

GeoVENA

Offshore Israel Gas Field Statistical Validation

Post-run comparison with published gas-field locations and blind random points

How the validation was performed

GeoVENA was run first, independently. Only after the run was complete were its generated coordinates compared with publicly available locations of known offshore gas fields. GeoVENA had no access to geological data or to oil-and-gas location repositories when generating the targets; the target coordinates were produced by the system's mathematical analysis.

The published field locations are reference locations. The precise wellhead / pipe-entry coordinates are not publicly available for this comparison. The distances below therefore measure proximity to the published reference locations, not verified distances to the actual wellheads.

42,183 km²	4 known fields	4 of 4 within 300 m
test area	post-run reference set	published reference locations

Direct results

Published gas-field reference	Nearest GeoVENA result
Tamar	24 m
Tanin	85 m
Leviathan	284 m
Karish	66 m

What the result means

All four known fields were direct hits within 300 meters of their published reference locations: Tamar at 24 m, Tanin at 85 m, Karish at 66 m, and Leviathan at 284 m. The median distance across the four matches was 75.5 m.

Simple statistical comparison

To show how unusual this concentration is, blind random points were generated across the same 42,183 km² test area and measured against the same published field locations.

Distance to published location	GeoVENA	Blind random
within 250 m	3 of 4 (75.0%)	0.090%
within 500 m	4 of 4 (100.0%)	0.205%
within 1,000 m	4 of 4 (100.0%)	0.417%

At 1 km, 100.0% of the GeoVENA results were within the threshold, compared with 0.417% of blind random points - approximately 240x the blind-random rate.

Summary

GeoVENA generated its targets before any comparison with known gas-field locations. Post-run validation showed that all four known fields were direct hits within 300 m of a GeoVENA coordinate when measured against their publicly available reference locations. Because precise wellhead / entry

coordinates are not publicly available for this comparison, these distances should be read as proximity validation against published field locations rather than exact wellhead-distance measurements.