

REPORT ON SPL 107

By

**NP Stevens-Hoare
(C6FA)**

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to be filed by J.W.*

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REPORT ON S.P.L. 107

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RECEIVED	ANSWERED	22 SEP 1975	REGISTRAR
DEPT OF MINES		Stevens-Hoare, April, 1975	
REF. No. 5034/75			

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INTRODUCTION

Mr. N.B. Brown approached C.G.F.A. regarding his gold prospects on S.P.L. 107. Mt. Lyell was requested to examine the area and N.P. Stevens-Hoare visited the area for two days. Plan No. 1 shows the location of S.P.L. 107.

The area has previously been examined by : Tselvetrees 1934, Finucane 1934, Hughes 1947, Threader 1962 of the Mines Department; Allstate Explorations 1971, Anglo American 1972, Geopako 1973 and Aberfoyle 1974. Reports by the above excepting Finucane and Aberfoyle are included in the Appendix.

REGIONAL GEOLOGY

S.P.L. 107 covers part of the Alberton - Mathinna gold belt. The mineralization in the gold belt is associated with quartz veins carrying some minor sulphides, arsenopyrite and pyrite being the commoner sulphide minerals. The quartz veins occur in the Mathinna Beds, shales, siltstones and quartzites of Silurian age which are intruded by Devonian Granites, the probable source of the mineralization. Mines Department Maps 2532, 2540 by Threader show the regional geology. The largest producer in the gold belt was the Golden Gate at Mathinna which produced 254,000 oz. of gold.

GEOLOGY

Plan No. 2 shows the location geology of the areas visited and the location of samples. Table I gives assay results. The Hinemoa mine was not visited.

(a) Sampling Procedure

Where possible continuous chip sampling of the quartz lodes was employed. Most addits being driven on the lodes it was not possible to systematically sample the country rocks (which contained minor quartz and sulphides) except in the case of Addit C of the Una mine. In this case clustered chip samples 2002A - 2002S were taken every 1.5 metres.

(b) Una Mine Quartz Lodes

A series of small less than 2 m width quartz veins were examined. The veins are parallel to the cleavage rather than the bedding. Assay results indicate quartz is gold bearing, values are erratic and tend to be low, no figure can be estimated for the veins as a group. No correlation of Au values with As is readily discernable, although the presence of high As values in samples 2002A - 2002S might be regarded as encouraging.

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(c) Una Sulphide Lode

A small fault controlled occurrence of up to 10% sulphides with quartz in a siltstone. The major sulphide present is arsenopyrite with marcasite, pyrite, sphalerite, chalcopyrite and galena. Gold assays of up to 30 dwt have been reported with 2.8% Pb and 2% Zn, the lowest value recorded from the sulphide material is 2.4 dwt an average of 10 - 15 dwt may be a reasonable estimate. Note the high silver assays particularly compared to assays from the quartz lodes.

(d) Strickland Mines

Quartz lodes, probably associated with small faults, strike across both cleavage and bedding. They are very low in sulphides but carry some free gold. Lodes are less than 1 metre in width. Grab samples only were collected from this area.

EXPLORATION POTENTIAL

The mineralization examined is by itself of insufficient scale to sustain a large operation. The veins are too widely separated to use high volume extraction techniques. To justify drilling of any or all the lodes, in expectation of increased size with depth, would require some indication of special conditions. The lodes do not selectively replace any particular bed or unit; no large scale alteration is associated with them. Structural controls apart from small tensional strike faults and associated cross faults are not evident.

Regionally there does appear to be a distinction belt of mineralization 20 miles long by $\frac{1}{2}$ a mile wide indicating a major tectonic control possibly related to the granite emplacement and folding.

The source of the gold is problematical; if it is related to granite solutions then it would appear to have travelled four miles from the nearest granite. If however it has been remobilized from the Mathinna Bed sediments by temperature gradients set up by the granites then the temperatures involved must have been low as the metamorphic grade of the Mathinna Beds is very low. The latter source seems more likely in my opinion and would tend to downgrade the potential of the region as a whole.

CONCLUSIONS

1. Presently exposed mineralization is of little economic potential.
2. Drilling cannot be justified on information available to date.
3. Examination of drill core from other mines in the Mathinna - Alberton gold belt might reveal the origin of the mineralization and upgrade the region as a whole.

RECOMMENDATIONS

No further action to be taken at the present time regarding Mr. Brown's prospect.

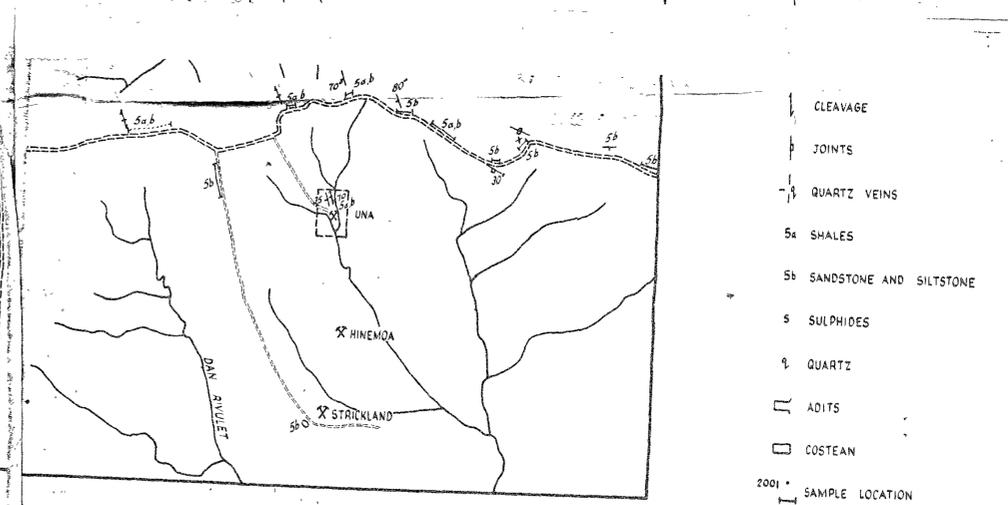
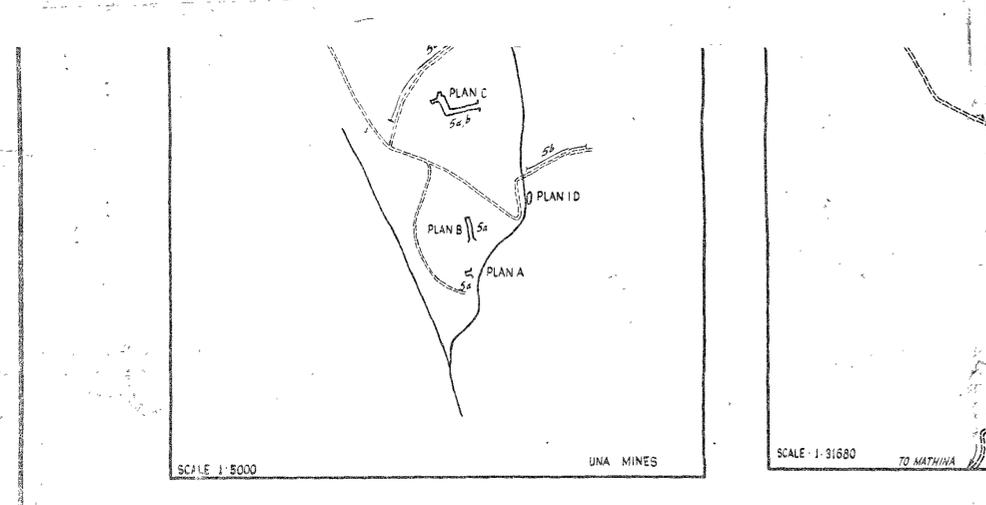
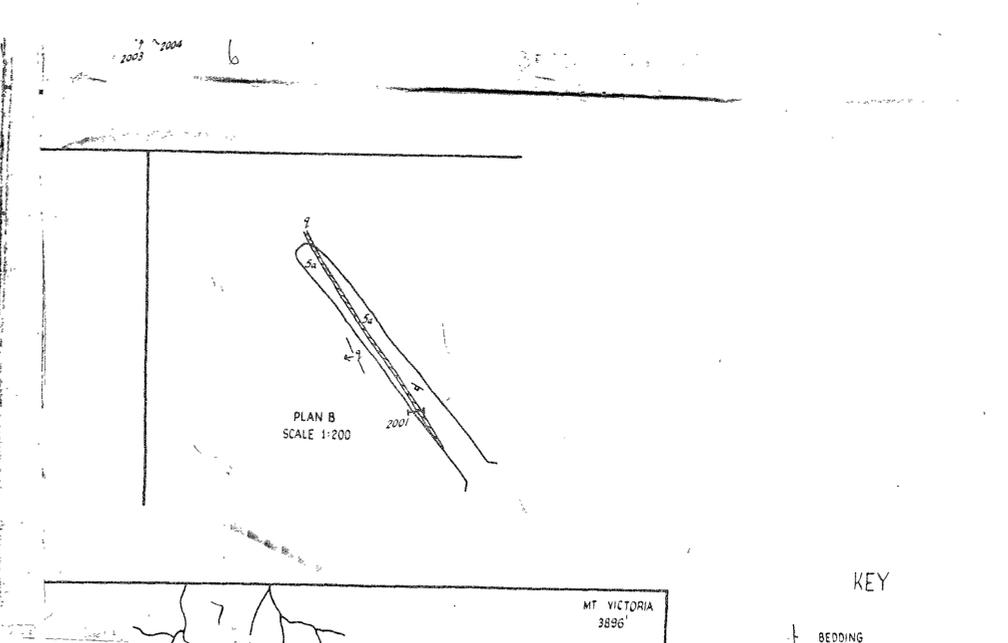
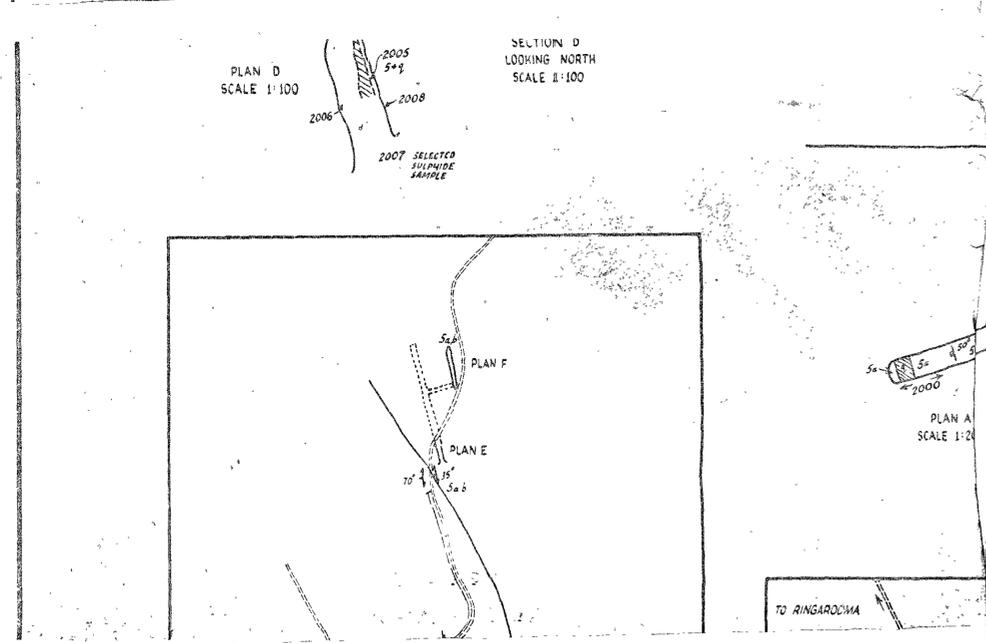
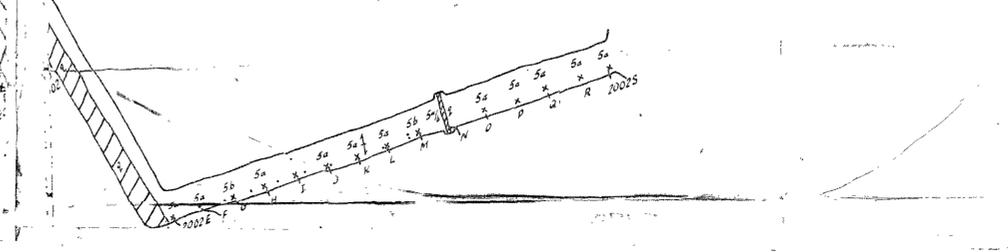
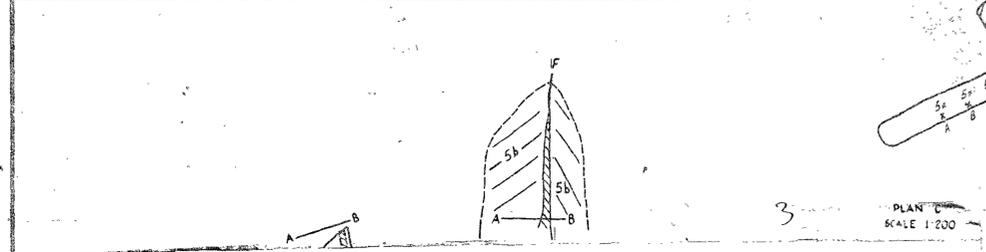
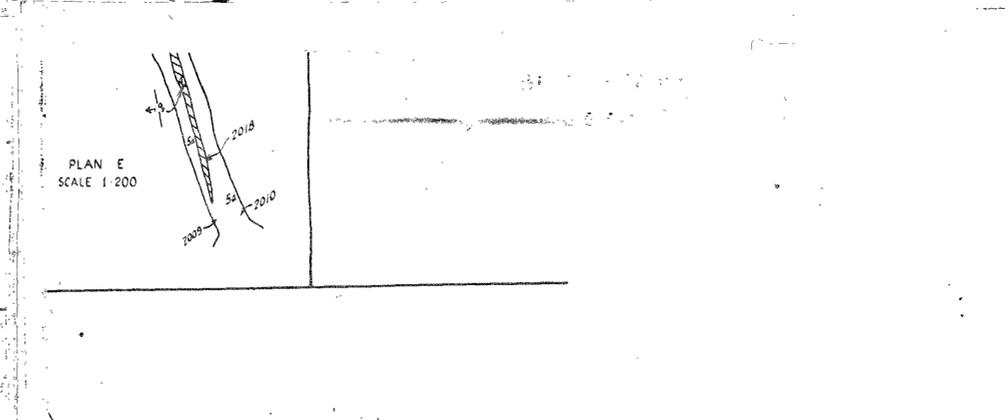
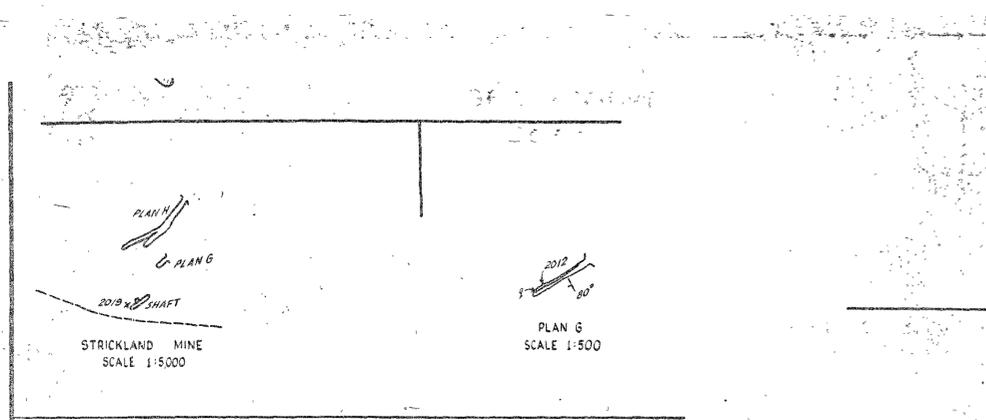
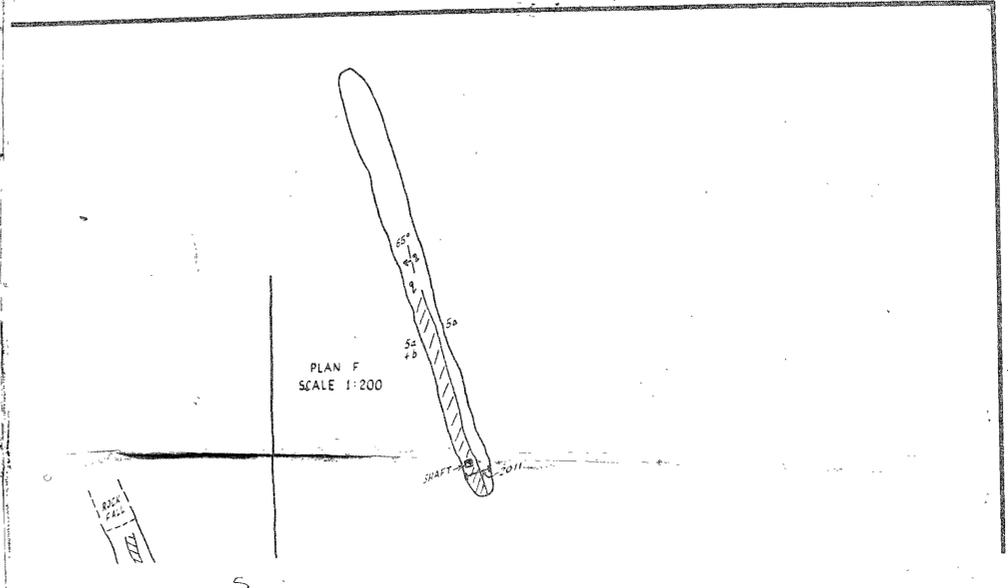
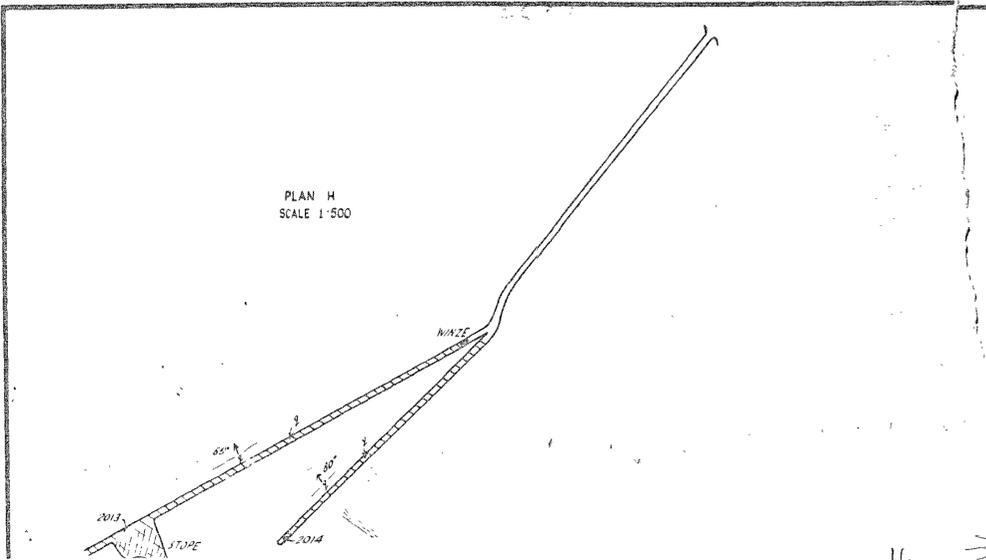
M.P. Sturt
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TABLE I

Sample No.	Ag ppm	Au ppm	As	Cu	Pb	Zn	S%	Bi
2000	<0.1	<0.1	250					
2001	0.8	3.4	150					
2002A	<0.2	<0.2	500					
B	"	"	20					
C	"	"	625					
D	"	"	625					
E	"	"	50					
F	"	"	35					
G	"	"	20					
H	"	"	40					
I	"	"	15					
J	"	"	2000					
K	"	"	35					
L	"	0.4	50					
M	"	<0.2	125					
N	"	"	35					
O	"	"	45					
P	"	"	40					
Q	"	"	700					
R	"	"	250					
S	"	"	50					
2003	0.2	0.2	35	35	50	95	0.05	
2004	<0.1	<0.1	50	20	40	40	<0.01	<20
2005	16.2	6.8	6.3%	40	2580	3300	3.22	<20
2006	<0.1	<0.1	1250	40	140	10	0.03	
2007	31.4	11.6	5.8%	390	6450	5850	5.58	
2009	<0.1	<0.1	500	35	50	150	0.08	
2010	<0.2	<0.2	125	50	60	115	<0.01	
2011	<0.1	<0.1	625	20	40	45	0.22	<20
2012	0.4	1.6	300	15	35	40	0.05	
2013	5.0	3.0	500	20	25	50	0.14	
2014	<0.1	<0.1	600	25	45	70	0.17	
2018	2.5	7.8	500	25	110	90	0.04	
2019	<0.1	<0.1	250	50	35	50	0.12	



- KEY
- BEDDING
 - CLEAVAGE
 - JOINTS
 - QUARTZ VEINS
 - 5a SHALES
 - 5b SANDSTONE AND SILTSTONE
 - S SULPHIDES
 - Q QUARTZ
 - ADITS
 - COSTEAN
 - 2001 * SAMPLE LOCATION

MT. VICTORIA GOLD PROSPECT

DRAWN N STEVENS-HOARE
TRACED R G WILSON 28 4 '75

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