Westlake US 2 Received 9/25/2023

TSX/PAZ Satellite Supplementary Update InSAR Subsidence September 18, 2023

Longuist comment:

"We have plotted the latest TSX/PAZ dataset (9/16/2023) on the same charts that were used for the 8/25/2023 supplementary update. In that update we compared recent displacement values to the predominantly linear trends that were observed from 1/24/2023 - 8/3/2023. We have used that time range as the basis for comparison to the recent data again. See first attachment.

By this point, looking at the recent data, we feel enough measurements have been gathered to begin approximating a non-linear trend with the full dataset (1/24/2023 - 9/16/2023) that considers acceleration. For consistency we also applied a non-linear trend to the truncated (historical) dataset but data noise likely causes more of an effect on the calculated acceleration values in that data span.

Overall, it should be noted that this is still a short and imprecise dataset from which to be drawing these relationships with confidence. If we are seeing the start of a trend change indicating greater subsidence rates, it is still early in that change.

According to the Bayou Corne InSAR study (Jones & Blom, 2014), a maximum of 10 inches of displacement were observed with 2 inches or greater of displacement encompassing a 2000-foot diameter area. This is roughly the extent of our AOI regions. It should also be noted that this was observed one month prior to the event at Bayou Corne. Based on the extent of deformation observed one month prior to the event, it could be inferred that the developing trend changes would have been evident over a broad span of time prior to that image date, had data been available.

As mentioned before, there are a number of areas further out from the dome that show anomalous below trend movement. There may be a weather related factor that is causing ground movement in some areas due to dry conditions. Reviewing the weather history for the area, precipitation has been well below average with August and September receiving roughly 25% of their average monthly rain. I have included the data charts for some of these areas as a second attachment for reference. Data shown is up through the 9/12/2023 measurement.

We have been working with TREA in reviewing the trends developing near cavern 7 and they are now participating in an active review of each new dataset on their end as well. We recognize that there appears to be a change in acceleration occurring in some of the review areas and Lonquist, together with TREA, will continue to actively monitor and report on the development of these trends.

We would like to schedule a call in the near future to address any questions you might have about the data and share thoughts on what has been observed recently."



TSX/PAZ Satellite Update

Continuous InSAR Monitoring of Ground Displacement Near Western Caverns and Dome Flank

Sulphur Mines Salt Dome

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Dataset

Satellite Source

TerraSAR-X - PAZ Constellation

Most Recent Image Date

Saturday, September 16, 2023

Analysis Report Date:

September 22, 2023



























































