

### FPL Turkey Point COL Boring B-708 (DH) Source to Receiver and Receiver to Receiver Analysis

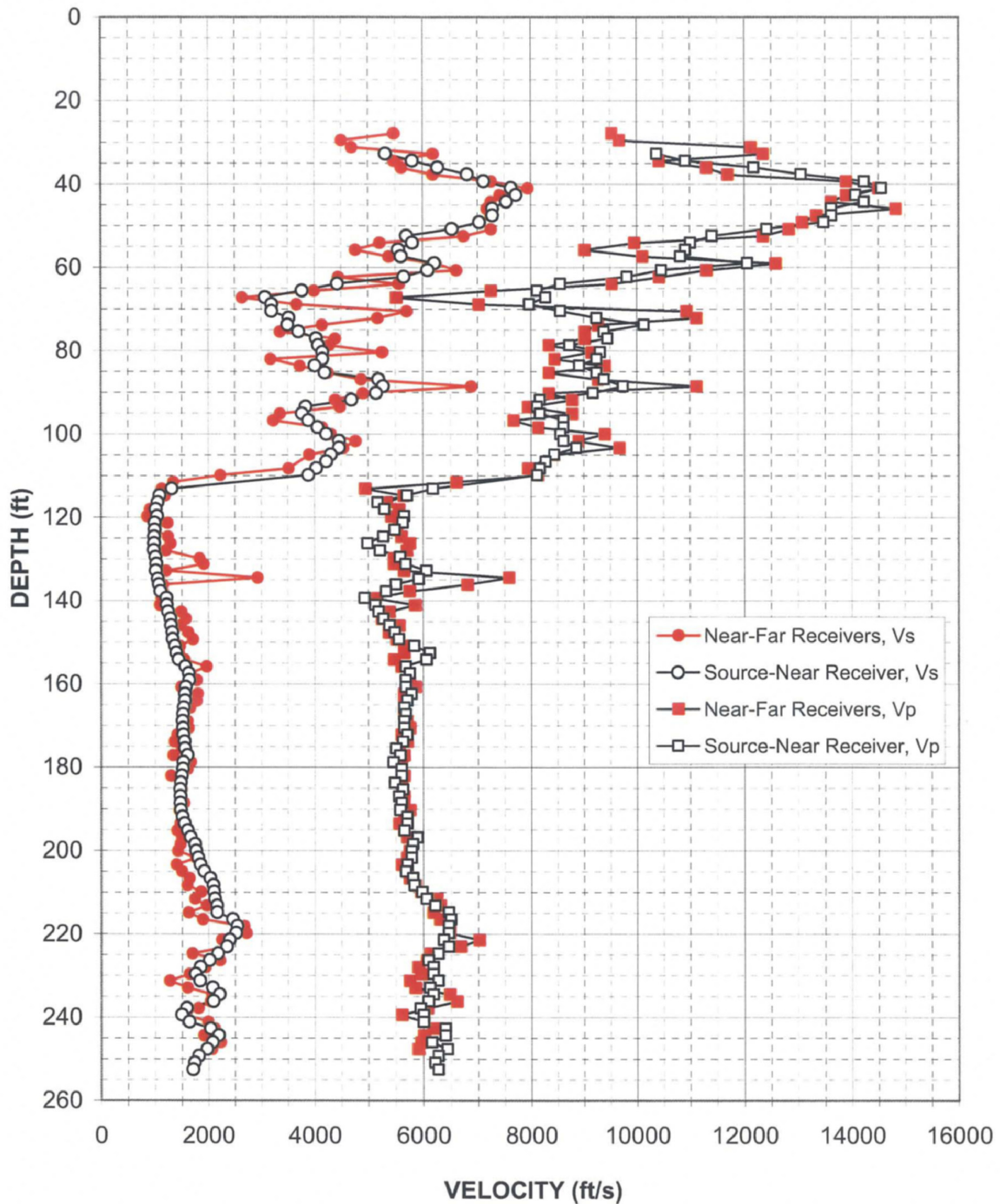


Figure A-8. Boring B-708 (DH), R1 - R2 high resolution analysis  
and S - R1 quality assurance analysis P- and S<sub>H</sub>-wave data

Depth (feet)	V <sub>s</sub> (feet/sec)	V <sub>p</sub> (feet/sec)	Depth (feet)	V <sub>s</sub> (feet/sec)	V <sub>p</sub> (feet/sec)	Depth (feet)	V <sub>s</sub> (feet/sec)	V <sub>p</sub> (feet/sec)
32.7	5320	10380	116.4	1050	5170	198.4	1740	5810
34.4	5810	10910	118.0	1010	5300	200.0	1760	5780
36.0	6270	12170	119.7	1040	5650	201.7	1800	5780
37.6	6810	13050	121.3	990	5630	203.3	1850	5700
39.3	7110	14220	122.9	990	5480	205.0	1920	5680
40.9	7630	14550	124.6	980	5280	206.6	2030	5810
42.6	7720	14070	126.2	980	4980	208.2	2090	5830
44.2	7540	14220	127.9	980	5210	209.9	2100	5970
45.8	7280	13610	129.5	1010	5580	211.5	2120	6060
47.5	7280	13610	131.1	1020	5680	213.2	2160	6210
49.1	7030	13470	132.8	1010	6060	214.8	2160	6460
50.8	6530	12410	134.8	1050	5920	216.4	2450	6490
52.4	5700	11410	136.1	1070	5500	218.1	2540	6460
54.0	5810	11010	137.7	1100	5320	219.7	2520	6460
55.7	5550	10910	139.3	1210	4930	221.4	2400	6360
57.3	5600	10820	141.0	1210	5130	223.0	2340	6460
59.0	6210	12060	142.6	1240	5190	224.7	2180	6270
60.6	6090	10460	144.3	1280	5280	226.3	2020	6090
62.2	5650	9810	145.9	1290	5390	227.9	1850	6180
63.9	4430	8550	147.6	1320	5480	229.6	1750	6180
65.5	3770	8120	149.2	1330	5550	231.2	1830	6270
67.2	3070	8270	150.8	1370	5830	232.9	2080	6120
68.8	3200	7960	152.5	1390	6120	234.5	2210	6180
70.5	3200	8550	154.1	1440	6060	236.1	2090	6090
72.1	3520	9240	155.8	1560	5680	237.8	1590	5940
73.7	3500	10130	157.4	1630	5750	239.4	1500	6000
75.4	3700	9380	159.0	1640	5680	241.1	1640	6000
77.0	4030	9450	160.7	1570	5680	242.7	2040	6390
78.7	4070	8730	162.3	1560	5780	244.3	2190	6390
80.3	4150	9310	164.0	1560	5700	246.0	2080	6150
81.9	4150	9240	165.6	1530	5650	247.6	1970	6430
83.6	4010	8920	167.2	1520	5680	249.3	1810	6270
85.2	4190	9240	168.9	1510	5650	250.9	1730	6210
86.9	5190	9380	170.5	1520	5650	252.5	1710	6270
88.5	5280	9740	172.2	1530	5700			
90.1	5150	9170	173.8	1550	5630			
91.8	4690	8170	175.4	1560	5500			
93.4	3840	8120	177.1	1600	5580			
95.1	3770	8170	178.7	1530	5460			
96.7	3880	8610	180.4	1520	5600			
98.3	4060	8610	182.0	1500	5600			
100.0	4220	8550	183.6	1480	5480			
101.6	4460	8610	185.3	1470	5630			
103.3	4460	8850	186.9	1470	5550			
104.9	4310	8440	188.6	1470	5600			
106.5	4220	8270	190.2	1480	5580			
108.2	4030	8170	191.8	1510	5700			
109.8	3880	8120	193.5	1550	5700			
113.1	1310	6180	195.1	1600	5650			
114.7	1080	5700	196.8	1660	5890			

Table A-8. Boring B-708 (DH), S - R1 quality assurance analysis P- and S<sub>H</sub>-wave data



### FPL Turkey Point COL Boring B-710 G (DH) Source to Receiver and Receiver to Receiver Analysis

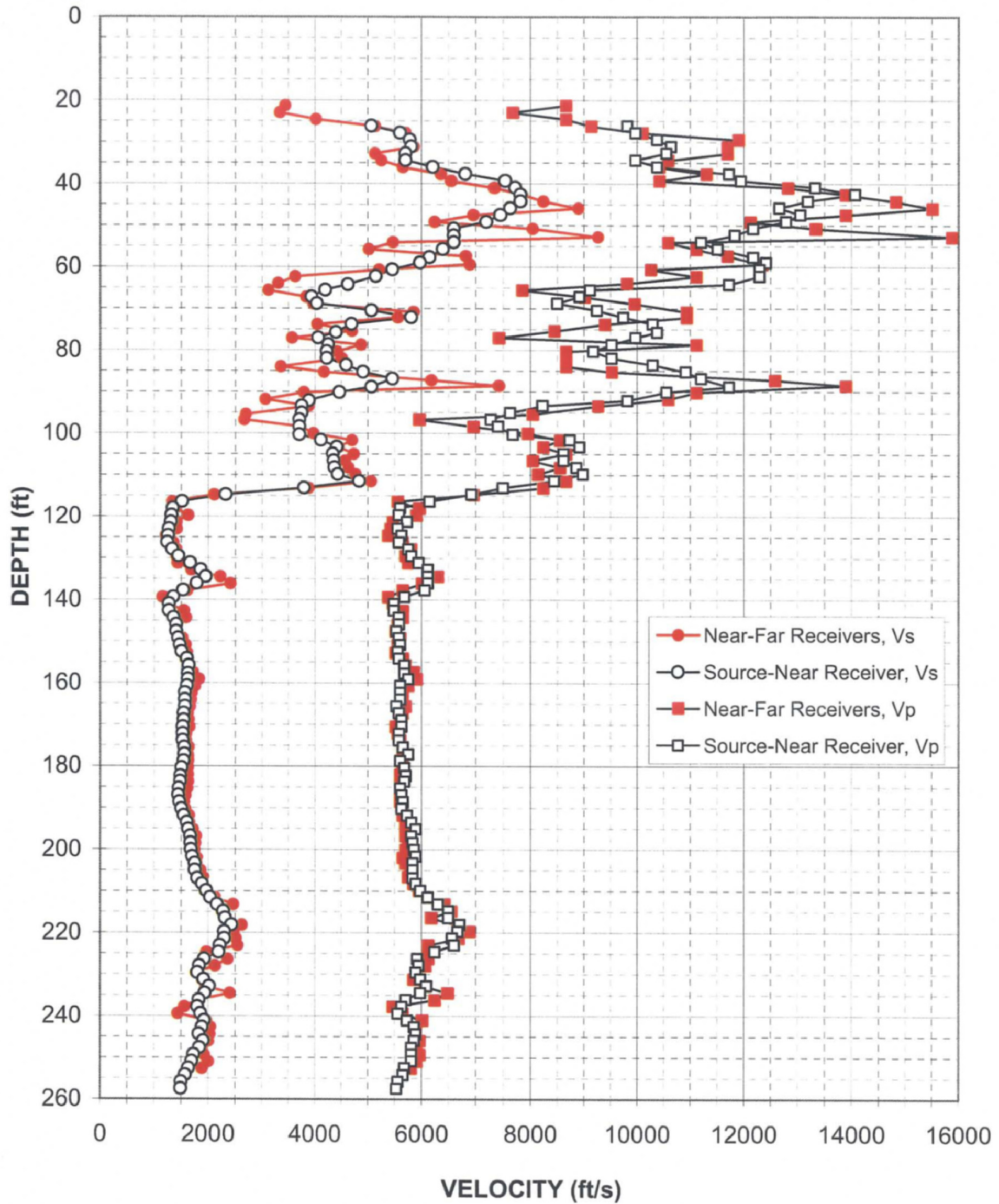


Figure A-9. Boring B-710 G (DH), R1 - R2 high resolution analysis  
and S - R1 quality assurance analysis P- and S<sub>H</sub>-wave data

Depth (feet)	V <sub>s</sub> (feet/sec)	V <sub>p</sub> (feet/sec)	Depth (feet)	V <sub>s</sub> (feet/sec)	V <sub>p</sub> (feet/sec)	Depth (feet)	V <sub>s</sub> (feet/sec)	V <sub>p</sub> (feet/sec)
26.2	5060	9810	108.2	4370	8850	190.2	1500	5630
27.8	5600	9970	109.8	4430	8980	191.8	1540	5730
29.4	5780	10380	111.5	4830	8440	193.5	1600	5810
31.1	5810	10640	113.1	3790	7490	195.1	1630	5890
32.7	5700	10550	114.7	2320	6920	196.8	1670	5810
34.4	5700	9970	116.4	1510	6150	198.4	1670	5830
36.0	6210	10380	118.0	1340	5600	200.0	1680	5860
37.6	6810	11720	119.7	1320	5580	201.7	1700	5890
39.3	7540	11940	121.3	1310	5730	203.3	1750	5830
40.9	7720	13330	122.9	1270	5550	205.0	1750	5830
42.6	7810	14070	124.6	1250	5630	206.9	1790	5830
44.2	7810	13190	126.2	1240	5580	208.2	1880	5890
45.8	7630	12660	127.9	1330	5750	209.9	1960	5970
47.5	7450	13050	129.5	1440	5810	211.5	2040	6120
49.1	7190	12790	131.1	1660	5940	213.2	2160	6300
50.8	6590	12170	132.8	1860	6120	214.8	2280	6490
52.4	6590	11830	134.4	1950	6120	216.4	2310	6490
54.0	6590	11200	136.1	1780	6120	218.1	2430	6700
55.7	6390	11510	137.7	1530	6060	219.7	2290	6660
57.7	6150	12170	139.3	1350	5680	221.4	2290	6560
59.0	5970	12410	141.0	1270	5480	223.0	2210	6590
60.6	5460	12290	142.6	1270	5480	224.7	2190	6240
62.2	5150	12290	144.3	1350	5580	226.3	1920	5920
64.2	4620	11720	145.9	1400	5580	227.9	1830	5940
65.5	4190	9110	147.6	1400	5530	229.6	1800	5890
67.2	3930	8920	149.2	1440	5580	231.2	1910	5970
68.8	4030	8500	150.8	1470	5600	232.9	2020	6090
70.5	5060	9240	152.5	1500	5550	234.5	1940	5970
72.1	5810	9740	154.1	1600	5580	236.1	1820	5700
73.7	4690	10290	155.8	1640	5680	237.8	1800	5630
75.7	4400	10380	157.7	1620	5680	239.4	1860	5550
77.0	4060	9970	159.0	1620	5750	241.1	1920	5730
78.7	4250	9520	160.7	1600	5600	242.7	1880	5860
80.3	4220	9170	162.3	1560	5600	244.3	1820	5890
81.9	4220	9520	164.0	1560	5600	246.0	1910	5860
83.6	4590	10290	165.6	1560	5530	247.6	1830	5810
85.2	4910	10910	167.2	1540	5580	249.3	1720	5810
86.9	5460	11200	168.9	1540	5630	250.9	1690	5810
88.8	5060	11720	170.5	1530	5630	252.5	1630	5680
90.1	4460	10550	172.2	1530	5580	254.2	1570	5650
92.1	3880	9810	173.8	1530	5580	255.8	1490	5550
93.4	3750	8220	175.4	1550	5650	257.5	1490	5530
95.1	3750	7630	177.1	1560	5750			
96.7	3700	7280	178.7	1540	5600			
98.3	3700	7400	180.4	1500	5680			
100.3	3700	7670	182.3	1480	5700			
101.6	4110	8730	183.6	1480	5680			
103.3	4410	8920	185.3	1450	5600			
104.9	4340	8610	186.9	1440	5630			
106.5	4350	8610	188.6	1460	5650			

Table A-9. Boring B-710 G (DH), S - R1 quality assurance analysis P- and S<sub>H</sub>-wave data

### FPL Turkey Point COL Boring B-720 G (DH) Source to Receiver and Receiver to Receiver Analysis

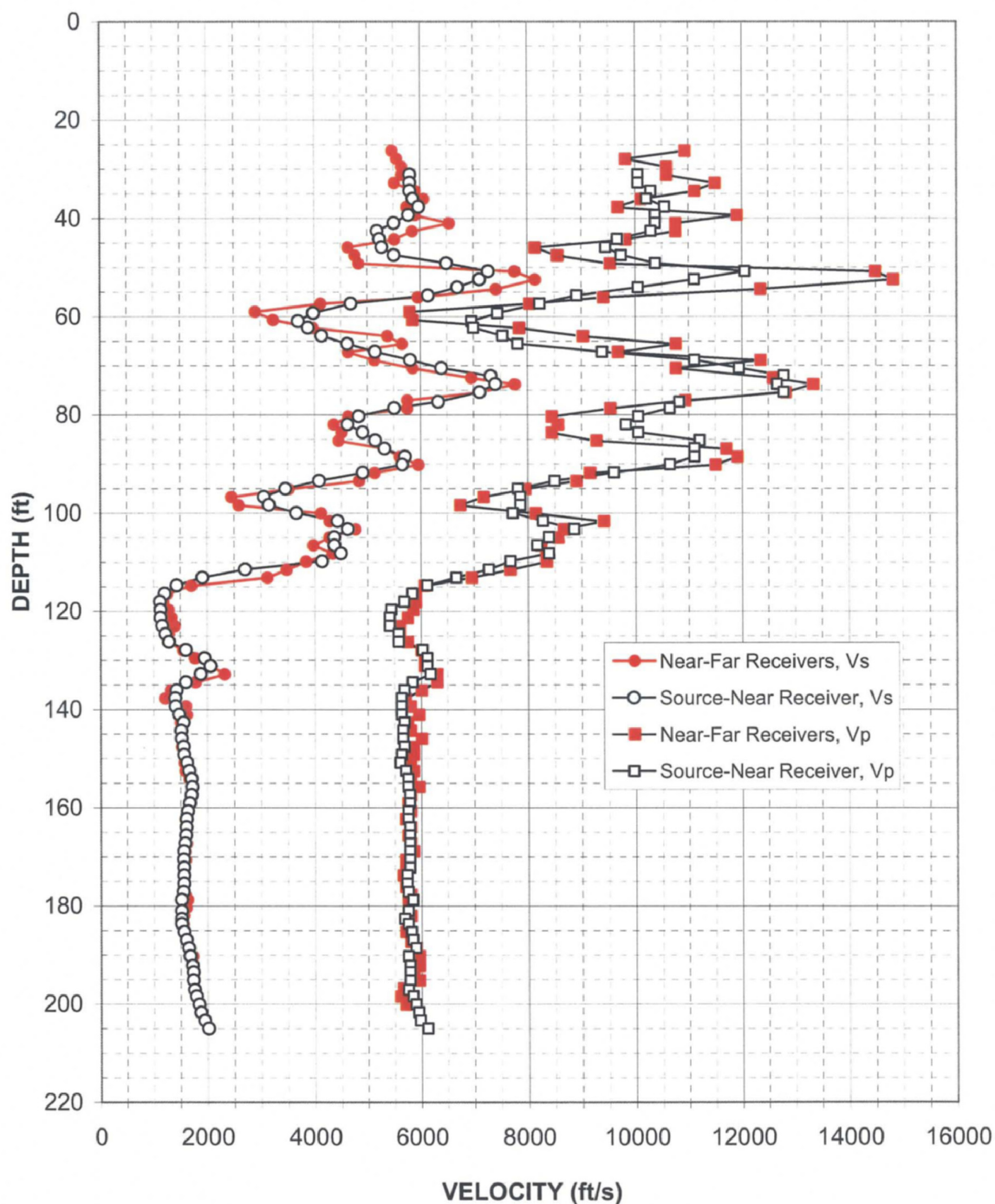


Figure A-10. Boring B-720 G (DH), R1 - R2 high resolution analysis  
and S - R1 quality assurance analysis P- and S<sub>H</sub>-wave data

Depth (feet)	V <sub>s</sub> (feet/sec)	V <sub>p</sub> (feet/sec)	Depth (feet)	V <sub>s</sub> (feet/sec)	V <sub>p</sub> (feet/sec)	Depth (feet)	V <sub>s</sub> (feet/sec)	V <sub>p</sub> (feet/sec)
31.1	5810	10050	113.1	1910	6660	195.1	1730	5780
32.7	5810	10050	114.7	1440	6120	197.1	1750	5750
34.4	5810	10290	116.4	1210	5830	198.4	1790	5830
36.0	5860	10210	118.0	1120	5680	200.0	1840	5890
37.6	5970	10550	119.7	1130	5430	201.7	1870	5940
39.3	5780	10380	121.3	1130	5410	203.3	1940	5970
40.9	5500	10380	122.9	1160	5410	205.0	2020	6120
42.6	5190	10290	124.6	1220	5580			
44.2	5230	9660	126.2	1290	5580			
45.8	5280	9450	127.9	1600	6030			
47.5	5500	9740	129.5	1950	6120			
49.1	6490	10380	131.1	2060	6120			
50.8	7280	12060	132.8	1880	6180			
52.4	7110	11110	134.4	1600	5830			
54.0	6700	10050	136.1	1430	5680			
55.7	6150	8920	137.7	1400	5630			
57.3	4690	8220	139.3	1410	5630			
59.3	3980	7450	141.0	1480	5630			
60.9	3700	6960	142.6	1560	5680			
62.2	3880	6990	144.3	1510	5650			
63.9	4140	7540	145.9	1520	5650			
65.5	4620	7810	147.6	1560	5680			
67.2	5150	9380	149.2	1560	5630			
68.8	5810	11110	150.8	1620	5600			
70.5	6390	11940	152.5	1660	5700			
72.1	7320	12790	154.1	1700	5750			
73.7	7400	12660	155.8	1720	5750			
75.4	7110	12790	157.4	1700	5780			
77.3	6330	10820	159.0	1670	5780			
78.7	5500	10640	160.7	1640	5750			
80.3	4830	10050	162.3	1610	5750			
81.9	4620	9810	164.0	1610	5780			
83.6	4910	10050	165.6	1600	5780			
85.2	5150	11200	167.2	1580	5780			
86.9	5320	11110	168.9	1560	5780			
88.5	5700	11110	170.5	1560	5780			
90.1	5650	10640	172.2	1560	5780			
91.8	4910	9590	173.8	1560	5730			
93.4	4080	8500	175.4	1560	5730			
95.1	3460	7810	177.1	1550	5750			
96.7	3060	7860	178.7	1510	5830			
98.3	3150	7860	181.0	1510	5750			
100.0	3660	7720	182.7	1510	5680			
101.6	4430	8270	183.6	1510	5750			
103.3	4620	8850	185.3	1560	5810			
104.9	4370	8380	186.9	1610	5830			
106.5	4370	8170	188.6	1650	5890			
108.2	4490	8380	190.2	1670	5750			
109.8	4140	7670	192.2	1720	5780			
111.5	2710	7280	193.5	1730	5780			

Table A-10. Boring B-720 G (DH), S - R1 quality assurance analysis P- and S<sub>H</sub>-wave data



# **APPENDIX B**

## **DOWNHOLE VELOCITY MEASUREMENT RESULTS**

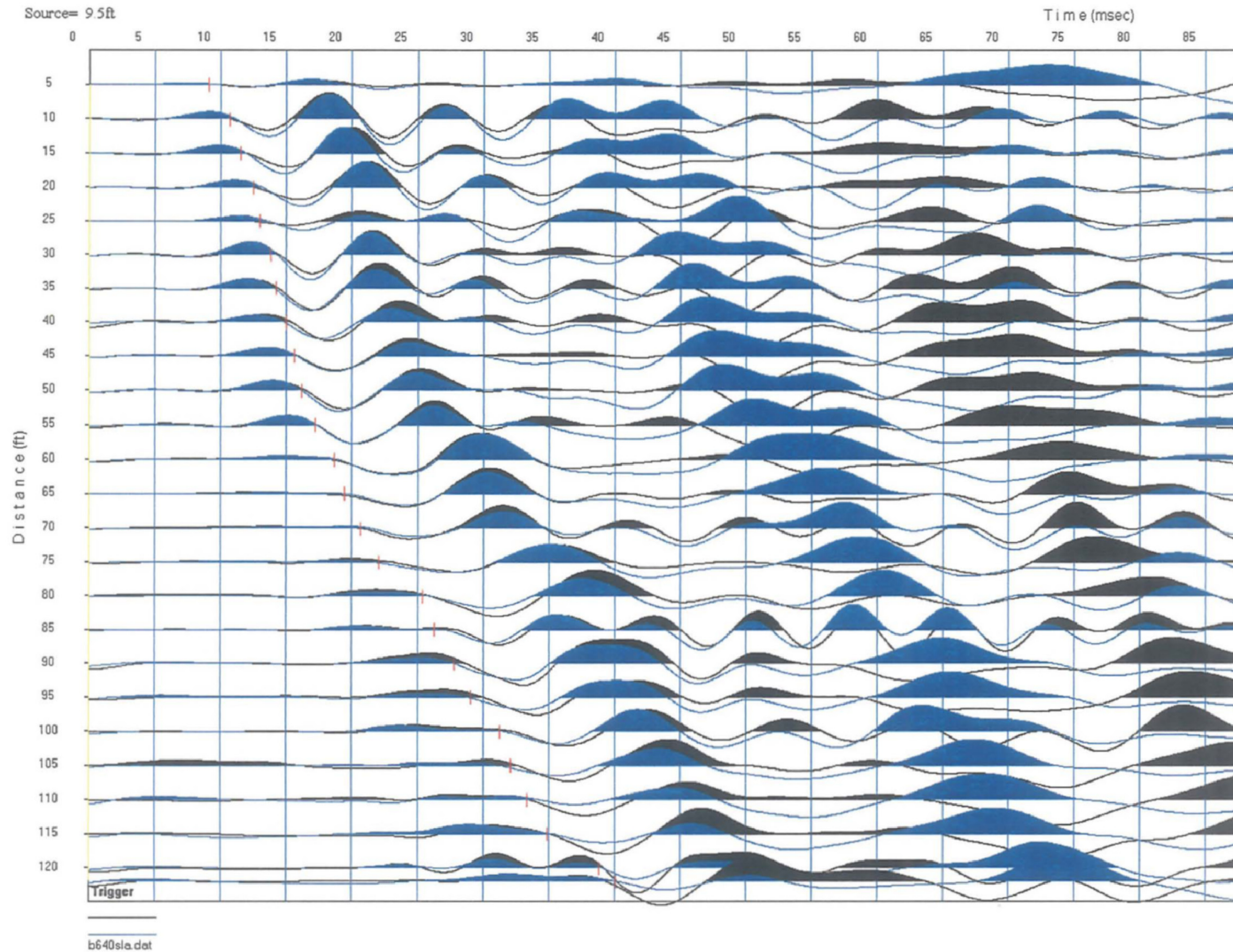


Figure B-1: Boring B-640 (DHT), Downhole Vs 100 Hz filtered waveforms and first arrival picks  
NOTE: Shear wave arrivals are in-phase – see report for discussion

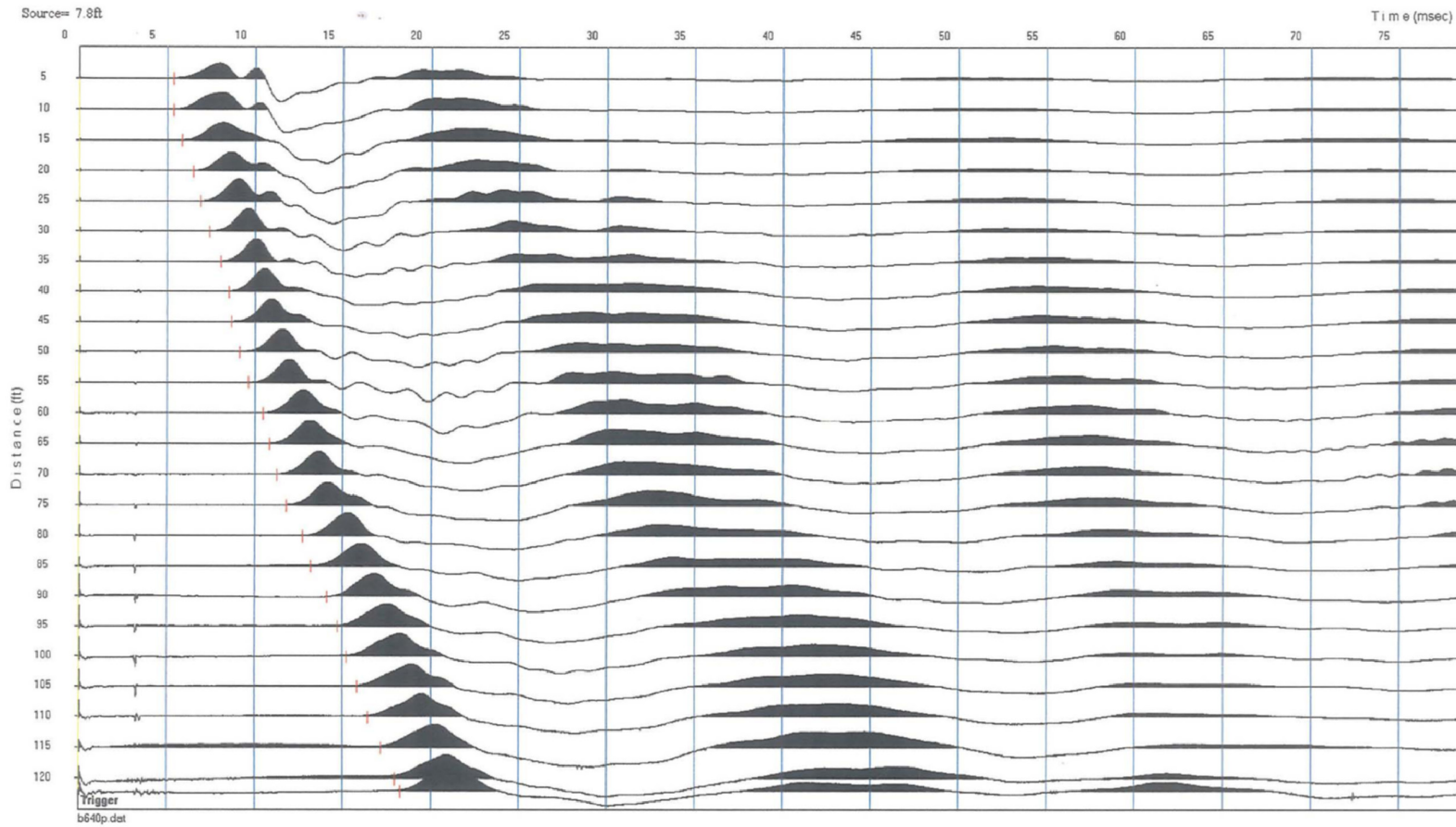


Figure B-2: Boring B-640 (DHT), Downhole Vp un-filtered waveforms and picks

### FPL Turkey Point COL Borings B-610 (DH) R1-R2 Calculated and B-640 (DHT) Downhole Travel Times

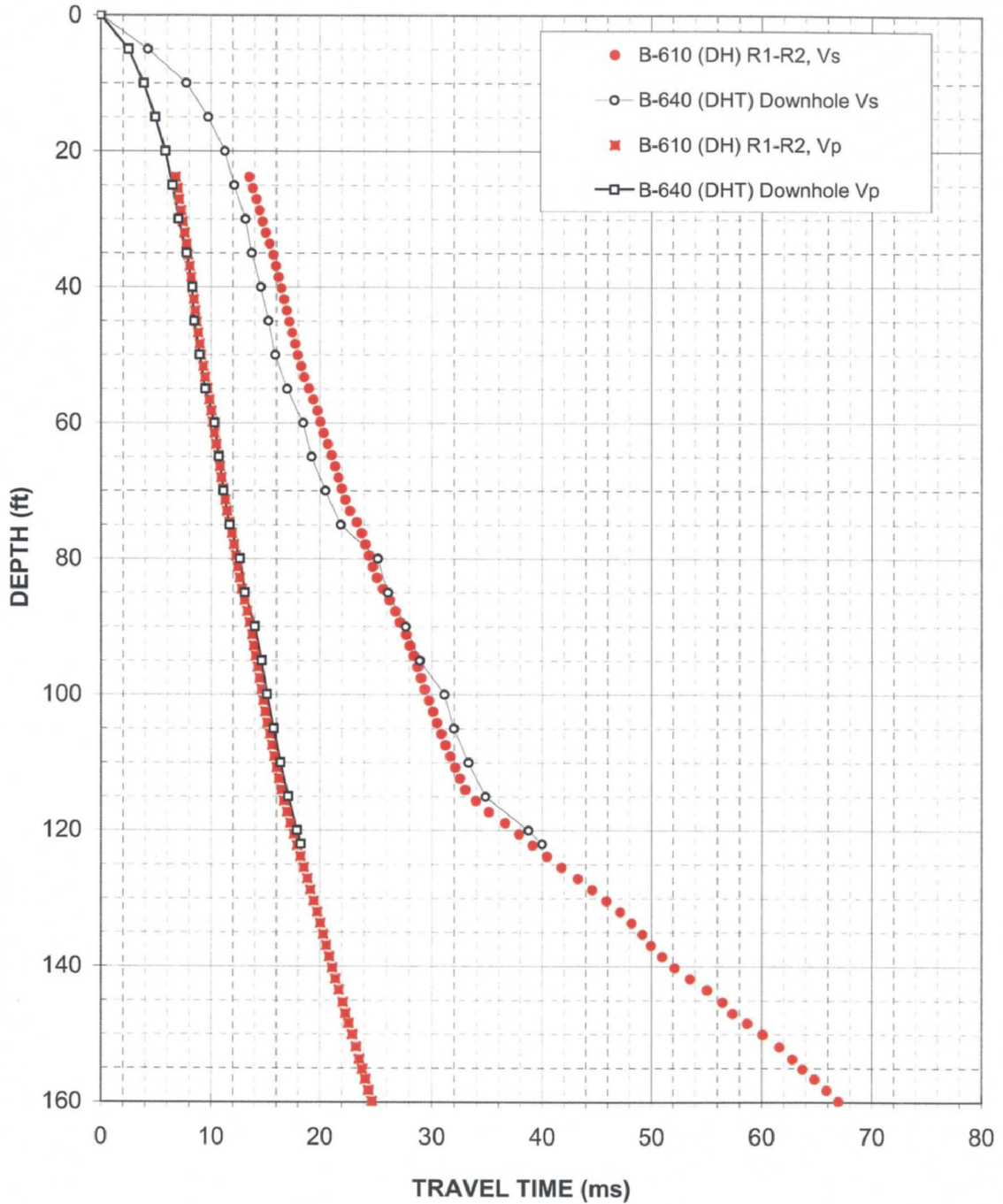


Figure B-3: Borings B-610 (DH) Suspension R1-R2 Calculated and B-640 (DHT) Measured Downhole Travel Times



Table B-1. Boring B-640 (DHT) Downhole Layer P- and S<sub>H</sub>-wave velocities

**Layered Velocity Model for Vs and Vp  
 Based on Downhole Travel Time Data - Borehole B-640 (DHT)**

American Units					
Layer Number	Layer Depth			Layer Velocity	
	Top	Bottom	Thickness	V <sub>s</sub>	V <sub>p</sub>
	(ft)	(ft)	(ft)	(ft/s)	(ft/s)
1	0.0	10.0	10.0	1430	3620
2	10.0	15.0	5.0	2490	4860
3	15.0	25.0	10.0	4080	6350
4	25.0	55.0	30.0	6470	10170
5	55.0	60.0	5.0	3420	5800
6	60.0	115.0	55.0	3180	7840
7	115.0	122.0	7.0	1600	5680

Metric						
Layer Number	Layer Depth			Layer Velocity		Poisson's Ratio
	Top	Bottom	Thickness	V <sub>s</sub>	V <sub>p</sub>	
	(m)	(m)	(m)	(m/s)	(m/s)	
1	0.0	3.0	3.0	436	1100	0.41
2	3.0	4.6	1.5	760	1480	0.32
3	4.6	7.6	3.0	1240	1940	0.15
4	7.6	16.8	9.1	1970	3100	0.16
5	16.8	18.3	1.5	1040	1770	0.23
6	18.3	35.1	16.8	970	2390	0.40
7	35.1	37.2	2.1	406	1890	0.48

(velocity rounded to the nearest 10fps, three significant digits)

### FPL Turkey Point COL Borings B-610 (DH) R1-R2 and B-640 (DHT) Downhole Layered Model Velocities

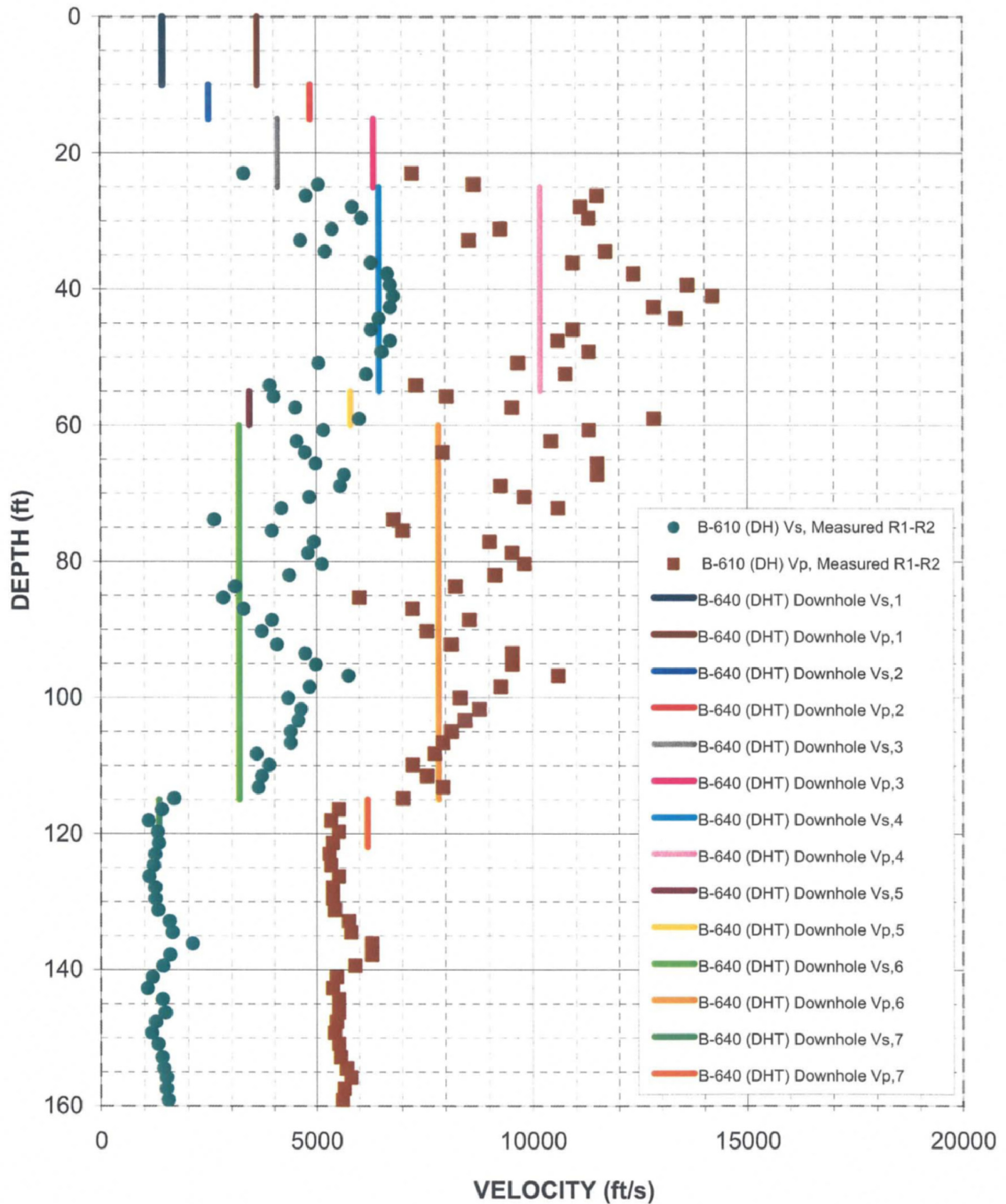


Figure B-4: Comparison of Borings B-610 (DH) Suspension R1-R2 Results and B-640 (DHT) Downhole Layered Model Velocities



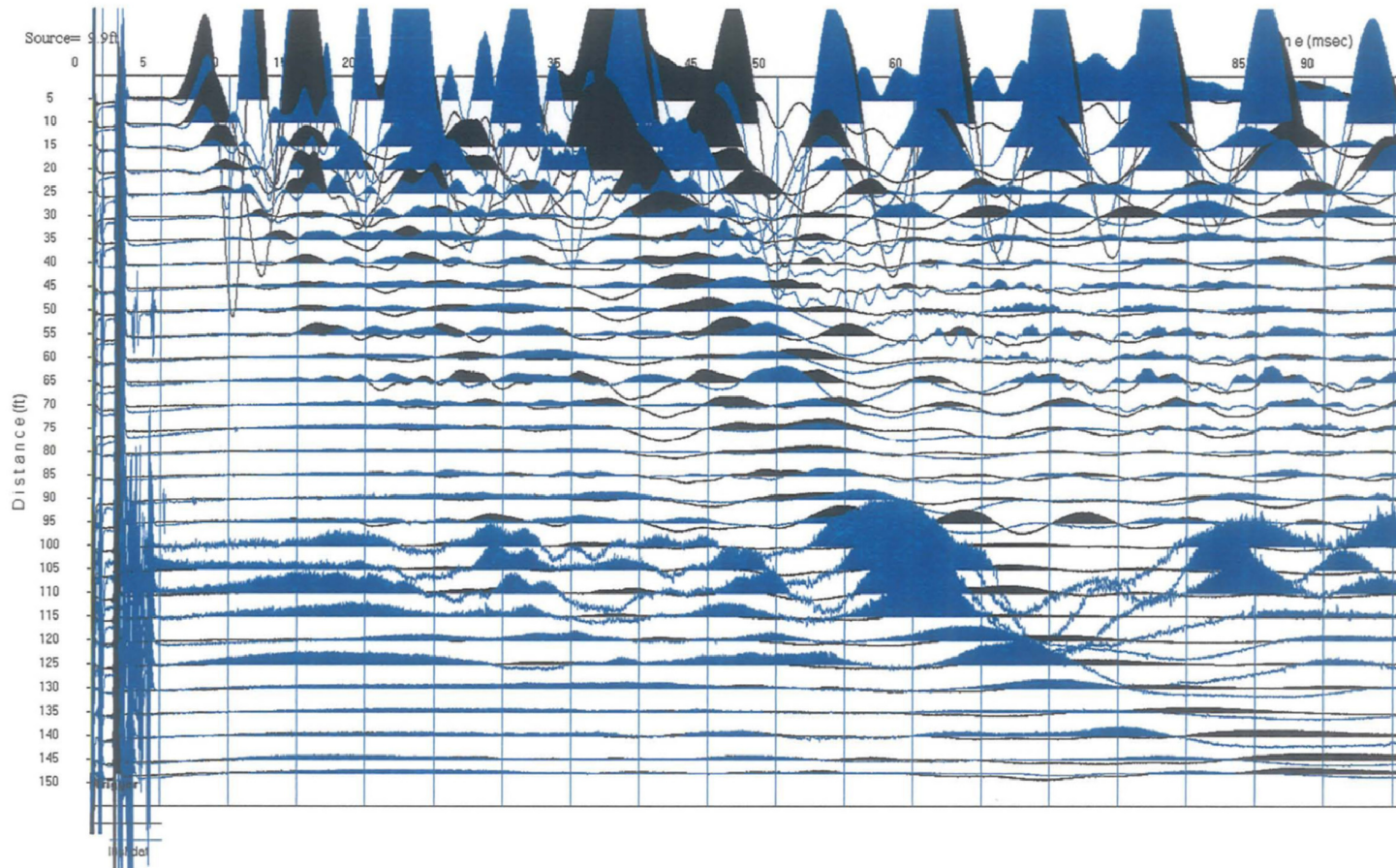


Figure B-6: Boring B-740 (DHT), Downhole Vs un-filtered waveforms, showing poor data quality



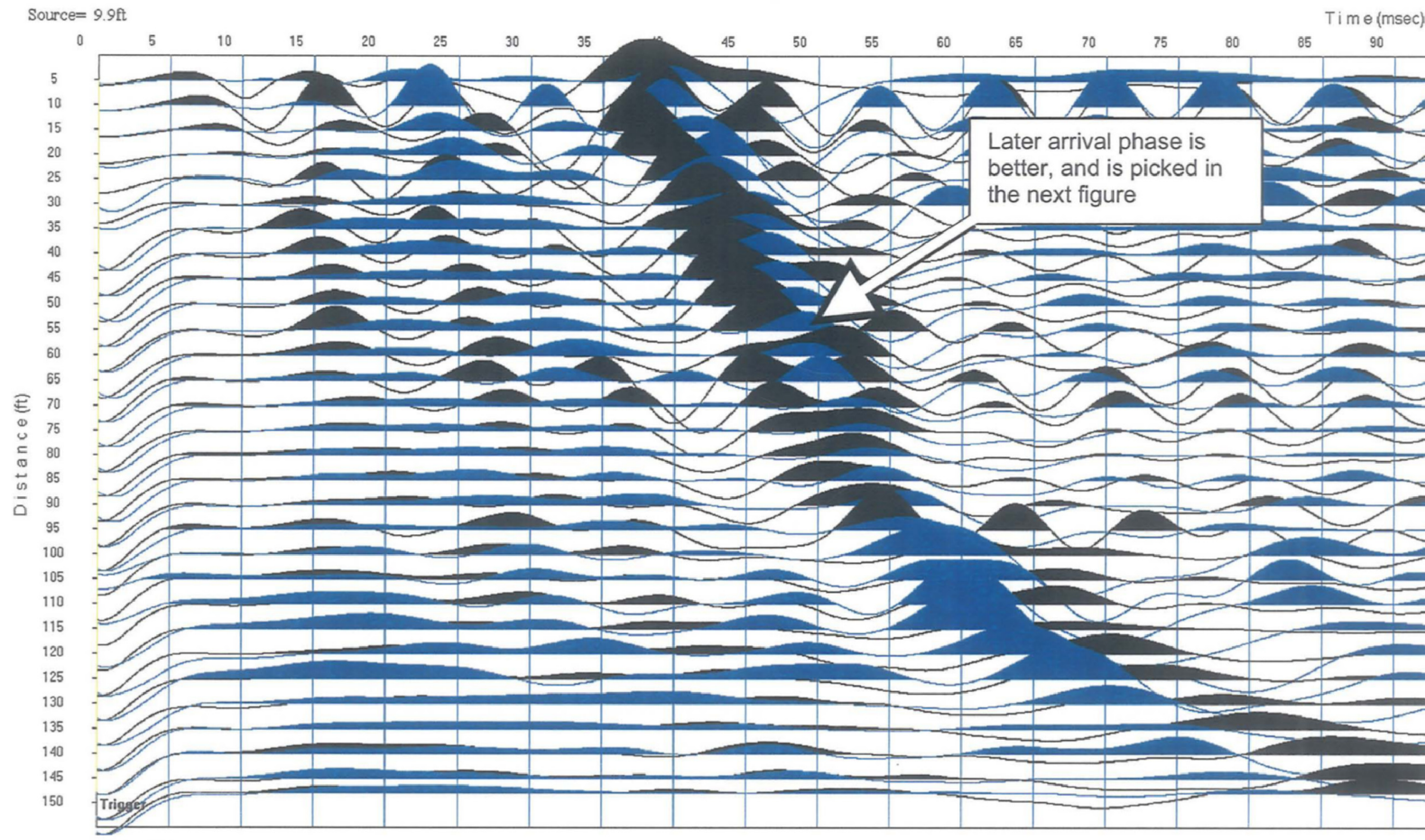


Figure B-7: Boring B-740 (DHT), Downhole Vs 100 Hz filtered waveforms, showing lack of clean first arrivals