

Figure 12. Boring B-907, Top Section, Caliper, Natural gamma, Resistivity and SP logs

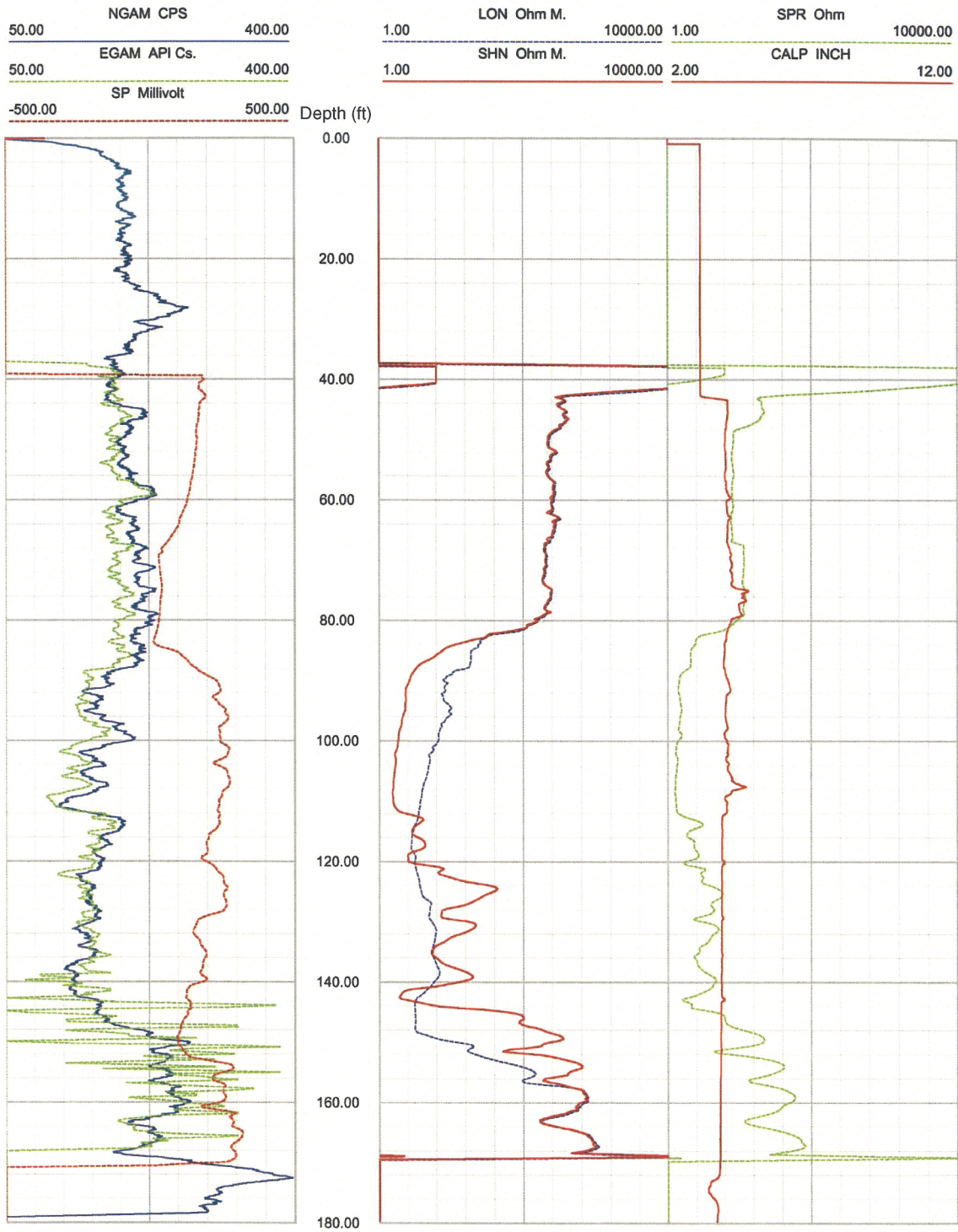


Figure 13. Boring B-907, Bottom Section, Caliper, Natural gamma, Resistivity and SP logs

Deviated borehole in orthographic projection, viewed from N45

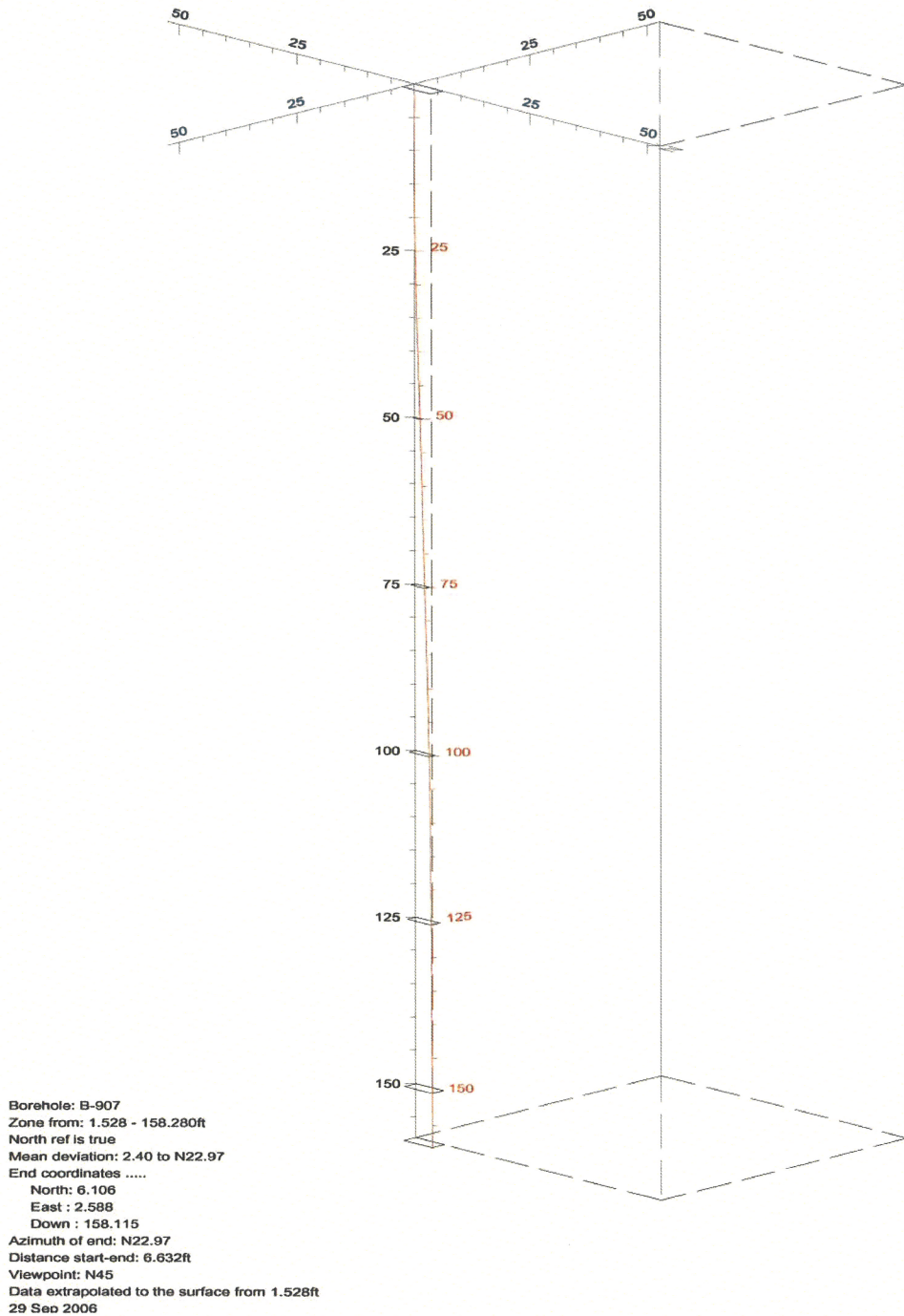


Figure 14. Boring B-907, Deviation Projection (dimensions in feet)

### North Anna COL Borehole B-909 data collected Sept. 12, 2006 Receiver to Receiver $V_s$ and $V_p$ Analysis

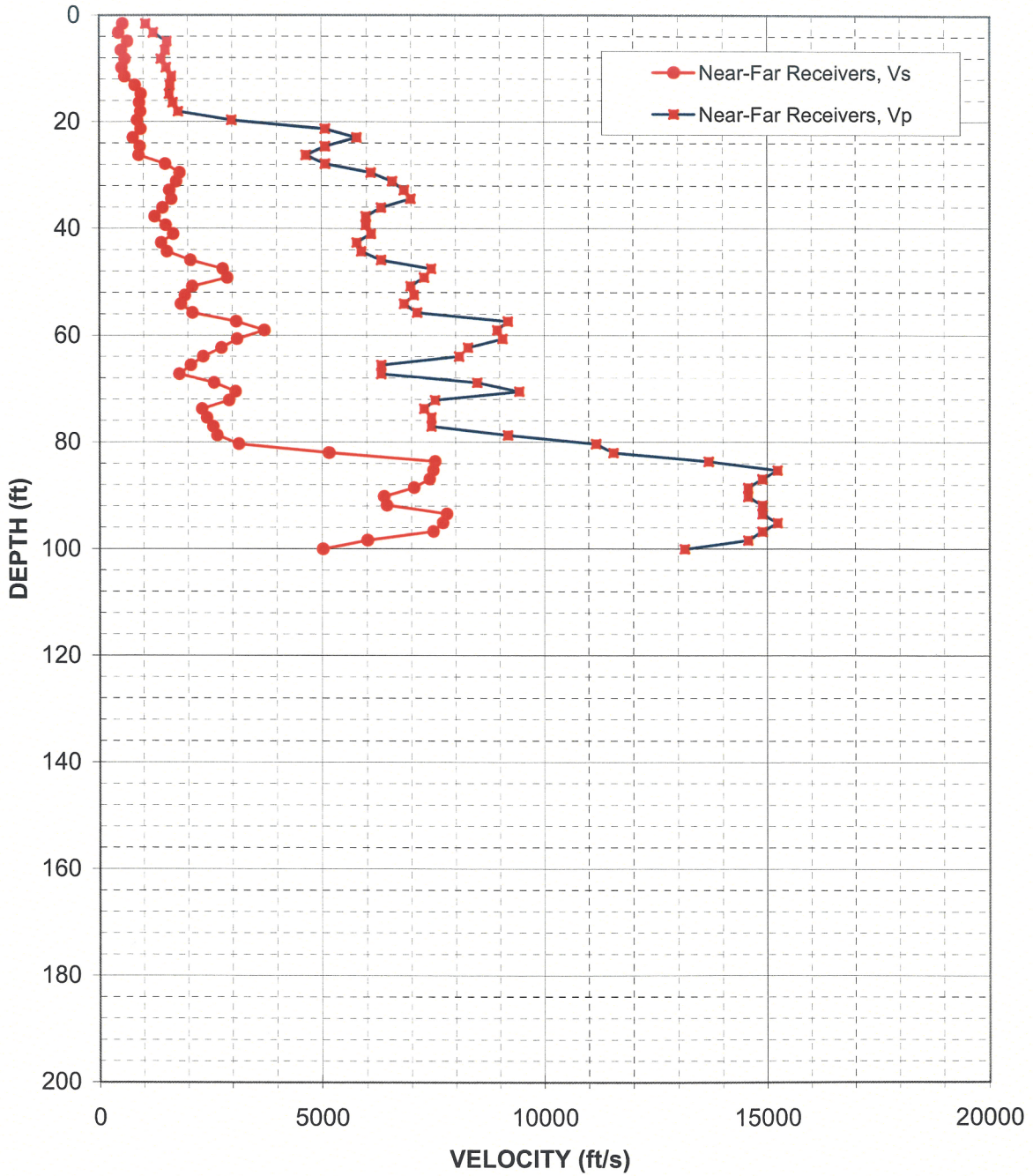


Figure 15. Boring B-909, Top Section, Suspension R1-R2 P- and  $S_H$ -wave velocities

### North Anna COL Borehole B-909 Receiver to Receiver $V_s$ and $V_p$ Analysis

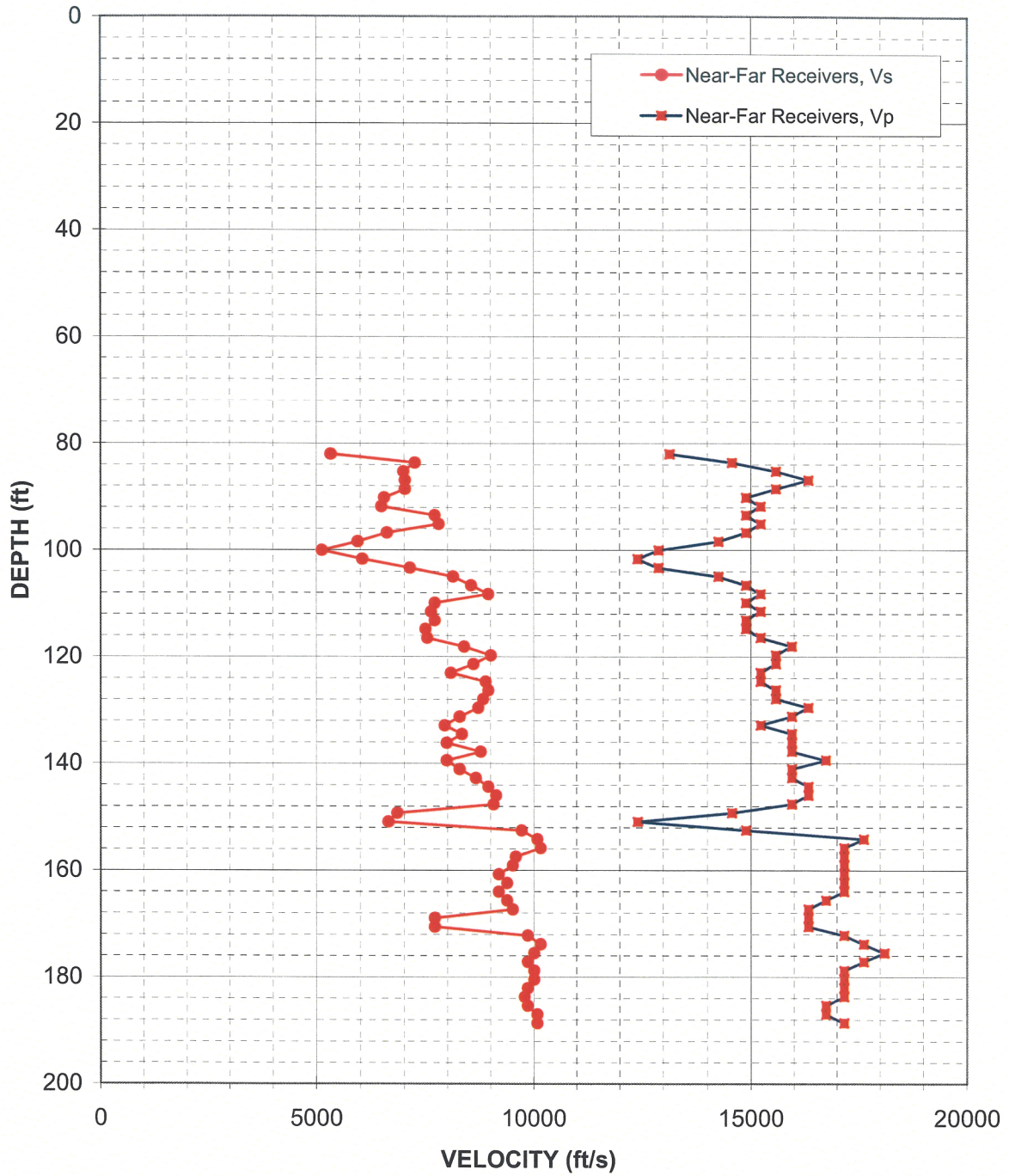


Figure 16. Boring B-909, Bottom Section, Suspension R1-R2 P- and  $S_H$ -wave velocities

Table 9. Boring B-909, Top Section, Suspension R1-R2 depths and P- and S<sub>H</sub>-wave velocities

**Summary of Compressional Wave Velocity, Shear Wave Velocity, and Poisson's Ratio  
 Based on Receiver-to-Receiver Travel Time Data - Borehole B-909**

American Units				Metric Units			
Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio	Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio
	V <sub>s</sub>	V <sub>p</sub>			V <sub>s</sub>	V <sub>p</sub>	
(ft)	(ft/s)	(ft/s)		(m)	(m/s)	(m/s)	
1.6	520	1050	0.33	0.5	160	320	0.33
3.3	430	1220	0.43	1.0	130	370	0.43
4.9	630	1520	0.40	1.5	190	460	0.40
6.6	490	1490	0.44	2.0	150	450	0.44
8.2	570	1400	0.40	2.5	170	430	0.40
9.8	500	1510	0.44	3.0	150	460	0.44
11.5	570	1630	0.43	3.5	170	500	0.43
13.1	800	1600	0.33	4.0	240	490	0.33
14.8	940	1580	0.23	4.5	290	480	0.23
16.4	900	1660	0.29	5.0	270	510	0.29
18.0	920	1780	0.32	5.5	280	540	0.32
19.7	850	2990	0.46	6.0	260	910	0.46
21.3	930	5080	0.48	6.5	280	1550	0.48
23.0	760	5780	0.49	7.0	230	1760	0.49
24.6	910	5080	0.48	7.5	280	1550	0.48
26.3	890	4650	0.48	8.0	270	1420	0.48
27.9	1490	5080	0.45	8.5	450	1550	0.45
29.5	1810	6090	0.45	9.0	550	1860	0.45
31.2	1740	6570	0.46	9.5	530	2000	0.46
32.8	1580	6840	0.47	10.0	480	2080	0.47
34.5	1630	6980	0.47	10.5	500	2130	0.47
36.1	1430	6320	0.47	11.0	430	1930	0.47
37.7	1250	5980	0.48	11.5	380	1820	0.48
39.4	1500	5980	0.47	12.0	460	1820	0.47
41.0	1670	6090	0.46	12.5	510	1860	0.46
42.7	1400	5780	0.47	13.0	430	1760	0.47
44.3	1520	5880	0.46	13.5	460	1790	0.46
45.9	2060	6320	0.44	14.0	630	1930	0.44
47.6	2790	7440	0.42	14.5	850	2270	0.42
49.2	2890	7280	0.41	15.0	880	2220	0.41
50.9	2090	6980	0.45	15.5	640	2130	0.45
52.5	1930	7050	0.46	16.0	590	2150	0.46
54.1	1840	6840	0.46	16.5	560	2080	0.46
55.8	2100	7130	0.45	17.0	640	2170	0.45
57.4	3090	9180	0.44	17.5	940	2800	0.44

**Summary of Compressional Wave Velocity, Shear Wave Velocity, and Poisson's Ratio  
 Based on Receiver-to-Receiver Travel Time Data - Borehole B-909**

American Units			
Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio
	V <sub>s</sub>	V <sub>p</sub>	
(ft)	(ft/s)	(ft/s)	
59.1	3720	8930	0.39
60.7	3110	9050	0.43
62.3	2760	8270	0.44
64.0	2340	8070	0.45
65.6	2060	6320	0.44
67.3	1800	6320	0.46
68.9	2590	8480	0.45
70.5	3070	9440	0.44
72.2	2930	7530	0.41
73.8	2320	7280	0.44
75.5	2430	7440	0.44
77.1	2570	7440	0.43
78.7	2660	9180	0.45
80.4	3150	11170	0.46
82.0	5150	11550	0.38
83.7	7530	13670	0.28
85.3	7490	15230	0.34
86.9	7400	14890	0.34
88.6	7050	14570	0.35
90.2	6380	14570	0.38
91.9	6440	14890	0.38
93.5	7790	14890	0.31
95.1	7700	15230	0.33
96.8	7490	14890	0.33
98.4	6010	14570	0.40
100.1	5020	13140	0.41

Metric Units			
Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio
	V <sub>s</sub>	V <sub>p</sub>	
(m)	(m/s)	(m/s)	
18.0	1130	2720	0.39
18.5	950	2760	0.43
19.0	840	2520	0.44
19.5	710	2460	0.45
20.0	630	1930	0.44
20.5	550	1930	0.46
21.0	790	2590	0.45
21.5	940	2880	0.44
22.0	890	2290	0.41
22.5	710	2220	0.44
23.0	740	2270	0.44
23.5	780	2270	0.43
24.0	810	2800	0.45
24.5	960	3400	0.46
25.0	1570	3520	0.38
25.5	2290	4170	0.28
26.0	2280	4640	0.34
26.5	2260	4540	0.34
27.0	2150	4440	0.35
27.5	1940	4440	0.38
28.0	1960	4540	0.38
28.5	2370	4540	0.31
29.0	2350	4640	0.33
29.5	2280	4540	0.33
30.0	1830	4440	0.40
30.5	1530	4000	0.41

**Notes:**        "-" means no data available at that particular interval of depth.

Table 10. Boring B-909, Bottom Section, Suspension R1-R2 depths and P- and S<sub>H</sub>- wave velocities

**Summary of Compressional Wave Velocity, Shear Wave Velocity, and Poisson's Ratio  
 Based on Receiver-to-Receiver Travel Time Data - Borehole B-909**

American Units				Metric Units			
Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio	Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio
	V <sub>s</sub>	V <sub>p</sub>			V <sub>s</sub>	V <sub>p</sub>	
(ft)	(ft/s)	(ft/s)		(m)	(m/s)	(m/s)	
82.0	5310	13120	0.40	25.0	1620	4000	0.40
83.7	7240	14550	0.34	25.5	2210	4440	0.34
85.3	6970	15570	0.37	26.0	2130	4740	0.37
86.9	7010	16330	0.39	26.5	2140	4980	0.39
88.6	7010	15570	0.37	27.0	2140	4740	0.37
90.2	6530	14870	0.38	27.5	1990	4530	0.38
91.9	6470	15210	0.39	28.0	1970	4640	0.39
93.5	7690	14870	0.32	28.5	2340	4530	0.32
95.1	7780	15210	0.32	29.0	2370	4640	0.32
96.8	6590	14870	0.38	29.5	2010	4530	0.38
98.4	5920	14240	0.40	30.0	1810	4340	0.40
100.1	5110	12870	0.41	30.5	1560	3920	0.41
101.7	6030	12400	0.34	31.0	1840	3780	0.34
103.4	7120	12870	0.28	31.5	2170	3920	0.28
105.0	8110	14240	0.26	32.0	2470	4340	0.26
106.6	8530	14870	0.26	32.5	2600	4530	0.26
108.3	8920	15210	0.24	33.0	2720	4640	0.24
109.9	7690	14870	0.32	33.5	2340	4530	0.32
111.6	7610	15210	0.33	34.0	2320	4640	0.33
113.2	7690	14870	0.32	34.5	2340	4530	0.32
114.8	7480	14870	0.33	35.0	2280	4530	0.33
116.5	7520	15210	0.34	35.5	2290	4640	0.34
118.1	8370	15940	0.31	36.0	2550	4860	0.31
119.8	8980	15570	0.25	36.5	2740	4740	0.25
121.4	8580	15570	0.28	37.0	2620	4740	0.28
123.0	8060	15210	0.30	37.5	2460	4640	0.30
124.7	8870	15210	0.24	38.0	2700	4640	0.24
126.3	8920	15570	0.26	38.5	2720	4740	0.26
128.0	8810	15570	0.26	39.0	2680	4740	0.26
129.6	8690	16330	0.30	39.5	2650	4980	0.30
131.2	8260	15940	0.32	40.0	2520	4860	0.32
132.9	7920	15210	0.31	40.5	2410	4640	0.31
134.5	8310	15940	0.31	41.0	2530	4860	0.31
136.2	7970	15940	0.33	41.5	2430	4860	0.33
137.8	8750	15940	0.28	42.0	2670	4860	0.28



**Summary of Compressional Wave Velocity, Shear Wave Velocity, and Poisson's Ratio  
 Based on Receiver-to-Receiver Travel Time Data - Borehole B-909**

American Units			
Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio
	V <sub>s</sub>	V <sub>p</sub>	
(ft)	(ft/s)	(ft/s)	
139.4	7970	16730	0.35
141.1	8260	15940	0.32
142.7	8640	15940	0.29
144.4	8920	16330	0.29
146.0	9110	16330	0.27
147.6	9050	15940	0.26
149.3	6830	14550	0.36
150.9	6630	12400	0.30
152.6	9700	14870	0.13
154.2	10070	17610	0.26
155.8	10140	17160	0.23
157.5	9560	17160	0.27
159.1	9490	17160	0.28
160.8	9170	17160	0.30
162.4	9360	17160	0.29
164.0	9170	17160	0.30
165.7	9360	16730	0.27
167.3	9490	16330	0.24
169.0	7690	16330	0.36
170.6	7690	16330	0.36
172.2	9840	17160	0.25
173.9	10140	17610	0.25
175.5	9990	18090	0.28
177.2	9840	17610	0.27
178.8	9990	17160	0.24
180.5	9990	17160	0.24
182.1	9840	17160	0.25
183.7	9770	17160	0.26
185.4	9840	16730	0.24
187.0	10070	16730	0.22
188.7	10070	17160	0.24

Metric Units			
Depth at Midpoint Between Receivers	Velocity		Poisson's Ratio
	V <sub>s</sub>	V <sub>p</sub>	
(m)	(m/s)	(m/s)	
42.5	2430	5100	0.35
43.0	2520	4860	0.32
43.5	2630	4860	0.29
44.0	2720	4980	0.29
44.5	2780	4980	0.27
45.0	2760	4860	0.26
45.5	2080	4440	0.36
46.0	2020	3780	0.30
46.5	2960	4530	0.13
47.0	3070	5370	0.26
47.5	3090	5230	0.23
48.0	2910	5230	0.27
48.5	2890	5230	0.28
49.0	2790	5230	0.30
49.5	2850	5230	0.29
50.0	2790	5230	0.30
50.5	2850	5100	0.27
51.0	2890	4980	0.24
51.5	2340	4980	0.36
52.0	2340	4980	0.36
52.5	3000	5230	0.25
53.0	3090	5370	0.25
53.5	3040	5510	0.28
54.0	3000	5370	0.27
54.5	3040	5230	0.24
55.0	3040	5230	0.24
55.5	3000	5230	0.25
56.0	2980	5230	0.26
56.5	3000	5100	0.24
57.0	3070	5100	0.22
57.5	3070	5230	0.24

**Notes:**        "-" means no data available at that particular interval of depth.

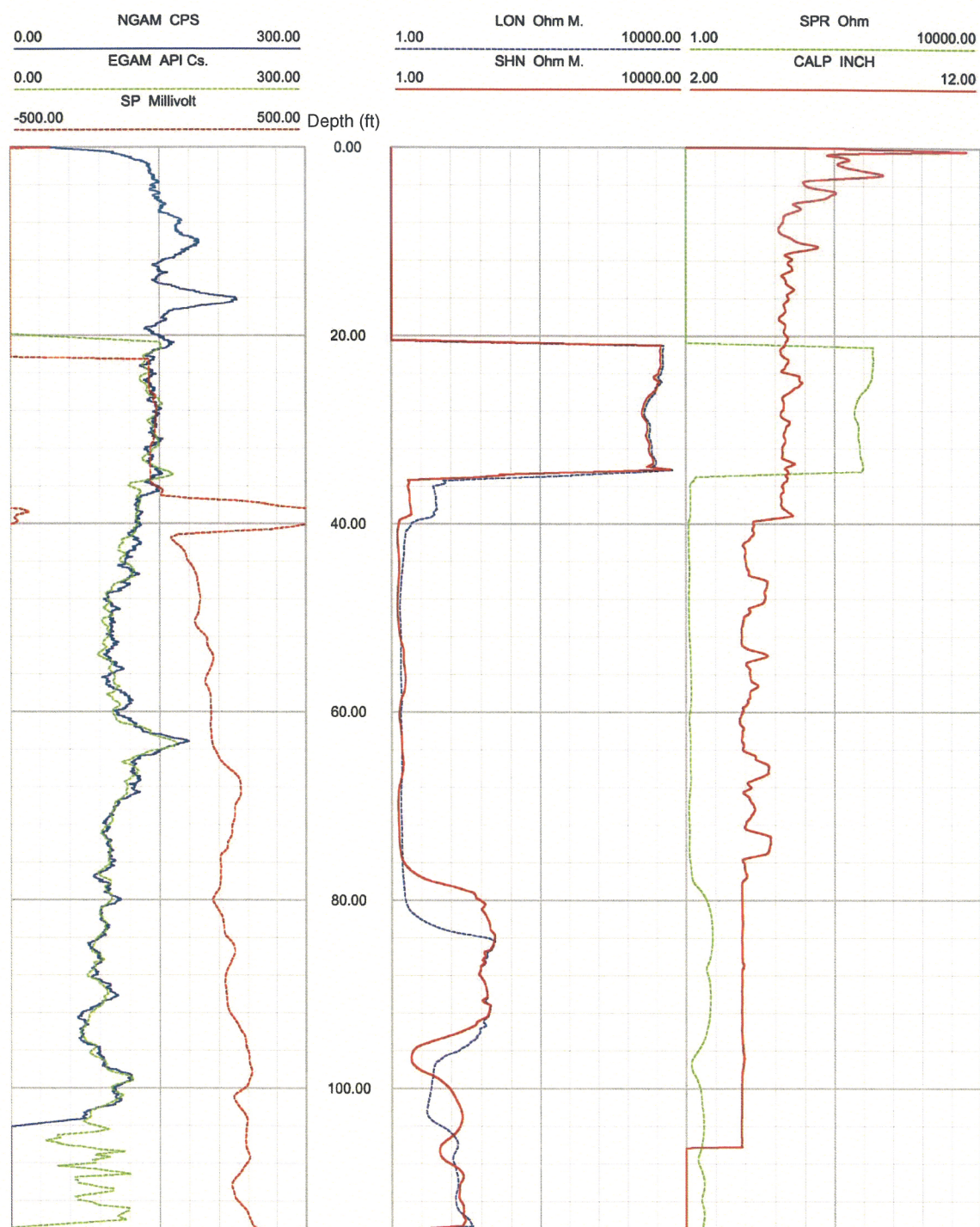


Figure 17. Boring B-909, Top Section, Caliper, Natural gamma, Resistivity and SP logs

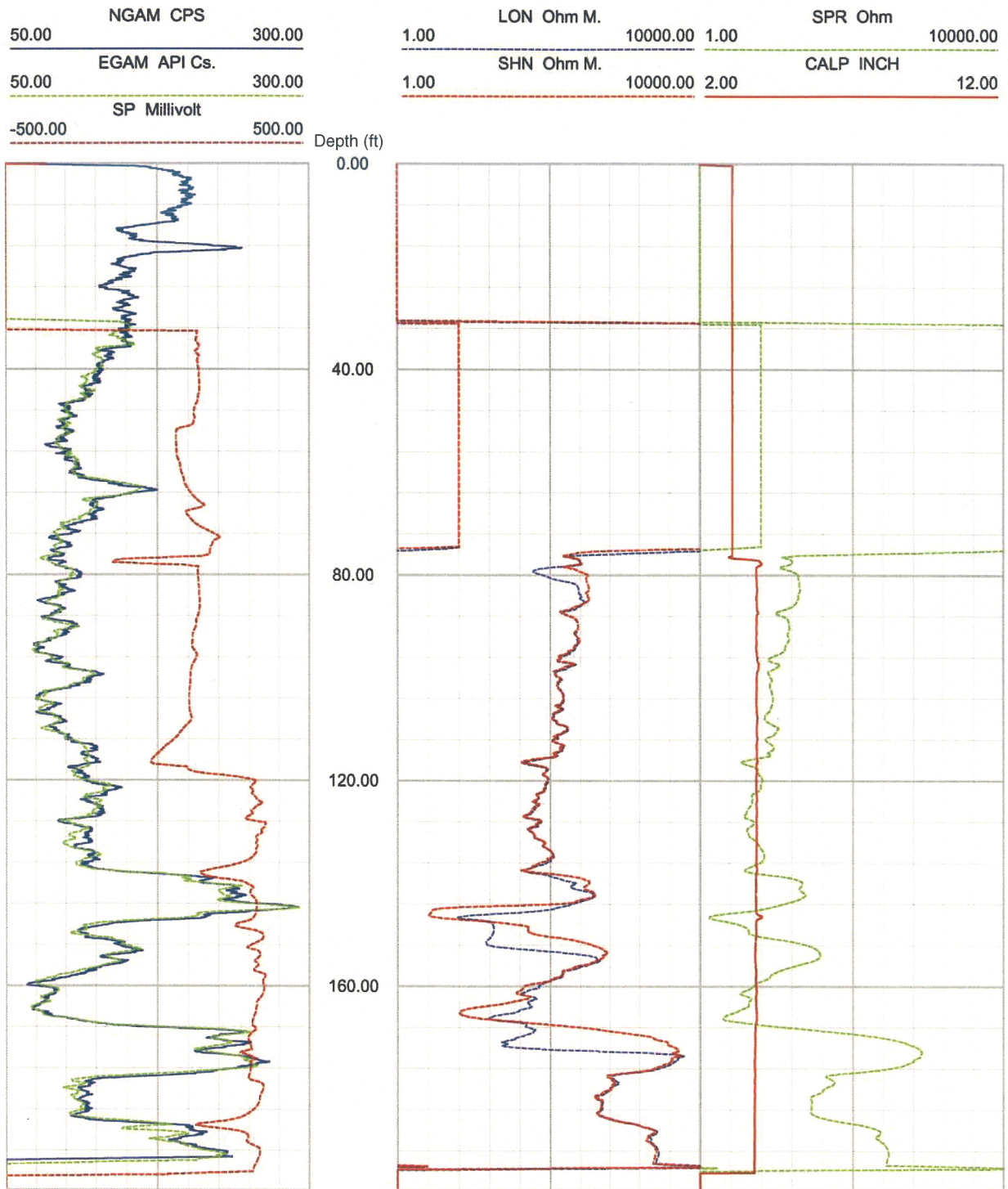


Figure 18. Boring B-909, Bottom Section, Caliper, Natural gamma, Resistivity and SP logs

Deviated borehole in orthographic projection, viewed from N45

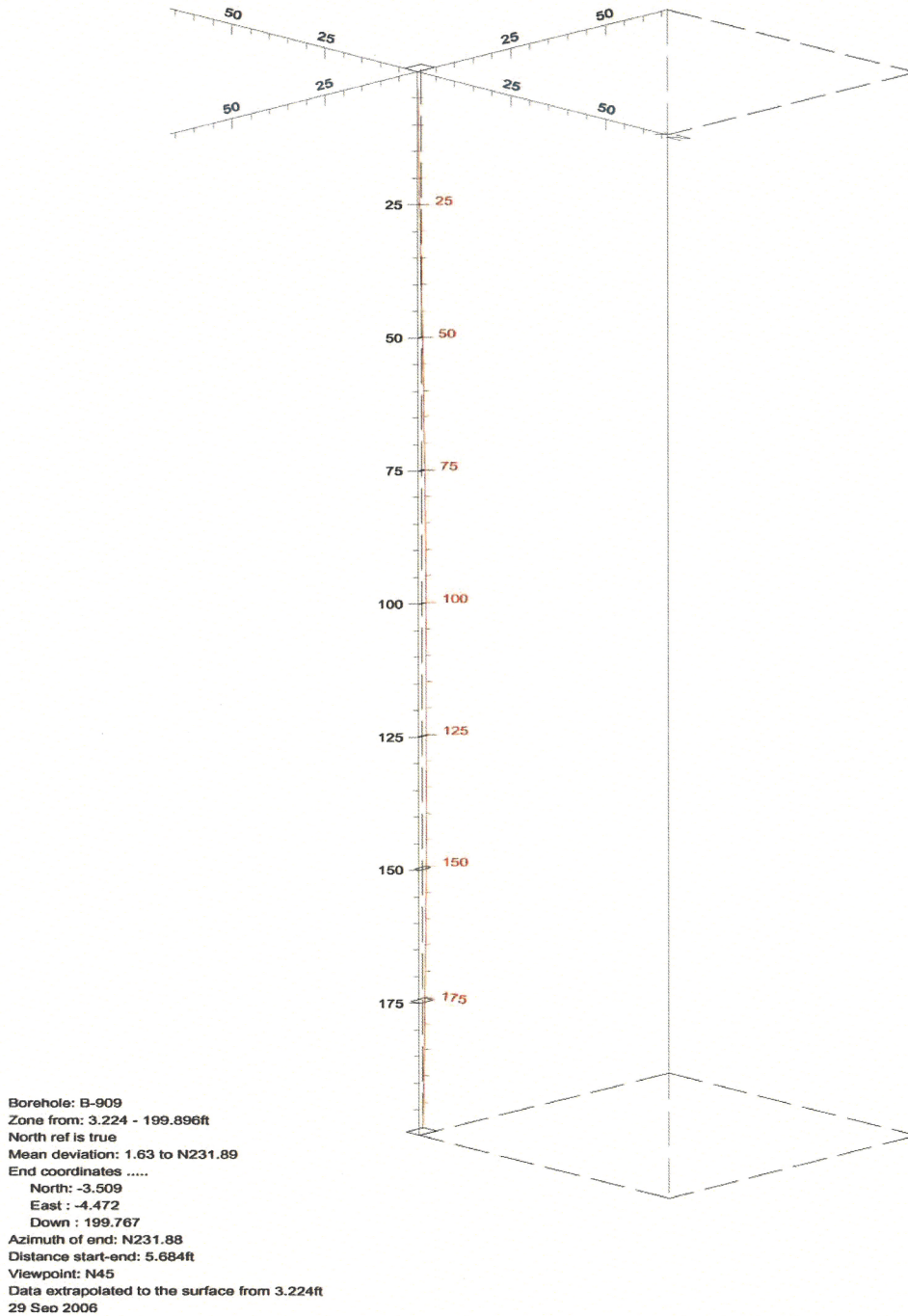


Figure 19. Boring B-909, Deviation Projection (dimensions in feet)