



# RadExPro Real-Time – Real-Time QC of Marine Seismic Data

## Why Real-Time QC?

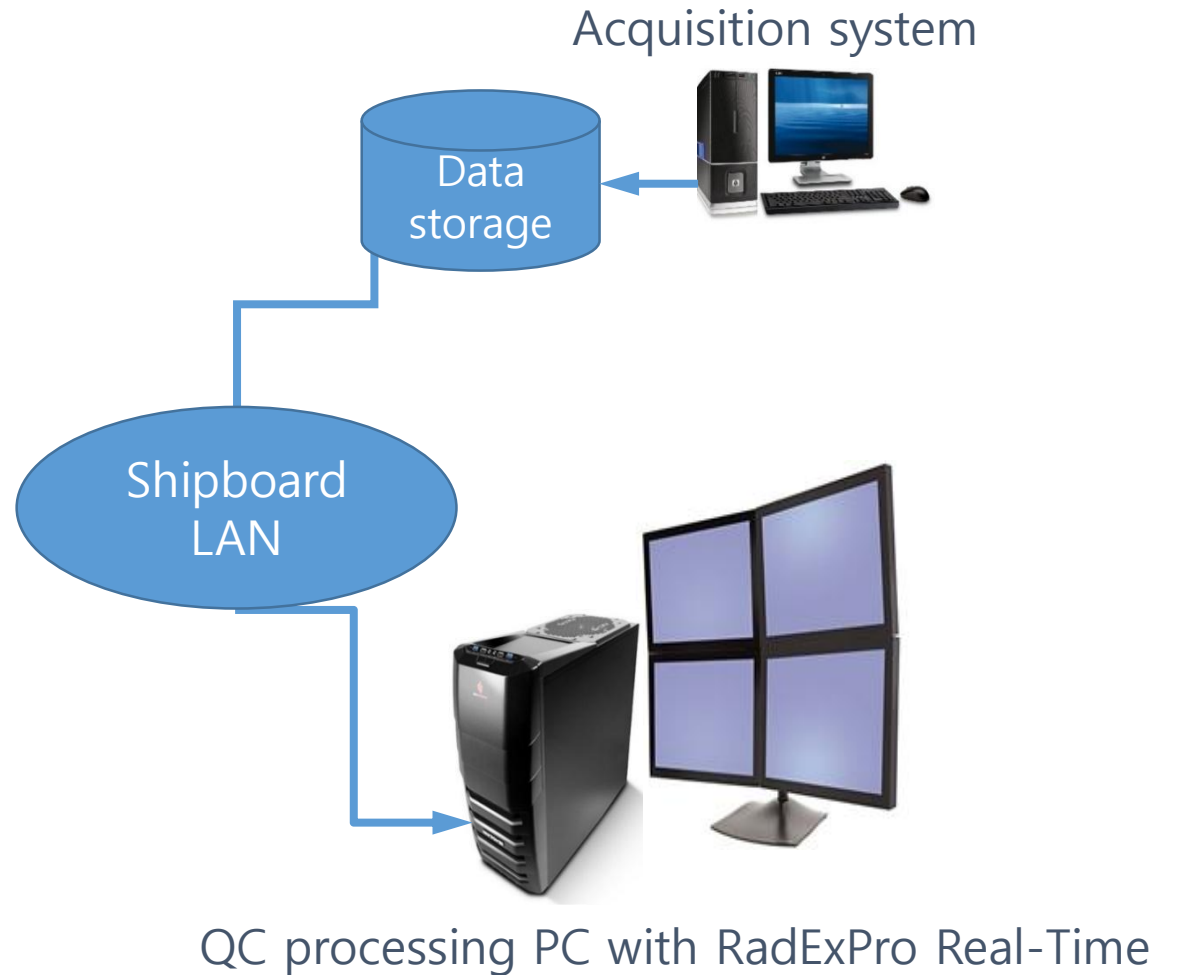
- Identify and address problems at the very moment they happen
- Produce and store data quality tags
- **Minimize data acquisition and processing time**

## RTQC requirements

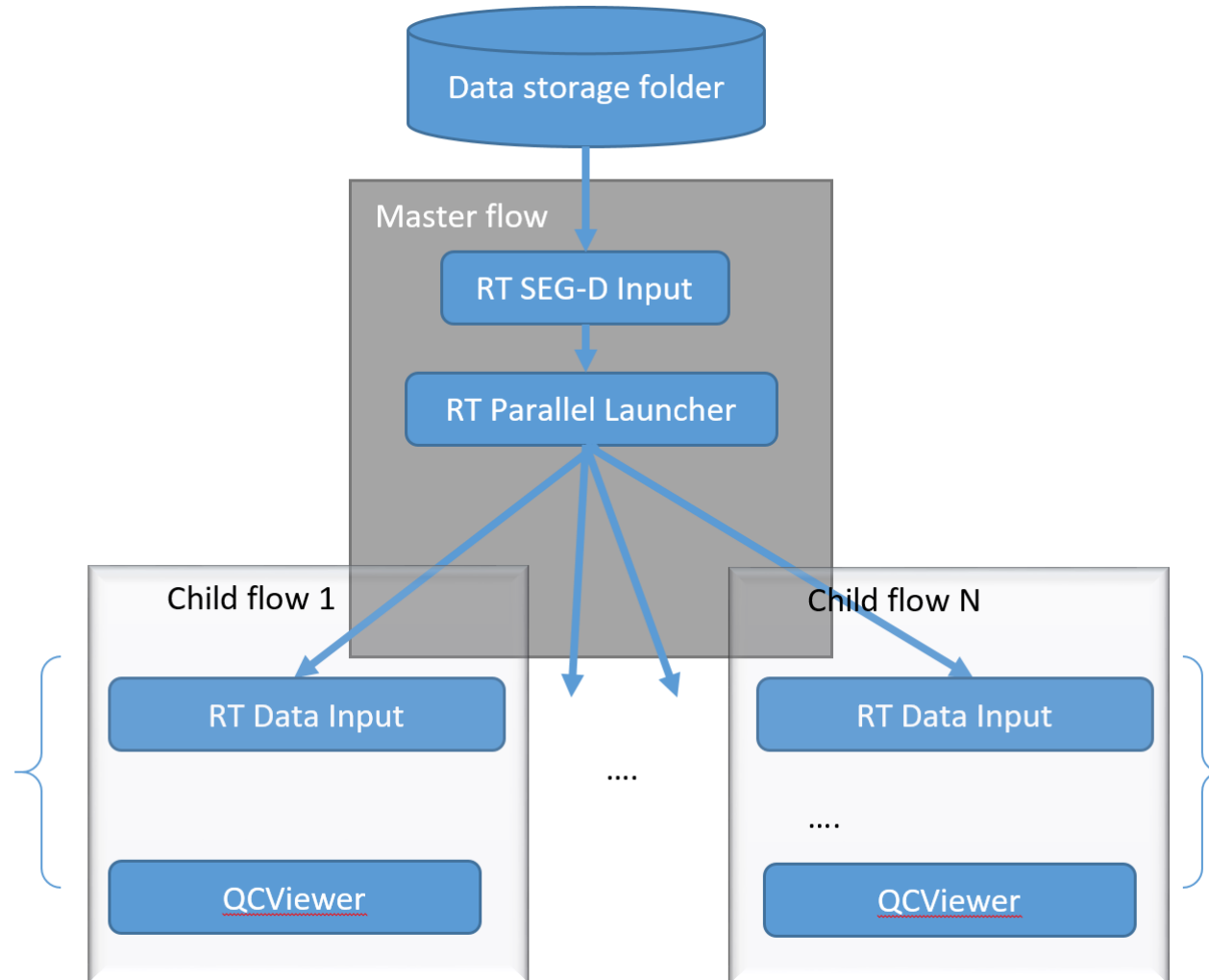
- Easy installation with generic hardware
- Common industry formats data import and export
- Intuitive UI — anomaly detection and interpretation
- Flexible data analysis — meeting variety of client requirements
- Crush proof — stability and appropriate support

# RadExPro Real-Time

- Each shot is read only once
- Everything runs locally on a Windows 7/8/10/11 PC
- Low network load, no HPC server time needed
- Low latency, minimal delays

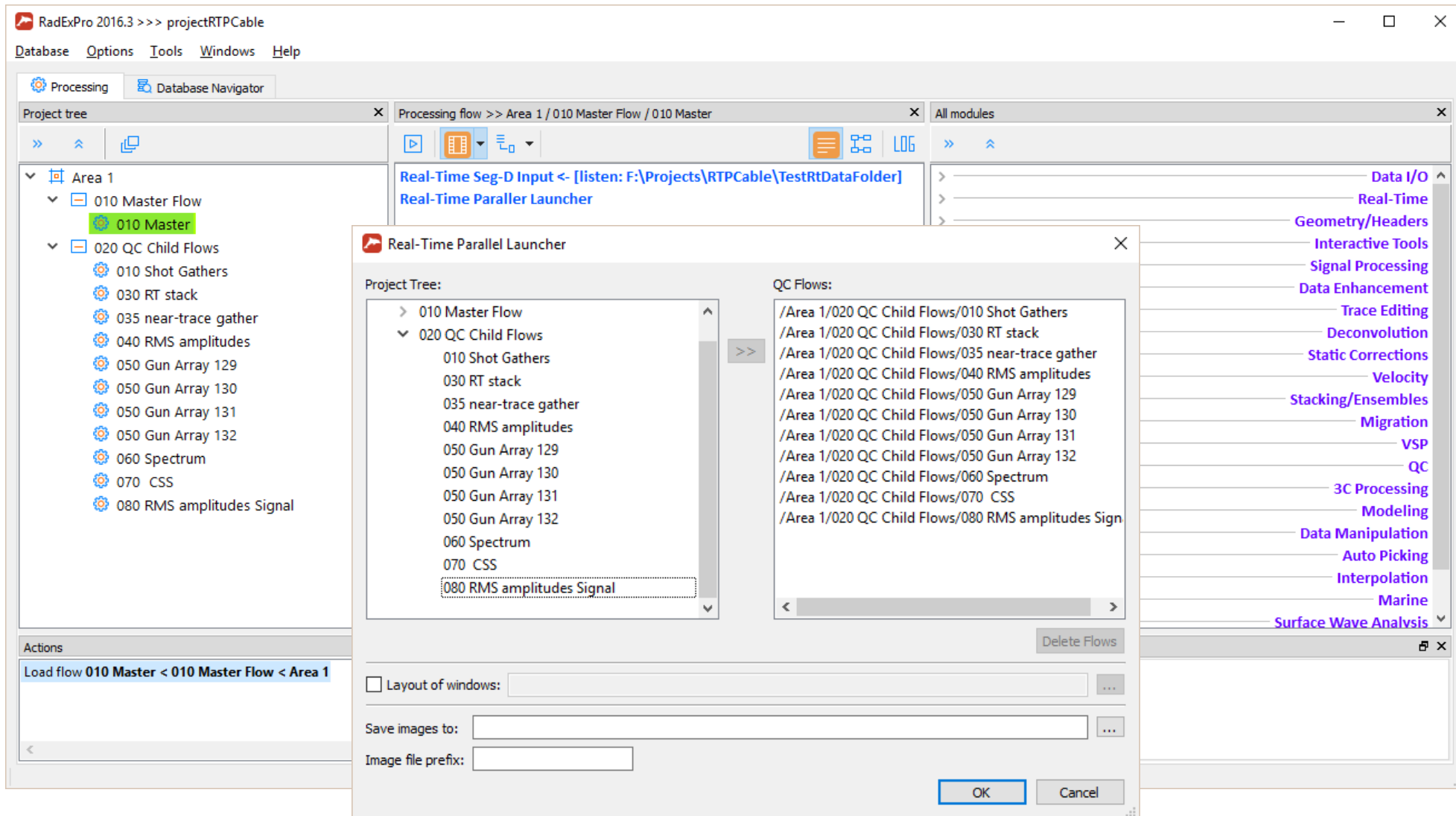


# RadExPro Real-Time



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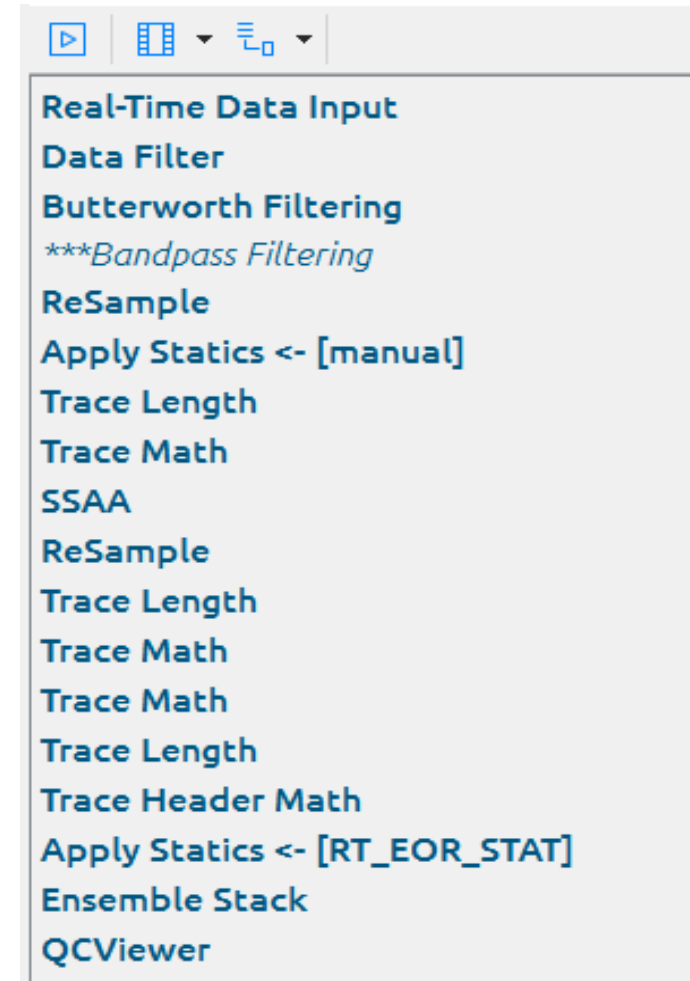
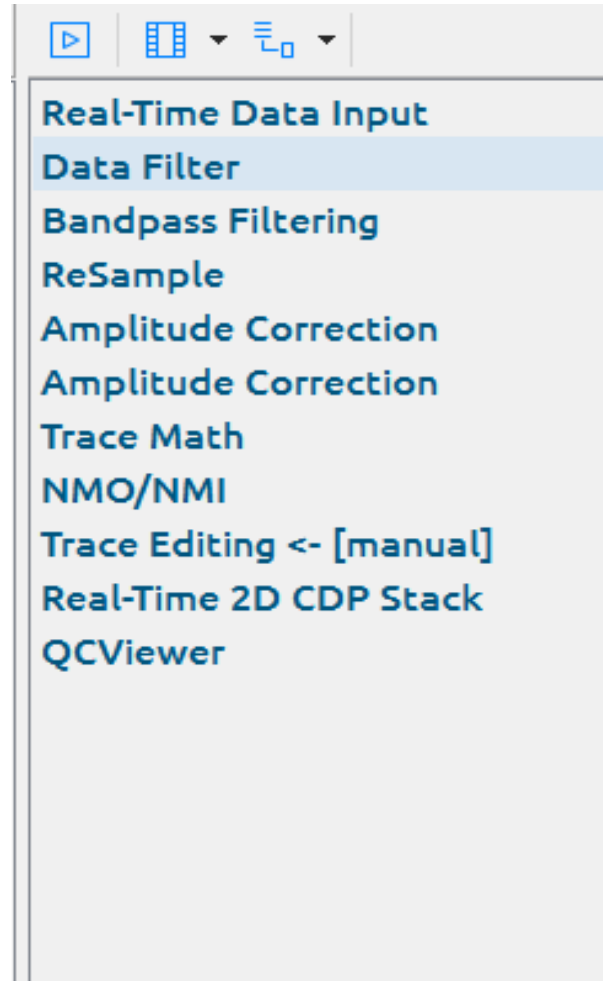
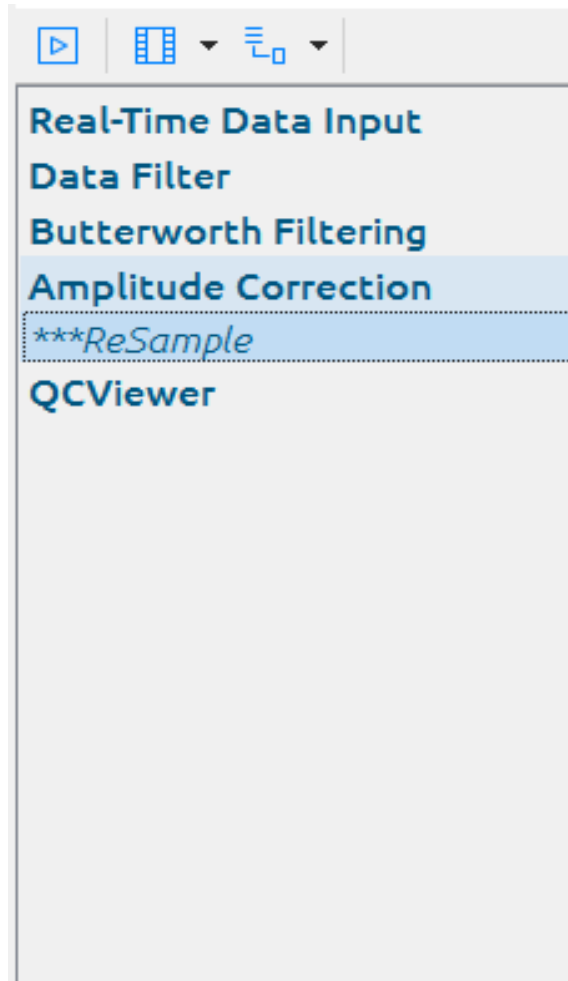
- Overall software view and RT QC Master Flow



The screenshot displays the RadExPro 2016.3 software interface. The main window shows a project tree on the left with 'Area 1' expanded, containing '010 Master Flow' and '020 QC Child Flows'. The '010 Master' flow is highlighted. The 'Processing flow' pane shows 'Area 1 / 010 Master Flow / 010 Master'. The 'All modules' pane lists various processing modules like 'Data I/O', 'Real-Time', 'Geometry/Headers', etc. A 'Real-Time Parallel Launcher' dialog is open in the foreground, showing a 'Project Tree' with '010 Master Flow' and '020 QC Child Flows'. The 'QC Flows' list includes various processing steps like '010 Shot Gathers', '030 RT stack', '035 near-trace gather', '040 RMS amplitudes', '050 Gun Array 129', '050 Gun Array 130', '050 Gun Array 131', '050 Gun Array 132', '060 Spectrum', '070 CSS', and '080 RMS amplitudes Signal'. The dialog also has fields for 'Layout of windows:', 'Save images to:', and 'Image file prefix:'.

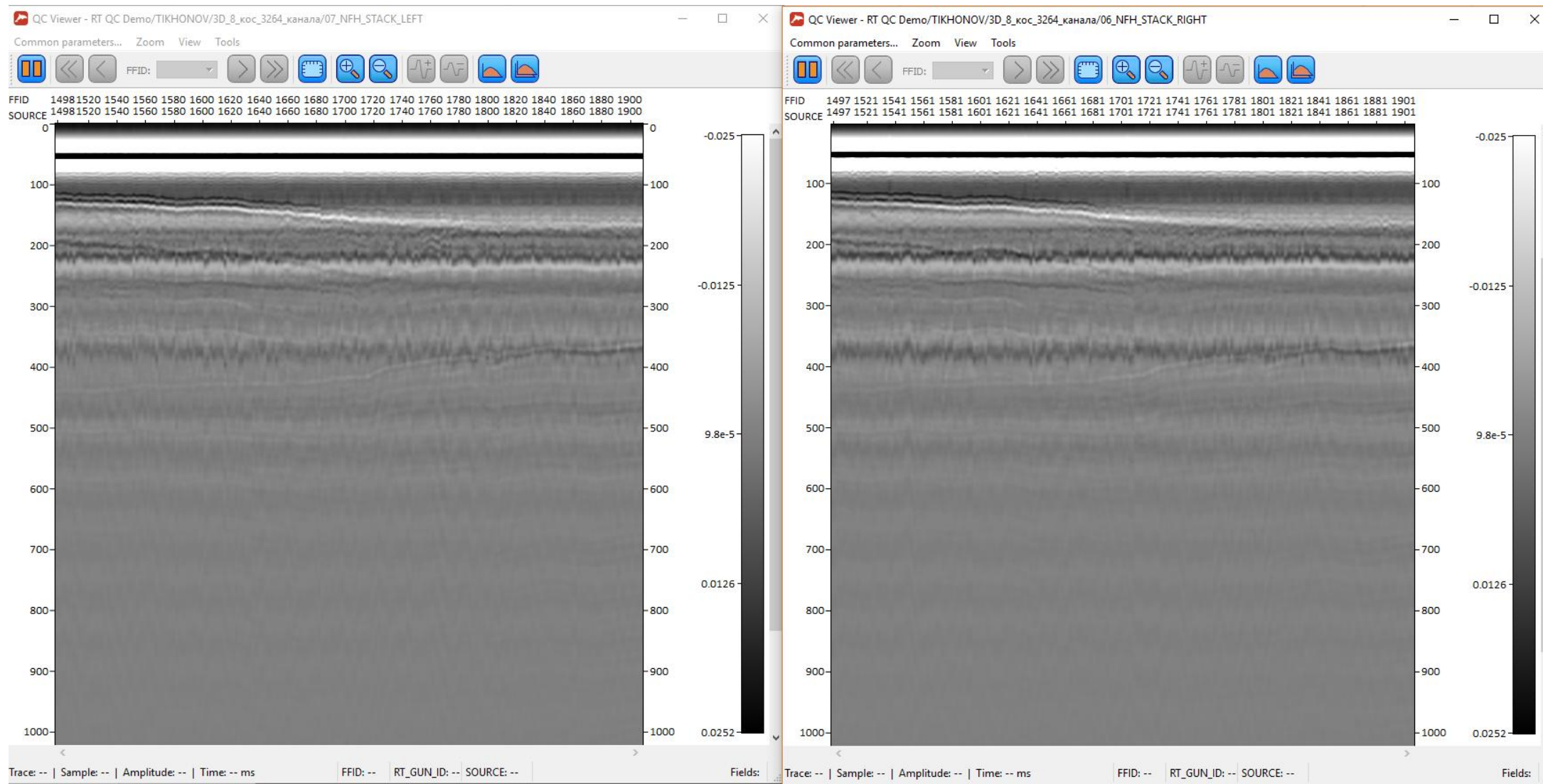
# RadExPro Real-Time

No pre-defined QC sequences: workflows are fully customizable



# RadExPro Real-Time

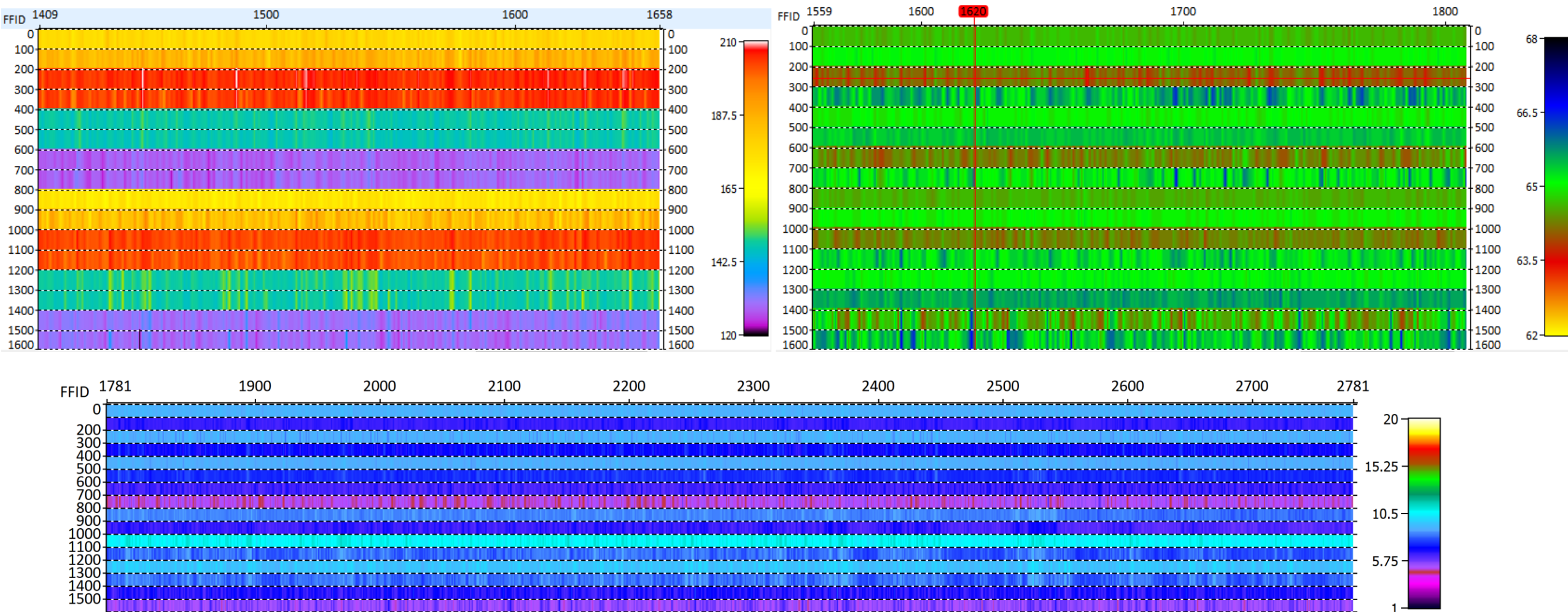
## Source QC: left and right NFH stacks





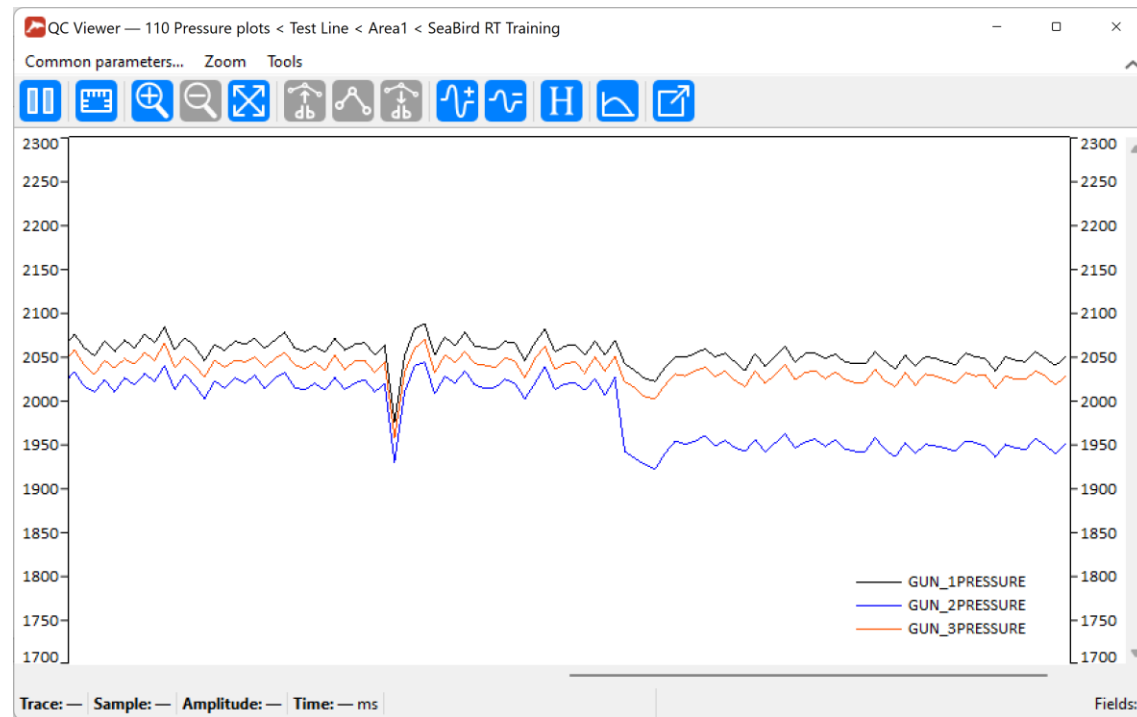
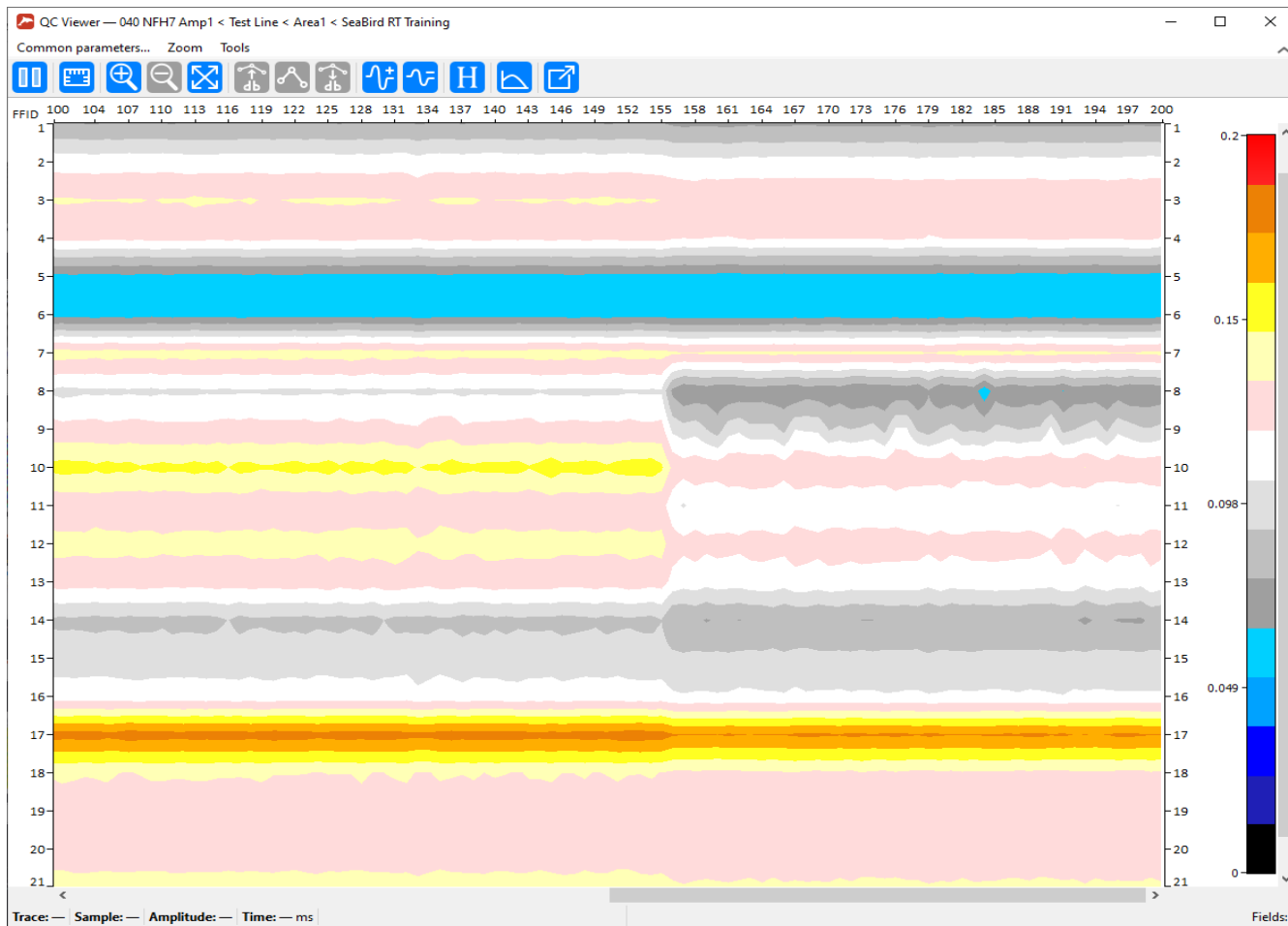
# RadExPro Real-Time

Source QC: NFH bubble period, peak time, peak amplitude



# RadExPro Real-Time

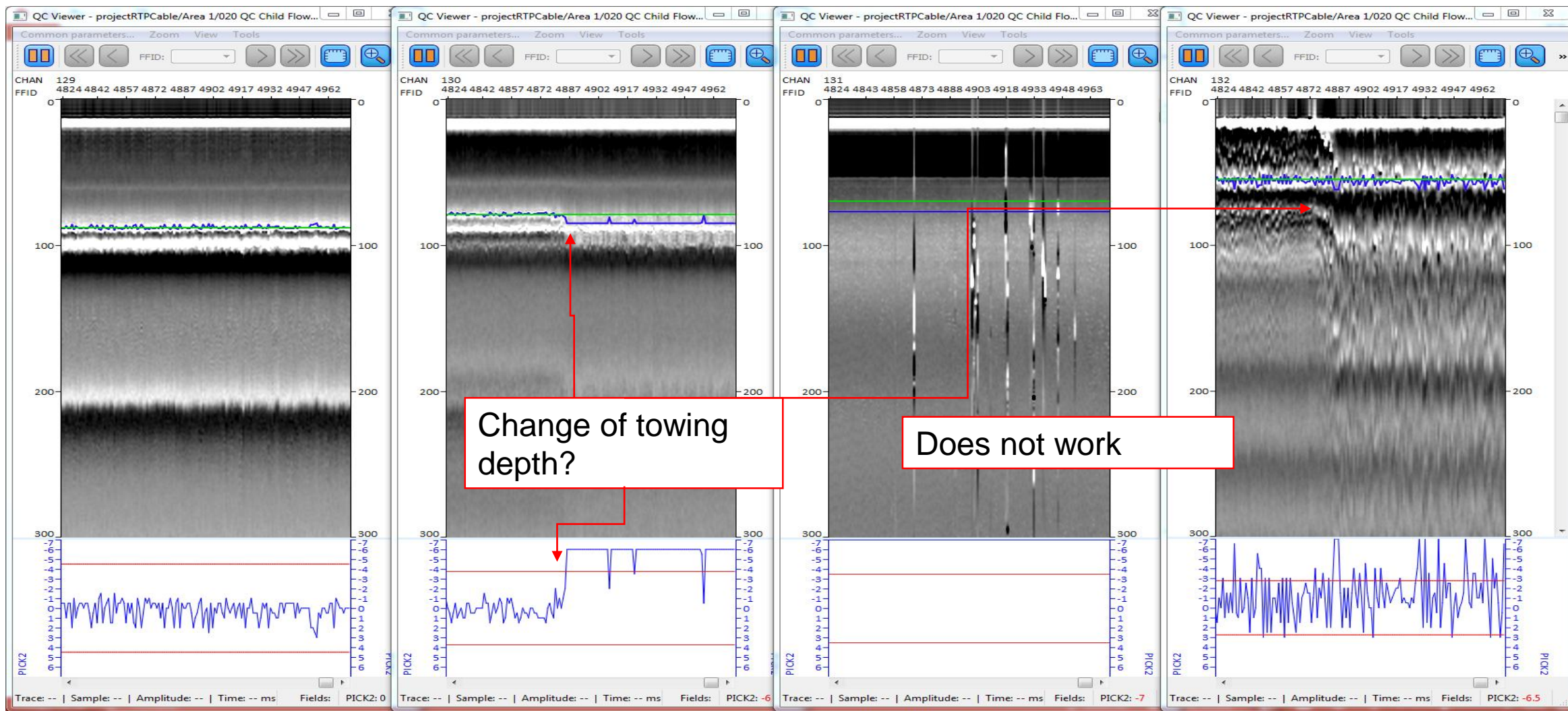
Source QC: bubble 1st peak amplitudes (left) and gun air cable pressure plots (right)



Data courtesy of SeaBird Exploration

# RadExPro Real-Time

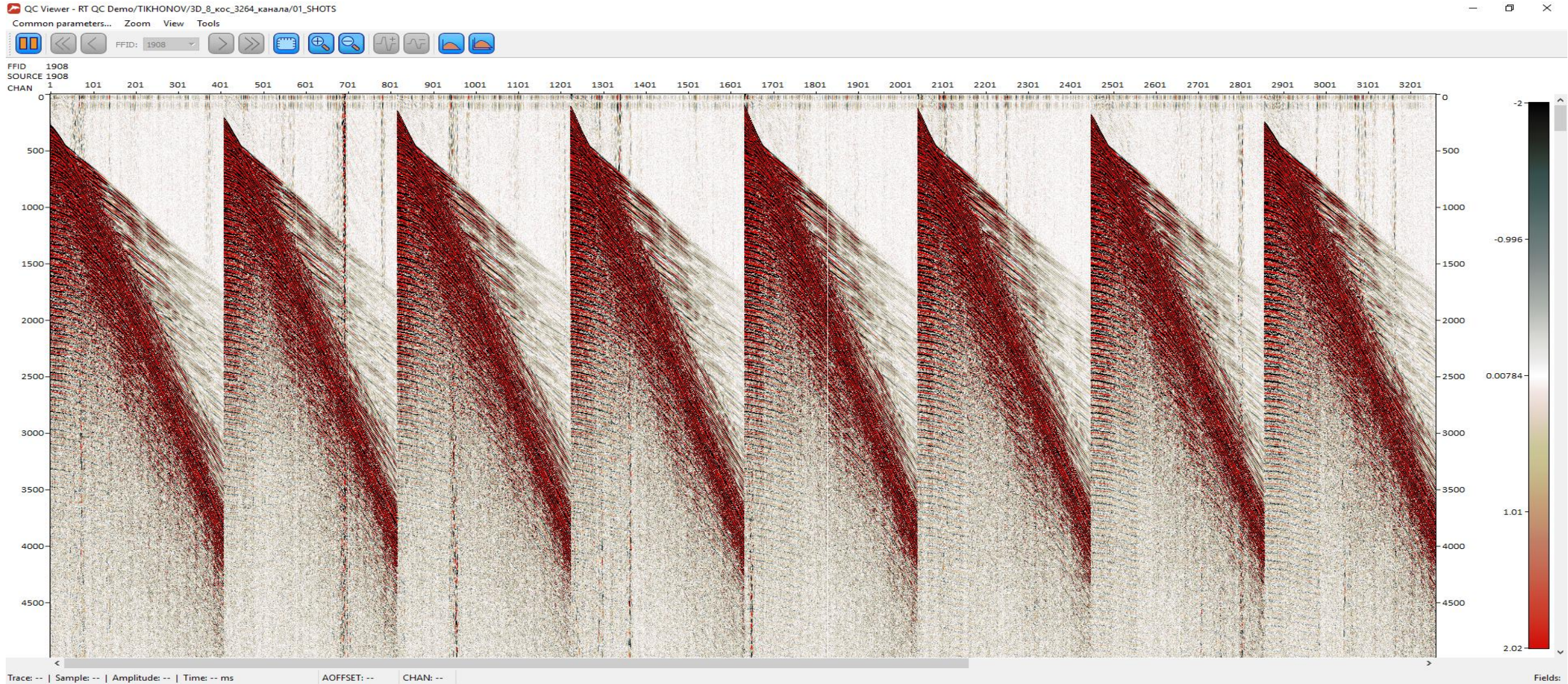
## Source QC: Individual NFH Records





# RadExPro Real-Time

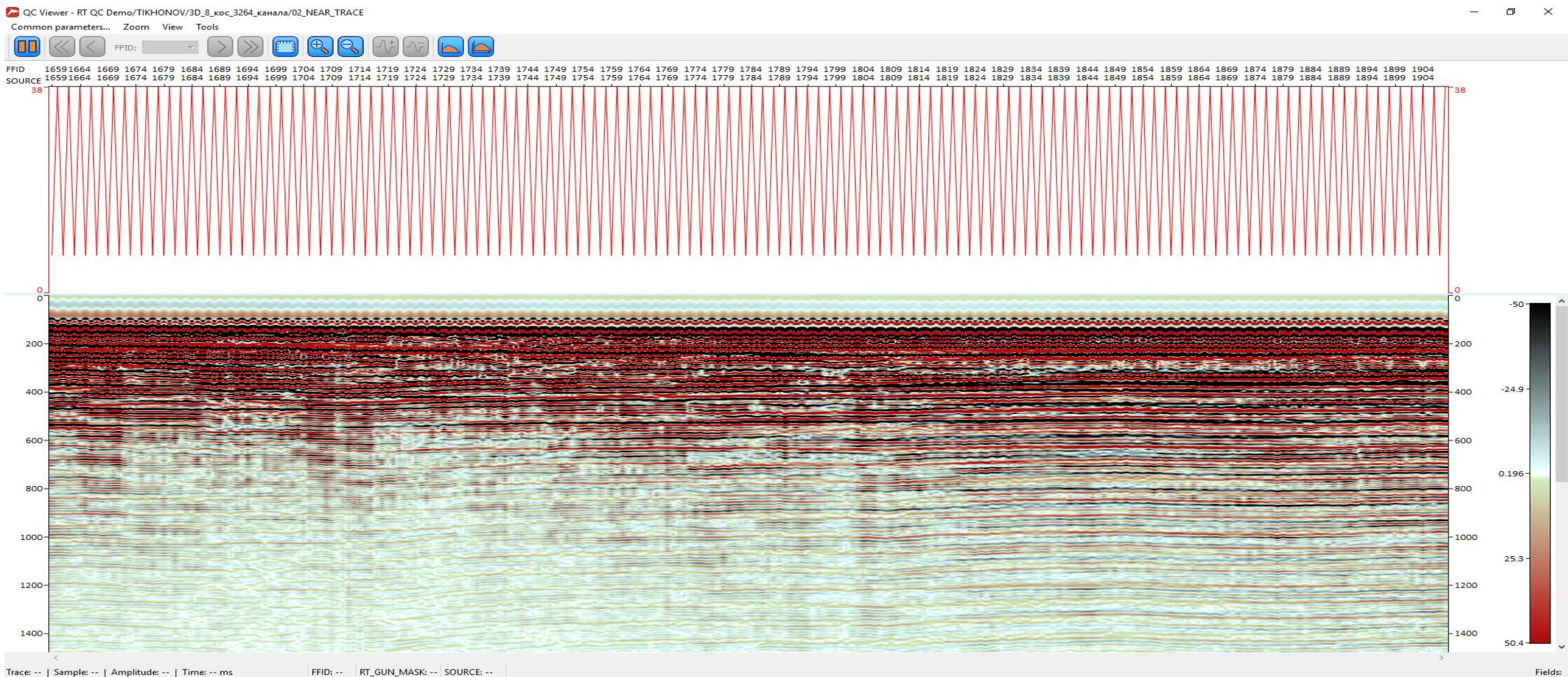
## Data QC: Shot Gather





# RadExPro Real-Time

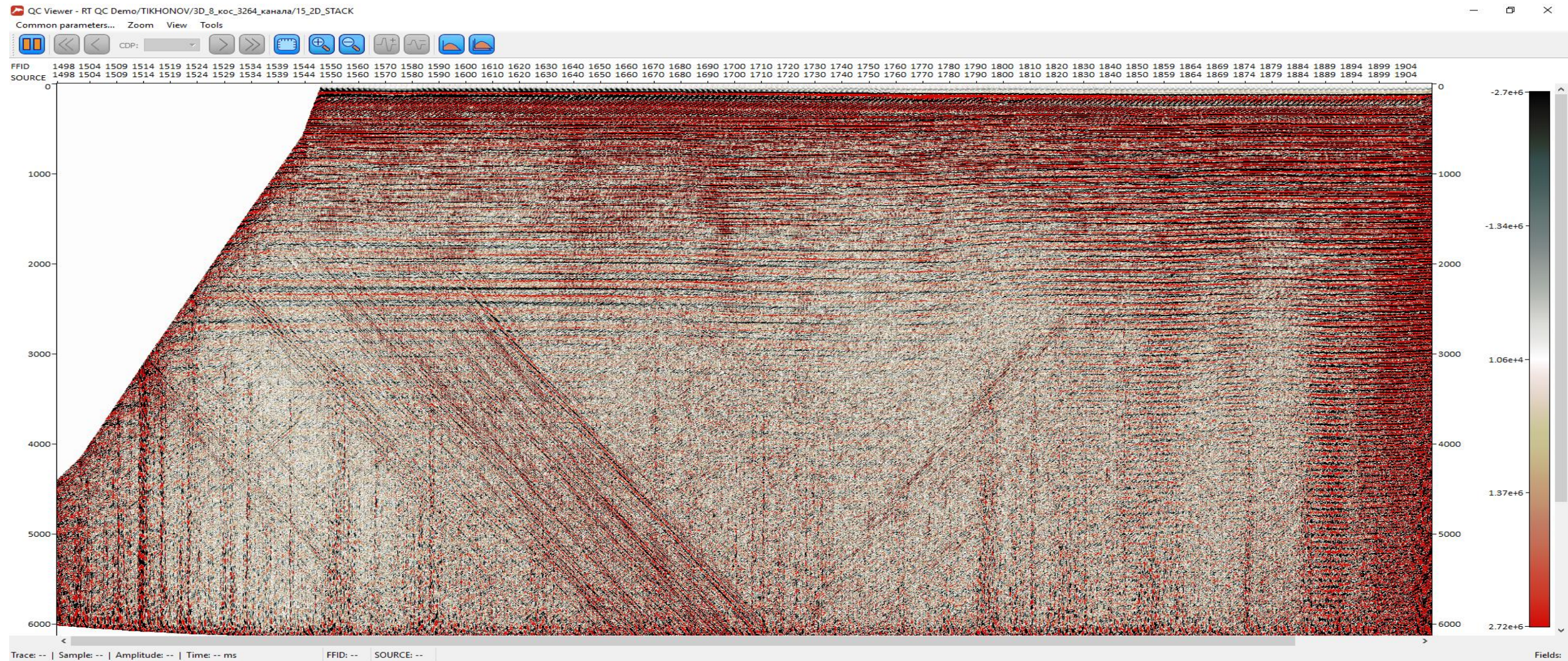
## Data QC: Near Trace Gather





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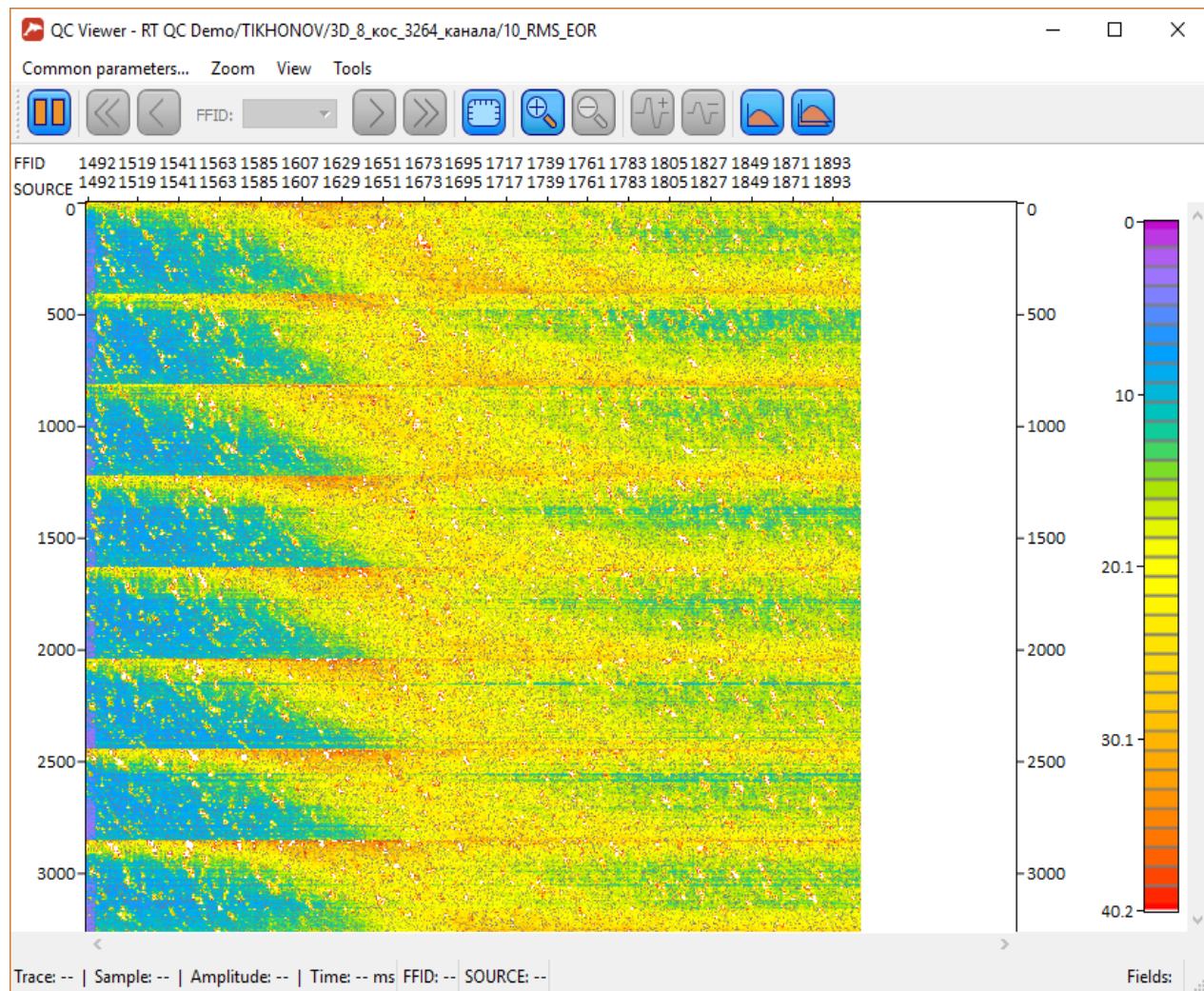
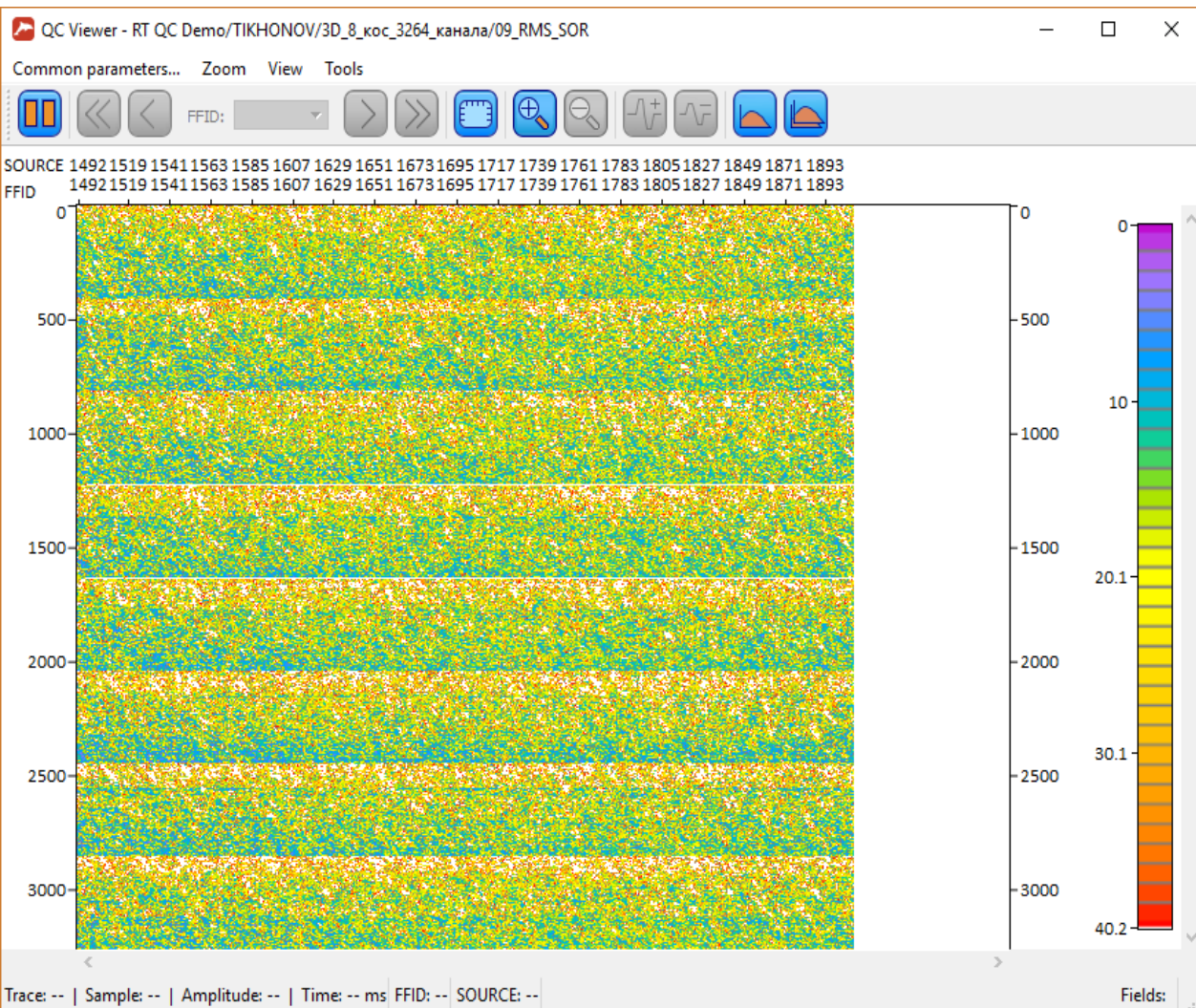
## Data QC: RT CMP Stack





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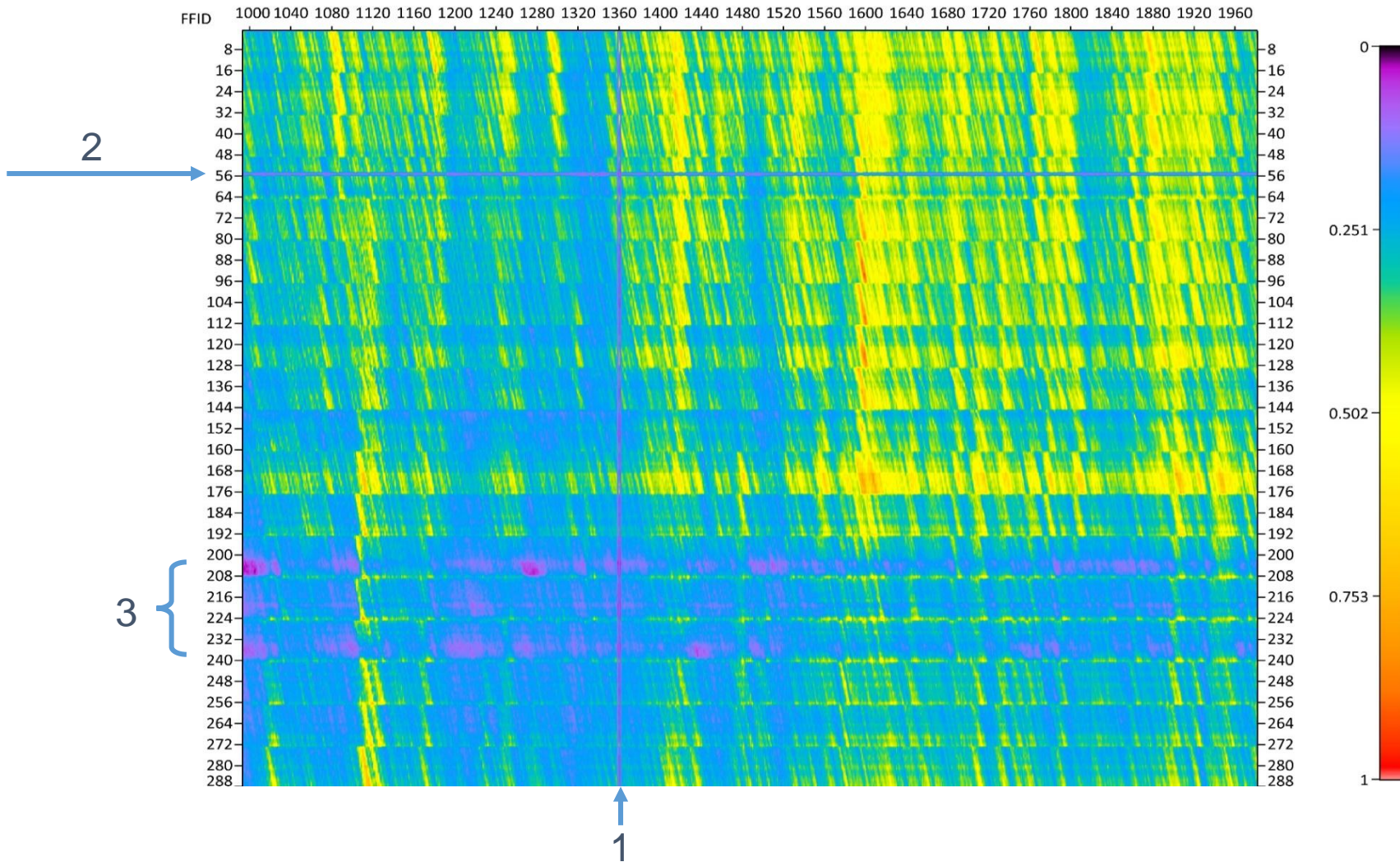
## Data QC: ARMS SOR and EOR





# RadExPro Real-Time

## Data QC: ARMS SOR



1- Missfire

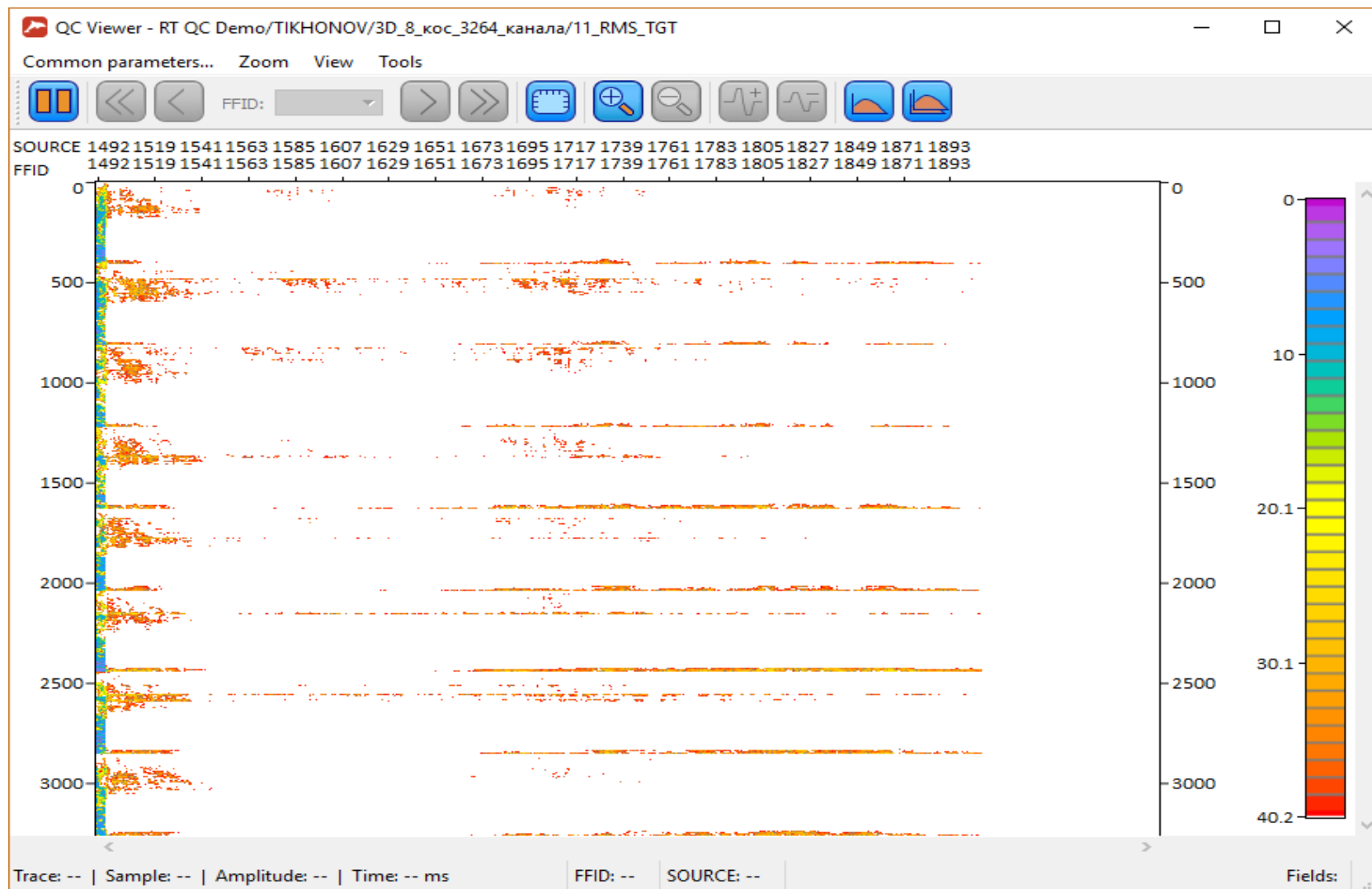
2 – Bad channel

3 – Group of  
weak channels



# RadExPro Real-Time

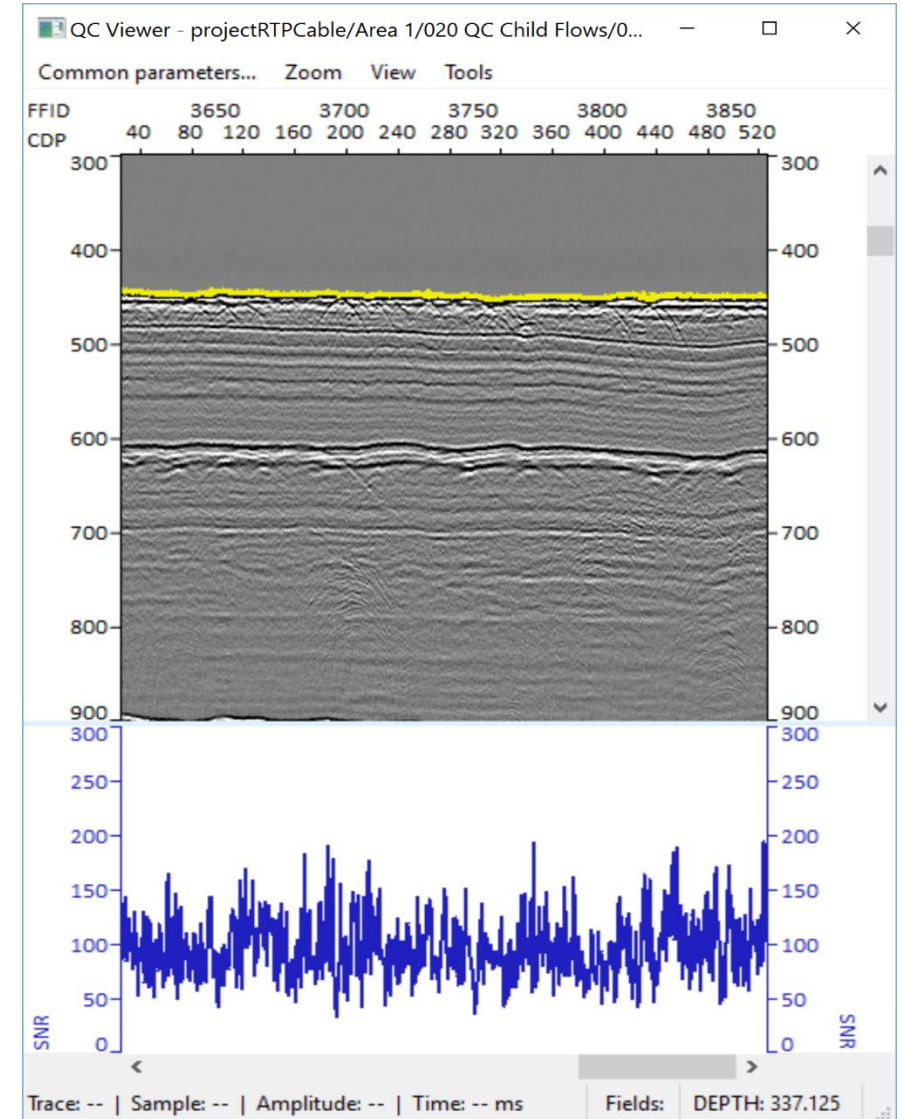
Data QC: ARMS at target reflections with 40uB threshold



# RadExPro Real-Time

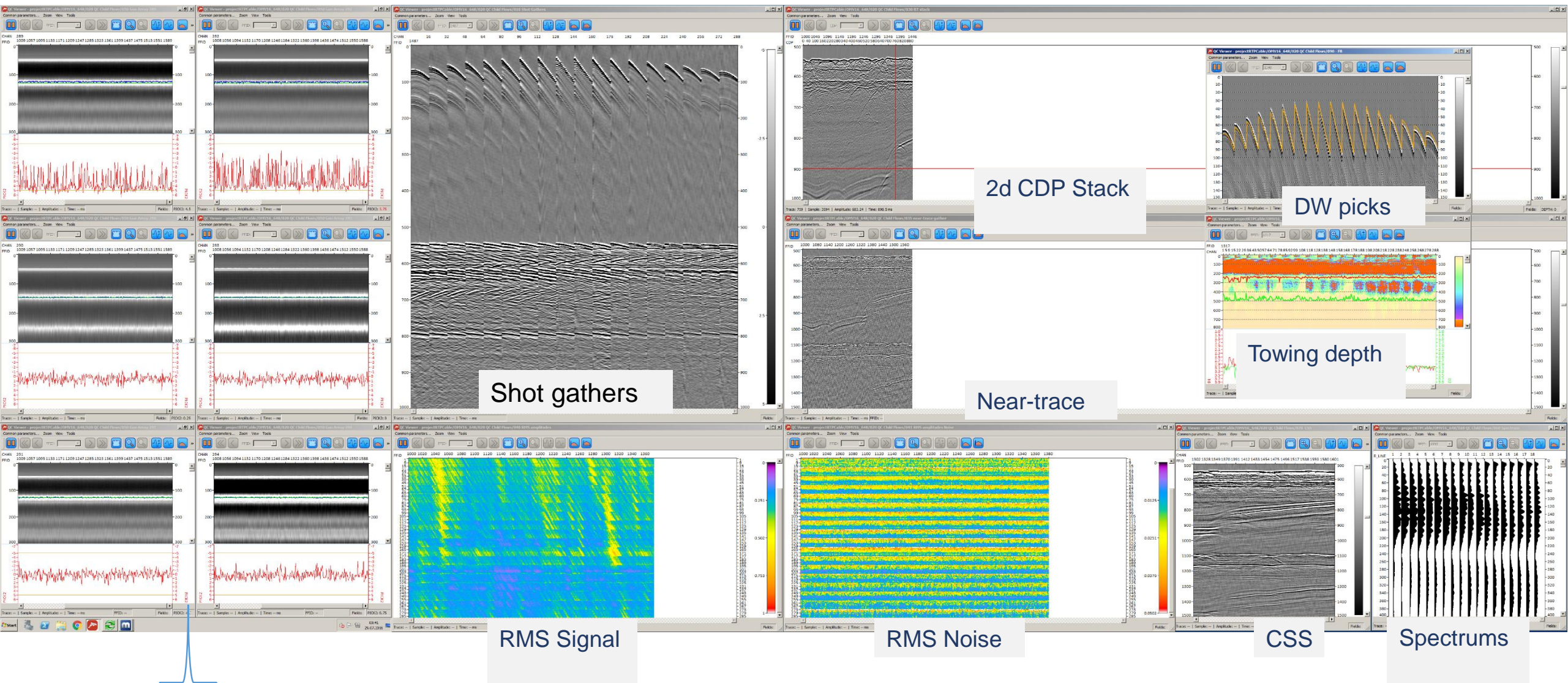
Optional plots available in the real-time:

- SNR map
- Spectrums
- Amplitude and/or SNR plots for specific channels or/and stack
- Signal frequency map
- Frequency plots for specific channels or/and stack
- ....





# RadExPro Real-Time

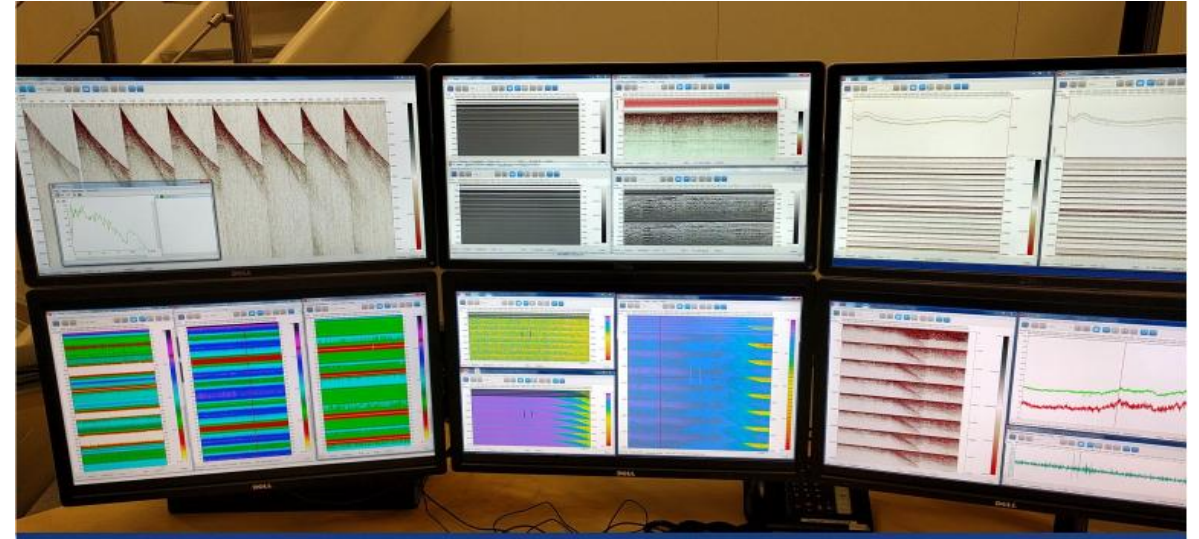


# RadExPro Real-Time

Highly versatile RT QC system






Runs efficiently on regular PC

Comprehensive and cost-efficient  
solution



RadExPro Real-Time operated by QC processors of GEOGALS Co.  
onboard of a 3D seismic vessel with 8 streamers

## RTQC requirements

- Easy installation with affordable generic hardware 
- Common industry formats data import and export 
- Intuitive UI — anomaly detection and interpretation 
- Flexible data analysis — meeting variety of client requirements 
- Crush proof — stability and appropriate support 



# RadExPro Real-Time

*Honestly this software is well worth the price and will pay for itself in the first 5 week rotation. It is definitely an excellent tool and I will recommend it be used on every crew I join. We have identified electrical leakage, air leaks, autofires, misfires, loose hardware on gun plates, oddities with PT/DTs etc. etc.*

*Their support is excellent.*

Riley Lopez  
Chief Technician

**M/V SANCO SPIRIT**

## OUR CLIENTS:



## CONTACTS:

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