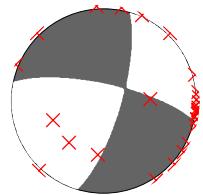


## **A. Full Inversion Results For Event on 2016-06-08**

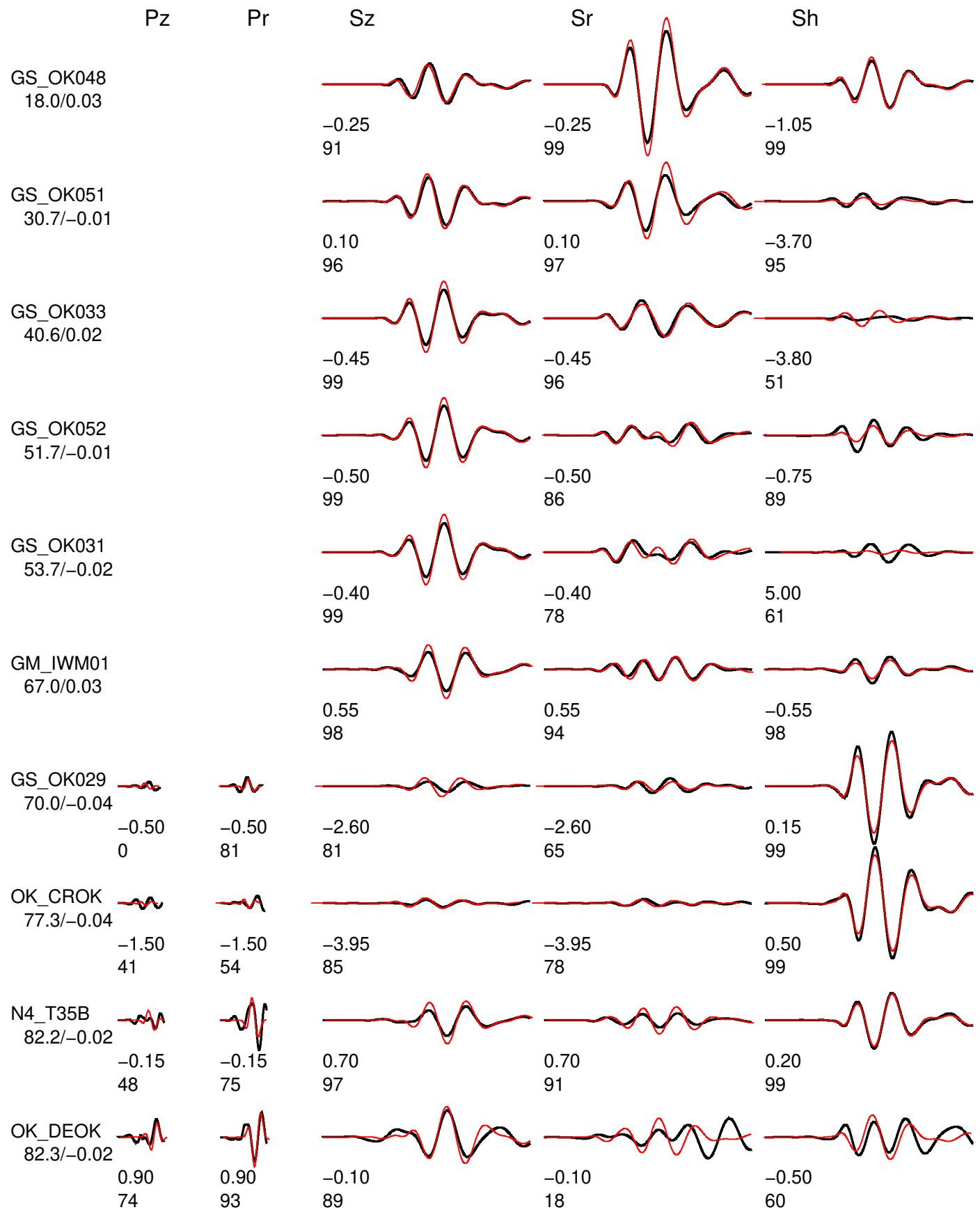
### **A.1 Inversion Result at depth of 2km**

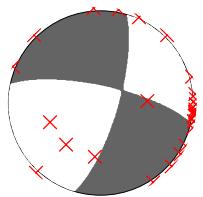


Event data Model and Depth chelsea\_2

FM 282 75 -16 Mw 3.75 rms 1.902e-05 1776 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 81.3

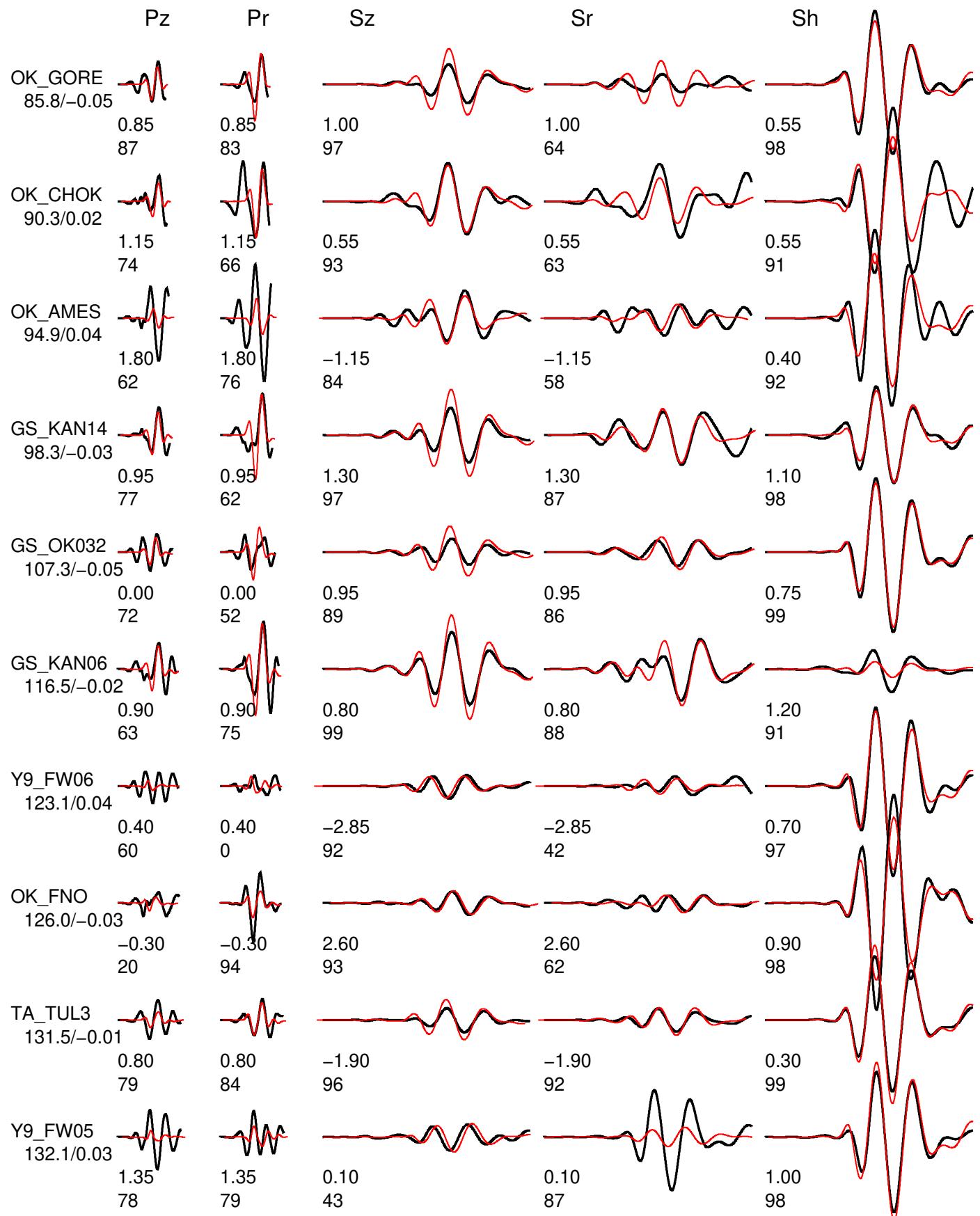


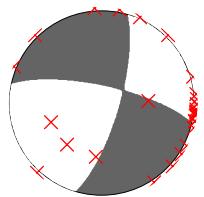


Event data Model and Depth chelsea\_2

FM 282 75 -16 Mw 3.75 rms 1.902e-05 1776 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 81.3

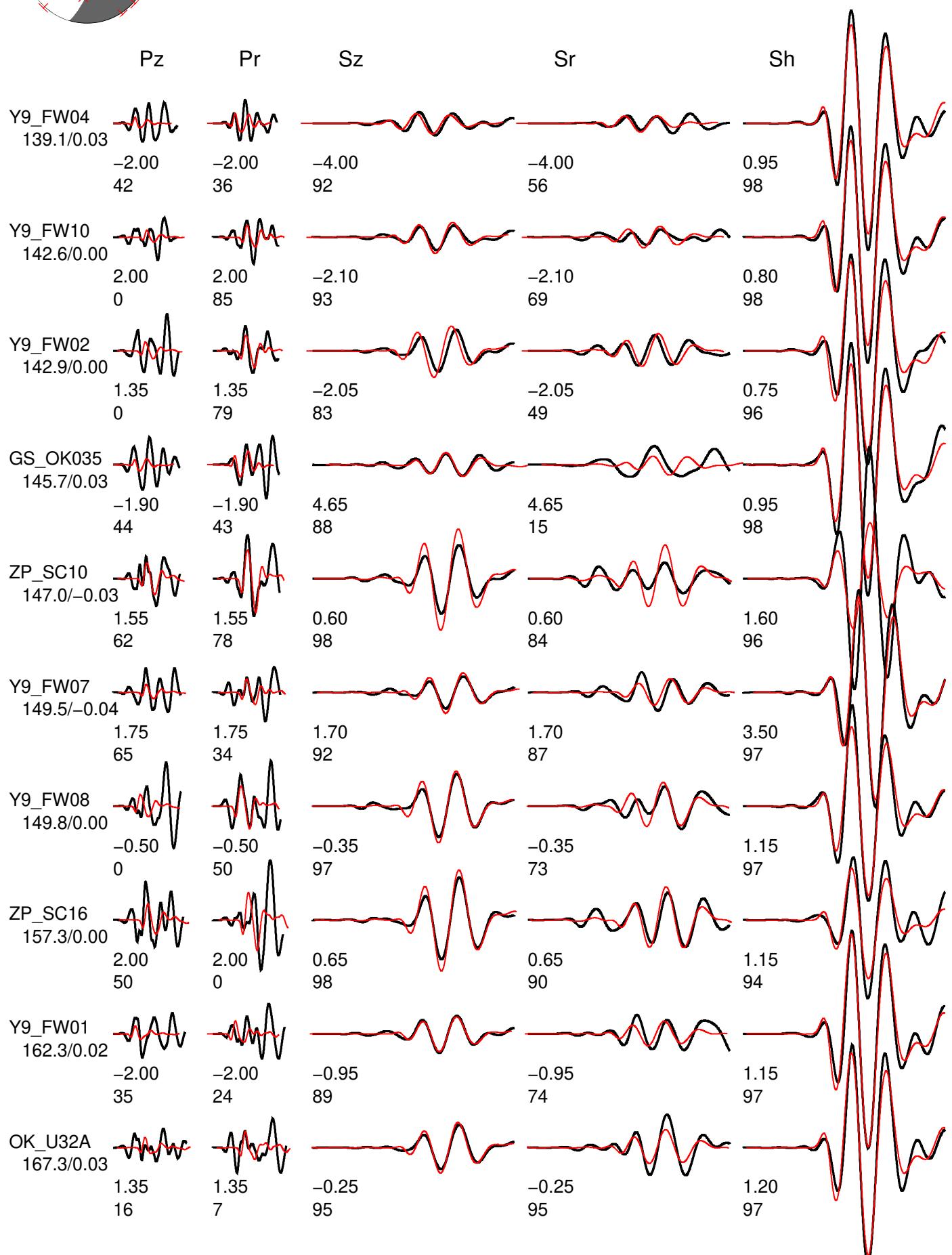


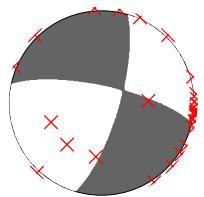


Event data Model and Depth chelsea\_2

FM 282 75 –16 Mw 3.75 rms 1.902e-05 1776 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 81.3

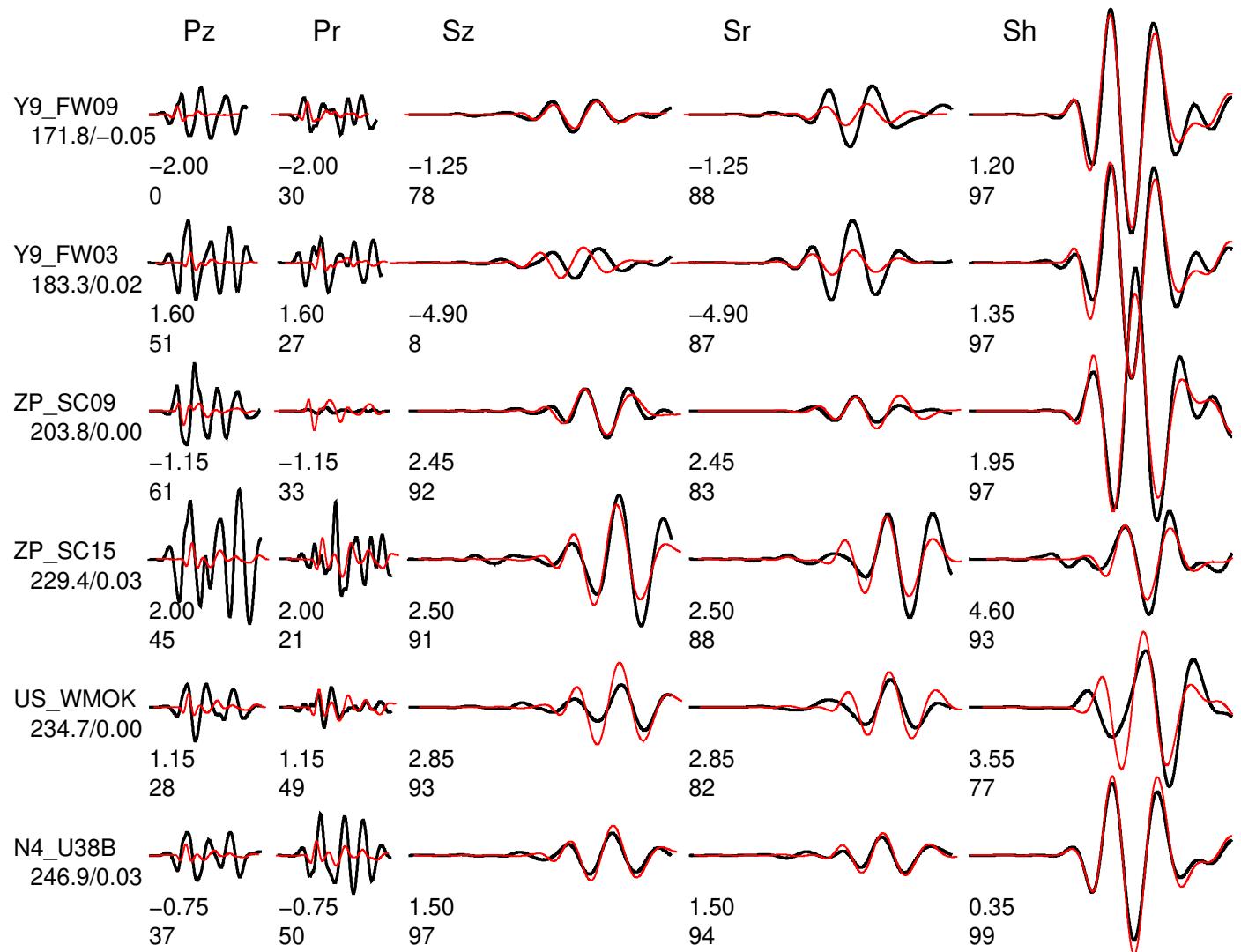




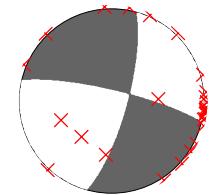
Event data Model and Depth chelsea\_2

FM 282 75 –16 Mw 3.75 rms 1.902e-05 1776 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 81.3



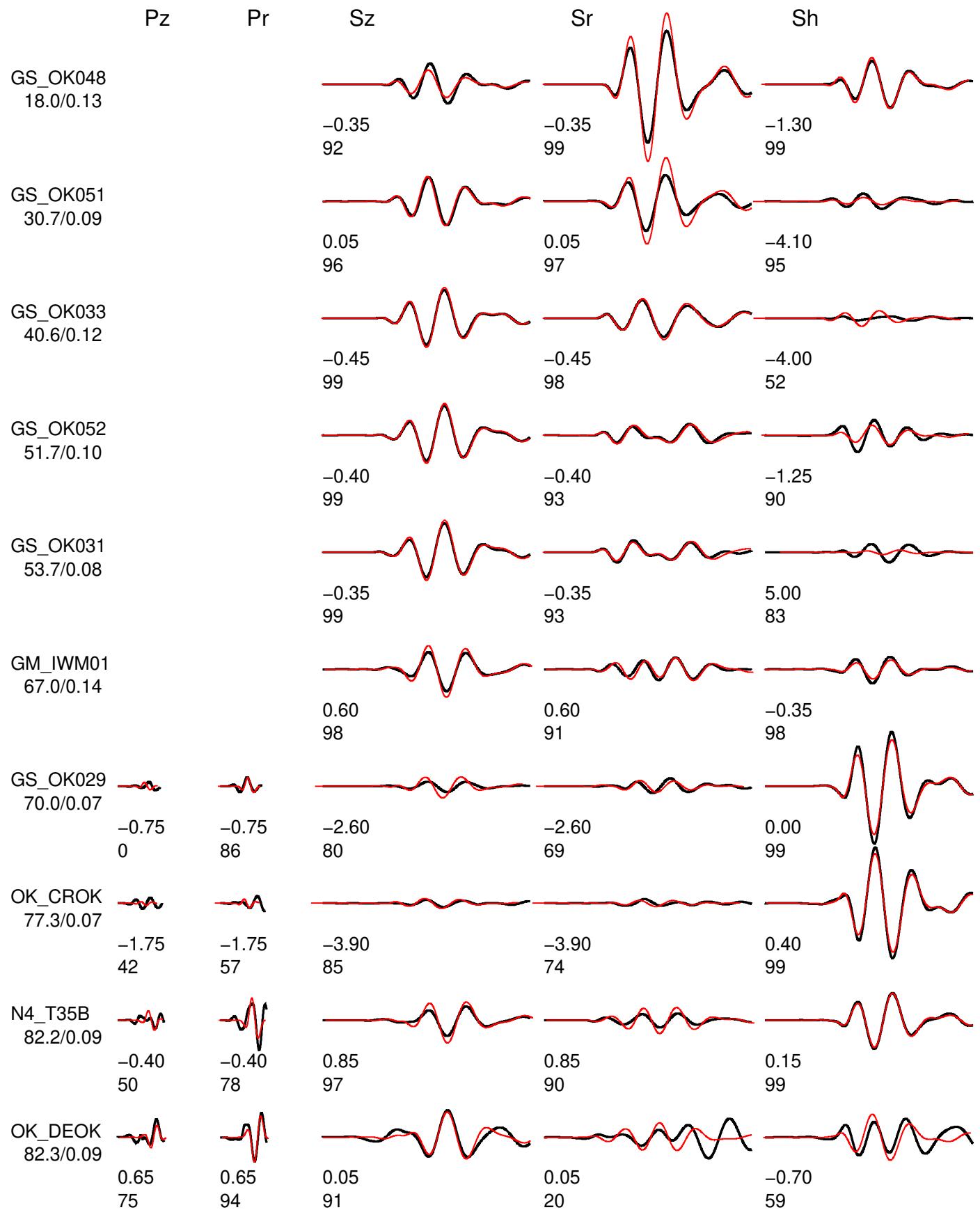
## A.2 Inversion Result at depth of 3km

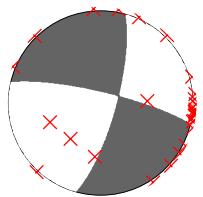


Event data Model and Depth chelsea\_3

FM 283 80 -14 Mw 3.76 rms 1.826e-05 1775 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 82.0

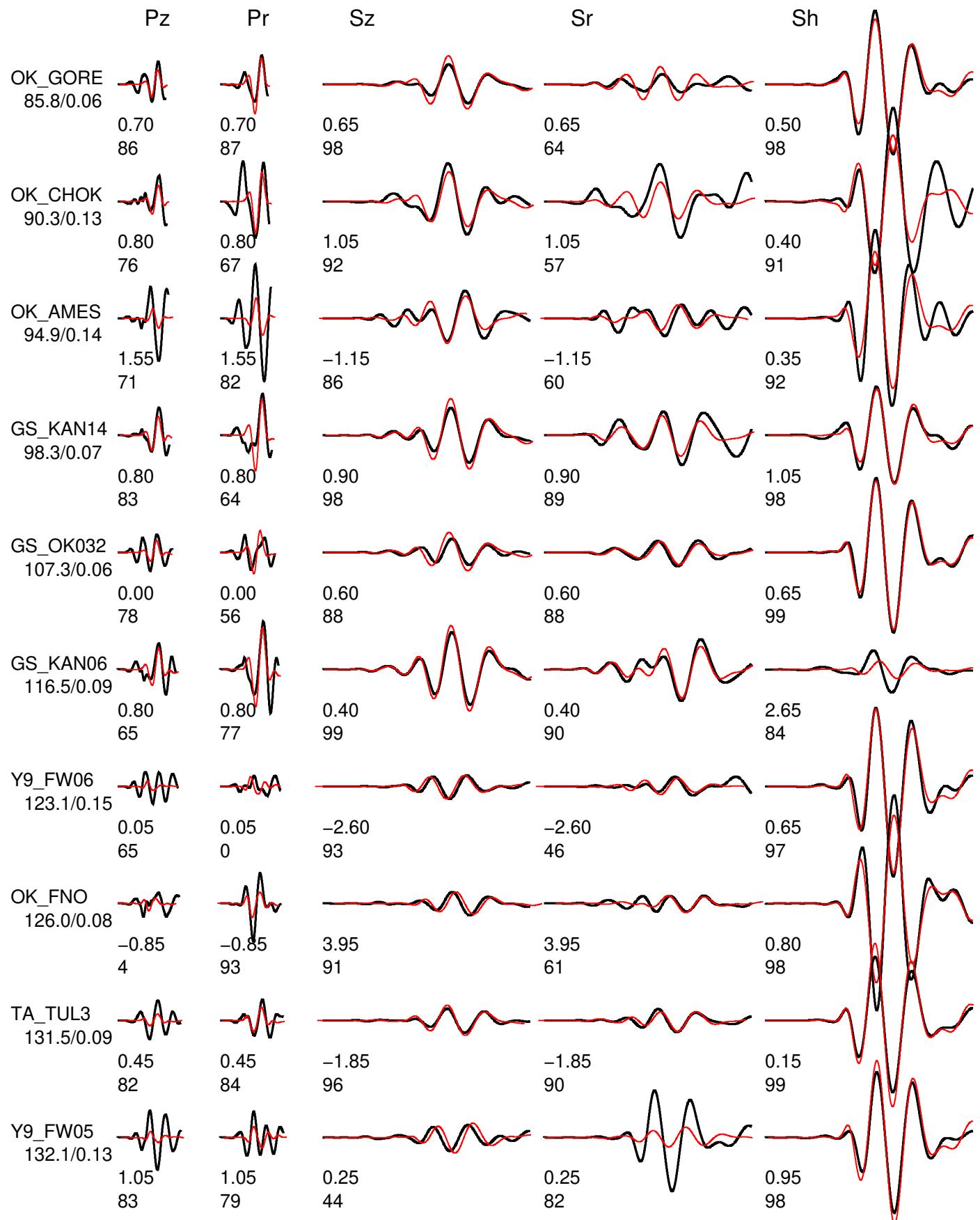


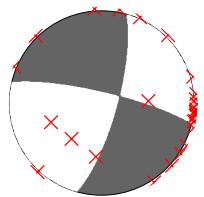


Event data Model and Depth chelsea\_3

FM 283 80 -14 Mw 3.76 rms 1.826e-05 1775 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 82.0

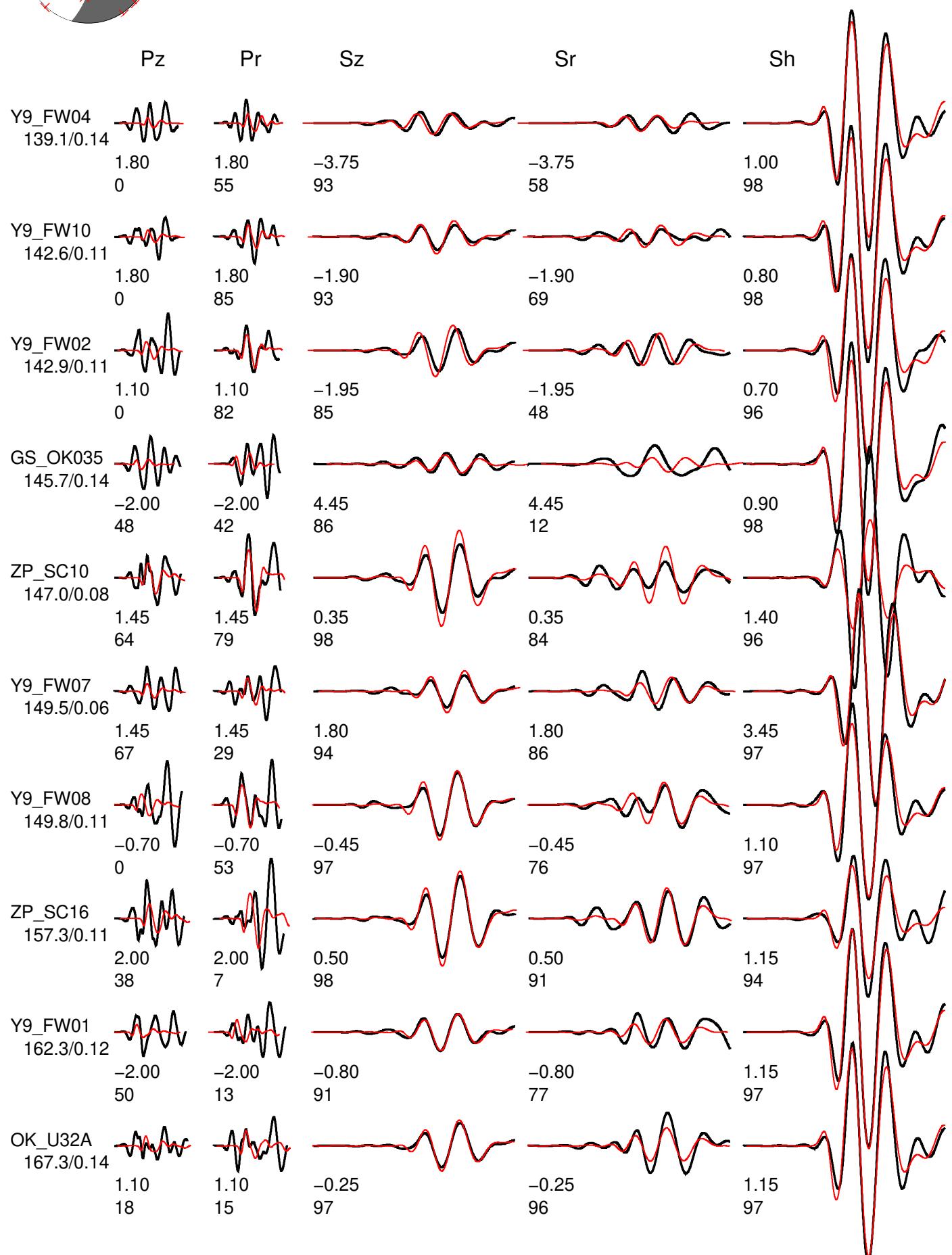


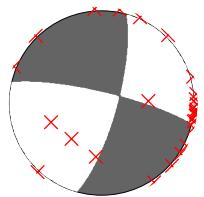


Event data Model and Depth chelsea\_3

FM 283 80 -14 Mw 3.76 rms 1.826e-05 1775 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 82.0

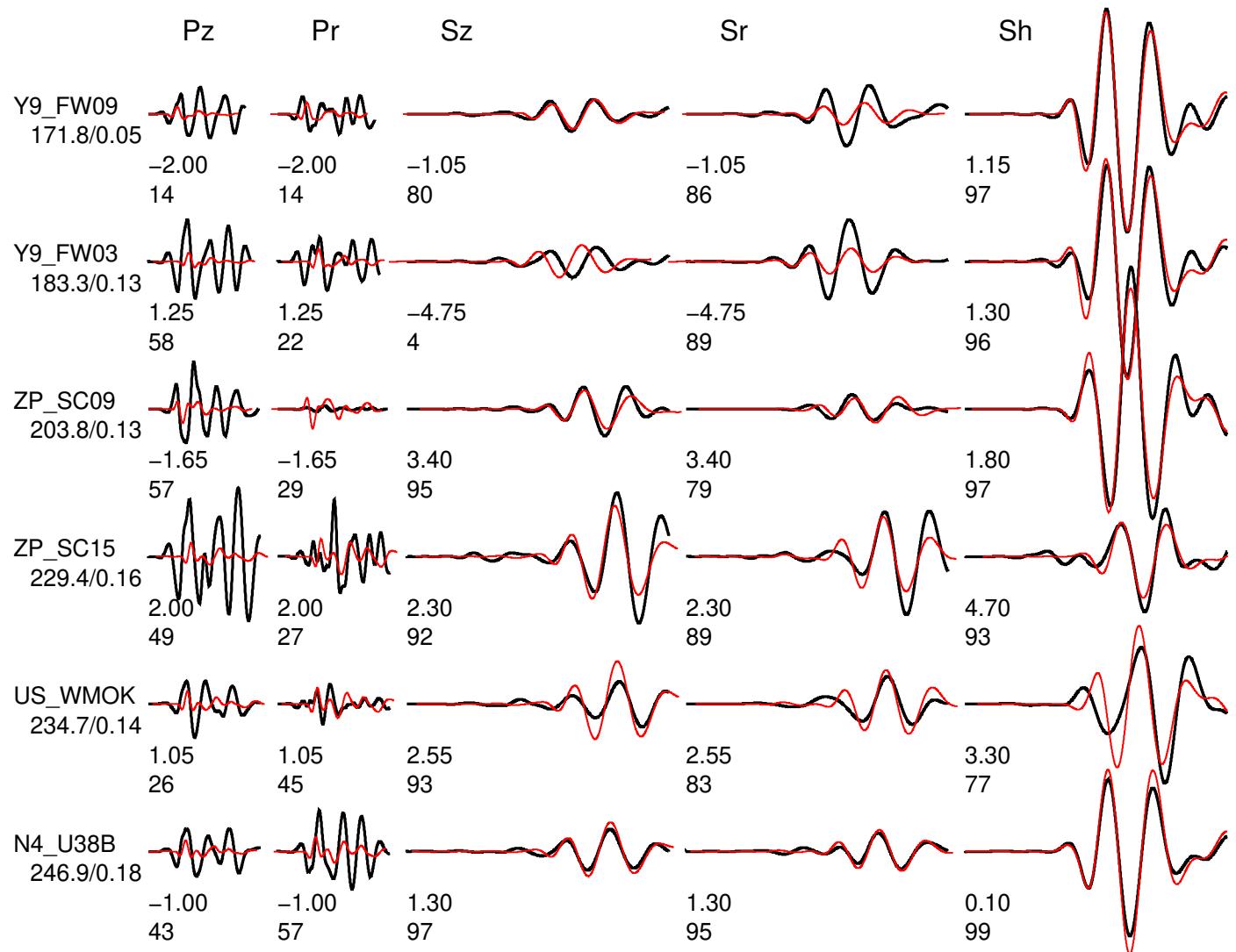




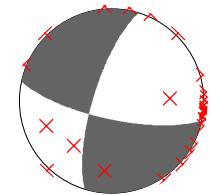
Event data Model and Depth chelsea\_3

FM 283 80 –14 Mw 3.76 rms 1.826e–05 1775 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 82.0



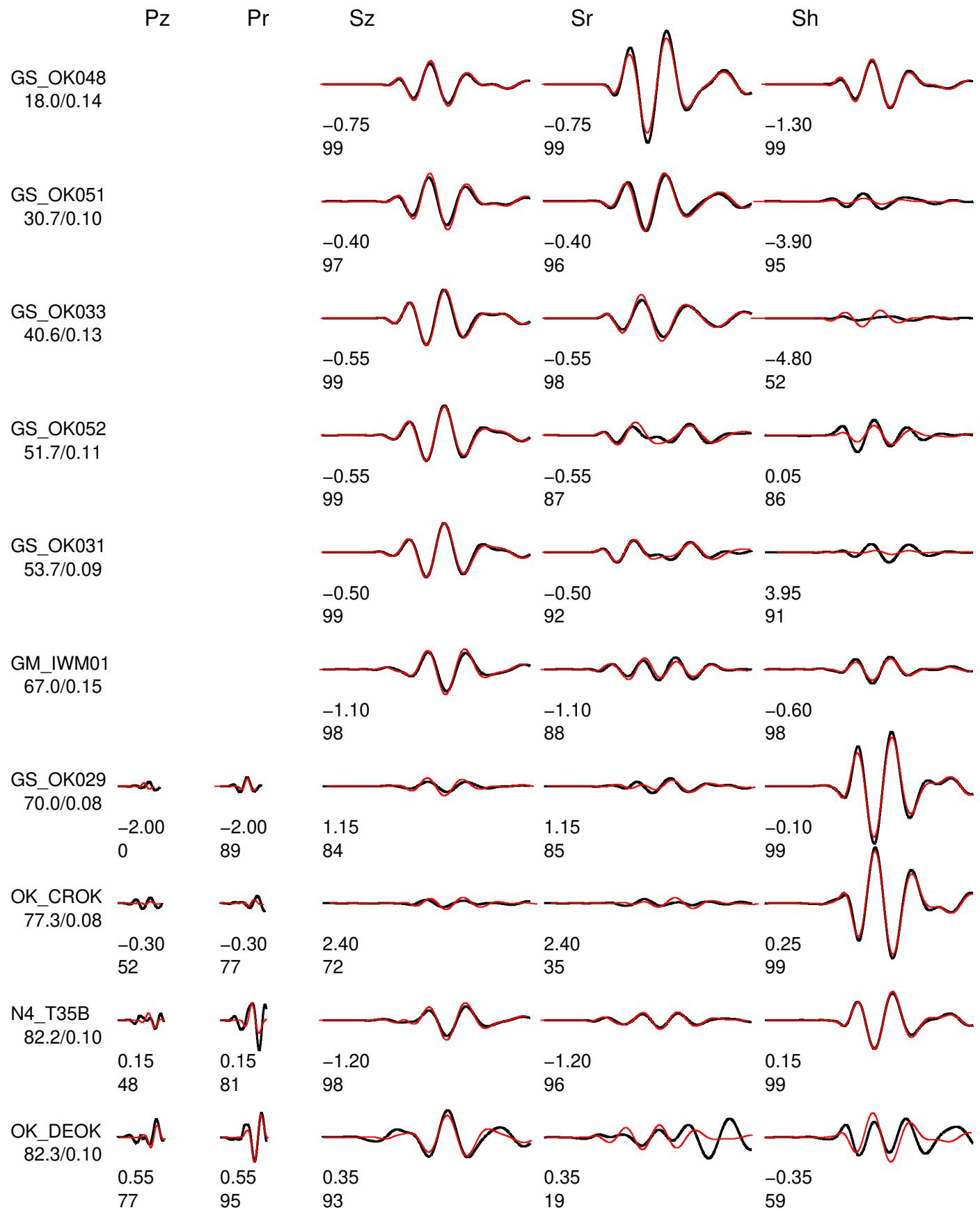
### A.3 Inversion Result at depth of 4km

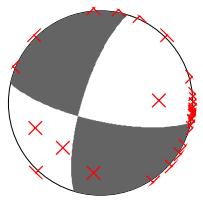


Event data Model and Depth chelsea\_4

FM 102 74 -17 Mw 3.79 rms 1.797e-05 1775 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 82.3

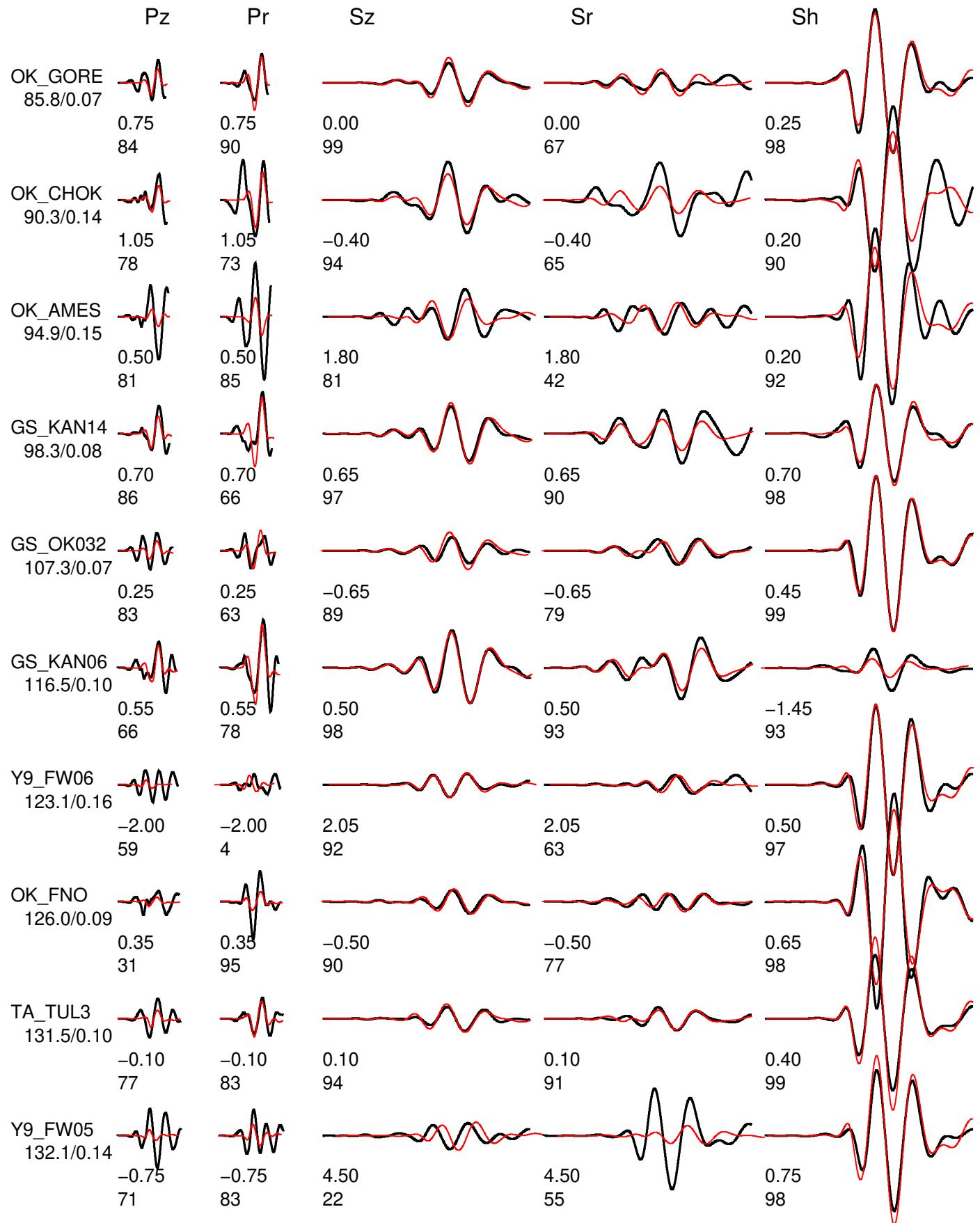


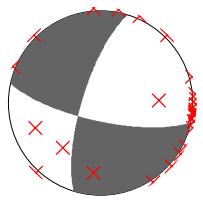


Event data Model and Depth chelsea\_4

FM 102 74 -17 Mw 3.79 rms 1.797e-05 1775 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 82.3

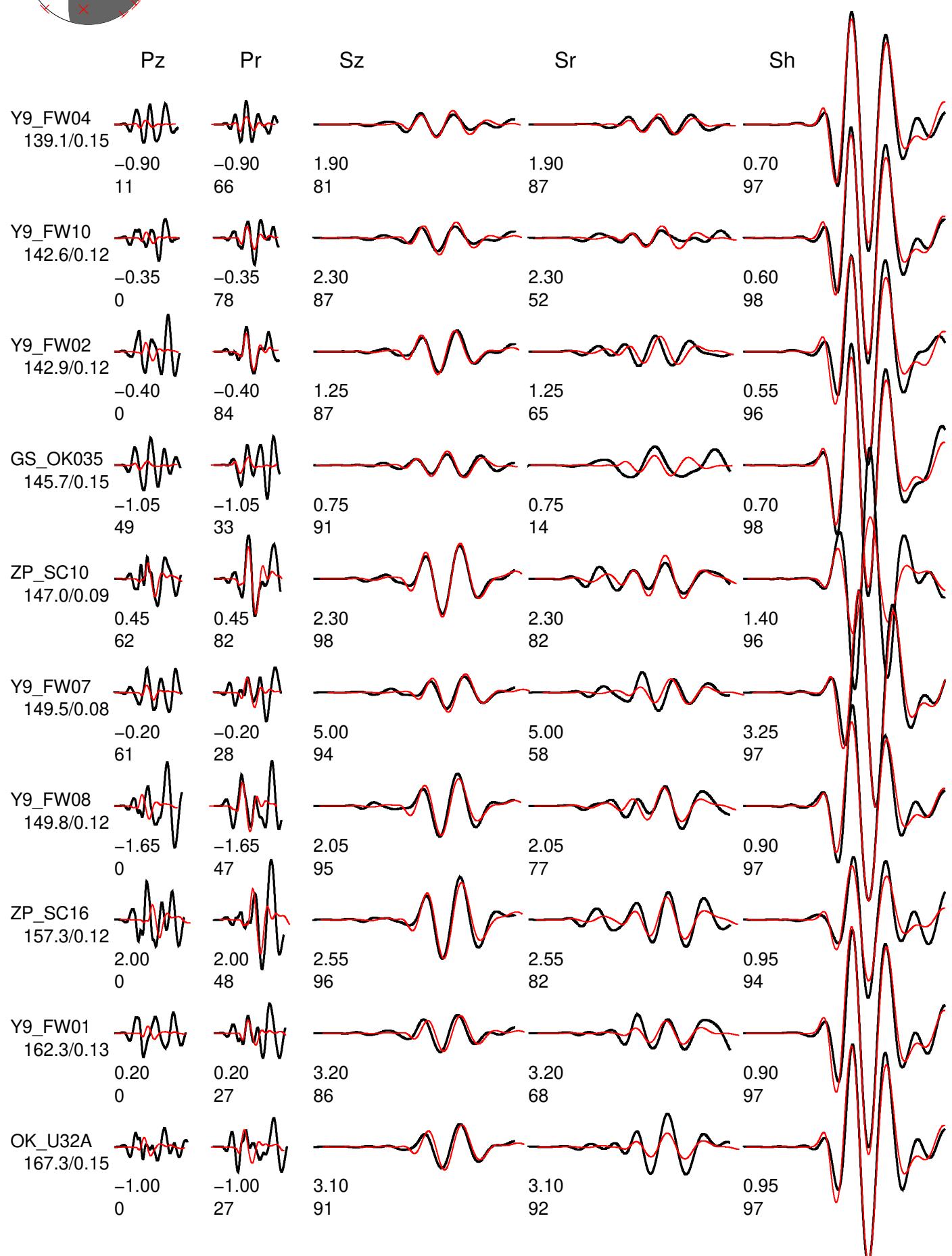


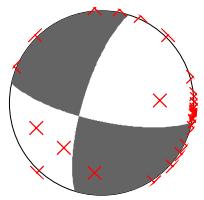


Event data Model and Depth chelsea\_4

FM 102 74 -17 Mw 3.79 rms 1.797e-05 1775 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 82.3

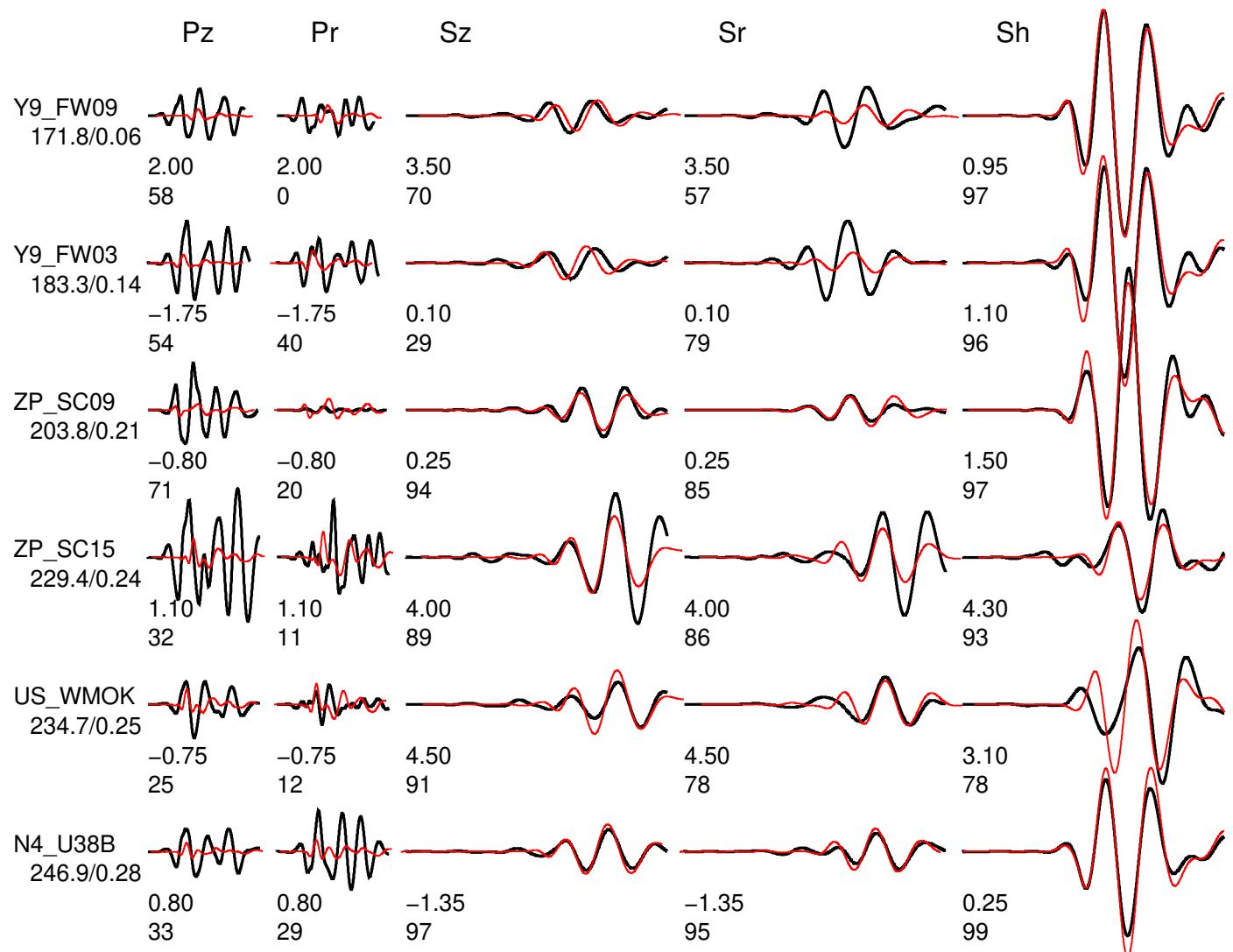




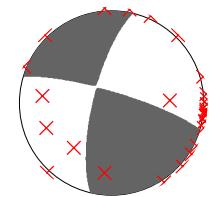
Event data Model and Depth chelsea\_4

FM 102 74 -17 Mw 3.79 rms 1.797e-05 1775 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 82.3



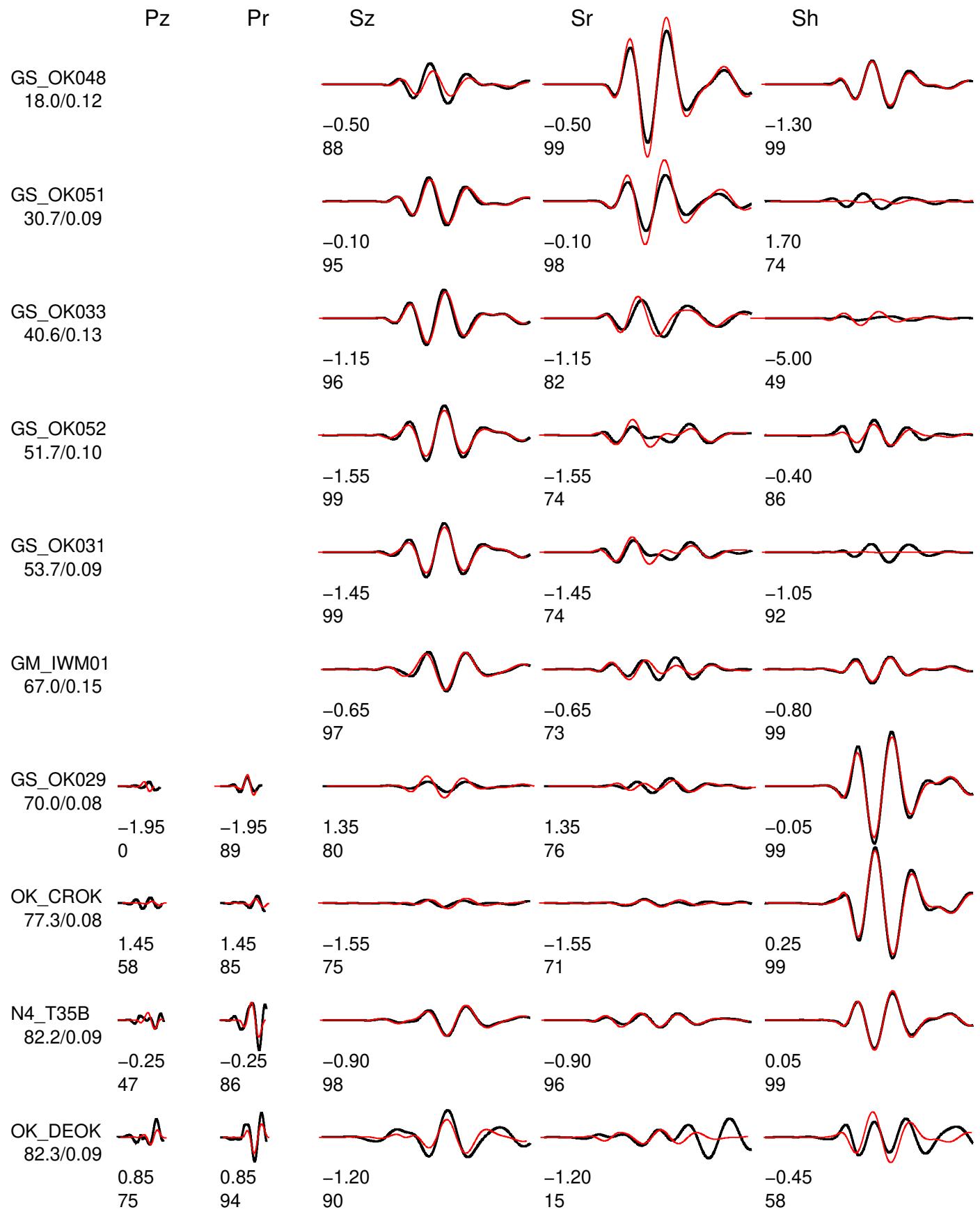
#### A.4 Inversion Result at depth of 5km

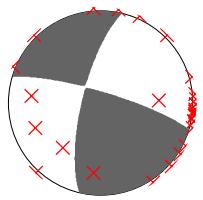


Event data Model and Depth chelsea\_5

FM 287 80 17 Mw 3.79 rms 1.872e-05 1775 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 81.6

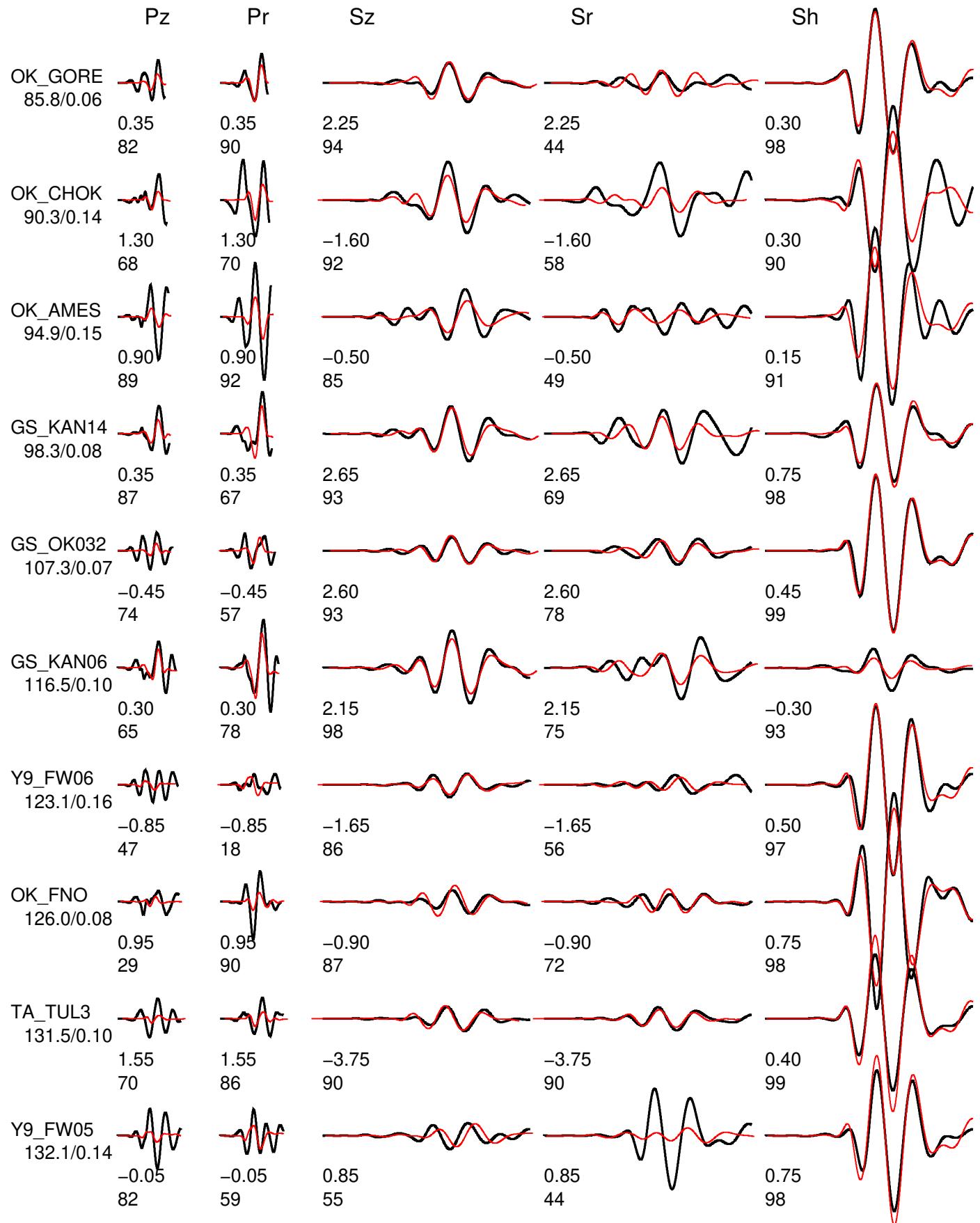


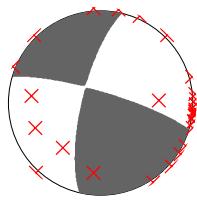


Event data Model and Depth chelsea\_5

FM 287 80 17 Mw 3.79 rms 1.872e-05 1775 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 81.6

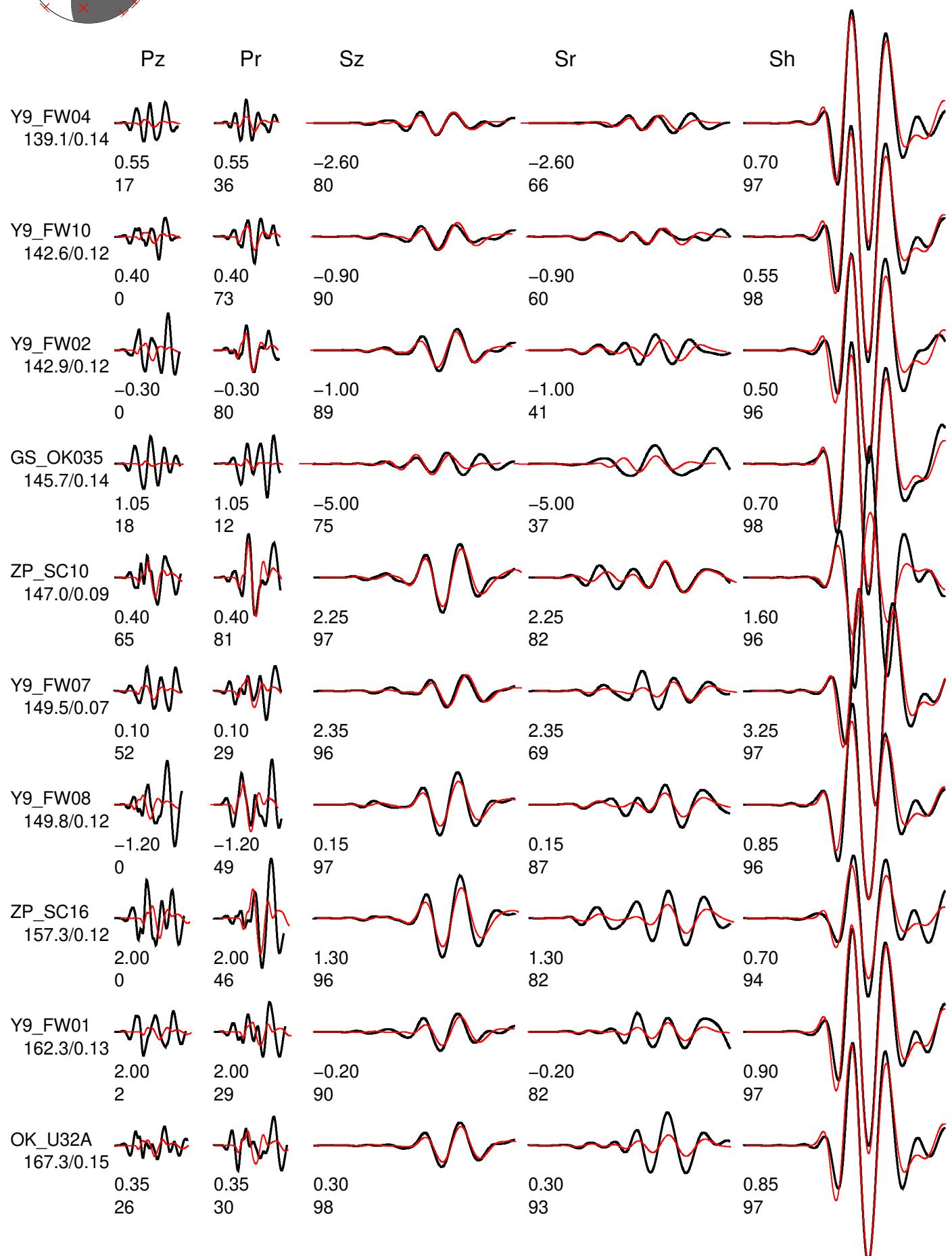


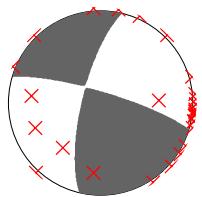


Event data Model and Depth chelsea\_5

FM 287 80 17 Mw 3.79 rms 1.872e-05 1775 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 81.6

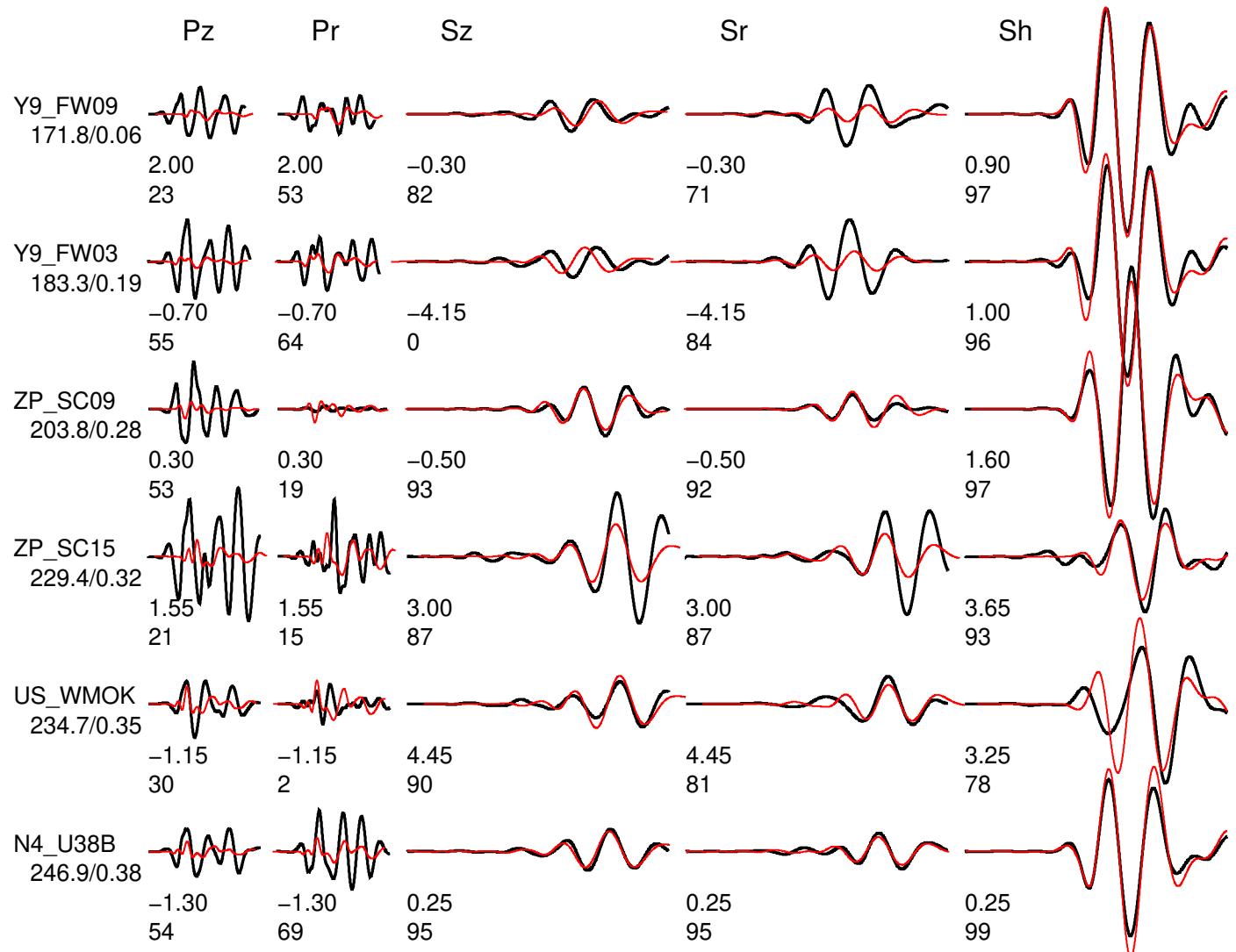




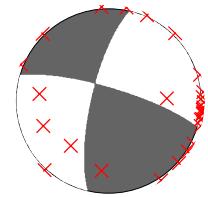
Event data Model and Depth chelsea\_5

FM 287 80 17 Mw 3.79 rms 1.872e-05 1775 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 81.6



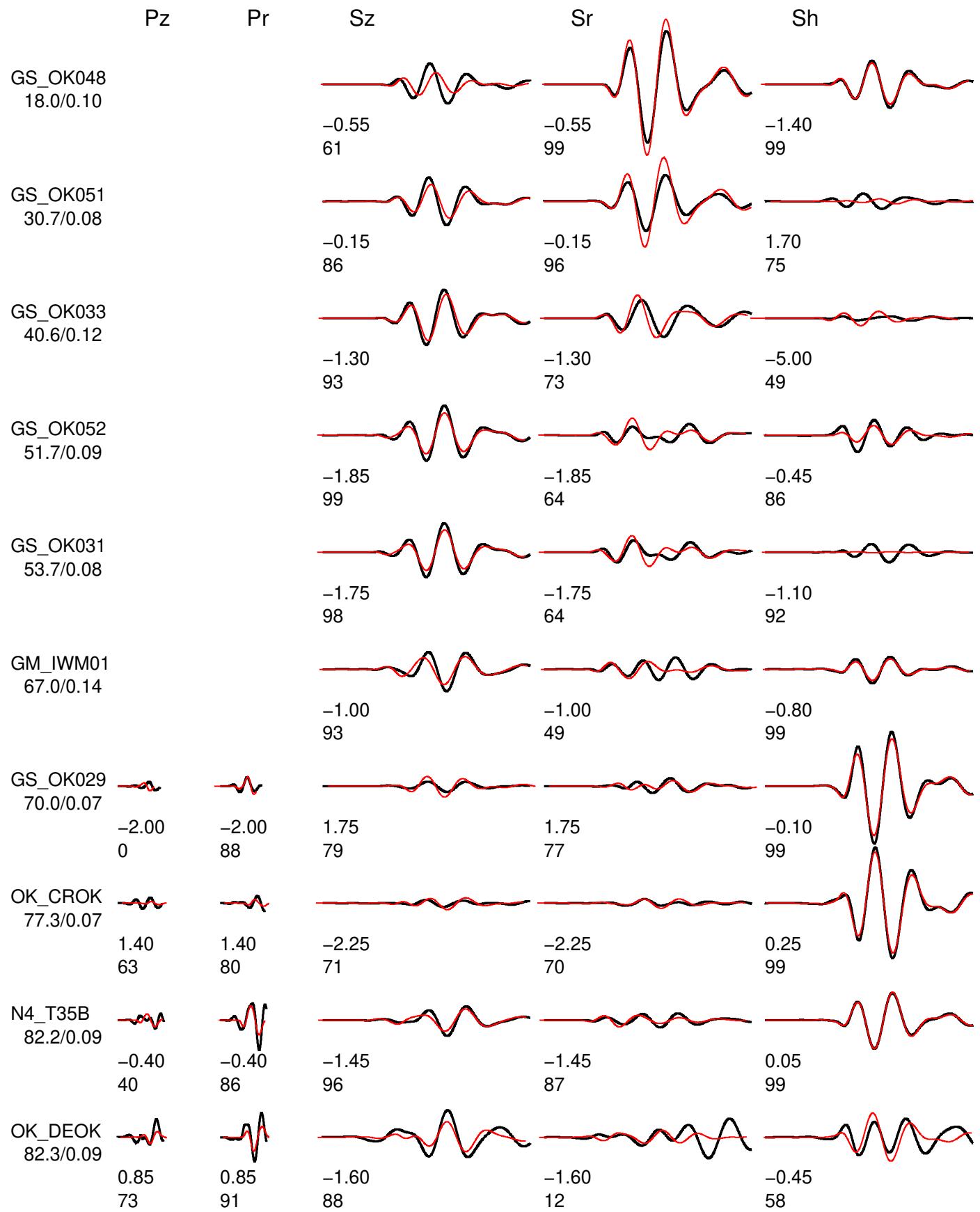
## A.5 Inversion Result at depth of 6km

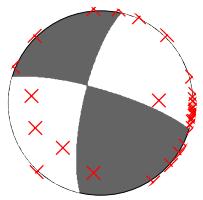


Event data Model and Depth chelsea\_6

FM 286 78 16 Mw 3.79 rms 2.056e-05 1775 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 79.8

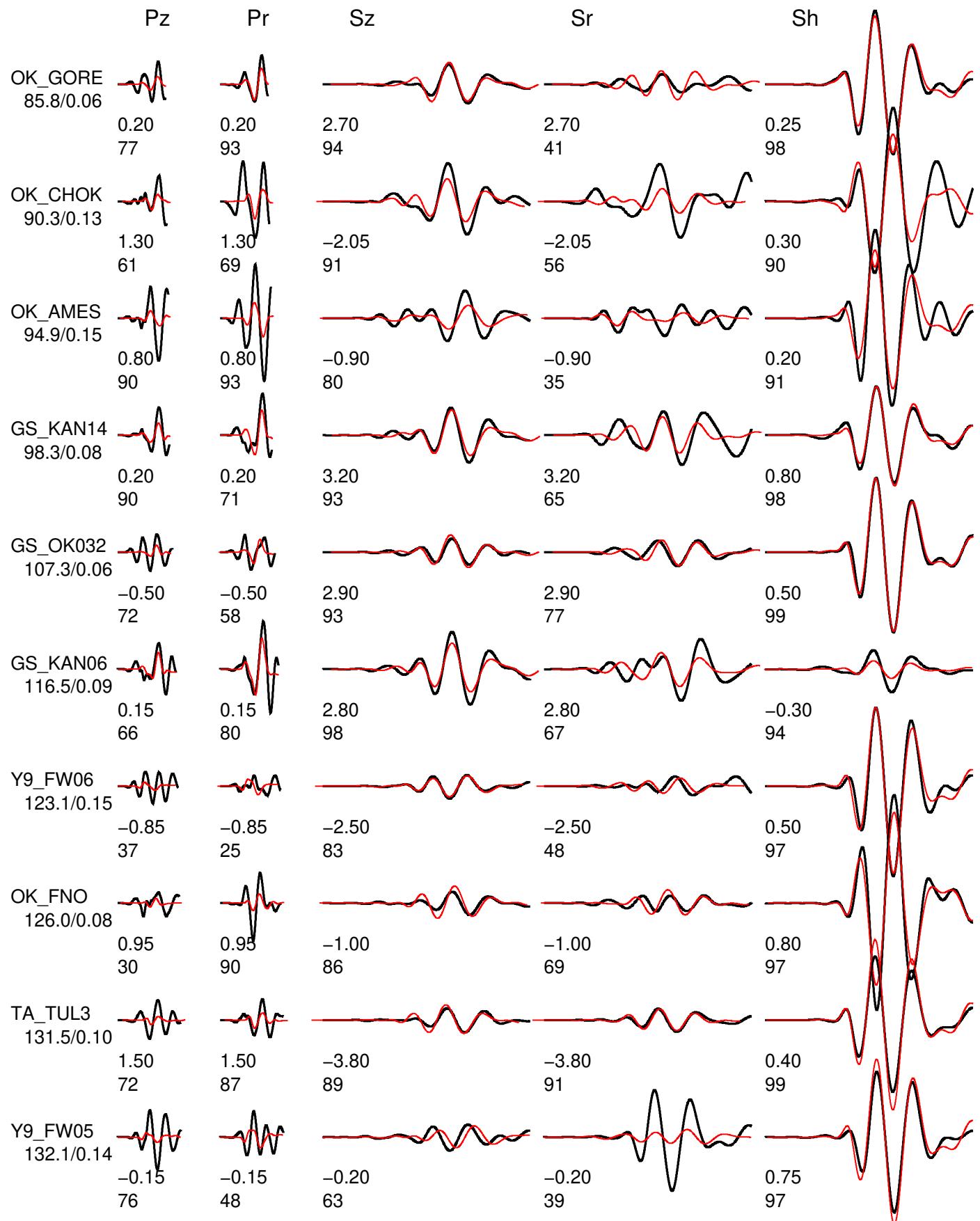


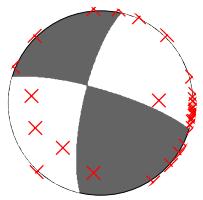


Event data Model and Depth chelsea\_6

FM 286 78 16 Mw 3.79 rms 2.056e-05 1775 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 79.8

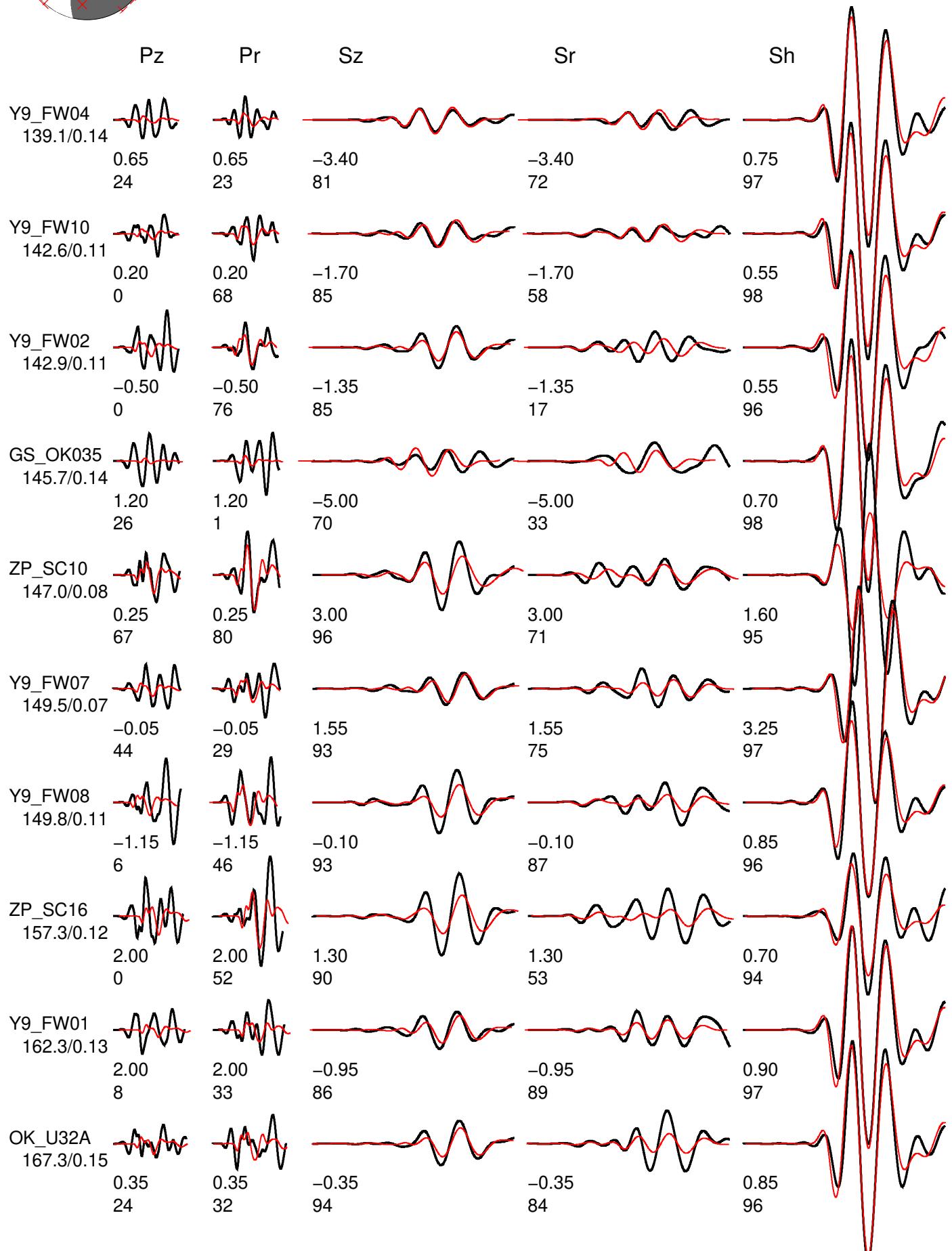


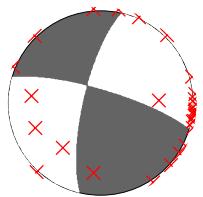


Event data Model and Depth chelsea\_6

FM 286 78 16 Mw 3.79 rms 2.056e-05 1775 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 79.8

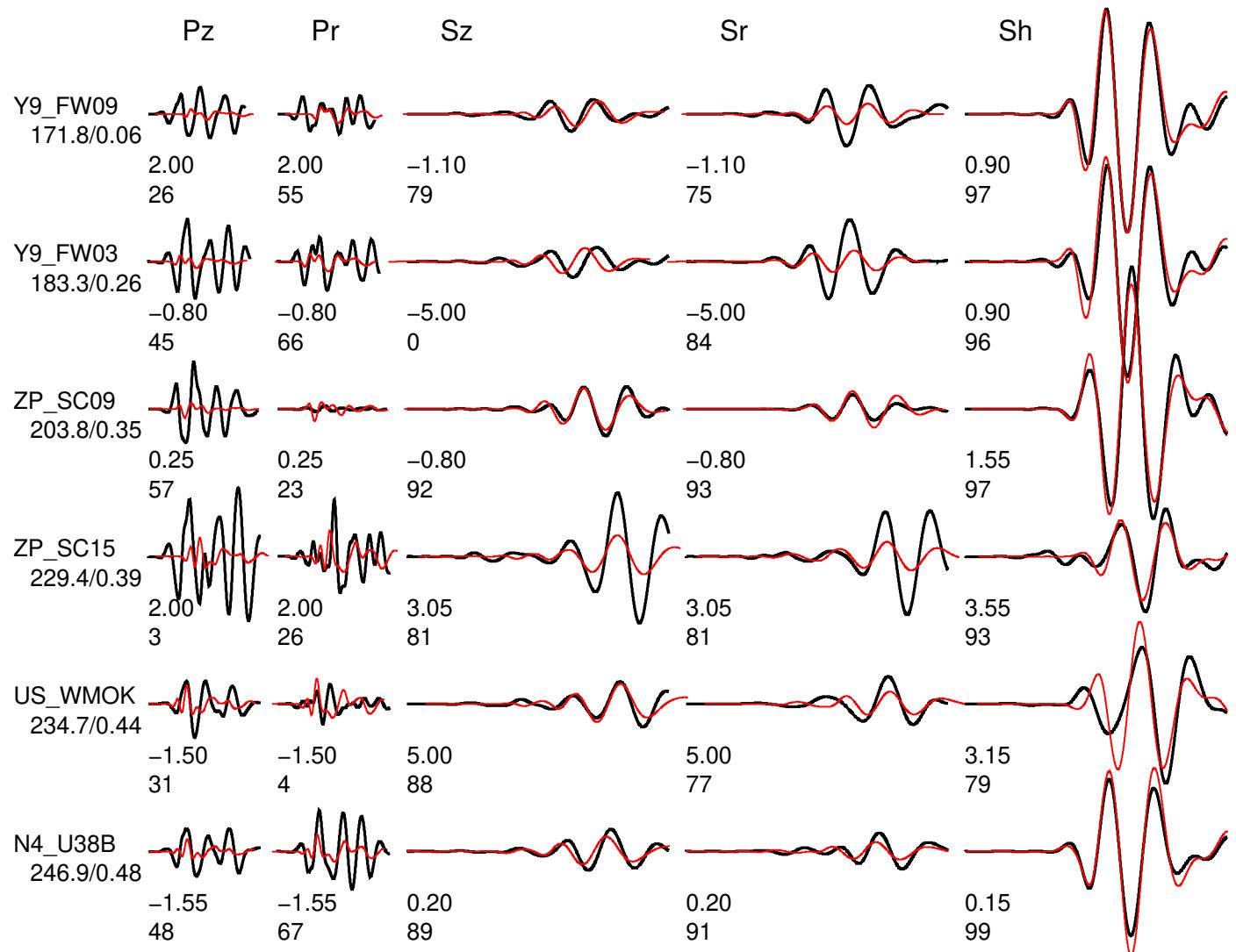




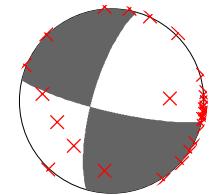
Event data Model and Depth chelsea\_6

FM 286 78 16 Mw 3.79 rms 2.056e-05 1775 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 79.8



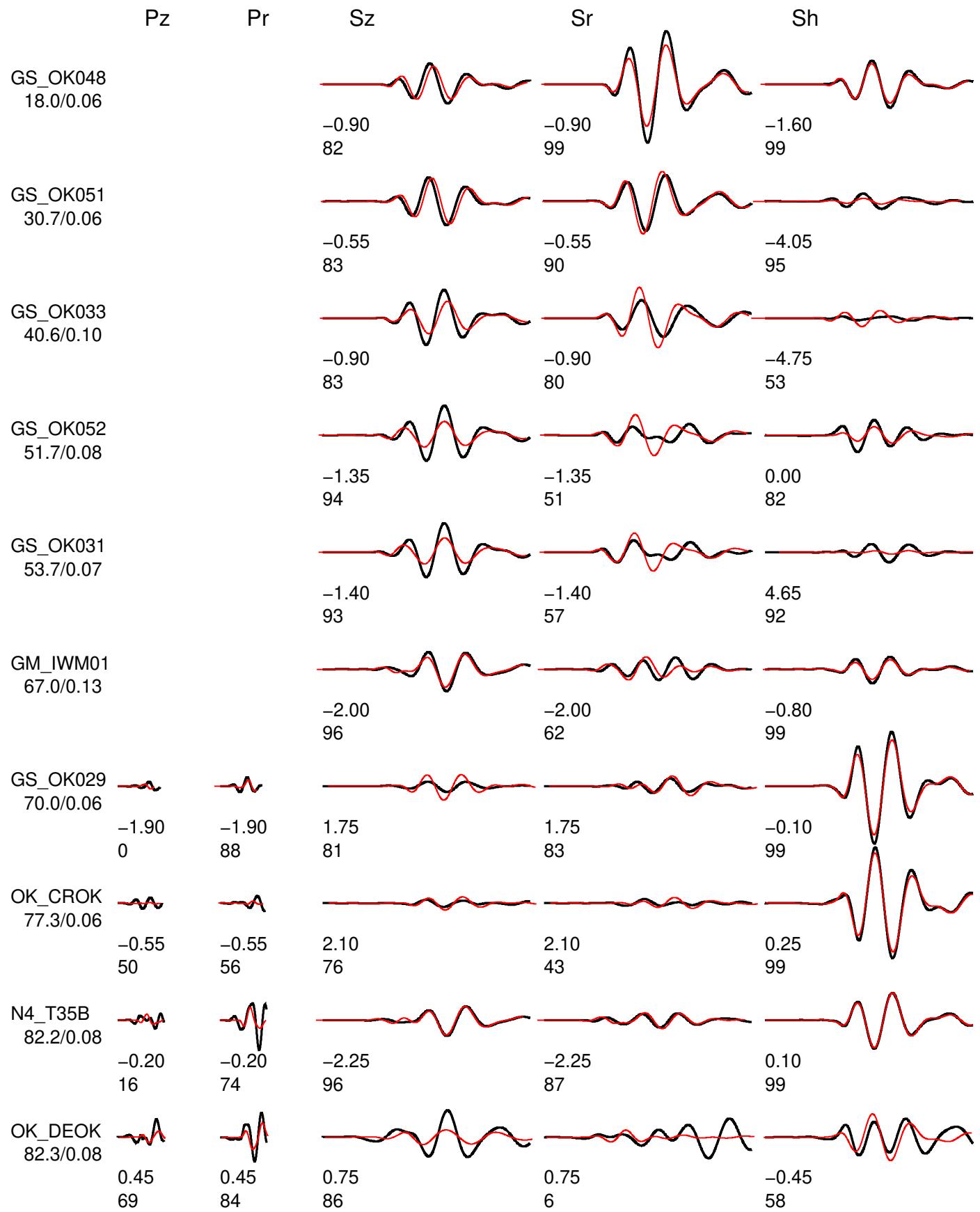
## A.6 Inversion Result at depth of 7km

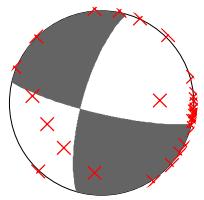


Event data Model and Depth chelsea\_7

FM 103 80 -17 Mw 3.79 rms 2.305e-05 1775 ERR 1 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 77.3

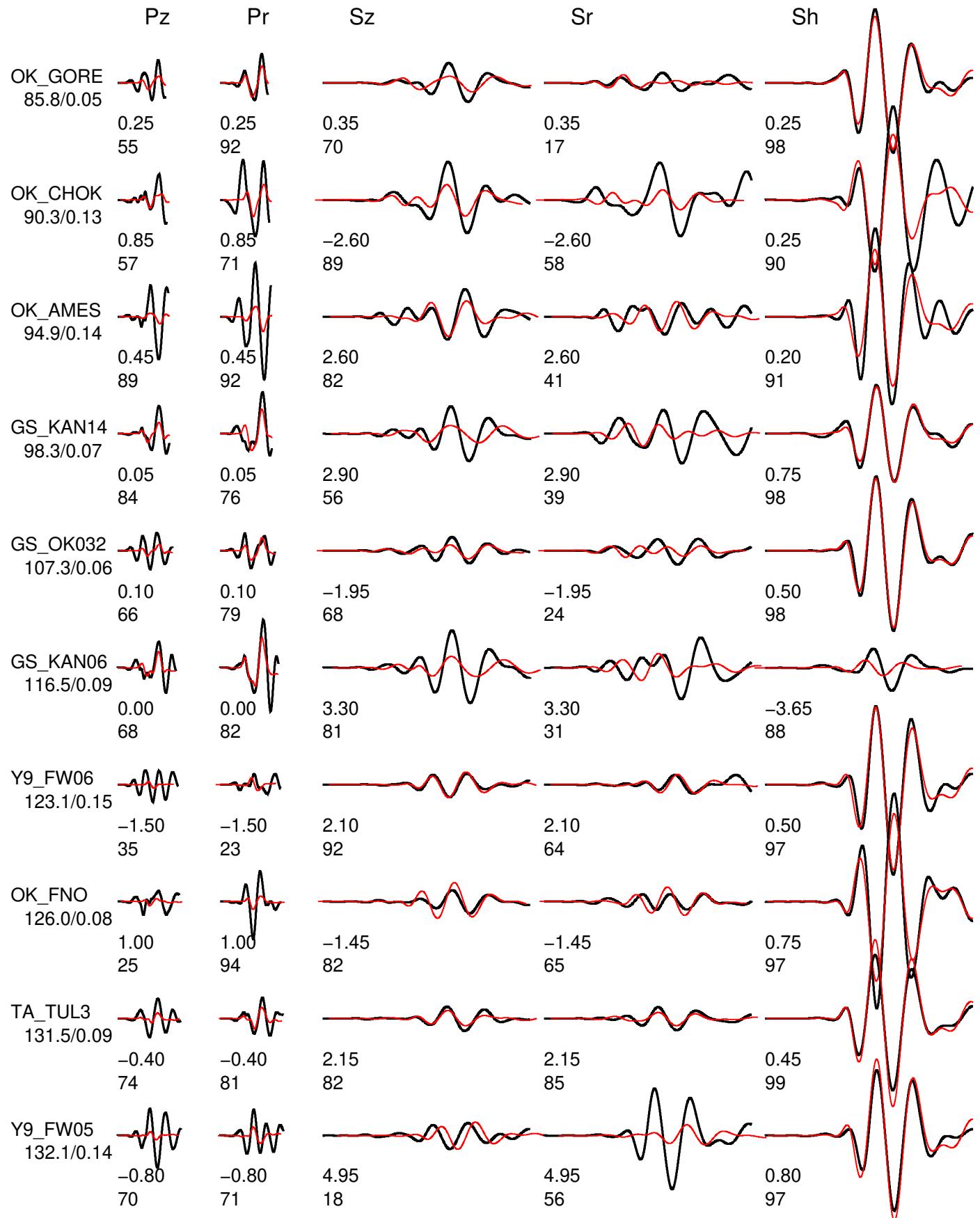


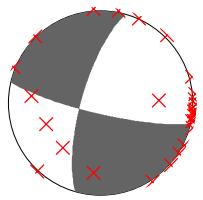


Event data Model and Depth chelsea\_7

FM 103 80 -17 Mw 3.79 rms 2.305e-05 1775 ERR 1 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 77.3

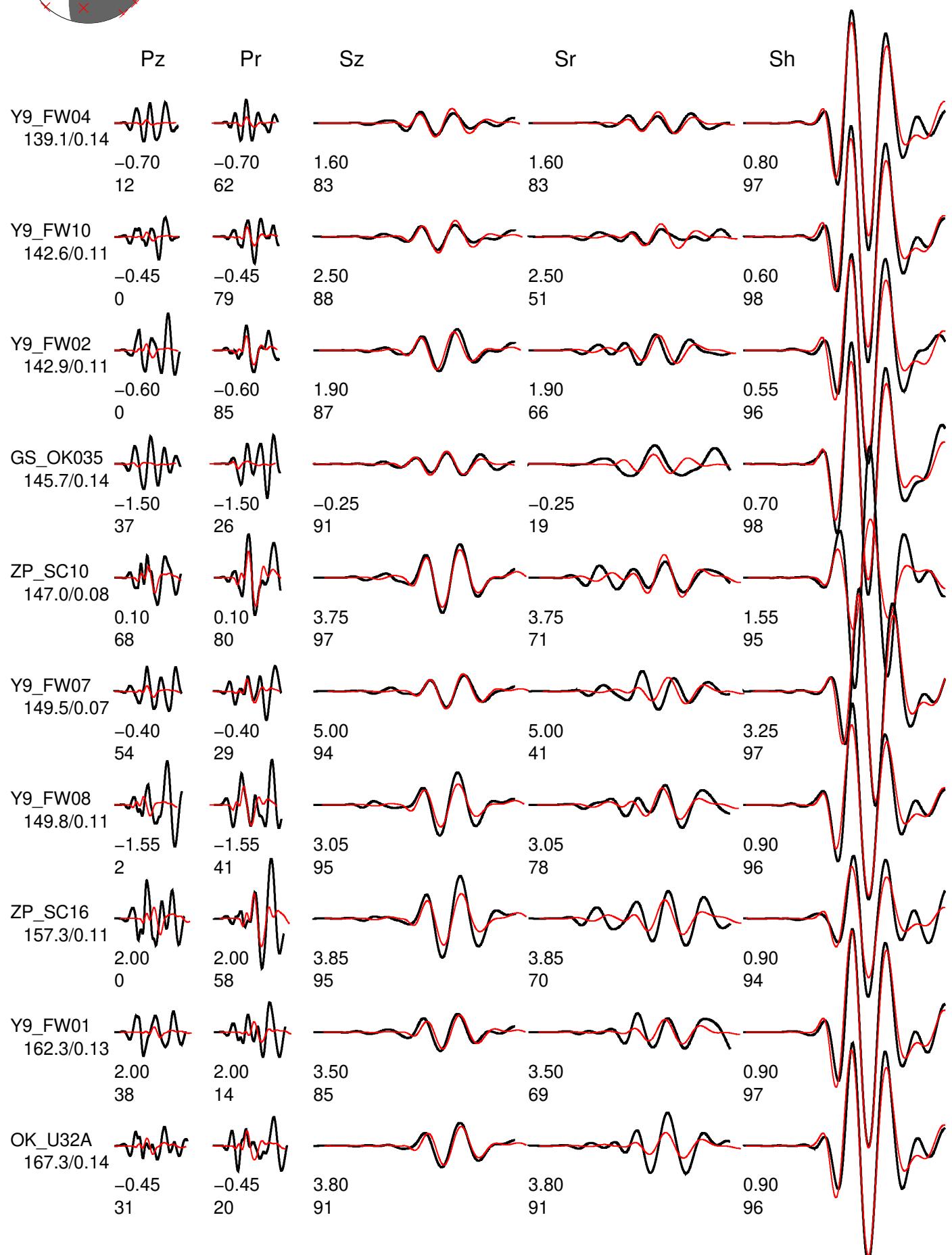


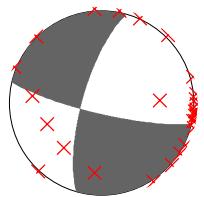


Event data Model and Depth chelsea\_7

FM 103 80 -17 Mw 3.79 rms 2.305e-05 1775 ERR 1 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 77.3

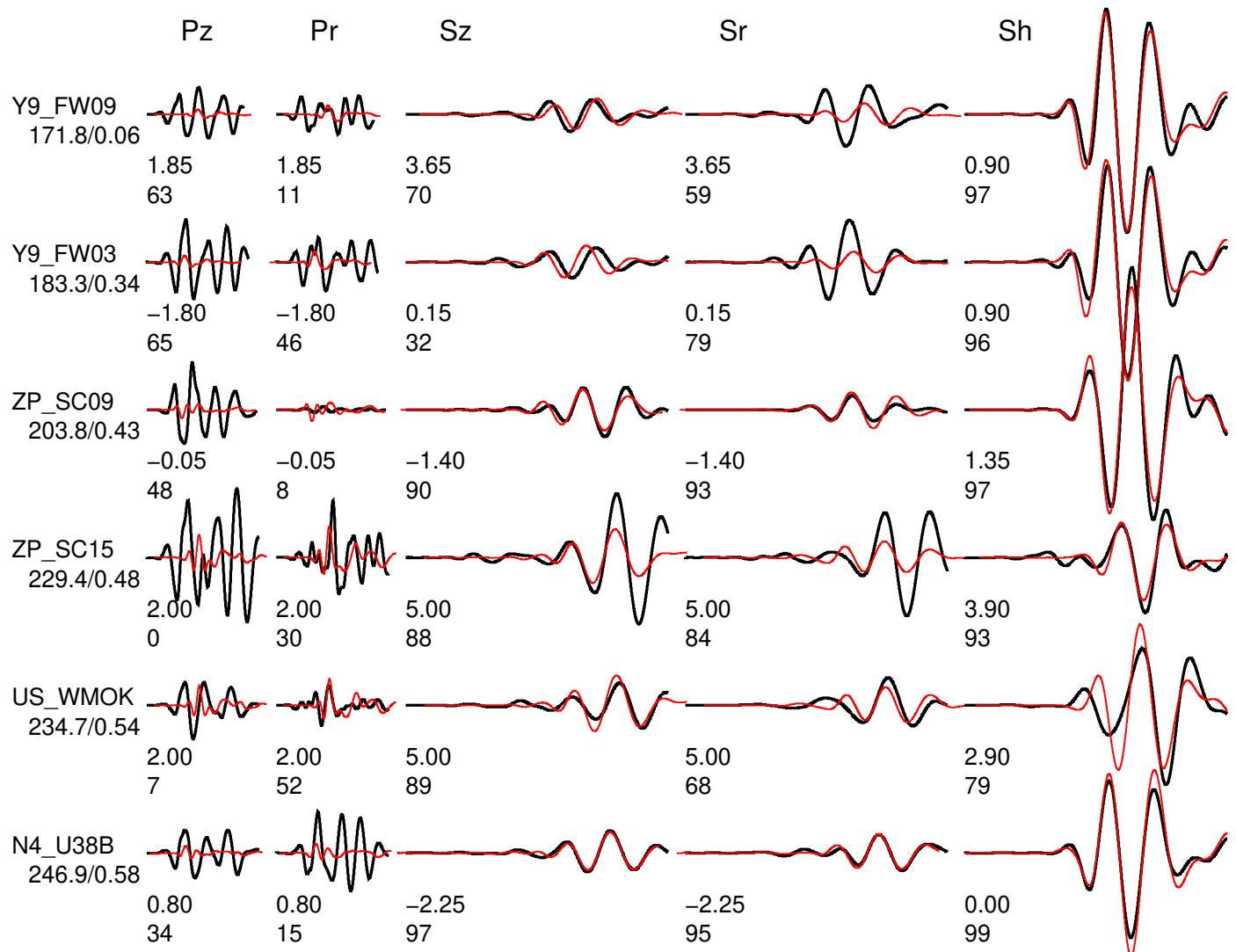




Event data Model and Depth chelsea\_7

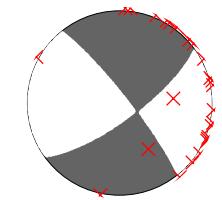
FM 103 80 -17 Mw 3.79 rms 2.305e-05 1775 ERR 1 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 77.3



## **B. Full Inversion Results For Event on 2016-07-21**

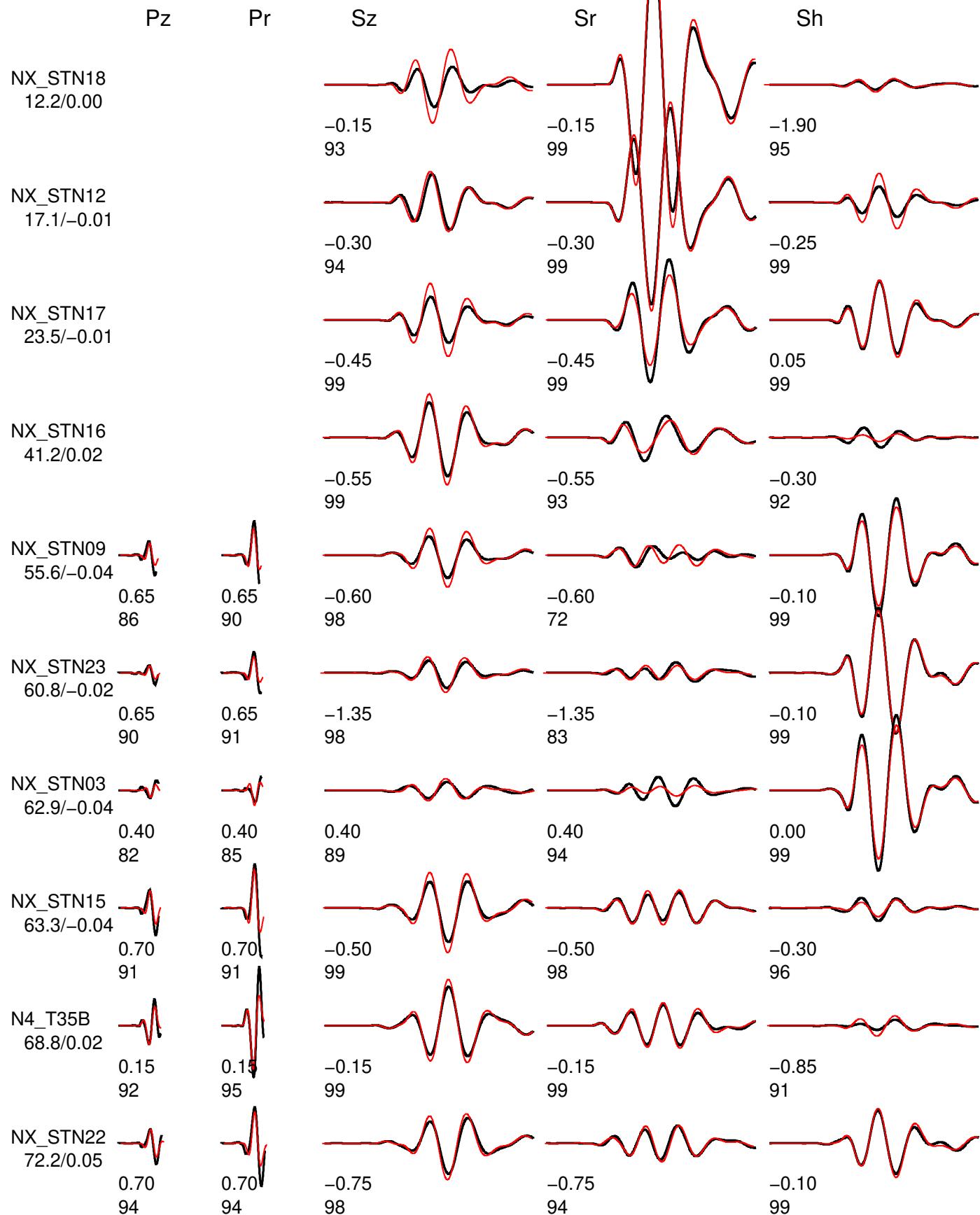
### **B.1 Inversion Result at depth of 2km**

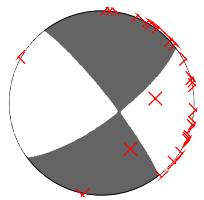


Event data Model and Depth chelsea\_2

FM 322 82 -16 Mw 3.69 rms 7.670e-06 1396 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 86.7

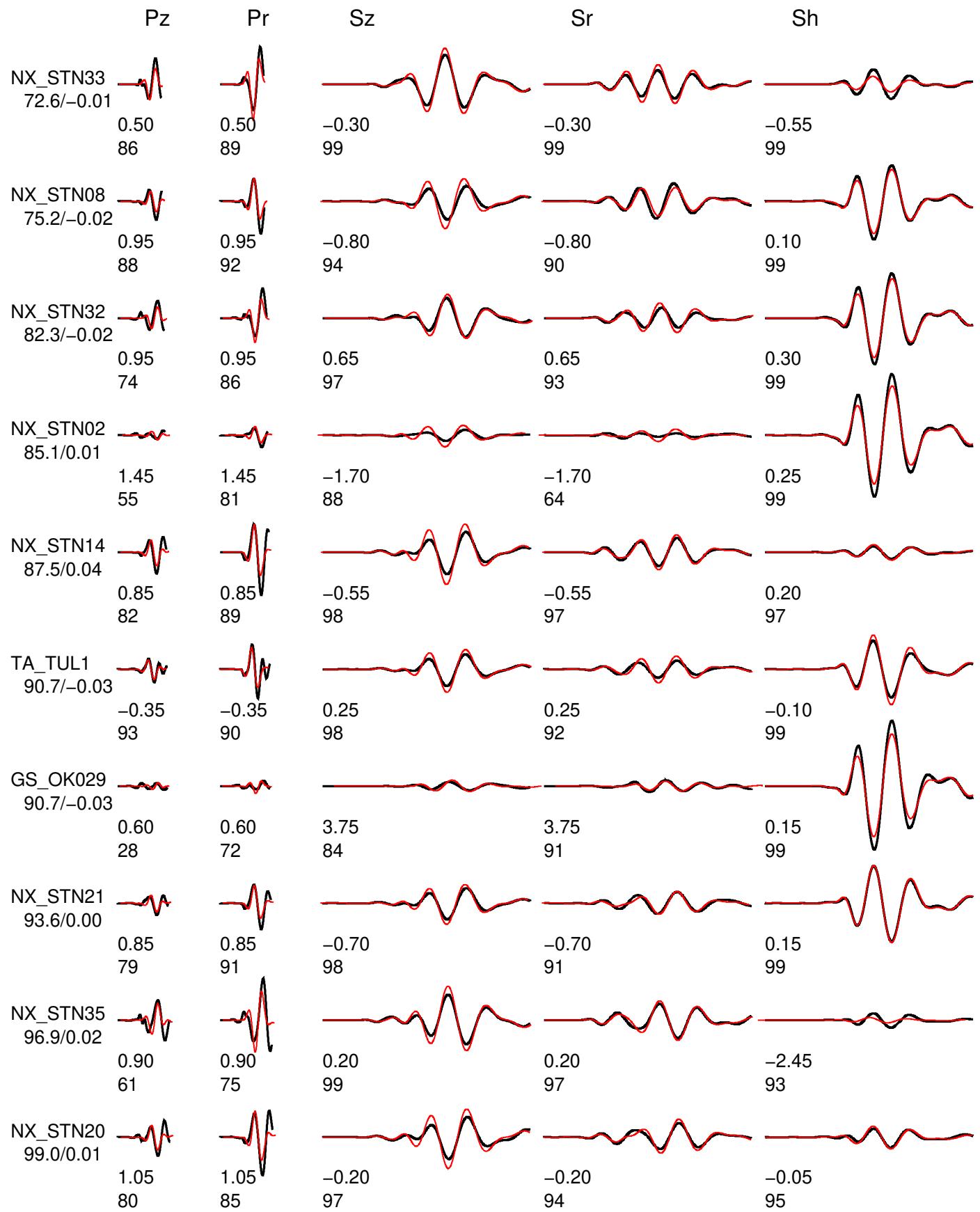


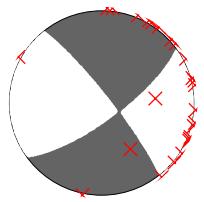


Event data Model and Depth chelsea\_2

FM 322 82 -16 Mw 3.69 rms 7.670e-06 1396 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 86.7

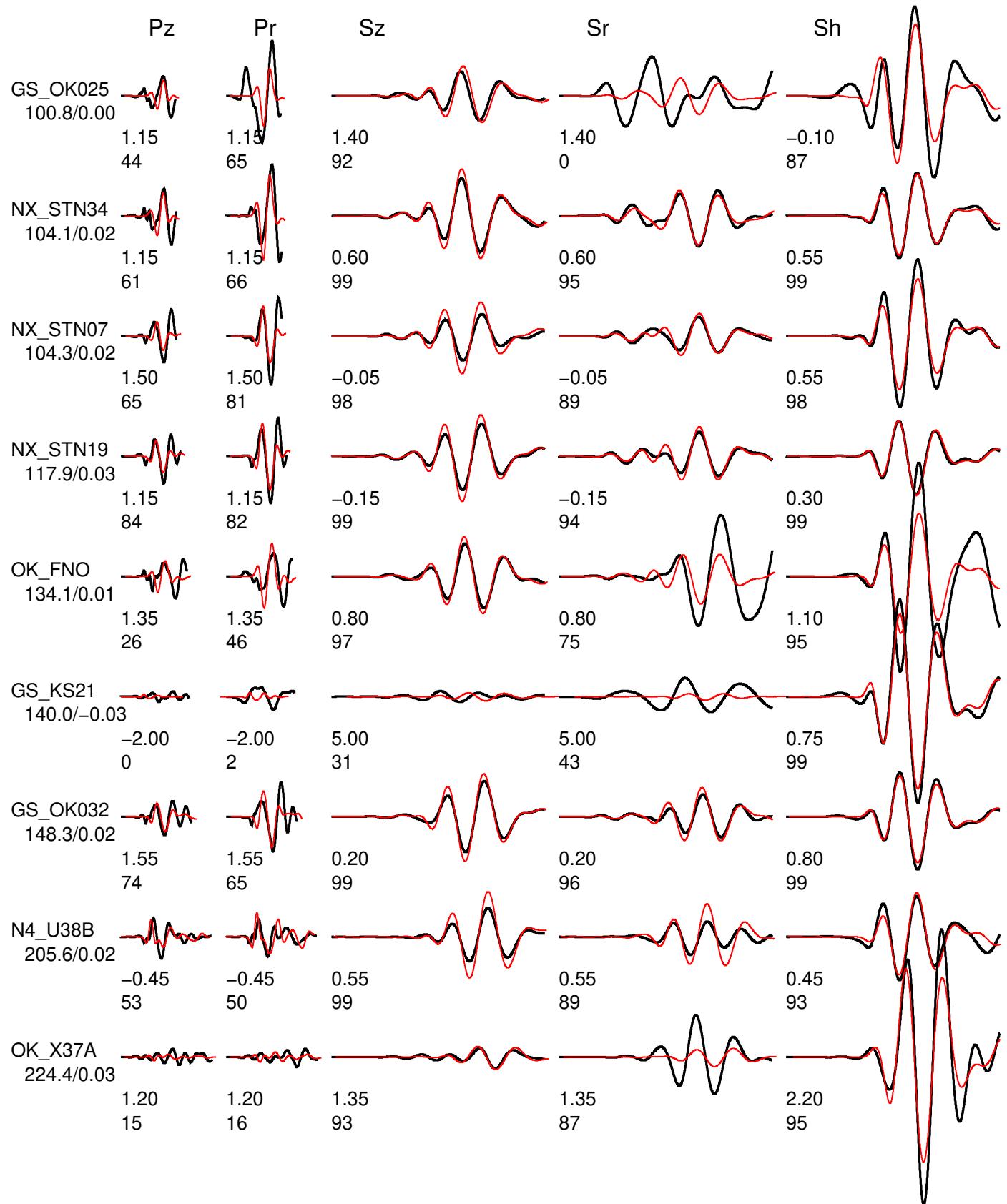




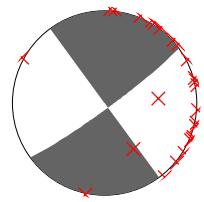
Event data Model and Depth chelsea\_2

FM 322 82 -16 Mw 3.69 rms 7.670e-06 1396 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 86.7



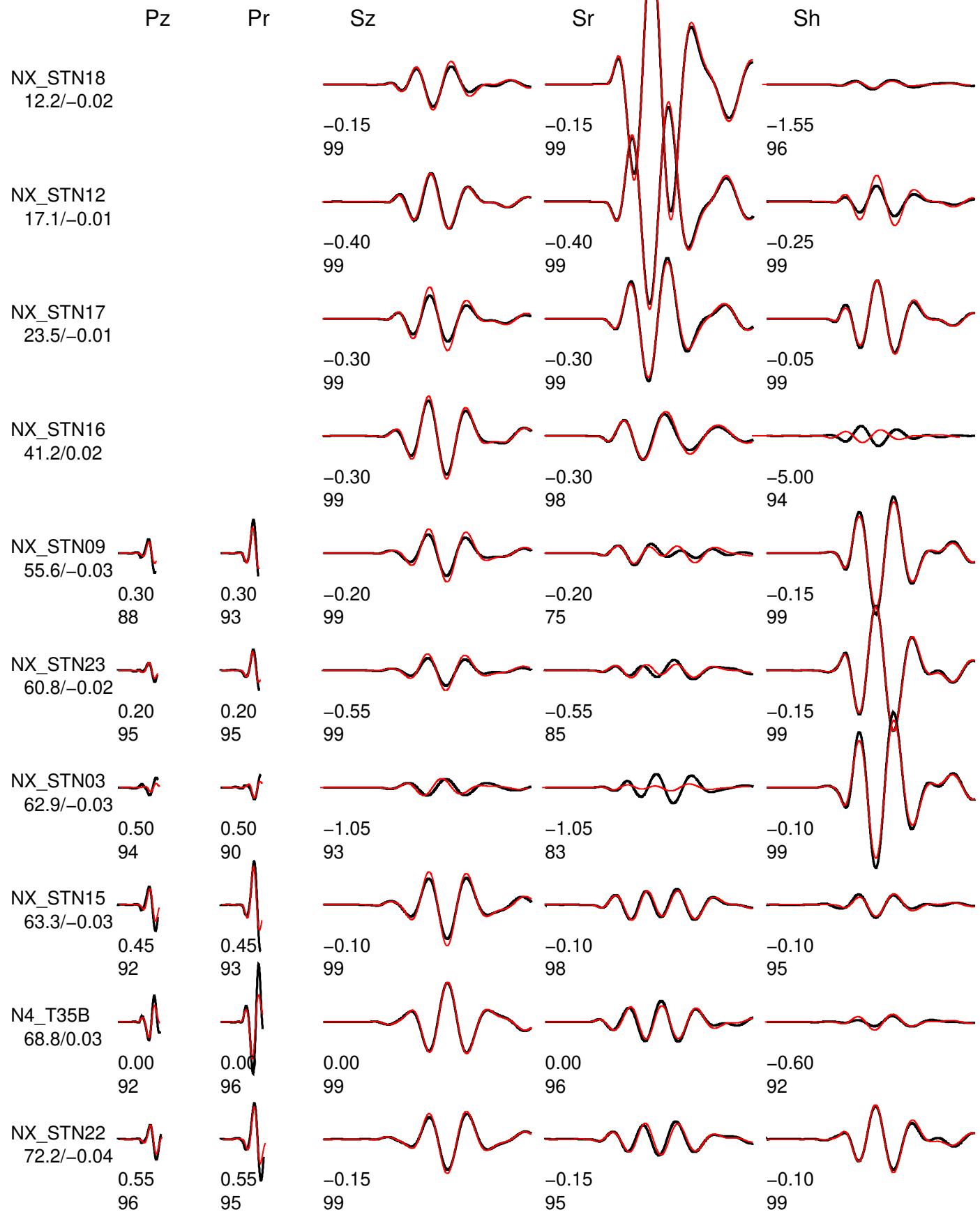
## B.2 Inversion Result at depth of 3km

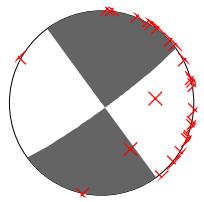


Event data Model and Depth chelsea\_3

FM 144 90 5 Mw 3.70 rms 6.300e-06 1396 ERR 0 2 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 89.1

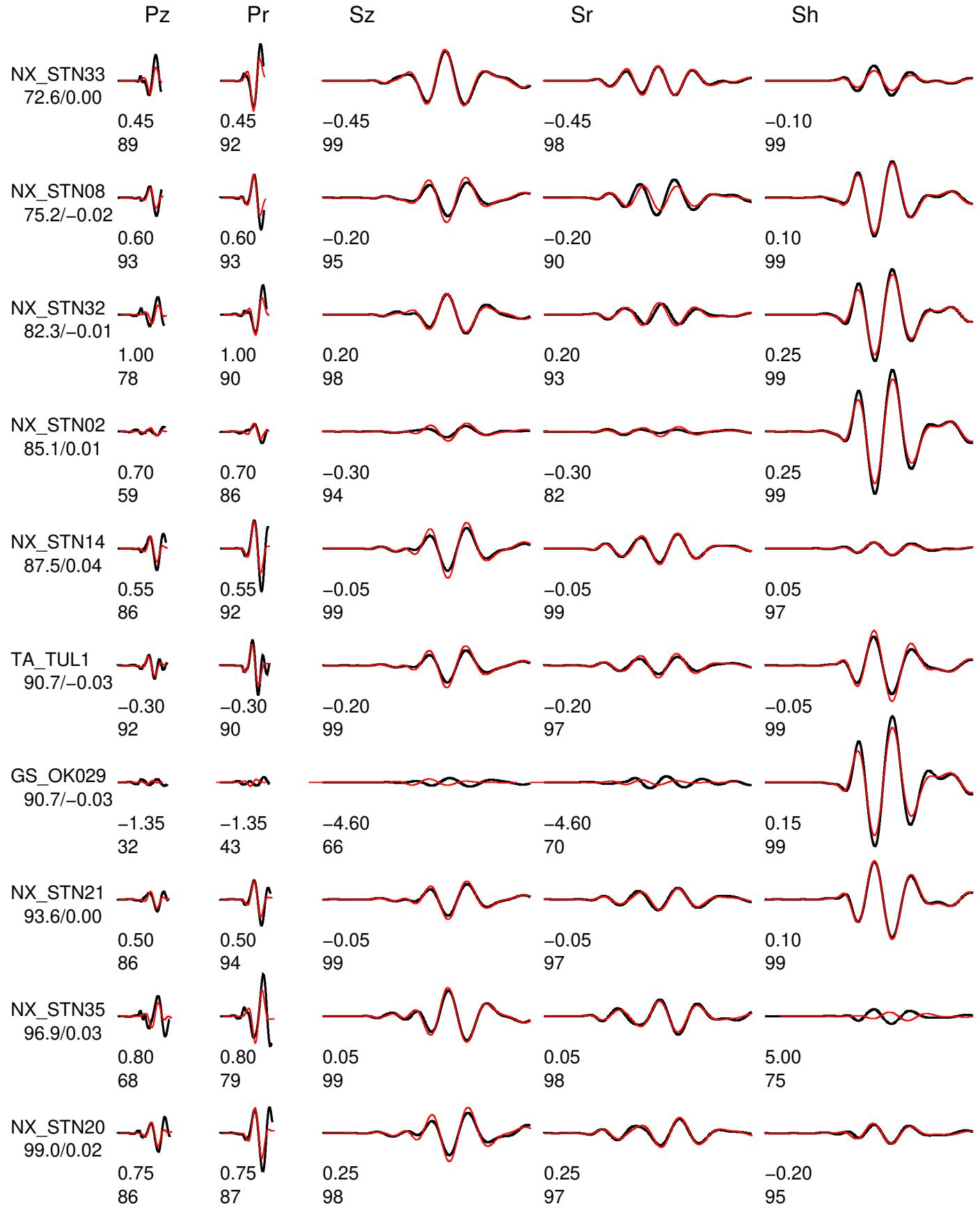


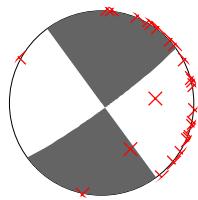


Event data Model and Depth chelsea\_3

FM 144 90 5 Mw 3.70 rms 6.300e-06 1396 ERR 0 2 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 89.1

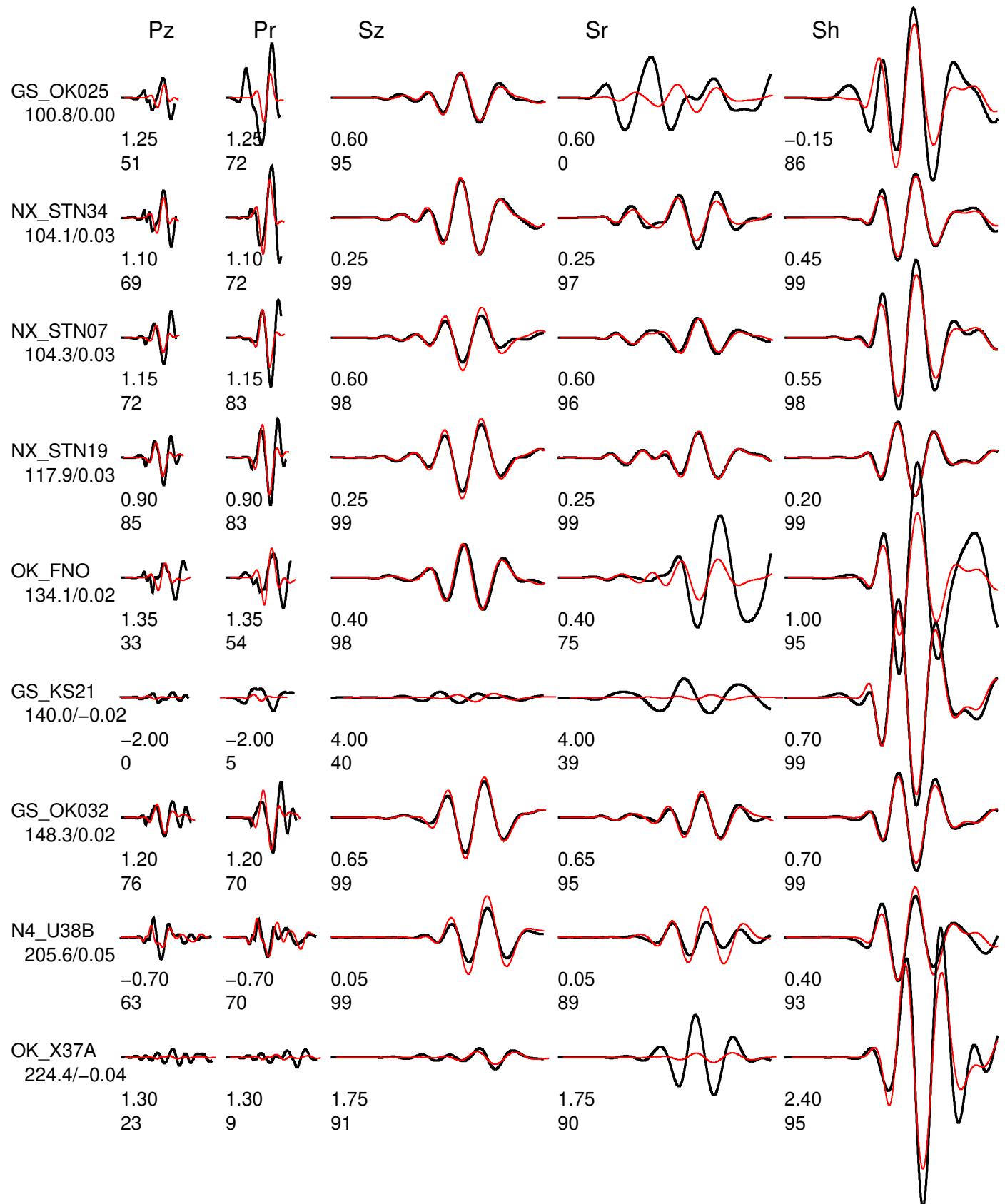




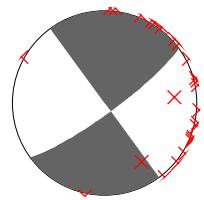
Event data Model and Depth chelsea\_3

FM 144 90 5 Mw 3.70 rms 6.300e-06 1396 ERR 0 2 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 89.1



### B.3 Inversion Result at depth of 4km



Event data Model and Depth chelsea\_4

FM 144 90 9 Mw 3.73 rms 6.117e-06 1396 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 89.4

Pz

Pr

Sz

Sr

Sh

NX\_STN18  
12.2/-0.02

-0.25  
87

-0.25  
99

-1.75  
96

NX\_STN12  
17.1/0.00

-0.40  
98

-0.40  
99

-0.45  
99

NX\_STN17  
23.5/0.00

-0.30  
98

-0.30  
99

-0.15  
99

NX\_STN16  
41.2/0.03

-0.45  
99

-0.45  
99

-4.90  
96

NX\_STN09  
55.6/-0.02  
0.30  
88

0.30  
93

-0.55  
99

-0.55  
90

-0.20  
99

NX\_STN23  
60.8/-0.01  
0.15  
95

0.15  
95

-0.70  
98

-0.70  
68

-0.20  
99

NX\_STN03  
62.9/-0.02  
0.05  
88

0.05  
89

1.55  
87

1.55  
90

-0.10  
99

NX\_STN15  
63.3/-0.02  
0.35  
95

0.35  
92

-0.35  
99

-0.35  
92

-0.70  
97

N4\_T35B  
68.8/0.04  
-0.05  
90

-0.05  
94

-0.30  
99

-0.30  
92

-0.70  
91

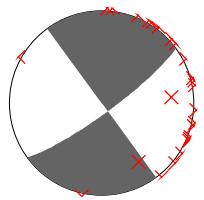
NX\_STN22  
72.2/-0.03  
0.45  
98

0.45  
96

-0.30  
99

-0.30  
91

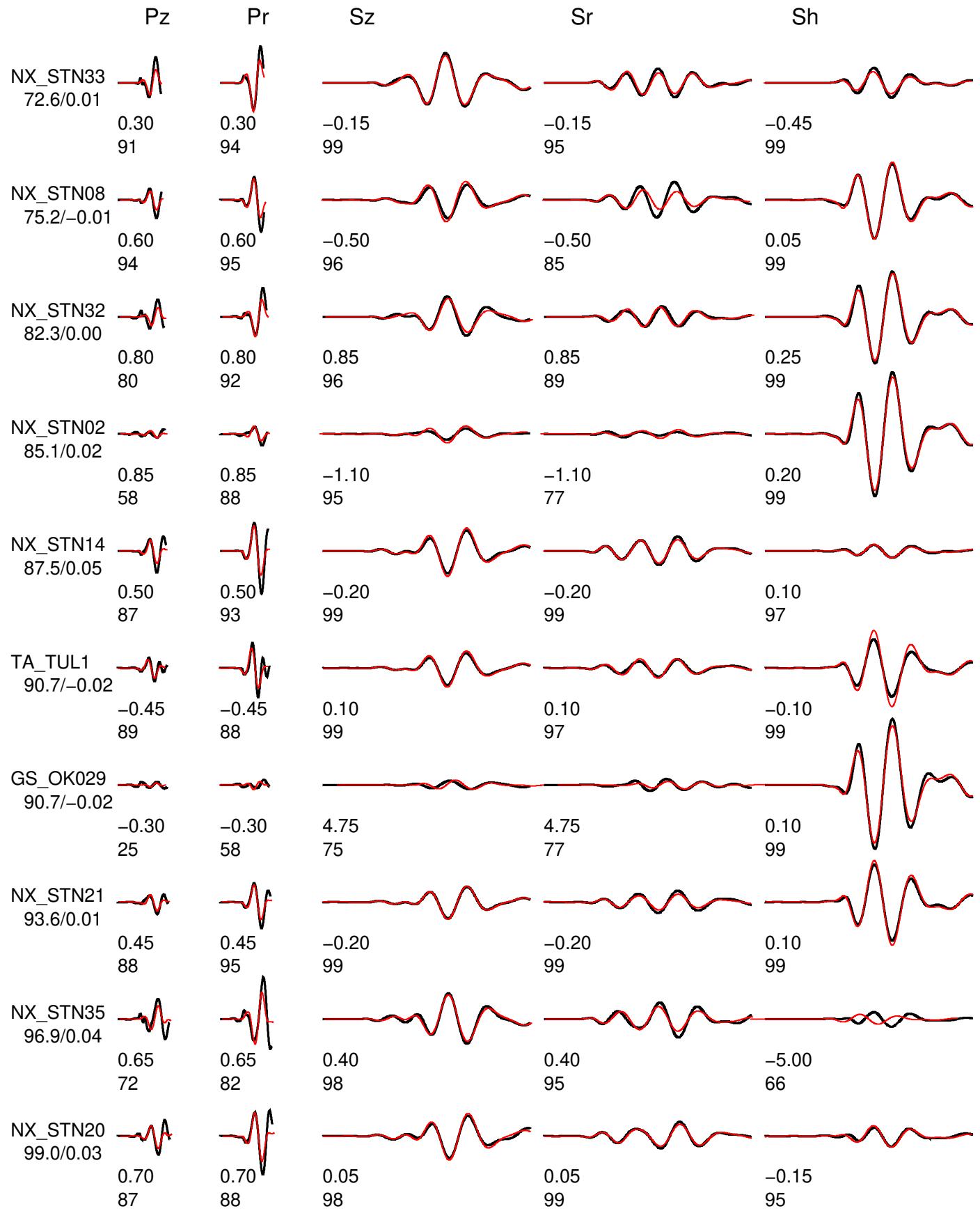
-0.10  
99

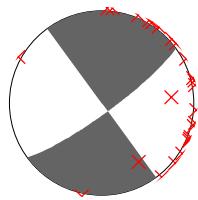


Event data Model and Depth chelsea\_4

FM 144 90 9 Mw 3.73 rms 6.117e-06 1396 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 89.4

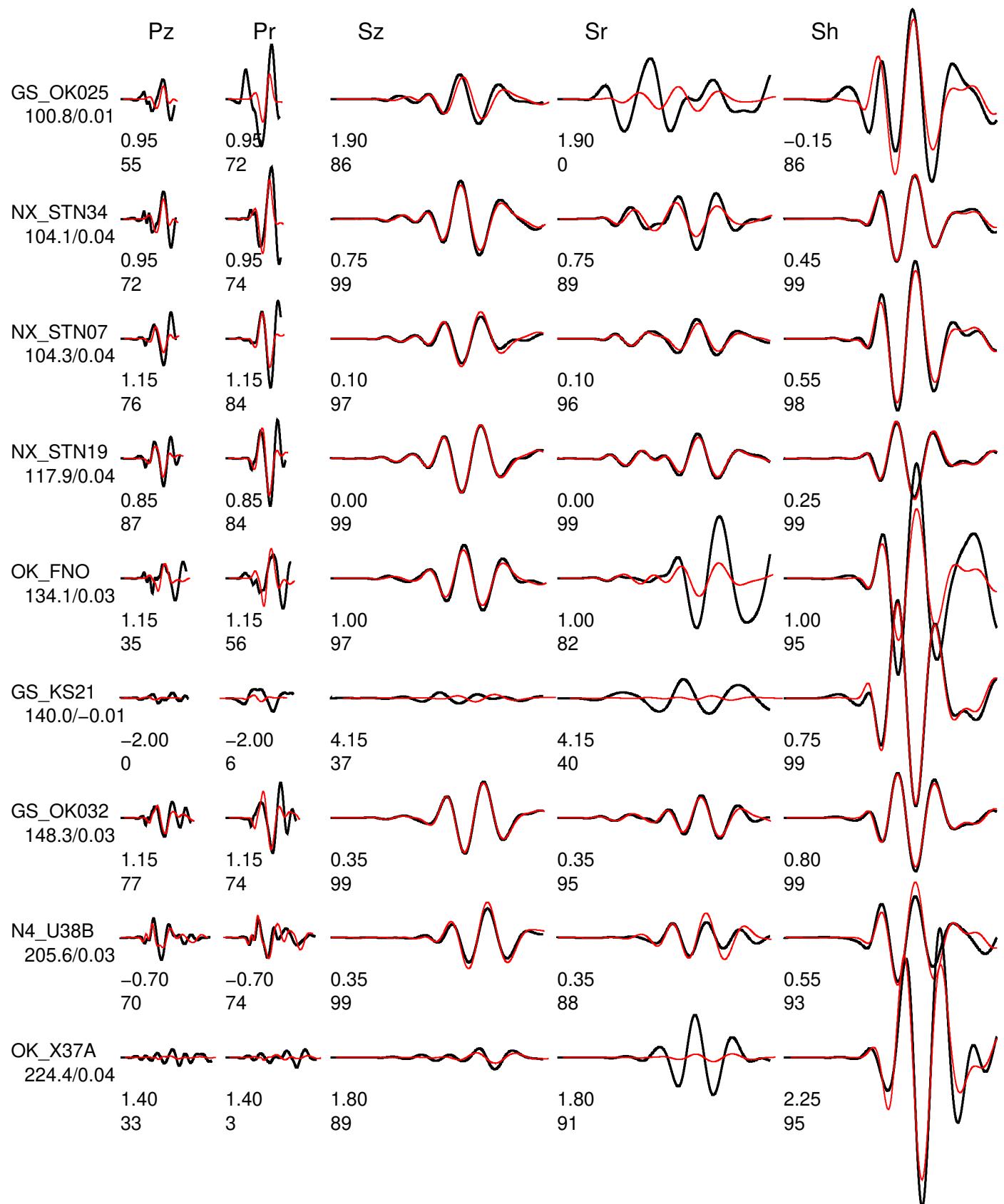




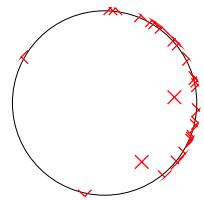
Event data Model and Depth chelsea\_4

FM 144 90 9 Mw 3.73 rms 6.117e-06 1396 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 89.4



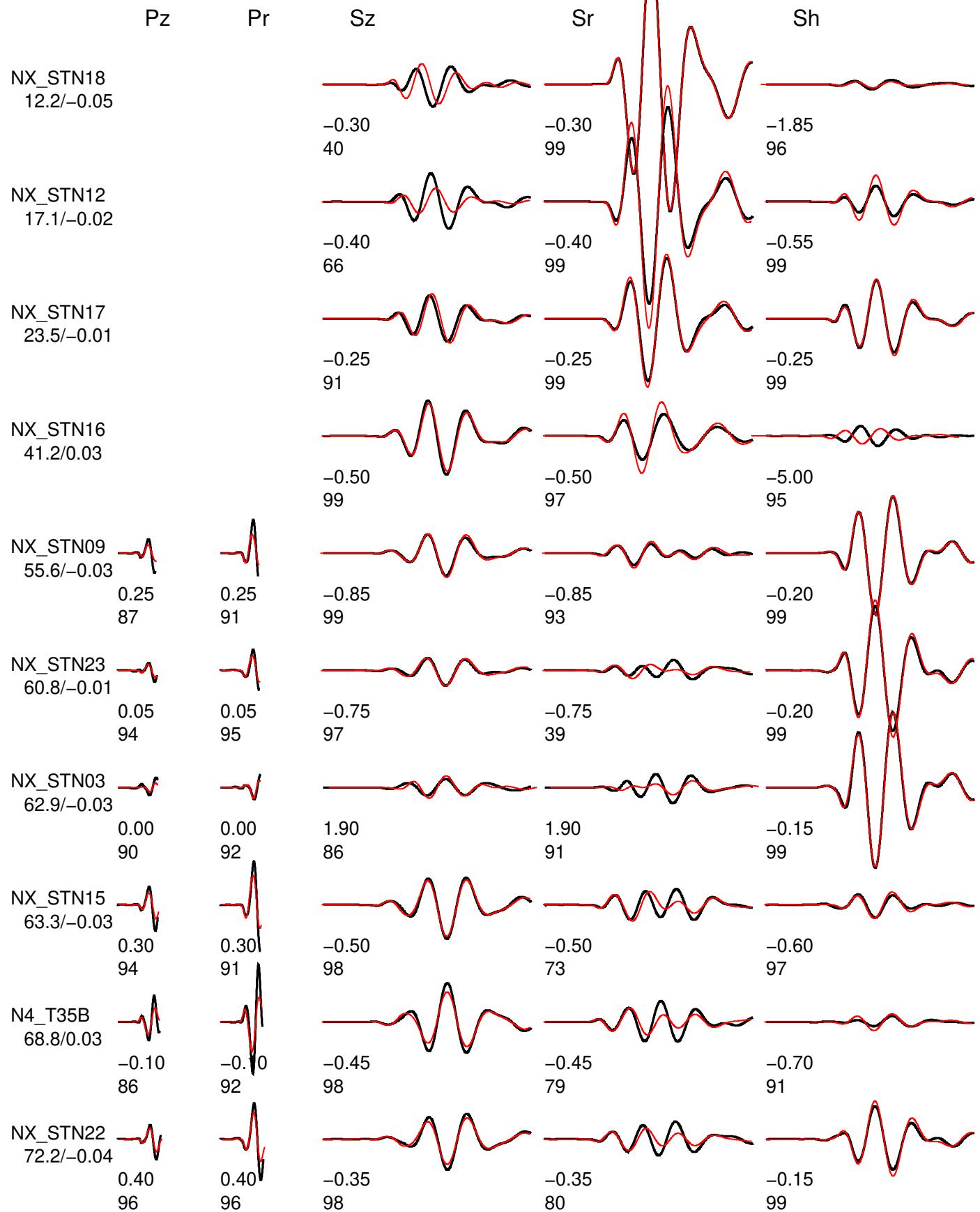
## B.4 Inversion Result at depth of 5km

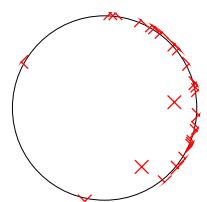


Event data Model and Depth chelsea\_5

FM 144 90 12 Mw 3.75 rms 7.231e-06 1396 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 87.5

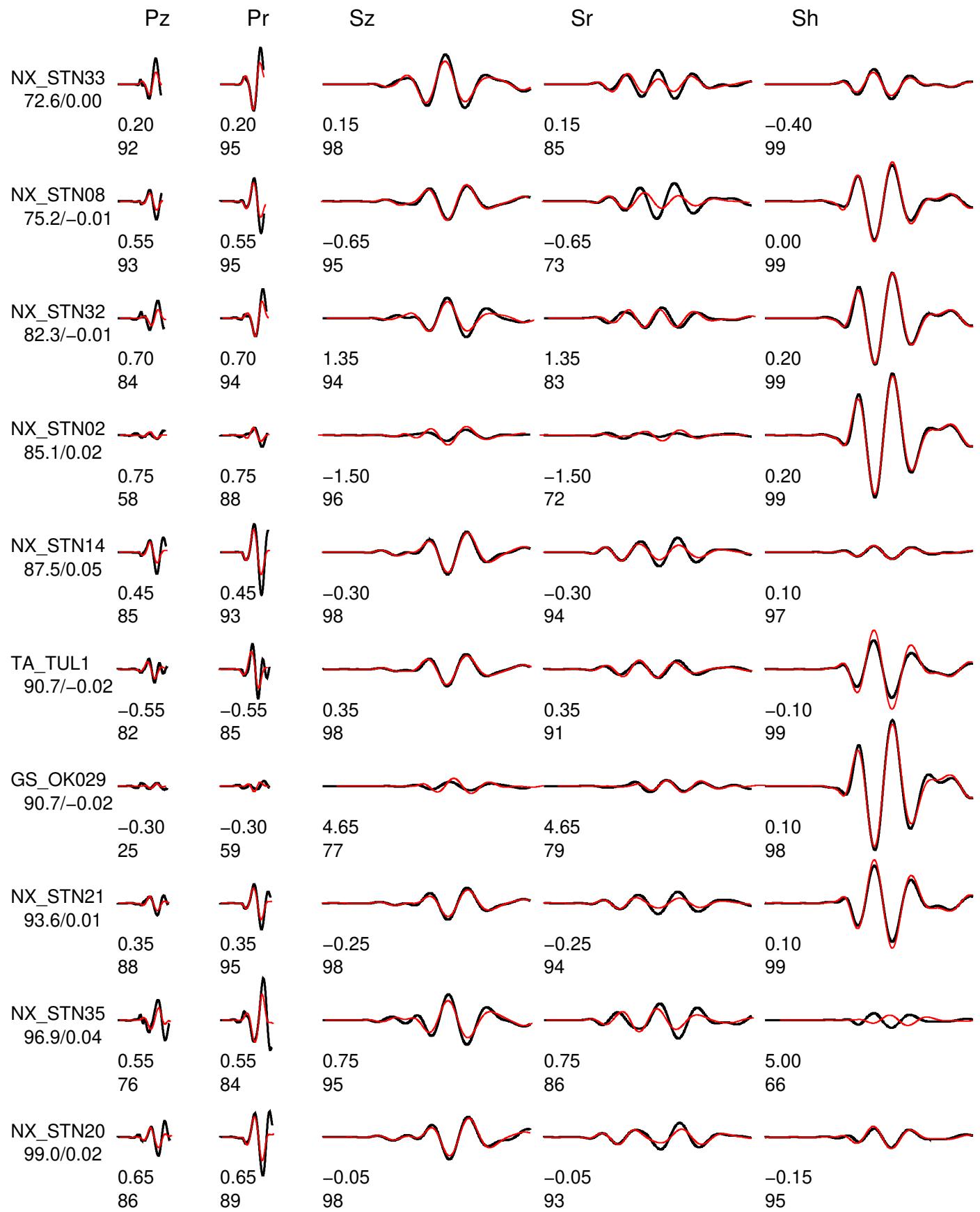


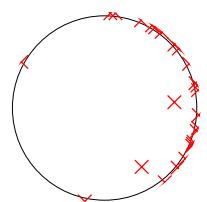


Event data Model and Depth chelsea\_5

FM 144 90 12 Mw 3.75 rms 7.231e-06 1396 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 87.5

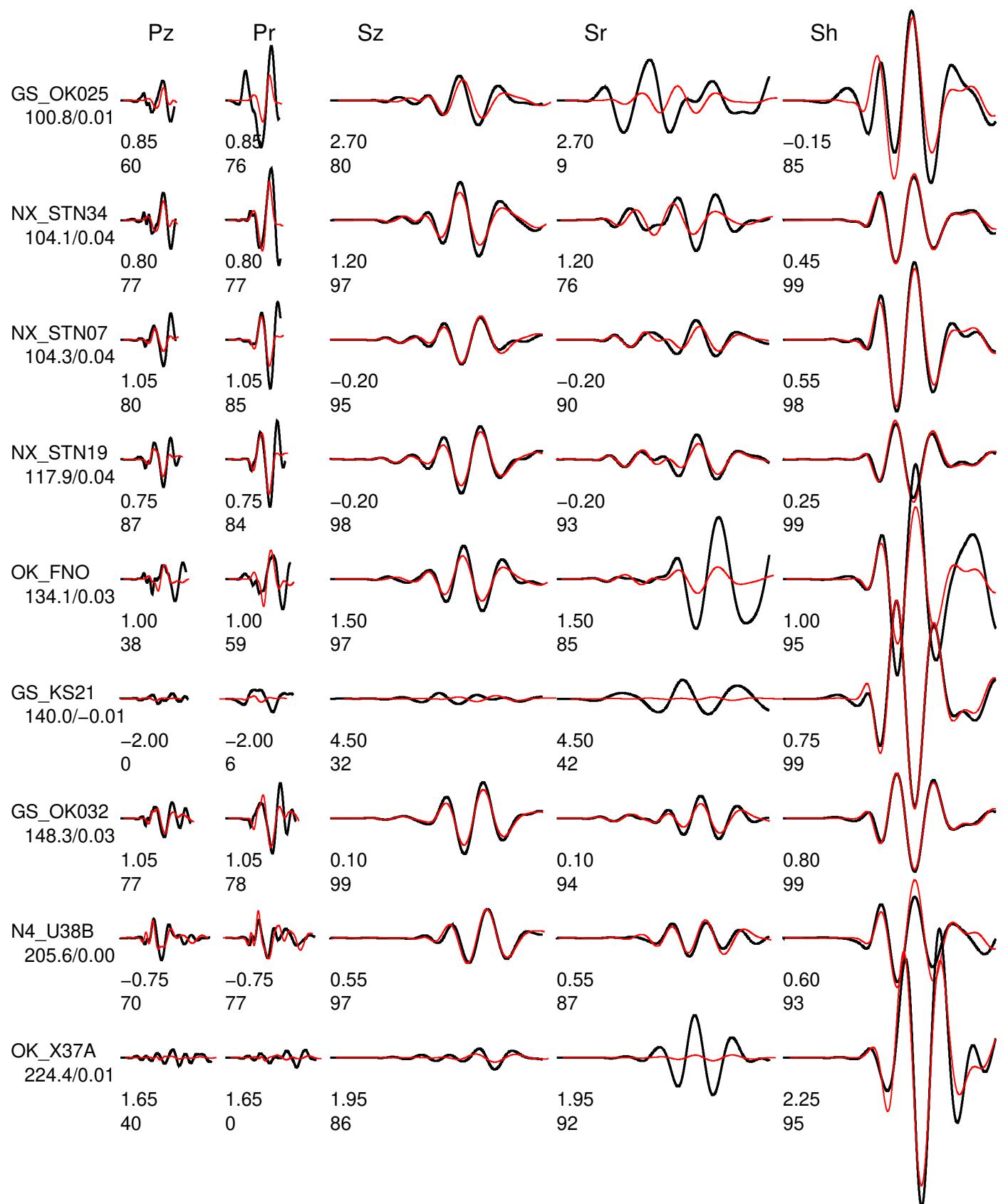




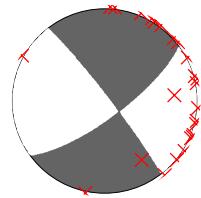
Event data Model and Depth chelsea\_5

FM 144 90 12 Mw 3.75 rms 7.231e-06 1396 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 87.5



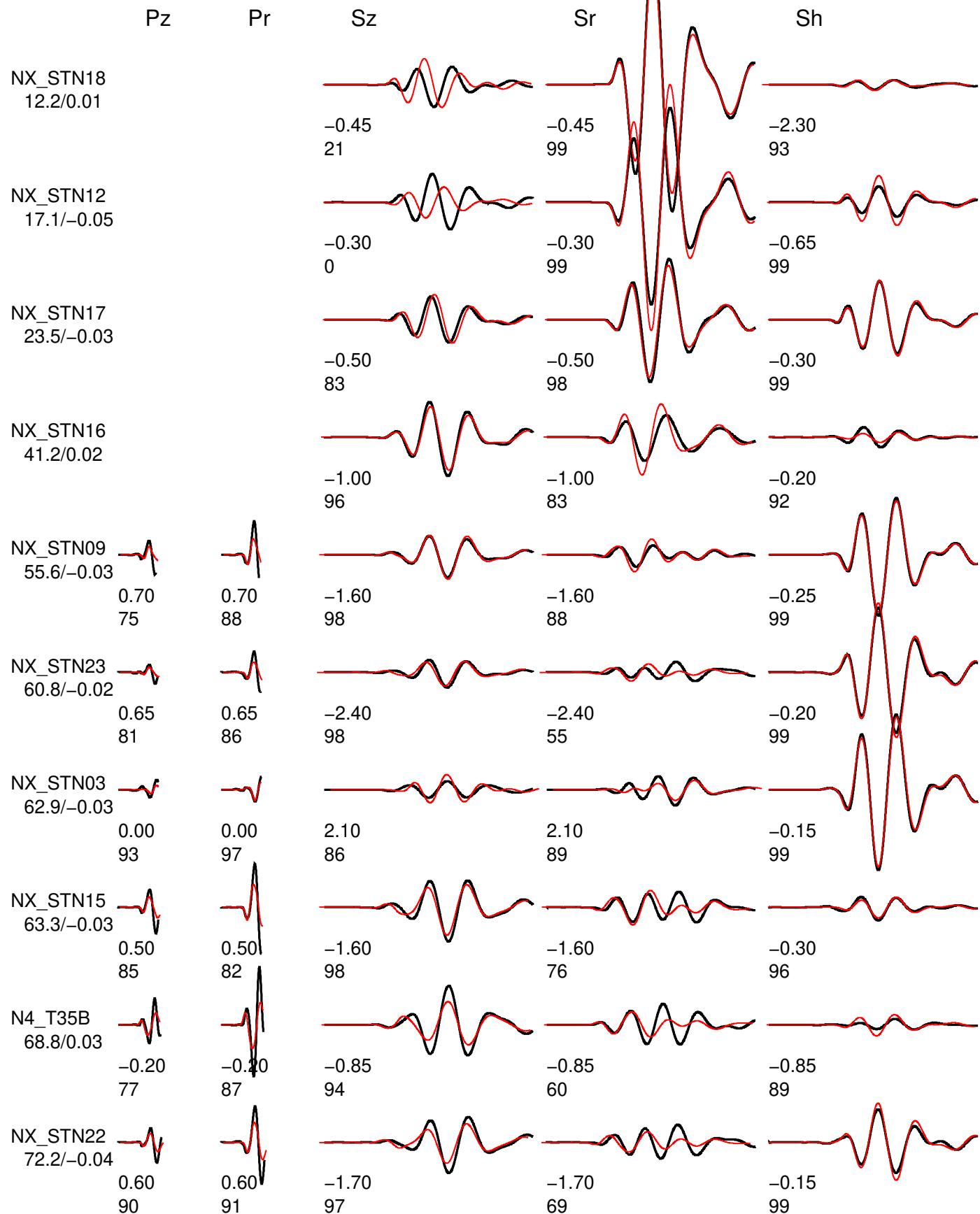
## B.5 Inversion Result at depth of 6km

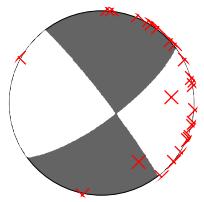


Event data Model and Depth chelsea\_6

FM 322 86 -15 Mw 3.76 rms 9.598e-06 1396 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 83.4

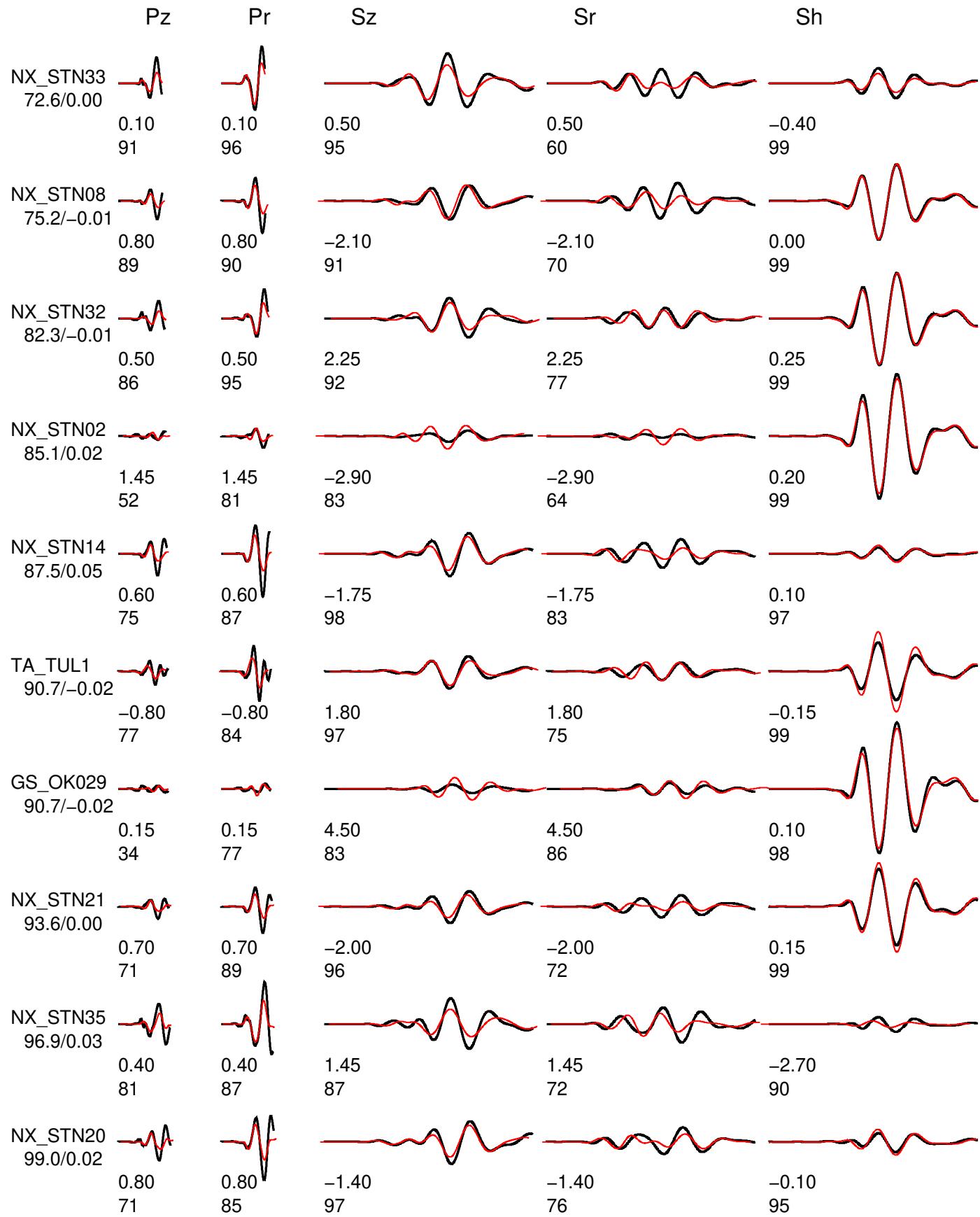


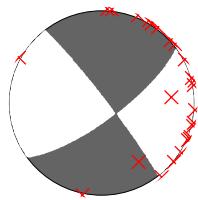


Event data Model and Depth chelsea\_6

FM 322 86 -15 Mw 3.76 rms 9.598e-06 1396 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 83.4

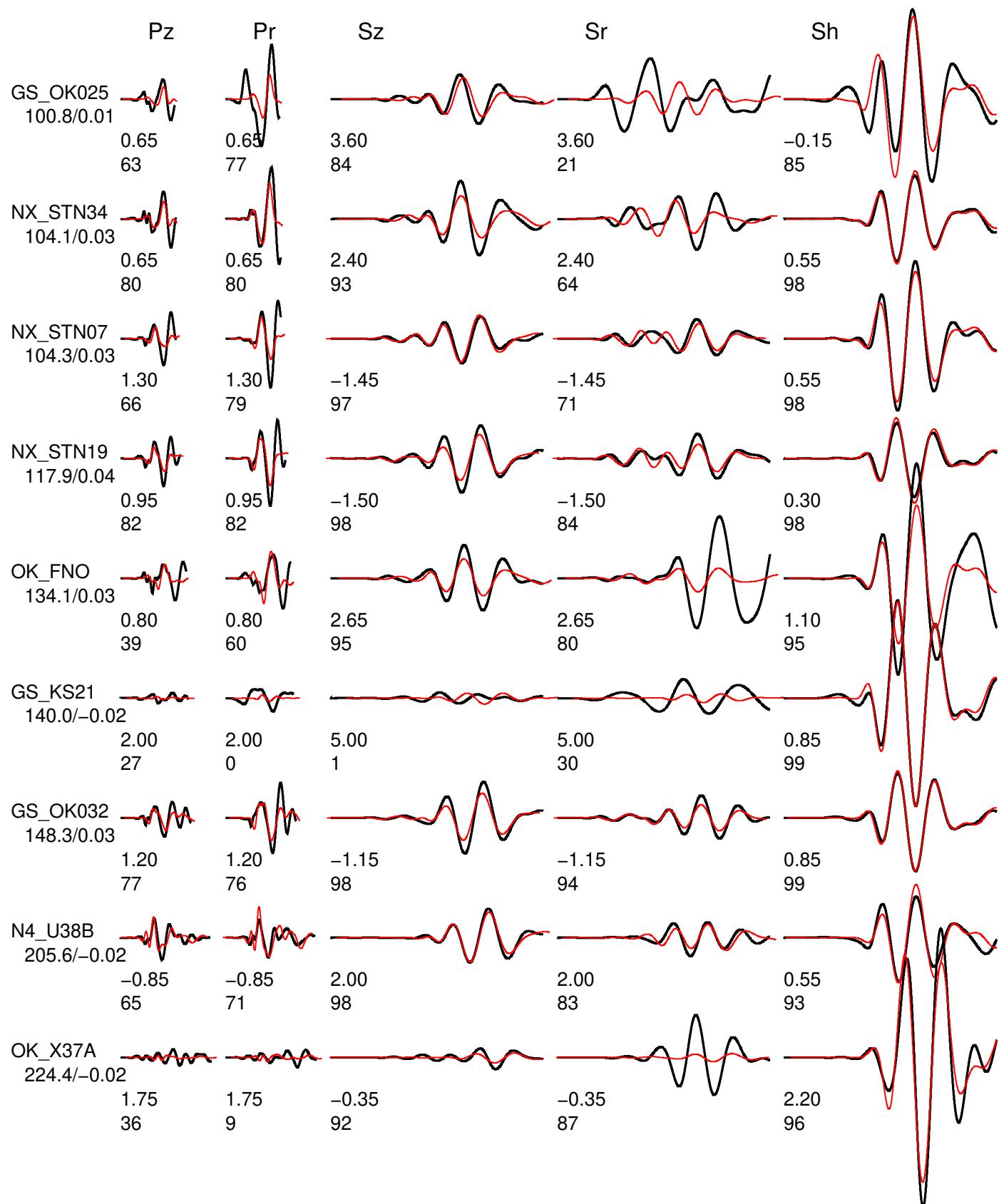




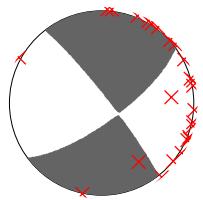
Event data Model and Depth chelsea\_6

FM 322 86 -15 Mw 3.76 rms 9.598e-06 1396 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 83.4



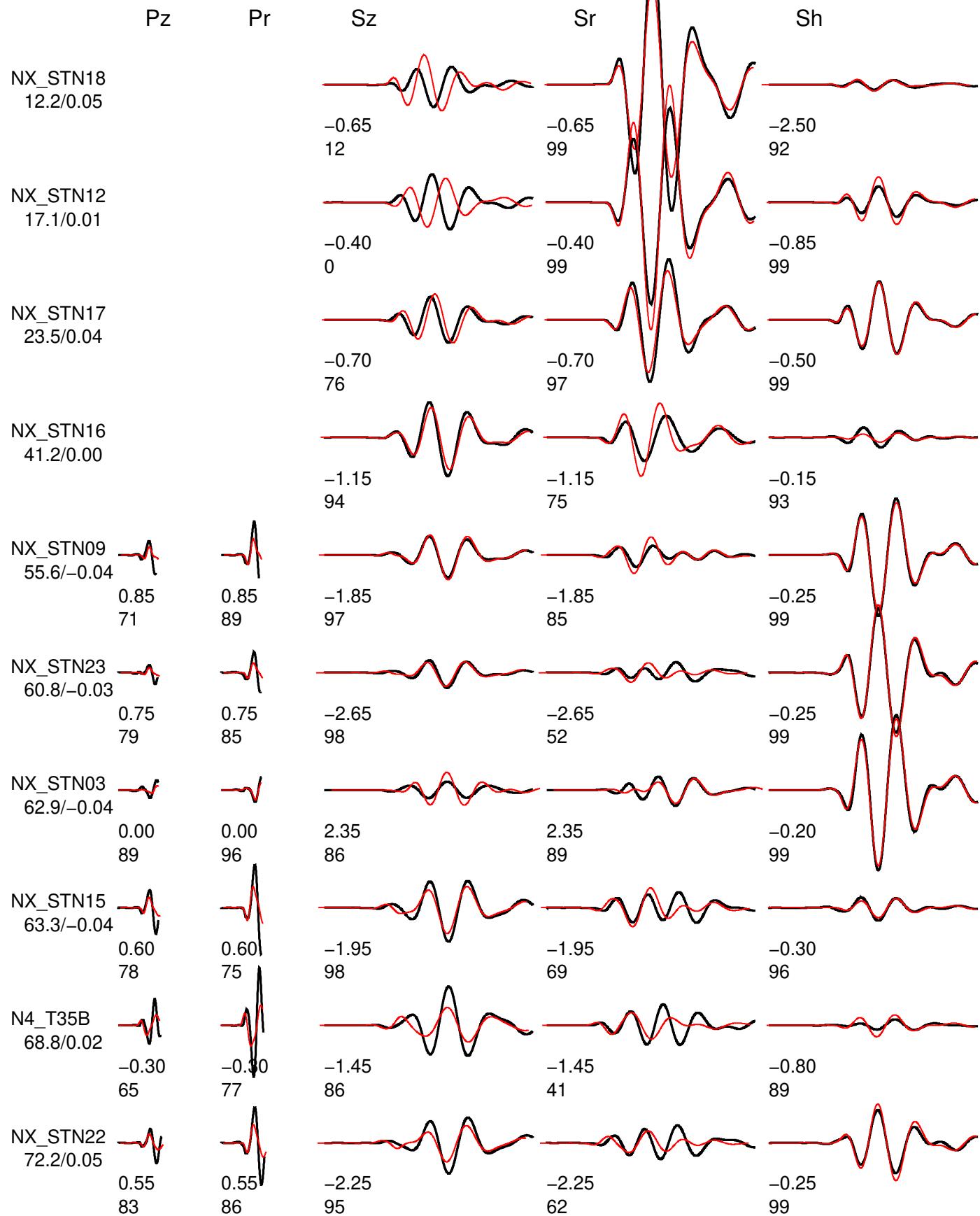
## B.6 Inversion Result at depth of 7km

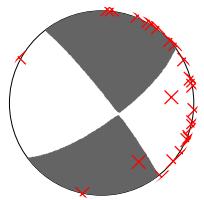


Event data Model and Depth chelsea\_7

FM 322 84 -17 Mw 3.76 rms 1.158e-05 1396 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 79.9

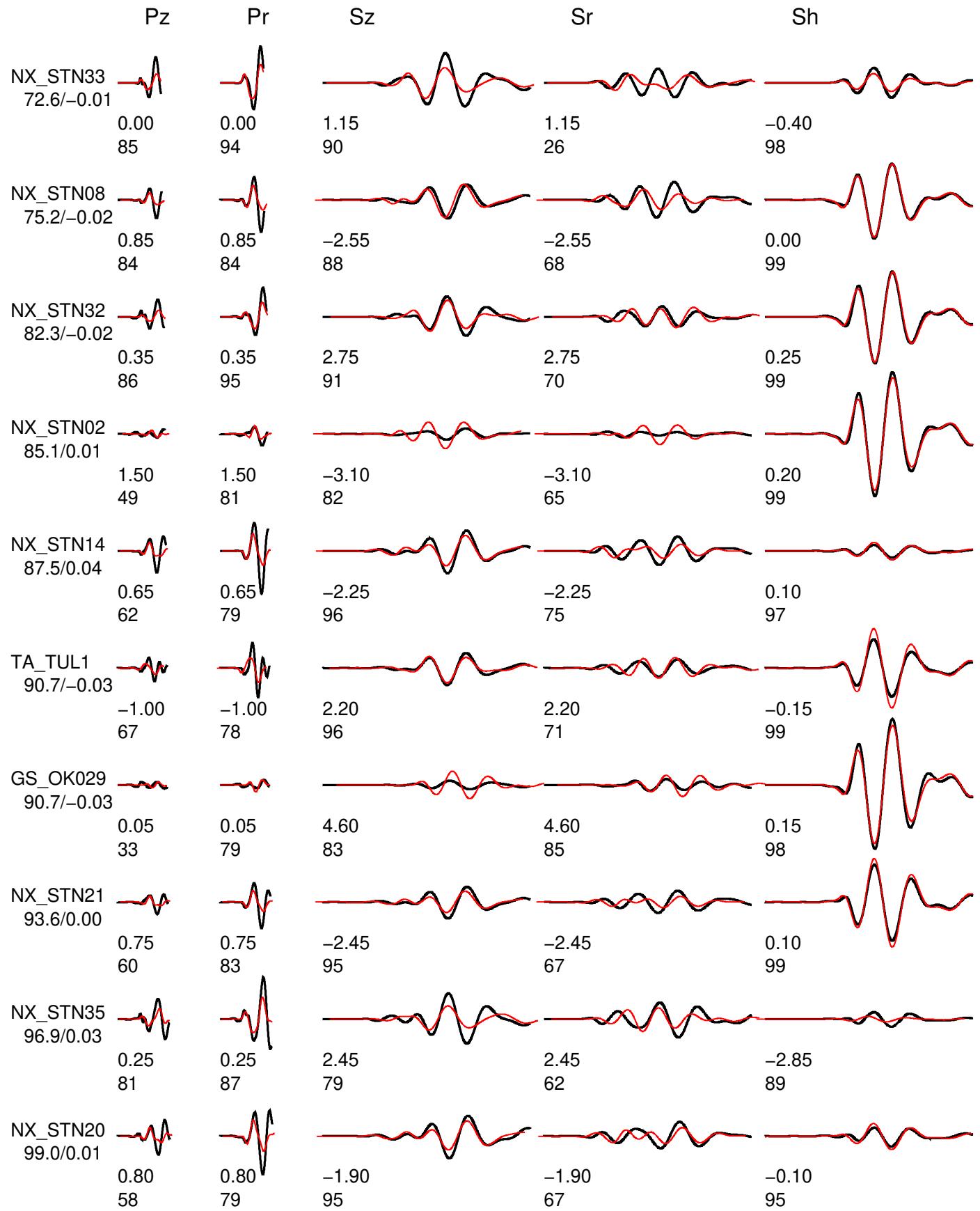


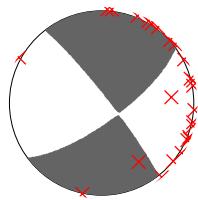


Event data Model and Depth chelsea\_7

FM 322 84 -17 Mw 3.76 rms 1.158e-05 1396 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 79.9

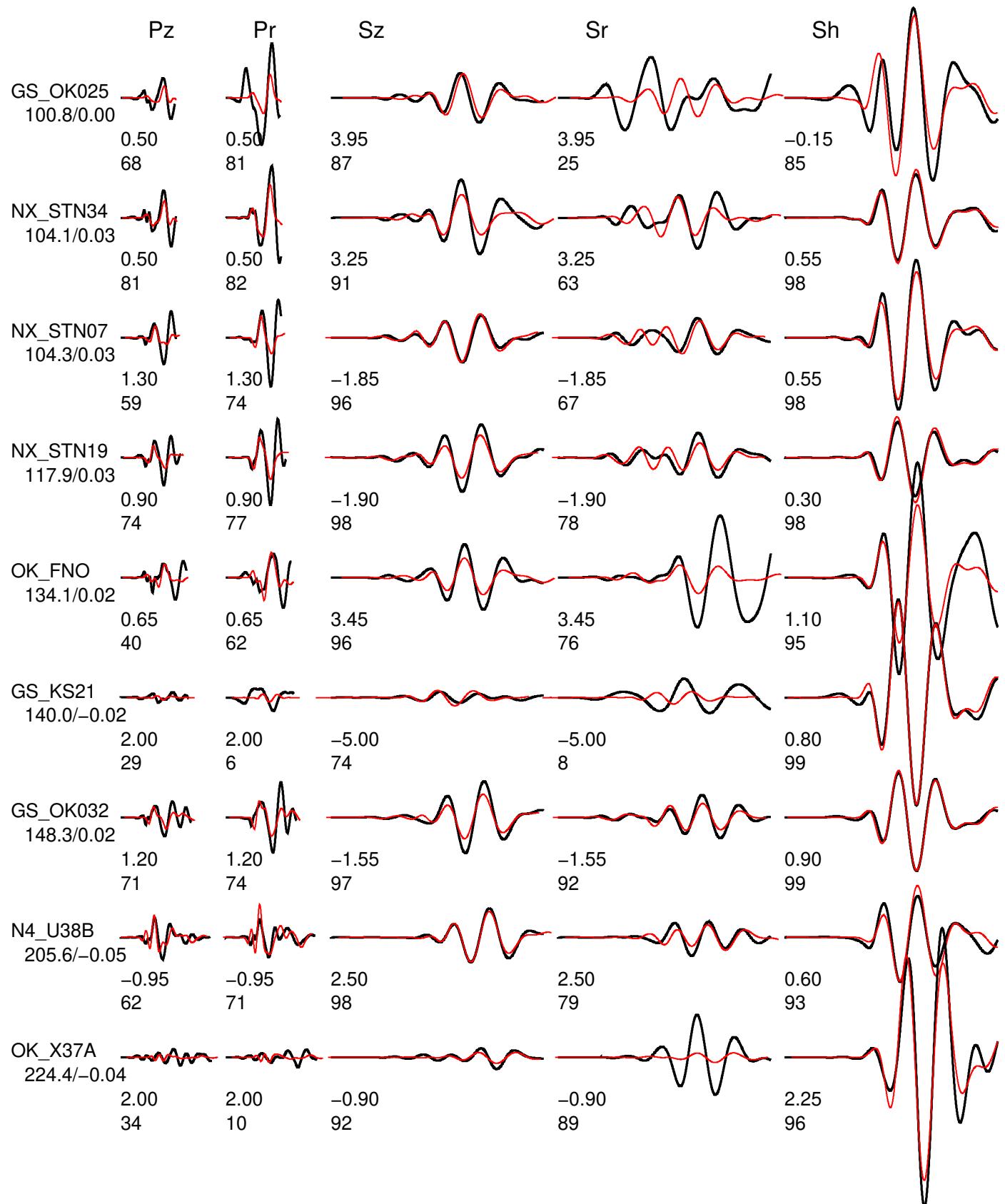




Event data Model and Depth chelsea\_7

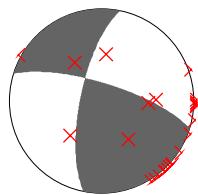
FM 322 84 -17 Mw 3.76 rms 1.158e-05 1396 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 79.9



## **C. Full Inversion Result on 2016-09-03 (mainshock M5.8)**

### **C.1 Inversion Result at depth of 2km**



Event data Model and Depth chelsea\_2

FM 287 74 20 Mw 5.65 rms 7.834e+00 1466 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 77.2

Pz

Pr

Sz

Sr

Sh

GS\_OK034  
50.0/-0.00



0.20	0.20	0.60
96	42	99

GS\_OK030  
56.7/-0.00



0.30	0.30	0.70
88	25	99

N4\_T35B  
66.0/-0.00



-0.55	-0.55	0.60
94	16	99

GS\_KAN13  
81.6/-0.00



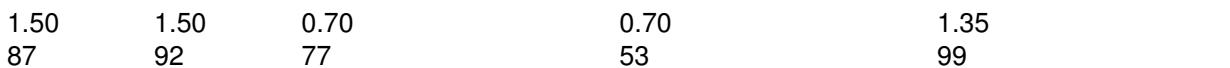
0.35	0.35	1.15
87	80	99

GS\_OK029  
84.3/-0.00



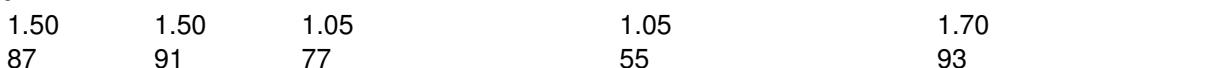
0.50	0.50	1.40
68	86	99

GS\_KAN09  
100.1/-0.00



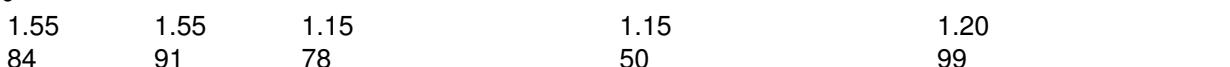
1.50	1.50	1.35
87	92	99

GS\_KS20  
105.3/-0.00



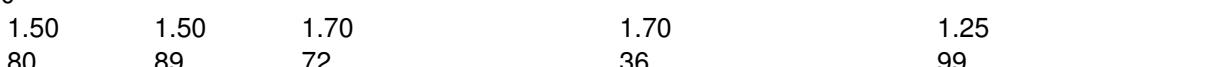
1.50	1.50	1.70
87	91	93

GS\_KAN01  
109.6/-0.00



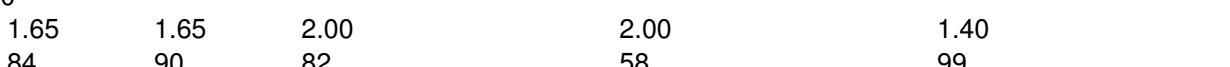
1.55	1.55	1.20
84	91	99

GS\_KAN14  
109.6/-0.00

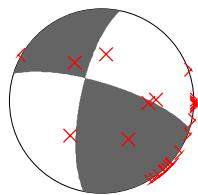


1.50	1.50	1.25
80	89	99

GS\_KAN05  
113.3/-0.00



1.65	1.65	1.40
84	90	99



Event data Model and Depth chelsea\_2

FM 287 74 20 Mw 5.65 rms 7.834e+00 1466 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 77.2

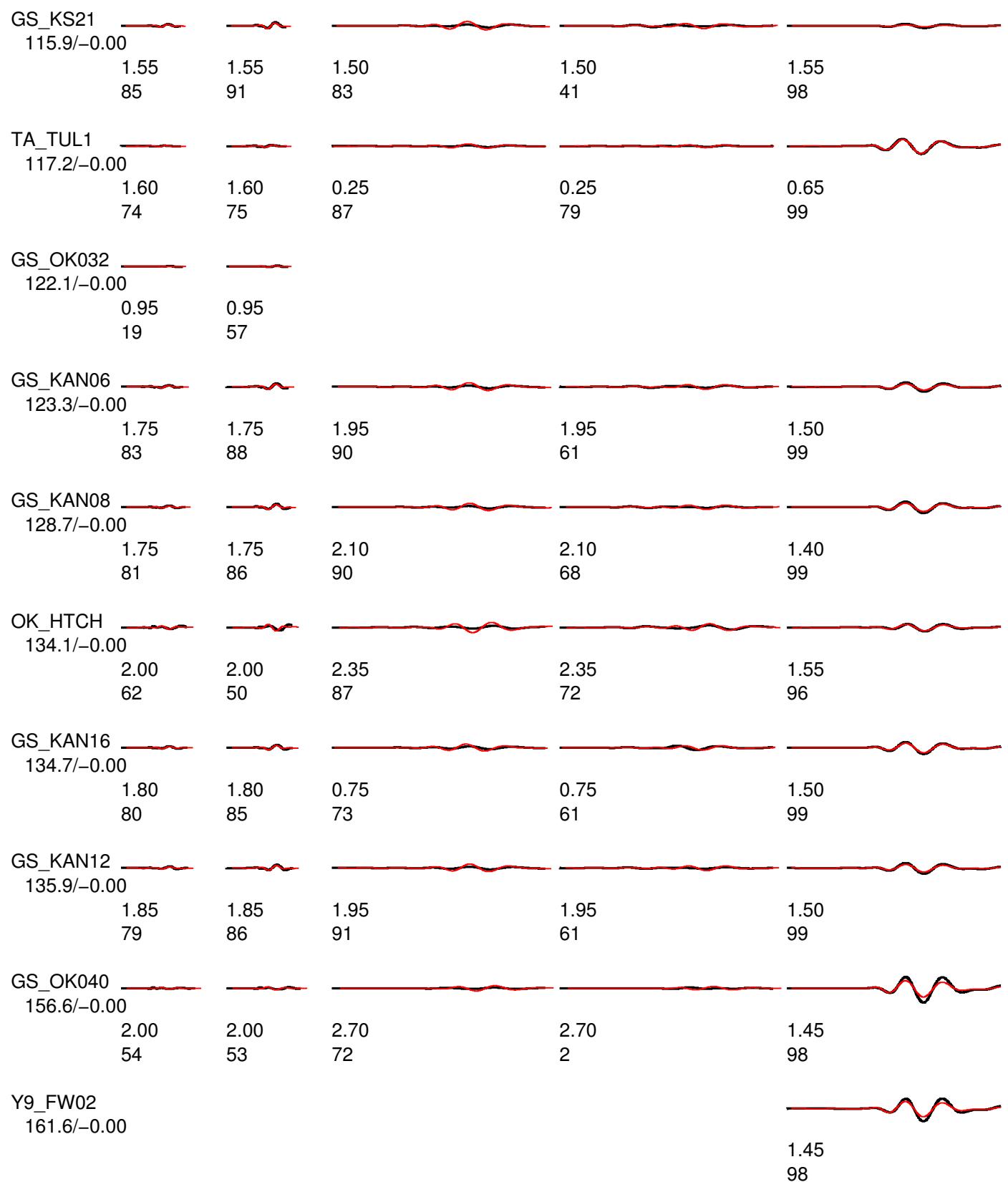
Pz

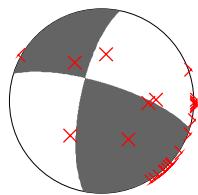
Pr

Sz

Sr

Sh

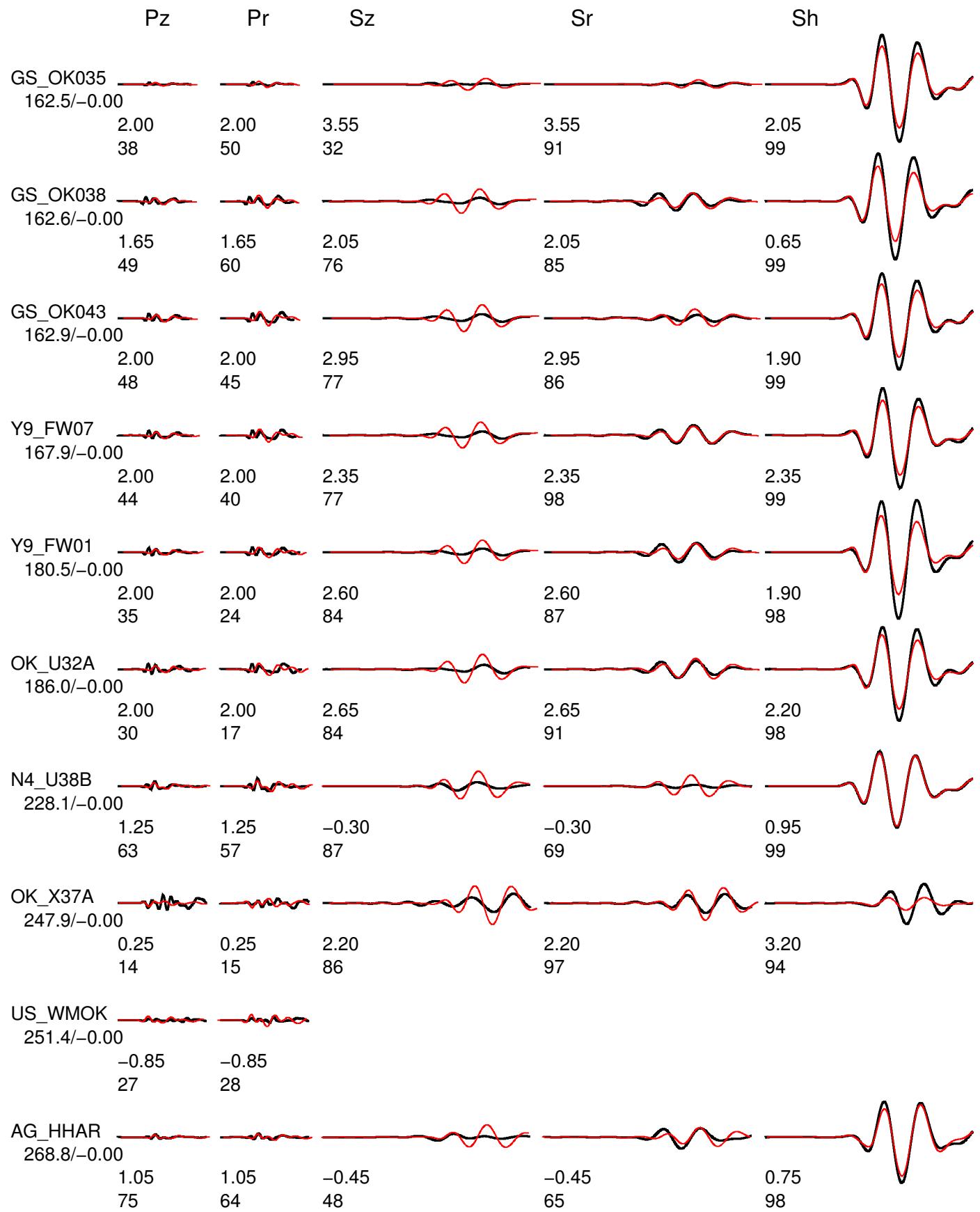


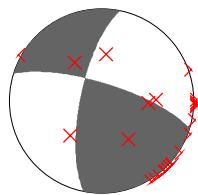


Event data Model and Depth chelsea\_2

FM 287 74 20 Mw 5.65 rms 7.834e+00 1466 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 77.2





Event data Model and Depth chelsea\_2

FM 287 74 20 Mw 5.65 rms 7.834e+00 1466 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 77.2

Pz

Pr

Sz

Sr

Sh

N4\_R32B

272.1/-0.00

2.00      2.00      2.95  
50          34          85

2.95  
95

US\_KSU1

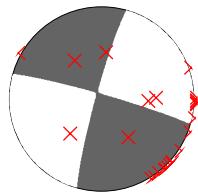
298.3/-0.00

1.40      1.40      2.95  
45          33          89

2.95  
93

2.30  
99

## C.2 Inversion Result at depth of 3km



Event data Model and Depth chelsea\_3

FM 286 86 5 Mw 5.65 rms 6.098e+00 1465 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 82.2

Pz

Pr

Sz

Sr

Sh

GS\_OK034  
50.0/-0.00



0.35	0.35	0.50
97	65	99

GS\_OK030  
56.7/-0.00



0.45	0.45	0.65
90	39	99

N4\_T35B  
66.0/-0.00



-0.65	-0.65	0.55
94	27	99

GS\_KAN13  
81.6/-0.00



0.40	0.40	1.15
90	83	99

GS\_OK029  
84.3/-0.00



0.65	0.65	1.35
72	88	99

GS\_KAN09  
100.1/-0.00

1.45  
90



0.75	0.75	1.35
81	60	99

GS\_KS20  
105.3/-0.00

1.45  
90



1.05	1.05	1.70
81	64	94

GS\_KAN01  
109.6/-0.00

1.50  
87



1.15	1.15	1.25
82	60	99

GS\_KAN14  
109.6/-0.00

1.50  
85



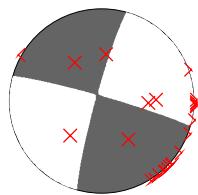
1.55	1.55	1.30
75	50	99

GS\_KAN05  
113.3/-0.00

1.65  
86



1.90	1.90	1.45
85	68	99



Event data Model and Depth chelsea\_3

FM 286 86 5 Mw 5.65 rms 6.098e+00 1465 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 82.2

Pz

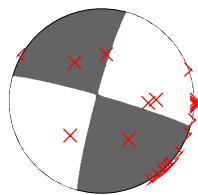
Pr

Sz

Sr

Sh

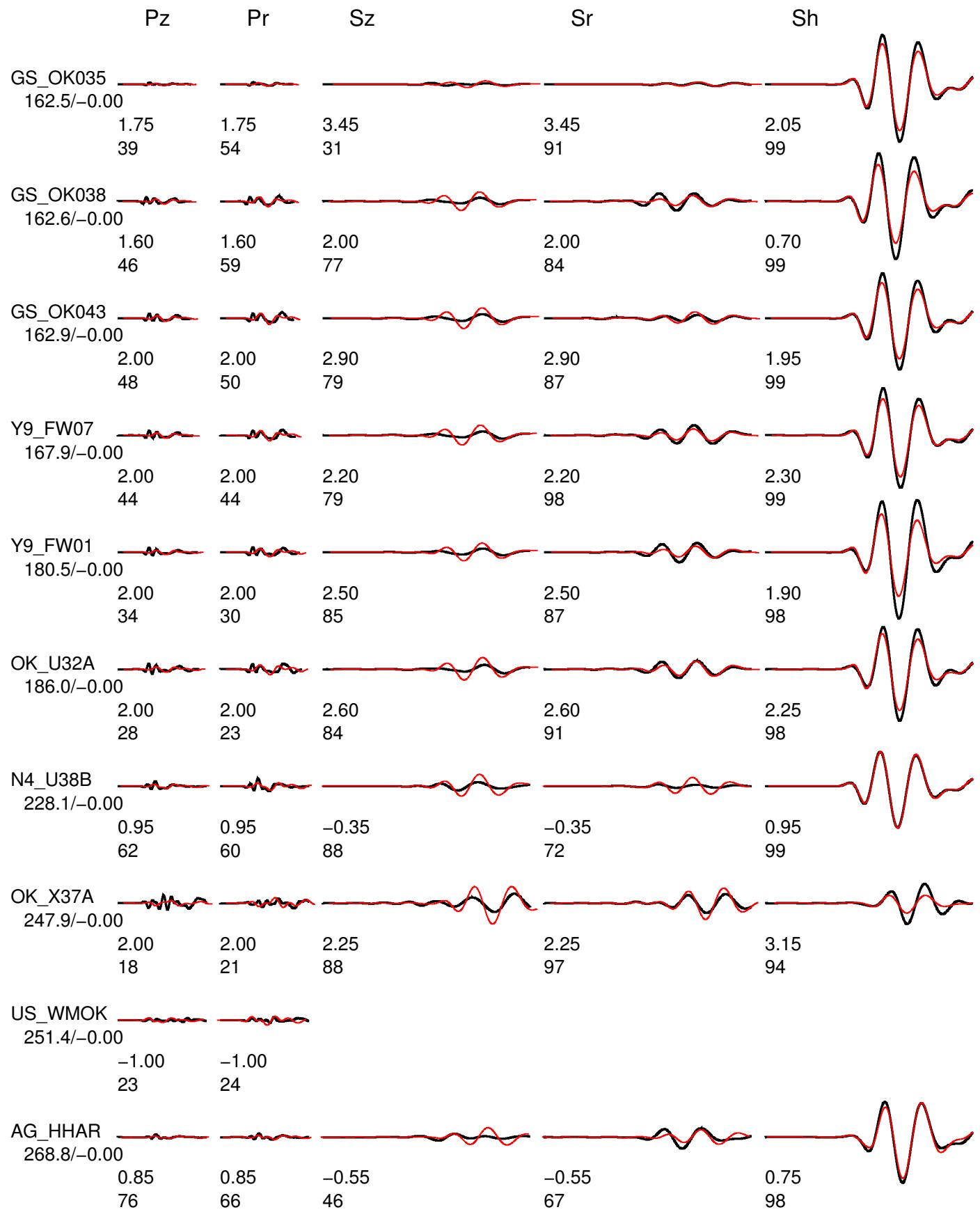
	Pz	Pr	Sz	Sr	Sh
GS_KS21 115.9/-0.00					
1.50 87	1.50 93	1.40 86		1.40 52	1.50 98
TA_TUL1 117.2/-0.00					
1.15 79	1.15 82	0.50 91		0.50 88	0.70 99
GS_OK032 122.1/-0.00					
1.20 28	1.20 68				
GS_KAN06 123.3/-0.00					
1.75 84	1.75 91	1.85 92		1.85 68	1.50 99
GS_KAN08 128.7/-0.00					
1.70 84	1.70 89	2.00 92		2.00 72	1.45 99
OK_HTCH 134.1/-0.00					
2.00 66	2.00 59	2.35 89		2.35 76	1.55 96
GS_KAN16 134.7/-0.00					
1.75 84	1.75 88	0.70 76		0.70 62	1.50 99
GS_KAN12 135.9/-0.00					
1.80 82	1.80 88	1.90 93		1.90 65	1.55 99
GS_OK040 156.6/-0.00					
2.00 55	2.00 58	2.60 74		2.60 5	1.45 98
Y9_FW02 161.6/-0.00					
					1.45 98

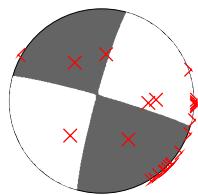


Event data Model and Depth chelsea\_3

FM 286 86 5 Mw 5.65 rms 6.098e+00 1465 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 82.2





Event data Model and Depth chelsea\_3

FM 286 86 5 Mw 5.65 rms 6.098e+00 1465 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 82.2

Pz

Pr

Sz

Sr

Sh

N4\_R32B

272.1/-0.00

2.00 2.00 2.85  
52 42 88

2.85  
95

US\_KSU1

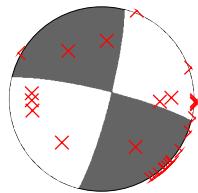
298.3/-0.00

1.55 1.55 2.40  
51 48 94

2.40  
94

2.35  
99

### C.3 Inversion Result at depth of 4km



Event data Model and Depth chelsea\_4

FM 283 82 -7 Mw 5.69 rms 6.975e+00 1719 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 83.8

Pz

Pr

Sz

Sr

Sh

GS\_OK034  
50.0/0.02



0.45	0.45	0.55
99	92	99

GS\_OK031  
53.0/0.05



0.75	0.75	1.05
98	87	95

GS\_OK030  
56.7/0.02



0.40	0.40	0.60
98	58	99

N4\_T35B  
66.0/0.01



0.15	0.15	0.60
98	79	99

GS\_KAN13  
81.6/0.00



0.20	0.20	1.55
93	86	99

GS\_OK029  
84.3/-0.02



0.00	0.00	1.30
78	75	99

GS\_KAN09  
100.1/-0.03



1.55	1.55	0.75	0.75	1.75
92	95	88	69	98

GS\_OK025  
100.6/0.01



2.00	2.00	1.45	1.45	1.85
84	82	94	64	94

GS\_KS20  
105.3/-0.02

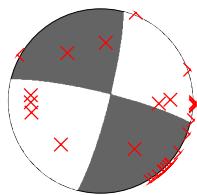


1.55	1.55	0.90	0.90	-5.00
91	95	88	75	87

GS\_KAN01  
109.6/0.00



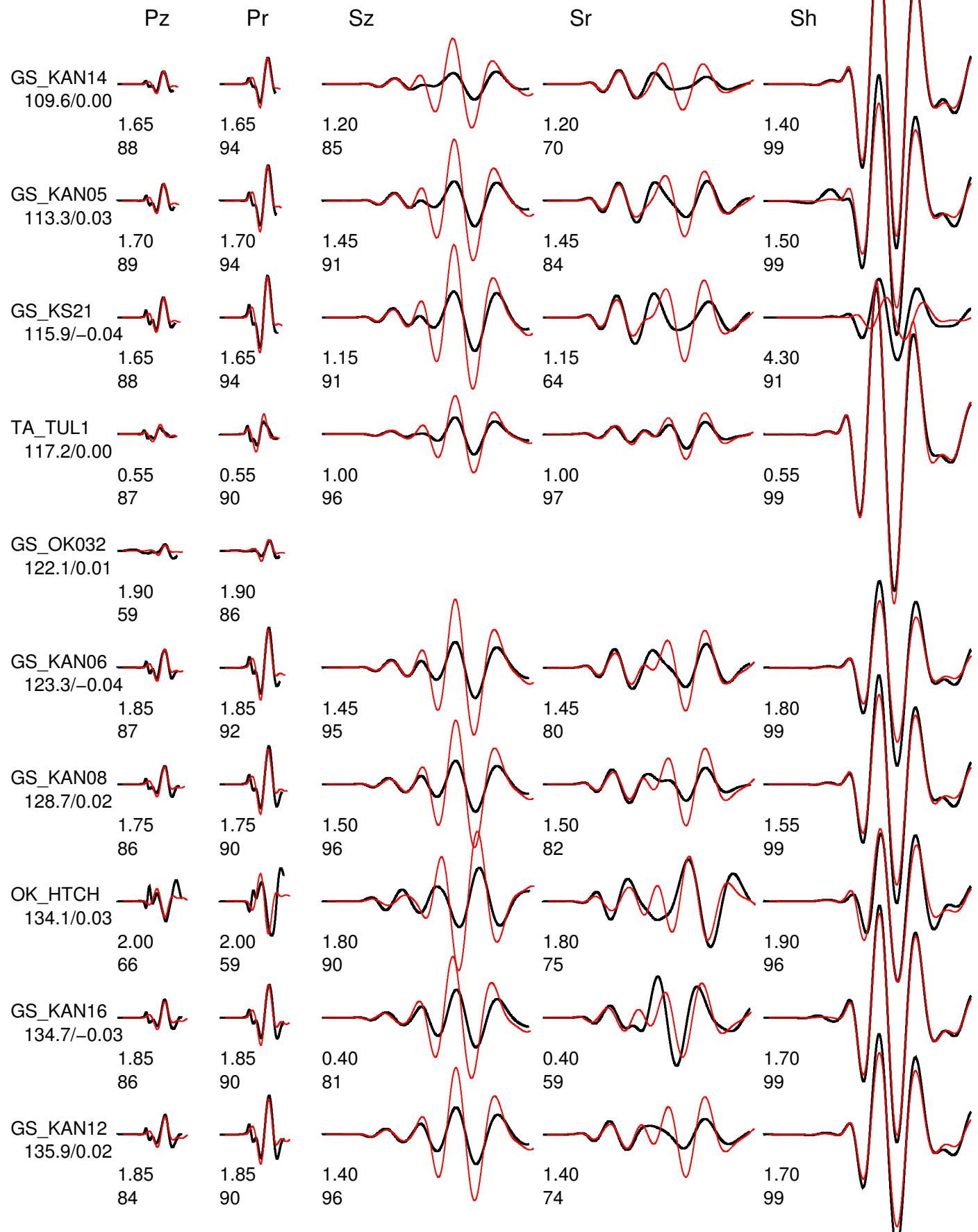
1.55	1.55	1.00	1.00	1.45
90	94	89	72	99

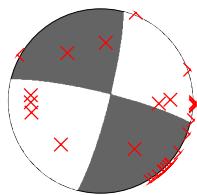


Event data Model and Depth chelsea\_4

FM 283 82 -7 Mw 5.69 rms 6.975e+00 1719 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 83.8





Event data Model and Depth chelsea\_4

FM 283 82 -7 Mw 5.69 rms 6.975e+00 1719 ERR 0 1 2 ISO 0.00 0.00 CLND 0.00 0.00

Variance reduction 83.8

Pz

Pr

Sz

Sr

Sh

GS\_OK040  
156.6/0.02

2.00  
43

2.00  
44

2.05  
65

2.05  
22

1.60  
98

Y9\_FW02  
161.6/0.03

1.60  
98

GS\_OK035  
162.5/0.03

-2.00  
0

-2.00  
0

1.95  
3

1.95  
66

2.20  
99

GS\_OK038  
162.6/-0.02

2.00  
51

2.00  
61

0.90  
76

0.90  
91

0.85  
99

GS\_OK043  
162.9/-0.02

2.00  
37

2.00  
37

2.10  
78

2.10  
92

2.15  
98

Y9\_FW07  
167.9/-0.01

2.00  
33

2.00  
31

1.25  
76

1.25  
98

2.50  
99

Y9\_FW01  
180.5/0.01

0.35  
25

0.35  
17

1.50  
82

1.50  
93

2.15  
98

OK\_U32A  
186.0/0.00

0.40  
27

0.40  
23

1.75  
84

1.75  
94

2.40  
98

Y9\_FW09  
189.7/0.05

0.25  
22

0.25  
27

0.70  
75

0.70  
90

0.70  
92

OK\_ELIS  
227.2/0.02

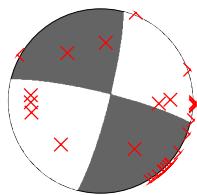
1.00  
28

1.00  
33

3.70  
74

3.70  
84

2.75  
84



Event data Model and Depth chelsea\_4

FM 283 82 -7 Mw 5.69 rms 6.975e+00 1719 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 83.8

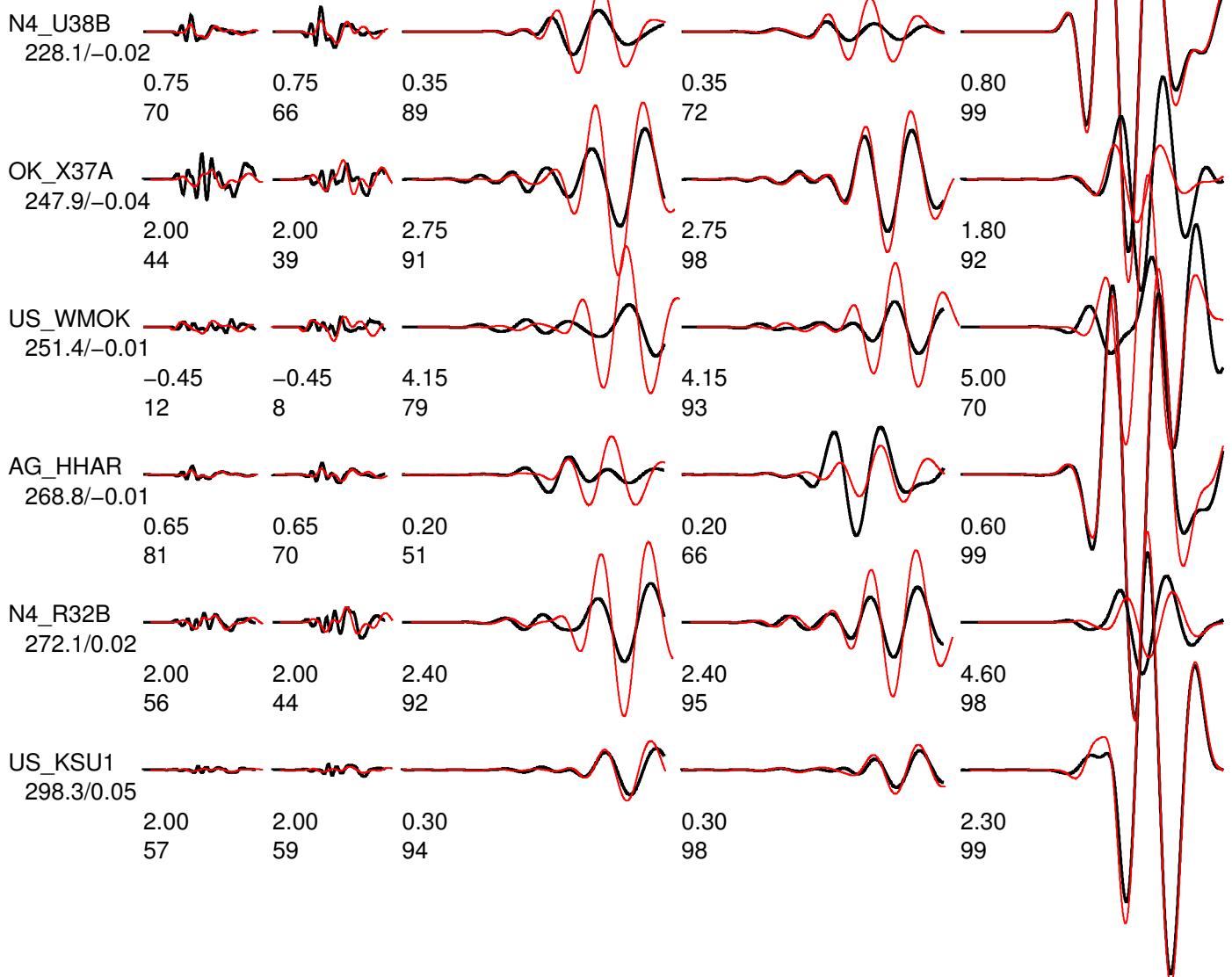
Pz

Pr

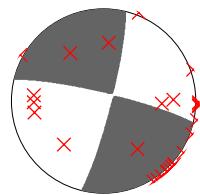
Sz

Sr

Sh



## C.4 Inversion Result at depth of 5km



Event data Model and Depth chelsea\_5

FM 283 83 -7 Mw 5.70 rms 5.562e+00 1719 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 87.1

Pz

Pr

Sz

Sr

Sh

GS\_OK034  
50.0/0.01



GS\_OK031  
53.0/0.04



GS\_OK030  
56.7/0.02



N4\_T35B  
66.0/0.00



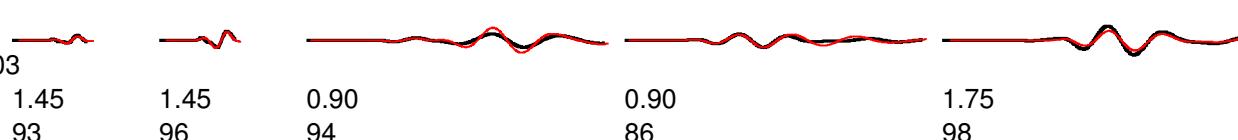
GS\_KAN13  
81.6/-0.01



GS\_OK029  
84.3/-0.02



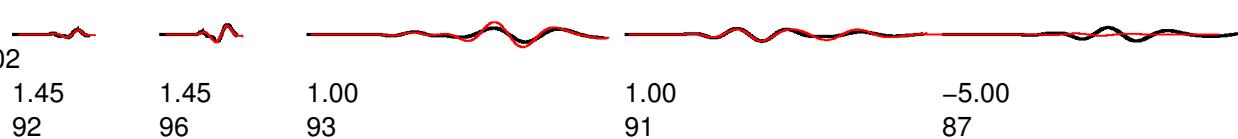
GS\_KAN09  
100.1/-0.03



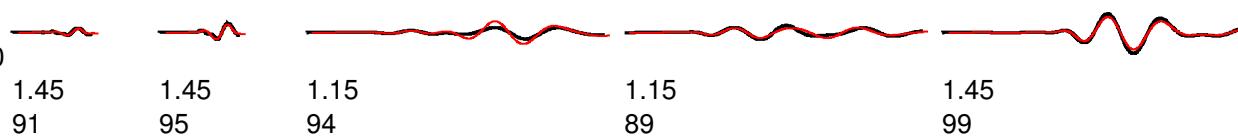
GS\_OK025  
100.6/0.01

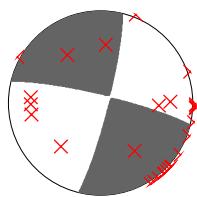


GS\_KS20  
105.3/-0.02



GS\_KAN01  
109.6/0.00

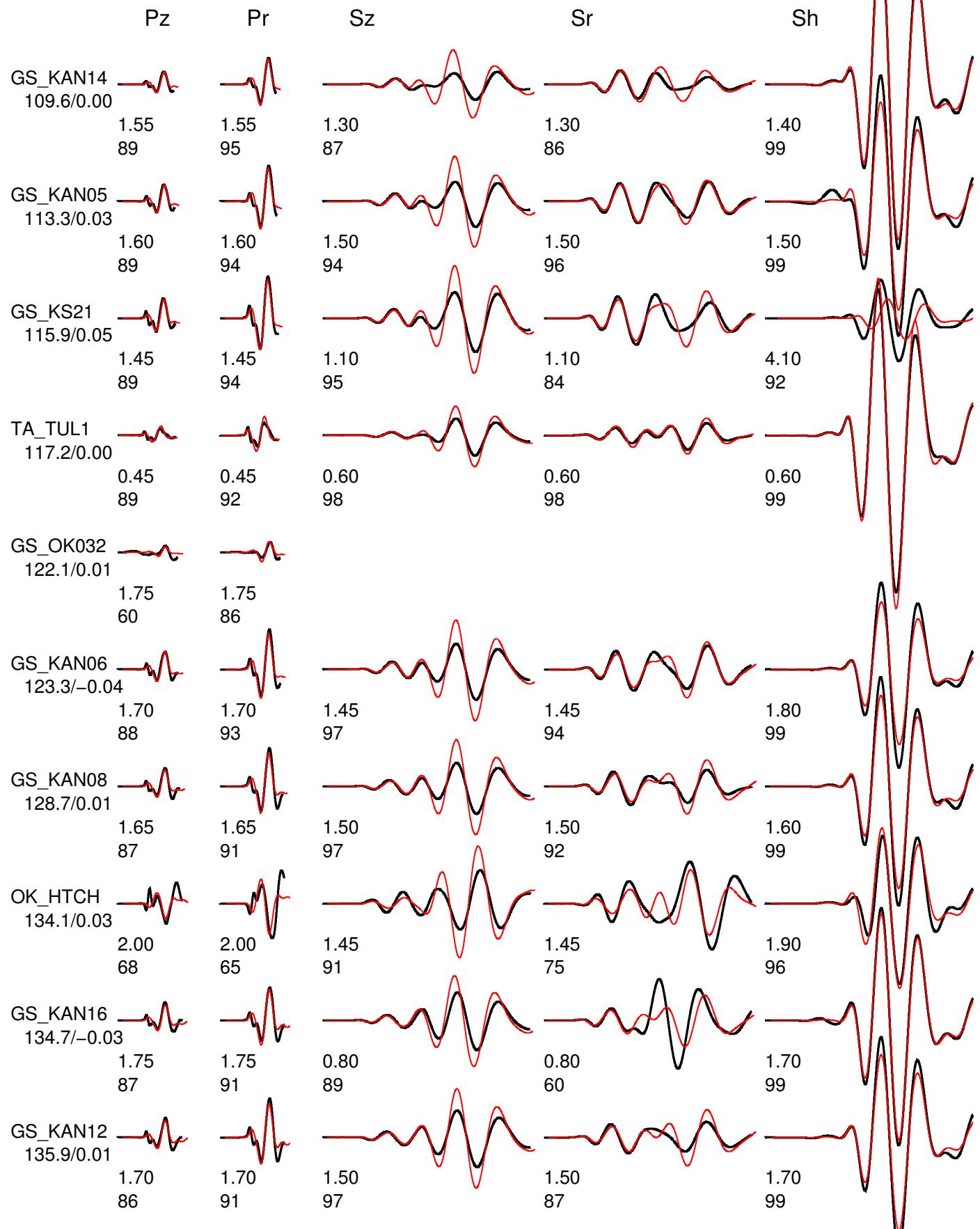


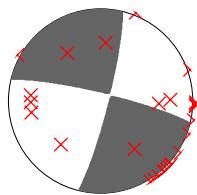


Event data Model and Depth chelsea\_5

FM 283 83 -7 Mw 5.70 rms 5.562e+00 1719 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 87.1





Event data Model and Depth chelsea\_5

FM 283 83 -7 Mw 5.70 rms 5.562e+00 1719 ERR 0 1 2 ISO 0.00 0.00 CLMD 0.00 0.00

Variance reduction 87.1

Pz

Pr

Sz

Sr

Sh

GS\_OK040  
156.6/0.02

2.00  
41

2.00  
42

1.80  
59

1.80  
26

1.60  
98

Y9\_FW02  
161.6/0.03

1.60  
98

GS\_OK035  
162.5/0.03

-2.00  
0

-2.00  
0

2.15  
7

2.15  
70

2.20  
99

GS\_OK038  
162.6/-0.02

2.00  
52

2.00  
61

0.45  
73

0.45  
94

0.90  
99

GS\_OK043  
162.9/-0.02

2.00  
34

2.00  
37

1.65  
76

1.65  
91

2.15  
98

Y9\_FW07  
167.9/-0.01

2.00  
29

2.00  
29

0.85  
74

0.85  
97

2.55  
99

Y9\_FW01  
180.5/0.01

0.40  
27

0.40  
18

1.15  
79

1.15  
95

2.15  
98

OK\_U32A  
186.0/-0.03

0.55  
32

0.55  
28

1.35  
83

1.35  
95

2.45  
98

Y9\_FW09  
189.7/0.02

0.30  
21

0.30  
27

0.35  
73

0.35  
91

0.75  
92

OK\_ELIS  
227.2/-0.01

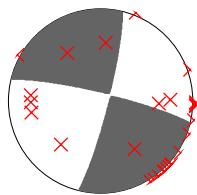
1.15  
38

1.15  
39

3.35  
75

3.35  
85

2.75  
85



Event data Model and Depth chelsea\_5

FM 283 83 -7 Mw 5.70 rms 5.562e+00 1719 ERR 0 1 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 87.1

Pz

Pr

Sz

Sr

Sh

N4\_U38B  
228.1/-0.04

0.60  
75

0.60  
71

0.80  
89

0.80  
68

0.80  
99

OK\_X37A  
247.9/-0.04

1.80  
46

1.80  
43

2.70  
94

2.70  
98

1.75  
91

US\_WMOK  
251.4/-0.01

-0.10  
13

-0.10  
0

3.80  
82

3.80  
92

5.00  
70

AG\_HHAR  
268.8/-0.01

0.45  
81

0.45  
73

0.65  
53

0.65  
63

0.60  
98

N4\_R32B  
272.1/0.02

2.00  
54

2.00  
49

2.35  
96

2.35  
95

4.75  
98

US\_KSU1  
298.3/0.04

2.00  
52

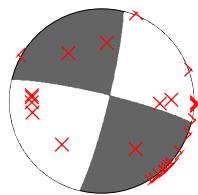
2.00  
58

-0.15  
93

-0.15  
98

2.30  
99

## C.5 Inversion Result at depth of 6km



Event data Model and Depth chelsea\_6

FM 283 84 -6 Mw 5.71 rms 5.082e+00 1719 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 88.2

Pz

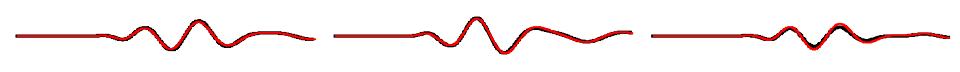
Pr

Sz

Sr

Sh

GS\_OK034  
50.0/0.01



	Pz	Pr	Sz	Sr	Sh
0.35	99		0.35	99	0.45
					99

GS\_OK031  
53.0/0.04



	Pz	Pr	Sz	Sr	Sh
1.40	96		1.40	88	1.00
					95

GS\_OK030  
56.7/0.01



	Pz	Pr	Sz	Sr	Sh
0.05	96		0.05	84	0.55
					99

N4\_T35B  
66.0/0.00



	Pz	Pr	Sz	Sr	Sh
0.85	98		0.85	89	0.55
					99

GS\_KAN13  
81.6/-0.01



	Pz	Pr	Sz	Sr	Sh
0.70	99		0.70	98	1.40
					99

GS\_OK029  
84.3/-0.03



	Pz	Pr	Sz	Sr	Sh
-0.40	83		-0.40	45	1.25
					99

GS\_KAN09  
100.1/-0.04



	Pz	Pr	Sz	Sr	Sh
1.35	92		1.35	98	1.70
					98

GS\_OK025  
100.6/0.01



	Pz	Pr	Sz	Sr	Sh
2.00	82		2.00	83	1.85
					94

GS\_KS20  
105.3/-0.02

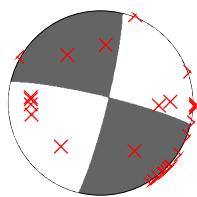


	Pz	Pr	Sz	Sr	Sh
1.35	91		1.35	96	-5.00
					86

GS\_KAN01  
109.6/-0.01



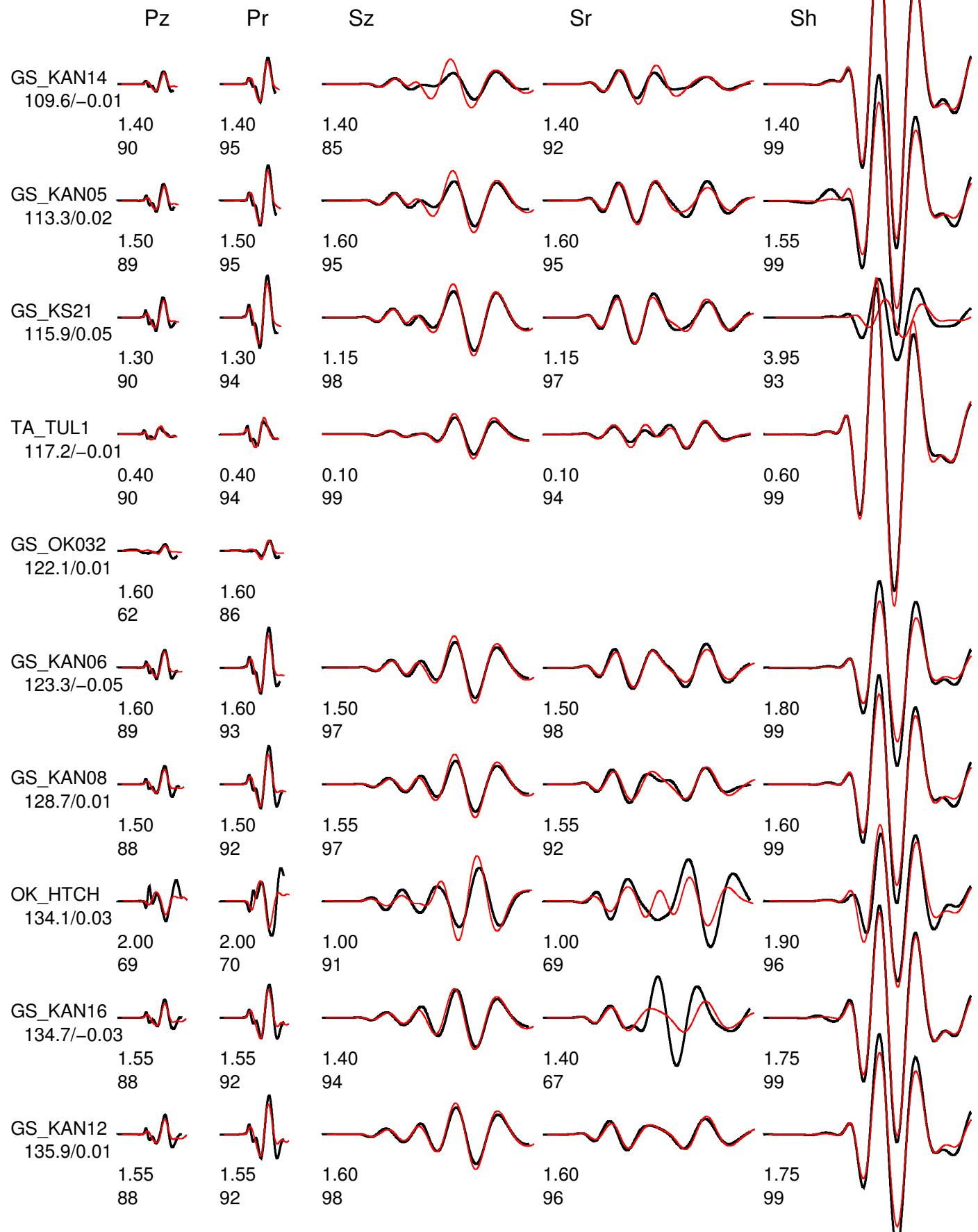
	Pz	Pr	Sz	Sr	Sh
1.35	91		1.35	95	1.45
					99

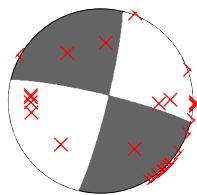


Event data Model and Depth chelsea\_6

FM 283 84 -6 Mw 5.71 rms 5.082e+00 1719 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 88.2





Event data Model and Depth chelsea\_6

FM 283 84 -6 Mw 5.71 rms 5.082e+00 1719 ERR 0 1 1 ISO 0.00 0.00 CLMD 0.00 0.00

Variance reduction 88.2

Pz

Pr

Sz

Sr

Sh

GS\_OK040  
156.6/0.02

2.00  
38

2.00  
40

1.55  
54

1.55  
25

1.60  
98

Y9\_FW02  
161.6/0.03

1.65  
98

GS\_OK035  
162.5/0.03

2.00  
6

2.00  
0

2.25  
9

2.25  
72

2.20  
99

GS\_OK038  
162.6/-0.03

2.00  
53

2.00  
59

0.15  
70

0.15  
95

0.90  
99

GS\_OK043  
162.9/-0.03

2.00  
30

2.00  
35

1.35  
73

1.35  
91

2.15  
98

Y9\_FW07  
167.9/-0.01

2.00  
25

2.00  
28

0.50  
72

0.50  
97

2.55  
99

Y9\_FW01  
180.5/-0.02

0.55  
29

0.55  
21

0.90  
76

0.90  
96

2.15  
98

OK\_U32A  
186.0/0.05

0.55  
38

0.55  
33

0.90  
82

0.90  
97

2.35  
98

Y9\_FW09  
189.7/-0.01

0.40  
19

0.40  
26

0.15  
72

0.15  
92

0.80  
92

OK\_ELIS  
227.2/-0.03

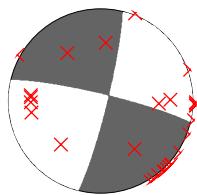
1.20  
47

1.20  
45

2.95  
73

2.95  
86

2.80  
85



Event data Model and Depth chelsea\_6

FM 283 84 -6 Mw 5.71 rms 5.082e+00 1719 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 88.2

Pz

Pr

Sz

Sr

Sh

N4\_U38B  
228.1/0.03

0.35  
78

0.35  
75

1.20  
87

1.20  
63

0.75  
99

OK\_X37A  
247.9/-0.05

1.55  
51

1.55  
46

2.60  
96

2.60  
97

1.75  
91

US\_WMOK  
251.4/-0.01

0.30  
19

0.30  
0

3.35  
84

3.35  
92

5.00  
70

AG\_HHAR  
268.8/-0.01

0.30  
83

0.30  
76

1.05  
54

1.05  
59

0.55  
98

N4\_R32B  
272.1/0.02

2.00  
49

2.00  
50

2.35  
98

2.35  
94

4.90  
98

US\_KSU1  
298.3/0.04

2.00  
45

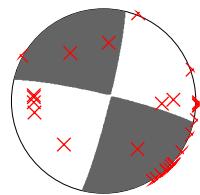
2.00  
55

-0.70  
90

-0.70  
96

2.30  
99

## C.6 Inversion Result at depth of 7km



Event data Model and Depth chelsea\_7

FM 283 84 -5 Mw 5.72 rms 5.207e+00 1719 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 87.9

Pz

Pr

Sz

Sr

Sh

GS\_OK034  
50.0/-0.01



0.35  
98

0.35  
99

0.40  
99

GS\_OK031  
53.0/0.02



1.70  
94

1.70  
88

0.95  
95

GS\_OK030  
56.7/0.00



-0.15  
88

-0.15  
88

0.50  
99

N4\_T35B  
66.0/-0.01



1.15  
96

1.15  
83

0.50  
99

GS\_KAN13  
81.6/-0.02



1.05  
98

1.05  
87

1.40  
99

GS\_OK029  
84.3/-0.03

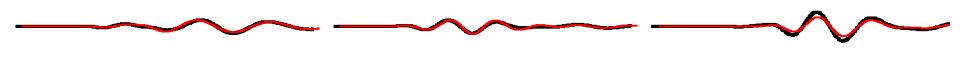


-0.90  
80

-0.90  
25

1.25  
99

GS\_KAN09  
100.1/-0.04



1.25  
89

1.25  
96

1.70  
98

GS\_OK025  
100.6/0.00



2.00  
79

2.00  
81

1.85  
94

GS\_KS20  
105.3/-0.03

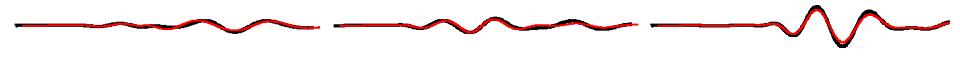


1.25  
88

1.25  
95

-5.00  
86

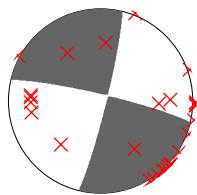
GS\_KAN01  
109.6/-0.01



1.20  
90

1.20  
94

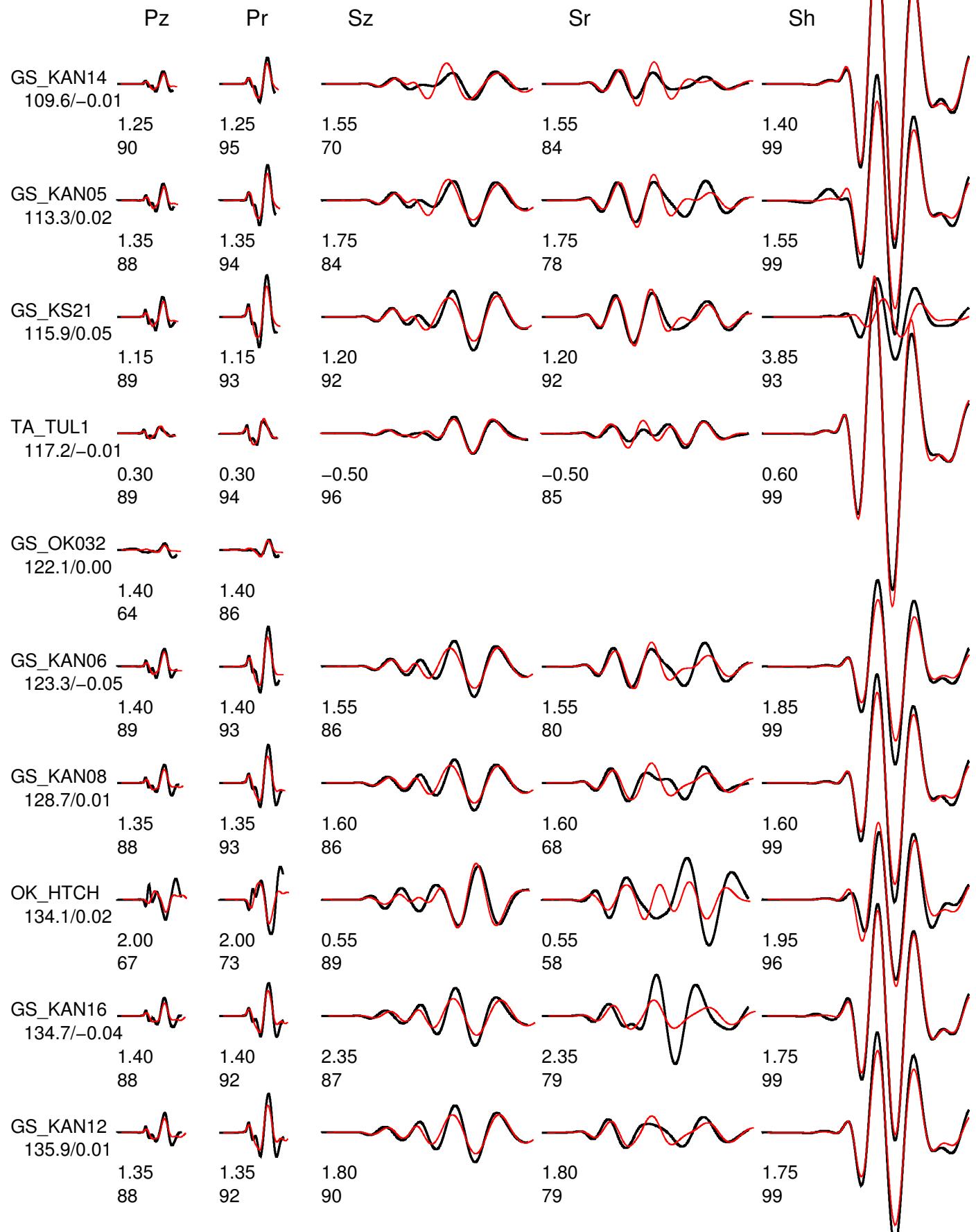
1.45  
99

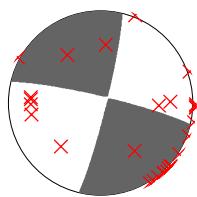


Event data Model and Depth chelsea\_7

FM 283 84 -5 Mw 5.72 rms 5.207e+00 1719 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 87.9





Event data Model and Depth chelsea\_7

FM 283 84 -5 Mw 5.72 rms 5.207e+00 1719 ERR 0 1 1 ISO 0.00 0.00 CLMD 0.00 0.00

Variance reduction 87.9

Pz

Pr

Sz

Sr

Sh

GS\_OK040  
156.6/0.01

2.00  
35

2.00  
38

1.40  
49

1.40  
25

1.65  
98

Y9\_FW02  
161.6/0.03

1.65  
98

GS\_OK035  
162.5/0.03

2.00  
14

2.00  
0

2.30  
10

2.30  
74

2.25  
99

GS\_OK038  
162.6/-0.03

2.00  
53

2.00  
57

-0.05  
67

-0.05  
96

0.90  
99

GS\_OK043  
162.9/-0.03

2.00  
25

2.00  
33

1.05  
70

1.05  
89

2.20  
98

Y9\_FW07  
167.9/-0.02

2.00  
20

2.00  
25

0.25  
69

0.25  
96

2.60  
99

Y9\_FW01  
180.5/-0.05

0.65  
31

0.65  
22

0.70  
74

0.70  
97

2.20  
98

OK\_U32A  
186.0/0.02

0.65  
43

0.65  
38

0.65  
79

0.65  
98

2.40  
98

Y9\_FW09  
189.7/-0.03

0.50  
18

0.50  
23

-0.05  
72

-0.05  
93

0.80  
93

OK\_ELIS  
227.2/0.04

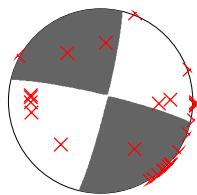
1.15  
54

1.15  
49

2.45  
71

2.45  
87

2.70  
85



Event data Model and Depth chelsea\_7

FM 283 84 -5 Mw 5.72 rms 5.207e+00 1719 ERR 0 1 1 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 87.9

Pz

Pr

Sz

Sr

Sh

N4\_U38B  
228.1/0.00

0.25  
81

0.25  
78

1.60  
84

1.60  
56

0.75  
99

OK\_X37A  
247.9/-0.05

1.35  
55

1.35  
49

2.45  
94

2.45  
91

1.70  
90

US\_WMOK  
251.4/-0.01

0.50  
21

0.50  
0

2.85  
85

2.85  
92

5.00  
71

AG\_HHAR  
268.8/-0.01

0.10  
83

0.10  
78

1.35  
54

1.35  
55

0.55  
98

N4\_R32B  
272.1/0.02

2.00  
41

2.00  
49

2.30  
93

2.30  
91

5.00  
98

US\_KSU1  
298.3/0.04

2.00  
36

2.00  
51

-1.10  
87

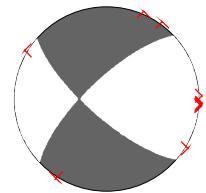
-1.10  
95

2.30  
99



## D. Full Inversion Result on 2016-09-03 (aftershock M3.7)

### D.1 Inversion Result at depth of 2km



Event data Model and Depth chelsea\_2

FM 131 73 -18 Mw 3.50 rms 1.414e-06 505 ERR 1 2 6 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 72.4

Pz

Pr

Sz

Sr

Sh

GS\_OK033  
44.4/-0.15



-0.10  
99

-0.10  
90

N4\_T35B  
62.4/-0.08

0.50  
77



1.20  
26

1.20  
51

1.15  
88

GS\_OK029  
88.0/-0.06

1.25  
81



0.85  
81

0.85  
31

0.10  
98

OK\_CROK  
98.4/-0.13

0.85  
69



0.85  
95

GS\_OK025  
103.8/-0.08

1.55  
51



0.30  
97

0.30  
92

0.45  
97

GS\_KAN14  
111.7/-0.13

0.25  
67



1.45  
83

TA\_TUL1  
115.0/-0.10

0.95  
76



-0.25  
96

-0.25  
82

0.70  
99

OK\_FNO  
139.4/-0.17

1.10  
66



0.90  
96

0.90  
73

0.95  
97

Y9\_FW06  
144.6/-0.11

0.90  
28



1.10  
98

1.10  
71

GS\_OK040  
160.1/-0.17

1.15  
23

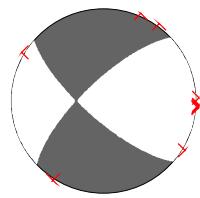


53

96

C. Full Inversion Result on 2016-09-03 (mainshock M5.8)

C. Full Inversion Result on 2016-09-03 (mainshock M5.8)



Event data Model and Depth chelsea\_2

FM 131 73 -18 Mw 3.50 rms 1.414e-06 505 ERR 1 2 6 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 72.4

Pz

Pr

Sz

Sr

Sh

Y9\_FW10  
164.2/-0.10

0.90  
4

0.90  
41

1.25  
95

1.25  
87

Y9\_FW02  
165.3/-0.15

0.05  
2

0.05  
43

1.40  
98

GS\_OK038  
166.2/-0.11

0.75  
89

Y9\_FW09  
193.2/-0.18

1.75  
92

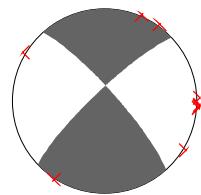
OK\_X37A  
247.4/-0.27

3.20  
84

3.20  
89

3.30  
95

## D.2 Inversion Result at depth of 3km



Event data Model and Depth chelsea\_3

FM 318 80 10 Mw 3.50 rms 1.318e-06 505 ERR 1 4 5 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 74.2

Pz

Pr

Sz

Sr

Sh

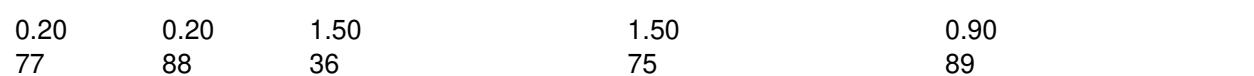
GS\_OK033  
44.4/-0.05



-0.60  
99

-0.60  
96

N4\_T35B  
62.4/0.03



0.20  
77

0.20  
88

1.50  
36

1.50  
75

0.90  
89

GS\_OK029  
88.0/0.04



1.25  
83

1.25  
76

0.10  
88

0.10  
28

0.10  
98

OK\_CROK  
98.4/-0.03



0.90  
76

0.90  
87

0.20  
97

GS\_OK025  
103.8/0.03



1.50  
53

1.50  
67

-0.20  
97

-0.20  
93

0.50  
97

GS\_KAN14  
111.7/-0.03



0.80  
61

0.80  
79

-0.20  
89

TA\_TUL1  
115.0/0.00



-0.10  
92

-0.10  
78

1.25  
97

1.25  
92

0.65  
99

OK\_FNO  
139.4/-0.06



1.20  
70

0.40  
96

0.40  
77

0.40  
97

1.10  
97

Y9\_FW06  
144.6/-0.01



0.95  
34

0.95  
63

0.40  
98

0.40  
73

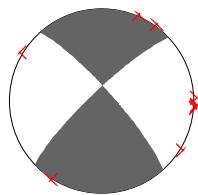
GS\_OK040  
160.1/-0.06



1.25  
25

1.25  
58

0.75  
96



Event data Model and Depth chelsea\_3

FM 318 80 10 Mw 3.50 rms 1.318e-06 505 ERR 1 4 5 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 74.2

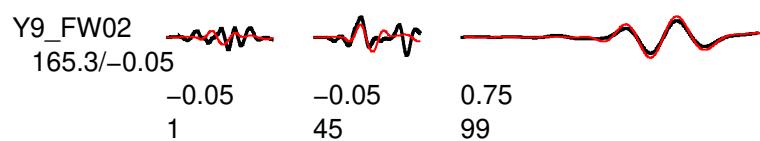
Pz

Pr

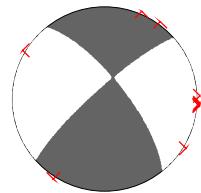
Sz

Sr

Sh



### D.3 Inversion Result at depth of 4km



Event data Model and Depth chelsea\_4

FM 321 72 10 Mw 3.55 rms 1.255e-06 505 ERR 1 3 6 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 75.4

Pz

Pr

Sz

Sr

Sh

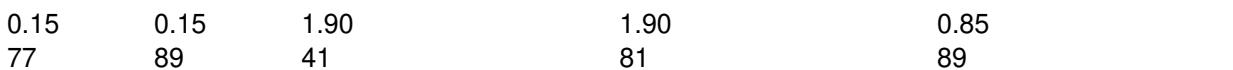
GS\_OK033  
44.4/-0.04



-0.80  
99

-0.80  
94

N4\_T35B  
62.4/0.04



0.15  
77

0.15  
89

1.90  
41

1.90  
81

0.85  
89

GS\_OK029  
88.0/0.05



1.20  
82

1.20  
78

-0.35  
91

-0.35  
32

0.10  
98

OK\_CROK  
98.4/-0.02



0.85  
80

0.85  
90

-0.10  
98

GS\_OK025  
103.8/0.04



1.40  
55

1.40  
65

-0.60  
97

-0.60  
92

0.50  
97

GS\_KAN14  
111.7/-0.02



0.85  
57

0.85  
83

-0.80  
88

TA\_TUL1  
115.0/0.01



-0.25  
91

-0.25  
79

2.05  
96

2.05  
83

0.60  
99

OK\_FNO  
139.4/-0.05



1.20  
73

0.05  
96

0.05  
79

1.10  
97

Y9\_FW06  
144.6/0.00



0.90  
35

0.90  
69

0.10  
98

0.10  
75

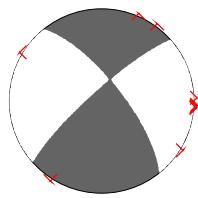
GS\_OK040  
160.1/-0.05



1.20  
28

1.20  
58

0.40  
95



Event data Model and Depth chelsea\_4

FM 321 72 10 Mw 3.55 rms 1.255e-06 505 ERR 1 3 6 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 75.4

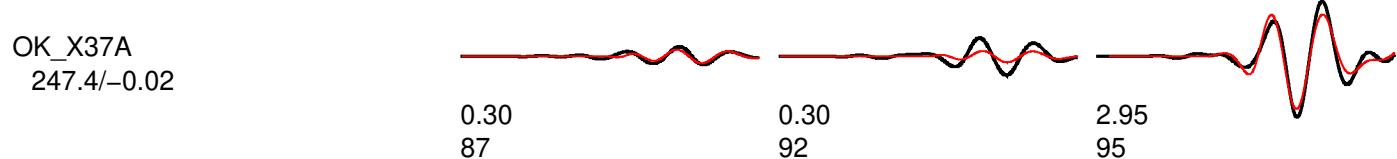
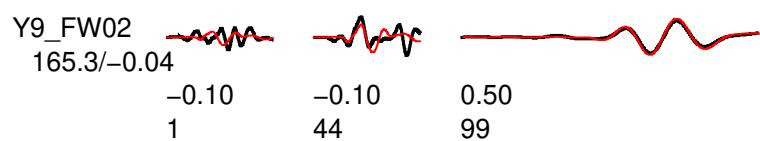
Pz

Pr

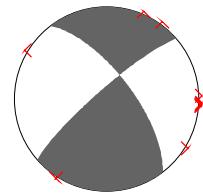
Sz

Sr

Sh



## D.4 Inversion Result at depth of 5km



Event data Model and Depth chelsea\_5

FM 323 68 10 Mw 3.57 rms 1.273e-06 505 ERR 1 3 4 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 75.1

Pz

Pr

Sz

Sr

Sh

GS\_OK033  
44.4/-0.04



-1.05  
98

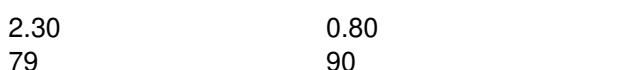
-1.05  
85

N4\_T35B  
62.4/0.03

0.05  
74



2.30  
43



2.30  
79

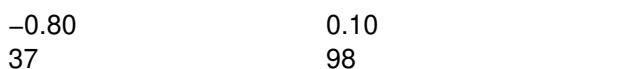
0.80  
90

GS\_OK029  
88.0/0.05

1.20  
81



-0.80  
92



-0.80  
37

0.10  
98

OK\_CROK  
98.4/-0.02

0.75  
82



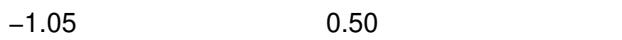
-0.30  
98

GS\_OK025  
103.8/0.04

1.35  
56



-1.05  
98



-1.05  
90

0.50  
97

GS\_KAN14  
111.7/-0.02

0.80  
52



-1.30  
87

TA\_TUL1  
115.0/0.01

-0.35  
92



2.80  
95



2.80  
75

0.60  
99

OK\_FNO  
139.4/-0.06

1.25  
75



-0.40  
95



-0.40  
82

1.15  
97

Y9\_FW06  
144.6/0.00

0.85  
34



-0.15  
97



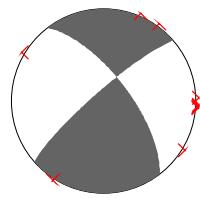
-0.15  
74

GS\_OK040  
160.1/-0.05

1.05  
34



0.15  
94



Event data Model and Depth chelsea\_5

FM 323 68 10 Mw 3.57 rms 1.273e-06 505 ERR 1 3 4 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 75.1

Pz

Pr

Sz

Sr

Sh

Y9\_FW10  
164.2/0.02

0.40  
23

0.40  
34

-0.25  
89

-0.25  
87

Y9\_FW02  
165.3/-0.04

-0.15  
2

-0.15  
42

0.25  
98

GS\_OK038  
166.2/0.00

-0.40  
96

Y9\_FW09  
193.2/0.10

0.10  
89

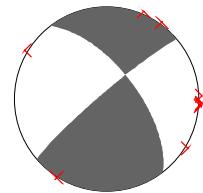
OK\_X37A  
247.4/0.08

-0.05  
88

-0.05  
92

2.85  
95

## D.5 Inversion Result at depth of 6km



Event data Model and Depth chelsea\_6

FM 322 64 6 Mw 3.58 rms 1.365e-06 505 ERR 1 2 3 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 73.3

Pz

Pr

Sz

Sr

Sh

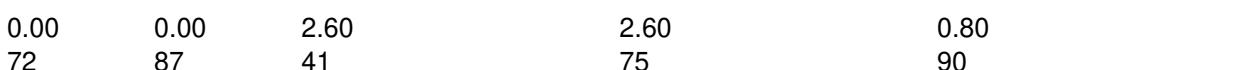
GS\_OK033  
44.4/-0.05



-1.45  
98

-1.45  
66

N4\_T35B  
62.4/0.02



0.00  
72

2.60  
41

2.60  
75

0.80  
90

GS\_OK029  
88.0/0.05



1.45  
76

1.45  
74

-1.25  
90

0.10  
98

OK\_CROK  
98.4/-0.02



0.75  
79

0.75  
92

-1.40  
97

GS\_OK025  
103.8/0.03



1.50  
46

1.50  
57

-1.60  
98

0.55  
97

GS\_KAN14  
111.7/-0.02



0.95  
50

0.95  
85

-2.25  
81

TA\_TUL1  
115.0/0.01



-0.60  
88

-0.60  
78

3.85  
95

0.65  
99

OK\_FNO  
139.4/-0.06



1.45  
76

-0.95  
94

-0.95  
83

1.25  
97

Y9\_FW06  
144.6/0.00



0.85  
34

0.85  
81

-1.35  
97

-1.35  
57

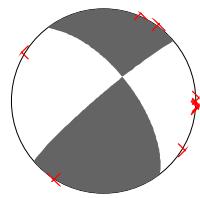
GS\_OK040  
160.1/-0.06



0.95  
43

0.95  
55

-0.90  
94



Event data Model and Depth chelsea\_6  
FM 322 64 6 Mw 3.58 rms 1.365e-06 505 ERR 1 2 3 ISO 0.00 0.00 CLVD 0.00 0.00  
Variance reduction 73.3

Pz

Pr

Sz

Sr

Sh

Y9\_FW10  
164.2/0.02

0.15  
30

0.15  
31

-1.35  
88

-1.35  
81

Y9\_FW02  
165.3/-0.04

-0.10  
4

-0.10  
37

-0.80  
97

GS\_OK038  
166.2/0.00

-1.40  
94

Y9\_FW09  
193.2/0.18

-1.05  
94

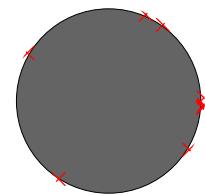
OK\_X37A  
247.4/0.18

-0.40  
90

-0.40  
93

2.70  
96

## D.6 Inversion Result at depth of 7km



Event data Model and Depth chelsea\_7

FM 321 90 26 Mw 3.59 rms 1.457e-06 505 ERR 1 2 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 71.5

Pz

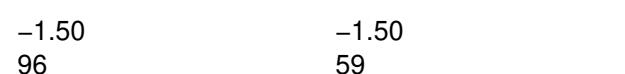
Pr

Sz

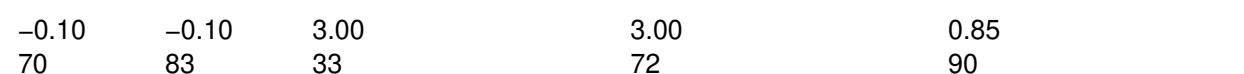
Sr

Sh

GS\_OK033  
44.4/-0.07



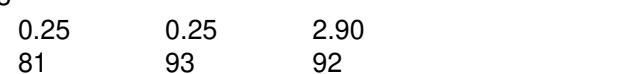
N4\_T35B  
62.4/0.02



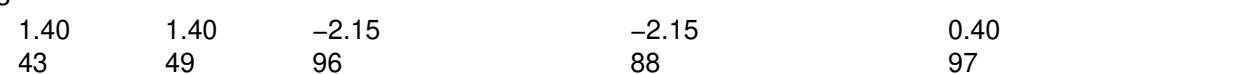
GS\_OK029  
88.0/0.04



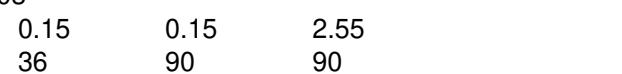
OK\_CROK  
98.4/-0.03



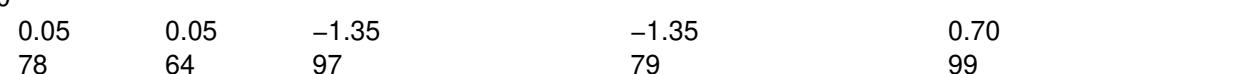
GS\_OK025  
103.8/0.03



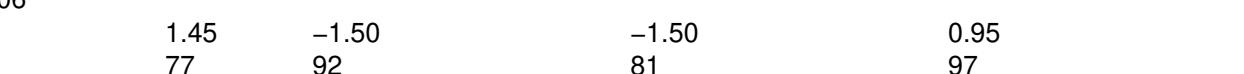
GS\_KAN14  
111.7/-0.03



TA\_TUL1  
115.0/0.00



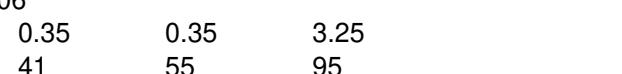
OK\_FNO  
139.4/-0.06

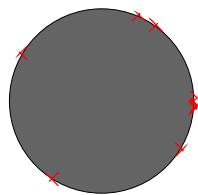


Y9\_FW06  
144.6/0.00



GS\_OK040  
160.1/-0.06





Event data Model and Depth chelsea\_7

FM 321 90 26 Mw 3.59 rms 1.457e-06 505 ERR 1 2 2 ISO 0.00 0.00 CLVD 0.00 0.00

Variance reduction 71.5

Pz

Pr

Sz

Sr

Sh

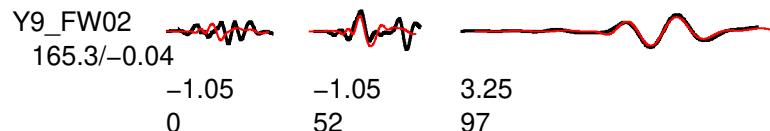


-0.15  
20

-0.15  
38

3.40  
94

3.40  
89



-1.05  
0

-1.05  
52

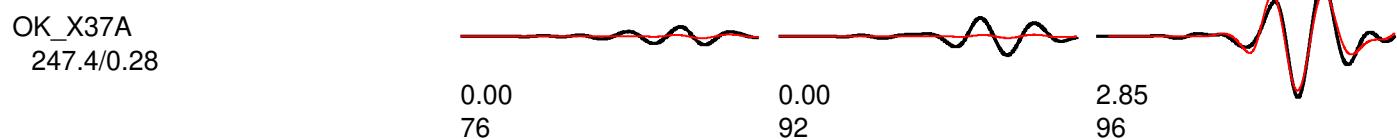
3.25  
97



2.65  
88



3.20  
93



0.00  
76

0.00  
92

2.85  
96