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VISIT TO CRANES TIN PROSPECT,
3rd DECEMBER, 1980

by

P. Wilson and P. Heithersay

GEOPEKO

4th Feb. 1981

(This is a copy of an inter-office memo. supplied
to the Dept. of Mines by Mr P. Crane, lessee of
496P/M, on 10th Feb. 1982)

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A DIVISION OF PEKO-WALLSEND OPERATIONS LTD.

INTER-OFFICE MEMO

TO: _____ DATE: 4-2-81

FROM: P. WILSON COPIES TO: R.R. LARGE
P. HEITHERSAY M.C. ROGERS

SUBJECT: VISIT TO CRANE'S TIN PROSPECT 3rd December, 1980

NOTE FOR THE RECORD

INTRODUCTION

This report is a supplement to the memo of P. Heithersay to Dr. R. Large of 10-11-80 concerning an appraisal of the Cranes Tin Prospect. For background information the reader is referred to this memo.

The primary purpose of the second visit to the area was to sample the three 'alteration zones' in a semi-quantitative manner to ascertain their grade and to decide whether additional work is justifiable. Mr. P. Crane is keen for the company to test the grade and economic potential of these three zones at depth by drilling.

GENERAL OBSERVATIONS (see accompanying figures 1 and 2)

The writers conducted a stream traverse to examine outcrops of the three altered granite horizons which the prospector believes to be the principal tin bearing lodes.

Horizon 1 A narrow \pm 1m, well-defined zone of green weathering fine-medium grained quartz ϕ -feldspathic muscovite bearing rock. Appears to be vein-like but was only exposed over a 2m strike length.

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Horizon 2 An area of coarse crystalline altered granite approximately 80m upstream from horizon 1. The granite is extensively altered with ferruginous staining along anastomosing, fractures and with coarse tourmaline 'clots' and 'stringers'. The alteration is extremely patchy in nature and it is difficult to tell whether this is a discrete zone which is different to the normal Husetop Granite. Grab samples were collected at 1m intervals along the stream (KR 6705 - KR 6716).

Horizon 3 A small outcrop of massive fine-grained chlorite rich, iron stained rock, approximately 300m north of the stream section. Occasional 1-2mm books of biotite are present set in a chloritic groundmass (KR 6717). This lithology bears no relationship to horizons 1 or 2 and it appears unlikely that it represents an altered granite. A lithologically similar outcrop was noted in the stream to the south where a vein-like contact with the surrounding granite was noted. (KR 6718)

SAMPLE RESULTS

Samples were despatched to A.L.S. in Brisbane and analysed for Cu, Pb, Zn, Ag, Au, Sn and W. Results are appended.

CONCLUSIONS AND RECOMMENDATIONS

Cranes tin prospect is a small area within a well documented tin province. The area is extensively covered by thick rain forest which restricts access and geological observations. In fact our present knowledge concerning the source of the alluvial tin is reliant on the prospectors inherent optimism rather than geological fact. Certainly the sampling of the three 'altered horizons' does not provide any encouragement in this regard.

It is very unlikely that the lease area could support a mineralized body of the required grade and tonnage to be economically viable for the company. The major potential of the area lies in areas of secondary enrichment in palaeochannels underlying the basalt cover. Locating such channels would involve a detailed programme including geological mapping and ground geophysical surveys.

The writers recommend that Mr. P. Crane be notified that the company could not find sufficient encouragement to warrant the drilling of the three 'horizons'. Any further work at Cranes Prospect should be given very low priority indeed.

P. A. WILSON

Paul Wilson.

P. HEITHERSAY

P. Heithersay

CRANE'S TIN PROSPECT

GEOCHEMISTRY RESULTS

Sample	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb	Sn ppm	W ppm
KR 6701	25	460	350	1	50	0.14%	(10
KR 6702	5	30	150	(1	25	815	(10
KR 6703	10	150	580	1	20	0.12%	(10
KR 6704	10	25	60	(1	15	0.68%	(10
KR 6705	(2	15	40	1	10	140	(10
KR 6706	5	30	110	1	10	100	(10
KR 6707	(2	400	180	(1	10	20	(10
KR 6708	(2	15	20	(1	10	75	(10
KR 6709	5	15	40	(1	10	(5	(10
KR 6710	(2	5	100	(1	10	50	(10
KR 6711	(2	35	80	(1	10	40	(10
KR 6712	5	45	350	(1	10	50	10
KR 6713	5	35	120	(1	10	50	10
KR 6714	(2	60	100	1	10	15	10
KR 6715	(2	15	40	(1	10	10	(10
KR 6716	(2	30	50	(1	5	15	(10
KR 6717	(2	100	100	1	5	140	(10
KR 6718	5	35	180	(1	10	275	(10

ppm: parts per million

ppb: parts per billion

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5 cm

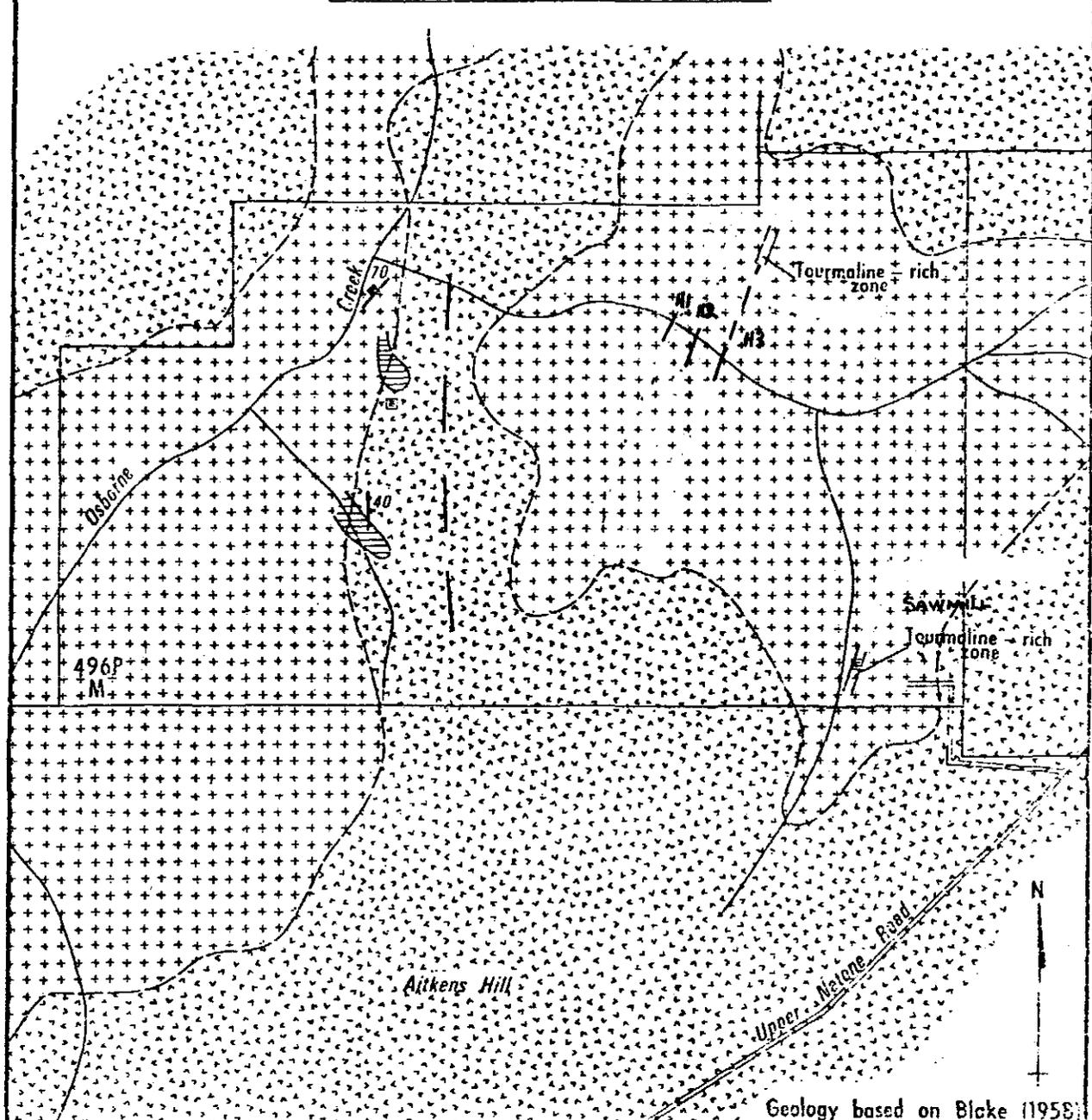
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FIGURE 1

CRANES TIN PROSPECT — UPPER NATONE

AFTER P.L.F. COLLINS June 1980

0 500m



TERTIARY

-  Basalt
-  Probable course of deep lead

DEVONIAN

-  Granite

LEGEND

-  Bedding
-  Jointing
-  Geological boundary - approx.
-  Shaft
-  Sluiced area
-  Lease boundary

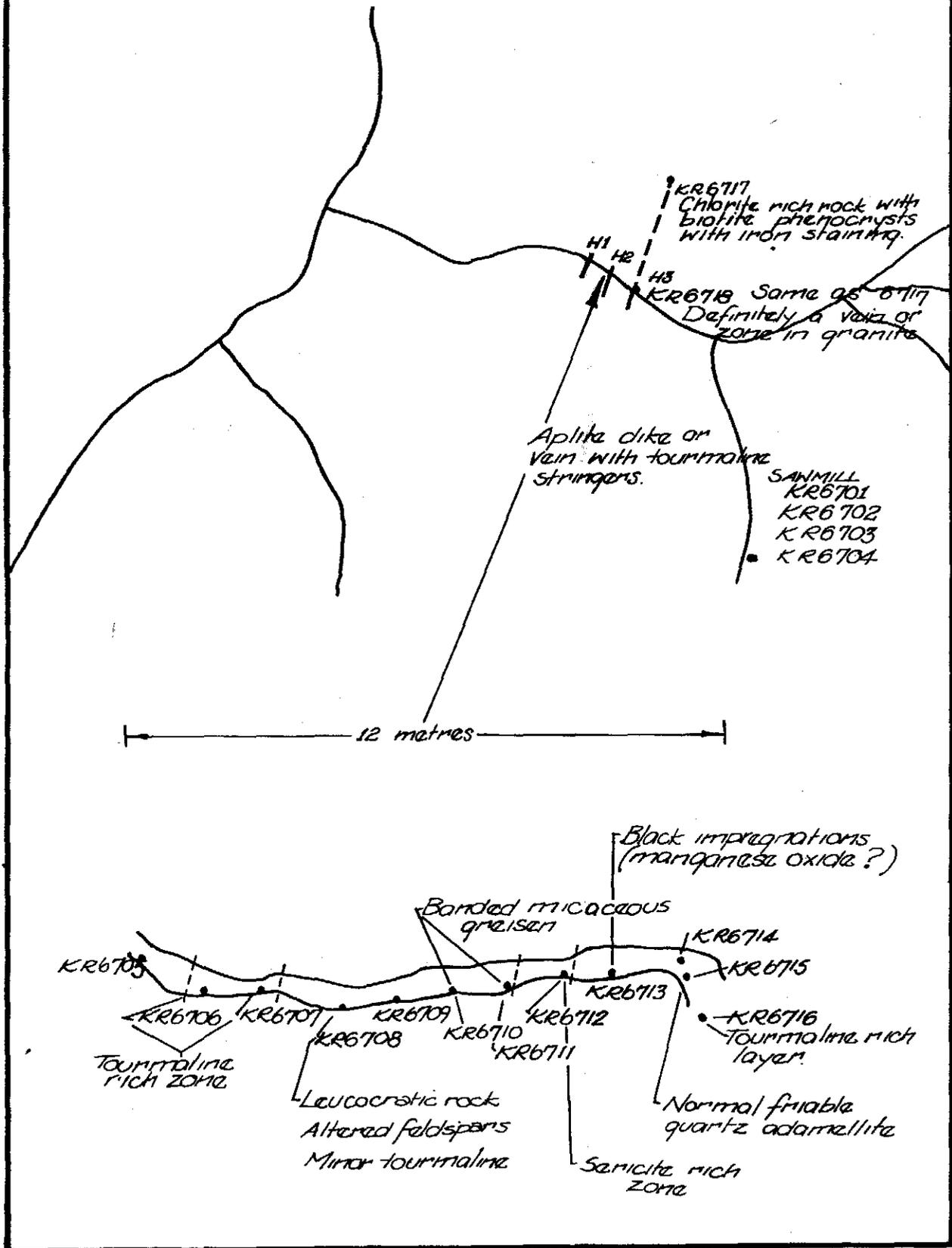
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Figure 1

CRANES TIN PROSPECT — UPPER NATONE

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DEPARTMENT OF MINES - TASMANIA MINERAL INDUSTRY UNPUBLISHED REPORT DATA SHEET		REPORT NUMBER TCR 82-1674	
		<input type="checkbox"/> CF <input checked="" type="checkbox"/> RF <input type="checkbox"/> OF	
AUTHOR(S): WILSON, P., HEITHERSAY, P.			
DATE: Feb. 1981			
TITLE: Visit to Crane's tin prospect 3rd December, 1980			
COMPANY(S): Geopeko [Peko-Wallsend Operations Ltd]			
FORMAT: No. of Volumes: 1 Structure: 3 p, 1 Table, 2 figs (inter-office memo.)			
COMPANY REF. (if any):			
LICENCE / LEASE: 496P/M (P. Crane)			
LOCALITY: SK55- <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8			
Map sheet: 8015-II (Loongana)			
Geographic: Upper Natone, Aitkens Hill, Osborne Ck. (not in title)			
MAPPING - GEOLOGICAL <input type="checkbox"/> Surface - scale: <input type="checkbox"/> Mine/Underground DRILLING <input type="checkbox"/> Diamond <input type="checkbox"/> Percussion <input type="checkbox"/> Auger <input type="checkbox"/> Logs <input type="checkbox"/> Analysis <input type="checkbox"/> Metallic Minerals <input type="checkbox"/> Non-metallic Minerals	GEOPHYSICS GND/AIR <input type="checkbox"/> Magnetic <input type="checkbox"/> Electromagnetic <input type="checkbox"/> Radiometric <input type="checkbox"/> A.P. <input type="checkbox"/> S.P. <input type="checkbox"/> E.P. <input type="checkbox"/> E.I.P./M.I.P. <input type="checkbox"/> Resist. <input type="checkbox"/> Gravity <input type="checkbox"/> Seismic - Refraction <input type="checkbox"/> Seismic - Reflection <input type="checkbox"/> On - shore <input type="checkbox"/> Off-shore <input type="checkbox"/> Well-logging	GEOCHEMISTRY <input type="checkbox"/> Stream Sediment <input type="checkbox"/> Soil: <input checked="" type="checkbox"/> Rock - chip <input type="checkbox"/> Gossan <input type="checkbox"/> Water: <input type="checkbox"/> Biogeochemistry <input checked="" type="checkbox"/> Cu <input checked="" type="checkbox"/> Pb <input checked="" type="checkbox"/> Zn <input checked="" type="checkbox"/> Sn <input checked="" type="checkbox"/> W <input type="checkbox"/> Mo Ag, Au <input type="checkbox"/> Rock: <input type="checkbox"/> Maj. <input type="checkbox"/> Tr.	<input type="checkbox"/> PETROLOGY <input type="checkbox"/> ORE GENESIS <input type="checkbox"/> ORE RESERVES <input type="checkbox"/> FEASIBILITY STUDY <input type="checkbox"/> MINERAL PROCESSING <input type="checkbox"/> MINING <input type="checkbox"/> ENVIRONMENT <input type="checkbox"/> ENGINEER. GEOLOGY <input type="checkbox"/> INDUST. MINERALS <input type="checkbox"/> CONSTRUCT. MAT. <input type="checkbox"/> FUELS:
MINERALS: Tin, cassiterite, tourmaline, muscovite, chlorite			
MINE / DEPOSIT NAME(S): Crane's tin prospect			
OTHER KEYWORDS: Housetop Granite(s)			
ANNOTATION: Sampling of three 'altered horizons' in granite did not provide encouraging results. The major potential of the area lies in secondary enrichment in palaeochannels under basalt.			