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C.R.A. EXPLORATION PTY. LIMITED

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E.L. 17/74 MT. ROMULUS

NORTH-WEST TASMANIA

FINAL REPORT

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Submitted To : R.J. Rebek

Copy To : Dept. of Mines,
Tasmania.

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1. SUMMARY AND CONCLUSIONS

E.L. 17/74 Mt. Romulus embraces Cambrian acid volcanics comprising rhyolitic crystal, vitric and ash-flow tuffs, which are highly silicified and have in parts been altered to chloritic and sericitic schists. These volcanics which have been extensively intruded by Cambrian granites unconformably overlies Proterozoic metamorphics to the east and are in turn unconformably overlain by Ordovician conglomerate and sandstone to the west. This sequence is overlain by extensive areas of Quaternary gravels.

Reconnaissance geochemical soil sampling over the area of outcropping Cambrian volcanics failed to reveal any significant base metal anomalies, although a number of marginal lead anomalies were outlined accompanied by slightly above background zinc and negligible copper values. These were returned by samples collected over one of the ash flow tuff units and the overlying bedded fine vitric tuff in the northern part of the E.L.

The only mineralisation sighted was in the form of a few lenses of bedded fine pyrite within one of the fine bedded vitric tuff units suggesting that an environment of deposition favourable to the occurrence of stratiform massive sulphides occurred within the area. However, the lack of significant geochemical base metal soil levels within the tenement detracts from the area's attractiveness.

Further work within E.L. 17/74 does not appear to be warranted unless a joint venture partner who might be able to upgrade the potential of the area can be attracted.

2. INTRODUCTION

E.L. 17/74 Mt. Romulus of 26 km² was initially pegged on July 19th, 1974 and granted for a six month period from September 24th. No field work was undertaken during the early part of the 1974-75 summer season due to the pressure of work in other tenements, but investigations were planned to begin in March 1975. The onset of unfavourable weather conditions precluded this work and the area was renewed "in toto" for a further six month period from March 24th. This period also passed without any field work being undertaken on the area and it was again renewed in full for a further six month period from September 24th, 1975.

During January 1976 a concentrated helicopter based reconnaissance geochemical soil sampling programme accompanied by geological mapping was undertaken over the exposed sections of the Cambrian sequence within the tenement. This work was carried out and supervised by T. M. Porter.

All analyses were carried out by The Zinc Corporation at Broken Hill.

This tenement was taken out to explore for stratiform copper-lead-zinc mineralisation.

3. GEOLOGICAL SETTING

E.L. 17/74 embraces a sequence of Lower Palaeozoic volcanics and sediments which rest unconformably upon Proterozoic metamorphics of the Tyennan Block. The Lower Palaeozoic comprises Cambrian volcanics and granite, Ordovician conglomerate and limestone and Silurian quartzite and shale (see plan no. T 973). Tertiary basalt overlies these older rocks in the north eastern corner of the tenement as do extensive Quaternary gravels in most parts of the E.L. Geological work within the E.L. was concentrated on the Cambrian sequence with little or no time being spent on the other lithologies.

3.1 Proterozoic

Proterozoic rocks of (probable) Carpentarian age outcrop on the eastern margin of E.L. 17/74 where they form the basement to the Palaeozoic sequence. This basement comprises a steeply dipping sequence of quartzites, schistose quartzites, muscovite schists and phyllites which underlie the Cambrian volcanics below a high angle unconformity. Over much of its length within the tenement this contact is masked by a broad zone of Quaternary gravel and peat.

3.2 Cambrian

In the northern half of the E.L. of sheet 1 (see plan no. T 974) the Cambrian is represented by a sequence of highly siliceous (and silicified) crystal tuffs, crystal ash flow tuffs and vitric tuffs, while in the south it comprises crystal tuffs and fine tuffs which have been altered to sericitic and chloritic schists. In both areas the sequence is extensively intruded by Cambrian granite.

3.2.1 Sheet 1

In the northern portion of the tenement the Cambrian is comprised largely of vitric tuffs and crystal vitric tuffs with less extensive but still significant lenses of what has been interpreted as an ash flow tuff.

The crystal tuffs are generally very fine grained and highly siliceous with quartz crystals in varying amounts. The quartz crystals range in size from less than 1 mm in some areas to up to 4 mm in others.

Vitric tuffs are intercalated within the crystal tuffs or occur as separate units. These usually comprise grey to pale green very fine grained highly siliceous chert-like rocks which, very occasionally have very fine quartz phenocrysts. In some outcrops bedding is obvious while in others they appear to be completely massive. Just south of line 355S and some 20 metres west of the Proterozoic contact in the Brougham River lenses of massive fine bedded pyrite up to 10 cm thick and one metre long outcrop within well bedded fine vitric tuff.

Lenses and bands of a rock type interpreted as ash flow tuff are found at a number of levels within the sequence. Irregular lenses immediately overlie the Proterozoic basement in parts giving way to fine vitric tuffs along strike. The main ash flow tuff band outcrops some 200 to 300 metres east of the Proterozoic contact while an apparently isolated lense was encountered on line 350S between the two main horizons. This tuff type in general comprises a fine to pale green, very siliceous matrix with fine aligned thin flat particles less than 1 mm thick and from 3 to 10 cm in diameter. They are usually dark green in colour and are occasionally wispy.

The Cambrian volcanic sequence on sheet 1 comprises from bottom to top

- Lenses of ash flow tuff immediately overlying the Proterozoic basement. These lenses are 100 to 150 metres wide and several hundred metres or more in length.
- A vitric tuff unit with lesser crystal tuff intercalated, overlies the Proterozoic basement where the underlying ash flow tuff is not developed. It is from 50 to 150 metres wide.
- A lense of ash flow tuff about 50 metres thick and probably only several hundred metres in length was encountered on line 350S only.
- An extensive crystal tuff unit was encountered on all lines (except where masked by gravels) over a strike length of 2.5 km with a width of from 60 to 100 metres.
- A further vitric tuff unit overlies this crystal tuff on lines 340S and 345S where it ranges from 30 to 150 metres in width.

- An extensive ash flow tuff unit from 200 to 300 metres wide overlies this vitric tuff on line 340S while it is found immediately above the lower crystal tuffs on line 355S. The lower margin of this unit is concealed on lines 360S and 365S.
- A thin lens of bedded fine vitric tuff (grading to tuffaceous shale) overlies this ash flow tuff. It is exposed over a width of from 30 to 100 metres but is truncated above and to the north by Cambrian granite.

The few dips and strikes observed indicate a steep dip within the area and consequently the widths recorded above are expected to be of the same order as the thicknesses of the individual units.

3.2.2 Sheet 2

The Cambrian sequence in the southern half of E.L. 17/74 is characterised by chloritic and sericitic alteration to a schistose texture.

As with sheet 1, much of the Cambrian outcrop in this area was found to be occupied by granitic rocks with only about a kilometre strike length of volcanics. These comprised fine chloritic schists, chloritic to sericitic quartz crystal tuffs, fine siliceous or vitric tuffs, and less altered quartz and quartz-feldspar crystal tuffs.

The fine chloritic schists are well foliated dark green and sometimes siliceous rocks occasionally having a few fine quartz phenocrysts. Crystal tuffs encountered within the area ranged from unaltered (or slightly chloritic or sericitic) quartz feldspar crystal tuffs with a siliceous matrix, to strongly foliated chloritic or sericitic schistose rocks with quartz phenocrysts. Chloritic alteration predominates with sericitisation being best developed on the eastern end of line 420S.

Grey to pale green very fine grained highly siliceous vitric tuffs are found on the western end of line 425S.

3.2.3 Granite

Coarse granitic rocks were encountered on both sheet 1 and 2 where they intrude both Cambrian and Proterozoic lithologies. They are in general coarse grained quartz-plagioclase-chlorite granites. They carry minor concentrations of gossanous quartz veins

from a few millimetres to a few centimetres thick in some localities.

3.3 Ordovician

Little Ordovician outcrop was encountered during these investigations. To the west of the belt of Cambrian outcrop pink to white quartz sandstone with lesser conglomerate bands occur. Some of the area mapped as Quaternary quartzite pebble gravels (Qg) may in fact be weathered and decomposed Ordovician sandstone or conglomerate. Gordon Limestone is recorded as overlying the west dipping sandstone-conglomerate unit.

3.4 Silurian

The Ordovician Gordon Limestone is transgressively overlain to the west by Silurian quartzite which is in turn capped by a fossiliferous shale unit.

3.5 Tertiary

Tertiary basalt has been mapped in the north eastern cover of E.L. 17/74 overlying all of the above lithologies.

3.6 Quaternary

Quaternary gravels are widespread within E.L. 17/74 and fall into two broad groups, namely those occurring as relatively thin sheets on topographic highs and those occurring on flats in the Sophia Valley covered by peat. The former is composed of fine to medium quartz sand with accompanying Proterozoic quartzite pebbles and cobbles.

The gravels on the Sophia flats are in general covered by up to several metres of peat and have a similar composition to those described above except for the presence of organic material which decreases with depth.

4. GEOCHEMISTRY

Reconnaissance geochemical soil sampling on a 500 x 30 metres grid basis was undertaken over the Cambrian lithologies within E.L. 17/74. This sampling was aimed at detecting zones of anomalous base metal levels that might surround stratiform copper-lead-zinc mineralisation.

A number of marginal anomalies were detected but none of a sufficient tenor to warrant follow-up work.

Background levels were in general quite low with a tendency for slightly higher levels in the granite and the upper ash flow tuff unit on sheet 1.

Lead background levels are of the general order of from 2 to 10 ppm with values of from 20 to 40 ppm being noted in some zones within the upper ash flow tuff of sheet 1. Patchy zones of from 20 to 120 ppm occur within the granites of both sheets, although substantial areas within the intrusive yielded much lower levels. Some slightly elevated background values of from 30 to 45 ppm were returned by samples from the crystal tuff unit on line 355S. These correspond to a zone exhibiting abundant pyrite on fracture planes and as disseminations. The schistose rocks on sheet 2 yielded some slightly higher values of from 30 to 150 ppm.

Zinc background levels are of the order of 1 to 10 ppm with levels of up to 80 ppm within the granite, up to 50 ppm within the pyritic crystal tuff on line 355S and parts of the upper ash flow tuff, while values of up to 120 ppm are noted from samples collected over the chloritic schists on sheet 2.

Copper levels are in general very low being from less than one to around 5 ppm with a few values of up to 20 ppm over the granite and the pyritic crystal tuffs on line 355S.

Marginally anomalous levels of from 200 to 360 ppm Pb accompanied by much lower zinc and copper values occur within the upper ash flow tuff unit and overlying bedded vitric tuff on sheet 1 on lines 340S, 360S, 365S. A strongly anomalous 2700 ppm Pb value was returned by a sample over the granite on line 425S (sheet 2). This value was accompanied by 48 ppm Zn and 27 ppm Cu. The adjacent sample, also over granite returned levels of 300 ppm Pb, 4 ppm Zn and 1 ppm Cu.

The Quaternary gravels, where included in the sample coverage, yielded very low levels. It was hoped that if these covered significant base metal levels within the Cambrian volcanics, some reflection might be observable within the gravels themselves.

5. RECOMMENDATIONS

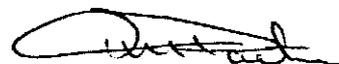
Although a few marginally anomalous lead levels were returned by the reconnaissance soil sampling, none appear to be of a sufficient tenor to warrant follow up sampling.

Appreciable zones of Cambrian volcanics are masked by thick Quaternary gravels, both between sheets 1 and 2

and on the western margin of sheet 2 in the Sophia Valley Flats.

These zones would require costly geophysical testing over an area that is scheduled to be flooded upon the completion of the Mackintosh Dam in the early 1980's.

It is therefore recommended that no further work should be undertaken within this E.L. unless a joint venture partner can be attracted who might be able to upgrade the potential of the area at no extra cost to C.R.A.E.



T. M. Porter

ATTACHMENTS Geochemical Soil Sample Ledger Sheets.KEYWORDS

Copper, lead, zinc, Cambrian, geochem.--soil, mapping-detailed, rhyolite.

Location BURNIE SK 55-3 1:250 000 map sheet.

LIST OF PLANS (TRANSPARENCIES HEAD)

<u>Plan No.</u>		<u>Scale</u>
T 973	E.L. 17/74 Mt. Romulus North-West Tasmania. Geological Plan.	1:25 000
T 974	E.L. 17/74 Mt. Romulus North-West Tasmania, Sheet 1 Romulus. Geological Plan	1:5000
T 975	E.L. 17/74 Mt. Romulus North-West Tasmania, Sheet 1 Romulus. Geochemical Soil Sample Locations and Results Plan.	1:5000
T 976	E.L. 17/74 Mt. Romulus North-West Tasmania, Sheet 2, Alexandra. Geological Plan.	1:5000
T 977	E.L. 17/74 Mt. Romulus North-West Tasmania, Sheet 2, Alexandra. Geochemical Soil Samples Location and Results Plan.	1:5000

TENEMENT: E.L. 1774 Mt. Romulus TFS GEOCHEMICAL SOIL SAMPLING LEDGER Page No. 1
 AREA/PROSPECT: SHEET 1 - ROMULUS SAMPLE Nos. 296831 - 296833 D.P.O. No. 17779
 PLAN REFERENCE: E.L. 1774 Mt. Romulus N.W. TFS 1:50000 SHEET 1 ROMULUS GEOLOGIST: CHAS DATE: JAN 76
 ANALYSED BY: ZINC CORP BROWN HILL

Grid Co-ordinate	Sample No.	Soil Composition					Soil Horizon	Sample			Bedrock			Metal Content in ppm.				Geological observations	
		Rock %	Organic %	Sand %	Silt %	Clay %		Depth cm	Colour	Outcrop	Concentrated	Est. Depth to	Pb	Zn	Cu	Ag			
LINE 360S																			
360mS																			
11000 mW	296831	5	70	5	20	-	A	60	BROWN	-	✓	260	2	2	41	41		Top - quartz rubble	
11030 W	02	5	70	5	20	-	"	40	"	-	✓	200	2	2	41	41		As above	
11060 W	03	5	70	5	20	-	"	50	"	-	✓	200	21	3	41	41		As above	
11090 W	04	20	40	20	20	-	"	80	BROWN	-	✓	200	21	2	41	41		Light gravel	
11120 W	05	20	40	20	20	-	"	50	"	-	✓	200	11	41	41	41		As above	
11150 W	06	20	40	20	20	-	"	30	"	-	✓	200	4	41	41	41		As above	
11180 W	07	-	40	20	40	-	"	30	"	-	✓	200	4	41	41	41		?	
11210 W	08	30	10	30	30	-	B	30	grey	-	✓	200	10	7	1	41		Light gravel	
11240 W	09	15	5	30	50	-	"	30	"	-	✓	-	20	14	4	41		As above	
11270 W	296836	15	-	45	30	10	B/C	70	"	✓	-	170	8	2	41	41		As above (see below?)	
11300 W	11	15	-	45	30	10	"	40	"	✓	-	170	10	1	41	41		As above	
11330 W	12	15	-	45	30	10	B	40	"	✓	-	62	11	3	41	41		As above	
11360 W	13	15	-	20	35	40	B/C	30	BROWN	✓	-	260	20	7	1	41		As laminated fine silt till - shale	
11390 W	14	10	5	30	45	10	A	30	"	✓	-	42	11	4	41	41		As coarse granite	
11420 W	15	10	5	30	45	10	"	30	"	✓	-	20	7	3	41	41		As above	
11450 W	16	10	-	20	30	40	C	40	"	✓	-	80	80	7	1	41		As above	
11480 W	17	5	-	30	30	35	B/C	40	"	✓	-	20	9	2	41	41		As above	
11510 W	18	5	5	10	70	10	B	30	"	✓	-	82	70	10	1	41		As above	
11540 W	19	10	-	10	10	70	C	60	ORANGE	✓	-	52	82	11	1	41		As above	
11570 W	296836	10	20	5	65	-	A	30	BROWN	✓	-	12	8	2	41	41		As above	
11600 W	21	5	-	10	10	75	C	60	RED	✓	-	40	37	16	1	41		As above	
11630 W	22	-	10	30	55	5	A/B	30	BROWN	-	✓	60	6	5	1	41		As above?	
11660 W	23	10	-	20	20	50	C	50	RED	-	✓	60	24	18	5	1	41		As micaceous quartz
11690 W	24	5	10	10	75	-	B	90	BROWN	-	✓	100	28	20	2	1	41		As granite
11720 W	25	15	5	10	40	30	"	30	"	-	✓	80	27	13	3	1	41		Light rubble gravel
11750 W	26	5	5	35	50	5	"	60	grey	-	✓	80	2	5	41	41		As as above + quartz	
11780 W	27	5	-	50	40	5	"	80	"	-	✓	120	41	3	41	41		Light rubble gravel	
11810 W	28	5	30	30	35	-	"	30	"	-	✓	120	4	3	41	41		As above	
11840 W	29	5	-	75	20	-	"	40	"	-	✓	40	41	5	41	41		As above	
11870 W	296836	10	-	15	20	55	B/C	90	BROWN	-	✓	150	48	27	17	1	41		As granite
11900 W	31	10	10	30	50	-	B	80	grey	-	✓	150	4	5	41	41		As quartz rubble gravel	
11930 W	32	10	5	20	15	-	"	60	"	-	✓	150	2	5	1	41	41		As above
11960 W	296837	10	10	40	40	-	"	60	"	-	✓	160	2	3	41	41		As above	

TENEMENT <u>E.L. 17/14 Mt. Rennie, TFS</u>		GEOCHEMICAL SOIL SAMPLING LEDGER										Page No. <u>2</u>					
AREA/PROSPECT <u>SMELT</u>		SAMPLE No. <u>29834 - 29866</u>		D.P.O. No. <u>17779</u>		GEOLOGIST <u>DAVE</u>		DATE <u>JAN '76</u>		ANALYSED BY <u>ZINC CORP. BRANDED LAB.</u>							
PLAN REFERENCE <u>A 9006</u>																	
Grid Co-ordinate	Sample No.	Soil Composition					Soil Horizon	Sample		Bedrock			Metal Content in ppm				Geological observations
		Rock %	Organic %	Sand %	Silt %	Clay %		Depth cm.	Colour	Outcrop	Con-creted	Int. Depth to	Pb	Zn	Cu	Ag	
<u>LINE 755</u>																	
<u>11 020 W</u>	<u>29834</u>	10	50	10	30	-	<u>A</u>	30	<u>Blum</u>	✓	-	-	2	5	<1	<1	<u>pl. gnt.</u>
<u>11 030 W</u>	<u>35</u>	10	50	10	30	-	"	30	"	✓	120	-	<1	4	<1	<1	<u>pl. gnt.</u>
<u>11 040 W</u>	<u>36</u>	10	50	10	30	-	"	30	"	✓	120	-	2	2	<1	<1	<u>A above</u>
<u>11 050 W</u>	<u>37</u>	5	30	15	50	-	"	80	"	✓	200	-	2	4	<1	<1	<u>A above</u>
<u>11 060 W</u>	<u>38</u>	5	50	5	40	-	"	30	"	✓	200	-	2	3	<1	<1	<u>A above</u>
<u>11 070 W</u>	<u>39</u>	10	50	5	35	-	"	60	"	✓	200	-	14	6	<1	<1	<u>A above</u>
<u>11 080 W</u>	<u>29840</u>	5	50	15	30	-	"	90	"	✓	200	-	<1	2	<1	<1	<u>A above</u>
<u>11 090 W</u>	<u>41</u>	5	50	10	35	-	"	50	"	✓	200	-	<1	3	<1	<1	<u>A above</u>
<u>11 100 W</u>	<u>42</u>	5	50	10	35	-	"	30	"	✓	200	-	<1	5	<1	<1	<u>A above</u>
<u>11 110 W</u>	<u>43</u>	5	40	30	25	-	"	30	"	✓	200	-	2	2	<1	<1	<u>light sand</u>
<u>11 120 W</u>	<u>44</u>	5	15	15	65	-	<u>A1B</u>	50	"	✓	300	-	2	<1	<1	<1	<u>A above</u>
<u>11 130 W</u>	<u>45</u>	5	-	20	20	55	<u>B</u>	110	"	✓	150	-	20	18	7	<1	<u>Red soil column?</u>
<u>11 140 W</u>	<u>46</u>	5	5	20	60	10	"	40	"	✓	120	-	10	5	3	<1	<u>A above</u>
<u>11 150 W</u>	<u>47</u>	10	10	30	50	-	"	40	"	✓	200	-	8	16	3	<1	<u>light sand</u>
<u>11 160 W</u>	<u>48</u>	10	5	5	50	30	"	30	"	✓	300	-	12	16	4	1	<u>A above</u>
<u>11 170 W</u>	<u>49</u>	5	30	5	55	5	<u>A</u>	30	"	✓	120	-	16	11	1	<1	<u>Red clay sand flint</u>
<u>11 180 W</u>	<u>29850</u>	15	-	30	45	10	<u>B</u>	30	<u>grey</u>	✓	-	-	8	9	<1	<1	<u>pl. gnt.</u>
<u>11 190 W</u>	<u>51</u>	10	-	10	40	40	"	80	<u>Blum</u>	✓	-	-	200	13	5	<1	<u>A above</u>
<u>11 200 W</u>	<u>52</u>	10	-	20	40	30	"	60	"	✓	-	-	28	19	9	<1	<u>A above</u>
<u>11 210 W</u>	<u>53</u>	10	-	40	50	-	"	30	<u>grey</u>	✓	-	-	23	8	1	<1	<u>A above</u>
<u>11 220 W</u>	<u>54</u>	10	-	30	50	10	"	50	"	✓	-	-	42	7	1	<1	<u>pl. gnt. band silic. flint</u>
<u>11 230 W</u>	<u>55</u>	5	-	40	50	5	"	30	"	✓	-	-	18	9	1	<1	<u>pl. gnt. in contact</u>
<u>11 240 W</u>	<u>56</u>	10	30	20	40	-	"	30	<u>Blum</u>	✓	-	-	12	13	<1	<1	<u>pl. gnt. silic. flint</u>
<u>11 250 W</u>	<u>57</u>	10	5	40	40	5	<u>A</u>	30	<u>grey</u>	✓	-	-	70	6	<1	<1	<u>pl. gnt.</u>
<u>11 260 W</u>	<u>58</u>	10	-	10	60	20	<u>B</u>	40	<u>Blum</u>	✓	-	-	68	11	2	<1	<u>A above</u>
<u>11 270 W</u>	<u>59</u>	10	-	10	20	60	<u>B/C</u>	50	"	✓	-	-	120	88	8	1	<u>A above</u>
<u>11 280 W</u>	<u>29860</u>	10	10	20	60	-	<u>B</u>	30	"	✓	-	-	16	7	1	<1	<u>A above</u>
<u>11 290 W</u>	<u>61</u>	10	-	30	60	-	"	50	"	✓	-	-	56	6	1	<1	<u>A above</u>
<u>11 300 W</u>	<u>62</u>	10	30	40	20	-	<u>A</u>	30	<u>grey</u>	✓	80	-	2	2	<1	<1	<u>light silic. sand</u>
<u>11 310 W</u>	<u>63</u>	5	10	40	40	5	<u>B</u>	30	"	✓	-	-	42	3	1	<1	<u>pl. gnt.</u>
<u>11 320 W</u>	<u>64</u>	5	15	30	50	-	<u>A1B</u>	30	<u>Blum</u>	✓	-	-	12	6	1	<1	<u>A above</u>
<u>11 330 W</u>	<u>65</u>	20	5	40	35	-	<u>B</u>	30	<u>grey</u>	✓	200	-	6	3	<1	<1	<u>light sand</u>
<u>11 340 W</u>	<u>29866</u>	10	-	30	60	-	"	40	<u>Blum</u>	✓	-	-	6	5	<1	<1	<u>A above pl. gnt.</u>

* Check assay value.

465012

TENEMENT E.I. 1774 M. ROMANA TAS.		GEOCHEMICAL SOIL SAMPLING LEDGER										Page No. 3						
AREA/PROSPECT. SHEET 1 - ROMANA		SAMPLE No. 27867 - 27895										D.P.O. No. 17779						
PLAN REFERENCE. 62-62												GEOLOGIST. DATE Jan 76						
A 9006												ANALYSED BY. ZINC COPPER ROCKEN HILL						
Grid Co-ordinate	Sample No.	Soil Composition					Soil Horizon	Sample		Bedrock			Metal Content in ppm.				Geological observations	
		Rock %	Organic %	Sand %	Silt %	Clay %		Depth cm.	Colour	Outcrop	Core-sealed	Est. Depth to	Pb	Zn	Cu	Ag		
Line 3/55 (cont.)																		
11990 W	27867	10	-	5	65	20	B	60	Brown	✓	-	-	16	23	1	41		deposit
11990 W	68	10	5	20	65	-	"	30	"	✓	-	-	12	9	4	41		As above
11950 W	27869	5	-	10	20	65	C	100	"	-	✓	140	20	35	11	1		Red granite
LINE BESS																		
35 SECTIONS																		
11 970 W	27870	10	-	15	65	10	B	30	Brown	✓	-	-	30	16	36	41		deposited on or welded granite tuff
11 970	71	15	15	15	50	5	A	30	"	✓	-	-	31	41	20	41		deposited on granite tuff
11 970	72	15	10	5	70	-	"	30	"	✓	-	-	14	33	4	41		deposited on granite tuff
11 970	73	10	15	5	70	-	"	40	"	✓	-	-	4	18	41	41		As above = granite
11 970	74	15	15	5	65	-	"	30	"	✓	-	-	4	11	41	41		deposited on granite tuff
11 970	75	15	-	10	45	30	B	50	"	✓	-	-	32	18	10	1		As above
11 970	76	15	-	10	75	-	"	50	"	✓	-	-	40	12	7	41		As above
11 970	77	15	15	5	65	-	A	50	"	✓	-	-	22	10	2	41		As above
11 970	78	15	10	10	65	-	"	40	"	✓	-	-	30	7	41	41		As above
11 970	77	15	5	20	60	-	B	50	"	✓	-	-	12	6	41	41		As above
11 970	27880	15	-	10	60	15	"	30	grey	✓	-	-	8	3	41	41		As above
11 970	81	5	-	15	60	20	"	30	"	-	✓	60	8	5	41	41		Red ashstone or granite tuff
11 970	82	25	-	60	15	-	"	30	"	-	✓	100	2	3	41	41		Quartz rubble gravel
11 970	83	10	5	20	65	-	A	30	"	✓	-	-	4	8	41	41		Red granite
11 970	84	15	5	30	50	-	"	40	"	-	✓	100	2	3	41	41		Quartz rubble gravel
11 970	85	15	-	60	25	-	B	40	"	-	✓	100	41	41	41	41		As above
11 970	86	5	40	15	40	-	A	40	Brown	-	✓	200	41	41	41	41		As above
11 970	87	5	30	35	30	-	"	50	"	-	✓	200	2	3	41	41		As above
11 970	88	5	30	35	30	-	"	60	"	-	✓	200	41	41	41	41		As above
11 970	89	10	30	35	25	-	"	50	"	-	✓	100	41	41	41	41		As above
11 970	27890	5	40	30	25	-	"	110	"	-	✓	250	2	3	41	41		As above
11 970	91	5	-	70	25	-	B/C	50	Beige	✓	-	-	2	2	41	41		de granite
11 970	92	10	-	15	75	-	B	30	Brown	✓	-	-	16	6	41	41		As above
11 970	93	5	35	15	45	-	A	30	"	✓	-	-	14	8	1	41		As above
10970	94	-	75	-	25	-	"	20	"	✓	-	-	44	40	9	41		de welded granite tuff
10970	95	10	-	5	20	65	B	30	"	✓	-	-	42	15	17	1		de fine bedded chert
10970	96	5	10	10	70	5	A/B	40	"	-	✓	120	4	5	41	41		Red ashstone
10980	97	-	60	5	35	-	A	30	"	-	✓	200	4	6	41	41		?
10980	27895	10	30	5	50	5	"	30	"	✓	-	-	30	10	5	41		de fine bedded chert - chert

* Check assay values.

TENEMENT E1 174 Mt Romulus Tas. GEOCHEMICAL SOIL SAMPLING LEDGER Page No. 4
 AREA/PROSPECT SHEET 10 Romulus SAMPLE Nos. 291899 - 291929 D.P.O. No. 17779
 PLAN REFERENCE A 10 GEOLOGIST SMC DATE Jan 76
 ANALYSED BY Zinc Corp Broken Hill

Grid Co-ordinates	Sample No.	Soil Composition					Soil Horizon	Sample		Bedrock		Metal Content in ppm.				Geological observations	
		Rock %	Organic %	Sand %	Silt %	Clay %		Depth cm.	Colour	Outcrop	Con- treated	Est. Depth to	Pb	Zn	Cu		Ag
LINE 3505																	
11 52 W	291899	10	5	70	15	-	B	30	grey	-	✓	150	2	3	41	41	Dist. alluv. gravel
11 53 W	291900	10	-	75	15	-	B/C	20	"	-	✓	200	14	3	41	41	to above
11 54 W	01	5	5	65	25	-	G	50	"	-	✓	250	4	4	41	41	to above
11 55 W	02	10	5	65	20	-	"	40	"	-	✓	200	2	7	41	41	to above
11 56 W	03	5	-	60	35	-	B	40	"	✓	-	-	2	3	41	41	pk quartz
11 57 W	291904	10	-	5	80	5	"	30	brown	✓	-	-	80	46	8	41	to above
11 58 W	291905	5	-	60	35	-	B	40	grey	✓	-	-	4	6	1	41	pk quartz
11 59 W	06	5	-	5	80	10	"	50	brown	✓	-	-	86	26	5	41	to above
11 20 W	07	10	-	5	75	10	"	30	"	✓	-	-	36	48	5	41	to above
11 21 W	08	5	-	5	90	-	"	30	"	✓	-	-	38	25	3	41	to above
11 22 W	09	15	-	5	75	5	"	30	"	✓	-	-	22	20	4	41	to above
11 30 W	291910	15	-	5	75	5	"	30	"	✓	-	-	42	23	8	1	to above
11 32 W	11	15	-	5	75	5	"	50	"	✓	-	-	56	25	5	1	to above
11 34 W	12	5	5	5	85	-	"	60	"	✓	-	-	66	55	6	1	to above
11 36 W	13	10	-	10	40	40	"	30	"	✓	-	-	68	45	31	1	to above
11 38 W	14	5	-	25	20	-	G	120	"	-	✓	250	4	6	2	41	Dist. alluv. gravel
11 40 W	15	5	-	75	20	-	"	50	grey	-	✓	200	41	3	41	41	to above
11 42 W	16	5	5	75	15	-	"	30	"	-	✓	200	41	2	41	41	to above
11 44 W	17	5	-	85	10	-	"	80	"	-	✓	200	41	41	41	41	to above
11 46 W	18	5	-	80	15	-	"	60	"	-	✓	200	41	2	41	41	to above
11 48 W	19	5	-	80	15	-	"	50	"	-	✓	200	41	2	41	41	to above
11 50 W	291920	5	-	80	15	-	"	50	"	-	✓	200	41	4	1	41	to above
10 97 W	291921	-	75	-	25	-	A	40	brown	-	✓	200	6	3	41	41	>
10 98 W	23	10	-	70	20	-	G	30	grey	-	✓	200	4	2	1	41	Dist. alluv. gravel
10 99 W	24	10	-	75	15	-	"	30	"	-	✓	250	4	9	41	41	to above
10 50 W	25	10	-	75	15	-	"	40	"	-	✓	250	2	3	41	41	to above
10 52 W	26	5	-	10	10	75	B	30	"	-	✓	40	3	41	41	41	Rock also contains (?) till
10 54 W	27	15	-	20	40	25	B/C	40	"	✓	-	-	6	9	3	41	pk quartz, basal till
10 76 W	28	10	-	10	40	40	"	30	"	-	✓	40	8	7	2	41	pk quartz, basal till
10 78 W	291929	5	15	5	45	30	B	30	"	✓	-	-	12	14	2	41	pk fine (quartz) basal till

* Check assay value.

014

TENEMENT <u>EL 174 Mt Romulus Trs.</u>		GEOCHEMICAL SOIL SAMPLING LEDGER										Page No. <u>5</u>					
AREA/PROSPECT <u>SHEET 1 - ROMULUS</u>		SAMPLE Nos. <u>296930 - 296940</u>		D.P.O. No. <u>17779</u>		GEOLOGIST <u>[Signature]</u>		DATE <u>Jan 76</u>		ANALYSED BY <u>ZNC CORP ROCKY HILL</u>							
PLAN REFERENCE <u>159 PA</u>		A 9006															
Grid Co-ordinate	Sample No.	Soil Composition					Soil Horizon	Sample		Bedrock			Metal Content in ppm				Geological observations
		Rock %	Organic %	Sand %	Silt %	Clay %		Depth cm	Colour	Outcrop	Com- pacted	Est. Depth to	Pb	Zn	Cu	Ag	
LINE 3CS (Cont.)																	
10 700 W	296930	10	-	60	20	20	B	40	grey	-	✓	60	8	6	1	41	Rock outcrop
10 670 W	296931	10	-	15	45	30	B/c	30	"	-	✓	40	8	5	41	41	Rock outcrop
LINE 34S																	
34 500 MS																	
11 000 W	296932	-	50	-	30	20	A	50	Brown	-	✓	200	4	3	41	41	?
11 630 W	32	10	5	70	15	-	g	50	grey	-	✓	250	2	3	41	41	Clay fiddle ground
11 600 W	34	10	5	70	15	-	"	30	"	-	✓	250	2	3	41	41	As above
11 600 W	35	10	5	70	15	-	"	40	"	-	✓	250	41	41	41	41	As above
11 550 W	36	10	5	70	15	-	"	60	"	-	✓	250	41	41	41	41	As above
11 550 W	37	10	5	70	15	-	"	30	"	-	✓	250	2	3	1	41	As above
11 550 W	38	10	5	70	15	-	"	30	"	-	✓	250	41	2	41	41	As above
11 210 W	39	10	5	70	15	-	"	30	"	-	✓	250	2	9	41	41	As above
11 260 W	296940	10	5	70	15	-	"	30	"	-	✓	250	2	3	41	41	As above
11 270 W	41	10	10	65	15	-	A	30	"	-	✓	100	4	7	1	41	Rock outcrop
11 300 W	42	10	-	20	40	30	B	40	Brown	-	✓	80	12	16	1	41	Rock outcrop
11 300 W	43	5	5	5	25	10	"	30	"	✓	-	10	10	2	41	As above	
11 300 W	44	10	5	5	70	10	"	30	"	✓	-	26	62	6	41	As above	
11 300 W	296945	5	60	5	30	-	A	40	"	-	✓	200	14	30	2	41	As above
LINE 34S																	
34 020 MS																	
11 000 W	296946	5	5	25	15	-	A	50	Brown	-	✓	250	41	6	41	41	Clay fiddle ground
10 970 W	47	10	5	70	15	-	g	80	grey	-	✓	250	12	5	41	41	As above
10 910 W	48	10	-	60	30	-	B	50	Brown	-	✓	80	28	7	1	41	Rock outcrop
10 810 W	49	10	-	35	40	15	B/c	20	orange	-	✓	80	130	50	8	1	As above
10 850 W	296950	10	-	45	30	15	B	70	grey	-	✓	80	40	28	2	41	As above
10 850 W	51	15	-	60	25	-	"	30	"	-	✓	100	14	5	2	41	Rock outcrop
10 820 W	52	10	-	15	60	15	"	100	Brown	-	✓	120	110	43	27	2	Rock outcrop
10 700 W	53	10	5	15	50	20	"	60	"	✓	-	92	22	7	41	As above	
10 700 W	54	5	25	10	50	10	B/B	30	grey	✓	-	22	25	2	41	As above	
10 700 W	55	15	-	40	35	10	B	30	"	✓	-	72	35	2	41	As above	
10 700 W	56	10	5	20	40	25	"	30	"	✓	-	24	9	1	41	As above	
10 670 W	57	10	-	10	40	40	"	30	"	✓	-	22	22	1	41	As above	
10 670 W	58	10	-	35	40	25	"	30	"	✓	-	60	16	11	41	As above	
10 610 W	59	10	-	40	40	10	B/B	40	"	-	✓	80	4	5	41	41	Rock outcrop
10 550 W	296960	10	-	40	40	10	B	30	"	-	✓	80	4	5	41	41	As above

* Check assay value.

465015

TENEMENT E. 1774 At Romulus Tns GEOCHEMICAL SOIL SAMPLING LEDGER Page No. 6
 AREA/PROSPECT SHEET 1 - Romulus Tns SAMPLE Nos. 296961 - 296993 D.P.O. No. 17779
 PLAN REFERENCE As per sheet 5 GEOLOGIST Q.A.S. DATE Jan '76
 ANALYSED BY Zinc Cont. Rocken this

Grid Coordinate	Sample No.	Soil Composition					Soil Horizon	Sample Depth cm.	Colour	Outcrop	Con-coated	Est. Depth to	Metal Content in ppm.				Geological observations
		Rock %	Organic %	Sand %	Silt %	Clay %							Pb	Zn	Cu	Ag	
Line 3405	(Cont)																
10 550 W	296961	5	40	5	50	-	A	30	Brown	✓	-	8	9	2	41		As above
10 550 W	65	10	-	30	60	-	B/g	30	grey	-	✓	150	4	5	41	41	Rock micaceous quartz
10 450 W	63	10	-	30	60	-	B	30	"	-	✓	80	8	6	1	41	Rock fine siliceous tuff
10 450 W	64	5	10	25	60	-	"	30	"	-	✓	80	10	13	1	41	Rock v. siliceous calc. flint tuff
10 450 W	65	5	-	15	60	-	"	40	"	-	✓	80	10	5	1	41	As above
10 450 W	66	5	-	65	30	-	"	30	"	-	✓	80	6	6	41	41	?
10 570 W	67	5	60	5	30	-	A	40	"	-	✓	100	4	5	41	41	Rock siliceous flint tuff
10 230 W	68	5	-	70	25	-	G	80	"	-	✓	100	4	3	41	41	Rock quartz
11 520 W	296964	-	35	5	40	-	A	30	Brown	-	✓	250	4	5	41	41	?
11 600 W	296970	5	-	80	15	-	G	60	grey	-	✓	250	2	2	41	41	Clst. f. f. gnd
11 600 W	71	5	-	75	20	-	"	50	"	-	✓	250	41	41	41	41	As above
11 150 W	72	5	-	75	20	-	"	50	"	-	✓	250	41	41	41	41	As above
11 150 W	73	5	-	75	20	-	"	40	"	-	✓	300	4	16	2	41	As above
11 180 W	74	5	-	75	20	-	"	40	"	-	✓	250	4	41	41	41	As above
11 240 W	75	5	-	75	20	-	B/g	40	"	-	✓	100	8	2	41	41	Rock quartz
11 240 W	76	5	-	65	30	-	B	40	"	-	✓	100	2	4	41	41	As above
11 270 W	77	5	-	60	35	20	"	40	Brown	✓	-	2	3	41	41	As above	
11 300 W	296978	5	-	65	15	15	"	110	"	✓	-	12	16	1	1	1	As above
Line 3455																	
Line 3455																	
10 970 W	296979	5	-	70	25	-	G	40	grey	-	✓	250	2	3	41	41	Clst. f. f. gnd
10 970 W	296980	-	70	15	15	-	A	60	Brown	-	✓	300	2	5	41	41	As above (or ex-grain)
10 910 W	81	5	50	25	20	-	"	50	"	-	✓	250	14	5	41	41	Clst. f. f. gnd
10 850 W	82	5	-	60	20	15	B	40	grey	-	✓	80	2	2	41	41	Rock fine siliceous tuff
10 850 W	83	10	10	60	20	-	A/B	40	"	-	✓	100	2	3	41	41	As above
10 820 W	84	5	-	80	15	-	B	40	"	-	✓	80	41	3	41	41	As above
10 780 W	85	5	-	60	30	5	"	60	Brown	-	✓	80	42	108	62	41	As above
10 760 W	86	10	-	70	15	5	"	40	grey	-	✓	80	4	3	41	41	Rock fine siliceous tuff
10 720 W	87	5	-	85	10	-	G	40	"	-	✓	250	2	41	41	41	Rock quartz & quartz f. f. gnd
10 700 W	88	5	-	85	10	-	"	30	"	-	✓	250	4	5	41	41	Clst. f. f. gnd
10 670 W	89	5	10	70	15	-	"	40	"	-	✓	300	4	3	41	41	As above
10 650 W	296990	5	5	75	15	-	"	30	"	-	✓	300	2	3	41	41	As above
10 650 W	91	5	5	75	15	-	"	70	"	-	✓	400	6	5	41	41	As above
10 550 W	92	5	-	80	15	-	"	50	"	-	✓	400	2	41	41	41	As above
10 550 W	296993	5	-	80	15	-	"	40	"	-	✓	300	6	3	41	41	As above

* Check assay value.

TENEMENT EL 1774 Mt Romulus Tm GEOCHEMICAL SOIL SAMPLING LEDGER Page No. 7
 AREA/PROSPECT SHEET 1 - ROMULUS SAMPLE Nos. 29994 - 29998 D.P.O. No. 1779
 PLAN REFERENCE A 2 76 GEOLOGIST DATE Jan 76
 ANALYSED BY ZINC CORP. BROKEN HILL

Grid Co-ordinate	Sample No.	Soil Composition					Soil Horizon	Sample			Bedrock	Metal Content in ppm.				Geological observations	
		Rock %	Organic %	Sand %	Silt %	Clay %		Depth cm.	Colour	Outcrop		Con- tacted	Est. Depth to	Pb	Zn		Cu
LINE 345 (CAL)																	
10 5200 W	29994	10	-	75	15	1	A	40	grey	-	✓	300	6	4	41	41	Out- crop bedrock Rock fine crystal tuff
10 490 W	95	5	-	70	20	5	B	50	"	-	✓	80	10	3	41	41	Rock fine crystal tuff
10 460 W	96	5	-	65	20	10	1/3	40	"	-	✓	100	8	4	41	41	Rock fine crystal tuff
10 430 W	97	5	-	55	10	-	B	30	"	-	✓	30	4	5	41	41	Rock micaceous quartz
10 400 W	29998	10	-	80	10	-	A	20	"	-	✓	30	2	2	41	41	As above

* Check assay value.

465017

017

TENEMENT EL 1774 Mt. Romulus TFE		GEOCHEMICAL SOIL SAMPLING LEDGER										D.P.O. No. 17779		Page No. 8					
AREA/PROSPECT SHEET 2 - ALEXANDRA		SAMPLE Nos. 29799 - 29799										GEOLOGIST [Signature]		DATE Jan 76					
PLAN REFERENCE EL 1774 Mt. Romulus, N.W. TFS, SHEET 2 ALEXANDRA - 1:5000		ANALYSED BY ZINC CORP., BROCKEN HILL																	
Grid Co-ordinate	Sample No.	Soil Composition					Soil Horizon	Sample		Bedrock			Metal Content in ppm.				Geological observations		
		Rock %	Organic %	Sand %	Silt %	Clay %		Depth cm.	Colour	Outcrop	Con-creted	Fct.	Depth to	Pb	Zn	Cu		Ag	
LINE 375																			
2950mS																			
1250mW	29799	10	5	20	60	-	A	90	Brown	-	✓	300	10	4	41	41		Outst. pebbles gravel	
1247W	29799	15	5	60	20	-	G	60	GREY	-	✓	250	2	41	41	41		As above	
1240W	01	5	5	60	30	-	"	110	"	-	✓	300	4	3	41	41		As above	
1240W	02	10	5	60	25	-	"	50	"	-	✓	300	41	41	41	41		As above	
1240W	03	15	5	45	35	-	"	50	"	-	✓	300	41	3	41	41		As above	
1237W	04	5	5	10	70	10	B	90	Brown	-	✓	150	22	29	7	41		pk quartz	
1237W	05	5	-	10	45	40	"	30	"	✓	-	-	48	59	9	1		pk quartz	
12310W	06	10	-	10	60	20	"	50	"	✓	-	-	24	44	4	41		As above	
1230W	07	10	-	10	60	40	B/C	100	RED	✓	-	-	10	17	1	41		As above	
1225W	08	5	-	15	40	40	C	120	"	✓	-	-	120	4	7	41	41	pk quartz	
1220W	09	5	5	70	60	-	B	30	GREY	✓	-	-	2	7	41	41		pk quartz	
1219W	29799	5	5	25	65	-	"	40	"	-	✓	80	2	4	41	41		Rock quartz	
1215W	11	5	-	5	60	30	"	110	BROWN	-	✓	140	18	18	31	1		As above	
1210W	12	10	5	10	75	-	"	70	GREY	✓	-	-	41	3	1	41		pk quartz	
1210W	13	-	-	30	40	30	"	40	"	-	✓	100	41	41	41	41		As above	
1207W	14	10	-	30	30	30	C	90	BROWN	-	✓	90	14	70	11	1		Red quartz	
1207W	15	10	-	20	40	30	B/C	120	"	-	✓	150	12	13	5	41		As above	
12010W	16	10	-	20	30	40	C	70	"	-	✓	70	10	10	7	41		As above	
11980W	17	-	-	60	30	10	B	120	GREY	-	✓	200	4	3	2	1		ex-quartz	
11980W	18	-	-	60	30	10	"	50	"	-	✓	250	41	41	41	41		?	
11920W	19	-	-	60	30	10	"	50	"	-	✓	250	41	41	41	41		ex-quartz	
11890W	20	-	-	10	70	20	"	90	BROWN	-	✓	150	12	11	3	41		As above	
11860W	21	-	-	30	20	-	"	50	GREY	-	✓	200	41	41	41	41		ex-quartz	
11860W	22	-	-	10	30	60	C	70	BROWN	-	✓	90	26	16	11	1		As above	
11820W	23	10	5	60	25	-	G	60	GREY	-	✓	300	4	2	41	41		Outst. pebbles gravel	
11710W	29799	5	10	40	45	-	"	80	"	-	✓	300	2	41	41	41		As above	
LINE 405																			
As above																			
12100W	29799	5	-	20	40	35	B/C	30	BROWN	✓	-	-	14	18	4	41		local float of ex-quartz	
12370W	26	10	10	40	40	-	A/B	20	GREY	✓	-	-	2	4	41	41		pk quartz	
12360W	27	10	5	20	65	-	B	30	"	✓	-	-	2	5	41	41		As above	
12310W	28	5	10	30	45	10	"	40	"	-	✓	80	41	41	41	41		Rock quartz	
12280W	29799	10	-	5	65	20	B/C	60	BROWN	-	✓	80	42	45	12	1		As above	

* Check assay value.

465018

TENEMENT E.L. 17/14 Mt. Remulla T.S. GEOCHEMICAL SOIL SAMPLING LEDGER Page No. 15
 AREA/PROSPECT SHEET 2 - ALKANBARA SAMPLE Nos. 297063 - 297093 D.P.O. No. 1779
 PLAN REFERENCE A.P. 19 GEOLOGIST ... DATE Jan 1976
 ANALYSED BY Zinc Carb Broken Hill

Grid Co-ordinate	Sample No.	Soil Composition					Soil Horizon	Sample Depth (cm)	Bedrock Colour	Outcrop	Con- sealed	Est. Depth to	Metal Content in ppm.				Geological observations
		Rock %	Organic %	Sand %	Silt %	Clay %							Pb	Zn	Cu	Ag	
LINE A44S (Cont.)																	
12300W	297063	-	60	10	30	-	A	120	Black	-	✓	500	16	7	41	41	? feet
12320W	297064	-	55	5	60	-	A10V	30	"	-	✓	500	6	5	41	41	? feet
LINE A45S																	
12340W	297065	5	60	15	20	-	A	110	Black	-	✓	500	14	9	2	41	Rock ptz, rubble gravel
12360W	66	5	30	50	15	-	"	120	"	-	✓	500	2	3	41	41	As above
12380W	67	5	40	30	25	-	"	70	"	-	✓	400	21	3	41	41	As above
12400W	68	5	20	55	20	-	"	70	GREY	-	✓	300	41	2	41	41	Rock ptz, rubble gravel
12420W	69	5	5	30	60	-	B	40	"	✓	-	-	41	3	41	41	Rock ptz, rubble gravel
12440W	297070	5	5	40	50	-	"	30	"	✓	-	-	2	3	41	41	Rock ptz, rubble gravel
12460W	71	5	-	50	35	10	"	30	"	✓	-	-	2	3	41	41	As above
12480W	72	5	5	40	40	10	"	30	"	✓	-	-	2	4	41	41	As above
12500W	73	5	20	15	60	-	A	30	"	✓	-	-	2	5	41	41	As above
12520W	74	-	30	30	40	-	"	30	Black	-	✓	120	4	3	41	41	As above
12540W	75	5	5	40	50	-	B	30	GREY	✓	-	-	41	4	41	41	As above
12560W	76	-	30	10	60	-	A	30	"	✓	-	-	20	13	41	41	As above
12580W	77	-	15	20	65	-	"	40	"	✓	-	-	41	2	41	41	As above
12600W	78	-	20	10	70	-	"	30	"	✓	-	-	4	3	41	41	As above
12620W	79	-	10	10	70	10	"	30	"	✓	-	-	2	2	41	41	As above
12640W	297080	-	5	35	60	-	B	50	"	-	✓	120	41	41	41	41	As above
12660W	81	-	30	20	50	-	A	30	"	-	✓	120	41	3	41	41	As above
12680W	82	-	20	30	50	-	B	40	"	-	✓	120	2	2	41	41	As above
12700W	83	5	5	30	60	-	"	30	"	-	✓	60	2	3	41	41	As above
12720W	84	5	-	65	20	10	A/C	40	"	-	✓	60	41	5	41	41	As above
12740W	85	5	30	15	50	-	A	30	Black	-	✓	80	41	3	41	41	As above
12760W	86	-	-	20	60	20	B	100	Black	-	✓	150	20	38	41	41	As above
12780W	87	-	15	15	20	-	A/B	90	GREY	-	✓	250	6	16	41	41	As above
12800W	297088	-	10	60	30	-	"	40	"	-	✓	250	14	13	41	41	As above
LINE A55S																	
12820W	297089	5	20	20	40	5	A/B	30	GREY	-	✓	80	41	3	41	41	As above
12840W	297090	10	-	15	60	15	B	70	Black	✓	-	2700	48	27	1	1	As above
12860W	91	5	-	25	60	10	"	50	Black	✓	-	230	4	1	41	41	As above
12880W	92	10	30	20	40	-	A/B	30	Black	-	✓	300	41	41	41	41	As above
12900W	297093	5	30	20	40	5	"	30	GREY	-	✓	250	41	7	41	41	As above

* Check assay value.

TENEMENT E.L. 17th Mt. Romulus TNS. GEOCHEMICAL SOIL SAMPLING LEDGER Page No. 11
 AREA/PROSPECT SHEET 2 - ALEXANDRA SAMPLE Nos. 29709A - 297126 D.P.O. No. 17779
 PLAN REFERENCE A.F. 110. GEOLOGIST QUB DATE JUN 76
 ANALYSED BY ZINC CORP. BRAKEN HILL

Grid Co-ordinate	Sample No.	Soil Composition					Soil Horizon	Sample			Bedrock			Metal Content in ppm.				Geological observations	
		Rock %	Organic %	Sand %	Silt %	Clay %		Depth cm	Colour	Outcrop	Con- tained	Est. Depth to	Pb	Zn	Cu	Ag			
LINE 4355 (Cont.)																			
12550W	29709A	-	10	60	30	-	ALG	70	GREY	✓	-	-	41	41	41	41		deputy feldspar crystal tuff	
12550W	95	20	-	30	20	30	C	60	BROWN	✓	-	-	10	43	14	41		As above	
12610W	96	10	15	10	65	-	ALB	30	BUFF	✓	-	-	24	27	68	41		As above	
12610W	97	20	-	10	30	40	ALC	30	BROWN	✓	-	-	14	35	11	41		As above	
12610W	98	15	-	10	35	40	"	30	GREY	✓	-	-	16	52	8	1		deputy schistose tuff	
12610W	99	10	-	10	20	60	"	110	RED	✓	-	-	52	110	13	1		deputy schistose silt tuff	
12710W	297100	10	15	10	65	-	A	30	BROWN	✓	-	-	24	40	2	41		deputy schistose crystal tuff	
12710W	01	10	-	10	40	40	ALC	90	RED	✓	-	-	130	90	9	1		deputy schistose tuff	
12710W	02	10	-	10	40	40	B	30	BROWN	✓	-	-	38	46	3	41		As above	
12820W	03	10	-	5	25	60	C	70	RED	✓	-	-	50	70	6	1		As above	
12820W	04	5	-	5	30	60	ALC	80	"	✓	100		86	118	9	1		deputy silt tuff	
12910W	05	-	20	10	70	-	A	40	GREY	-	✓	200	10	25	41	41		-	
12910W	06	-	60	5	55	-	"	30	"	-	✓	250	8	17	41	41		-	
12910W	07	5	5	60	30	-	G	70	"	-	✓	300	16	11	41	41		deputy feldspar gravel	
12970W	08	5	10	60	25	-	"	50	"	-	✓	300	14	6	41	41		As above	
13000W	09	5	10	65	20	-	"	30	"	-	✓	300	2	2	41	41		As above	
13060W	297110	-	20	40	40	-	"	80	"	-	✓	300	38	18	5	41		As above	
13060W	297111	5	10	65	20	-	"	110	"	-	✓	250	32	7	3	41		As above	
LINE 4205																			
12550W	297112	-	25	30	45	-	A	40	GREY	-	✓	150	8	13	41	41		-	
12610W	13	10	-	15	35	40	C	60	BROWN	✓	-	-	42	43	1	41		deputy schistose tuff	
12710W	14	5	5	10	60	20	B	30	GREY	✓	-	-	10	30	1	41		As above	
12710W	15	-	20	10	60	10	A	30	"	-	✓	60	41	7	41	41		-	
12710W	16	5	-	20	35	40	B	30	"	✓	-	-	4	9	41	41		deputy schistose crystal tuff	
12710W	17	5	15	20	60	-	"	40	"	✓	-	-	2	5	41	41		As above	
12710W	18	10	-	5	25	60	C	30	ORANGE	✓	-	-	28	40	5	1		As above	
12610W	19	5	10	10	65	10	ALB	30	GREY	✓	-	-	6	20	1	41		As above & deputy schistose tuff	
12610W	297120	10	-	20	10	60	C	50	BROWN	✓	-	-	8	13	5	41		deputy granite	
12550W	21	-	10	30	60	-	ALB	30	GREY	-	✓	60	41	3	41	41		As above	
12550W	22	5	5	20	70	-	B	30	"	-	✓	60	41	5	41	41		deputy granite	
12550W	23	-	-	30	40	30	"	40	"	-	✓	60	41	5	41	41		deputy granite	
12710W	24	-	15	20	65	-	A	40	"	-	✓	100	41	3	41	41		-	
12610W	25	5	-	30	25	40	B	80	BROWN	✓	-	-	20	32	5	41		deputy granite	
12610W	297126	-	20	20	60	-	A	30	GREY	✓	-	-	4	8	41	41		deputy schistose tuff	

* Check assay value.

465091

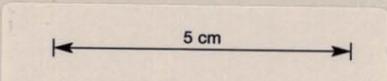
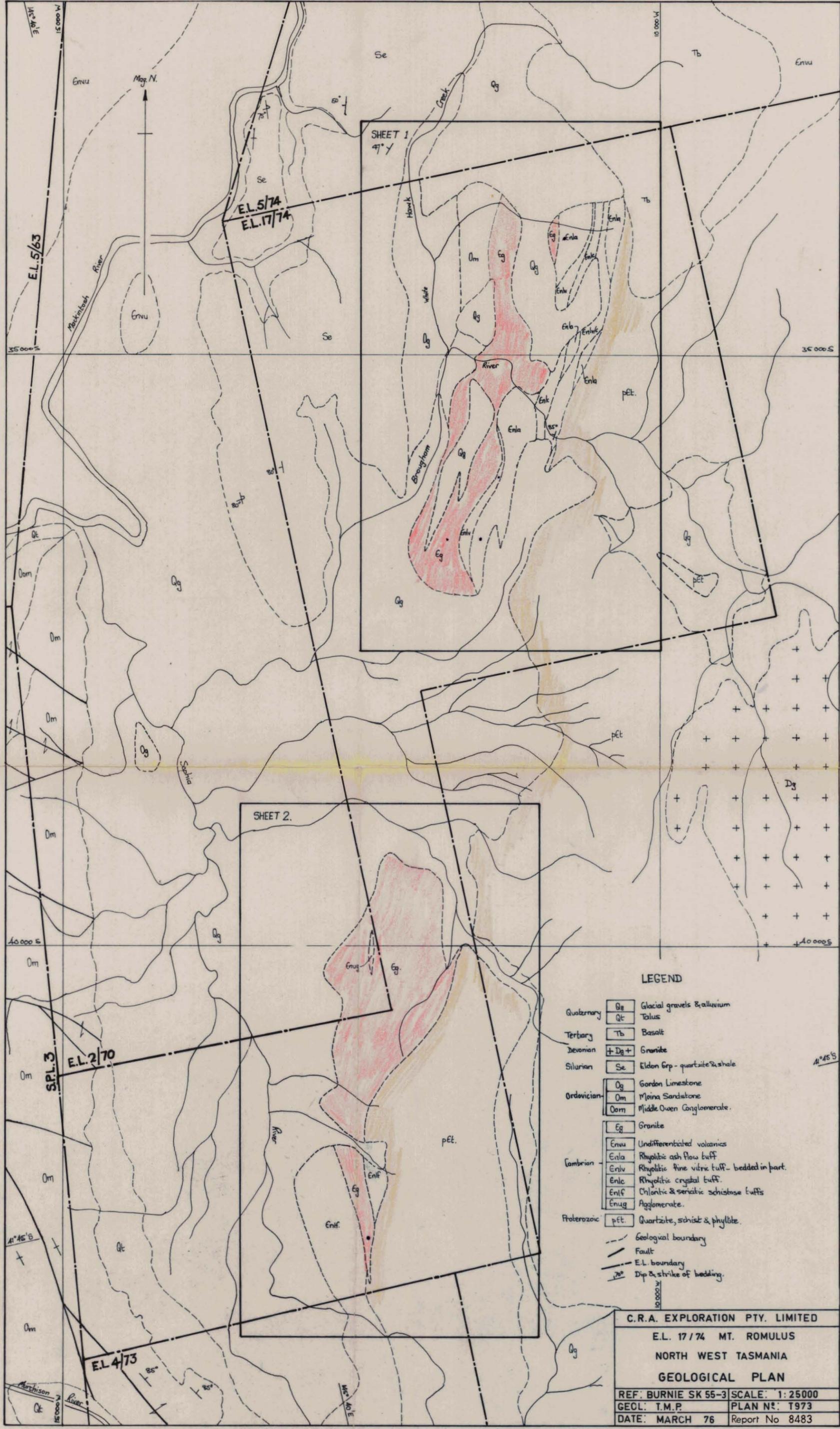
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TENEMENT E.L. 17/74 Mt. Richmond Twp. GEOCHEMICAL SOIL SAMPLING LEDGER Page No. 2
 AREA/PROSPECT SHEET 2 - ALEXANDRA SAMPLE Nos. 297127 - 297137 D.P.O. No. 17779
 PLAN REFERENCE AS 1/11 GEOLOGIST [Signature] DATE JUN 46
 ANALYSED BY ZINC CORP. BROKEN HILL

Grid Co-ordinate	Sample No.	Soil Composition					Soil Horizon	Sample		Bedrock			Metal Content in ppm.				Geological observations
		Rock %	Organic %	Sand %	Silt %	Clay %		Depth cm.	Colour	Outcrop	Con- tinued	Est. Depth to	Pb	Zn	Cu	Ag	
LINE 1205 (Cont.)																	
12400 W	297127	10	-	30	40	20	B	40	GREY	✓	-	-	6	5	41	41	pl. sil. siltstone schist
12370 W	28	15	-	15	60	30	"	40	"	✓	-	-	8	16	41	41	pl. siltstone quartz crystal tuff
12360 W	29	10	-	5	25	60	"	50	Brown	✓	-	-	56	30	2	1	pl. siltstone
12310 W	297130	-	10	15	25	-	A/B	30	GREY	-	✓	60	2	21	41	41	pl. quartz feld. crystal tuff
12800 W	297131	10	-	25	55	10	B	30	"	✓	-	-	2	23	41	41	pl. quartz feld. crystal tuff
12910 W	32	-	5	30	65	-	"	30	"	-	✓	40	6	13	41	41	pl. siltstone
12940 W	33	5	-	20	60	15	"	30	"	-	✓	40	6	11	41	41	pl. siltstone tuff
12970 W	34	-	-	35	65	-	"	30	"	-	✓	60	6	13	41	41	pl. siltstone
13000 W	35	-	60	10	30	-	A/B	90	Black	-	✓	350	6	5	41	41	pl. siltstone
13030 W	36	-	60	10	30	-	A/B	100	"	-	✓	350	6	6	41	41	pl. siltstone
13060 W	37	-	10	60	30	-	g	90	Brown	-	✓	400	8	4	41	41	pl. siltstone

* Check assay values.

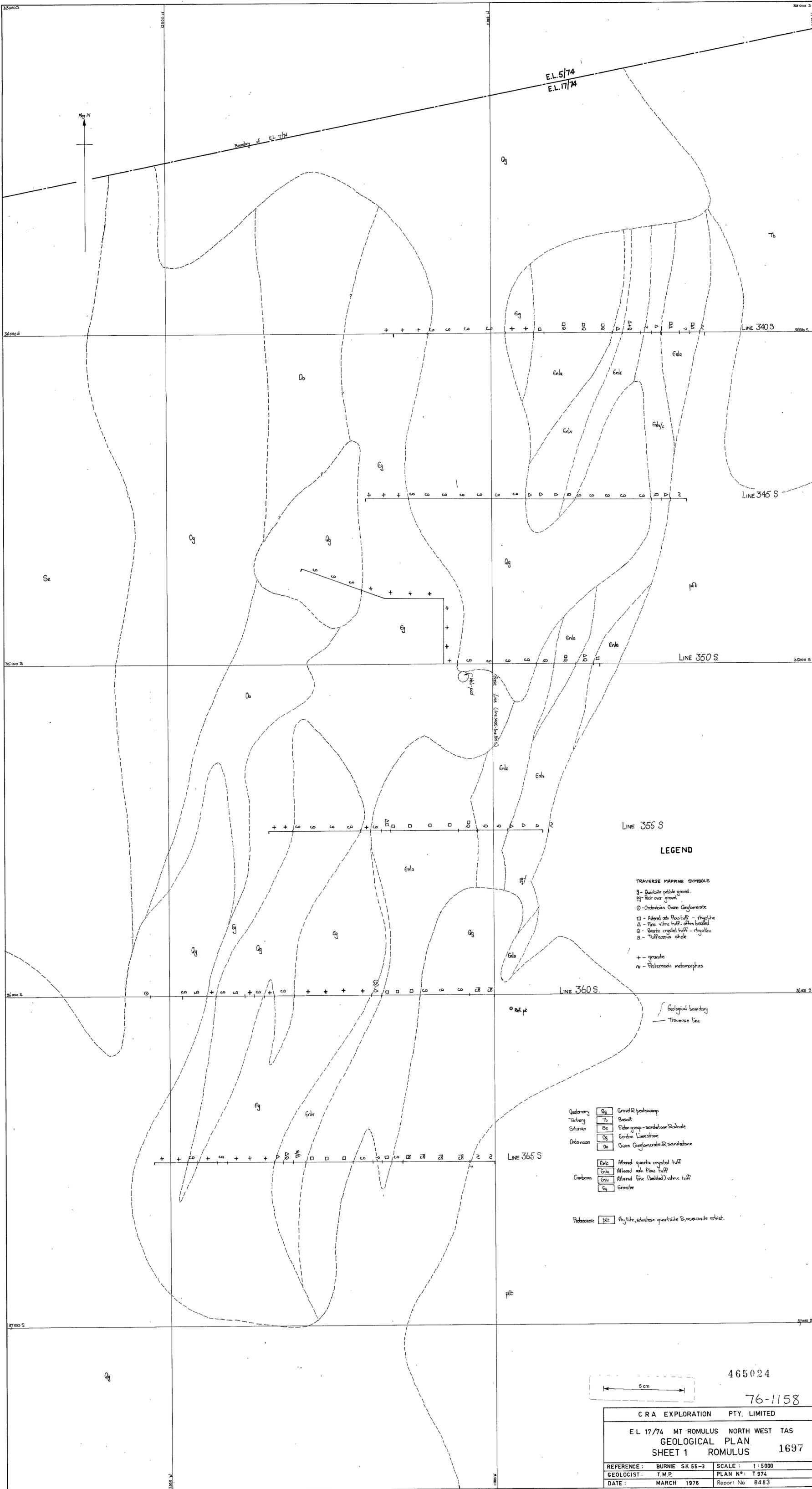
465092



76-1158

1696

465023



E.L. 17/74
E.L. 17/74

Boundary of E.L. 17/74

LINE 340S

LINE 345S

LINE 350S

LINE 355S

LINE 360S

LINE 365S

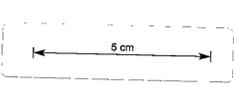
LEGEND

TRAVERSE MAPPING SYMBOLS

- Gg - Quartzite pebble gravel.
- Tb - Rest over gravel
- Sc - Ordovician Owen Conglomerate
- Gc - Altered ash flow tuff - rhyolite
- Oc - Fine siliceous tuff - often bedded
- Enla - Quartz crystal tuff - rhyolite
- Enlc - Tuffaceous shale
- + - granite
- pft - Proterozoic metamorphics

Geological boundary
Traverse line

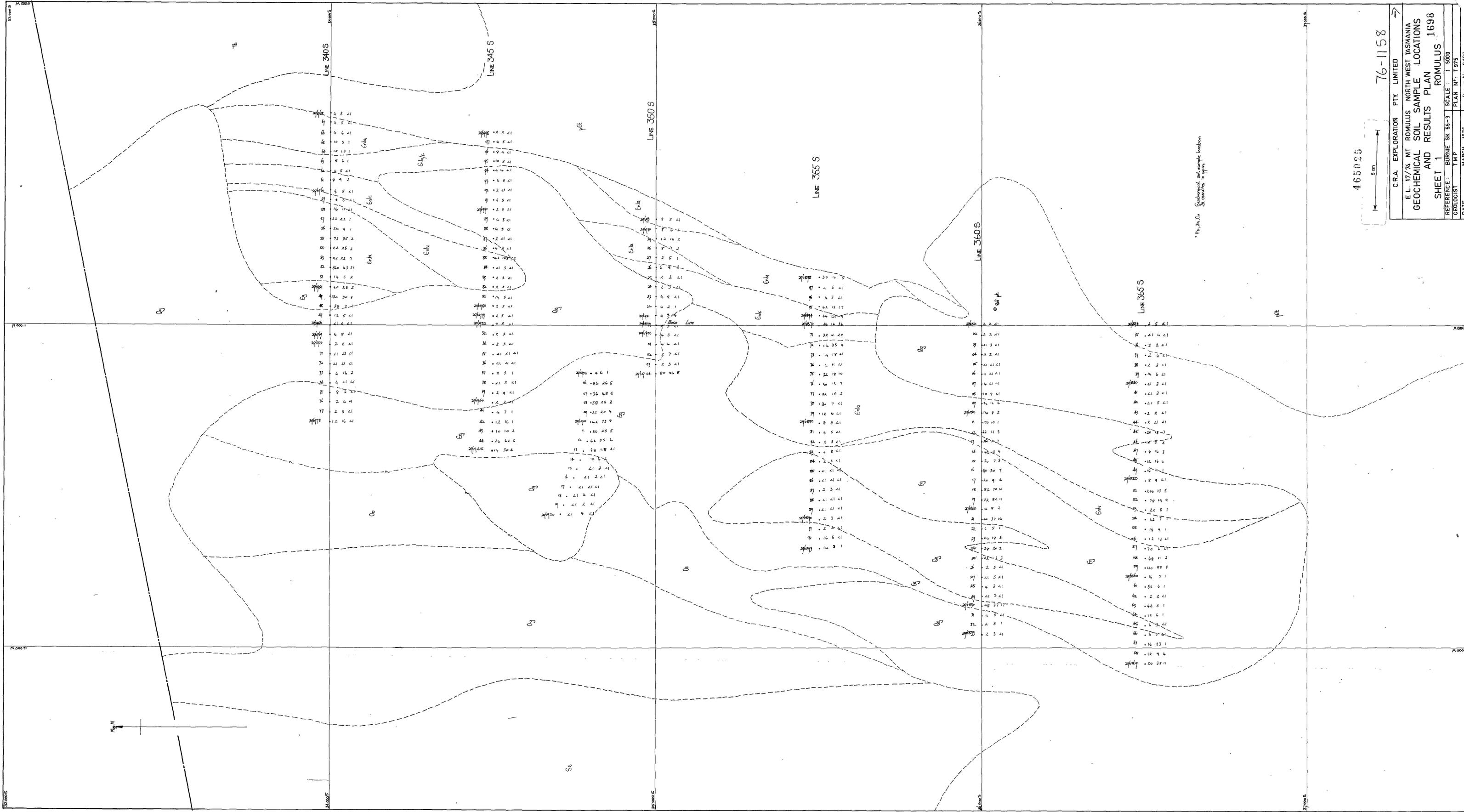
- Quaternary Gg Gravel & pebbles
- Tertiary Tb Basalt
- Silurian Sc Eldon group - sandstone & shale
- Ordovician Gc Gordon Limestone
- Oc Owen Conglomerate & sandstone
- Enla Altered quartz crystal tuff
- Enlc Altered ash flow tuff
- Enlv Altered fine (bedded) vitric tuff
- Enlv/c Granite
- Proterozoic pft Phyllite, schistose quartzite & muscovite schist.



465024

76-1158

C R A EXPLORATION PTY. LIMITED	
E.L. 17/74 MT ROMULUS NORTH WEST TAS	
GEOLOGICAL PLAN	
SHEET 1 ROMULUS 1697	
REFERENCE: BURNIE SK 55-3	SCALE: 1:5000
GEOLOGIST: T.M.P.	PLAN NO: T 974
DATE: MARCH 1976	Report No 8483



465025
5cm

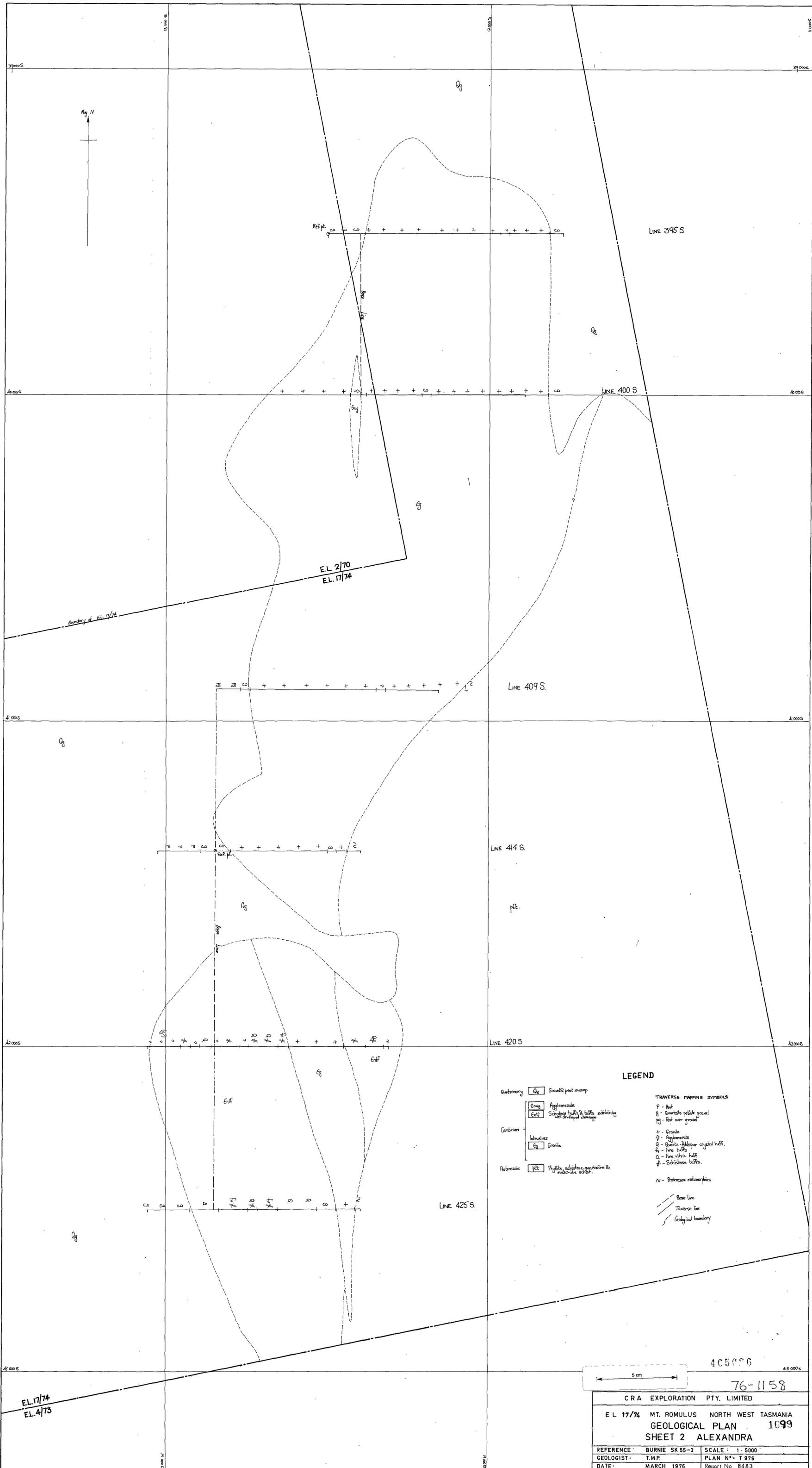
76-1158

C.R.A. EXPLORATION PTY. LIMITED
 E.L. 17/76 MT ROMULUS NORTH WEST TASMANIA
 GEOCHEMICAL SOIL SAMPLE LOCATIONS
 AND RESULTS PLAN
 SHEET 1
 ROMULUS

REFERENCE: BURNE SK 55-3 SCALE: 1:5000
 GEOLOGIST: T.M.P. PLAN N°: T.975
 DATE: MARCH 1976 Report No. 8483

* Pb, Zn, Cu
 Geochemical soil sample location
 as relative to ppm.





LEGEND

- | | | | |
|-------------|-----------------|--|--|
| Quaternary | G _q | Gravel pit swamp | TRAVERSE MAPPING SYMBOLS
P - Bed
S - Quartzite pebble gravel
pg - Bed over gravel
+ - Granite
Q - Agglomerate
Q - Quartzite pebble crystal tuft
F - Fine tuft
Δ - Fine vitric tuft
* - Schistose tuft
N - Proterozoic metamorphics
--- Base line
- - - Traverse line
/ / / Geological boundary |
| | Emag | Agglomerate | |
| | Entf | Schistose tufts & tufts exhibiting structural damage | |
| Cambrian | | | |
| | Intrusives | | |
| | G _g | Granite | |
| Proterozoic | P _{ct} | Phyllite, schistose quartzite & micaceous schist | |



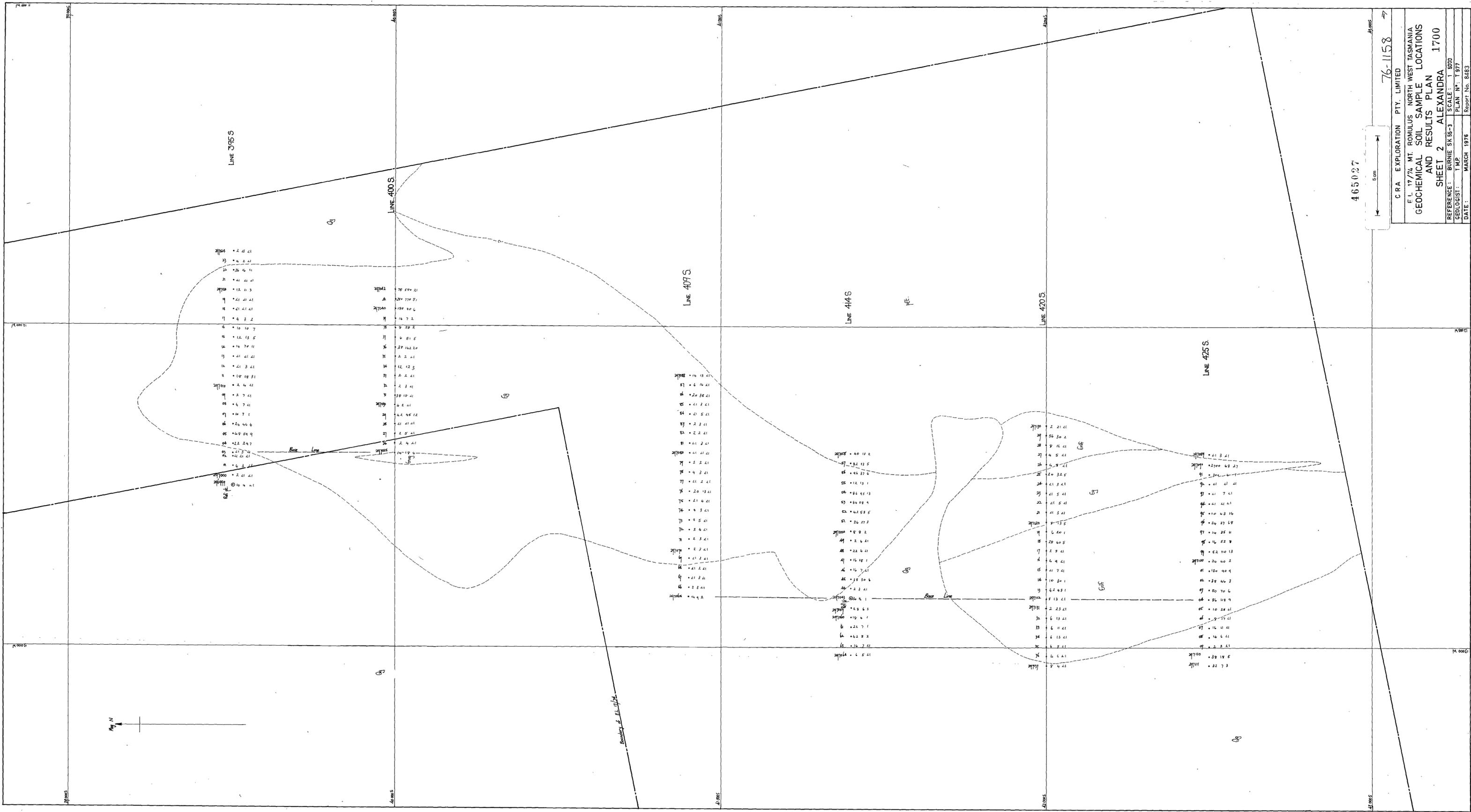
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76-1158

CRA EXPLORATION PTY. LIMITED

E L 17/74 MT. ROMULUS NORTH WEST TASMANIA
GEOLOGICAL PLAN 1099
SHEET 2 ALEXANDRA

REFERENCE:	BURNIE SK 55-3	SCALE:	1:5000
GEOLOGIST:	T.M.P.	PLAN No:	T 976
DATE:	MARCH 1976	Report No:	8483



465027

5 cm

76-1158

C R A E X P L O R A T I O N P T Y . L I M I T E D
 F L 17 7/4 M T . R O M U L U S N O R T H W E S T T A S M A N I A
 G E O C H E M I C A L S O I L S A M P L E L O C A T I O N S
 A N D R E S U L T S P L A N
 S H E E T 2 A L E X A N D R A 1 7 0 0
 R E F E R E N C E : B U R N I E S K 8 5 - 3 S C A L E : 1 : 5 0 0 0
 G E O L O G I S T : T M P P L A N N O : 1 9 7 7
 D A T E : M A R C H 1 9 7 6 R e p o r t N o . 8 4 8 3