Ground penetrating radar (GPR) data from NMT pool collected April 9, 2026

We collected GPR data along profiles on the deck of the NMT pool and on the bottom of the pool within a few days of the pool being drained and the bubble removed. We used a Conquest 100 Enhanced system (made by Sensors & Software) to collect the data; it uses 1 GHz antennas. The same system was used by Isabel Morris to collect data in and around the NMT pool in spring 2025.

GPR data may be useful in identifying areas with anomalous moisture content within or under the concrete slabs of the pool deck or the concrete pool liner. Additionally, the locations of buried utilities (e.g., pipes, conduit, etc.) can be identified in the GPR data.

A map of the GPR profiles and screenshots from the profiles are available in this Google Drive: https://drive.google.com/drive/folders/1D2bXo2RQaTq5Ja-Lu2lZQrLA-VU4qTo1?usp=drive_link

Here, we provide a brief summary of three areas of interest: 1) the pool deck near the southwest and southeast corners of the pool, which were identified in 2025 as areas with possible moisture below the concrete slab, 2) profiles crossing larger cracks visible in the pool liner, and 3) profiles on the pool deck east of the pool, including the deck in the northeast corner of the pool which has experienced noticeable subsidence.

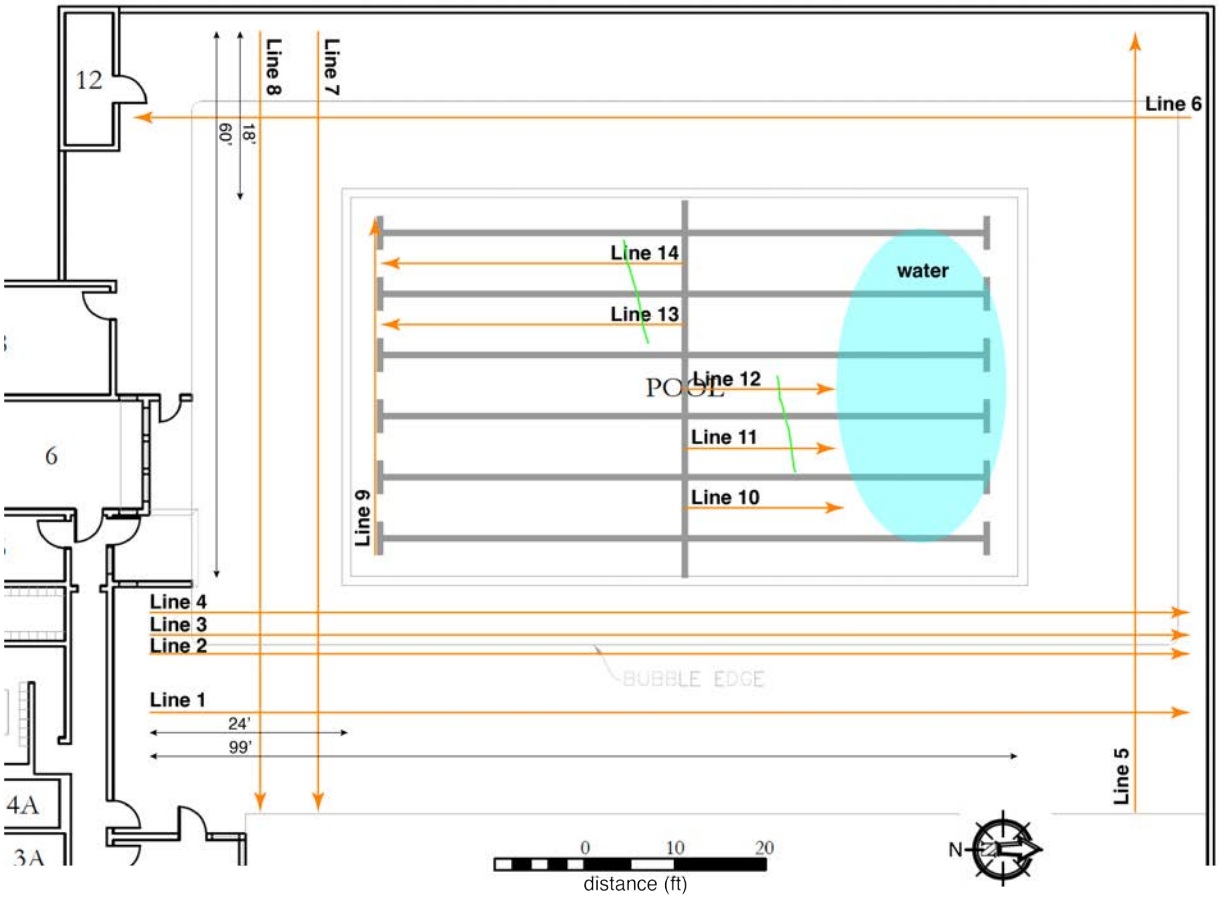

Figure 1: Map of NMT pool. North is to the right. Orange lines are locations of GPR profiles collected in 2026. Line numbers are near the start of each line (i.e., 0' on the profiles); arrowheads are at the line ends. Green lines are approximate locations of larger cracks in the pool liner.

Deck SW and SE of the pool – areas identified in 2025 as possibly having moisture below the slab (Lines 7 and 8)

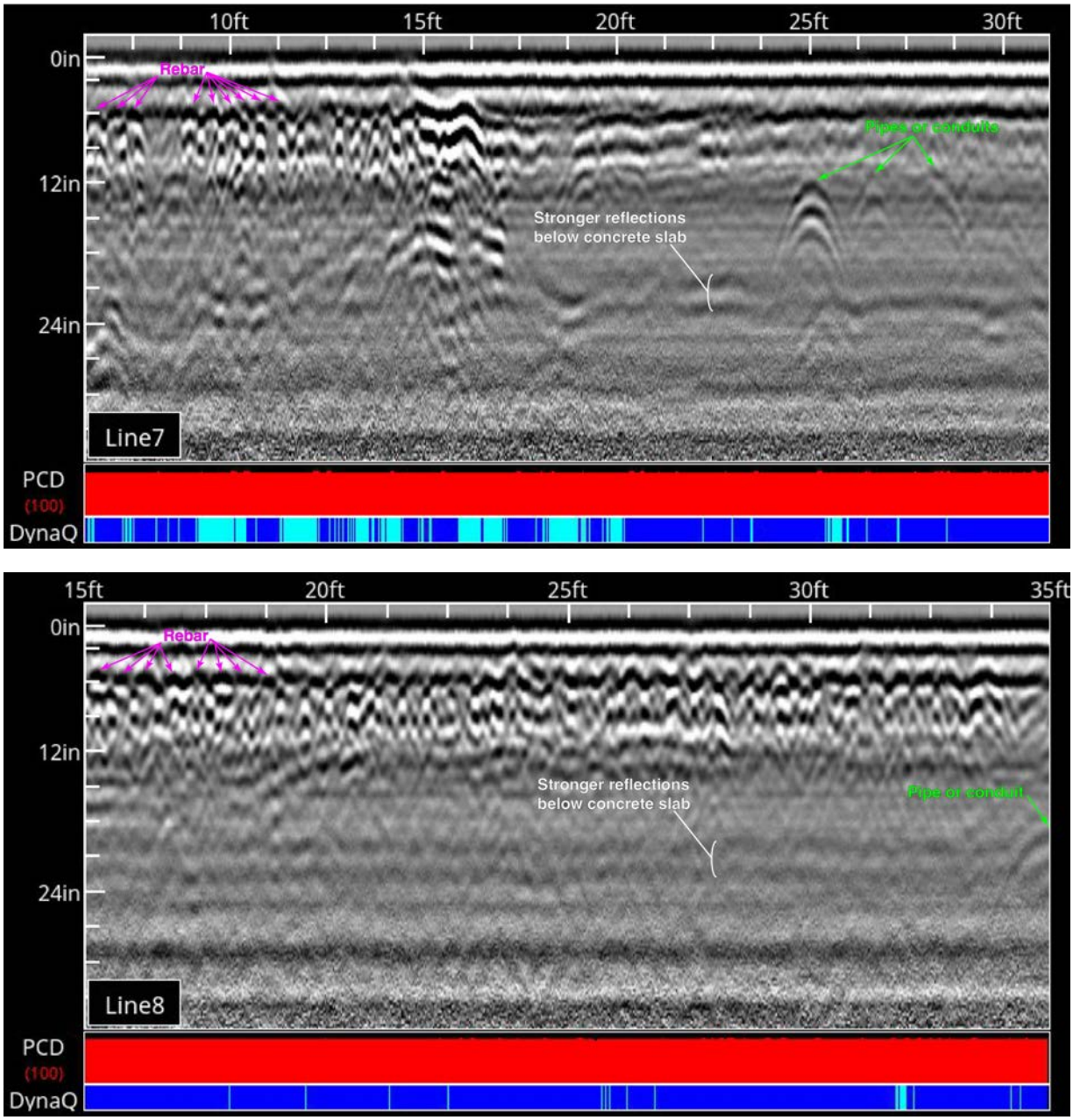

Figure 2: Lines 7 (top) and 8 (bottom) on the pool deck near the southwest corner of the pool. The west end of the lines is to the left. There are some stronger reflections at ~20" depth. These appear more prominent in Line 7 from ~17-31'. This coincides with a portion of Line 7 in which rebar appears to be absent from the concrete slab; in contrast, rebar is present continuously throughout Line 8. The more easily identified stronger reflections at depth in Line 7 in the area without rebar in the slab may simply be due to less attenuation/noise in the GPR data at depth in the section without rebar. Overall, the stronger reflections at depth may result from moisture below the slab.

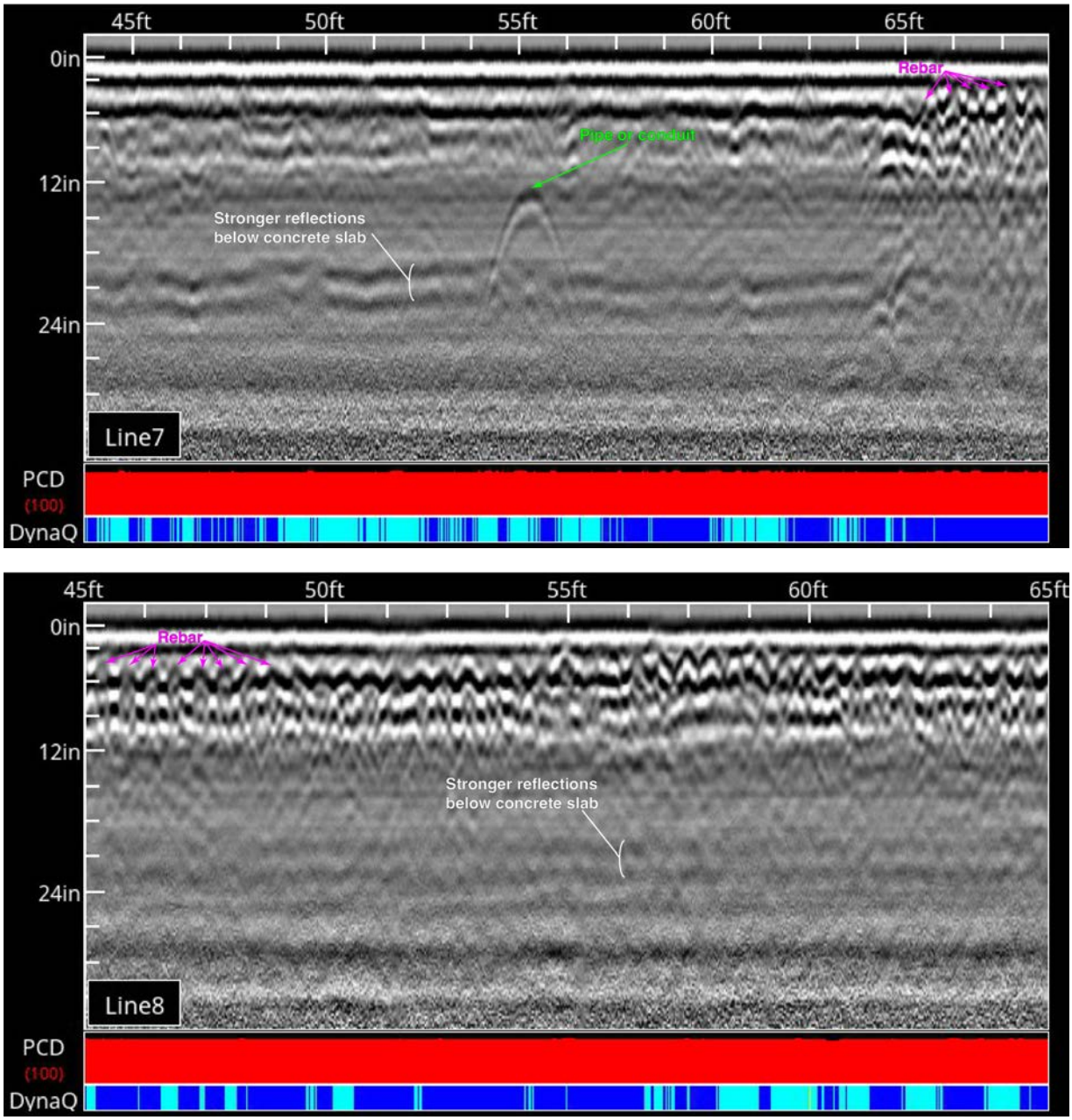

Figure 3: Lines 7 (top) and 8 (bottom) on the pool deck near the southeast corner of the pool. The west end of the lines is to the left. There are some stronger reflections at ~20" depth. These appear more prominent in Line 7 from ~44-64', coinciding with a portion of Line 7 in which rebar appears to be absent from the concrete slab. Rebar is present continuously throughout Line 8. The more easily identified stronger reflections at depth in Line 7 in the area without rebar in the slab may be due to less attenuation/noise in the GPR data at depth in the section without rebar. Similar to the findings in 2025, the stronger reflections at depth may result from moisture below the slab.

Crossing the crack on the west side of the pool – Lines 13 and 14

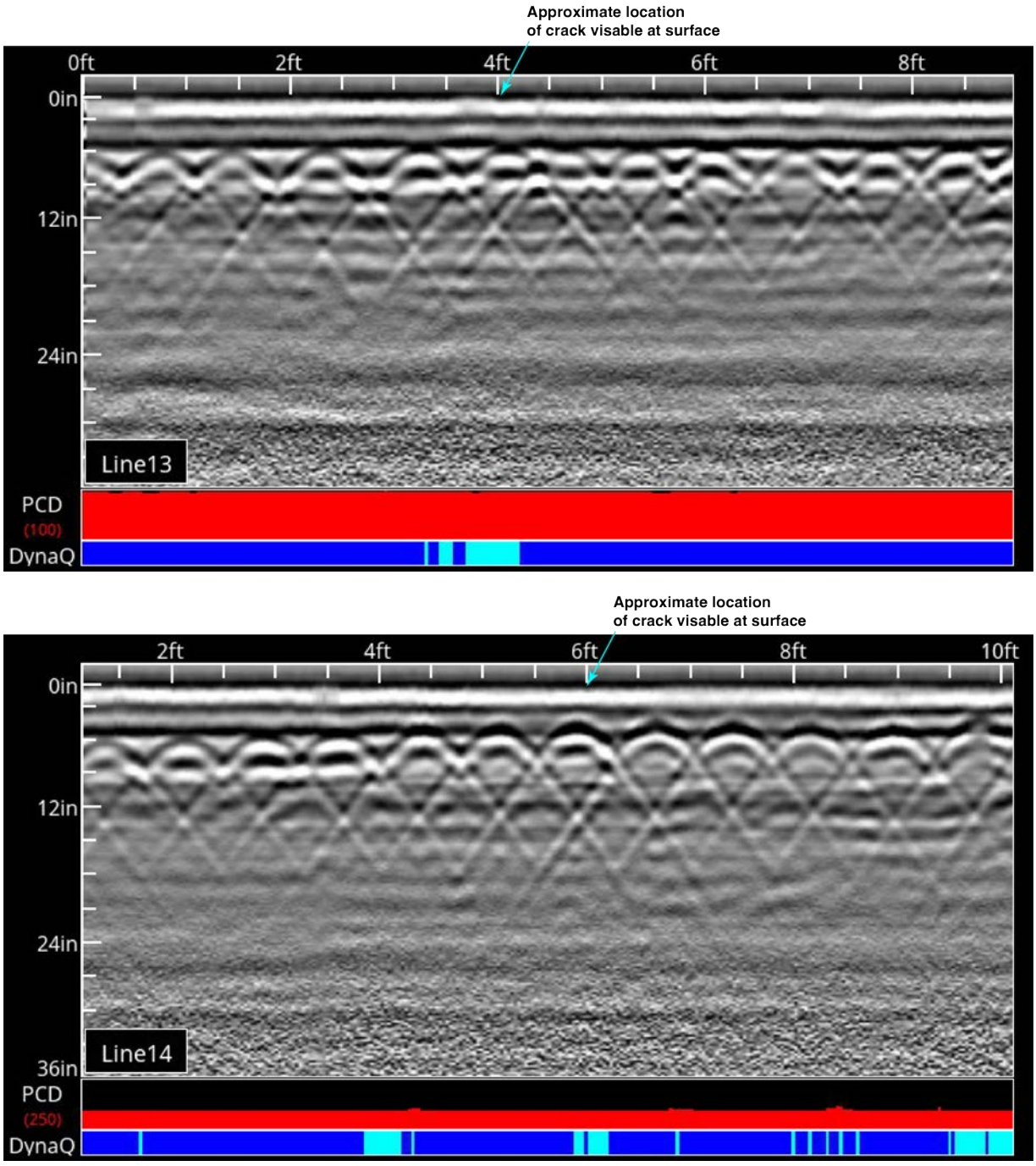

Figure 4: Lines 13 (top) and 14 (bottom) in the pool, crossing the crack on the west side of the pool. The north end of the lines is to the left. No substantial anomalies are apparent below the location of this crack at the surface or in the vicinity around it.

Near and crossing the crack on the east side of the pool – Lines 10, 11, and 12

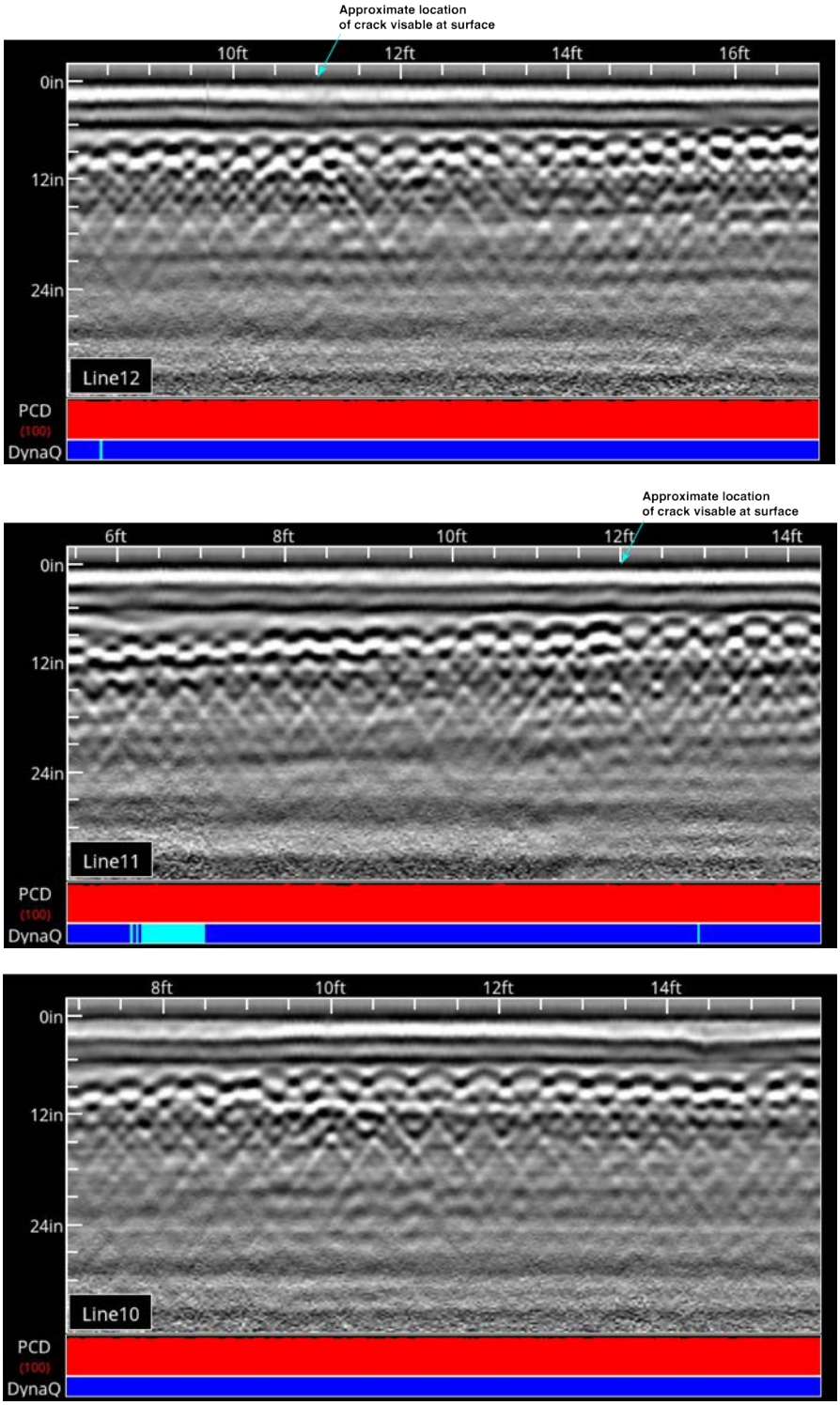

Figure 5: Lines 12 (top), 11 (center), and 10 (bottom) in the pool. The south end of the lines is to the left. Lines 12 and 11 cross the crack on the east side of the pool. The crack does not extend to Line 10. There are no clear differences between the lines crossing the crack (Lines 12 and 11) and the parallel line that does not cross the crack (Line 10).

Deck east of the pool – Lines 1 through 4

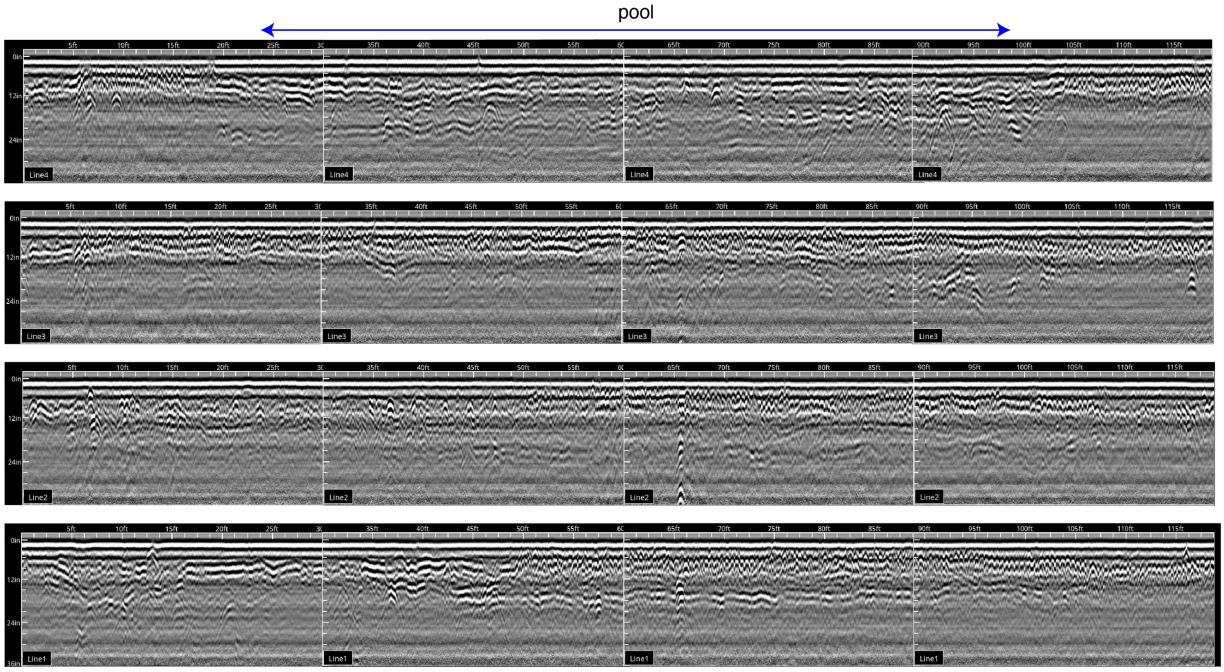

Figure 6: Lines 4 (top; closest to pool) through line 1 (bottom; farthest from pool) on the deck on the east side of the pool. The south end of the lines is to the left. Lines 2 and 3 are on opposite sides of the attachment points for the pool bubble (Line 2 slightly to the east; Line 3 slightly to the west). The portion of the pool deck with notable subsidence is north of the end of the pool (i.e., at locations >100' along these profiles; the lines end at ~118'). There are no substantial anomalies apparent in or below the slab in the subsiding area (~100-118') relative to other locations. The most prominent strong reflections at depth below the slab are in line with the pool (i.e., not north of the pool) in Line 4 (~30-100'), Line 3 (~80-100'), Line 1 (~42-107'). The strongest of these deeper reflections is in Line 1 (farthest from the pool). A larger, rotated image of these profiles is on the next page (a digital version is available on the Google Drive).

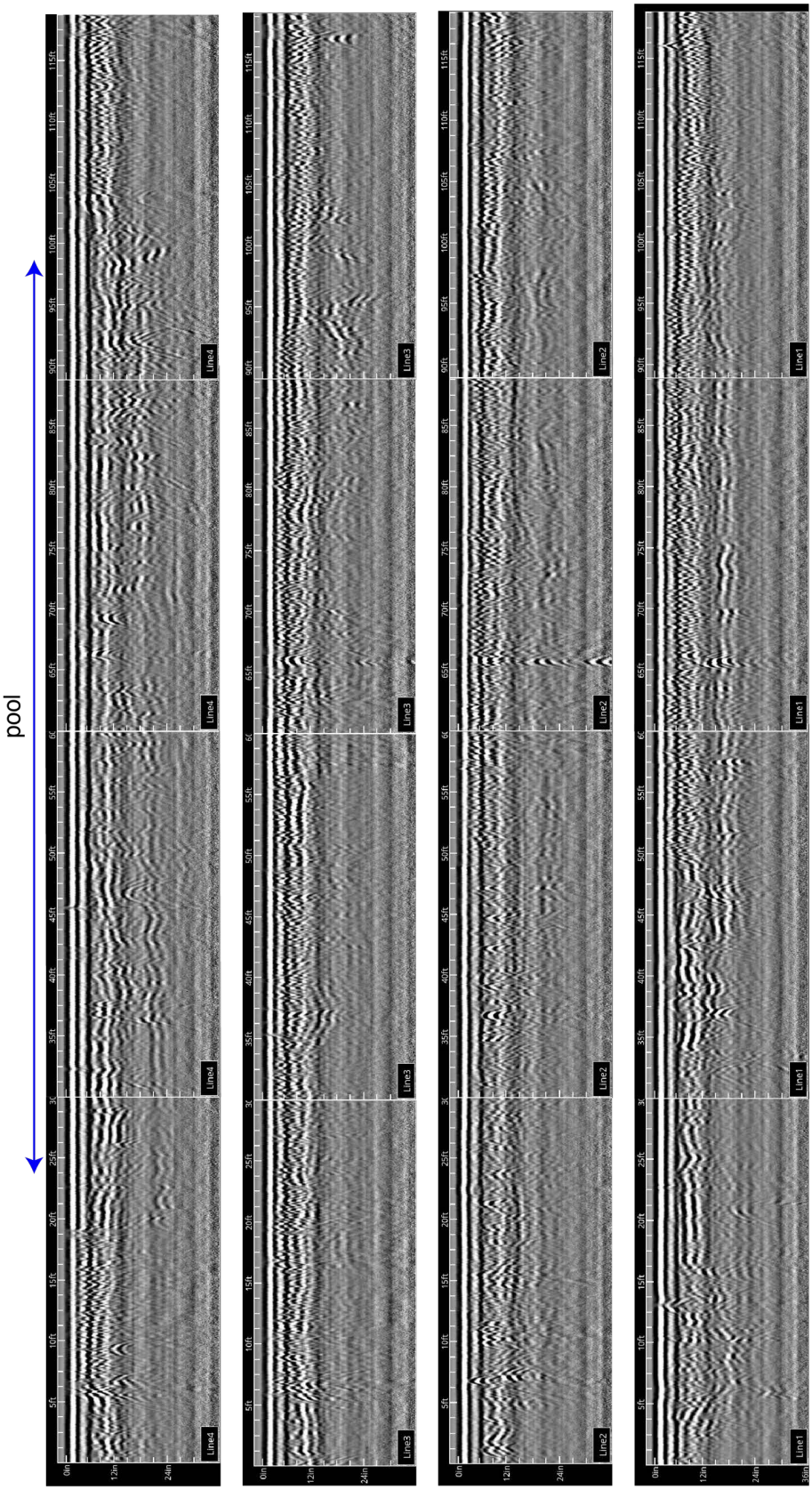

Figure 7: Larger, rotated version of Figure 6.