

STATE OF ISRAEL

Ministry of Energy
and Infrastructure



GEOLOGICAL SURVEY

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Mr. Stanley Slotkin
135 McCarthy Drive
Beverly Hills CA 90212
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Dear Sir,

With regard to the two samples (sample 1964; sample 1987) given by you for examination at the Geological Survey of Israel I am pleased to present you with the following results.

Geological Location: The two samples are chalk indicative of the Menuha Formation which outcrops in the Bethlehem region. The town of Bethlehem and the Church of the Nativity are located on this Formation.


Thin Section Examination: Thin section analysis confirms the similarity of the chalk lithology and fossil content of the two samples. A paleontological examination by Dr. Z. Lewy gave the following results. The two thin sections (1964, 1987) exhibit the same lithofacies (foraminiferal, argillaceous biomicrite) resembling our Early Senonian limy chalk of the lower part of the Menuha Formation around Bethlehem.

Geochemical Analysis: An analysis of the calcium carbonate content of each sample was carried out with the following results:-

Sample 1964	CaCO ₃ content	91%
Sample 1987	CaCO ₃ content	92%

Conclusion: The two samples are almost identical in composition and are part of the same geological formation referred to as the Menuha Formation. This formation outcrops at Bethlehem. The interval between this rock type and the underlying limestone formation is characterised by natural karstic caves, as a result of solution of the carbonate rock by percolating rain waters.

Yours Sincerely,


Dr. Yaacov Arkin