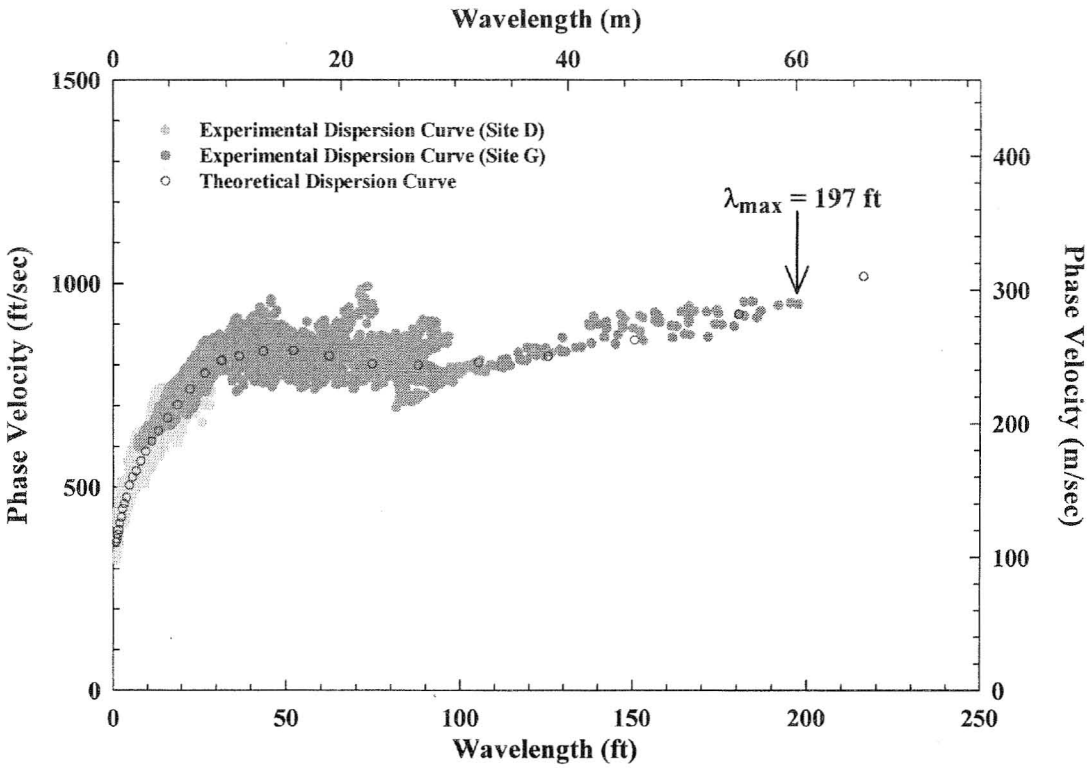

Figure Q.33 Experimental and Theoretical Dispersion Curves from Site D in Third Site Visit at Vogtle, GA; Linear Wavelength Axis

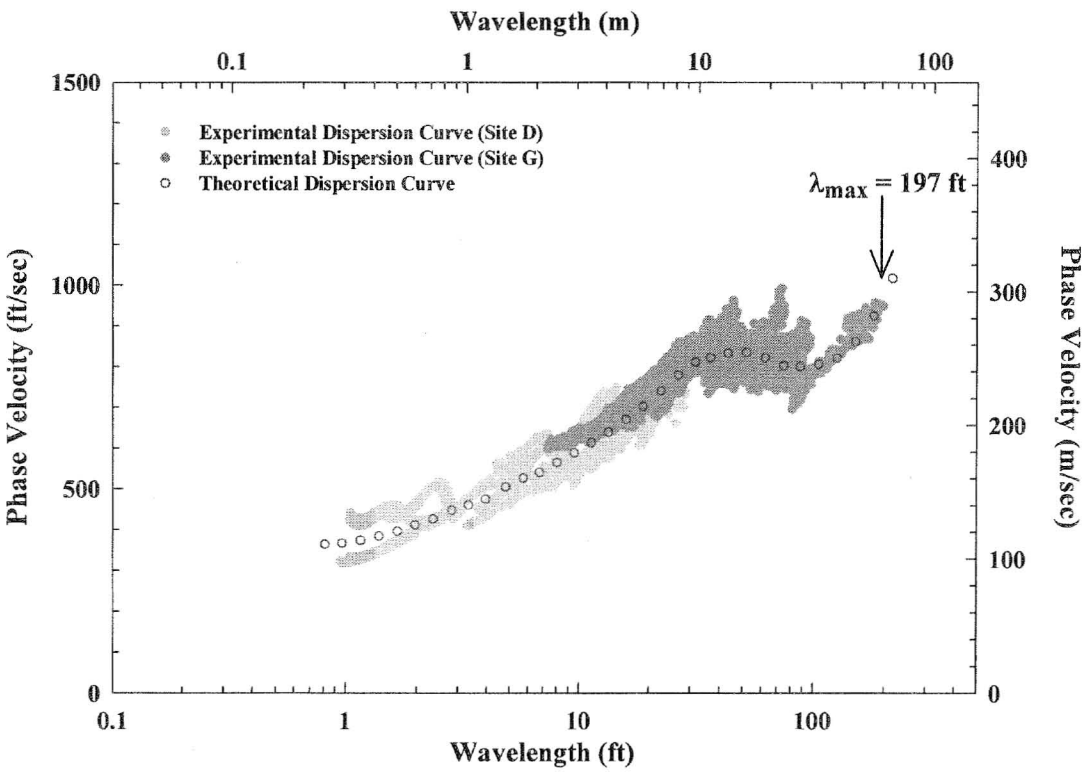

Figure Q.34 Experimental and Theoretical Dispersion Curves from Site D in Third Site Visit at Vogtle, GA; Logarithmic Wavelength Axis

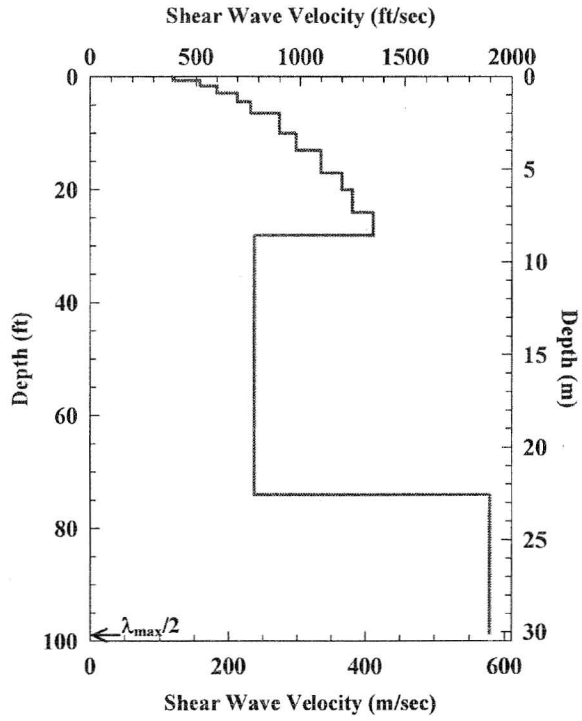

Figure Q.35 Shear Wave Velocity Profile Determined at Site D during Third Site Visit at Vogtle, GA

Table Q.4 Profile Parameters Used to Develop Preliminary Theoretical Dispersion Curve at Site D in the Third Site Visit at Vogtle, GA

Layer No.	Thickness, ft	Depth to Top of Layer, ft	S-Wave Velocity, ft/s	Assumed Poisson's Ratio	P-Wave Velocity, ft/s	Assumed Total Unit Weight, pcf
1	0.75	0.0	390	0.24	667	128
2	0.95	0.75	520	0.24	889	128
3	1.3	1.7	600	0.24	1026	128
4	1.5	3.0	700	0.24	1197	128
5	2.0	4.5	760	0.24	1299	128
6	3.6	6.5	900	0.24	1539	128
7	3.0	10.1	980	0.24	1676	128
8	4.0	13.1	1100	0.24	1881	128
9	3.0	17.1	1200	0.24	2052	128
10	4.0	20.1	1250	0.24	2137	128
11	4.0	24.1	1350	0.24	2308	128
12	46.0	28.1	780	0.24	1334	128
13#	24.9	74.1	1900	0.42	5000	135
14*#	5.1	99.0	1900	0.42	5000	135
15*#	Half Space	104.1	2200	0.38	5000	135

* Layer below maximum depth of the V_S Profile.

\# Layer below water tatble.

Performed by Yin-Cheng Lin Checked by K. H. Stokoe

Yin-Cheng Lin Kenneth H. Stokoe, II

Appendix R

SASW Measurements of Third Site Visit at Vogtle, GA
Site Location: Site E

3 - Receiver SASW Data Sheet

Project : Vogtle

Location : E (SA3#5)

Date/(Time) : Dec 12 / 2007 (: ~ :)

Personnel : Stokoe, Yuan

Recorded by : Yuan

Checked by : Stokoe

Data Sheet # : SA3#5

Disk # : SA3#5

elev = 232.65

Sketch

R1 I.D. : UT07-4.5Hz-04

R2 I.D. : UT07-4.5Hz-02

R3 I.D. : UT07-4.5Hz-03

Distance (ft)			Impact Direction		Impact Source	Record #	Freq. Range (Hz)	Notes
S - R1	R1 - R2	R2 - R3						
1	1	2	For	Rev	small	3E1	0-800	
1	1	2	For	Rev	"	3E2	0-800	
3	3	6	For	Rev	med	3E3	0-400	
3	3	6	For	Rev	"	3E4	0-400	
9	9	18	For	Rev	big	3E5	0-200	
9	9	18	For	Rev	sledge	3E6	0-200	
9	9	18	For	Rev	big	3E7	0-200	
9	9	18	For	Rev	sledge	3E8	0-200	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	

* Autosequence 3R_SASW saves F_2/1, C_2/1, F_4/3, C_4/3, Lin_1, Lin_2, Lin_4

* Autosequence 3R_SEWPSiN saves F_2/1, Var_2, F_4/3, Var_4, Lin_1, Lin_2, Lin_4

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3 - Receiver SASW Data Sheet

Page 1 of 1

Project : Vogtle

Data Sheet # : SA3#7

Location : G (SA3#7)

Disk # : SA3#7

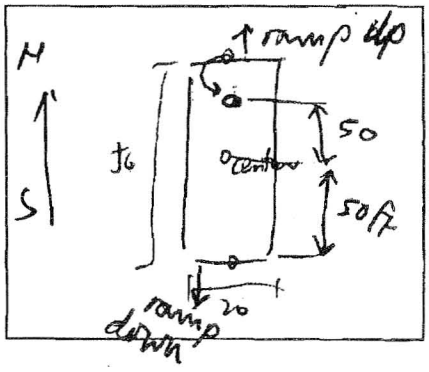
Date/(Time) : Dec / 27 / 2007 (: ~ :)

Personnel : Stokoe, Tuan

Recorded by : Tuan

Checked by : Stokoe

Sketch



			Cable
R1 I.D. :	3773	(1Hz)	C26
R2 I.D. :	3774	(1Hz)	C27
R3 I.D. :	3775	(1Hz)	C25

Distance (ft) S - R1	R1 - R2	R2 - R3	Impact Direction		Impact Source	Record #	Freq. Range (Hz)	Notes (input voltage)
25	25	25	For	Rev	bull dozer	361	0 ~ 100	500 mV
50	50		For	Rev	"	362	0 ~ 100	
50	50	50	For	Rev	"	363	0 ~ 100	
50	50	50	For	Rev	"	364	0 ~ 50	250 mV
100	100		For	Rev	"	365	0 ~ 50	100 mV
25	25	25	For	Rev	bull dozer	366	0 ~ 100	500 mV
50	50		For	Rev	"	367	0 ~ 50	250 mV
85	50	50	For	Rev	"	368	0 ~ 50	150 mV
100	100		For	Rev	"	369	0 ~ 50	100 mV
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	

* Autosequence 3R_SASW saves F_2/1, C_2/1, F_4/3, C_4/3, Lin_1, Lin_2, Lin_4

* Autosequence 3R_SEWPSIN saves F_2/1, Var_2, F_4/3, Var_4, Lin_1, Lin_2, Lin_4

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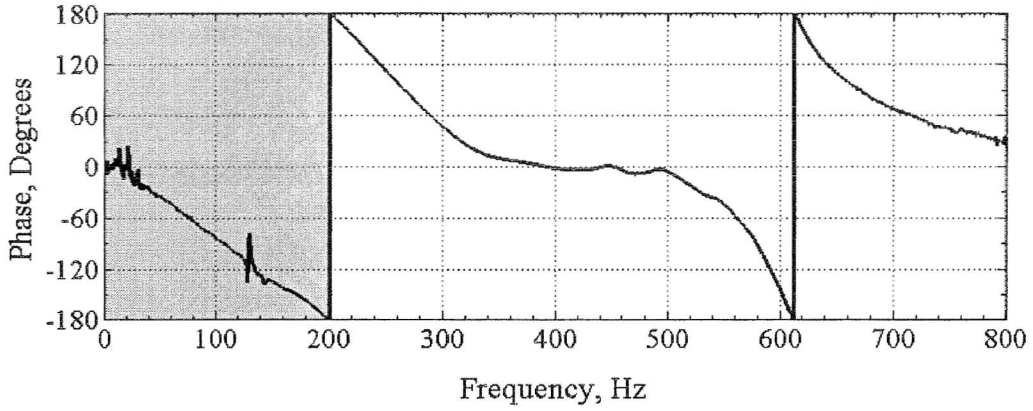

Figure R.1 Phase Plots Measured by SASW Testing with 1-ft Receiver Spacing (3E1_F_21.DAT)

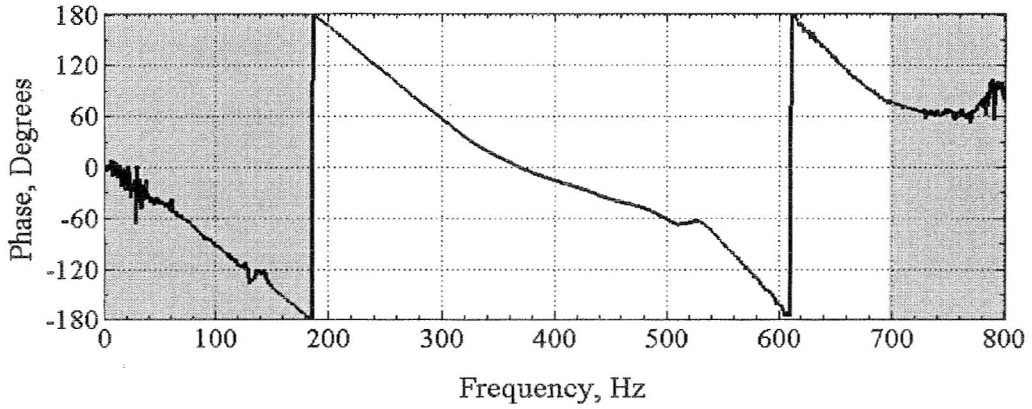

Figure R.2 Phase Plots Measured by SASW Testing with 1-ft Receiver Spacing (3E2_F_21.DAT)

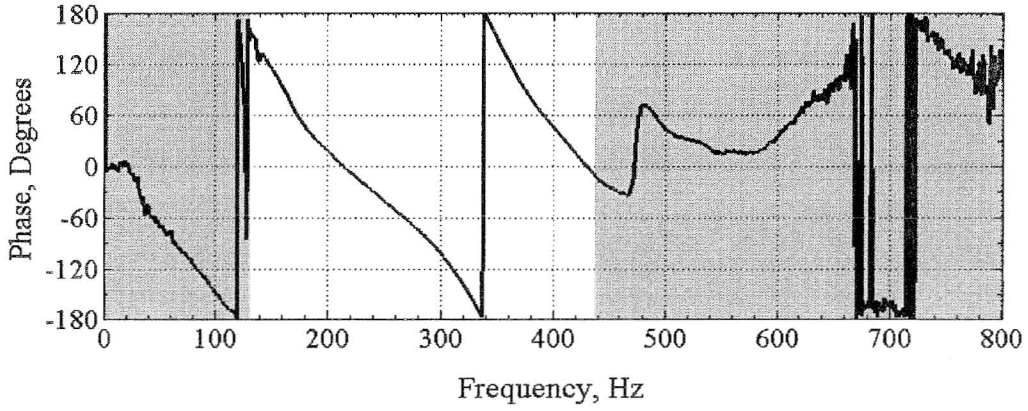

Figure R.3 Phase Plots Measured by SASW Testing with 2-ft Receiver Spacing (3E1_F_43.DAT)

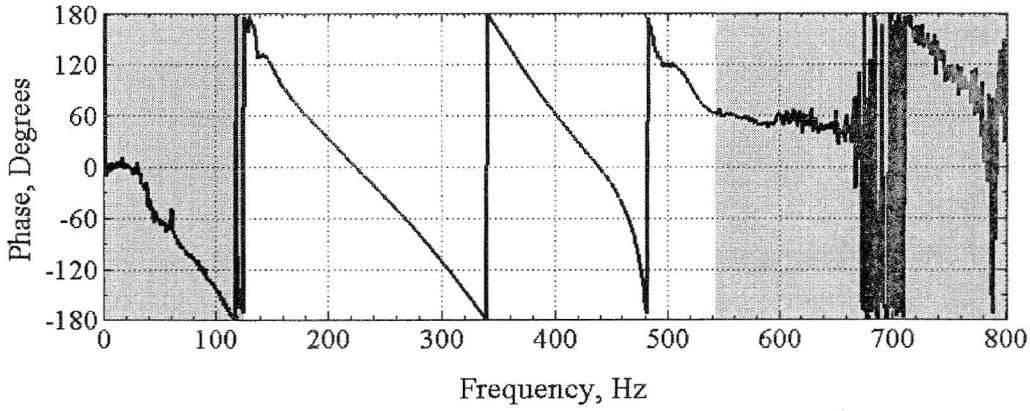

Figure R.4 Phase Plots Measured by SASW Testing with 2-ft Receiver Spacing (3E2_F_43.DAT)

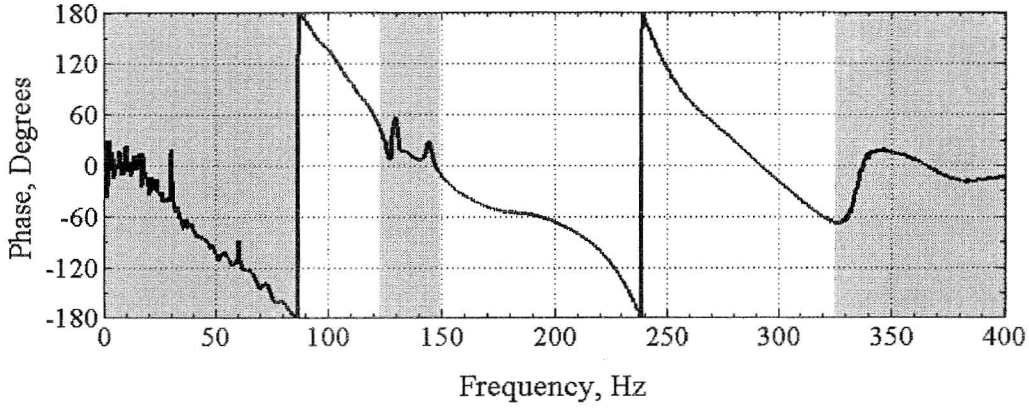

Figure R.5 Phase Plots Measured by SASW Testing with 3-ft Receiver Spacing (3E3_F_21.DAT)

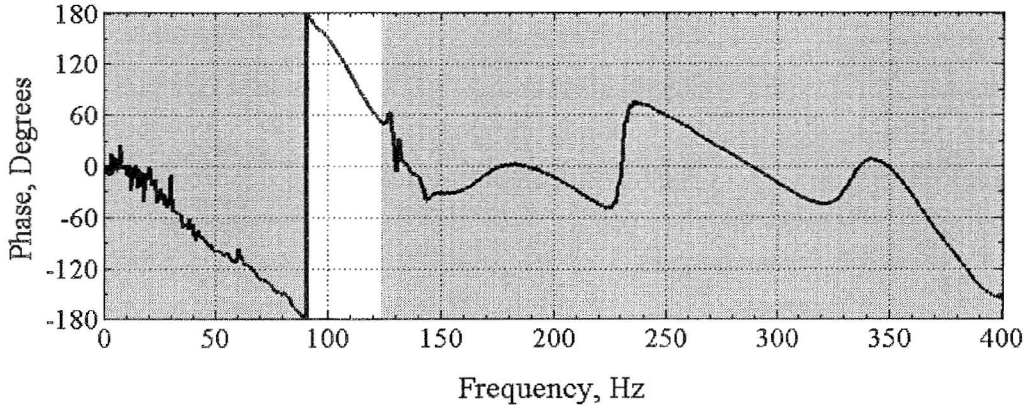

Figure R.6 Phase Plots Measured by SASW Testing with 3-ft Receiver Spacing (3E4_F_21.DAT)

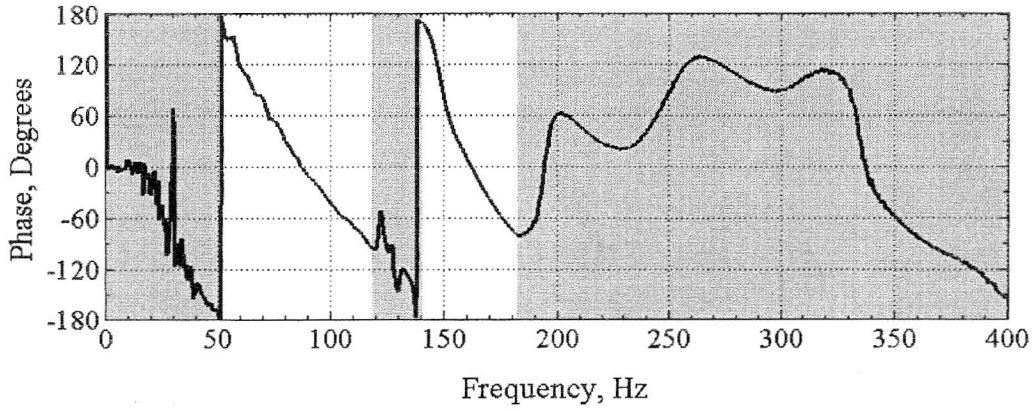

Figure R.7 Phase Plots Measured by SASW Testing with 6-ft Receiver Spacing (3E3_F_43.DAT)

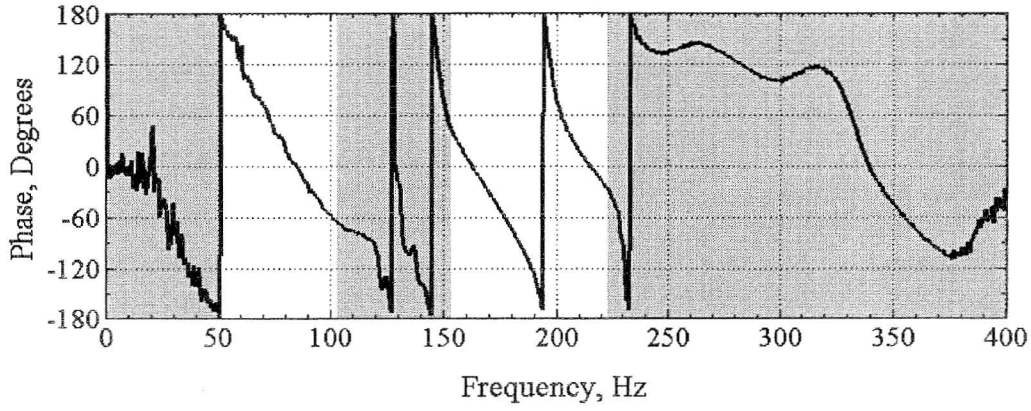

Figure R.8 Phase Plots Measured by SASW Testing with 6-ft Receiver Spacing (3E4_F_43.DAT)

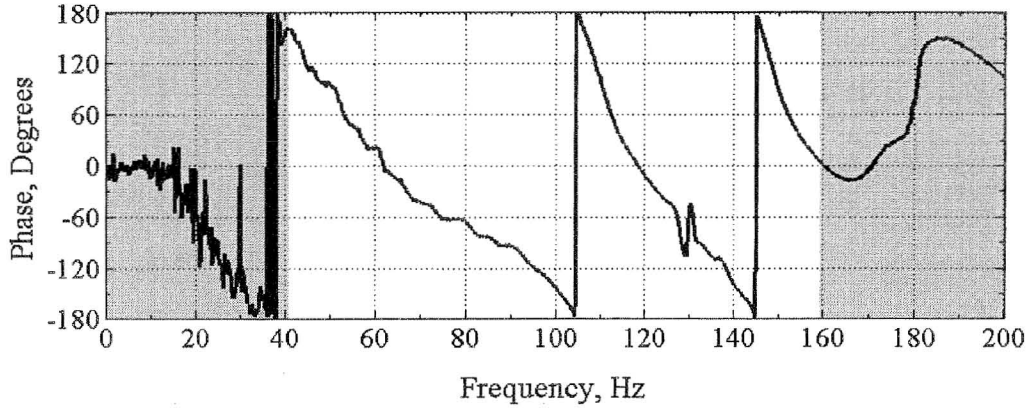

Figure R.9 Phase Plots Measured by SASW Testing with 9-ft Receiver Spacing (3E5_F_21.DAT)

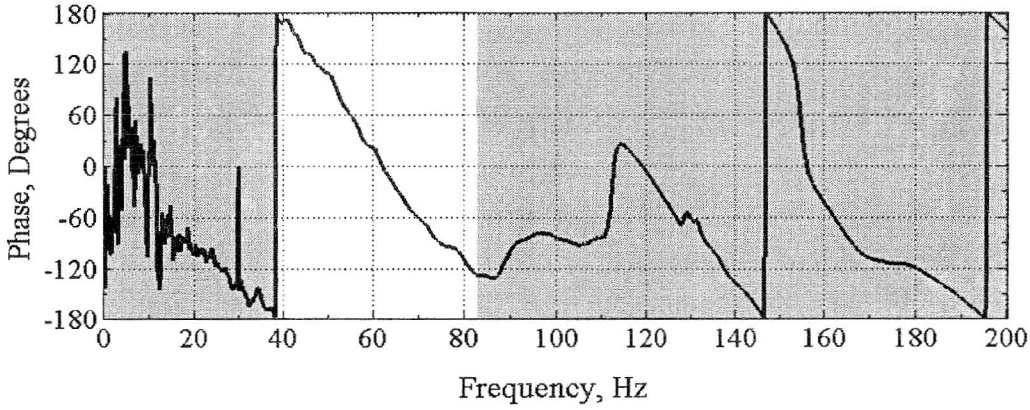

Figure R.10 Phase Plots Measured by SASW Testing with 9-ft Receiver Spacing (3E6_F_21.DAT)

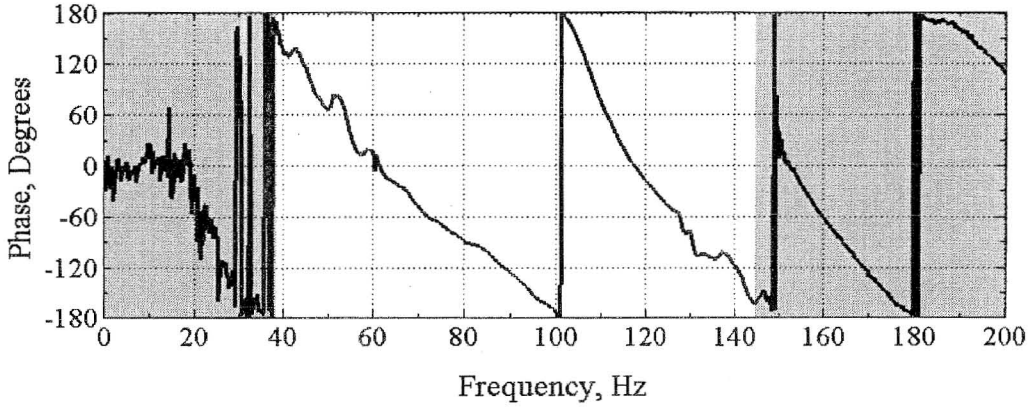

Figure R.11 Phase Plots Measured by SASW Testing with 9-ft Receiver Spacing (3E7_F_21.DAT)

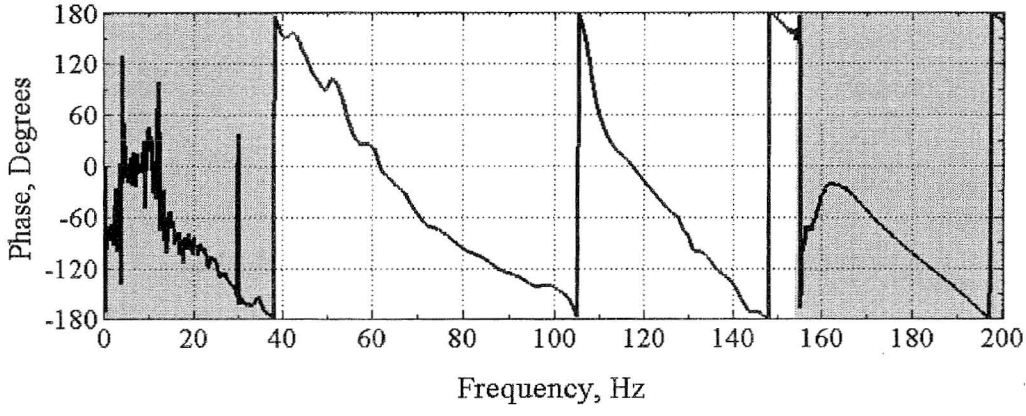

Figure R.12 Phase Plots Measured by SASW Testing with 9-ft Receiver Spacing (3E8_F_21.DAT)

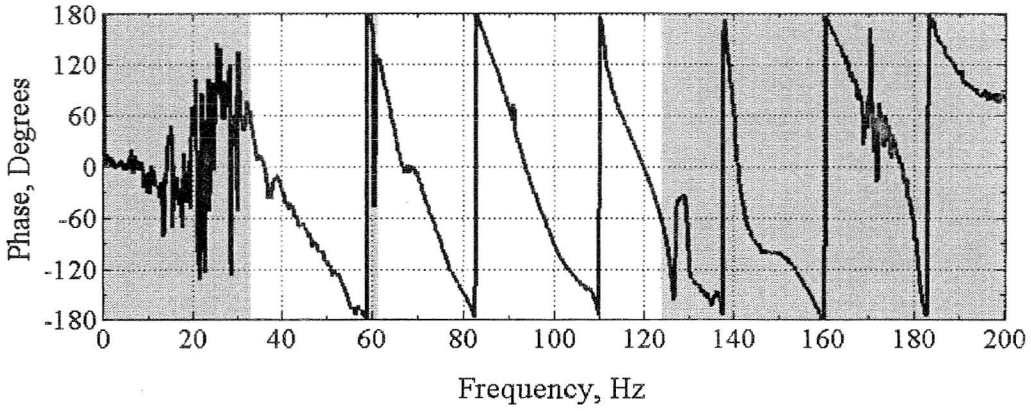

Figure R.13 Phase Plots Measured by SASW Testing with 18-ft Receiver Spacing (3E5_F_43.DAT)

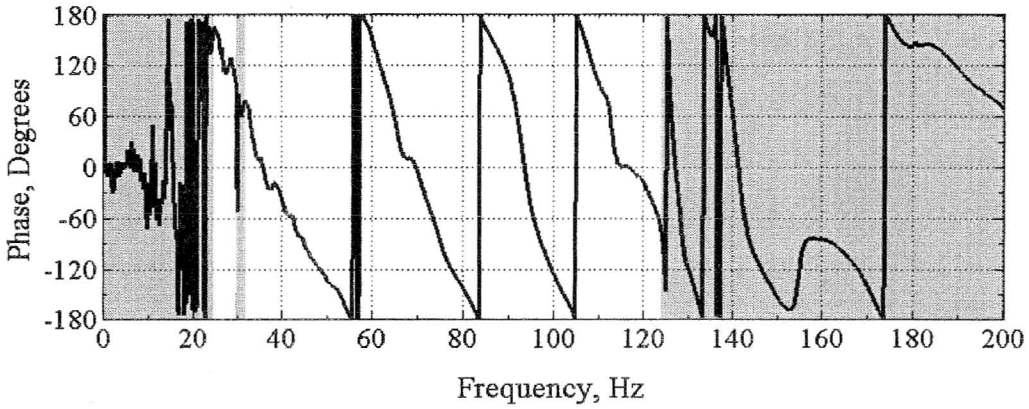

Figure R.14 Phase Plots Measured by SASW Testing with 18-ft Receiver Spacing (3E6_F_43.DAT)

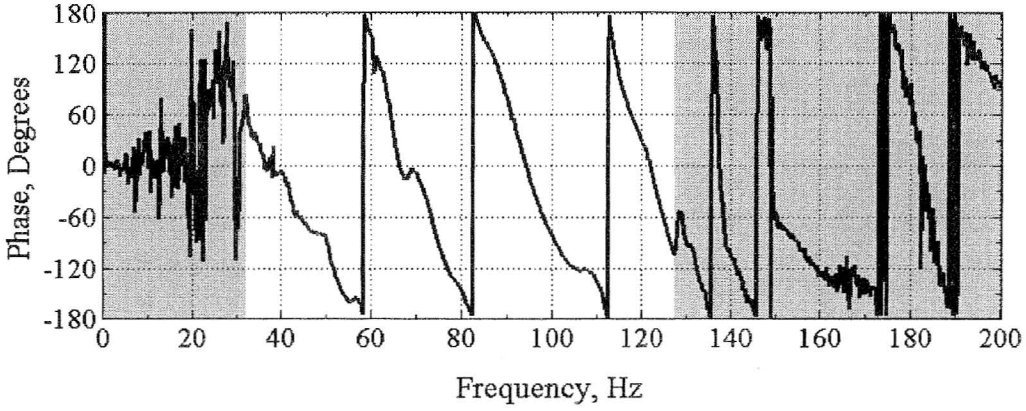

Figure R.15 Phase Plots Measured by SASW Testing with 18-ft Receiver Spacing (3E7_F_43.DAT)

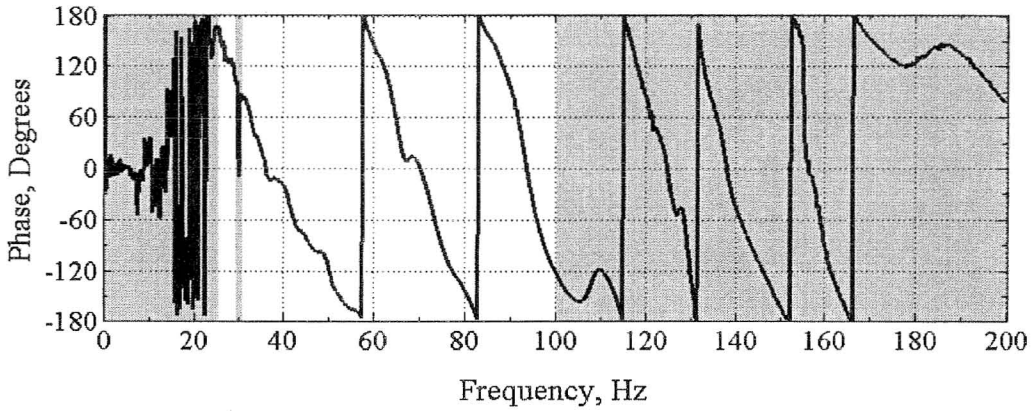

Figure R.16 Phase Plots Measured by SASW Testing with 18-ft Receiver Spacing (3E8_F_43.DAT)

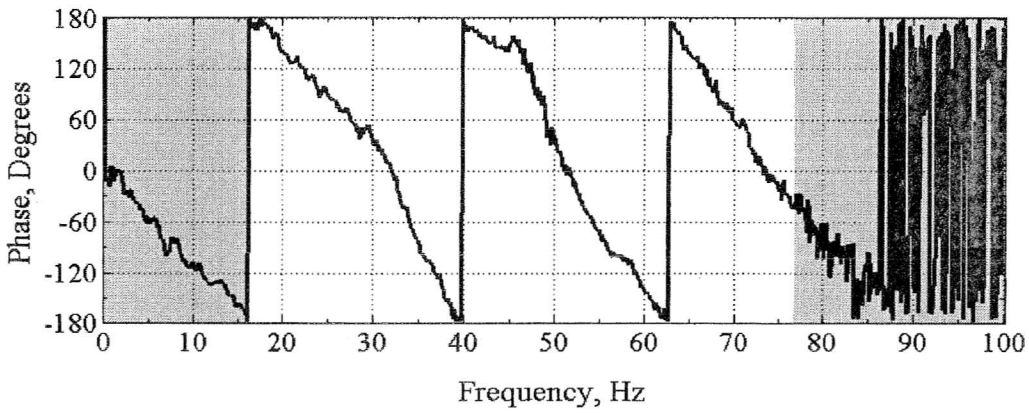

Figure R.17 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (3G1_F_21.DAT)

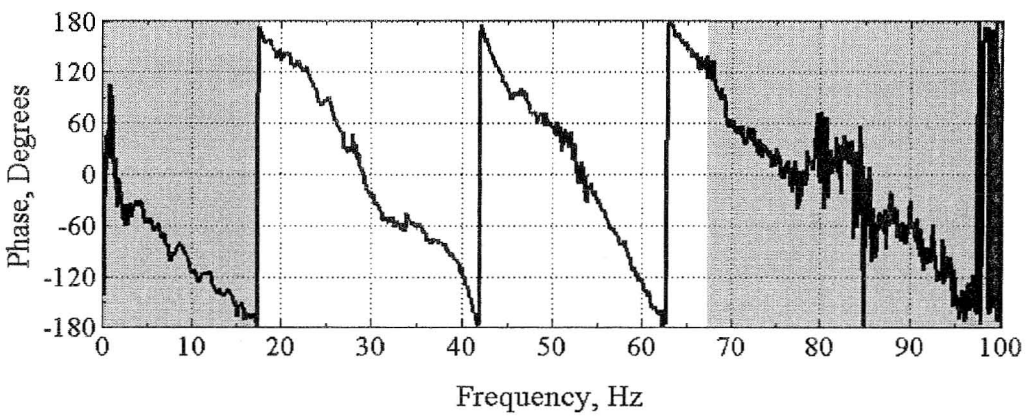

Figure R.18 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (3G1_F_43.DAT)

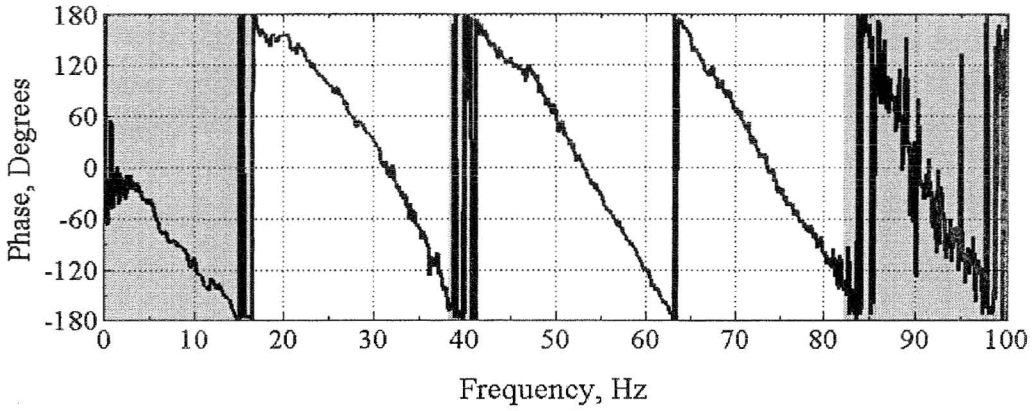

Figure R.19 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (3G6_F_21.DAT)

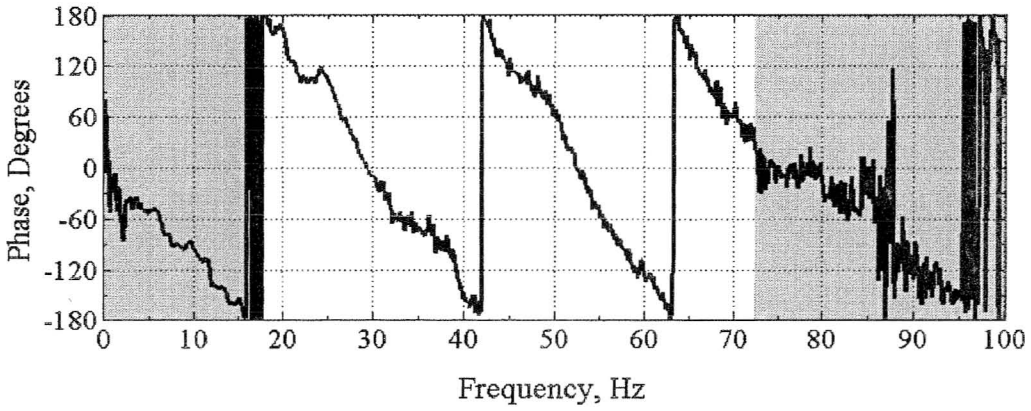

Figure R.20 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (3G6_F_43.DAT)

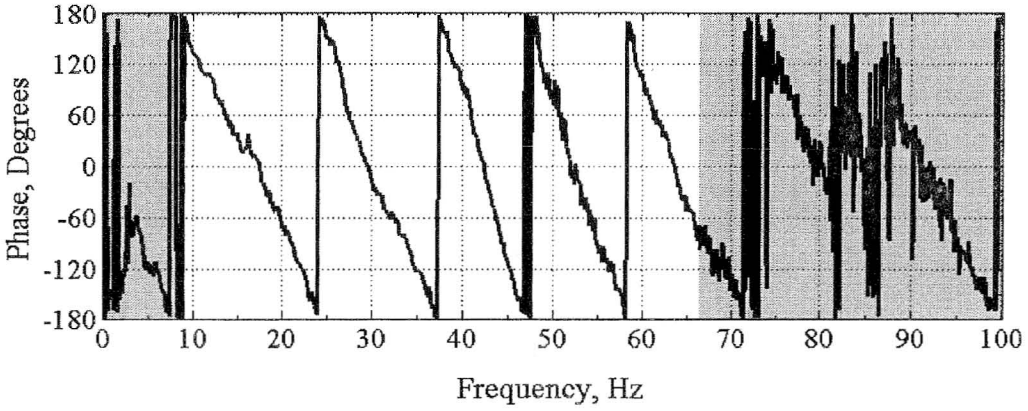

Figure R.21 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G2_F_21.DAT)

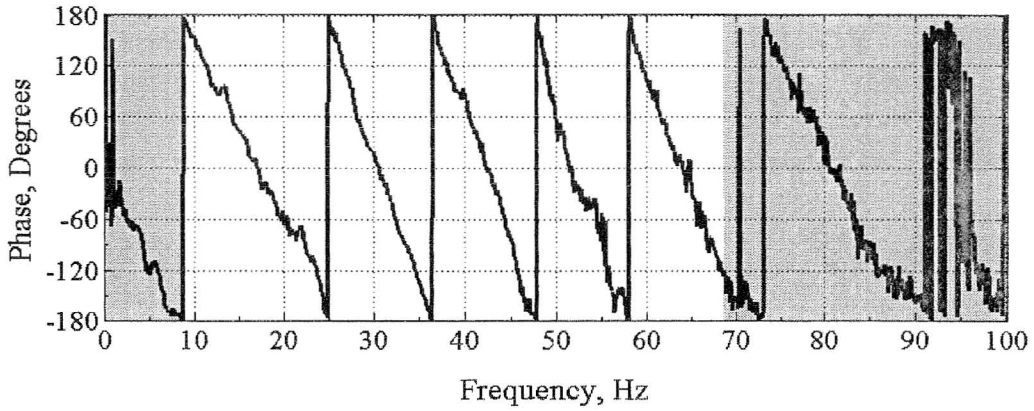

Figure R.22 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G3_F_21.DAT)

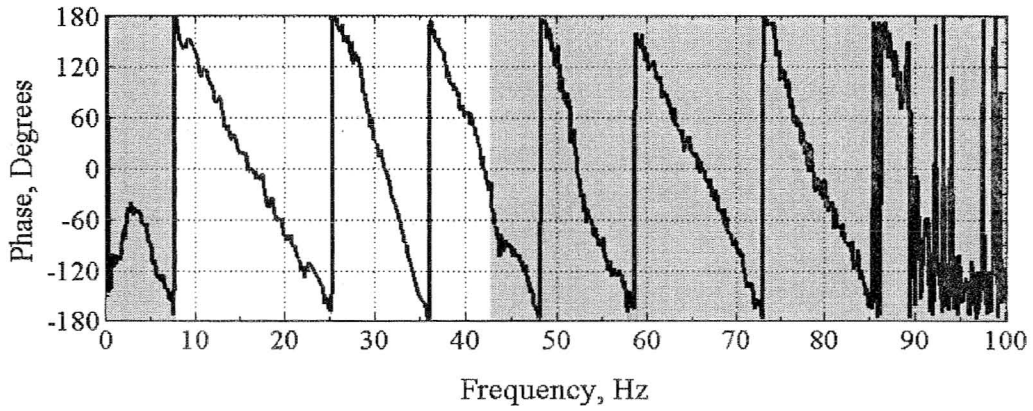

Figure R.23 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G3_F_43.DAT)

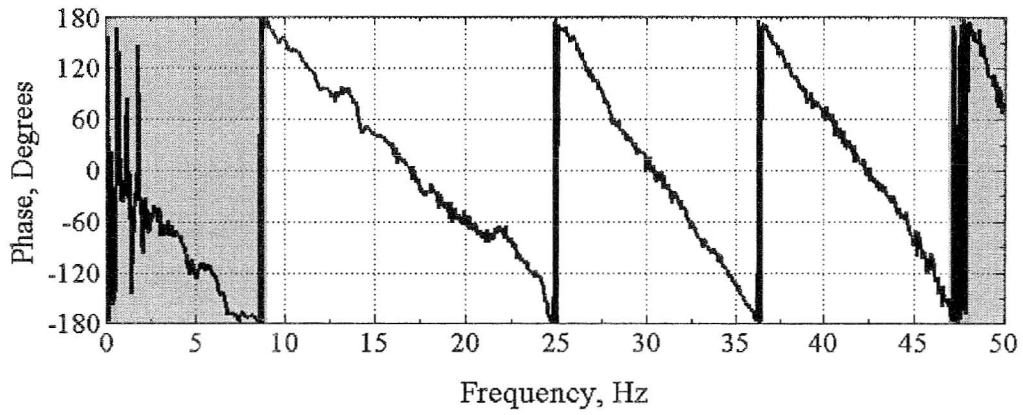

Figure R.24 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G4_F_21.DAT)

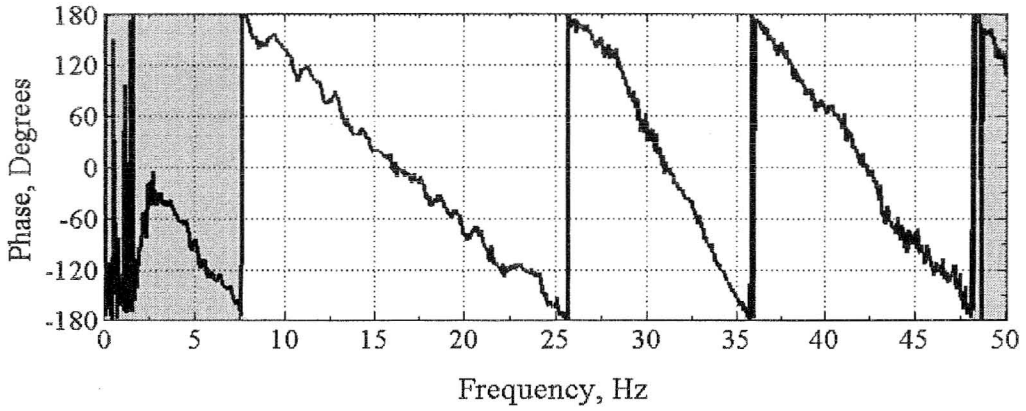

Figure R.25 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G4_F_43.DAT)

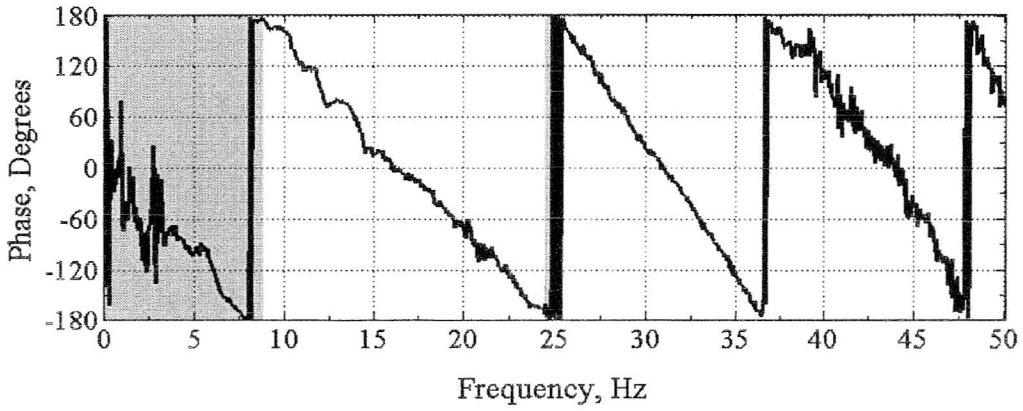

Figure R.26 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G7_F_21.DAT)

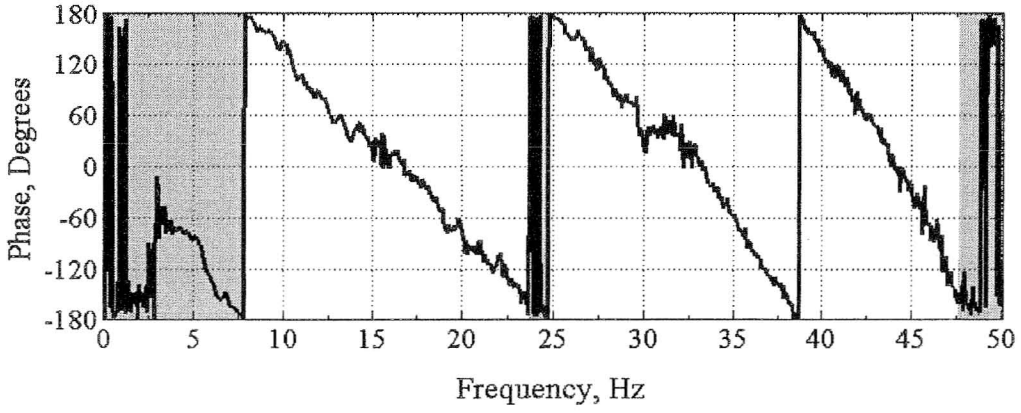

Figure R.27 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G8_F_21.DAT)

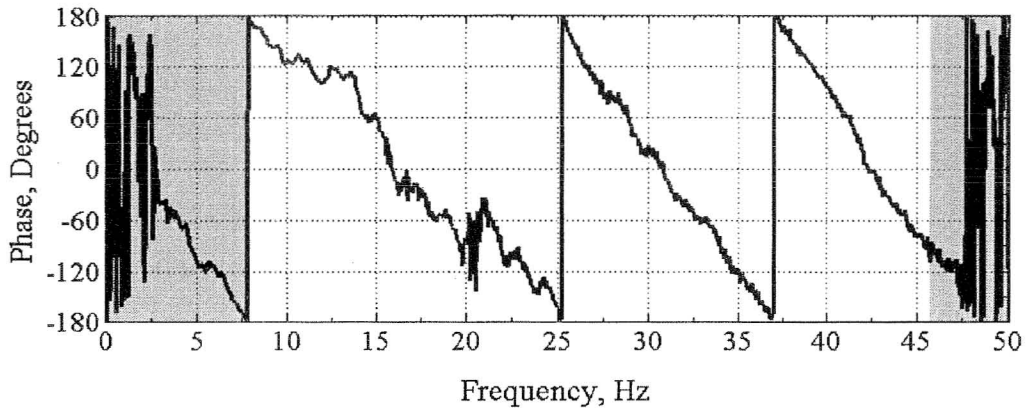

Figure R.28 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G8_F_43.DAT)

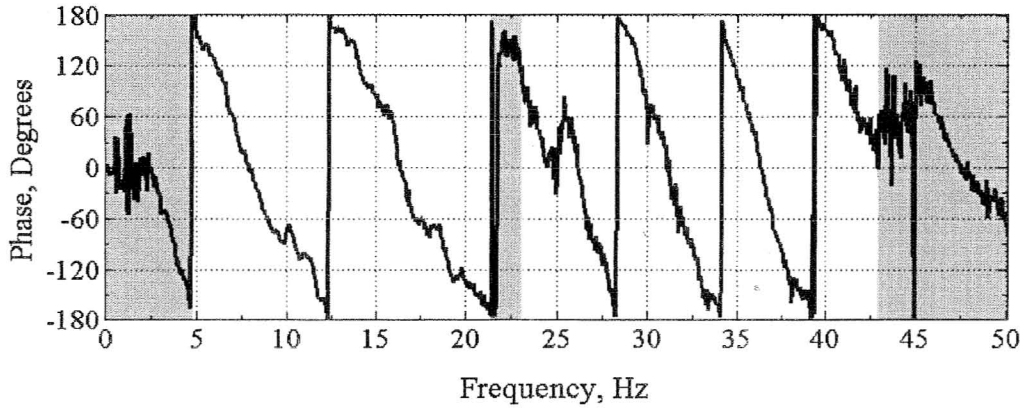

Figure R.29 Phase Plots Measured by SASW Testing with 100-ft Receiver Spacing (3G5_F_21.DAT)

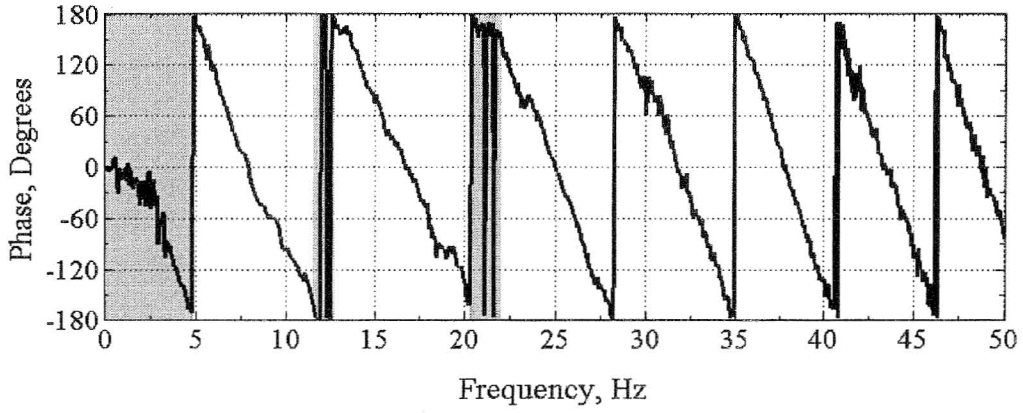

Figure R.30 Phase Plots Measured by SASW Testing with 100-ft Receiver Spacing (3G9_F_21.DAT)

Table R.1 Tables of Masking Parameters Used on Data Collected during Third Site Visit at Site E

Receiver Spacing (ft)	Masking Interval	Masking Start Frequency, Hz	Masking Stop Frequency, Hz	Number of Jumps	Filename
1	1	0	202	1	3E1_F_21.DAT
	2	796	800	-	
1	1	0	187	1	3E2_F_21.DAT
	2	695	800	-	
2	1	0	132	1	3E1_F_43.DAT
	2	437	800	-	
2	1	0	126	1	3E2_F_43.DAT
	2	543	800	-	
3	1	0	87	1	3E3_F_21.DAT
	2	123	149	1	
	3	324.5	400	-	
3	1	0	91	1	3E4_F_21.DAT
	2	124	400	-	
6	1	0	52	1	3E3_F_43.DAT
	2	118.5	140.5	2	
	3	182	400	-	
6	1	0	51.5	1	3E4_F_43.DAT
	2	103	153.5	2	
	3	222.5	400	-	
9	1	0	40.75	1	3E5_F_21.DAT
	2	158.75	200	-	
9	1	0	38.5	1	3E6_F_21.DAT
	2	82.75	200	-	
9	1	0	38.5	1	3E7_F_21.DAT
	2	144.5	200	-	
9	1	0	38.25	1	3E8_F_21.DAT
	2	153.75	200	-	
18	1	0	33	1	3E5_F_43.DAT
	2	59	61.5	2	
	3	123.5	200	-	
18	1	0	24.75	1	3E6_F_43.DAT
	2	29.75	31.75	1	
	3	123.75	200	-	

Performed by Jiabei Yuan Checked by Yin-Cheng Lin

Table R.2 Tables of Masking Parameters Used on Data Collected during Third Site Visit at Site E (Continued)

Receiver Spacing (ft)	Masking Interval	Masking Start Frequency, Hz	Masking Stop Frequency, Hz	Number of Jumps	Filename
18	1	0	32	1	3E7_F_43.DAT
	2	127.25	200	-	
18	1	0	25.5	1	3E8_F_43.DAT
	2	29.5	30.75	1	
	3	100.25	200	-	
25	1	0	16.25	1	3G1_F_21.DAT
	2	76.62	100	-	
25	1	0	17.62	1	3G1_F_43.DAT
	2	67.25	100	-	
25	1	0	16.62	1	3G6_F_21.DAT
	2	38.25	41.25	2	
	3	82	100	-	
25	1	0	17.88	1	3G6_F_43.DAT
	2	72.25	100	-	
50	1	0	9	1	3G2_F_21.DAT
	2	66.38	100	-	
50	1	0	8.88	1	3G3_F_21.DAT
	2	68.62	100	-	
50	1	0	7.75	1	3G3_F_43.DAT
	2	42.62	100	-	
50	1	0	9	1	3G4_F_21.DAT
	2	46.75	50	-	
50	1	0	7.69	1	3G4_F_43.DAT
	2	48	50	-	
50	1	0	8.81	1	3G7_F_21.DAT
	2	24.44	25.5	2	
	3	49.94	50	-	
50	1	0	7.88	1	3G8_F_21.DAT
	2	23.63	24.75	2	
	3	47.5	50	-	
50	1	0	7.88	1	3G8_F_43.DAT
	2	45.63	50	-	

Performed by Jiabei Yuan Checked by Yin-Cheng Lin

Table R.3 Tables of Masking Parameters Used on Data Collected during Third Site Visit at Site E (Continued)

Receiver Spacing (ft)	Masking Interval	Masking Start Frequency, Hz	Masking Stop Frequency, Hz	Number of Jumps	Filename
100	1	0	4.75	1	3G5_F_21.DAT
	2	21.38	23.06	3	
	3	42.81	50	-	
100	1	0	4.88	1	3G9_F_21.DAT
	2	11.56	12.69	2	
	3	20.25	22	3	
	4	49.88	50	-	

Performed by Jiabei Yuan Checked by Yin-Cheng Lin

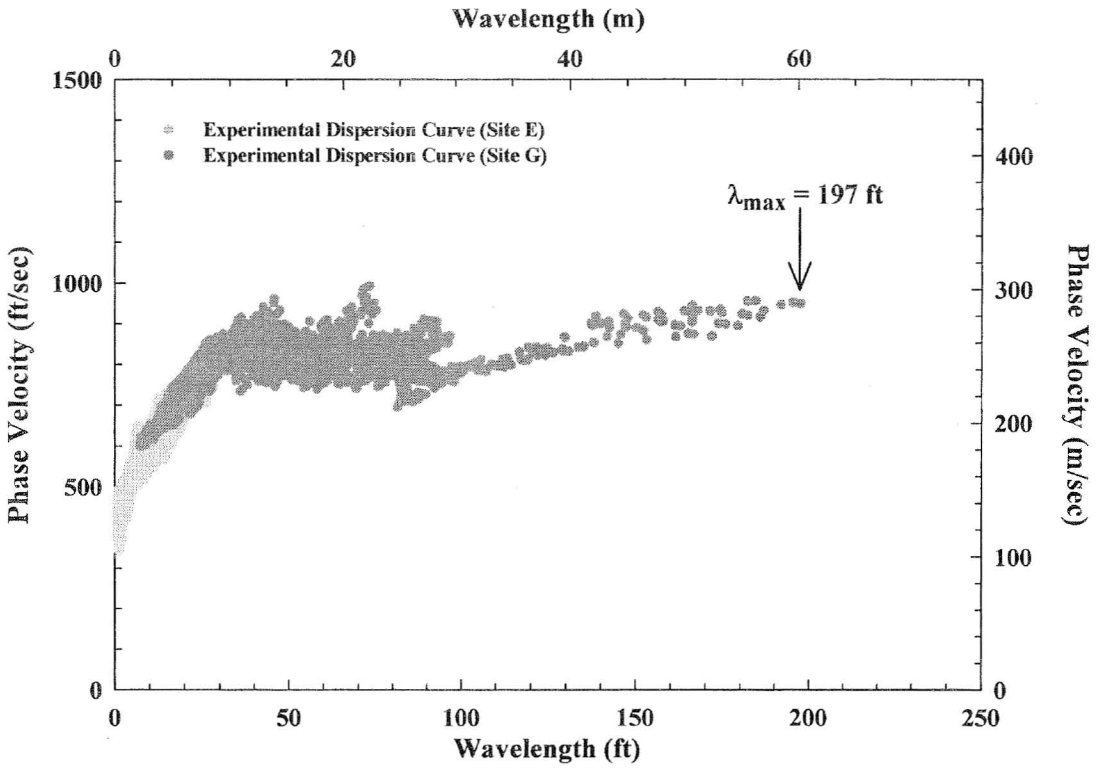

Figure R.31 Experimental Dispersion Curve Measured during Third Site Visit at Site E at Vogtle, GA; Linear Wavelength Axis

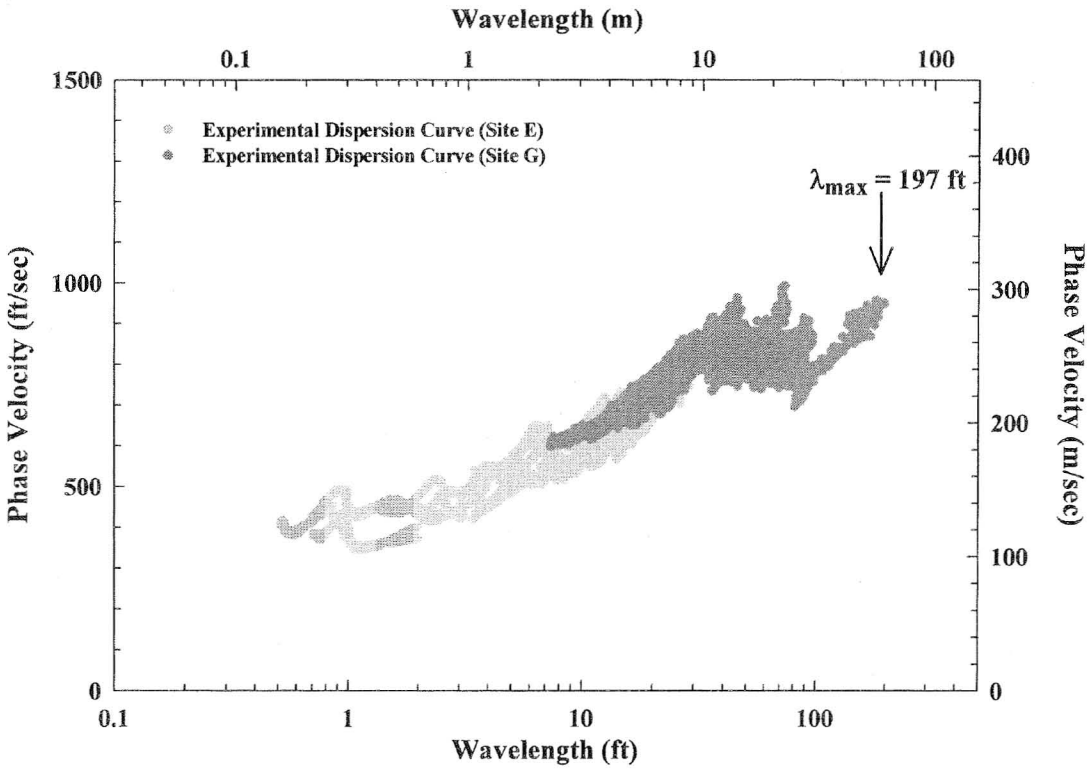

Figure R.32 Experimental Dispersion Curve Measured during Third Site Visit at Site E at Vogtle, GA; Logarithmic Wavelength Axis

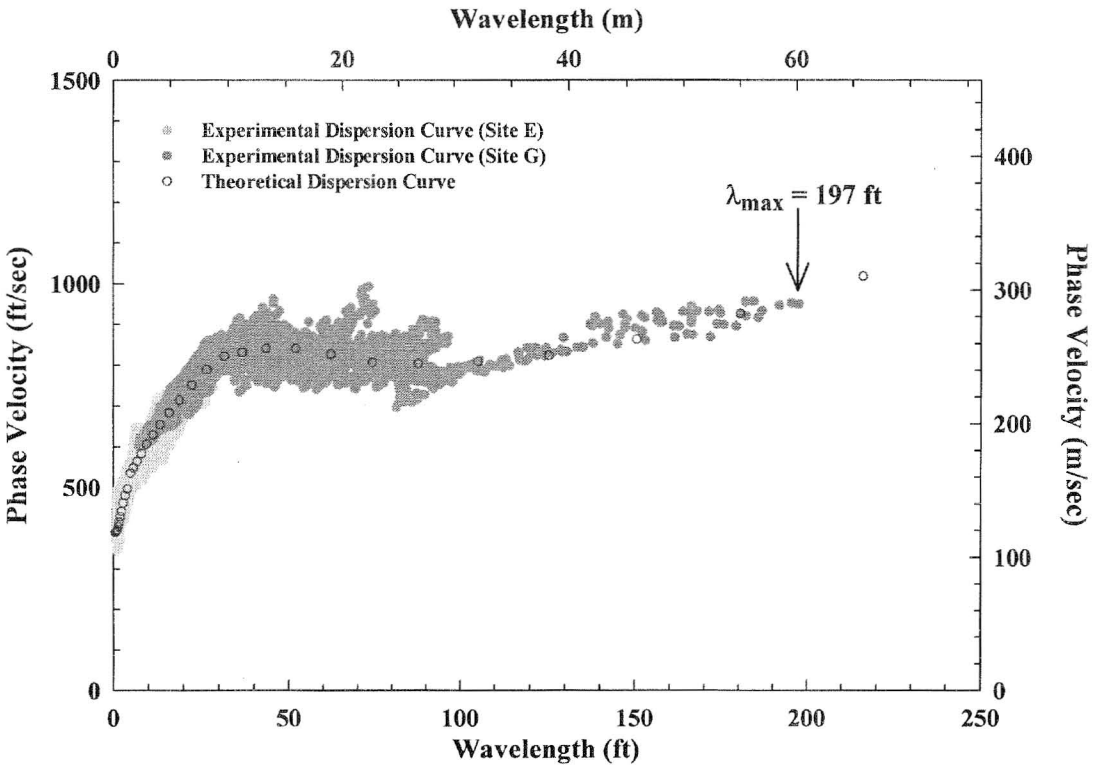

Figure R.33 Experimental and Theoretical Dispersion Curves from Site E in Third Site Visit at Vogtle, GA; Linear Wavelength Axis

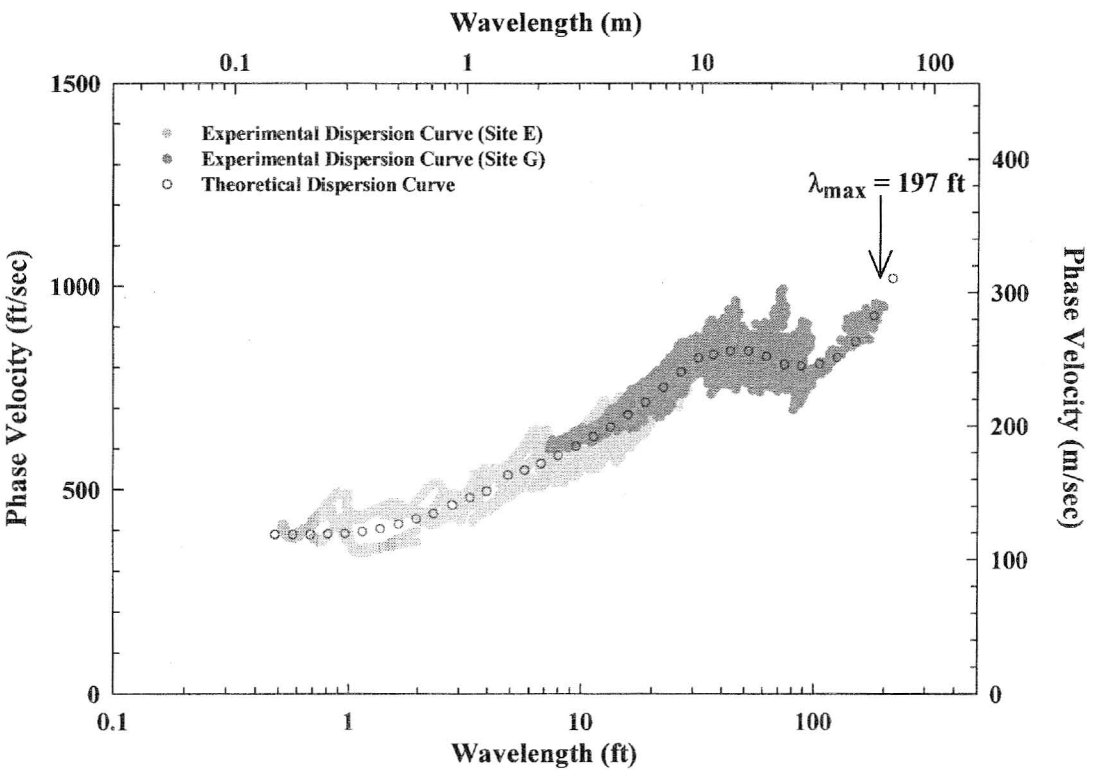

Figure R.34 Experimental and Theoretical Dispersion Curves from Site E in Third Site Visit at Vogtle, GA; Logarithmic Wavelength Axis