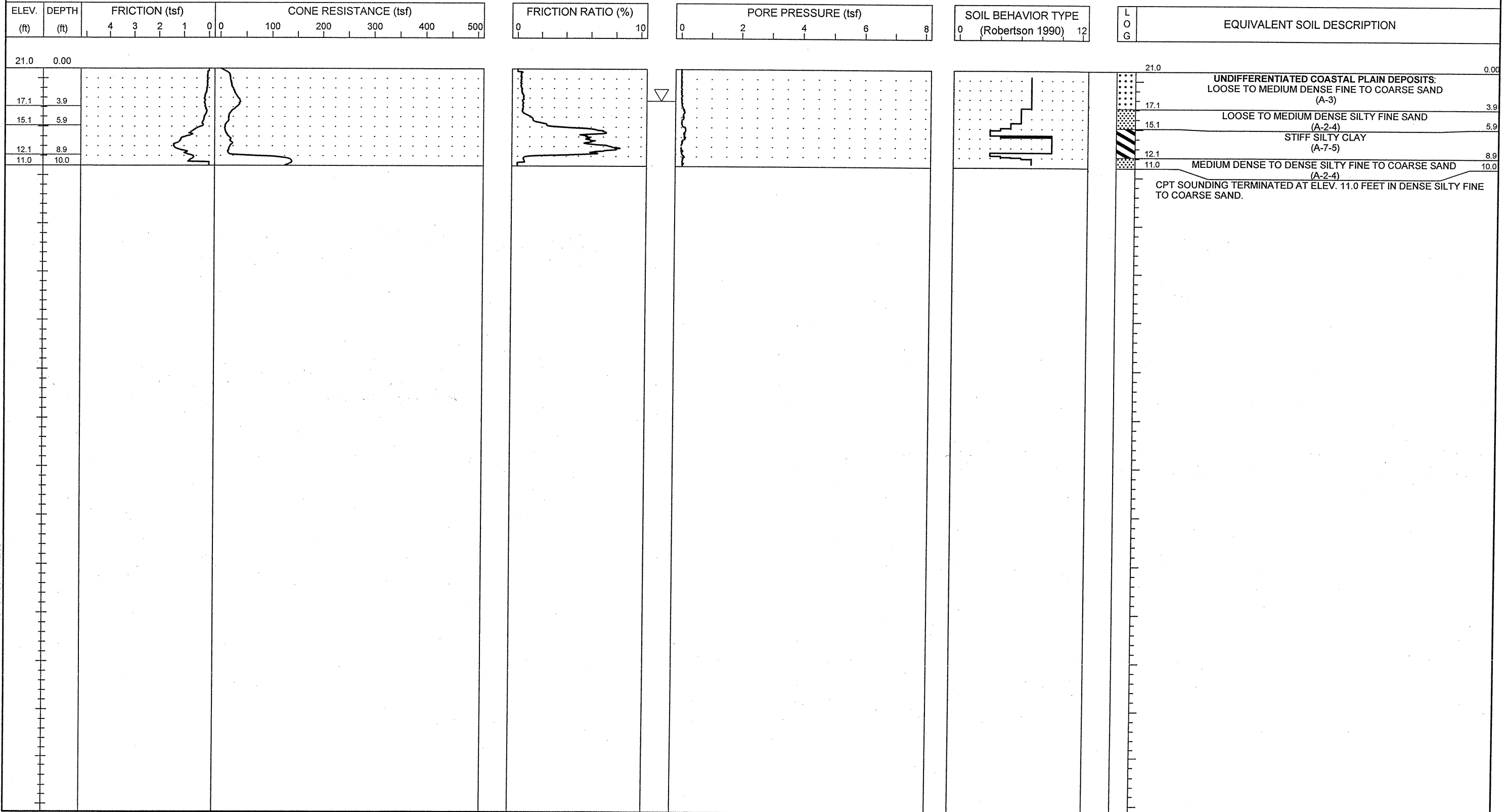
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 14.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-133	BORING LOCATION 295+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 1.0	DATE STARTED 9/29/06	COMPLETED 9/29/06
COLLAR ELEV. 20.0 ft	NORTHING 191,848.5	EASTING 2,298,260.4	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO. N60 51-411CPT.GPJ NCDOT.GDT 11/8/06

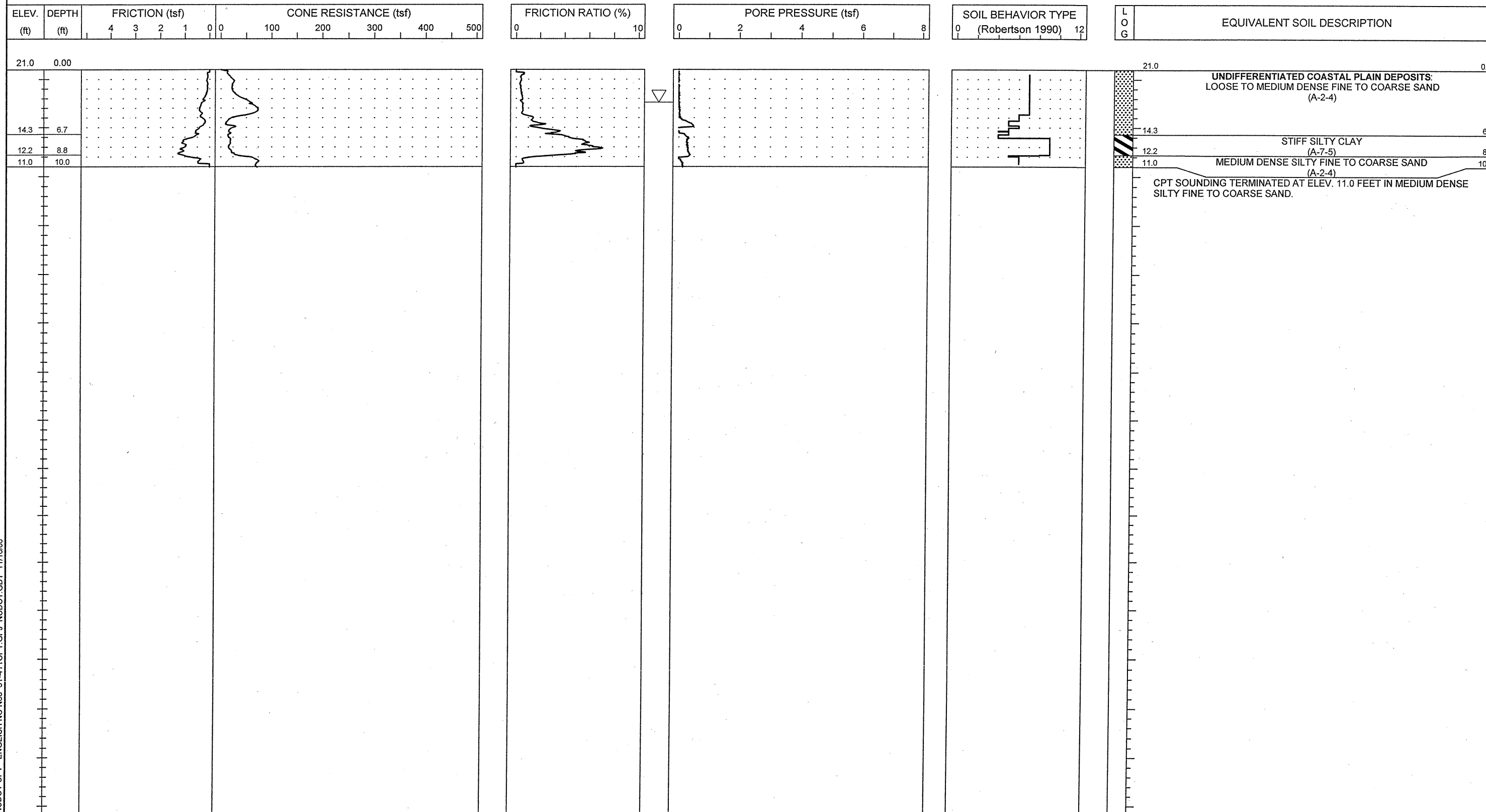


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-134	BORING LOCATION 297+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 3.3	DATE STARTED 9/29/06	COMPLETED 9/29/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 21.0 ft	NORTHING 191,852.6	EASTING 2,298,460.3		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



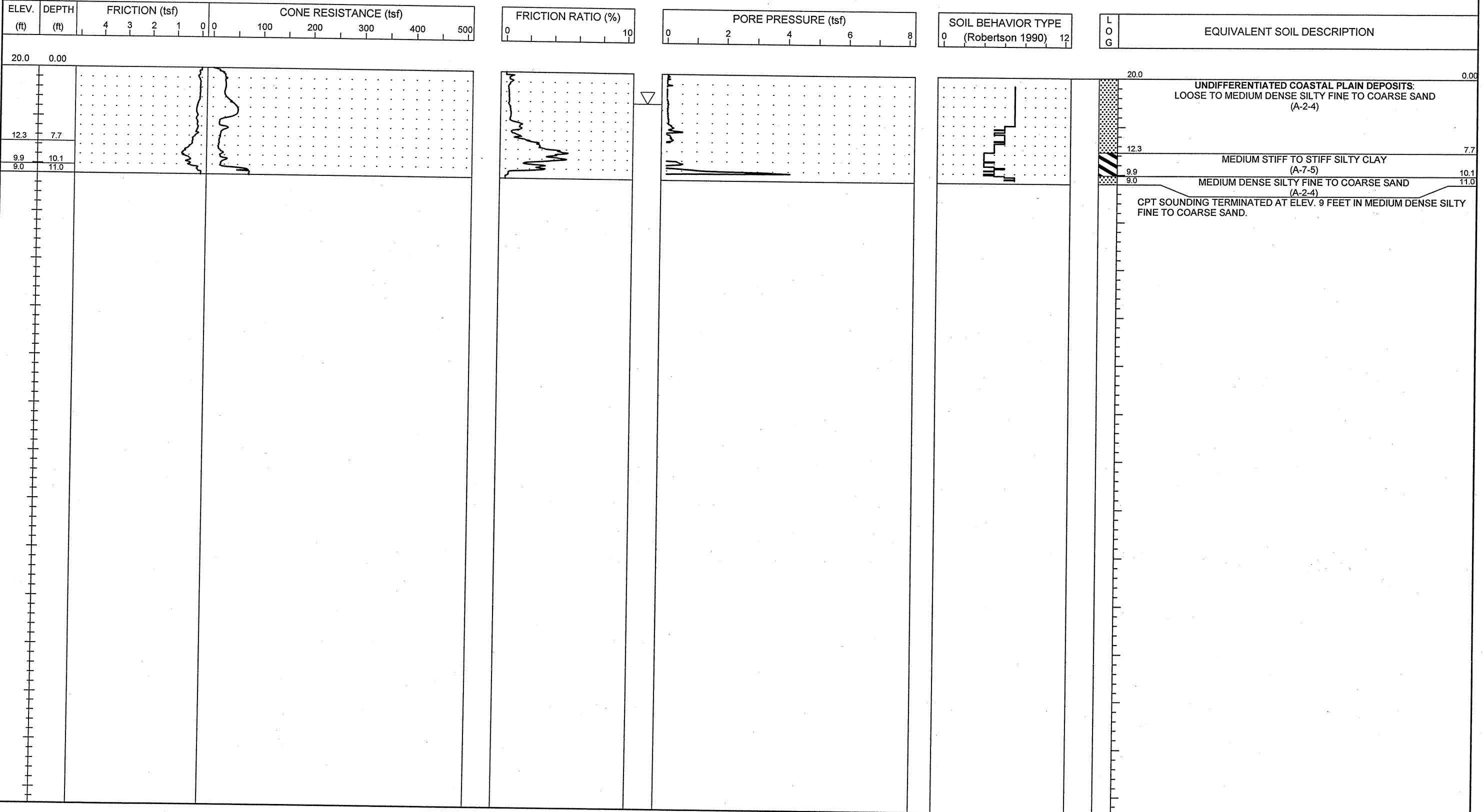


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-135	BORING LOCATION 299+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 3.4	DATE STARTED 9/29/06	COMPLETED 9/29/06
COLLAR ELEV. 21.0 ft	NORTHING 191,856.7	EASTING 2,298,660.3	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



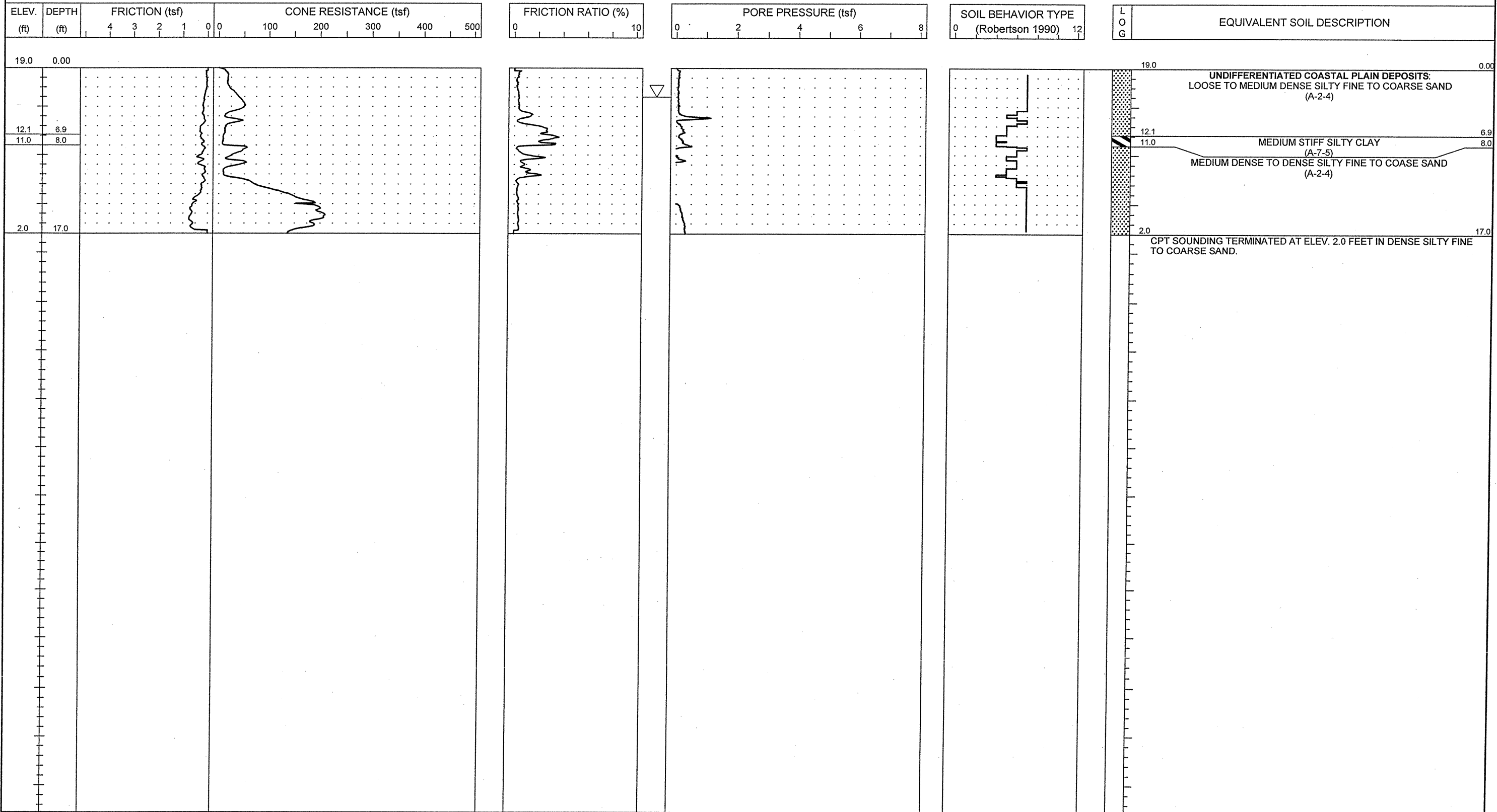


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 11.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-136	BORING LOCATION 301+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 3.1	DATE STARTED 9/28/06	COMPLETED 9/28/06
COLLAR ELEV. 20.0 ft	NORTHING 191,860.8	EASTING 2,298,860.2	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



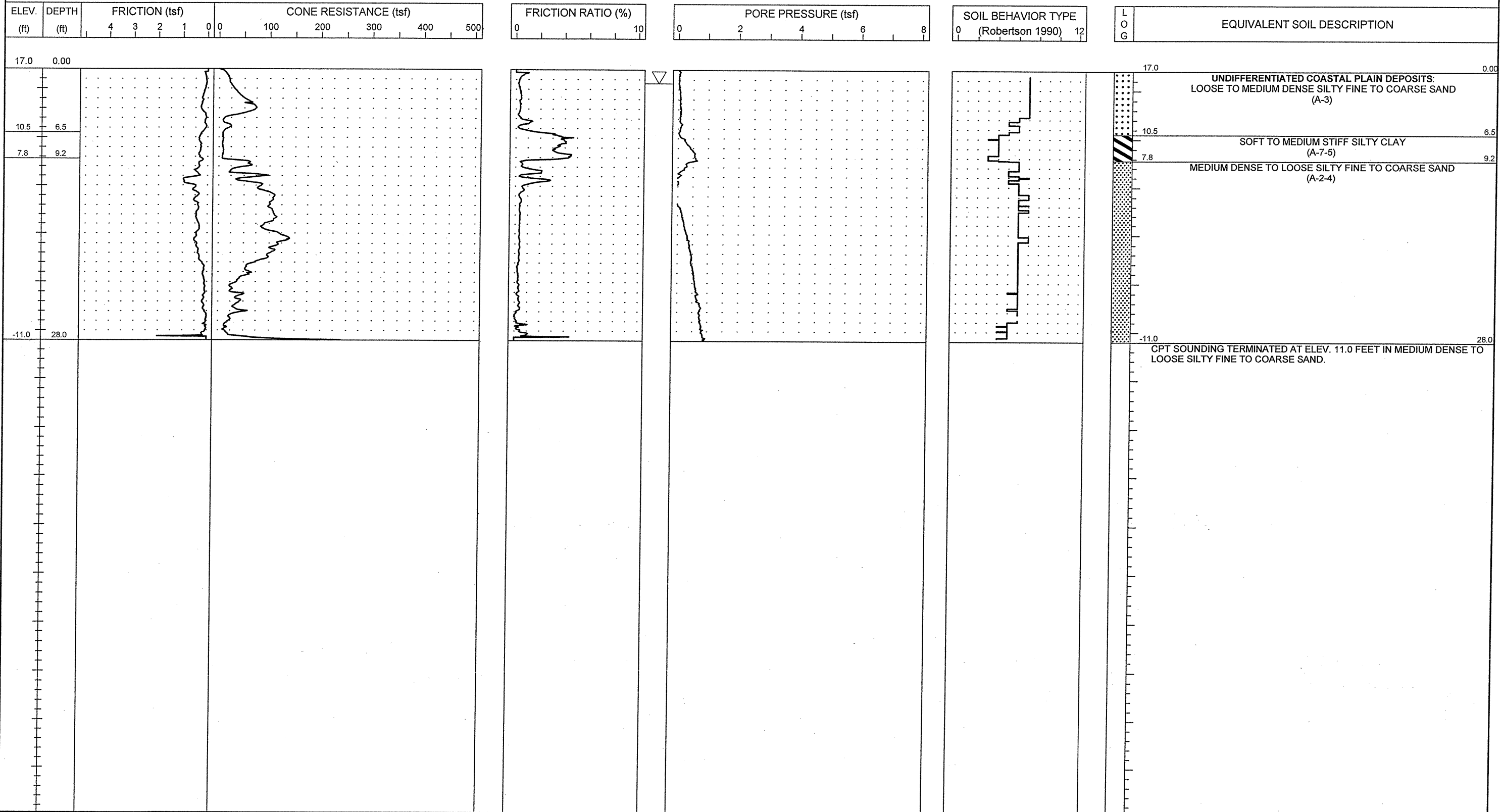


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 17.0 ft	DRILL MACHINE CPT-ATV
BORING NO. C-137	BORING LOCATION 303+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 3.0	DATE STARTED 9/28/06	COMPLETED 9/28/06
COLLAR ELEV. 19.0 ft	NORTHING 191,864.9	EASTING 2,299,060.2	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A





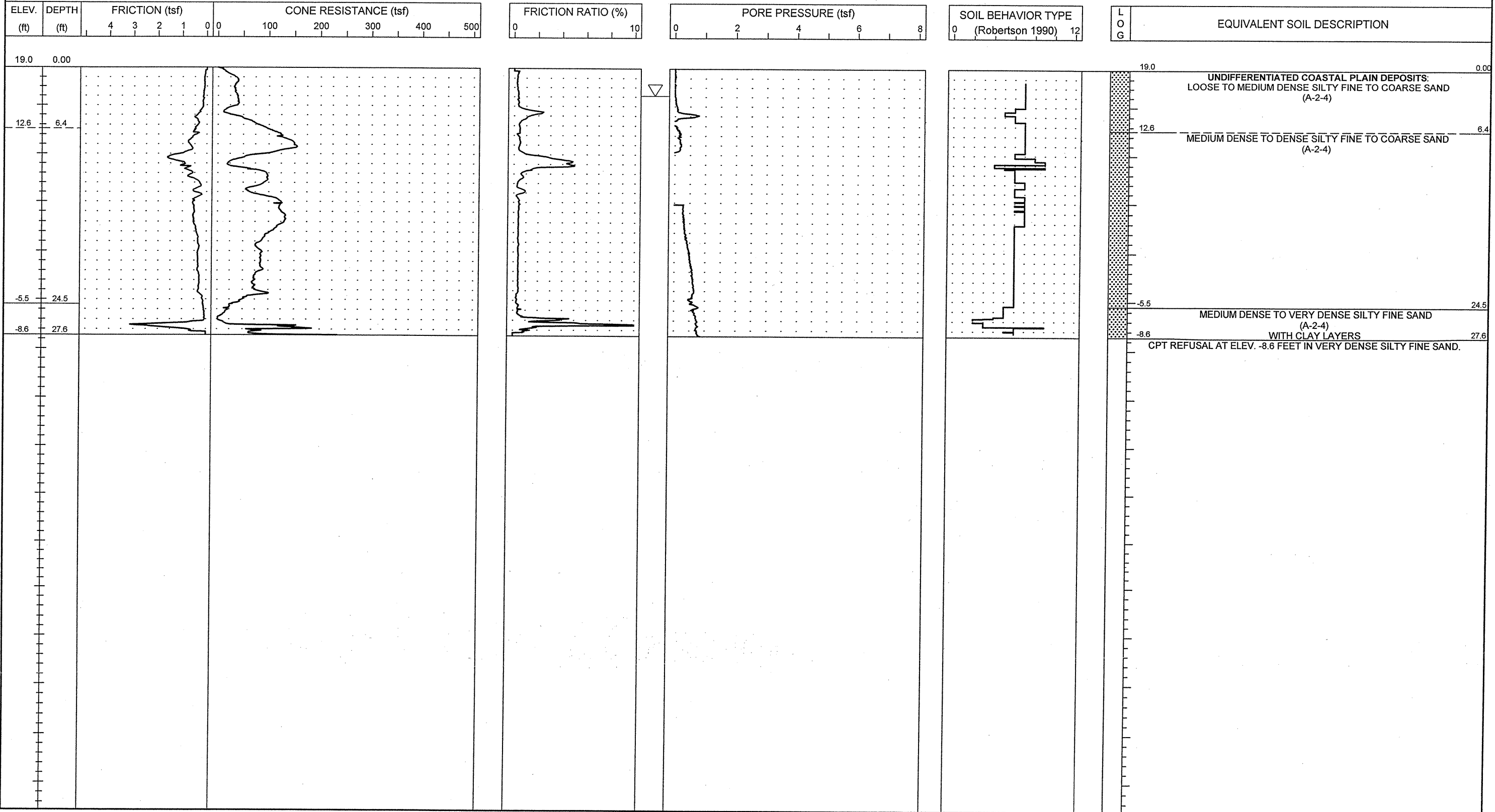
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 28.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-138	BORING LOCATION 305+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 1.4	DATE STARTED 9/28/06	COMPLETED 9/28/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 17.0 ft	NORTHING 191,869.0	EASTING 2,299,260.1		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



NCDOT CPT - ENGLISH NO N60 51-411CPT.GPJ NCDOT.GDT 11/8/06

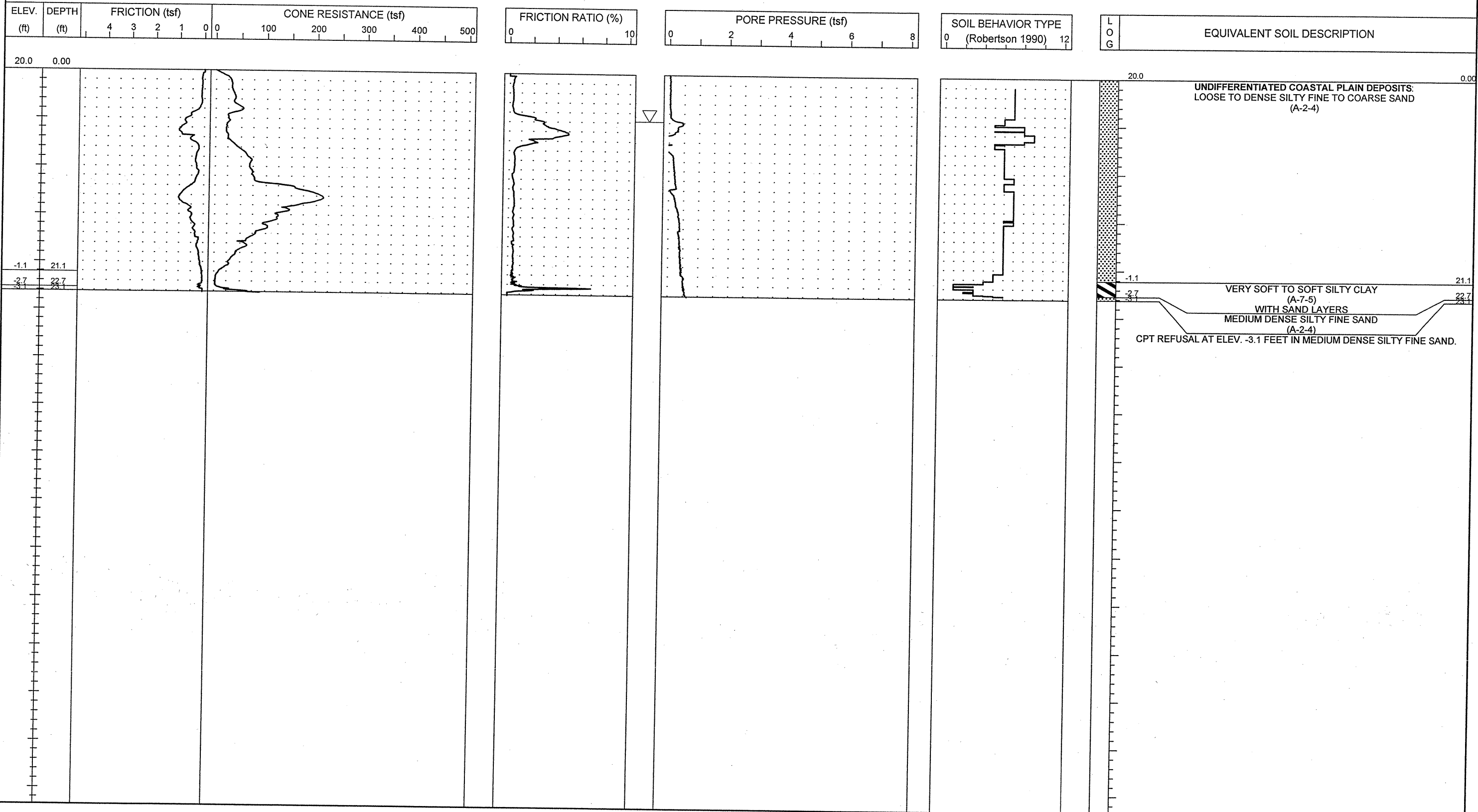


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 27.6 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-139	BORING LOCATION 307+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 2.9	DATE STARTED 9/29/06	COMPLETED 9/29/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 19.0 ft	NORTHING 191,873.0	EASTING 2,299,460.1		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		





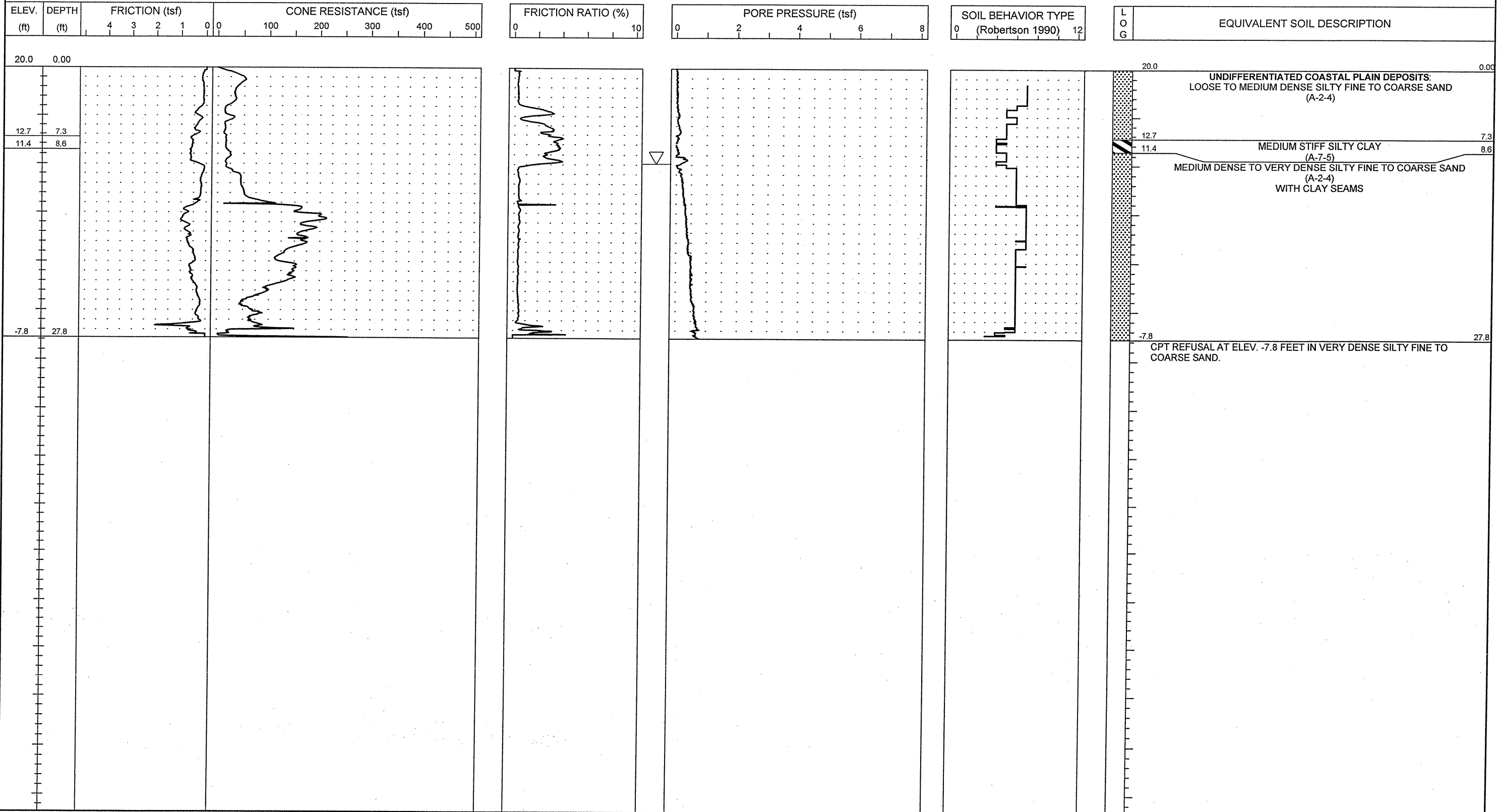
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 23.1 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-140	BORING LOCATION 309+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 4.9	DATE STARTED 9/29/06	COMPLETED 9/29/06
COLLAR ELEV. 20.0 ft	NORTHING 191,877.1	EASTING 2,299,660.1	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO. 60 51-411CPT.GPJ NCDOT.GDT 11/8/06

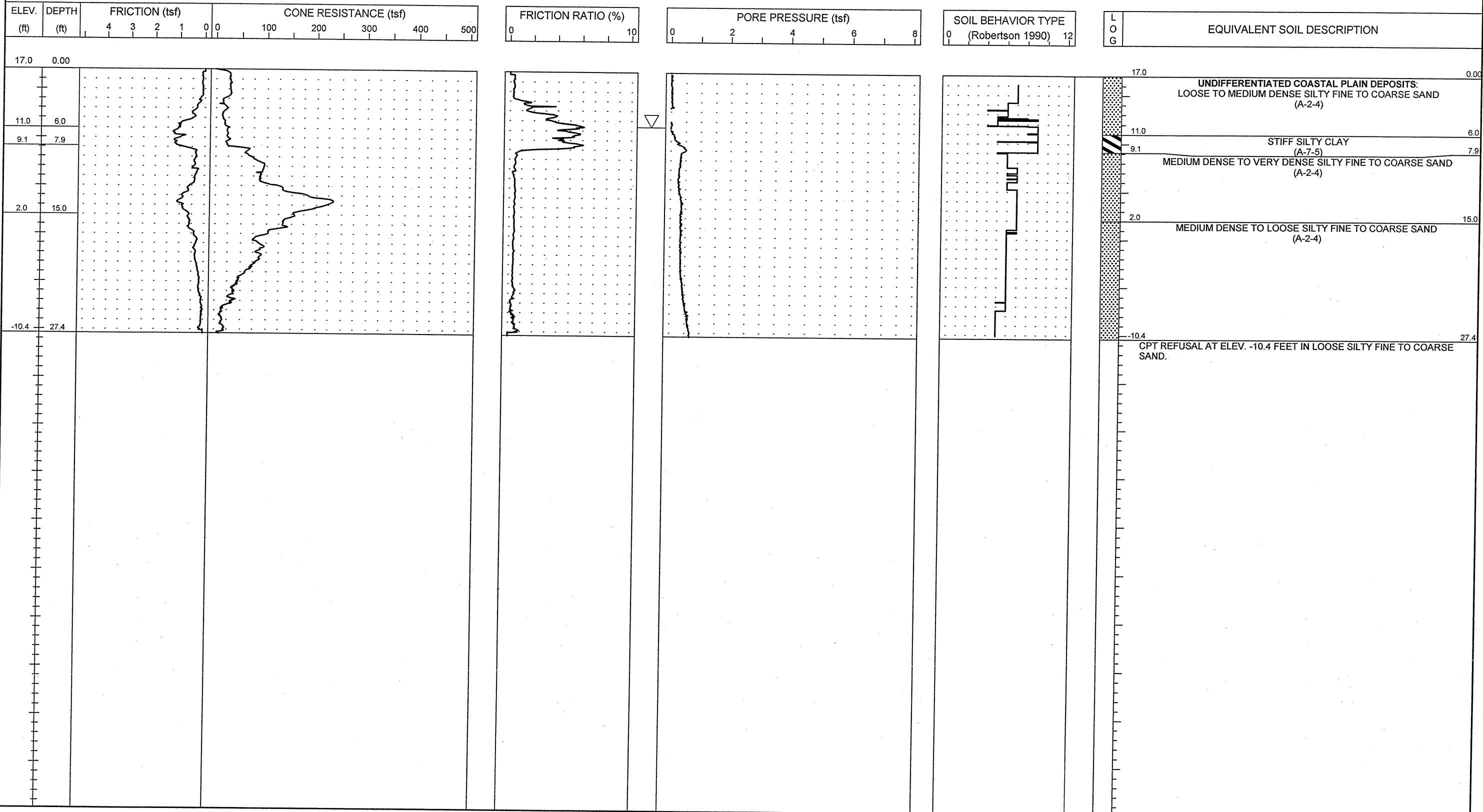


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 27.8 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-141	BORING LOCATION 311+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 9.9	DATE STARTED 9/29/06	COMPLETED 9/29/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 20.0 ft	NORTHING 191,881.2	EASTING 2,299,860.0		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



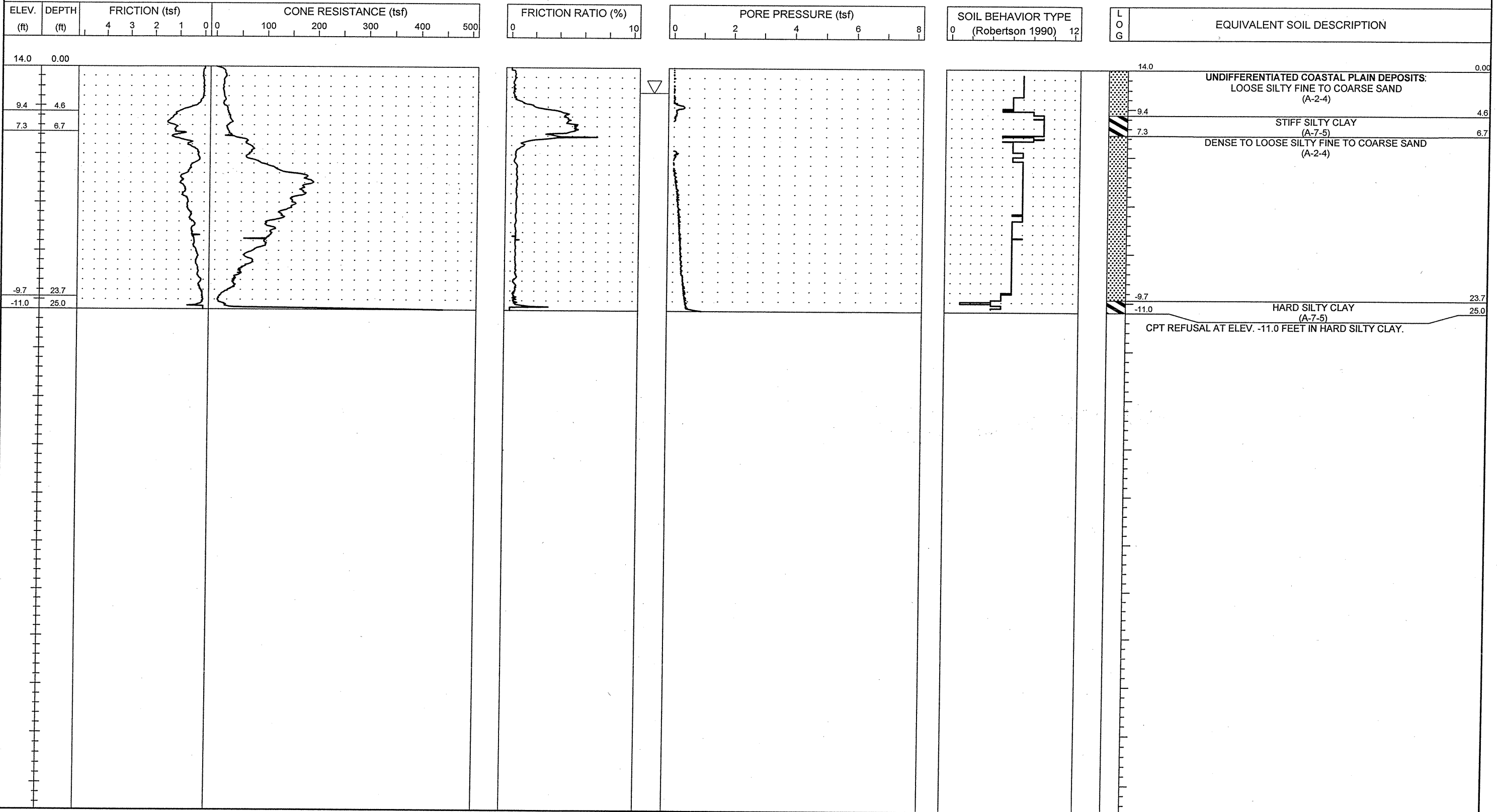


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 27.4 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-142	BORING LOCATION 313+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 5.6	DATE STARTED 9/29/06	COMPLETED 9/29/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 17.0 ft	NORTHING 191,885.3	EASTING 2,300,060.0		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



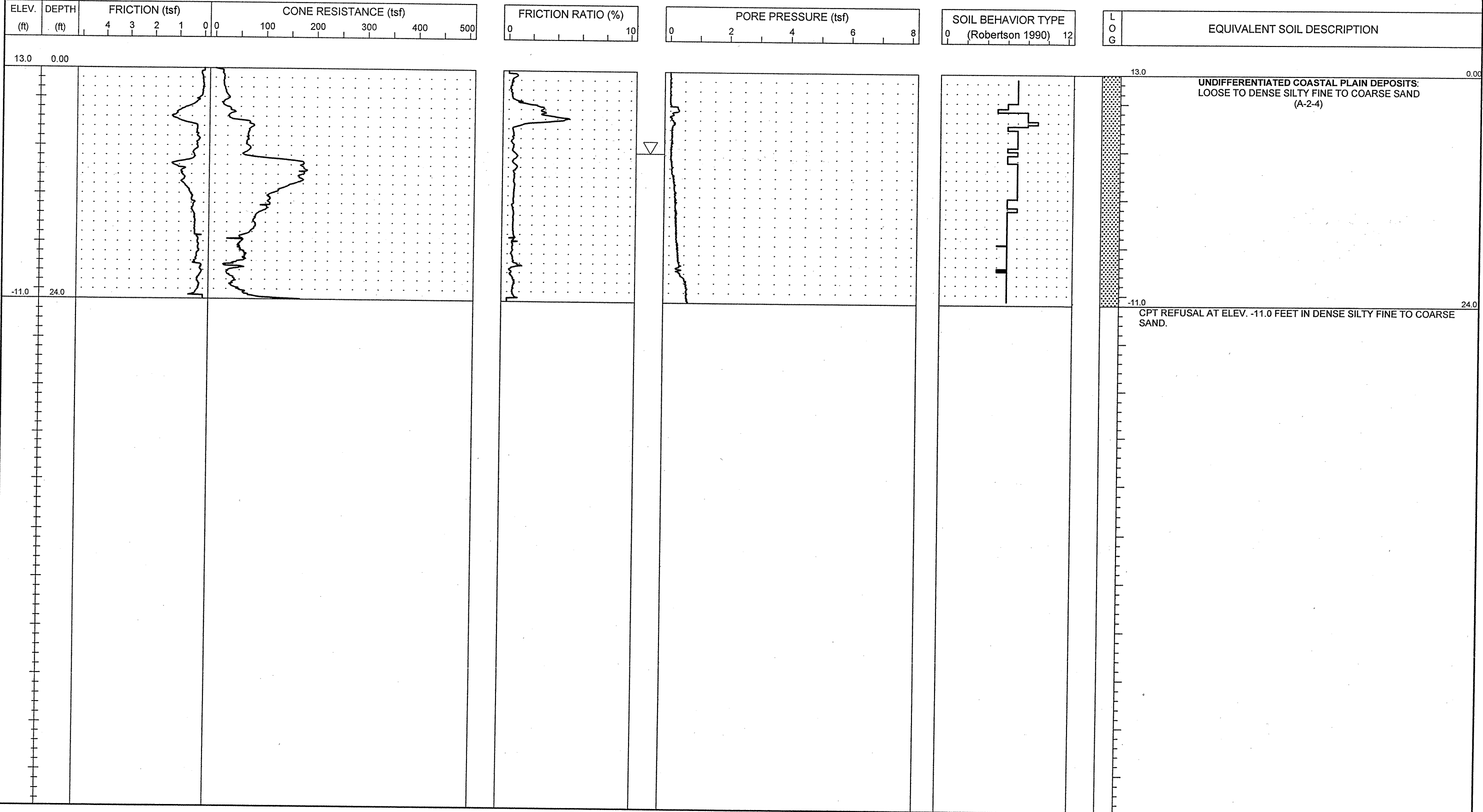


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 25.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-143	BORING LOCATION 315+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 2.5	DATE STARTED 9/29/06	COMPLETED 9/29/06
COLLAR ELEV. 14.0 ft	NORTHING 191,889.4	EASTING 2,300,259.9	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



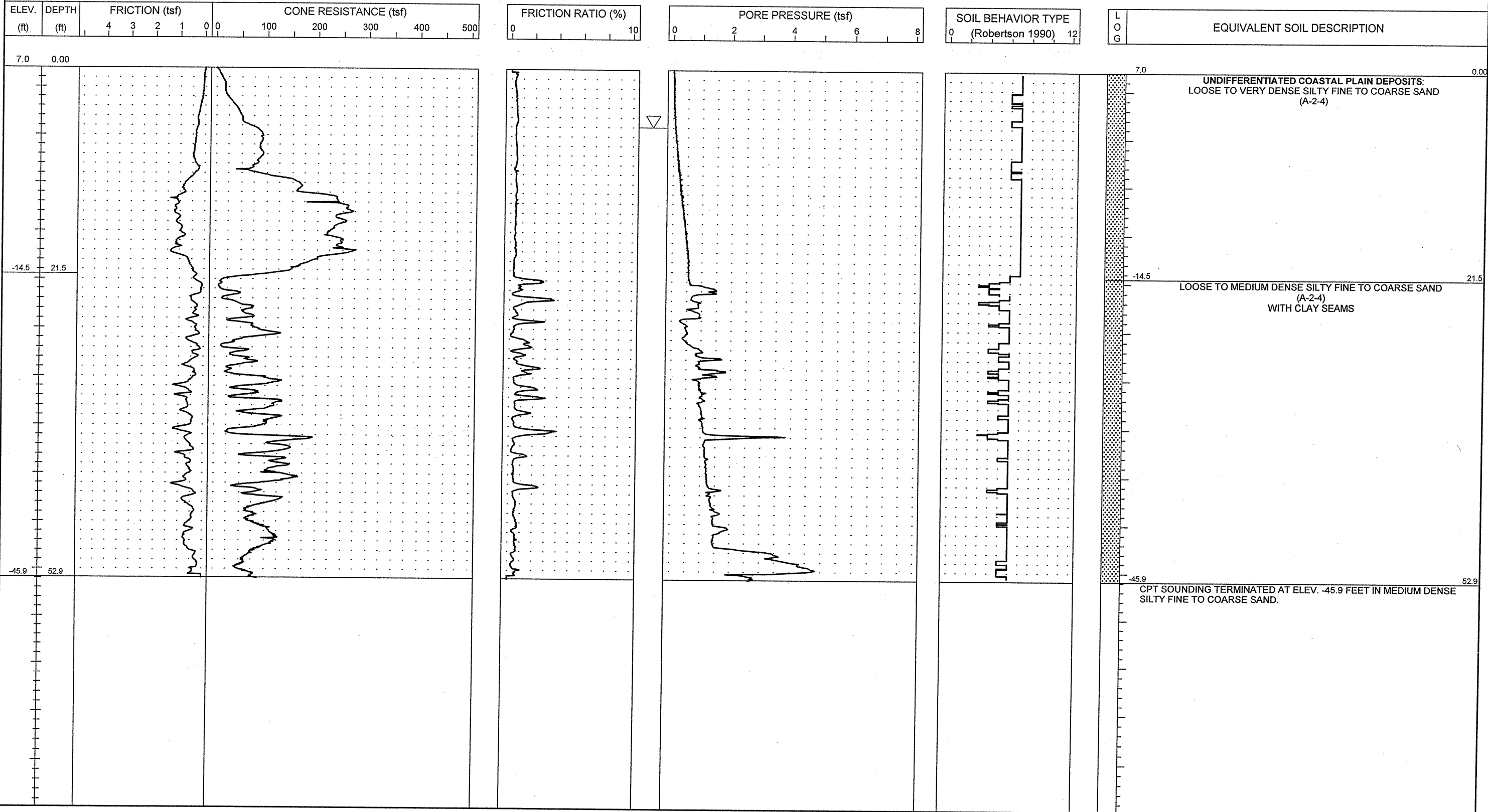


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 24.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-144	BORING LOCATION 317+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 8.5	DATE STARTED 9/29/06	COMPLETED 9/29/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 13.0 ft	NORTHING 191,893.5	EASTING 2,300,459.9		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



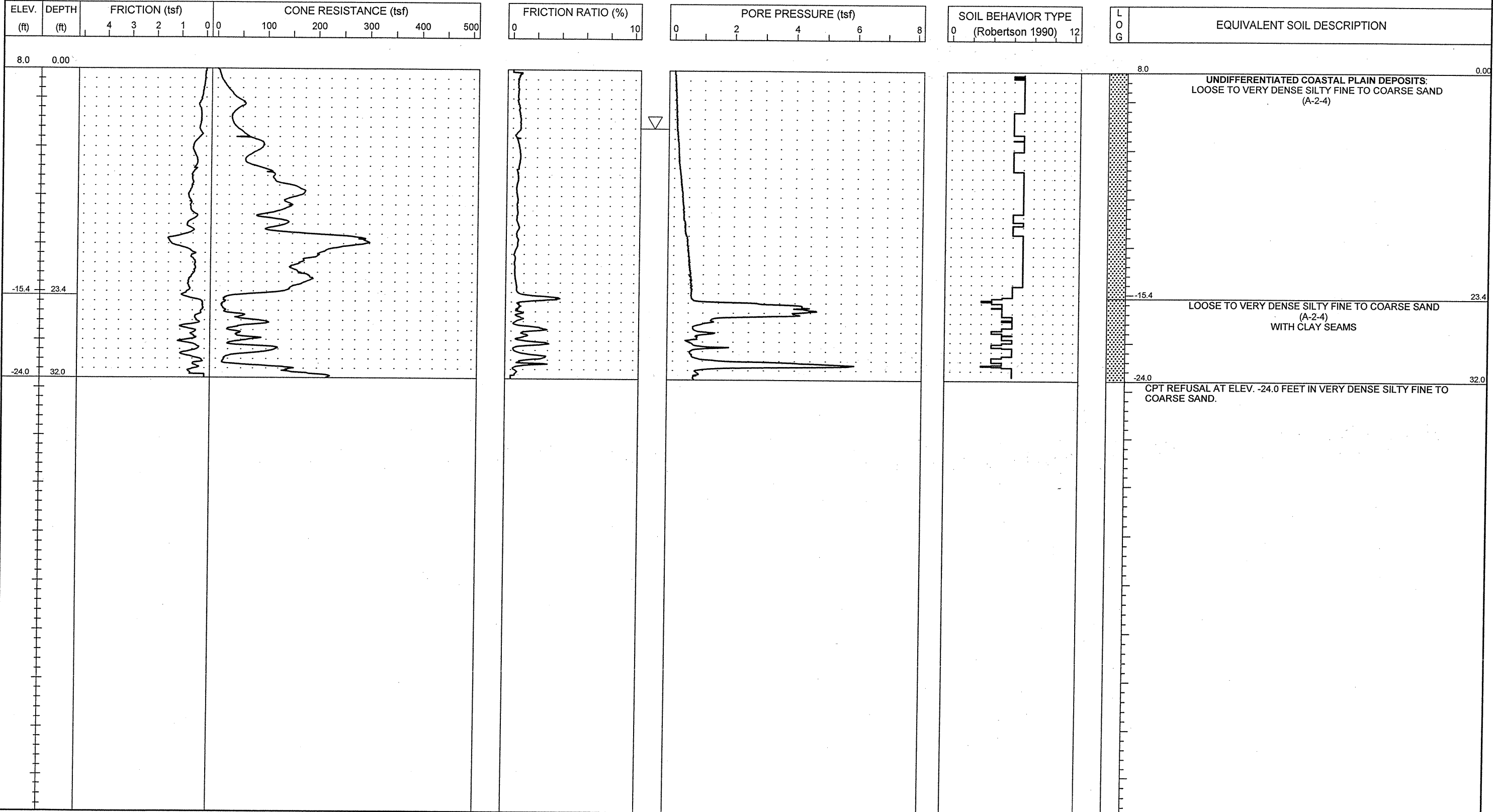


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 52.9 ft	DRILL MACHINE CPT-ATV
BORING NO. C-145	BORING LOCATION 389+50	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 6.0	DATE STARTED 9/27/06	COMPLETED 9/27/06
COLLAR ELEV. 7.0 ft	NORTHING 193,352.0	EASTING 2,307,439.0	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



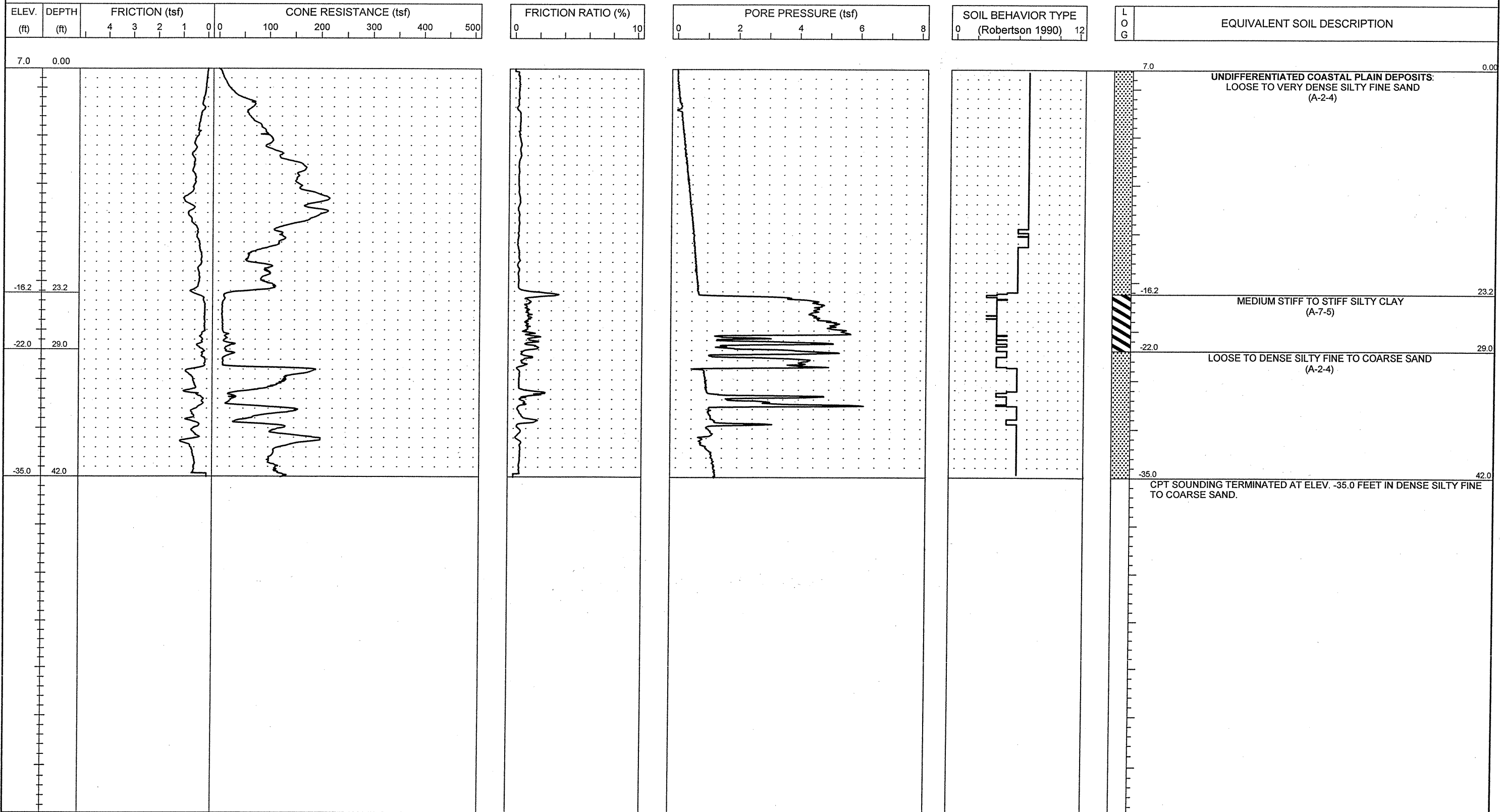


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 32.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-146	BORING LOCATION 391+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 6.0	DATE STARTED 9/27/06	COMPLETED 9/27/06
COLLAR ELEV. 8.0 ft	NORTHING 193,422.7	EASTING 2,307,564.8	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A





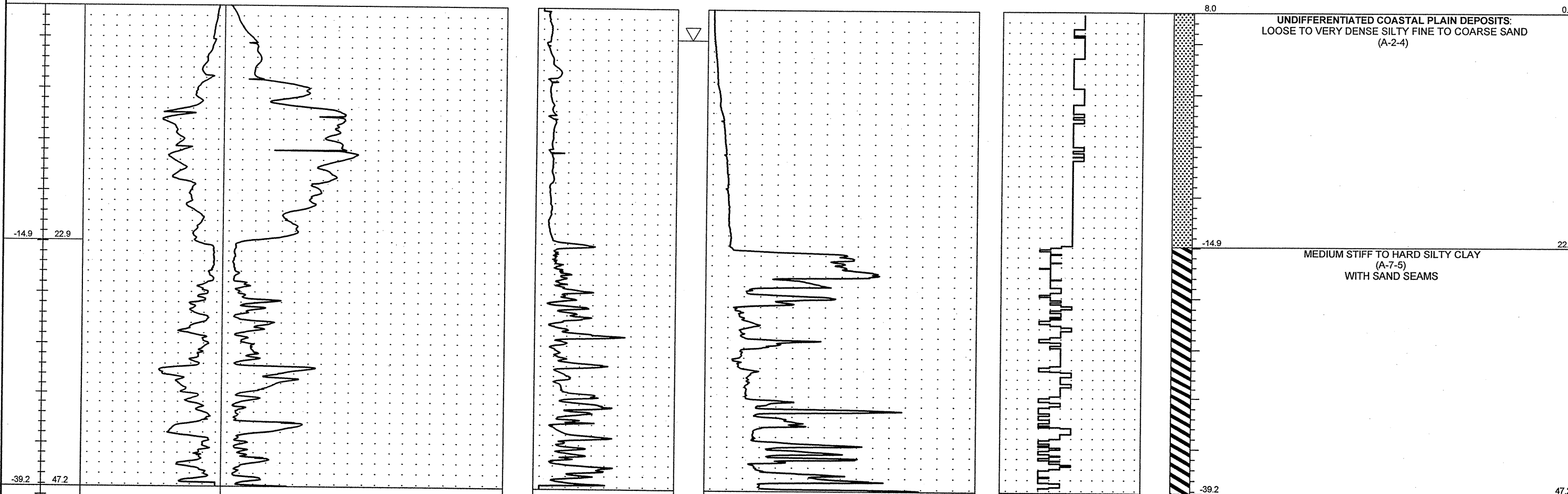
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 42.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-147	BORING LOCATION 393+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. N/M	DATE STARTED 9/27/06	COMPLETED 9/27/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 7.0 ft	NORTHING 193,546.0	EASTING 2,307,730.3		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		





PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 47.2 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-148	BORING LOCATION 395+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 3.0	DATE STARTED 9/26/06	COMPLETED 9/26/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 8.0 ft	NORTHING 193,661.8	EASTING 2,307,893.4		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		

ELEV. (ft)	DEPTH (ft)	FRICITION (tsf)	CONE RESISTANCE (tsf)	FRICITION RATIO (%)	PORE PRESSURE (tsf)	SOIL BEHAVIOR TYPE (Robertson 1990)	LOG	EQUIVALENT SOIL DESCRIPTION
8.0	0.00	4 3 2 1 0 0	100 200 300 400 500	0 10	0 2 4 6 8	0 12		



8.0 0.00

UNDIFFERENTIATED COASTAL PLAIN DEPOSITS:
LOOSE TO VERY DENSE SILTY FINE TO COARSE SAND
(A-2-4)

-14.9 22.9

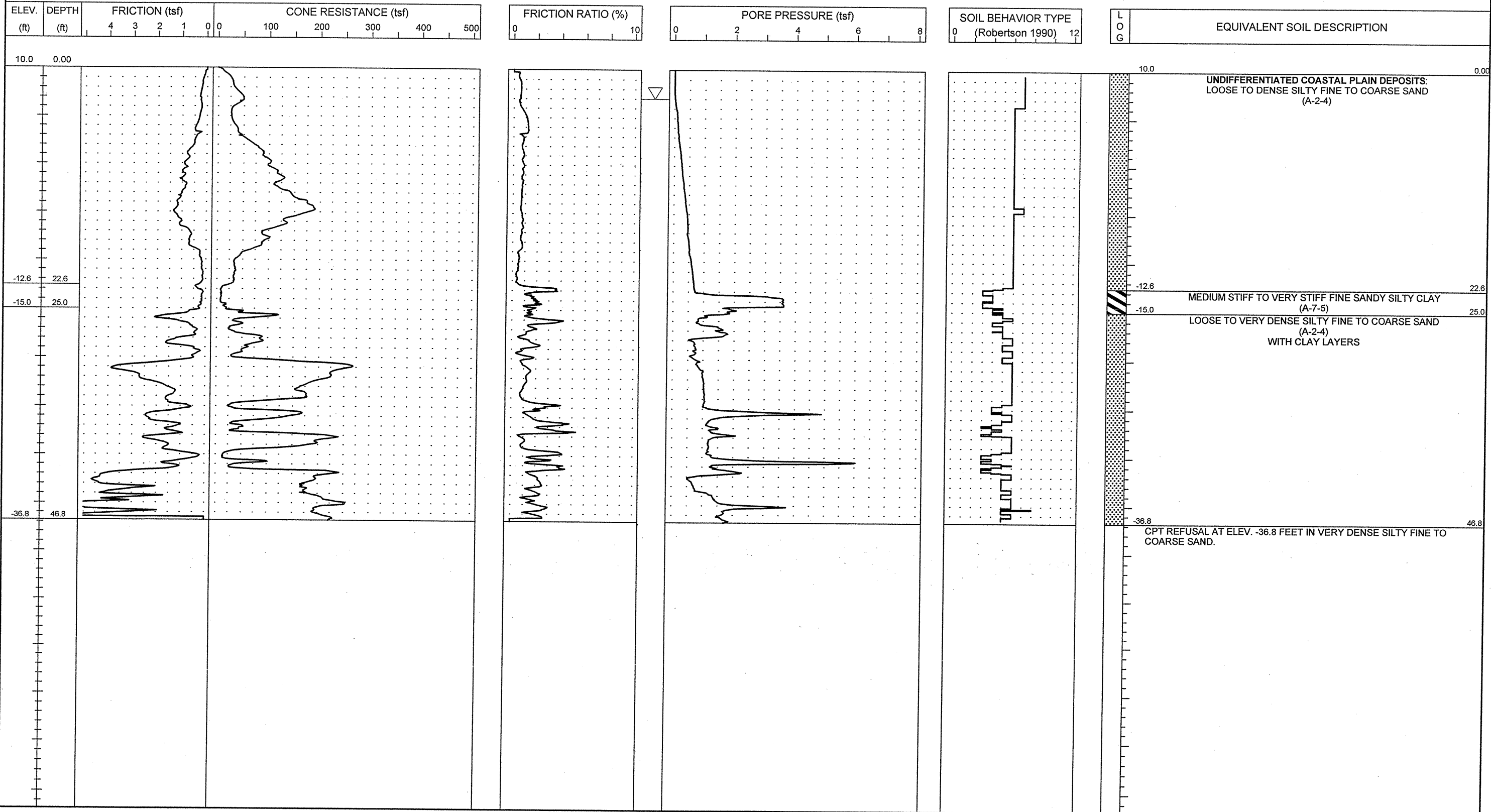
MEDIUM STIFF TO HARD SILTY CLAY
(A-7-5)
WITH SAND SEAMS

-39.2 47.2

CPT SOUNDING TERMINATED AT ELEV. -39.2 FEET IN HARD SILTY CLAY.

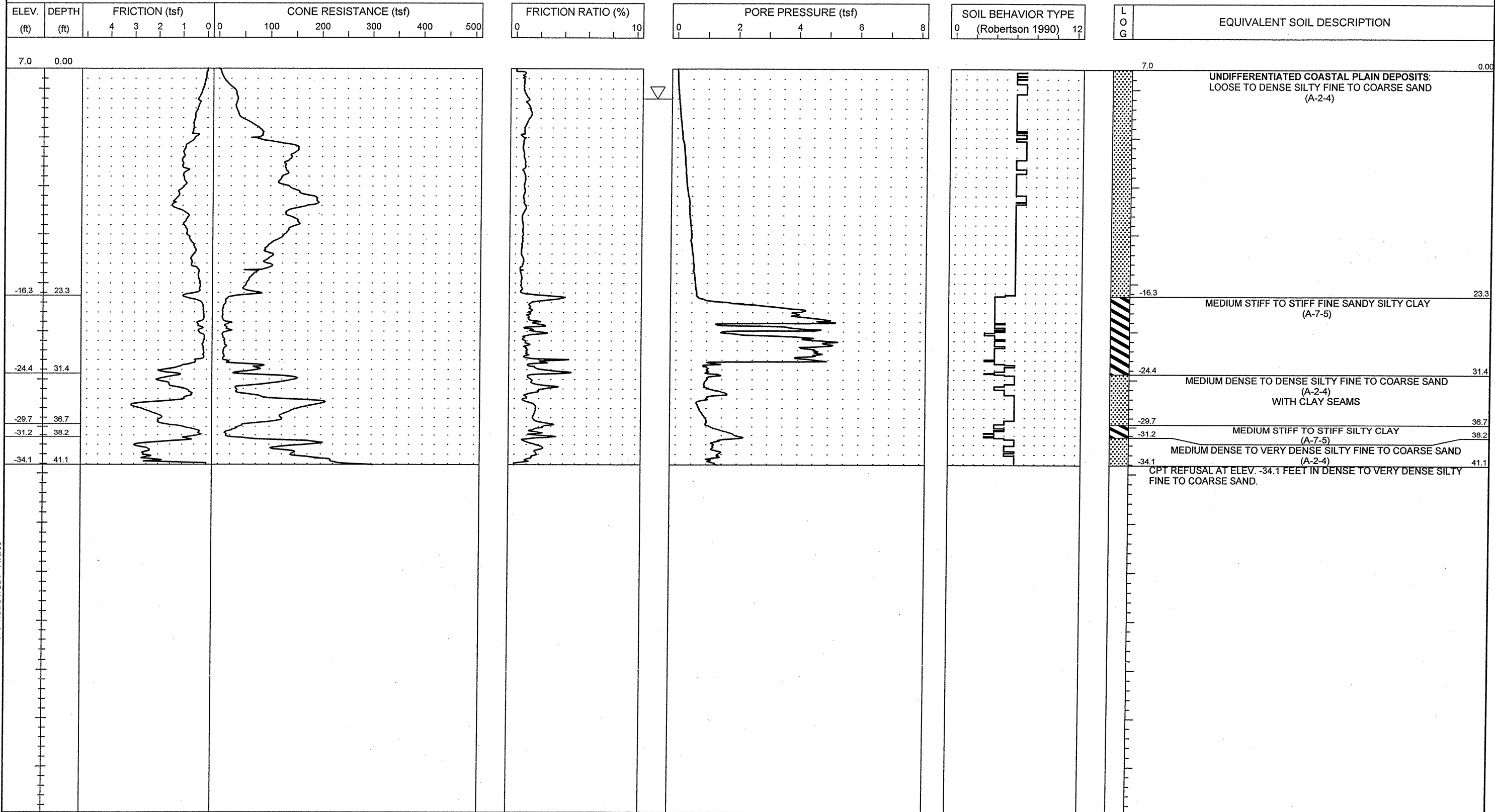


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 46.8 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-150	BORING LOCATION 398+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 3.0	DATE STARTED 9/26/06	COMPLETED 9/26/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 10.0 ft	NORTHING 193,842.4	EASTING 2,308,132.9		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		





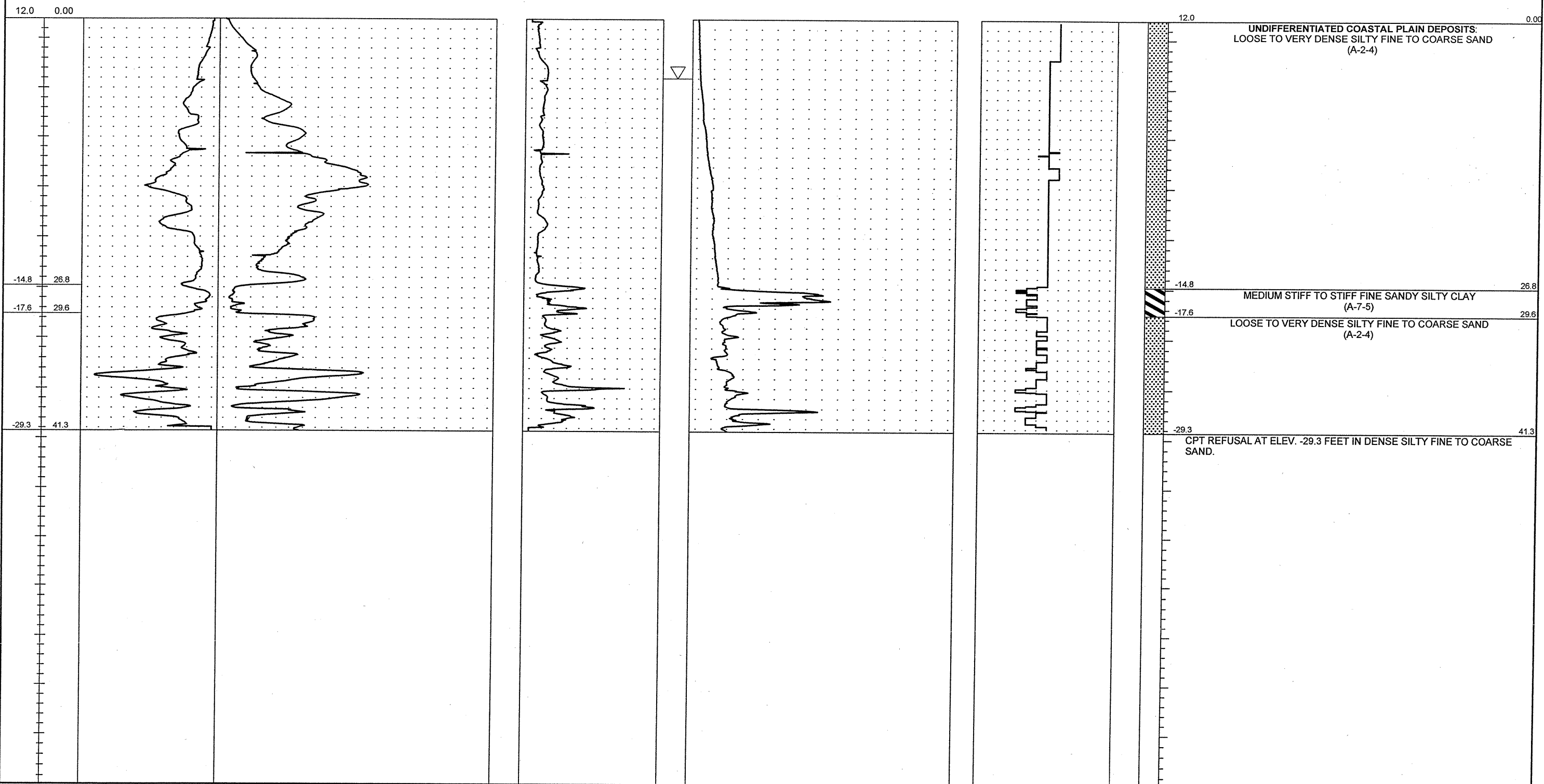
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 41.1 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-151	BORING LOCATION 400+68	OFFSET 2.0 ft LT	ALIGNMENT -L-	0 HR. 3.0	DATE STARTED 9/26/06	COMPLETED 9/26/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 7.0 ft	NORTHING 194,012.0	EASTING 2,308,341.0		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



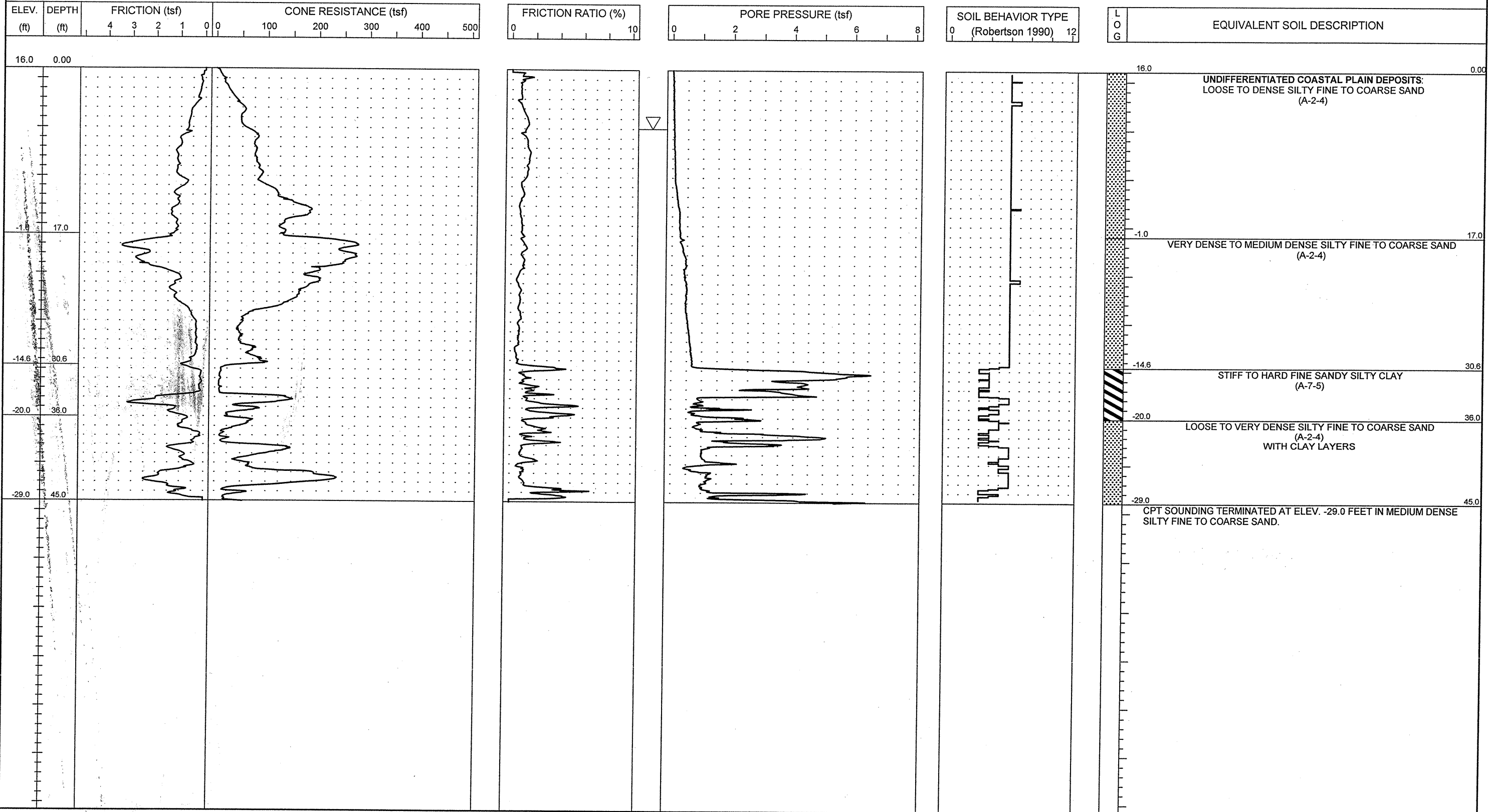


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 41.3 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-152	BORING LOCATION 402+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 6.0	DATE STARTED 9/26/06	COMPLETED 9/26/06
COLLAR ELEV. 12.0 ft	NORTHING 194,095.3	EASTING 2,308,442.8	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A

ELEV. (ft)	DEPTH (ft)	FRICITION (tsf)	CONE RESISTANCE (tsf)	FRICITION RATIO (%)	PORE PRESSURE (tsf)	SOIL BEHAVIOR TYPE (Robertson 1990)	LOG	EQUIVALENT SOIL DESCRIPTION
		4 3 2 1 0 0	100 200 300 400 500	0 10	0 2 4 6 8	0 (Robertson 1990) 12		

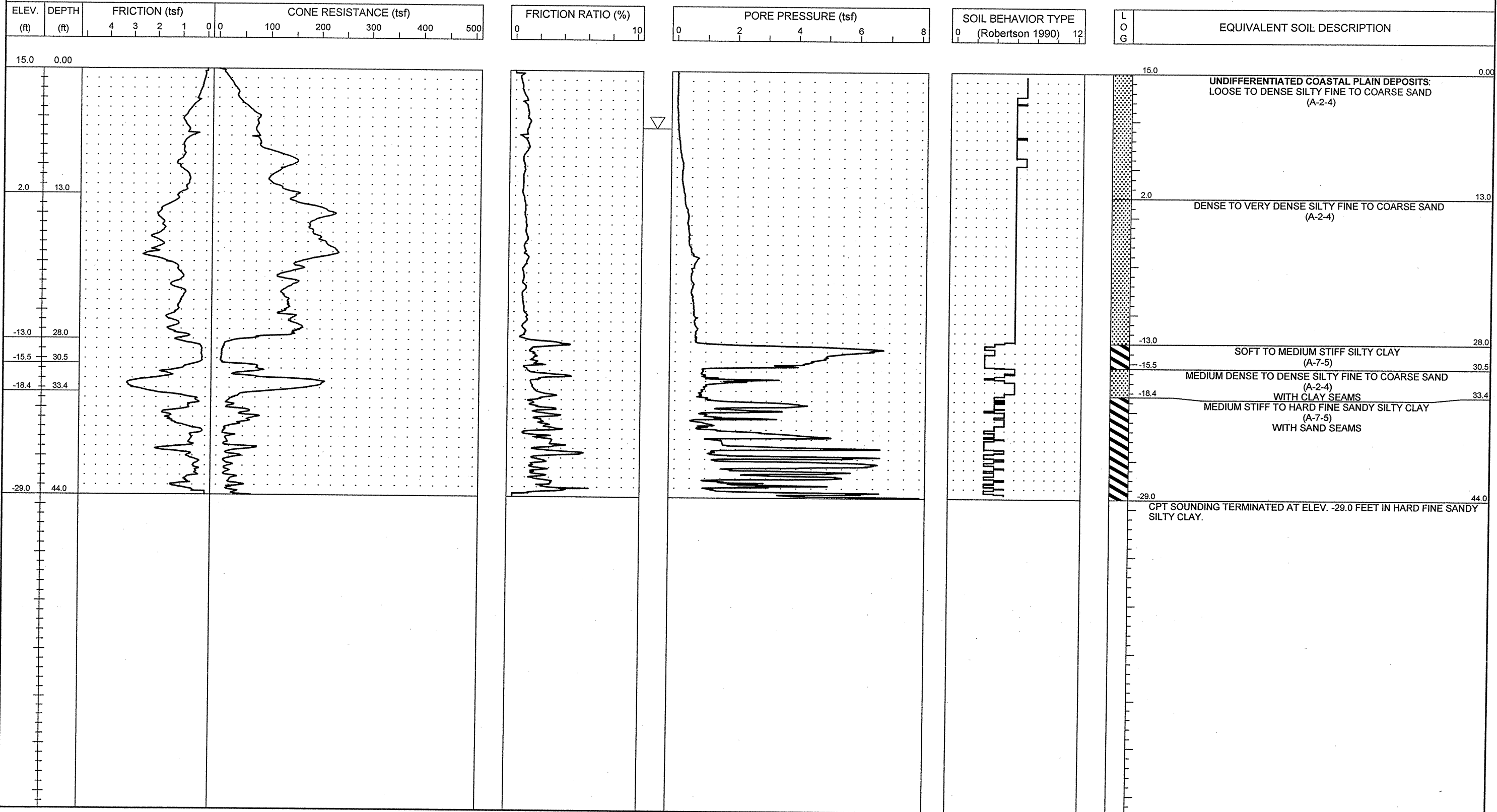


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 45.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-153	BORING LOCATION 404+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 6.0	DATE STARTED 9/26/06	COMPLETED 9/26/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 16.0 ft	NORTHING 194,226.9	EASTING 2,308,593.4		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		





PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 44.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-154	BORING LOCATION 406+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 6.0	DATE STARTED 9/26/06	COMPLETED 9/26/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 15.0 ft	NORTHING 194,361.7	EASTING 2,308,741.1		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		

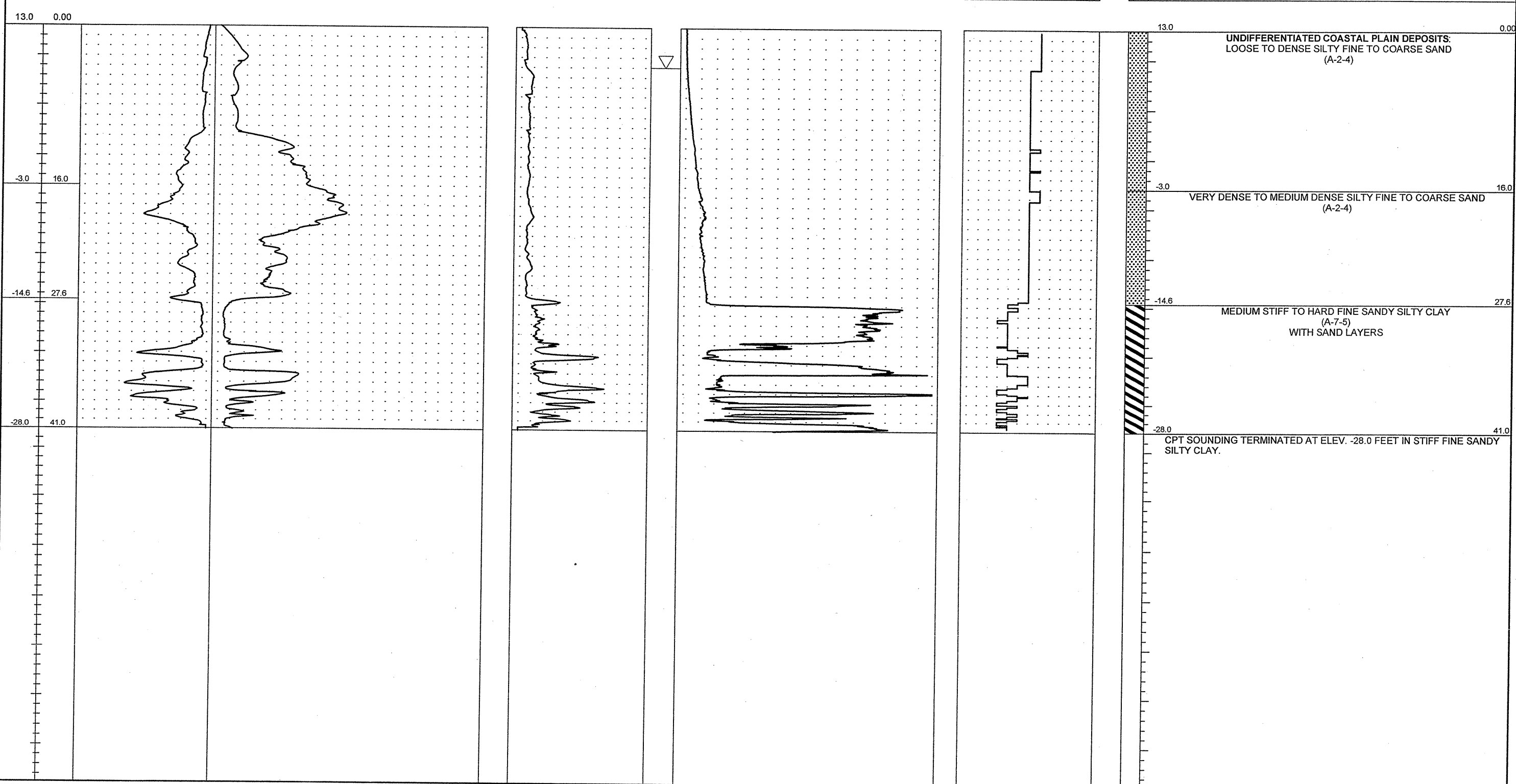


NCDOT.CPT - ENGLISH NO N60 51-411CPT.GPJ NCDOT.GDT 11/8/06



PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 41.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-155	BORING LOCATION 408+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 4.0	DATE STARTED 9/26/06	COMPLETED 9/26/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 13.0 ft	NORTHING 194,499.9	EASTING 2,308,885.7		24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN		

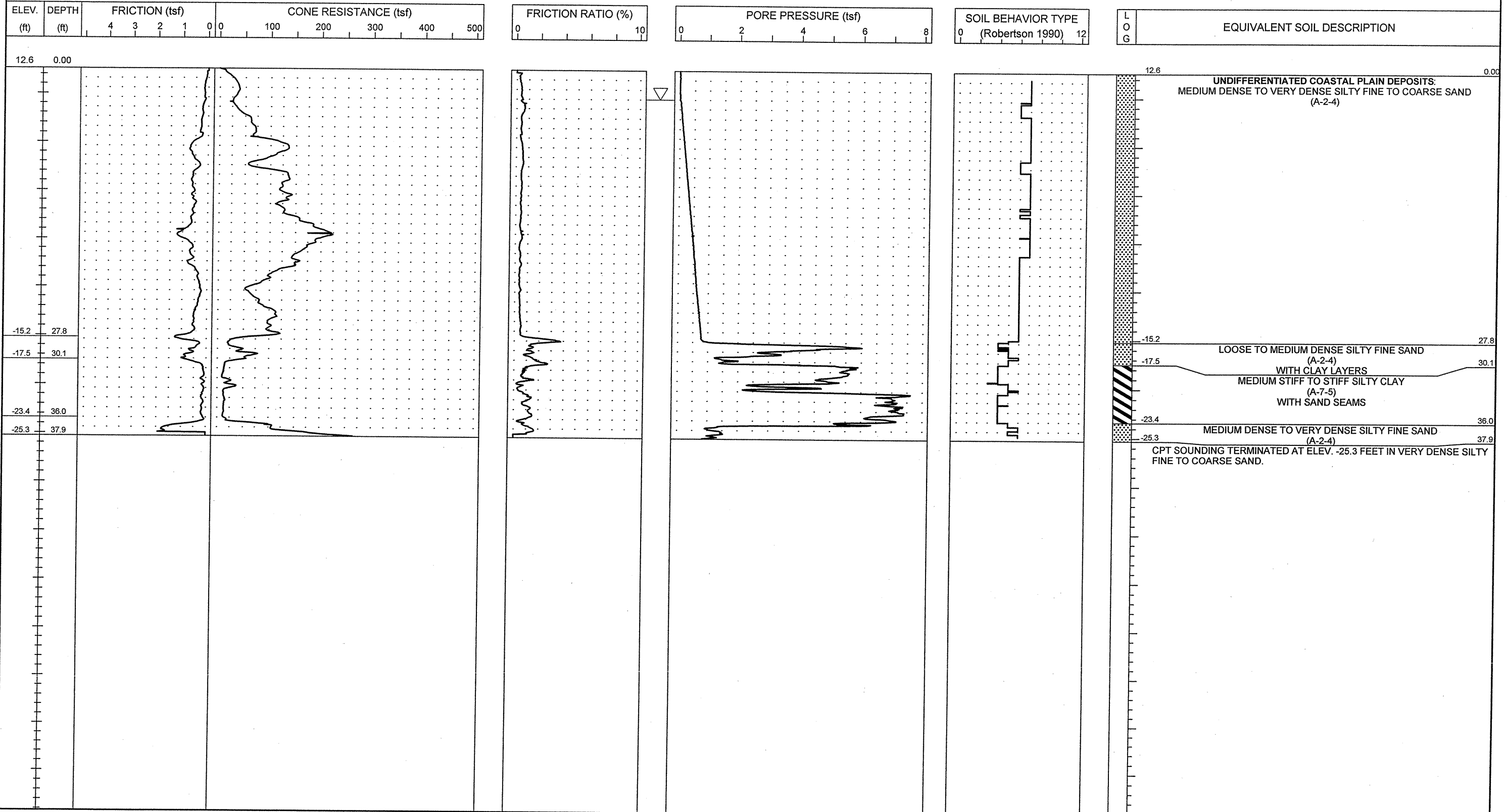
ELEV. (ft)	DEPTH (ft)	FRICITION (tsf)	CONE RESISTANCE (tsf)	FRICITION RATIO (%)	PORE PRESSURE (tsf)	SOIL BEHAVIOR TYPE (Robertson 1990)	LOG	EQUIVALENT SOIL DESCRIPTION
		4 3 2 1 0 0	100 200 300 400 500	0 10	0 2 4 6 8	0 12		



NCDOT CPT - ENGLISH NO N60 51-411CPT.GPJ NCDOT.GDT 1/22/07



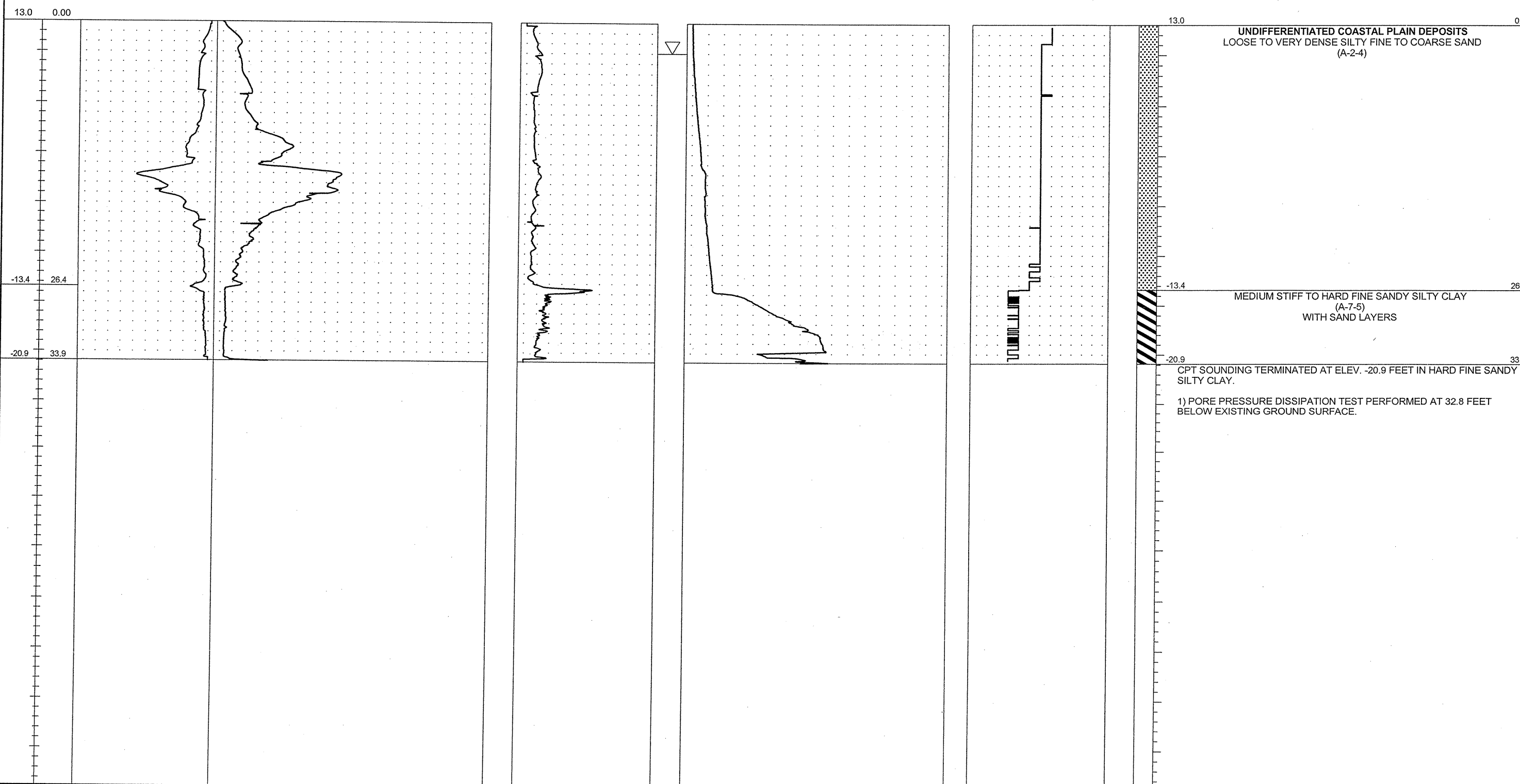
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 37.9 ft	DRILL MACHINE CPT-ATV
BORING NO. C-156	BORING LOCATION 410+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 3.0	DATE STARTED 9/26/06	COMPLETED 9/26/06
COLLAR ELEV. 12.6 ft	NORTHING 194,641.2	EASTING 2,309,027.2	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



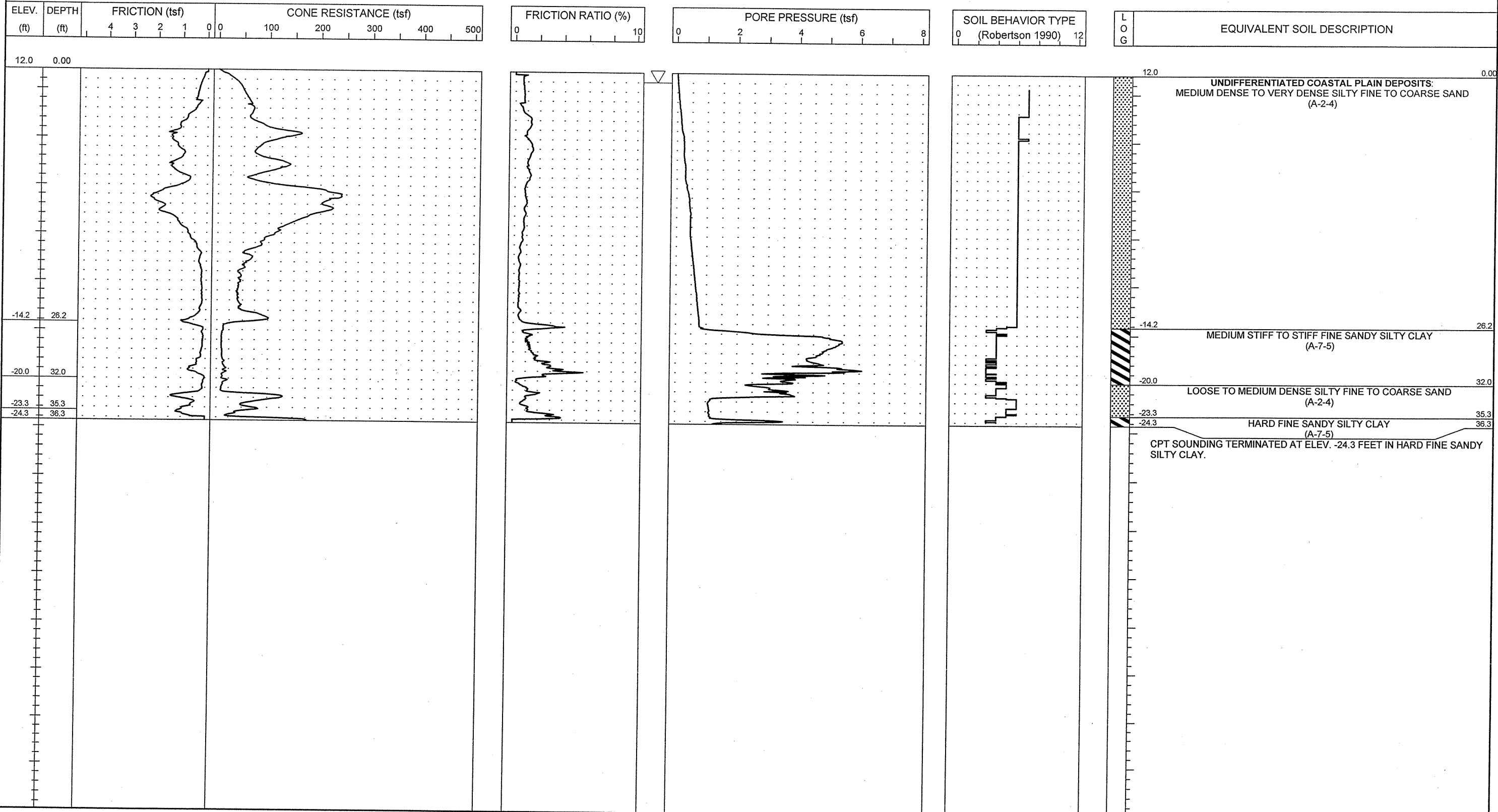


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 33.9 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-157	BORING LOCATION 412+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 3.0	DATE STARTED 9/26/06	COMPLETED 9/26/06
COLLAR ELEV. 13.0 ft	NORTHING 194,785.6	EASTING 2,309,165.6	24 HR. N/M	DRILLER: R. Schubert	TECHNICIAN K. Canuel	SURFACE WATER DEPTH N/A

ELEV. (ft)	DEPTH (ft)	FRICITION (tsf)	CONE RESISTANCE (tsf)	FRICITION RATIO (%)	PORE PRESSURE (tsf)	SOIL BEHAVIOR TYPE (Robertson 1990)	LOG	EQUIVALENT SOIL DESCRIPTION
		4 3 2 1 0 0	100 200 300 400 500	0 10	0 2 4 6 8	0 (Robertson 1990) 12		



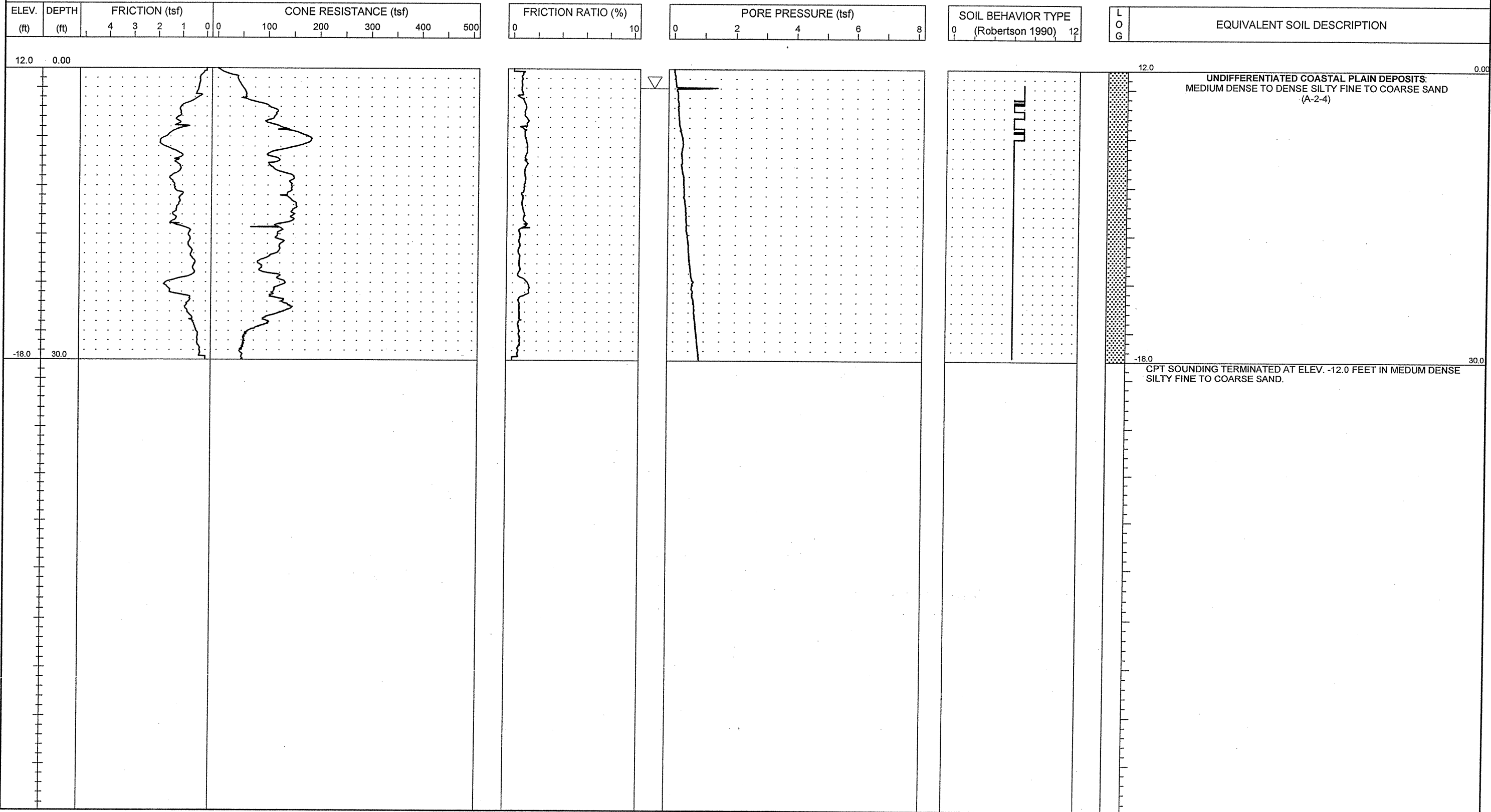
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 36.3 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-158	BORING LOCATION 414+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 1.0	DATE STARTED 9/26/06	COMPLETED 9/26/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 12.0 ft	NORTHING 194,933.0	EASTING 2,309,300.7		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



NCDOT CPT - ENGLISH NO. N60. 51-411CPT.GPJ NCDOT.GDT 11/17/06

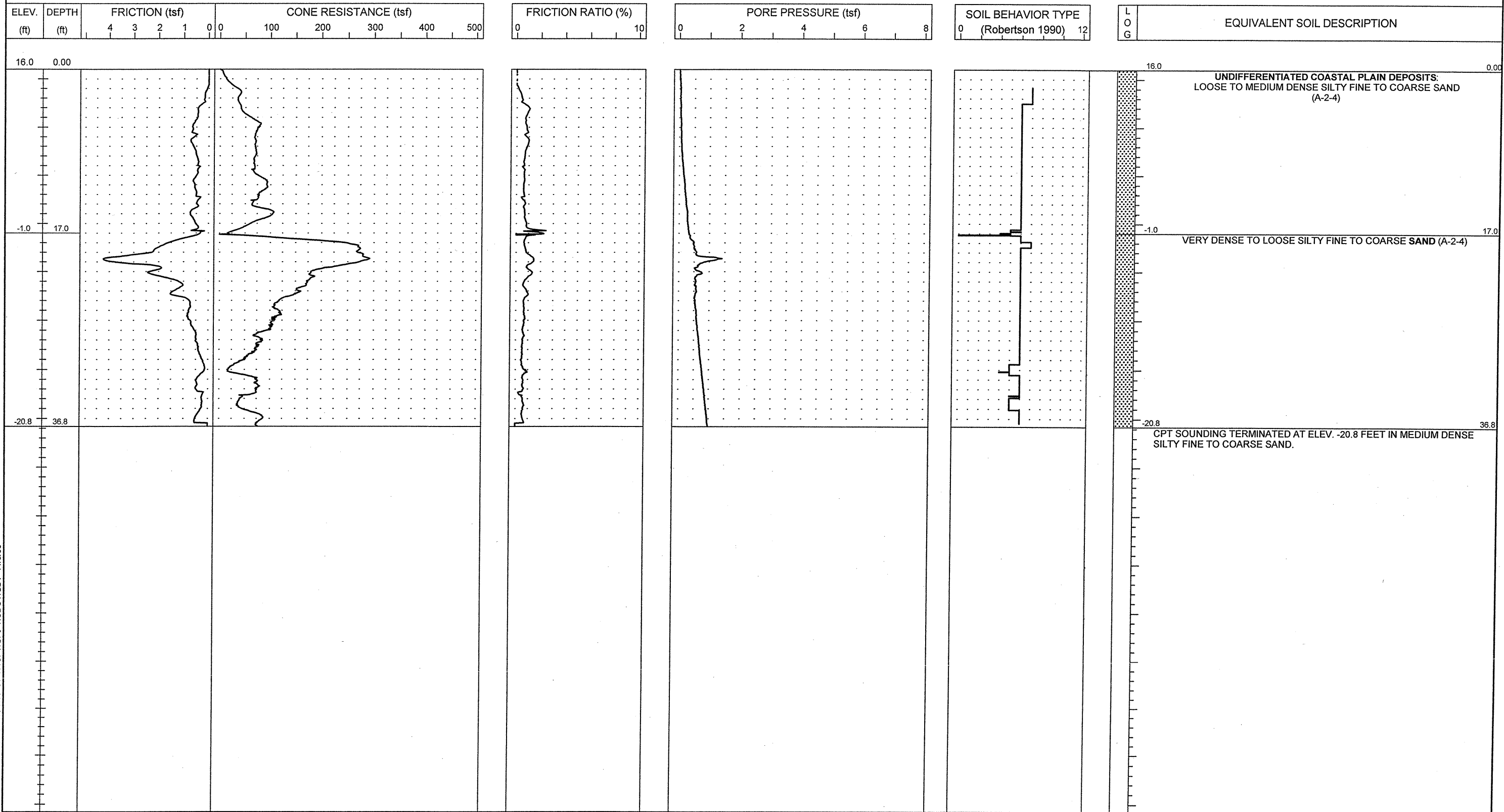


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 30.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-159	BORING LOCATION 415+21	OFFSET 7.0 ft RT	ALIGNMENT -L-	0 HR. 2.0	DATE STARTED 9/26/06	COMPLETED 9/26/06
COLLAR ELEV. 12.0 ft	NORTHING 195,019.3	EASTING 2,309,386.0	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A



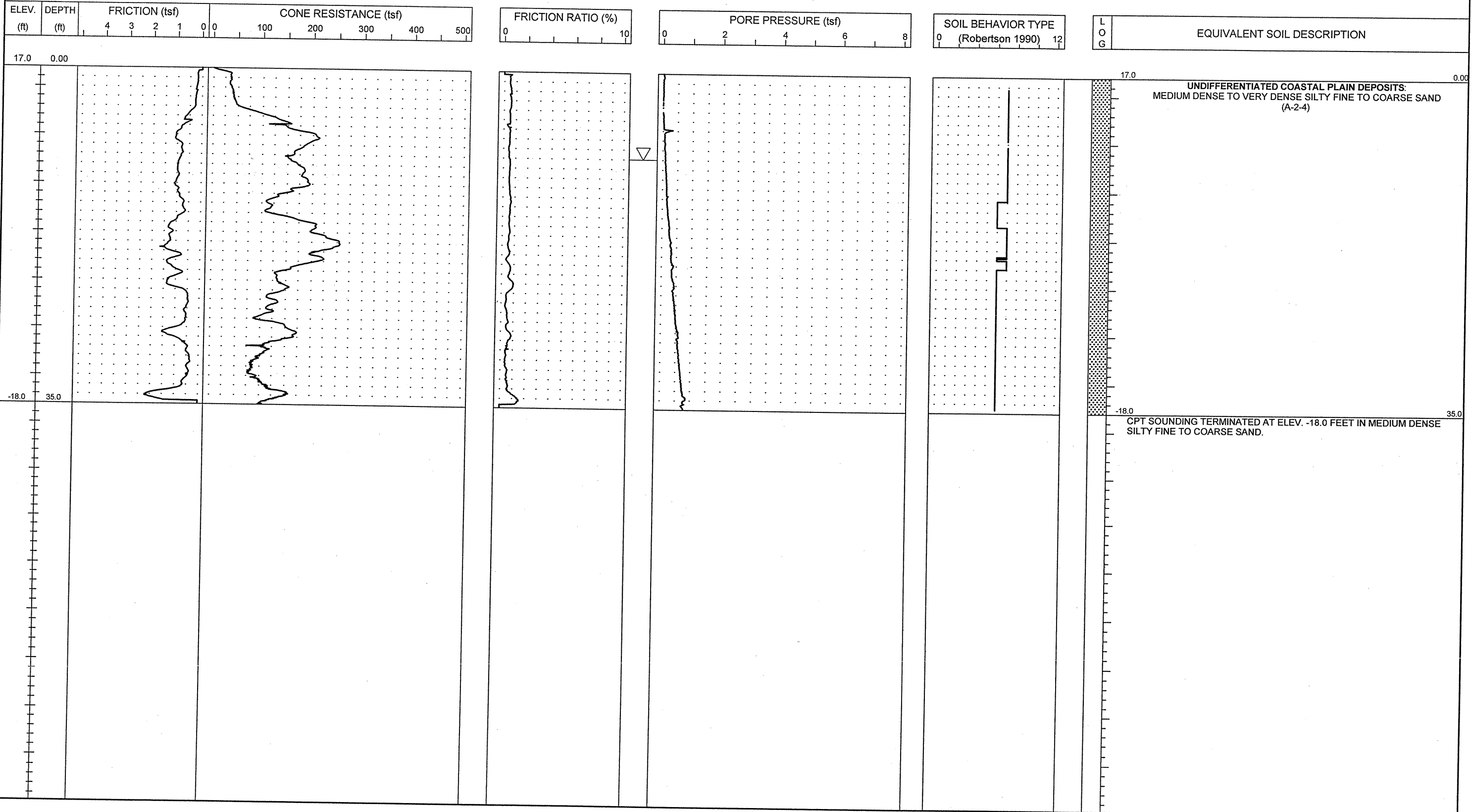


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 36.8 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-160	BORING LOCATION 418+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. N/M	DATE STARTED 9/26/06	COMPLETED 9/26/06
COLLAR ELEV. 16.0 ft	NORTHING 195,236.8	EASTING 2,309,560.9	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



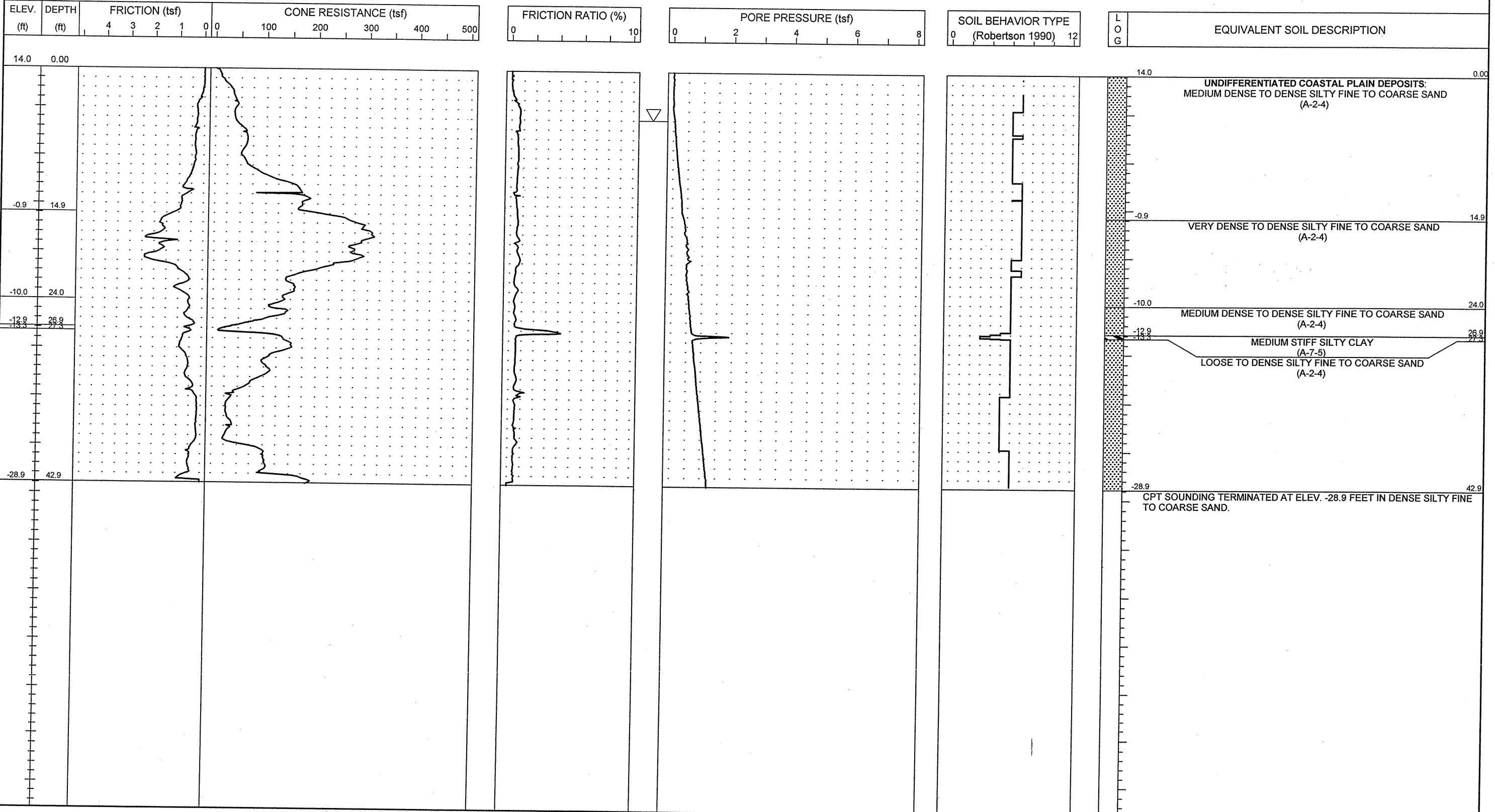


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 35.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-161	BORING LOCATION 420+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 9.0	DATE STARTED 9/26/06	COMPLETED 9/26/06
COLLAR ELEV. 17.0 ft	NORTHING 195,392.9	EASTING 2,309,685.9	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO. N60 51-411CPT.GPJ NCDOT.GDT 11/8/06

PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 42.9 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-162	BORING LOCATION 422+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 5.0	DATE STARTED 9/25/06	COMPLETED 9/25/06
COLLAR ELEV. 14.0 ft	NORTHING 195,551.7	EASTING 2,309,807.5	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A
				HAMMER TYPE N/A		

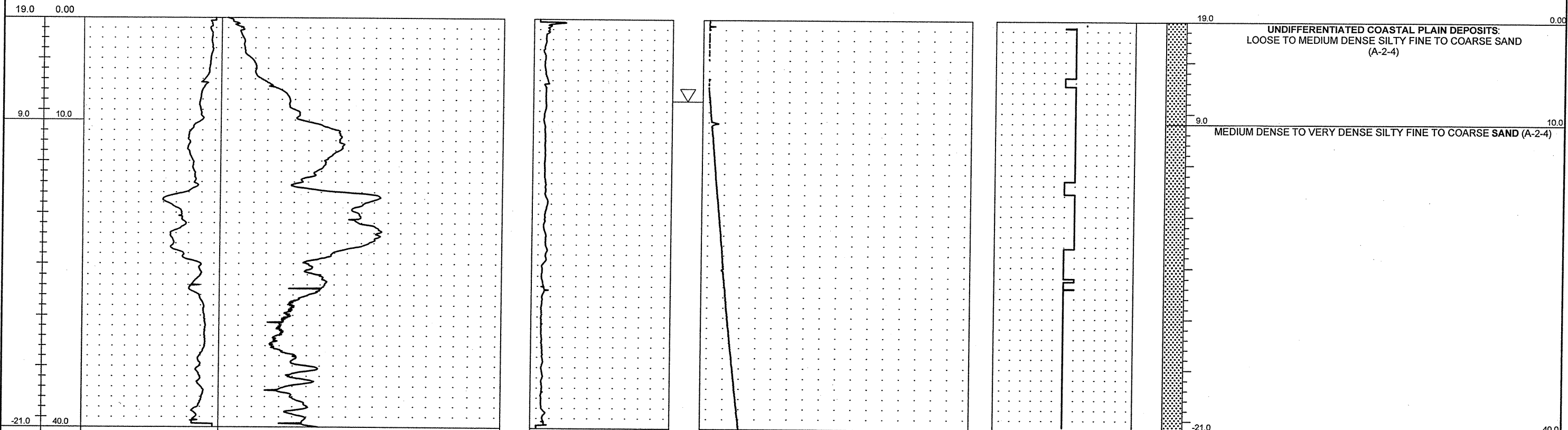


NCDOT CPT - ENGLISH NO N80 51-411CPT.GPJ NCDOT.GDT 11/8/06



PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 40.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-163	BORING LOCATION 423+81	OFFSET 10.0 ft RT	ALIGNMENT -L-	0 HR. 8.0	DATE STARTED 9/25/06	COMPLETED 9/25/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 19.0 ft	NORTHING 195,690.6	EASTING 2,309,924.5		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		

ELEV. (ft)	DEPTH (ft)	FRICITION (tsf)	CONE RESISTANCE (tsf)	FRICITION RATIO (%)	PORE PRESSURE (tsf)	SOIL BEHAVIOR TYPE (Robertson 1990)	LOG	EQUIVALENT SOIL DESCRIPTION
		4 3 2 1 0 0	100 200 300 400 500	0 10	0 2 4 6 8	0 (Robertson 1990) 12		



19.0 0.00

9.0 10.0

UNDIFFERENTIATED COASTAL PLAIN DEPOSITS:
LOOSE TO MEDIUM DENSE SILTY FINE TO COARSE SAND (A-2-4)

9.0 10.0

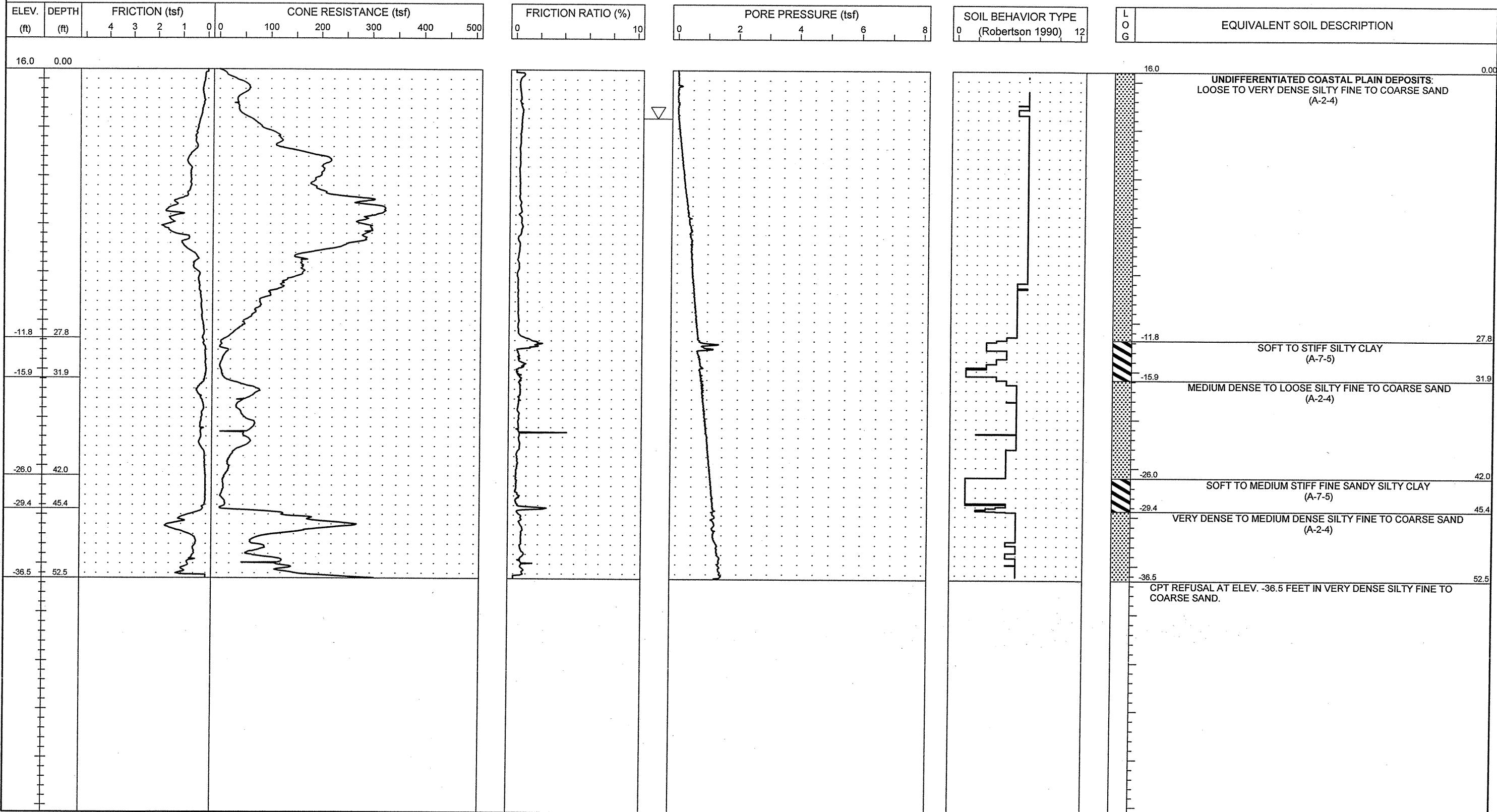
MEDIUM DENSE TO VERY DENSE SILTY FINE TO COARSE SAND (A-2-4)

-21.0 40.0

CPT SOUNDING TERMINATED AT ELEV. -21.0 FEET IN DENSE SILTY FINE TO COARSE SAND.



PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 52.5 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-164	BORING LOCATION 426+76	OFFSET 6.0 ft LT	ALIGNMENT -L-	0 HR. 5.0	DATE STARTED 9/27/06	COMPLETED 9/27/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 16.0 ft	NORTHING 195,935.2	EASTING 2,310,089.6		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		

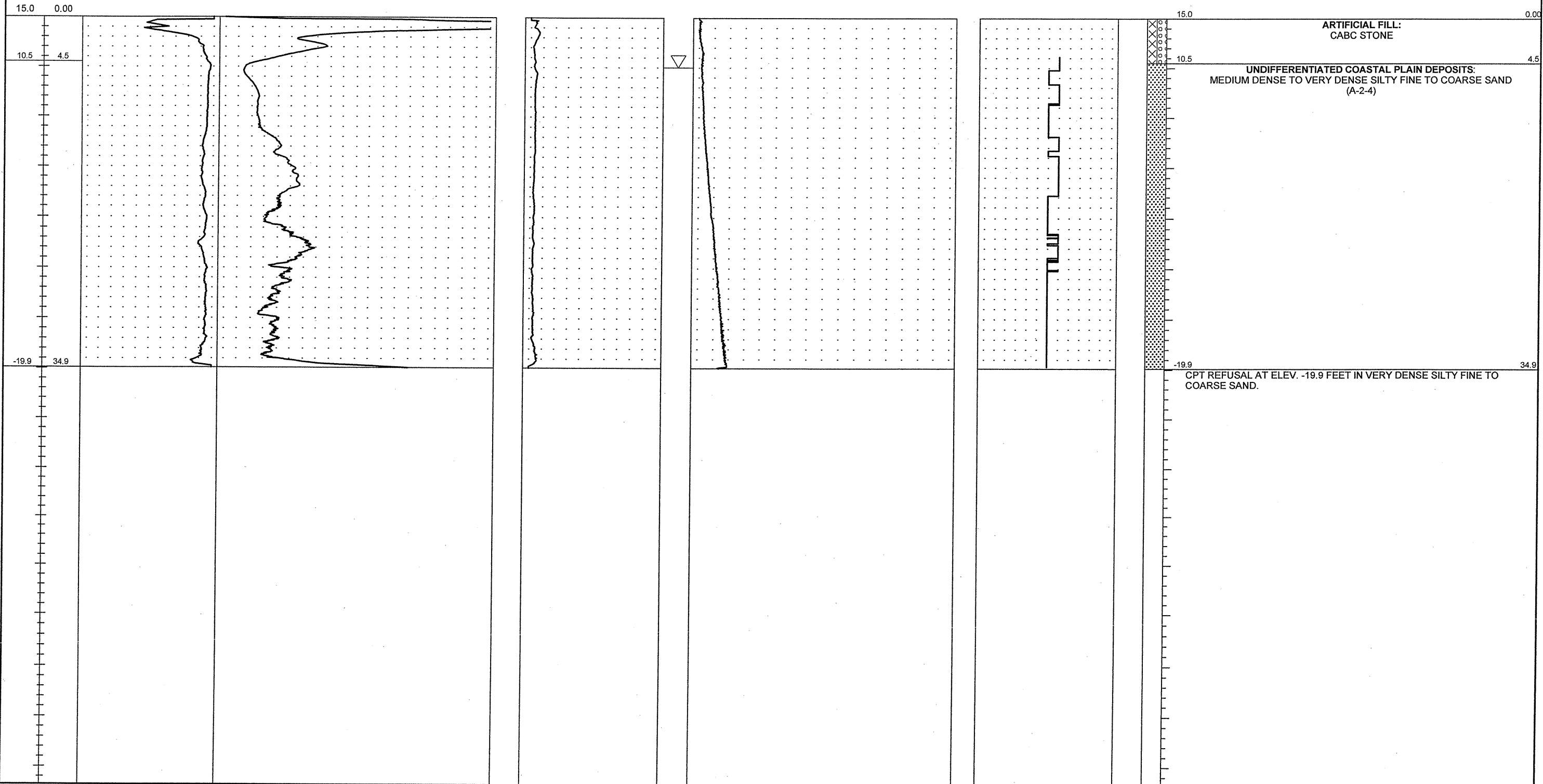


NCDOT CPT - ENGLISH NO. N60 51-411 CPT.GPJ NCDOT.GDT 11/18/06



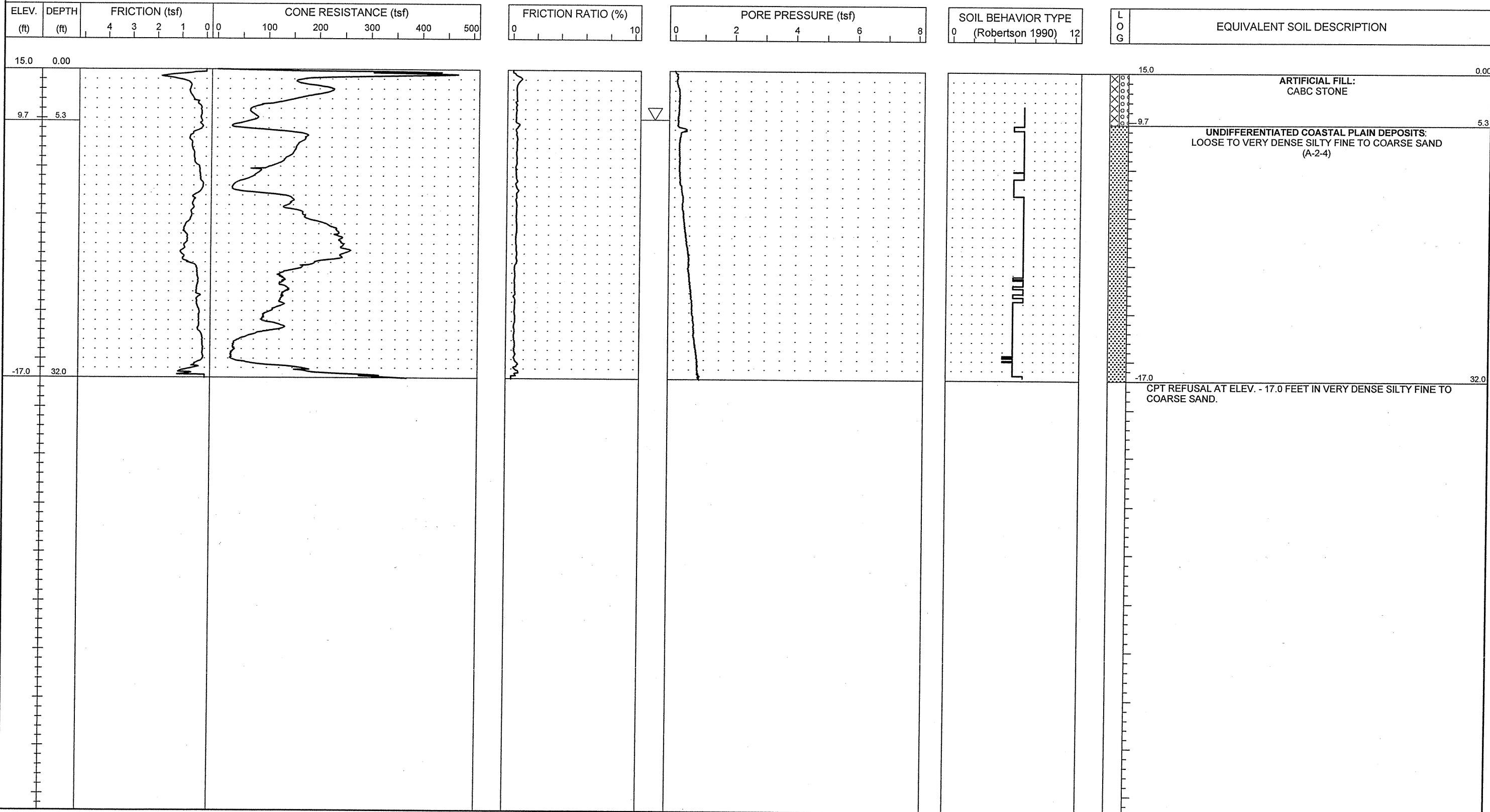
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 34.9 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-165	BORING LOCATION 428+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 5.0	DATE STARTED 9/27/06	COMPLETED 9/27/06
COLLAR ELEV. 15.0 ft	NORTHING 196,030.9	EASTING 2,310,168.6	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A

ELEV. (ft)	DEPTH (ft)	FRICITION (tsf)	CONE RESISTANCE (tsf)	FRICITION RATIO (%)	PORE PRESSURE (tsf)	SOIL BEHAVIOR TYPE (Robertson 1990)	LOG	EQUIVALENT SOIL DESCRIPTION
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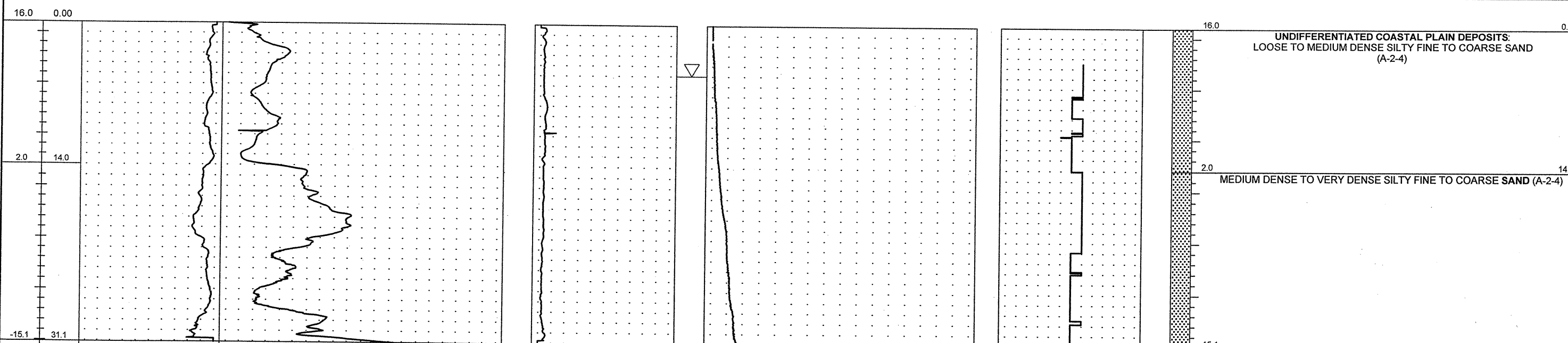
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 32.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-166	BORING LOCATION 430+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 5.0	DATE STARTED 9/27/06	COMPLETED 9/27/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 15.0 ft	NORTHING 196,190.6	EASTING 2,310,289.0	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER			





PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 31.1 ft	DRILL MACHINE CPT-ATV
BORING NO. C-167	BORING LOCATION 431+50	OFFSET 8.0 ft LT	ALIGNMENT -L-	0 HR. 5.0	DATE STARTED 9/27/06	COMPLETED 9/27/06
COLLAR ELEV. 16.0 ft	NORTHING 196,315.5	EASTING 2,310,373.1	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A

ELEV. (ft)	DEPTH (ft)	FRICITION (tsf)	CONE RESISTANCE (tsf)	FRICITION RATIO (%)	PORE PRESSURE (tsf)	SOIL BEHAVIOR TYPE (Robertson 1990)	LOG	EQUIVALENT SOIL DESCRIPTION
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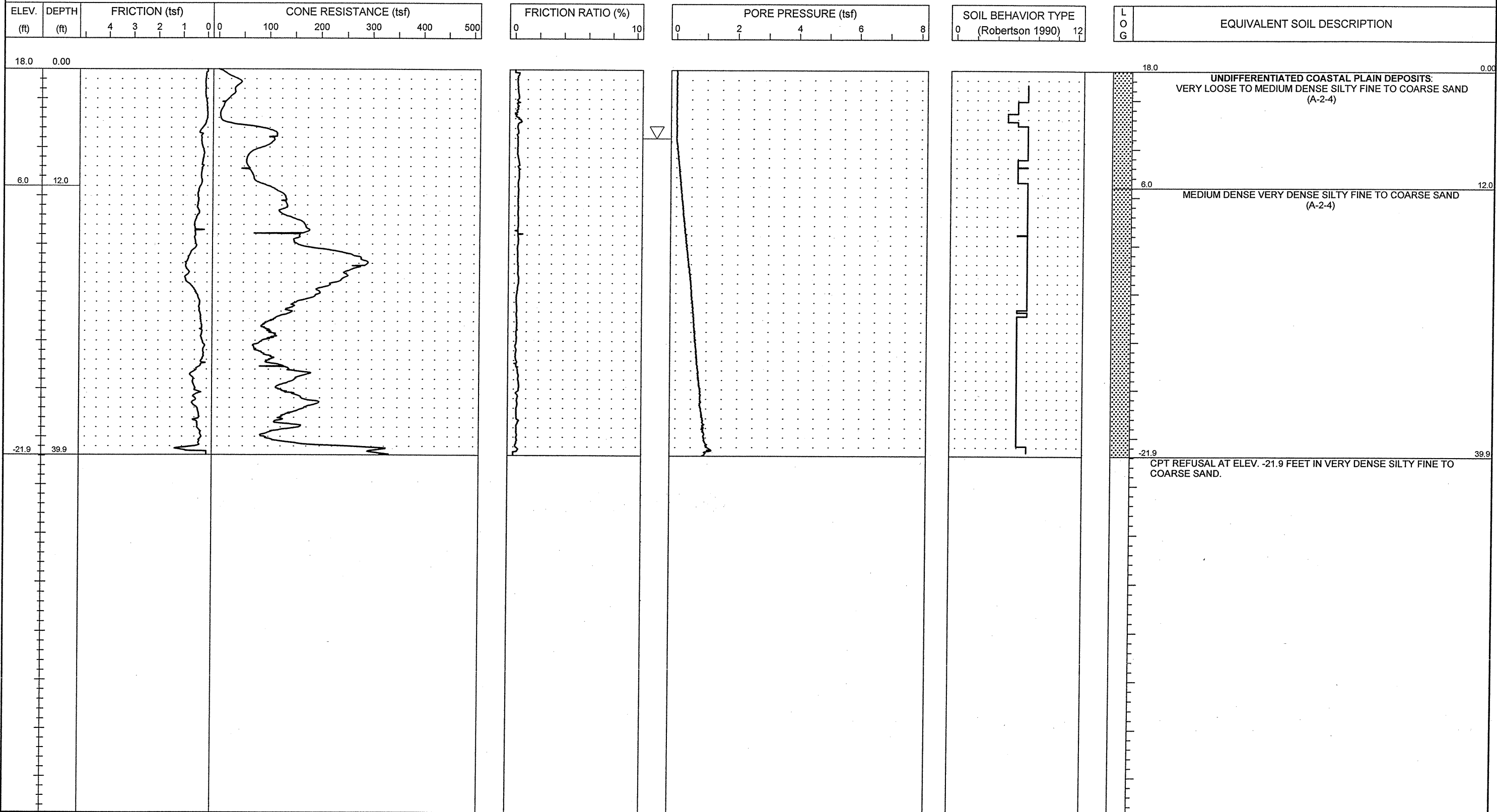
16.0 0.00
 UNDIFFERENTIATED COASTAL PLAIN DEPOSITS:
 LOOSE TO MEDIUM DENSE SILTY FINE TO COARSE SAND (A-2-4)

2.0 14.0
 MEDIUM DENSE TO VERY DENSE SILTY FINE TO COARSE SAND (A-2-4)

-15.1 31.1
 CPT SOUNDING TERMINATED AT ELEV. -15.1 FEET IN VERY DENSE SILTY FINE TO COARSE SAND.

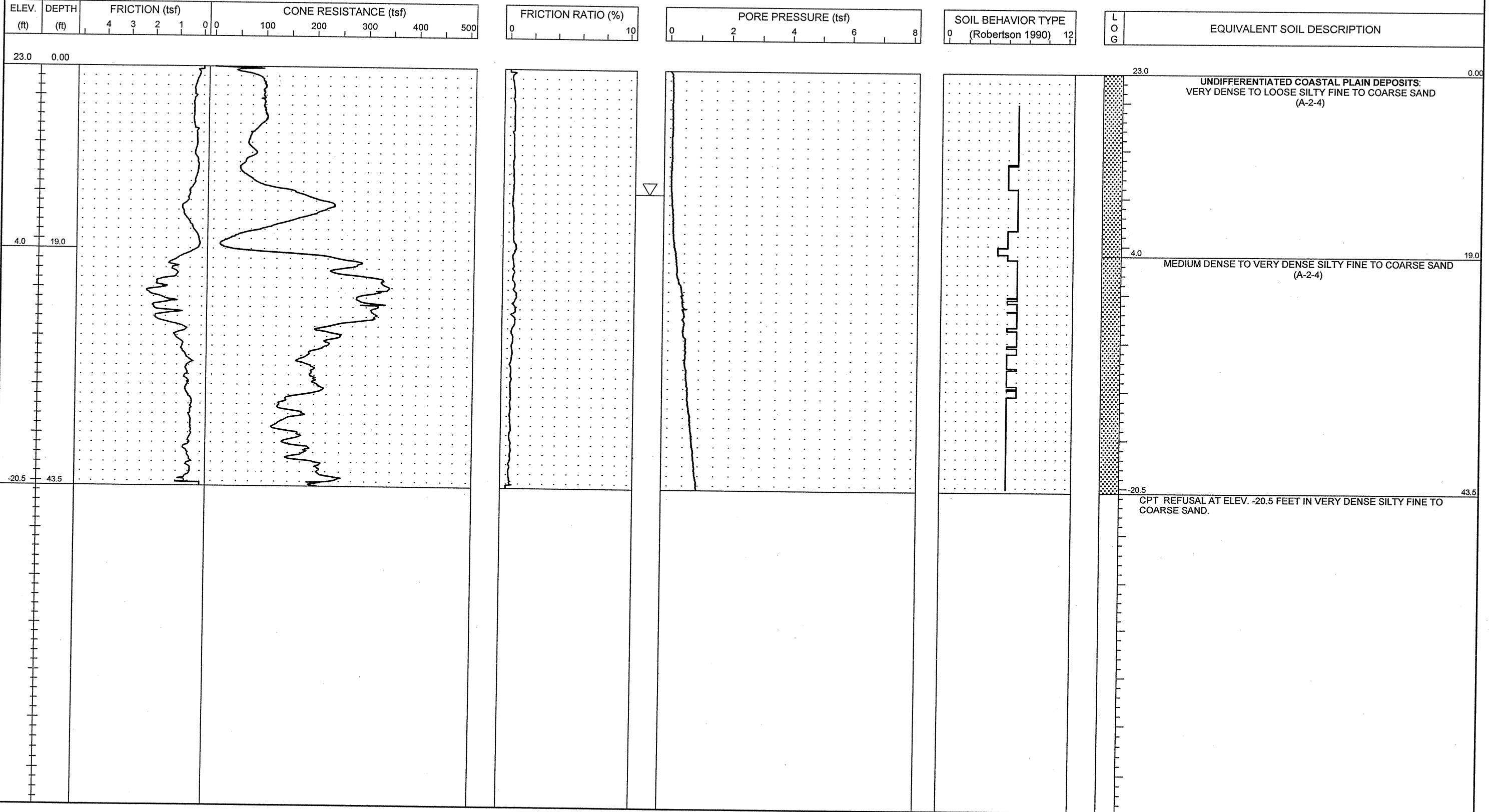


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 39.9 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-169	BORING LOCATION 436+00	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 7.0	DATE STARTED 9/27/06	COMPLETED 9/27/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 18.0 ft	NORTHING 196,669.7	EASTING 2,310,650.1		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



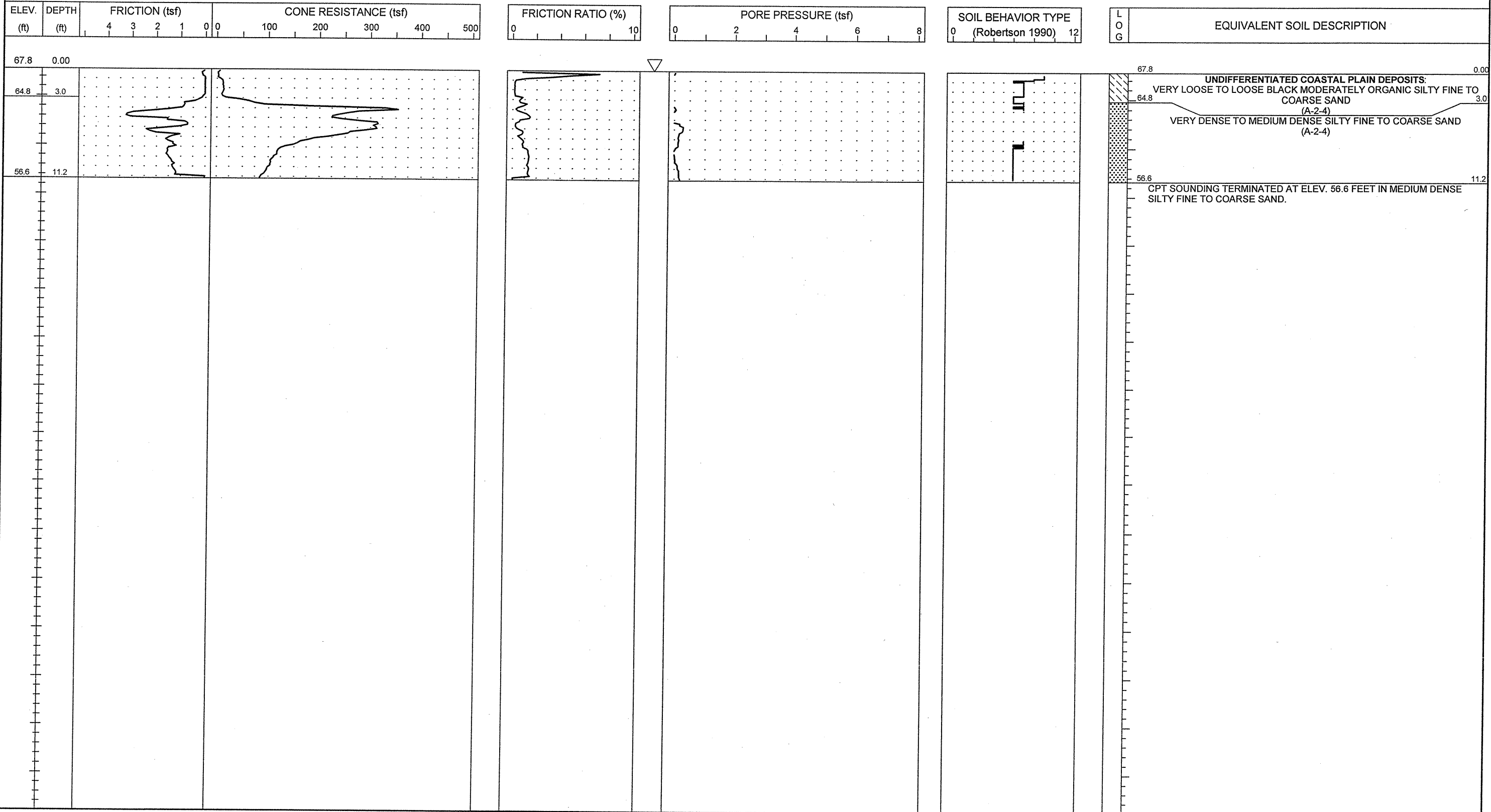


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 43.5 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-171	BORING LOCATION 439+50	OFFSET 0.0 ft CL	ALIGNMENT -L-	0 HR. 13.0	DATE STARTED 9/27/06	COMPLETED 9/27/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 23.0 ft	NORTHING 196,949.2	EASTING 2,310,860.8		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



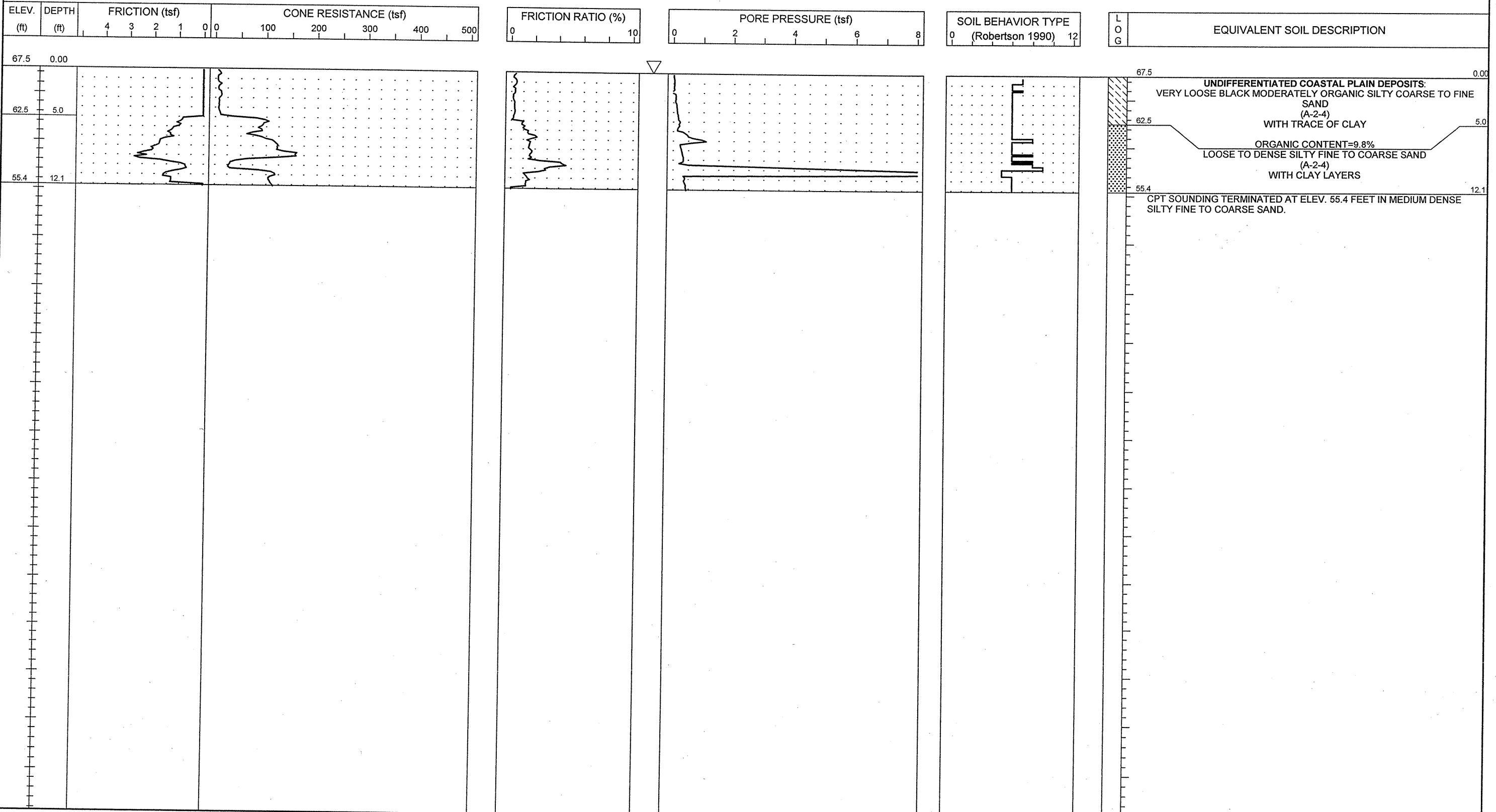


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 11.2 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-174	BORING LOCATION 10+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_D1-	0 HR. 0.0	DATE STARTED 10/22/06	COMPLETED 10/22/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 67.8 ft	NORTHING 188,449.8	EASTING 2,278,212.9		24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN		



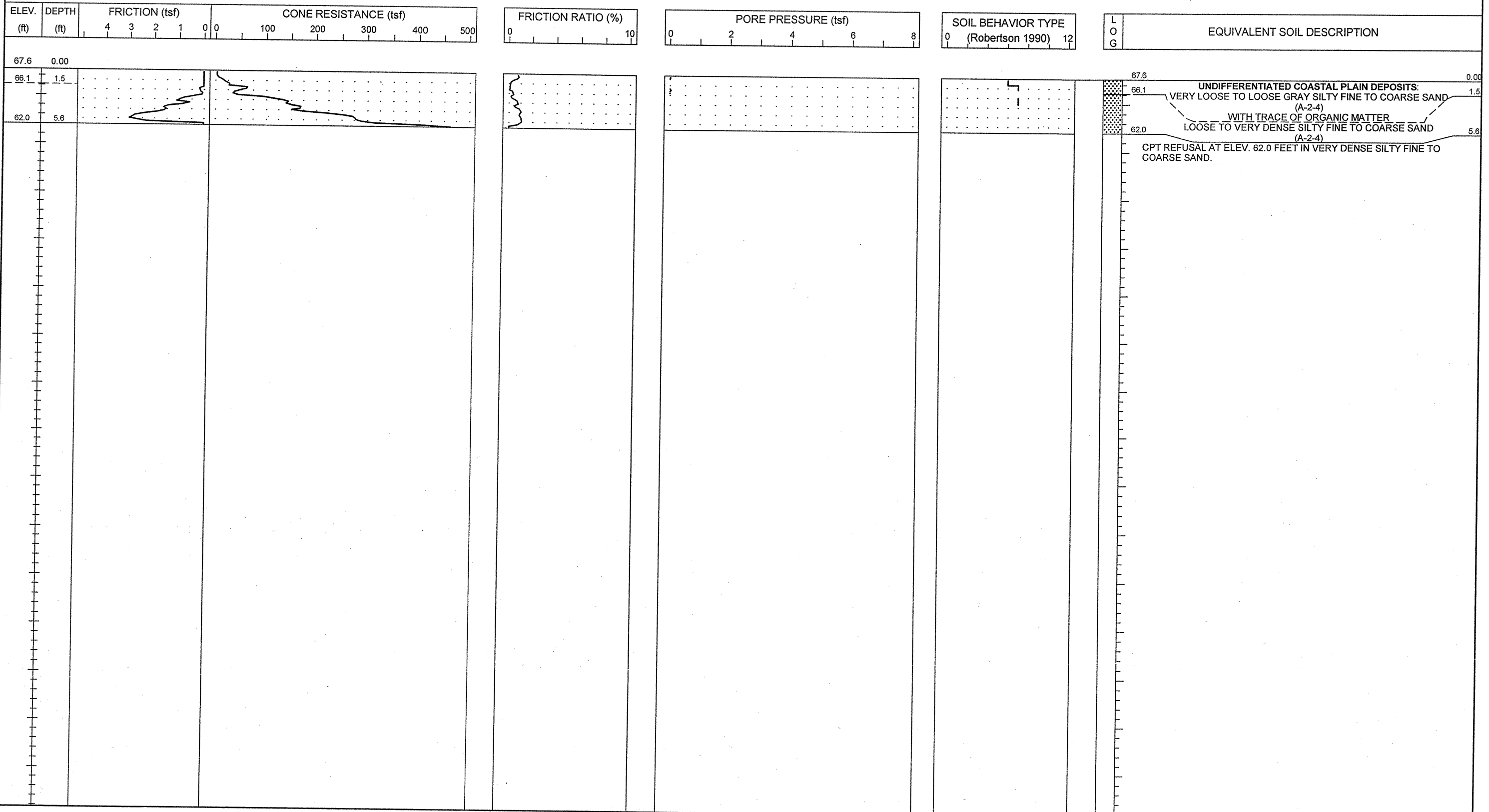


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 12.1 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-175	BORING LOCATION 12+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_D1-	0 HR. 0.0	DATE STARTED 10/21/06	COMPLETED 10/21/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 67.5 ft	NORTHING 188,253.3	EASTING 2,278,180.6		24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN		





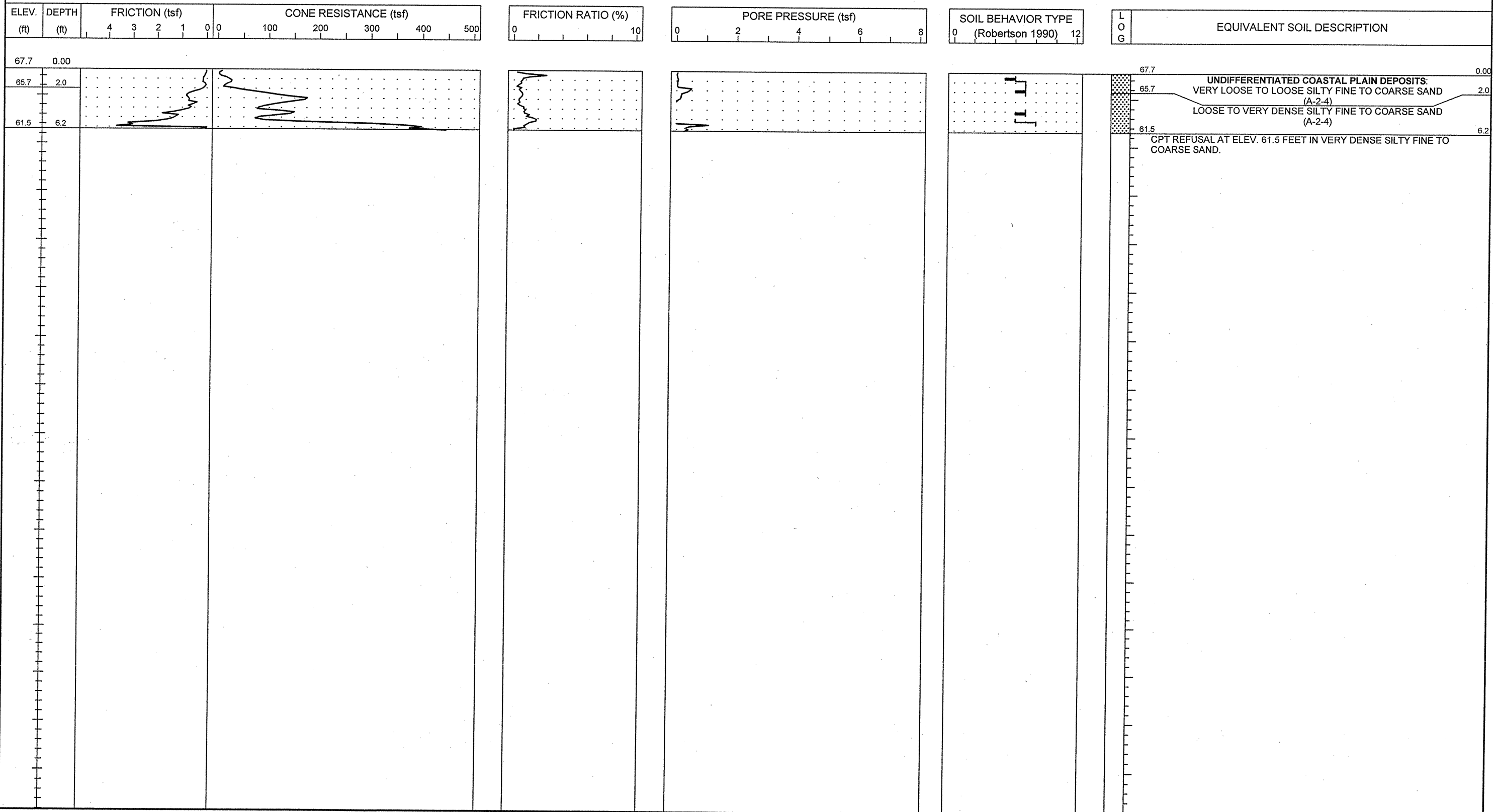
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 5.6 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-177	BORING LOCATION 16+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_D1-	0 HR. N/M	DATE STARTED 10/21/06	COMPLETED 10/21/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 67.6 ft	NORTHING 187,854.9	EASTING 2,278,185.8		24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN		



NCDOT CPT - ENGLISH NO N60 51-411 GREGG GPJ NCDOT.GDT 1/22/07

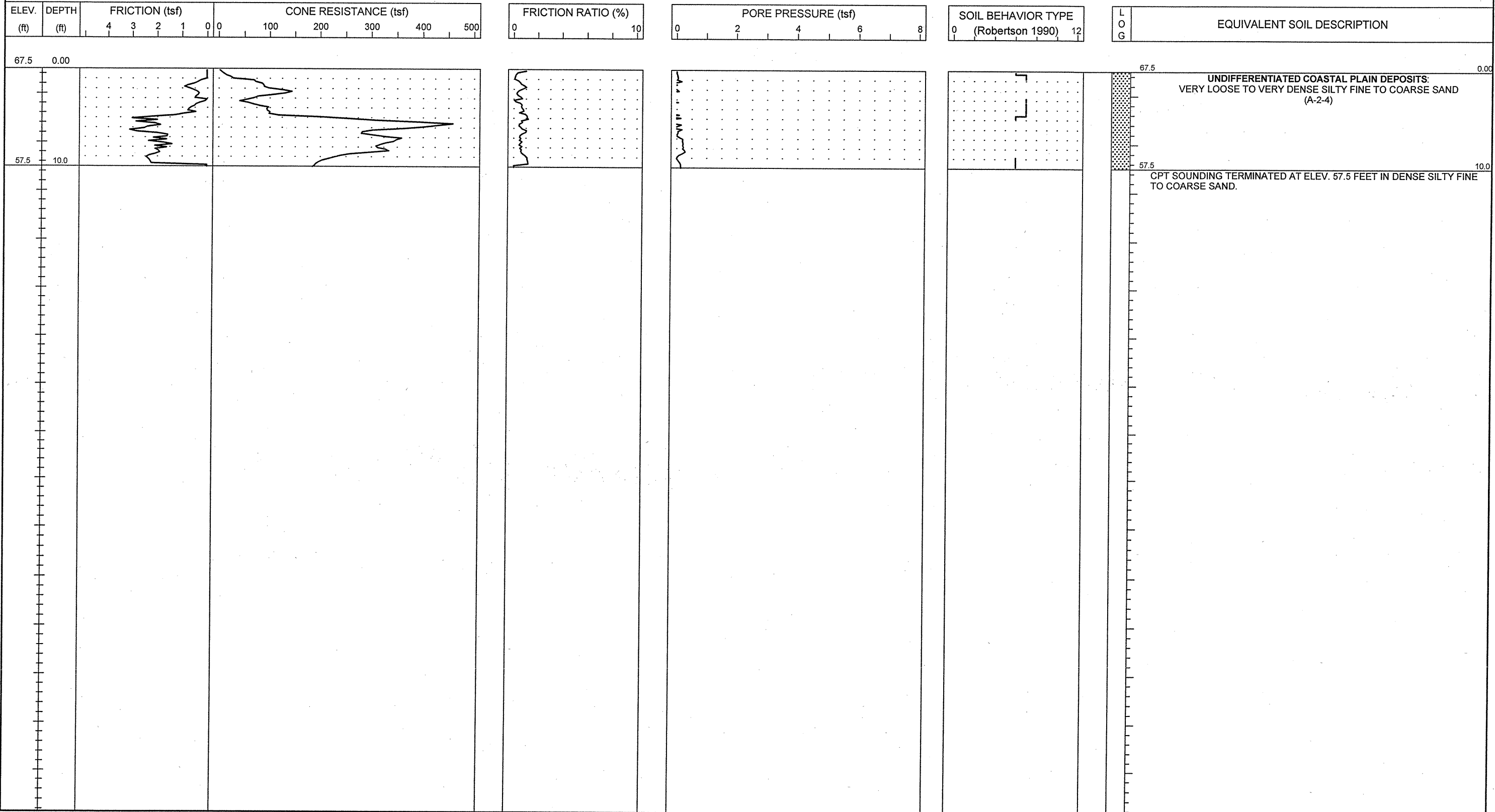


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 6.2 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-178	BORING LOCATION 18+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_D1-	0 HR. N/M	DATE STARTED 10/19/06	COMPLETED 10/19/06
COLLAR ELEV. 67.7 ft	NORTHING 187,660.9	EASTING 2,278,233.8	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A



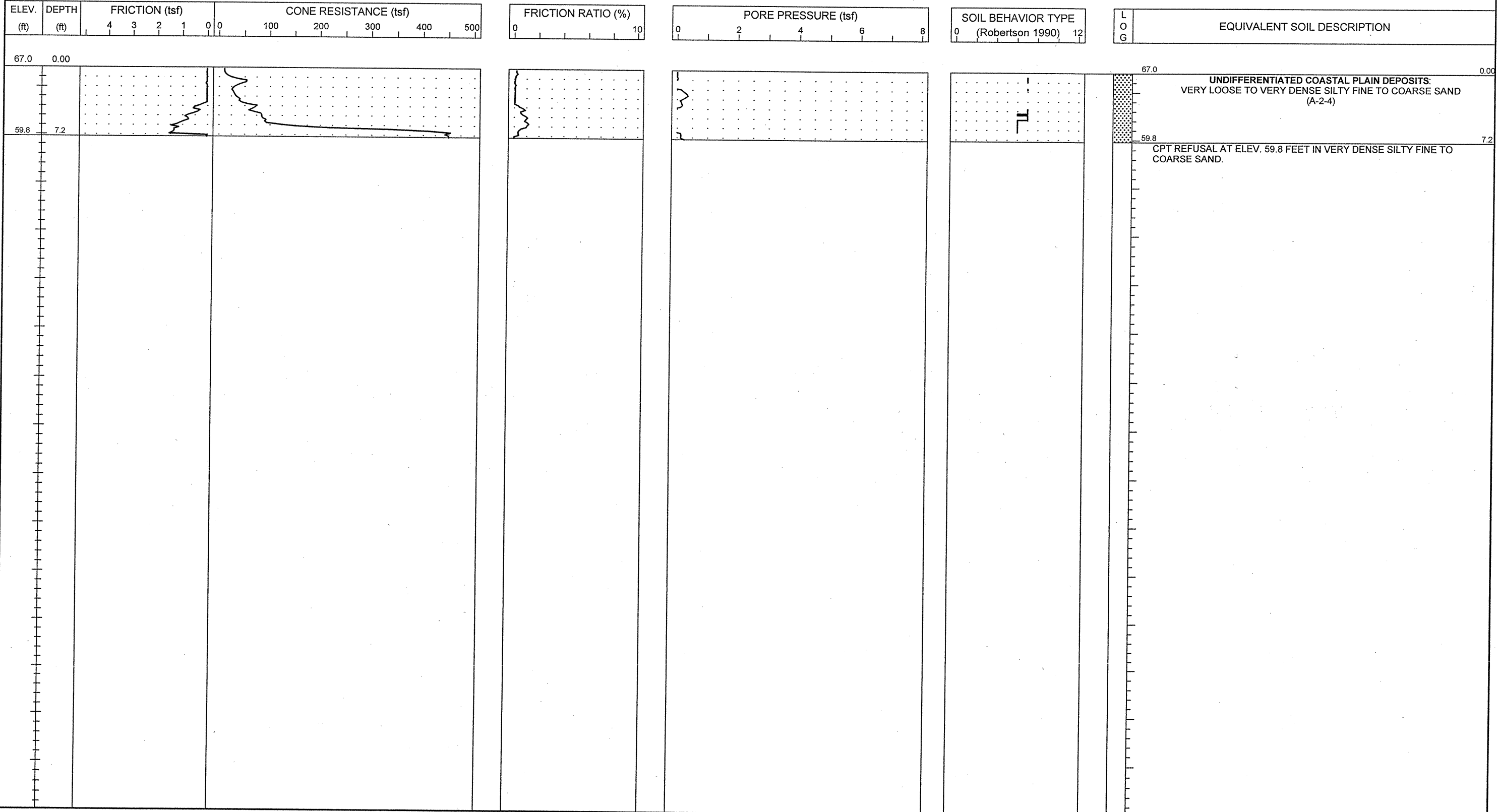


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-179	BORING LOCATION 20+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_D1-	0 HR. N/M	DATE STARTED 10/21/06	COMPLETED 10/21/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 67.5 ft	NORTHING 187,476.6	EASTING 2,278,311.0		24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN		



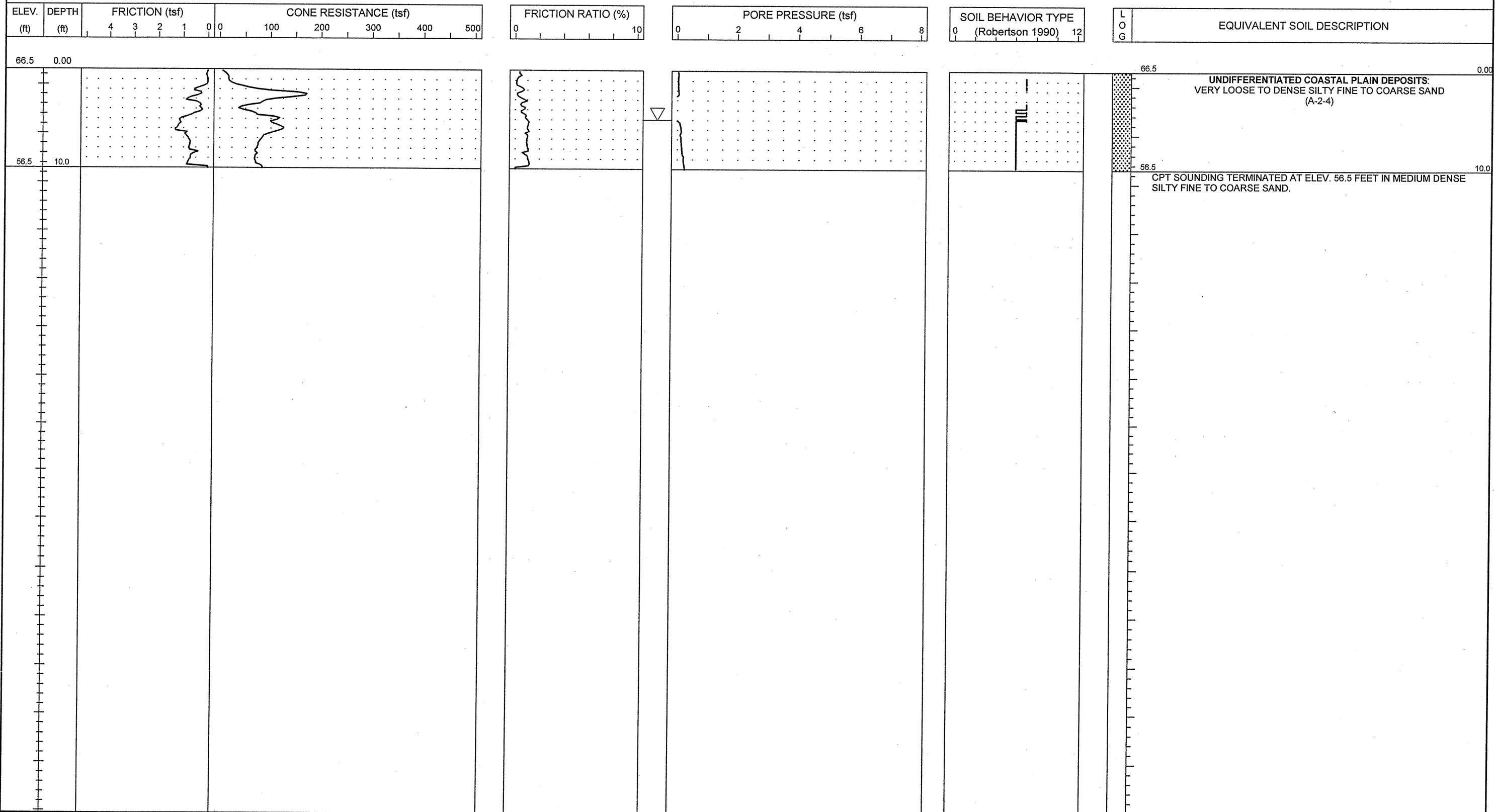


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 7.2 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-180	BORING LOCATION 22+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_D1-	0 HR. N/M	DATE STARTED 10/21/06	COMPLETED 10/21/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 67.0 ft	NORTHING 187,303.1	EASTING 2,278,410.3		24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN		



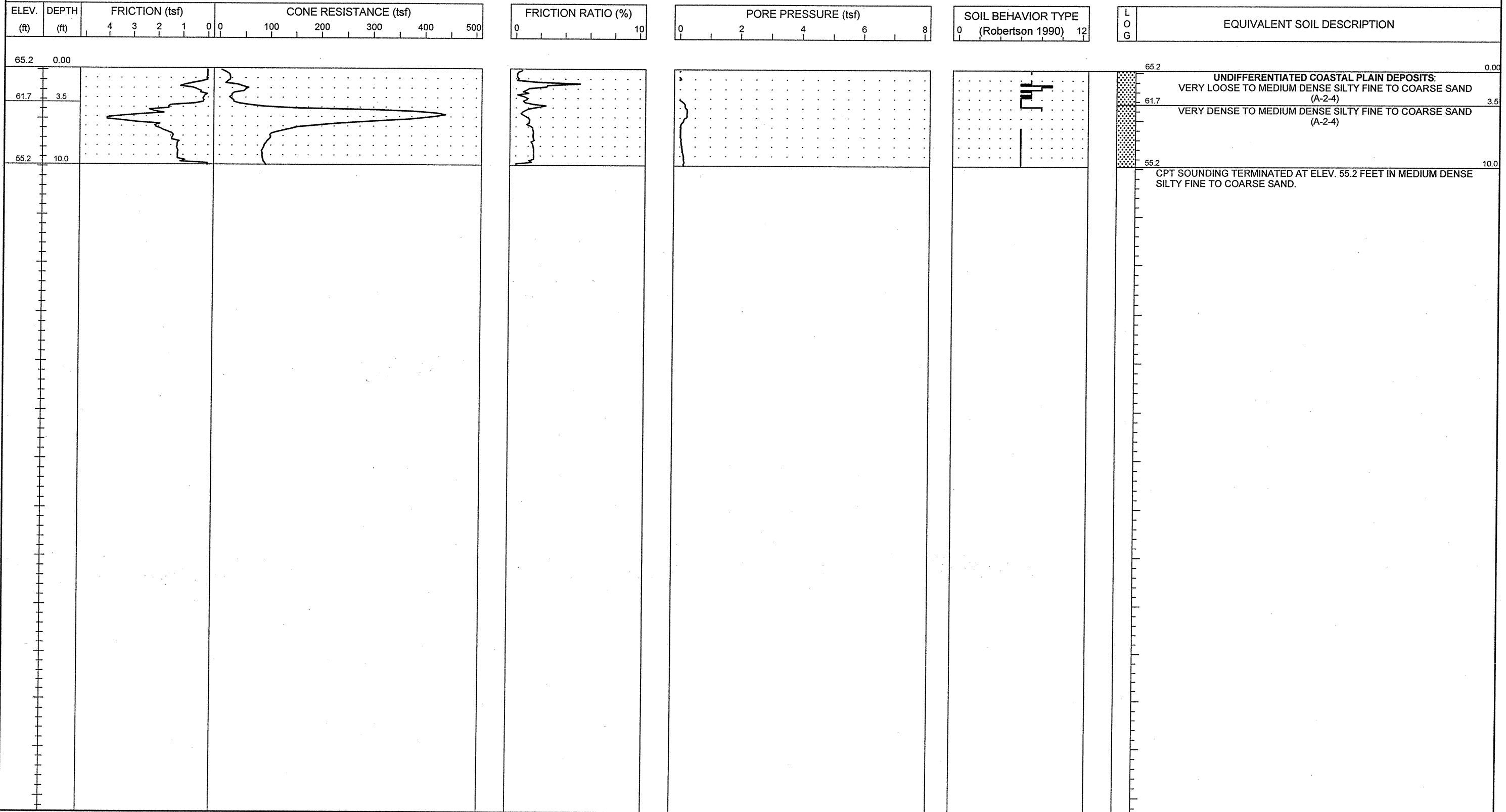


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-181	BORING LOCATION 24+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_D1-	0 HR. 5.0	DATE STARTED 10/21/06	COMPLETED 10/21/06
COLLAR ELEV. 66.5 ft	NORTHING 187,131.6	EASTING 2,278,513.1	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A
				HAMMER TYPE N/A		



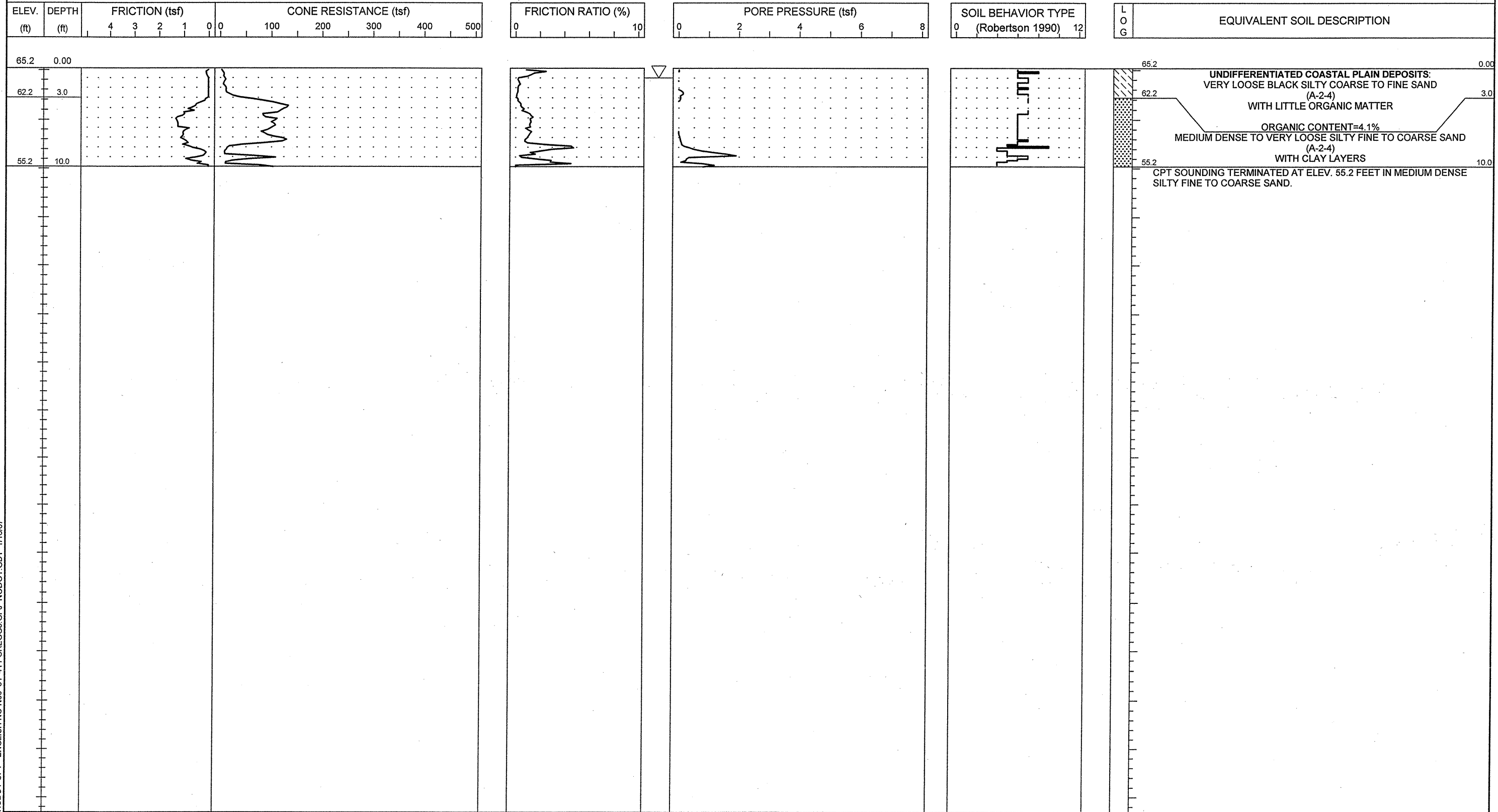


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-182	BORING LOCATION 26+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_D1-	0 HR. N/M	DATE STARTED 10/21/06	COMPLETED 10/21/06
COLLAR ELEV. 65.2 ft	NORTHING 186,946.0	EASTING 2,278,586.3	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A



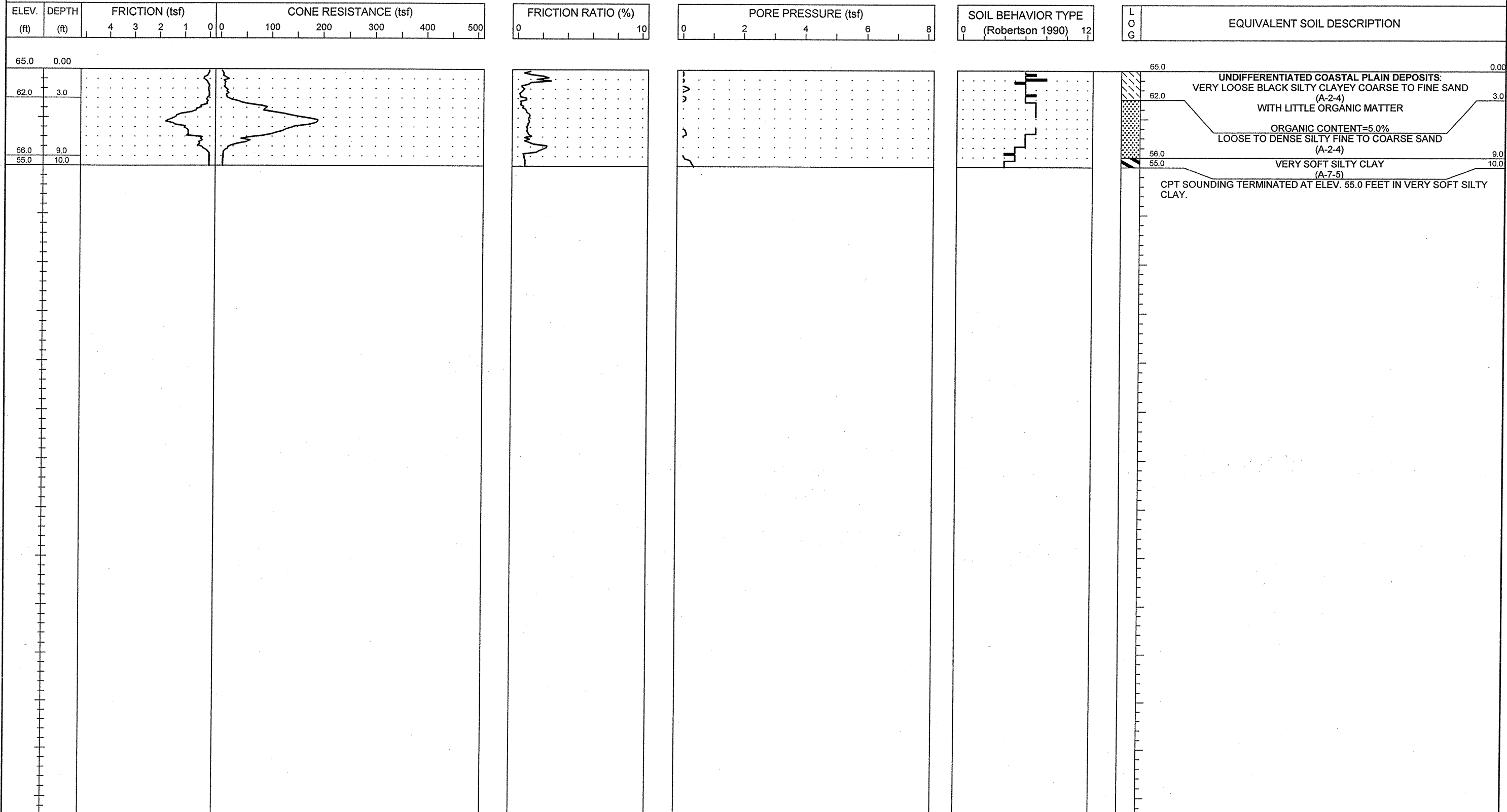


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-183	BORING LOCATION 28+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_D1-	0 HR. 1.0	DATE STARTED 10/21/06	COMPLETED 10/21/06
COLLAR ELEV. 65.2 ft	NORTHING 186,748.2	EASTING 2,278,613.2	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A



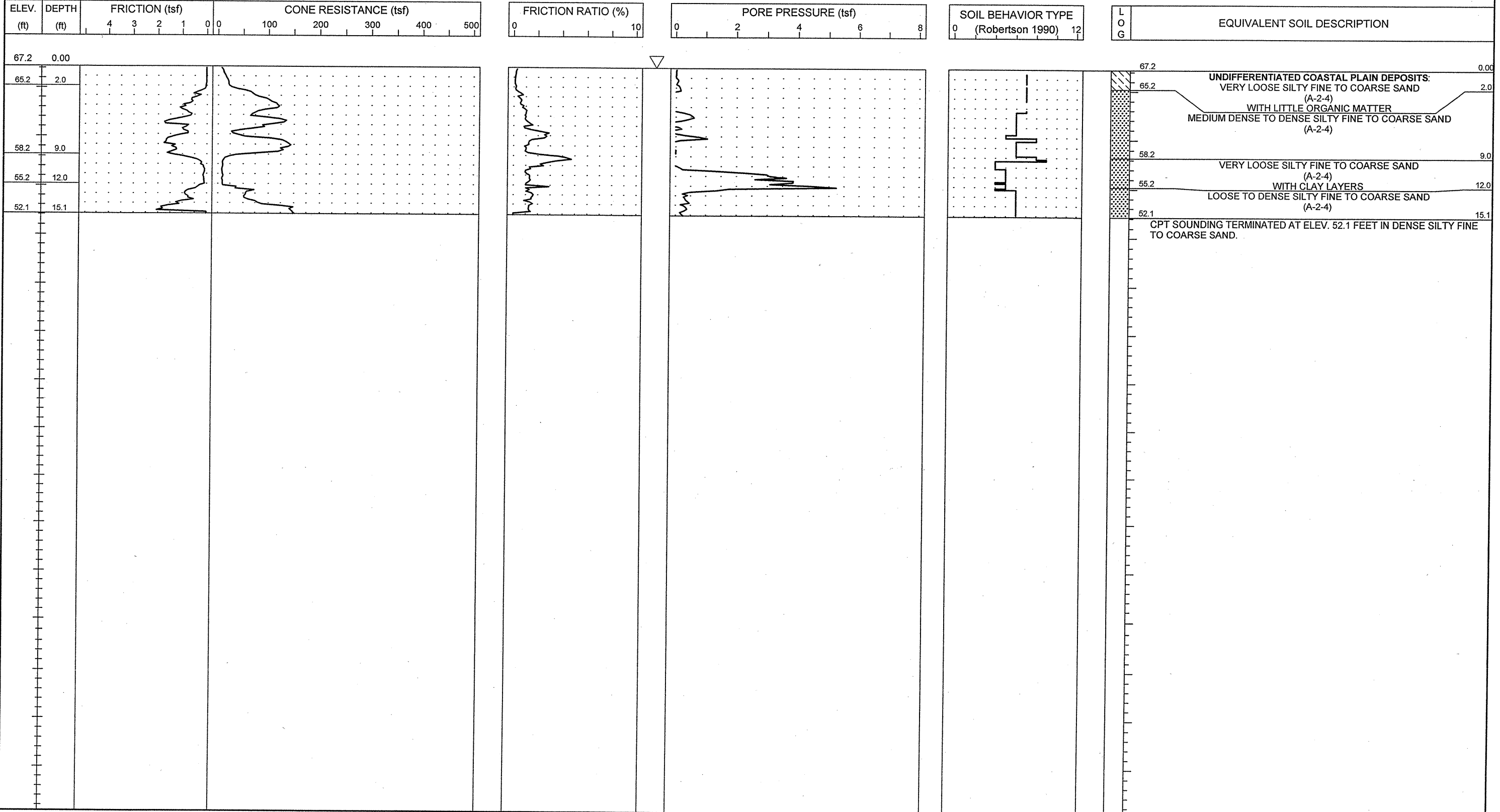


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-184	BORING LOCATION 30+50	OFFSET 0.0 ft CL	ALIGNMENT -RP_D1-	0 HR. N/M	DATE STARTED 10/21/06	COMPLETED 10/21/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 65.0 ft	NORTHING 186,498.3	EASTING 2,278,620.3		24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN		



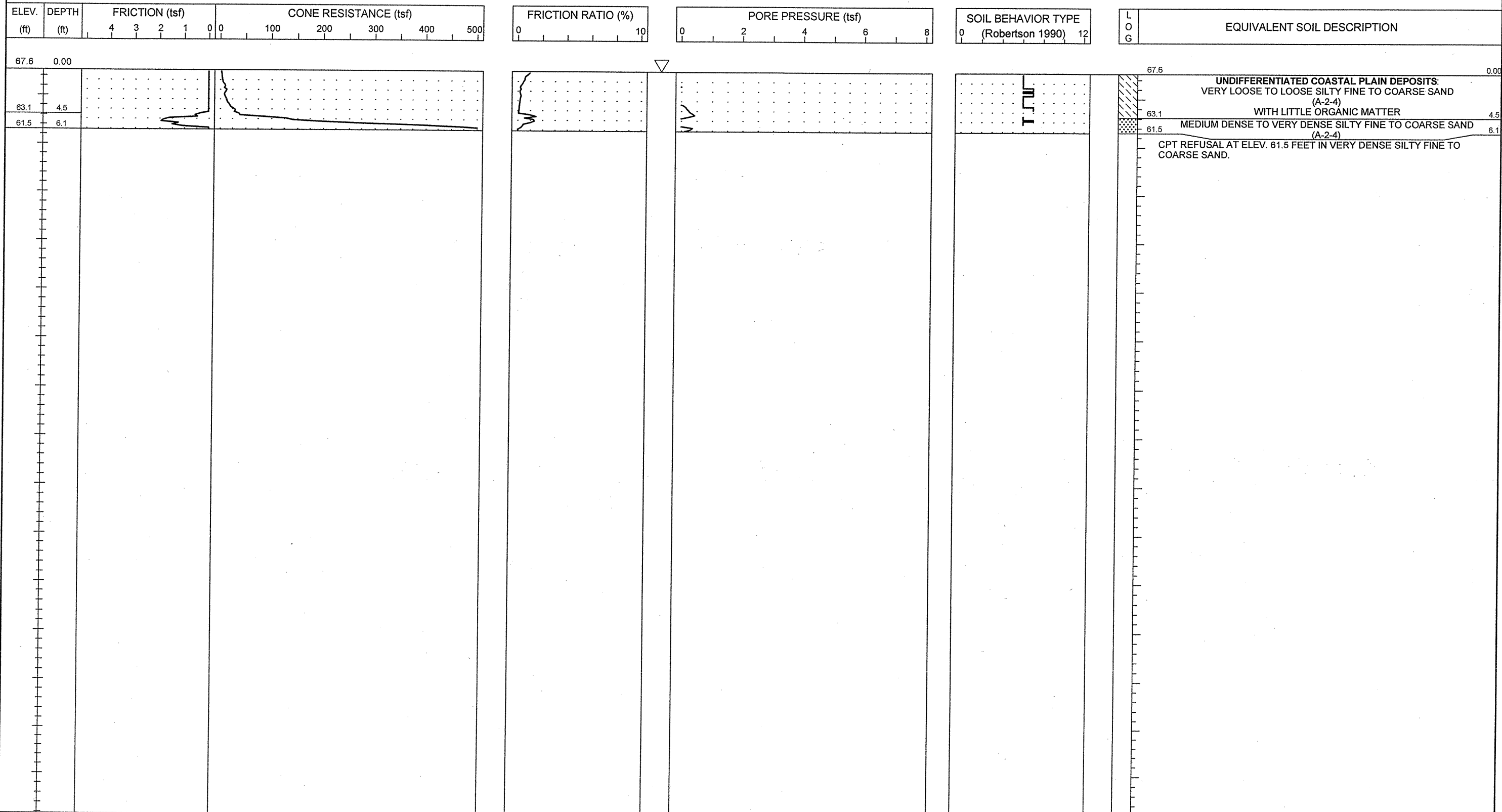


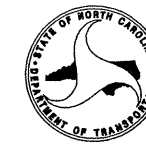
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 15.1 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-185	BORING LOCATION 11+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_A1-	0 HR. 0.0	DATE STARTED 10/21/06	COMPLETED 10/21/06
COLLAR ELEV. 67.2 ft	NORTHING 188,231.0	EASTING 2,278,075.9	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A



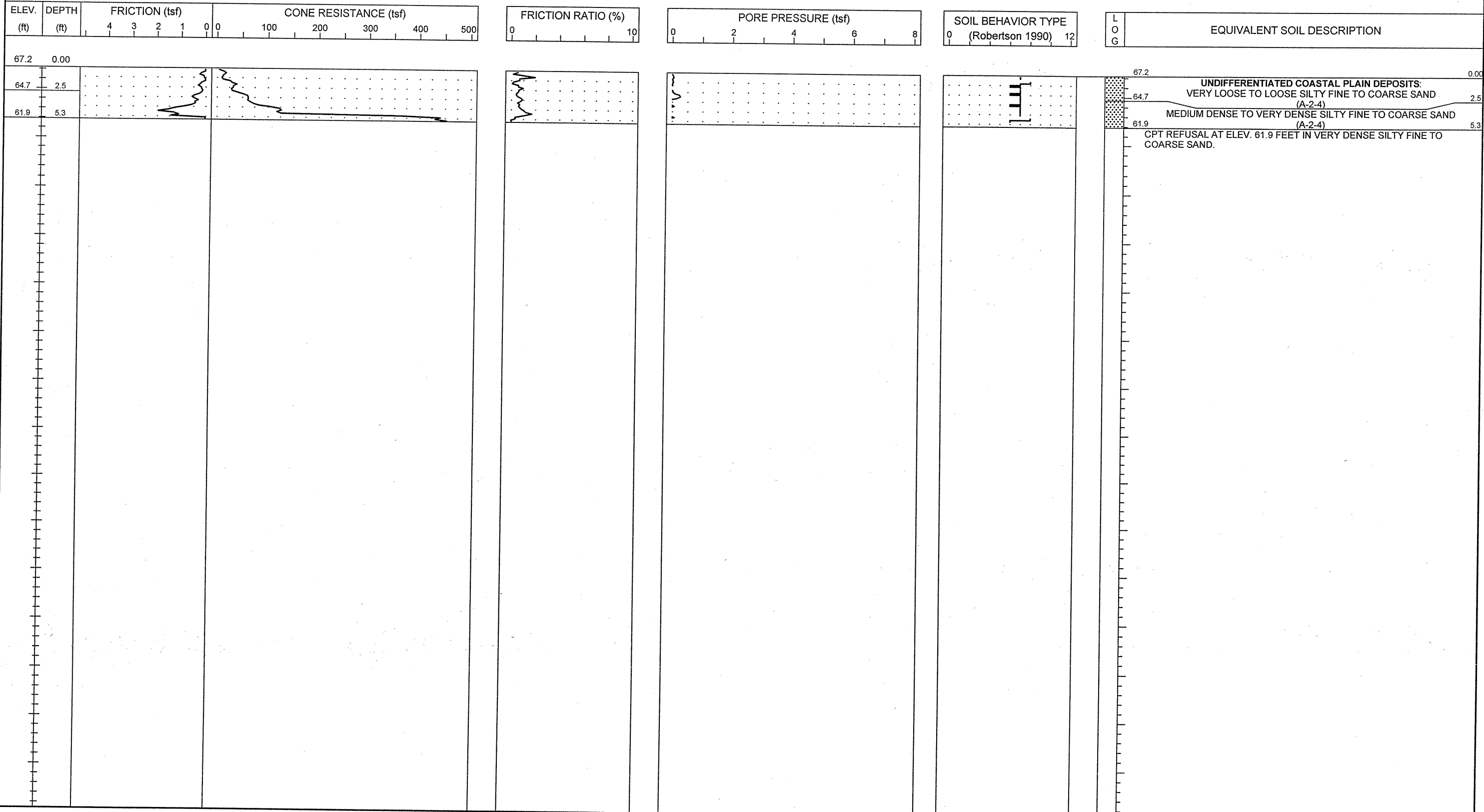


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 6.1 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-186	BORING LOCATION 13+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_A1-	0 HR. 0.0	DATE STARTED 10/21/06	COMPLETED 10/21/06
COLLAR ELEV. 67.6 ft	NORTHING 188,035.4	EASTING 2,278,034.5	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A





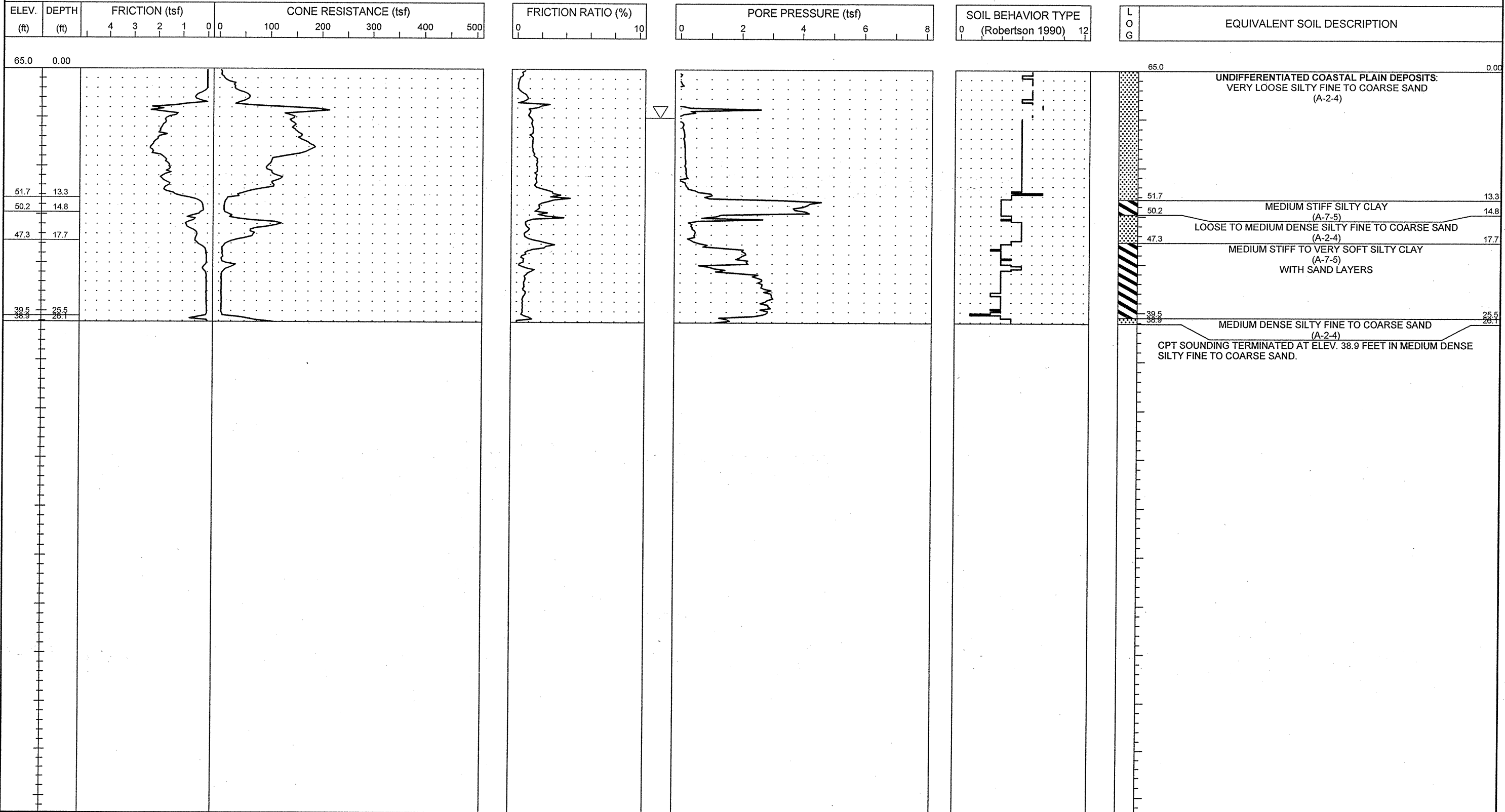
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 5.3 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-187	BORING LOCATION 15+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_A1-	0 HR. N/M	DATE STARTED 10/21/06	COMPLETED 10/21/06
COLLAR ELEV. 67.2 ft	NORTHING 187,841.9	EASTING 2,277,985.7	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO N60 51-411 GREGG3.GPJ NCDOT.GDT 11/16/06



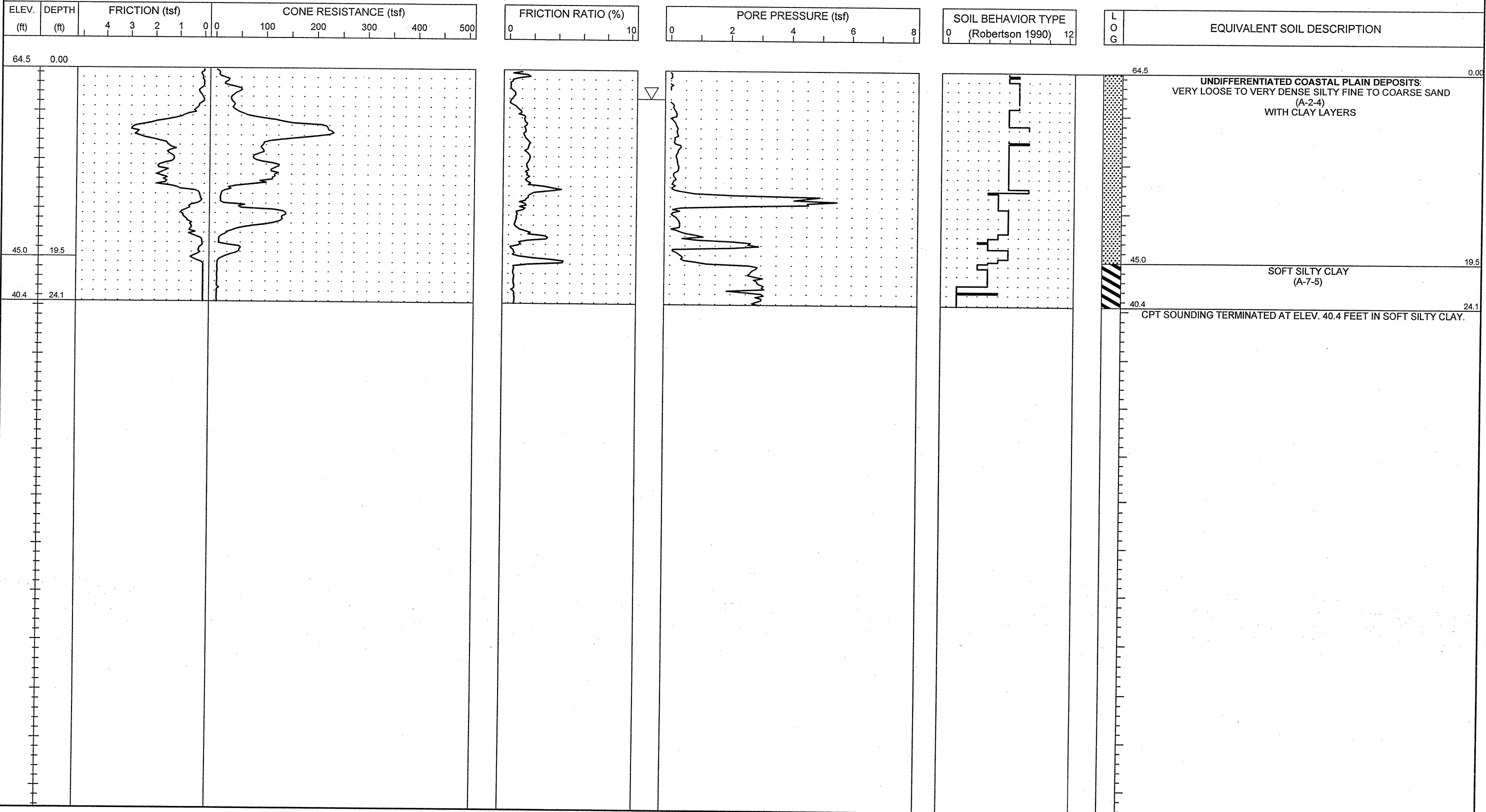
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 26.1 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-188	BORING LOCATION 17+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_A1-	0 HR. 5.0	DATE STARTED 10/21/06	COMPLETED 10/21/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 65.0 ft	NORTHING 187,655.7	EASTING 2,277,911.4		24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN		



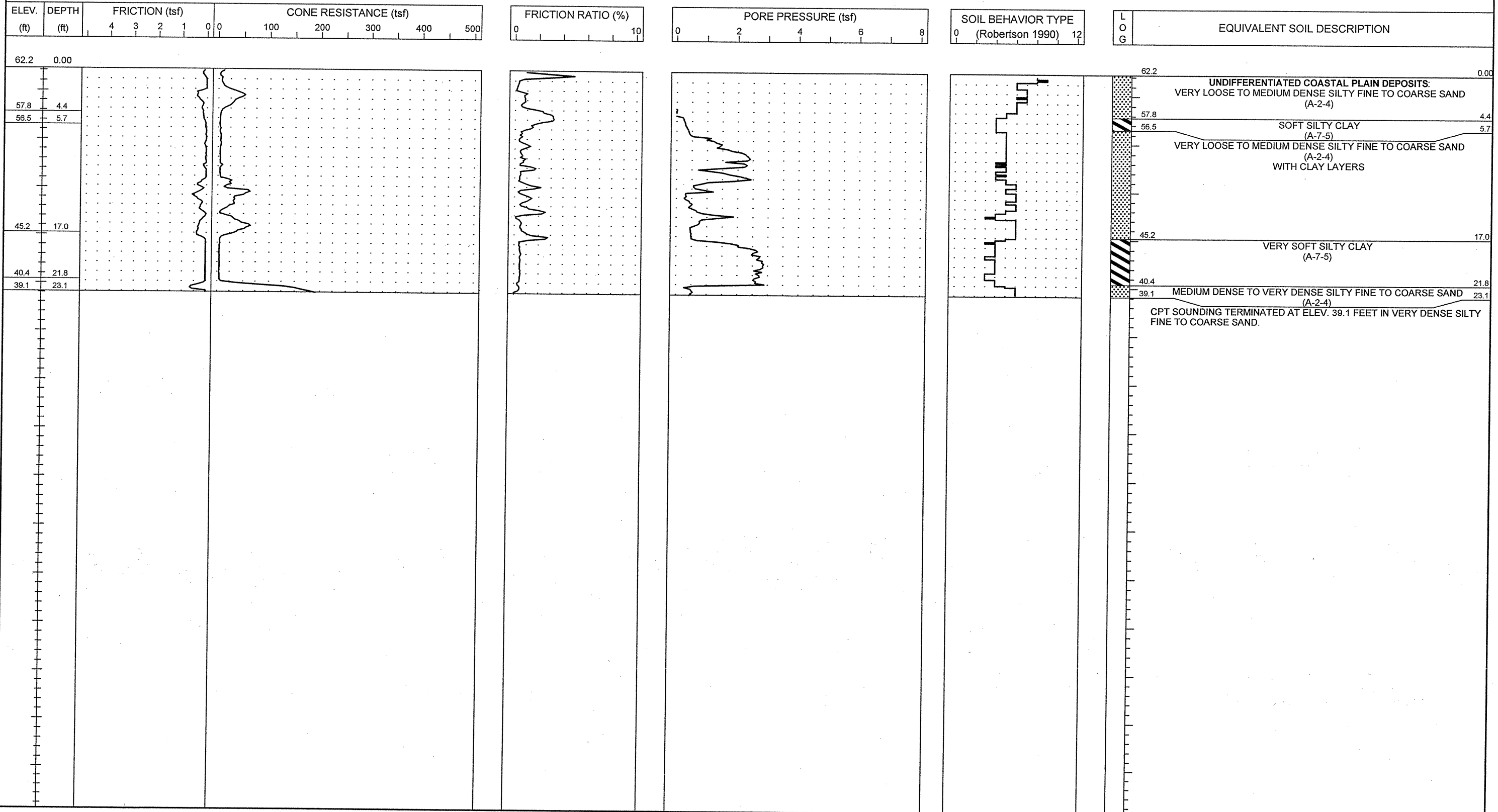
NCDOT CPT - ENGLISH NO N60 51-411 GREGG3.GPJ NCDOT.GDT 11/16/06



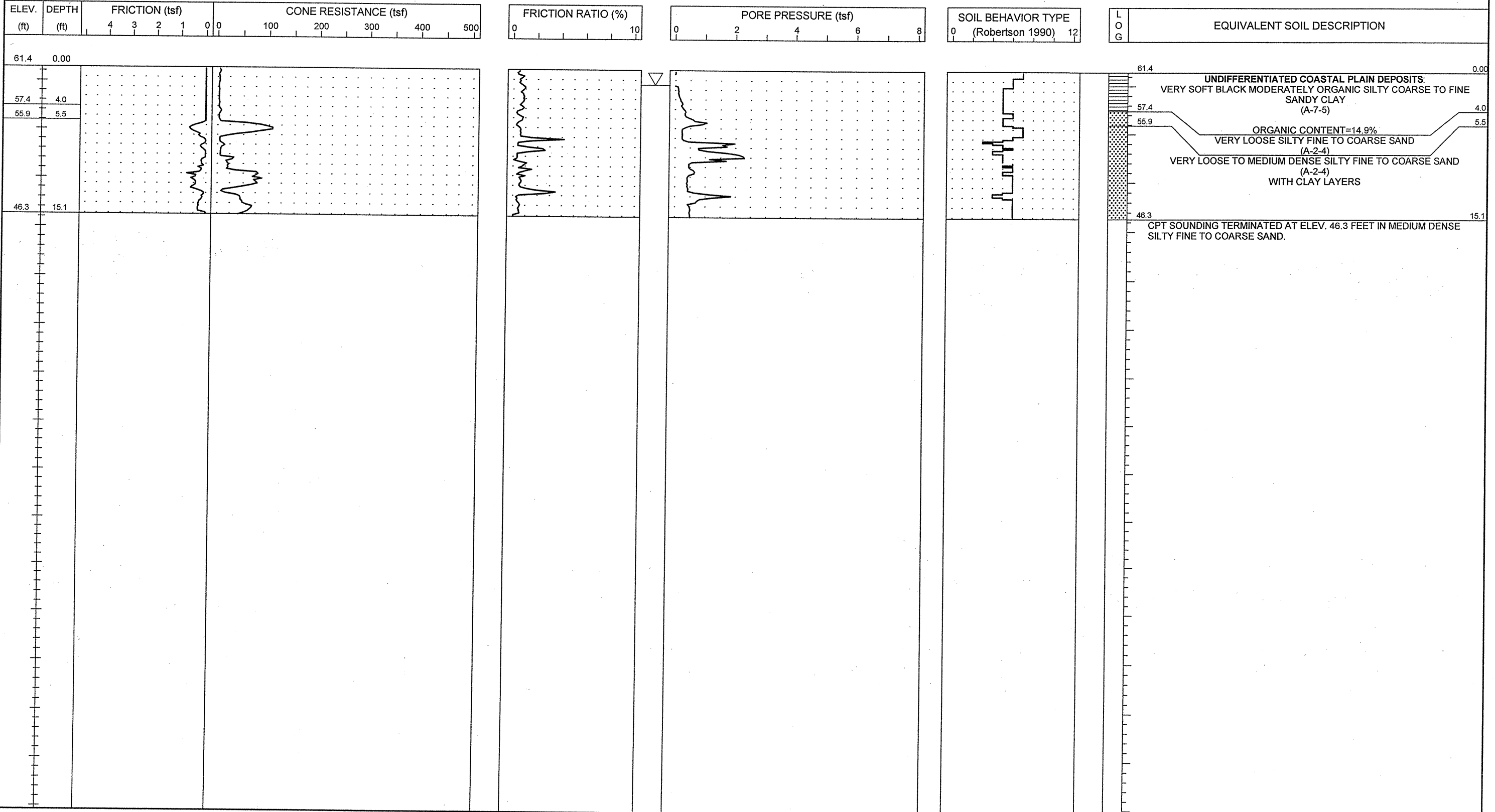
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 24.1 ft	DRILL MACHINE CPT-ATV
BORING NO. C-189	BORING LOCATION 19+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_A1-	0 HR. 3.0	DATE STARTED 10/21/06	COMPLETED 10/21/06
COLLAR ELEV. 64.5 ft	NORTHING 187,481.0	EASTING 2,277,814.5	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A



PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 23.1 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-190	BORING LOCATION 21+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_A1-	0 HR. N/M	DATE STARTED 10/20/06	COMPLETED 10/20/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 62.2 ft	NORTHING 187,319.0	EASTING 2,277,697.3		24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN		

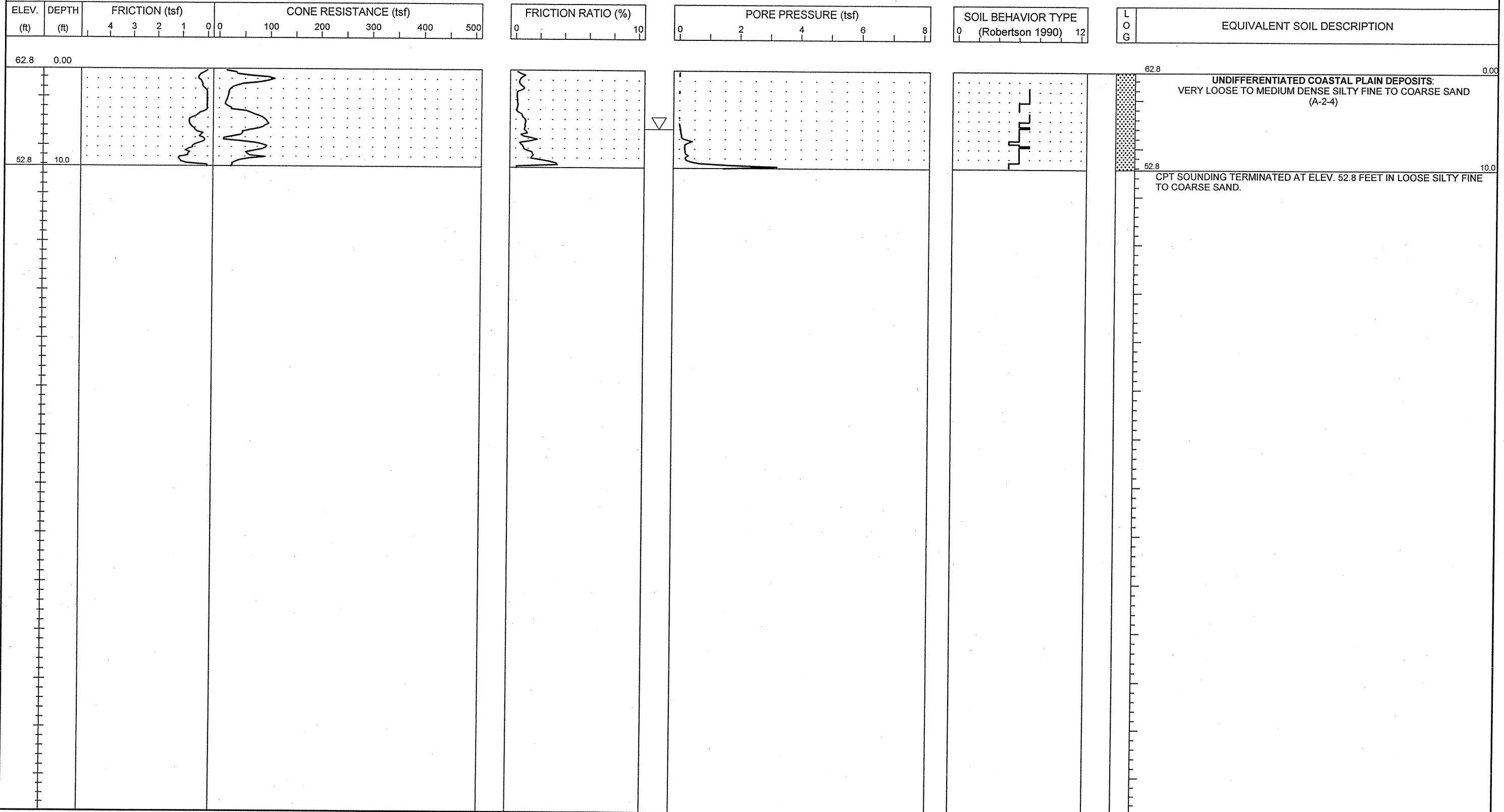


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 15.1 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-191	BORING LOCATION 23+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_A1-	0 HR. 1.5	DATE STARTED 10/20/06	COMPLETED 10/20/06
COLLAR ELEV. 61.4 ft	NORTHING 187,162.7	EASTING 2,277,572.5	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A



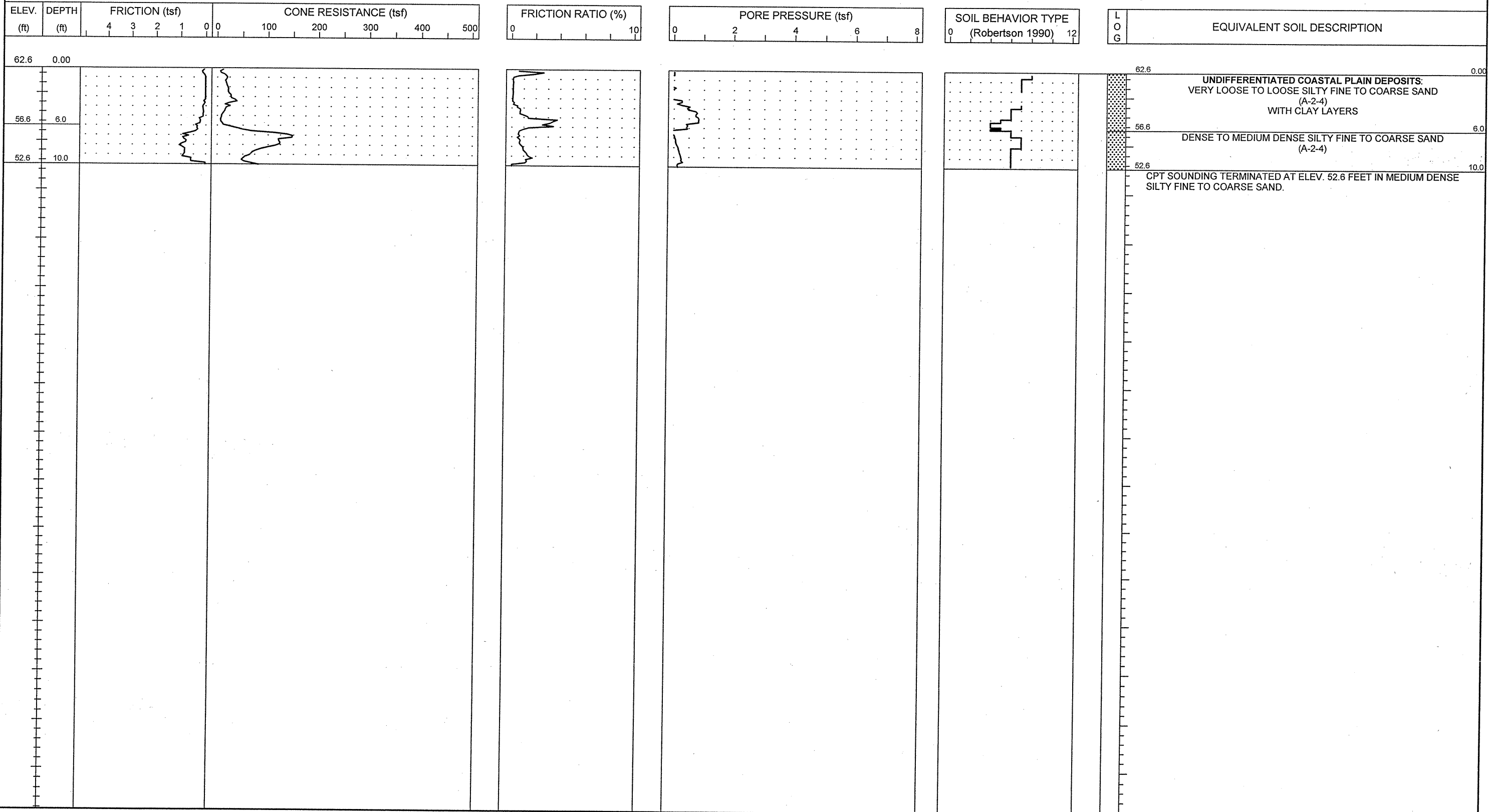


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-192	BORING LOCATION 25+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_A1-	0 HR. 6.0	DATE STARTED 10/20/06	COMPLETED 10/20/06
COLLAR ELEV. 62.8 ft	NORTHING 186,994.9	EASTING 2,277,464.3	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A
HAMMER TYPE N/A						





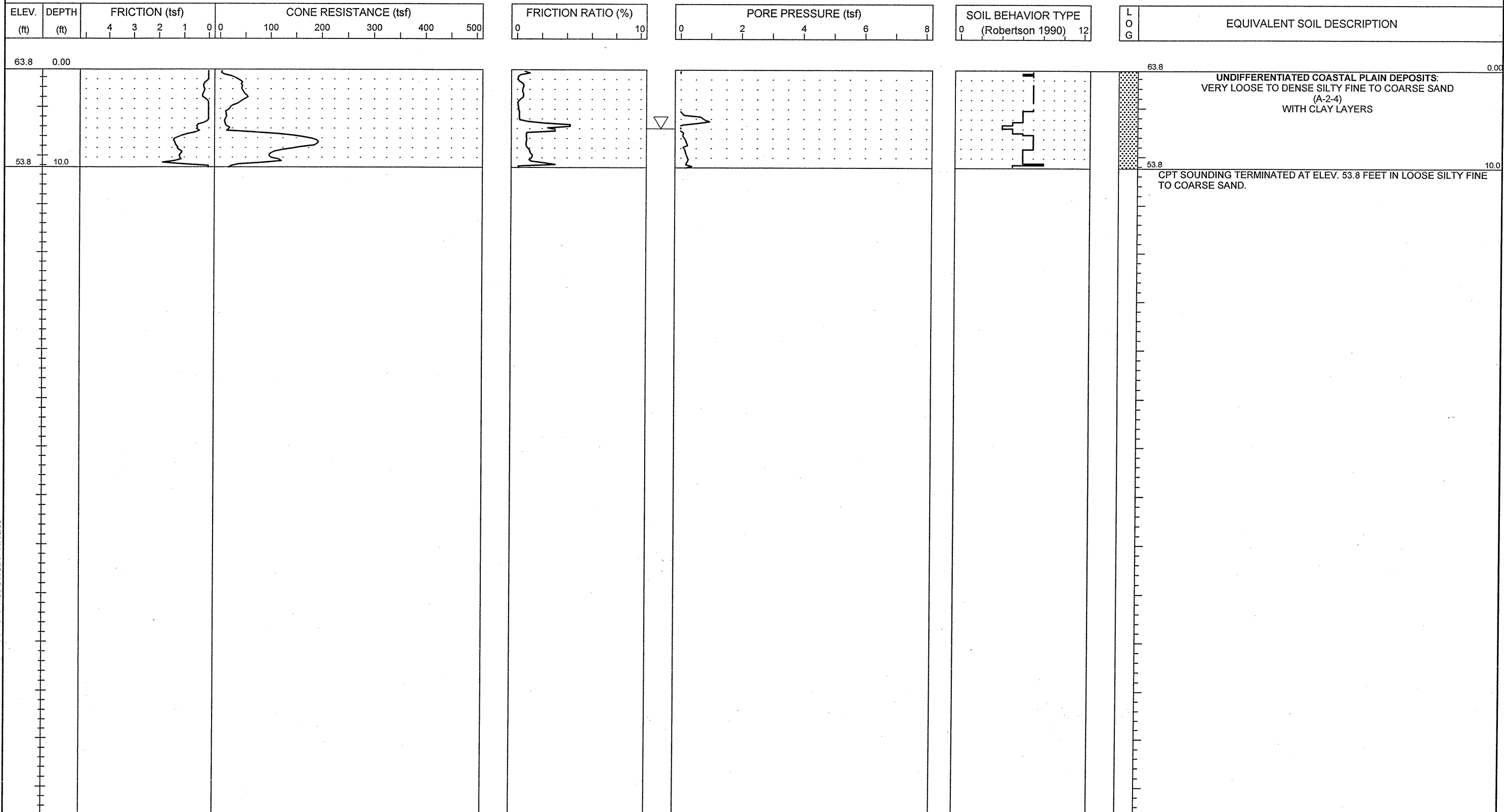
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-193	BORING LOCATION 27+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_A1-	0 HR. N/M	DATE STARTED 10/20/06	COMPLETED 10/20/06
COLLAR ELEV. 62.6 ft	NORTHING 186,808.0	EASTING 2,277,393.9	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A



NCDOT_CPT - ENGLISH NO N60 51-411 GREGGS.GPJ NCDOT.GDT 11/16/06

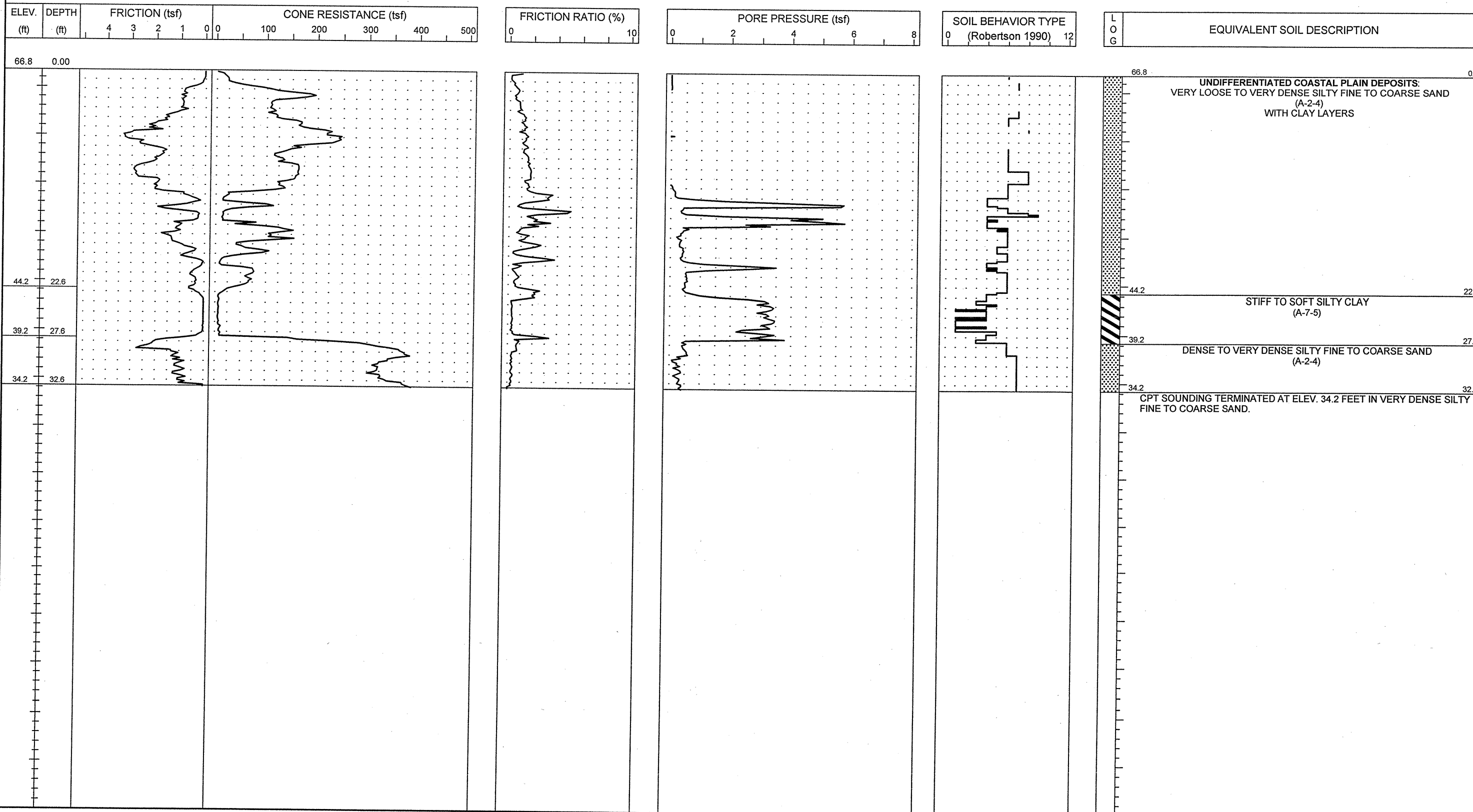


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-194	BORING LOCATION 29+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_A1-	0 HR. 6.0	DATE STARTED 10/20/06	COMPLETED 10/20/06
COLLAR ELEV. 63.8 ft	NORTHING 186,614.0	EASTING 2,277,345.3	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A





PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 32.6 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-195	BORING LOCATION 10+00	OFFSET 0.0 ft CL	ALIGNMENT -LP_D1-	0 HR. N/M	DATE STARTED 10/21/06	COMPLETED 10/21/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 66.8 ft	NORTHING 186,591.6	EASTING 2,278,054.7		24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN		

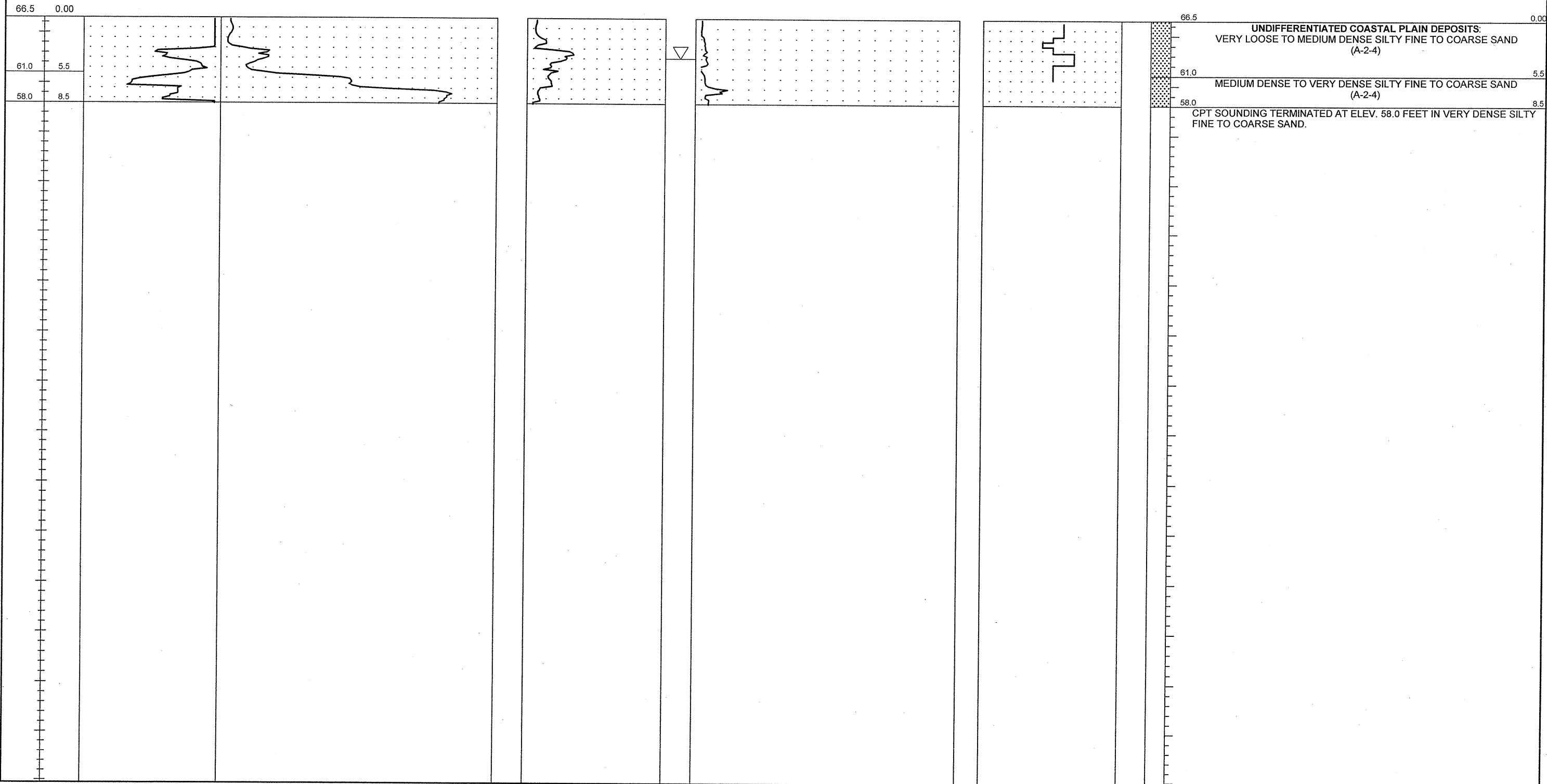


NCDOT CPT - ENGLISH NO N60 51-411 GREGG3.GPJ NCDOT.GDT 11/16/06



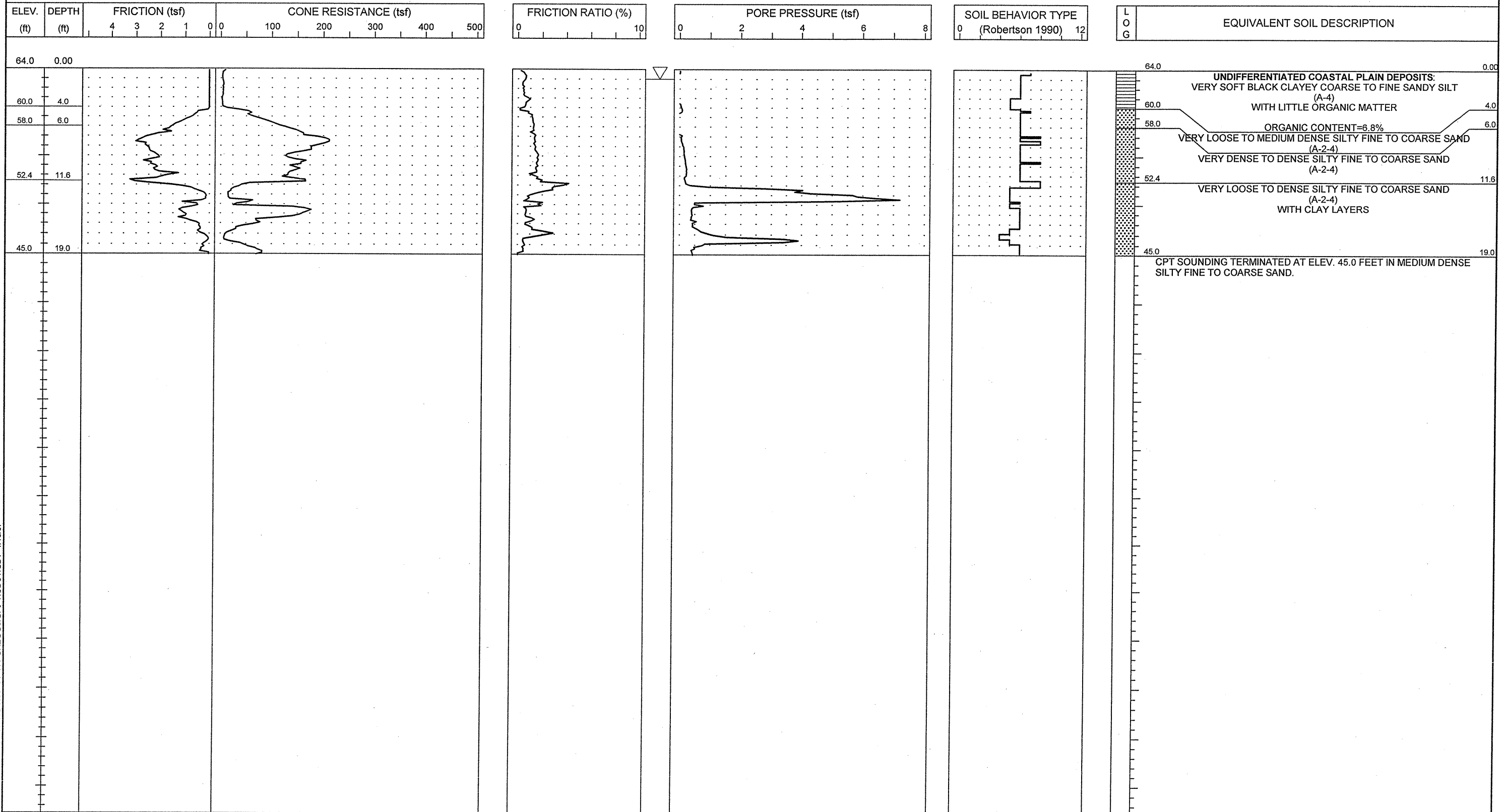
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/ Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 8.5 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-196	BORING LOCATION 12+00	OFFSET 0.0 ft CL	ALIGNMENT -LP_D1-	0 HR. 4.0	DATE STARTED 10/21/06	COMPLETED 10/21/06
COLLAR ELEV. 66.5 ft	NORTHING 186,790.5	EASTING 2,278,069.7	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A

ELEV. (ft)	DEPTH (ft)	FRICITION (tsf)	CONE RESISTANCE (tsf)	FRICITION RATIO (%)	PORE PRESSURE (tsf)	SOIL BEHAVIOR TYPE (Robertson 1990)	LOG	EQUIVALENT SOIL DESCRIPTION
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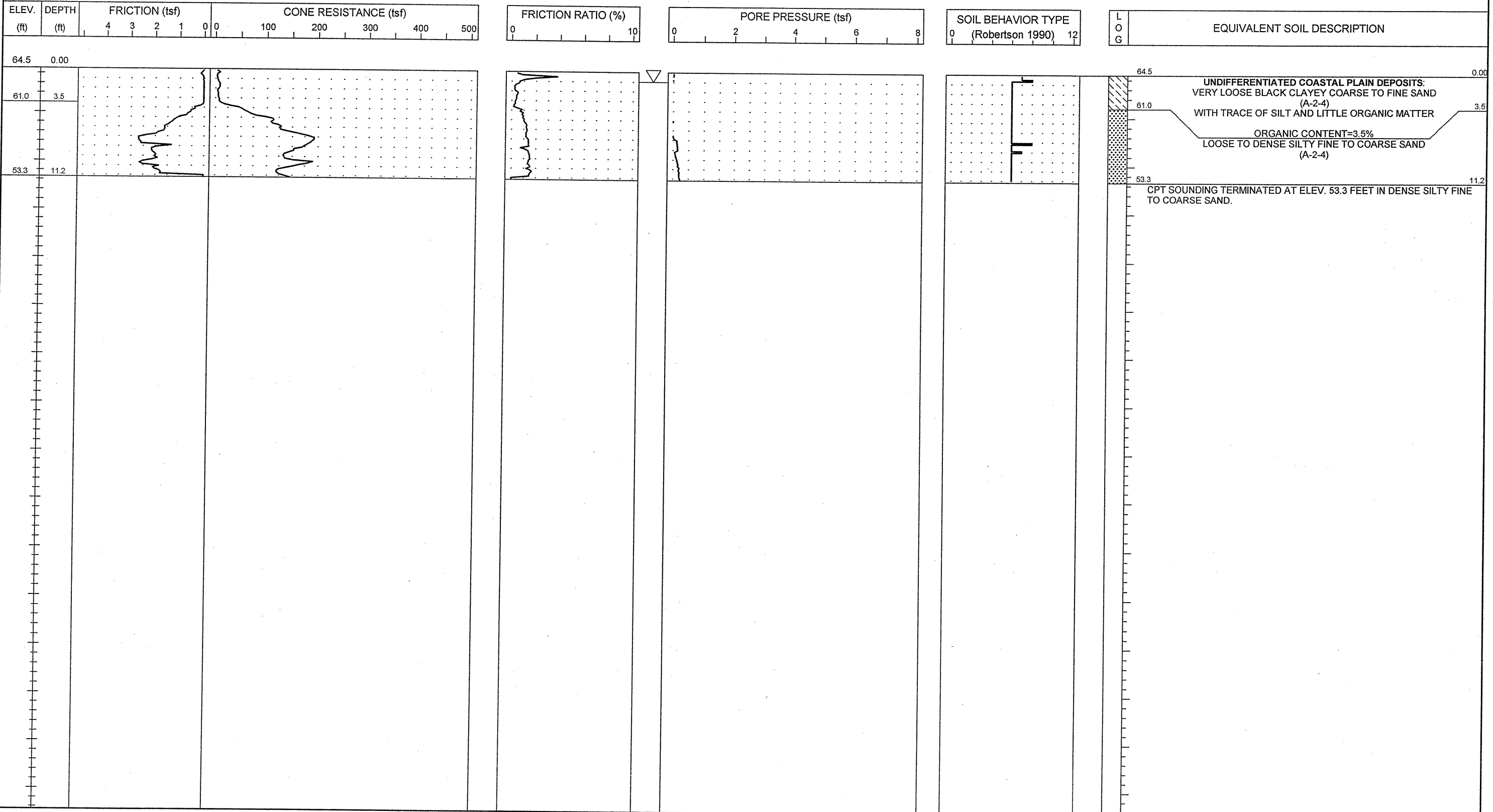


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 19.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-197	BORING LOCATION 14+00	OFFSET 0.0 ft CL	ALIGNMENT -LP_D1-	0 HR. 1.0	DATE STARTED 10/21/06	COMPLETED 10/21/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 64.0 ft	NORTHING 186,954.5	EASTING 2,278,176.4		24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN		



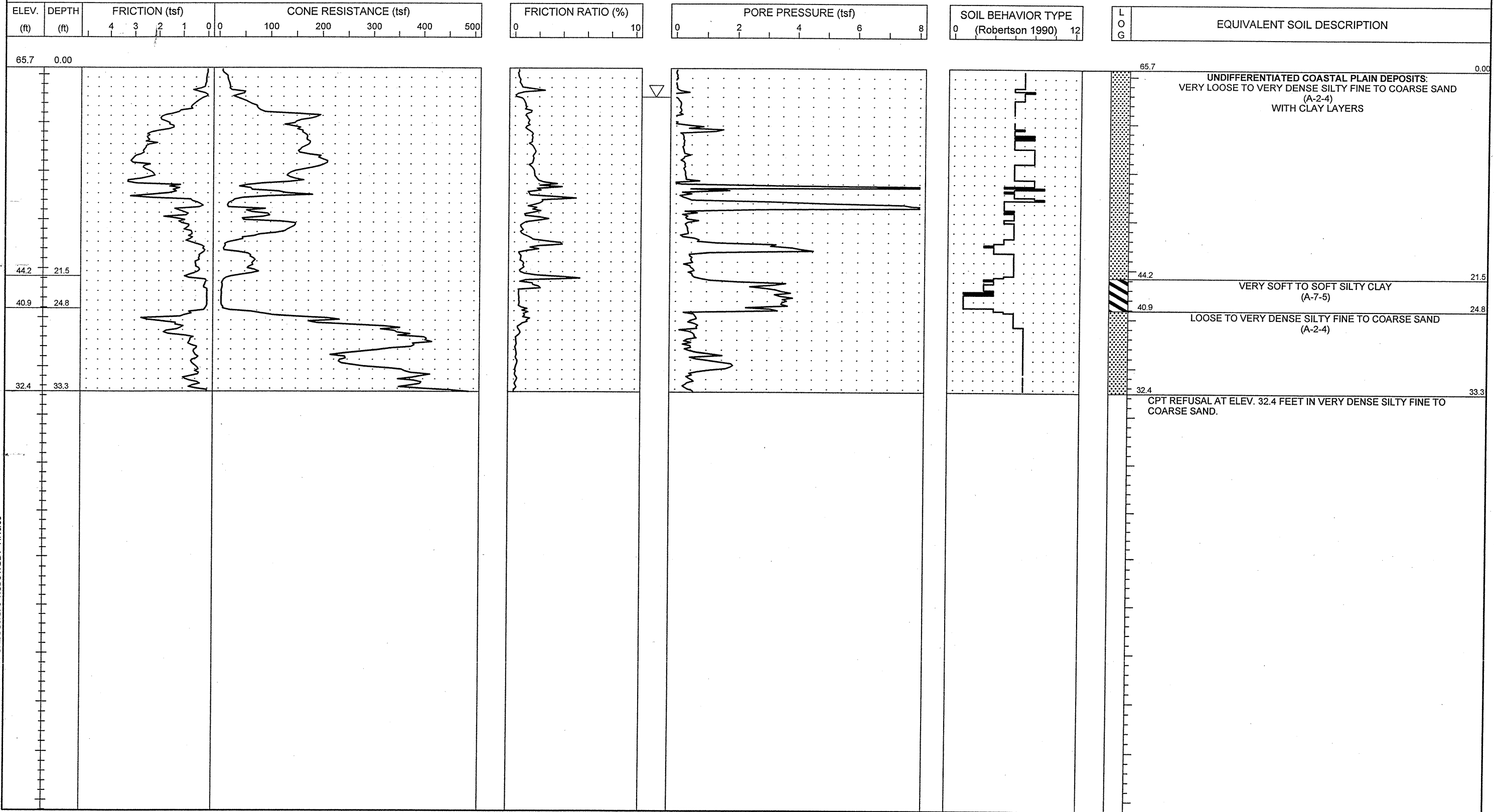


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 11.2 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-198	BORING LOCATION 16+00	OFFSET 0.0 ft CL	ALIGNMENT -LP_D1-	0 HR. 1.0	DATE STARTED 10/21/06	COMPLETED 10/21/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 64.5 ft	NORTHING 186,999.9	EASTING 2,278,366.2		24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN		



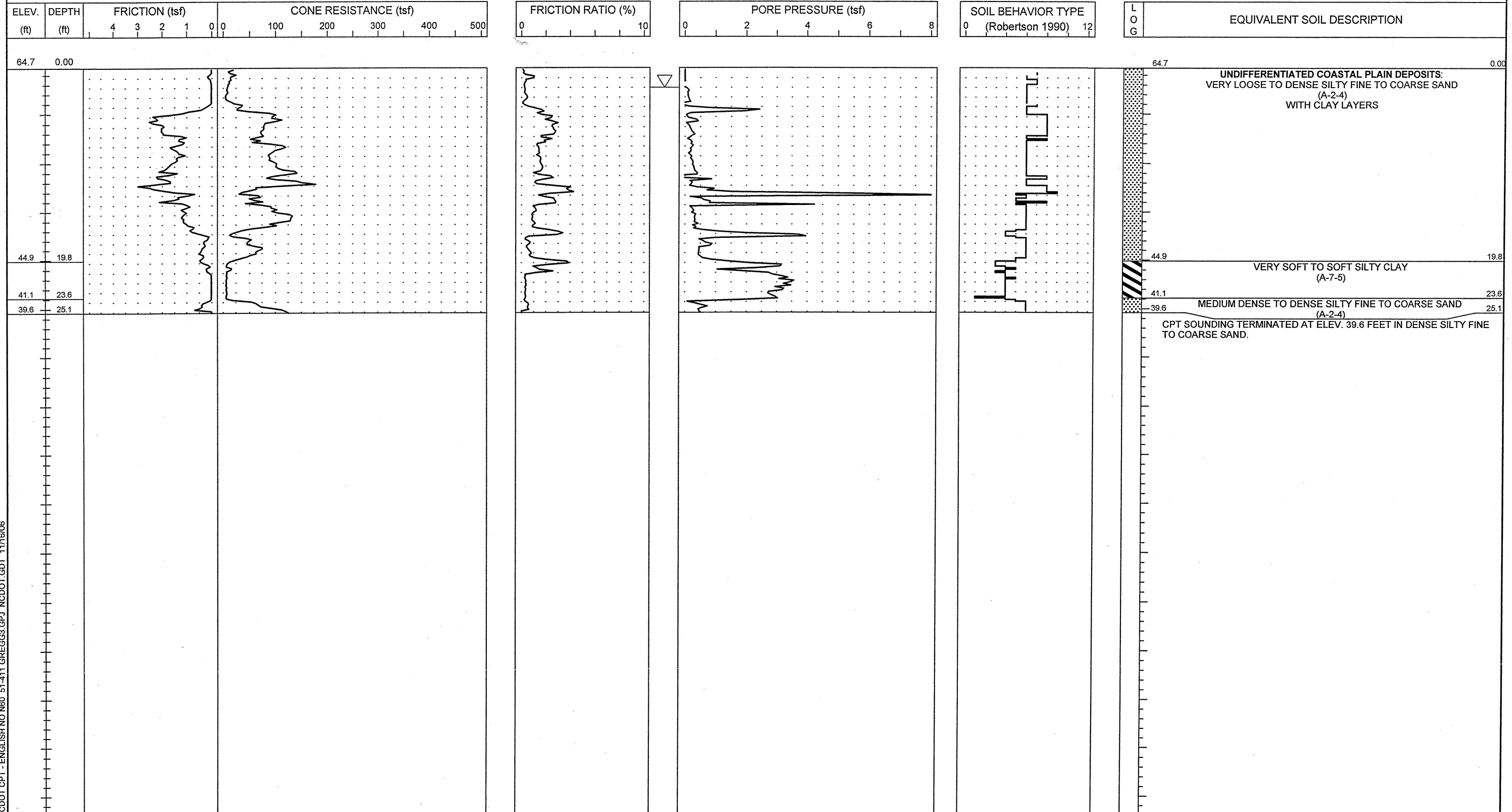


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 33.3 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-202	BORING LOCATION 12+00	OFFSET 0.0 ft CL	ALIGNMENT -LP_A1-	0 HR. 3.0	DATE STARTED 10/20/06	COMPLETED 10/20/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 65.7 ft	NORTHING 186,789.5	EASTING 2,277,944.1		24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN		





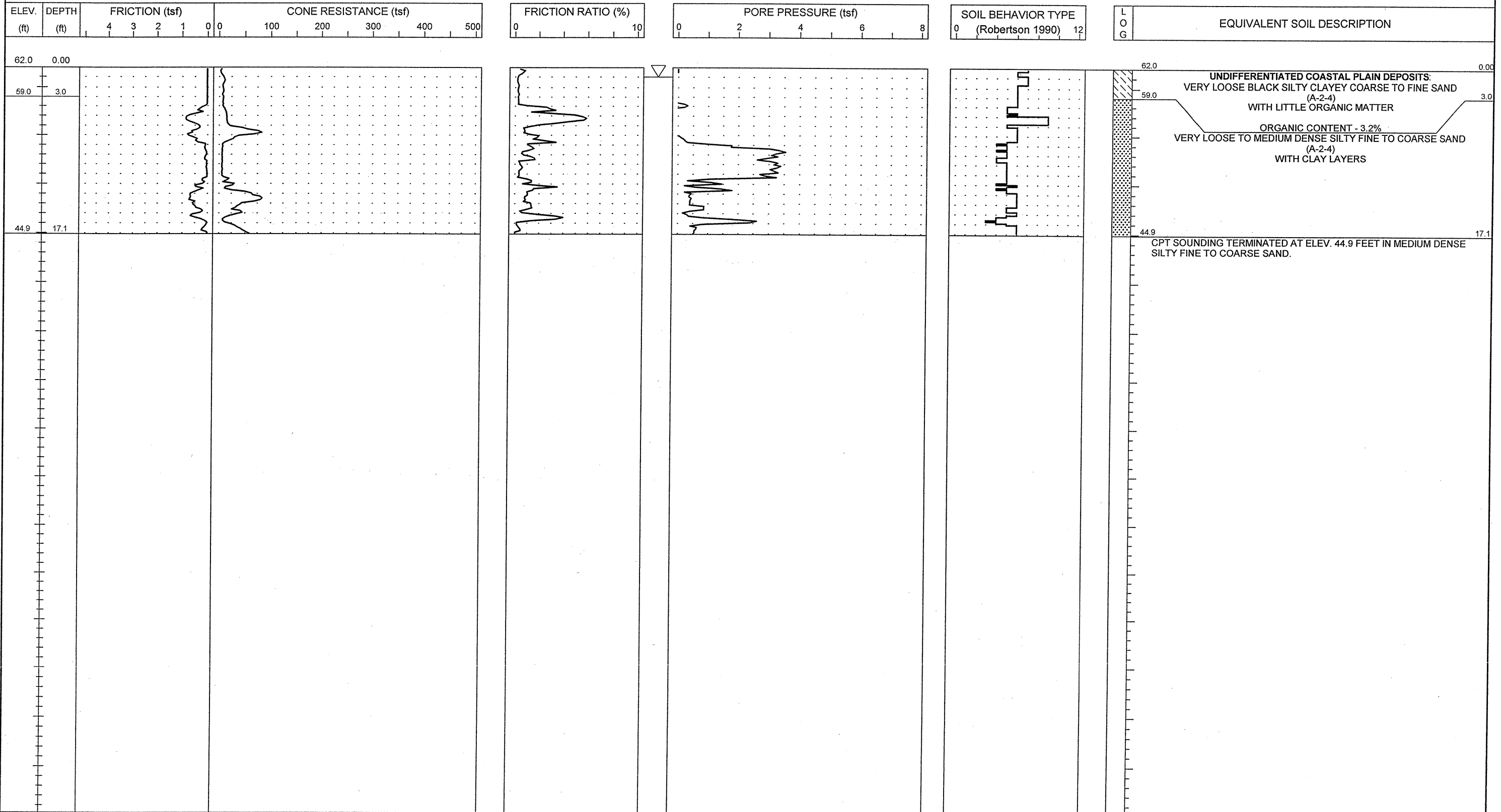
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 25.1 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-203	BORING LOCATION 14+00	OFFSET 0.0 ft CL	ALIGNMENT -LP_A1-	0 HR. 2.0	DATE STARTED 10/20/06	COMPLETED 10/20/06
COLLAR ELEV. 64.7 ft	NORTHING 186,959.9	EASTING 2,277,846.1	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO N60 51-411 GREGG3 GPJ NCDOT.GDT 11/16/06



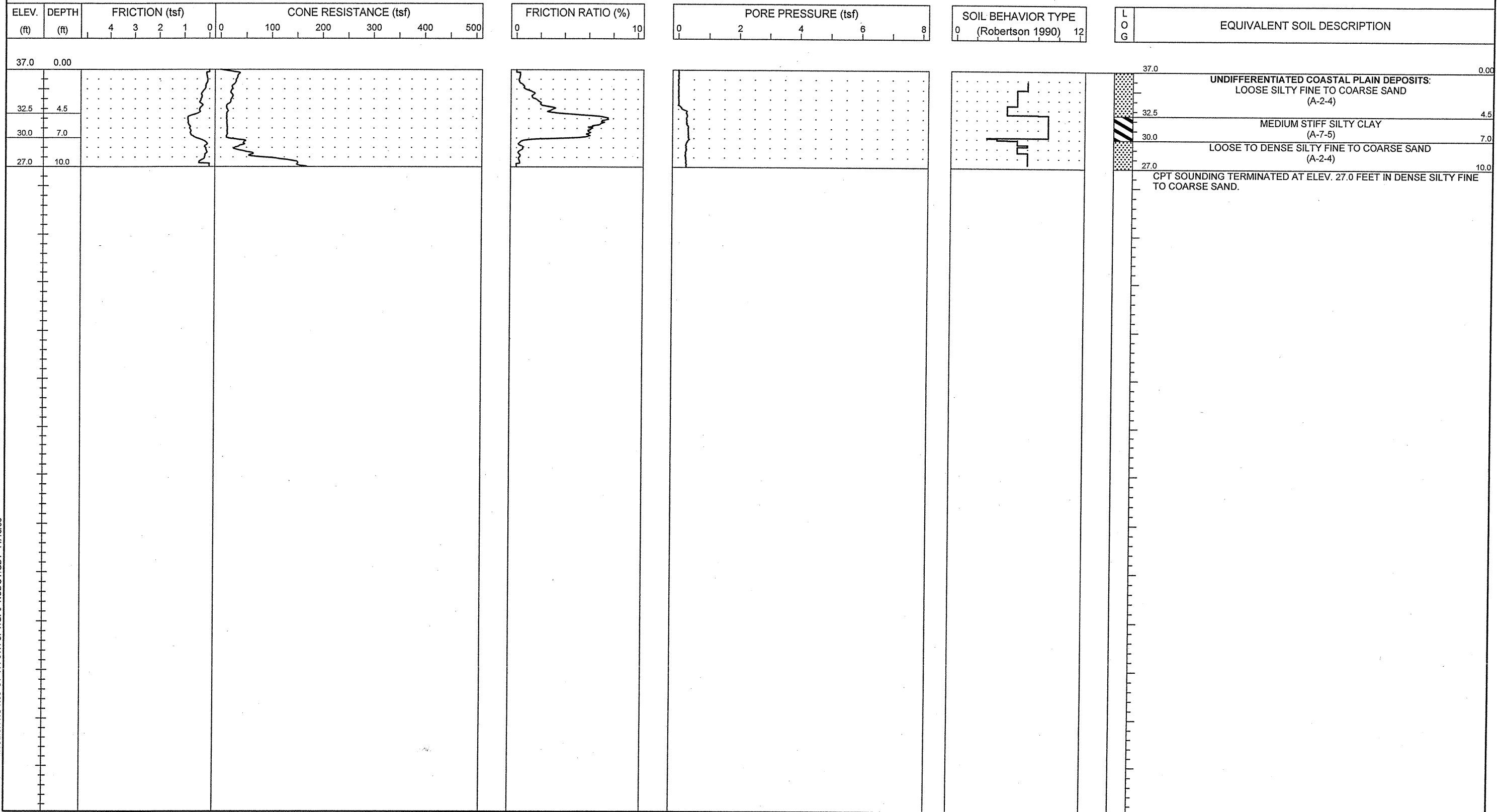
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 17.1 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-204	BORING LOCATION 16+00	OFFSET 0.0 ft CL	ALIGNMENT -LP_A1-	0 HR. 1.0	DATE STARTED 10/20/06	COMPLETED 10/20/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 62.0 ft	NORTHING 187,019.5	EASTING 2,277,660.4		24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN		



NCDOT CPT - ENGLISH NO. N60 51-411 GREGG3.GPJ NCDOT.GDT 1/16/07



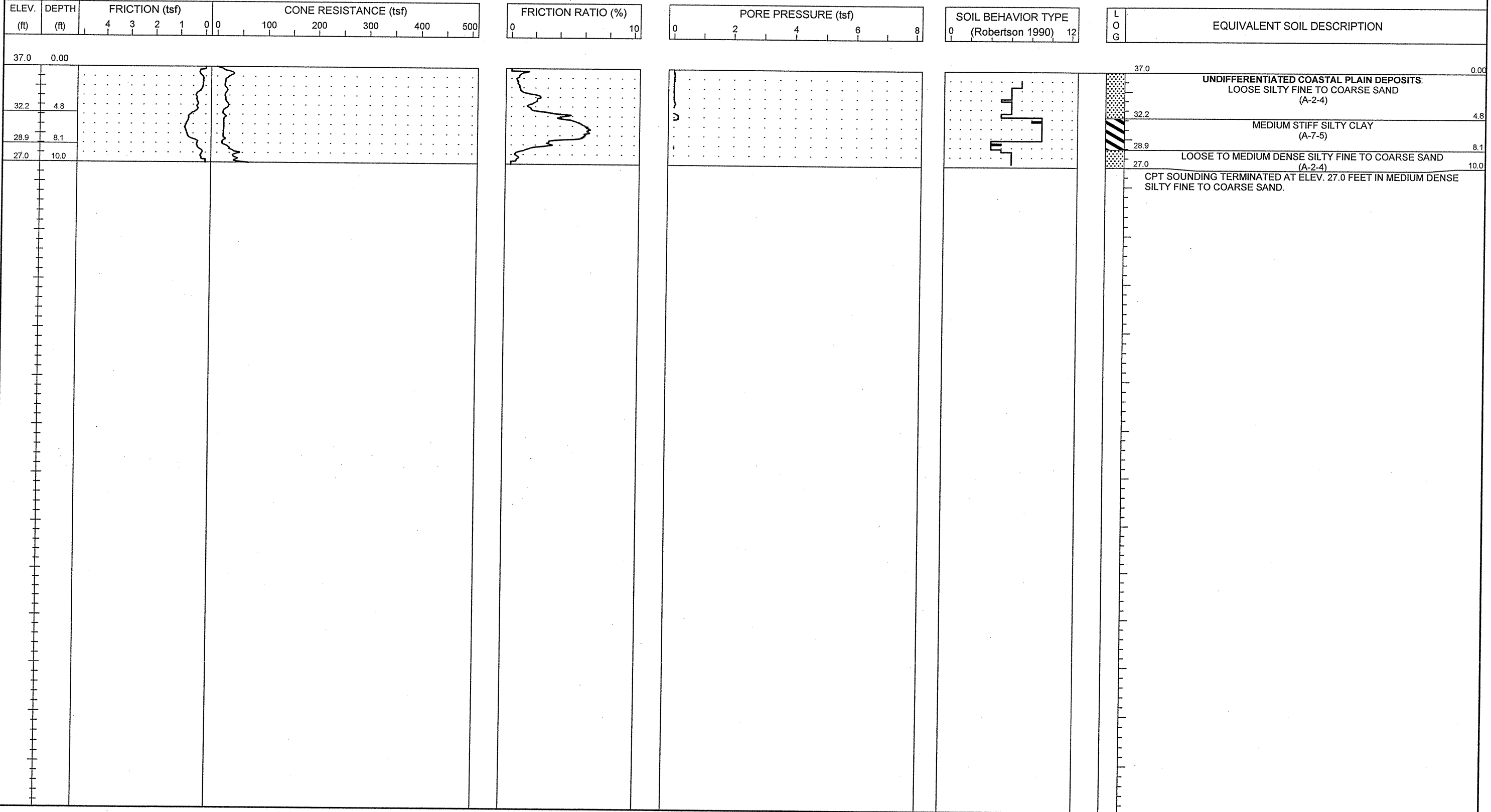
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-209	BORING LOCATION 14+00	OFFSET 0.0 ft CL	ALIGNMENT -LP_B2-	0 HR. N/M	DATE STARTED 10/30/06	COMPLETED 10/30/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 37.0 ft	NORTHING 193,765.4	EASTING 2,286,836.5		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



NCDOT CPT - ENGLISH NO. 680 51-411 5TH CPT.GPJ NCDOT.GDT 11/16/06



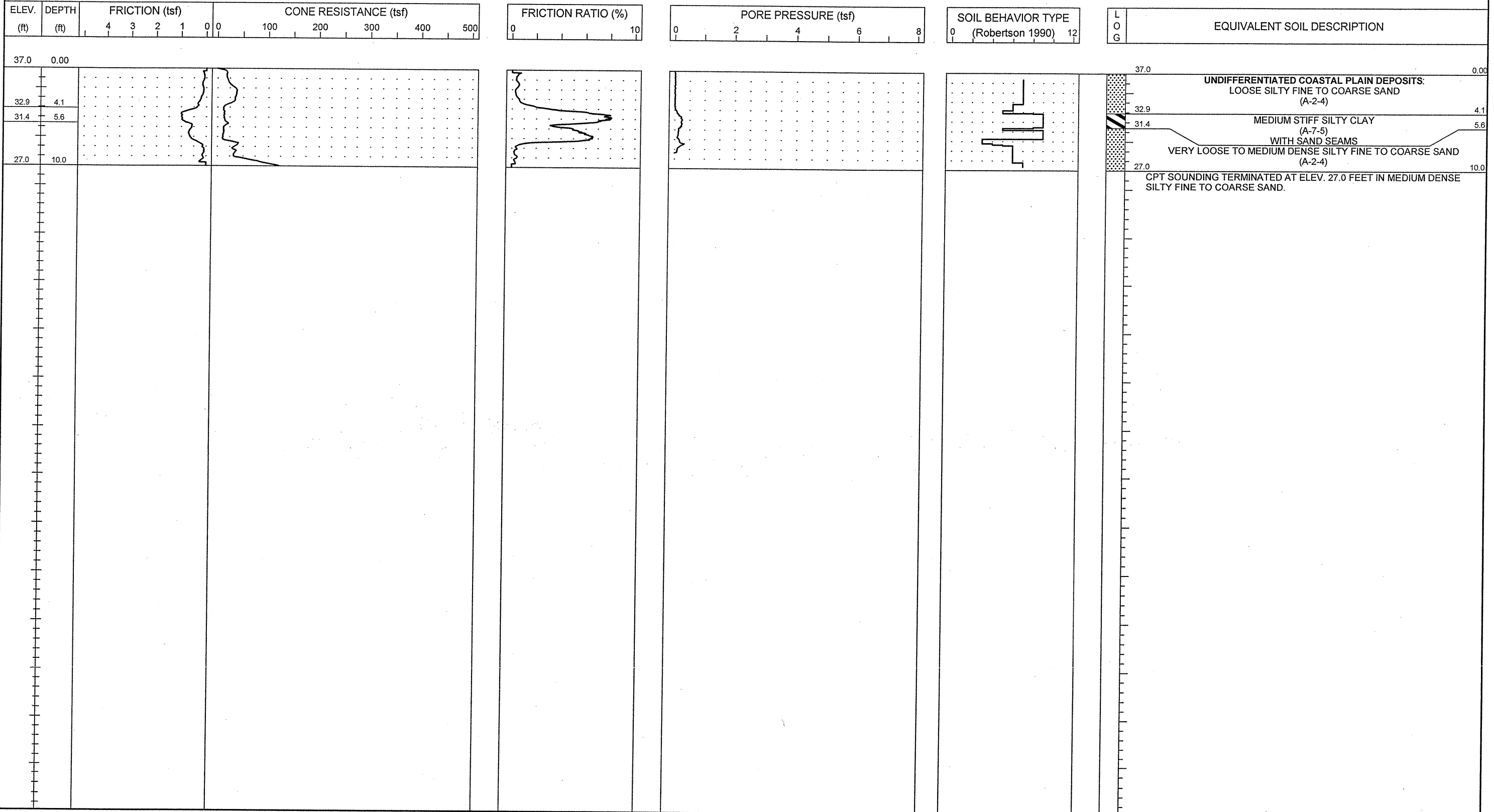
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV
BORING NO. C-210	BORING LOCATION 16+00	OFFSET 0.0 ft CL	ALIGNMENT -LP_B2-	0 HR. N/M	DATE STARTED 10/30/06	COMPLETED 10/30/06
COLLAR ELEV. 37.0 ft	NORTHING 193,960.1	EASTING 2,286,848.7	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A
				DRILL METHOD Direct Push		HAMMER TYPE N/A



NCDOT CPT - ENGLISH NO N60 51-411 5TH CPT.GPJ NCDOT.GDT 11/16/08

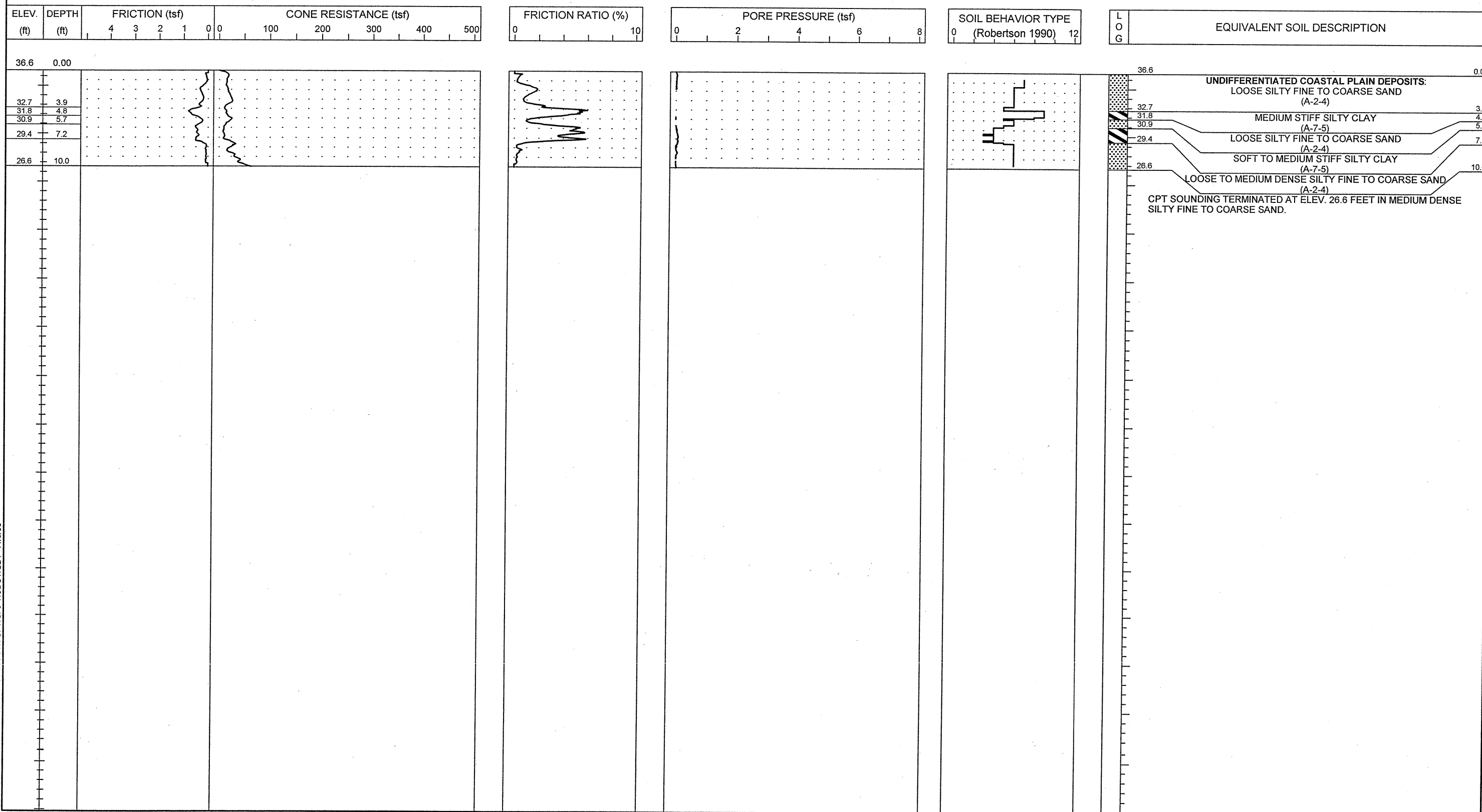


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV
BORING NO. C-211	BORING LOCATION 18+00	OFFSET 0.0 ft CL	ALIGNMENT -LP_B2-	0 HR. N/M	DATE STARTED 10/30/06	COMPLETED 10/30/06
COLLAR ELEV. 37.0 ft	NORTHING 194,091.5	EASTING 2,286,992.9	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A





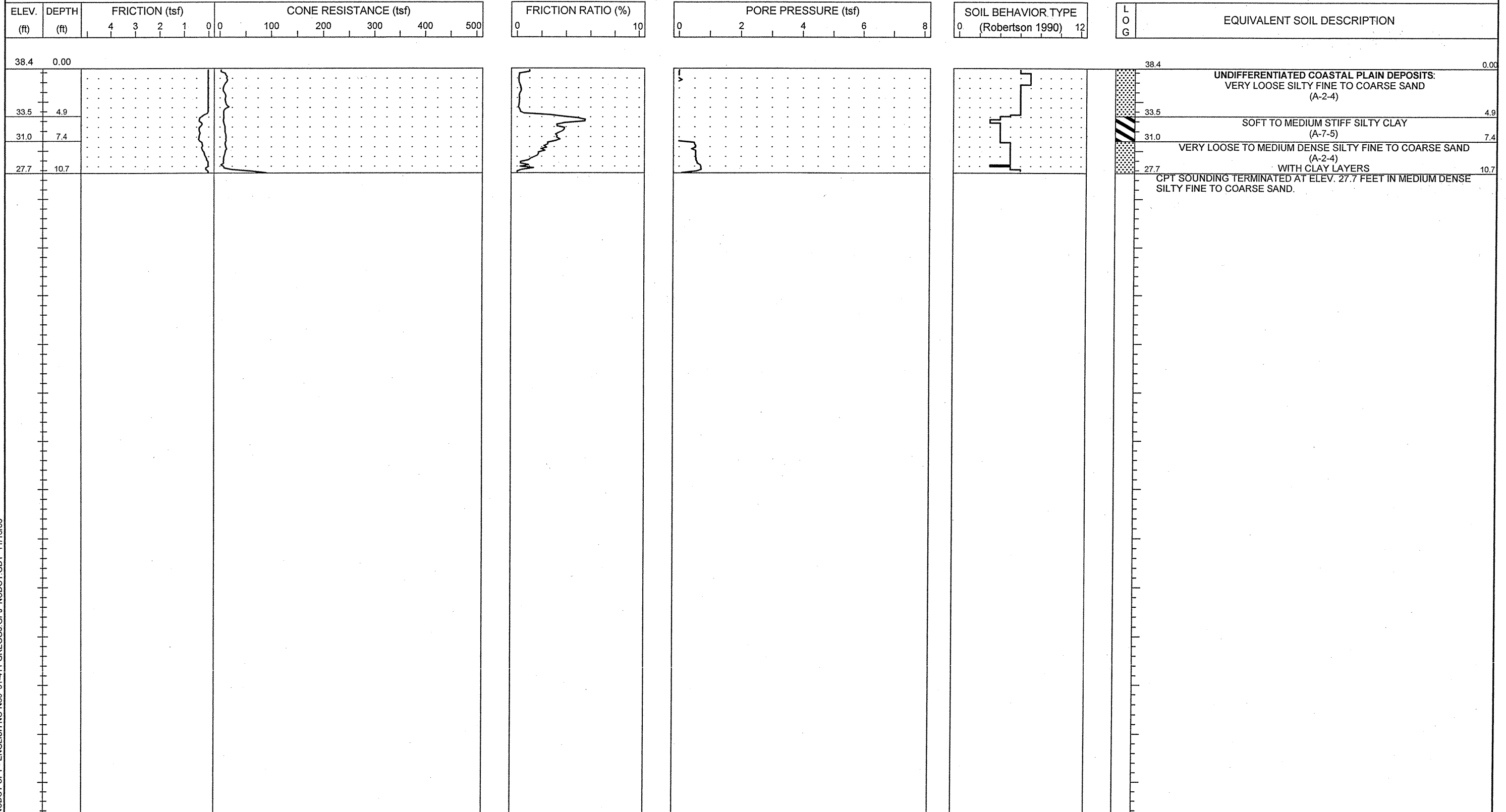
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-212	BORING LOCATION 20+00	OFFSET 0.0 ft CL	ALIGNMENT -LP_B2-	0 HR. N/M	DATE STARTED 10/31/06	COMPLETED 10/31/06
COLLAR ELEV. 36.6 ft	NORTHING 194,106.6	EASTING 2,287,190.8	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO N60 51-411 6TH CPT.GPJ NCDOT.GDT 11/9/06



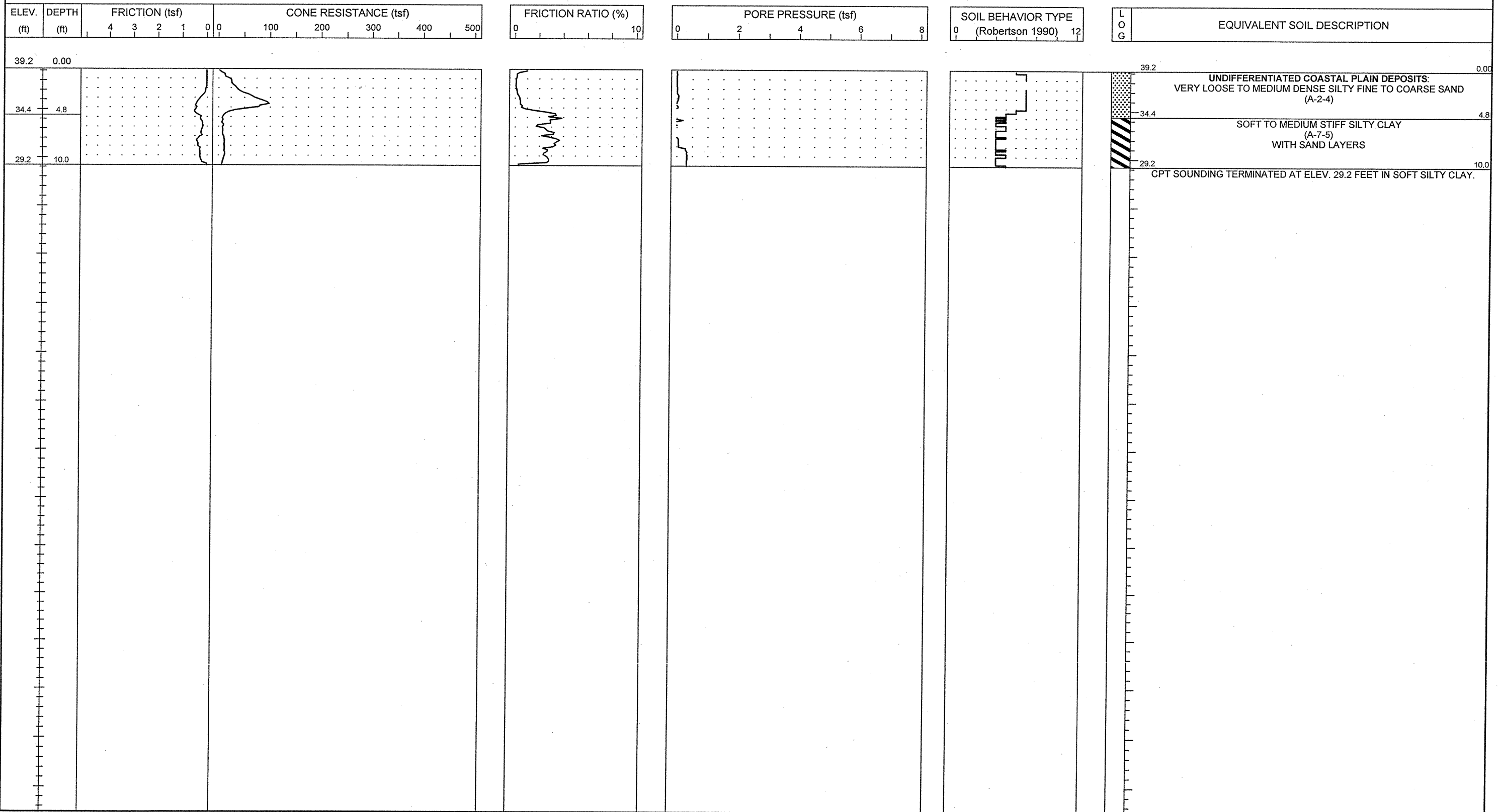
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.7 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-214	BORING LOCATION 17+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_2B-	0 HR. N/M	DATE STARTED 10/26/06	COMPLETED 10/26/06
COLLAR ELEV. 38.4 ft	NORTHING 193,930.9	EASTING 2,286,061.8	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO. N60 51-411 GREGG3.GPJ NCDOT.GDT 11/16/06



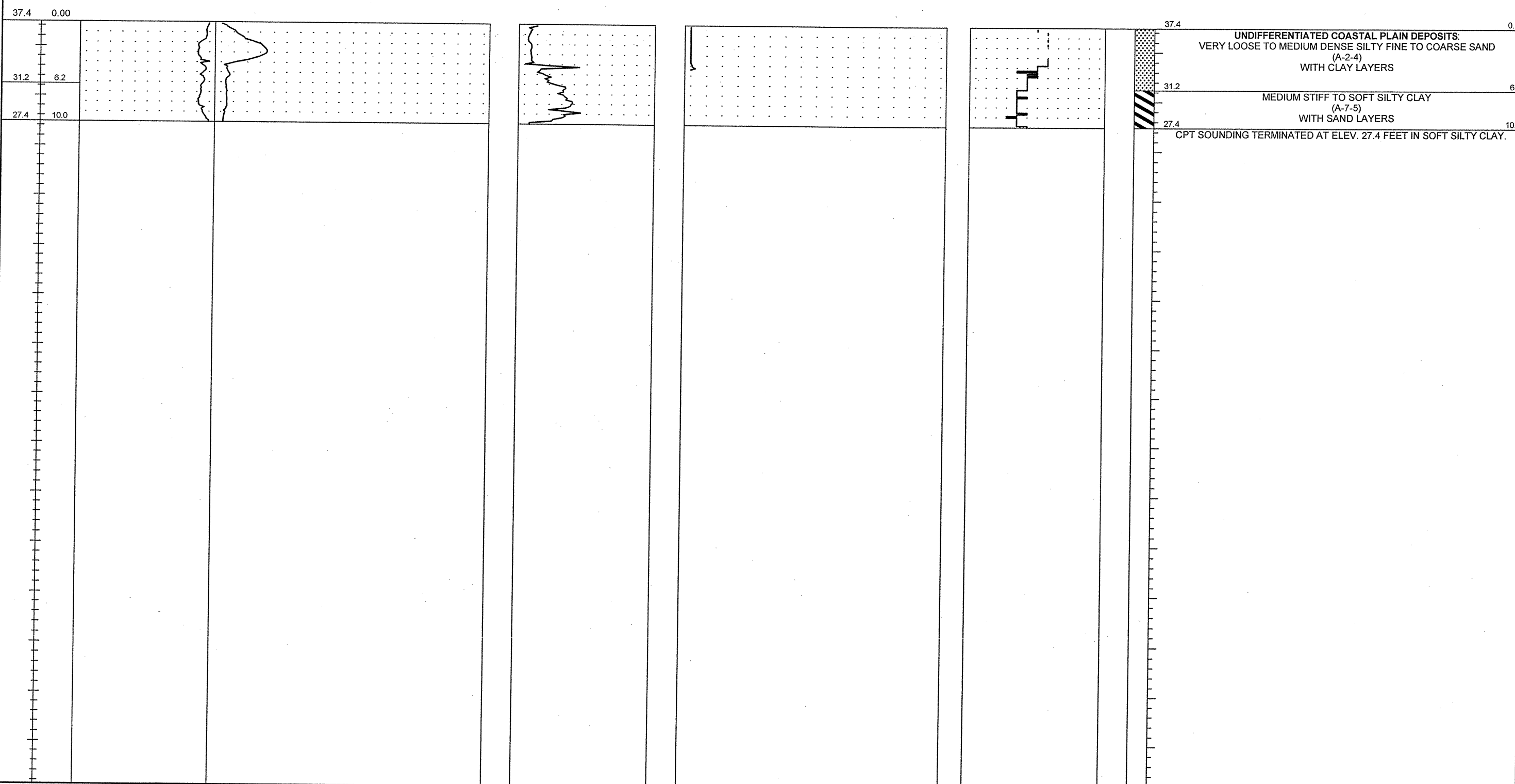
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-215	BORING LOCATION 19+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_2B-	0 HR. N/M	DATE STARTED 10/26/06	COMPLETED 10/26/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 39.2 ft	NORTHING 193,946.0	EASTING 2,286,261.0		24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN		





PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV
BORING NO. C-216	BORING LOCATION 21+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_2B-	0 HR. N/M	DATE STARTED 10/20/06	COMPLETED 10/20/06
COLLAR ELEV. 37.4 ft	NORTHING 193,988.6	EASTING 2,286,456.3	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A

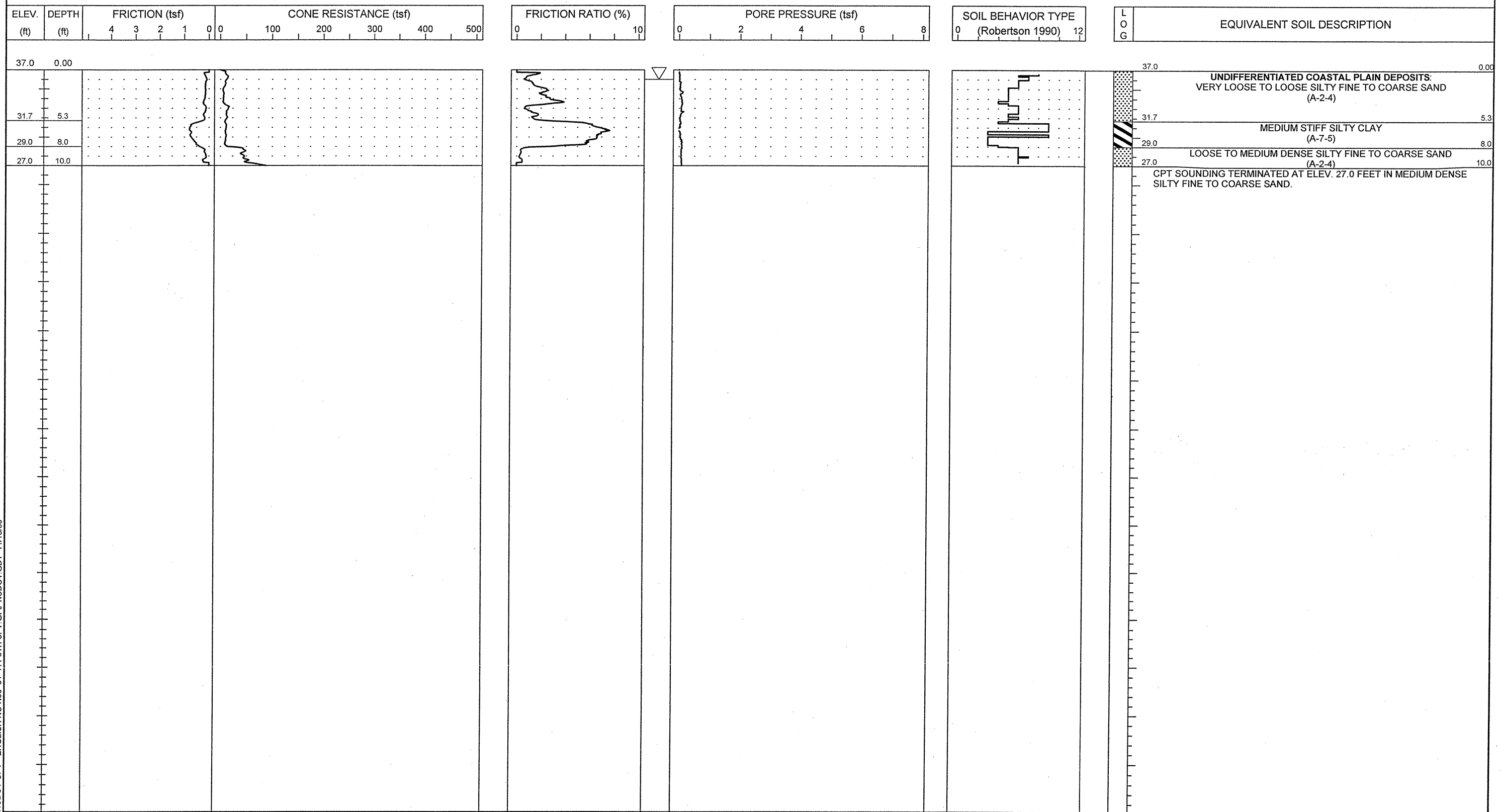
ELEV. (ft)	DEPTH (ft)	FRICITION (tsf)	CONE RESISTANCE (tsf)	FRICITION RATIO (%)	PORE PRESSURE (tsf)	SOIL BEHAVIOR TYPE (Robertson 1990)	EQUIVALENT SOIL DESCRIPTION
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NCDOT CPT - ENGLISH NO N60 51-411 GREGG3.GPJ NCDOT.GDT 11/16/06



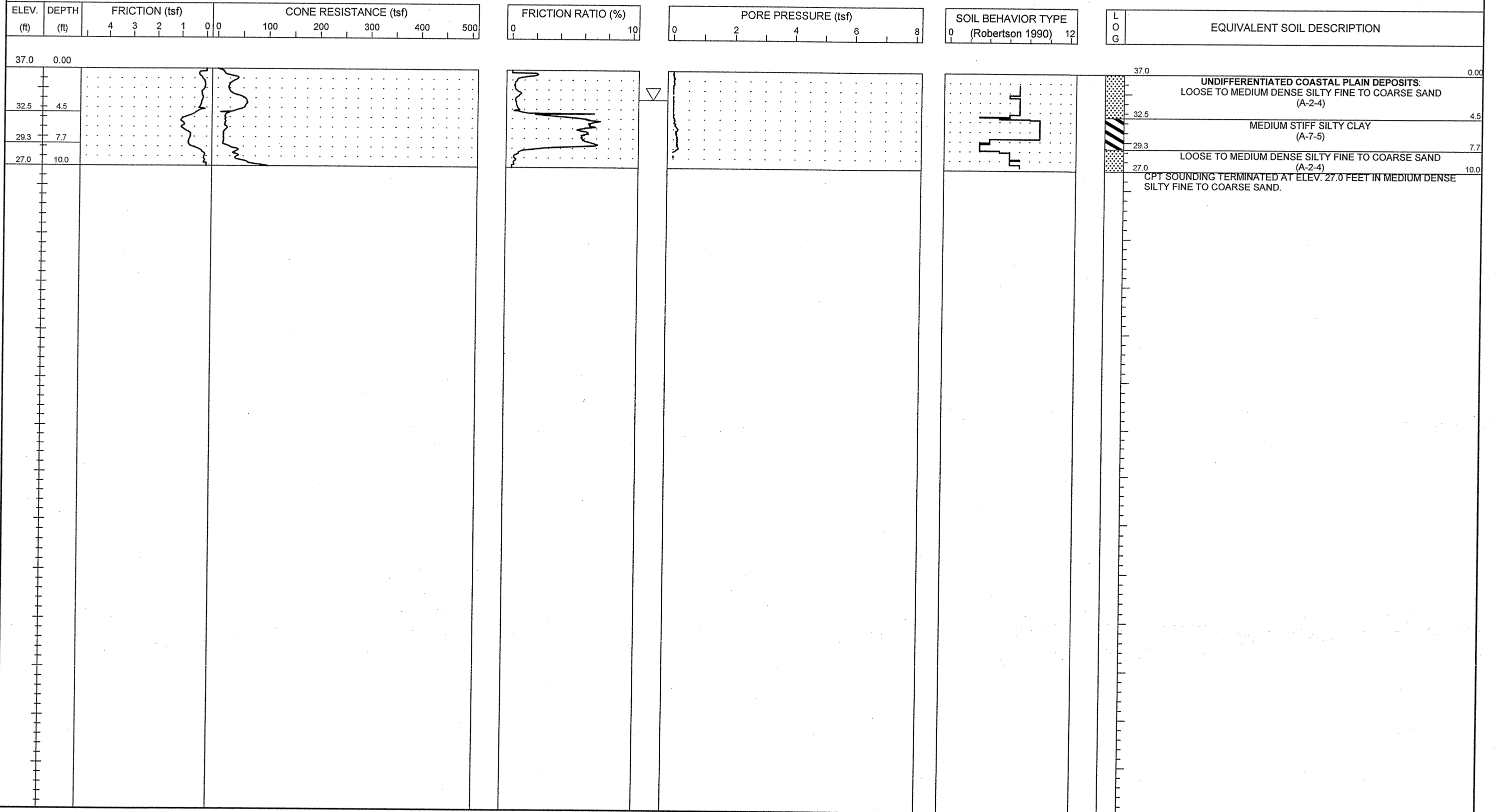
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-217	BORING LOCATION 23+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_2B-	0 HR. 1.0	DATE STARTED 10/30/06	COMPLETED 10/30/06
COLLAR ELEV. 37.0 ft	NORTHING 194,052.0	EASTING 2,286,645.9	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO. N60 51-411 5TH CPT.GPJ NCDOT.GDT 11/16/08



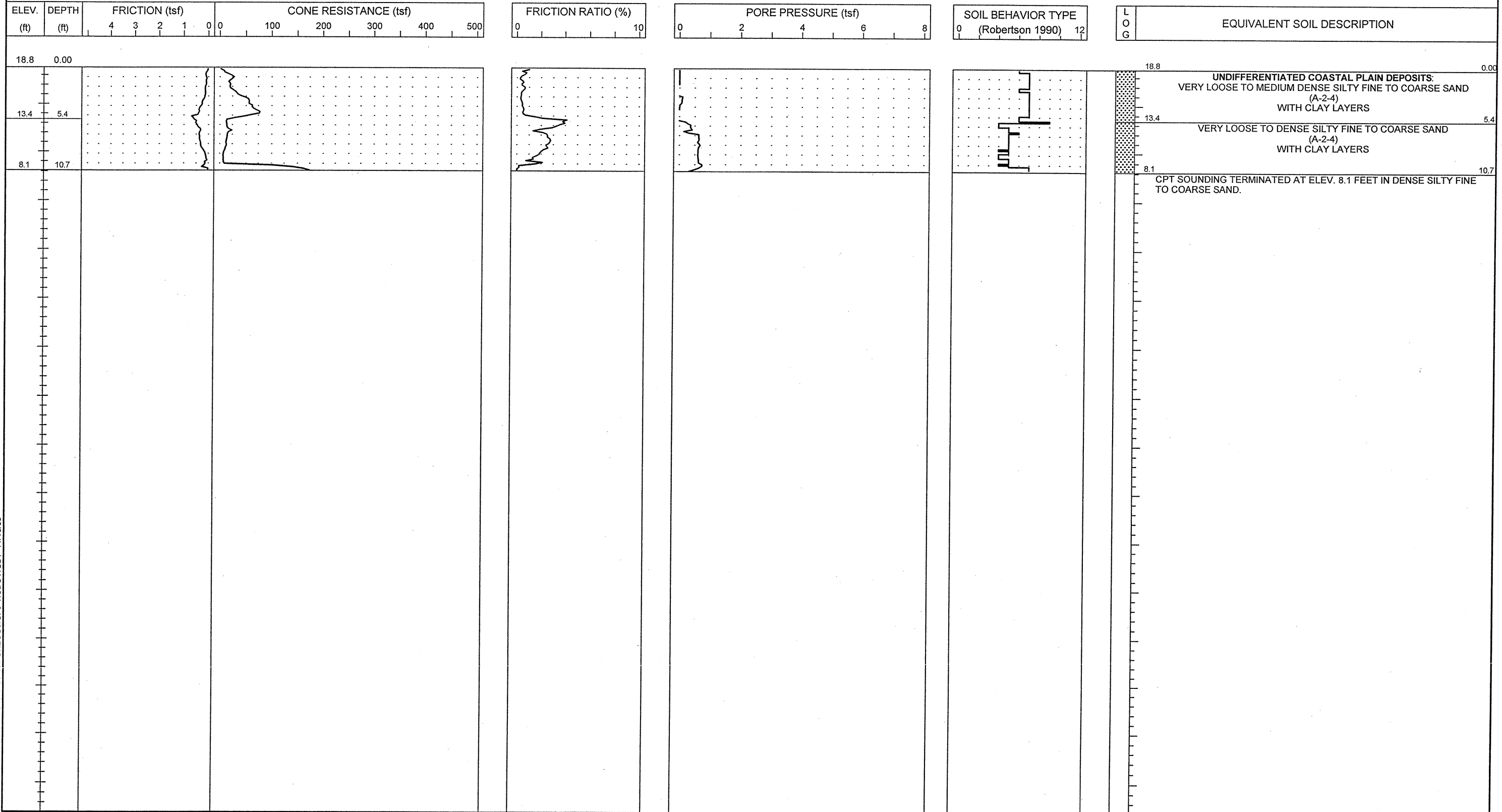
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-218	BORING LOCATION 25+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_2B-	0 HR. 3.0	DATE STARTED 10/30/06	COMPLETED 10/30/06
COLLAR ELEV. 37.0 ft	NORTHING 194,109.6	EASTING 2,286,837.3	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO N60 51-411 5TH CPT.GPJ NCDOT.GDT 11/16/06

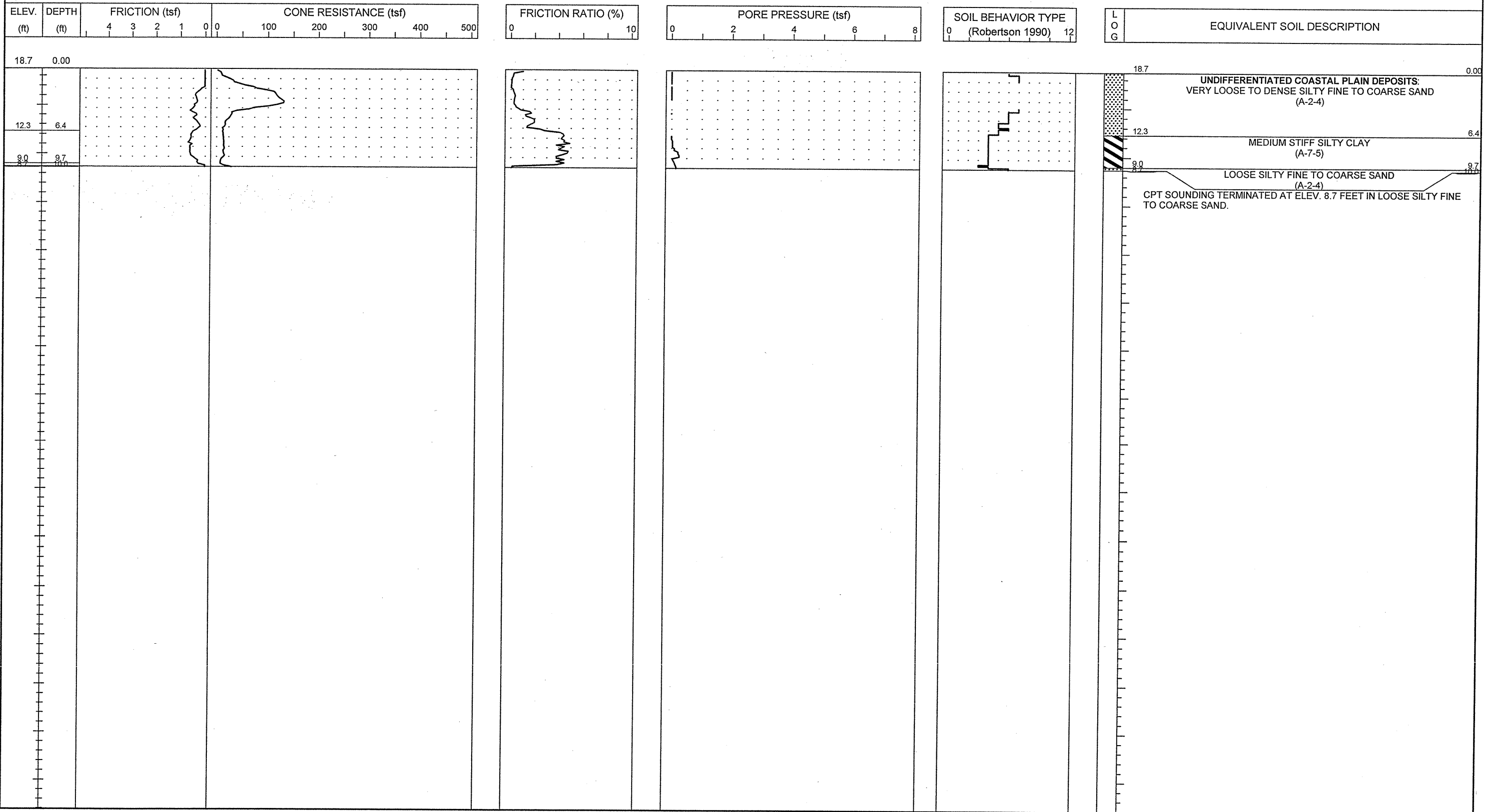


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.7 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-221	BORING LOCATION 12+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_C2-	0 HR. N/M	DATE STARTED 10/26/06	COMPLETED 10/26/06
COLLAR ELEV. 18.8 ft	NORTHING 193,754.7	EASTING 2,286,055.4	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A





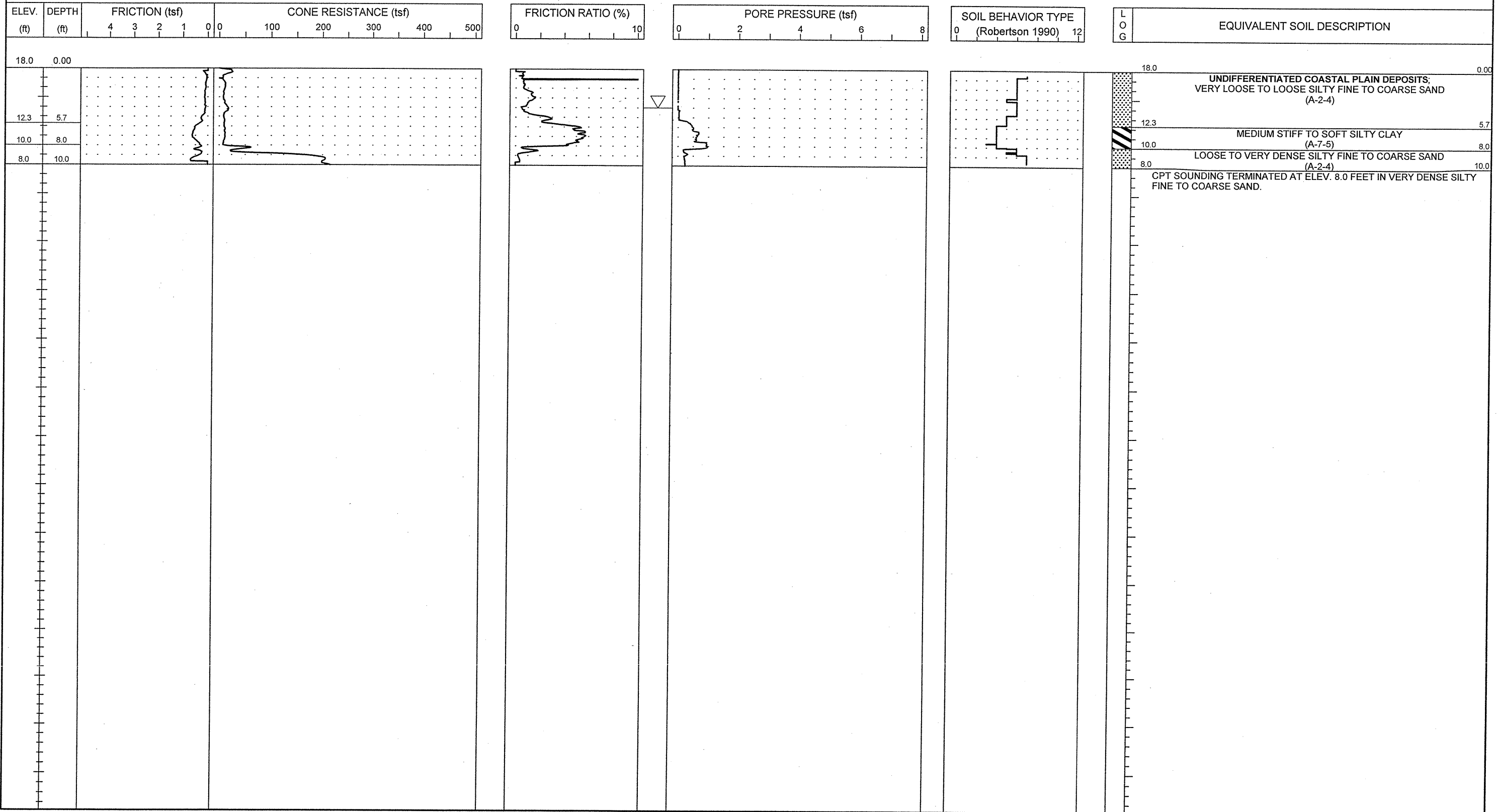
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-222	BORING LOCATION 14+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_C2-	0 HR. N/M	DATE STARTED 10/26/06	COMPLETED 10/26/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 18.7 ft	NORTHING 193,682.2	EASTING 2,286,241.8		24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN		



NCDOT CPT - ENGLISH NO N60 51-411 GREGG3.GPJ NCDOT.GDT 11/16/06



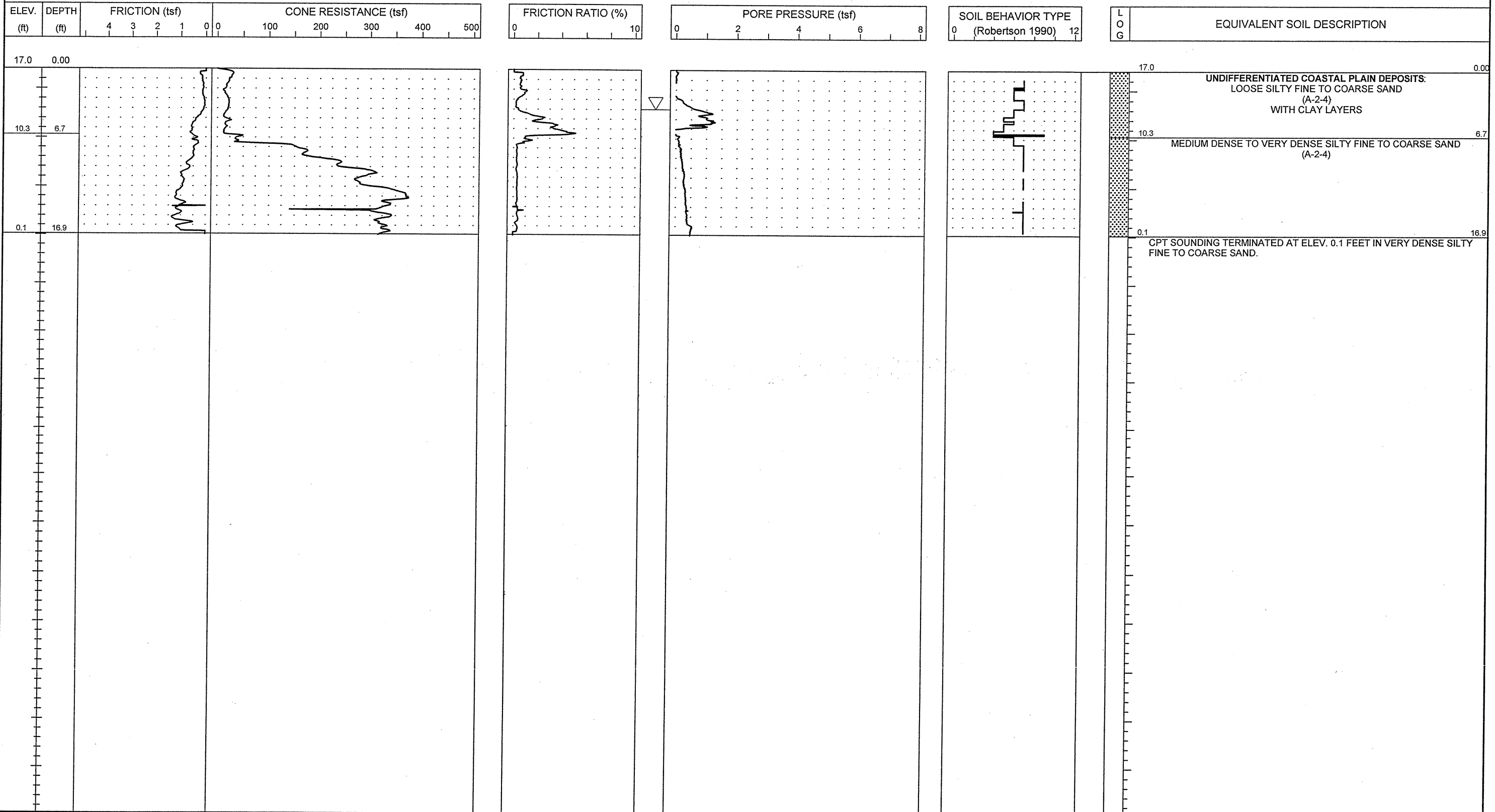
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-223	BORING LOCATION 16+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_C2-	0 HR. 4.0	DATE STARTED 10/30/06	COMPLETED 10/30/06
COLLAR ELEV. 18.0 ft	NORTHING 193,587.4	EASTING 2,286,417.6	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A
HAMMER TYPE N/A						



NCDOT CPT - ENGLISH NO N60 51-411 5TH CPT.GPJ NCDOT.GDT 11/16/06

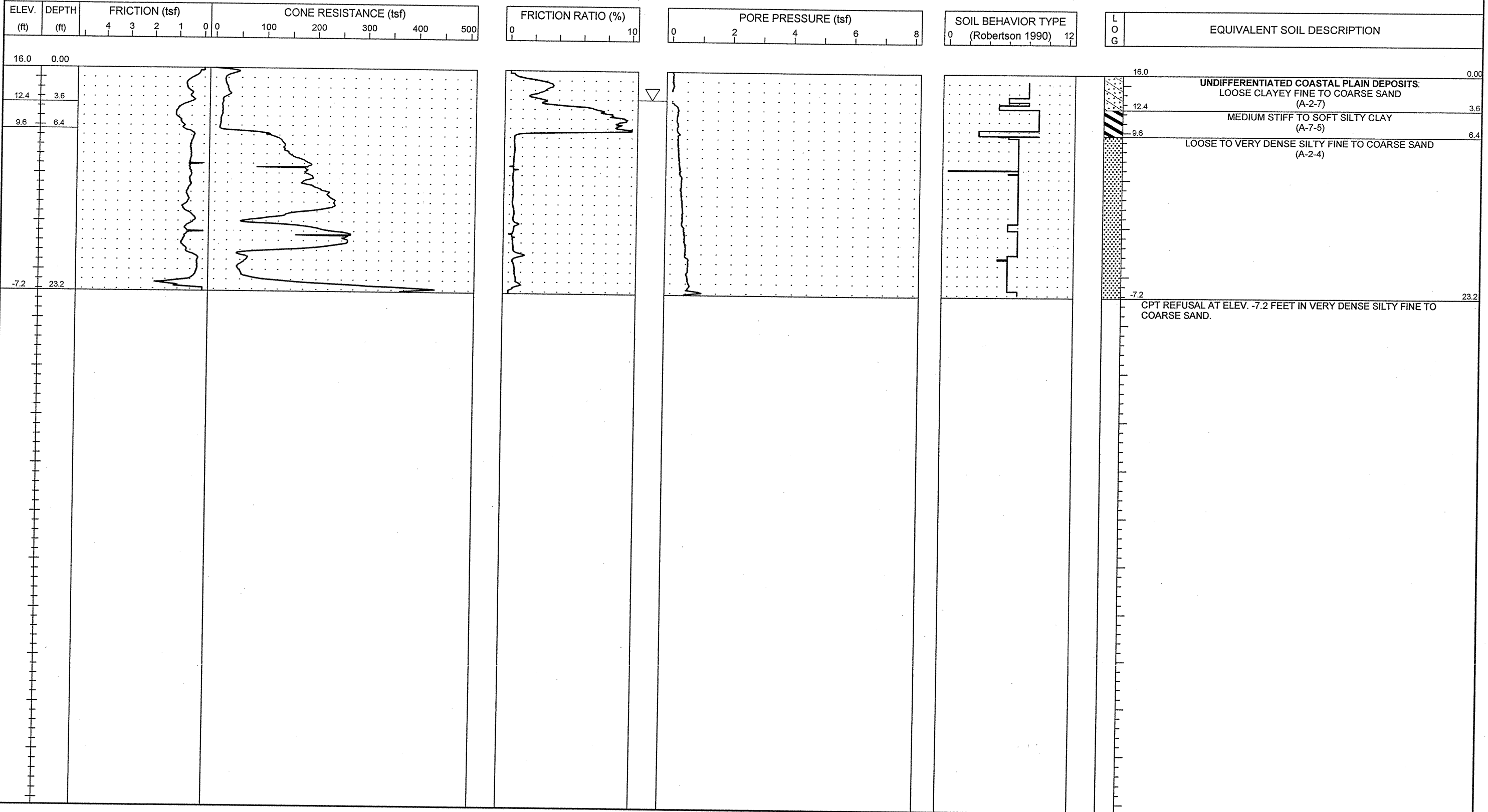


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 16.9 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-224	BORING LOCATION 18+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_C2-	0 HR. 4.0	DATE STARTED 10/30/06	COMPLETED 10/30/06
COLLAR ELEV. 17.0 ft	NORTHING 193,464.8	EASTING 2,286,575.4	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A

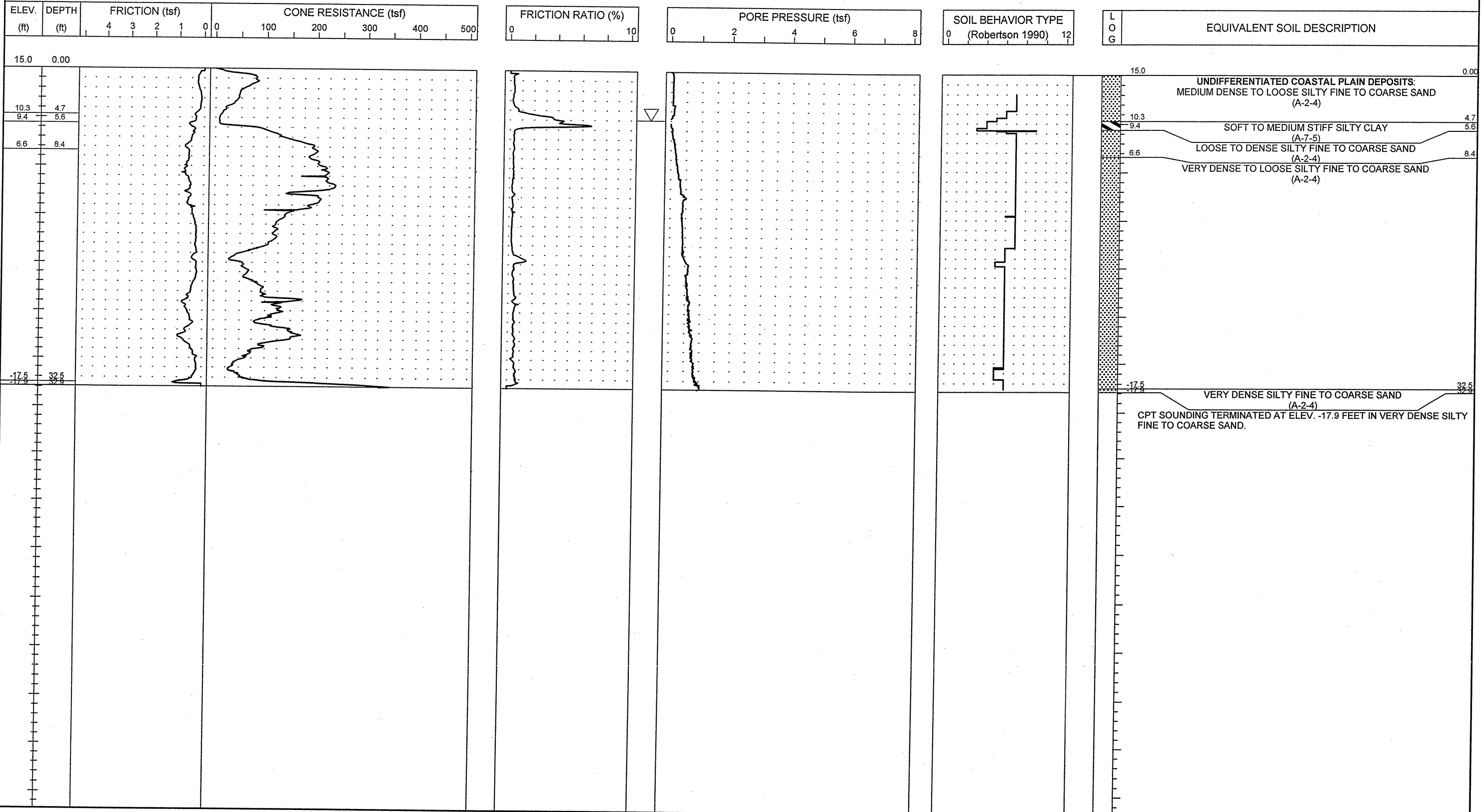


NCDOT CPT - ENGLISH NO. 680. 51-411 5TH CPT.GPJ. NCDOT.GDT 11/16/06

PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 23.2 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-225	BORING LOCATION 20+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_C2-	0 HR. 3.0	DATE STARTED 10/26/06	COMPLETED 10/26/06
COLLAR ELEV. 16.0 ft	NORTHING 193,322.6	EASTING 2,286,715.9	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A

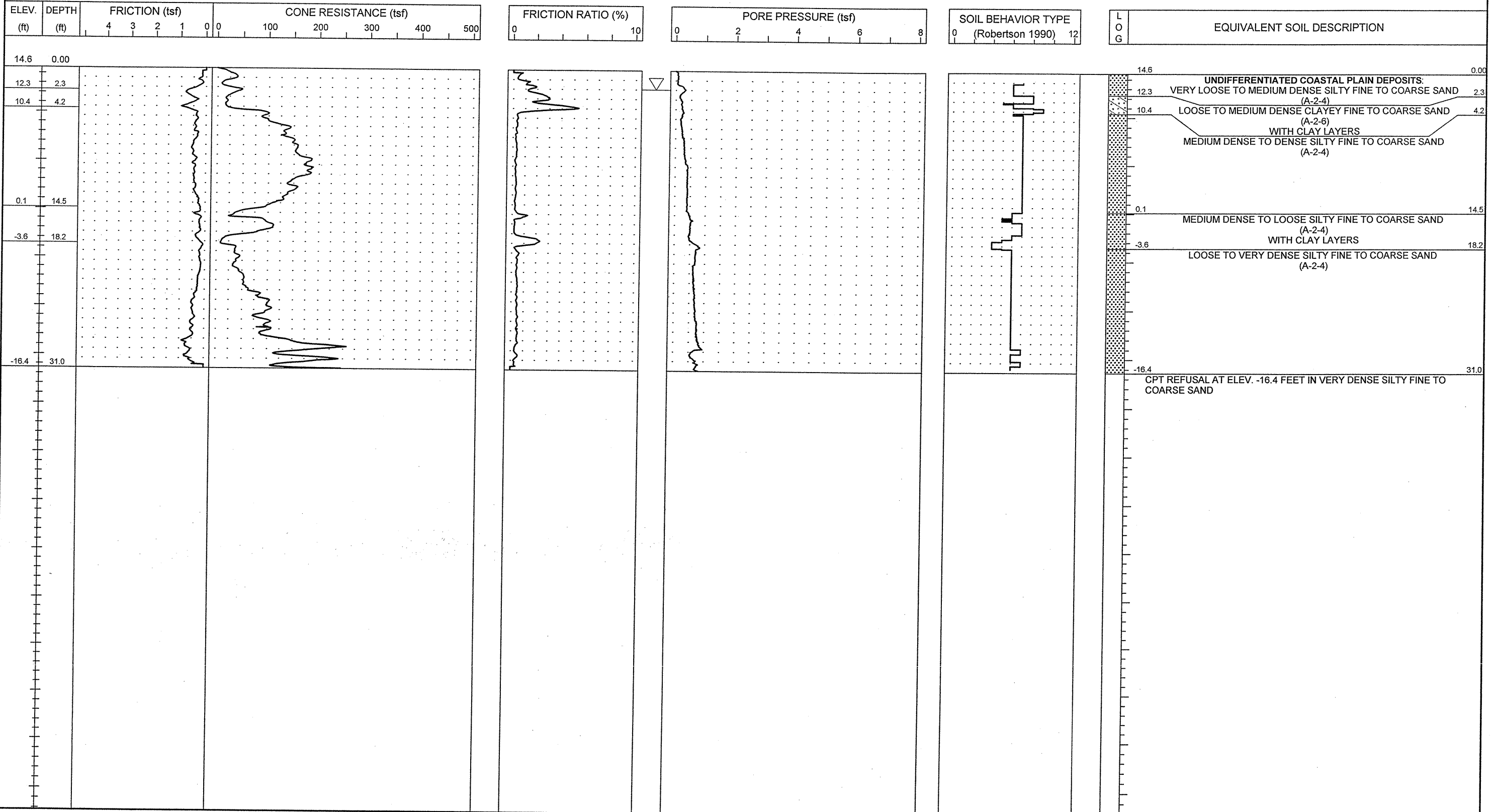


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 32.9 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-226	BORING LOCATION 22+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_C2-	0 HR. 5.0	DATE STARTED	COMPLETED	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 15.0 ft	NORTHING 193,182.9	EASTING 2,286,858.8		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		





PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 31.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-227	BORING LOCATION 24+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_C2-	0 HR. 2.0	DATE STARTED 10/26/06	COMPLETED 10/26/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 14.6 ft	NORTHING 193,084.4	EASTING 2,287,031.9		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		

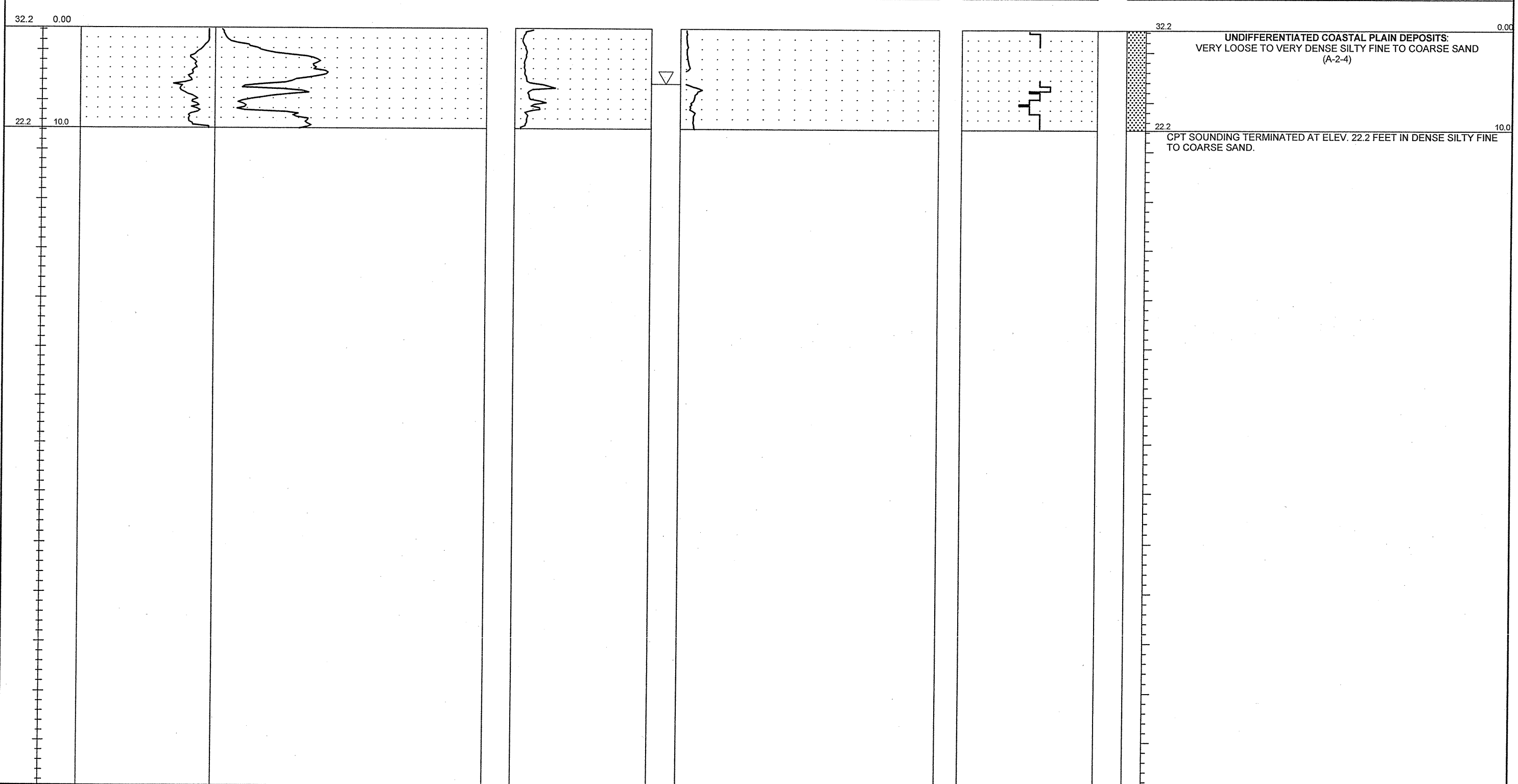


NCDOT CPT - ENGLISH NO N80 51-411 4TH CPT.GPJ NCDOT.GDT 11/16/06

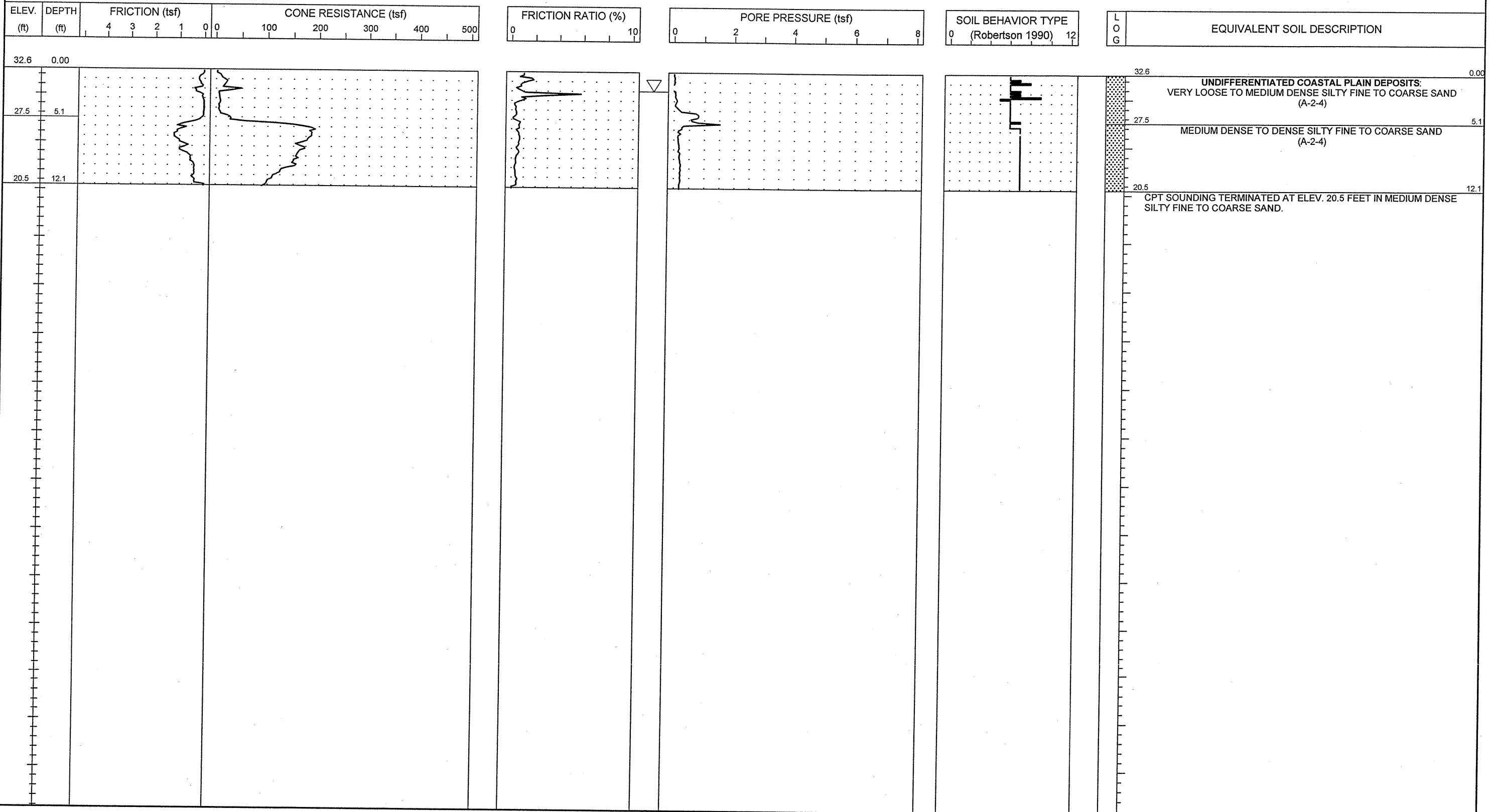


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-228	BORING LOCATION 15+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_D2-	0 HR. 5.5	DATE STARTED 10/25/06	COMPLETED 10/25/06
COLLAR ELEV. 32.2 ft	NORTHING 193,090.7	EASTING 2,288,210.4	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A
				HAMMER TYPE N/A		

ELEV. (ft)	DEPTH (ft)	FRICITION (tsf)	CONE RESISTANCE (tsf)	FRICITION RATIO (%)	PORE PRESSURE (tsf)	SOIL BEHAVIOR TYPE (Robertson 1990)	LOG	EQUIVALENT SOIL DESCRIPTION
32.2	0.00	4 3 2 1 0	100 200 300 400 500	0 10	0 2 4 6 8	0 12		

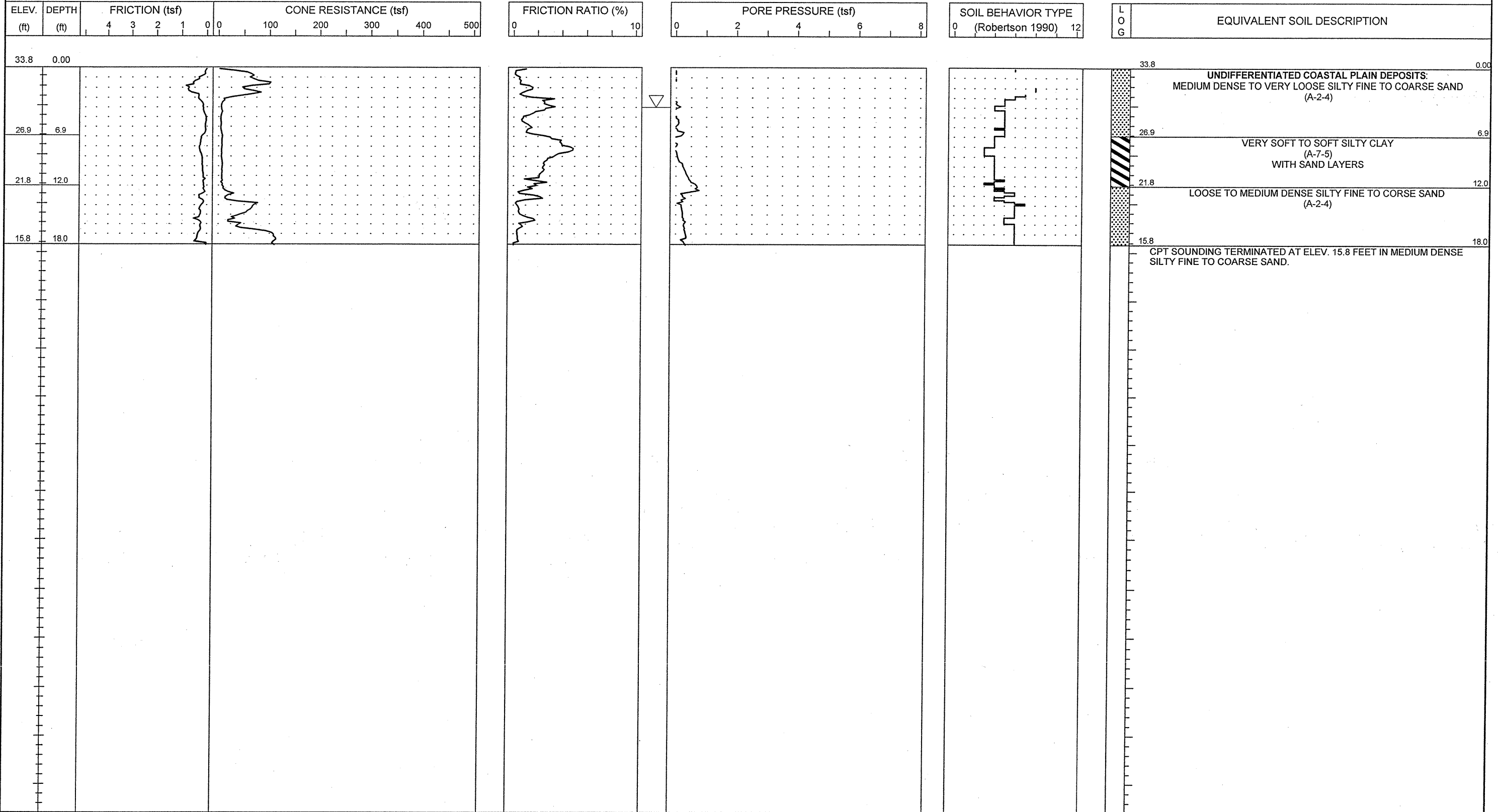


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 12.1 ft	DRILL MACHINE CPT-ATV
BORING NO. C-229	BORING LOCATION 17+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_D2-	0 HR. 2.0	DATE STARTED 10/25/06	COMPLETED 10/25/06
COLLAR ELEV. 32.6 ft	NORTHING 193,098.5	EASTING 2,288,010.7	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A



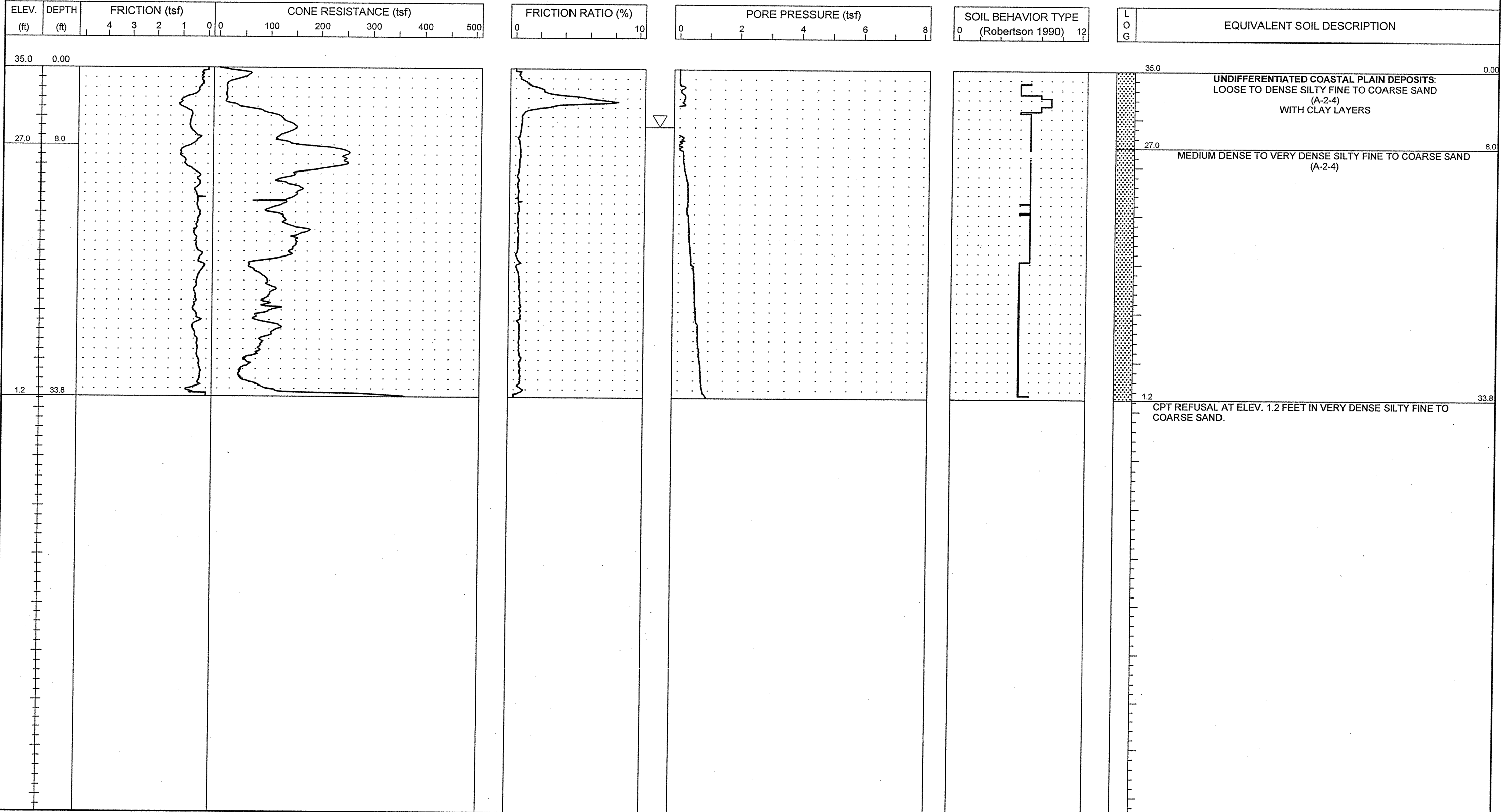


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 18.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-230	BORING LOCATION 19+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_D2-	0 HR. 4.0	DATE STARTED 10/25/06	COMPLETED 10/25/06
COLLAR ELEV. 33.8 ft	NORTHING 193,086.2	EASTING 2,287,811.1	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A





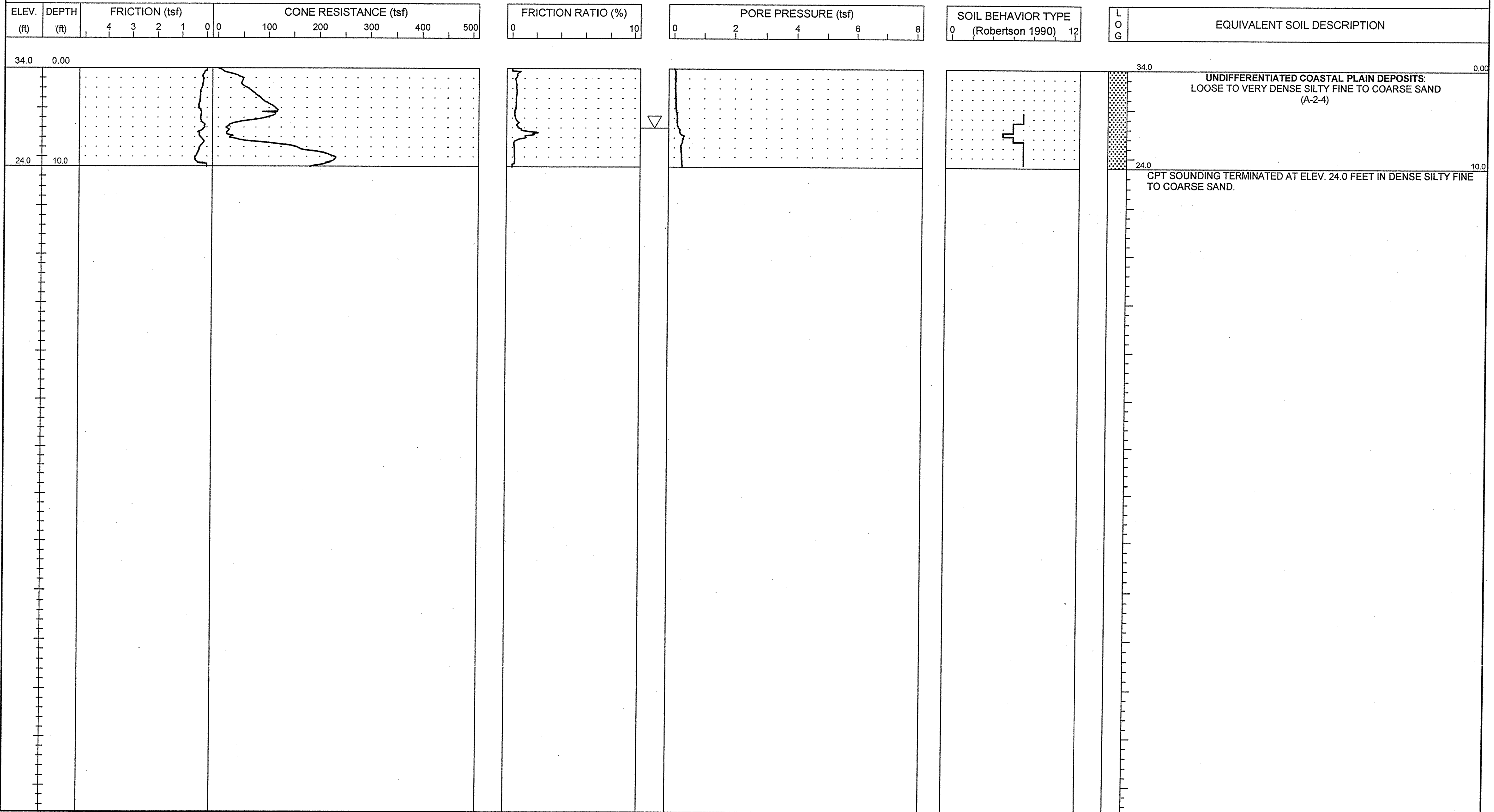
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 33.8 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-232	BORING LOCATION 23+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_D2-	0 HR. 6.0	DATE STARTED 10/31/06	COMPLETED 10/31/06
COLLAR ELEV. 35.0 ft	NORTHING 193,042.6	EASTING 2,287,413.5	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A
HAMMER TYPE N/A						



NCDOT CPT - ENGLISH NO N60 51-411 6TH CPT.GPJ NCDOT.GDT 11/9/06

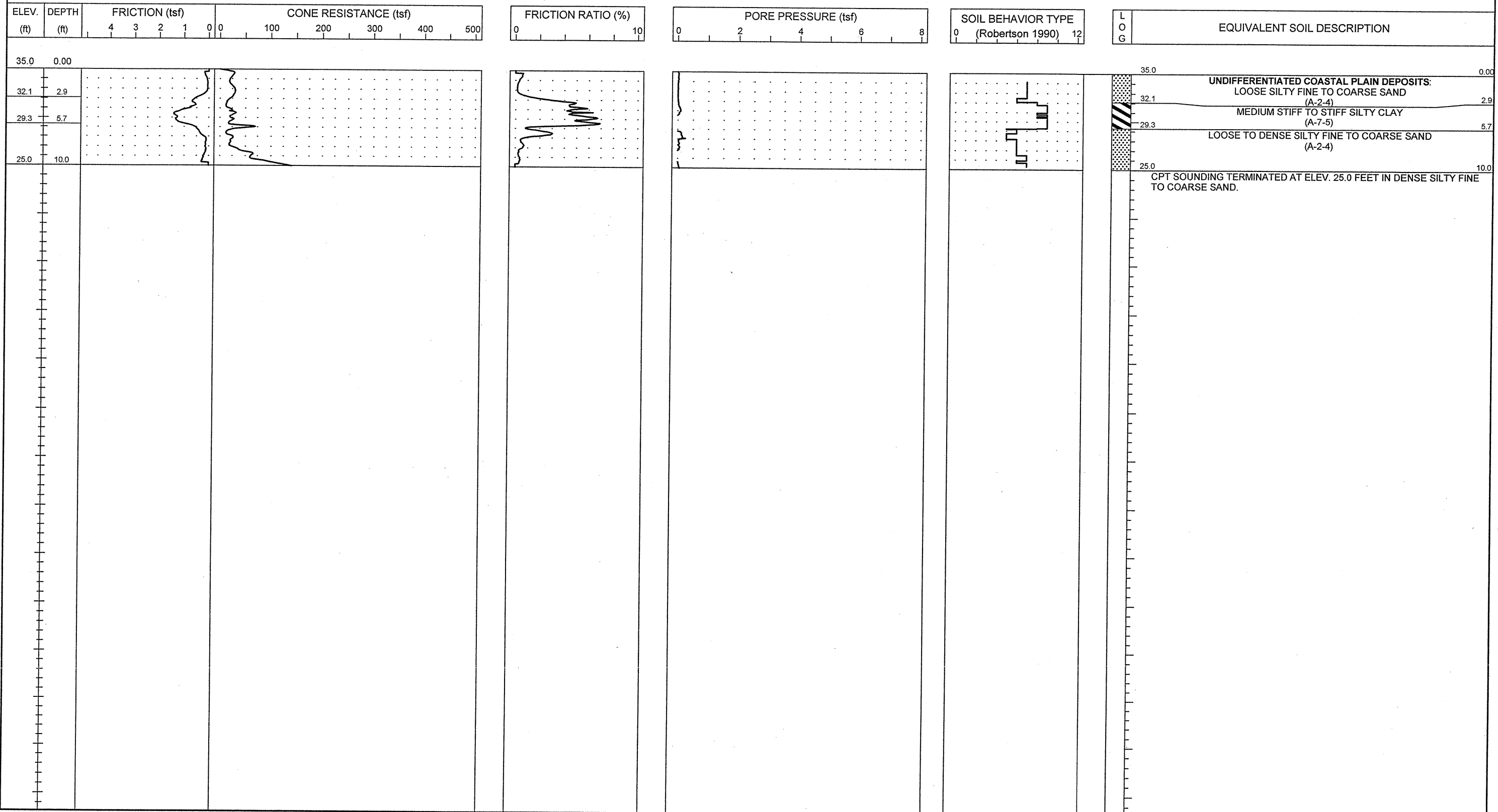


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-235	BORING LOCATION 22+00	OFFSET 0.0 ft CL	ALIGNMENT -Y7-	0 HR. 6.0	DATE STARTED 10/31/06	COMPLETED 10/31/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 34.0 ft	NORTHING 194,415.8	EASTING 2,287,327.5		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



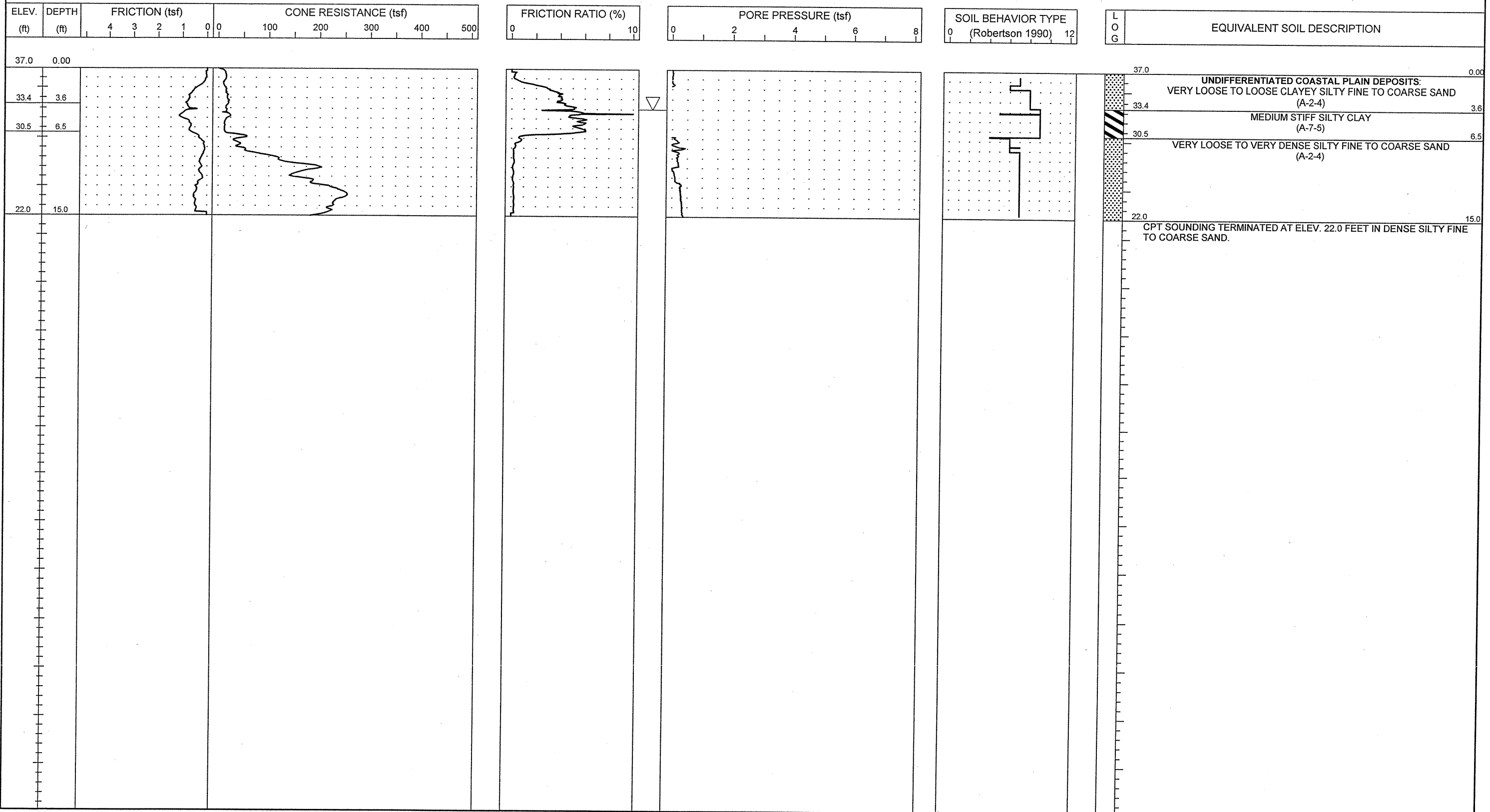


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-236	BORING LOCATION 24+00	OFFSET 0.0 ft CL	ALIGNMENT -Y7-	0 HR. N/M	DATE STARTED 10/31/06	COMPLETED 10/31/06
COLLAR ELEV. 35.0 ft	NORTHING 194,216.1	EASTING 2,287,332.8	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



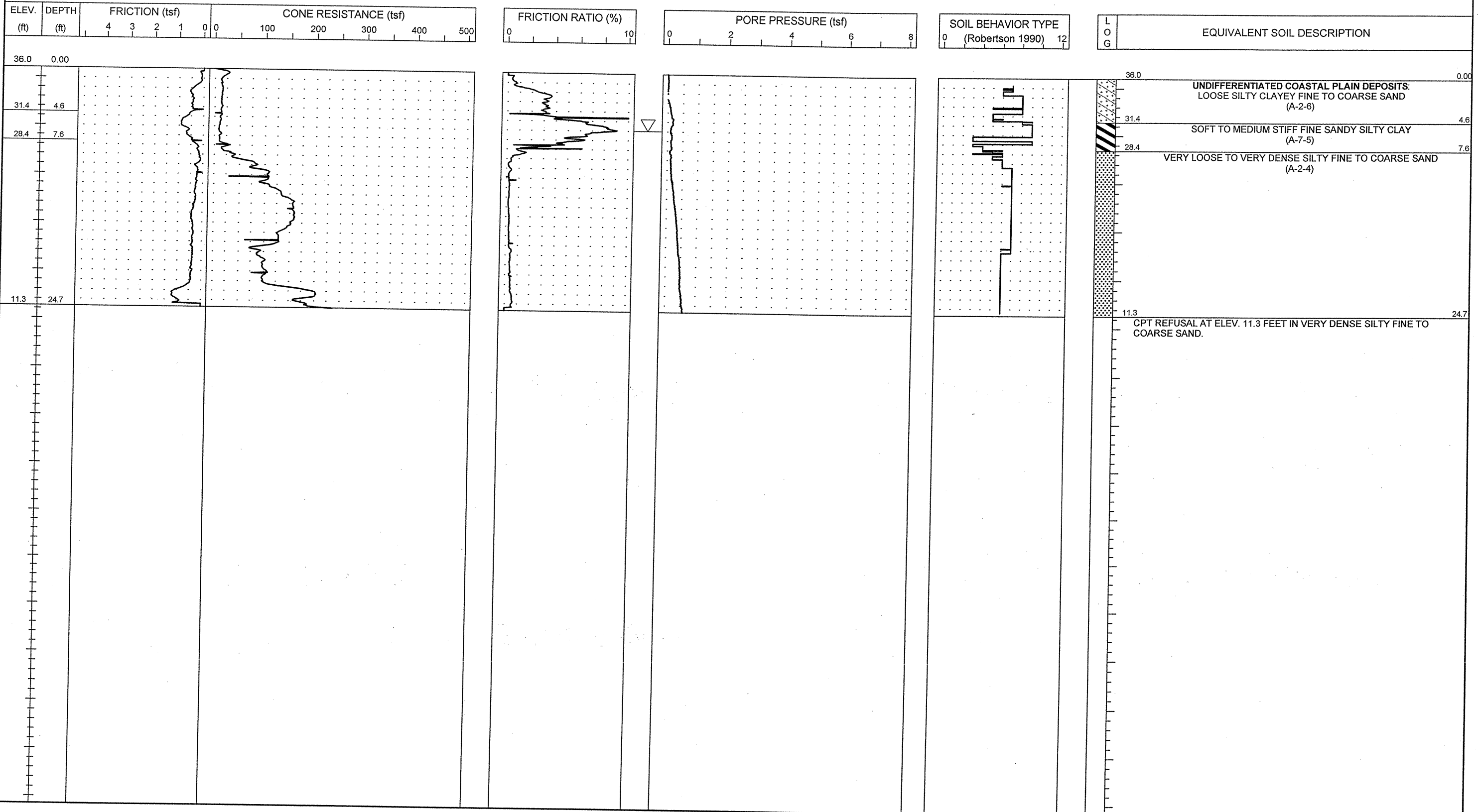


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 15.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-237	BORING LOCATION 26+00	OFFSET 0.0 ft CL	ALIGNMENT -Y7-	0 HR. 4.0	DATE STARTED 10/31/06	COMPLETED 10/31/06
COLLAR ELEV. 37.0 ft	NORTHING 194,016.5	EASTING 2,287,319.1	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



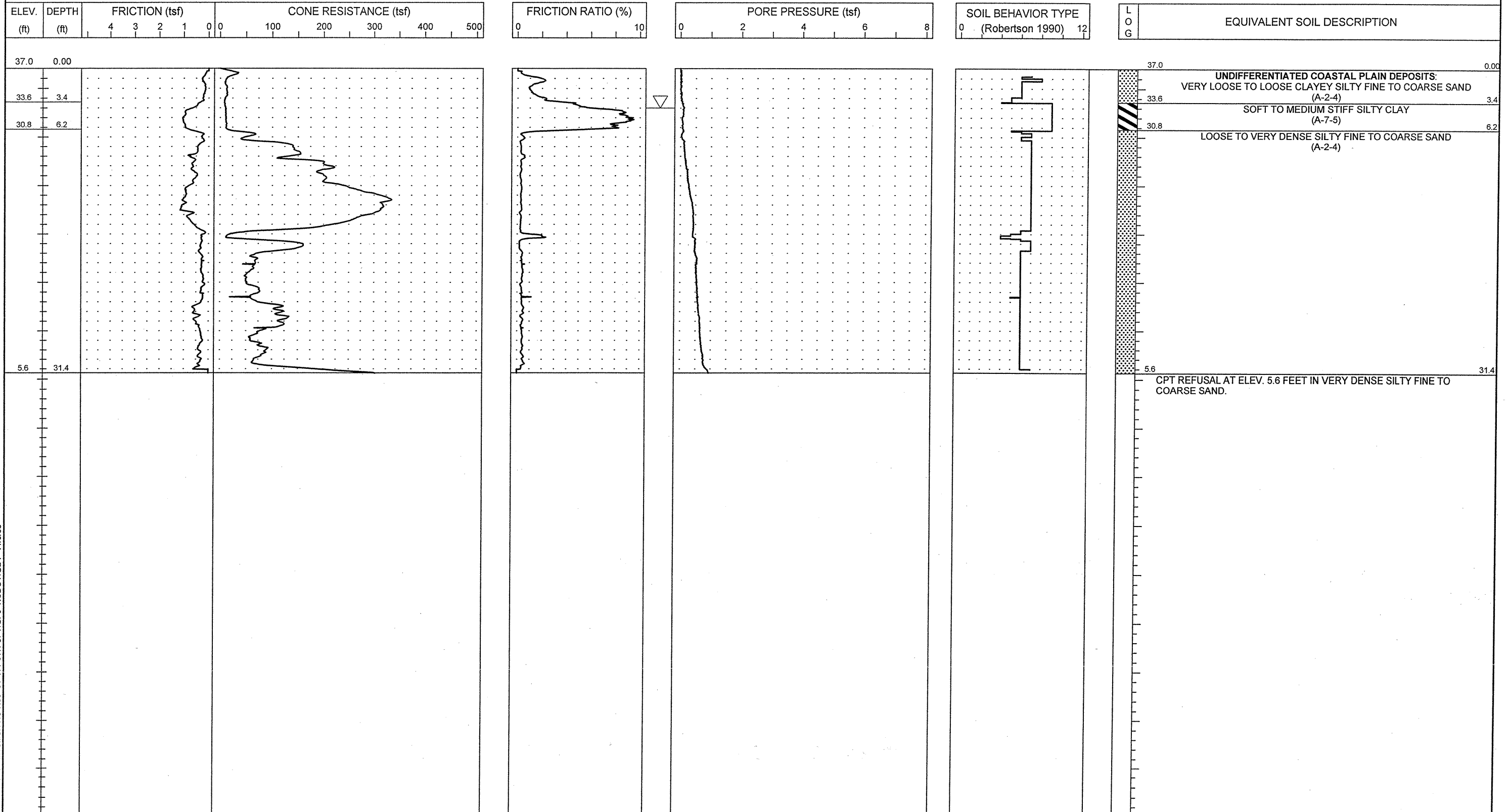
NCDOT CPT - ENGLISH NO. 60 51-411.6TH CPT.GPJ NCDOT.GDT 11/9/06

PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 24.7 ft	DRILL MACHINE CPT-ATV
BORING NO. C-238	BORING LOCATION 28+00	OFFSET 0.0 ft CL	ALIGNMENT -Y7-	0 HR. 6.0	DATE STARTED 10/31/06	COMPLETED 10/31/06
COLLAR ELEV. 36.0 ft	NORTHING 193,817.1	EASTING 2,287,303.6	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A





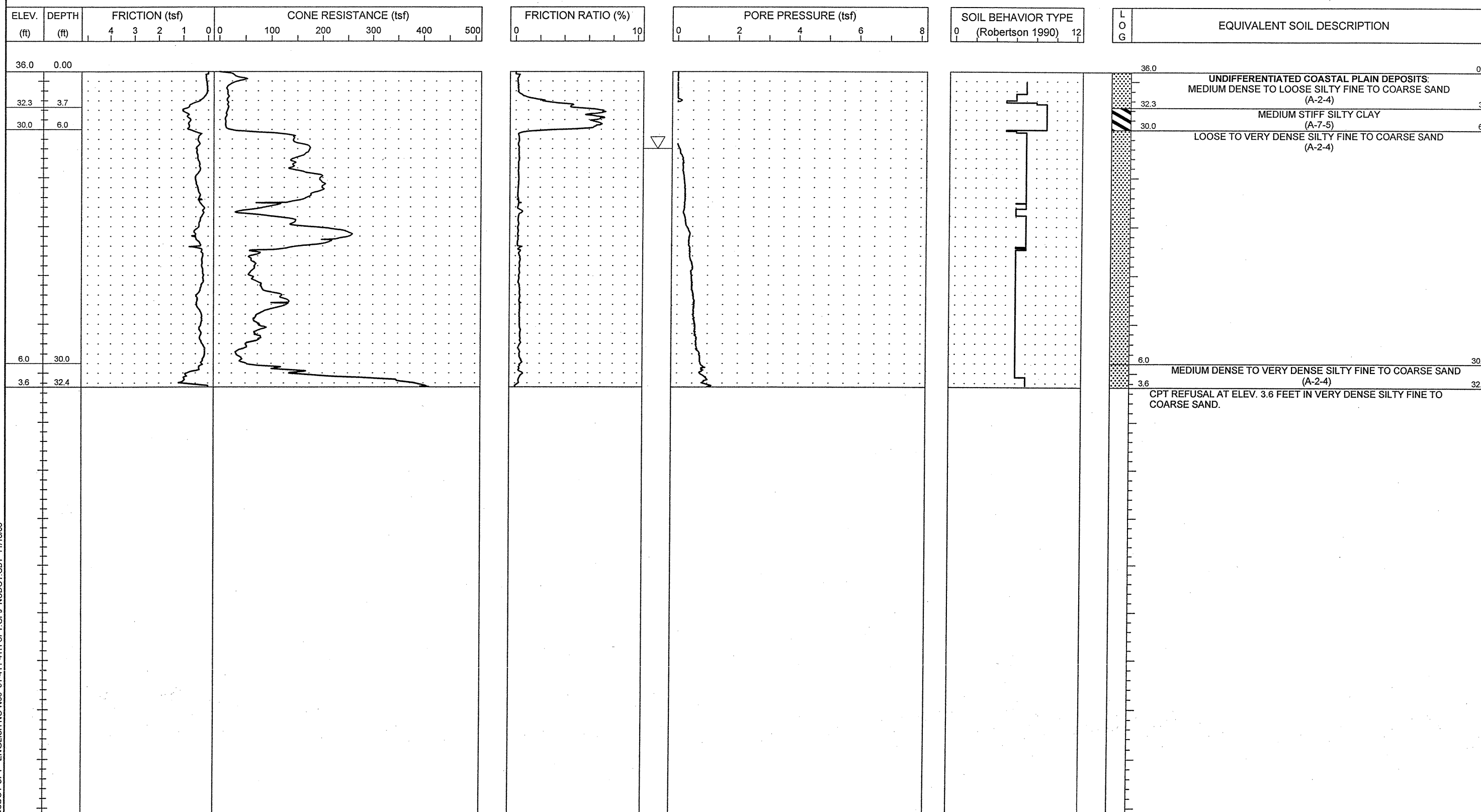
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 31.4 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-239	BORING LOCATION 30+63	OFFSET 0.0 ft CL	ALIGNMENT -Y7-	0 HR. 4.0	DATE STARTED 10/31/06	COMPLETED 10/31/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 37.0 ft	NORTHING 193,554.8	EASTING 2,287,285.2	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER			



NCDOT CPT - ENGLISH NO NEG. 51-411 6TH CPT.GPJ NCDOT.GDT 11/9/06



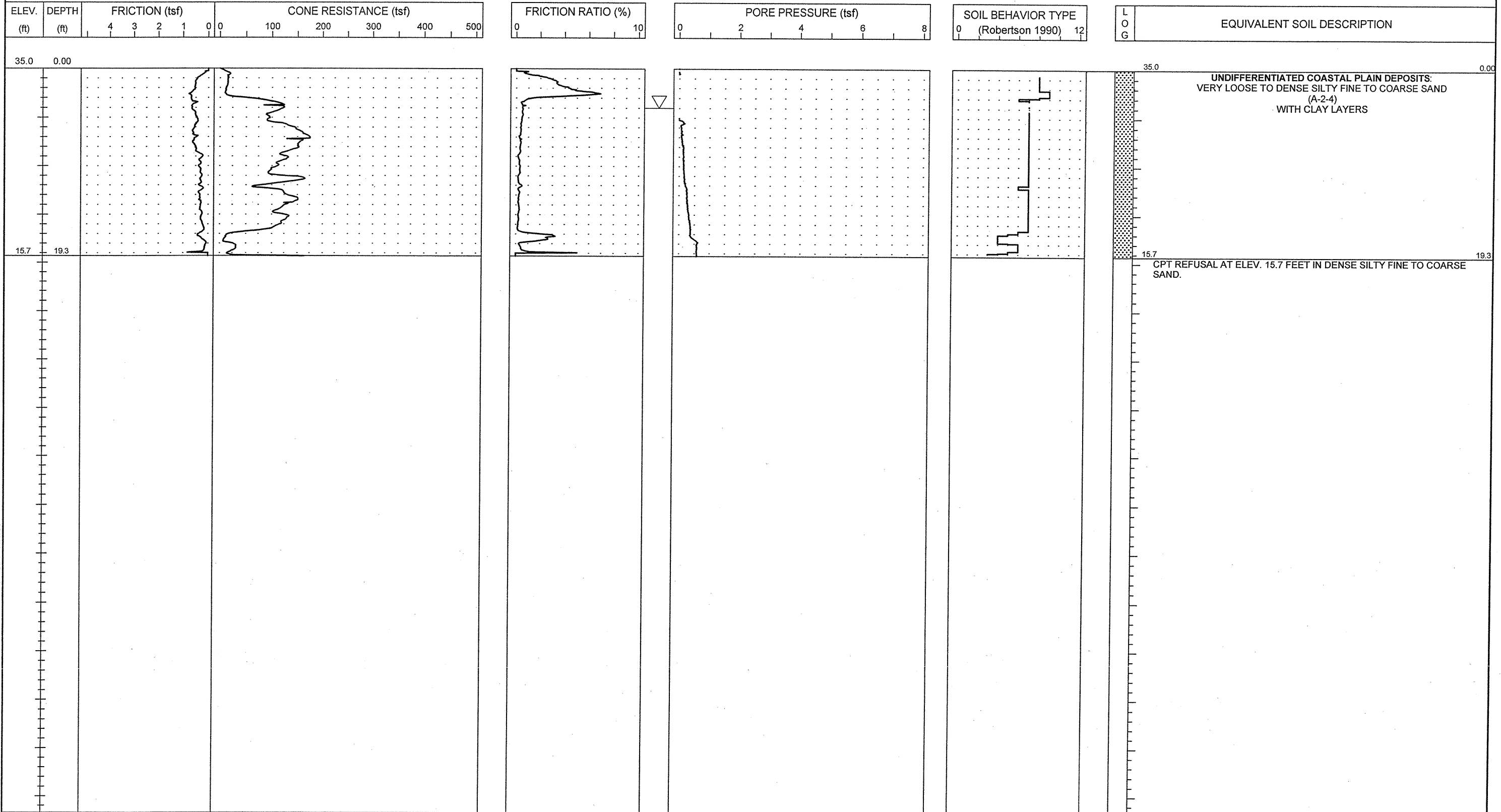
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 32.4 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-240	BORING LOCATION 32+75	OFFSET 0.0 ft CL	ALIGNMENT -Y7-	0 HR. 8.0	DATE STARTED 10/26/06	COMPLETED 10/26/06
COLLAR ELEV. 36.0 ft	NORTHING 193,342.9	EASTING 2,287,278.1	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO N60 51-411 4TH CPT.GPJ NCDOT.GDT 11/16/06

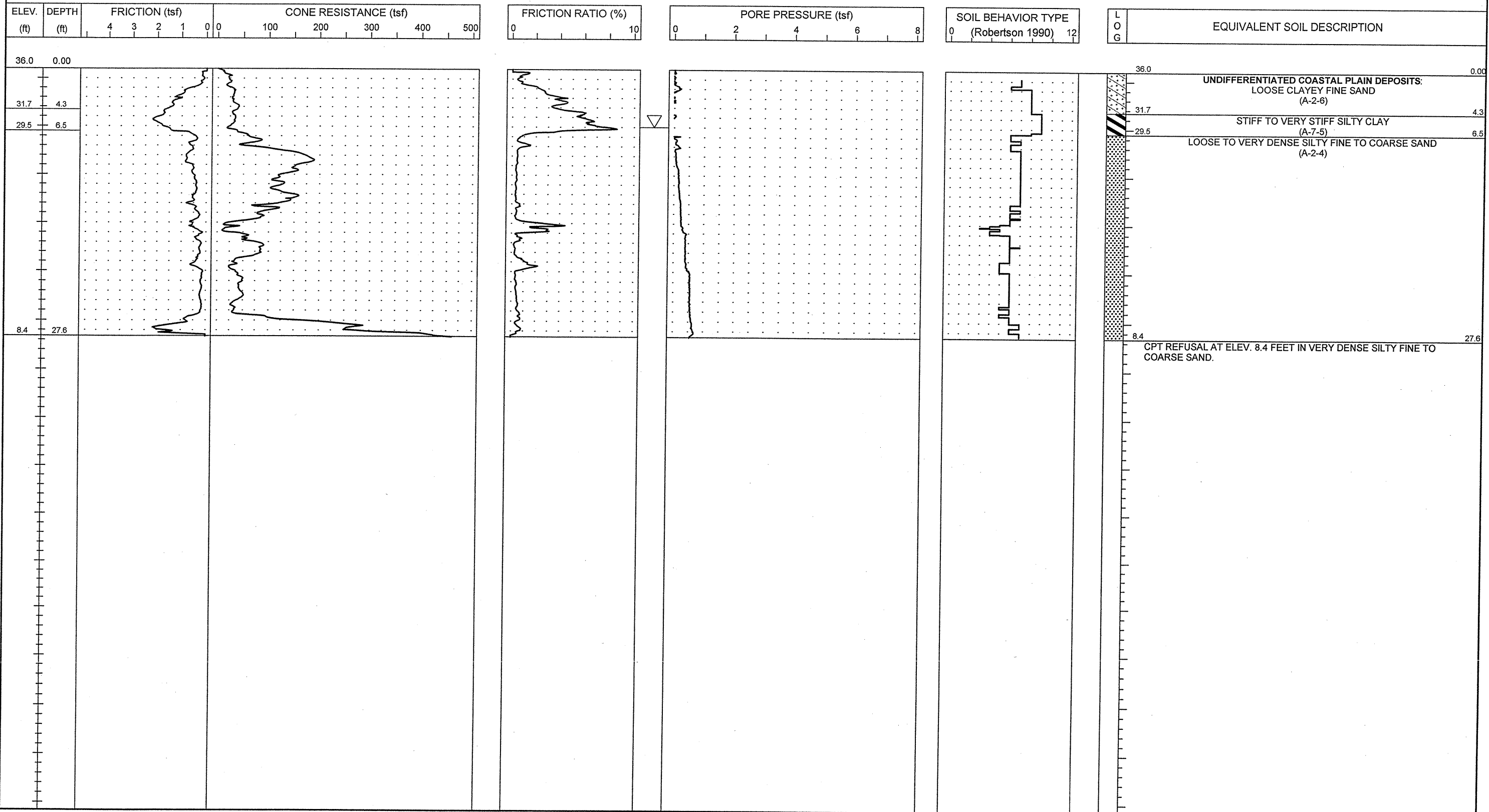


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 19.3 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-242	BORING LOCATION 36+00	OFFSET 0.0 ft CL	ALIGNMENT -Y7-	0 HR. 4.0	DATE STARTED 10/31/06	COMPLETED 10/31/06
COLLAR ELEV. 35.0 ft	NORTHING 193,018.0	EASTING 2,287,282.5	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



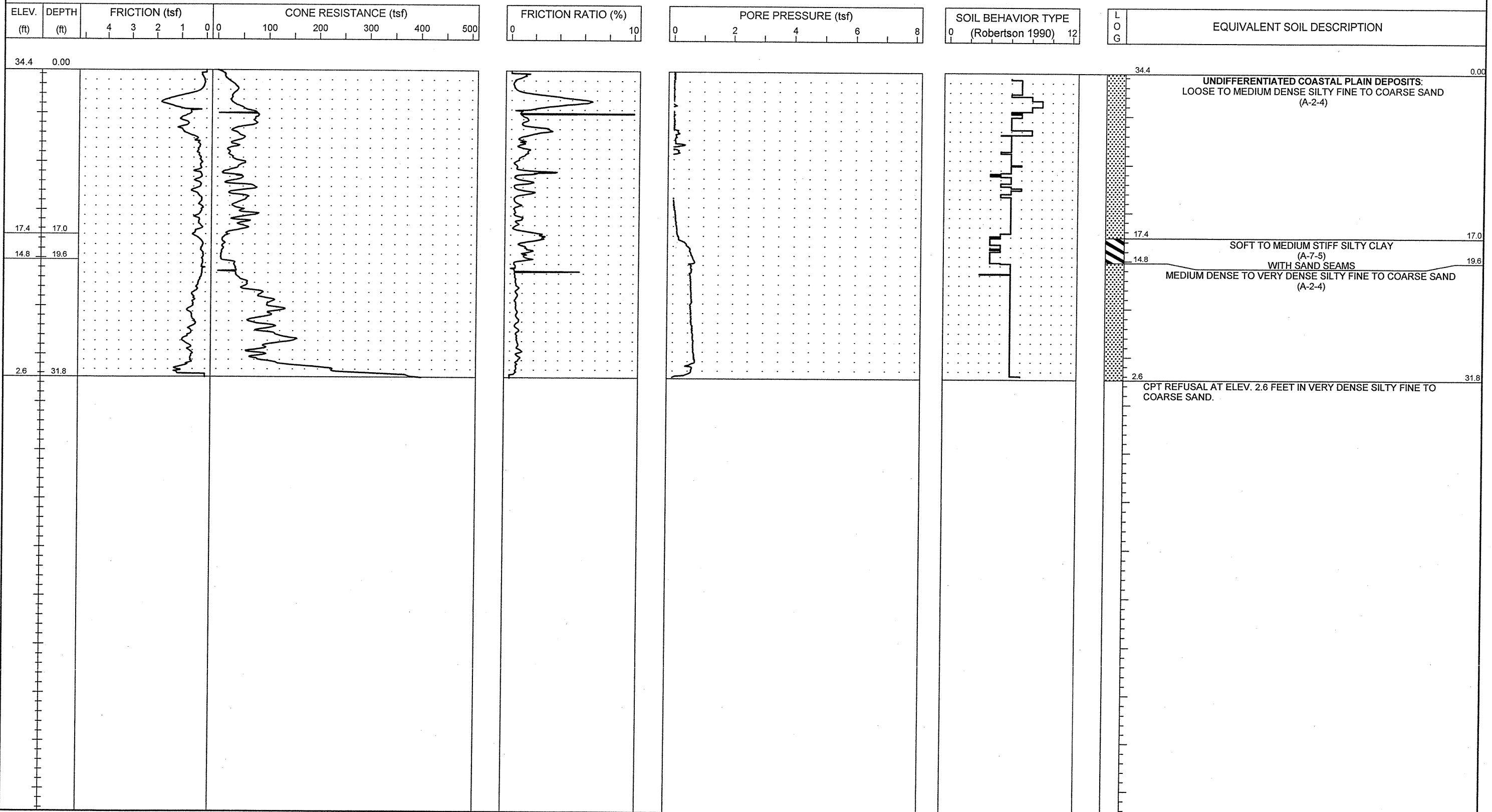


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 27.6 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-243	BORING LOCATION 37+81	OFFSET 0.0 ft CL	ALIGNMENT -Y7-	0 HR. 6.0	DATE STARTED 10/31/06	COMPLETED 10/31/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 36.0 ft	NORTHING 192,837.3	EASTING 2,287,292.9		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



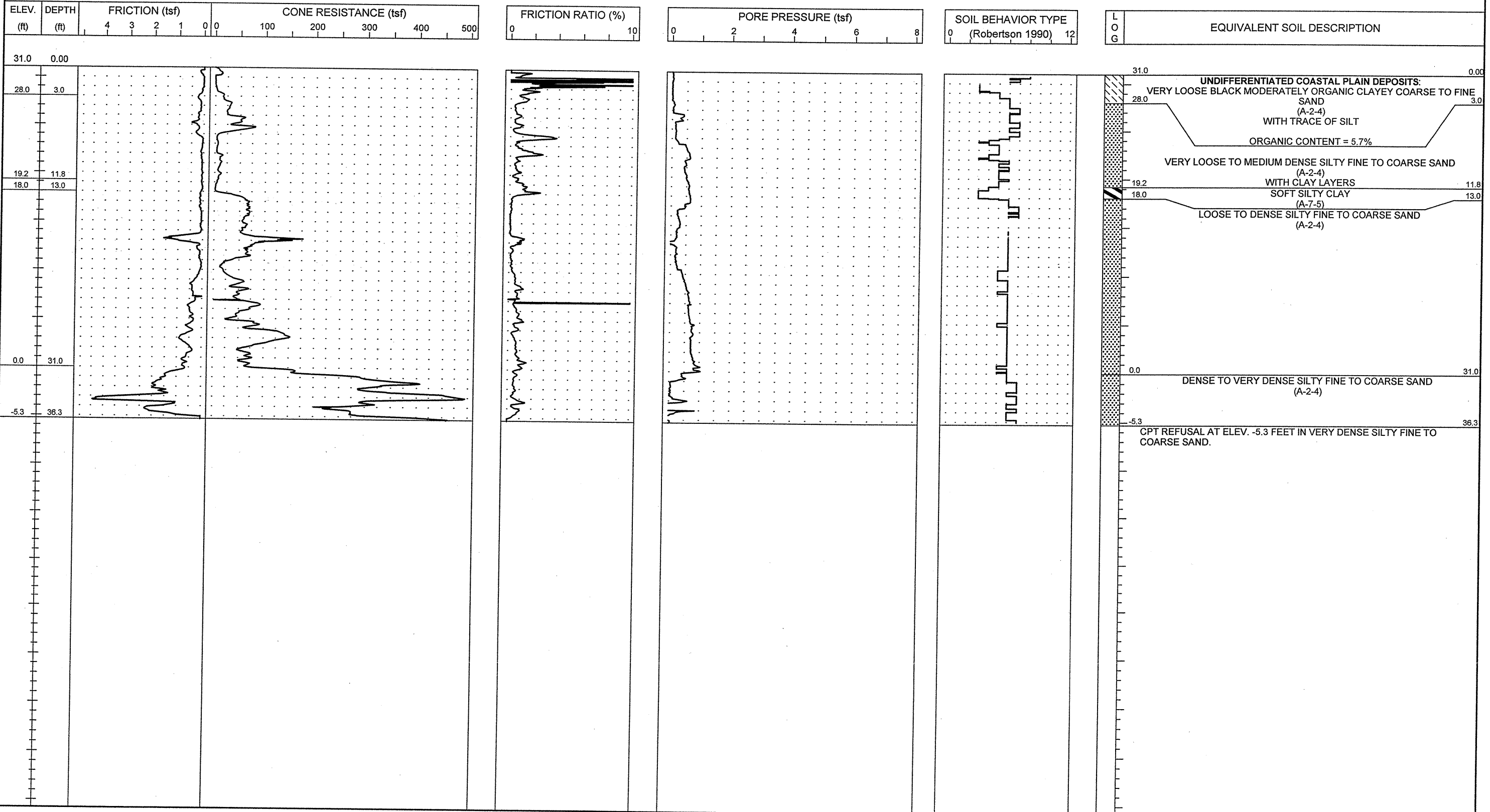


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 31.8 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-244	BORING LOCATION 39+29	OFFSET 0.0 ft CL	ALIGNMENT -Y7-	0 HR. N/M	DATE STARTED 10/31/06	COMPLETED 10/31/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 34.4 ft	NORTHING 192,689.9	EASTING 2,287,305.6		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



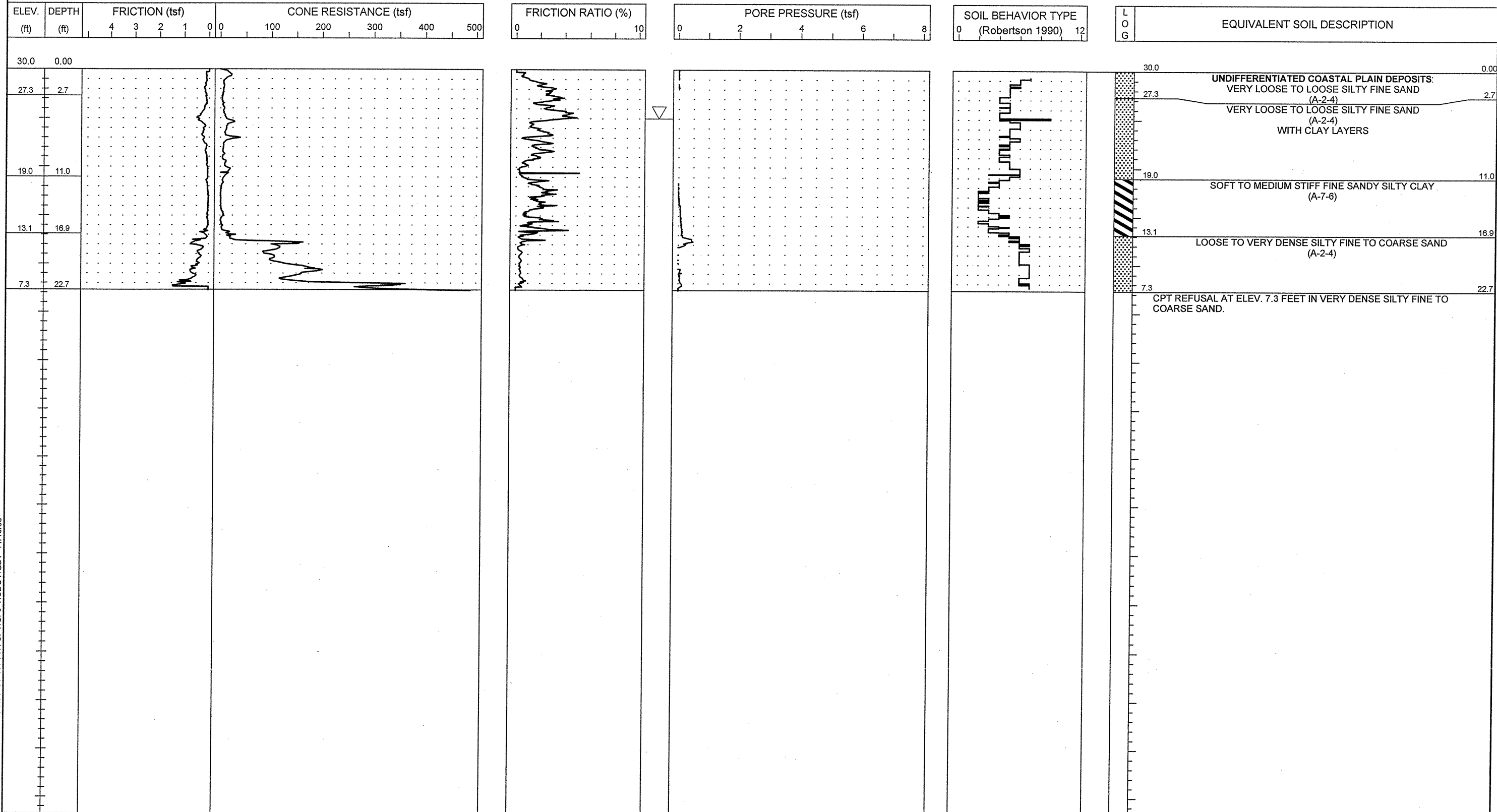
NCDOT CPT - ENGLISH NO N60 51-411.6TH CPT.GPJ NCDOT.GDT 11/9/06

PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/ Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 36.3 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-245	BORING LOCATION 42+00	OFFSET 0.0 ft CL	ALIGNMENT -Y7-	0 HR. N/M	DATE STARTED 11/1/06	COMPLETED 11/1/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 31.0 ft	NORTHING 192,421.3	EASTING 2,287,341.3		24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN		





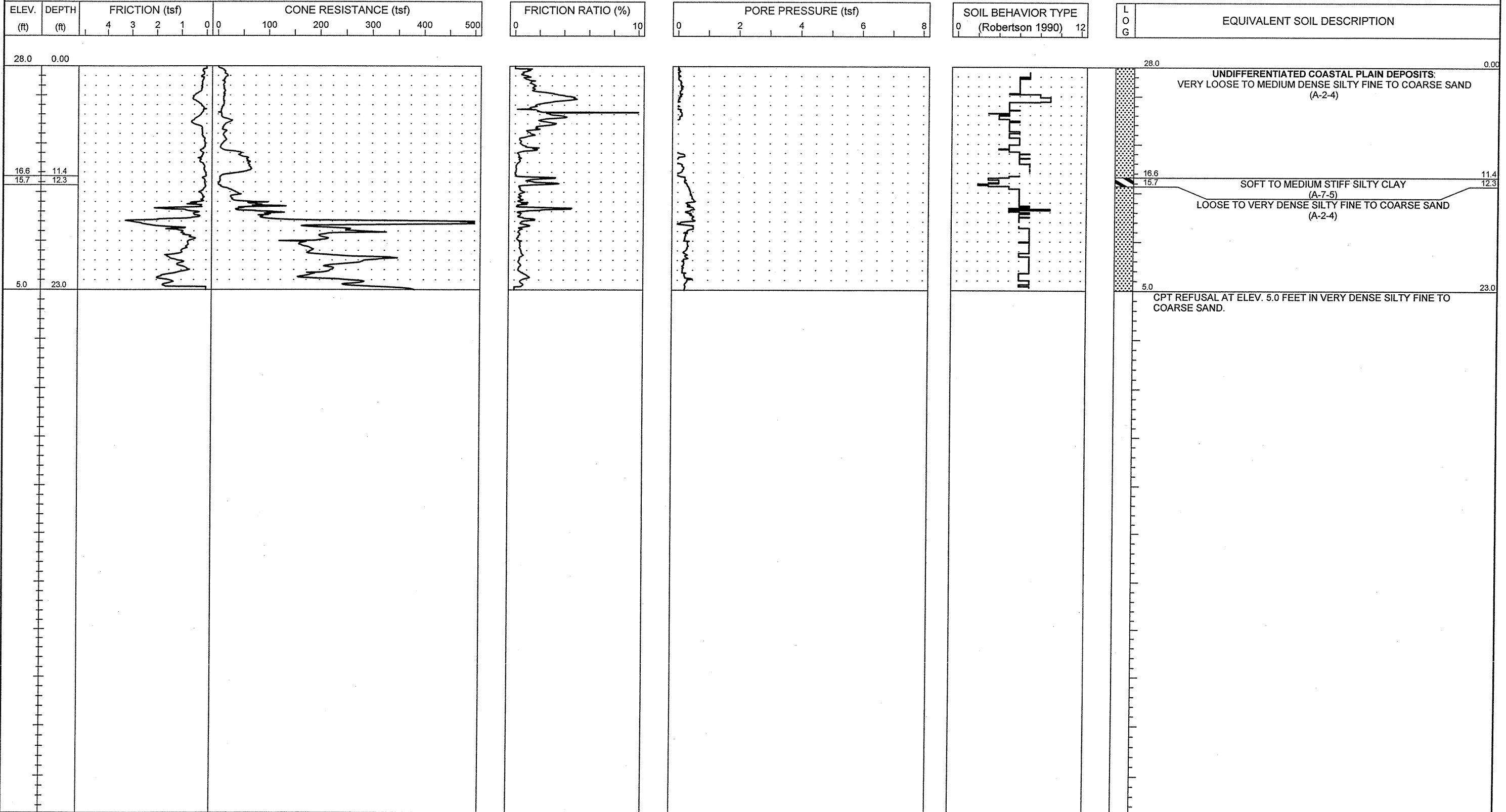
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/ Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 22.7 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-246	BORING LOCATION 44+00	OFFSET 0.0 ft CL	ALIGNMENT -Y7-	0 HR. 5.0	DATE STARTED 11/1/06	COMPLETED 11/1/06
COLLAR ELEV. 30.0 ft	NORTHING 192,223.5	EASTING 2,287,370.8	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO N60 51-411 7TH CPT.GPJ NCDOT.GDT 11/13/06



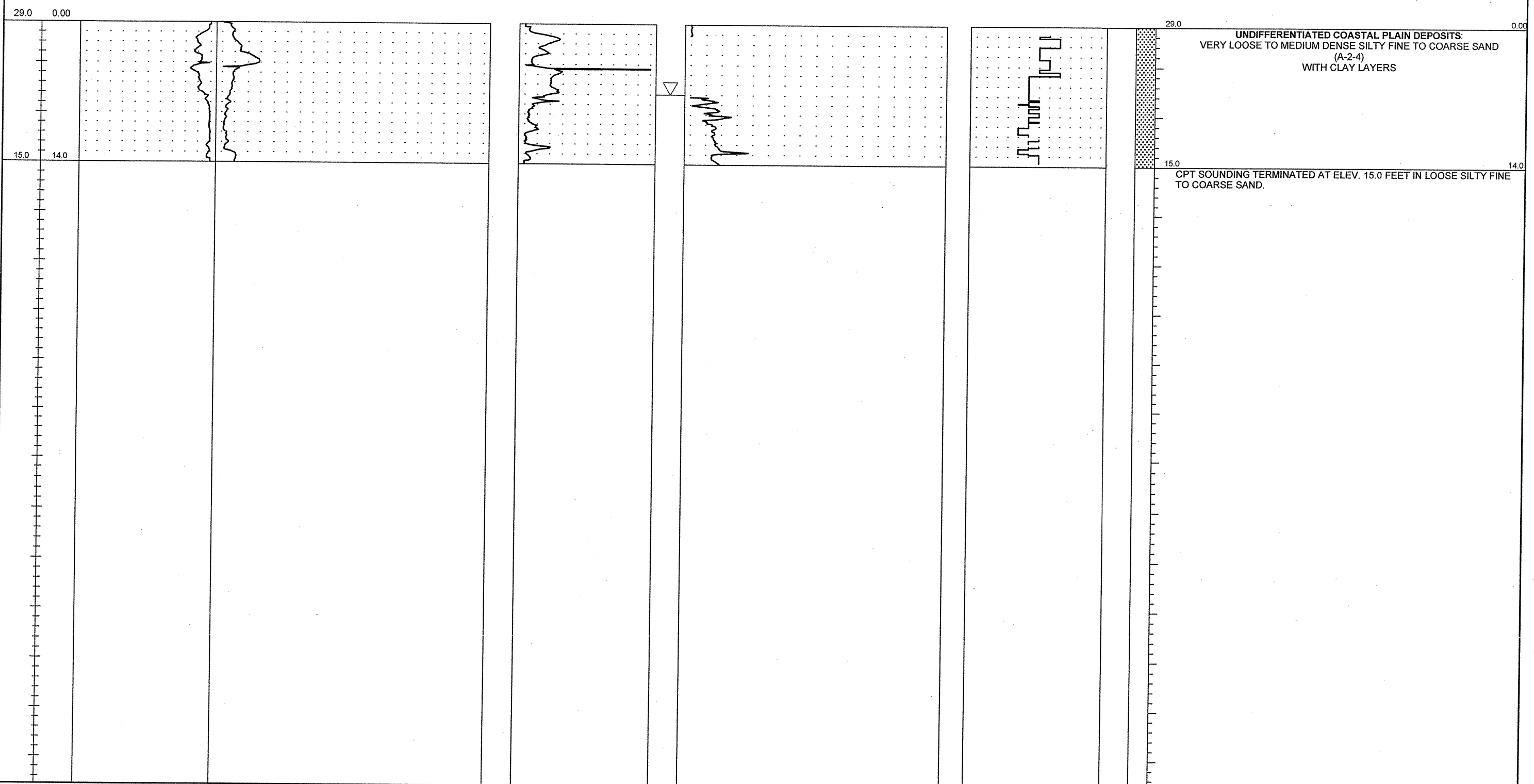
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 23.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-247	BORING LOCATION 46+00	OFFSET 0.0 ft CL	ALIGNMENT -Y7-	0 HR. N/M	DATE STARTED 10/31/06	COMPLETED 10/31/06
COLLAR ELEV. 28.0 ft	NORTHING 192,026.3	EASTING 2,287,403.9	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A





PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 14.0 ft	DRILL MACHINE CPT-ATV
BORING NO. C-249	BORING LOCATION 50+00	OFFSET 0.0 ft CL	ALIGNMENT -Y7-	0 HR. 7.0	DATE STARTED 10/31/06	COMPLETED 10/31/06
COLLAR ELEV. 29.0 ft	NORTHING 191,628.9	EASTING 2,287,443.6	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A

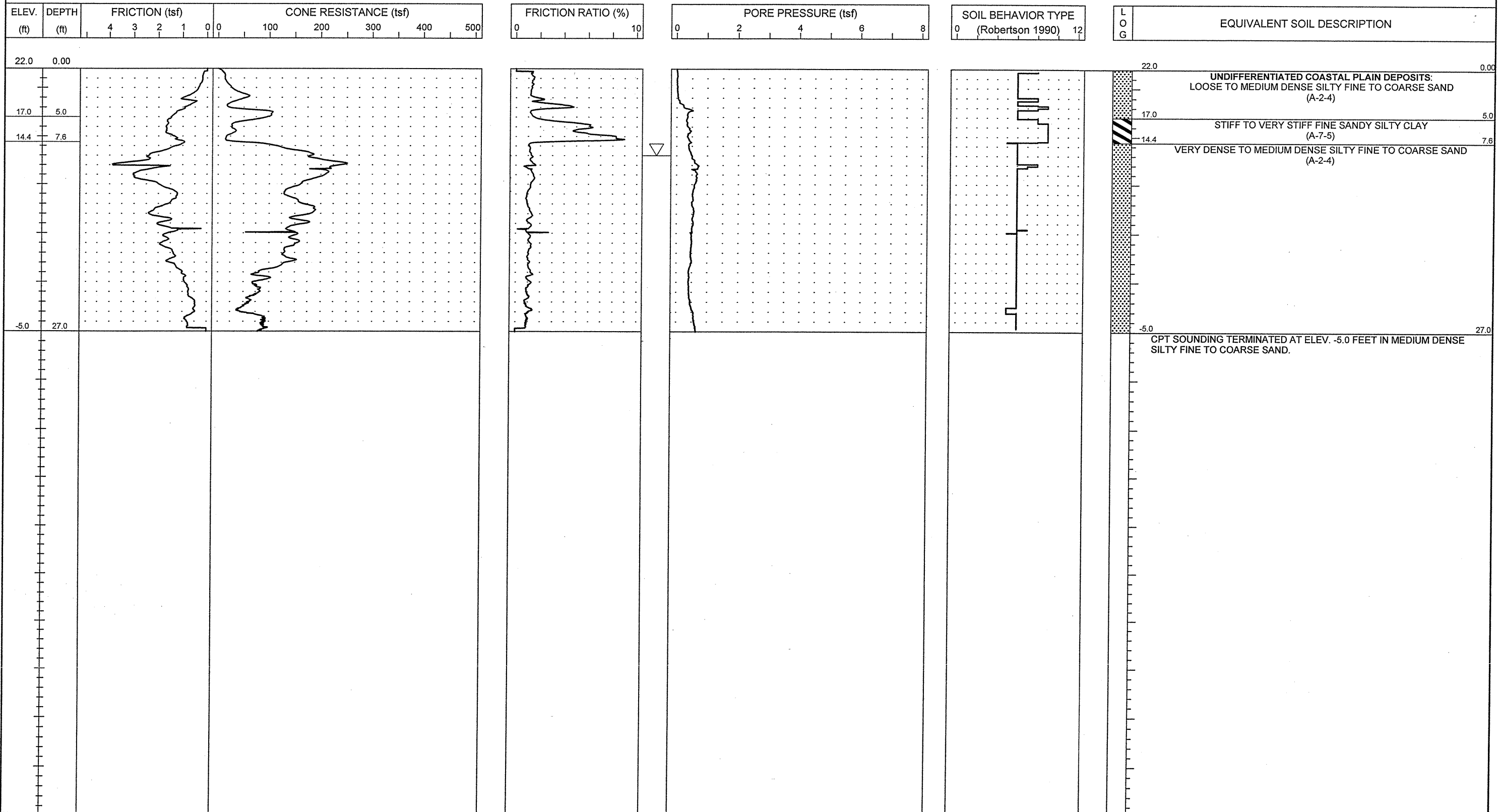
ELEV. (ft)	DEPTH (ft)	FRICION (tsf)	CONE RESISTANCE (tsf)	FRICION RATIO (%)	PORE PRESSURE (tsf)	SOIL BEHAVIOR TYPE (Robertson 1990)	EQUIVALENT SOIL DESCRIPTION
		4 3 2 1 0 0	100 200 300 400 500	0 10	0 2 4 6 8	0 12	



NCDOT CPT - ENGLISH NO N60 51-411.6TH CPT.GPJ NCDOT.GDT 11/9/06



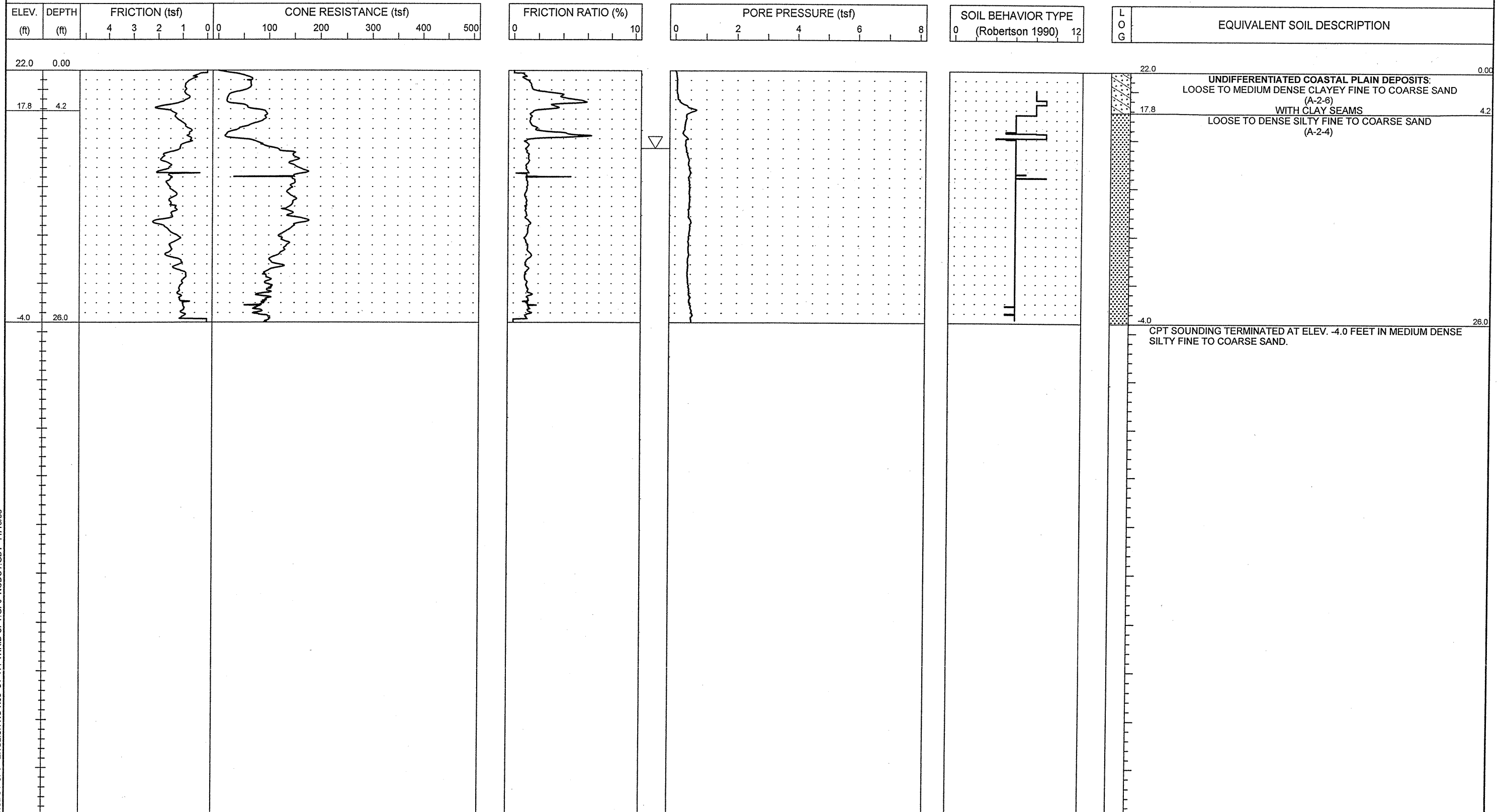
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 27.0 ft	DRILL MACHINE CPT-ATV
BORING NO. C-252	BORING LOCATION 15+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_C3-	0 HR. 9.0	DATE STARTED 10/16/06	COMPLETED 10/16/06
COLLAR ELEV. 22.0 ft	NORTHING 191,716.8	EASTING 2,295,711.1	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO. 680 51-411 THRID CPT.GPJ NCDOT.GDT 11/16/06



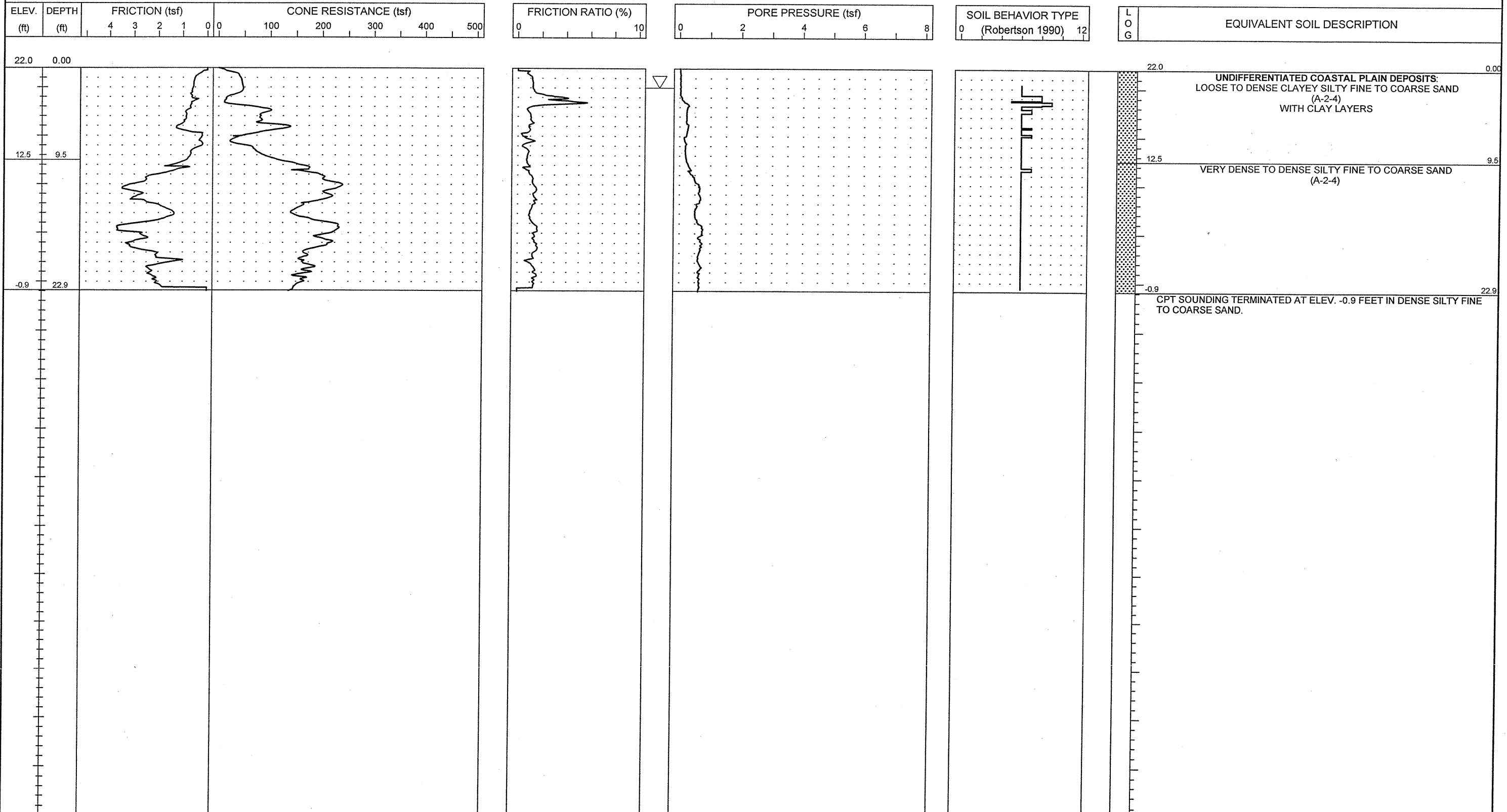
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 26.0 ft	DRILL MACHINE CPT-ATV
BORING NO. C-253	BORING LOCATION 17+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_C3-	0 HR. 8.0	DATE STARTED 10/16/06	COMPLETED 10/16/06
COLLAR ELEV. 22.0 ft	NORTHING 191,668.0	EASTING 2,295,904.8	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO N60 51-411 THRID CPT.GPJ NCDOT.GDT 11/16/06



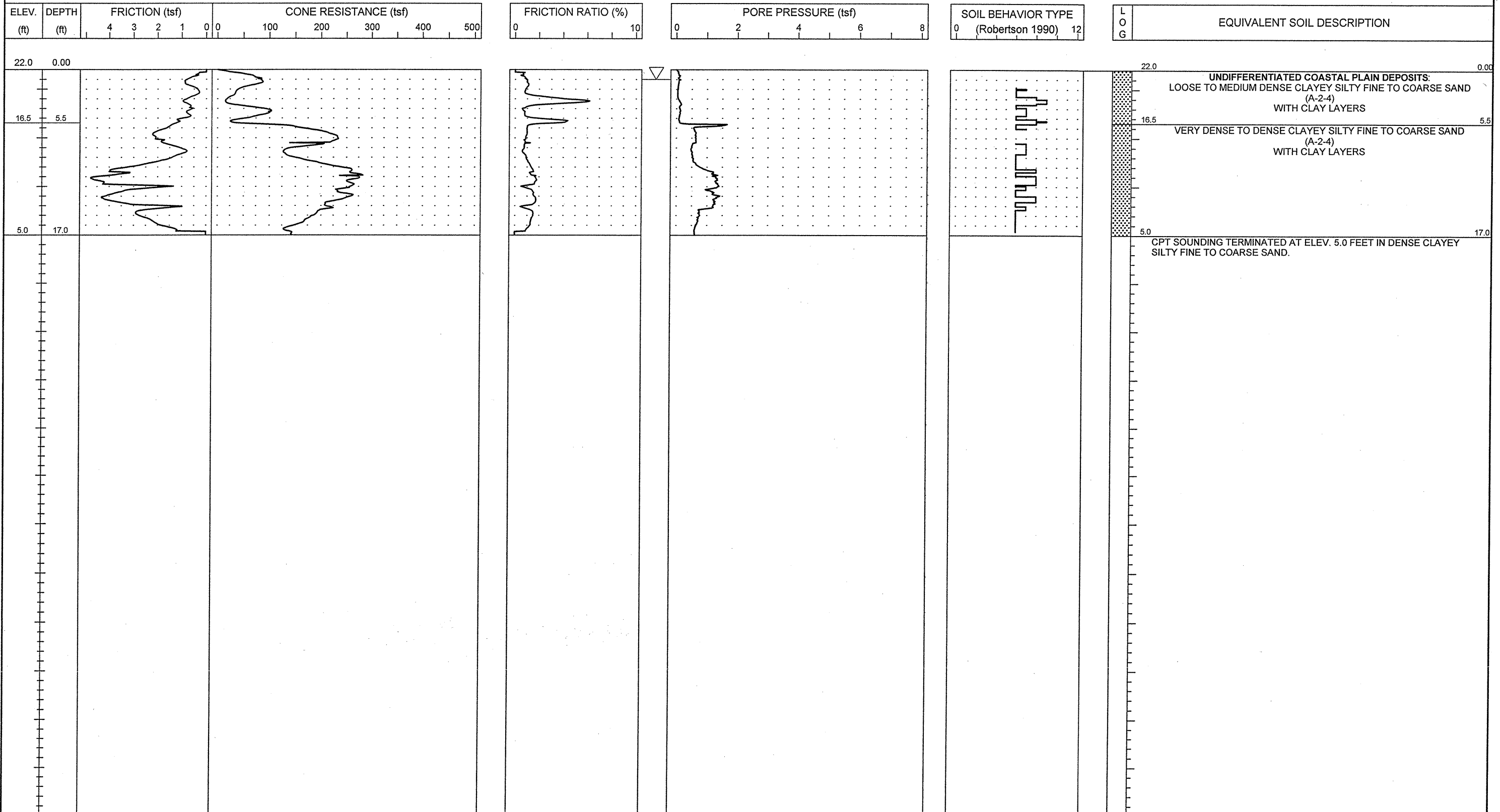
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 22.9 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-254	BORING LOCATION 19+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_C3-	0 HR. 2.0	DATE STARTED 10/16/06	COMPLETED 10/16/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 22.0 ft	NORTHING 191,586.4	EASTING 2,296,087.1		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



NCDOT CPT - ENGLISH NO N60 51-411 THRID CPT.GPJ NCDOT.GDT 11/16/08

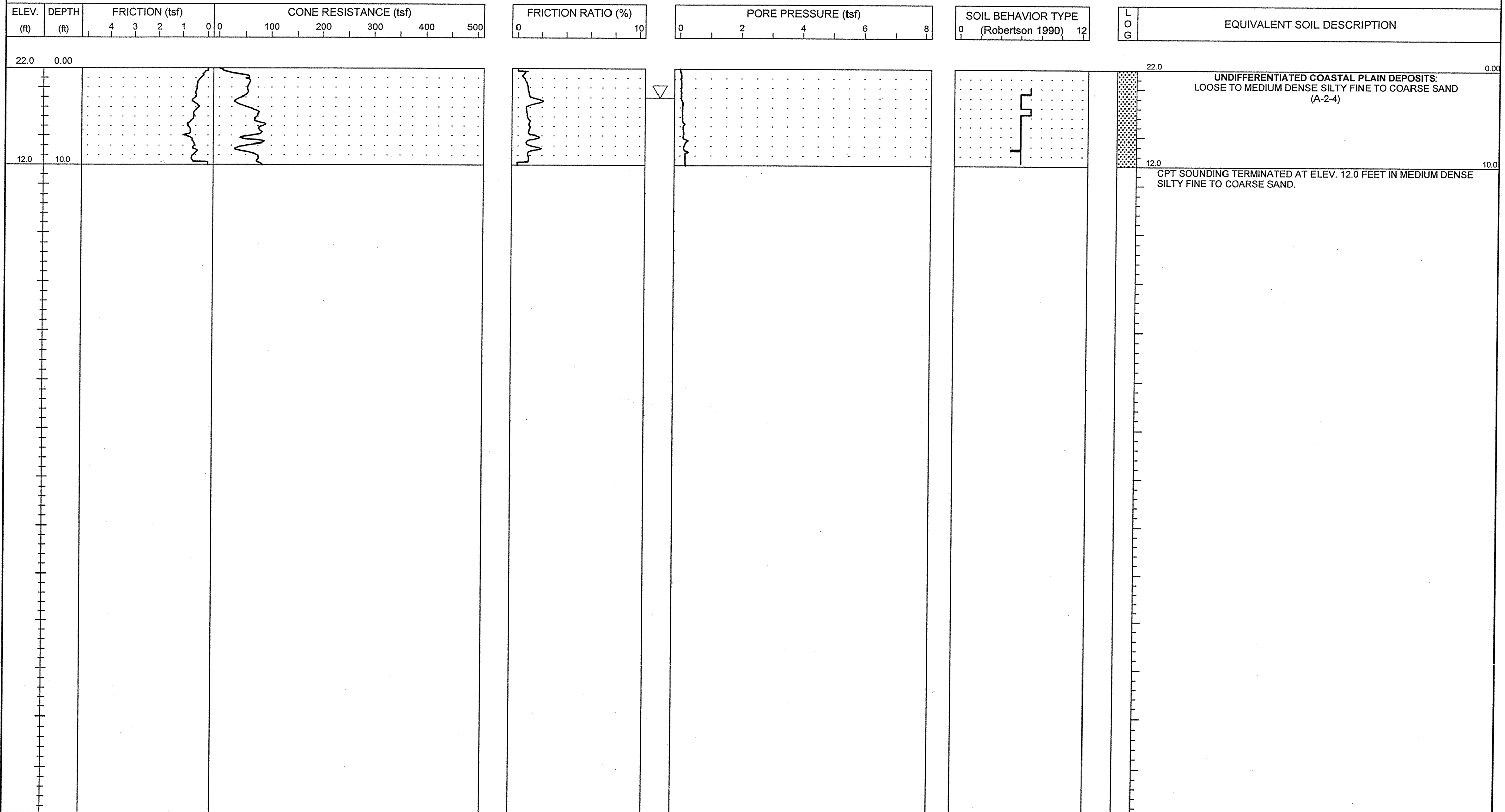


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 17.0 ft	DRILL MACHINE CPT-ATV
BORING NO. C-255	BORING LOCATION 21+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_C3-	0 HR. 1.0	DATE STARTED 10/16/06	COMPLETED 10/16/06
COLLAR ELEV. 22.0 ft	NORTHING 191,475.1	EASTING 2,296,253.0		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER
					DRILL METHOD Direct Push	HAMMER TYPE N/A
						SURFACE WATER DEPTH N/A





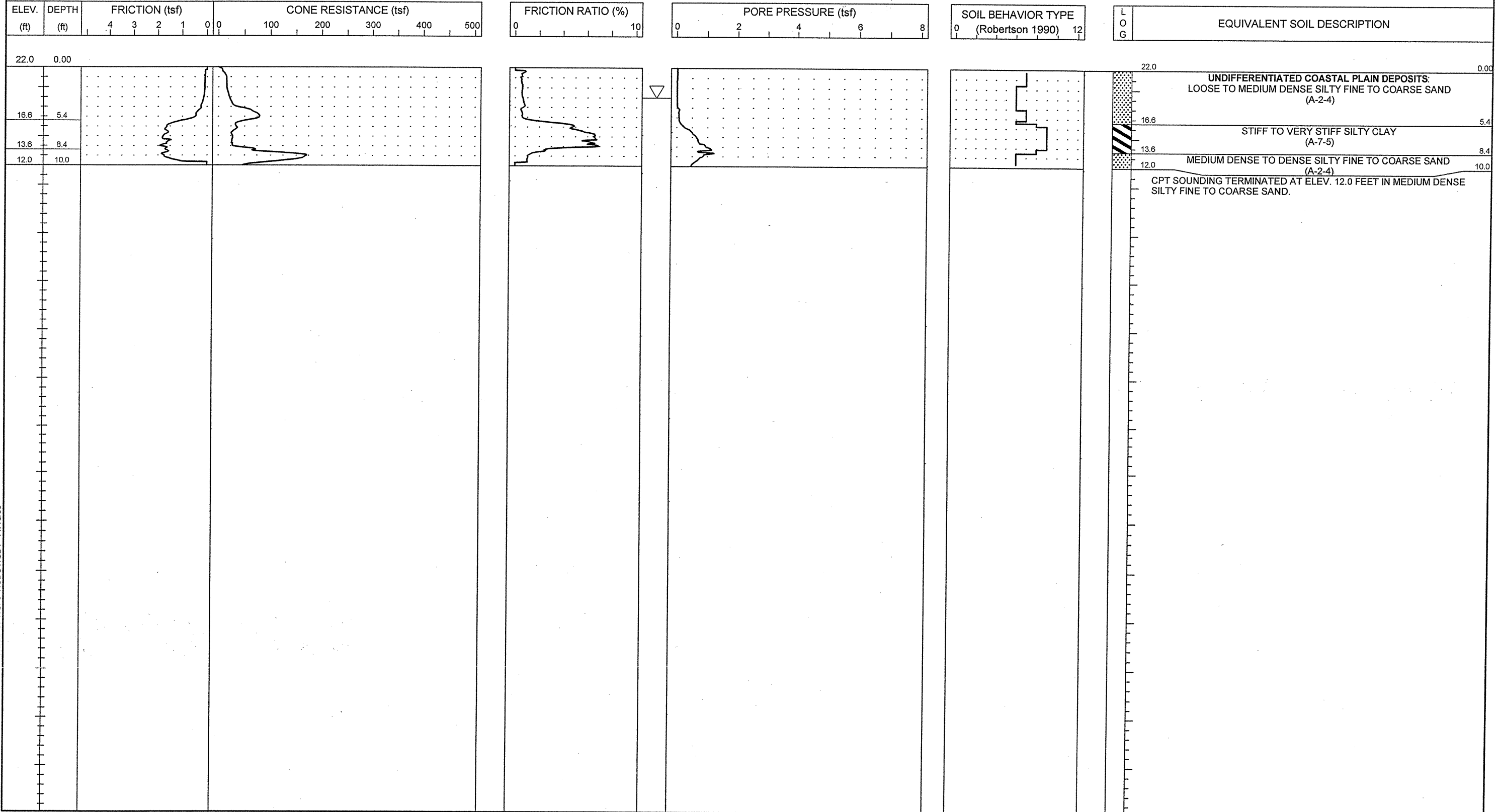
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV
BORING NO. C-256	BORING LOCATION 23+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_C3-	0 HR. 3.0	DATE STARTED 10/16/06	COMPLETED 10/16/06
COLLAR ELEV. 22.0 ft	NORTHING 191,352.9	EASTING 2,296,411.3	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO N60 51-411 THRID CPT.GPJ NCDOT.GDT 11/16/06

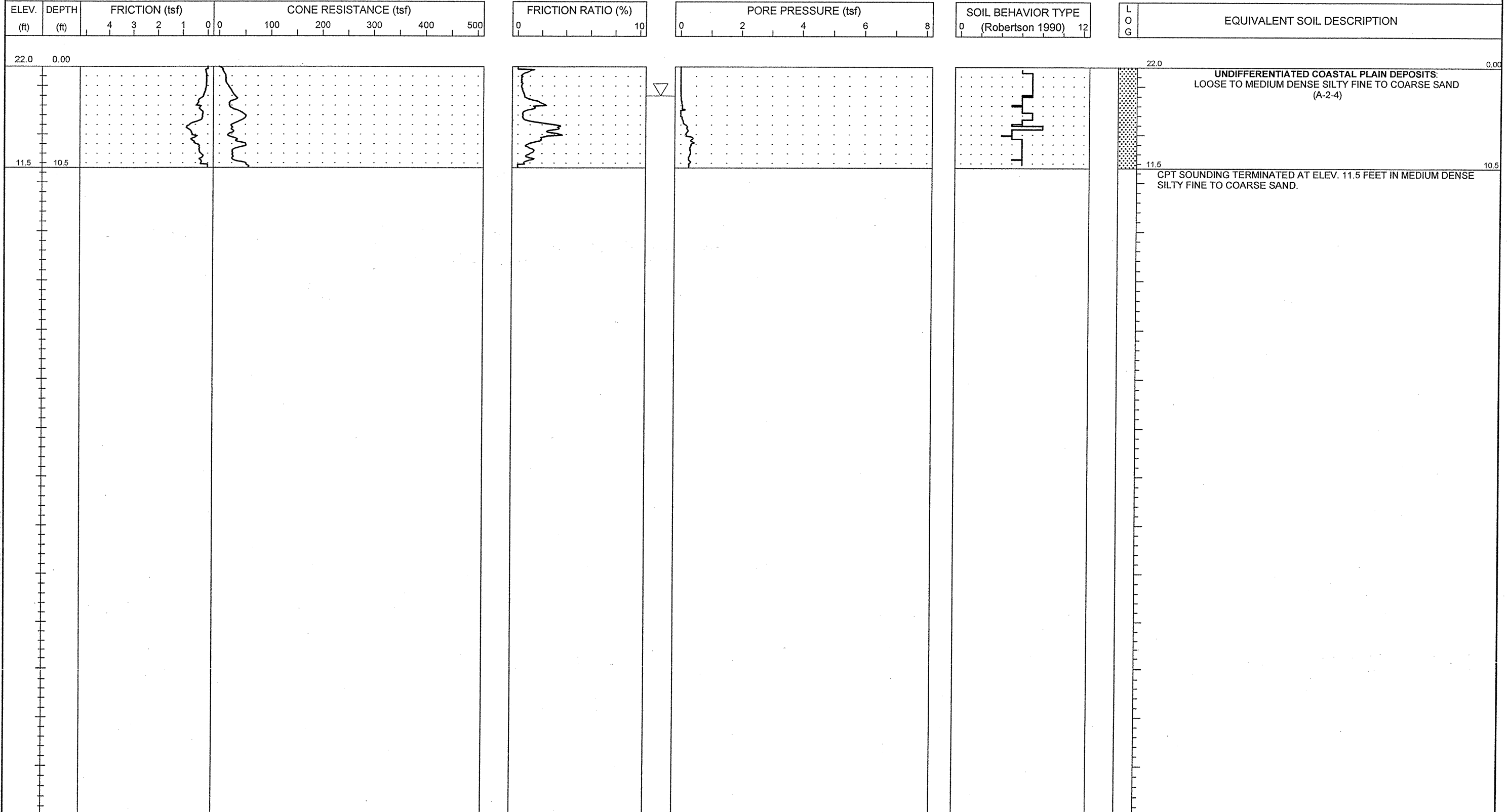


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV
BORING NO. C-257	BORING LOCATION 25+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_C3-	0 HR. 3.0	DATE STARTED 10/16/06	COMPLETED 10/16/06
COLLAR ELEV. 22.0 ft	NORTHING 191,268.1	EASTING 2,296,591.2	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



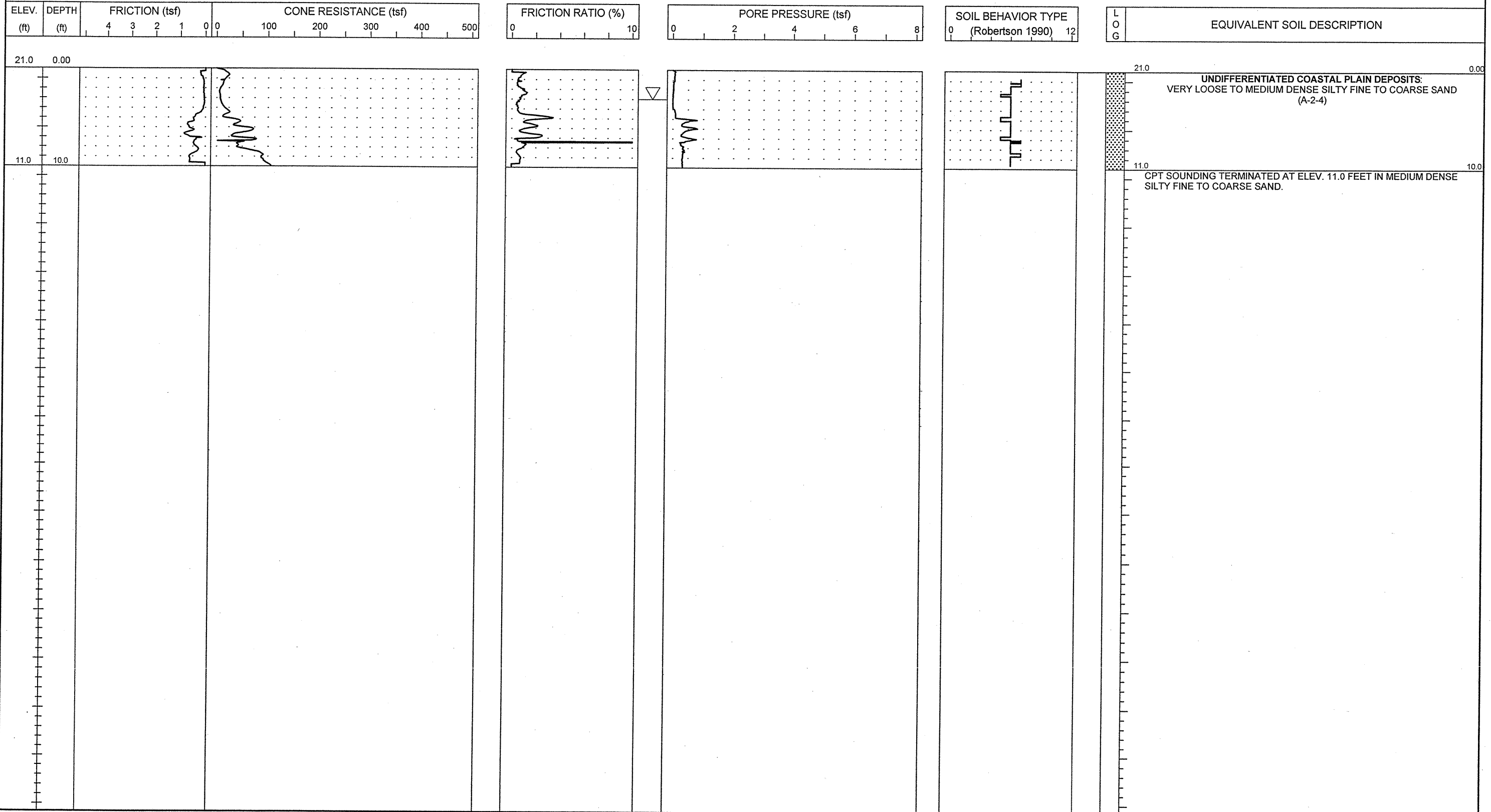


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.5 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-258	BORING LOCATION 27+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_C3-	0 HR. 3.0	DATE STARTED 10/16/06	COMPLETED 10/16/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 22.0 ft	NORTHING 191,258.9	EASTING 2,296,789.6		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



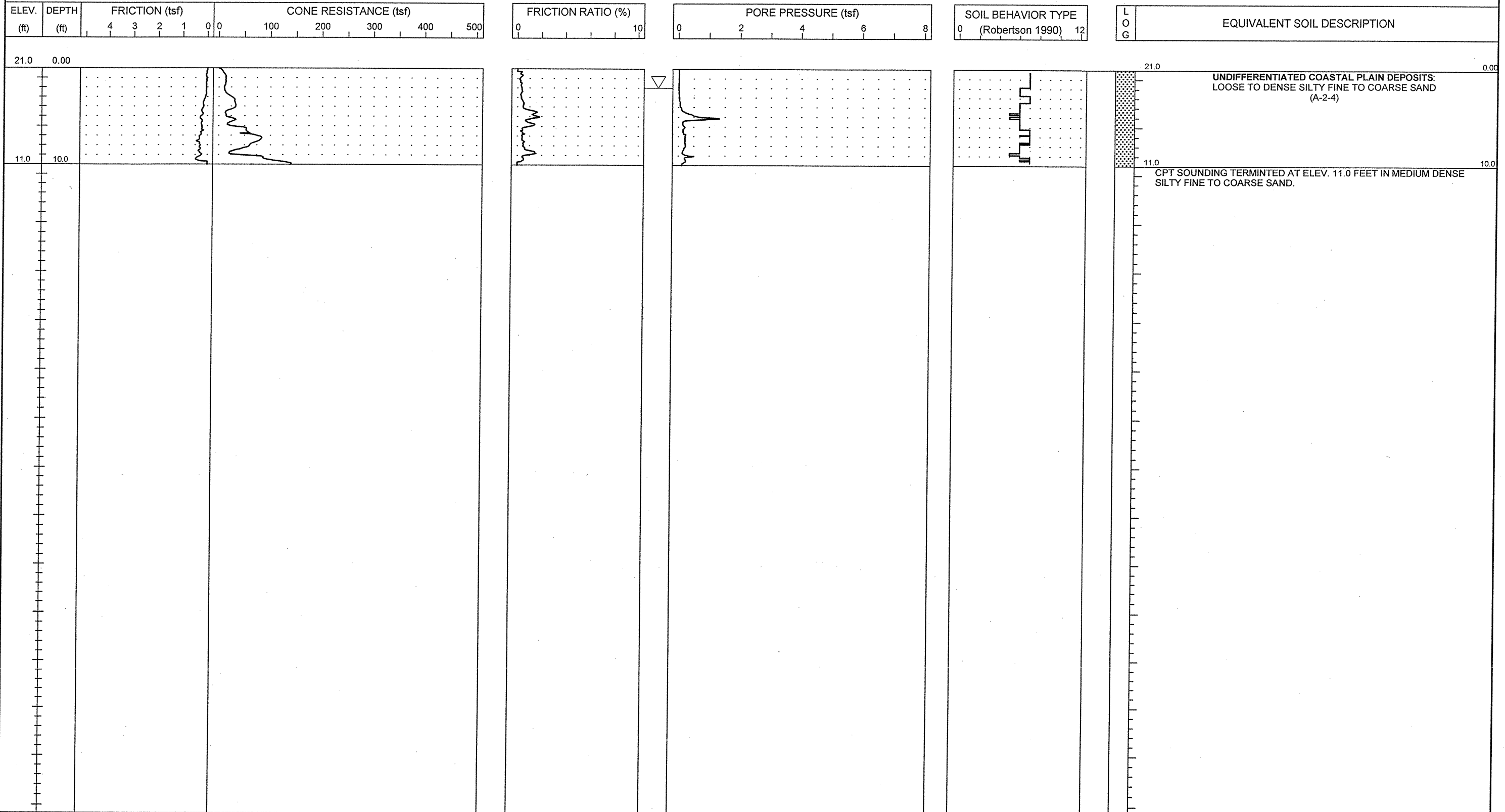


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-259	BORING LOCATION 29+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_C3-	0 HR. 3.0	DATE STARTED 10/16/06	COMPLETED 10/16/06
COLLAR ELEV. 21.0 ft	NORTHING 191,298.5	EASTING 2,296,985.6	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A





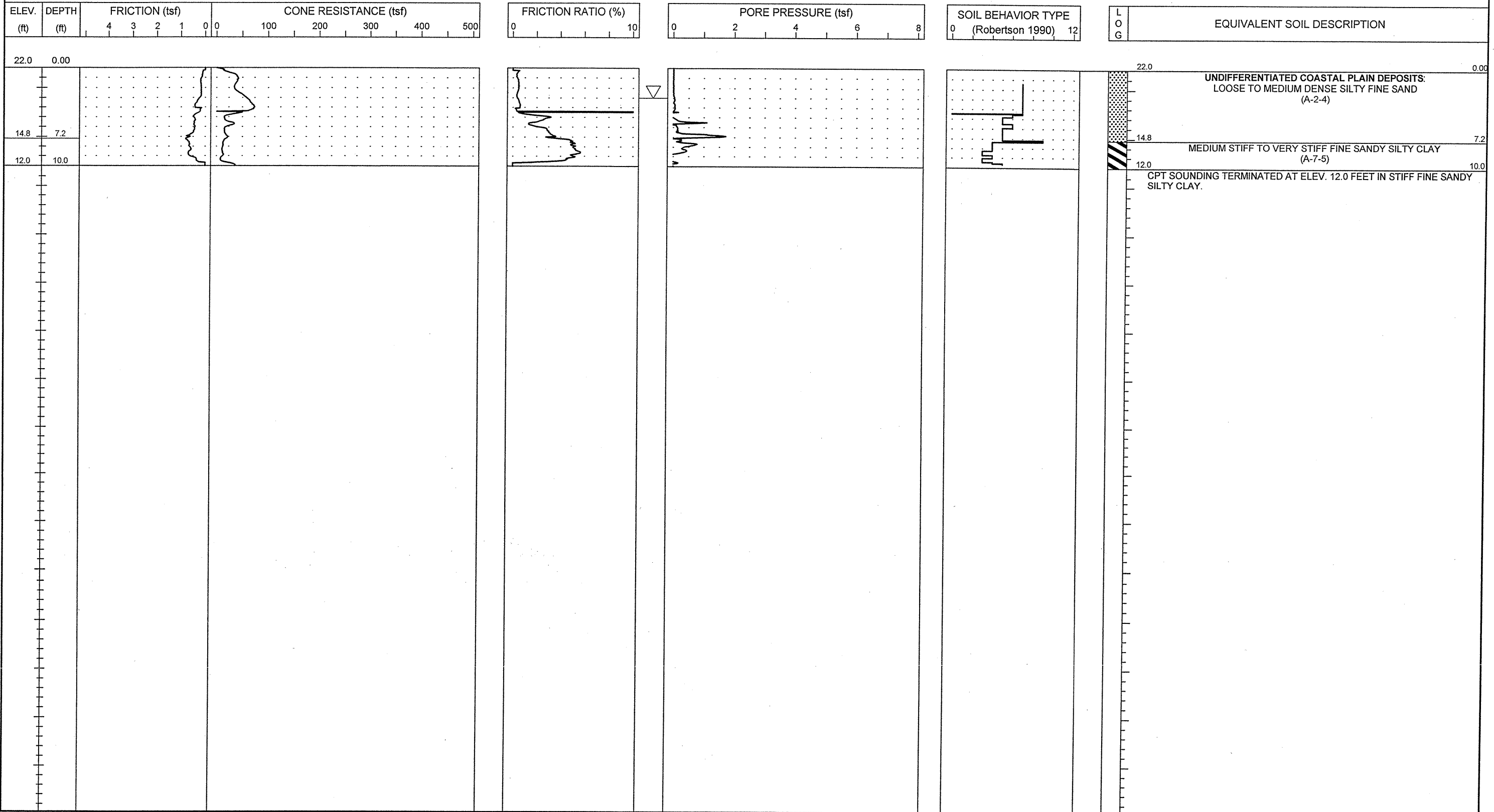
PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-261	BORING LOCATION 15+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_D3-	0 HR. 2.0	DATE STARTED 10/13/06	COMPLETED 10/13/06
COLLAR ELEV. 21.0 ft	NORTHING 191,745.2	EASTING 2,298,191.5	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M



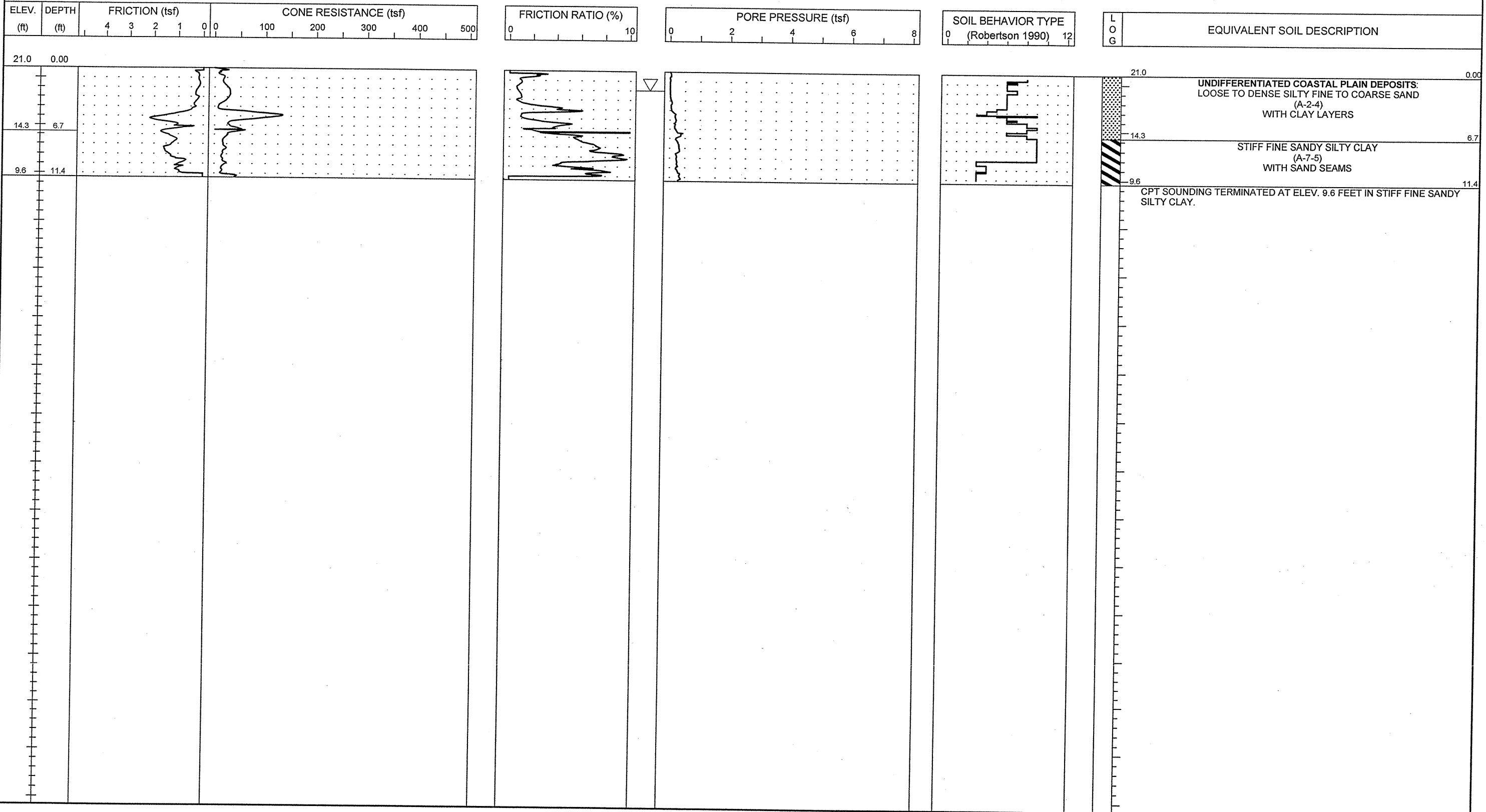
NCDOT CPT - ENGLISH NO. 60 51-411 SEC CPT.GPJ NCDOT.GDT 11/16/06



PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV
BORING NO. C-262	BORING LOCATION 17+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_D3-	0 HR. 3.0	DATE STARTED 10/13/06	COMPLETED 10/13/06
COLLAR ELEV. 22.0 ft	NORTHING 191,677.8	EASTING 2,298,003.2	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M

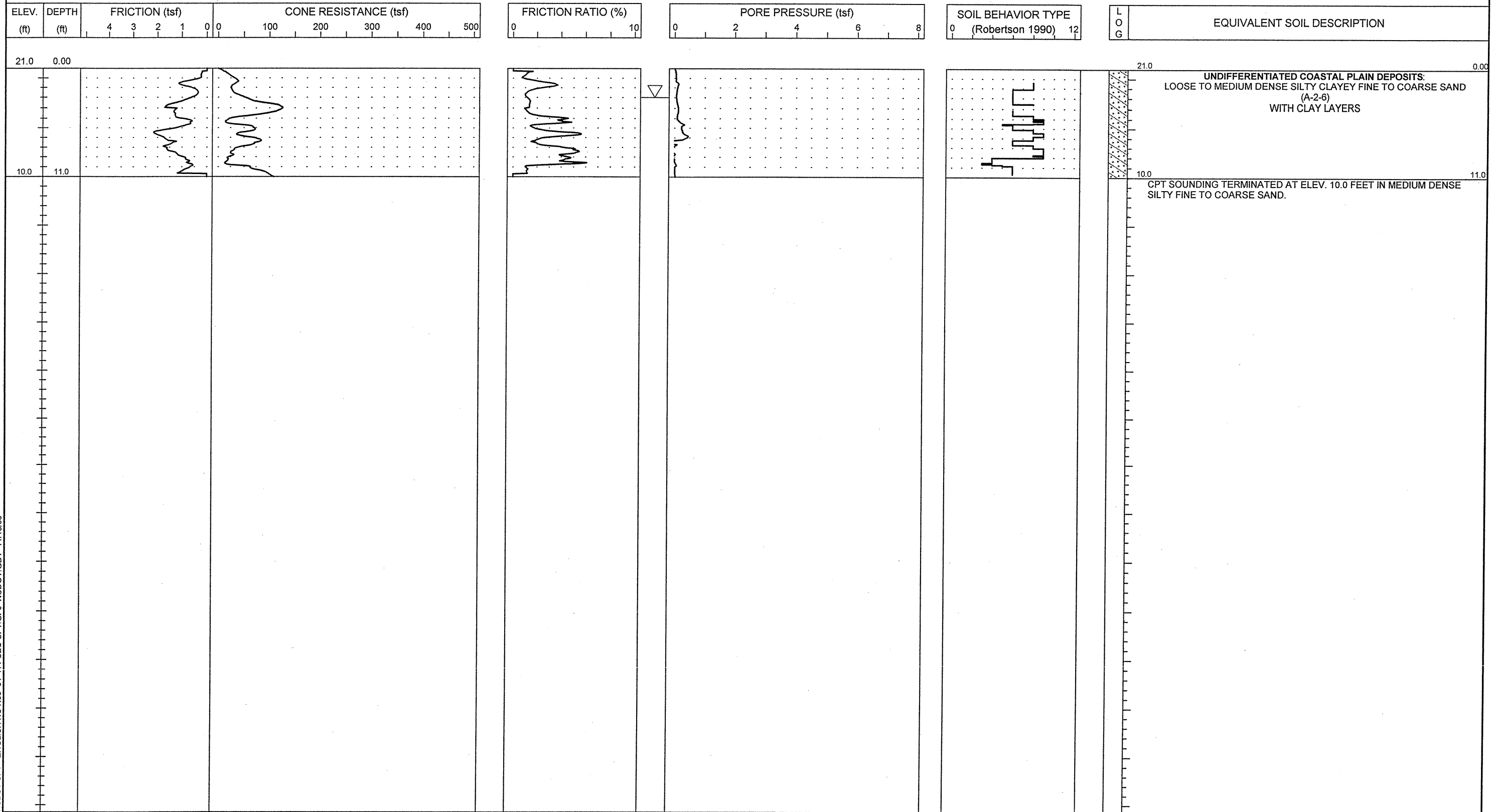


PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 11.4 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-263	BORING LOCATION 19+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_D3-	0 HR. 2.0	DATE STARTED 10/13/06	COMPLETED 10/13/06
COLLAR ELEV. 21.0 ft	NORTHING 191,604.2	EASTING 2,297,817.3	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M
				HAMMER TYPE N/A		





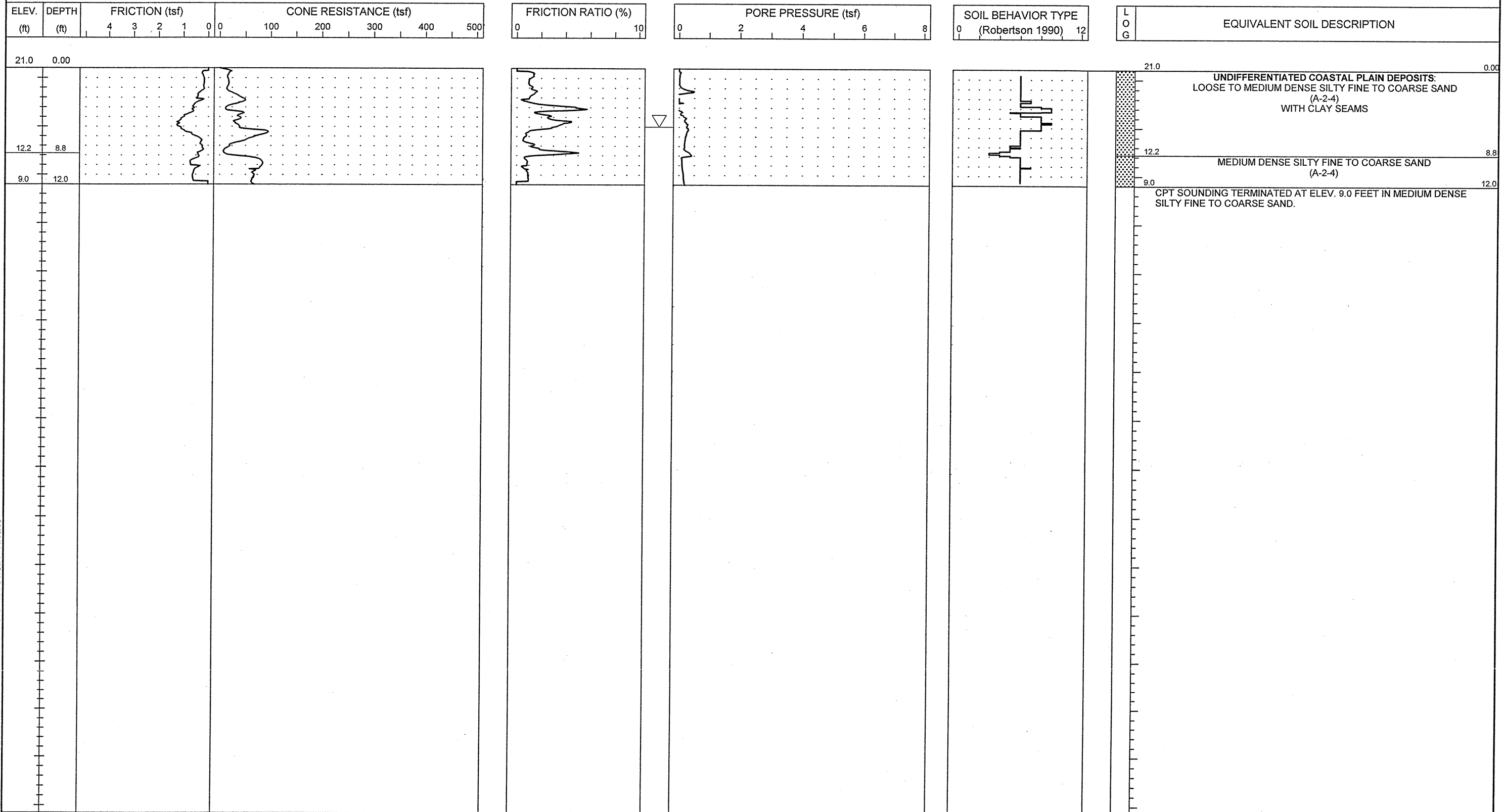
PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 11.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-264	BORING LOCATION 21+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_D3-	0 HR. 3.0	DATE STARTED 10/13/06	COMPLETED 10/13/06
COLLAR ELEV. 21.0 ft	NORTHING 191,530.5	EASTING 2,297,631.4	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M



NCDOT CPT - ENGLISH NO N60 51-411 SEC CPT.GPJ NCDOT.GDT 11/16/06

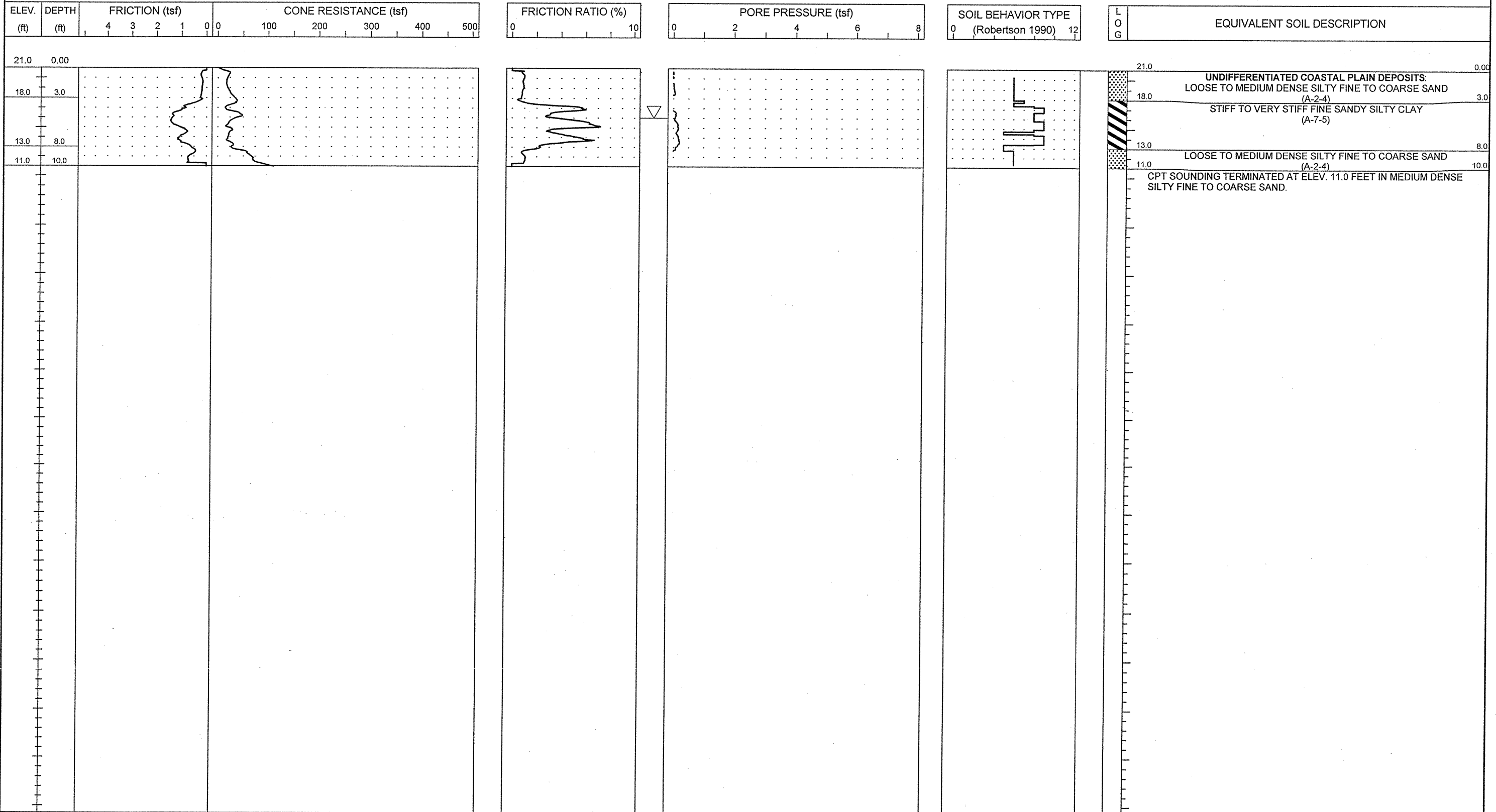


PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 12.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-265	BORING LOCATION 23+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_D3-	0 HR. 6.0	DATE STARTED 10/13/06	COMPLETED 10/13/06
COLLAR ELEV. 21.0 ft	NORTHING 191,456.8	EASTING 2,297,445.4	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M
HAMMER TYPE N/A						

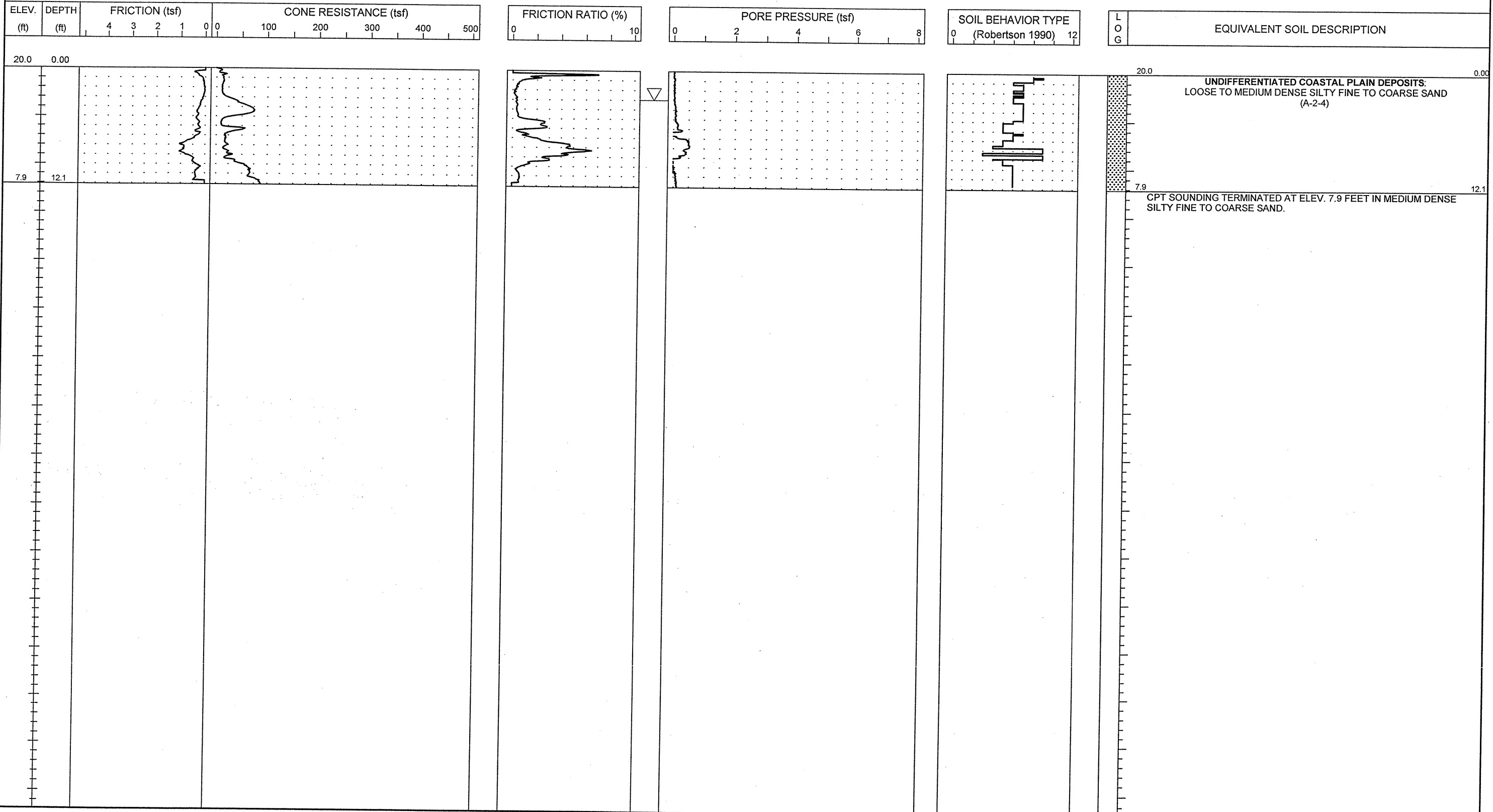




PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-266	BORING LOCATION 25+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_D3-	0 HR. 5.0	DATE STARTED 10/13/06	COMPLETED 10/13/06
COLLAR ELEV. 21.0 ft	NORTHING 191,383.1	EASTING 2,297,259.5	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M

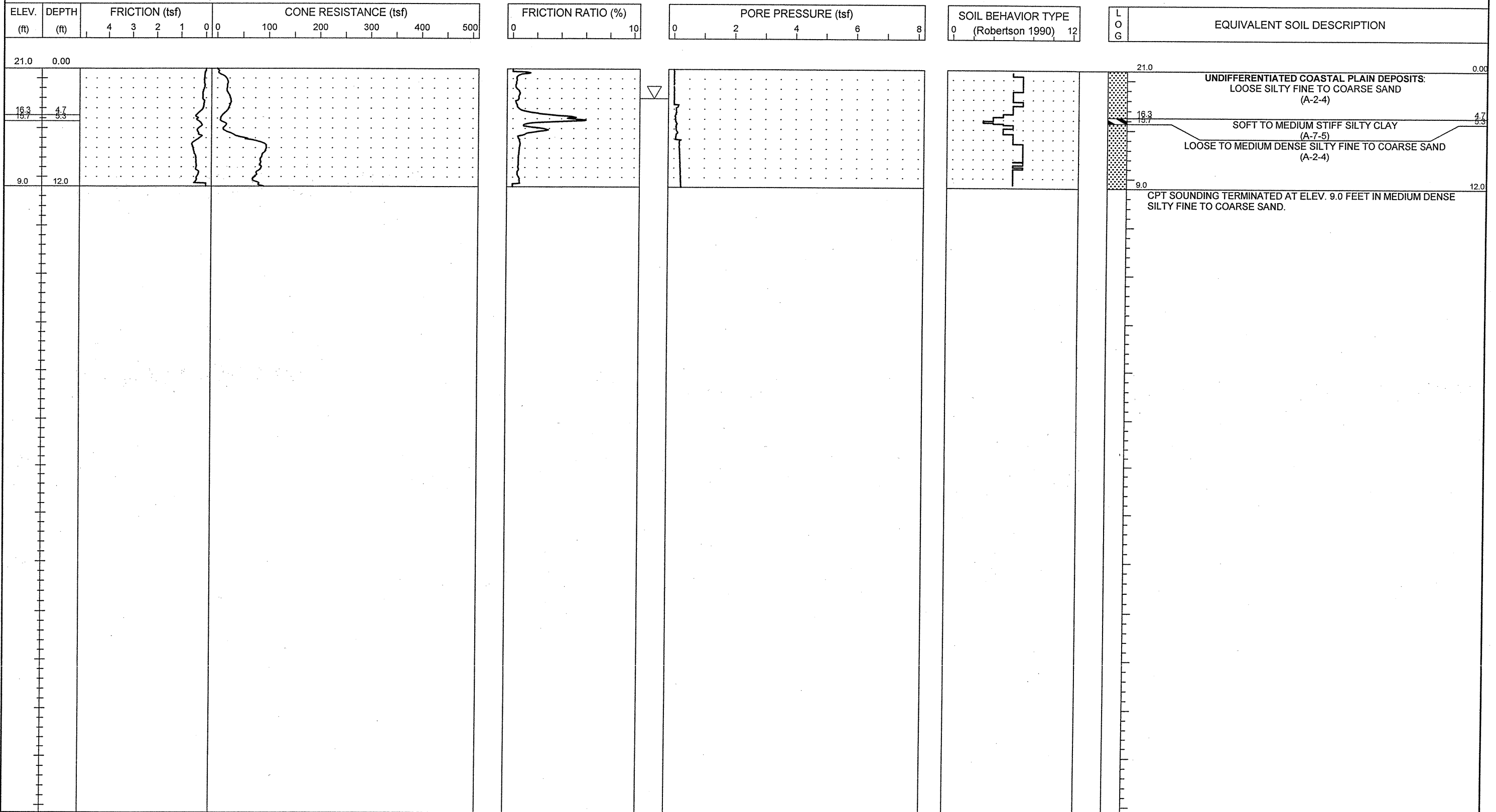


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 12.1 ft	DRILL MACHINE CPT-ATV
BORING NO. C-267	BORING LOCATION 15+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_A3-	0 HR. 3.0	DATE STARTED 9/29/06	COMPLETED 9/29/06
COLLAR ELEV. 20.0 ft	NORTHING 191,924.8	EASTING 2,298,160.1	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A
				HAMMER TYPE N/A		



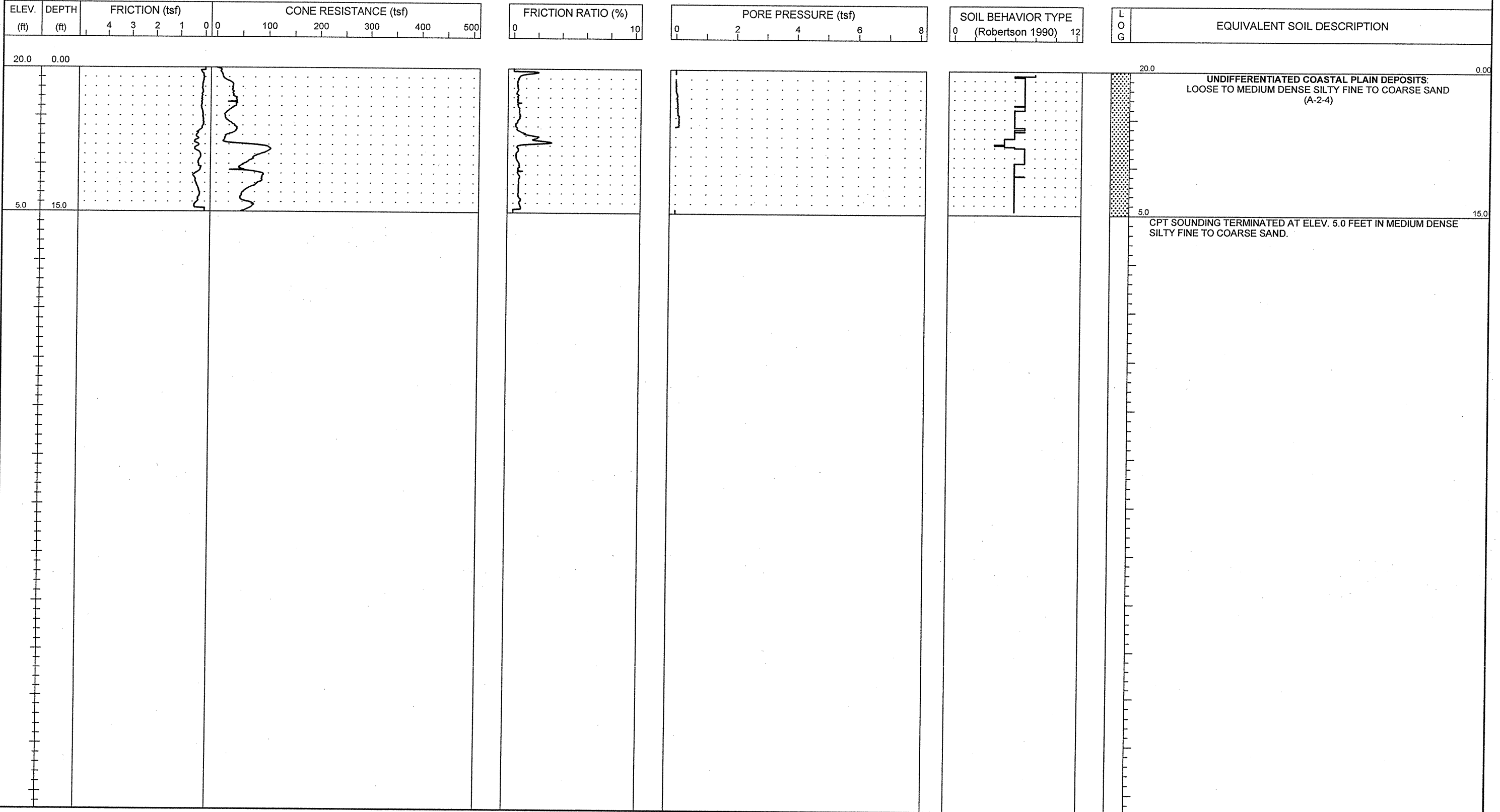


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 12.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-268	BORING LOCATION 17+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_A3-	0 HR. 3.0	DATE STARTED 9/29/06	COMPLETED 9/29/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 21.0 ft	NORTHING 191,971.9	EASTING 2,297,966.0		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



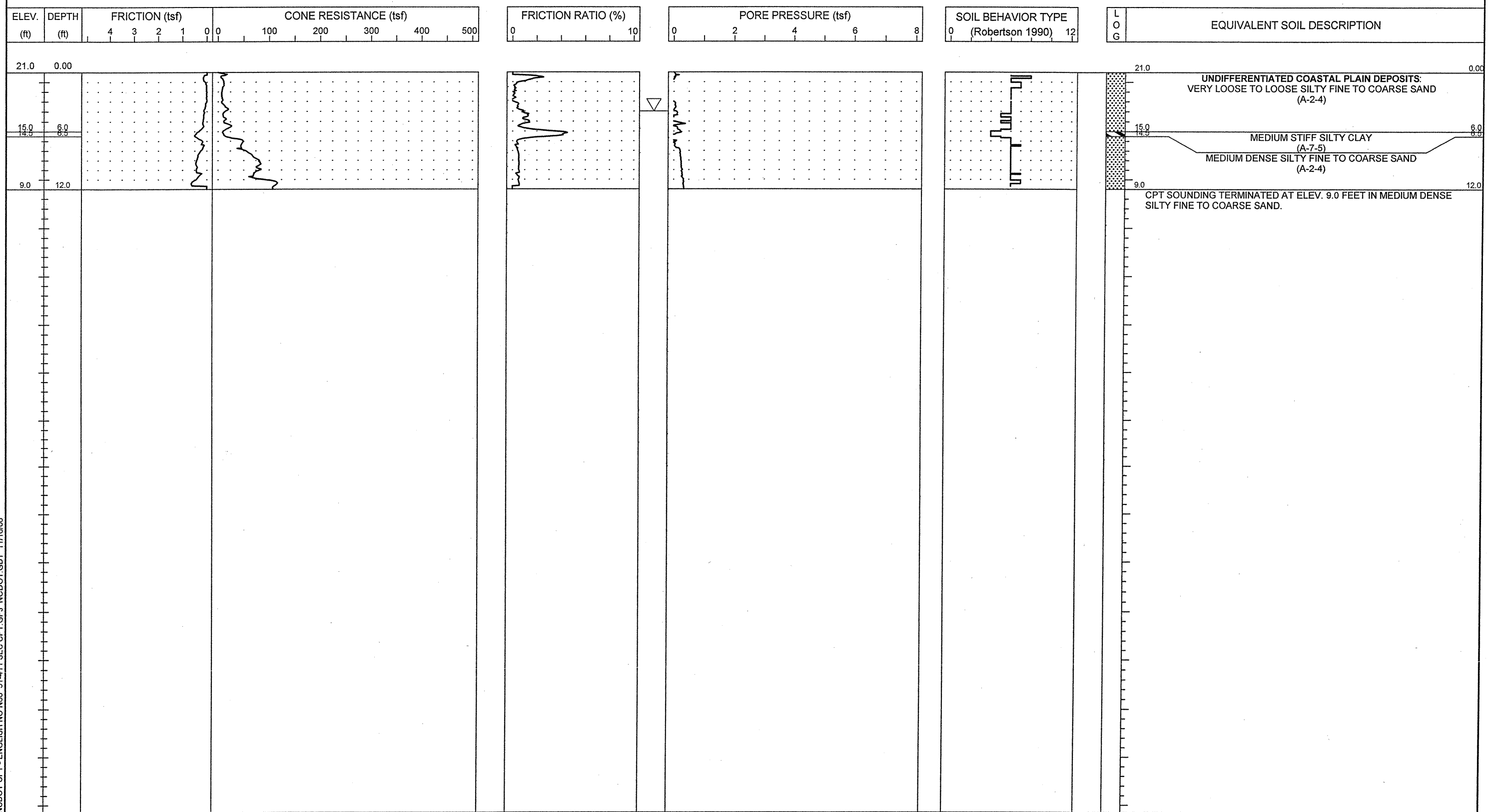


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 15.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-269	BORING LOCATION 19+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_A3-	0 HR. N/M	DATE STARTED 9/27/06	COMPLETED 9/27/06
COLLAR ELEV. 20.0 ft	NORTHING 192,051.9	EASTING 2,297,783.0	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



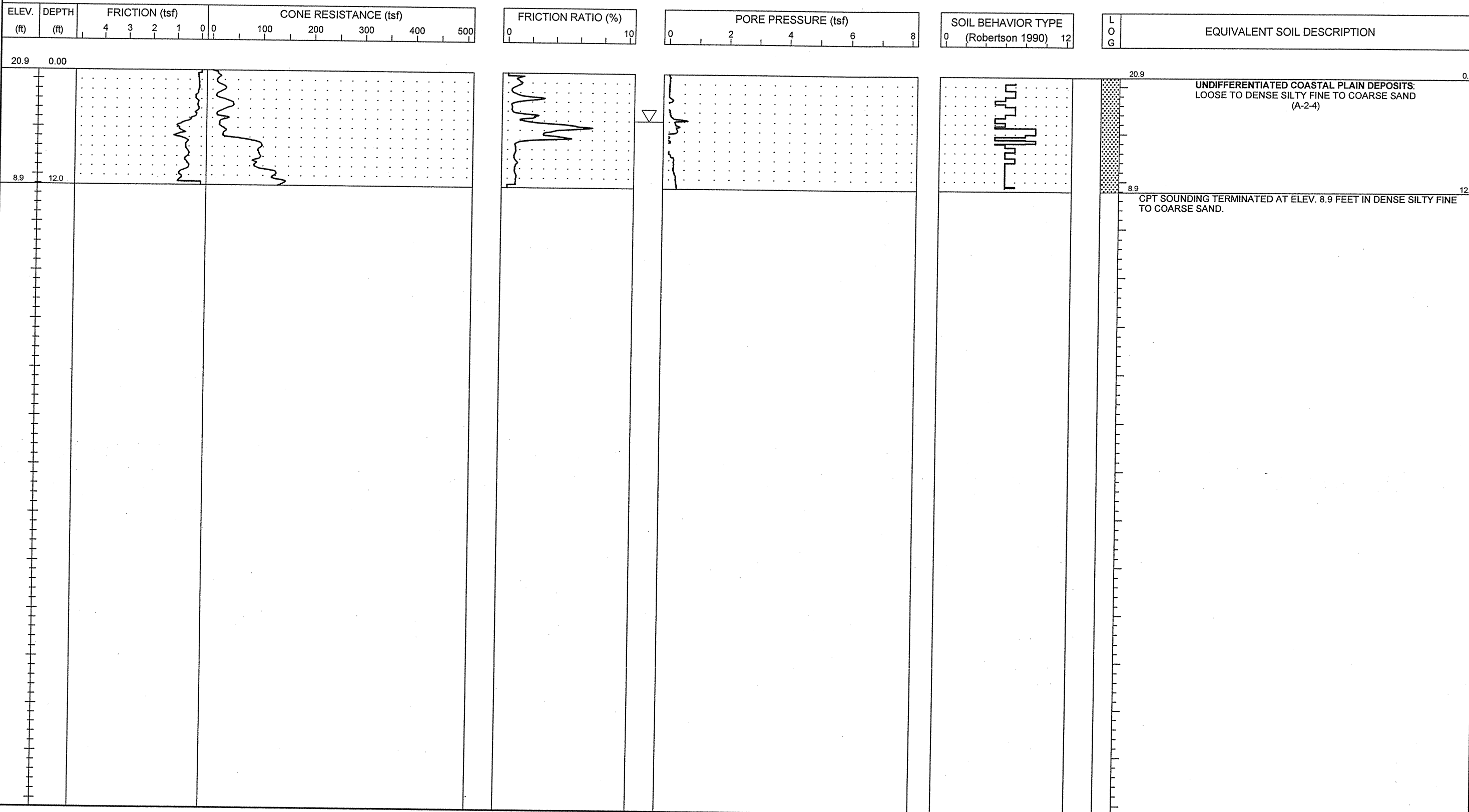


PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 12.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-270	BORING LOCATION 21+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_A3-	0 HR. 4.0	DATE STARTED 10/13/06	COMPLETED 10/13/06
COLLAR ELEV. 21.0 ft	NORTHING 192,162.4	EASTING 2,297,616.5	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M
HAMMER TYPE N/A						



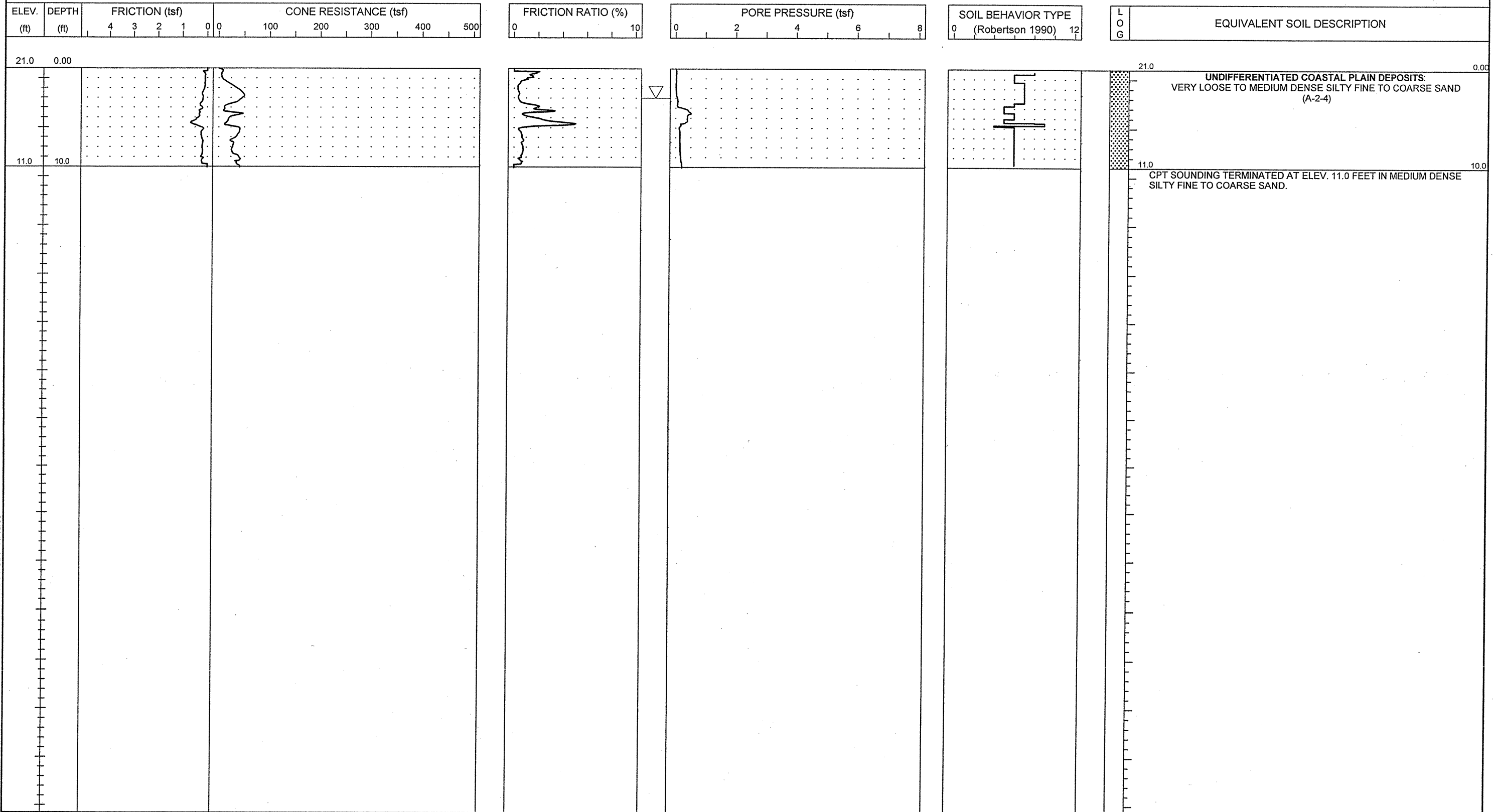


PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 12.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-271	BORING LOCATION 23+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_A3-	0 HR. 5.0	DATE STARTED 10/12/06	COMPLETED 10/12/06
COLLAR ELEV. 20.9 ft	NORTHING 192,289.7	EASTING 2,297,462.3	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M
				HAMMER TYPE N/A		





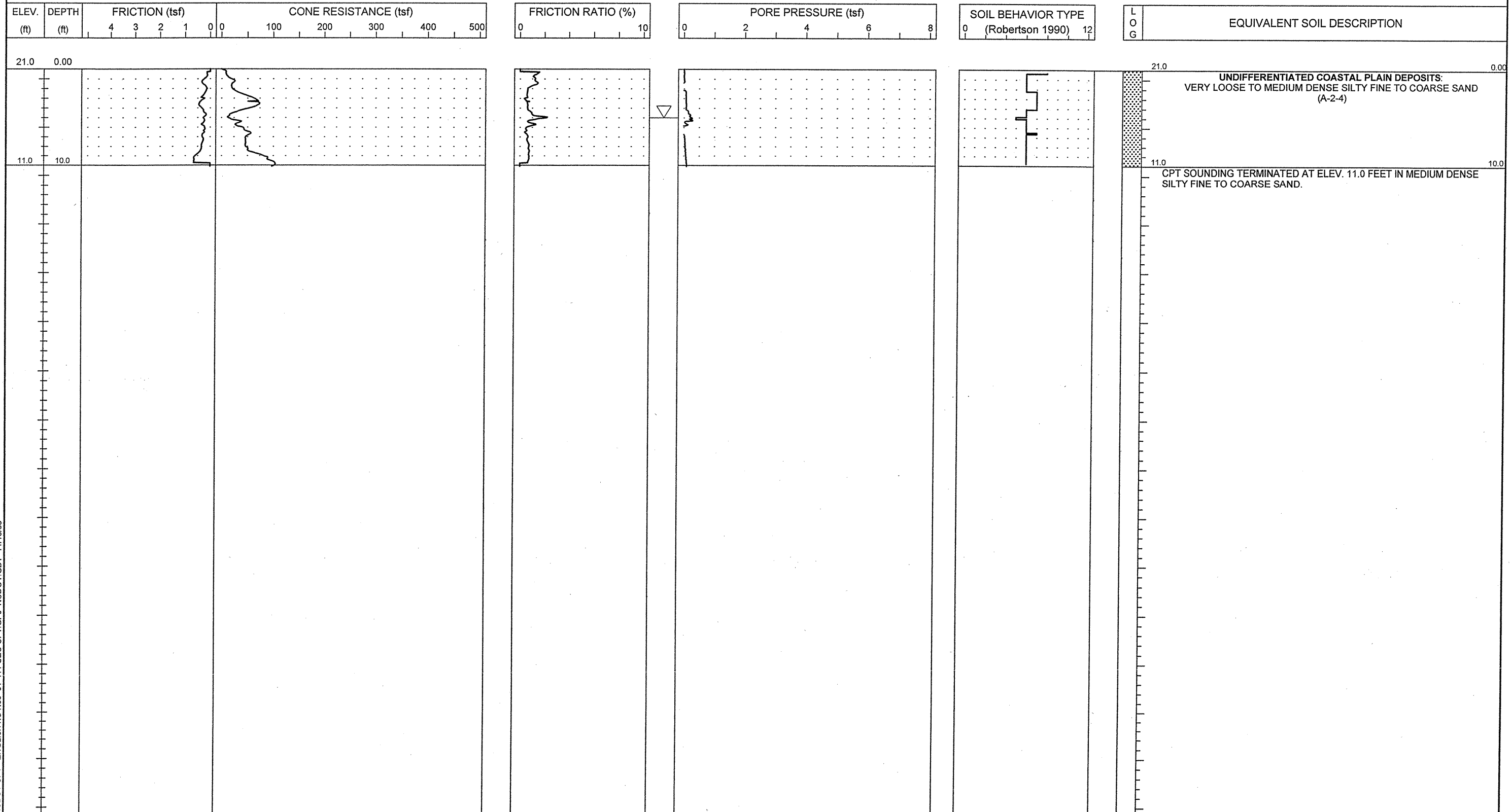
PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-273	BORING LOCATION 27+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_A3-	0 HR. 3.0	DATE STARTED 10/12/06	COMPLETED 10/12/06
COLLAR ELEV. 21.0 ft	NORTHING 192,425.4	EASTING 2,297,096.1	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M
HAMMER TYPE N/A						



NCDOT CPT - ENGLISH NO N60 51-411 SEC CPT.GPJ NCDOT.GDT 11/16/06

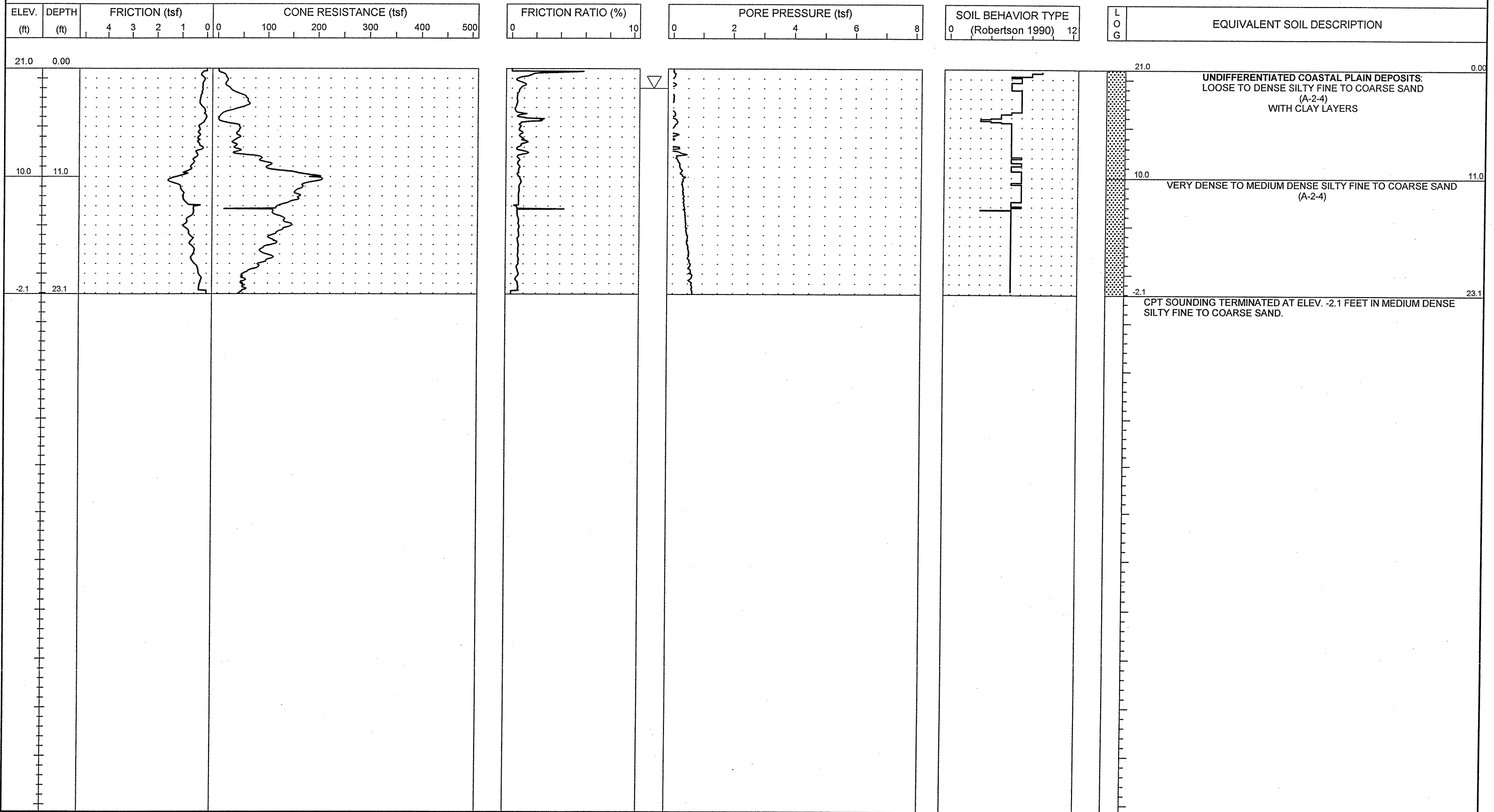


PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-274	BORING LOCATION 29+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_A3-	0 HR. 5.0	DATE STARTED 10/12/06	COMPLETED 10/12/06
COLLAR ELEV. 21.0 ft	NORTHING 192,384.8	EASTING 2,296,900.9	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A





PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 23.1 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-276	BORING LOCATION 13+00	OFFSET 0.0 ft CL	ALIGNMENT -LP_A3-	0 HR. 2.0	DATE STARTED 10/16/06	COMPLETED 10/16/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 21.0 ft	NORTHING 191,954.8	EASTING 2,297,263.5		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		

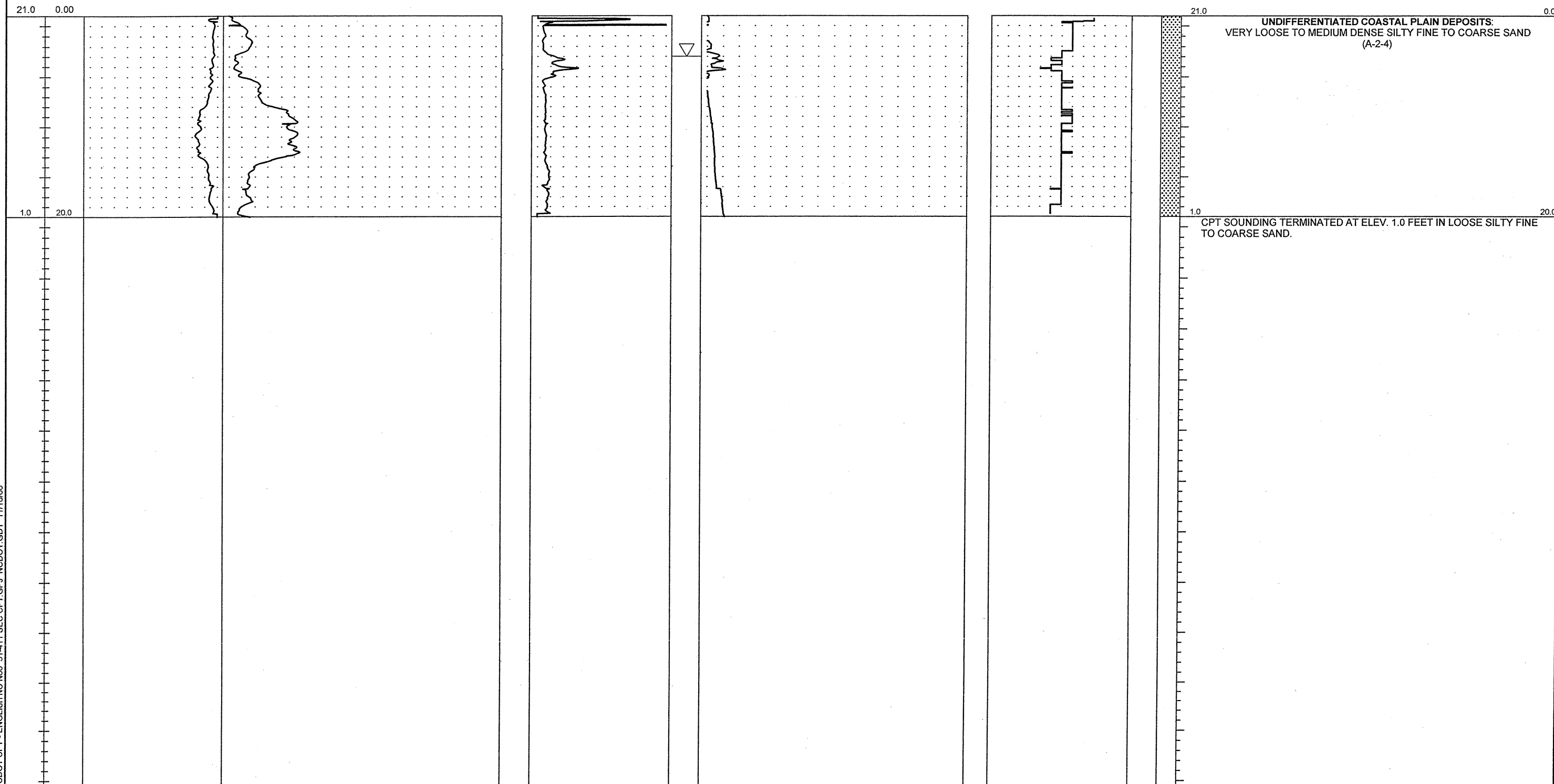


NCDOT CPT - ENGLISH NO N60 51-411 THRID CPT.GPJ NCDOT.GDT 11/16/06



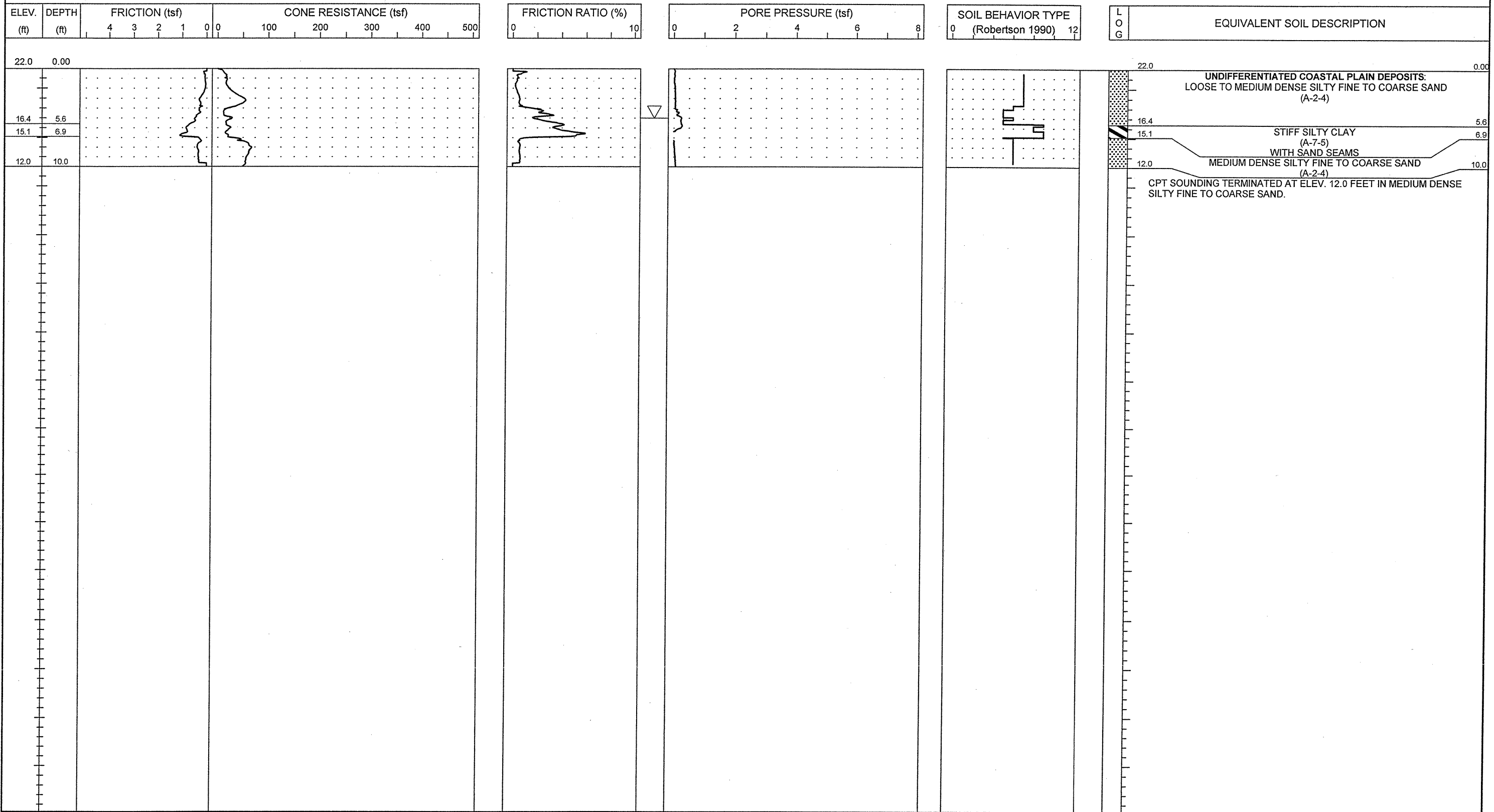
PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 20.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-277	BORING LOCATION 15+00	OFFSET 0.0 ft CL	ALIGNMENT -LP_A3-	0 HR. 4.0	DATE STARTED 10/12/06	COMPLETED 10/12/06
COLLAR ELEV. 21.0 ft	NORTHING 192,134.7	EASTING 2,297,338.8	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M

ELEV. (ft)	DEPTH (ft)	FRICION (tsf)	CONE RESISTANCE (tsf)	FRICION RATIO (%)	PORE PRESSURE (tsf)	SOIL BEHAVIOR TYPE (Robertson 1990)	LOG	EQUIVALENT SOIL DESCRIPTION
		4 3 2 1 0 0	100 200 300 400 500	0 10	0 2 4 6 8	0 12		





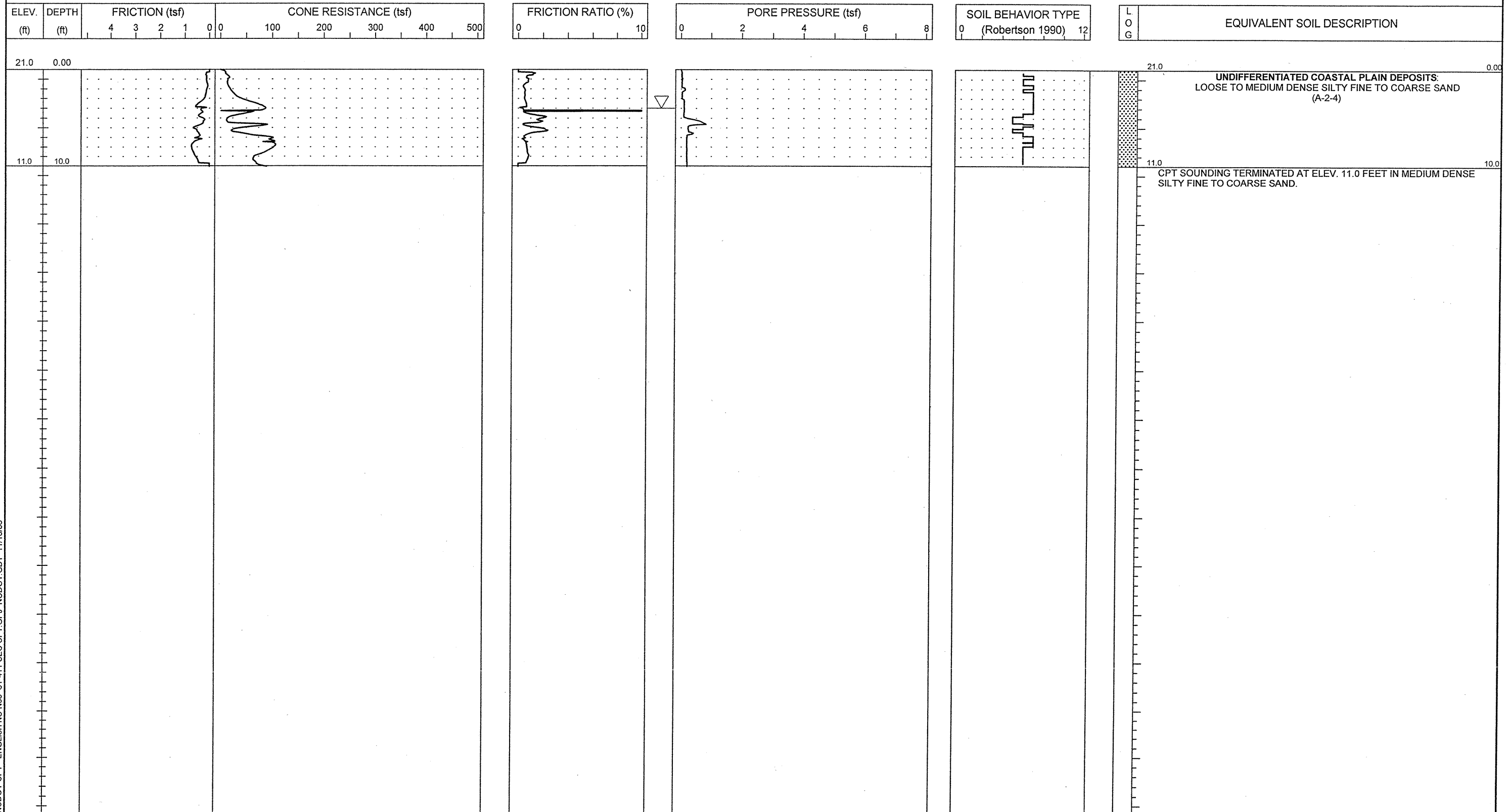
PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV
BORING NO. C-278	BORING LOCATION 17+00	OFFSET 0.0 ft CL	ALIGNMENT -LP_A3-	0 HR. 5.0	DATE STARTED 10/12/06	COMPLETED 10/12/06
COLLAR ELEV. 22.0 ft	NORTHING 192,316.4	EASTING 2,297,267.8	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M



NCDOT CPT - ENGLISH NO N60 51-411 SEC CPT.GPJ NCDOT.GDT 11/16/06

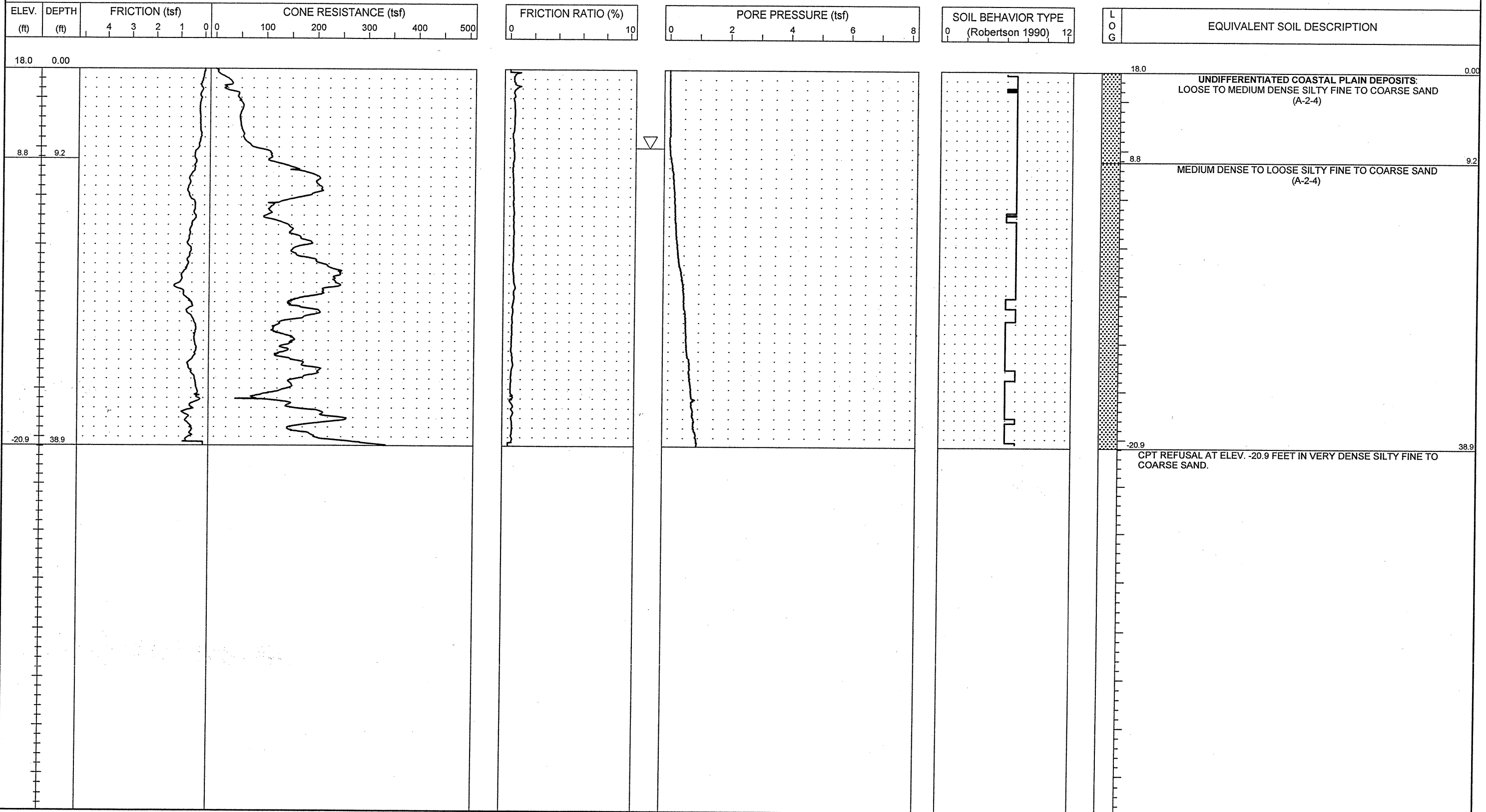


PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV
BORING NO. C-279	BORING LOCATION 22+00	OFFSET 0.0 ft CL	ALIGNMENT -LP_A3-	0 HR. 4.0	DATE STARTED 10/12/06	COMPLETED 10/12/06
COLLAR ELEV. 21.0 ft	NORTHING 192,334.7	EASTING 2,296,798.3	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M
HAMMER TYPE N/A						



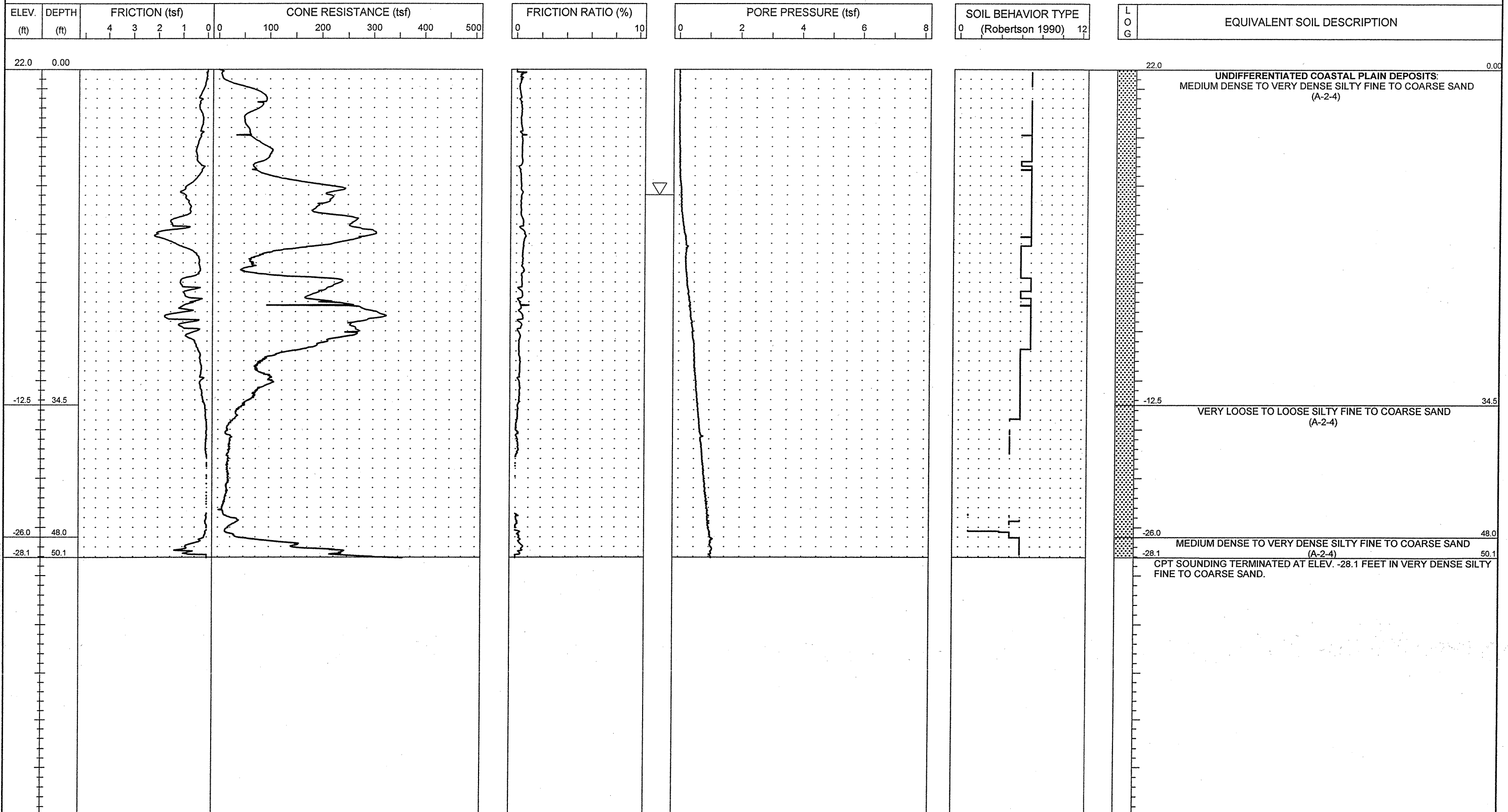


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 38.9 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-280	BORING LOCATION 11+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_C4-	0 HR. 8.0	DATE STARTED 9/27/06	COMPLETED 9/27/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 18.0 ft	NORTHING 196,509.8	EASTING 2,310,596.1		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		





PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 50.1 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-283	BORING LOCATION 17+50	OFFSET 0.0 ft CL	ALIGNMENT -RP_C4-	0 HR. 13.0	DATE STARTED 9/28/06	COMPLETED 9/28/06
COLLAR ELEV. 22.0 ft	NORTHING 197,004.1	EASTING 2,311,018.3	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A

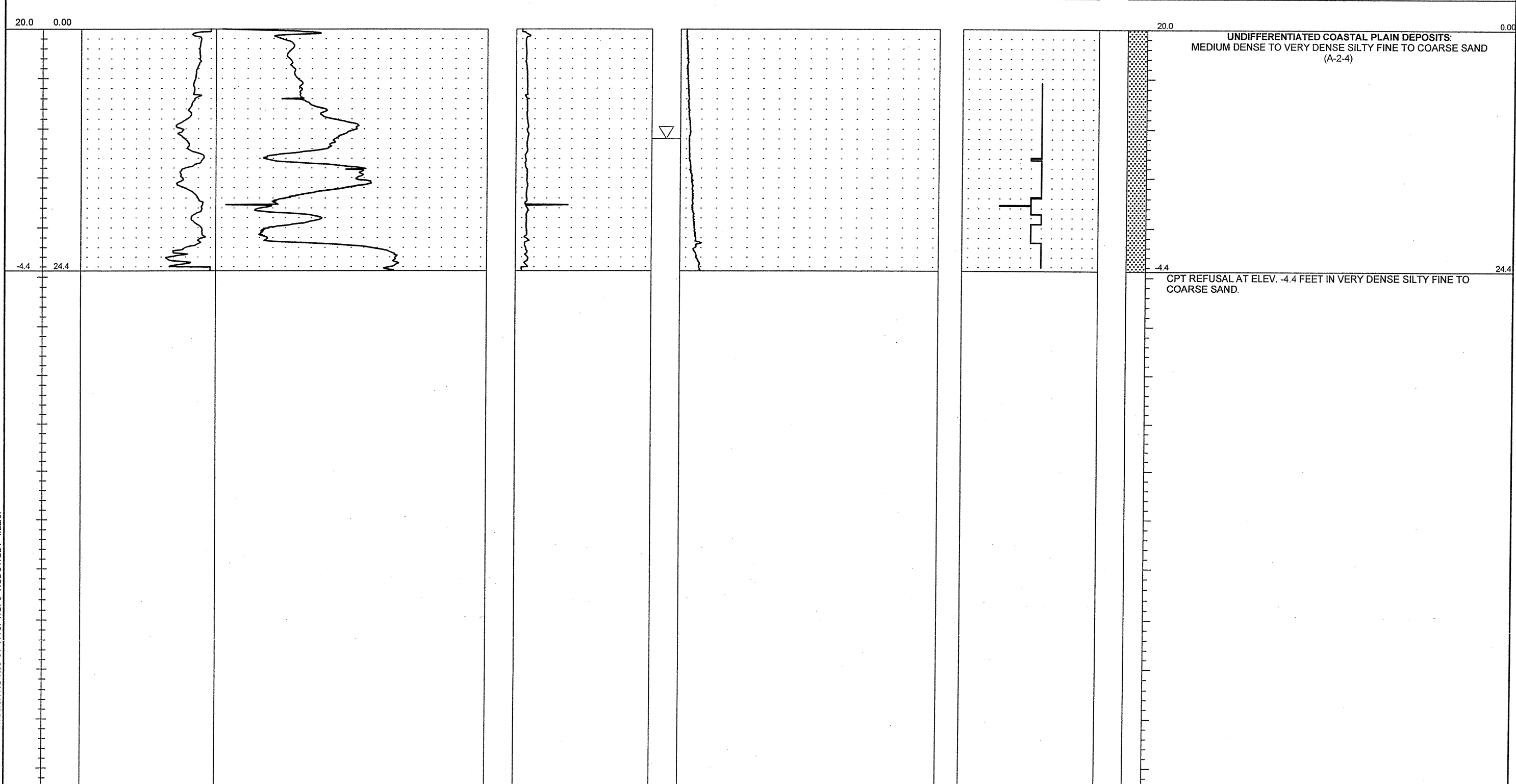


NCDOT CPT - ENGLISH NO N60 51-411CPT.GPJ NCDOT.GDT 11/16/06



PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 24.4 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-284	BORING LOCATION 19+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_C4-	0 HR. 11.0	DATE STARTED 9/28/06	COMPLETED 9/28/06
COLLAR ELEV. 20.0 ft	NORTHING 197,117.9	EASTING 2,311,116.0	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A

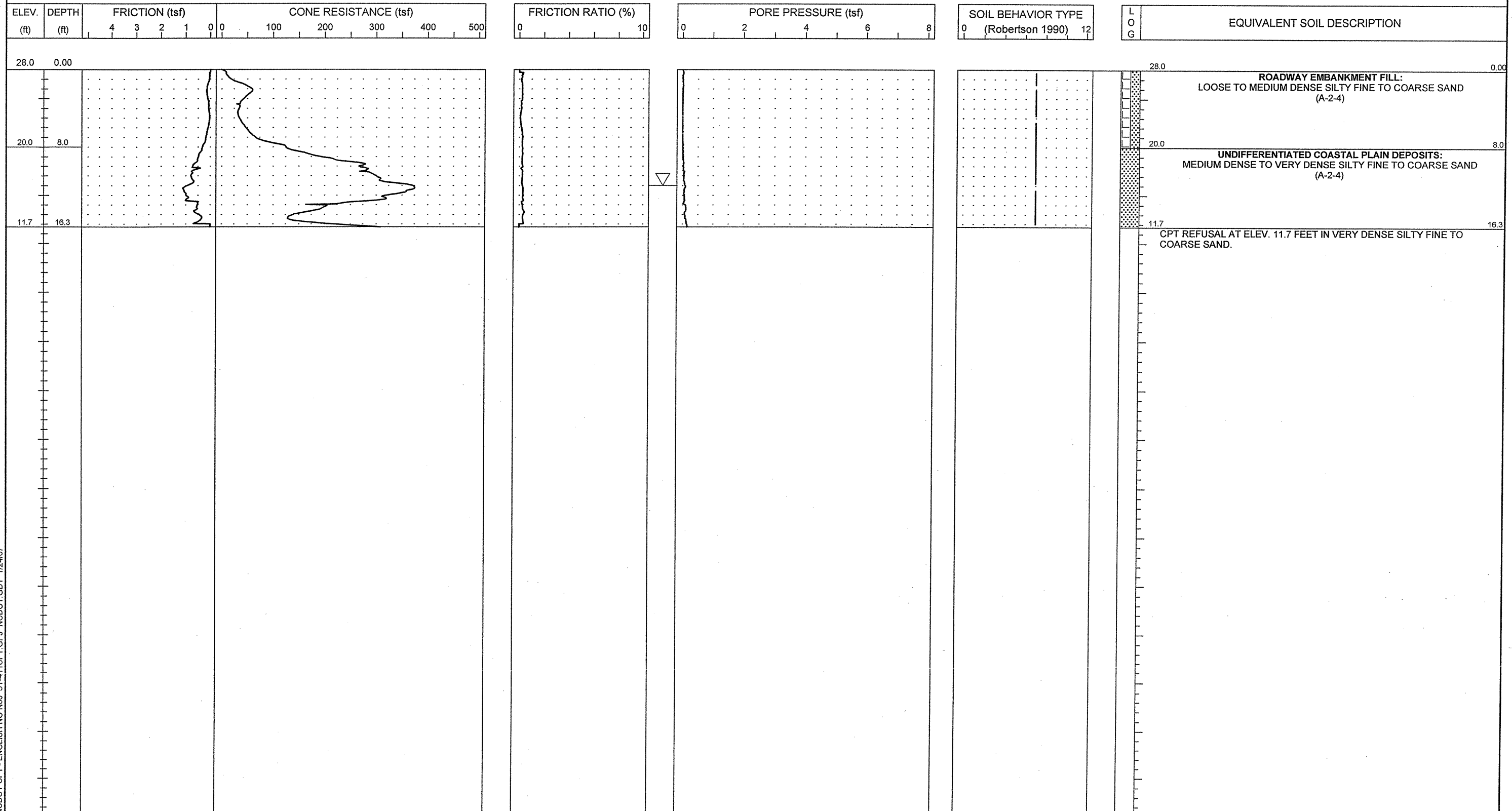
ELEV. (ft)	DEPTH (ft)	FRICITION (tsf)	CONE RESISTANCE (tsf)	FRICITION RATIO (%)	PORE PRESSURE (tsf)	SOIL BEHAVIOR TYPE (Robertson 1990)	LOG	EQUIVALENT SOIL DESCRIPTION
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NCDOT CPT - ENGLISH NO N60 51-411CPT.GPJ NCDOT.GDT 1/22/07

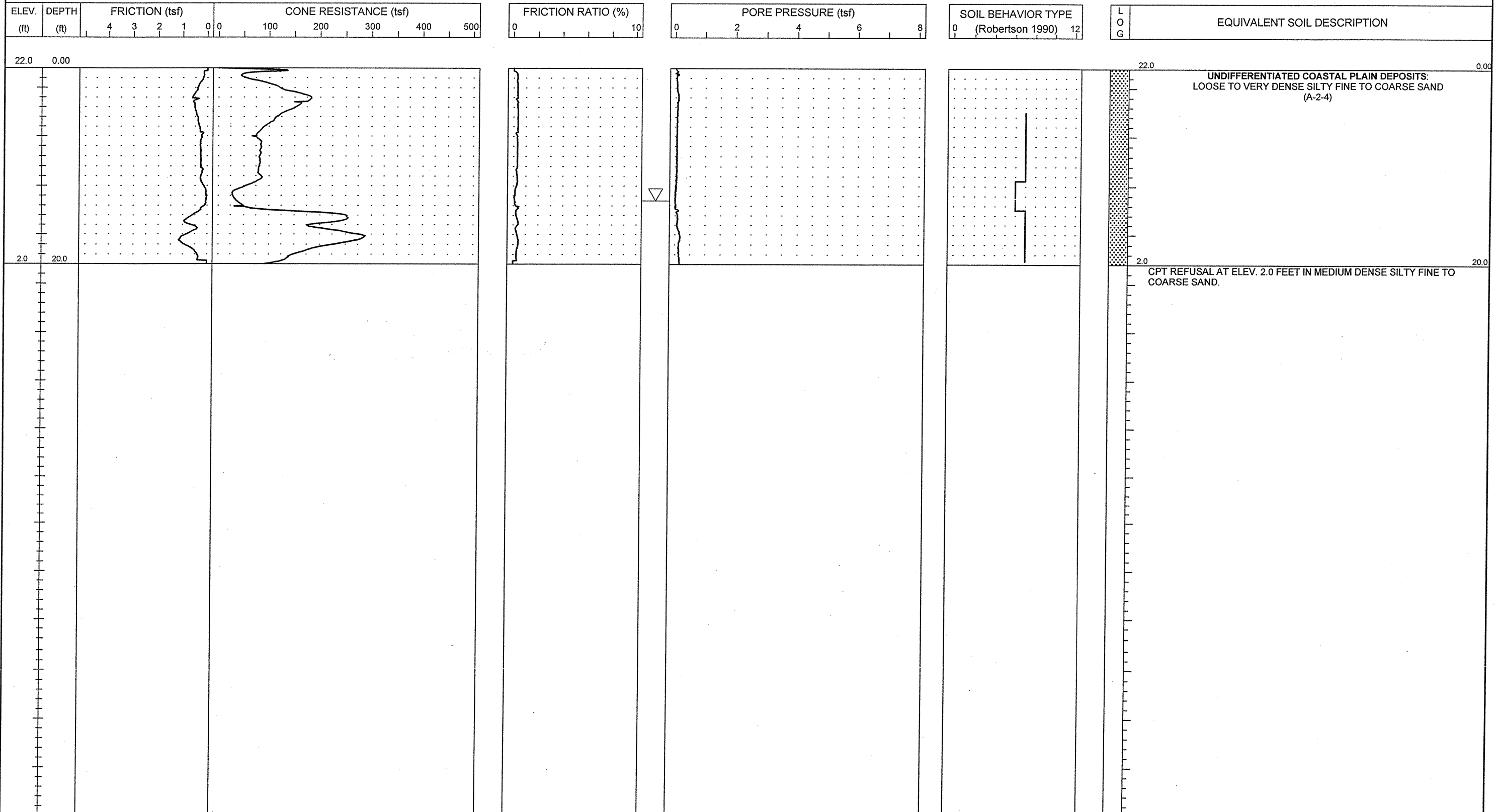


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 16.3 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-285	BORING LOCATION 21+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_C4-	0 HR. 12.0	DATE STARTED 9/28/06	COMPLETED 9/28/06
COLLAR ELEV. 28.0 ft	NORTHING 197,264.3	EASTING 2,311,252.2	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/A





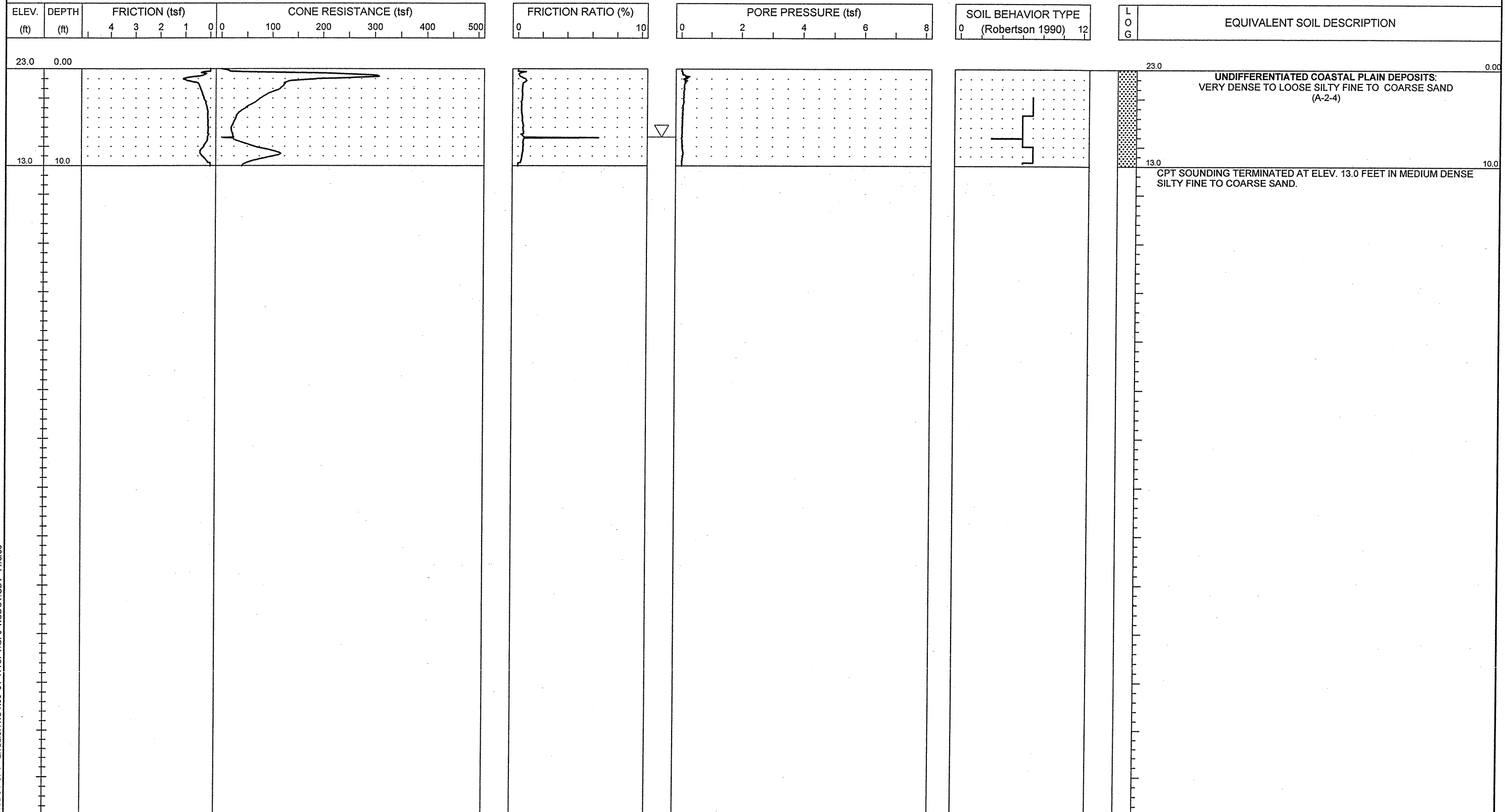
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 20.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-286	BORING LOCATION 23+18	OFFSET 1.0 ft LT	ALIGNMENT -RP_C4-	0 HR. 13.5	DATE STARTED 9/28/06	COMPLETED 9/28/06
COLLAR ELEV. 22.0 ft	NORTHING 197,409.7	EASTING 2,311,414.7	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO N60 51-411CPT.GPJ NCDOT.GDT 11/8/06

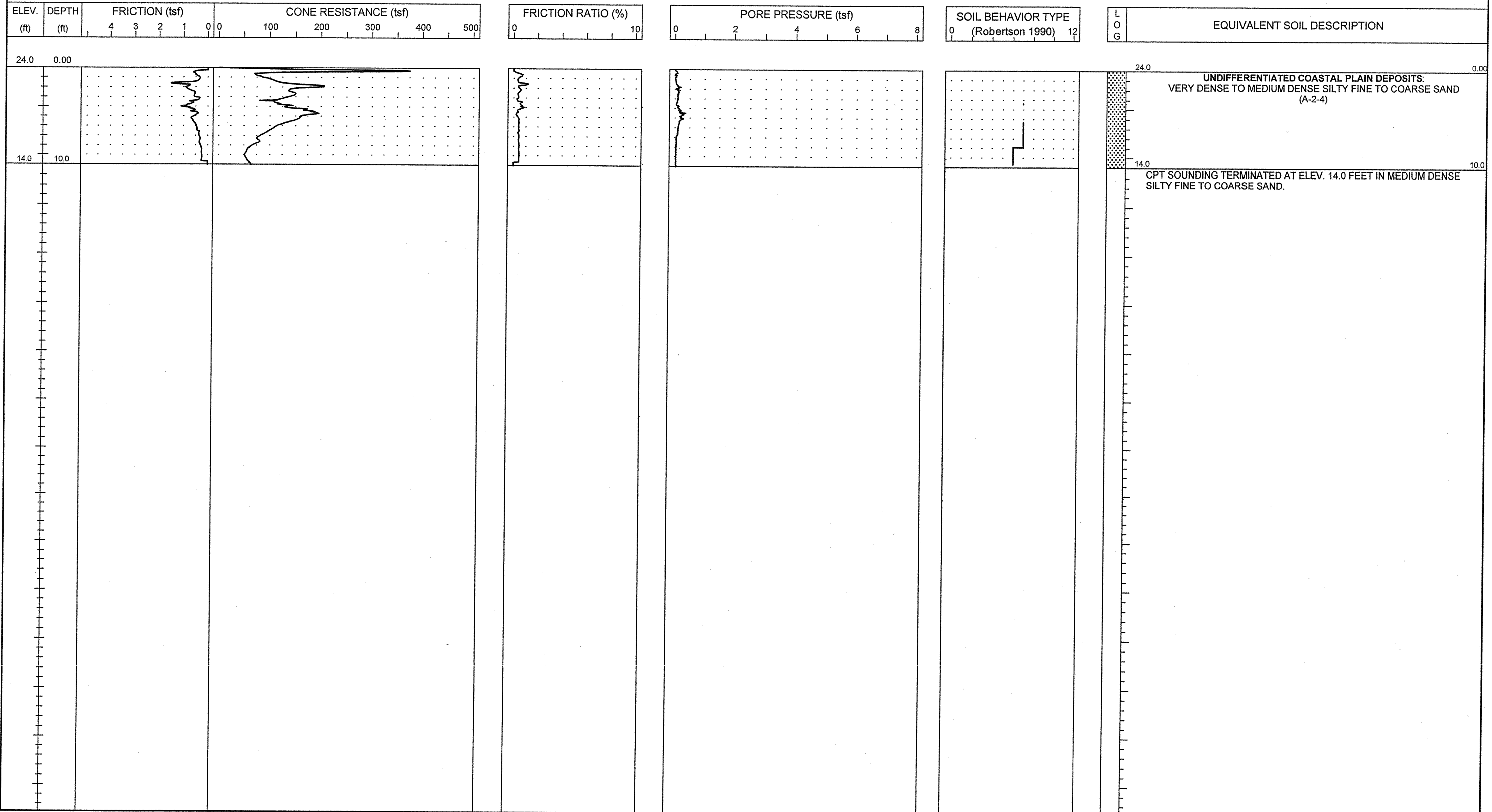


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-287	BORING LOCATION 25+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_C4-	0 HR. 7.0	DATE STARTED 9/28/06	COMPLETED 9/28/06
COLLAR ELEV. 23.0 ft	NORTHING 197,521.1	EASTING 2,311,558.3	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



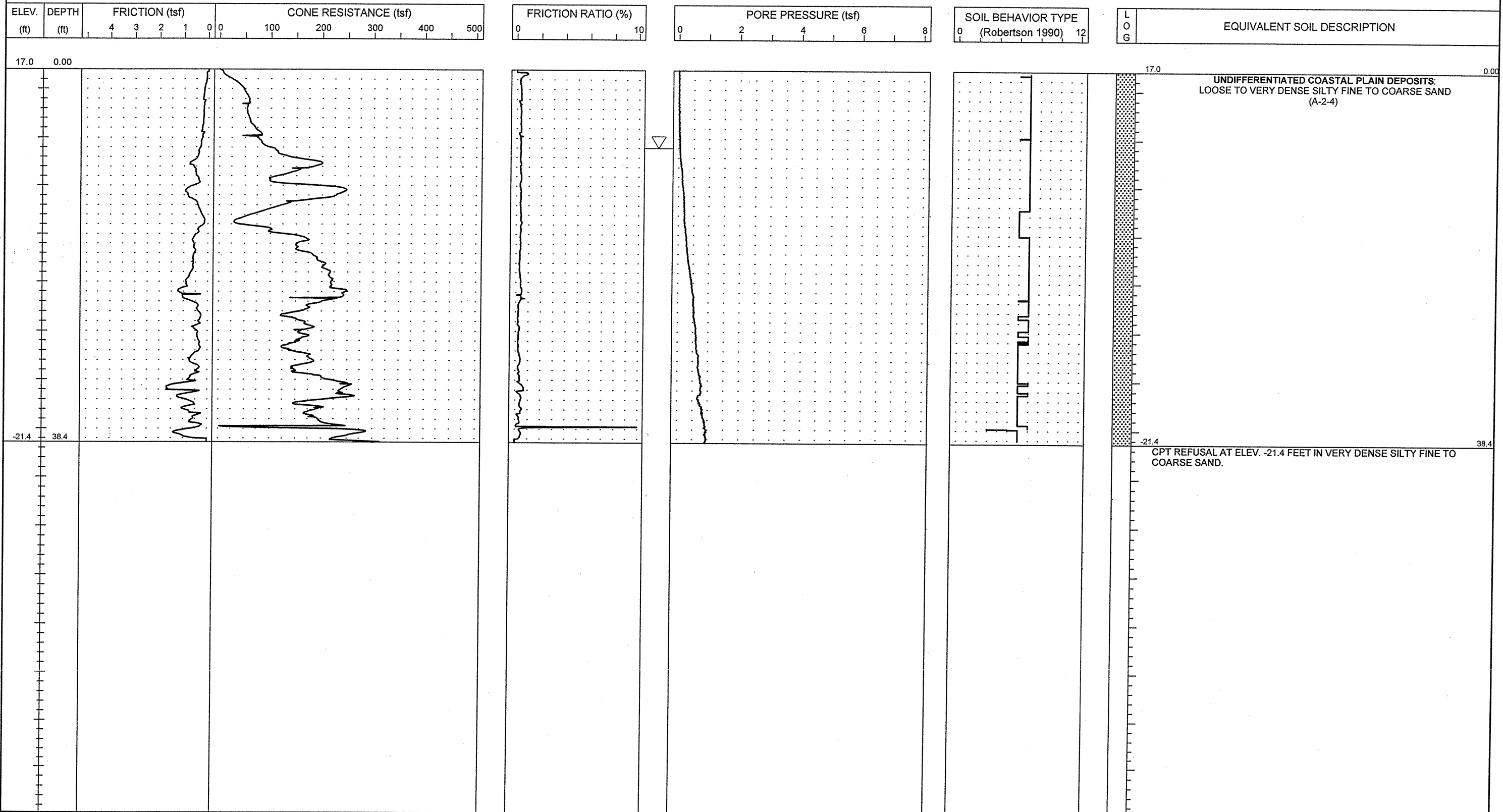


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-288	BORING LOCATION 26+38	OFFSET 2.0 ft LT	ALIGNMENT -RP_C4-	0 HR. N/M	DATE STARTED 9/28/06	COMPLETED 9/28/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 24.0 ft	NORTHING 197,600.0	EASTING 2,311,672.0		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		





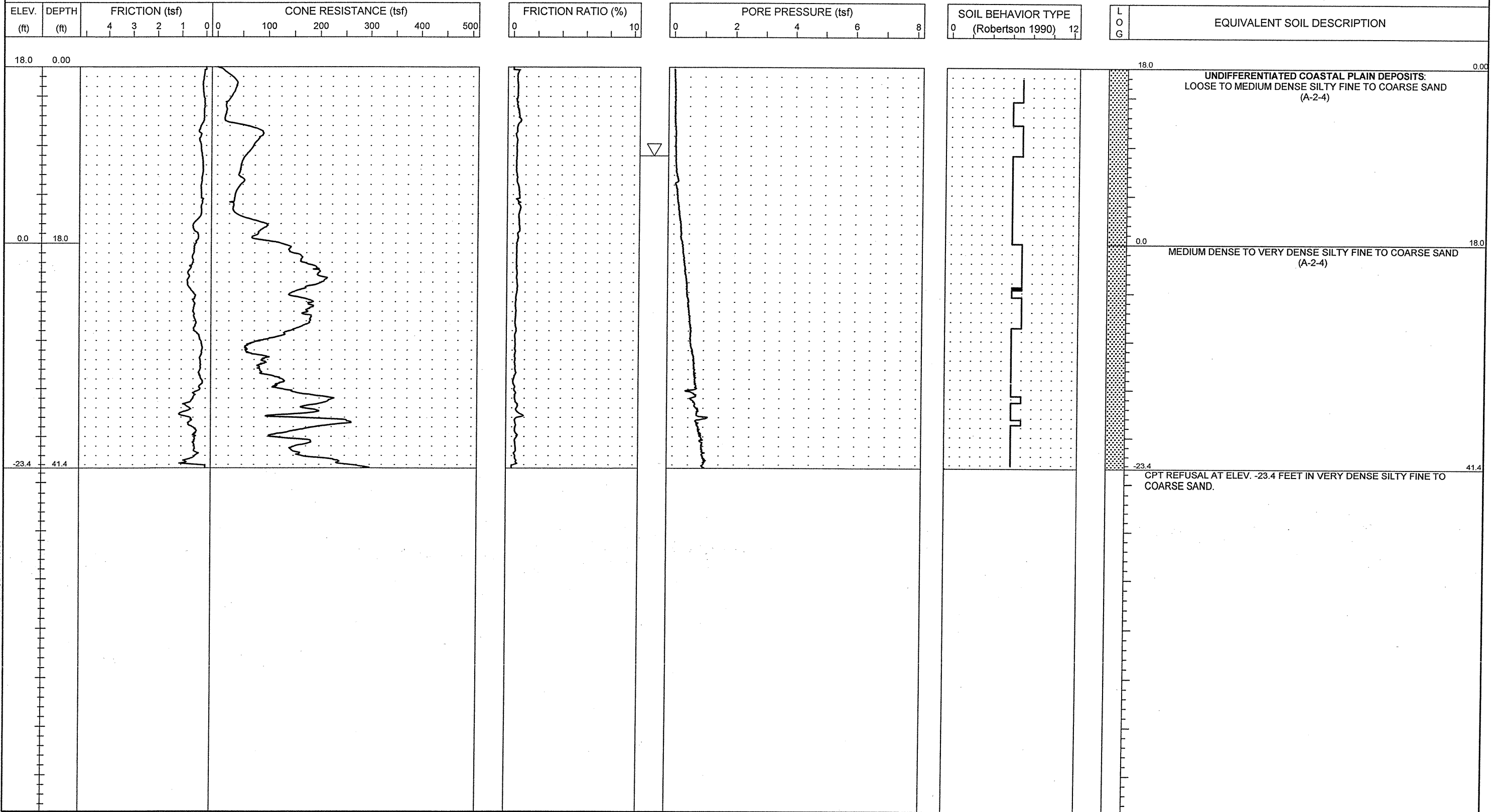
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 38.4 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-290	BORING LOCATION 14+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_B4-	0 HR. 8.0	DATE STARTED 9/27/06	COMPLETED 9/27/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 17.0 ft	NORTHING 196,618.5	EASTING 2,310,522.2		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



NCDOT CPT - ENGLISH NO. 660.51-411 CPT.GPJ NCDOT.GDT 11/8/06

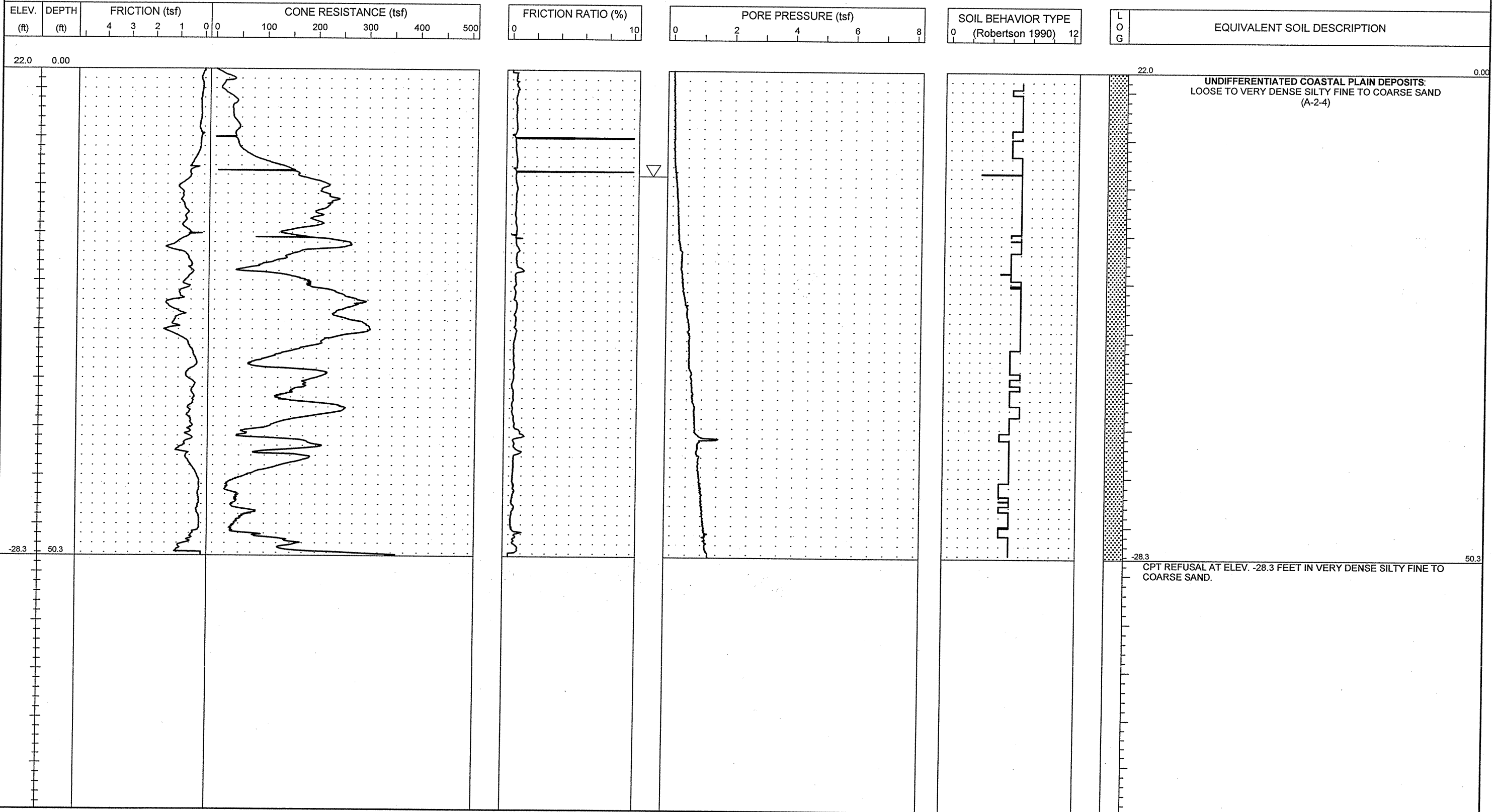


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 41.4 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-291	BORING LOCATION 16+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_B4-	0 HR. 9.0	DATE STARTED 9/27/06	COMPLETED 9/27/06
COLLAR ELEV. 18.0 ft	NORTHING 196,799.7	EASTING 2,310,606.7	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



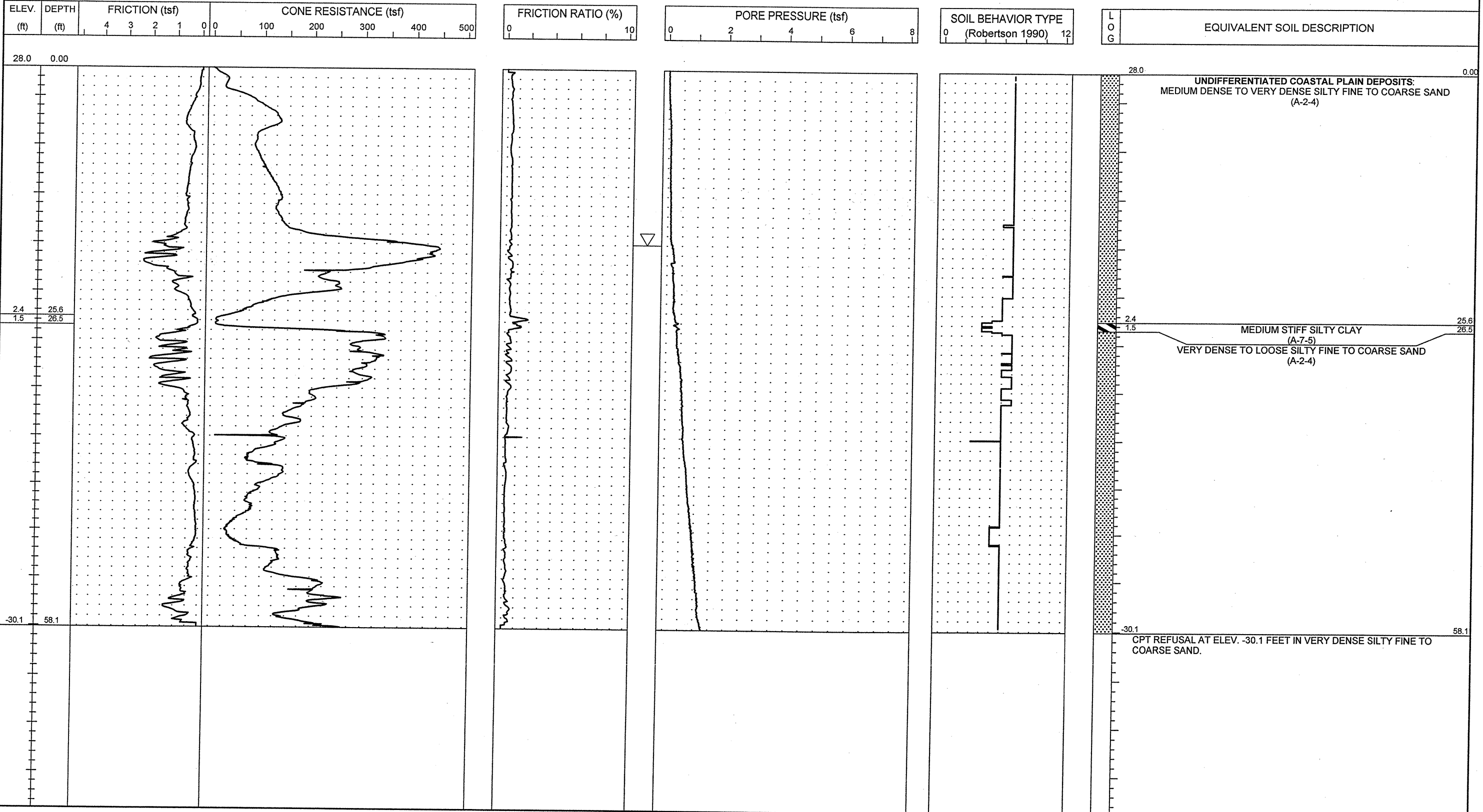


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 50.3 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-292	BORING LOCATION 18+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_B4-	0 HR. 11.0	DATE STARTED 9/27/06	COMPLETED 9/27/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 22.0 ft	NORTHING 196,988.7	EASTING 2,310,671.8		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



NCDOT CPT - ENGLISH INC. N60 51-411CPT.GPJ NCDOT.GDT 11/8/08

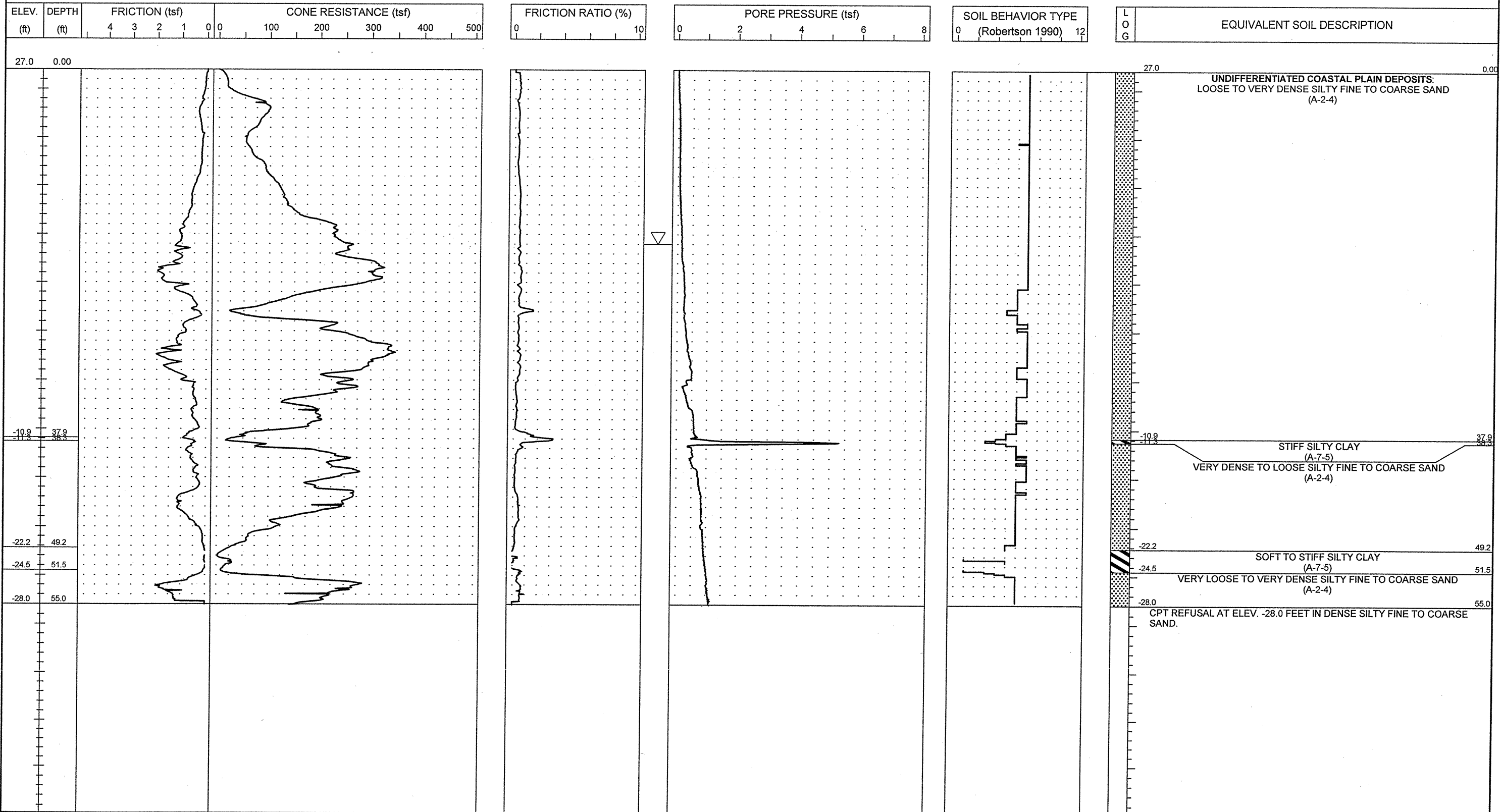
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 58.1 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-293	BORING LOCATION 20+50	OFFSET 0.0 ft CL	ALIGNMENT -RP_B4-	0 HR. 18.0	DATE STARTED 9/27/06	COMPLETED 9/27/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 28.0 ft	NORTHING 197,231.5	EASTING 2,310,731.1		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



NCDOT CPT - ENGLISH NO. 660 51-411CPT.GPJ NCDOT.GDT 11/8/06



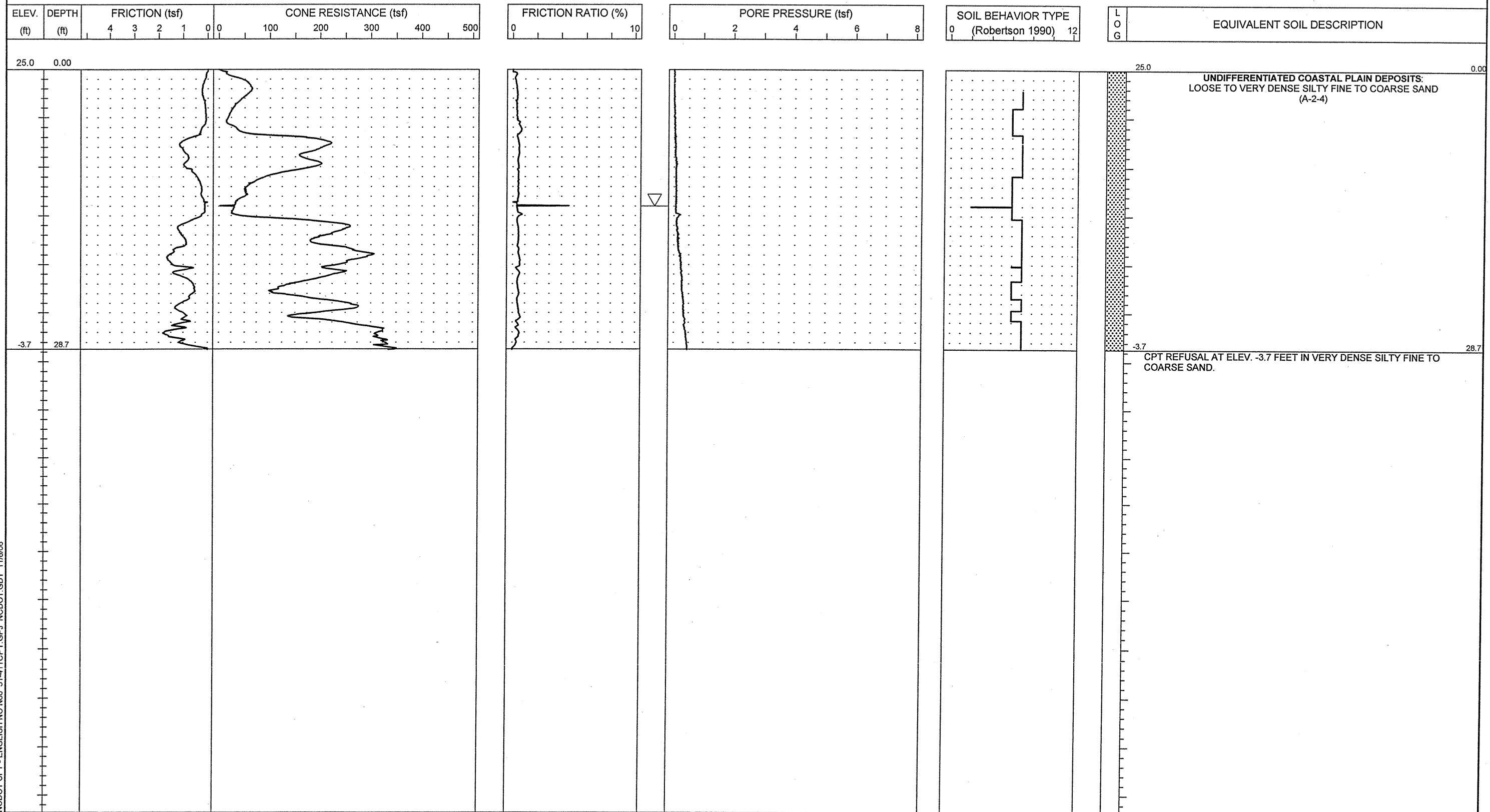
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 55.0 ft	DRILL MACHINE CPT-ATV
BORING NO. C-294	BORING LOCATION 22+40	OFFSET 0.0 ft CL	ALIGNMENT -RP_B4-	0 HR. 18.0	DATE STARTED 9/27/06	COMPLETED 9/27/06
COLLAR ELEV. 27.0 ft	NORTHING 197,416.8	EASTING 2,310,773.4	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT.CPT - ENGLISH NO N60 51-411CPT.GPJ NCDOT.GDT 11/8/06

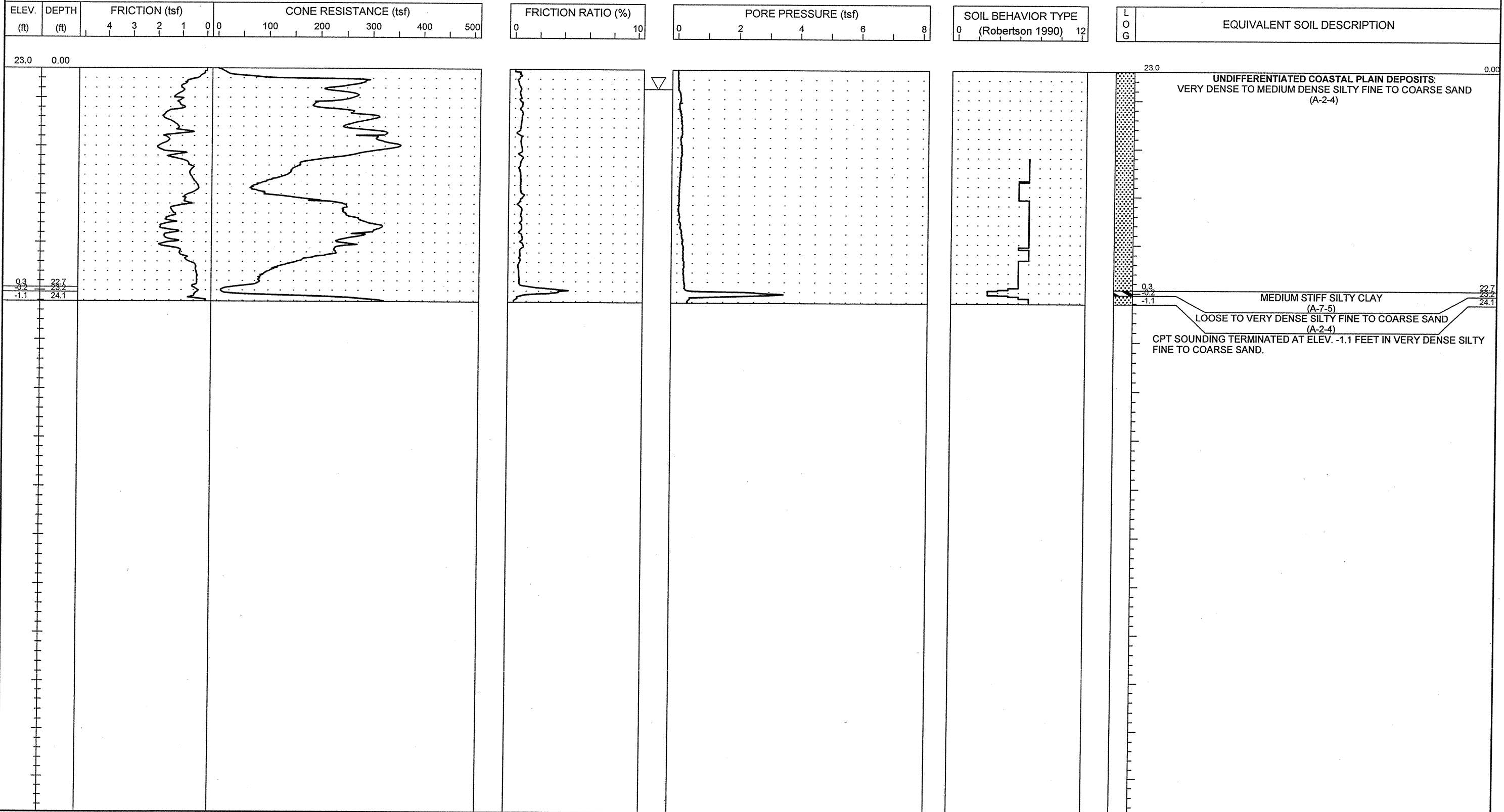


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 28.7 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-295	BORING LOCATION 25+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_B4-	0 HR. 14.0	DATE STARTED 9/28/06	COMPLETED 9/28/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 25.0 ft	NORTHING 197,670.2	EASTING 2,310,831.4		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		





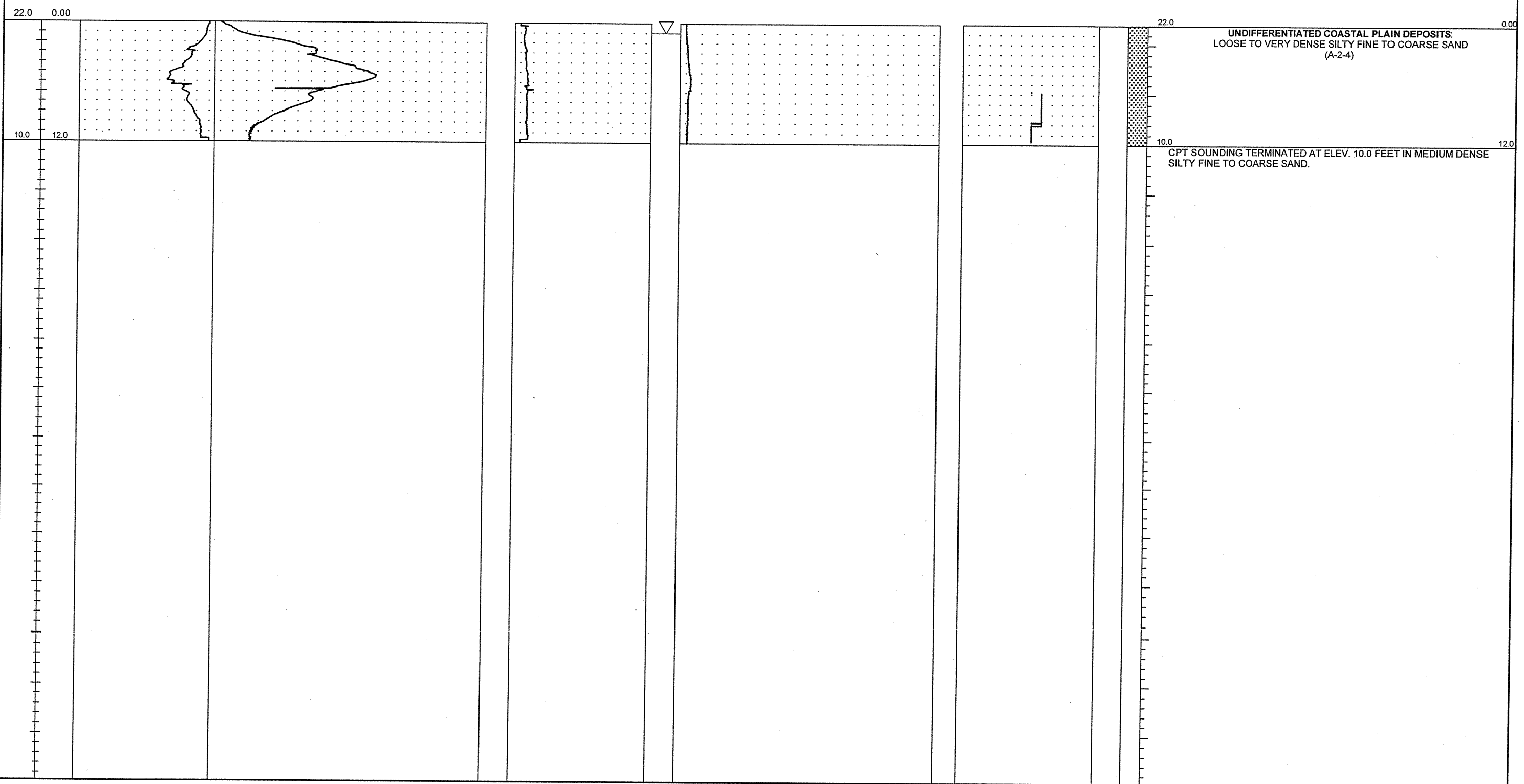
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 24.1 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-296	BORING LOCATION 27+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_B4-	0 HR. 2.0	DATE STARTED 9/28/06	COMPLETED 9/28/06
COLLAR ELEV. 23.0 ft	NORTHING 197,864.9	EASTING 2,310,877.3	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A





PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 12.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-297	BORING LOCATION 29+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_B4-	0 HR. 1.0	DATE STARTED 9/28/06	COMPLETED 9/28/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 22.0 ft	NORTHING 198,046.1	EASTING 2,310,959.4		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		

ELEV. (ft)	DEPTH (ft)	FRICION (tsf)	CONE RESISTANCE (tsf)	FRICION RATIO (%)	PORE PRESSURE (tsf)	SOIL BEHAVIOR TYPE (Robertson 1990)	LOG	EQUIVALENT SOIL DESCRIPTION
		4 3 2 1 0 0	100 200 300 400 500	0 10	0 2 4 6 8	0 12		

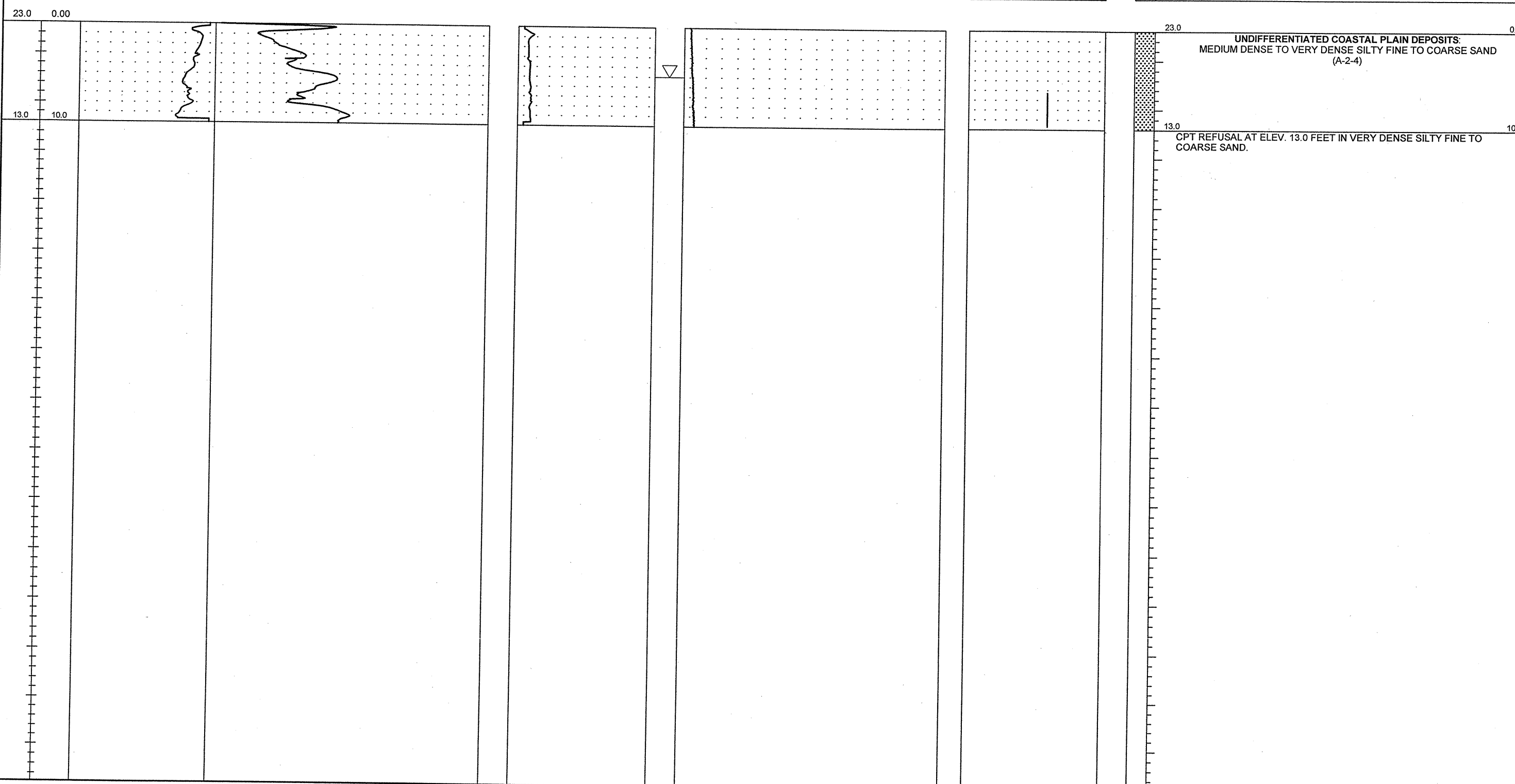


NCDOT CPT - ENGLISH NO N60_51-411 CPT.GPJ NCDOT.GDT 11/8/06



PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV
BORING NO. C-298	BORING LOCATION 31+13	OFFSET 21.0 ft LT	ALIGNMENT -RP_B4-	0 HR. 5.0	DATE STARTED 9/28/06	COMPLETED 9/28/06
COLLAR ELEV. 23.0 ft	NORTHING 198,207.3	EASTING 2,311,103.6	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A
				HAMMER TYPE N/A		

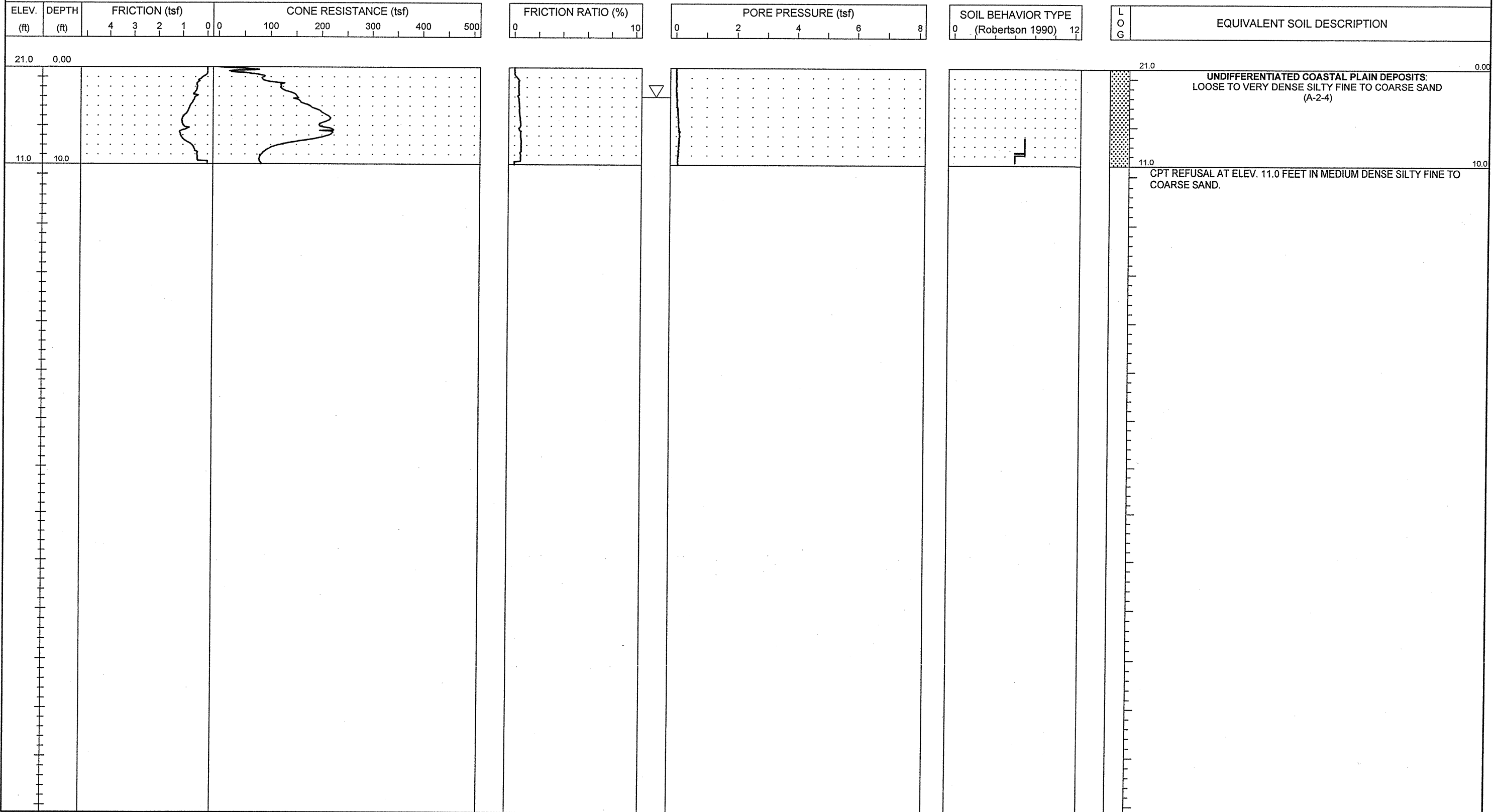
ELEV. (ft)	DEPTH (ft)	FRICITION (tsf)	CONE RESISTANCE (tsf)	FRICITION RATIO (%)	PORE PRESSURE (tsf)	SOIL BEHAVIOR TYPE (Robertson 1990)	LOG	EQUIVALENT SOIL DESCRIPTION
		4 3 2 1 0 0	100 200 300 400 500	0 10	0 2 4 6 8	0 12		



NCDOT CPT - ENGLISH NO N60 51-411CPT.GPJ NCDOT.GDT 11/8/06

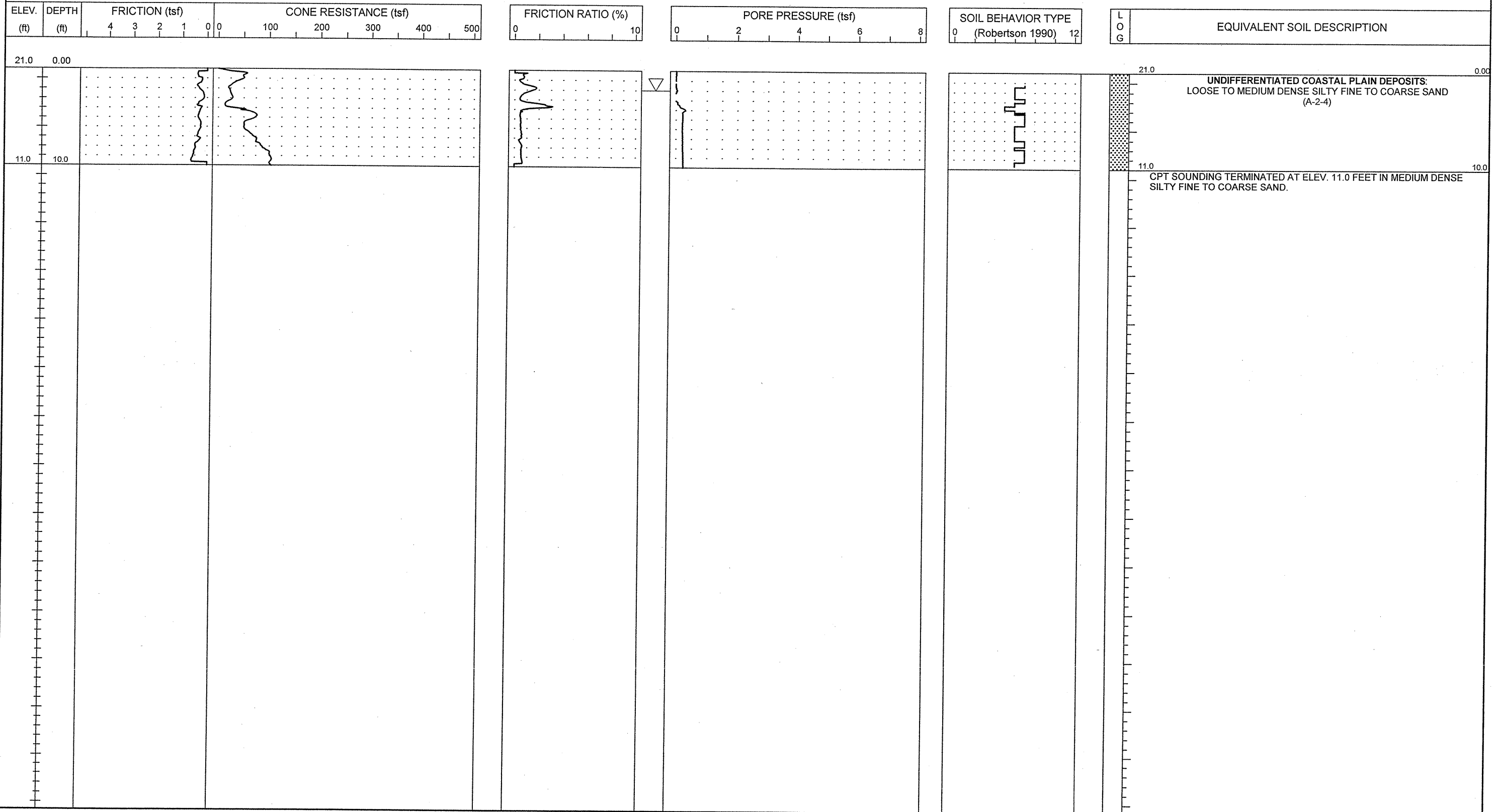


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY Brunswick / New Hanover	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-299	BORING LOCATION 33+00	OFFSET 0.0 ft CL	ALIGNMENT -RP_B4-	0 HR. 3.0	DATE STARTED 9/28/06	COMPLETED 9/28/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 21.0 ft	NORTHING 198,290.4	EASTING 2,311,272.3		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		





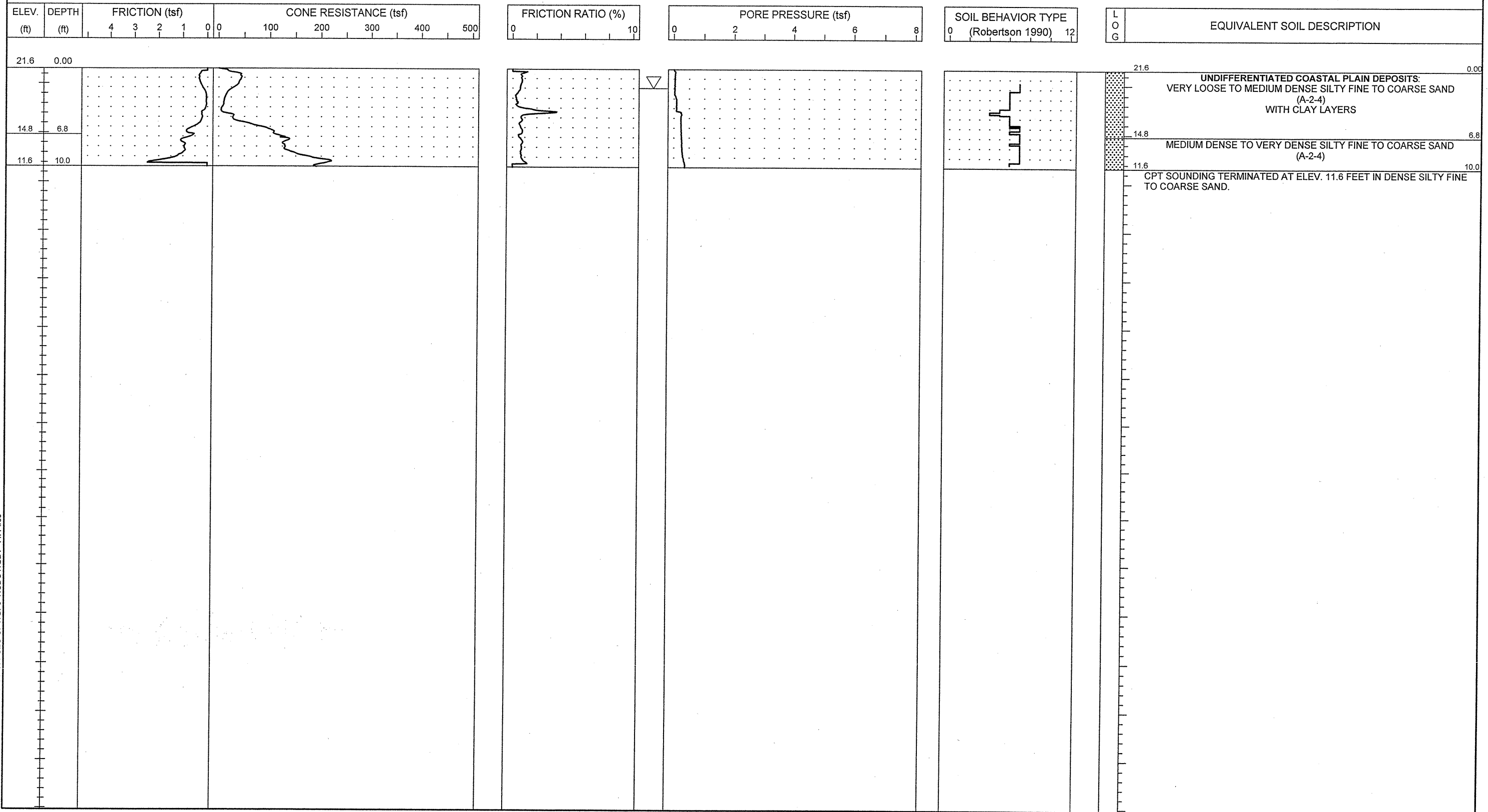
PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-300	BORING LOCATION 15+00	OFFSET 12.0 ft RT	ALIGNMENT -Y8-	0 HR. 2.0	DATE STARTED 10/12/06	COMPLETED 10/12/06	SURFACE WATER DEPTH N/M	
COLLAR ELEV. 21.0 ft	NORTHING 193,106.5	EASTING 2,296,203.4		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



NCDOT CPT - ENGLISH NO N60. 51-411 SEC CPT.GPJ NCDOT.GDT 11/13/06

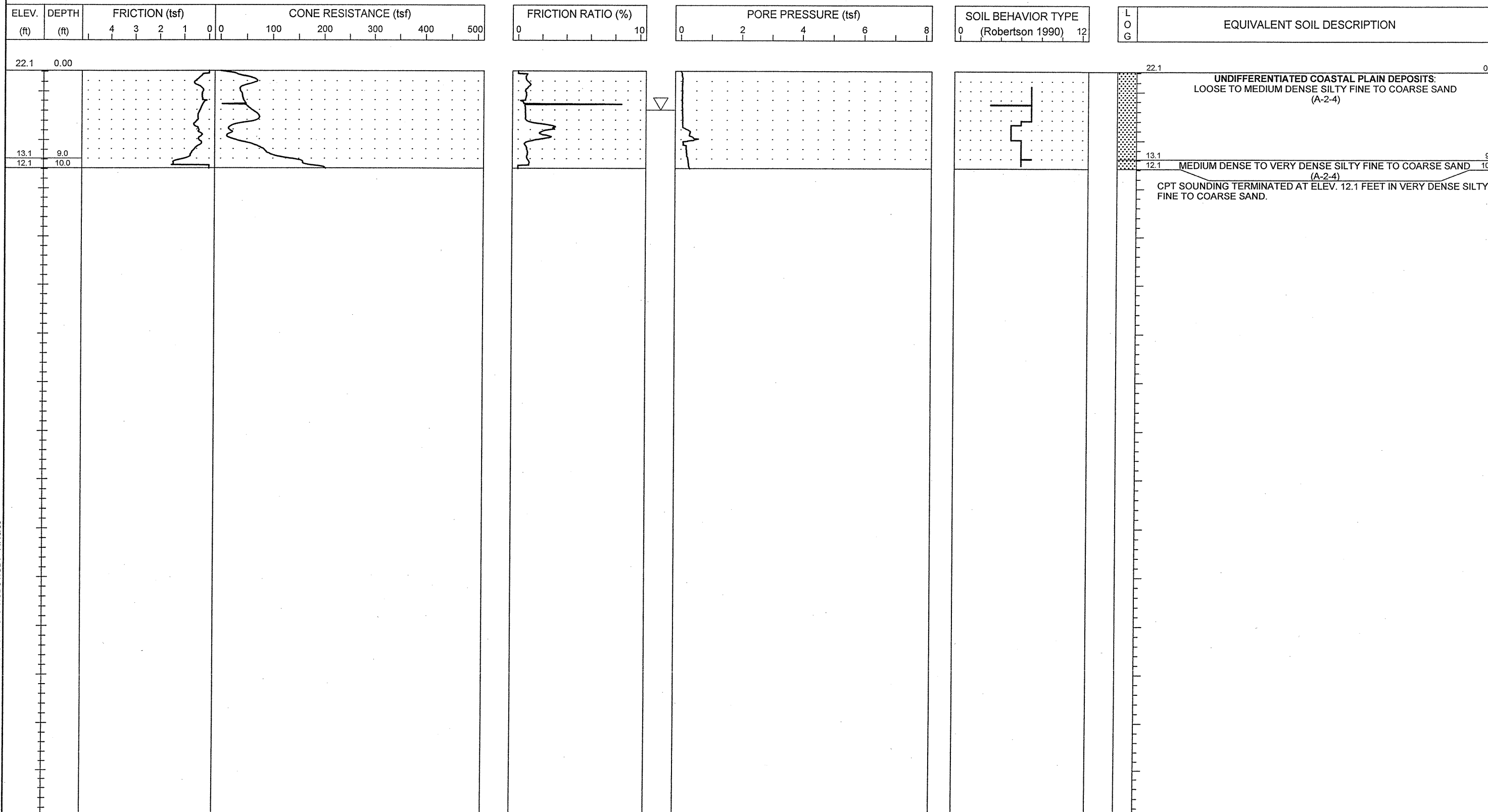


PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-301	BORING LOCATION 17+00	OFFSET 13.0 ft RT	ALIGNMENT -Y8-	0 HR. 2.0	DATE STARTED 10/12/06	COMPLETED 10/12/06
COLLAR ELEV. 21.6 ft	NORTHING 192,931.0	EASTING 2,296,299.3	24 HR. N/M	DRILLER: RUPERTO	TECHNICIAN SHAWN	SURFACE WATER DEPTH N/M





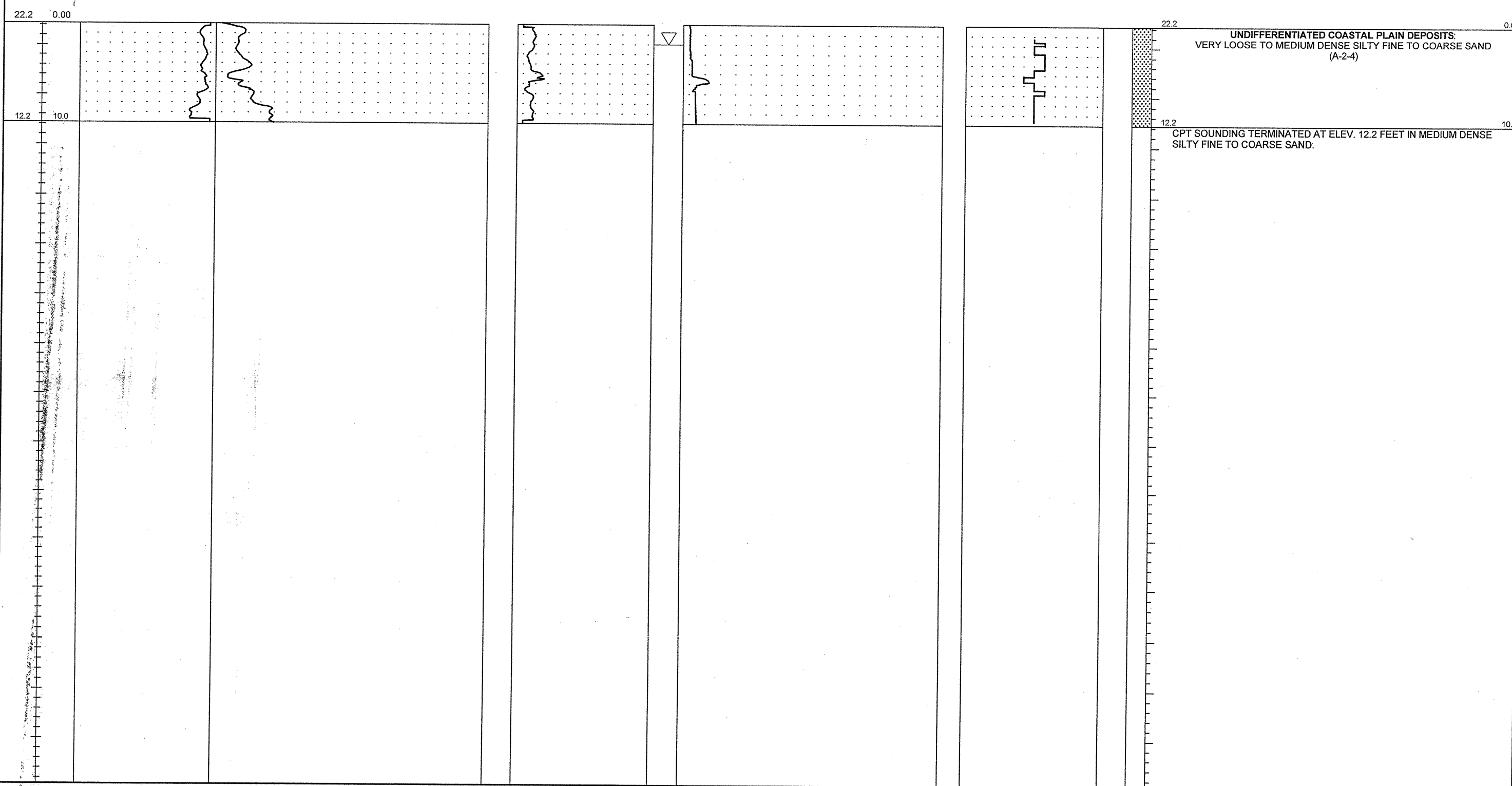
PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV
BORING NO. C-302	BORING LOCATION 19+00	OFFSET 9.0 ft RT	ALIGNMENT -Y8-	0 HR. 4.0	DATE STARTED 10/12/06	COMPLETED 10/12/06
COLLAR ELEV. 22.1 ft	NORTHING 192,757.9	EASTING 2,296,399.6	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M





PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-304	BORING LOCATION 23+00	OFFSET 8.0 ft RT	ALIGNMENT -Y8-	0 HR. 2.0	DATE STARTED 10/12/06	COMPLETED 10/12/06
COLLAR ELEV. 22.2 ft	NORTHING 192,408.4	EASTING 2,296,594.0	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M

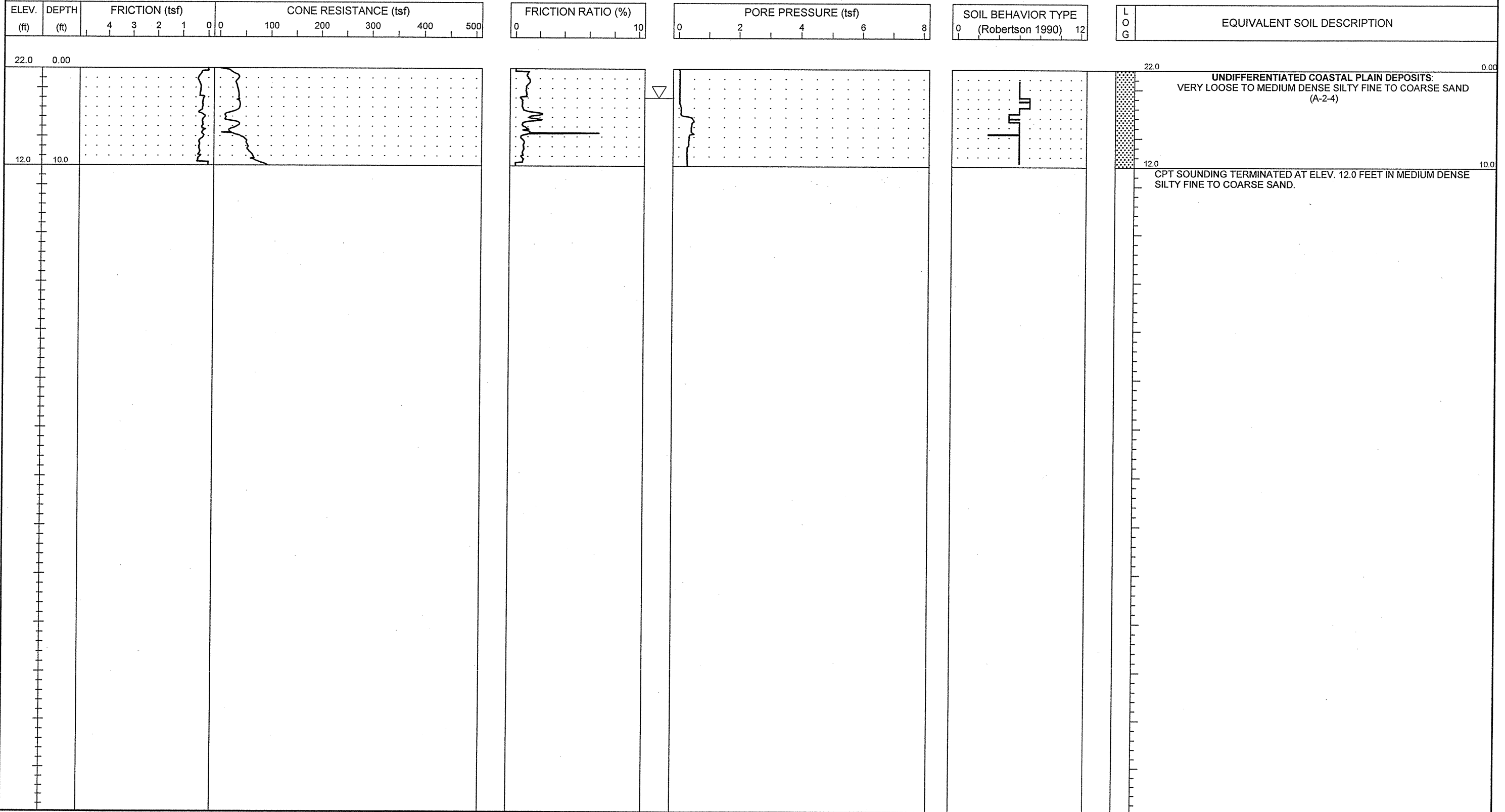
ELEV. (ft)	DEPTH (ft)	FRICITION (tsf)	CONE RESISTANCE (tsf)	FRICITION RATIO (%)	PORE PRESSURE (tsf)	SOIL BEHAVIOR TYPE (Robertson 1990)	EQUIVALENT SOIL DESCRIPTION												
4	3	2	1	0	0	100	200	300	400	500	0	10	0	2	4	6	8	0	12



NCDOT CPT - ENGLISH NO N60 51-411 SEC CPT.GPJ NCDOT.GDT 11/13/06



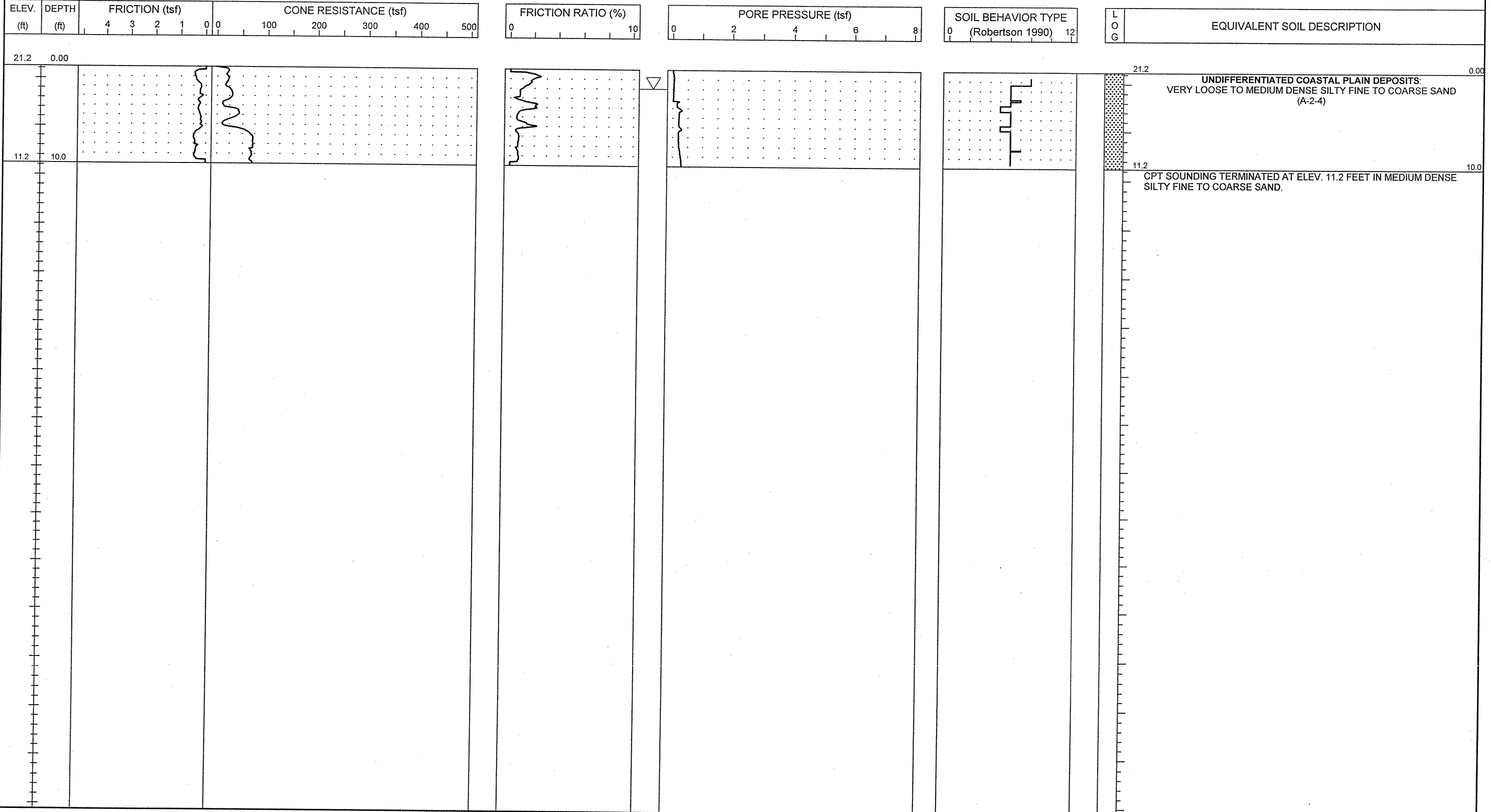
PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-305	BORING LOCATION 25+00	OFFSET 8.0 ft RT	ALIGNMENT -Y8-	0 HR. 3.0	DATE STARTED 10/12/06	COMPLETED 10/12/06
COLLAR ELEV. 22.0 ft	NORTHING 192,233.3	EASTING 2,296,690.8	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M



NCDOT CPT - ENGLISH NO. 60 51-411 SEC CPT.GPJ NCDOT.GDT 11/13/08



PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV
BORING NO. C-306	BORING LOCATION 27+00	OFFSET 48.0 ft LT	ALIGNMENT -Y8-	0 HR. 2.0	DATE STARTED 10/12/06	COMPLETED 10/12/06
COLLAR ELEV. 21.2 ft	NORTHING 192,085.4	EASTING 2,296,836.6	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M
				HAMMER TYPE N/A		

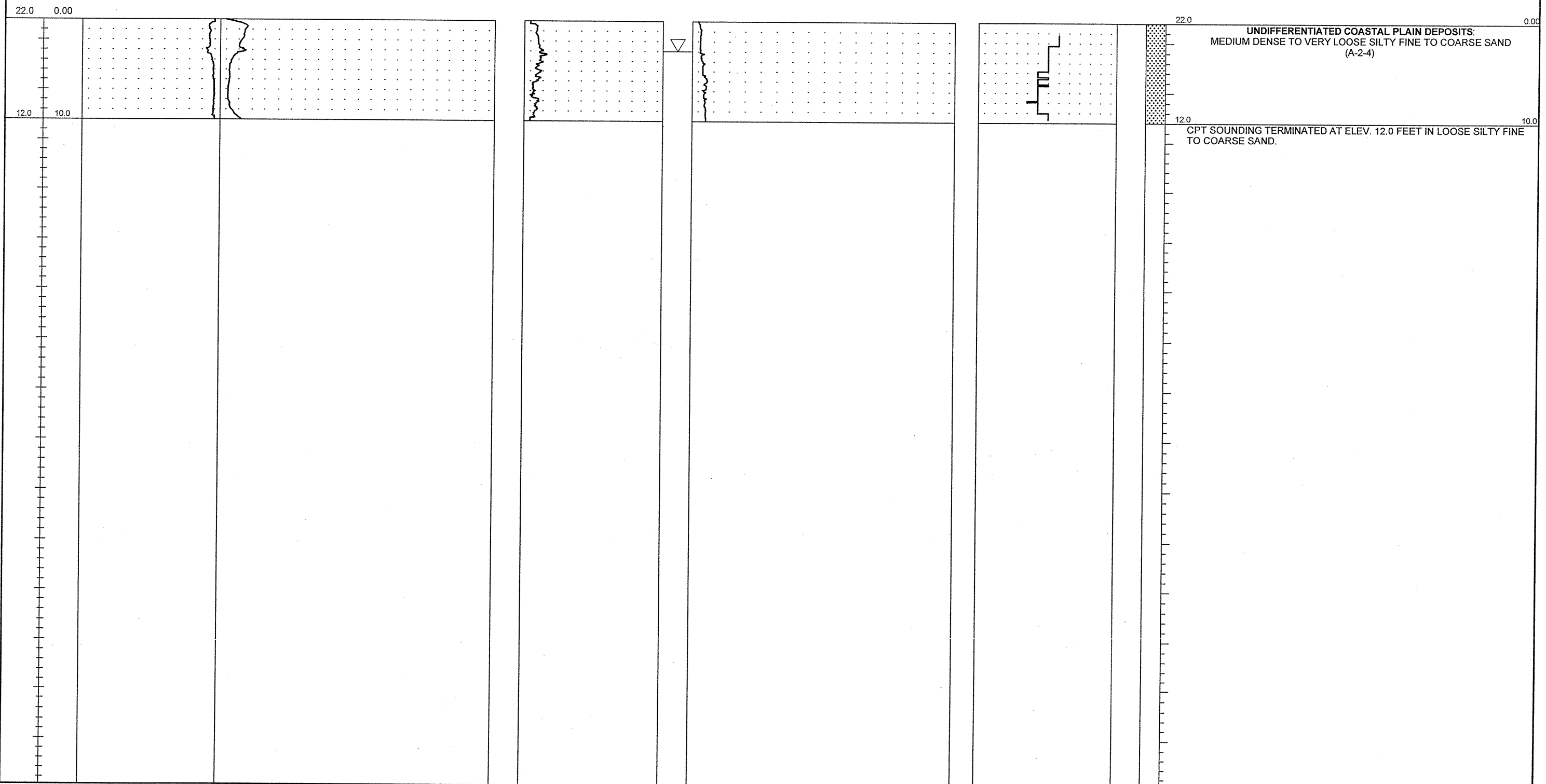


NCDOT CPT - ENGLISH NO N60 51-411 SEC CPT.GPJ NCDOT.GDT 11/13/06



PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV
BORING NO. C-307	BORING LOCATION 31+00	OFFSET 41.0 ft LT	ALIGNMENT -Y8-	0 HR. 3.0	DATE STARTED 10/12/06	COMPLETED 10/12/06
COLLAR ELEV. 22.0 ft	NORTHING 191,714.3	EASTING 2,296,999.9	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M
				HAMMER TYPE N/A		

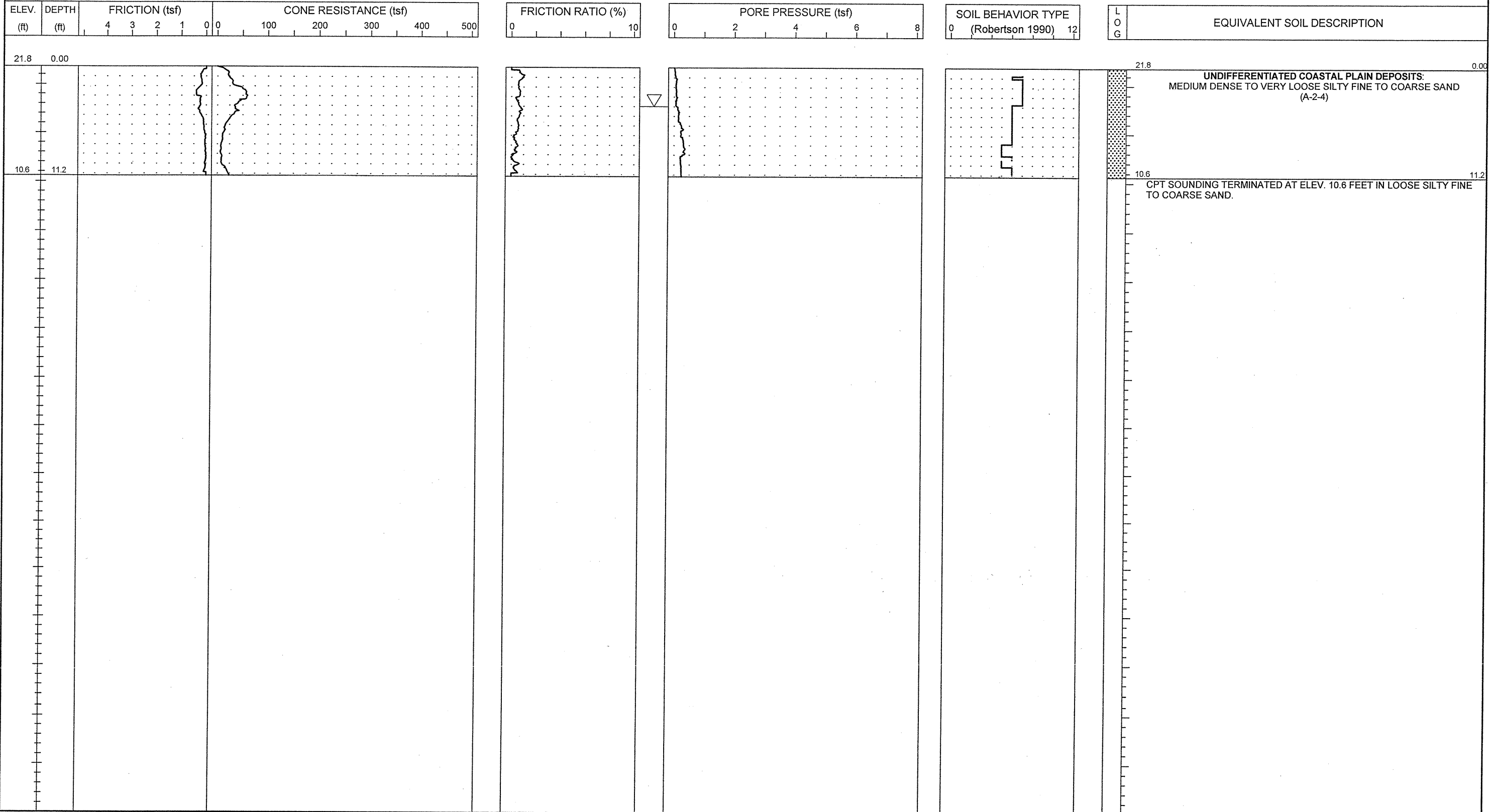
ELEV. (ft)	DEPTH (ft)	FRICION (tsf)	CONE RESISTANCE (tsf)	FRICION RATIO (%)	PORE PRESSURE (tsf)	SOIL BEHAVIOR TYPE (Robertson 1990)	LOG	EQUIVALENT SOIL DESCRIPTION
		4 3 2 1 0 0	100 200 300 400 500	0 10	0 2 4 6 8	0 12		



NCDOT CPT - ENGLISH NO. 660 51-411 SEC CPT.GPJ NCDOT.GDT 11/13/06

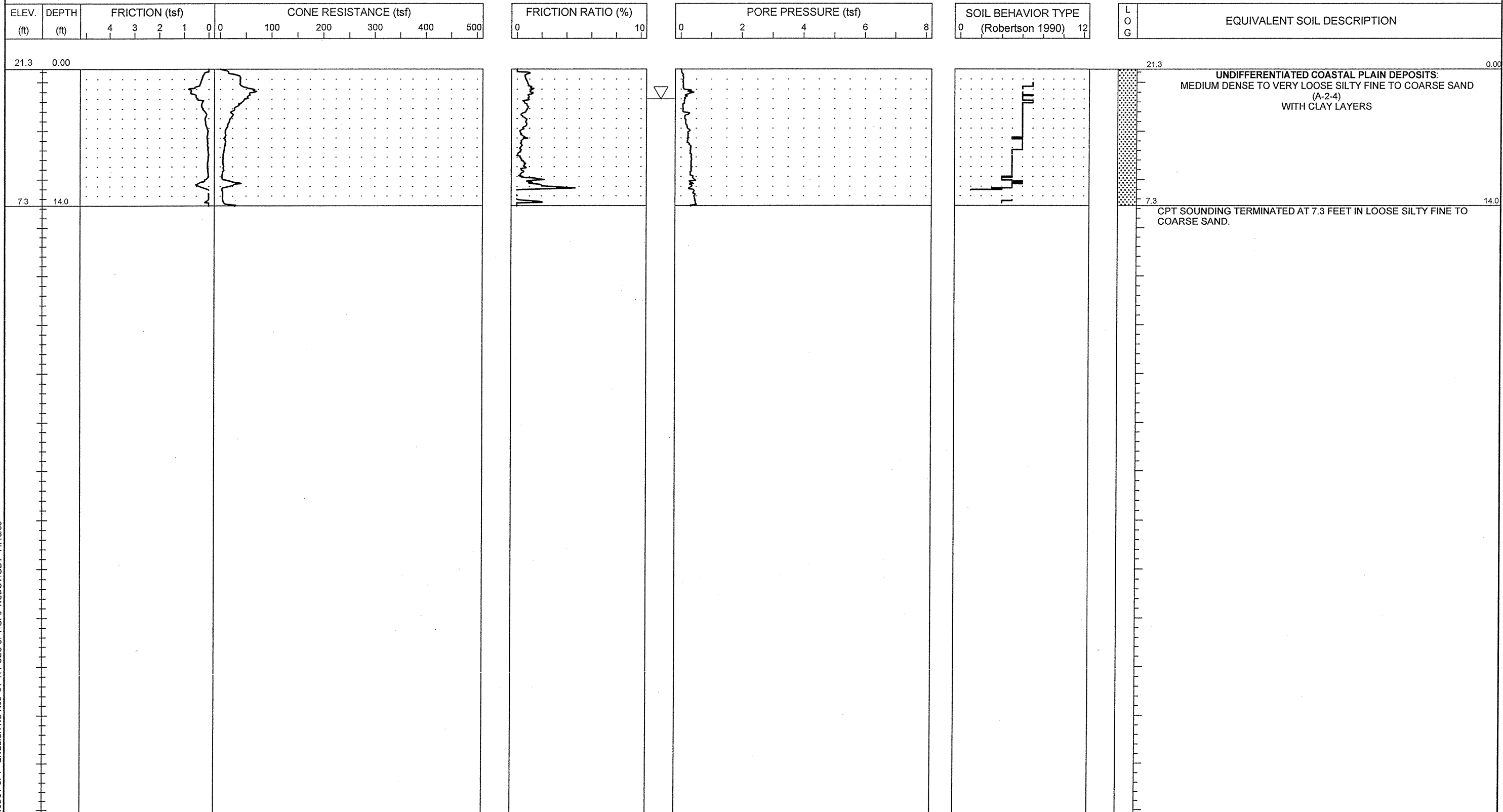


PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 11.2 ft	DRILL MACHINE CPT-ATV
BORING NO. C-308	BORING LOCATION 33+00	OFFSET 41.0 ft LT	ALIGNMENT -Y8-	0 HR. 4.0	DATE STARTED 10/12/06	COMPLETED 10/12/06
COLLAR ELEV. 21.8 ft	NORTHING 191,528.4	EASTING 2,297,073.6	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M



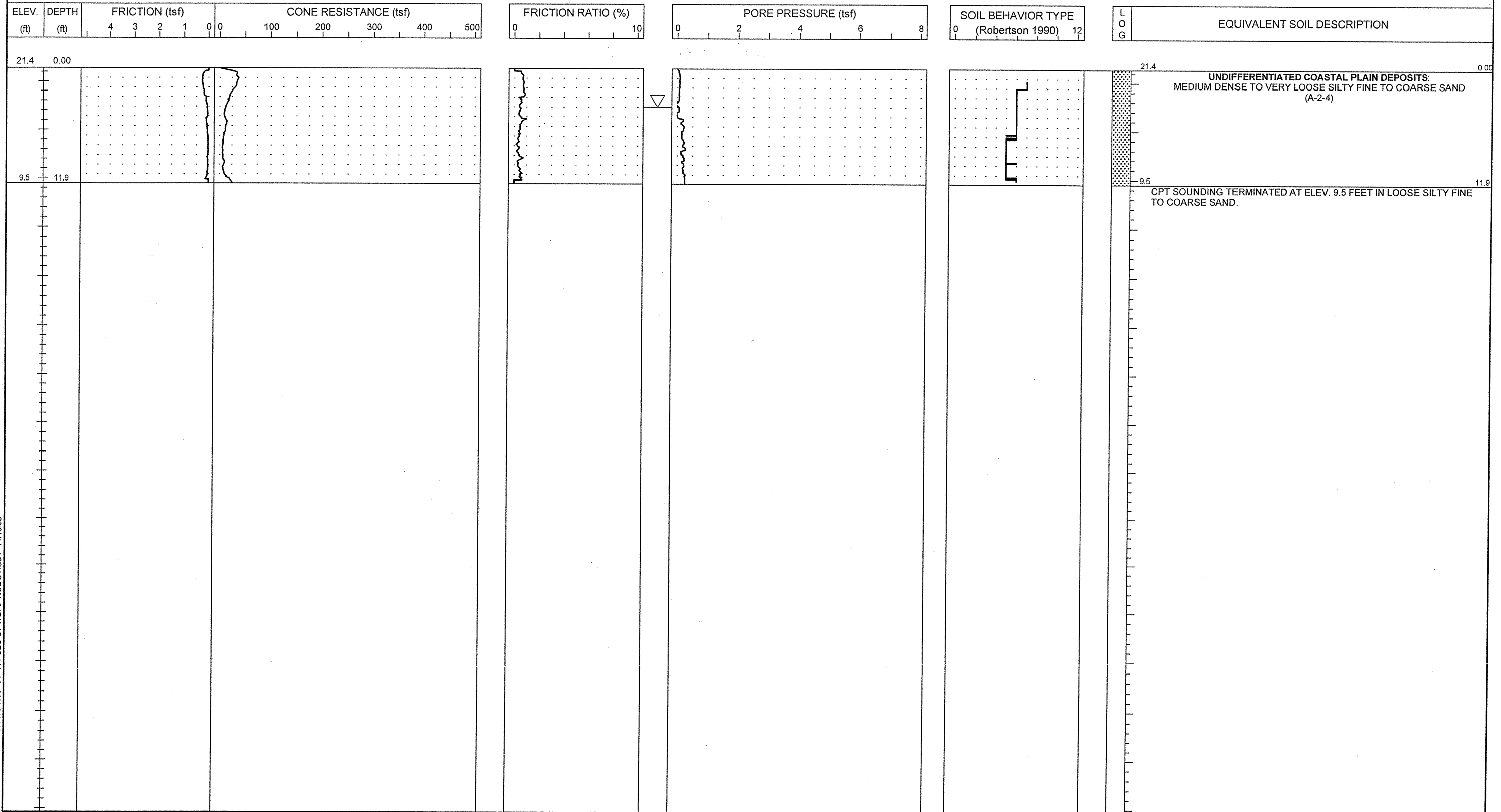


PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 14.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-309	BORING LOCATION 36+00	OFFSET 41.0 ft LT	ALIGNMENT -Y8-	0 HR. 3.0	DATE STARTED 10/12/06	COMPLETED 10/12/06
COLLAR ELEV. 21.3 ft	NORTHING 191,249.5	EASTING 2,297,184.1	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M





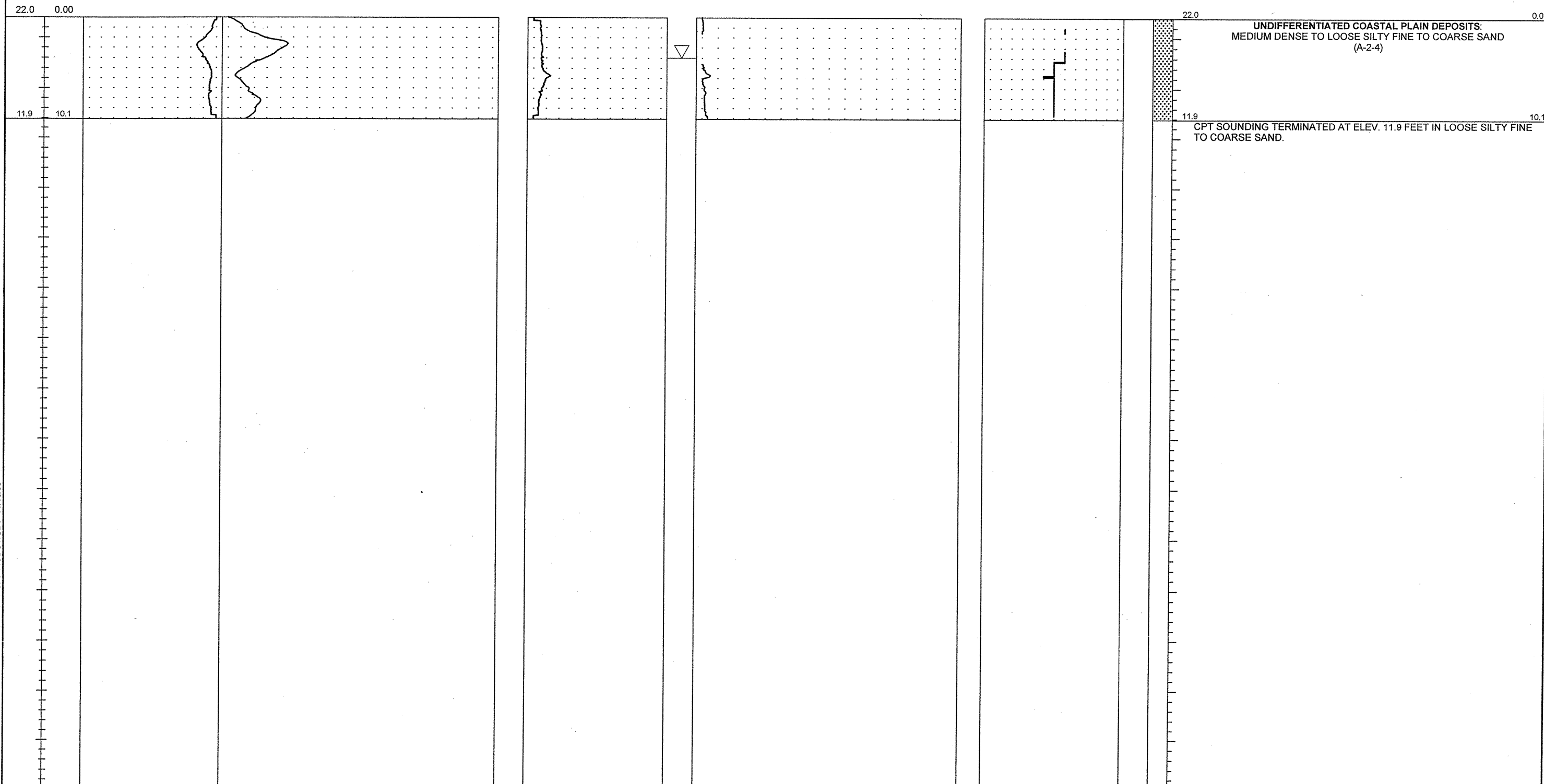
PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 11.9 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-310	BORING LOCATION 38+00	OFFSET 45.0 ft LT	ALIGNMENT -Y8-	0 HR. 4.0	DATE STARTED 10/12/06	COMPLETED 10/12/06
COLLAR ELEV. 21.4 ft	NORTHING 191,065.0	EASTING 2,297,261.5	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M
HAMMER TYPE N/A						





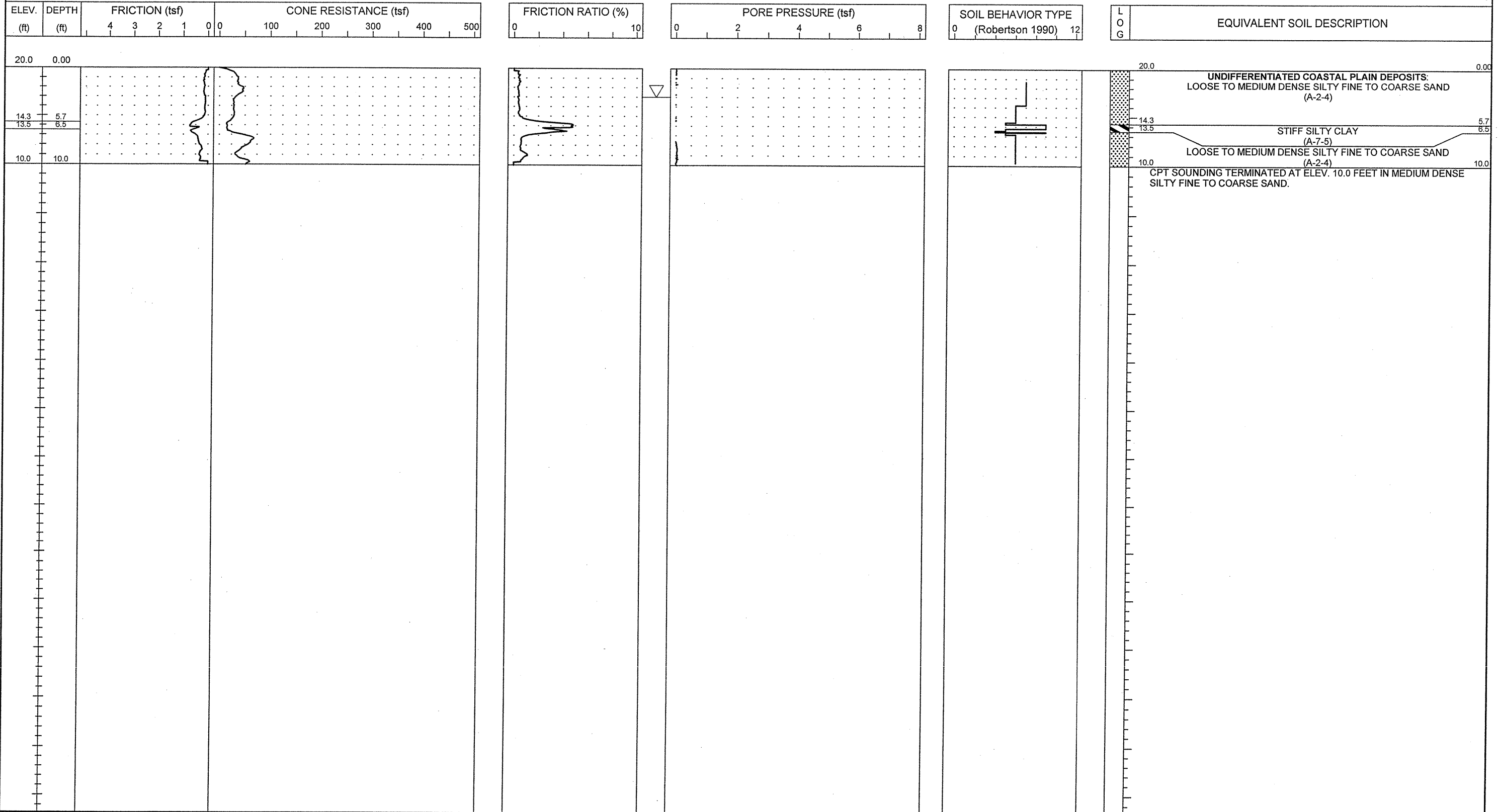
PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.1 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-311	BORING LOCATION 40+00	OFFSET 46.0 ft LT	ALIGNMENT -Y8-	0 HR. 4.0	DATE STARTED 10/12/06	COMPLETED 10/12/06	SURFACE WATER DEPTH N/M	
COLLAR ELEV. 22.0 ft	NORTHING 190,879.4	EASTING 2,297,336.1		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		

ELEV. (ft)	DEPTH (ft)	FRICION (tsf)	CONE RESISTANCE (tsf)	FRICION RATIO (%)	PORE PRESSURE (tsf)	SOIL BEHAVIOR TYPE (Robertson 1990)	LOG	EQUIVALENT SOIL DESCRIPTION
		4 3 2 1 0	100 200 300 400 500	0 10	0 2 4 6 8	0 12		



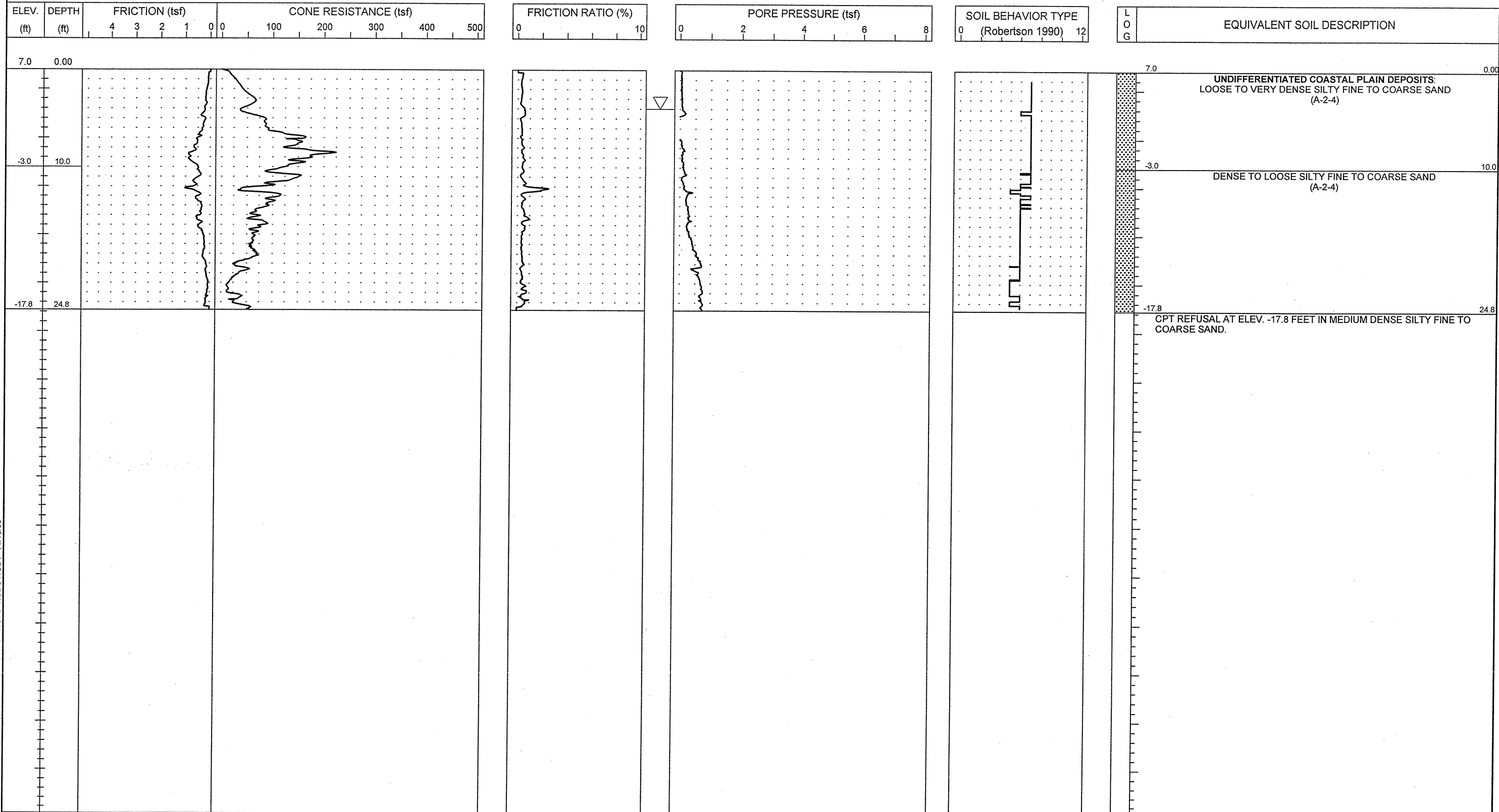
NCDOT CPT - ENGLISH NO N60 51-411 SEC CPT GPJ NCDOT.GDT 11/13/06

PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-312	BORING LOCATION 42+00	OFFSET 46.0 ft LT	ALIGNMENT -Y8-	0 HR. 3.0	DATE STARTED 10/13/06	COMPLETED 10/13/06
COLLAR ELEV. 20.0 ft	NORTHING 190,692.6	EASTING 2,297,409.1	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M



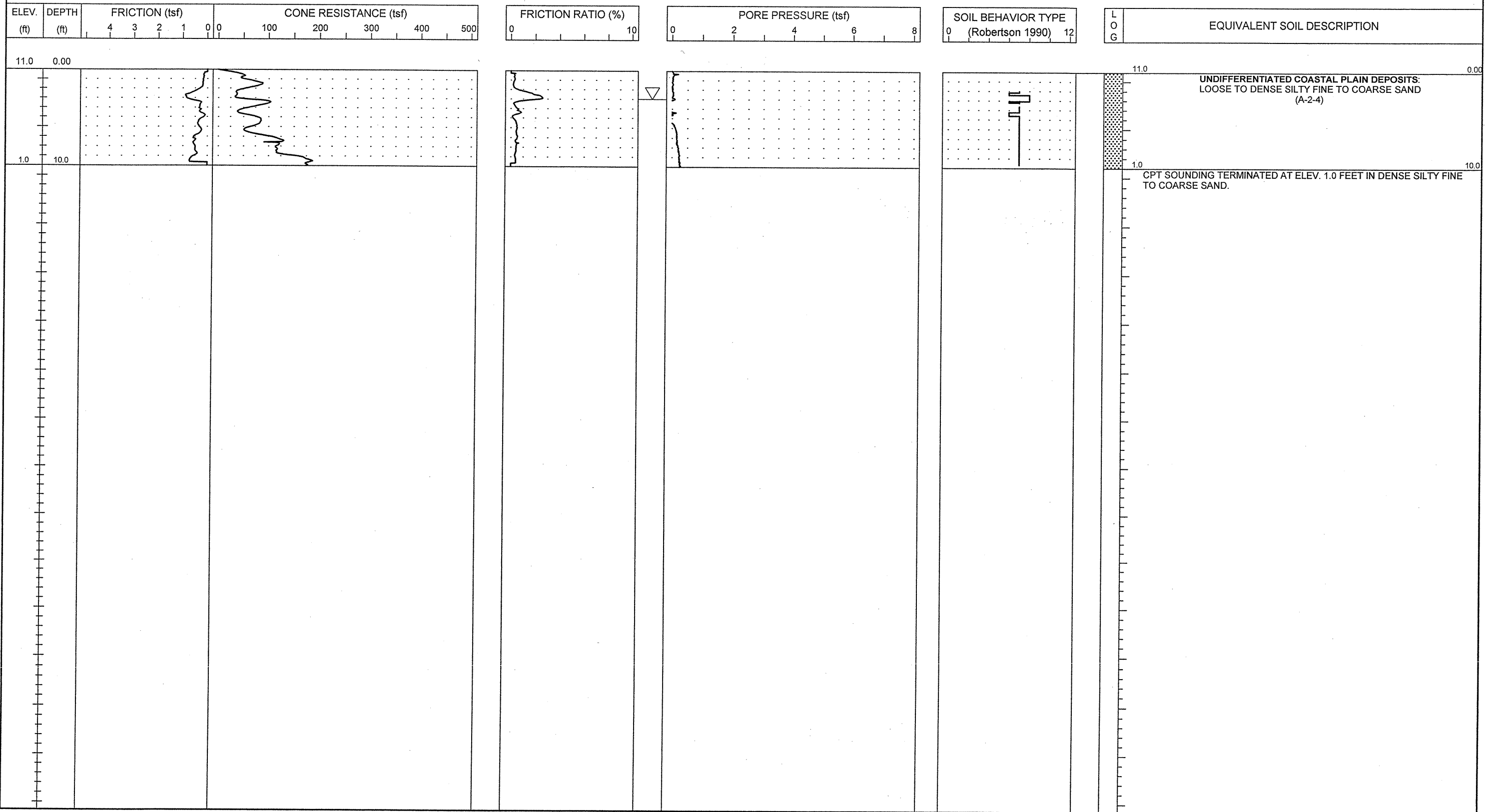
NCDOT CPT - ENGLISH NO. N60 51-411 SEC CPT.GPJ NCDOT.GDT 11/13/06

PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 24.8 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-316	BORING LOCATION 50+40	OFFSET 0.0 ft CL	ALIGNMENT -Y8-	0 HR. 4.0	DATE STARTED 11/2/06	COMPLETED 11/2/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 7.0 ft	NORTHING 189,885.8	EASTING 2,297,650.4		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		





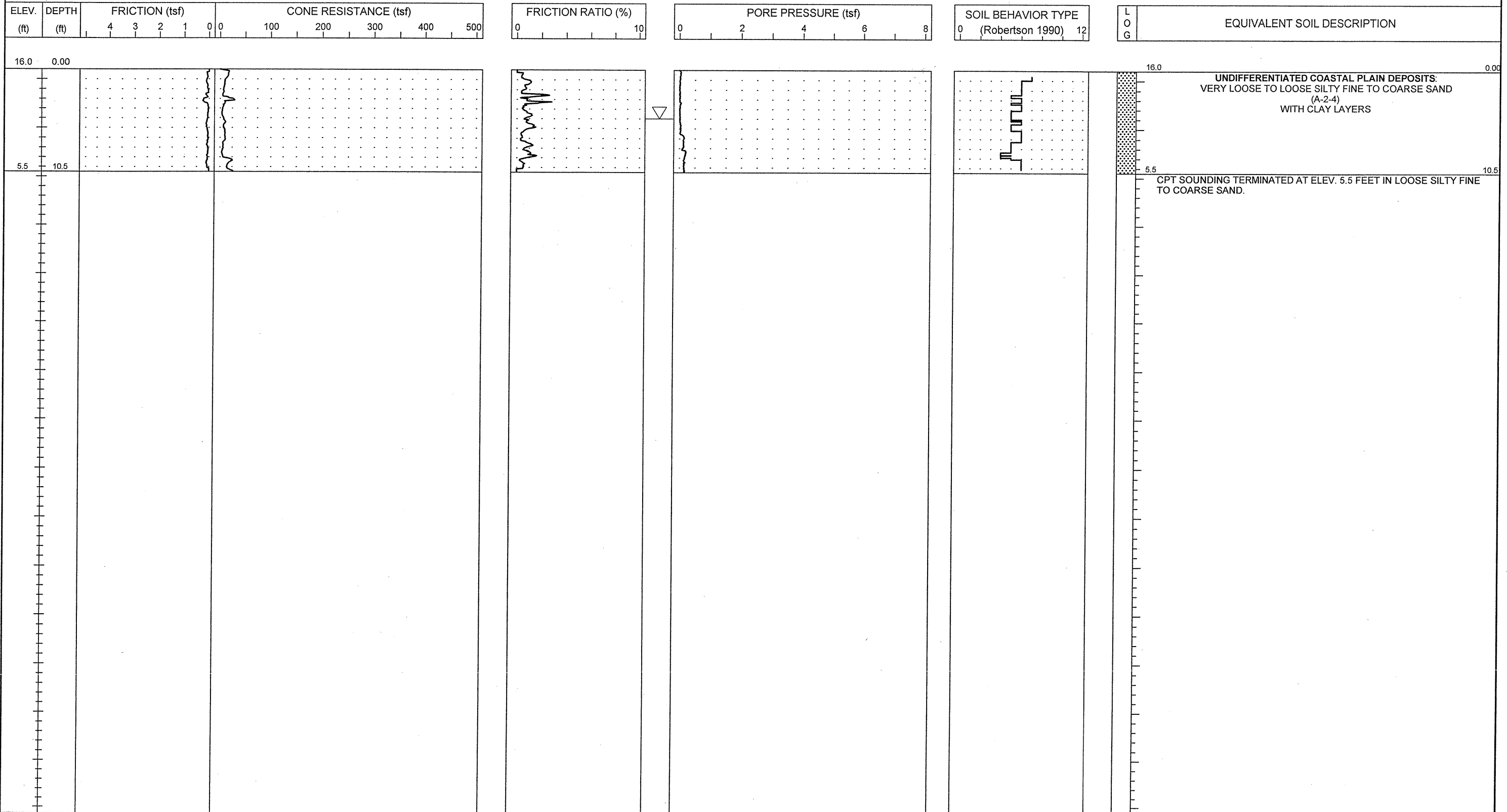
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-317	BORING LOCATION 52+00	OFFSET 0.0 ft CL	ALIGNMENT -Y8-	0 HR. 3.0	DATE STARTED 11/2/06	COMPLETED 11/2/06
COLLAR ELEV. 11.0 ft	NORTHING 189,735.1	EASTING 2,297,704.2	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO NS0 51-411 8TH CPT.GPJ NCDOT.GDT 11/13/06



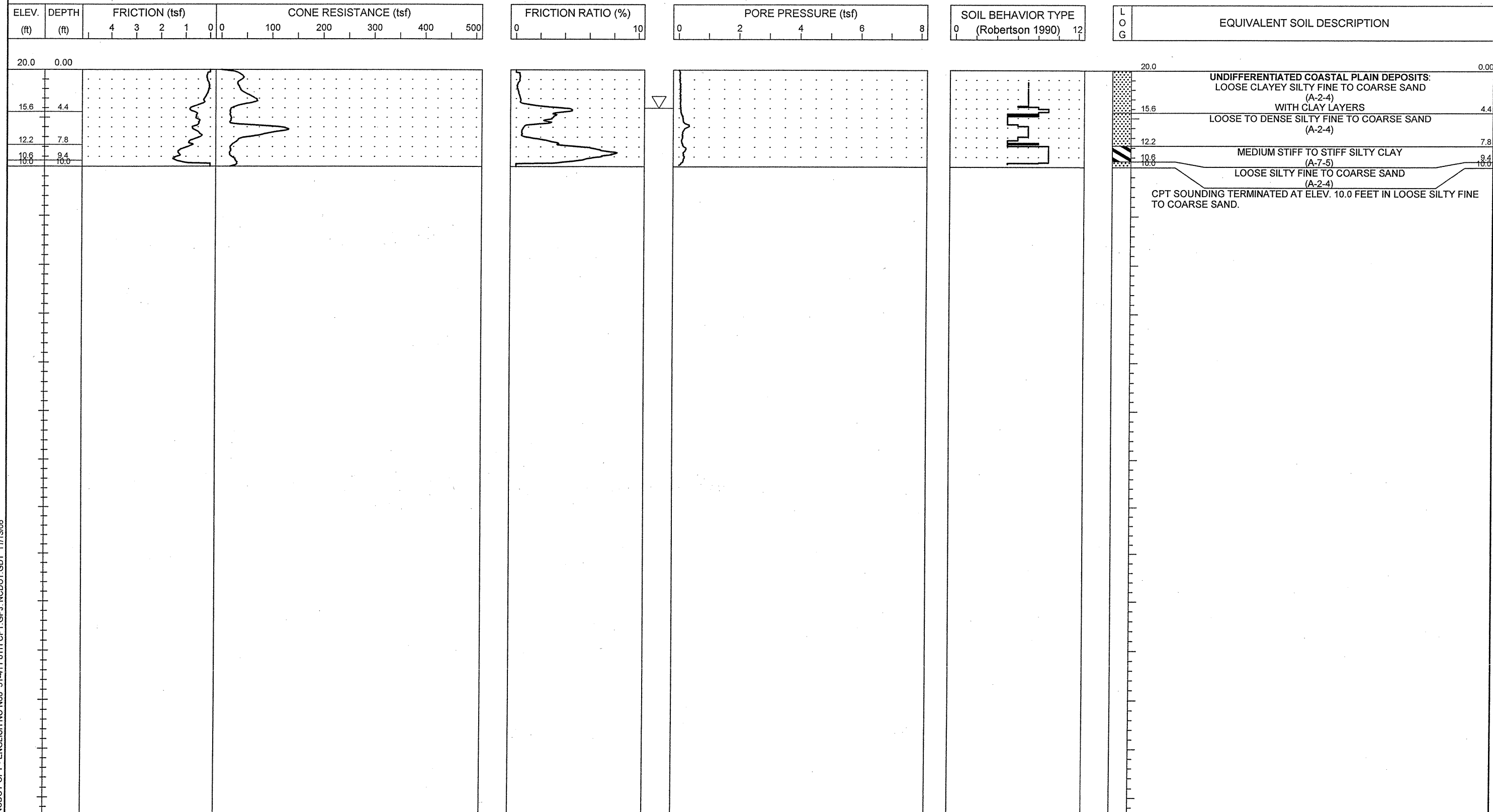
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.5 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-318	BORING LOCATION 54+00	OFFSET 0.0 ft CL	ALIGNMENT -Y8-	0 HR. 5.0	DATE STARTED 11/2/06	COMPLETED 11/2/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 16.0 ft	NORTHING 189,553.3	EASTING 2,297,787.0		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



NCDOT CPT - ENGLISH NO. N60-51-411 8TH CPT.GPJ NCDOT.GDT 11/13/06

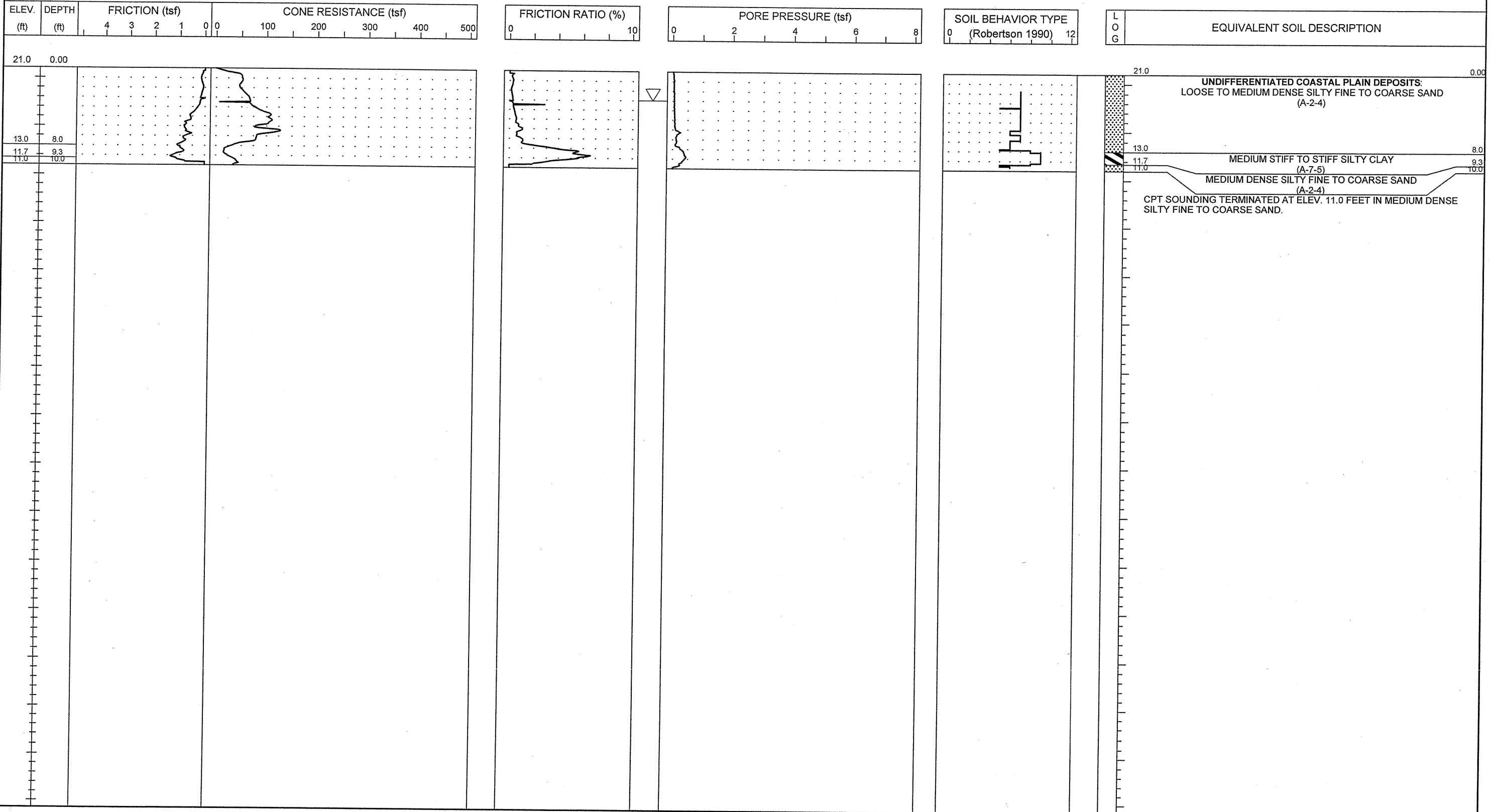


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-319	BORING LOCATION 56+00	OFFSET 0.0 ft CL	ALIGNMENT -Y8-	0 HR. 4.0	DATE STARTED 11/2/06	COMPLETED 11/2/06
COLLAR ELEV. 20.0 ft	NORTHING 189,391.2	EASTING 2,297,903.6	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



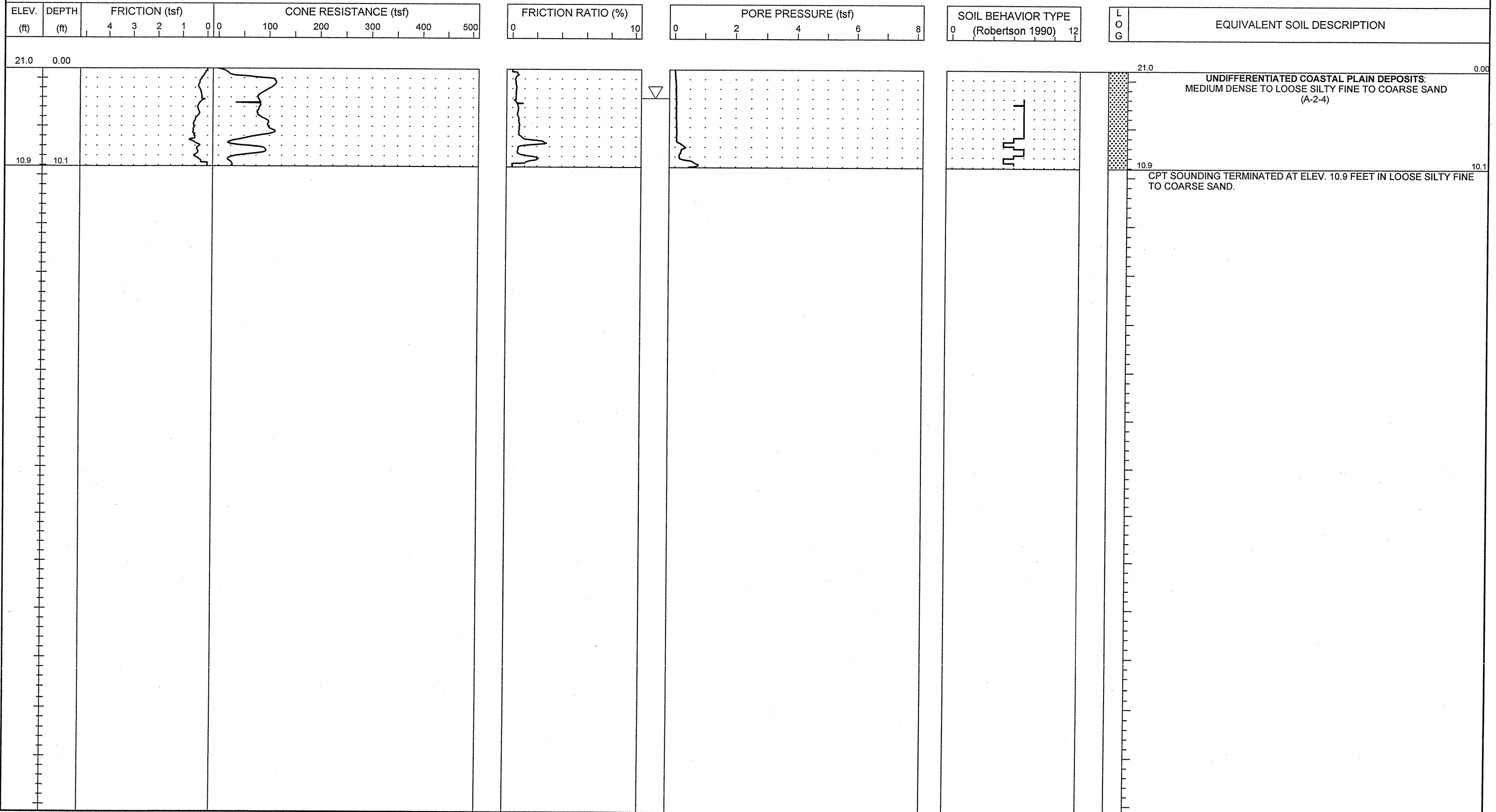
NCDOT CPT - ENGLISH NO N60 51-411.8TH CPT.GPJ. NCDOT.GDT 11/13/06

PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV
BORING NO. C-320	BORING LOCATION 58+00	OFFSET 0.0 ft CL	ALIGNMENT -Y8-	0 HR. 3.0	DATE STARTED 11/2/06	COMPLETED 11/2/06
COLLAR ELEV. 21.0 ft	NORTHING 189,256.8	EASTING 2,298,051.1	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



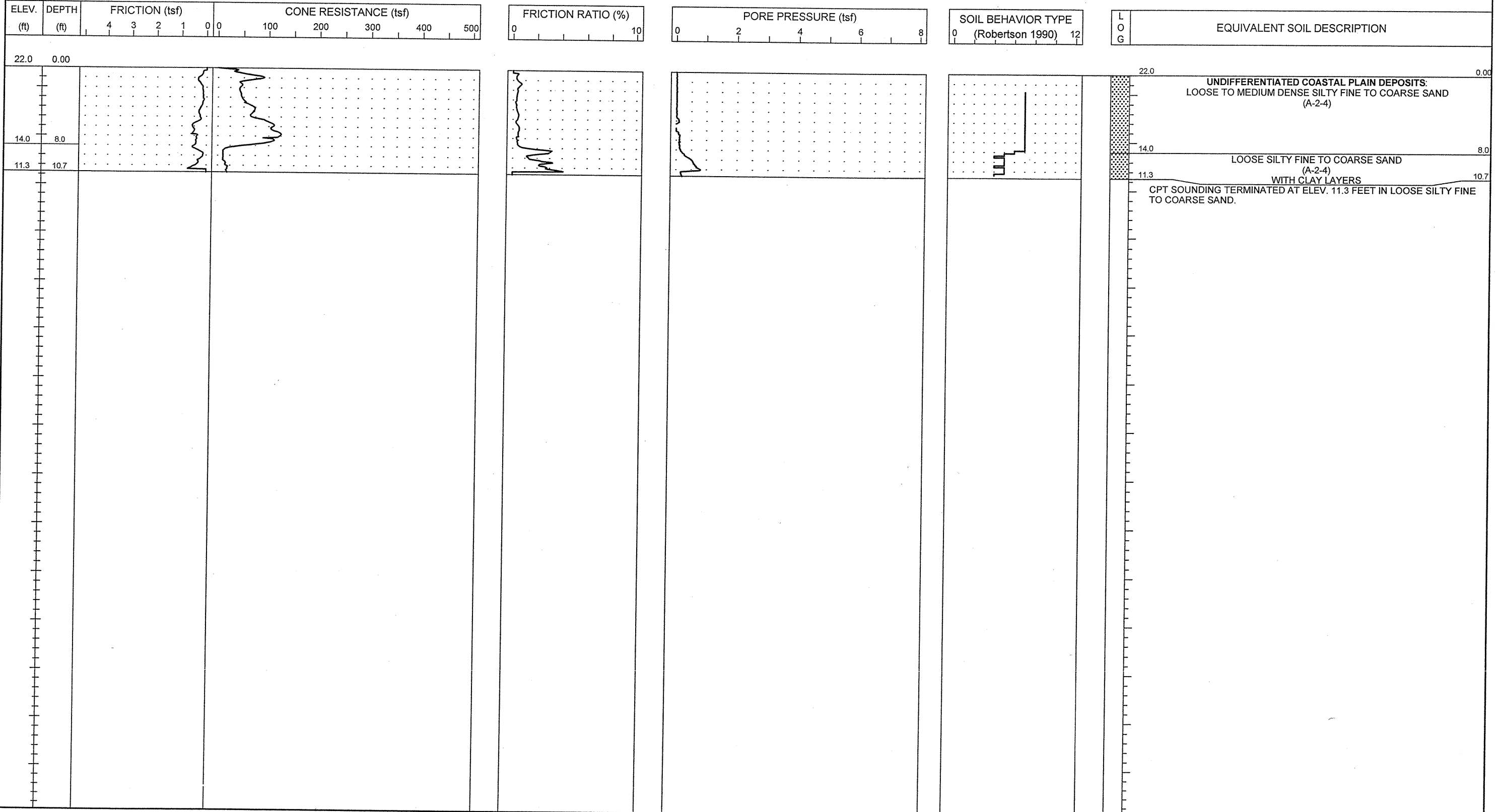


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.1 ft	DRILL MACHINE CPT-ATV
BORING NO. C-321	BORING LOCATION 60+00	OFFSET 0.0 ft CL	ALIGNMENT -Y8-	0 HR. 3.0	DATE STARTED 11/2/06	COMPLETED 11/2/06
COLLAR ELEV. 21.0 ft	NORTHING 189,155.8	EASTING 2,298,223.3	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



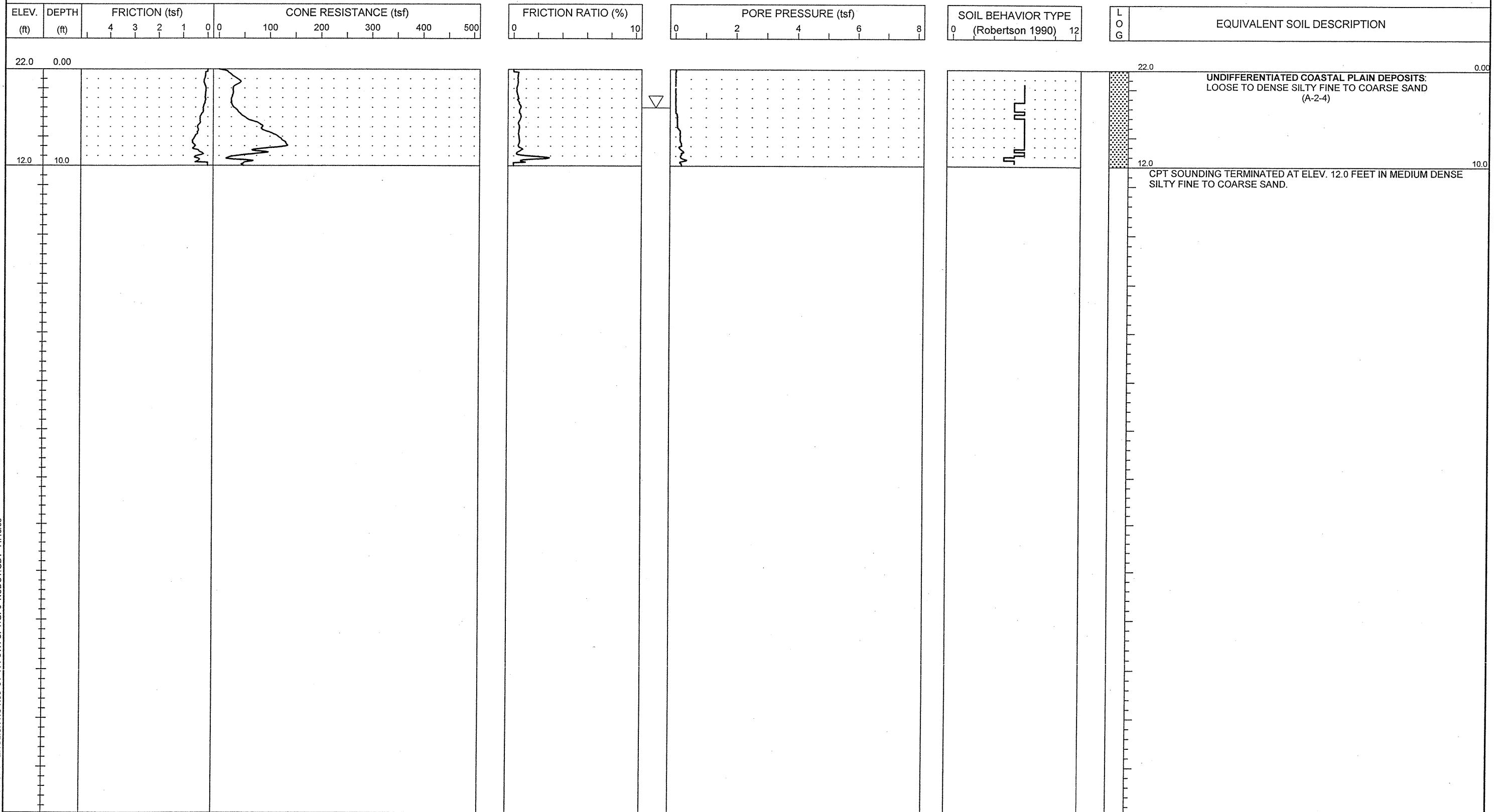
NCDOT CPT - ENGLISH NO. N60_51-411_8TH_CPT.GPJ NCDOT.GDT 11/19/06

PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.7 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-322	BORING LOCATION 62+00	OFFSET 0.0 ft CL	ALIGNMENT -Y8-	0 HR. N/M	DATE STARTED 11/2/06	COMPLETED 11/2/06
COLLAR ELEV. 22.0 ft	NORTHING 189,092.3	EASTING 2,298,412.6	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A





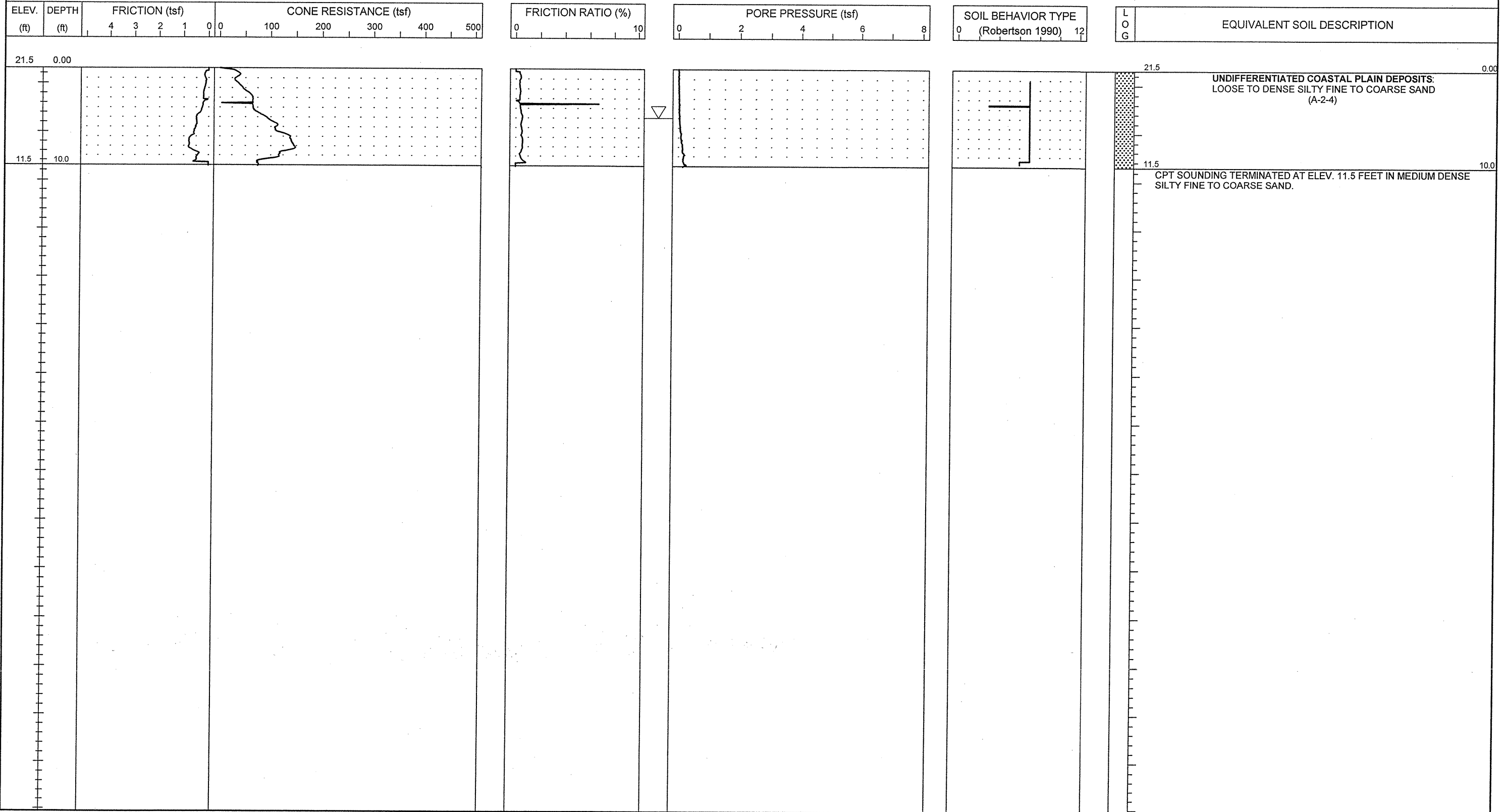
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-323	BORING LOCATION 64+00	OFFSET 0.0 ft CL	ALIGNMENT -Y8-	0 HR. 4.0	DATE STARTED 11/2/06	COMPLETED 11/2/06
COLLAR ELEV. 22.0 ft	NORTHING 189,055.6	EASTING 2,298,609.2	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO N80 51-411 8TH CPT.GPJ NCDOT.GDT 11/13/06



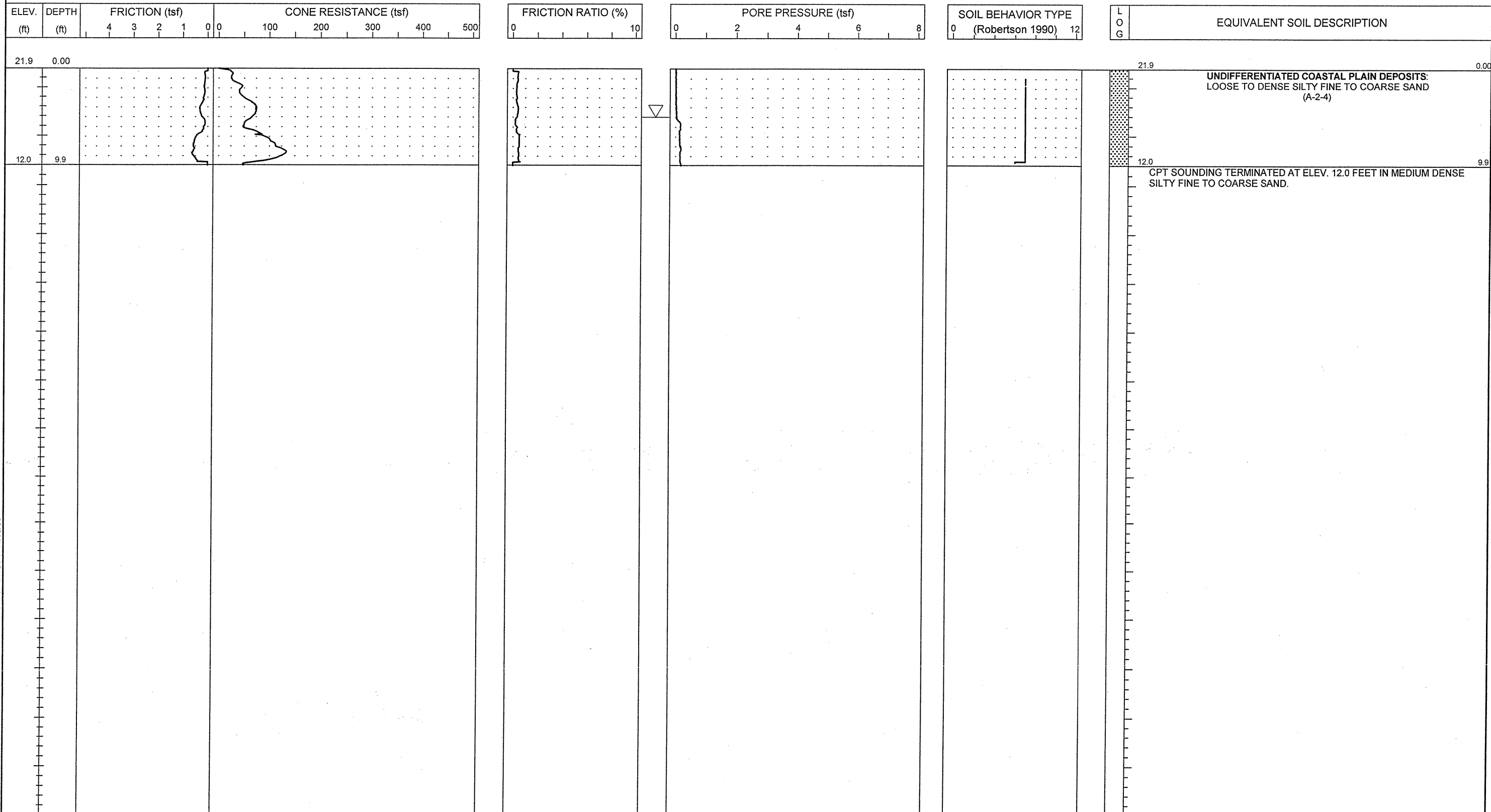
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-324	BORING LOCATION 66+00	OFFSET 38.0 ft RT	ALIGNMENT -Y8-	0 HR. 5.0	DATE STARTED 11/2/06	COMPLETED 11/2/06
COLLAR ELEV. 21.5 ft	NORTHING 188,985.2	EASTING 2,298,800.2	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO. 660 51-411 8TH CPT.GPJ NCDOT.GDT 11/13/06

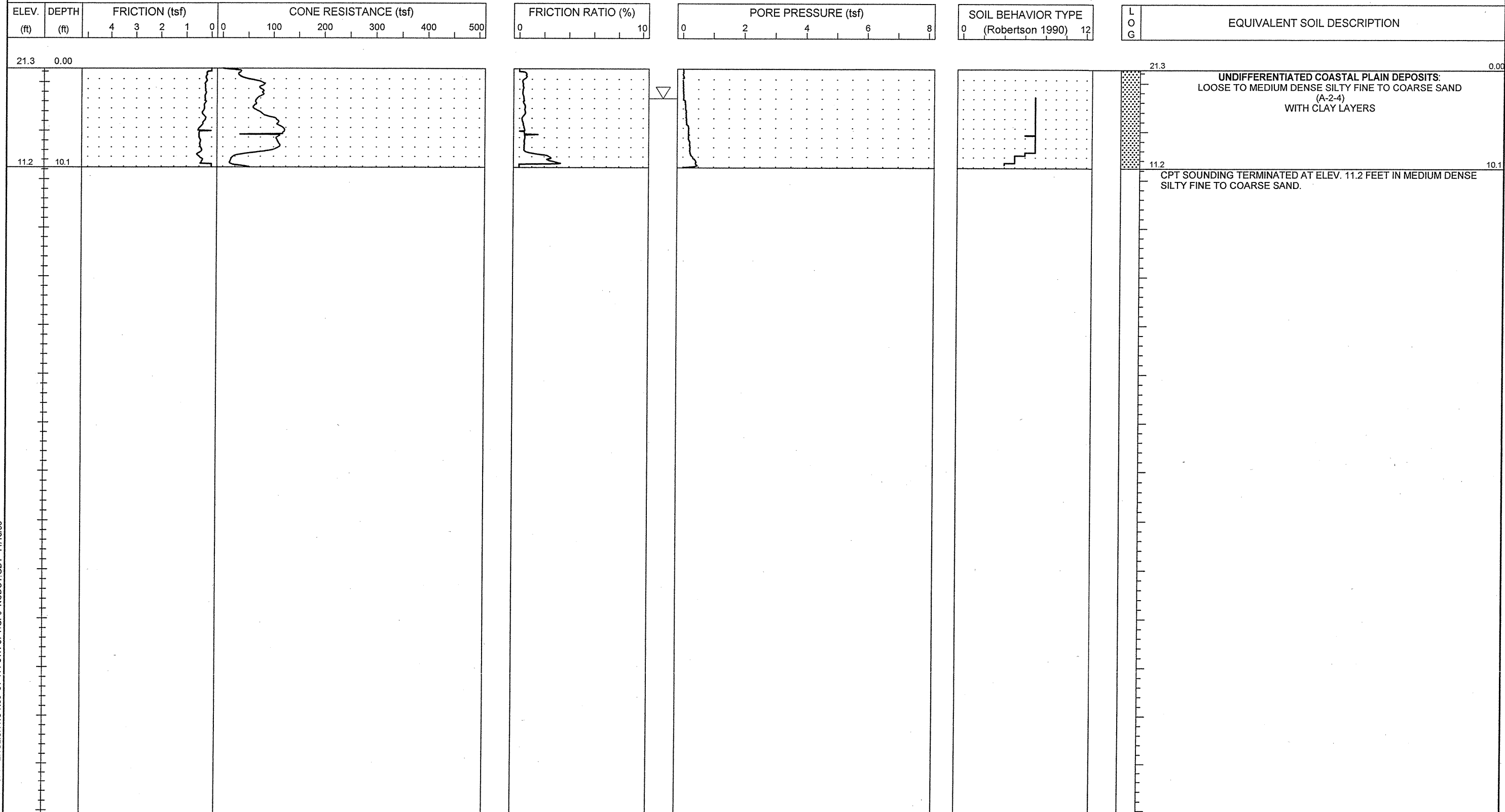


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 9.9 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-325	BORING LOCATION 68+00	OFFSET 37.0 ft RT	ALIGNMENT -Y8-	0 HR. 5.0	DATE STARTED 11/2/06	COMPLETED 11/2/06
COLLAR ELEV. 21.9 ft	NORTHING 188,953.2	EASTING 2,298,997.6	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A





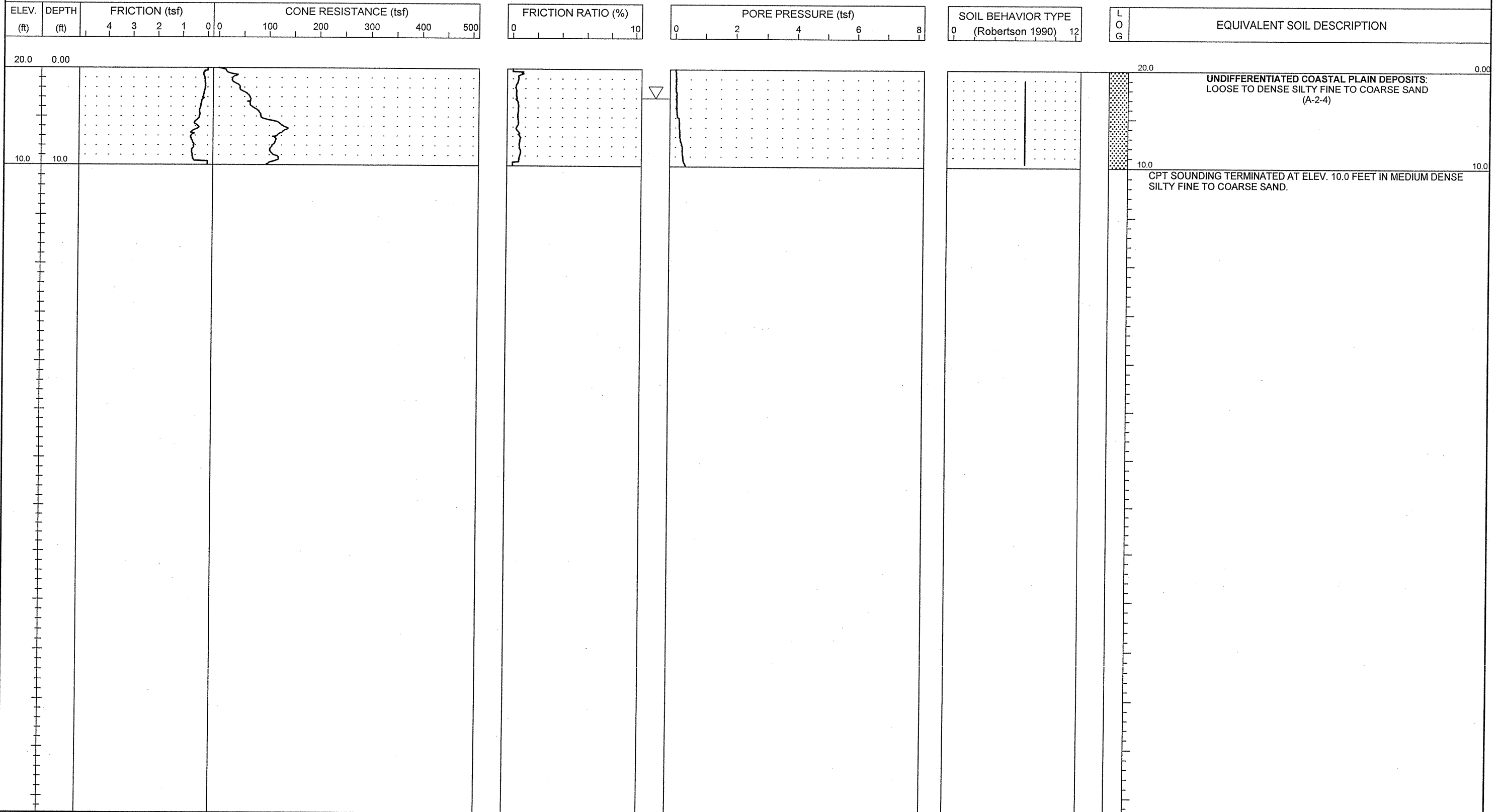
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.1 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-326	BORING LOCATION 70+00	OFFSET 34.0 ft RT	ALIGNMENT -Y8-	0 HR. 3.0	DATE STARTED 11/2/06	COMPLETED 11/2/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 21.3 ft	NORTHING 188,923.3	EASTING 2,299,195.4		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



NCDOT CPT - ENGLISH NO. 60. 51-411 8TH CPT.GPJ NCDOT.GDT 11/13/06

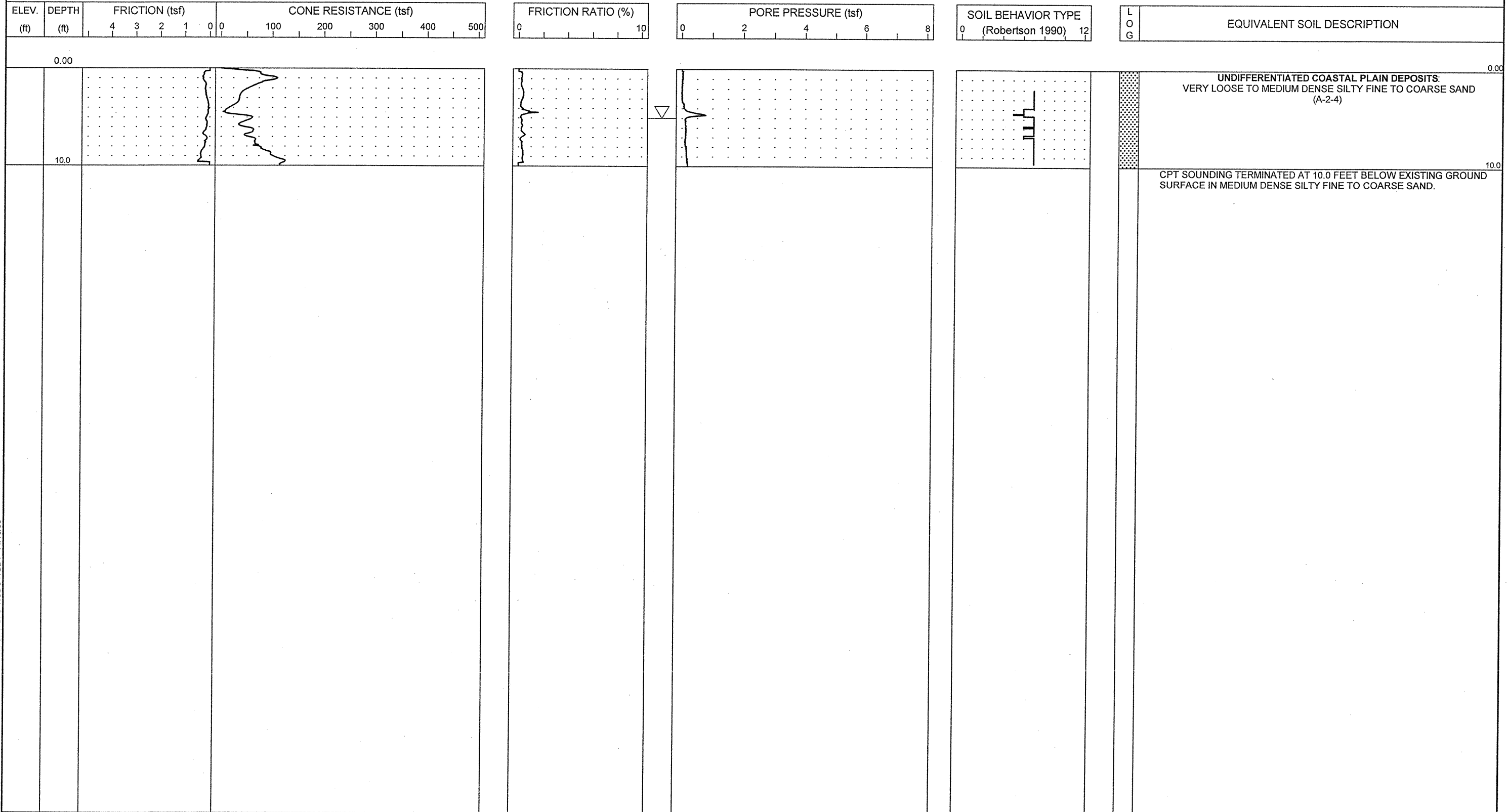


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-327	BORING LOCATION 72+00	OFFSET 35.0 ft RT	ALIGNMENT -Y8-	0 HR. 3.0	DATE STARTED 11/2/06	COMPLETED 11/2/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 20.0 ft	NORTHING 188,889.3	EASTING 2,299,392.5		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		





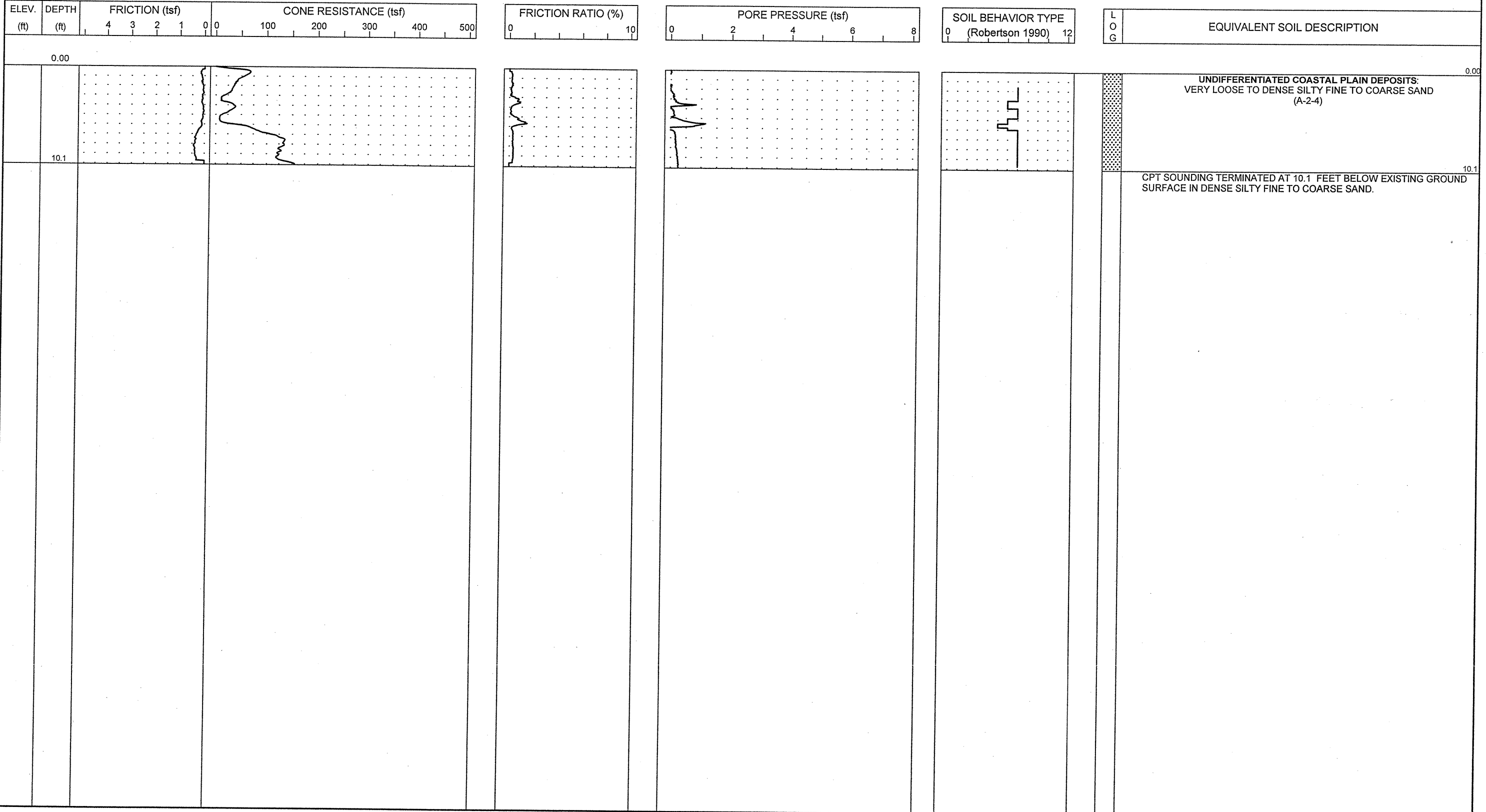
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/ Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-328	BORING LOCATION 12+00	OFFSET 0.0 ft CL	ALIGNMENT -Y8A-	0 HR. 5.0	DATE STARTED 11/1/06	COMPLETED 11/1/06
COLLAR ELEV.	NORTHING 192,663.8	EASTING 2,296,234.0	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO N60.51-411 7TH CPT.GPJ NCDOT.GDT 11/16/06

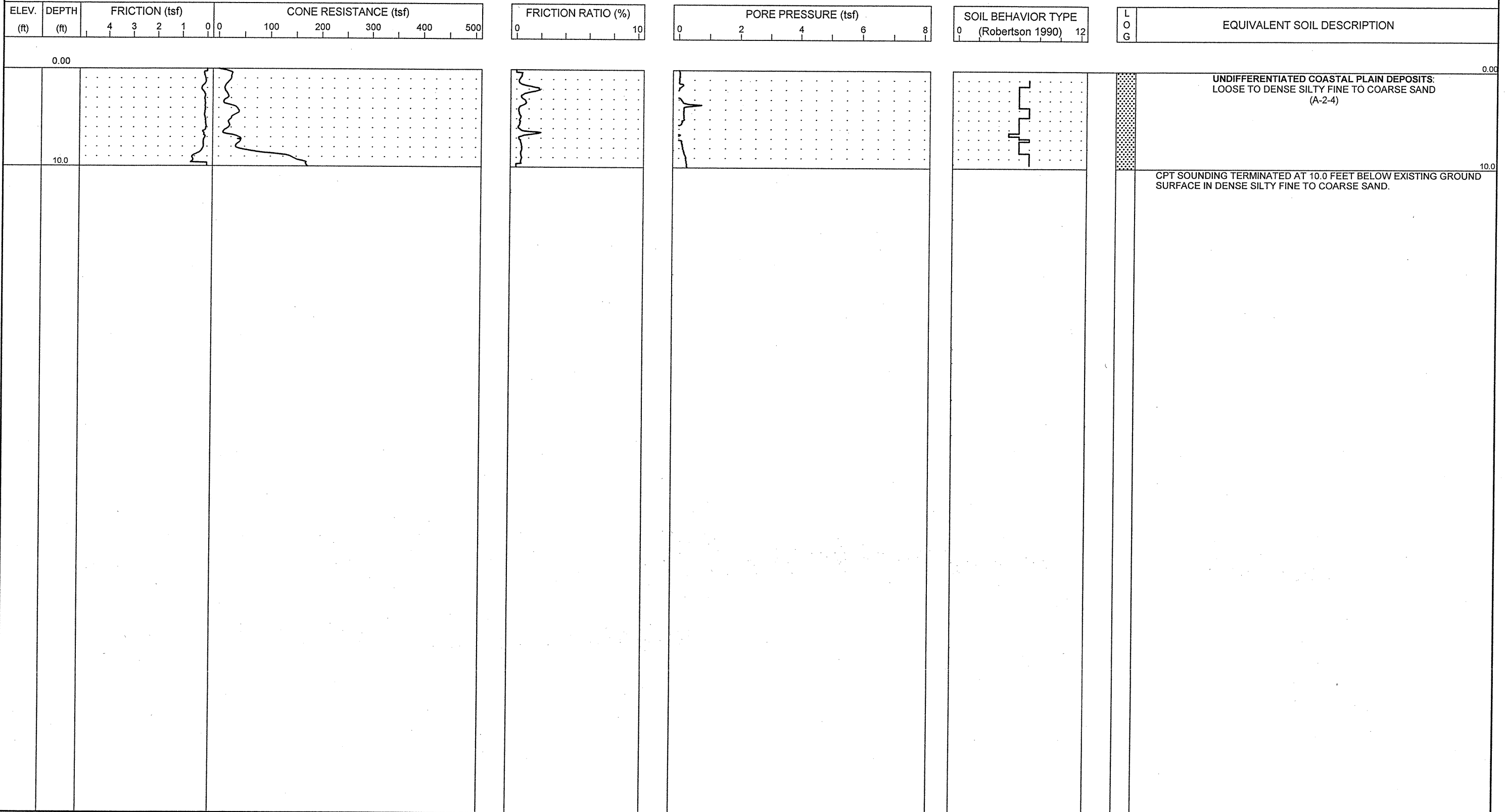


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/ Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.1 ft	DRILL MACHINE CPT-ATV
BORING NO. C-329	BORING LOCATION 14+38	OFFSET 0.0 ft CL	ALIGNMENT -Y8A-	0 HR. N/M	DATE STARTED 11/1/06	COMPLETED 11/1/06
COLLAR ELEV.	NORTHING 192,625.5	EASTING 2,295,998.6	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



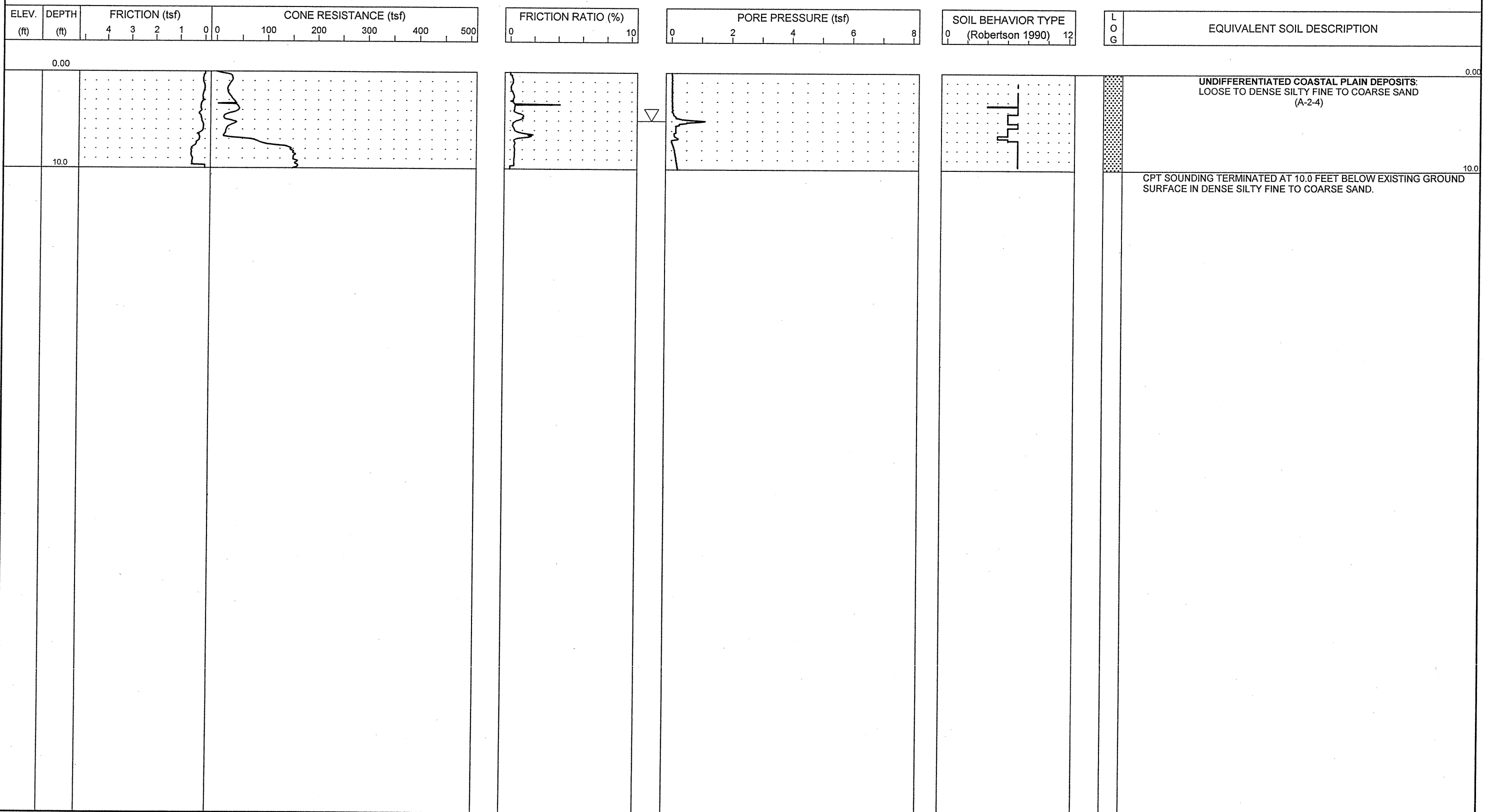


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/ Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV
BORING NO. C-330	BORING LOCATION 17+00	OFFSET 0.0 ft CL	ALIGNMENT -Y8A-	0 HR. N/M	DATE STARTED 11/1/06	COMPLETED 11/1/06
COLLAR ELEV.	NORTHING 192,585.4	EASTING 2,295,740.2	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A





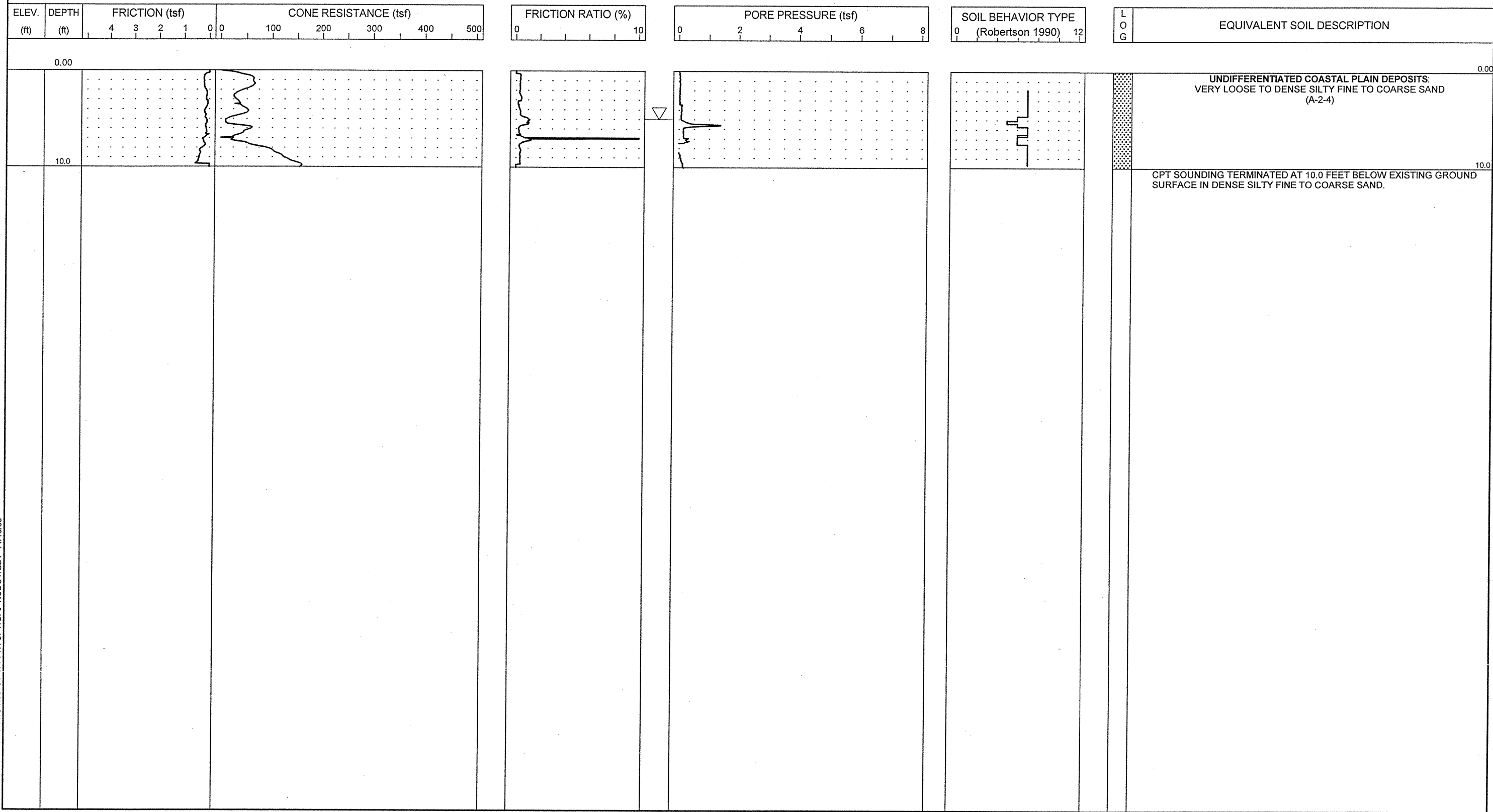
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/ Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV
BORING NO. C-331	BORING LOCATION 19+00	OFFSET 0.0 ft CL	ALIGNMENT -Y8A-	0 HR. 5.0	DATE STARTED 11/1/06	COMPLETED 11/1/06
COLLAR ELEV.	NORTHING 192,554.7	EASTING 2,295,542.8	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO N60_51-411_7TH CPT.GPJ NCDOT.GDT 11/16/06



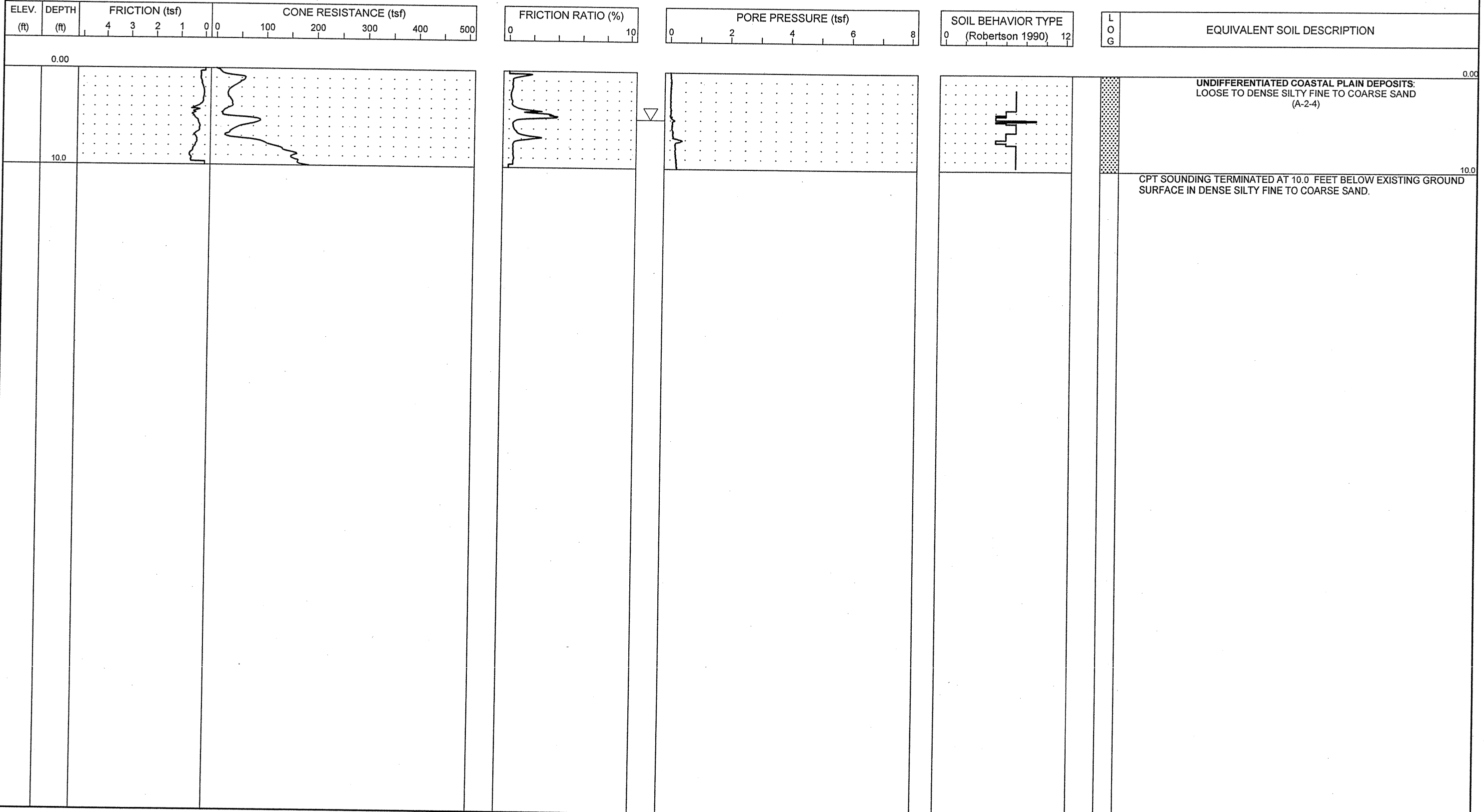
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/ Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-332	BORING LOCATION 21+00	OFFSET 0.0 ft CL	ALIGNMENT -Y8A-	0 HR. 5.0	DATE STARTED 11/1/06	COMPLETED 11/1/06
COLLAR ELEV.	NORTHING 192,523.9	EASTING 2,295,345.0	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A
						HAMMER TYPE N/A



NCDOT CPT - ENGLISH NO. N80 51-411 7TH CPT.GPJ NCDOT.GDT 11/16/06

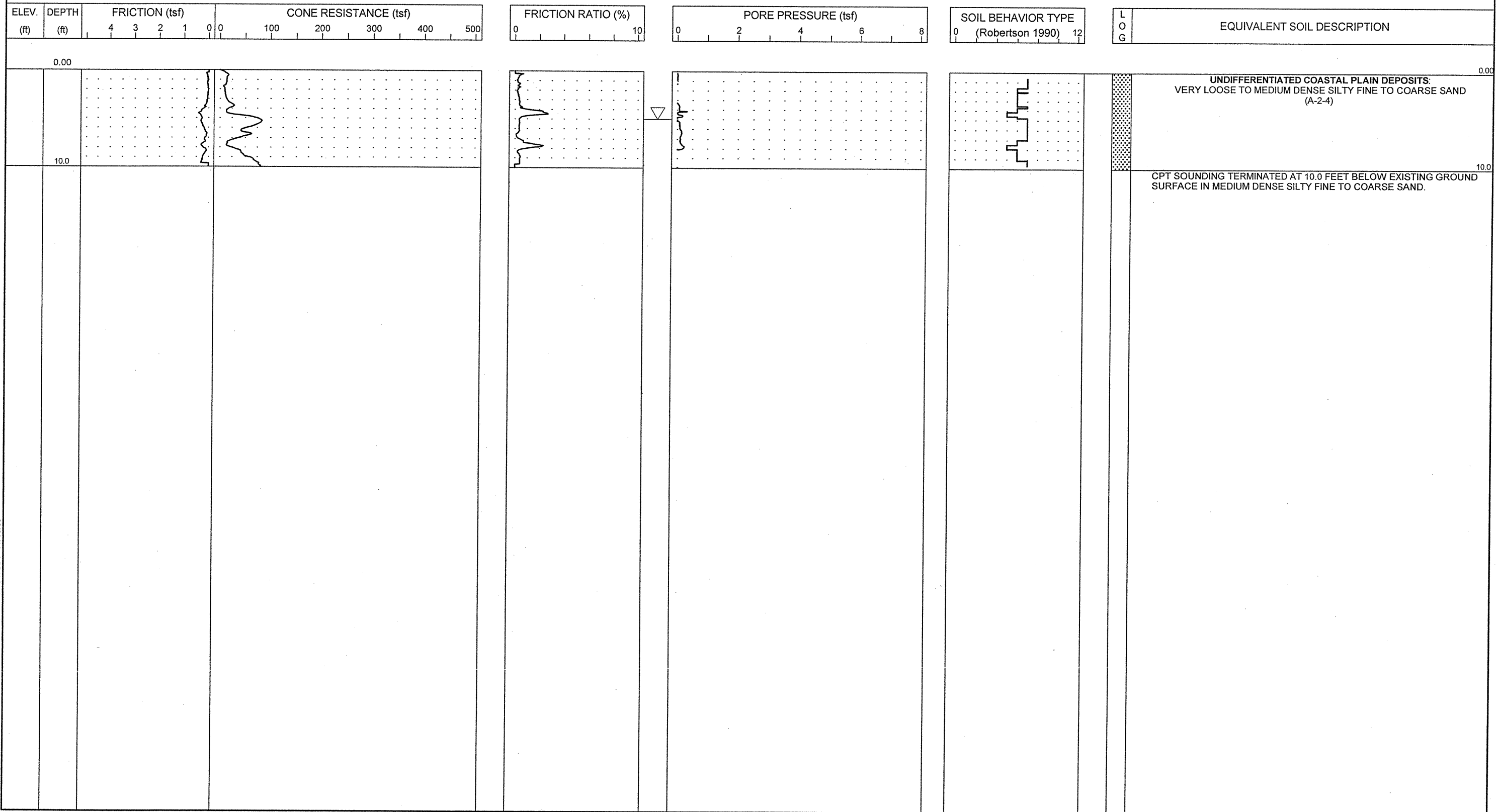


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/ Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV
BORING NO. C-333	BORING LOCATION 23+00	OFFSET 0.0 ft CL	ALIGNMENT -Y8A-	0 HR. 5.0	DATE STARTED 11/1/06	COMPLETED 11/1/06
COLLAR ELEV.	NORTHING 192,493.2	EASTING 2,295,147.4	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A





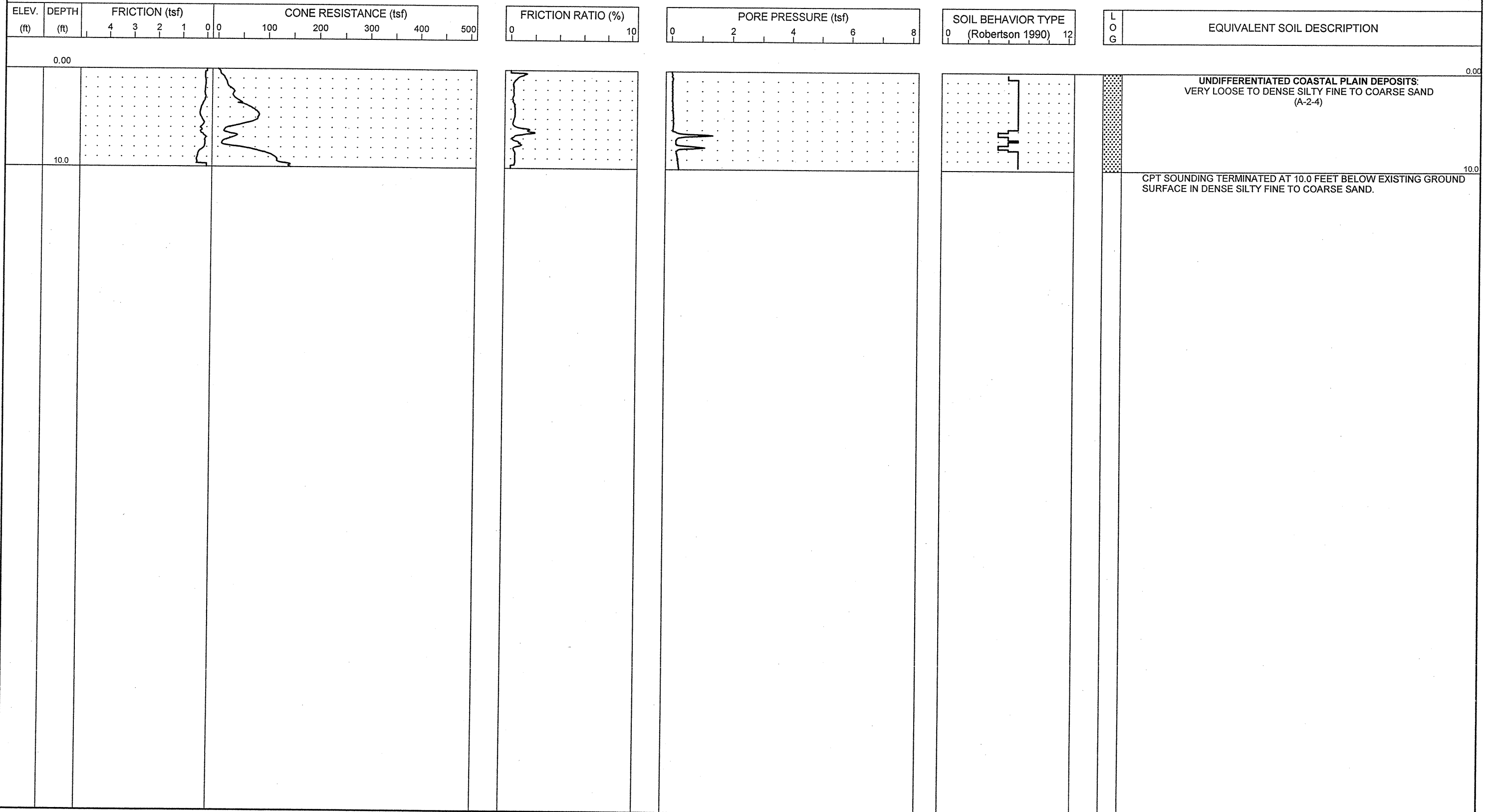
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/ Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-334	BORING LOCATION 25+00	OFFSET 0.0 ft CL	ALIGNMENT -Y8A-	0 HR. 5.0	DATE STARTED 11/1/06	COMPLETED 11/1/06
COLLAR ELEV.	NORTHING 192,462.5	EASTING 2,294,949.7	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO N60 51-411 7TH CPT.GPJ NCDOT.GDT 11/16/06

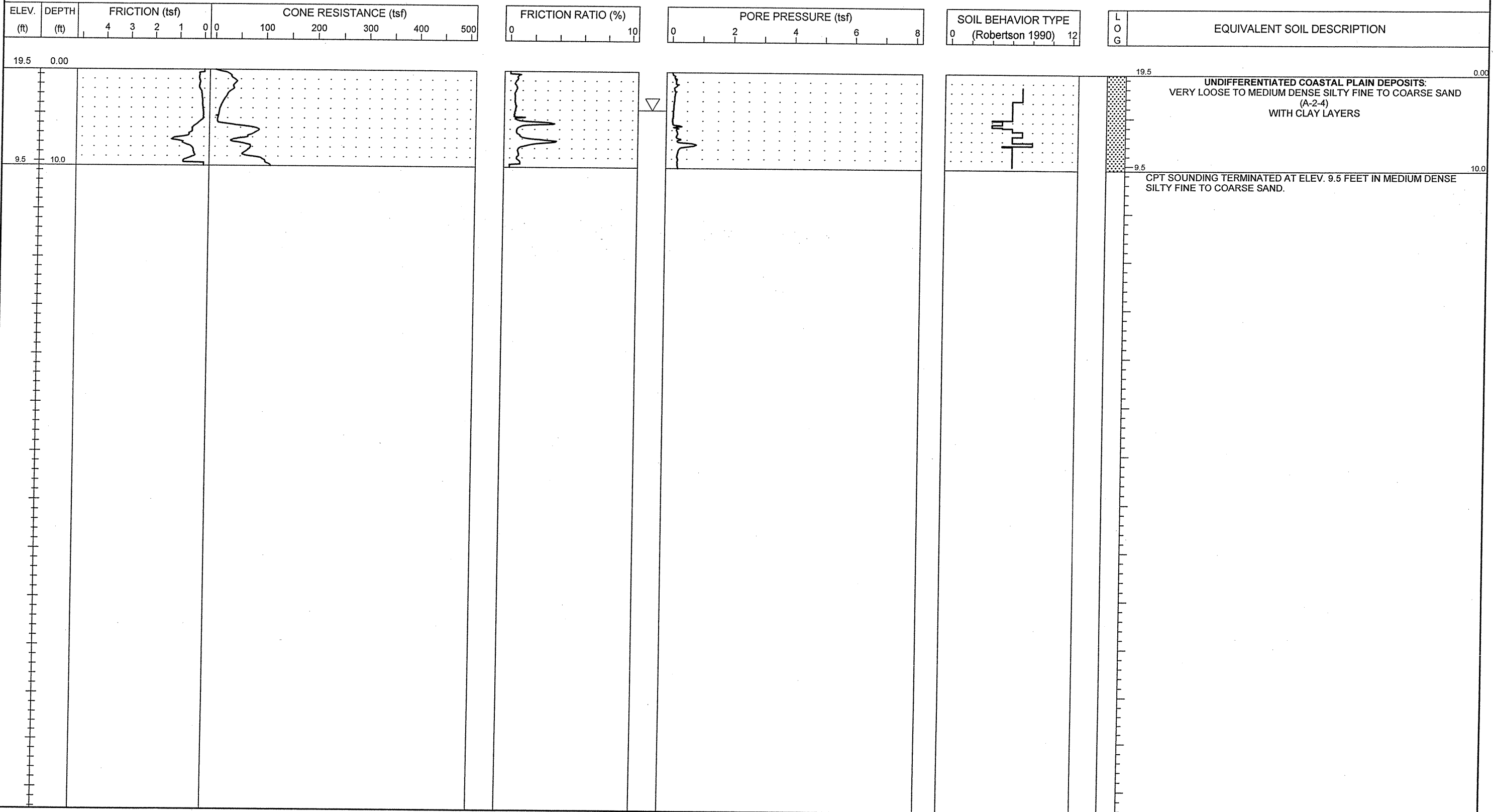


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/ Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-335	BORING LOCATION 12+00	OFFSET 0.0 ft CL	ALIGNMENT -Y8B-	0 HR. N/M	DATE STARTED 11/1/06	COMPLETED 11/1/06
COLLAR ELEV.	NORTHING 192,428.0	EASTING 2,296,030.2	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A





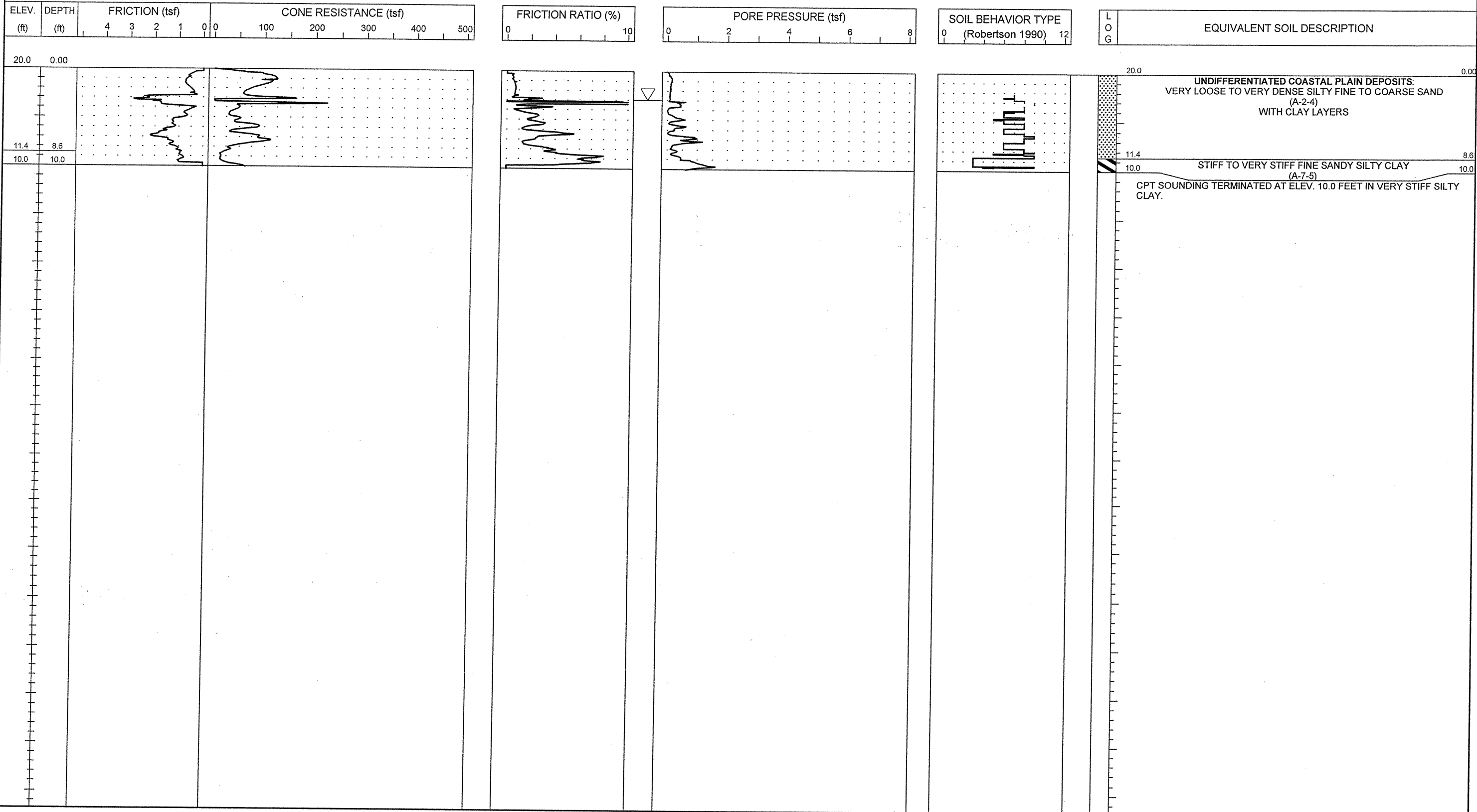
PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-336	BORING LOCATION 12+00	OFFSET 0.0 ft CL	ALIGNMENT -Y9-	0 HR. 4.0	DATE STARTED 10/13/06	COMPLETED 10/13/06
COLLAR ELEV. 19.5 ft	NORTHING 190,573.9	EASTING 2,297,618.3	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M



NCDOT CPT - ENGLISH NO N60 51-411 SEC CPT.GPJ NCDOT.GDT 11/9/06



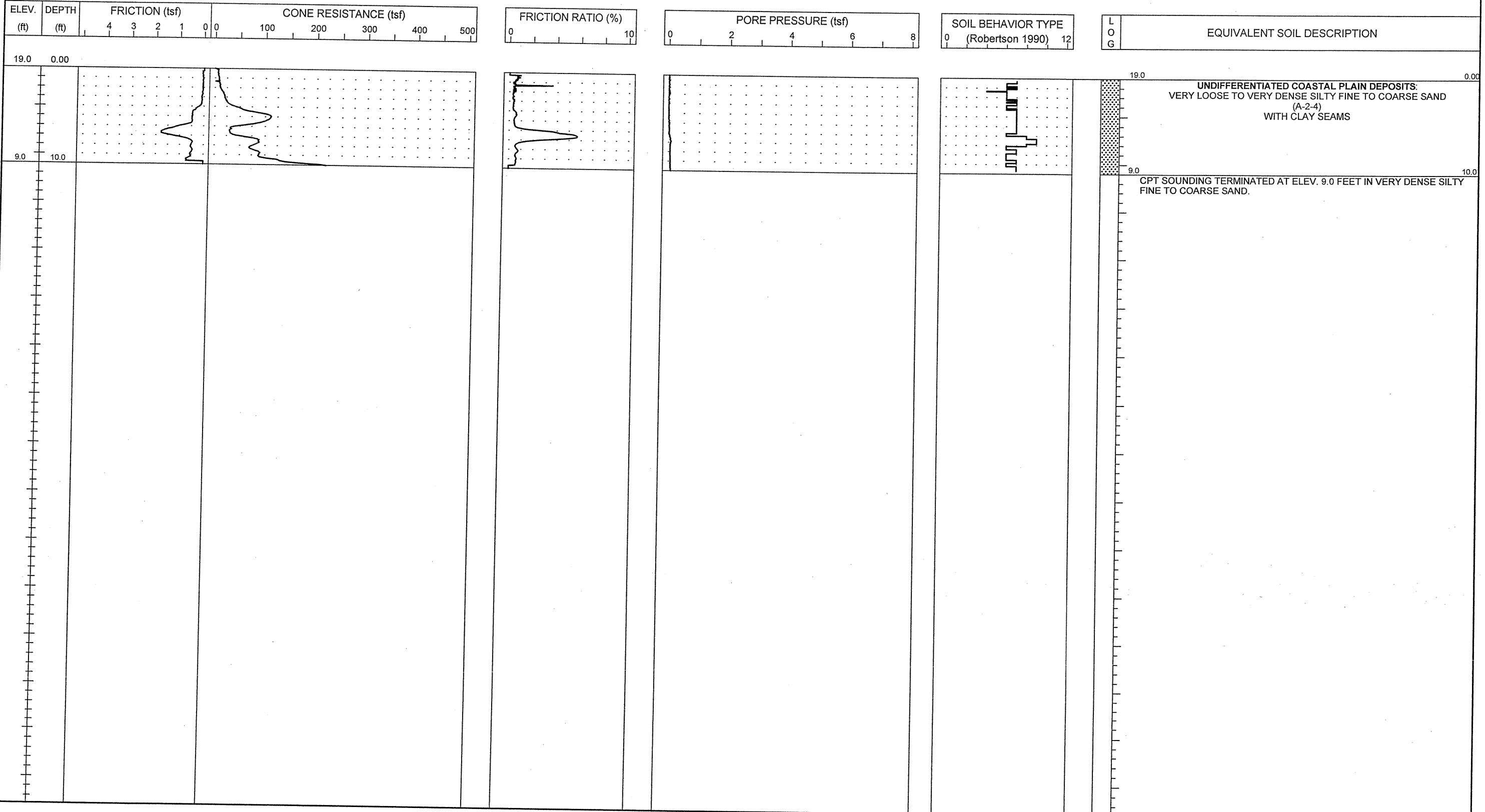
PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-337	BORING LOCATION 14+00	OFFSET 10.0 ft LT	ALIGNMENT -Y9-	0 HR. 3.0	DATE STARTED 10/13/06	COMPLETED 10/13/06	SURFACE WATER DEPTH N/M	
COLLAR ELEV. 20.0 ft	NORTHING 190,637.6	EASTING 2,297,808.7		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



NCDOT CPT - ENGLISH NO N60 51-411 SEC CPT.GPJ NCDOT.GDT 11/13/06



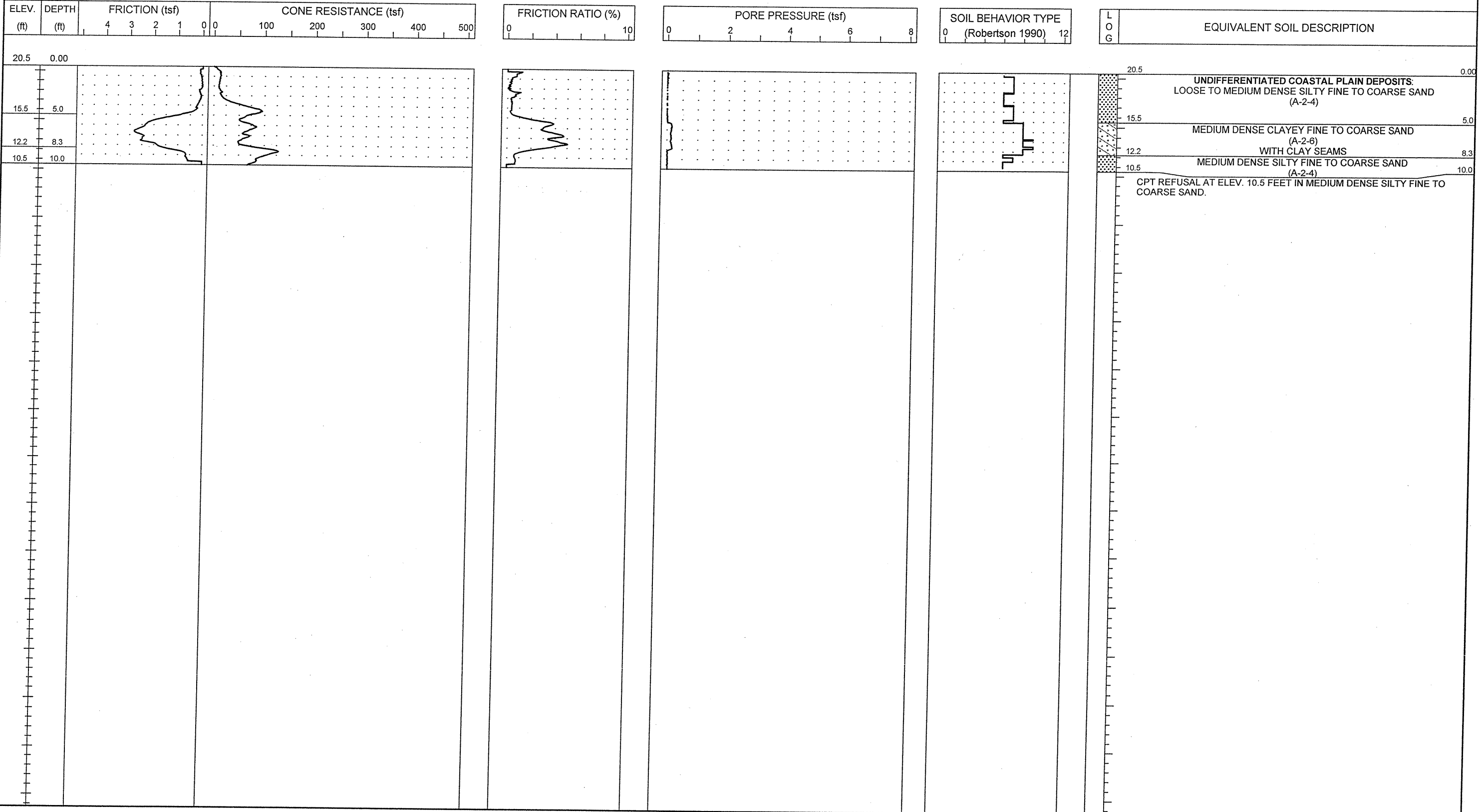
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/ Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-339	BORING LOCATION 12+00	OFFSET 0.0 ft CL	ALIGNMENT -SVRD10-	0 HR. N/M	DATE STARTED 11/1/06	COMPLETED 11/1/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 19.0 ft	NORTHING 190,437.2	EASTING 2,297,242.4		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



NCDOT CPT - ENGLISH NO N60 51-411 7TH CPT.GPJ NCDOT.GDT 11/13/06

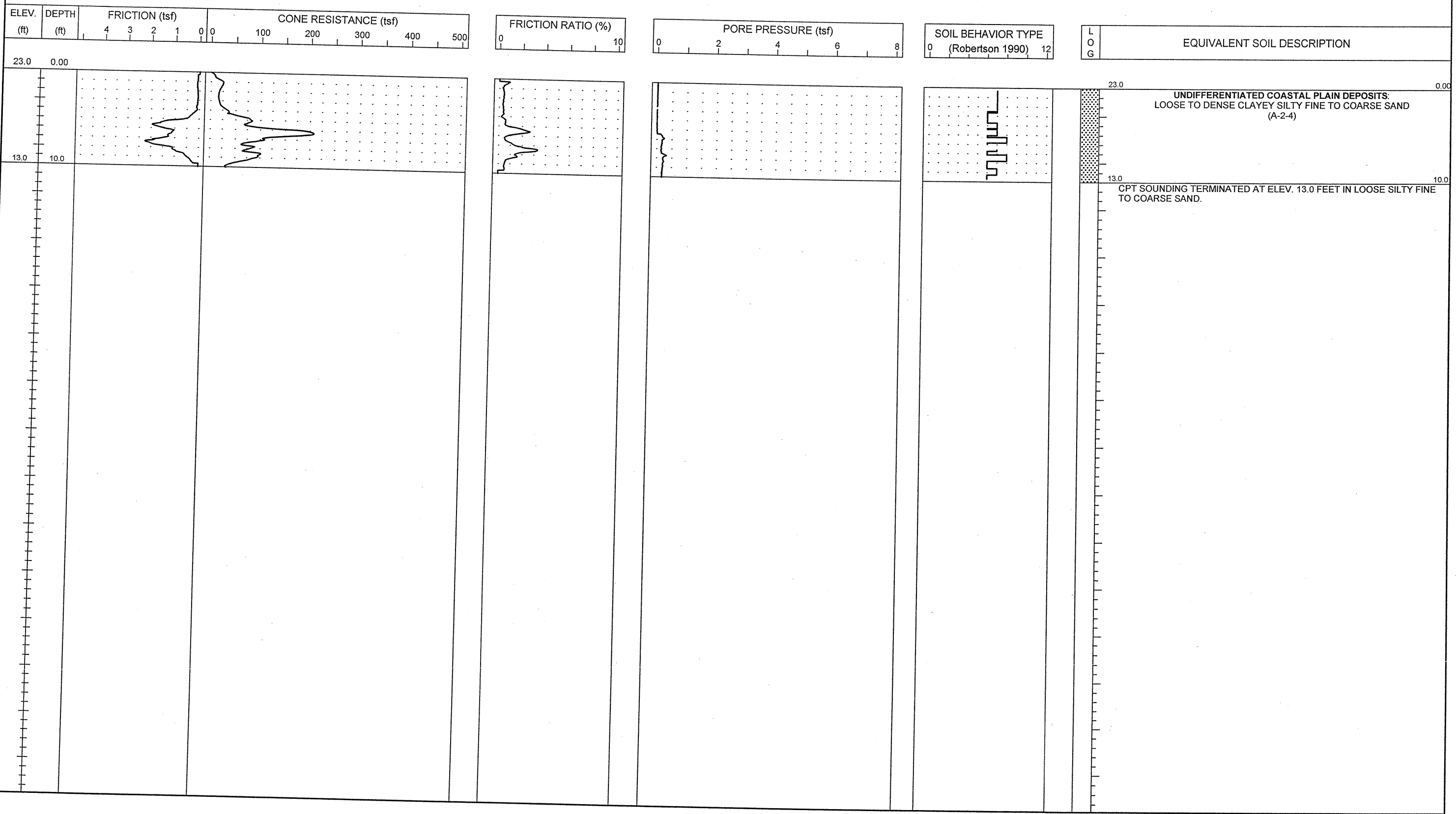


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/ Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf		
SITE DESCRIPTION US 17 (Wilmington Bypass)				GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push	HAMMER TYPE N/A
BORING NO. C-340	BORING LOCATION 14+00	OFFSET 0.0 ft CL	ALIGNMENT -SVRD10-	0 HR. N/M	DATE STARTED 11/1/06	COMPLETED 11/1/06	SURFACE WATER DEPTH N/A	
COLLAR ELEV. 20.5 ft	NORTHING 190,474.1	EASTING 2,297,070.3		24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER		



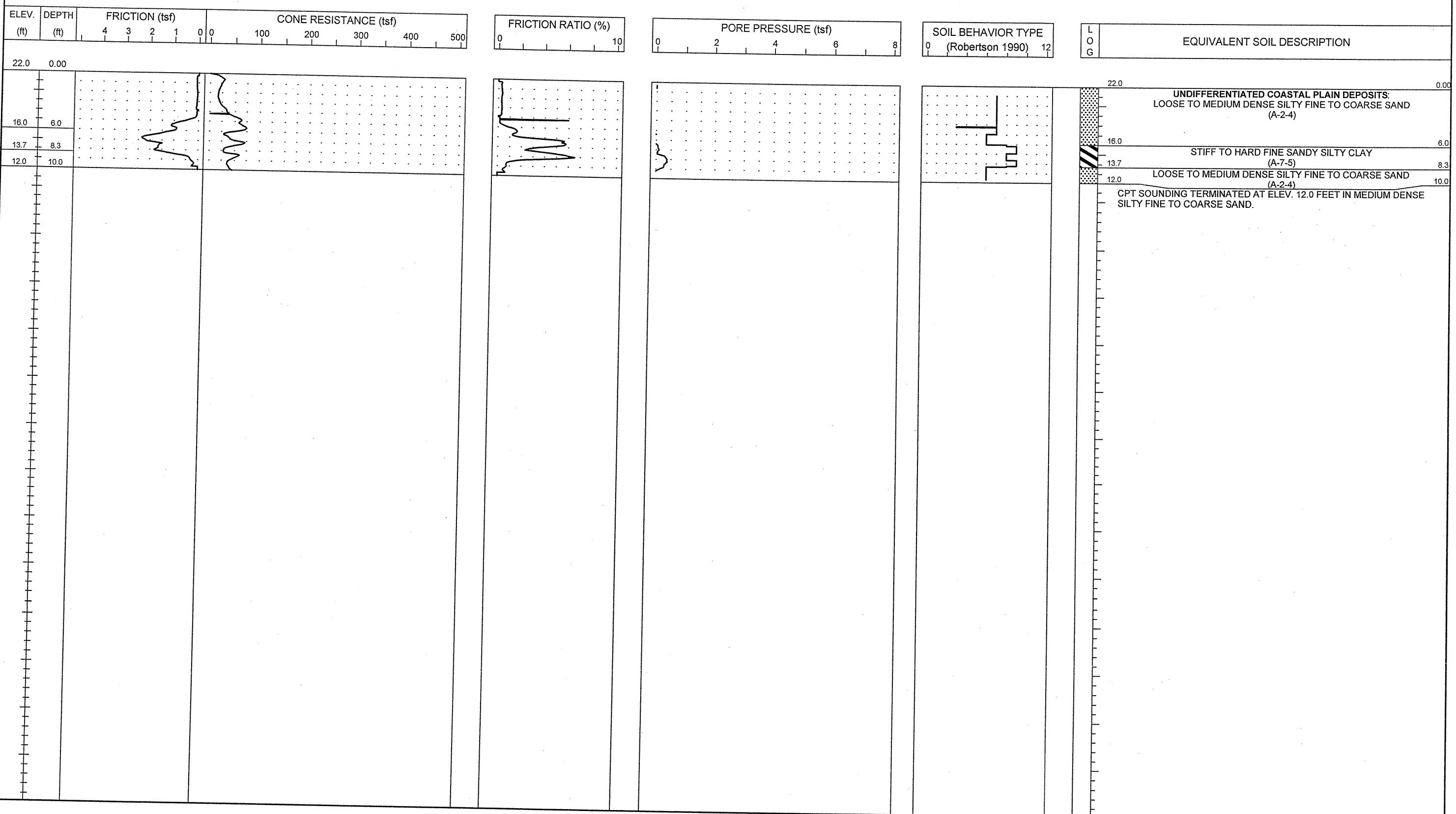


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/ Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-341	BORING LOCATION 16+00	OFFSET 0.0 ft CL	ALIGNMENT -SVRD10-	0 HR. N/M	DATE STARTED 11/1/06	COMPLETED 11/1/06
COLLAR ELEV. 23.0 ft	NORTHING 190,666.7	EASTING 2,297,016.6	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO. N60.51-411 7TH CPT.GPJ NCDOT.GDT 11/13/06

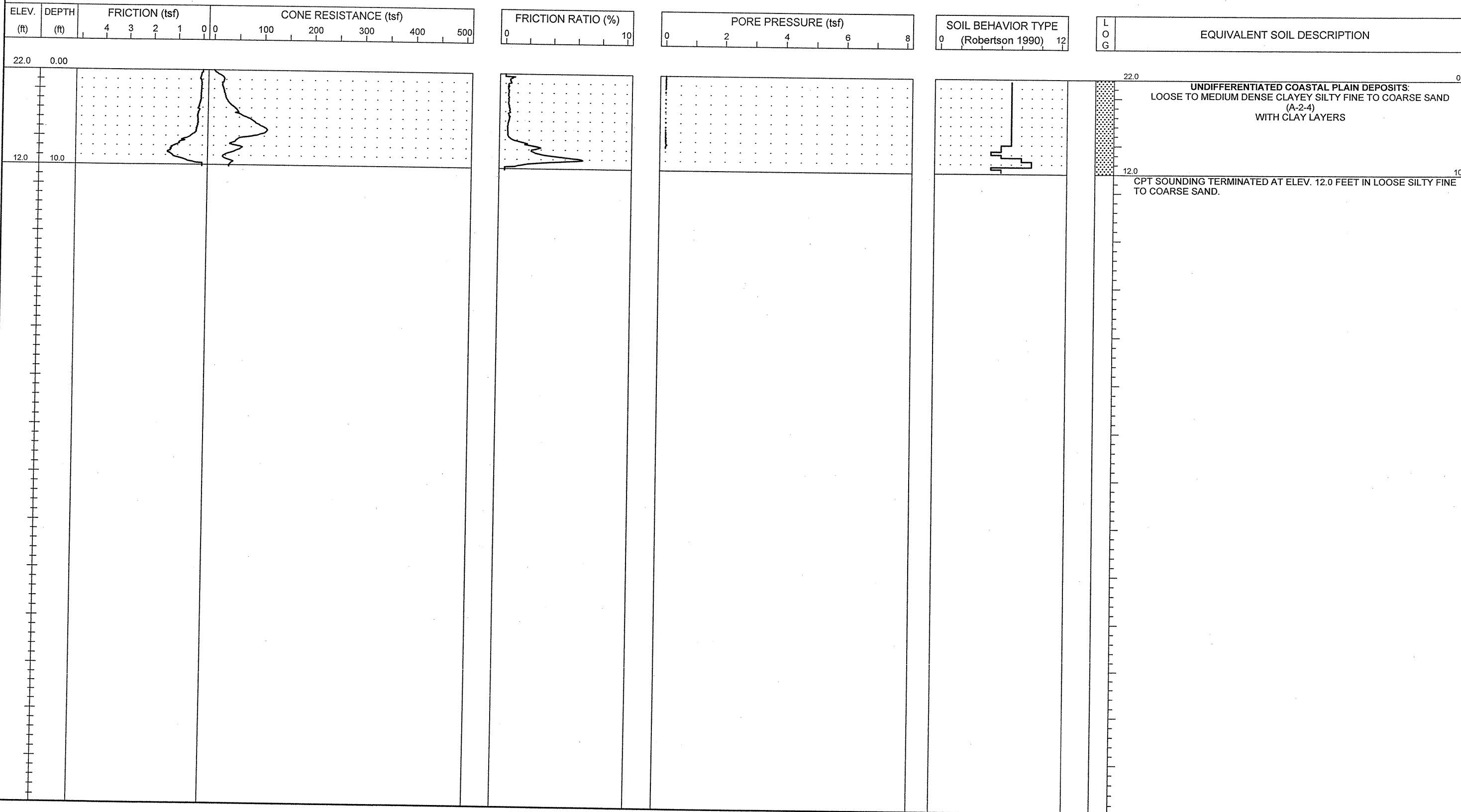
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/ Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-342	BORING LOCATION 18+00	OFFSET 0.0 ft CL	ALIGNMENT -SVRD10-	0 HR. N/M	DATE STARTED 11/1/06	COMPLETED 11/1/06
COLLAR ELEV. 22.0 ft	NORTHING 190,859.7	EASTING 2,296,964.0	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO N60 51-411 7TH CPT.GPJ_NCDOT.GDT 11/13/06

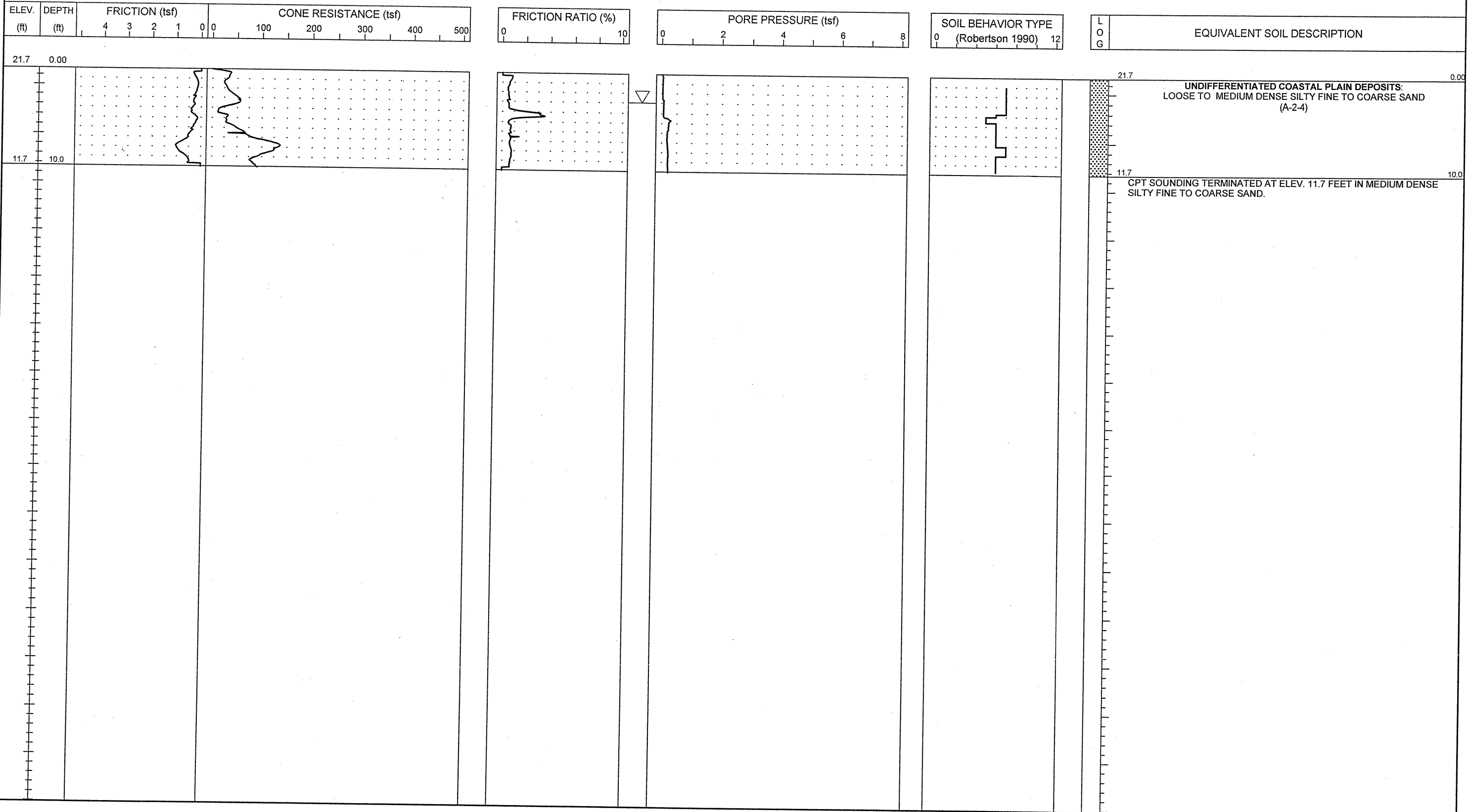


PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/ Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-343	BORING LOCATION 20+00	OFFSET 0.0 ft CL	ALIGNMENT -SVRD10-	0 HR. N/M	DATE STARTED 11/1/06	COMPLETED 11/1/06
COLLAR ELEV. 22.0 ft	NORTHING 191,052.7	EASTING 2,296,911.4	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A

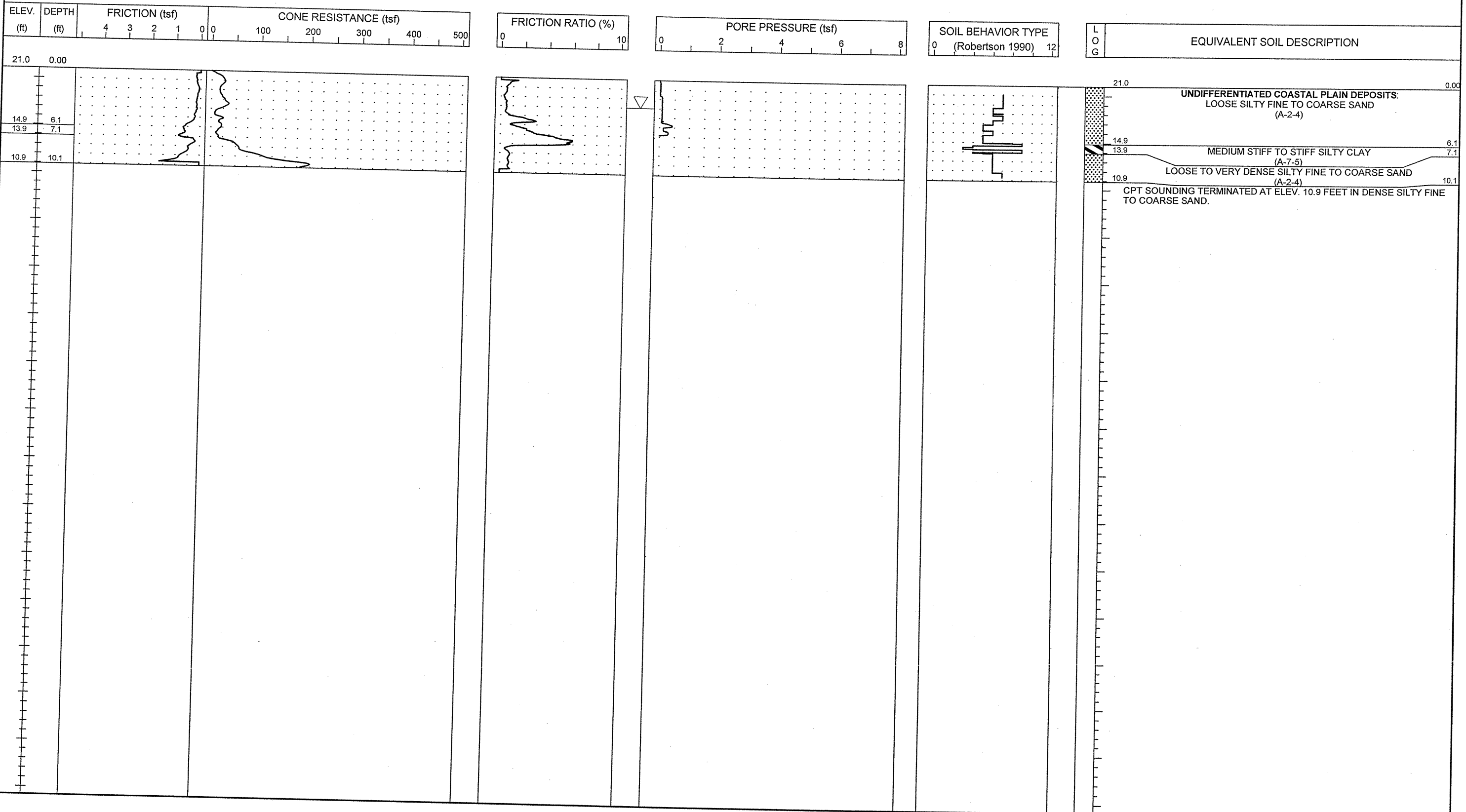




PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-344	BORING LOCATION 11+00	OFFSET 0.0 ft CL	ALIGNMENT -SVRD9-	0 HR. 3.0	DATE STARTED 10/12/06	COMPLETED 10/12/06
COLLAR ELEV. 21.7 ft	NORTHING 192,765.0	EASTING 2,296,505.8	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M
HAMMER TYPE N/A						

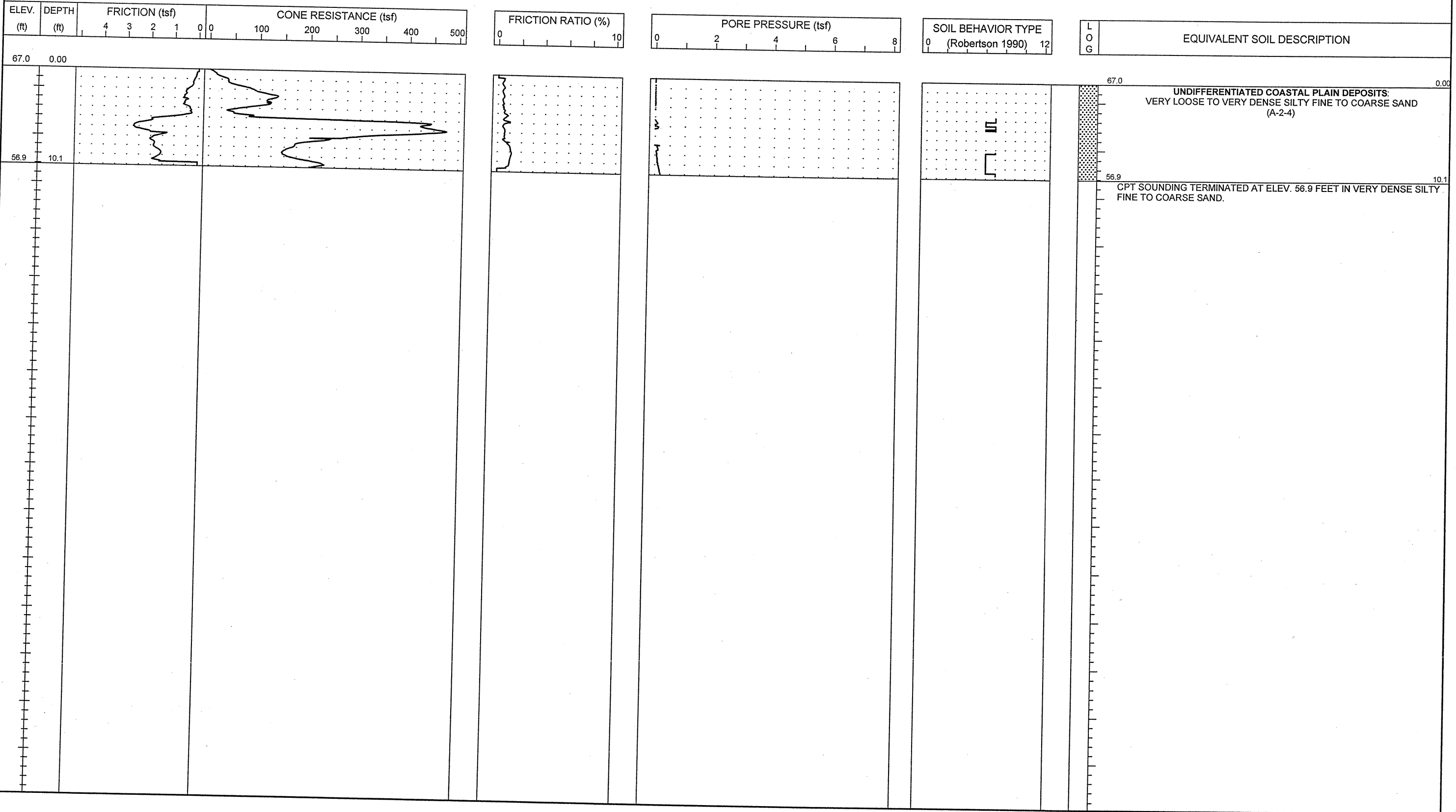


PROJECT NO. 34491.1.2	ID. R2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.1 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-345	BORING LOCATION 13+00	OFFSET 0.0 ft CL	ALIGNMENT -SVRD9-	0 HR. 3.0	DATE STARTED 10/12/06	COMPLETED 10/12/06
COLLAR ELEV. 21.0 ft	NORTHING 192,598.4	EASTING 2,296,612.6	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/M





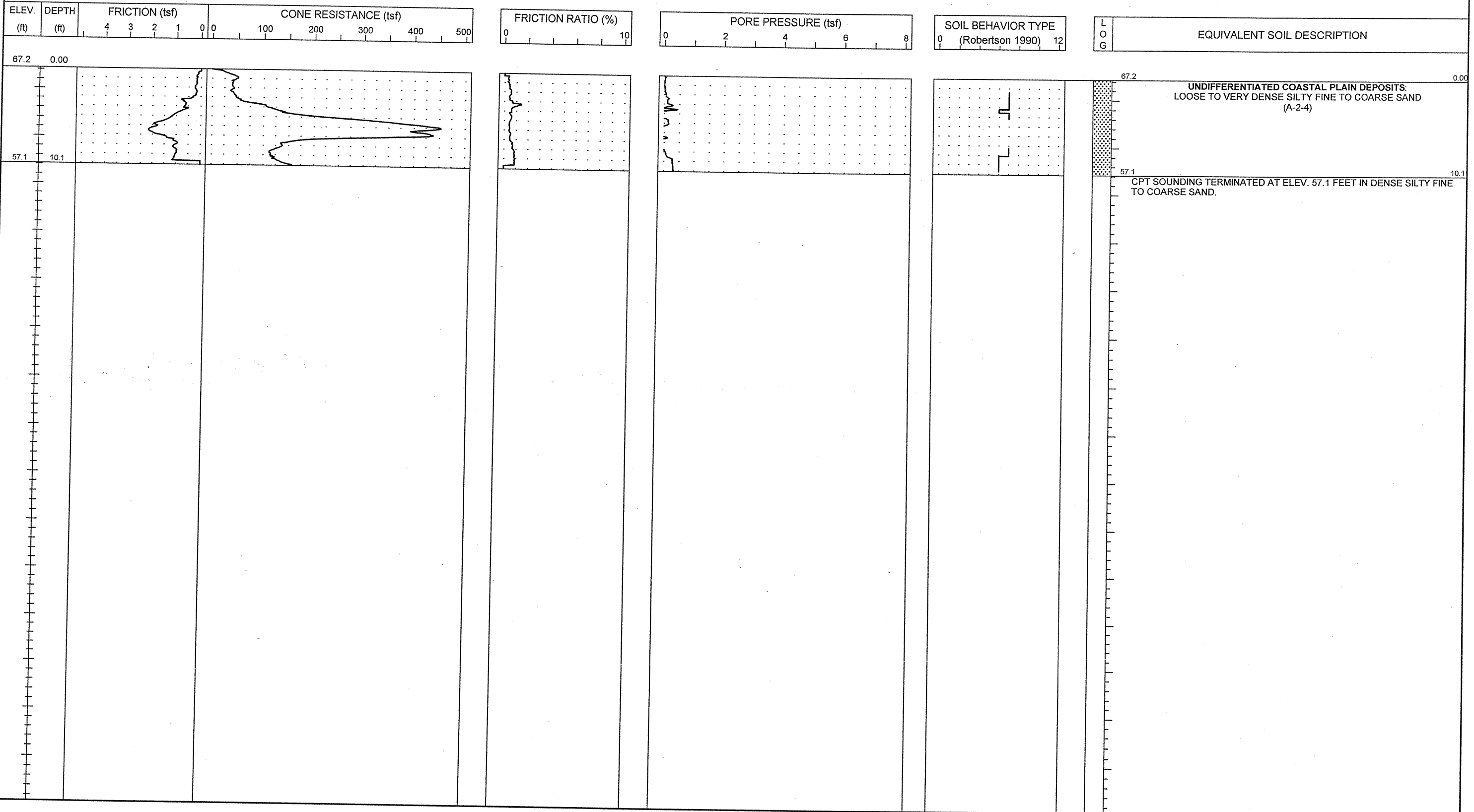
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.1 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-346	BORING LOCATION 11+50	OFFSET 0.0 ft CL	ALIGNMENT -SVRD5A-	0 HR. N/M	DATE STARTED 11/8/06	COMPLETED 11/8/06
COLLAR ELEV. 67.0 ft	NORTHING 186,418.9	EASTING 2,279,404.2	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO N60 51-411 LAST.GPJ NCDOT.GDT 11/16/06



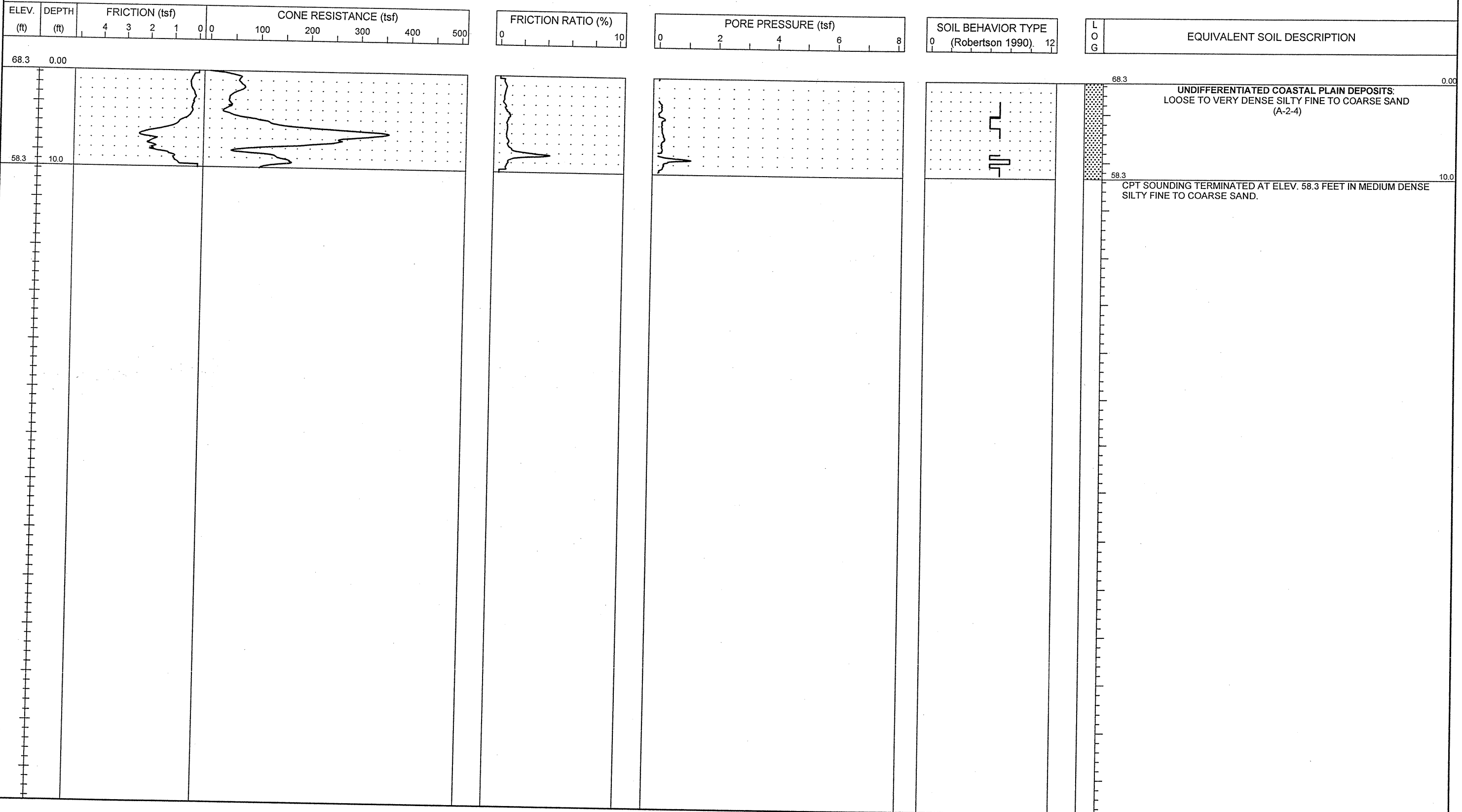
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.1 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-347	BORING LOCATION 12+00	OFFSET 0.0 ft CL	ALIGNMENT -SVRD5-	0 HR. N/M	DATE STARTED 11/8/06	COMPLETED 11/8/06
COLLAR ELEV. 67.2 ft	NORTHING 186,163.4	EASTING 2,279,341.9	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO N60 51-411 LAST.GPJ NCDOT.GDT 11/16/06



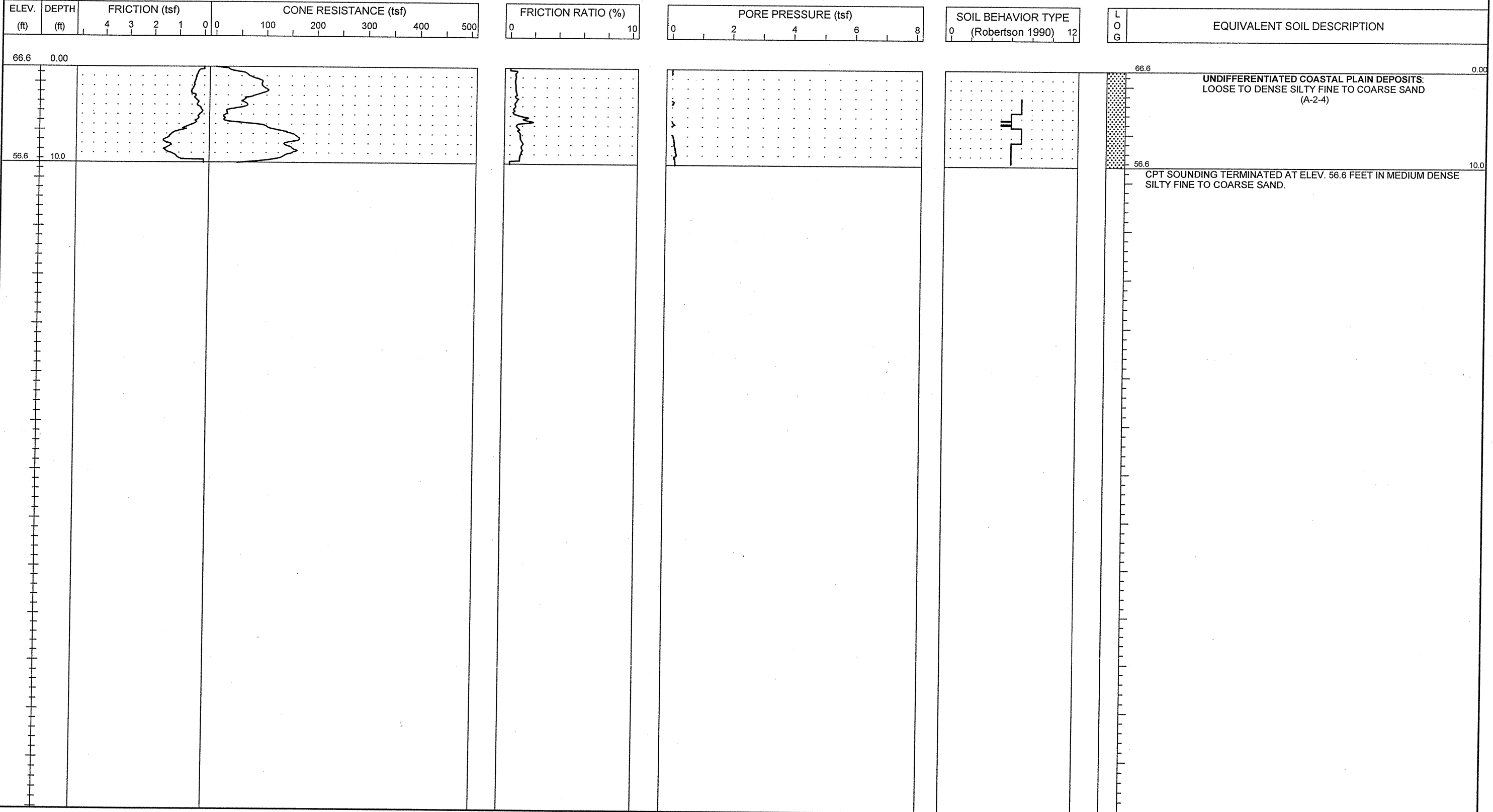
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)				TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-348	BORING LOCATION 14+00	OFFSET 0.0 ft CL	ALIGNMENT -SVRD5-	GROUND WATER (ft)	DATE STARTED 11/8/06	COMPLETED 11/8/06
COLLAR ELEV. 68.3 ft	NORTHING 186,195.0	EASTING 2,279,144.5		0 HR. N/M	SURFACE WATER DEPTH N/A	
				24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER



NCDOT CPT - ENGLISH NO N60 51-411 LAST.GPJ NCDOT.GDT 11/16/06



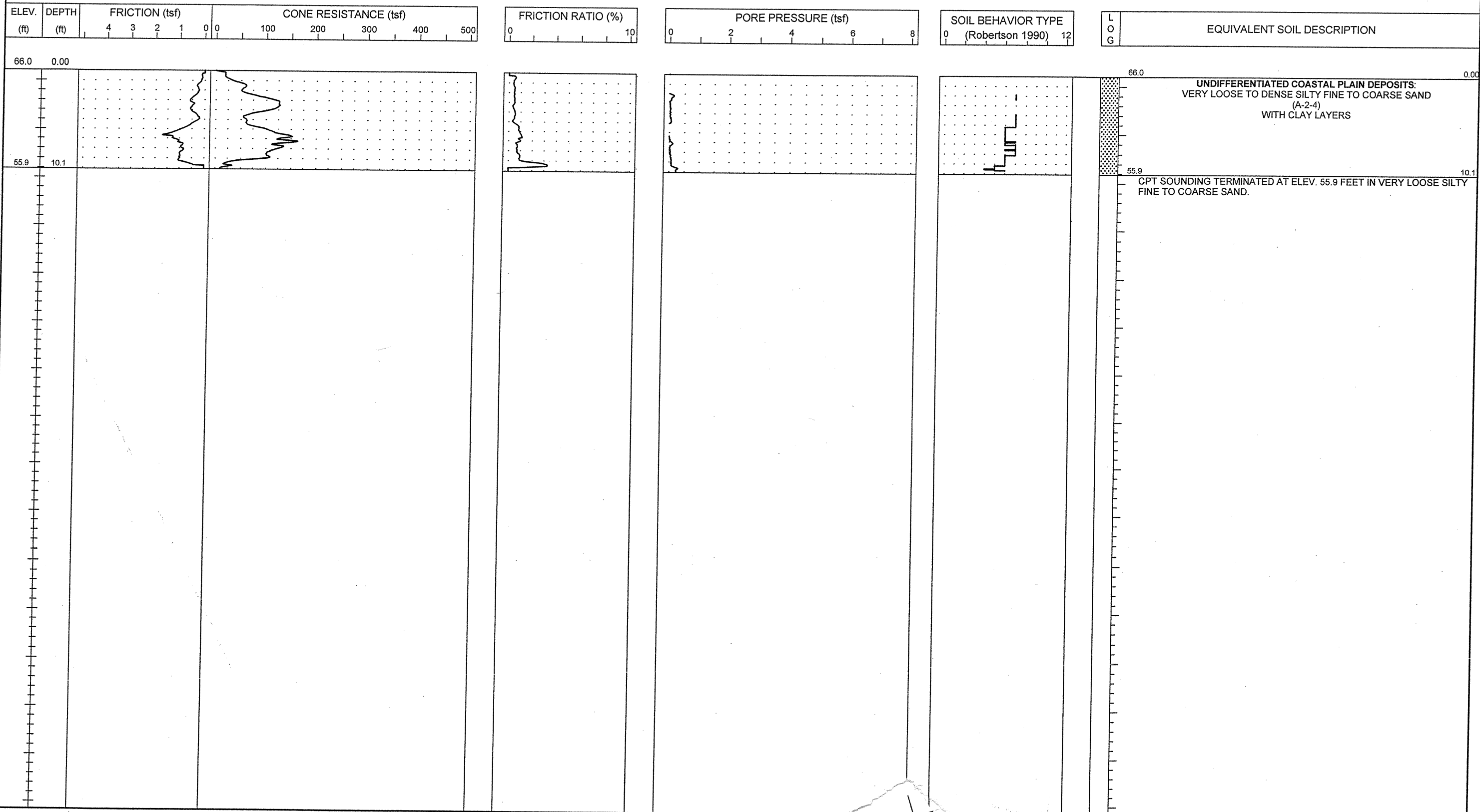
PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 In. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.0 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-349	BORING LOCATION 16+00	OFFSET 0.0 ft CL	ALIGNMENT -SVRD5-	0 HR. N/M	DATE STARTED 11/8/06	COMPLETED 11/8/06
COLLAR ELEV. 66.6 ft	NORTHING 186,209.8	EASTING 2,278,945.1	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO NEG 51-411 LAST.GPJ NCDOT.GDT 11/16/06



PROJECT NO. 34491.1.2	ID. R-2633B	COUNTY New Hanover/Brunswick	GEOLOGIST S. JOHNSON	TYPE OF CONE 1.75 in. PEIZO CONE	ROD TYPE 1.75 in Dia.	MAXIMUM DOWN PRESSURE Approximately 920 tsf
SITE DESCRIPTION US 17 (Wilmington Bypass)			GROUND WATER (ft)	TOTAL DEPTH 10.1 ft	DRILL MACHINE CPT-ATV	DRILL METHOD Direct Push
BORING NO. C-350	BORING LOCATION 18+00	OFFSET 0.0 ft CL	ALIGNMENT -SVRD5-	0 HR. N/M	DATE STARTED 11/8/06	COMPLETED 11/8/06
COLLAR ELEV. 66.0 ft	NORTHING 186,224.7	EASTING 2,278,745.6	24 HR. N/M	DRILLER: A. MARTIN	TECHNICIAN J. WALKER	SURFACE WATER DEPTH N/A



NCDOT CPT - ENGLISH NO N60 51-411 LAST.GPJ NCDOT.GDT 11/16/06

CONTRACT: 34491.1.2 ID: R-2633BA

NOTE: SEE SHEET 2A FOR PLAN SHEET LAYOUT AT TIME OF INVESTIGATION

CONTENTS

LINE	STATION	PLAN	PROFILE
-L-	138+60 TO 166+00	4-5	8-9
-Y8D-	10+00 TO 26+25	6-7	10

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

ROADWAY
SUBSURFACE INVESTIGATION

PROJ. REFERENCE NO. 34491.1.2 (R-2633BA) F.A. PROJ. STPNHF-17(1)
 COUNTY BRUNSWICK
 PROJECT DESCRIPTION US 17 (WILMINGTON BYPASS) FROM
US 74 /76 EAST OF MALMO IN BRUNSWICK COUNTY TO
SR 1430 (CEDAR HILL ROAD)

INVENTORY ADDENDUM

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2633BA	1	10
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
		P.E.	
		RW & UTIL.	

CAUTION NOTICE

THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WERE MADE FOR THE PURPOSE OF STUDY, PLANNING, AND DESIGN AND NOT FOR CONSTRUCTION OR PAY PURPOSES. THE VARIOUS FIELD BORING LOGS, ROCK CORES, AND SOIL TEST DATA AVAILABLE MAY BE REVIEWED OR INSPECTED IN RALEIGH BY CONTACTING THE N.C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT (919) 707-6850. NEITHER THE SUBSURFACE PLANS AND REPORTS, NOR THE FIELD BORING LOGS, ROCK CORES, OR SOIL TEST DATA ARE PART OF THE CONTRACT.

GENERAL SOIL AND ROCK STRATA DESCRIPTIONS AND INDICATED BOUNDARIES ARE BASED ON A GEOTECHNICAL INTERPRETATION OF ALL AVAILABLE SUBSURFACE DATA AND MAY NOT NECESSARILY REFLECT THE ACTUAL SUBSURFACE CONDITIONS BETWEEN BORINGS OR BETWEEN SAMPLED STRATA WITHIN THE BOREHOLE. THE LABORATORY SAMPLE DATA AND THE IN SITU (IN-PLACED) TEST DATA CAN BE RELIED ON ONLY TO THE DEGREE OF RELIABILITY INHERENT IN THE STANDARD TEST METHOD. THE OBSERVED WATER LEVELS OR SOIL MOISTURE CONDITIONS INDICATED IN THE SUBSURFACE INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION. THESE WATER LEVELS OR SOIL MOISTURE CONDITIONS MAY VARY CONSIDERABLY WITH TIME ACCORDING TO CLIMATIC CONDITIONS INCLUDING TEMPERATURES, PRECIPITATION, AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

THE BIDDER OR CONTRACTOR IS CAUTIONED THAT DETAILS SHOWN ON THE SUBSURFACE PLANS ARE PRELIMINARY ONLY AND IN MANY CASES THE FINAL DESIGN DETAILS ARE DIFFERENT. FOR BIDDING AND CONSTRUCTION PURPOSES, REFER TO THE CONSTRUCTION PLANS AND DOCUMENTS FOR FINAL DESIGN INFORMATION ON THIS PROJECT. THE DEPARTMENT DOES NOT WARRANT OR GUARANTEE THE SUFFICIENCY OR ACCURACY OF THE INVESTIGATION MADE, NOR THE INTERPRETATIONS MADE, OR OPINION OF THE DEPARTMENT AS TO THE TYPE OF MATERIALS AND CONDITIONS TO BE ENCOUNTERED. THE BIDDER OR CONTRACTOR IS CAUTIONED TO MAKE SUCH INDEPENDENT SUBSURFACE INVESTIGATIONS AS HE DEEMS NECESSARY TO SATISFY HIMSELF AS TO CONDITIONS TO BE ENCOUNTERED ON THIS PROJECT. THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL COMPENSATION OR FOR AN EXTENSION OF TIME FOR ANY REASON RESULTING FROM THE ACTUAL CONDITIONS ENCOUNTERED AT THE SITE DIFFERING FROM THOSE INDICATED IN THE SUBSURFACE INFORMATION.

PERSONNEL

C.M. WRIKE

URS PERSONNEL

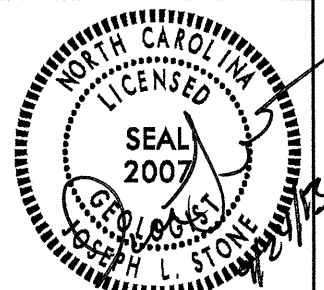
D.G. PINTER

INVESTIGATED BY J.L. STONE

CHECKED BY D.N. ARGENBRIGHT

SUBMITTED BY D.N. ARGENBRIGHT

DATE SEPTEMBER 2013



DRAWN BY: C.P. TURNER

NOTE - THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N.C. DEPARTMENT OF TRANSPORTATION AS BEING ACCURATE NOR IT IS CONSIDERED TO BE PART OF THE PLANS, SPECIFICATIONS, OR CONTRACT FOR THE PROJECT.

NOTE - BY HAVING REQUESTED THIS INFORMATION THE CONTRACTOR SPECIFICALLY WAIVES ANY CLAIMS FOR INCREASED COMPENSATION OR EXTENSION OF TIME BASED ON DIFFERENCES BETWEEN THE CONDITIONS INDICATED HEREIN AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

PROJECT REFERENCE NO. R-2633BA
 SHEET NO. 2

SUBSURFACE INVESTIGATION

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

SOIL DESCRIPTION										GRADATION										ROCK DESCRIPTION										TERMS AND DEFINITIONS									
SOIL IS CONSIDERED TO BE THE UNCONSOLIDATED, SEMI-CONSOLIDATED, OR WEATHERED EARTH MATERIALS THAT CAN BE PENETRATED WITH A CONTINUOUS FLIGHT POWER AUGER, AND YIELD LESS THAN 100 BLOWS PER FOOT ACCORDING TO STANDARD PENETRATION TEST (ASTM D-1586). SOIL CLASSIFICATION IS BASED ON THE AASHTO SYSTEM. BASIC DESCRIPTIONS GENERALLY SHALL INCLUDE: CONSISTENCY, COLOR, TEXTURE, MOISTURE, AASHTO CLASSIFICATION, AND OTHER PERTINENT FACTORS SUCH AS MINERALOGICAL COMPOSITION, ANGULARITY, STRUCTURE, PLASTICITY, ETC. EXAMPLE: <i>VERY STIFF, GRAY, SILTY CLAY, MOST WITH INTERBEDDED FINE SAND LAYERS, HIGHLY PLASTIC, A-7-6</i>										WELL GRADED - INDICATES A GOOD REPRESENTATION OF PARTICLE SIZES FROM FINE TO COARSE. UNIFORM - INDICATES THAT SOIL PARTICLES ARE ALL APPROXIMATELY THE SAME SIZE. (ALSO POORLY GRADED) GAP-GRADED - INDICATES A MIXTURE OF UNIFORM PARTICLES OF TWO OR MORE SIZES.										HARD ROCK IS NON-COASTAL PLAIN MATERIAL THAT IF TESTED, WOULD YIELD SPT REFUSAL. AN INFERRED ROCK LINE INDICATES THE LEVEL AT WHICH NON-COASTAL PLAIN MATERIAL WOULD YIELD SPT REFUSAL. SPT REFUSAL IS PENETRATION BY A SPLIT SPOON SAMPLER EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS. IN NON-COASTAL PLAIN MATERIAL, THE TRANSITION BETWEEN SOIL AND ROCK IS OFTEN REPRESENTED BY A ZONE OF WEATHERED ROCK. ROCK MATERIALS ARE TYPICALLY DIVIDED AS FOLLOWS:										ALLUVIUM (ALLUV.) - SOILS THAT HAVE BEEN TRANSPORTED BY WATER. AQUIFER - A WATER BEARING FORMATION OR STRATA. ARENACEOUS - APPLIED TO ROCKS THAT HAVE BEEN DERIVED FROM SAND OR THAT CONTAIN SAND. ARGILLACEOUS - APPLIED TO ALL ROCKS OR SUBSTANCES COMPOSED OF CLAY MINERALS, OR HAVING A NOTABLE PROPORTION OF CLAY IN THEIR COMPOSITION, AS SHALE, SLATE, ETC. ARTESIAN - GROUND WATER THAT IS UNDER SUFFICIENT PRESSURE TO RISE ABOVE THE LEVEL AT WHICH IT IS ENCOUNTERED, BUT WHICH DOES NOT NECESSARILY RISE TO OR ABOVE THE GROUND SURFACE. CALCAREOUS (ICALC.) - SOILS THAT CONTAIN APPRECIABLE AMOUNTS OF CALCIUM CARBONATE. COLLUVIUM - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM OF SLOPE. CORE RECOVERY (REC.) - TOTAL LENGTH OF ALL MATERIAL RECOVERED IN THE CORE BARREL DIVIDED BY TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE. DIKE - A TABULAR BODY OF IGNEOUS ROCK THAT CUTS ACROSS THE STRUCTURE OF ADJACENT ROCKS OR CUTS MASSIVE ROCK. DIP - THE ANGLE AT WHICH A STRATUM OR ANY PLANAR FEATURE IS INCLINED FROM THE HORIZONTAL. DIP DIRECTION (DIP AZIMUTH) - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE LINE OF DIP, MEASURED CLOCKWISE FROM NORTH. FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE. FISSILE - A PROPERTY OF SPLITTING ALONG CLOSELY SPACED PARALLEL PLANES. FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLOGGED FROM PARENT MATERIAL. FLOOD PLAIN (FP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM. FORMATION (FM) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE FIELD. JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED. LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO ITS LATERAL EXTENT. LENS - A BODY OF SOIL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS. MOTTLED (MOT.) - IRREGULARLY MARKED WITH SPOTS OF DIFFERENT COLORS. MOTTLING IN SOILS USUALLY INDICATES POOR AERATION AND LACK OF GOOD DRAINAGE. PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE OF AN INTERVENING IMPERVIOUS STRATUM. RESIDUAL (RES.) SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK. ROCK QUALITY DESIGNATION (RQD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE. SAPROLITE (SAP.) - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT ROCK. SILL - AN INTRUSIVE BODY OF IGNEOUS ROCK OF APPROXIMATELY UNIFORM THICKNESS AND RELATIVELY THIN COMPARED WITH ITS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEDDING OR SCHISTOSITY OF THE INTRUDED ROCKS. SLICKENSIDE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE. STANDARD PENETRATION TEST (PENETRATION RESISTANCE) (SPT) - NUMBER OF BLOWS (IN OR BPF) OF A 140 LB. HAMMER FALLING 30 INCHES REQUIRED TO PRODUCE A PENETRATION OF 1 FOOT INTO SOIL WITH A 2 INCH OUTSIDE DIAMETER SPLIT SPOON SAMPLER. SPT REFUSAL IS PENETRATION EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS. STRATA CORE RECOVERY (SREC.) - TOTAL LENGTH OF STRATA MATERIAL RECOVERED DIVIDED BY TOTAL LENGTH OF STRATUM AND EXPRESSED AS A PERCENTAGE. STRATA ROCK QUALITY DESIGNATION (SRQD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS WITHIN A STRATUM EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE. TOPSOIL (TS) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER.									
SOIL LEGEND AND AASHTO CLASSIFICATION										ANGULARITY OF GRAINS										WEATHERED ROCK (WR)										CRYSTALLINE ROCK (CR)									
GENERAL CLASS. GRANULAR MATERIALS (≤ 35% PASSING #200) SILT-CLAY MATERIALS (> 35% PASSING #200) ORGANIC MATERIALS										MINERAL NAMES SUCH AS QUARTZ, FELDSPAR, MICA, TALC, KAOLIN, ETC. ARE USED IN DESCRIPTIONS WHENEVER THEY ARE CONSIDERED OF SIGNIFICANCE.										NON-CRYSTALLINE ROCK (NCR)										COASTAL PLAIN SEDIMENTARY ROCK (CP)									
GROUP CLASS. A-1 A-2 A-3 A-4 A-5 A-6 A-7 A-1, A-2 A-3 A-4, A-5 A-6, A-7										COMPRESSIBILITY										WEATHERING										FRESH									
SYMBOL										SLIGHTLY COMPRESSIBLE LIQUID LIMIT LESS THAN 31 MODERATELY COMPRESSIBLE LIQUID LIMIT EQUAL TO 31-50 HIGHLY COMPRESSIBLE LIQUID LIMIT GREATER THAN 50										FINE TO COARSE GRAIN IGNEOUS AND METAMORPHIC ROCK THAT WOULD YIELD SPT REFUSAL IF TESTED. ROCK TYPE INCLUDES GRANITE, GNEISS, GABBRO, SCHIST, ETC.										ROCK FRESH, CRYSTALS BRIGHT, FEW JOINTS MAY SHOW SLIGHT STAINING, ROCK RINGS UNDER HAMMER IF CRYSTALLINE.									
% PASSING										PERCENTAGE OF MATERIAL										VERY SLIGHT (V SL.)										SLIGHT (SL.)									
GROUP INDEX										ORGANIC MATERIAL GRANULAR SOILS SILT-CLAY SOILS OTHER MATERIAL										MODERATE (MOD.)										MODERATELY SEVERE (MOD. SEV.)									
USUAL TYPES OF MAJOR MATERIALS										GROUND WATER										SEVERE (SEV.)										VERY SEVERE (V SEV.)									
GEN. RATING AS A SUBGRADE										MISCELLANEOUS SYMBOLS										COMPLETE										ROCK HARDNESS									
EXCELLENT TO GOOD FAIR TO POOR FAIR TO POOR POOR UNSUITABLE										ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION SOIL SYMBOL ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT INFERRED SOIL BOUNDARY INFERRED ROCK LINE ALLUVIAL SOIL BOUNDARY DIP & DIP DIRECTION OF ROCK STRUCTURES										ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED, IN GRANITOID ROCKS, ALL FELDSPARS DULL AND DISCOLORED AND A MAJORITY SHOW KAOLINIZATION. ROCK SHOWS SEVERE LOSS OF STRENGTH AND CAN BE EXCAVATED WITH A GEOLOGIST'S PICK. ROCK GIVES "CLUNK" SOUND WHEN STRUCK. IF TESTED, WOULD YIELD SPT REFUSAL										CAN NOT BE SCRATCHED BY KNIFE OR SHARP PICK. BREAKING OF HAND SPECIMENS REQUIRES SEVERAL HARD BLOWS OF THE GEOLOGIST'S PICK.									
PI OF A-7-5 SUBGROUP IS ≤ LL - 30 ; PI OF A-7-6 SUBGROUP IS > LL - 30										ABBREVIATIONS										HARD										MODERATELY HARD									
CONSISTENCY OR DENSENESS										ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION SOIL SYMBOL ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT INFERRED SOIL BOUNDARY INFERRED ROCK LINE ALLUVIAL SOIL BOUNDARY DIP & DIP DIRECTION OF ROCK STRUCTURES										VERY HARD										MODERATELY HARD									
PRIMARY SOIL TYPE COMPACTNESS OR CONSISTENCY RANGE OF STANDARD PENETRATION RESISTANCE (N-VALUE) RANGE OF UNCONFINED COMPRESSIVE STRENGTH (TONS/FT ²)										ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION SOIL SYMBOL ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT INFERRED SOIL BOUNDARY INFERRED ROCK LINE ALLUVIAL SOIL BOUNDARY DIP & DIP DIRECTION OF ROCK STRUCTURES										HARD										MODERATELY HARD									
GENERAL GRANULAR MATERIAL (NON-COHESIVE) VERY LOOSE LOOSE MEDIUM DENSE DENSE VERY DENSE										ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION SOIL SYMBOL ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT INFERRED SOIL BOUNDARY INFERRED ROCK LINE ALLUVIAL SOIL BOUNDARY DIP & DIP DIRECTION OF ROCK STRUCTURES										HARD										MODERATELY HARD									
GENERAL SILT-CLAY MATERIAL (COHESIVE) VERY SOFT SOFT MEDIUM STIFF STIFF VERY STIFF HARD										ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION SOIL SYMBOL ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT INFERRED SOIL BOUNDARY INFERRED ROCK LINE ALLUVIAL SOIL BOUNDARY DIP & DIP DIRECTION OF ROCK STRUCTURES										HARD										MODERATELY HARD									
TEXTURE OR GRAIN SIZE										ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION SOIL SYMBOL ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT INFERRED SOIL BOUNDARY INFERRED ROCK LINE ALLUVIAL SOIL BOUNDARY DIP & DIP DIRECTION OF ROCK STRUCTURES										HARD										MODERATELY HARD									
U.S. STD. SIEVE SIZE OPENING (MM)										ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION SOIL SYMBOL ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT INFERRED SOIL BOUNDARY INFERRED ROCK LINE ALLUVIAL SOIL BOUNDARY DIP & DIP DIRECTION OF ROCK STRUCTURES										HARD										MODERATELY HARD									
BOULDER (BLD.) COBBLE (COB.) GRAVEL (GR.) COARSE SAND (CSE. SD.) FINE SAND (F. SD.) SILT (SL.) CLAY (CL.)										ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION SOIL SYMBOL ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT INFERRED SOIL BOUNDARY INFERRED ROCK LINE ALLUVIAL SOIL BOUNDARY DIP & DIP DIRECTION OF ROCK STRUCTURES										HARD										MODERATELY HARD									
GRAIN SIZE										ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION SOIL SYMBOL ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT INFERRED SOIL BOUNDARY INFERRED ROCK LINE ALLUVIAL SOIL BOUNDARY DIP & DIP DIRECTION OF ROCK STRUCTURES										HARD										MODERATELY HARD									
SOIL MOISTURE - CORRELATION OF TERMS										ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION SOIL SYMBOL ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT INFERRED SOIL BOUNDARY INFERRED ROCK LINE ALLUVIAL SOIL BOUNDARY DIP & DIP DIRECTION OF ROCK STRUCTURES										HARD										MODERATELY HARD									
SOIL MOISTURE SCALE (ATTERBERG LIMITS) FIELD MOISTURE DESCRIPTION GUIDE FOR FIELD MOISTURE DESCRIPTION										ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION SOIL SYMBOL ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT INFERRED SOIL BOUNDARY INFERRED ROCK LINE ALLUVIAL SOIL BOUNDARY DIP & DIP DIRECTION OF ROCK STRUCTURES										HARD										MODERATELY HARD									
LL LIQUID LIMIT - SATURATED - (SAT.) USUALLY LIQUID; VERY WET, USUALLY FROM BELOW THE GROUND WATER TABLE										ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION SOIL SYMBOL ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT INFERRED SOIL BOUNDARY INFERRED ROCK LINE ALLUVIAL SOIL BOUNDARY DIP & DIP DIRECTION OF ROCK STRUCTURES										HARD										MODERATELY HARD									
PL PLASTIC LIMIT - WET - (W) SEMISOLID; REQUIRES DRYING TO ATTAIN OPTIMUM MOISTURE										ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION SOIL SYMBOL ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT INFERRED SOIL BOUNDARY INFERRED ROCK LINE ALLUVIAL SOIL BOUNDARY DIP & DIP DIRECTION OF ROCK STRUCTURES										HARD										MODERATELY HARD									
OM OPTIMUM MOISTURE - MOIST - (M) SOLID; AT OR NEAR OPTIMUM MOISTURE										ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION SOIL SYMBOL ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT INFERRED SOIL BOUNDARY INFERRED ROCK LINE ALLUVIAL SOIL BOUNDARY DIP & DIP DIRECTION OF ROCK STRUCTURES										HARD										MODERATELY HARD									
SL SHRINKAGE LIMIT - DRY - (D) REQUIRES ADDITIONAL WATER TO ATTAIN OPTIMUM MOISTURE										ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION SOIL SYMBOL ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT INFERRED SOIL BOUNDARY INFERRED ROCK LINE ALLUVIAL SOIL BOUNDARY DIP & DIP DIRECTION OF ROCK STRUCTURES										HARD										MODERATELY HARD									
PLASTICITY										ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION SOIL SYMBOL ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT INFERRED SOIL BOUNDARY INFERRED ROCK LINE ALLUVIAL SOIL BOUNDARY DIP & DIP DIRECTION OF ROCK STRUCTURES										HARD										MODERATELY HARD									
NONPLASTIC LOW PLASTICITY MED. PLASTICITY HIGH PLASTICITY										ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION SOIL SYMBOL ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT INFERRED SOIL BOUNDARY INFERRED ROCK LINE ALLUVIAL SOIL BOUNDARY DIP & DIP DIRECTION OF ROCK STRUCTURES										HARD										MODERATELY HARD									
PLASTICITY INDEX (PI) DRY STRENGTH										ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION SOIL SYMBOL ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT INFERRED SOIL BOUNDARY INFERRED ROCK LINE ALLUVIAL SOIL BOUNDARY DIP & DIP DIRECTION OF ROCK STRUCTURES										HARD										MODERATELY HARD									
COLOR										ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION SOIL SYMBOL ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT INFERRED SOIL BOUNDARY INFERRED ROCK LINE ALLUVIAL SOIL BOUNDARY DIP & DIP DIRECTION OF ROCK STRUCTURES										HARD										MODERATELY HARD									
DESCRIPTIONS MAY INCLUDE COLOR OR COLOR COMBINATIONS (TAN, RED, YELLOW-BROWN, BLUE-GRAY). MODIFIERS SUCH AS LIGHT, DARK, STREAKED, ETC. ARE USED TO DESCRIBE APPEARANCE.										ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION SOIL SYMBOL ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT INFERRED SOIL BOUNDARY INFERRED ROCK LINE ALLUVIAL SOIL BOUNDARY DIP & DIP DIRECTION OF ROCK STRUCTURES										HARD										MODERATELY HARD									

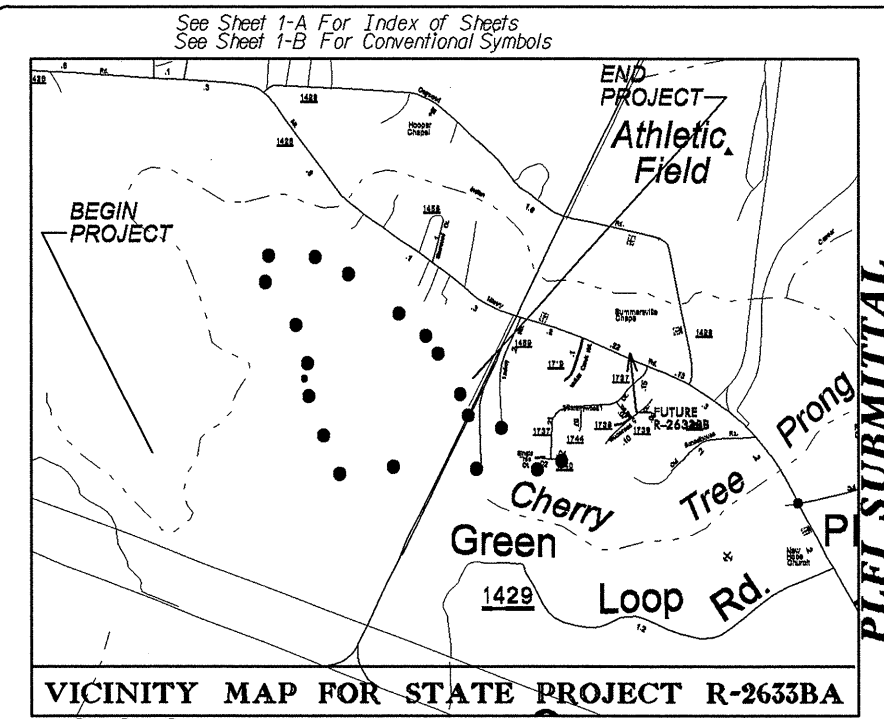
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2633BA	2A	10
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34491.1.2	STPNHF-17(1)	P.E.	
34491.2.3		R/W	
34491.3.20	NHS-0017(124)	CONST.	

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

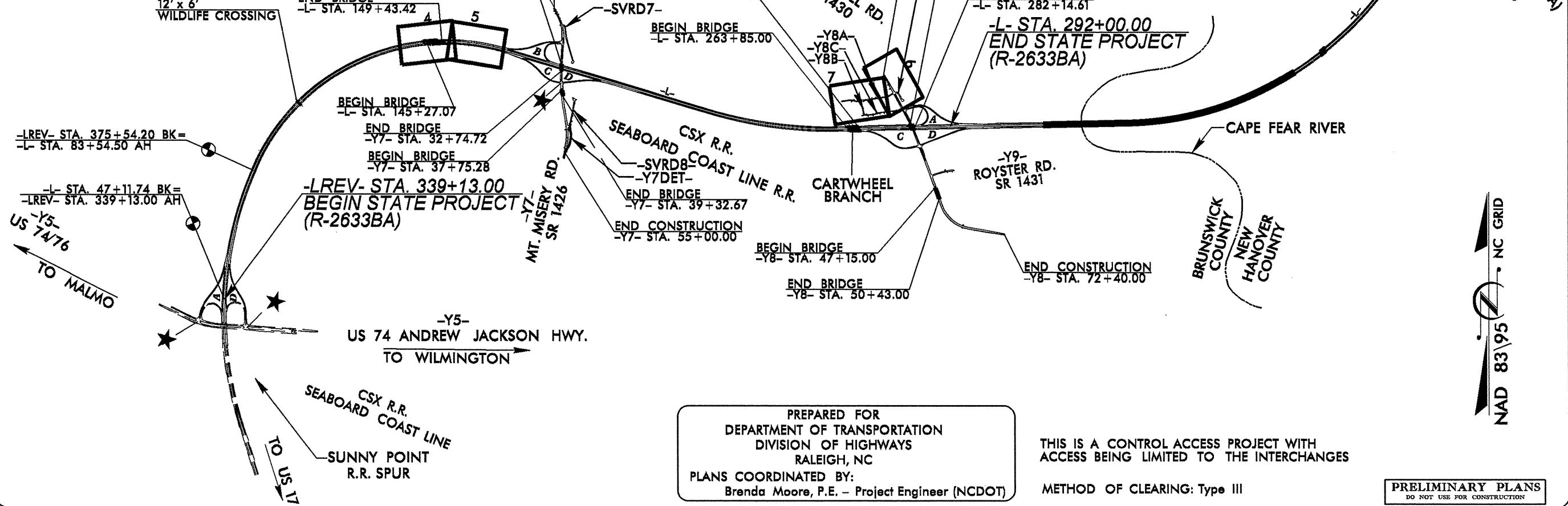
BRUNSWICK COUNTY

LOCATION: US 17 (WILMINGTON BYPASS) FROM US 7476 EAST OF MALMO IN BRUNSWICK COUNTY TO SR 1430 (CEDAR HILL ROAD)

TYPE OF WORK: GRADING, DRAINAGE, PAVING, CULVERTS SIGNALS, SIGNING, AND STRUCTURES



VICINITY MAP FOR STATE PROJECT R-2633BA



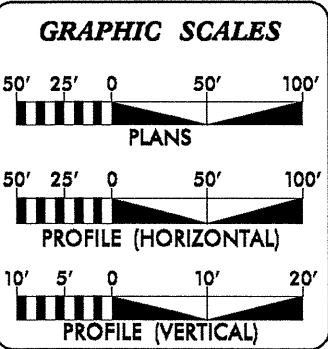
PREPARED FOR
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, NC

PLANS COORDINATED BY:
Brenda Moore, P.E. - Project Engineer (NCDOT)

THIS IS A CONTROL ACCESS PROJECT WITH ACCESS BEING LIMITED TO THE INTERCHANGES

METHOD OF CLEARING: Type III

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



DESIGN DATA

ADT 2013	=	34,000
ADT 2035	=	65,400
DHV	=	12 %
D	=	60 %
T	=	15 % *
V	=	70 MPH
* TTST 10% DUAL 5%		
FUNC. CLASS. = INTERSTATE		
STATEWIDE TIER		

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2633BA = 4.503 Miles

LENGTH STRUCTURES TIP PROJECT R-2633BA = 0.135 Miles

TOTAL LENGTH STATE TIP PROJECT R-2633BA = 4.638 Miles

THIS IS A FULL CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS SHOWN ON THE PLANS.

Prepared in the Office of:

LOCHNER

H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612

NC License Number F-0189
NC License Number C-0121
MULKEY, INC.

2012 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE: June 20, 2008	Brian K. Eason, P.E. PROJECT ENGINEER
LETTING DATE: September 17, 2013	David Martin PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

STATE HIGHWAY DESIGN ENGINEER



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CONTRACT: C203199 TIP PROJECT: R-2633BA

09/08/09

Earthwork Balance Sheet

Volumes in Cubic Yards

PROJECT: R-2633BA

COUNTY: Brunswick

DATE: 26-Aug-13

COMPILED BY: BKE (LOCHNER)

SHEET ___ OF ___ SHEETS

STATION	STATION	EXCAVATION					EMBANKMENT				BORROW	WASTE					
		TOTAL UNCLASS.	ROCK	UNDERCUT	UNSUIT. UNCLASS.	SUITABLE UNCLASS.	TOTAL	ROCK	EARTH	EMBANK. +25%		ROCK	SUITABLE	UNSUIT.	TOTAL		
SUMMARY #1																	
-LREV- 339+13	369+50	240				240	131,497		131,497	164,371	164,131						
RP-AIREV 16+00	22+20						11,895		11,895	14,869	14,869						
RP DIREV 17+50	22+50						4,381		4,381	5,476	5,476						
SUMMARY #1	SUBTOTAL	240				240	147,773		147,773	184,716	184,476						
SUMMARY #2																	
LREV 369+50	375+54.20 LB						33,374		33,374	41,718	41,718						
-L- 83+54.50 LA	114+00						138,575		138,575	173,219	173,219						
SUMMARY #2	SUBTOTAL						171,949		171,949	214,936	214,936						
SUMMARY #3																	
-L- 114+00	145+67.97 BEG. BRIDGE						229,512		229,512	286,890	286,890						
SUMMARY #3	SUBTOTAL						229,512		229,512	286,890	286,890						
SUMMARY #4																	
-L- 150+85.29 End Bridge	172+00	76				76	311,617		311,617	389,521	389,445						
SUMMARY #4	SUBTOTAL	76				76	311,617		311,617	389,521	389,445						
SUMMARY #5																	
-L- 172+00	202+00	993		6,797		993	111,981		111,981	139,976	138,983			6,797		6,797	
RP B2 18+00	29+00	1,483				1,483	7,941		7,941	9,926	8,443						
LP B2 14+00	17+00						1,974		1,974	2,468	2,468						
RP C2 17+50	26+00	81				81	112,322		112,322	140,403	140,322						
RP D2 18+00	23+50						40,063		40,063	50,079	50,079						
Y7 15+00	30+54.96 Beg. Bridge	333				333	53,310		53,310	66,638	66,305						
Y7 32+64.81 End Bridge	37+97.52 Beg. Bridge						86,683		86,683	108,354	108,354						
Y7 38+95.27 End Bridge	55+00	698				698	101,766		101,766	127,208	126,510						
SVRD8 32+01.16	37+50	217				217	1,383		1,383	1,729	1,512						
-Y7DET- 12+50	18+50	27				27	4,343		4,343	5,429	5,402						
-Y7DET- REMOVAL 12+50	18+50	5,429				5,429								5,429		5,429	
SUMMARY #5	SUBTOTAL	9,261		6,797		9,261	521,766		521,766	652,208	648,376			5,429	6,797	12,226	
SUMMARY #6																	
-L- 202+00	232+00			2,525			142,841		142,841	178,551	178,551				2,525	2,525	
SUMMARY #6	SUBTOTAL			2,525			142,841		142,841	178,551	178,551				2,525	2,525	
SUMMARY #7																	
-L- 232+00	264+02.78 Beg. Bridge						185,076		185,076	231,345	231,345						
SUMMARY #7	SUBTOTAL						185,076		185,076	231,345	231,345						
PAGE 1 TOTALS		9,577		9,322		9,577	1,710,534		1,710,534	2,138,168	2,134,020			5,429	9,322	14,751	

ALL BRIDGE STATIONS ON -L- ARE TAKEN FROM NBL.

Earthwork Balance Sheet

Volumes in Cubic Yards

PROJECT R-2633BA

COUNTY: Brunswick

DATE: 26-Aug-13

COMPILED BY: BKE (LOCHNER)

SHEET __ OF __ SHEETS

STATION	STATION	EXCAVATION					EMBANKMENT				BORROW	WASTE					
		TOTAL UNCLASS.	ROCK	UNDERCUT	UNSUIT. UNCLASS.	SUITABLE UNCLASS.	TOTAL	ROCK	EARTH	EMBANK. +25%		ROCK	SUITABLE	UNSUIT.	TOTAL		
SUMMARY #8																	
-L- 267+28.78 End Bridge	280+77.01 Beg. Bridge						222,172		222,172	277,715	277,715						
-RP_C3 18+00	29+50	3,757				3,757	16,984		16,984	21,230	17,473						
-Y8A- 10+50	24+75	1,435				1,435	115		115	144			1,291				1,291
-Y8B- 10+50	14+00	608				608							608				608
-Y8C- 10+00	19+50	1,287				1,287	150		150	188			1,100				1,100
-Y8D- 10+12	25+50	296				296	3,540		3,540	4,425	4,129						
SUMMARY #8	SUBTOTAL	7,383				7,383	242,961		242,961	303,701	299,317			2,999			2,999
SUMMARY #9																	
-L- 282+22.01 End Bridge	292+00 End Project	206				206	139,922		139,922	174,903	174,697						
-LP_A3- 13+50	16+50						13,189		13,189	16,486	16,486						
-Y8- 13+50	47+15.00 Beg. Bridge	9,251				9,251	8,698		8,698	10,873	1,622						
-Y8- 50+43.00 End Bridge	72+40	6,701				6,701	7,985		7,985	9,981	3,280						
-Y9- 10+50	16+50	1,616				1,616	321		321	401			1,215				1,215
SUMMARY #9	SUBTOTAL	17,774				17,774	170,115		170,115	212,644	196,085			1,215			1,215
SUBTOTAL																	
SUBTOTAL																	
SUBTOTAL																	
SUBTOTAL																	
SUBTOTAL																	
SUBTOTAL																	
SUBTOTAL																	
SUBTOTAL																	
SUBTOTAL																	
SUBTOTAL																	
	SHEET 2 TOTAL	25,157				25,157	413,076		413,076	516,345	495,402			4,214			4,214

NOTE: EARTHWORK QUANTITIES ARE CALCULATED BY THE ROADWAY DESIGN UNIT. THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY THE GEOTECHNICAL ENGINEERING UNIT.

Earthwork Balance Sheet

Volumes in Cubic Yards

PROJECT: _____ COUNTY: Brunswick DATE: _____ COMPILED BY: _____

SHEET ___ OF ___ SHEETS

STATION	STATION	EXCAVATION					EMBANKMENT				BORROW	WASTE			
		TOTAL UNCLASS.	ROCK	UNDERCUT	UNSUIT. UNCLASS.	SUITABLE UNCLASS.	TOTAL	ROCK	EARTH	EMBANK. +25%		ROCK	SUITABLE	UNSUIT.	TOTAL
	TOTAL FROM SHEET 1	9,577	-	9,322	-	9,577	1,710,534	-	1,710,534	2,138,168	2,134,020	-	5,429	9,322	14,751
	TOTAL FROM SHEET 2	25,157	-	-	-	25,157	413,076	-	413,076	516,345	495,402	-	4,214	-	4,214
TOTAL		34,734		9,322		34,734	2,123,610		2,123,610	2,654,513	2,629,422		9,642	9,322	18,964
MATERIAL FOR SHOULDER CONSTRUCTION							30,540		30,540	38,175	38,175				
LOSS DUE TO CLEARING & GRUBBING															
ADDITIONAL UNDERCUT				7,000			7,000	7,000	8,750	8,750			7,000	7,000	
SELECT GRANULAR MATERIAL, CLASS III									-70,500	-70,500					
SELECT GRANULAR MATERIAL									-30,900	-30,900					
SURCHARGE & REMOVAL		28,800				28,800			28,800	28,800		28,800		28,800	
WASTE IN LIEU OF BORROW										-9,642		-9,642		-9,642	
PROJECT TOTAL		63,534		16,322		63,534	2,161,150		2,161,150	2,628,838	2,594,105		28,800	16,322	45,122
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT											129,705				
GRAND TOTAL		63,534		16,322		63,534	2,161,150		2,161,150	2,628,838	2,723,810		28,800	16,322	45,122
SAY		63,600		16,400							2,723,900				

NOTE: EARTHWORK QUANTITIES ARE CALCULATED BY THE ROADWAY DESIGN UNIT. THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY THE GEOTECHNICAL ENGINEERING UNIT.
 EST. DDE = 22,600 CY EST. SHALLOW UNDERCUT = 1,000 CY

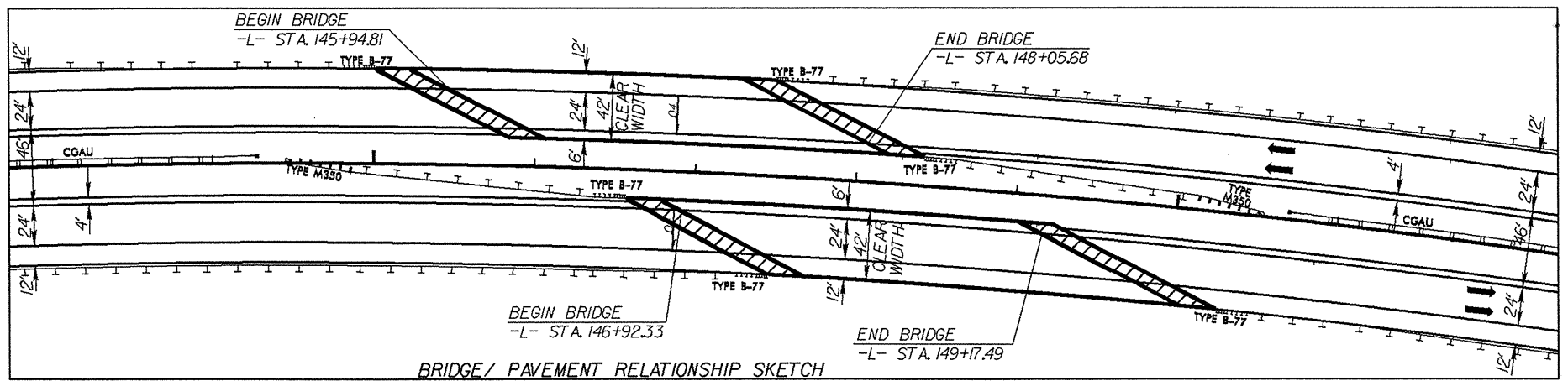
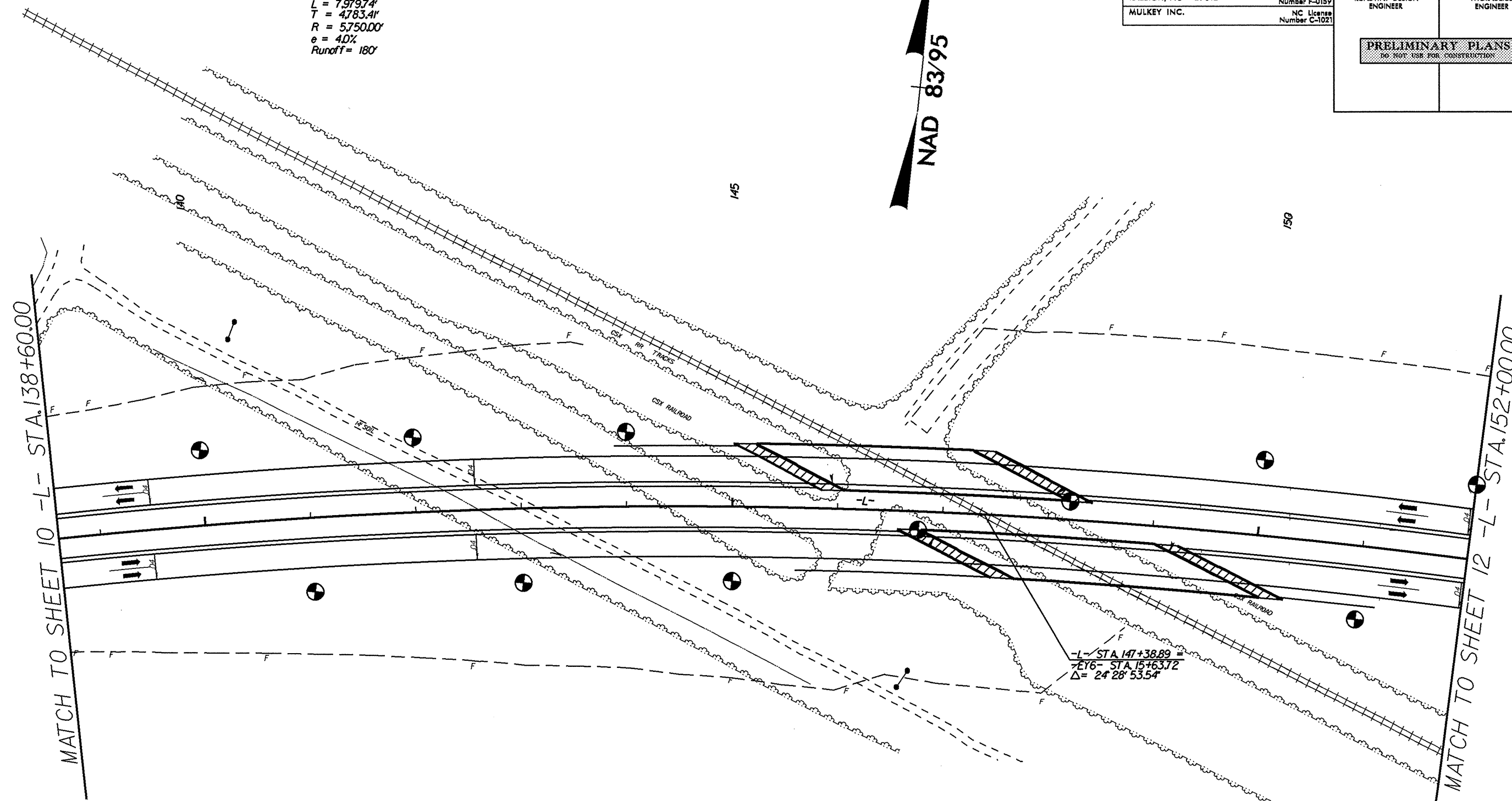
8/17/99

-L-
 P1 Sta 133+87.91
 $\Delta = 79^{\circ} 30' 50.4" (RT)$
 $D = 0^{\circ} 59' 47.2"$
 $L = 7,979.74'$
 $T = 4,783.41'$
 $R = 5,750.00'$
 $e = 4.0\%$
 Runoff = 180'

LOCHNER
 H. W. LOCHNER, INC.
 2840 PLAZA PLACE, SUITE 202
 RALEIGH, NC 27612
 NC License Number F-0159
 MULKEY INC.
 NC License Number C-1021

PROJECT REFERENCE NO. R-2633BA		SHEET NO. 4	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>			

NAD 83/95



REVISIONS

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8/17/99

-L-
 PI Sta 133+87.91
 $\Delta = 79^\circ 30' 50.4" (RT)$
 $D = 0' 59' 47.2"$
 $L = 7,979.74'$
 $T = 4,783.41'$
 $R = 5,750.00'$
 $e = 4.0\%$
 Runoff = 180'

-RP_B2-
 PIs Sta 10+83.34 PIs Sta 13+83.37
 $\Theta_s = 1' 14' 07.7"$ $\Theta_s = 4' 00' 00.0"$
 $L_s = 250.00'$ $L_s = 200.00'$
 $LT = 166.67'$ $LT = 133.37'$
 $ST = 83.34'$ $ST = 66.70'$

LOCHNER

H. W. LOCHNER, INC.
 2840 PLAZA PLACE, SUITE 202
 RALEIGH, NC 27612
 MULKEY INC.

NC License
 Number F-0159

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PROJECT REFERENCE NO.
 R-2633BA

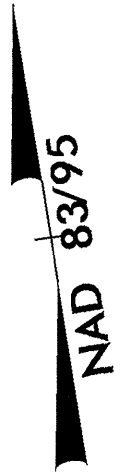
SHEET NO.
 5

RAW SHEET NO.

ROADWAY DESIGN
 ENGINEER

HYDRAULICS
 ENGINEER

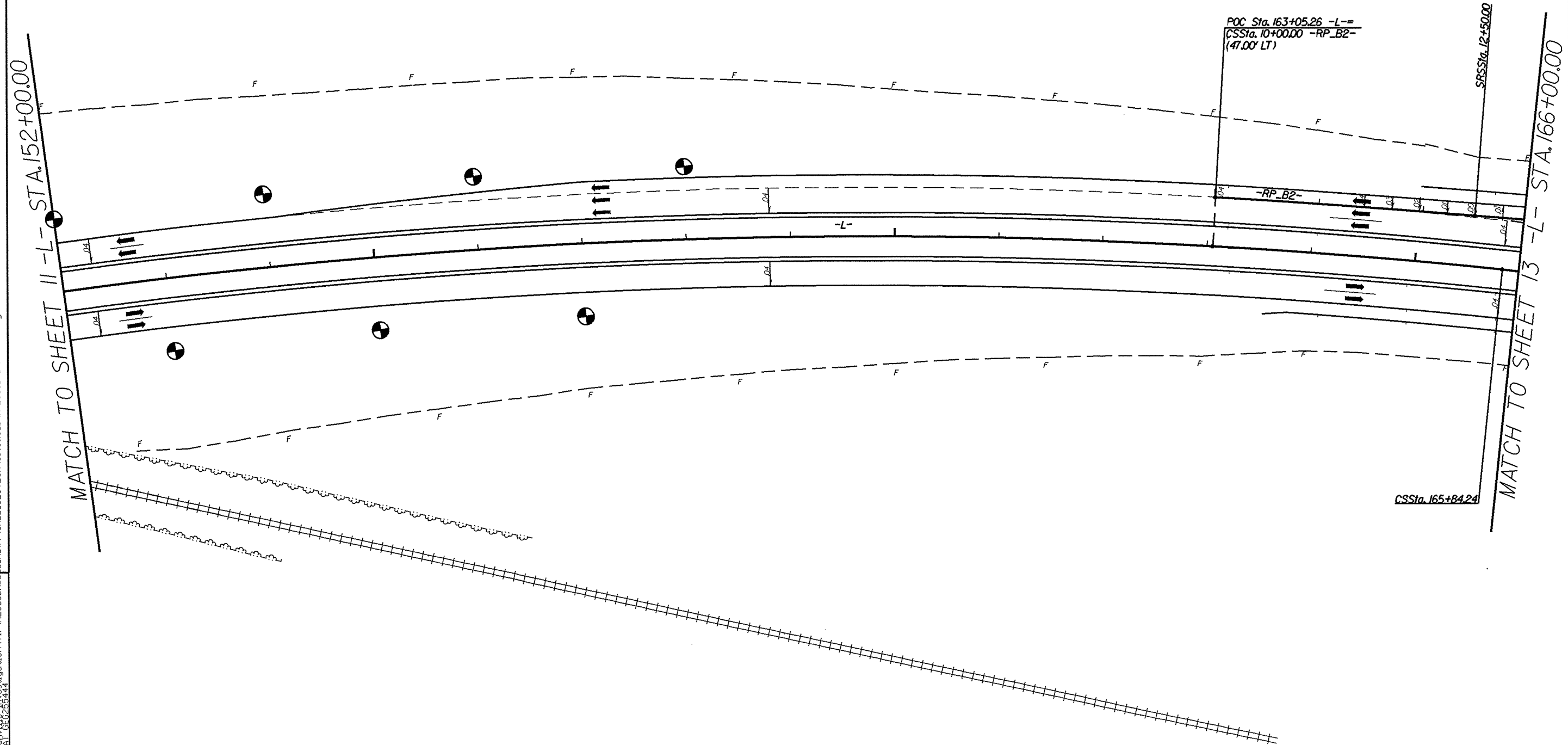
PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION



REVISIONS

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AT 06255444



MATCH TO SHEET 11 -L- STA. 152+00.00

MATCH TO SHEET 13 -L- STA. 166+00.00

POC Sta. 163+05.26 -L-=
 CSS Sta. 10+00.00 -RP_B2-
 (47.00' LT)

SRSS Sta. 12+50.00

CS Sta. 165+84.24

LOCHNER

H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612

NC License
Number F-0159
NC License
Number C-1021

MULKEY INC.

PROJECT REFERENCE NO. SHEET NO.

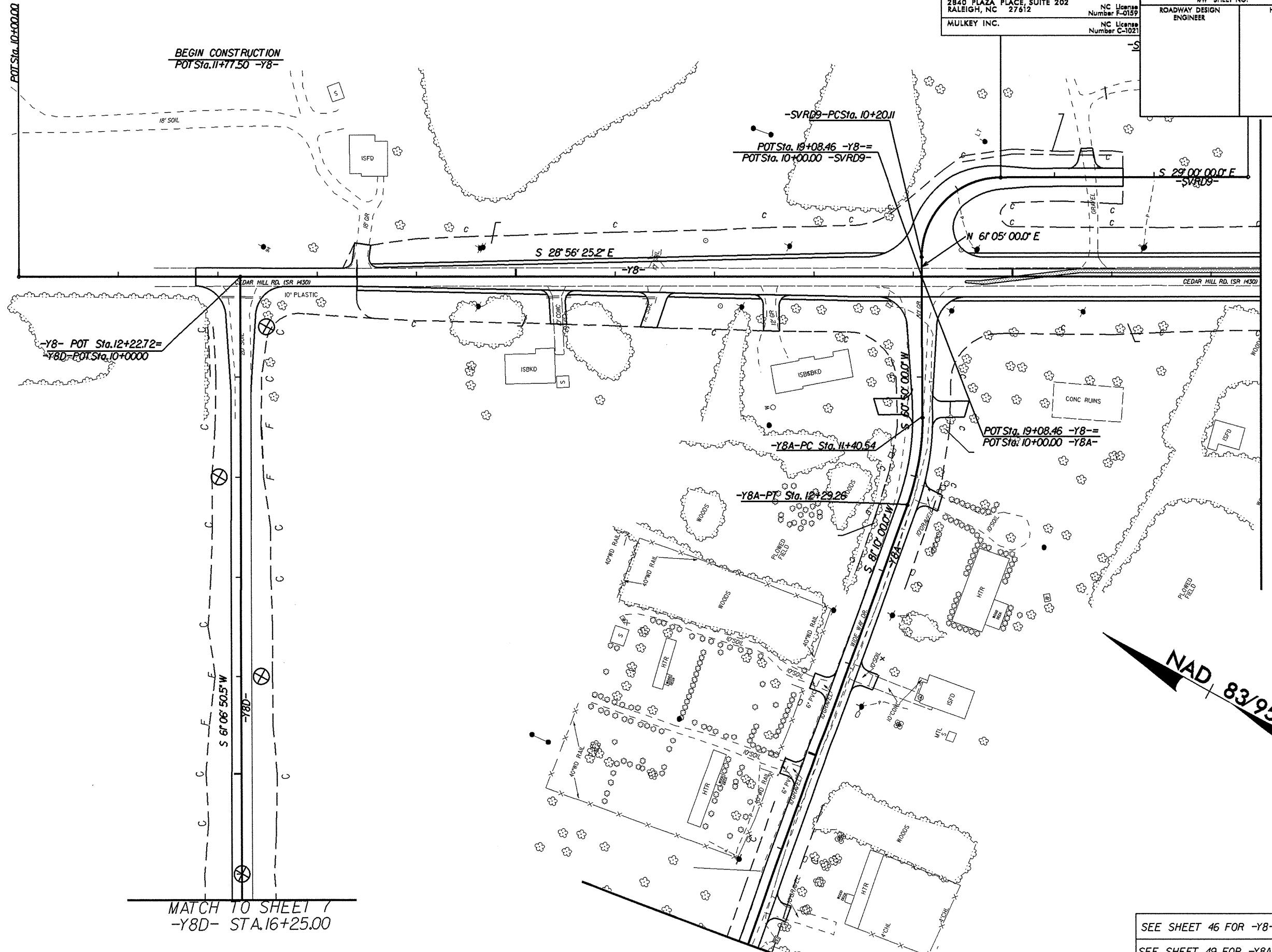
R-2633BA 6

RW SHEET NO. 38

ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

8/17/99

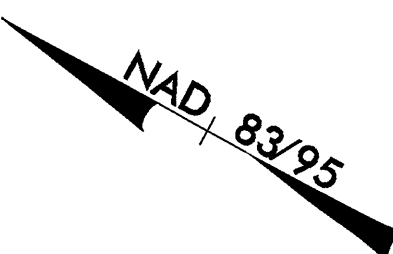
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POT Sta. 11+77.50 -Y8-



REVISIONS

8/17/99 12:49
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MATCH TO SHEET 7
-Y8D- STA. 16+25.00



- SEE SHEET 46 FOR -Y8- PROFILE
- SEE SHEET 49 FOR -Y8A- PROFILE
- SEE SHEET 55 FOR -Y8D- PROFILE
- SEE SHEET 54 FOR -SVRD9- PROFILE

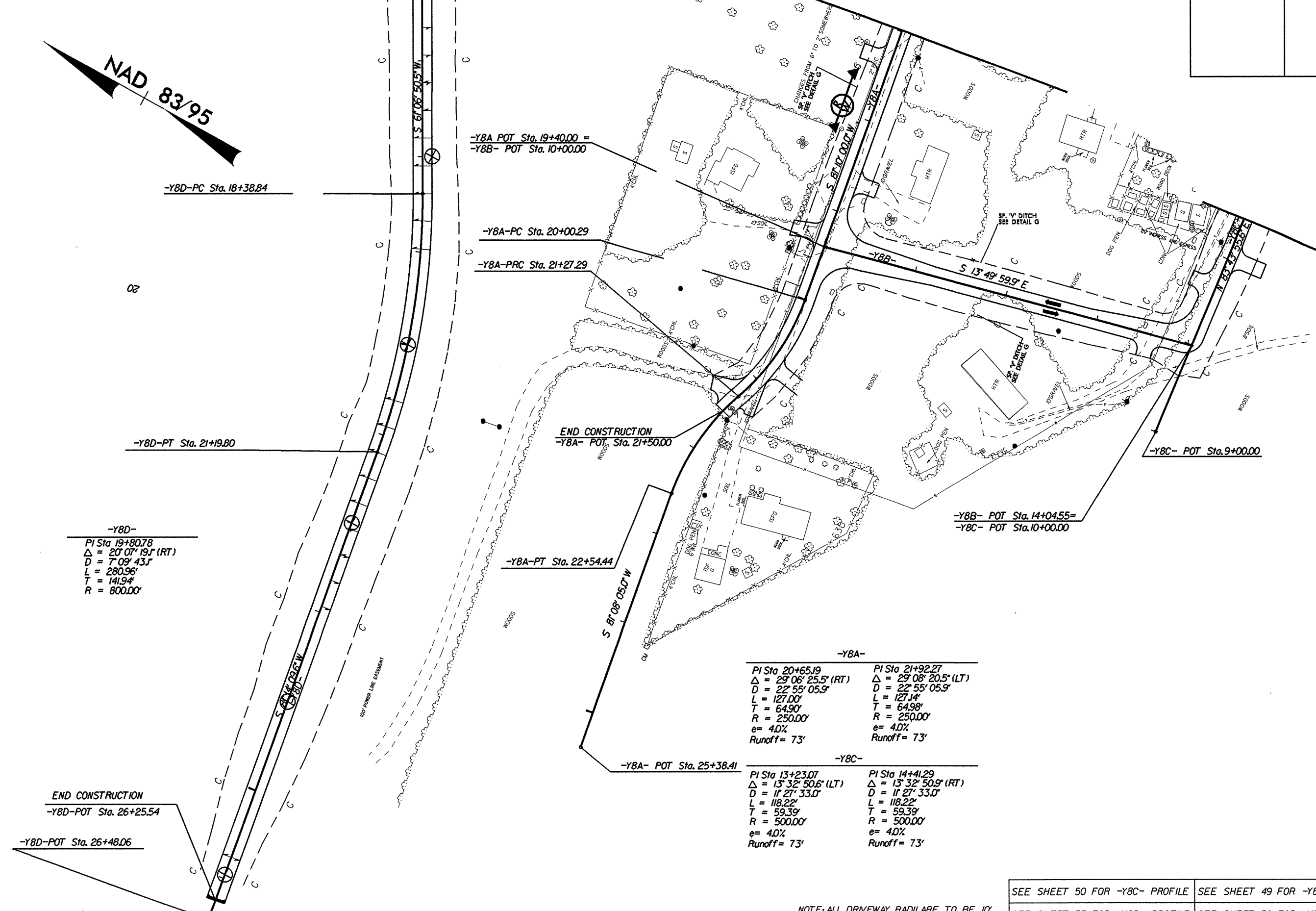
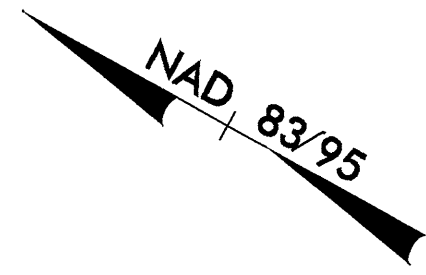
NOTE: ALL DRIVEWAY RADII ARE TO 10', UNLESS OTHERWISE NOTED.

8/17/99

LOCHNER
 H. W. LOCHNER, INC.
 2840 PLAZA PLACE, SUITE 202
 RALEIGH, NC 27612
 MULKEY INC.
 NC License Number F-0159
 NC License Number C-1021

PROJECT REFERENCE NO. R-2633BA	SHEET NO. 7
RW SHEET NO. 38A	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATCH TO SHEET 5
 -Y8D- STA. 16+25.00



-Y8D-

PI Sta 19+80.78
$\Delta = 20^{\circ} 07' 19.1$ (RT)
D = 7 09' 43.1
L = 280.96
T = 141.94
R = 800.00

-Y8A-

PI Sta 20+65.19	PI Sta 21+92.27
$\Delta = 29^{\circ} 06' 25.5$ (RT)	$\Delta = 29^{\circ} 08' 20.5$ (LT)
D = 22' 55' 05.9	D = 22' 55' 05.9
L = 127.00	L = 127.14
T = 64.90	T = 64.98
R = 250.00	R = 250.00
e = 4.0%	e = 4.0%
Runoff = 73'	Runoff = 73'

-Y8C-

PI Sta 13+23.07	PI Sta 14+41.29
$\Delta = 13^{\circ} 32' 50.6$ (LT)	$\Delta = 13^{\circ} 32' 50.9$ (RT)
D = 11' 27' 33.0	D = 11' 27' 33.0
L = 118.22	L = 118.22
T = 59.39	T = 59.39
R = 500.00	R = 500.00
e = 4.0%	e = 4.0%
Runoff = 73'	Runoff = 73'

END CONSTRUCTION
 -Y8D-POT Sta. 26+25.54

-Y8D-POT Sta. 26+48.06

REVISIONS

19-RF-2015 10.35
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SEE SHEET 50 FOR -Y8C- PROFILE SEE SHEET 49 FOR -Y8A- PROFILE
 SEE SHEET 55 FOR -Y8D- PROFILE SEE SHEET 50 FOR -Y8B- PROFILE

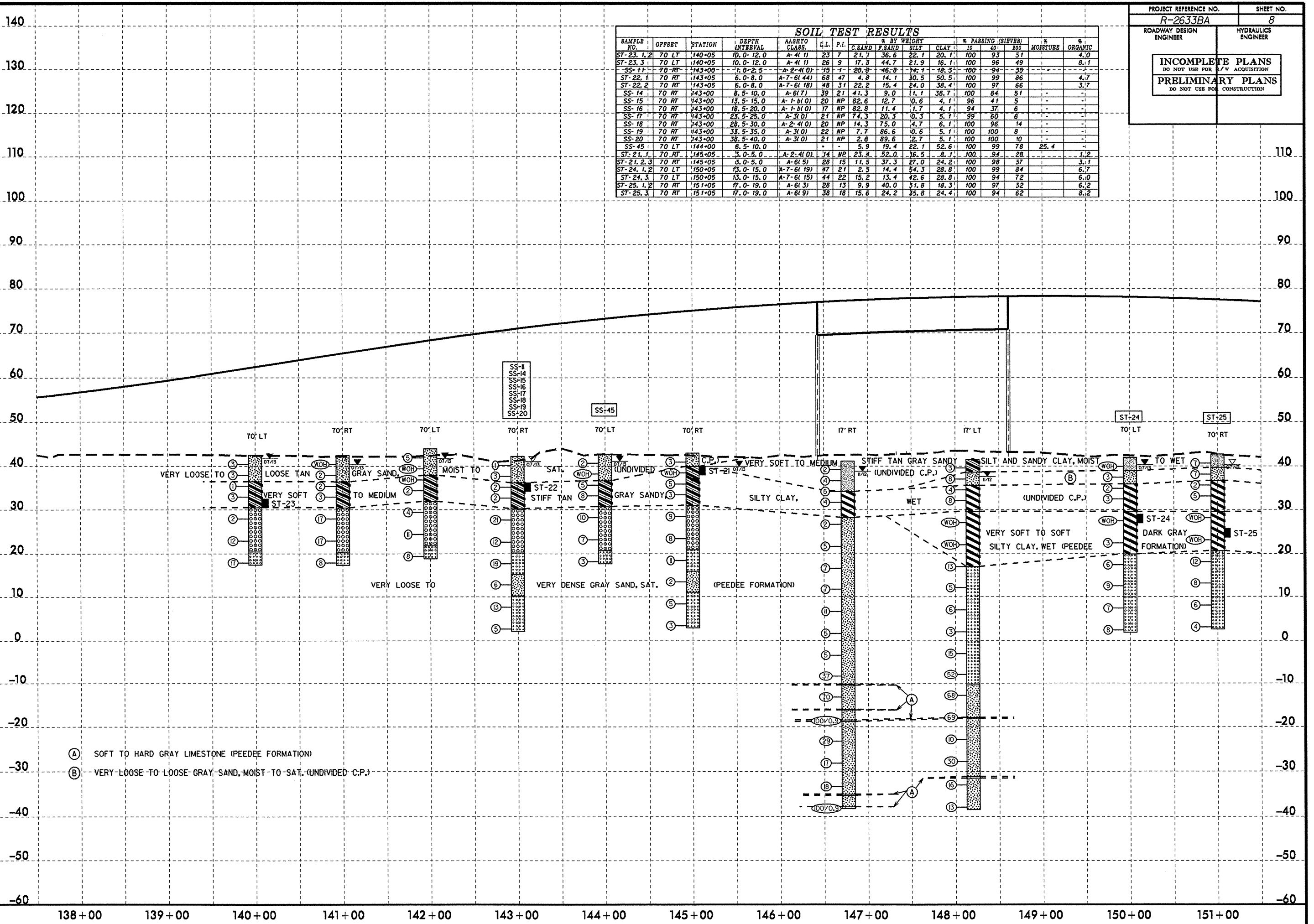
NOTE: ALL DRIVEWAY RADII ARE TO BE 10' UNLESS OTHERWISE NOTED.

5/14/99

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PROJECT REFERENCE NO. R-2633BA	SHEET NO. 8
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR ACQUISITION PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.L.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC
							C.SAND	F.SAND	SILT	CLAY	10	40	200		
ST-23, 1, 2	70 LT	140+05	10.0-12.0	A-4(1)	23	7	21.1	36.6	22.1	20.1	100	93	51	4.0	
ST-23, 3	70 LT	140+05	10.0-12.0	A-4(1)	26	9	17.3	44.7	21.9	16.1	100	96	49	8.1	
SS-11	70 RT	143+00	1.0-2.5	A-2-4(0)	15	1	20.8	46.8	74.1	18.3	100	94	35	-	
ST-22, 1	70 RT	143+05	6.0-8.0	A-7-6(14)	68	47	4.8	14.1	30.5	50.5	100	99	86	4.7	
ST-22, 2	70 RT	143+05	6.0-8.0	A-7-6(18)	48	31	22.2	15.4	24.0	38.4	100	97	66	3.7	
SS-14	70 RT	143+00	8.5-10.0	A-6(7)	39	21	41.3	9.0	11.1	38.7	100	84	51	-	
SS-15	70 RT	143+00	13.5-15.0	A-1-b(0)	20	NP	82.6	12.7	0.6	4.1	96	41	5	-	
SS-16	70 RT	143+00	18.5-20.0	A-1-b(0)	17	NP	82.8	11.4	1.7	4.1	94	37	6	-	
SS-17	70 RT	143+00	23.5-25.0	A-3(0)	21	NP	74.3	20.3	0.3	5.1	99	60	8	-	
SS-18	70 RT	143+00	28.5-30.0	A-2-4(0)	20	NP	14.3	75.0	4.7	6.1	100	96	14	-	
SS-19	70 RT	143+00	33.5-35.0	A-3(0)	22	NP	7.7	86.6	0.6	5.1	100	100	8	-	
SS-20	70 RT	143+00	38.5-40.0	A-3(0)	21	NP	2.6	89.6	2.7	5.1	100	100	10	-	
SS-45	70 LT	144+00	8.5-10.0	-	-	-	5.9	19.4	22.1	52.6	100	99	78	25.4	
ST-21, 1	70 RT	145+05	3.0-5.0	A-2-4(0)	14	NP	23.4	52.0	16.5	8.7	100	94	28	1.2	
ST-21, 2, 3	70 RT	145+05	3.0-5.0	A-6(5)	28	15	11.5	37.3	27.0	24.2	100	98	57	3.1	
ST-24, 1, 2	70 LT	150+05	13.0-15.0	A-7-6(19)	47	21	2.5	14.4	54.3	28.8	100	99	84	6.7	
ST-24, 3	70 LT	150+05	13.0-15.0	A-7-6(15)	44	22	15.2	13.4	42.6	28.8	100	94	72	6.0	
ST-25, 1, 2	70 RT	151+05	17.0-19.0	A-6(3)	28	13	9.9	40.0	31.8	18.3	100	97	52	6.2	
ST-25, 3	70 RT	151+05	17.0-19.0	A-6(9)	38	18	15.6	24.2	35.8	24.4	100	94	62	8.2	

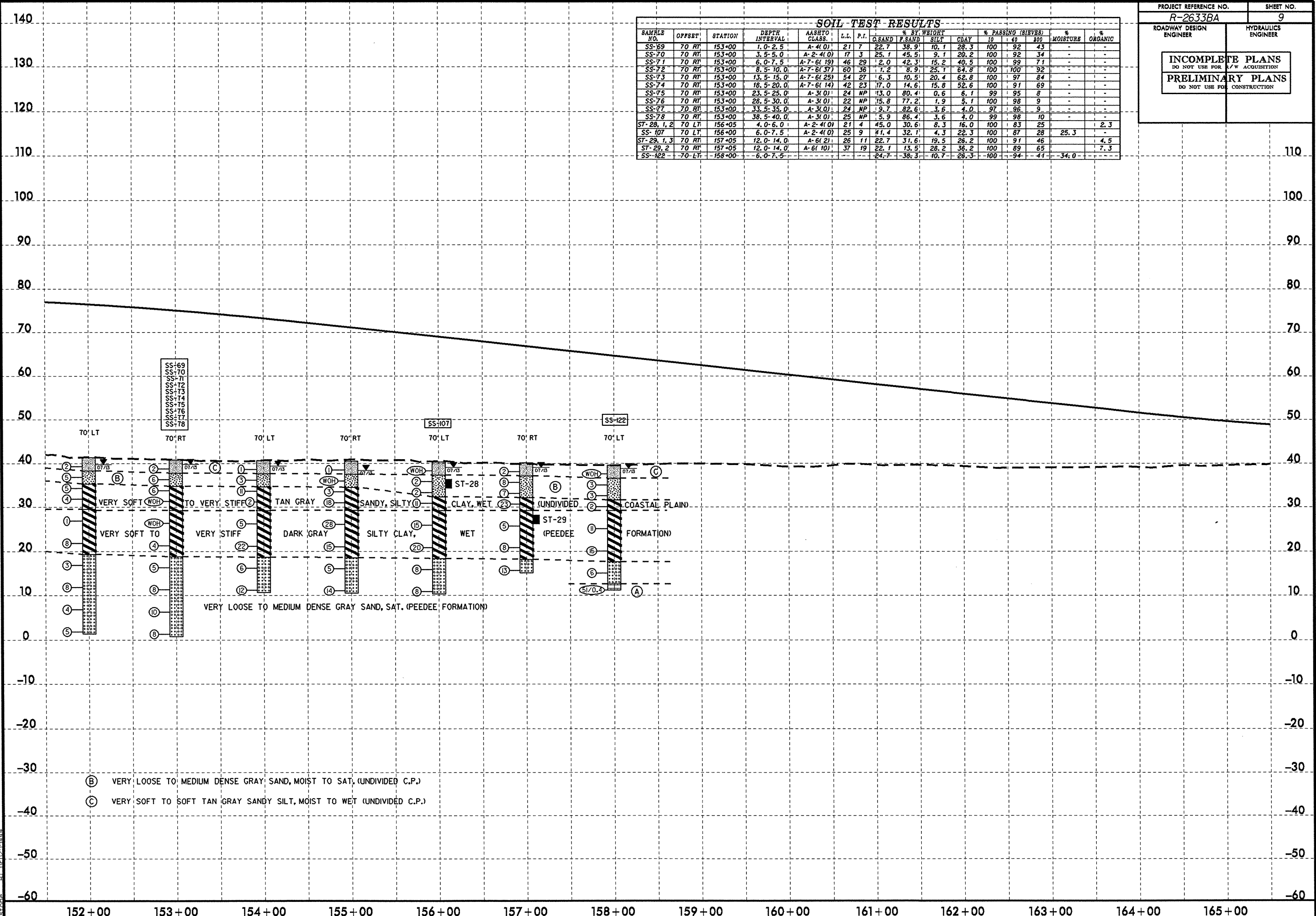


- (A) SOFT TO HARD GRAY LIMESTONE (PEEDEE FORMATION)
- (B) VERY LOOSE TO LOOSE GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

5/14/99
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PROJECT REFERENCE NO. R-2633BA	SHEET NO. 9
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR ACQUISITION	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

SOIL TEST RESULTS															
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT			% PASSING (SIEVES)			% MOISTURE	% ORGANIC	
							SAND	F.SAND	SILT	10	40	200			
SS-69	70 RT	153+00	1.0-2.5	A-4(0)	21	7	22.7	38.9	10.1	28.3	100	92	43	-	-
SS-70	70 RT	153+00	3.5-5.0	A-2-4(0)	17	3	25.1	45.5	9.1	20.2	100	92	34	-	-
SS-71	70 RT	153+00	6.0-7.5	A-7-6(19)	46	29	12.0	42.3	15.2	40.5	100	99	71	-	-
SS-72	70 RT	153+00	8.5-10.0	A-7-6(37)	60	36	1.2	8.9	25.1	64.8	100	100	92	-	-
SS-73	70 RT	153+00	13.5-15.0	A-7-6(25)	54	27	6.3	10.5	20.4	62.8	100	97	84	-	-
SS-74	70 RT	153+00	18.5-20.0	A-7-6(14)	42	23	17.0	14.6	15.8	52.6	100	91	69	-	-
SS-75	70 RT	153+00	23.5-25.0	A-3(0)	24	NP	13.0	80.4	0.6	6.1	99	95	8	-	-
SS-76	70 RT	153+00	28.5-30.0	A-3(0)	22	NP	15.8	77.2	1.9	5.1	100	98	9	-	-
SS-77	70 RT	153+00	33.5-35.0	A-3(0)	24	NP	9.7	82.6	3.6	4.0	97	96	9	-	-
SS-78	70 RT	153+00	38.5-40.0	A-3(0)	25	NP	5.9	86.4	3.6	4.0	99	98	10	-	-
ST-28, 1, 2	70 LT	156+05	4.0-6.0	A-2-4(0)	21	4	45.0	30.6	8.3	16.0	100	83	25	-	2.3
SS-107	70 RT	156+00	6.0-7.5	A-2-4(0)	25	9	41.4	32.1	4.3	22.3	100	87	28	25.3	-
ST-29, 1, 3	70 RT	157+05	12.0-14.0	A-6(2)	26	11	22.7	31.6	19.5	26.2	100	91	46	-	4.5
ST-29, 2	70 RT	157+05	12.0-14.0	A-6(10)	37	19	22.1	13.5	28.2	36.2	100	89	65	-	7.3
SS-122	70 LT	158+00	6.0-7.5	-	-	-	24.7	38.3	10.7	26.3	100	94	41	-	34.0

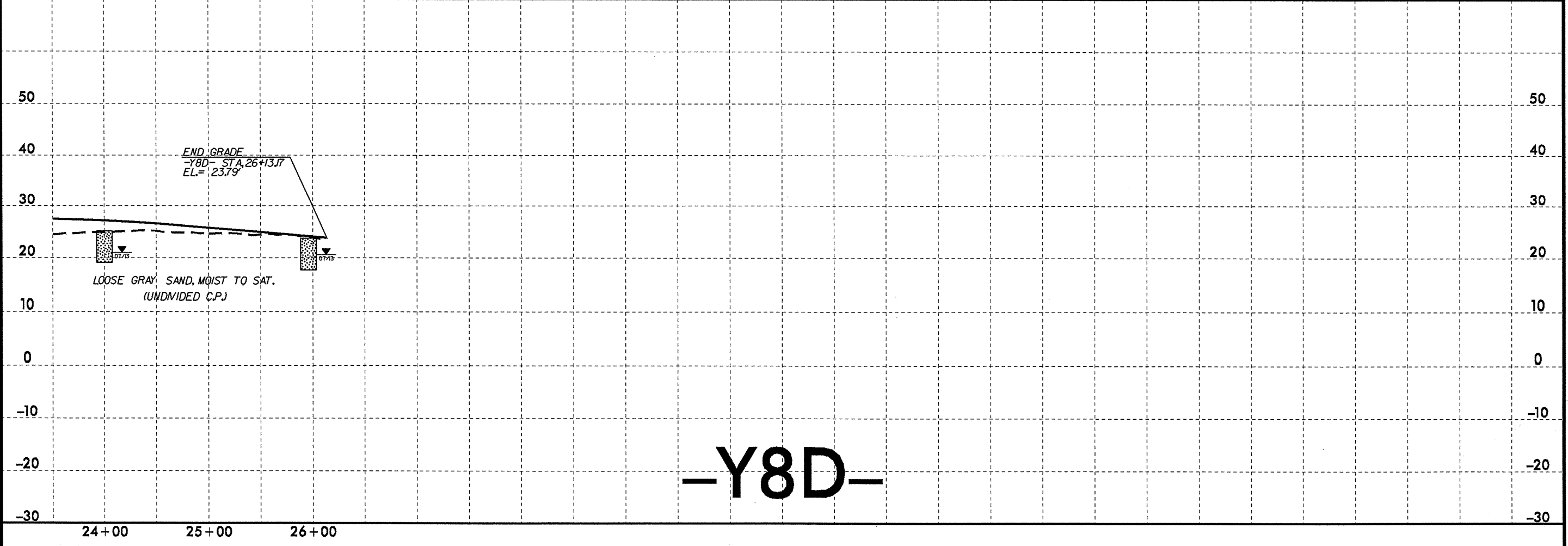
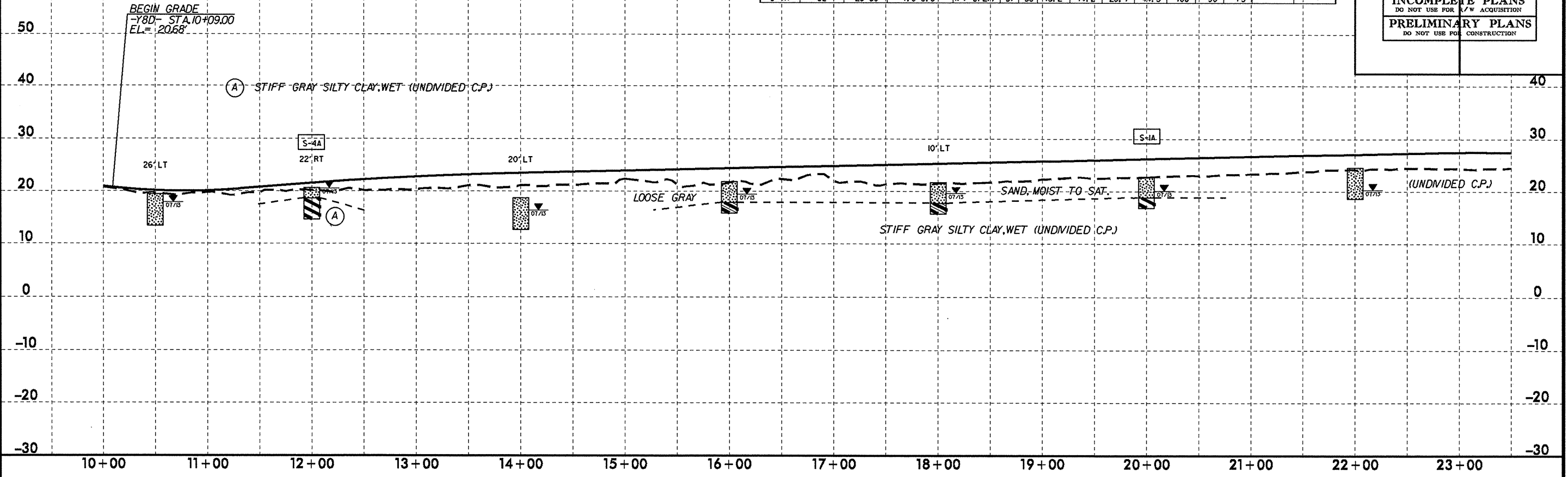


5/28/99

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SOIL TEST RESULTS															
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT			% PASSING (SIBYS)			% MOISTURE	% ORGANIC	
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-4A	22' RT	12+00	2.0-6.0	A-7-6(17)	57	35	36.4	7.1	30.2	26.3	99	77	57	-	-
S-1A	CL	20+00	4.0-6.0	A-7-6(27)	57	36	13.2	14.2	28.1	44.5	100	98	75	-	-

PROJECT REFERENCE NO. R-2633BA	SHEET NO. 10
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



-Y8D-