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EXPLORATION LICENCE NO. 5432

BREADALBANE

ANNUAL EXPLORATION REPORT

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for the period
29 January 1998 – 28 January 1999

GR Baglin
R N Lees
T McMahon

April 1999

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1. INTRODUCTION

Exploration Licence Application 1114 Sy was granted to Michelago Resources NL (Michelago) on 28 January 1998 as Exploration Licence 5432 (EL 5432) for a period of 24 months. Exploration Licence Application 1236 Sy was applied for on 6 May 1998 and is pending.

EL 5432 covers an area of 48 units (approximately 138 sq. km.) and incorporates the town of Breadalbane. The area contains the historical Iron Mine in the central part of the licence and several areas that are considered to be prospective for gold and base metal mineralisation.

During the twelve month period covered by this report, Michelago has conducted a comprehensive literature review and compilation of past exploration.

2. LOCATION AND ACCESS

The centre of EL 5432 is located approximately 3km west of Breadalbane, NSW, and approximately 220km south south-west of Sydney. The Southern Main railway line, the Hume Highway, the Moomba-Sydney natural gas pipeline and a significant power transmission line run through the tenement area. EL 5432 lies on the Goulburn 1:250,000 map sheet (SI\55-12) and the Gunning 1:100,000 (8728) map sheet areas.

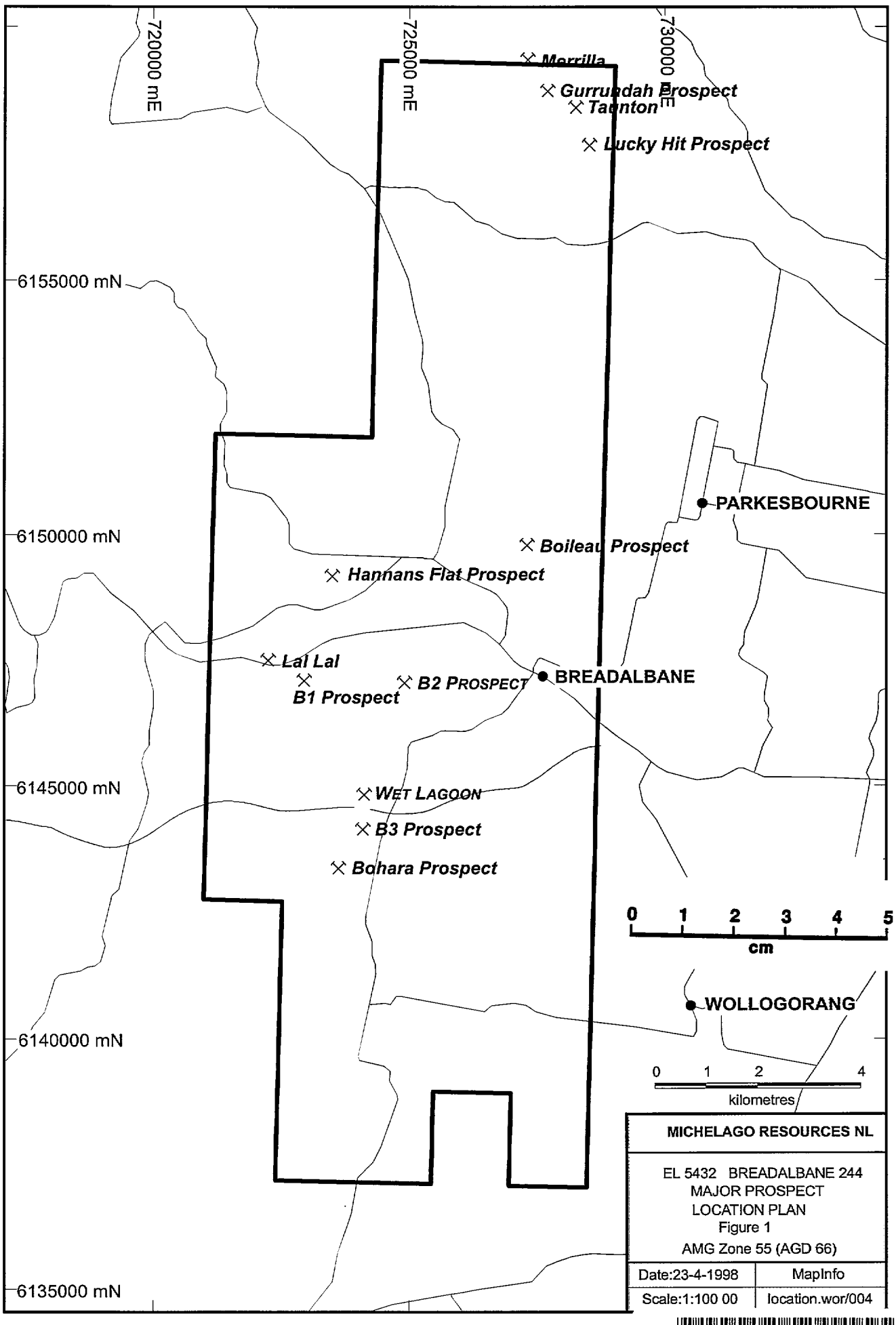
The project area lies between the Great Dividing Range and the Cullerin Range in the southern highlands of New South Wales. Access is via the Hume Highway and then by a series of sealed and unsealed rural roads and farm tracks. Topography varies from slightly undulating to moderately steep with elevations between 700m and 800m. Maximum elevation is 851m.

A dendritic style drainage occurs in the area, with many streams draining into the flatter areas and semi-permanent lagoons. Land use is primarily grazing pasture, with sparse scrub, re-growth forests and swampy areas evident.

3. TITLE

Tenure:	**Exploration Licence 5432** (formerly ELA 1114 Sy)
Area:	48 units (approx. 135km^2)
Granted:	28/01/98 for a period of 2 years
Holder:	Michelago Resources NL (100%)
Boundary Co-ordinates:	See Figure 1.
1:100,000 Sheet Names:	Gunning
1:100,000 Sheet Numbers:	8728
Nearest Major Town:	Goulburn

1:1,000,000 SHEET	BLOCK NUMBER	UNITS
CANBERRA	2370	**h j k n o p s t u x y z**
CANBERRA	2442	**a b c d e f g h j k l m n o p q r s t u v w x y z**
CANBERRA	2514	**b c d e g h j k m n p**


720000 mE
725000 mE
730000 mE
6155000 mN
6150000 mN
6145000 mN
6140000 mN
6135000 mN
Merrilla
Gurrundah Prospect
Taunton
Lucky Hit Prospect
PARKESBOURNE
Boileau Prospect
Hannans Flat Prospect
Lal Lal
B1 Prospect
B2 PROSPECT
BREADALBANE
WET LAGOON
B3 Prospect
Bohara Prospect
0 1 2 3 4 5
cm
WOLLOGORANG
0 1 2 4
kilometres
MICHELAGO RESOURCES NL
EL 5432 BREADALBANE 244
MAJOR PROSPECT
LOCATION PLAN
Figure 1
AMG Zone 55 (AGD 66)
Date:23-4-1998
MapInfo
Scale:1:100 00
location.wor/004

4. GEOLOGY

4.1 Regional Geology

The Lachlan Fold Belt (LFB) forms part of the Phanerozoic Tasman orogenic zone of eastern Australia. The LFB extends from eastern Tasmania through Victoria to New South Wales. Elements of the Belt are inferred to extend into Queensland under the Great Australian Basin. The LFB is a complex orogenic belt comprising sedimentary and igneous rock sequences extending from the Cambrian to the Early Carboniferous.

The environment for deposition in the LFB evolved from deep marine in the Ordovician to shallow marine and subaerial in the Devonian. The oldest rocks within the Eastern belt, and which developed extensively throughout the LFB, are Early Ordovician turbidites. Early Ordovician to Early Silurian calc-alkaline, through high K calc-alkaline, to shoshonitic volcanic complexes developed in association with limestone's in a long zone interpreted to extend from south-eastern Victoria to southern Queensland, with the most extensive development occurring in central New South Wales (Walshe et al, 1995). This was followed by Siluro-Devonian sediments and, felsic and minor mafic volcanic rocks (Walshe et al, 1995).

Chappell, 1999, discusses several characteristics of the LFB which do not conform to tectonic models for younger orogenic belts. Glen, 1992, also considers that the LFB did not form by collisional processes traditionally associated with the formation or orogenic belts. He suggests that the structural development of the LFB involved thin-skinned deformation tectonics resulting in the amalgamation of broadly similar tectono-stratigraphic terranes by strike-slip faulting.

Glen (1992 & 1995) has subdivided the LFB into four structural belts on the basis of lithotectonic associations: Western, Southwestern, Central and Eastern. The Central belt, which contains the Breadalbane project area, is bounded to the east by the Gilmore Suture (Gilmore Fault-Indi Fault) and to the west by the Kiewa Fault.

4.2 Local Geology

The Breadalbane area is typically composed of Ordovician, Silurian and possible Devonian volcanics, sediments, acid and mafic intrusives and Cainozoic sediments and minor basalts. The Lake George Fault and the sub-parallel Currawang Fault are the two major structures interpreted to be possibly controlling mineralisation in the Breadalbane area (Figure 2).

Rock exposure in the Breadalbane area varies from poor (in the southern lagoonal areas of the tenement) to good in the northern part of the tenement. The sequences in the area consist of steeply dipping Upper Ordovician, Middle to Upper Silurian rocks, overlain by horizontal Tertiary strata. The Upper Ordovician beds comprise sandstones, siltstones and black shales. These beds make up the basement of the area and have been structurally altered by faulting, resulting in horst and graben type complexes. Later stage folding is inferred to be moderate to intense and related to the Silurian Acid Volcanics.

Overlying these sequences are Upper Silurian sediments. The rocks are believed to be a continuation of the mineralised belt containing the Captains Flat and Woodlawn deposits. In the Northern part of the tenement, Tertiary sediments and olivine basalts are preserved. There are minor intrusive features within the area, which appear to be interfingered with the sediments and acid volcanics. The predominant strike orientation of the inclined strata is approximately 340°, with dips ranging from 70° west to 75° east. There are two minor structural features within the tenement area, the Breadalbane syncline to the east and the Hannans anticline to the west.

4.3 Mineralisation

Two distinct styles of mineralisation have been identified in the tenement area. The existence of an old iron and copper mine, previously identified by earlier prospectors and explorers as the Lal Lal Mine, Hannan's Mine, Breadalbane Mine, Cullerin Mine and Mountain Copper Mine, and the conclusions of later explorers (labeling it as the B1 prospect) indicate an association with a porphyry copper-gold mineralising event. At the Wet Lagoon prospect, the existence of brecciated units with associated carbonate alteration suggests the existence of a carbonate base metal-gold system. Both styles of mineralisation are considered worthy of follow-up.

5. MINING AND EXPLORATION HISTORY

5.1 Mining History

The Goulburn Metallogenic 1:250,000 map sheet (Felton, 1975) shows the existence of at least five mine areas within the tenement (Figure 2).

The B1 Prospect is an old iron and copper mine. It has previously been identified as the Lal Lal Mine, Hannan's Mine, Breadalbane Mine, Cullerin Mine and Mountain Copper Mine. Mining first commenced around 1895, with first reported production of copper occurring in 1906. Mineralisation comprised pyrite, magnetite, chalcopyrite, pyrrhotite and malachite. The mine produced ore grading up to 53% iron and 2.5% copper. A summary of production is presented in Table 1 (Felton, 1975; Griffin & Wynn, 1962; Carne 1908).

Table 1: Historical Production – Breadalbane Copper Mine.

YEAR	ORE (t)	CONC.(t)	VALUE (£)	COMMENTS
1895-1905	-	-	-	Very little prospecting
1906	-	-	-	L.H. Wakefield. Good grade
1907	-	-	-	No.2 shaft 130ft. 8-15% Cu
1908	40	-		No.2 shaft 226ft
1909	16	-	124	3 shafts. 236, 100, 60ft
1910	200	-	325	2.5% Cu
1911	52	-	105	2.5% Cu
1912	400	-	630	
1913	15	0.5	-	
1914	-	-	-	No Records
1915	-	-	-	4 people working
1916	826	93	1,880	
1917	510	26	3,309	
1918-1929	50,000	-	-	Iron ore. Hoskins Ltd
1941-1945	160,000	-	-	Aus. Iron & Steel

The Gurrundah Barite mine operated between 1946 and 1958. Total production was 6,982.2 t of barite for a total value $54,980 (McClatchie, 1970; Felton, 1975). There is a measured resource of 202,701 t of 74.9% barite and an indicated resource of 95,508.4 t of 75.6% barium (Felton, 1975).

In the Gurrundah area, the Tauntons copper mine commenced operations in 1912 and produced 15.2 t of copper ore. The mineralisation comprised malachite, azurite and chalcopyrite (Felton, 1975).

The Lucky Hit mine produced 202.2 t of copper ore, averaging 8% copper, between 1906 and 1919 (Felton, 1975). The total value of the ore was $199,000. The mineralisation consists of chalcopyrite, pyrite, malachite and azurite.

Operations first commenced at the Merrilla copper mine in 1907. Production was resumed again for the year 1918 (Felton, 1975). The mine produced a total of 2.03 t of copper (averaging 1.90% copper), 3.05 t of lead (averaging 2.81% lead) and also averaged a return of 188.3g/t silver. Mineralisation comprised chalcopyrite, galena, pyrite, malachite, native copper, cuprite, melaconite and chalcocite.

5.2 Exploration History

A significant amount of modern exploration has been conducted in the Breadalbane area, primarily for copper and associated base metal mineralisation, but later for gold and copper mineralisation. A more detailed outline of this work is included in Section 6 – Current Exploration.

6. CURRENT EXPLORATION

During the current reporting period, Michelago has completed an extensive literature review and partial compilation of the drilling database.

6.1 Literature Review

Michelago completed a literature review during the current reporting period. A list of company reports referred to during this compilation is included in Section 10 of this report.

Lamadec Exploration Ltd (Lamadec) explored the Gurrundah area in the early 1970's. Initially testing for barite deposits, 14 diamond drill holes (DDH1-DDH14) were completed. These holes, however, identified significant copper, lead and zinc mineralisation. To follow-up these anomalies, Lamadec undertook an IP survey that highlighted a number of anomalous zones that were followed up with costeaning, shallow drilling, ground magnetics surveys and geological mapping. From these surveys, a number of targets were outlined for drilling. Lamadec drilled a total of eight diamond holes (DDH 15, 16, 16A, 17, 19, 20, 21 and 24). Significant intercepts are shown in Section 6.2. No further work was completed by Lamadec.

Exploration Licence EL 285 was granted to Astley Consolidated Holdings (Astley) in 1967. After the lease was renewed in 1972, Astley entered a joint venture with Continental Explorations Pty Limited (Continental) with Continental acting as manager of the project. Continental initially surveyed a grid over the area and then completed field mapping, B-horizon soil sampling and geophysical surveys over the area. Infill soil sampling of the more anomalous zones, along with the results of the ground magnetic and IP geophysical surveys identified 19 geochemically anomalous zones.

Continental (later in JV with Minland Mining Pty Ltd) followed-up this work by drilling six diamond holes into Hannans Flat prospect (BH1–BH6), one diamond hole into Zone 14 (B14/1), one diamond hole into Zone 15 (B15/1), two diamond holes into Zone 19 (B16/1 and B16/2), four diamond holes into the B1 prospect (B1/1–B1/4), six diamond holes into the B2 prospect (B2/1–B2/6) and three diamond holes into the B3 prospect (B3/1–B3/3). The best results are shown in Section 6.2.

Minland Mining Pty Ltd (Minland) and North Broken Hill Ltd (North) entered into a joint venture on EL 813 & 815 during June 1976. Exploration was managed by North and the work included grid establishment, rock chip sampling, auger drilling over soil covered areas, ground magnetics, IP survey,

aeromagnetic survey, low level input aeromagnetic survey, gravity surveys over Wet Lagoon and B2 prospects and a sirotem survey. Twenty-five diamond holes were drilled in total.

Four holes were drilled at Hannans Flat prospect (BH7–BH10), one hole was drilled at Sweetwood Lea prospect (SL-1), two holes were drilled at Raeburn prospect (RA1–RA2), one hole was drilled at Zone 14 (B14/2), ten holes were drilled at Wet Lagoon prospect (WL1–WL10), one hole was drilled at Bells Flat prospect (BF1), four holes were drilled at B2 prospect (B2/7–B2/10) and two holes at the Bohara prospect (BOH1–BOH2). The best intersections are shown in Section 6.2.

EL 1629 was granted over the Breadalbane area in May 1981. Title was held by North on behalf of Minland Mining Pty Ltd until September 1982, Marathon Petroleum Australia Ltd (Marathon) entered the joint venture as manager. Marathon undertook regional geological mapping as well as more detailed mapping of the northern part of the lease, a ground magnetic survey over Wet Lagoon prospect, a UTEM survey over the Wet Lagoon and Gurrundah/Lucky Hit prospects, an IP survey and rock chip sampling of the Gurrundah/Lucky Hit prospect and down hole TEM surveys of holes WL19 and WL21.

Marathon drilled a total of six diamond holes and 13 percussion holes. Three diamond holes were drilled at Wet Lagoon prospect (WL19-WL20), three diamond holes (G26–G28) and 13 percussion holes (P9, P11–P14, P17, P19–P20, P23–P25, P27 & P29) at the Gurrundah/Lucky Hit Prospect. The best intersections are included in Section 6.2.

In April 1984 Marathon withdrew from the joint venture and was replaced as joint venture manager by Pan Australia Mining Ltd (Pan Aust) which assumed the responsibility of manager. Worked undertaken included a reinterpretation of the IP survey conducted by Central Mining Corporation in 1971, progressive and systematic re-logging and re-assaying of all the previous diamond holes, regional and detailed geological mapping (particularly at the B1 and Gurrundah/Lucky Hit prospects), ground magnetic surveys (at B1, Gurrundah/Lucky Hit and Boileau prospects), trial VLF survey over Lucky Hit prospect, rock chip sampling at Gurrundah/Lucky hit and Wet Lagoon prospects, soil sampling at Thompsons and Greendale prospects, SIROTEM surveys at B1 and Greendale prospects and metallurgical testwork on the cyanide leachability of gold mineralisation at Wet Lagoon prospect.

A regional stream sediment sampling programme was also completed and highlighted 12 anomalous zones that were followed-up with high density stream sediment sample collection. The joint venture drilled a total of 23 diamond holes and 22 percussion holes. Three diamond holes were drilled at the B1 prospect (B1/5–B1/7), four diamond holes were drilled Gurrundah/Lucky Hit prospects (G28, G32, LH1 and LH2), two diamond holes at the Greendale prospect (DB1 and DB2) and fourteen diamond holes at the Wet Lagoon prospect (WL22–WL35). Ten of the percussion holes were drilled at Wet Lagoon prospect (WLP1–WLP10), one percussion hole at the Boileau prospect (BP1), six percussion holes at the Gurrundah/Lucky Hit prospect (P1, P4, P5, LP1, LHP2 and LHP3), two percussion holes at the Thompsons prospect (P2 and P3) and three percussion holes at the Merrilla prospect (P6–P8).

In November of 1984, Electrolytic Zinc Company (EZ), a subsidiary of North, absorbed North's interest in the joint venture, only to be absorbed by another North subsidiary, Norgold Ltd, during the period ending 20 May 1987. In 1986 Minland Mining Pty Ltd divested its interests to Alluvial Prospectors Ltd.

EL 4505 was granted to Astley Consolidated Holdings Pty Ltd (Astley) on 26 May 1993. Astley entered a joint venture with CRA Exploration Pty Ltd (CRAE) during 1993, CRAE acting as manager and operator. CRAE were exploring for large tonnage porphyry style copper-gold mineralised systems. CRAE completed a review of previous exploration, flew a detailed airborne magnetic and radiometric survey, followed-up airborne magnetic anomalies with ground magnetics and SP surveys, conducted reconnaissance mapping and rock chip sampling, commissioned aerial photography over the area and re-logged drill holes BH11, BH12, BH3, B1/1, B1/2, B1/4. CRAE drilled one diamond hole (DD94BR1),

three RC holes (RC94BR2–4) and 106 RAB holes (BR5–110) over 25 buried airborne geophysical anomalies. No significant mineralisation was reported and the results were considered to be disappointing. No further work was completed and the area was relinquished.

6.2 Drill Hole Database

The literature review revealed a complex history of drilling within the project area (see Section 6.1 above). Drilling programmes were conducted by many companies and used a variety of local and regional grids. Collar and survey data from each hole has been collated and an approximate AMG (AGD 66) co-ordinate determined. A plot of the drill holes is presented as an overlay on an image of the CRAE aeromagnetics (Plan 1).

6.3 Prospect Summary

6.3.1 Wet Lagoon Prospect

This prospect was outlined by a strong lead-zinc zone discovered by a soil geochemical survey completed by Minland Mining. The zone trends into a lagoonal geographical feature from both the northern and southern shores. The lead anomaly was further defined by auger drilling carried out by North.

Due to the lagoon typically being inundated, most drill testing was completed by the drilling of deep holes from adjacent dry areas. In total, 35 diamond holes and 10 percussion holes were drilled into the Wet Lagoon prospect. The percussion holes were targeting UTEM anomalies with no significant results.

In 1986, the exploration emphasis switched to gold mineralisation. Explorers tested the possible association of gold with base metals by re-assaying the core and discovered significant gold in the southern part of the wet lagoon prospect.

Twelve holes were drilled to re-test this zone (WL24-WL35). The results indicated a zone of anomalous gold mineralisation, striking for 120-150m, comprising a series of quartz veins with numerous smaller parallel or en-echelon veins in an envelope of anomalous silicified pyritic volcanics. The results inferred a resource of 100,000 – 200,000 tonnes grading 2-3g/t gold.

However, Michelago has identified that this zone is located beneath the new alignment of the Hume Highway, with a major power transmission line to the immediate south and the lagoonal topography to the immediate north. The significant gold intervals are shown in Table 2 (see next page).

6.3.2 Bells Flat Prospect

This prospect is located in a swampy area to the south of the Wet Lagoon prospect. The prospect was drilled to test for strike extensions of the acid volcanics found at the Wet Lagoon prospect. One diamond drill hole was completed. Unfortunately, the original assays for the hole, if indeed it was assayed, have not been located. The core was later re-assayed for gold, with the best results shown in Table 3.

Table 3. Bells Flat Prospect – Significant Gold Intervals

Hole Number	From	To	Interval (m)	Au (g/t)
BF1	320.0	323.1	3.1	0.52
and	326.1	329.2	3.1	0.79

Table 2. Wet Lagoon – Significant Gold Intervals

Hole	AMGE	AMGN	From	To	Interval (m)	Au (g/t)
WL14	724651	6144634	216.0	225.0	9.0	0.85
		including	222.0	223.5	1.5	3.10
WL15	724616	6144477	151.0	163.0	12.0	2.10
WL17	724633	6144338	51.0	58.4	7.4	1.10
			79.0	160.0	81.0	0.78
		including	83.0	93.0	10.0	3.60
WL18	724535	6144115	46.7	47.5	0.8	1.10
WL24	724655	6144310	45.0	48.8	3.8	2.55
		and	68.2	155.2	87.0	0.81
		including	70.5	75.8	5.3	5.75
		and	79.8	81.8	2.0	5.59
WL25	724760	6144610	140.5	143.5	3.0	0.36
WL26	724660	6144470	107.0	107.7	0.7	2.94
WL27	724625	6144230	30.0	74.0	44.0	0.30
		including	62.0	64.0	2.0	1.07
WL28	724652	6144385	25.9	168.0	142.1	0.89
		including	32.0	44.0	12.0	4.36
		and	55.0	62.0	7.0	2.24
		and	65.0	70.0	5.0	2.04
		and	89.8	91.8	2.0	5.21
		and	139.0	141.0	2.0	1.88
WL29	724512	6144100	60.0	85.0	25.0	0.54
		including	70.0	72.0	2.0	1.90
WL30	724580	6144230	89.0	105.0	16.0	1.52
		including	94.0	95.0	1.0	20.70
WL31	724705	6144310	16.2	164.6	148.4	0.97
		including	16.2	23.8	7.6	1.77
		and	23.8	30.8	7.0	8.97
		and	82.6	84.6	2.0	2.52
		and	125.3	127.3	2.0	9.67
WL32B	724570	6144345	119.0	160.0	41.0	0.47
		including	136.0	140.0	4.0	1.00
WL35	724593	6144400	17.3	187.3	72.8	0.37
		including	117.3	118.3	1.0	1.86
		and	147.4	148.4	1.0	4.68
		and	152.4	156.0	3.6	1.57

6.3.3 Hannan's Flat Prospect

Six diamond holes (BH1-BH6) were initially drilled at this prospect by Minland Mining to test a coincident IP and magnetic anomaly beneath thick alluvial cover. North drilled a further four diamond holes (BH7–BH10). The best results are shown in Table 4. Holes BH1, 3 and 5 were re-split and assayed for gold but returned no significant results.

An additional two diamond holes, BH11 and BH12 were drilled but the original results and logs have not been reported or located. CRAE re-logged these two holes and assayed for gold in selected zones with no significant results. The CRAE log of drill hole BH11 describes the existence of massive gossan with 50%-80% boxworks from 91.0-111.0m, and gossanous saccaroidal silty sandstone with 10%-20% boxworks from 135.5-146.5m. CRAE drilled one further hole (DD94BR1) beneath hole BH11, with no significant results. CRAE reported that they believed hole DD94BR1 passed beneath the target zone due to the unexpected steep dip of the geology and the resultant following of this angle by the drill hole.

Table 4. Hannan's Flat Prospect – Significant Intervals.

Hole	From	To	Interval (m)	Cu (ppm)	Pb (%)	Zn (%)
BH1	223.2	236.2	13.0	2000	1.55	2.53
BH2	200.0	200.3	0.3	520	Trace	1.15
BH4	190.0	192.9	2.9	1300	0.01	1.60
and	208.2	209.4	1.2	800	1.10	3.10
BH5	80.2	81.3	1.1	6600	1.50	11.00
and	81.8	83.1	1.3	340	0.55	3.70
and	84.4	85.0	0.6	210	0.06	
BH9	304.5	305.5	1.0	1300	0.10	2.60

6.3.4 Bohara Prospect

This prospect was initially defined by an IP anomaly identified in the early 1970's. It was later followed-up by North who completed auger drilling of the anomaly to a maximum depth of 30m. Values of up to 1.2% copper, 1.14% lead and 0.26% zinc were encountered. Two diamond holes were drilled to test the anomaly with the best intervals shown in Table 5. Drill hole BOH1 was also re-assayed for gold, but with no significant results.

Table 5: Bohara Prospect – Significant Intervals

Hole	From	To	Interval (m)	Cu ppm	Pb (%)	Zn (%)	Ag (ppm)
BOH1	68.6	71.6	3.0	2300	1.20	1.95	11.0
Incl.	65.0	66.0	1.0	1000	0.71	1.50	4.0
and	68.0	69.0	1.0	600	2.27	1.00	12.0
and	69.0	70.0	1.0	1000	0.58	1.50	17.0
and	71.0	71.6	0.6	900	1.17	1.30	19.0
BOH2	84.0	87.0	3.0	5200	0.67	2.85	18.0

6.3.5 Sweetwood Lea and Raeburn Prospects

These prospects are located to the east of Hannan's Flat Prospect. Diamond hole SL-1 was drilled to test an IP anomaly. Diamond hole RA1 was planned to test a magnetic anomaly, with diamond holes

RA2 and 3 planned to test airborne electromagnetic anomalies. The assay results for these holes have not been reported or the holes were not assayed.

6.3.6 B1 Prospect

This prospect is an old iron and copper mine. A total of seven diamond holes were completed at this prospect. B1/1 was designed to test a coincident copper-lead-zinc soil and rock chip anomaly and a strong SP anomaly. B1/2, B1/3 and B1/4 were designed to test a magnetic anomaly associated with the old workings. B1/5 and B1/6 were designed to test for possible strike continuation and dip extensions inferred from data mapped in the old iron pit. B1/7 was targeted at testing for a strike extension of the mineralisation encountered in B1/6. Significant intervals are shown in Table 6.

Table 6. B1 Prospect – Significant Intervals.

Hole	From	To	Int. (m)	Au (g/t)	Cu ppm	Pb ppm	Zn ppm	Ag ppm
B1/3	105.9	107.7	1.8	0.76				
also	106.2	108.6	2.4	0.24	1.06%	42	250	3.0
and	112.8	118.9	6.1	1.36				
B1/4	91.4	94.5	3.1	0.72				
B1/6	167.7	168.4	0.7		290	4400	1.08%	4.0
and	177.8	178.6	0.8	0.03	1.09%	60	185	9
and	183.3	183.8	0.5	0.02	1.10%	140	370	11
and	186.2	187.7	1.5	<0.1	1.65%	450	677	12.0

Re-logging of the core by CRAE identified a quartz porphyry unit in holes B1/4 and B1/2. CRAE drilled two 69m RC holes RC94BR2 and RC94BR4 south of the quarry to test this unit. However, no significant results were reported.

6.3.7 Gurrundah/Lucky Hit Prospects

These prospects comprise the Merrilla Copper Mine; Gurrundah Barite Deposit, Tauntons Mine and Lucky Hit Mine. These mines appear to lie on a north-northeast structural trend. Mineralisation at these mines includes barite, chalcopyrite, native copper and malachite.

After an initial series of 14 drill holes targeted to test for barite mineralisation but discovering anomalous copper-lead-zinc mineralisation, Lamadec followed-up with 8 drill holes. The best intervals are shown in Table 7.

Table 7. Gurrundah/Lucky Hit Prospects – Significant Intervals.

Hole	From	To	Interval (m)	Cu (%)	Pb (%)	Zn (%)	Ag (ppm)
DDH15	205.5	207.3	1.8	1.04		1.22	6.0
DDH17	47.2	48.8	1.6	0.40		1.32	24.0
and	52.8	53.6	0.8	1.61	0.98	5.00	35.0
and	59.4	61.7	2.3	1.34		3.12	23.7
DDH19	36.4	42.0	5.6	0.65		1.91	

Later, Marathon drilled several holes to test IP and UTEM anomalies and lode extensions beneath some of the old mines. One of these drill holes (G-30) was drilled beneath the Lucky Hit mine to test for extensions to the mineralisation. Better intervals are shown in Table 8.

A total of 23 RAB and RC holes have also been drilled at this prospect. The best intervals include drill hole LHP1, intersecting 2.0m@1.28% copper, 1000ppm lead and 4000ppm Zn from 30.0m.

Table 8. Lucky Hit mine – Significant Intervals

Hole	From	To	Interval (m)	Cu (%)	Pb (%)	Zn (%)
G-30	37.8	40.6	2.8	1.56		0.85
and	139.3	139.4	0.1	7.30	0.40	5.21
and	142.0	146.2	4.2	1.14		0.52

6.3.8 Greendale Prospect

Two diamond drill holes (DB1 and DB2) have been drilled at the Greendale prospect. DB1 was targeted on auriferous altered acid volcanics, recognized during earlier mapping and sampling. DB2 was sited to test a SIROTEM anomaly. Only assays of sludges were collected from hole DB1 (Table 9), whilst drill hole DB2 returned no significant results. Soil sampling was undertaken across the northern extension of the Greendale Prospect in an effort to define the continuation of the mineralisation intersected in hole DB1. The survey showed a weak lead anomaly extending northward from DB1 to the Breadalbane-Collector road.

Table 9. Greendale Prospect – Significant Intervals

Hole	From	To	Interval (m)	Cu ppm	Pb ppm	Zn (%)	Ag ppm
DB1	103	106	3	1500	5600	1.03%	2.0
	109	115	6	1160	5300	1.34%	1.5

6.3.9 B2 Prospect

Astley Consolidated Holdings Pty Ltd was the first company to drill this prospect and completed six diamond holes in the 1970's. The log for B2/1 has not been located, however, the company reported that the hole was designed to test a coincident geochemical and ground magnetic anomaly, intersecting a zone of magnetite and chalcopyrite. Hole B2/2 was designed to confirm a copper intersection in hole B2/1 and provide data on the dip and pitch of the mineralisation. The target of hole B2/3 is unknown but it reportedly intersected a zone of magnetite and chalcopyrite mineralisation, as in hole B2/1. Hole B2/4 was targeted to investigate the southerly and down pitch extensions of the magnetite–chalcopyrite body intersected in B2/1 and B2/3 and to test a SP anomaly. B2/5 was designed to test the termination of mineralisation intersected in B2/1, 3 and 4. B2/6 was designed to test the depth continuation of mineralized bodies defined by previous drilling.

During a later programme, North drilled four more diamond holes into this prospect. The target of drill hole B2/7 is unknown, as are the targets and assays for holes B2/8 and B2/9. Hole B2/10 was designed to test a pyritic mineralized chert outcropping within a geochemically anomalous zone between the B2 prospect and the Wet Lagoon prospect. The best intervals from these drilling programmes are shown in Table 10. North re-assayed selected zones in holes B2/2, B2/4, B2/5, B2/6, B2/7 and B2/10 for gold. There were no significant results.

Table 10. B2 Prospect – Significant Intervals

Hole	From	To	Interval (m)	Cu (%)	Pb (%)	Zn (%)	Ag ppm
B2/2	107.6	108.0	0.4	2.05			
	131.2	131.5	0.3	2.25			
B2/3	102.8	105.5	2.7	3.30			
	113.7	115.7	2.0	1.10			
B2/4	143.6	144.0	0.4	1.30			
	168.4	170.0	1.6	8.00			
	173.0	173.3	0.3	1.10			
B2/7	158.0	174.0	16.0	100ppm	0.52	1.07	2.0
Incl.	158.0	163.0	5.0	100ppm	1.18	2.31	3.0
B2/10	101.2	107.2	6.0	2600ppm	1.84	4.90	4.0

6.3.10 B3 Prospect

Continental Exploration Pty Ltd drilled three diamond holes into this prospect. Hole B3/1 was drilled to investigate the eastern mineralisation defined by strong SP and lead geochemical anomalies. Hole B3/2 was designed to test the western zone of gossan and SP and copper anomalies. Hole B3/3 was drilled to test the eastern lead and SP anomalies. The best intersection was in drill hole B3/2 (0.2m@1.0% copper from 78.4m).

6.3.11 Zone 14, 15 & 19

There were two holes drilled at Zone 14. Hole B14/1 was drilled to test an IP anomaly which extended over 800ft strike length (~230m). Best intervals are shown in Table 11.

Table 11. Zone 14 – Significant Intervals

Hole	From	To	Interval (m)	Cu ppm	Pb ppm	Zn (%)	Ag ppm
B14/1	278.7	279.7	1.0	530	600	2.95	5.0
	280.4	282.2	1.8	820	1500	2.48	10.0

The second hole B14/2 was designed to test an IP anomaly. The results of this hole are unknown. One diamond hole (B15/1) was drilled at Zone 15 to test a geochemical anomaly. No assays have been identified for this drill hole.

Two diamond holes were drilled at Zone 19. Hole B16/1 was drilled to test the western side of a broad zone of anomalous IP values that correlated with a geochemical anomaly. Hole B16/2 was drilled to test the eastern side of the IP anomaly. The better intervals are shown in Table 12.

Table 12. Zone 19 – Significant Intervals

Hole	From	To	Interval (m)	Cu ppm	Pb ppm	Zn (%)	Ag ppm
B16/1	92.6	93.2	0.6	220	1300	2.10%	15.0

Holes B14/1, B15/1 and B16/2 were later assayed for gold with no significant results reported.

6.4 Airborne Geophysics

During the reporting period, Michelago acquired the airborne magnetic and radiometric survey flown by CRAE and Astley Consolidated Holdings Pty Ltd in 1993 as well as the 1:250,000 Goulburn sheet airborne magnetic and radiometric data.

7. DISCUSSION

The previous data available suggests that the Breadalbane project tenement has a high potential to host both base metal and gold-copper mineralisation. For example, the indicated gold-copper deposit at the Wet Lagoon prospect, although development is hindered by the placement of post discovery infrastructure, shows the potential for the area to host economically viable mineral deposits. Previous mining histories also give an insight into this potential.

Previous companies have suggested that the mineralisation at the Wet Lagoon prospect may be a carbonate base metal-gold system related to a relatively distal intrusion source. The quartz porphyry identified by CRAE drilling at the B1 prospect provides evidence that such intrusive rocks are in the system and may therefore be related to the mineralisation at Wet Lagoon and perhaps at other, to date unidentified, prospects.

Testing for extensions to known mineralisation at prospects in the area has only been partially successful, but many of the drill holes were noted to have encountered difficulties. Michelago believes therefore that the potential for extensions to known mineralisation has not been exhaustively tested and their potential is still regarded to be significant to future exploration activities.

8. PROPOSED EXPLORATION

Michelago proposes to continue exploration at several prospects including the Wet Lagoon, Gurrundah/Lucky Hit and B1 prospects. It is proposed to conduct a programme of re-logging previous exploration drill holes, with an emphasis on re-interpretation of lithologies and recognition of alteration styles and structure. Re-assaying for gold may be required.

Field work will involve the systematic ground checking of previous mapping data, further geological mapping and reconnaissance and prospect level rock chip sampling. Follow-up of the high gold stream sediment (BLEG) anomalies determined in 1984 by the Electrolytic Zinc Company of Australia is also considered to be a priority.

9. EXPENDITURE

	EL5432
Item	**$**
Salaries & Contract Geology	36,591
Field Accommodation & Meals	5
Landholder Searches	72
Postage	14
Maps/Photos/Plan/Prints/Photocopying/Drafting/Publications/Stationery	564
Geophysics	1,230
Overheads (15%)	5,771
TOTAL	**44,247**

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EL 5432
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EL 1236

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P11 P27 P23 G27 P19 P5 BR71 BR70 P13 P12 P25 BR69 P24 P14 DDH21 DDH20 DDH19 DDH16A
P1 G26 DDH16 DDH17 DDH15 G32 LHP3 BR68 DDH24 G29 P17G30 P9 LH2 LHP P20 LHP2 LH1 G23 G26 G28 BR67 P4 G31
BR65 BR66
BR55 BR57 BR56 BR58 BR60 BR59 BR54 P3 P2
BR63 BR62 BR61 P7 P8 BR64 P6
BR53
B16/1 B16/2
BR51 BR52 B15/1 BR50 BR45 BR46 BR47 BR49 BR44 BR48 BR42 BR43
BR40 BR35 BR36 BR37 BR41 BR33 BR19 BR39 BR38 BR32 BR18 BR34 BR26 BR17 BR25 BR27 BR28 BR24 BR31 BR23 BR15 BR29 BR12 BR14 BR11 BR30 BR16 BR13
BR73 BR72
BH8 BH10 BH5 BH4 BH9 B14/1 SL1 BH1 BH6 BH7 BH2 B14/2 BH3
BR21 BR20 BR10 RA3 BR22 RA1 RA2 BR9 BR8 BH11 DD94BR1 BR7 BR6 BH12 B2/8 BR5
B1/1 B1/7 B2/2 B2/9 BR110 B1/4 B1/6 B2/1 BR108 BR109 B2/3 B1/5 B1/3 B2/6 B2/4 BR107 B1/2 B2/5 B2/7 RC94BR4 B2/10 WLP6 WL5 WLP7 RC94BR2 WL4 WLP10 WLP1 WLP2 WL10 BR106 WL1 WL2 WL8 BR105 WLP9 DB1 BR104 WLP5 WL3 BR103 DB2 WL6 WL16 WL9 WL19 WL13 WL11 WL20 WL21 RC94BR3 WL23 WL12 WL22 WL14 WLP4 WL7 WLP3 WL35 WL15 WL26 WL28 WL17 WL33 BR97 BR99 WL18 WL31 WL24 B3/3 BR96 WL32 B3/2 BR98 WL27 WL29 WL34 WL30 B3/1 BF1
BR90 BR95 BR94 BR84 BR92 BR91 BR102 BR101 BR89 BR93 BR86 BR100 BR85 BR88 BR87
BR83 BOH1 BR81 BR80 BR79 BR74 BR82 BR76 BR78 BR77

Key to Drill Holes / Prospects

BF	Bells Flat Prospect
BH	Hannans Flat Prospect
BOH	Bohara Prospect
BP	Boileau Prospect
BR	CRA Exploration RAB Drilling
B1	B1 Prospect
B2	B2 Prospect
B3	B3 Prospect
B14	Zone 14
B15	Zone 15
B16	Zone 16
DB	Greendale Prospect
DDH	Gurrundah Prospect
DD94BR	CRA Exploration Diamond Drilling
G or P	Gurrundah / Lucky Hit Prospect (G=Diamond, P=Percussion)
LH	Lucky Hit Prospect
P2,3	Thompson's Prospect
P6,7,& 8	Merrilla Prospect
RA	Raeburn Prospect
RC94BR	CRA Exploration RC Drilling
SL	Sweetwood Lea Prospect
WL	Wet Lagoon Prospect

AMG Nth
14° Mag Nth

0 1 2 3 4 5 cm

1 kilometre

Michelago Resources NL

BREADALBANE PROJECT
EL's 5432 & 1236
Enhanced Magnetic Image
and
Previous Drill Holes

Date:30-03-1999	AMG Zone 55(AGD 66)	finalholesmag.cdr/001K
Scale:1:25 000		PLAN 1