Table F.1 Tables of Masking Parameters Used on Data Collected during First 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	243	1	SE1_F_21.DAT
1	1	0	241	1	SE2_F_21.DAT
2	1	0	137	1	SE1_F_43.DAT
	2	710	800	-	
2	1	0	137	1	SE2_F_43.DAT
	2	690	800	-	
3	1	0	111	1	SE3_F_21.DAT
	2	116	135	1	
	3	448	800	-	
3	1	0	100	1	SE4_F_21.DAT
	2	111	137	1	
	3	369	800	-	
6	1	0	58	1	SE3_F_43.DAT
	2	116	135	1	
	3	272	800	-	
6	1	0	66	1	SE4_F_43.DAT
	2	127	136	1	
	3	374	800	-	
9	1	0	39.5	1	SE5_F_21.DAT
	2	169	400	-	
9	1	0	40	1	SE6_F_21.DAT
	2	165	400	-	
18	1	0	36.5	1	SE5_F_43.DAT
	2	113.5	400	-	
18	1	0	37.5	1	SE6_F_43.DAT
	2	131.5	134	4	
	3	155.5	400	-	
25	1	0	17	1	G1_F_21.DAT
	2	91.5	100	-	
25	1	0	16.62	1	G1_F_43.DAT
	2	90.88	100	-	

Performed by Jiabei Yuan Checked by Yin-Cheng Lin

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

Receiver Spacing (ft)	Masking Interval	Masking Start Frequency, Hz	Masking Stop Frequency, Hz	Number of Jumps	Filename
25	1	0	14.88	1	G4_F_21.DAT
	2	20	25.12	1	
	3	70.88	100	-	
25	1	0	16.38	1	G4_F_43.DAT
	2	21.62	28.12	1	
	3	88.88	100	-	
50	1	0	8.12	1	G2_F_21.DAT
	2	98	100	-	
50	1	0	8.25	1	G3_F_21.DAT
	2	62.88	100	-	

Performed by Jiabei Yuan Checked by Yin-Cheng Lin

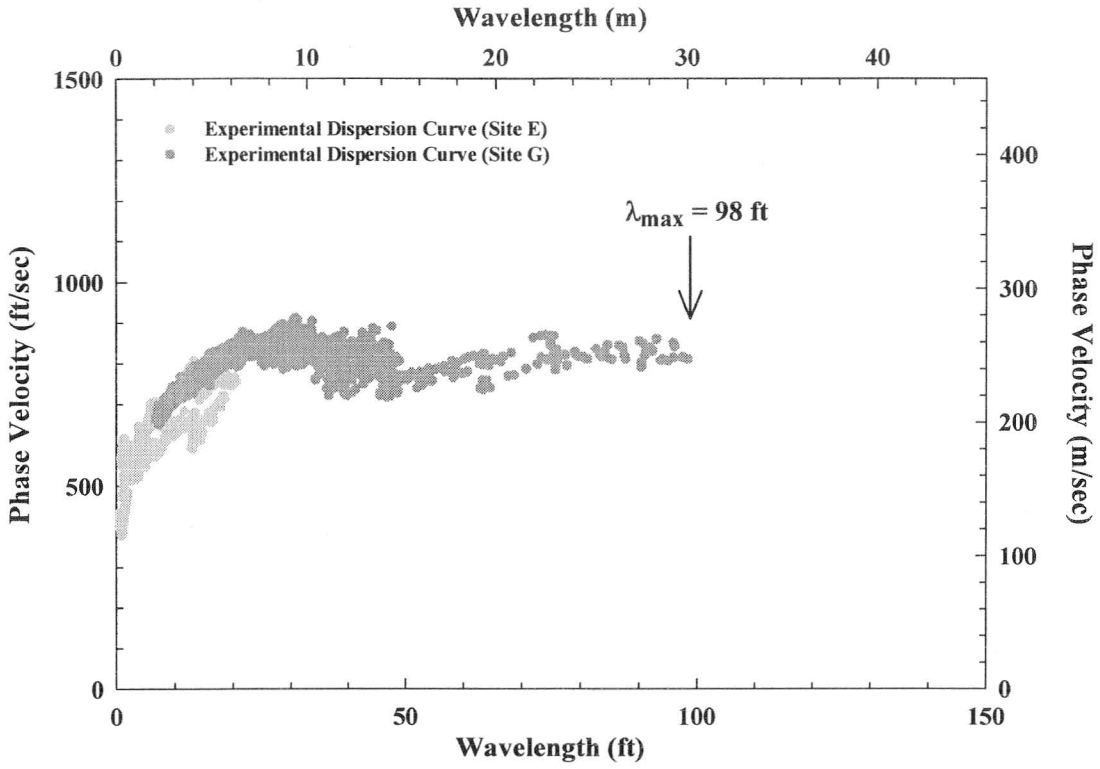


Figure F.19 Experimental Dispersion Curve Measured during First Site Visit at Site E at Vogtle, GA; Linear Wavelength Axis

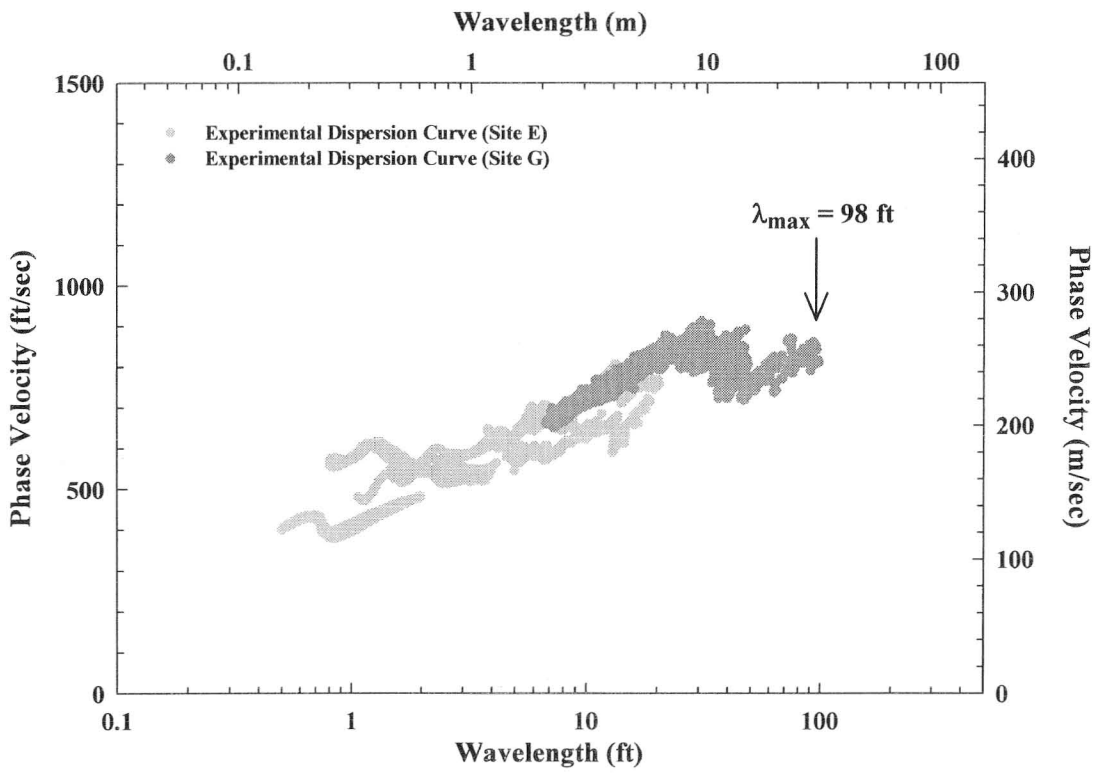


Figure F.20 Experimental Dispersion Curve Measured during First Site Visit at Site E at Vogtle, GA; Logarithmic Wavelength Axis

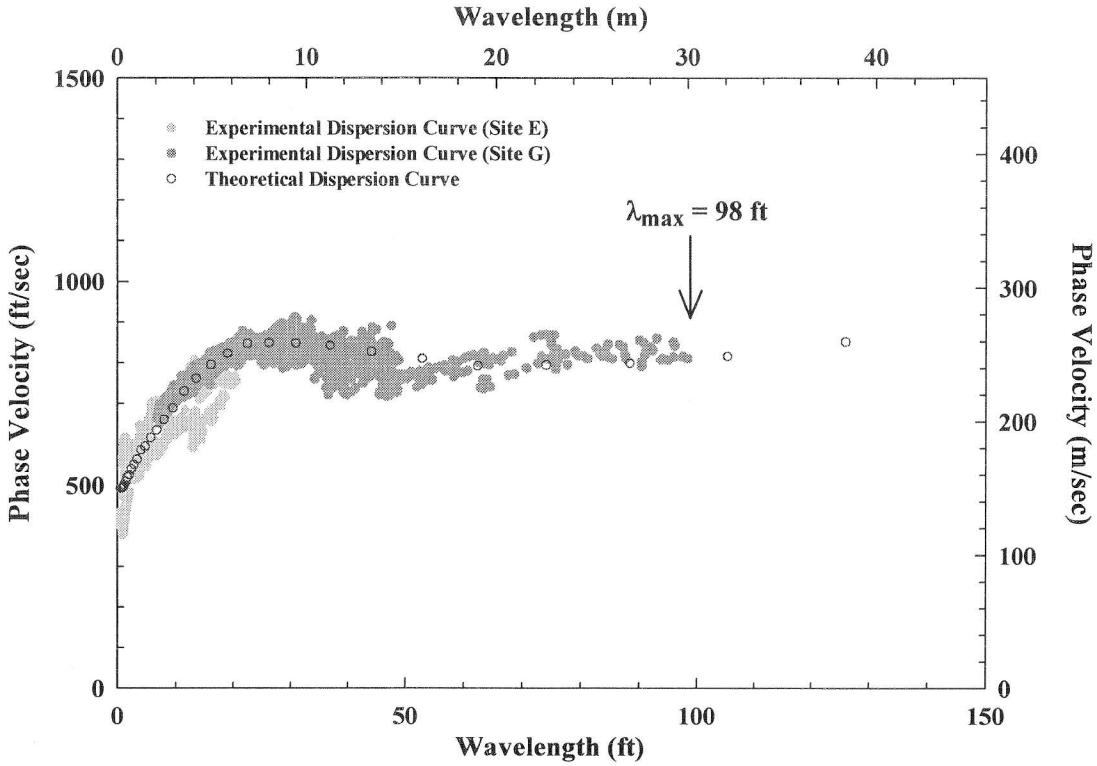


Figure F.21 Experimental and Theoretical Dispersion Curves from Site E in First Site Visit at Vogtle, GA; Linear Wavelength Axis

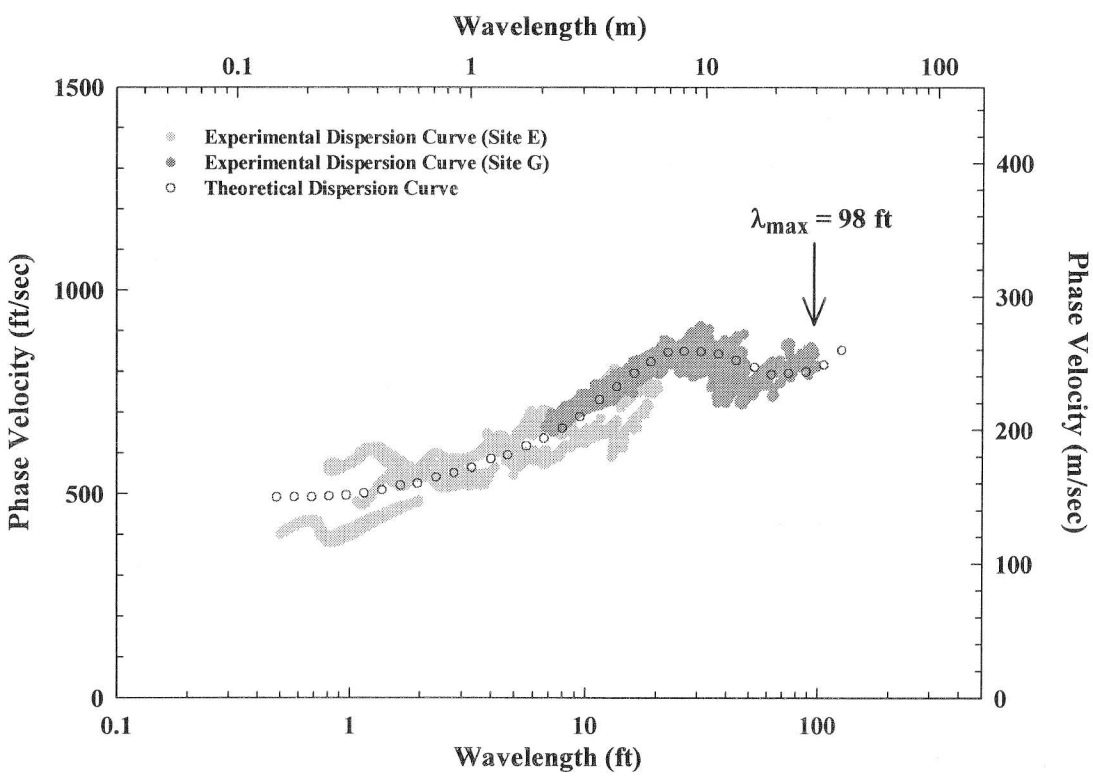


Figure F.22 Experimental and Theoretical Dispersion Curves from Site E in First Site Visit at Vogtle, GA; Logarithmic Wavelength Axis

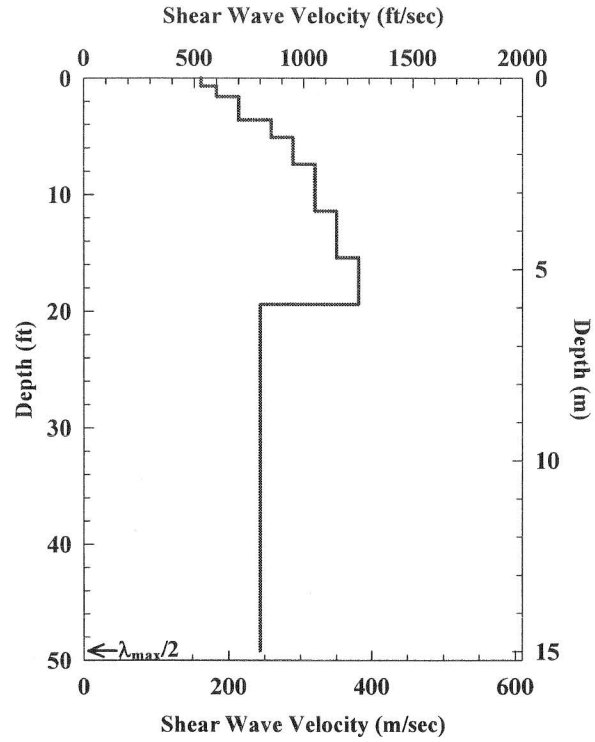


Figure F.23 Shear Wave Velocity Profile Determined at Site E during First Site Visit at Vogtle, GA

Table F.3 Profile Parameters Used to Develop Preliminary Theoretical Dispersion Curve at Site E in the First 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	0.7	0.0	530	0.24	906	128
2	0.9	0.7	600	0.24	1026	128
3	2.0	1.6	700	0.24	1197	128
4	1.5	3.6	850	0.24	1453	128
5	2.3	5.1	950	0.24	1624	128
6	4.0	7.4	1050	0.24	1795	128
7	4.0	11.4	1150	0.24	1966	128
8	4.0	15.4	1250	0.24	2137	128
9	29.6	19.4	800	0.24	1368	128
10*	16.4	49.0	800	0.24	1368	128
11*#	30.0	65.4	1900	0.42	5000	135
12*#	Half Space	95.4	2200	0.38	5000	135

* Layer below maximum depth of the V_S ProfilF.

\# Layer below water tatblF.

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

Yin-Cheng Lin Kenneth H. Stokoe, II

Appendix G

SASW Measurements of First Site Visit at Vogtle, GA
Site Location: Site F

1. Data Sheet(s) G.2
2. Phase Plots from SASW Tests G.4
3. Table of Masking Parameters G.9
4. Experimental Dispersion Curves G.10
5. Matching the Experimental and Theoretical Dispersion Curves G.11
6. Shear Wave Velocity Profile G.12
7. Table of Profile Parameters G.12

3 - Receiver SASW Data Sheet

Project : Vogtle

Data Sheet # : SA #6

Location : SF (SA #6)

Disk # : SA #6

Date/(Time) : Dec/ 9 / 2007 (: ~ :)

Personnel : Stokoe, Minjae, Jiabei Yuan

Recorded by : Yuan

Checked by : Minjae

R1 I.D. : GEC 92003 Near

R2 I.D. : GEC 92002 Center

R3 I.D. : GEC 92001 Far

Sketch

Distance (ft)			Impact Direction		Impact Source	Record #	Freq. Range (Hz)	Notes
S - R1	R1 - R2	R2 - R3						
1	1	2	(For)	Rev	Small Hammer	SF1	0 - 800	} Hold down
1	1	2	For	(Rev)	"	SF2	0 - 800	
3	3	6	For	(Rev)	"	SF3	0 - 800	
3	3	6	(For)	Rev	"	SF4	0 - 800	
9	9	18	(For)	Rev	Medium Hammer	SF5	0 - 400	
9	9	18	For	(Rev)	"	SF6	0 - 400	
			For	Rev			~	
			For	Rev			~	
			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

University of Texas at Austin

3 - Receiver SASW Data Sheet

Project : Vogtle

Data Sheet # : SA#7

Location : G (SA#7)

Disk # : SA#7

Date/(Time) : Dec 9, 2007 (: ~ :)

Personnel : Stokoe, Minjae, Yuan

Recorded by : Yuan

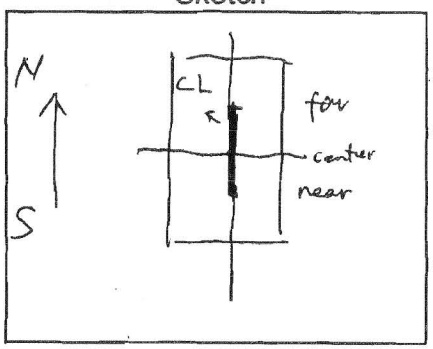
Checked by : Minjae

R1 I.D. : GEC 92003

R2 I.D. : GEC 92002

R3 I.D. : GEC 92001

Sketch



Distance (ft)			Impact Direction		Impact Source	Record #	Freq. Range (Hz)	Notes
S - R1	R1 - R2	R2 - R3						
25	25	25	(For)	Rev	Bulldozer	G1	0 ~ 100	
			For	Rev			~	
50	50		(For)	Rev	"	G2	0 ~ 100	
			For	Rev			~	
50	50		For	(Rev)	"	G3	0 ~ 100	
			For	Rev			~	
25	25	25	For	(Rev)	"	G4	0 ~ 100	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	

When I reverse direction location o Geophones not changed

* 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

University of Texas at Austin

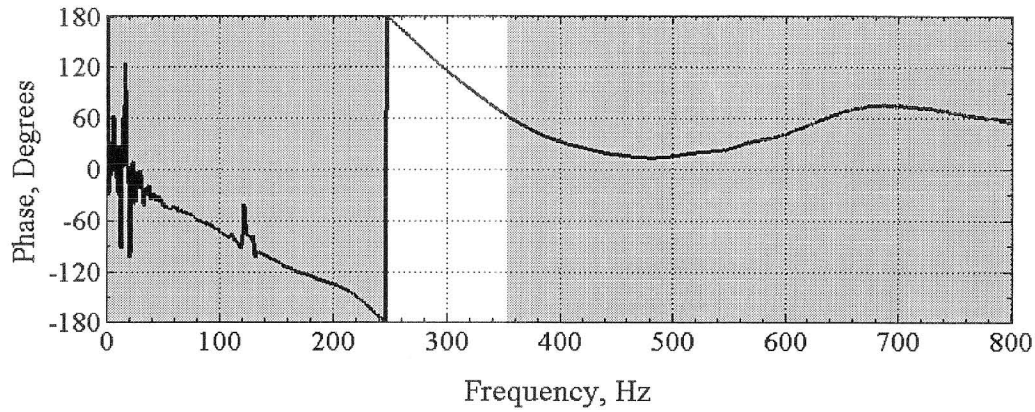


Figure G.1 Phase Plots Measured by SASW Testing with 1-ft Receiver Spacing (SF1_F_21.DAT)

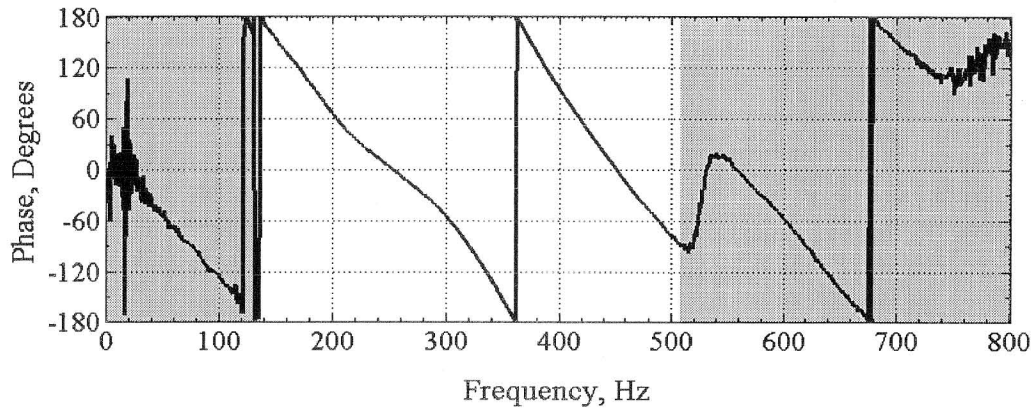


Figure G.2 Phase Plots Measured by SASW Testing with 2-ft Receiver Spacing (SF1_F_43.DAT)

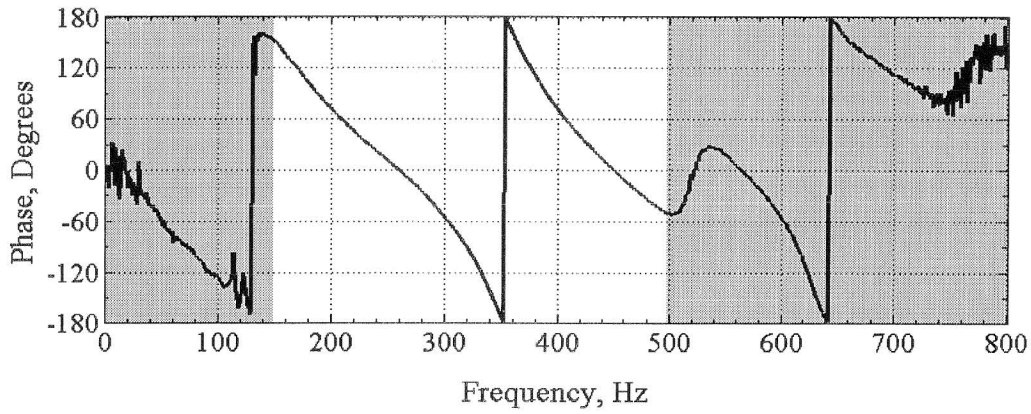


Figure G.3 Phase Plots Measured by SASW Testing with 2-ft Receiver Spacing (SF2_F_43.DAT)

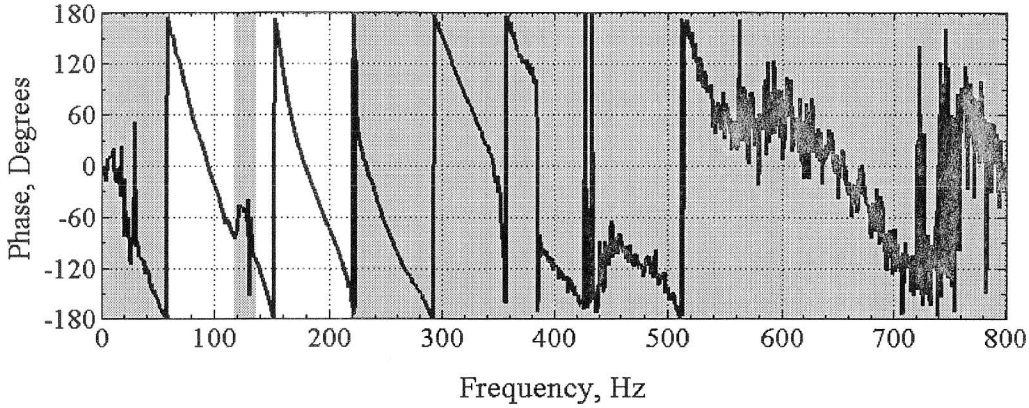


Figure G.4 Phase Plots Measured by SASW Testing with 6-ft Receiver Spacing (SF3_F_43.DAT)

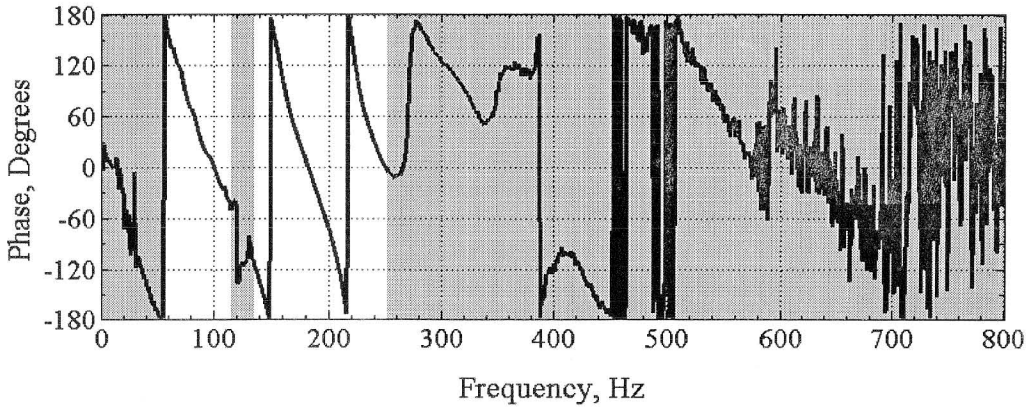


Figure G.5 Phase Plots Measured by SASW Testing with 6-ft Receiver Spacing (SF4_F_43.DAT)

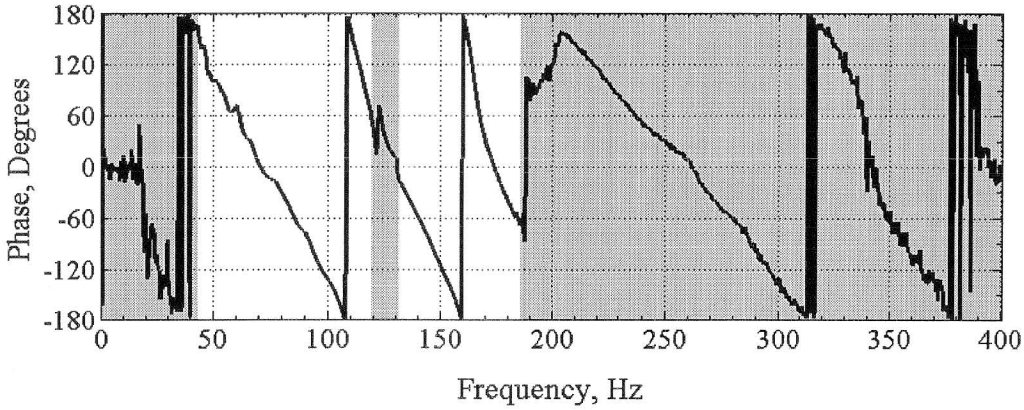


Figure G.6 Phase Plots Measured by SASW Testing with 9-ft Receiver Spacing (SF5_F_21.DAT)

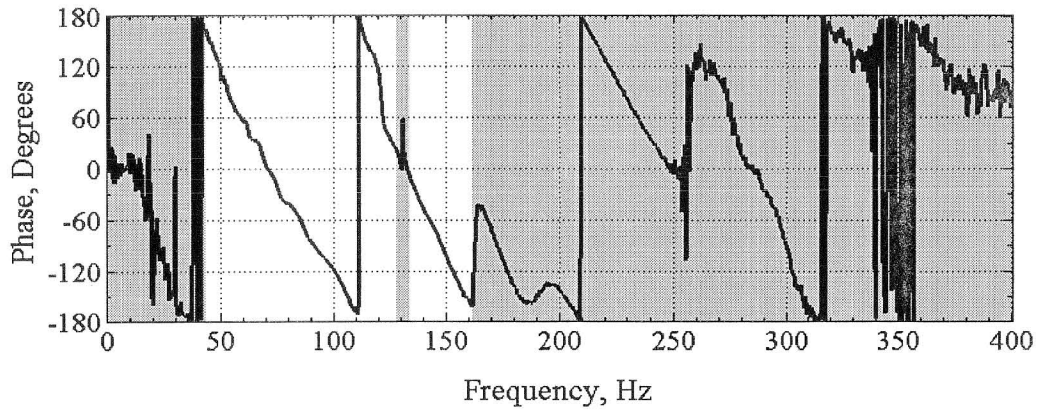


Figure G.7 Phase Plots Measured by SASW Testing with 9-ft Receiver Spacing (SF6_F_21.DAT)

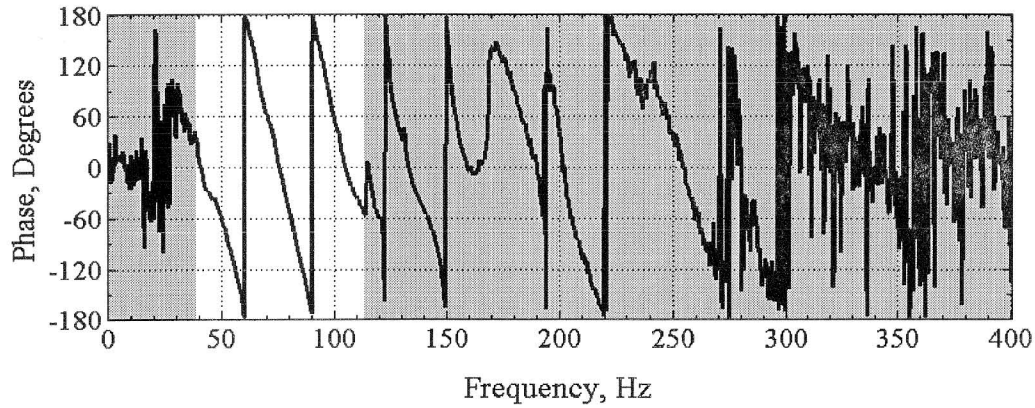


Figure G.8 Phase Plots Measured by SASW Testing with 18-ft Receiver Spacing (SF5_F_43.DAT)

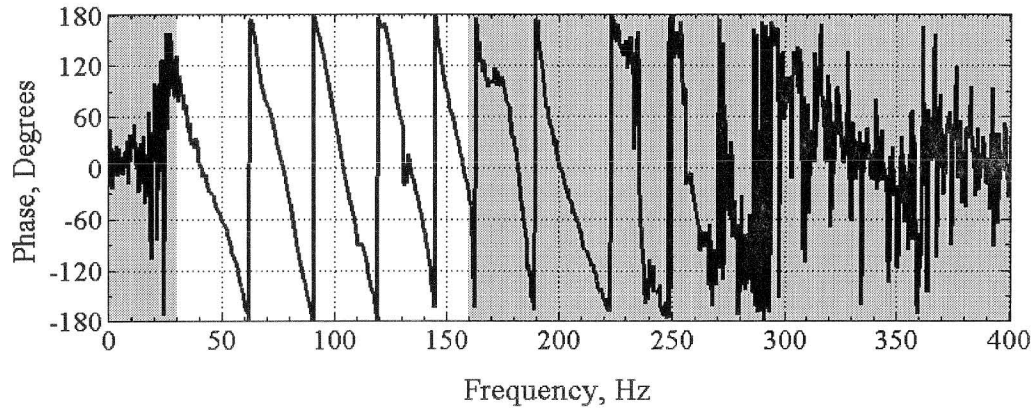


Figure G.9 Phase Plots Measured by SASW Testing with 18-ft Receiver Spacing (SF6_F_43.DAT)

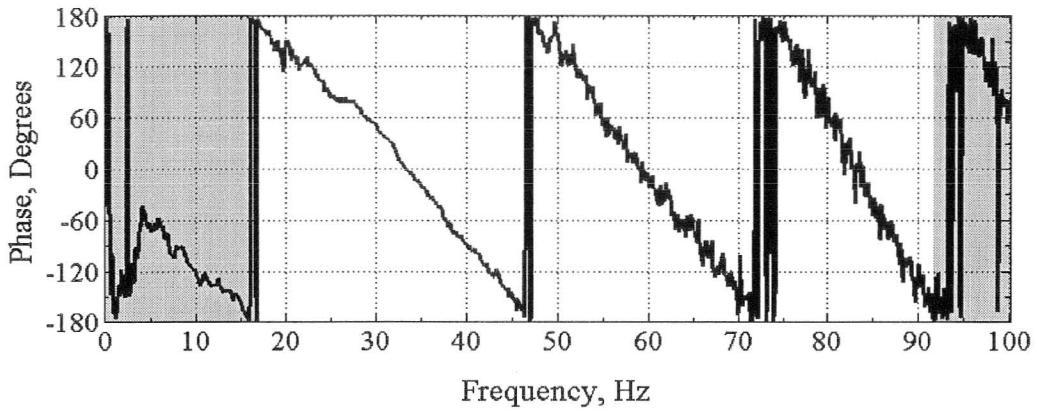


Figure G.10 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (G1_F_21.DAT)

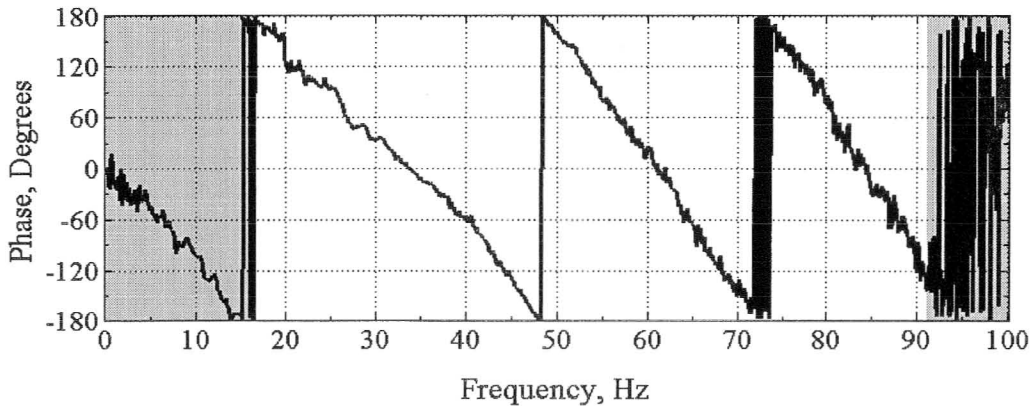


Figure G.11 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (G1_F_43.DAT)

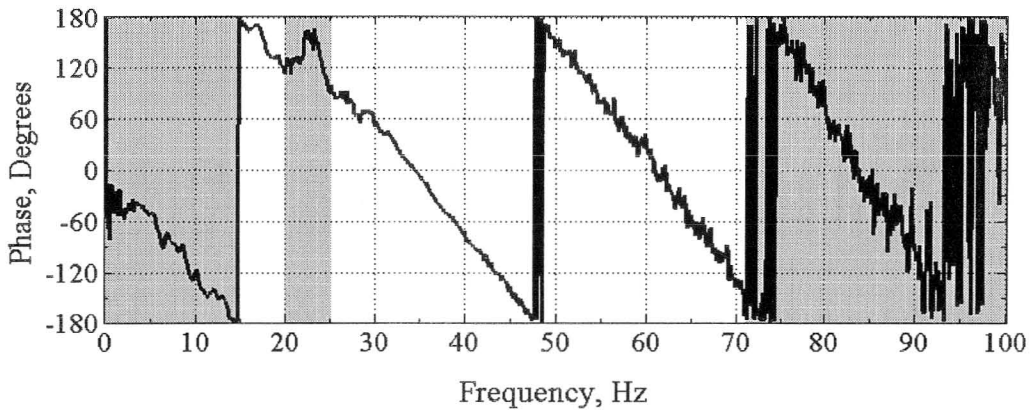


Figure G.12 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (G4_F_21.DAT)

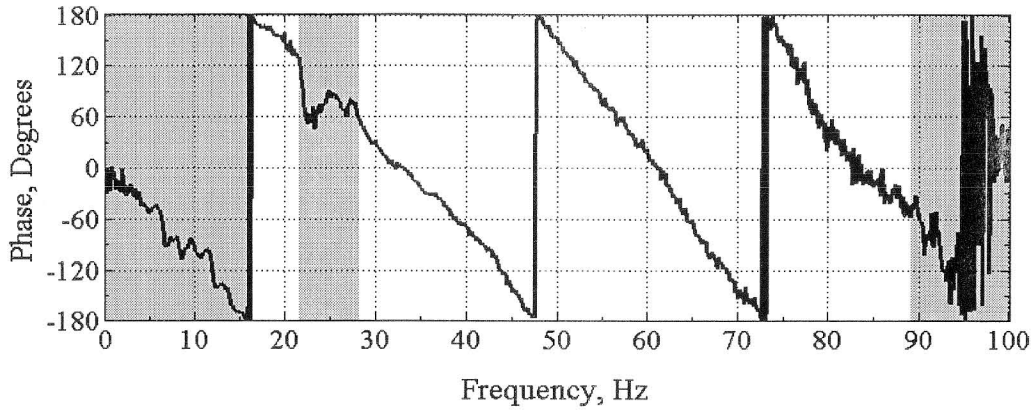


Figure G.13 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (G4_F_43.DAT)

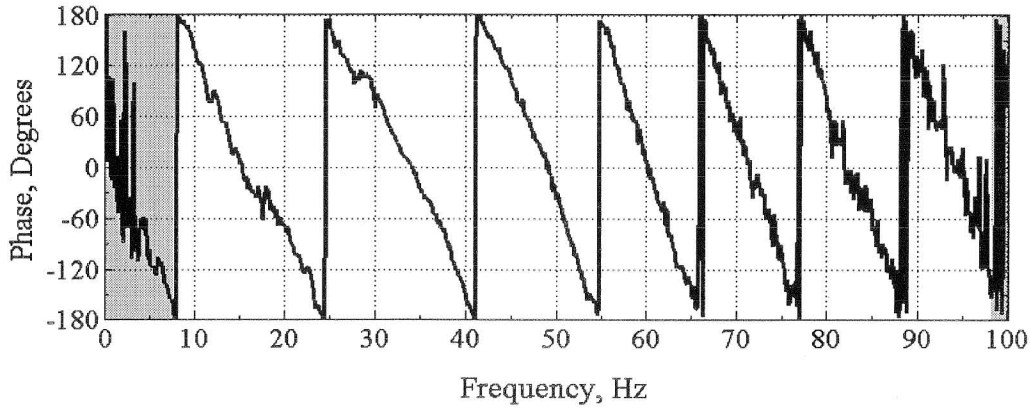


Figure G.14 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (G2_F_21.DAT)

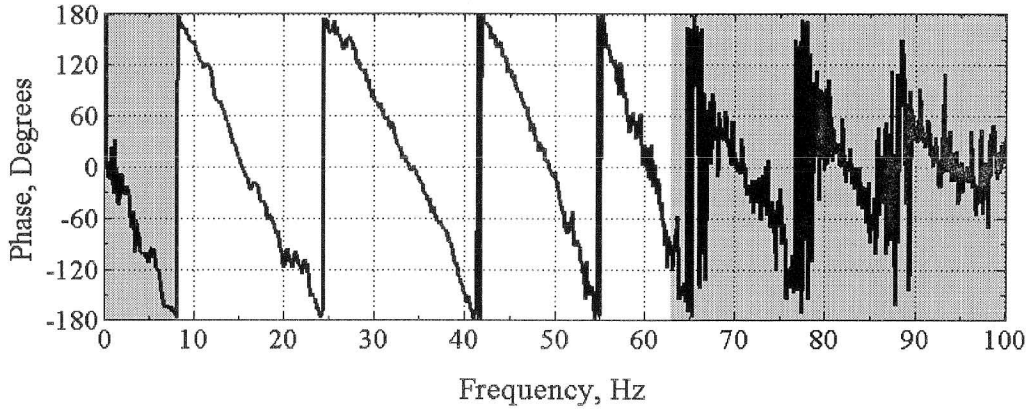


Figure G.15 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (G3_F_21.DAT)

Table G.1 Tables of Masking Parameters Used on Data Collected during First Site Visit at Site F

Receiver Spacing (ft)	Masking Interval	Masking Start Frequency, Hz	Masking Stop Frequency, Hz	Number of Jumps	Filename
1	1	0	247	1	SF1_F_21.DAT
	2	353	800	-	
2	1	0	137	1	SF1_F_43.DAT
	2	508	800	-	
2	1	0	149	1	SF2_F_43.DAT
	2	497	800	-	
6	1	0	59	1	SF3_F_43.DAT
	2	118	136	1	
	3	219	800	-	
6	1	0	57	1	SF4_F_43.DAT
	2	115	135	1	
	3	251	800	-	
9	1	0	43.5	1	SF5_F_21.DAT
	2	119	131.5	2	
	3	185.5	400	-	
9	1	0	43.5	1	SF6_F_21.DAT
	2	128	134	2	
	3	161.5	400	-	
18	1	0	38.5	1	SF5_F_43.DAT
	2	113.5	400	-	
18	1	0	30	1	SF6_F_43.DAT
	2	159.5	400	-	
25	1	0	17	1	G1_F_21.DAT
	2	91.5	100	-	
25	1	0	16.62	1	G1_F_43.DAT
	2	90.88	100	-	
25	1	0	14.88	1	G4_F_21.DAT
	2	20	25.12	1	
	3	70.88	100	-	
25	1	0	16.38	1	G4_F_43.DAT
	2	21.62	28.12	1	
	3	88.88	100	-	
50	1	0	8.12	1	G2_F_21.DAT
	2	98	100	-	
50	1	0	8.25	1	G3_F_21.DAT
	2	62.88	100	-	

Performed by Jiabei Yuan Checked by Yin-Cheng Lin

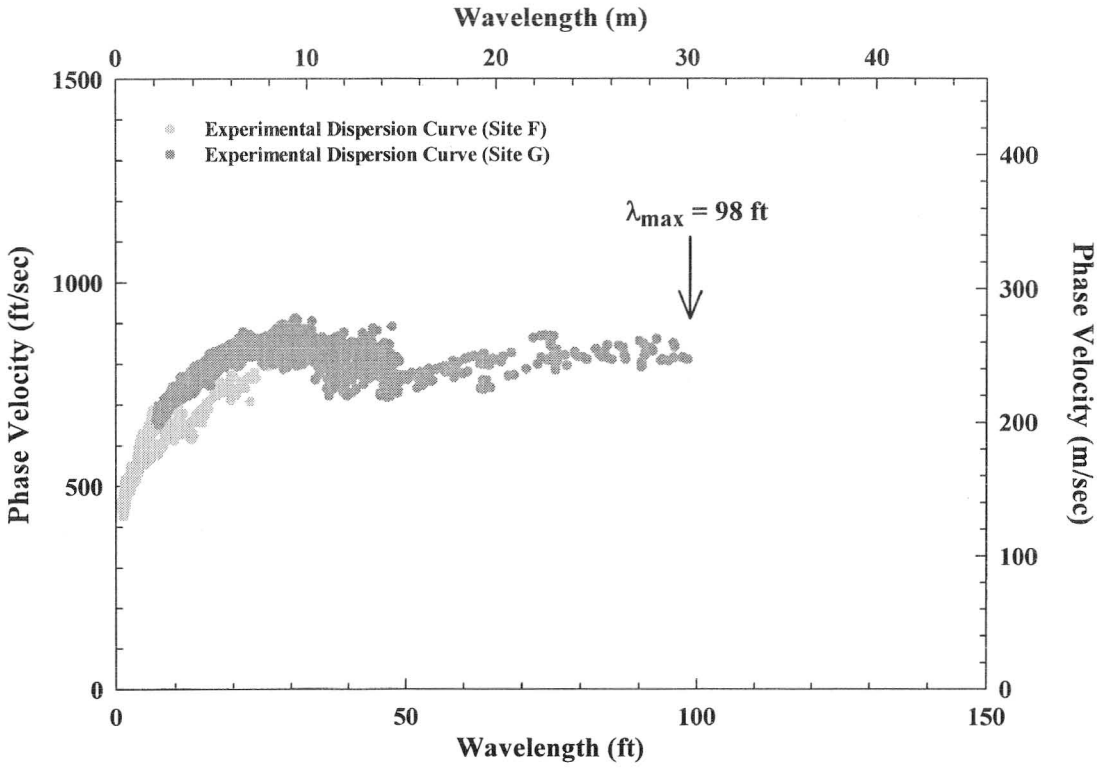


Figure G.16 Experimental Dispersion Curve Measured during First Site Visit at Site F at Vogtle, GA; Linear Wavelength Axis

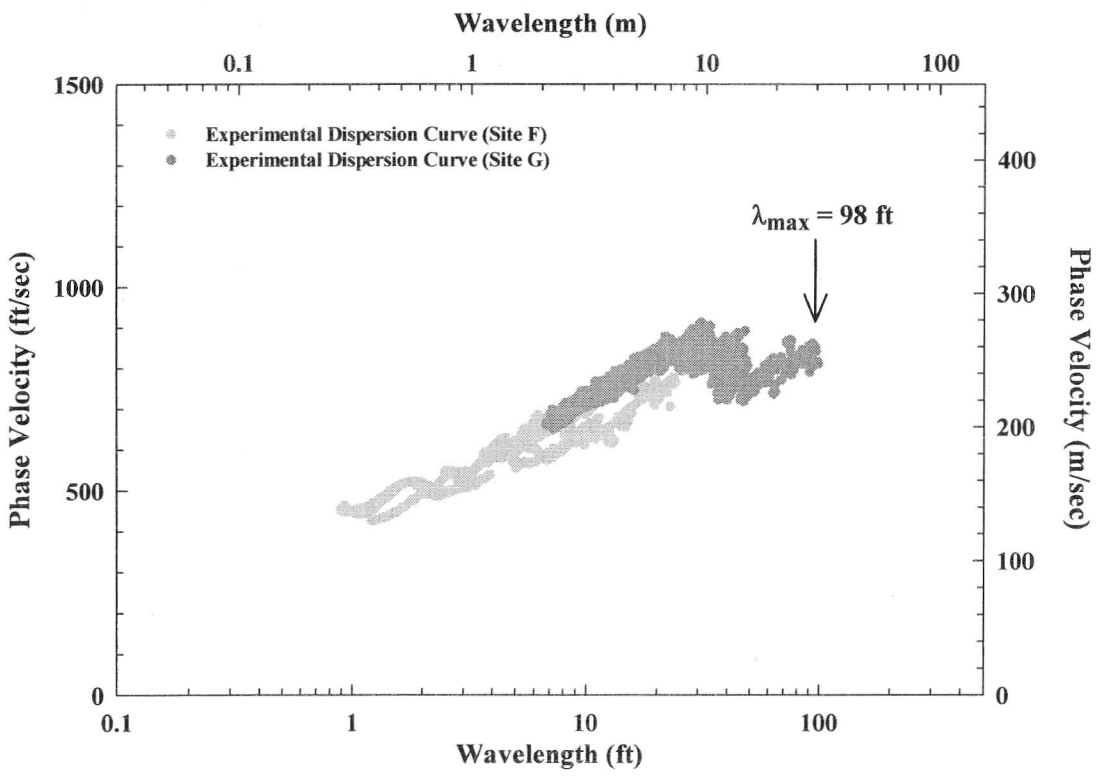


Figure G.17 Experimental Dispersion Curve Measured during First Site Visit at Site F at Vogtle, GA; Logarithmic Wavelength Axis

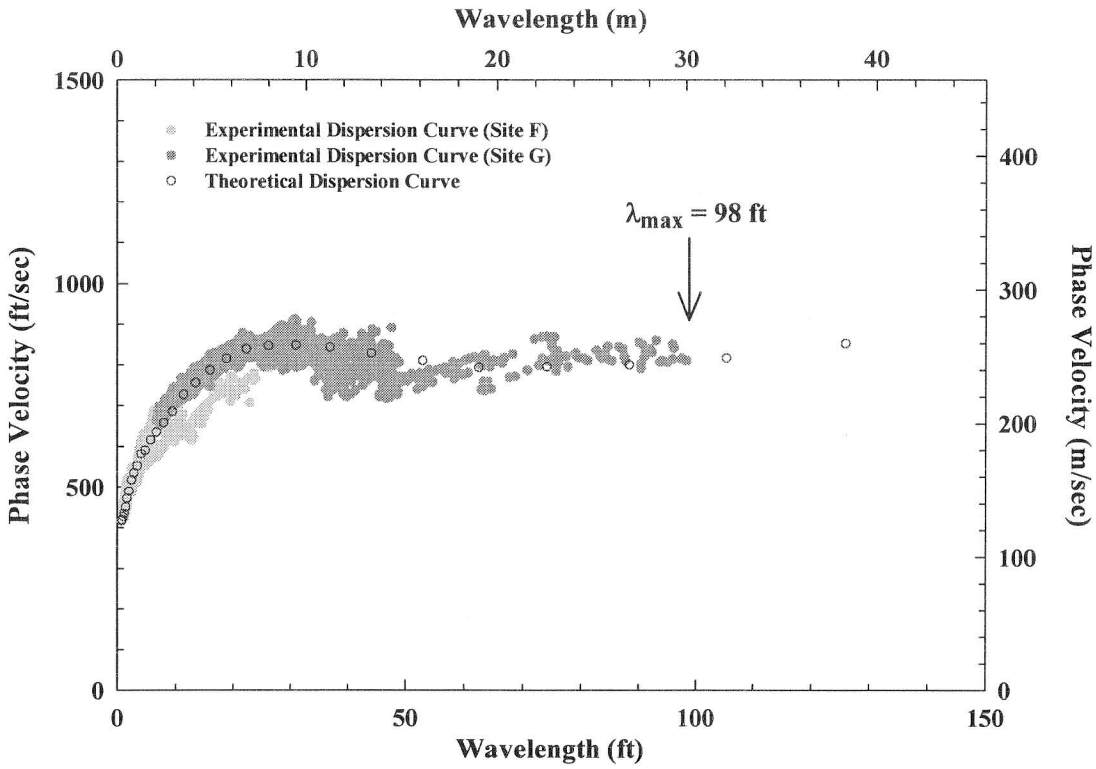


Figure G.18 Experimental and Theoretical Dispersion Curves from Site F in First Site Visit at Vogtle, GA; Linear Wavelength Axis

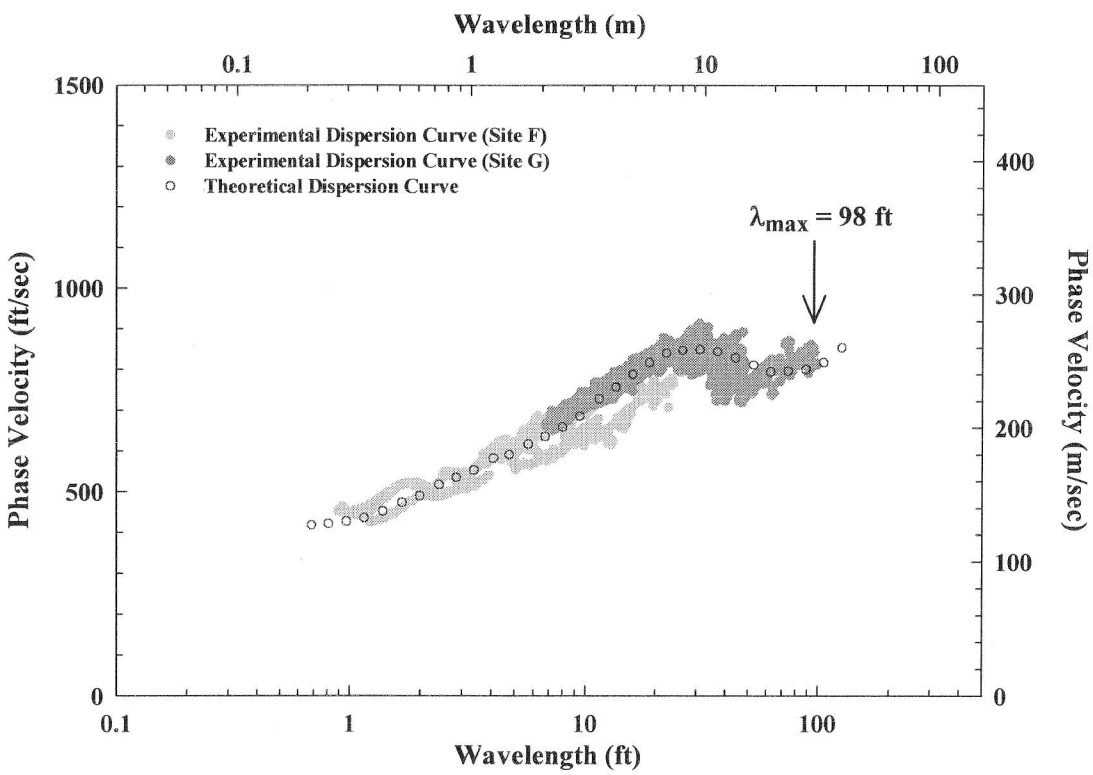


Figure G.19 Experimental and Theoretical Dispersion Curves from Site F in First Site Visit at Vogtle, GA; Logarithmic Wavelength Axis

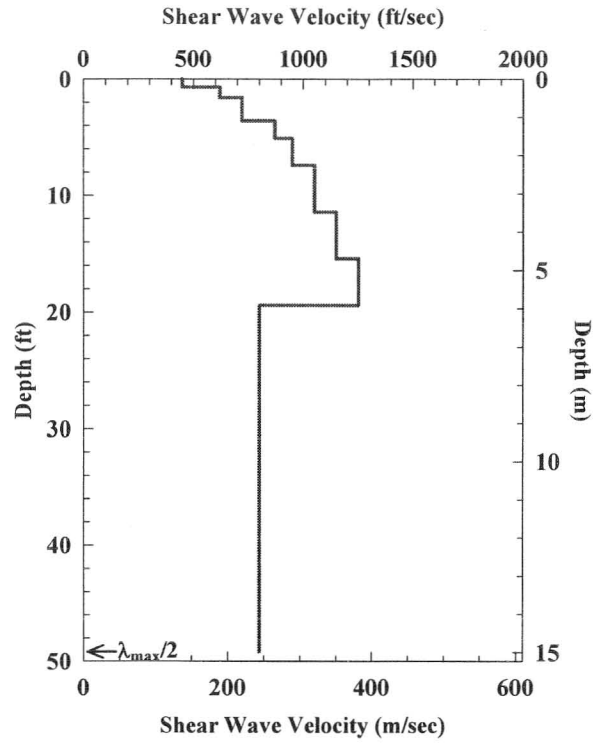


Figure G.20 Shear Wave Velocity Profile Determined at Site F during First Site Visit at Vogtle, GA

Table G.2 Profile Parameters Used to Develop Preliminary Theoretical Dispersion Curve at Site F in the First 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	0.7	0.0	450	0.24	769	128
2	0.9	0.7	620	0.24	1060	128
3	2.0	1.6	720	0.24	1231	128
4	1.5	3.6	870	0.24	1487	128
5	2.3	5.1	950	0.24	1624	128
6	4.0	7.4	1050	0.24	1795	128
7	4.0	11.4	1150	0.24	1966	128
8	4.0	15.4	1250	0.24	2137	128
9	29.6	19.4	800	0.24	1368	128
10*	16.4	49.0	800	0.24	1368	128
11*#	30.0	65.4	1900	0.42	5000	135
12*#	Half Space	95.4	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 H

SASW Measurements of Second Site Visit at Vogtle, GA
Site Location: Site A

1. Data Sheet(s) H.2
2. Phase Plots from SASW Tests H.4
3. Table of Masking Parameters H.11
4. Experimental Dispersion Curves H.13
5. Matching the Experimental and Theoretical Dispersion Curves H.14
6. Shear Wave Velocity Profile H.15
7. Table of Profile Parameters H.15

3 - Receiver SASW Data Sheet

Page 1 of 1

Project : Vogtle

Data Sheet # : SA2#1

Location : A (SA2#1)

Disk # : SA2#1

Date/(Time) : Dec/16/2007 (9:30 AM ~ :)

elev: 229.6ft 2nd Layer

Personnel : Stokoe, Jung, Yuan

Recorded by : Yuan

Checked by : Jung

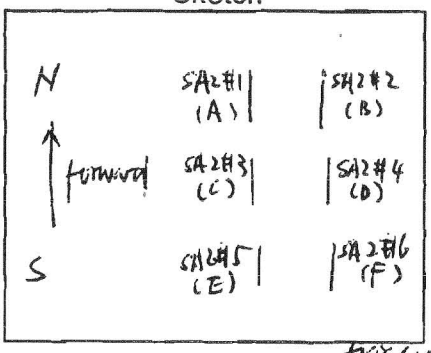
same for all sites except G

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

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

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

Sketch



trigger, → chn → long

input : 4 chs 2 V, 200 mV

Distance (ft)			Impact Direction		Impact Source	Record #	Freq. Range (Hz)	Notes
S - R1	R1 - R2	R2 - R3						
1	1	2	For	Rev	small hammer	2A1	0 ~ 800	
1	1	2	For	Rev	"	2A2	0 ~ 800	
1	1	2	For	Rev	medium hammer	2A3	0 ~ 800	
1	1	2	For	Rev	"	2A4	0 ~ 800	
3	3	6	For	Rev	Big hammer	2A5	0 ~ 800	
3	3	6	For	Rev	"	2A6	0 ~ 400	
3	3	6	For	Rev	"	2A7	0 ~ 400	
9	9	18	For	Rev	"	2A8	0 ~ 400	
9	9	18	For	Rev	"	2A9	0 ~ 400	
			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 ___ of ___

Project : Vogtle

Data Sheet # : SA2#7

Location : G (SA2#7)

Disk # : SA2 #7

Date/(Time) : Dec / 16 / 2007 (13:07 PM ~ :)

Personnel : Stokoe, Jung, Yuan

Recorded by : Yuan

Checked by : Jung

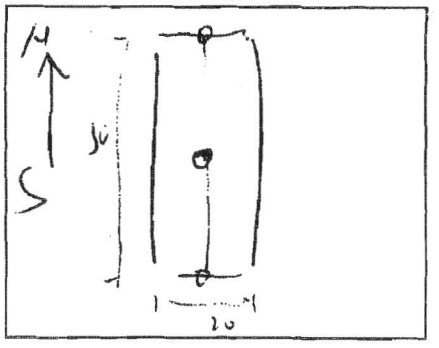
1 Hz Geophones

R1 I.D. : 3773

R2 I.D. : 3774

R3 I.D. : 3775

Sketch



Distance (ft)			Impact Direction		Impact Source	Record #	Freq. Range (Hz)	Notes
S - R1	R1 - R2	R2 - R3						
25	25	25	For	Rev	bulldozer	2G1	0 ~ 100	
10	10		For	Rev	"	2G2	0 ~ 100	
10	10		For	Rev	"	2G3	0 ~ 100	
25	25	25	For	Rev	"	2G4	0 ~ 100	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			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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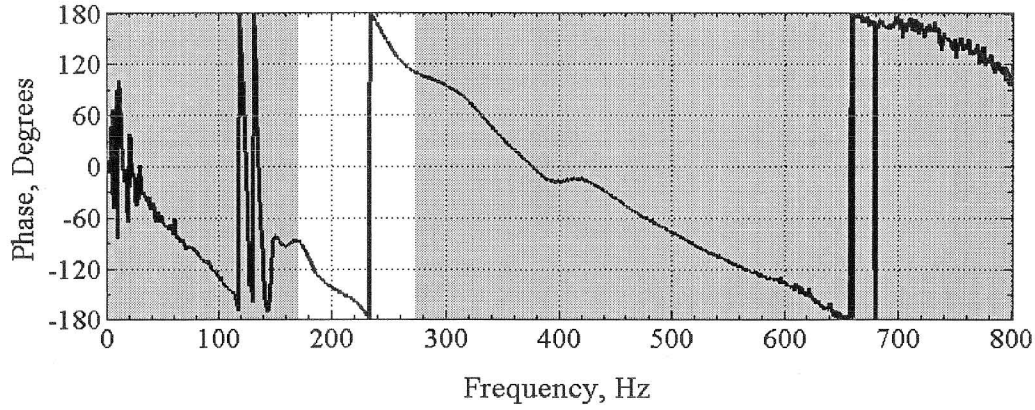

Figure H.1 Phase Plots Measured by SASW Testing with 2-ft Receiver Spacing (2A1_F_43.DAT)

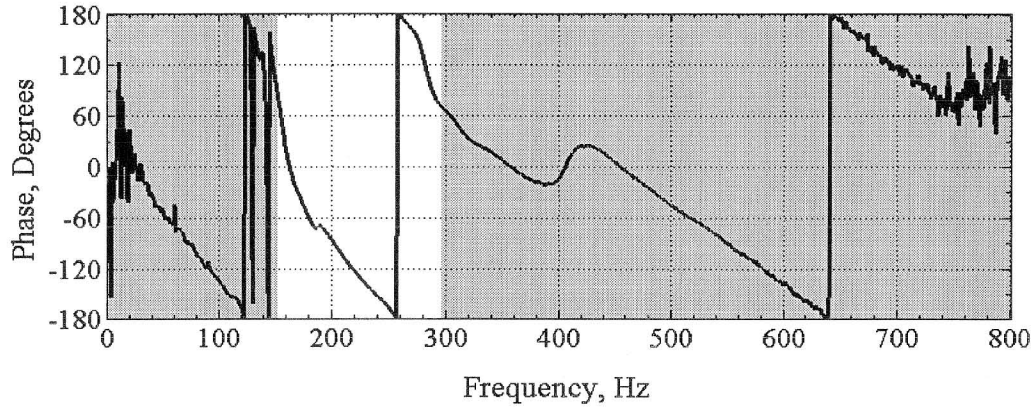

Figure H.2 Phase Plots Measured by SASW Testing with 2-ft Receiver Spacing (2A2_F_43.DAT)

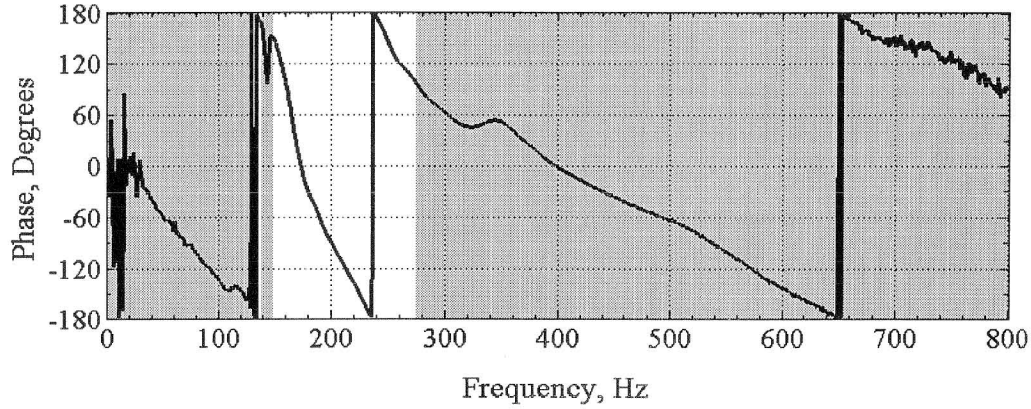

Figure H.3 Phase Plots Measured by SASW Testing with 2-ft Receiver Spacing (2A3_F_43.DAT)

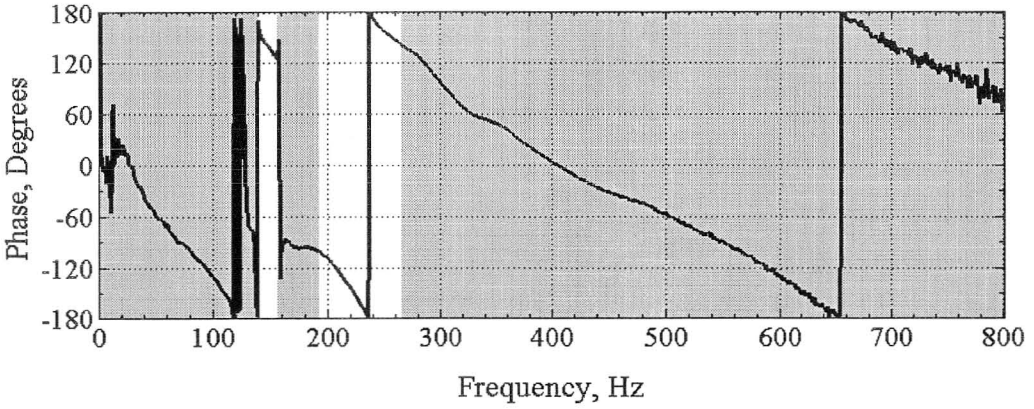

Figure H.4 Phase Plots Measured by SASW Testing with 2-ft Receiver Spacing (2A4_F_43.DAT)

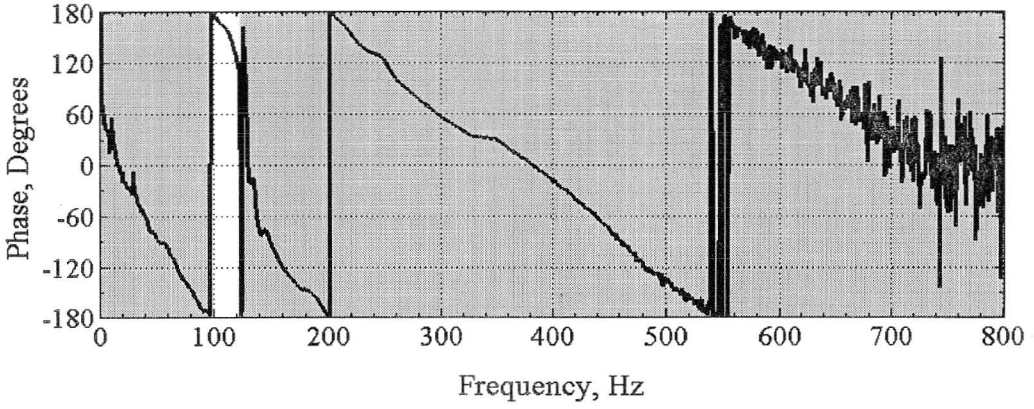

Figure H.5 Phase Plots Measured by SASW Testing with 3-ft Receiver Spacing (2A5_F_21.DAT)

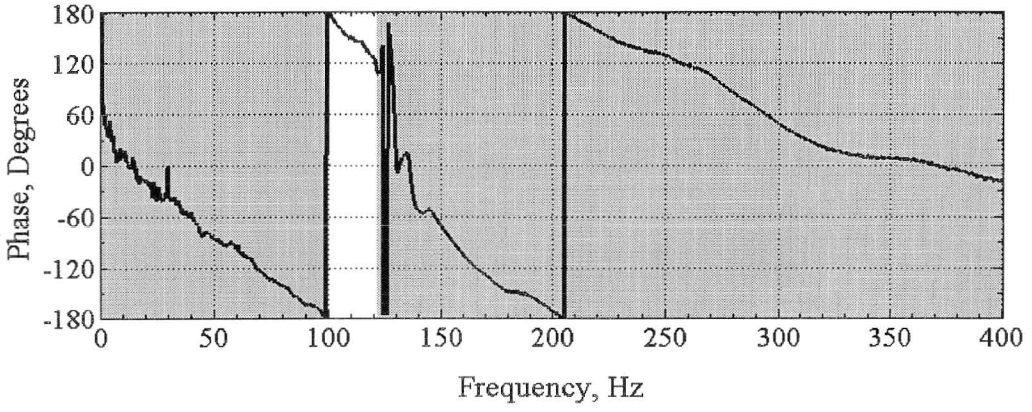

Figure H.6 Phase Plots Measured by SASW Testing with 3-ft Receiver Spacing (2A6_F_21.DAT)

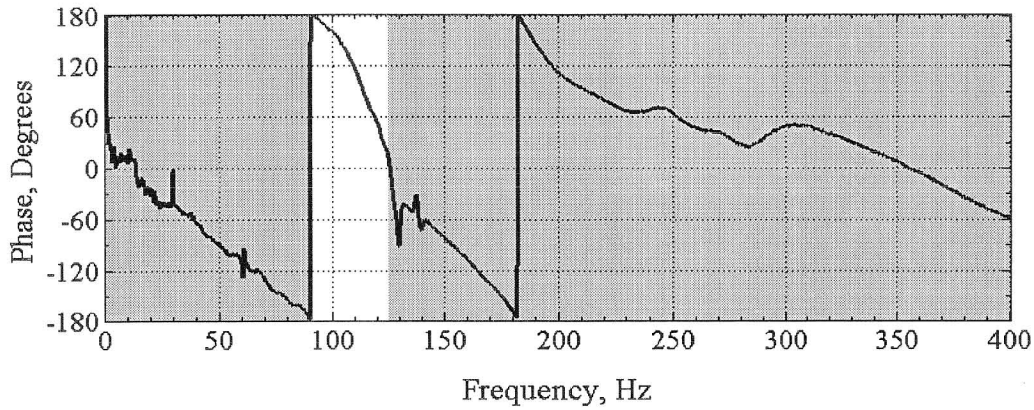

Figure H.7 Phase Plots Measured by SASW Testing with 3-ft Receiver Spacing (2A7_F_21.DAT)

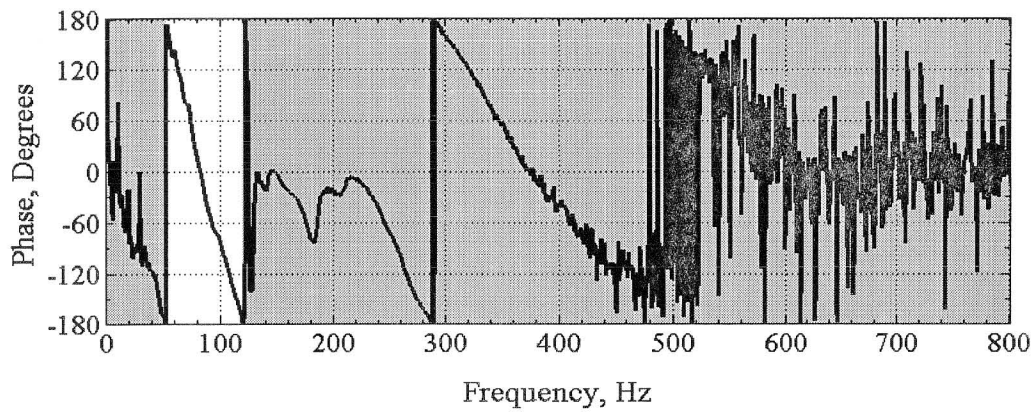

Figure H.8 Phase Plots Measured by SASW Testing with 6-ft Receiver Spacing (2A5_F_43.DAT)

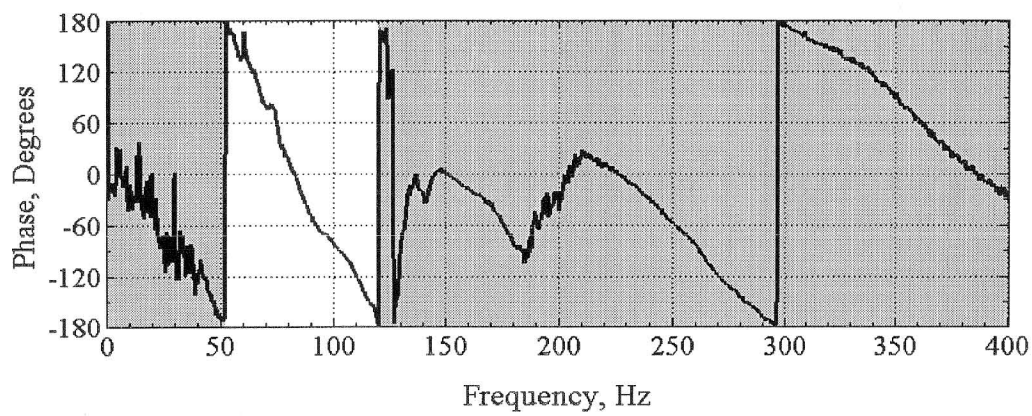

Figure H.9 Phase Plots Measured by SASW Testing with 6-ft Receiver Spacing (2A6_F_43.DAT)

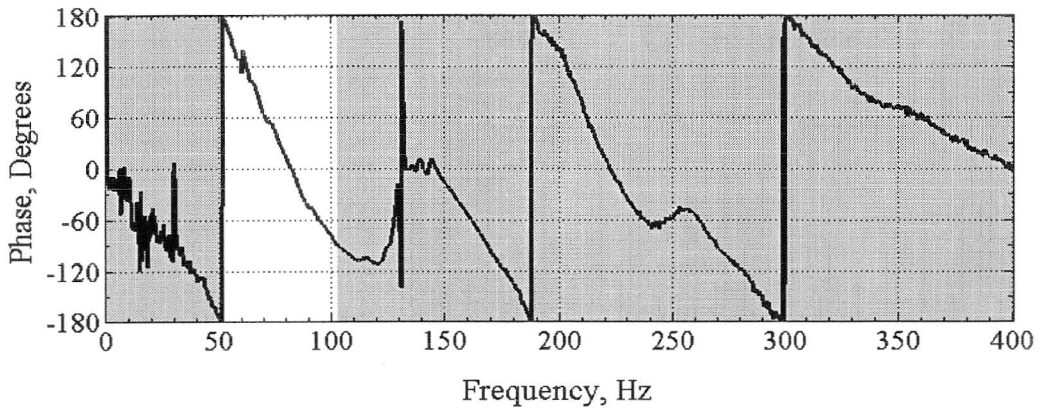

Figure H.10 Phase Plots Measured by SASW Testing with 6-ft Receiver Spacing (2A7_F_43.DAT)

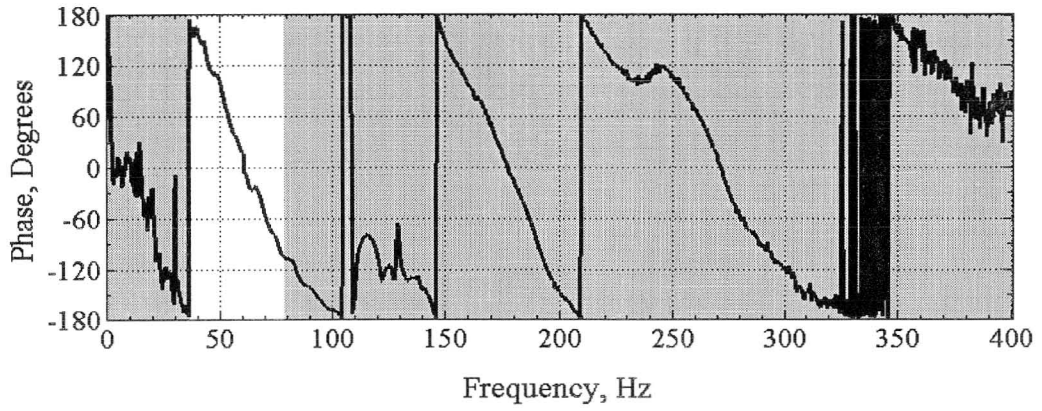

Figure H.11 Phase Plots Measured by SASW Testing with 9-ft Receiver Spacing (2A8_F_21.DAT)

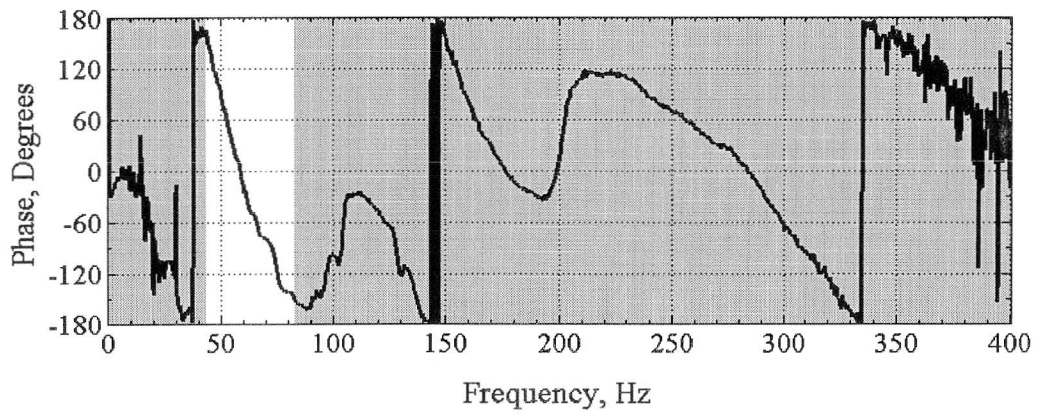

Figure H.12 Phase Plots Measured by SASW Testing with 9-ft Receiver Spacing (2A9_F_21.DAT)

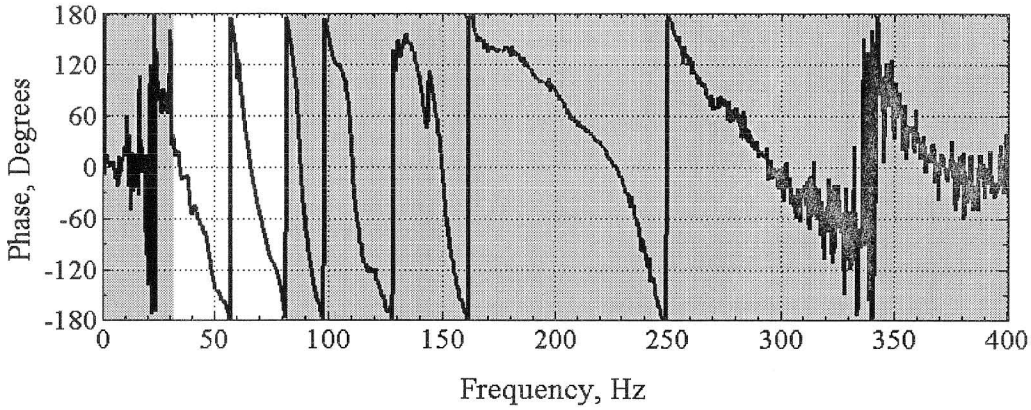

Figure H.13 Phase Plots Measured by SASW Testing with 18-ft Receiver Spacing (2A8_F_43.DAT)

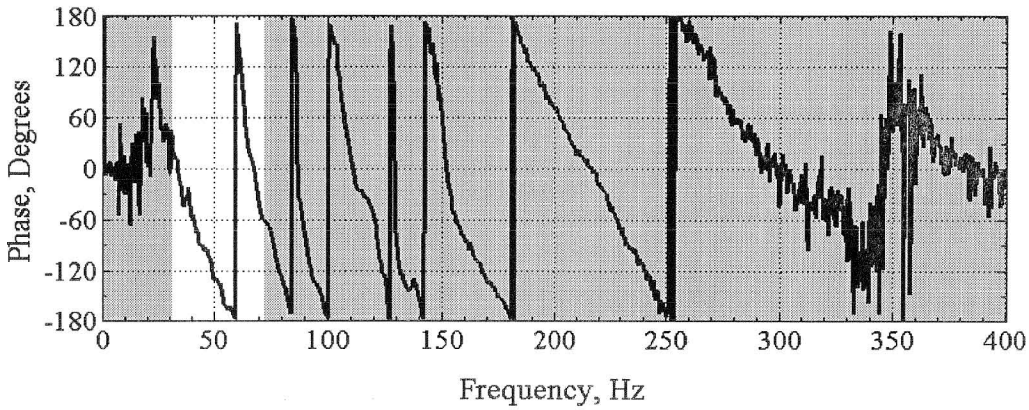

Figure H.14 Phase Plots Measured by SASW Testing with 18-ft Receiver Spacing (2A9_F_43.DAT)

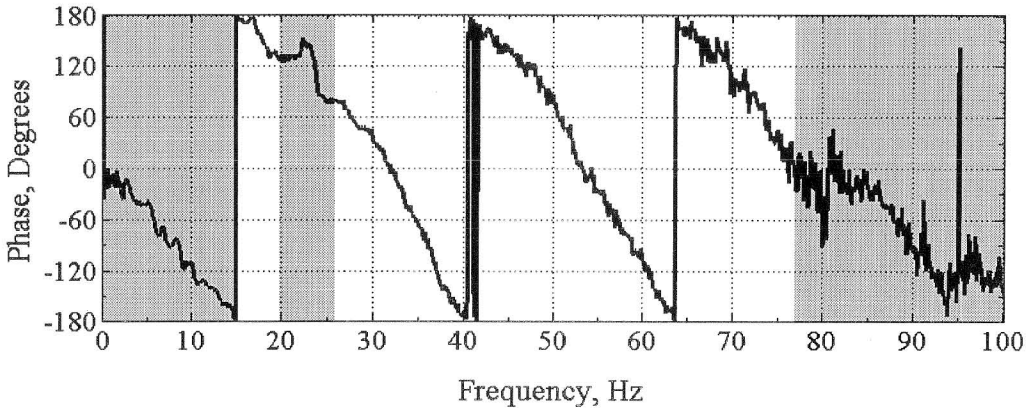

Figure H.15 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (2G1_F_21.DAT)

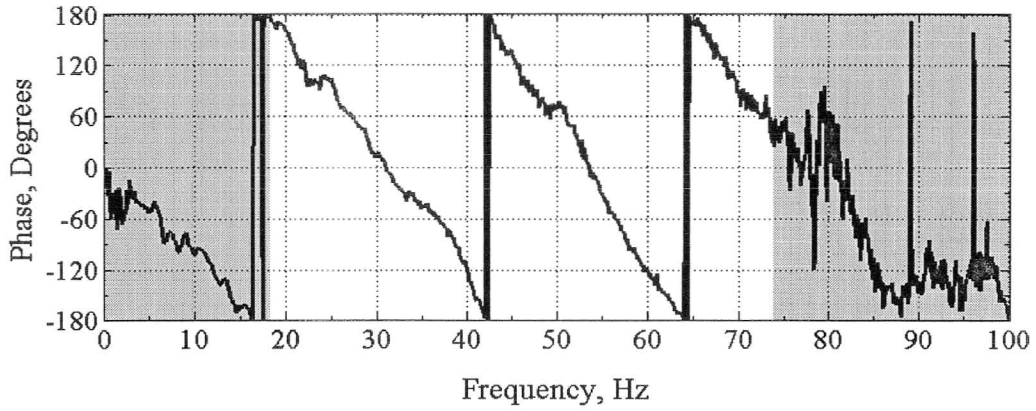

Figure H.16 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (2G1_F_43.DAT)

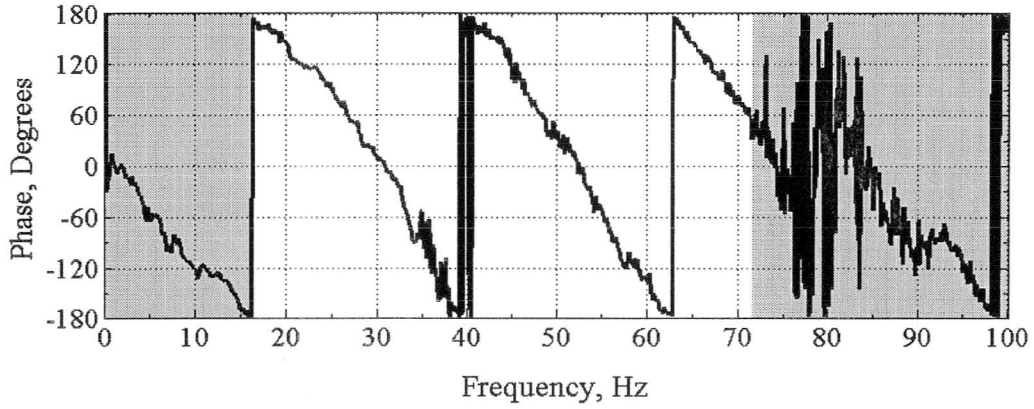

Figure H.17 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (2G4_F_21.DAT)

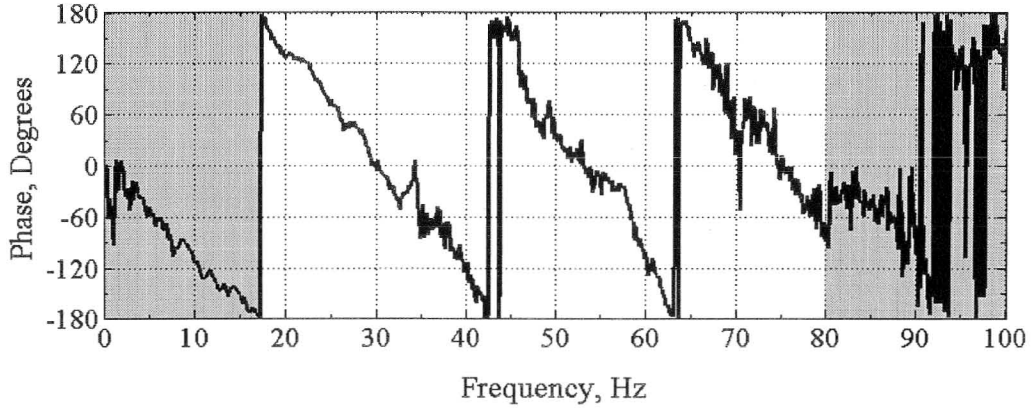

Figure H.18 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (2G4_F_43.DAT)