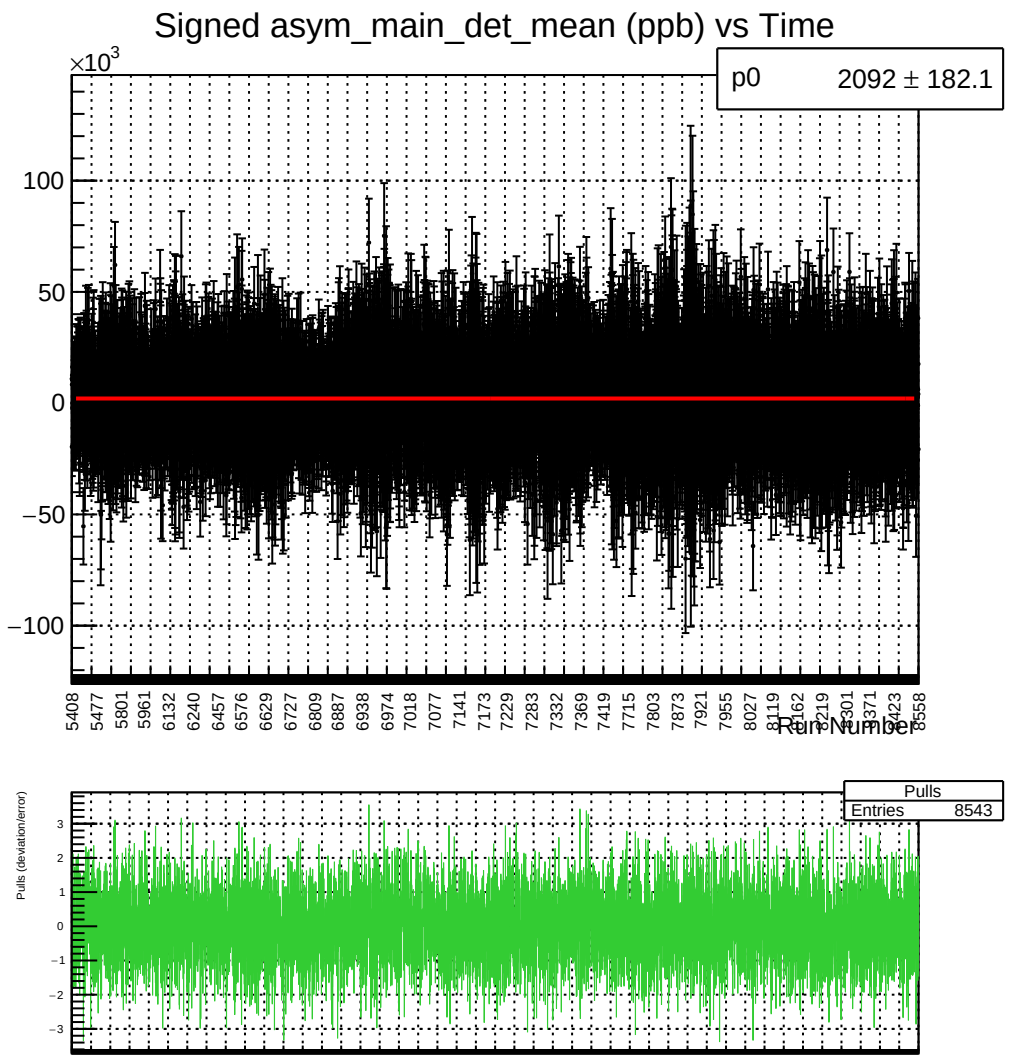
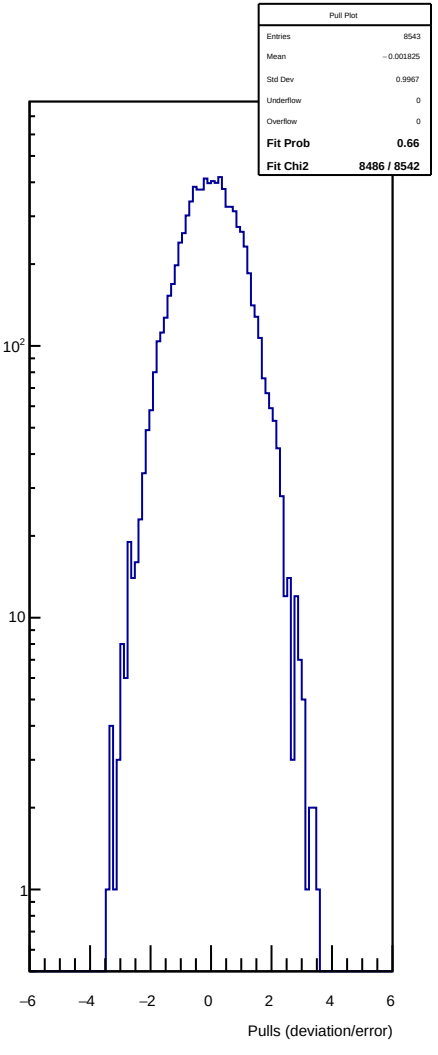
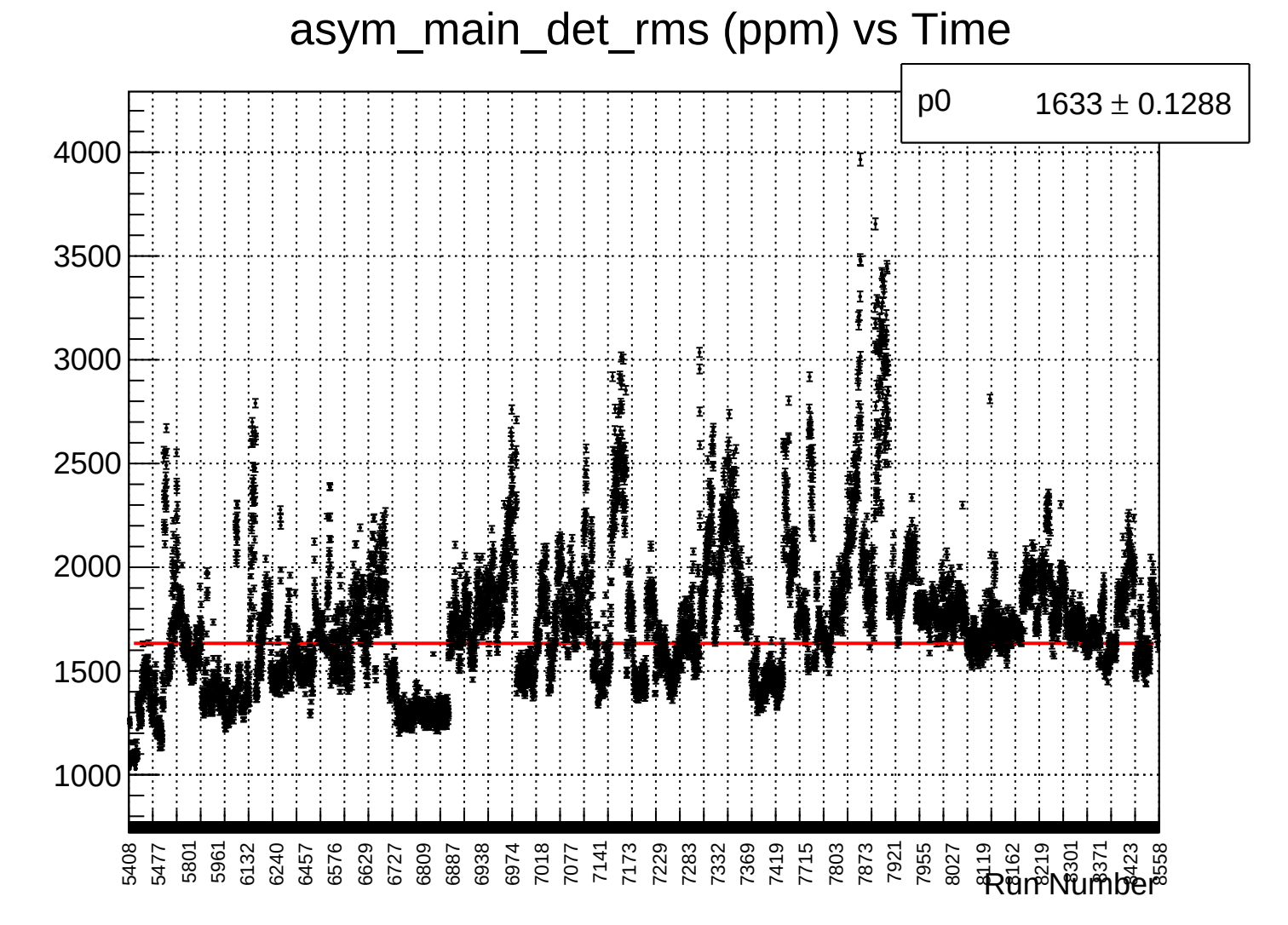
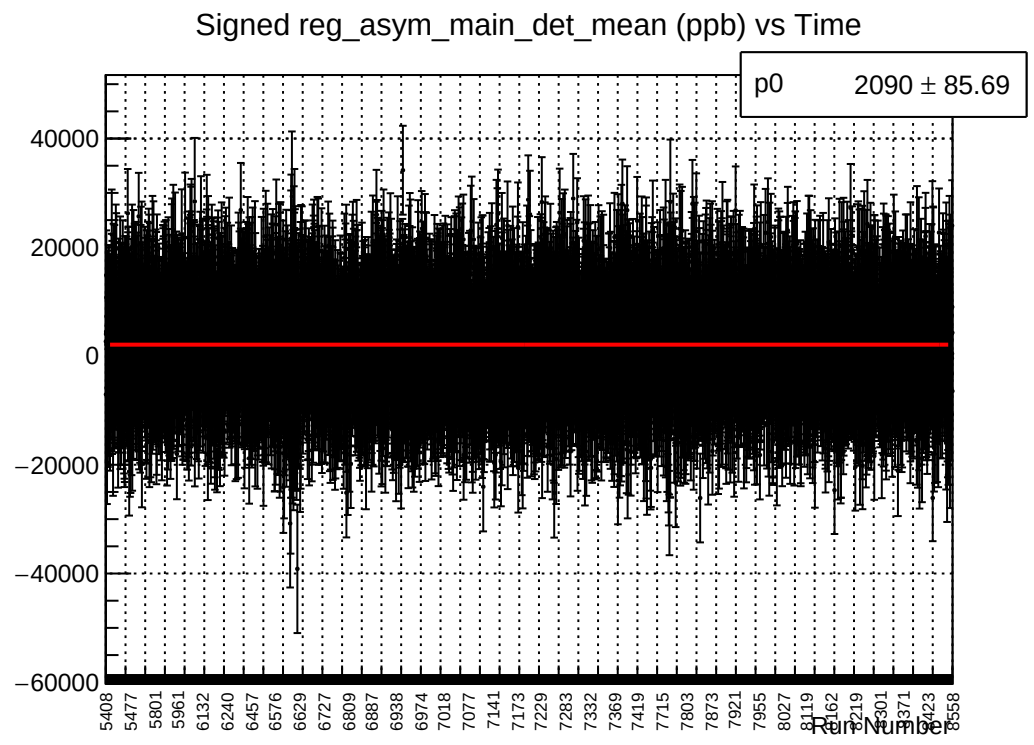
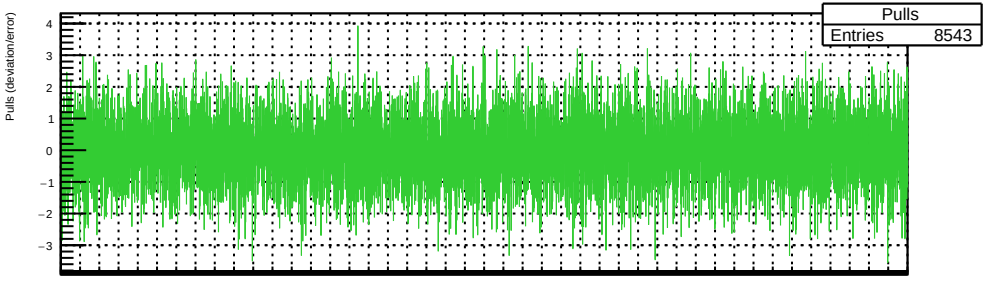
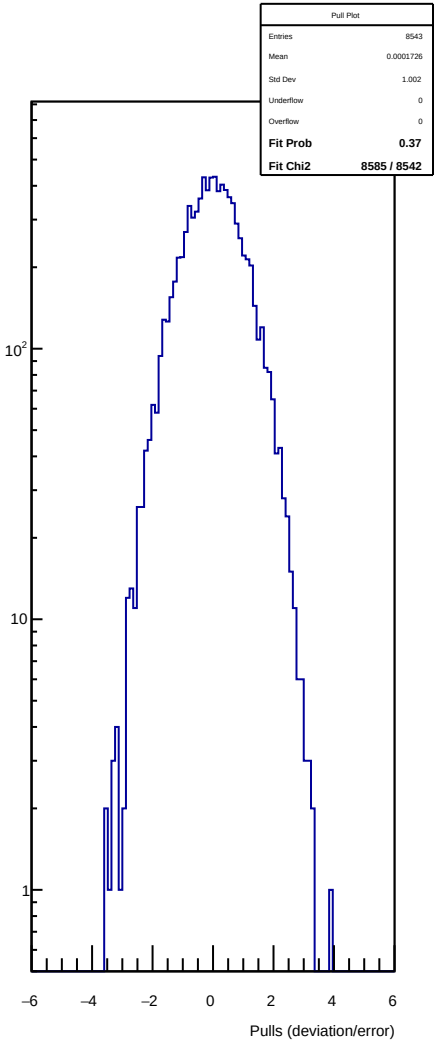

Signed asym_main_det_mean (ppb) vs Time
p0 2092 ± 182.1
×10^3
100
50
0
−50
−100
5408 5477 5801 5961 6132 6240 6457 6576 6629 6727 6809 6887 6938 6974 7018 7077 7141 7173 7229 7283 7332 7369 7419 7715 7803 7873 7921 7955 8027 8119 8162 8219 8301 8371 8423 8558
Run Number
Pulls
Entries 8543
Pulls (deviation/error)
3
2
1
0
−1
−2
−3

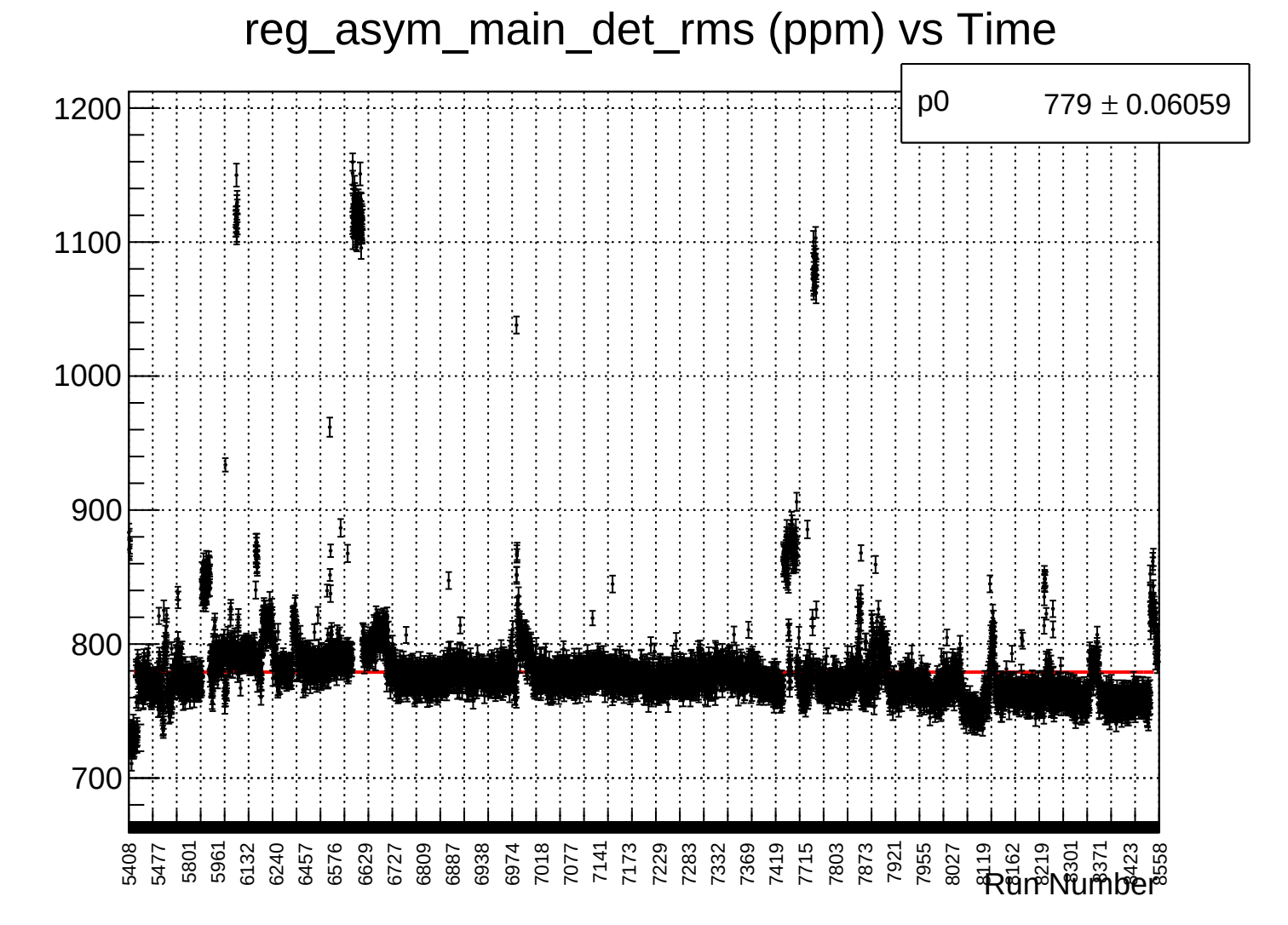

Pull Plot
Entries 8543
Mean −0.001825
Std Dev 0.9967
Underflow 0
Overflow 0
Fit Prob 0.66
Fit Chi2 8486 / 8542
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

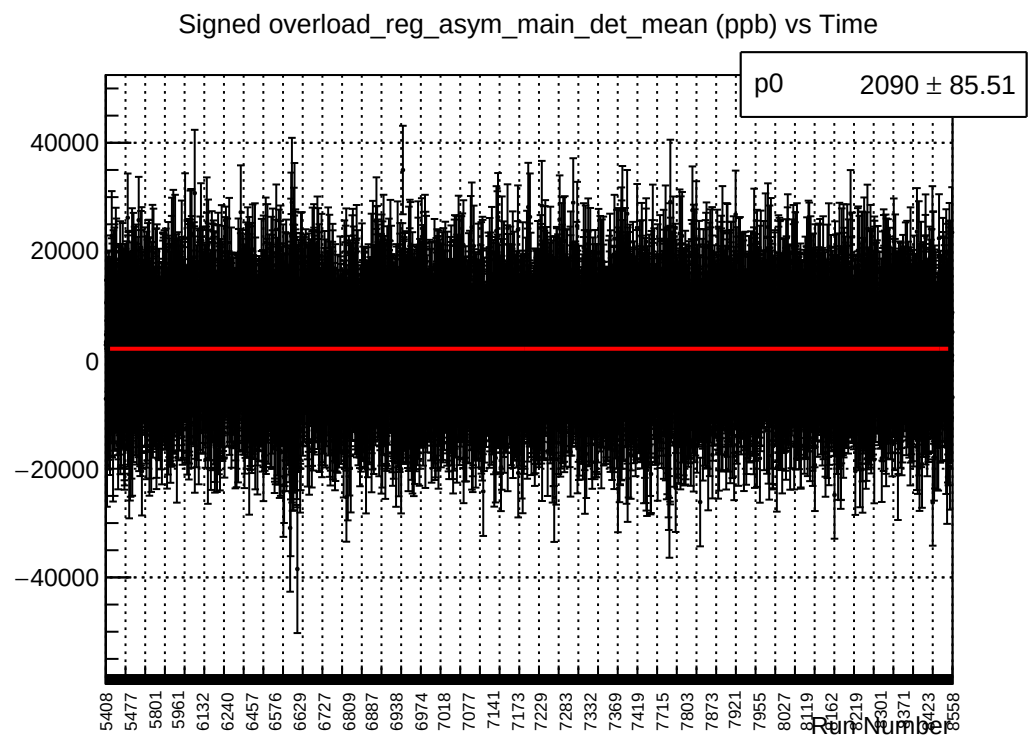

asym_main_det_rms (ppm) vs Time
p0
1633 ± 0.1288
4000
3500
3000
2500
2000
1500
1000
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

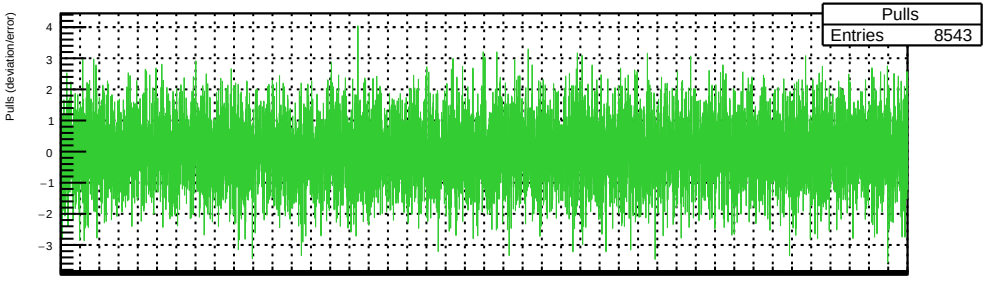

Signed reg_asym_main_det_mean (ppb) vs Time
p0 2090 ± 85.69
40000
20000
0
−20000
−40000
−60000
5408 5477 5801 5961 6132 6240 6457 6576 6629 6727 6809 6887 6938 6974 7018 7077 7141 7173 7229 7283 7332 7369 7419 7715 7803 7873 7921 7955 8027 8119 8162 8219 8301 8371 8423 8558
Run Number

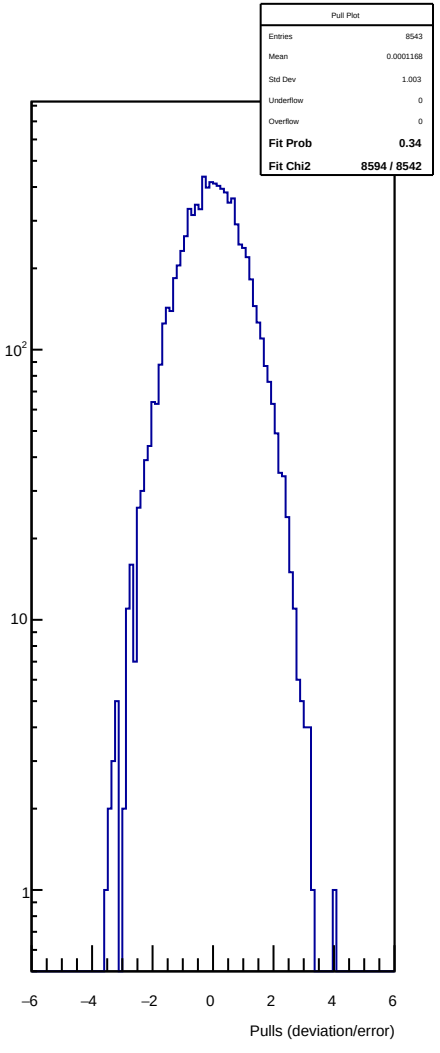

Pulls
Entries 8543
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3

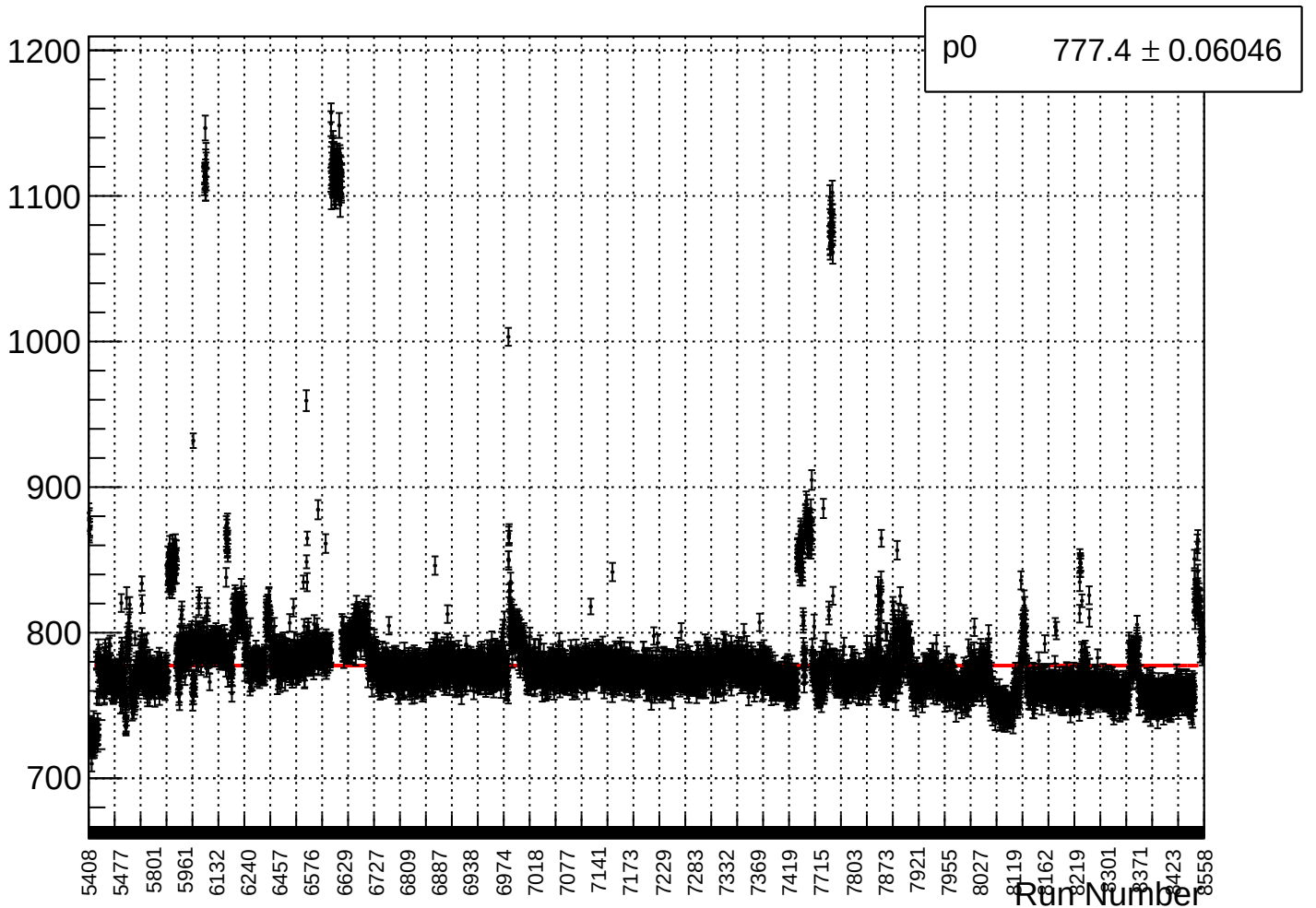

Pull Plot
Entries 8543
Mean 0.0001726
Std Dev 1.002
Underflow 0
Overflow 0
Fit Prob 0.37
Fit Chi2 8585 / 8542
10²
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

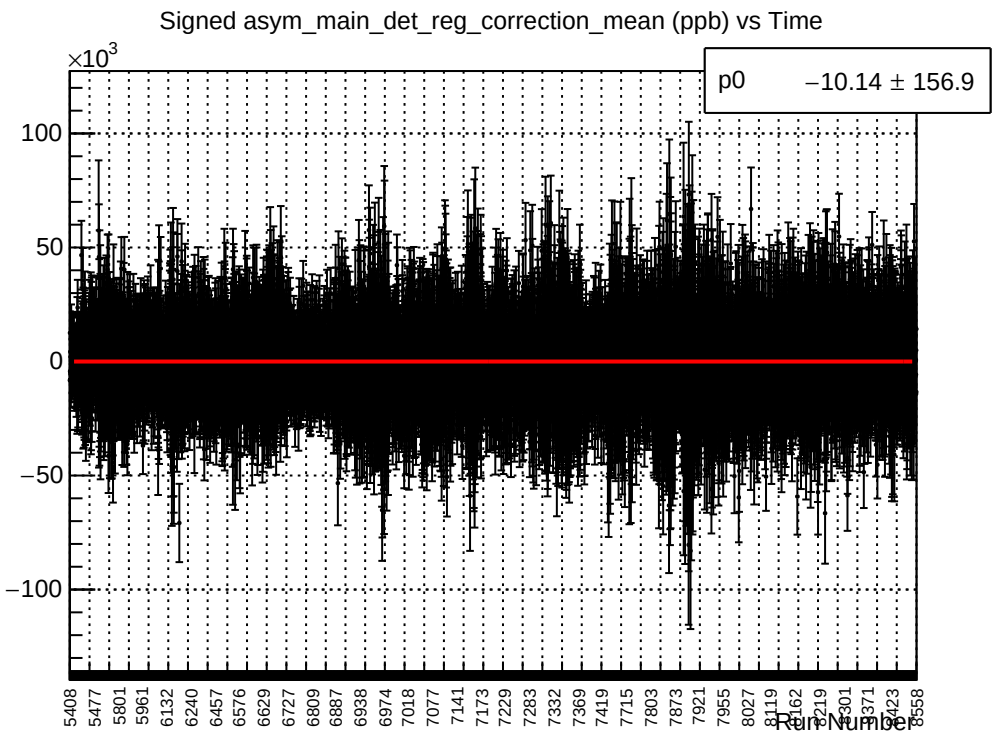

reg_asym_main_det_rms (ppm) vs Time
p0 779 ± 0.06059
1200
1100
1000
900
800
700
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

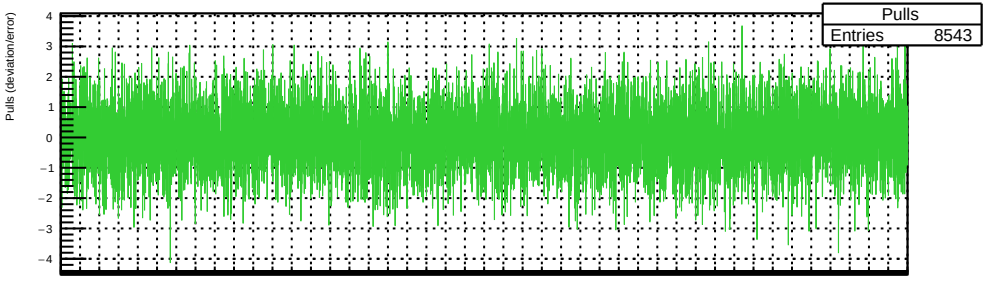

Signed overload_reg_asym_main_det_mean (ppb) vs Time
p0 2090 ± 85.51
40000
20000
0
−20000
−40000
5408 5477 5801 5961 6132 6240 6457 6576 6629 6727 6809 6887 6938 6974 7018 7077 7141 7173 7229 7283 7332 7369 7419 7715 7803 7873 7921 7955 8027 8119 8162 8219 8301 8371 8423 8558
Run Number

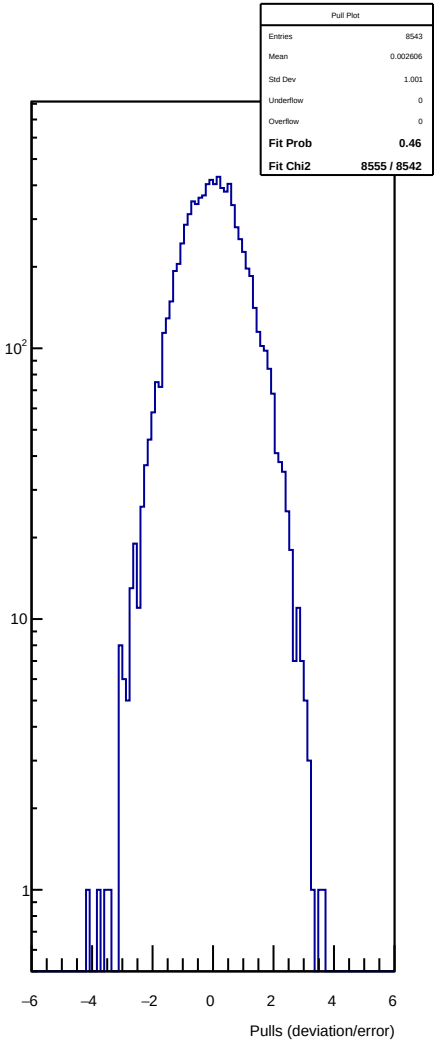

Pulls
Entries 8543
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3

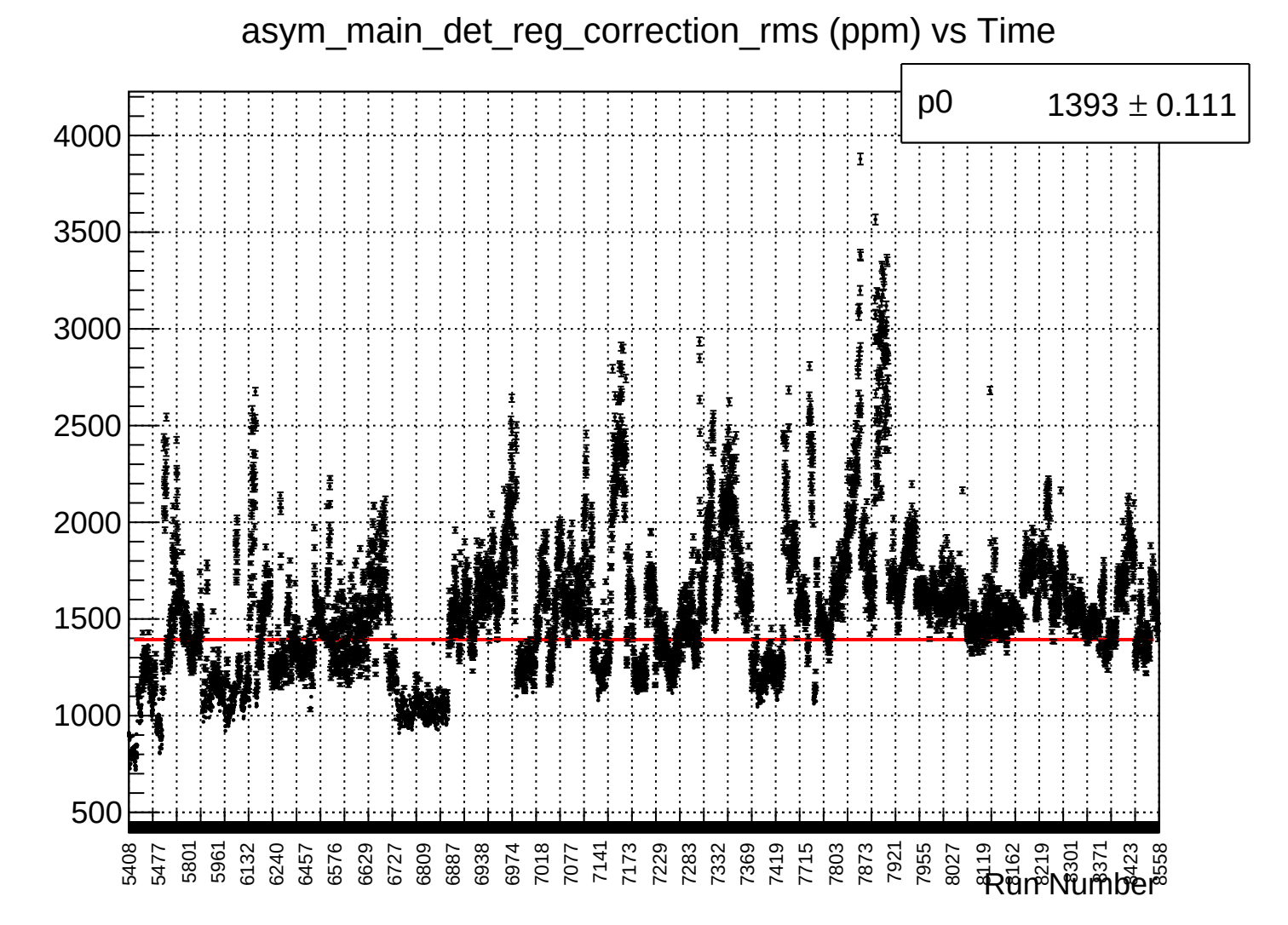

Pull Plot
Entries 8543
Mean 0.0001168
Std Dev 1.003
Underflow 0
Overflow 0
Fit Prob 0.34
Fit Chi2 8594 / 8542
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

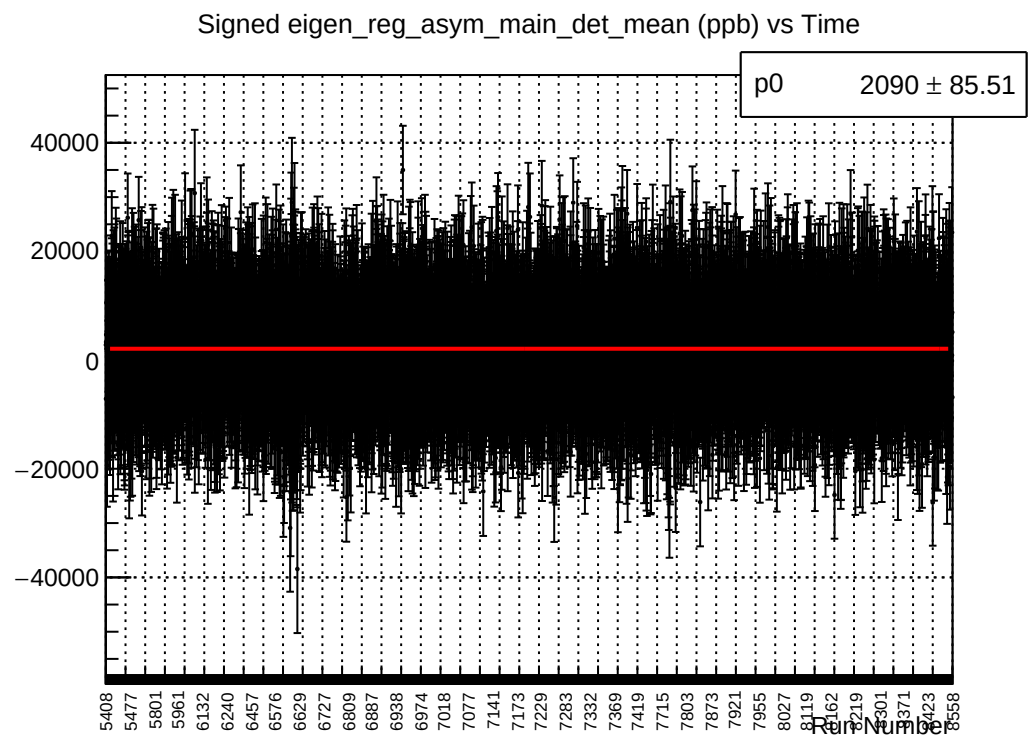

overload_reg_asym_main_det_rms (ppm) vs Time
p0 777.4 ± 0.06046
1200
1100
1000
900
800
700
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

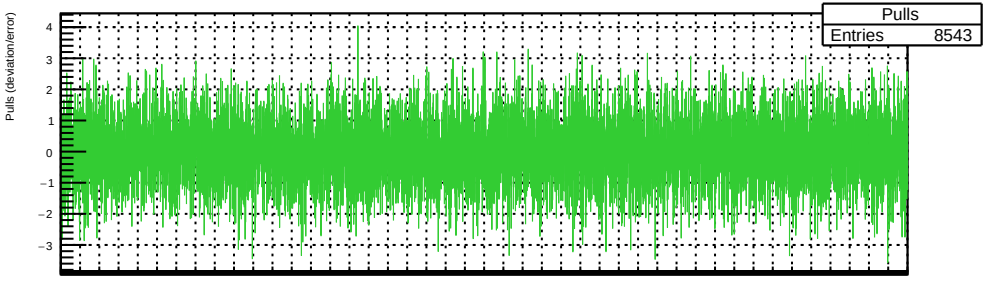

Signed asym_main_det_reg_correction_mean (ppb) vs Time
p0 −10.14 ± 156.9
×10^3
100
50
0
−50
−100
5408 5477 5801 5961 6132 6240 6457 6576 6629 6727 6809 6887 6938 6974 7018 7077 7141 7173 7229 7283 7332 7369 7419 7715 7803 7873 7921 7955 8027 8119 8162 8219 8301 8371 8423 8558
Run Number

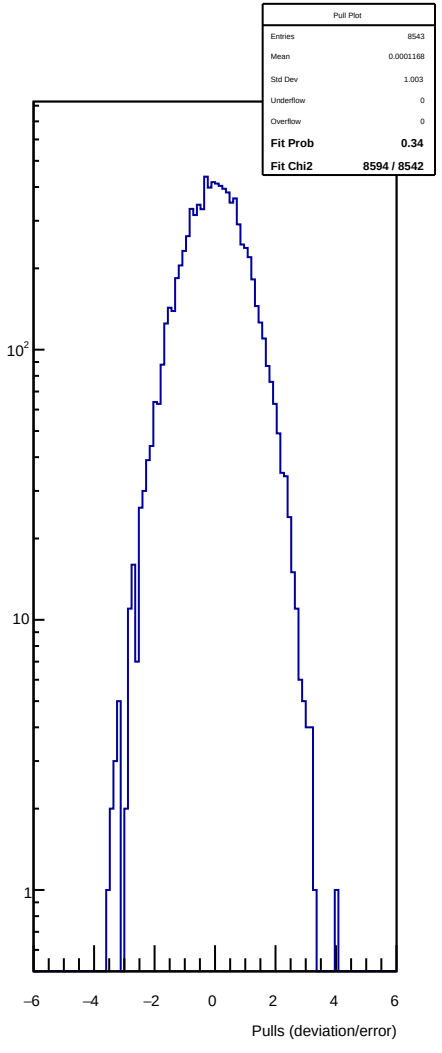

Pulls
Entries 8543
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

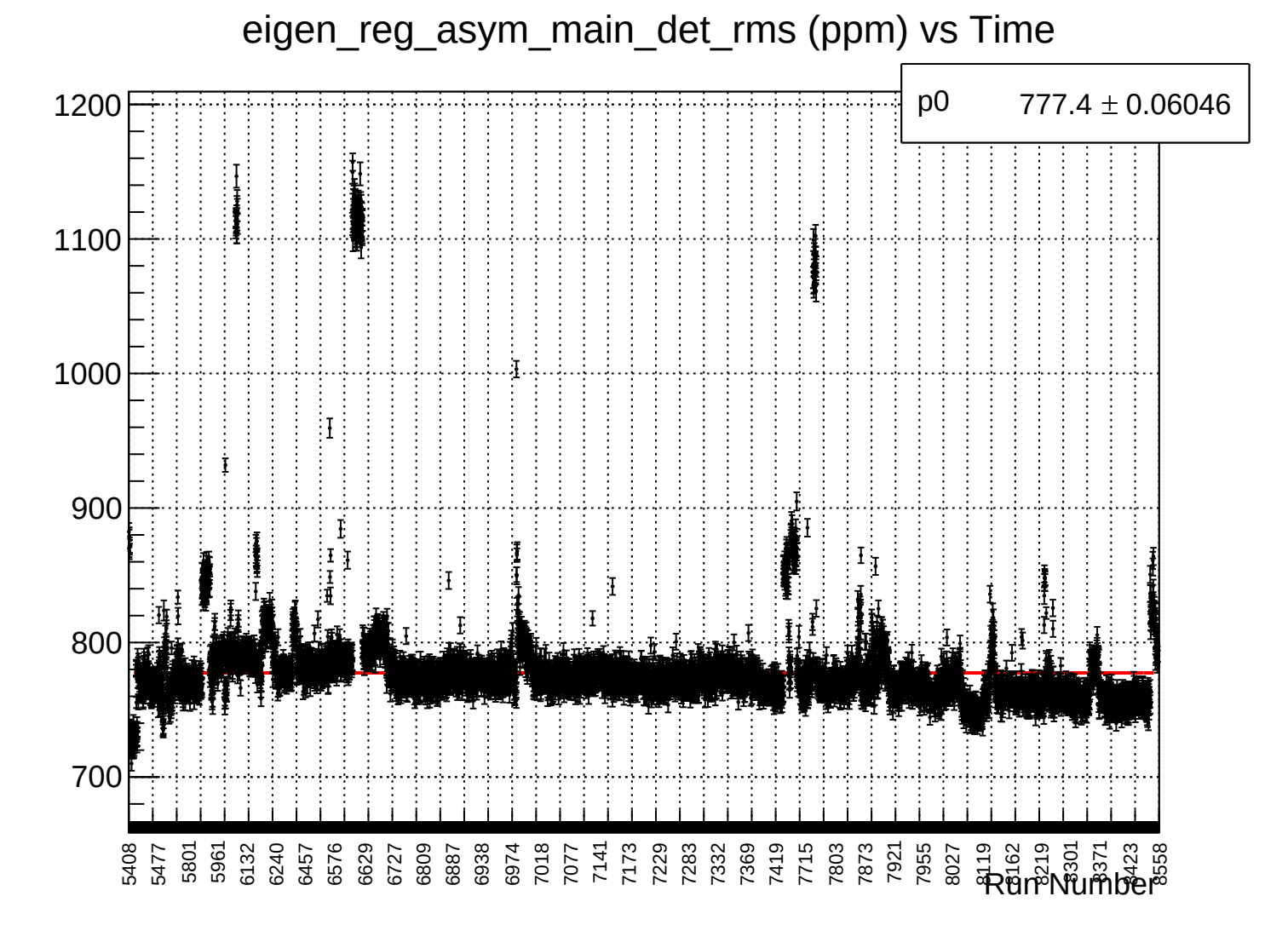

Pull Plot
Entries 8543
Mean 0.002606
Std Dev 1.001
Underflow 0
Overflow 0
Fit Prob 0.46
Fit Chi2 8555 / 8542
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

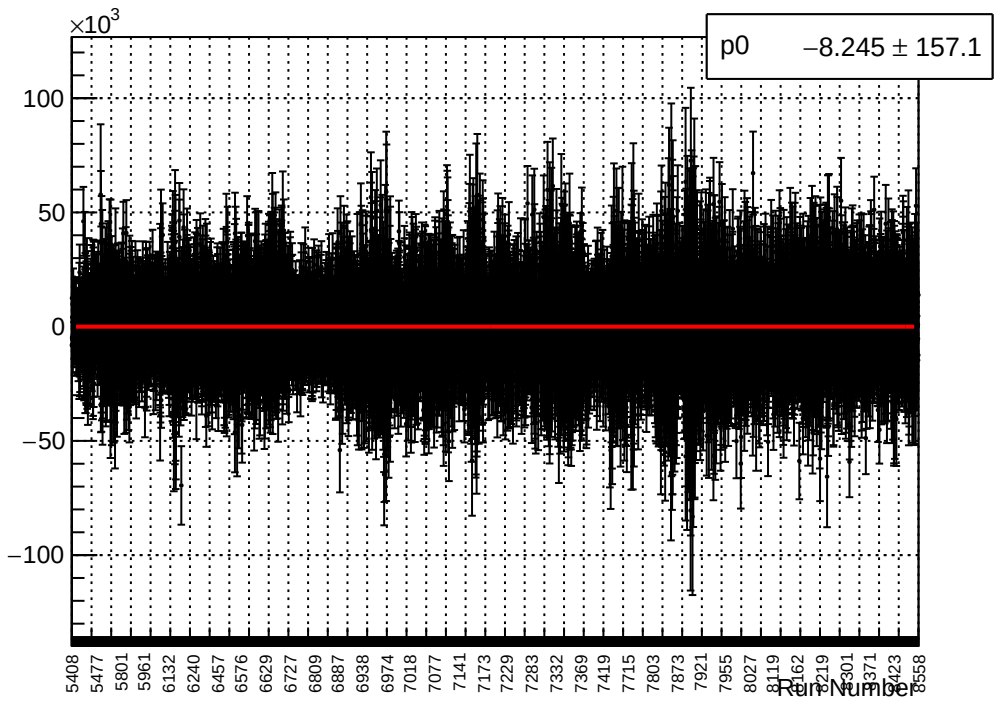

asym_main_det_reg_correction_rms (ppm) vs Time
p0 1393 ± 0.111
4000
3500
3000
2500
2000
1500
1000
500
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

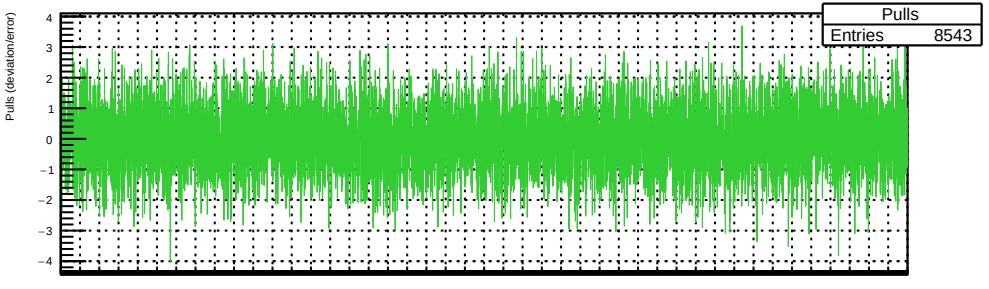

Signed eigen_reg_asym_main_det_mean (ppb) vs Time
p0 2090 ± 85.51
40000
20000
0
−20000
−40000
5408 5477 5801 5961 6132 6240 6457 6576 6629 6727 6809 6887 6938 6974 7018 7077 7141 7173 7229 7283 7332 7369 7419 7715 7803 7873 7921 7955 8027 8119 8162 8219 8301 8371 8423 8558
Run Number

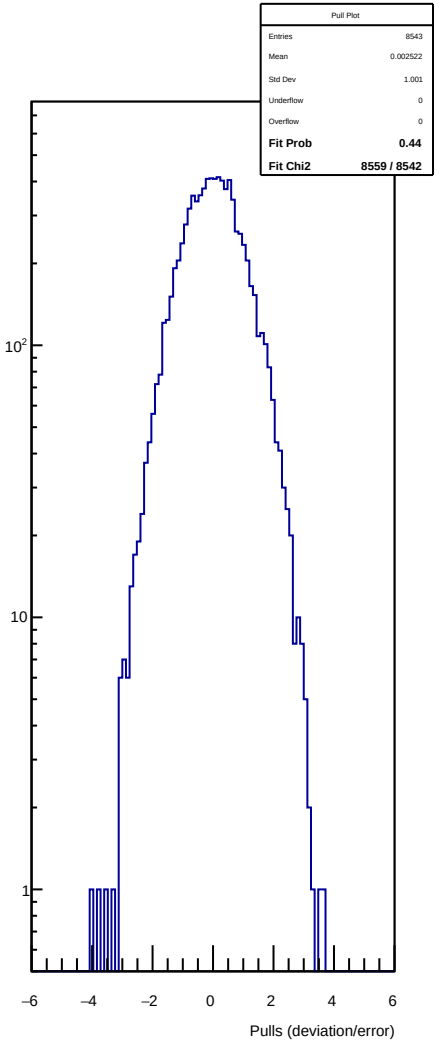

Pulls
Entries 8543
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3

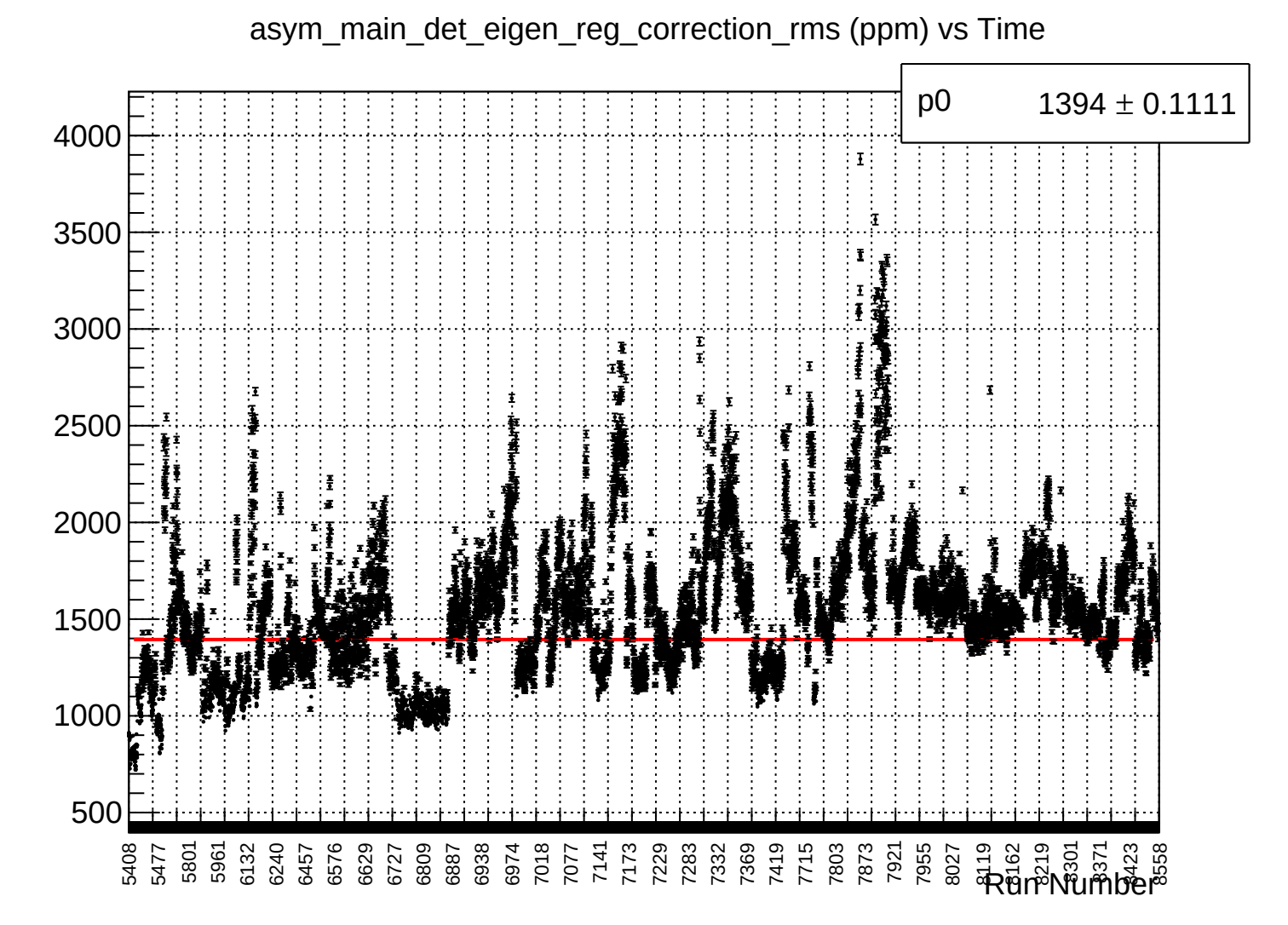

Pull Plot
Entries 8543
Mean 0.0001168
Std Dev 1.003
Underflow 0
Overflow 0
Fit Prob 0.34
Fit Chi2 8594 / 8542
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

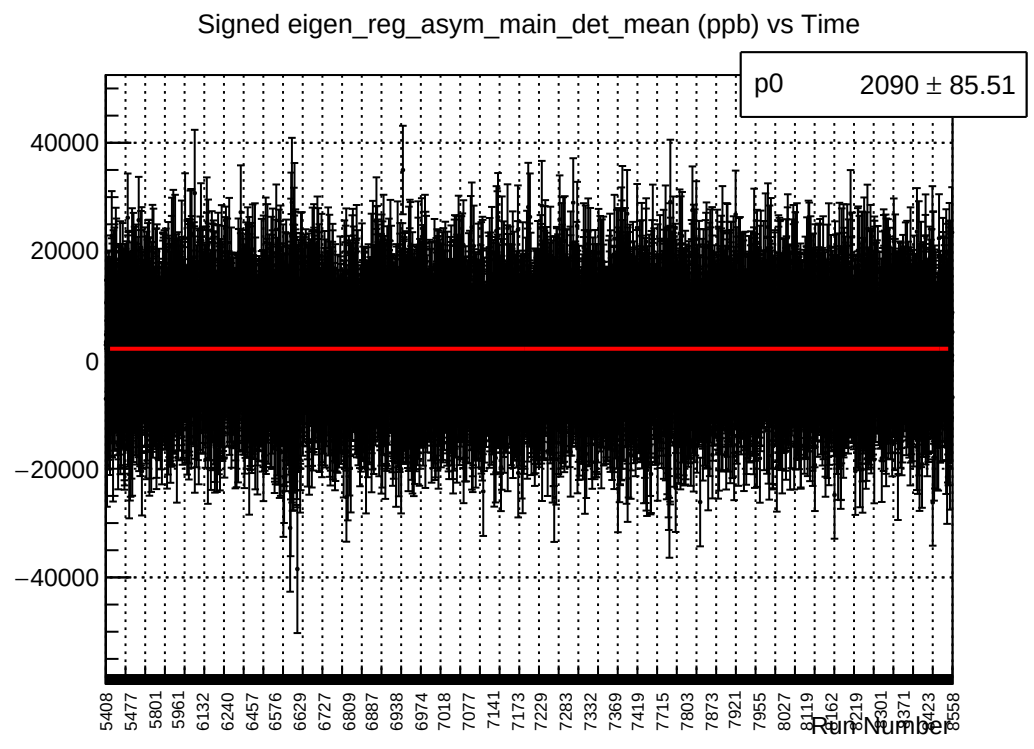

eigen_reg_asym_main_det_rms (ppm) vs Time
p0 777.4 ± 0.06046
1200
1100
1000
900
800
700
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

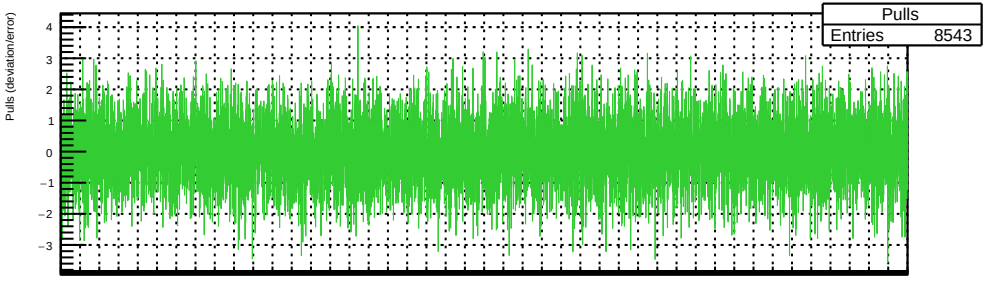

Signed asym_main_det_eigen_reg_correction_mean (ppb) vs Time
×10^3
p0 −8.245 ± 157.1
100
50
0
−50
−100
5408 5477 5801 5961 6132 6240 6457 6576 6629 6727 6809 6887 6938 6974 7018 7077 7141 7173 7229 7283 7332 7369 7419 7715 7803 7873 7921 7955 8027 8119 8162 8219 8301 8371 8423 8558
Run Number

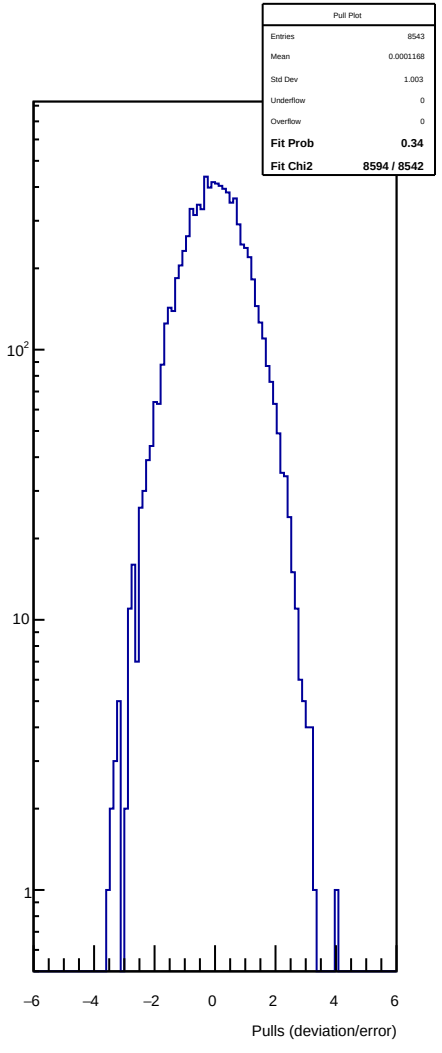

Pulls
Entries 8543
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

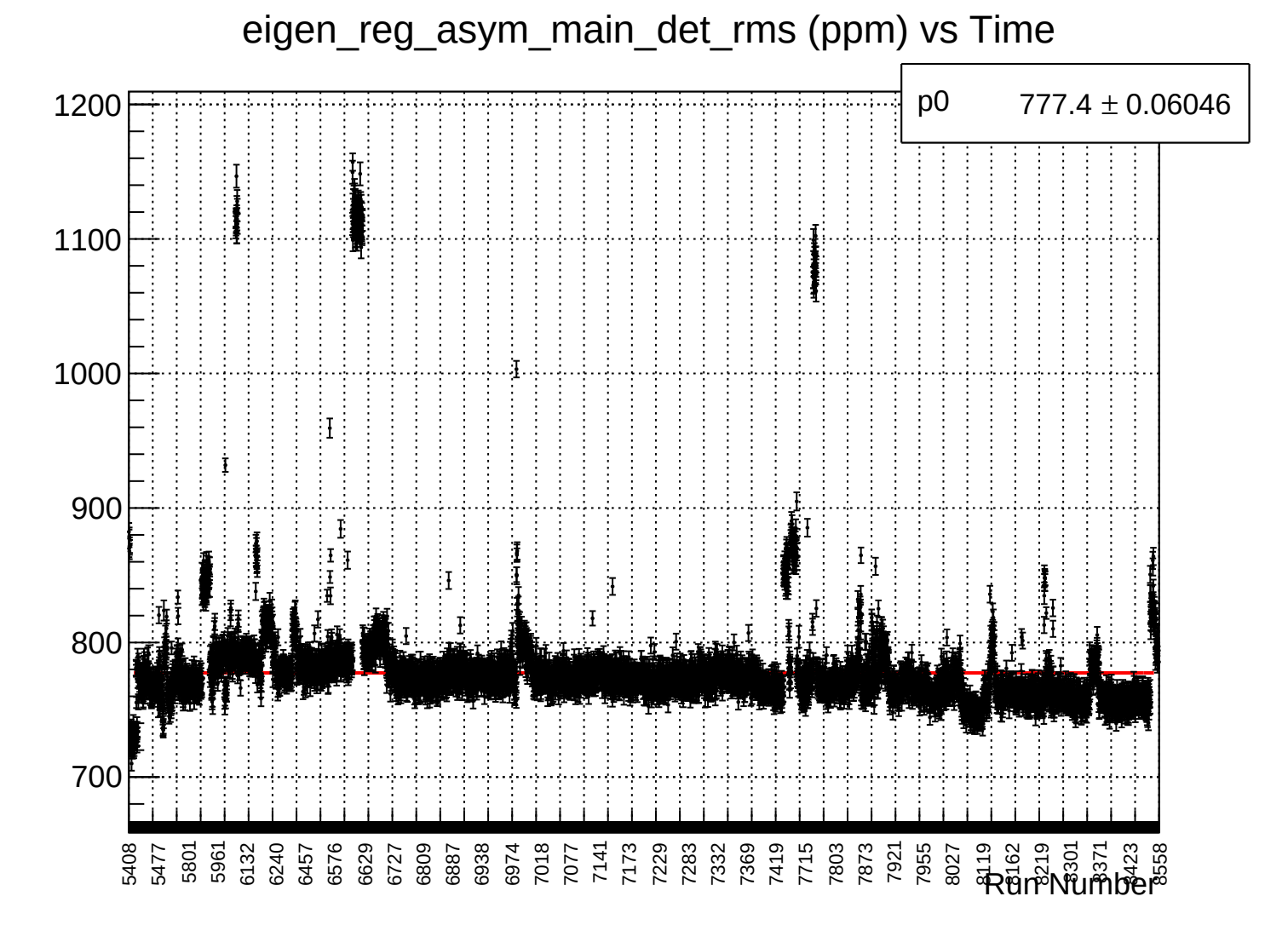

Pull Plot
Entries 8543
Mean 0.002522
Std Dev 1.001
Underflow 0
Overflow 0
Fit Prob 0.44
Fit Chi2 8559 / 8542
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

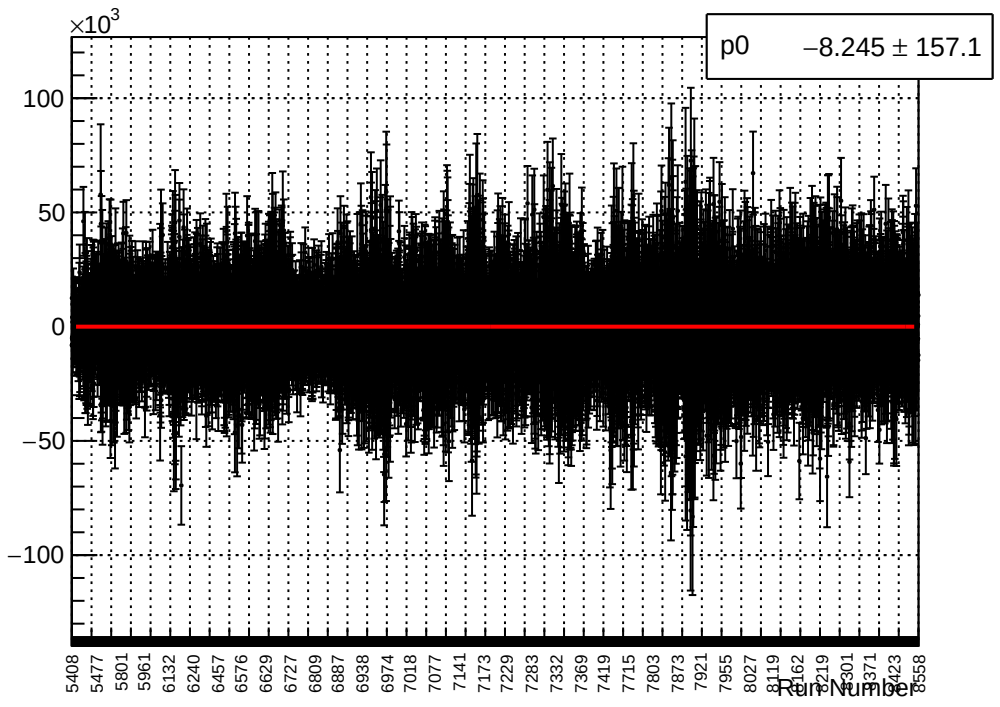

asym_main_det_eigen_reg_correction_rms (ppm) vs Time
p0 1394 ± 0.1111
4000
3500
3000
2500
2000
1500
1000
500
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

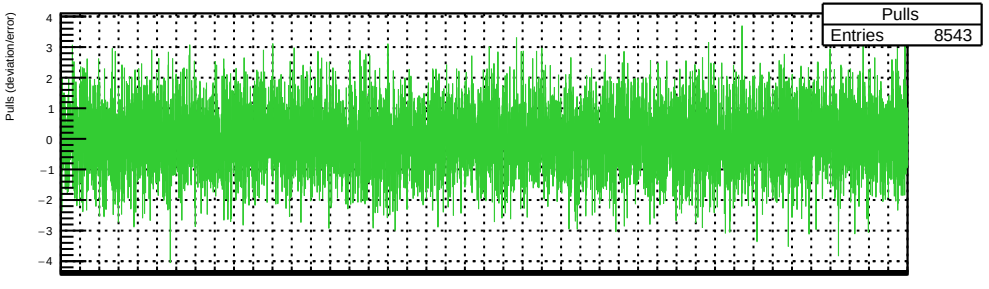

Signed eigen_reg_asym_main_det_mean (ppb) vs Time
p0 2090 ± 85.51
40000
20000
0
−20000
−40000
5408 5477 5801 5961 6132 6240 6457 6576 6629 6727 6809 6887 6938 6974 7018 7077 7141 7173 7229 7283 7332 7369 7419 7715 7803 7873 7921 7955 8027 8119 8162 8219 8301 8371 8423 8558
Run Number

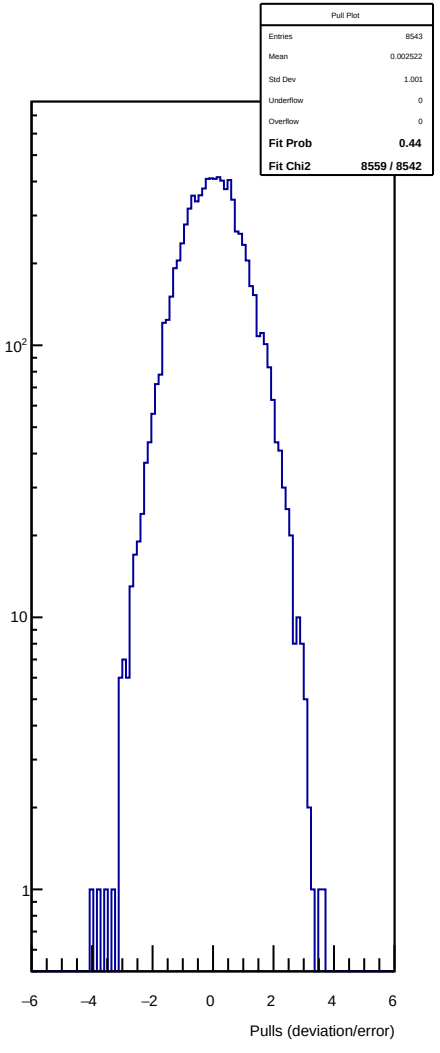

Pulls
Entries 8543
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3

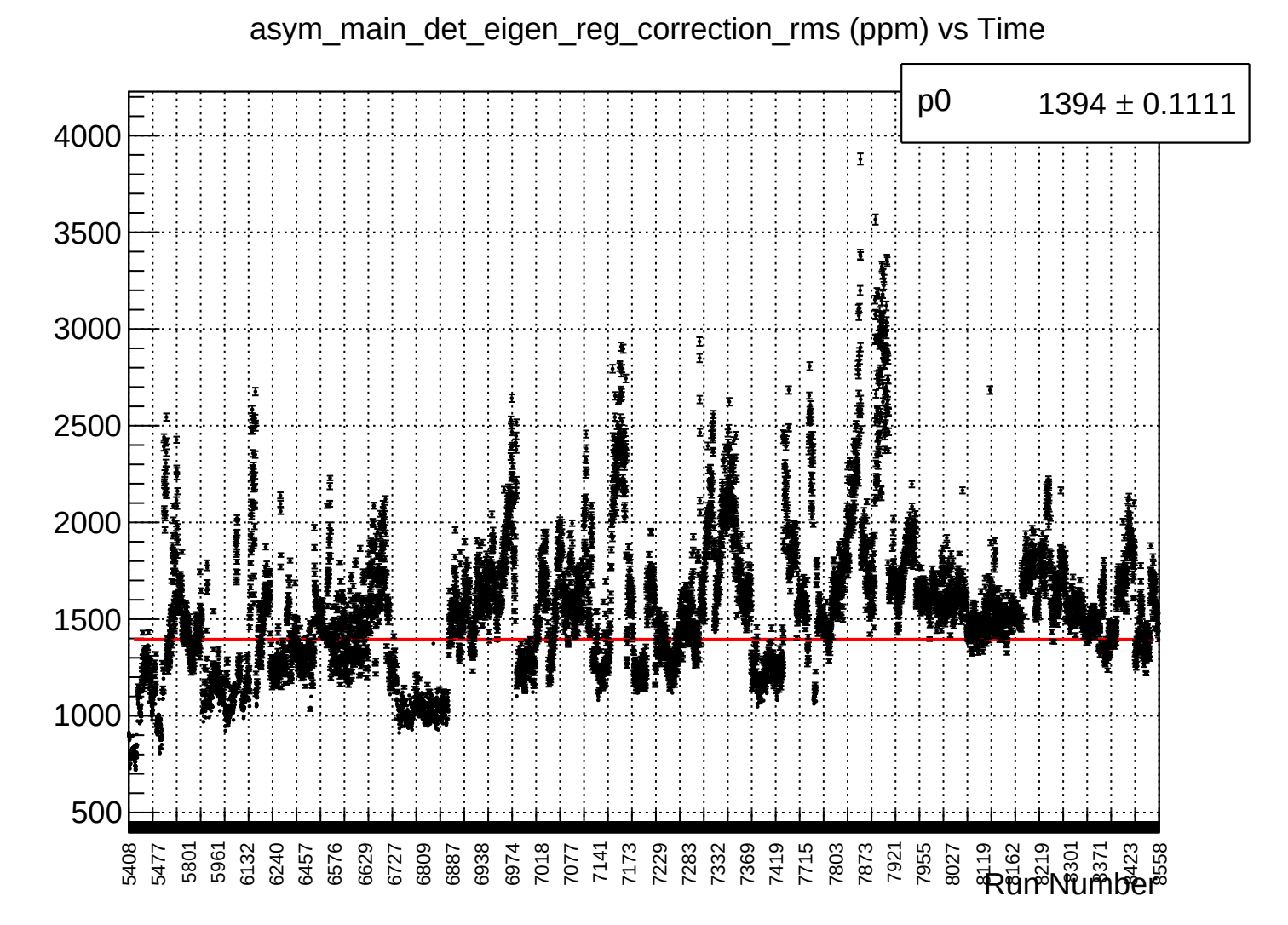

Pull Plot
Entries 8543
Mean 0.0001168
Std Dev 1.003
Underflow 0
Overflow 0
Fit Prob 0.34
Fit Chi2 8594 / 8542
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

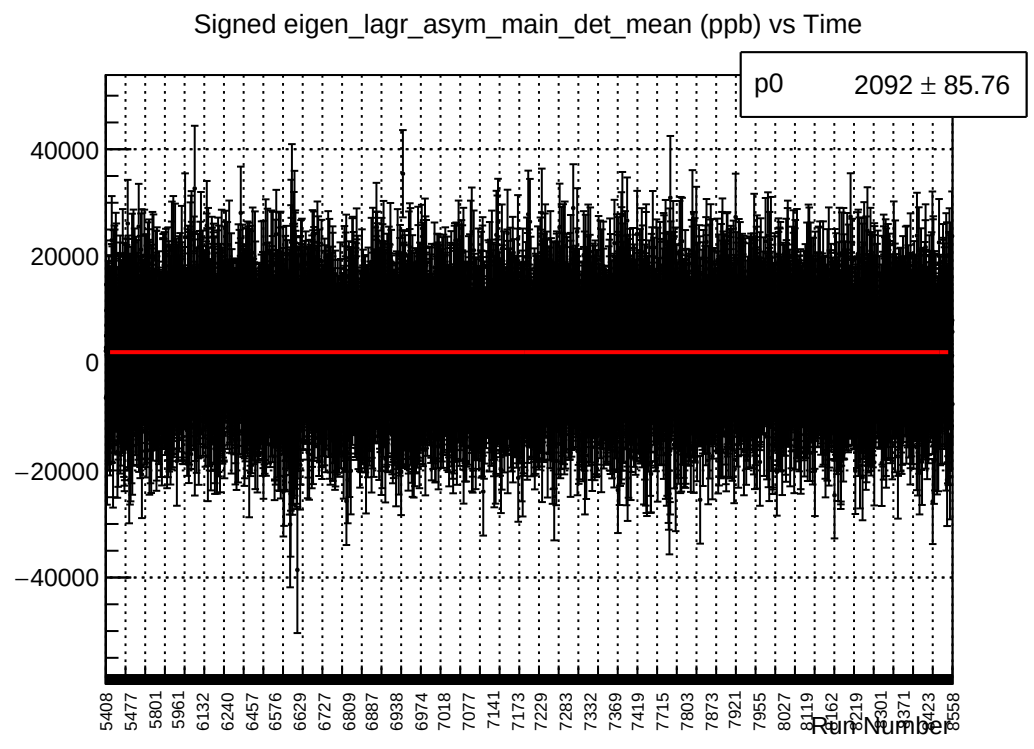

eigen_reg_asym_main_det_rms (ppm) vs Time
p0 777.4 ± 0.06046
1200
1100
1000
900
800
700
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

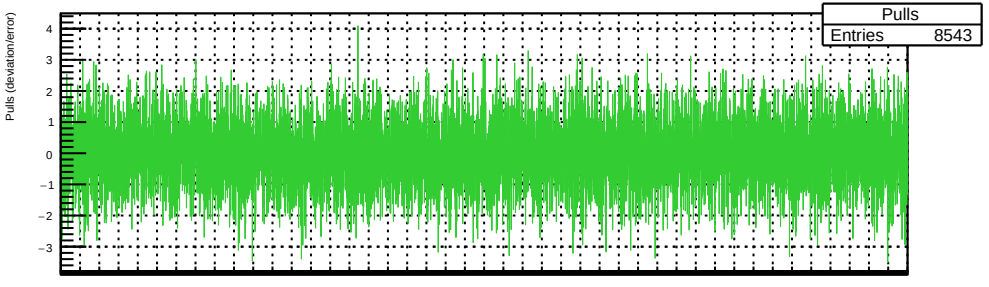

Signed asym_main_det_eigen_reg_correction_mean (ppb) vs Time
×10^3
p0 −8.245 ± 157.1
100
50
0
−50
−100
5408 5477 5801 5961 6132 6240 6457 6576 6629 6727 6809 6887 6938 6974 7018 7077 7141 7173 7229 7283 7332 7369 7419 7715 7803 7873 7921 7955 8027 8119 8162 8219 8301 8371 8423 8558
Run Number

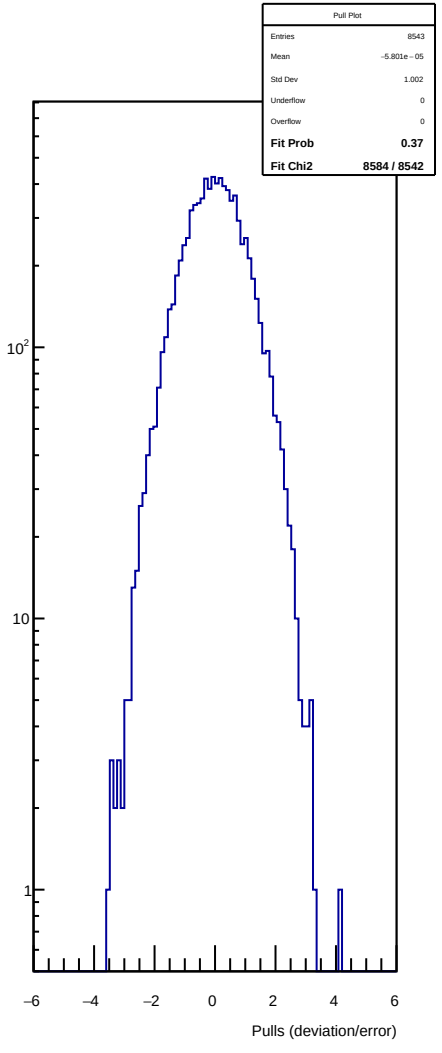

Pulls
Entries 8543
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

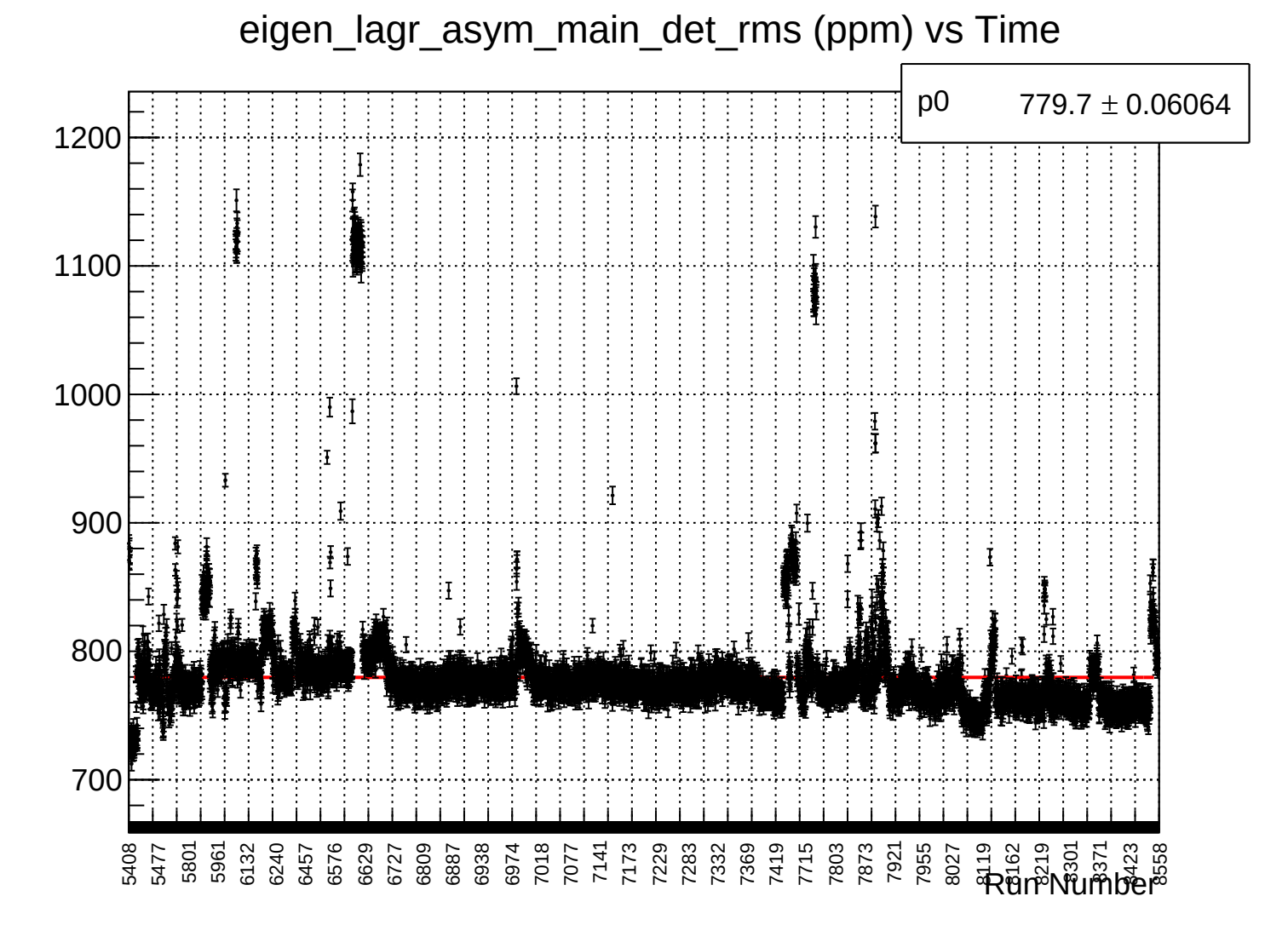

Pull Plot
Entries 8543
Mean 0.002522
Std Dev 1.001
Underflow 0
Overflow 0
Fit Prob 0.44
Fit Chi2 8559 / 8542
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

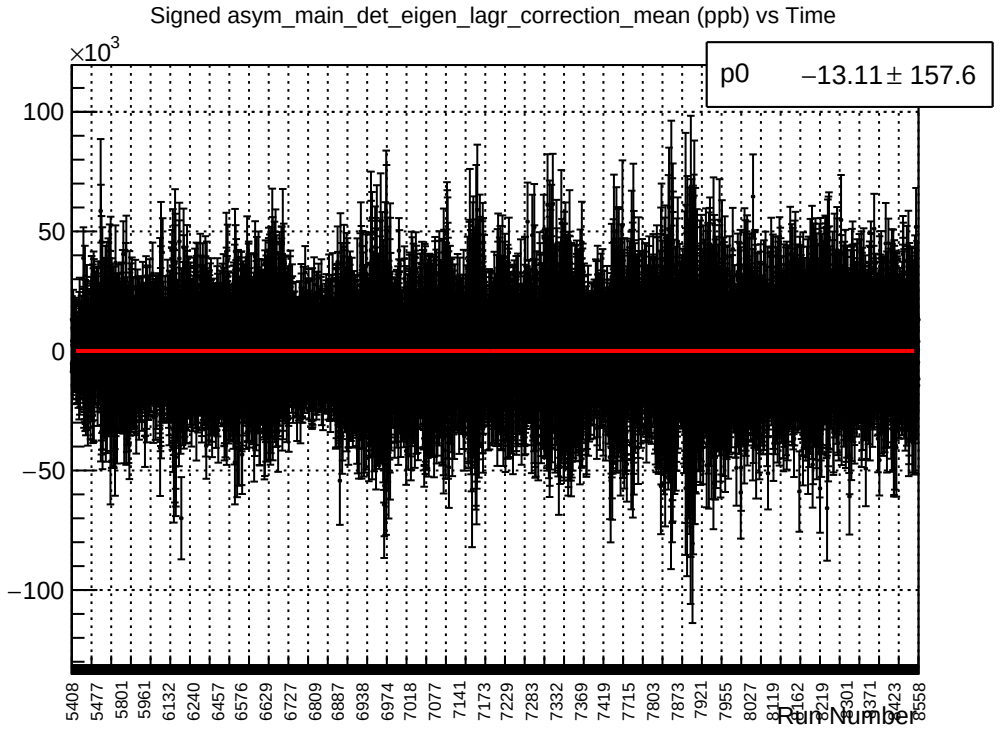

asym_main_det_eigen_reg_correction_rms (ppm) vs Time
p0 1394 ± 0.1111
4000
3500
3000
2500
2000
1500
1000
500
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

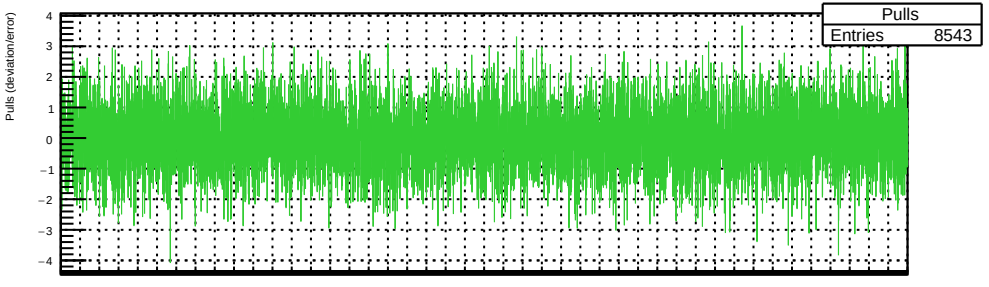

Signed eigen_lagr_asym_main_det_mean (ppb) vs Time
p0 2092 ± 85.76
40000
20000
0
−20000
−40000
5408 5477 5801 5961 6132 6240 6457 6576 6629 6727 6809 6887 6938 6974 7018 7077 7141 7173 7229 7283 7332 7369 7419 7715 7803 7873 7921 7955 8027 8119 8162 8219 8301 8371 8423 8558
Run Number

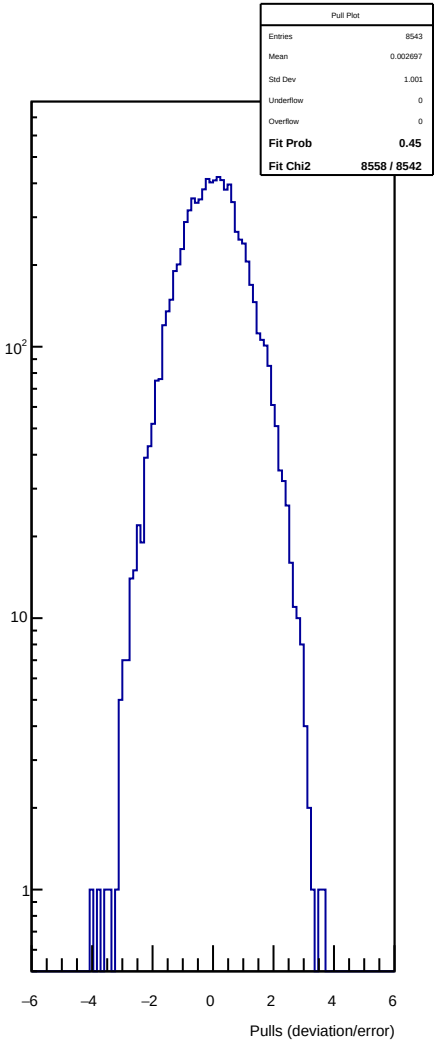

Pulls
Entries 8543
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3

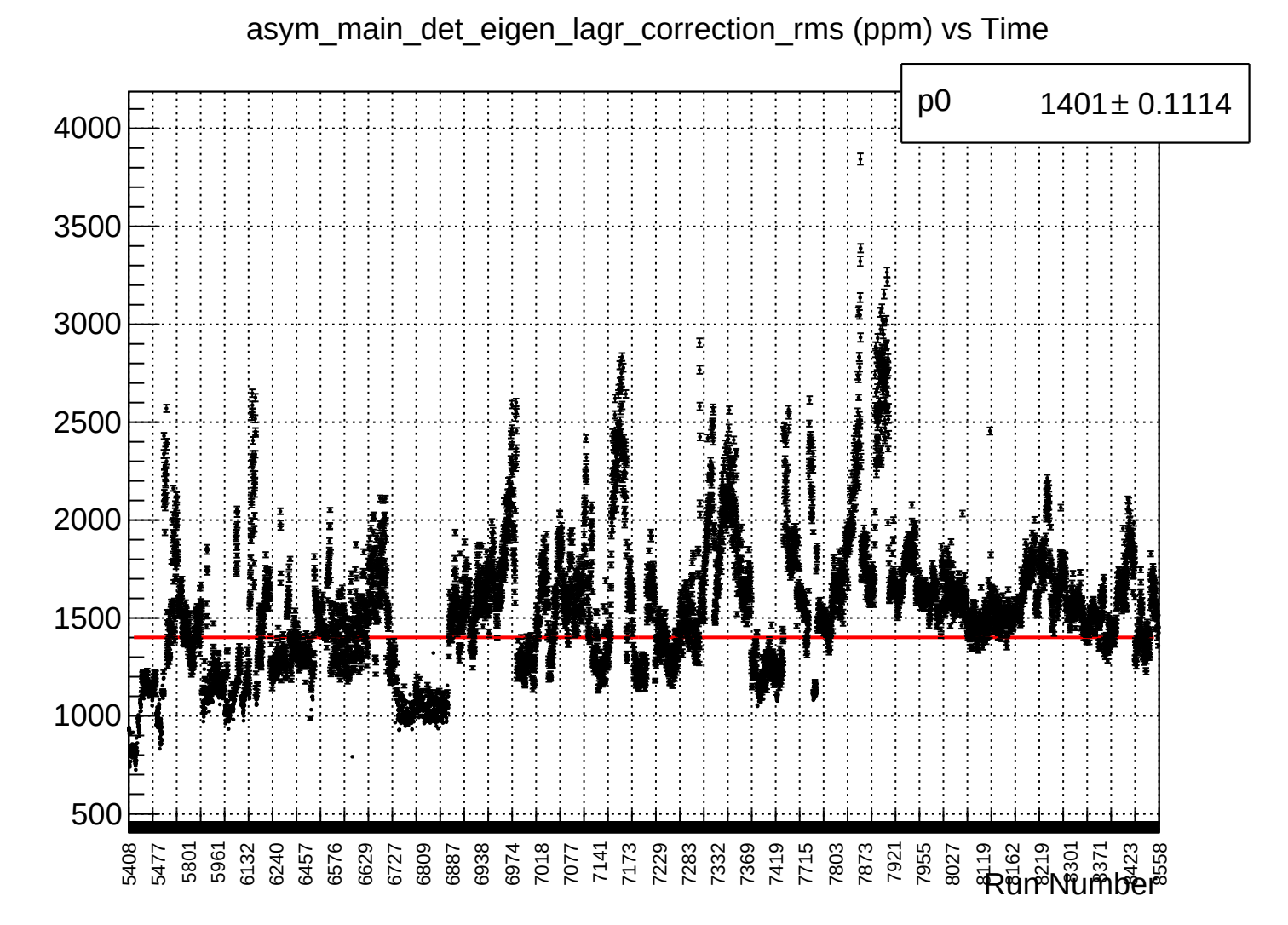

Pull Plot
Entries 8543
Mean −5.801e−05
Std Dev 1.002
Underflow 0
Overflow 0
Fit Prob 0.37
Fit Chi2 8584 / 8542
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

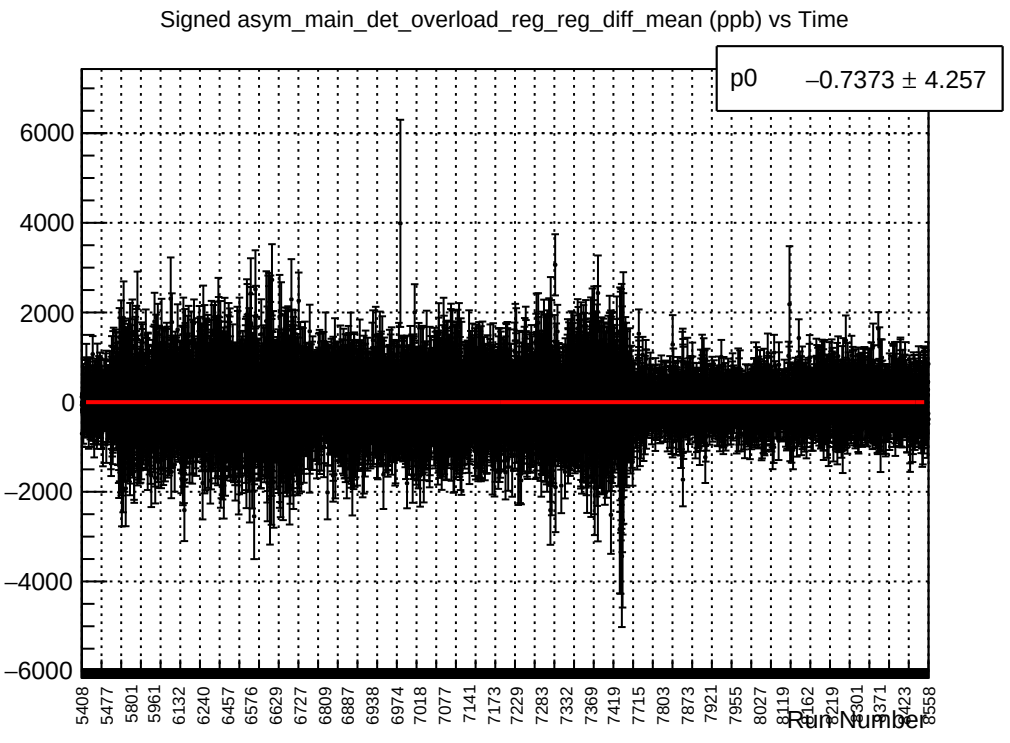

eigen_lagr_asym_main_det_rms (ppm) vs Time
p0 779.7 ± 0.06064
1200
1100
1000
900
800
700
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

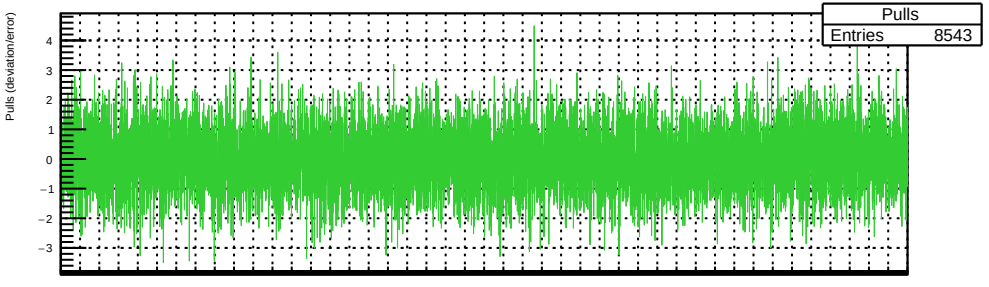

Signed asym_main_det_eigen_lagr_correction_mean (ppb) vs Time
×10^3
p0 −13.11 ± 157.6
100
50
0
−50
−100
5408 5477 5801 5961 6132 6240 6457 6576 6629 6727 6809 6887 6938 6974 7018 7077 7141 7173 7229 7283 7332 7369 7419 7715 7803 7873 7921 7955 8027 8119 8162 8219 8301 8371 8423 8558
Run Number

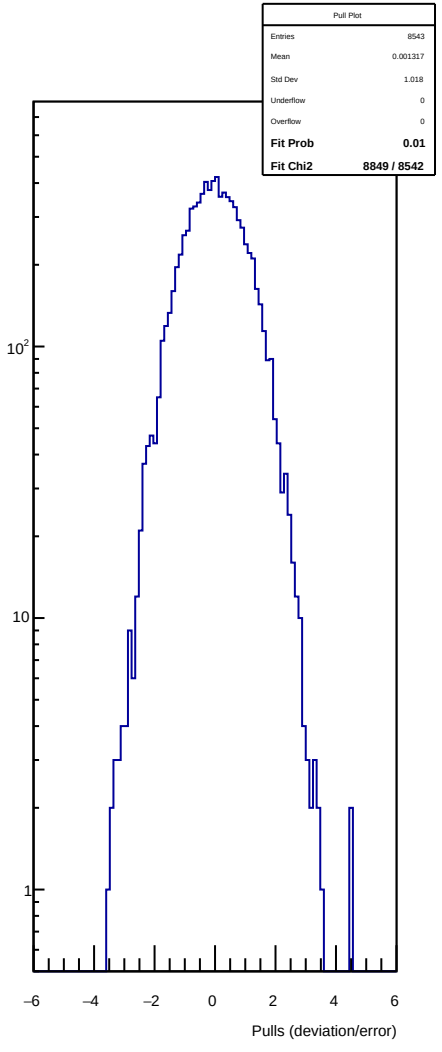

Pulls
Entries 8543
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

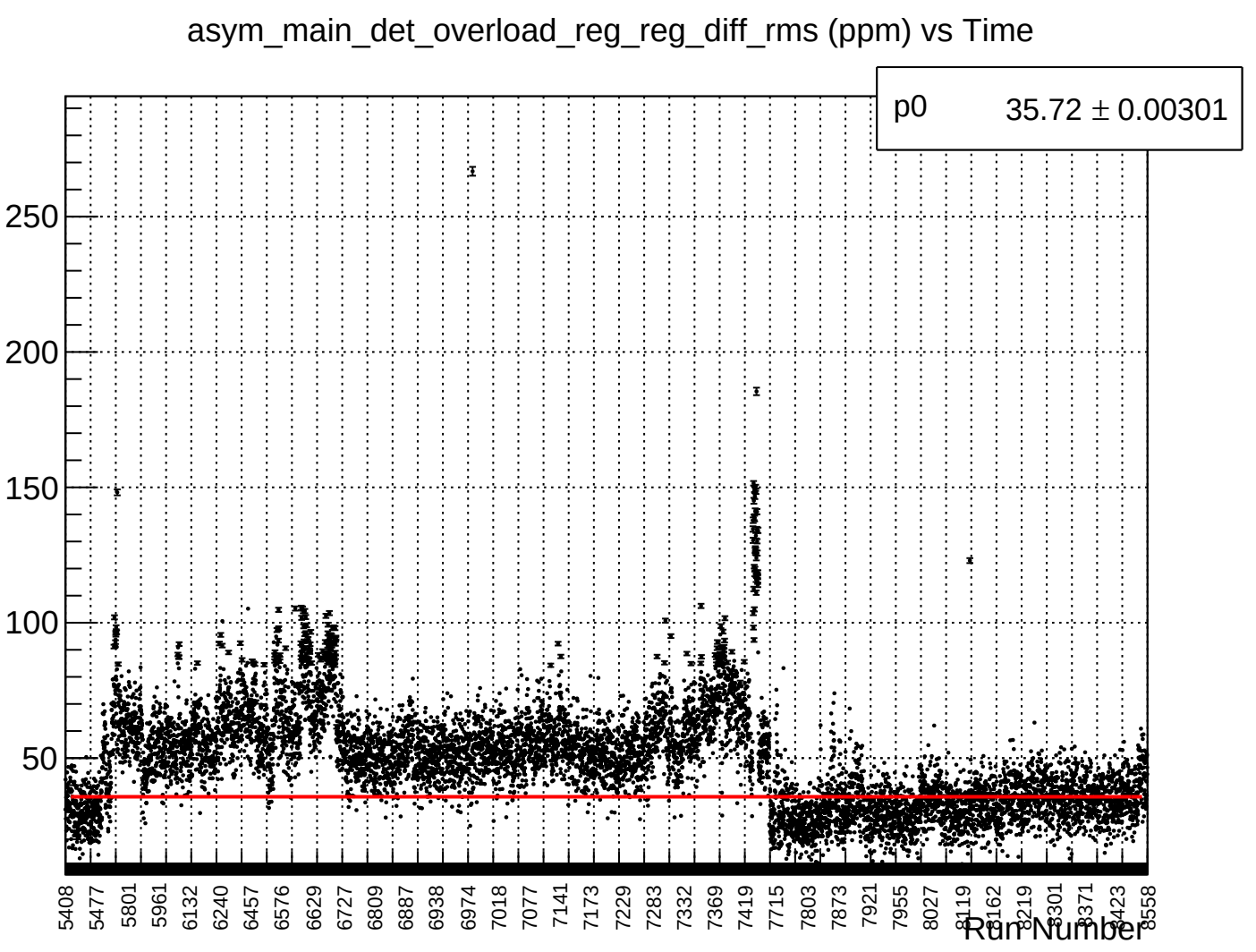

Pull Plot
Entries 8543
Mean 0.002697
Std Dev 1.001
Underflow 0
Overflow 0
Fit Prob 0.45
Fit Chi2 8558 / 8542
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

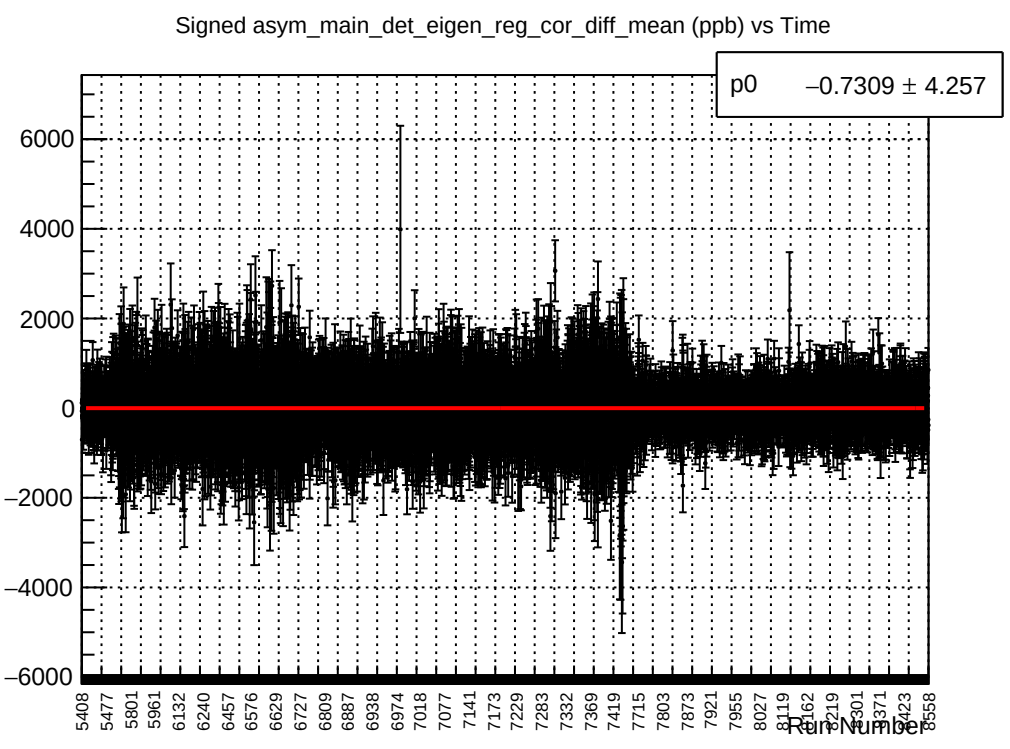

asym_main_det_eigen_lagr_correction_rms (ppm) vs Time
p0 1401 ± 0.1114
4000
3500
3000
2500
2000
1500
1000
500
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

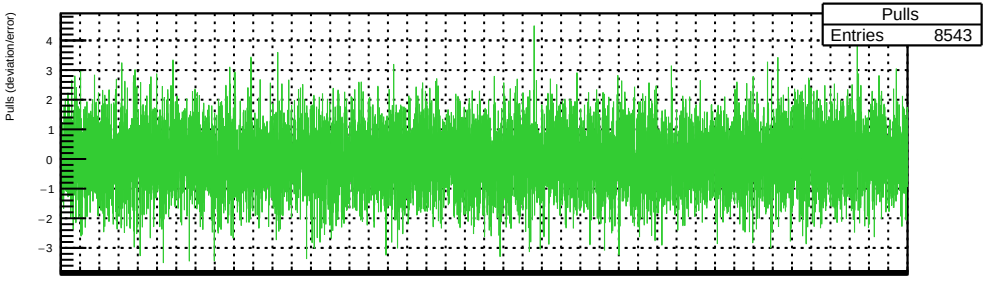

Signed asym_main_det_overload_reg_reg_diff_mean (ppb) vs Time
p0 −0.7373 ± 4.257
6000
4000
2000
0
−2000
−4000
−6000
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

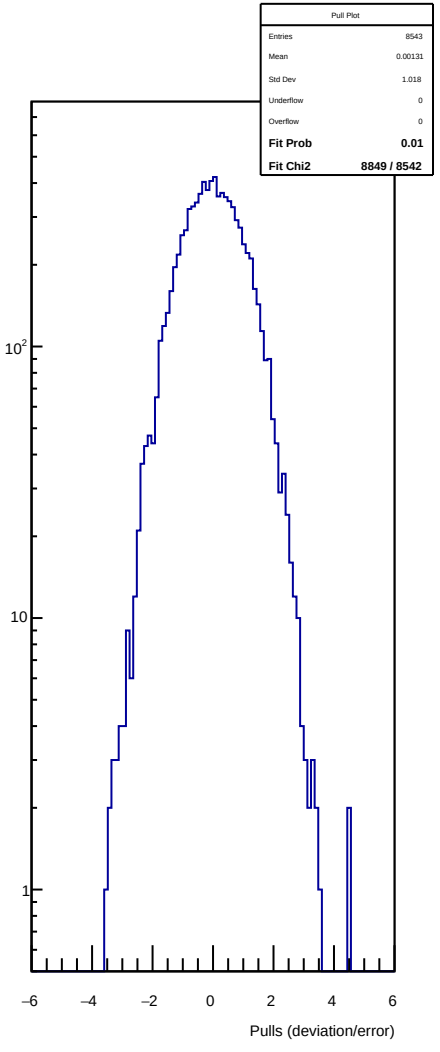

Pulls
Entries 8543
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3

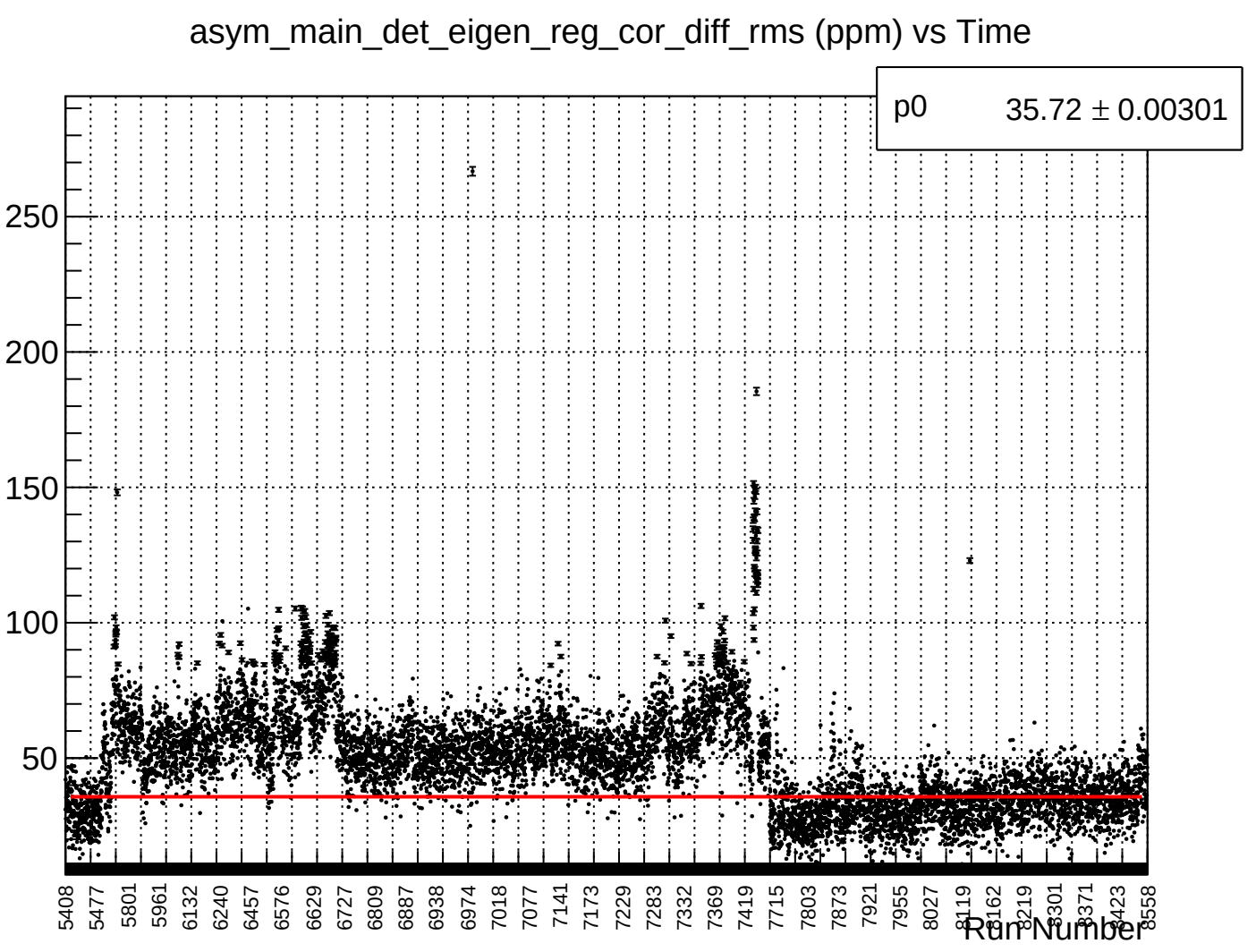

Pull Plot
Entries 8543
Mean 0.001317
Std Dev 1.018
Underflow 0
Overflow 0
Fit Prob 0.01
Fit Chi2 8849 / 8542
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

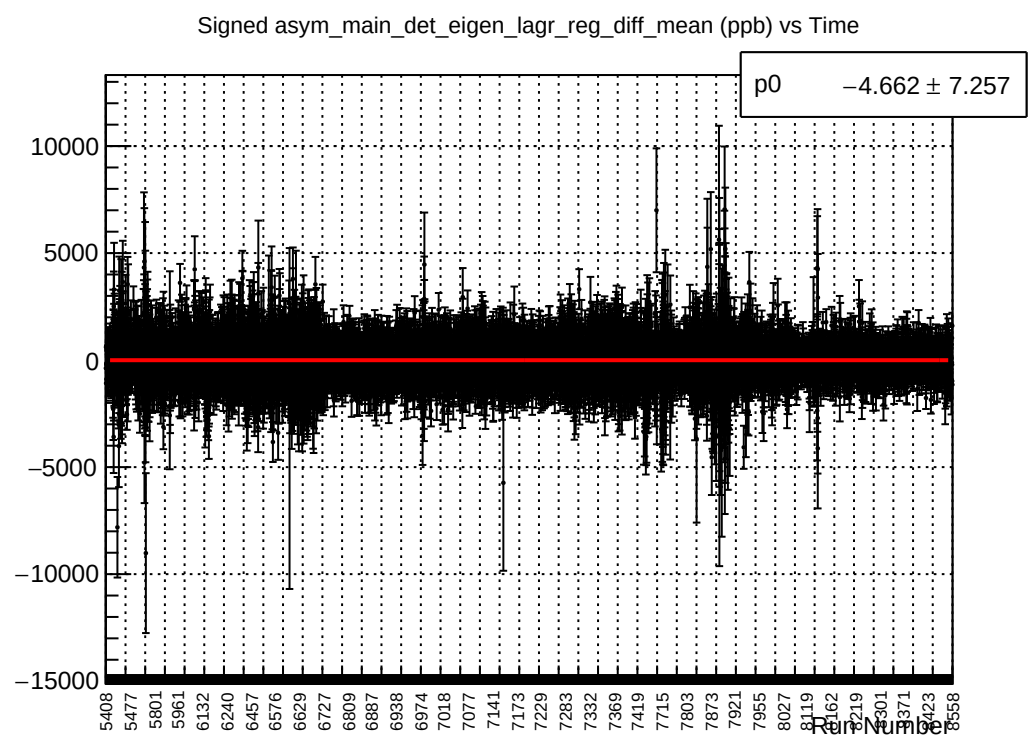

asym_main_det_overload_reg_reg_diff_rms (ppm) vs Time
p0 35.72 ± 0.00301
250
200
150
100
50
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

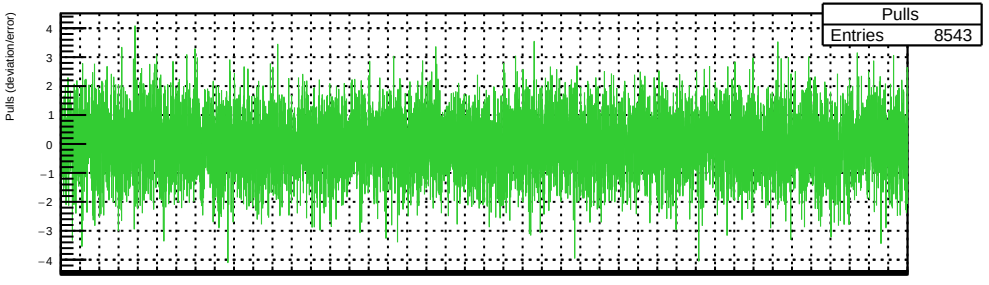

Signed asym_main_det_eigen_reg_cor_diff_mean (ppb) vs Time
p0 −0.7309 ± 4.257
6000
4000
2000
0
−2000
−4000
−6000
5408 5477 5801 5961 6132 6240 6457 6576 6629 6727 6809 6887 6938 6974 7018 7077 7141 7173 7229 7283 7332 7369 7419 7715 7803 7873 7921 7955 8027 8119 8162 8219 8301 8371 8423 8558
Run Number

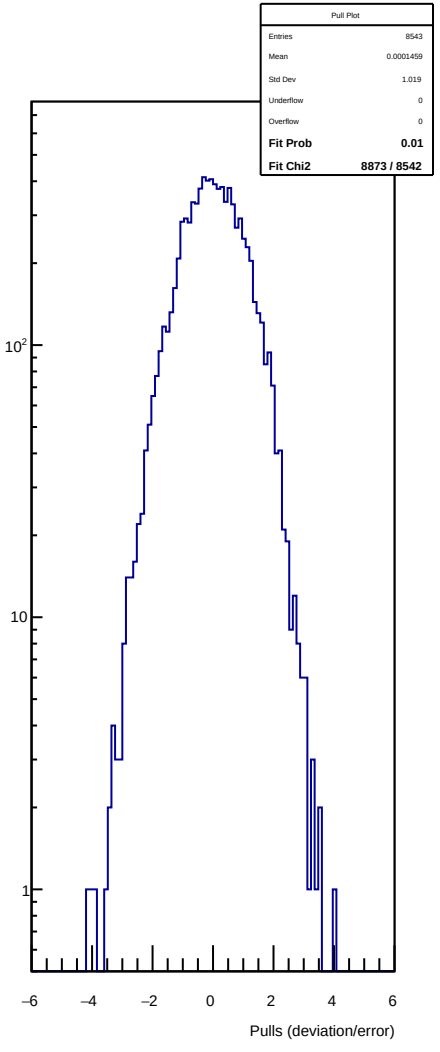

Pulls
Entries 8543
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3

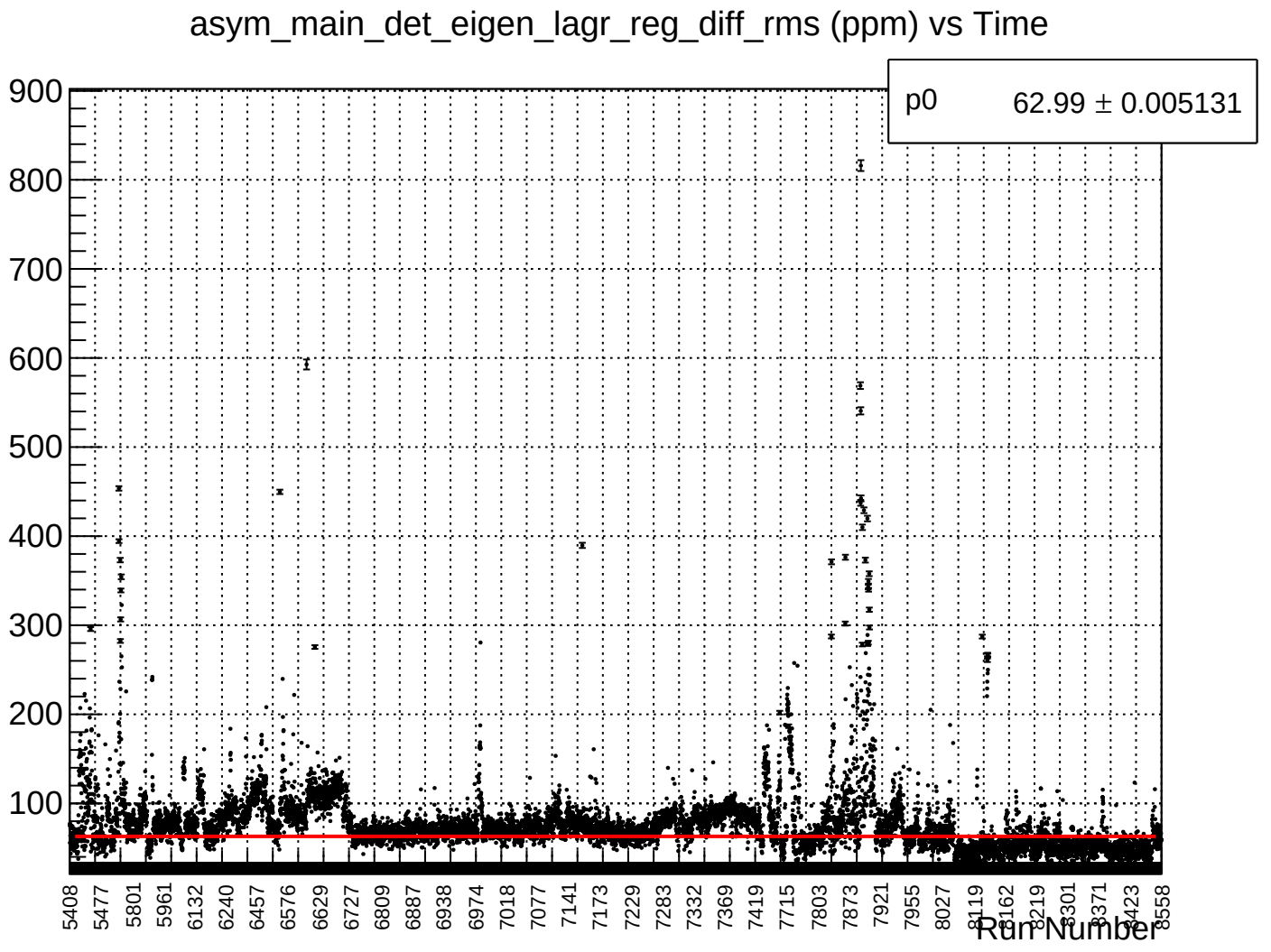

Pull Plot
Entries 8543
Mean 0.00131
Std Dev 1.018
Underflow 0
Overflow 0
Fit Prob 0.01
Fit Chi2 8849 / 8542
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

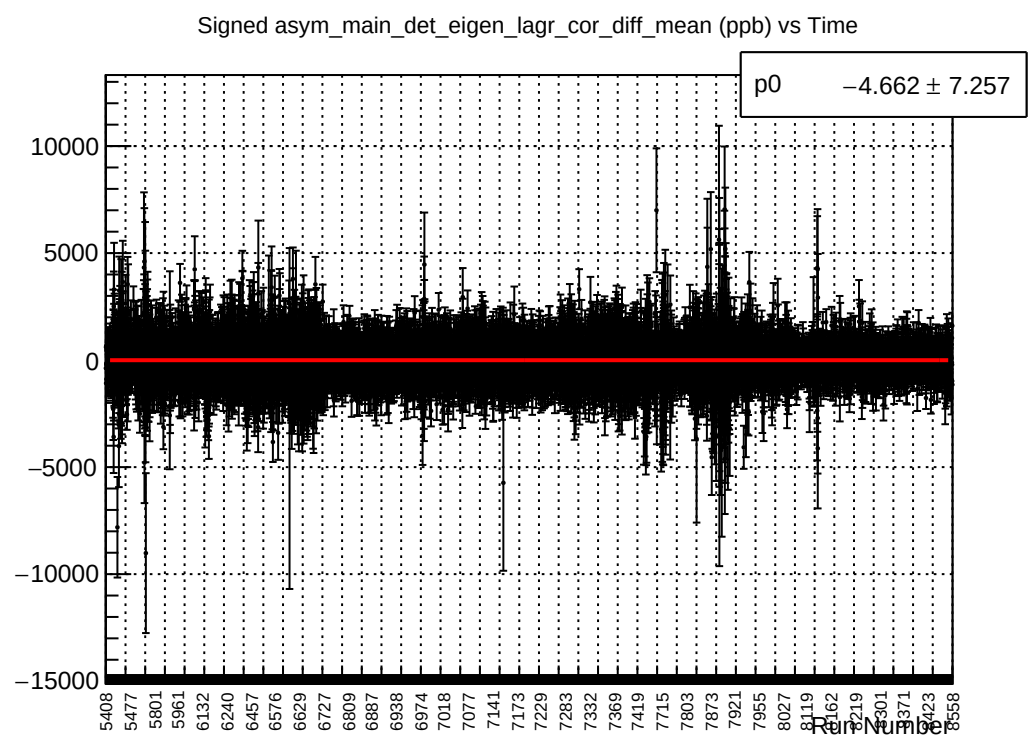

asym_main_det_eigen_reg_cor_diff_rms (ppm) vs Time
p0 35.72 ± 0.00301
250
200
150
100
50
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

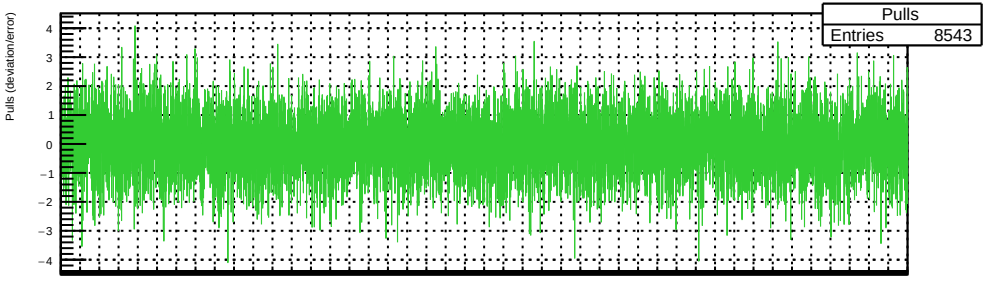

Signed asym_main_det_eigen_lagr_reg_diff_mean (ppb) vs Time
p0 −4.662 ± 7.257
10000
5000
0
−5000
−10000
−15000
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

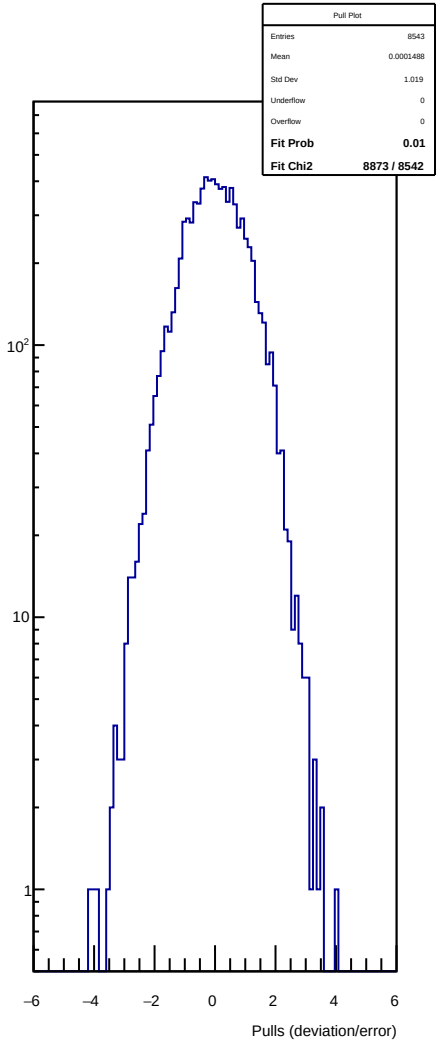

Pulls
Entries 8543
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

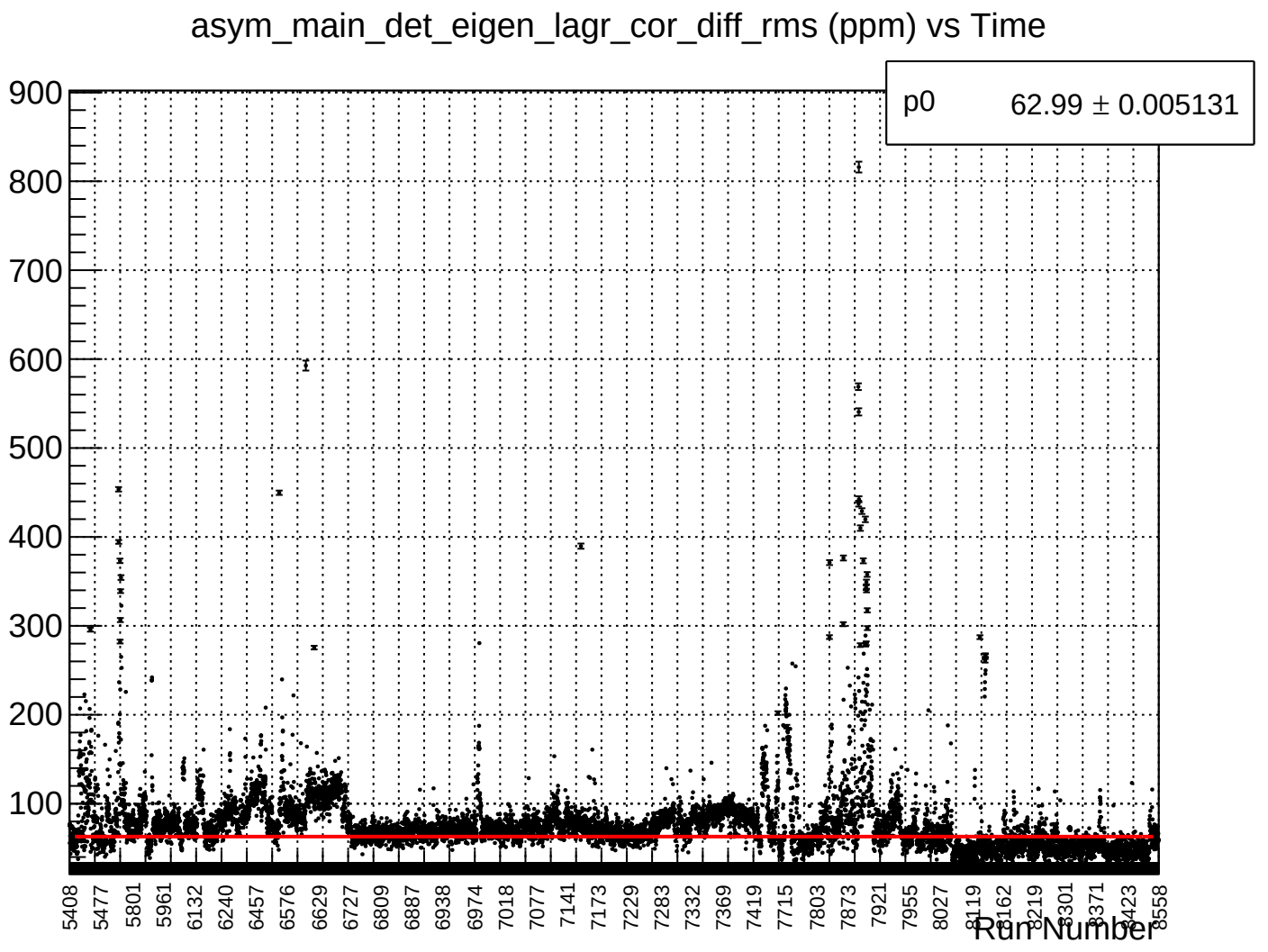

Pull Plot
Entries 8543
Mean 0.0001459
Std Dev 1.019
Underflow 0
Overflow 0
Fit Prob 0.01
Fit Chi2 8873 / 8542
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

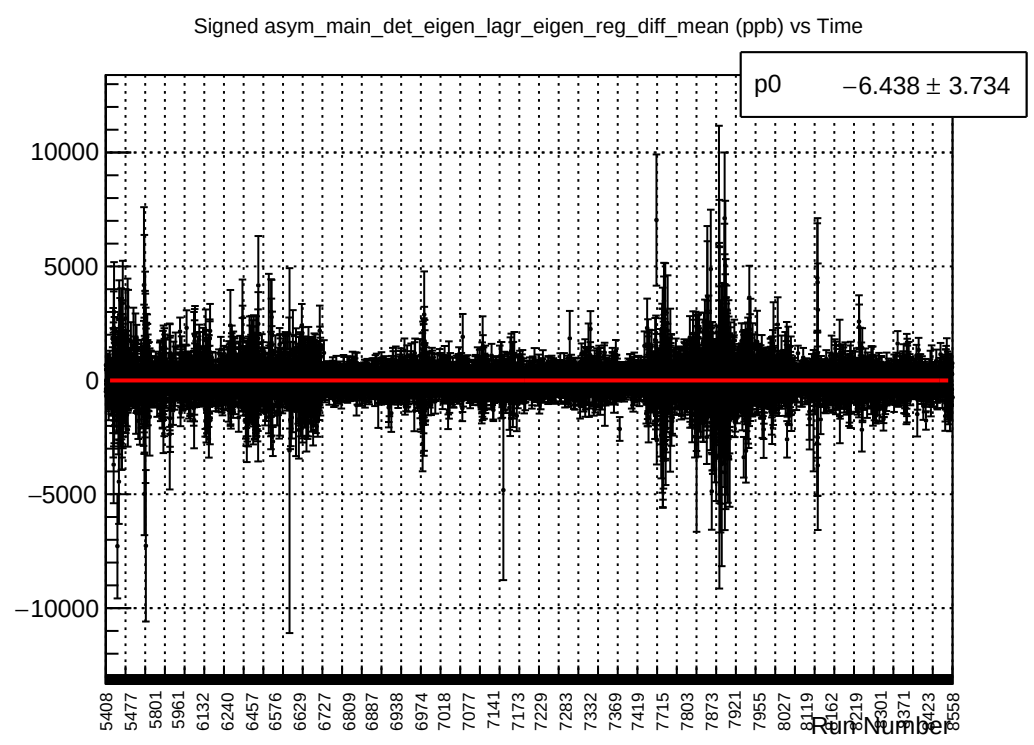

asym_main_det_eigen_lagr_reg_diff_rms (ppm) vs Time
p0 62.99 ± 0.005131
900
800
700
600
500
400
300
200
100
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

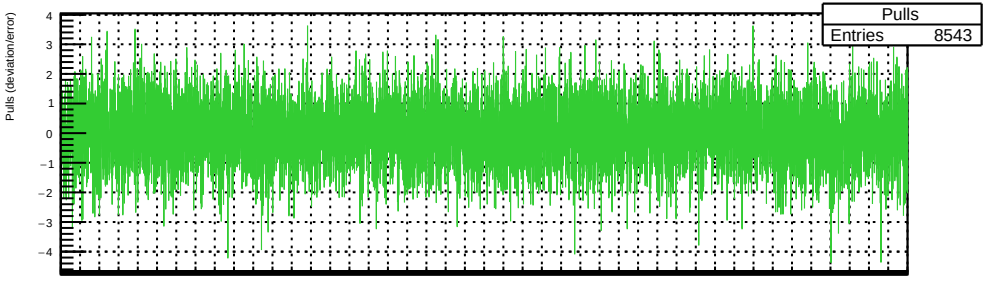

Signed asym_main_det_eigen_lagr_cor_diff_mean (ppb) vs Time
p0 −4.662 ± 7.257
10000
5000
0
−5000
−10000
−15000
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

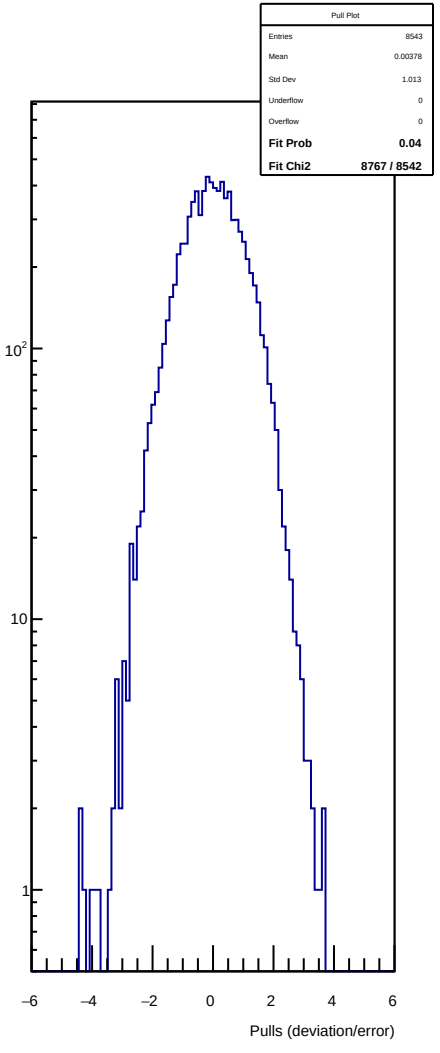

Pulls
Entries 8543
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

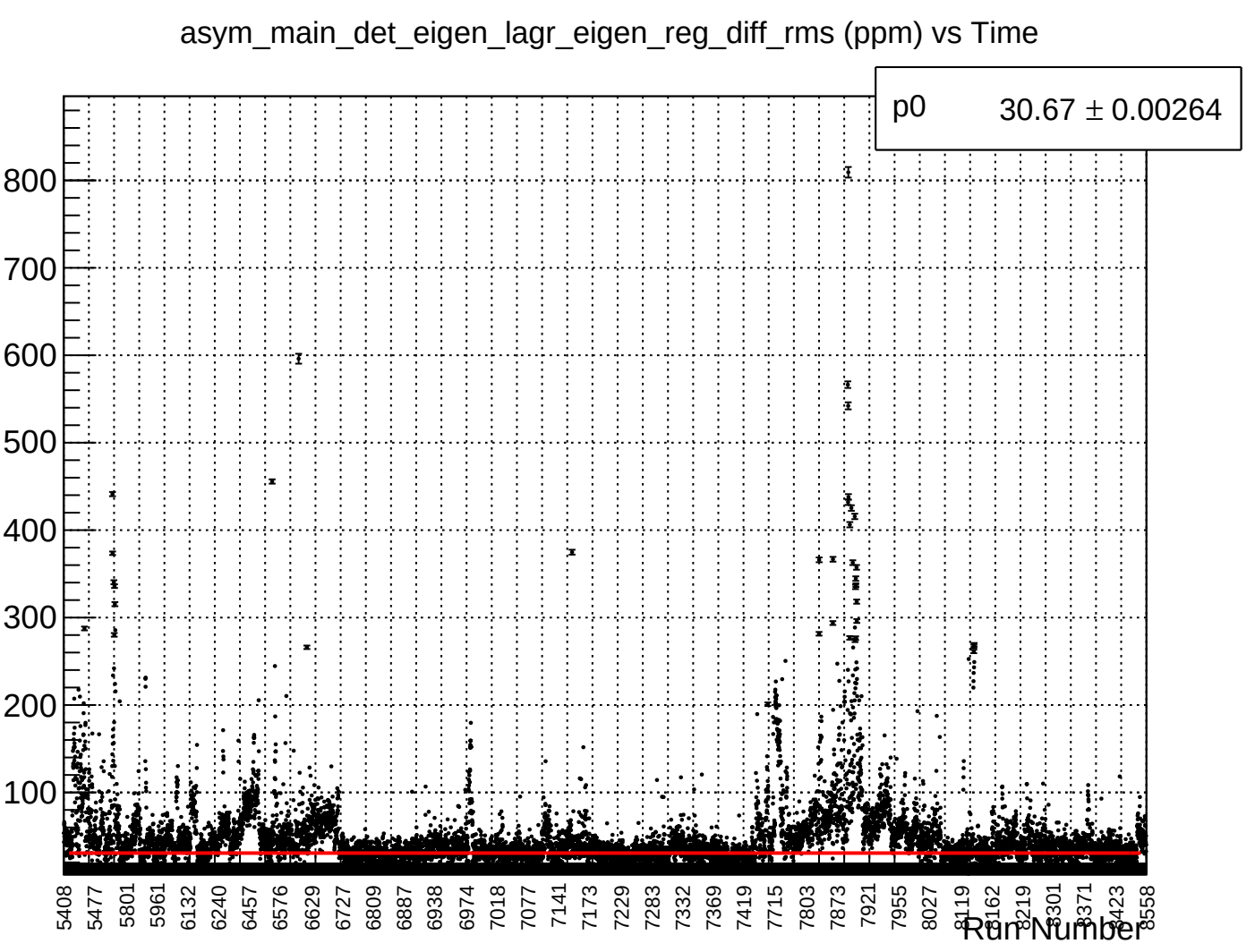

Pull Plot
Entries 8543
Mean 0.0001488
Std Dev 1.019
Underflow 0
Overflow 0
Fit Prob 0.01
Fit Chi2 8873 / 8542
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

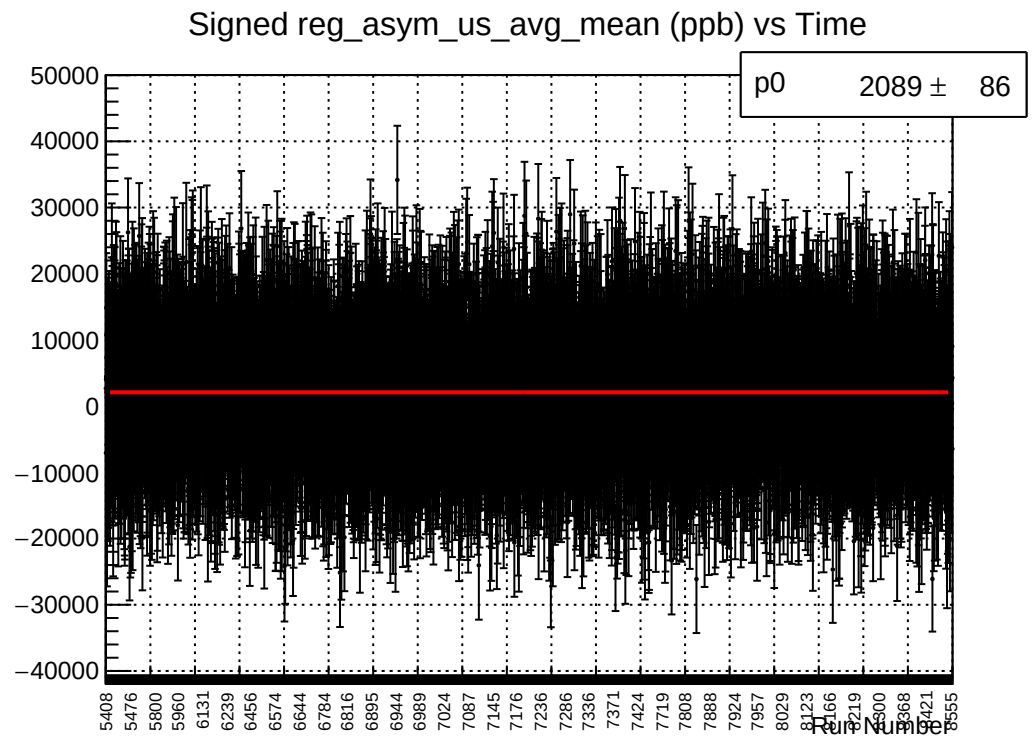

asym_main_det_eigen_lagr_cor_diff_rms (ppm) vs Time
p0 62.99 ± 0.005131
900
800
700
600
500
400
300
200
100
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

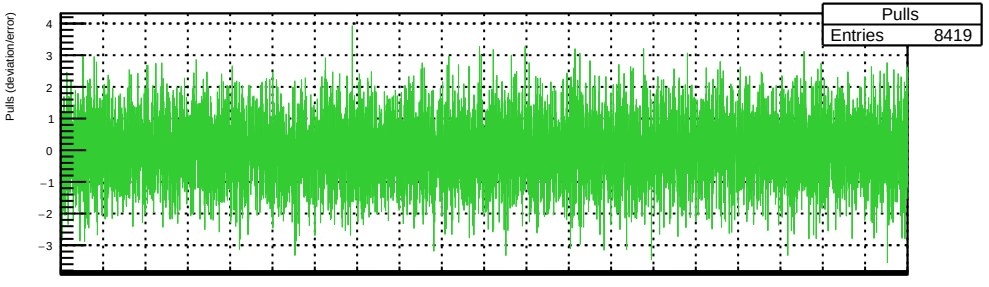

Signed asym_main_det_eigen_lagr_eigen_reg_diff_mean (ppb) vs Time
p0 −6.438 ± 3.734
10000
5000
0
−5000
−10000
5408 5477 5801 5961 6132 6240 6457 6576 6629 6727 6809 6887 6938 6974 7018 7077 7141 7173 7229 7283 7332 7369 7419 7715 7803 7873 7921 7955 8027 8119 8162 8219 8301 8371 8423 8558
Run Number

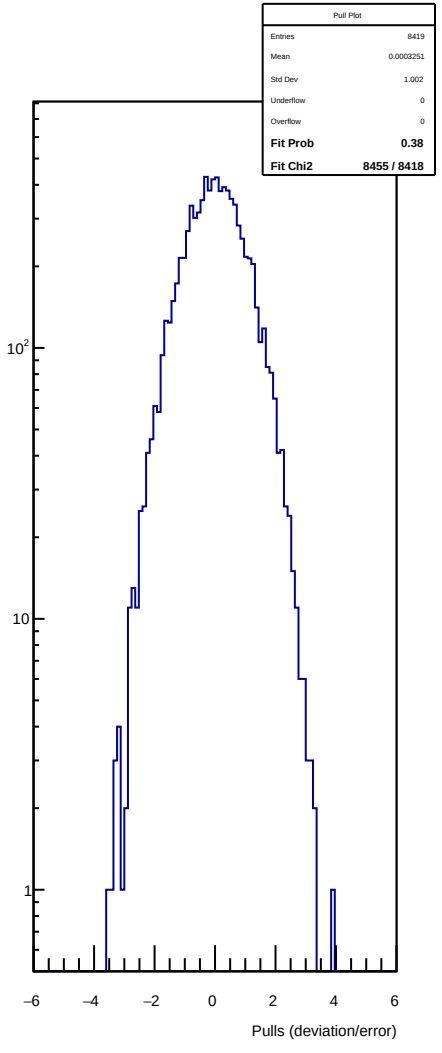

Pulls
Entries 8543
Pulls (deviation/error)
4 3 2 1 0 −1 −2 −3 −4

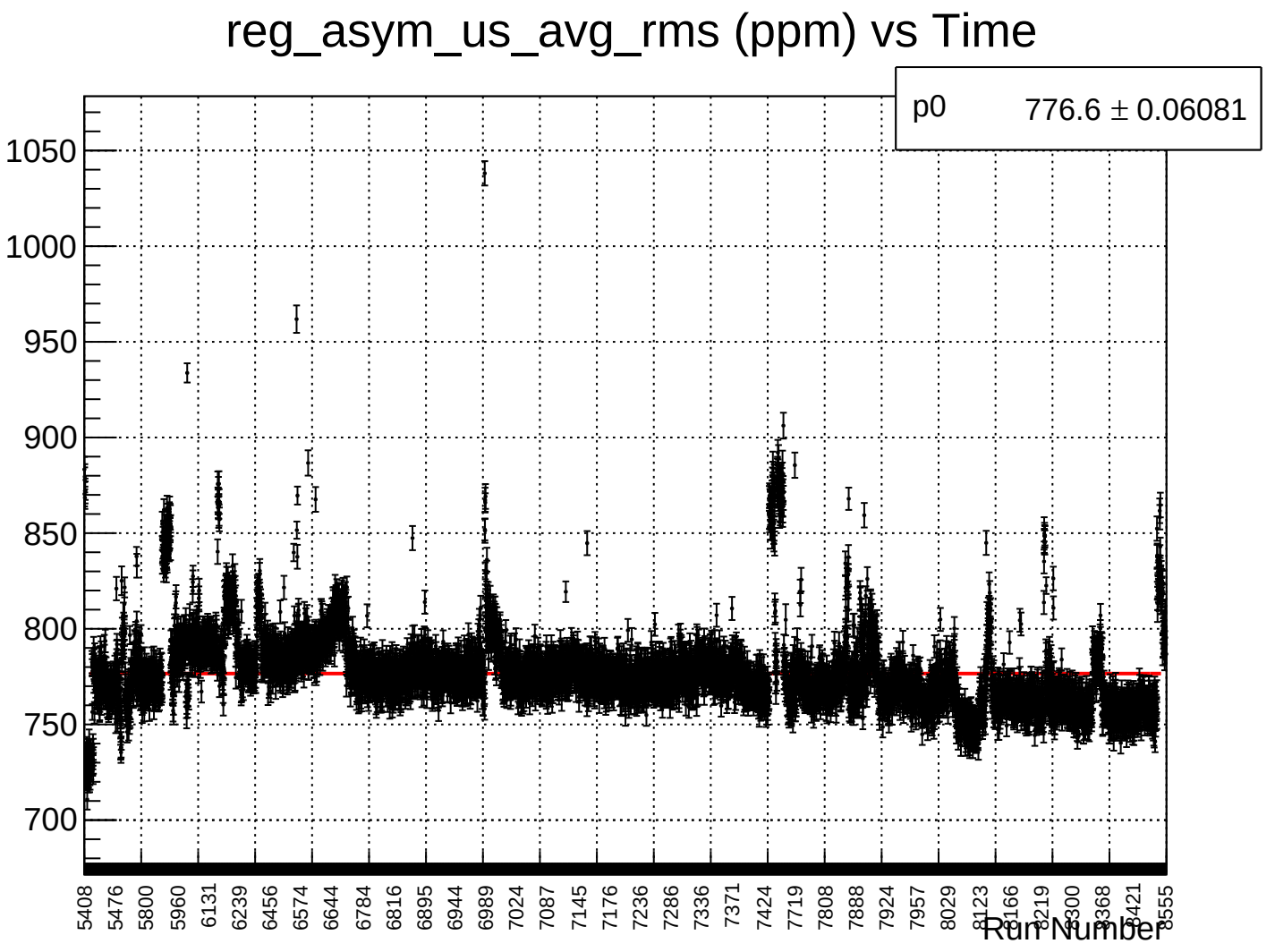

Pull Plot
Entries 8543
Mean 0.00378
Std Dev 1.013
Underflow 0
Overflow 0
Fit Prob 0.04
Fit Chi2 8767 / 8542
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

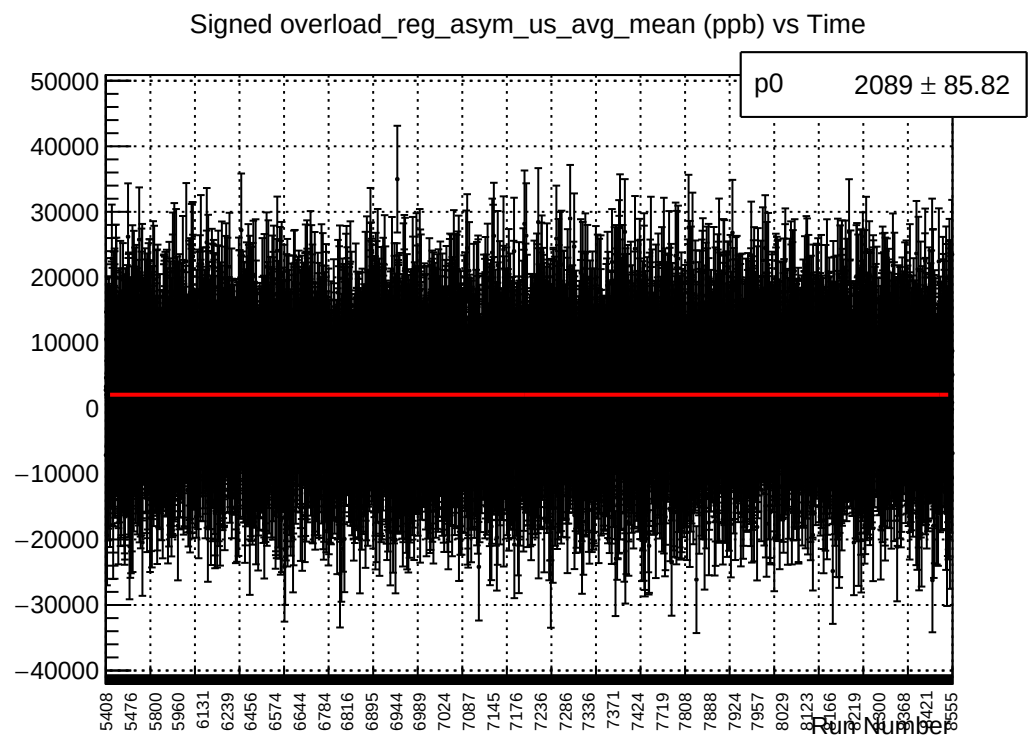

asym_main_det_eigen_lagr_eigen_reg_diff_rms (ppm) vs Time
p0 30.67 ± 0.00264
800
700
600
500
400
300
200
100
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

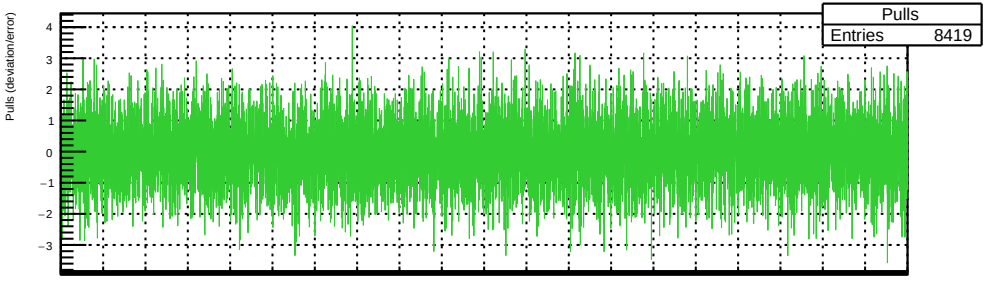

Signed reg_asym_us_avg_mean (ppb) vs Time
p0 2089 ± 86
50000
40000
30000
20000
10000
0
−10000
−20000
−30000
−40000
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

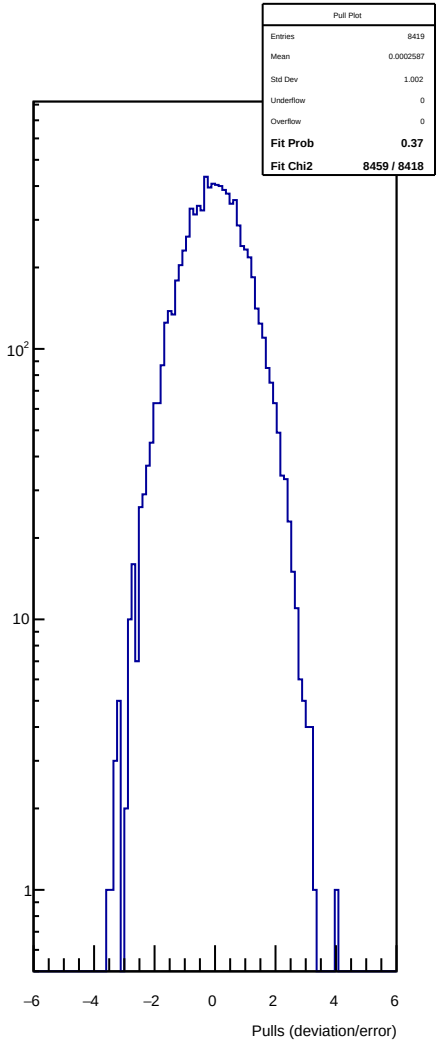

Pulls
Entries 8419
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3

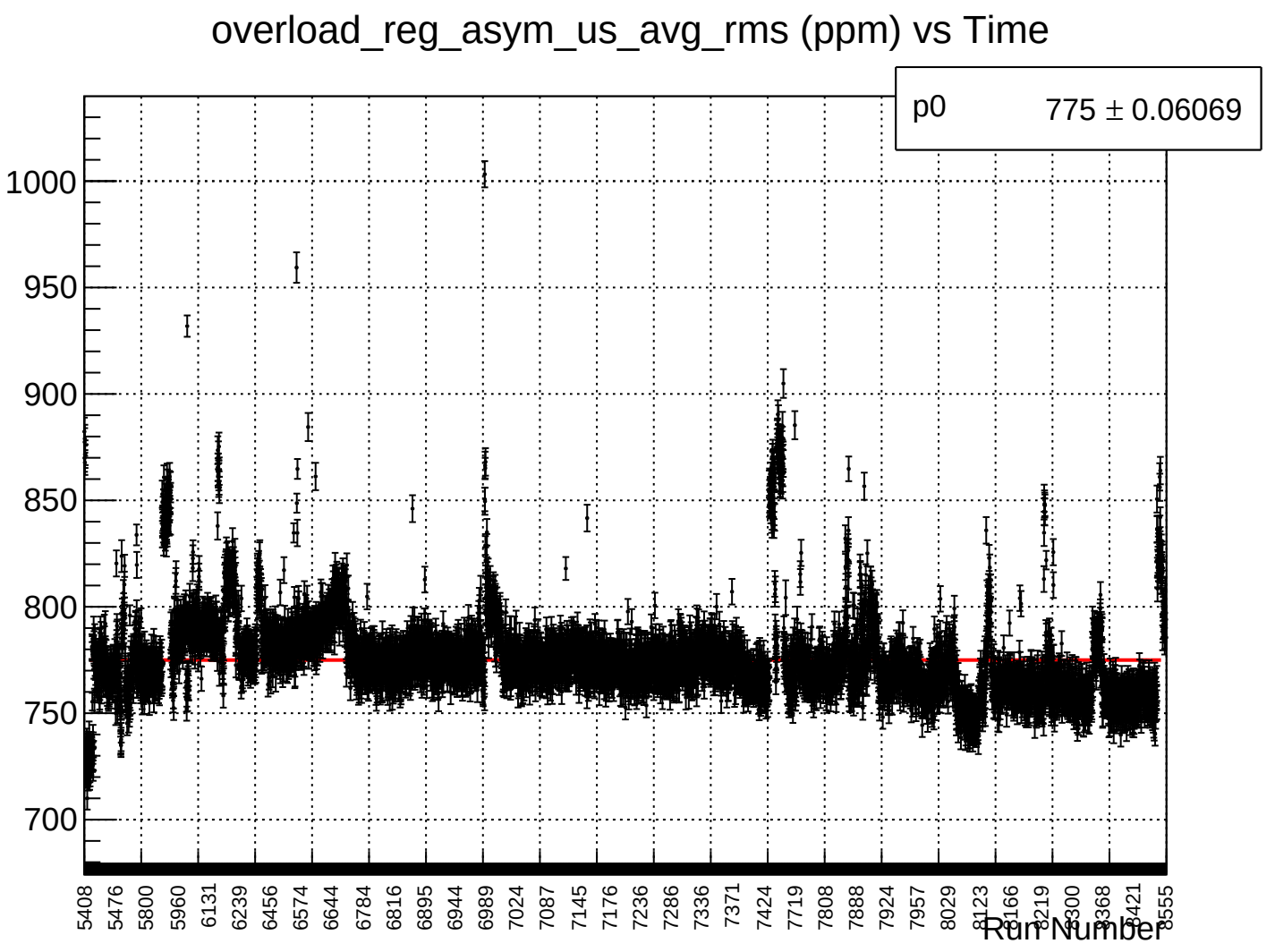

Pull Plot
Entries 8419
Mean 0.0003251
Std Dev 1.002
Underflow 0
Overflow 0
Fit Prob 0.38
Fit Chi2 8455 / 8418
10²
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

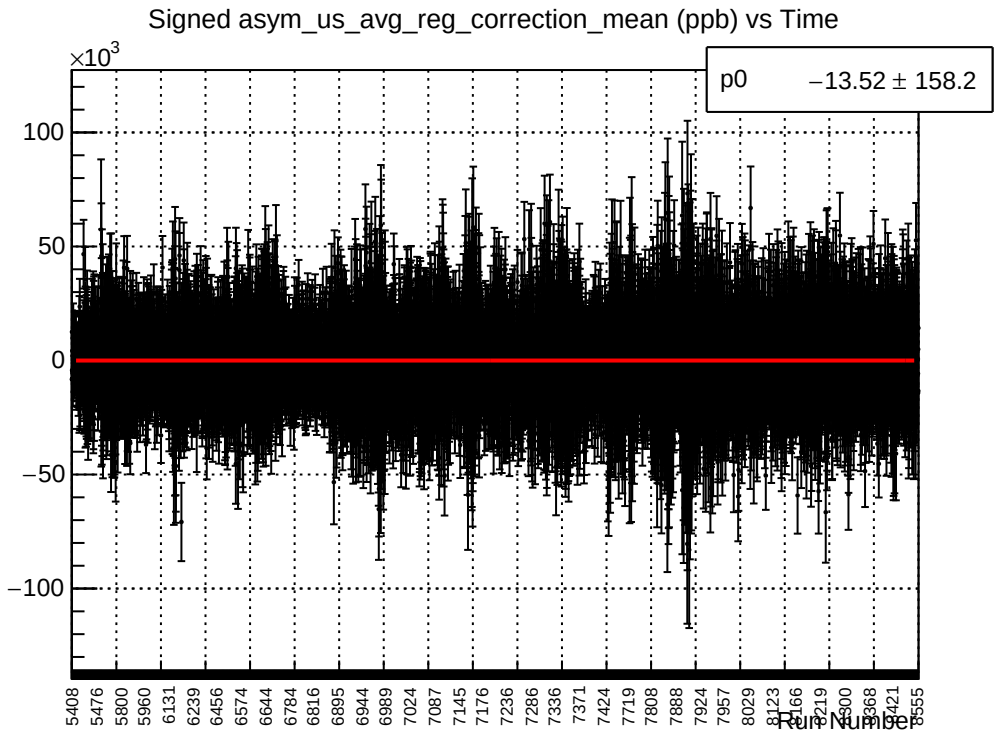

reg_asym_us_avg_rms (ppm) vs Time
p0 776.6 ± 0.06081
1050
1000
950
900
850
800
750
700
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

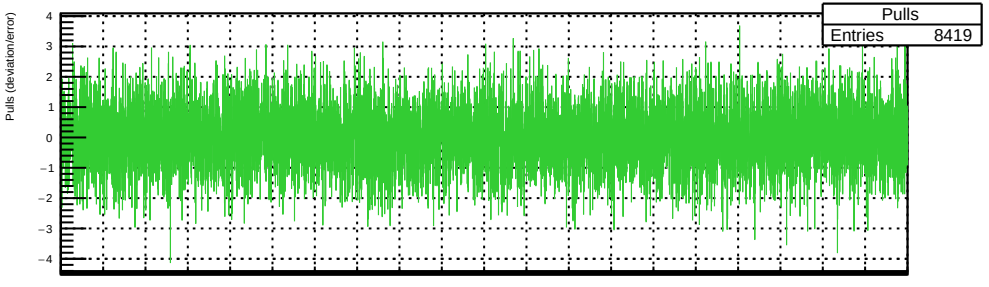

Signed overload_reg_asym_us_avg_mean (ppb) vs Time
p0 2089 ± 85.82
50000
40000
30000
20000
10000
0
−10000
−20000
−30000
−40000
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

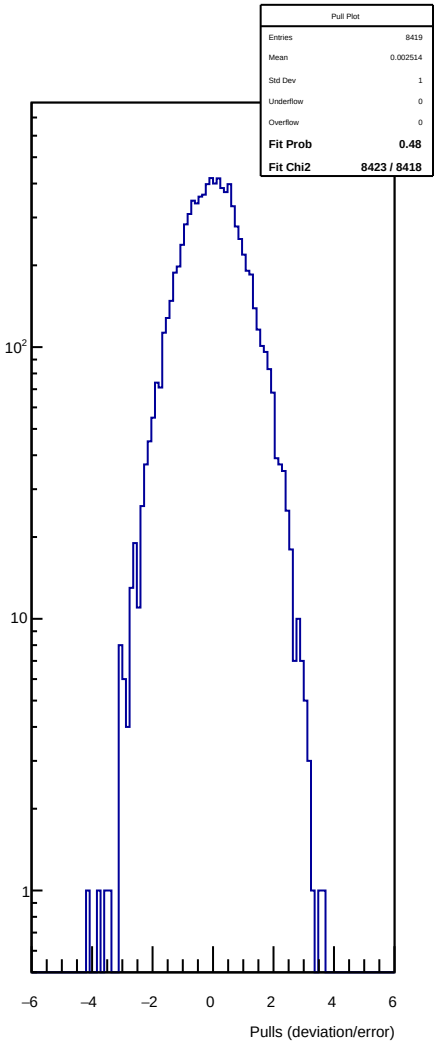

Pulls
Entries 8419
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3

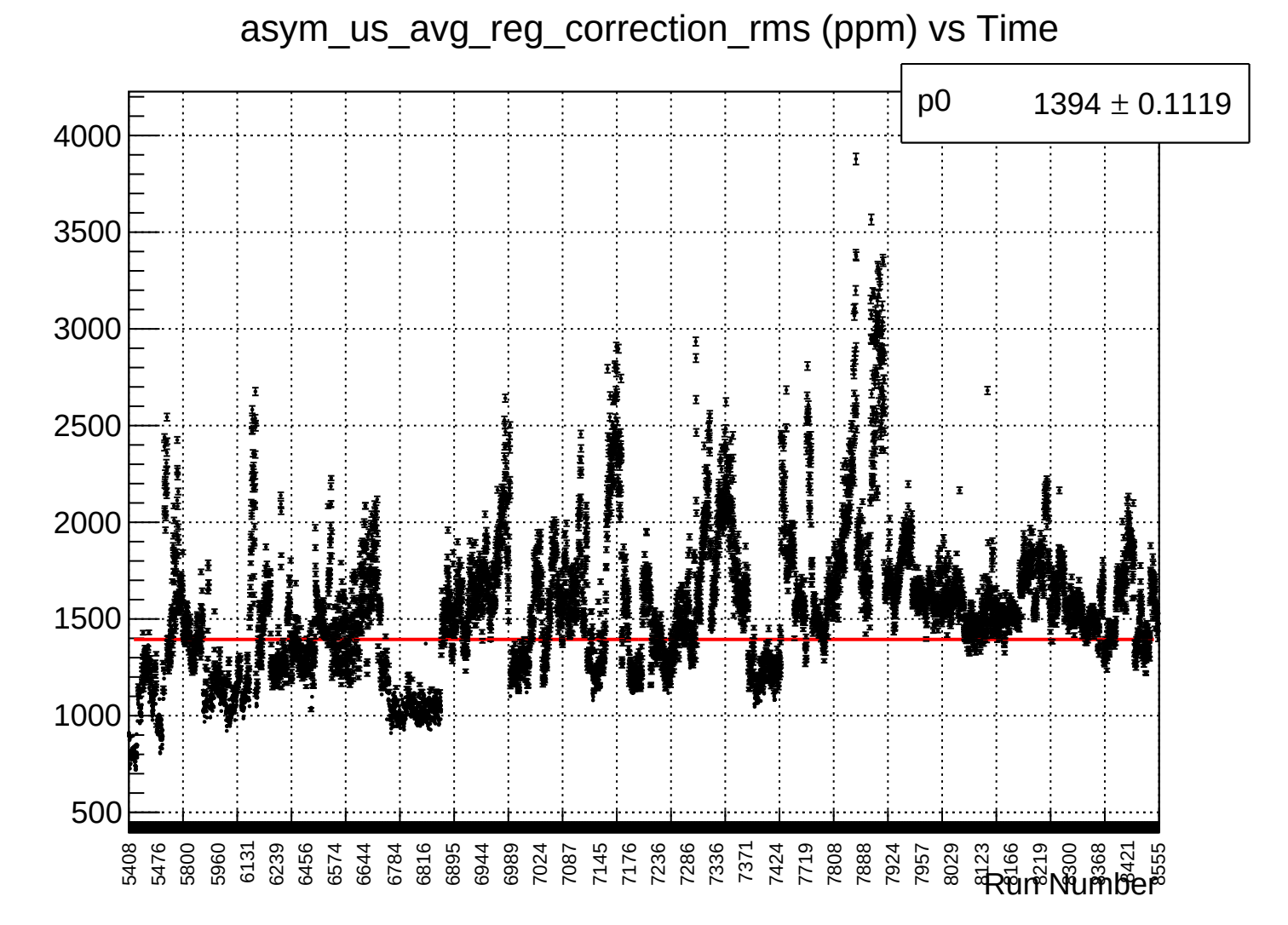

Pull Plot
Entries 8419
Mean 0.0002587
Std Dev 1.002
Underflow 0
Overflow 0
Fit Prob 0.37
Fit Chi2 8459 / 8418
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

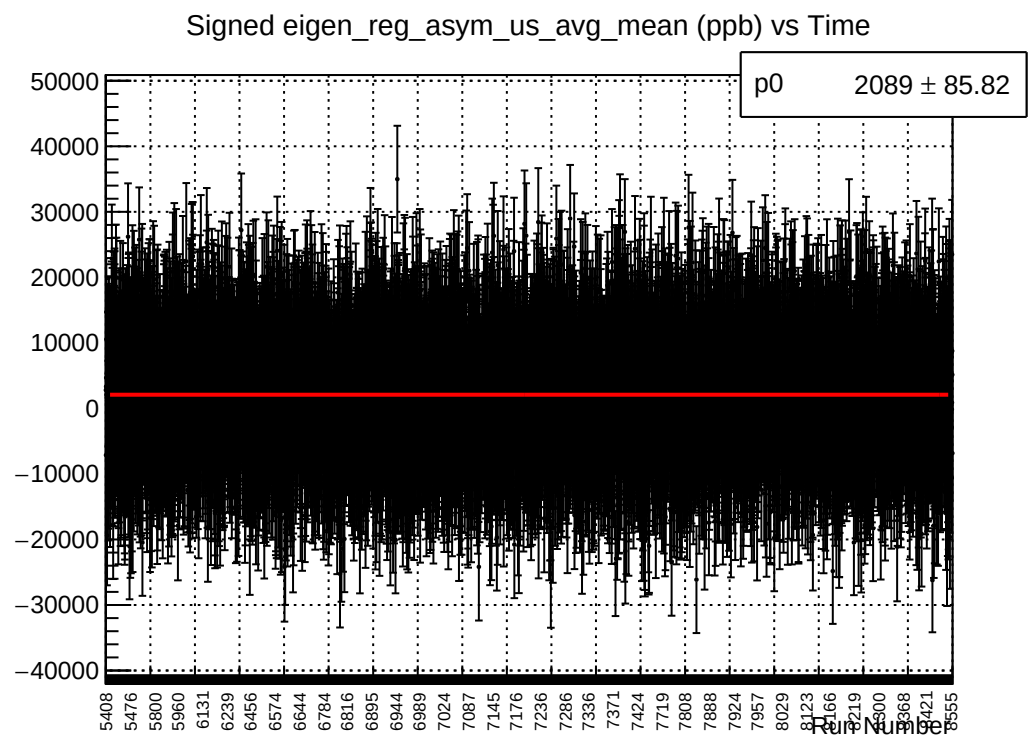

overload_reg_asym_us_avg_rms (ppm) vs Time
p0
775 ± 0.06069
1000
950
900
850
800
750
700
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

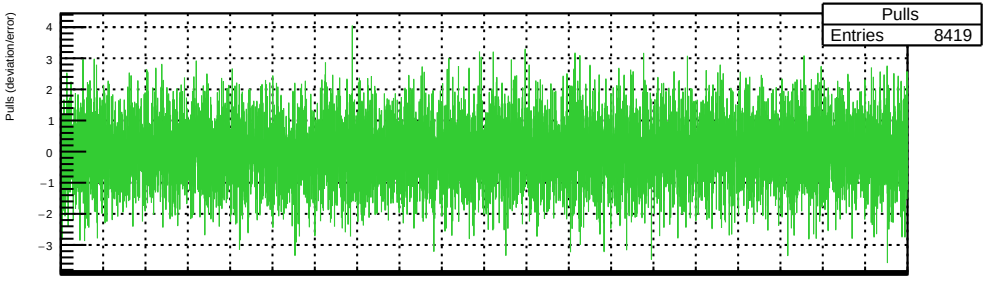

Signed asym_us_avg_reg_correction_mean (ppb) vs Time
×10^3
p0 −13.52 ± 158.2
100
50
0
−50
−100
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

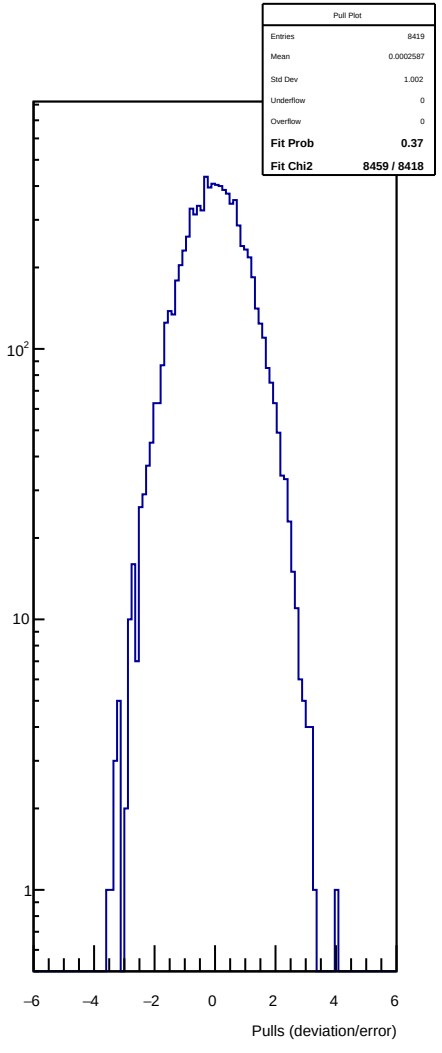

Pulls
Entries 8419
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

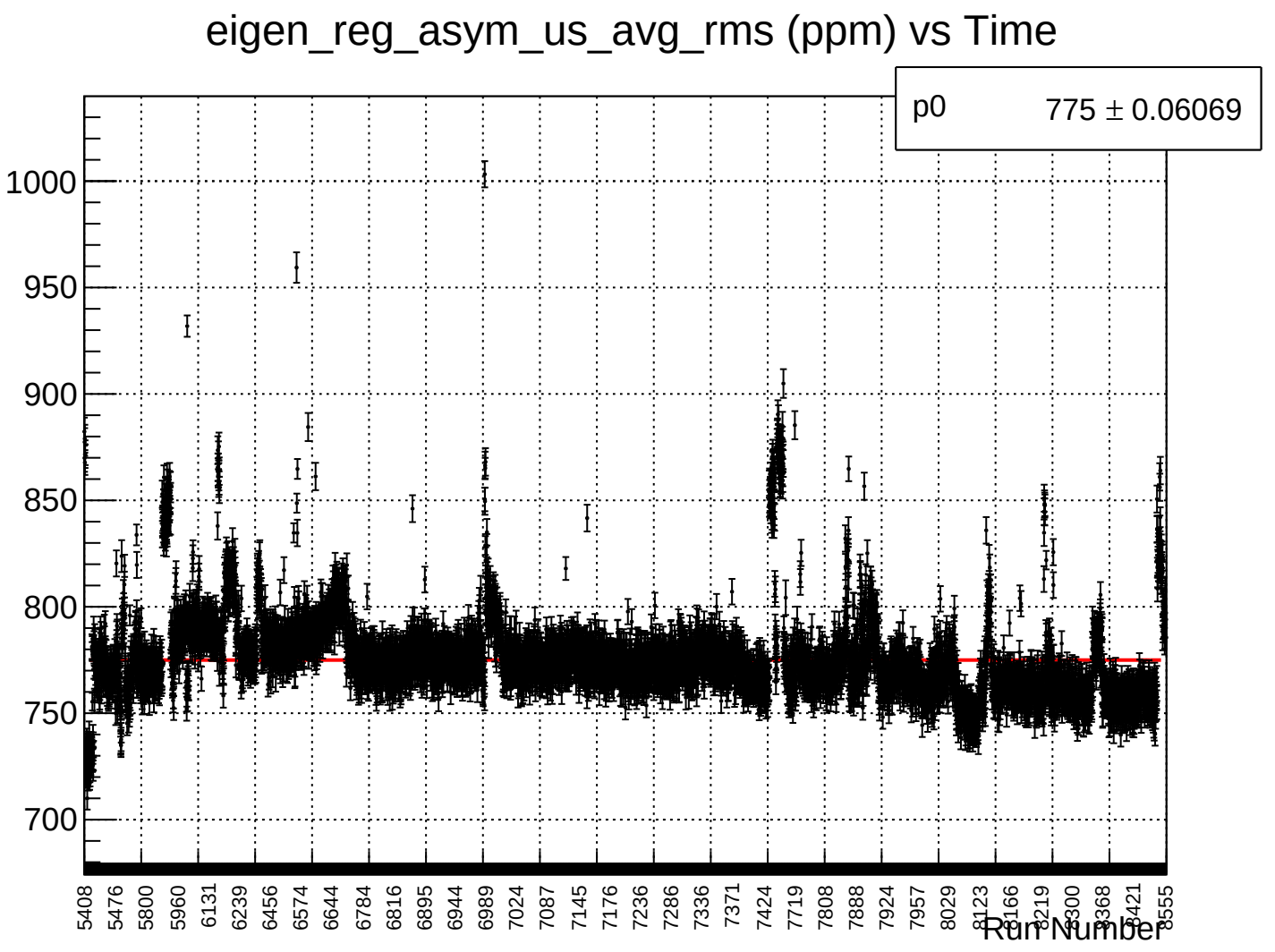

Pull Plot
Entries 8419
Mean 0.002514
Std Dev 1
Underflow 0
Overflow 0
Fit Prob 0.48
Fit Chi2 8423 / 8418
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

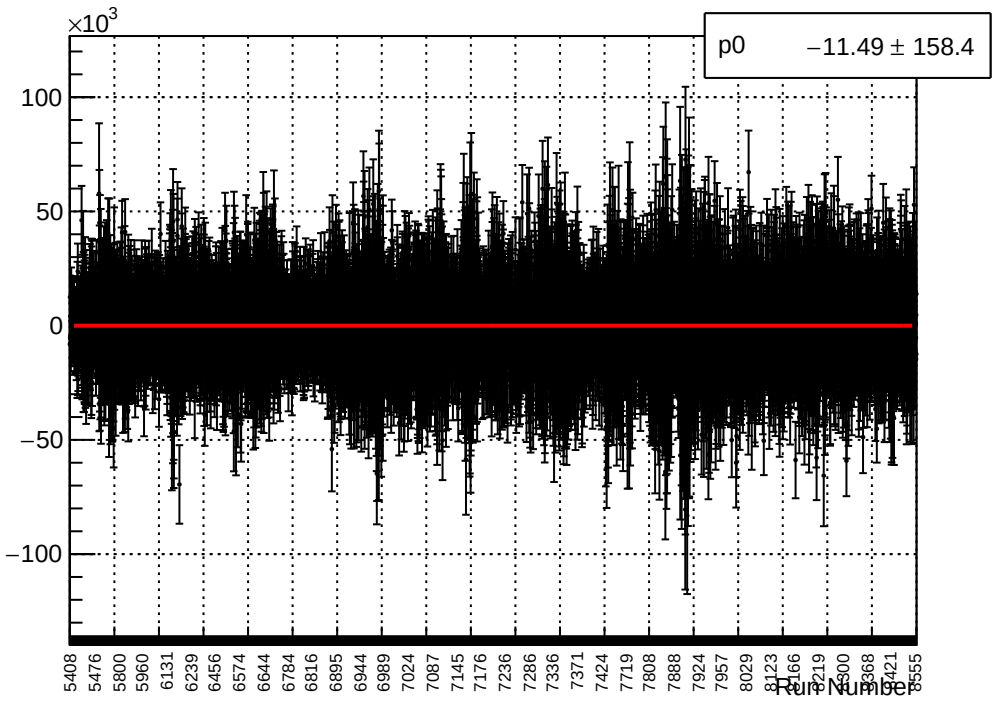

asym_us_avg_reg_correction_rms (ppm) vs Time
p0 1394 ± 0.1119
4000
3500
3000
2500
2000
1500
1000
500
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

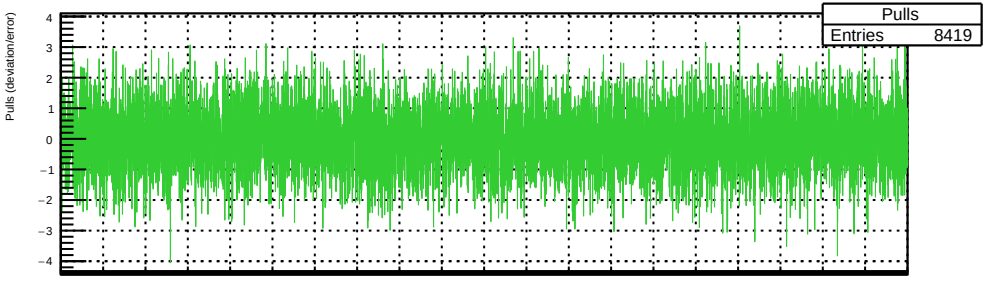

Signed eigen_reg_asym_us_avg_mean (ppb) vs Time
p0 2089 ± 85.82
50000
40000
30000
20000
10000
0
−10000
−20000
−30000
−40000
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

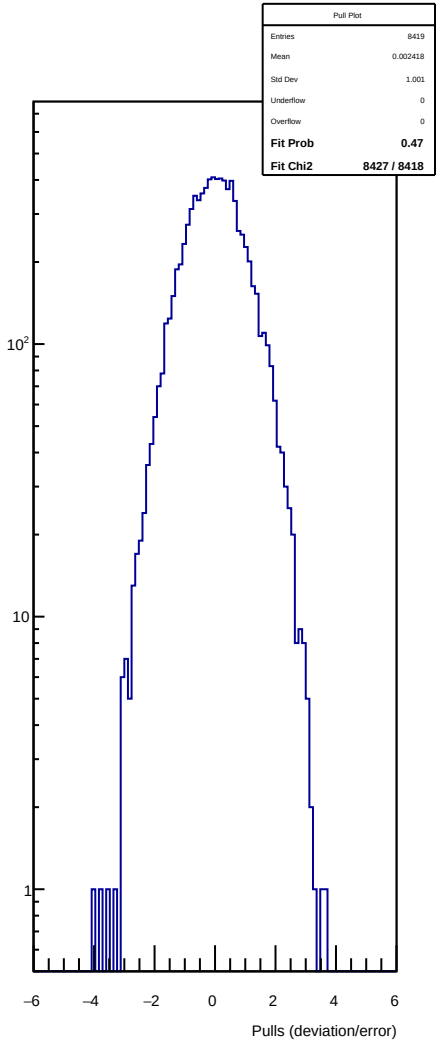

Pulls
Entries 8419
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3

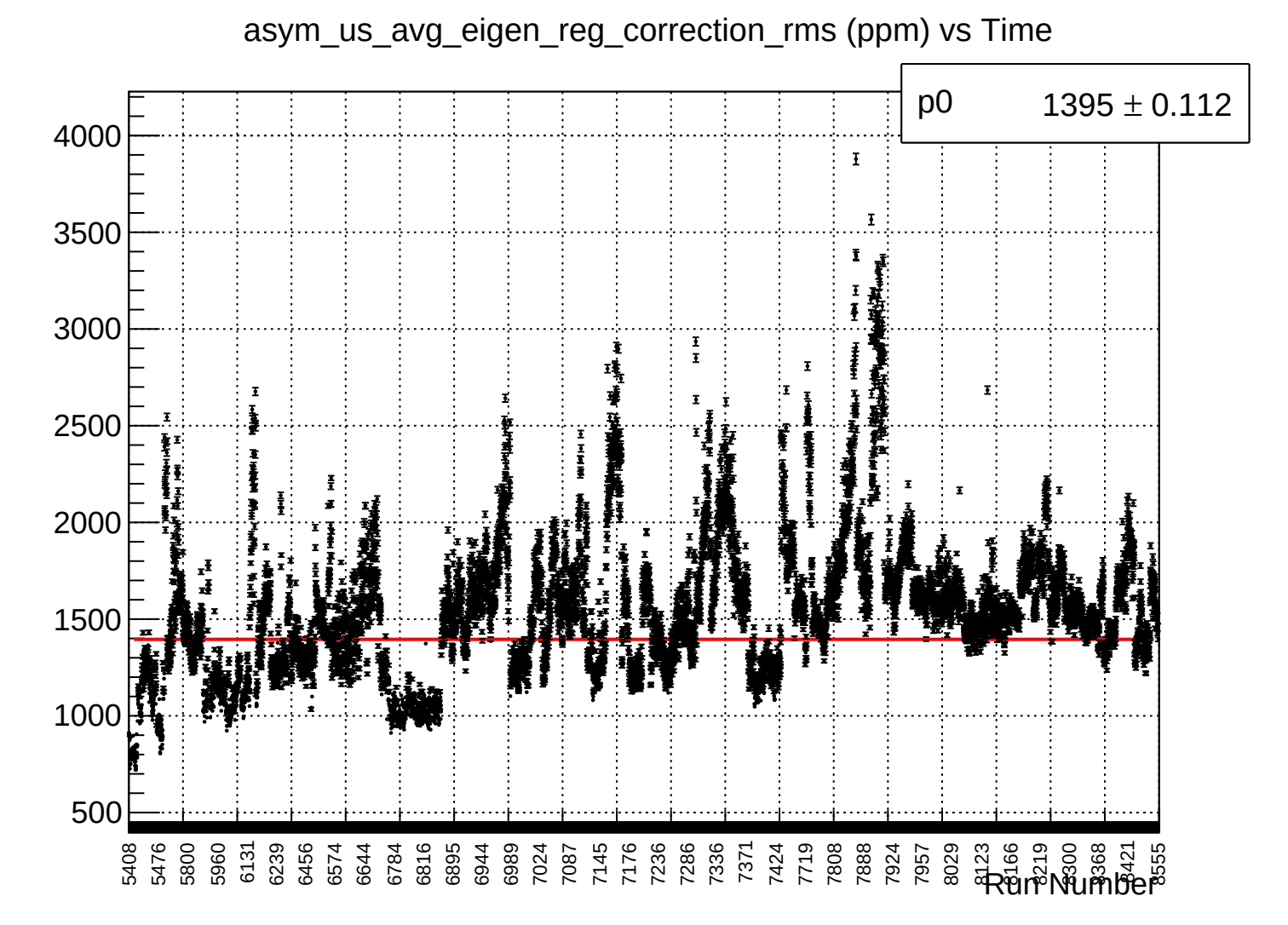

Pull Plot
Entries 8419
Mean 0.0002587
Std Dev 1.002
Underflow 0
Overflow 0
Fit Prob 0.37
Fit Chi2 8459 / 8418
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

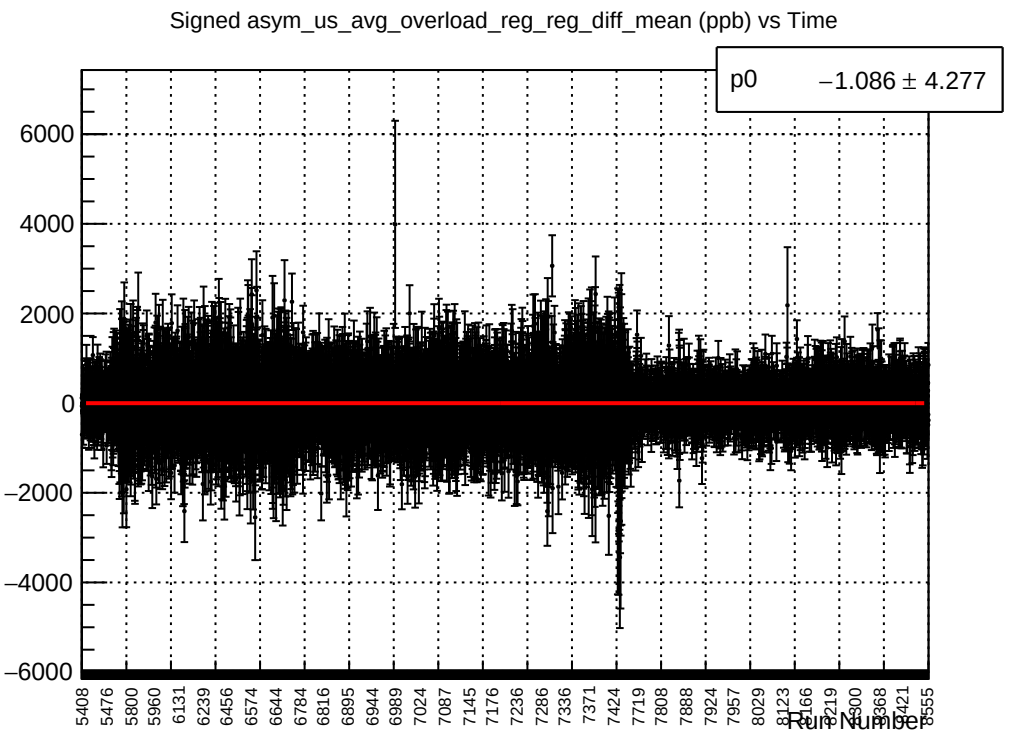

eigen_reg_asym_us_avg_rms (ppm) vs Time
p0
775 ± 0.06069
1000
950
900
850
800
750
700
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

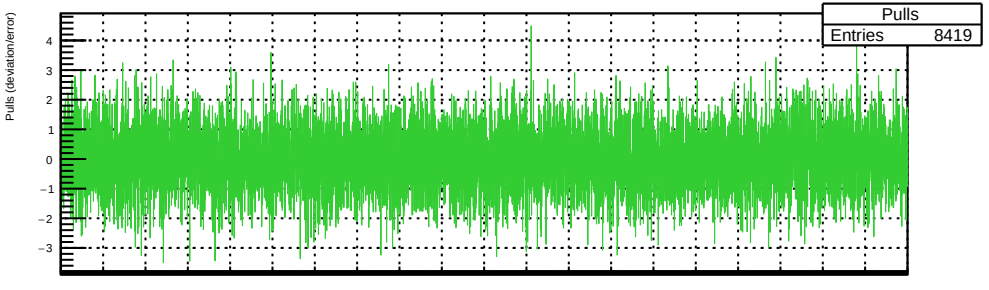

Signed asym_us_avg_eigen_reg_correction_mean (ppb) vs Time
×10^3
p0 −11.49 ± 158.4
100
50
0
−50
−100
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

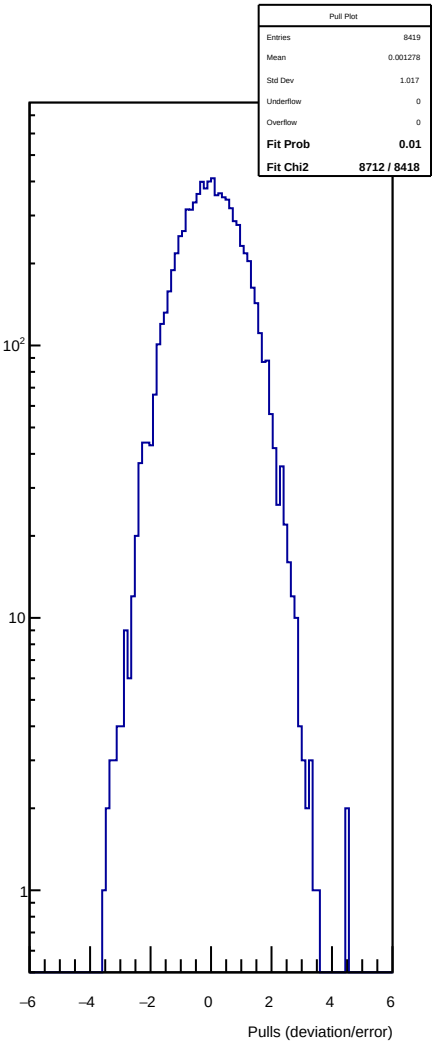

Pulls
Entries 8419
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

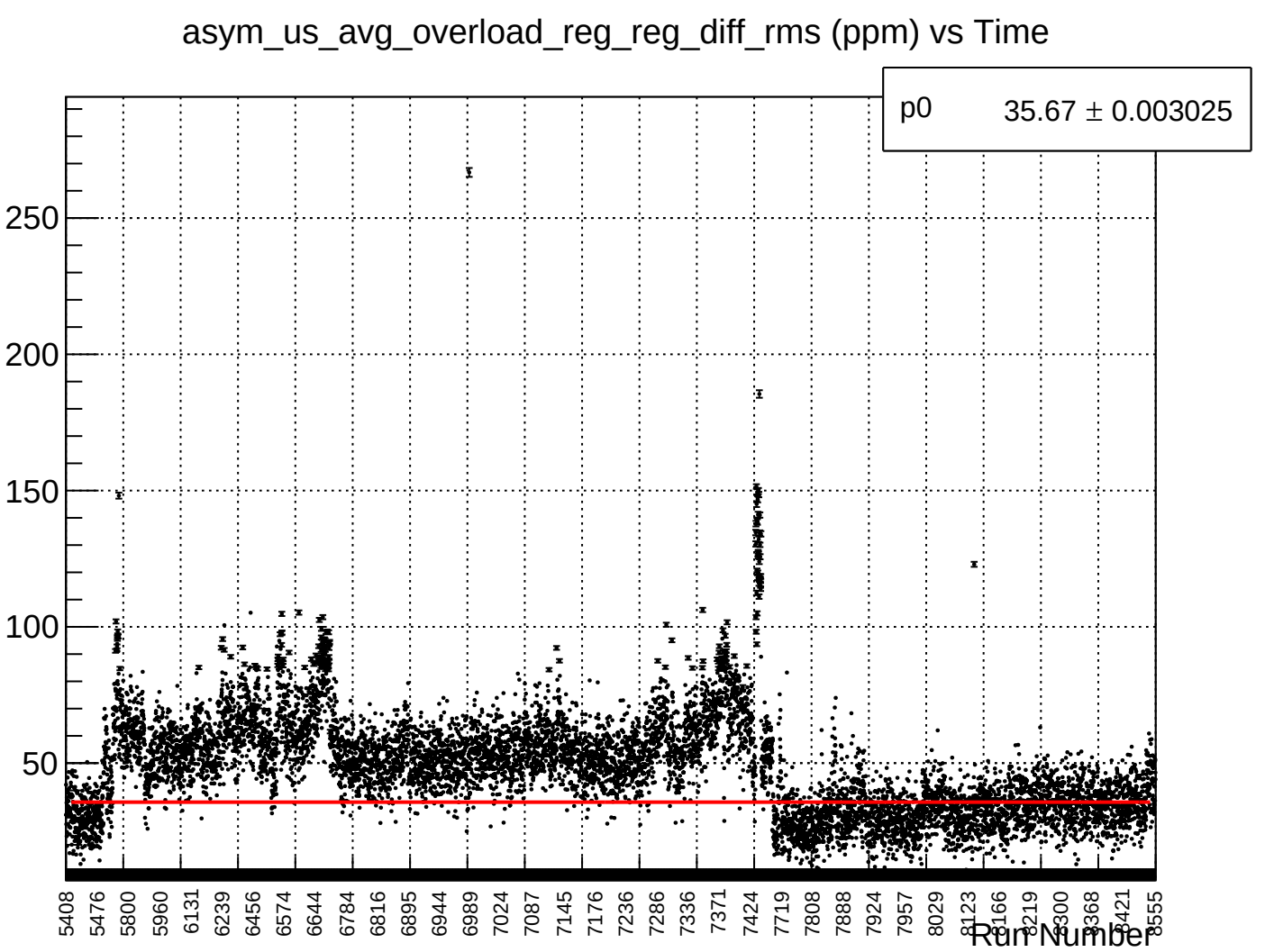

Pull Plot
Entries 8419
Mean 0.002418
Std Dev 1.001
Underflow 0
Overflow 0
Fit Prob 0.47
Fit Chi2 8427 / 8418
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

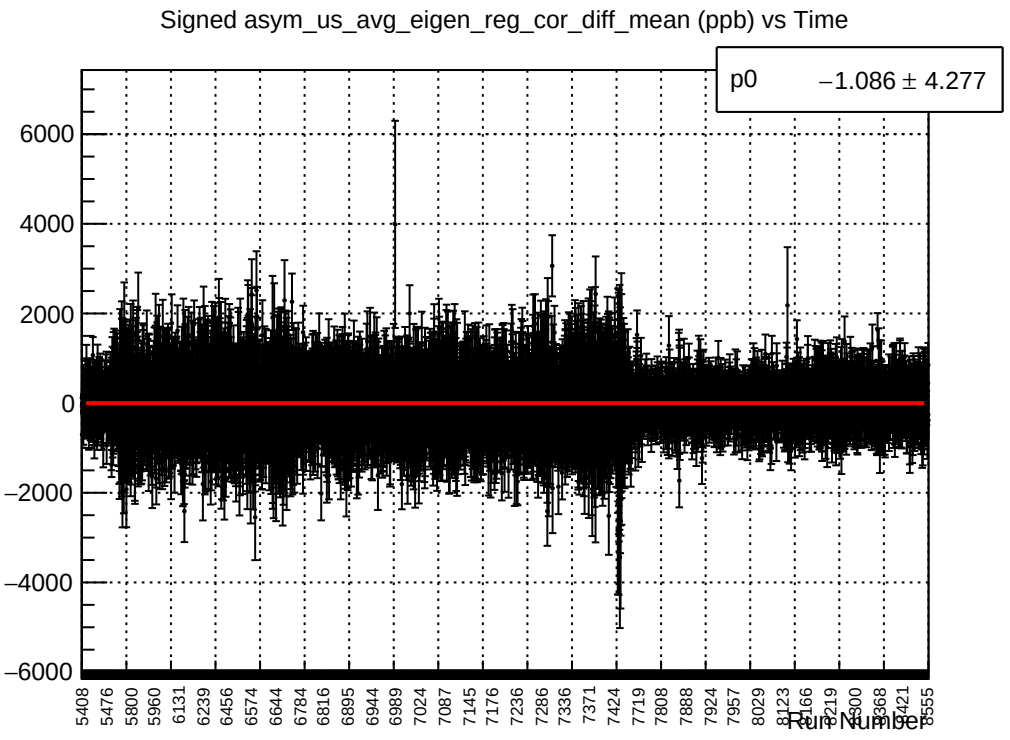

asym_us_avg_eigen_reg_correction_rms (ppm) vs Time
p0 1395 ± 0.112
4000
3500
3000
2500
2000
1500
1000
500
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

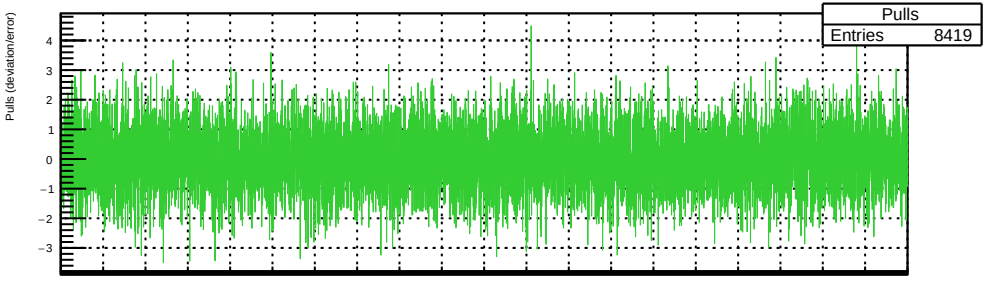

Signed asym_us_avg_overload_reg_reg_diff_mean (ppb) vs Time
p0 −1.086 ± 4.277
6000
4000
2000
0
−2000
−4000
−6000
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

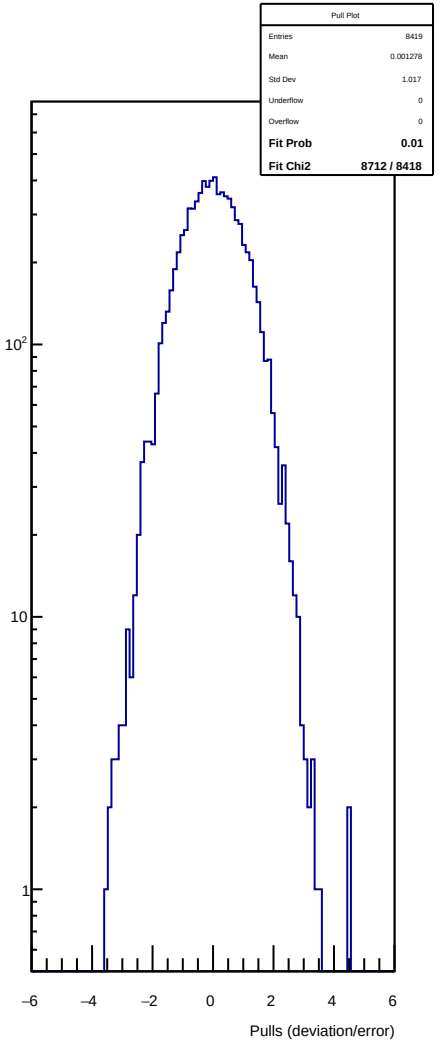

Pulls
Entries 8419
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3

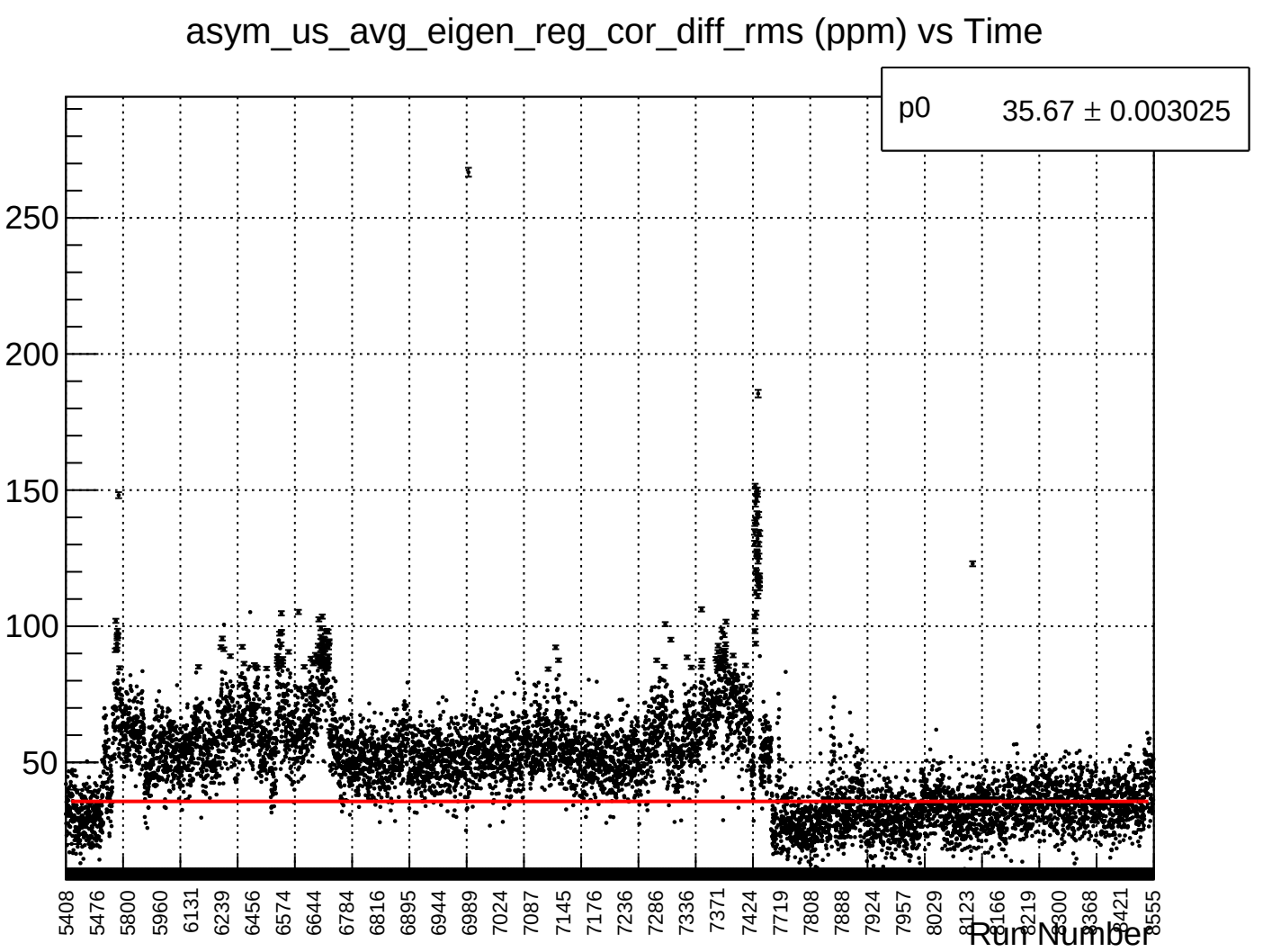

Pull Plot
Entries 8419
Mean 0.001278
Std Dev 1.017
Underflow 0
Overflow 0
Fit Prob 0.01
Fit Chi2 8712 / 8418
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

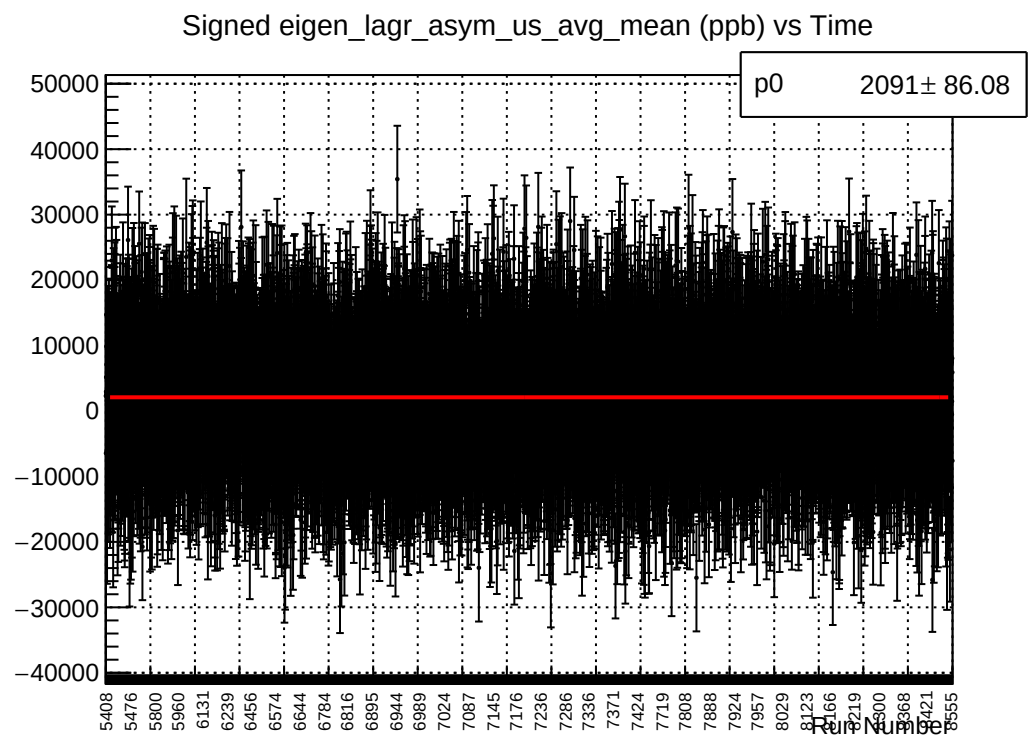

asym_us_avg_overload_reg_reg_diff_rms (ppm) vs Time
p0
35.67 ± 0.003025
250
200
150
100
50
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

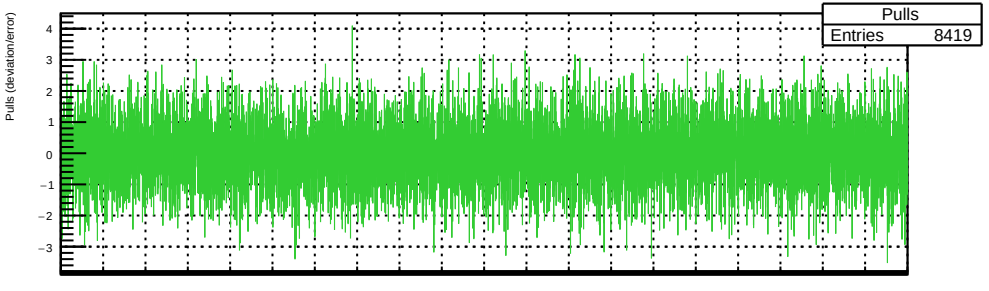

Signed asym_us_avg_eigen_reg_cor_diff_mean (ppb) vs Time
p0 −1.086 ± 4.277
6000
4000
2000
0
−2000
−4000
−6000
5408 5476 5800 5960 6131 6239 6456 6574 6644 6784 6816 6895 6944 6989 7024 7087 7145 7176 7236 7286 7336 7371 7424 7719 7808 7888 7924 7957 8029 8123 8166 8219 8300 8368 8421 8555
Run Number

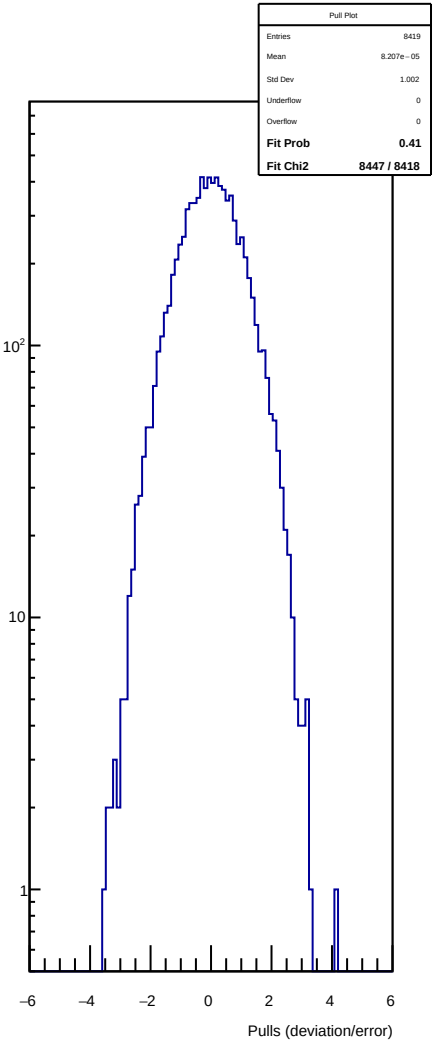

Pulls
Entries 8419
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3

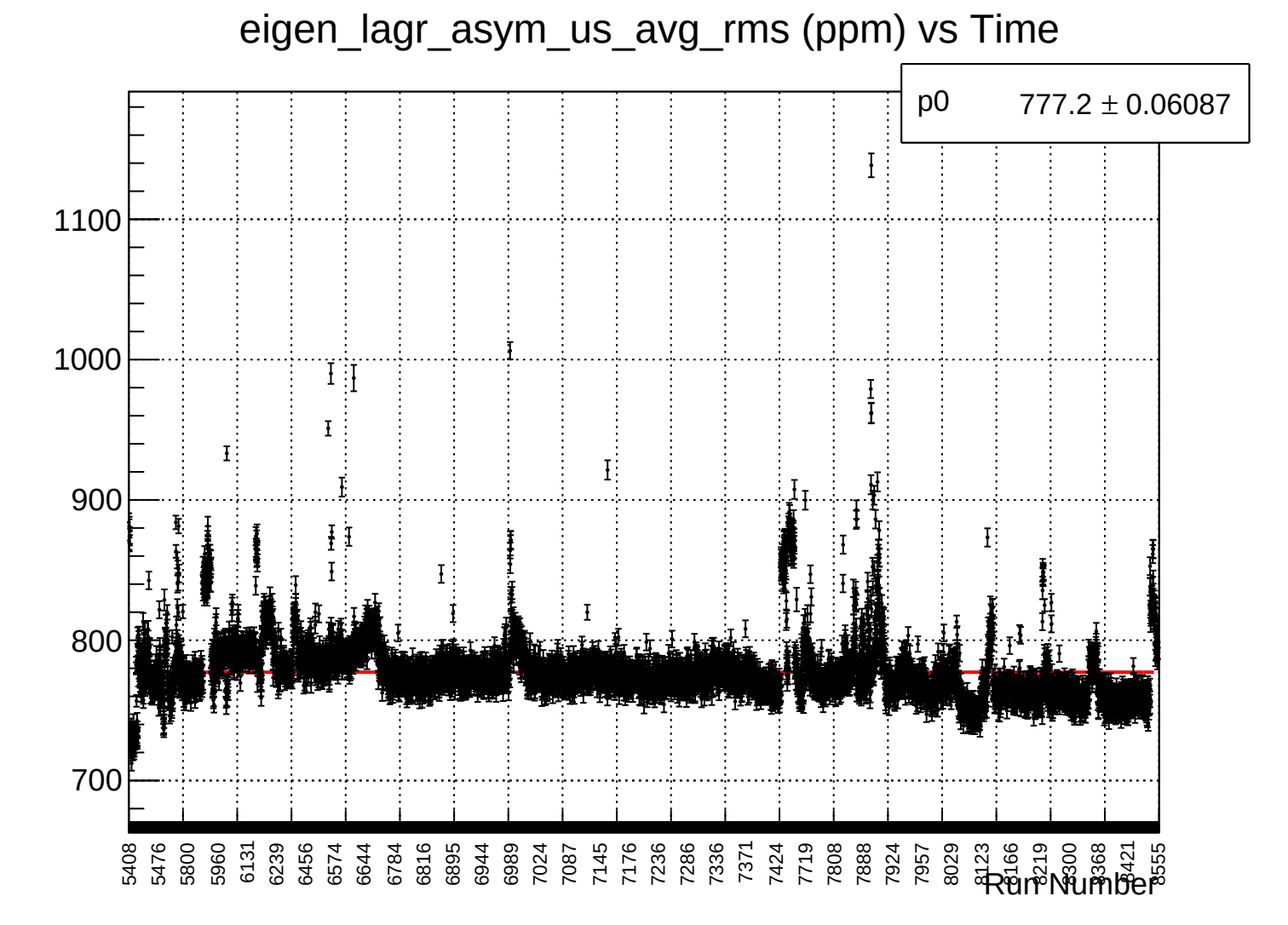

Pull Plot
Entries 8419
Mean 0.001278
Std Dev 1.017
Underflow 0
Overflow 0
Fit Prob 0.01
Fit Chi2 8712 / 8418
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

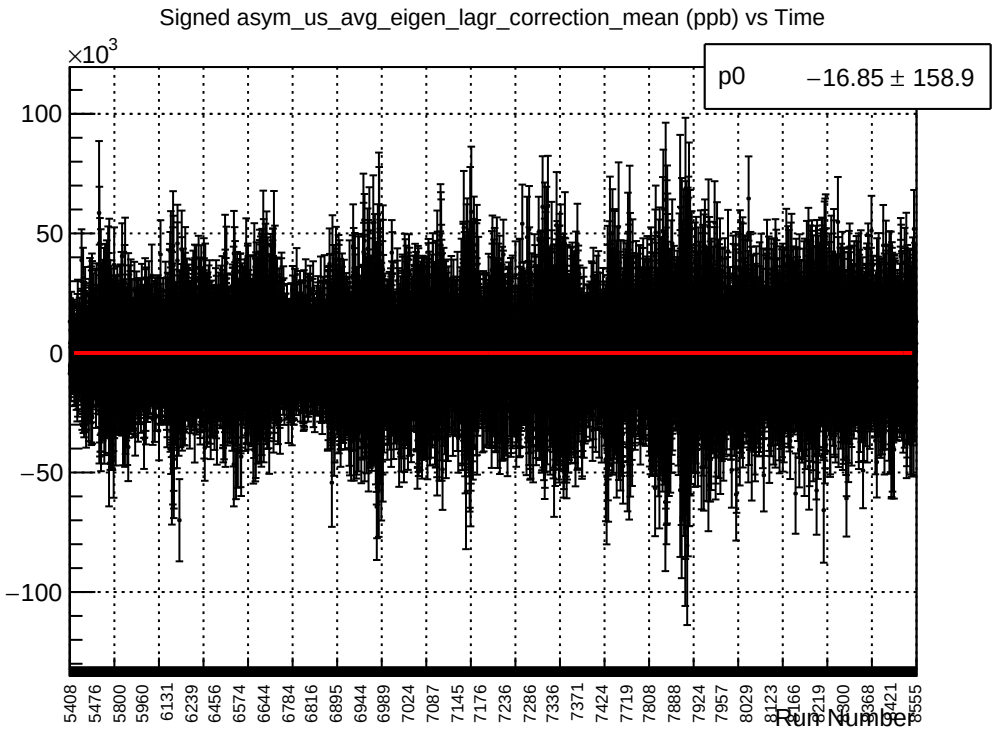

asym_us_avg_eigen_reg_cor_diff_rms (ppm) vs Time
p0 35.67 ± 0.003025
250
200
150
100
50
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

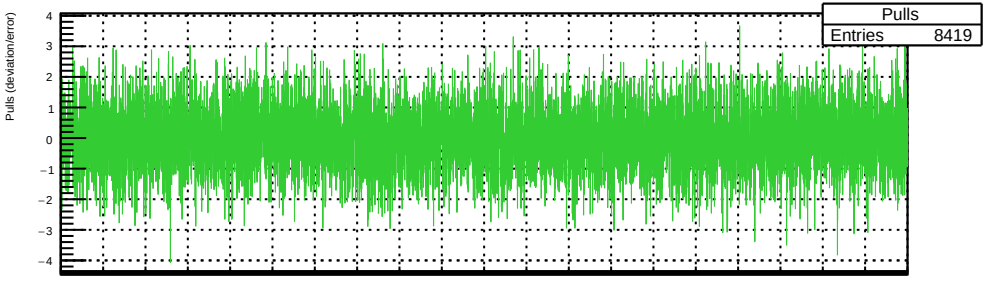

Signed eigen_lagr_asym_us_avg_mean (ppb) vs Time
p0 2091± 86.08
50000
40000
30000
20000
10000
0
−10000
−20000
−30000
−40000
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

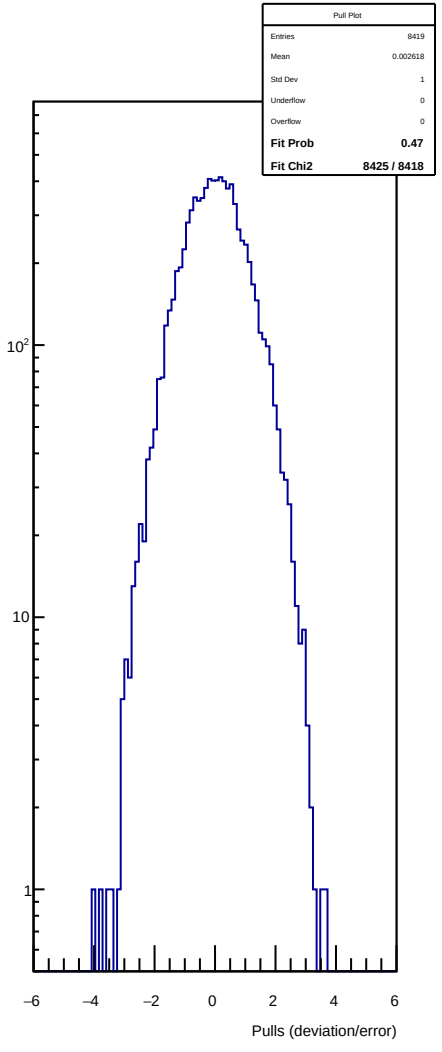

Pulls
Entries 8419
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3

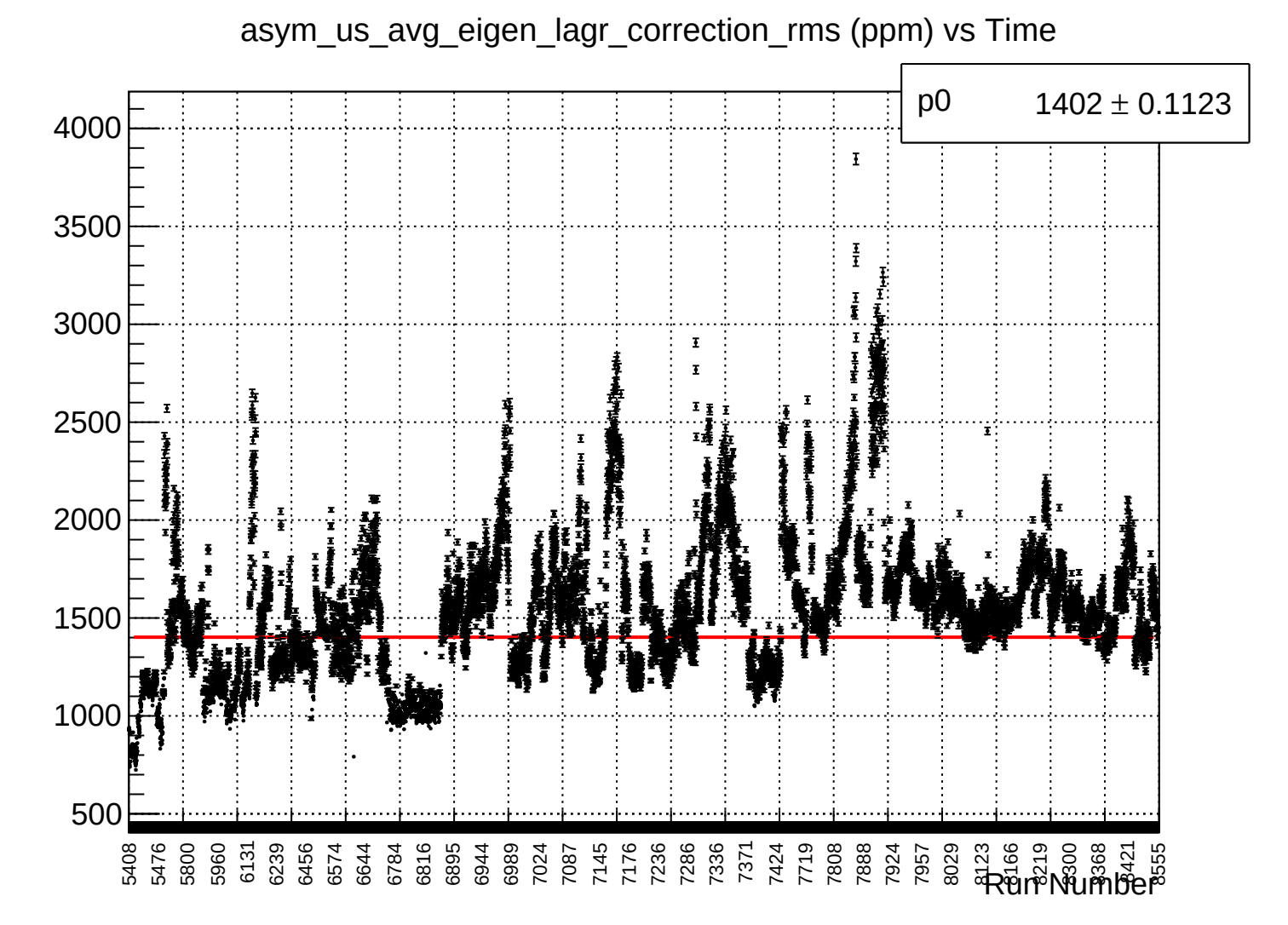

Pull Plot
Entries 8419
Mean 8.207e−05
Std Dev 1.002
Underflow 0
Overflow 0
Fit Prob 0.41
Fit Chi2 8447 / 8418
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

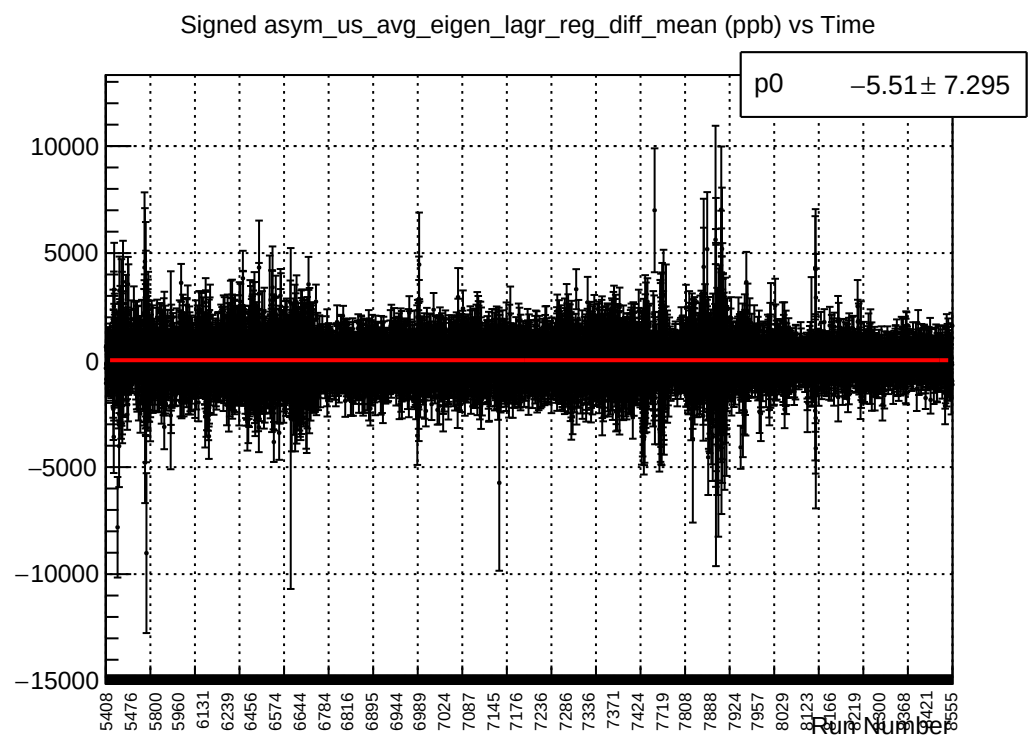

eigen_lagr_asym_us_avg_rms (ppm) vs Time
p0 777.2 ± 0.06087
1100
1000
900
800
700
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

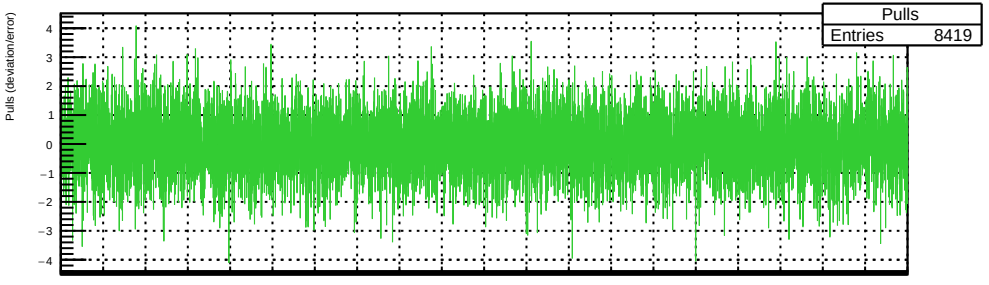

Signed asym_us_avg_eigen_lagr_correction_mean (ppb) vs Time
×10^3
p0 −16.85 ± 158.9
100
50
0
−50
−100
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

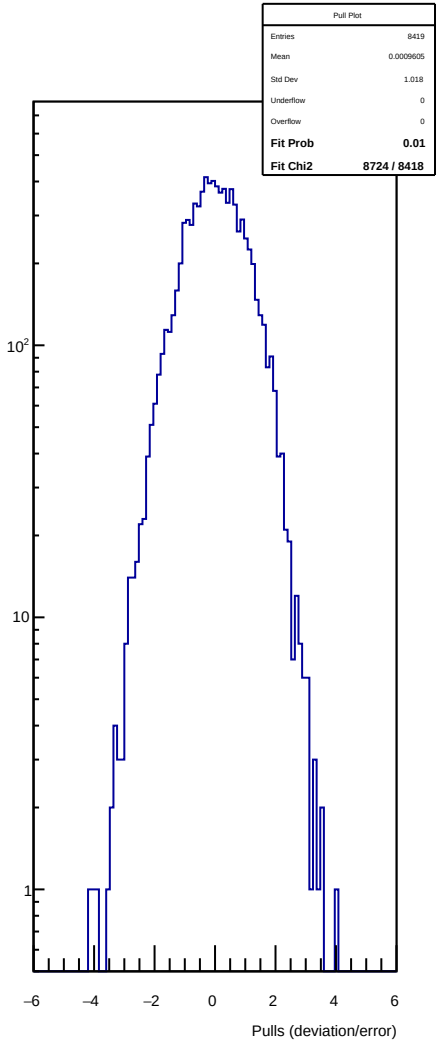

Pulls
Entries 8419
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

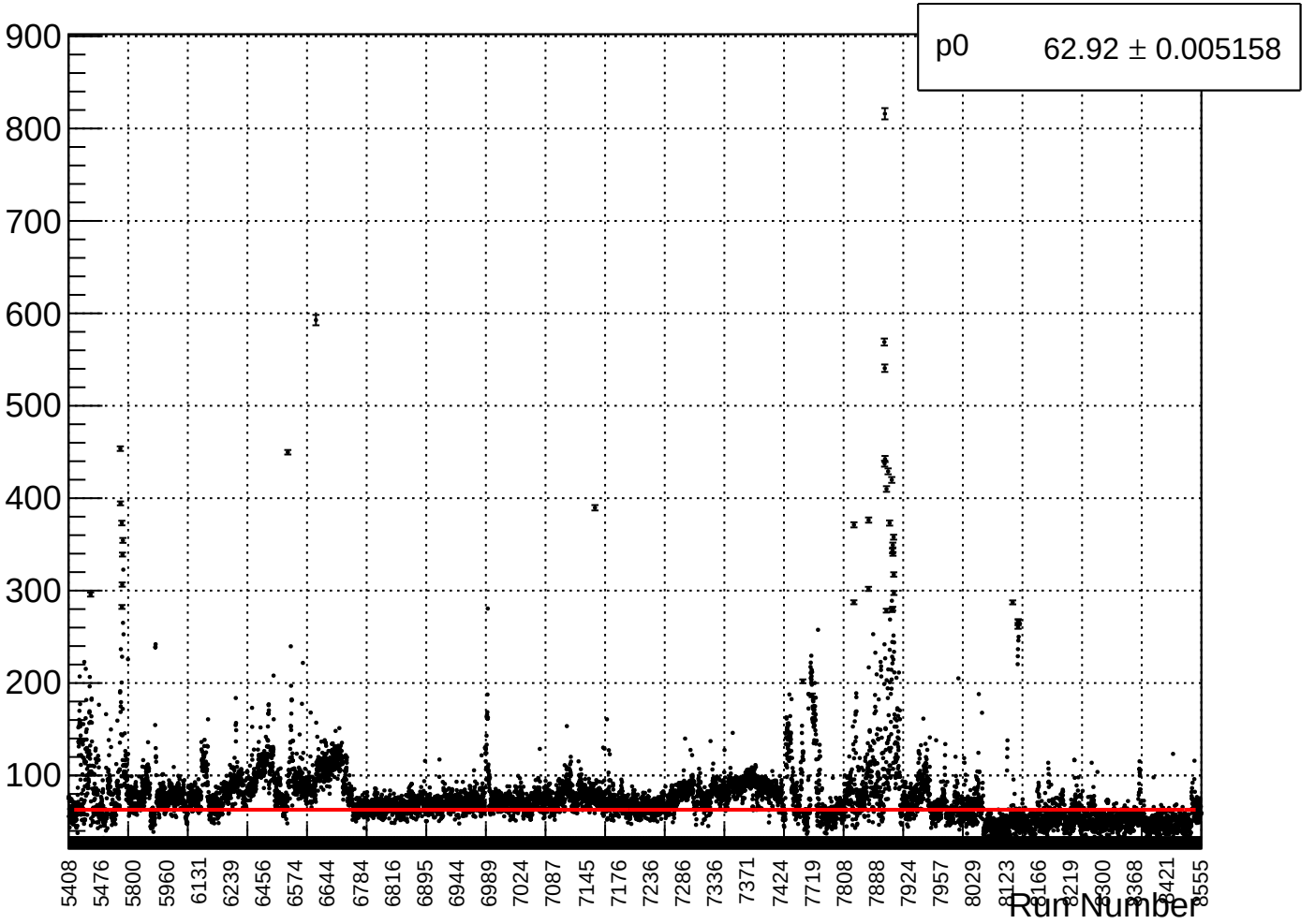

Pull Plot
Entries 8419
Mean 0.002618
Std Dev 1
Underflow 0
Overflow 0
Fit Prob 0.47
Fit Chi2 8425 / 8418
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

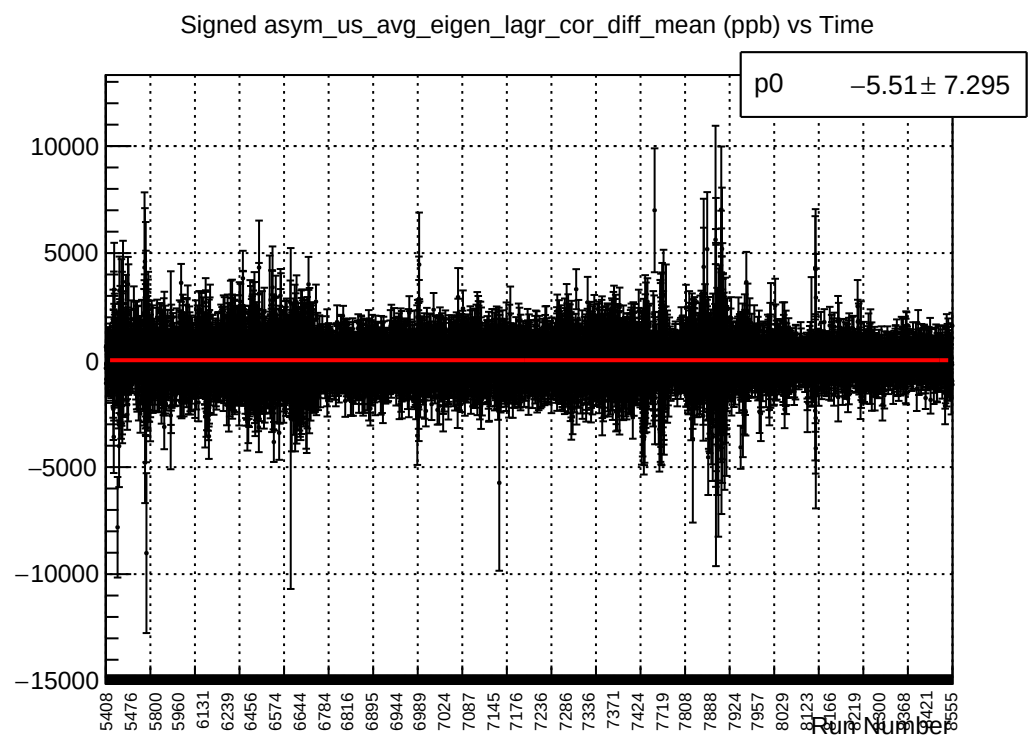

asym_us_avg_eigen_lagr_correction_rms (ppm) vs Time
p0
1402 ± 0.1123
4000
3500
3000
2500
2000
1500
1000
500
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

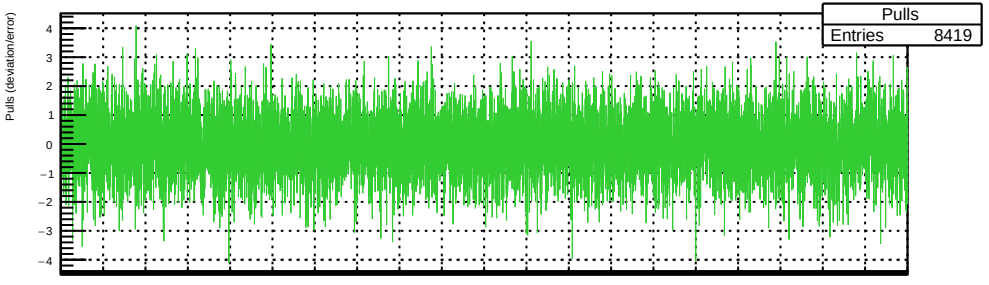

Signed asym_us_avg_eigen_lagr_reg_diff_mean (ppb) vs Time
p0 −5.51 ± 7.295
10000
5000
0
−5000
−10000
−15000
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

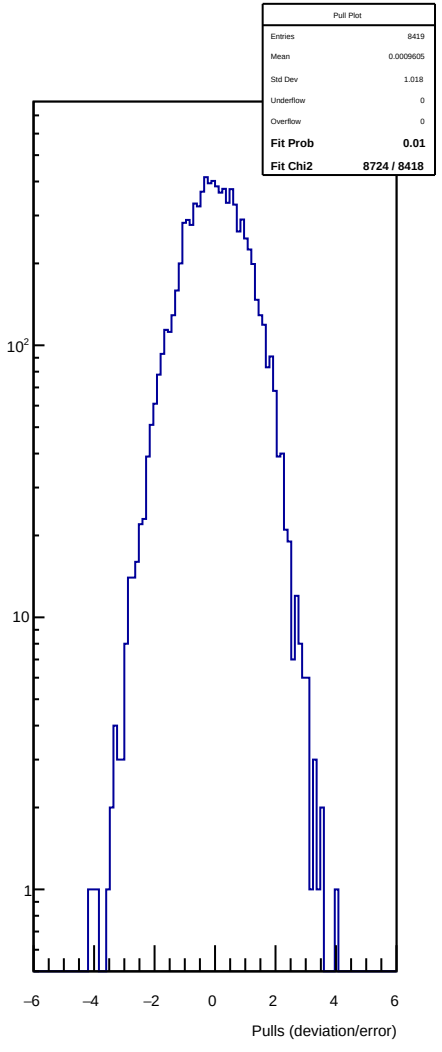

Pulls
Entries 8419
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

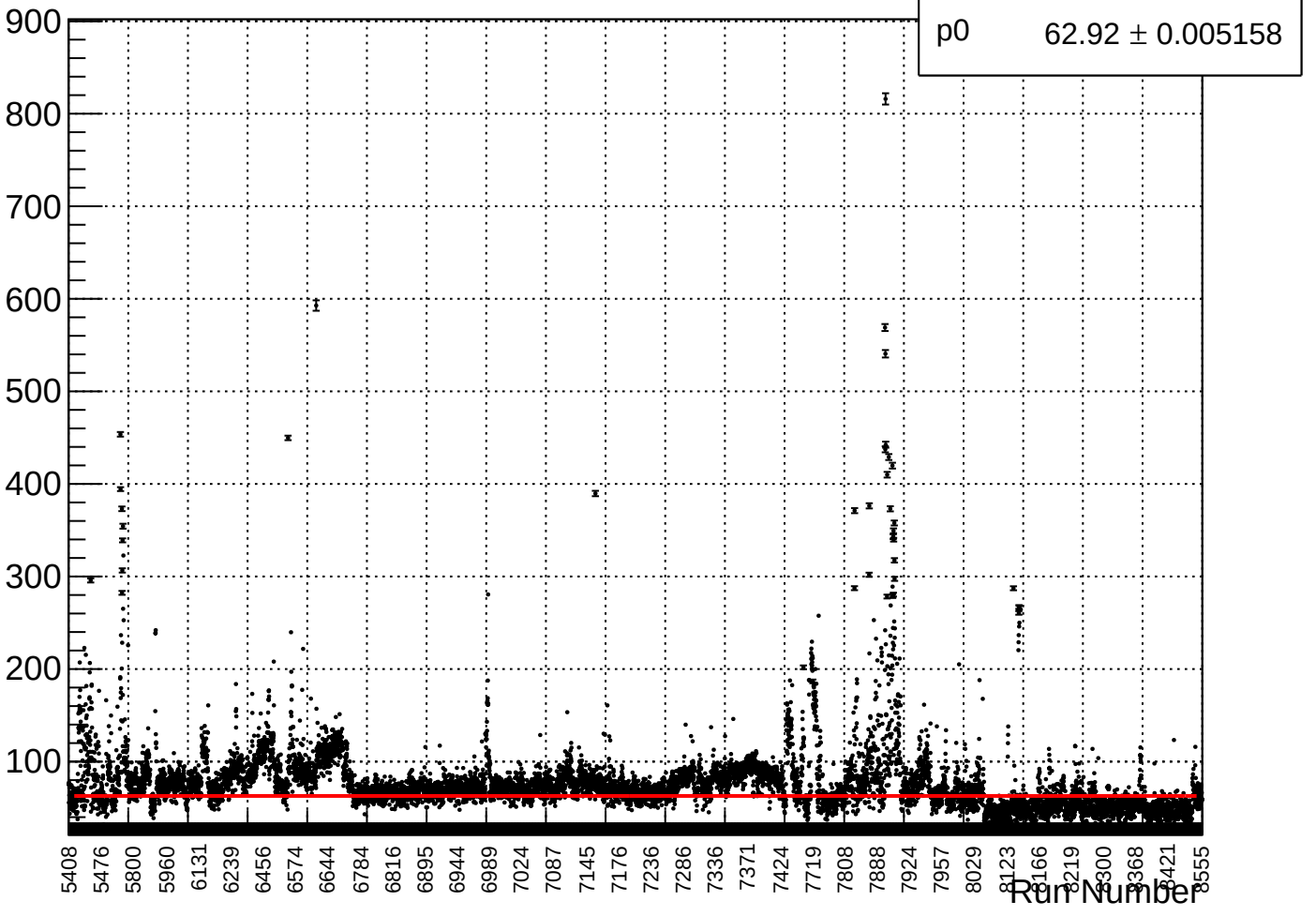

Pull Plot
Entries 8419
Mean 0.0009605
Std Dev 1.018
Underflow 0
Overflow 0
Fit Prob 0.01
Fit Chi2 8724 / 8418
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

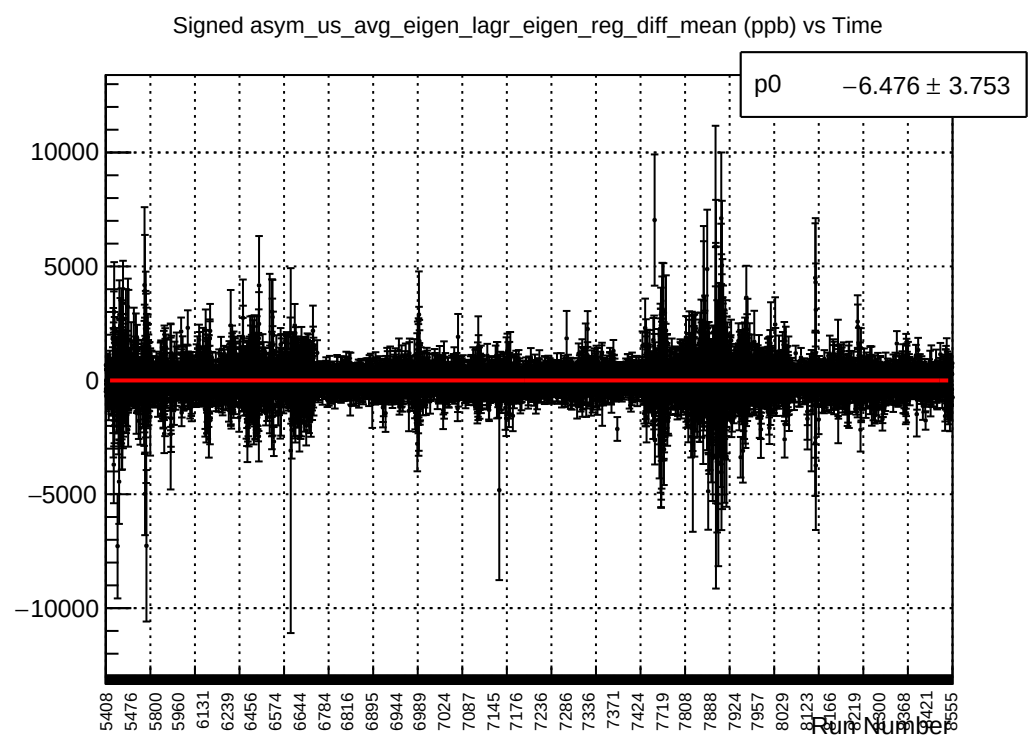

asym_us_avg_eigen_lagr_reg_diff_rms (ppm) vs Time
p0 62.92 ± 0.005158
900
800
700
600
500
400
300
200
100
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

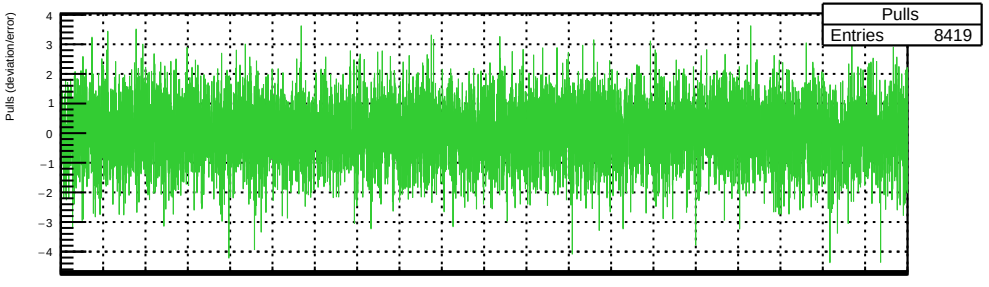

Signed asym_us_avg_eigen_lagr_cor_diff_mean (ppb) vs Time
p0 −5.51 ± 7.295
10000
5000
0
−5000
−10000
−15000
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

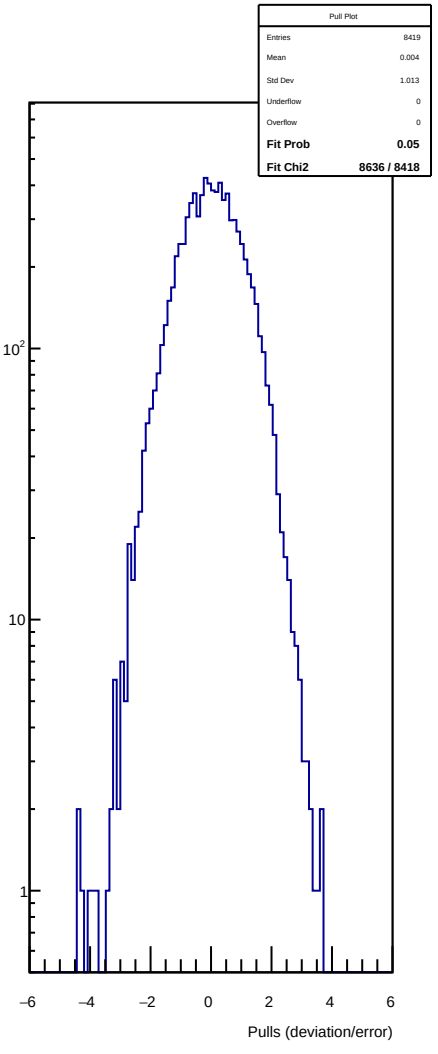

Pulls
Entries 8419
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

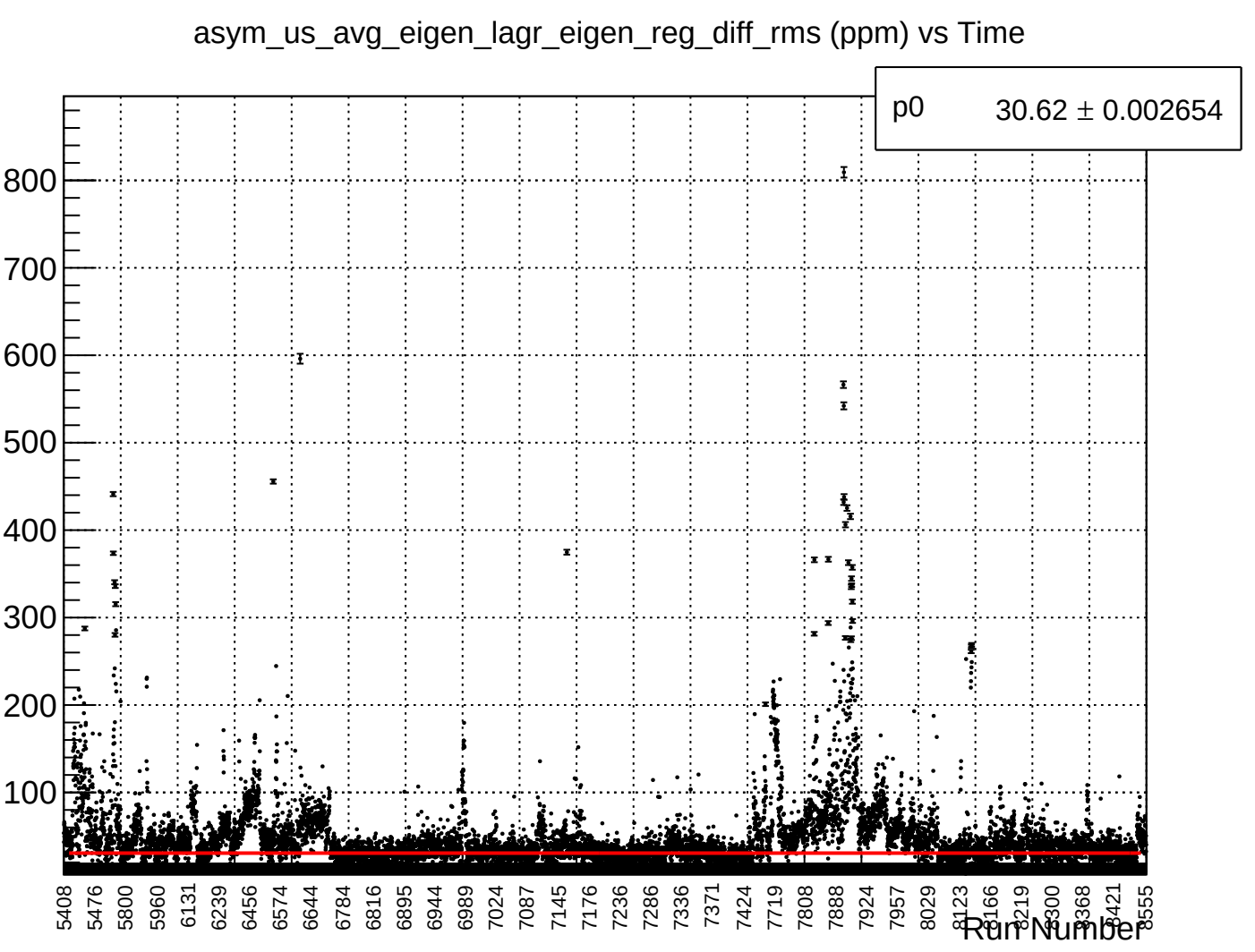

Pull Plot
Entries 8419
Mean 0.0009605
Std Dev 1.018
Underflow 0
Overflow 0
Fit Prob 0.01
Fit Chi2 8724 / 8418
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

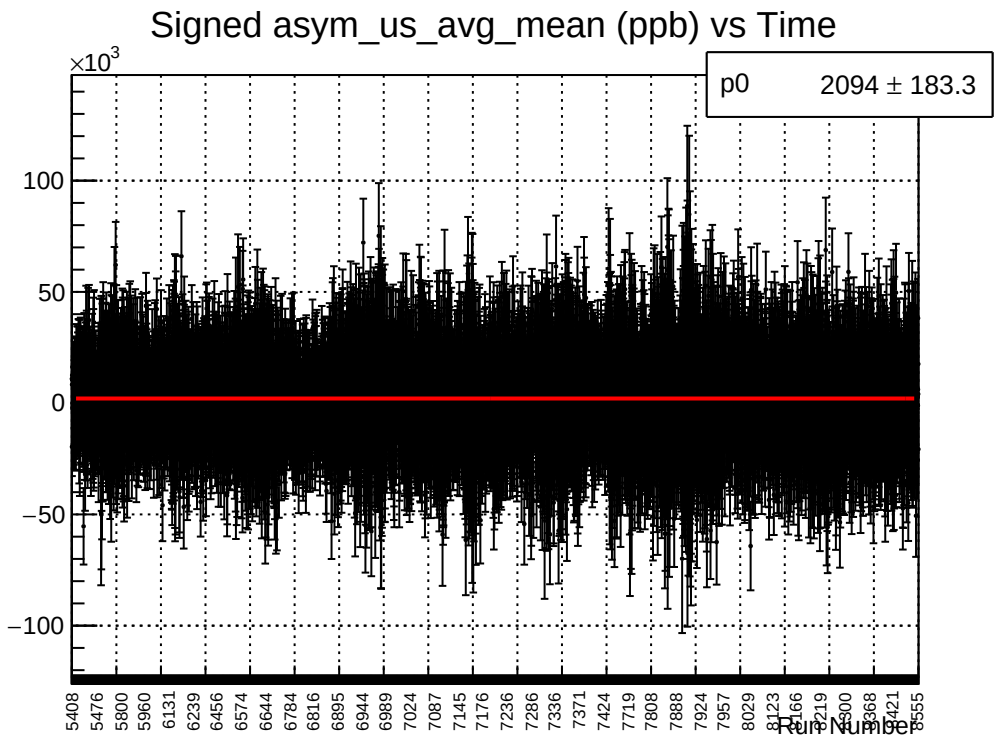

asym_us_avg_eigen_lagr_cor_diff_rms (ppm) vs Time
p0 62.92 ± 0.005158
900
800
700
600
500
400
300
200
100
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

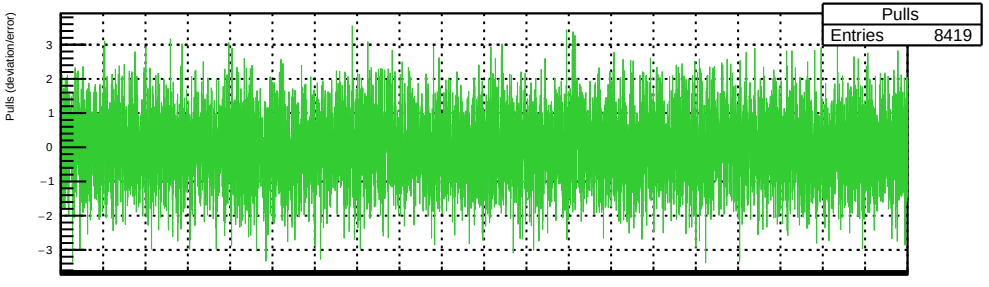

Signed asym_us_avg_eigen_lagr_eigen_reg_diff_mean (ppb) vs Time
p0 −6.476 ± 3.753
10000
5000
0
−5000
−10000
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

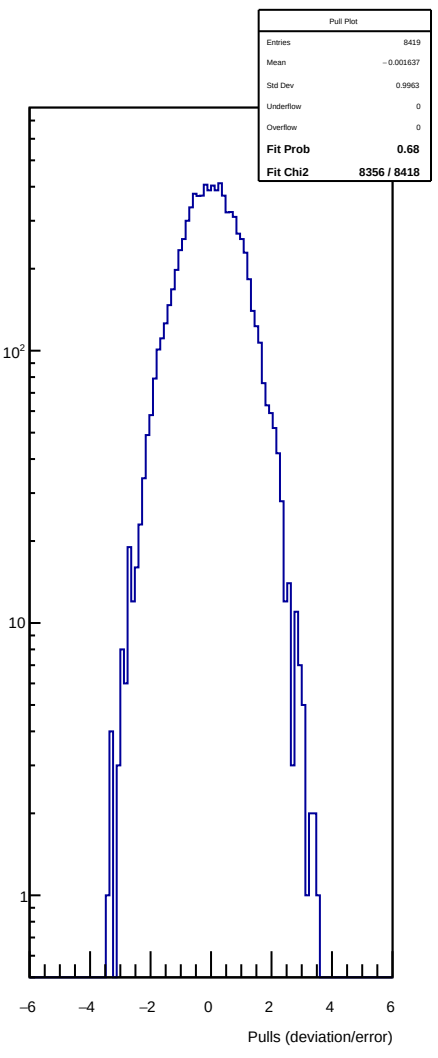

Pulls
Entries 8419
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

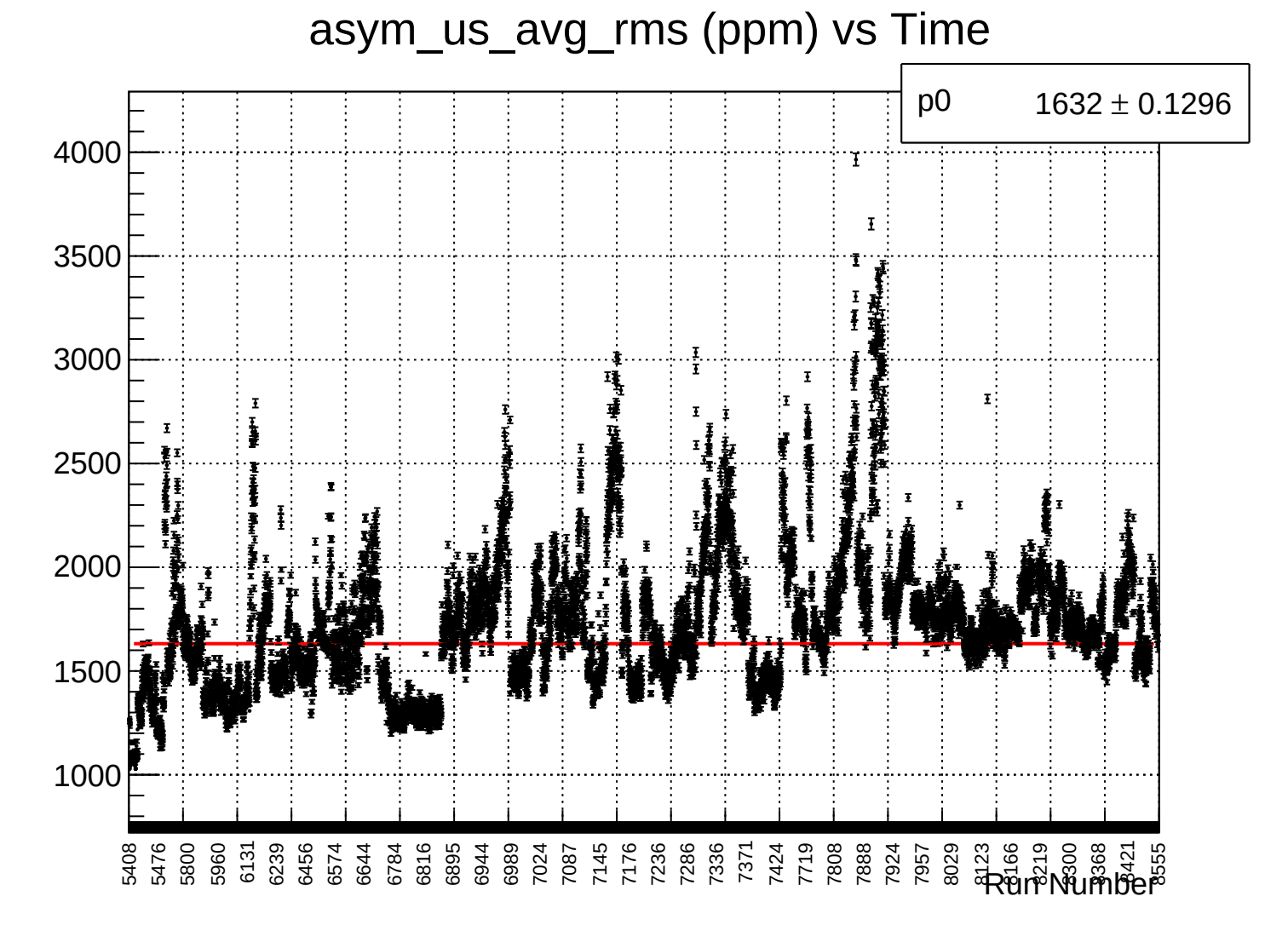

Pull Plot
Entries 8419
Mean 0.004
Std Dev 1.013
Underflow 0
Overflow 0
Fit Prob 0.05
Fit Chi2 8636 / 8418
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

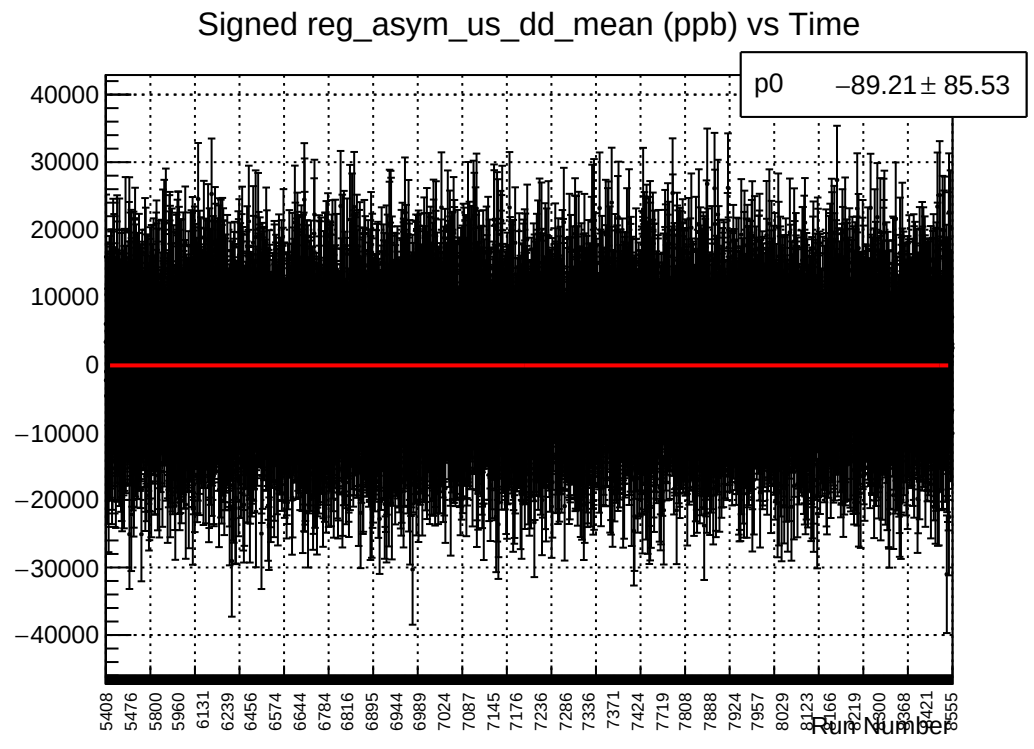

asym_us_avg_eigen_lagr_eigen_reg_diff_rms (ppm) vs Time
p0
30.62 ± 0.002654
800
700
600
500
400
300
200
100
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

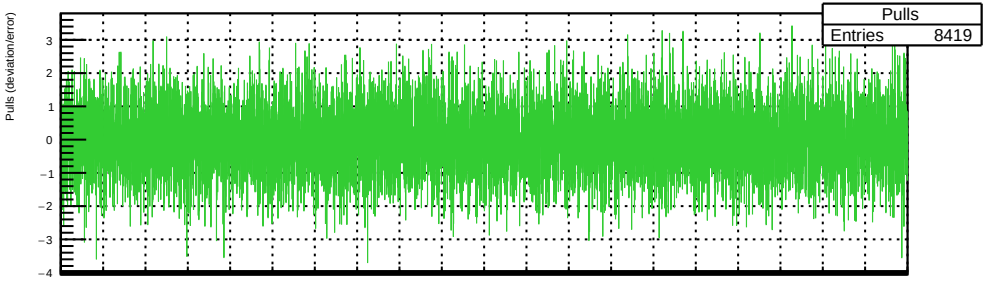

Signed asym_us_avg_mean (ppb) vs Time
p0 2094 ± 183.3
×10^3
100
50
0
−50
−100
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

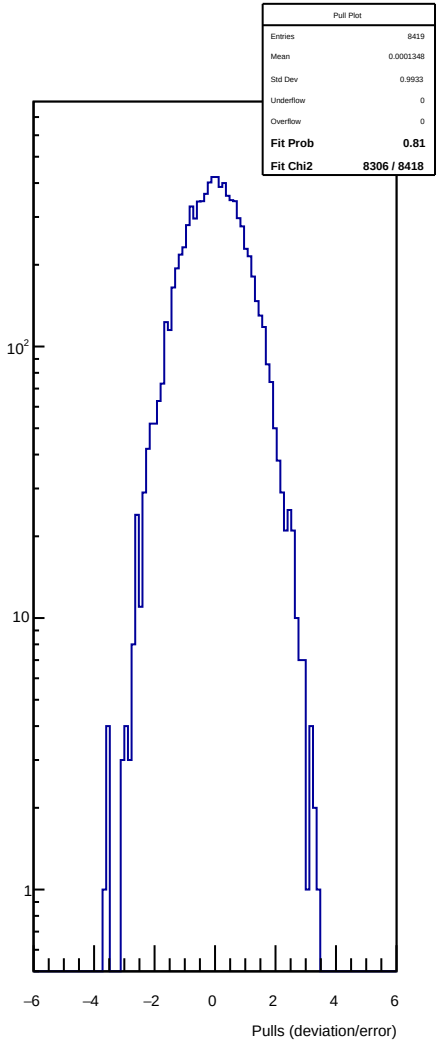

Pulls
Entries 8419
Pulls (deviation/error)
3
2
1
0
−1
−2
−3

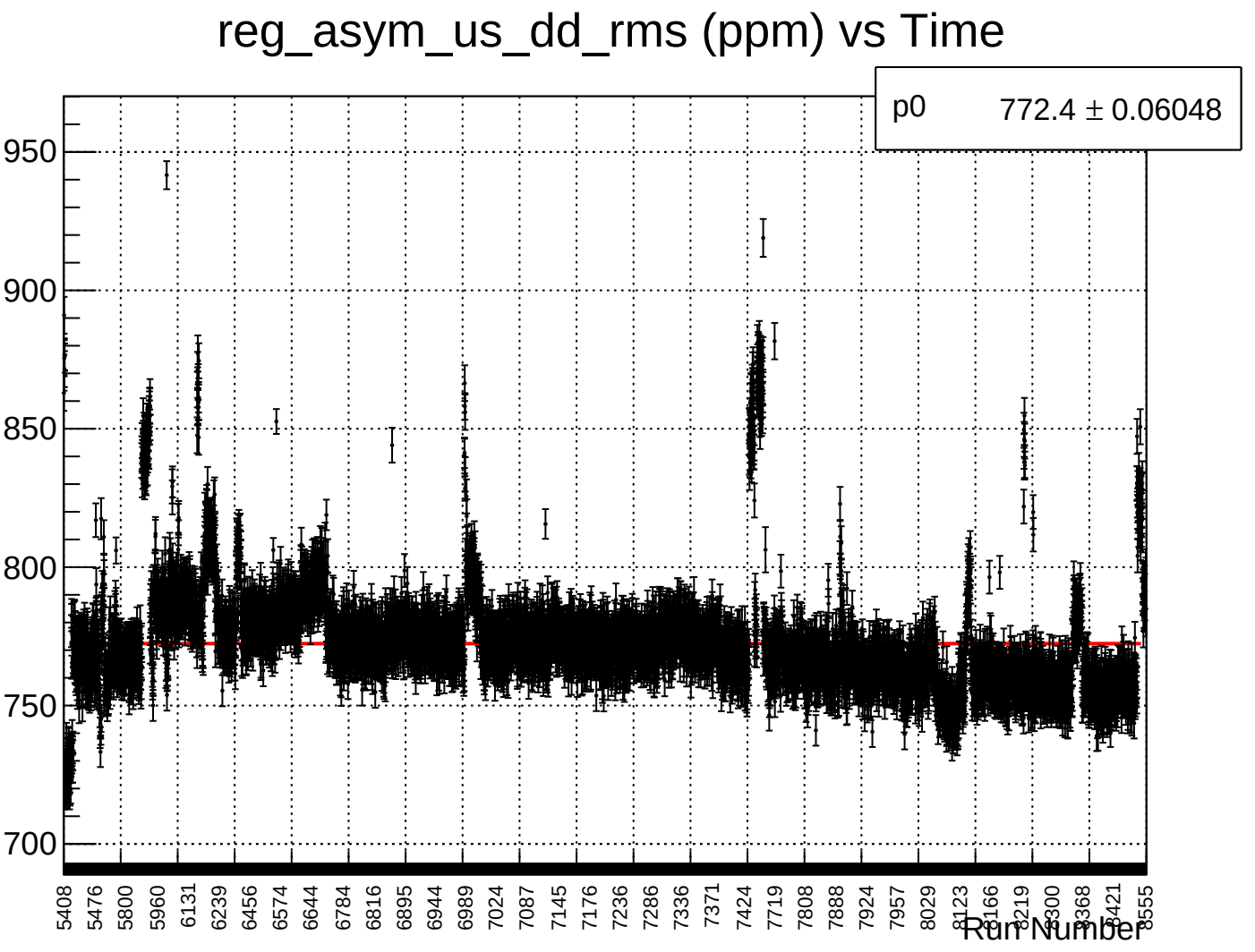

Pull Plot
Entries 8419
Mean −0.001637
Std Dev 0.9963
Underflow 0
Overflow 0
Fit Prob 0.68
Fit Chi2 8356 / 8418
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

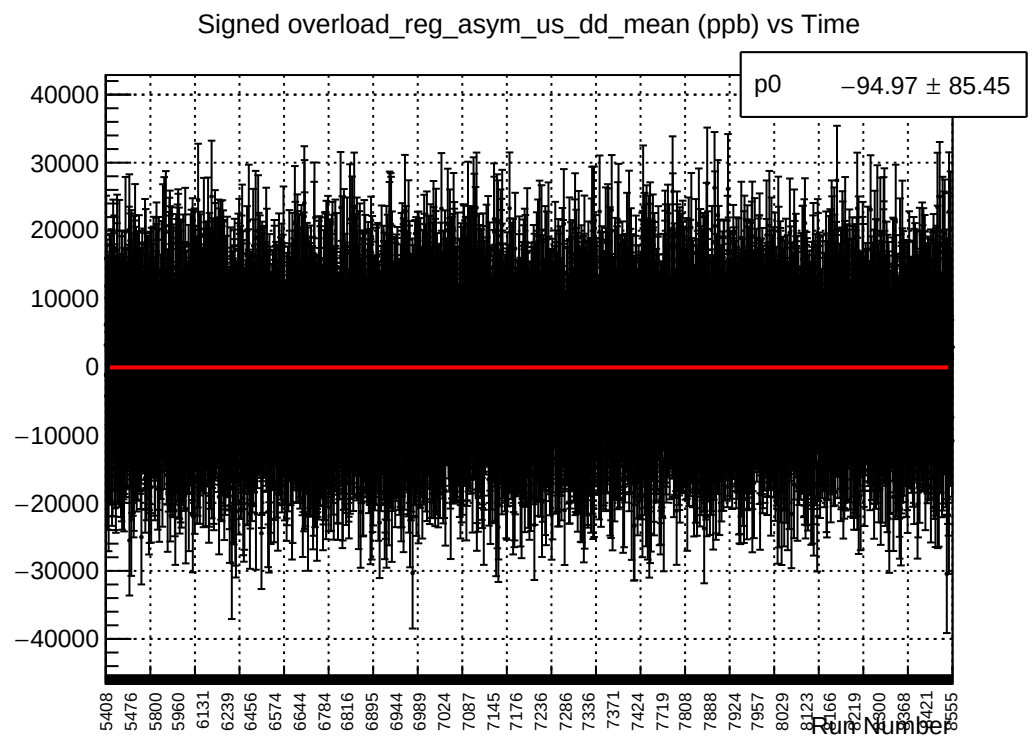

asym_us_avg_rms (ppm) vs Time
p0
1632 ± 0.1296
4000
3500
3000
2500
2000
1500
1000
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

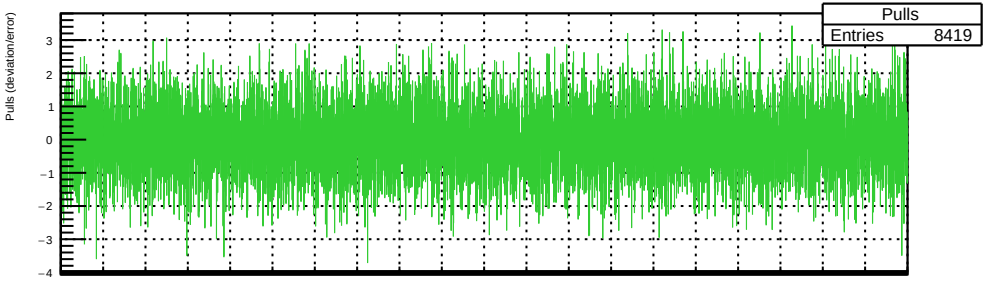

Signed reg_asym_us_dd_mean (ppb) vs Time
p0 −89.21 ± 85.53
40000
30000
20000
10000
0
−10000
−20000
−30000
−40000
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

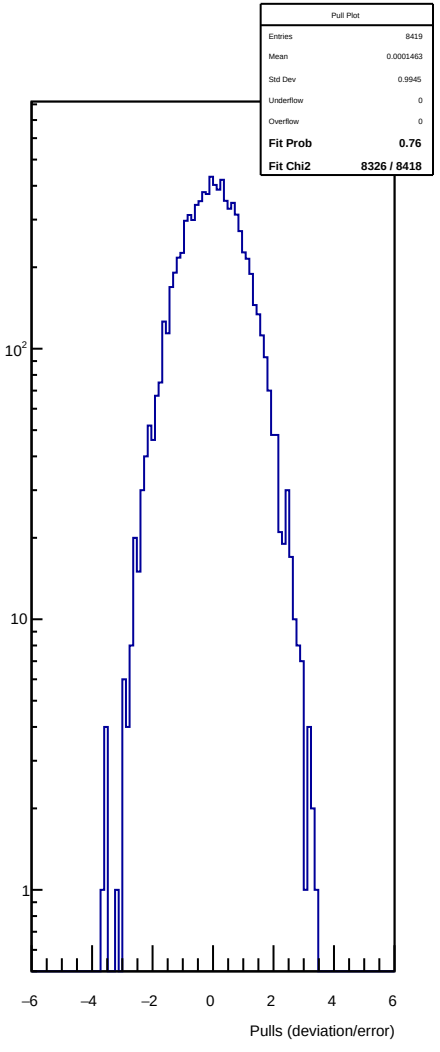

Pulls
Entries 8419
Pulls (deviation/error)
3
2
1
0
−1
−2
−3
−4

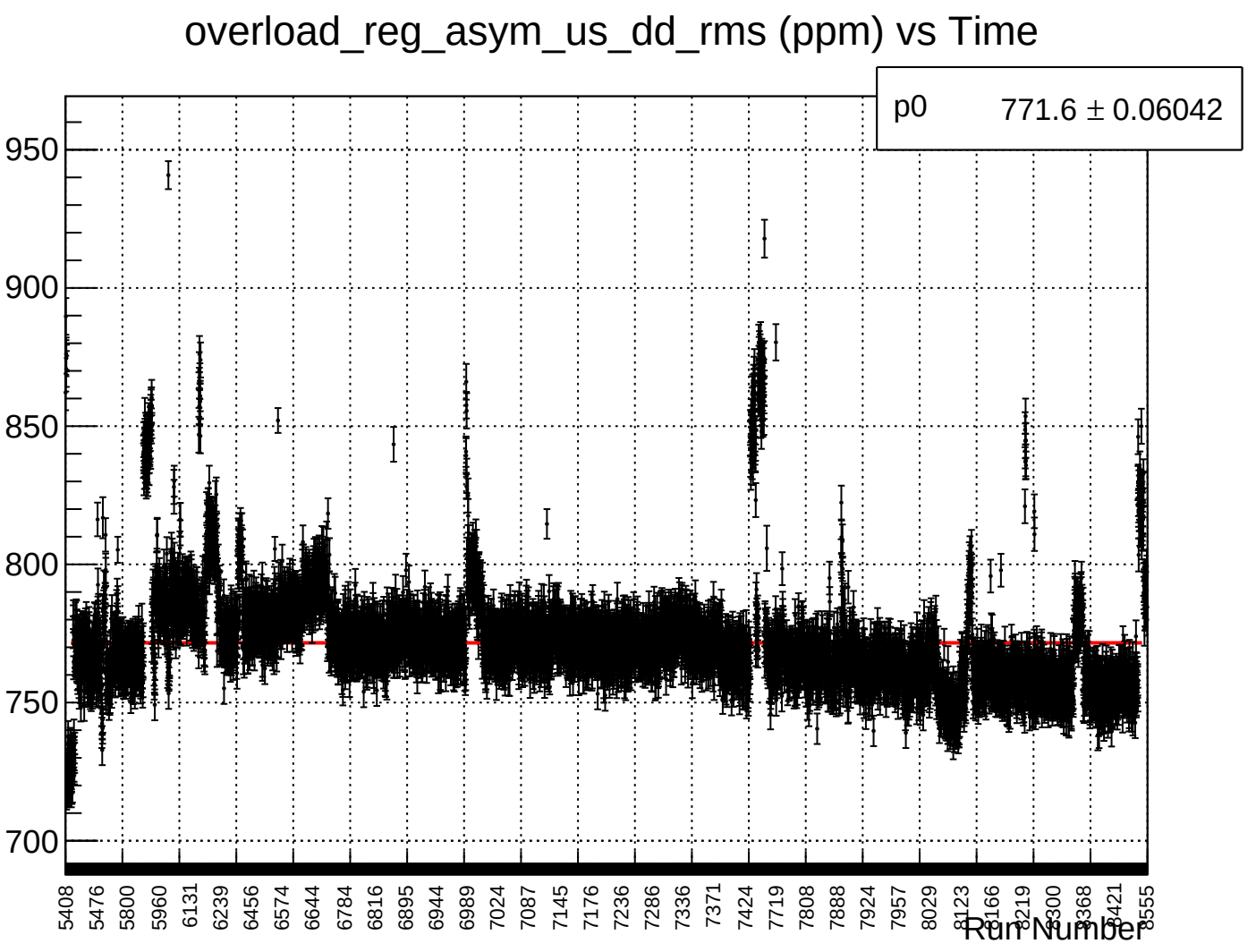

Pull Plot
Entries 8419
Mean 0.0001348
Std Dev 0.9933
Underflow 0
Overflow 0
Fit Prob 0.81
Fit Chi2 8306 / 8418
10²
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

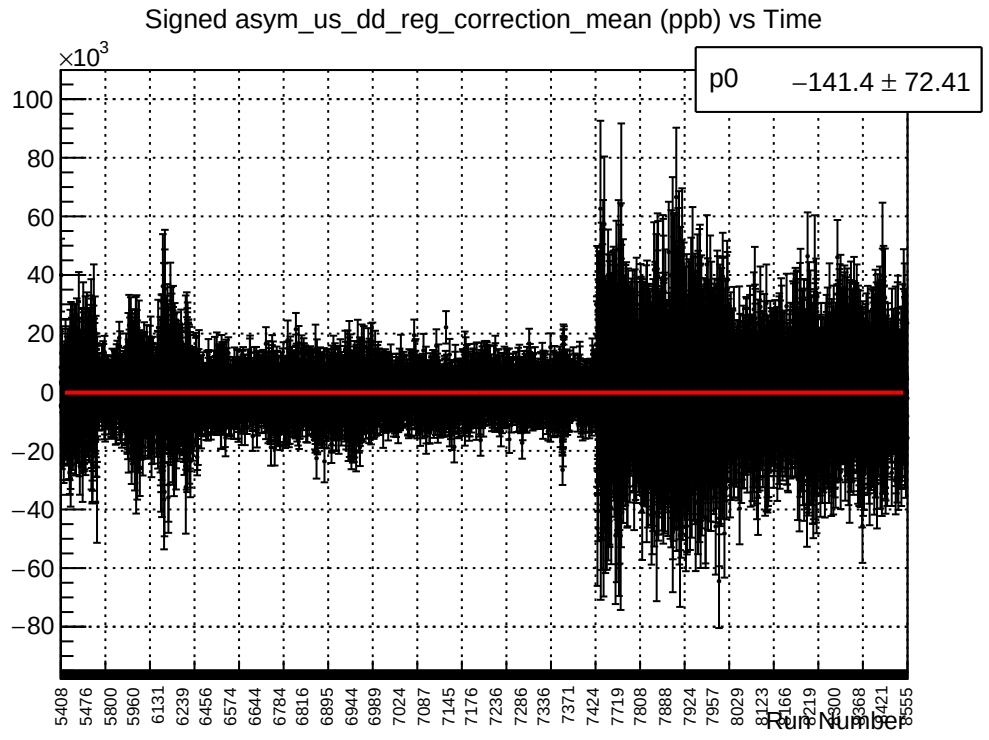

reg_asym_us_dd_rms (ppm) vs Time
p0 772.4 ± 0.06048
950
900
850
800
750
700
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

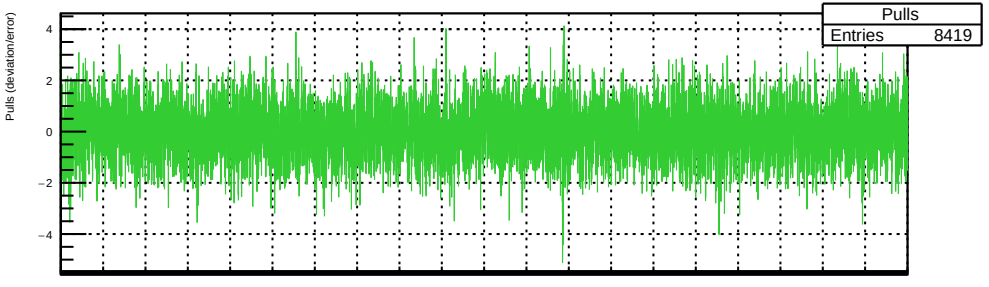

Signed overload_reg_asym_us_dd_mean (ppb) vs Time
p0 −94.97 ± 85.45
40000
30000
20000
10000
0
−10000
−20000
−30000
−40000
5408 5476 5800 5960 6131 6239 6456 6574 6644 6784 6816 6895 6944 6989 7024 7087 7145 7176 7236 7286 7336 7371 7424 7719 7808 7888 7924 7957 8029 8123 8166 8219 8300 8368 8421 8555
Run Number

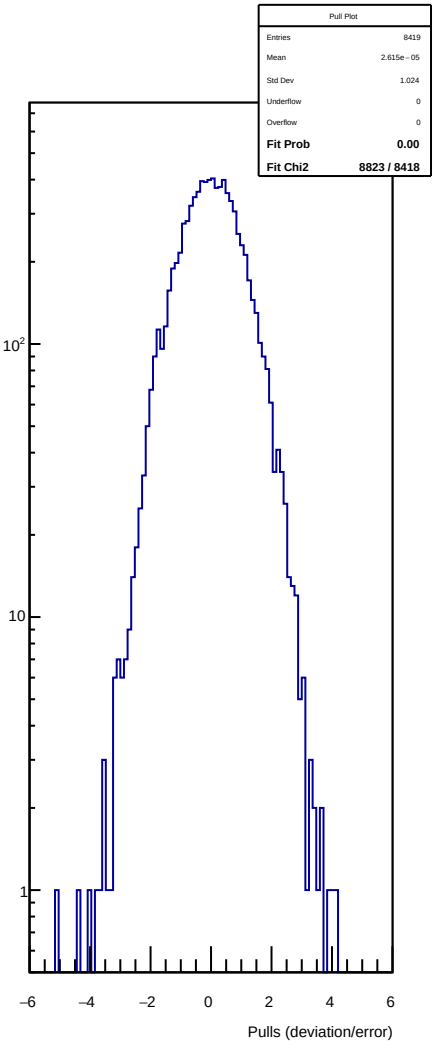

Pulls
Entries 8419
Pulls (deviation/error)
3
2
1
0
−1
−2
−3
−4

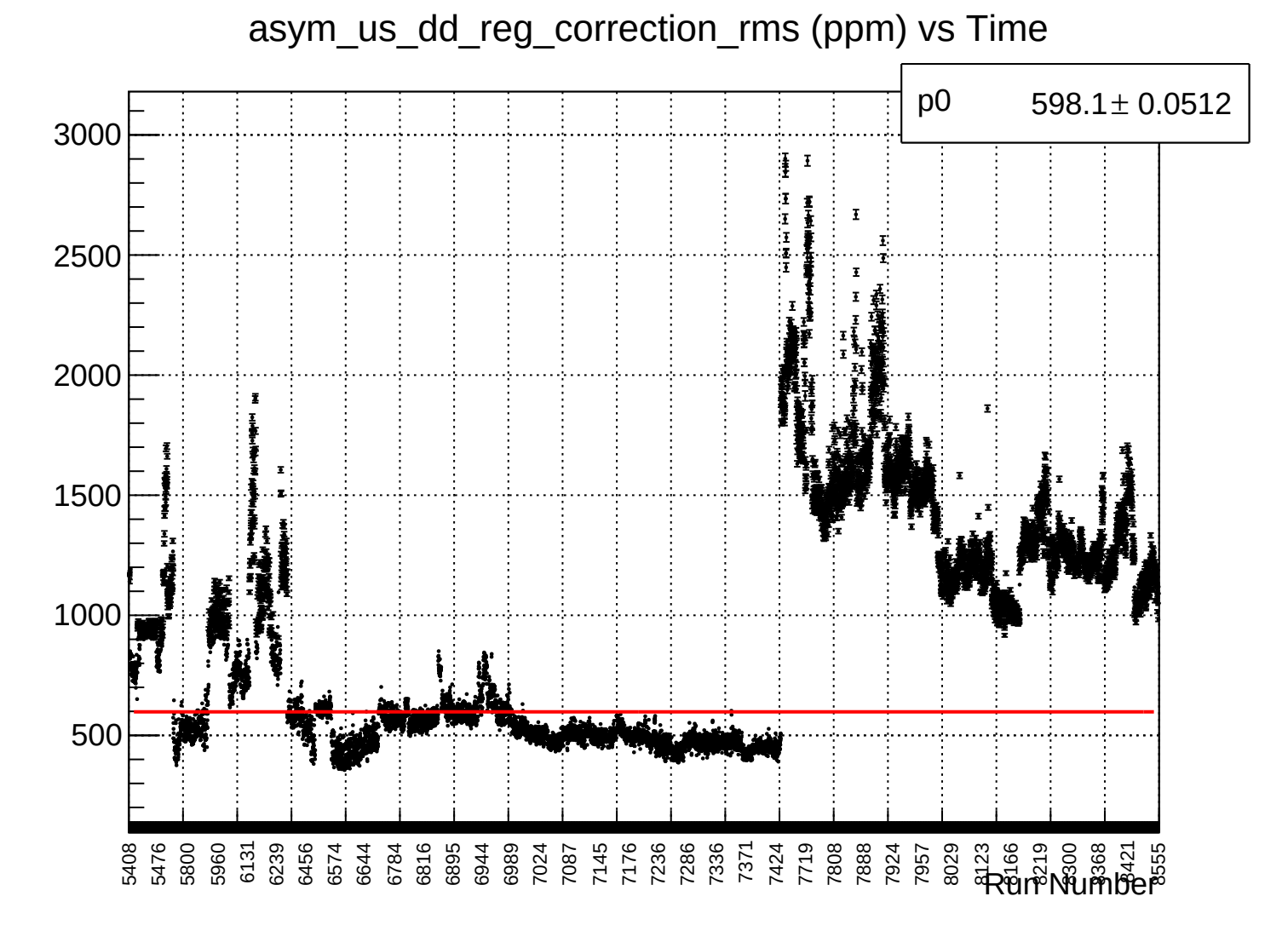

Pull Plot
Entries 8419
Mean 0.0001463
Std Dev 0.9945
Underflow 0
Overflow 0
Fit Prob 0.76
Fit Chi2 8326 / 8418
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

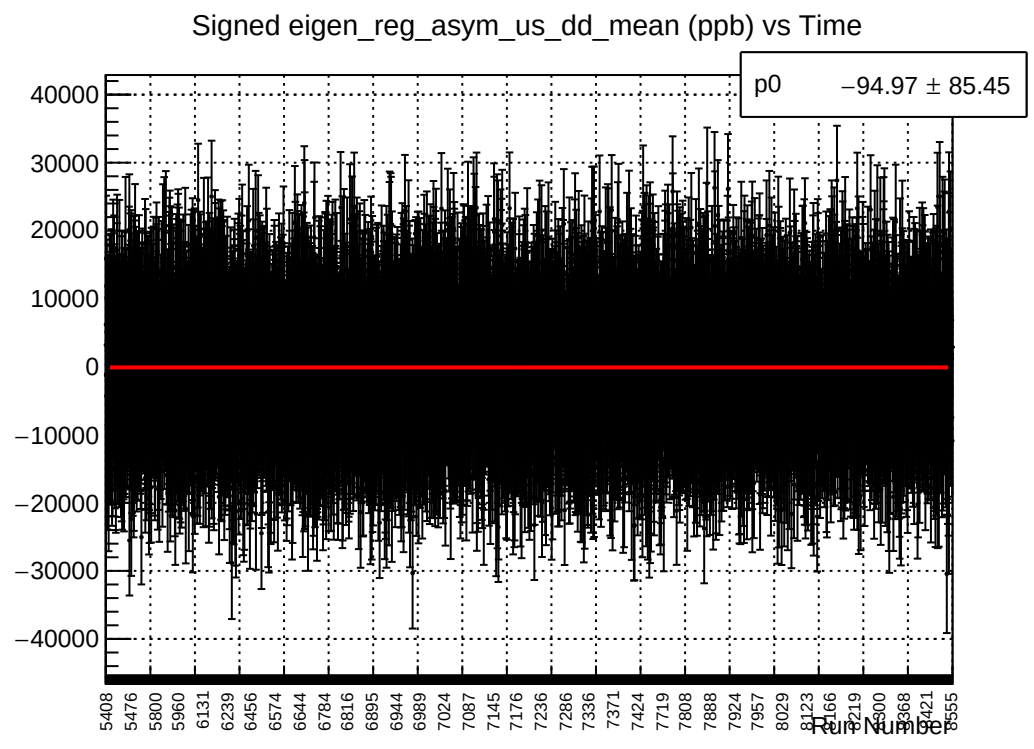

overload_reg_asym_us_dd_rms (ppm) vs Time
p0 771.6 ± 0.06042
950
900
850
800
750
700
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

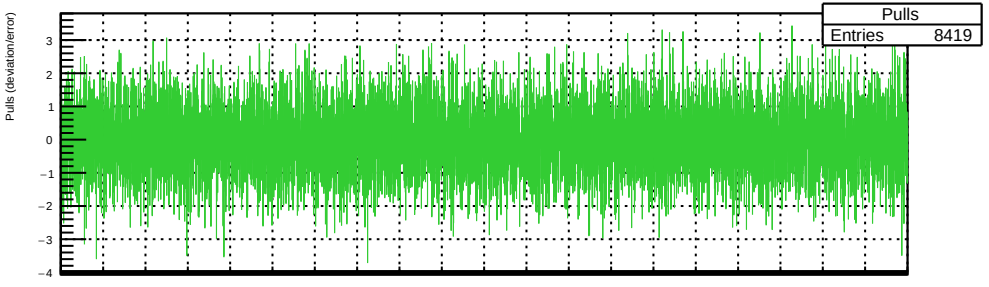

Signed asym_us_dd_reg_correction_mean (ppb) vs Time
×10^3
p0 −141.4 ± 72.41
100
80
60
40
20
0
−20
−40
−60
−80
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

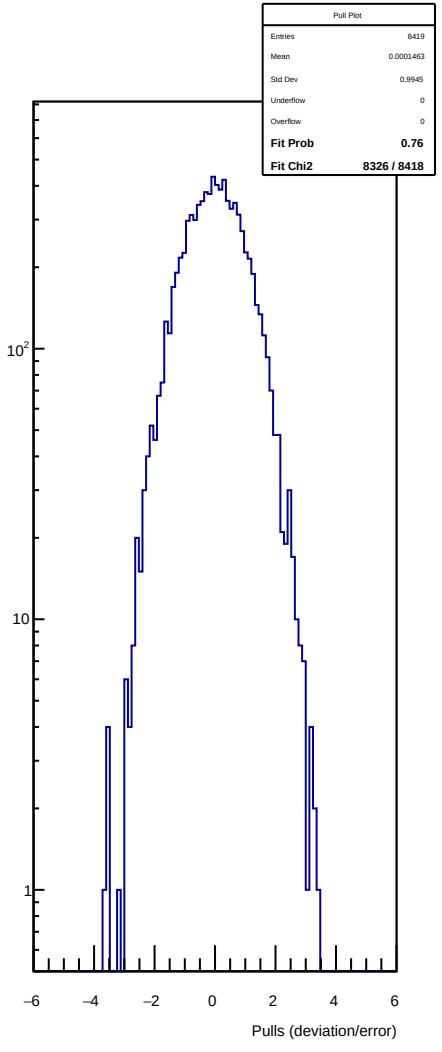

Pulls
Entries 8419
Pulls (deviation/error)
4
2
0
−2
−4

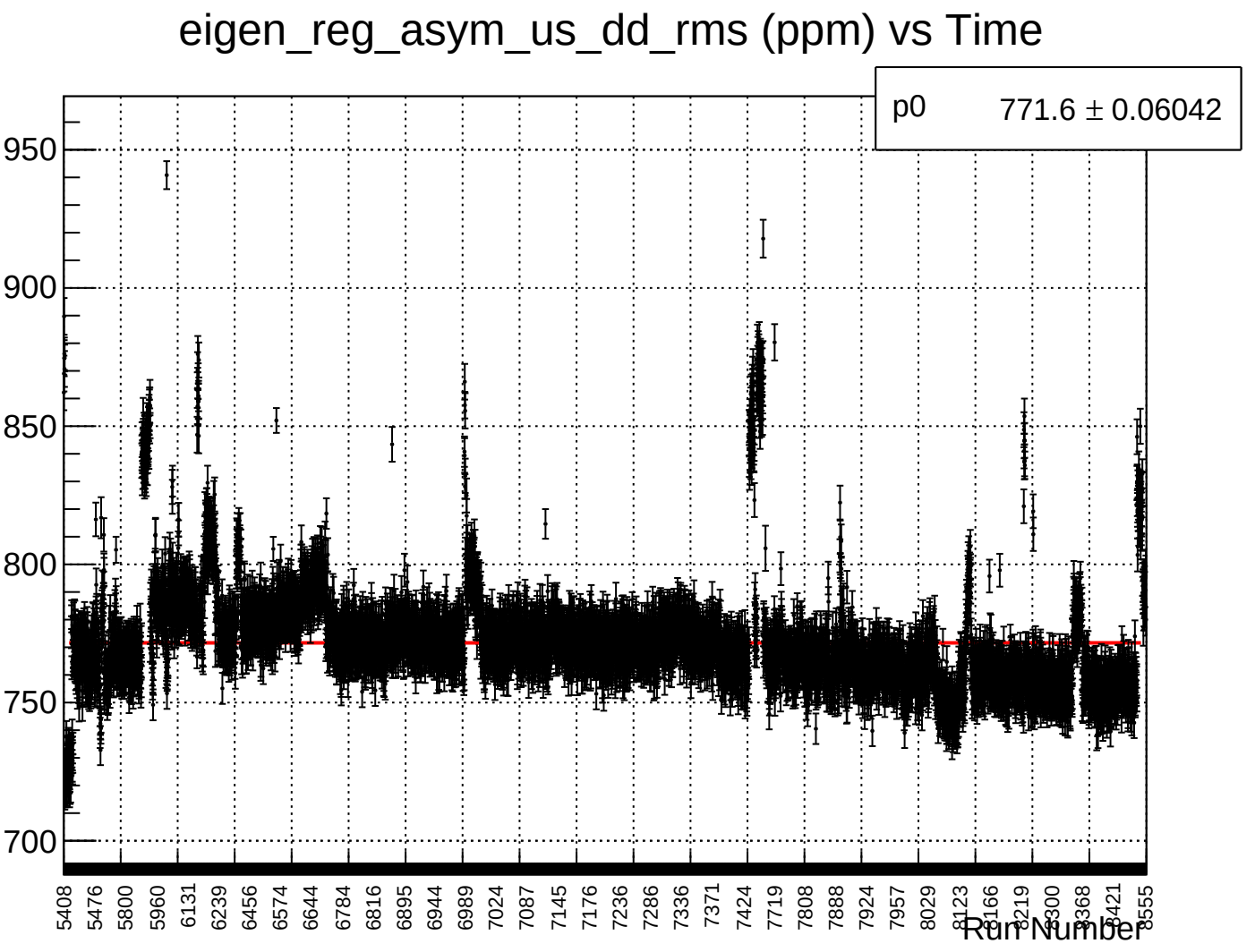

Pull Plot
Entries 8419
Mean 2.615e−05
Std Dev 1.024
Underflow 0
Overflow 0
Fit Prob 0.00
Fit Chi2 8823 / 8418
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

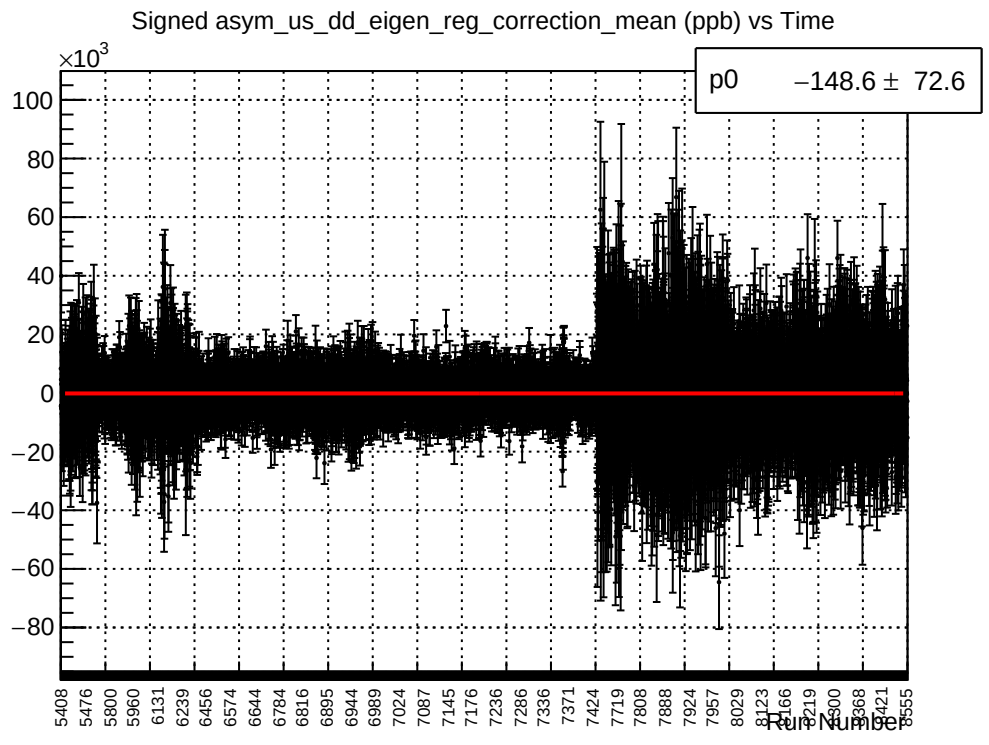

asym_us_dd_reg_correction_rms (ppm) vs Time
p0 598.1 ± 0.0512
3000
2500
2000
1500
1000
500
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

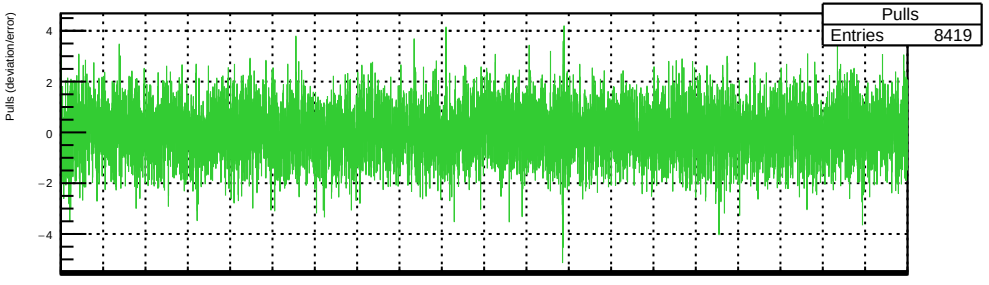

Signed eigen_reg_asym_us_dd_mean (ppb) vs Time
p0 −94.97 ± 85.45
40000
30000
20000
10000
0
−10000
−20000
−30000
−40000
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

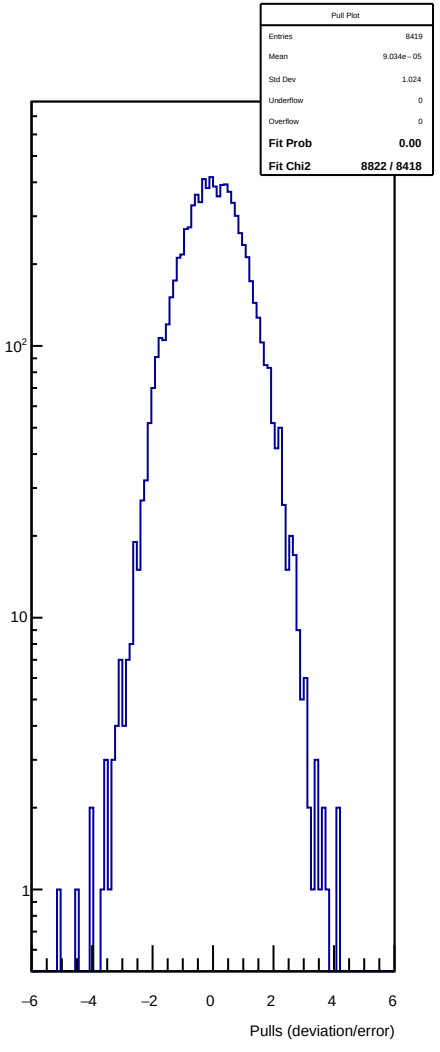

Pulls
Entries 8419
Pulls (deviation/error)
3
2
1
0
−1
−2
−3
−4

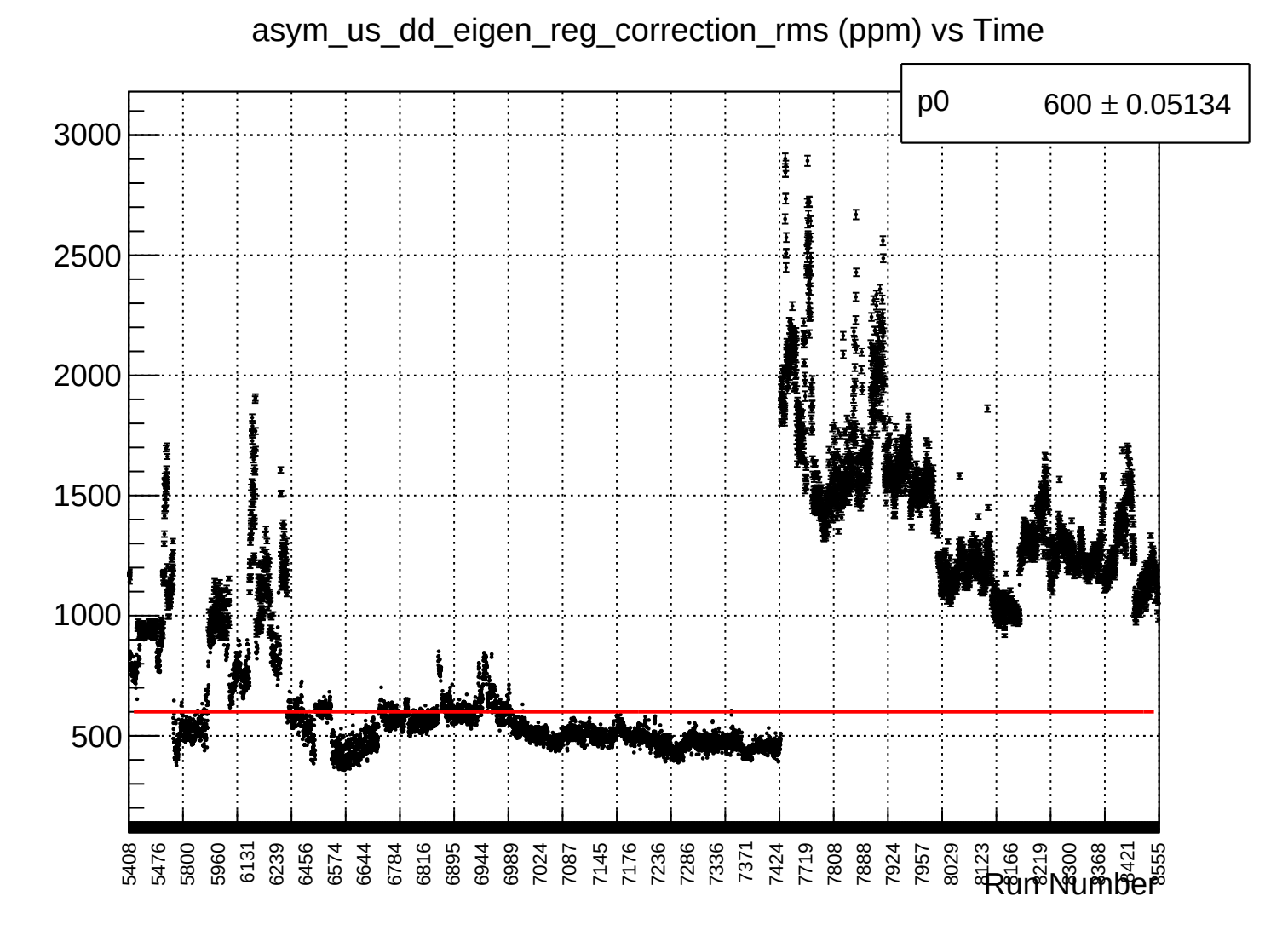

Pull Plot
Entries 8419
Mean 0.0001463
Std Dev 0.9945
Underflow 0
Overflow 0
Fit Prob 0.76
Fit Chi2 8326 / 8418
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

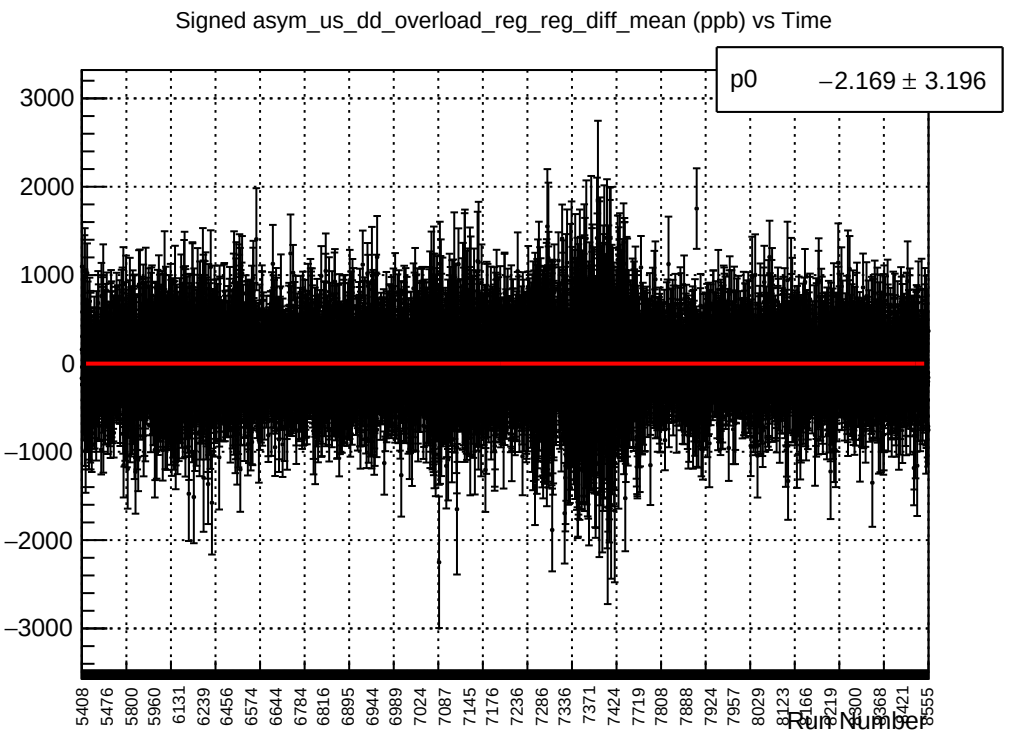

eigen_reg_asym_us_dd_rms (ppm) vs Time
p0 771.6 ± 0.06042
950
900
850
800
750
700
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

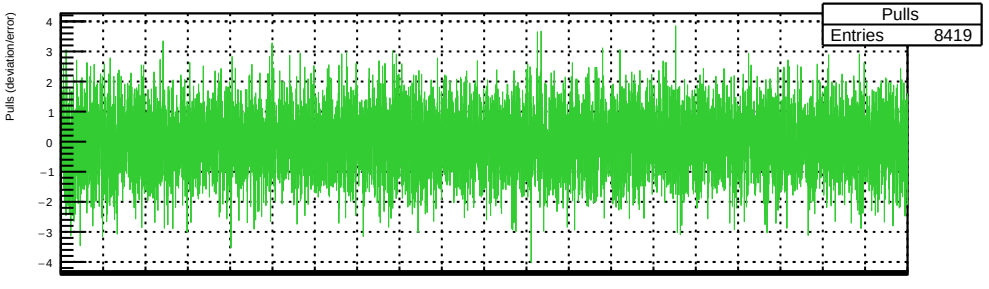

Signed asym_us_dd_eigen_reg_correction_mean (ppb) vs Time
×10^3
p0 −148.6 ± 72.6
100
80
60
40
20
0
−20
−40
−60
−80
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

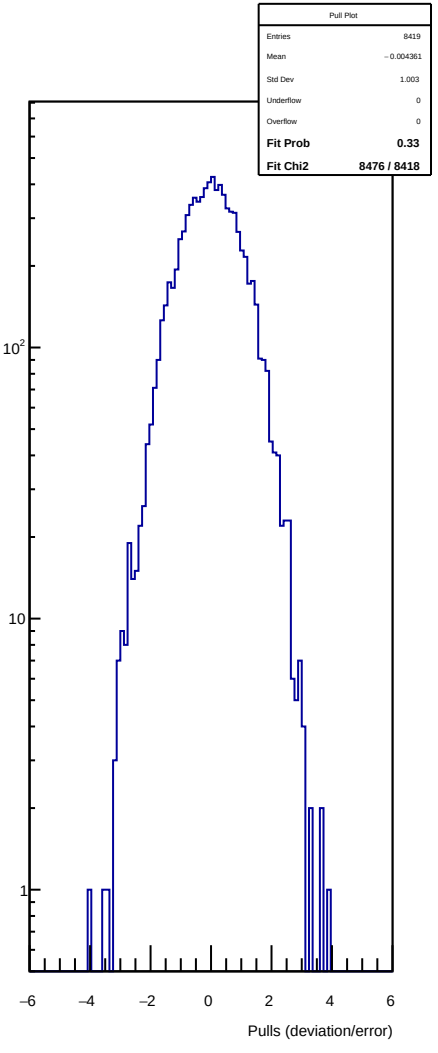

Pulls
Entries 8419
Pulls (deviation/error)
4
2
0
−2
−4

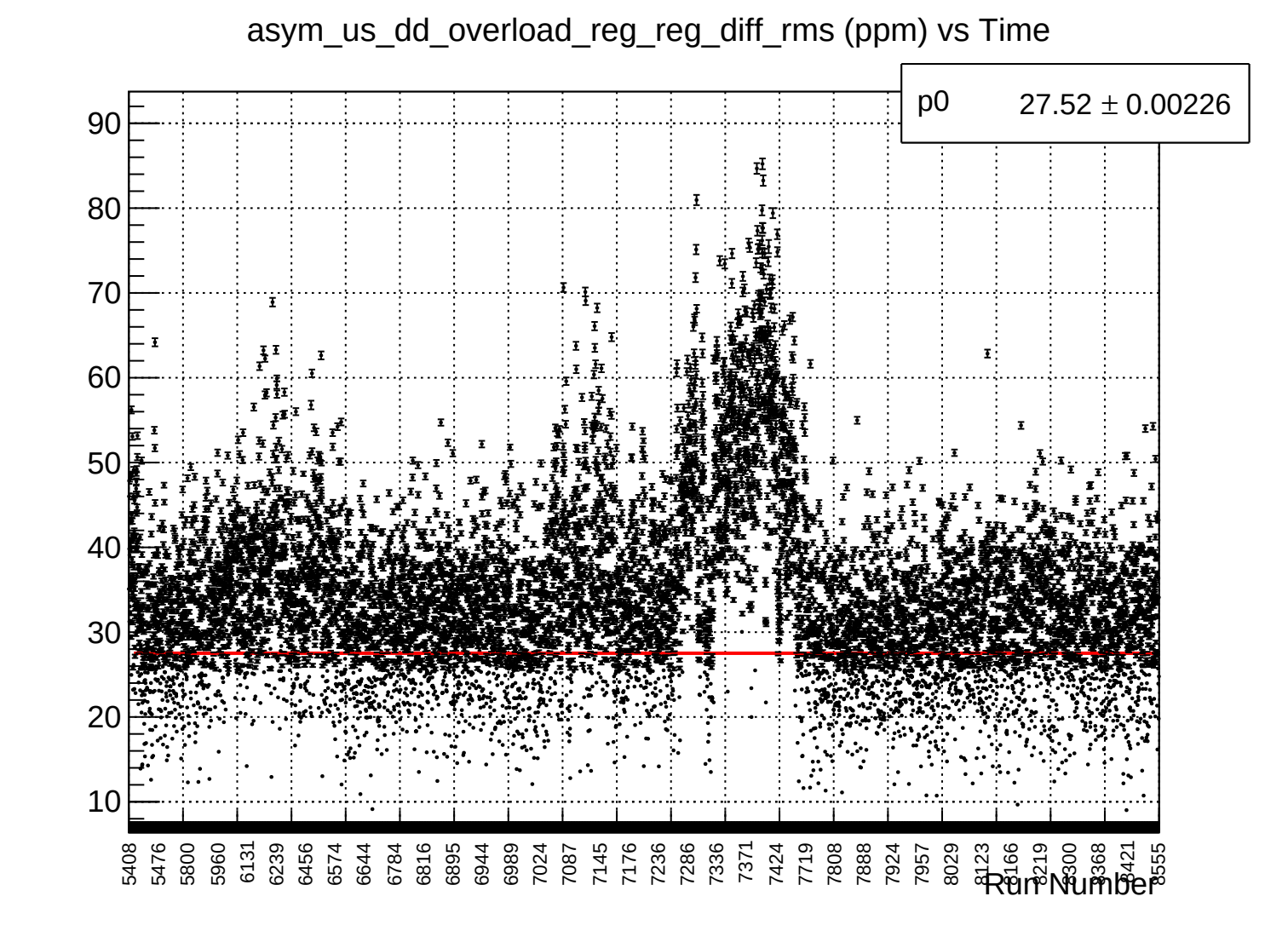

Pull Plot
Entries 8419
Mean 9.034e−05
Std Dev 1.024
Underflow 0
Overflow 0
Fit Prob 0.00
Fit Chi2 8822 / 8418
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

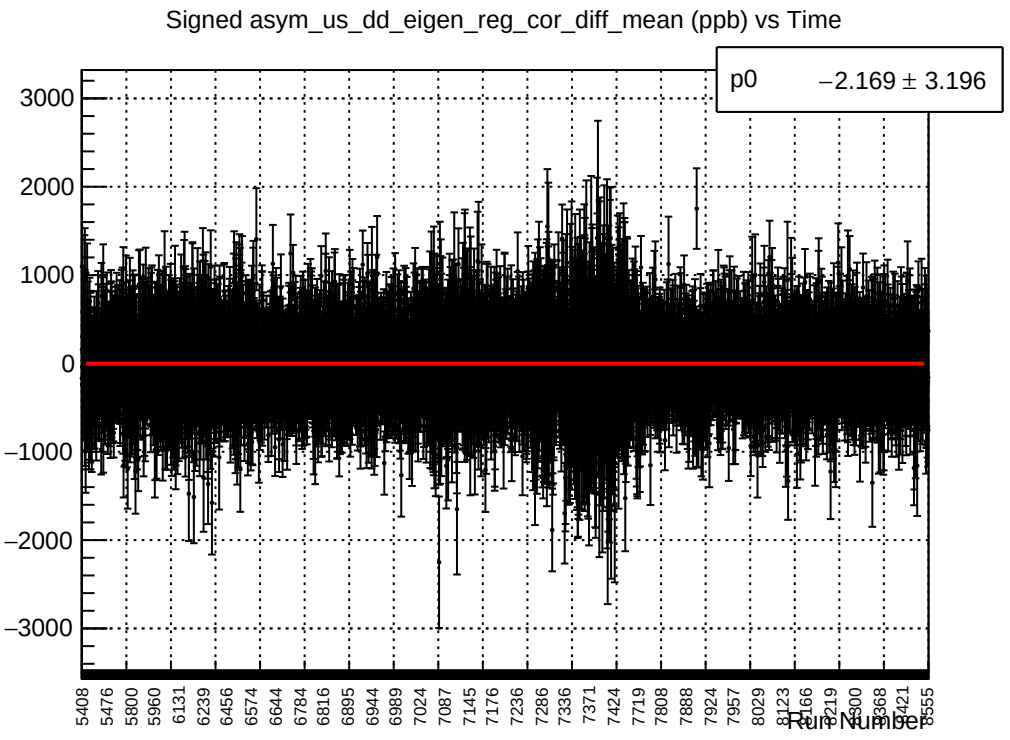

asym_us_dd_eigen_reg_correction_rms (ppm) vs Time
p0
600 ± 0.05134
3000
2500
2000
1500
1000
500
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

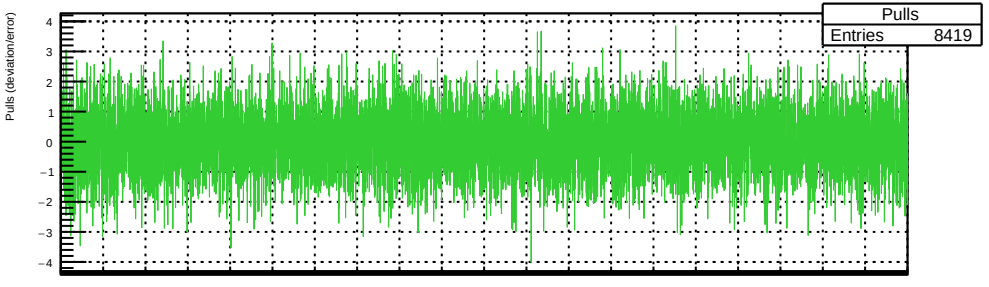

Signed asym_us_dd_overload_reg_reg_diff_mean (ppb) vs Time
p0 −2.169 ± 3.196
3000
2000
1000
0
−1000
−2000
−3000
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

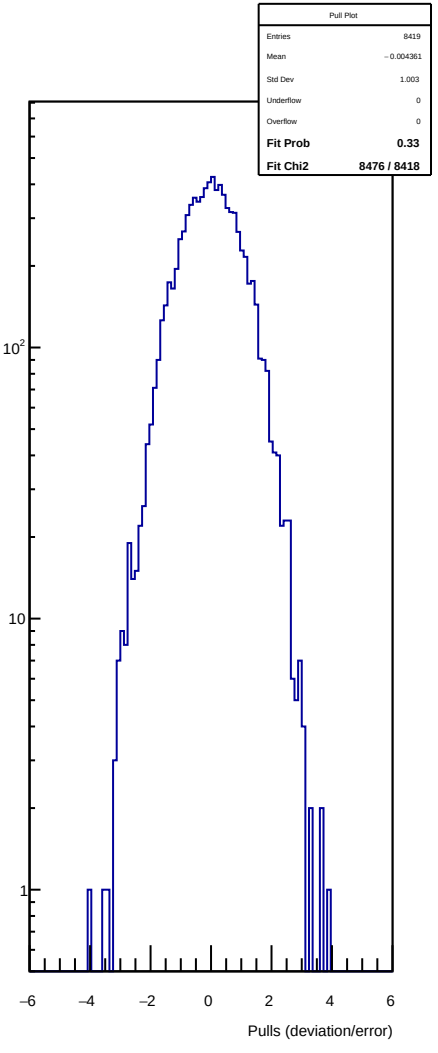

Pulls
Entries 8419
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

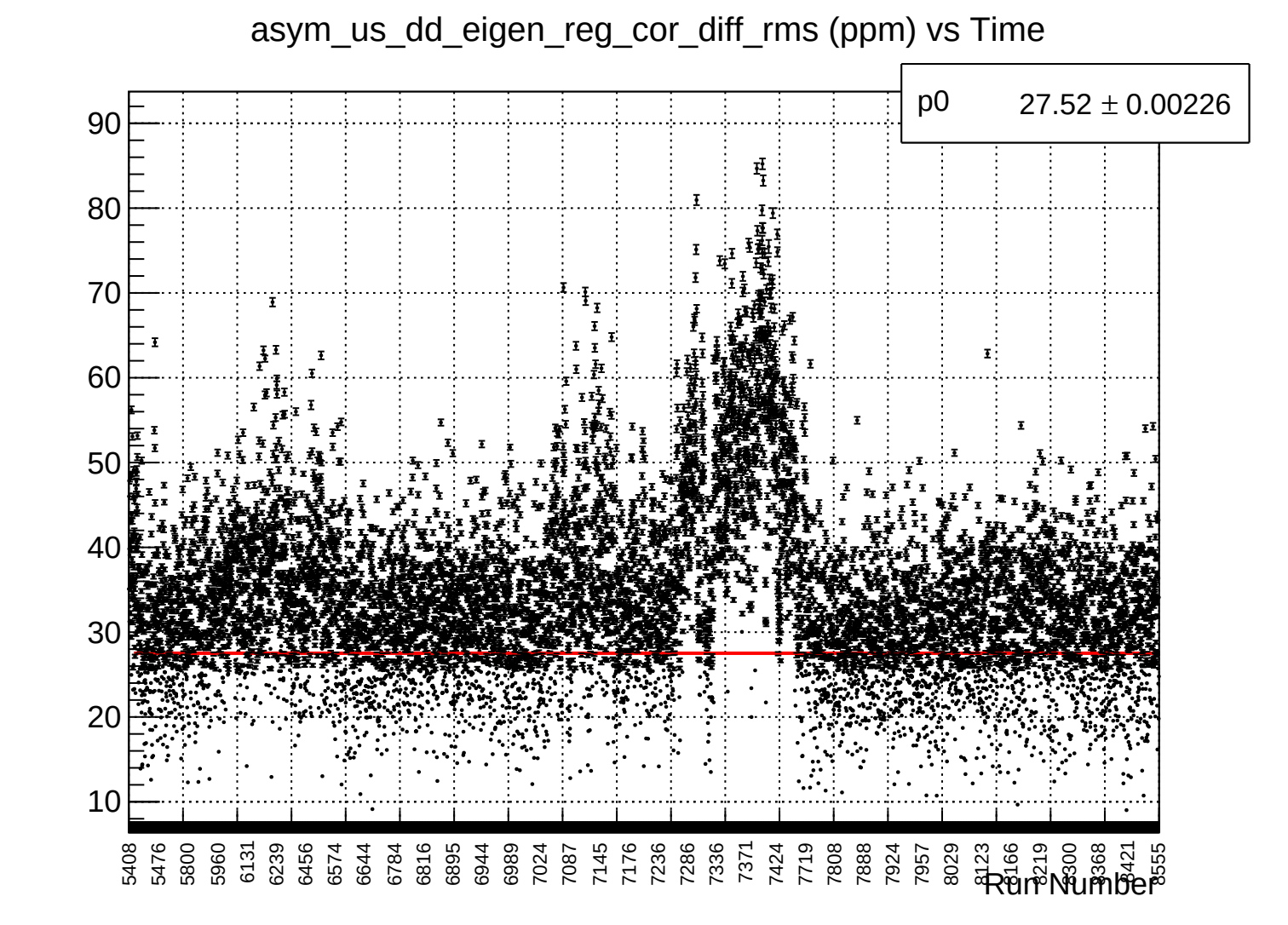

Pull Plot
Entries 8419
Mean −0.004361
Std Dev 1.003
Underflow 0
Overflow 0
Fit Prob 0.33
Fit Chi2 8476 / 8418
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

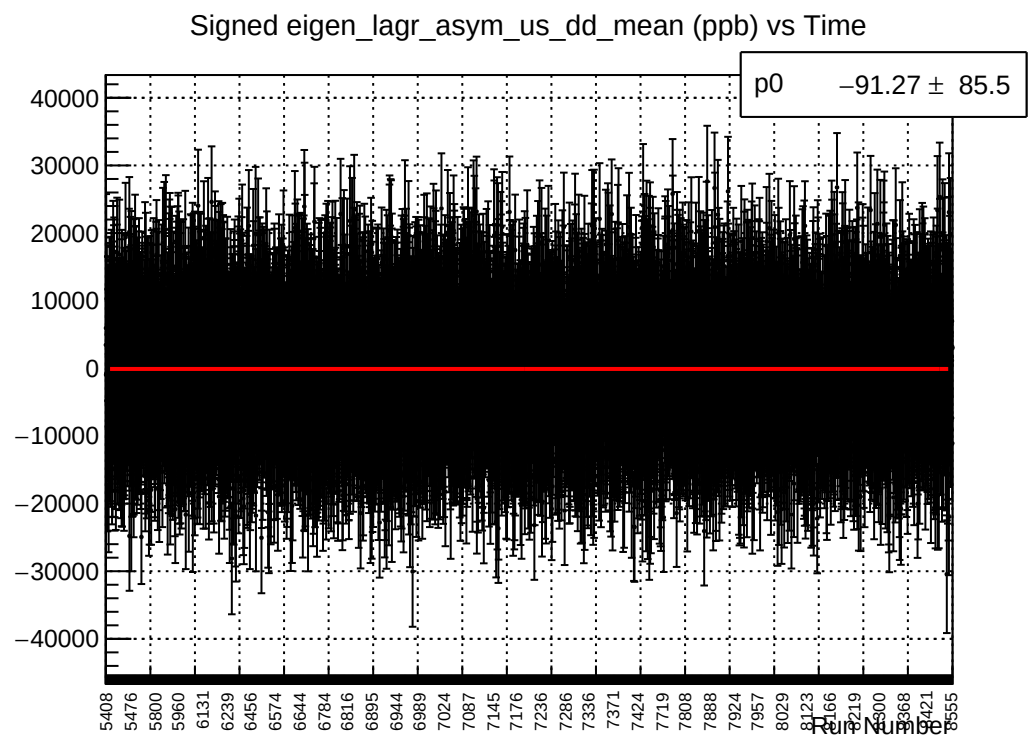

asym_us_dd_overload_reg_reg_diff_rms (ppm) vs Time
p0 27.52 ± 0.00226
90
80
70
60
50
40
30
20
10
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

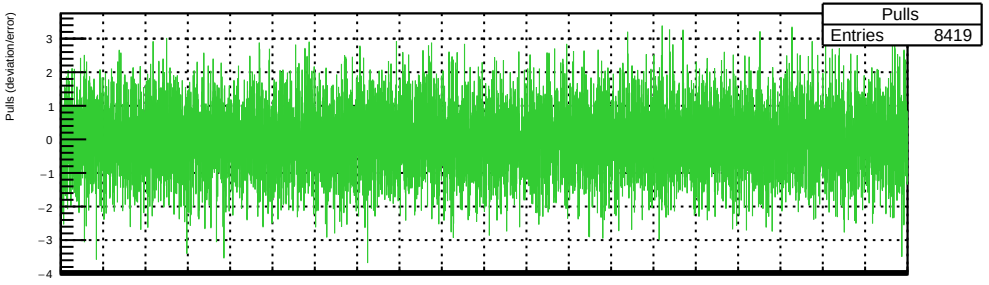

Signed asym_us_dd_eigen_reg_cor_diff_mean (ppb) vs Time
p0 −2.169 ± 3.196
3000
2000
1000
0
−1000
−2000
−3000
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

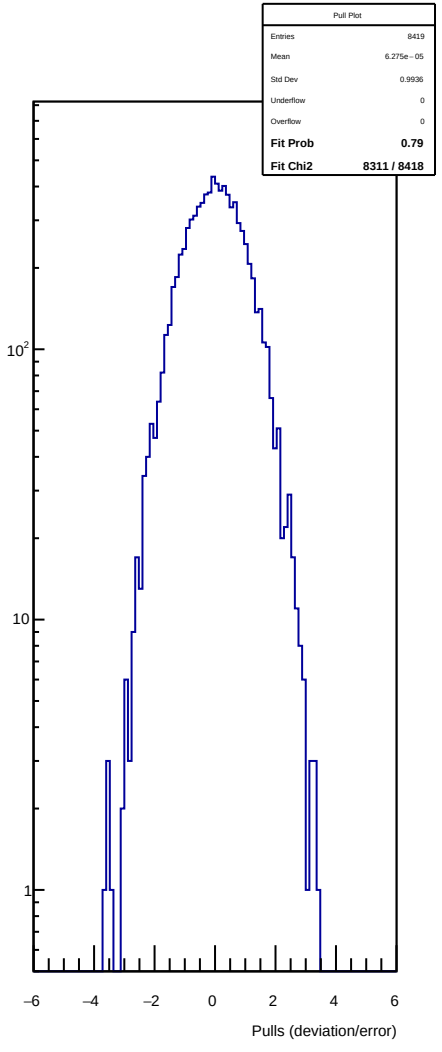

Pulls
Entries 8419
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

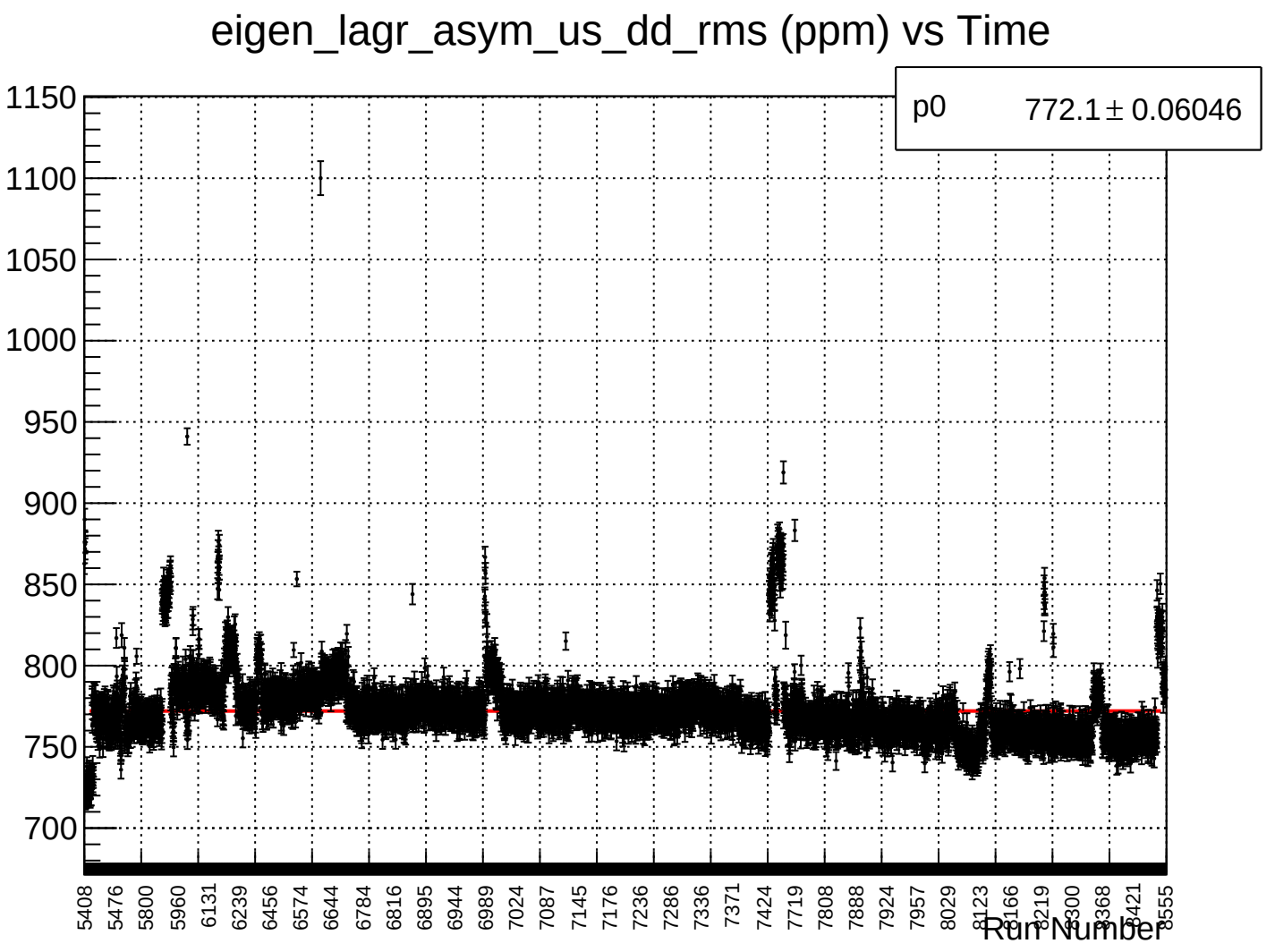

Pull Plot
Entries 8419
Mean −0.004361
Std Dev 1.003
Underflow 0
Overflow 0
Fit Prob 0.33
Fit Chi2 8476 / 8418
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

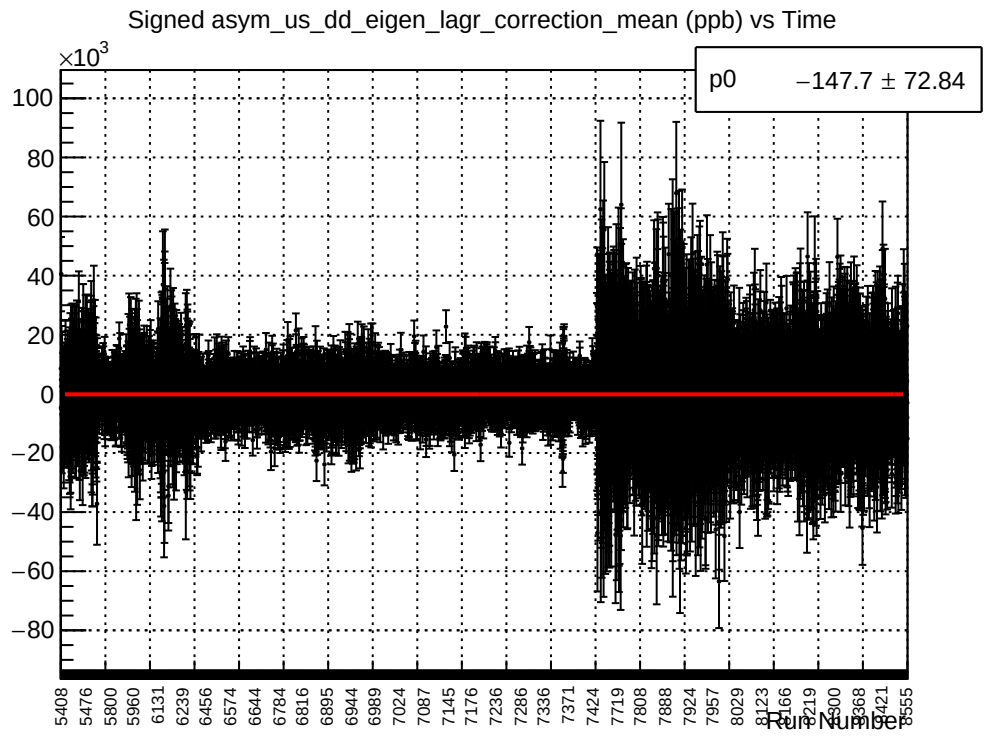

asym_us_dd_eigen_reg_cor_diff_rms (ppm) vs Time
p0 27.52 ± 0.00226
90
80
70
60
50
40
30
20
10
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

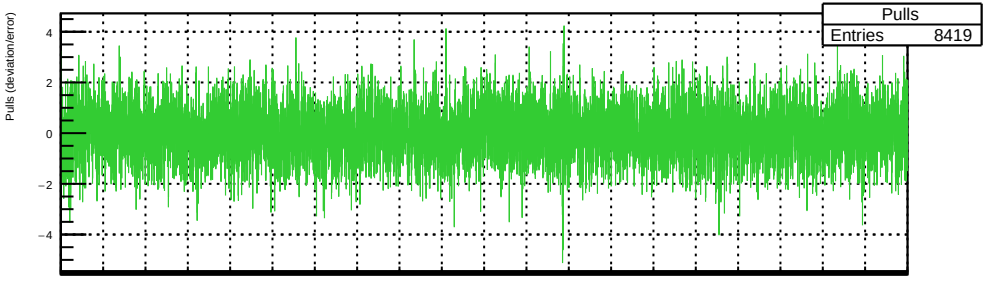

Signed eigen_lagr_asym_us_dd_mean (ppb) vs Time
p0 −91.27 ± 85.5
40000
30000
20000
10000
0
−10000
−20000
−30000
−40000
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

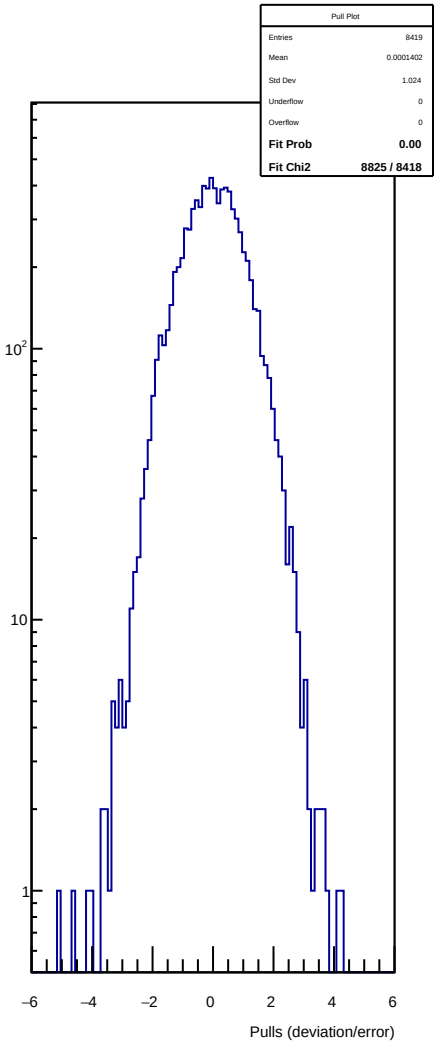

Pulls
Entries 8419
Pulls (deviation/error)
3
2
1
0
−1
−2
−3
−4

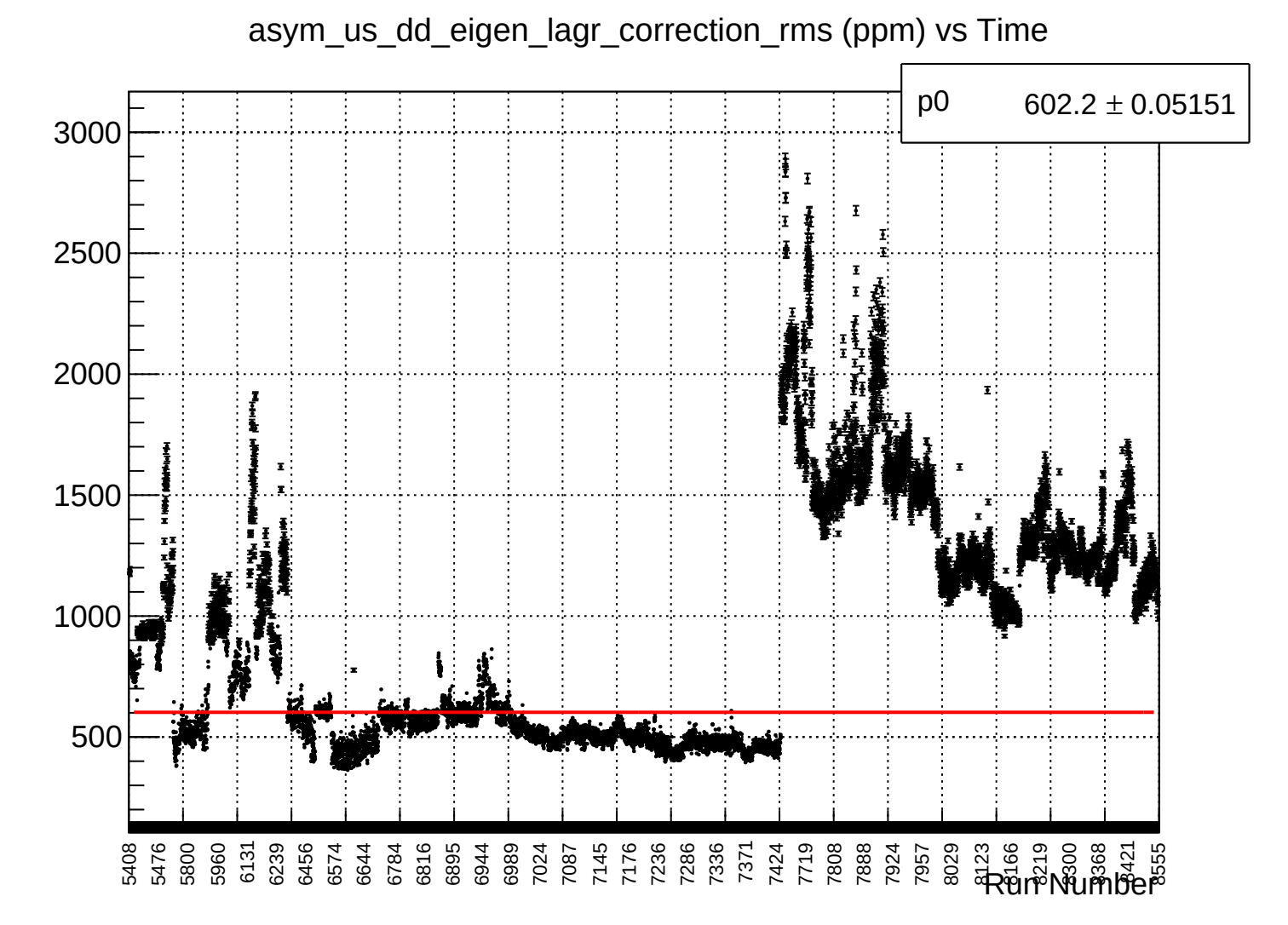

Pull Plot
Entries 8419
Mean 6.275e−05
Std Dev 0.9936
Underflow 0
Overflow 0
Fit Prob 0.79
Fit Chi2 8311 / 8418
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

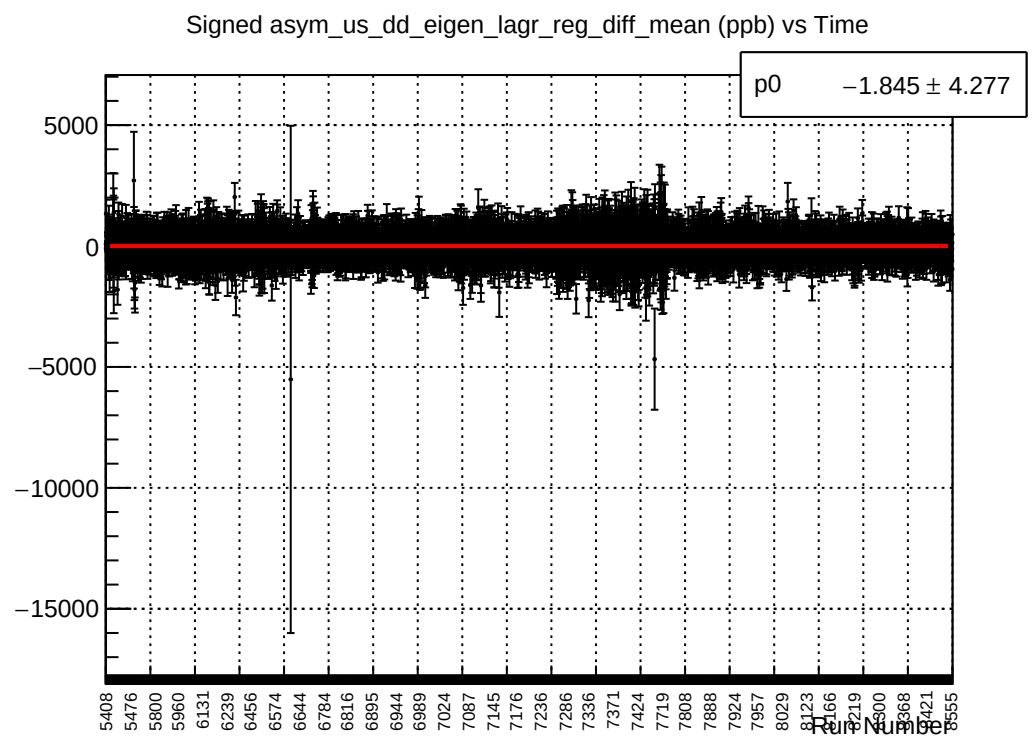

eigen_lagr_asym_us_dd_rms (ppm) vs Time
p0 772.1 ± 0.06046
1150
1100
1050
1000
950
900
850
800
750
700
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

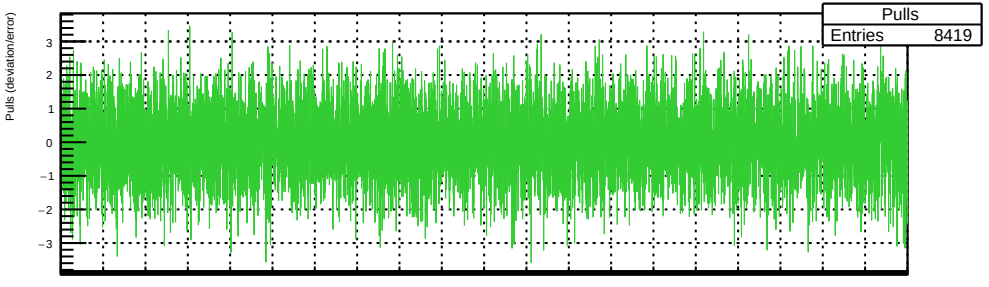

Signed asym_us_dd_eigen_lagr_correction_mean (ppb) vs Time
×10^3
p0 −147.7 ± 72.84
100
80
60
40
20
0
−20
−40
−60
−80
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

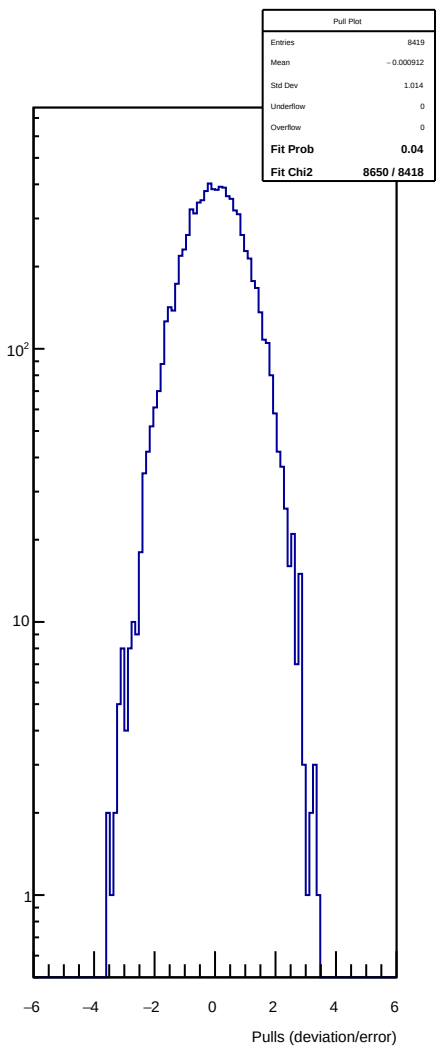

Pulls
Entries 8419
Pulls (deviation/error)
4
2
0
−2
−4

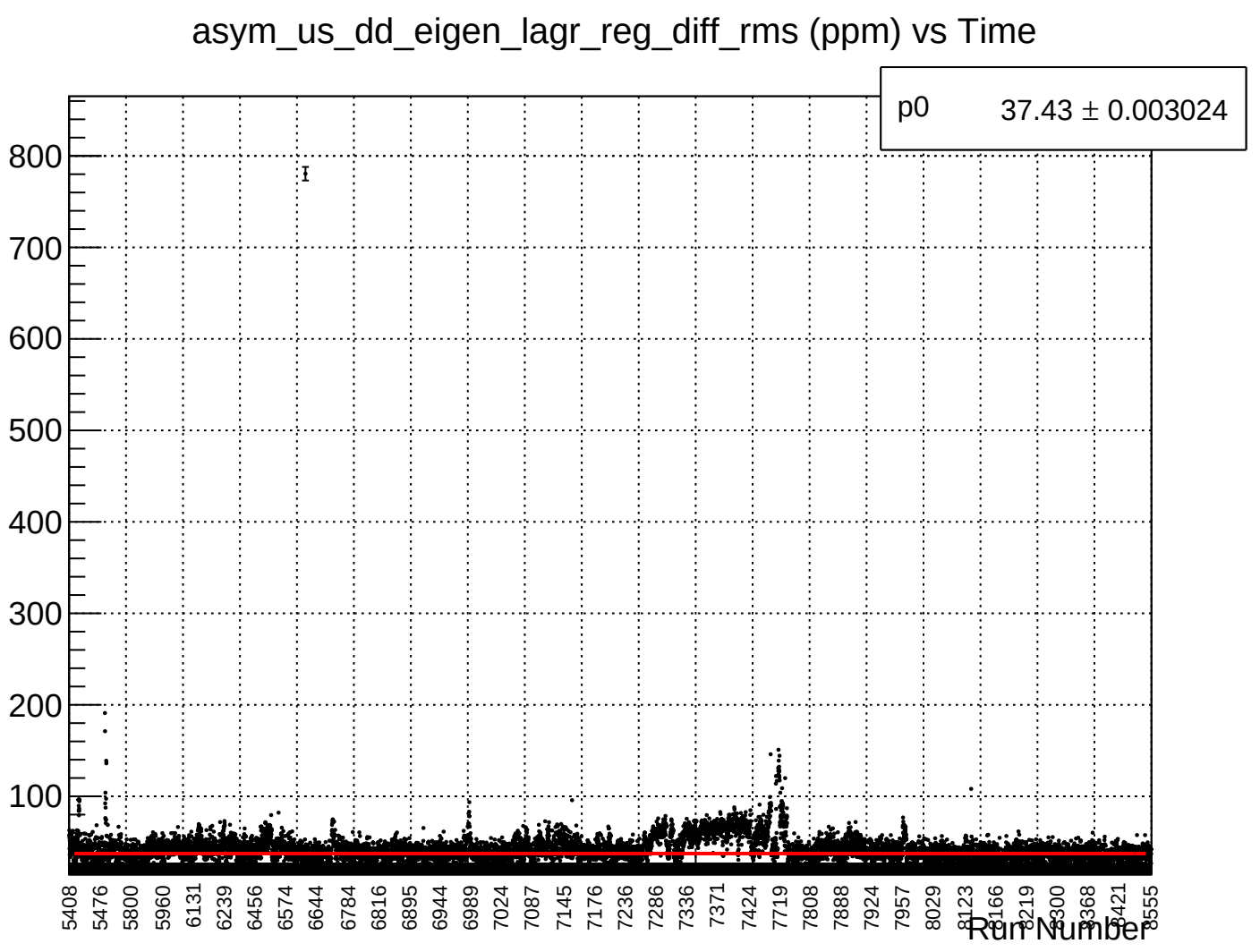

Pull Plot
Entries 8419
Mean 0.0001402
Std Dev 1.024
Underflow 0
Overflow 0
Fit Prob 0.00
Fit Chi2 8825 / 8418
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

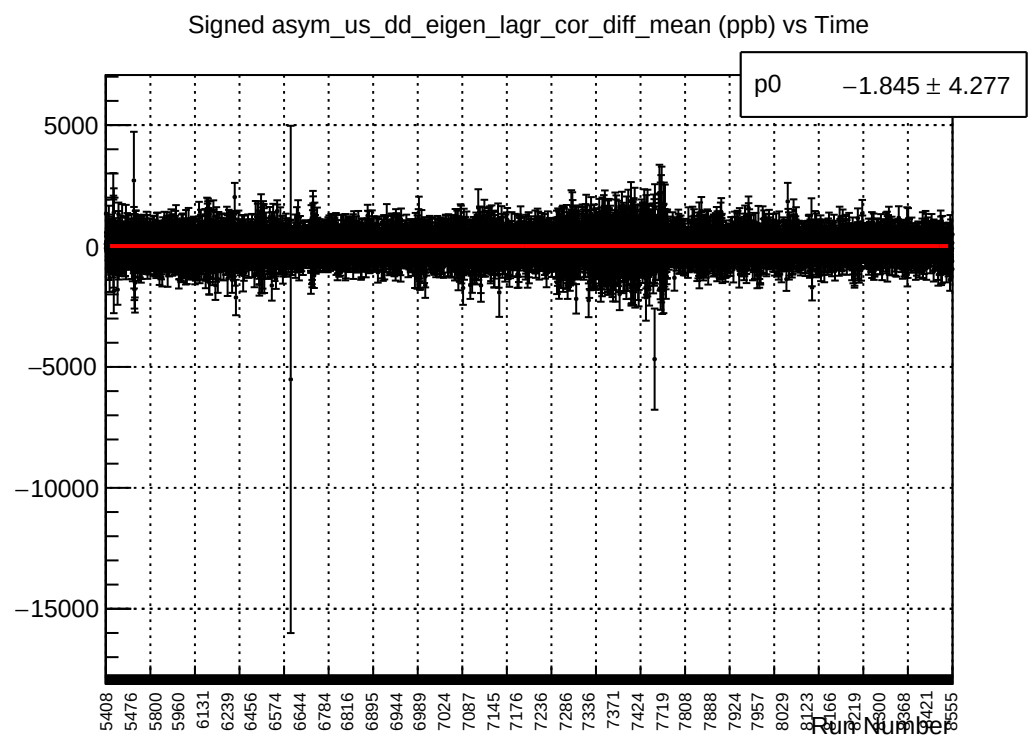

asym_us_dd_eigen_lagr_correction_rms (ppm) vs Time
p0 602.2 ± 0.05151
3000
2500
2000
1500
1000
500
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

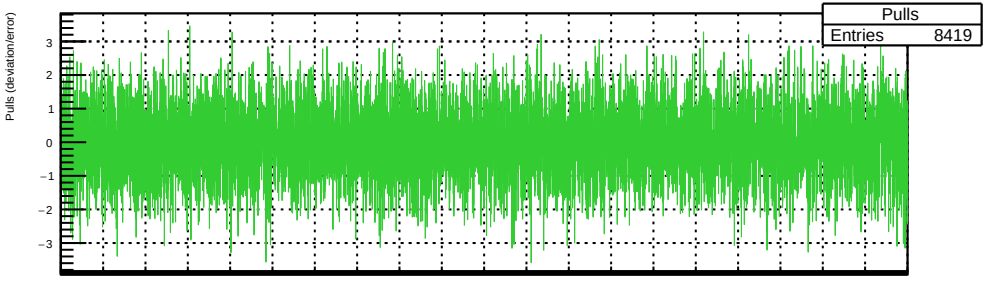

Signed asym_us_dd_eigen_lagr_reg_diff_mean (ppb) vs Time
p0 −1.845 ± 4.277
5000
0
−5000
−10000
−15000
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

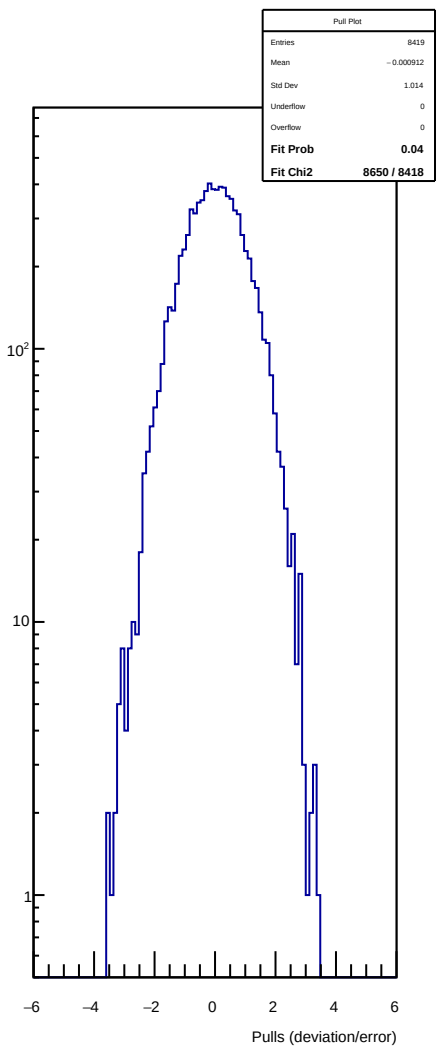

Pulls
Entries 8419
Pulls (deviation/error)
3
2
1
0
−1
−2
−3

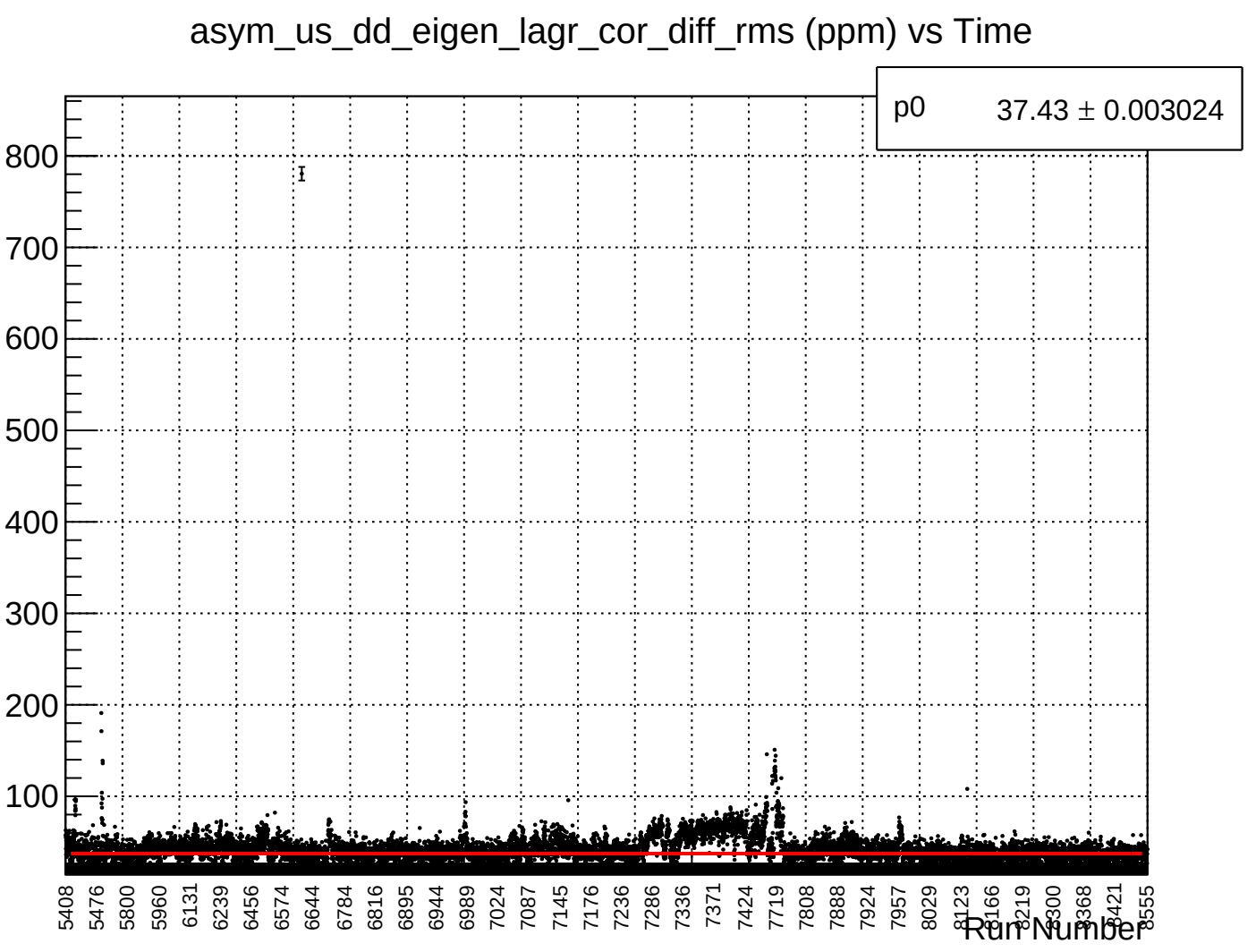

Pull Plot
Entries 8419
Mean −0.000912
Std Dev 1.014
Underflow 0
Overflow 0
Fit Prob 0.04
Fit Chi2 8650 / 8418
10²
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

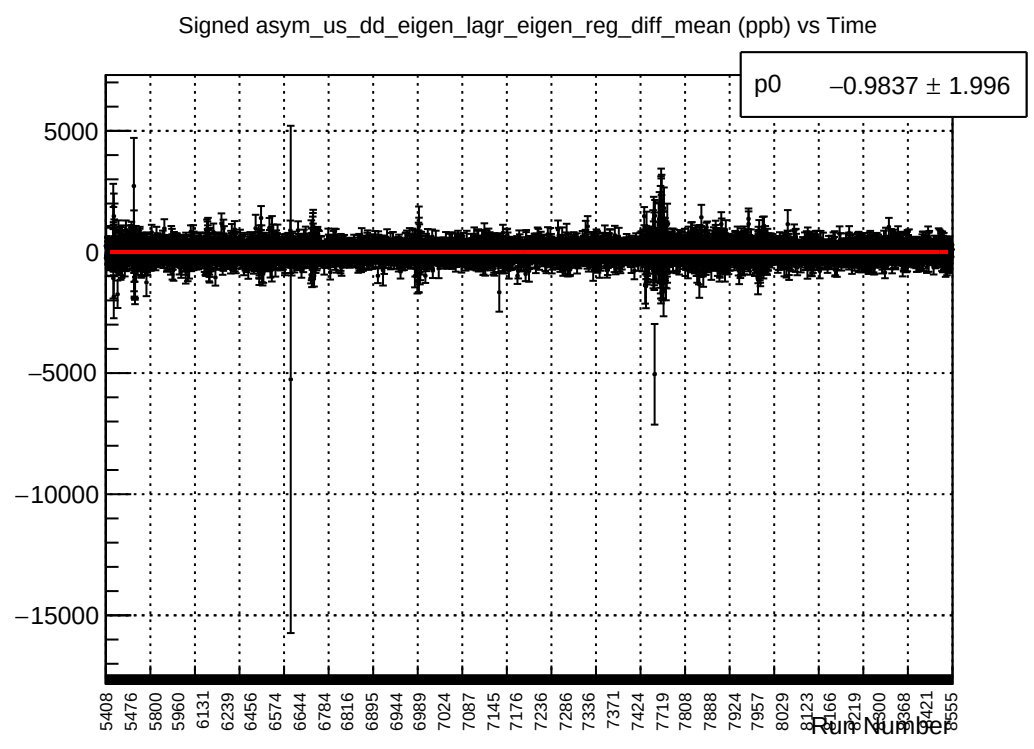

asym_us_dd_eigen_lagr_reg_diff_rms (ppm) vs Time
p0 37.43 ± 0.003024
800
700
600
500
400
300
200
100
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

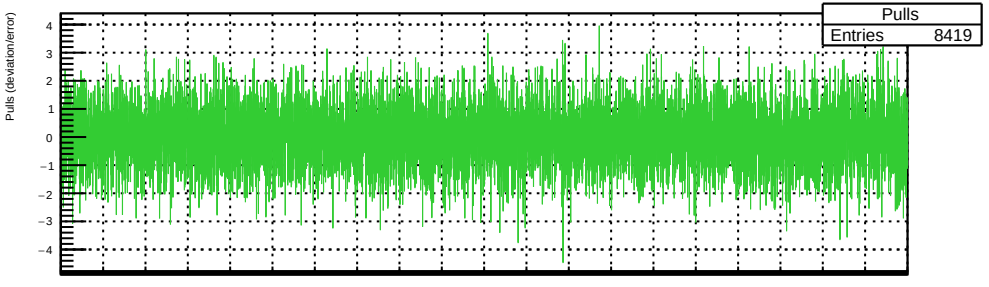

Signed asym_us_dd_eigen_lagr_cor_diff_mean (ppb) vs Time
p0 −1.845 ± 4.277
5000
0
−5000
−10000
−15000
5408 5476 5800 5960 6131 6239 6456 6574 6644 6784 6816 6895 6944 6989 7024 7087 7145 7176 7236 7286 7336 7371 7424 7719 7808 7888 7924 7957 8029 8123 8166 8219 8300 8368 8421 8555
Run Number

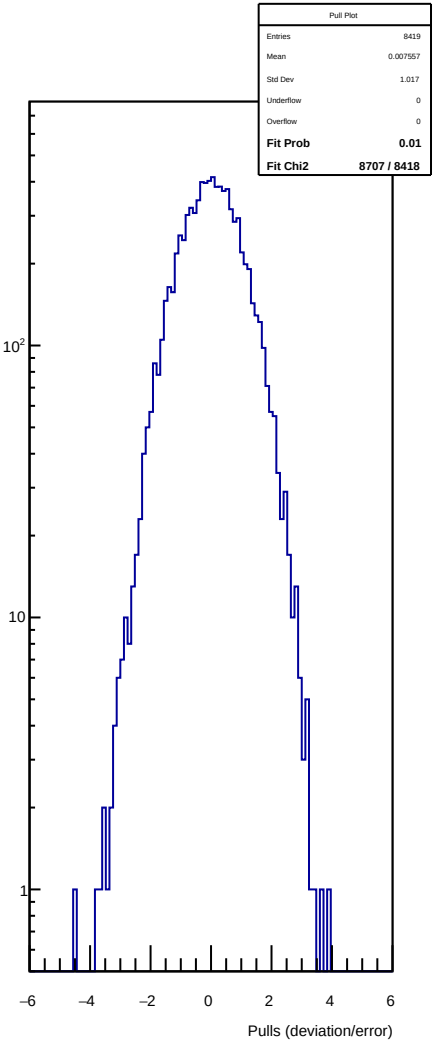

Pulls
Entries 8419
Pulls (deviation/error)
3
2
1
0
−1
−2
−3

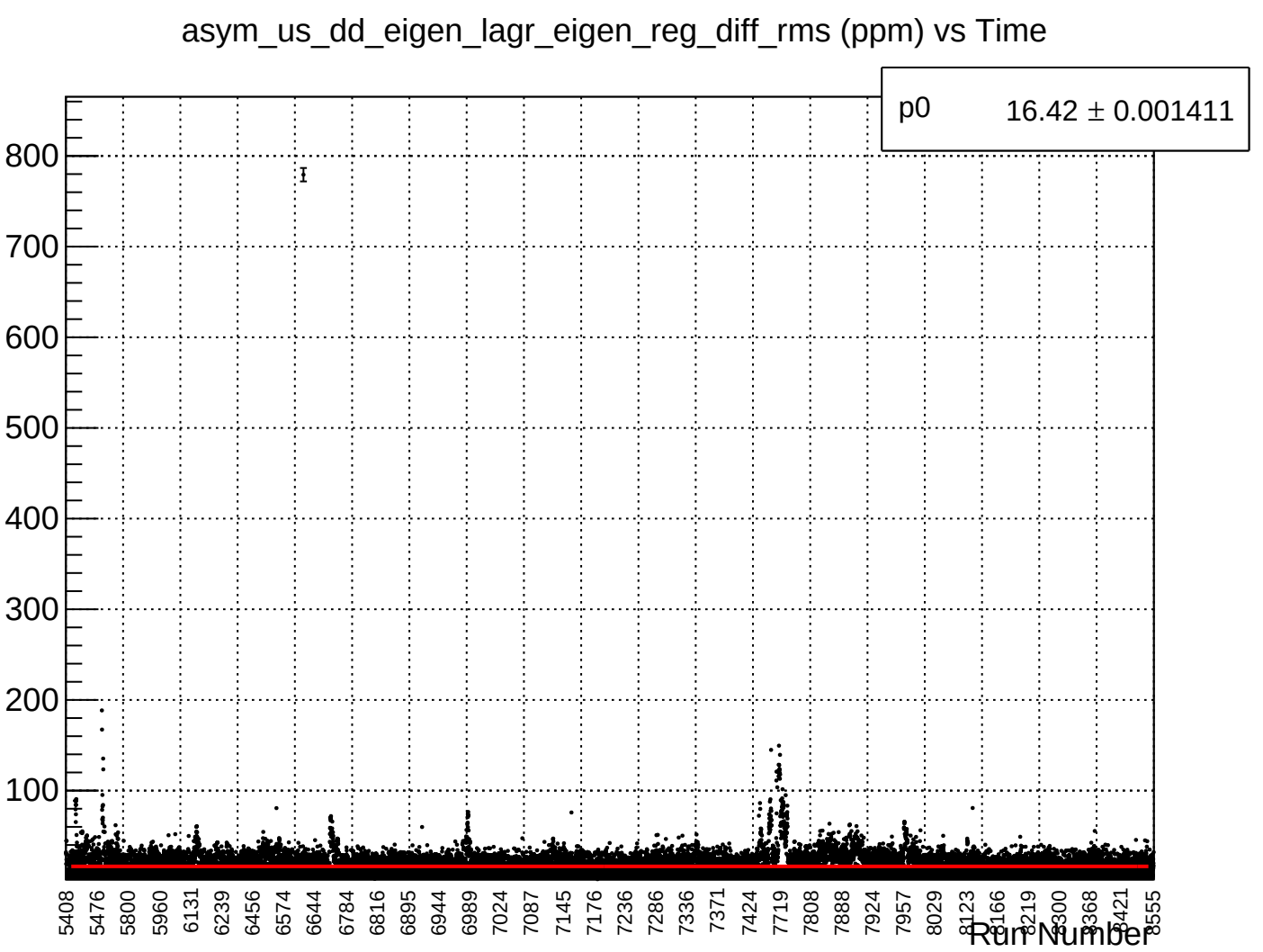

Pull Plot
Entries 8419
Mean −0.000912
Std Dev 1.014
Underflow 0
Overflow 0
Fit Prob 0.04
Fit Chi2 8650 / 8418
10²
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

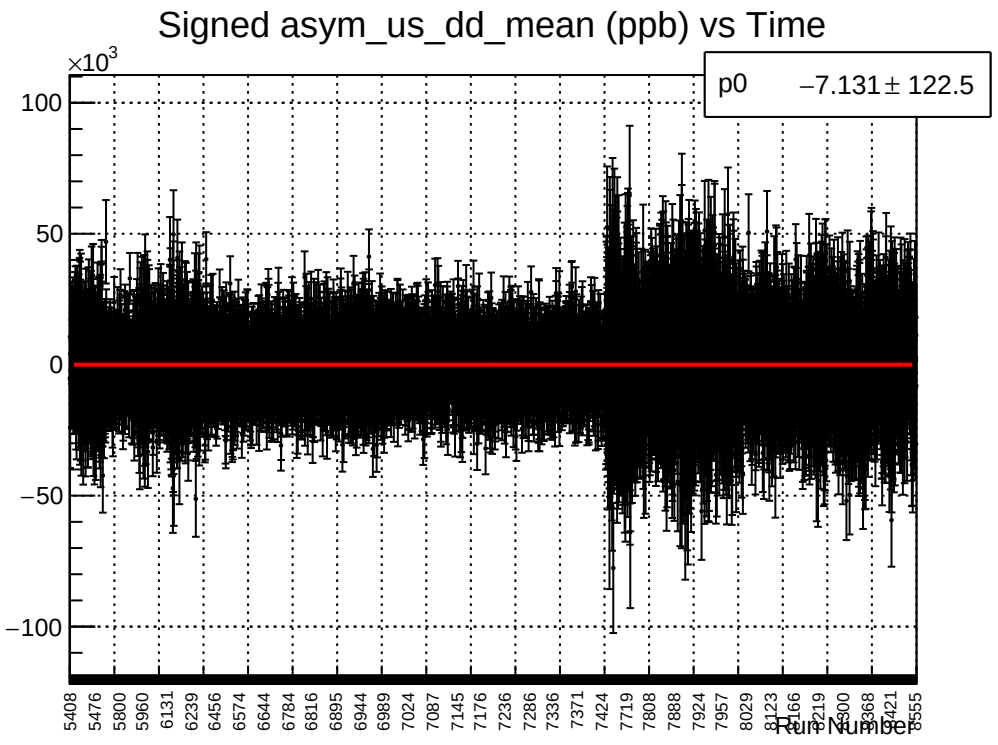

asym_us_dd_eigen_lagr_cor_diff_rms (ppm) vs Time
p0 37.43 ± 0.003024
800
700
600
500
400
300
200
100
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

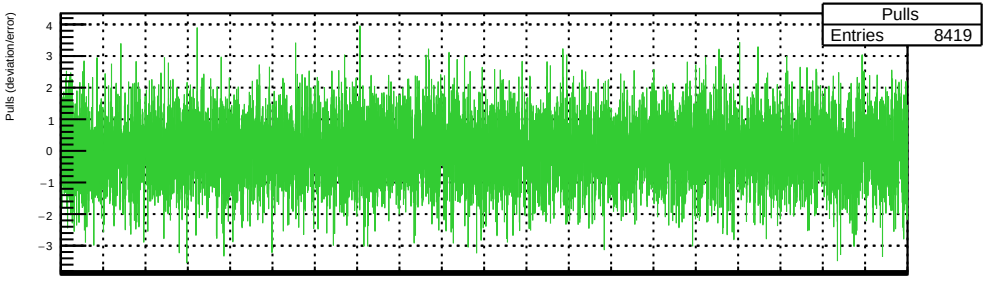

Signed asym_us_dd_eigen_lagr_eigen_reg_diff_mean (ppb) vs Time
p0 −0.9837 ± 1.996
5000
0
−5000
−10000
−15000
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

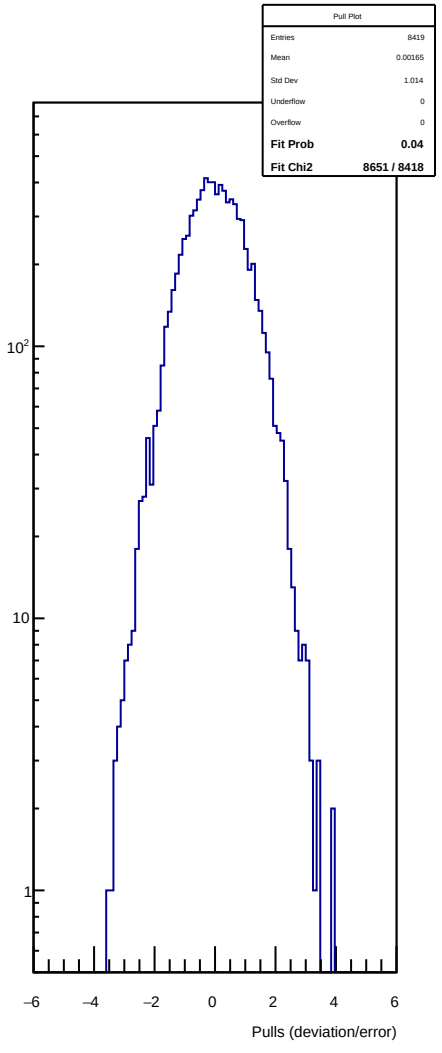

Pulls
Entries 8419
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

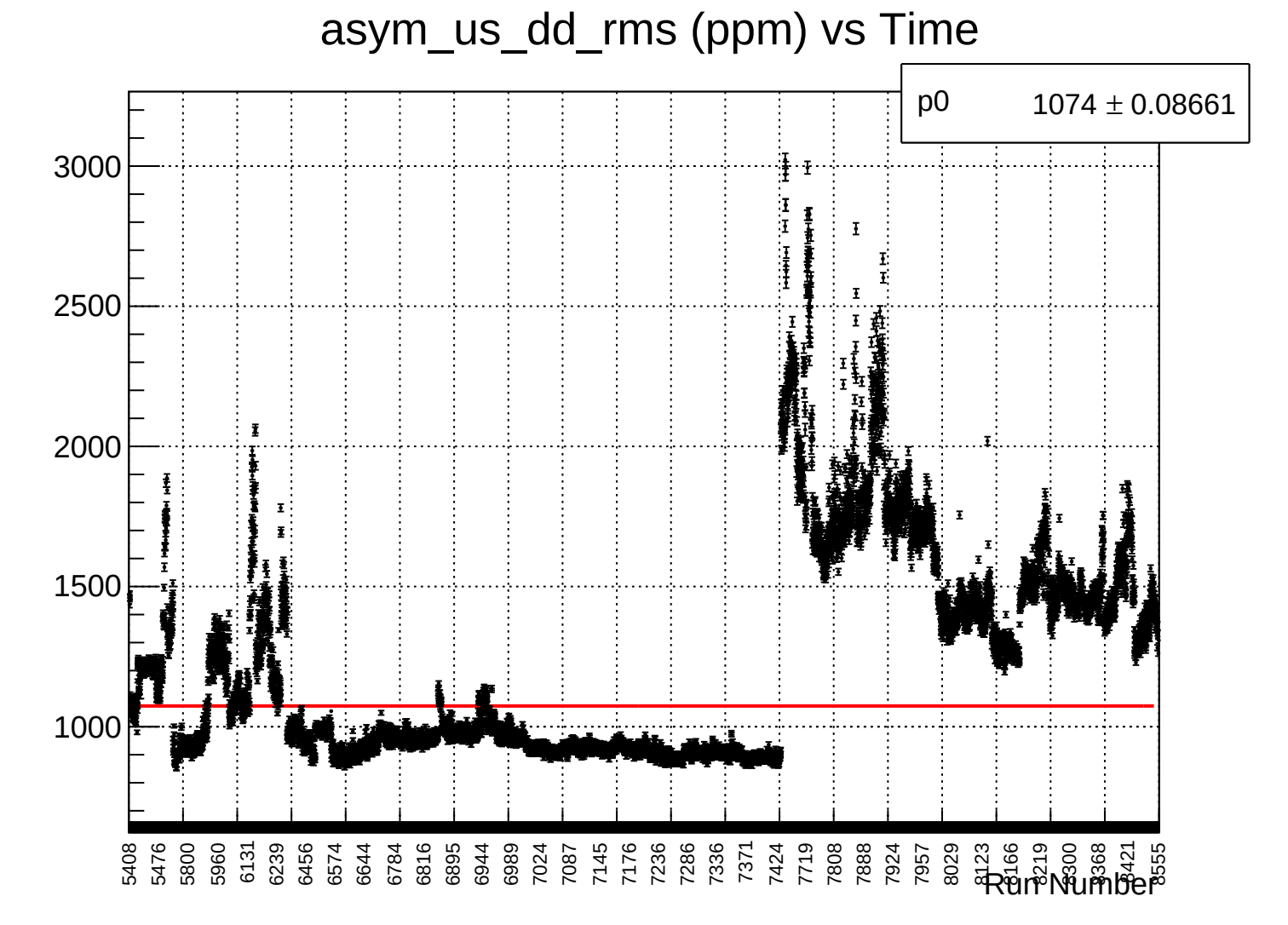

Pull Plot
Entries 8419
Mean 0.007557
Std Dev 1.017
Underflow 0
Overflow 0
Fit Prob 0.01
Fit Chi2 8707 / 8418
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

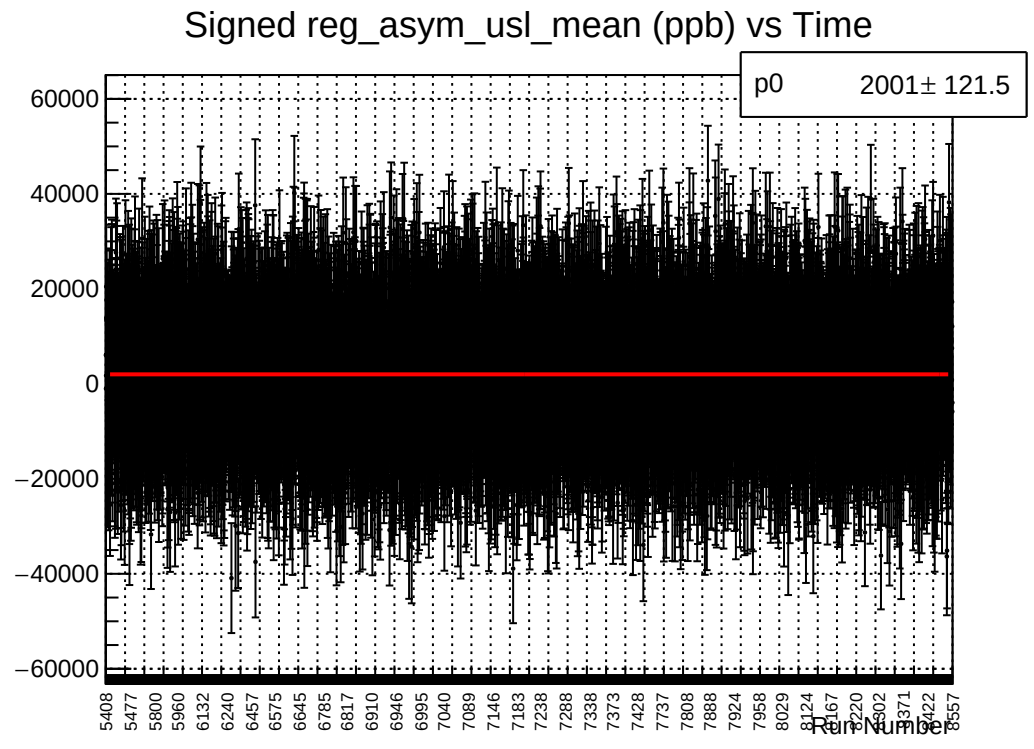

asym_us_dd_eigen_lagr_eigen_reg_diff_rms (ppm) vs Time
p0 16.42 ± 0.001411
800
700
600
500
400
300
200
100
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

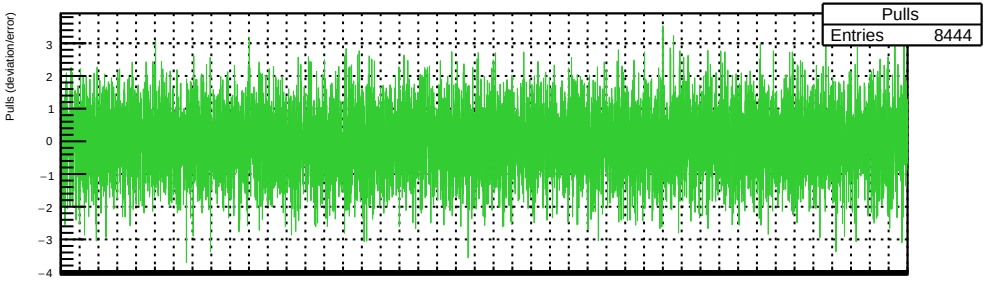

Signed asym_us_dd_mean (ppb) vs Time
×10^3
p0 −7.131 ± 122.5
100
50
0
−50
−100
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

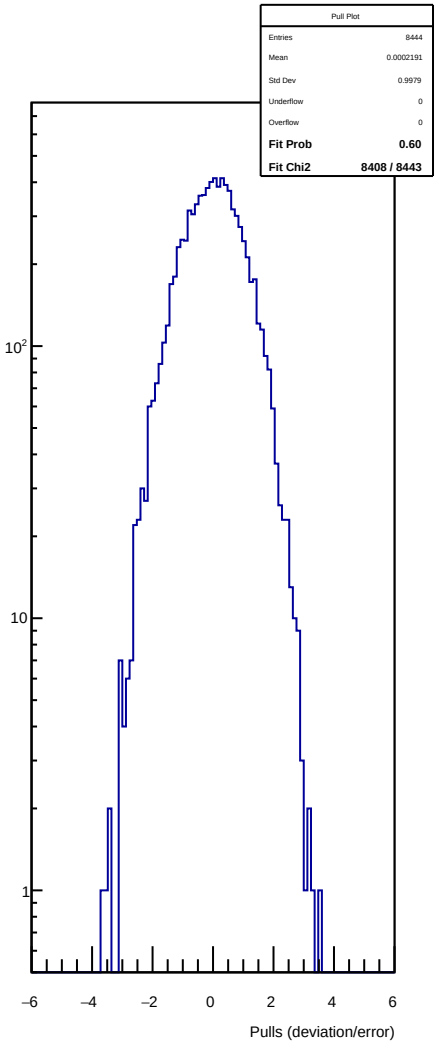

Pulls
Entries 8419
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3

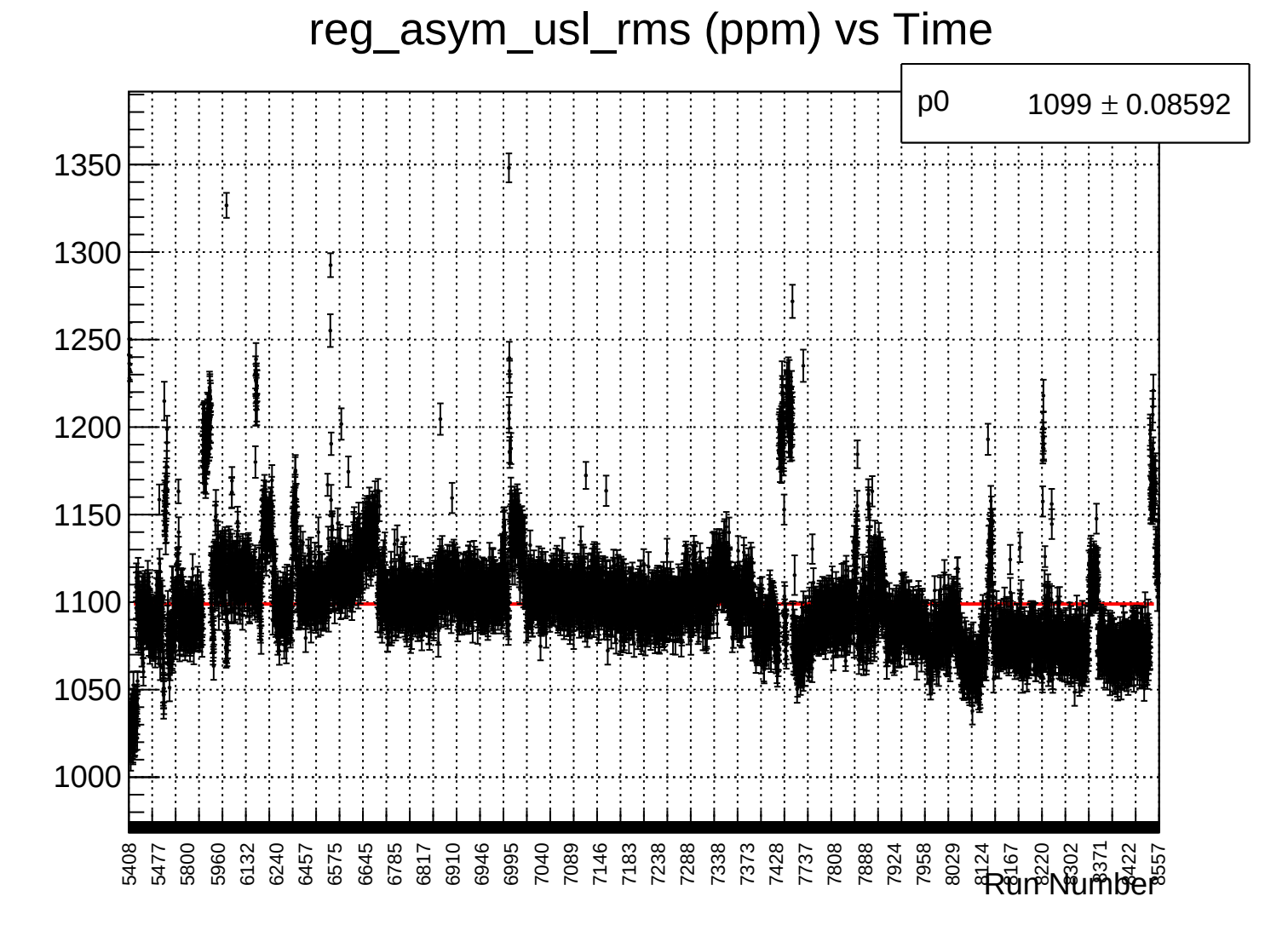

Pull Plot
Entries 8419
Mean 0.00165
Std Dev 1.014
Underflow 0
Overflow 0
Fit Prob 0.04
Fit Chi2 8651 / 8418
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

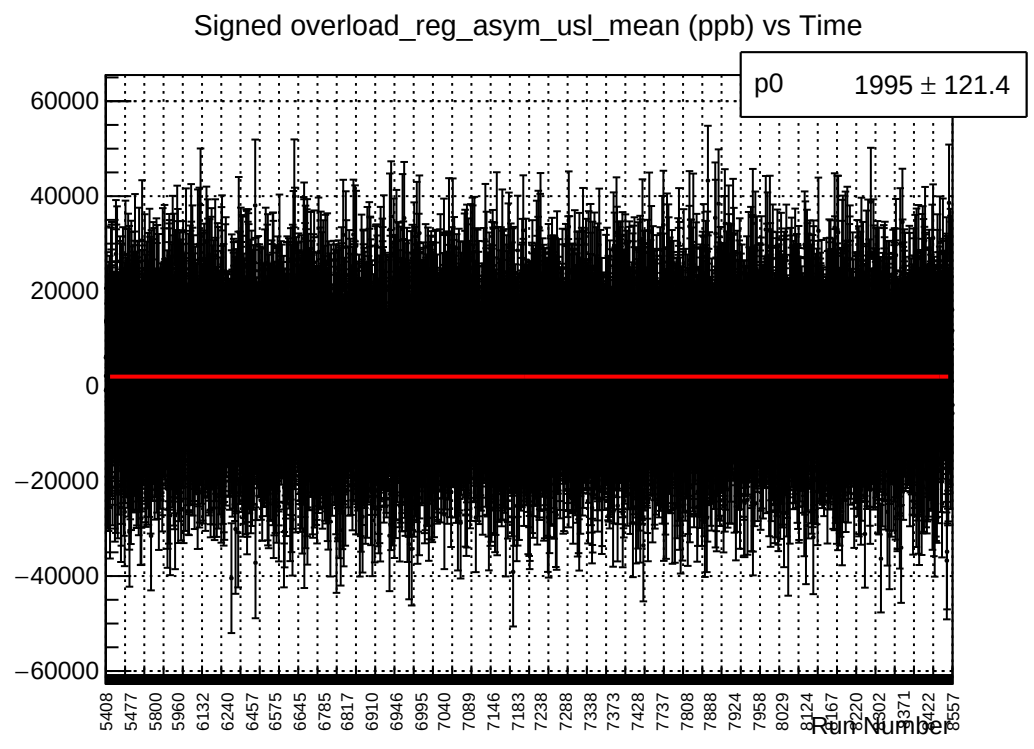

asym_us_dd_rms (ppm) vs Time
p0 1074 ± 0.08661
3000
2500
2000
1500
1000
5408
5476
5800
5960
6131
6239
6456
6574
6644
6784
6816
6895
6944
6989
7024
7087
7145
7176
7236
7286
7336
7371
7424
7719
7808
7888
7924
7957
8029
8123
8166
8219
8300
8368
8421
8555
Run Number

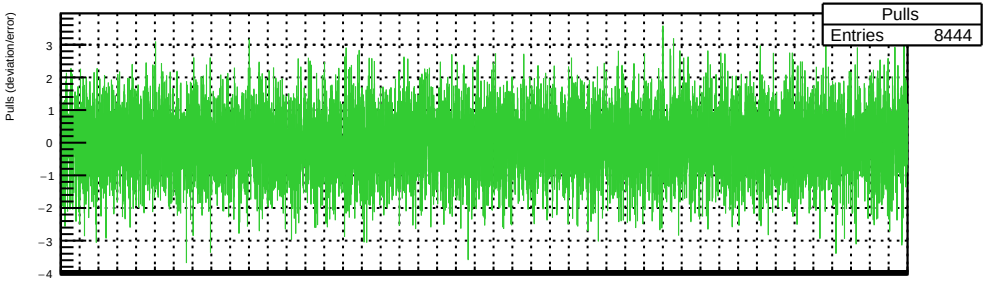

Signed reg_asym_usl_mean (ppb) vs Time
p0 2001± 121.5
60000
40000
20000
0
−20000
−40000
−60000
5408 5477 5800 5960 6132 6240 6457 6575 6645 6785 6817 6910 6946 6995 7040 7089 7146 7183 7238 7288 7338 7373 7428 7737 7808 7888 7924 7958 8029 8124 8167 8220 8302 8371 8422 8557
Run Number

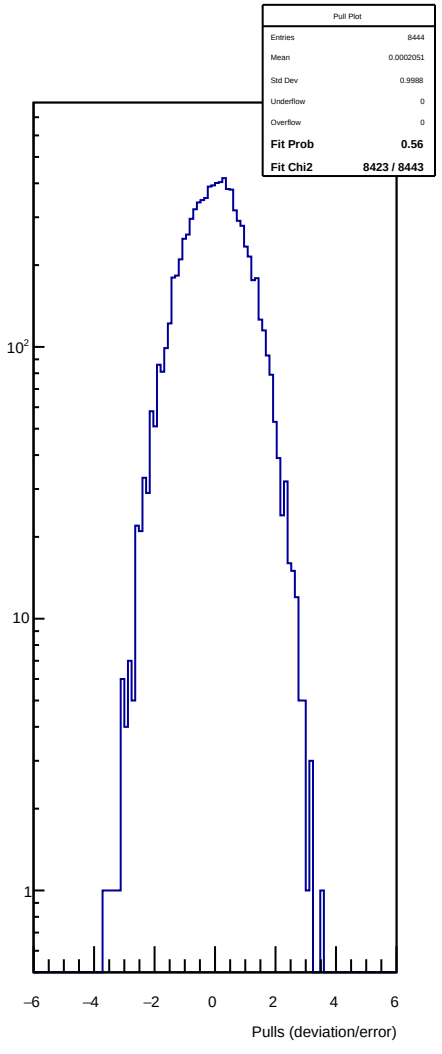

Pulls
Entries 8444
Pulls (deviation/error)
3
2
1
0
−1
−2
−3
−4

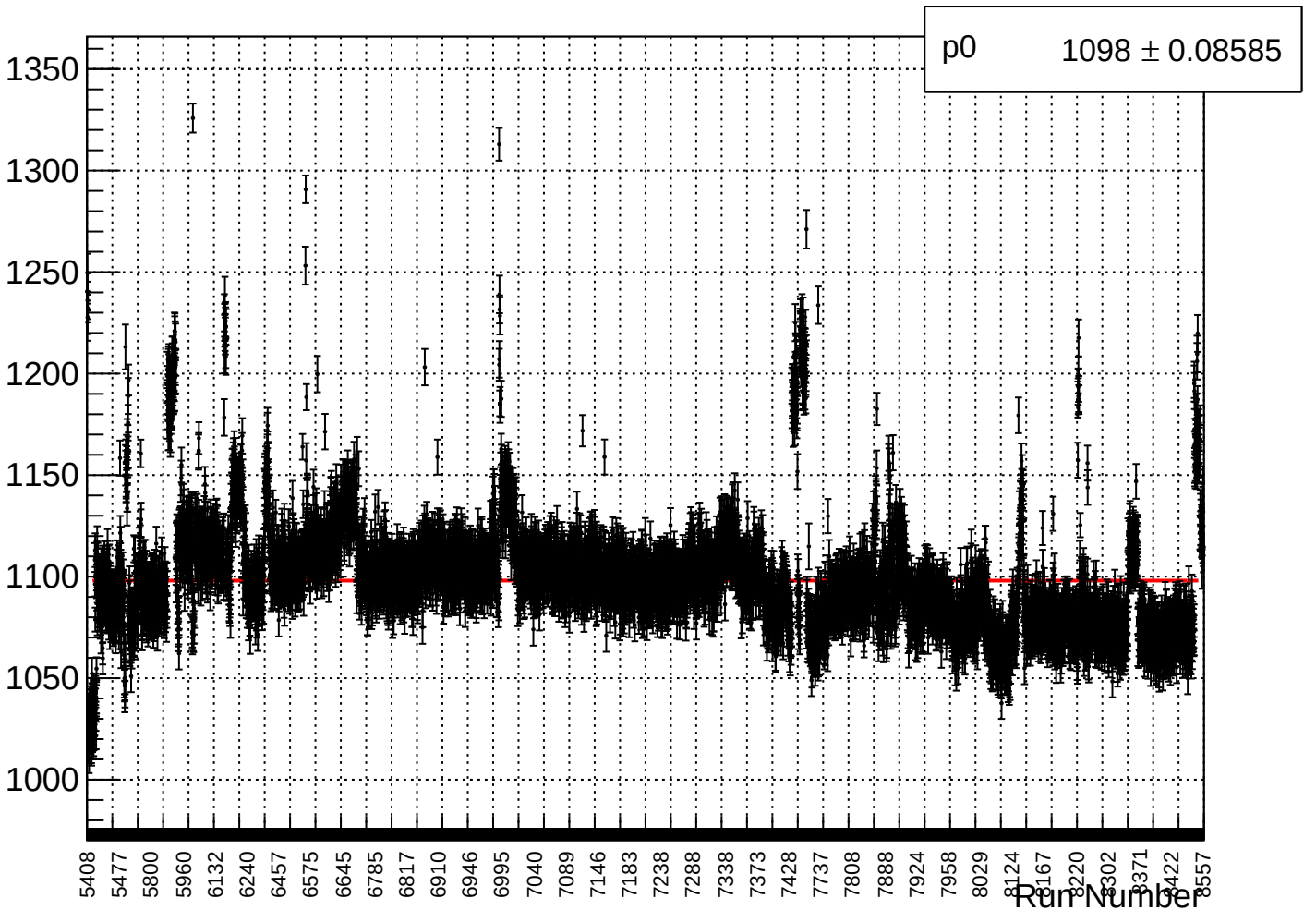

Pull Plot
Entries 8444
Mean 0.0002191
Std Dev 0.9979
Underflow 0
Overflow 0
Fit Prob 0.60
Fit Chi2 8408 / 8443
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

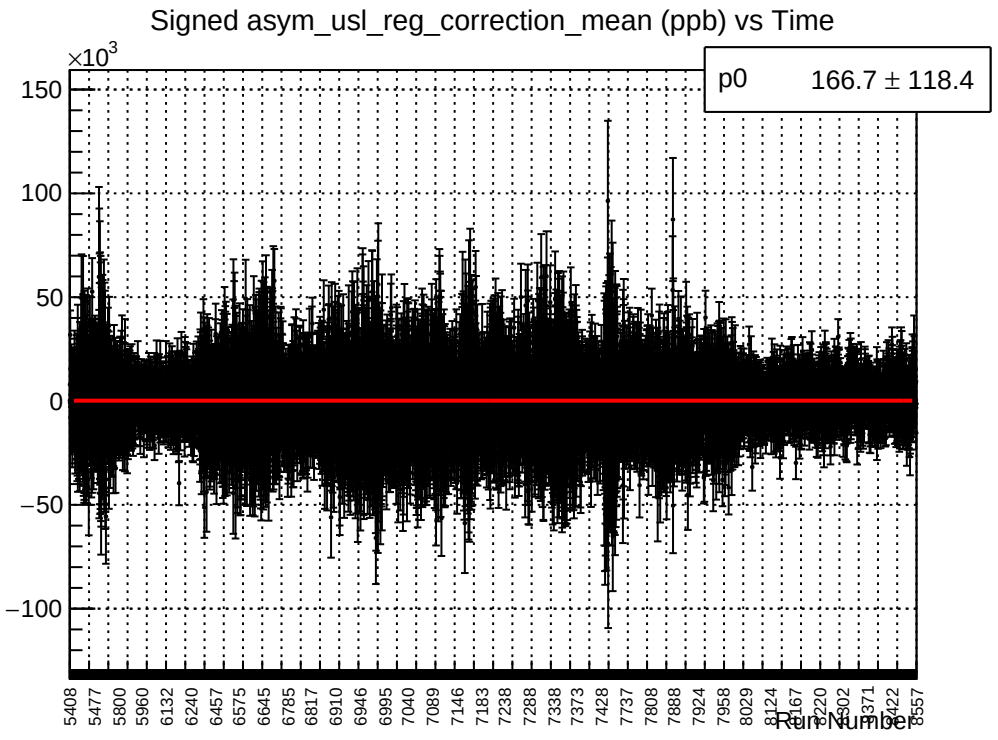

reg_asym_usl_rms (ppm) vs Time
p0 1099 ± 0.08592
1350
1300
1250
1200
1150
1100
1050
1000
5408
5477
5800
5960
6132
6240
6457
6575
6645
6785
6817
6910
6946
6995
7040
7089
7146
7183
7238
7288
7338
7373
7428
7737
7808
7888
7924
7958
8029
8124
8167
8220
8302
8371
8422
8557
Run Number

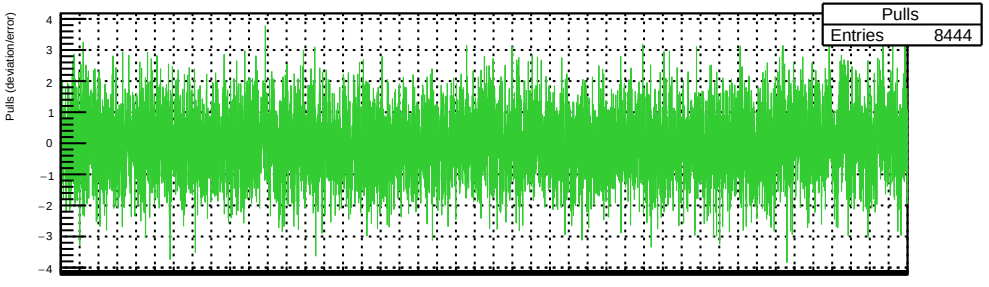

Signed overload_reg_asym_usl_mean (ppb) vs Time
p0 1995 ± 121.4
60000
40000
20000
0
−20000
−40000
−60000
5408 5477 5800 5960 6132 6240 6457 6575 6645 6785 6817 6910 6946 6995 7040 7089 7146 7183 7238 7288 7338 7373 7428 7737 7808 7888 7924 7958 8029 8124 8167 8220 8302 8371 8422 8557
Run Number

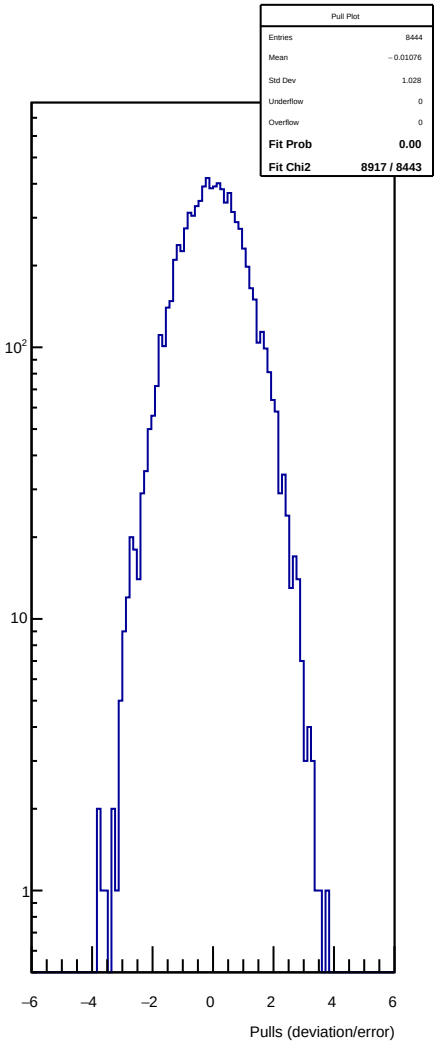

Pulls
Entries 8444
Pulls (deviation/error)
3
2
1
0
−1
−2
−3
−4

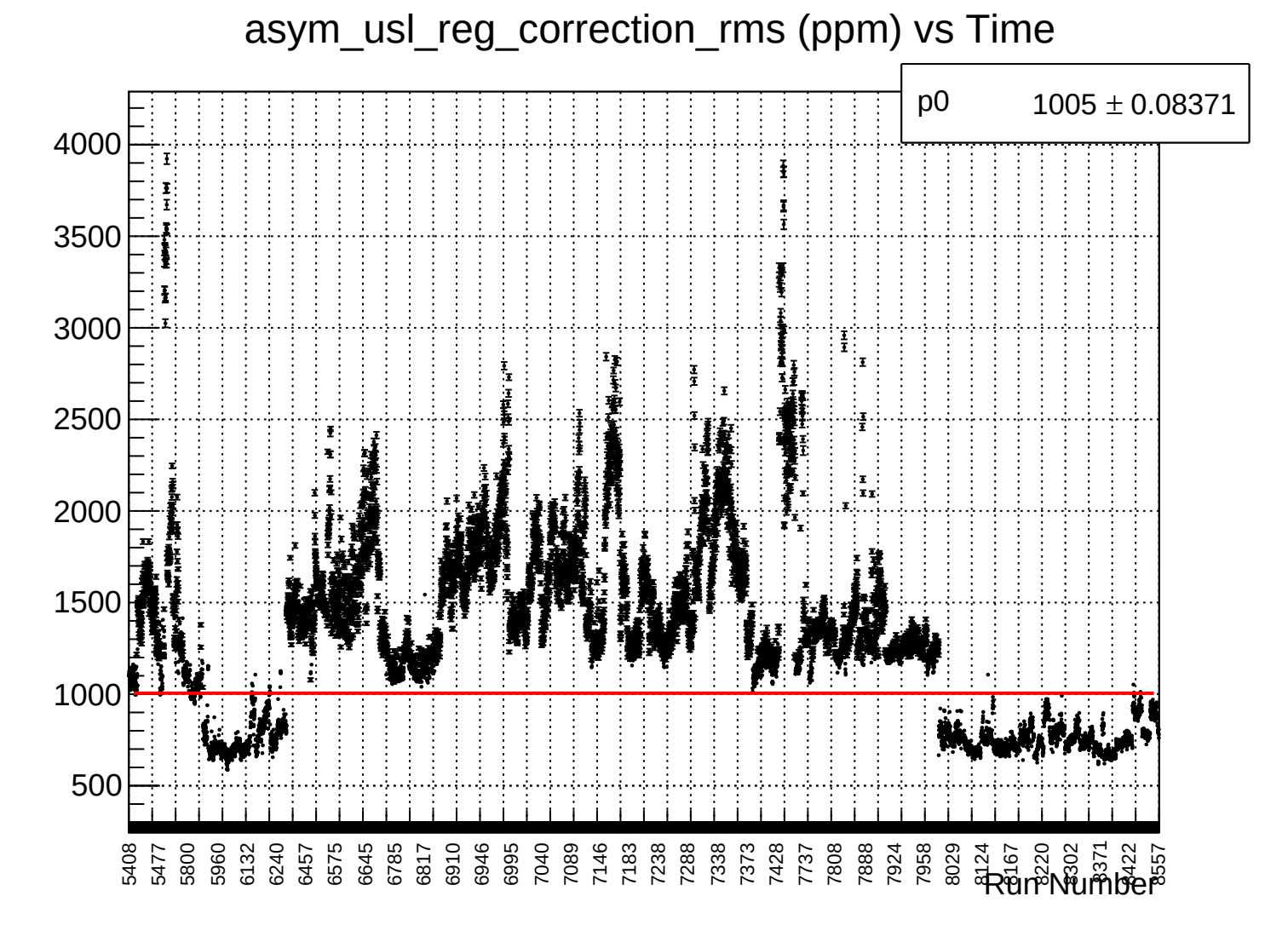

Pull Plot
Entries 8444
Mean 0.0002051
Std Dev 0.9988
Underflow 0
Overflow 0
Fit Prob 0.56
Fit Chi2 8423 / 8443
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

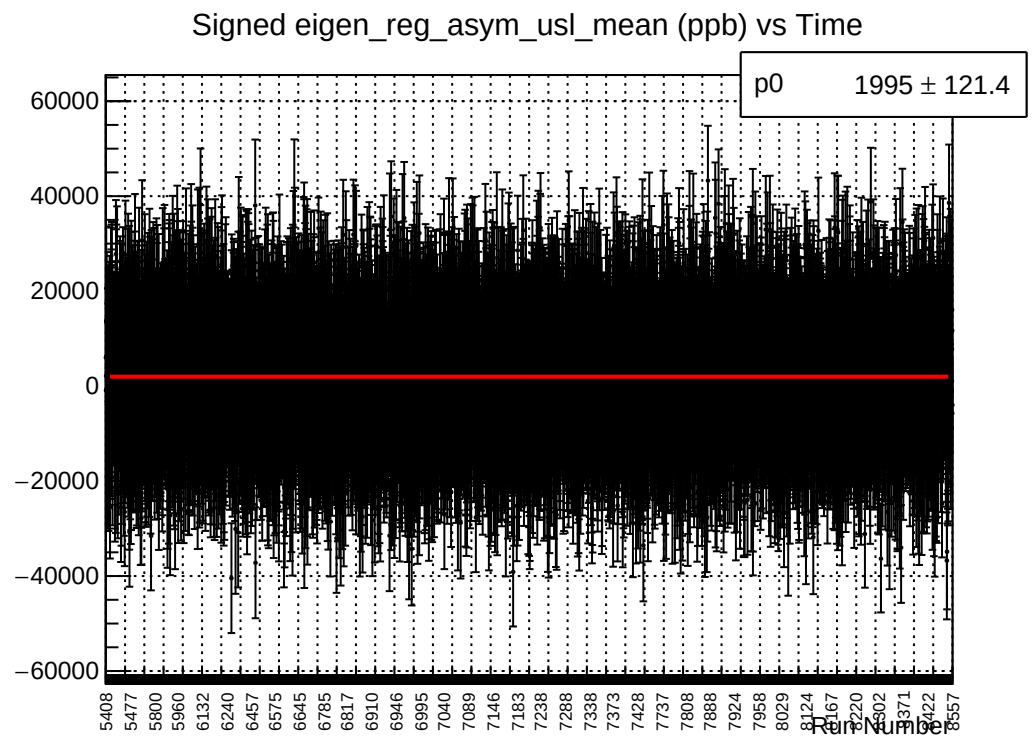

overload_reg_asym_usl_rms (ppm) vs Time
p0 1098 ± 0.08585
1350
1300
1250
1200
1150
1100
1050
1000
5408
5477
5800
5960
6132
6240
6457
6575
6645
6785
6817
6910
6946
6995
7040
7089
7146
7183
7238
7288
7338
7373
7428
7737
7808
7888
7924
7958
8029
8124
8167
8220
8302
8371
8422
8557
Run Number

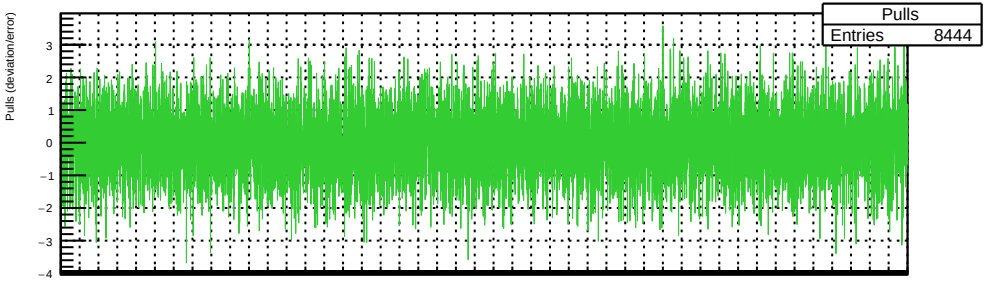

Signed asym_usl_reg_correction_mean (ppb) vs Time
×10^3
p0 166.7 ± 118.4
150
100
50
0
−50
−100
5408 5477 5800 5960 6132 6240 6457 6575 6645 6785 6817 6910 6946 6995 7040 7089 7146 7183 7238 7288 7338 7373 7428 7737 7808 7888 7924 7958 8029 8124 8167 8220 8302 8371 8422 8557
Run Number

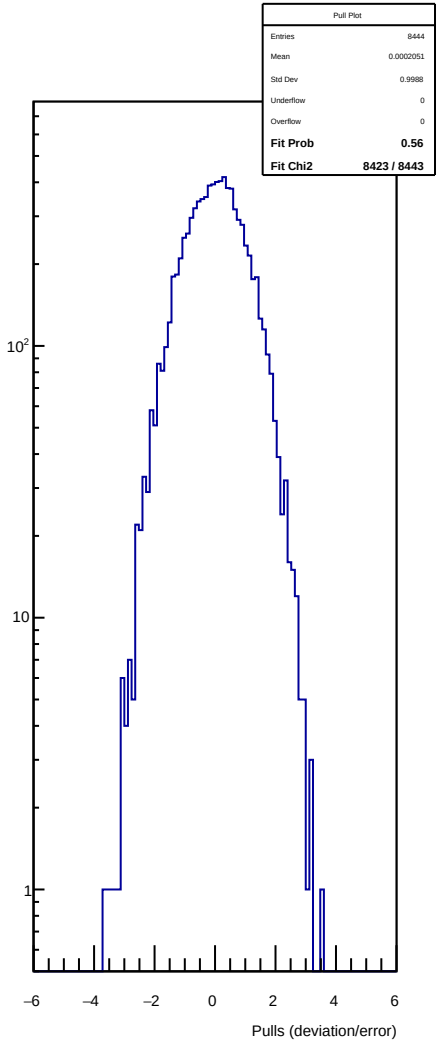

Pulls
Entries 8444
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

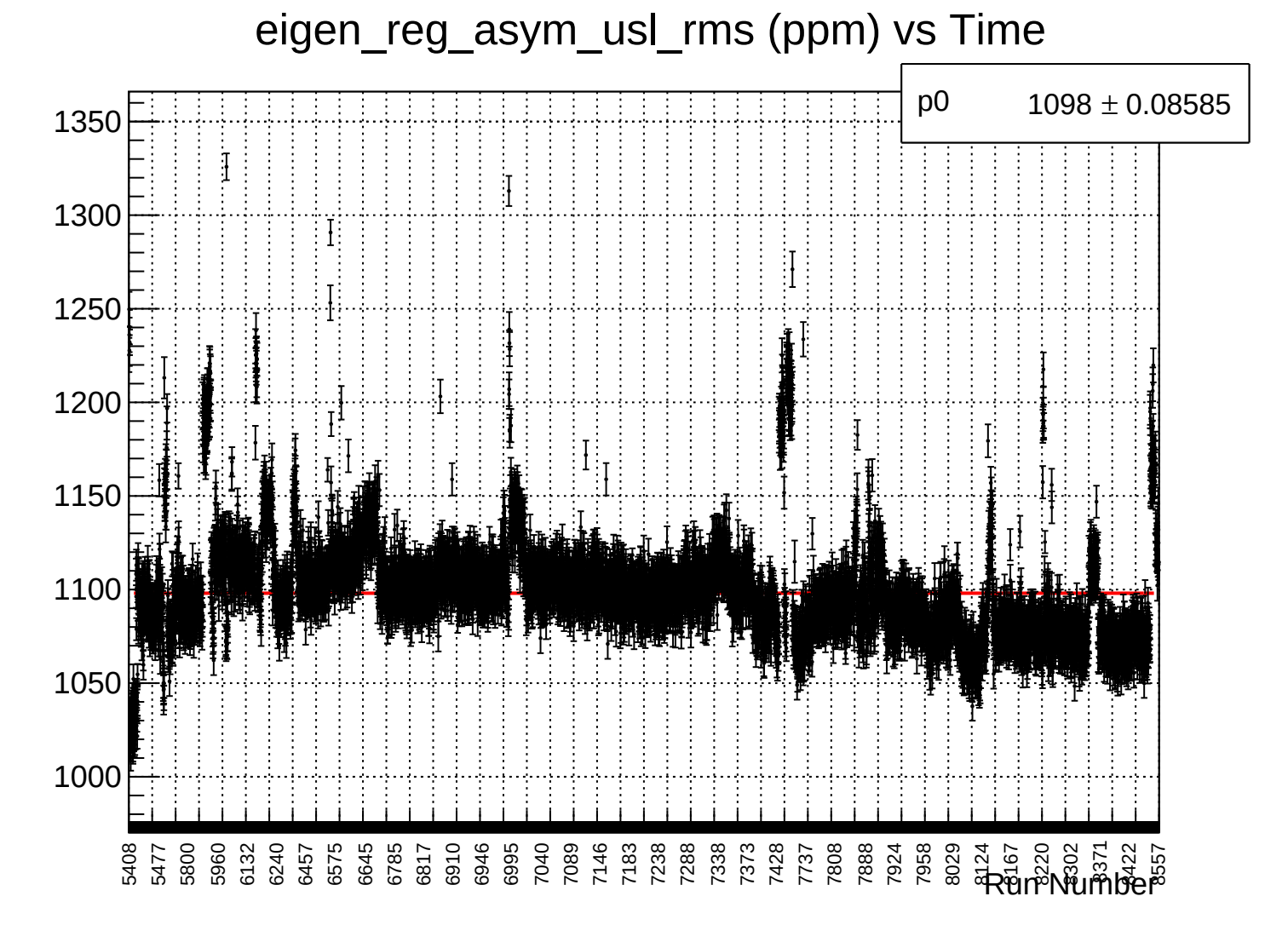

Pull Plot
Entries 8444
Mean −0.01076
Std Dev 1.028
Underflow 0
Overflow 0
Fit Prob 0.00
Fit Chi2 8917 / 8443
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

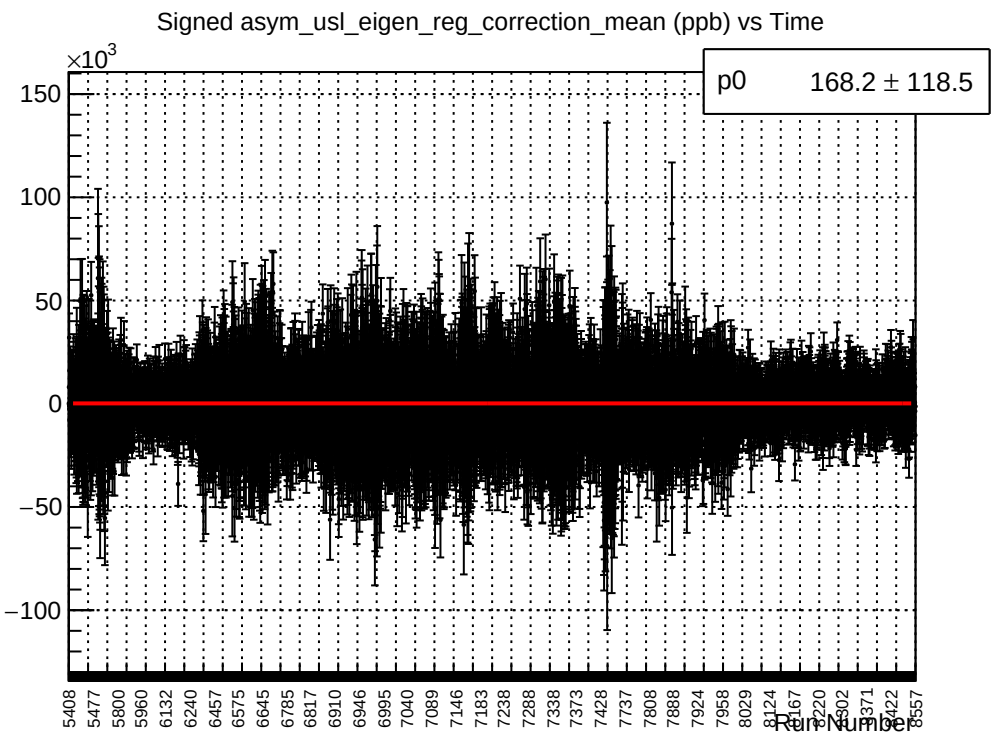

asym_usl_reg_correction_rms (ppm) vs Time
p0 1005 ± 0.08371
4000
3500
3000
2500
2000
1500
1000
500
5408
5477
5800
5960
6132
6240
6457
6575
6645
6785
6817
6910
6946
6995
7040
7089
7146
7183
7238
7288
7338
7373
7428
7737
7808
7888
7924
7958
8029
8124
8167
8220
8302
8371
8422
8557
Run Number

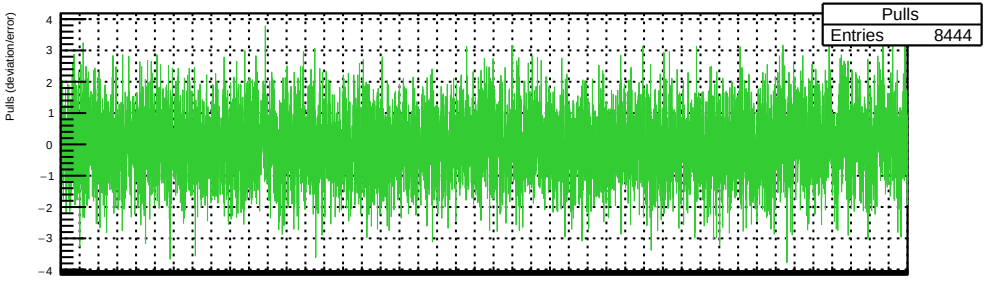

Signed eigen_reg_asym_usl_mean (ppb) vs Time
p0 1995 ± 121.4
60000
40000
20000
0
−20000
−40000
−60000
5408 5477 5800 5960 6132 6240 6457 6575 6645 6785 6817 6910 6946 6995 7040 7089 7146 7183 7238 7288 7338 7373 7428 7737 7808 7888 7924 7958 8029 8124 8167 8220 8302 8371 8422 8557
Run Number

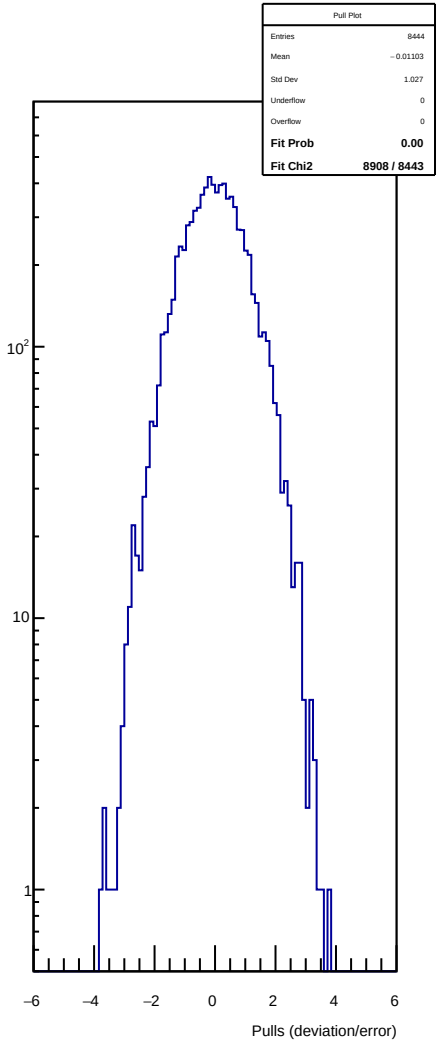

Pulls
Entries 8444
Pulls (deviation/error)
3
2
1
0
−1
−2
−3
−4

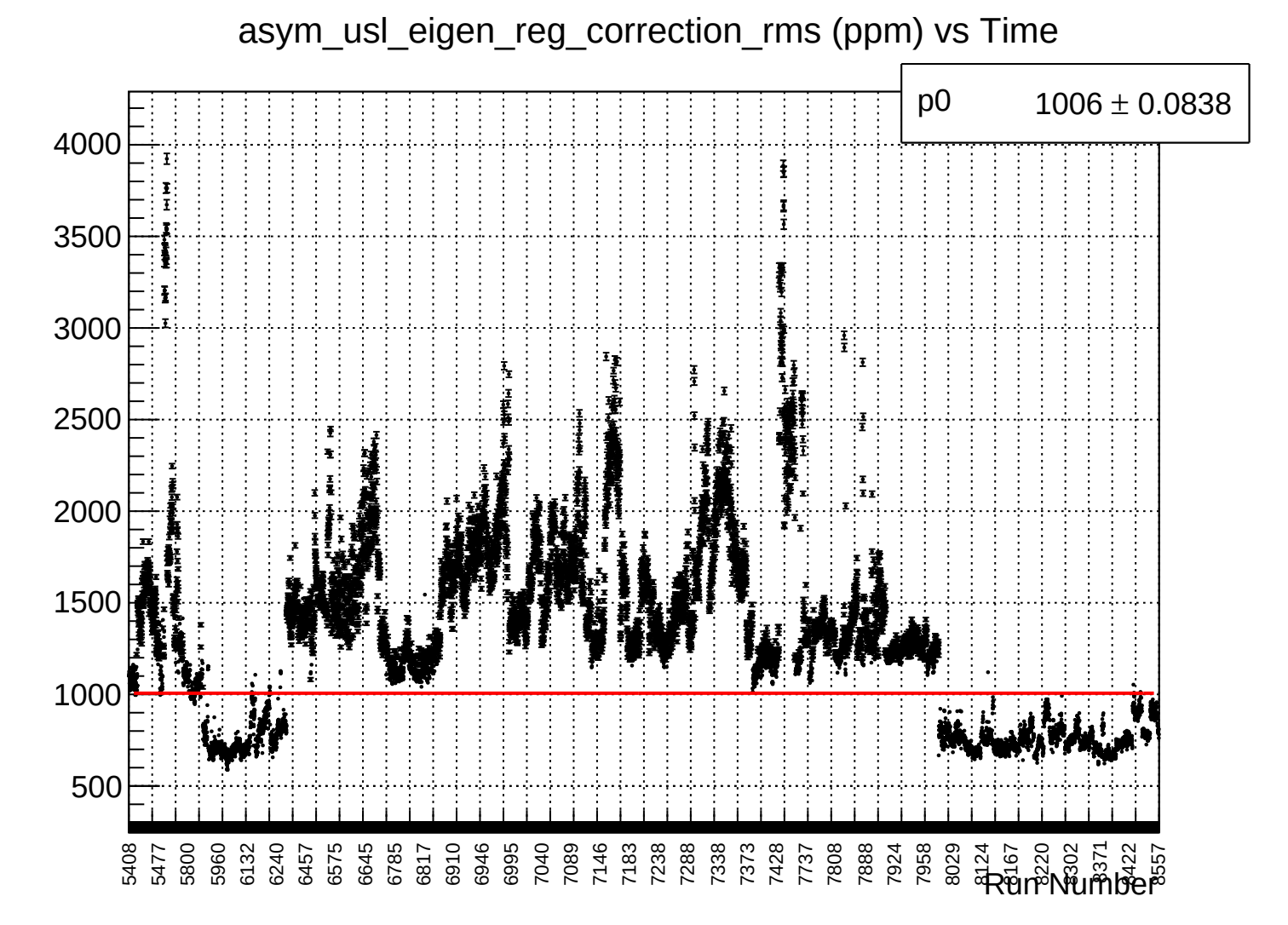

Pull Plot
Entries 8444
Mean 0.0002051
Std Dev 0.9988
Underflow 0
Overflow 0
Fit Prob 0.56
Fit Chi2 8423 / 8443
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

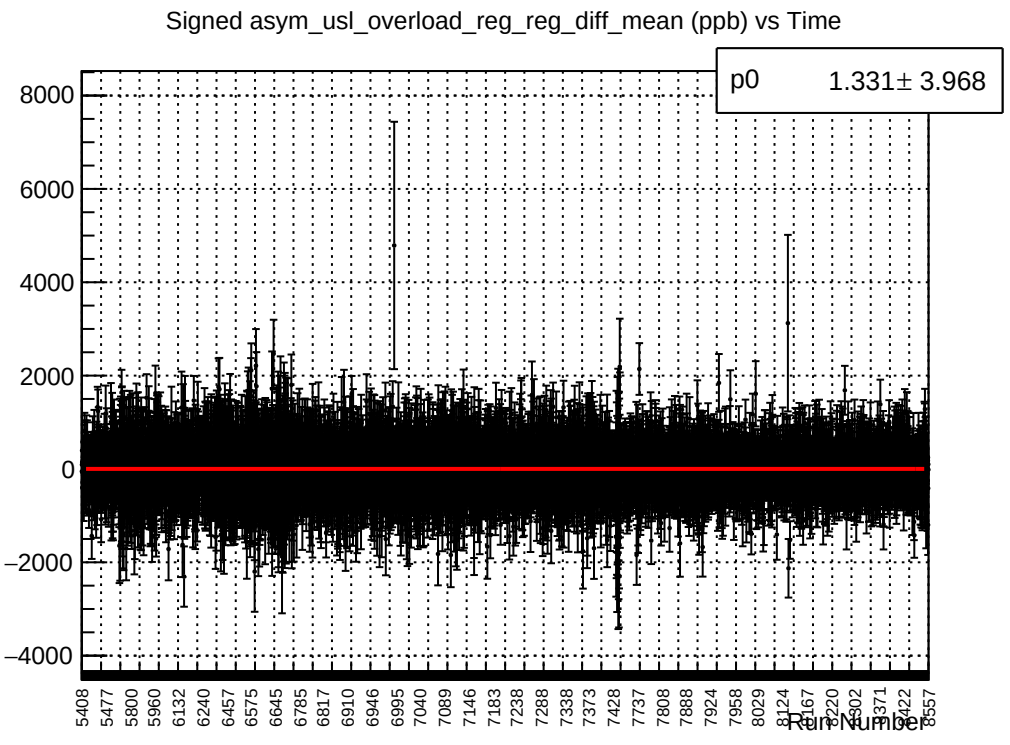

eigen_reg_asym_usl_rms (ppm) vs Time
p0 1098 ± 0.08585
1350
1300
1250
1200
1150
1100
1050
1000
5408
5477
5800
5960
6132
6240
6457
6575
6645
6785
6817
6910
6946
6995
7040
7089
7146
7183
7238
7288
7338
7373
7428
7737
7808
7888
7924
7958
8029
8124
8167
8220
8302
8371
8422
8557
Run Number

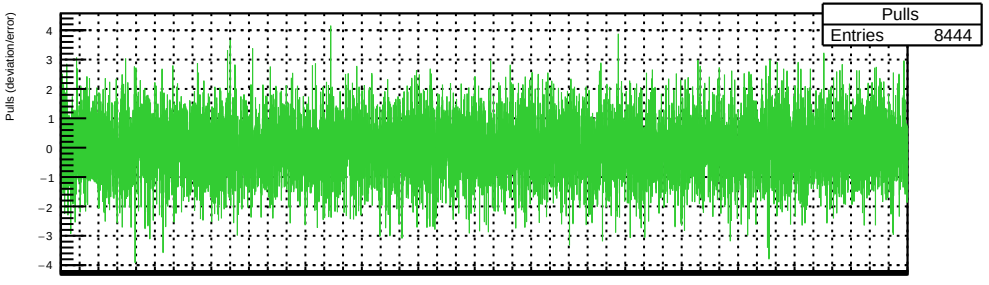

Signed asym_usl_eigen_reg_correction_mean (ppb) vs Time
×10^3
p0 168.2 ± 118.5
150
100
50
0
−50
−100
5408 5477 5800 5960 6132 6240 6457 6575 6645 6785 6817 6910 6946 6995 7040 7089 7146 7183 7238 7288 7338 7373 7428 7737 7808 7888 7924 7958 8029 8124 8167 8220 8302 8371 8422 8557
Run Number

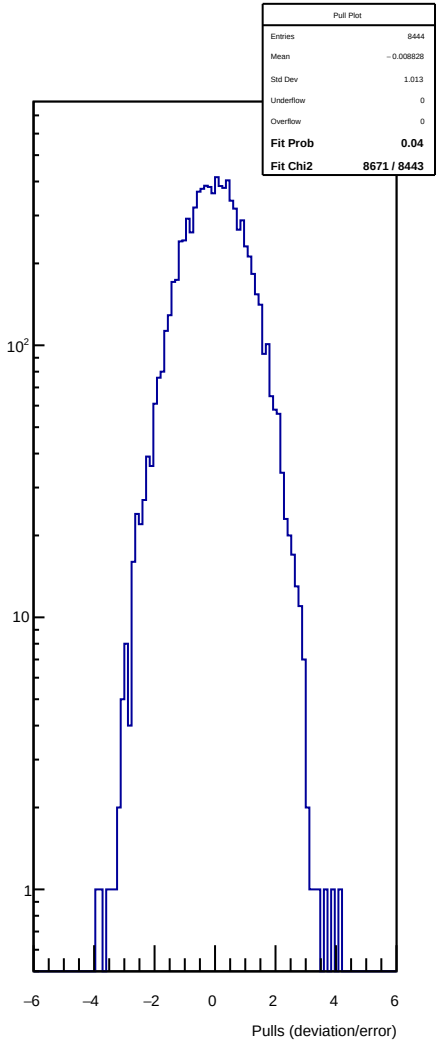

Pulls
Entries 8444
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

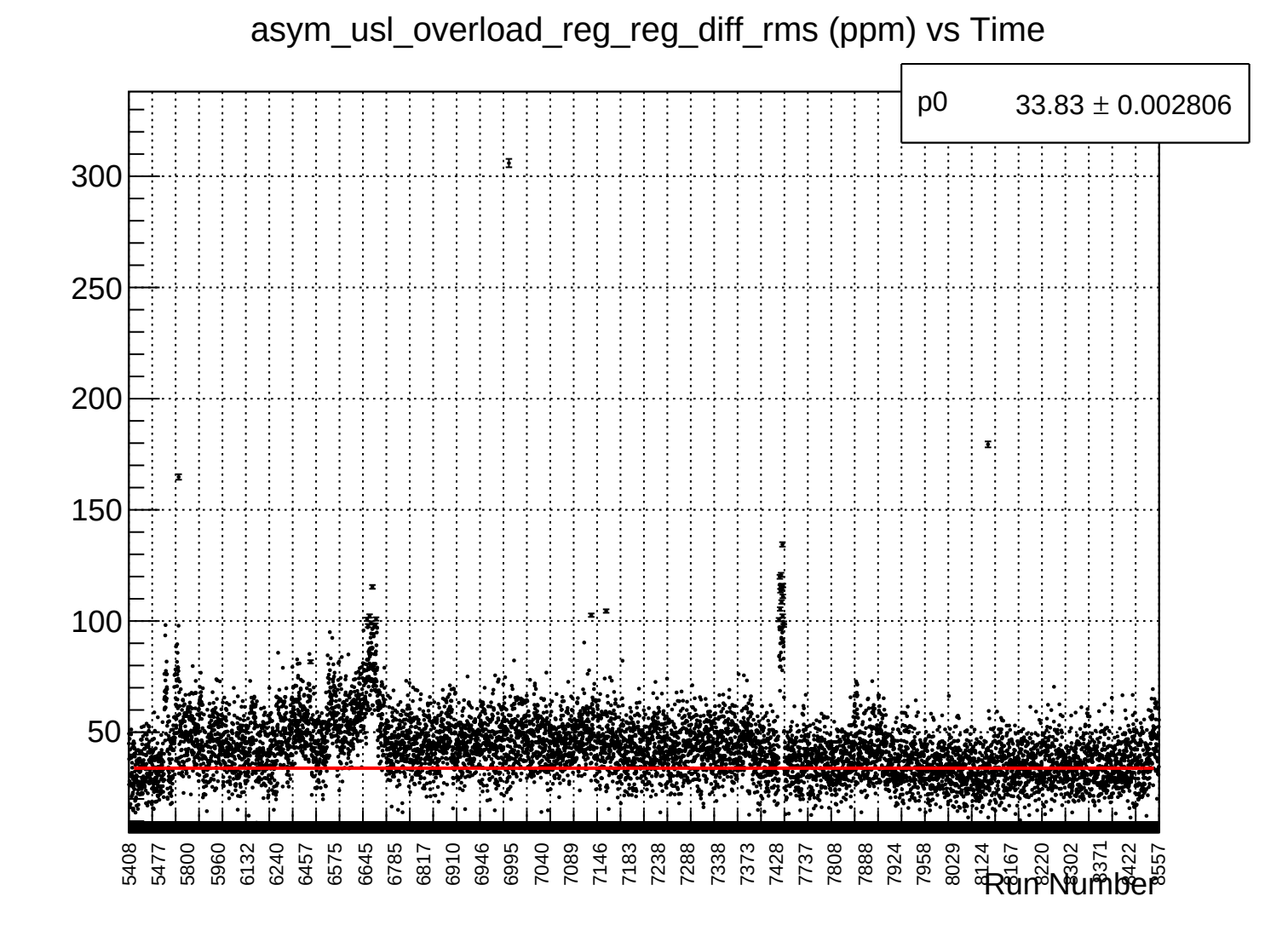

Pull Plot
Entries 8444
Mean −0.01103
Std Dev 1.027
Underflow 0
Overflow 0
Fit Prob 0.00
Fit Chi2 8908 / 8443
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

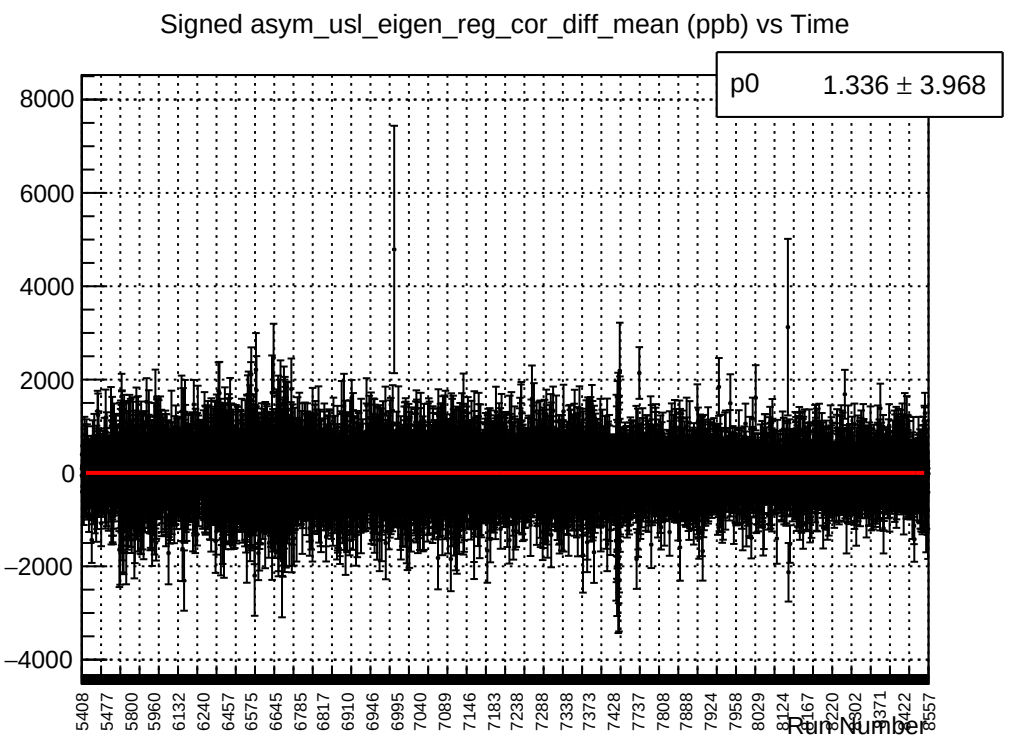

asym_usl_eigen_reg_correction_rms (ppm) vs Time
p0 1006 ± 0.0838
4000
3500
3000
2500
2000
1500
1000
500
5408
5477
5800
5960
6132
6240
6457
6575
6645
6785
6817
6910
6946
6995
7040
7089
7146
7183
7238
7288
7338
7373
7428
7737
7808
7888
7924
7958
8029
8124
8167
8220
8302
8371
8422
8557
Run Number

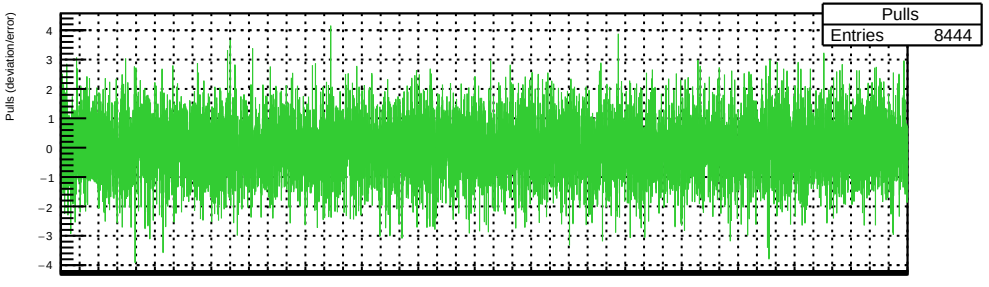

Signed asym_usl_overload_reg_reg_diff_mean (ppb) vs Time
p0 1.331± 3.968
8000
6000
4000
2000
0
−2000
−4000
5408
5477
5800
5960
6132
6240
6457
6575
6645
6785
6817
6910
6946
6995
7040
7089
7146
7183
7238
7288
7338
7373
7428
7737
7808
7888
7924
7958
8029
8124
8167
8220
8302
8371
8422
8557
Run Number

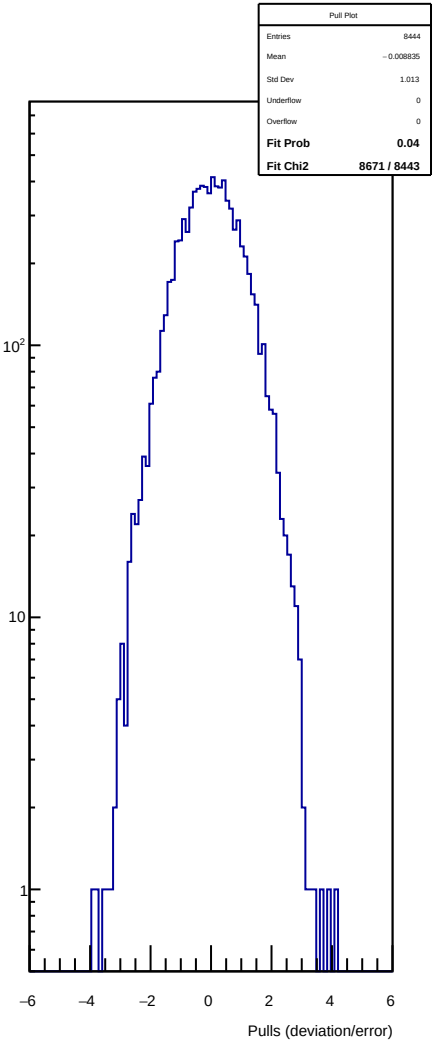

Pulls
Entries 8444
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

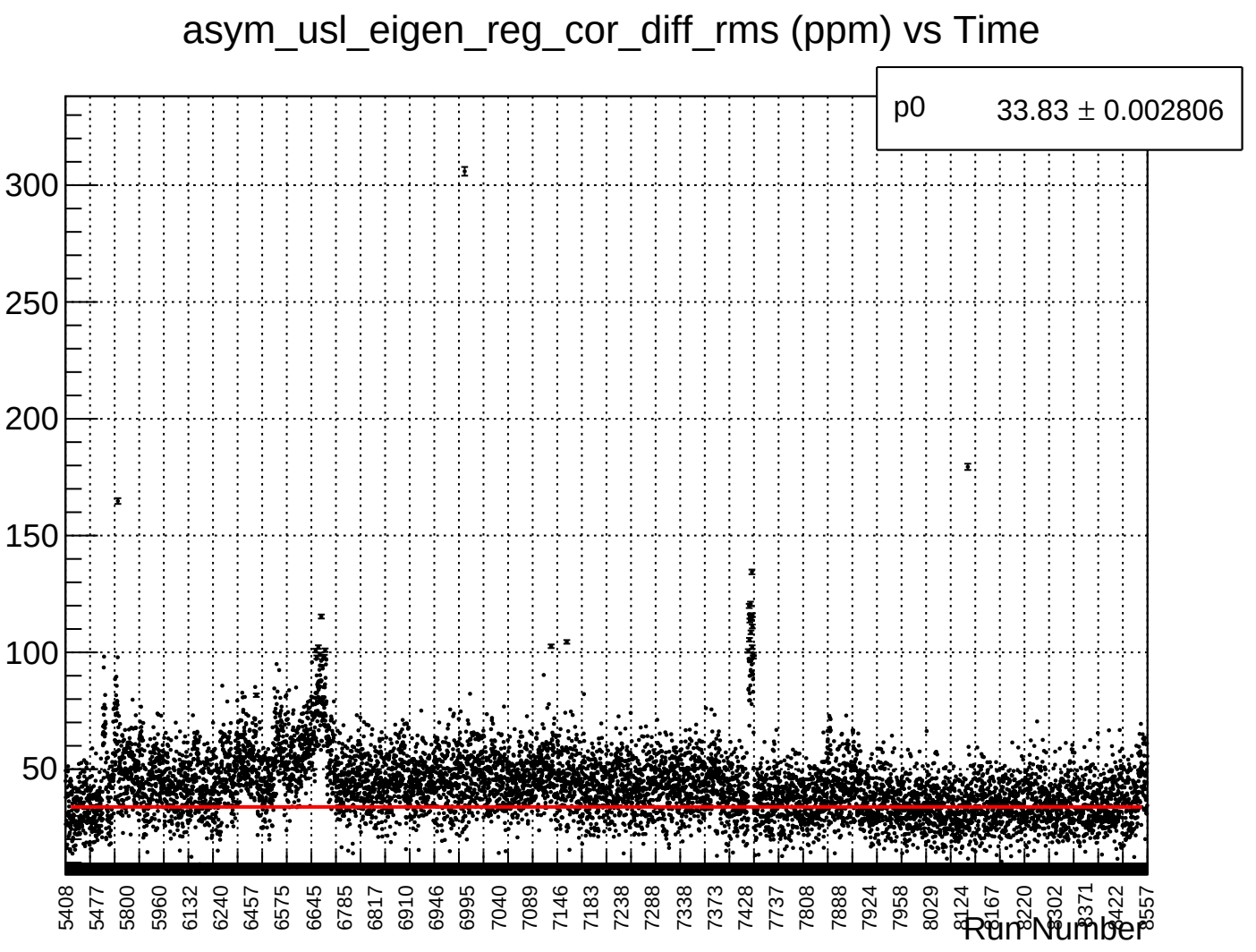

Pull Plot
Entries 8444
Mean −0.008828
Std Dev 1.013
Underflow 0
Overflow 0
Fit Prob 0.04
Fit Chi2 8671 / 8443
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

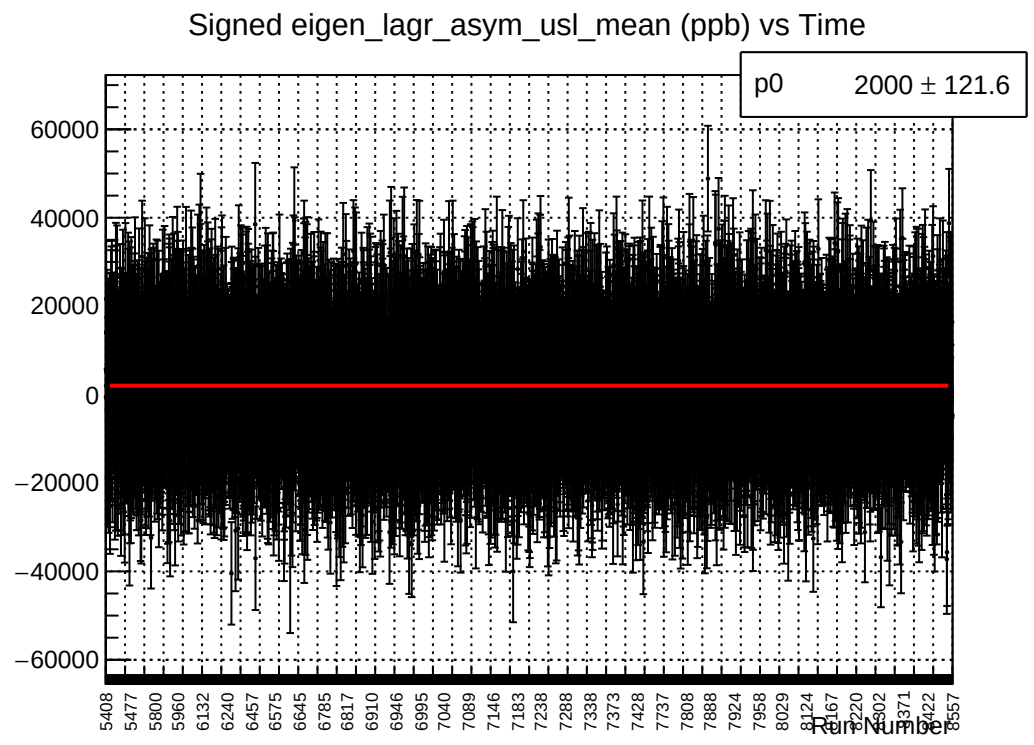

asym_usl_overload_reg_reg_diff_rms (ppm) vs Time
p0 33.83 ± 0.002806
300
250
200
150
100
50
5408
5477
5800
5960
6132
6240
6457
6575
6645
6785
6817
6910
6946
6995
7040
7089
7146
7183
7238
7288
7338
7373
7428
7737
7808
7888
7924
7958
8029
8124
8167
8220
8302
8371
8422
8557
Run Number

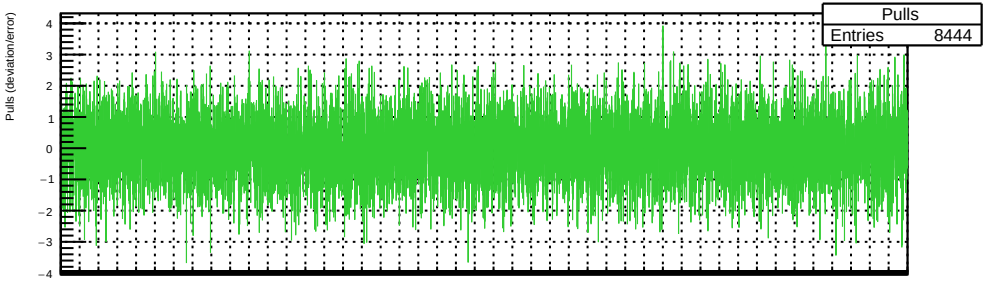

Signed asym_usl_eigen_reg_cor_diff_mean (ppb) vs Time
p0 1.336 ± 3.968
8000
6000
4000
2000
0
−2000
−4000
5408
5477
5800
5960
6132
6240
6457
6575
6645
6785
6817
6910
6946
6995
7040
7089
7146
7183
7238
7288
7338
7373
7428
7737
7808
7888
7924
7958
8029
8124
8167
8220
8302
8371
8422
8557
Run Number

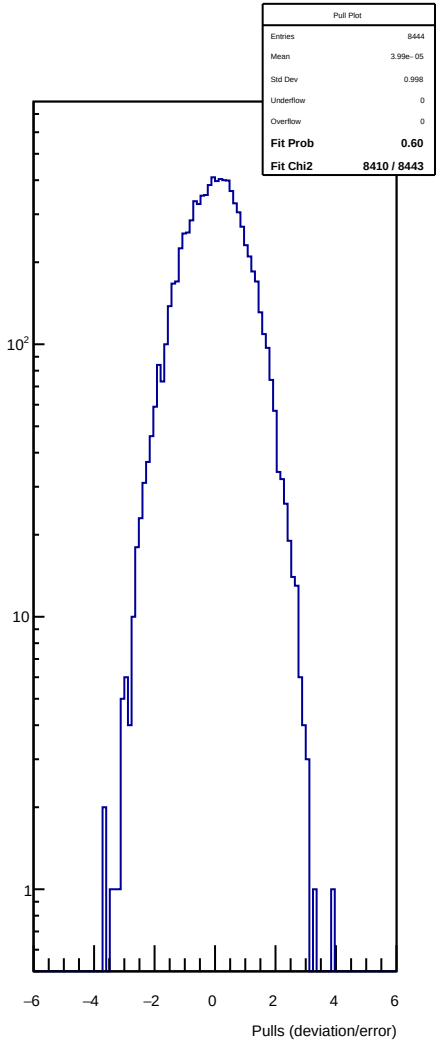

Pulls
Entries 8444
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

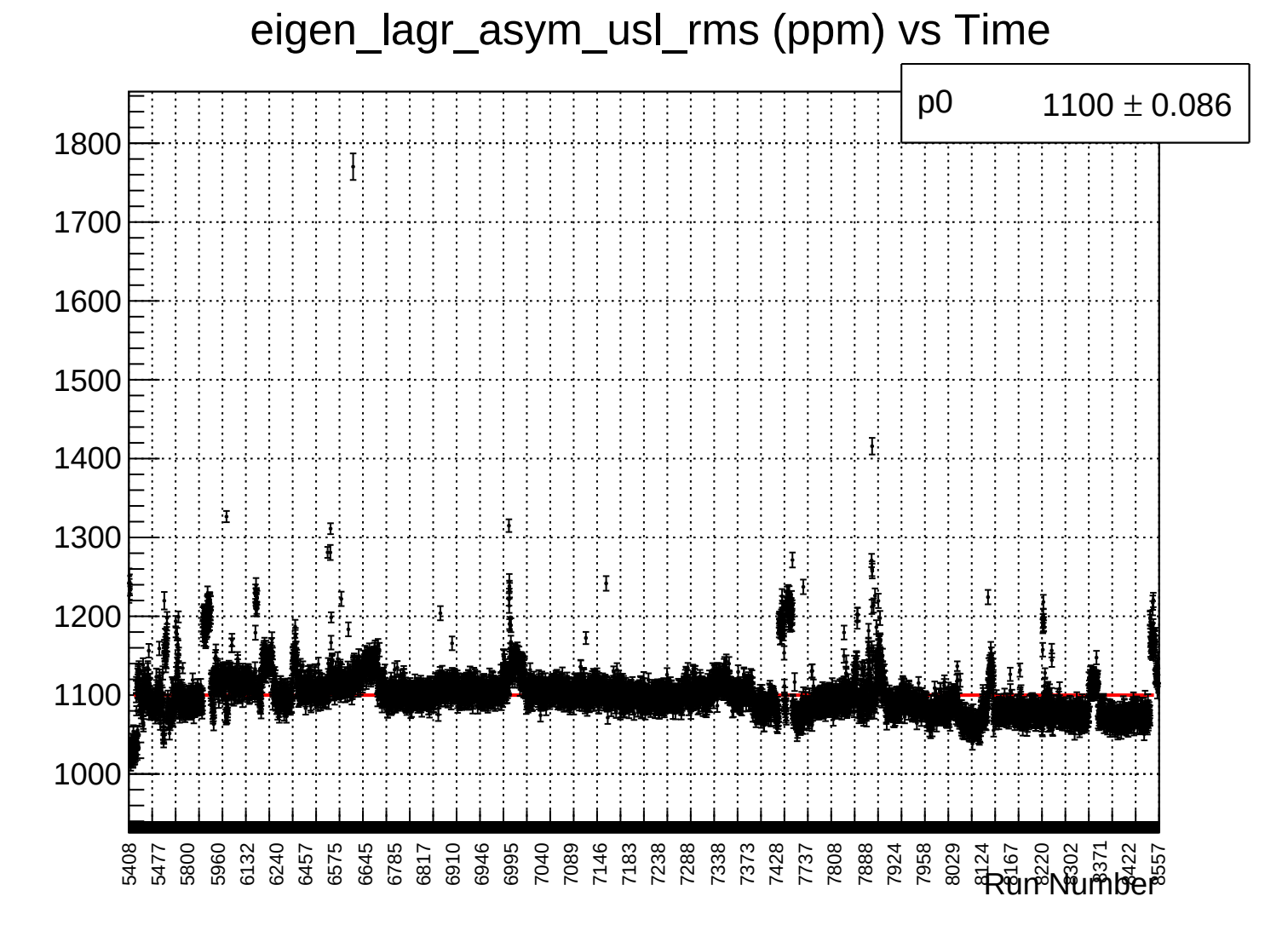

Pull Plot
Entries 8444
Mean −0.008835
Std Dev 1.013
Underflow 0
Overflow 0
Fit Prob 0.04
Fit Chi2 8671 / 8443
10²
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

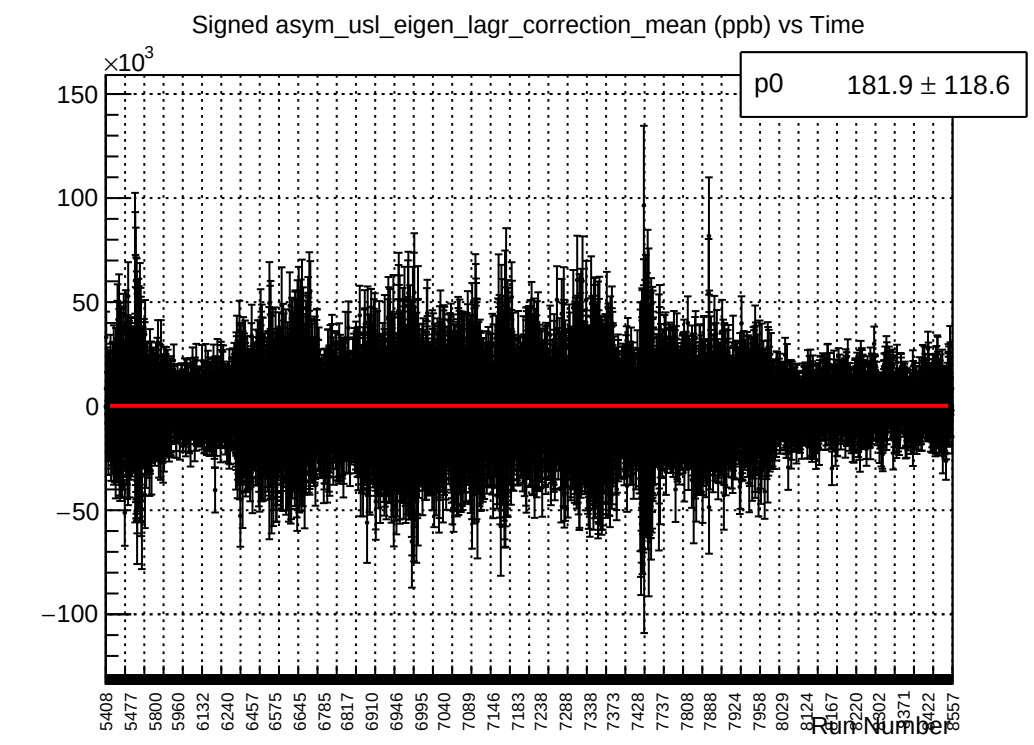

asym_usl_eigen_reg_cor_diff_rms (ppm) vs Time
p0 33.83 ± 0.002806
300
250
200
150
100
50
5408
5477
5800
5960
6132
6240
6457
6575
6645
6785
6817
6910
6946
6995
7040
7089
7146
7183
7238
7288
7338
7373
7428
7737
7808
7888
7924
7958
8029
8124
8167
8220
8302
8371
8422
8557
Run Number

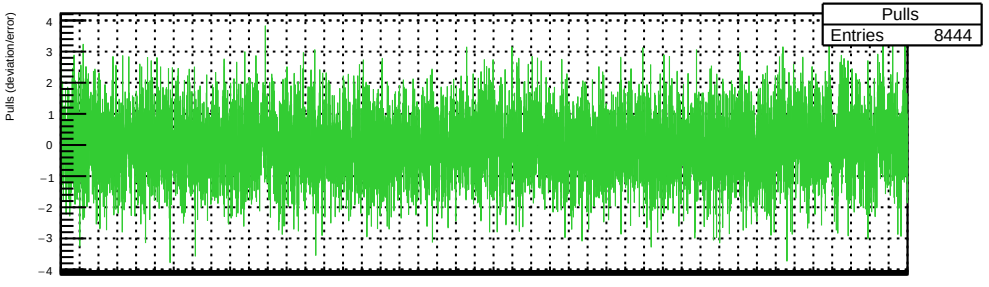

Signed eigen_lagr_asym_usl_mean (ppb) vs Time
p0 2000 ± 121.6
60000
40000
20000
0
−20000
−40000
−60000
5408 5477 5800 5960 6132 6240 6457 6575 6645 6785 6817 6910 6946 6995 7040 7089 7146 7183 7238 7288 7338 7373 7428 7737 7808 7888 7924 7958 8029 8124 8167 8220 8302 8371 8422 8557
Run Number

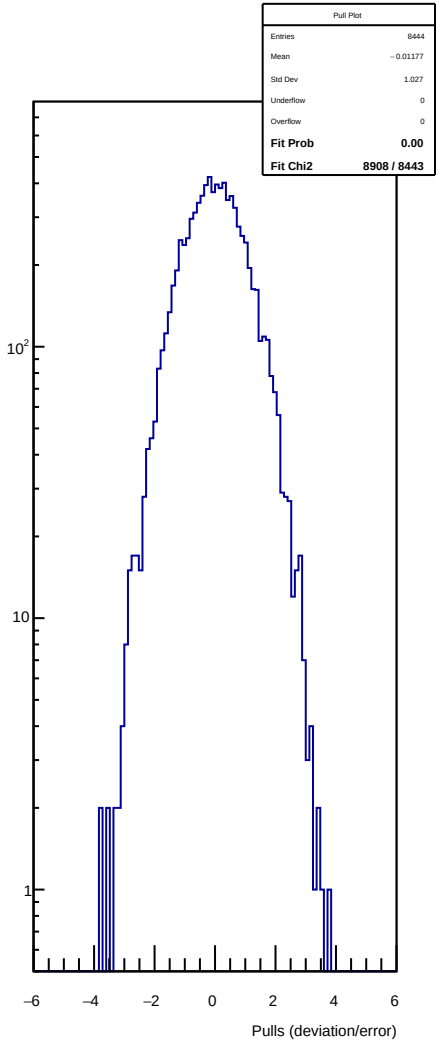

Pulls
Entries 8444
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

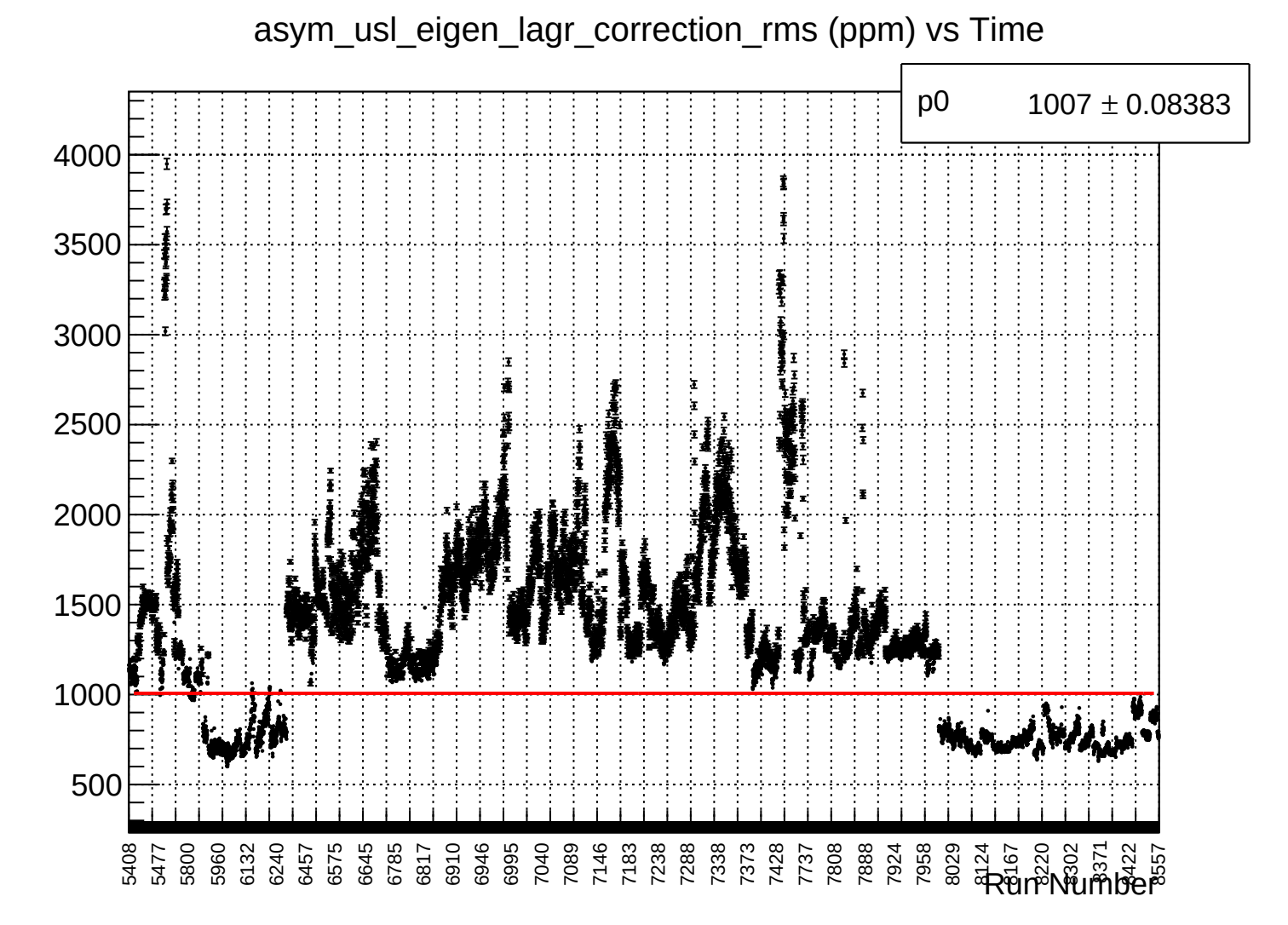

Pull Plot
Entries 8444
Mean 3.99e−05
Std Dev 0.998
Underflow 0
Overflow 0
Fit Prob 0.60
Fit Chi2 8410 / 8443
10²
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

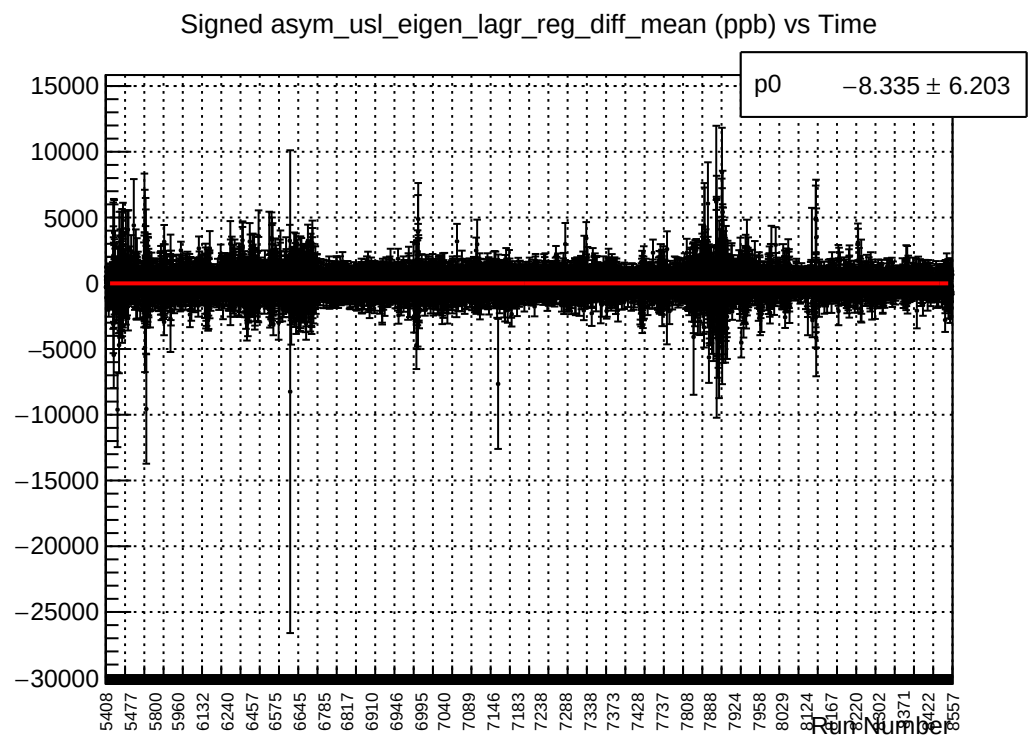

eigen_lagr_asym_usl_rms (ppm) vs Time
p0 1100 ± 0.086
1800
1700
1600
1500
1400
1300
1200
1100
1000
5408
5477
5800
5960
6132
6240
6457
6575
6645
6785
6817
6910
6946
6995
7040
7089
7146
7183
7238
7288
7338
7373
7428
7737
7808
7888
7924
7958
8029
8124
8167
8220
8302
8371
8422
8557
Run Number

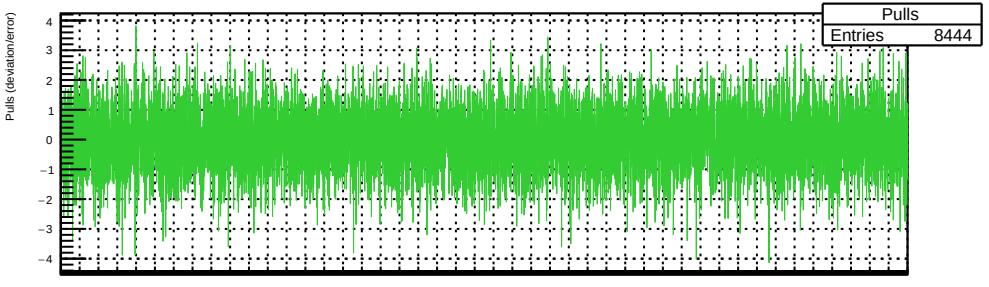

Signed asym_usl_eigen_lagr_correction_mean (ppb) vs Time
×10^3
p0 181.9 ± 118.6
150
100
50
0
−50
−100
5408
5477
5800
5960
6132
6240
6457
6575
6645
6785
6817
6910
6946
6995
7040
7089
7146
7183
7238
7288
7338
7373
7428
7737
7808
7888
7924
7958
8029
8124
8167
8220
8302
8371
8422
8557
Run Number

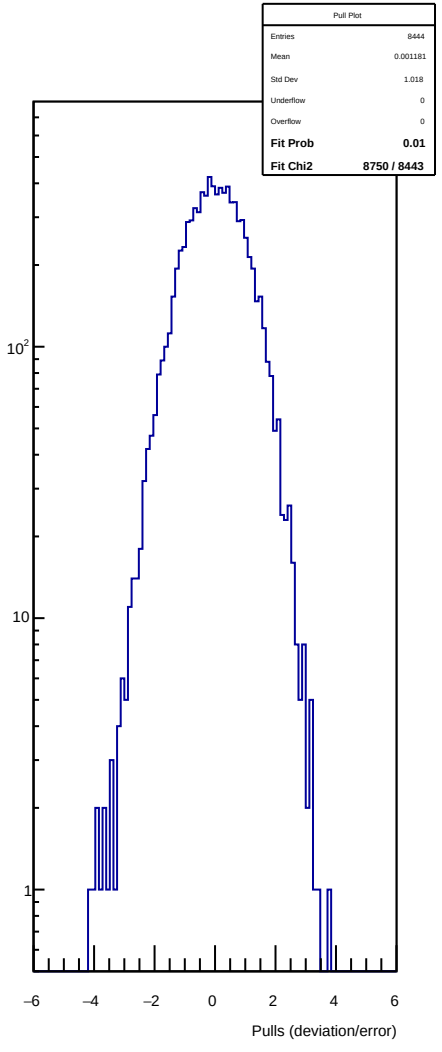

Pulls
Entries 8444
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

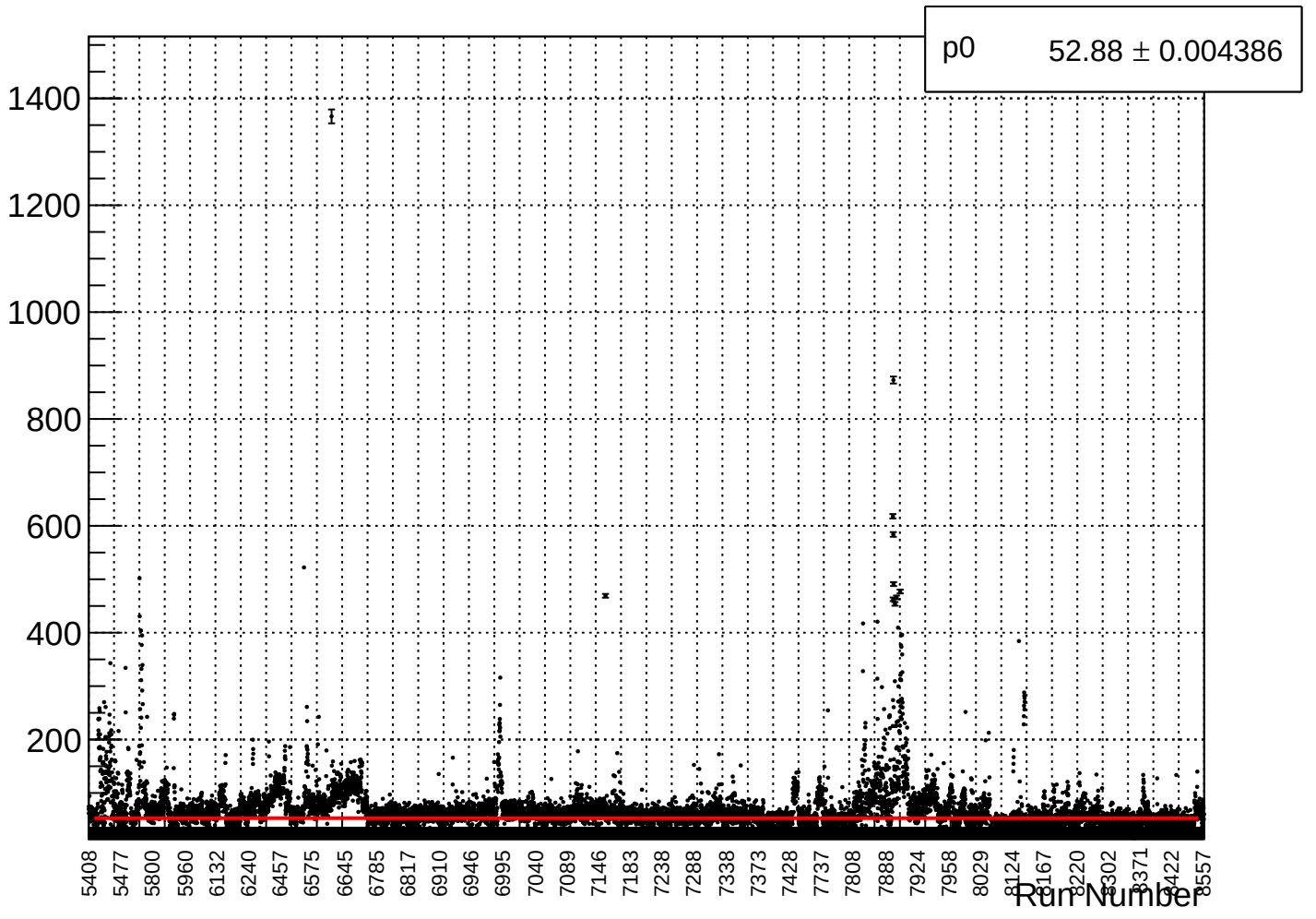

Pull Plot
Entries 8444
Mean −0.01177
Std Dev 1.027
Underflow 0
Overflow 0
Fit Prob 0.00
Fit Chi2 8908 / 8443
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

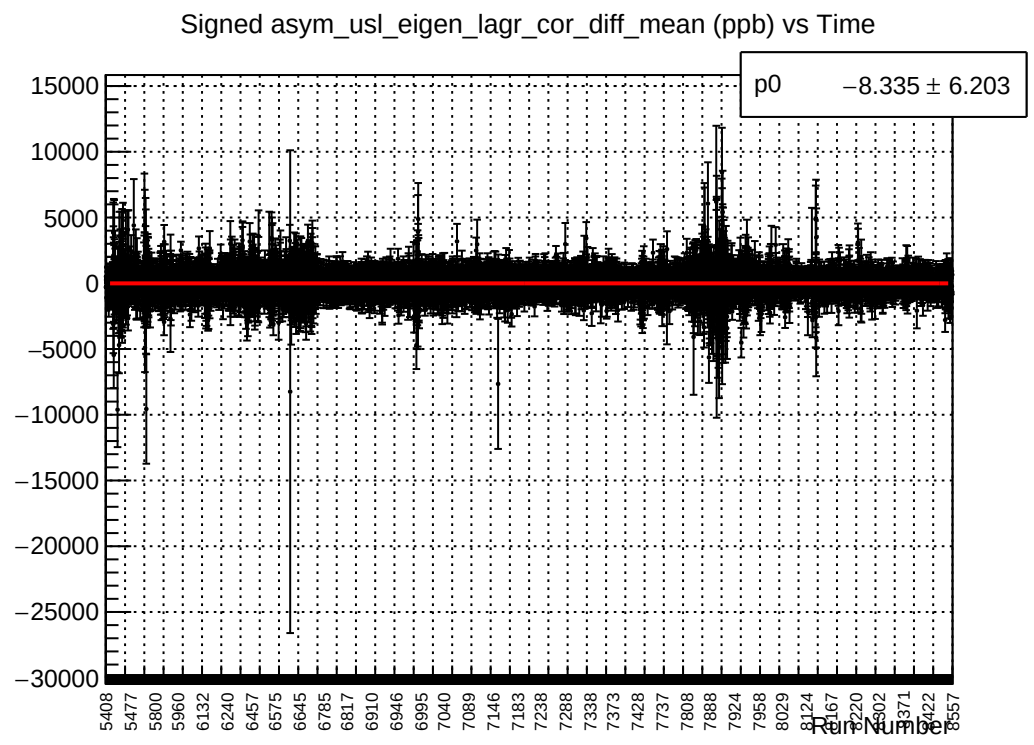

asym_usl_eigen_lagr_correction_rms (ppm) vs Time
p0 1007 ± 0.08383
4000
3500
3000
2500
2000
1500
1000
500
5408
5477
5800
5960
6132
6240
6457
6575
6645
6785
6817
6910
6946
6995
7040
7089
7146
7183
7238
7288
7338
7373
7428
7737
7808
7888
7924
7958
8029
8124
8167
8220
8302
8371
8422
8557
Run Number

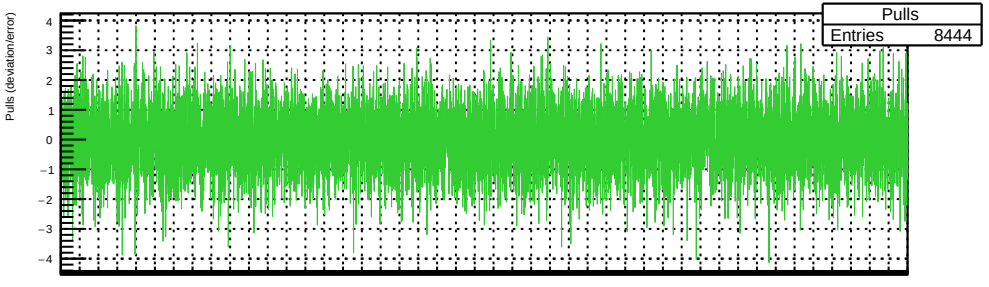

Signed asym_usl_eigen_lagr_reg_diff_mean (ppb) vs Time
p0 −8.335 ± 6.203
15000
10000
5000
0
−5000
−10000
−15000
−20000
−25000
−30000
5408
5477
5800
5960
6132
6240
6457
6575
6645
6785
6817
6910
6946
6995
7040
7089
7146
7183
7238
7288
7338
7373
7428
7737
7808
7888
7924
7958
8029
8124
8167
8220
8302
8371
8422
8557
Run Number

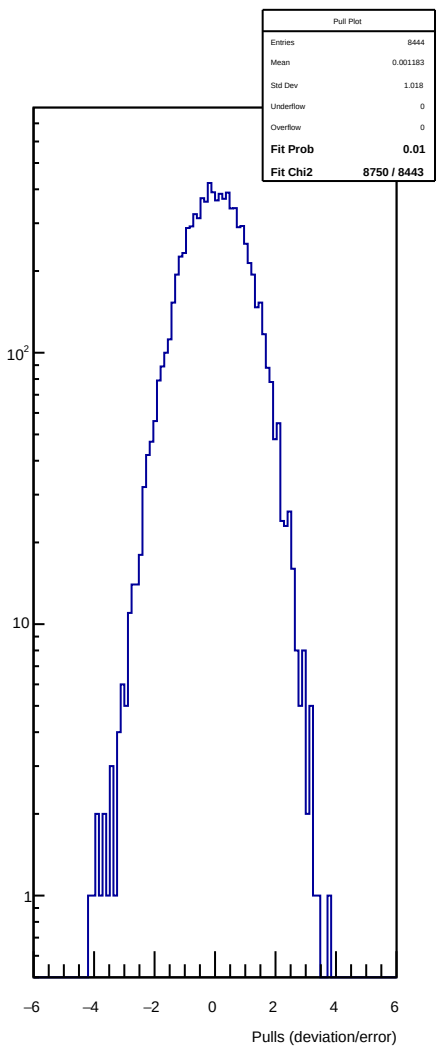

Pulls
Entries 8444
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

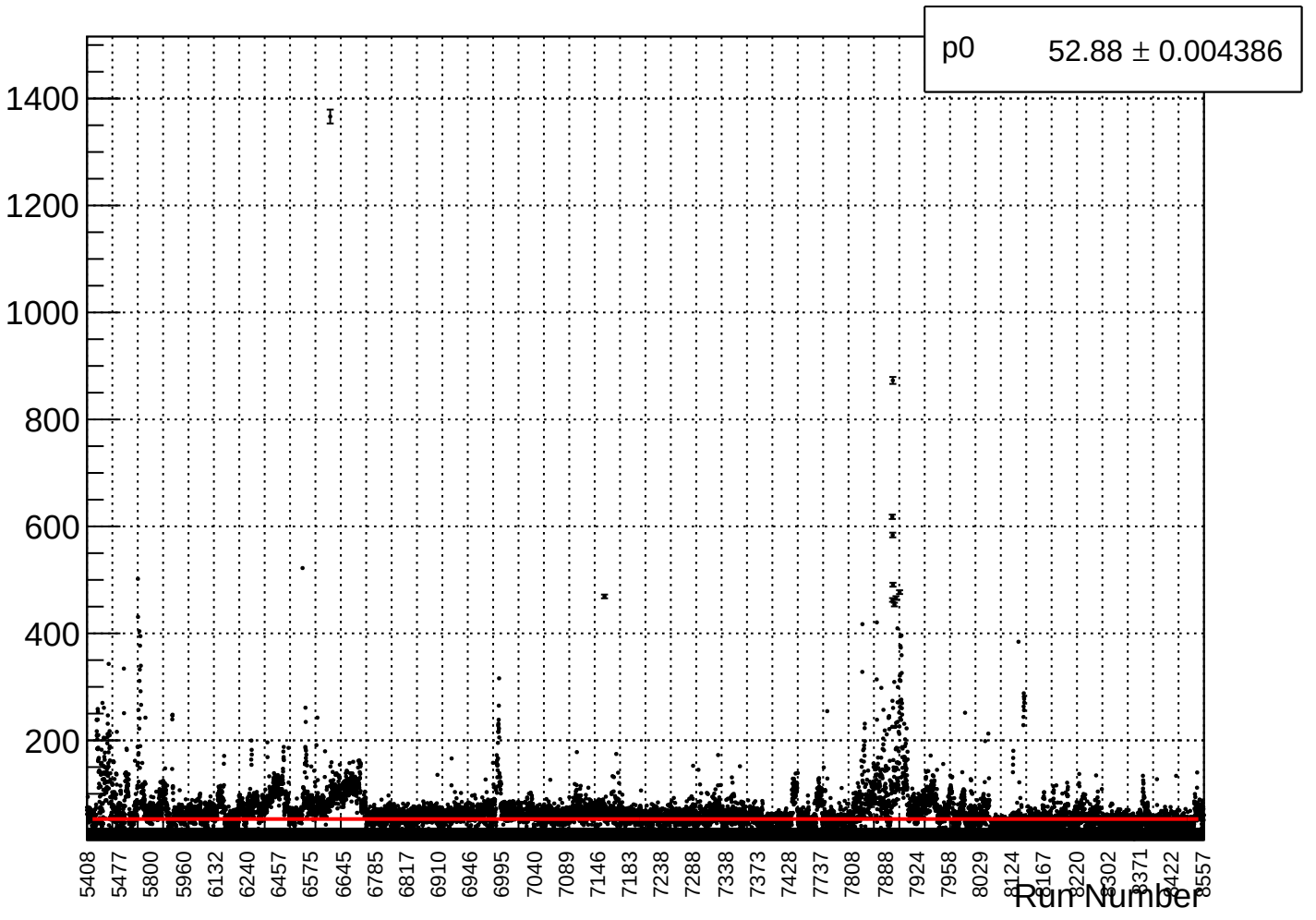

Pull Plot
Entries 8444
Mean 0.001181
Std Dev 1.018
Underflow 0
Overflow 0
Fit Prob 0.01
Fit Chi2 8750 / 8443
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

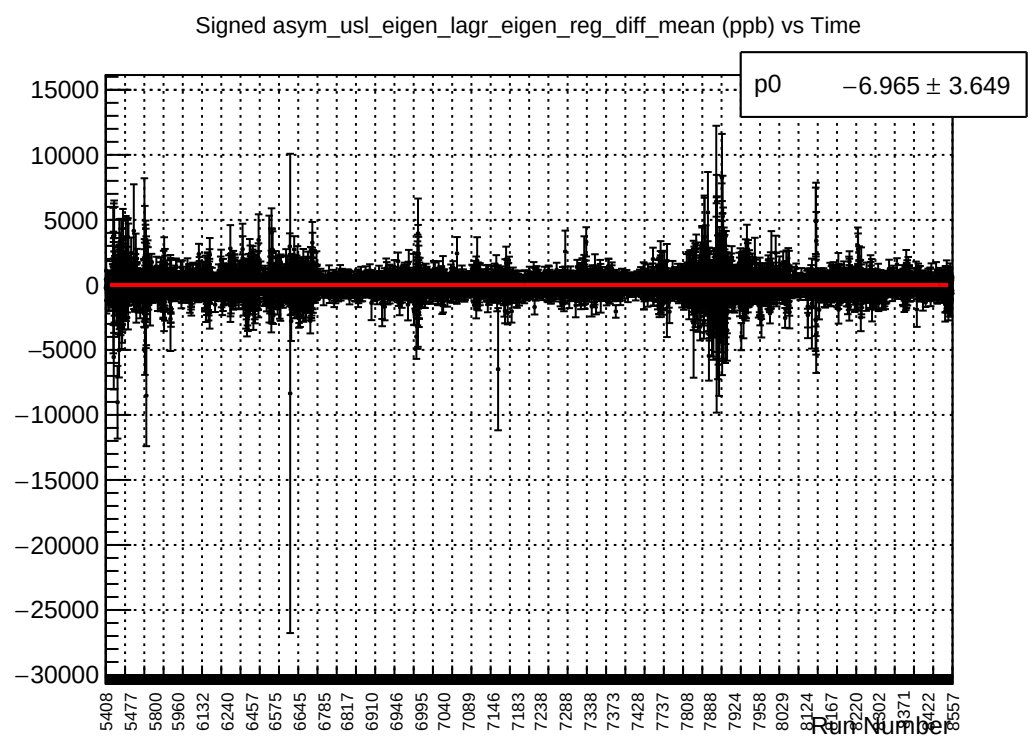

asym_usl_eigen_lagr_reg_diff_rms (ppm) vs Time
p0 52.88 ± 0.004386
1400
1200
1000
800
600
400
200
5408
5477
5800
5960
6132
6240
6457
6575
6645
6785
6817
6910
6946
6995
7040
7089
7146
7183
7238
7288
7338
7373
7428
7737
7808
7888
7924
7958
8029
8124
8167
8220
8302
8371
8422
8557
Run Number

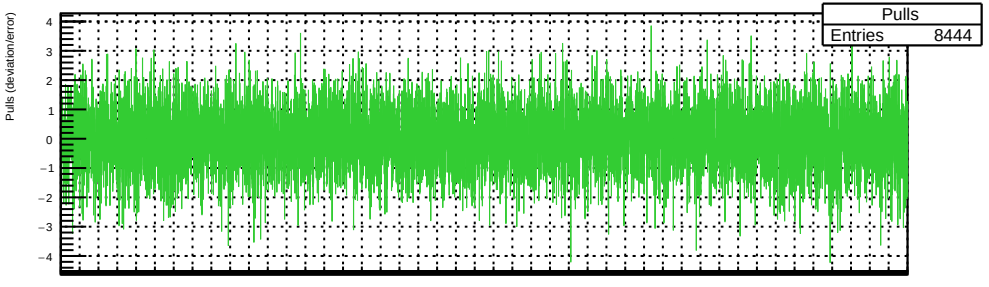

Signed asym_usl_eigen_lagr_cor_diff_mean (ppb) vs Time
p0 −8.335 ± 6.203
15000
10000
5000
0
−5000
−10000
−15000
−20000
−25000
−30000
5408
5477
5800
5960
6132
6240
6457
6575
6645
6785
6817
6910
6946
6995
7040
7089
7146
7183
7238
7288
7338
7373
7428
7737
7808
7888
7924
7958
8029
8124
8167
8220
8302
8371
8422
8557
Run Number

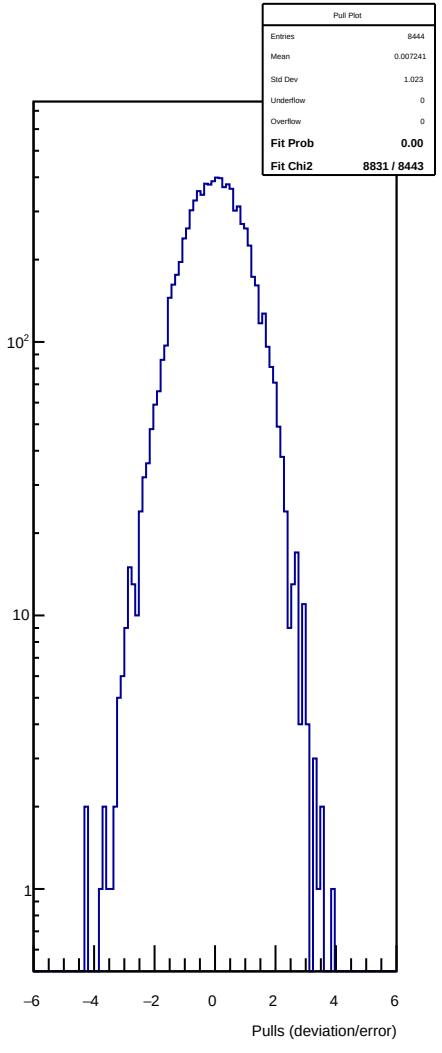

Pulls
Entries 8444
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

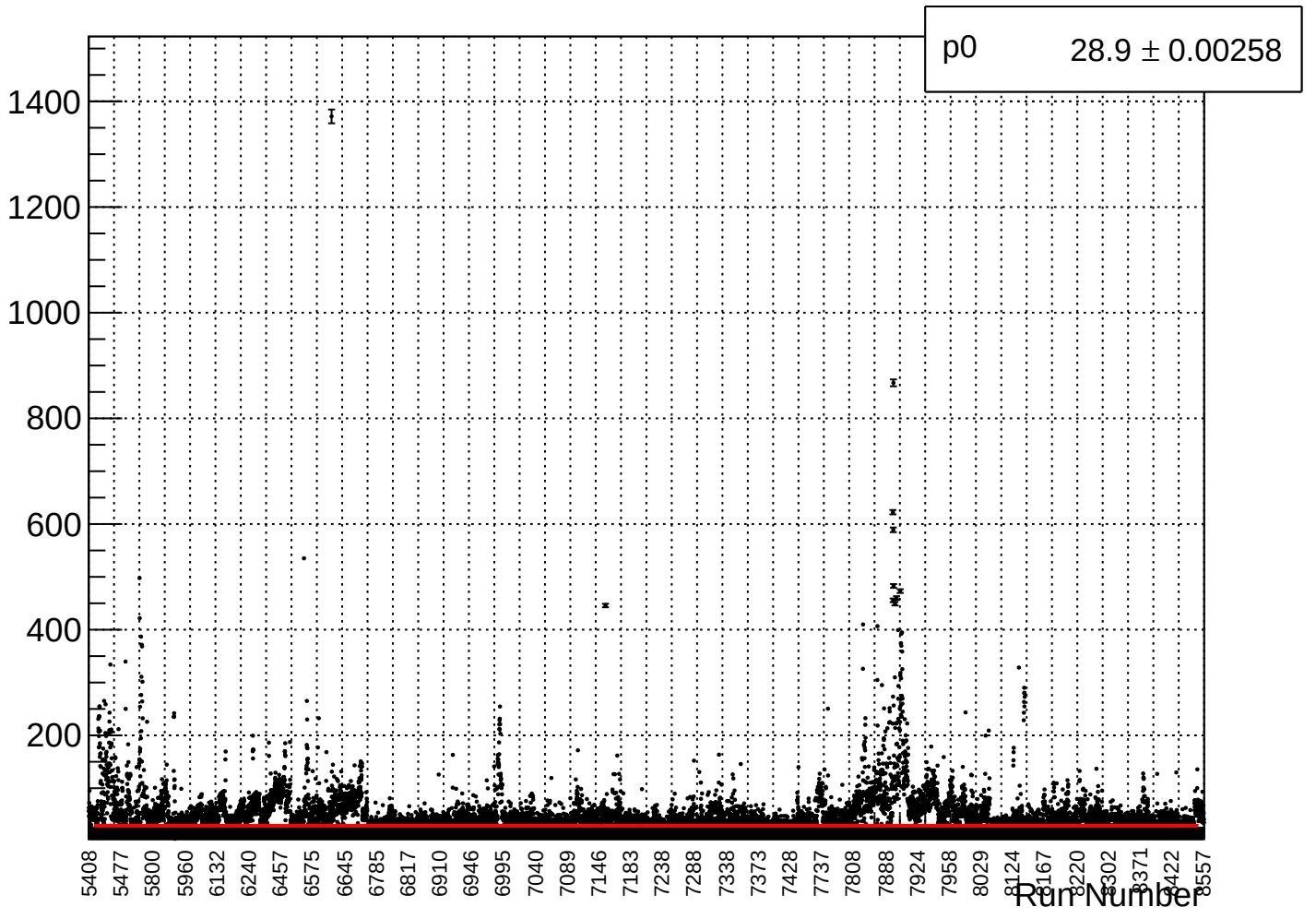

Pull Plot
Entries 8444
Mean 0.001183
Std Dev 1.018
Underflow 0
Overflow 0
Fit Prob 0.01
Fit Chi2 8750 / 8443
10²
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

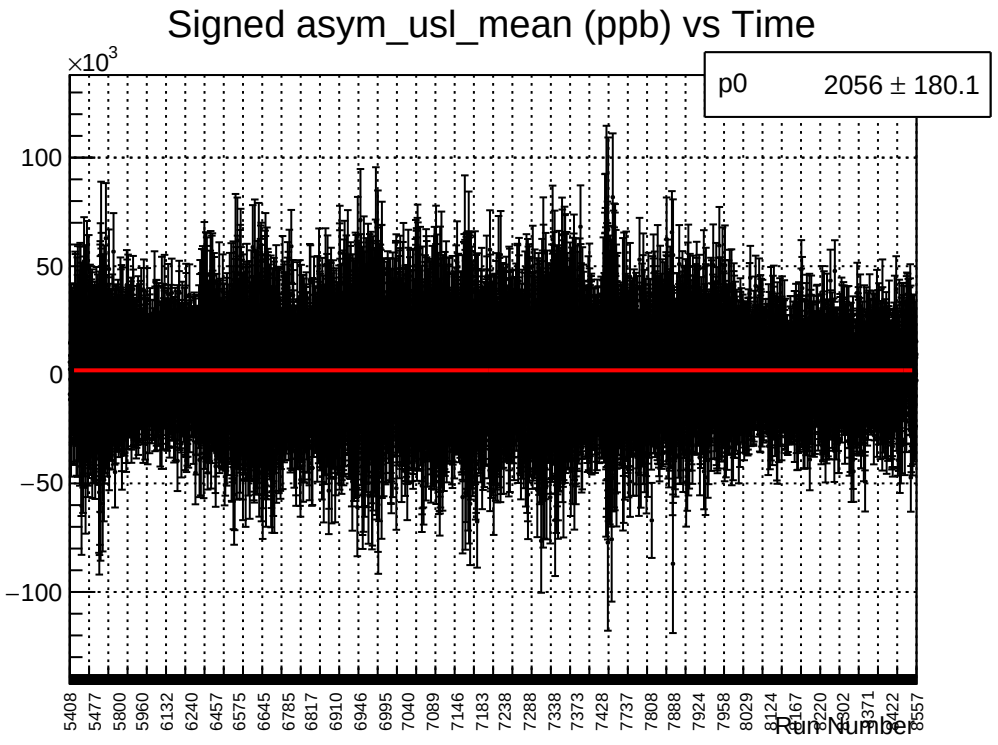

asym_usl_eigen_lagr_cor_diff_rms (ppm) vs Time
p0 52.88 ± 0.004386
1400
1200
1000
800
600
400
200
5408
5477
5800
5960
6132
6240
6457
6575
6645
6785
6817
6910
6946
6995
7040
7089
7146
7183
7238
7288
7338
7373
7428
7737
7808
7888
7924
7958
8029
8124
8167
8220
8302
8371
8422
8557
Run Number

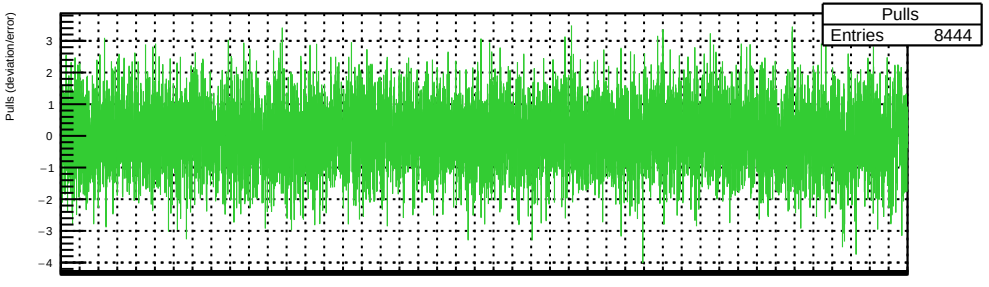

Signed asym_usl_eigen_lagr_eigen_reg_diff_mean (ppb) vs Time
p0 −6.965 ± 3.649
15000
10000
5000
0
−5000
−10000
−15000
−20000
−25000
−30000
5408
5477
5800
5960
6132
6240
6457
6575
6645
6785
6817
6910
6946
6995
7040
7089
7146
7183
7238
7288
7338
7373
7428
7737
7808
7888
7924
7958
8029
8124
8167
8220
8902
8371
8422
8557
Run Number

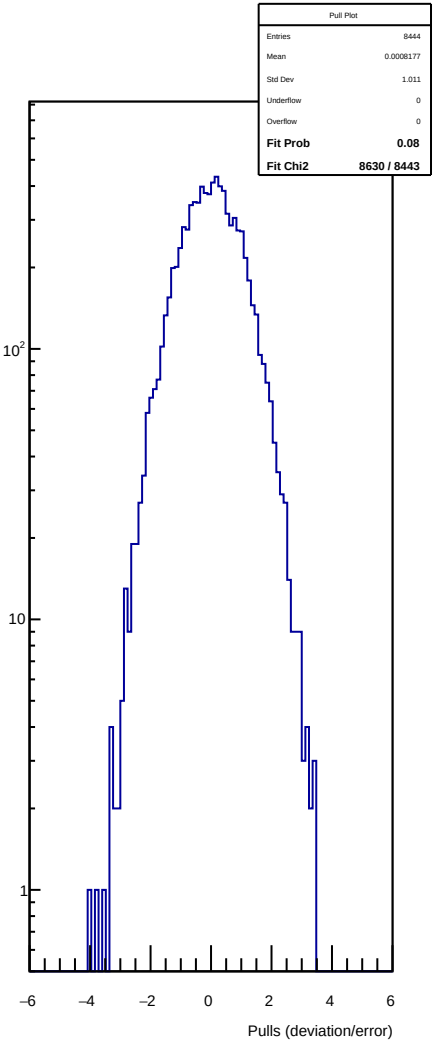

Pulls
Entries 8444
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

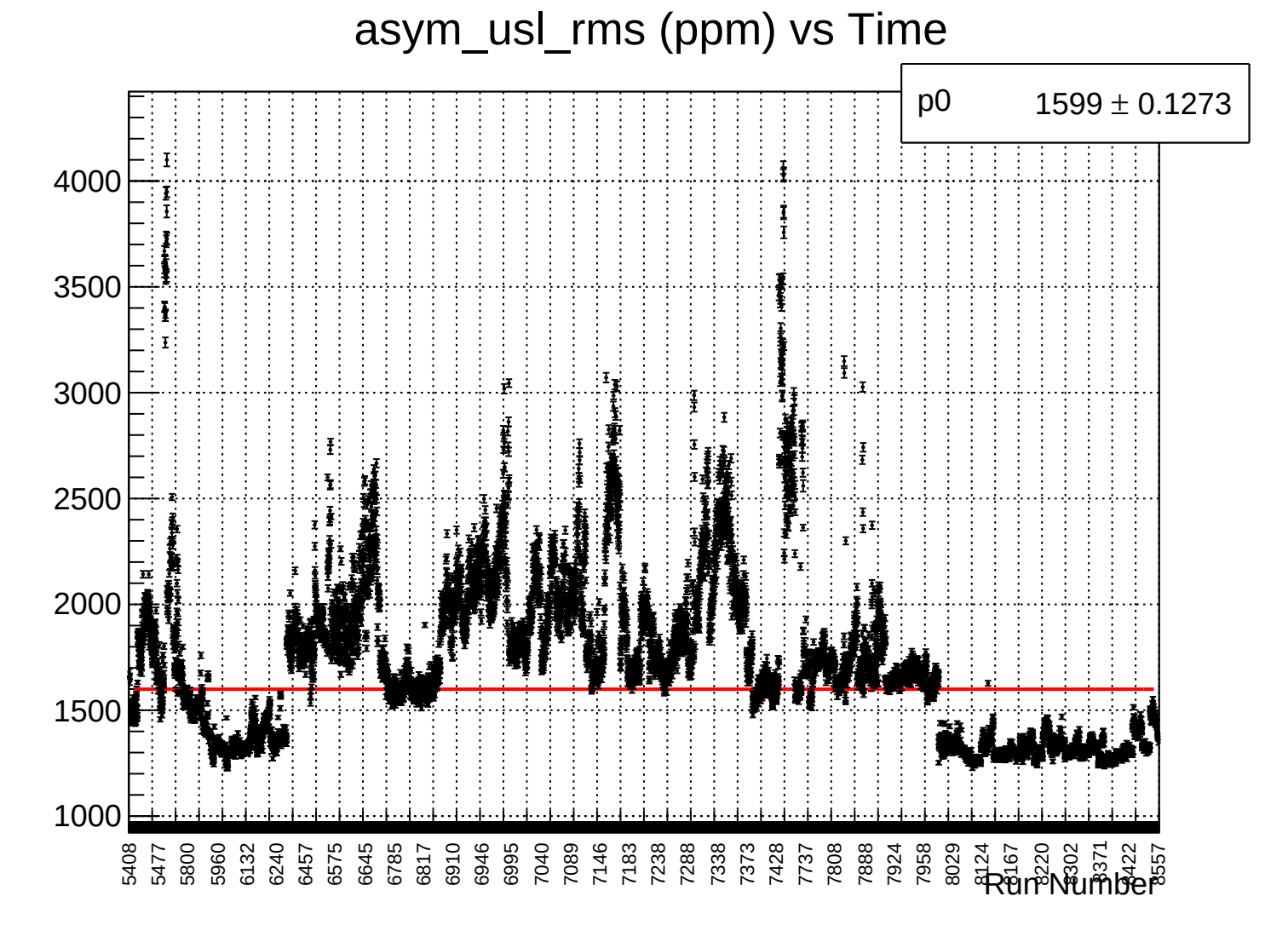

Pull Plot
Entries 8444
Mean 0.007241
Std Dev 1.023
Underflow 0
Overflow 0
Fit Prob 0.00
Fit Chi2 8831 / 8443
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

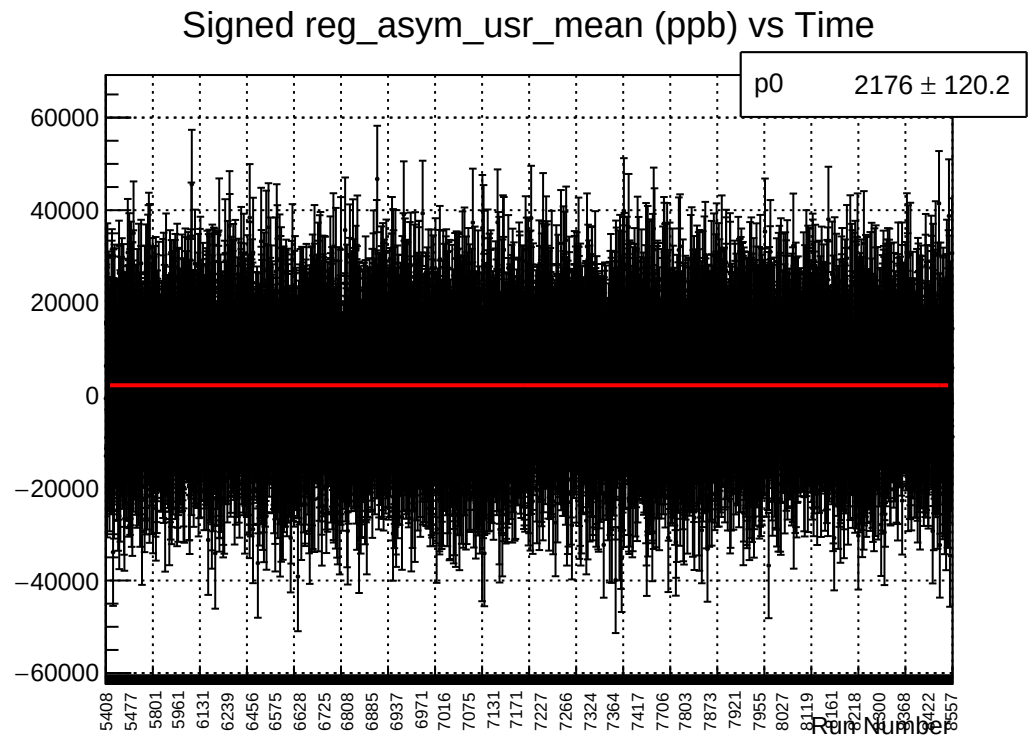

asym_usl_eigen_lagr_eigen_reg_diff_rms (ppm) vs Time
p0 28.9 ± 0.00258
1400
1200
1000
800
600
400
200
5408
5477
5800
5960
6132
6240
6457
6575
6645
6785
6817
6910
6946
6995
7040
7089
7146
7183
7238
7288
7338
7373
7428
7737
7808
7888
7924
7958
8029
8124
8167
8220
8302
8371
8422
8557
Run Number

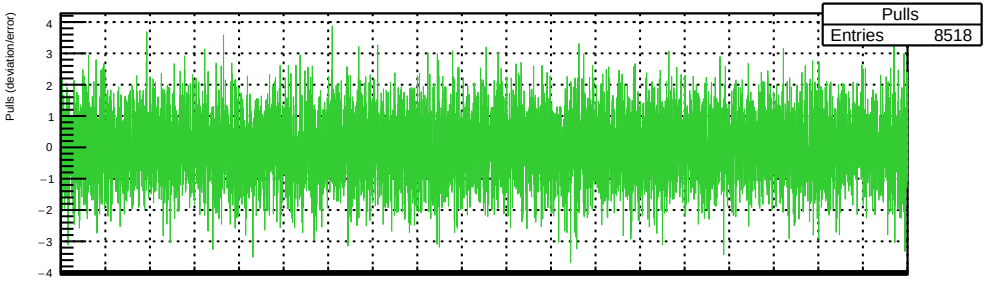

Signed asym_usl_mean (ppb) vs Time
×10^3
p0 2056 ± 180.1
100
50
0
−50
−100
5408 5477 5800 5960 6132 6240 6457 6575 6645 6785 6817 6910 6946 6995 7040 7089 7146 7183 7238 7288 7338 7373 7428 7737 7808 7888 7924 7958 8029 8124 8167 8220 8302 8371 8422 8557
Run Number

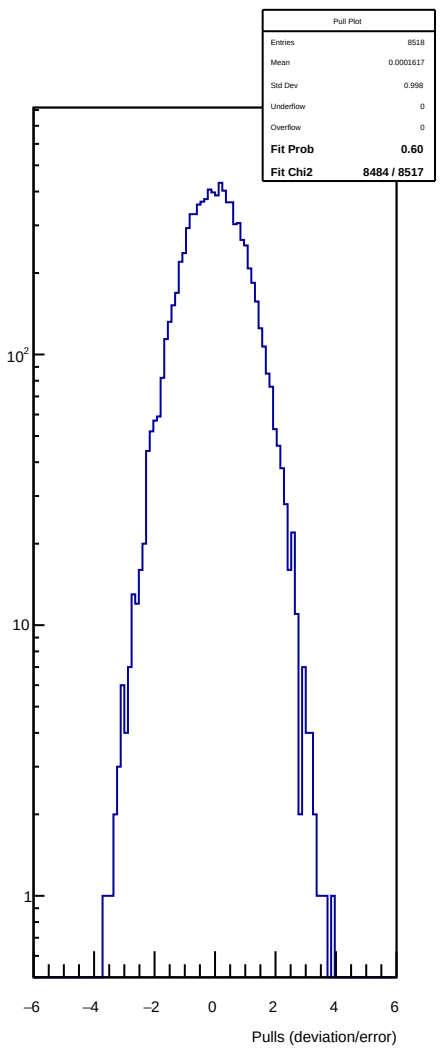

Pulls
Entries 8444
Pulls (deviation/error)
3
2
1
0
−1
−2
−3
−4

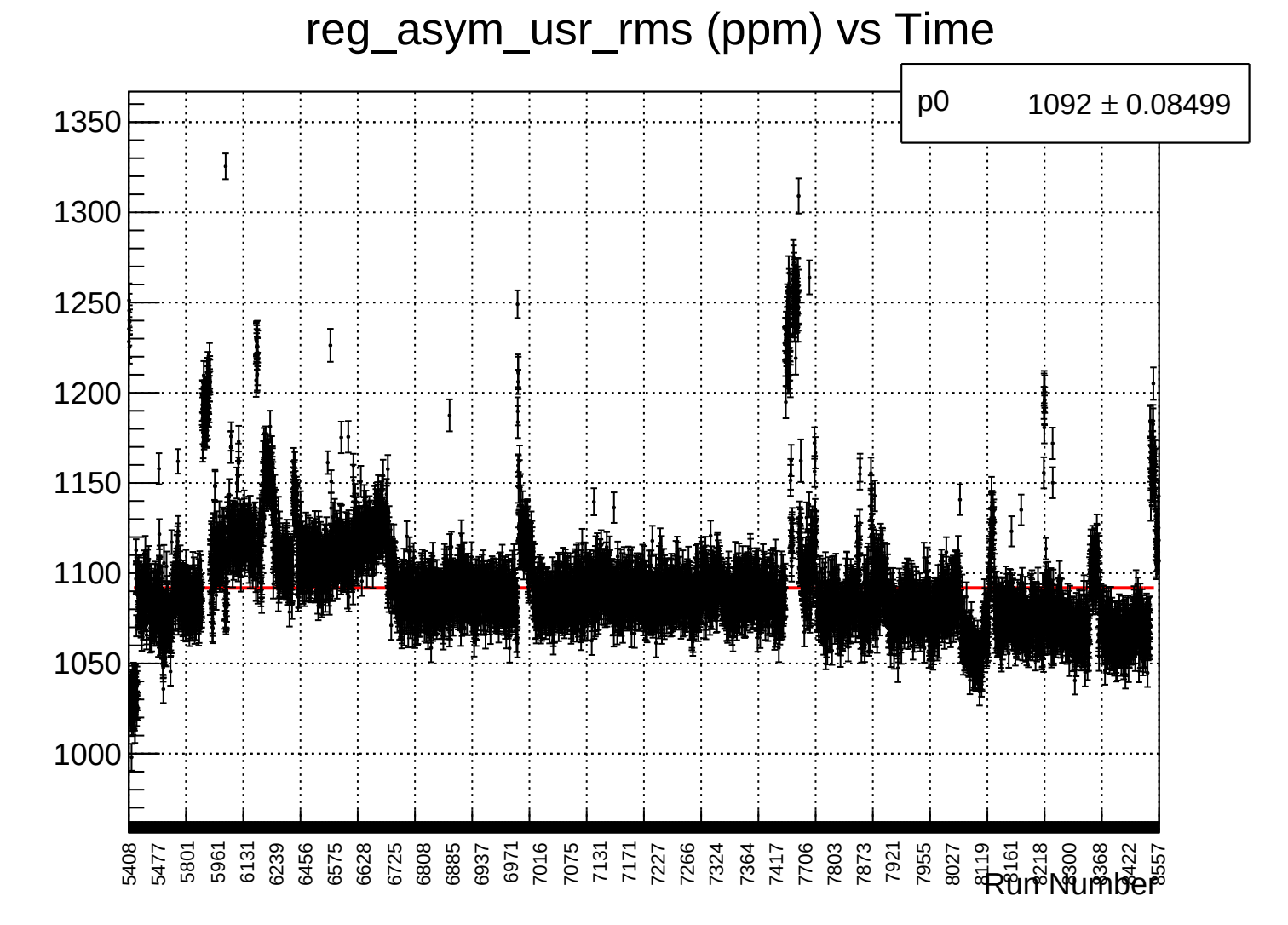

Pull Plot
Entries 8444
Mean 0.0008177
Std Dev 1.011
Underflow 0
Overflow 0
Fit Prob 0.08
Fit Chi2 8630 / 8443
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

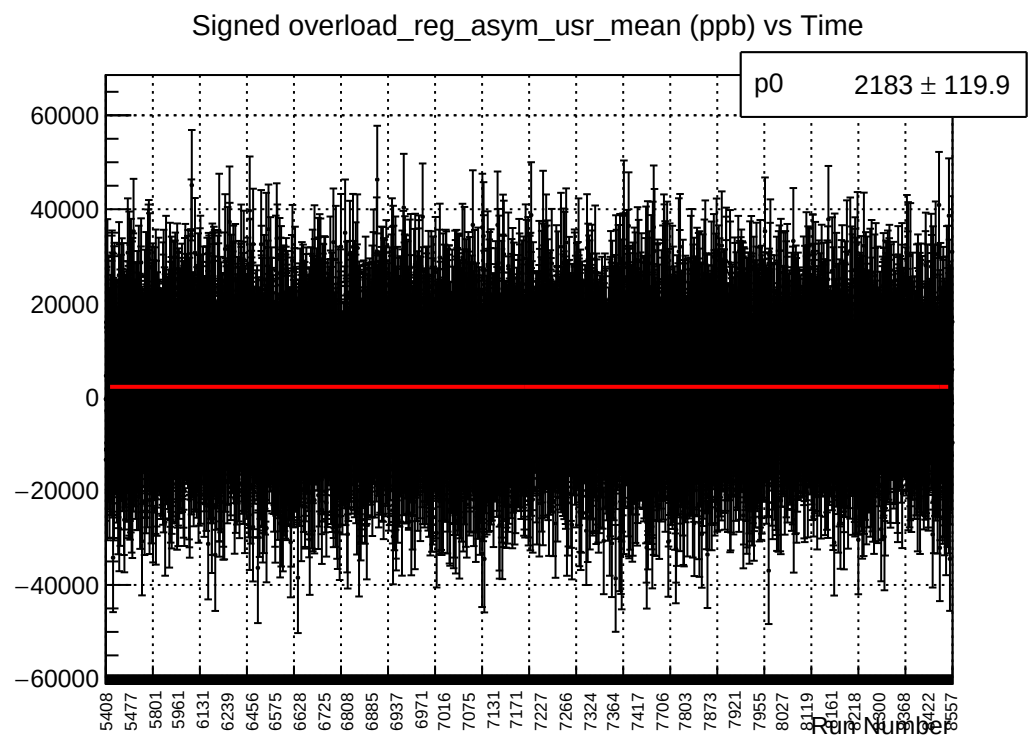

asym_usl_rms (ppm) vs Time
p0 1599 ± 0.1273
4000
3500
3000
2500
2000
1500
1000
5408
5477
5800
5960
6132
6240
6457
6575
6645
6785
6817
6910
6946
6995
7040
7089
7146
7183
7238
7288
7338
7373
7428
7737
7808
7888
7924
7958
8029
8124
8167
8220
8302
8371
8422
8557
Run Number

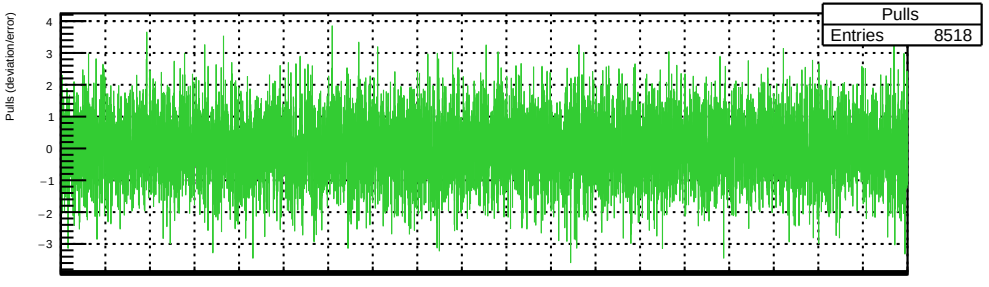

Signed reg_asym_usr_mean (ppb) vs Time
p0 2176 ± 120.2
60000
40000
20000
0
−20000
−40000
−60000
5408
5477
5801
5961
6131
6239
6456
6575
6628
6725
6808
6885
6937
6971
7016
7075
7131
7171
7227
7266
7324
7364
7417
7706
7803
7873
7921
7955
8027
8119
8161
8218
8300
8368
8422
8557
Run Number

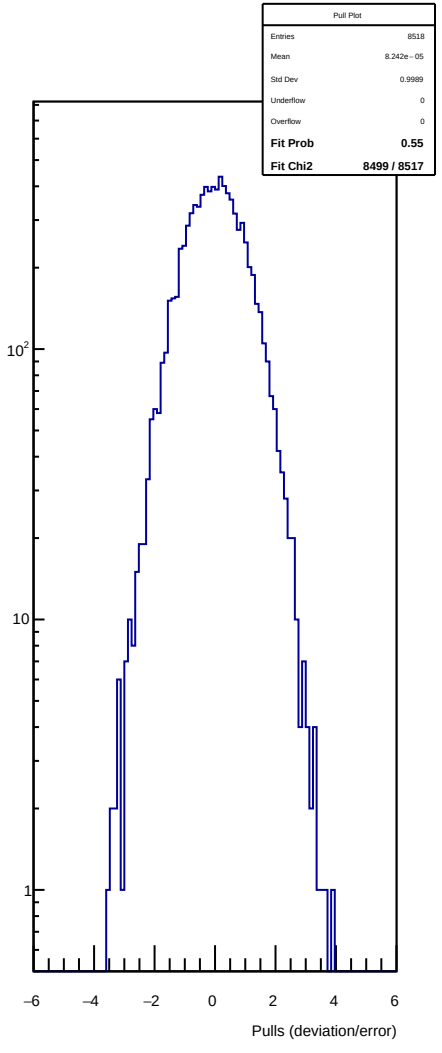

Pulls
Entries 8518
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

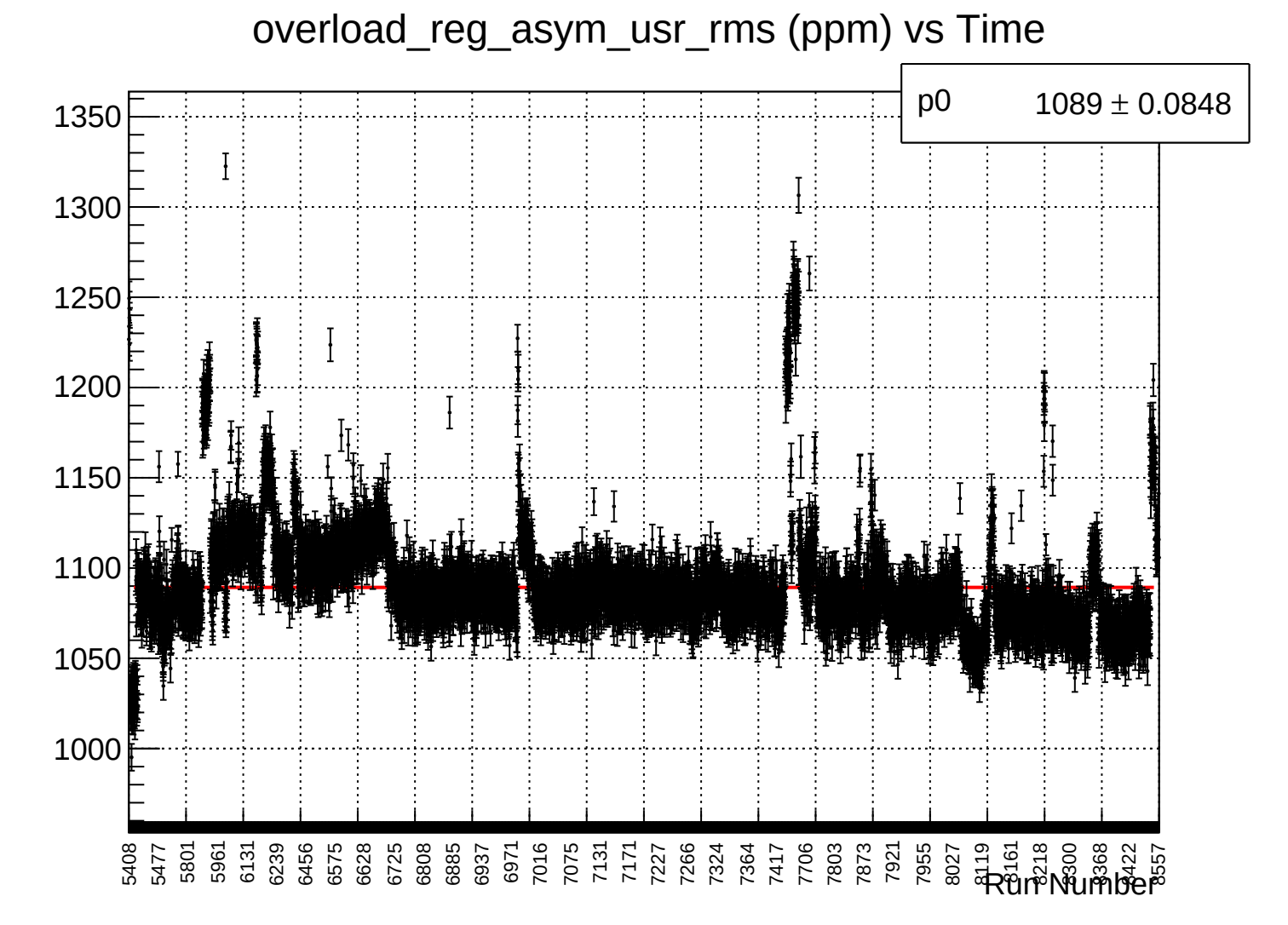

Pull Plot
Entries 8518
Mean 0.0001617
Std Dev 0.998
Underflow 0
Overflow 0
Fit Prob 0.60
Fit Chi2 8484 / 8517
10²
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

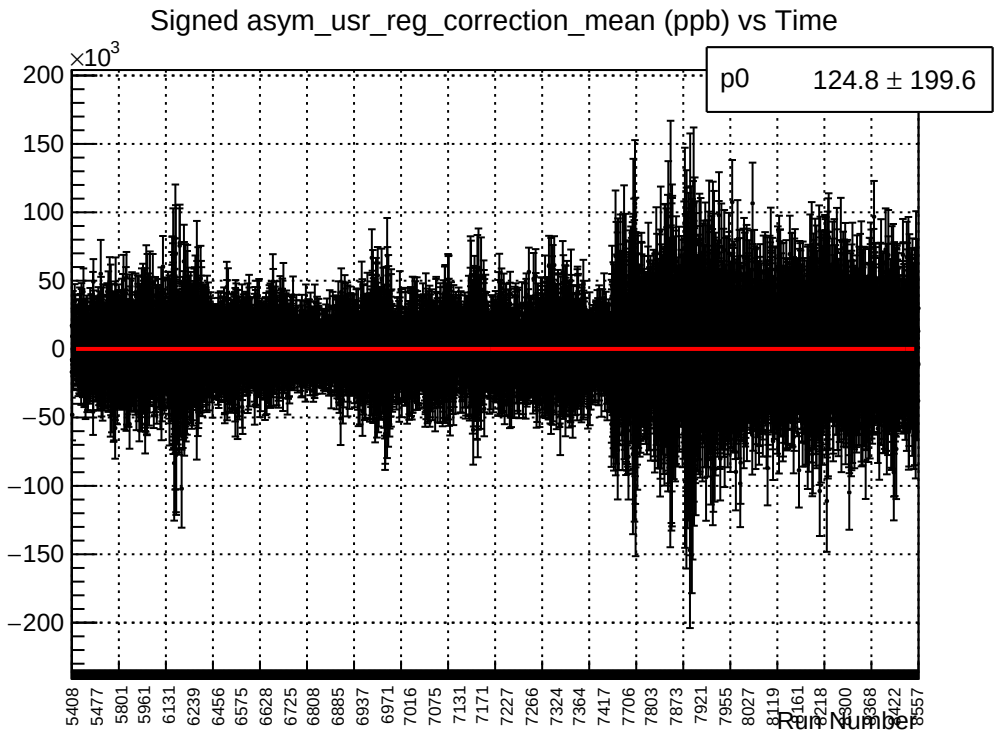

reg_asym_usr_rms (ppm) vs Time
p0
1092 ± 0.08499
1350
1300
1250
1200
1150
1100
1050
1000
5408
5477
5801
5961
6131
6239
6456
6575
6628
6725
6808
6885
6937
6971
7016
7075
7131
7171
7227
7266
7324
7364
7417
7706
7803
7873
7921
7955
8027
8119
8161
8218
8300
8368
8422
8557
Run Number

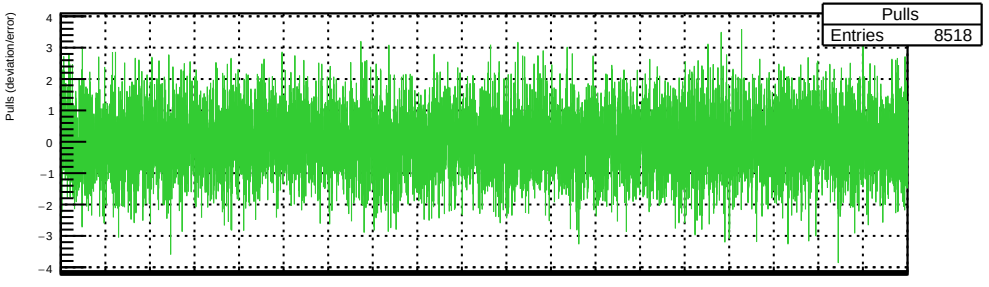

Signed overload_reg_asym_usr_mean (ppb) vs Time
p0 2183 ± 119.9
60000
40000
20000
0
−20000
−40000
−60000
5408
5477
5801
5961
6131
6239
6456
6575
6628
6725
6808
6885
6937
6971
7016
7075
7131
7171
7227
7266
7324
7364
7417
7706
7803
7873
7921
7955
8027
8119
8161
8218
8300
8368
8422
8557
Run Number

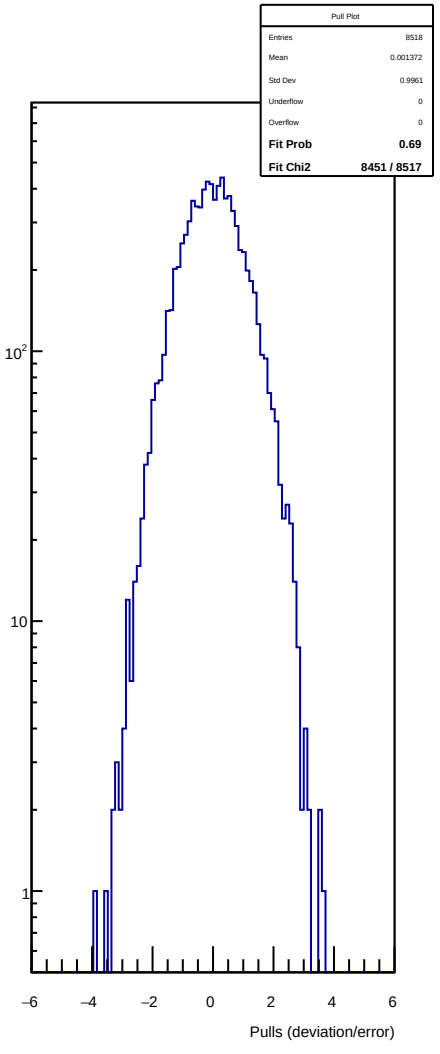

Pulls
Entries 8518
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3

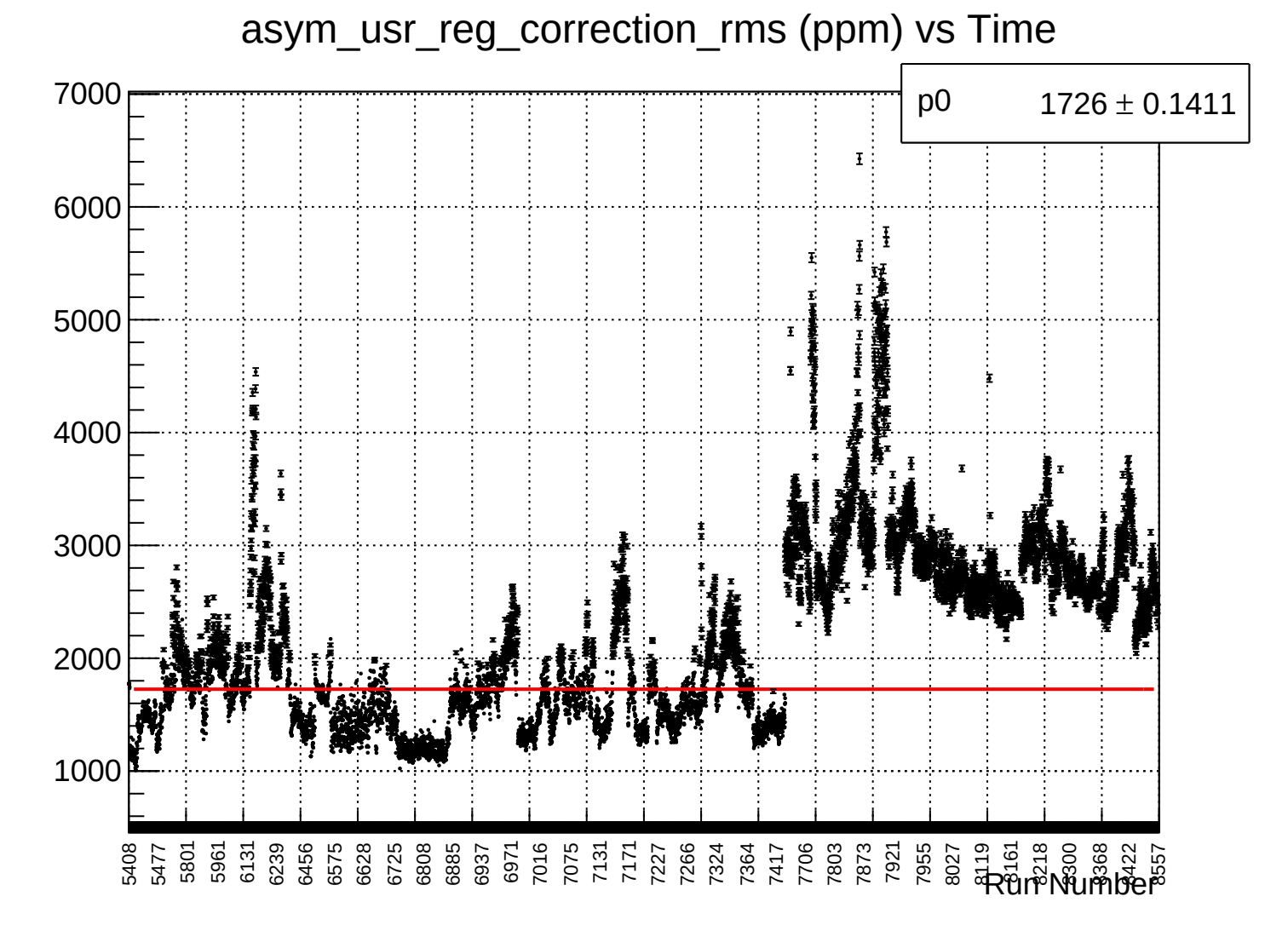

Pull Plot
Entries 8518
Mean 8.242e−05
Std Dev 0.9989
Underflow 0
Overflow 0
Fit Prob 0.55
Fit Chi2 8499 / 8517
10²
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

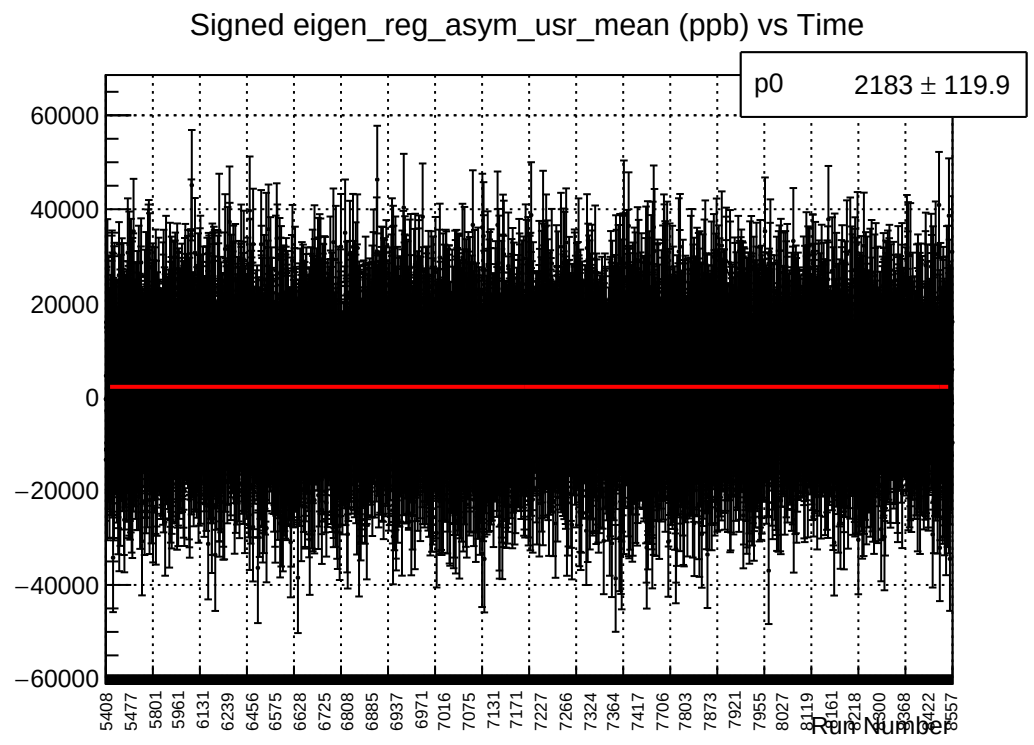

overload_reg_asym_usr_rms (ppm) vs Time
p0
1089 ± 0.0848
1350
1300
1250
1200
1150
1100
1050
1000
5408
5477
5801
5961
6131
6239
6456
6575
6628
6725
6808
6885
6937
6971
7016
7075
7131
7171
7227
7266
7324
7364
7417
7706
7803
7873
7921
7955
8027
8119
8161
8218
8300
8368
8422
8557
Run Number

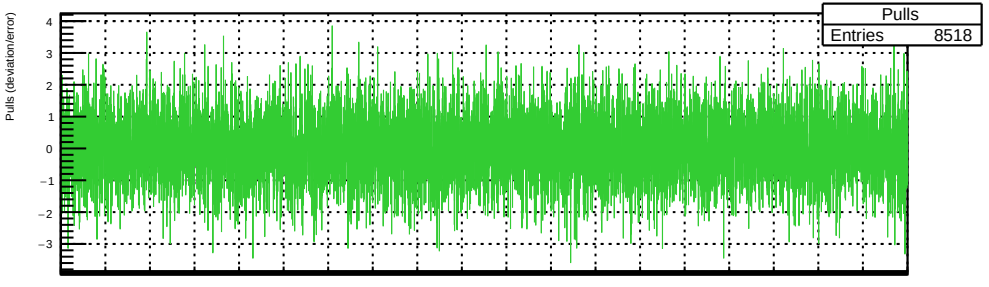

Signed asym_usr_reg_correction_mean (ppb) vs Time
p0 124.8 ± 199.6
×10^3
200
150
100
50
0
−50
−100
−150
−200
5408 5477 5801 5961 6131 6239 6456 6575 6628 6725 6808 6885 6937 6971 7016 7075 7131 7171 7227 7266 7324 7364 7417 7706 7803 7873 7921 7955 8027 8119 8161 8218 8300 8368 8422 8557
Run Number

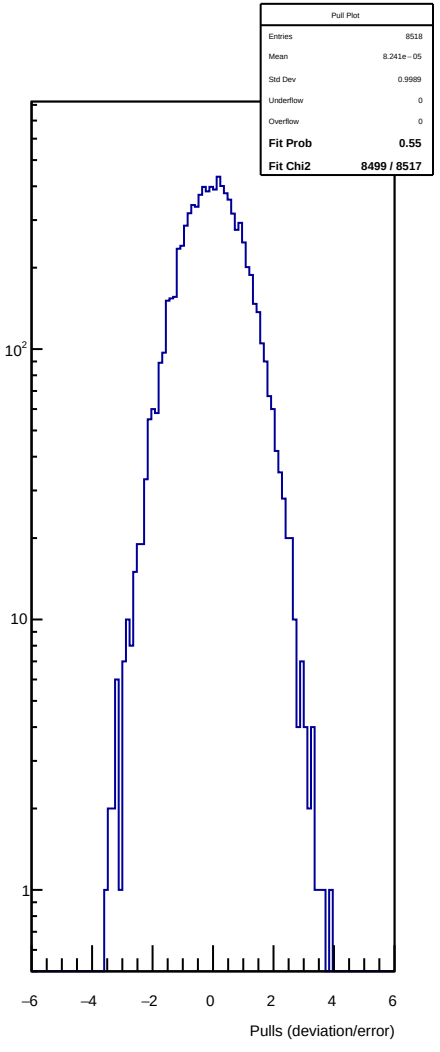

Pulls
Entries 8518
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

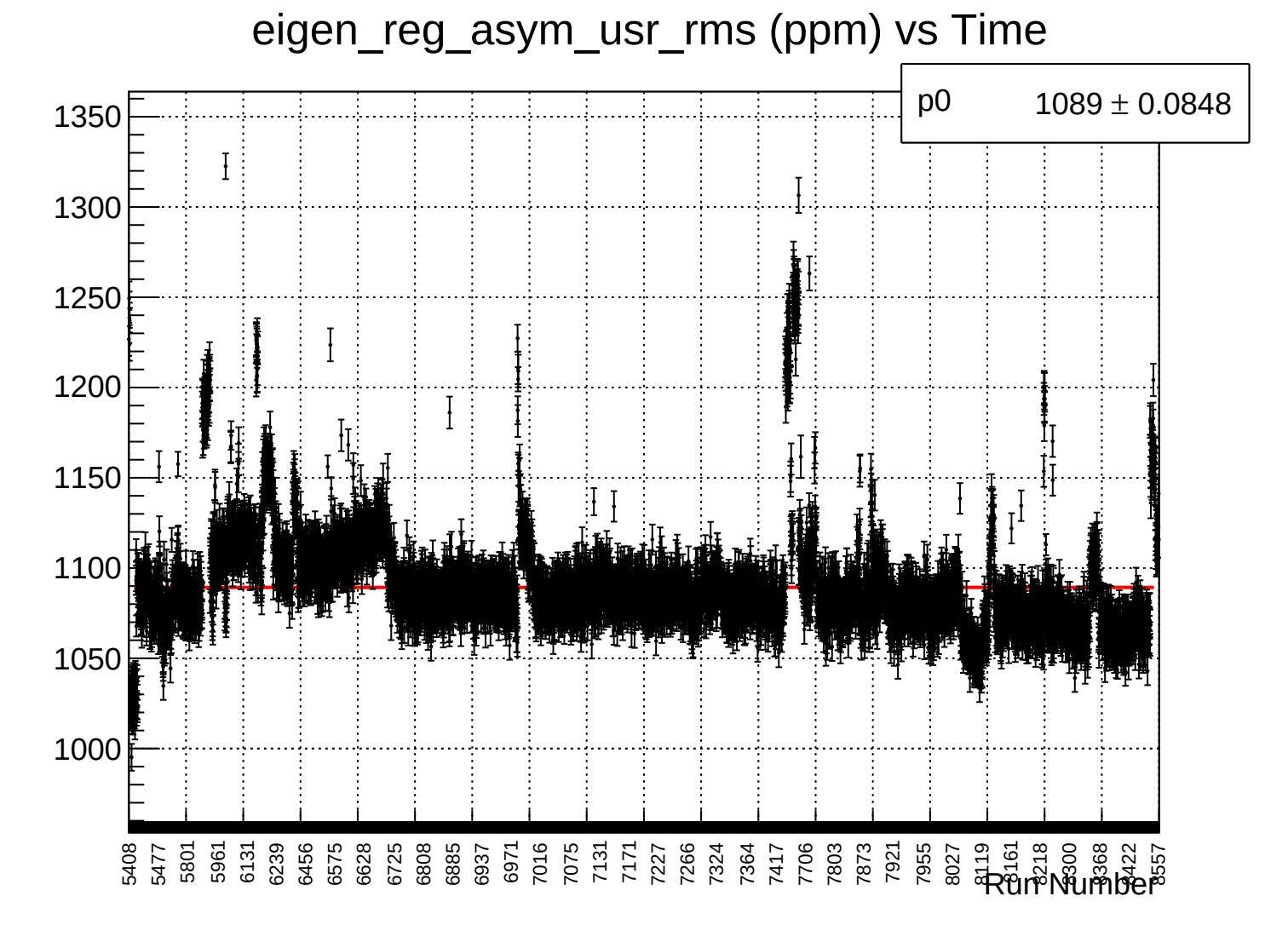

Pull Plot
Entries 8518
Mean 0.001372
Std Dev 0.9961
Underflow 0
Overflow 0
Fit Prob 0.69
Fit Chi2 8451 / 8517
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

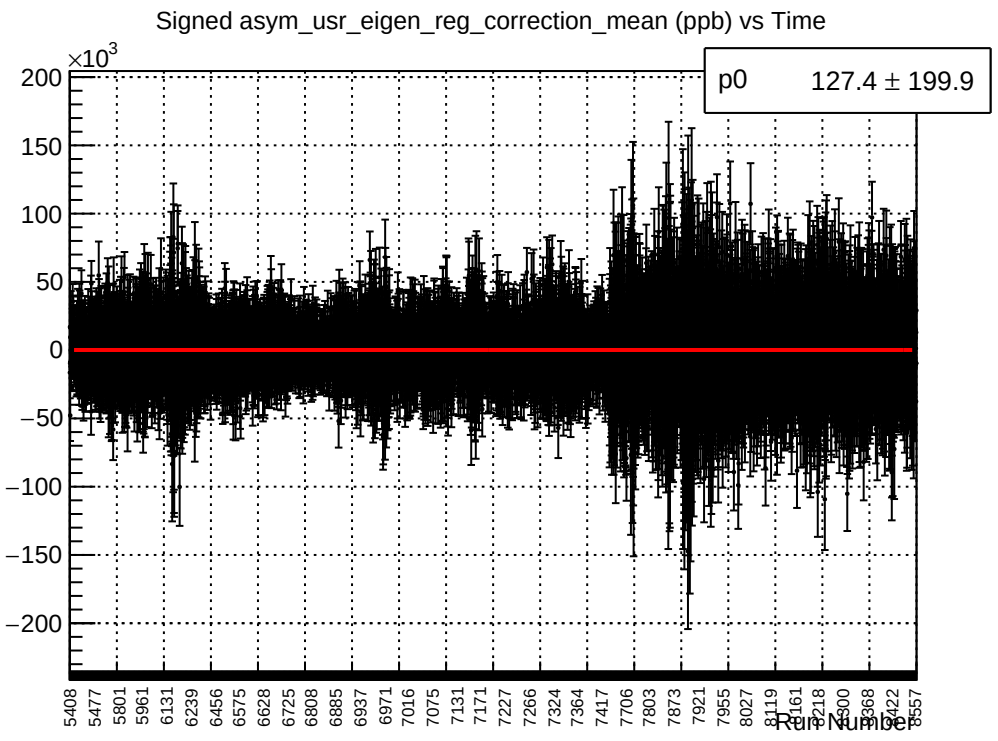

asym_usr_reg_correction_rms (ppm) vs Time
p0
1726 ± 0.1411
7000
6000
5000
4000
3000
2000
1000
5408
5477
5801
5961
6131
6239
6456
6575
6628
6725
6808
6885
6937
6971
7016
7075
7131
7171
7227
7266
7324
7364
7417
7706
7803
7873
7921
7955
8027
8119
8161
8218
8300
8368
8422
8557
Run Number

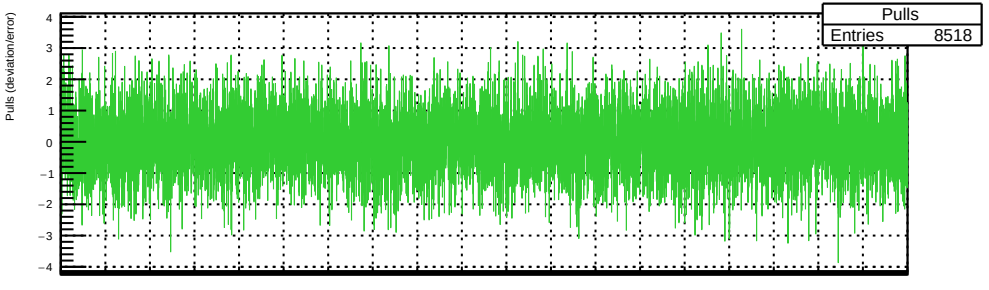

Signed eigen_reg_asym_usr_mean (ppb) vs Time
p0 2183 ± 119.9
60000
40000
20000
0
−20000
−40000
−60000
5408 5477 5801 5961 6131 6239 6456 6575 6628 6725 6808 6885 6937 6971 7016 7075 7131 7171 7227 7266 7324 7364 7417 7706 7803 7873 7921 7955 8027 8119 8161 8218 8300 8368 8422 8557
Run Number

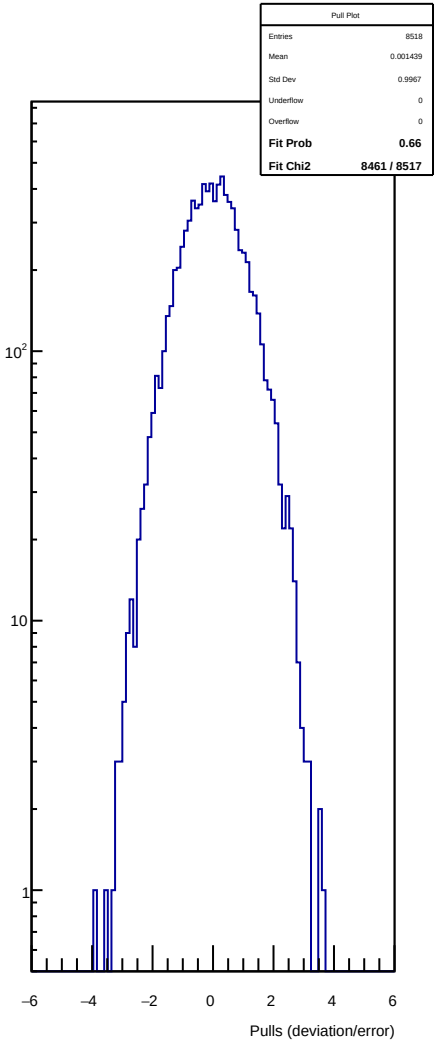

Pulls
Entries 8518
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3

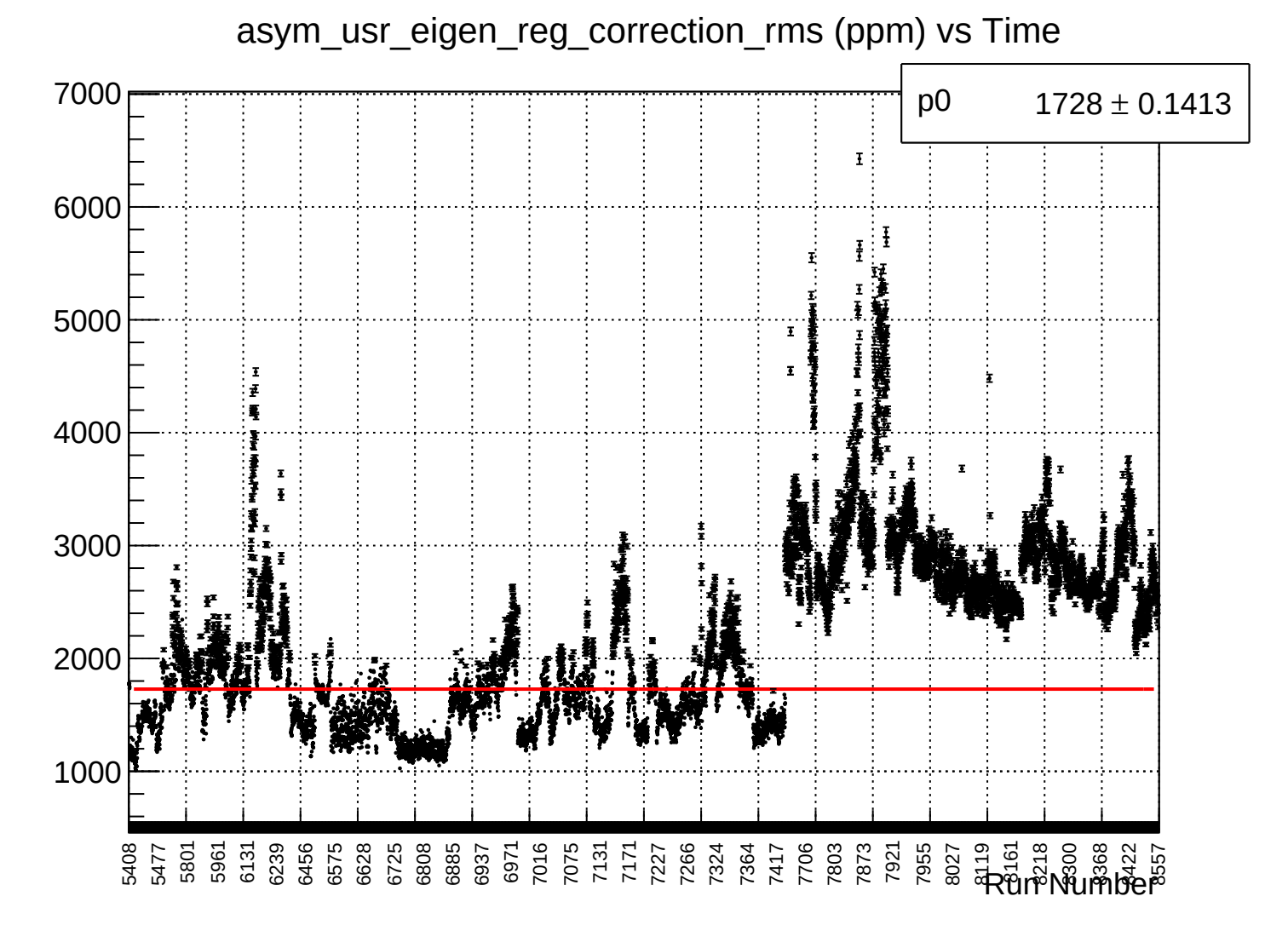

Pull Plot
Entries 8518
Mean 8.241e−05
Std Dev 0.9989
Underflow 0
Overflow 0
Fit Prob 0.55
Fit Chi2 8499 / 8517
10²
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

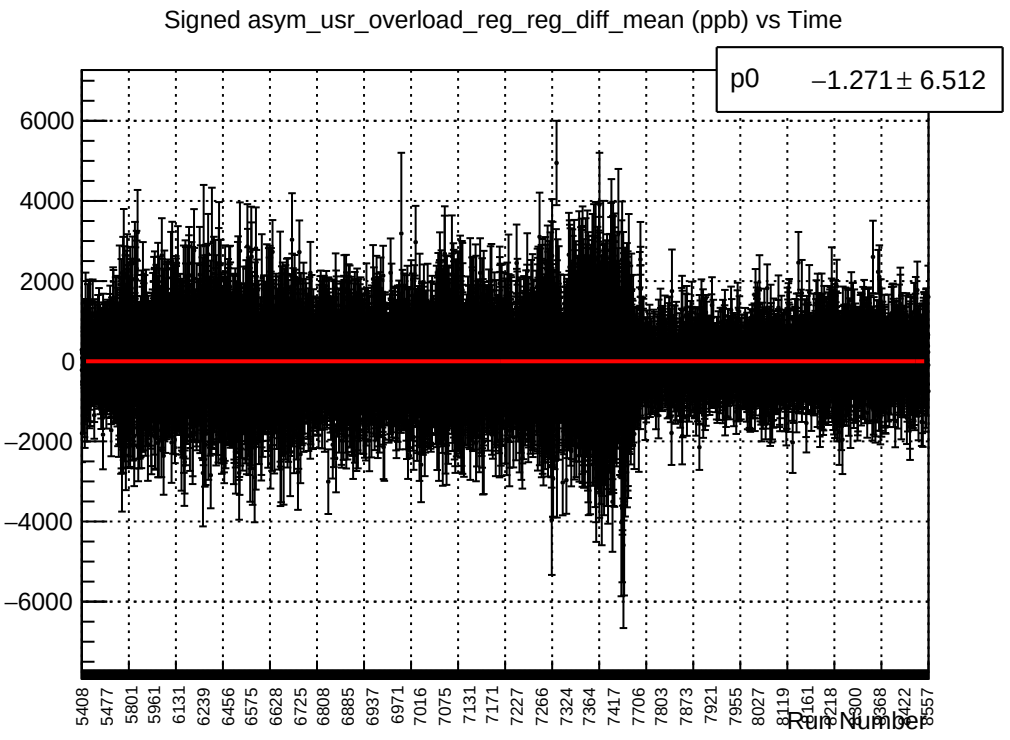

eigen_reg_asym_usr_rms (ppm) vs Time
p0
1089 ± 0.0848
1350
1300
1250
1200
1150
1100
1050
1000
5408
5477
5801
5961
6131
6239
6456
6575
6628
6725
6808
6885
6937
6971
7016
7075
7131
7171
7227
7266
7324
7364
7417
7706
7803
7873
7921
7955
8027
8119
8161
8218
8300
8368
8422
8557
Run Number

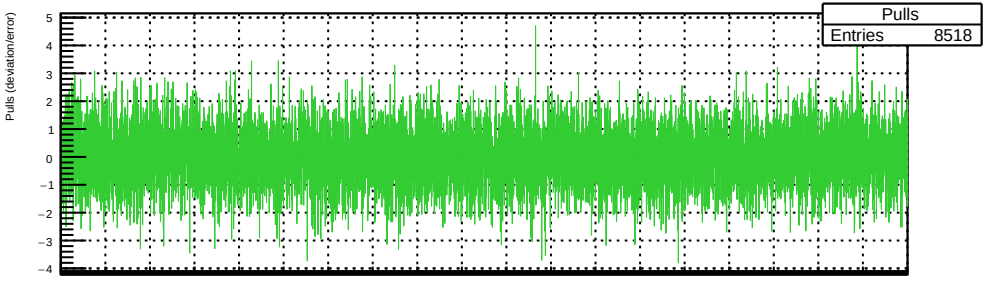

Signed asym_usr_eigen_reg_correction_mean (ppb) vs Time
×10^3
p0 127.4 ± 199.9
Run Number

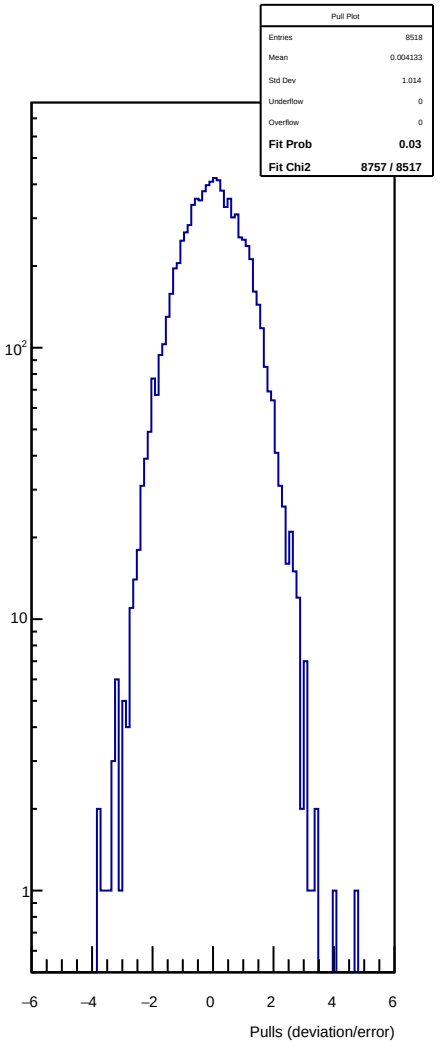

Pulls
Entries 8518
Pulls (deviation/error)

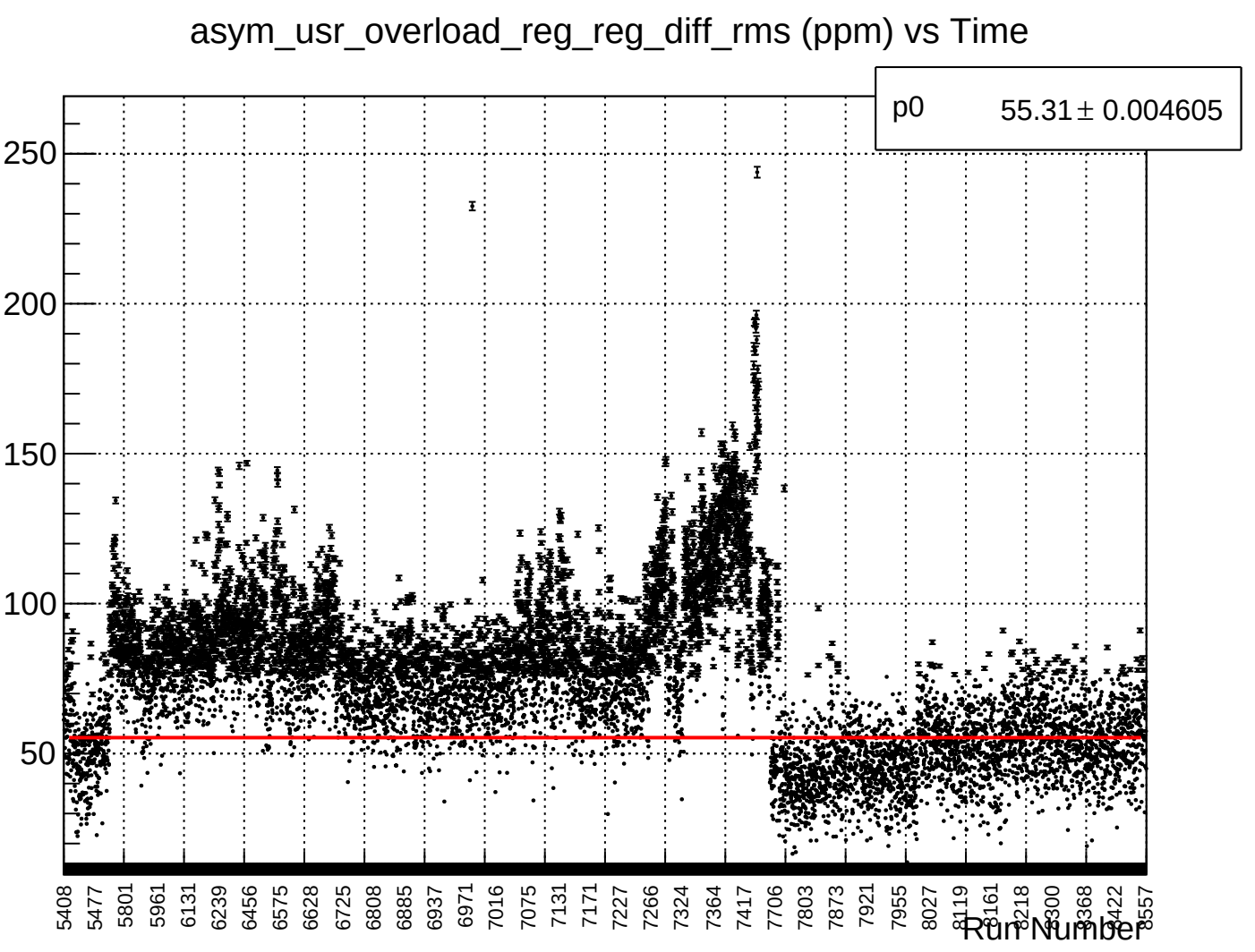

Pull Plot
Entries 8518
Mean 0.001439
Std Dev 0.9967
Underflow 0
Overflow 0
Fit Prob 0.66
Fit Chi2 8461 / 8517
Pulls (deviation/error)

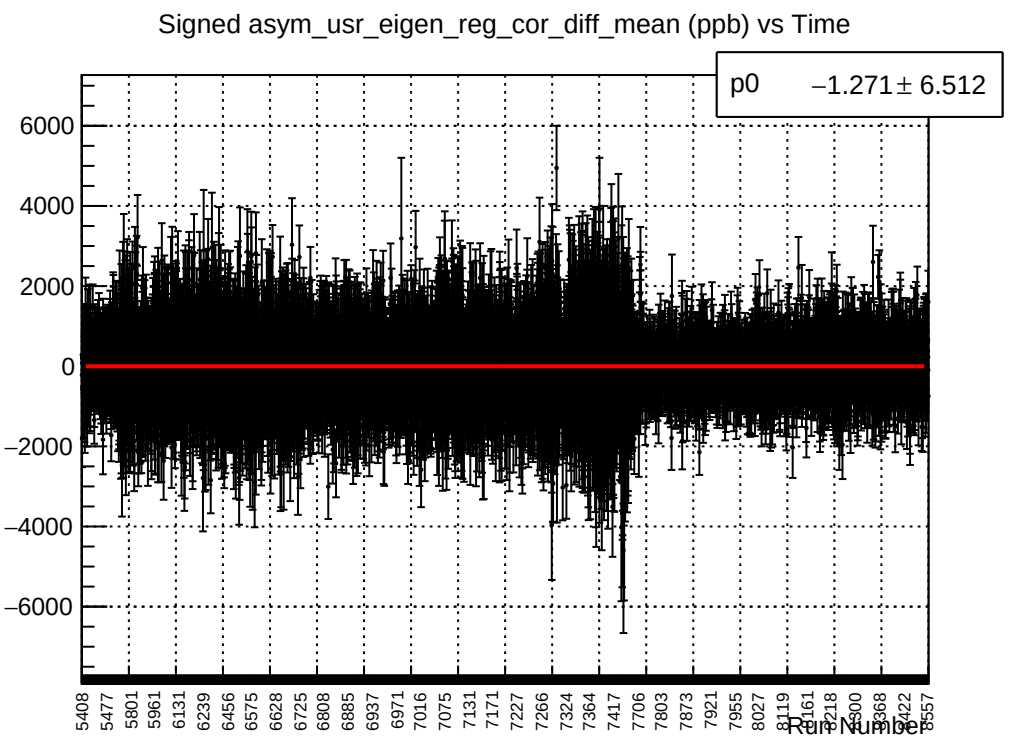

asym_usr_eigen_reg_correction_rms (ppm) vs Time
p0 1728 ± 0.1413
7000
6000
5000
4000
3000
2000
1000
5408
5477
5801
5961
6131
6239
6456
6575
6628
6725
6808
6885
6937
6971
7016
7075
7131
7171
7227
7266
7324
7364
7417
7706
7803
7873
7921
7955
8027
8119
8161
8218
8300
8368
8422
8557
Run Number

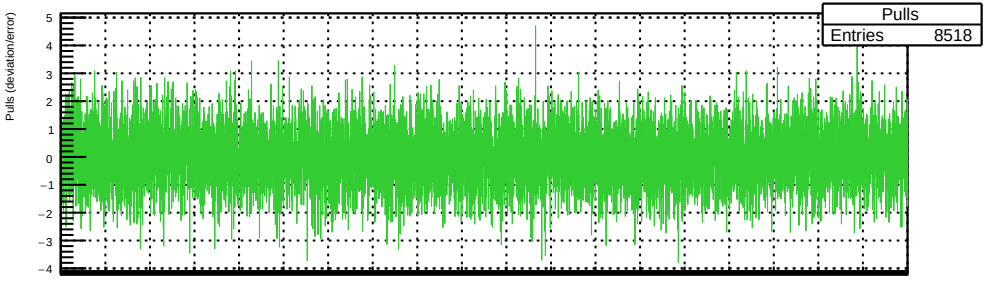

Signed asym_usr_overload_reg_reg_diff_mean (ppb) vs Time
p0 −1.271 ± 6.512
6000
4000
2000
0
−2000
−4000
−6000
5408
5477
5801
5961
6131
6239
6456
6575
6628
6725
6808
6885
6937
6971
7016
7075
7131
7171
7227
7266
7324
7364
7417
7706
7803
7873
7921
7955
8027
8119
8161
8218
8300
8368
8422
8557
Run Number

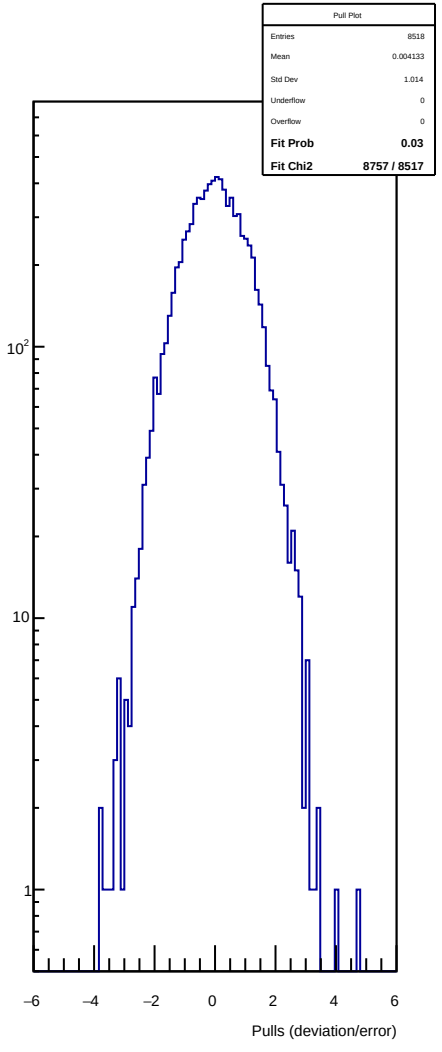

Pulls
Entries 8518
Pulls (deviation/error)
5
4
3
2
1
0
−1
−2
−3
−4

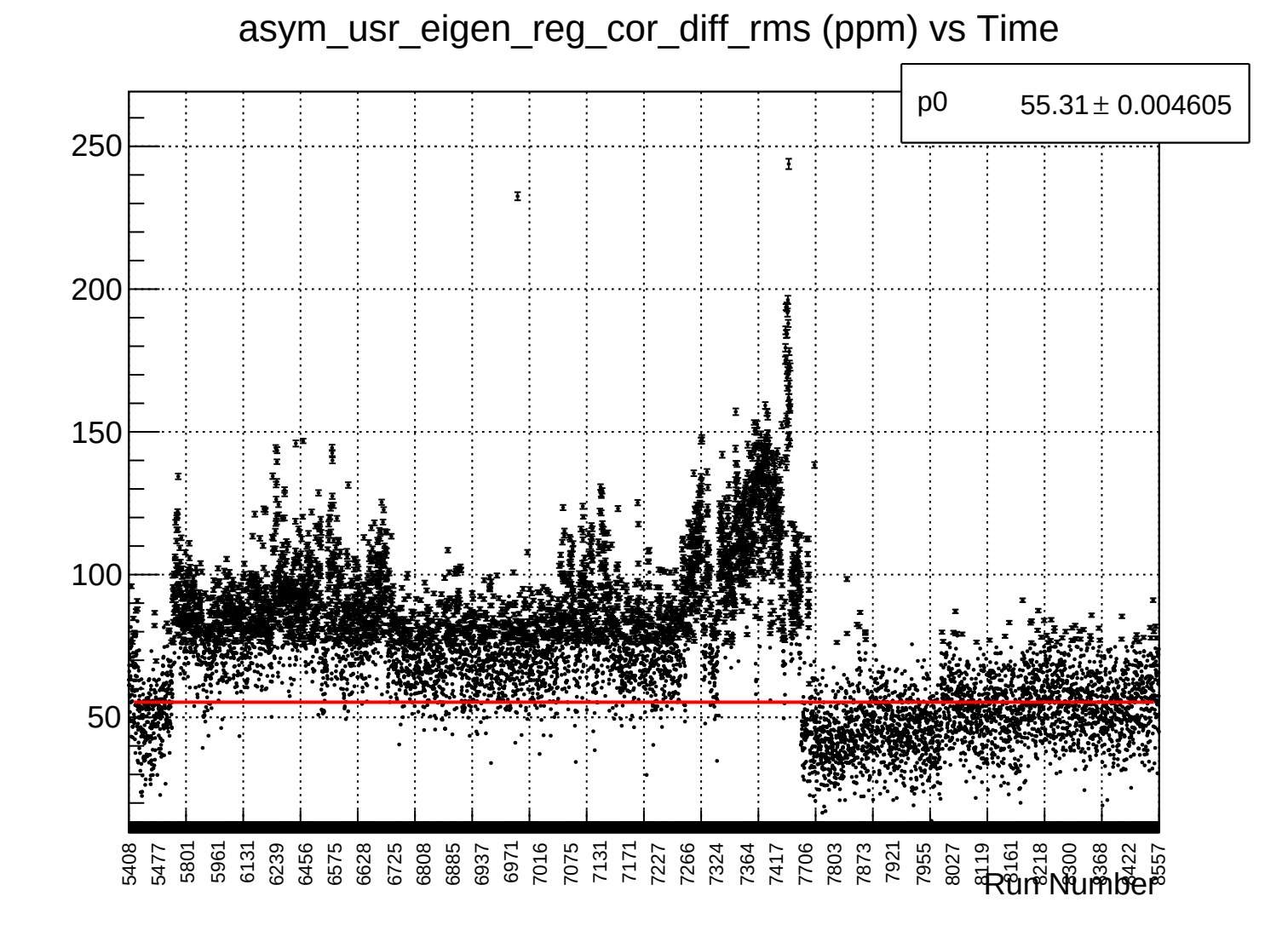

Pull Plot
Entries 8518
Mean 0.004133
Std Dev 1.014
Underflow 0
Overflow 0
Fit Prob 0.03
Fit Chi2 8757 / 8517
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

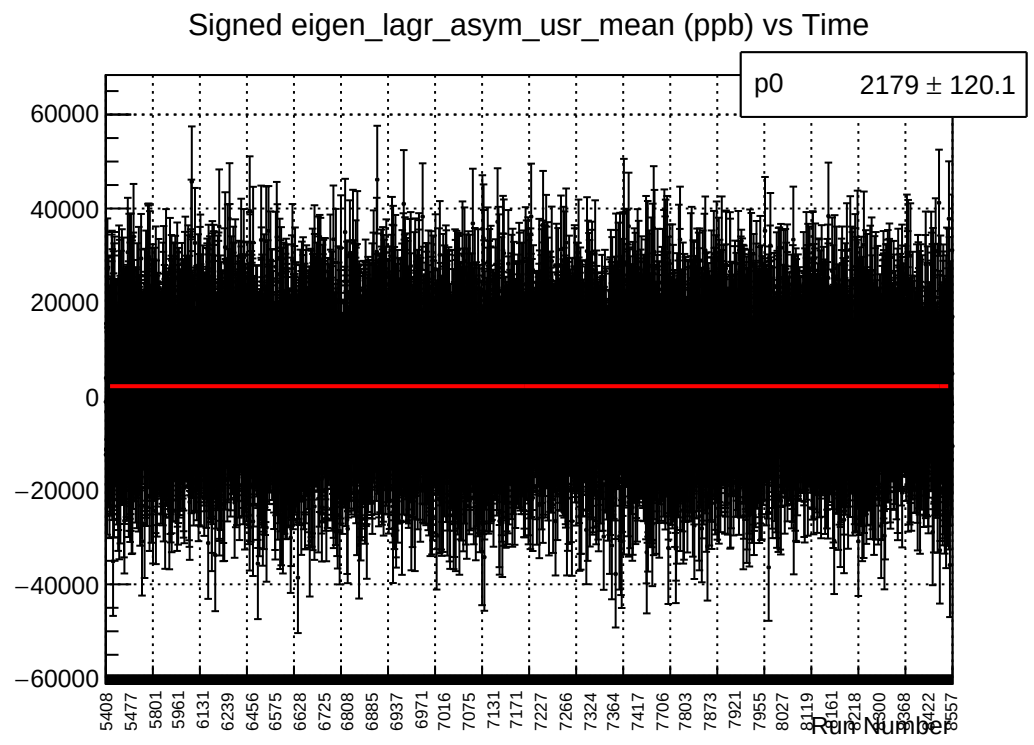

asym_usr_overload_reg_reg_diff_rms (ppm) vs Time
p0 55.31 ± 0.004605
250
200
150
100
50
5408
5477
5801
5961
6131
6239
6456
6575
6628
6725
6808
6885
6937
6971
7016
7075
7131
7171
7227
7266
7324
7364
7417
7706
7803
7873
7921
7955
8027
8119
8161
8218
8300
8368
8422
8557
Run Number

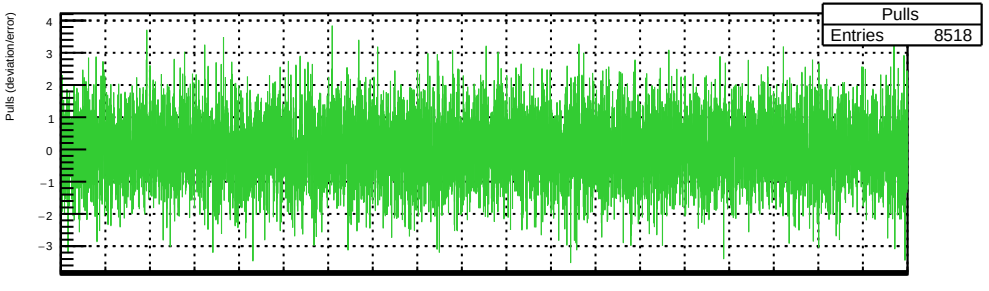

Signed asym_usr_eigen_reg_cor_diff_mean (ppb) vs Time
p0 −1.271 ± 6.512
6000
4000
2000
0
−2000
−4000
−6000
5408
5477
5801
5961
6131
6239
6456
6575
6628
6725
6808
6885
6937
6971
7016
7075
7131
7171
7227
7266
7324
7364
7417
7706
7803
7873
7921
7955
8027
8119
8161
8218
8300
8368
8422
8557
Run Number

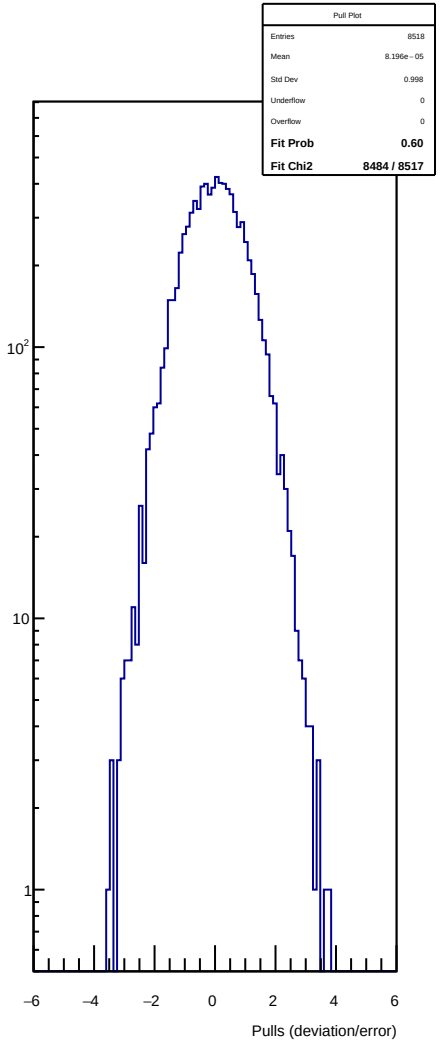

Pulls
Entries 8518
Pulls (deviation/error)
5
4
3
2
1
0
−1
−2
−3
−4

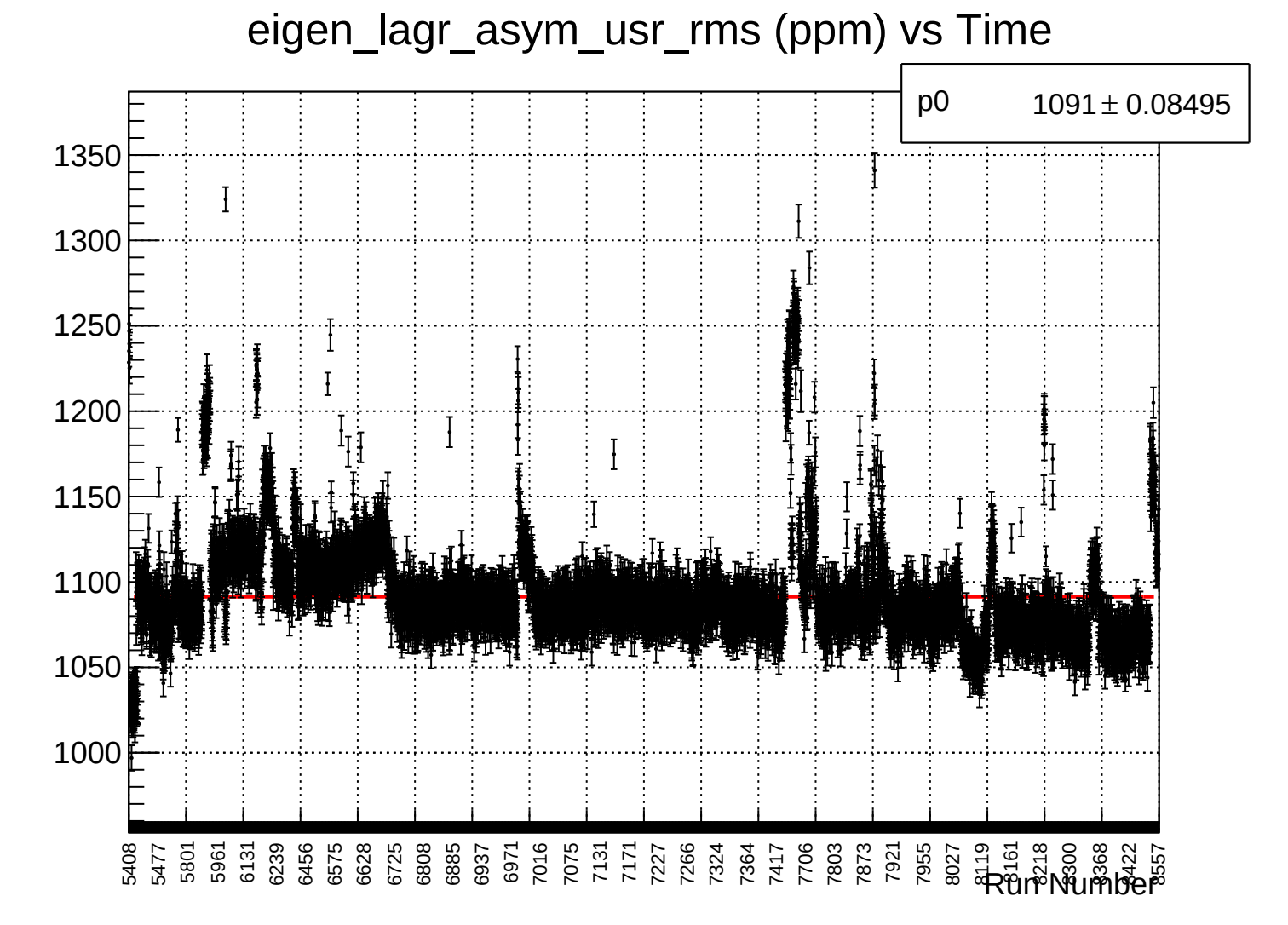

Pull Plot
Entries 8518
Mean 0.004133
Std Dev 1.014
Underflow 0
Overflow 0
Fit Prob 0.03
Fit Chi2 8757 / 8517
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

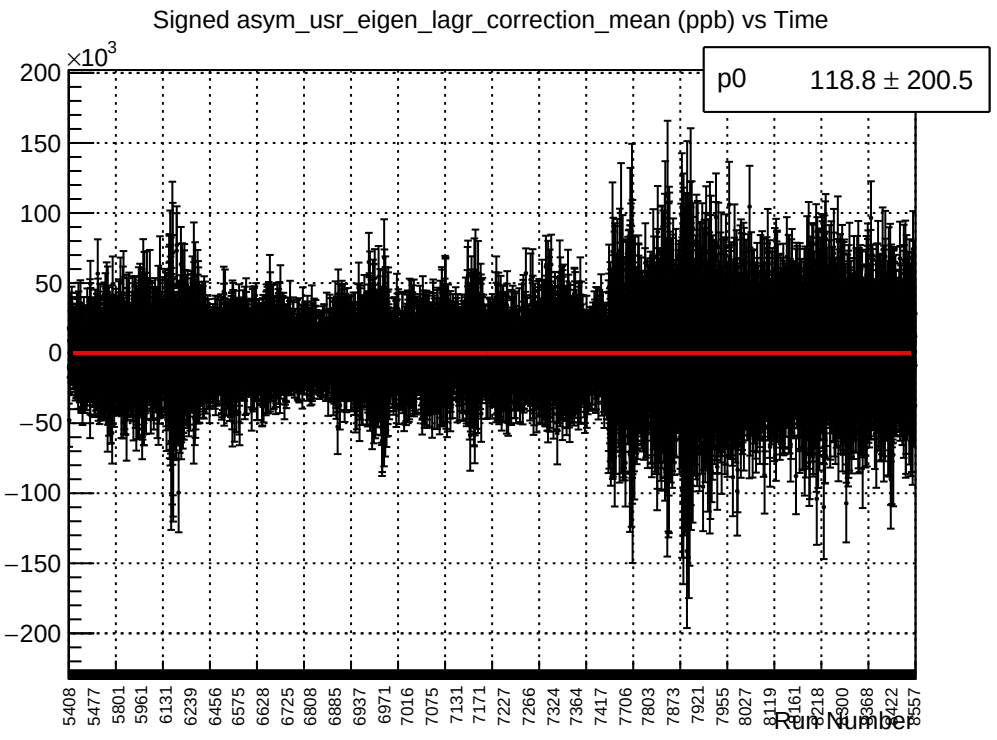

asym_usr_eigen_reg_cor_diff_rms (ppm) vs Time
p0 55.31 ± 0.004605
250
200
150
100
50
5408
5477
5801
5961
6131
6239
6456
6575
6628
6725
6808
6885
6937
6971
7016
7075
7131
7171
7227
7266
7324
7364
7417
7706
7803
7873
7921
7955
8027
8119
8161
8218
8300
8368
8422
8557
Run Number

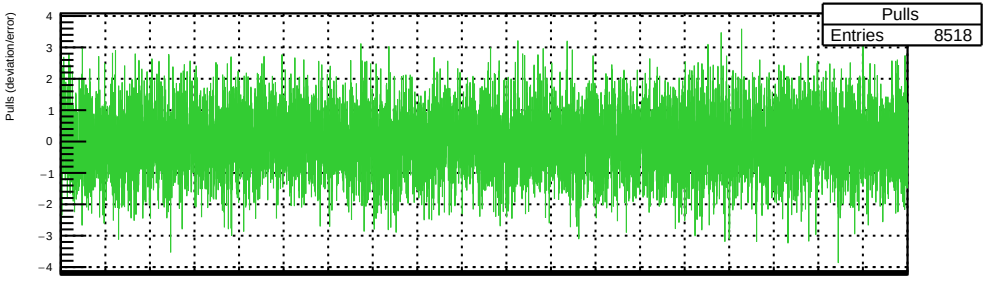

Signed eigen_lagr_asym_usr_mean (ppb) vs Time
p0 2179 ± 120.1
60000
40000
20000
0
−20000
−40000
−60000
5408 5477 5801 5961 6131 6239 6456 6575 6628 6725 6808 6885 6937 6971 7016 7075 7131 7171 7227 7266 7324 7364 7417 7706 7803 7873 7921 7955 8027 8119 8161 8218 8300 8368 8422 8557
Run Number

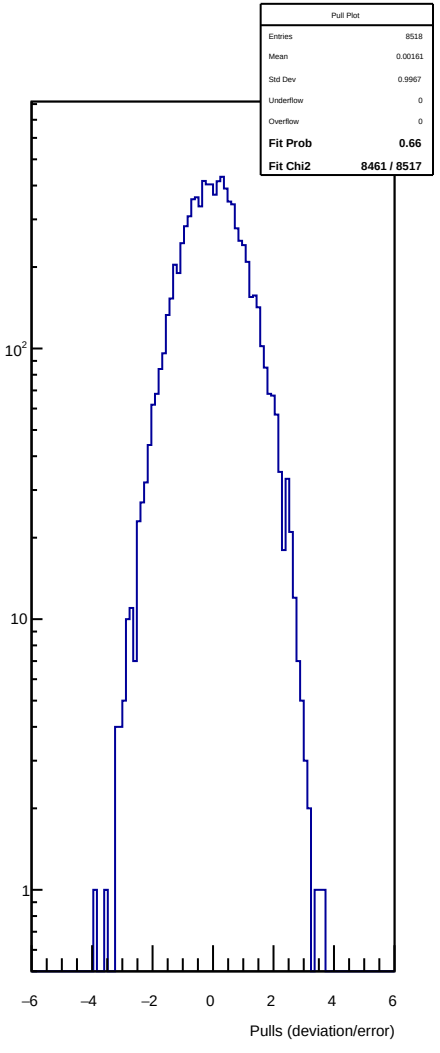

Pulls
Entries 8518
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3

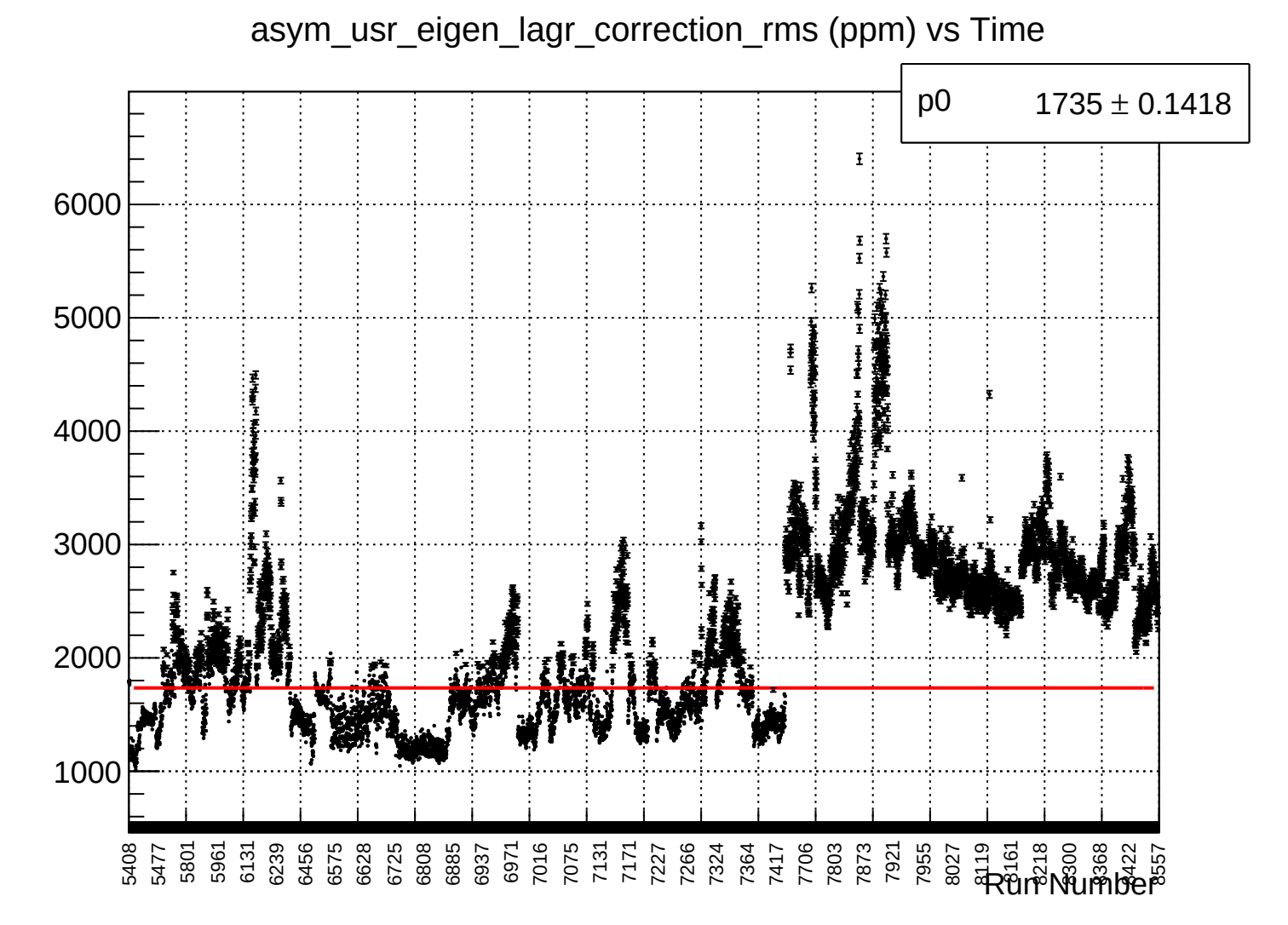

Pull Plot
Entries 8518
Mean 8.196e−05
Std Dev 0.998
Underflow 0
Overflow 0
Fit Prob 0.60
Fit Chi2 8484 / 8517
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

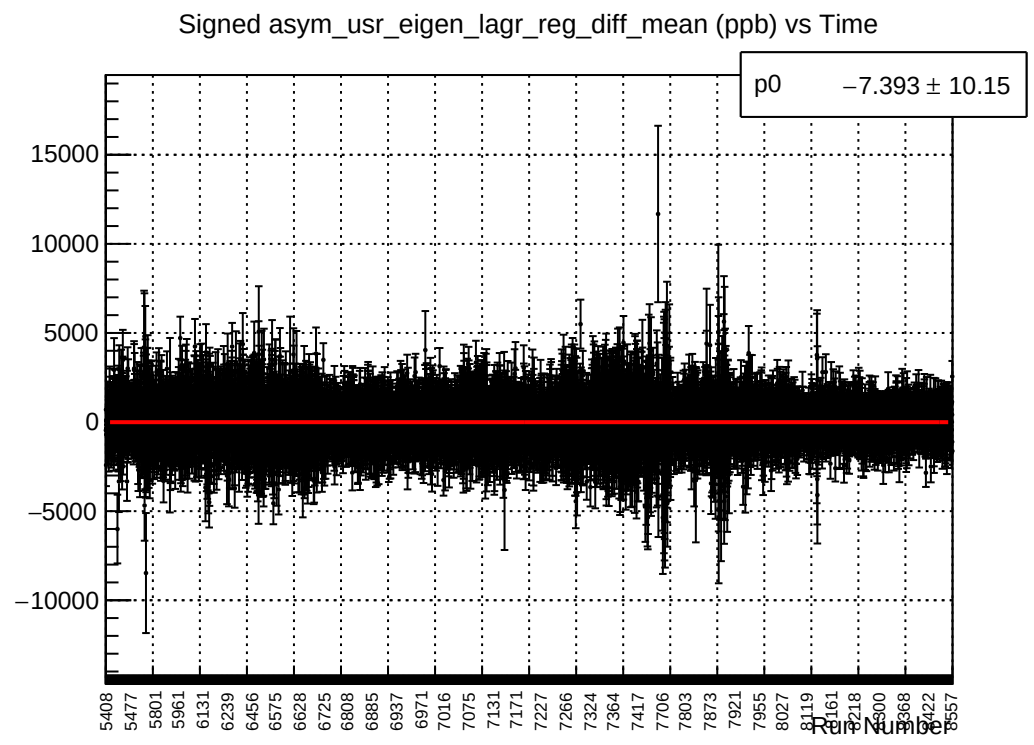

eigen_lagr_asym_usr_rms (ppm) vs Time
p0
1091 ± 0.08495
1350
1300
1250
1200
1150
1100
1050
1000
5408
5477
5801
5961
6131
6239
6456
6575
6628
6725
6808
6885
6937
6971
7016
7075
7131
7171
7227
7266
7324
7364
7417
7706
7803
7873
7921
7955
8027
8119
8161
8218
8300
8368
8422
8557
Run Number

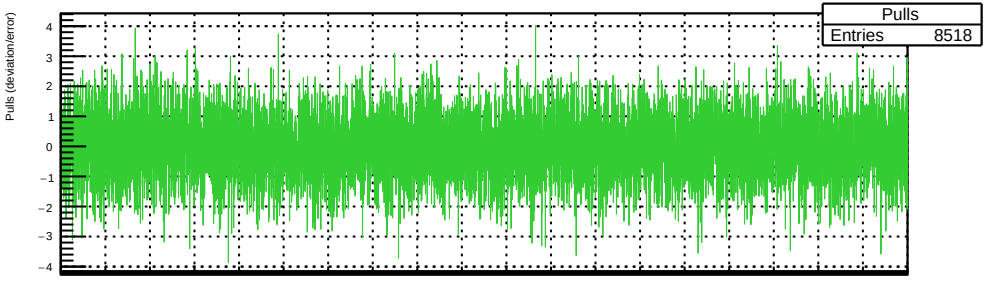

Signed asym_usr_eigen_lagr_correction_mean (ppb) vs Time
p0 118.8 ± 200.5
×10^3
200
150
100
50
0
−50
−100
−150
−200
5408
5477
5801
5961
6131
6239
6456
6575
6628
6725
6808
6885
6937
6971
7016
7075
7131
7171
7227
7266
7324
7364
7417
7706
7803
7873
7921
7955
8027
8119
8161
8218
8300
8368
8422
8557
Run Number

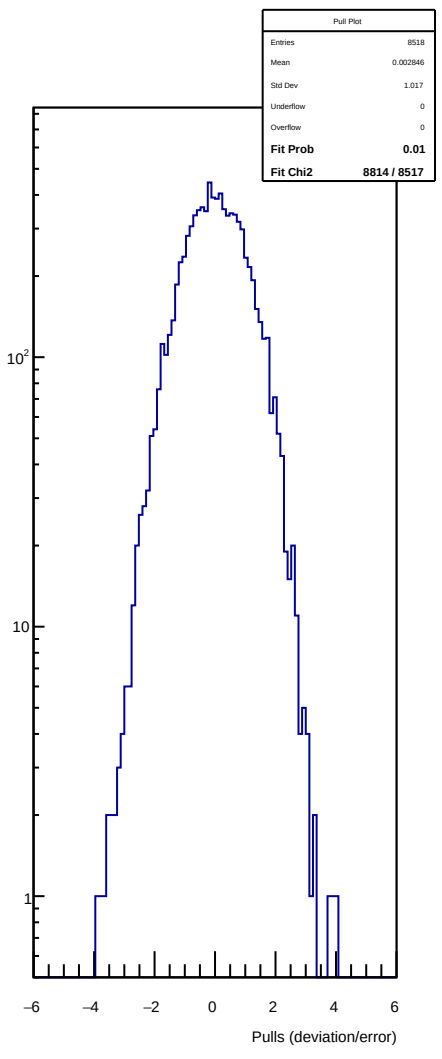

Pulls
Entries 8518
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

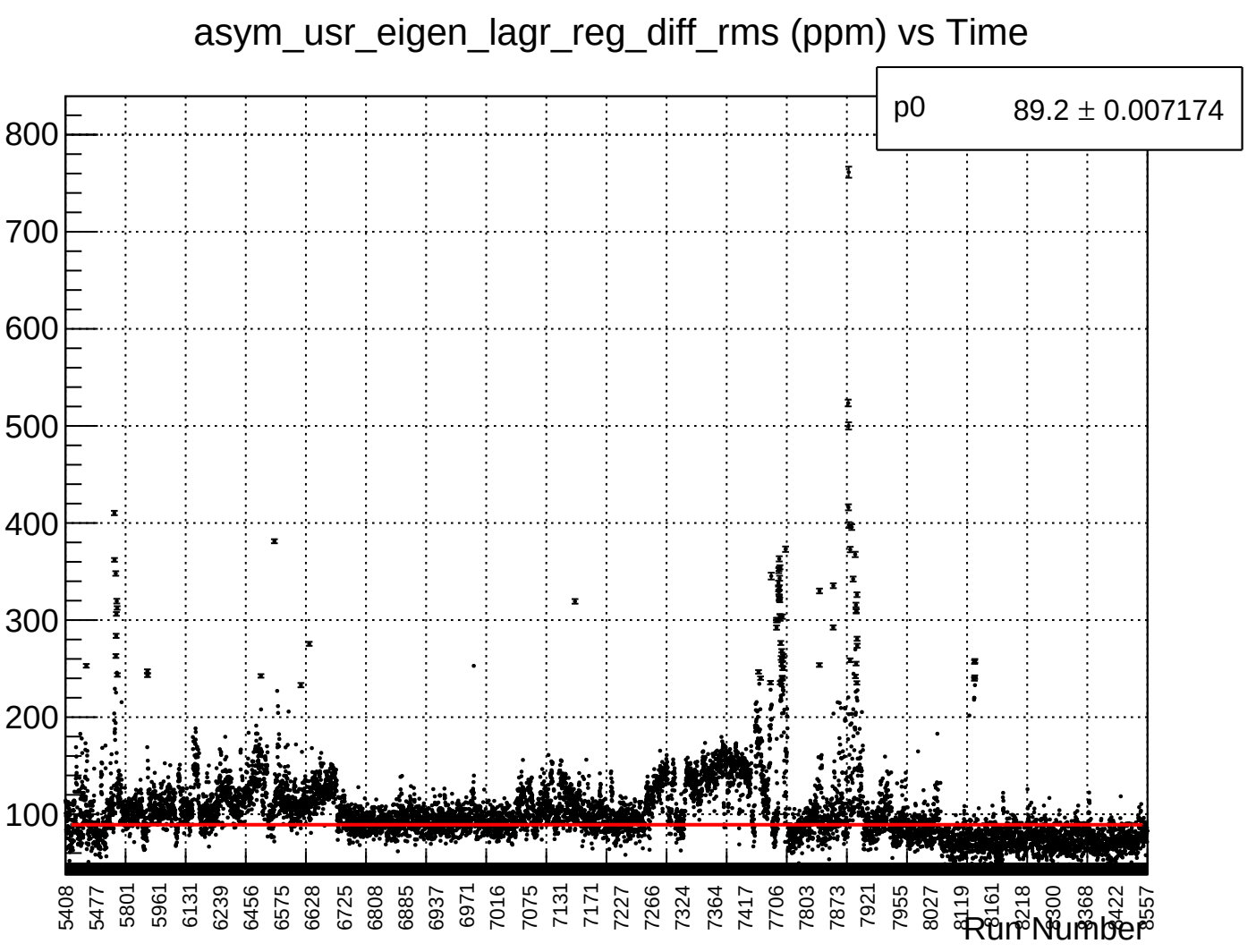

Pull Plot
Entries 8518
Mean 0.00161
Std Dev 0.9967
Underflow 0
Overflow 0
Fit Prob 0.66
Fit Chi2 8461 / 8517
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

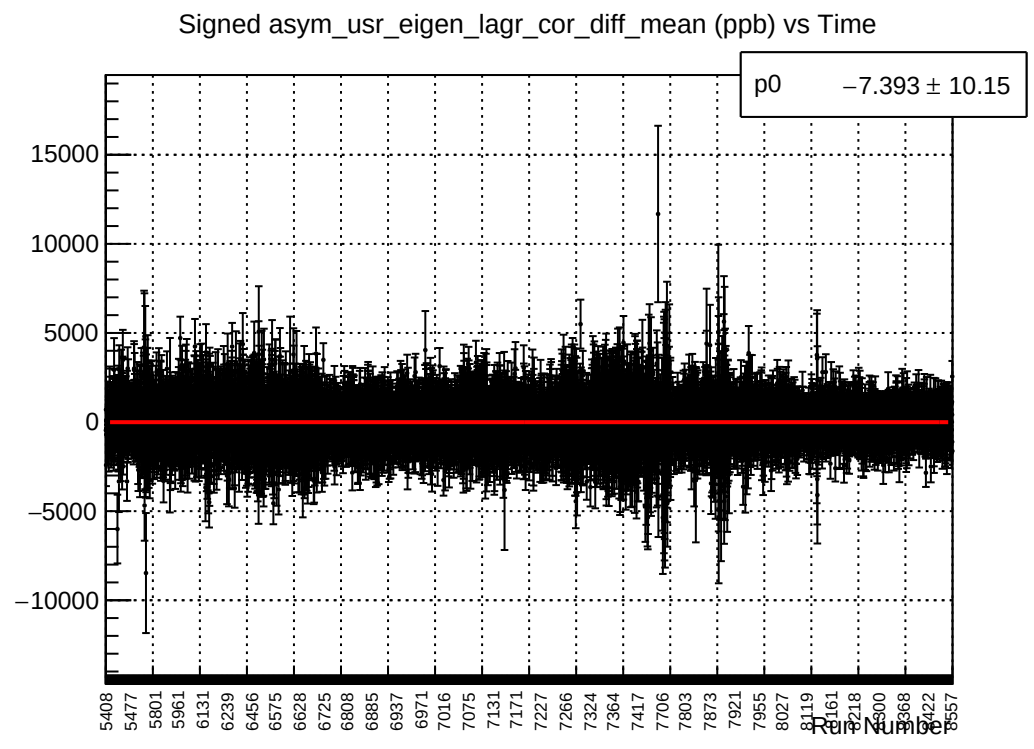

asym_usr_eigen_lagr_correction_rms (ppm) vs Time
p0
1735 ± 0.1418
6000
5000
4000
3000
2000
1000
5408
5477
5801
5961
6131
6239
6456
6575
6628
6725
6808
6885
6937
6971
7016
7075
7131
7171
7227
7266
7324
7364
7417
7706
7803
7873
7921
7955
8027
8119
8161
8218
8300
8368
8422
8557
Run Number

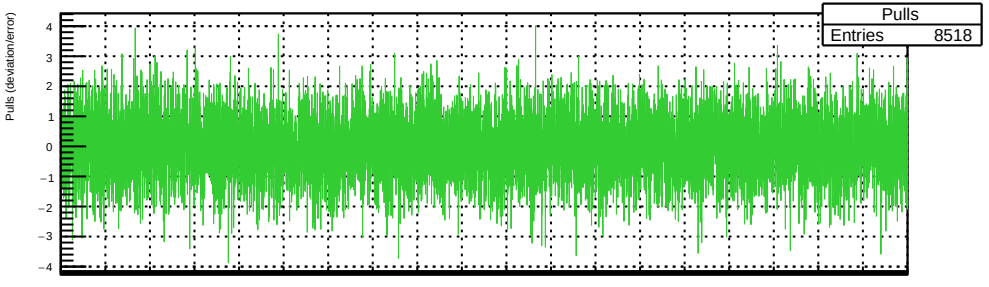

Signed asym_usr_eigen_lagr_reg_diff_mean (ppb) vs Time
p0 −7.393 ± 10.15
15000
10000
5000
0
−5000
−10000
5408
5477
5801
5961
6131
6239
6456
6575
6628
6725
6808
6885
6937
6971
7016
7075
7131
7171
7227
7266
7324
7364
7417
7706
7803
7873
7921
7955
8027
8119
8161
8218
8300
8368
8422
8557
Run Number

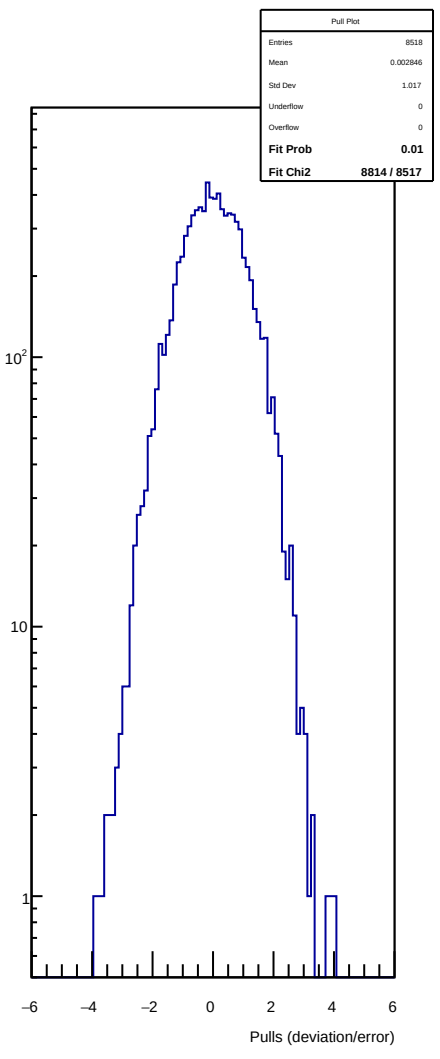

Pulls
Entries 8518
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

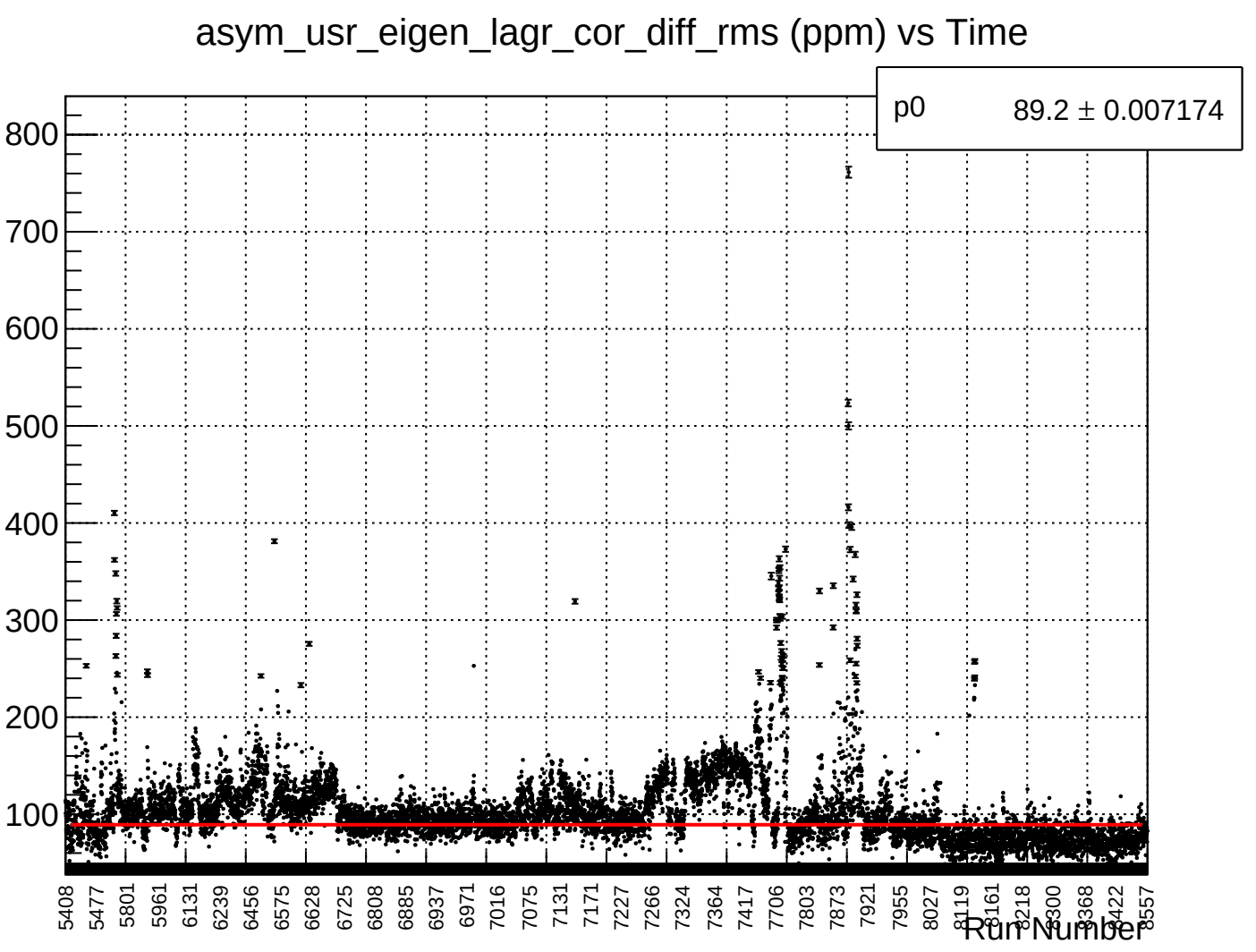

Pull Plot
Entries 8518
Mean 0.002846
Std Dev 1.017
Underflow 0
Overflow 0
Fit Prob 0.01
Fit Chi2 8814 / 8517
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

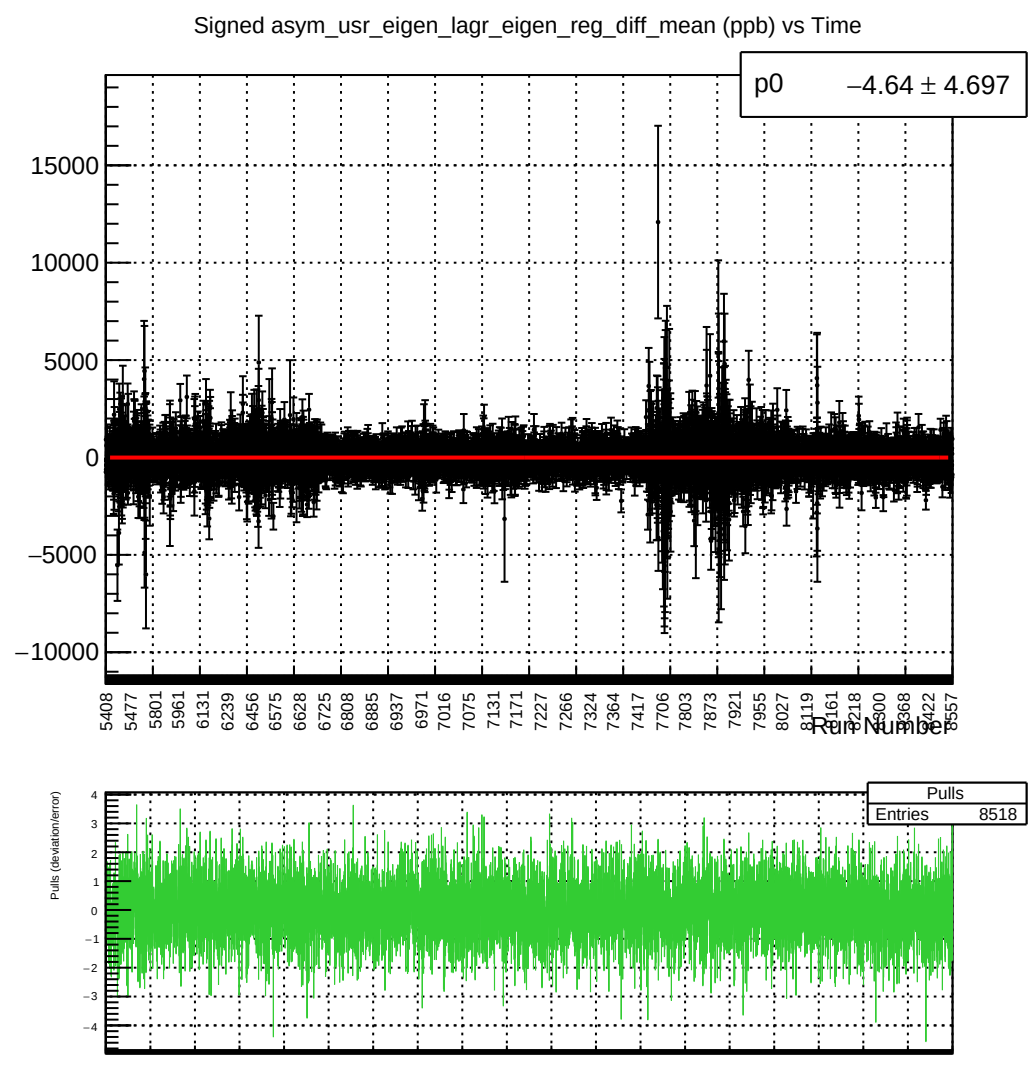

asym_usr_eigen_lagr_reg_diff_rms (ppm) vs Time
p0
89.2 ± 0.007174
800
700
600
500
400
300
200
100
5408
5477
5801
5961
6131
6239
6456
6575
6628
6725
6808
6885
6937
6971
7016
7075
7131
7171
7227
7266
7324
7364
7417
7706
7803
7873
7921
7955
8027
8119
8161
8218
8300
8368
8422
8557
Run Number

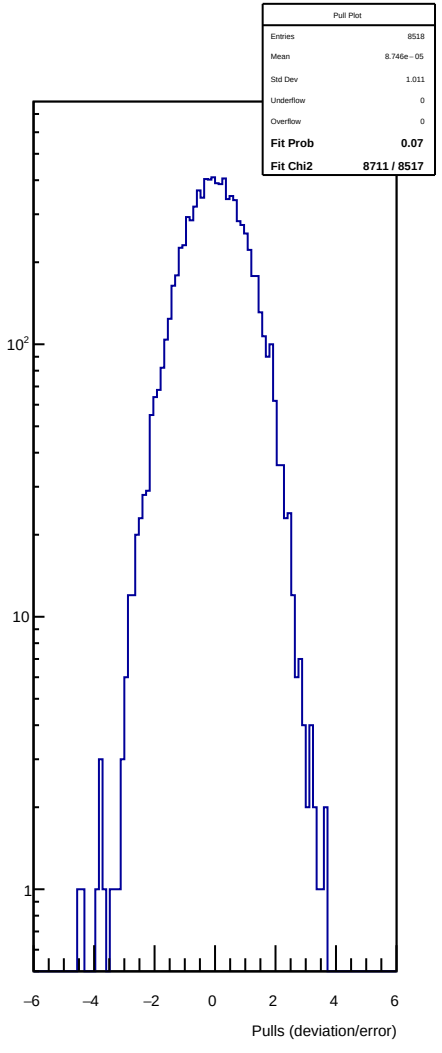

Signed asym_usr_eigen_lagr_cor_diff_mean (ppb) vs Time
p0 −7.393 ± 10.15
15000
10000
5000
0
−5000
−10000
5408
5477
5801
5961
6131
6239
6456
6575
6628
6725
6808
6885
6937
6971
7016
7075
7131
7171
7227
7266
7324
7364
7417
7706
7803
7873
7921
7955
8027
8119
8161
8218
8300
8368
8422
8557
Run Number

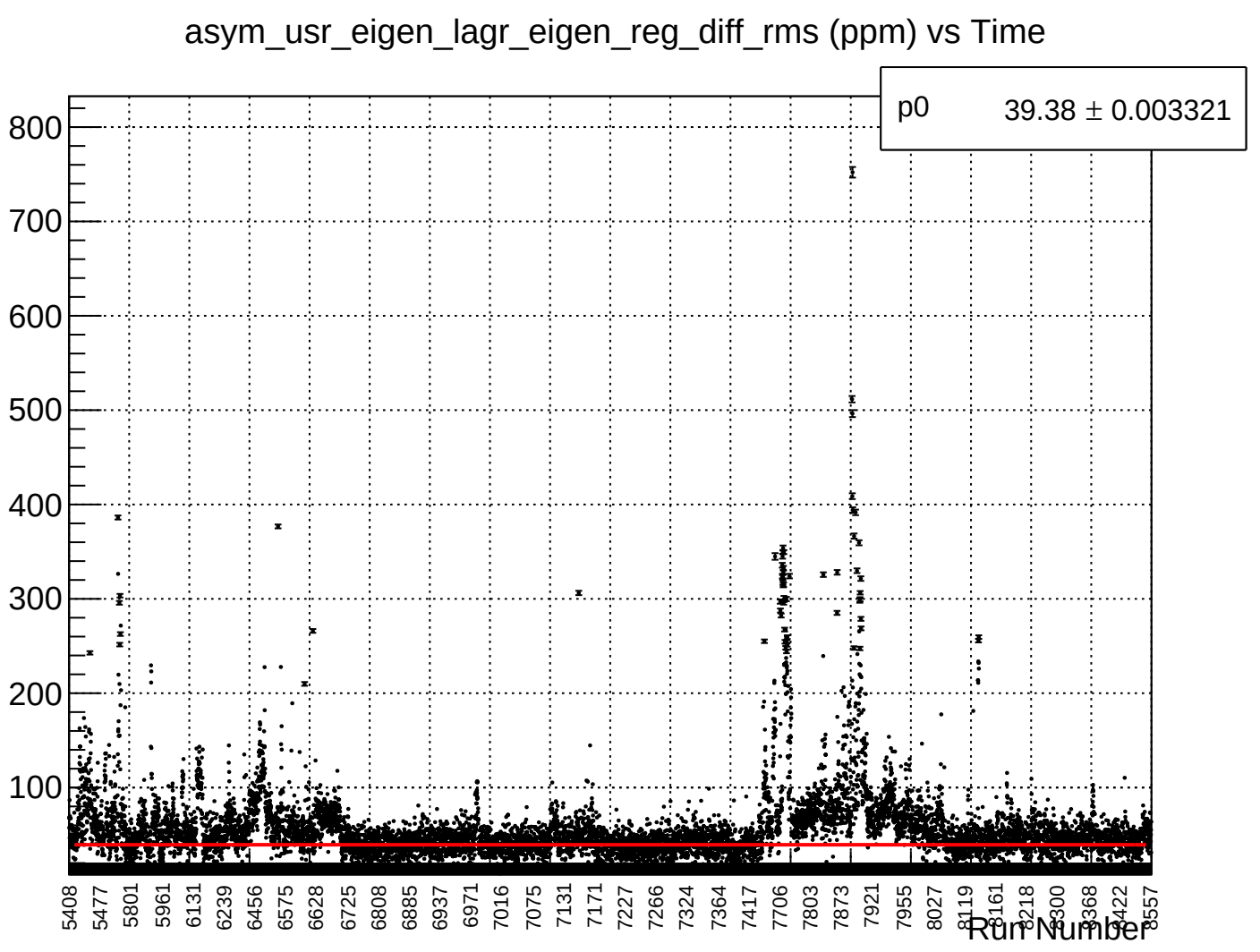

Pulls
Entries 8518
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

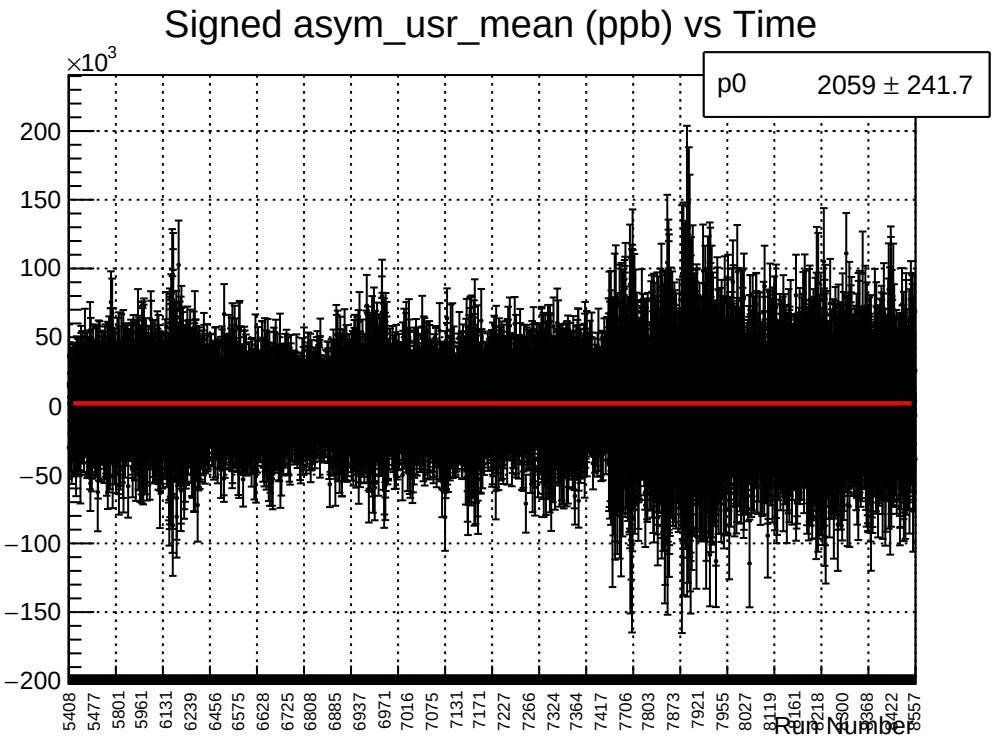

Pull Plot
Entries 8518
Mean 0.002846
Std Dev 1.017
Underflow 0
Overflow 0
Fit Prob 0.01
Fit Chi2 8814 / 8517
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

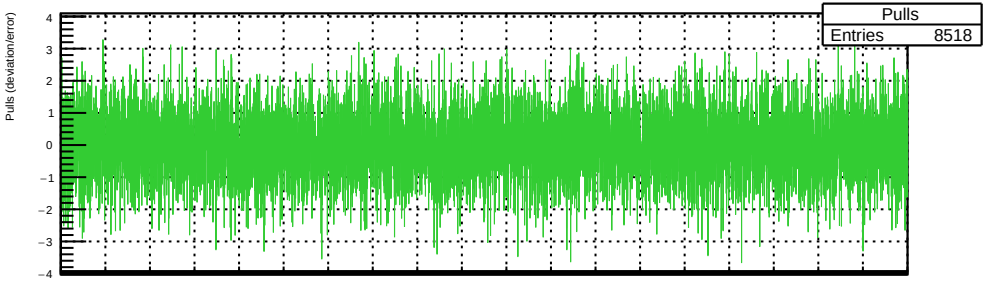

asym_usr_eigen_lagr_cor_diff_rms (ppm) vs Time
p0
89.2 ± 0.007174
800
700
600
500
400
300
200
100
5408
5477
5801
5961
6131
6239
6456
6575
6628
6725
6808
6885
6937
6971
7016
7075
7131
7171
7227
7266
7324
7364
7417
7706
7803
7873
7921
7955
8027
8119
8161
8218
8300
8368
8422
8557
Run Number

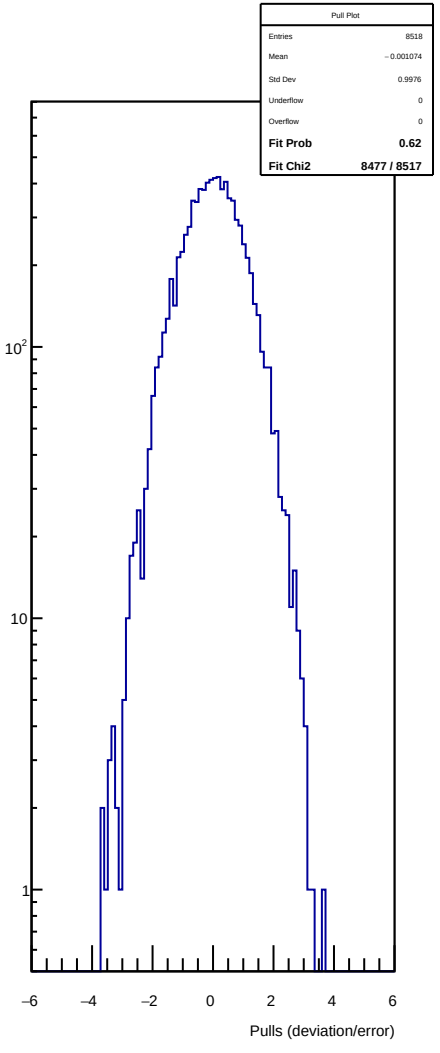

Signed asym_usr_eigen_lagr_eigen_reg_diff_mean (ppb) vs Time
p0 −4.64 ± 4.697
15000
10000
5000
0
−5000
−10000
5408
5477
5801
5961
6131
6239
6456
6575
6628
6725
6808
6885
6937
6971
7016
7075
7131
7171
7227
7266
7324
7364
7417
7706
7803
7873
7921
7955
8027
8119
8161
8218
8300
8368
8422
8557
Run Number
Pulls
Entries 8518
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

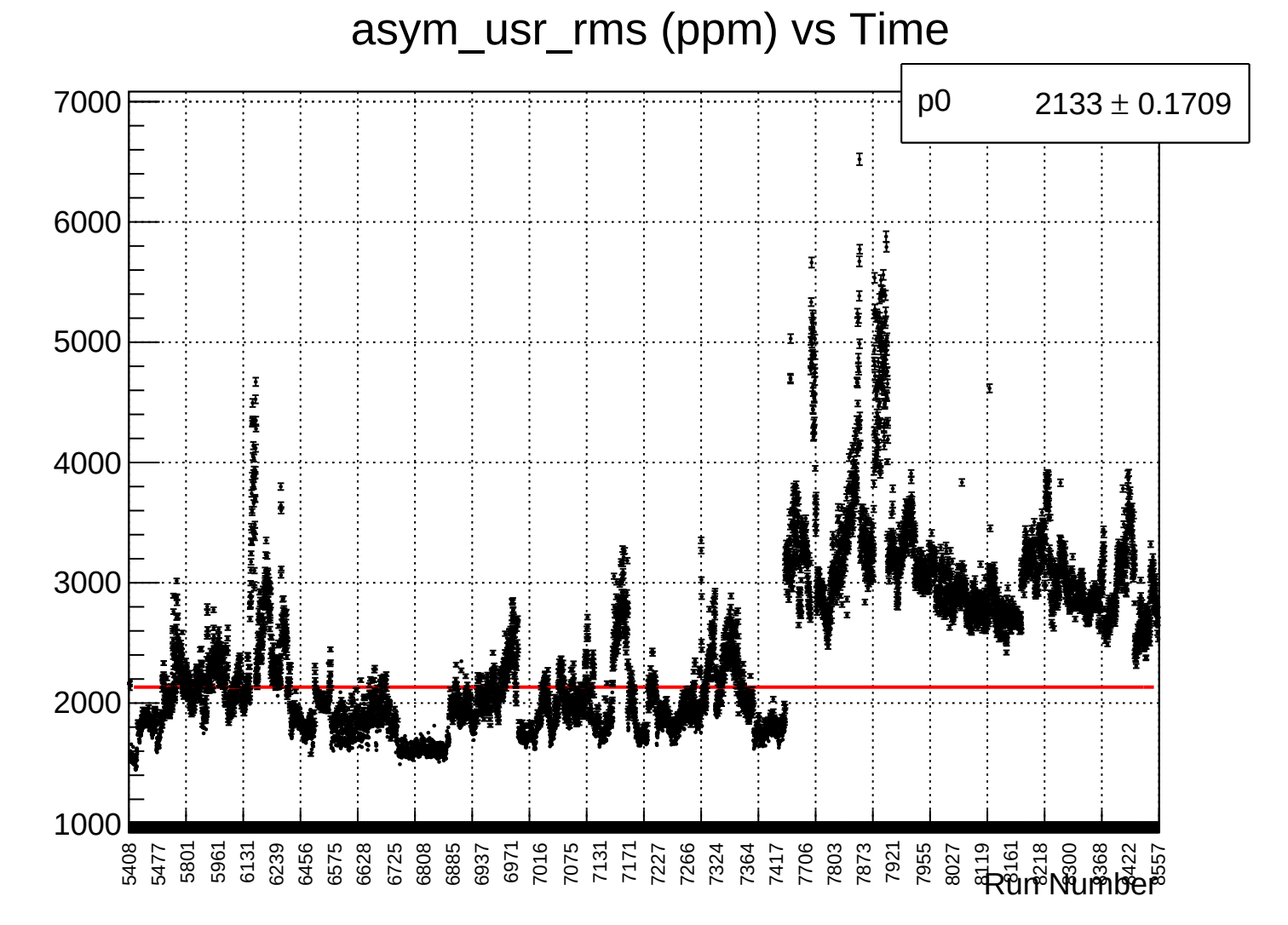

Pull Plot
Entries 8518
Mean 8.746e−05
Std Dev 1.011
Underflow 0
Overflow 0
Fit Prob 0.07
Fit Chi2 8711 / 8517
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

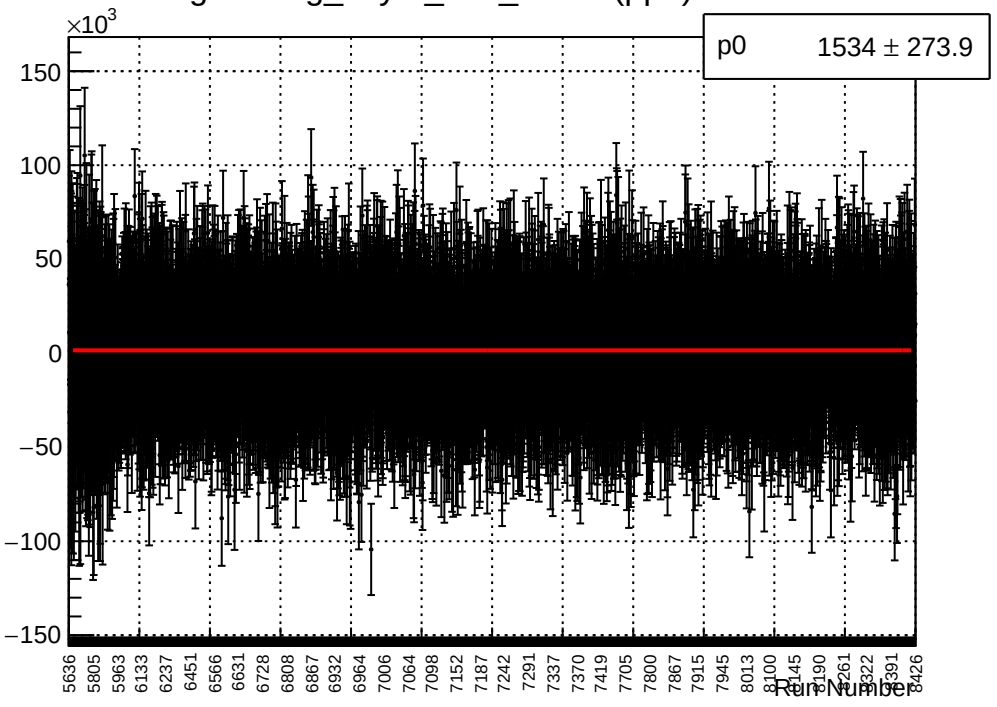

asym_usr_eigen_lagr_eigen_reg_diff_rms (ppm) vs Time
p0 39.38 ± 0.003321
800
700
600
500
400
300
200
100
5408
5477
5801
5961
6131
6239
6456
6575
6628
6725
6808
6885
6937
6971
7016
7075
7131
7171
7227
7266
7324
7364
7417
7706
7803
7873
7921
7955
8027
8119
8161
8218
8300
8368
8422
8557
Run Number

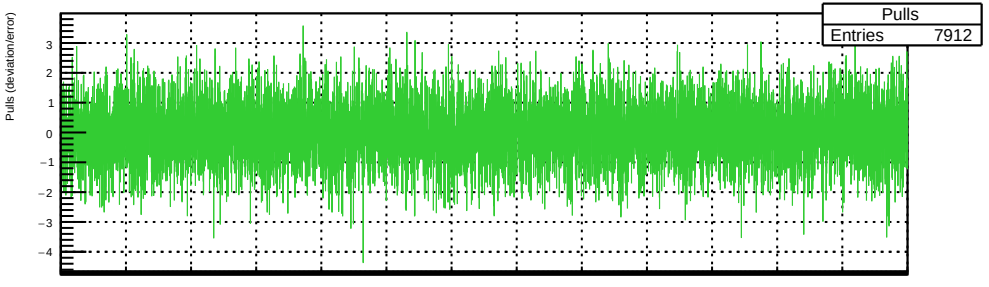

Signed asym_usr_mean (ppb) vs Time
×10^3
p0 2059 ± 241.7
200
150
100
50
0
−50
−100
−150
−200
5408 5477 5801 5961 6131 6239 6456 6575 6628 6725 6808 6885 6937 6971 7016 7075 7131 7171 7227 7266 7324 7364 7417 7706 7803 7873 7921 7955 8027 8119 8161 8218 8300 8368 8422 8557
Run Number

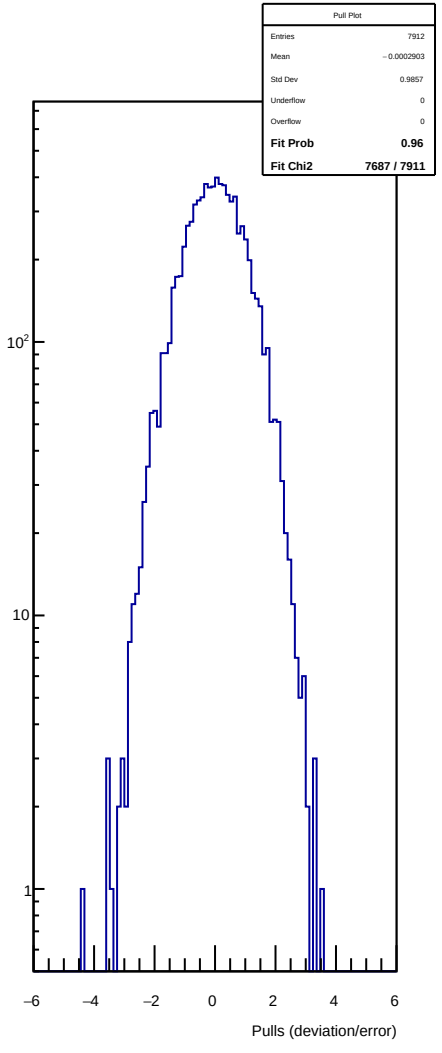

Pulls
Entries 8518
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

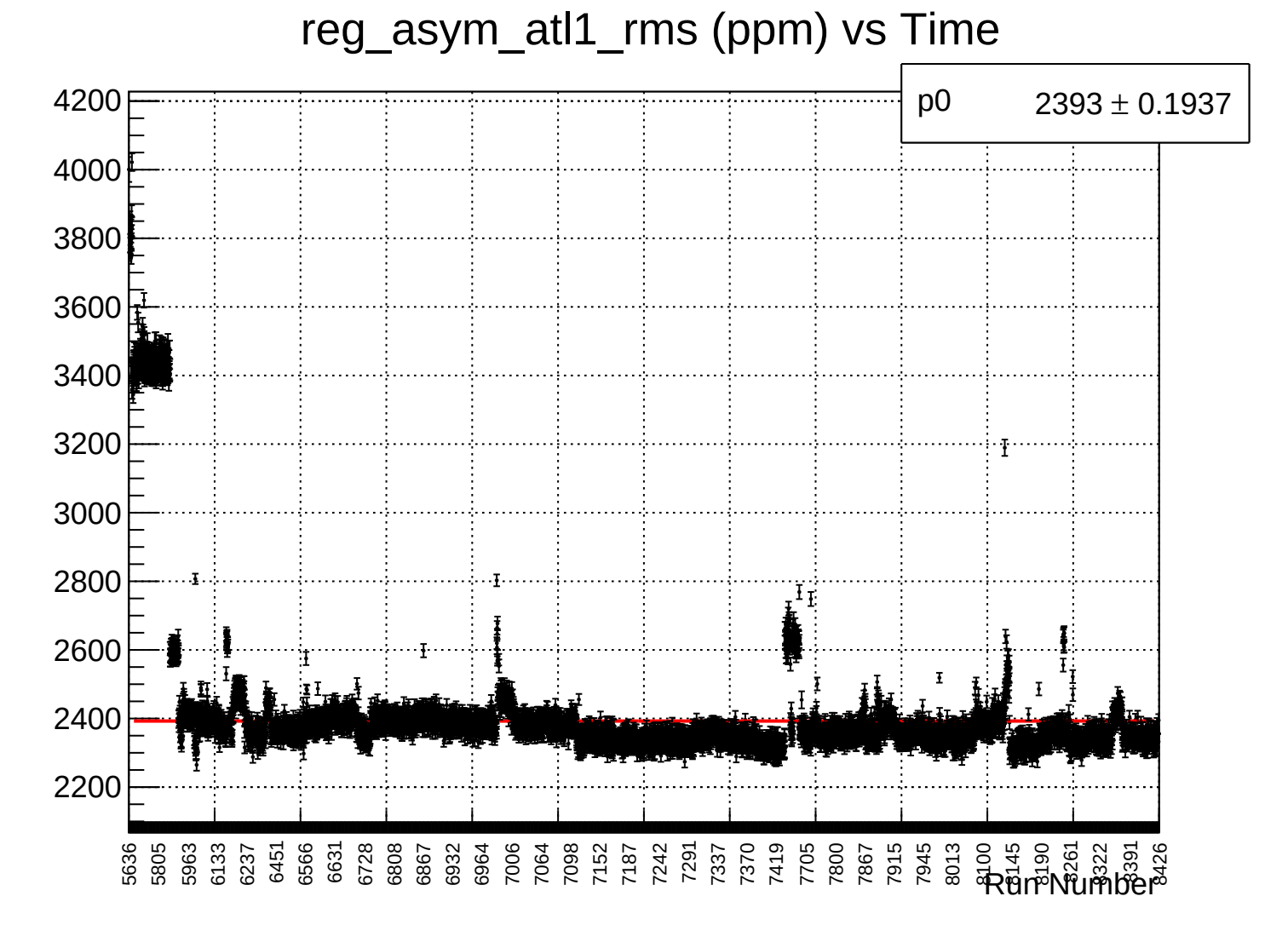

Pull Plot
Entries 8518
Mean −0.001074
Std Dev 0.9976
Underflow 0
Overflow 0
Fit Prob 0.62
Fit Chi2 8477 / 8517
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

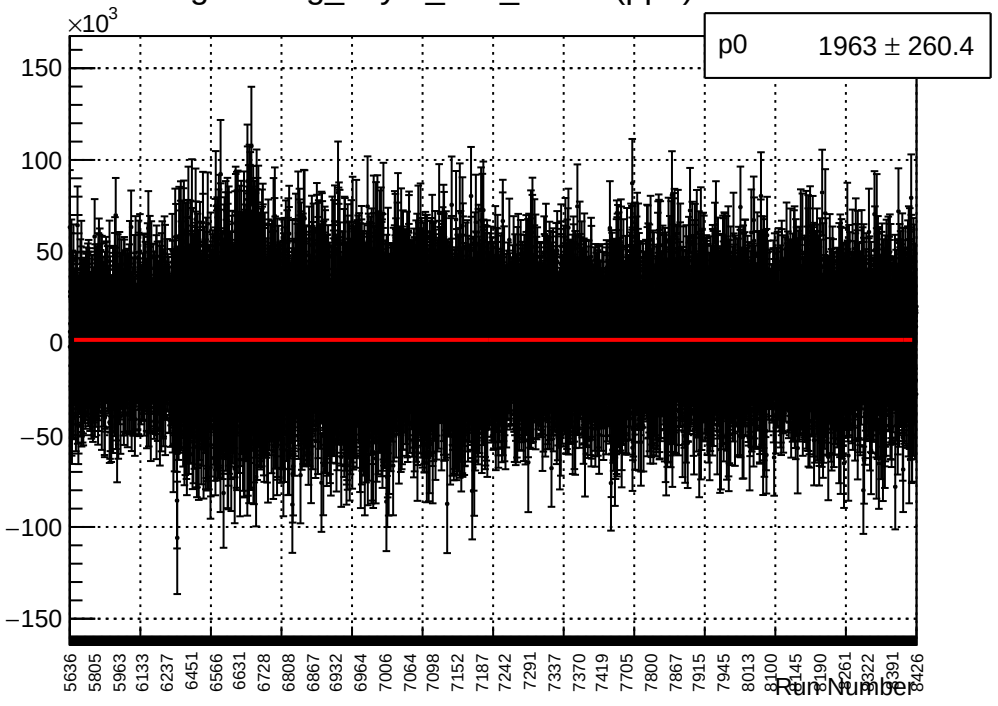

asym_usr_rms (ppm) vs Time
p0
2133 ± 0.1709
7000
6000
5000
4000
3000
2000
1000
5408
5477
5801
5961
6131
6239
6456
6575
6628
6725
6808
6885
6937
6971
7016
7075
7131
7171
7227
7266
7324
7364
7417
7706
7803
7873
7921
7955
8027
8119
8161
8218
8300
8368
8422
8557
Run Number

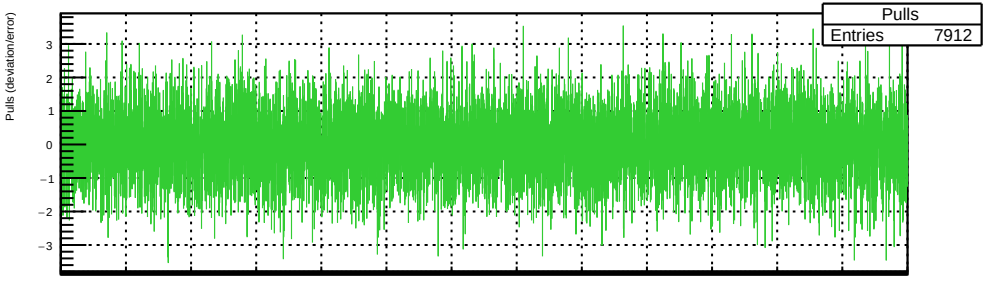

Signed reg_asym_atl1_mean (ppb) vs Time
×10^3
p0 1534 ± 273.9
150
100
50
0
−50
−100
−150
5636 5805 5963 6133 6237 6451 6566 6631 6728 6808 6867 6932 6964 7006 7064 7098 7152 7187 7242 7291 7337 7370 7419 7705 7800 7867 7915 7945 8013 8100 8145 8190 8261 8322 8391 8426
Run Number

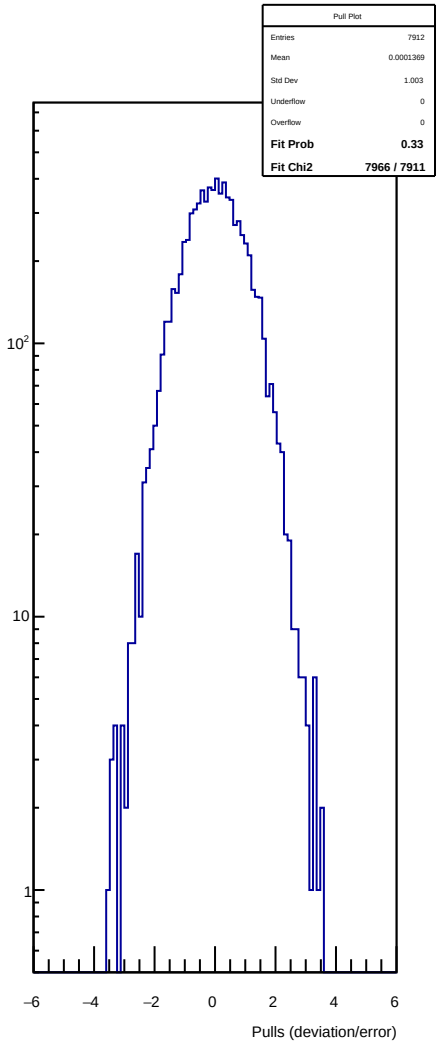

Pulls
Entries 7912
Pulls (deviation/error)
3
2
1
0
−1
−2
−3
−4

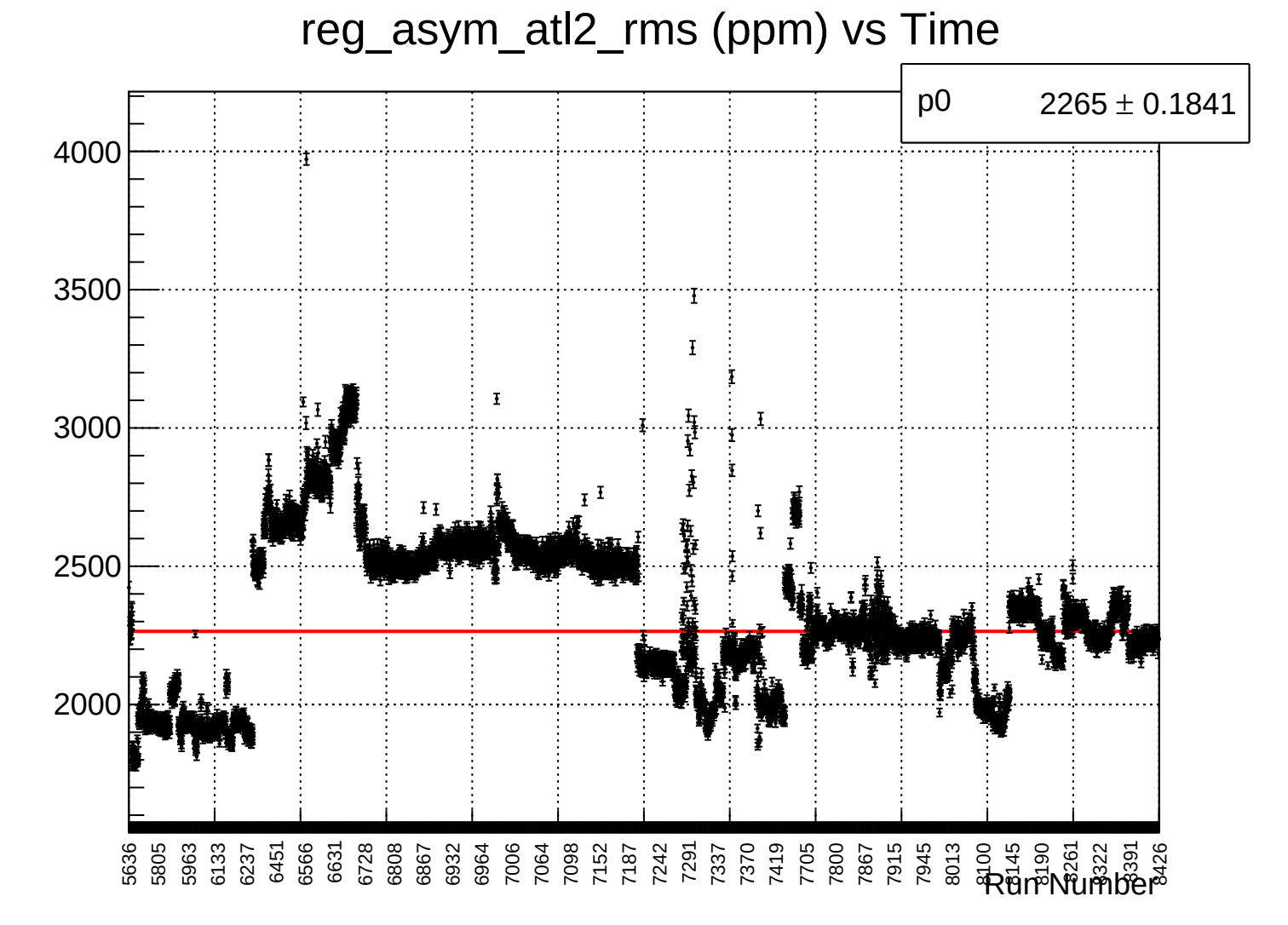

Pull Plot
Entries 7912
Mean −0.0002903
Std Dev 0.9857
Underflow 0
Overflow 0
Fit Prob 0.96
Fit Chi2 7687 / 7911
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

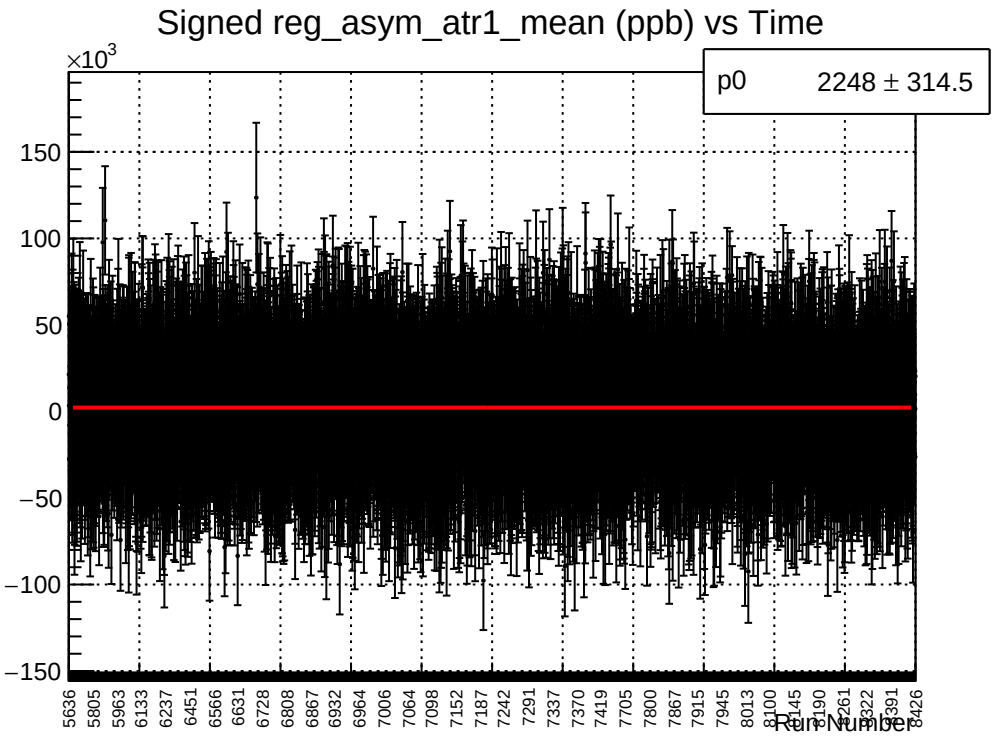

reg_asym_atl1_rms (ppm) vs Time
p0 2393 ± 0.1937
4200
4000
3800
3600
3400
3200
3000
2800
2600
2400
2200
5636
5805
5963
6133
6237
6451
6566
6631
6728
6808
6867
6932
6964
7006
7064
7098
7152
7187
7242
7291
7337
7370
7419
7705
7800
7867
7915
7945
8013
8100
8145
8190
8261
8322
8391
8426
Run Number

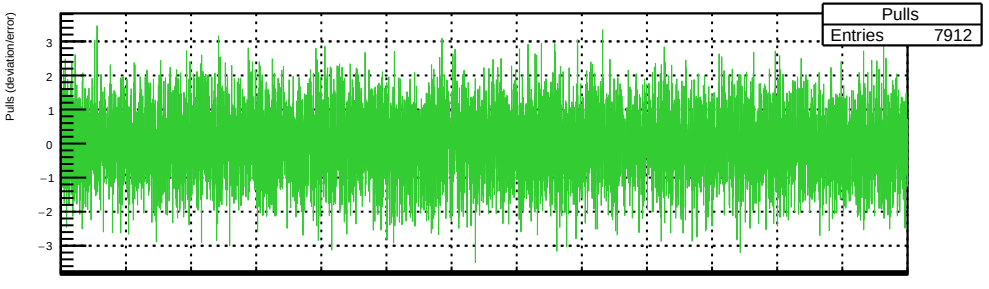

Signed reg_asym_atl2_mean (ppb) vs Time
×10^3
p0 1963 ± 260.4
150
100
50
0
−50
−100
−150
5636 5805 5963 6133 6237 6451 6566 6631 6728 6808 6867 6932 6964 7006 7064 7098 7152 7187 7242 7291 7337 7370 7419 7705 7800 7867 7915 7945 8013 8100 8145 8190 8261 8322 8391 8426
Run Number

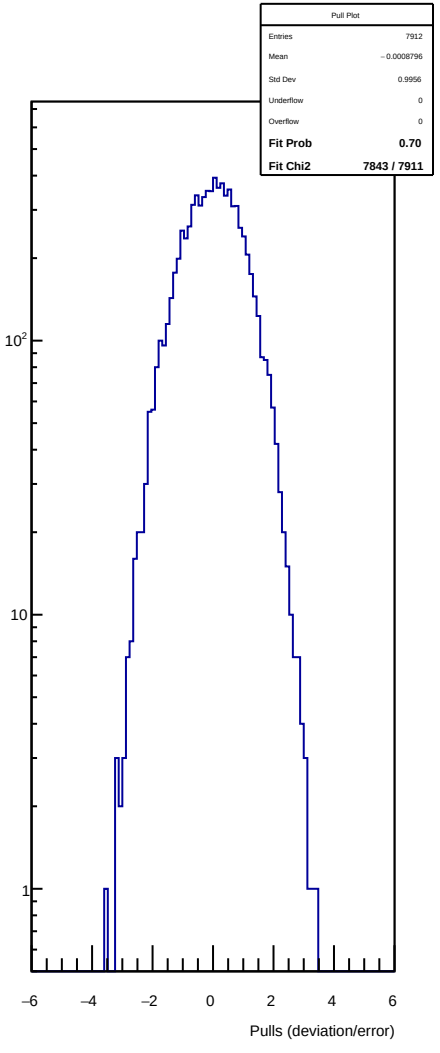

Pulls
Entries 7912
Pulls (deviation/error)
3
2
1
0
−1
−2
−3

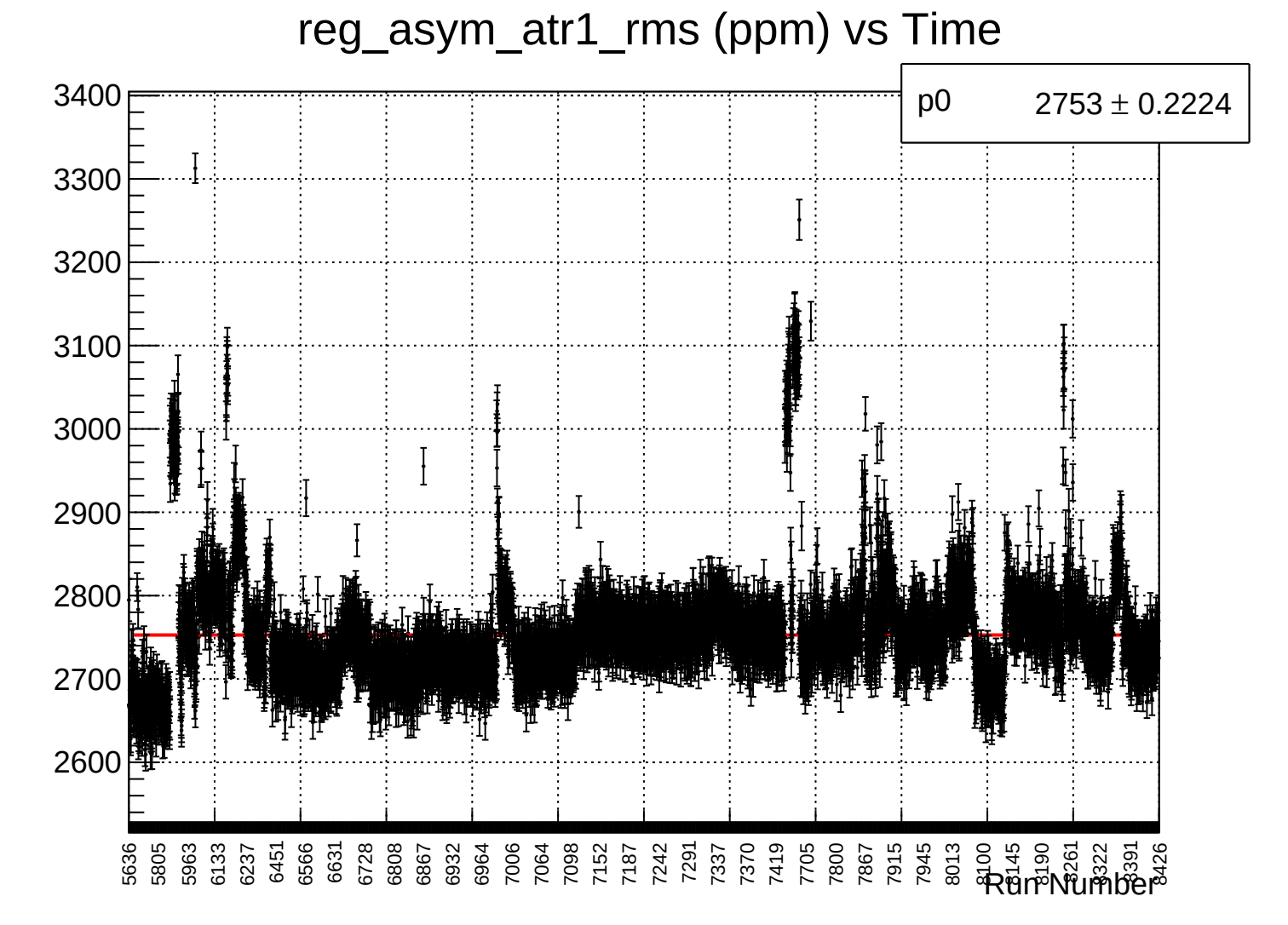

Pull Plot
Entries 7912
Mean 0.0001369
Std Dev 1.003
Underflow 0
Overflow 0
Fit Prob 0.33
Fit Chi2 7966 / 7911
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

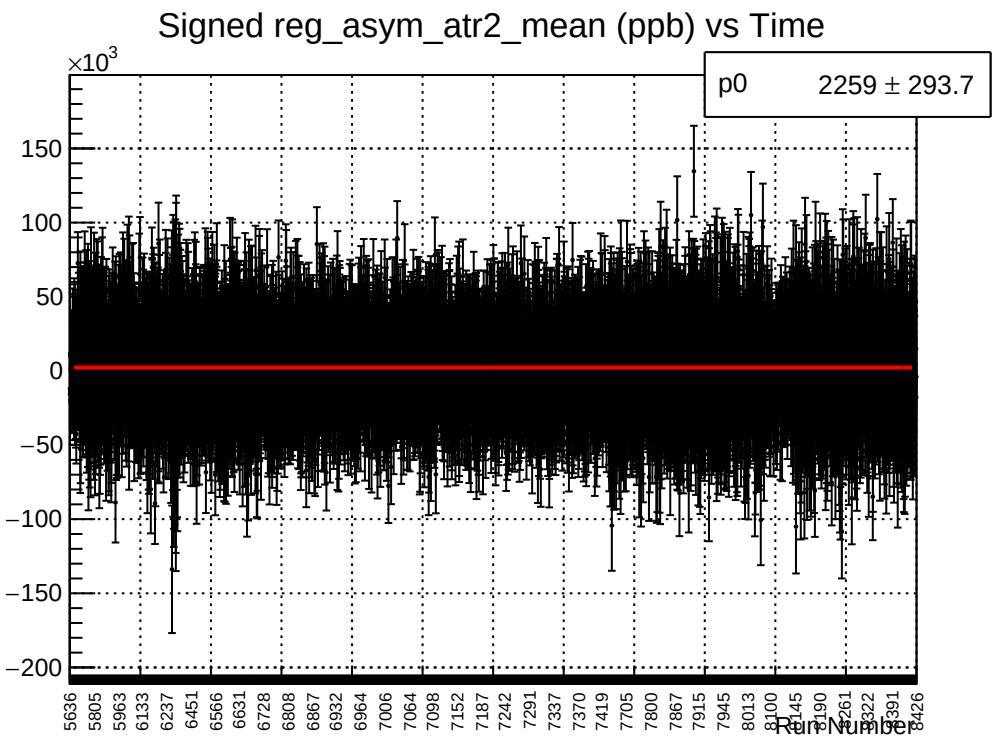

reg_asym_atl2_rms (ppm) vs Time
p0
2265 ± 0.1841
4000
3500
3000
2500
2000
5636
5805
5963
6133
6237
6451
6566
6631
6728
6808
6867
6932
6964
7006
7064
7098
7152
7187
7242
7291
7337
7370
7419
7705
7800
7867
7915
7945
8013
8100
8145
8190
8261
8322
8391
8426
Run Number

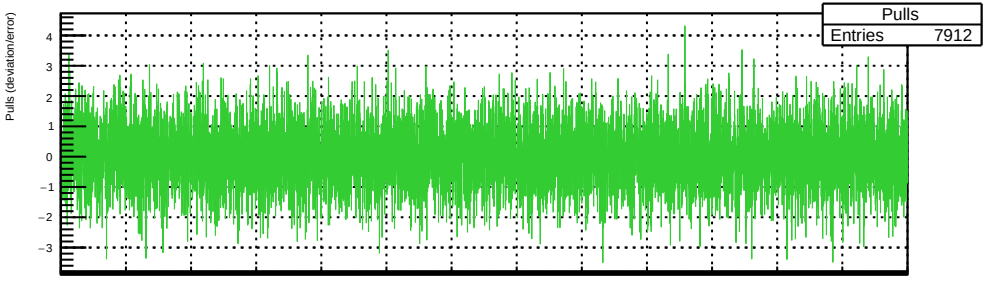

Signed reg_asym_atr1_mean (ppb) vs Time
×10^3
p0 2248 ± 314.5
150
100
50
0
−50
−100
−150
5636 5805 5963 6133 6237 6451 6566 6631 6728 6808 6867 6932 6964 7006 7064 7098 7152 7187 7242 7291 7337 7370 7419 7705 7800 7867 7915 7945 8013 8100 8145 8190 8261 8322 8391 8426
Run Number

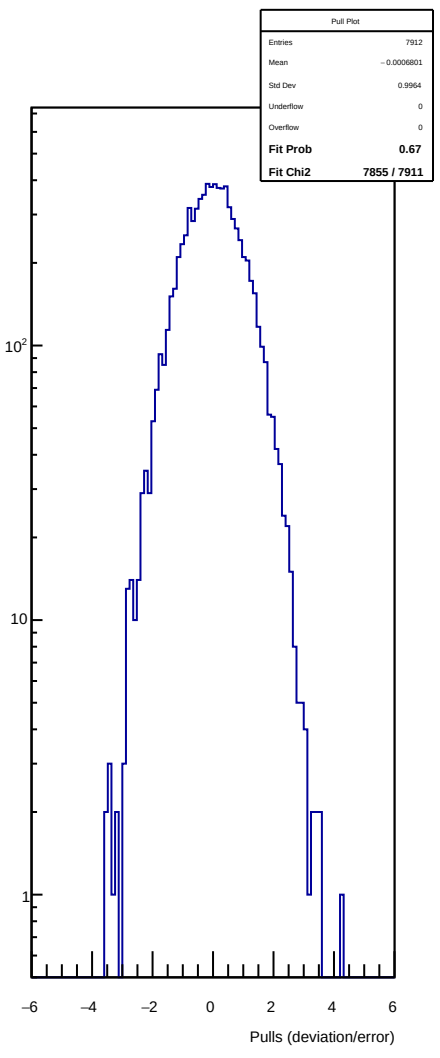

Pulls
Entries 7912
Pulls (deviation/error)
3
2
1
0
−1
−2
−3

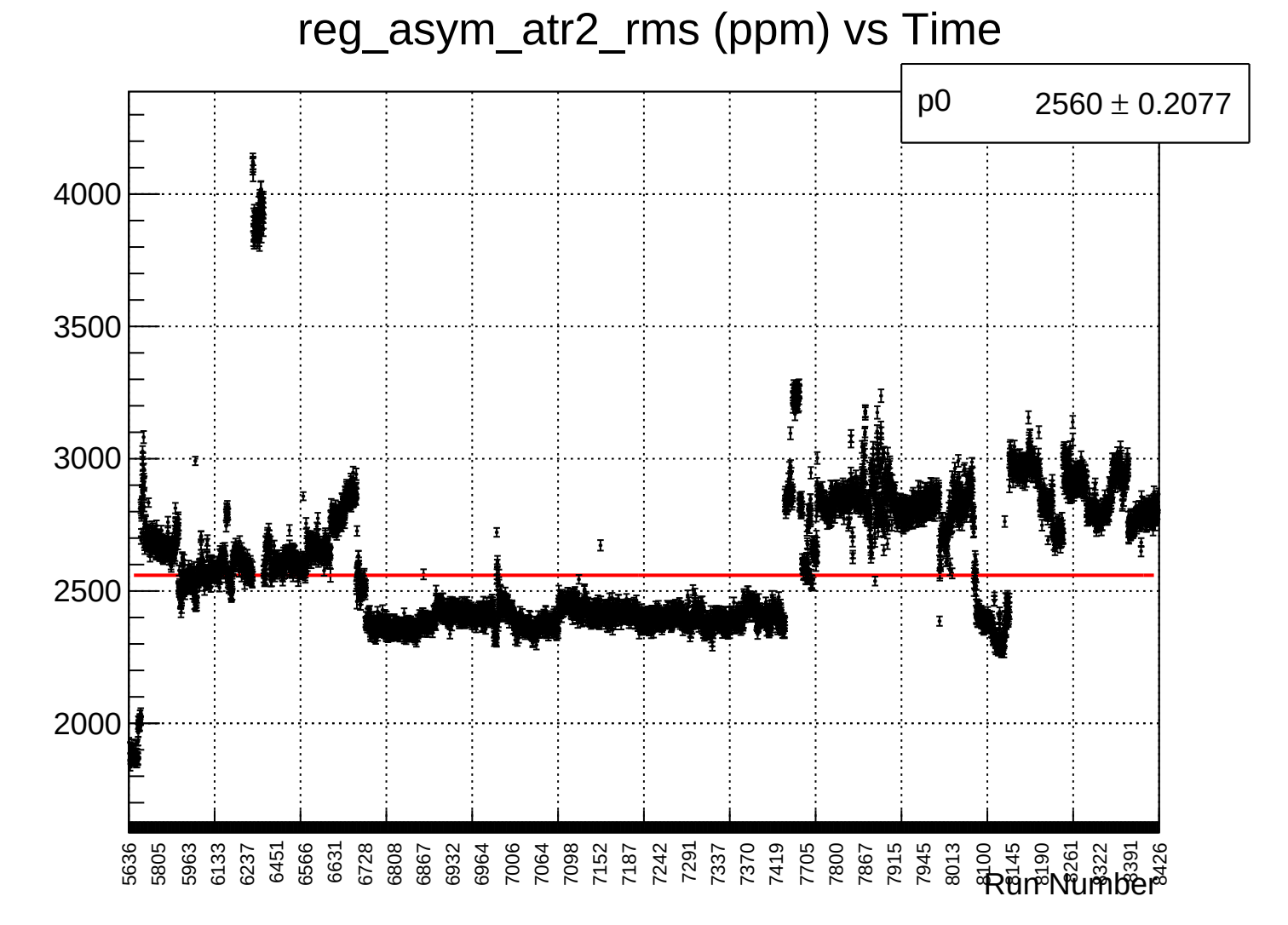

Pull Plot
Entries 7912
Mean −0.0008796
Std Dev 0.9956
Underflow 0
Overflow 0
Fit Prob 0.70
Fit Chi2 7843 / 7911
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

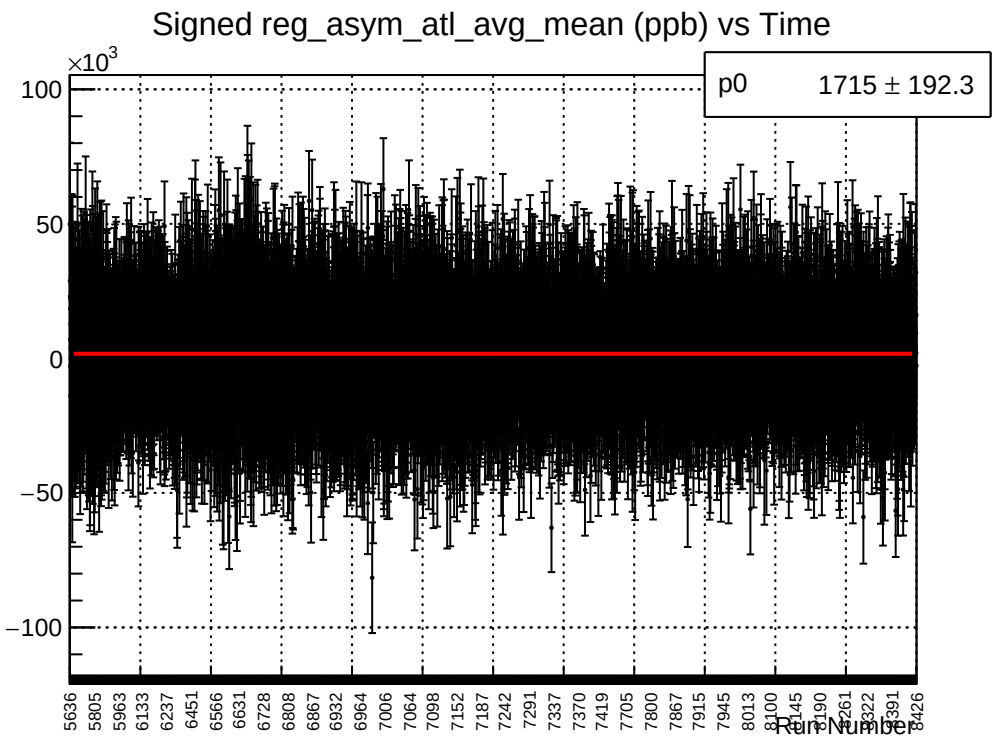

reg_asym_atr1_rms (ppm) vs Time
p0
2753 ± 0.2224
3400
3300
3200
3100
3000
2900
2800
2700
2600
5636
5805
5963
6133
6237
6451
6566
6631
6728
6808
6867
6932
6964
7006
7064
7098
7152
7187
7242
7291
7337
7370
7419
7705
7800
7867
7915
7945
8013
8100
8145
8190
8261
8322
8391
8426
Run Number

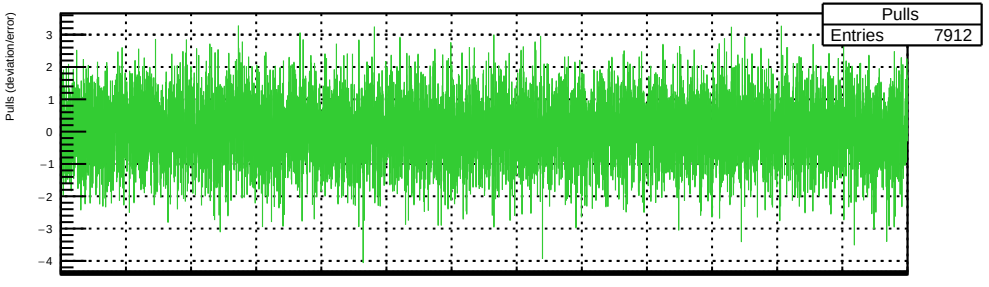

Signed reg_asym_atr2_mean (ppb) vs Time
×10^3
p0 2259 ± 293.7
150
100
50
0
−50
−100
−150
−200
5636 5805 5963 6133 6237 6451 6566 6631 6728 6808 6867 6932 6964 7006 7064 7098 7152 7187 7242 7291 7337 7370 7419 7705 7800 7867 7915 7945 8013 8100 8145 8190 8261 8322 8391 8426
Run Number

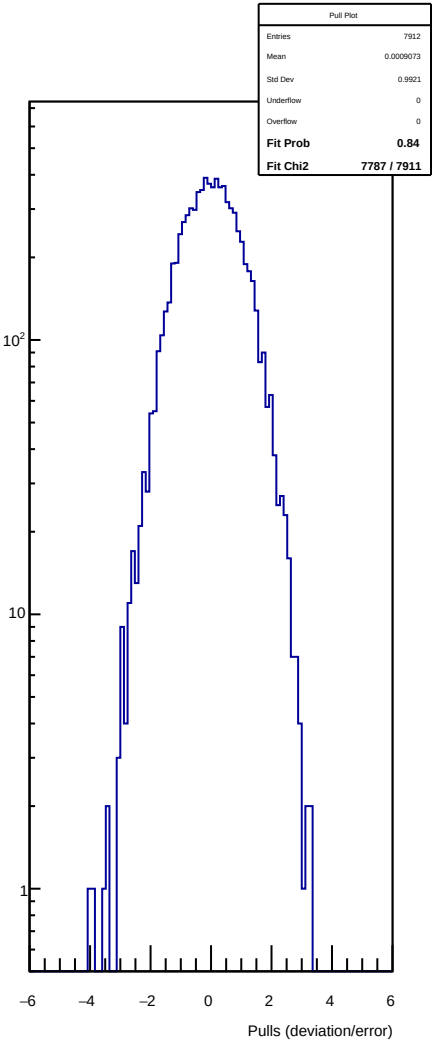

Pulls
Entries 7912
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3

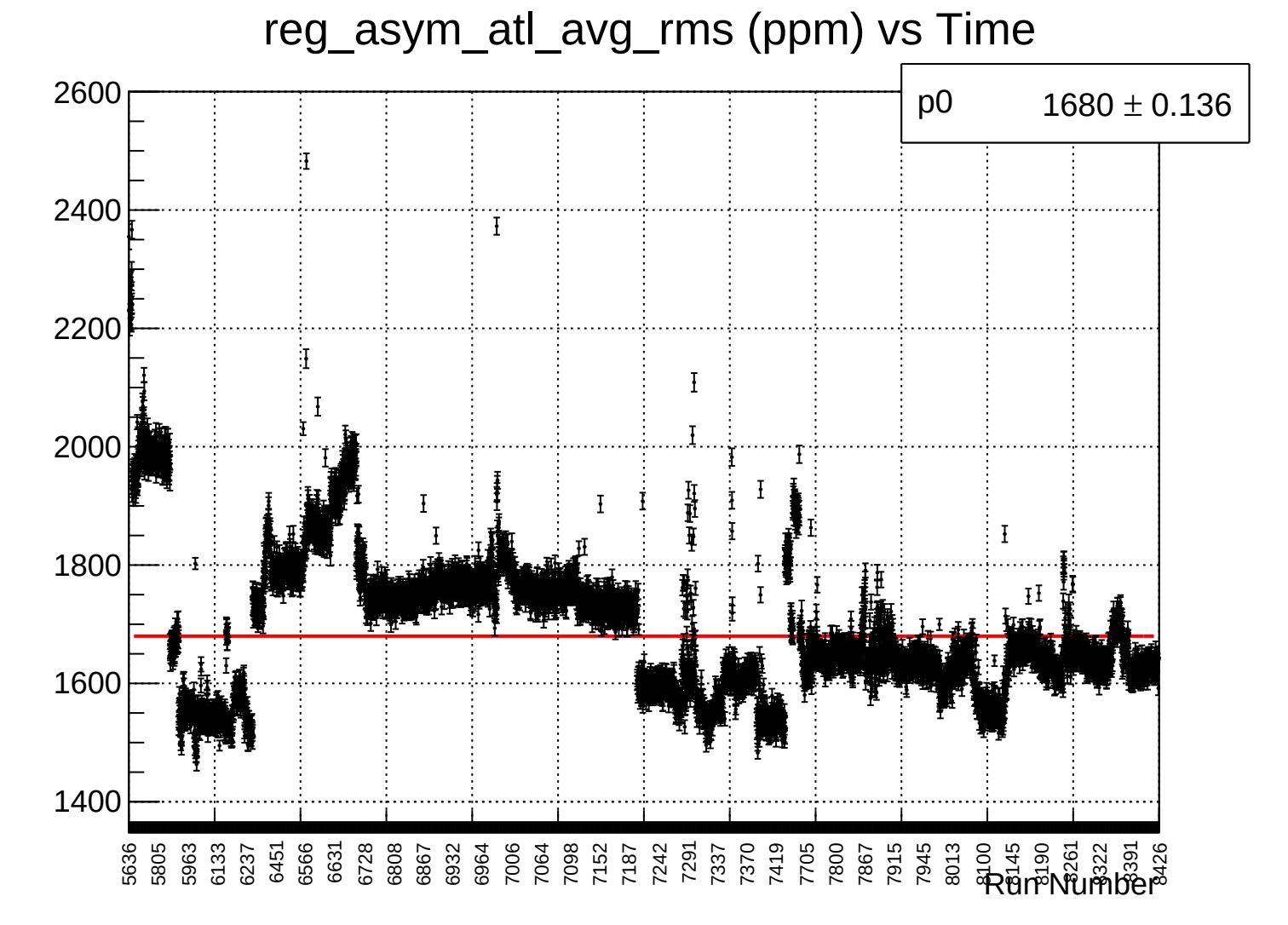

Pull Plot
Entries 7912
Mean −0.0006801
Std Dev 0.9964
Underflow 0
Overflow 0
Fit Prob 0.67
Fit Chi2 7855 / 7911
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

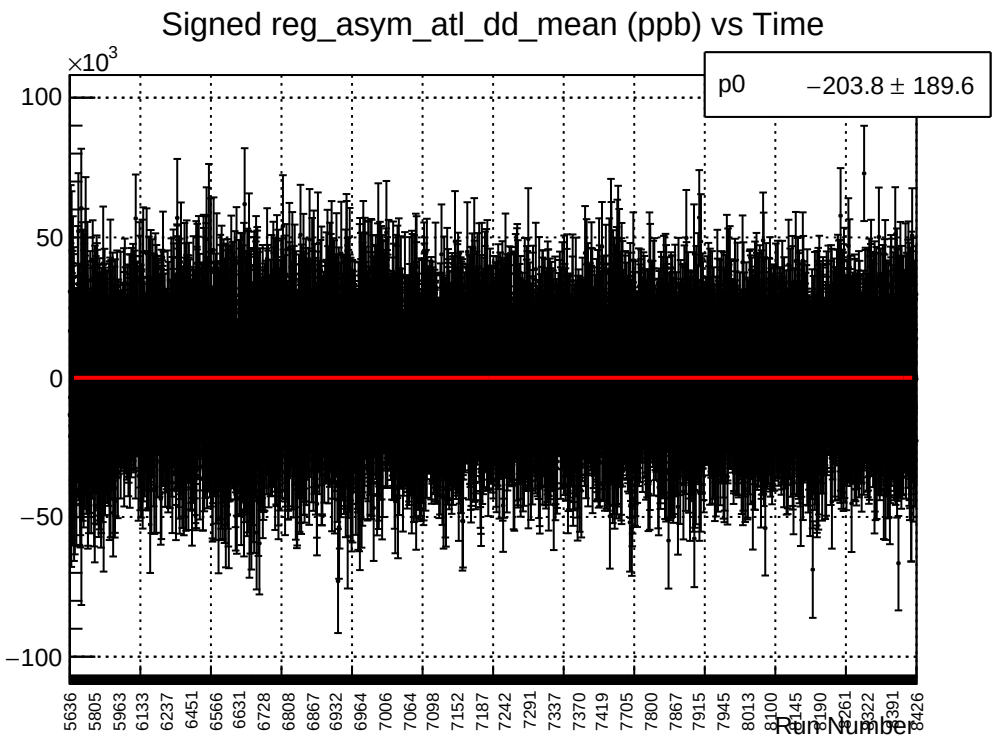

reg_asym_atr2_rms (ppm) vs Time
p0
2560 ± 0.2077
4000
3500
3000
2500
2000
5636
5805
5963
6133
6237
6451
6566
6631
6728
6808
6867
6932
6964
7006
7064
7098
7152
7187
7242
7291
7337
7370
7419
7705
7800
7867
7915
7945
8013
8100
8145
8190
8261
8322
8391
8426
Run Number

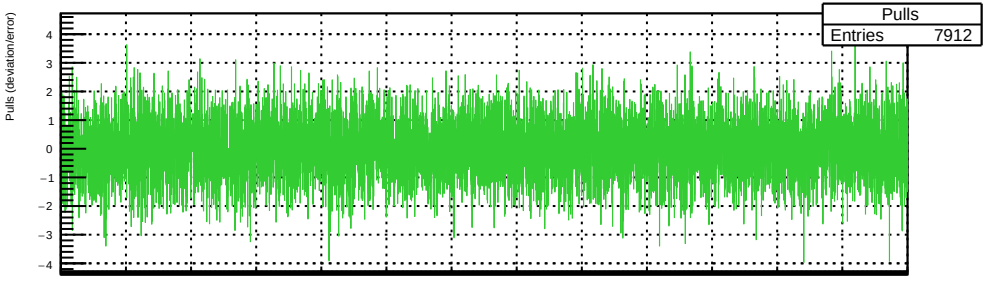

Signed reg_asym_atl_avg_mean (ppb) vs Time
×10^3
p0 1715 ± 192.3
100
50
0
−50
−100
5636 5805 5963 6133 6237 6451 6566 6631 6728 6808 6867 6932 6964 7006 7064 7098 7152 7187 7242 7291 7337 7370 7419 7705 7800 7867 7915 7945 8013 8100 8145 8190 8261 8322 8391 8426
Run Number

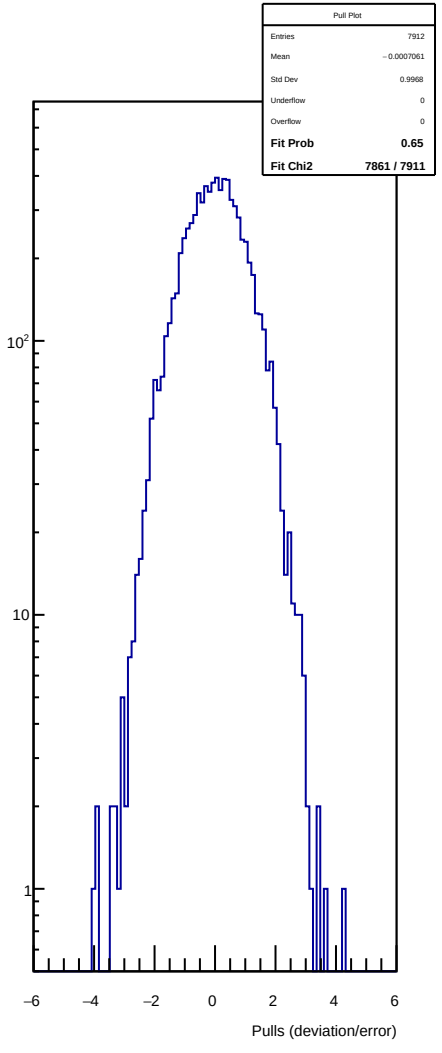

Pulls
Entries 7912
Pulls (deviation/error)
3
2
1
0
−1
−2
−3
−4

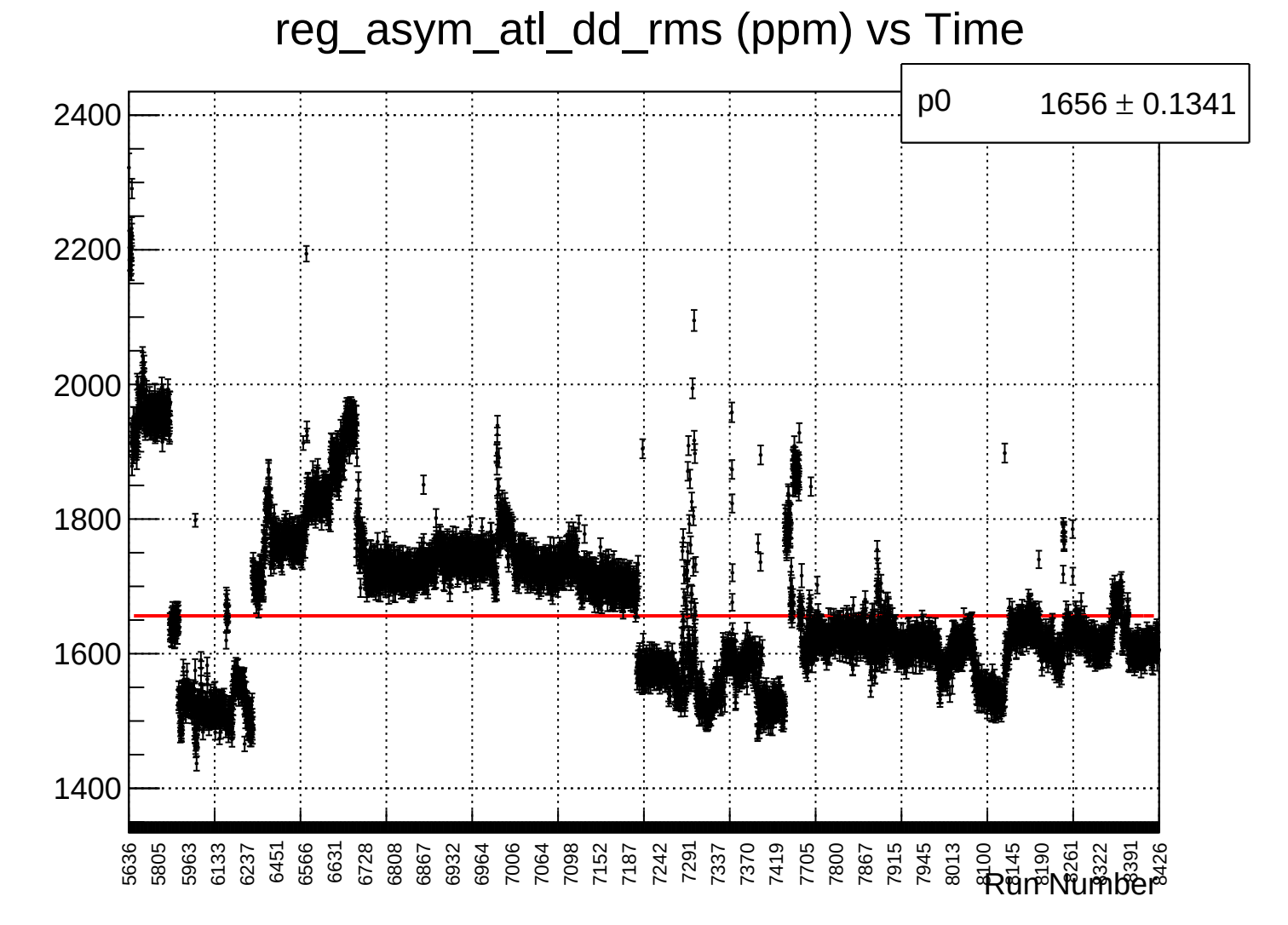

Pull Plot
Entries 7912
Mean 0.0009073
Std Dev 0.9921
Underflow 0
Overflow 0
Fit Prob 0.84
Fit Chi2 7787 / 7911
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

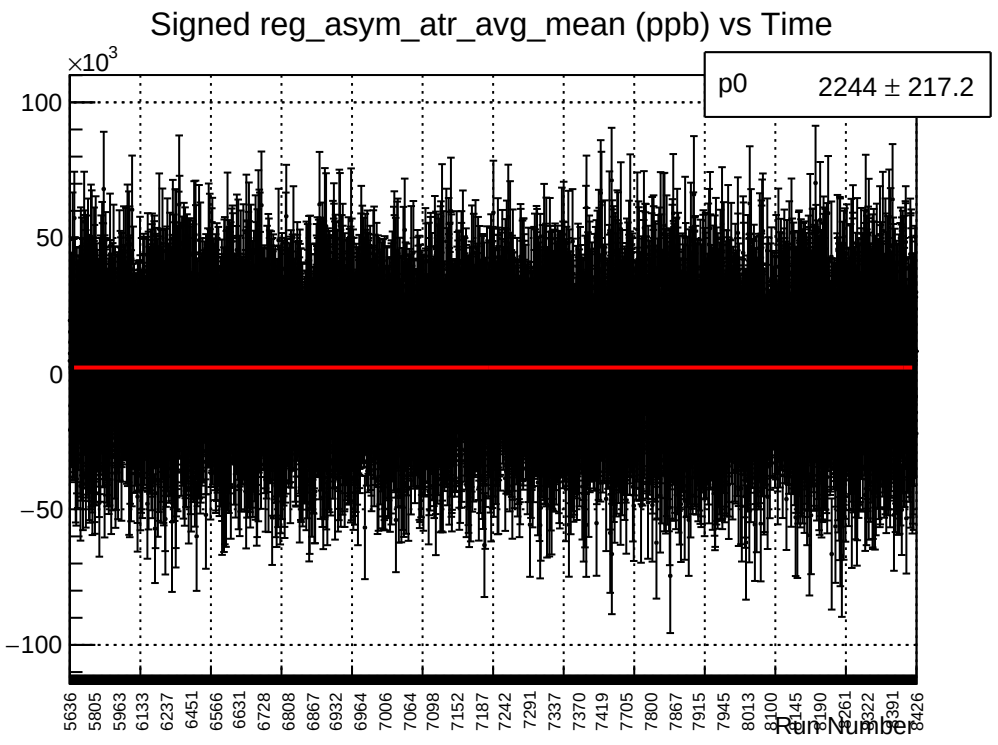

reg_asym_atl_avg_rms (ppm) vs Time
p0 1680 ± 0.136
2600
2400
2200
2000
1800
1600
1400
5636
5805
5963
6133
6237
6451
6566
6631
6728
6808
6867
6932
6964
7006
7064
7098
7152
7187
7242
7291
7337
7370
7419
7705
7800
7867
7915
7945
8013
8100
8145
8190
8261
8322
8391
8426
Run Number

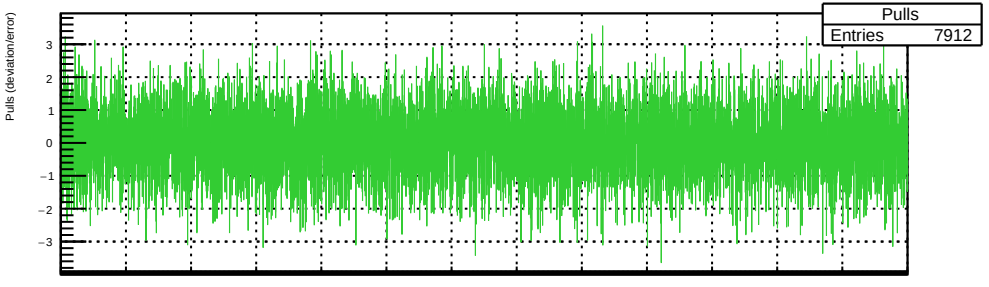

Signed reg_asym_atl_dd_mean (ppb) vs Time
×10^3
p0 −203.8 ± 189.6
100
50
0
−50
−100
5636 5805 5963 6133 6237 6451 6566 6631 6728 6808 6867 6932 6964 7006 7064 7098 7152 7187 7242 7291 7337 7370 7419 7705 7800 7867 7915 7945 8013 8100 8145 8190 8261 8322 8391 8426
Run Number

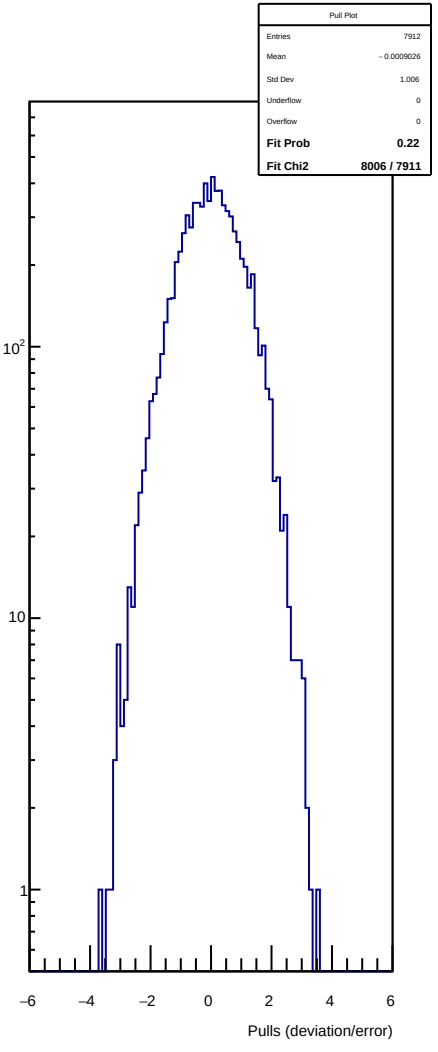

Pulls
Entries 7912
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

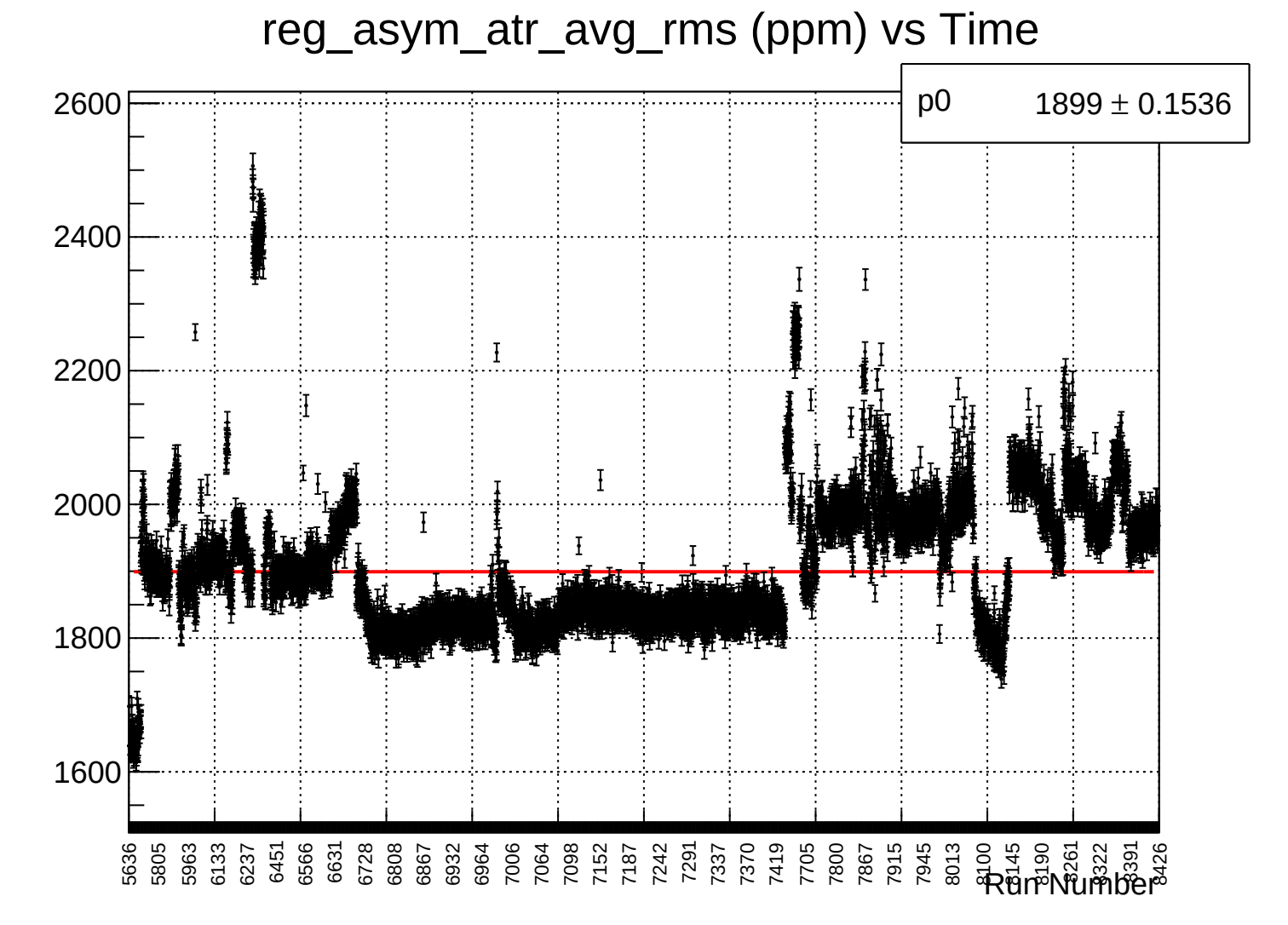

Pull Plot
Entries 7912
Mean −0.0007061
Std Dev 0.9968
Underflow 0
Overflow 0
Fit Prob 0.65
Fit Chi2 7861 / 7911
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

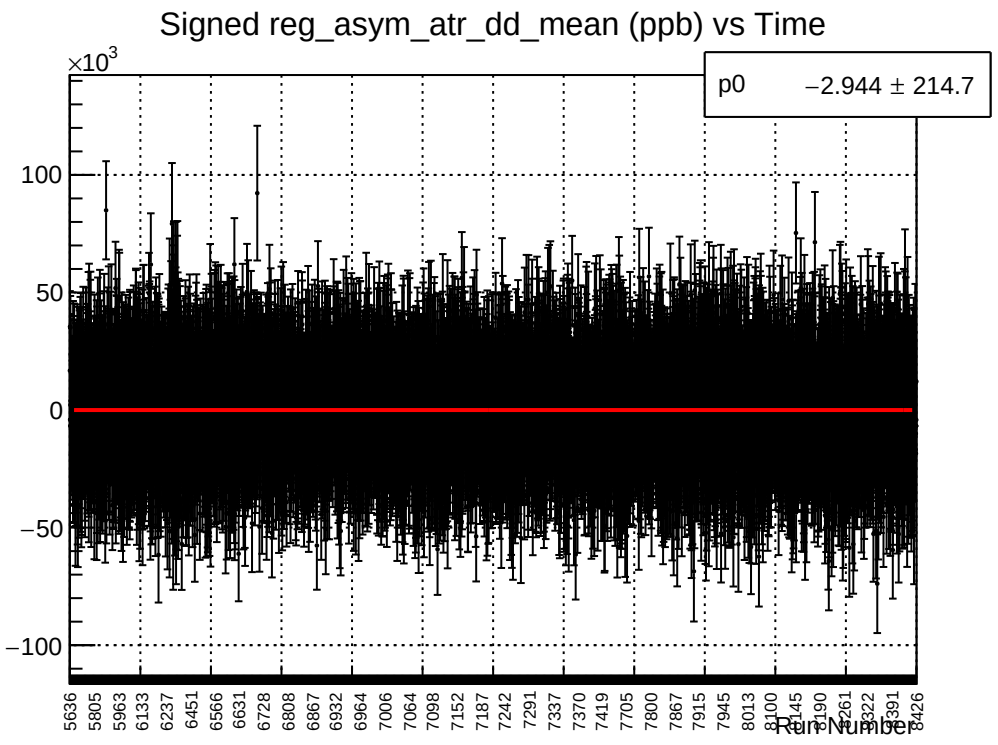

reg_asym_atl_dd_rms (ppm) vs Time
p0
1656 ± 0.1341
2400
2200
2000
1800
1600
1400
5636
5805
5963
6133
6237
6451
6566
6631
6728
6808
6867
6932
6964
7006
7064
7098
7152
7187
7242
7291
7337
7370
7419
7705
7800
7867
7915
7945
8013
8100
8145
8190
8261
8322
8391
8426
Run Number

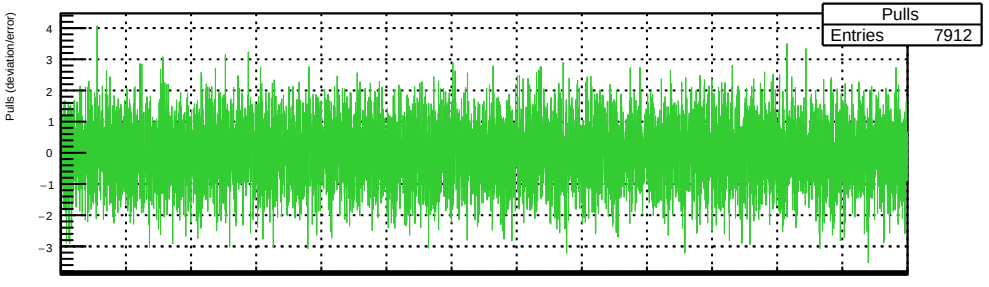

Signed reg_asym_atr_avg_mean (ppb) vs Time
×10^3
p0 2244 ± 217.2
100
50
0
−50
−100
5636 5805 5963 6133 6237 6451 6566 6631 6728 6808 6867 6932 6964 7006 7064 7098 7152 7187 7242 7291 7337 7370 7419 7705 7800 7867 7915 7945 8013 8100 8145 8190 8261 8322 8391 8426
Run Number

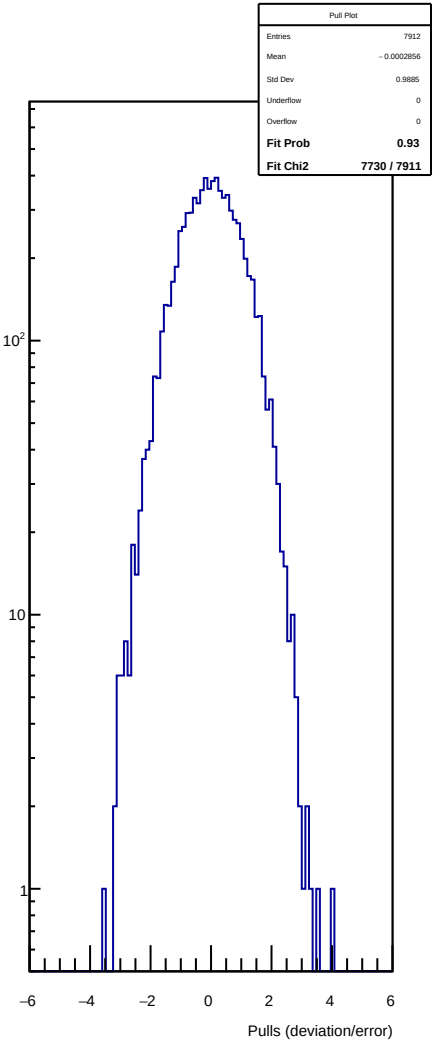

Pulls
Entries 7912
Pulls (deviation/error)
3
2
1
0
−1
−2
−3

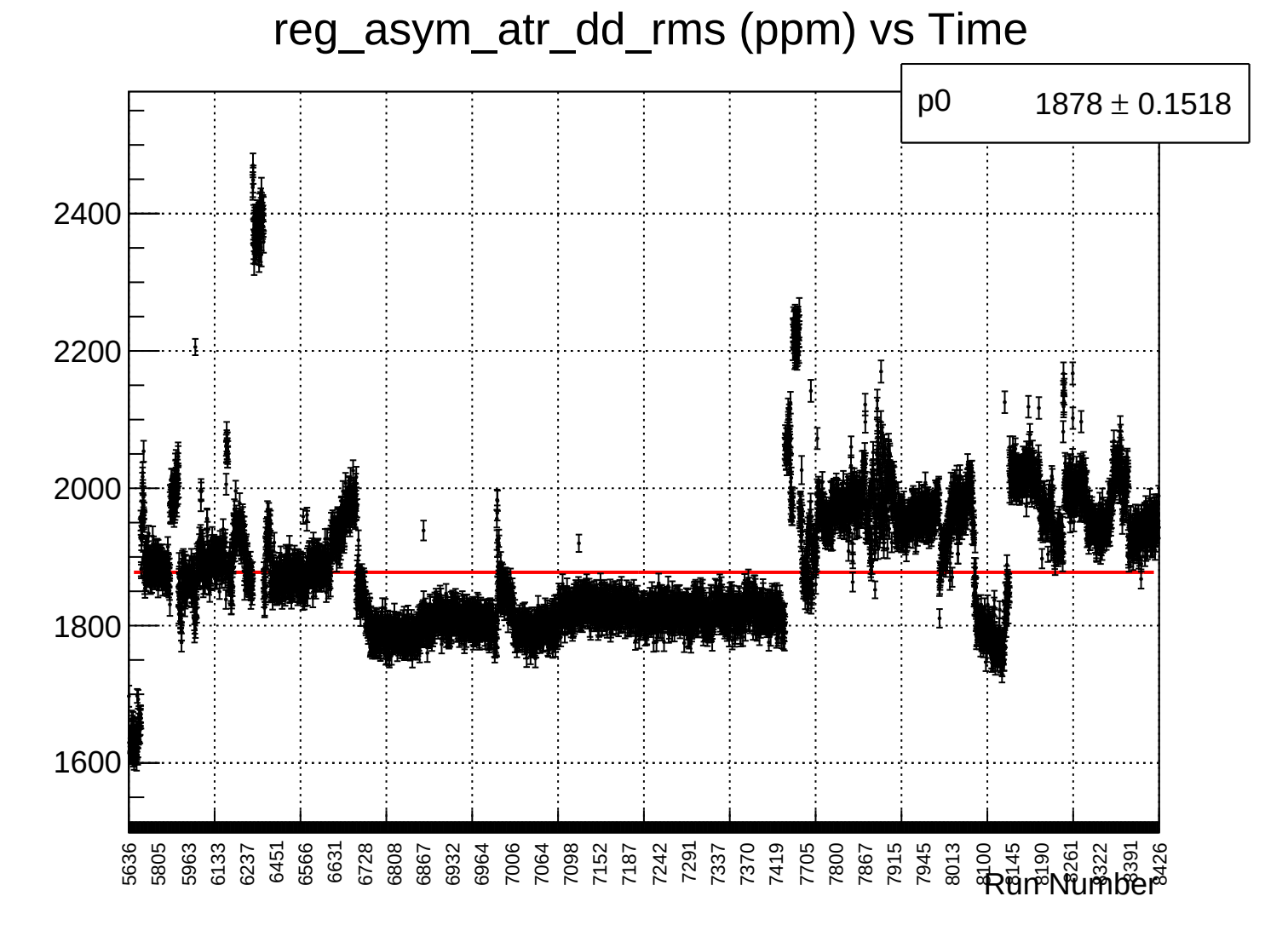

Pull Plot
Entries 7912
Mean −0.0009026
Std Dev 1.006
Underflow 0
Overflow 0
Fit Prob 0.22
Fit Chi2 8006 / 7911
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

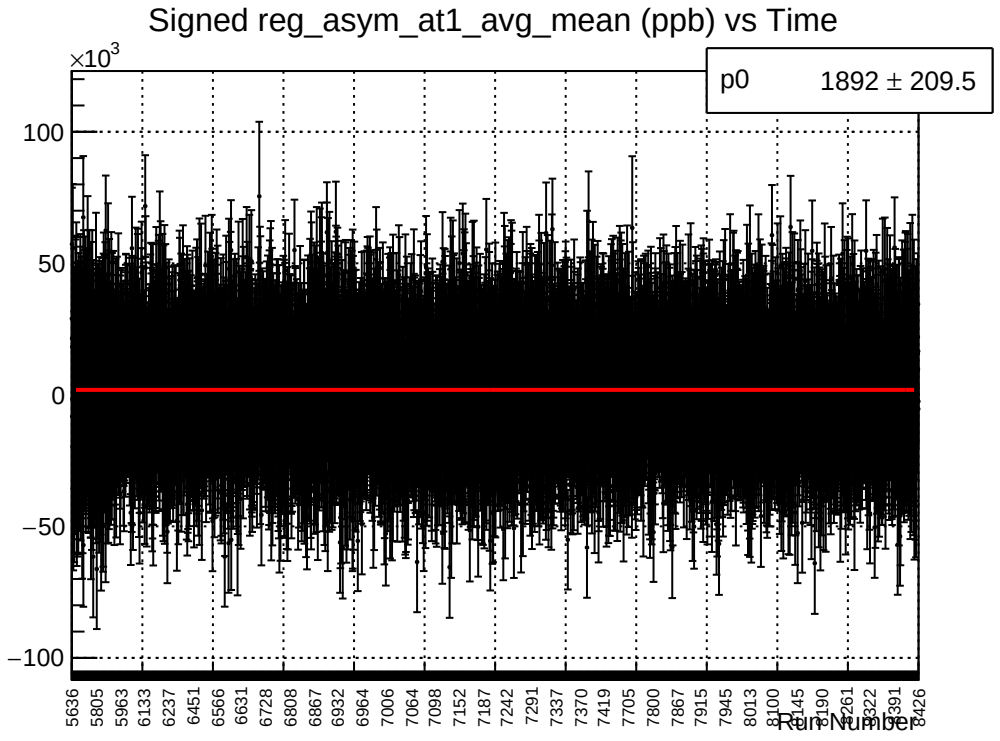

reg_asym_atr_avg_rms (ppm) vs Time
p0
1899 ± 0.1536
2600
2400
2200
2000
1800
1600
5636
5805
5963
6133
6237
6451
6566
6631
6728
6808
6867
6932
6964
7006
7064
7098
7152
7187
7242
7291
7337
7370
7419
7705
7800
7867
7915
7945
8013
8100
8145
8190
8261
8322
8391
8426
Run Number

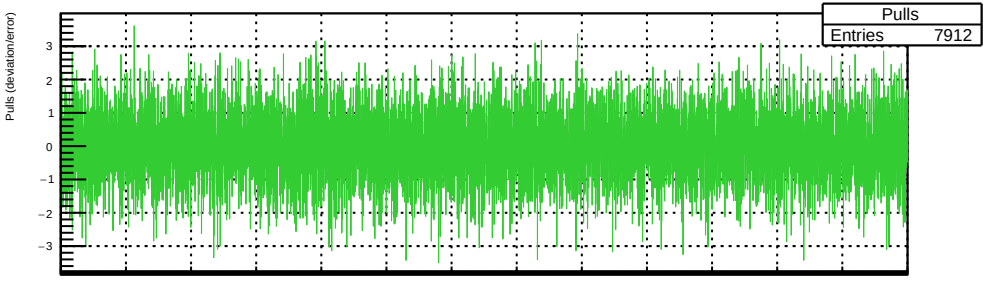

Signed reg_asym_atr_dd_mean (ppb) vs Time
×10^3
p0 −2.944 ± 214.7
100
50
0
−50
−100
5636 5805 5963 6133 6237 6451 6566 6631 6728 6808 6867 6932 6964 7006 7064 7098 7152 7187 7242 7291 7337 7370 7419 7705 7800 7867 7915 7945 8013 8100 8145 8190 8261 8322 8391 8426
Run Number

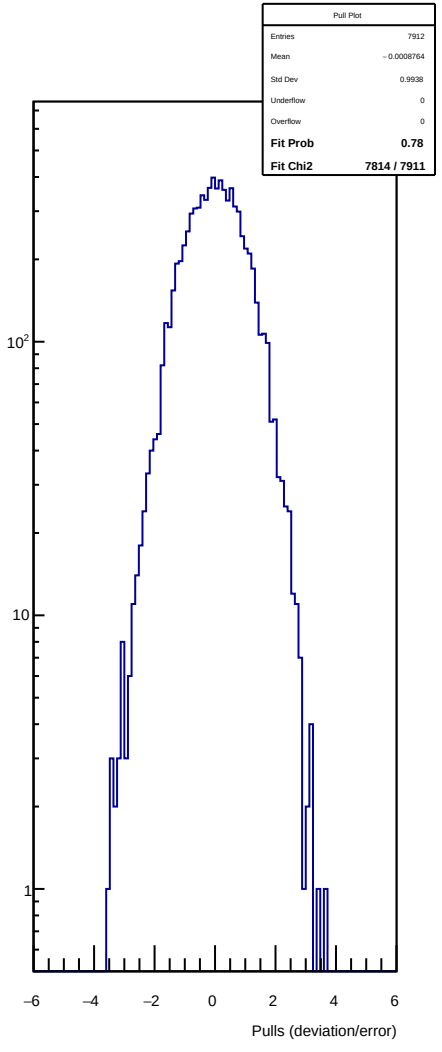

Pulls
Entries 7912
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3

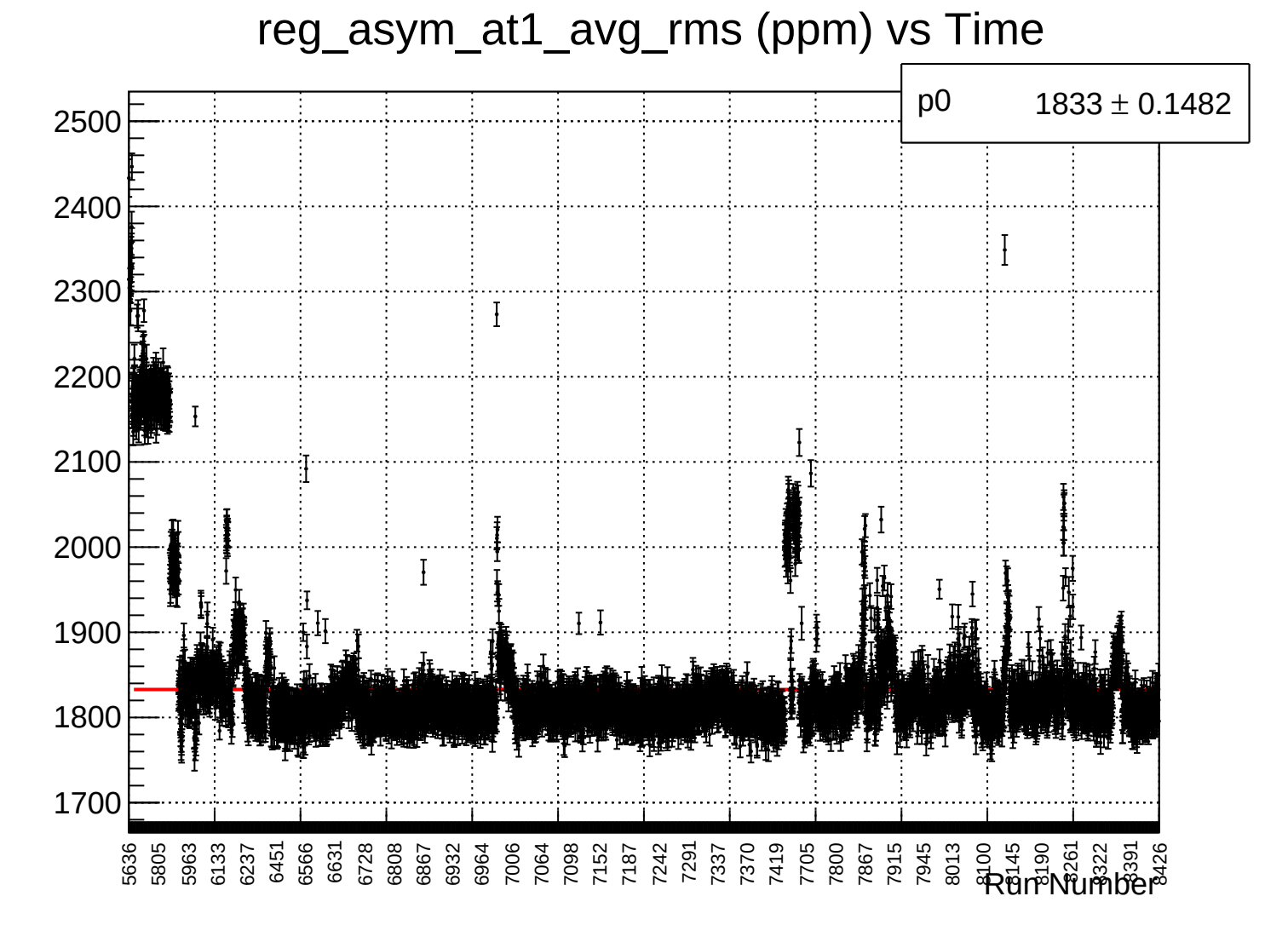

Pull Plot
Entries 7912
Mean −0.0002856
Std Dev 0.9885
Underflow 0
Overflow 0
Fit Prob 0.93
Fit Chi2 7730 / 7911
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

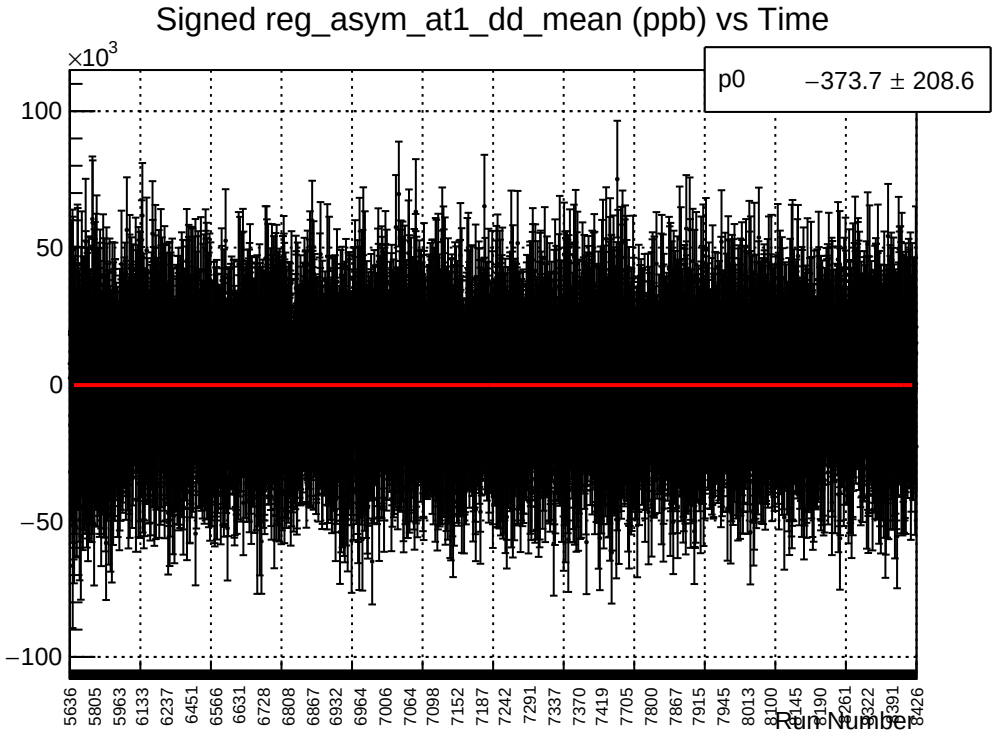

reg_asym_atr_dd_rms (ppm) vs Time
p0
1878 ± 0.1518
2400
2200
2000
1800
1600
5636
5805
5963
6133
6237
6451
6566
6631
6728
6808
6867
6932
6964
7006
7064
7098
7152
7187
7242
7291
7337
7370
7419
7705
7800
7867
7915
7945
8013
8100
8145
8190
8261
8322
8391
8426
Run Number

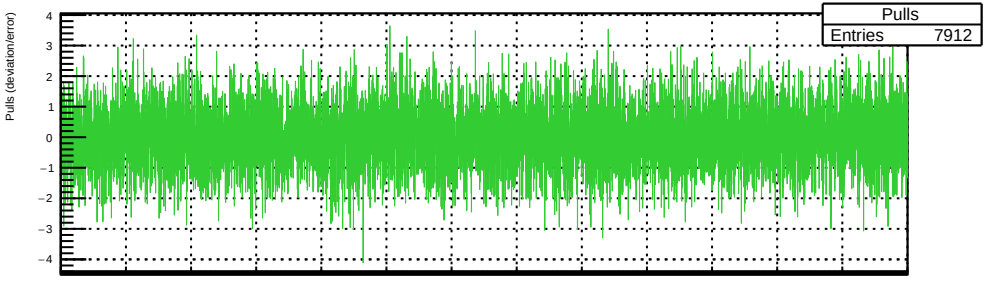

Signed reg_asym_at1_avg_mean (ppb) vs Time
×10^3
p0 1892 ± 209.5
100
50
0
−50
−100
5636 5805 5963 6133 6237 6451 6566 6631 6728 6808 6867 6932 6964 7006 7064 7098 7152 7187 7242 7291 7337 7370 7419 7705 7800 7867 7915 7945 8013 8100 8145 8190 8261 8322 8391 8426
Run Number

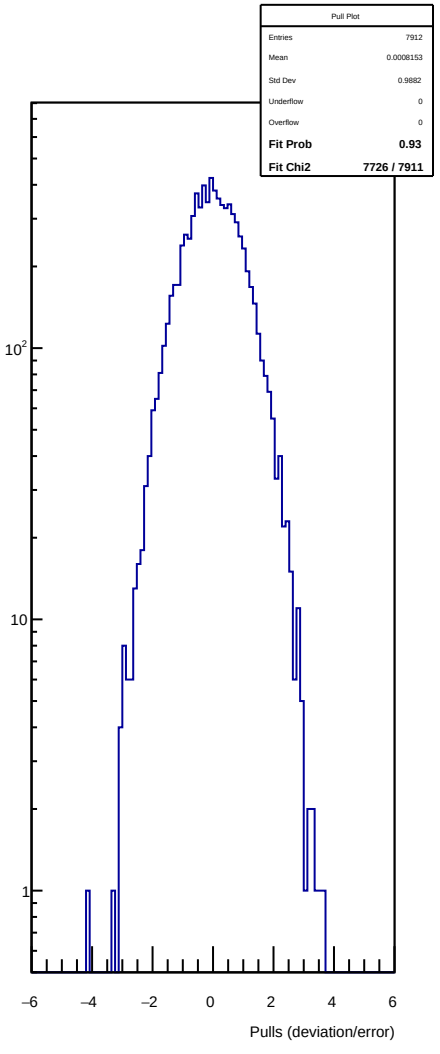

Pulls
Entries 7912
Pulls (deviation/error)
3
2
1
0
−1
−2
−3

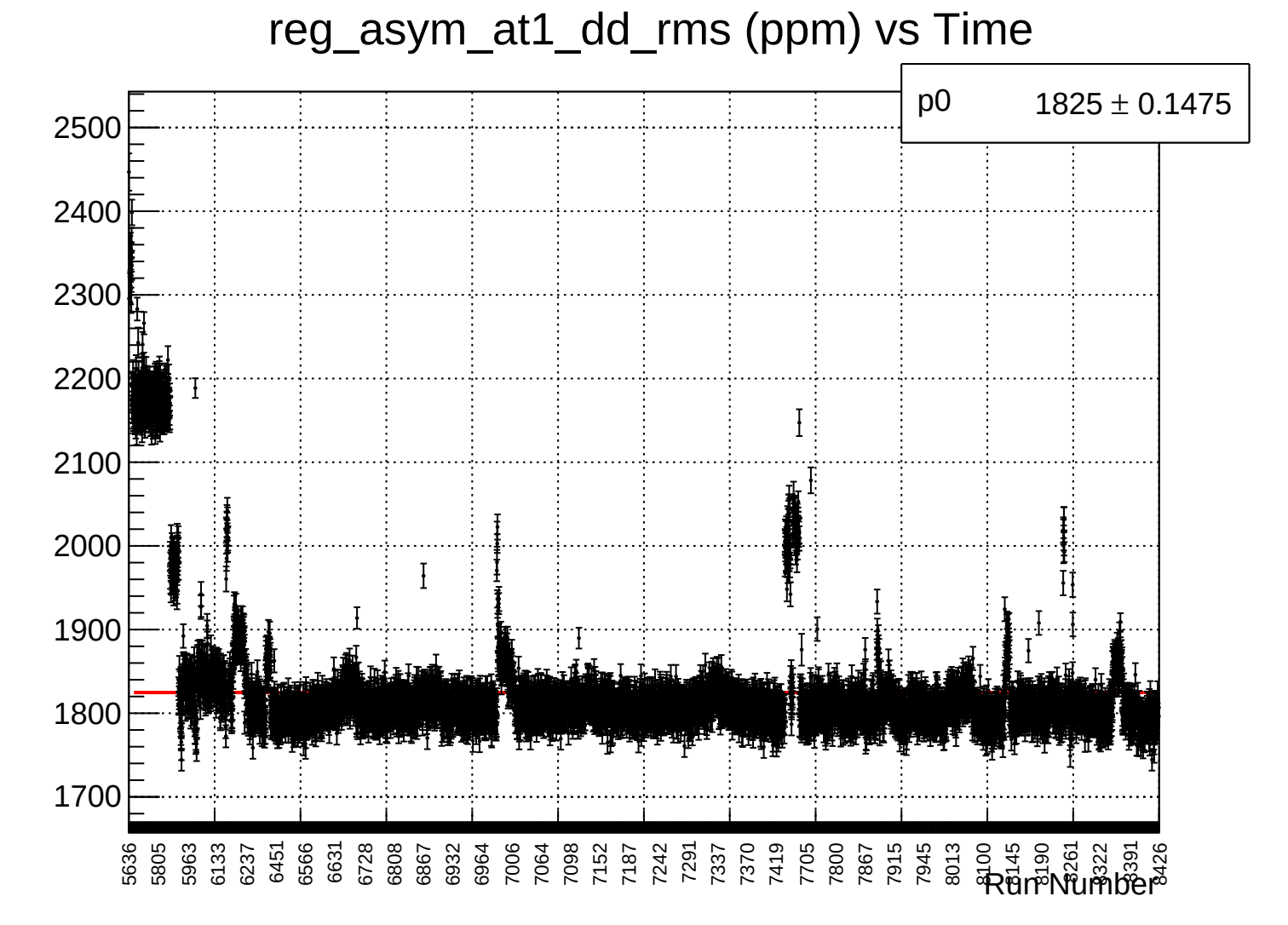

Pull Plot
Entries 7912
Mean −0.0008764
Std Dev 0.9938
Underflow 0
Overflow 0
Fit Prob 0.78
Fit Chi2 7814 / 7911
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

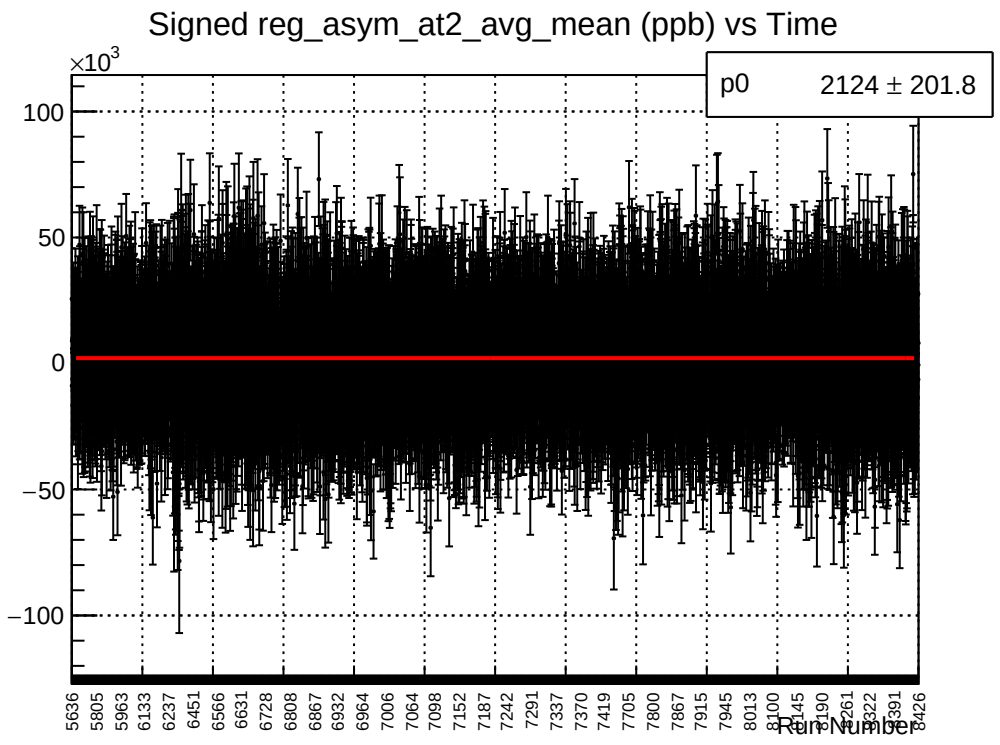

reg_asym_at1_avg_rms (ppm) vs Time
p0
1833 ± 0.1482
2500
2400
2300
2200
2100
2000
1900
1800
1700
5636
5805
5963
6133
6237
6451
6566
6631
6728
6808
6867
6932
6964
7006
7064
7098
7152
7187
7242
7291
7337
7370
7419
7705
7800
7867
7915
7945
8013
8100
8145
8190
8261
8322
8391
8426
Run Number

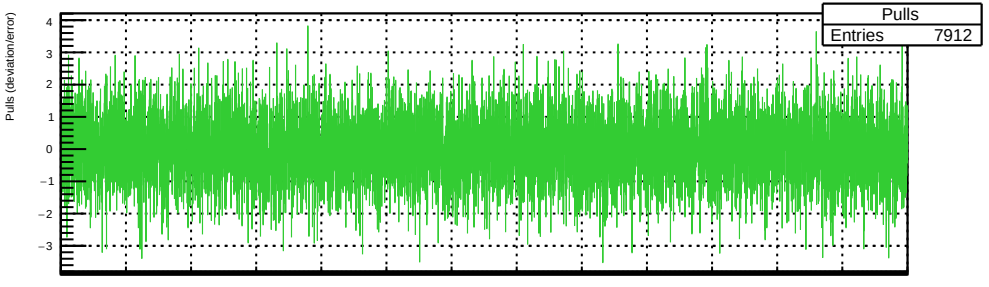

Signed reg_asym_at1_dd_mean (ppb) vs Time
×10^3
p0 −373.7 ± 208.6
100
50
0
−50
−100
5636 5805 5963 6133 6237 6451 6566 6631 6728 6808 6867 6932 6964 7006 7064 7098 7152 7187 7242 7291 7337 7370 7419 7705 7800 7867 7915 7945 8013 8100 8145 8190 8261 8322 8391 8426
Run Number

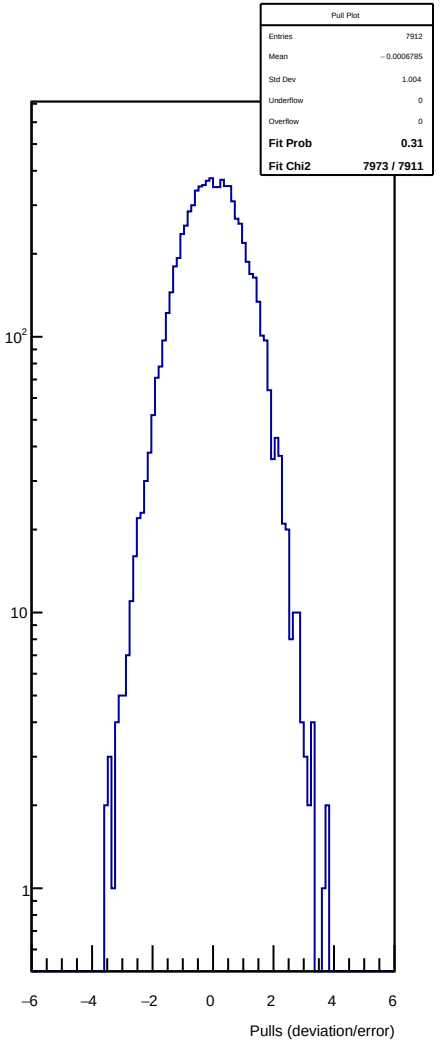

Pulls
Entries 7912
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

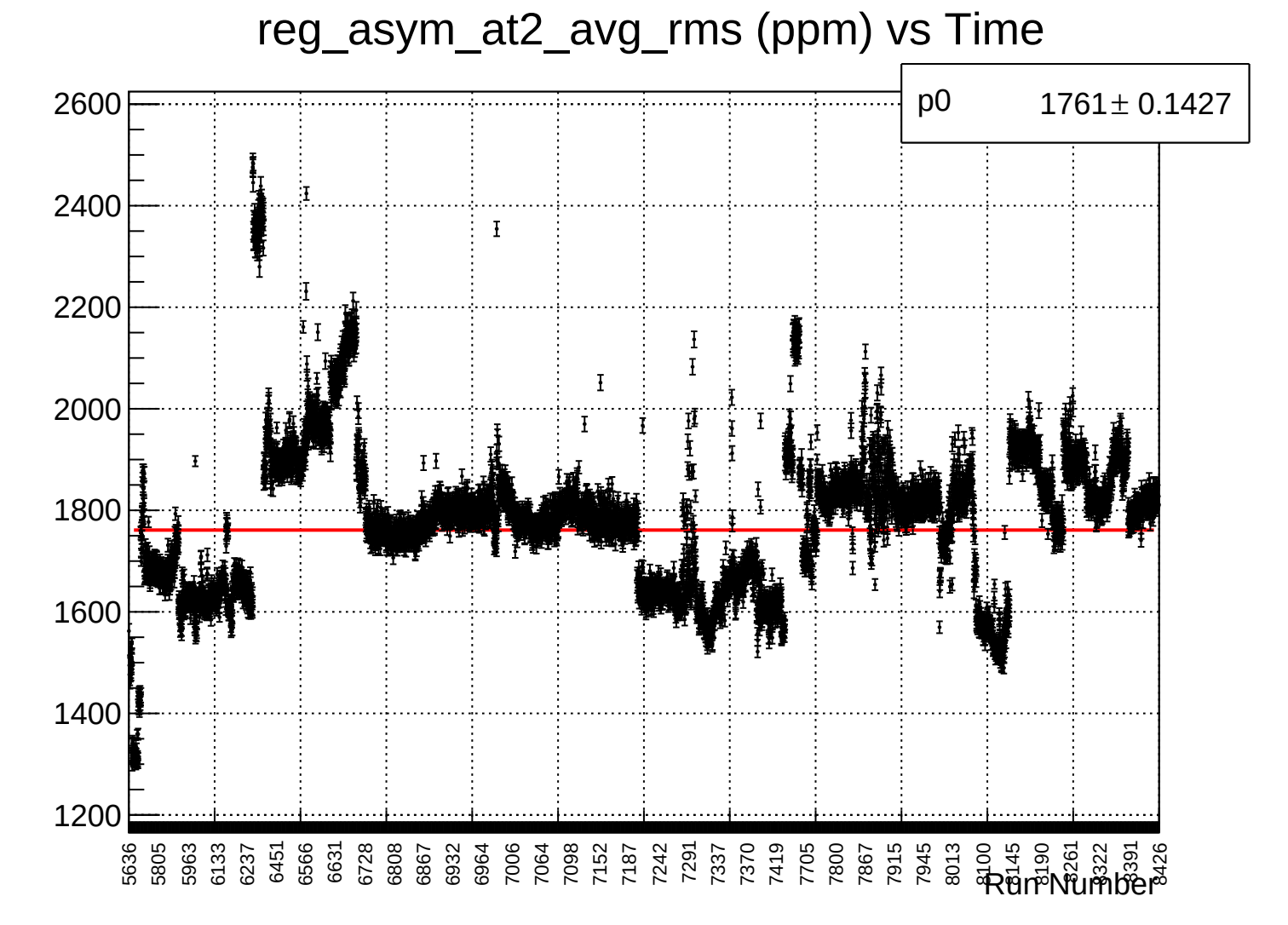

Pull Plot
Entries 7912
Mean 0.0008153
Std Dev 0.9882
Underflow 0
Overflow 0
Fit Prob 0.93
Fit Chi2 7726 / 7911
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

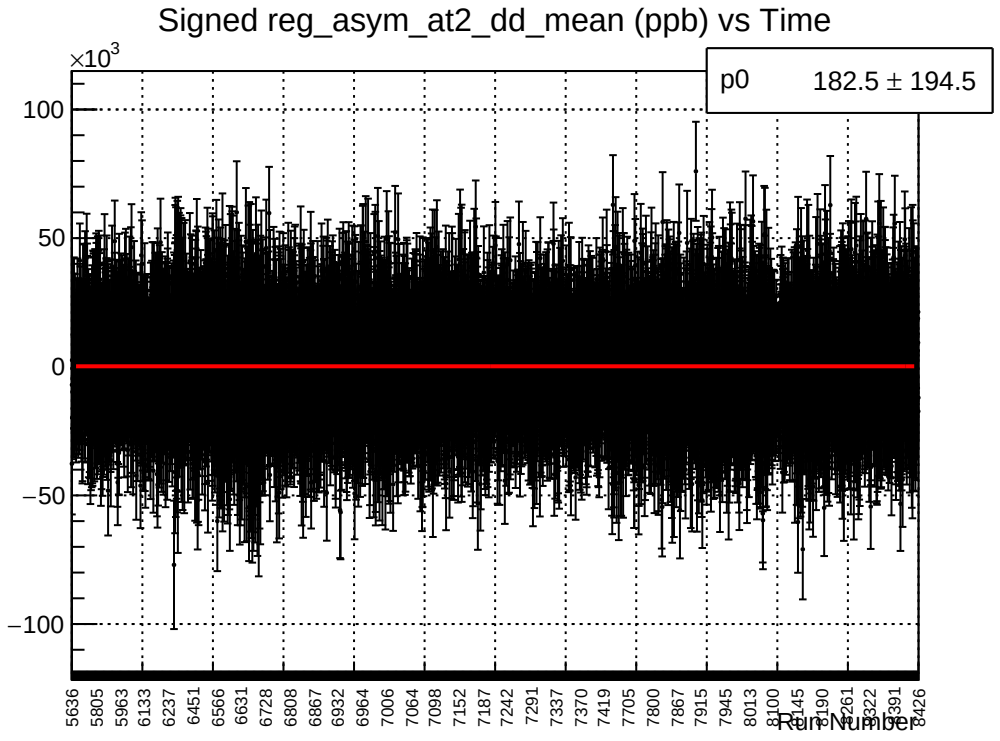

reg_asym_at1_dd_rms (ppm) vs Time
p0
1825 ± 0.1475
2500
2400
2300
2200
2100
2000
1900
1800
1700
5636
5805
5963
6133
6237
6451
6566
6631
6728
6808
6867
6932
6964
7006
7064
7098
7152
7187
7242
7291
7337
7370
7419
7705
7800
7867
7915
7945
8013
8100
8145
8190
8261
8322
8391
8426
Run Number

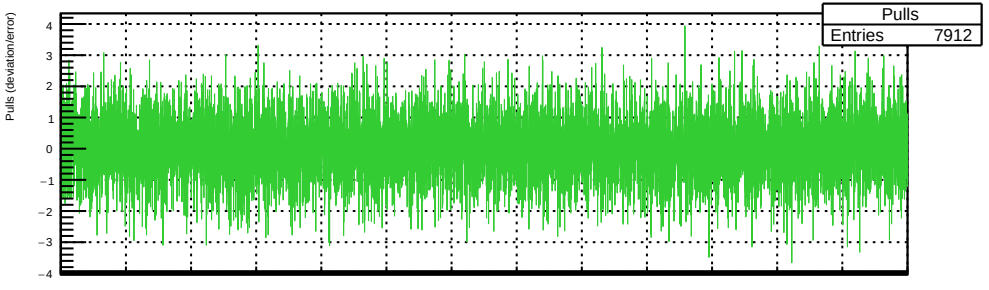

Signed reg_asym_at2_avg_mean (ppb) vs Time
×10^3
p0 2124 ± 201.8
100
50
0
−50
−100
5636 5805 5963 6133 6237 6451 6566 6631 6728 6808 6867 6932 6964 7006 7064 7098 7152 7187 7242 7291 7337 7370 7419 7705 7800 7867 7915 7945 8013 8100 8145 8190 8261 8322 8391 8426
Run Number

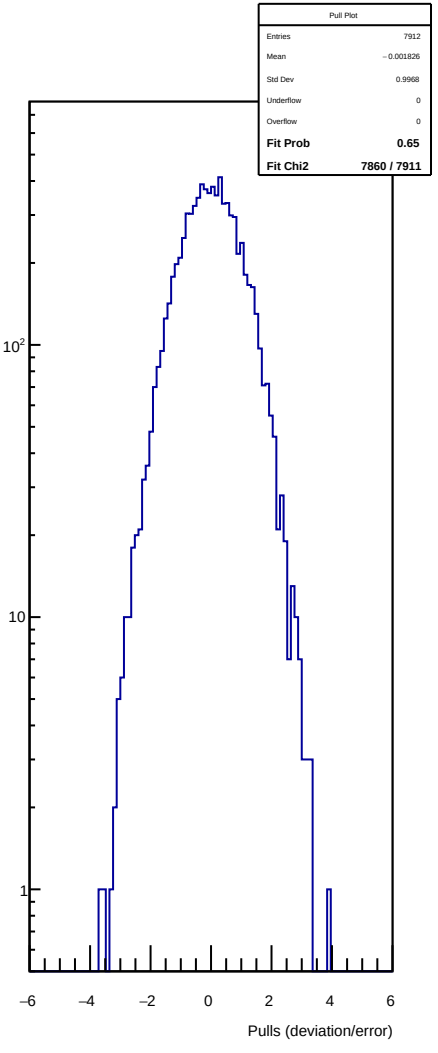

Pulls
Entries 7912
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3

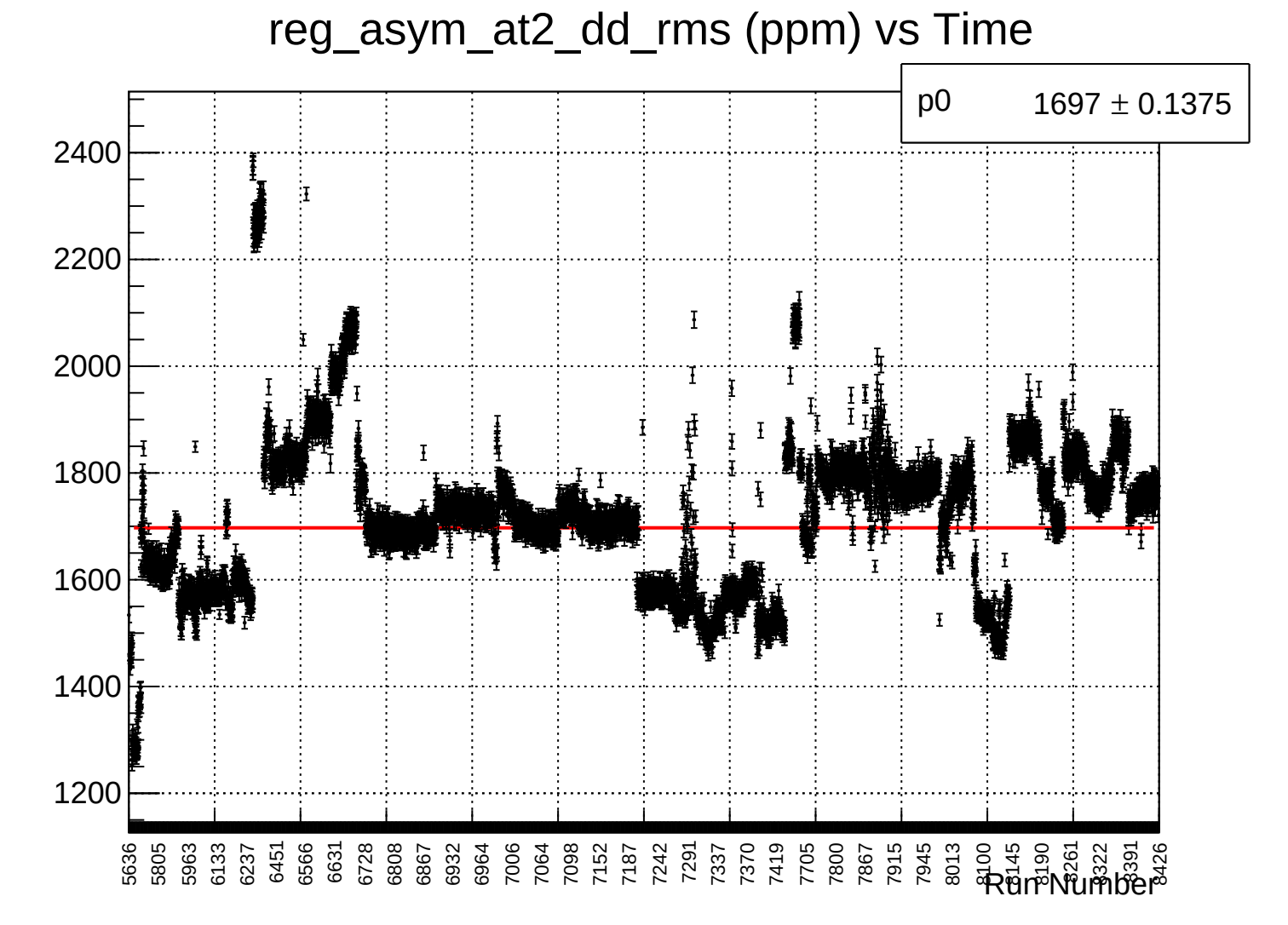

Pull Plot
Entries 7912
Mean −0.0006785
Std Dev 1.004
Underflow 0
Overflow 0
Fit Prob 0.31
Fit Chi2 7973 / 7911
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

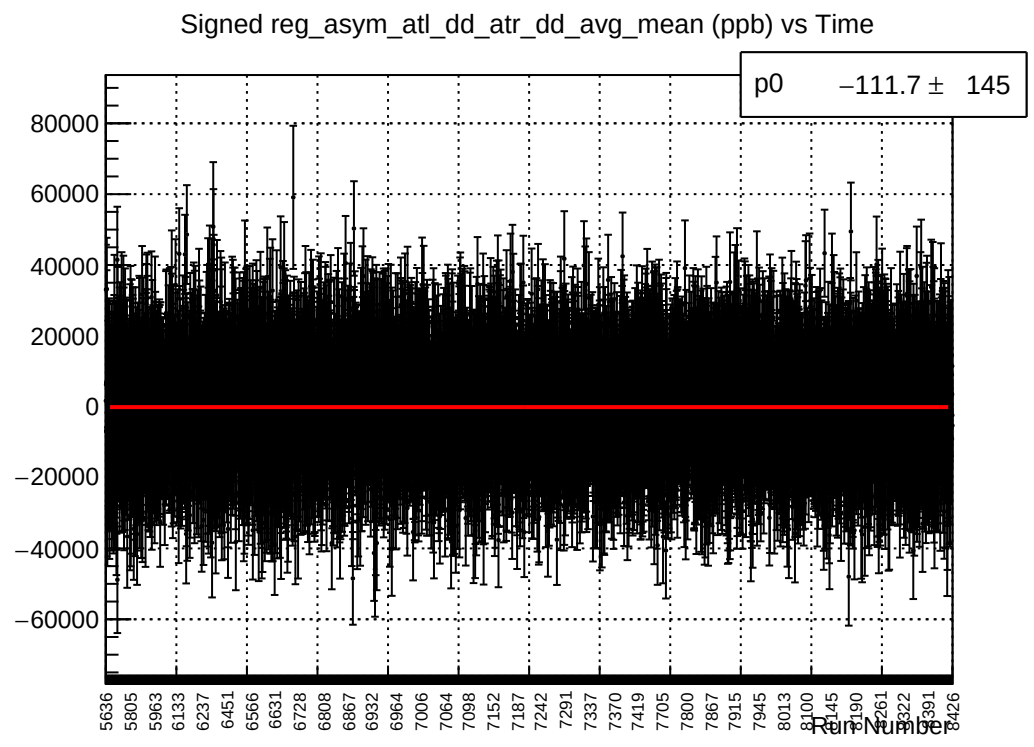

reg_asym_at2_avg_rms (ppm) vs Time
p0 1761 ± 0.1427
2600
2400
2200
2000
1800
1600
1400
1200
5636
5805
5963
6133
6237
6451
6566
6631
6728
6808
6867
6932
6964
7006
7064
7098
7152
7187
7242
7291
7337
7370
7419
7705
7800
7867
7915
7945
8013
8100
8145
8190
8261
8322
8391
8426
Run Number

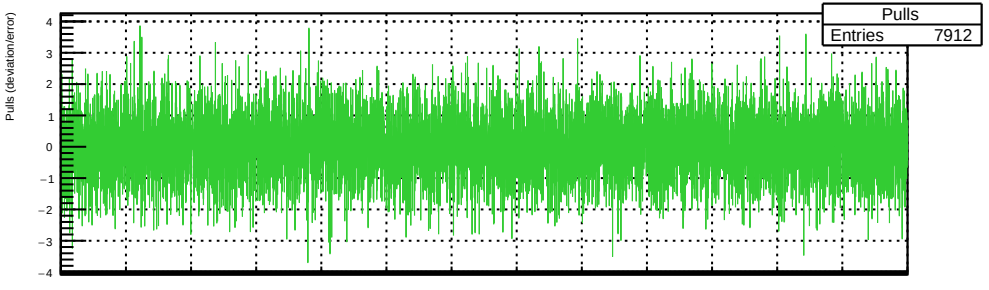

Signed reg_asym_at2_dd_mean (ppb) vs Time
×10^3
p0 182.5 ± 194.5
100
50
0
−50
−100
5636 5805 5963 6133 6237 6451 6566 6631 6728 6808 6867 6932 6964 7006 7064 7098 7152 7187 7242 7291 7337 7370 7419 7705 7800 7867 7915 7945 8013 8100 8145 8190 8261 8322 8391 8426
Run Number

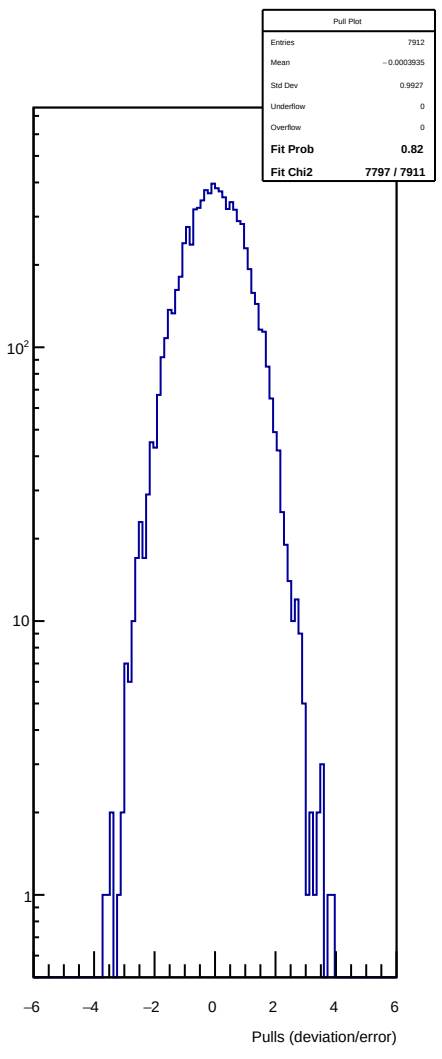

Pulls
Entries 7912
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

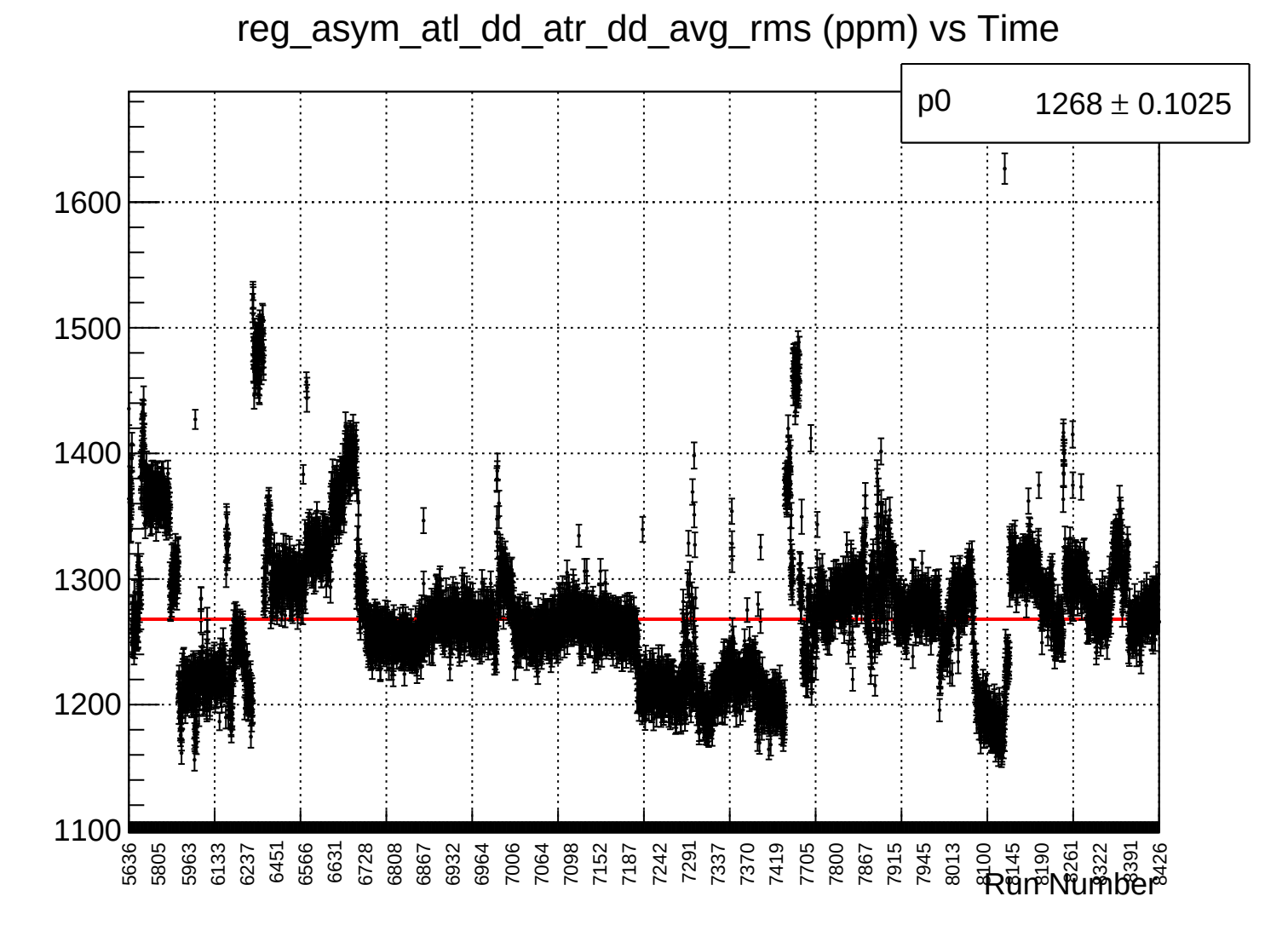

Pull Plot
Entries 7912
Mean −0.001826
Std Dev 0.9968
Underflow 0
Overflow 0
Fit Prob 0.65
Fit Chi2 7860 / 7911
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

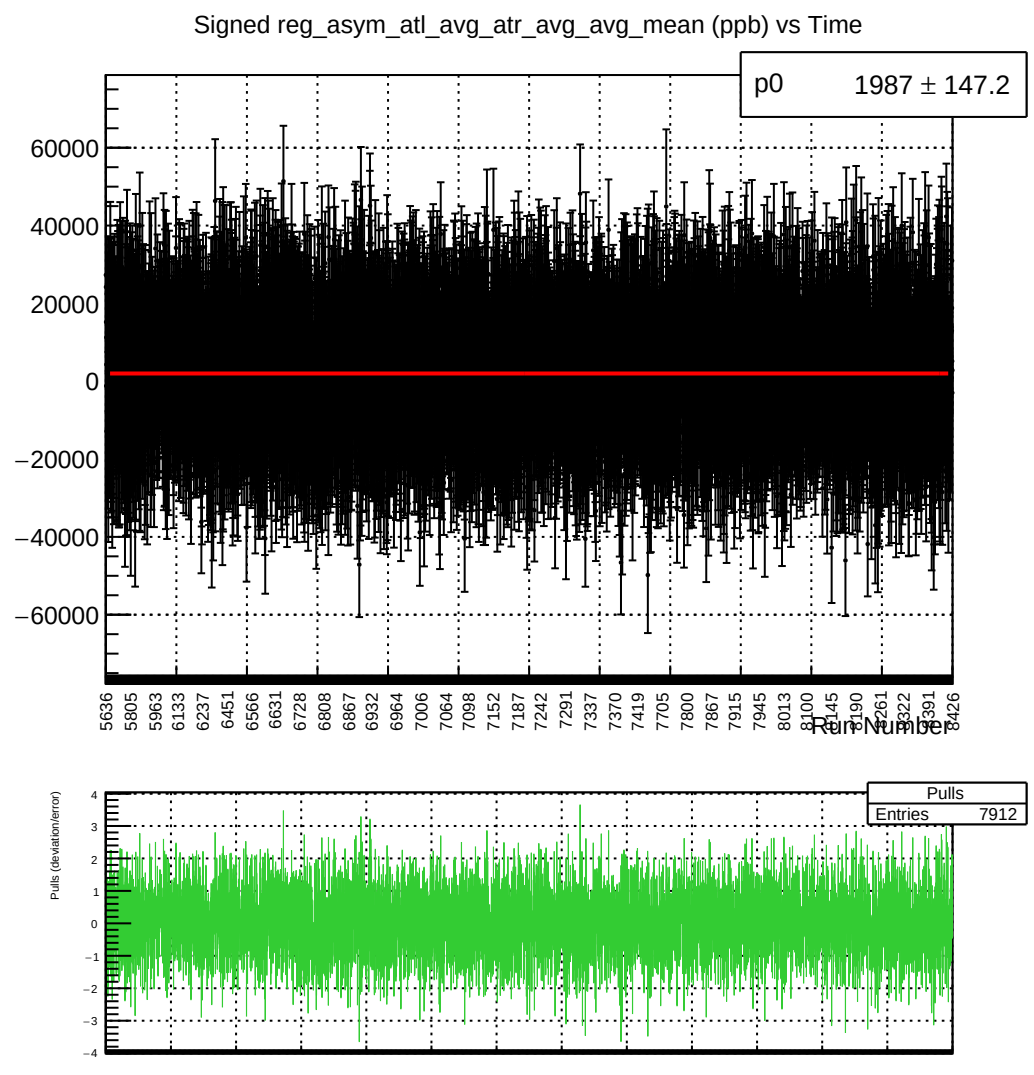

reg_asym_at2_dd_rms (ppm) vs Time
p0
1697 ± 0.1375
2400
2200
2000
1800
1600
1400
1200
5636
5805
5963
6133
6237
6451
6566
6631
6728
6808
6867
6932
6964
7006
7064
7098
7152
7187
7242
7291
7337
7370
7419
7705
7800
7867
7915
7945
8013
8100
8145
8190
8261
8322
8391
8426
Run Number

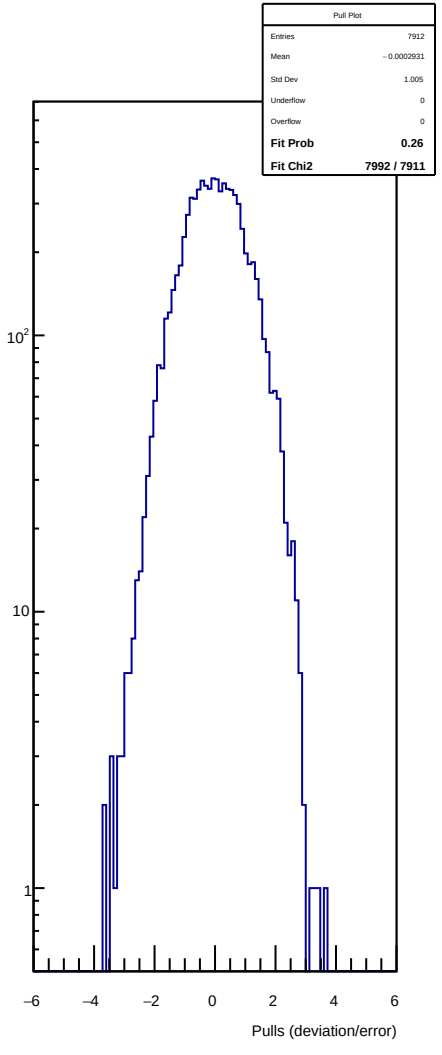

Signed reg_asym_atl_dd_atr_dd_avg_mean (ppb) vs Time
p0 −111.7 ± 145
80000
60000
40000
20000
0
−20000
−40000
−60000
5636 5805 5963 6133 6237 6451 6566 6631 6728 6808 6867 6932 6964 7006 7064 7098 7152 7187 7242 7291 7337 7370 7419 7705 7800 7867 7915 7945 8013 8100 8145 8190 8261 8322 8391 8426
Run Number

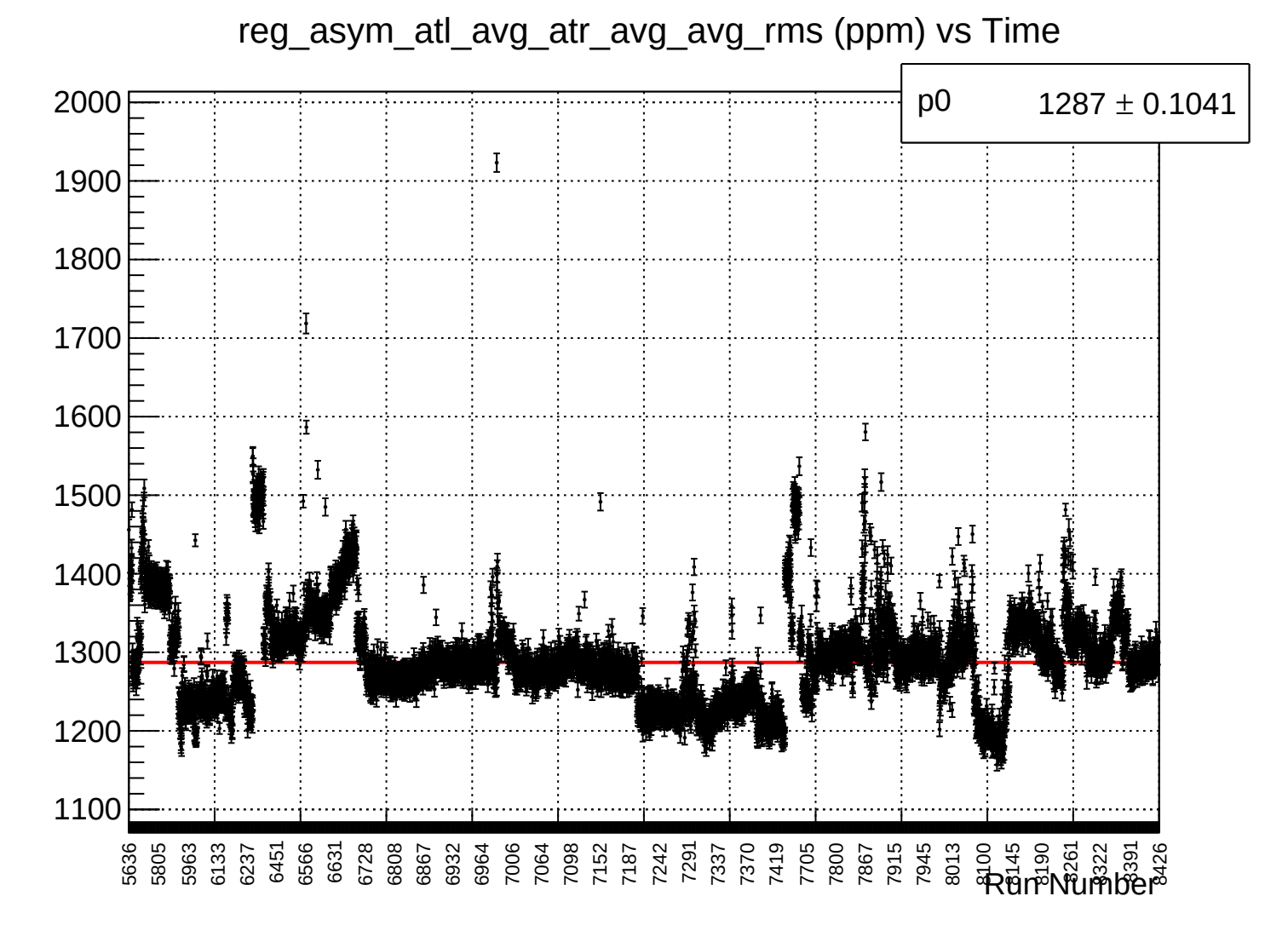

Pulls
Entries 7912
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

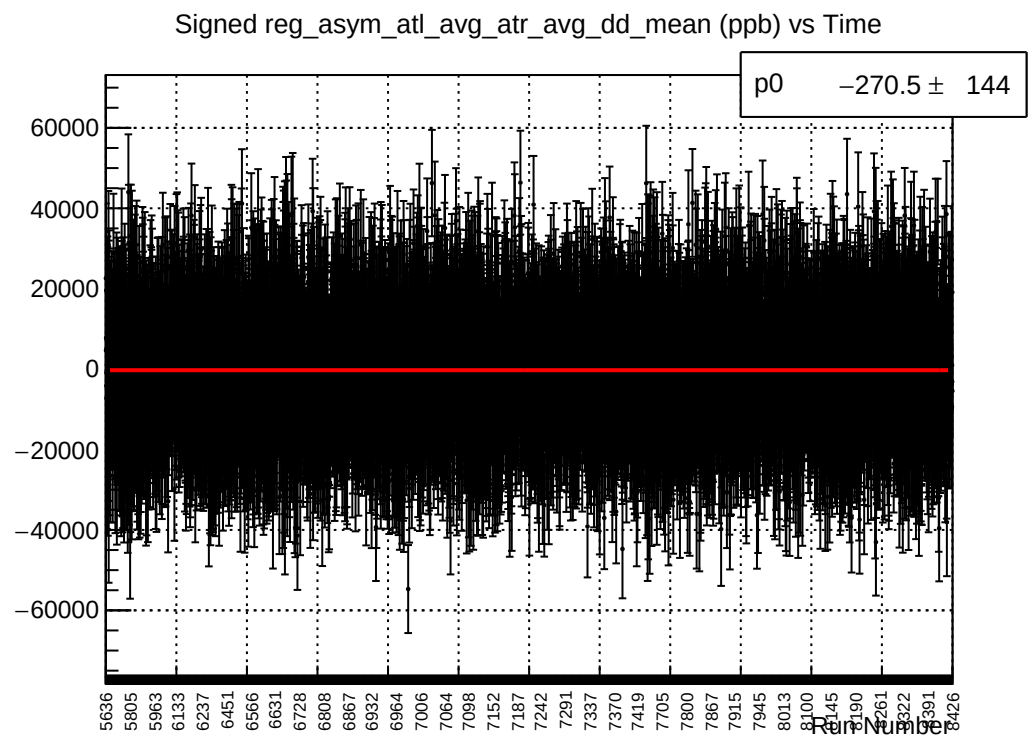

Pull Plot
Entries 7912
Mean −0.0003935
Std Dev 0.9927
Underflow 0
Overflow 0
Fit Prob 0.82
Fit Chi2 7797 / 7911
10²
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

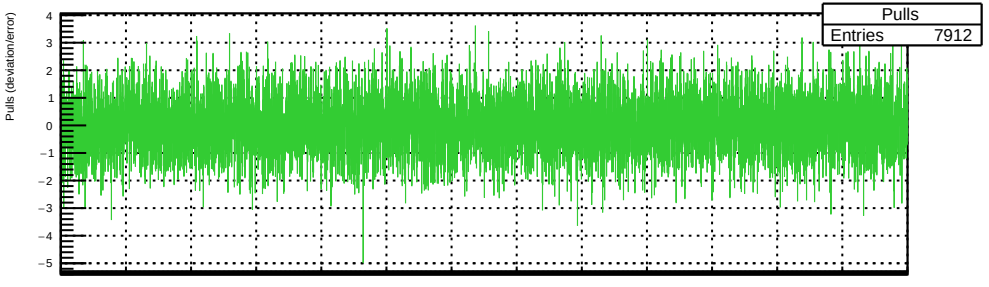

reg_asym_atl_dd_atr_dd_avg_rms (ppm) vs Time
p0
1268 ± 0.1025
1600
1500
1400
1300
1200
1100
5636
5805
5963
6133
6237
6451
6566
6631
6728
6808
6867
6932
6964
7006
7064
7098
7152
7187
7242
7291
7337
7370
7419
7705
7800
7867
7915
7945
8013
8100
8145
8190
8261
8322
8391
8426
Run Number

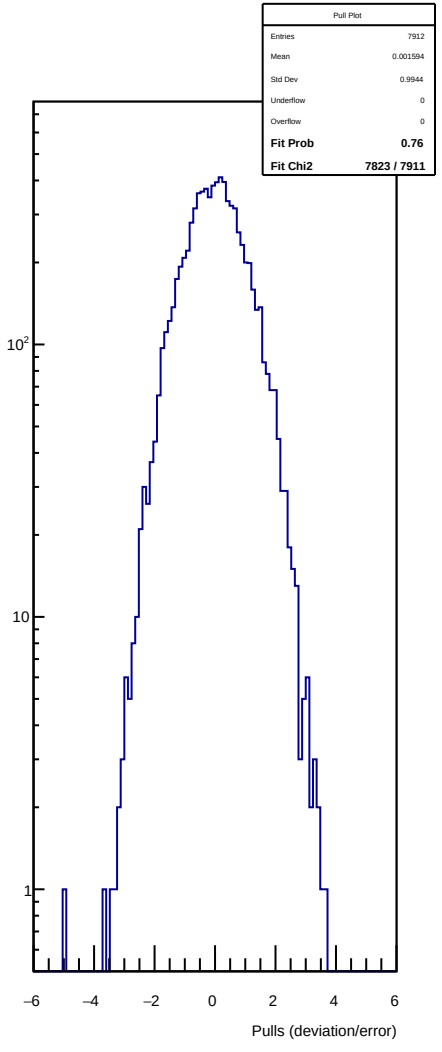

Signed reg_asym_atl_avg_atr_avg_avg_mean (ppb) vs Time
p0 1987 ± 147.2
60000
40000
20000
0
−20000
−40000
−60000
5636 5805 5963 6133 6237 6451 6566 6631 6728 6808 6867 6932 6964 7006 7064 7098 7152 7187 7242 7291 7337 7370 7419 7705 7800 7867 7915 7945 8013 8100 8145 8190 8261 8322 8391 8426
Run Number
Pulls
Entries 7912
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

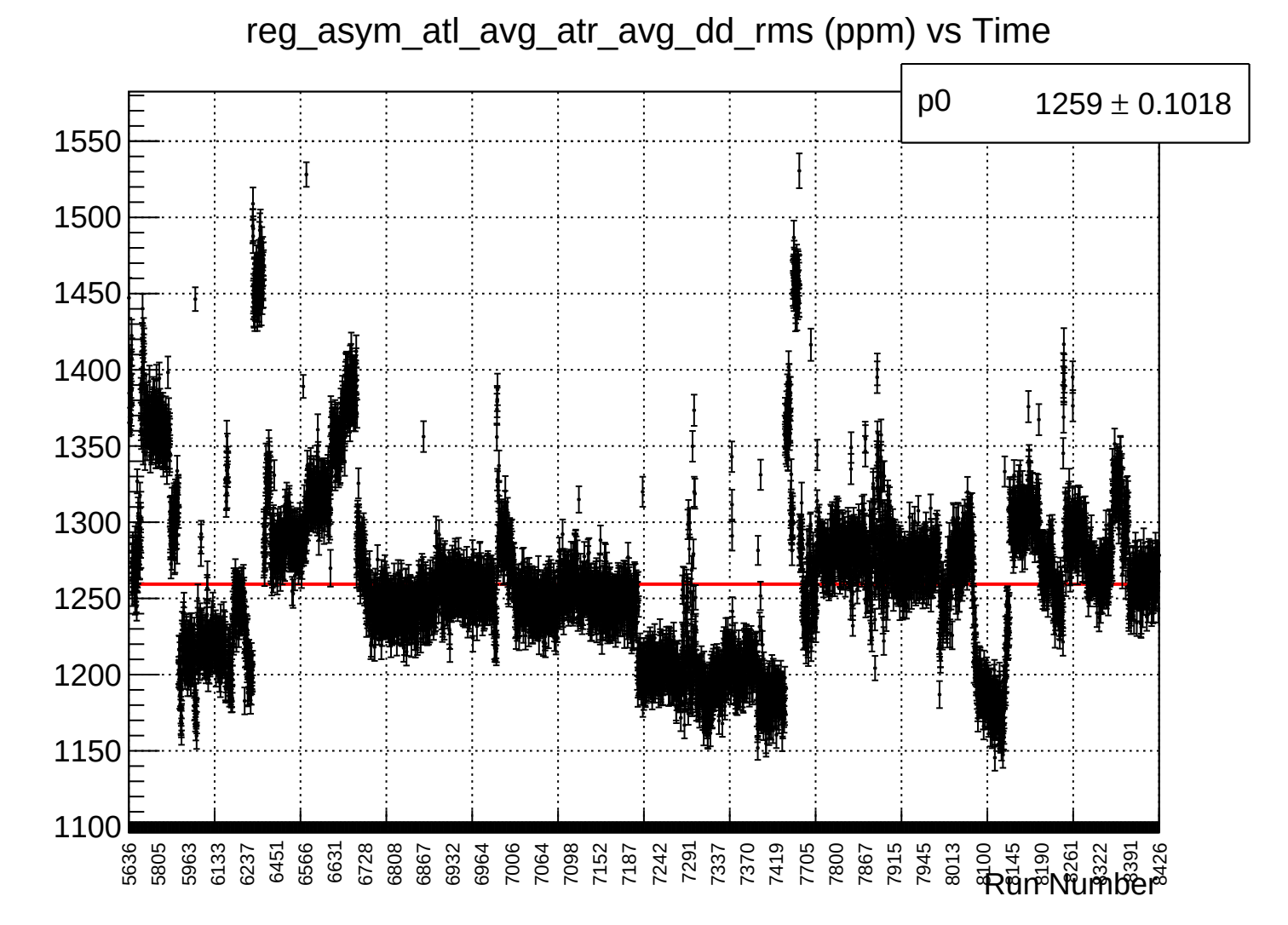

Pull Plot
Entries 7912
Mean −0.0002931
Std Dev 1.005
Underflow 0
Overflow 0
Fit Prob 0.26
Fit Chi2 7992 / 7911
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

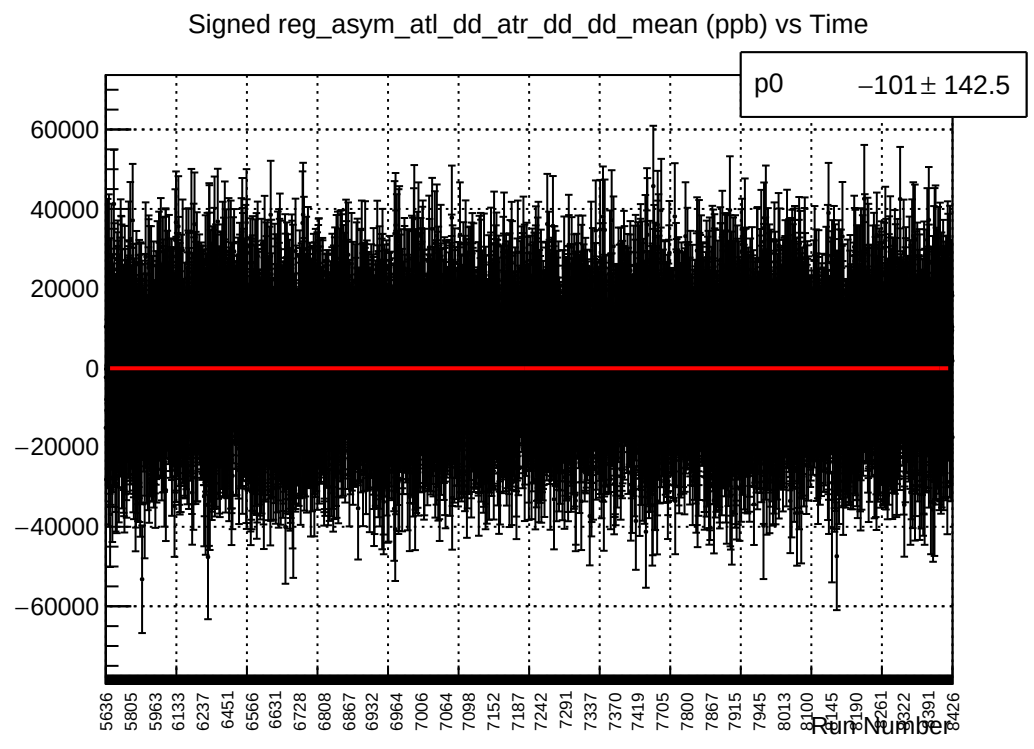

reg_asym_atl_avg_atr_avg_avg_rms (ppm) vs Time
p0
1287 ± 0.1041
2000
1900
1800
1700
1600
1500
1400
1300
1200
1100
5636
5805
5963
6133
6237
6451
6566
6631
6728
6808
6867
6932
6964
7006
7064
7098
7152
7187
7242
7291
7337
7370
7419
7705
7800
7867
7915
7945
8013
8100
8145
8190
8261
8322
8391
8426
Run Number

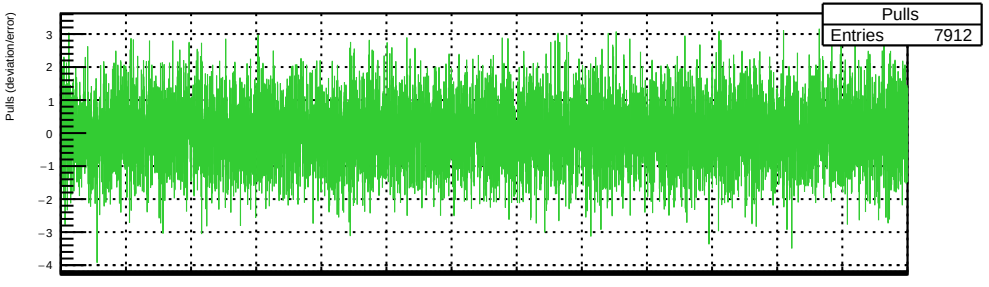

Signed reg_asym_atl_avg_atr_avg_dd_mean (ppb) vs Time
p0 −270.5 ± 144
60000
40000
20000
0
−20000
−40000
−60000
5636 5805 5963 6133 6237 6451 6566 6631 6728 6808 6867 6932 6964 7006 7064 7098 7152 7187 7242 7291 7337 7370 7419 7705 7800 7867 7915 7945 8013 8100 8145 8190 8261 8322 8391 8426
Run Number

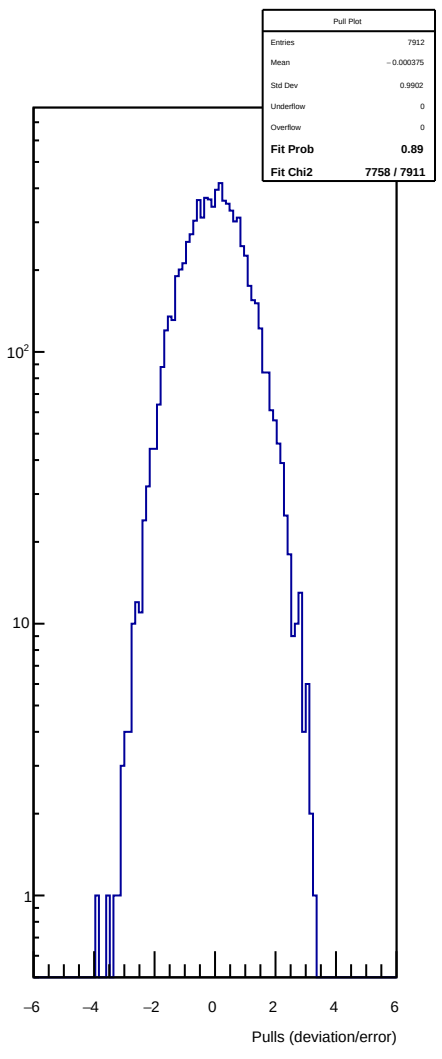

Pulls
Entries 7912
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4
−5

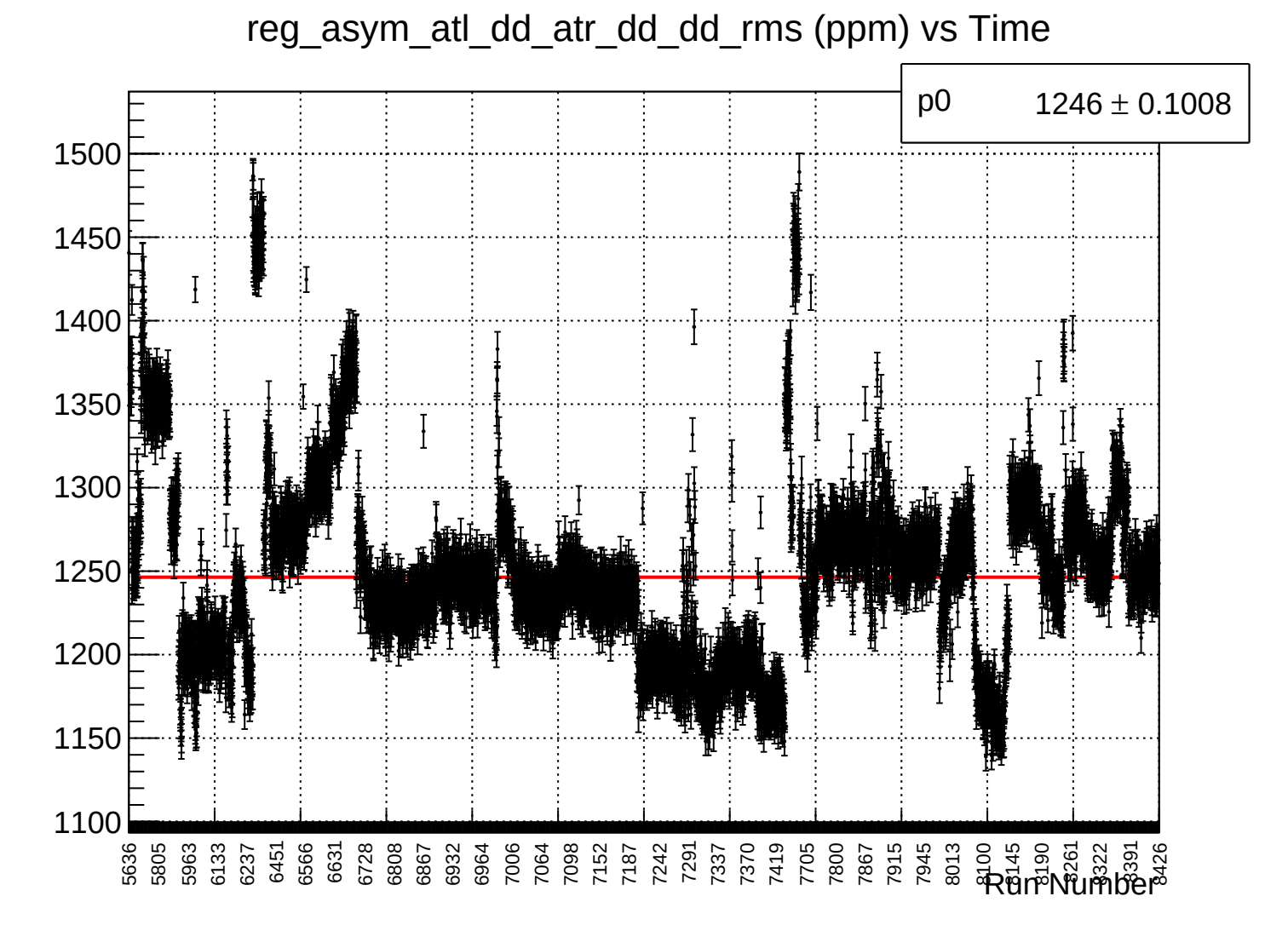

Pull Plot
Entries 7912
Mean 0.001594
Std Dev 0.9944
Underflow 0
Overflow 0
Fit Prob 0.76
Fit Chi2 7823 / 7911
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

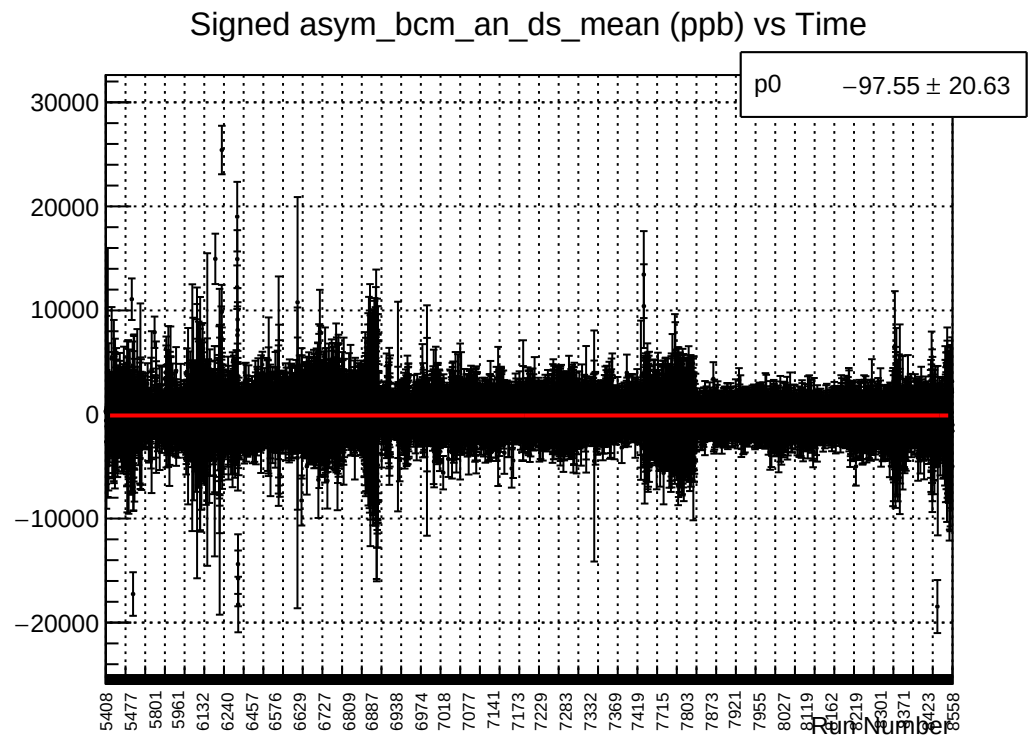

reg_asym_atl_avg_atr_avg_dd_rms (ppm) vs Time
p0 1259 ± 0.1018
1550
1500
1450
1400
1350
1300
1250
1200
1150
1100
5636
5805
5963
6133
6237
6451
6566
6631
6728
6808
6867
6932
6964
7006
7064
7098
7152
7187
7242
7291
7337
7370
7419
7705
7800
7867
7915
7945
8013
8100
8145
8190
8261
8322
8391
8426
Run Number

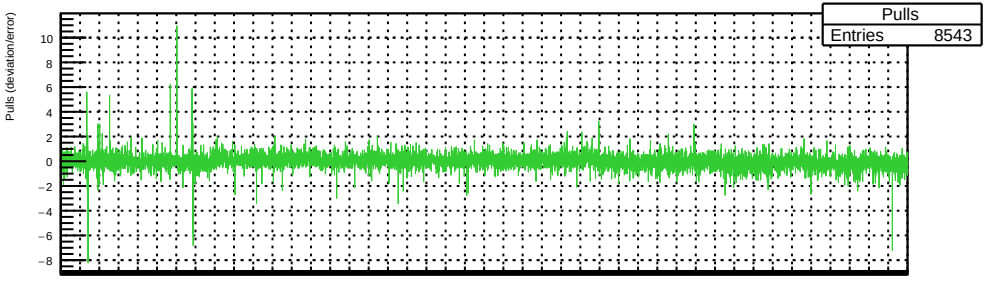

Signed reg_asym_atl_dd_atr_dd_dd_mean (ppb) vs Time
p0 −101 ± 142.5
60000
40000
20000
0
−20000
−40000
−60000
5636 5805 5963 6133 6237 6451 6566 6631 6728 6808 6867 6932 6964 7006 7064 7098 7152 7187 7242 7291 7337 7370 7419 7705 7800 7867 7915 7945 8013 8100 8145 8190 8261 8322 8391 8426
Run Number

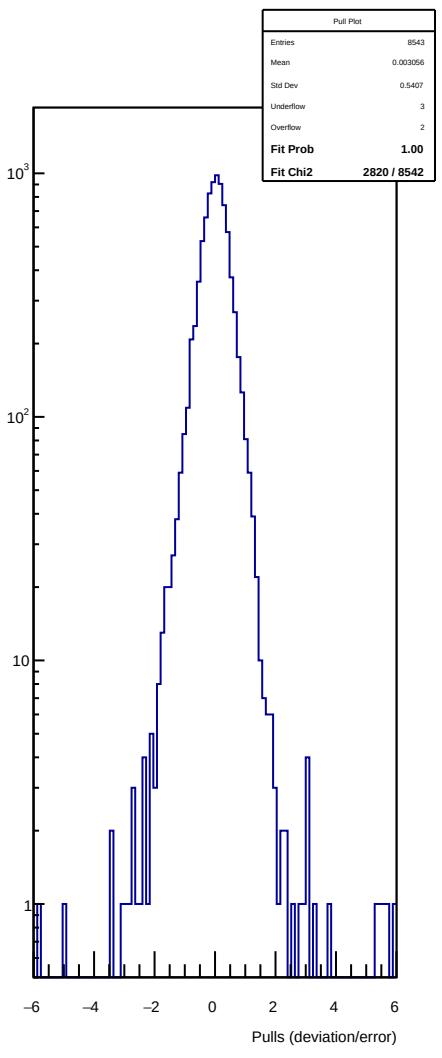

Pulls
Entries 7912
Pulls (deviation/error)
3
2
1
0
−1
−2
−3
−4

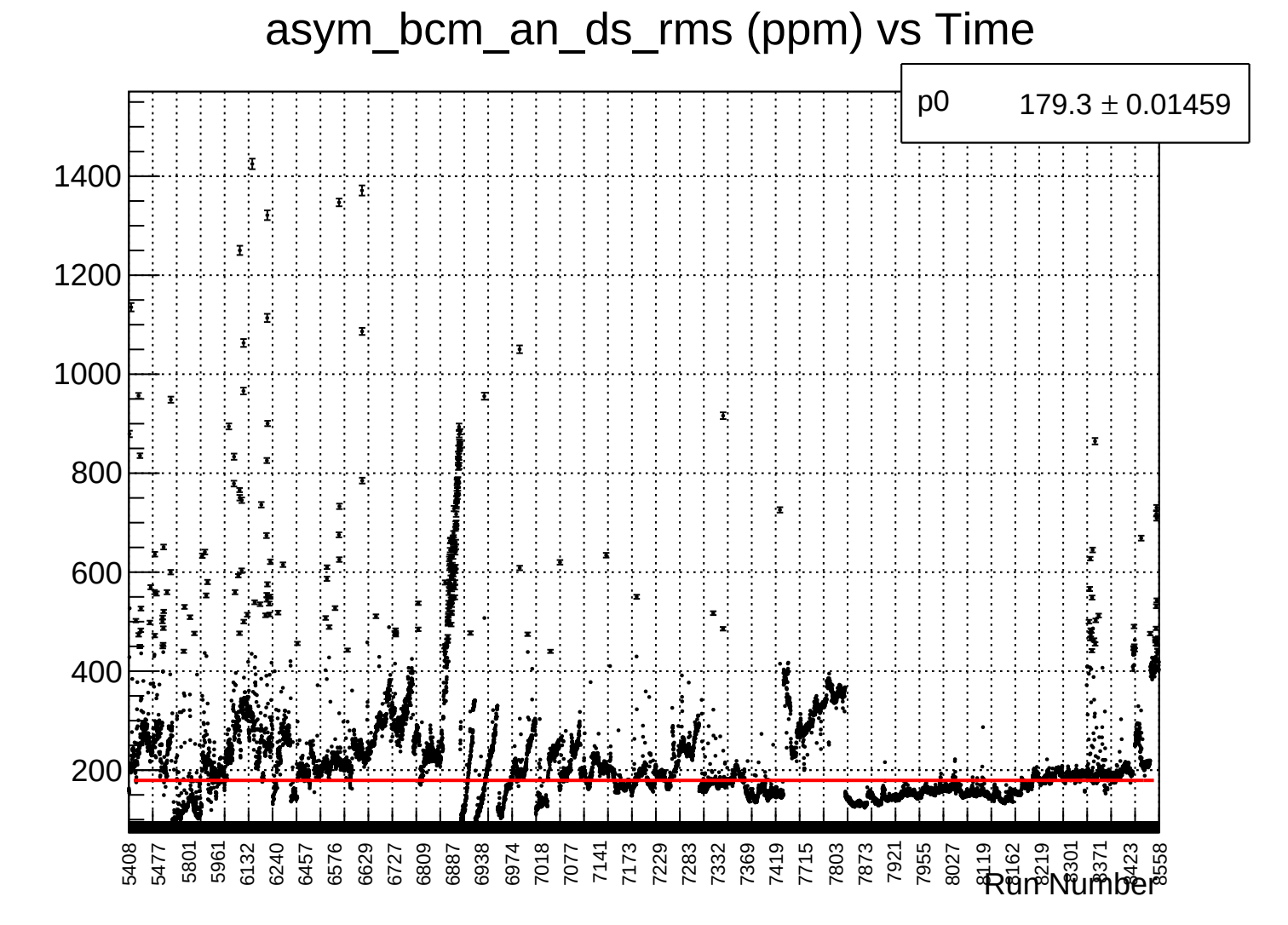

Pull Plot
Entries 7912
Mean −0.000375
Std Dev 0.9902
Underflow 0
Overflow 0
Fit Prob 0.89
Fit Chi2 7758 / 7911
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

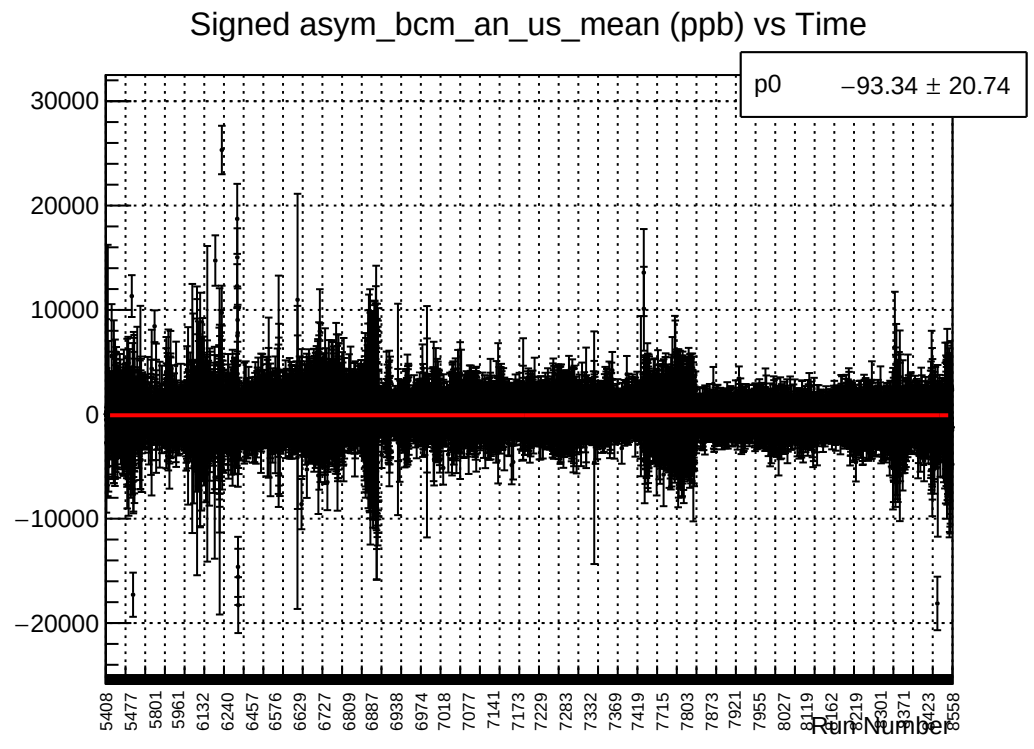

reg_asym_atl_dd_atr_dd_dd_rms (ppm) vs Time
p0 1246 ± 0.1008
1500
1450
1400
1350
1300
1250
1200
1150
1100
5636
5805
5963
6133
6237
6451
6566
6631
6728
6808
6867
6932
6964
7006
7064
7098
7152
7187
7242
7291
7337
7370
7419
7705
7800
7867
7915
7945
8013
8100
8145
8190
8261
8322
8391
8426
Run Number

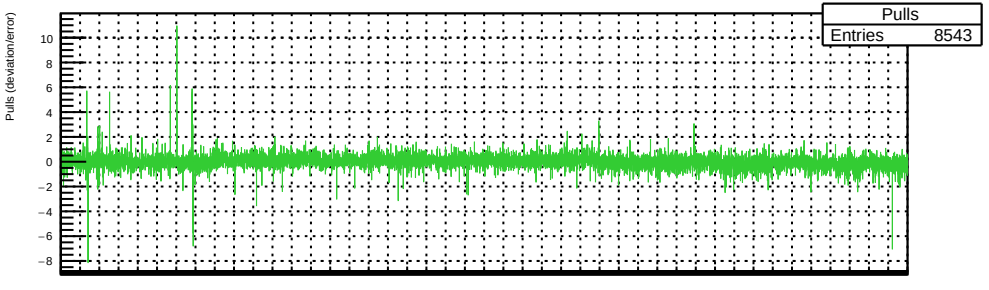

Signed asym_bcm_an_ds_mean (ppb) vs Time
p0 −97.55 ± 20.63
30000
20000
10000
0
−10000
−20000
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

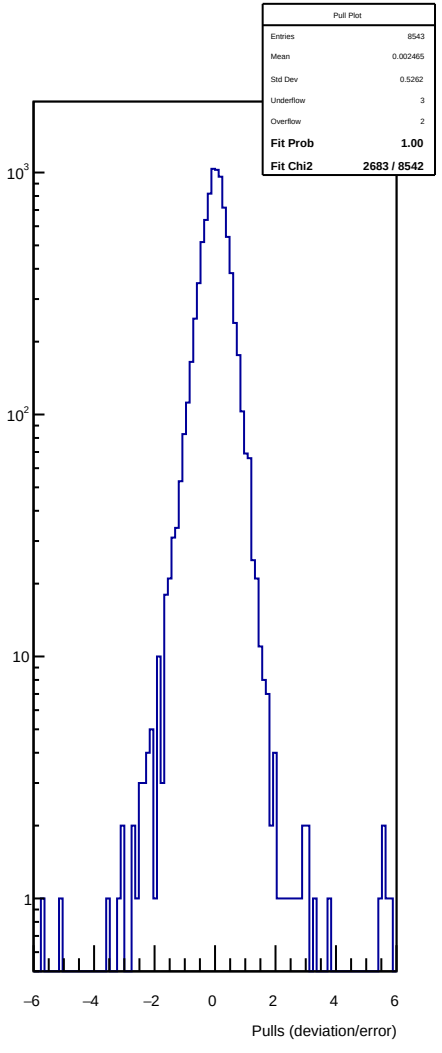

Pulls
Entries 8543
Pulls (deviation/error)
10
8
6
4
2
0
−2
−4
−6
−8

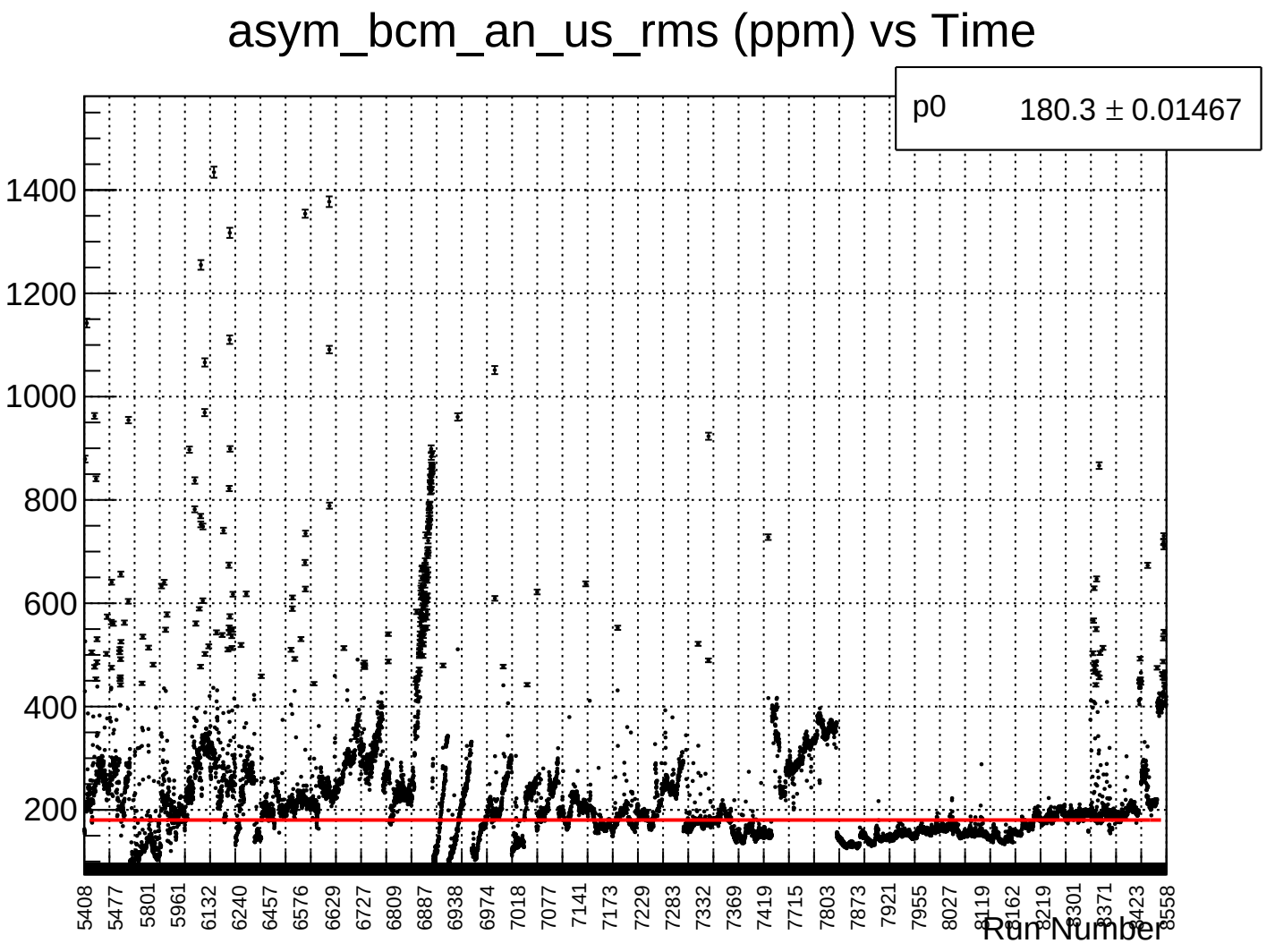

Pull Plot
Entries 8543
Mean 0.003056
Std Dev 0.5407
Underflow 3
Overflow 2
Fit Prob 1.00
Fit Chi2 2820 / 8542
10^3
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

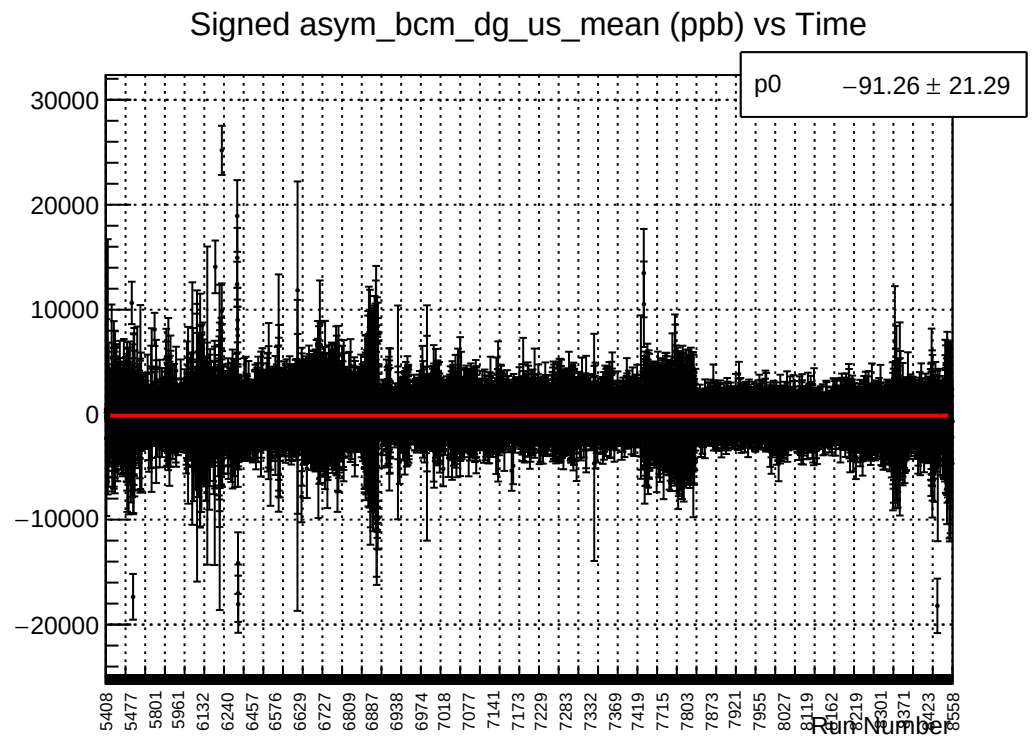

asym_bcm_an_ds_rms (ppm) vs Time
p0 179.3 ± 0.01459
1400
1200
1000
800
600
400
200
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

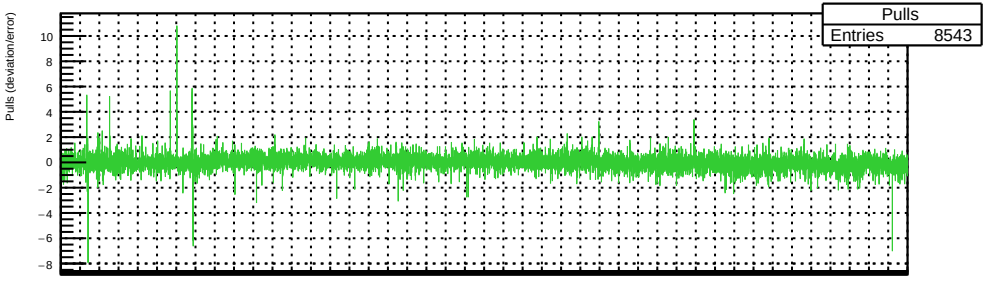

Signed asym_bcm_an_us_mean (ppb) vs Time
p0 −93.34 ± 20.74
30000
20000
10000
0
−10000
−20000
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

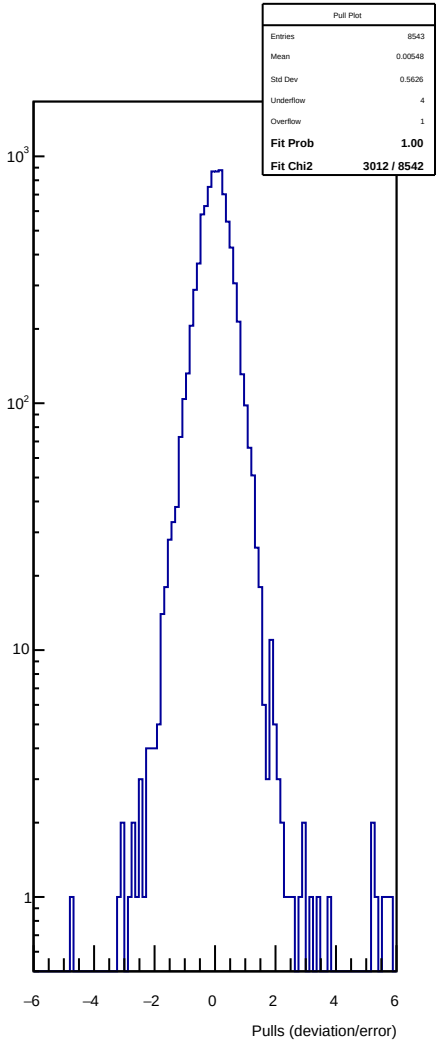

Pulls
Entries 8543
Pulls (deviation/error)
10
8
6
4
2
0
−2
−4
−6
−8

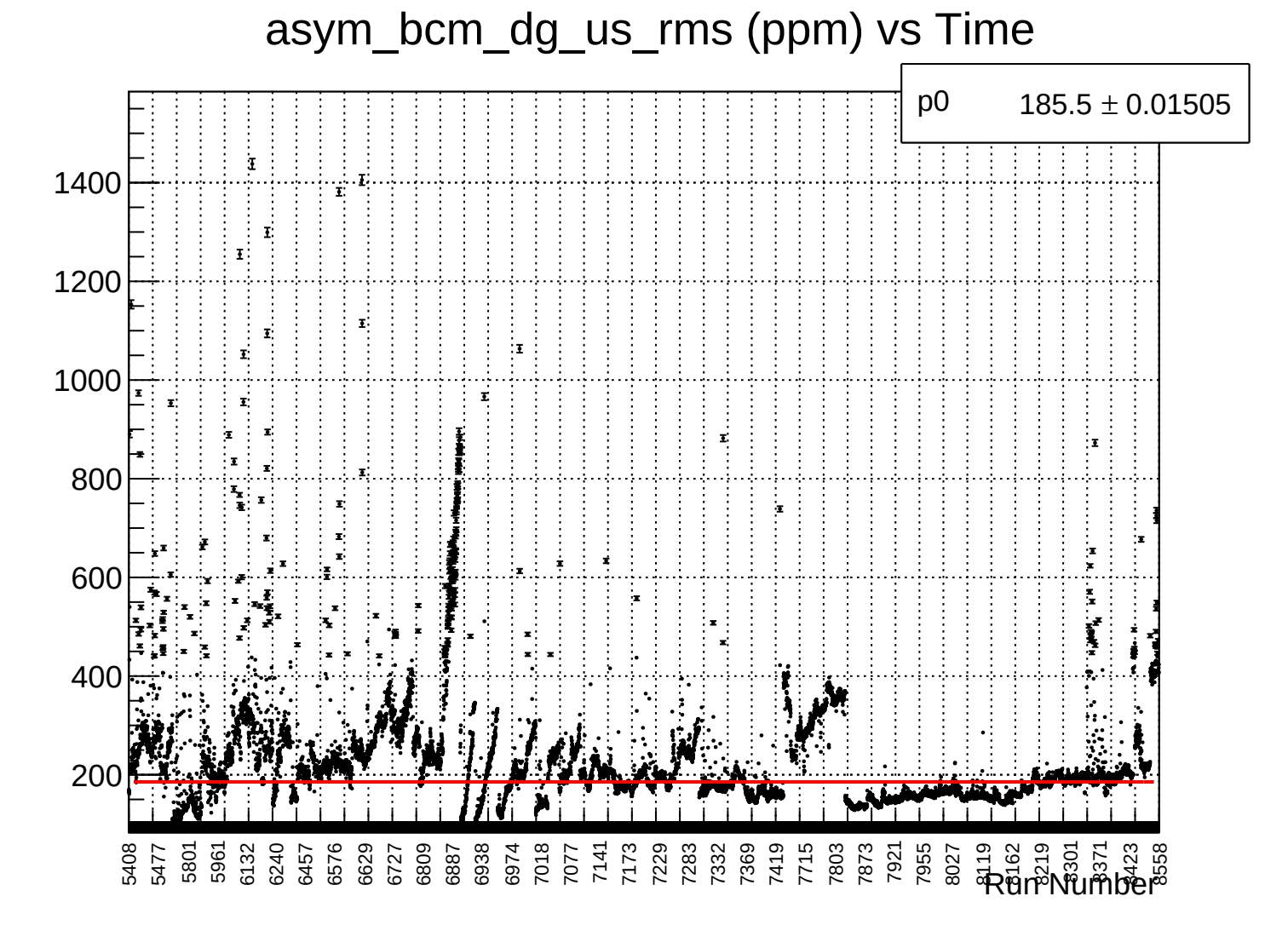

Pull Plot
Entries 8543
Mean 0.002465
Std Dev 0.5262
Underflow 3
Overflow 2
Fit Prob 1.00
Fit Chi2 2683 / 8542
10^3
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

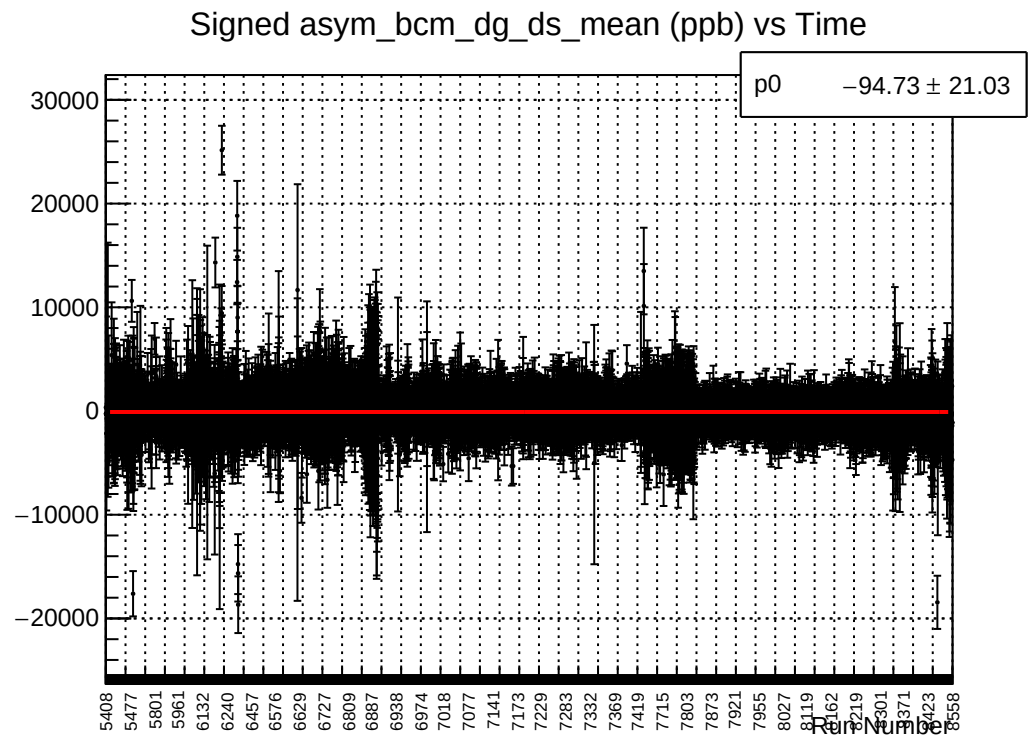

asym_bcm_an_us_rms (ppm) vs Time
p0
180.3 ± 0.01467
1400
1200
1000
800
600
400
200
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

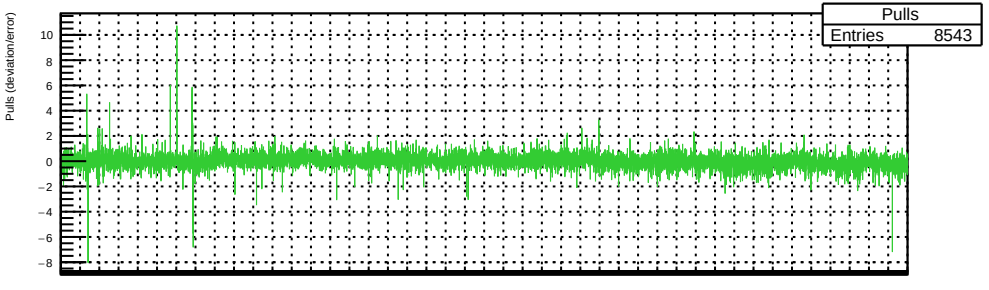

Signed asym_bcm_dg_us_mean (ppb) vs Time
p0 −91.26 ± 21.29
30000
20000
10000
0
−10000
−20000
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

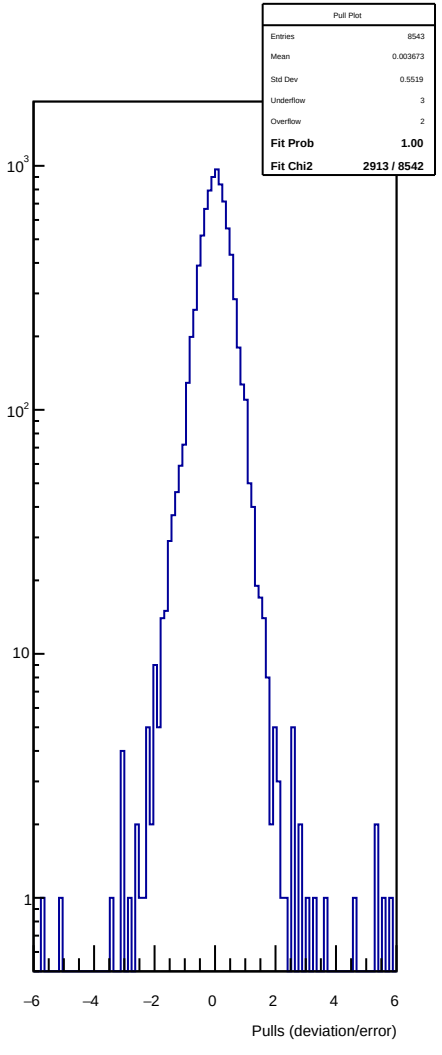

Pulls
Entries 8543
Pulls (deviation/error)
10
8
6
4
2
0
−2
−4
−6
−8

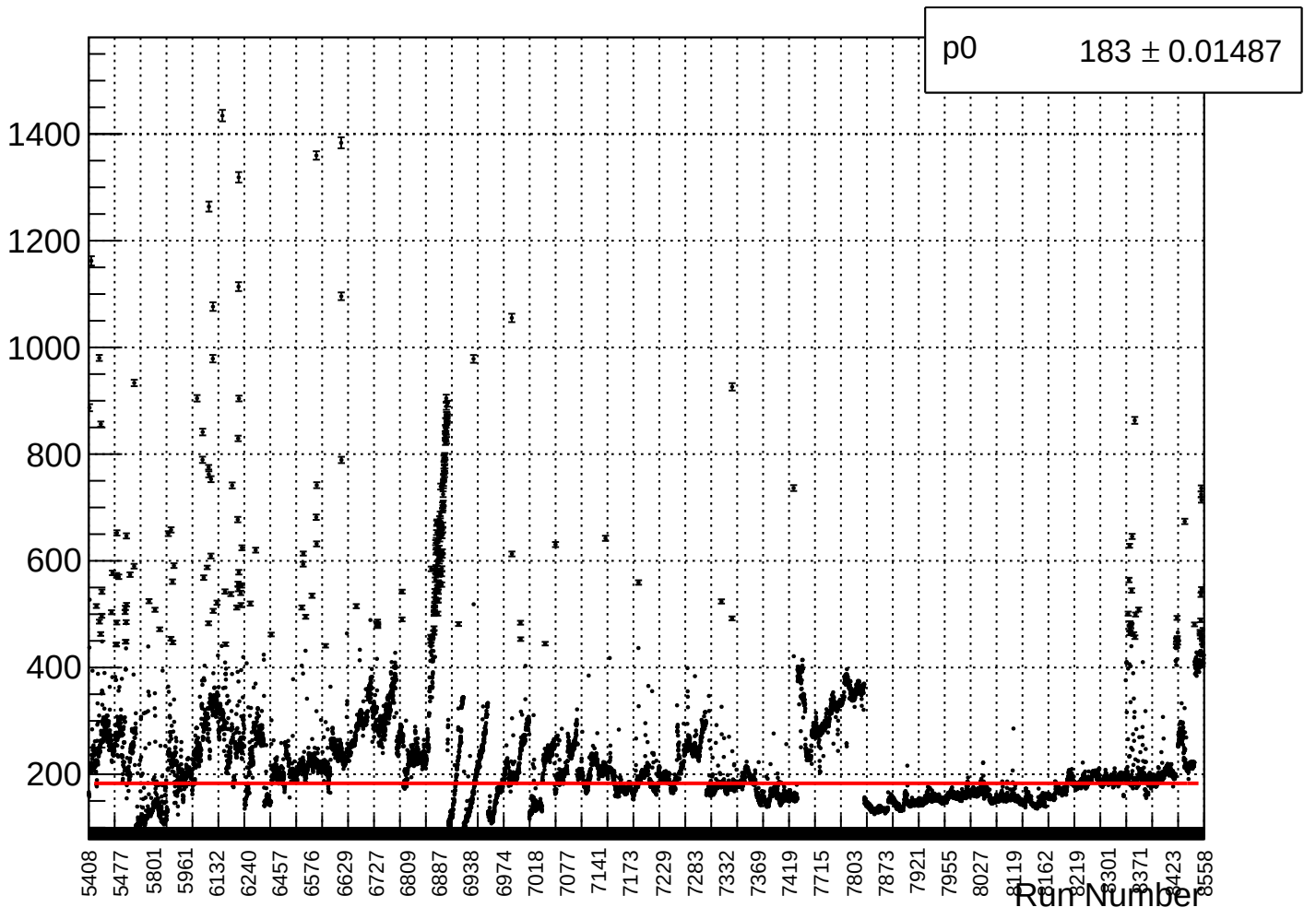

Pull Plot
Entries 8543
Mean 0.00548
Std Dev 0.5626
Underflow 4
Overflow 1
Fit Prob 1.00
Fit Chi2 3012 / 8542
10^3
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

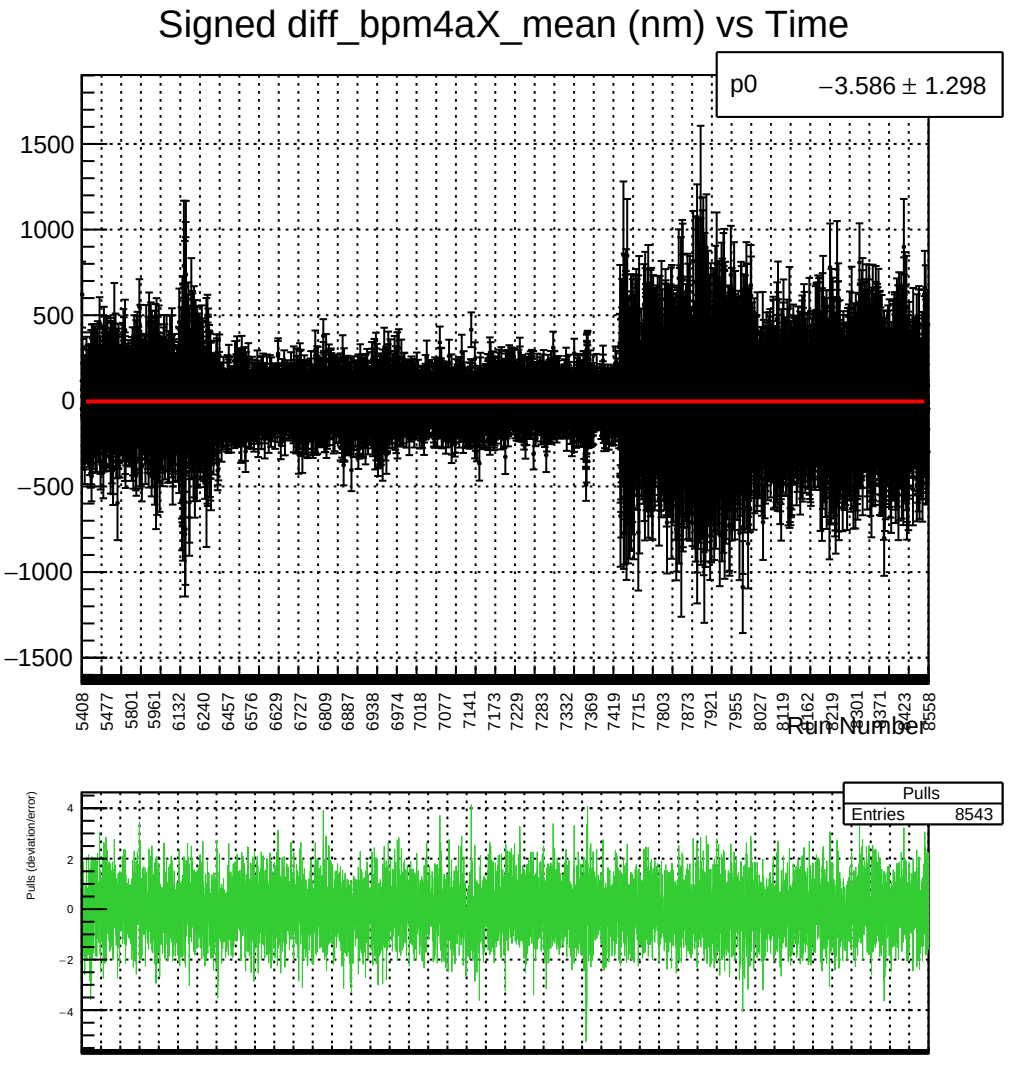

asym_bcm_dg_us_rms (ppm) vs Time
p0
185.5 ± 0.01505
1400
1200
1000
800
600
400
200
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

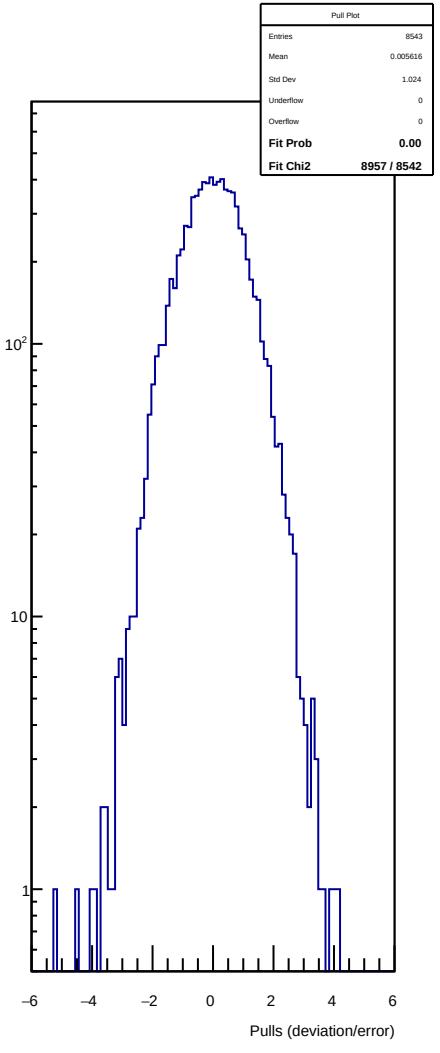

Signed asym_bcm_dg_ds_mean (ppb) vs Time
p0 −94.73 ± 21.03
30000
20000
10000
0
−10000
−20000
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

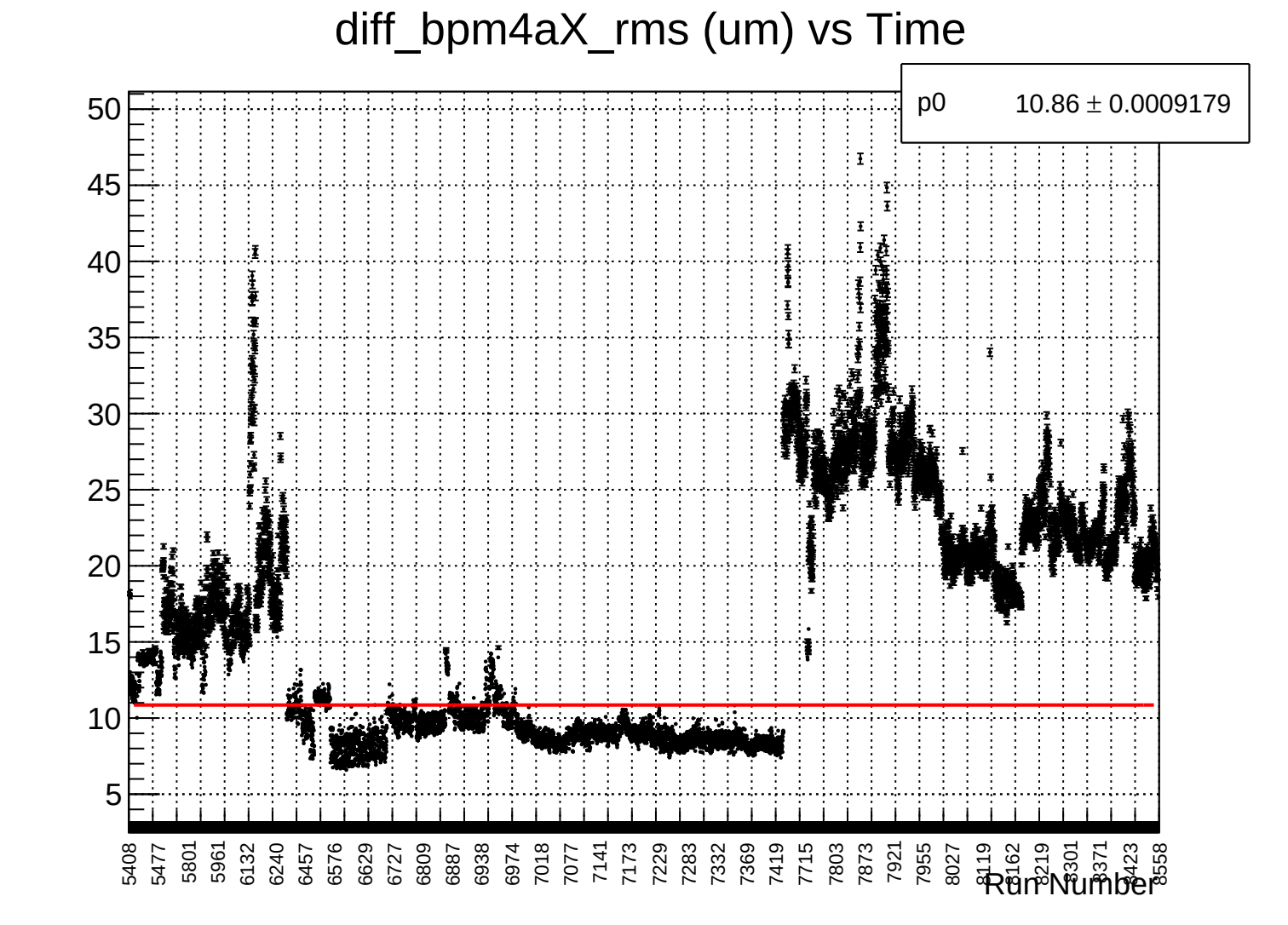

Pulls
Entries 8543
Pulls (deviation/error)
10
8
6
4
2
0
−2
−4
−6
−8

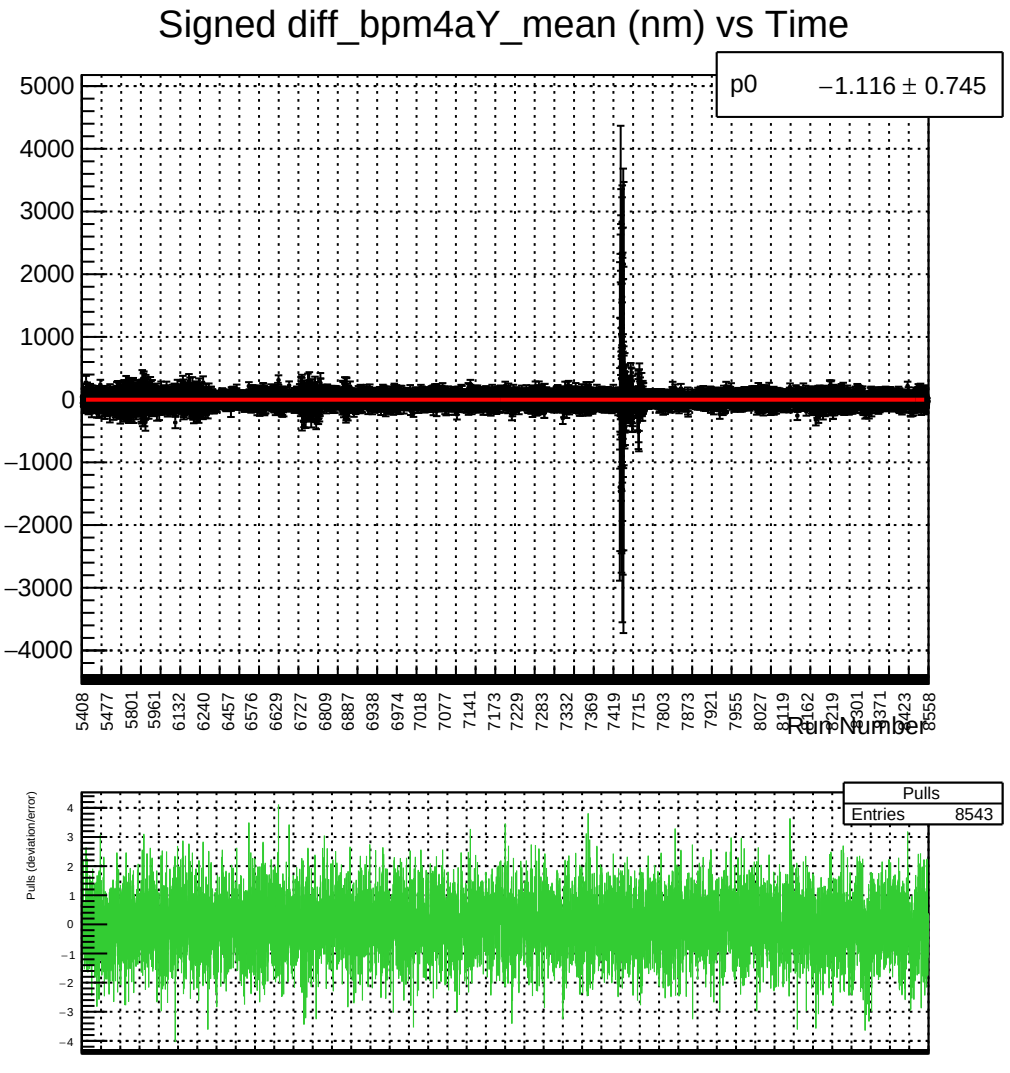

Pull Plot
Entries 8543
Mean 0.003673
Std Dev 0.5519
Underflow 3
Overflow 2
Fit Prob 1.00
Fit Chi2 2913 / 8542
10^3
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

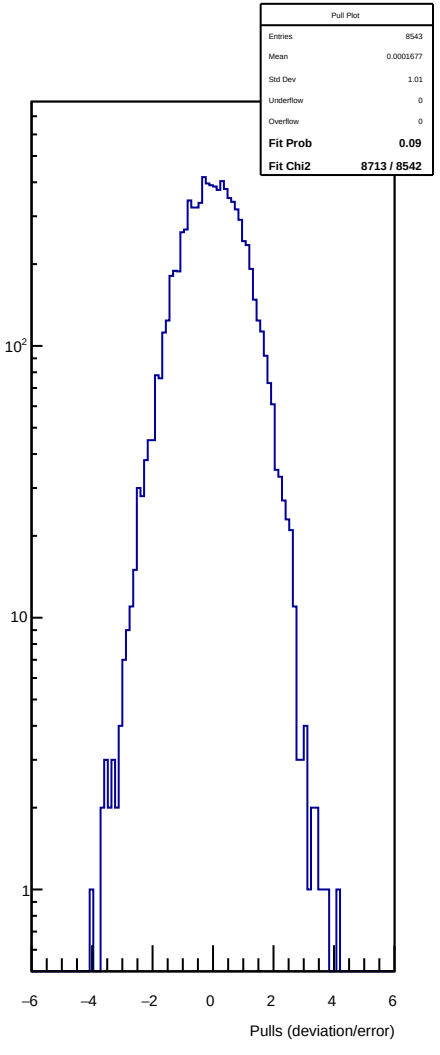

asym_bcm_dg_ds_rms (ppm) vs Time
p0
183 ± 0.01487
1400
1200
1000
800
600
400
200
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

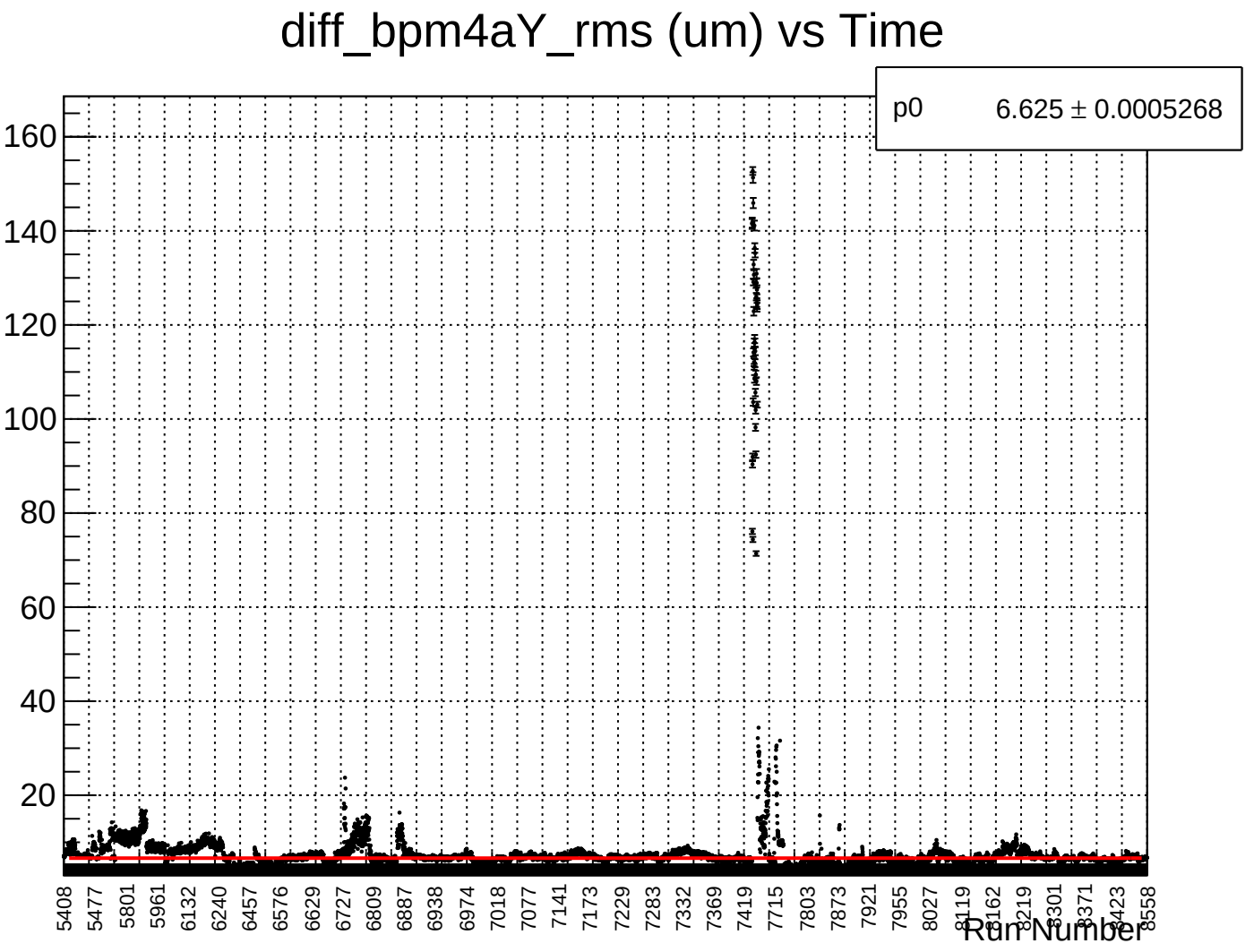

Signed diff_bpm4aX_mean (nm) vs Time
p0 −3.586 ± 1.298
1500
1000
500
0
−500
−1000
−1500
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number
Pulls
Entries 8543
Pulls (deviation/error)
4
2
0
−2
−4

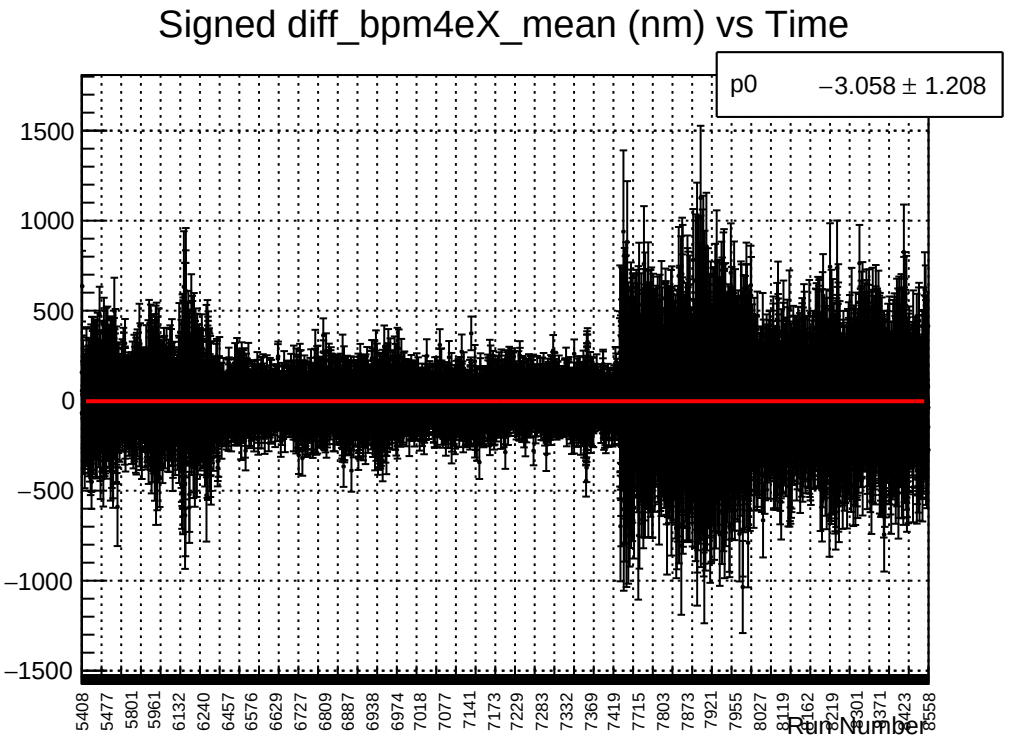

Pull Plot
Entries 8543
Mean 0.005616
Std Dev 1.024
Underflow 0
Overflow 0
Fit Prob 0.00
Fit Chi2 8957 / 8542
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

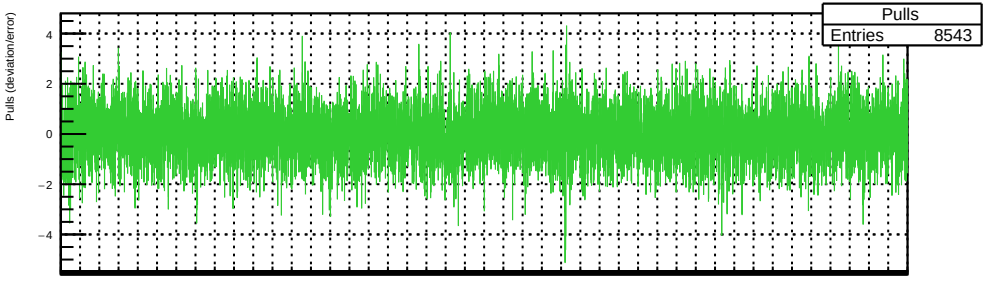

diff_bpm4aX_rms (um) vs Time
p0 10.86 ± 0.0009179
50
45
40
35
30
25
20
15
10
5
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

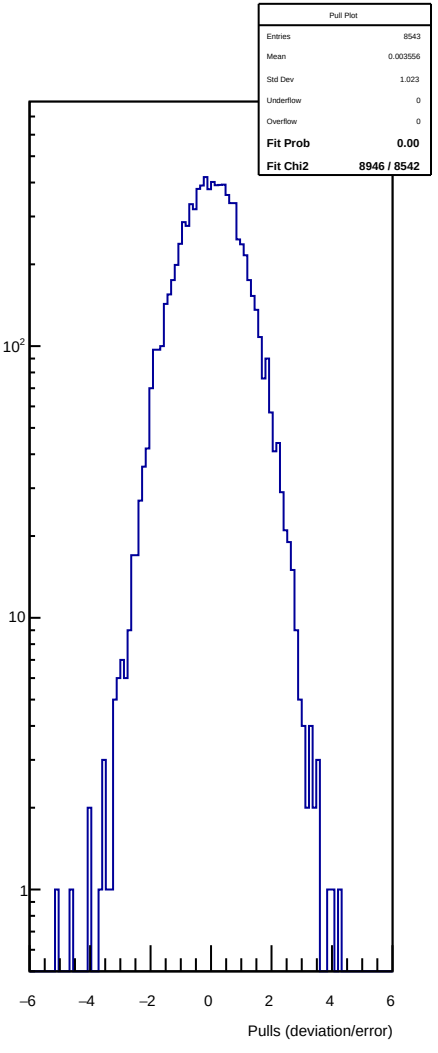

Signed diff_bpm4aY_mean (nm) vs Time
p0 −1.116 ± 0.745
5000
4000
3000
2000
1000
0
−1000
−2000
−3000
−4000
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number
Pulls
Entries 8543
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

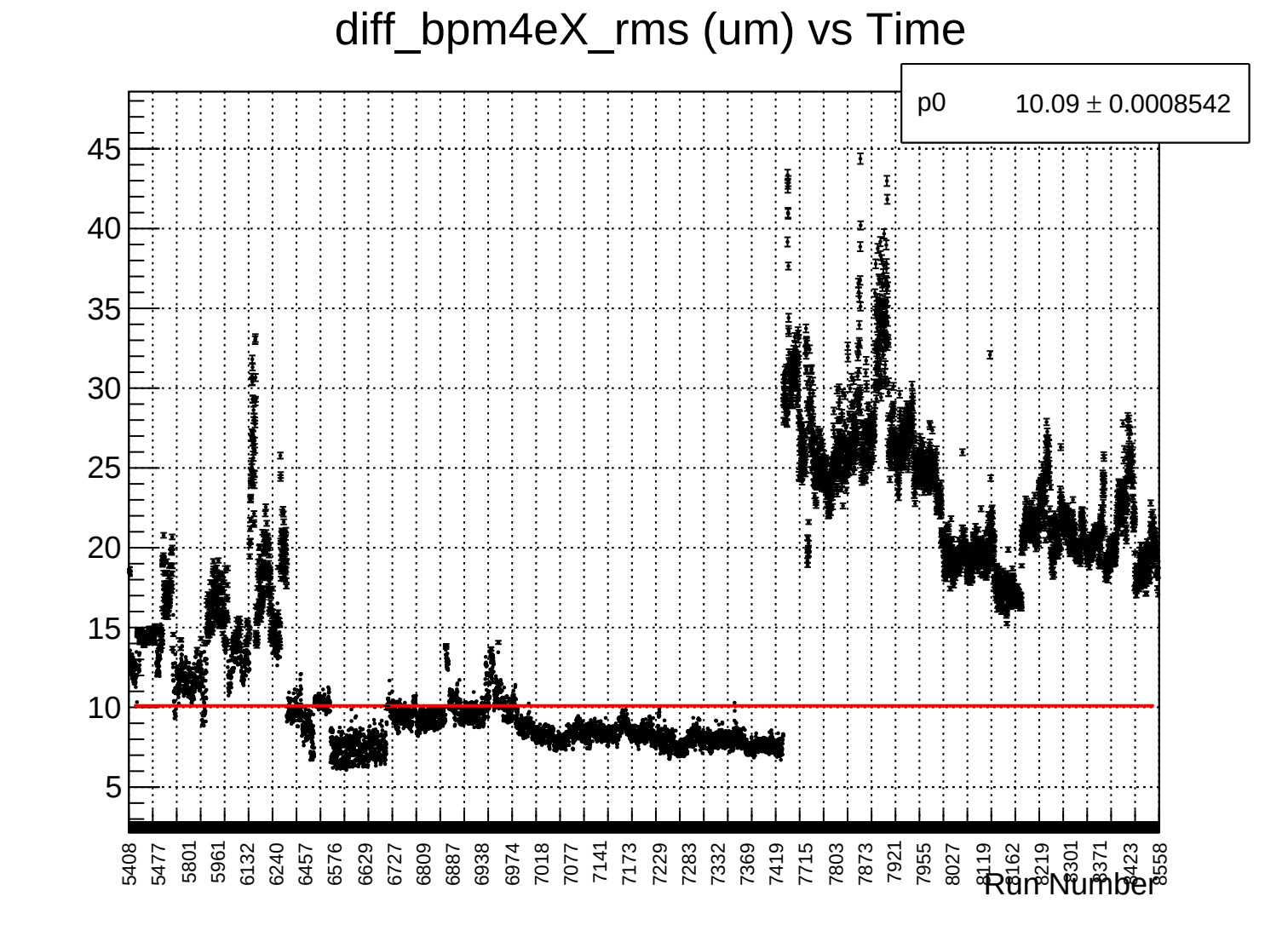

Pull Plot
Entries 8543
Mean 0.0001677
Std Dev 1.01
Underflow 0
Overflow 0
Fit Prob 0.09
Fit Chi2 8713 / 8542
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

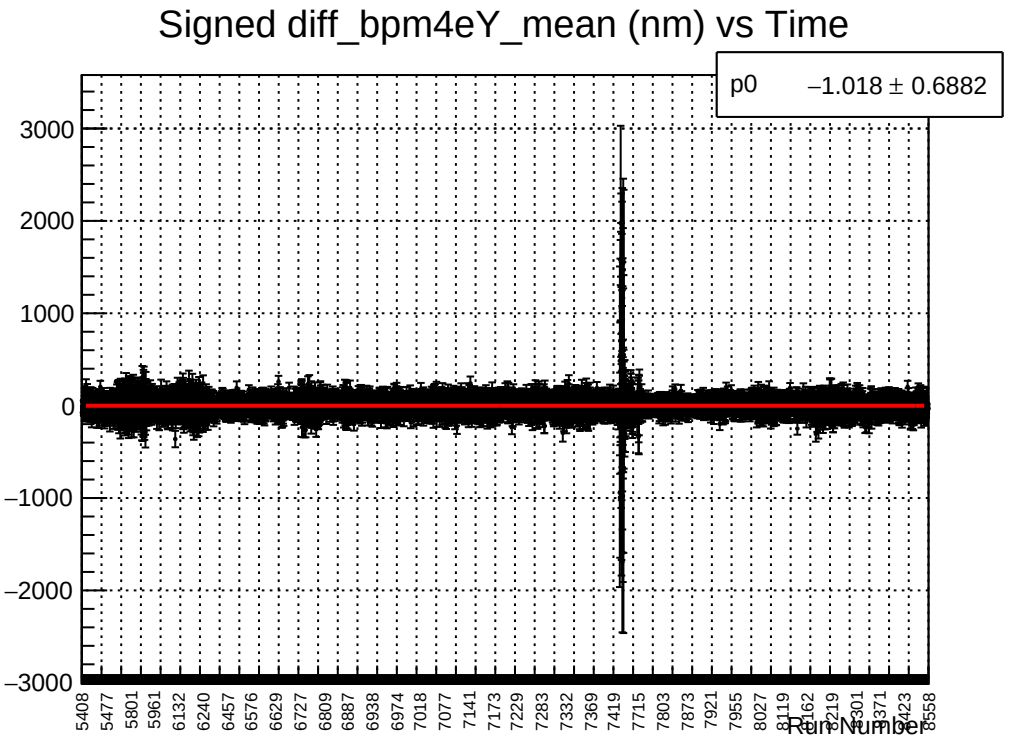

diff_bpm4aY_rms (um) vs Time
p0 6.625 ± 0.0005268
160
140
120
100
80
60
40
20
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

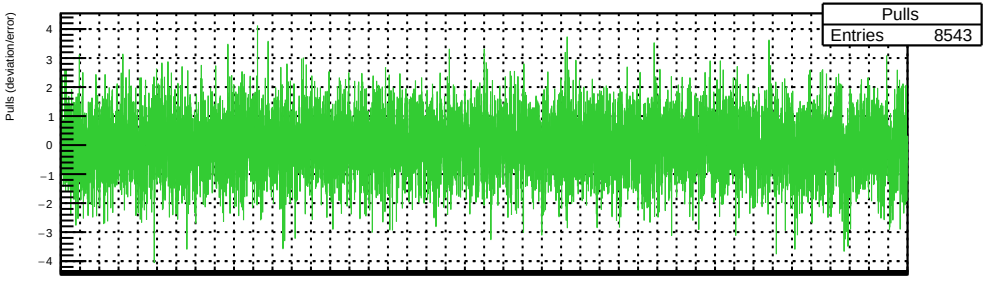

Signed diff_bpm4eX_mean (nm) vs Time
p0 −3.058 ± 1.208
1500
1000
500
0
−500
−1000
−1500
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

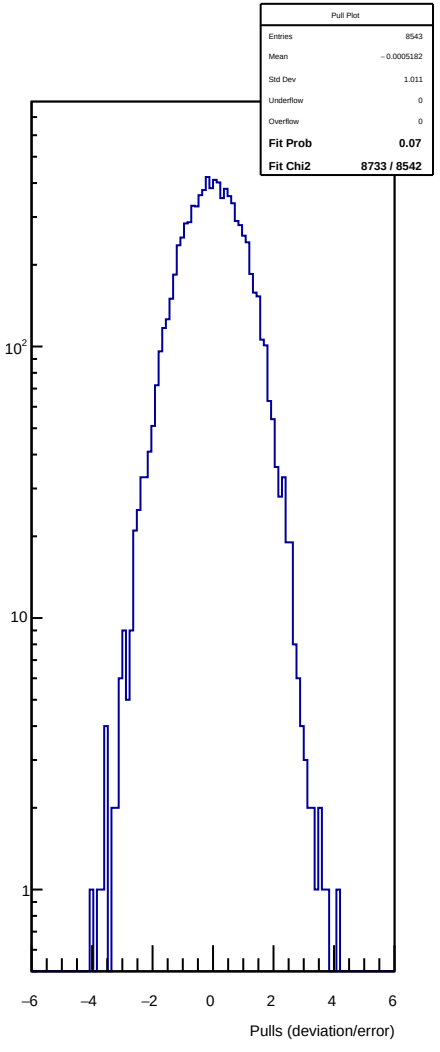

Pulls
Entries 8543
Pulls (deviation/error)
4
2
0
−2
−4

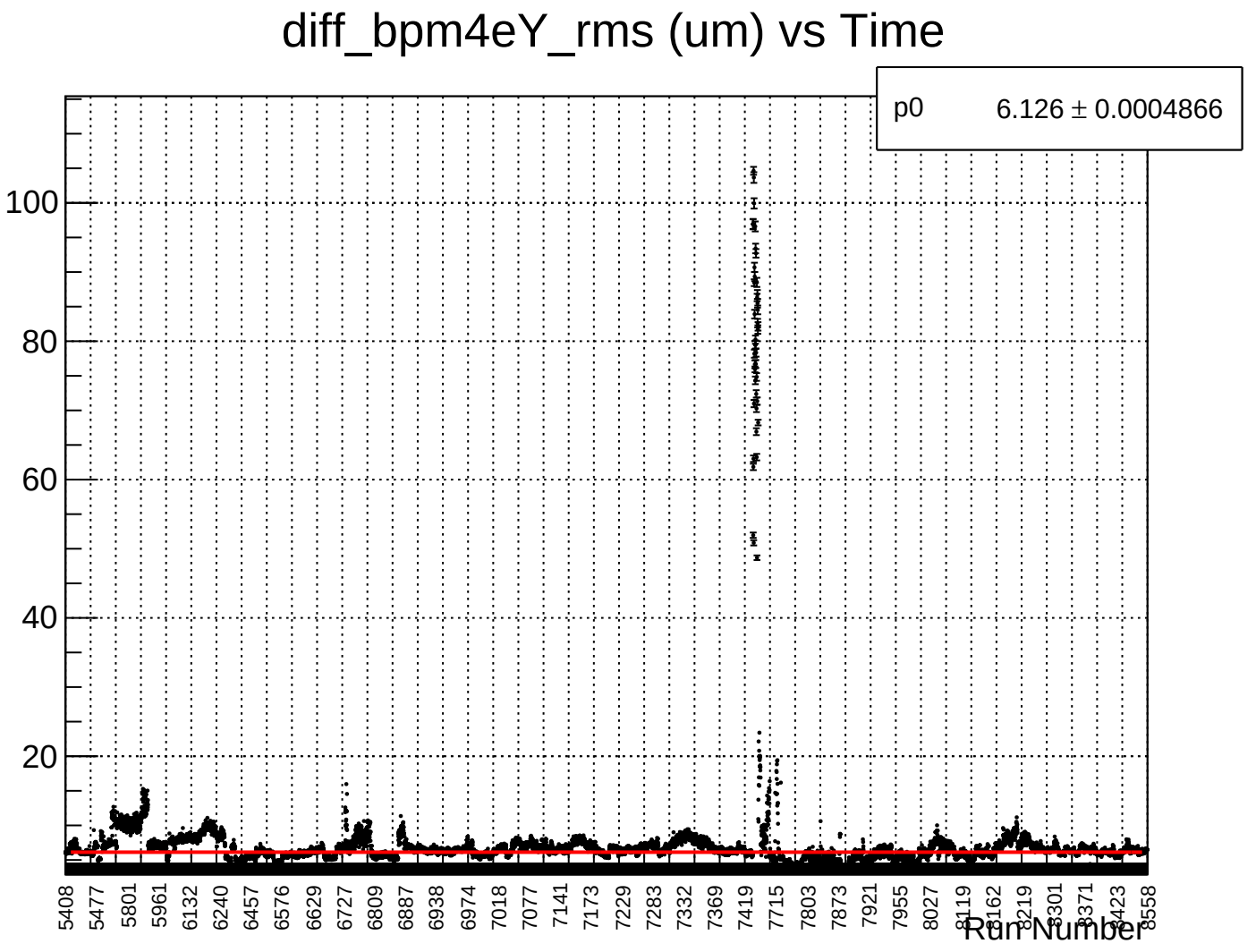

Pull Plot
Entries 8543
Mean 0.003556
Std Dev 1.023
Underflow 0
Overflow 0
Fit Prob 0.00
Fit Chi2 8946 / 8542
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

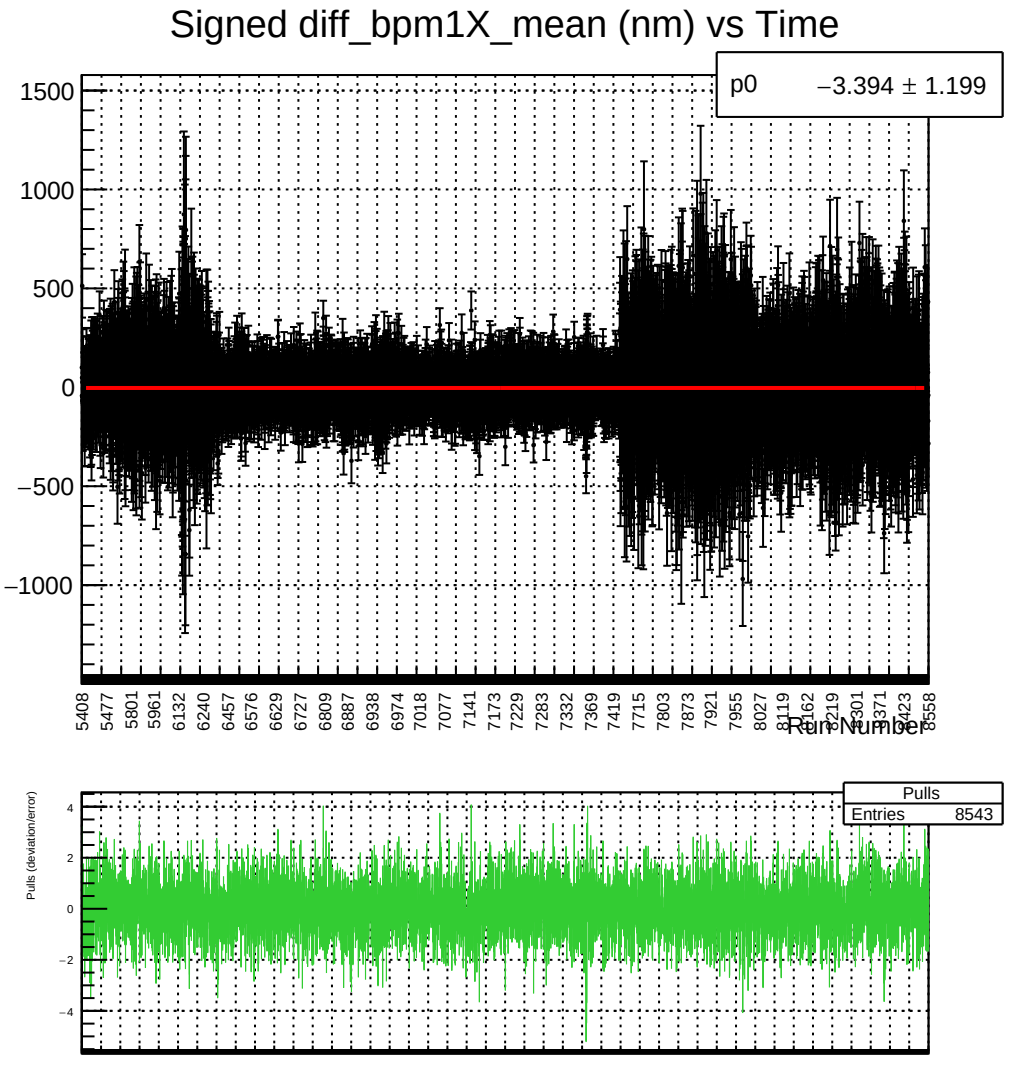

diff_bpm4eX_rms (um) vs Time
p0 10.09 ± 0.0008542
45
40
35
30
25
20
15
10
5
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

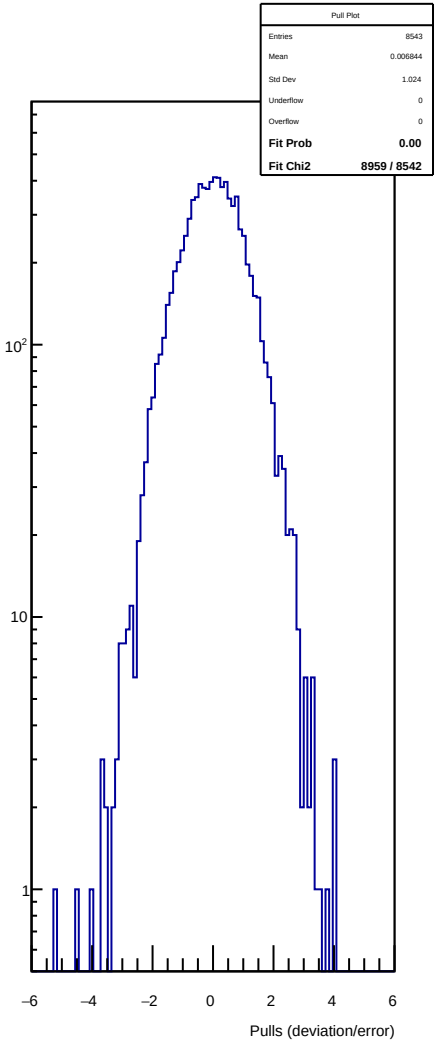

Signed diff_bpm4eY_mean (nm) vs Time
p0 −1.018 ± 0.6882
3000
2000
1000
0
−1000
−2000
−3000
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

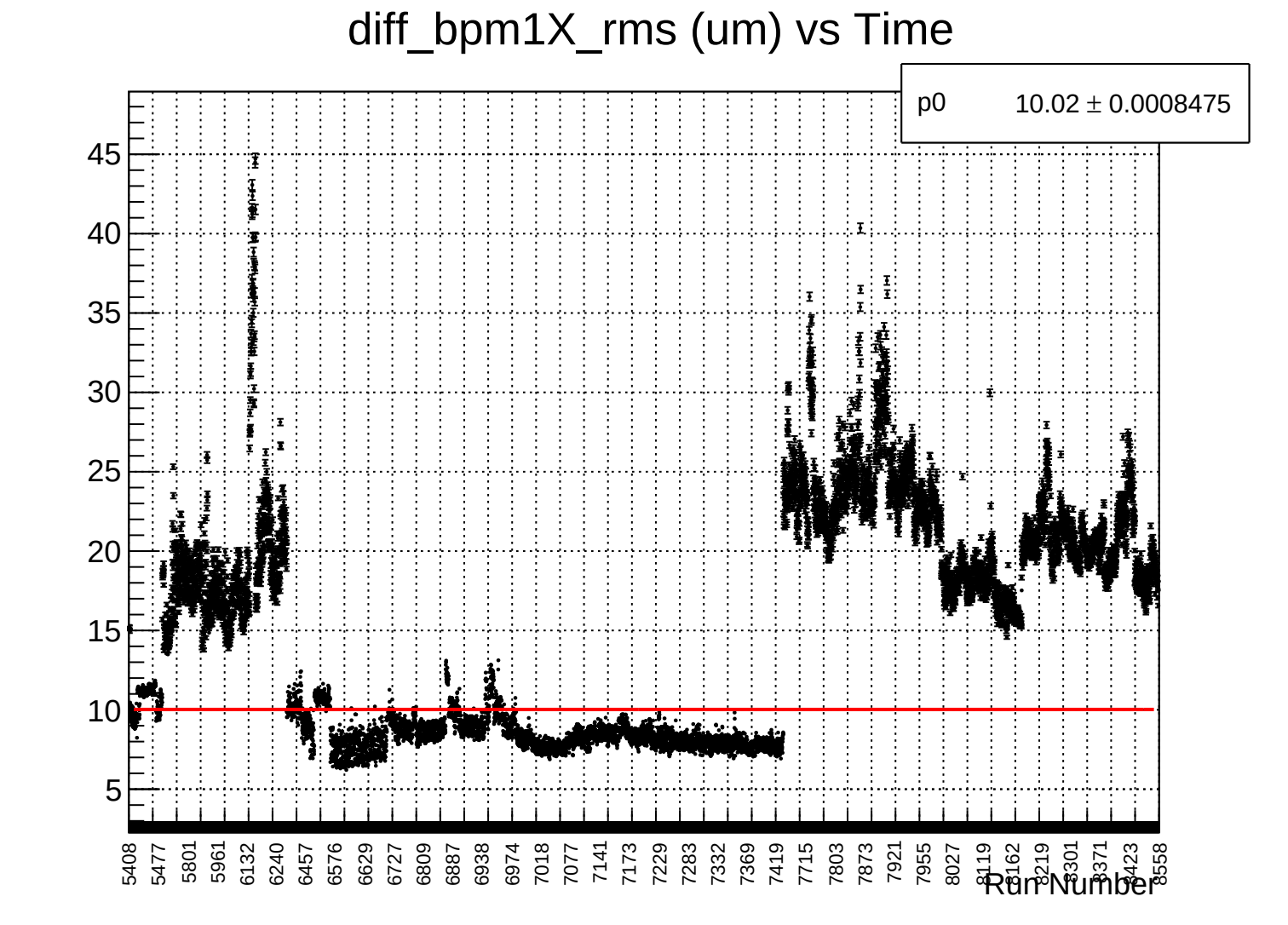

Pulls
Entries 8543
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

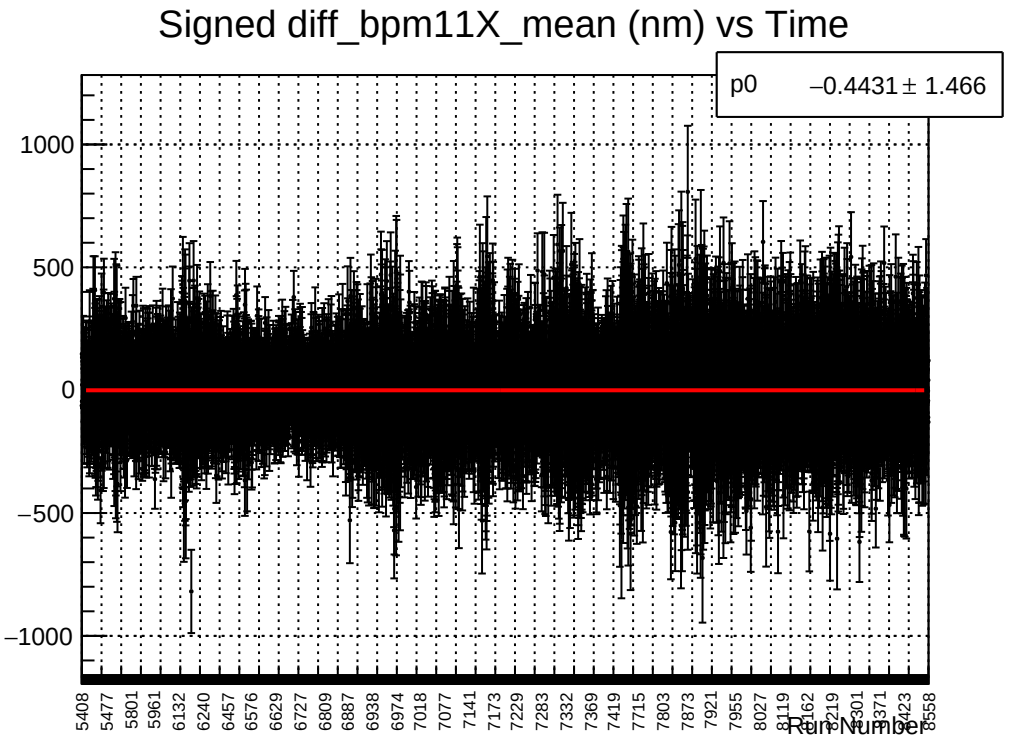

Pull Plot
Entries 8543
Mean −0.0005182
Std Dev 1.011
Underflow 0
Overflow 0
Fit Prob 0.07
Fit Chi2 8733 / 8542
10^2
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

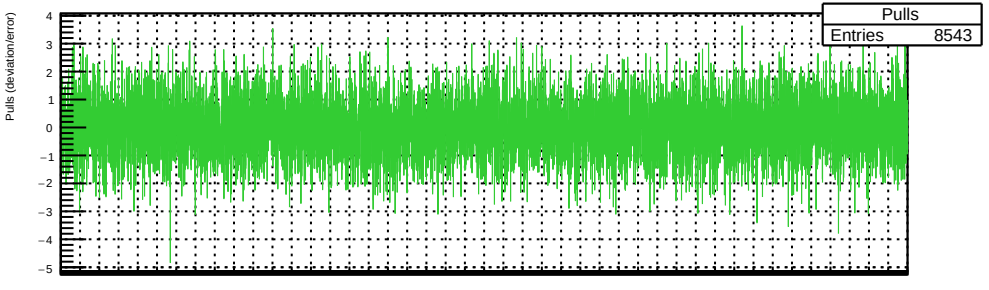

diff_bpm4eY_rms (um) vs Time
p0 6.126 ± 0.0004866
100
80
60
40
20
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

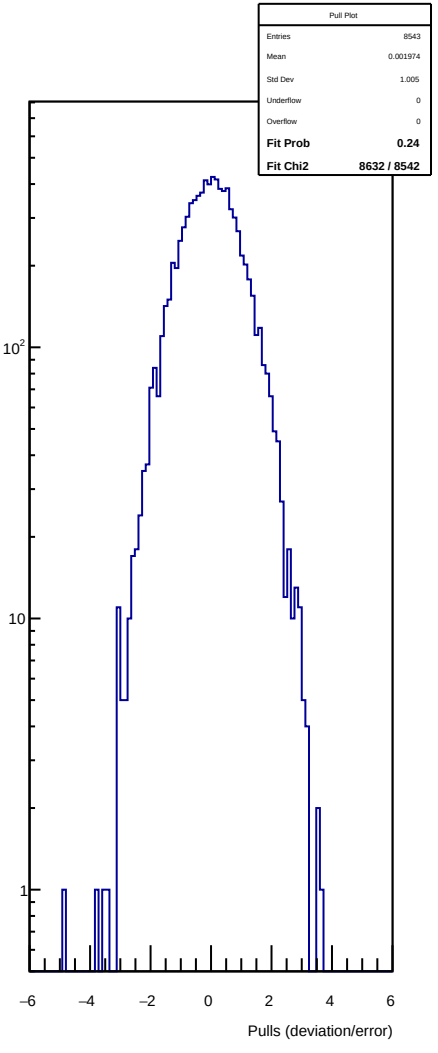

Signed diff_bpm1X_mean (nm) vs Time
p0 −3.394 ± 1.199
1500
1000
500
0
−500
−1000
5408 5477 5801 5961 6132 6240 6457 6576 6629 6727 6809 6887 6938 6974 7018 7077 7141 7173 7229 7283 7332 7369 7419 7715 7803 7873 7921 7955 8027 8119 8162 8219 8301 8371 8423 8558
Run Number
Pulls
Entries 8543
Pulls (deviation/error)
4
2
0
−2
−4

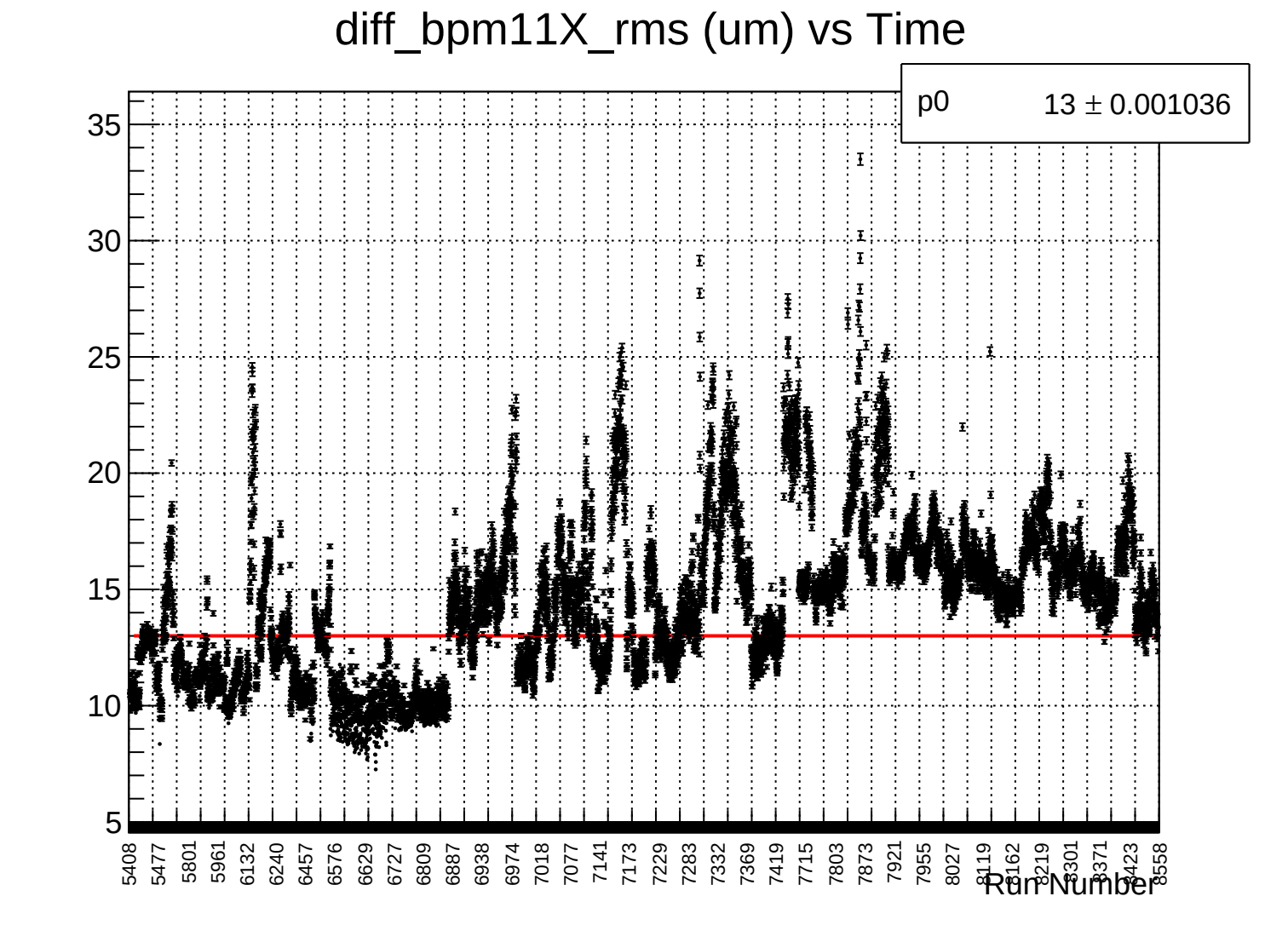

Pull Plot
Entries 8543
Mean 0.006844
Std Dev 1.024
Underflow 0
Overflow 0
Fit Prob 0.00
Fit Chi2 8959 / 8542
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

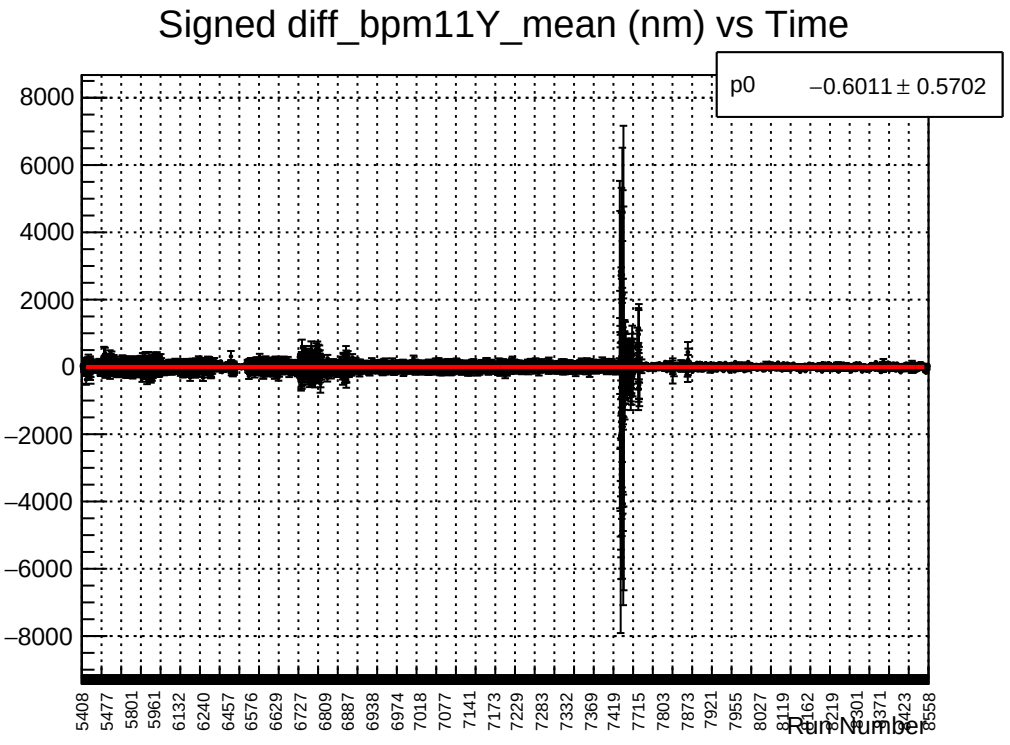

diff_bpm1X_rms (um) vs Time
p0 10.02 ± 0.0008475
45
40
35
30
25
20
15
10
5
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

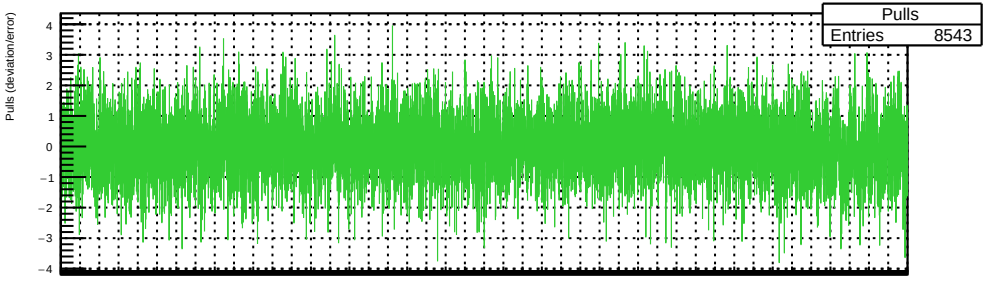

Signed diff_bpm11X_mean (nm) vs Time
p0 −0.4431 ± 1.466
1000
500
0
−500
−1000
5408 5477 5801 5961 6132 6240 6457 6576 6629 6727 6809 6887 6938 6974 7018 7077 7141 7173 7229 7283 7332 7369 7419 7715 7803 7873 7921 7955 8027 8119 8162 8219 8301 8371 8423 8558
Run Number

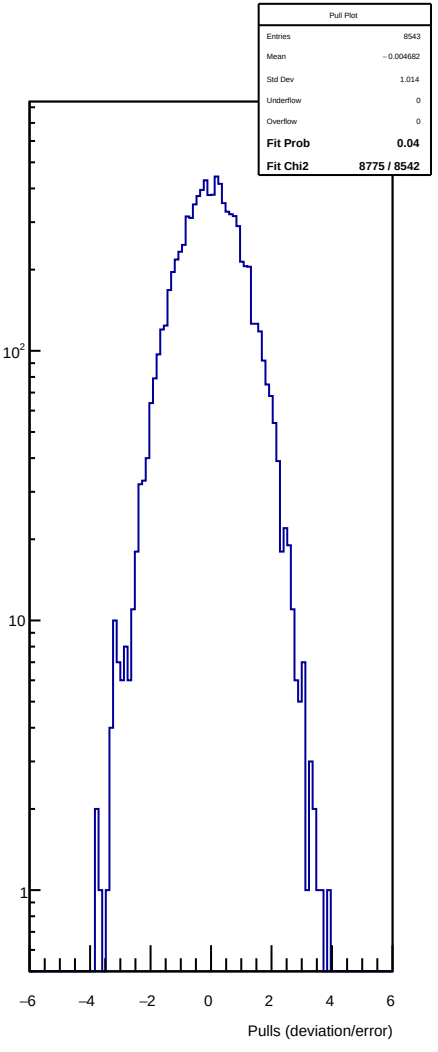

Pulls
Entries 8543
Pulls (deviation/error)
4 3 2 1 0 −1 −2 −3 −4 −5

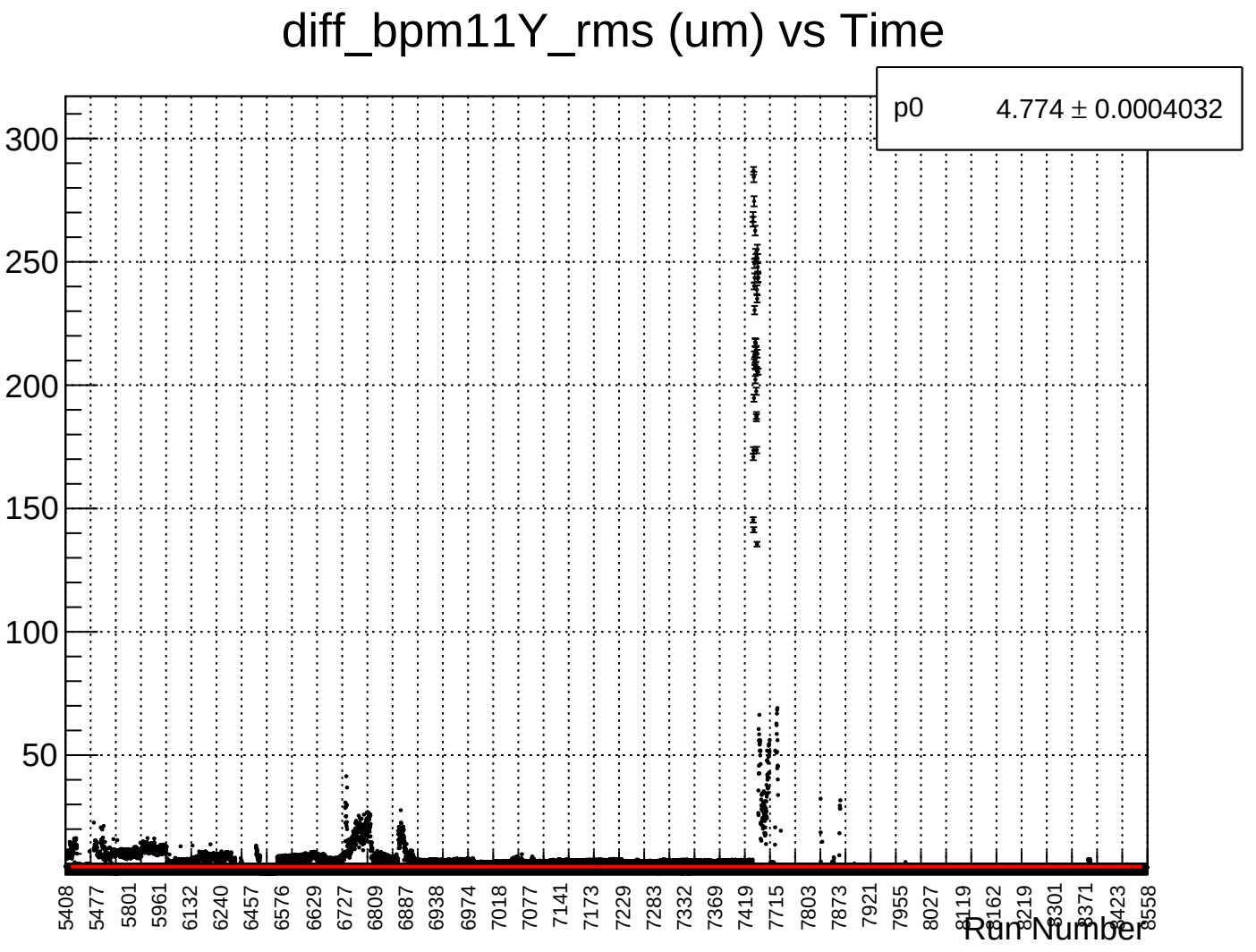

Pull Plot
Entries 8543
Mean 0.001974
Std Dev 1.005
Underflow 0
Overflow 0
Fit Prob 0.24
Fit Chi2 8632 / 8542
10²
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)

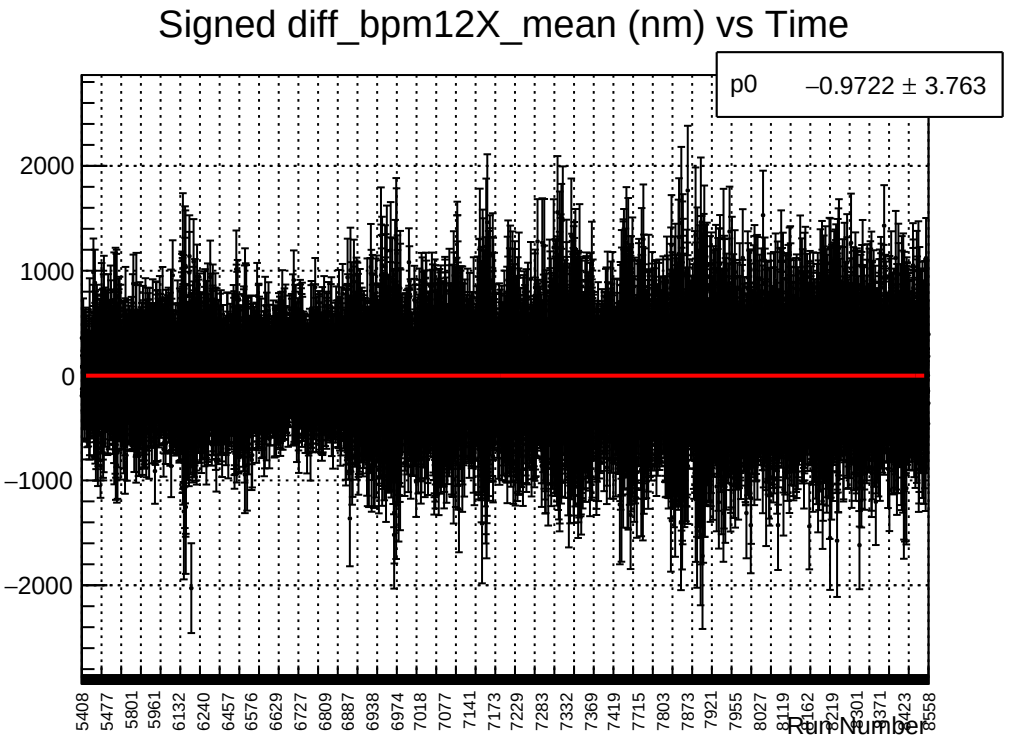

diff_bpm11X_rms (um) vs Time
p0
13 ± 0.001036
35
30
25
20
15
10
5
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

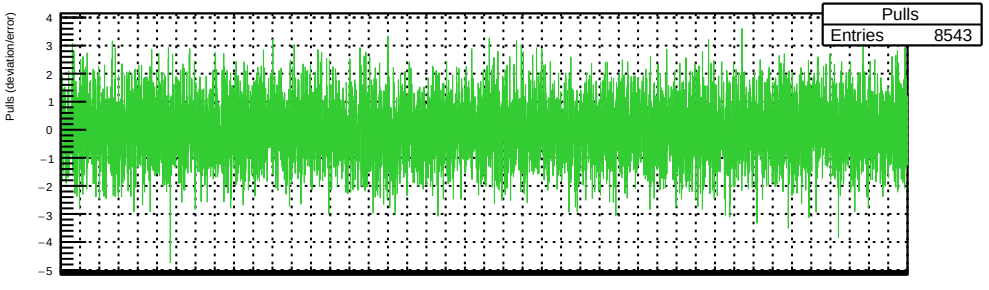

Signed diff_bpm11Y_mean (nm) vs Time
p0 −0.6011 ± 0.5702
8000
6000
4000
2000
0
−2000
−4000
−6000
−8000
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

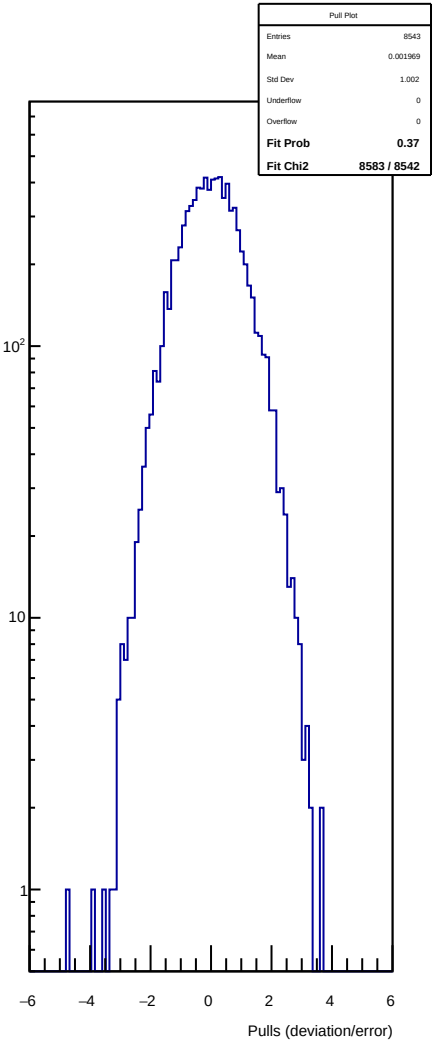

Pulls
Entries 8543
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4

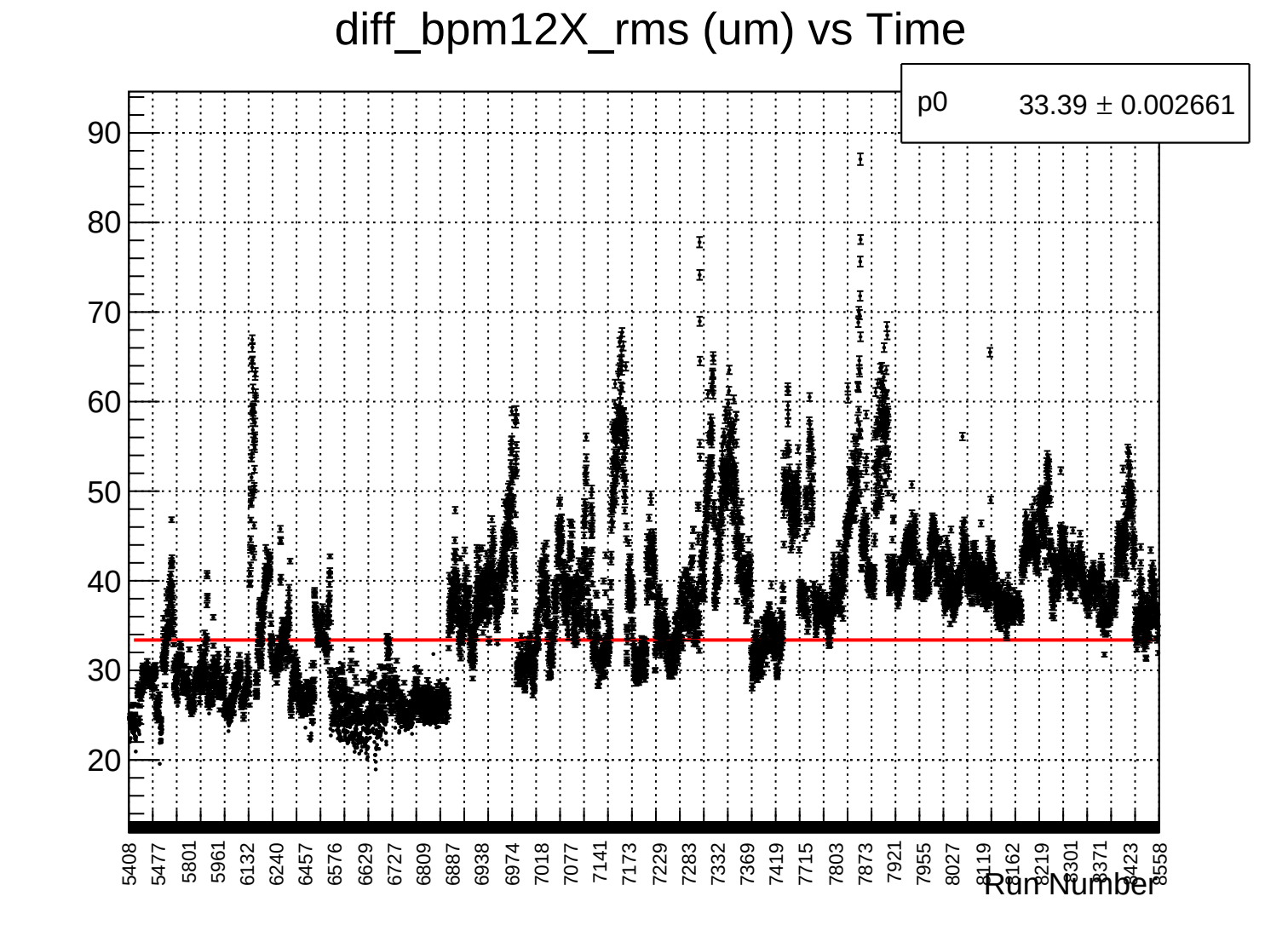

Pull Plot
Entries 8543
Mean −0.004682
Std Dev 1.014
Underflow 0
Overflow 0
Fit Prob 0.04
Fit Chi2 8775 / 8542
10²
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)

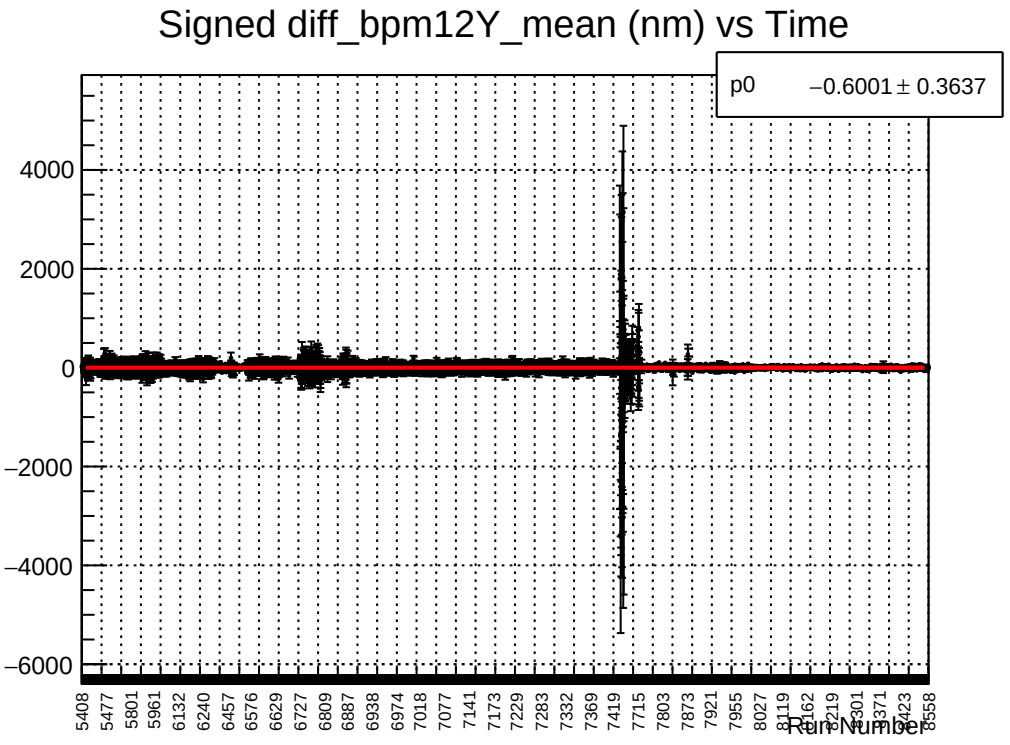

diff_bpm11Y_rms (um) vs Time
p0 4.774 ± 0.0004032
300
250
200
150
100
50
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number

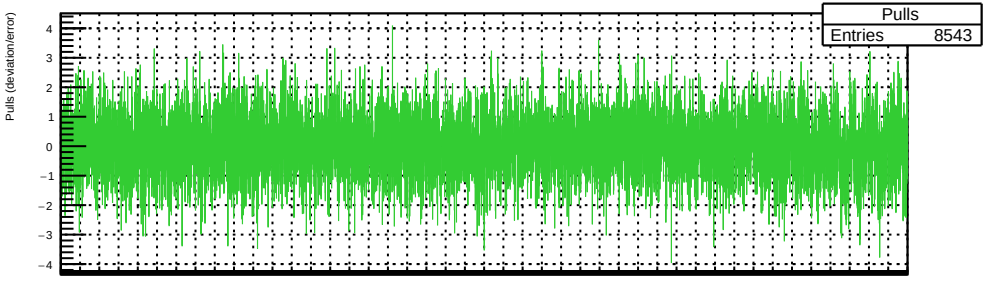

Signed diff_bpm12X_mean (nm) vs Time
p0 −0.9722 ± 3.763
2000
1000
0
−1000
−2000
5408 5477 5801 5961 6132 6240 6457 6576 6629 6727 6809 6887 6938 6974 7018 7077 7141 7173 7229 7283 7332 7369 7419 7715 7803 7873 7921 7955 8027 8119 8162 8219 8301 8371 8423 8558
Run Number

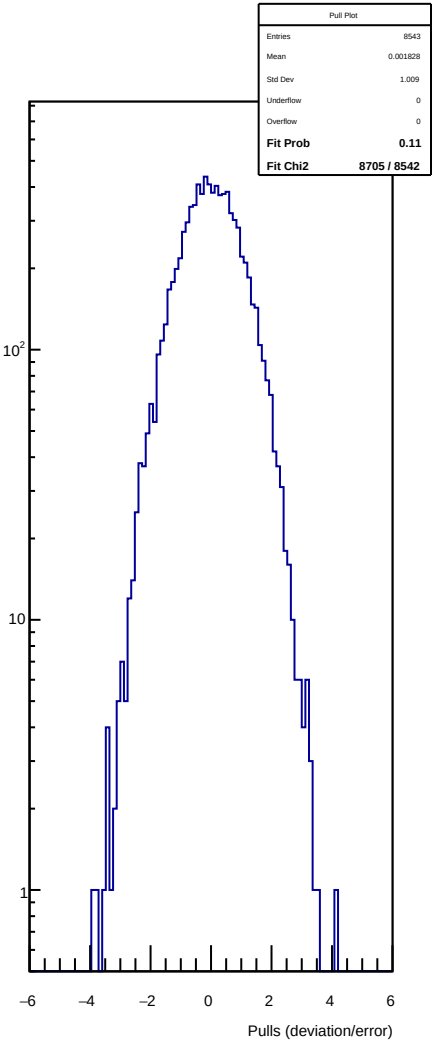

Pulls
Entries 8543
Pulls (deviation/error)
4 3 2 1 0 −1 −2 −3 −4 −5

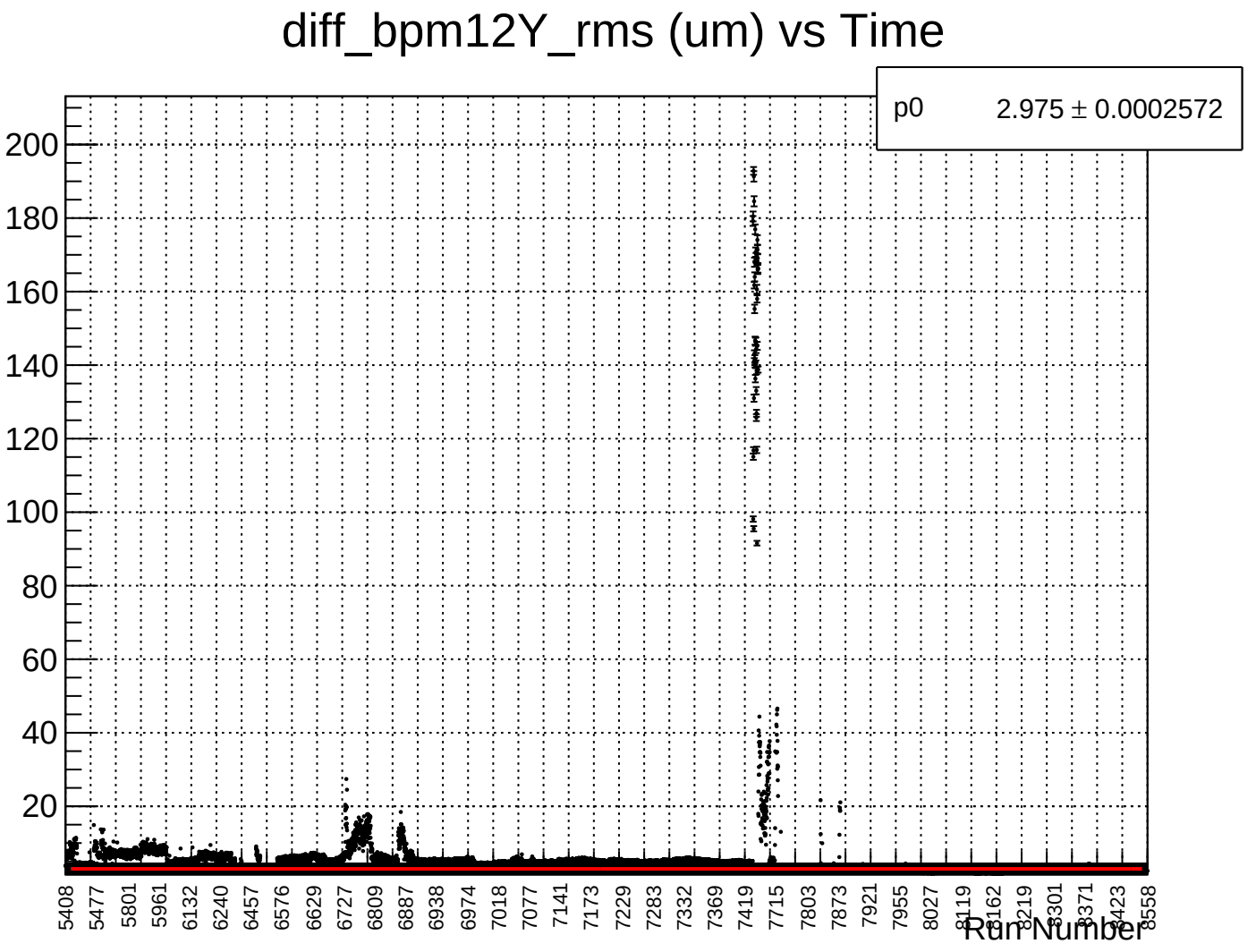

Pull Plot
Entries 8543
Mean 0.001969
Std Dev 1.002
Underflow 0
Overflow 0
Fit Prob 0.37
Fit Chi2 8583 / 8542
10^2
10
1
−6 −4 −2 0 2 4 6
Pulls (deviation/error)


diff_bpm12X_rms (um) vs Time
p0 33.39 ± 0.002661
90
80
70
60
50
40
30
20
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number


Signed diff_bpm12Y_mean (nm) vs Time
p0 −0.6001 ± 0.3637
4000
2000
0
−2000
−4000
−6000
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number


Pulls
Entries 8543
Pulls (deviation/error)
4
3
2
1
0
−1
−2
−3
−4


Pull Plot
Entries 8543
Mean 0.001828
Std Dev 1.009
Underflow 0
Overflow 0
Fit Prob 0.11
Fit Chi2 8705 / 8542
10²
10
1
−6
−4
−2
0
2
4
6
Pulls (deviation/error)


diff_bpm12Y_rms (um) vs Time
p0 2.975 ± 0.0002572
200
180
160
140
120
100
80
60
40
20
5408
5477
5801
5961
6132
6240
6457
6576
6629
6727
6809
6887
6938
6974
7018
7077
7141
7173
7229
7283
7332
7369
7419
7715
7803
7873
7921
7955
8027
8119
8162
8219
8301
8371
8423
8558
Run Number