

000

DKSQ

C.R.A. EXPLORATION PTY. LIMITED

259001

MICROFILMED

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

PROGRESS REPORT No. 4

Author : J.G. PURVIS

Date : May 1978

Submitted to : R.J. Rebek

Copy to : Dept. of Mines - Tasmania
C.R.A.E. Library - Melbourne

The contents of this report remain
the property of C.R.A. Exploration
Pty. Limited and may not be published
in whole or in part nor used in a
company prospectus without the
written consent of the Company.

001

259002

TABLE OF CONTENTS

PAGE

1	Summary and Conclusions	1
2	Work Done	2
3	Results	2
	References	5
	List of Plans	5
	List of Appendicies	5
	Keywords	5
	Location	5

1 SUMMARY & CONCLUSIONS

This report details work done on E.L. 19/72 (Nietta) since March 1978. Activity during this period has been at a low level due to the negative results obtained in the intensive exploration effort from 1972-76, and the Company's heavy involvement in adjacent E.L. 7/73 (Sheffield).

Work carried out included:

- field traverses, rock and stream sediment sampling, at Loyetea and Castra prospects.
- further assaying of stream sediment and drill core, samples - Loyetea prospect.
- reinterpretation of existing geological and geophysical data.

Catchments with drainage sediments strongly anomalous in tungsten have been defined at the Loyetea prospect in the western corner of the E.L. A limited amount of follow-up work in two of these catchments failed to detect any anomalous tungsten values in the rock chip and drainage samples taken. No tungsten was detected in the reassayed samples of the Loyetea drill core.

The Cambrian acid volcanic / sedimentary rocks within E.L. 19/72 retain some potential for significant Pb-Zn-Cu, and Sn-W mineralisation. To effectively investigate these possibilities would require a return to 'grassroots' exploration over substantial areas of the E.L., and it is considered that the Company presently has more-valid exploration targets elsewhere in Tasmania.

Attempts to attract a Joint Venture partner have not been successful and it is therefore recommended that E.L. 19/72 be relinquished.

2 WORK DONE

The following work was undertaken:

- 1 Castra Prospect - Rock chip sampling of road cuts in pyritic, altered acid volcanics near Deep Gully Creek.
- 2 Loyetea Prospect - Field traverses (including a magnetometer traverse), and additional rock and stream sediment sampling.
- 3 Loyetea Prospect - Additional assaying for tin and tungsten of drill core samples from the two holes put down in 1976, and of stream sediment samples taken in 1974.
- 4 A comprehensive review and reinterpretation of geological and geophysical data on the E.L., particularly on the Loyetea and Crosby Creek prospects.

3 RESULTS

- 1 Rock chip sampling of roadcuts at Deep Gully, Castra prospect. A 500 metre long exposure of altered acid volcanics and tuffaceous sediments occurs along the road between Upper Castra and Nietta. In places the volcanics are highly silicified and pyritic. In one intensely-silicified outcrop, fist-sized clots and stringers of barite occur.

Sampling showed basemetal values in the pyritic volcanics are low. See Plan No. Tc 124 and Appendix I.

- 2 Field work at Loyetea prospect. Traverses were made at both the North and South Loyetea prospects, to try and determine the causes for some of the geochemical and geophysical anomalies outlined in work up to 1976.

At North Loyetea traces of galena and chalcopyrite were noted in very weakly altered acid-intermediate volcanic rocks in the area of the main Pb-Zn soil anomalies. Elsewhere, samples of limonitic volcanics contained only background levels of basemetals (see Appendix 1).

In company with C. Young of Abminco, a magnetometer traverse was run at North Loyetea in the area where drainages anomalous in tungsten had been outlined (see Plan No. Tc 125). Rock and stream sediment samples were also taken.

The magnetometer traverse showed that the volcanics contain magnetite and this was verified in hand specimen examination. No tungsten was detected in any of the rock or stream sediment samples taken. Detailed results are given in C. Young's report (see Appendix 2).

- 3 Additional assaying of drillcore and stream sediment samples, Loyetea Prospect.

Analysis of the stream sediment samples taken at Loyetea in 1974 outlined several catchments with highly anomalous values for tungsten. Several catchments returned slightly anomalous levels of tin. (see Plan No. Tc 125).

Samples of drill core from 76 LS 1 and 76 LS 2 were submitted for tin and tungsten assays. Tungsten was not detected and only three samples registered above the detection limit for tin. Results are shown in Appendix 3.

- 4 Review of geological and geophysical data.

All data on the E.L. was reviewed, and reinterpreted where possible. Particular emphasis was given to the Loyetea and Crosby Creek prospects, where most work was concentrated in the period 1972-76.

Although no new target of any consequence resulted from the reevaluation of data, the most significant conclusions were:

- (a) The aerial E.M. survey over the Crosby Creek area was probably flown at too high an altitude to be effective.
- (b) The I.P. responses over the untested 'south western horizon' at Crosby Creek are encouraging, but are no more attractive than those already drilled on the 'northern horizon'.
- (c) Potential exists to define further prospective Pb-Zn horizons to northeast of Castra prospect, and between Crosby Creek and Loyetea prospect.
- (d) The depressed soil geochemistry over much of the Castra prospect possibly reflects hydrothermal leaching within the altered volcanics and as such would be a valid geochemical "anomaly".
- (e) Because of siting difficulties in the steep terrain, drill hole 76TS2 at Loyetea prospect did not satisfactorily test its target I.P. anomaly.

J.G. Purvis

REFERENCES

Porter T.M. March 1976 E.L. 19/72 Nietta, North West
Tasmania. Progress Report No.3
C.R.A.E. report 8491.

LIST OF PLANSSCALE

Tc 124	Rock Sampling - Castra Prospect	1:5000
Tc 125	Drainage Geolchemistry-Loyetea Prospect & Locality Diagram.	1:25 000

LIST OF APPENDICIES

Appendix 1 Rock Sample Results
Appendix 2 Report on Examination of Loyetea Prospect
Appendix 3 Additional Assays for Loyetea Drillcore

KEYWORDS

Copper, lead, zinc, tin, tungsten, acid volcanics, Cambrian
geochem-drainage, geochem-rock.

LOCATION

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

400

APPENDIX 1

Rock Sample Results

009

APPENDIX 2

REPORT ON EXAMINATION OF LOYETEA PROSPECT

By C. Young, Abminco



ABMINCO N.L.

Exploration Division:
 1 Greenhill Road, Wayville, S.A. 5034
 Telephone: (08) 272 1103
 Telex: 82843

January 21, 1978.

Mr. J. Rebek,
 Supervising Geologist,
 P.O. 656,
FYSHWICH. A.C.T. 2609.

RJR

Dear Jakob,

Subject: Proposed Joint Venture
Nietta (Tas) Exploration Licence 19/72 and
Property Examination November 1977.

Subsequent to your offer of the Nietta Exploration Licence for joint venture and our property examination by Ian Freytag in June 1976, a further assessment of the property was made during the later part of 1977. The reason for our renewal of interest stems from your recent analysis for Sn and W in the stream sediment samples from the Loyetea area. Significant W values to 330 ppm were obtained. It was considered a tungsten bearing skarn or stockwork vein system might occur in the area in either Cambrian or Ordovician rocks.

Field assessment consisted of a traverse along line 2000E and a traverse down the creek draining from the area near the NW corner of the N Loyetea grid (from where the highest stream sediment W values were obtained).

On line 2000E ground reconnaissance, including a magnetometer (McPhar M700) traverse, indicated the acid volcanic units contained variable quantities of magnetite. This was confirmed by examination of hand specimens, rare chalcopyrite, galena and pyrite was also noted. No W above the level of detection (10 ppm) reported from rock chips or stream sediment samples collected on this traverse. (See Magnetometer traverse profile and assay sheets).

In the N draining creek abundant large and angular quartz float was noted indicating a nearby source. No W above the level of detection reported from samples of the quartz float, weathered acid volcanic bedrock or stream sediment samples. Heavy mineral separation of the stream sediment samples was conducted. Neither scheelite or wolframite were detected. (See assay sheets).

011

Abminco N.L.

January 21, 1978.

The source of your stream sediment W values remains conjectural. The presence of a tungsten bearing skarn or a stockwork vein system of economic proportions appears unlikely. Accordingly we will not make a joint venture proposal for this property.

I would like to thank you for giving us the opportunity to assess this property and apologise for the time taken, long delays by geochemical laboratories were a problem.

We remain most interested should other properties of yours become available for joint venture.

Yours faithfully,



C.H. YOUNG.

012

HEAVY MINERALS IN 206624, 206627 AND 206628

Three samples (206624, 206627, 206628) crushed to - 0.42 mm were received, via the Analytical Chemistry Division, with the client's request for heavy mineral determination.

Each sample was deslimed at 0.045 mm and the -0.42 + 0.045 mm fraction was separated statically in tetrabromoethane (sp.gr. 2.96). The products were washed, dried and weighed and polished briquettes (PS26345-7) were prepared from the dense products.

Examination of the >2.96 sp.gr. products in both reflected and transmitted light showed that they consist very largely of limonite/goethite which is opaque but has low reflectivity; much of this material shows finely granular textures and, less commonly, colloform textures. Minor to trace components of each sample are martite, ilmenite, altered ilmenite and rutile. 206624 contains traces of pyrite and chlorite and there is a little chromite in 206627.

The proportions of >2.96 sp.gr. product in the -0.42 + 0.045 mm fraction are as follows:

Sample:	% >2.96 sp.gr. (in -0.42 + 0.045 mm fraction)
206624	7.1
206627	3.5
206628	2.3

013

PROJECT CRA NIETIA EL 19/72	BSS SIEVE SIZE CODE - MESH NUMBER A 200 D 80 G 30 B 150 E 80 H 50 C 100 F 40 T = TOTAL	SAMPLE TYPE CODE <input type="checkbox"/> DIGGED PRODUCTS O <input type="checkbox"/> FRESH ROCK R <input type="checkbox"/> STREAM SEDIMENTS S <input type="checkbox"/> WEATHERED BEDROCK W <input type="checkbox"/> SURFACE TRANSPORTED T <input type="checkbox"/> RESIDUAL SOIL E <input type="checkbox"/> MINE DUMP M	CARD PUNCH PRINT YES <input type="checkbox"/> NO <input type="checkbox"/>	VERIFY YES <input type="checkbox"/> NO <input type="checkbox"/>	DATE	SHEET
---	--	--	--	--	------	-------

EASTINGS	NORTHINGS	SAMPLE NUMBER	DEPTH IN CMS	SIZE FRACTION	METAL VALUES PPM										GEOLOGICAL LOG			
					Cu	Pb	Zn	Sn	Ni	As	Se	Ag	Cd	Hg				
<i>LORETA NORTH</i>														<i>Note detection level for 4 ppm</i>				
<i>in line (2000 E) (6550 N)</i>												15	80	370	<4	<10	<i>Dacitic tta. rare & exp. magnetite</i>	
2000E	5950N	206620														<i>Rhyolitic lava</i>		
"	5850N	206622														<i>Rhyolitic lava, partly weathered.</i>		
"	5800N	206623														<i>Shaly/Siltstone (Phyllite)</i>		
"	6250N	206639														<i>Dacitic tta. with magnetite.</i>		
Road cut E of 2000 E		206641			15	40	130	<4	<10							<i>5cm wide of mica in siltstone.</i>		
" " " "		206642			40	300	520	<4	10							<i>Weathered siltstone.</i>		
On road 500 m E of Road cutting (LORETA NORTH)		206644														<i>Feldspar for Rhyolitic lava</i>		
East Road cutting road cutting CASTRA		206645														<i>Altered (Silic, Cal) acid buff with Py.</i>		
" " " "		206646														<i>Basite near 5cm wide</i>		
West of Road cutting CASTRA		206647														<i>Altered (Silic, Cal) acid buff with pyrite.</i>		
" " " "		206634			360	22	18	100	Ba	3A						<i>" " " "</i>		

259014

GEOCHEMICAL SAMPLE LEDGER

U1A
259015

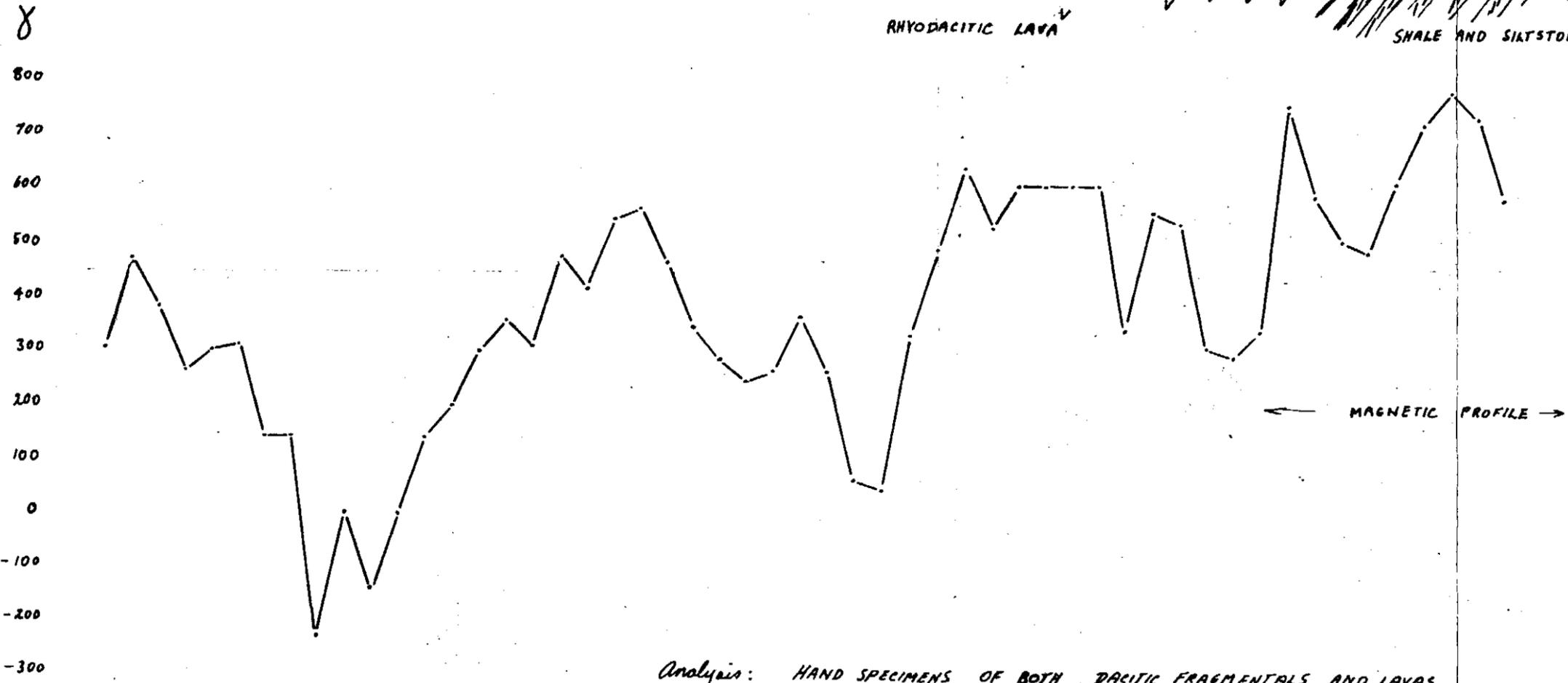
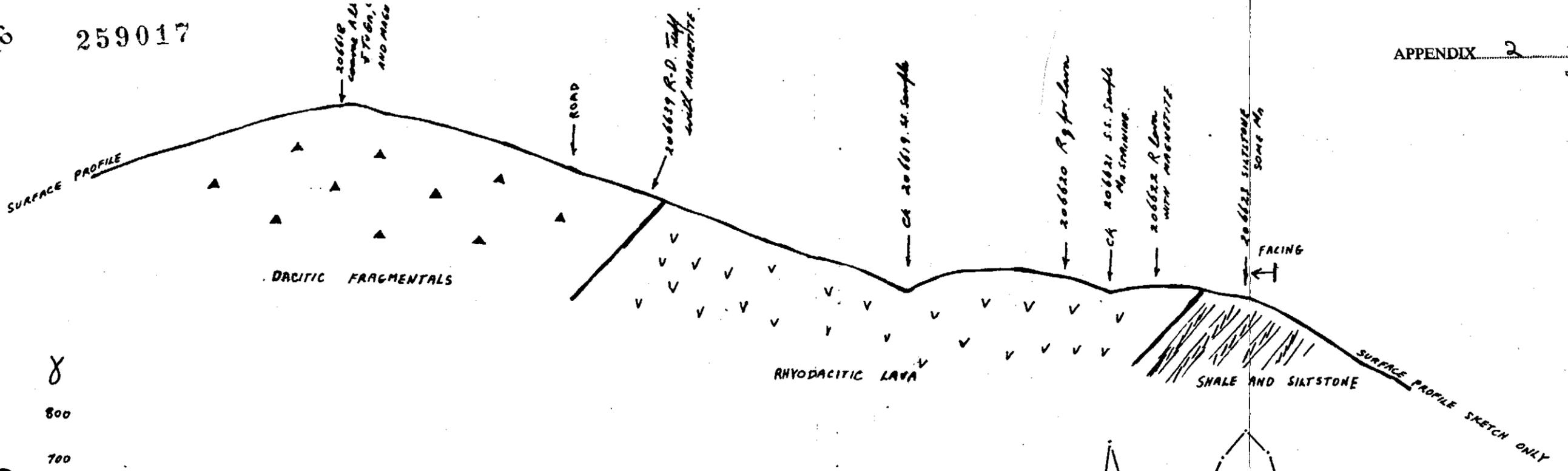
PROJECT <i>CRA NIETA EL 19/12 LOYETERA</i>				BSS SIEVE SIZE CODE - MESH NUMBER A 200 D 80 G 30 B 150 E 60 H 20 C 100 F 40 T = TOTAL				SAMPLE TYPE CODE <input type="checkbox"/> OXIDIZED PRODUCTS O <input type="checkbox"/> FRESH ROCK R <input type="checkbox"/> STREAM SEDIMENTS S				<input type="checkbox"/> WEATHERED BEDROCK W <input type="checkbox"/> SURFACE TRANSPORTED T <input type="checkbox"/> RESIDUAL SOIL E <input type="checkbox"/> MINE DUMP M				CARD PUNCH PRINT YES <input type="checkbox"/> NO <input type="checkbox"/>		VERIFY YES <input type="checkbox"/> NO <input type="checkbox"/>		DATE		SHEET	
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	------	--	-------	--

EASTINGS							NORTHINGS							SAMPLE NUMBER	DEPTH IN CMS	SIZE FRACTION	Sample Type	METAL VALUES PPM										GEOLOGICAL LOG																
1-7	8-14	15-21	22-28	29-35	36-42	43-49	50-56	57-63	64-70	71-77	78-84	85-91	92-98					99-105	106-112	113-119	Cu	Pb	Zn	Sn	W	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100									
<i>Stream Running N from W side of N. Loyetera Grid.</i>														<i>206624</i>	<i>7.1</i>	<i>S</i>				<i>5</i>	<i>20</i>	<i>100</i>	<i><4</i>	<i><10</i>	<i>XRF for Sn, W, As, Cd, Cu, Pb, Zn. Crush sample.</i>																			
<i>From to about halfway down to junction</i>														<i>206627</i>	<i>3.5</i>	<i>S</i>				<i>5</i>	<i>15</i>	<i>70</i>	<i><4</i>	<i><10</i>	<i>> 2.96 sp. gr. product in the 20.42 + 0.045 cm fraction, largely hematite/gaethite, trace magnetite, ilmenite, altered ilmenite and rutile.</i>																			
<i>Line 2000E 6100N</i>														<i>206619</i>	<i>-12[#] + 20[#]</i>	<i>S</i>				<i>22</i>	<i>160</i>	<i>500</i>	<i><4</i>	<i><10</i>																				
															<i>-80[#]</i>					<i>22</i>	<i>130</i>	<i>560</i>	<i><4</i>	<i><10</i>																				
<i>Line 2000E 5940N</i>														<i>206621</i>	<i>-12[#] + 20[#]</i>	<i>S</i>				<i>20</i>	<i>100</i>	<i>300</i>	<i><4</i>	<i><10</i>																				
															<i>-80[#]</i>					<i>15</i>	<i>50</i>	<i>240</i>	<i><4</i>	<i><10</i>																				

** Note. detection level for Sn 4 ppm, W 10 ppm.*

016

259017



Analysis: HAND SPECIMENS OF BOTH DACITIC FRAGMENTALS AND LAVAS CONTAIN SIGNIFICANT MAGNETITE % 5%.
 ∴ MAGNETIC "ROWS" SHOULD INDICATE SHALE-SILTSTONE HORIZONS. "HIGHS" WITHIN SED HORIZONS MAY REPRESENT INTERCALATED VOLCANICS OR POTENTIAL SKARN DEPOSITS.

Note: 6500N and 6000N, plotted on basis of sample no on logs. There is an error of approx 30M, may be due to lack of slope correction.

RECONNAISSANCE TRAVERSE

M'PHAR M700

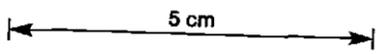
READINGS AT 20m. INTERVALS.

10m = 40m

LOYETER NORTH

LINE 2000 E

9-11-77 GP, CH



APPENDIX 3

ADDITIONAL ASSAYS FOR LOYETEA DRILLCORE

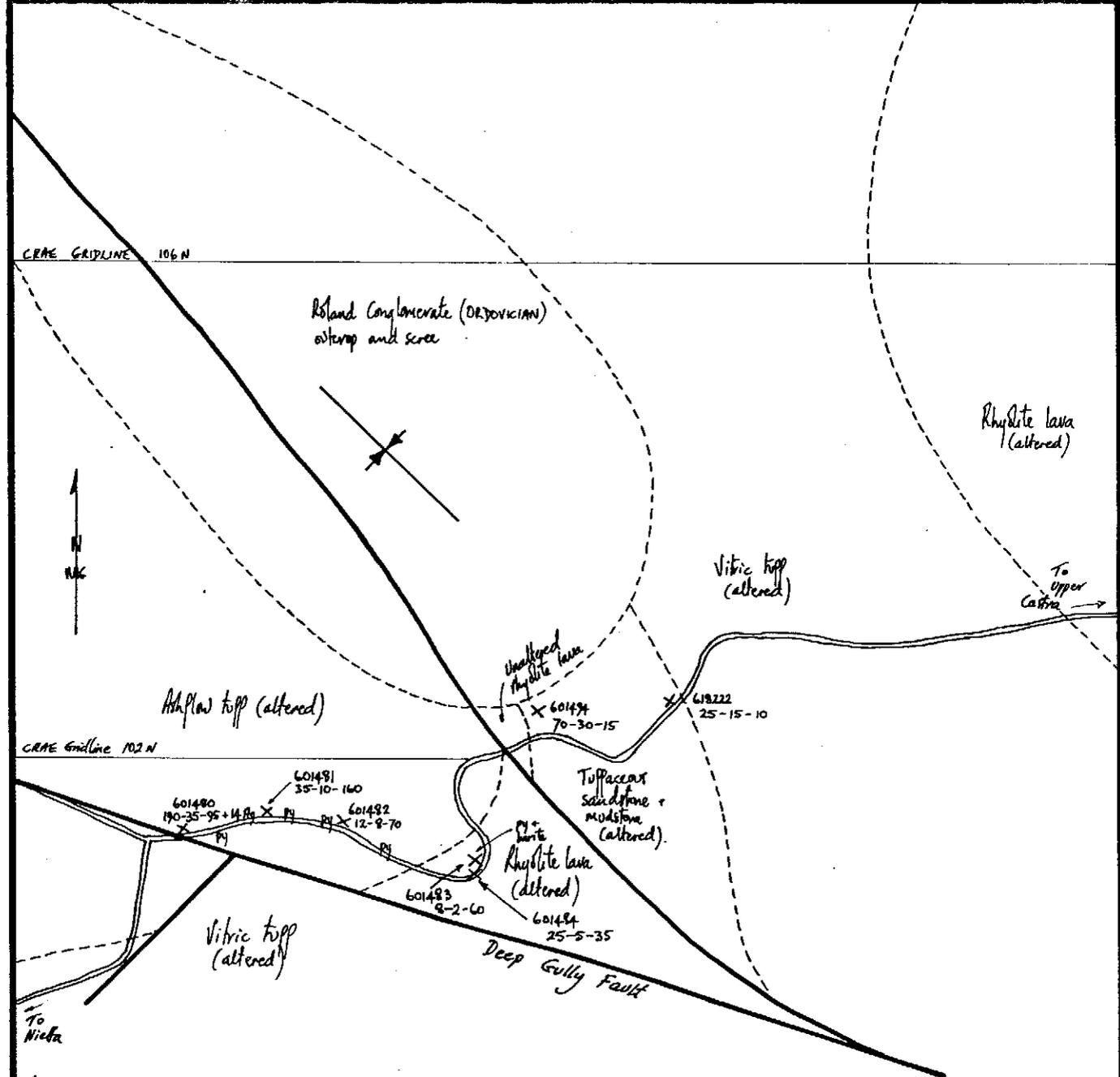
259019	SPECIAL FEATURES WEATH., ALTERATION, FRACTURING VEINING, MINERALIZATION	SAMPLE No.	FROM (M)	TO (M)	REC (M)	ASSAY VALUES		
						Sn	W	(µi ppm)
	<i>Additional sampling of drillcore. September 1977. For full geological log and basement sampling results see T.M. Porters 1976 report (CRAE Report 8491)</i>	296797	4.00	10.00		4	<10	
		296800	30.00	40.00		<4	<10	
		297203	60.00	70.00		4	<10	
		297206	90.00	100.00		<4	<10	
		297209	120.00	130.00		<4	<10	
		297212	150.00	160.00		<4	<10	
		297215	180.00	190.00		<4	<10	
		297218	210.00	220.00		4	<10	
		297221	240.00	250.00		<4	<10	
	297224	270.00	280.00		<4	<10		

AMEND DRILL CORE LOG

APPENDIX 3 PAGE 2 of 2
HOLE No. 76252
DEPTH _____ COMMENCED _____ COMPLETED _____ CASING LEFT _____ DPO No(s) _____

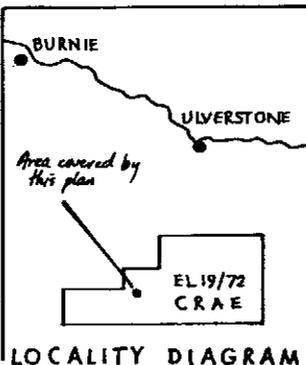
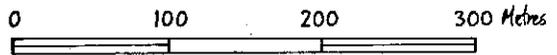
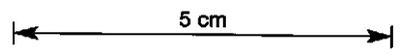
259020	SPECIAL FEATURES WEATH., ALTERATION, FRACTURING VEINING, MINERALIZATION	SAMPLE No.	FROM (M)	TO (M)	REC (M)	ASSAY VALUES		
						Sn	W	(in ppm)
	<i>Additional sampling of drillcore. September 1977. For full geological log and base metal sampling results see T.M. Porter's 1976 report (CRAE Report 8491)</i>	297227	0.00	10.00		<4	<10	
		297230	30.00	40.00		<4	<10	
		297233	60.00	70.00		<4	<10	
		297236	90.00	100.00		<4	<10	
		297239	120.00	130.00		<4	<10	
		297242	150.00	160.00		<4	<10	
		297245	180.00	190.00		<4	<10	

021
259021



(Geological mapping after T.M. Porter 1976.)

X 618222 25-15-10 - Rock sample with Pb-Zn-Cu values in ppm.

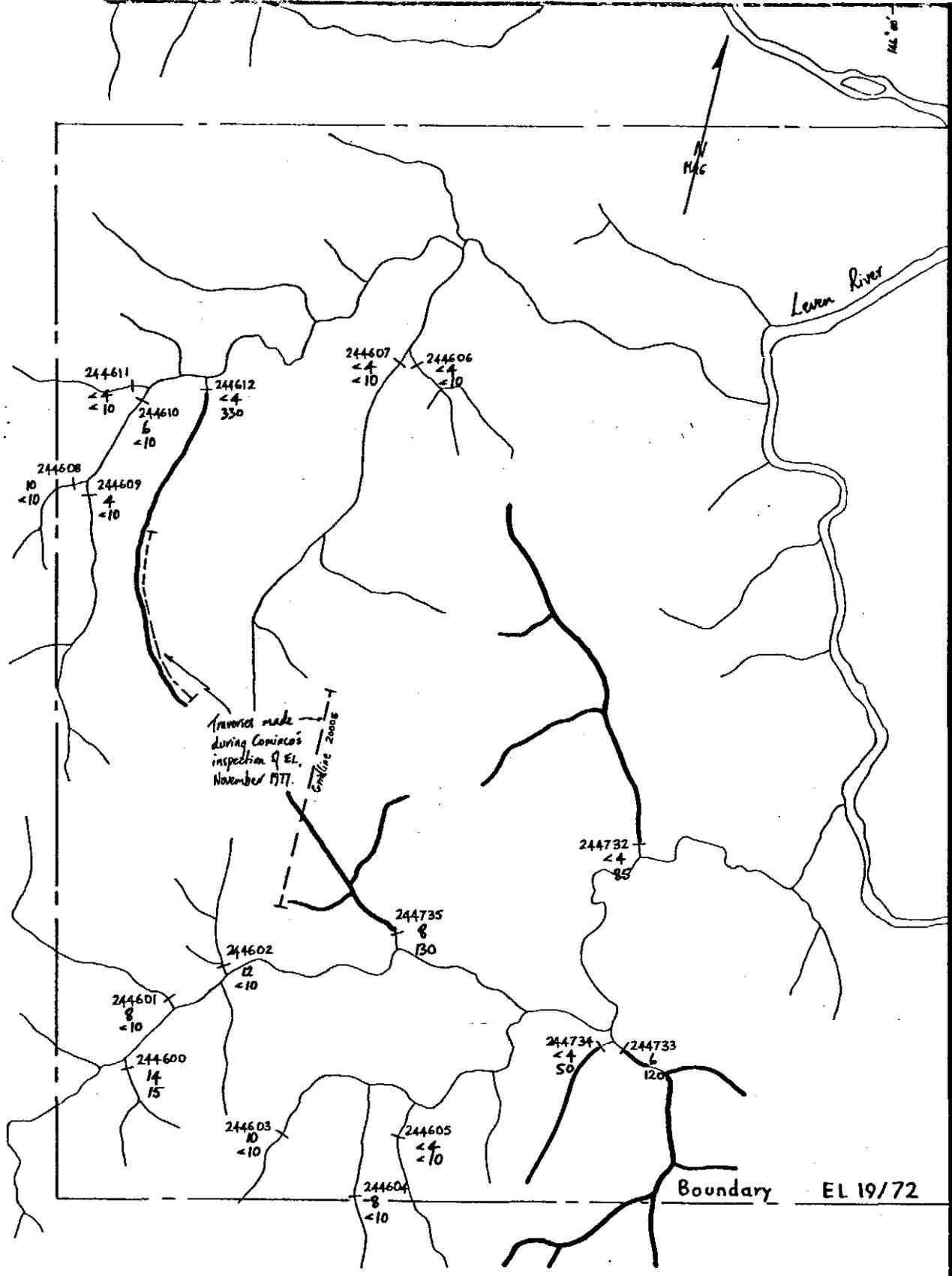


C.R.A. EXPLORATION PTY. LIMITED		
EL 19/72 - NORTHWEST TASMANIA ROCK SAMPLING DEEP GULLY ROAD CUTTING CASTRA PROSPECT BURNIE SK 55-3		
geologist: G.P.	scale: 1:5000	report no: 9278
drawn: G.P.	date: 11.5.78	plan no: Tc 124

020
259022

41° 20'

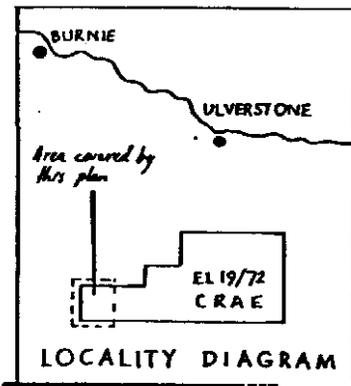
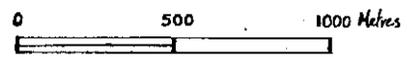
41° 22' 30"



Traverses made during Comicos inspection of EL November 1977.

244732
24
85
Drainage sample with values for Sn W shown in ppm

Drainages with anomalous tungsten values



C.R.A. EXPLORATION PTY. LIMITED

EL 19/72 NORTHWEST TASMANIA
TIN & TUNGSTEN
DRAINAGE GEOCHEMISTRY
LOYETEA PROSPECT
BURNIE SK 55-3

geologist: G.P.	scale: 1:25000	report no: 9278
drawn: G.P.	date: 11-5-78	plan no: Tc125

