

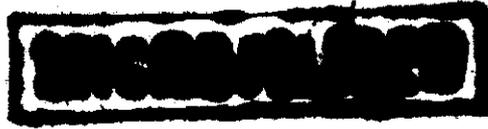
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C.R.A. EXPLORATION PTY. LIMITED

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E.L. 19/72 NIETTA, NORTH WEST

TASMANIA,

PROGRESS REPORT NO.3

VOL. I TEXT & LEDGERS

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1. SUMMARY AND CONCLUSIONS

Investigations within E.L. 19/72 during 1975 and early 1976 have been concentrated in the south western half of the tenement in the Castra-Nietta-Loyetea area. This area embraces volcanics and sediments of the middle Cambrian Nietta Group.

Within E.L. 19/72 the Nietta Group comprises a roughly east north east trending spine of massive coarse to medium pyroclastics and lavas with minor or lesser interbeds of fine tuff and shales. To the south these massive volcanics grade vertically and laterally into a sequence of shales, tuffaceous shales, greywackes and fine tuffs. This gradation is reflected by a relatively broad "transition zone" made up of interbedded tuffaceous shales, fine and coarse tuffs and minor lavas. To the north the massive volcanics are largely overlain by Ordovician sediments, although in the Castra area a similar gradation to fine tuffs and sediments is observable.

The eastern half of the spine of massive volcanics has been subjected to a broad but fairly intense sericitic alteration while relatively small zones or units have been altered within the "transition zone".

Geochemical soil sampling has outlined significant lead-zinc soil anomalies in three separate prospects, all of which fall within the "transition zone". These are the Crosby Creek, Loyetea South and Loyetea North Prospects.

Three diamond drill holes were directed at geochemical soil anomalies within the Crosby Creek Prospect with a further two being drilled on geophysical-geochemical anomalies at the Loyetea South Prospect following a blanket gradient array IP survey of all three prospects.

The drilling failed to intersect massive copper-lead-zinc mineralisation although minor sphalerite with traces of chalcopyrite and galena was obtained in core from the Crosby Creek Prospect.

Most of the prime geochemical and/or geophysical anomalies within these prospects have been tested with largely only second order anomalies remaining undrilled.

Sufficient potential may remain to attract a joint venture partner to test the remaining anomalies and provide a fresh approach to the evaluation of the project.

2. INTRODUCTION

E.L. 19/72 of 626 km² was initially pegged on October 18th 1972 and granted for a six month period from December 8th. This area was renewed 'in toto' on June 8th 1973, but on December 8th 1973 was reduced to 245 km² and renewed for a further six months period. The reduced area included the former E.L. 10/73 of 16.3 km² which was relinquished on the same date. One June 8th 1974 the area was reduced to 231 km² and renewed until December 8th 1974 when it was again renewed 'in toto' until June 8th 1975. The tenement was renewed without reduction for a further six month period on December 8th 1975.

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

Geological mapping at a scale of 1:31 680 accompanied by detailed geochemical drainage sampling was undertaken in the period to December 8th 1973. This work has been outlined in a previous progress report (see Porter, 1974).

Following this programme an area to the north of the township of Nietta was selected for more intensive investigation for the occurrence of stratiform copper-lead-zinc mineralisation on the basis of the geological environment, alteration patterns and the presence of sulphides. These investigations entailed geological mapping at a scale of 1:5000 and concurrent geochemical soil sampling at 20 metres intervals along lines with a 400 metres spacing over an area of approximately 15 km (1:5000 scale sheets 1 and 2, see plan no. T 916). This work was undertaken in the period December 8th 1973 to December 8th 1974 and has been described in a previous progress report (see Porter and Ashton, 1975). Although the results of this programme were in general disappointing it led to the delineation of a broad weakly anomalous zone in the north of the area (the Castra Anomalies) and a reappraisal of the geological environment of the Crosby Creek anomalies detected during 1973.

Work within the tenement during 1975 commenced with grid soil sampling on a 100 x 20 metres basis of the Crosby Creek and Castra anomalies, followed by 500 x 20 metres grid soil sampling of 1:5000 scale sheet 4 (see plan no. T916). This was followed by 500 x 20 metres grid soil sampling of the Loyetea area on 1:5000 scale sheet 5 (see plan no. T 916) and the subsequent 100 x 20 metres and 50 x 20 metres sampling of two zones within this area, namely the Loyetea North and Loyetea South Prospects. The nett result of this soil sampling programme was the delineation of significant geochemical lead-zinc

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soil anomalies at the Crosby Creek, Loyetea North and Loyetea South Prospects. All soil sampling grids were geologically mapped at a scale of 1:5000 while the latter three prospects were mapped at 1:2000.

An airborne E.M. survey was flown by Geoex Pty. Ltd. to cover 1:5000 scale sheets 1, 2, 3, and 4 (see plan no. T 916) during April 1975.

Geophysical surveys in the form of a magnetometer survey and a limited dipole-dipole induced polarisation survey were carried out by G. P. Jenke over the Crosby Creek Prospect during May and June.

Two traverses of gemco auger holes were run across the main anomalous zones at the Crosby Creek Prospect to obtain information on the relationship of soil to bedrock base metal levels. This work was carried out by A. S. James Pty. Ltd.

Three diamond drill holes were drilled at the Crosby Creek Prospect on the basis of the geochemical anomalies from July to September, 1975. This drilling was undertaken by C.R.A.E. drilling department using a Longyear HC 150 drill.

Following this, a blanket gradient array induced polarization survey was undertaken to cover the Crosby Creek, Loyetea South and Loyetea North Prospects. This work was supervised by G. P. Jenke and carried out by Scintrex Pty. Ltd.

Two diamond drill holes were drilled at the Loyetea South Prospect in February 1976. These were drilled by Longyear Australia Pty. Ltd. and were supervised and logged by G. Thomas.

All geological and geochemical work was supervised or undertaken by T. M. Porter, other than where mentioned above.

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

3. GEOLOGICAL SETTING

3.1 General

The current E.L. 19/72 embraces Cambro-Ordovician sediments and volcanics of portion of the Fossey Mountain Trough. These lithologies unconformably overlies slates and quartzites of the Adelaidean Rocky Cape Group to the north-west and the north-east where they comprise the Rocky Cape Block and the western margin of the Ulverstone Nucleus respectively. To the south and in part the north-east they overlies 'older', probably Carpentarian metamorphics which respectively comprise the Tyennan Block and the main part of the Ulverstone Nucleus.

Cambrian sedimentation within the Fossey Mountain Trough falls into three main stratigraphic groups, namely the Lower to Middle Cambrian Cateena and Nietta Groups and the Upper Cambrian Radfords Creek Group. The Cateena and Radfords Creek Groups were first mapped by Burns (1964) while the Nietta Group has been introduced during this programme.

The Cateena Group which comprises alternating volcanics and greywackes to mudstones, is overlain in the south western section of the E.L. by the more massive volcanics of the Nietta Group.

Deposition of the Nietta Group was terminated by the Hardstaff Movement resulting in an unconformity of up to 15 degrees with the overlying units. To the north of E.L. 19/72 a spilite/chert unit is found immediately above the Hardstaff Unconformity followed disconformably by the Radfords Creek Group. This group comprises a sequence of mudstones with lesser greywackes and minor intermediate volcanics.

The Radfords Creek Group is transgressively (or disconformably) overlain by the molassic Ordovician Roland Conglomerate and Moina Sandstone which are in turn overlain by the Gordon Limestone. Portions of the mapped Roland Conglomerate, particularly in the Nietta area, differ from the regional unit and may in fact be basal Moina Sandstone.

Within E.L. 19/72 these lithologies are overlain by Tertiary basalts.

With the exception of the Nietta Group the above-mentioned geology has been outlined in detail in previous progress reports (Porter 1974).

Although the stratigraphy of the Cambrian sequence has been reappraised since the last progress report the description of individual units and groups in that report is still applicable.

3.2 Nietta-Loyetea Area

Within the Nietta-Loyetea area (see plan no. T 916) the Cambrian is represented by the Nietta Group which is overlain unconformably by the Ordovician Roland Conglomerate and Moina Sandstone. These are in turn capped by Tertiary basalt.

3.2.1 Nietta Group

Within E.L. 19/72 the Nietta Group comprises a roughly east-west trending spine of predominantly massive pyroclastics and lavas which overlie the Cateena Group to the north and grade into a sequence of predominately sediments and tuffaceous sediments to the south. This spine is partially interrupted by an embayment (structural?) of more subaqueous volcanics and sediments in the Crosby Creek area. These massive volcanics comprise coarse agglomerates and rhyolitic lavas to the west with minor shale bands, while rhyolitic lavas, ash flow tuffs and fine (sometimes bedded) vitric tuffs predominate to the east, once again with only minor shale lenses. In contrast to the western half, the eastern massive volcanics have been subjected to intense sericitic alteration giving the rocks a green colouration particularly on sheets 1 and 2 but fading to the east on sheet 4. On the northern portion of sheet 1 the massive lavas and ash flow tuff/vitric tuff sequence grades vertically and laterally into tuffaceous shales and shales. This transition zone embraces the Castra Anomalies.

To the south the massive volcanics grade into a sequence of locally sericitised quartz-feldspar and feldspar crystal tuffs, lapilli tuffs and agglomerates with increasing amounts of shale and tuffaceous shale. Thin lava lenses are occasionally found within this zone. The Loyetea South, Loyetea North and Crosby Creek Prospects are found in this transition zone.

On the southern margin of the E.L. the Nietta Group grades vertically (and laterally?) into tuffaceous shales to shales and fine greywackes with lesser fine tuff bands (see plan no. T 916),

The sequence is intruded by bodies of diorite and rhyodacite of Cambrian age, particularly on sheets 2, 3 and 5. These bodies are in general found in the transition zone on the southern margin of the massive volcanics.

The individual lithologies are as follows:

3.2.1.1 Lavas

Six distinct lavas have been mapped within the tenement. Some may be stratigraphic equivalents while lavas 1 and 4 are probably altered and unaltered equivalents respectively.

Lava 1: This is a distinctive quartz and feldspar porphyritic rhyolite. It is characterised by large corroded quartz phenocrysts and sericitised plagioclase phenocrysts.

Lava 2: This rock type has been highly altered and all exposures are strongly weathered. Consequently all textures have been obliterated making its volcanic nature difficult to determine. However, it does contain what appear to be vesicules which tend to indicate a lava rather than a pyroclastic. It is rhyolitic in composition.

Lava 3: This lava is also highly altered and well weathered. It is very vesicular, although all other textural features have been destroyed. Again it is rhyolitic in composition.

Lava 4: This is an unaltered quartz feldspar porphyritic rhyolite characterised by quartz and lesser feldspar phenocrysts in a fine siliceous groundmass. The appearance of this rock type is very similar to lava 1 except for the degree of alteration. It is possible that this may in part be either an intrusive or welded tuff.

Lava 5: This lava is of rhyodacitic composition and comprises a low percentage of small quartz and feldspar phenocrysts set in a dark very fine siliceous matrix.

Lava 6: This is a green feldspar porphyritic amygdaloidal dacite lava exhibiting flow(?) banding. It occurs as lenses within the Loyetea North Prospect.

3.2.1.2 Ashflow Tuffs

These are composed of fiamme and glass shards with varying proportions of exotic rock fragments and primary crystals of quartz and feldspar. On sheets

1 and 2 they have been subjected to intense sericitic alteration. On sheet 4 however rock interpreted as ash flow tuffs have not been altered. Some bands of possible ash flow tuff are found in the "transition zone" on the southern margin of the massive volcanics.

3.2.1.3 Vitric Tuffs

These occur in the field as fine to very fine grained siliceous rocks. On sheets 1, 2 and 4 they are intercalated with ash flow tuffs and have in most cases been strongly sericitised. Elsewhere they are grey to green, very fine grained and highly siliceous. These tuffs are both massive and bedded and grade laterally and vertically into clastic sediments.

3.2.1.4 Crystal Tuffs

Quartz, quartz-feldspar and feldspar crystal tuff units are found in the "transition zone" from massive volcanics to tuffaceous shales. These often enclose or grade laterally and vertically into lapilli tuffs and agglomerates units. On sheets 2 and 4 crystal tuffs occur within the "unaltered vitric tuff" units.

3.2.1.5 Agglomerates

Coarse pyroclastics are widespread to the west of the Leven River where they comprise a coarse intermediate agglomerate to lapilli tuff with fragments from a few millimetres to a few metres in length (or diameter). In the Loyetea South and Crosby Creek prospect areas and on sheet 4 more acid agglomerates occur. These are in general not as coarse as the intermediate agglomerates and grade laterally and vertically into quartz crystal tuffs and lapilli tuffs. In the far north western margin of the E.L. the agglomerates have been altered to a semi schistose rock with some intercalated lava bands.

3.2.1.6 Sedimentary Units

Clastic sediments are present mainly as shales and tuffaceous shales with interbedded siltstone, tuffaceous sandstones and occasional conglomerates. Fine waterlain tuffs and crystal tuffs are intercalated within the sediments, becoming finer and less frequent to the south east away from the massive volcanics, and to the north on sheet 1.

Tuffaceous shales and shales occasionally grading to tuffaceous sandstones are found as discontinuous lenses and thin beds within the massive volcanics.

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3.2.2 Intrusives

Two main varieties of Cambrian intrusives have been recognised within the tenement. These are:

3.2.2.1 Diorite

This comprises a green feldspar porphyritic micro-diorite to diorite which occurs within the Crosby Creek Prospect area and between the Loyetea North and Loyetea South Prospects. Overall, it is cross-cutting at the Crosby Creek Prospect where it occurs as an irregular mass although it is broadly concordant in parts.

3.2.2.2 Rhyodacite

Intrusives of rhyodacitic composition are found on sheets 2,3, 4 and 5. This rock type is characterised by a fine pink groundmass with variable quantities of fine to coarse pale feldspar phenocrysts. At Crosby Creek, it appears to grade into diorite while on the north eastern margin of the Loyetea South Prospect it has a similar texture to the diorite. Most of the exposures on sheet 3 and 4 have sparse phenocrysts which are usually fine while the main mass on sheet 2 has coarser feldspar laths. Although this rock type appears to bear an overall intrusive or transgressive relationship to the Nietta Group volcanics and sediments, it is broadly concordant and has a vesicular appearance on its northern margin on sheet 5, and has some pyroclastic like textures in places on sheet 2. In places on sheet 3 its appearance is not unlike lava 5 on sheet 5.

3.2.3 Ordovician

Both Roland Conglomerate and Moina Sandstone were encountered within the E.L. where they overlie the Cambrian to the north and west. The Roland Conglomerate consists predominantly of Proterozoic quartzite cobbles in a fine to medium grained ferruginous siliceous matrix. A relatively thin fine to medium grained ferruginous sandstone sometimes occurs at the base of the sequence. The Roland Conglomerate is overlain by the Moina Sandstone which is present as a grey to red siliceous bedded to massive sandstone. Pinkish pebble to cobble conglomerates sometimes occur within this unit. In the north eastern corner of sheet 3 the Moina Sandstone apparently lies directly on the Cambrian with only a thin conglomerate near the base.

Gordon Limestone overlies Moina Sandstone on the northern margin of the E.L.

3.2.4 Tertiary Basalt

Remnants of the widespread Tertiary basalt flows cap the Cambrian sequence and drape around the Ordovician outcrops.

3.2.5 Quaternary Talus

Talus which is usually composed of Ordovician rock types or to a lesser extent Tertiary basalt covers many of the slopes and hill bases in the area. It ranges from clay size material to large boulders.

4. GEOCHEMISTRY

All three of the main prospects outlined by the geochemical soil sampling programme are reflected in drainage levels.

4.1 Geochemical Drainage Sampling

All of the drainage sampling within E.L. 19/72 was carried out during 1973 and the results are consequently covered in the appropriate progress report (see Porter 1974). Drainage results in the Nietta-Loyetea area are plotted on plan no. T 919.

In general the highly altered volcanics on sheets 1 and 2 yielded the lowest background levels being of the order of less than 30 ppm lead and zinc and less than 10 ppm copper. These levels rise to the east corresponding to the decrease in the degree of alteration of the volcanics.

The massive volcanics to the north of sheet 5 have similar lead and copper background levels to the altered massive volcanics although zinc values are of the order of from 50 to 100 ppm.

The "transition zone" from massive volcanics to sediments is characterised by zinc drainage backgrounds of from 100 to 200 ppm although the lead and copper background levels are similar to those from the massive volcanics.

Drainage sampling delineated three anomalous zones within the "transition zone" from massive volcanics to sediments. The first of these was the Crosby Creek anomalies reflected by three catchments of from 0.5 to 1.0 km² returning anomalous zinc levels of from 370 to 380 ppm and lead values of from 50 to 70 ppm.

The Loyetea North anomalies were reflected by

similar levels of 73 ppm lead and 370 ppm zinc from a 1.0 km² catchment while the Loyetea South anomalies yielded levels of 340 ppm and 420 ppm zinc from catchments of around 0.5 km². It should be noted that both of these catchments only drained a small portion of the area of the soil anomaly due to its configuration in relation to the topography and drainage system in the area.

4.2 Geochemical Soil Sampling

Reconnaissance soil sampling was initiated on sheets 3 and 5 on the basis of drainage anomalies as outlined above, while sheets 1, 2 and 4 were given a similar coverage on the basis of geological environment and alteration.

Anomalous lead-zinc levels deemed to be of a sufficient tenor to warrant follow up sampling were returned by samples from sheet 1 (the Castra Anomalies) sheet 3 (the Crosby Creek Anomalies) and sheet 5 (the Loyetea North and Loyetea South Anomalies). These anomalies were all followed up with 100 x 20 metres grid soil sampling.

4.2.1 Castra Anomalies

Reconnaissance soil sampling on a 400 x 20 metres basis returned levels of 460 and 500 ppm lead on line 117N in two separate zones while elevated levels in excess of 100 ppm appeared on adjacent lines 0.5 km along strike (see plan no. T 942). Grid sampling on a 100 x 20 metres basis failed to outline a significant continuous soil lead-zinc anomaly. Patchy +100 ppm lead and/or zinc levels were found to occur within the shale, tuffaceous shales and fine tuffs within 200 metres stratigraphically above the highly altered Nietta Group volcanics (see plan no. T 942).

4.2.2 Crosby Creek Anomalies

Reconnaissance soil sampling on an approximately 500 x 10 metres basis revealed anomalous levels of from 400 to 1200 ppm lead accompanied by 200 to 600 ppm zinc over widths of 20 to 30 metres on three consecutive lines (see plan no. T 945). These values contrast with background levels of 10 to 60 ppm lead, 20 to 100 ppm zinc and 5 to 40 ppm copper.

Grid sampling on a 100 x 20 metres basis delineated an anomalous zone with a cumulative strike length of 1.5 km based on the +400 ppm lead contour. As this was the first of the anomalies to be brought to this stage, and due to the influence of faulting

and the diorite intrusive a 50 x 10 metres soil grid was instituted over the immediate vicinity of the main anomalous zone. This outlined an anomalous zone approximately 1.5 km cumulative strike length (as indicated by the earlier sampling) and from 20 to 100 metres wide returning levels of from 400 to 3000 ppm lead. Zinc and copper levels defined almost identical anomalous zones with levels in the range of from 200 to 1400 ppm zinc and from 100 to 700 ppm copper. (see plan no.'s T 953 - T 957).

Two traverses of Gemco auger samples were run across the main anomalous zone with holes being augered at five metre intervals on lines 76/5 E and 73/5 E. Bottom samples were all from relatively fresh rock and returned levels of from 1000 to 3000 ppm lead, 200 to 500 ppm zinc and up to 400 ppm copper over the main anomalous zone (see plan no.'s T 968 and T 970).

The geochemical soil anomalies are restricted to a sequence of shales, tuffaceous shales and fine tuffs accompanied by fine siliceous tuffs to lapilli tuffs and crystal tuffs. The anomaly is truncated at the surface by crosscutting diorite intrusives and is modified by a number of north east-south west trending faults (see plan no. T 953).

Outcropping altered chloritic schistose tuffs occur on the western margin of the prospect. Due to the lack of outcrop within the main anomalous zone it is not known how far this alteration extends.

4.2.3 Loyetea South Anomalies

Reconnaissance soil sampling on a 500 x 20 metres basis revealed anomalous levels of 400 ppm lead on two adjacent lines. These levels were accompanied by zones of schistose sericitic alteration which enhanced their apparent significance. Grid soil sampling on a 100 x 20 metres basis followed by 50 x 20 metres sampling delineated an anomalous zone of around 900 metres in strike length and from 20 to 50 metres in width as defined by the +300 ppm lead contour. As with Loyetea North, the anomalous zone outlined by the 100 x 20 metres sampling was oblique to the line direction, necessitating extra coverage to intersect the anomaly at approximately 100 metres intervals along strike.

The peak value on the grid was 2900 ppm lead. An anomalous zinc and to a lesser extent a copper zone correspond to the main lead anomaly. Background

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levels within the prospect are of the order of 10 to 50 ppm lead and zinc. (see Plan no.'s T 960-962).

The main soil anomaly accompanied tuffaceous shales and fine tuffs within a sequence of crystal and lapilli tuffs, agglomerates, minor lavas and possibly ash flow tuffs. These tuffs have been subjected to intense sericitic alteration in the vicinity of the anomaly. (see plan no. T 958).

The sequence is truncated by a rhyodacite intrusive on the north eastern margin of the anomaly. This intrusive follows the anomalous zone along portion of its northern margin where it appears to be broadly concordant.

4.2.4 Loyetea North Anomalies

Reconnaissance soil sampling on a 500 x 20 metres basis returned a number of anomalous levels of from 400 to 2100 ppm lead and 200 to 300 ppm zinc spread over an interval of 400 metres on line 25E and levels of from 200 to 350 ppm lead and 200 to 600 ppm zinc on the adjacent line 20E some 800 metres along strike. Grid soil sampling on a 100 x 20 metres basis, followed by 50 x 20 metres sampling delineated an anomalous zone approximately 1.5 km long and 250 metres wide comprising a string of eyes of high lead/zinc levels from 400 to 2100 ppm lead and 300 to 600 ppm zinc surrounded by a broad zone of +200 ppm lead and zinc (see plan no. T 965).

This anomalous zone corresponds to the presence of shale, tuffaceous shale and fine tuff lenses within a sequence of coarse to very coarse intermediate agglomerates (see plan no. T 963). Lensoid dacitic lava bands (lava 6) restricted to the near vicinity of anomalous zone, were also encountered. A rhyodacite intrusive is found just to the south of the anomalous zone. This body yielded high lead and zinc background levels of the order of from 100 to 300 ppm lead with some peak levels up to 600 ppm and 100 to 400 ppm zinc.

The absence of any appreciable alteration in the anomalous zone detracts from its potential.

5. GEOPHYSICS

During 1975 a number of geophysical surveys were undertaken within the E.L. area. These were:

1. An airborne E.M. survey of the area covered by sheets 1, 2, 3 and 4 and carried out by Georex Pty. Ltd.
2. A ground magnetometer survey of the Crosby Creek Prospect.
3. An S.P. survey of portion of the Crosby Creek soil anomalies.
4. A dipole-dipole I.P. survey over a number of selected sections within the Crosby Creek Prospect.
5. A blanket gradient array I.P. survey along 100 metres spaced lines at the Crosby Creek, Loyetea South and Loyetea North Prospects.
6. A down hole I.P. survey of DD 75 CCl, the first diamond drill hole at the Crosby Creek Prospect.

Details of surveys 1 to 4 inclusive are contained in the report;

"Geophysical Surveys on Crosby Creek Prospect E.L. 19/72 Nietta, Tasmania, April-June 1975" by G.P. Jenke, dated August 1975 (8343).

This work was reviewed by a consultant R. J. Smith whose observations and recommendation with respect to further geophysical work are outlined in the report;

"Geophysical Programme, Nietta, Tasmania" by Robert J. Smith, dated 4th October, 1975 (8352).

Surveys 5 and 6 are covered in the following reports:

"A Report on Gradient Electrical Induced Polarisation Surveys Over the Crosby Creek Prospects E.L. 19/72 Northern Tasmania on Behalf of C.R.A. Exploration Pty. Limited" by A. W. Howland-Rose, dated December 1975

"A Report on Gradient Array Electrical Induced Polarisation Surveys Over the Loyetea South and Loyetea North Prospects E.L. 19/72, Northern Tasmania on Behalf of C.R.A. Exploration Pty. Limited" by A. W. Howland-Rose, dated December 1975.

6. DRILLING

Two programmes of diamond drilling were undertaken within E.L. 19/72 during 1975 and early 1976. These comprised a three hole programme totalling 652 metres of drilling at the Crosby Creek Prospect from July 10th to September 5th, 1975 and a two hole programme totalling 500 metres at the Loyetea South Prospect from February 5th to 20th, 1976. The detailed logs for each hole are attached to this report.

6.1 Crosby Creek Prospect

Diamond drilling at the Crosby Creek Prospect was directed at the centres of each of the three main geochemical soil anomalies that have been delineated.

DD 75 CCl (see 1:1000 scale drill section plan no. T 968).

This hole was drilled on section 76/5 E (see plan no. T 953). The sequence intersected can be summarised as follows:

<u>Depth (m)</u>	<u>Log</u>
0 - 111.0	Diorite
111.0 - 132.6	Tuffaceous shale with minor pyrite and sphalerite accompanied by traces of galena and chalcopyrite from 115.5 - 122.4
132.6 - 151.7	Fine grey-green siliceous tuff grading to lapilli tuff and agglomerate from 137.4
151.7 - 201.7	Black to grey tuffaceous shale - traces of pyrite.
201.7 - 260.1	Banded to massive green quartz feldspar crystal tuff
260.1 - 293.0	Fine green siliceous and sericitic tuff with minor thin (0.3 - 1.0 m) black shale bands.

The mineralisation intersected was in the form of minor thin laminae and thin crosscutting veinlets of sphalerite. Traces of disseminated galena and laminae of chalcopyrite and pyrite were also observable. Mineralisation tended to be restricted to areas of slumping and in some cases sphalerite laminae were best developed in small slump structures. Three intervals were split and assayed.

From - To (m)	Width (m)	Pb%	Zn%	Cu%	Ag ppm
115.5 - 119.5	4.0	0.037	0.21	0.031	2
119.5 - 120.7	1.2	0.31	1.16	0.026	3
120.7 - 122.4	1.7	0.031	0.14	0.014	3

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In comparison five metre spaced gemco sampling of relatively fresh bedrock over the main anomalous zone on line 76/5 E delineated a zone some 20 metres wide with +1000 ppm lead levels. The results of this work for bottom samples from four consecutive five metre spaced holes from south to north are as follows:

	Pb%	Zn%	Cu%
0	.31	.024	.018
5 m	.23	.030	.018
10 m	.19	.025	.011
15 m	.14	.022	.011

The surface lead results are overall higher by a factor of from 5 to 10 and cover nearly three times the width of the mineralisation intersected within the drill hole. Zinc levels in contrast are substantially lower at the surface while copper is comparable.

C horizon soil levels in the main anomalous zone on line 76/5 E range from 230 - 1380 ppm lead, 111 - 480 ppm zinc, and 130 - 210 ppm copper over a width of around 50 metres (see plan no. T 955 and T 956) while background levels are of the order of 15 - 60 ppm lead, 20 - 100 ppm zinc and 5 - 40 ppm copper.

It is possible that the diorite intrusive is transgressive at this point and has truncated the anomalous horizon below the surface and that the mineralisation intersected does not represent the main soil anomaly at the surface.

The subsequent gradient array I.P. survey failed to indicate either a chargeability high or resistivity low over the geochemical anomaly, although the original dipole-dipole survey indicated a very small metal factor anomaly in the target zone. Down-hole I.P. logging of this drill hole revealed a small chargeability response over the mineralised section from 115 to 123 metres.

DD 75 CC2 (see 1:1000 scale drill section plan no. T 969)

This hole was drilled on section 82E (see plan no. T 953).

The sequence intersected within this drill hole can be summarised as follows:

018

<u>Depth (m)</u>	<u>Log</u>
0 - 6.0	Soil
6.0 - 8.0	Feldspar crystal tuff
8.0 - 17.0	Grey tuffaceous shale
17.0 - 18.2	Quartz-feldspar crystal tuff
18.2 - 33.6	Grey tuffaceous shale. Minor pyrite, sphalerite, galena and chalcopyrite from 25.9 - 32.6
33.6 - 199.7	Diorite

The mineralisation intersected in the interval 25.9 - 32.6 metres was very similar to that encountered in DD 75 CCl although a few beds of coarse pyrite up to 1 cm thick were observed.

With the exception of the possibility of structural complexities the diorite appears to be crosscutting on section 82E having truncated the main anomalous horizon between the surface and the drill hole's path. The mineralisation would appear to represent the northern margin of the geochemically anomalous zone outlined at the surface. Three intervals were split and assayed. The results are:

From - To (m)	Width (m)	Pb%	Zn%	Cu%	Ag (ppm)
25.9 - 28.9	3.0	0.028	0.19	0.027	2
28.9 - 30.2	1.3	0.018	0.03	0.008	2
30.2 - 32.6	2.4	0.195	0.42	0.240	3

C horizon soil levels in the main anomalous zone on line 82E ranged from 260 to 800 ppm lead, 130 to 360 ppm zinc and 110 to 300 ppm copper over a width of 50 metres while two other narrow zones of +400 ppm lead were located between the main anomaly and the drill collar of DD 75 CC2.

As with DD 75 CCl the subsequent gradient array survey failed to outline either a chargeability high or resistivity low over the target geochemical anomaly.

DD 75 CC3 (see 1:1000 scale drill section plan no. T 970)

This hole was drilled on section 73/5E. The sequence intersected within the drill hole can be summarised as follows:

<u>Depth (m)</u>	<u>Log</u>
0 - 70.3	Diorite
70.3 - 88.2	Black shale to tuffaceous shale. Traces of pyrite, sphalerite, galena and chalcopyrite 72.9 - 74.5 metres
88.2 - 98.2	Fine grey-green siliceous tuff grading to lapilli tuff
98.2 - 141.2	Black shale to tuffaceous shale
141.2 - 149.12	Altered pale green quartz-feldspar crystal tuff

As with DD 75 CCl the mineralisation observed was in the form of thin laminae of sphalerite with some accompanying galena and chalcopyrite. Sphalerite is also observable in the core as thin crosscutting veinlets. A 1.6 metres interval from 72.9 - 74.5 m was split and assayed. The results are:

0.097% Pb, 0.195% Zn, 0.0085% Cu, 1 ppm Ag.

Gemco bottom samples of "relatively fresh" rock from five metres spaced holes across the main soil anomaly along line 73/5 E revealed a 20 metres wide zone returning levels of from 0.1% to 0.29% Pb (see plan no. T 970). As with DD 75 CCl the surface lead levels appear to cover a greater width and to be higher than those intersected in the hole while the zinc levels are higher in the core but over a narrower width. C horizon soil levels in the main anomalous zone on line 73/5 E ranged from 150 to 1480 ppm Pb, 190 to 370 ppm Zn, and 110 to 240 ppm Cu, (see plan no. T 955 and T 956) over a width of around 40 metres.

Although the initial dipole-dipole I.P. survey along line 73E revealed a weak metal factor rise over the target area for this drill hole the subsequent gradient array failed to yield either a chargeability high or a resistivity low over the same zone.

6.2 Loyetea South Prospect

Following the gradient array I.P. survey of the three prospects it was decided to drill the most significant I.P. anomalies supported by substantial geochemical soil anomalies. As a consequence two diamond drill holes were drilled at the Loyetea South Prospect.

These drill holes were directed at coincident or related significant gradient array I.P. and geochemical lead-

zinc soil anomalies.

DD 76 LSl (see 1:1000 scale drill section plan no. T 971).

This drill hole was primarily designed to test a significant I.P. anomaly on the down dip side of a significant geochemical lead-zinc soil anomaly. The I.P. anomaly was known to commence from 50 to 60 metres below the surface where it is some 100 m south (down dip) of the surface geochemical anomaly. A drag fold is known to be developed in this interval based on surface mapping information. In addition, a series of third order I.P. anomalies have been outlined along line 27E between the main I.P. anomaly and the soil anomaly. DD 76 LSl was to test all of these geophysical and geochemical anomalies. The main I.P. anomaly comprises a pronounced charge-ability high with an associated resistivity low.

B horizon soil levels in the main anomalous zone ranged from 190 to 410 ppm Pb and 100 to 550 ppm Zn while background levels are of the order of from 10 to 50 ppm Pb and Zn.

The sequence intersected in DD 76 LSl can be summarised as follows:

<u>Depth (m)</u>	<u>Log</u>
0 - 4.0	Soil
4.0 - 4.95	Tuffaceous shale
4.95 - 24.6	Coarse feldspar crystal tuff
24.6 - 26.8	Tuffaceous shale
26.8 - 29.05	Coarse feldspar crystal tuff
29.05 - 41.55	Tuffaceous shale
41.55 - 43.0	Interbedded crystal tuff and tuffaceous shales
43.0 - 45.1	Tuffaceous shale
45.1 - 47.4	Dacitic lava
47.4 - 63.85	Tuffaceous shale with lesser crystal tuff bands
63.85 - 64.4	Dacitic lava
64.4 - 76.7	Tuffaceous shale
76.7 - 79.0	Dacitic lava
79.0 - 130.25	Tuffaceous shale
130.25 - 132.1	Fine green sericitic tuff - bedded in part
132.1 - 134.8	Tuffaceous shale
134.8 - 137.9	Fine green sericitic tuff
137.9 - 140.5	Tuffaceous shale
140.5 - 174.7	Pale green sericitic tuff
174.7 - 180.65	Tuffaceous shale
180.65 - 183.4	Fine green sericitic tuff grading to lapilli tuff
183.4 - 210.7	Tuffaceous shale
210.7 - 224.9	Green silicified & sericitised lapilli tuff grading to finer sericitic tuff.

<u>Depth (m)</u>	<u>Log</u>
224.9 - 230.15	Tuffaceous shale
230.15 - 237.0	Green sericitised crystal to lapilli tuff
237.0 - 258.1	Tuffaceous shale with some thin fine sericitised tuff beds.
258.1 - 294.7	Fine pale green sericitic tuff grading into a green sericitic lapilli tuff
294.7 - 300.2	Tuffaceous shale

No mineralisation was observed within the drill core other than occasional very fine dispersed pyrite and a very few quartz veins with trace blebs of chalcopryrite at 56.6 metres and 149.75 metres and sphalerite at 152.8 metres. Slump structures are prominent within the tuffaceous shale units and may be partly or wholly responsible for the marked variations noted in the angle between bedding and LCA.

Alteration in the form of sericitisation and silicification are obvious from 130 metres onwards, occasionally grading into green sericitic schists. There appears to be an increase in the fine disseminated pyrite content of the rock corresponding to the increase in alteration. At present there appears to be no obvious explanation of the geochemical and geophysical anomalies.

DD 76 LS2 (see 1:1000 scale drill section, plan no. T 972).

This drill hole was designed to test significant coincident gradient array I.P. and geochemical soil lead-zinc anomalies located on line 30E. The I.P. anomaly comprised a chargeability high and associated resistivity low. The main geochemical anomaly on line 30E was of a relatively low tenor, being of the order of from 260 to 400 ppm Pb and 200 to 600 ppm Zn in contrast to background levels of from 10 to 50 ppm Pb and Zn.

The sequence intersected in DD 76 LS2 can be summarised as follows:

<u>Depth (m)</u>	<u>Log</u>
0 - 5.5	Lapilli tuff grading to agglomerate
5.5 - 9.8	Fine green tuff
9.8 - 21.3	Lapilli tuff grading to agglomerate
21.3 - 28.1	Interbedded lapilli tuff, crystal tuff and tuffaceous shale
28.1 - 35.3	Lapilli tuff
35.3 - 37.0	Tuffaceous shale

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<u>Depth (m)</u>	<u>Log</u>
37.0 - 40.0	Interbedded crystal tuff and tuffaceous shale, sericitic in part
40.0 - 64.5	Sericitic schistose lapilli tuff
64.5 - 65.9	Tuffaceous shale
65.9 - 71.7	Sericitic schistose lapilli tuff
71.7 - 72.0	Quartz-feldspar crystal tuff with a "shaley" matrix
72.0 - 72.25	Sericitic quartz feldspar crystal tuff
72.25 - 72.5	Tuffaceous shale
72.5 - 90.6	Silicified and sericitised lapilli tuff. May be an ash flow tuff in part
90.6 - 200.1	Partly altered porphyritic diorite to rhyodacite intrusive

As with DD 76 LS1 no mineralisation other than trace amounts of finely dispersed pyrite was observed within the drill core.

Alteration in the form of sericitisation and silicification to a schistose texture were readily observable from 40 to 90 metres.

The thickening of the rhyodacite intrusive at depth is of particular note. At the surface above the drill section rhyodacitic float and minor outcrop is observable over a slope distance of around 30metres while a thickness of 110 metres was intersected by the drill hole without passing out into volcanics and sediments. On the surface the rhyodacite reaches its maximum development within the prospect area on lines 32E and 33E suggesting that the main body if regular plunges to the south west.

At present there appears to be no obvious explanation of the geochemical and geophysical anomalies.

7. RECOMMENDATIONS

Surface investigations within E.L. 19/72 have been carried out to the stage where no further regional mapping, geochemical drainage sampling, geochemical soil sampling or detailed mapping is warranted.

Diamond drilling has eliminated most of the potential for major stratiform copper-lead-zinc occurrence within the E.L.

7.1 Crosby Creek Prospect

At the Crosby Creek Prospect three of the major geochemical anomalies have been drilled. These zones although geochemically anomalous did not yield gradient array I.P. anomalies. However a further two geochemically anomalous zones within the prospect area, although less extensive have accompanying coincident and significant I.P. anomalies. The tendency for certain zones within the diorite and rhyodacite to produce a geophysical response in the form of a chargeability high accompanied by a resistivity high adds to the hazard of further drilling as the soil anomalies are in most cases not too far removed from the margins of these intrusives. Notwithstanding this these two zones warrant testing by short drill holes followed by geophysical logging. The zones of interest are centred on the following coordinates (see plan no. T 953):

1. 7260mN, 7100mE
2. 7520mN, 7000mE

A third anomalous zone centred on 7130mN, 7950mE warrants some attention.

If the first of the two zones listed above should yield massive sulphides, a fourth zone centred on coordinates 7350mN, 7400mE warrants serious consideration for future testing.

7.2 Loyetea South Prospect

Drilling has largely eliminated any possibility of developments of economic mineralisation within relatively close proximity of the surface. Although a number of second order geochemical and geophysical anomalies remain untested no further drilling is warranted by C.R.A.E. within this prospect. However if current downhole testing of DD 76 LS2 indicates that the geochemical-geophysical target anomalies were not intersected the situation may warrant reappraisal.

7.3 Loyetea North Prospect

On the basis of a comparison with the results of the drilling at Crosby Creek and Loyetea South Prospects no strong case can be put forward for any further work at this prospect.

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7.4 Farm-out Possibilities

Expenditure to date on this tenement although having reached a significant level has been rewarded with a singular lack of success with respect to the discovery of base metal massive sulphides. Most of the prime geochemical and/or geophysical anomalies have been tested with only second order anomalies remaining. Consequently further expenditure by C.R.A.E. to pursue these lesser targets is not warranted at this stage. However sufficient potential probably remains to attract another company's participation to test the remaining anomalies. In addition another major competent exploration group may provide a fresh approach to the evaluation of the remaining untested anomalies.



T. M. Porter

- ATTACHMENTS
- . Geochemical Soil Sample Ledger Sheets
 - . Diamond Drill Logs

REFERENCES

- Howland-Rose, A. W. Dec. 1975 A Report on Gradient Electrical Induced Polarisation Surveys Over the Crosby Creek Prospect E.L. 19/72 Northern Tasmania on Behalf of C.R.A. Exploration Pty. Limited.
- Howland-Rose, A. W. Dec. 1975 A Report on Gradient Array Electrical Induced Polarisation Surveys Over the Loyetea South and Loyetea North Prospects E.L. 19/72 Northern Tasmania on Behalf of C.R.A. Exploration Pty. Limited.
- Jenke, G. P. Aug. 1975 Geophysical Surveys on Crosby Creek Prospect E.L. 19/72 Nietta, Tasmania, April - June 1975. C.R.A.E. Rep. 8343.
- Porter, T. M. Feb. 12th 1974 E.L. 19/72 Dial Range North-West Tasmania. Progress Report C.R.A.E. Rep. 7572.
- Porter, T. M. & Ashton, P. J. Feb. 6th 1975 E.L. 19/72 Dial Range North-West Tasmania. Progress Report No. 2 to December 8th 1974. C.R.A.E. Rep. 8086
- Smith, R. J. Oct. 4th Geophysical Programme, Nietta Tasmania. C.R.A.E. Rep. 8352.

KEYWORDS

Copper, lead, zinc, Cambrian, geochem.-soil, geol. mapping-detailed, geophys.-bore hole, geophys.-IP, geophys.-EM, pyroclastics, diorite, rhyolite, drill-diamond.

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

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LIST OF PLANS

<u>Plan No.</u>		<u>Scale</u>
T 939	E.L. 19/72 Nietta, N.W. Tasmania Geological Plan.	1:50 000
T 916	E.L. 19/72 Nietta, N.W. Tasmania Geological Plan, Nietta-Loyetea Area.	1:25 000
T 919	E.L. 19/72 Nietta, N.W. Tasmania Drainage Geochemistry, Nietta- Loyetea Area.	1:25 000
T 940	E.L. 19/72 Nietta, N.W. Tasmania Sheet 1, Geological Plan.	1:5000
T 941	E.L. 19/72 Nietta, N.W. Tasmania Sheet 1, Geochemical Soil Sample Location Plan.	1:5000
T 942	E.L. 19/72 Nietta, N.W. Tasmania Sheet 1, Geochemical Soil Sample Results Plan Pb-Zn-Cu.	1:5000
T 885	E.L. 19/72 Nietta, N.W. Tasmania Sheet 2, Geological Plan.	1:5000
T 887	E.L. 19/72 Nietta, N.W. Tasmania Sheet 2, Geochemical Soil Sample Plan.	1:5000
T 943	E.L. 19/72 Nietta, N.W. Tasmania Sheet 3, Geological Plan.	1:5000
T 944	E.L. 19/72 Nietta, N.W. Tasmania Sheet 3, Geochemical Soil Sample Location Plan	1:5000
T 945	E.L. 19/72 Nietta, N.W. Tasmania Sheet 3, Geochemical Soil Sample Results Plan Pb-Zn-Cu.	1:5000
T 946	E.L. 19/72 Nietta, N.W. Tasmania Sheet 4, Geological Plan.	1:5000
T 947	E.L. 19/72 Nietta, N.W. Tasmania Sheet 4, Geochemical Soil Sample Location and Results Plan.	1:5000
T 948	Loyetea Anomalies E.L. 19/72 Nietta, N.W. Tasmania, Sheet 5 Geological Plan.	1:5000

T 949	Loyetea Anomalies E.L. 19/72 Nietta, N.W. Tasmania, Soil Sample Location Plan.	1:5000
T 950	Loyetea Anomalies E.L. 19/72 Nietta, N.W. Tasmania, Geochemical Soil Sample Results Plan, Lead in ppm.	1:5000
T 951	Loyetea Anomalies E.L. 19/72 Nietta, N.W. Tasmania, Geochemical Soil Sample Results Plan, Zinc in ppm.	1:5000
T 952	Loyetea Anomalies E.L. 19/72 Nietta, N.W. Tasmania, Geochemical Soil Sample Results Plan, Copper in ppm.	1:5000
T 953	E.L. 19/72 Nietta, N.W. Tasmania Crosby Creek Prospect, Geological Plan.	1:2000
T 954	E.L. 19/72 Nietta, N.W. Tasmania Crosby Creek Prospect, Soil Sample Location Plan.	1:2000
T 955	E.L. 19/72 Nietta, N.W. Tasmania Crosby Creek Prospect, Geochemical Soil Sample Results Plan, Lead in ppm.	1:2000
T 956	E.L. 19/72 Nietta, N.W. Tasmania Crosby Creek Prospect, Geochemical Soil Sample Results Plan, Zinc in ppm.	1:2000
T 957	E.L. 19/72 Nietta, N.W. Tasmania Crosby Creek Prospect, Geochemical Soil Sample Results Plan, Copper in ppm.	1:2000
T 958	E.L. 19/72 Nietta, N.W. Tasmania Loyetea South Prospect, Geological Plan.	1:2000
T 959	E.L. 19/72 Nietta, N.W. Tasmania Loyetea South Prospect, Soil Sample Location Plan.	1:2000
T 960	E.L. 19/72 Nietta, N.W. Tasmania Loyetea South Prospect, Geochemical Soil Sample Results Plan, Lead in ppm.	1:2000

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- T 961 E.L. 19/72 Nietta, N.W. Tasmania 1:2000
Loyetea South Prospect, Geochemical
Soil Sample Results Plan, Zinc in
ppm.
- T 962 E.L. 19/72 Nietta, N.W. Tasmania 1:2000
Loyetea South Prospect, Geochemical
Soil Sample Results Plan, Copper
in ppm.
- T 963 E.L. 19/72 Nietta, N.W. Tasmania 1:2000
Loyetea North Prospect, Geological
Plan.
- T 964 E.L. 19/72 Nietta, N.W. Tasmania 1:2000
Loyetea North Prospect, Soil
Sample Location Plan.
- T 965 E.L. 19/72 Nietta, N.W. Tasmania 1:2000
Loyetea North Prospect, Geochemical
Soil Sample Results Plan, Lead
in ppm.
- T 966 E.L. 19/72 Nietta, N.W. Tasmania 1:2000
Loyetea North Prospect, Geochemical
Soil Sample Results Plan, Zinc
in ppm.
- T 967 E.L. 19/72 Nietta, N.W. Tasmania 1:2000
Loyetea North Prospect, Geochemical
Soil Sample Results Plan, Copper
in ppm.
- T 968 E.L. 19/72 Nietta, N.W. Tasmania 1:1000
Crosby Creek Prospect Diamond
Drill Section DD 75 CC1.
- T 969 E.L. 19/72 Nietta, N.W. Tasmania 1:1000
Crosby Creek Prospect Diamond
Drill Section DD 75 CC2.
- T 970 E.L. 19/72 Nietta, N.W. Tasmania 1:1000
Crosby Creek Prospect Diamond Drill
Section DD 75 CC3.
- T 971 E.L. 19/72 Nietta, N.W. Tasmania 1:1000
Loyetea South Prospect Diamond
Drill Section DD 76 LS1.
- T 972 E.L. 19/72 Nietta, N.W. Tasmania 1:1000
Loyetea South Prospect Diamond
Drill Section DD 76 LS2.

C.R.A. EXPLORATION PTY. LIMITED

PROJECT CROSBY CREEK

DIAMOND DRILL CORE LOG

CO-ORDINATES 7503mN, 7340mE AZIMUTH 0° mag DRILLERS C.R.A.E COMMENCED 28-8-75 DEPTH 149.12 HOLE No. DD7503
 RL COLLAR _____ INCLINATION -6° DRILL TYPE LONGWELL HC150 COMPLETED 5-9-75 CASING LEFT _____ DPD No(s) 1772

DEPTH FROM (M)	DEPTH TO (M)	CORE REC. (M)	CORE SIZE	GRAPHIC LOG	CORE DESCRIPTION	SPECIAL FEATURES WEATH., ALTERATION, FRACTURING VEINING, MINERALIZATION	SAMPLE No.	FROM (M)	TO (M)	REC (M)	ASSAY VALUES						
											H	Zn	Cu	Pb	Au		
0	6.0	-			Soil and highly weathered debris												
6.0	16.37	7.0	N0		Strongly weathered and decomposed debris												
16.37	27.0	10.6			Diast. Well weathered and brecciated to 25.2m												
27.0	72.3	45.3	RC		Diast. Strongly altered to a pink coloured rock with abundant carbonate veining 42.0-43.9 41.7-43.1 52.0-51.1	Disseminated py. sp. 67.9-72.25	297(20)	67.9	72.5	24	1005	107	104	1	1004		
72.3	55.2	17.9	"		A pink alteration due to the presence of pink filler - massive gradationally from west to east. Black shale to tuffaceous shale Bedding $\times 75^\circ$ to L.C.A @ 71.2m " 85 " " " 74.0m " 70 " " " 82.1m	Abundant carbonate veining throughout. Trace of at. py. sp. py mineralization 71.9-74.5. Along thick band of thin laminated = lep. py min at 72.25	297(29)	72.9	74.5	16	107	105	1055	1	1004		
55.2	93.2	10.0	"		Five quartz veins bedded siliceous tuff grading from quartz to quartzite bedded tuff. Bedding becomes less obvious from 92m Bedding $\times 75^\circ$ to L.C.A @ 89.9												
93.2	141.2	48.0	"		Black shale to tuffaceous shale. Minor coarse tuff bands @ 102.9, 103.2-103.9 Similar to a fine tuffaceous sandstone to siltstone from 5m Bedding $\times 70^\circ$ to L.C.A @ 102.9 " 65 " " " 117.6 " 75 " " " 121.5 " 75 " " " 140.5												
141.2	149.12	7.9	"		Altered fine grained quartz - filler cemented tuff Quartz-carbonate veins @ 141.2-141.7, 142.9, 144.1, 147.4-147.9 and 144.0												

E.O.H. 149.12

C.R.A. EXPLORATION PTY. LIMITED PROJECT LOMETEA SOUTH.

DIAMOND DRILL CORE LOG

CO-ORDINATES 4738.4N, 2764.6E AZIMUTH 340 mag DRILLERS LONGE-TRAC COMMENCED 5-2-76. DEPTH 300.2m HOLE NO. DD76LS1.
 RL COLLAR _____ INCLINATION 50° DRILL TYPE HOSE-DRIVE 38 COMPLETED 12-2-76 CASING LEFT _____ DPO No(s) _____

DEPTH FROM (M)	DEPTH TO (M)	CORE REC. (M)	CORE SIZE	GRAPHIC LOG	CORE DESCRIPTION	SPECIAL FEATURES WEATH., ALTERATION, FRACTURING VEINING, MINERALIZATION	SAMPLE NO.	FROM (M)	TO (M)	REC (M)	ASSAY VALUES	
43.0	45.1	2.05	NG		Fine grey buffaceous shale with interbedded laminae of lighter coarser material. Bedding \pm 55° to LCA @ 43.9m " " 30° " " 44.7m	Carbonate veined throughout.						
45.1	47.4	2.3	"		Light green dacitic lava with white zirconite amygdaloids. Matrix composed of fine feldspar laths and aphanitic groundmass.	Quartz veined (1 vein 5cm) - rare trace pyrite						
47.4	52.6	5.2	"		Interbedded grey fine grained buffaceous shale and thin crystal tuff beds. Shale has laminae of coarser material which on occasions grade into crystal tuff beds. Tuff appears to have shaly matrix.	Shale has carbonate veining throughout.						
52.6	63.85	10.75	3R		Grey fine buffaceous shale with lighter colored laminae and beds with occasional feldspar fragments. One crystal tuff bed occurs at 55.2 - 58.6m which is bedded & one band altered. 3 large quartz veins occur @ 52.7-10cm thick (thick fill 40cm of m - cp associated), and to 60.5m a quartz vein. Bedding \pm 65° to L.C.A. @ 57m " " 50° " " 62m " " 30° " " 64m	Carbonate veining throughout. Occasional large quartz veins which have rare cp associated - 56.6m - trace rare pyrite						
63.85	64.4	0.55	"		Amygdaloidal dacitic lava - similar to above 45.1 - 47.4m.	? chlorite wings on amygdaloids.						
64.4	76.7	12.3	"		Interbedded fine grey buffaceous shale with lighter colored siltstone bands and coarse crystal tuff with a shaly matrix and composed mainly of feldspar fragments. Bedding \pm 30° to L.C.A. @ 65.5 " " 35° " " 71.5 " " 65° " " 74.8	Carbonate veined throughout. 1 quartz vein 2cm wide.						
76.7	79.0	2.3	"		Amygdaloidal dacitic lava. Slightly altered - as before.							
79.0	99.25	5.25	"		Grey fine grained buffaceous shale with subordinate lighter coarser beds & laminae (max 15cm). Also a few of the coarser bands have rare feldspar fragments. At 99.30 - 99.9m	Carbonate veined throughout. - rare pyrite. Fault 99-100m						

C.R.A. EXPLORATION PTY. LIMITED
DIAMOND DRILL CORE LOG
 PROJECT LOVETEA SOUTH

CO-ORDINATES 47°38'N, 276°E AZIMUTH 340 mag DRILLERS LONGTAP COMMENCED 5.2.76 DEPTH 300.2m MOLE No. DD76LS1
 RL COLLAR _____ INCLINATION 50° DRILL TYPE LONGTAP 38 COMPLETED 12.2.76 CASING LEFT 6m DPO No(s) _____

DEPTH FROM (M) TO (M)	CORE REC. (M)	CORE SIZE	GRAPHIC LOG	CORE DESCRIPTION	SPECIAL FEATURES WEATH., ALTERATION, FRACTURING VEINING, MINERALIZATION	SAMPLE No.	FROM (M)	TO (M)	REC (M)	ASSAY VALUES	
79.0 (cont) 130.25				rock is fractured and brecciated? fault zone from 99.9-103m rock slickensided. Another small fault zone at 108m. Bedding \pm 35° to L.C.A. @ 80m. \pm 35° to L.C.A. @ 107.5							
				• 40° • • • 82.5m • 30° • • 109.							
				• 35° • • • 85.8m • 30° • • 113.							
				• 50° • • • 88m • 5° • • 114.8							
				• 40° • • • 90m • 30° • • 117.2							
				• 55° • • • 92.5m • 20° • • 120.5							
				• 45° • • • 95.5 • 45° • • 123							
				• 50° • • • 101.2 • 20° • • 127							
				• 35° • • • 105.9 • 35° • • 129.2							
130.25 132.1	1-85	BQ		Altered? sericitic buff (rock has schistosity) - rock pale yellow greenish in colour, fine grained & calc. poor bedding present. Rock not silicified. Bedding \pm 40° to L.C.A. @ 131m	Sericitic alteration throughout. Minor carbonate veining at 130.5m. A few fine fractures with trace pyrite.						
132.1 134.8	2.6	"		Interbedded fine grey buffaceous shale and laminae of lighter coarser material	Abundant carbonate veining throughout.						
134.8 137.9	3.1	-		Altered pale green sericitic buff with partly schistose appearance as follows: silicification.	Quartz & K. Feldspar veins which has kaolinisation & pyrite associated. Rock sericitic.						
137.9 140.5	2.6	"		Very fine buffaceous shale with thin carbonaceous laminae. Bedding \pm 40° to L.C.A. @ 140m.	Carbonate veining throughout.						
140.5 174.7	34.0	-		Pale green buff (although in places it appears to have igneous textures). Rock is mostly highly altered (especially in 1st half of section) and has abundant small fibrous, which often contain very fine pyrite. Large quartz veins occur here and small amount of mineralisation is associated. At 149.75m epz is associated with a quartz-chlorite vein. At 152.8m zone is associated with a thin quartz vein.	Highly altered over most of section with sericite throughout. Also abundant massive silicification and quartz veining. Associated with quartz veins is kaolinisation & chloritisation. Pyrite occurs as very fine disseminated & altered parts (0.1%) and is associated with quartz veins sometimes zone at 152.8m; epz at 149.75m.						

CRA 87
PLAN No 8084

SUMMARY AND SPECIAL COMMENTS Survey at 100m 42.5° d.t. 350.5° mag.

LOGGED BY John Thomson DATE 12/2/76
SHEET 3 OF 5

466036

C.R.A. EXPLORATION PTY. LIMITED
DIAMOND DRILL CORE LOG

PROJECT LOMTEA SOUTH

CO-ORDINATES 4738m, 276m E AZIMUTH 340 mag DRILLERS LONGYEAR COMMENCED 5.2.76 DEPTH 300.2m HOLE No. DD76LS1
 RL COLLAR _____ INCLINATION 50° DRILL TYPE LONGYEAR 38 COMPLETED 12.2.76 CASING LEFT 6m DPO No(s) _____

DEPTH FROM (M)	CORE REC (M)	CORE SIZE	GRAPHIC LOG	CORE DESCRIPTION	SPECIAL FEATURES WEATH., ALTERATION, FRACTURING VEINING, MINERALIZATION	SAMPLE No.	FROM (M)	TO (M)	REC (M)	ASSAY VALUES			
174.7	180.65	5.7	3Q	grey fine grained tuffaceous shale with abundant laminae of coarser material. Some sediment slump pipe at 180m (causing bore brecciation in rock). Bedding \pm 60° to LCA at 178.5m	Carbonate veining throughout								
180.65	183.4	2.75	.	greenish tuff with a 10cm lapilli tuff band at 180.8m	Rare trace pyrite and minor carbonate veining.								
183.4	210.7	27	.	grey fine grained tuffaceous shale with coarse laminae. Also with increasing coarser bands (ie tuffaceous siltstone) have some alteration zones occurring. In boundaries between the tuff the bedding in the shale becomes less distinct. Bedding \pm 50° to L.C.A. @ 185m " " 75° " " 188.5m " " 60° " " 190.5m " " 45° " " 196.5m " " 40° " " 199.5m " " 30° " " 203m " " 25° " " 206.5m	Carbonate veining throughout and pyrite associated with coarser bands								
210.7	224.7	14.0	.	greenish tuff highly altered (sericitic & siliceified) with abundant large quartz veins (some sub-parallel to bedding). The lower half of unit is coarser grained & often has quartz fragments of lapilli size. Bedding \pm 35° to LCA @ 213m	Large quartz veins abundant & calcification associated. - Rock sericitic & siliceified. - trace pyrite throughout.								
224.7	230.15	5.1	.	fine grey tuffaceous shale which has many altered volcanic fragments. The bedding is disturbed and brecciation appears to have been formed by slumping	Abundant fine carbonate veining								
230.15	237.06	6.95	.	green crystal to lapilli tuff composed of feldspar and quartz fragments. The bottom 4.5m of unit is coarse grained lapilli tuff with some shale fragments included. The unit is more fine grained in the top 2.3m and alteration more uniform	Sericite throughout abundant in top 2.3m becoming patchy in basal 4.5m. Minor carbonate veining & chloritization of fractures in basal 4.5m. trace pyrite throughout but inf to 3% in within 0.5m.								

SUMMARY AND SPECIAL COMMENTS: Survey at 200m 57° dip, 355° mag

LOGGED BY Gavin Thomas DATE 15/2/76
 SHEET 4 OF 5

037

C.R.A. EXPLORATION PTY. LIMITED
DIAMOND DRILL CORE LOG

PROJECT LOHETEPA SOUTH

CO-ORDINATES 47°38'N, 274°E AZIMUTH 348° mag. DRILLERS LONGYEAR COMMENCED 5-2-76 DEPTH 300.2m HOLE No. DD76LS1
 RL COLLAR _____ INCLINATION 50° DRILL TYPE LONGYEAR 38 COMPLETED 12-2-76 CASING LEFT 6m DPO No(s) _____

DEPTH		CORE REC. (M)	CORE SIZE	GRAPHIC LOG	CORE DESCRIPTION	SPECIAL FEATURES WEATH., ALTERATION, FRACTURING VEINING, MINERALIZATION	SAMPLE No.	FROM (M)	TO (M)	REC (M)	ASSAY VALUES						
FROM (M)	TO (M)																
237.0	255.3	18.1	30		<p>fine grey buffaceous shale with coarser laminae. From 241-245.5m slumping has occurred and sediments partly brecciated.</p> <p>Bedding at 40° to L.C.A. @ 239m</p> <p>70° " " " 246m</p> <p>85° " " " 251m</p> <p>50° " " " 254.5m</p>	<p>Carbonate veining throughout. Occurs abundantly in slumped areas.</p> <p>Trace pyrite generally occurs in coarsest laminae</p>											
255.3	255.8	0.5			<p>light green buffaceous siltstone. Siltitic alteration throughout & some shale fragments occur in unit.</p>	Sericitic alteration											
255.8	258.1	2.2			<p>grey fine buffaceous shale with lighter coarser laminae</p> <p>Bedding at 70° to L.C.A. @ 256m</p>	<p>Carbonate ^{minor} veined throughout</p>											
258.1	274.7	16.7			<p>Pale green sericitic tuff unit which is fine grained in top and basal sections but develops into a capilli tuff composed mainly of quartz capilli tuff from 266.5m to 284.1m with a red soil small capilli tuff band from 288.15-288.55m. Shale fragments also in capilli bands.</p> <p>Bedding at 50° to L.C.A. @ 268.5m.</p>	<p>Sericitic alteration throughout and minor silicification. Trace pyrite throughout but very fine grained.</p> <p>A large quartz vein at base of unit is subparallel to L.C.A.</p>											
274.7	300.2	25.3			<p>grey fine buffaceous shale and lighter coarser laminae. Slumping has occurred and altered volcanic fragments are present</p> <p>Bedding at 35° to L.C.A. @ 295m</p> <p>50° to " " 301m.</p>	<p>Carbonate veining throughout.</p>											
300.20m E.O.H.																	

CRAB 117
PLAN No M 400

SUMMARY AND SPECIAL COMMENTS Survey at 300m 42.5° dip ; 348° dip

LOGGED BY Gavin Thomas DATE 10-2-76
SHEET 5 OF 5

466038

C.R.A. EXPLORATION PTY. LIMITED

DIAMOND DRILL CORE LOG

PROJECT LOYETEA SOUTH

CO-ORDINATES S34°N, 3076mE AZIMUTH 30° DRILLERS LONGYEAR COMMENCED 15.2.76 DEPTH 200.1m HOLE No. DD 76LS2

RL COLLAR _____ INCLINATION 65° DRILL TYPE LOWYER 38 COMPLETED 20.2.76 CASING LEFT 6m DPO No(s) _____

DEPTH		CORE REC (M)	CORE SIZE	GRAPHIC LOG	CORE DESCRIPTION	SPECIAL FEATURES WEATH., ALTERATION, FRACTURING VEINING, MINERALIZATION	SAMPLE No.	FROM (M)	TO (M)	REC (M)	ASSAY VALUES	
FROM (M)	TO (M)											
0	5.50	36	NA		Lapilli tuff grading to agglomerate with volcanic matrix - rock appears to be partly altered.	limonite on fractures to 4.4m.						
5.50	11.80	3.5	"		fine grained ? tuff, greenish.	carbonate veined throughout.						
9.30	15.30	5.3	"		Lapilli tuff grading to agglomerate and composed of quartz, feldspar-vitric tuff fragments. Matrix appears to be volcanic.	Quartz veins with kaolinitised tails; rock partly silicified & sericitic; in places fine disseminated pyrite around frags.						
15.30	21.30	5.7	"		Mainly lapilli tuff but grading to agglomerate - these are well feldspar fragments than above and matrix appears to be shaly and increasing to base of unit.	Very similar for section 9.8-15.3m ie above.						
21.30	28.1	6.7	BQ		Interbedded tuff, lapilli tuff and fine tuffaceous shale. All three grade into one another with occasional conglomeratic size fragments. All tuffs have shaly matrix. Bedding at 50° to L.C.A. @ 25m 35° " 25m	Carbonate veined throughout.						
28.1	35.3	7.1	"		Lapilli tuff partly altered and has volcanic matrix. It is composed of quartz, feldspar fragments. In places fragments decrease in percentage. Bedding at 45° to L.C.A. @ 35m	large quartz veins with kinked tails - also have small quartz veins throughout rock & in places rock silicified.						
35.3	37.0	1.65	"		fine grey tuffaceous shale with lighter calcareous bands. Some contact contorted. Occasional fragment. Bedding at 65° to L.C.A. @ 35.6m	Carbonate veined throughout.						
37.0	40.0	2.9	"		Interbedded altered and unaltered crystal tuffaceous shale. Some bands have silicified volcanic matrix while other bands are unaltered & shaly. Occasional lapilli and agglomerate frags. Sericitic bands are: 37-37.3m; 37.8-38m; 38.3-38.35m and 38.7-38.75m	Altho & carbonate veined. Some bands sericitic (see descrip)						

C.R.A. EXPLORATION PTY. LIMITED
DIAMOND DRILL CORE LOG

CO-ORDINATES 55° 46' N, 307° 46' E AZIMUTH 310° DRILLERS LONGYEAR COMMENCED 15.2.76. DEPTH 200.1m HOLE NO. DD7452.
 RL COLLAR _____ INCLINATION 65° DRILL TYPE LONGYEAR 38 COMPLETED 20.2.76. CASING LEFT 6m DPO No(s) _____

DEPTH FROM (M)	TO (M)	CORE REC. (M)	CORE SIZE	GRAPHIC LOG	CORE DESCRIPTION	SPECIAL FEATURES WEATH., ALTERATION, FRACTURING VEINING, MINERALIZATION	SAMPLE NO.	FROM (M)	TO (M)	REC (M)	ASSAY VALUES			
40.0	64.5	20.1	B2		Sericitic schistose lapilli tuff composed of quartz and feldspar fragments with fiamic fragments from 50.5m. The zone 40-50.5m tends to have smaller fragments.	Rock sericitic. Some silicification.								
64.5	65.4	808			Grey buffaceous shale with small (<1cm) bands of sericitic alteration.	Minor bands of sericitic alteration.								
65.1	71.7	58			Sericitic schistose lapilli tuff - as for 20.5-64.5m but 66.1m a shale band (10cm).	Rock is sericitic and partly silicified.								
71.7	72.0	03			Tuff with shaly matrix composed predominantly of feldspars and some quartz & vitric tuff frag.	Sericitic in places carbonate veined.								
72.0	72.25	0.25			Altered tuff composed of quartz & feldspars with sericitic volcanic material.	Sericitic in places.								
72.25	72.5	0.25			Grey buffaceous shale Dipping at 40° to L.C.A. @ 72.5m	Carbonate veined throughout.								
72.5	90.6	17.8			Lapilli tuff composed of quartz and feldspar frags from 72.5-79.8m rock has some fiamic fragments and vitric tuff fragments. Rock is also silicified in places with some sericitic alteration. From 79.8-90.6m rock becomes more sericitic (and schistose like) and less silicified with rare fiamic fragments.	Rock silicified (mainly 72.5-79.8m) and sericitic (increasing from 79.8-90.6m) Rock quartz veined. Near contact of diorite feldspars are pink.								
90.6	200.1	105			Partly altered porphyritic diorite (microcline) Rock has occasional silene in unaltered sections but where carbonate veining is intense the diorite has been altered to a pink colour and surrounding feldspars in the unaltered sections are often pink (-? potassic alteration). Alteration selvages can be seen to decrease away from veins. The strongly altered zone occur at 90.6-92.0m - contact. 110.4 - 116.5m 127.7 - 132.0m 138.5 - 140.8m 141.5 - 150.25m 154.7 - 157.35m 159.85 - 195.4m (in places brecciated) section 198.55 - 200.1m	Carbonate & quartz veined throughout. Where veining intense have major alteration (? potassic) occurring. Chlorite is also associated with veining in places where veining less the alteration decreases away from the vein. Some parts have fine trace pegs with or disseminations & fracture fillings.								

E.O.H.

SUMMARY AND SPECIAL COMMENTS Survey @ 200m. by 38° - 42.38° LOGGED BY Gavin James DATE 22/2/76. SHEET 2 OF 2

EL 1972. DUN RANGE TAS
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 1752

AREA NIETTA PROSPECT - CROSBY CR ANOMALIES.

SAMPLE Nos. 208576 - 208603

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE NIETTA PROSPECT, E/L 1972 DUN RANGE, NW TAS SHEET 2. - 1:5000 PLAN.

ANALYSED BY Zinc Corp. - Broken Hill

Grid Coordinate	Sample No.	Soil composition					Soil Section	Sample				Bedrock		Metal content, p.p.m.										Geological observations				
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (inches)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As					
LINE 74E 7355ME																												
7590M	208576	10	-	5	10	75	WB	80	light	-	-	✓	80	49	92	34												Rock rather slate.
7570N	208577	10	-	10	6	20		40	brown	-	-	✓	-	23	74	34												of dyalitic lava? or tuff
7850N	208578	10	-	5	5	80	WB	90	"	-	-	✓	-	46	68	29												of rather slightly gneissous slate to vitric tuff?
7830N	208579	10	-	10	20	60	WB	50	light	-	-	✓	50	33	75	33												Rock rather slate
7810N	208580	10	-	10	40	40	"	60	"	-	-	✓	60	36	86	16												Rock rather slaty ductile tuff?
7790N	208581	10	-	5	6	25	"	50	"	-	-	✓	50	41	86	31												Rock rather slate.
LINE 74E 7480ME																												
7850M	208582	-	-	10	5	85	WB	80	light	-	-	✓	90	36	53	15												Probably an fine vitric tuff.
7860M	208583	-	-	5	5	90	"	50	light	-	-	✓	70	24	36	11												?
7840N	208584	15	-	10	45	30	WB	30	"	-	-	✓	30	24	32	11												Rock rather slate.
7820N	208585	15	-	10	45	30	"	30	brown	-	-	✓	30	26	37	14												As above.
7800M	208586	25	-	10	45	20	"	40	light	-	-	✓	40	36	72	22												Rock green slate or shale.
7780N	208587	15	-	10	60	15	"	30	brown	-	-	✓	30	18	34	11												Rock ferruginous shale.
7760N	208588	15	-	10	55	20	WB	30	"	-	-	✓	30	36	69	14												Rock rather slate.
7740N	208589	20	-	20	-	60	WB	80	light	-	-	✓	90	53	123	22												Rock rather red tuff?
7720N	208590	30	-	20	-	50	"	90	light	-	-	✓	100	43	22	8												As above.
7700N	208591	30	-	15	40	15	"	40	red	-	-	✓	40	51	57	33												Rock rather ferrug. shale.
7680N	208592	15	-	10	55	40	"	30	light	-	-	✓	30	24	23	20												Rock rather slate or vitric tuff.
7660N	208593	35	-	10	10	45	WB	40	brown	-	-	✓	40	36	40	29												Rock rather ferrug. shale.
7640N	208594	20	-	5	35	40	WB	35	"	-	-	✓	40	18	31	25												As above.
7620N	208595	25	-	10	25	40	"	30	brown	-	-	✓	30	43	31	25												Rock rather slate or shale.
7600N	208596	25	-	10	40	25	WB	50	"	-	-	✓	60	41	55	40												As above.
7580N	208597	25	-	10	35	30	"	30	"	-	-	✓	50	43	46	26												As above.
7560N	208598	15	-	5	20	60	"	30	light	-	-	✓	40	20	24	12												Rock rather fine tuff.
7540N	208599	10	-	5	30	55	"	25	brown	-	-	✓	30	16	22	7												As above.
7520N	208600	10	-	5	65	20	"	30	"	-	-	✓	35	54	76	25												Rock rather green grey slate.
7500N	208601	35	-	10	25	30	"	30	brown	-	-	✓	30	65	176	31												Rock ductile to pyroclastic.
7480N	208602	25	-	5	15	55	WB	70	red	-	-	✓	110	76	200	63												As above.
7460N	208603	10	-	10	45	35	WB	40	light	-	-	✓	70	71	186	37												Rock rather ferrug. shale.

E-L 19/72 DINK RANGE TAS

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 17752

2.

AREA NIETTA PROSPECT - CROSSBY CK ANOMALIES.

SAMPLE Nos. 20860A - 208632

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A FOR P1.

ANALYSED BY ZINC CORR. BROKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations			
		Rock %	Latitude %	Sand %	Silt %	Clay %		Depth (cm) (Monsie) Chart No.	PH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Ca	Cr	Mn	Ag	Mo	As				
LINE 76G																										
7410N	20860A	-	-	10	10	80	WB	60	sol	-	✓	120	144	39												Rock rather silty tuff
7420N	208605	10	-	10	10	70	WB	90	sol	-	✓	18	11	33												As above.
7430N	208606	20	-	5	25	45	WB	60	high	-	✓	80	13	63												As above.
7380N	208607	10	-	5	10	75	WB	100	"	-	✓	120	9	270	2											Rock rather silty tuff
7400N	208608	5	-	5	5	85	WB	90	"	-	✓	120	4	280	3											Rock fine silty tuff
7340N	208609	-	-	5	-	95	WB	10	"	-	✓	20	39	153	4											?
7300N	208610	5	-	5	25	65	WB	70	sol	-	✓	20	31	144	10											Rock silty
7300N	208611	20	-	5	25	50	B	40	sol	-	✓	10	10	138	4											of silty to dyalitic
7280N	208612	25	-	10	5	50	WB	50	high	-	✓	10	830	89	4											As above.
LINE 76E																										
7580E																										
7855N	208613	5	-	10	5	80	WB	90	high	-	✓	20	31	35	17											Rock rather fine dyalitic tuff
7865N	208614	10	-	5	5	80	WB	90	high	-	✓	10	39	24	10											white quartz frags.
7845N	208615	10	-	5	10	75	WB	110	"	-	✓	130	24	65	52											Rock silty tuff or slate
7825N	208616	10	-	5	10	75	WB	80	high	-	✓	10	39	104	28											As above.
7805N	208617	20	-	5	10	65	WB	70	high	-	✓	90	25	92	70											Rock rather silty
7785N	208618	20	-	5	15	60	WB	70	high	-	✓	90	24	108	33											As above.
7765N	208619	10	-	5	10	75	WB	80	"	-	✓	90	24	115	33											Rock silty or silty tuff
7745N	208620	20	-	10	10	60	WB	100	"	-	✓	100	24	84	15											Rock rather dyalitic tuff
7725N	208621	25	-	25	20	25	WB	100	sol	-	✓	100	18	31	10											Rock rather dyalitic tuff
7705N	208622	20	-	10	25	45	WB	75	sol	-	✓	80	65	95	48											Rock rather green slate
7685N	208623	20	-	10	25	45	WB	80	"	-	✓	90	60	89	37											As above.
7665N	208624	30	-	5	20	45	WB	50	high	-	✓	50	14	0	44											As above.
7645N	208625	30	-	5	25	40	WB	35	"	-	✓	40	36	15	24											As above.
7625N	208626	40	-	10	45	15	B	40	sol	-	✓	50	13	57	30											As above.
7605N	208627	20	-	15	45	10	WB	30	"	-	✓	40	12	16	28											As above.
7585N	208628	2	-	10	35	25	B	35	"	-	✓	40	26	11	20											As above.
7565N	208629	25	-	10	30	35	WB	40	"	-	✓	50	27	33	15											Rock rather fine tuff
7545N	208630	10	-	10	40	10	WB	30	"	-	✓	30	24	64	11											Rock rather silty
7525N	208631	15	-	5	60	20	WB	30	high	-	✓	30	110	82	17											Rock fine tuff to silty fine tuff
7505N	208632	35	-	10	40	15	WB	30	sol	-	✓	40	270	117	37											Rock green slate

E.L. 4/71 Durr Ridge Trs
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

620. 1752

AREA NIETTA PROSPECT - CROSBY CR ANOMALIES.
MAP OR PHOTO REFERENCE: Fig 73

SAMPLE No. 208881 - 208900
244736 - 244743

COLLECTED BY: [Signature]
ANALYSED BY ZINC CORP. BRACKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil Horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations		
		Rock %	Leucite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell)	pH	Outcrop	Concrete	Est. Depth (m)	Pb	Zn	Cu	Fe	Ca	Cr	Mn	Ag	Mo		As	
LINE 77E G																									
7555 N	208881	20	-	5	20	35	VB	70	red	-	-	70	150	155	46										Rock gran slate
7535 N	208882	20	-	5	25	50	S	110	"	-	-	110	300	167	56										Rock ferrug. slate
7515 N	208883	20	-	5	35	40	B	40	"	-	-	60	270	116	50										As above to fine tuff
7495 N	208884	30	-	5	45	20	%VB	30	"	-	-	70	820	457	80										As above
7475 N	208885	30	-	5	45	20	VB	50	"	-	-	60	490	159	110										As above
7455 N	208886	5	-	5	30	60	%B	20	"	-	-	200	55	71	10										Rock rather dioritic tuff or diorite
7435 N	208887	-	-	5	15	80	B	110	"	-	-	200	40	15	54										Possibly ex dioritic tuff or diorite
7415 N	208888	-	-	5	20	75	%VB	20	"	-	-	200	60	150	8										Rock diorite
7395 N	208889	-	-	5	20	75	B	80	"	-	-	200	68	159	8										As above
7375 N	208890	-	-	5	5	80	%B	110	"	-	-	200	36	126	27										As above
7355 N	208891	20	-	0	20	25	VB	30	"	-	-	30	31	187	6										Rock rather diorite
7335 N	208892	25	-	10	20	25	%B	35	"	-	-	45	50	162	7										As above
7315 N	208893	26	-	5	55	20	B	40	"	-	-	50	86	137	6										As above
7295 N	208894	25	-	5	55	15	S	40	"	-	-	50	62	190	7										As above
LINE 77E																									
7865 NE																									
7930 N	208895	40	-	5	5	50	VB	50	"	-	-	50	9	8	28										Rock grey ferrug. slate
7910 N	208896	30	-	20	30	20	S	40	"	-	-	40	3	24	23										As above
7890 N	208897	-	-	15	5	80	%B	80	"	-	-	150	4	3	8										Possibly ex shale
7870 N	208898	10	-	5	5	80	VB	20	"	-	-	150	57	76	12										Rock fine shaly dioritic tuff
7850 N	208899	15	-	10	5	20	%VB	50	"	-	-	80	150	190	39										Rock ferrug. slate
7830 N	208900	25	-	20	15	40	VB	80	"	-	-	80	29	28	18										As above
7710 N	244736	25	-	20	0	45	S	80	"	-	-	80	24	58	15										As above
7690 N	244737	-	-	25	5	70	%VB	150	"	-	-	200	130	270	54										Rock shaly dioritic to shaly dioritic tuff
7670 N	244738	10	-	10	10	70	VB	100	"	-	-	100	140	280	80										Rock rather ferrug. slate
7650 N	244739	5	-	0	10	75	%B	80	"	-	-	150	280	370	80										As above
7630 N	244740	10	-	5	20	55	VB	75	"	-	-	80	110	150	80										Rock rather diorite
7610 N	244741	30	-	10	45	15	B	30	"	-	-	50	230	150	60										Rock diorite
7590 N	244742	-	-	5	20	65	%B	80	"	-	-	150	110	190	70										Possibly ex diorite
7570 N	244743	25	-	15	30	30	VB	45	"	-	-	45	150	150	50										Rock rather diorite

FL 97a DML RANGE TRS
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

220.17102

AREA NIETTA PROSPECT - CROSSY CK ANOMALIES.

SAMPLE Nos. 244744 - 244750
244795 - 244500
245127 - 245143

COLLECTED BY *[Signature]*

MAP OR PHOTO REFERENCE *to for p4*

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Coordinates	Sample No.	Soil composition					Soil Horizon	Sample			Bedrock		Metal content, p. p. m.											Geological observations			
		Rock %	Loamite %	Sand %	Silt %	Clay %		Depth (meters)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Fr. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As				
LINE 73E Col																											
7550N	244744	25	-	5	20	45	WB	120	brown	-	-	✓	140	25	280	190											Rock rather diorite
7550N	244745	5	-	10	10	75	WB	100	red	-	-	✓	00	31	136	81											As above?
7510N	244746	-	-	5	5	80	B	120	"	-	-	✓	200	46	00	58											Possibly ex diorite
7490N	244747	-	-	5	5	80	B	120	"	-	-	✓	200	100	124	114											As above
7470N	244748	-	-	5	5	80	WB	120	"	-	-	✓	150	71	134	36											As above a "crop soil"
7450N	244749	-	-	5	5	75	"	120	"	-	-	✓	100	51	152	33											As above
7430N	244750	-	-	5	5	80	"	80	"	-	-	✓	200	41	108	34											As above
7410N	244751	-	-	5	5	80	B	120	"	-	-	✓	20	46	93	53											As above
7390N	244796	10	-	30	20	40	WB	120	"	-	-	✓	50	49	62	100											Rock diorite rock
7370N	244797	10	-	30	30	40	"	100	"	-	-	✓	100	71	220	120											As above
7350N	244798	10	-	20	30	40	"	100	"	-	-	✓	100	3	20	19											As above
7330N	244799	20	-	5	60	15	B	30	brown	-	-	✓	70	22	08	18											Rock diorite
7310N	244800	10	-	20	35	35	WB	60	red	-	-	✓	60	20	86	50											Rock rather diorite
7290N	245127	10	-	30	35	35	"	90	"	-	-	✓	90	34	145	23											As above
7270N	245128	20	-	20	40	20	"	60	"	-	-	✓	60	60	157	44											Rock diorite
7250	245129	10	-	10	40	40	"	80	"	-	-	✓	80	51	159	53											As above
LINE 80E																											
7960E																											
7340N	245130	25	-	20	10	35	"	100	large	-	-	✓	100	11	67	41											Rock diorite (or altered tuff?)
7320N	245131	40	-	15	30	15	B	30	brown	-	-	✓	40	16	155	44											Rock diorite
7300N	245132	20	-	15	20	45	WB	70	large	-	-	✓	80	71	200	84											Rock rather diorite?
7280N	245133	30	-	25	30	15	"	30	brown	-	-	✓	30	86	157	114											Rock diorite
7260N	245134	30	-	15	15	40	WB	40	red	-	-	✓	40	65	230	44											Rock rather diorite
7240N	245135	30	-	25	30	15	B	30	brown	-	-	✓	50	77	164	47											Rock diorite
7220N	245136	20	-	20	30	30	WB	40	red	-	-	✓	40	62	174	34											Rock rather diorite
7200N	245137	30	-	10	40	20	WB	35	"	-	-	✓	50	300	370	110											Rock diorite
7180N	245138	25	-	20	25	30	WB	60	"	-	-	✓	60	48	200	83											Rock rather diorite
7160N	245139	25	-	20	40	15	WB	40	brown	-	-	✓	40	25	152	46											As above
7140N	245140	20	-	5	20	55	WB	80	red	-	-	✓	80	51	102	19											As above
7120N	245141	35	-	15	40	10	B	40	brown	-	-	✓	80	36	141	34											Rock diorite
7100N	245142	20	-	15	30	25	WB	60	"	-	-	✓	80	24	184	19											As above
7080N	245143	25	-	20	10	45	B	80	red	-	-	✓	80	39	91	58											Rock diorite or tuff?

E.L. 9th DUAL RANGE TAB.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.F.O. 17752

6.

AREA NIETTA PROSPECT - CROSBY CK ANOMALIES.

SAMPLE Nos. 24514A - 24515D
245357 - 245376.

COLLECTED BY *[Signature]*

MAP OR PHOTO REFERENCE *A B C*

ANALYSED BY ZINC CORP. BROKEN HILL.

Grid Coordinate LINE S&E CONT	Sample No.	Soil composition					Soil horizon	Sample		Bedrock		Metal content, p. p. m.										Geological observations					
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (meters)	Colour (Munsell Chart No.)	Outcrop	Concealed	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As						
7480 N	24514A	-	-	10	10	80	WB	120	red	-	✓	180	51	143	47											Probably rotten diorite & diorite creep soil	
7520 N	24514B	5	-	20	20	55	WB	110	red	-	✓	120	62	140	44											Rock with diorite (or tuff??)	
7520 N	24514B	-	-	15	10	75	WB	120	red	-	✓	150	41	108	75											Rock diorite & diorite creep soil	
7520 N	24514C	20	-	10	20	45	WB	80	red	-	✓	80	45	510	100											Rock rotten diorite	
7560 N	24514D	15	-	10	15	60	WB	60	red	-	✓	80	150	115	150											As above	
7580 N	24514E	5	-	15	50	30	WB	50	red	-	✓	50	57	123	50											Rock with fine diorite (or fine tuff??)	
7600 N	24515D	5	-	5	35	35	WB	60	red	-	✓	70	57	110	50											As above	
7620 N	245357	5	-	10	15	70	WB	120	red	-	✓	150	83	136	110											Rock rotten diorite	
7640 N	245358	30	-	20	10	40	WB	110	red	-	✓	120	59	200	120											As above	
7660 N	245359	10	-	15	30	25	WB	50	red	-	✓	60	65	195	80											Rock rotten fine diorite	
7680 N	245360	10	-	10	20	60	WB	100	red	-	✓	110	80	174	71											Rock rotten diorite	
7700 N	245361	25	-	5	30	40	WB	40	large	-	✓	60	57	150	45											Rock green shale	
7720 N	245362	20	-	5	5	60	WB	80	red	-	✓	80	34	91	33											Rock grey shale	
7740 N	245363	-	-	10	40	50	WB	90	red	-	✓	100	20	117	17											Rock grey shale (or fine tuff?)	
7760 N	245364	-	-	40	10	50	WB	100	green	-	✓	100	59	124	22											As above	
7800 N	245365	-	-	10	90		WB	120	red	-	✓	20	61	89	45											As shale?	
7820 N	245366	10	-	5	30	55	WB	70	red	-	✓	80	24	60	75											Rock green shale (or fine vitrified tuff?)	
7840 N	245367	25	-	20	45	10	WB	30	red	-	✓	30	12	35	65											As above	
7860 N	245368	30	-	5	30	35	WB	60	large	-	✓	60	21	12	26											As above - gossanous	
LINE 74E																											
7385 NE																											
7630 N	245369	20	-	5	35	40	WB	40	red	-	✓	-	110	95	57												Rock shale (or fine tuff?)
7610 N	245370	5	-	10	30	55	WB	110	red	-	✓	140	200	120	75												Fine ferruginous tuff
7590 N	245371	20	-	10	35	35	WB	70	red	-	✓	70	230	140	83												Rock silty shale (or fine tuff?)
7570 N	245372	20	-	5	40	35	WB	40	red	-	✓	60	330	240	110												Rock diorite
7550 N	245373	20	-	5	30	45	WB	80	red	-	✓	80	200	290	50												Rock rotten diorite
7530 N	245374	10	-	25	25	40	WB	90	red	-	✓	80	25	40	13												As above
7510 N	245375	10	-	25	35	30	WB	90	red	-	✓	120	39	171	24												As above
7490 N	245376	20	-	20	15	35	WB	80	red	-	✓	120	30	77	100												As above

E.L. W/2 SWR RANGE TAS
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

210. 1752 7

AREA NIETTA PROSPECT - CROSBY CK ANOMALIES

SAMPLE Nos. 245377 - 245400
245486 - 245491.

COLLECTED BY: [Signature]

MAP OR PHOTO REFERENCE: A for 16.

ANALYSED BY: ZINC CORP. BROKE N. HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations					
		Rock %	Limulite %	Sand %	Silt %	Clay %		Depth (cm)	Colour	Munsell Chart No.	pH	Outcrop	Concentrated	Est. Depth (m)	Pb	Zn	Cu	Ni	Ca	Cr	Mn	Ag		Mo	As			
7470.N	245377	20	-	20	15	35	WR	60	red	-	-	✓ 80	72	157	65												Rock with diorite	
7480.N	245378	20	-	15	10	65	WR	50	"	-	-	✓ 80	170	94	120												As above	
7430.N	245379	32	-	20	10	40	WR	60	"	-	-	✓ 90	40	210	210												As above	
7410.N	245380	10	-	20	15	65	WR	120	"	-	-	✓ 140	26	230	170												Ferruginous shale (± diorite?)	
7490.N	245381	25	-	15	10	30	B	6	light	-	-	✓ 200	61	230	18												Red diorite	
7370.N	245382	15	-	15	50	15	WR	10	light	-	-	✓ 200	130	250	7												As above	
7350.N	245383	10	-	15	30	35	WR	50	light	-	-	✓ 60	510	260	13												Rock with diorite	
7330.N	245384	15	-	10	10	35	WR	6	red	-	-	✓ -	72	230	13												of c. diorite	
7310.N	245385	10	-	20	50	20	"	60	"	-	-	✓ -	59	230	11												As above	
Line 72E																												
7195E																												
7570.N	245386	35	-	15	25	15	WR	40	red	-	-	✓ 40	45	76	34												Rock with slate or fine vitric tuff	
7550.N	245387	30	-	15	10	15	"	40	brown	-	-	✓ 40	24	40	19												As above	
7520.N	245388	30	-	15	10	15	"	40	"	-	-	✓ 40	26	43	15												limonitic shale	
7510.N	245389	30	-	15	10	15	"	40	light	-	-	✓ 40	13	31	17												Rock with shale	
7490.N	245390	32	-	15	10	15	"	40	red	-	-	✓ 40	35	61	18												As above	
7470.N	245391	30	-	15	10	15	"	40	"	-	-	✓ 40	50	57	15												Rock with limonitic shale	
7450.N	245392	30	-	15	10	15	"	40	"	-	-	✓ 40	17	61	17												Fine tuff (± ashoric etc.)	
7430.N	245393	25	-	20	35	20	"	60	"	-	-	✓ 60	61	123	25												Rock with sdyo. tuff	
7410.N	245394	30	-	15	15	20	"	18	"	-	-	✓ 18	67	85	38												As above	
7390.N	245395	20	-	15	50	15	WR	20	brown	-	-	✓ 20	33	61	22												As above	
7370.N	245396	30	-	20	10	20	WR	40	red	-	-	✓ 40	82	58	38												Rock shale or fine vitric tuff	
7350.N	245397	15	-	20	50	15	"	50	"	-	-	✓ 50	94	77	53												As above	
7330.N	245398	20	-	15	45	20	"	50	brown	-	-	✓ 50	66	38	23												Rock with fine sdyo. (diorite) tuff?	
7310.N	245399	20	-	15	50	15	"	40	red	-	-	✓ 40	50	53	35												Rock red ferrug. shale	
7290.N	245400	20	-	15	40	25	"	80	"	-	-	✓ 20	30	64	34												Rock ferrug. shale or fine vitric tuff	
7270.N	245486	20	-	20	10	50	"	70	"	-	-	✓ 70	35	35	20												Rock with diorite (or tuff?)	
7250.N	245487	20	-	20	20	30	"	18	"	-	-	✓ 100	18	77	45												Rock with shale	
7230.N	245488	5	-	-	20	75	WR	60	"	-	-	✓ 200	67	86	38												As above	
7210.N	245489	5	-	-	20	75	"	18	"	-	-	✓ 20	44	89	35												Rock red ferrug. shale	
7190.N	245490	-	-	-	10	90	B	10	"	-	-	✓ 200	78	96	24													
7170.N	245491	-	-	-	10	90	B	10	"	-	-	✓ 200	88	108	22													Barley on diorite

E.L. 19/12 DUNE RANGE TRS.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 17752

8.

AREA NITRA PROJECT - CROSBY & ANOMALIES
MAP OR PHOTO REFERENCE *A/P-17*

SAMPLE Nos. *245492 - 245500*
246679 - 246683
246718 - 246723

COLLECTED BY *[Signature]*
ANALYSED BY ZINC COOP. BROKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations			
		Rock %	Latitude %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As		
7450N	245492	-	-	5	15	80	B	120	20	-	✓ 250	73	108	20							1				Possibly on diorite	
7430N	245493	-	-	15	10	75	"	80	"	-	✓ 150	75	112	17							1				Rock diorite	
7460N	245494	5	-	30	20	45	WB	110	"	-	✓ 110	100	270	1							1				As above.	
7390N	245495	20	-	5	5	80	"	70	"	-	✓ 70	150	170	14							<1				As above	
7570N	245496	5	-	20	6	65	"	70	"	-	✓ 70	140	195	33							<1				As above	
7350N	245497	15	-	25	5	55	"	90	"	-	✓ 90	140	195	17							1				Rock rather diorite + shale chips?	
7330N	245498	25	-	5	30	50	"	120	"	-	✓ 150	110	230	20							1				As above.	
7310N	245499	25	-	5	30	50	WB	70	"	-	✓ 70	130	260	22							1				Rock rather diorite.	
7290N	245500	30	-	10	5	45	"	100	"	-	✓ 100	170	240	23							1				As above.	
LINE 71E																										
7095NE																										
7360N	246679	25	-	30	25	20	WB	110	yellow	-	✓ 110	15	28	18							<1					Rock rather shaly tuff (Calcareous)
7340N	246680	30	-	5	25	40	"	60	grey	-	✓ 60	42	52	42							<1					Rock limestone shale.
7320N	246681	30	-	15	25	30	"	40	grey	-	✓ 40	23	39	24							<1					As above.
7300N	246682	25	-	25	30	20	"	80	grey	-	✓ 80	28	82	18							<1					Rock rather shaly tuff (Calcareous).
7780N	246713	25	-	5	30	40	"	80	"	-	✓ 80	24	44	24							<1					Rock rather shale.
7760N	246714	20	-	10	45	25	"	60	"	-	✓ 60	37	44	40							<1					Rock silty shale to fine silty tuff
7740N	246719	-	-	-	10	90	B	110	"	-	✓ 200	39	52	55							<1					ex-shale of fine silty tuff?
7720N	246720	25	-	5	20	50	WB	90	"	-	✓ 90	170	56	61							<1					Rock rather shale.
7700N	246721	25	-	5	10	20	"	80	"	-	✓ 80	58	72	57							<1					Rock loamy shale.
7680N	246722	-	-	5	25	60	"	100	"	-	✓ 100	24	72	75							<1					Rock tuff lava or tuff?
7660N	246723	5	-	20	10	55	"	80	grey	-	✓ 100	58	62	28							<1					Rock rather loamy shaly tuff.
7640N	246724	25	-	10	25	40	"	60	"	-	✓ 60	35	40	20							<1					Rock black shale.
7620N	246725	25	-	10	25	40	"	80	"	-	✓ 60	60	83	32							<1					As above.
7600N	246726	25	-	30	30	15	"	60	"	-	✓ 60	65	77	33							<1					As above.
7580N	246727	15	-	25	10	50	"	90	"	-	✓ 90	63	73	35							1					Rock rather shaly tuff (Calcareous).
7560N	246728	30	-	5	10	45	WB	60	grey	-	✓ 80	68	88	33							<1					Rock green shale.
7540N	246729	20	-	5	10	65	WB	110	grey	-	✓ 100	80	116	65							<1					Rock rather shale.
7520N	246730	30	-	25	10	35	"	100	"	-	✓ 110	380	340	270							<1					Rock rather diorite.
7500N	246731	20	-	25	10	35	"	90	"	-	✓ 90	110	260	73							<1					As above.
7480N	246732	-	-	5	20	75	B	110	"	-	✓ 200	85	113	23							<1					Rock diorite
7460N	246733	-	-	10	20	70	B	100	"	-	✓ 200	82	102	21							<1					As above.

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E.L. 19/72 DML RIDGE TRS.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 1752.

10.

AREA NIETA PROSPECT - CROSSY CK ANOMALIES.

SAMPLE Nos. 246763 - 246790

COLLECTED BY: *[Signature]*

MAP OR PHOTO REFERENCE: *Map 69*

ANALYSED BY: ZINC CORP. BROWN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations				
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (meters)	Colour (Munsell Chart No.)	pH	Outcrop	Concentrated	En. Depth to	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As			
LINE 7E G6																											
7400 N	246763	5	-	5	10	80	B	120	2d	-	-	✓	150	80	108	19											Rock with diorite
7440 N	246764	-	-	10	15	75	B	110	1	-	-	✓	200	97	110	19											Partly ex-diorite
7420 N	246765	-	-	10	15	75	B	20	1	-	-	✓	200	100	110	18											As above
7400 N	246766	-	-	10	15	75	B	10	1	-	-	✓	200	90	103	7											As above
739																											
LINE 69E																											
6902 E																											
75400 N	246767	25	-	20	35	20	WB	80	5d	-	-	✓	80	31	18	34											Rock shale
7520 N	246768	25	-	10	10	55	"	80	1	-	-	✓	80	65	61	110											Rock limonite fine tuff
7500 N	246769	25	-	10	10	55	"	100	1	-	-	✓	110	28	128	15											As above
7720 N	246770	15	-	10	10	35	B	30	1	-	-	✓	50	28	76	30											Rock grey shale
7760 N	246771	25	-	25	25	25	WB	10	1	-	-	✓	10	34	73	21											Rock limonite fine tuff
7740 N	246772	15	-	10	35	40	WB	90	1	-	-	✓	90	55	97	29											Rock with limonite shale (6 fine tuff)
7720 N	246773	25	-	30	10	35	WB	110	2d	-	-	✓	120	12	73	23											Rock with diorite slyps tuff + fine silt tuff chips
7700 N	246774	15	-	35	10	40	"	110	1	-	-	✓	110	34	79	20											Rock with slyps tuff
7680 N	246775	20	-	15	10	55	"	110	1	-	-	✓	110	36	66	19											Rock silt grey shale (6 fine silt tuff)
7660 N	246776	20	-	15	15	50	"	70	5d	-	-	✓	70	18	62	30											As above
7640 N	246777	20	-	15	15	50	"	6	1	-	-	✓	6	10	10	25											As above
7620 N	246778	25	-	15	25	35	"	80	1	-	-	✓	50	68	56	26											As above
7600 N	246779	20	-	15	35	10	"	10	1	-	-	✓	50	34	37	21											As above
7580 N	246780	25	-	15	25	35	"	60	1	-	-	✓	6	39	39	25											As above
7560 N	246781	15	-	15	35	35	"	50	1	-	-	✓	50	52	72	20											As above
7440 N	246782	25	-	10	15	50	"	110	1	-	-	✓	120	79	72	21											Rock limonite shale (6 fine tuff)
7420 N	246783	10	-	20	15	55	"	180	1	-	-	✓	120	60	130	16											Rock with diorite
7400 N	246784	-	-	-	10	90	B	120	2d	-	-	✓	200	55	82	22											Ex-diorite or diorite comp soil
7380 N	246785	10	-	25	10	55	WB	180	1	-	-	✓	120	40	113	20											Rock with diorite
7860 N	246786	20	-	10	15	25	WB	10	1	-	-	✓	10	19	31	22											Rock with shale
7550 N	246787	20	-	10	15	25	WB	10	1	-	-	✓	10	28	50	32											Rock limonite shale
7400 N	246788	25	-	25	10	40	"	180	1	-	-	✓	180	28	15	12											Rock with limonite shale
7920 N	246789	-	-	30	5	65	B	180	1	-	-	✓	150	55	15	29											Rock with slyps tuff
7940 N	246790	5	-	5	10	80	B	110	1	-	-	✓	180	70	72	15											Rock with shale

466050

E.L. 1/72 DIAL RANGE TAS
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 17752 & 246805
D.P.O. 17752 from 246807

AREA NINETEEN PROSPECT - CROSSY CR ANOMALIES
MAP OR PHOTO REFERENCE *to p. 110.*

SAMPLE Nos. 246791 - 246805
246807 - 246815.

COLLECTED BY *[Signature]*
ANALYSED BY ZINC CORP. BROKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock			Metal content, p. p. m.										Geological observations	
		Root %	Levante %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As		
Line 4E (1 km)																									
7960 N	246791	-	-	10	5	85	B	110	✓	-	✓	150	37	73	20								<1	Rock rather shale.	
7950 N	246792	-	-	10	5	85	B	110	✓	-	✓	200	48	58	22								<1	Possibly on shale.	
Line 6SE																									
6800 mE																									
7820 mN	246793	40	2	20	20	10	WB	40	✓	-	✓	40	19	23	7								<1	Rock rather shaly claystone or tuff?	
7800 N	246794	15	-	30	20	35	WB	70	✓	-	✓	150	28	66	14								<1	As above.	
7780 N	246795	-	-	15	5	80	WB	120	✓	-	✓	180	10	13	5								<1	As above.	
7760 N	246796	10	-	25	0	65	WB	190	✓	-	✓	90	15	35	5								<1	As above.	
7740 N	246797	10	-	25	0	65	"	120	✓	-	✓	100	40	30	11								<1	As above.	
7720 N	246798	20	-	30	10	40	"	180	✓	-	✓	100	15	61	7								<1	As above.	
7700 N	246799	10	-	35	10	45	"	120	✓	-	✓	140	24	9	2								<1	As above.	
7650 N	246800	20	-	10	40	30	B	40	✓	-	✓	60	26	50	20								<1	Rock rather shale.	
7660 mE	246801	20	-	10	30	40	WB	70	✓	-	✓	70	33	55	24								<1	As above.	
7640 N	246802	20	-	10	30	40	"	70	✓	-	✓	70	33	55	24								<1	As above.	
7620 N	246803	35	-	15	20	30	"	60	✓	-	✓	100	33	61	20								<1	Rock rather fine tuff to shale.	
7600 N	246804	20	-	10	25	45	"	80	✓	-	✓	80	48	80	23								<1	As above.	
7580 N	246805	-	-	10	5	85	B	120	✓	-	✓	25	66	77	21								<1	Possibly on shale.	
Line 67E																									
6700 mE																									
7810 mN	246807	15	-	15	0	85	WB	90	✓	-	✓	90	24	169	20								<1	Bedrock shaly tuff.	
7790 N	246808	5	-	25	0	70	WB	180	✓	-	✓	120	29	58	22								<1	Rock rather shale.	
7770 N	246809	-	-	5	0	95	B	20	✓	-	✓	200	29	69	14								<1	Fr. diaste.	
7750 N	246810	-	-	5	0	95	B	10	✓	-	✓	200	33	70	15								<1	As above.	
7730 N	246811	10	-	20	10	60	WB	180	✓	-	✓	150	33	70	22								<1	Rock rather diaste.	
Line 66E																									
6600 mE																									
7790 mN	246812	10	-	10	10	70	WB	60	✓	-	✓	60	17	72	15								<1	Rock rather fine tuff & shale.	
7770 N	246813	10	-	10	10	70	"	80	✓	-	✓	80	27	133	22								<1	Rock rather diaste.	
Line 65E																									
6500 mE																									
7500 mN	246814	10	-	5	10	75	WB	70	✓	-	✓	70	27	76	15								<1	Rock diaste.	
7300 N	246815	-	-	5	10	85	B	110	✓	-	✓	200	29	81	17								<1	Possibly on diaste.	

EL. 1972 DIAL RANGE TAE
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 17753.

H.

AREA NORTH PROSPECT - CROSBY CR ANOMALIES.

SAMPLE No. 246873 - 246900

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A 107 P13

ANALYSED BY ZINC CORP. BROKEN HILL.

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample		Bedrock		Metal content, p. p. m.										Geological observations					
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	Outcrop	Concealed	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As						
LINE 67E																											
8250N	246872	10	-	5	20	65	5B	60	10	-	✓	66	18	99	58				41							Rock fine limonitic chlorite slyce tuff	
8270N	246874	10	-	5	20	65	5B	60	10	-	✓	80	18	103	62				41							As above	
8290N	246875	20	-	5	25	50	5B	60	10	-	✓	100	35	55	48				41							Rock slyce fine chlorite tuff	
8310N	246876	15	-	5	25	55	5B	60	10	-	✓	80	20	50	32				41							Rock slyce limonitic fine slyce tuff	
8330N	246877	20	-	5	5	60	5B	100	10	-	✓	60	31	80	40				41							As above	
8350N	246878	20	-	20	20	40	5B	100	10	-	✓	150	23	46	30				41							Rock slyce limonitic slyce tuff	
8370N	246879	10	-	25	15	50	5B	10	10	-	✓	120	27	66	140				41							Rock slyce slyce tuff	
8390N	246880	10	-	5	5	80	5B	10	10	-	✓	80	30	109	23				1							Rock chloritic ash flow tuff	
8410N	246881	10	-	5	20	65	5B	10	10	-	✓	90	46	139	24				1							Rock fine limonitic tuff - shale	
8430N	246882	20	-	5	30	35	5B	10	10	-	✓	80	110	194	30				1							Rock slyce fine to medium tuff	
8450N	246883	35	-	15	20	30	5B	10	10	-	✓	70	150	48	42				41							Rock slyce shale	
LINE 67E																											
6790ME																											
7810N	246884	15	-	5	5	75	5B	100	10	-	✓	100	39	210	62				1							Rock slyce fine tuff	
7830N	246885	20	-	5	20	35	5B	90	10	-	✓	90	21	73	30				41							As above to shale	
7850N	246886	10	-	20	30	40	5B	50	10	-	✓	60	12	37	57				41							Rock slyce fine to medium tuff	
7900N	246887	20	-	5	25	30	5B	90	10	-	✓	90	41	159	6				41							Rock slyce shale	
7920N	246888	-	-	5	5	90	5B	10	10	-	✓	100	32	25	67				41							?	
7940N	246889	0	-	5	5	90	5B	10	10	-	✓	100	46	41	36				1							Rock white quartz. Possibly ex-shale or fine tuff	
7960N	246890	-	-	70	10	20	5B	130	10	-	✓	200	6	62	5				41							Rock slyce lava or tuff	
7980N	246891	-	-	65	5	30	5B	10	10	-	✓	200	5	11	3				41							As above	
8000N	246892	-	-	65	5	30	5B	10	10	-	✓	200	6	3	2				41							As above	
8020N	246893	-	-	35	5	60	5B	100	10	-	✓	150	2	2	1				41							As above	
8040N	246894	-	-	5	5	90	5B	10	10	-	✓	150	34	390	10				41							?	
8060N	246895	35	-	5	5	55	5B	10	10	-	✓	100	14	480	27				41							Rock shale (chloritic tuff?)	
8080N	246896	-	-	5	0	95	5B	100	10	-	✓	100	23	86	49				1							Rock shale (massive etc) of fine chloritic slyce tuff	
8100N	246897	10	-	5	35	50	5B	60	10	-	✓	60	4	55	24				1							Rock limonitic chloritic tuff (Red?)	
8120N	246898	20	-	0	25	45	5B	100	10	-	✓	100	18	86	44				1							Rock slyce chloritic tuff	
8140N	246899	5	-	5	50	40	5B	10	10	-	✓	80	10	43	39				1							Rock fine limonitic shale (sil. tuff?)	
8160N	246900	0	-	5	40	45	5B	10	10	-	✓	60	17	35	86				1							As above	

E.L. 19/72 DINK RANGE TNS.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 17753.

AREA NIETA PROSPECT - CROSSY CR ANOMALIES.

SAMPLE Nos. 24691 - 24695

COLLECTED BY D. J. ...

MAP OR PHOTO REFERENCE As for p. 14.

ANALYSED BY Zinc Corp. Broken Hill

Grid Coordinate	Sample No.	Soil composition					Soil Horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations				
		Moist %	Loss on Ignition %	Sand %	Silt %	Clay %		Depth (cm)	Colour	pH	Quartz %	Concreted	Str. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As			
8180N	24691	10	-	5	25	60	WB	110	red	-	✓	120	10	35	22						41						Rock with fine tuff As above
8200N	24692	10	-	5	35	50	"	110	grey	-	✓	120	16	44	49					1						Rock with shale to fine tuff	
8220N	24693	20	-	5	15	65	WB	100	"	-	✓	100	27	119	24					41						Rock with laminated shale to fine diatom tuff	
8240N	24694	10	-	5	30	55	"	60	red	-	✓	60	32	92	32					1						Rock with fine tuff	
8260N	24695	10	-	30	25	35	"	90	grey	-	✓	90	62	75	88					41						Rock with silt tuff	
8280N	24696	10	-	20	30	50	"	60	red	-	✓	60	28	125	20					41						Rock with fine tuff	
8300N	24697	10	-	5	25	60	WB	110	grey	-	✓	150	35	92	31					41						As above	
8320N	24698	-	-	5	15	80	B	100	"	-	✓	140	170	700	150					1						Possibly shale (not shale)	
8340N	24699	-	-	-	10	90	B	100	"	-	✓	80	41	57	23					41						As above	
8360N	246910	-	-	-	10	90	"	120	"	-	✓	180	46	59	17					41						As above or fine tuff	
8380N	246911	10	-	10	20	60	WB	70	red	-	✓	70	31	89	36					41						Rock with shale to fine tuff Possible etc of fine to medium diatom ash flow tuff	
8400N	246912	10	-	10	40	40	"	70	"	-	✓	70	41	105	67					1						Rock with fine tuff	
8420N	246913	15	-	5	20	60	"	100	"	-	✓	100	130	80	63					1						Rock with fine to medium laminated diatom tuff	
8440N	246914	20	-	10	15	55	"	100	"	-	✓	110	62	91	160					1						Rock with shale to fine tuff	
8460N	246915	15	-	10	25	50	"	40	"	-	✓	40	29	62	63					1						Rock grey, fine silt tuff	
LINE 81E.																											
8070NE																											
8340N	246916	15	-	5	15	65	WB	40	red	-	✓	250	150	210	48					1						Rock diatom	
8320N	246917	-	-	5	10	80	"	120	"	-	✓	250	360	190	120					1						Possibly ex-diatom	
8300N	246918	30	-	5	30	35	WB	90	"	-	✓	90	145	210	100					1						Rock fine diatom	
728N	246919	20	-	5	30	45	"	60	red	-	✓	60	16	141	39					1						Rock diatom	
726N	246920	15	-	20	40	25	"	70	red	-	✓	70	25	330	37					1						Rock with diatom	
724N	246921	5	-	20	45	30	"	90	red	-	✓	90	130	350	37					1						As above	
722N	246922	5	-	20	45	30	"	70	"	-	✓	70	130	270	53					1						As above	
720N	246923	30	-	20	35	15	"	70	"	-	✓	70	37	220	30					1						Rock diatom	
718N	246924	5	-	5	65	25	B	50	"	-	✓	-	81	100	58					1						etc diatom	
716N	246925	20	-	10	40	30	WB	40	"	-	✓	-	360	400	110					1						As above	

E.L. 1/12 DULRANGE TRS.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 1753.

AREA NIETTA PROSPECT - CROSBY CK ANOMALIES
MAP OR PHOTO REFERENCE *A.P. 15.*

SAMPLE Nos. 246926 - 246955

COLLECTED BY *D.J.P.*
ANALYSED BY *Zinc Corp. Broken Hill.*

Grid Coordinates	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations					
		Rock %	Laterite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Ex. Depth (cm)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As				
LINE 81E																												
7360 N.N.	246926	-	-	5	10	85	B	120	2L	-	✓	200	10	25	91												Probably andesite	
7380 N.N.	246927	10	-	10	10	70	WB	110	"	-	✓	110	12	76	79												Rock with diorite	
7400 N.N.	246928	20	-	10	20	50	WB	120	"	-	✓	150	16	49	32												As above	
7420 N.N.	246929	-	-	5	20	75	"	110	"	-	✓	150	16	55	39												Ex-diorite	
7440 N.N.	246930	10	-	5	10	75	"	120	"	-	✓	150	80	70	81												Rock with diorite	
7460 N.N.	246931	15	-	5	25	55	WB	40	blue	-	✓	40	350	240	65												Rock fine tuff or diorite?	
7480 N.N.	246932	10	-	10	80	80	"	60	2L	-	✓	60	340	92	62												As above probably fine tuff	
7500 N.N.	246933	10	-	-	55	55	WB	110	"	-	✓	140	290	192	130												Rock with fine tuff to shale	
7520 N.N.	246934	-	-	-	10	90	B	120	"	-	✓	250	150	169	76												Probably a diorite	
7560 N.N.	246935	-	-	-	20	80	"	110	"	-	✓	200	66	152	47												As above?	
7580 N.N.	246936	-	-	15	25	60	"	120	"	-	✓	150	77	139	51												As above	
7580 N.N.	246937	-	-	-	20	80	B	110	"	-	✓	200	110	153	67												As above	
7600 N.N.	246938	-	-	10	20	70	B	120	"	-	✓	200	66	137	48												As above	
7620 N.N.	246939	10	-	25	20	45	WB	50	grey	-	✓	150	130	420	140												Rock with fine diorite (outcrop?)	
7640 N.N.	246940	10	-	10	80	50	"	50	grey	-	✓	45	96	350	140												As above	
7660 N.N.	246941	10	-	10	80	30	"	50	"	-	✓	50	110	370	81												As above	
7680 N.N.	246942	25	-	10	20	45	"	60	"	-	✓	60	38	103	36												Rock green shale	
7700 N.N.	246943	0	-	10	80	30	WB	40	"	-	✓	40	89	240	74												Rock fine shaly tuff	
7720 N.N.	246944	10	-	20	10	60	WB	80	"	-	✓	80	77	195	200												Rock green shale (see 7).	
7740 N.N.	246945	5	-	-	5	90	B	110	"	-	✓	150	120	210	110												Rock with shale	
7760 N.N.	246946	-	-	-	10	90	"	110	"	-	✓	150	95	195	72												Possibly ex-shale	
7780 N.N.	246947	-	-	40	5	55	WB	150	"	-	✓	150	40	89	58												Rock with shaly tuff	
7800 N.N.	246948	10	-	10	55	25	"	60	blue	-	✓	60	18	69	36												Rock with shaly tuff	
7820 N.N.	246949	20	-	25	35	20	WB	60	red	-	✓	60	14	40	85												limonitic shale to fine tuff	
7840 N.N.	246950	20	-	10	55	15	WB	50	blue	-	✓	50	8	16	13												As above	
LINE 82E																												
8180 ME																												
7450 N.N.	246951	5	-	-	5	40	WB	70	red	-	✓	70	400	330	110													Rock fine shaly tuff
7430 N.N.	246952	0	-	5	8	25	"	50	"	-	✓	80	710	310	120													Rock porous shale to fine tuff
7410 N.N.	246953	10	-	5	55	30	WB	60	blue	-	✓	150	260	360	300													Rock fine tuff
7370 N.N.	246954	5	-	-	25	70	B	110	2L	-	✓	140	24	122	140													Rock with diorite (a tuff?)
7370 N.N.	246955	0	-	5	10	70	WB	80	"	-	✓	80	100	92	58													As above

E.L. 1/172 DAL RANGE TAS.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 1753. 17

AREA NIETTA PROSPECT - CROSSY CR ANOMALIES

SAMPLE Nos. 246956 - 246984

COLLECTED BY *David*

MAP OR PHOTO REFERENCE *A.F. p. 16.*

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock	Metal content, p. p. m.										Geological observations					
		Rock %	Levelite %	Sand %	Silt %	Clay %		Depth (m)	Calcium (ppm)	Magnesium (ppm)		pH	Outcrop	Concealing	Est. Depth %	Pb	Zn	Cu	Ni	Co	Cr		Mn	Ag	Mo	As	
LINE 82 E (cont.)																											
7350 N	246956	5	-	15	20	60	WB	90	24	-	-	✓	90	16	31	28										Rocky fine diatomite	
7330 N	246957	20	-	5	30	45	A	85	5	-	-	✓	95	45	114	58										Rocky diatomite	
7310 N	246958	20	-	5	30	45	A	70	5	-	-	✓	70	18	14	20										As above	
7290 N	246959	20	-	5	30	45	A	80	5	-	-	✓	80	1230	570	210										As above	
7270 N	246960	20	-	5	30	45	WB	180	big	-	-	✓	180	50	380	170										As above	
7250 N	246961	10	-	30	40	20	WB	120	big	-	-	✓	140	29	320	21					41					As above	
7230 N	246962	20	-	0	60	10	A	40	big	-	-	✓	60	35	128	72										Rock diatomite	
7210 N	246963	0	-	0	60	20	WB	90	big	-	-	✓	90	71	220	66										Rocky diatomite	
7190 N	246964	20	-	0	50	20	A	120	big	-	-	✓	120	110	210	88										As above	
7170 N	246965	10	-	20	30	10	WB	280	big	-	-	✓	60	77	210	91										Rock diatomite	
7150 N	246966	20	-	5	45	30	B	60	big	-	-	✓	60	980	510	150						2				of fine siliceous greenish shale	
7130 N	246967	15	-	20	35	30	WB	80	big	-	-	✓	80	89	56	36										Rocky fine diatomite	
7110 N	246968	15	-	10	35	20	A	60	big	-	-	✓	60	340	143	110										Rocky shale	
7090 N	246969	20	-	5	45	30	A	80	big	-	-	✓	80	400	210	120										As above	
7070 N	246970	20	-	10	50	20	A	60	big	-	-	✓	60	170	117	68										As above	
7050 N	246971	40	-	20	25	15	A	110	big	-	-	✓	110	500	167	69										As above	
7030 N	246972	5	-	5	5	85	B	120	big	-	-	✓	200	46	160	45										Rocky diatomite or fine tuff?	
7010 N	246973	5	-	5	5	85	B	110	big	-	-	✓	140	72	148	60										Rocky fine diatomite	
6990 N	246974	5	-	5	5	85	B	120	big	-	-	✓	200	79	143	66										Rocky fine diatomite & shale	
6970 N	246975	-	-	-	15	85	B	110	big	-	-	✓	200	89	137	56										Rocky diatomite	
6950 N	246976	-	-	-	15	85	B	120	big	-	-	✓	150	80	130	56										Rocky diatomite	
6930 N	246977	-	-	40	5	55	WB	140	big	-	-	✓	140	13	40	43						41				Rocky clay tuff	
6910 N	246978	10	-	10	10	70	A	60	big	-	-	✓	60	47	55	24						41				Rocky shale	
6890 N	246979	25	-	15	30	30	WB	60	big	-	-	✓	60	31	73	23						41				Rocky siliceous diatomite shale	
6870 N	246980	10	-	20	30	20	A	50	big	-	-	✓	50	22	56	8						41				As above	
6850 N	246981	25	-	15	10	40	A	80	big	-	-	✓	80	45	130	32						41				As above	
LINE 84 E																											
8350 mE																											
7570 mE	246982	20	-	5	45	30	WB	110	big	-	-	✓	110	55	91	25											Rocky shale
7550 mE	246983	5	-	5	10	80	WB	120	big	-	-	✓	140	77	119	53											As above
7530 mE	246984	-	-	5	5	90	B	120	big	-	-	✓	200	86	133	53											Rocky diatomite or diatomite

057

E.L. 19/2 DIM RANGE. TAS.

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 17753 TO 247002.
 D.P.O. 17754 FROM 247003.

AREA NIETA PROSPECT - CROSSY CR ANOMALIES.

SAMPLE No. 246985 - 247016.

COLLECTED BY *D. J. ...*

MAP OR PHOTO REFERENCE *As for p. 17*

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations			
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell)	Moisture %	Fracture	Outcrop	Concealed	Exp. Depth	Pb	Zn	Cu	N	Co	Cr	Mn	Ag		Mo	As	
7530N	246985	-	-	5	5	90	B	120	red	-	-	✓ 200	130	133	71											Tr. diorite or diorite comp soil
7492N	246986	-	-	5	5	90	B	120	"	-	-	✓ 200	150	133	86											As above.
7472N	246987	-	-	5	5	90	"	110	"	-	-	✓ 200	200	165	110											As above.
7452N	246988	-	-	5	5	90	"	120	"	-	-	✓ 200	170	126	120											As above.
7432N	246989	20	-	10	55	25	WB	70	pink	-	-	✓ 70	150	45	78											Reddish grey tuff to shale
7410N	246990	5	-	5	85	30	B	30	brown	-	-	✓ 50	320	117	130											Red soil shale.
7390N	246991	15	-	5	60	20	WB	45	"	-	-	✓ 60	63	111	170											Red soil diorite
7370N	246992	10	-	5	65	20	WB	40	"	-	-	✓ 60	47	125	52											Red diorite.
7350N	246993	25	-	10	45	30	B	40	"	-	-	✓ 40	26	75	88											As above.
7330N	246994	10	-	10	80	30	WB	80	brown	-	-	✓ 80	62	220	320											Red soil diorite.
7310N	246995	10	-	20	40	30	B	50	brown	-	-	✓ 80	62	126	86											As above.
7290N	246996	15	-	25	35	25	WB	70	"	-	-	✓ 70	42	184	71											As above?
7270N	246997	20	-	5	25	50	B	80	red	-	-	✓ 80	100	182	110											Reddish fine diorite?
7250N	246998	5	-	5	10	80	B	110	red	-	-	✓ 150	200	260	110											Red soil diorite.
7230N	246999	5	-	10	20	65	B	00	"	-	-	✓ 150	66	162	69											As above.
7210N	247000	-	-	25	40	35	WB	60	beige	-	-	✓ 60	22	171	120											As above.
7190N	247001	5	-	25	35	35	WB	80	"	-	-	✓ 80	35	145	39											As above.
7170N	247002	5	-	20	30	25	WB	40	brown	-	-	✓ 40	63	169	46											As above.
7150N	247003	20	-	5	15	30	WB	100	yellow	-	-	✓ 100	86	169	37											As above.
7130N	247004	25	-	10	40	35	B	40	beige	-	-	✓ 40	32	169	25											As above.
7110N	247005	-	-	-	40	60	B	80	brown	-	-	✓ 100	110	157	35											As above.
7090N	247006	20	-	5	40	35	WB	90	yellow	-	-	✓ 90	34	193	68											As above.
7070N	247007	10	-	5	70	15	B	60	brown	-	-	✓ 100	66	130	71											As above.
7050N	247008	10	-	5	65	20	WB	100	"	-	-	✓ 100	310	520	310											As above.
7030N	247009	0	-	5	60	35	WB	110	beige	-	-	✓ 110	140	360	160											As above.
7010N	247010	15	-	5	45	35	WB	70	brown	-	-	✓ 80	85	193	73											As above.
6990N	247011	10	-	5	30	55	WB	60	beige	-	-	✓ 110	21	120	91											As above.
6970N	247012	15	-	5	45	35	B	40	brown	-	-	✓ 100	140	210	65											As above.
6950N	247013	20	-	5	40	25	WB	40	beige	-	-	✓ 100	96	120	31											As above.
6930N	247014	10	-	5	25	60	B	100	"	-	-	✓ 110	46	74	29											As above.
6910N	247015	20	-	10	45	25	B	80	"	-	-	✓ 50	50	115	36											As above.
6890N	247016	10	-	30	25	35	B	80	"	-	-	✓ 80	61	97	41											As above.

466058

E.L. 972 DIAL RANGE. TRZ.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED GEOCHEMICAL SOIL SAMPLING LEDGER

D.O. 17154

AREA NIETA PROSPECT - CROSSY CR ANOMALIES.

SAMPLE Nos. 247102 - 247131

COLLECTED BY *[Signature]*

MAP OR PHOTO REFERENCE *As for p 21*

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Co-ordinate	Sample No.	Soil composition					Soil texture	Sample				Bedrock		Metal content, p. p. m.											Geological observations				
		Rock %	Loam %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell)	pH	Outcrop	Cancelled	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As						
LINE 74E (cont)																													
762N	24702	10	20	55	5	58	40	2B	-	-	✓	40	61	58	12													Rock with fine shaly tuff	
770N	24703	10	15	25	50	58	80	5	-	-	✓	80	62	107	20													Rock with tuff (conglomerate?)	
772N	24704	5	20	10	5	5	18	5	-	-	✓	110	26	81	10													As above	
772N	24705	-	10	20	40	5	80	5	-	-	✓	80	17	27	3													Rock with fine to med. shaly tuff	
777CN	24706	10	10	25	45	5	80	5	-	-	✓	30	27	96	17													Rock shale.	
LINE 74E																													
7855ME																													
7950N	24707	10	15	25	40	58	80	big	-	-	✓	80	21	44	41														Rock with shale.
7970N	24708	5	10	60	35	5	70	big	-	-	✓	70	21	3	58														As above.
7990N	24709	25	15	15	35	5	8	big	-	-	✓	60	11	2	12														As above.
8000N	24710	5	5	80	40	5	50	big	-	-	✓	50	21	61	45														As above.
8020N	24711	20	5	40	35	5	70	big	-	-	✓	70	23	43	33														As above.
8050N	24712	20	20	20	40	5	90	big	-	-	✓	90	21	5	8														As above.
8070N	24713	5	25	15	55	5	80	big	-	-	✓	80	40	54	68														As above.
8090N	24714	15	5	15	65	5	10	big	-	-	✓	120	76	24	54														As above.
8110N	24715	10	5	20	60	5	90	big	-	-	✓	90	19	29	200														As above.
8130N	24716	15	15	25	45	5	90	big	-	-	✓	90	21	20	30														As above.
8150N	24717	20	20	20	40	5	40	big	-	-	✓	40	28	17	14														As above.
8170N	24718	15	15	30	40	5	10	big	-	-	✓	100	26	51	120														As above.
8191N	24719	5	5	20	70	5	10	big	-	-	✓	140	26	35	80														As above.
8210N	24720	5	15	30	50	5	70	big	-	-	✓	70	23	27	67														As above.
8230N	24721	-	15	20	5	5	80	big	-	-	✓	140	26	79	120														As above.
8250N	24722	-	5	10	90	5	120	big	-	-	✓	180	23	55	56														?
8270N	24723	-	5	10	55	5	110	big	-	-	✓	200	27	71	47														?
8290N	24724	5	5	0	80	5	140	big	-	-	✓	140	21	136	110														Rock with fine tuff.
8310N	24725	15	15	25	30	5	40	big	-	-	✓	40	19	76	33														Rock shale.
8330N	24726	20	15	35	30	5	80	big	-	-	✓	80	27	105	54														Rock silt shale.
8350N	24727	5	5	40	50	5	80	big	-	-	✓	80	23	59	32														As above.
8370N	24728	20	15	25	40	5	10	big	-	-	✓	110	30	63	46														Rock with shale.
8390N	24729	20	15	25	40	5	70	big	-	-	✓	70	23	62	54														As above.
8410N	24730	5	10	35	45	5	80	big	-	-	✓	80	23	64	17														As above to fine tuff.
8430N	24731	20	5	40	25	5	70	big	-	-	✓	90	28	74	56														Rock shale.

082

23.

E.L. 1972. DIAL RANGE. TAS.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.O. 17754.

AREA. NIETA. PROSPECT - CROSBY CR. ANCHALLES.
MAP OR PHOTO REFERENCE *As per p. 22*

SAMPLE Nos. 247132 - 247156

COLLECTED BY *[Signature]*
ANALYSED BY ZINC CORP. BRAKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock			Metal content, p. p. m.										Geological observations			
		Rock %	Levitic %	Sand %	Silt %	Clay %		Depth (cm)	Colour	Moisture	pH	Outcrop	Concentrated	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As		
LINE 7LE																											
7195mE																											
7590mN	247132	20	-	10	50	20	WB	80	light	-	-	✓	80	42	30	15											Rock shale.
7910.N	247133	20	-	10	35	35	"	60	light	-	-	✓	60	48	116	37											As above.
7930.N	247134	-	-	-	15	85	"	120	light	-	-	✓	120	45	93	23											Partly on shale
7450M	247135	5	-	5	5	75	WB	110	light	-	-	✓	110	49	102	35											Rock shale
7470.N	247136	25	-	30	10	35	"	80	light	-	-	✓	80	11	8	3											Rock shaly till
7490.N	247137	-	-	8	10	82	"	90	light	-	-	✓	100	8	8	4											Partly shaly till.
LINE 7LE																											
7095mE																											
7590mN	247138	5	-	5	25	65	WB	110	light	-	-	✓	110	36	62	21											Rock shaly till.
7910.N	247139	10	-	0	35	45	WB	70	light	-	-	✓	70	37	51	23											Rock shale.
7420.N	247140	10	-	25	20	35	"	60	light	-	-	✓	60	52	60	19											Rock shaly till.
7450.N	247141	15	-	10	40	35	"	80	light	-	-	✓	80	52	8	7											Rock shale.
7470.N	247142	5	-	5	10	80	B	110	"	-	-	✓	110	53	8	8											Rock with shale.
7490.N	247143	-	-	5	25	70	"	80	light	-	-	✓	110	30	34	18											As above.
8010.N	247144	10	-	5	5	70	WB	130	light	-	-	✓	100	57	18	29											As above.
LINE 7LE																											
7385mE																											
7910mN	247145	15	-	5	20	60	WB	100	light	-	-	✓	110	37	210	60											Rock with shale.
7930.N	247146	25	-	5	25	35	WB	130	light	-	-	✓	100	29	3	5											As above.
7950.N	247147	25	-	5	25	25	WB	30	light	-	-	✓	70	37	39	15											As above.
7970.N	247148	25	-	5	25	35	WB	8	light	-	-	✓	60	33	81	39											As above.
8010.N	247149	-	-	5	10	85	WB	80	light	-	-	✓	120	63	53	35											Partly on shale.
8030.N	247150	5	-	5	20	70	WB	80	light	-	-	✓	110	110	12	52											Rock with shale.
8050.N	247151	5	-	5	10	70	WB	8	light	-	-	✓	80	41	9	17											As above.
8070.N	247152	0	-	10	30	60	WB	8	light	-	-	✓	50	95	55	77											As above.
8090.N	247153	5	-	10	25	65	WB	30	light	-	-	✓	50	47	310	71											Rock shaly till.
8110.N	247154	15	-	5	45	35	WB	10	light	-	-	✓	110	55	173	20											Partly shaly & shaly till.
8130.N	247155	5	-	10	20	60	WB	60	light	-	-	✓	60	330	420	83											crystal till on base.
8150.N	247156	15	-	10	10	65	"	10	light	-	-	✓	110	32	42	15											Rock with shale.

466063

E.L. 1/12 DUAL RANGE TRS
C.R.A.E. 21.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 1775*

24.

AREA NIETTA PROSPECT - CROSBY CK ANOMALIES.
MAP OR PHOTO REFERENCE A.P. 23

SAMPLE Nos. 247157 - 247184

COLLECTED BY [Signature]

ANALYSED BY ZINC CORP. BROUEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations					
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (m)	Colour (Munsell Chart No.)	pH	Quartz	Conc. (%)	Est. Depth (m)	Pb	Zn	Cu	Mn	Co	Cr	Mo	Ag	Mo		As				
LINE 7AE (cont.)																												
8170N	247157	20	-	10	25	W	50	80	5	-	-	✓	30	39	65	21									41		Rock with shale.	
8190N	247158	25	-	10	25	A0	7	A0	5	-	-	✓	40	27	89	31											As above.	
8210N	247159	20	-	5	55	2	5	A0	5	-	-	✓	40	25	62	23											As above to fine tuff (cont.).	
8230N	247160	30	-	10	20	A0	5	80	5	-	-	✓	30	52	58	32									41		Rock with shale.	
8250N	247161	-	-	-	0	0	5	10	5	-	-	✓	10	21	39	12											Rock with shaly tuff.	
827N	247162	10	-	0	8	8	5	80	5	-	-	✓	80	29	95	29											As above.	
8290N	247163	8	-	0	0	8	7	8	5	-	-	✓	30	75	210	13											Cherty shaly tuff.	
8310N	247164	20	-	0	0	8	7	8	5	-	-	✓	30	60	260	50											As above.	
8330N	247165	15	-	0	0	8	7	8	5	-	-	✓	80	26	220	91											As above.	
8350N	247166	30	-	0	0	8	7	8	5	-	-	✓	10	110	300	90											Rock shale.	
8370N	247167	20	-	10	20	8	5	8	5	-	-	✓	30	26	100	44											As above.	
8390N	247168	5	-	10	0	8	5	8	5	-	-	✓	80	27	90	57											As above.	
8410N	247169	30	-	10	0	8	5	8	5	-	-	✓	70	32	47	35											As above.	
8430N	247170	25	-	25	10	8	5	8	5	-	-	✓	90	19	27	33											As above.	
LINE 7CE																												
7600mE																												
7850N	247171	10	-	5	20	8	5	8	5	-	-	✓	80	21	36	63											Rock with fine shaly tuff.	
7900N	247172	15	-	5	20	8	5	7	5	-	-	✓	70	58	55	36											Rock with shale.	
7920N	247173	10	-	5	15	7	5	8	5	-	-	✓	80	110	31	19											As above.	
7940N	247174	5	-	5	20	8	5	8	5	-	-	✓	100	110	87	25											As above.	
796N	247175	20	-	5	30	5	5	8	5	-	-	✓	80	27	41	14											As above.	
7980N	247176	-	-	25	0	5	5	8	5	-	-	✓	40	14	20	9											Rock shaly tuff.	
8000N	247177	30	-	0	0	8	5	8	5	-	-	✓	80	24	36	20											gc shale.	
8020N	247178	-	-	0	20	5	5	8	5	-	-	✓	80	39	114	37											Rock shale.	
8040N	247179	30	-	0	0	8	5	8	5	-	-	✓	40	37	32	32											Rock with shale.	
8060N	247180	15	-	20	20	5	5	7	5	-	-	✓	70	32	36	24											As above.	
8080N	247181	-	-	0	0	8	5	8	5	-	-	✓	10	11	37	17											Rock shaly tuff.	
8100N	247182	15	-	20	10	5	5	8	5	-	-	✓	100	22	65	19											Rock with shale.	
8120N	247183	-	-	10	0	8	5	8	5	-	-	✓	20	36	33	29											Rock shale?	
LINE 6YE																												
6900mE																												
8000mN	247184	-	-	5	0	5	5	8	5	-	-	✓	80	37	39	9												Rock with shale.

E.L. 19/12 DIAL RANGE TAB.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 17754. TO 247193
25

AREA NIETA PROSPECT - CROSSBY CR ANOMALY

SAMPLE Nos. 247185 - 247193

COLLECTED BY *[Signature]*

MAP OR PHOTO REFERENCE *A for P. 24.*

ANALYSED BY *Zinc Corp Broken Hill.*

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock	Metal content, p. p. m.										Geological observations				
		Rock %	Leucite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell)	Chart No.		pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr		Mn	Ag	Mo	As
LINE 64E (cont)																										
8020 N	247185	-	-	45	10	45	WR	100	bl	-	-	✓	100	75	110	48									41	Rock shale - orodict.
8040 N	247186	25	-	10	25	40	WB	50	bl	-	-	✓	50	39	118	39									41	Rock with shale
8060 N	247187	30	-	15	15	40	"	80	bl	-	-	✓	80	46	64	48									41	As above.
8080 N	247188	40	-	5	10	45	"	100	bl	-	-	✓	100	63	5	14									41	As above.
8100 N	247189	-	-	5	20	75	B	10	bl	-	-	✓	10	37	61	18									41	As above.
8120 N	247190	-	-	20	5	65	WB	70	bl	-	-	✓	70	40	69	19									41	Rock clay tuff
8140 N	247191	-	-	20	5	65	"	70	bl	-	-	✓	100	41	63	20									41	As above.
8160 N	247192	-	-	40	10	50	"	50	bl	-	-	✓	40	18	30	78									41	As above.
8180 N	247193	-	-	40	10	50	"	90	bl	-	-	✓	40	29	75	12									41	As above.

E.L. 1972. DIAL RANGE TAG.

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 1758

AREA NIETA PROSPECT - CROSBY CR. ANOMALIES.

SAMPLE Nos. 243881 - 243908

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE NIETA PROSPECT - E.L. 1972 DIAL RANGE - N.W.T.A.

SHEET 3. (1:5000 PLAN)

ANALYSED BY ZINC CORP BRACKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations			
		Rock %	Loam %	Sand %	Silt %	Clay %		Depth (cm)	Colour	pH	Outcrop	Consolidated	Est. Depth (m)	Pb	Zn	Cu	Ag	Co	Cr	Mn	Alp	Mo		As		
LINE 9E 9260E-10 9135E-5																										
7120N	243881	-	-	5	10	85	S	110	10	-	✓	80	57	102	54	1										Rock shale on fine till.
7140N	243882	-	-	10	10	80	S	110	10	-	✓	80	161	130	2											As above.
7160N	243883	-	-	0	0	100	S	110	10	-	✓	80	24	76	22	21										As above.
720N	243884	10	-	0	0	90	S	110	10	-	✓	80	55	7	30	21										Rock shaly shale
7200N	243885	10	-	2	0	88	S	110	10	-	✓	80	100	100	24	1										Rock fine shaly till on tuffaceous
7220N	243886	10	-	0	0	90	S	110	10	-	✓	80	16	15	17	1										Rock shale
7240N	243887	10	-	0	0	90	S	110	10	-	✓	80	330	280	55	1										Rock fine vitric till on shale
7260N	243888	-	-	0	0	100	S	110	10	-	✓	80	270	121	16	1										of fine sand shaly till on tuffaceous
7280N	243889	10	-	0	0	90	S	110	10	-	✓	80	37	12	31	21										of shale on fine vitric till.
7300N	243890	10	-	0	0	90	S	110	10	-	✓	80	17	85	36	1										Rock with shale
7320N	243891	10	-	0	0	90	S	110	10	-	✓	80	82	83	12	1										of gran shaly siltstone
7340N	243892	10	-	0	0	90	S	110	10	-	✓	80	100	210	17	2										Rock as above on tuffaceous
7360N	243893	10	-	0	0	90	S	110	10	-	✓	80	65	72	21	1										Rock with fine till
7380N	243894	10	-	0	0	90	S	110	10	-	✓	80	52	69	26	21										of low muds.
7400N	243895	10	-	0	0	90	S	110	10	-	✓	80	37	43	28	21										As above.
7420N	243896	10	-	0	0	90	S	110	10	-	✓	80	37	64	30	1										As above.
7440N	243897	10	-	0	0	90	S	110	10	-	✓	80	50	78	35	1										Rock with shale to fine till
7460N	243898	10	-	0	0	90	S	110	10	-	✓	80	31	40	23	1										of low muds.
7480N	243899	10	-	0	0	90	S	110	10	-	✓	80	10	81	14	1										Rock with muds.
7500N	243900	10	-	0	0	90	S	110	10	-	✓	80	50	75	14	21										Possibly mixed muds.
7520N	243901	10	-	0	0	90	S	110	10	-	✓	80	116	66	10	21										Rock with muds.
7540N	243902	10	-	0	0	90	S	110	10	-	✓	80	33	53	6	21										?
7560N	243903	10	-	0	0	90	S	110	10	-	✓	80	9	144	2	21										shaly shaly till.
7580N	243904	10	-	0	0	90	S	110	10	-	✓	80	3	2	2	21										Fine shaly siltstone
7600N	243905	10	-	0	0	90	S	110	10	-	✓	80	5	78	5	21										Fine shaly till.
7620N	243906	10	-	0	0	90	S	110	10	-	✓	80	12	43	25	21										Rock with shale on fine vitric till.
7640N	243907	10	-	0	0	90	S	110	10	-	✓	80	6	20	25	21										Rock with shale
7660N	243908	10	-	0	0	90	S	110	10	-	✓	80	12	25	15	1										As above.

E.L 19th Div Range, Tas.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

670.1758

C.R.A.E. 31.

AREA METTA RESPECT - CROSSBY CR ANOMALIES.

SAMPLE Nos. 243909 - 243934

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE

As for 127 (6 243922) Crosby Cr. Anomalies 1:2000 sheet (from 243923)

ANALYSED BY ZINC CORP. B. BOWEN HILL

Grid Co-ordinate	Sample No.	Soil composition					Soil horizon	Depth (m)	Colour (Munsell Chart No.)	pH	Bedrock		Metal content, p. p. m.											Geological observations			
		Rock %	Lignite %	Sand %	Silt %	Clay %					Outcrop	Concealing	Pb	Zn	Cu	Ni	Co	Cr	Mn %	Ag	Mo	As	Fe %				
LINE 9/F (6.4)																											
7650N	243909	0	0	0	0	0	B	10	10YR 5/2	5.5	✓	14	32	25													dk lam muds.
7670N	243910	0	0	0	0	0	B	10	10YR 5/2	5.5	✓	9	12	10													Red lam muds.
7690N	243911	0	0	0	0	0	B	10	10YR 5/2	5.5	✓	17	36	19													Red gran sh.
7710N	243912	0	0	0	0	0	B	10	10YR 5/2	5.5	✓	22	18	17													As above
7730N	243913	0	0	0	0	0	B	10	10YR 5/2	5.5	✓	14	17	7													Red silty congl.
7750N	243914	0	0	0	0	0	B	10	10YR 5/2	5.5	✓	9	6	7													Possibly a sh.
7770N	243915	0	0	0	0	0	B	10	10YR 5/2	5.5	✓	22	16	17													Red silty sh.
7800N	243916	0	0	0	0	0	B	10	10YR 5/2	5.5	✓	34	96	36													Possibly a ferrug shaly tuff
7820N	243917	0	0	0	0	0	B	10	10YR 5/2	5.5	✓	29	166	44													As above
7840N	243918	0	0	0	0	0	B	10	10YR 5/2	5.5	✓	27	91	26													Red silty shaly tuff
7860N	243919	0	0	0	0	0	B	10	10YR 5/2	5.5	✓	120	140	90													Red silty sh.
7880N	243920	0	0	0	0	0	B	10	10YR 5/2	5.5	✓	47	100	79													Red fine shaly tuff.
7900N	243921	0	0	0	0	0	B	10	10YR 5/2	5.5	✓	82	18	18													Red fine sh. matrix
7920N	243922	0	0	0	0	0	B	10	10YR 5/2	5.5	✓	33	61	31													Possibly iron-bearing.
LINE 7/E																											
7680E	243923	0	0	0	0	0	B	20	10YR 5/2	5.5	✓	25	96	12													Possibly a diorite
7700E	243924	0	0	0	0	0	B	20	10YR 5/2	5.5	✓	84	144	110													Red silty diorite (fine tuff)
7720E	243925	0	0	0	0	0	B	20	10YR 5/2	5.5	✓	190	131	120													Red silty sh. (fine tuff)
7740E	243926	0	0	0	0	0	B	20	10YR 5/2	5.5	✓	92	260	160													Red silty diorite
7760E	243927	0	0	0	0	0	B	20	10YR 5/2	5.5	✓	210	170	140													Red silty sh.
7780E	243928	0	0	0	0	0	B	20	10YR 5/2	5.5	✓	230	139	81													As above.
7800E	243929	0	0	0	0	0	B	20	10YR 5/2	5.5	✓	130	135	64													As above.
7820E	243930	0	0	0	0	0	B	20	10YR 5/2	5.5	✓	72	66	41													As above.
LINE 7/5/E																											
7415N	243931	0	0	0	0	0	B	20	10YR 5/2	5.5	✓	143	142	35													Possibly a diorite
7435N	243932	0	0	0	0	0	B	20	10YR 5/2	5.5	✓	34	129	41													As above
7455N	243933	0	0	0	0	0	B	20	10YR 5/2	5.5	✓	17	210	22													Red silty ferrug diorite.
7475N	243934	0	0	0	0	0	B	20	10YR 5/2	5.5	✓	290	210	140													Red silty sh.

E.L. 19/12. DIAL RANGE. TAS

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O 1778.

AREA NIETRA PROSPECT. - CROSBY CK ANOMALIES.

SAMPLE Nos. 243935 - 243964

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE CROSBY CK ANOMALIES 1:2000 sheet

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil Horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations					
		Rock %	Lignite %	Sand %	SH %	Clay %		Depth (cm)	Colour	Chart No	pH	Outcrop	Concated	Est. Depth	Pb	Zn	Cu	Ni	Co	Cr	Mn %	Ag		Mo	As	Fe %		
LINE 74SE																												
7455N	243935	5	-	10	80	80	WB	90	big	-	-	90	370	250	160					0.22	2					9.1	Rock diorite	
7465N	243936	10	-	10	20	60	S	80	big	-	-	90	610	450	170					0.15	21					8.2	As above	
7475N	243937	20	-	0	10	80	S	90	big	-	-	90	180	240	240					0.25	1					11.9	Red sandy shale	
7485N	243938	15	-	11	11	71	S	90	big	-	-	90	150	185	150					0.08	1					9.1	Red silt shale	
7495N	243939	20	-	11	11	20	BB	50	big	-	-	50	230	111	42					0.25	21					6.2	As above	
7505N	243940	15	-	10	11	70	BB	30	big	-	-	30	140	85	35					0.08	21					6.3	As above	
7515N	243941	20	-	11	11	70	S	50	big	-	-	50	160	62	43					0.08	21					6.7	Red silt fine tuff or shale	
7525N	243942	20	-	10	0	60	S	80	big	-	-	80	120	57	43					0.08	1					6.1	Red silt shale	
7535N	243943	15	-	0	0	65	S	60	big	-	-	60	170	69	56					0.07	1					5.5	As above	
7545N	243944	20	-	11	11	30	S	40	big	-	-	40	190	44	46					0.12	1					5.7	As above	
7555N	243945	15	-	0	0	45	S	80	big	-	-	80	270	74	76					0.08	1					6.2	As above	
7565N	243946	15	-	0	0	40	S	60	big	-	-	60	130	69	57					0.15	21					5.4	Red shale	
7575N	243947	10	-	11	11	40	S	60	big	-	-	60	110	64	52					0.05	21					5.8	As above	
7585N	243948	10	-	11	11	40	S	10	big	-	-	10	190	115	73					0.10	1					6.6	As above	
7595N	243949	11	-	11	11	71	S	130	big	-	-	130	170	135	57					0.08	21					6.4	Red silt sandy shale	
7605N	243950	10	-	11	11	21	S	180	big	-	-	180	100	123	50					0.08	1					6.2	Red silt shale	
7615N	243951	20	-	11	11	20	S	80	big	-	-	80	89	105	46					0.05	21					6.8	As above	
7625N	243952	10	-	11	11	21	S	30	big	-	-	30	65	69	34					0.20	21					5.4	As above	
7635N	243953	10	-	11	11	11	S	40	big	-	-	40	59	78	53					0.05	21					6.5	As above	
7645N	243954	15	-	11	11	11	S	80	big	-	-	80	59	64	35					0.05	21					5.9	As above	
7655N	243955	15	-	11	11	11	S	40	big	-	-	40	50	58	30					0.05	21					5.0	As above	
7665N	243956	0	-	10	0	20	S	80	big	-	-	80	43	48	18					0.05	21					6.1	As above (silt tuff?)	
LINE 76E																												
7580E																												
7615N	243957	-	-	11	11	0	S	180	big	-	-	180	62	140	43						1						6.2	Red silt tuff or fine diorite?
7635N	243958	15	-	10	10	0	S	130	big	-	-	130	120	192	70						1						6.2	Red fine diorite
7635N	243959	20	-	10	10	35	S	30	big	-	-	30	87	68	35						12						6.2	Red shale - mudstone
7655N	243960	20	-	11	11	0	S	40	big	-	-	40	28	42	11						21						6.2	Red silt tuff
7675N	243961	10	-	11	11	11	S	80	big	-	-	80	37	40	15						21						6.2	As above
7695N	243962	35	-	15	15	35	S	40	big	-	-	40	39	50	35						21						6.2	Red silt shale
7615N	243963	20	-	10	10	60	S	40	big	-	-	40	72	81	39						21						6.2	As above
7635N	243964	20	-	0	10	60	S	40	big	-	-	40	47	40	29						1						6.2	As above

068

E.L. 1972 *Don Rames Inc.*
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED GEOCHEMICAL SOIL SAMPLING LEDGER

240.1778 29.

AREA *NITRA PROSPECT - CROSBY CR ANOMALY*
MAP OR PHOTO REFERENCE *to p 28*

SAMPLE Nos. *243965 - 243992*

COLLECTED BY *[Signature]*

ANALYSED BY *ZINC CORP. RACKEN HILL.*

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.											Geological observations				
		Rock %	Loamite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell) Chart No.	pH	Outcrop	Consolidated	Est. Depth No.	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As					
LINE 7E (Cont.)																												
7555m	243965	20	-	5	10	65	6B	30	beige	-	✓	30	24	32	15												Rock lam mud/s.	
LINE 7SE																												
7520mE																												
7105m	243966	-	-	-	10	90	B	180	beige	-	✓	200	40	115	5												Possibly on shale.	
7415 N	67	-	-	-	0	100	B	180	whit	-	✓	200	11	36	9												Possibly bleached tuff & diorite	
7435 N	68	5	-	5	5	85	B	150	red	-	✓	150	13	93	59												Rock rather diorite	
7435 N	69	0	-	5	5	90	S	110	beige	-	✓	110	74	154	58												Rock fine diorite tuff	
7445 N	243970	0	-	5	5	90	S	180	red	-	✓	180	15	280	110												Rock rather fine tuff (or diorite?)	
7455 N	71	4	-	5	5	86	S	180	beige	-	✓	180	190	370	61												As above - probably diorite	
7465 N	72	24	-	5	25	70	S	50	beige	-	✓	50	200	380	61												Rock rather diorite	
7475 N	73	10	-	5	0	75	B	180	beige	-	✓	180	520	390	75												Rock rather diorite (??)	
7485 N	74	0	-	5	5	90	S	90	beige	-	✓	90	110	60	57												Rock rather diorite	
7495 N	75	20	-	5	0	75	S	40	red	-	✓	40	180	110	64												Rock rather shale	
7505 N	76	4	-	5	0	91	S	40	beige	-	✓	40	57	94	41												As above	
7515 N	77	25	-	5	0	80	S	50	beige	-	✓	50	46	72	29												As above	
7525 N	78	30	-	0	0	80	S	50	beige	-	✓	50	31	69	22												Rock rather silty shale	
7535 N	79	26	-	5	5	80	S	60	beige	-	✓	60	28	53	20												Rock rather shale	
7545 N	243980	25	-	5	5	80	S	50	beige	-	✓	50	74	96	29												As above	
7555 N	81	10	-	5	5	80	S	80	beige	-	✓	80	55	72	19												Rock rather shale or fine tuff	
7565 N	82	25	-	5	0	80	S	70	pink	-	✓	70	47	113	22												Rock rather fine tuff	
7575 N	83	20	-	5	5	80	S	70	beige	-	✓	70	42	60	21												Rock rather shale	
7585 N	84	20	-	5	0	80	S	80	red	-	✓	80	49	44	21												Rock rather ferrug. shale	
7595 N	85	20	-	5	0	80	S	90	beige	-	✓	90	54	78	24												Rock rather fine tuff	
7605 N	86	10	-	5	0	85	S	70	beige	-	✓	70	65	78	32												As above	
7615 N	87	20	-	5	0	80	S	40	pink	-	✓	40	52	33	12												As above	
7625 N	88	20	-	5	0	80	S	50	beige	-	✓	50	57	73	18												Rock rather shale	
7635 N	89	15	-	5	5	85	S	50	beige	-	✓	50	34	31	25												As above	
7645 N	243990	15	-	5	5	80	S	40	pink	-	✓	40	34	35	17												Rock rather pink fine tuff	
7655 N	91	20	-	5	0	80	S	40	beige	-	✓	40	40	44	16												Rock rather fine tuff	
LINE 7E																												
7180mE																												
7180m	243992	5	-	5	10	80	B	10	red	-	✓	20	10	96	30													Rock rather diorite?

466169

069

E.L. 19/72 DIAL RANGE. TTS
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

30.
D.O. 1978

AREA NORTH TROPIC - CROSSBY CR. ANOMALIES.
MAP OR PHOTO REFERENCE A 72 p 29

SAMPLE Nos. 243993 - 244000
245901 - 245922

COLLECTED BY [Signature]
ANALYSED BY ZINC CORP. BRECKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations				
		Rock %	Leamite %	Sand %	Silt %	Clay %		Depth (m)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As			
LINE 71/E (60)																											
7450 m N	243993	5	-	9	10	7	6B	10	grey	-	-	150	36	95												Rock shale	
7470 m N	94	5	-	9	10	7	6B	10	grey	-	-	120	240	72												Rock rather dense	
7490 m N	95	5	-	9	10	7	6B	10	grey	-	-	72	210	52												As above	
7510 m N	96	5	-	9	10	7	6B	10	grey	-	-	980	300	55												Rock diorite	
7530 m N	97	5	-	9	10	7	6B	10	grey	-	-	59	57	22												Rock rather shale	
7550 m N	98	5	-	9	10	7	6B	10	grey	-	-	10	31	15												Rock rather fine tuff	
7570 m N	99	5	-	9	10	7	6B	10	grey	-	-	25	28	9												As above	
7590 m N	244000	5	-	9	10	7	6B	10	grey	-	-	59	50	26												Rock grey shale	
7610 m N	245901	5	-	9	10	7	6B	10	grey	-	-	31	32	25												Red grey shale to siltst.	
7630 m N	03	5	-	9	10	7	6B	10	grey	-	-	17	24	28												Red shale	
LINE 71/E																											
735 m E																											
7400 m N	245903	-	-	5	10	10	4B	10	grey	-	-	65	86	13													Probably a quartzite - diorite?
7410 m N	04	-	-	5	10	10	4B	10	grey	-	-	59	140	16													Probably a diorite.
7420 m N	05	0	-	9	10	10	4B	10	red	-	-	100	100	59													Rock diorite
7450 m N	06	5	-	9	10	10	4B	10	red	-	-	74	200	18													As above
7460 m N	07	10	-	9	10	10	4B	10	grey	-	-	75	30	68													Rock rather diorite
7470 m N	08	0	-	9	10	10	4B	10	grey	-	-	85	330	61													As above
7480 m N	09	0	-	9	10	10	4B	10	grey	-	-	70	290	120													As above
747 m N	245910	0	-	9	10	10	4B	10	grey	-	-	54	230	61													As above
7500 m N	11	0	-	9	10	10	4B	10	grey	-	-	63	250	51													As above
7510 m N	12	0	-	9	10	10	4B	10	grey	-	-	93	151	21													As above
7520 m N	13	0	-	9	10	10	4B	10	grey	-	-	92	176	15													As above
7530 m N	14	0	-	9	10	10	4B	10	grey	-	-	90	240	34													As above
7540 m N	15	0	-	9	10	10	4B	10	grey	-	-	130	240	57													As above
7550 m N	16	0	-	9	10	10	4B	10	grey	-	-	370	170	150													As above
7560 m N	17	0	-	9	10	10	4B	10	grey	-	-	240	183	74													Rock grey shale
7570 m N	18	0	-	9	10	10	4B	10	grey	-	-	200	144	64													Rock rather shale
7580 m N	19	0	-	9	10	10	4B	10	grey	-	-	150	144	144													As above
7590 m N	245920	0	-	9	10	10	4B	10	grey	-	-	130	102	62													As above
7600 m N	21	0	-	9	10	10	4B	10	grey	-	-	150	148	74													As above
760 m N	245922	0	-	9	10	10	4B	10	grey	-	-	170	145	76													As above

466070

E.L. 1/2 DIAL RANGE. TRS.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.T.O. 1758. 31.

AREA NIETA PROSPECT - COSEY CR ANOMALIES.

SAMPLE Nos. 245923 - 245950.

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE: A.P. 130.

ANALYSED BY ZINC GRP. BRACKEN HILL.

Grid Co-ordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations					
		Rock %	Lime %	Sand %	Silt %	Clay %		Depth (m)	Colour (Munsell Chart No.)	pH	Outcrop	Cancelled	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As				
LINE 715E	245923	20	-	9	9	70	WB	80	red	-	-	80	150	123	68											Rock silty shale		
	245924	15	-	9	9	70	S	80	"	-	-	80	170	124	60											Rock rather shale		
	245925	25	-	9	9	70	S	80	"	-	-	80	110	98	54											As above.		
LINE 715E	245926	25	-	10	10	80	WB	100	red	-	-	100	200	141	240											Rock rather diorite		
	245927	20	-	10	10	80	S	90	brown	-	-	90	250	91	170											As above.		
	245928	20	-	10	10	80	S	50	red	-	-	50	270	117	240											Rock shale		
	245929	15	-	10	10	80	S	40	brown	-	-	40	24	81	18											Rock shaly tuff.		
	245930	30	-	10	10	80	S	70	red	-	-	70	116	150	34											Rock diorite		
	245931	10	-	10	10	80	S	70	brown	-	-	70	200	220	42												As above.	
	245932	20	-	10	10	80	S	70	red	-	-	70	150	210	94												As above.	
	245933	20	-	10	10	80	S	40	brown	-	-	40	130	210	70												As above.	
	245934	30	-	10	10	80	S	80	red	-	-	80	180	210	280												Rock rather fine tuff	
	245935	10	-	10	10	80	S	100	red	-	-	100	230	140	87												Rock silty shale	
	245936	10	-	10	10	80	S	100	"	-	-	100	170	117	72												As above.	
	245937	10	-	10	10	80	S	60	brown	-	-	60	110	85	54												As above.	
	LINE 715F	245938	-	-	10	10	80	S	110	big	-	-	110	120	330	44												Probably a diorite.
		245939	-	-	10	10	80	S	90	"	-	-	90	120	180	51												"
		245940	15	-	10	10	80	S	70	brown	-	-	70	110	180	58												Rock diorite
245941		15	-	10	10	80	S	50	big	-	-	50	110	220	200												Rock probably shaly tuff??	
245942		15	-	10	10	80	S	100	big	-	-	100	150	260	130												Rock fine tuff.	
245943		20	-	10	10	80	S	60	"	-	-	60	170	380	160												Rock shaly tuff a diorite??	
245944		20	-	10	10	80	S	70	big	-	-	70	120	260	140												Rock diorite.	
245945		15	-	10	10	80	S	70	red	-	-	70	130	340	180												Rock probably diorite.	
245946		30	-	10	10	80	S	80	big	-	-	80	160	470	170													Rock rather fine tuff.
245947		20	-	10	10	80	S	100	pink	-	-	100	280	170	150													As above & shale.
245948		15	-	10	10	80	S	90	red	-	-	90	70	24	55													Rock rather shale
245949		15	-	10	10	80	S	70	big	-	-	70	44	153	77													Rock diorite.
245950		10	-	10	10	80	S	50	"	-	-	50	37	24	37													As above.

E.L. 19/72 Dir Range Tr.

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.F.O. 7788. 2.

AREA NIETTA PROSPECT - CROSSBY CR. ANOMALIES.

SAMPLE Nos. 245951 - 245980

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE

A for [Signature]

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Coordinates	Sample No.	Soil composition					Soil horizon	Sample			Bedrock	Metal content, p. p. m.										Geological observations				
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH		Obscure	Concealed	Est. Depth (cm)	Pb	Zn	Cu	Ni	Co	Cr	Mn		Ag	Mo	As	
Line 75/E	245951	10	-	10	20	60	WB	70	red	-	-	70	30	116	63										Rock diorite	
7530 N	52	20	-	0	55	55	7	40		-	-	40	46	141	110										As above	
7540 N	53	25	-	0	55	50	B	40		-	-	100	37	168	29										As above	
7550 N	54	10	-	0	0	70	WB	70	red	-	-	70	250	210	120										Rock probably quartzite (Coz diorite?)	
7560 N	55	10	-	0	0	70	"	40		-	-	40	62	158	2A										Rock rather fine tuff	
7570 N	56	-	-	-	-	-	"	90		-	-	90	190	310	130										?	
7580 N	57	5	-	0	0	55	WB	70		-	-	70	150	570	76										Rock probably diorite	
7590 N	58	20	-	0	0	60	"	70	red	-	-	70	1350	159	210										Rock shale	
7600 N	59	25	-	0	20	45	"	40		-	-	40	670	210	110										As above	
7610 N	245960	20	-	0	80	20	WB	30		-	-	70	140	107	17										As above	
7620 N	61	20	-	0	0	60	WB	90	red	-	-	90	160	117	74										As above	
7630 N	62	5	-	0	0	50	"	100		-	-	100	170	82	70										Rock shale - fine tuff?	
7640 N	63	0	-	0	0	70	"	70		-	-	70	160	117	69										Rock shale	
Line 77/SE																										
7700 N	245964	5	-	0	0	65	WB	140	red	-	-	140	140	200	19											Rock probably diorite
7710 N	65	-	-	0	0	80	WB	130		-	-	130	90	135	20											?
7720 N	66	5	-	0	0	80	WB	100		-	-	100	90	11	21											Rock shale
7730 N	67	5	-	0	0	70	"	150		-	-	150	87	117	25											As above
7740 N	68	5	-	0	0	70	"	100		-	-	100	74	115	25											As above
7750 N	69	5	-	0	0	70	"	160		-	-	160	95	107	25											Rock rather shale
7760 N	245970	-	-	0	0	75	WB	170		-	-	200	130	115	50											?
7770 N	71	5	-	0	0	70	WB	150		-	-	150	96	100	39											Rock fine tuff to shale
7780 N	72	-	-	0	0	85	WB	160		-	-	160	110	109	31											?
7790 N	73	5	-	0	0	65	WB	160		-	-	160	71	90	19											Rock rather shale
7800 N	74	30	-	0	0	55	"	140	red	-	-	140	55	81	68											As above
7810 N	75	0	-	0	0	70	"	140	yellow	-	-	140	52	71	59											As above
7820 N	76	20	-	0	0	60	"	120	red	-	-	120	43	65	180											As above
7830 N	77	5	-	0	0	80	"	80		-	-	80	43	76	17											Rock rather diorite?
7840 N	78	30	-	0	0	40	"	70		-	-	70	40	113	57											As above
7850 N	79	5	-	5	15	15	"	40	big	-	-	40	40	113	57											Rock diorite
7860 N	245980	30	-	0	0	50	"	70		-	-	70	28	183	150											As above

E.L. 19/12 DIAL RANGE TRS.
C.R.A.E. 37.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 17758.

AREA NIETIA PROSPECT - CROSBY CR. ANOMALIES.

SAMPLE Nos. 245981 - 246000
247860 - 247867

COLLECTED BY *[Signature]*

MAP OR PHOTO REFERENCE *A for 132*

ANALYSED BY ZINC CORP. BROKEN HILL.

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations				
		Rock %	Leucite %	Sand %	SH %	Clay %		Depth (cm)	Colour (Munsell) Chart No.	PH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As			
7590 N	245981	20	-	10	10	60	50	sh	-	-	✓	80	120	220	270											Rock with shale	
7600 N	82	40	-	10	10	40	50	s	-	-	✓	50	570	181	250											As above	
7610 N	83	20	-	10	10	60	30	brng	-	-	✓	20	100	72	38											As above	
7620 N	84	20	-	10	10	60	40	sh	-	-	✓	40	95	72	52											As above	
7630 N	85	10	-	10	10	50	40	s	-	-	✓	50	12	35	27											Rock red shale or schist	
7640 N	86	30	-	10	10	40	40	s	-	-	✓	40	82	75	42											Rock with shale	
7650 N	87	10	-	10	10	25	60	circum	-	-	✓	60	83	33	35											Rock fine shaly tuff	
7660 N	88	40	-	10	10	40	50	pink	-	-	✓	50	79	40	25											Rock fine shaly tuff	
LINE 72E																											
7190 NE																											
7200 N	245989	5	-	5	10	80	150	red	-	-	✓	150	96	135	19											Rock diorite	
7400 N	245990	-	-	-	10	90	100	s	-	-	✓	100	75	96	19												
7440 N	91	-	-	-	10	90	150	s	-	-	✓	150	130	100	23												
7480 N	92	-	-	-	10	90	170	s	-	-	✓	200	91	103	24												
7500 N	93	-	-	-	5	95	170	s	-	-	✓	150	90	88	40											Partially oxidized	
7520 N	94	5	-	5	10	80	180	s	-	-	✓	180	77	96	28												Rock with shale
7540 N	95	10	-	10	10	70	180	s	-	-	✓	110	59	57	31												As above
7560 N	96	5	-	5	10	80	90	s	-	-	✓	100	65	100	37												As above
7580 N	97	20	-	5	10	65	80	grey	-	-	✓	80	230	107	24												Light grey shale to schist
7600 N	98	15	-	10	10	65	30	brng	-	-	✓	30	110	57	20												Rock shale
7620 N	99	5	-	10	10	45	60	brng	-	-	✓	60	74	58	39												As above
7640 N	246000	25	-	10	10	45	30	"	-	-	✓	30	59	50	25												As above
LINE 71/SE																											
7145 NE																											
7450 N	247860	-	-	-	0	100	170	red	-	-	✓	200	93	119	17												Sand probably ex shale
7455 N	61	-	-	-	0	100	180	s	-	-	✓	200	96	123	18												Probably ex diorite ??
7455 N	62	-	-	-	0	100	180	s	-	-	✓	200	81	105	18												As above ??
7455 N	63	5	-	5	10	80	180	s	-	-	✓	180	90	105	18												Rock shale
7455 N	64	5	-	5	10	80	180	s	-	-	✓	180	92	109	21												Rock with shale
7455 N	65	5	-	5	10	80	180	s	-	-	✓	180	85	90	20												Rock shale
7465 N	66	-	-	-	0	100	180	s	-	-	✓	200	62	117	31												Probably a diorite or fine tuff ?
7475 N	247867	5	-	5	10	80	180	s	-	-	✓	180	85	117	37												Rock with fine tuff

466073

E.L. 1972 DIAL RANGE TAZ.

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 17758.

AREA NIRTA PROSPECT - CROSSBY CR ANOMALIES.

SAMPLE Nos. 247865 - 247896.

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE As for 12.

ANALYSED BY Zinc Corp. BREVEN HILL

Grid Co-ordinate	Sample No.	Soil composition					Soil horizon	Sample				Bedrock	Metal content, p. p. m.										Geological observations						
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell)	Moisture (%)	pH		Outcrop	Consolidated	Gr. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn		Ag	Mo	As			
7435MN	247865	-	-	-	20	80	B	110	red	-	-	✓	150	72	93	34											?		
7495 N	67	0	-	0	0	100	B	100	"	-	-	✓	80	76	93	22											Rock with water shale.		
7505 N	247870	0	-	0	0	100	B	100	"	-	-	✓	100	10	93	27											Rock with shale.		
7515 N	71	0	-	0	0	100	B	90	"	-	-	✓	80	95	93	27											Rock with fine tuff.		
7525 N	72	-	-	0	0	100	B	100	"	-	-	✓	100	90	78	31											?		
7535 N	73	-	-	0	0	100	B	90	"	-	-	✓	100	100	81	39											Possibly a diorite.		
7545 N	74	0	-	0	0	100	B	90	"	-	-	✓	100	78	91	38											Rock with shale.		
7555 N	75	-	-	0	0	100	B	90	"	-	-	✓	100	90	90	32											Possibly a shale.		
7565 N	76	0	-	0	0	100	B	80	"	-	-	✓	100	77	103	34											Rock with shale.		
7575 N	77	-	-	0	0	100	B	70	"	-	-	✓	80	65	88	31											Rock with shale - schist.		
7585 N	78	0	-	20	20	60	B	50	"	-	-	✓	80	55	65	36											As above.		
7595 N	79	0	-	10	80	10	B	30	"	-	-	✓	30	43	54	25											Rock shale.		
7605 N	247880	0	-	10	15	75	B	30	"	-	-	✓	30	62	54	15												Rock with shale.	
7615 N	81	0	-	10	15	75	B	30	"	-	-	✓	30	54	45	20												As above.	
7625 N	82	0	-	10	10	80	B	50	"	-	-	✓	50	35	54	16												Rock fine sand slightly tuff.	
7635 N	247883	0	-	10	15	75	B	30	"	-	-	✓	30	44	71	20												As above.	
LINE 71E																													
7495NE																													
7410MN	247884	0	-	0	0	100	B	180	red	-	-	✓	20	130	123	19												Rock probably with shale.	
7420 N	85	0	-	0	0	100	B	80	"	-	-	✓	80	100	67	20												Rock with fine tuff & shale.	
7450 N	86	0	-	0	0	100	B	80	"	-	-	✓	80	98	109	21												Rock with shale.	
7470 N	87	0	-	0	0	100	B	80	"	-	-	✓	80	88	131	20												Rock with diorite.	
7490 N	88	-	-	0	0	100	B	80	"	-	-	✓	80	76	111	36												?	
7510 N	89	-	-	0	0	100	B	80	"	-	-	✓	80	110	200	59												?	
7530 N	247890	20	-	0	0	80	B	70	"	-	-	✓	80	210	210	110													Rock with shale to fine tuff.
7550 N	91	0	-	0	0	100	B	80	"	-	-	✓	80	92	105	41												Rock with shale to fine tuff.	
7570 N	92	0	-	0	0	100	B	80	"	-	-	✓	80	75	87	24												Rock with shale.	
7590 N	93	0	-	0	0	100	B	70	"	-	-	✓	80	72	75	31												As above.	
7610 N	94	20	-	0	0	80	B	80	"	-	-	✓	80	68	78	27												Rock shale.	
7630 N	247895	25	-	10	15	60	B	30	"	-	-	✓	30	34	40	14												Rock shale - schist.	
LINE 72E																													
7390MN	247896	0	-	0	0	100	B	220	red	-	-	✓	20	120	87	22												Rock with shale.	

074

E.L. 1972 DIA RANGE TAC
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.F.O 1758. 35.

AREA NIETTA PROSPECT - CROSSBY CK ANOMALIES.

SAMPLE Nos. 247897 - 247900
272501 - 272526.

COLLECTED BY *[Signature]*

MAP OR PHOTO REFERENCE *A for p. 24.*

ANALYSED BY ZINC CORR. BROKEN HILL.

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.											Geological observations					
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (cm)	Colour Chart No.	pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As						
LINE 75E (cont.)																													
7400 N	247897	5	-	10	10	65	WB	220	red	-	-	✓	240	100	97	20												Rock shale to fine tuff.	
7410 N	98	-	-	5	5	80	WB	220	brn	-	-	✓	260	130	102	18												Possibly a shale.	
7420 N	99	10	-	8	30	40	WB	200	red	-	-	✓	210	130	107	20												Rock rather shale.	
7430 N	247900	-	-	5	20	75	WB	220	"	-	-	✓	250	140	102	20												?	
7440 N	272501	-	-	5	5	90	B	200	"	-	-	✓	280	96	107	16												?	
7450 N	02	30	-	0	20	40	WB	190	brng	-	-	✓	190	130	171	20												Rock diorite	
7460 N	03	30	-	0	20	40	WB	150	"	-	-	✓	170	260	400	71												As above.	
7470 N	04	5	-	0	10	80	WB	140	red	-	-	✓	150	130	142	34												Rock possibly diorite.	
7480 N	05	25	-	0	20	45	WB	150	"	-	-	✓	150	140	137	63												As above.	
7490 N	06	-	-	0	10	80	B	220	"	-	-	✓	240	170	240	84												Possibly outcrop tuff.	
7500 N	07	-	-	0	20	80	B	220	brn	-	-	✓	280	80	510	54												?	
7510 N	08	15	-	0	10	65	WB	100	red	-	-	✓	100	200	330	76												Rock diorite	
7520 N	09	10	-	5	10	75	B	100	"	-	-	✓	100	110	105	35												Rock rather shale	
7530 N	272510	0	-	20	10	60	B	90	"	-	-	✓	90	82	84	39												As above.	
7540 N	11	10	-	10	20	60	B	50	brn	-	-	✓	50	78	78	30												As above.	
7550 N	12	10	-	10	30	50	B	50	"	-	-	✓	50	100	68	38												As above to fine tuff.	
7560 N	13	15	-	0	10	65	B	50	"	-	-	✓	50	68	84	16												Rock rather shale	
7570 N	14	25	-	10	10	55	B	30	brng	-	-	✓	30	62	10	17												As above.	
7580 N	15	10	-	0	10	65	B	70	"	-	-	✓	70	62	60	28												Rock rather fine tuff.	
7590 N	16	20	-	0	10	60	B	100	red	-	-	✓	100	92	81	28												Rock shale.	
7600 N	17	15	-	0	20	55	B	50	"	-	-	✓	50	100	91	39												As above.	
7610 N	272508	20	-	0	0	60	B	50	brng	-	-	✓	50	40	100	44													As above.
LINE 70E																													
7000 E																													
7400 N	272519	5	-	0	20	65	WB	220	red	-	-	✓	220	96	107	17													Rock shale (+ diorite).
7430 N	272520	5	-	10	20	70	B	200	"	-	-	✓	200	193	117	19													Rock rather shale
7450 N	21	0	-	10	10	70	B	220	"	-	-	✓	220	130	220	16													Rock rather fine tuff.
7470 N	22	20	-	0	10	60	B	110	"	-	-	✓	110	220	175	25													Rock diorite.
7490 N	23	10	-	0	10	70	B	100	"	-	-	✓	100	65	97	34													Rock rather fine tuff.
7510 N	24	10	-	0	10	80	B	50	"	-	-	✓	100	60	124	69													Rock rather shale
7530 N	25	20	-	0	10	60	B	50	"	-	-	✓	50	170	75	40													Rock rather fine tuff.
7550 N	272526	10	-	10	0	70	B	30	"	-	-	✓	30	130	62	36													Rock rather shale

466075

EL. 19/2 DIAL RANGE TAS.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

U.P.O. 17758 (6 272546)
U.P.O. 17759 (6m 272546)

AREA NIETIA PROSPECT - CROSBY CR ANOMALIES
MAP OR PHOTO REFERENCE As for p. 55

SAMPLE Nos. 272527 - 272553

COLLECTED BY [Signature]

ANALYSED BY ZINC CORP. BROCKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p.p.m.										Geological observations					
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth	Pb	Zn	Cu	Mn	Co	Cr	Mg	Ag	Mo		As				
LINE 7 F (cont)																												
7570 N	272527	20	-	10	20	50	EB	30	grey	-	-	✓ 30	41	34	14												Rock rather shale	
7570 N	272528	20	-	0	10	60	"	40	grey	-	-	✓ 40	60	45	22												As above	
LINE 6 1/2 E																												
7400 N	272529	-	-	5	5	90	EB	20	red	-	-	✓ 20	78	17	18												Possibly sand shale	
7410 N	272530	5	-	5	10	80	"	210	"	-	-	✓ 210	55	38	17												Rock shale	
7420 N	31	5	-	10	20	65	"	200	"	-	-	✓ 200	56	109	18												Rock rather shale	
7430 N	32	5	-	5	10	80	"	220	"	-	-	✓ 220	91	94	22												Rock possibly diorite	
7440 N	33	5	-	5	10	80	"	210	"	-	-	✓ 210	65	84	21												Rock possibly fine tuff	
7450 N	34	-	-	5	10	85	"	220	"	-	-	✓ 220	68	86	21												Possibly iron shale	
7460 N	35	-	-	0	0	80	"	200	"	-	-	✓ 200	57	87	20												?	
7470 N	36	-	-	5	10	85	"	210	"	-	-	✓ 210	63	90	20												?	
7480 N	37	-	-	5	10	85	"	200	"	-	-	✓ 200	65	91	24												?	
7490 N	38	-	-	5	10	85	"	220	"	-	-	✓ 220	50	74	240												?	
7500 N	39	5	-	5	10	80	EB	130	"	-	-	✓ 130	58	600	32												Rock possibly fine diorite	
7510 N	272510	5	-	10	10	75	"	20	grey	-	-	✓ 20	40	220	16												Rock rather shale	
7520 N	41	10	-	10	20	30	"	50	grey	-	-	✓ 50	260	107	16												Rock rather fine tuff to shale	
7530 N	42	15	-	10	20	55	"	30	"	-	-	✓ 30	120	84	24												Rock rather shale	
7540 N	43	10	-	20	10	30	"	30	"	-	-	✓ 30	72	69	28												As above	
7550 N	44	5	-	5	30	60	"	30	"	-	-	✓ 30	56	61	24												As above	
7560 N	272545	15	-	10	15	60	"	40	"	-	-	✓ 40	50	36	20												Rock shale	
LINE 7 C E																												
7390 N	272546	5	-	5	10	80	EB	20	red	-	-	✓ 20	78	125	16												Rock rather shale	
7380 N	47	5	-	5	10	80	"	220	"	-	-	✓ 220	110	98	21												Rock fine tuff (or fine diorite)	
7370 N	48	5	-	5	10	80	"	210	"	-	-	✓ 210	110	89	17												Rock possibly v. rather shale	
7360 N	49	20	-	5	10	65	"	220	grey	-	-	✓ 220	88	86	21												Rock shale to fine silt	
7350 N	272550	15	-	5	10	60	"	80	grey	-	-	✓ 80	81	57	22												Rock fine tuff	
7340 N	51	30	-	10	10	40	"	80	grey	-	-	✓ 80	120	27	31												Rock rather shale to silt	
7330 N	272552	10	-	0	20	30	"	40	"	-	-	✓ 40	200	62	21												Rock shale to fine tuff	
LINE 7 1/2 E																												
7320 N	272553	5	-	5	10	80	"	210	red	-	-	✓ 210	160	107	20													Rock possibly fine shale to fine tuff

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E.L. 19/72 DIAL RANGE TAS.
C.R.A.E. 31.

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GEOCHEMICAL SOIL SAMPLING LEDGER

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38.

AREA NIETRA PROJECT - CRABBY CR ANOMALIES.
MAP OR PHOTO REFERENCE: *Map 1.37*

SAMPLE Nos. 272582 - 272600
247851 - 247859

COLLECTED BY: *[Signature]*
ANALYSED BY: ZINC CORP. BROCKEN HILL

Grid Coordinate	Sample No.	Soil composition				Soil Horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations								
		Rock %	Laterite %	Sand %	Silt %		Clay %	Depth (cm)	Colour	Moisture %	SH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Fe	Co	Cr	Mn		Ag	Mo	As					
LINE 71 SE (cont.)																														
7335M N	272582	40	-	20	30	10	40	brown	-	-	✓	40	64	200	6													Rock fine diorite		
7325 N	83	25	-	10	20	45	80	brn	-	-	✓	80	58	320	7													Rock rather diorite (dyke tuff?)		
7315 N	84	35	-	25	10	30	190	red	-	-	✓	190	270	650	190													Rock rather diorite		
7305 N	85	30	-	15	10	45	80	"	-	-	✓	80	640	169	78													Rock rather shale		
7295 N	86	35	-	20	20	25	210	brn	-	-	✓	210	230	121	43													As above		
7285 N	87	35	-	20	20	25	50	"	-	-	✓	50	140	68	29													As above		
7275 N	88	30	-	20	10	40	80	red	-	-	✓	80	97	81	49													Rock rather fine tuff		
7265 N	89	30	-	5	15	50	140	brn	-	-	✓	140	55	189	19													As above		
7255 N	272590	15	-	10	20	55	70	red	-	-	✓	70	340	210	16													Rock rather fine sand tuff		
7245 N	91	35	-	15	35	5	50	brown	-	-	✓	50	220	200	24													Rock shale - fine tuff		
7235 N	92	5	-	10	20	65	80	red	-	-	✓	80	29	340	11	5.8	2.8	0.3	0.3									Rock possibly rather tuff (andesite)		
7225 N	93	20	-	10	10	60	50	"	-	-	✓	50	64	57	10													Rock possibly rather tuff		
LINE 71 E																														
7190M E																														
7180M N	272594	5	-	10	20	65	210	brn	-	-	✓	210	170	160	27														Rock possibly rather diorite	
7170 N	95	15	-	10	20	55	70	red	-	-	✓	70	140	270	20														Rock diorite	
7160 N	96	55	-	10	10	25	80	brn	-	-	✓	80	620	350	12														As above	
7150 N	97	25	-	10	20	45	150	"	-	-	✓	150	70	360	12														Rock rather diorite	
7140 N	98	25	-	10	20	45	80	"	-	-	✓	80	41	360	7														As above	
7130M N	99	4	-	5	20	10	50	brown	-	-	✓	50	140	188	18														Rock diorite	
7120 N	272600	30	-	5	15	50	250	red	-	-	✓	260	380	270	50														Rock rather fine tuff to shale	
7110 N	247851	20	-	15	15	50	60	"	-	-	✓	70	140	124	29														As above	
7100 N	52	40	-	10	20	30	40	brown	-	-	✓	80	120	51	31														Rock shale	
7090 N	53	35	-	25	30	10	110	"	-	-	✓	80	160	54	37														As above	
7080 N	54	55	-	25	15	5	50	brn	-	-	✓	50	310	61	37														As above	
7070 N	55	20	-	15	15	50	100	"	-	-	✓	100	330	119	25														Rock tuff or tuffaceous s/s	
7060 N	247856	40	-	15	15	20	70	"	-	-	✓	80	350	104	28														Rock shale	
LINE 72 SE																														
7240M E																														
7230M N	247857	20	-	10	20	50	360	red	-	-	✓	380	23	127	15															Rock rather diorite
7220 N	56	10	-	10	30	50	360	"	-	-	✓	380	110	89	7														Rock possibly rather diorite	
7210 N	247859	25	-	5	20	50	140	"	-	-	✓	140	81	97	16															Rock diorite

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E.L. 19/12 Ina Range. TFS.

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39.

AREA NICTUA PROSPECT - CROSSY CR ANOMALIES.

SAMPLE Nos. 247960 - 247987

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE [Signature]

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Co-ordinate	Sample No.	Soil composition					Soil horizon	Sample		Bedrock		Metal content, p. p. m.										Geological observations				
		Moist %	Latitude %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	En. Depth	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag		Mo	As		
LINE 75E (62)																										
7390m N	247960	40	-	10	20	30	WB	140	red	-	✓	140	65	187	14										Rock diorite	
7380 N	61	20	-	5	25	50	"	140	"	-	✓	160	160	194	5										Rock rather diorite	
7360 N	62	20	-	5	15	60	"	210	"	-	✓	220	351	77	27										As above.	
7350 N	63	10	-	10	20	60	"	150	"	-	✓	150	71	570	93										Rock rather shaly tuff or diorite	
7340 N	64	20	-	5	10	45	"	180	"	-	✓	230	870	150	12										As above.	
7320 N	65	15	-	5	10	65	"	350	beige	-	✓	400	200	176	12										Rock probably v. rather diorite	
7310 N	66	5	-	5	20	70	"	360	"	-	✓	400	13	320	5										Rock v. rather fine tuff (or diorite??)	
7300 N	67	10	-	5	25	50	"	360	"	-	✓	400	99	320	4										As above.	
7290 N	68	25	-	10	25	20	B	30	brown	-	✓	80	84	250	11										Rock diorite	
7280 N	69	45	-	5	30	10	WB	40	"	-	✓	80	75	191	12										As above.	
7270 N	247970	10	-	10	30	50	WB	130	beige	-	✓	140	75	153	10										Rock rather diorite	
7260 N	71	10	-	5	20	55	"	200	"	-	✓	20	84	660	38										Rock probably rather diorite	
7250 N	72	30	-	10	15	45	"	70	brown	-	✓	70	120	260	29										Rock shale	
7240 N	73	20	-	10	25	45	"	50	red	-	✓	50	160	210	32										Rock rather diorite fine tuff or shale	
7230 N	247974	25	-	5	30	30	"	60	brown	-	✓	60	180	187	29										Rock shale	
LINE 75E																										
7340m N																										
7320m N	247975	5	-	5	20	60	B/WB	210	beige	-	✓	280	25	520	58											Rock probably rather diorite
7310 N	76	30	-	10	20	40	WB	140	red	-	✓	140	120	340	28											Rock rather diorite
7300 N	77	-	-	15	10	65	"	300	beige	-	✓	350	140	200	25											Probably very rather diorite
7290 N	78	30	-	5	15	40	"	140	"	-	✓	140	99	340	84											Rock diorite
7280 N	79	35	-	15	15	15	"	50	"	-	✓	50	120	200	19										As above.	
7270 N	247980	55	-	10	35	20	B/WB	50	brown	-	✓	50	110	220	18											As above.
7260 N	81	30	-	5	25	30	WB	110	beige	-	✓	110	120	194	16											As above.
7250 N	82	35	-	10	35	20	B/WB	50	brown	-	✓	50	110	230	16											As above.
7240 N	83	35	-	10	25	30	WB	80	"	-	✓	80	120	260	14											As above.
7230 N	84	15	-	5	25	55	"	110	red	-	✓	110	61	230	10											Rock rather shaly tuff or diorite
7220 N	85	20	-	5	15	60	"	70	beige	-	✓	70	110	280	37											Rock rather fine diorite
7210 N	247986	25	-	25	35	15	B	50	brown	-	✓	50	99	144	19											Rock diorite + shale
LINE 74E																										
7385m N																										
7380 N	247987	10	-	20	10	60	WB	120	brown	-	✓	120	120	350	8											Rock diorite

E.L. 19/72 DIM RANGE TRS.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

40.
D. 70. 17759.

AREA NIETRA PROSPECT - CROSBY CR ANOMALIES.
MAP OR PHOTO REFERENCE A for p. 39.

SAMPLE Nos. 247988 - 248000
272601 - 272613

COLLECTED BY [Signature]
ANALYSED BY ZINC CORP. BROKEN HILL

Grid Coordinate	Sample No. (Cont.)	Soil composition					Soil horizon	Sample				Bedrock		Metal content, p. p. m.										Geological observations						
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (meters)	Colour (Munsell Chart No.)	pH	Outcrop	Conc. (ppm)	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As							
LINE 71 E 7360 N	247988	25	-	5	6	10	B	80	brown	-	-	✓	80	110	191	5													Rock diorite	
7340 N	89	5	-	30	5	50	6B	360	orange	-	-	✓	150	13	230	1												Rock limonite altered tuff		
7320 N	247990	5	-	10	25	50	"	90	brng	-	-	✓	90	500	480	27												Rock diorite		
7300 N	91	5	-	5	2	70	"	50	"	-	-	✓	50	40	168	130												As above.		
7280 N	92	5	-	10	20	55	"	120	red	-	-	✓	120	27	173	12												Rock diorite (offcut of same)		
7250 N	93	20	-	10	30	40	"	110	brng	-	-	✓	110	27	149	13												As above.		
7230 N	94	35	-	10	15	40	"	170	red	-	-	✓	90	55	750	19												Rock diorite as fine tuff.		
7210 N	247995	30	-	5	0	55	"	200	green	-	-	✓	210	19	20	19												Rock rather fine tuff.		
LINE 74 SE 7350 NE																														
7390 NE	247996	-	-	20	10	70	6B	360	orange	-	-	✓	100	85	310	4													Banded sh. with fine altered tuff	
7350 NE	97	-	-	20	10	70	6B	360	"	-	-	✓	380	21	360	13													As above.	
7370 NE	98	5	-	5	10	80	"	200	"	-	-	✓	240	330	310	5													Rock fine pink dyke tuff	
7360 NE	99	-	-	20	10	70	6B	360	"	-	-	✓	380	45	350	3													Rock fine tuff	
7350 NE	248000	10	-	5	10	75	"	360	"	-	-	✓	350	24	220	1													Rock with fine tuff.	
7340 NE	272601	5	-	10	10	75	6B	210	"	-	-	✓	220	55	250	5													As above.	
7330 NE	02	10	-	10	20	60	"	190	"	-	-	✓	200	24	161	2													Rock rather diorite	
7320 NE	03	10	-	10	35	45	"	80	red	-	-	✓	100	41	157	11													Rock diorite	
7310 NE	04	15	-	10	20	55	"	70	"	-	-	✓	80	64	163	12													As above.	
7300 NE	05	15	-	5	15	55	"	80	"	-	-	✓	80	36	137	12													As above - offcut of same	
7290 NE	06	10	-	10	30	50	"	100	"	-	-	✓	100	29	121	18													As above.	
7280 NE	272607	20	-	5	30	45	B	40	brown	-	-	✓	50	24	115	14													As above.	
LINE 75 E 7450 NE																														
7390 NE	272608	20	-	10	20	50	6B	210	red	-	-	✓	210	11	220	30														Rock diorite
7370 NE	09	5	-	20	10	65	"	210	orange	-	-	✓	220	24	380	7														Rock rather diorite
7350 NE	272610	10	-	10	15	55	"	210	red	-	-	✓	300	13	250	4														As above.
7330 NE	11	10	-	10	10	40	"	40	"	-	-	✓	40	33	178	5														As above.
7310 NE	272612	20	-	10	15	55	"	40	"	-	-	✓	40	31	240	6														As above - offcut of same
LINE 75 SE 7580 NE																														
7395	272613	-	-	20	10	70	B	200	red	-	-	✓	320	44	210	9														Possibly a diorite

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E.L. 19/72. DIAL RANGE TFS.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.A.O. 17759. 41.

AREA NIETRA PROSPECT - CROSBY & ANOMALIES.

SAMPLE Nos. 272614 - 272643

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE As for 140

ANALYSED BY ZINC CORP. BRACKEN HILL

Grid Coordinates	Sample No.	Soil composition					Soil Horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations					
		Rock %	Levitic %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As				
7355 N	272614	-	-	20	10	70	WB	200	red	-	-	✓	100	38	210	9											Possibly a diorite	
7355 N	15	-	-	20	10	70	WB	200	"	-	-	✓	100	24	157	10											Ex-diorite of fine tuff.	
7355 N	6	5	-	10	10	75	"	200	"	-	-	✓	250	44	197	9											Red diorite	
7355 N	17	5	-	10	10	75	"	200	"	-	-	✓	250	55	168	7											As above	
7345 N	272618	5	-	10	10	75	WB	110	"	-	-	✓	110	50	135	8											As above	
LINE 77/SE																												
7300 NE																												
7455 N	27269	30	-	25	5	30	WB	60	black	-	-	✓	60	50	74	20												Red of fine tuff.
7455 N	272620	25	-	10	30	35	"	70	"	-	-	✓	70	70	86	34												Red shale.
7675 N	21	15	-	25	5	45	"	90	"	-	-	✓	90	98	77	45												Red rather shale.
7665 N	22	20	-	10	20	50	"	90	red	-	-	✓	90	170	152	92												Red shale.
7655 N	23	30	-	20	10	40	"	120	black	-	-	✓	60	120	123	75												As above.
7645 N	24	20	-	10	20	50	"	100	"	-	-	✓	100	120	100	64												Red rather shale.
7635 N	25	30	-	20	15	35	"	120	"	-	-	✓	120	220	173	110												Red shale.
7625 N	26	25	-	15	20	40	"	100	"	-	-	✓	100	120	230	370												Red rather diorite.
7615 N	27	20	-	15	20	45	"	80	"	-	-	✓	80	80	270	410												As above.
7605 N	28	30	-	15	25	20	"	70	red	-	-	✓	70	27	360	250												As above.
7595 N	29	35	-	15	15	35	"	60	"	-	-	✓	60	120	210	70												Red diorite.
7585 N	272630	20	-	20	20	40	"	90	"	-	-	✓	90	96	250	110												Red rather diorite.
7575 N	31	35	-	20	30	15	"	120	black	-	-	✓	120	29	181	48												As above.
7565 N	32	25	-	20	10	45	"	160	red	-	-	✓	160	370	1370	190												As above.
7555 N	33	30	-	20	15	35	"	140	"	-	-	✓	140	240	210	150												Red rather fine tuff to shale.
7545 N	34	20	-	15	25	50	"	150	"	-	-	✓	150	1300	390	220												As above.
7535 N	35	25	-	10	20	45	"	140	"	-	-	✓	140	380	210	280												Red diorite.
7525 N	36	20	-	15	15	50	"	170	"	-	-	✓	170	200	220	300												Red rather diorite.
7515 N	37	15	-	15	20	60	"	140	black	-	-	✓	140	50	320	430												As above.
7505 N	38	25	-	10	15	20	"	160	black	-	-	✓	160	27	300	460												As above.
7495 N	39	15	-	10	35	40	"	120	black	-	-	✓	120	18	250	72												As above.
7485 N	272640	10	-	15	25	50	"	110	red	-	-	✓	110	120	210	120												As above.
7475 N	41	25	-	20	10	45	"	140	black	-	-	✓	140	81	230	74												As above.
7465 N	42	10	-	10	45	35	"	140	"	-	-	✓	140	71	210	70												Red diorite.
7455 N	43	30	-	20	20	30	"	180	"	-	-	✓	180	68	183	65												As above.

C.R.A.E. 31.

E.L. 19/72 DIAL RANGE. TAS

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 17799 42.

AREA NIETTA PROSPECT - CROSBY CR ANOMALIES.

SAMPLE Nos. 272644 - 272651

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE

As for p 41

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Co-ordinate	Sample No.	Soil composition					Soil horizon	Sample			pH	Bedrock			Metal content, p. p. m.										Geological observations					
		Rock %	Latexite %	Sand %	Silt %	Clay %		Depth (cm)	Colour	Munsell Chart No.		Outcrop	Concreted	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As						
LINE 77/SE																														
7450m N	272644	40	-	15	10	35	6B	190	biq	-	-	✓	90	29	210	37													Rock rather diorite	
7435 N	15	25	-	20	20	35	"	200	red	-	-	✓	200	40	173	27												As above.		
7425 N	272646	5	-	10	25	60	"	210	"	-	-	✓	210*	58	187	9													Rock probably rather diorite	
LINE 78/E																														
7720m E																														
7620m N	272647	5	-	25	20	50	6B	130	biq	-	-	✓	90	88	370	130													Rock rather diorite	
7620 N	18	35	-	20	15	30	"	110	"	-	-	✓	10	140	161	84													Rock shale	
7620 N	19	15	-	10	20	55	"	120	"	-	-	✓	120	110	152	84													As above.	
7650 N	272650	30	-	25	15	30	"	110	biq	-	-	✓	110	120	137	80													As above.	
7660 N	51	50	-	25	10	15	"	60	biq	-	-	✓	60	110	142	68													As above.	
7670 N	52	10	-	15	20	55	"	60	red	-	-	✓	60	150	140	55													Rock dk green shale	
7680 N	53	25	-	20	20	35	"	70	biq	-	-	✓	70	84	109	40													Rock shale	
769 N	54	25	-	25	20	30	"	80	"	-	-	✓	100	78	67	33													Rock rather tuff (conglomerate??)	
770 N	272655	5	-	10	20	65	"	70	biq	-	-	✓	70	120	61	25													Rock rather fine tuff.	
LINE 78/SE																														
7815m E																														
7410m N	272656	-	-	5	10	85	B	210	red	-	-	✓	300	55	153	27														Possibly ex diorite
7430 N	57	-	-	5	10	85	B	20	"	-	-	✓	30	50	142	28														As above.
7430 N	58	-	-	5	20	75	6B	210	"	-	-	✓	250	52	125	30														As above.
7440 N	59	15	-	5	15	65	"	210	"	-	-	✓	210	45	86	31														Rock rather diorite or rather tuff??
7450 N	272660	5	-	10	25	60	"	210	"	-	-	✓	210	45	71	40														Rock v. rather diorite.
7460 N	61	5	-	5	20	70	"	170	biq	-	-	✓	200	24	111	41														As above.
7470 N	62	15	-	5	10	70	"	110	biq	-	-	✓	120	40	131	61														Rock probably rather diorite
7480 N	63	25	-	20	25	30	"	80	"	-	-	✓	80	35	156	43														Rock probably rather tuff
7490 N	64	-	-	5	5	80	B	70	red	-	-	✓	80*	52	103	70														Possibly ex diorite.
750 N	65	10	-	10	20	60	6B	100	"	-	-	✓	110	84	135	180														Rock v. rather diorite.
750 N	66	0	-	10	10	70	"	180	"	-	-	✓	70	45	161	170														As above.
7520 N	67	30	-	20	10	40	"	80	"	-	-	✓	80	120	210	120														Rock rather diorite
7530 N	68	20	-	15	15	50	"	80	biq	-	-	✓	80	120	360	82														As above.
7540 N	69	5	-	5	35	45	"	310	red	-	-	✓	220	37	92	150														As above.
7550 N	272670	20	-	20	20	40	"	110	"	-	-	✓	120*	71	260	520														Rock diorite.
7560 N	71	15	-	10	35	40	"	90	biq	-	-	✓	70	1050	480	660														As above

EL. 1972 DIAL RANGE TAs.

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 1779.

AREA NETA PROSPECT - COBBY CREEK ANOMALIES.

SAMPLE Nos. 272672 - 272700

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A6 p. 12.

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample		Bedrock		Metal content, p. p. m.										Geological observation						
		Rock %	Inerts %	Sand %	Silt %	Clay %		Depth cm	Colour (Munsell Chart No.)	Fracture	Outcrop	Corrected	Est. Depth cm	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag		Mo	As				
LINE 78/E (cont.)																												
7570 N	272672	26	-	5	26	50	WB	130	red	-	✓	130	120	115	66												Rock contains some tuff. 33	
7580 N	73	-	-	5	26	65	-	90	"	-	✓	170	85	200	130												Probably rather diorite	
7590 N	74	5	-	5	25	45	-	70	"	-	✓	70	120	191	84												Rock rather diorite	
7600 N	75	5	-	5	55	35	-	60	"	-	✓	60	110	173	94												As above	
7610 N	76	-	-	5	26	70	B	80	"	-	✓	80	120	150	60												Probably rather fine tuff.	
7620 N	77	20	-	5	26	55	WB	130	"	-	✓	80	170	540	120												Rock v. rather diorite	
7630 N	78	20	-	10	35	35	WB	90	"	-	✓	80	140	260	120												Rock diorite	
7640 N	79	20	-	20	20	40	WB	90	beige	-	✓	90	190	280	120												Rock rather shale + diorite	
7650 N	272680	20	-	20	20	40	"	100	"	-	✓	100	150	280	82												Rock shale	
7660 N	81	10	-	10	20	60	"	100	"	-	✓	100	120	230	51												As above	
7670 N	82	20	-	15	20	45	"	60	brown	-	✓	70	150	250	45												As above	
7680 N	83	25	-	25	30	20	"	40	"	-	✓	50	230	210	38												Rock thin slyce tuff	
7690 N	84	20	-	10	45	25	WB	40	"	-	✓	70	110	210	29												Rock thin tuff to shale	
7700 N	85	20	-	5	15	60	WB	50	beige	-	✓	50	132	80	14												Rock rather fine tuff	
7710 N	272686	30	-	20	20	30	"	60	"	-	✓	60	26	65	14												As above	
LINE 78/E																												
7865 N																												
7400 N	272687	15	-	5	20	45	WB	210	red	-	✓	210	15	35	22													Rock rather diorite
7420 N	88	20	-	5	15	60	"	150	"	-	✓	150	50	119	16													As above
7440 N	89	-	-	5	15	60	B	210	"	-	✓	210	50	130	41													Probably a diorite
7460 N	272690	20	-	5	20	50	WB	210	"	-	✓	210	140	117	14													As above
7480 N	91	10	-	5	20	65	"	140	"	-	✓	140	180	250	110													Rock possibly a diorite
7500 N	92	10	-	5	25	60	"	110	yellow	-	✓	110	55	135	62													As above
7520 N	93	20	-	5	20	55	"	170	red	-	✓	170	21	71	260													As above
7540 N	94	10	-	20	20	50	"	100	brown	-	✓	100	52	220	93													As above
7560 N	95	20	-	10	25	45	"	60	red	-	✓	60	18	230	72													Rock rather diorite
7580 N	96	25	-	5	25	45	"	180	beige	-	✓	180	61	92	57													Rock rather fine tuff
7600 N	97	20	-	20	20	40	"	140	"	-	✓	140	35	43	39													Rock rather shale
7620 N	98	25	-	25	35	15	WB	40	brown	-	✓	40	55	168	100													Rock diorite
7640 N	99	15	-	15	20	50	"	60	red	-	✓	60	120	210	91													Rock rather shale + diorite
7660 N	272700	5	-	20	0	5	"	100	beige	-	✓	100	120	380	47													Rock rather fine tuff

E.L. 1/12 Dial Range Tab.

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 1759.

AREA NIETIA PROSPECT - CROSBY CR ANOMALIES

SAMPLE Nos. 272701 - 272730

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE

A 1 1 42

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock			Metal content, p. p. m.										Geological observations					
		Rock %	Levelling %	Sand %	Silt %	Clay %		Depth (mm)	Colour (Munsell Chart No.)	pH	Outcrop	Consolidated	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As						
LINE 7/SE																													
7960NE																													
7360N	272701	20	-	10	20	50	WB	70	red	-	-	✓	70	65	184	82												Rok rather diorite	
7370 N	02	30	-	5	25	30	"	80	brn	-	-	✓	80	43	168	58												As above.	
7380 N	03	35	-	5	35	15	"	80	brn	-	-	✓	80	58	176	36												As above.	
7390 N	04	5	-	5	25	6	"	90	brn	-	-	✓	90	50	176	80												As above.	
7400 N	05	10	-	5	5	78	"	90	brn	-	-	✓	80	15	83	39												As above or rather tuff >>	
7410 N	06	20	-	5	5	68	"	160	"	-	-	✓	160	29	84	17												Rok rather diorite	
7420 N	07	5	-	5	25	65	"	150	"	-	-	✓	160	21	81	40												As above.	
7430 N	08	5	-	20	5	70	"	50	brn	-	-	✓	80	80	158	39												As above.	
7440 N	09	25	-	20	5	40	"	120	"	-	-	✓	120	110	108	39												As above.	
7450 N	272710	5	-	5	20	65	"	190	"	-	-	✓	200	50	108	39												Rok or shaly tuff or diorite 33	
7460 N	11	-	-	5	20	75	B	210	"	-	-	✓	280	61	134	34												Possibly or fine tuff or diorite	
7470 N	12	-	-	5	20	70	WB	320	"	-	-	✓	360	34	80	33												Possibly rather fine tuff 3	
7480 N	13	5	-	5	25	65	"	320	"	-	-	✓	360	36	89	28												Rok possibly rather diorite or tuff	
7490 N	14	5	-	5	25	65	"	310	brn	-	-	✓	330	16	134	17												Rok possibly rather fine tuff	
7500 N	15	20	-	5	5	65	"	360	red	-	-	✓	380	16	90	36												Rok rather diorite	
7510 N	16	25	-	10	35	30	"	70	"	-	-	✓	70	36	168	63												As above.	
7520 N	17	40	-	10	20	20	"	40	brn	-	-	✓	40	39	156	41												As above.	
7530 N	18	5	-	5	20	70	"	150	brn	-	-	✓	150	137	62	47													Rok rather fine tuff
7540 N	19	20	-	20	5	45	"	180	red	-	-	✓	180	536	210	70													Rok rather diorite
7550 N	272720	10	-	5	20	60	"	120	"	-	-	✓	80	16	156	44													As above.
7560 N	21	25	-	15	20	40	"	150	brn	-	-	✓	80	64	260	97													Rok rather diorite (or shaly diorite)
7570 N	22	10	-	20	5	60	"	180	red	-	-	✓	80	50	96	89													Rok probably rather diorite
7580 N	23	15	-	10	10	65	"	180	"	-	-	✓	180	100	143	130													Rok possibly rather diorite
7590 N	24	20	-	15	15	80	"	150	"	-	-	✓	180	82	164	51													Rok rather diorite
7600 N	25	20	-	10	10	60	"	150	"	-	-	✓	180	170	16	200													Rok rather fine tuff
7610 N	26	20	-	10	10	70	"	140	brn	-	-	✓	140	68	137	17													Rok diorite
7620 N	27	15	-	10	10	70	"	90	red	-	-	✓	90	100	230	180													Rok possibly rather fine tuff (or diorite)
7630 N	28	15	-	10	20	60	"	70	"	-	-	✓	70	90	115	100													Rok rather diorite (or tuff)
7640 N	29	15	-	10	20	60	"	90	"	-	-	✓	90	72	530	130													Rok possibly rather tuff or diorite
7650 N	272730	30	-	10	50	10	"	120	"	-	-	✓	120	190	171	200													Rok rather fine tuff

E.L. 1972 DUAL RANGE T.A.S.

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 17759

15.

AREA NIETTA PROSPECT - CROSBY CR ANOMALIES.

SAMPLE Nos. 272731 - 272766

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE

A 1 x 1.4.4

ANALYSED BY ZINC CORP. BRAKEN HILL

Grid Coordinates	Sample No.	Soil composition					Soil horizon	Sample			pH	Bedrock		Metal content, p. p. m.										Geological observations						
		Rock %	Latitude %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	Est. Depth (m)		Outcrop	Concealed	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As							
LINE 76E																														
7580mE																														
7487mN	272731	45	-	10	20	25	6B	40	red	-	-	✓	40	410	280	110												Red fine tuff to shale		
7489 N	32	45	-	25	15	20	"	40	"	-	-	✓	40	470	180	110												Red silt fine tuff ± sh. Congl.		
7491 N	33	45	-	20	0	11	"	60	red	-	-	✓	60	190	210	180												Red bedded silt fine tuff - shale		
7493 N	34	40	-	20	20	20	"	60	"	-	-	✓	60	150	210	150												Red fine tuff		
7495 N	35	40	-	20	20	20	"	70	"	-	-	✓	70	150	180	150												Red silt bedded fine tuff ± sh.		
7497 N	36	40	-	30	20	10	"	70	light	-	-	✓	70	170	240	150												As above.		
7499 N	37	40	-	25	20	15	"	50	light	-	-	✓	50	180	250	120												As above.		
7491 N	38	30	-	10	25	25	"	40	"	-	-	✓	40	130	230	95												As above.		
7493 N	272737	45	-	25	20	10	"	50	"	-	-	✓	50	160	220	120												As above.		
LINE 80E																														
7962mE																														
7350mN	272740	15	-	20	20	45	6B	70	red	-	-	✓	70	42	106	67													Rock rather diorite	
7370 N	41	10	-	15	20	65	"	90	red	-	-	✓	90	16	174	29													Rock possibly as above.	
7390 N	42	5	-	5	5	75	"	100	light	-	-	✓	100	15	78	32												As above.		
7410 N	43	20	-	5	10	65	"	100	red	-	-	✓	100	16	150	21													As above.	
7430 N	44	30	-	15	25	30	"	30	red	-	-	✓	30	64	128	22													Rock rather diorite	
7450 N	45	35	-	5	20	40	"	70	"	-	-	✓	70	29	161	24													As above.	
7490 N	46	5	-	0	20	65	"	200	red	-	-	✓	200	23	106	27													Rock possibly rather fine tuff.	
7490 N	47	5	-	0	20	65	"	210	"	-	-	✓	210	16	0.6	30													As above.	
7510 N	48	35	-	5	10	40	"	90	red	-	-	✓	90	42	151	85													Rock rather diorite	
7530 N	49	10	-	10	20	60	"	90	red	-	-	✓	90	150	177	81													Rock possibly rather diorite	
7550 N	272750	5	-	15	20	60	"	90	"	-	-	✓	90	52	117	220													As above.	
7570 N	51	10	-	20	10	60	"	160	"	-	-	✓	160	170	150	110													Rock possibly rather fine tuff	
7590 N	52	15	-	20	20	35	"	60	"	-	-	✓	60	52	107	39													Rock rather fine tuff	
7610 N	53	20	-	10	5	60	"	70	"	-	-	✓	70	73	130	14													Rock rather red or diorite	
7630 N	272754	25	-	10	20	35	"	60	light	-	-	✓	60	55	100	49													Rock rather diorite	
LINE 84SE																														
8010mE																														
7335mN	272755	20	-	20	30	30	6B	70	red	-	-	✓	70	73	230	110														Rock rather diorite
7345 N	272756	25	-	5	15	20	"	90	red	-	-	✓	90	44	116	59														As above.

C.R.A.E. 31.

E.L. 1/2 Dial Range. Tm.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 7759 (to 272815)
 D.P.O. 7766 (from 272816)

AREA NETA PROSPECT - CROSBY CR. ANOMALIES.

SAMPLE Nos. 272757 - 272816

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE As for p. 46

ANALYSED BY ZINC CORP. BROKEN HILL.

Grid Coordinates	Sample No.	Soil composition					Soil Horizon	Sample Depth (cm)	Colour (Munsell Chart No.)	pH	Bedrock		Metal content, p. p. m.										Geological observations				
		Rock %	Limstone %	Sand %	Silt %	Clay %					Outcrop	Concealed	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As					
LINE SITE	(Cont)																										
7290 N	272757	26	-	10	25	45	6B	60	grey	-	-	✓	60	20	240	58											Rock with diorite
7270 N	272758	26	-	25	40	55	6B	60	grey	-	-	✓	60	25	165	86	23	13	90	45							Rock diorite
7250 N	89	5	-	0	55	20	A0	40	"	-	-	✓	40	66	163	84										Rock with diorite	
7230 N	272790	5	-	0	35	10	B	50	"	-	-	✓	50	200	240	41										Rock diorite	
7210 N	91	30	-	0	60	20	6B	50	"	-	-	✓	50	76	250	48										As above	
7190 N	92	20	-	0	55	20	6B	70	red	-	-	✓	70	41	110	53										Rock s-d or diorite?	
7170 N	93	25	-	0	45	10	6B	10	grey	-	-	✓	60	380	400	190										Rock with fine tuff to shale	
7150 N	4	30	-	0	35	5	6B	40	"	-	-	✓	60	420	400	89										As above	
7130 N	95	25	-	0	20	10	6B	30	"	-	-	✓	50	160	530	150										Rock with shale	
7120 N	96	20	-	0	60	0	6B	30	"	-	-	✓	60	300	310	63										Rock diorite	
7100 N	97	20	-	0	80	5	6B	30	"	-	-	✓	60	190	230	67										of fine grey tuff	
7350 N	98	15	-	0	70	10	6B	50	red	-	-	✓	50	8	49	40										Reddish fine tuff, or and diorite?	
7370 N	99	20	-	0	20	10	6B	50	grey	-	-	✓	50	24	95	94										Rock with diorite	
7390 N	272800	0	-	0	55	5	6B	200	grey	-	-	✓	60	13	25	40										Rock with fine tuff	
7410 N	01	5	-	0	50	10	6B	130	red	-	-	✓	60	120	104	130										As above (or diorite or s-d?)	
7430 N	02	10	-	0	45	15	6B	110	"	-	-	✓	60	55	36	67										Rock with fine tuff	
7450 N	03	5	-	0	20	15	6B	180	grey	-	-	✓	40	21	89	67										As above (or s-d?)	
7470 N	04	10	-	0	20	15	6B	70	grey	-	-	✓	70	870	105	65	240	12	90	35						Rock with fine tuff	
7490 N	05	15	-	0	20	15	6B	80	"	-	-	✓	80	340	95	170										As above	
7510 N	06	35	-	0	10	25	6B	30	red	-	-	✓	30	270	210	140										Rock with fine tuff to shale	
7530 N	07	-	-	0	0	85	B	210	"	-	-	✓	300	190	153	83										??	
7550 N	08	10	-	0	10	70	6B	270	"	-	-	✓	280	180	150	140										Rock with fine tuff (or diorite)	
7570 N	09	10	-	0	20	60	6B	180	"	-	-	✓	80	200	163	97										Rock with fine diorite (or fine tuff)	
7590 N	272800	15	-	0	15	60	6B	180	"	-	-	✓	150	110	183	84										Rock with s-d	
7610 N	11	-	-	0	20	70	6B	200	grey	-	-	✓	300	140	210	120										Possibly or shale	
7630 N	272812	5	-	0	25	60	6B	40	red	-	-	✓	40	64	230	55										Rock with fine tuff or and diorite	
LINE SITE																											
8130 mE																											
7615 N	272813	10	-	10	25	55	6B	200	red	-	-	✓	200	110	153	84											Rock fine tuff or s-d
7630 N	14	5	-	20	25	50	6B	200	"	-	-	✓	200	150	194	87											Rock with diorite or s-d
7595 N	15	-	-	5	10	85	6B	200	"	-	-	✓	300	130	137	60											??
7555 N	272816	30	-	0	25	35	6B	260	"	-	-	✓	260	190	40	100											Rock with fine tuff

C.R.A.E. 31.

E.L. 19/72 DIAL RANGE. TNS.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 17760

42.

AREA NIETA PROSPECT - CROSSBY CK ANOMALIES.

SAMPLE No. 272817 - 272848

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE

A pt 147

ANALYSED BY Zinc Corp. Broken Hill.

Grid Coordinates	Sample No.	Soil composition					Soil position	Sample			Bedrock		Metal content, p.p.m.										Geological observations					
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (m)	Colour (Munsell Chart No.)	pH	Outcrop	Consolidated	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As				
7575N	272817	10	-	10	55	25	40B	240	brown	-	-	✓	250	38	146	62												Rock rather fine tuff (concrete?)
7585N	18	15	-	5	40	30	"	200	red	-	-	✓	200	100	127	64												Rock rather fine tuff to shale
7595N	19	25	-	5	10	50	"	260	"	-	-	✓	260	130	150	110												As above
7605N	272820	5	-	4	25	15	"	110	brown	-	-	✓	110	81	141	69												Rock rather fine tuff
7615N	21	10	-	10	20	60	"	90	red	-	-	✓	90	150	137	89												As above
7625N	22	25	-	0	50	10	"	150	"	-	-	✓	150	200	154	220												As above
7635N	23	35	-	0	25	30	"	90	"	-	-	✓	90	500	187	180												Rock rather shale to fine tuff
7645N	24	30	-	20	20	30	"	90	"	-	-	✓	90	300	187	170												Rock rather fine tuff to shale
7655N	25	70	-	10	10	10	"	100	beige	-	-	✓	100	95	81	168												Rock rather fine tuff
7665N	26	20	-	20	15	45	"	150	red	-	-	✓	150	3000	230	170												Rock rather tuff - fine tuff
7675N	27	20	-	10	10	60	"	130	"	-	-	✓	130	800	280	120												Rock v rather diorite
7685N	28	10	-	10	15	65	"	140	"	-	-	✓	140	740	95	190												Rock fine tuff to shale
7695N	29	10	-	0	20	60	"	100	"	-	-	✓	100	300	155	260												As above
7705N	272830	10	-	5	70	55	"	120	"	-	-	✓	120	44	250	280												Rock probably rather fine tuff
7715N	31	25	-	25	25	25	"	40	"	-	-	✓	40	57	39	130												Rock rather fine tuff
7725N	32	25	-	10	10	55	"	10	"	-	-	✓	10	60	124	110												Rock rather (red?) tuff or diorite?
7735N	33	20	-	5	20	45	"	10	"	-	-	✓	10	40	104	44												Rock rather diorite
7745N	34	25	-	0	10	55	"	40	"	-	-	✓	40	28	112	25												Rock probably rather diorite
7755N	35	25	-	15	30	30	"	50	"	-	-	✓	50	30	78	44												Rock rather diorite
7765N	36	10	-	10	10	70	"	170	"	-	-	✓	170	20	34	29												Rock rather tuff or fine tuff (concrete?)
7775N	37	25	-	20	10	45	"	20	"	-	-	✓	20	28	84	46												Rock rather diorite
7785N	38	25	-	10	10	55	"	50	"	-	-	✓	50	22	100	80												Rock possibly v rather tuff or diorite
7795N	39	15	-	5	20	60	"	170	"	-	-	✓	170	20	62	49												Rock probably v rather diorite
7805N	272840	10	-	5	20	65	"	70	beige	-	-	✓	70	65	28	53												Rock v rather tuff or fine tuff
7815N	41	15	-	5	20	60	"	70	red	-	-	✓	70	65	162	64												Rock v rather diorite or fine tuff
7825N	42	40	-	30	15	15	"	70	brown	-	-	✓	70	87	250	85												Rock probably rather diorite
7835N	43	25	-	10	55	10	"	10	"	-	-	✓	10	110	198	60												Rock rather diorite
7845N	44	25	-	20	20	35	"	130	"	-	-	✓	130	35	169	21												Rock rather red (low) tuff or diorite
7855N	45	30	-	10	10	10	"	30	"	-	-	✓	30	60	159	29												Rock rather diorite
7865N	46	30	-	0	10	10	"	10	"	-	-	✓	80	170	120	64												Rock diorite
7875N	47	30	-	15	40	15	"	10	"	-	-	✓	60	42	99	44												As above
7885N	272848	30	-	15	45	10	"	10	"	-	-	✓	50	50	116	74												Rock rather diorite

C.R.A.E. 31.

E.L. 19/12 DIAL RANGE TNS.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.T.O. 1776

50

AREA NIETA PROJECT - CRASBY CK ANOMALIES.
MAP OR PHOTO REFERENCE *A for 199.*

SAMPLE Nos. 272879, 272908

COLLECTED BY *[Signature]*
ANALYSED BY ZINC GAP, BROKEN HILL

Grid Co-ordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations					
		Root %	Latelite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Concreted	Elev. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As				
LINE 82E (Cont.)																												
7500 N	272879	30	-	30	30	10	B0	60	black	-	-	✓	50	460	210	130											Rock with fine tuff	
7520 N	272880	20	-	10	30	40	"	50	red	-	-	✓	50	230	138	80											Rock with shale & fine tuff	
7540 N	81	15	-	10	20	20	"	100	black	-	-	✓	60	91	67	41											Rock with fine tuff	
7560 N	82	15	-	20	25	40	"	110	red	-	-	✓	10	240	300	170											Rock with diorite or fine sand	
7580 N	83	25	-	25	20	30	"	120	"	-	-	✓	60	88	200	51											Rock with sand tuff	
7600 N	272884	15	-	20	35	20	"	120	"	-	-	✓	100	88	141	65											Rock fine tuff	
LINE 82 SE	1																											
8210 ME																												
7050 N	272885	10	-	20	25	5	B0	40	black	-	-	✓	40*	410	420	320												Rock with fine tuff
7135 N	86	35	-	15	35	15	"	30	"	-	-	✓	30*	450	430	310												As above or shale
7145 N	87	25	-	10	20	15	"	30	red	-	-	✓	30*	720	340	200												Rock with fine tuff
7155 N	88	20	-	10	65	5	B0	30	black	-	-	✓	60*	1350	380	230												Rock with sand
7165 N	89	20	-	10	65	5	B0	40	"	-	-	✓	80	1030	300	180												As above or diorite
7175 N	272890	20	-	10	40	30	B0	50	black	-	-	✓	50	280	300	62												Rock diorite
7185 N	91	10	-	5	5	60	"	80	large	-	-	✓	100	150	250	74												Rock with (sand?) fine tuff
7195 N	92	25	-	10	40	25	"	30	red	-	-	✓	30	100	230	62												Rock diorite
7205 N	93	30	-	15	20	25	"	140	"	-	-	✓	140	72	320	67												As above
7215 N	94	10	-	10	30	50	"	70	large	-	-	✓	20	130	230	98												Rock with shale
7225 N	95	15	-	15	30	40	"	100	red	-	-	✓	100	88	200	74												Rock diorite
7235 N	96	30	-	25	25	20	"	60	"	-	-	✓	60	95	190	90												As above
7245 N	97	20	-	20	40	20	"	80	black	-	-	✓	80	63	181	77												As above
7255 N	98	30	-	15	35	20	"	100	"	-	-	✓	100	100	210	89												Rock with diorite or sand
7265 N	99	30	-	15	40	15	"	70	red	-	-	✓	70	70	200	140												Rock diorite
7275 N	272900	10	-	5	75	10	B0	30	black	-	-	✓	100	78	159	74												As above
7285 N	01	10	-	10	75	5	B0	30	black	-	-	✓	100	92	146	56												As above
7295 N	02	10	-	10	75	5	B0	30	"	-	-	✓	100	85	163	83												As above
7305 N	03	20	-	5	5	20	B0	30	black	-	-	✓	30	38	179	40												As above
7315 N	04	20	-	10	60	10	"	50	"	-	-	✓	50	38	136	60												As above
7325 N	05	20	-	15	40	25	"	50	red	-	-	✓	50	38	141	60												As above
7335 N	06	10	-	15	25	50	"	60	"	-	-	✓	60	57	124	27												Rock with fine tuff
7345 N	07	20	-	20	35	25	"	100	large	-	-	✓	100	22	174	500												Rock with tuff & fine tuff
7355 N	272908	20	-	20	20	40	"	70	red	-	-	✓	70	50	87	71												As above or diorite

EL 1/12 DLG RANGE, TAS.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

2770 1776

AREA NETTA PROSPECT - CROSSY CR ANOMALIES

SAMPLE Nos. 27296 - 27297

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE NETTA PROSPECT, E.L. 1/12 DLG RANGE, N.W. TAS. 1:50000 SHEET 3.

ANALYSED BY ZINC COR. BROKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations			
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (m)	Colour (Munsell Chart No.)	pH	Outcrop	Cancelled	Est. Depth (%)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As		
LNE57E																										
8720mE																										
7510mN	27296	A0	-	10	10	20	60	big	-	-	✓	60	40	30	34											Red shale
7520mN	64	B	-	5	2	10	60	"	-	-	✓	60	140	104	81											Red limonitic shale
7550mN	27297	B	-	2	6	10	60	"	-	-	✓	40	25	30	26											As above to fine tuff.
7570mN	71	B	-	5	2	10	40	"	-	-	✓	40	23	30	24											As above
7590mN	72	B	-	4	2	7	110	"	-	-	✓	10	5	17	20											Red rather fine tuff
7600mN	73	B	-	4	2	7	110	"	-	-	✓	10	22	36	10											As above
7620mN	74	B	-	6	6	10	80	"	-	-	✓	80	91	124	70											Red shale
7650mN	75	B	-	6	6	10	110	"	-	-	✓	110	54	80	54											Red shale
7670mN	76	B	-	6	6	15	80	"	-	-	✓	80	46	76	40											Red shale
7690mN	77	B	-	10	2	7	110	"	-	-	✓	140	63	60	20											As above
7710mN	78	B	-	9	3	6	110	big	-	-	✓	110	15	36	30											Possibly a shale
7720mN	79	B	-	5	4	10	110	"	-	-	✓	110	20	34	24											Red fine (siliceous) tuff
7730mN	27298	B	-	2	10	15	90	"	-	-	✓	90	38	31	36											Possibly a shale
7740mN	81	B	-	4	10	15	80	"	-	-	✓	80	10	23	12											Red rather shale
7750mN	82	B	-	20	10	15	50	"	-	-	✓	50	16	30	12											Possibly a shale
7760mN	83	B	-	5	15	15	100	"	-	-	✓	100	20	39	13											Red rather fine tuff - shale eqv.
7780mN	84	B	-	5	10	10	50	"	-	-	✓	50	22	39	13											Red shale
7800mN	85	B	-	30	15	10	40	"	-	-	✓	40	15	34	14											As above
7820mN	86	B	-	20	20	10	40	"	-	-	✓	40	17	39	20											Red ferrug. shale
7840mN	87	B	-	10	10	15	70	big	-	-	✓	70	13	23	14											Red shale
7860mN	88	B	-	20	10	10	80	"	-	-	✓	80	17	34	32											As above
7880mN	89	B	-	1	1	1	110	big	-	-	✓	110	25	20	19											Possibly a fine tuff.
7900mN	27299	B	-	1	1	1	110	"	-	-	✓	110	37	4	32											Possibly a shale
7920mN	91	B	-	1	1	1	70	"	-	-	✓	70	25	25	34											Fe rich sand grain
7935mN	92	B	-	1	1	1	90	"	-	-	✓	110	20	20	26											Possibly a fine tuff.
7950mN	93	B	-	1	1	1	80	"	-	-	✓	80	25	28	140											Red rather shale
8000mN	94	B	-	1	1	1	110	"	-	-	✓	110	6	7	7											Red rather fine tuff
8030mN	95	B	-	20	10	10	90	"	-	-	✓	120	18	20	32											Red shale
8050mN	96	B	-	1	1	1	100	"	-	-	✓	100	23	25	29											Possibly a fine tuff.
8070mN	27297	B	-	1	1	1	110	big	-	-	✓	110	20	22	28											As above

E.L. 19/72 DIAL RANGE. T.A.

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.A.O. 1776.

56

AREA NIETA PROSPECT - CROSBY CR ANOMALIES.
(SHEET 3, PHASE I SAMPLING)
MAP OR PHOTO REFERENCE: A 1 p 55

SAMPLE Nos. 27205R - 273080
273125 - 273130

COLLECTED BY: [Signature]
ANALYSED BY ZINC CORP. BROKEN HILL

Grid Coordinate LINE EST	Sample No. (Cen.)	Soil composition					Soil horizon	Sample		Bedrock		Metal content, p. p. m.										Geological observations			
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (cm)	Color (Munsell Chart No.)	Outcrop	Concealed	Est. Depth	Pb	Zn	Cu	N	Co	Cr	Mn	Ag	Mo		As		
8110 N	273055	-	-	5	0	95	EB	100	grey	-	✓	20	45	45	10				41						Possibly on shale
8130 N	59	-	-	5	0	95	EB	100	grey	-	✓	20	66	30	5				41						Possibly on fine tuff
8150 N	273060	-	-	5	0	95	EB	100	grey	-	✓	20	5	7	3				41						Red Oxid sta
8170 N	61	-	-	5	0	95	EB	90	grey	-	✓	20	91	22	36				41						As above
8190 N	62	-	-	5	0	95	EB	90	grey	-	✓	20	21	4	7				41						Old some over fine shale
8210 N	63	-	-	5	0	95	EB	80	grey	-	✓	20	18	9	2				41						?
8230 N	64	-	-	5	0	95	EB	70	grey	-	✓	20	6	7	1				41						Possibly Old some
8250 N	65	-	-	5	0	95	EB	110	grey	-	✓	20	48	14	3				41						Red with shale
8270 N	66	-	-	5	0	95	EB	70	grey	-	✓	20	57	12	3				1						As above
8290 N	67	-	-	5	0	95	EB	80	grey	-	✓	20	78	9	4				41						Possibly on fine tuff
8510 N	68	-	-	5	0	95	EB	40	grey	-	✓	20	150	12	1				41						?
8530 N	273069	-	-	5	0	95	EB	40	grey	-	✓	20	150	12	1				41						Old some
LINE 95E																									
LINE 95E																									
7140 N	273070	-	-	5	0	95	EB	70	grey	-	✓	20	53	22	34				1						Possibly on shale
7260 N	71	-	-	5	0	95	EB	40	grey	-	✓	20	9	5	4				41						?
7280 N	72	-	-	5	0	95	EB	50	grey	-	✓	20	30	35	2				41						?
7500 N	73	-	-	20	0	80	EB	110	grey	-	✓	20	2	15	3				41						?
7700 N	74	-	-	20	0	80	EB	130	grey	-	✓	20	102	70	35				1						Possibly on shale
7900 N	75	-	-	15	0	85	EB	80	grey	-	✓	20	38	22	21				41						Possibly on F. tuff
7910 N	273076	-	-	10	0	90	EB	70	grey	-	✓	20	46	63	13				41						As above
6720 N	273077	-	-	10	0	90	EB	70	grey	-	✓	20	32	20	17				2						Possibly on shale
6700 N	78	-	-	10	0	90	EB	100	grey	-	✓	20	46	39	15				1						Red rather fine sand tuff
6800 N	79	-	-	10	0	90	EB	70	grey	-	✓	20	13	17	12				1						Red rather fine tuff
6600 N	273080	-	-	5	0	95	EB	70	grey	-	✓	20	18	4	50				1						Possibly on basalt
NEEM - LOCATIONS RD																									
6710 N	273125	-	-	25	0	75	EB	90	grey	-	✓	20	25	7	18				12						As gossams fine tuff on shale
6750 N	26	-	-	5	0	95	EB	90	grey	-	✓	20	27	46	10				1						As above
6750 N	27	-	-	5	0	95	EB	80	grey	-	✓	20	35	50	10				1						As above
6750 N	28	-	-	5	0	95	EB	80	grey	-	✓	20	27	33	9				1						As above
6700 N	29	-	-	5	0	95	EB	140	grey	-	✓	20	22	43	27				1						Red gossams tuff
6790 N	273130	-	-	5	0	95	EB	60	grey	-	✓	20	30	53	63				41						Red fine tuff

E.L 19/12 NIETTA TAB.

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.R.O. 17162

AREA Crossby Cr Prospect

SAMPLE Nos. 299808 - 299833

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE Crossby Cr Prospect E.L 19/12 NIETTA NW 1/4 1:20000 SHEET

ANALYSED BY ZINE CORR BOWEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample				Bedrock		Metal content, p. p. m.											Geological observations					
		Rock %	Leucite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Eri. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As							
LINE 75/5																														
7805NE																														
7320 N	299808	30	-	20	20	30	WB	110	red	-	-	✓	110	30	19	53													Rock rather fine tuff.	
7310 N	09	30	-	20	30	20	"	50	brown	-	-	✓	50	150	160	70													Rock rather dense	
7300 N	299810	20	-	20	20	40	"	110	red	-	-	✓	110	160	144	53													As above	
7290 N	11	20	-	20	20	40	"	110	"	-	-	✓	110	58	124	62													As above	
7280 N	12	30	-	20	30	20	"	50	brown	-	-	✓	50	110	198	63													As above	
7270 N	13	30	-	20	30	20	"	50	"	-	-	✓	50	110	200	140													As above	
7260 N	14	20	-	20	40	20	"	110	"	-	-	✓	110	49	200	53													Rock rather fine tuff	
7250 N	15	20	-	20	30	30	"	110	"	-	-	✓	110	62	105	11													Rock rather dense	
7240 N	16	20	-	20	20	40	"	70	"	-	-	✓	70	31	100	6													As above	
7230 N	17	30	-	20	30	20	"	50	"	-	-	✓	50	110	130	10													As above	
7220 N	18	30	-	30	20	20	"	50	"	-	-	✓	50	36	108	4													As above	
7210 N	19	30	-	30	30	10	WB	40	"	-	-	✓	40	37	109	7													Rock dense	
7200 N	299820	20	-	20	30	30	WB	30	red	-	-	✓	30	25	53	12													Rock rather dense	
7190 N	21	30	-	30	30	10	B	30	brown	-	-	✓	60	50	94	7													Rock dense	
7180 N	22	10	-	20	30	10	B	30	"	-	-	✓	60	170	141	6													Rock dense	
7330 N	299823	20	-	10	30	40	WB	110	red	-	-	✓	110	12	77	86													Rock rather fine tuff.	
LINE 76/E																														
7815NE																														
7300 N	299824	30	-	20	40	10	B	30	brown	-	-	✓	60	20	108	36														Rock dense
7300 N	25	30	-	20	20	30	WB	50	"	-	-	✓	50	18	154	22														Rock rather dense
7280 N	26	40	-	20	20	20	"	50	"	-	-	✓	50	71	182	61														As above
7260 N	27	10	-	20	30	40	"	110	"	-	-	✓	110	230	195	51														Rock porous rather fine tuff
7260 N	28	20	-	10	30	40	"	90	"	-	-	✓	90	71	270	81														Rock rather fine tuff
7230 N	29	30	-	30	10	30	"	60	"	-	-	✓	60	80	240	58														Rock rather dense
7200 N	299830	30	-	20	20	30	"	110	"	-	-	✓	110	71	230	38														As above
7200 N	31	20	-	20	20	40	"	40	red	-	-	✓	40	21	113	22														Rock rather fine tuff & dense
7200 N	32	40	-	20	20	20	"	50	brown	-	-	✓	50	25	144	9														Rock rather dense
7190 N	299833	30	-	20	20	30	WB	30	"	-	-	✓	30	34	150	4														Rock dense & shale

E.L. 19/12 NIETRA. TR3
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

59
A.P.O. 17763 (to 299847)
A.P.O. 17764 (from 299709)

AREA CROWN R. PROJECT

SAMPLE Nos. 299834 - 299847
290709 - 290720.

COLLECTED BY D. D. D.

MAP OR PHOTO REFERENCE A to p. 28.

ANALYSED BY Zinc Cont. Broken Hill.

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample				Bedrock		Metal content, p. p. m.										Geological observations						
		Rock %	Levite %	Sand %	Silt %	Clay %		Depth (m)	Colour (Munsell Chart No.)	pH	Outcrop	Consolidated	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As							
LINE 77E																														
77EAE																														
7350N	299834	30	-	20	20	30	WB	50	brown	-	-	✓	50	15	100	31													Red soil diorite	
7320N	35	30	-	20	20	30	"	110	"	-	-	✓	110	15	67	44													As above	
7310N	36	30	-	20	20	30	"	110	"	-	-	✓	110	34	90	50													As above	
7200N	37	10	-	30	10	20	"	50	"	-	-	✓	50	42	167	63													As above	
7290N	38	10	-	30	20	10	B	30	"	-	-	✓	60	91	180	56													As above	
7250N	39	10	-	10	20	20	WB	90	red	-	-	✓	90	230	250	67													As above	
7200N	299840	10	-	20	10	-	B	30	brown	-	-	✓	60	230	250	57													Red diorite	
7160N	41	10	-	20	10	-	"	110	"	-	-	✓	110	120	140	38													As above	
7150N	42	10	-	20	10	-	"	110	"	-	-	✓	40	75	156	42													As above	
7240N	43	10	-	20	10	-	"	30	"	-	-	✓	60	120	177	47													As above	
7220N	44	30	-	20	10	10	B/WB	50	"	-	-	✓	60	79	124	54													As above	
7220N	45	10	-	6	50	-	B	30	"	-	-	✓	60	110	112	31													As above	
7240N	46	10	-	30	20	10	"	30	"	-	-	✓	60	120	119	50													As above	
7200N	299847	10	-	30	20	10	WB	50	"	-	-	✓	50	77	54	40													As above	
LINE 80E																														
7160NE																														
7320NE	290709	6	-	5	20	10	WB	50	red	-	-	✓	60	13	79	15														Red soil fine tuff
7310N	290710	5	-	5	30	60	WB	60	"	-	-	✓	80	13	56	250														Red soil diorite
7290N	11	6	-	5	30	55	WB	70	"	-	-	✓	80	68	220	76													As above	
7270N	12	6	-	6	20	60	"	70	"	-	-	✓	80	84	230	55													As above	
7250N	13	30	-	20	10	10	B	60	brown	-	-	✓	80	83	178	31													As above	
7230N	14	20	-	20	10	20	WB	30	"	-	-	✓	110	65	146	43														As above
7210N	290715	30	-	20	20	30	"	50	red	-	-	✓	60	96	200	68														As above
LINE 81E																														
8010NE																														
7325N	290716	30	-	10	30	30	B	110	brown	-	-	✓	80	130	260	66														Red diorite
7315N	17	30	-	10	30	30	WB	60	red	-	-	✓	60	52	169	96														As above
7305N	18	20	-	6	10	60	"	110	brown	-	-	✓	60	19	140	30														Red soil diorite
7295N	19	20	-	6	30	20	"	60	"	-	-	✓	60	48	178	89														As above
7285N	290720	20	-	10	30	10	"	50	"	-	-	✓	60	22	178	29														As above

C.R.A.E. 31.

EL 19/72 NIENNA TRS.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

27.10.1974.

6.

AREA Crossby Cr. PROJECT.

SAMPLE Nos. 290721 - 290730

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A 10/59

EL 19/72 NIENNA 1:5000 SHEET 3 - from 290732.

ANALYSED BY Zinc Corp. [Signature]

Grid Co-ordinate	Sample No.	Soil composition					Soil horizon	Sample		Bedrock		Metal content, p. p. m.										Geological observations					
		Root %	Leaves %	Sand %	Silt %	Clay %		Depth On weathered (ft)	Colour (Munsell Chart No.)	pH	Outcrop	Concrete	at Depth (ft)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag		Mo	Au			
7275m	290721	20	-	30	40	WB	60	brown	-	-	✓	60	98	280	58								1			Rock with sand	
7265N	22	30	-	20	20	30	50	"	-	-	✓	60	89	440	270								1			As above	
7255N	23	20	-	10	20	50	80	"	-	-	✓	80	92	194	58								1			As above	
7245N	24	6	-	10	20	60	70	"	-	-	✓	80	99	230	40								<1			Rock with fine till	
7235N	25	2	-	10	45	25	30	"	-	-	✓	80	94	230	41								1			Rock with diorite	
7225N	26	20	-	20	20	40	30	"	-	-	✓	40	110	240	51								1			As above	
7215N	27	20	-	20	40	20	50	"	-	-	✓	60	230	300	69								1			As above	
7205N	28	20	-	10	30	40	40	red	-	-	✓	60	210	310	140								1			As above	
7195N	29	30	-	10	50	10	30	grey	-	-	✓	60	370	270	97								1			As above	
7185N	290730	25	-	5	40	20	40	"	-	-	✓	60	470	280	170								#			Rock with till	
7175N	290731	10	-	10	60	20	40	"	-	-	✓	60	260	250	130								#			Rock shale	
LINE 8/8E																											
8800ME																											
7995m	290732	15	-	5	30	40	60	brown	-	-	✓	80	12	11	6								41			Rock with fine till	
8005N	33	10	-	5	20	65	50	"	-	-	✓	80	12	10	15								41			Rock shale	
8015N	34	-	-	5	10	85	50	"	-	-	✓	80	22	34	20								41			?	
8025N	35	-	-	5	20	75	60	large	-	-	✓	80	10	15	10								41			?	
8035N	36	5	-	10	25	60	50	brown	-	-	✓	80	20	21	10								41			Rock with shale	
8045N	37	10	-	15	20	55	40	"	-	-	✓	80	17	16	11								41			Rock with fine till	
8055N	38	-	-	10	20	70	60	large	-	-	✓	80	21	20	12								41			?	
8075N	39	-	-	5	10	85	50	brown	-	-	✓	80	17	12	7								41			?	
8095N	290740	-	-	5	10	85	50	grey	-	-	✓	80	15	22	19								41			?	
8115N	41	-	-	15	10	75	60	large	-	-	✓	80	15	26	14								41			?	
8135N	42	-	-	15	10	75	60	brown	-	-	✓	80	21	36	29								1			?	
7985N	43	6	-	20	10	60	30	grey	-	✓	-	5	16	2									41			of massive limonite green	
7975N	44	5	-	5	10	80	70	yellow	-	✓	-	22	52	54									1			As above	
7965N	45	5	-	5	75	75	30	grey	-	-	✓	60	11	22	8								41			Rock limonite	
7955N	46	10	-	10	20	60	50	"	-	-	✓	60	33	190	190								21			As above	
7945N	47	-	-	-	10	90	60	"	-	-	✓	80	17	10	8								41			?	
7935N	48	-	-	-	30	70	50	"	-	-	✓	60	28	37	17								41			?	
7925N	49	20	-	10	60	10	40	shale	-	-	✓	80	23	20	5								<1			Rock shale	
7915N	290750	6	-	10	20	60	30	brown	-	✓	-	80	16	30	30								41			As above	

E.L. 19/72 NIETTA TR. C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.S.O. 17764 (to 29075) 61.
D.S.O. 17765 (from 29095)

AREA CROSBY CK. TRACT.

SAMPLE Nos. 290751 - 290758
29095 - 29098

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A.P. 160

ANALYSED BY ZINC CORP. BROKEN HILL.

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations			
		Rock %	Latelite %	Sand %	Silt %	Clay %		Depth (feet)	Colour (Munsell Chart No.)	pH	Outcrop	Centalised	Ext. Depth	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As		
LINE 55E	(Cont)																									
7455N	290751	25	-	20	20	35	WB	A0	brown	-	-	✓	A0	19	34	53									41	Red shale
7895N	53	-	-	20	20	60	R	A0	"	-	-	✓	A0	6	11	5									41	"
7875N	54	20	-	20	30	30	R	A0	grey	-	-	✓	A0	12	11	10									41	Red sh. - fine tuff.
7855N	54	6	-	15	25	50	"	A0	"	-	-	✓	A0	15	27	16									41	A above
7835N	54	6	-	6	20	60	"	A0	"	-	-	✓	A0	8	7	4									41	A above
7815N	54	6	-	6	20	60	WB	A0	brown	-	-	✓	A0	20	60	32									41	Red shale
7795N	57	20	-	6	60	10	R	A0	dk brown	-	-	✓	A0	13	32	10									41	A above
7775N	290758	30	-	6	30	30	WB	A0	red	-	-	✓	A0	16	30	18									41	A above
LINE 75E																										
7895N	290905	6	-	6	80	-	B	A0	brown	-	-	✓	A0	120	109	9									41	dc diorite
7160N	2	6	-	6	70	10	"	A0	"	-	-	✓	A0	60	109	4									41	A above
7150N	07	6	-	6	70	10	"	A0	"	-	-	✓	A0	12	85	7									41	A above
7140N	08	6	-	6	70	10	"	A0	red	-	-	✓	A0	97	91	12									41	A above
7130N	09	6	-	6	60	20	"	A0	"	-	-	✓	A0	110	113	11									41	A above
7120N	290910	20	-	6	60	10	"	A0	brown	-	-	✓	A0	140	114	13									41	A above
7110N	11	20	-	6	60	10	"	A0	"	-	-	✓	A0	130	101	8									41	A above
7100N	12	20	-	6	60	10	"	A0	red	-	-	✓	A0	130	100	13									41	A above
7090N	13	20	-	6	60	10	"	A0	"	-	-	✓	A0	110	150	19									41	A above
7080N	14	10	-	6	10	30	WB	A0	"	-	-	✓	A0	110	153	23									41	A above
7070N	290915	20	-	10	40	30	B	A0	brown	-	-	✓	A0	110	230	34									41	Red diorite
LINE 77E																										
7900N																										
7190N	290916	20	-	20	40	20	B	A0	brown	-	-	✓	A0	57	94	17									41	Red diorite
7180N	17	20	-	20	40	20	"	A0	"	-	-	✓	A0	44	111	16									41	dc diorite
7170N	18	20	-	20	40	20	"	A0	"	-	-	✓	A0	61	93	15									41	A above
7160N	19	20	-	20	40	20	"	A0	"	-	-	✓	A0	120	114	25									41	A above
7150N	290920	20	-	6	60	30	WB	A0	red	-	-	✓	A0	110	230	52									41	A above
7140N	21	20	-	6	60	30	"	A0	"	-	-	✓	A0	180	290	57									41	A above
7130N	22	20	-	6	60	10	B	A0	brown	-	-	✓	A0	240	330	46									41	dc tuff shale
7120N	23	10	-	6	30	50	WB	A0	"	-	-	✓	A0	110	340	94									41	A above
7110N	290924	30	-	20	30	20	WB	A0	"	-	-	✓	A0	50	230	92									41	A above

E.L. 19/12 METRA. TNS

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

NO. 7765

AREA GROSBY CR PROSPECT.

SAMPLE Nos. 290955 - 290984

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A 16

ANALYSED BY ZINC CORP. BROCKEN HILL

Grid Co-ordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations					
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Consolidated	Est. Depth	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As				
LINE 79E																												
6900N	290955	20	-	20	20	40	B	110	red	-	-	✓	20	76	42	39											Red shale	
6970N	56	20	-	20	20	40	"	50	"	-	-	✓	20	58	25	27											As above	
7150N	57	20	-	20	30	30	"	150	"	-	-	✓	50	80	30	28											As above	
6930N	290958	20	-	20	30	30	"	30	"	-	-	✓	30	85	32	28											As above	
LINE 80E																												
7960NE																												
7960NE	290959	20	-	10	20	40	WB	30	tan	-	-	✓	40	290	230	82											Red diorite	
7150N	290960	20	-	20	20	40	WB	30	"	-	-	✓	30	180	157	77											g/c diorite	
7170N	61	20	-	20	20	40	"	30	"	-	-	✓	30	150	460	120											As above	
7160N	62	30	-	20	10	40	WB	10	red	-	-	✓	10	140	350	80											g/c fine quartzite	
7150N	63	30	-	20	10	40	WB	30	"	-	-	✓	60	410	260	100											Red diorite	
7140N	64	30	-	20	30	20	B	30	tan	-	-	✓	30	430	220	110											g/c tuffe shale	
7130N	65	20	-	10	60	10	"	10	"	-	-	✓	10	380	270	150											As above (to fine quartzite)	
7120N	66	20	-	20	20	40	WB	50	"	-	-	✓	80	330	280	140											Red grey tuffe shale	
7110N	67	30	-	20	10	40	WB	40	red	-	-	✓	60	260	250	100											Red diorite	
7100N	68	20	-	20	30	30	B	20	tan	-	-	✓	60	310	230	80											As above	
7090N	69	20	-	20	10	20	"	40	"	-	-	✓	60	370	270	85											As above	
7080N	290970	20	-	20	10	20	"	40	"	-	-	✓	60	330	240	110											Red tuffe shale	
7070N	71	20	-	20	10	20	"	40	"	-	-	✓	80	350	330	100											As above	
7060N	72	30	-	20	10	40	"	50	"	-	-	✓	80	360	220	100											As above	
7050N	73	30	-	20	10	40	WB	50	"	-	-	✓	60	190	240	120											As above	
7040N	74	30	-	20	10	40	"	50	"	-	-	✓	20	280	270	150											As above	
7030N	75	30	-	20	10	40	"	60	"	-	-	✓	60	340	240	130											As above	
7020N	76	30	-	20	10	40	"	40	"	-	-	✓	50	360	300	93											As above	
7010N	77	30	-	20	10	40	"	30	"	-	-	✓	40	160	112	32											As above	
7000N	78	20	-	20	30	30	"	50	"	-	-	✓	10	42	76	10											g/c rather diorite	
6990N	79	30	-	20	10	40	"	60	"	-	-	✓	60	26	56	14											Red tuffe shale	
6970N	290980	20	-	20	10	20	B	30	"	-	-	✓	30	15	13	8											g/c green silt tuff.	
6950N	81	30	-	20	30	20	WB	30	"	-	-	✓	30	29	27	20											g/c grey tuffe shale	
6930N	82	30	-	20	10	40	B	30	"	-	-	✓	30	17	27	25											As above	
6910N	83	20	-	10	60	10	"	40	"	-	-	✓	30	25	25	13											g/c diorite	
6890N	290984	20	-	10	60	10	"	50	"	-	-	✓	30	42	67	11											Red diorite	

C.R.A.E. 31.

E.L. 19/72 NETA. TAB.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

V.P.O. 1776 (To 291542)
V.P.O. 1776 (From 291594)

AREA CROSBY CR. PROSPECT.

SAMPLE Nos. 291533 - 291542
291594 - 291613

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A for p. 64.

ANALYSED BY Zinc Corp. Broken Hill

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock			Metal content, p. p. m.										Geological observations				
		Rock %	Latitude %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Mn	Co	Cr	Mu	Ag	Mo	As					
7055N	291533	20	-	10	10	60	WB	9	red	-	-	1/2	77	84	63												Red fine tuff	
7145N	34	20	-	10	10	60	B	30	tan	-	✓	-	20	11	8												o/c fine quartz greenish tuff.	
7235N	35	20	-	10	10	60	WB	50	red	-	✓	-	49	56	20												to above	
725N	36	30	-	20	10	10	B	50	tan	-	✓	-	7	18	8												to above	
7015N	37	30	-	20	30	20	"	40	"	-	✓	-	20	49	19												o/c (alt) fine greenish tuff.	
705N	38	30	-	20	10	10	WB	30	light	-	✓	-	11	20	4												o/c fine tuff (to greyish tuff)	
6495N	39	30	-	20	20	30	"	30	tan	-	✓	-	9	19	3												o/c greenish tuff (to fragment)	
1135N	291540	30	-	20	10	10	"	30	light	-	✓	-	19	43	7												o/c alt. fine pink tuff (to ss above)	
1175N	41	30	-	20	10	10	"	50	tan	-	✓	-	15	33	8												Red fine shaly tuff	
1165N	291542	20	-	20	20	10	"	30	red	-	✓	-	16	34	7												o/c small quartz & sandstone tuff (to shaly tuff above)	
LINE 81E																												
8070NE																												
7100N	291594	30	-	20	10	10	WB	30	tan	-	-	1/2	220	280	76													Red tuff shale
7100N	95	30	-	20	10	10	"	50	"	-	-	1/2	260	420	130													to above
6440N	96	30	-	20	20	30	"	60	tan	-	-	1/2	240	930	77													to above
6450N	97	20	-	20	20	10	"	50	red	-	-	1/2	81	129	63													to above
6470N	98	30	-	20	10	10	"	50	"	-	-	1/2	91	140	54													to above
6460N	99	20	-	20	10	10	"	30	tan	-	-	1/2	72	76	19													to above
6450N	291600	20	-	10	10	10	B	20	"	-	✓	-	66	61	23													o/c grey to greenish tuff (to fragment)
6440N	01	30	-	20	30	20	"	30	"	-	✓	-	83	82	38													o/c grey to greenish tuff (to fragment)
6430N	02	30	-	20	10	10	WB	50	"	-	-	1/2	110	67	33													o/c grey to greenish tuff (to fragment)
6420N	03	30	-	20	10	10	B	20	"	-	-	1/2	170	82	45													Red tuff shale
6410N	04	20	-	10	10	10	"	30	"	-	-	1/2	210	88	300													to above
6400N	05	20	-	10	10	10	"	30	"	-	-	1/2	330	127	140													to above
6390N	06	20	-	20	10	20	"	30	"	-	-	1/2	69	91	73													to above
6380N	07	30	-	20	10	10	"	30	"	-	✓	-	81	172	57													o/c shale
6370N	08	30	-	20	30	20	WB	30	"	-	✓	-	87	200	140													to above
6360N	09	30	-	20	10	10	B	10	"	-	✓	-	69	147	82													to above
6340N	291610	20	-	10	10	10	"	30	"	-	-	1/2	100	320	110													to above
6320N	11	20	-	10	10	10	"	30	"	-	✓	-	33	56	33													Red shale
6300N	12	20	-	10	10	10	WB	20	"	-	✓	-	45	75	30													o/c shale
6380N	291613	10	-	10	20	60	B	10	red	-	✓	-	33	70	29													Red shale

C.R.A.E.SI. E.L. 19/72. NIETTA TAG.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

S.P.O. 1766.

66.

AREA CROSEN CR PROSPECT.

SAMPLE Nos. 29161A - 29161B

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A p. 65

ANALYSED BY Zinc Corp. Broken Hill

Grid Coordinates	Sample No.	Soil composition					Soil horizon	Sample			Bedrock			Metal content, p. p. m.										Geological observations				
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As					
6560N	29161A	5	-	5	60	30	B	70	black	-	✓	-	35	87	35												gc dark basalt	
6540N	15	6	-	-	70	20	A/B	50	"	-	✓	-	15	84	20												to above	
6500N	29161B	20	-	10	70	-	A	30	black	-	✓	-	14	73	21												to above	
LINE 82E																												
8150NE																												
7120N	291617	20	-	20	20	40	B	30	black	-	✓	-	430	370	72												gc shale	
7140N	18	20	-	20	20	40	WB	70	"	-	✓	70	170	138	42												Rock with shale	
7100N	19	10	-	20	60	10	R	40	"	-	✓	-	38	100	9												gc fine grained tuff (see page)	
7090N	291620	30	-	20	10	40	WB	30	red	-	✓	30	57	44	27												Rock shale	
7050N	21	20	-	20	30	30	B	40	"	-	✓	50	110	56	32												to above	
7070N	22	20	-	10	60	10	B	30	black	-	✓	60	77	70	30												to above	
7060N	23	6	-	10	20	60	WB	80	red	-	✓	60	210	240	160												Rock diorite	
7050N	24	30	-	20	10	40	"	50	black	-	✓	50	70	67	33												Rock shale	
7040N	25	30	-	20	10	40	"	80	red	-	✓	20	57	74	35												to above	
7030N	26	20	-	10	30	40	B	50	black	-	✓	60	36	25	15												to above	
7020N	27	20	-	10	30	40	"	30	"	-	✓	-	26	29	8												gc int. al. flow tuff	
7010N	28	20	-	20	30	30	"	30	"	-	✓	-	11	16	3												to above or aggl.	
7000N	29	20	-	20	20	40	WB	40	"	-	✓	-	14	26	5												gc lapilli tuff aggl.	
6990N	291630	20	-	20	20	40	"	40	"	-	✓	-	38	63	16												gc tuffaceous shale aggl.	
6950N	31	20	-	20	30	30	B	40	"	-	✓	-	17	17	6												gc aggl. (int. al. flow tuff??)	
6920N	32	20	-	20	40	20	"	30	"	-	✓	-	19	34	5												to above	
6960N	33	20	-	20	30	30	"	30	"	-	✓	60	31	50	23												Rock lapilli tuff	
6950N	34	20	-	20	40	20	"	40	"	-	✓	60	24	47	19												Rock shale	
6940N	35	5	-	5	30	60	B/WB	100	black	-	✓	60	78	570	50												to above	
6930N	36	5	-	10	20	65	WB	30	black	-	✓	40	34	87	20												Rock diorite	
6910N	37	10	-	10	40	60	"	80	"	-	✓	80	21	139	16												to above	
6890N	38	10	-	10	10	70	"	60	"	-	✓	70	31	182	23												Rock shale	
6870N	39	20	-	10	30	40	B	30	"	-	✓	60	26	70	20												to above	
6850N	291640	-	-	-	10	85	B	70	"	-	✓	60	14	44	19													?
6830N	41	-	-	5	10	85	WB	110	"	-	✓	-	15	73	38												gc basalt	
6810N	42	10	-	10	10	70	"	70	black	-	✓	-	5	68	1												to above	
6790N	291643	20	-	10	70	-	B	30	black	-	✓	-	17	111	35												to above	

C.R.A.E. 31. E.L. 19/72 N.W. T.S.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.H.O. 17/6.

AREA CROSSIN CR PROSPECT.

SAMPLE Nos. 291644 - 291671

COLLECTED BY D. J. ...

MAP OR PHOTO REFERENCE A 106

ANALYSED BY ZINC CAP. ROCKEN HILL.

Grid Coordinate	Sample No. (cont.)	Soil composition					Soil horizon	Sample				Bedrock		Metal content, p. p. m.										Geological observations			
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth cm	Colour (Munsell) Chart No.	pH	Outcrop	Concrete	Et. Depth cm	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As				
LINE 82E 6770N	291644	10	-	10	60	20	B	30	black	-	✓	-	-	16	118	61											of basalt.
LINE 82E 8210NE 7155N	291645	20	-	10	30	40	B	30	black	-	✓	-	70	1810	370	420											Red shale
7105N	46	10	-	10	60	20	B	30	"	-	✓	-	60	1810	380	430											Red shale
7095N	47	10	-	10	40	40	B	30	"	-	✓	-	60	570	260	220											Red shale
7085N	48	20	-	10	10	60	WB	70	red	-	✓	-	80	570	280	260											Red shale
7075N	49	10	-	5	20	65	"	50	"	-	✓	-	70	790	390	220											Red shale
7065N	291650	5	-	5	30	60	B	70	"	-	✓	-	60	190	195	120											Red shale
7055N	51	5	-	5	20	70	"	80	"	-	✓	-	60	230	190	130											Red shale
7045N	52	5	-	5	30	60	"	100	"	-	✓	-	60	130	103	63											Red shale
7035N	53	10	-	10	70	10	"	60	"	-	✓	-	60	57	56	29											Red shale
7025N	54	20	-	10	70	-	"	30	"	-	✓	-	60	65	52	22											Red shale
7015N	55	30	-	10	60	-	WB	40	black	-	✓	-	80	110	122	52											Red shale
7005N	56	30	-	20	40	10	B	30	black	-	✓	-	60	49	61	19											Red shale
6995N	57	20	-	20	20	40	"	50	"	-	✓	-	-	35	63	14											Red shale
6985N	58	10	-	10	70	10	"	30	"	-	✓	-	-	21	57	11											Red shale
6975N	59	20	-	20	40	20	"	30	red	-	✓	-	60	56	84	27											Red shale
6965N	291660	20	-	10	10	60	"	30	black	-	✓	-	60	21	40	10											Red shale
6955N	61	10	-	10	10	70	"	30	"	-	✓	-	60	23	53	12											Red shale
6945N	62	-	-	-	20	80	"	40	"	-	✓	-	60	41	92	4											Red shale
6935N	63	10	-	10	10	70	WB	40	"	-	✓	-	60	27	280	13											Red shale
6925N	291664	20	-	10	30	40	WB	40	"	-	✓	-	40	19	24	12											Red shale
LINE 83E 8260NE 6450N	291665	20	-	20	20	40	WB	50	black	-	✓	-	60	18	90	11											Red shale
6470N	66	5	-	5	70	20	B	40	"	-	✓	-	80	180	330	43											Red shale
6460N	67	10	-	5	10	75	WB	70	"	-	✓	-	70	94	210	77											Red shale
6440N	68	20	-	10	10	60	"	60	"	-	✓	-	60	16	134	9											Red shale
6420N	69	20	-	10	30	40	"	50	"	-	✓	-	50	78	104	38											Red shale
6400N	291670	-	-	5	10	85	WB	80	red	-	✓	-	60	35	61	34											?
6380N	291671	-	-	-	20	80	"	50	"	-	✓	-	-	19	57	39											of basalt.

C.R.A.E. ST.

E.L. 19/72 Niema. TRS.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

291676.

AREA CROSSY CR. PROSPECT.

SAMPLE Nos. 291672-291699.

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE H 107

ANALYSED BY Zinc GRP. BROKEN Hill.

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations					
		Rock %	Leucite %	Sand %	SH %	Clay %		Depth (cm)	Colour (Munsell Chart No)	pH	Outcrop	Consolidated	Est. Depth	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As				
6860 N	291672	-	-	20	20	80	WB	50	red	-	✓	-	31	41	17												alc basalt	
6860 N	291673	-	-	6	20	70	"	110	basalt	-	✓	-	18	60	26												As above	
LINE 835E																												
8300mE																												
7120mN	291674	5	-	5	30	60	B	30	red	-	-	✓	100	150	156	81												Red diorit
7110 N	75	20	-	10	60	10	"	30	basalt	-	✓	-	110	180	69													alc diorit
7100 N	76	20	-	10	60	10	"	30	"	-	✓	-	110	115	72													As above
7090 N	77	30	-	20	40	10	"	30	"	-	✓	-	69	100	49													As above
7080 N	78	20	-	10	60	10	"	60	"	-	-	✓	80	78	109	60												Red diorit
7070 N	79	30	-	20	30	20	WB	30	red	-	-	✓	50	110	156	96												As above
7060 N	291680	30	-	20	10	40	WB	60	basalt	-	-	✓	60	100	150	120												As above
7050 N	81	10	-	10	10	70	"	70	red	-	-	✓	80	530	450	310												As above
7040 N	82	30	-	20	40	10	B	30	basalt	-	-	✓	60	580	192	240												Red shale
7030 N	83	30	-	20	10	40	WB	30	red	-	-	✓	40	600	220	360												As above
7020 N	84	6	-	10	10	70	"	70	"	-	-	✓	90	26	75	5												Red diorit
7010 N	85	5	-	5	10	80	"	70	"	-	-	✓	60	220	210	160												Red ultra diorit
7000 N	86	20	-	10	10	60	"	60	"	-	-	✓	60	130	134	100												Red shale
6990 N	87	20	-	10	10	60	"	50	"	-	-	✓	60	120	130	69												As above
6980 N	88	10	-	10	10	70	WB	30	"	-	-	✓	40	96	143	80												As above
6970 N	89	10	-	10	10	40	B	30	basalt	-	-	✓	60	110	165	74												As above
6960 N	291690	10	-	10	10	70	WB	60	"	-	-	✓	60	110	250	75												As above
6950 N	91	10	-	10	40	40	B	30	"	-	-	✓	60	150	260	58												As above
6940 N	92	10	-	10	10	70	WB	80	red	-	-	✓	10	91	240	94												As above
6930 N	291693	-	-	5	10	85	WB	50	"	-	-	✓	80	46	89	37												As above
LINE 845E																												
8400mE																												
7130mN	291694	10	-	10	10	70	WB	60	red	-	-	✓	60	57	156	49												Red diorit
7120 N	95	20	-	10	10	60	"	70	"	-	-	✓	70	75	160	73												As above
7110 N	96	20	-	10	10	30	B	50	basalt	-	-	✓	70	110	170	78												As above
7100 N	97	15	-	5	30	60	"	110	red	-	-	✓	100	130	185	90												As above
7090 N	98	10	-	10	10	10	"	80	basalt	-	-	✓	60	110	181	84												As above
7080 N	291699	10	-	10	10	40	WB	100	"	-	-	✓	100	44	175	67												As above

C.R.A.E. 31.

E.L. 19/72 Niagra Falls

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D770 1776.

AREA CRESSY CR. PROJECT

SAMPLE Nos. 291700 - 291727

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE to p. 162

ANALYSED BY ZINC GRP. BROCKEN HILL

Grid Coordinates	Sample No.	Soil composition					Soil Horizon	Depth (m)	Colour (Munsell Chart No.)	pH	Bedrock		Metal content, p. p. m.										Geological observations					
		Rock %	Leucite %	Sand %	Silt %	Clay %					Outcrop	Concealed	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As						
LINE 61 SE (cont)																												
707 M N	291700	20	-	6	6	60	WB	70	red	-	✓	70	64	169	31												Red silt	
708 N	01	6	-	6	6	70	"	"	-	-	✓	100	120	122	63												As above	
709 N	02	5	-	5	5	80	B	60	"	-	✓	100	81	107	39												As above	
710 N	03	5	-	5	5	80	"	"	-	-	✓	100	55	86	36												As above	
711 N	04	5	-	6	7	70	"	"	-	-	✓	100	86	115	95												As above	
712 N	05	6	-	5	8	80	"	"	-	-	✓	100	88	92	32												As above	
713 N	06	6	-	5	8	80	"	"	-	-	✓	100	110	172	120												As above	
714 N	07	5	-	5	8	80	"	"	-	-	✓	100	170	260	110												As above	
6990 N	291708	6	-	6	7	70	"	"	-	-	✓	80	150	260	95												As above	
LINE 61 SE																												
6950 NE																												
7300 N	291709	10	-	6	20	60	WB	10	red	-	✓		81	107	18												Red shale	
7310 N	291710	20	-	6	6	60	WB	10	"	-	✓		81	121	19												Red silt	
7320 N	"	5	-	5	30	60	WB	10	brown	-	✓		66	87	15												Red silt	
7330 N	12	5	-	5	20	70	B	10	red	-	✓		73	84	16												Red shale	
7340 N	13	30	-	20	10	10	WB	50	brown	-	✓		75	60	18												As above	
7350 N	14	30	-	20	10	10	WB	50	"	-	✓		220	91	30												Red silt	
7360 N	15	20	-	20	30	30	B	60	"	-	✓		130	90	23												As above or silt	
7370 N	16	20	-	6	6	60	WB	50	"	-	✓		220	70	19												Red shale	
7380 N	17	20	-	6	6	60	B	10	"	-	✓		69	92	22												Red silt	
7390 N	18	6	-	6	6	20	"	10	"	-	✓		31	81	19												As above	
7400 N	19	20	-	6	7	-	"	30	"	-	✓		60	100	5												As above	
7410 N	291720	20	-	6	7	-	"	50	"	-	✓		24	130	3													As above
LINE 70 E																												
700 - E																												
7320 N	291721	30	-	6	20	10	WB	50	red	-	✓		24	50	45													Red silt
7330 N	22	30	-	20	6	10	B	70	"	-	✓		84	146	21													Red silt
7340 N	23	6	-	6	20	60	WB	10	brown	-	✓		600	49	19													Red shale
7350 N	24	20	-	20	30	30	"	50	"	-	✓		500	41	39													As above
7360 N	25	20	-	6	6	60	B	30	"	-	✓		56	84	26													As above
7370 N	26	20	-	20	10	60	"	30	"	-	✓		46	60	13													As above
7380 N	291727	30	-	20	10	60	WB	30	"	-	✓		42	64	14													As above

C.R.A.E. ST.

E.L. 9/172 NIETTA. TAC.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

29170-1766.

70.

AREA Crosby Cr. Prospect.

SAMPLE Nos. 29172-29175

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A 4/16

ANALYSED BY ZINC CAP. BRICKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample		Bedrock		Metal content, p. p. m.										Geological observations				
		Rock %	Levitic %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell) Chart No.	Outcrop	Consolidated	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As					
LINE 70E 7250mE	291728	20	-	60	60	10	B	30	brown	-	-	29	90	4											o/c stypodolite	
7260mE	29	-	-	5	70	5	A/B	30	dk brown	-	-	26	95	6											o/c above	
7270mE	291730	20	-	60	70	-	B	40	brown	-	-	24	90	5											o/c above	
7280mE	31	20	-	60	60	10	A/B	40	dk brown	-	-	24	88	8											o/c above	
7290mE	291732	20	-	60	60	10	B	30	brown	-	-	19	132	2											o/c above	
LINE 70E 7295mE																										
7295mE	291733	20	-	60	60	10	B	60	brown	-	-	33	100	7											Rock stypodolite	
7300mE	34	20	-	60	60	10	-	30	"	-	-	32	102	5											o/c above	
7310mE	35	30	-	60	60	-	A/B	30	dk brown	-	-	35	49	5											o/c above	
7320mE	36	30	-	60	60	-	B	30	brown	-	-	30	58	5											o/c stypodolite	
7330mE	37	30	-	60	60	-	A/B	30	dk brown	-	-	24	44	5											o/c above	
7340mE	38	20	-	60	70	-	B	50	brown	-	-	27	78	5											o/c above	
7350mE	39	20	-	60	70	-	-	50	"	-	-	20	62	2											o/c above	
7360mE	291740	20	-	60	70	-	-	70	"	-	-	20	40	2											o/c above	
7370mE	41	20	-	60	70	-	-	30	"	-	-	20	39	2											o/c above	
7380mE	291742	20	-	20	60	20	A/B	40	"	-	-	46	43	2											o/c above	
LINE 70E 7395mE																										
7395mE	291743	30	-	20	30	20	A/B	40	brown	-	-	380	142	30												Rock shale
7400mE	44	30	-	20	60	60	A/B	50	red	-	-	380	152	30											o/c above	
7410mE	45	60	-	5	30	55	A/B	50	brown	-	-	570	129	34											o/c above	
7420mE	46	30	-	60	60	-	B	40	"	-	-	40	107	14											o/c above	
7430mE	47	30	-	20	60	10	-	40	"	-	-	74	76	6											o/c stypodolite	
7440mE	48	20	-	60	70	-	-	40	"	-	-	74	76	6											o/c above	
7450mE	49	20	-	60	70	-	-	30	"	-	-	140	94	6											o/c above	
7460mE	291750	20	-	20	60	-	A/B	30	dk brown	-	-	150	46	5											o/c above	
7470mE	51	20	-	60	60	60	B	40	brown	-	-	59	116	8											o/c above	
7480mE	291752	30	-	60	60	-	A/B	30	dk brown	-	-	75	60	4												o/c above
LINE 69E 7490mE																										
7490mE	291753	20	-	20	20	40	A/B	50	brown	-	-	33	50	3												Rock shale

C.R.A.E. 31. E.L. 19/72. NIETM. TMS.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

W.O. 17166.

71.

AREA Crosby Cr. Prospect

SAMPLE Nos. 291754 - 291781

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE AS per p 70

ANALYSED BY ZINC CORP. BROKEN Hill

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock			Metal content, p. p. m.										Geological observations					
		Rect %	Lateral %	Sand %	Silt %	Clay %		Depth (m)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As						
7570mN	291754	20	-	10	10	60	WB	50	brn	-	-	✓	45	46	23													Rock shale	
7550 N	55	-	-	-	30	70	B	90	"	-	-	✓	81	80	20													?	
7530 N	56	20	-	10	10	60	WB	100	rd	-	-	✓	190	107	20													Rock shale	
7510 N	57	-	-	5	30	65	B	110	brn	-	-	✓	63	103	21													?	
7490 N	58	-	-	-	30	70	"	100	rd	-	-	✓	68	110	22													?	
7470 N	59	-	-	5	10	85	"	110	rd	-	-	✓	46	124	21													?	
7460 N	291766	5	-	10	20	65	"	10	brn	-	-	✓	49	122	19													Rock shale	
7450 N	61	-	-	-	30	70	"	10	rd	-	-	✓	42	136	20													?	
7440 N	62	5	-	5	10	80	"	110	"	-	-	✓	80	119	20													Rock shale	
7430 N	63	10	-	20	30	40	WB	100	"	-	-	✓	65	151	19													Rock of gypsiferous	
7420 N	64	5	-	5	20	70	WB	100	"	-	-	✓	46	156	20													Rock shale	
7410 N	65	20	-	10	20	50	WB	100	"	-	-	✓	41	151	17													Rock of gypsiferous	
7400 N	66	20	-	20	10	10	B	30	brn	-	-	✓	39	19	15													As above	
7390 N	67	20	-	20	20	40	WB	50	rd	-	-	✓	43	107	14													As above	
7380 N	68	10	-	10	20	60	"	100	"	-	-	✓	69	88	16													As above	
7370 N	69	5	-	5	20	70	B	90	"	-	-	✓	59	84	15													Rock of gypsiferous	
7360 N	291770	30	-	20	10	10	WB	70	"	-	-	✓	110	88	28													As above	
7350 N	71	10	-	10	20	60	B	10	"	-	-	✓	230	105	29													As shale	
7340 N	291772	20	-	20	20	10	WB	30	"	-	-	✓	770	115	33													As above	
LINE 71/SE																													
7145mE	291773	30	-	20	10	10	WB	80	brn	-	-	✓	30	310	118	7													Rock of gypsiferous
7225 N	74	30	-	20	10	10	B	30	brn	-	-	✓	60	290	145	25													As above
7195 N	75	20	-	10	10	60	WB	10	rd	-	-	✓	10	270	73	10													Rock shale
7185 N	76	20	-	10	10	10	WB	20	brn	-	-	✓	10	74	200	5													Rock of gypsiferous
7175 N	77	20	-	10	10	10	B	10	"	-	-	✓	110	84	6													As shale	
7165 N	78	30	-	10	10	20	B	70	"	-	-	✓	130	93	5														As above
7155 N	79	20	-	10	10	-	WB	30	"	-	-	✓	140	88	4														As above
7145 N	291780	20	-	10	10	-	WB	10	"	-	-	✓	210	68	5														As above
7135 N	291781	20	-	10	10	-	A	30	brn	-	-	✓	190	220	160														As above

C.R.A.E. 31.

E.L. 19172 METR. TAG

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 17766.

72.

AREA CROSBY CR. PROSPECT.

SAMPLE Nos. 291782 - 291809

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE

As for p. 71

ANALYSED BY ZINC CORP. BROCKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample		Bedrock			Metal content, p. p. m.										Geological observations			
		Rock %	Leucite %	Sand %	Silt %	Clay %		Depth (cm)	Color (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As		
LINE 72E																										
7190ME																										
7210ME	291782	20	-	20	20	A	SP	10	beam	-	-	✓	130	260	11										Reddish buff (intermed?)	
7200N	83	20	-	20	20	10	WS	10	"	-	-	✓	200	620	16										A above	
7190N	84	20	-	20	20	10	SP	60	"	-	-	✓	260	340	16										Reddish buff	
7180N	85	20	-	10	20	10	WS	10	"	-	-	✓	230 410 330	270 290 115	16 16 21										A above	
7170N	86	20	-	20	20	10	B	30	"	-	-	✓	350	115	21										off shale	
7160N	87	20	-	20	20	10	WS	50	sed	-	-	✓	190	62	17										A above	
7150N	88	20	-	20	20	10	"	30	beam	-	-	✓	210	65	31										A above	
7140N	89	10	-	10	10	10	B	50	"	-	-	✓	130	42	11										A above	
LINE 81E																										
5070ME																										
6120N	291790	5	-	5	60	30	B	10	beam	-	-	✓	23	86	16										off grey green altered intertuff	
6150N	91	-	-	-	20	20	"	10	"	-	-	✓	20	102	20										Rock breccia	
6175N	92	20	-	10	20	10	SP	30	sed	-	-	✓	20	44	11										off shale	
6180N	93	10	-	10	20	10	SP	30	beam	-	-	✓	36	24	20										A above	
6160N	94	10	-	10	20	10	SP	30	"	-	-	✓	30	18	22										A above	
6175N	95	20	-	20	10	10	SP	10	"	-	-	✓	36	27	21										A above	
6175N	96	10	-	5	85	-	B	10	beam	-	-	✓	40	15	19										A above	
6170N	97	20	-	20	20	10	WS	10	sed	-	-	✓	34	41	26										off shaly basalt	
6175N	98	10	-	10	20	-	SP	30	beam	-	-	✓	19	26	10										A above	
6175N	99	10	-	10	20	10	B	30	"	-	-	✓	19	23	18										Rock shale	
6200N	291800	20	-	20	10	10	SP	10	sed	-	-	✓	28	65	28										A above	
6225N	01	20	-	20	20	10	B	50	"	-	-	✓	19	45	26										A above	
6225N	02	10	-	10	60	20	"	60	beam	-	-	✓	18	50	110										off calcitic (calcitic) intertuff	
6210N	03	10	-	10	10	10	SP	10	"	-	-	✓	19	60	120										off intermediate crystalline	
6195N	04	10	-	5	80	5	"	10	"	-	-	✓	22	23	46										A above	
6175N	05	20	-	10	20	10	"	10	"	-	-	✓	17	24	47										off shaly calcitic intertuff	
6160N	06	10	-	10	10	10	B	10	"	-	-	✓	18	22	37										off intermediate crystalline	
6145N	07	20	-	10	20	10	SP	50	"	-	-	✓	20	22	22										A above	
6125N	08	20	-	10	10	10	WS	50	"	-	-	✓	21	30	19										A above	
6110N	291809	10	-	5	80	5	B	10	"	-	-	✓	80													Red white quartz

C.R.A.E. 31. E.L. 19/12. NIETTA. TNS.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

4740. 17766

75.

AREA CROSBY G. PROSPECT.

SAMPLE Nos. 291810 - 291837

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE 472

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations		
		Rect %	Leucite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Consolidated	Eri. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As	
Line 8/E (cut)																									
60 950 N	291810	10	-	6	10	70	B	10	brown	-	✓	-	19	18	8									Ordovician conglomerate (thin?)	
60 750 N	11	6	-	6	20	60	B	20	"	-	✓	-	31	40	35									Ordovician s.s. thin (?) exp.	
60 60 N	12	20	-	20	20	40	B	20	"	-	✓	-	10	8	50									As above (to congl.) or sp.	
60 45 N	291813	-	-	5	90	5	B	20	"	-	✓	100	11	25	15									?	
Line 8/E																									
835000E																									
7500 N	291814	20	-	20	20	40	WB	110	brown	-	✓	60	91	144	57									Red shale	
1540 N	15	5	-	5	20	70	B	110	"	-	✓	110	110	139	67									As above	
7520 N	16	-	-	5	20	75	"	110	sd	-	✓	60	110	142	72									"	
7500 N	17	6	-	6	20	60	"	110	"	-	✓	60	120	126	84									Red shale	
7480 N	18	10	-	10	20	60	WB	70	brown	-	✓	60	170	165	95									As above	
7460 N	19	20	-	20	20	40	WB	60	"	-	✓	60	220	193	120									As above	
7440 N	291820	20	-	6	6	60	"	10	sd	-	✓	60	210	135	120									As above	
7420 N	21	20	-	10	6	60	"	60	"	-	✓	60	280	160	120									As above	
7400 N	22	20	-	10	6	60	"	30	brown	-	✓	40	96	128	150									Red diorite	
7380 N	23	20	-	20	20	40	"	40	"	-	✓	40	77	165	120									Red shaly diorite - diorite	
7360 N	24	20	-	20	10	20	B	30	"	-	✓	60	38	90	62									Red diorite	
7340 N	25	6	-	5	60	25	"	50	"	-	✓	60	62	104	96									Red shaly diorite	
7320 N	26	20	-	6	6	60	WB	20	"	-	✓	40	64	150	110									Red as above - diorite	
7300 N	27	20	-	20	20	40	"	30	"	-	✓	40	43	108	57									Red diorite	
7280 N	28	10	-	5	30	55	WB	50	"	-	✓	60	91	170	120									Red shale	
7260 N	29	6	-	6	60	20	B	50	"	-	✓	60	94	164	74									Red shaly diorite	
7240 N	291830	20	-	10	30	40	WB	40	"	-	✓	50	96	182	92									As above	
7220 N	31	-	-	5	30	65	B	110	"	-	✓	150	110	198	86									"	
7200 N	32	20	-	20	20	40	WB	10	sd	-	✓	100	150	210	92									Red diorite	
7180 N	33	-	-	5	2	75	WB	40	brown	-	✓	60	75	150	63									"	
7160 N	34	30	-	10	20	40	WB	40	"	-	✓	60	33	127	72									Red diorite	
7140 N	291835	6	-	10	20	60	"	60	"	-	✓	60	48	167	32									Red fine tuff - diorite	
Line 8/E																									
834000E																									
7155 N	291836	5	-	5	20	70	WB	80	brown	-	✓	60	50	187	57									Red fine tuff - diorite	
7145 N	291837	20	-	6	6	60	"	70	"	-	✓	60	61	162	43									As above	

E.L. 9/12 NIETA TR.

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 17767

76

AREA CROSSBY CR. FOREST

SAMPLE Nos. 291846 - 291927

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE [Handwritten]

ANALYSED BY Zinc Geo. Brown Hill

Grid Coordinates LNE LZE	Sample No. (Col.)	Soil composition					Soil horizon	Sample			Bedrock										Metal content, p. p. m.	Geological observations					
		Rock %	Lime %	Sand %	Silt %	Clay %		Depth (ft)	Color (Munsell Chart No.)	pH	Outcrop	Consolidated	Est. Depth (ft)	Pb	Zn	Cu	Ni	Co	Cr	Mn			Ag	Mo	As		
6985M	291876	30	-	20	20	30	B	30	brn	-	/	-	-	14	42	11											dc unsorted agglomerate
6965N	97	20	-	60	60	60	B	30	"	-	/	-	-	12	47	4											As above
6945N	98	20	-	60	60	60	"	30	"	-	/	-	-	11	44	11											As above
6930N	99	10	-	30	60	60	"	10	"	-	/	-	-	14	68	14											As above
6910N	291900	30	-	20	60	60	"	30	"	-	/	-	-	16	56	9											As above
6890N	01	30	-	30	30	60	"	30	"	-	/	-	-	15	65	10											As above
6875N	02	40	-	20	60	30	WB	30	"	-	/	-	-	14	100	12											dc banded shaly ls or agglomerate
6855N	03	60	-	60	70	60	B	30	"	-	/	-	-	15	34	9											As above
6835N	04	30	-	20	60	60	"	10	"	-	/	-	-	13	57	10											As above
6815N	05	30	-	20	30	20	"	10	"	-	/	-	-	16	83	13											As above
6800N	06	20	-	20	20	10	WB	50	"	-	/	-	60	12	44	16											Rock as above
6780N	07	20	-	10	20	40	"	50	"	-	/	-	-	29	100	39											dc grey shaly ls.
6760N	08	20	-	10	60	60	"	70	red	-	/	-	70	21	92	58											Rock fine tuff.
6740N	09	-	-	5	60	85	WB	50	"	-	/	-	60	25	89	30											?
6720N	291910	30	-	20	30	20	B	30	"	-	/	-	60	46	131	28											Rock shale
6705N	11	30	-	30	60	-	"	30	brn	-	/	-	70	160	360	45											Rock fine tuff
6685N	12	30	-	20	60	10	WB	60	"	-	/	-	70	180	310	55											As above or shale
6665N	13	60	-	60	70	60	B	40	"	-	/	-	70	140	420	63											Rock fine tuff
6650N	14	60	-	60	70	60	WB	40	"	-	/	-	80	170	470	43											As above
6640N	15	20	-	60	60	60	B	40	"	-	/	-	60	120	270	21											Rock shale
6620N	16	20	-	60	60	60	"	40	"	-	/	-	60	77	111	14											As above
6590N	17	30	-	20	40	60	"	30	"	-	/	-	10	51	86	16											As above
6570N	18	30	-	30	30	60	"	50	"	-	/	-	40	130	270	40											As above
6555N	19	30	-	20	40	60	"	10	"	-	/	-	40	380	430	69											As above
6535N	291920	30	-	30	60	-	"	10	"	-	/	-	-	140	125	47											dc fine tuff
6515N	21	30	-	20	60	60	"	30	"	-	/	-	60	120	96	35											Rock shale
6500N	22	30	-	20	50	-	"	30	"	-	/	-	-	57	80	35											dc fine shaly tuff.
6480N	23	30	-	20	60	60	"	30	"	-	/	-	-	56	78	19											dc aggl. (con. w. aggl.)
6460N	24	20	-	20	40	20	"	50	"	-	/	-	60	76	70	24											Rock fine tuff
6440N	25	20	-	20	60	20	"	50	"	-	/	-	60	43	52	35											As above
6425N	26	30	-	20	60	40	"	60	"	-	/	-	80	28	41	30											Rock shale
6405N	291927	40	-	30	20	60	"	10	"	-	/	-	80	49	35	28											As above

C.R.A.E. 31.

E.L. 19/12 METR. TMS

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

79

AREA COSBY CR. PROSPECT

SAMPLE Nos. 292029 - 292047
292874 - 292880

COLLECTED BY D. H. O. 17769 (to 292047)
D. H. O. 17774 (from 292874)

MAP OR PHOTO REFERENCE A.A. 17

ANALYSED BY ZINC CORP. BRACKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample		Bedrock		Metal content, p. p. m.										Geological observations						
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (m)	Colour (Munsell Chart No.)	Outcrop	Concealed	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As							
LINE 75E																												
6460 N	292029	20	-	60	60	60	B	30	brown	-	/	-	64	57	5											of c. shale		
6460 N	292030	20	-	60	60	60	"	40	"	-	/	-	120	112	14											of c. siltst.		
6460 N	"	20	-	60	60	30	"	40	"	-	/	-	77	57	23											to above		
6460 N	292032	30	-	60	60	30	B	10	red	-	/	80	93	51	33											Red shales		
LINE 79E																												
7355 NE																												
7000 N	292033	30	-	20	30	20	B	50	brown	-	/	60	160	350	68												Red siltst.	
7000 N	"	30	-	20	40	10	"	40	"	-	/	60	140	300	39												to above	
7000 N	35	30	-	20	60	40	WB	40	red	-	/	-	69	190	3											of c. shale		
6900 N	36	20	-	60	30	40	B	30	"	-	/	30	290	112	12											Red shale		
6460 N	37	30	-	20	60	40	WB	50	"	-	/	50	290	161	19											to above		
6460 N	292038	20	-	60	60	60	B	40	brown	-	/	-	52	67	9											of c. silt (siltst?) eff.		
LINE 77E																												
7940 NE																												
7100 N	292039	20	-	60	60	60	B/WB	50	red	-	/	80	43	38	17												Red argillaceous?	
7000 N	292040	20	-	60	60	60	B	60	brown	-	/	80	13	8	2												Red siltst (or argillaceous).	
6460 N	41	20	-	60	60	60	"	40	"	-	/	80	38	68	20												Red shale	
6900 N	42	20	-	60	60	60	"	40	"	-	/	80	30	30	4												Red siltst	
6460 N	43	30	-	60	20	40	B/WB	50	red	-	/	-	21	47	3												of c. siltst	
6460 N	44	20	-	60	60	60	B	30	brown	-	/	-	17	38	3												to above	
6460 N	45	20	-	60	60	60	"	30	"	-	/	-	13	42	3												to above	
6460 N	46	20	-	60	60	30	B/WB	30	"	-	/	-	21	50	5												to above	
6460 N	292047	30	-	20	60	60	B	30	"	-	/	-	23	33	4												to above	
LINE 74E																												
7355 NE																												
7220 N	292874	20	-	60	60	60	WB	10	red	-	/	80	17	23	49													Red siltst.
7200 N	75	20	-	60	60	60	"	10	"	-	/	80	26	39	29												to above	
7150 N	76	20	-	60	60	60	B	30	brown	-	/	60	16	31	11												Red argillaceous	
7100 N	77	60	-	60	20	60	"	50	red	-	/	80	22	78	19												to above	
7100 N	78	20	-	60	60	60	"	10	brown	-	/	80	20	74	9												Red siltst	
7200 N	79	20	-	20	60	20	WB	30	"	-	/	80	24	75	26												Red argillaceous	
7100 N	292880	60	-	60	20	60	B	50	red	-	/	80	31	84	21													Red siltst

C.R.A.E. 31. E.L. 1972 NiCCA Trac.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

DPO. 1774.

AREA Crossby Cr Prospect

SAMPLE Nos. 292881 - 292910

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A to 177

ANALYSED BY Zinc Corp Broken Hill

Grid Co-ordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations				
		Root %	Levitic %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart)	pH	Overcrop	Concrete	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As			
7050 N	292881	10	-	10	10	10	B	30	brown	-	✓	-	31	62	15											of dyalite	
7060 N	82	10	-	10	10	70	70	60	red	-	-	✓	70	55	69	36										Red shale	
7070 N	83	10	-	10	10	70	70	80	"	-	-	✓	80	55	49	22										A above	
7080 N	84	20	-	10	10	60	70	10	"	-	-	✓	60	50	58	29										A above	
7090 N	85	10	-	10	10	10	B	10	brown	-	✓	-	32	39	10											of quartzite - tuffaceous	
6950 N	86	20	-	20	10	20	"	30	"	-	✓	-	46	49	16											of shale	
6960 N	87	30	-	20	10	10	"	30	"	-	✓	-	50	74	22											A above	
6970 N	88	30	-	20	10	30	70	10	red	-	-	✓	51	78	23											Red shale	
6980 N	89	30	-	20	10	10	B	6	brown	-	-	✓	60	240	17											A above	
6990 N	292890	30	-	20	30	20	"	30	"	-	-	✓	82	230	21											A above	
6850 N	91	5	-	5	85	5	70	30	"	-	-	✓	75	98	33											Red dyalite	
6860 N	92	10	-	5	65	20	B	70	"	-	-	✓	150 220	100 210	60 70												Red fine tuff
6870 N	93	5	-	5	85	10	"	70	red	-	-	✓	16	86	75												Red shale
6880 N	94	10	-	5	75	10	"	80	"	-	-	✓	24	194	110												A above
6890 N	95	5	-	5	85	10	"	80	"	-	-	✓	28	90	86												A above
6900 N	96	5	-	5	85	10	"	90	"	-	-	✓	30	121	92												A above
6910 N	97	5	-	5	85	10	"	80	"	-	-	✓	13	80	78												A above
6920 N	98	10	-	5	75	10	"	90	"	-	-	✓	13	87	81												A above
6930 N	99	5	-	5	70	20	"	110	"	-	-	✓	11	86	74												A above
6940 N	292900	10	-	5	65	20	"	80	"	-	-	✓	11	90	88												A above
6650 N	01	15	-	5	60	20	"	70	"	-	-	✓	9	64	50												A above
6660 N	292902	10	-	5	20	65	"	100	"	-	-	✓	11	72	88												Red dyalite or diorite
LINE 77E																											
7650-E																											
7250 N	292903	20	-	5	35	10	70			-	✓	-	71	120	18												of diorite
7230 N	04	20	-	10	60	10	B			-	✓	-	27	125	18												A above
7210 N	05	30	-	20	10	10	"			-	✓	-	22	83	3												A above
7190 N	06	30	-	20	10	10	"			-	✓	-	24	71	2												A above
7170 N	07	30	-	20	10	10	"			-	✓	-	26	94	2												A above
7150 N	08	30	-	20	10	10	"			-	✓	-	24	60	2												A above
7130 N	09	30	-	10	10	20	"			-	✓	-	70	117	2												A above
7110 N	292910	20	-	10	10	60	"			-	✓	-	87	128	5												A above
7100 N		20	-	10	30	10	70			-	✓	-	12	68	4												A above

C.R.A.E. 31.

EL 19/12 NINETEEN FORTY TWO

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 17774.

AREA CROSBY CR. PROSPECT.

SAMPLE Nos. 292911 - 292910

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE H 70 / 80

ANALYSED BY ZINK CORP. BROKEN HILL

Grid Co-ordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.											Geological observations								
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (meters)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Exp. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As									
7090 N	292911	20	-	60	60	10	B	40	-	-	-	13	89	2												of diorite						
7070 N	12	20	-	55	60	10	B	30	-	-	✓	90	46	121	2											Red diorite						
7050 N	13	10	-	5	80	5	B	30	-	-	✓	80	75	106	4											As above						
7030 N	14	10	-	60	60	10	B	30	-	-	✓	80	29	75	4											Red shale						
7010 N	15	10	-	5	80	5	B	30	-	-	✓	80	91	117	8											As above						
6990 N	16	20	-	5	60	10	B	30	-	-	✓	60	110	87	14											As above						
6970 N	17	15	-	5	70	5	A	40	-	-	✓	-	55	81	7											of diorite						
6950 N	18	20	-	60	60	5	B	30	-	-	✓	80	60	113	11											Red silic. fault						
6930 N	19	10	-	60	70	5	B	40	-	-	✓	50	50	29	18											Red shale						
6910 N	292920	10	-	60	70	5	B	60	-	-	✓	60	31	24	12											As above						
6890 N	292921	10	-	60	70	10	B	40	-	-	✓	80	24	22	7											Red fault zone						
LINE 75E																																
7480 NE																																
7260 N	292922	20	-	5	70	5	A	30	-	-	✓	-	43	121	8											of diorite						
7240 N	23	20	-	5	65	10	A	50	-	-	✓	-	16	121	2											As above						
7220 N	24	20	-	5	65	10	B	20	-	-	✓	-	24	97	1											As above						
7200 N	25	20	-	5	65	10	B	30	-	-	✓	-	18	94	1											As above						
7180 N	26	20	-	5	65	10	B	30	-	-	✓	-	20	90	3											As above						
7160 N	27	20	-	5	65	10	B	60	-	-	✓	80	16	175	1											Red diorite						
7140 N	28	20	-	60	60	10	B	50	-	-	✓	80	13	150	1											As above						
7120 N	29	20	-	5	65	10	B	30	-	-	✓	60	11	110	1											As above						
7100 N	292930	20	-	60	60	30	B	30	-	-	✓	50	12	72	1											As above						
7080 N	31	10	-	5	65	10	B	30	-	-	✓	80	11	52	4												Red shale					
7060 N	32	15	-	5	60	20	B	30	-	-	✓	60	45	81	10											As above						
7040 N	33	20	-	60	60	10	B	30	-	-	✓	80	39	92	24											As above						
7020 N	34	15	-	5	70	10	B	30	-	-	✓	80	50	137	15											As above						
7000 N	35	10	-	60	70	10	B	40	-	-	✓	80	52	97	12											As above						
6980 N	36	20	-	60	60	10	B	40	-	-	✓	60	59	121	24											As above						
6960 N	37	30	-	20	30	20	B	30	-	-	✓	100	42	49	29											As above						
6940 N	38	30	-	20	30	20	B	40	-	-	✓	60	57	191	34											As above						
6920 N	39	5	-	30	65		B	60	-	-	✓	100	63	110	44											Red hydrocarbon						
6900 N	292940	-	-	-	60	10	B	100	-	-	✓	200	40	102	60											?						

C.R.A.E. 31.

E.L. 19/72 NIETTA TBS.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.R.O. 17774.

83

AREA CROSBY CR. PROSPECT.

SAMPLE Nos. 292964 - 292995

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A.P. 182

ANALYSED BY ZINC CRP. BRKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample		Bedrock		Metal content, p. p. m.											Geological observations		
		Rock %	Silica %	Sand %	Silt %	Clay %		Depth (metres)	Colour (Munsell Chart No.)	Outcrop	Concealed	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As				
LINE 9SE																									
9500ME																									
7730 N	292964	5	5	20	70	W	80	tan	✓	-	11	35	51												detrital
7750 N	292970	5	15	20	60	B	90	"	-	120	12	19	17												detrital
7770 N	71	5	15	10	70	B	110	"	-	150	15	31	26												to above
7790 N	72	5	20	15	60	"	70	"	-	100	12	29	24												to above
7810 N	73	10	10	10	10	"	50	orange	-	150	11	36	28												to above
7830 N	74	5	15	20	60	"	50	brown	-	150	11	19	21												to above
7850 N	75	-	10	20	10	Alluv	100	"	-	200	11	17	10												?
7870 N	76	-	50	30	20	B	70	"	-	200	4	1	61												Ordinaria sandstone
7890 N	77	-	5	60	35	"	60	"	-	120	8	2	1												?
7910 N	78	-	60	30	10	"	60	"	-	200	4	61	61												Ord. sand stone
7930 N	79	-	30	60	10	"	30	grey	-	200	4	61	61												to above
7950 N	292950	-	30	60	10	"	60	"	-	200	7	1	1												to above
7970 N	81	-	30	60	10	"	30	"	-	200	4	61	61												to above
7990 N	82	-	60	10	-	"	30	"	-	200	2	61	61												to above
8010 N	83	-	10	60	-	"	30	"	-	200	2	61	61												to above
8030 N	84	-	70	30	-	"	30	"	-	200	2	61	61												to above
8050 N	85	-	10	30	-	"	30	"	-	200	2	61	61												to above
8070 N	86	-	10	10	-	"	30	"	-	200	3	61	61												to above
8090 N	87	20	10	10	-	"	30	tan	-	200	3	61	61												Rich Ord. sandstone
8110 N	88	10	30	60	-	"	30	"	-	200	2	61	61												to above
8130 N	89	10	30	60	-	"	30	"	-	200	4	1	61												to above
8150 N	292990	5	20	10	30	"	10	"	-	200	12	1	61												to above
8170 N	91	30	30	10	-	B	30	"	-	200	9	1	61												to above
8190 N	92	30	30	10	-	B	30	"	-	200	10	1	61												to above
8210 N	93	20	30	50	-	A	30	"	-	200	2	2	61												to above
8230 N	94	20	10	60	-	"	30	"	-	200	2	2	61												to above
8250 N	292995	30	20	50	-	"	30	"	✓	-	2	8	1												Ord. sandstone

SOS 7/76

C.R.A.E. 31. EL. 9/12 NORTH TWP.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

270. 7776.

24.

AREA CROSBY CR. DISTRICT.

SAMPLE Nos. 293340 - 293344

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE to p. 180

ANALYSED BY Zinc Co. BROWN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations				
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Overcap	Concise	Est. Depth to	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As			
LINE 68E 680m E.																											
756m N	293340	10	-	5	20	65	70	2	-	-	✓	80	55	94	15												Rock appears shale
750m N	41	5	-	5	20	70	10	5	-	-	✓	50	57	97	15												As above
750m N	42	-	-	5	20	75	10	5	-	-	✓	20	66	100	14												
750m N	43	5	-	5	20	70	10	5	-	-	✓	50	48	99	14												Rock fine till?
7480 N	293344	5	-	5	20	70	10	5	-	-	✓	50	39	100	16												As above or shale

C.R.A.E. 91.

E.L. 19/12 NIETTA TAB.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.F.O. 1763.

AREA LOYETER ANOMALIES - PHASE I SAMPLING

SAMPLE Nos. 299765 - 299792

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE LOYETER ANOMALIES, E.L. 19/12 NIETTA NW TAB. 1:5000 SHEET 5 - PHASE I SAMPLING ANALYSED BY ZINC CORP. BROKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample				Bedrock		Metal content, p. p. m.										Geological observations		
		Rock %	Laterite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell)	Char No.	pH	Outcrop	Concealed	Ex. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As	
LINE 20																										
2000ME																										
5220 N	299765	20	20	40	20	WS	100	brown	-	-	✓	120	9	21	10							41			Red fine clay tuff.	
5200 N	64	20	20	40	20	"	50	"	-	-	✓	60	16	12	7							41			Red silty tuffaceous shale	
5280 N	65	20	20	20	40	"	110	orange	-	-	✓	110	24	23	13							41			As above	
5260 N	66	20	20	20	40	"	50	"	-	-	✓	60	16	16	4							41			As above	
5240 N	67	20	20	40	20	WS	40	brown	-	-	✓	80	3	3	3							41			As above	
5220 N	68	20	20	20	40	WS	70	red	-	✓	-	-	9	14	7							41			of fine silty tuff - tuffaceous shale	
5200 N	69	20	20	20	40	"	80	orange	-	-	✓	80	28	50	16							41			Red tuffaceous shale	
5180 N	299770	20	20	20	40	"	60	"	-	-	✓	60	30	36	15							41			As above	
5160 N	71	20	20	20	40	"	90	"	-	✓	-	-	21	43	19							1			As above	
5140 N	72	20	20	20	40	"	50	brown	-	✓	-	-	24	41	11							1			As above	
5120 N	73	20	20	40	20	"	40	"	-	-	✓	60	27	27	12							41			Red tuffaceous shale	
5100 N	74	20	20	40	20	"	50	"	-	✓	-	-	11	9	1							41			As unweathered basaltic tuff	
5080 N	75	20	20	40	20	B	30	"	-	✓	-	-	13	23	3							41			As above - agglomerate	
5060 N	76	20	20	30	30	WS	50	"	-	✓	-	-	13	19	2							41			Red as above	
5040 N	77	20	20	30	30	"	50	"	-	✓	-	-	17	20	21							41			As above	
5020 N	78	20	20	20	40	"	70	"	-	✓	-	-	16	27	10							41			As above + tuffaceous shale	
5000 N	79	10	10	40	40	"	40	"	-	✓	-	-	11	46	7							41			As basaltic tuff.	
4980 N	299780	10	10	40	40	"	50	"	-	✓	-	-	9	19	2							41			Red basaltic tuff.	
4960 N	81	20	20	30	30	"	40	"	-	✓	-	-	79	47	13							41			Red tuffaceous shale	
4940 N	82	20	20	30	30	"	50	"	-	✓	-	-	32	28	14							41			As tuffaceous shale	
4920 N	83	30	20	20	30	"	50	"	-	✓	-	-	57	57	31							41			As above	
4900 N	84	30	10	20	40	"	40	"	-	✓	-	-	31	31	20							41			Red as above	
4880 N	85	10	10	40	40	B	30	"	-	✓	-	-	34	42	17							41			As above	
4860 N	86	30	10	20	30	WS	30	"	-	✓	-	-	35	34	17							41			As above	
4840 N	87	30	20	20	30	WS	50	"	-	✓	-	-	73	47	34							1			As shale	
4820 N	88	20	20	20	40	"	80	"	-	✓	-	-	76	60	27							1			Red fine tuff	
4800 N	89	30	20	20	30	"	30	"	-	✓	-	-	61	34	28							41			Red tuffaceous shale	
4780 N	299790	10	10	30	50	"	70	red	-	✓	-	-	100	30	46							1			As above	
4760 N	90	20	20	30	30	"	60	brown	-	✓	-	-	60	12	16							41			As above	
4740 N	299792	20	20	20	40	"	40	"	-	✓	-	-	110	27	41							41			As above	

C.R.A.E. 31.

E.L. 19/72 NIETTA TAS.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 1176.

AREA LOYETER ANOMALIES - PHASE 1 SAMPLING

SAMPLE Nos. 299793 - 299807
299843 - 299864

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A to P1

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Coordinate	Sample No. (Cat)	Soil composition					Soil Reaction	Sample			Bedrock		Metal content, p. p. m.										Geological observations			
		Rock %	Loam %	Sand %	Silt %	Clay %		Depth (cm)	Colour Chart No.	pH	Outcrop	Conc'd	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As		
A720W	299793	20	-	20	20	40	WB	30	red	-	✓	10	250	53	38							41				Rock tuffaceous shale
A720E	94	20	-	20	30	30	"	50	"	-	✓	60	220	67	48							1				A above
A730W	95	30	-	20	30	20	"	30	brown	-	✓	-	17	72	7							1				of c. (Albita?) tuff.
A760W	96	-	-	15	20	65	"	70	"	-	✓	90	20	94	10							1				?
A770W	97	30	-	20	20	30	"	60	orange	-	✓	60	21	154	5							21				Rock (Albita?) tuff
A780W	98	20	-	20	20	40	"	60	brown	-	✓	60	40	40	15							1				Rock tuffaceous shale
A790W	99	20	-	20	20	40	"	50	"	-	✓	-	50	18	12							1				of fine to med tuff.
A570N	299800	20	-	20	10	20	B	30	"	-	✓	-	60	28	13							21				of c. tuffaceous shale
A570E	01	30	-	30	30	10	"	40	"	-	✓	-	15	10	11							21				As above
A570N	02	10	-	20	60	10	"	50	"	-	✓	-	7	6	5							21				As above
A570E	03	20	-	20	30	30	"	30	"	-	✓	-	9	18	9							21				of c. silty (schistose?) tuff.
A500N	04	30	-	20	20	30	WB	30	"	-	✓	10	13	18	7							21				Rock tuffaceous shale
A480N	05	30	-	20	20	30	"	40	"	-	✓	10	20	55	21							1				Rock as above as schistose tuff.
A460N	06	5	-	5	70	20	B	30	"	-	✓	80	15	22	16							1				As above
A440N	299807	20	-	20	10	20	"	30	"	-	✓	10	15	31	20							21				As above
6355N	299818	20	-	20	30	30	WB	100	"	-	✓	-	170	580	29							2				of c. coarse green agglomerate
6355N	19	20	-	20	30	30	"	50	"	-	✓	50	280	350	18							2				Rock as above
6320N	299850	20	-	20	10	20	"	40	"	-	✓	60	250	310	12							2				As above
6300N	51	20	-	20	20	40	"	30	"	-	✓	-	240	230	15							2				of c. as above
6280N	52	10	-	10	30	50	"	50	red	-	✓	-	260	340	14							2				As above
6265N	53	5	-	10	20	65	"	40	"	-	✓	10	240	330	15							1				Rock tuff shale as above
6265N	54	5	-	10	20	65	"	30	"	-	✓	60	180	230	12							2				As above
6225N	55	5	-	10	20	65	"	60	"	-	✓	60	220	230	13							1				Rock fissile agglomerate
6205N	56	5	-	10	20	65	"	50	"	-	✓	-	190	190	12							2				of c. coarse green aggl.
6185N	57	5	-	10	20	65	"	80	"	-	✓	80	240	330	18							2				Rock as above
6170N	58	5	-	10	20	65	"	80	"	-	✓	80	220	290	15							2				As above
6150N	59	20	-	10	10	60	"	60	"	-	✓	60	230	192	17							2				As above
6130N	299860	5	-	5	20	70	"	60	"	-	✓	80	170	193	9							1				As above
6115N	61	-	-	5	20	75	"	80	"	-	✓	100	170	193	11							2				As above
6095N	62	-	-	5	20	75	B	30	brown	-	✓	100	150	200	16							1				?
6080N	63	10	-	5	20	65	WB	140	red	-	✓	160	320	320	16							2				Rock tuffaceous shale
6060N	299864	5	-	10	10	75	"	80	"	-	✓	80	350	187	20							2				As above

C.R.A.E. 31.

E.L. 19/72 NETTA, TAS.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.F.O. 17763.

AREA LOVETA ANOMALIES - Phase 1 SAMPLING.

SAMPLE No. 299865 - 299896

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE As for p2.

ANALYSED BY Zinc Corp. REEVEN, HULL

Grid Coordinate LINE 2E	Sample No. (Cont.)	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.											Geological observations						
		Rock %	Sand %	Silt %	Clay %	Moisture %		Depth (mm)	Colour (Munsell Chart No.)	pH	Outcrop	Cancelled	Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As							
6000N	299865	5	5	10	80	WB	90	red	-	-	✓	110	220	173	25													Rock tuffaceous shale		
6020N	66	5	5	10	80	"	50	"	-	-	✓	110	160	200	19													As above		
6055N	67	-	-	10	90	B	110	"	-	-	✓	200	170	230	21															
6155N	68	-	-	5	10	"	110	"	-	-	✓	200	170	230	17													Rock rather fine tuff		
5965N	69	10	10	20	60	WB	90	brown	-	-	✓	100	250	140	25													As above		
5950N	299870	15	10	60	15	B/WB	30	"	-	-	✓	-	140	250	11													of fine grey silty tuff		
5930N	71	15	20	35	30	WB	40	red	-	-	✓	-	170	210	15													As above (2-1/2)		
5915N	72	6	10	50	30	"	40	brown	-	-	✓	-	130	200	13													As above		
5895N	73	5	10	65	20	"	50	"	-	-	✓	-	140	193	19													As above		
5875N	74	15	10	65	10	"	30	"	-	-	✓	40	25	130	10													Rock fine tuff		
5860N	75	20	10	50	20	"	40	"	-	-	✓	40	24	93	8													Rock fine grey (sand?) tuff		
5840N	76	5	5	55	35	B/WB	40	"	-	-	✓	80	40	74	14													As above		
5820N	77	10	5	20	65	WB	90	"	-	-	✓	100	87	220	43													As above		
5805N	78	10	10	20	60	"	100	"	-	-	✓	100	96	230	60														Rock rather tuffaceous shale	
5785N	79	20	20	20	40	"	30	"	-	-	✓	40	35	33	16													As above		
5765N	299880	20	20	20	40	B/WB	30	"	-	-	✓	-	18	22	10														of grey green banded tuff sh. with	
5750N	81	20	20	30	30	B/WB	30	"	-	-	✓	40	12	18	4														Rock as above in fine tuff	
5730N	82	20	20	30	30	WB	30	"	-	-	✓	-	14	16	4														of micaceous (ch. + per.) fine ash	
5710N	83	20	20	30	30	"	50	"	-	-	✓	30	13	27	6														Rock as above.	
5695N	84	20	20	30	30	"	30	"	-	-	✓	-	13	29	10															of grey sil. sh. with
5675N	85	20	20	20	40	"	40	"	-	-	✓	40	37	102	53															Rock rather and (?) ash tuff (?) tuff
5655N	86	20	20	20	40	"	60	red	-	-	✓	60	67	100	110															As above
5640N	87	5	5	30	60	"	30	brown	-	-	✓	-	57	110	61															of rather tuffaceous shale
5620N	88	20	20	20	40	"	30	red	-	-	✓	-	28	50	26															As above
5605N	89	30	20	30	20	"	30	brown	-	-	✓	-	11	18	9															As above
5585N	299890	30	20	30	20	B/WB	30	"	-	-	✓	-	19	65	18															As above
5565N	91	20	20	30	30	WB	40	"	-	-	✓	-	32	70	51															As above
5550N	92	10	10	50	30	"	50	"	-	-	✓	-	35	88	46															As above
5530N	93	10	10	50	30	"	50	"	-	-	✓	-	29	97	39															As above
5510N	94	30	30	20	20	B/WB	30	"	-	-	✓	-	70	120	35															of fine grey silty tuff & tuffaceous shale
5495N	95	30	20	30	20	WB	30	"	-	-	✓	-	35	40	36															As above
5475N	299896	30	20	40	10	"	40	"	-	-	✓	100	33	24	29															Rock as above

466127

C.R.A.E. 31.

E.L. 1972 NIETA TAC

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

V.A.O. 17763 (To 299904) 4.
 V.A.O. 17764 (From 299905)

AREA LOYTERA ANOMALIES - PHASE 1 SAMPLING.

SAMPLE Nos. 299897 - 299926

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A fr. p. 2

ANALYSED BY ZINC CORP. BOCKEN HILL

Grid Coordinates	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations			
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (mm)	Colour (Munsell)	pH	Outcrop	Central	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As		
LINE 28E	(cont)																									
5460N	299897	20	-	10	60	10	A/B	40	brown	-	-	✓	100	26	18	13									1	Large vitric tuff above
5460N	98	10	-	10	70	10	B	40	"	-	-	✓	-	26	31	15									1	of vitric tuff
5460N	99	10	-	10	70	10	"	30	"	-	-	✓	-	19	12	5									1	of vitric tuff & talus shale
5460N	299900	10	-	10	80	-	A/B	30	black	-	-	✓	-	13	10	4									4	of altered vitric tuff
5385N	01	10	-	10	70	10	B	50	brown	-	-	✓	-	17	14	8									4	As above
5365N	02	20	-	10	50	20	"	30	"	-	-	✓	60	14	13	9									4	Red tuffaceous shale
5350N	03	20	-	20	30	30	"	30	"	-	-	✓	60	10	9	7									4	As above
5335N	299904	20	-	20	30	30	B/W	50	"	-	-	✓	60	41	48	25									4	As above
LINE 25E																										
25TDME																										
6360N	299905	20	-	20	40	20	WB	30	brown	-	-	✓	-	110	62	14									4	of (al tuff) tuff
6340N	06	20	-	20	40	20	"	30	"	-	-	✓	-	65	37	9									4	As above
6325N	07	10	-	10	50	30	"	30	"	-	-	✓	-	51	45	5									4	of dark (or dyoxidic)
6305N	08	20	-	20	40	20	"	40	"	-	-	✓	-	50	44	3									1	As above
6290N	09	20	-	10	60	10	"	30	brown	-	-	✓	-	19	41	3									4	As above
6270N	299910	10	-	10	60	20	"	30	red	-	-	✓	-	27	36	3									4	As above
6255N	11	20	-	10	60	10	B/W	30	brown	-	-	✓	-	21	41	5									4	As above
6235N	12	20	-	20	40	20	WB	40	"	-	-	✓	-	39	36	2									4	As above
6220N	13	20	-	10	60	10	"	40	"	-	-	✓	-	31	46	4									1	As above
6200N	14	30	-	10	40	20	B/W	30	brown	-	-	✓	-	95	65	6									4	As above
6180N	15	20	-	20	40	20	"	40	"	-	-	✓	60	22	104	4									1	Red as above
6165N	16	20	-	10	60	10	WB	30	brown	-	-	✓	-	47	52	4									1	As above
6145N	17	20	-	10	50	20	"	40	"	-	-	✓	-	90	79	6									1	As above
6130N	18	20	-	10	40	30	B/W	30	"	-	-	✓	60	120	150	8									1	Red as above
6110N	19	20	-	20	30	30	B/W	60	"	-	-	✓	60	140	178	4									1	As above
6090N	299920	20	-	10	60	10	B/W	30	brown	-	-	✓	-	150	111	3									1	As above
6075N	21	20	-	20	30	30	WB	30	red	-	-	✓	-	120	95	5									4	As above
6060N	22	20	-	20	20	40	"	110	"	-	-	✓	-	190	171	7									1	As above
6040N	23	20	-	10	30	40	"	40	"	-	-	✓	-	200	200	10									1	As above
6025N	24	10	-	10	70	10	B/W	30	brown	-	-	✓	-	140	196	14									1	As above
6005N	25	20	-	10	60	10	"	30	"	-	-	✓	-	130	144	6									4	As above
5990N	299926	20	-	10	60	10	"	30	"	-	-	✓	-	230	153	8									4	of fine pyritic tuff

E.L. 19/72 NIETA. TAS.

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.O. 17764

AREA LAYTEA ANOMALIES - PHASE 1 SAMPLING

SAMPLE Nos. 299927 - 299958

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A.P. 1A

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Co-ordinate LINE SE	Sample No. (Cont.)	Soil composition				Soil horizon	Sample			Bedrock			Metal content, p. p. m.										Geological observations						
		Rock %	Lime %	Sand %	Silt %		Clay %	Depth (m)	Colour (Munsell) Chart No.	pH	Outcrop	Cancelled	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As					
5975 N	299927	20	20	10	20	WS	30	red	-	✓	-	-	170	143	6					1								alc fine dactyl + dyalactyl	
5955 N	28	20	-	10	60	WS	30	brn	-	✓	-	-	230	156	6					1								alc above	
5940 N	29	30	-	20	30	WS	30	"	-	✓	-	-	150	194	7					1								alc above	
5920 N	299930	20	-	20	50	WS	30	"	-	✓	-	-	91	220	7					4								alc above	
5905 N	31	20	-	10	60	B	30	"	-	✓	-	-	82	89	3					1								alc above	
5885 N	32	20	-	60	60	"	30	"	-	✓	-	-	73	73	7					1								alc above	
5870 N	33	20	-	60	60	WS	30	"	-	✓	-	-	170	230	6					1								alc above	
5850 N	34	60	-	60	70	B	10	"	-	✓	-	-	130	142	6					1								alc above	
5835 N	35	20	-	10	60	"	30	"	-	✓	-	-	87	104	6					1								alc above	
5815 N	36	20	-	20	10	WS	30	red	-	✓	-	-	53 51	81 90	35 31					4								alc tuffaceous shale & siltst	
5800 N	37	30	-	10	35	B	30	dk brn	-	✓	-	-	43	280	8					4								alc coarse silt agglomerate	
5780 N	38	10	-	30	30	WS	30	brn	-	✓	-	-	26	86	10					4								alc tuffaceous shale	
5765 N	39	10	-	20	30	B	10	"	-	✓	-	-	25	41	14					4								alc above	
5745 N	299940	60	-	10	75	B	30	"	-	✓	-	-	70	47	24					1								alc diorite	
5730 N	41	60	-	60	80	WS	30	dk brn	-	✓	-	-	33	47	21					4								alc tuffaceous shale	
5710 N	42	30	-	30	40	"	30	"	-	✓	-	-	55	108	25					1								alc diorite	
5695 N	43	10	-	25	15	WS	40	brn	-	✓	-	-	21	28	24					4								alc above	
5675 N	44	30	-	20	10	B	30	"	-	✓	-	-	93 90	63 63	23 24					4									alc above
4880 N	45	30	-	20	10	"	30	"	-	✓	-	-	46	49	61					4								alc tuffaceous shale	
4900 N	46	20	-	10	30	WS	10	"	-	✓	-	-	33	55	75					1								alc above	
4920 N	47	20	-	20	20	WS	30	"	-	✓	-	60	20	26	33					4								alc above	
4940 N	48	20	-	20	20	WS	60	red	-	✓	-	-	16	52	58					4								alc tuffaceous shale	
4960 N	49	10	-	60	20	"	60	brn	-	✓	-	80	17	9	14					4								alc above	
4980 N	299950	20	-	10	60	"	50	"	-	✓	-	50	81	210	70					4								alc above	
5000 N	51	20	-	10	60	"	50	"	-	✓	-	50	67	23	31					4								alc above	
5020 N	52	20	-	10	30	"	60	"	-	✓	-	60	140	66	32					1								alc above	
5040 N	53	60	-	60	70	B	30	"	-	✓	-	60	420 220	119 120	38 33					1									alc above
5060 N	54	60	-	20	60	"	60	"	-	✓	-	80	230	168	45					4									alc above
5080 N	55	30	-	20	10	"	30	"	-	✓	-	-	45	55	8					4								alc siltst	
5100 N	56	10	-	10	70	"	10	"	-	✓	-	-	40	52	10					4								alc tuffaceous shale & siltst	
5115 N	57	30	-	20	20	WS	30	"	-	✓	-	-	28	45	20					4								alc above	
5135 N	299958	20	-	60	10	B	30	"	-	✓	-	-	17	23	14					4								alc above	

E.L. 19/72 NIETA Tm.

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

5770 1764

6.

AREA LOYETER ANGMANES - PHASE 1 SAMPLING

SAMPLE Nos. 299959 - 299989

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE

ANALYSED BY ZINC CORP BREKEN HILL

Grid Coordinate (LINE) 2SE (Cont)	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations	
		Rock %	Laterite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Er. Depth	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As
5150 N	299959	20	-	20	30	30	WB	30	brown	-	✓	-	17	32	8					1				alc tuffaceous shale & opuntia tuff
5115 N	299960	20	-	20	30	30	"	30	"	-	✓	A0	36	51	23				4				Rock shale	
5185 N	61	20	-	20	20	40	"	30	"	-	✓	A0	120	71	24				41				to above	
5200 N	62	20	-	20	30	30	B	30	"	-	✓	60	56	52	19				1				to above	
5215 N	63	20	-	10	30	40	WB	30	"	-	✓	A0	190	61	28				41				to above	
5235 N	64	20	-	10	40	30	"	40	"	-	✓	60	21	28	20				1				to above	
5250 N	65	30	-	10	30	40	"	40	"	-	✓	-	10	89	9				4				alc fine tuff	
5265 N	66	30	-	20	10	40	"	30	"	-	✓	-	8	18	12				41				alc tuffaceous shale	
5285 N	67	30	-	20	10	40	"	30	"	-	✓	-	8	32	14				41				to above	
5300 N	68	20	-	20	55	5	B	30	"	-	✓	-	16	142	15				1				alc argillaceous	
5315 N	69	20	-	20	20	40	WB	40	orange	-	✓	-	12	56	15				4				alc loess tuff	
5335 N	299970	20	-	20	40	20	B	40	brown	-	✓	-	44	33	16				41				alc tuffaceous shale	
5350 N	71	20	-	10	60	10	"	50	"	-	✓	-	12	42	12				41				alc altered soil part tuff (to argill)	
5370 N	72	10	-	30	30	30	WB	80	yellow	-	✓	-	10	41	12				4				alc altered argillaceous	
5385 N	73	5	-	5	80	10	B	40	brown	-	✓	-	16	42	20				4				alc altered altered argill	
5400 N	74	20	-	10	60	10	"	40	"	-	✓	-	15	30	15				41				to above	
5420 N	75	20	-	10	60	10	B/WB	40	"	-	✓	-	9	9	15				4				to above	
5435 N	76	10	-	10	70	10	B	50	"	-	✓	-	17	31	20				4				alc intern? argillaceous tuff - argill	
5450 N	77	20	-	10	60	10	"	40	"	-	✓	-	56	46	24				41				alc intern? argillaceous tuff - loess tuff	
5470 N	78	20	-	20	40	20	"	60	"	-	✓	-	81	91	41				1				to above	
5485 N	79	20	-	5	55	40	"	50	"	-	✓	80	29	28	30				1				Rock fine tuff	
5500 N	299980	20	-	20	30	30	WB	70	"	-	✓	70	180	220	47				1				Rock tuffaceous shale	
5520 N	81	20	-	10	40	30	B	10	"	-	✓	-	110	80	36				4				alc loessile (corundum) tuff	
5535 N	82	20	-	10	60	10	"	30	"	-	✓	-	150	118	49				4				alc loessile tuff (opuntia)	
5550 N	83	20	-	20	40	20	"	40	"	-	✓	200	69	130	33				1				Rock tuffaceous shale	
5565 N	84	10	-	5	75	10	B/WB	50	"	-	✓	-	220	88	75				1				alc diorite	
5585 N	85	5	-	5	80	-	B	30	"	-	✓	-	250	74	64				1				to above	
5600 N	86	10	-	10	80	-	B/WB	30	"	-	✓	-	240	66	35				1				to above	
5620 N	87	20	-	10	65	5	B	30	"	-	✓	-	130	74	36				4				to above	
5635 N	88	20	-	10	60	10	"	40	"	-	✓	-	230	74	35				4				to above	
5655 N	299989	30	-	20	40	10	"	30	"	-	✓	-	65	44	24				1				to above	

E.L. 19/72 NIETTA TRG.

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

27.0.17764

AREA LOVETEA ANOMALIES - PHASE 1 SAMPLING.

SAMPLE Nos. 290520 - 290551

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE

As for p7

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Co-ordinate LINE A/E	Sample No. (cont.)	Soil composition				Soil Horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations	
		Root #	Lignite #	Sand #	Silt #		Clay #	Depth (cm)	Colour (Munsell Chart No.)	pH	Quartz	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag		Mo
5490N	20	20	-	20	10	20	WS	30	brown	-	-	13	60	10						41			dc silt (dyalac) quartz tuff.
5510N	21	20	-	20	10	20	WS	30	"	-	-	11	50	7						41			As above
5525N	22	20	-	20	10	20	B	30	"	-	-	12	45	7						41			As above
5540N	23	30	-	20	30	20	"	30	"	-	-	10	55	4						4			As above
5560N	24	30	-	20	30	20	"	30	"	-	-	9	45	4						41			As above
5580N	25	40	-	30	20	10	"	30	"	-	-	10	66	5						41			As above
5595N	26	30	-	30	20	10	"	30	"	-	-	13	51	6						41			As above
5615N	27	30	-	30	30	10	"	30	"	-	-	8	40	2						4			As above
5630N	28	40	-	20	40	20	B	30	"	-	-	15	61	5						4			dc intermed silty tuff.
5650N	29	20	-	20	30	30	WS	30	red	-	-	8	23	3						41			As above
5665N	30	30	-	20	30	20	"	30	brown	-	-	3	9	1						41			As above
5685N	31	20	-	20	30	30	"	30	"	-	-	13	30	12						41			Red shale
5705N	32	20	-	20	10	20	WS	30	"	-	-	28	21	26						41			As above
5725N	33	20	-	20	30	30	"	40	"	-	-	23	23	28						41			As above
5740N	34	20	-	20	30	30	"	30	"	-	-	24	22	26						4			As above
5760N	35	20	-	20	30	30	"	60	"	-	-	29	45	36						1			As above
5780N	36	30	-	20	30	20	"	60	"	-	-	22	17	27						4			As above
5795N	37	20	-	20	10	20	B	40	"	-	-	28	14	36						41			As above
5815N	38	40	-	30	20	10	WS	40	"	-	-	24	19	31						4			As above
5830N	39	30	-	30	20	20	"	100	"	-	-	30	20	35						41			As above
5850N	40	30	-	30	30	10	B	40	"	-	-	26	23	24						4			As above
5865N	41	40	-	6	20	50	WS	60	red	-	-	39	57	55						1			As above
5885N	42	10	-	6	30	50	"	40	"	-	-	54	45	45						1			As above
5900N	43	10	-	6	30	50	WS	40	"	-	-	27	27	34						4			As above
5920N	44	20	-	20	10	20	"	30	"	-	-	31	30	33						41			dc silt fine intermed tuff.
5940N	45	20	-	20	10	20	"	40	"	-	-	48	45	22						4			dc silt tuff shale
5955N	46	20	-	20	30	30	WS	30	"	-	-	50	45	37						1			As above
5975N	47	20	-	20	10	20	B	30	"	-	-	37	26	30						4			dc grey shale
5990N	48	20	-	20	50	10	"	40	shale	-	-	33	14	14						4			Red ss above
6010N	49	10	-	10	70	10	B	30	"	-	-	47	24	31						4			Red shale
6025N	290550	10	-	10	70	10	"	30	"	-	-	34	23	28						4			As above
6040N	290551	20	-	10	60	10	"	30	brown	-	-	43	43	13						4			dc dicte

E.L. 19/72 METM. TR.

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

17764

10.

AREA LOTETA ANOMALIES - PHASE 1 SAMPLING.

SAMPLE Nos. 290551 - 290613

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE 15 pt 19

ANALYSED BY ZINC CORP. BROKEN HILL.

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock			Metal content, p. p. m.										Geological observations				
		Rock %	Lime %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As					
7815mN	290582	6	-	20	30	10	A/B	30	brown	-	✓	-	44	120	10												of conglomerate	
5855mN	83	10	-	10	10	10	A	50	"	-	✓	80	65	14.1	10												Red soil	
5835mN	84	5	-	5	80	10	A/B	30	"	-	✓	100	110	96	11												Red soil	
5820mN	85	20	-	10	10	20	B	60	"	-	✓	60	92	136	25												A above	
5800mN	86	20	-	20	20	10	A/B	60	"	-	✓	70	97	183	36												A above	
5785mN	87	20	-	20	10	20	B	30	"	-	✓	-	29	124	9												of soil	
5760mN	88	30	-	20	20	20	A/B	60	"	-	✓	-	54	152	13												A above	
5745mN	89	10	-	6	60	20	B	30	"	-	✓	-	97	77	10												of spherulite or dait	
5725mN	290590	20	-	30	10	10	"	50	"	-	✓	80	94	96	9												Red soil	
5705mN	91	30	-	20	20	20	A/B	30	"	-	✓	-	65	100	10												of fine spherulite or dait	
5690mN	92	-	-	-	90	10	A/B	30	dk brown	-	✓	60	96	51	7												?	
5670mN	93	20	-	30	30	20	B	50	dk brown	-	✓	100	82	83	10												Red spherulite to soil	
5650mN	94	5	-	15	65	15	A/B	30	"	-	✓	80	60	97	7												Red rather fine soil	
5630mN	95	-	-	6	70	20	"	30	dk brown	-	✓	100	63	90	9												?	
5615mN	96	20	-	30	20	10	"	30	"	-	✓	-	94	78	6													of fine spherulite
5595mN	97	20	-	30	10	10	"	30	"	-	✓	-	150	147	13													A above
5575mN	98	-	-	-	95	5	A	30	"	-	✓	100	120	64	10													?
5555mN	99	6	-	10	10	10	B	30	dk brown	-	✓	-	190	106	28													of intermediate and flow tuff
5535mN	290600	10	-	5	15	10	"	30	"	-	✓	60	230	91	19													Red spherulite
5520mN	01	10	-	5	10	15	"	30	"	-	✓	60	140	100	24													A above
5500mN	02	5	-	5	60	80	"	30	"	-	✓	60	77	94	31													Red fine int. tuff and
5485mN	03	20	-	20	20	10	"	30	red	-	✓	60	93	194	66													Red intermediate aged tuff
5465mN	04	10	-	10	10	10	"	30	"	-	✓	60	44	107	68													Red fine tuff
5445mN	05	30	-	20	20	30	"	30	"	-	✓	60	43	72	30													Red tuffaceous shale
5425mN	06	30	-	20	30	20	"	30	"	-	✓	80	32	50	24													A above
5405mN	07	20	-	10	10	20	"	30	"	-	✓	80	43	52	20													A above
5385mN	08	20	-	10	30	10	"	10	"	-	✓	-	50	53	23													of quartz aged ash flow tuff
5370mN	09	30	-	20	30	20	"	30	dk brown	-	✓	-	18	19	10													of tuffaceous shale
5350mN	290610	20	-	10	60	10	A/B	30	"	-	✓	-	13	17	35													A above
5330mN	11	20	-	10	30	10	B	30	red	-	✓	-	22	36	31													of int. fine tuff
5315mN	12	10	-	10	10	10	"	30	dk brown	-	✓	100	22	67	48													Red int. ash flow tuff
4465mN	290613	20	-	20	30	30	WB	30	"	-	✓	30	27	50	20													Red tuffaceous shale

E.L. 19/72 NIETA TAS.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

1770. 1776.

C.R.A.E. 31.

AREA LOYTERA ANOMALIES - PHASE 1 SAMPLING.

SAMPLE Nos. 290614 - 290645

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE AS OF P. 10

ANALYSED BY ZINC CORP. BROWN HILL

Grid Coordinate	Sample No.	Soil composition				Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations			
		Rock %	Lignite %	Sand %	SH %		Clay %	Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag		Mo	As	
LIN 15E (cont.)																									
4655mN	290614	20	-	20	20	40	70	brn	-	-	70	54	80	4							41				Red fine tuff
4705N	15	20	-	20	20	40	80	"	-	-	80	74	84	7							41				Red tuff shale
4725N	16	20	-	20	20	40	110	"	-	-	110	34	60	8							44				pk aggl - congl.
4745N	17	20	-	20	20	40	50	"	-	-	50	29	140	5							24				pk above
4765N	18	20	-	20	20	40	30	"	-	-	30	37	174	6							41				pk above
4785N	19	20	-	20	20	40	30	red	-	-	40	24	50	11							41				pk above
4805N	20	20	-	20	20	40	40	"	-	-	40	18	20	26							41				pk above
4825N	21	20	-	20	20	40	70	"	-	-	80	27	34	14							41				pk silty aggl - congl.
4845N	22	20	-	20	20	40	70	"	-	-	80	63	63	66							1				Red shale
4865N	23	20	-	20	20	40	50	"	-	-	60	71	87	27							1				pk above
4885N	24	20	-	20	20	40	50	"	-	-	60	51	55	16							1				pk above
4905N	25	20	-	20	20	40	50	"	-	-	60	61	66	32							1				pk above
4925N	26	20	-	20	50	10	30	brn	-	-	30	32	42	13							41				pk above
4945N	27	20	-	20	40	40	30	"	-	-	30	22	16	2							41				pk at base of quartz aggl. flint tuff.
4965N	28	20	-	20	20	40	50	"	-	-	50	22	16	2							41				pk above
4985N	29	30	-	20	20	30	70	"	-	-	80	29	41	10							41				pk tuffaceous shale
5005N	30	30	-	20	20	30	70	"	-	-	80	25	83	24							2				Red tuffaceous shale
5025N	31	30	-	20	20	30	20	"	-	-	80	20	46	26							41				Red tuffaceous shale
5045N	32	30	-	20	20	30	20	"	-	-	80	9	17	8							41				pk above
5065N	33	30	-	20	20	30	30	"	-	-	80	13	20	10							41				pk above
5085N	34	30	-	20	30	40	30	"	-	-	80	15	32	10							1				Red quartz aggl. flint tuff
5105N	35	20	-	20	30	30	30	"	-	-	80	27	104	42							1				pk above
5125N	36	20	-	20	30	30	50	"	-	-	80	39	136	61							1				pk int. quartz tuff
5145N	37	20	-	20	30	30	30	"	-	-	80	33	104	23							1				pk above
5165N	38	-	-	-	20	80	50	grey	-	-	150	130	160	244							2				Red int. ash flint tuff.
5185N	39	-	-	-	20	80	110	grey	-	-	150	22	108	42							1				?
5205N	40	5	-	5	10	80	50	"	-	-	100	88	200	45							2				?
5225N	41	30	-	20	20	10	30	brn	-	-	100	56	80	17							1				Red fine green int. tuff
5245N	42	30	-	20	30	20	40	"	-	-	100	44	29	10							1				Red tuffaceous shale
5265N	43	30	-	20	30	20	40	"	-	-	100	37	14	10							1				pk tuffaceous shale - int. tuff.
5285N	44	20	-	20	50	10	40	"	-	-	100	65	36	37							1				pk int. ash flint tuff
5305N	45	30	-	10	40	20	40	red	-	-	100	56	53	54							1				Red int. tuff
5325N	46	30	-	10	40	20	30	brn	-	-	100	55	103	47							1				Red int. ash flint tuff.

E.L. 1972 NEMA. TAG.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

12
D.T.O. 1764

AREA LOMETER ANOMALIES - PHASE 1 SAMPLING
MAP OR PHOTO REFERENCE A for p11

SAMPLE Nos. 290646 - 290670

COLLECTED BY [Signature]

ANALYSED BY Zinc Geo. Bowen Hill

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations			
		Rock %	Latex %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Ex. Depth	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As		
LINE 1SE	(Cont)																									
5240mN	290646	20	-	20	50	10	B/C	30	brown	-	✓	-	39	142	46							4				of int. ash flow tff
5250mN	17	20	-	20	10	20	B	30	"	-	✓	100	39	138	69							1				Rock tuffaceous shale
5225mN	290648	5	-	5	60	30	B	10	"	-	✓	100	48	104	60							1				Rock int. ash flow tff
LINE 2SE																										
2500mE To 2450mE																										
4860mN	290649	30	-	6	30	30	WB	100	brown	-	✓	-	44	80	120							1				of tuffaceous shale
4840mN	290650	20	-	20	20	40	"	100	"	-	✓	-	47	220	110							1				As above
4820mN	51	20	-	20	30	30	"	10	"	-	✓	-	55	220	93							4				As above
4800mN	52	30	-	6	30	30	"	70	"	-	✓	-	71	92	26							4				As above
4780mN	53	30	-	20	20	30	"	30	"	-	✓	-	30 300	175 177	65 64							6				As above
4760mN	54	20	-	20	30	30	"	100	"	-	✓	-	25	110	34							1				of altered quartz aged ash flow crystal tff
4745mN	55	30	-	20	20	30	"	100	"	-	✓	-	18	94	8							4				As above
4735mN	56	20	-	10	30	40	"	30	"	-	✓	-	51	65	21							4				of green intra tff
4705mN	57	20	-	6	30	40	"	30	"	-	✓	-	52	105	59							1				of tuffaceous shale
4685mN	58	20	-	20	20	40	"	30	"	-	✓	-	36	71	62							2				As above
4665mN	59	20	-	20	20	40	"	30	"	-	✓	-	57	102	45							1				As above
4650mN	290660	30	-	20	10	40	"	30	"	-	✓	-	78	129	120							2				As above
LINE 3SE																										
2470mE																										
4645mN	290661	20	-	20	20	40	WB	30	brown	-	✓	-	45	50	22							1				of tuffaceous shale
4625mN	62	20	-	20	20	40	"	50	"	-	✓	50	32	39	20							1				Rock as above
4605mN	63	30	-	10	20	40	"	50	"	-	✓	50	34	61	26							1				As above
4585mN	64	30	-	10	20	40	"	60	"	-	✓	60	28	32	10							1				As above
4565mN	65	20	-	10	30	40	WB	70	"	-	✓	60	34	23	18							1				As above
4545mN	290666	5	-	6	65	20	B	30	"	-	✓	60	32	38	36							1				As above
LINE 4SE																										
1500mE																										
6135mN	290667	15	-	15	30	40	WB	50	brown	-	✓	-	47	62	22							2				of lapilli tff
6115mN	68	15	-	15	30	40	"	50	"	-	✓	50	52	82	16							1				Rock as above
6175mN	69	20	-	20	20	40	"	60	"	-	✓	60	33	58	15							1				Rock of tff
6195mN	290670	5	-	5	15	75	WB	50	"	-	✓	80	71	129	26							2				Relict intra tff - tuffaceous shale

E.L. 19/72 NETA TRS.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

DAO. 1764. 13

AREA LOYETER ANOMALIES - PHASE 1 SAMPLING.

SAMPLE Nos. 290671 - 290695

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A.P. p. 12

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Depth (cm)	Colour (Munsell Chart No.)	pH	Bedrock			Metal content, p. p. m.										Geological observations				
		Rock %	Latitude %	Sand %	Silt %	Clay %					Outcrop	Concealed	Est. Depth	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As					
LINE SE	(Cont)																											
6215M	290671	10	-	25	10	5	WB	70	black	-	✓	-	24	39	10											41	dc intermediate tuff	
6235N	72	5	-	15	20	60	"	60	"	-	✓	A0	28	75	16											2	Rock fine inter tuff	
6255N	73	10	-	10	10	70	"	30	"	-	✓	30	32	80	10											2	Rock tuffaceous shale	
6275N	74	5	-	5	30	60	"	30	"	-	✓	-	34	85	7											1	dc agglomerate	
6295N	75	5	-	2	10	65	"	30	"	-	✓	-	42	103	10											2	As above	
6315N	76	-	-	5	20	75	B	50	"	-	✓	60	58	110	21											1	?	
6335N	77	5	-	20	10	65	B/WB	70	"	-	✓	90	60	116	22											2	Rock white quartz	
6355N	78	5	-	10	10	65	"	70	"	-	✓	90	39	103	14											1	Rock possibly shale or silt	
6375N	79	5	-	6	20	65	"	40	"	-	✓	-	41	92	11											1	dc aggl	
6395N	290680	5	-	15	30	40	WB	60	red	-	✓	60	37	90	19											1	Rock aggl	
6415N	81	20	-	20	20	20	"	50	black	-	✓	60	25	68	12											1	As above	
6435N	82	10	-	20	10	60	"	60	"	-	✓	80	22	54	10											4	As above	
6455N	83	5	-	15	20	60	"	110	"	-	✓	180	22	69	11											1	As above	
6475N	84	5	-	10	20	65	B/WB	40	"	-	✓	-	20	50	5											1	dc siliceous aggl.	
6495N	85	-	-	5	20	75	"	40	"	-	✓	80	13	34	3											1	?	
6515N	90.6.86	10	-	10	20	60	"	30	"	-	✓	-	11	25	5											4	dc altered stage ash flow tuff	
LINE SE																												
2000NE																												
6575M	290687	20	-	20	30	30	B/WB	80	black	-	✓	-	190	189	5												1	dc agglomerate
6595N	88	10	-	20	40	20	B	60	"	-	✓	60	210	250	8												4	Rock aggl.
6415N	89	20	-	20	40	20	"	40	"	-	✓	-	290	360	8												4	dc int ash flow tuff
6435N	290690	10	-	20	60	10	"	30	"	-	✓	-	190	270	5												1	As above
6455N	91	20	-	20	30	30	"	30	"	-	✓	-	120	191	8												4	As above
6475N	92	10	-	10	10	40	"	30	"	-	✓	80	73	150	9												1	Rock int ash flow tuff to aggl.
6495N	93	-	-	10	30	20	"	50	"	-	✓	80	91	132	8												4	?
6515N	94	20	-	20	30	30	"	30	"	-	✓	-	89	145	11												1	dc agglomerate
6535N	290695	20	-	10	60	10	"	30	"	-	✓	-	130	240	20												1	As above
LINE SE																												
2500NE																												
6580M	290696	10	-	10	10	20	B	30	black	-	✓	-	48	40	13												4	dc fine tuff
6600N	97	10	-	20	30	40	WB	30	"	-	✓	A0	65	63	16												1	Rock fine tuff
6620N	290698	10	-	20	30	40	B	30	"	-	✓	50	81	81	5												1	As above

EL. 1972 NIETM. TAG.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.F.O. 1774 (to 290702) 4.
D.F.O. 1776 (from 290709)

AREA LOVETEA ANOMALIES - PHASE 1 SAMPLING

SAMPLE Nos. 290699 - 290708
290709 - 290778

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE

for p. 12

ANALYSED BY ZINC COAT. BROKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample				Bedrock		Metal content, p. p. m.										Geological observations		
		Root %	Latitude %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Overcap	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As			
LINE 25E (cont)																										
6460W	290699	6	-	6	6	6	B	30	brown	-	-	✓	60	130	100	8						41				Red shale
6460 N	290700	6	-	6	6	6	"	30	"	-	-	✓	60	150	150	10						1				As above
6480 N	01	6	-	6	6	6	"	40	"	-	-	✓	80	160	162	11						41				As above
6500 N	02	20	-	6	30	6	"	40	"	-	-	✓	80	160	164	11						41				Red argillaceous
6520 N	03	6	-	6	6	6	"	30	"	-	-	✓	-	170	250	10						1				etc argill
6540 N	04	20	-	20	20	6	WS	50	"	-	-	✓	70	450 440	310 340	14						1				Red argill
6560 N	290705	20	-	20	20	6	WS	30	"	-	-	✓	-	360	280	8						1				etc argill
LINE 30E																										
3000E																										
6640W	290706	20	-	6	6	6	WS	30	brown	-	-	✓	40	10	28	21						41				Red tuff. to shale
6620 N	07	20	-	6	6	15	WS	30	"	-	-	✓	-	10	39	4						41				etc argillaceous
6600 N	290708	20	-	6	6	6	B	30	"	-	-	✓	-	19	122	1						41				As above
4960N	290709	20	-	20	20	6	B	30	"	-	-	✓	60	96	74	49						41				Red tuffaceous shale
4980N	290710	5	-	5	5	6	A	10	"	-	-	✓	-	170 170	75 40	44						41				etc unmetamorphosed shale
5000N	61	20	-	20	20	6	B	30	"	-	-	✓	100	39	57	35						41				Red tuffaceous shale & multi. tuff
5020N	62	30	-	6	6	20	WS	40	"	-	-	✓	60	220	60	25						1				As above
5040N	63	30	-	6	6	20	B	30	"	-	-	✓	80	220	111	33						1				As above
5060N	64	20	-	6	6	6	"	30	"	-	-	✓	-	71	69	22						1				etc argillaceous tuff
5080N	65	20	-	6	6	6	WS	60	red	-	-	✓	80	33	69	17						1				Red tuffaceous shale
5090N	66	20	-	20	20	6	"	90	"	-	-	✓	-	35	126	48						1				etc interbedded? argillaceous tuff
5110N	67	20	-	20	20	6	"	50	"	-	-	✓	-	15	67	10						1				etc lapilli tuff
5130N	68	6	-	20	30	6	"	80	"	-	-	✓	60	32	83	31						1				Red possibly argill
5145N	69	20	-	20	20	6	B	40	brown	-	-	✓	80	36	39	15						4				Red tuffaceous shale
5165N	290770	5	-	5	85	5	WS	30	dk brown	-	-	✓	-	28	52	32						4				etc tuffaceous shale
5185N	71	6	-	6	70	6	"	50	"	-	-	✓	-	28	32	50						1				As above
5205N	72	6	-	6	60	6	B	70	brown	-	-	✓	-	46	48	67						1				etc fine grained tuff - tuffaceous
5220N	73	6	-	6	50	6	"	50	"	-	-	✓	-	40	39	36						1				etc tuffaceous shale
5240N	74	6	-	6	70	6	WS	30	"	-	-	✓	-	35	35	13						4				etc quartz argillaceous or siliceous tuff
5260N	75	6	-	6	6	6	"	30	"	-	-	✓	-	21	38	13						4				As above
5280N	76	6	-	6	6	6	B	30	"	-	-	✓	-	130	189	3						4				As above - siliceous
5300N	77	30	-	20	6	6	"	30	"	-	-	✓	60	140	79	6						1				Red quartz argillaceous tuff
5320N	290778	6	-	6	70	6	"	30	"	-	-	✓	-	70	69	5						4				etc argillaceous to lapilli tuff

E.L. 1972 NIETTA TAS.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.F.O. 17765.

AREA LAYTEA ANOMALIES - PHASE 1 SAMPLING.
MAP OR PHOTO REFERENCE As for fig.

SAMPLE No. 29077 - 290810

COLLECTED BY [Signature]
ANALYSED BY ZINC CORP. BROCKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations		
		Rock %	Latexite %	Sand %	SH %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Overtop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As	
5360N	290779	20	-	20	20	40	R	30	brown	-	✓	-	260	71	17						41				alc siliceous aggl. and crystalline chert
5355N	290780	20	-	10	10	60	-	40	"	-	✓	-	260	220	25						41				alc siliceous tuff. shale
5375N	81	20	-	10	65	5	A	20	"	-	✓	-	25	30	7						41				alc unalt. ash flow tuff (interior?)
5395N	82	10	-	10	70	10	A/B	30	"	-	✓	-	30	40	15						41				alc tuffaceous shale
5415N	83	20	-	20	30	30	B	40	"	-	✓	80	41	30	27						41				Rock tuff. shale
5435N	84	20	-	20	40	20	"	80	"	-	✓	100	48	32	36						1				As above
5460N	85	20	-	20	40	20	"	40	"	-	✓	80	34	37	29						41				As above
5470N	86	20	-	20	40	20	"	30	"	-	✓	100	60	42	27						1				As above
5490N	87	20	-	10	60	10	"	50	"	-	✓	80	68	62	24						1				As above
5510N	88	20	-	10	60	10	A/B	30	"	-	✓	80	35	37	9						1				As above
5530N	89	20	-	10	60	10	B	40	"	-	✓	100	71	38	19						1				As above
5550N	290790	10	-	10	70	10	"	50	"	-	✓	120	48	47	13						1				As above
5565N	91	10	-	10	70	10	"	30	"	-	✓	150	17	69	9						1				As above
5585N	92	20	-	20	40	20	"	40	"	-	✓	50	29	44	15						41				alc fine interm. tuff.
5605N	93	20	-	10	60	10	"	50	"	-	✓	150	43	62	27						41				As above
5625N	94	10	-	40	30	20	Shale	90	"	-	✓	-	67	460	23						1				alc siliceous agglomerate or congl.
5645N	95	30	-	20	50	-	A	30	shale	-	✓	-	220	400	18						1				alc congl. or aggl.
5665N	96	20	-	20	40	20	WB	40	brown	-	✓	-	260	210	18						1				As above
5680N	97	20	-	10	70	-	A	30	"	-	✓	-	120	210	14						41				As above
5700N	98	10	-	5	40	35	B	40	"	-	✓	120	71	110	17						1				alc fine unalt. vit. tuff.
5715N	99	20	-	5	35	40	A/B	50	"	-	✓	120	22	83	15						41				alc fine tuff.
5735N	290800	20	-	10	60	10	A/B	40	"	-	✓	150	20	56	12						41				Rock shale
5750N	01	10	-	10	40	40	B	30	"	-	✓	100	24	70	21						41				As above
5770N	02	20	-	10	30	40	A/B	50	"	-	✓	80	23	62	14						1				As above
5790N	03	20	-	10	40	30	B	30	"	-	✓	-	24	46	13						41				alc congl. to aggl.
5805N	04	20	-	20	40	20	"	30	"	-	✓	80	17	39	11						41				Rock tuff. shale
5825N	05	20	-	20	30	30	A/B	30	"	-	✓	-	150	46	21						41				alc silic. aggl. (or congl.)
5845N	06	20	-	20	40	20	A/B	30	"	-	✓	-	9	19	3						41				As above
5860N	07	20	-	10	40	20	B	30	"	-	✓	-	15	28	11						41				As above
5880N	08	20	-	25	30	25	"	50	"	-	✓	-	7	17	3						41				alc altered shaly ash flow tuff.
5900N	09	10	-	15	20	55	WB	100	"	-	✓	100	6	17	3						41				alc poorly indur.
5915N	290810	20	-	10	60	10	"	80	high	-	✓	80	7	13	2						41				As above

E.L. 19/72 NETA. TAS.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

V.P.O. 1763.

17.

AREA LOYTEA ANOMALIES - PHASE 1 SAMPLING.

SAMPLE Nos. 290843 - 290873

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A-16

ANALYSED BY ZINC CAN BAKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations			
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Concentrated	Est. Depth	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As		
5200 N	290843	-	-	-	60	-	A	30	dk brown	-	✓	-	29	58	4											o/c shaly siltstone
6540 N	44	6	-	5	85	-	A	30	brown	-	✓	-	17	34	1											A above
6555 N	45	6	-	6	70	6	A/B	40	"	-	✓	-	20	80	3											A above
6575 N	46	6	-	6	70	6	B	20	dk brown	-	✓	-	14	60	2											A above
6590 N	47	6	-	6	70	6	B	30	red	-	✓	-	28	57	11											A above
6600 N	48	30	-	6	20	40	"	50	brown	-	✓	80	29	25	2											Rock fine tuff
6600 N	49	20	-	6	10	60	WB	50	"	-	✓	60	24	45	7											A above
6600 N	290850	6	-	6	20	60	"	50	red	-	✓	60	37	25	15											A above in shale
6720 N	51	20	-	6	10	60	"	50	"	-	✓	60	37	4	12											Rock fine shaly siltstone tuff
6740 N	52	20	-	6	10	60	"	50	brown	-	✓	60	31	9	6											Rock fine tuff
6760 N	53	20	-	6	6	60	"	40	"	-	✓	40	26	18	22											Rock fine shaly tuff
6780 N	54	5	-	5	10	80	WB	80	orange	-	✓	100	38	62	17											Rock shale
6800 N	55	5	-	5	20	70	"	80	brown	-	✓	60	33	27	17											A above
6820 N	56	20	-	6	30	40	"	40	"	-	✓	60	25	20	7											A above
6840 N	57	6	-	6	20	60	"	40	"	-	✓	60	33	60	7											A above
6860 N	58	6	-	6	10	70	B	80	"	-	✓	-	40	12	9											o/c aggl.
6880 N	290859	20	-	20	20	40	WB	50	"	-	✓	60	35	56	7											Rock fine siltstone aggl.
6900 N	290861	30	-	20	40	10	B	30	"	-	✓	-	51	78	2											o/c tuffe shale aggl.
6920 N	61	20	-	20	20	40	WB	90	"	-	✓	90	30	65	43											Rock chert
6940 N	62	20	-	20	40	40	B	80	"	-	✓	60	43	66	28											A above
6980 N	63	20	-	6	60	10	A/B	30	"	-	✓	60	78	115	30											A above
6860 N	64	20	-	20	30	30	B	70	"	-	✓	60	96	380	82											A above
6840 N	65	20	-	20	20	10	"	40	"	-	✓	90	17	33	20											A above
6820 N	66	20	-	20	30	30	"	30	"	-	✓	60	25	26	24											A above
6800 N	67	30	-	20	20	30	"	30	"	-	✓	60	18	32	23											A above
6780 N	68	20	-	20	40	20	"	30	"	-	✓	60	15	11	12											o/c shale
6760 N	69	20	-	20	20	40	WB	50	"	-	✓	80	31	53	18											Rock shale
6740 N	290870	6	-	20	30	40	B	40	"	-	✓	-	7	30	10											o/c quartz aggl cement tuff
6720 N	71	6	-	40	30	20	A/B	40	"	-	✓	-	12	43	11											A above to latite tuff
6700 N	72	6	-	40	30	20	B	100	"	-	✓	-	10	31	11											A above
6680 N	290873	6	-	40	30	20	WB	30	brown	-	✓	-	11	47	2											o/c coarse quartz aggl siltstone aggl

E.L. 19/72 NIETA. TAS.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

470. 1765.

18.

AREA LOVETERA ANOMALIES - PHASE 1 SAMPLING.

SAMPLE Nos. 290874 - 290903

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A 17

ANALYSED BY ZINC CAP. BROKEN HILL

Grid Co-ordinate	Sample No.	Soil composition				Soil Horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations					
		Rock %	Levitic %	Sand %	Silt %		Clay %	Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Consolidated	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag		Mo	As			
LINE 35E																											
3550ME																											
S140W	290874	20	-	20	30	30	UB	br	brn	-	/	-	30	63	160												of tuff shale
S120	75	20	-	20	30	30	B	br	brn	-	/	-	19	44	59												to above
S100 N	76	20	-	20	30	30	"	br	brn	-	/	-	22	24	24												to above
S030 N	77	20	-	20	30	30	"	br	brn	-	/	-	17	14	20												to above
S010 N	78	20	-	20	30	30	"	br	brn	-	/	-	14	22	32												to above + crystal tuff.
S040 N	77	20	-	20	30	30	"	br	brn	-	/	-	17	50	46												to above
S020 N	290880	20	-	20	30	30	"	br	brn	-	/	-	10	20	20												to above
S020 N	81	20	-	20	30	30	"	br	brn	-	/	-	28	60	30												to above
A950 N	82	20	-	20	30	30	B	br	brn	-	/	80	25	37	56												Rock shale
A960 N	83	20	-	20	30	30	"	br	brn	-	/	80	20	36	17												to above
A940 N	84	20	-	20	30	30	"	br	brn	-	/	80	45	23	32												to above
A920 N	85	20	-	20	30	30	"	br	brn	-	/	80	25	23	31												to above
A900 N	86	10	-	20	30	30	"	br	brn	-	/	-	21	50	21												of tuff shale
A880 N	87	10	-	10	30	30	"	br	brn	-	/	80	21	20	23												Rock shale
A860 N	88	10	-	-	30	30	"	br	brn	-	/	80	2	11	3												to above + white quartz
A840 N	89	20	-	20	30	30	"	br	brn	-	/	-	13	28	3												of int. crystal tuff.
A820 N	290890	20	-	10	30	30	B	br	brn	-	/	80	65	75	15												Rock tuff shale
A800 N	91	30	-	20	30	30	B	br	brn	-	/	80	21	13	16												to above
A780 N	92	20	-	20	30	30	"	br	brn	-	/	80	67	23	39												to above
A760 N	290893	20	-	20	30	30	"	br	brn	-	/	80	61	24	53												to above
	290894	20	-	10	30	30	"	br	brn	-	/	-	17	25	57												of tuff shale.
	95	20	-	20	30	30	"	br	brn	-	/	-	11	19	41												to above
	96	30	-	10	30	30	"	br	brn	-	/	-	14	25	77												to above
	97	30	-	10	30	30	"	br	brn	-	/	-	11	30	90												to above
	98	20	-	20	30	30	B	br	brn	-	/	-	14	21	94												to above
	99	10	-	10	30	30	"	br	brn	-	/	80	17	28	73												Rock shale
	290900	20	-	10	30	30	"	br	brn	-	/	-	24	21	55												of int. tuff & shale
	01	20	-	20	30	30	"	br	brn	-	/	-	24	30	52												to above
	02	20	-	20	30	30	"	br	brn	-	/	80	24	25	41												Rock shale
	290903	10	-	10	30	30	"	br	brn	-	/	80	14	25	58												to above

E.L. 1712 NETA. TRS.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.F.O. 17765. 20.

AREA LYETERA ANOMALIES - PHASE 1 SAMPLING.

SAMPLE Nos. 291548 - 291579

COLLECTED BY W. J. ...

MAP OR PHOTO REFERENCE

ANALYSED BY ZINC COP. BRACKEN HILL.

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations					
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As				
LINE 55E (Cont.)	291548	10	-	6	60	20	B	30	brown	-	✓	-	13	32	11												gc. quartz aggl. cemented tuff	
	49	30	-	30	30	10	B	30	"	-	✓	-	30	134	43												gc. silt aggl. (sandy)	
	291550	20	-	20	30	30	B	40	"	-	✓	-	21	17	10												gc. quartz aggl. cemented tuff	
	51	30	-	20	50	-	B	20	"	-	✓	-	12	23	7												gc. silt. cemented tuff	
	52	10	-	10	20	60	B	10	red	-	✓	80	22	30	18												Rock shale	
	53	20	-	10	60	10	B	50	"	-	✓	80	22	32	21												As above	
	54	20	-	20	30	30	B	40	"	-	✓	60	23	40	21												Rock aggl.	
	55	10	-	10	40	40	"	50	"	-	✓	70	20	66	21												Rock shale	
	56	30	-	20	40	10	B	40	brown	-	✓	100	21	103	24												As above	
	57	30	-	20	50	-	B	20	"	-	✓	-	22	66	18												gc. fine int. tuff.	
	58	30	-	20	40	10	B	40	"	-	✓	80	47	84	32												Rock shale	
	59	20	-	20	60	-	"	30	"	-	✓	-	44	46	33												gc. shale	
	291560	30	-	20	40	10	"	30	"	-	✓	80	44	46	31												Rock shale	
	61	30	-	20	40	10	"	40	"	-	✓	80	62	114	33												As above	
	62	10	-	20	60	10	"	40	"	-	✓	80	33	90	24												Rock fine int. tuff.	
	63	20	-	20	20	40	WB	40	"	-	✓	60	33	42	30												Rock shale	
	64	30	-	10	20	40	WB	40	"	-	✓	60	12	11	7												As above	
	65	20	-	10	60	60	WB	50	red	-	✓	-	49	107	29												gc. shale	
	66	20	-	20	20	40	B	20	brown	-	✓	80	32	39	14												Rock shale	
	67	20	-	20	30	30	WB	20	red	-	✓	80	48	73	14												Rock fine int. tuff. & shale	
	68	10	-	20	20	50	WB	40	"	-	✓	60	40	140	18												Rock fine int. tuff.	
	69	20	-	20	20	40	"	40	"	-	✓	60	27	72	11												As above or tuff. sh.	
	291570	10	-	10	40	40	B	30	brown	-	✓	60	35	35	20												Rock shale	
	71	20	-	10	10	60	WB	30	"	-	✓	60	11	19	5												As above	
	72	20	-	20	30	30	"	30	"	-	✓	-	78	64	15												gc. siliceous lapilli tuff or aggl.	
	73	20	-	10	30	40	WB	30	"	-	✓	30	10	10	3												Rock tuffe shale.	
	74	20	-	10	30	40	WB	50	"	-	✓	-	27	26	79												gc. tuffe shale	
	75	30	-	20	20	30	WB	40	"	-	✓	60	47	19	47												Rock shale	
	76	30	-	20	30	20	B	30	"	-	✓	60	31	20	14												As above	
	77	20	-	10	60	60	WB	30	red	-	✓	90	33	30	18												As above	
	78	20	-	10	60	60	B	30	brown	-	✓	20	83	67	27												As above	
	291579	20	-	10	60	60	WB	70	red	-	✓	-	35	33	22													gc. tuffe shale

C.R.A.E. 31.

E.L. 19/72 NIETA. TRS

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D. 20. 1765

21

AREA LOYTERA ANOMALIES - FRAME 1 SAMPLING.

SAMPLE Nos. 291580 - 291593

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A. 1. p. 20

ANALYSED BY ZINC CORP. BROCKEN HILL

Grid Co-ordinates	Sample No.	Soil composition					Soil texture	Sample			Bedrock		Metal content, p. p. m.										Geological observations				
		Rock %	Lite %	Sand %	SIN %	Clay %		Depth (cm)	Colour (Munsell Chart No)	pH	Outcrop	Concatted	Est. Depth %	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As			
LINE 35 (CAL)	291580	2	-	20	30	30	B	16	brown	-	✓	-	76	37	21					41							pl. tuffic shale
	81	20	-	10	60	60	"	30	"	-	✓	-	70	38	24				1							shale	
	82	20	-	10	60	60	"	30	"	-	✓	60	75	52	29				1							Rock shale	
	83	10	-	10	60	70	"	10	red	-	✓	16	63	58	36				1							sh. above	
	84	10	-	10	60	70	"	10	brown	-	✓	16	63	62	13				41							sh. above	
	85	5	-	10	65	20	"	30	"	-	✓	-	100	123	16				41							pl. int. crystalline diorite	
	86	10	-	10	80	-	"	30	"	-	✓	-	120	144	4				1							sh. above	
	87	-	-	-	60	-	A	30	"	-	✓	-	130	44	21				41								sh. above
	88	15	-	10	75	-	A	10	sh. brown	-	✓	200	180	119	30				1								Rock as above to rhyolite
	89	20	-	5	75	-	"	10	"	-	✓	200	220	154	26				1								Rock shale
	291590	30	-	10	60	-	"	30	"	-	✓	200	170	74	20				41								Rock possibly rhyolite
	91	30	-	10	60	-	"	50	"	-	✓	150	170	430	29				7								Rock red or with ash flow?
	92	30	-	10	60	-	"	50	"	-	✓	200	81	96	21				4								Rock s-d.
291593	30	-	10	60	-	"	50	"	-	✓	-	110	75	23				41								pl. r-d to diorite	

E.L. 1972. NIETA. TAS.

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

MAP O. 17167.

22.

AREA LOYTEA ANOMALIES - SOUTHERN GRID - PHASE 2 SAMPLING SAMPLE Nos. 291980 - 292009
 MAP OR PHOTO REFERENCE LOYTEA ANOMALIES E.L. 1972 NIETA TAS 1:5000 SHEET 2 - PHASE 2 SAMPLING

COLLECTED BY [Signature]
 ANALYSED BY ZINC GRAN BROKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample				Bedrock		Metal content, p. p. m.										Geological observations		
		Rock %	Levein %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell) Chart No.	pH	Outcrop	Consolidated	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As			
LINE 22E																										
2200mE																										
A510mN	291980	20	-	10	10	60	US	10	red	-	-	✓	10	18	32	13					4					Rock shale
A730 N	81	20	-	6	20	60	-	150	"	-	-	✓	150	20	76	26					1					As above
A550 N	82	20	-	6	10	60	"	30	"	-	-	✓	30	18	62	12					4					of c. shale
A570 N	83	20	-	10	60	60	B	30	brown	-	-	✓	60	94	23	18					2					Rock shale
A590 N	84	20	-	10	6	60	8/B	50	red	-	-	✓	50	81	30	15					1					As above
A610 N	85	20	-	10	60	60	B	30	brown	-	-	✓	60	44	14	12					4					As above
A630 N	86	20	-	10	60	30	"	10	"	-	-	✓	80	40	23	19					1					As above
A650 N	87	20	-	6	60	60	US	60	"	-	-	✓	-	72	79	25					1					of c. shale
A670 N	88	20	-	10	60	60	"	10	red	-	-	✓	10	25	18	14					4					Rock shale
A690 N	89	20	-	20	30	30	B	30	brown	-	-	✓	-	43	39	23					1					of c. shale
A710 N	291990	20	-	6	60	30	"	30	"	-	-	✓	-	39	31	15					4					of c. shale - int. crystal tuff
A730 N	91	20	-	6	30	40	"	30	"	-	-	✓	-	45	23	14					1					of c. inter crystal tuff
A750 N	92	20	-	10	6	60	US	10	red	-	-	✓	-	48	25	19					1					of c. shale
A770 N	93	20	-	6	60	60	"	100	"	-	-	✓	100	37	43	19					1					Rock shale
A790 N	94	20	-	6	60	60	"	50	"	-	-	✓	60	37	38	15					1					Rock shale
A810 N	95	20	-	20	40	40	B	30	brown	-	-	✓	-	53	77	36					1					of c. shale
A830 N	96	20	-	20	40	20	8/US	30	"	-	-	✓	-	40	94	34					1					As above
A850 N	97	20	-	20	40	20	B	100	"	-	-	✓	200	16	160	17					1					Rock shale
A870 N	98	20	-	20	20	40	8/US	60	"	-	-	✓	70	32	74	26					1					Rock grey aged tuff
A890 N	99	5	-	5	20	70	US	100	"	-	-	✓	100	20	94	27					4					Rock shale
A910 N	292000	20	-	20	20	40	"	60	"	-	-	✓	60	57	143	72					1					As above
A930 N	01	20	-	10	40	30	B	50	"	-	-	✓	80	33	39	25					4					As above
A950 N	02	20	-	6	40	30	"	50	"	-	-	✓	40	72	61	35					1					As above
A970 N	03	20	-	10	60	60	"	80	"	-	-	✓	100	91	124	44					1					As above
A990 N	04	20	-	10	40	30	"	60	"	-	-	✓	60	71	74	23					1					As above
S010 N	05	5	-	10	20	65	"	100	"	-	-	✓	100	30	70	23					1					As above
S030 N	06	20	-	6	40	30	"	30	"	-	-	✓	60	36	55	12					1					As above Red agglomerate
S050 N	07	20	-	10	40	30	"	30	"	-	-	✓	60	200	112	18					1					As above
S070 N	08	5	-	20	40	35	"	60	"	-	-	✓	80	20	27	9					1					As above
S090 N	292009	10	-	20	30	40	"	30	"	-	-	✓	10	20	31	9					1					As above

466146

C.R.A.E. 31.

E.L. 19/72 NIETRA. TNS.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

H. 70. 17767 (to 292088)
D. 70. 17770 (from 292089)

24.

AREA LOYTERA ANCHILLES - SOUTHERN GRID.

SAMPLE Nos. 292069 - 292098

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE B 2 23

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Coordinate	Sample No. (Cont.)	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations			
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth m	Colour (Munsell Chart No.)	pH	Outcrop	Concassate	Est. Depth m	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As		
LINE 28E																										
A950mN	292069	20	-	6	6	6	WB	6	red	-	-	5	25	54	56					41						Rock shale
A970mN	292070	20	-	6	6	6	-	6	-	-	-	6	26	36	36					1					As above	
A990mN	71	20	-	20	20	20	B	50	-	-	-	70	25	39	23					41					As above - 2' tuff	
5010mN	72	20	-	6	6	6	WB	30	brown	-	-	60	130	121	43					41					Rock fine tuff shale	
5030mN	292073	20	-	6	6	6	-	30	-	-	-	-	89	88	33					41					o/c shale	
5050mN	74	20	-	6	6	6	WB	30	-	-	-	60	40	18	12					41					Rock shale	
5070mN	75	20	-	6	6	6	WB	60	-	-	-	60	88	64	42					41					As above	
5090mN	76	20	-	6	6	6	WB	60	-	-	-	60	49	86	34					1					As above	
5110mN	77	60	-	5	65	20	WB	50	-	-	-	200	33	122	16					1					As above	
5130mN	78	20	-	6	6	6	B	60	-	-	-	60	27	73	23					41					As above	
5150mN	79	20	-	20	6	6	-	30	-	-	-	60	24												Rich shale conglomerate	
5170mN	292080	30	-	20	6	6	-	60	-	-	-	60	24	73	23					41					As above	
5190mN	81	20	-	6	6	6	-	60	-	-	-	60	32	95	32					1					Rock conglomerate	
5210mN	82	20	-	6	6	6	-	60	-	-	-	60	46	93	17					41					As above	
5230mN	83	30	-	6	6	6	-	30	-	-	-	60	28	138	5					41					As above - congl	
5250mN	84	20	-	20	6	6	WB	30	-	-	-	60	32	80	31					41					Rock shale	
5270mN	85	60	-	20	6	6	B	30	-	-	-	60	39	117	12					41					Rock congl or congl	
5290mN	86	20	-	6	6	6	-	60	-	-	-	60	12	65	24					41					As above	
5310mN	87	20	-	60	20	20	-	60	white	-	-	60	4	4	1					41					Rock white quartz	
5330mN	292088	20	-	6	6	6	WB	60	brown	-	-	60	6	6	2					41					Rock shale	
LINE 28E																										
2400mE																										
A570mN	292089	20	-	6	6	6	B	50	brown	-	-	60	54	21	25					41					Rock shale	
A550mN	292090	20	-	6	6	6	-	30	-	-	-	60	57	60	33					1					As above	
A530mN	91	20	-	6	6	6	-	50	-	-	-	60	58	36	23					41					As above	
A510mN	92	20	-	6	6	6	-	60	-	-	-	60	47	59	31					1					As above	
A490mN	93	20	-	20	20	6	WB	30	-	-	-	60	33	36	26					41					o/c altered and flinty tuff	
A470mN	94	20	-	6	6	6	B	60	-	-	-	60	45	52	34					41					o/c shaly tuff shale	
A450mN	95	20	-	20	6	6	-	30	-	-	-	60	43	77	25					41					o/c intermediate congl tuff	
A430mN	96	20	-	6	6	6	WB	60	-	-	-	60	54	27	23					1					Rock shale	
A410mN	97	20	-	6	6	6	WB	60	-	-	-	60	36	33	24					41					As above	
A390mN	98	20	-	6	6	6	WB	30	-	-	-	60	22	36	16					41					As above	

C.R.A.E. 31.

E.L. 19/12 NIETRA TRG.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

470.7770

AREA LOYETER ANOMALIES - SOUTHERN CRG.

SAMPLE Nos. 292099 - 292130

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE to p. 14.

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations					
		Root %	Leaves %	Stems %	Str %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Concentrated	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As				
A750m N	292099	20	-	20	20	A	B	10	brown	-	-	✓	60	69	91	4.1												Red shale
A750 N	292100	20	-	20	20	A	B	10	"	-	-	✓	60	77	79	5.0												g/c shale
A770 N	01	20	-	20	20	A	Yus	10	"	-	-	✓	60	72	47	4.1												Red tuffaceous shale
A790 N	02	30	-	20	20	B	B	30	"	-	-	✓	60	35	31	21												Red shale
A810 N	03	30	-	20	10	A	WB	10	"	-	-	✓	60	38	34	20												g/c shale
A820 N	04	20	-	10	10	B	"	50	red	-	-	✓	60	47	44	4.6												Red shale
A850 N	05	20	-	10	10	B	"	10	"	-	-	✓	60	28	43	4.3												lt. sh.
A870 N	06	20	-	10	10	B	"	10	"	-	-	✓	80	26	78	6.2												lt. sh.
A890 N	07	30	-	10	20	A	WB	10	red	-	-	✓	60	13	18	2.4												Abnorm. (collected)
A910 N	08	20	-	10	10	B	"	10	"	-	-	✓	50	34	11	4.2												Red shale
A930 N	09	20	-	10	10	B	"	30	"	-	-	✓	60	11	12	1.8												lt. sh.
A950 N	292110	20	-	10	10	B	Yus	60	"	-	-	✓	80	16	22	2.1												lt. sh.
A970 N	11	20	-	10	10	B	"	50	"	-	-	✓	70	11	15	1.3												lt. sh.
A990 N	12	20	-	10	10	B	"	10	"	-	-	✓	60	24	24	2.7												lt. sh.
5010 N	13	20	-	20	20	A	B	50	"	-	-	✓	100	31	30	2.4												lt. sh.
5030 N	14	10	-	10	20	B	"	50	"	-	-	✓	60	31	38	2.2												lt. sh.
5050 N	15	10	-	10	10	B	"	80	"	-	-	✓	100	54	52	2.6												lt. sh.
5070 N	16	10	-	10	10	B	"	100	"	-	-	✓	150	20	118	2.9												lt. sh.
5090 N	17	10	-	10	10	B	"	100	"	-	-	✓	100	120	103	1.8												lt. sh.
510 N	18	10	-	10	10	B	"	100	"	-	-	✓	200	170	161	1.3												lt. sh.
5120 N	19	20	-	10	10	B	"	30	"	-	-	✓	80	53	95	2.2												lt. sh.
5150 N	292120	30	-	10	10	B	"	10	"	-	-	✓	70	73	158	2.9												lt. sh.
5170 N	21	30	-	10	20	B	Yus	10	"	-	-	✓	60	68	87	2.2												lt. sh.
5190 N	22	30	-	10	20	B	"	50	"	-	-	✓	80	63	83	1.9												lt. sh.
5210 N	23	20	-	10	10	B	"	30	"	-	-	✓	60	57	114	3.0												lt. sh.
5230 N	24	30	-	10	20	B	Yus	30	"	-	-	✓	50	109	121	5.5												lt. sh.
5250 N	292125	30	-	10	20	B	"	10	"	-	-	✓	60	82	66	1.9												lt. sh.
5270 N	292129	10	-	10	10	B	"	10	"	-	-	✓	60	17	170	4												Red argillaceous
5290 N	292130	10	-	10	10	B	"	30	"	-	-	✓	80	17	67	1.0												lt. sh. or cong.

C.R.A.E. 31.

E.L. 19/12 NIETA TAS.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 17770

26.

AREA LOYTEA ANOMALY - SOUTHERN GRID

SAMPLE Nos. 292131 - 292160

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE b f 125

ANALYSED BY Zinc Corp. Broken Hill

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m. -											Geological observations			
		Rock %	Latitude %	Sand %	Silt %	Clay %		Depth Centim.	Colour (Munsell)	Chart No.	pH	Outcrop	Concealed	Est. Depth m.	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As		
57100 N	292131	20	-	6	6	60	B	30	brown	-	✓	-	12	61	9						41						dc. argillaceous or quartz pebbly congl.
57300 N	32	20	-	10	20	60	WB	60	"	-	✓	60	21	32	63						41					Rock shale	
58500 N	33	20	-	20	40	60	B	30	"	-	✓	80	9	44	20						41					As above	
57000 N	292134	10	-	6	6	20	-	30	"	-	✓	100	11	31	16						41					As above	
Line 2c																											
2600 ME																											
4600 N	292135	10	-	20	60	60	B	30	brown	-	✓	-	37	63	5						41					dc. siliceous quartz gravel soil tuff	
4200 N	31	20	-	20	20	60	"	60	"	-	✓	-	17	26	5						41					As above	
4400 N	37	30	-	10	10	60	"	30	"	-	✓	80	25	20	8						41					Rock shale	
4600 N	38	20	-	6	6	60	WB	50	"	-	✓	60	53	149	23						1					As above	
4200 N	39	20	-	6	6	60	"	30	"	-	✓	50	44	112	33						41					As above	
4700 N	292140	20	-	6	6	60	"	30	red	-	✓	60	18	24	9						41					As above	
4720 N	41	20	-	20	20	60	"	30	"	-	✓	-	14	20	7						41					dc. shale	
4720 N	42	30	-	6	20	60	"	30	"	-	✓	-	120	77	21						2					dc. tuffaceous shale	
4760 N	43	20	-	6	6	60	"	30	"	-	✓	-	61	49	22						1					dc. shale	
4760 N	44	20	-	6	6	60	"	30	"	-	✓	-	61	49	22						1					dc. shale	
4760 N	44	20	-	6	6	60	B	10	"	-	✓	60	23	39	15						1					Rock shale	
4800 N	45	20	-	20	20	60	"	60	brown	-	✓	-	46	57	36						1					dc. siliceous tuff	
4800 N	46	20	-	10	10	60	WB	30	red	-	✓	60	32	41	12						41					Rock shale	
4840 N	47	20	-	6	6	60	"	60	"	-	✓	60	31	22	18						41					As above	
4860 N	48	20	-	6	6	60	B	50	brown	-	✓	-	43	41	25						1					dc. siliceous lapilli tuff	
4880 N	49	20	-	6	6	60	"	60	"	-	✓	80	39	19	21						1					Rock shale	
4900 N	292150	6	-	6	6	60	"	60	"	-	✓	100	23	15	8						1					As above	
4920 N	51	20	-	6	6	60	WB	60	red	-	✓	60	41	24	20						1					As above	
4960 N	52	20	-	20	20	60	B	60	"	-	✓	80	31	22	12						1					As above	
4960 N	53	20	-	6	6	60	WB	60	"	-	✓	80	31	29	15						1					As above	
4980 N	54	20	-	20	6	60	WB	60	"	-	✓	80	31	18	11						1					As above	
5000 N	55	20	-	6	6	60	B	30	brown	-	✓	80	37	10	11						1					As above	
5020 N	56	20	-	6	6	60	WB	30	red	-	✓	80	59	44	38						1					As above	
5060 N	57	20	-	6	6	60	WB	60	brown	-	✓	70	10	29	2						1					As above to fine tuff	
5060 N	58	20	-	6	6	60	B	60	"	-	✓	80	31	9	6						41					Rock shale	
5080 N	59	20	-	20	30	60	"	50	red	-	✓	60	21	45	10						1					Rock tuff	
5100 N	292160	20	-	20	20	60	"	60	"	-	✓	80	28	72	10						1					Rock tuff shale	

C.R.A.E. 31.

EL 9/72 NORTON TR.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 7770.

AREA LYETEA ANOMALIES - Southern Crd.

SAMPLE Nos. 292191 - 292220

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A for p. 27

ANALYSED BY Zinc Corp. Broken Hill

Grid Coordinates	Sample No. (Oct)	Soil composition					Soil Horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations				
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (cm)	Colour	Moisture	pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	NI	Co	Cr	Mn	Ag		Mo	As		
4850 N	292191	20	-	60	10	30	B	10	tan	-	-	✓	6	16	24	5						1					Red shale
4850 N	92	20	-	60	10	30	"	10	"	-	-	✓	6	16	22	6						4					A above
4850 N	93	20	-	60	30	10	"	30	"	-	-	✓	6	28	131	14						1					A above
4850 N	94	20	-	60	60	10	"	10	"	-	-	✓	-	31	97	22						4					of shale
4850 N	95	60	-	5	65	20	"	10	"	-	-	✓	-	28	57	13						4					A above
4920 N	96	20	-	60	10	30	"	10	"	-	-	✓	-	23	94	7						1					of fine tuff
4950 N	97	20	-	60	60	10	"	10	"	-	-	✓	-	44	270	13						1					of shale
4920 N	98	20	-	5	10	35	"	10	"	-	-	✓	-	160	550	63						2					of grey shale
4970 N	99	20	-	5	65	10	"	10	"	-	-	✓	-	190	550	29						2					of fine grey tuff to shale
5000 N	292200	20	-	60	60	10	"	30	"	-	-	✓	-	260	270	47						1					of quartz crystal tuff
5000 N	01	20	-	20	20	10	WB	10	"	-	-	✓	-	24	20	16						3					Red shale horizon
5000 N	02	20	-	60	60	10	B	30	"	-	-	✓	10	4	161	64						7					horizon Red shale
5000 N	03	20	-	5	65	10	"	50	"	-	-	✓	10	170	220	81						1					A above
5090 N	04	20	-	5	70	5	"	10	"	-	-	✓	-	350	230	56						2					of shale
5100 N	05	20	-	5	65	10	"	10	"	-	-	✓	-	550	178	56						1					A above
5120 N	06	20	-	5	60	65	WB	90	red	-	-	✓	60	61	74	34						1					Red shale
5120 N	07	60	-	5	85	-	WB	10	tan	-	-	✓	100	39	22	8						1					A above
5120 N	08	20	-	60	60	60	WB	10	"	-	-	✓	-	29	69	18						1					of shale
5120 N	09	60	-	60	70	60	B	30	"	-	-	✓	80	16	4	6						1					Red intermed. crystall. tuff
5200 N	292210	60	-	60	60	70	WB	60	red	-	-	✓	80	320	470	36						1					A above
5200 N	11	20	-	5	30	65	B	30	tan	-	-	✓	60	5	39	4						4					Red shale
5200 N	12	20	-	60	60	60	WB	10	"	-	-	✓	-	530	198	155						1					of intermed. crystall. tuff
5270 N	13	20	-	20	20	10	B	50	"	-	-	✓	70	39	78	14						4					Red fine tuff
5290 N	14	20	-	60	60	30	"	10	"	-	-	✓	-	530	31	112						1					of silyodite (intermed.?)
5370 N	15	60	-	5	80	5	WB	30	"	-	-	✓	60	180	82	7						1					Red quartz crystal tuff
5320 N	16	20	-	5	70	5	"	30	"	-	-	✓	-	190	88	7						1					of silyodite
5320 N	17	60	-	5	80	5	"	30	"	-	-	✓	-	140	81	4						1					of intermed. crystall. tuff and silyodite
5370 N	18	20	-	60	60	60	WB	50	"	-	-	✓	60	51	4	13						1					Red shale
5370 N	19	20	-	60	60	30	B	50	"	-	-	✓	80	2	1	10						7					A above
5410 N	292220	60	-	5	75	10	WB	30	tan	-	-	✓	80	14	20	16						1					A above

C.R.A.E. 91.

E.L. 19/72 NIETM. TRS.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

DAO. 7770

79.

AREA LOYTEA ANDHILIES SOUTHERN GRD.

SAMPLE Nos. 29221 - 29250

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE 15 for 128

ANALYSED BY ZINC CORP. BAWEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations			
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (m)	Colour (Munsell Chart No.)	pH	Outcrop	Cancelled	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As		
LINE 2E																										
2500 N	29221	20	-	6	6	60	B	50	red	-	✓	-	36	39	3											off upalt and crystal tuff.
4740 N	22	20	-	6	6	60	"	50	red	-	✓	-	240	72	19											off shale
4760 N	23	20	-	6	6	60	"	60	"	-	✓	-	250	50	23											off small acid crystal tuff.
4780 N	24	20	-	6	6	60	"	60	"	-	✓	-	87	60	8											off quartz aged crystal tuff.
5000 N	25	20	-	6	6	60	"	60	"	-	✓	-	78	39	6											Rock as above
5020 N	26	20	-	6	6	60	"	60	"	-	✓	-	43	69	9											off aggl.
5040 N	27	20	-	6	6	60	"	50	"	-	✓	60	80	41	10											Rocky aggl + crystal tuff + shale.
5060 N	28	20	-	6	6	60	"	70	"	-	✓	60	85	69	33											As above
5080 N	29	20	-	6	6	60	"	60	"	-	✓	60	88	41	46											Rock shale
5100 N	29220	20	-	6	6	60	"	50	"	-	✓	60	36	34	40											As above
5120 N	31	6	-	5	7	60	"	30	"	-	✓	-	320	91	76											off shale (Z up).
5140 N	32	5	-	5	8	5	B	30	"	-	✓	-	160	64	86											off fine grey-green silty shale tuff.
5160 N	33	20	-	5	7	5	B	60	"	-	✓	60	200	34	23											Rock shale
5180 N	34	20	-	5	6	60	B	60	"	-	✓	-	84	47	29											off shale
5200 N	35	20	-	6	6	60	"	30	"	-	✓	-	130	91	24											As above
5220 N	36	20	-	6	6	60	B	60	"	-	✓	60	30	36	7											Rock int. crystal tuff.
5240 N	37	20	-	6	6	60	B	30	"	-	✓	-	23	56	74											off shale
5260 N	38	20	-	5	6	60	B	30	"	-	✓	60	45	103	13											Rock shale
5280 N	39	20	-	6	6	60	"	30	"	-	✓	80	74	97	6											Rock int crystal tuff.
5300 N	29226	20	-	20	20	60	"	60	"	-	✓	60	40	83	55											As above
5320 N	41	6	-	6	6	60	B	60	"	-	✓	60	880	300	55											As above
5340 N	42	20	-	20	6	60	"	60	"	-	✓	60	330	270	25											As above
5360 N	43	20	-	6	6	60	"	60	"	-	✓	80	48	60	5											As above
5380 N	44	20	-	6	6	60	"	50	"	-	✓	80	590	153	20											Rock shale
5400 N	45	20	-	6	6	60	"	30	"	-	✓	6	35	39	7											off quartz aged crystal tuff.
5420 N	46	20	-	6	6	60	"	30	"	-	✓	-	18	46	6											As above
4900 N	47	20	-	6	6	60	B	30	"	-	✓	-	25	50	4											off shale
4880 N	48	20	-	20	6	60	B	30	"	-	✓	-	35	36	19											As above
4860 N	49	6	-	20	6	60	"	30	"	-	✓	-	40	27	5											off quartz aged aggl.
4840 N	292250	6	-	6	6	60	"	60	"	-	✓	-	25	35	8											As above.

EL 19/12 NIETA TAS.

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

17710 (To 292343)
17711 (From 292346)

AREA LOYETER ANCHAGES - SOUTHERN CO.

SAMPLE Nos. 292343 - 292372

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE [Signature]

ANALYSED BY ZINC COP. BROKEN Hill

Grid Coordinate	Sample No. (Cont.)	Soil composition					Soil horizon	Sample				Bedrock		Metal content, p. p. m.											Geological observations			
		Rock %	Lignite %	Sand %	SH %	Clay %		Depth (meters)	Color (Munsell Chart No.)	pH	Overcrop	Concealed	Est. Depth %	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As					
LINE 31E																												
4760 m N	292343	20	-	20	30	20	B	10	brown	-	-	✓	80	19	19	18				41							Red shale	
4740 N	44	20	-	60	60	60	A/B	10	-	-	-	✓	60	33	28	18				41							A above	
4720 N	292345	20	-	60	70	-	A/B	10	-	-	-	✓	60	18	31	15				41							A above	
LINE 32E																												
3200 m E																												
5070 m N	292346	20	-	20	30	30	A/B	30	brown	-	-	✓	200	16	49	56				1							Red fine tuff shale	
5050 m N	47	20	-	20	20	10	A/B	10	red	-	-	✓	60	16	55	65				1							Red fine tuff	
5110 N	48	20	-	20	30	30	A/B	30	-	-	-	✓	60	21	38	44				41							Red shale	
5130 N	49	20	-	20	20	10	A/B	10	brown	-	-	✓	60	17	17	34				41							A above	
5150 N	292350	20	-	30	20	30	A/B	50	-	-	-	✓	60	14	15	15				41							A above	
5170 N	51	20	-	20	20	10	A/B	10	-	-	-	✓	60	9	13	8				41							A above	
5190 N	52	20	-	20	20	30	A/B	10	red	-	-	✓	60	40	36	43				41							A above	
5210 N	53	20	-	20	30	30	B	50	brown	-	-	✓	60	26	17	13				41							A above	
5230 N	54	60	-	60	70	60	A/B	50	-	-	-	✓	60	17	15	9				41							A above	
5250 N	55	60	-	60	30	40	A/B	90	-	-	-	✓	60	44	57	46				1							A above	
5270 N	56	5	-	60	20	15	A/B	10	red	-	-	✓	200	28	29	24				1							A above	
5290 N	57	60	-	5	85	-	A/B	10	brown	-	-	✓	200	67	34	35				1							A above	
5310 N	58	20	-	60	30	10	B	30	-	-	-	✓	60	170	49	23				4							A above	
5330 N	59	20	-	30	10	10	A/B	60	yellow	-	-	✓	60	39	75	10				41							Red quartz aged crystal tuff	
5350 N	292360	5	-	5	75	5	A/B	30	brown	-	✓	-	34	65	19				1								of fine grey green intr. tuff	
5370 N	61	60	-	20	60	60	B	30	-	-	✓	-	27	24	10				41								of grey aged crystal tuff	
5390 N	62	20	-	20	10	20	A/B	30	-	-	✓	-	23	21	1				1								A above	
5410 N	63	20	-	30	30	20	A/B	10	-	-	✓	80	19	18	2				41								Red shale	
5430 N	64	30	-	20	30	20	A/B	10	-	-	✓	-	28	91	19				1								of spherulite	
5450 N	65	60	-	20	30	30	A/B	10	-	-	✓	80	9	27	2				41								Red crystal tuff??	
5470 N	66	20	-	60	60	60	A/B	30	red	-	-	✓	60	14	47	2				41							Red spherulite	
5490 N	67	60	-	60	60	60	A/B	10	-	-	✓	50	23	103	18				41								A above	
5510 N	68	20	-	60	60	60	B	10	brown	-	-	✓	80	6	27	1				41								A above
5530 N	69	20	-	20	10	20	A/B	30	-	-	✓	60	9	34	3				41								A above	
5050 N	292370	20	-	60	60	60	A/B	30	-	-	✓	-	26	46	46				41								of shale	
5030 N	71	20	-	60	20	20	B	10	-	-	✓	60	7	13	5				41								Red quartz aged crystal tuff	
5010 N	292372	20	-	60	20	20	A/B	30	-	-	✓	60	14	29	5				41									A above

C.R.A.E. 31.

E.L. 4712 NETA TRG.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

4710.1771.

36.

AREA LOVETEA ANOMALIES - NORTHERN GRID. PINE 2 SAMPLE Nos. 292439 - 292457
MAP OR PHOTO REFERENCE AS FOR PAGE

COLLECTED BY [Signature]
ANALYSED BY ZINC CORP. BRACKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations					
		Rock %	Laterite %	Sand %	Silt %	Clay %		Depth (centim.)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As				
LINE 2 SE																												
2500m E																												
6800 N	292430	2	-	30	20	20	WB	50	tan	-	✓	-	1750	157	23												alc conglomerate	
6800 N	31	-	-	60	30	60	B	80	-	-	✓	120	170	210	14												Red soil	
6820 N	32	-	-	20	20	60	"	30	-	-	✓	-	150	210	11												alc soil	
6840 N	33	5	-	60	20	65	"	30	red	-	✓	-	150	210	11												alc soil	
6860 N	34	6	-	60	20	60	WB	110	-	-	✓	60	170	210	11												Red soil	
6880 N	35	5	-	15	20	60	"	50	-	-	✓	-	320	240	11												alc soil	
6900 N	36	5	-	60	20	65	W	50	-	-	✓	80	250	220	14												Red soil	
6920 N	37	5	-	65	20	60	B	30	tan	-	✓	-	220	193	17												alc soil	
6940 N	38	5	-	15	40	60	"	80	red	-	✓	-	190	190	26												alc soil	
6960 N	39	5	-	5	40	50	"	60	-	-	✓	-	160	158	23												alc soil	
6980 N	292440	-	-	-	-	60	"	60	-	-	✓	200	120	122	16													Red soil
LINE 2 E																												
2500m E																												
7030 N	292441	-	-	-	-	60	WB	60	red	-	✓	60	110	131	16													"
7010 N	42	5	-	60	20	65	"	110	-	-	✓	150	110	103	15													Red soil
6990 N	43	5	-	60	20	65	"	70	tan	-	✓	150	150	161	17													Red soil
6970 N	44	-	-	-	-	60	"	60	red	-	✓	150	160	173	19													"
6950 N	45	-	-	-	-	60	"	60	tan	-	✓	150	170	190	19													"
6930 N	46	5	-	60	10	65	"	110	-	-	✓	150	170	190	19													Red soil
6910 N	47	5	-	15	40	60	"	110	-	-	✓	150	160	210	23													Red soil
6890 N	48	6	-	60	40	60	"	110	-	-	✓	150	210	210	21													Red soil
6870 N	49	6	-	60	40	60	"	110	-	-	✓	150	180	220	21													Red soil
6850 N	292450	-	-	-	-	60	"	60	-	-	✓	200	170	240	25													"
6830 N	51	-	-	5	30	65	"	80	-	-	✓	10	170	210	21													Red soil
6810 N	52	6	-	20	30	60	"	110	-	-	✓	150	210	230	22													Red soil
6790 N	53	-	-	-	-	60	"	60	-	-	✓	150	170	168	13													"
6770 N	54	2	-	20	20	60	"	60	-	-	✓	150	190	220	21													Red soil
6750 N	55	6	-	20	40	60	"	70	-	-	✓	150	180	195	21													Red soil
6730 N	56	20	-	20	20	60	W	60	red	-	✓	60	150	240	21													Red soil
6710 N	292457	5	-	20	40	65	B	70	tan	-	✓	-	160	250	21													alc soil

C.R.A.E. 51.

E.L. 19/72 NORTH TMR

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

1771

AREA LOVETEA ANOMALIES - NORTHERN GRD.

SAMPLE Nos. 292488 - 292519

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A to B 57

ANALYSED BY Zinc Corp Broken Hill

Grid Co-ordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations				
		Moist %	Loam %	Sand %	Silt %	Clay %		Depth (cm)	Colour	Moisture	pH	Outcrop	Concave	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag		Mo	As		
6720N	292488	10	-	5	75	10	B	6	black	-	✓	-	220	320	15											alc agglomerate	
6740N	89	10	-	6	70	10	"	80	"	-	✓	-	100	220	16											As above	
6760N	292490	10	-	5	65	20	"	70	"	-	✓	150	160	270	19											Rock fine tuff or aggl.	
6780N	91	10	-	5	65	20	"	10	"	-	✓	150	130	200	19											As above	
6800N	92	-	-	-	20	80	"	60	red	-	✓	200	140	193	21											"	
6820N	93	-	-	6	70	60	"	80	"	-	✓	200	160	220	21											"	
6840N	94	-	-	6	70	60	"	10	"	-	✓	200	170	220	21											"	
6860N	95	5	-	5	20	70	"	10	"	-	✓	200	150	220	19											Rock fine tuff ??	
6880N	96	5	-	5	20	60	"	10	"	-	✓	150	180	230	21											As above or aggl.	
6900N	97	5	-	5	20	60	"	10	"	-	✓	150	160	220	21											As above	
6920N	98	5	-	6	20	65	"	10	"	-	✓	200	250	230	25											Partially or aggl.	
6940N	99	5	-	6	20	65	"	10	"	-	✓	150	120	149	18											Rock aggl.	
6960N	292500	5	-	6	20	55	"	10	"	-	✓	-	85	128	19											alc aggl.	
6980N	01	15	-	10	20	55	"	10	"	-	✓	-	100	150	18											As above	
7000N	02	-	-	-	30	70	"	10	"	-	✓	200	94	165	19											"	
6960N	03	10	-	5	20	65	"	20	black	-	✓	100	72	160	26											Rock shale	
6980N	04	20	-	10	10	60	"	60	"	-	✓	80	45	76	20						41					As above	
7000N	05	20	-	10	10	60	"	60	red	-	✓	80	110	81	31						41					Rock fine tuff - shale	
6960N	06	20	-	10	10	60	"	60	"	-	✓	60	92	76	29						41					Rock shale	
6980N	07	20	-	10	10	60	"	90	"	-	✓	100	140	81	39						1					Rock fine tuff - shale	
6960N	08	20	-	10	10	60	"	30	"	-	✓	60	57	34	25						41					As above	
6980N	09	20	-	20	20	40	"	100	black	-	✓	10	76	27	11						41					Rock alt. fine tuff	
6920N	292510	10	-	10	20	60	"	70	red	-	✓	60	53	69	22						1					Rock fine tuff	
6900N	11	-	-	-	30	70	"	10	black	-	✓	200	76	121	30											"	
6980N	12	-	-	-	30	70	"	10	red	-	✓	200	63	119	15											"	
6960N	13	6	-	5	20	65	"	10	"	-	✓	150	66	108	21											Rock dyadinite	
6940N	14	10	-	5	20	65	"	10	"	-	✓	150	75	108	17											As above	
6920N	15	10	-	5	20	65	"	60	"	-	✓	150	75	167	16											As above	
6900N	16	15	-	5	20	60	"	70	"	-	✓	150	71	193	12											As above	
6980N	17	10	-	5	20	65	"	10	"	-	✓	-	150	196	12											alc agglomerate	
6960N	18	20	-	5	10	65	"	30	"	-	✓	-	180	280	6											As above	
6940N	292519	10	-	5	20	65	"	60	black	-	✓	100	180	165	9												Rock dyadinite

E.L. 1972 NIETTA TRS.

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

6770.1771

39.

AREA LOYATEA ANIMALIES - NORTHERN GRID.

SAMPLE Nos. 292520 - 292547

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A. 138

ANALYSED BY ZINC GRAD. BARKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations				
		Root %	Loamite %	Sand %	Silt %	Clay %		Depth (meters)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As			
LINE 27	(cont.)																										
6320mN	292520	20	-	5	5	70	WB	70	orange	-	-	90	54	400	6											Red sh. point	
6320 N	21	20	-	5	10	65	B	70	orange	-	-	90	160	410	5											Red sh. point	
6320 N	22	20	-	5	20	55	B	50	red	-	-	90	130	260	5											Red sh. point	
6260 N	23	10	-	5	60	25	B	40	"	-	-	90	150	152	5											Red sh. point	
6240 N	24	20	-	5	10	30	B	40	orange	-	-	90	140	155	7											Red sh. point	
6220 N	25	20	-	5	10	30	B	30	"	-	-	90	210	102	11											Red sh. point	
6200 N	26	10	-	5	65	20	B	30	"	-	-	90	170	138	5											Red sh. point	
6180 N	292527	10	-	5	10	45	B	40	"	-	-	90	240	128	6												Red sh. point
LINE 24																											
2400mE																											
6100mN	292528	20	-	6	10	60	WB	90	orange	-	-	90	240	210	23												Red sh. point
6100 N	29	10	-	6	20	60	B	50	"	-	-	80	110	180	30												Red sh. point
6120 N	292530	20	-	6	30	40	B	50	"	-	-	80	110	210	32												Red sh. point
6140 N	31	20	-	6	30	40	B	50	"	-	-	80	70	81	23												Red sh. point
6150 N	32	6	-	6	10	40	B	50	"	-	-	80	430	172	34												Red sh. point
6100 N	33	6	-	6	10	40	B	80	"	-	-	80	100	150	17												Red sh. point
6120 N	34	6	-	6	60	20	B	70	"	-	-	80	170	330	23												Red sh. point
6140 N	35	5	-	6	55	30	B	10	"	-	-	80	110	188	19												Red sh. point
6160 N	36	6	-	6	60	10	B	50	"	-	-	80	86	146	19												Red sh. point
6180 N	37	5	-	5	60	30	B	40	"	-	-	80	190	150	15												Red sh. point
6100 N	38	10	-	6	10	40	B	50	"	-	-	80	110	250	10												Red sh. point
6120 N	39	20	-	6	60	10	B	30	"	-	-	80	110	220	8												Red sh. point
6140 N	292540	20	-	6	10	60	WB	60	"	-	-	80	140	165	18												Red sh. point
6160 N	41	10	-	6	10	40	B	50	"	-	-	80	43	64	8												Red sh. point
6180 N	42	-	-	5	65	30	B	40	"	-	-	80	23	84	7												Red sh. point
6100 N	43	10	-	5	20	65	B	50	"	-	-	80	26	140	10												Red sh. point
6120 N	44	20	-	6	10	60	WB	60	"	-	-	80	32	84	15												Red sh. point
6140 N	45	20	-	6	10	60	B	40	"	-	-	80	77	108	15												Red sh. point
6160 N	46	20	-	6	10	60	B	70	"	-	-	80	110	240	21												Red sh. point
6180 N	47	5	-	6	10	60	WB	10	"	-	-	80	130	230	19												Red sh. point
6200 N	48	5	-	6	10	70	B	70	"	-	-	80	130	240	20												Red sh. point
6200 N	292547	10	-	6	10	60	WB	90	"	-	-	80	170	250	21												Red sh. point

E.L 19/72 NIETA. TNS.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

DA 0.1771.

AREA LOYETER ANOMALIES - NORTHERN GRID.

SAMPLE Nos. 292557 - 292611

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A.P. 40.

ANALYSED BY ZINC CORP. BOWEN HILL

Grid Coordinate (LINE) 23E	Sample No. (Cat.)	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations				
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (m.)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As			
6460 N	292558	20	-	10	10	60	30	30	brown	-	✓	-	92	220	21												dc shale
6450 N	81	20	-	20	20	70	60	60	-	-	✓	-	110	240	7												dc argillaceous
6500 N	82	10	-	10	10	70	80	80	-	-	✓	-	110	230	13												dc shale
6500 N	83	10	-	10	70	10	30	30	-	-	✓	-	210	230	11												dc shale
6540 N	84	20	-	10	10	30	30	30	-	-	✓	-	190	230	21												dc shale
6540 N	85	10	-	5	20	65	30	30	-	-	✓	-	92	120	13												dc shale to fine tuff
6580 N	86	10	-	10	10	60	60	60	-	-	✓	-	54	62	8												dc shale to fine tuff
6600 N	87	10	-	10	10	60	90	90	-	-	✓	-	130	175	23												dc shale
6640 N	88	10	-	10	10	60	80	80	-	-	✓	-	84	97	14												dc shale - coarse in part
6640 N	89	10	-	10	10	60	50	50	-	-	✓	-	37	90	13												dc shale to fine tuff
6660 N	292559	20	-	10	10	60	100	100	-	-	✓	-	57	84	25												dc shale to fine tuff
6680 N	91	5	-	10	20	65	100	100	-	-	✓	-	100	220	19												dc shale
6700 N	92	5	-	5	10	70	100	100	-	-	✓	-	130	230	19												dc shale to fine tuff
6720 N	93	5	-	5	20	70	100	100	-	-	✓	-	110	220	15												dc shale to fine tuff
6740 N	94	5	-	5	20	70	100	100	-	-	✓	-	110	220	15												dc shale to fine tuff
6760 N	95	-	-	-	20	80	90	90	-	-	✓	-	82	87	19												?
6780 N	96	20	-	10	10	60	100	100	-	-	✓	-	34	84	13												dc shale to fine tuff
6820 N	97	10	-	10	10	70	50	50	-	-	✓	-	49	100	13												dc shale
6840 N	98	5	-	10	75	10	30	30	-	-	✓	-	32	74	9												dc argill.
6840 N	99	20	-	10	10	60	50	50	-	-	✓	-	43	51	29												dc argill.
6860 N	292600	-	-	-	30	70	110	110	-	-	✓	-	89	104	36												dc argill.
6880 N	01	10	-	10	20	60	100	100	-	-	✓	-	71	66	47												dc argill. to fine tuff (to argill.)
6900 N	02	20	-	10	10	60	50	50	-	-	✓	-	37	32	22												dc shale
6920 N	03	-	-	5	35	60	100	100	-	-	✓	-	34	47	19												?
6940 N	04	10	-	10	20	60	100	100	-	-	✓	-	52	69	22												dc argill.
6960 N	05	-	-	5	55	40	30	30	-	-	✓	-	56	63	19												dc argill.
6980 N	06	5	-	5	20	70	110	110	-	-	✓	-	63	78	29												dc shale
7000 N	292607	10	-	10	10	70	70	70	-	-	✓	-	57	84	29												dc shale
6980 N	292608	10	-	5	60	25	30	30	-	-	✓	-	110	140	31												dc shale
6940 N	07	10	-	5	20	65	80	80	-	-	✓	-	48	70	29												dc shale
6920 N	292610	5	-	-	20	75	110	110	-	-	✓	-	95	200	38												dc shale
6900 N	292611	10	-	5	10	25	100	100	-	-	✓	-	160	290	24												dc shale

C.R.A.E. 31.

EL. 9/72. NORTH. TNS.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 9773

AREA LORETER ANOMALIES - NORTHERN GRID.

SAMPLE Nos. 292734 - 292763

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE

A 2 P 45

ANALYSED BY ZINC GRP. BARKEN HILL

Grid Coordinate	Sample No. (loc.)	Soil composition					Soil horizon	Sample				Bedrock		Metal content, p. p. m.											Geological observations					
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (m)	Colour (Munsell Chart No.)	pH	Outcrop	Consolidated	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As							
6760 N	292734	6	-	6	20	60	SP	10	grey	-	-	✓	60	51	100	15												Rock fine tuff		
6750 N	35	-	-	5	20	75	-	7	-	-	-	✓	60	44	108	12														
6820 N	36	20	-	6	60	60	-	30	-	-	-	✓	60	41	39	14												Rock shale		
6820 N	37	6	-	6	60	60	-	30	-	-	-	✓	80	22	57	17												Rock fine porous tuff		
6840 N	38	20	-	6	30	60	-	30	-	-	-	✓	60	25	120	23												of c. aggl. cement		
6860 N	39	20	-	6	60	60	-	30	-	-	-	✓	60	16	90	32												Rock fine tuff or aggl.		
6880 N	292740	20	-	6	30	60	SP	10	-	-	-	✓	60	30	26	23												Rock shale		
LINE 21E																														
2100mE																														
6320mN	292741	6	-	6	70	60	B	10	brown	-	-	✓	80	120	280	7													Rock shale	
6300	42	20	-	6	60	30	-	10	-	-	-	✓	60	160	340	5													As above	
6350	43	20	-	6	60	60	-	30	-	-	-	✓	60	120	410	7													of c. aggl.	
6360	44	20	-	6	30	60	-	50	-	-	-	✓	80	210	440	8													Rock fine tuff to shale	
6370	45	20	-	6	60	60	-	10	-	-	-	✓	80	200	260	9													Rock shale	
6380	46	6	-	6	60	60	-	30	-	-	-	✓	60	160	300	8													Rock lava 6	
6390	47	20	-	6	60	30	-	10	-	-	-	✓	60	60	350	10													of c. aggl.	
6400	48	6	-	6	20	60	-	50	-	-	-	✓	60	180	290	11													As above	
6410	49	6	-	6	60	20	-	30	-	-	-	✓	60	220	240	12													Rock aggl.	
6420	292750	6	-	6	60	20	SP	30	-	-	-	✓	60	260	270	4													Rock lava 6	
6430	51	6	-	6	60	20	SP	10	-	-	-	✓	60	280	320	3													of lava 6	
6440	52	6	-	6	60	40	-	30	-	-	-	✓	60	200	280	5													As above	
6450	53	6	-	5	65	20	-	30	-	-	-	✓	60	200	260	4													As above	
6460	54	20	-	6	60	60	-	50	-	-	-	✓	80	220	320	7													Rock lava 6	
6470	55	30	-	6	20	60	-	50	-	-	-	✓	60	230	340	6													of lapilli tuff	
6480	56	6	-	6	20	60	-	30	-	-	-	✓	60	220	350	7													of lava 6	
6490	57	6	-	5	20	65	-	60	-	-	-	✓	60	280	510	18													Rock shale	
6500	58	6	-	6	20	60	-	10	red	-	-	✓	60	280	310	17													Rock fine tuff	
6510	59	6	-	6	20	60	-	50	-	-	-	✓	60	200	210	16													As above	
6520	292760	6	-	6	20	60	-	60	-	-	-	✓	60	280	260	20														Rock shale
6530	61	20	-	6	60	60	-	60	-	-	-	✓	60	230	260	32													Rock fine tuff	
6540	62	20	-	6	30	60	-	30	brown	-	-	✓	60	130	270	17													Rock lava 6 or spherulite	
6540 N	292763	6	-	6	20	60	-	70	red	-	-	✓	60	53	260	5													Rock aggl.	

C.R.A.E.SI.

EL. 1/12 METRE T.S.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.O. 17773.

AREA LOYTEA ANOMALIES - NORTHERN GOLD.

SAMPLE No. 29276A - 29279B.

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE As for p. 46.

ANALYSED BY ZINC CORP. BRACKEN HILL

Grid Co-ordinate	Sample No. (Cont.)	Soil composition				Soil Horizon	Sample				Bedrock		Metal content, p. p. m.										Geological observations					
		Rock %	Lime %	Sand %	Silt %		Clay %	Depth (m)	Colour	Moisture %	Chart No.	Fr	Quartz	Concentrated	Est. Depth to	Pb	Zn	Cu	Ni	Co	Cr	Mn		Ag	Mo	As		
6360 N	29276A	6	-	6	60	2	B	50	tan	-	✓	-	-	70	158	-	-	-	-	-	-	-	-	-	-	-	-	ok agglomerate
6380 N	65	6	-	6	60	20	"	40	"	-	✓	-	-	160	270	8	-	-	-	-	-	-	-	-	-	-	A above	
6400 N	66	6	-	6	60	20	"	40	"	-	✓	-	-	300	370	7	-	-	-	-	-	-	-	-	-	-	A above	
6420 N	67	6	-	6	60	20	"	50	"	-	✓	-	-	210	270	12	-	-	-	-	-	-	-	-	-	-	A above	
6440 N	68	20	-	6	60	10	"	40	"	-	✓	-	-	170	500	12	-	-	-	-	-	-	-	-	-	-	A above	
6460 N	69	10	-	6	60	20	"	30	"	-	✓	-	-	160	260	9	-	-	-	-	-	-	-	-	-	-	A above	
6480 N	292770	6	-	6	60	10	"	30	"	-	✓	-	-	180	240	9	-	-	-	-	-	-	-	-	-	-	A above	
6500 N	71	6	-	6	60	10	"	30	"	-	✓	-	-	200	190	9	-	-	-	-	-	-	-	-	-	-	A above	
6520 N	72	20	-	6	60	30	"	40	"	-	✓	-	-	200	270	10	-	-	-	-	-	-	-	-	-	-	A above	
6540 N	73	6	-	6	60	20	"	40	"	-	✓	-	-	170	174	12	-	-	-	-	-	-	-	-	-	-	A above	
6560 N	74	20	-	6	30	40	"	70	red	-	✓	-	100	160	260	15	-	-	-	-	-	-	-	-	-	-	Like agglomerate	
6580 N	75	-	-	6	20	70	"	40	"	-	✓	-	150	140	200	15	-	-	-	-	-	-	-	-	-	-	?	
6600 N	76	-	-	6	20	70	"	40	"	-	✓	-	200	140	200	17	-	-	-	-	-	-	-	-	-	-	?	
6620 N	77	-	-	6	30	60	"	40	"	-	✓	-	200	120	149	18	-	-	-	-	-	-	-	-	-	-	?	
6640 N	78	5	-	6	10	75	"	90	"	-	✓	-	160	120	171	20	-	-	-	-	-	-	-	-	-	-	Red on soil?	
6660 N	79	-	-	5	20	75	B	40	"	-	✓	-	200	95	171	22	-	-	-	-	-	-	-	-	-	-	?	
6680 N	292780	-	-	5	20	75	"	40	"	-	✓	-	120	79	110	17	-	-	-	-	-	-	-	-	-	-	?	
6700 N	81	6	-	6	20	60	"	90	"	-	✓	-	120	64	132	18	-	-	-	-	-	-	-	-	-	-	Red on soil?	
6720 N	82	6	-	6	20	60	"	70	"	-	✓	-	120	60	140	18	-	-	-	-	-	-	-	-	-	-	Red soil	
6740 N	83	-	-	5	65	30	"	70	tan	-	✓	-	150	53	99	18	-	-	-	-	-	-	-	-	-	-	?	
6760 N	84	6	-	5	20	65	"	70	red	-	✓	-	90	4	82	30	-	-	-	-	-	-	-	-	-	-	Red fine tuff.	
6780 N	85	10	-	6	60	70	"	40	"	-	✓	-	150	120	73	44	-	-	-	-	-	-	-	-	-	-	A above	
6800 N	86	6	-	6	70	10	"	30	tan	-	✓	-	-	55	86	30	-	-	-	-	-	-	-	-	-	-	ok soil	
6820 N	292787	-	-	6	70	20	"	50	"	-	✓	-	60	43	53	18	-	-	-	-	-	-	-	-	-	-	?	
LINE 19E																												
1980 m E.																												
6570 m N	292788	20	-	6	30	40	B	50	tan	-	✓	-	-	110	94	7	-	-	-	-	-	-	-	-	-	-	-	ok agglomerate
6580 N	89	20	-	20	20	40	"	30	"	-	✓	-	60	95	179	10	-	-	-	-	-	-	-	-	-	-	-	Red on soil
6590 N	292790	20	-	20	20	40	"	60	"	-	✓	-	-	87	220	4	-	-	-	-	-	-	-	-	-	-	-	ok soil
6510 N	91	20	-	6	30	40	"	40	"	-	✓	-	-	75	169	11	-	-	-	-	-	-	-	-	-	-	-	A above
6520 N	92	20	-	6	30	40	"	70	"	-	✓	-	-	75	182	12	-	-	-	-	-	-	-	-	-	-	-	A above
6570 N	292793	20	-	20	30	30	B	40	"	-	✓	-	60	78	147	11	-	-	-	-	-	-	-	-	-	-	-	Red soil

C.R.A.E. 31.

E.L. 19/12 NIETRA TRES

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.F.O. 17773.

AREA LOVETER ANOMALIES - NORTHERN GRD.

SAMPLE Nos. 292826 - 292855

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE to file

ANALYSED BY Zinc Corp. BALVEN Hill

Grid Coordinates	Sample No.	Soil composition					Soil horizon	Sample		Bedrock		Metal content, p. p. m.										Geological observations					
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag		Mo	As			
LINE 19E	(Cont)																										
6550 N	292826	6	-	5	8	5	B	30	brn	-	✓	-	120	76	5											alc agglomerate	
6570 N	27	5	-	5	9	-	A	20	"	-	✓	-	35	104	8											alc agglomerate	
6590 N	28	5	-	5	9	-	"	30	"	-	✓	-	44	60	12											As above	
6610 N	29	5	-	5	9	-	"	30	"	-	✓	-	53	53	7											As above	
6630 N	292830	6	-	1	6	2	AB	30	"	-	✓	-	71	84	7											As above	
6650 N	31	5	-	1	6	2	"	30	"	-	✓	-	49	83	7											As above	
6670 N	292832	-	-	5	2	6	B	10	red	-	✓	150	57	147	17											?	
LINE 18E																											
1800mE.																											
6550 N	292833	5	-	1	2	4	B	80	brn	-	✓	-	75	136	16											alc agglomerate	
6560 N	34	5	-	1	2	6	"	80	"	-	✓	100	62	123	20											alc agglomerate	
6580 N	35	5	-	1	2	6	"	80	"	-	✓	80	37	136	30											As above	
6590 N	36	2	-	2	2	4	"	80	red	-	✓	100	40	92	18											As above	
6590 N	37	-	-	2	2	6	"	80	"	-	✓	100	53	108	20											?	
6590 N	38	5	-	1	2	6	"	80	"	-	✓	80	66	116	15											Rock shale	
6560 N	39	-	-	1	2	7	"	100	"	-	✓	100	75	132	22											?	
6540 N	292840	6	-	1	2	7	"	100	"	-	✓	100	110	169	20											Rock latitic tuff	
6520 N	41	-	-	1	2	6	"	100	"	-	✓	100	61	126	23											?	
6520 N	42	6	-	5	2	6	"	100	"	-	✓	150	55	127	25											Rock from an aggl	
6180 N	43	-	-	5	2	7	"	100	"	-	✓	150	53	132	25											?	
6160 N	44	-	-	1	2	7	"	100	"	-	✓	150	53	150	25											?	
6140 N	45	-	-	5	2	7	"	100	"	-	✓	150	37	118	18											?	
6120 N	46	6	-	5	2	6	"	60	brn	-	✓	-	42	112	19											alc aggl	
6100 N	47	5	-	5	2	7	"	80	"	-	✓	60	87	114	18											Rock shale	
6080 N	48	6	-	1	2	7	"	80	red	-	✓	-	130	132	17											alc fine tuff	
6060 N	49	2	-	1	2	6	AB	30	brn	-	✓	60	110	162	12											Rock from aggl	
6040 N	292850	2	-	1	2	6	B	30	"	-	✓	-	120	162	12											alc aggl	
6020 N	51	2	-	1	2	6	"	30	"	-	✓	60	220	20	11											Rock from G?	
6000 N	52	2	-	2	2	2	"	80	"	-	✓	-	180	196	11											alc down G	
5980 N	53	2	-	2	2	2	"	80	"	-	✓	-	160	196	11											As above	
5960 N	54	2	-	1	2	3	"	80	"	-	✓	-	82	164	15											As above	
5940 N	292855	2	-	1	2	4	"	30	"	-	✓	-	120	152	14												As above

C.R.A.E. 31.

E.L. 1972 NORTH TNS.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.A.O. 177F.

AREA LOTETA SOUTH PROSPECT PHASE 3 SAMPLING

SAMPLE Nos. 292996 - 293021

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE. LOTETA SOUTH PROSPECT - E.L. 1972 NORTH TNS - N.W. TNS 1:2000 SHEET

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations						
		Rock %	Latex %	Sand %	Silt %	Clay %		Depth (m)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As					
LINE 30/SE 3050mE																													
5540mN	292996	30	-	6	65	15	B	30	blue	-	-	✓	100	39	22	12											Red silt		
5540 N	91	6	-	5	65	20		30		-	-	✓	100	86	82	35											Red shale		
5550 N	98	20	-	5	60	10		30		-	-	✓	100	140	73	34											to above		
5570 N	99	20	-	6	60	10		30		-	-	✓	100	120	92	29											to above		
5510 N	293000	6	-	20	65	25		40		-	-	✓	-	210	159	32											of stypodite		
5540 N	01	5	-	5	85	5		30		-	-	✓	-	200	330	20											to above		
5570 N	02	6	-	6	75	5	B	30		-	-	✓	100	15	58	5											Red quartz and crystal tuff		
5580 N	03	5	-	6	75	10		30		-	-	✓	-	90	82	32											of quartz and crystal tuff		
5580 N	04	5	-	5	85	5		30		-	-	✓	-	120	64	28											to above		
5510 N	05	5	-	5	85	5		30		-	-	✓	-	74	47	14											to above		
5590 N	06	5	-	5	85	5		30		-	-	✓	-	140	92	17											to above		
5570 N	07	5	-	5	85	5		30		-	-	✓	-	110	76	18											to above		
5580 N	08	5	-	5	85	5		30		-	-	✓	-	24	50	7											to above		
5580 N	293009	5	-	5	85	5		30		-	-	✓	-	14	16	7												to above	
LINE 31E 3100mE																													
5510mN	293010	20	-	6	60	10	B	50		-	-	✓	-	10	24	3												of fine - med silt tuff	
5580 N	11	6	-	5	70	10		30		-	-	✓	-	130	53	37												of shale	
5530 N	12	6	-	5	65	20		30		-	-	✓	80	160	58	24												Red silt fine tuff	
5570 N	13	20	-	5	65	10		40		-	-	✓	100	160	42	19												Red shale	
5540 N	14	20	-	5	65	10		50		-	-	✓	100	41	42	12												to above	
5610 N	15	20	-	5	70	5		40		-	-	✓	80	34	29	12												Red fine to med tuff	
5630 N	16	20	-	6	60	10		80		-	-	✓	200	36	49	29												Red shale	
5550 N	293017	6	-	6	60	20		40		-	-	✓	100	86	142	20												to above	
LINE 31/SE 3150mE																													
5540mN	293018	5	-	6	65	20	B/C	40		-	-	✓	100	24	29	6													Red fine tuff
5510 N	19	20	-	6	60	10	B	30		-	-	✓	-	71	61	16													of shale
5530 N	293020	6	-	5	80	5		30		-	-	✓	80	73	61	13													Red shale
5550 N	293021	15	-	5	70	10		30		-	-	✓	80	93	99	15													to above

C.R.A.E. 31. E.L. 19/72 NIETTA TMS.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.A. 0.17715

AREA LOYTEA SOUTH PROSPECT.

SAMPLE Nos. 293138 - 293167

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE [Signature]

ANALYSED BY ZINC GRP. BRACKEN HILL.

Grid Coordinates	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations					
		Rock %	Latex %	Sand %	Silt %	Clay %		Depth (m)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As				
LINE 27/SE	293138	20	-	10	60	10	7c	50	brown	-	✓	-	59	127	8											of shale		
5210 N	39	10	-	10	20	60	C	70	red	-	-	✓	70	35	119	3										Rock int. crystal tuff		
5220 N	293140	15	-	10	70	5	5/c	30	brown	-	✓	-	42	61	3											alc. as above		
5230 N	41	15	-	5	40	40	"	70	"	-	-	✓	80	340	260	27										Rock as above		
5240 N	42	15	-	5	65	20	B	50	"	-	✓	-	100	230	15											alc. as above		
5250 N	43	20	-	5	70	5	"	50	"	-	-	✓	80	240	136	10										Rock as above		
5260 N	44	20	-	5	70	5	"	40	"	-	-	✓	100	310	195	53										Rock as above + shale		
5270 N	45	5	-	5	80	10	A/B	40	"	-	-	✓	80	100	76	3										Rock shale		
5280 N	46	5	-	5	80	10	"	30	"	-	-	✓	80	41	39	4										As above		
5290 N	47	20	-	10	60	10	B	70	"	-	✓	-	37	23	12											alc. fine tuff.		
5210 H	293145	10	-	10	70	10	"	80	"	-	-	✓	100	66	25	24											Rock shale	
LINE 28/SE																												
2550 mE																												
4450 mE	293149	15	-	5	65	15	R	40	brown	-	✓	-	110	115	27												of shale	
4450 N	293150	10	-	5	80	5	"	30	"	-	-	✓	80	81	56	16											Rock shale + crystal tuff	
4470 N	51	10	-	5	80	5	"	40	"	-	-	✓	100	32	26	9											Rock shale	
449 N	52	10	-	5	80	5	"	40	"	-	-	✓	-	48	44	8											alc. quartz crystal tuff.	
5210 H	53	10	-	5	80	5	"	30	"	-	-	✓	-	27	19	6											As above	
5220 H	54	10	-	5	80	5	"	30	"	-	-	✓	-	32	30	5											As above	
5230 H	55	10	-	5	80	5	A/B	30	"	-	-	✓	-	82	26	9											alc. shale	
5240 H	56	10	-	5	80	5	B	30	"	-	-	✓	100	100	21	26											Rock shale	
5240 H	57	10	-	5	80	5	"	40	"	-	-	✓	100	86	31	37											As above quartz crystal tuff	
5250 H	58	20	-	5	70	5	"	30	"	-	-	✓	100	45	21	26											As above	
5260 H	59	20	-	5	70	5	"	50	"	-	-	✓	90	79	29	200											Rock shale	
5270 H	293160	10	-	5	75	10	"	30	"	-	-	✓	-	150	60	19												alc. shale.
5280 H	61	25	-	10	60	5	"	30	"	-	-	✓	60	270	29	150												Rock shale
5290 H	62	10	-	5	80	5	"	20	"	-	-	✓	60	45	66	21												As above
520 N	63	10	-	5	80	5	"	30	"	-	-	✓	-	40	63	15												alc. intermed. crystal tuff
5230 N	64	10	-	5	70	10	"	50	"	-	-	✓	60	120	40	16												Rock as above
5240 H	65	10	-	5	70	10	"	50	"	-	-	✓	-	70	43	4												alc. as above
5270 H	66	20	-	5	80	-	A	30	shale	-	-	✓	-	40	36	12												As above
5290 H	293167	20	-	5	70	5	B	50	brown	-	-	✓	80	150	29	15												Rock int. crystal tuff + shale

C.R.A.E. 31.

EL. 9/72 NIETIA TMS

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

270. 9775

AREA LOYETEN NORTH DISTRICT - PHASE 3 SAMPLING

SAMPLE Nos. 293192 - 293217

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE LOYETEN NORTH DISTRICT - EL. 9/72 NIETIA - NWFS

1:2000 SHEET

ANALYSED BY ZINC CORP. BARKER HILL

Grid Co-ordinate	Sample No.	Soil composition				Soil horizon	Sample				Bedrock		Metal content, p. p. m.										Geological observations					
		Rect #	Latitude #	Sand %	Silt %		Clay %	Depth (cm)	Color	Moisture	pH	Outcrop	Concealed	Est. Depth (ft)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag		Mo	As			
LINE 28E 28Sec E																												
E576m N	293192	15	-	5	10	6	9%	10	red	-	-	✓	S	148	125	15											Red silty to silty shale	
E582 N	93	20	-	5	10	30	-	10	-	-	-	✓	60	40	61	10											Red silty shale	
E582 N	94	25	-	6	30	35	B	30	tan	-	-	✓	60	26	24	6											Red fine grained silty shale	
E585 N	95	10	-	15	6	65	-	60	red	-	-	✓	100	69	96	15											Red shale	
E790 N	96	20	-	20	20	40	9%	50	tan	-	-	✓	70	76	92	18											to above	
E790 N	97	15	-	15	30	40	B	30	-	-	-	✓	60	53	56	10											to above	
E790 N	98	5	-	10	25	60	-	30	red	-	-	✓	80	67	111	12											to above	
E790 N	99	10	-	6	20	60	-	70	-	-	-	✓	100	76	111	12											to above	
E790 N	293200	10	-	20	30	40	9%	100	tan	-	-	✓	100	92	163	18											to above	
E690 N	01	10	-	10	10	10	R	60	-	-	-	✓	200	59	78	9											Red fine tuff	
E590 N	02	10	-	10	20	60	-	70	red	-	-	✓	100	70	132	18											Red conglomerate	
E490 N	03	5	-	10	20	65	-	100	-	-	-	✓	100	89	140	19											to above	
E490 N	04	10	-	5	20	65	-	100	-	-	-	✓	100	80	89	16											Red fine tuff	
E490 N	05	10	-	5	20	65	-	100	-	-	-	✓	100	96	127	19											to above to argill shale	
E490 N	06	10	-	5	20	65	-	100	-	-	-	✓	100	82	109	20											Red fine tuff	
E490 N	07	5	-	5	30	60	-	80	-	-	-	✓	100	92	127	18											to above	
E490 N	08	5	-	5	30	60	-	100	-	-	-	✓	100	110	129	18											Red fine silty tuff	
E490 N	09	10	-	20	30	40	-	80	-	-	-	✓	60	86	140	15											Red base or argill or fine tuff	
E490 N	293210	15	-	6	25	40	C	70	tan	-	-	✓	70	210	154	17											Red fine tuff	
E490 N	11	5	-	10	20	65	B	100	red	-	-	✓	100	83	127	24											Shale	
E490 N	293212	10	-	20	60	60	9%	100	-	-	-	✓	100	30	30	13											to above or argill	
LINE 28E 28Sec ME																												
E490 N	293213	5	-	5	20	70	B	9%	red	-	-	✓	60	89	119	17												Red shale
E490 N	14	5	-	5	20	70	-	100	-	-	-	✓	60	94	115	16												Red argill
E490 N	15	5	-	5	30	60	-	80	-	-	-	✓	-	86	123	17												to argill
E490 N	16	5	-	5	20	70	-	70	-	-	-	✓	-	86	129	17												to above
E490 N	293217	10	-	15	6	65	-	50	-	-	-	✓	60	69	106	16												Red fine tuff to shale

C.R.A.E. 31. EL. 19/72 NIETTA TAS.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

DPO. 1775.

AREA LOMATEA NORTH PROSPECT

SAMPLE Nos. 293244 - 293271

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A for 19

ANALYSED BY ZINC GRP BROKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock	Metal content, p. p. m.										Geological observations		
		Rock %	Levein %	Sand %	Silt %	Clay %		Depth (meters)	Colour (Munsell Chart No.)	pH		Outcrop	Concreted	Est. Depth to	Pb	Zn	Cu	Ni	Co	Cr	Mn		Ag	Mo
LINE 2/SE 2500E																								
6600 N	293244	2	-	5	15	60	B	60	lean	-	/	60	50	113	26									Red shale
6600 N	45	15	-	5	20	60	-	60	"	-	/	60	67	123	30									to above
6600 N	46	10	-	5	20	65	-	30	"	-	/	60	54	163	23									to above
6600 N	47	5	-	5	10	80	-	50	"	-	/	-	37	147	12									of low b or red flow till?
6600 N	48	15	-	5	20	60	-	30	"	-	/	-	140	184	9									of low b.
6700 N	49	10	-	10	20	60	-	30	"	-	/	-	120	220	9									to above
6700 N	293250	10	-	10	20	60	-	30	"	-	/	-	130	166	7									to above
6700 N	51	10	-	10	20	60	-	30	"	-	/	-	250	230	11									to above
6700 N	52	15	-	10	5	70	C	50	"	-	/	60	130	173	11									Red silty fine till.
6700 N	53	15	-	5	10	70	B/C	60	"	-	/	70	67	200	8									Red silty fine till.
6800 N	54	10	-	5	10	75	B	100	red	-	/	100	140	187	18									Red argillaceous
6800 N	55	5	-	5	15	75	-	70	"	-	/	60	140	230	18									Red fine till orange?
6800 N	56	5	-	5	20	70	-	110	"	-	/	100	150	240	19									to above
6800 N	57	5	-	5	20	60	-	60	"	-	/	100	120	193	15									to above
6800 N	58	5	-	5	10	80	-	110	"	-	/	100	140	194	17									Red thick till
6900 N	59	5	-	5	20	70	-	100	lean	-	/	200	160	189	19									Red fine till to shale.
6900 N	293260	5	-	5	10	70	-	10	red	-	/	-	130	197	20									of argill
6900 N	61	20	-	5	10	65	A	70	lean	-	/	-	67	104	5									to above
6900 N	62	5	-	5	30	60	B.	30	"	-	/	-	70	113	12									to above
6900 N	63	5	-	5	20	70	-	60	red	-	/	-	59	111	11									to above
7000 N	64	10	-	5	10	75	-	10	"	-	/	-	79	121	12									to above
7000 N	65	10	-	5	20	65	-	60	"	-	/	-	53	106	14									to above
7000 N	66	10	-	10	10	70	-	110	"	-	/	-	64	100	16									to above
7000 N	293267	5	-	5	10	80	-	60	"	-	/	100	75	121	17									Possibly orange
LINE 2/SE 2500E																								
6470 N	293268	20	-	10	10	60	B	50	lean	-	/	80	41	67	5									Red shale
6470 N	69	5	-	5	30	60	-	60	"	-	/	80	73	78	8									to above
6470 N	293270	10	-	5	10	65	-	30	"	-	/	60	110	127	10									to above
6470 N	293271	10	-	5	20	65	-	40	"	-	/	80	120	149	10									to above

105 7.70

C.R.A.E. 31. EL. 19/12 NIETA TBS.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.O. 17776 (to 297436)
D.O. 17780 (From 297138)

66

AREA LOYETER NORTH PROSPECT
MAP OR PHOTO REFERENCE A. 165

SAMPLE Nos. 297430 - 297436
297138 - 297159

COLLECTED BY [Signature]
ANALYSED BY ZINC CORP. BROKEN HILL

Grid Coordinates	Sample No.	Soil composition					Soil horizon	Sample	Bedrock		Metal content, p. p. m.										Geological observations			
		Rock %	Lignite %	Sand %	Silt %	Clay %			Depth (ft)	Colour (Munsell Chart No.)	pH	Outcrop	Contacted	Est. Depth	Pb	Zn	Cu	Ni	Ca	Cr		Mn	Ag	Mo
LINE 19/E	(cont.)																							
6000 M/N	297430	-	-	-	30	70	B	10	10	-	-	✓	60	160	188	18						1		
6030 N	31	5	-	-	20	75	B	70	70	-	-	✓	60	160	200	21						2	Red argillaceous.	
6010 N	32	5	-	-	30	66	B	30	30	-	-	✓	60	160	156	14						1	of arg.	
5990 N	33	6	-	-	20	66	B	10	10	-	-	✓	60	180	142	15						1	Red arg. arg.	
6090 N	34	6	-	-	20	65	B	30	30	-	-	✓	200	150	14							1	of arg.	
6110 N	35	6	-	-	28	66	B	10	10	-	-	✓	240	145	14							1	of arg.	
6170 N	297436	5	-	-	30	60	B	30	30	-	-	✓	140	174	17							1	As above	
LINE 19/E																								
15500 E																								
6120 M	297138	15	-	10	25	50	C	80	Beige	-	-	✓	90	56	220	43						1	Red fine tuff.	
6100 N	39	5	-	5	30	60	C	110	Brown	-	-	✓	120	68	83	49						1	As above	
6080 N	297440	5	-	5	30	60	"	120	"	-	-	✓	120	36	54	19						41	Red tuff. arg.	
6060 N	41	5	-	5	40	50	B	120	"	-	-	✓	150	34	103	12						1	Red arg.	
6040 N	42	15	-	5	60	20	"	60	"	-	-	✓	22	141	13						1	of arg.		
6020 N	43	10	-	5	25	60	B/C	50	"	-	-	✓	60	55	220	9						1	Red arg.	
6000 N	44	5	-	5	70	20	B	100	"	-	-	✓	140	74	176	18						1	Red fine arg.	
5980 N	45	10	-	5	50	35	B/C	60	"	-	-	✓	80	85	147	17						1	As above	
5960 N	46	5	-	5	60	30	B	90	"	-	-	✓	120	85	145	24						1	Red shale	
5940 N	47	5	-	10	65	20	"	60	"	-	-	✓	90	38	122	27						1	As above	
5920 N	48	10	-	5	75	10	"	40	"	-	-	✓	80	38	130	15						1	Red fine arg. or sand.	
5900 N	49	10	-	10	60	20	"	50	"	-	-	✓	100	82	220	30						1	Red sand	
5880 N	297150	15	-	10	65	10	"	40	"	-	-	✓	80	40	60	16						1	Red fine sand	
5860 N	51	15	-	10	65	10	"	60	"	-	-	✓	80	36	100	50						41	Red fine tuff.	
5840 N	52	10	-	10	60	20	B/C	90	"	-	-	✓	100	50	220	42						1	As above.	
5820 N	53	10	-	5	55	30	"	50	"	-	-	✓	70	30	156	19						1	Red sand (arg.?).	
5800 N	297154	5	-	5	80	10	B	50	"	-	-	✓	100	35	138	19						1	Red arg.	
LINE 16																								
16000 E																								
6130 M	297155	5	-	5	70	20	B	50	Brown	-	-	✓	32	57	12							41	of argillaceous.	
6110 N	50	10	-	10	75	5	"	40	"	-	-	✓	26	118	16							1	As above.	
6090 N	51	5	-	5	30	60	B/C	50	"	-	-	✓	80	42	90	12						1	Red arg.	
6070 N	52	15	-	10	65	10	B	20	"	-	-	✓	100	37	147	22						1	As above.	
6050 N	297159	10	-	10	20	60	"	50	"	-	-	✓	52	139	16							1	As above.	

E.L. 1972 DIAL RANGE T.A.S.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 17756.

AREA NIETA PROSPECT - CATRA ANOMALIES.

SAMPLE Nos. 247194 - 247221

COLLECTED BY *[Signature]*

MAP OR PHOTO REFERENCE NIETA PROSPECT, E.L. 1972 DIAL RANGE, N.W. T.A.S. SHEET 1. 1:5000 PLAN.

ANALYSED BY ZINC CORP. BROKEN HILL.

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample		Bedrock		Metal content, p. p. m.										Geological observations			
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (m)	Colour (Munsell Chart No.)	pH	Outcrop	Concentration	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag		Mo	As	
LINE 123																									
12310.0N																									
10270.0E	247194	5	-	5	0	80	B	110	3	-	✓	200	29	64	55								1		Red soil fine vitric tuff or silts
10350.0E	247195	-	-	-	20	80	B	100	3	-	✓	20	25	52	40								2		-
10370.0E	247196	-	-	-	10	90	B	80	3	-	✓	20	25	51	37								2		-
10810.0E	247197	10	-	-	10	80	B	115	3	-	✓	140	34	70	48								2		Red soil fine vitric tuff mudd.
10790.0E	247198	-	-	-	10	90	B	100	3	-	✓	200	21	64	32								1		-
10770.0E	247199	-	-	-	10	90	B	110	3	-	✓	200	39	62	34								1		-
10750.0E	247200	-	-	-	20	80	B	100	3	-	✓	250	34	62	42								1		-
20730.0E	247201	-	-	-	20	80	B	110	3	-	✓	250	39	57	37								1		-
20710.0E	247202	10	-	5	15	70	B	110	3	-	✓	140	25	56	37								<1		Red soil fine vitric tuff
10740.0E	247203	10	-	5	15	70	B	110	3	-	✓	140	25	56	37								1		Red soil medium coarse fine vitric tuff
10670.0E	247204	20	-	10	10	60	B	80	3	-	✓	50	34	93	50								1		As above
10650.0E	247205	10	-	5	10	75	B	80	3	-	✓	80	34	78	53								1		Red soil fine tuff or silts
10630.0E	247206	10	-	5	10	75	B	110	3	-	✓	140	30	71	45								1		Red soil medium coarse fine vitric tuff
10610.0E	247207	10	-	5	15	75	B	110	3	-	✓	140	34	82	55								<1		As above
10590.0E	247208	10	-	5	5	80	B	110	3	-	✓	140	30	84	59								1		As above
10570.0E	247209	-	-	20	10	70	B	90	3	-	✓	140	30	42	21								<1		Partly rather shaly tuff
10550.0E	247210	10	-	5	15	70	B	80	3	-	✓	200	21	48	32								<1		Red soil fine vitric tuff - Partly silty
10530.0E	247211	5	-	5	10	80	B	90	3	-	✓	180	21	48	61								1		silty gravel Red mudd. - fine vitric tuff
10390.0E	247212	5	-	5	10	80	B	120	3	-	✓	250	20	72	110								4		As above
10410.0E	247213	5	-	5	10	80	B	80	3	-	✓	120	29	69	100								1		As above
10420.0E	247214	10	-	5	10	70	B	90	3	-	✓	70	36	107	110								1		As above
10450.0E	247215	5	-	5	10	70	B	90	3	-	✓	110	50	130	92								1		As above
10470.0E	247216	20	-	20	15	55	B	100	3	-	✓	130	73	118	87								1		As above
10490.0E	247217	20	-	15	15	50	B	110	3	-	✓	110	140	200	110								1		As above
10610.0E	247218	10	-	5	10	75	B	90	3	-	✓	90	68	88	67								1		As above
11030.0E	247219	10	-	5	10	75	B	110	3	-	✓	110	29	80	63								1		As above
10650.0E	247220	20	-	20	15	55	B	105	3	-	✓	125	25	46	63								1		As above
11070.0E	247221	5	-	5	10	80	B	110	3	-	✓	140	34	66	38								1		As above

E.L. 19/72. DIAL RANGE Twp. C.R.A. EXPLORATION PTY. LIMITED
 C.R.A.E. 31. GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.C. 1756. 2

AREA NIETRA PROSPECT - CASTRA ANOMALIES.

SAMPLE Nos. 247222 - 247251.

COLLECTED BY *[Signature]*

MAP OR PHOTO REFERENCE *As for p. 1.*

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Co-ordinate	Sample No.	Soil composition				Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations				
		Rock %	Lignite %	Sand %	Silt %		Clay %	Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag		Mo	As		
LINE 123																										
1040E	247222	5	1	10	71	80	B	110	2/1	-	✓	140	50	82	41					1						Rock at fine silty buff or muds.
11110E	247223	10	1	16	66	60	B	10	2/1	-	✓	80	40	77	43					<1						As above.
11130E	247224	5	1	10	71	70	B	80	2/1	-	✓	120	39	58	48					<1						As above.
11150E	247225	15	1	10	65	70	B	110	2/1	-	✓	110	16	56	80					<1						As above.
11170E	247226	20	1	10	60	80	B	110	2/1	-	✓	110	76	240	69					<1						As above.
11190E	247227	5	1	10	71	80	B	110	2/1	-	✓	80	19	67	65					1						As above.
11210E	247228	5	1	10	71	80	B	110	2/1	-	✓	140	19	56	60					1						As above.
11230E	247229	5	1	10	71	80	B	110	2/1	-	✓	160	13	51	38					1						As above.
LINE 123																										
12210.M.H.																										
10950E	247230	10	1	10	71	75	B	70	2/1	-	✓	70	37	220	57					1						Rock muds of fine silty buff
10970E	247231	20	1	10	65	65	B	40	2/1	-	✓	40	13	32	40					1						As above.
10990E	247232	35	1	10	45	45	B	90	2/1	-	✓	90	26	62	73					1						As above.
11010E	247233	15	1	10	65	65	B	80	2/1	-	✓	80	42	71	75					2						As above.
11030E	247234	10	1	10	75	75	B	100	2/1	-	✓	100	47	64	60					2						As above.
11050E	247235	10	1	10	70	70	B	100	2/1	-	✓	100	100	166	68					1						As above.
11070E	247236	20	1	10	60	60	B	100	2/1	-	✓	100	120	161	76					2						As above.
11090E	247237	10	1	10	70	70	B	80	2/1	-	✓	80	67	134	78					1						As above.
11110E	247238	20	1	10	60	60	B	100	2/1	-	✓	150	58	55	50					2						As above.
11130E	247239	5	1	10	75	75	B	110	2/1	-	✓	110	24	89	61					1						As above.
11150E	247240	5	1	10	70	80	B	110	2/1	-	✓	110	10	91	63					1						As above.
11170E	247241	5	1	10	75	85	B	110	2/1	-	✓	120	21	70	33					1						As above.
11190E	247242	5	1	10	75	85	B	100	2/1	-	✓	100	16	80	29					<1						As above.
11210E	247243	5	1	10	75	85	B	100	2/1	-	✓	100	16	57	37					1						As above.
11230E	247244	5	1	10	75	85	B	90	2/1	-	✓	95	18	59	38					1						As above.
11250E	247245	15	1	10	70	70	B	80	2/1	-	✓	60	11	70	30					<1						Other fine micaceous s/s.?
10930E	247246	5	1	10	75	85	B	110	2/1	-	✓	140	30	76	55					1						Rock fine silty buff or muds.
10910E	247247	5	1	10	75	85	B	110	2/1	-	✓	180	26	62	38					1						As above.
10870E	247248	10	1	10	75	85	B	110	2/1	-	✓	80	34	68	31					<1						As above.
10870E	247249	5	1	10	75	80	B	100	2/1	-	✓	140	29	76	46					<1						As above.
10850E	247250	5	1	10	75	80	B	110	2/1	-	✓	140	39	71	60					1						As above.
10830E	247251	5	1	10	75	80	B	100	2/1	-	✓	140	40	64	53					4						As above.

E.L. 1972. DIAL RANGE TAS.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.A.O. 17756. 3.

AREA NIETTA PROSPECT - CASTRA ANOMALIES.
MAP OR PHOTO REFERENCE *As per pl.*

SAMPLE Nos. 247252 - 247281

COLLECTED BY *[Signature]*
ANALYSED BY ZINC CORP. BRACKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil texture	Sample			Bedrock		Metal content, p. p. m.										Geological observations			
		Rock %	Laterite %	Sand %	Silt %	Clay %		Depth (m)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As		
LINE 122 (cont.)																										
1081CE	247252	15	-	0	5	70	WB	110	2d	-	-	✓	120	70	74	68										Red soil fine vitric tuff - mufk
1079OE	247253	5	-	0	5	80	WB	108	2	-	-	✓	120	68	55	46										As above.
1077OE	247254	15	-	0	5	80	B	110	2	-	-	✓	140	62	48	46										As above.
1075OE	247255	10	-	0	5	85	WB	80	2	-	-	✓	80	47	82	58										As above.
1073OE	247256	5	-	0	5	90	B	110	2	-	-	✓	120	80	111	89										As above.
1071OE	247257	5	-	0	5	90	B	100	2	-	-	✓	120													As above.
1069OE	247258	5	-	0	5	90	B	110	2	-	-	✓	140	160	113	86										As above.
1067OE	247259	5	-	0	5	70	WB	108	2	-	-	✓	100	68	78	73										As above.
1065OE	247260	5	-	0	5	80	WB	110	2	-	-	✓	160	56 53	59 62	48										As above.
1063OE	247261	5	-	0	5	80	WB	60	big	-	-	✓	80	16	27	16										As above.
1061OE	247262	5	-	0	0	75	S	70	2	-	-	✓	70	25	39	32										Red fine tuff - fine silts??
1059OE	247263	10	-	0	0	60	S	90	2	-	-	✓	90	35	48	31										Red fine slyc. tuff.
1057OE	247264	5	-	0	5	85	S	70	2	-	-	✓	70	30	35	26										Red soil fine vitric tuff - mufk
1055OE	247265	5	-	0	5	85	B	70	2	-	-	✓	120	25	24	20										As above.
1053OE	247266	-	-	0	10	75	WB	100	2	-	-	✓	120	26	33	24										Redden fine - med. slyc. tuff
1051OE	247267	-	-	0	0	75	B	110	2	-	-	✓	200	31	47	21										-
1049OE	247268	5	-	0	0	80	WB	60	2	-	-	✓	60	21	25	15										Red fine vitric silts tuff?
LINE 121																										
12110W																										
1048OE	247269	5	-	0	0	75	B	110	big	-	-	✓	160	25	62	71										Red fine vitric tuff - mufk
1047OE	247270	5	-	0	0	80	WB	108	2	-	-	✓	140	25	64	66										As above.
1045OE	247271	10	-	0	0	75	WB	108	2	-	-	✓	110	36	83	76										As above.
1043OE	247272	20	-	0	0	65	S	90	2	-	-	✓	100	68	123	95										As above.
1103OE	247273	15	-	0	0	70	S	90	2	-	-	✓	100	92 84	135 127	40										Red silts. (a fine tuff?)
1105OE	247274	10	-	0	0	70	S	60	2	-	-	✓	70	25	92	57										As above.
1107OE	247275	15	-	0	0	70	S	110	2	-	-	✓	120	45	170	76										Red soil mufk/a fine vitric tuff
1109OE	247276	5	-	0	0	70	S	110	2	-	-	✓	120	13	109	46										As above.
1111OE	247277	20	-	0	0	65	S	80	2	-	-	✓	90	18	60	62										As above.
1113OE	247278	20	-	0	0	65	S	100	2	-	-	✓	100	15	146	62										As above.
1115OE	247279	20	-	0	0	65	S	80	big	-	-	✓	80	67	115	76										As above.
1117OE	247280	5	-	0	0	80	S	110	2	-	-	✓	110	11	50	67										As above.
1119OE	247281	10	-	0	0	80	S	110	2	-	-	✓	110	13	60	80										As above.

EL. 9712 DIAL RANGE TAB.

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 17756.

4.

AREA NIETTA PROSPECT - CASTRA ANCHALIES

SAMPLE Nos. 247282 - 247311

COLLECTED BY: [Signature]

MAP OR PHOTO REFERENCE: A-17-13

ANALYSED BY: ZINC CORP. BROKEN HILL

Grid Co-ordinate	Sample No.	Soil composition				Soil horizon	Sample			Bedrock	Metal content, p. p. m.										Geological observations					
		Rock %	Limeite %	Sand %	Silt %		Clay %	Depth (cm)	Colour (Munsell) Chart No.		pH	Outcrop	Concealed	En. Depth	Pb	Zn	Cu	Ni	Co	Cr		Mn	Ag	Mo	As	
11210E	247282	5	-	10	10	78	WB	100	big	-	-	✓	10												Rock rather muds or fine vitric tuff	
11230E	247283	5	-	10	10	75	WB	80	big	-	-	✓	100												As above	
11250E	247284	20	-	5	5	70	WB	50	"	-	-	✓	50												As above	
16930E	247285	5	-	5	10	85	WB	110	"	-	-	✓	180												As above	
10410E	247286	5	-	10	5	80	WB	90	"	-	-	✓	90												As above	
10870E	247287	5	-	5	5	75	"	10	"	-	-	✓	120												As above	
10870E	247288	10	-	5	5	80	"	180	"	-	-	✓	100												As above	
10880E	247289	20	-	5	5	70	"	80	"	-	-	✓	80												As above	
10830E	247290	5	-	5	5	85	WB	10	"	-	-	✓	140												As above	
108310E	247291	20	-	5	5	70	WB	90	"	-	-	✓	90												As above	
10790E	247292	5	-	10	5	80	"	90	"	-	-	✓	110												As above	
10770E	247293	40	-	10	5	45	"	90	"	-	-	✓	90												As above	
10750E	247294	25	-	5	5	65	"	150	"	-	-	✓	100												As above	
10720E	247295	20	-	5	10	65	"	180	"	-	-	✓	100												As above	
10710E	247296	15	-	10	5	70	"	70	"	-	-	✓	70												As above slightly gossamer	
10690E	247297	15	-	5	10	75	"	100	"	-	-	✓	100												Rock rather fine vitric tuff or muds	
10670E	247298	40	-	10	5	45	"	110	"	-	-	✓	110												As above	
10650E	247299	30	-	5	5	80	"	110	big	-	-	✓	110												As above	
10630E	247300	10	-	10	5	75	WB	60	"	-	-	✓	60												Rock v fine goss silic tuff	
10610E	247301	5	-	10	5	80	WB	180	"	-	-	✓	100												Rock rather fine vitric tuff muds	
10590E	247302	10	-	10	10	70	"	60	"	-	-	✓	60												Rock altered fine mud shaly vitric tuff	
10570E	247303	10	-	10	5	75	"	40	"	-	-	✓	40												Rock rather fine vitric tuff (muds)	
10550E	247304	15	-	10	5	70	"	60	"	-	-	✓	60												Rock rather fine vitric tuff	
10530E	247305	5	-	20	5	70	WB	110	"	-	-	✓	140												As above	
10510E	247306	-	-	5	10	85	"	180	"	-	-	✓	180												?	
10490E	247307	10	-	10	10	70	WB	60	"	-	-	✓	60												Fine mud vitric shaly tuff	
10470E	247308	15	-	5	10	70	"	110	"	-	-	✓	110												Rock rather fine vitric tuff or muds	
10450E	247309	10	-	10	5	75	"	100	"	-	-	✓	100												As above	
LINE 119																										
11900MN																										
10470E	247310	40	-	20	10	30	WB	90	"	-	-	✓	90												Rock rather silty or fine tuff	
10450E	247311	10	-	5	10	75	"	180	"	-	-	✓	180													Rock rather fine vitric tuff or muds

466197

EL 1972 Dial Range Tns
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 1756.

AREA NIETRA PROSPECT - CASTRA ANOMALIES.

SAMPLE Nos. 24730 - 24734

COLLECTED BY: [Signature]

MAP OR PHOTO REFERENCE: A-14

ANALYSED BY: ZINC CORP. BROKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations				
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As			
LINE 119 (cont)																											
10430E	247312	15	-	5	10	70	WR	80	red	-	✓	80	140	62	100												Rock rather fine vitric tuff or muds
10440E	247313	10	-	20	10	60	"	90	red	-	✓	90	62	65	58												As above
10390E	247314	25	-	10	10	55	"	60	"	-	✓	60	26	50	43												As above
10370E	247315	5	-	10	10	75	"	10	"	-	✓	10	62	51	52												As above
10350E	247316	10	-	5	10	65	"	110	yellow	-	✓	110	36	54	23												Rock very fine shaly vitric tuff
10330E	247317	30	-	30	10	30	"	80	yellow	-	✓	80	29	50	14												Associated aluminous gravel
10310E	247318	10	-	20	5	65	WB	10	yellow	-	✓	10	40	35	67												Rock fine vitric tuff or muds
10290E	247319	10	-	10	5	75	"	80	"	-	✓	80	47	28	62												As above
LINE 119																											
11900MB																											
11270ME	247320	5	-	10	5	80	WB	90	br	-	✓	90	13	23	14												Reddish muds or fine vitric tuff
11250E	247321	20	-	20	10	50	"	10	br	-	✓	10	6	15	5												Rock grey lam silts. Flat area
11230E	247322	5	-	5	10	80	"	90	br	-	✓	110	4	6	6												Rock rather muds or fine vitric tuff
11210E	247323	10	-	5	20	65	"	20	br	-	✓	40	41	1	41												Rock quartz s/s
11190E	247324	10	-	5	10	75	"	70	br	-	✓	70	2	2	3												Rock rather fine vitric tuff or muds
11170E	247325	-	-	80	10	10	"	60	br	-	✓	200	2	41	1												Possibly or sil
11150E	247326	-	-	10	20	70	"	80	br	-	✓	90	25	19	8												or sh muds or fine vitric tuff
11130E	247327	20	-	20	10	50	"	80	br	-	✓	60	6	3	7												Rock quartz s/s or silic tuff?
11110E	247328	5	-	5	10	80	WR	90	br	-	✓	150	16	19	33												Rock fine vitric tuff or muds
11090E	247329	10	-	5	5	80	WR	60	br	-	✓	60	8	8	8												Rock shaly silic tuff or quartz
11070E	247330	20	-	10	10	60	"	18	br	-	✓	18	8	5	6												Rock rather muds or fine vitric tuff
11050E	247331	15	-	10	10	65	"	18	br	-	✓	18	26	9	25												As above
11030E	247332	5	-	20	10	65	"	60	br	-	✓	18	41	3	4												As above
11010E	247333	5	-	5	10	70	"	40	br	-	✓	40	6	7	10												As above
10990E	247334	5	-	10	5	80	"	90	br	-	✓	90	11	15	4												As above. (Flat grass muds or fine vitric tuff)
10970E	247335	10	-	5	20	65	"	40	br	-	✓	40	36	123	71												Rock grass muds or fine vitric tuff
10950E	247336	20	-	10	30	40	"	60	br	-	✓	60	61	117	49												As above
10930E	247337	15	-	10	10	65	"	60	br	-	✓	60	85	11	82												Rock rather fine vitric tuff or muds
10910E	247338	0	-	10	10	70	"	90	br	-	✓	90	47	191	146												As above
10890E	247339	10	-	10	10	70	"	90	br	-	✓	90	230	230	120												As above
10870E	247340	20	-	0	0	80	"	80	br	-	✓	80	200	93	88												As above

E.L. 1972 DIAL RANGE TAS.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.O. 17756 7.

AREA NIETA PROSPECT - CASTRA ANOMALIES.

SAMPLE Nos. 247371 - 247400

COLLECTED BY *[Signature]*

MAP OR PHOTO REFERENCE *As per pg.*

ANALYSED BY ZINC CORP. BACKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock	Metal content, p. p. m.										Geological observations						
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH		Outcrop	Cancelled	Exc. Depth to	Pb	Zn	Cu	Ni	Co	Cr	Mn		Ag	Mo	As			
10420E	247371	5	-	10	15	70	WB	80	red	-	✓	80	55	34	39											Red silty fine nitridif. or mudls		
10430E	247372	5	-	10	10	75	S	80	"	-	✓	90	92	57	57											As above		
10450E	247373	5	-	10	10	75	S	80	"	-	✓	100	85	61	71											As above		
10470E	247374	15	-	10	5	70	S	110	"	-	✓	110	59	46	50											As above		
10480E	247375	5	-	10	10	75	S	90	"	-	✓	100	45	35	32											As above		
11270E	247376	20	-	10	10	60	WB	60	grey	-	✓	80	4	4	5											Frag. laminated siltls. & s/s		
11250E	247377	20	-	20	30	30	S	40	"	-	✓	80	2	5	3											As above		
11230E	247378	25	-	30	25	20	B	40	grey	-	✓	80	4	4	7											Massive grey s/s (or dyke tail?)		
11210E	247379	25	-	20	30	20	WB	40	grey	-	✓	80	2	2	2											Banded frag. siltls. & s/s		
11190E	247380	15	-	10	10	65	WB	60	grey	-	✓	80	1	2	9											Red frag. mic siltls (6 quartz s/s)		
11170E	247381	15	-	10	10	65	S	110	"	-	✓	100	2	4	5											Red frag. lam siltls		
11150E	247382	20	-	20	10	50	S	40	"	-	✓	-	6	10	12											s/c banded s/s micaceous fraggy		
11130E	247383	25	-	20	20	35	S	50	"	-	✓	-	6	5	8											s/s -> siltls		
11110E	247384	10	-	10	10	70	S	60	"	-	✓	-	12	2	4											s/c mic. quartz -> laminated siltls		
11090E	247385	20	-	25	20	35	B	40	grey	-	✓	-	4	4	4											s/c fraggy lam. mic siltls & s/s		
11070E	247386	20	-	20	10	50	WB	40	grey	-	✓	-	9	5	2												As above	
11050E	247387	20	-	20	10	50	WB	40	grey	-	✓	-	2	2	1												s/c grey lam. quartz s/s	
11030E	247388	20	-	20	10	50	S	60	grey	-	✓	-	4	4	4												s/c fraggy mic. silt quartz s/s	
11010E	247389	25	-	20	25	30	S	40	grey	-	✓	-	1	5	1												As above	
10990E	247390	25	-	20	20	35	S	60	grey	-	✓	-	19	9	12												s/c lam. silt mic. sandy siltls & s/s	
10970E	247391	25	-	20	10	45	S	60	"	-	✓	-	25	11	21												As above	
10950E	247392	20	-	20	10	50	S	80	"	-	✓	-	9	10	14												s/c silt mic fraggy s/s -> shale	
10930E	247393	15	-	10	10	65	S	60	"	-	✓	-	6	7	10												As above	
10910E	247394	30	-	20	10	40	S	40	"	-	✓	-	4	6	7												s/c laminated black shale & sandy bands	
10890E	247395	30	-	15	20	35	S	40	"	-	✓	-	6	27	19												As above	
10870E	247396	10	-	10	20	60	S	60	red	-	✓	-	9	30	20													s/c green banded mudls
10850E	247397	10	-	10	20	60	S	70	"	-	✓	-	19	15	20													As above
10830E	247398	5	-	10	5	80	S	60	yellow	-	✓	-	13	35	45													As above
10810E	247399	20	-	10	20	50	S	100	grey	-	✓	100	13	32	28													Aluminium?
10790E	247400	20	-	10	20	50	WB	100	"	-	✓	100	15	23	45													Banded grey mudls.

E.L. 1972. DUN RANGE TRS.

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.R.O. 1757

9.

AREA NIETTA PROSPECT - CASTRA ANOMALIES.

SAMPLE Nos. 247430 - 247459.

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A.P. 1/3.

ANALYSED BY ZINC CORP. BROKEN HILL.

Grid Co-ordinate	Sample No.	Soil composition				Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations					
		Rock %	Lignite %	Sand %	Silt %		Clay %	Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Cancelled	Ext. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag		Mo	As			
LINE 116.																											
11590 m B.																											
10510 m E	247430	10	-	10	0	70	90	big	-	-	✓	90	9	11	7												Rock with fine vitric tuff.
10530 E	247431	-	-	10	60	30	110	fine	-	-	✓	250	17	102	13												
10550 E	247432	10	-	10	5	65	90	red	-	-	✓	90	85	72	60												Rock with fine vitric tuff & mud.
10570 E	247433	10	-	20	0	60	80	"	-	-	✓	80	95	41	55												As above.
10590 E	247434	10	-	10	20	60	80	"	-	-	✓	80	25	27	58												As above.
10610 E	247435	10	-	20	20	50	70	"	-	-	✓	80	32	24	53												As above.
10630 E	247436	10	-	10	20	60	90	"	-	-	✓	90	19	24	34												As above.
10650 E	247437	5	-	5	5	50	90	big	-	-	✓	90	27	21	63												As above.
10670 E	247438	5	-	10	20	50	110	"	-	-	✓	110	18	14	85												Rock with fine vitric tuff.
10690 E	247439	5	-	10	20	65	100	"	-	-	✓	100	12	6	43												As above.
10710 E	247440	5	-	10	20	65	70	red	-	-	✓	100	7	8	6												Rock with fine vitric tuff & mud.
10730 E	247441	5	-	10	20	65	90	big	-	-	✓	90	6	5	11												As above.
10750 E	247442	5	-	5	20	70	90	"	-	-	✓	90	6	5	11												As above.
10770 E	247443	5	-	5	20	70	90	"	-	-	✓	100	18	11	26												As above.
10790 E	247444	5	-	5	20	70	100	"	-	-	✓	110	9	28	45												Rock with fine vitric tuff.
10810 E	247445	20	-	0	20	50	10	"	-	-	✓	100	7	34	20												Rock with fine vitric tuff & mud.
10830 E	247446	20	-	0	20	50	90	"	-	-	✓	90	12	44	27												Rock with fine vitric tuff.
10850 E	247447	5	-	5	5	75	90	"	-	-	✓	100	4	4	7												As above.
10870 E	247448	5	-	10	20	55	100	"	-	-	✓	100	9	10	16												As above.
10890 E	247449	5	-	10	25	60	90	"	-	-	✓	100	4	4	3												Rock micaceous silts (or vitric tuff?).
10910 E	247450	5	-	10	20	65	90	"	-	-	✓	100	3	4	5												Rock with fine vitric tuff & mud.
10930 E	247451	5	-	10	0	65	80	"	-	-	✓	80	11	11	19												As above.
10950 E	247452	5	-	10	40	40	80	"	-	-	✓	80	7	13	41												of low, porous silts - fine.
10970 E	247453	5	-	10	35	50	80	"	-	-	✓	80	2	3	7												As above.
10990 E	247454	5	-	10	20	55	60	big	-	-	✓	100	3	7	15												Rock or above.
11010 E	247455	5	-	20	10	65	60	big	-	-	✓	100	2	4	2												As above.
11030 E	247456	5	-	30	25	40	80	big	-	-	✓	100	2	1	3												As above.
11050 E	247457	5	-	20	25	50	90	big	-	-	✓	90	1	1	6												Rock micaceous quartz (or vitric tuff?).
11070 E	247458	20	-	15	20	45	100	"	-	-	✓	100	12	1	10												Rock mic. lam silts.
11090 E	247459	5	-	10	35	40	80	big	-	-	✓	100	4	1	1												Rock mic quartz (or vitric tuff?).

E.L. 472 DIAL RANGE, TAS.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.F.O. 17757 10.

AREA NIETA PROJECT - COSTA ANOMALIA
MAP OR PHOTO REFERENCE A 47 19

SAMPLE Nos. 24746 - 24788

COLLECTED BY [Signature]
ANALYSED BY ZINC CORP. BRAKEN HILL.

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations					
		Rock %	Laterite %	Sand %	Silt %	Clay %		Depth (m)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As				
LINE 111 (cont.)	10910E 24746	5	-	25	70	5	B	70	grey	-	-	✓ 120	7	3	3													Red grey lam. v. fine (siliceous) siliceous - limonitic. Red fine grained silty tuff. As above.
	10930E 24746.1	10	-	35	30	25	WS	80	grey	-	-	✓ 100	2	2	2													Red fine lam. silty tuff.
	10950E 24746.2	20	-	30	20	30	WS	80	grey	-	-	✓ 100	1	1	2													Red grey v. fine silty tuff.
	10970E 24746.3	5	-	20	25	50	WS	80	grey	-	-	✓ 90	7	1	2													Red grey mudstone.
	10990E 24746.4	10	-	10	40	40	WS	90	grey	-	-	✓ 100	1	4	1													
	11010E 24746.5	5	-	20	40	35	B	10	grey	-	-	✓ 60	2	1	1													
LINE 115																												
11490 mN																												
10200 mE	24746.6	15	-	10	10	65	WS	80	grey	-	-	✓ 80	20	40	47													Red silt. fine silty tuff mudstone.
10270E	24746.7	15	-	10	10	65	S	80	grey	-	-	✓ 80	52	37	50													As above.
10250E	24746.8	0	-	0	10	70	S	80	grey	-	-	✓ 90	40	55	45													As above.
10230E	24746.9	10	-	0	10	70	S	80	grey	-	-	✓ 90	17	23	46													As above.
10210E	24747.0	15	-	10	10	65	S	80	grey	-	-	✓ 80	16	29	53													As above.
10190E	24747.1	20	-	0	10	60	S	80	grey	-	-	✓ 80	38	46	82													As above.
10170E	24747.2	25	-	10	10	55	S	80	grey	-	-	✓ 90	20	34	38													As above.
10150E	24747.3	10	-	10	10	65	S	80	grey	-	-	✓ 80	24	34	39													As above.
10130E	24747.4	10	-	20	10	60	S	80	grey	-	-	✓ 80	45	96	80													As above.
10110E	24747.5	5	-	20	10	65	S	80	grey	-	-	✓ 90	39	37	27													As above.
10090E	24747.6	10	-	45	20	35	WS	80	grey	-	-	✓ 80	10	2	1													Red silt. v. fine.
10070E	24747.7	5	-	25	25	35	WS	90	grey	-	-	✓ 100	42	4	10													Red fine grained silty mudstone.
10050E	24747.8	10	-	45	30	25	WS	80	grey	-	-	✓ 100	18	2	2													Red quartz silt.
10030E	24747.9	5	-	40	40	20	S	80	grey	-	-	✓ 100	2	4	1													As above.
10010E	24748.0	-	-	30	30	20	S	90	grey	-	-	✓ 100	7	2	1													?
9990E	24748.1	5	-	45	10	40	WS	80	grey	-	-	✓ 100	14	15	7													Red silt. mic. silt.
9970E	24748.2	5	-	45	10	40	WS	80	grey	-	-	✓ 100	1	6	5													As above.
9950E	24748.3	20	-	10	20	20	WS	80	grey	-	-	✓ 100	41	4	3													etc. heavy quartz silt.
9930E	24748.4	5	-	30	40	25	WS	80	grey	-	-	✓ 100	7	4	8													As above.
9910E	24748.5	20	-	25	30	25	WS	80	grey	-	-	✓ 100	10	13	13													As above.
9890E	24748.6	20	-	35	30	35	S	70	grey	-	-	✓ 70	1	21	11													Red grey quartz silt.
10310E	24748.7	40	-	10	10	40	S	40	red	-	-	✓ 40	12	54	35													Red fine grained silty mudstone.
10330E	24748.8	-	-	15	40	45	WS	170	black	-	-	✓ 100	15	92	15													Alluvium.

E.L. 19/72. DIAL RANGE, TAS.

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

DAO. 17757.

AREA NITTA PROSPECT - CASTRA ANOMALIES.

SAMPLE Nos. 243749 - 243778.

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A. p. p. 12

ANALYSED BY ZINC COR. BROKEN HILL.

Grid Coordinate	Sample No. (Cont.)	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations					
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Cancelled	Est. Depth	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As				
10C90E	243749	5	-	20	5	70	B	70	grey	-	✓	100	41	2	1												Rock clay till.	
10E70E	243750	8	-	20	20	52	B	80	grey	-	✓	80	41	41	41												As above.	
10D50E	243751	10	-	20	20	50	B	80	grey	-	✓	100	41	2	1												clay till.	
10D30E	243752	25	-	30	35	10	B	70	grey	-	✓	100	4	2	1												Rock clay till (fine st 22)	
10D10E	243753	15	-	15	35	35	B	50	grey	-	✓	80	2	8	2												Rock as above s/s.	
9990E	243754	20	-	15	30	25	B	40	grey	-	✓	100	3	4	3												As above.	
9970E	243755	20	-	10	50	20	B	20	"	-	✓	100	17	9	5												Rock grey micaceous quartz s/s.	
9950E	243756	20	-	25	35	20	B	80	"	-	✓	100	30	5	5												As above.	
9910E	243757	20	-	25	35	20	B	90	grey	-	✓	90	29	3	3												As above.	
9890E	243758	25	-	35	15	15	B	60	grey	-	✓	100	15	2	1												As above.	
9870E	243759	25	-	35	25	15	B	40	grey	-	✓	100	27	3	2												clay grey lam. micaceous.	
9850E	243760	15	-	30	25	15	B	80	"	-	✓	100	21	6	2												Rock quartz s/s.	
9830E	243761	20	-	25	30	25	B	80	"	-	✓	100	17	13	2												Rock mic. quartz s/s (lam.)	
9810E	243762	10	-	30	20	16	B	80	"	-	✓	250	2	6	1												As above.	
9790E	243763	15	-	25	35	25	B	80	"	-	✓	100	1	3	1												Ordovician conglomerate.	
9770E	243764	30	-	25	20	25	B	10	"	-	✓	50	4	9	2												As above.	
9750E	243765	40	-	25	15	10	B	60	"	-	✓	100	41	4	2												As above.	
9730E	243766	40	-	35	15	10	B	40	"	-	✓	100	2	10	2												As above.	
9710E	243767	20	-	20	20	20	B	80	"	-	✓	100	2	6	2												As above.	
LINE 112																												
1190AN																												
10290AE	243768	-	-	10	70	20	B	100	black	-	✓	200	19	22	7												?	
10510E	243769	15	-	25	25	25	B	60	grey	-	✓	80	4	6	3												Rock clay till.	
10330E	243770	20	-	40	30	10	B	70	grey	-	✓	100	1	2	41												As above.	
10350E	243771	10	-	40	30	20	B	90	"	-	✓	100	41	3	41												As above.	
10370E	243772	5	-	45	35	15	B	50	"	-	✓	100	41	2	41												As above.	
10390E	243773	25	-	60	10	5	B	80	"	-	✓	80	41	2	41												As above.	
10410E	243774	5	-	60	30	5	B	90	"	-	✓	90	1	1	41												As above.	
10270E	243775	-	-	5	60	35	B	80	black	-	✓	160	21	14	8												?	
10250E	243776	-	-	10	55	35	B	40	grey	-	✓	100	1	2	41												Rock silt clay till.	
10230E	243777	10	-	20	20	60	B	80	grey	-	✓	140	25	10	3												Rock silt fine grey silty till.	
10210E	243778	5	-	15	55	65	B	100	grey	-	✓	100	16	18	3												Rock silt clay till.	

E.L 19/72 DIAL RANGE. TAS.

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 17757

14.

AREA NIETRA PROSPECT - GASTRA PROSPECT.

SAMPLE No. 243779 - 243808

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE

A 4 p 12

ANALYSED BY ZINC CORP. BROKEN HILLS

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Depth (ft)	Sample (Number) Chart No.	pH	Bedrock			Metal content, p. p. m.										Geological observations					
		Rock %	Lime %	Sand %	Silt %	Clay %					Outcrop	Consolidated	Ex. Depth	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As						
LINE 112	(cont.)																												
10190mE	243779	10	-	20	5	AN	50	8	1	-	✓	100	1	2	2													Rock shaly tuff	
10170E	243780	5	-	5	30	5	50	8	1	-	✓	70	1	1	21													As above.	
10150E	243781	5	-	25	20	10	50	8	1	-	✓	100	3	2	21													As above.	
10130E	243782	10	-	5	5	5	50	8	1	-	✓	90	2	1	21													As above.	
10110E	243783	5	-	10	5	5	50	8	1	-	✓	90	3	2	21													As above.	
10090E	243784	5	-	5	5	10	50	7	1	-	✓	100	3	2	21													As above.	
10070E	243785	5	-	10	30	25	50	7	1	-	✓	80	13	7	6													As above.	
10050E	243786	5	-	10	30	25	50	8	1	-	✓	160	34	22	71													Rock mic quartz (con. tuff ??).	
10030E	243787	5	-	10	60	25	50	8	1	-	✓	120	77	20	60													Rock very fine calc. shaly tuff (grey).	
10010E	243788	5	-	20	55	20	50	8	1	-	✓	120	290	10	7													Rock shaly tuff to quartz.	
9990E	243789	5	-	20	55	20	50	8	1	-	✓	100	130	7	4													Rock (2 feet) lam silt (s to fine) s/s	
9970E	243790	5	-	5	5	45	50	8	1	-	✓	100	180	7	6													Rock micritic tuff (to silt) s/s.	
9950E	243791	10	-	20	15	15	50	9	1	-	✓	100	47	4	7													Rock silt to fine s/s.	
9930E	243792	20	-	5	30	15	50	8	1	-	✓	60	5	2	2													As above.	
9910E	243793	5	-	5	30	15	50	7	1	-	✓	100	2	1	21														Rock grey mic. s/s.
9890E	243794	10	-	5	5	5	50	10	1	-	✓	140	31	8	15													As above.	
9870E	243795	5	-	10	6	25	50	7	1	-	✓	100	71	8	20													As above.	
9850E	243796	5	-	25	0	30	50	5	1	-	✓	200	9	2	1													As above.	
9830E	243797	10	-	20	40	30	50	6	1	-	✓	80	9	2	1													Rock lam. s/s to ab.	
9810E	243798	5	-	20	40	25	50	8	1	-	✓	60	11	2	5													As above.	
9790E	243799	5	-	20	5	20	50	8	1	-	✓	80	18	5	18													As above.	
9770E	243800	5	-	5	40	30	50	7	1	-	✓	80	11	4	14													As above.	
9750E	243801	10	-	25	40	25	50	8	1	-	✓	80	10	2	18													As above.	
9730E	243802	15	-	5	30	20	50	10	1	-	✓	10	4	2	5													As above.	
LINE 114																													
11390mE																													
10370mE	243803	5	-	25	20	40	50	6	1	-	✓	-	17	49	16													of lam silt to fine mic s/s.	
10350E	243804	20	-	10	10	60	5	15	1	-	✓	-	21	51	15														As above.
10410E	243805	10	-	10	20	60	5	10	1	-	✓	-	9	35	7														As above.
10430E	243806	5	-	10	20	50	5	80	1	-	✓	80	8	7	6														As above.
10450E	243807	30	-	10	10	30	5	80	1	-	✓	80	14	12	28														Rock as above.
10470E	243808	20	-	20	20	40	5	80	1	-	✓	80	6	3	23														As above.

E.L. 19/72 DIAL RANGE TAS.

16.

C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 1757

AREA NIETTA PROSPECT - CASIRA ANOMALIES.

SAMPLE Nos. 243838 - 243864

COLLECTED BY *[Signature]*

MAP OR PHOTO REFERENCE *A.P. p. 15.*

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.											Geological observations		
		Rock %	Laterite %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As			
LINE 95E																										
9500 mE																										
10620 mN	243838	10	-	35	35	20	WB	80	grey	-	-	✓	80	24	3	41								41		Reddy tuff, probably ash flow. Reddy tuff or silt/s.
10640 mN	243839	10	-	35	45	25	WB	70	grey	-	-	✓	80	42	7	1									1	Probably ash flow tuff or s/s.
10660 mN	243840	10	-	25	55	20	B	80	grey	-	-	✓	120	29	10	41									1	Reddy tuff or s/s.
10680 mN	243841	10	-	10	45	35	EB	60	grey	-	-	✓	80	42	12	2									1	Reddy tuff or s/s.
10700 mN	243842	10	-	30	45	25	B	40	grey	-	-	✓	-	37	5	41									1	of lam silt/s & s/s.
10720 mN	243843	10	-	30	45	25	B	70	grey	-	-	✓	90	11	3	41									1	Reddy tuff or s/s.
10740 mN	243844	10	-	10	45	35	EB	70	grey	-	-	✓	-	11	2	41									1	of grey silt/s.
10760 mN	243845	10	-	10	45	35	EB	80	grey	-	-	✓	-	71	7	2								41	1	of lam silt/s & s/s.
10780 mN	243846	10	-	30	30	35	B	60	grey	-	-	✓	80	50	3	41									1	Reddy tuff or s/s.
10800 mN	243847	10	-	35	35	20	B	100	grey	-	-	✓	100	19	2	41									41	Reddy tuff or s/s.
10820 mN	243848	10	-	35	30	25	B	40	grey	-	-	✓	60	6	41	41									41	Reddy tuff or s/s.
10840 mN	243849	10	-	30	30	30	B	90	grey	-	-	✓	90	22	5	41									1	Reddy tuff or s/s.
10860 mN	243850	10	-	20	30	50	B	80	grey	-	-	✓	70	62	41	3									41	Reddy tuff or s/s.
10880 mN	243851	10	-	10	35	45	EB	10	grey	-	-	✓	80	18	10	11									1	Alluvium
10900 mN	243852	10	-	10	35	45	EB	10	grey	-	-	✓	80	48	35	46									1	Reddy tuff or s/s.
10920 mN	243853	10	-	10	40	50	B	40	grey	-	-	✓	-	14	2	2									1	Reddy tuff or s/s.
10940 mN	243854	10	-	30	40	20	B	80	grey	-	-	✓	-	6	11	3									1	of ash flow to grey s/s.
LINE 96E																										
9600 mE																										
10620 mN	243855	10	-	30	45	20	WB	100	grey	-	-	✓	110	41	1	41									41	Reddy tuff (prob. ash flow).
10640 mN	243856	10	-	30	20	20	B	90	grey	-	-	✓	100	41	1	41									1	As above.
10660 mN	243857	10	-	30	20	20	B	80	grey	-	-	✓	110	41	41	41									41	As above.
10680 mN	243858	10	-	30	25	10	B	80	grey	-	-	✓	120	41	41	41									41	As above.
10700 mN	243859	10	-	10	20	70	B	100	grey	-	-	✓	100	4	3	41									1	As above or fine s/s.
10720 mN	243860	10	-	25	10	55	WB	90	grey	-	-	✓	-	5	8	1									1	of lam s/s & s/s.
10740 mN	243861	10	-	35	45	15	WB	100	grey	-	-	✓	130	1	2	41									41	Reddy tuff or s/s.
10760 mN	243862	10	-	10	60	20	WB	80	grey	-	-	✓	-	11	6	41									1	of (or s/s?) fine grey-green vitric tuff.
10780 mN	243863	10	-	10	60	25	B	90	grey	-	-	✓	-	37	45	2									1	As above.
10800 mN	243864	10	-	35	40	20	WB	80	grey	-	-	✓	-	9	7	3									1	of s/s & lam silt/s or s/s.

E.L. 19/72 DIAL RANGE T.A.S.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.F.O. 1776.

AREA NETTA PROSPECT - SHEET 4 - PHASE 3 SAMPLING.

SAMPLE Nos. 273081 - 273110

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE: NETTA PROSPECT, E.L. 19/72 DIAL RANGE N.W.T.A.S. 1:5000 SHEET A

ANALYSED BY ZINC CORP. BREMEN H.A.

Grid Coordinates	Sample No.	Soil composition					Soil horizon	Sample				Bedrock		Metal content, p. p. m.										Geological observations			
		Rock %	Levite %	Sand %	Silt %	Clay %		Depth (cm)	Colour	Munsell Chrom. No.	pH	Outcrop	Concrete	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As		
LINE 135 E																											
13500 mE																											
10570 mN	273081	20	-	10	20	50	WB	70	brown	-	-	-	60	15	17	3											off fine grain silty silt
10550 N	82	20	-	10	20	50	"	60	"	-	-	-	60	3	7	2											off fine grain silty silt
10530 N	83	20	-	10	20	50	"	30	"	-	-	-	60	3	9	2											As above
10510 N	84	20	-	10	20	50	"	50	"	-	-	-	60	6	12	2											As above
10490 N	85	20	-	10	40	30	WB	40	"	-	-	-	80	3	9	1											As above
10470 N	86	20	-	10	20	50	WB	60	"	-	-	-	80	4	7	1											As above
10450 N	87	25	-	15	20	40	"	70	beige	-	-	-	70	6	7	3											As above
10430 N	88	25	-	20	15	40	"	70	"	-	-	-	70	2	4	1											As above
10410 N	89	20	-	10	20	50	WB	30	brown	-	-	-	60	13	25	6											As above
10390 N	273090	20	-	10	20	50	"	30	"	-	-	-	60	8	14	5											As above
10370 N	91	20	-	10	20	50	"	40	"	-	-	-	80	6	12	1											As above
10350 N	92	20	-	10	20	50	"	30	"	-	-	-	50	15	17	3											As above
10330 N	93	20	-	10	30	40	"	40	"	-	-	-	70	8	41	4											As above
10310 N	94	30	-	20	30	20	"	30	"	-	-	-	60	11	39	8											As above
10290 N	95	30	-	20	30	20	"	40	"	-	-	-	80	13	20	8											As above
10270 N	96	25	-	20	10	45	WB	70	"	-	-	-	70	22	25	12											As above
10250 N	97	25	-	20	10	45	"	100	"	-	-	-	100	35	28	10											As above
10230 N	98	25	-	20	10	45	"	50	"	-	-	-	50	25	23	12											As above
10210 N	99	25	-	10	20	45	"	40	"	-	-	-	60	37	33	10											As above
10190 N	273100	30	-	20	15	35	"	50	"	-	-	-	60	17	17	7											As above
10170 N	01	30	-	20	15	35	"	40	"	-	-	-	50	13	17	3											As above
10150 N	02	30	-	20	30	20	WB	30	"	-	-	-	50	8	12	1											As above
10130 N	03	30	-	20	30	20	WB	50	"	-	-	-	60	6	6	1											As above
10110 N	04	50	-	15	10	15	WB	60	"	-	-	-	80	15	27	3											As above
10090 N	05	20	-	20	40	20	WB	50	"	-	-	-	80	5	9	1											As above
10070 N	06	25	-	20	30	25	WB	40	"	-	-	-	80	5	9	1											off siltstone silty silt
10050 N	07	25	-	15	35	25	"	30	"	-	-	-	-	9	12	41											As above
10030 N	08	25	-	20	20	35	"	50	"	-	-	-	-	6	12	1											As above
10010 N	09	25	-	25	20	30	"	60	"	-	-	-	-	3	7	1											As above
9990 N	273110	25	-	25	30	20	"	30	"	-	-	-	-	3	17	1											As above

EL. 1/12 DIAL RANGE. TRC.
C.R.A.E. 91.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 17760. 2.

AREA NIETA PROSPECT - SHEET 4 - PHASE 1 SAMPLING.
MAP OR PHOTO REFERENCE *As for p. 1.*

SAMPLE Nos. *273111 - 273124*
273161 - 273176

COLLECTED BY *Doon*
ANALYSED BY *Zinc Corp. Broken Hill*

Grid Coordinates	Sample No.	Soil composition					Soil horizon	Sample			Bedrock			Metal content, p. p. m.										Geological observations				
		Rock %	Levante %	Sand %	Silt %	Clay %		Depth (mm)	Colour (Munsell Chart No.)	pH	Outcrop	Concreted	Str. Depth	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo	As					
9970mN	273111	25	-	10	30	35	WB	30	brown	-	✓	-	-	6	14	1												of clay ash flow tuff
9950 N	12	25	-	20	10	45	"	70	"	-	✓	-	-	9	14	41												As above
9930 N	13	30	-	30	15	15	"	50	"	-	✓	-	-	10	17	41												As above
9910 N	14	40	-	25	15	20	"	60	"	-	✓	-	-	10	19	3												As above
10530 N	15	25	-	15	25	35	WB?	40	"	-	✓	-	-	12	18	1												of green fine vitric tuff
10640 N	1555SE	16	30	-	25	20	"	40	"	-	✓	-	-	27	43	6												of green fine vitric tuff
10650 N	1554SE	17	20	-	20	40	"	30	"	-	✓	-	-	27	43	6												of green fine vitric tuff
10630 N	1556E	18	30	-	30	20	WB	20	"	-	✓	-	-	40	56	5												As above
10640 N	1557E	19	30	-	30	10	"	30	"	-	✓	-	-	32	81	7												of ash flow tuff (large)
10660 N	1552E	273120	30	-	30	10	"	30	"	-	✓	-	-	53	50	6												As above
10650 N	155700	21	20	-	20	20	"	40	"	-	✓	-	-	50	97	7												of green fine vitric tuff
10670 N	1560E	22	20	-	10	40	"	30	"	-	✓	WB		42	43	5												Red fine vitric tuff
10700 N	1515E	23	20	-	10	40	"	30	"	-	✓	WB		37	50	7												As above
10730 N	13625E	273124	30	-	30	10	WB	30	"	-	✓	-	-	17	14	5												of clay ash flow tuff
LINE 136E																												
LINE 136E																												
10400mN	273161	20	-	0	50	20	B	40	brown	-	✓	80		20	24	4												Red fine green vitric tuff
10420 N	62	15	-	10	35	40	B	80	"	-	✓	80		25	27	11												As above
10440 N	63	15	-	10	40	35	B	50	"	-	✓	80		35	43	12												As above
10460 N	64	25	-	15	40	20	WB	50	"	-	✓	70		45	46	16												As above
10480 N	65	30	-	20	10	40	"	90	"	-	✓	80		22	36	8												Red unaltered grey vitric tuff
10500 N	66	20	-	25	25	30	"	40	"	-	✓	50		20	36	6												Red ash flow tuff (unaltered)
10520 N	67	20	-	20	20	40	"	50	"	-	✓	60		22	30	5												Red unaltered grey vitric tuff
10540 N	68	30	-	20	20	30	"	60	"	-	✓	60		20	24	3												As above
10560 N	69	20	-	20	30	30	"	40	"	-	✓	60		17	17	3												Red unaltered ash flow tuff
10580 N	273170	20	-	20	20	40	"	90	"	-	✓	90		13	17	4												Red vitric tuff
10600 N	71	0	-	20	50	40	"	70	"	-	✓	80		10	12	3												Red unaltered vitric tuff
10620 N	72	10	-	20	50	20	"	50	"	-	✓	80		3	7	3												As above
10640 N	73	25	-	20	40	15	"	30	"	-	✓	50		6	10	1												Red vitric altered? vitric tuff
10660 N	74	20	-	25	20	35	WB	90	"	-	✓	80		10	10	41												As above
10680 N	75	10	-	20	40	30	"	60	"	-	✓	80		13	12	1												As above
10700 N	273176	15	-	10	40	35	"	110	red	-	✓	80		9	12	2												As above

EL 9/72 DML RANGE. TRS.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

17760 (TO 273181)
17762 (FROM 273182)

AREA NIETRA PROSPECT - SHEET 4 - PHASE 1 SAMPLING

SAMPLE Nos. 273177 - 273208

COLLECTED BY: [Signature]

MAP OR PHOTO REFERENCE: A for p2

ANALYSED BY: ZINC CORP. BROKEN HILL

Grid Coordinate	Sample No. (Cat)	Soil composition					Soil texture	Sample			Bedrock		Metal content, p. p. m.										Geological observations				
		Rock %	Leaves %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No)	pH	Outcrop	Concealed	Est. Depth	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As			
10720mN	273177	15	-	10	65	10	B	30	brown	-	✓	60	2	9	2								41				Red siltstone interstratified
10740N	78	15	-	10	45	30	WB	80	"	-	✓	90	15	22	6							41				As above	
10760N	79	10	-	10	80	30	WB	40	"	-	✓	60	15	17	6							1				As above	
10780N	273180	15	-	20	25	40	WB	40	"	-	✓	60	16	14	6							41				As above	
10800N	273181	10	-	5	25	60	B	40	"	-	✓	100	11	9	3							4				As above	
LINE 155E - 155W	273182	15	-	25	20	40	WB	60	"	-	✓	60	9	15	6							41				Red siltstone ash flow tuff	
9890N	83	25	-	30	20	25	"	40	"	-	✓	40	6	9	3							41				alc fine green vitric tuff	
9860N	84	20	-	30	20	30	"	80	"	-	✓	90	14	12	5							41				Red fine vitric tuff	
9840N	85	25	-	20	30	25	WB	30	"	-	✓	120	17	1	1							41				alc ash flow tuff	
9830N	86	20	-	15	30	35	WB	50	"	-	✓	130	13	13	1							41				As above	
9810N	87	15	-	5	40	30	"	100	"	-	✓	90	9	14	1							41				As above	
9790N	88	20	-	30	20	30	"	80	"	-	✓	90	7	9	41							41				Red probably ash flow tuff	
9770N	89	20	-	20	20	40	WB	30	"	-	✓	100	5	7	41							41				alc intercalated ash flow & fine tuff	
9750N	273190	20	-	25	30	25	"	30	"	-	✓	100	4	6	41							41				alc ash flow tuff	
9740N	91	30	-	30	20	20	WB	60	"	-	✓	100	8	8	2							41				alc fine green vitric tuff	
9720N	92	20	-	30	20	30	"	30	"	-	✓	100	6	13	1							41				As above	
9700N	93	25	-	35	30	10	"	60	"	-	✓	100	6	13	1							41				alc stupa (probably ash flow) tuff	
9690N	94	25	-	20	40	15	"	30	"	-	✓	100	4	9	41							41				alc fine green vitric tuff	
9670N	95	15	-	30	35	20	WB	60	"	-	✓	100	13	14	1							41				As above	
9650N	96	25	-	30	30	15	"	50	"	-	✓	100	8	11	41							41				As above	
9640N	97	10	-	5	60	15	WB	30	"	-	✓	100	-	-	-							-				alc grey spongy fine bedded interstratified	
9620N	98	15	-	20	40	20	WB	40	"	-	✓	100	8	16	1							41				alc unstratified? stupa (ash flow?) tuff	
9600N	99	10	-	20	50	20	"	100	"	-	✓	100	10	8	2							41				As above	
9580N	273200	10	-	20	50	20	"	30	"	-	✓	100	10	20	1							41				alc sylvite based - unstratified	
9570N	01	15	-	15	50	20	"	50	"	-	✓	100	12	28	3							1				As above	
9550N	02	20	-	10	60	10	"	40	"	-	✓	100	17	14	5							41				As above	
9540N	03	25	-	20	40	15	B	110	"	-	✓	100	26	20	15							1				As above	
9520N	04	20	-	20	55	15	B	90	"	-	✓	150	20	16	6							41				Red fine vitric tuff	
9500N	05	-	-	5	65	30	B	60	"	-	✓	150	24	21	6							1				?	
9480N	06	-	-	5	65	30	B	80	"	-	✓	150	6	12	3							1				?	
9470N	07	5	-	5	65	25	B	80	"	-	✓	150	17	14	3							41				Red fine vitric tuff	
9450N	273208	10	-	30	55	30	B	30	"	-	✓	200	20	14	5							1				Red quartz fine vitric tuff	

EL. 1972 J.M. RANGE TR.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.F.O. 1762.

5.

AREA NETTA PROSPECT - SHEET 4 - PHASE 1 SAMPLING.

SAMPLE Nos. 273241 - 273270.

COLLECTED BY: [Signature]

MAP OR PHOTO REFERENCE: As for 14.

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Coordinate	Sample No. (Cont.)	Soil composition					Soil horizon	Sample		Bedrock		Metal content, p. p. m.										Geological observations			
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth	Colour (Munsell Chart No.)	Outcrop	Concentrated	Exp. Depth	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As		
8975mN	273241	15	-	5	70	5	B	30	black	✓	-	26	18	5					4						of weathered dyplite lava 4
8960N	A2	5	-	5	80	10	"	30	"	✓	-	8	14	2					4					As above	
8945N	A3	5	-	10	70	15	"	10	"	✓	-	10	14	1					4					As above	
8930N	A4	5	-	10	80	5	"	10	"	✓	-	8	12	1					4					As above	
8915N	A5	5	-	5	85	5	A/B	30	"	✓	-	8	15	1					4					As above	
8900N	A6	5	-	5	85	5	B	20	"	✓	-	8	14	1					4					As above	
8885N	A7	5	-	10	70	15	B/WB	10	"	✓	-	6	6	1					4					As above	
8875N	A8	5	-	5	85	5	B	30	black	✓	-	4	7	1					4					As above	
8860N	A9	5	-	5	75	15	WB	30	red	✓	-	12	21	2					1					As above	
8845N	273250	10	-	5	70	15	"	30	"	✓	-	9	14	2					4					of dark grey fine intrc tuff	
8835N	51	5	-	5	80	10	B	30	black	✓	-	24	43	3					1					As above	
8815N	52	5	-	5	80	10	"	30	"	✓	60	20	43	2					1					Red with weathered dypl (shale) =	
8795N	53	20	-	10	40	30	WB	30	"	✓	60	15	23	4					4					Red grey green intrc tuff	
8765N	54	20	-	15	30	35	"	10	red	✓	60	18	53	9					1					As above	
8745N	55	20	-	15	20	45	"	90	"	✓	100	15	60	14					1					As above	
8725N	56	10	-	10	40	40	A/B	80	black	✓	80	12	89	11					1					As above	
8705N	57	5	-	10	20	65	B/WB	110	grey	✓	-	12	38	13					4					of dyplite (intrc) =	
8685N	58	10	-	5	55	30	"	100	black	✓	100	10	68	25					1					Red dyplite	
8665N	59	-	-	5	15	50	B	80	"	✓	80	11	77	35					1					As above	
8645N	273260	-	-	5	45	50	"	120	"	✓	200	9	82	38					1					As above	
8625N	61	-	-	10	30	60	B/WB	100	"	✓	100	10	88	42					1					As above possibly ex-basalt	
8605N	273262	5	-	10	4	40	WB	60	"	✓	80	11	91	35					1					As above Red basalt	
LINE 130E																									
10350mE																									
10350mN	273263	20	-	20	30	30	WB	30	black	✓	-	13	25	2					4					of green fine intrc tuff	
10310 N	64	20	-	20	30	30	"	30	"	✓	30	14	45	6					4					Red fine green intrc tuff	
10310 N	65	5	-	10	30	55	"	90	"	✓	90	12	38	6					4					As above	
10220 N	66	10	-	10	30	50	B/WB	30	"	✓	50	11	44	1					4					Red possibly with dyplite	
10300 N	67	20	-	10	20	50	WB	70	"	✓	70	16	23	6					4					As above	
10280 N	68	10	-	0	30	10	"	80	"	✓	80	9	16	3					4					As above	
10260 N	69	25	-	15	30	30	"	60	black	✓	60	8	16	2					4					As above	
10240 N	273270	25	-	15	40	20	"	80	black	✓	60	8	14	2					4					As above	

EL 1/12 Dial Range. Trg.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 1762
7

AREA NIETTA PROSPECT - SHEET 4 - PHASE 1 SAMPLING.

SAMPLE No. 273303 - 273332

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE f f 16.

ANALYSED BY ZINC CORP. BROKEN HILL.

Grid Coordinate	Sample No. (Cont.)	Soil composition					Soil horizon	Sample				Bedrock	Metal content, p. p. m.											Geological observations				
		Root %	Latitude %	Sand %	Silt %	Clay %		Depth (m)	Colour	General Character	pH		Overcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag		Mo	As		
9530W	273303	30	-	20	30	20	WB	30	brown	-	✓	-	-	4	19	1												of polygranitic tuff.
9560N	64	20	-	30	30	20	WB	30	"	-	✓	-	-	5	9	1											As above	
9540N	05	30	-	20	30	20	"	40	"	-	✓	-	-	9	11	1											As above	
9520N	06	30	-	20	30	20	WB	30	"	-	✓	-	-	10	16	1											As above	
9500N	07	30	-	20	30	20	"	40	"	-	✓	-	-	14	15	1											As above	
9480N	08	30	-	20	30	20	"	50	red	-	✓	-	-	10	14	1											As above	
9460N	09	20	-	10	50	20	"	50	brown	-	✓	-	-	12	8	2											As above	
9440N	273310	20	-	10	50	20	"	30	"	-	✓	-	-	8	12	1											As above	
9420N	11	20	-	10	50	20	"	40	"	-	✓	-	-	14	18	1											As above	
9400N	12	20	-	10	50	20	B	40	"	-	✓	-	-	14	21	1											As above	
9380N	13	20	-	20	40	20	WB	40	"	-	✓	-	-	21	30	1											of grey banded fine-grained tuff	
9360N	14	20	-	20	40	20	B	30	"	-	✓	-	-	19	53	1											As above	
9340N	15	30	-	20	40	10	"	30	"	-	✓	-	-	20	37	1											As above	
9320N	16	10	-	10	60	20	"	40	"	-	✓	-	-	14	55	1											As above	
9300N	17	10	-	20	50	20	"	40	"	-	✓	-	-	12	37	6											As above	
9280N	18	10	-	10	70	10	"	100	"	-	✓	-	-	22	15	1											As above	
9260N	19	10	-	5	80	5	"	40	"	-	✓	-	-	37	40	1											As above	
9240N	273320	5	-	5	80	10	"	50	"	-	✓	-	-	45	1	1											As above	
9220N	21	5	-	5	85	5	"	40	"	-	✓	-	-	17	44	1											of fine grained tuff.	
9200N	22	5	-	5	85	5	"	40	"	-	✓	80	-	22	40	1											Rak as above	
9180N	23	5	-	5	85	5	"	40	"	-	✓	80	-	22	59	13											As above	
9160N	24	5	-	5	75	15	"	50	"	-	✓	80	-	16	60	17											As above	
9140N	25	5	-	5	75	15	"	40	red	-	✓	80	-	13	58	13											As above	
9120N	26	5	-	5	75	15	"	80	"	-	✓	100	-	13	53	12											As above	
9100N	27	-	-	5	80	15	"	30	brown	-	✓	120	-	10	55	15											?	
9080N	28	-	-	5	55	40	"	40	"	-	✓	100	-	13	54	15											?	
9060N	29	10	-	20	30	40	WB	50	red	-	✓	80	-	11	36	4											Rak with pink slyc bands	
9040N	273330	10	-	10	50	30	B	40	brown	-	✓	100	-	10	36	4											Rak with fine vitric tuff.	
9020N	31	10	-	10	50	30	"	40	red	-	✓	80	-	10	31	4											Rak with pink slyc bands	
9000N	273332	20	-	20	40	40	WB	40	brown	-	✓	60	-	8	12	3											As above	

EL 19/72 DIAL RANGE. T.P.E.
C.R.A.E. 31.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.70. 1776

AREA NITRA PROSPECT - SHEET 4 - PHASE 1 SAMPLING.

SAMPLE No. 273333 - 273362.

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A to D7

ANALYSED BY ZIME CORP. BROKEN HILL

Grid Co-ordinate	Sample No.	Soil composition					Soil horizon	Sample		Bedrock		Metal content, p. p. m.										Geological observations						
		Rock %	Leahite %	Sand %	Silt %	Clay %		Depth (m)	Colour (Munsell Chart No.)	PH	Outcrop	Concave	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag		Mo	As				
LINE 12SE																												
Q.500 mE																												
9200 mE	273333	-	-	-	10	90	WB	110	red	-	✓	200	11	87	21												Ex - basalt	
9220 N	34	-	-	-	10	90	WB	120	"	-	✓	-	13	74	53												of basalt.	
9240 W	35	-	-	-	10	90	"	80	"	-	✓	-	13	80	57												to above	
9260 N	36	-	-	-	10	90	B	110	"	-	✓	300	10	54	29												Flint basalt	
9280 W	37	-	-	5	10	85	"	70	"	-	✓	300	8	54	16												Possibly ex-basalt.	
9300 N	38	-	-	5	10	85	"	110	"	-	✓	200	10	57	6												"	
9320 W	39	20	-	20	10	20	WB	30	brown	-	✓	-	16	23	4												of dyalite lava t	
9340 N	273340	20	-	20	20	40	WB	50	red	-	✓	-	14	25	4												of dyalite lava t	
9360 W	41	10	-	10	60	20	"	50	"	-	✓	-	16	22	4												of dyalite lava t	
9380 N	42	20	-	15	25	40	"	10	"	-	✓	50	22	20	9												Rock fine green banded intr. tuff	
9400 N	43	10	-	10	15	35	WB	10	brown	-	✓	80	16	16	5												Rock fine green intr. tuff	
9420 W	44	10	-	10	70	50	WB	50	"	-	✓	70	11	4	2												Rock rather (siliceous?) red flow tuff	
9440 N	45	20	-	25	35	20	"	10	"	-	✓	80	19	10	5												Rock grey intr. tuff	
9460 W	46	20	-	25	35	20	WB	50	"	-	✓	80	28	7	2												Rock green intr. tuff	
9480 N	47	20	-	10	60	10	"	30	"	-	✓	-	10	22	2												of grey-green intr. tuff	
9500 W	48	10	-	5	80	5	"	30	dk brown	-	✓	-	7	8	41												of pink ash flow tuff	
9520 N	49	5	-	5	85	5	"	20	black	-	✓	-	7	9	41													to above
9540 W	273350	10	-	20	25	45	WB	10	red	-	✓	-	13	8	2													to above
9560 N	51	5	-	5	80	10	B	20	brown	-	✓	-	10	18	1													to above
9580 W	52	10	-	10	70	10	"	30	dk brown	-	✓	-	13	24	5													to above
9600 N	53	10	-	25	25	10	"	30	"	-	✓	-	16	25	15													of pink ash flow tuff (agglomer.)
9620 W	54	10	-	20	60	10	"	50	brown	-	✓	-	10	22	15													to above
9640 N	55	30	-	10	50	10	WB	10	dk brown	-	✓	-	18	25	6													to above
9660 W	56	10	-	10	70	10	B	30	"	-	✓	-	16	20	2													to above
9680 N	57	10	-	10	70	10	"	20	"	-	✓	-	8	40	3													of coarse dyalite agglomer.
9700 W	58	10	-	10	70	10	"	20	"	-	✓	-	13	43	3													to above
9720 N	59	20	-	35	35	10	B	20	"	-	✓	-	11	33	3													to above
9740 W	273360	20	-	35	35	10	"	20	brown	-	✓	-	11	24	3													to above
9760 N	61	20	-	35	35	10	"	30	dk brown	-	✓	-	13	48	2													to above
9780 W	273362	20	-	35	35	10	"	20	"	-	✓	-	13	19	1													to above

C.R.A.E. 31.

EL 1972 Dual Range Trs

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

17762

AREA Nietera Prospect - Sheet 4 - Phase 1 Sampling.

SAMPLE Nos. 273395 - 273424

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A for 19.

ANALYSED BY Zinc Corp. Broken Hill

Grid Coordinates	Sample No.	Soil composition					Soil horizon	Sample		Bedrock		Metal content, p. p. m.										Geological observations											
		Rock %	Latitude %	Sand %	Silt %	Clay %		Depth (m)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag		Mo	As									
104400N	273395	20	-	25	15	40	WB	10	brown	-	-	60	6	10	4												Rock altered ash flow tuff						
104600N	96	20	-	16	16	60	"	50	red	-	-	60	23	37	22												Rock green siltic tuff						
104800N	97	20	-	25	16	35	"	10	brown	-	-	60	6	8	4												As above						
105000N	98	10	-	10	15	65	"	70	red	-	-	30	18	34	11												Rock with siltic tuff						
105200N	99	30	-	15	15	40	B	30	brown	-	-	60	7	1	2												As above						
105400N	273400	25	-	20	10	45	WB	30	"	-	-	60	14	23	4												Rock with grey-green siltic tuff						
105600N	01	30	-	25	15	30	"	50	"	-	-	60	9	16	2												As above of c As above						
105800N	02	30	-	25	15	30	B	30	"	-	-	60	20	14	5												As above						
106000N	03	25	-	15	15	45	WB	50	"	-	-	60	19	18	4												As above						
106200N	04	25	-	15	15	45	"	50	"	-	-	60	10	14	2												As above						
106400N	05	30	-	15	15	40	"	50	"	-	-	60	11	28	6												As above						
106600N	06	15	-	16	15	60	"	30	red	-	-	60	18	12	12												As above						
106800N	273407	-	-	5	10	85	B	110	brown	-	-	60	14	20	22												As above						
LINE HCE																																	
LINE HCE																																	
106100N	273408	20	-	30	20	30	WB	80	brown	-	-	70	24	50	10													Rock fine siltic tuff					
106500N	09	30	-	20	20	30	"	50	"	-	-	60	30	16	9													o/c grey siltic tuff					
106300N	273410	30	-	25	10	35	B	50	"	-	-	50	57	34	12													Rock with green siltic tuff					
106100N	11	15	-	25	30	30	WB	60	"	-	-	80	15	14	2													As above					
105900N	12	15	-	25	35	25	"	10	"	-	-	60	3	10	1													As above					
105700N	13	20	-	20	30	30	WB	50	"	-	-	60	14	16	3													As above					
105500N	14	20	-	20	30	30	"	50	"	-	-	60	13	13	3													o/c as above					
105350N	05	20	-	20	30	30	"	30	"	-	-	60	3	8	2													As above					
105150N	06	25	-	25	20	30	B	10	"	-	-	40	10	8	2													Rock as above					
104950N	07	10	-	16	10	30	WB	30	"	-	-	50	2	5	2													As above					
104800N	18	20	-	20	30	30	WB	30	"	-	-	60	2	6	1													o/c fine green siltic tuff					
104600N	19	30	-	30	20	20	"	40	"	-	-	40	11	6	2													Rock fine green siltic tuff					
104400N	273420	10	-	10	10	10	WB	60	"	-	-	80	10	5	2													As above					
104250N	21	20	-	25	20	35	WB	50	"	-	-	60	7	8	2													As above					
104050N	22	30	-	25	20	25	"	30	"	-	-	60	7	16	2													o/c grey melt. ash flow tuff					
103850N	23	30	-	25	10	35	"	60	"	-	-	60	13	28	9													As above					
103700N	273424	20	-	25	20	25	"	30	"	-	-	30	7	19	10													As above					

C.R.A.E. 31. E.L. 19/72 Dura Range. Taz.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.R.O. 1763

14.

AREA NETRA PROJECT - SHEET 4 - PHASE 1 SAMPLING.

SAMPLE Nos. 299523 - 299554

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE A A 10

ANALYSED BY ZINC CORP. ROCKEN HILL.

Grid Coordinate	Sample No.	Soil composition				Soil Percent	Sample				Bedrock		Metal content, p. p. m.								Geological observations						
		Rock %	Lignite %	Sand %	Silt %		Clay %	Depth (cm)	Colour	Moisture %	pH	Outcrop	Concealed	Ein Depth	Pb	Zn	Cu	Ni	Co	Cr		Mn	Ag	Mo	As		
10130N	299523	30	-	30	60	30	WB	30	beam	-	✓	-	-	9	22	2											o/c attined ash flow tuff.
10130N	24	20	-	30	60	40	"	40	"	-	✓	-	-	8	16	3											As above
10115N	25	20	-	20	20	40	"	40	"	-	✓	-	-	8	11	3											o/c green intri tuff
10095N	26	20	-	15	60	55	"	40	"	-	✓	40	10	14	2												Rock green intri tuff
10075N	27	10	-	10	40	40	"	30	"	-	✓	-	-	5	8	1											o/c shalyite lava s.
10060N	28	20	-	10	30	40	"	50	"	-	✓	50	5	8	1												Rock as above
10045N	29	20	-	15	30	35	"	40	"	-	✓	-	-	9	16	3											o/c unattined intri tuff.
10025N	299530	20	-	15	60	55	"	50	"	-	✓	-	-	7	8	1											o/c shalyite lava s.
10010N	31	20	-	20	15	45	"	30	"	-	✓	-	-	7	10	1											o/c attined ash flow tuff
99940N	32	25	-	20	20	35	"	30	"	-	✓	-	-	6	9	2											o/c shalyite lava s.
99925N	33	20	-	20	20	40	"	30	"	-	✓	-	-	5	10	1											As above
99900N	34	20	-	20	20	40	"	70	"	-	✓	-	-	9	12	2											o/c unattined ash flow tuff
99880N	35	20	-	20	20	40	"	30	"	-	✓	-	-	9	20	1											As above
99855N	36	20	-	20	30	30	"	30	"	-	✓	-	-	8	18	1											As above
99830N	37	20	-	20	30	30	"	30	"	-	✓	-	-	11	13	2											o/c shalyite lava s.
98900N	38	20	-	20	30	30	"	30	"	-	✓	-	-	5	11	1											o/c unattined ash flow tuff (frag)
98700N	39	20	-	10	20	50	B	30	"	-	✓	-	-	7	10	2											As above
98550N	299540	25	-	15	35	25	B/WB	30	"	-	✓	-	-	5	8	1											As above
98400N	41	20	-	15	40	25	WB	40	"	-	✓	-	-	5	10	4											As above
98200N	42	20	-	10	40	30	"	40	"	-	✓	-	-	8	14	1											As above
98050N	43	20	-	20	40	20	B/WB	40	"	-	✓	-	-	9	18	2											As above
97900N	44	25	-	20	35	20	WB	40	"	-	✓	-	-	7	21	1											As above
97700N	45	10	-	10	50	30	"	40	"	-	✓	-	-	16	55	2											As above
97550N	46	10	-	10	60	20	B	30	"	-	✓	-	-	15	25	2											As above
97400N	47	10	-	10	60	20	"	40	"	-	✓	-	-	7	18	1											As above
97200N	48	10	-	10	60	20	"	30	"	-	✓	-	-	7	9	1											As above
97050N	49	20	-	10	50	20	B/WB	40	"	-	✓	-	-	6	23	1											As above
96850N	299550	20	-	10	50	20	B	30	"	-	✓	-	-	9	18	1											As above
96700N	51	6	-	10	60	20	"	30	"	-	✓	-	-	13	25	2											As above
96500N	52	20	-	10	50	20	B/WB	50	"	-	✓	-	-	13	30	2											As above
96350N	53	20	-	10	20	50	WB	60	"	-	✓	-	-	10	20	2											As above
96150N	299554	10	-	20	20	50	"	60	orange	-	✓	-	-	15	35	6											As above + grey intri tuff

C.R.A.E. 31. E.L. 1/12 Dine Range. T.S.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 1/13

AREA METR. PROSPECT - SHEET 4 - AREA 1 SAMPLING.
MAP OR PHOTO REFERENCE: As for p. 15.

SAMPLE Nos. 299587 - 299600
299674 - 299687

COLLECTED BY: [Signature]
ANALYSED BY: ZINC CORP. BRECKEN HILL.

Grid Coordinates	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations					
		Rock %	Loam %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As				
LINE 145E 10200mN	299587	20	15	10	55	WB	50	lean	-	-	✓	80	12	55	14												Rock with dyke to level 4.	
LINE 150E 15000mE	299588	-	-	5	15	80	WB	110	red	-	-	✓	100	15	31	8												
8820N	89	10	20	20	50	"	170	"	-	-	✓		25	36	18												Rock fine green intr. till	
8800N	299590	10	20	20	50	"	110	"	-	-	✓		17	35	9												As above	
8780N	91	10	20	20	50	"	70	"	-	-	✓		15	29	6												As above	
8760N	92	20	20	20	40	"	90	"	-	-	✓		17	23	4												As above	
8740N	93	20	20	20	40	"	80	"	-	-	✓		15	20	4												As above	
8720N	94	25	20	20	35	"	50	lean	-	-	✓		11	15	2												As above	
8700N	95	25	20	20	35	"	70	"	-	-	✓		52 54	16 13	1 1												As above	
8680N	96	25	20	20	35	"	40	"	-	-	✓		18	13	3												As above	
8660N	97	25	20	20	35	"	70	"	-	-	✓		13	15	2												As above	
8640N	98	25	20	20	35	"	40	"	-	-	✓		8	14	1												As above	
8620N	99	25	25	20	30	"	40	"	-	-	✓		15	17	2												Rock fine altered till	
8600N	299600	20	20	30	30	"	40	"	-	-	✓		11	19	3												Rock fine buffaceous s/s	
8580N	299674	20	20	15	45	B	30	"	-	-	✓		10	22	2												Rock fine green intr. till	
8560N	75	10	10	70	10	WB	30	"	-	-	✓		11	18	3												As above.	
	299676	15	25	15	45	WB	30	"	-	-	✓		14	14	4												Rock fine micaceous s/s	
LINE 155E 15500mE																												
8720mN	299677	30	30	30	10	WB	30	lean	-	-	✓		15	29	4													s/c grey intr. till
8740N	78	40	40	15	5	B	30	"	-	-	✓		15	46	3													s/c fine grey intr. till
8760N	79	30	30	35	5	"	30	"	-	-	✓		11	36	2													As above
8780N	80	30	30	25	15	"	30	"	-	-	✓		21	35	3													As above
8800N	81	20	30	30	20	"	30	"	-	-	✓		18	32	3													As above
8820N	82	30	30	20	20	"	30	"	-	-	✓		19	12	3													As above
8840N	83	20	20	40	20	"	50	"	-	-	✓		27	18	2													s/c grey intr. till
8860N	84	5	5	30	60	WB	80	red	-	-	✓		15	47	5													s/c grey intr. till
8880N	85	5	5	20	70	"	110	"	-	-	✓	100	13	40	6													Rock as above
8900N	86	5	5	10	80	"	110	"	-	-	✓	120	13	34	7													As above
8920N	299687	5	15	45	25	"	80	lean	-	-	✓	80	15	29	5													As above

C.R.A.E. 31. E.L. 9/72 DIAL RANGE. TIE.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 17763

AREA NIETTA PROSPECT - SHEET A - PHASE 1 SAMPLING SAMPLE Nos. 299718 - 299745
MAP OR PHOTO REFERENCE A for A17

COLLECTED BY [Signature]
ANALYSED BY ZINC CORP. BRACKEN HILL

Grid Co-ordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations				
		Rock %	Latitude %	Sand %	Silt %	Clay %		Depth (meters)	Colour (Munsell Chart No.)	pH	Outcrop	Concealed	Est. Depth (m)	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As			
9155mN	299718	15	-	5	70	10	B	30	black	-	✓	-	22	18	13											dc grey silty tuff	
9170N	19	20	-	20	50	10	B	50	"	-	✓	100	7	12	3											Red grey vitric tuff	
9185N	299720	20	-	20	50	10	B/US	30	"	-	✓	60	7	10	2											As above	
9200N	21	5	-	10	75	10	"	60	"	-	✓	-	6	7	2											Red dc vitric siltstone lens	
9215N	22	5	-	10	80	5	B	40	"	-	✓	80	8	10	2											Red siltstone lens	
9230N	23	10	-	10	70	10	"	70	"	-	✓	-	10	16	2												dc as above
9245N	24	10	-	10	70	10	"	50	"	-	✓	100	9	19	7												Red as above
9275N	25	5	-	10	75	10	"	30	"	-	✓	-	11	58	9												dc as above
9290N	26	25	-	10	60	5	"	30	"	-	✓	-	12	42	7												As above
9305N	27	5	-	5	85	5	A/B	30	"	-	✓	-	14	51	7												As above
9320N	28	15	-	5	75	5	"	30	"	-	✓	-	7	31	4												As above
9360N	299729	5	-	5	85	5	B/US	30	"	-	✓	-	7	44	7												dc basalt
LINE 15SE																											
15500mE																											
7160mN	299730	5	-	5	85	5	A	30	black	-	✓	-	14	40	4												dc grey bedded fine vitric tuff
4180 N	31	5	-	5	85	5	A	30	black	-	✓	-	13	58	8												As above
9200 N	32	10	-	5	85	5	B	30	black	-	✓	-	15	72	9												As above
9120 N	299733	-	-	-	10	90	B	40	"	-	✓	-	11	90	39												dc basalt
LINE 14E																											
14000mE																											
9210mN	299734	20	-	20	20	40	US	30	black	-	✓	-	9	12	2												dc vitric siltstone lens
9220N	35	20	-	20	20	40	B/US	50	"	-	✓	-	7	10	1												As above
9200 N	36	10	-	10	50	30	B/US	30	"	-	✓	-	8	13	2												As above
9150N	37	20	-	20	20	40	US	40	"	-	✓	-	10	20	3												As above
9160 N	38	5	-	15	20	60	"	70	"	-	✓	-	9	20	4												As above
9140N	39	10	-	20	30	40	"	80	red	-	✓	80	10	38	13												Red vitric siltstone lens
9120N	299740	5	-	5	10	80	"	90	"	-	✓	90	9	68	43												As above
9100 N	41	5	-	5	10	80	"	90	"	-	✓	90	9	68	43												Red vitric fine vitric tuff
9050 N	42	5	-	5	10	80	"	110	"	-	✓	110	9	68	46												Red vitric siltstone lens
9060 N	43	5	-	5	10	80	"	110	"	-	✓	110	9	63	39												As above
9010 N	44	-	-	5	10	85	B/US	110	"	-	✓	130	9	64	41												As above or vitric tuff
9020 N	299745	-	-	-	10	90	B	110	"	-	✓	130	13	62	38												?

C.R.A.E. 31.

E.L. 1/12 Dial Range Tns.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 17/62

19

AREA NEWTOWN PROSPECT - SHEET 4 - PHASE 1 SAMPLING

SAMPLE Nos. 299746 - 299762

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE As per p. 18.

ANALYSED BY ZINC CORP. ROCKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil horizon	Sample			Bedrock		Metal content, p. p. m.										Geological observations						
		Rock %	Leaves %	Sand %	Silt %	Clay %		Depth (cm)	Colour (Munsell Chart No.)	pH	Outcrop	Concatted	Str. Depth	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As					
LINE XVE																													
9000mN	299746	-	-	-	20	80	B	110	red	-	-	✓	200	11	63	33												Possibly a basalt	
8980 N	47	-	-	-	10	90	"	110	brown	-	-	✓	200	10	66	46												As above	
8960 N	48	-	-	-	30	70	"	110	"	-	-	✓	200	11	111	39												As above	
8940 N	49	-	-	-	30	70	"	110	"	-	-	✓	200	11	116	48												As above	
8920 N	299750	10	-	-	20	70	WB	110	"	-	-	✓	200	11	132	51												Rock basalt	
LINE YSE																													
10355E	299751	20	-	20	30	30	WB	50	brown	-	-	✓	50	19	17	3												Rock gran intrus tuff	
10340E	52	20	-	20	40	40	"	30	"	-	-	✓	10	7	12	2												Rock rather sphyritic lava	
10325E	53	10	-	20	30	40	"	90	red	-	-	✓	90	9	11	2												As above	
10310E	54	20	-	20	20	40	"	30	brown	-	-	✓	30	12	18	3												Rock rather fine intrus tuff	
10295E	55	10	-	20	30	40	"	30	"	-	-	✓	30	14	23	4												As above - sphy lava	
10280E	56	20	-	20	20	40	"	40	"	-	-	✓	40	5	8	2												Rock rather fine intrus tuff	
10265E	57	20	-	20	10	50	"	50	brown	-	-	✓	50	5	7	41												As above	
10250E	299758	20	-	20	20	40	"	60	brown	-	-	✓	60	8	12	1													As above
LINE YSE																													
13000mE																													
10820mN	299759	-	-	-	20	80	B	110	red	-	-	✓	200	22	70	39													?
10840 N	299760	20	-	20	20	40	WB	90	brown	-	-	✓	90	17	68	30													Rock rather intrus tuff
10860 N	61	20	-	20	20	40	"	90	"	-	-	✓	60	17	13	57													Rock rather basalt
10880 N	299762	20	-	20	20	40	"	90	"	-	-	✓	90	11	122	63													As above

C.R.A.E.31. GEMCO DRILLING.

C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

S.A.O. 17762

AREA NIETA PROSPECT - CROSBY Ck ANOMALIES

SAMPLE Nos. 299601 - 299628

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Coordinate	Sample No.	Soil composition					Year file No.	Sample				Bedrock		Metal content, p. p. m.										Geological observations			
		Rect %	Latelite %	Sand %	Silt %	Clay %		Depth	Colour	Moisture	Electrical	Specific Gravity	Dutcrop	Concatted	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag	Mo		As		
LINE 7/SE																											
7620E																											
7620N	299601						1	6A	6A				290	65	21												
"	02						2	1.8					160	60	54												
"	03						2	3.6					310	70	56												
"	04						2	5.5	5.5				220	81	62												
7625N	05						2	4.8					140	84	57												
"	06						3	3.6	A3				190	34	57												
7620N	07						4	1.2	6.2				140	103	56												
7625N	08						5	1.2	1.2				270	196	110												
7620N	09						6	1.8	1.8				2400	540	260												
7545N	299610						7	1.7	1.7				1800	500	350												
7540N	11						8	1.8	1.8				2200	182	150												
7555N	12						9	2.3	2.3				2400	250	390												
"	13						9	2.7					320	420	320												
7550N	14						10	1.8	3.0				1700	350	260												
"	15						10	3.0					320	530	100												
7555N	16						11	1.8	1.8				190	430	210												
7550N	17						12	1.4	1.4				76	340	110												
7555N	18						13	1.2	1.2				94	490	98												
7560N	19						14	1.2	1.2				270	290	86												
7555N	299620						15	1.8	2.3				200	430	110												
7550N	21						16	1.2	1.2				140	470	76												
7545N	22						17	1.8					72	320	110												
"	23						17	3.6	3.6				22	320	22												
LINE 7/TE																											
7720E																											
7720N	299624						1	1.8					170	750	520												
"	25						1	3.6	1.0				150	120	120												
7725N	26						2	1.8					840	170	110												
"	27						2	3.0	3.0				410	210	160												
7730N	299628						3	1.8					870	120	130												

C.R.A.E. 31.

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GEOCHEMICAL SOIL SAMPLING LEDGER

D.P.O. 176

2

AREA NIETA PROSPECT - CROSSBY CR ANOMALIES.

SAMPLE No. 299629-

COLLECTED BY [Signature]

MAP OR PHOTO REFERENCE

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Coordinate	Sample No.	Soil composition					Sample	Bedrock		Metal content, p. p. m.							Geological observations					
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth (meters)	Colour (Munsell)	Outcrop	Pb	Zn	Cu	Ni	Co	Cr		Mn	Ag	Mo	As	
Line 7/SE (cont.)																						
7490N	299627						3.0	3.0			1000	300	210									
7490N	299630						4	1.8			920	340	250									
"	31						4	3.6			1300	270	220									
"	32						4	5.5	5.8		2500	340	350									
7480N	37						5	1.8			1500	240	180									
"	37						5	3.6	3.7		1800	350	300									
7485N	35						6	1.8			2200	300	280									
"	36						6	3.6	3.6		2000	230	230									
7490N	37						7	1.8			1890	250	180									
"	38						7	3.6	4.3		1570	183	80									
7495N	39						8	1.8			1400	155	230									
"	299640						8	3.0	3.0		1600	220	110									
7500N	41						9	1.8			340	158	98									
"	42						9	3.6	3.6		190	173	87									
7505N	43						9	1.8			120	100	88									
"	44						10	3.6	4.3		700	114	61									
7510N	45						11	1.8			210	97	58									
"	46						11	3.6	3.7		140	154	85									
7515N	47						12	1.8			700	100	61									
"	48						12	3.6	3.6		1100	105	88									
7520N	49						13	1.8			800	90	99									
"	299650						13	3.4	3.4		400	102	73									
7525N	51						14	1.8			740	98	77									
"	52						14	2.7	2.7		360	98	64									
7530N	53						15	1.8			510	124	76									
"	54						15	3.0	3.0		410	90	81									
7535N	55						16	1.8			300	115	74									
"	56						16	3.0	3.0		350	86	69									
7540N	57						17	1.8			400	57	61									
"	58						17	3.4	3.4		420	58	63									
7545N	59						18	1.8	2.4		410	63	67									
7550N	299660						19	1.8			200	50	66									

C.R.A.E. 31.

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C.R.A. EXPLORATION PTY. LIMITED
GEOCHEMICAL SOIL SAMPLING LEDGER

299. 176.

AREA: NIETTA PROSPECT - CROSSY CR ANOMALIES.

SAMPLE Nos. 299661 - 299672

COLLECTED BY: [Signature]

MAP OR PHOTO REFERENCE

ANALYSED BY ZINC CORP. BROKEN HILL

Grid Coordinate	Sample No.	Soil composition					Soil Moisture %	Sample			Bedrock		Metal content, p. p. m.										Geological observations					
		Rock %	Lignite %	Sand %	Silt %	Clay %		Depth m	Colour	Mineral Content %	Grain Size	Outcrop	Concns	Est. Depth %	Pb	Zn	Cu	Ni	Co	Cr	Mn	Ag		Mo	As			
7550 N	299661						5	3.8		5.6			530	74	79													
7550 N	62						26	1.8					250	100	69													
7550 N	63						20	2.7		2.7			670	57	57													
7550 N	64						4	1.8					380	66	67													
7550 N	65						4	2.7		2.7			530	41	77													
7550 N	66						22	1.8					410	59	72													
7550 N	67						2	2.7		2.7			380	54	63													
7550 N	68						3	1.8					420	57	68													
7550 N	69						3	3.8		3.0			400	76	68													
7580 N	299670						24	1.8		2.4			400	58	58													
7580 N	71						25	1.8		2.1			430	58	74													
7590 N	299672						26	1.8		2.4			180	90	58													

466932

C.R.A. EXPLORATION PTY. LIMITED

466233

E.L. 19/72 NIETTA, NORTH WEST

TASMANIA,

PROGRESS REPORT NO.3

VOL. II PLANS

Author : T.M. Porter

Date : March, 1976

Submitted to : R.J. Rebek

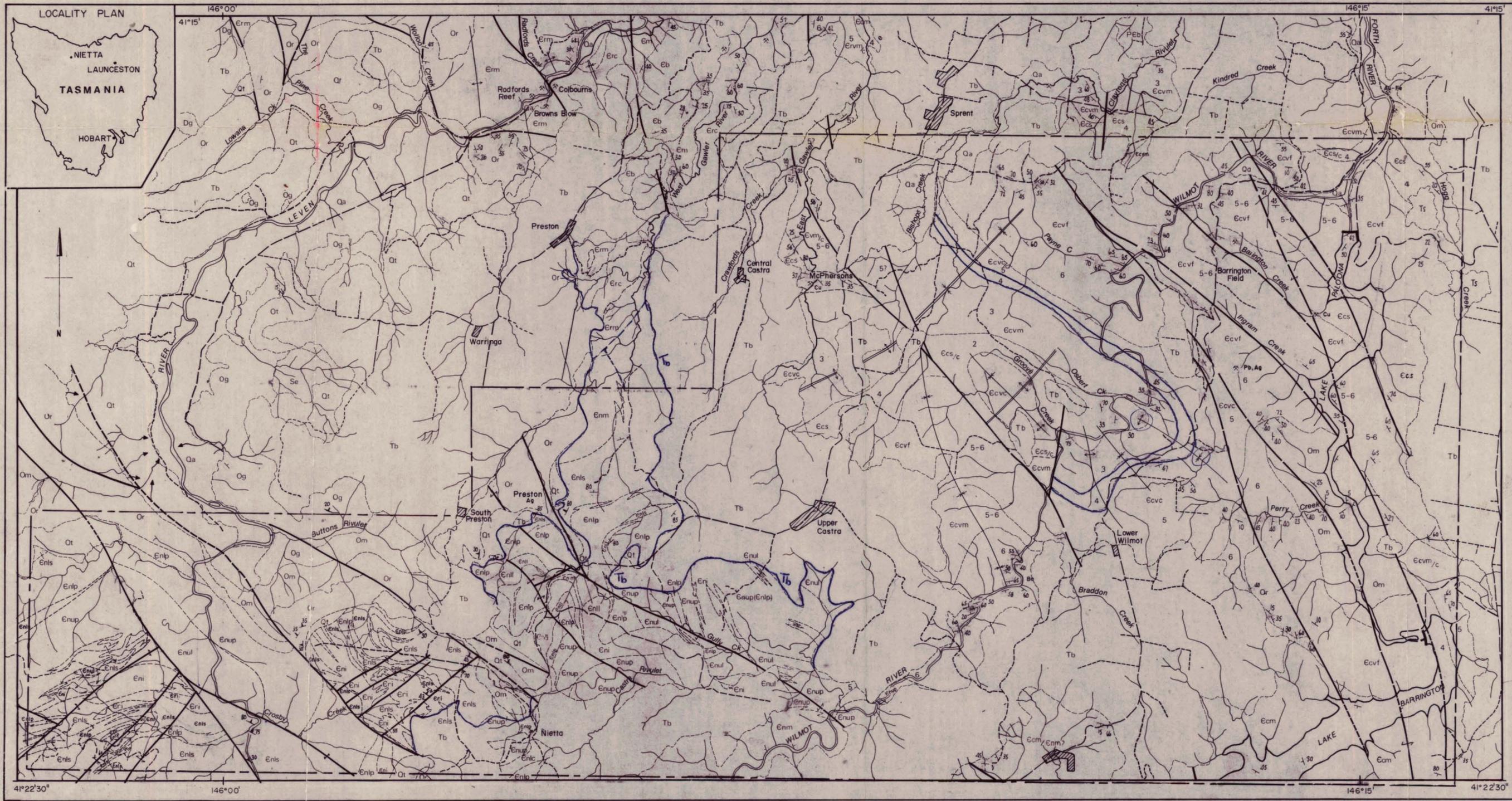
Copy to : Department of Mines,
Tasmania

LIST OF PLANS (Transparencies held)

<u>Plan No.</u>		<u>Scale</u>
T 939	E.L. 19/72 Nietta, N.W. Tasmania Geological Plan.	1:50 000
T 916	E.L. 19/72 Nietta, N.W. Tasmania Geological Plan, Nietta-Loyetea Area.	1:25 000
T 919	E.L. 19/72 Nietta, N.W. Tasmania Drainage Geochemistry, Nietta- Loyetea Area.	1:25 000
T 940	E.L. 19/72 Nietta, N.W. Tasmania Sheet 1, Geological Plan.	1:5000
T 941	E.L. 19/72 Nietta, N.W. Tasmania Sheet 1, Geochemical Soil Sample Location Plan.	1:5000
T 942	E.L. 19/72 Nietta, N.W. Tasmania Sheet 1, Geochemical Soil Sample Results Plan Pb-Zn-Cu.	1:5000
T 885	E.L. 19/72 Nietta, N.W. Tasmania Sheet 2, Geological Plan.	1:5000
T 887	E.L. 19/72 Nietta, N.W. Tasmania Sheet 2, Geochemical Soil Sample Plan.	1:5000
T 943	E.L. 19/72 Nietta, N.W. Tasmania Sheet 3, Geological Plan.	1:5000
T 944	E.L. 19/72 Nietta, N.W. Tasmania Sheet 3, Geochemical Soil Sample Location Plan	1:5000
T 945	E.L. 19/72 Nietta, N.W. Tasmania Sheet 3, Geochemical Soil Sample Results Plan Pb-Zn-Cu.	1:5000
T 946	E.L. 19/72 Nietta, N.W. Tasmania Sheet 4, Geological Plan.	1:5000
T 947	E.L. 19/72 Nietta, N.W. Tasmania Sheet 4, Geochemical Soil Sample Location and Results Plan.	1:5000
T 948	Loyetea Anomalies E.L. 19/72 Nietta, N.W. Tasmania, Sheet 5 Geological Plan.	1:5000

T 949	Loyetea Anomalies E.L. 19/72 Nietta, N.W. Tasmania, Soil Sample Location Plan.	1:5000
T 950	Loyetea Anomalies E.L. 19/72 Nietta, N.W. Tasmania, Geochemical Soil Sample Results Plan, Lead in ppm.	1:5000
T 951	Loyetea Anomalies E.L. 19/72 Nietta, N.W. Tasmania, Geochemical Soil Sample Results Plan, Zinc in ppm.	1:5000
T 952	Loyetea Anomalies E.L. 19/72 Nietta, N.W. Tasmania, Geochemical Soil Sample Results Plan, Copper in ppm.	1:5000
T 953	E.L. 19/72 Nietta, N.W. Tasmania Crosby Creek Prospect, Geological Plan.	1:2000
T 954	E.L. 19/72 Nietta, N.W. Tasmania Crosby Creek Prospect, Soil Sample Location Plan.	1:2000
T 955	E.L. 19/72 Nietta, N.W. Tasmania Crosby Creek Prospect, Geochemical Soil Sample Results Plan, Lead in ppm.	1:2000
T 956	E.L. 19/72 Nietta, N.W. Tasmania Crosby Creek Prospect, Geochemical Soil Sample Results Plan, Zinc in ppm.	1:2000
T 957	E.L. 19/72 Nietta, N.W. Tasmania Crosby Creek Prospect, Geochemical Soil Sample Results Plan, Copper in ppm.	1:2000
T 958	E.L. 19/72 Nietta, N.W. Tasmania Loyetea South Prospect, Geological Plan.	1:2000
T 959	E.L. 19/72 Nietta, N.W. Tasmania Loyetea South Prospect, Soil Sample Location Plan.	1:2000
T 960	E.L. 19/72 Nietta, N.W. Tasmania Loyetea South Prospect, Geochemical Soil Sample Results Plan, Lead in ppm.	1:2000

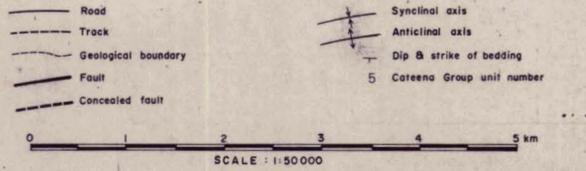
T 961	E.L. 19/72 Nietta, N.W. Tasmania Loyetea South Prospect, Geochemical Soil Sample Results Plan, Zinc in ppm.	1:2000
T 962	E.L. 19/72 Nietta, N.W. Tasmania Loyetea South Prospect, Geochemical Soil Sample Results Plan, Copper in ppm.	1:2000
T 963	E.L. 19/72 Nietta, N.W. Tasmania Loyetea North Prospect, Geological Plan.	1:2000
T 964	E.L. 19/72 Nietta, N.W. Tasmania Loyetea North Prospect, Soil Sample Location Plan.	1:2000
T 965	E.L. 19/72 Nietta, N.W. Tasmania Loyetea North Prospect, Geochemical Soil Sample Results Plan, Lead in ppm.	1:2000
T 966	E.L. 19/72 Nietta, N.W. Tasmania Loyetea North Prospect, Geochemical Soil Sample Results Plan, Zinc in ppm.	1:2000
T 967	E.L. 19/72 Nietta, N.W. Tasmania Loyetea North Prospect, Geochemical Soil Sample Results Plan, Copper in ppm.	1:2000
T 968	E.L. 19/72 Nietta, N.W. Tasmania Crosby Creek Prospect Diamond Drill Section DD 75 CCl.	1:1000
T 969	E.L. 19/72 Nietta, N.W. Tasmania Crosby Creek Prospect Diamond Drill Section DD 75 CC2.	1:1000
T 970	E.L. 19/72 Nietta, N.W. Tasmania Crosby Creek Prospect Diamond Drill Section DD 75 CC3.	1:1000
T 971	E.L. 19/72 Nietta, N.W. Tasmania Loyetea South Prospect Diamond Drill Section DD 76 LS1.	1:1000
T 972	E.L. 19/72 Nietta, N.W. Tasmania Loyetea South Prospect Diamond Drill Section DD 76 LS2.	1:1000



GENERAL LEGEND

QUATERNARY
TERTIARY
DEVONIAN
ORDOVICIAN
CAMBRIAN
PROTEROZOIC

- Qa Alluvium
 - Qt Talus
 - Tb Basalt
 - Ts Gravel, sand & clay
 - Dg Granite
 - Og Gordon Limestone
 - Om Moira Sandstone
 - Or Roland Conglomerate
- Radfords Creek Group**
- Erm Shale, mudstone and siltstone with lesser greywacke and minor conglomerate
 - Erc Conglomerate and greywacke
 - Em Matton Spilitic
 - Eb Barrington Chert
- Nietta Group**
- Enup Unaltered acid pyroclastics Agglomerate ashflow tuff, vitric tuff and crystal tuff
 - Enul Unaltered rhyolitic to dacitic lava
 - Enlp Altered acid pyroclastics Agglomerate ashflow tuff, vitric tuff and crystal tuff
 - Enll Altered rhyolitic lava
 - Enls Interbedded tuffs, tuffaceous shales and lesser tuffaceous sandstone
 - Enm Shale, with lesser tuffaceous sediments
- Cateena Group**
- Eccm Shale, mudstone with lesser tuffs, sandstone and minor conglomerate
 - Eccs Tuffaceous sandstone, shale and lesser tuffs
 - Ecc Conglomerates
 - Ecrf Fine indurated acid tuffs and tuffaceous shale
 - Ecrm Medium grained rhyolitic to rhyodacitic tuffs with lesser lavas and minor shale
 - Ecv Coarse rhyolitic to rhyodacitic tuffs with minor lavas and interbedded shales and sandstone
- Intrusives**
- Eri Porphyritic microdiorite to diorite
 - Eri Rhyodacite
- PROTEROZOIC**
- pEb Burnie Beds - slates and quartzites



0 1 2 3 4 5 km
SCALE: 1:50,000

C.R.A. EXPLORATION PTY. LIMITED
GEOLOGICAL PLAN
E.L.19/72 NIETTA
466237 N.W. TASMANIA

1658
76-1157

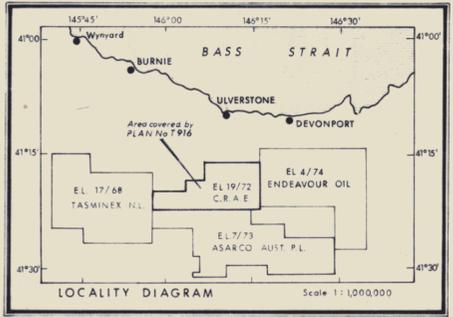
GEOLOGIST: T. M. PORTER, MAR, 76 MAP SHEET BURNIE SK55-3 PLAN No T 999 - Report B491



LEGEND

QUATERNARY	Qa	Alluvium
	Qr	Talus
TERTIARY	Tb	Basalt flows
SILURIAN	Se	Eldon Group
ORDOVICIAN	Og	Gordon Limestone
	Om	Maina Sandstone
	Or	Roland Conglomerate
CAMBRIAN	Eni	Undifferentiated sediments and intermediate volcanics
	Env	Undifferentiated Upper or Lower Nieta Group sediments
Roufords CL Group	Ec	Interbedded acid pyroclastics and sediments
Cateena Group	Enm	Undifferentiated Upper or Lower Nieta Group sediments
	Unaltered Nieta Group	
	Enuv	Unaltered fine vitric tuff (plus crystal tuff)
	Enva	Unaltered ash flow tuff
	Env4	Lava 4 & Lava 5 Unaltered quartz feldspar porphyritic rhyolite
	Env5	Unaltered agglomerate and lapilli tuff
	Altered Nieta Group	
	Enlm	Fine tuffaceous sandstone to mudstone
	Enlv	Fine vitric tuff
	Enla	Ashflow tuff
Nieta Group	Enlc	Ashflow, crystal and lapilli tuff and agglomerate
	Enlv2	Vitric (probably pumice flow) tuff
	Enll1	Rhyolitic Lava 1 - Quartz feldspar porphyritic lava
	Enll2	Rhyolitic Lava 2
	Enll3	Rhyolitic Lava 3
	Enls	Fine vitric tuff, tuffaceous shale and sandstone, mudstone and fine schists
Enlp	Interlamated fine sandstone, siltstone and mudstone	
Enlg	Altered agglomerate and lapilli tuff	
Enlg6	Lava 6. Dacite to rhyolite. Silicified in parts	
Intrusives	Eni	Rhyodacitic feldspar porphyry
	Eri	Microdiorite

	Dip and strike of bedding		Geological boundary
	Synclinal axis		Boundary of EL 19/72
	Anticlinal axis		Road
	fault		Track



SCALE 1 : 25 000

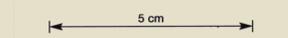
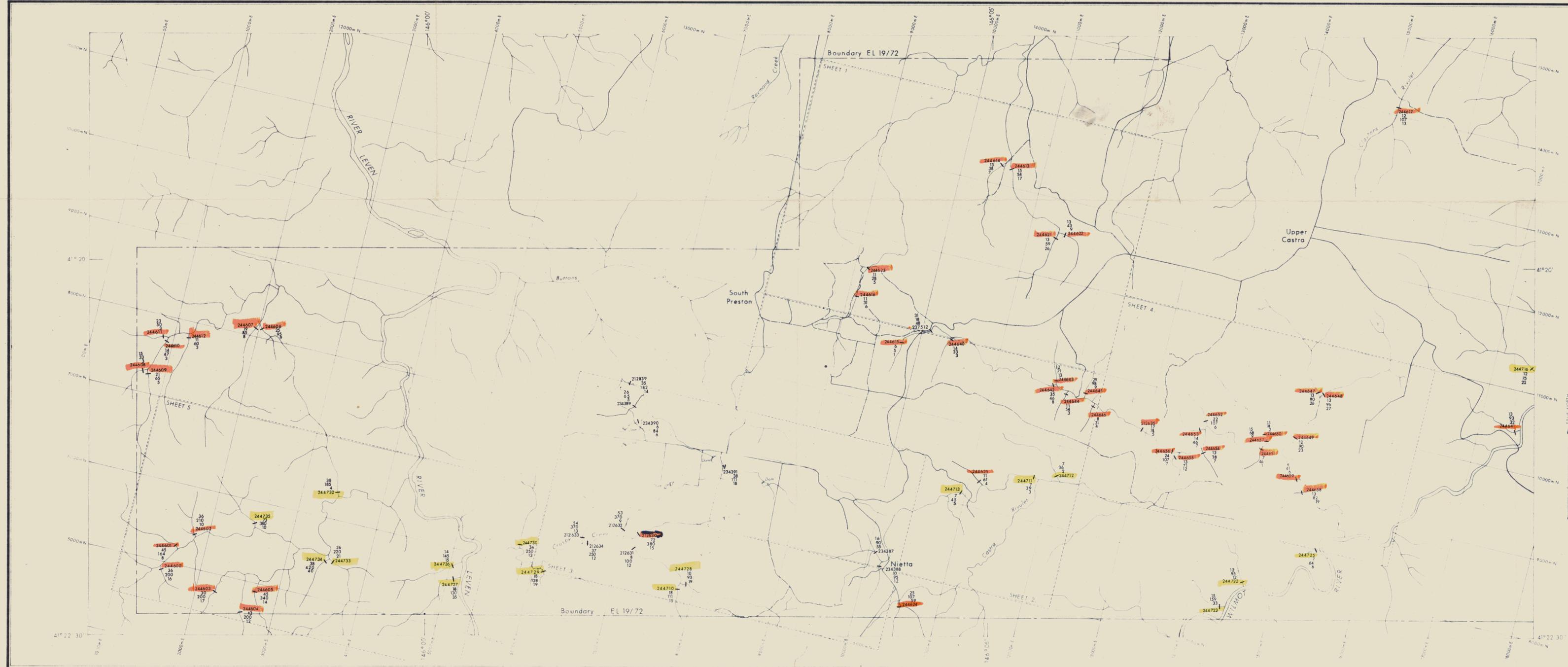
0 500 1000 1500 2000 2500 Metres
0 2000 4000 6000 8000 Feet

466238 76-1157

C.R.A. EXPLORATION PTY LIMITED

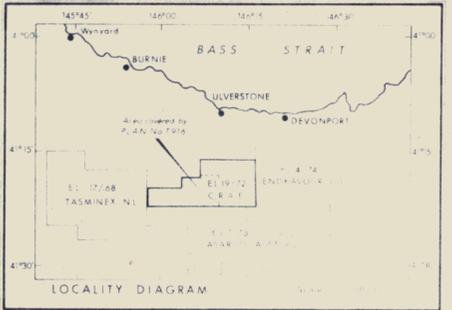
**E.L. 19/72 "NIETA" NORTH WEST TASMANIA
GEOLOGICAL PLAN
NIETA - LOYETEA AREA 1659**

REFERENCE	BURNIE SK 55-3	NB:	FOR BASE OF THIS PLAN SEE PLAN No. T 915
GEOLOGIST	T.M. PORTER	SCALE:	1 : 25,000
DRAWN	D.J.L.	REPORT No.:	
DATE:	JULY, 1975	REVISED	OCT., 75
		PLAN No.	T 916



Geochemical drainage sample location

244656 Sample number
 24 Lead content ppm
 107 Zinc content ppm
 7 Copper content ppm



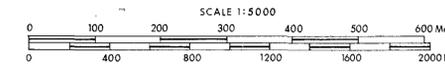
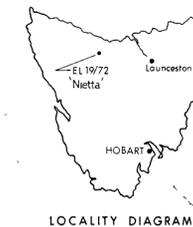
466239 76-1157
 C.R.A. EXPLORATION PTY LIMITED

**E.L. 19/72 "NIETA" NORTH WEST TASMANIA
 DRAINAGE GEOCHEMISTRY
 NIETA - LOYETE A AREA 1660**

REFERENCE :	BURNIE SK 55-B	Loyetea, Castra
GEOLOGIST :	T. M. P.	SCALE : 1 : 25,000
DRAWN :	D. J. L.	REPORT No. :
DATE :	August 1975	PLAN No. : 1919

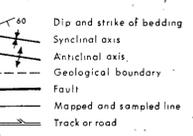
E L 19/72 NIETTA NORTH WEST TASMANIA GEOLOGICAL PLAN 466240 SHEET 1 1661

1:250,000 Sheet SK55-3 'BURNIE'	
Geologist: T.M Porter & P.J Ashton	Scale: 1:5000
Drawn:	Report No:
Date: MARCH 1976	Plan No: T940



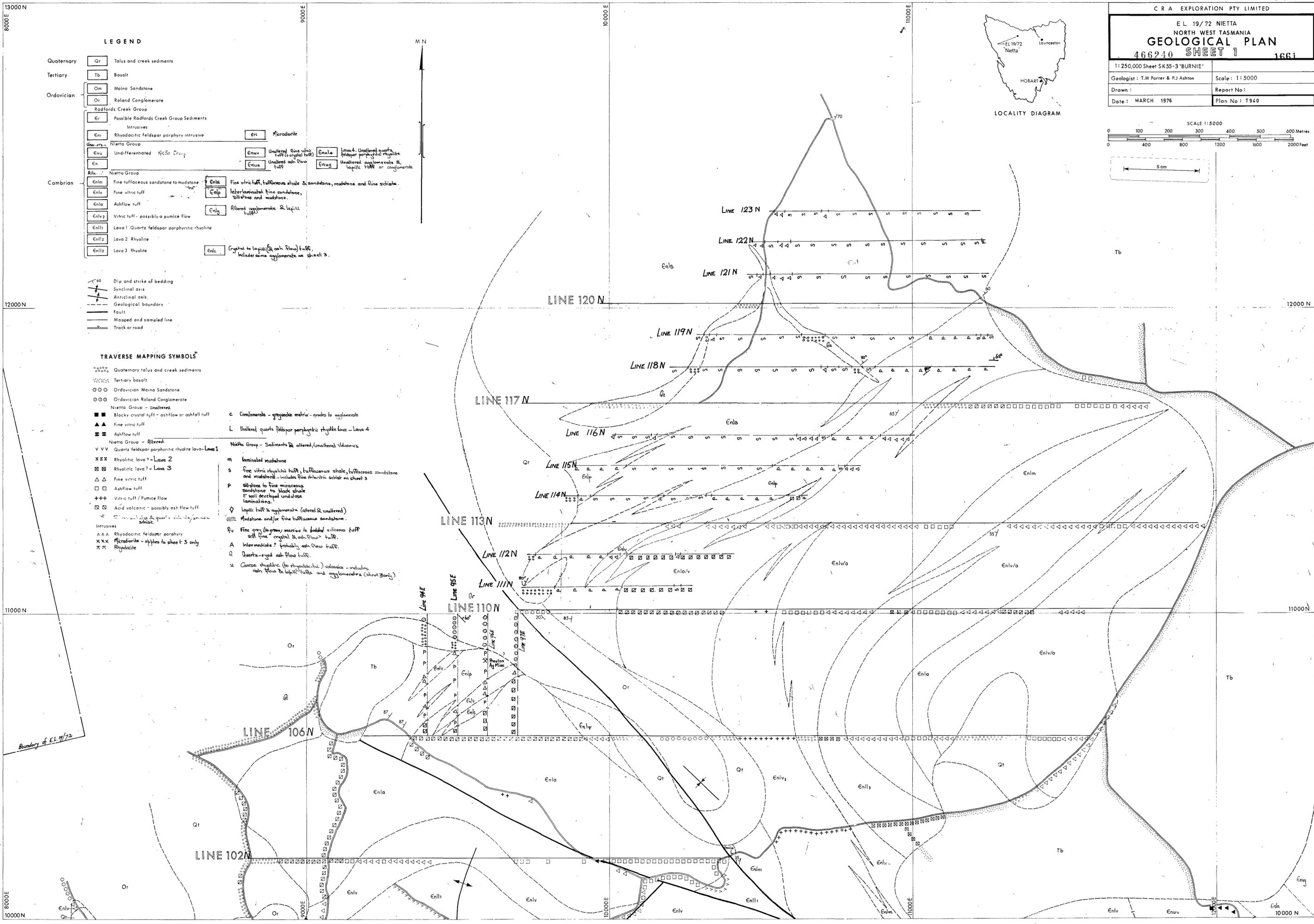
LEGEND

Quaternary	Q1	Talus and creek sediments
Tertiary	Tb	Basalt
Ordovician	Or	Maina Sandstone
	Or	Roland Conglomerate
	Er	Radford's Creek Group
	Er	Possible Radford's Creek Group Sediments
	Eni	Intrusives
Cambrian	Enu	Nietta Group - Undifferentiated
	En	Nietta Group - Unaltered
	Env	Nietta Group - Altered
	Env1	Nietta Group - Lava 1
	Env2	Nietta Group - Lava 2
	Env3	Nietta Group - Lava 3
	Env4	Nietta Group - Lava 4
	Env5	Nietta Group - Lava 5
	Env6	Nietta Group - Lava 6
	Env7	Nietta Group - Lava 7
	Env8	Nietta Group - Lava 8
	Env9	Nietta Group - Lava 9
	Env10	Nietta Group - Lava 10
	Env11	Nietta Group - Lava 11
	Env12	Nietta Group - Lava 12



TRAVERSE MAPPING SYMBOLS

Quaternary talus and creek sediments	Quaternary talus and creek sediments
Tertiary basalt	Tertiary basalt
Ordovician Maina Sandstone	Ordovician Maina Sandstone
Ordovician Roland Conglomerate	Ordovician Roland Conglomerate
Nietta Group - Unaltered	Nietta Group - Unaltered
Blocky crystal tuff - ashflow or ashfall tuff	Blocky crystal tuff - ashflow or ashfall tuff
Fine vitric tuff	Fine vitric tuff
Ashflow tuff	Ashflow tuff
Nietta Group - Altered	Nietta Group - Altered
Quartz feldspar porphyritic rhyolite lava - Lava 1	Quartz feldspar porphyritic rhyolite lava - Lava 1
Rhyolitic lava? - Lava 2	Rhyolitic lava? - Lava 2
Rhyolitic lava? - Lava 3	Rhyolitic lava? - Lava 3
Fine vitric tuff	Fine vitric tuff
Ashflow tuff	Ashflow tuff
Vitric tuff / Pumice flow	Vitric tuff / Pumice flow
Acid volcanic - possibly ash flow tuff	Acid volcanic - possibly ash flow tuff
Intrusives	Intrusives
Rhyodacitic feldspar porphyry	Rhyodacitic feldspar porphyry
Microdiorite - applies to sheet 3 only	Microdiorite - applies to sheet 3 only
Rhyodacite	Rhyodacite
Comglomerate - greywacke matrix - grades to agglomerate	Comglomerate - greywacke matrix - grades to agglomerate
Unaltered quartz feldspar porphyritic rhyolite lava - Lava 4	Unaltered quartz feldspar porphyritic rhyolite lava - Lava 4
Nietta Group - Sediments & altered/unaltered Volcanics	Nietta Group - Sediments & altered/unaltered Volcanics
laminated mudstone	laminated mudstone
fine vitric rhyolitic tuff, tufaceous shale, tufaceous sandstone and mudstone - includes fine vitric schist on sheet 3	fine vitric rhyolitic tuff, tufaceous shale, tufaceous sandstone and mudstone - includes fine vitric schist on sheet 3
Siltstone to fine micaceous sandstone to black shale with well developed undulose laminations	Siltstone to fine micaceous sandstone to black shale with well developed undulose laminations
Lapilli tuff & agglomerate (altered & unaltered)	Lapilli tuff & agglomerate (altered & unaltered)
Mudstone and/or fine tufaceous sandstone	Mudstone and/or fine tufaceous sandstone
Fine grey (laggy) massive to bedded siliceous tuff and fine 'crystal & ash flow' tuff	Fine grey (laggy) massive to bedded siliceous tuff and fine 'crystal & ash flow' tuff
Intermediate? probably ash flow tuff	Intermediate? probably ash flow tuff
Quartz-eyed ash flow tuff	Quartz-eyed ash flow tuff
Coarse rhyolite (to rhyodacitic) volcanic - includes ash flow & lapilli tuffs and agglomerates (sheet 3 only)	Coarse rhyolite (to rhyodacitic) volcanic - includes ash flow & lapilli tuffs and agglomerates (sheet 3 only)



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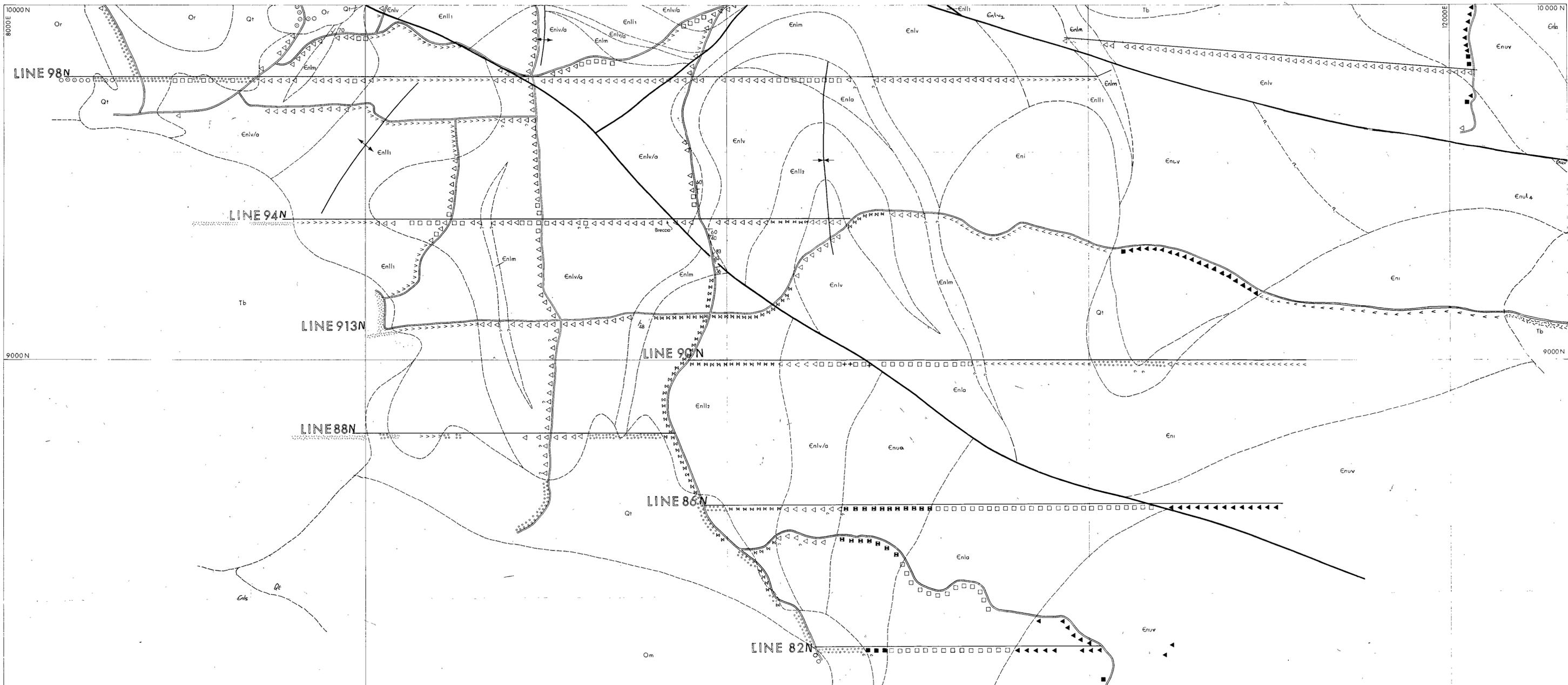
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C. R. A. EXPLORATION PTY. LIMITED
 E. L. 19/72 NIETA NORTH WEST TASMANIA
 GEOCHEMICAL SOIL SAMPLE
 LOCATION PLAN
 SHEET 1
 REFERENCE: BURNIE SK 55-3 SCALE: 1:5000
 GEOLOGIST: J.M.P. PLAN N°: 1941
 DATE: MARCH 1978



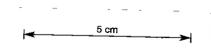
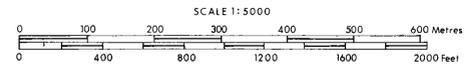
LEGEND

- Quaternary**
 - Qt Talus and creek sediments
- Tertiary**
 - Tb Basalt
- Ordovician**
 - Om Maino Sandstone
 - Or Roland Conglomerate
 - Radford's Creek Group**
 - Er Possible Radford's Creek Group Sediments
 - Intrusives**
 - Eni Rhyodacitic feldspar porphyry intrusive
 - Unaltered Nielta Group
 - Enuv Vitric and crystal tuffs
 - Enua Ash flow tuff
 - Enula Rhyolitic to rhyodacitic lava - lava 4.
 - Altered Nielta Group and Sediments**
 - Enlm Fine tuffaceous sandstone to mudstone
 - Enlv Fine vitric tuff
 - Enla Ashflow tuff
 - Enlv2 Vitric tuff - possibly a pumice flow
 - Enll1 Lava 1. Quartz feldspar porphyritic rhyolite
 - Enll2 Lava 2. Rhyolite
 - Enll3 Lava 3. Rhyolite
- Cambrian**

TRAVERSE MAPPING SYMBOLS

- Quaternary talus and creek sediments
- Tertiary basalt
- Ordovician Maino Sandstone
- Ordovician Roland Conglomerate
- Upper Nielta Group
 - Blacky crystal tuff - ashflow or ashfall tuff
 - Fine vitric tuff
 - Ashflow tuff
- Lower Nielta Group
 - Quartz feldspar porphyritic rhyolite lava
 - Rhyolitic lava?
 - Rhyolitic lava?
 - Fine vitric tuff
 - Ashflow tuff
 - Vitric tuff / Pumice flow
 - Acid volcanic - possibly ash flow tuff
 - Mudstone and/or fine tuffaceous sandstone
- Intrusives
 - Rhyodacitic feldspar porphyry

- Dip and strike of bedding
- Synclinal axis
- Anticlinal axis
- Geological boundary
- Fault
- Mapped and sampled line
- Track or road



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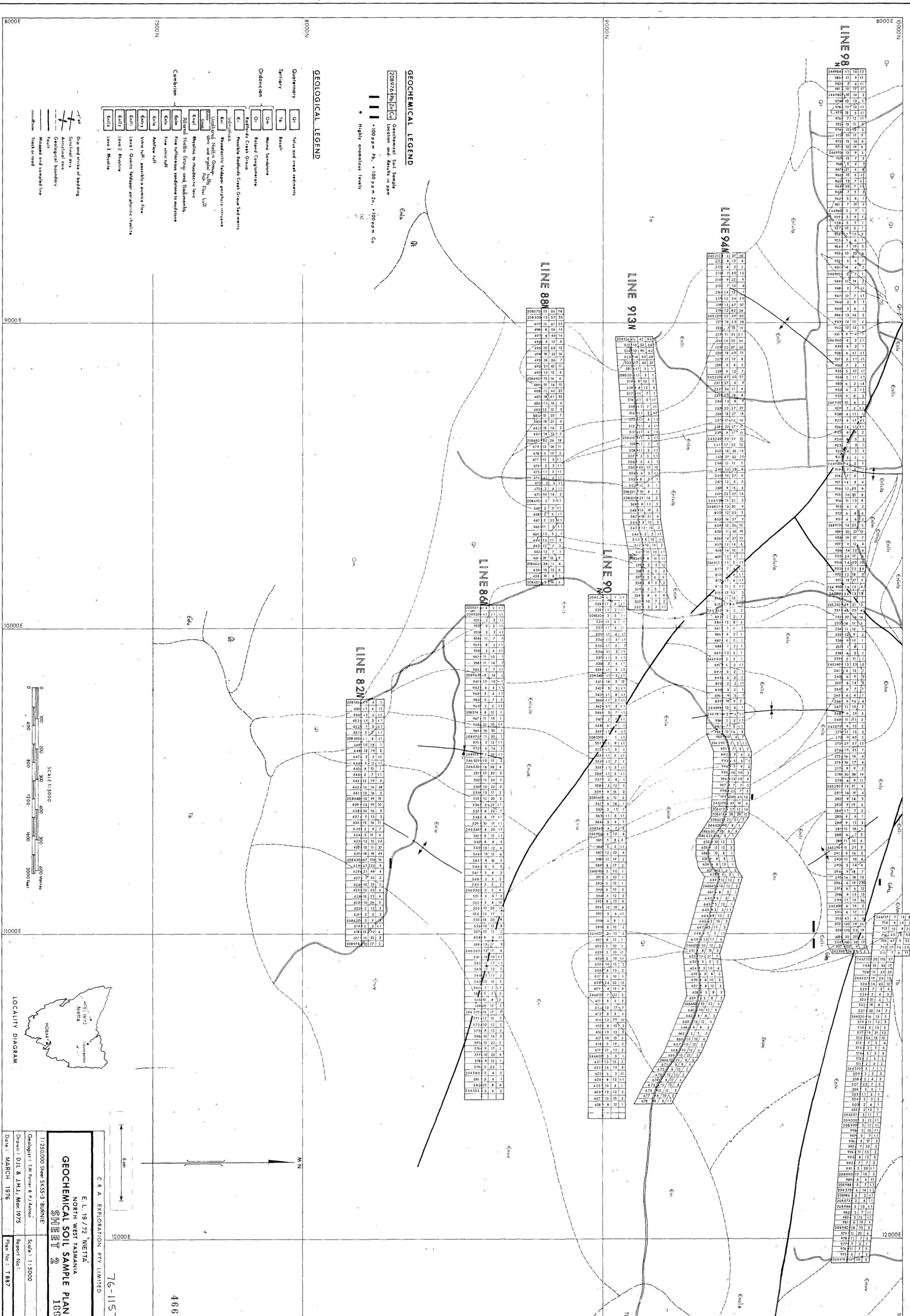
E L 19 / 72 'NIETTA'
NORTH WEST TASMANIA
GEOLOGICAL PLAN
SHEET 2 1664

1:250,000 Sheet SK55-3 'BURNIE'

Geologist: T.M. Parrier & P.J. Ashton Scale: 1:5000

Drawn: Report No:

Date: MARCH 1976 Plan No: T.885



GEOCHEMICAL LEGEND

Geotechnical Soil Sample location and results in ppm

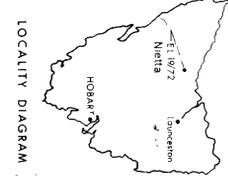
100 ppm Pb, 100 ppm Zn, 100 ppm Cu

* Highly anomalous levels

GEOLOGICAL LEGEND

- Quaternary
 - Q1 Talus and creek sediments
 - Ts Basalt
- Tertiary
 - O1 Olden Sandstone
 - O2 Kelson Conglomerate
 - O3 Possible Redford Creek Group Sediments
- Ordovician
 - E1 Interstratified Rhodocytic Limestone group (mudstone)
 - E2 Rhodocytic Limestone group (mudstone)
 - E3 Rhodocytic Limestone group (mudstone)
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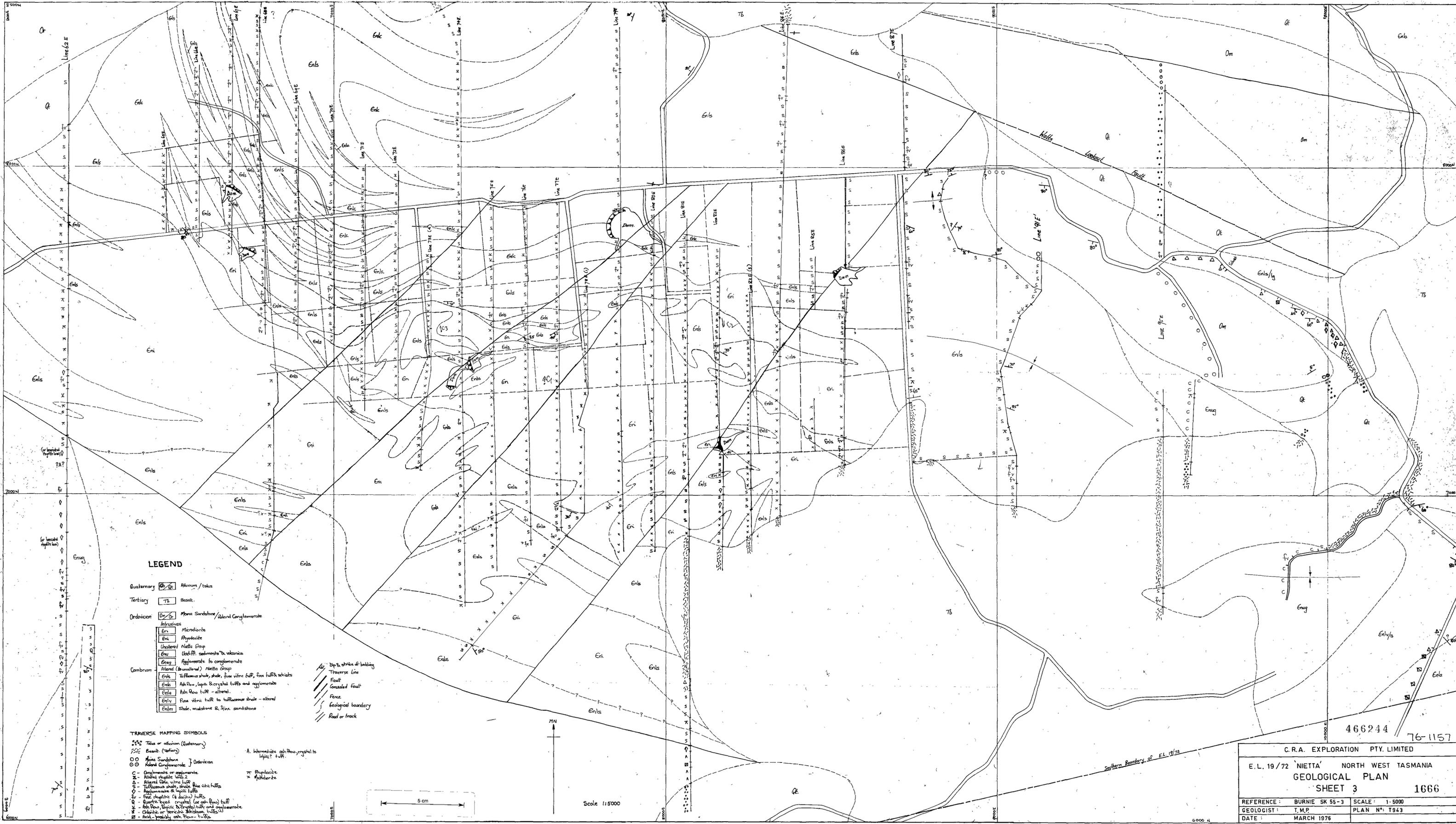
- Dip and strike of bedding
- Synclinal axis
- Anticlinal axis
- Geological boundary
- Fault
- Mapped and sampled line
- Track or road



E. L. 19/77 NIELTA
NORTH WEST TASMANIA
GEOCHEMICAL SOIL SAMPLE PLAN
SHEET 2

1:250000 Sheet SK55-3-BURNIE
 Geologist: I.M. Power & P. Johnson
 Drawn: D.L. & J.H.J. Mar 1975
 Date: MARCH 1976
 Scale: 1:5000
 Report No.:
 Plan No.: 1887

C & A EXPLORATION PTY LIMITED
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LEGEND

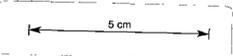
- Quaternary Qd Alluvium / talus
- Tertiary Tb Basalt
- Ordovician Or Mafic Sandstone / Island Conglomerate
- Intrusives**
 - Eni Microdiorite
 - Enb Rhodacite
 - Enu Unaltered Nelta Group
 - Env (incl. sp. sediments) volcanics
 - Enw Agglomerate to conglomerate
 - Enx Altered (basaltic) Nelta Group
 - Eny Tuffaceous shale, slate, fine vitric tuff, fine tuffic schists
 - Enz Ash flow, lapilli, & crystal tuffs and agglomerate
 - Enaa Ash flow tuff - altered
 - Enab Fine vitric tuff to tuffaceous shale - altered
 - Enam Shale, mudstone & fine sandstone
- Cambrian**
 - Ca Conglomerate or agglomerate
 - Cb Altered mudstone
 - Cc Altered tuff, vitric tuff
 - Cd Tuffaceous shale, slate, fine vitric tuff
 - Ce Agglomerate & lapilli tuff
 - Cf Fine tuffaceous (e. dacitic) tuff
 - Cg Quartzite / quartzite (e. ash flow) tuff
 - Ch Ash flow tuff, & crystal tuff and agglomerate
 - Ci Chlorite or terricite schistose tuff
 - Cj Mud - possibly ash flow - tuff

- Dip & strike of bedding
- Traverse line
- Fault
- Concealed fault
- Fence
- Geological boundary
- Road or track

TRAVERSE MAPPING SYMBOLS

- Tuffs or alluvium (Quaternary)
- Basalt (tertiary)
- Mafic Sandstone / Island Conglomerate (Ordovician)
- Rhodacite (Intrusives)
- Microdiorite (Intrusives)
- Unaltered Nelta Group (Intrusives)
- (incl. sp. sediments) volcanics (Intrusives)
- Agglomerate to conglomerate (Intrusives)
- Altered (basaltic) Nelta Group (Intrusives)
- Tuffaceous shale, slate, fine vitric tuff, fine tuffic schists (Intrusives)
- Ash flow, lapilli, & crystal tuffs and agglomerate (Intrusives)
- Ash flow tuff - altered (Intrusives)
- Fine vitric tuff to tuffaceous shale - altered (Intrusives)
- Shale, mudstone & fine sandstone (Intrusives)
- Conglomerate or agglomerate (Cambrian)
- Altered mudstone (Cambrian)
- Altered tuff, vitric tuff (Cambrian)
- Tuffaceous shale, slate, fine vitric tuff (Cambrian)
- Agglomerate & lapilli tuff (Cambrian)
- Fine tuffaceous (e. dacitic) tuff (Cambrian)
- Quartzite / quartzite (e. ash flow) tuff (Cambrian)
- Ash flow tuff, & crystal tuff and agglomerate (Cambrian)
- Chlorite or terricite schistose tuff (Cambrian)
- Mud - possibly ash flow - tuff (Cambrian)

A. Intermediate ash flow, crystal to lapilli tuff



Scale 1:5000



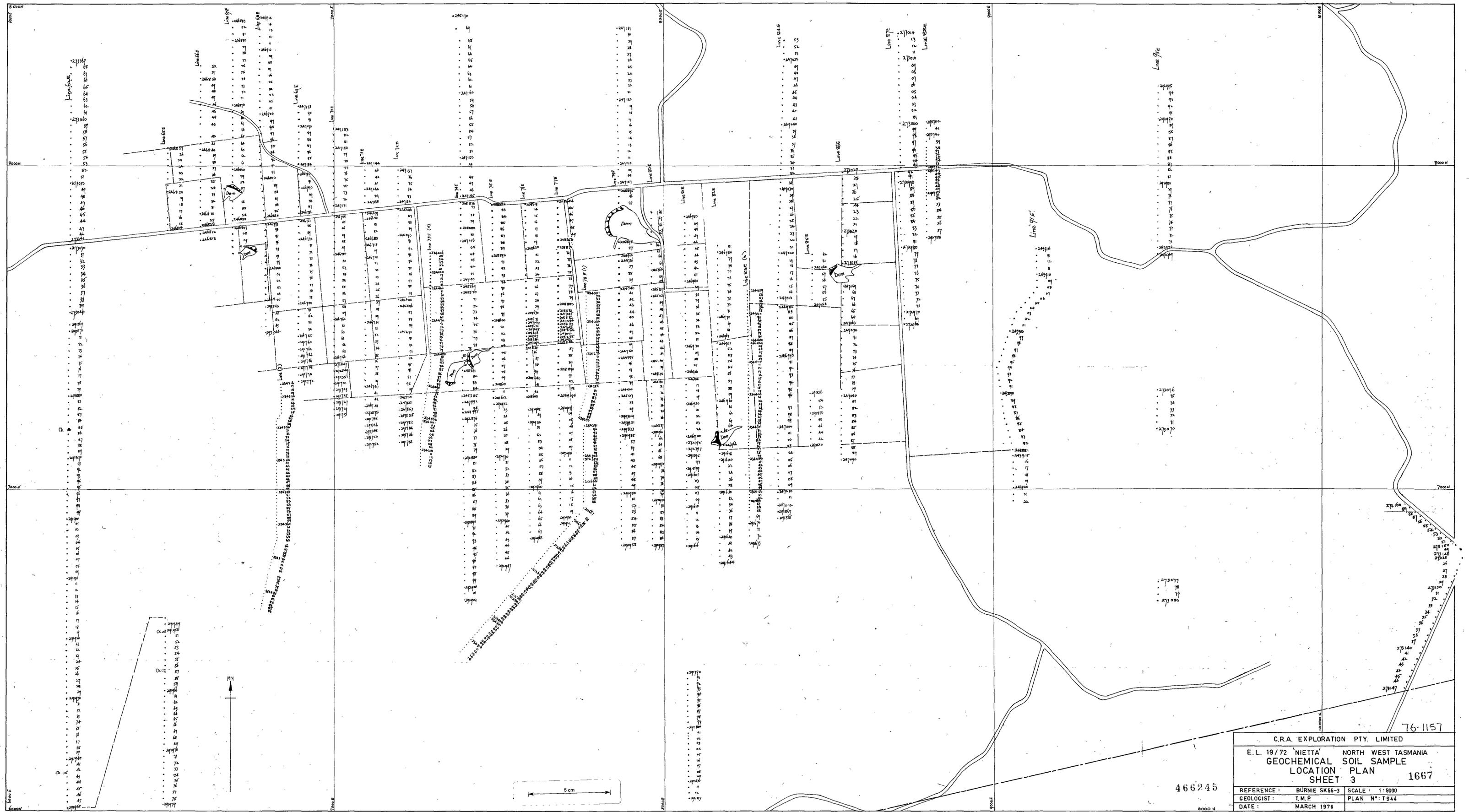
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C.R.A. EXPLORATION PTY. LIMITED

E.L. 19/72 'NIETTA' NORTH WEST TASMANIA
GEOLOGICAL PLAN
SHEET 3 1666

REFERENCE :	BURNIE SK 55-3	SCALE :	1:5000
GEOLOGIST :	T.M.P.	PLAN N° :	T943
DATE :	MARCH 1976		

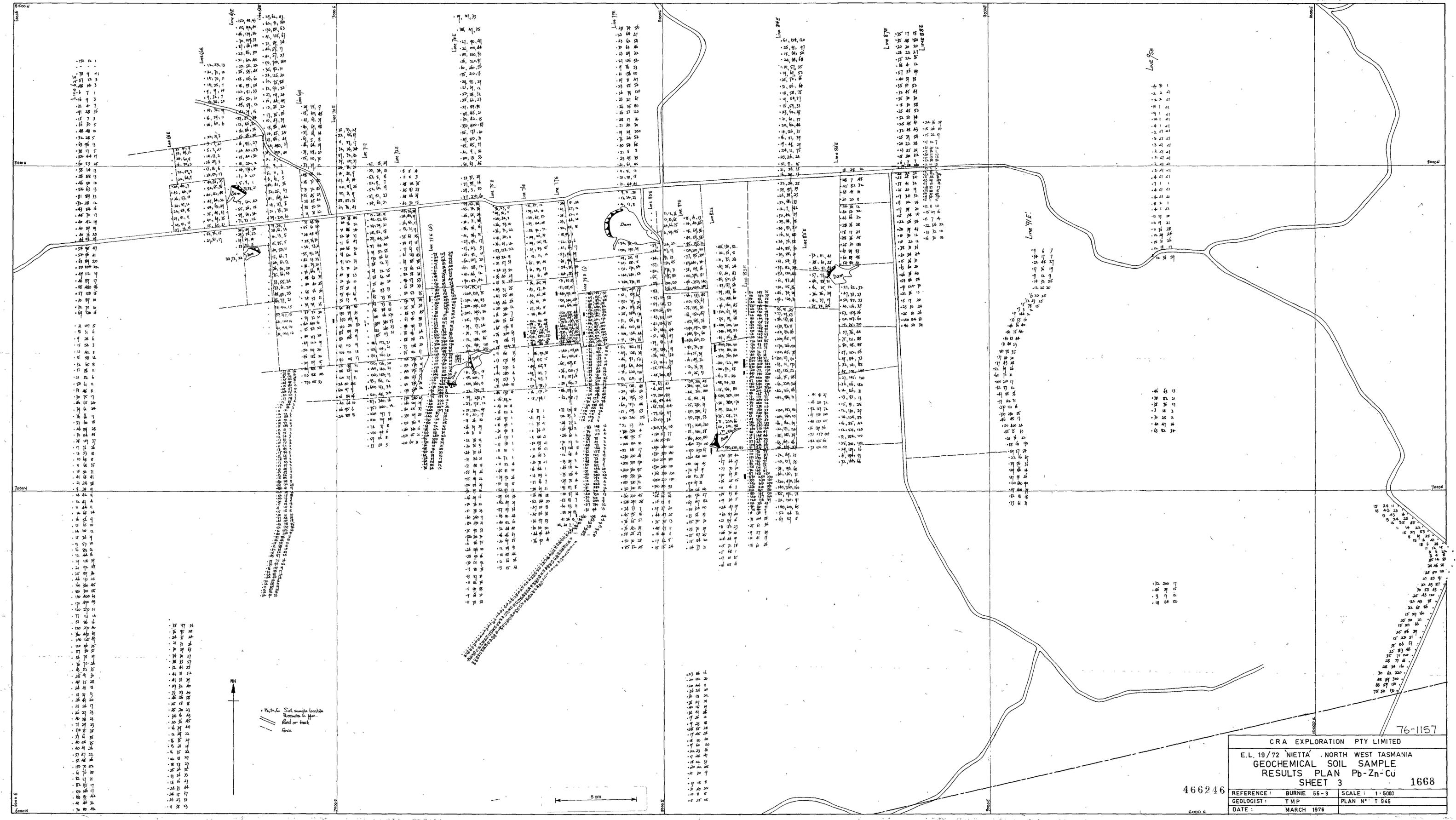
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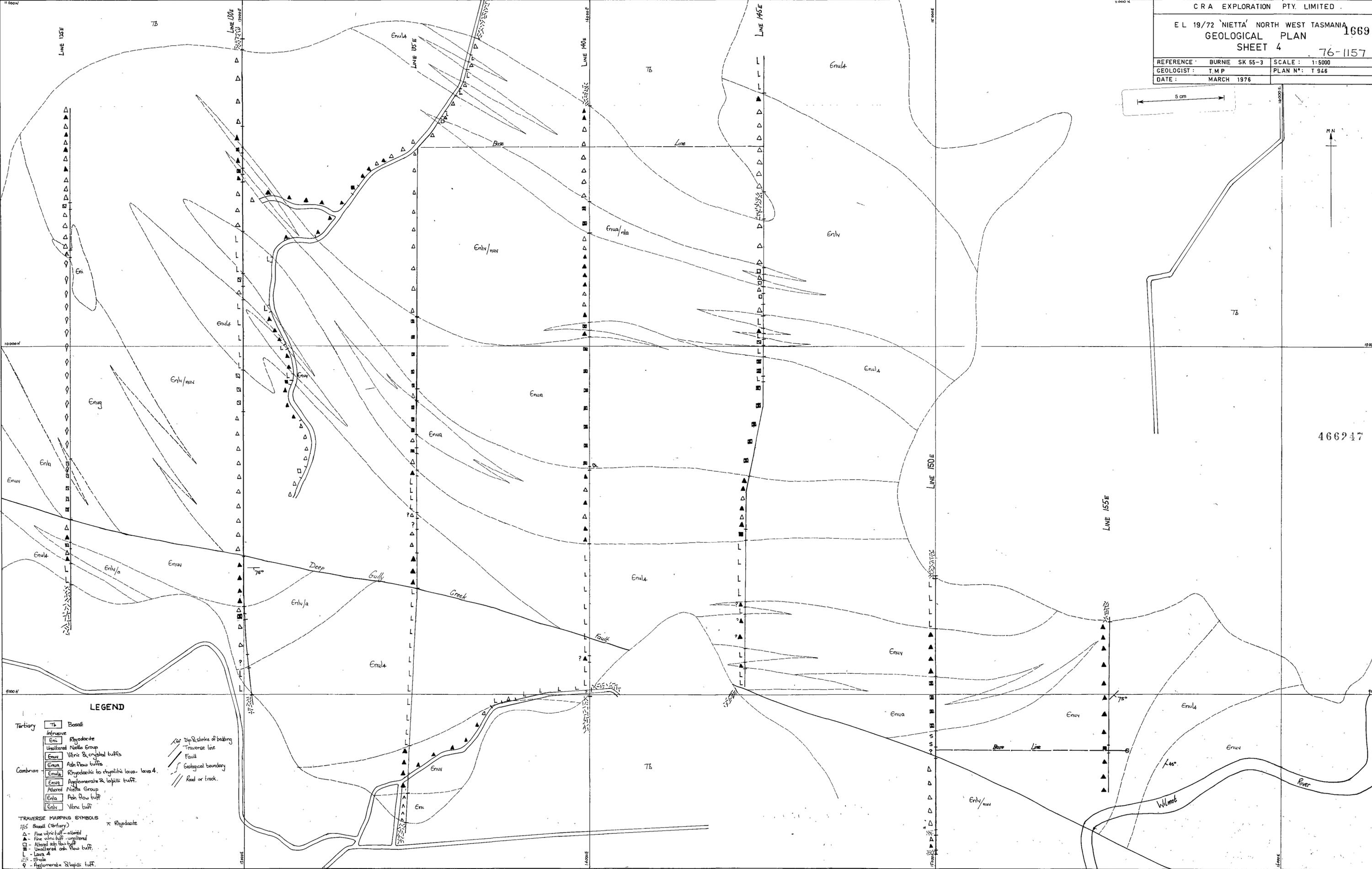
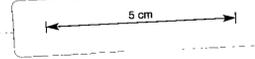
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C.R.A. EXPLORATION PTY. LIMITED			
E.L. 19/72 'NIETTA' NORTH WEST TASMANIA		GEOCHEMICAL SOIL SAMPLE	
LOCATION PLAN		SHEET 3	
1667			
REFERENCE :	BURNIE SK55-3	SCALE :	1 : 5000
GEOLOGIST :	T.M.P	PLAN N° :	T944
DATE :	MARCH 1976		

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LEGEND

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|-----------|------|-------------------------------------|--|--|
| Tertiary | Tb | Basalt | | |
| Intrusive | Eni | Rhyodacite | | |
| Unaltered | Enua | Nietta Group | | |
| | Enuv | Vitic & crystal tuffs | | |
| | Enus | Ash flow tuffs | | |
| Cambrian | Enul | Rhyolitic to rhyolitic lava-lava 4. | | |
| | Enu | Agglomerate & lapilli tuff. | | |
| | Enla | Altered Nietta Group | | |
| | Enlv | Ash flow tuff | | |
| | Enlv | Vitic tuff | | |
-
- | | | |
|--------------------------|------------------------------|--------------|
| TRAVERSE MAPPING SYMBOLS | | x Rhyodacite |
| Tb | Basalt (Tertiary) | |
| △ | Fine vitric tuff - altered | |
| ▲ | Fine vitric tuff - unaltered | |
| ■ | Altered ash flow tuff | |
| □ | Unaltered ash flow tuff | |
| L | Lava 4 | |
| ○ | Shale | |
| ○ | Agglomerate & lapilli tuff. | |
-
- | | |
|-----|-------------------------|
| ↘ | Dip & strike of bedding |
| --- | Traverse line |
| --- | Fault |
| --- | Geological boundary |
| --- | Road or track |



LEGEND

Quaternary

- Qc - Tillus
- Qd - Deposits of tillus
- Qe - Deposits of tillus
- Qf - Deposits of tillus
- Qg - Deposits of tillus
- Qh - Deposits of tillus
- Qi - Deposits of tillus
- Qj - Deposits of tillus
- Qk - Deposits of tillus
- Ql - Deposits of tillus
- Qm - Deposits of tillus
- Qn - Deposits of tillus
- Qo - Deposits of tillus
- Qp - Deposits of tillus
- Qq - Deposits of tillus
- Qr - Deposits of tillus
- Qs - Deposits of tillus
- Qt - Deposits of tillus
- Qu - Deposits of tillus
- Qv - Deposits of tillus
- Qw - Deposits of tillus
- Qx - Deposits of tillus
- Qy - Deposits of tillus
- Qz - Deposits of tillus

Triassic

- T1 - Triassic
- T2 - Triassic
- T3 - Triassic
- T4 - Triassic
- T5 - Triassic
- T6 - Triassic
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- T50 - Triassic

Carboniferous

- C1 - Carboniferous
- C2 - Carboniferous
- C3 - Carboniferous
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- C49 - Carboniferous
- C50 - Carboniferous

TRAVESSE MAPPING SYMBOLS

- - Dip strike of bedding
- - Traverse line
- - Fault
- - Concealed fault
- - Geological boundary
- - Road or track

76-1157

CRA EXPLORATION PTY. LIMITED

E.L. 19/72 'NIETTA' NORTH WEST TASMANIA

GEOLOGICAL PLAN

SHEET 5 LOYETEA ANOMALIES 1671

466249

REFERENCE: BURNIE SK 55-3 SCALE: 1:5000

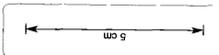
GEOLOGIST: TMP PLAN N°: 1948

DATE: MARCH 1976

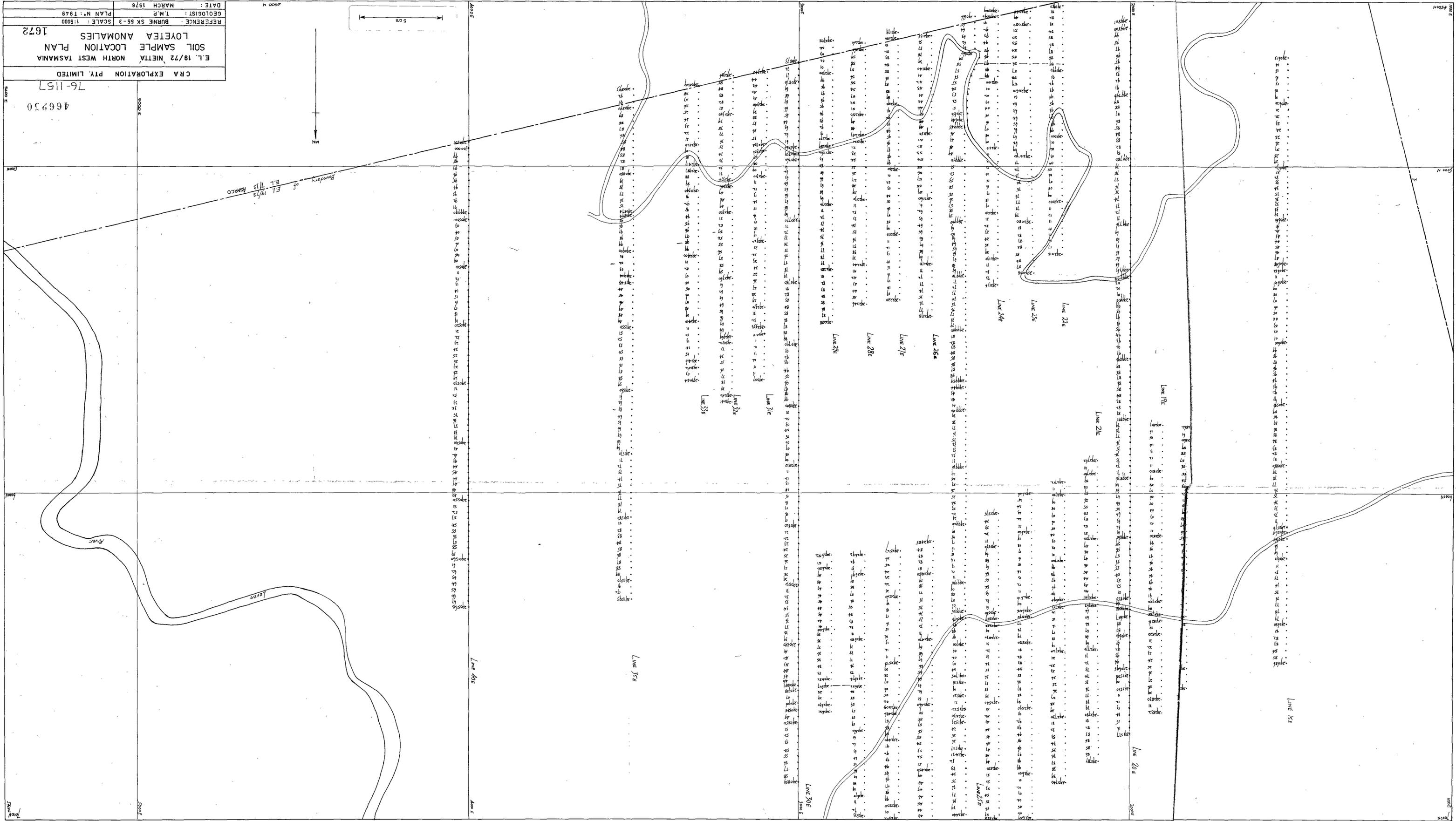
DATE: MARCH 1976
 GEOLOGIST: T.M.P.
 REFERENCE: BURNIE SK 55-3
 SCALE: 1:5000
 PLAN N°: 1949

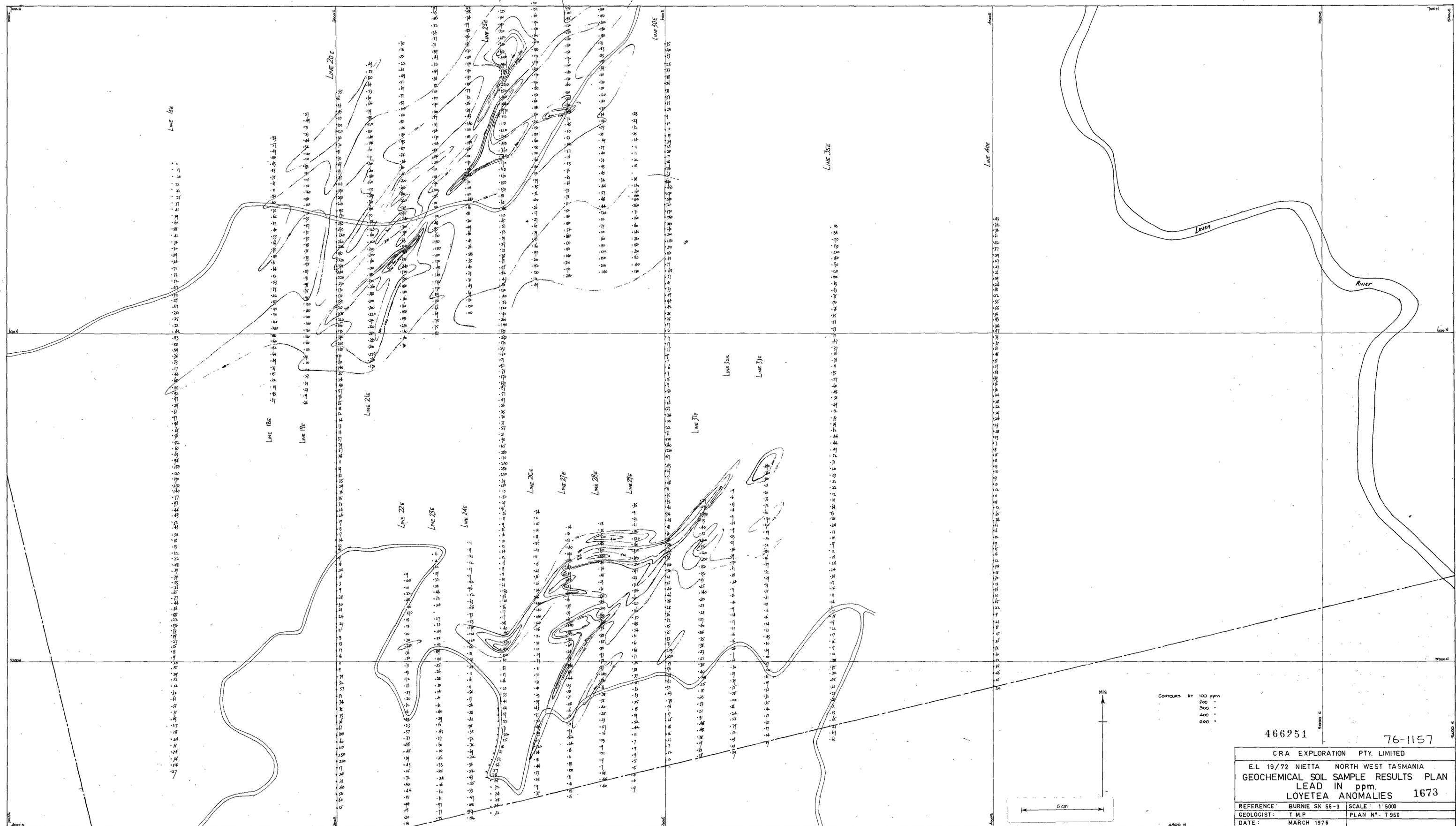
E.L. 19/72 NIETA NORTH WEST TASMANIA
 SOIL SAMPLE LOCATION PLAN
 LOYETEA ANOMALIES
 1972
 CRA EXPLORATION PTY. LIMITED

466230
 76-1157



5m



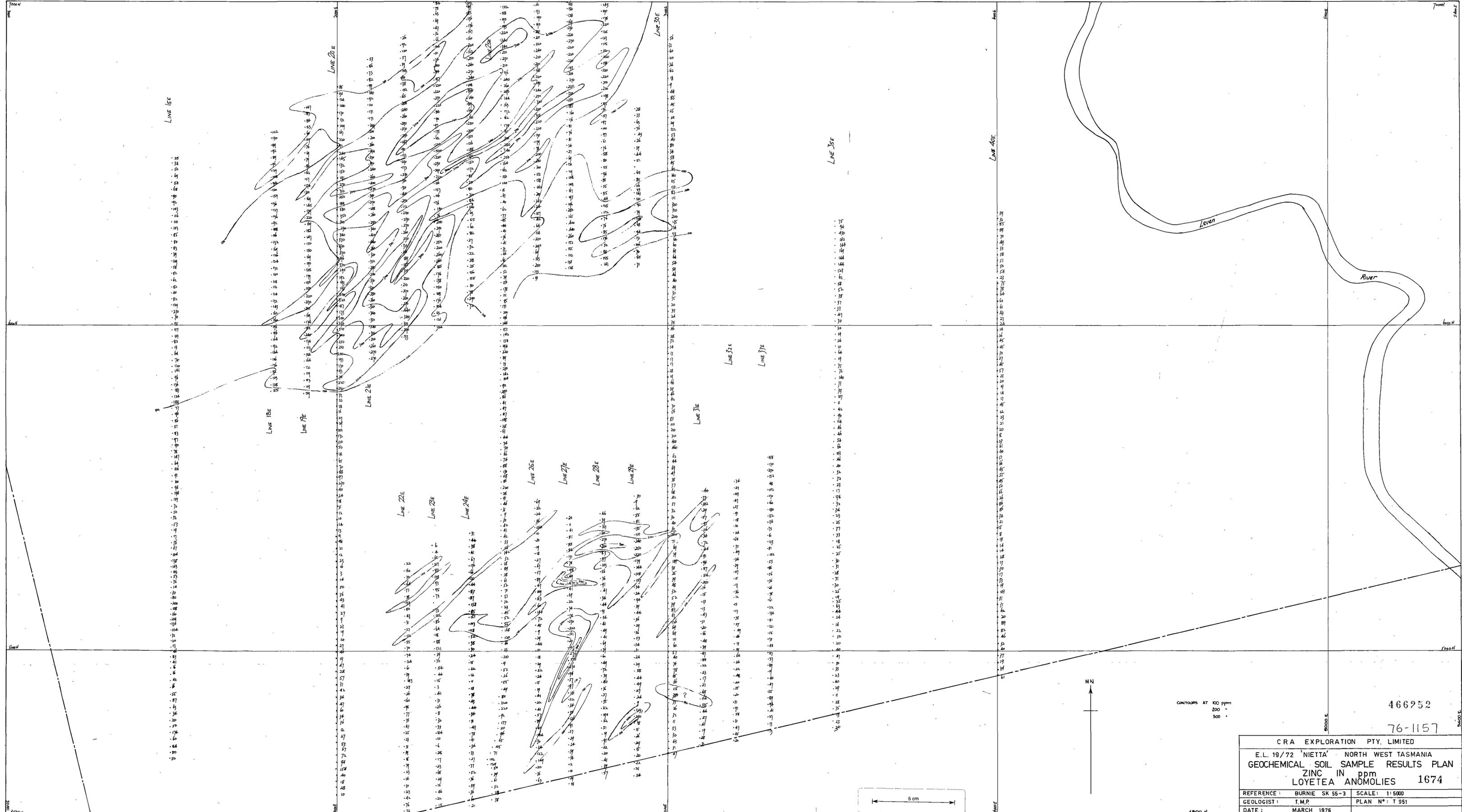


CONTOURS AT
 100 ppm
 200 "
 300 "
 400 "
 600 "

466251

76-1157

CRA EXPLORATION PTY. LIMITED	
E.L 19/72 NIETTA NORTH WEST TASMANIA	
GEOCHEMICAL SOIL SAMPLE RESULTS PLAN	
LEAD IN ppm. 1673	
LOYETEA ANOMALIES	
REFERENCE: BURNIE SK 55-3	SCALE: 1:5000
GEOLOGIST: T.M.P.	PLAN N°. T950
DATE: MARCH 1976	

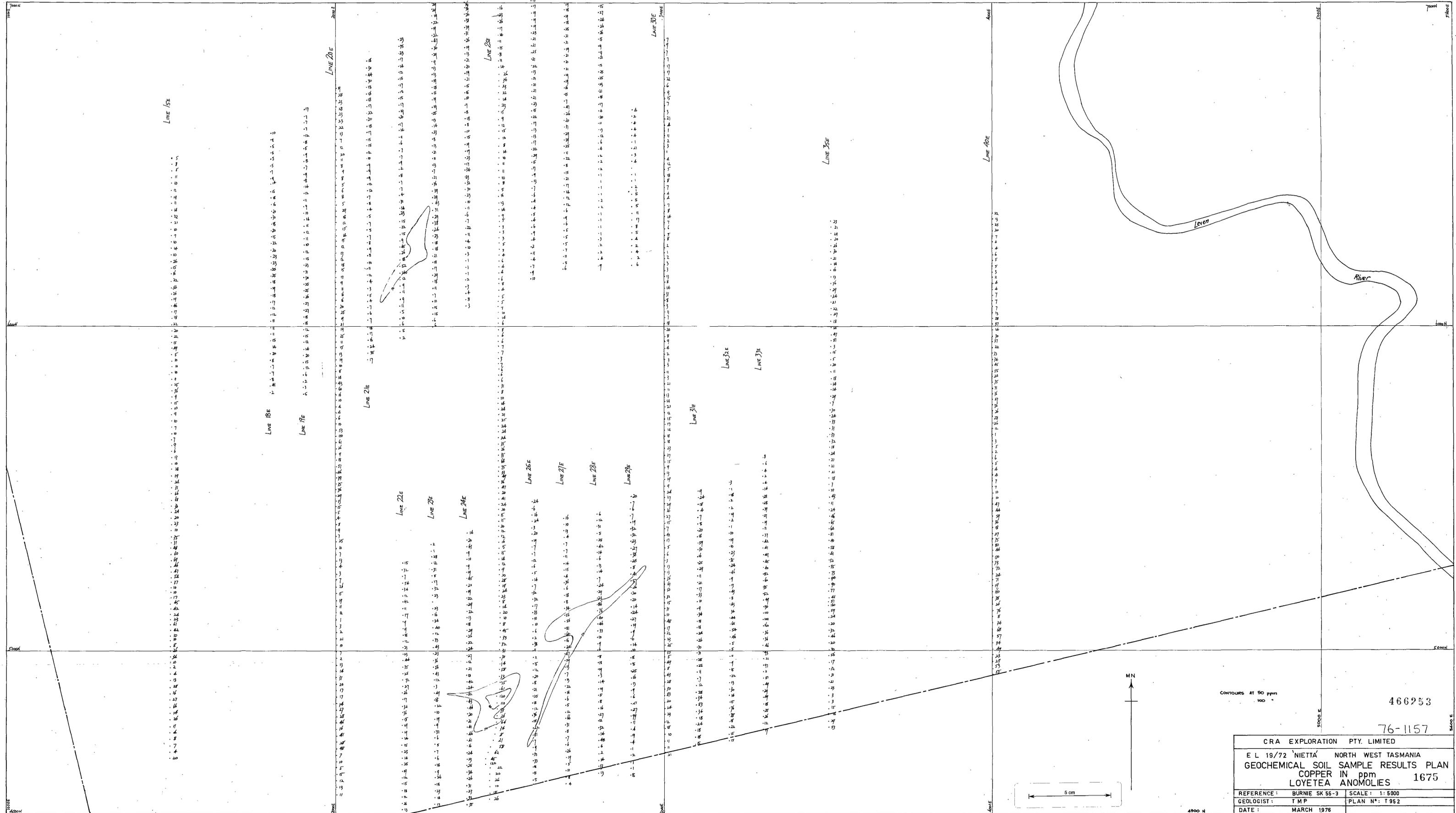


CONTOURS AT 100 ppm
200
300

466252

76-1157

CRA EXPLORATION PTY. LIMITED	
E.L. 19/72 'NIETTA' NORTH WEST TASMANIA	
GEOCHEMICAL SOIL SAMPLE RESULTS PLAN	
ZINC IN ppm	
LOYEYETA ANOMOLIES 1674	
REFERENCE :	BURNIE SK 55-3
GEOLOGIST :	T.M.P.
DATE :	MARCH 1976
SCALE :	1:5000
PLAN N° :	T 951

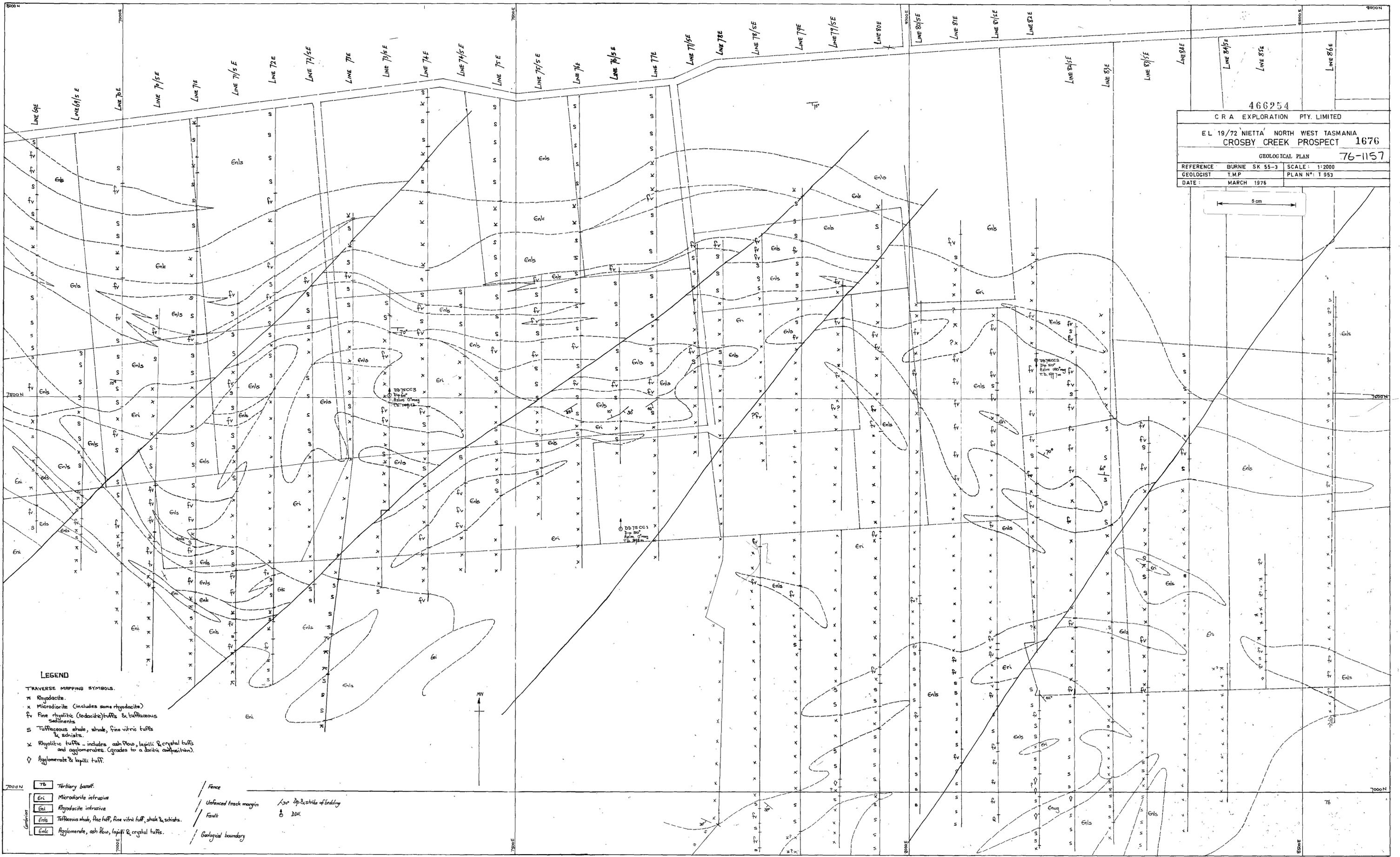


CONTOURS AT 50 ppm
100

466253

76-1157

CRA EXPLORATION PTY. LIMITED	
E L 19/72 NIETTA NORTH WEST TASMANIA	
GEOCHEMICAL SOIL SAMPLE RESULTS PLAN	
COPPER IN ppm	
LOYETEA ANOMOLIES 1675	
REFERENCE: BURNIE SK 55-3	SCALE: 1:5000
GEOLOGIST: T M P	PLAN N°: T 952
DATE: MARCH 1976	



466254
 C R A EXPLORATION PTY. LIMITED
 EL 19/72 NIETTA NORTH WEST TASMANIA
 CROSBY CREEK PROSPECT 1676
 GEOLOGICAL PLAN 76-1157
 REFERENCE BURNE SK 55-3 SCALE 1:2000
 GEOLOGIST T.M.P. PLAN NO: T 953
 DATE: MARCH 1976

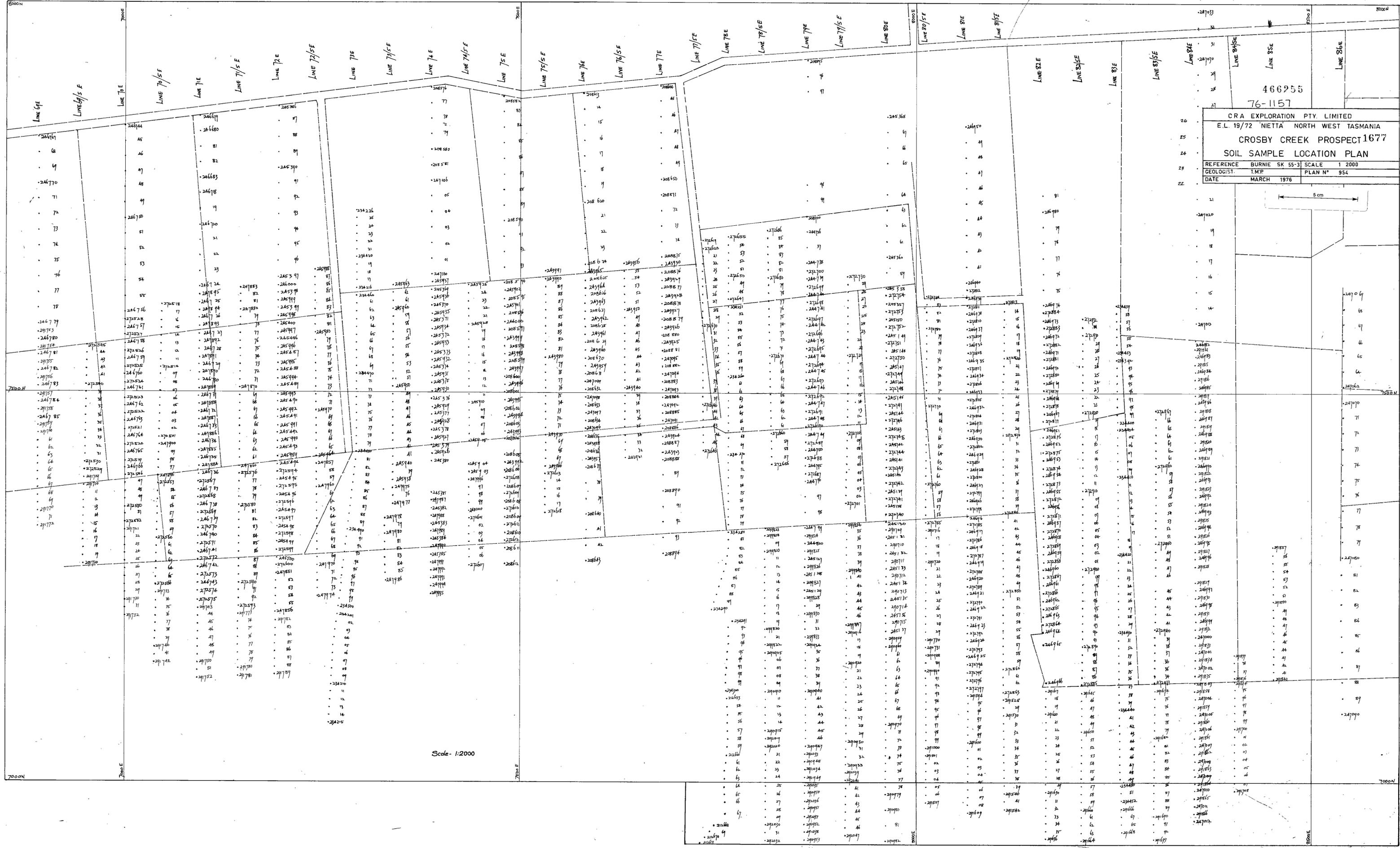
5 cm

LEGEND

- TRANSVERSE MAPPING SYMBOLS.**
- x Rhyodacite.
 - x Microdiorite (includes some rhyodacite)
 - fv Fine rhyolitic (basaltic) tuffs & tuffaceous sediments
 - S Tuffaceous shale, shale, fine vitric tuffs & schists.
 - x Rhyolitic tuffs - includes ash flow, lapilli & crystal tuffs and agglomerates. (grades to a dacitic composition).
 - ◇ Agglomerate & lapilli tuff.

- Tb Tertiary basalt.
- Eri Microdiorite intrusive
- Eri Rhyodacite intrusive
- Enls Tuffaceous shale, ash tuff, fine vitric tuff, shale & schists.
- Enlc Agglomerate, ash flow, lapilli & crystal tuffs.

- Fence
- Unfenced track margin
- Fault
- Geological boundary
- 1:30 dip & strike of bedding
- D.M.



466255
76-1157

CRA EXPLORATION PTY. LIMITED
E.L. 19/72 'NIETTA' NORTH WEST TASMANIA

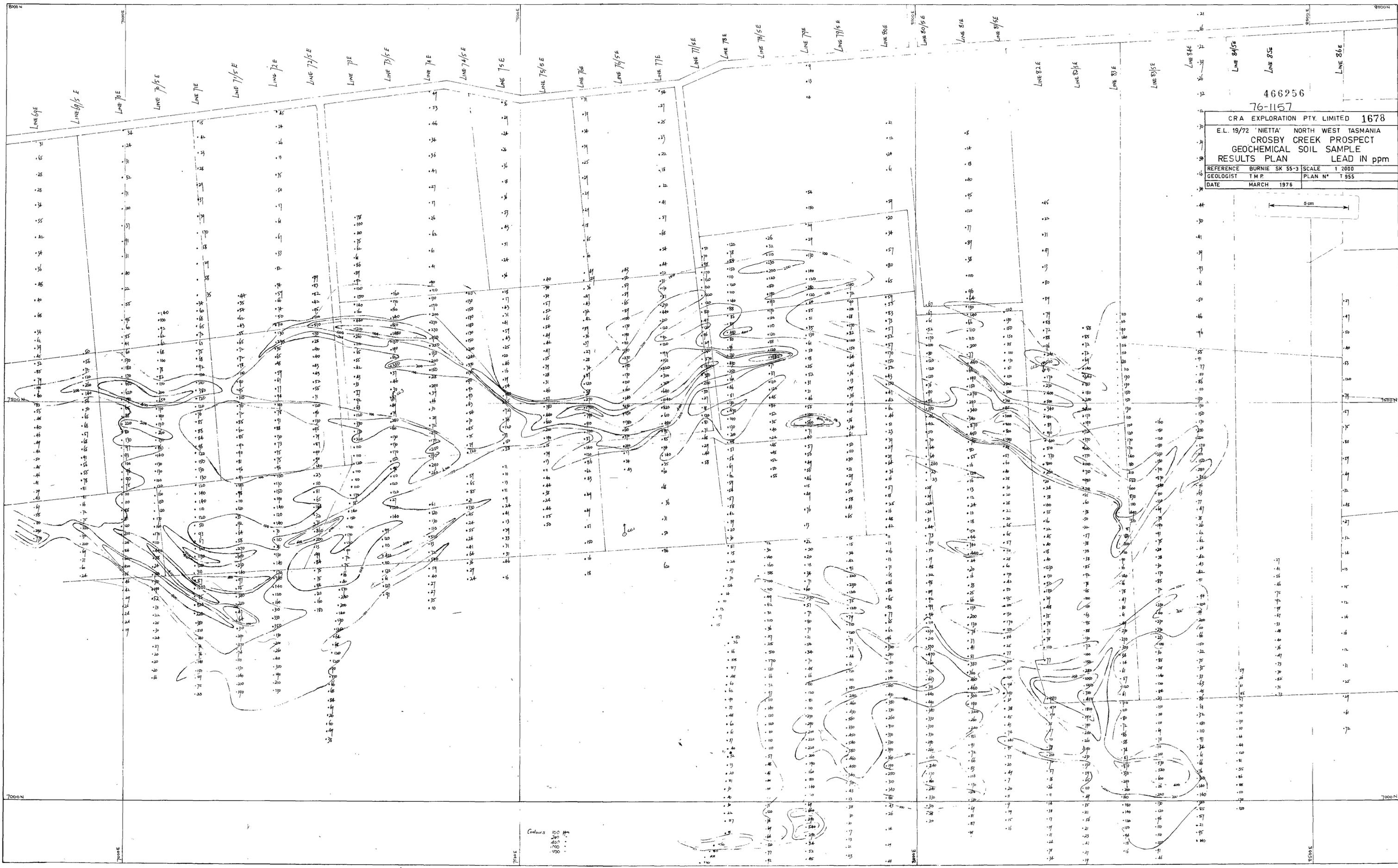
CROSBY CREEK PROSPECT 1677

SOIL SAMPLE LOCATION PLAN

REFERENCE BURNIE SK 55-3 SCALE 1:2000
GEOLOGIST: T.M.P. PLAN N° 954
DATE: MARCH 1976

5 cm

Scale: 1:2000

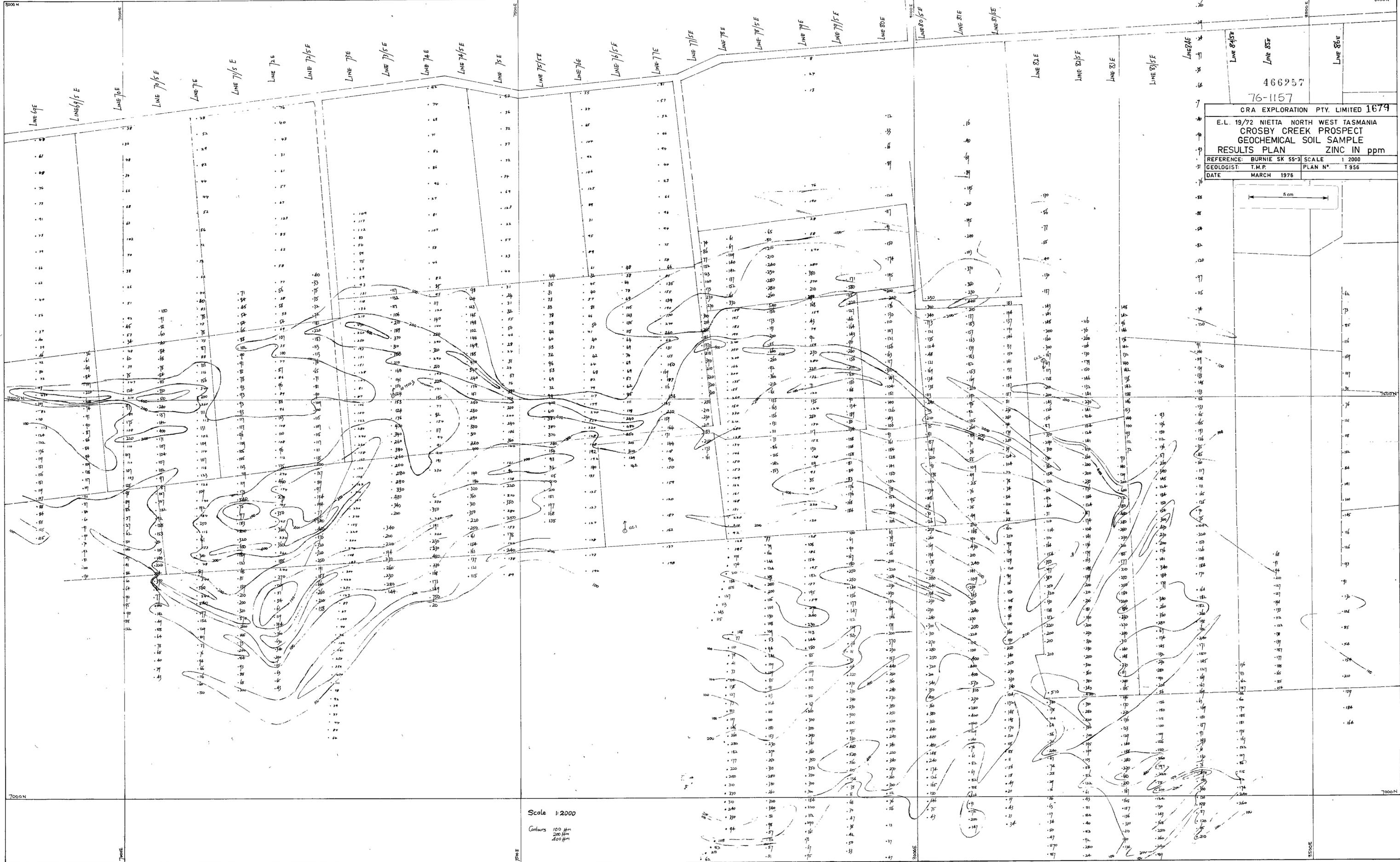


466256
76-1157
CRA EXPLORATION PTY. LIMITED 1678
E.L. 19/72 'NIETTA' NORTH WEST TASMANIA
CROSBY CREEK PROSPECT
GEOCHEMICAL SOIL SAMPLE
RESULTS PLAN LEAD IN ppm

REFERENCE	BURNIE SK 55-3	SCALE	1:2000
GEOLOGIST	T.M.P.	PLAN N°	T.955
DATE	MARCH 1976		

5 cm

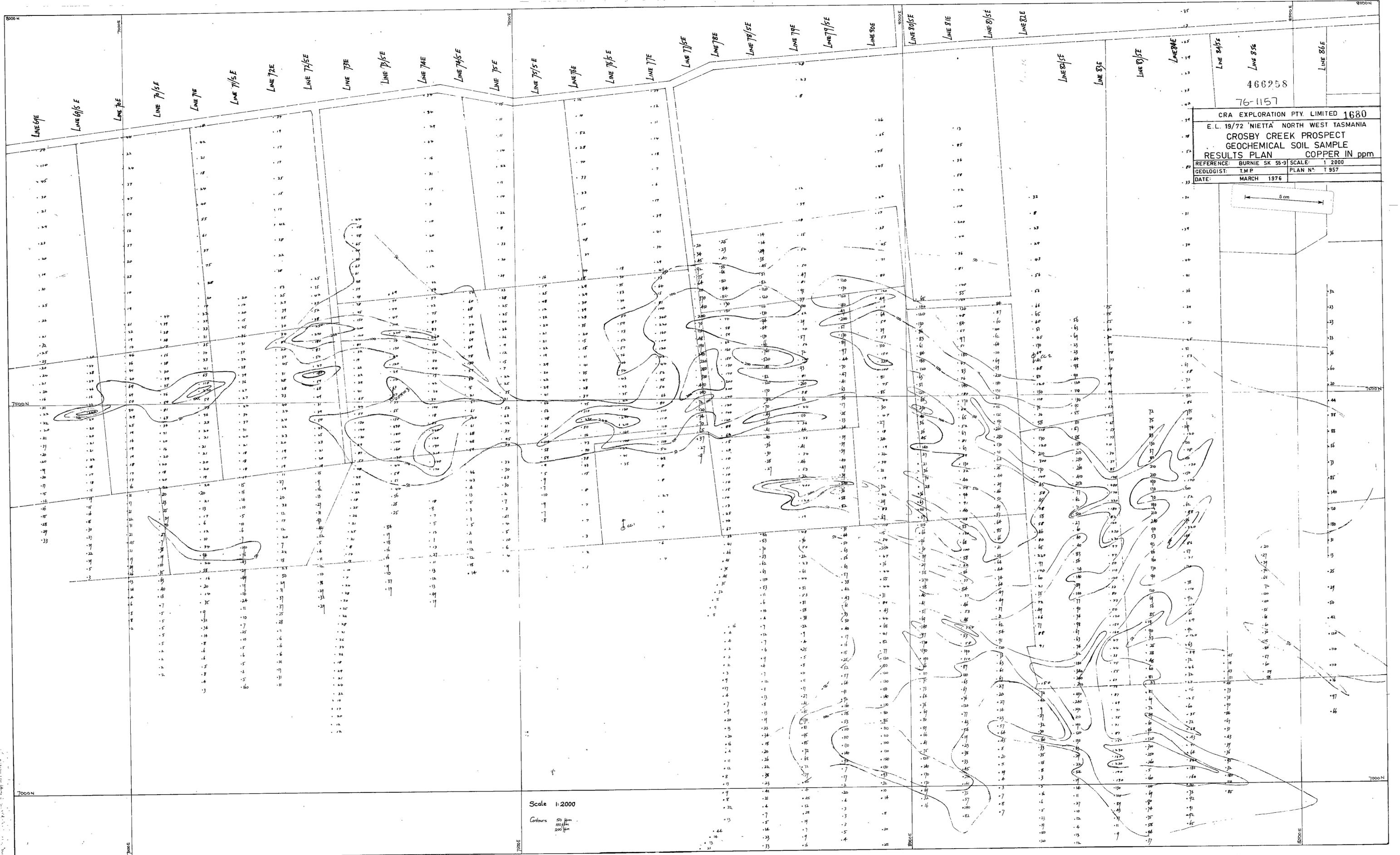
Contours 100 ppm
200
300
400
500



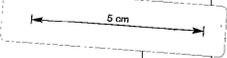
466257
76-1157
CRA EXPLORATION PTY. LIMITED 1679
E.L. 19/72 NIETTA NORTH WEST TASMANIA
CROSBY CREEK PROSPECT
GEOCHEMICAL SOIL SAMPLE
RESULTS PLAN ZINC IN ppm
REFERENCE: BURNIE SK 55-3 SCALE 1:2000
GEOLOGIST: T.M.P. PLAN N° T956
DATE MARCH 1976

5 cm

Scale 1:2000
Contours 100 ppm
200 ppm
400 ppm

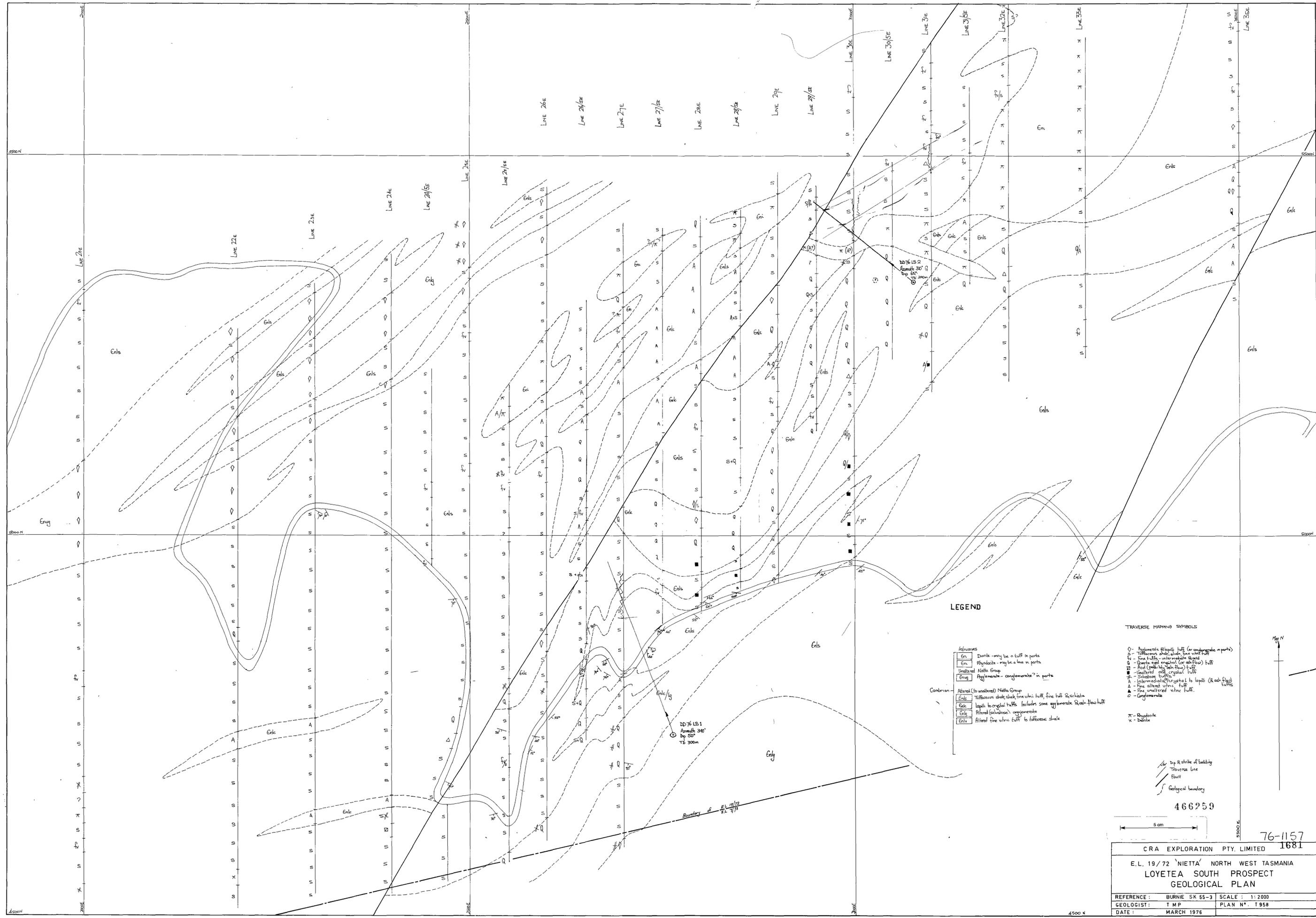


466258
76-1157
CRA EXPLORATION PTY. LIMITED 1680
E.L. 19/72 'NIETTA' NORTH WEST TASMANIA
CROSBY CREEK PROSPECT
GEOCHEMICAL SOIL SAMPLE
RESULTS PLAN COPPER IN ppm
REFERENCE: BURNIE SK 55-3 SCALE: 1:2000
GEOLOGIST: T.M.P. PLAN N°: T 957
DATE: MARCH 1976



Scale 1:2000

Contours 50 ppm
100 ppm
200 ppm



LEGEND

- Intrusives**
- En - Diorite - may be a tuff in parts
 - Ena - Rhodochroite - may be a tuff in parts
 - Enal - Unaltered Niotta Group
 - Enag - Altered (subvolcanic) Niotta Group
- Companion**
- Enlc - Tuffaceous shale, siltstone, fine vitric tuff, fine tuff, Rhyolite
 - Enlc - Lapilli to crystal tuffs (includes some agglomerate & ash flow tuff)
 - Enlc - Altered (subvolcanic) agglomerate
 - Enlc - Altered fine vitric tuff to tuffaceous shale
- TRaverse MAPPING SYMBOLS**
- - Intermediate crystal tuff (or agglomerate in parts)
 - - Tuffaceous shale, siltstone, fine vitric tuff
 - △ - Fine tuff - intermediate grade
 - ◇ - Quartz and rhyolite (or ash flow) tuff
 - - Fine (possibly ash flow) tuff
 - ▨ - Leached and crystal tuff
 - ⊙ - Subvolcanic tuff
 - ⊠ - Intermediate/crystal to lapilli (ash flow)
 - ▲ - Fine altered vitric tuff
 - - Fine unaltered vitric tuff
 - - Conglomerate
- Other Symbols:**
- ~ - Dip & strike of bedding
 - - Traverse Line
 - - - - - Fault
 - - - - - Geological boundary

466259

5 cm

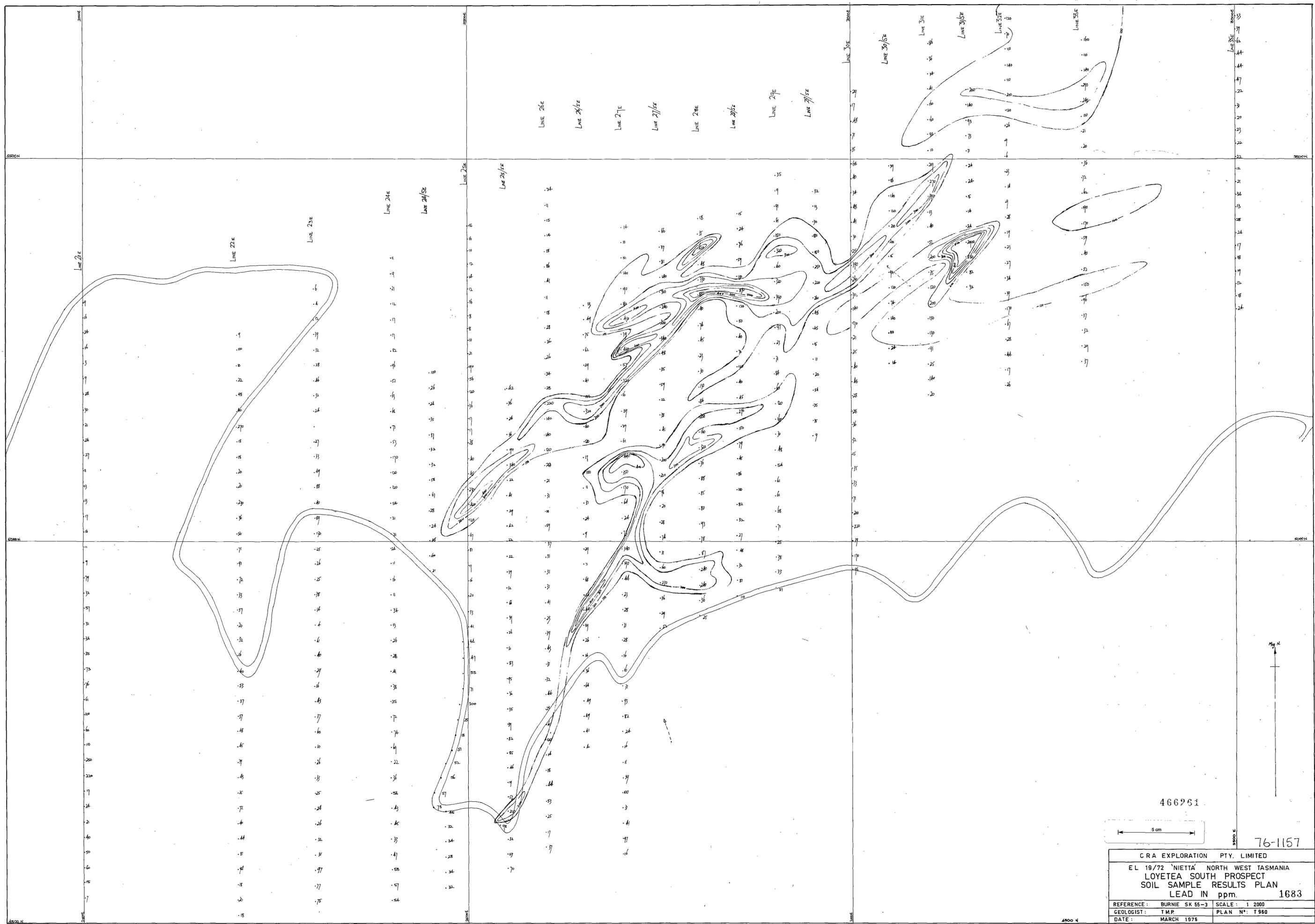
76-1157

1681

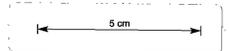
CRA EXPLORATION PTY. LIMITED

E.L. 19/72 'NIETTA' NORTH WEST TASMANIA
LOYETEA SOUTH PROSPECT
GEOLOGICAL PLAN

REFERENCE : BURNIE SK 55-3	SCALE : 1:2000
GEOLOGIST : T M P	PLAN N°. T 958
DATE : MARCH 1976	

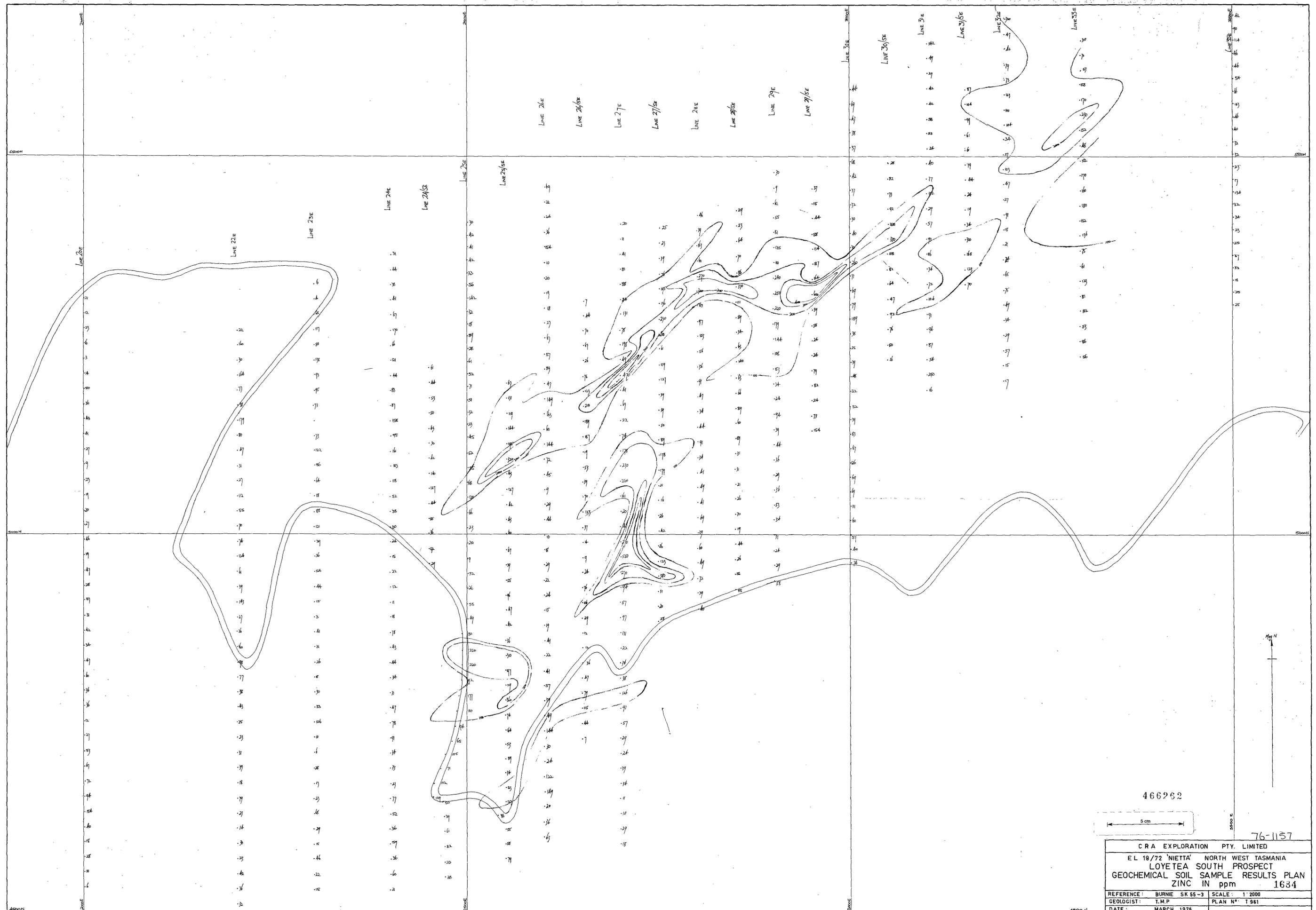


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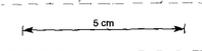


76-1157

CRA EXPLORATION PTY. LIMITED	
E.L. 19/72 'NIETTA' NORTH WEST TASMANIA	
LOYETEA SOUTH PROSPECT	
SOIL SAMPLE RESULTS PLAN	
LEAD IN ppm	1683
REFERENCE: BURNIE SK 55-3	SCALE: 1 2000
GEOLOGIST: T.M.P.	PLAN N°: T960
DATE: MARCH 1976	

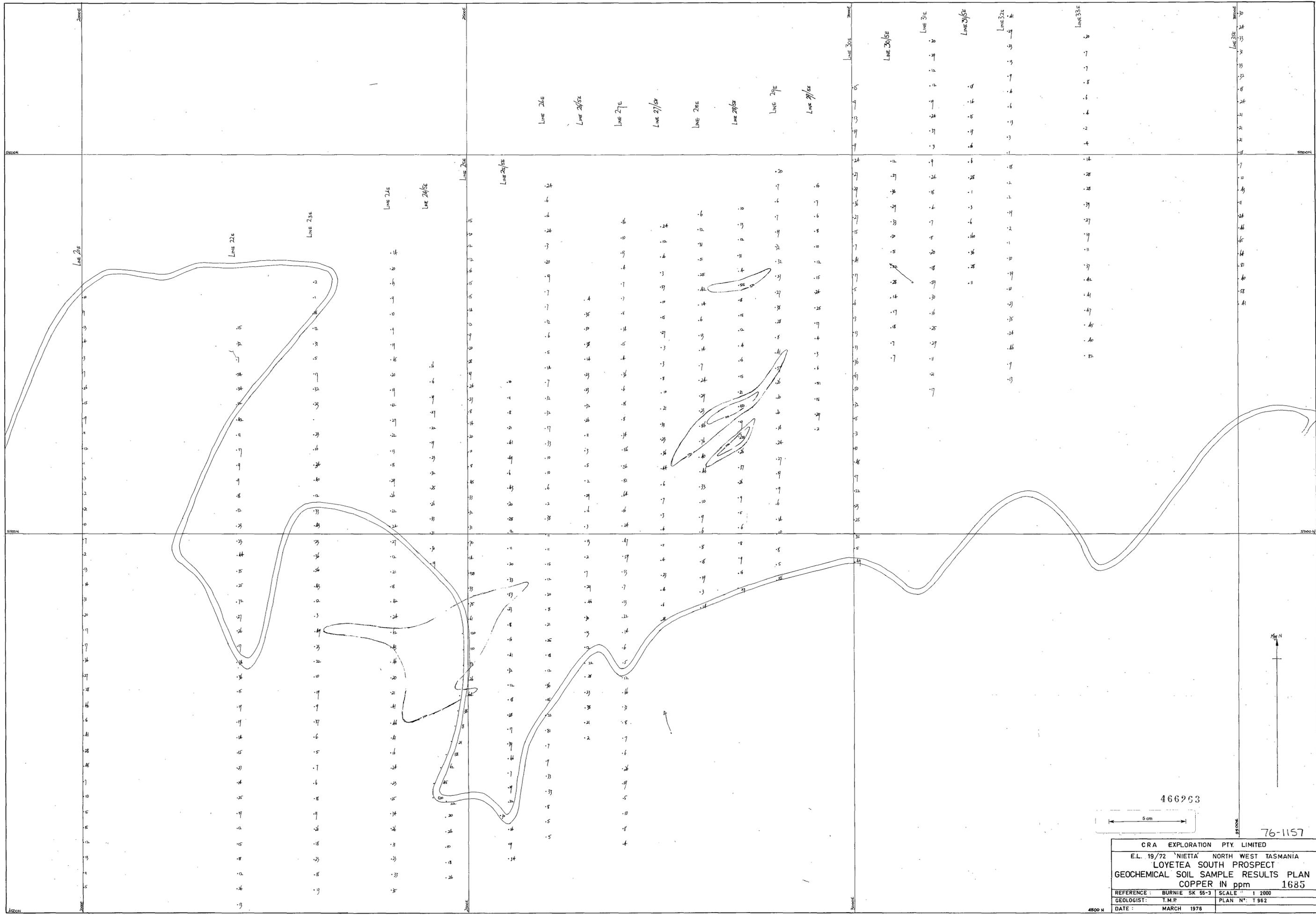


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76-1157

C R A EXPLORATION PTY. LIMITED	
EL 19/72 'NIETTA' NORTH WEST TASMANIA	
LOYETEA SOUTH PROSPECT	
GEOCHEMICAL SOIL SAMPLE RESULTS PLAN	
ZINC IN ppm	1634
REFERENCE: BURNIE SK 55-3	SCALE: 1:2000
GEOLOGIST: T.M.P.	PLAN N° T 961
DATE: MARCH 1976	



LEGEND

- Intrusives**
- Eni Diabase
 - Enk Rhodacite, may be olivine in parts
 - Unlabeled Niobe Group
 - Emg Agglomerate - may be conglomerate in parts
 - Enls Lava 5 - Oliv. - Fe. - porph. rhyolite lava
- Cambrian**
- Altkns (to wallered) Niobe Group
 - Enls Testaceous shales, shales, fine vitric tuff, fine tuff, Rhyolite.
 - Enls Lapilli to crystal tuffs. Includes some agglomerate, Rhyolite flow tuff
 - Enls Altered (Gibbsite) agglomerate.
 - Enls Lava 6 - Diabase to rhyolite. Silicified in parts.

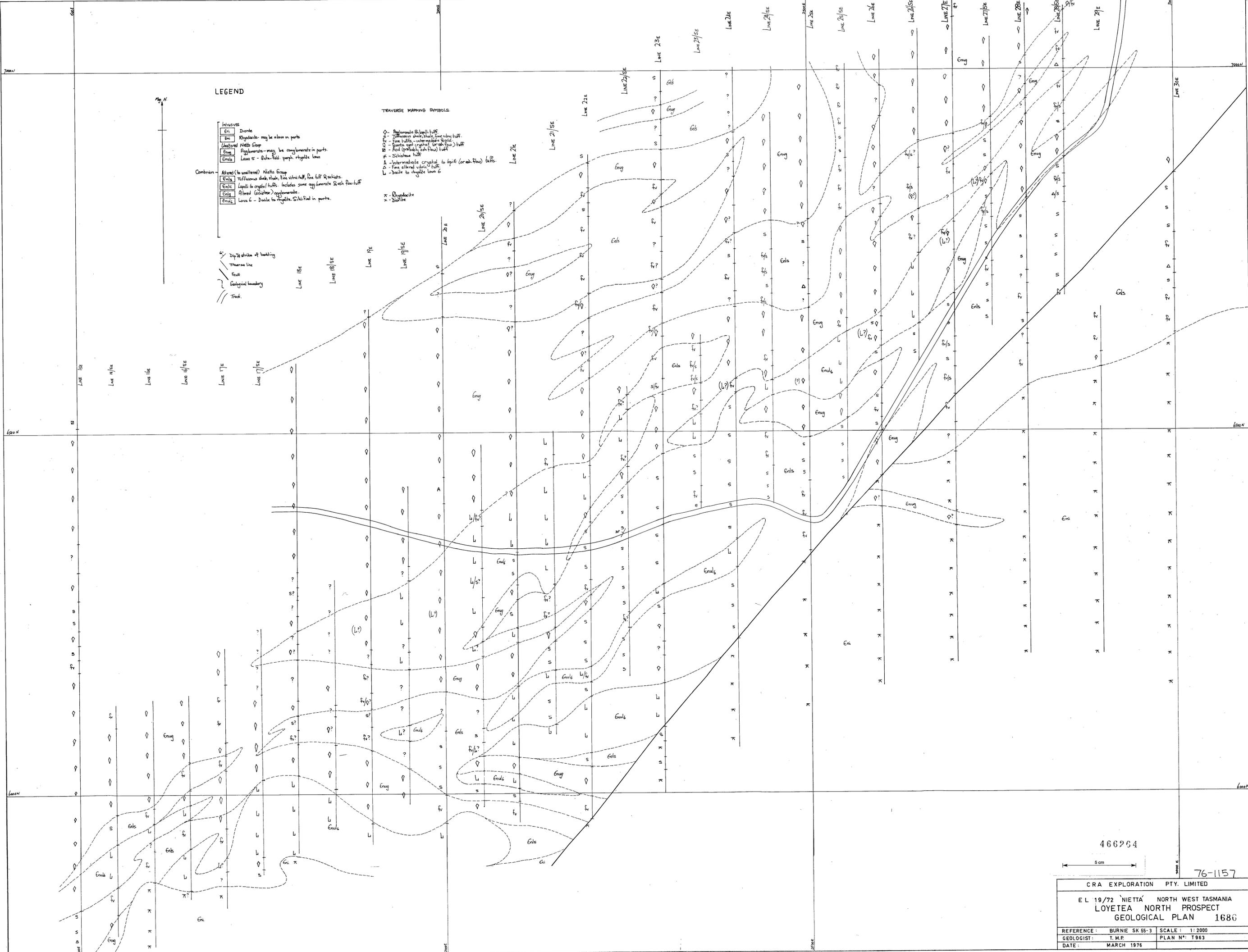
- TRaverse Mapping Symbols**
- ◇ Agglomerate, Rhyolite tuff
 - Testaceous shales, shales, fine vitric tuff
 - Lava tuffs - intermediate to basic
 - △ Quartz, epid. crystal (or ash flow) tuff
 - Acid (probably ash flow) tuff
 - ✦ Schistose tuff
 - A Intermediate crystal to lapilli (or ash flow) tuff
 - △ Fine altered vitric tuff
 - L Diabase to rhyolite lava 6

- Dip strike of bedding
- Traverse line
- Fault
- Geological boundary
- Track

TRaverse Mapping Symbols

- ◇ Agglomerate, Rhyolite tuff
- Testaceous shales, shales, fine vitric tuff
- Lava tuffs - intermediate to basic
- △ Quartz, epid. crystal (or ash flow) tuff
- Acid (probably ash flow) tuff
- ✦ Schistose tuff
- A Intermediate crystal to lapilli (or ash flow) tuff
- △ Fine altered vitric tuff
- L Diabase to rhyolite lava 6

- x Rhodacite
- x Diabase

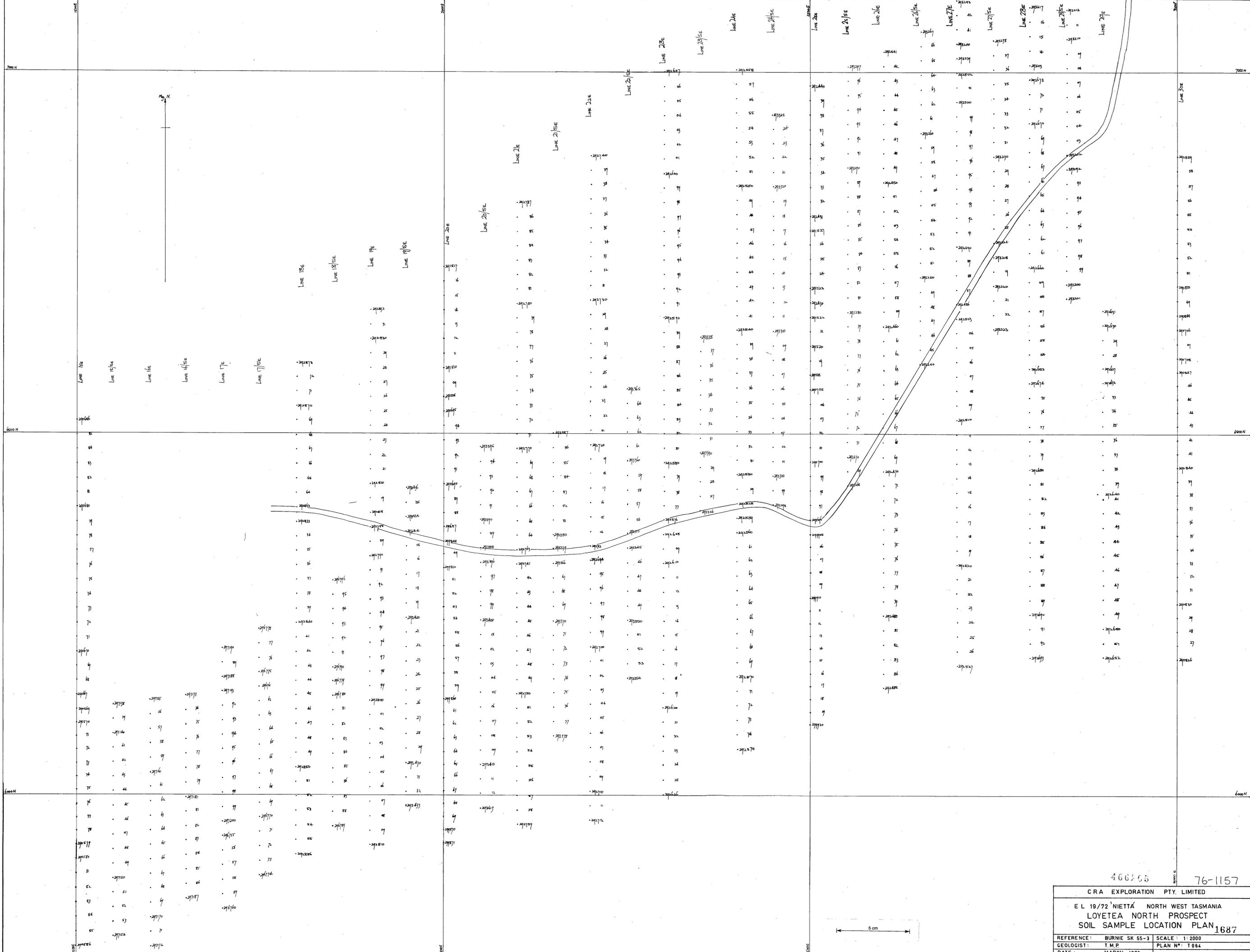


466264



76-1157

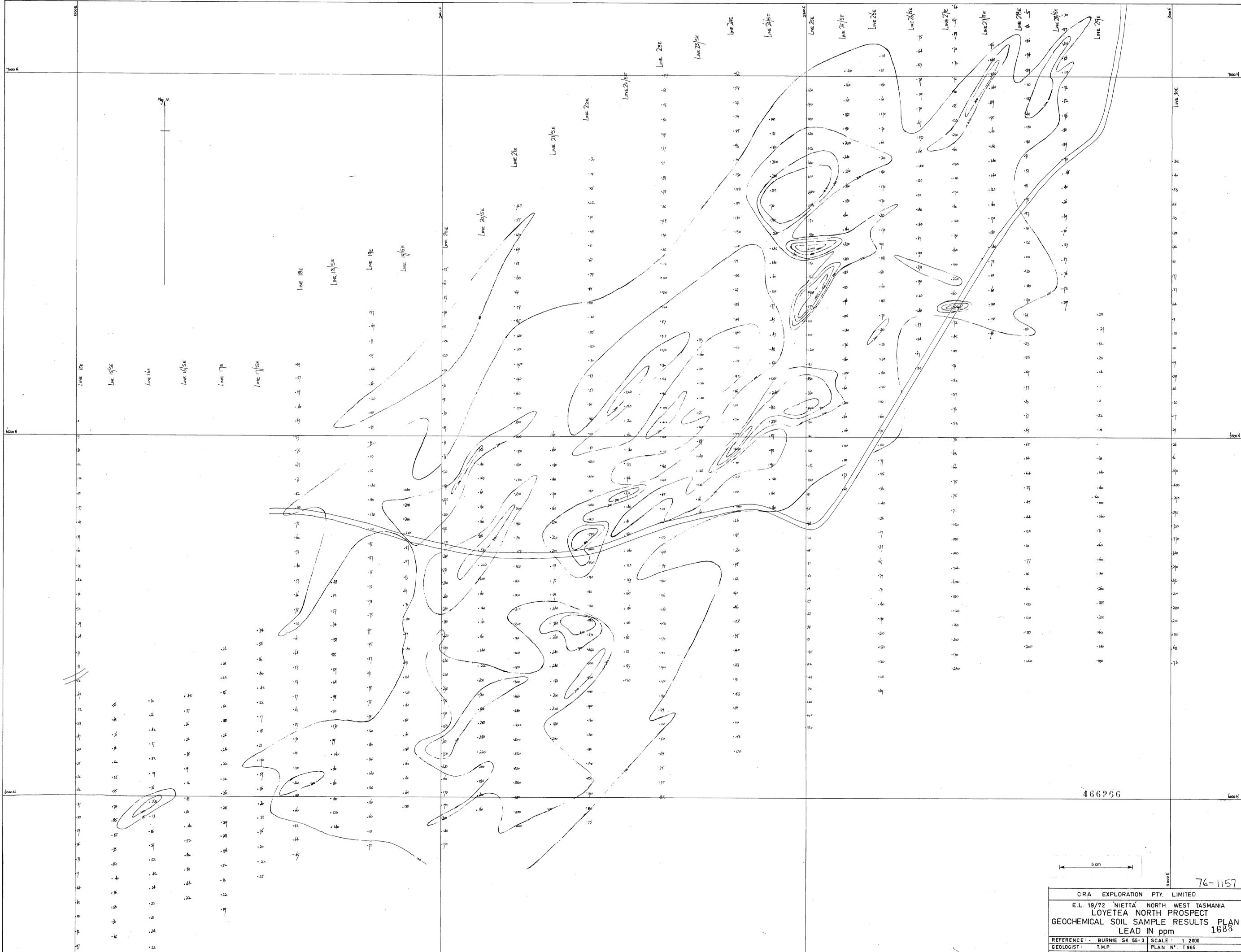
CRA EXPLORATION PTY. LIMITED			
E L 19/72 'NIETTA' NORTH WEST TASMANIA			
LOYETEA NORTH PROSPECT			
GEOLOGICAL PLAN 1686			
REFERENCE :	BURNIE SK 55-3	SCALE :	1:2000
GEOLOGIST :	T. M.P.	PLAN N° :	T963
DATE :	MARCH 1976		



460305 76-1157

C R A EXPLORATION PTY. LIMITED	
E L 19/72 NIETTA NORTH WEST TASMANIA LOYTEA NORTH PROSPECT SOIL SAMPLE LOCATION PLAN 1687	
REFERENCE: BURNIE SK 55-3	SCALE: 1:2000
GEOLOGIST: T.M.P.	PLAN NO: T 964
DATE: MARCH 1976	



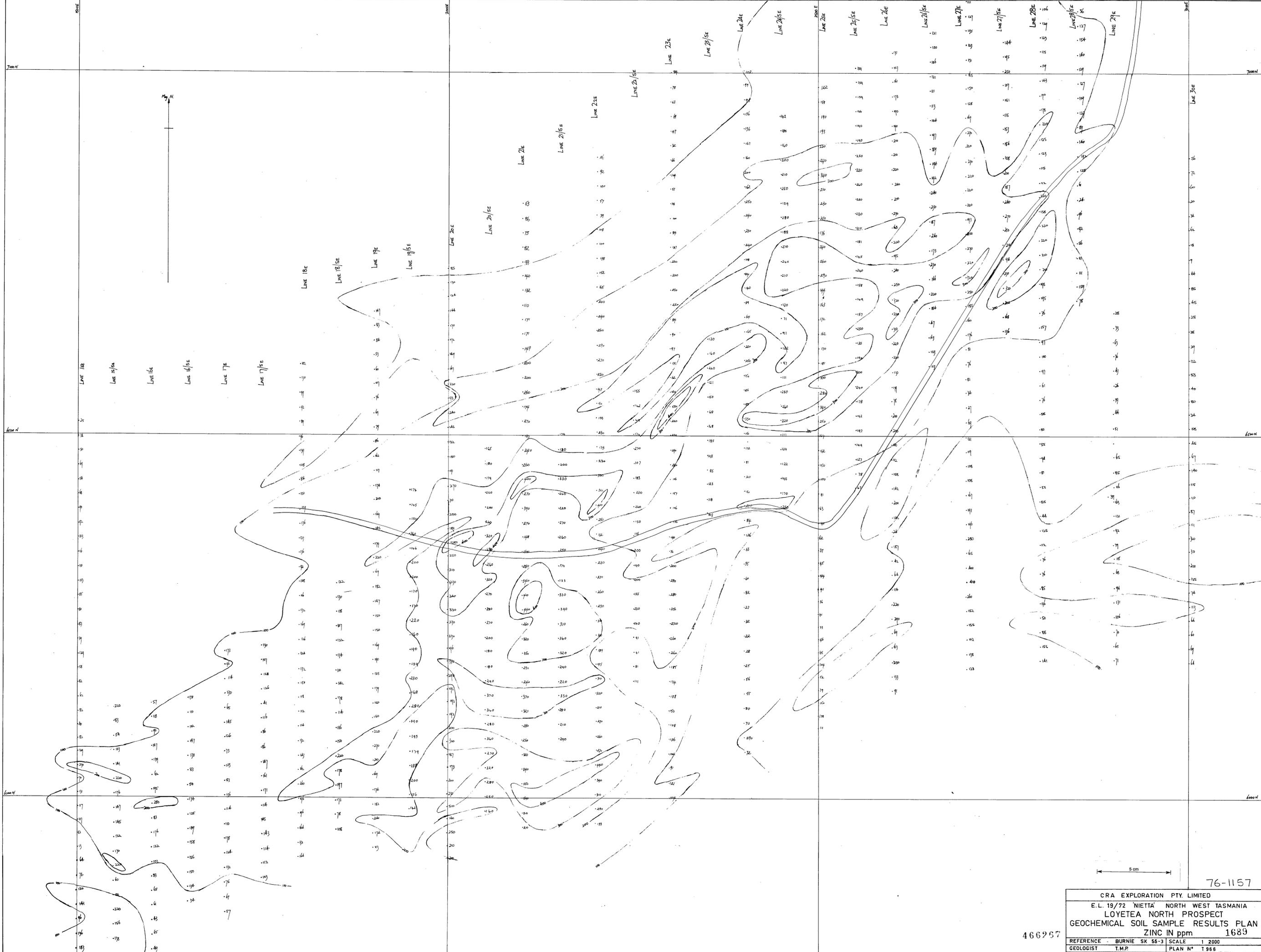


466256

5 cm

76-1157

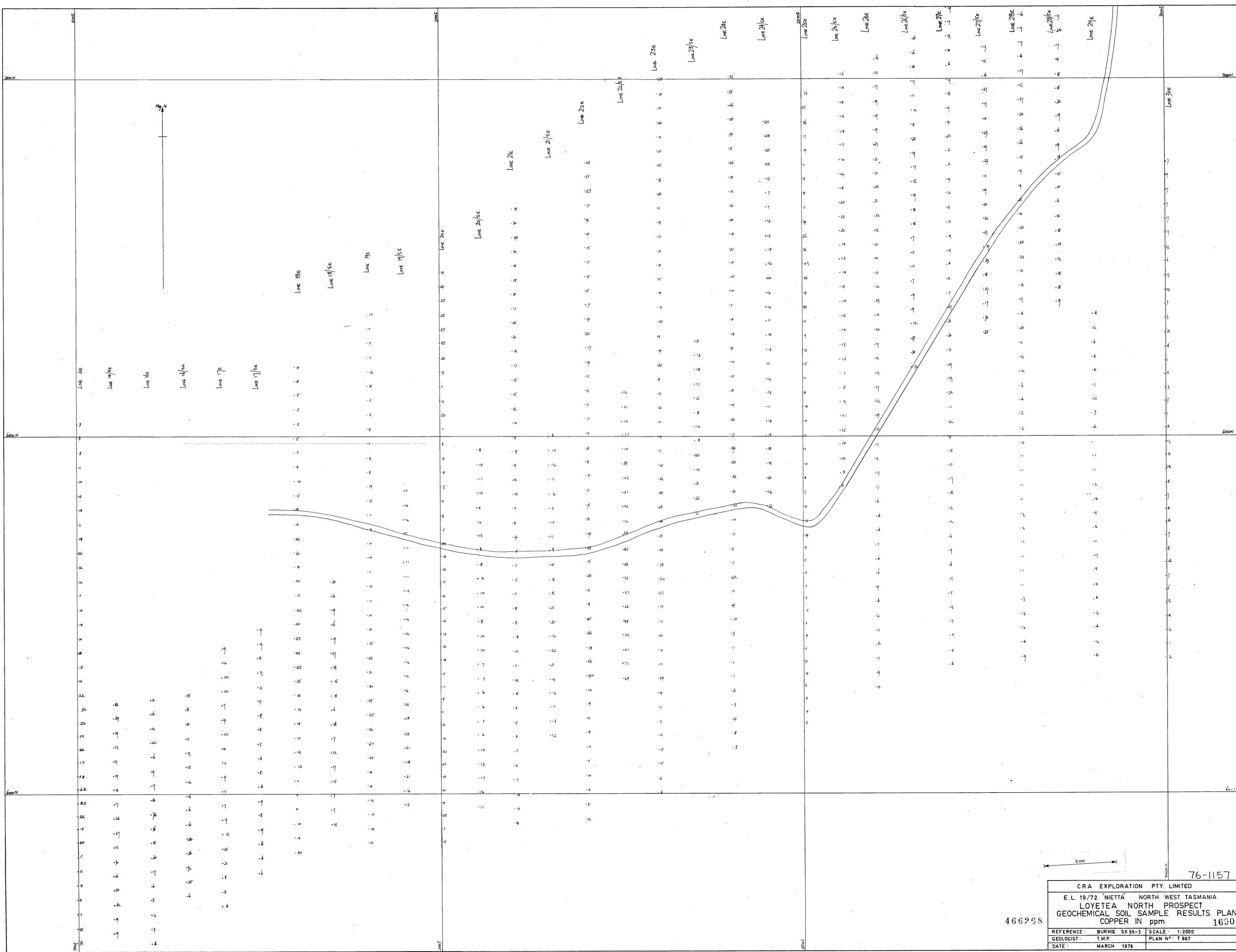
CRA EXPLORATION PTY. LIMITED	
E.L. 19/72 'NIETTA' NORTH WEST TASMANIA	
LOYETEA NORTH PROSPECT	
GEOCHEMICAL SOIL SAMPLE RESULTS PLAN 1688	
REFERENCE: BURNIE SK 55-3	SCALE: 1 2000
GEOLOGIST: T.M.P.	PLAN N°: T 965
DATE: MARCH 1976	



466257

CRA EXPLORATION PTY. LIMITED	
E.L. 19/72 'NIETTA' NORTH WEST TASMANIA	
LOYETEA NORTH PROSPECT	
GEOCHEMICAL SOIL SAMPLE RESULTS PLAN	
ZINC IN ppm 1689	
REFERENCE - BURNIE SK 55-3	SCALE 1:2000
GEOLOGIST T.M.P.	PLAN N° 1966
DATE MARCH 1978	

76-1157



466268

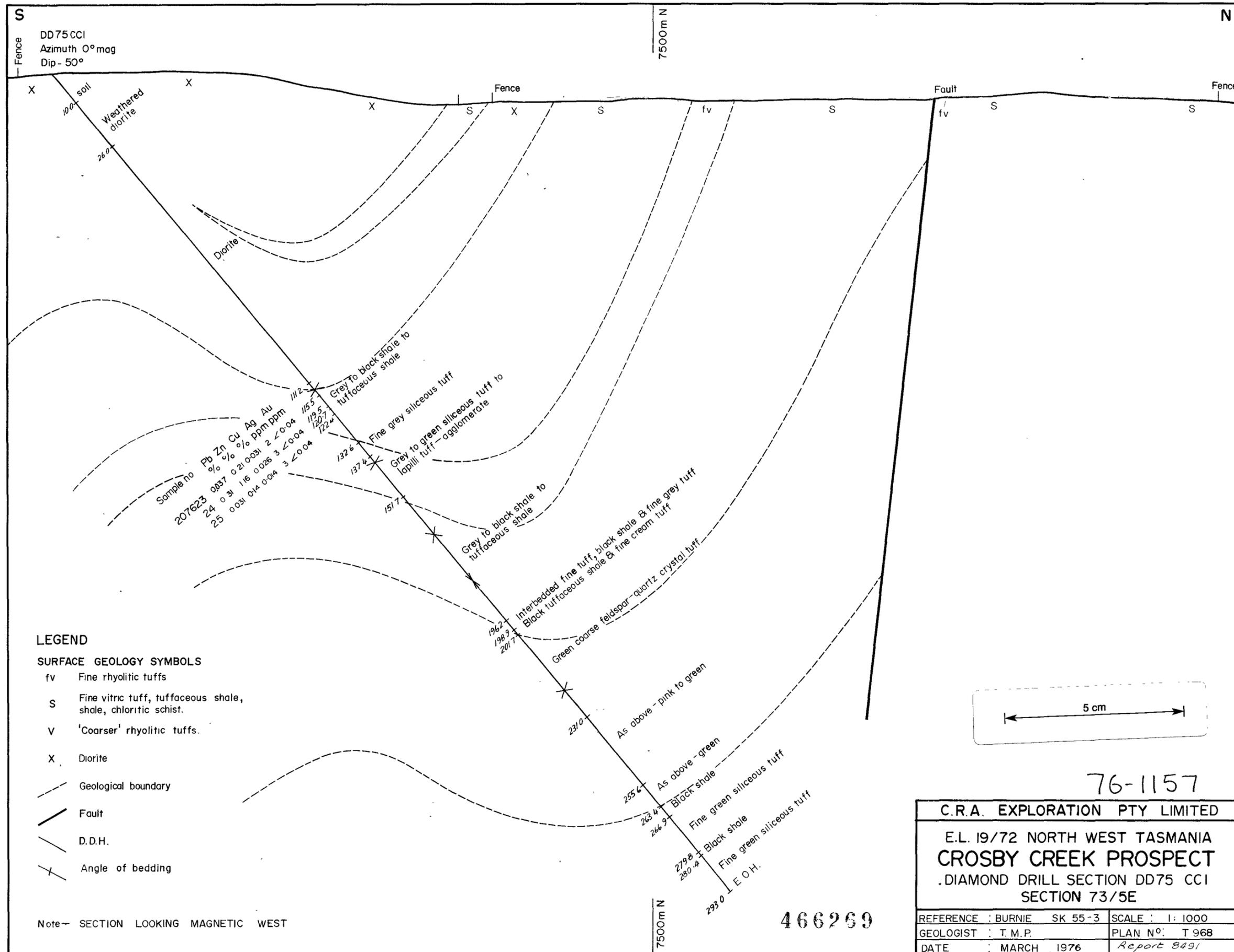


CRA EXPLORATION PTY. LIMITED		76-1157	
E.L. 19/72 NIETTA NORTH WEST TASMANIA			
LOYTEA NORTH PROSPECT			
GEOCHEMICAL SOIL SAMPLE RESULTS PLAN			
COPPER IN ppm		1630	
REFERENCE:	BURNIE SK 55-3	SCALE:	1:2000
GEOLOGIST:	T.M.P.	PLAN N°:	T 967
DATE:	MARCH 1976		

GEOCHEMISTRY

GEMCO BOTTOM SAMPLES	Pb	ppm	650	430	920	3100	2300	1400	480	700	750	450	1140	420	360	910	380	460	410	500	650	550	380	400	480	180	
	Zn	ppm	730	720	340	240	300	250	220	191	220	134	108	104	98	119	86	57	63	74	67	61	56	58	68	58	90
	Cu	ppm	260	460	200	180	110	110	98	88	87	85	88	63	69	81	69	63	79	77	71	63	63	71	74	58	
	Loc'n	Samples @ 5m intervals																									
WEATHERED BEDROCK SOIL SAMPLES	Pb	ppm	43	34	17	290	370	610	1380	1150	230	140	160	120	170	190	270	130	110	190	170	100	89	65	59	59	50
	Zn	ppm	144	129	210	210	250	480	240	178	111	85	62	57	67	69	74	69	64	115	136	123	105	69	78	64	58
	Cu	ppm	35	41	22	140	160	210	240	130	42	35	43	43	56	46	76	57	52	73	59	50	46	34	53	35	30
	Loc'n	Samples @ 10m intervals																									

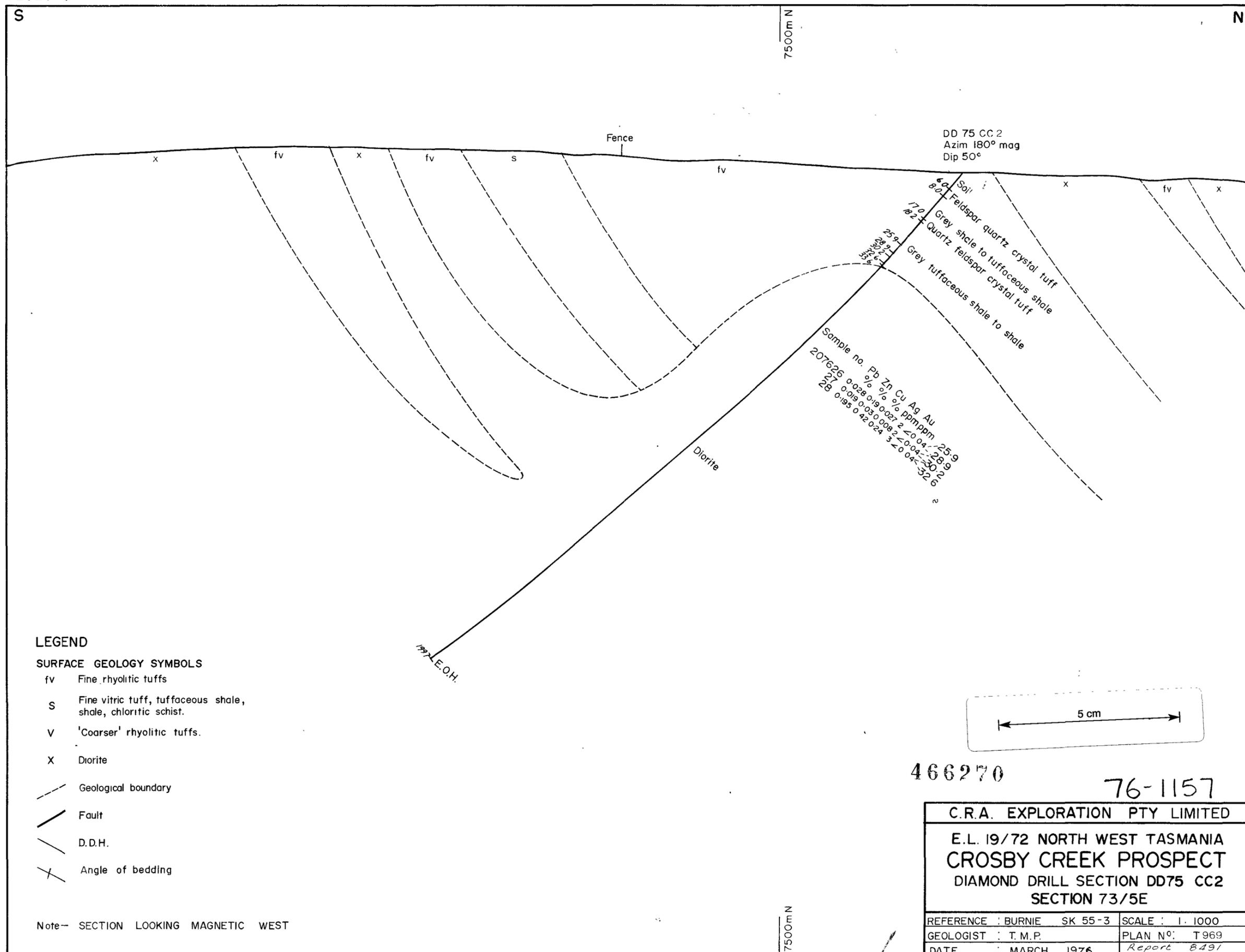
GEOLOGY



GEOCHEMISTRY

GEMCO BOTTOM SAMPLES	Pb	ppm																									
	Zn	ppm																									
	Cu	ppm																									
	Loc'n	Samples @ 5m intervals																									
WEATHERED BEDROCK SOIL SAMPLES	Pb	ppm	100	38	24	20	260	800	770	570	400	190	89	180	340	500	400	230	170	91	500	240	96	88	72	88	79
	Zn	ppm	92	84	122	154	360	132	310	290	330	87	56	120	143	200	210	128	177	67	167	300	160	200	148	141	143
	Cu	ppm	58	45	140	170	300	210	120	170	110	58	36	75	110	150	120	80	68	41	69	170	45	51	60	65	66
	Loc'n	Samples @ 10m intervals																									

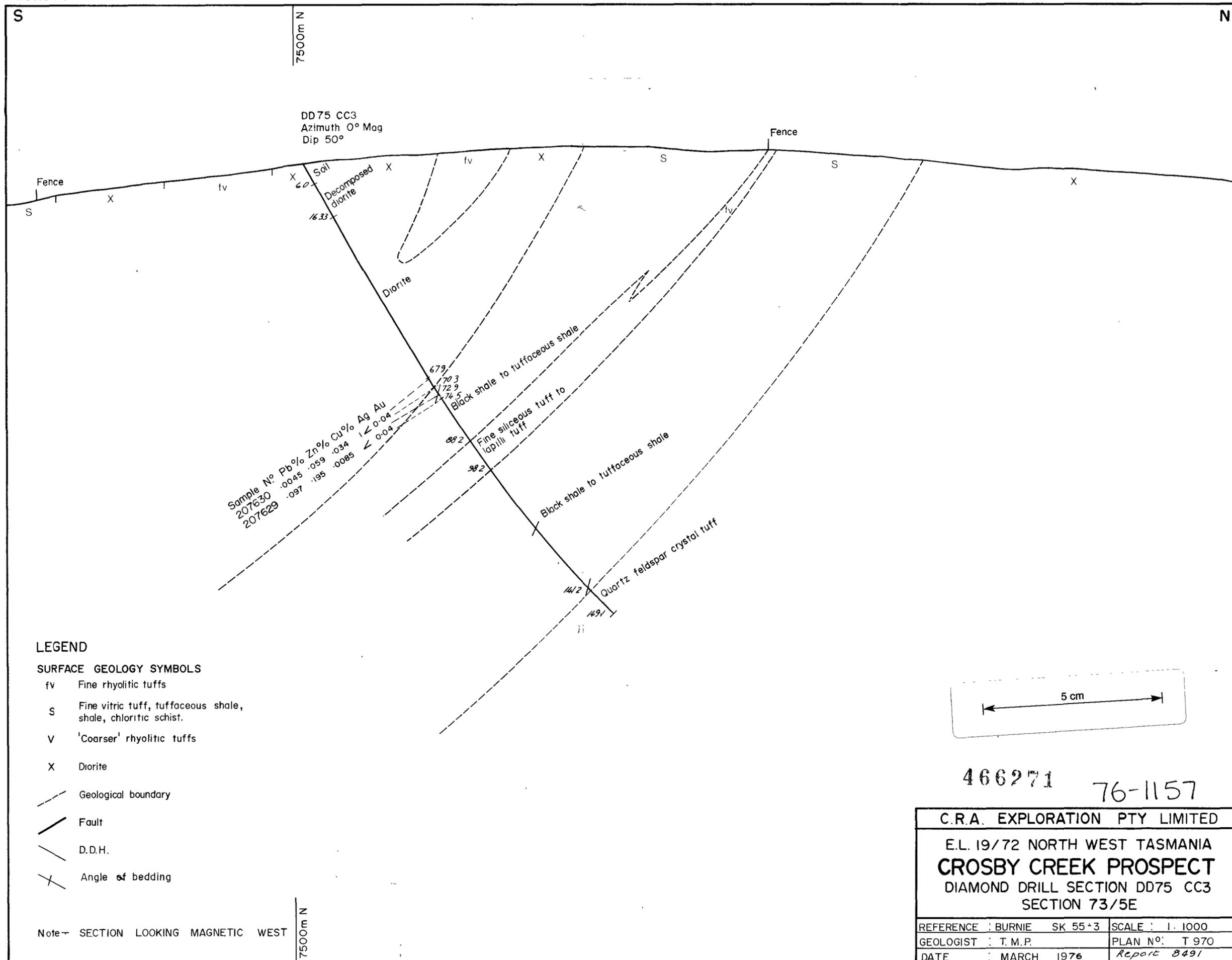
GEOLOGY



GEOCHEMISTRY

GEMCO BOTTOM SAMPLES	Pb	ppm	14	72	140	200	270	94	76	190	1510	2900	2200	2800	270	140	190	220	290
	Zn	ppm	240	320	470	430	290	490	340	430	350	250	182	500	196	103	34	81	65
	Cu	ppm	27	120	76	110	86	98	110	210	260	390	150	250	110	56	57	62	21
	Loc'n	Samples @ 5m intervals																	
WEATHERED BEDROCK SOIL SAMPLES	Pb	ppm	37	30	46	37	250	62	190	150	1480	670	140	160	170	160			
	Zn	ppm	124	116	141	168	210	158	310	370	189	210	106	117	122	117			
	Cu	ppm	37	63	110	29	120	24	130	76	240	110	47	74	70	69			
	Loc'n	Samples @ 10m intervals																	

GEOLOGY

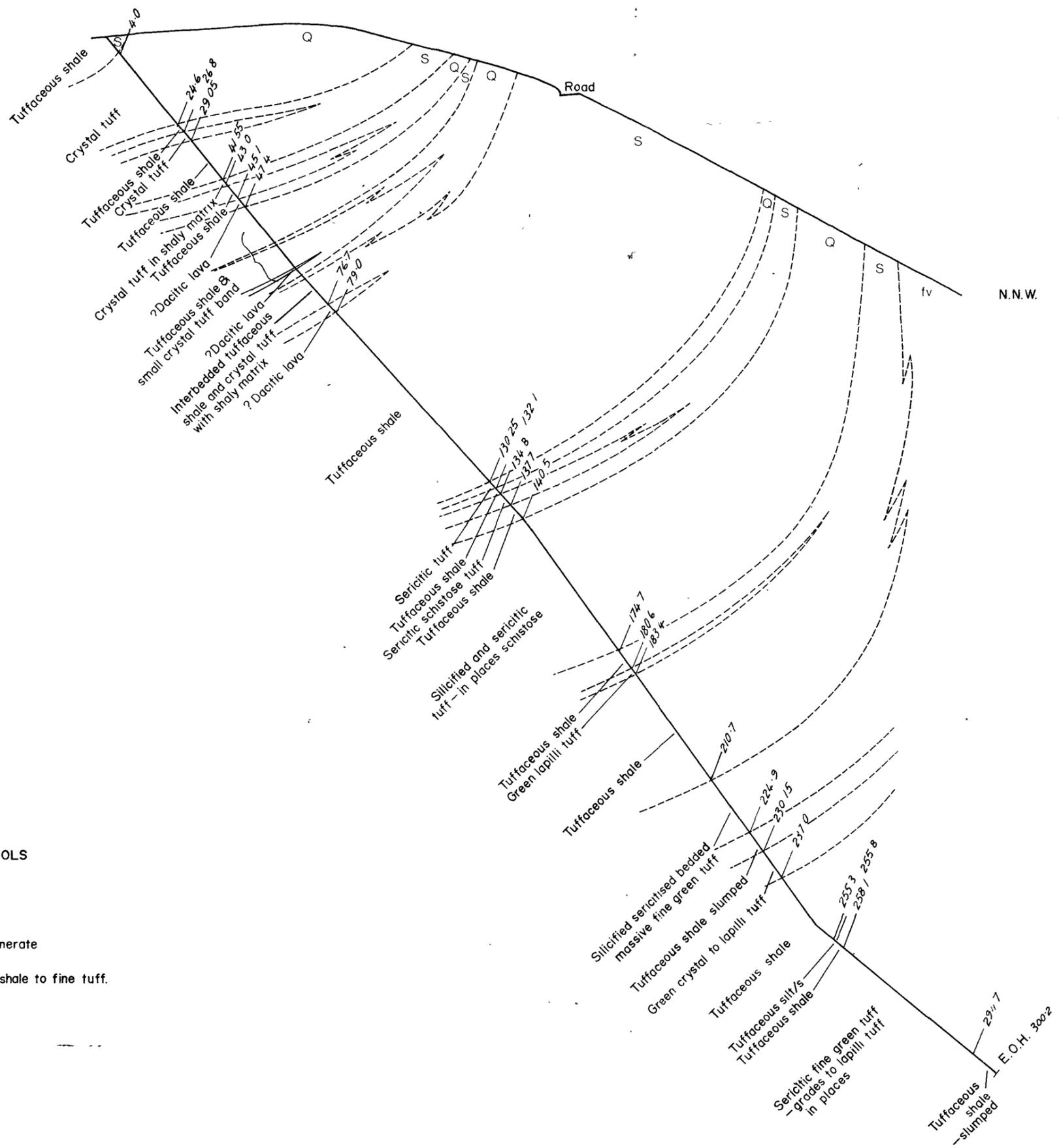


DD 76LS1

S.S.E.

Road

N.N.W.

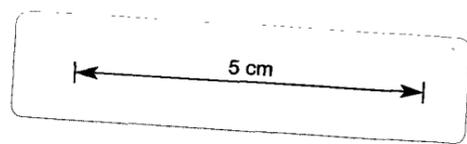


LEGEND

SURFACE GEOLOGY SYMBOLS

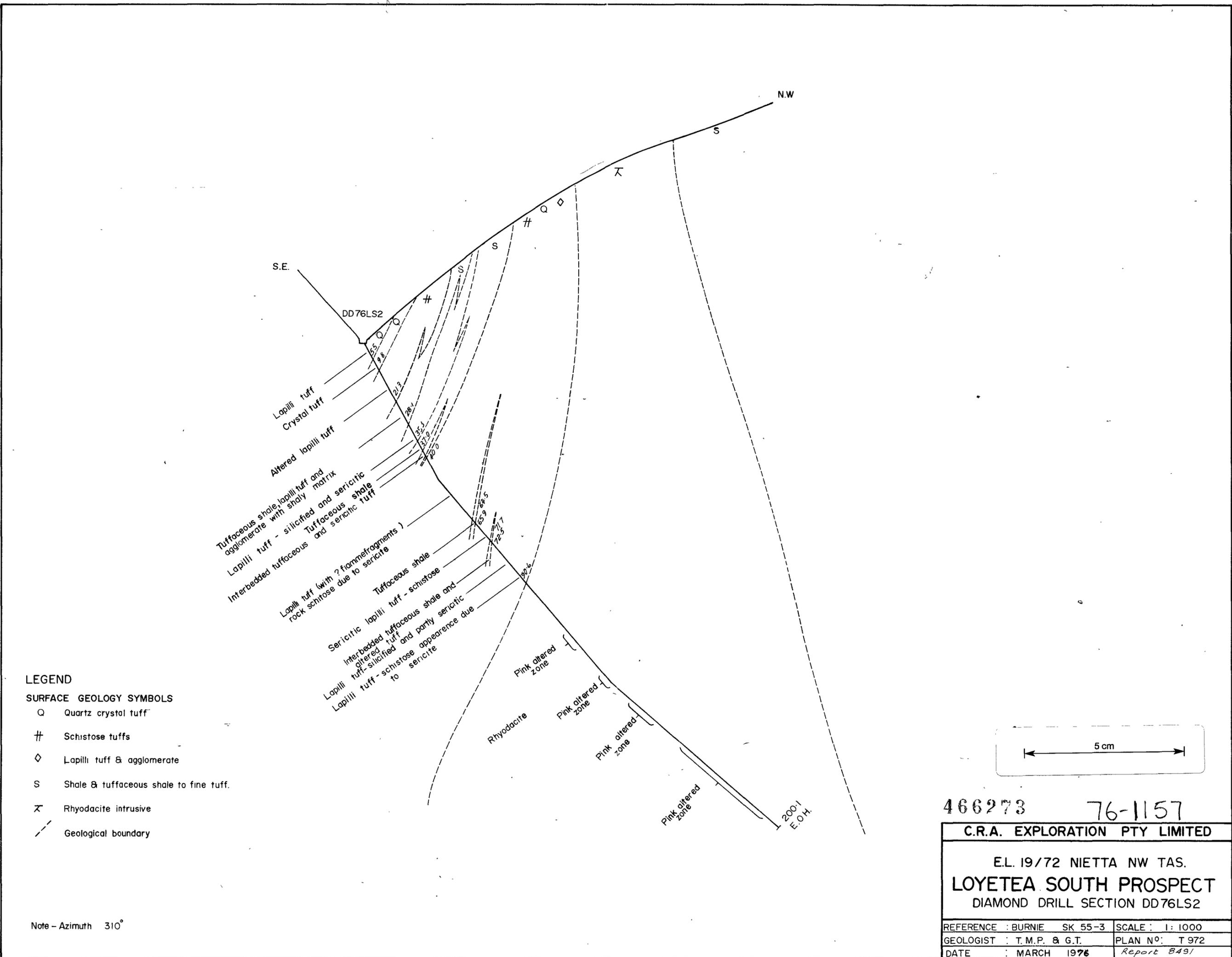
- Q Quartz crystal tuff
- # Schistose tuffs
- ◇ Lapilli tuff & agglomerate
- S Shale & tuffaceous shale to fine tuff.
- ⋈ Rhyodacite intrusive
- Geological boundary

Note - Azimuth 340°



466272 76-1157
C.R.A. EXPLORATION PTY LIMITED
 E.L. 19/72 NIETTA NW TAS.
LOYETEA SOUTH PROSPECT
 DIAMOND DRILL SECTION DD76LS1

REFERENCE : BURNIE SK 55-3	SCALE : 1:1000
GEOLOGIST : T.M.P. & G.T.	PLAN NO: T 971
DATE : MARCH 1976	Report 8491



LEGEND

SURFACE GEOLOGY SYMBOLS

- Q Quartz crystal tuff
- # Schistose tuffs
- ◇ Lapilli tuff & agglomerate
- S Shale & tuffaceous shale to fine tuff.
- X Rhyodacite intrusive
- - - Geological boundary

Note - Azimuth 310°

466273 76-1157	
C.R.A. EXPLORATION PTY LIMITED	
E.L. 19/72 NIETTA NW TAS.	
LOYETEA SOUTH PROSPECT	
DIAMOND DRILL SECTION DD76LS2	
REFERENCE : BURNIE SK 55-3	SCALE : 1: 1000
GEOLOGIST : T.M.P. & G.T.	PLAN NO: T 972
DATE : MARCH 1976	Report 8491