

KERR ADDISON

TITAN PROJECT

Area "A" - Detailed Soil Sampling Grid

005636

Reasons for Present Investigations:

During June 1963, a resistivity survey of an area covering portions of Leo nos. 1, 2, 3, and 4 (designated Area "A") detected a strong resistivity high on strike with the series of resistivity lows across KPO no. 1, and precisely where this structural system was predicted to intersect the top of the Hector-Calumet Quartzite. A semi-detailed soil sampling grid was laid out to cover the resistivity high, and the results from this grid were recently published. In an effort to pinpoint better the source of the apparent mercury build-up in the soils, it was decided to step the sampling interval down to 10 feet over selected portions of lines E7, 8, and 9. The accompanying map shows the profiles from this detailed grid.

Results:

Experience gained through frequent use of the mercury detector in the past few weeks has led to the discovery of a statistical method for the removal of the organic contamination effects from soil sample grids run over muskeg-type terrain. High peaks caused by a high content of organic matter in the sediment can now be scaled down to the plane of a completely inorganic sediment, a procedure which will not uncommonly result in the complete disappearance of the peak, but which will place truly anomalous peaks in their proper perspective. In order to be able to make these organic corrections, the degree of staining on the filter in the manual airpump must be noted after the heating of each sample. This procedure was not followed during the running of the samples from the original semi-detailed grid and the results cannot be corrected properly without complete reanalysis. Conceivably, several of the peaks shown on these lines would now be completely eliminated by organic corrections.

However, the detailed grid, while bearing little resemblance to the overlapped portion of the previous grid, did detect a mercury source (peaks at E 7/4 + 80 and E 9/5 + 00) whose trend parallels that of the resistivity high some 30 feet to the southeast.

Conclusions and Recommendations:

The top of the mercury source has, it is hoped, now been pinpointed to within 20 feet across strike. The fact that the geophysical anomaly lies to the southeast points to the predicted southeast dip.

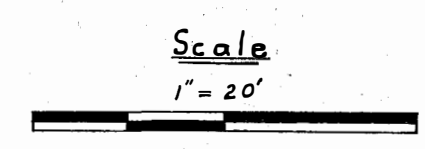
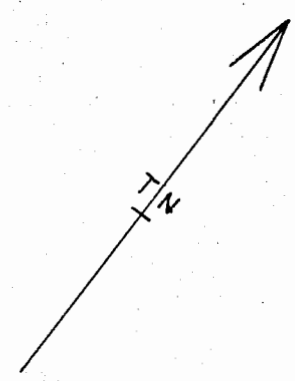
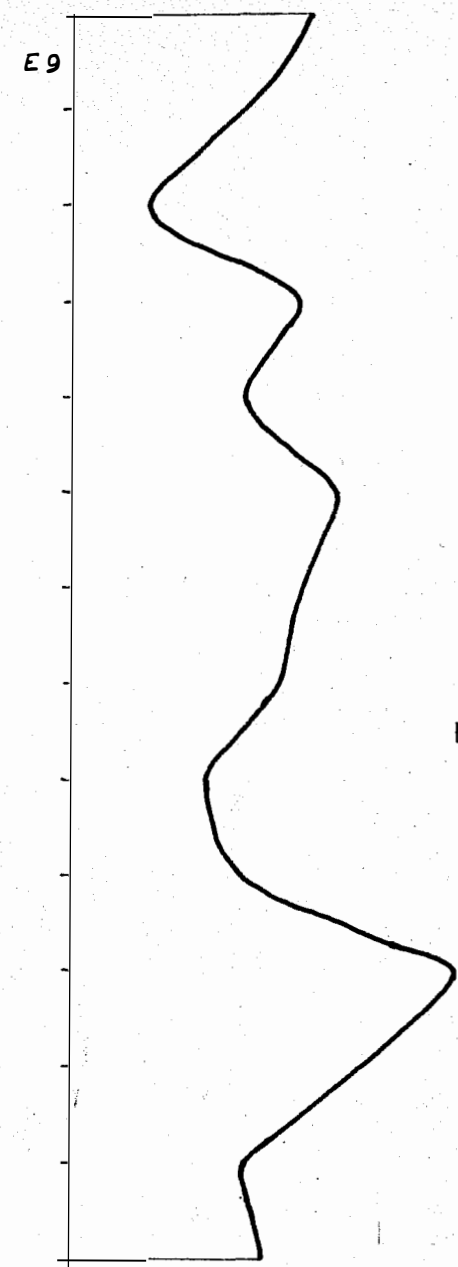
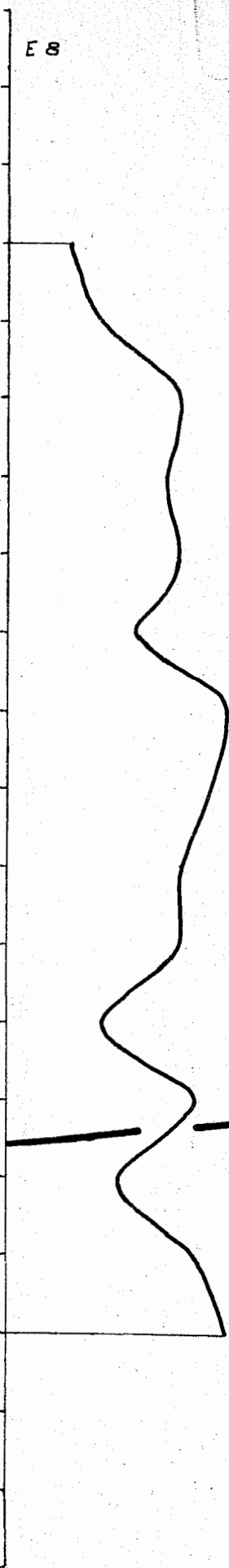
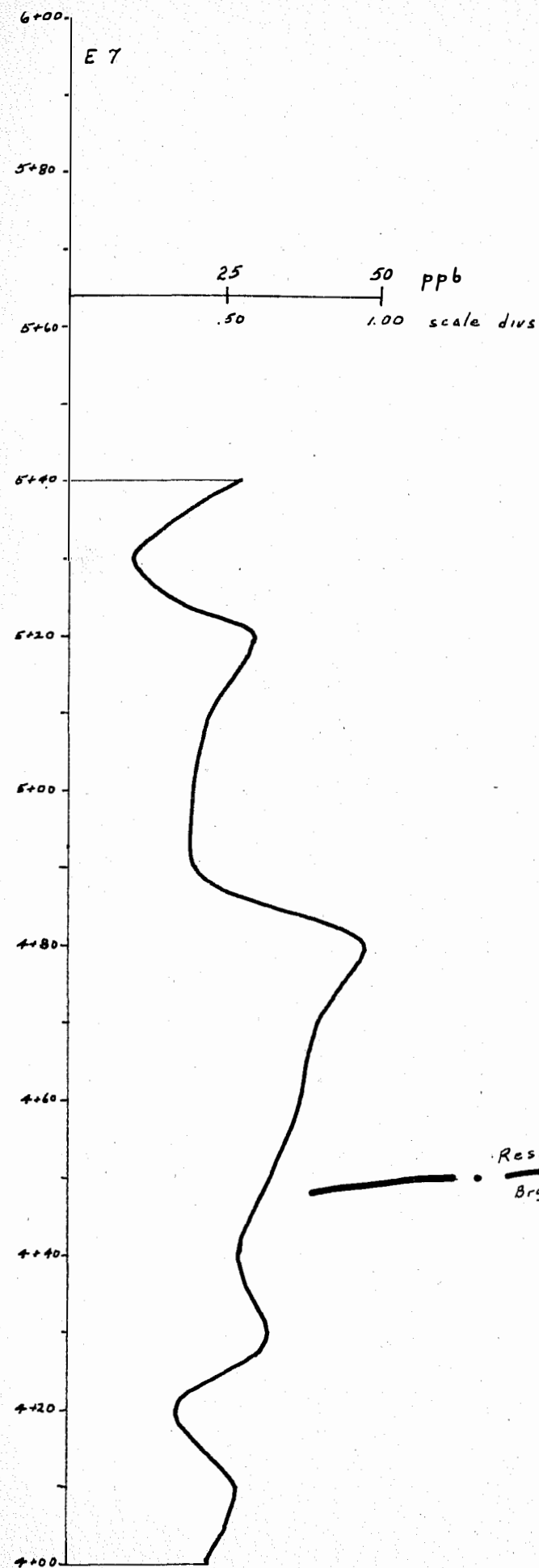
The sinking of one or more prospect shafts through the overburden to expose bedrock is definitely indicated, recommended and planned. The field staff agrees that the first shaft should be sited on line E 7 + 50 at a point 4 + 85 feet northwest of the baseline. This site is 35 feet northwest of the highest resistivity reading and represents the point at which the anomalous mercury trend intersects this line.

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9th October, 1963
David L. Seymour

Distribution: Noranda Exploration Co. Ltd.
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File



SILVER TITAN PROJECT	
AREA "A"~LEO 1	
DETAILED SOIL SAMPLE GRID MERCURY DETECTOR PROFILES	
Sampled by	T.S., H.B. & D.L.S.
Analyzed by	D.L.S.
Compiled by	D.L.S. & M.O.H.
Drafted by	M.O.H.
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