



Northern Gold NL

ACN: 009 620 937
Lot 128 Finlay Rd, ADELAIDE RIVER, N.T. 0846
Phone: 08 89767023 Fax: 08 89767025

EL 8887 1999/2000 ANNUAL REPORT

08/11/99 to 07/11/00

Margaret River (14/2-I) 1:50,000 scale map sheet

Title Holders: Northern Gold N.L. and Camelot Northern
Territory Ltd.

Managed by: Northern Gold N.L.

November 2000

Distribution

NTDME

Northern Gold N.L., Adelaide River

Northern Gold N.L., Perth Office

Compiled by:-

N. Mottram

Essential Data Services, W.A.

OPEN FILE

CR2000-0407

SUMMARY

EL 8887 is located approximately 35 kilometres east northeast of Adelaide River, north of the Great Northern alluvial workings on the Margaret River floodplain, on the Margaret (14/2-I) 1:50,000 scale map sheet.

Previous exploration completed by Northern Gold N.L. included RAB drilling and reconnaissance soil sampling program. The RAB drilling program was carried over the southern and north-western blocks of the tenement. A follow up reconnaissance soil sampling program was completed, infilling and extending the area inaccessible to the RAB drilling. Both programs returned background to low order Au anomalism. MMI geochemical soil sampling programs, completed during the period 1996 to 1999, outlined low order black soil Au anomalies coincident with the anomalous RAB drill results.

EL 8887 was granted to Northern Gold N.L. (50%) and Camelot Northern Territory Ltd. (50%) on the 8th of November 1994, for a period of four years. A waiver of reduction was granted on the 11th of December, 1996, and again on the 26th of March, 1998, enabling 3 blocks to be retained until the 7th of November, 1998. The licence was renewed in November, 1998, and again in October, 2000, for periods of expiring on the 7th of November, 2002.

During the 1999/2000 exploration season, Northern Gold N.L. contracted Arnhem Exploration Services to complete an infill soil sampling program over EL 8887.

Samples, consisting of approximately 4 kilograms of soil, sieved to a -5 millimetre size fraction, were collected on 50 metre centres along two, 200 metre spaced lines. A total of 39, B-horizon, soil samples, including duplicates, were submitted to Assaycorp, in Pine Creek, for low level analysis of Au, and analysis of Ag, As, Cu, Pb and Zn by G400M/MA4/ICP-MS technique. The peak values returned were 7 ppb Au, with a repeat analysis of 11 ppb Au, (Sample No. 60031, 8541525N : 762994E) and 4 ppb Au (Sample No. 60032, 8541525N : 763044E).

Geological mapping and further MMI geochemical soil sampling are required to further investigate the source of the soil anomalism.

The covenant for the 1999/2000 year of tenure was \$7,750 and the expenditure totalled \$7,775.

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1.0 INTRODUCTION

EL 8887 is located approximately 35 kilometres east northeast of Adelaide River, north of the Great Northern alluvial workings on the Margaret River flood plain, on the Margaret (14/2-l) 1:50,000 scale map sheet. The licence consists of 3 graticular blocks, 10 square kilometres in area, lying between latitudes 13°09' south and 13°11' south and longitudes 131°24' east and 131°26' east (Figure 1). EL 8887 is situated within Pastoral Lease No. 718, Mount Ringwood, held by W. E. and V. J. Moon.

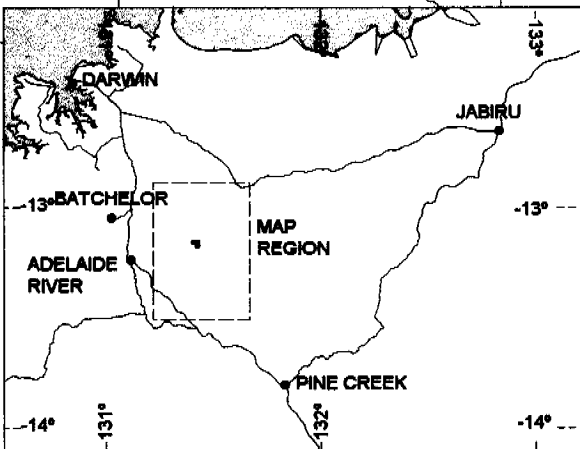
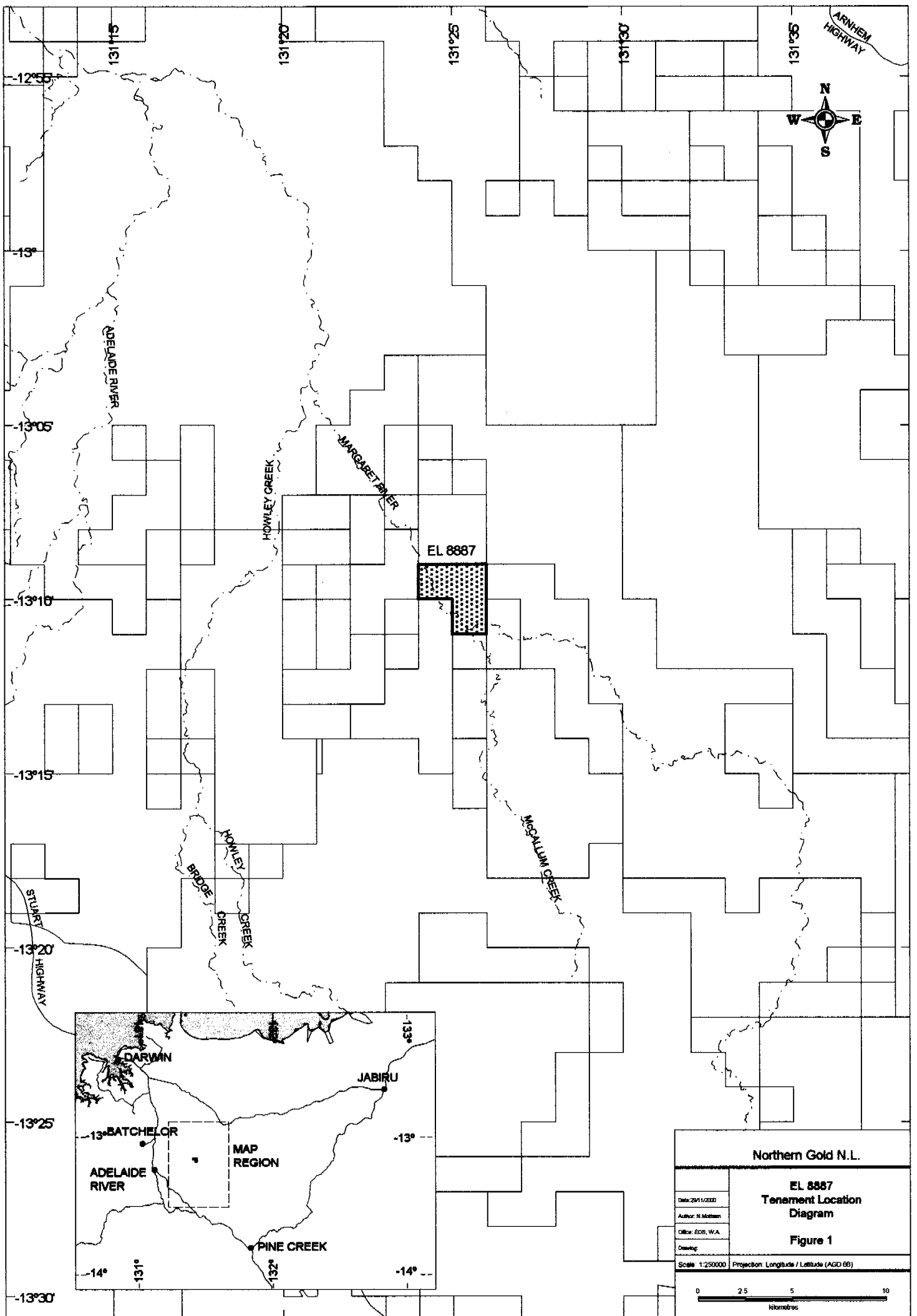
The area is accessed via the Stuart Highway, then along the Mount Ringwood Station road. Various station tracks and fence lines access the tenement from the homestead road.

EL 8887 was granted to Northern Gold N.L. (50%) and Camelot Northern Territory Ltd. (50%) on the 8th of November 1994, for a period of four years. A waiver of reduction was granted on the 11th of December, 1996, and again on the 26th of March, 1998, enabling 3 blocks to be retained until the 7th of November, 1998. The licence was renewed in November, 1998, and again in October, 2000, for periods of expiring on the 7th of November, 2002.

During the 1999/2000 exploration season, Northern Gold N.L. contracted Arnhem Exploration Services to complete an infill soil sampling program within the southern block of EL 8887, targeting previously defined gold and arsenic anomalism.

Samples, consisting of approximately 4 kilograms of soil, sieved to a -5 millimetre size fraction, were collected on 50 metre centres along two, 200 metre spaced lines. A total of 39, B-horizon, soil samples, including duplicates, were submitted to Assaycorp, in Pine Creek, for low level analysis of Au, and analysis of Ag, As, Cu, Pb and Zn by G400M/MA4/ICP-MS technique.

The covenant for the 1999/2000 year of tenure was \$7,750 and the expenditure totalled \$7,775.



Northern Gold N.L.	
EL 8887 Tenement Location Diagram	
Figure 1	
<small>Date: 29/1/2000</small>	
<small>Author: N. Mottram</small>	
<small>Office: EDS, W.A.</small>	
<small>Drawing:</small>	
<small>Scale: 1:250000</small>	<small>Projection: Longitude / Latitude (AGD 66)</small>

2.0 GEOLOGY

2.1 Regional Geology

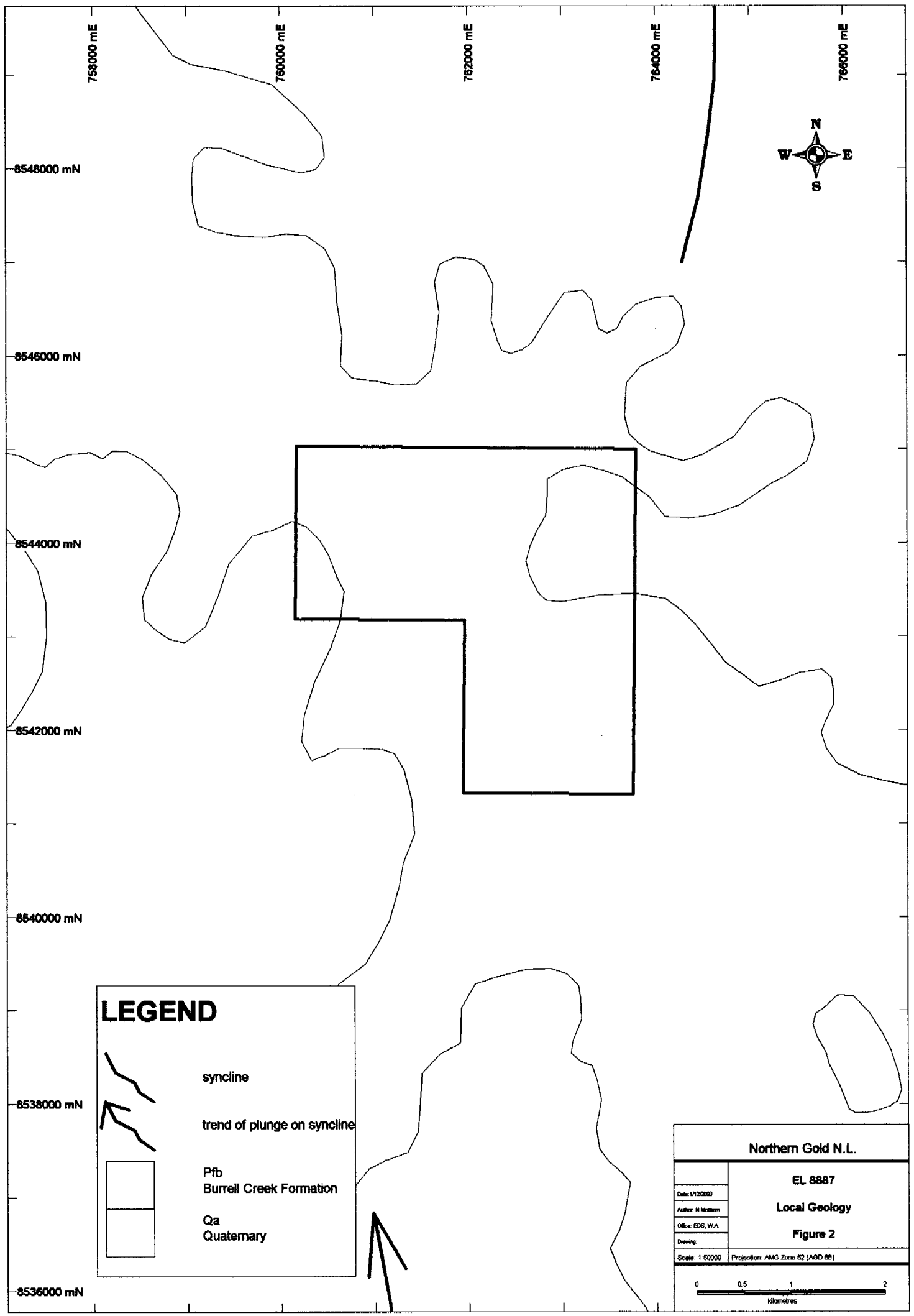
EL 8887 is situated within the Pine Creek Geosyncline, a tightly to isoclinally folded sequence of mainly pelitic and psammitic (continental to shallow water) Lower Proterozoic sediments with interlayered tuff units. All the lithologies in the area have been metamorphosed mostly to low and in places medium grade metamorphic assemblages. For the purposes of this report the prefix "meta" is implied, but omitted, from rock names and descriptions (Socic, 1997).

The sequence has been intruded by pre-orogenic dolerite sills and a number of late syn-orogenic to post-orogenic Proterozoic granitoids. Largely undeformed Middle and Late Proterozoic, Palaeozoic and Mesozoic strata, as well as Cainozoic sediments and laterite overlie the Pine Creek Geosyncline lithologies (Socic, 1997).

2.2 Local Geology

The tenement lies within the Margaret River and McCallum Creek flood plains, and therefore is almost entirely covered by black soil and alluvium (Socic, 1997).

Underlying lithologies are interpreted to be Finniss River Group metasediments of the Burrell Creek Formation (Figure 2). Exposures of feldspathic greywacke, shale, slate, phyllite and siltstone are limited to a ridge in the northeast, and to a low group of ridges near the western boundary of the tenement (Socic, 1997).



758000 mE

760000 mE

762000 mE

764000 mE

766000 mE

8548000 mN

8546000 mN

8544000 mN

8542000 mN

8540000 mN

8538000 mN

8536000 mN



LEGEND



syncline



trend of plunge on syncline



Pfb
Burrell Creek Formation

Qa
Quaternary

Northern Gold N.L.	
EL 8887	
Local Geology	
Figure 2	
Date: 1/2/2000	
Author: H. Maitland	
Office: EDS, W.A.	
Drawing:	
Scale: 1:50000	Projection: AMG Zone 52 (AGD 66)

3.0 PREVIOUS EXPLORATION

EL 8887 covers the ground north of the Great Northern historical alluvial sites, which were worked at the turn of the century. Geopeko, W. R. Grace Australia Ltd. and Oceania Exploration have undertaken systematic exploration of the area since the early alluvial mining period.

In the 1994/95 exploration season Northern Gold N.L. completed a regional RAB drilling program and a reconnaissance soil sampling program.

Regional RAB drilling over the southern and northwestern blocks of EL 8887 was conducted during July and August, 1995.

A total of 192 holes were drilled for 1,376 metres, with an average hole depth of 7 metres. All holes were drilled vertically at 50 metre spacings along five, 400 metre spaced lines. Composite samples were collected at every second metre, and for holes with uneven depths, a single metre sample was taken at the last metre. All samples were submitted to Assaycorp, in Pine Creek, for low level fire assay Au and As analysis (Slade, 1995).

Widespread, background to low level Au and As anomalism was encountered. The two highest Au values were 497 ppb in the last metre of hole WH43, and a similarly isolated spot value of 162 ppb 7 metres deep in hole WH192 (Slade, 1995).

A reconnaissance soil sampling program was completed, infilling and extending the areas inaccessible to RAB drilling. Samples were collected every 25 metres and composited to 50 metres along three, 400 metre spaced lines. A total of 25, -6 millimetre size fraction, samples were collected and submitted to Assaycorp for 50 gram quartz flush, low level fire assay Au and As analysis (Slade, 1995).

No significant results were returned from the soil sampling program on EL 8887 (Slade, 1995).

During the 1995/96 field season Northern Gold N.L. completed a work program involving digital data acquisition and manipulation. Landsat Imagery, SPOT Imagery and AGSO mapping were obtained and used in conjunction with aerial mapping and site visits to determine the best method of gold exploration to be used on the licence (Socic, 1996).

GIS and satellite imagery were used to log soil types and to interpret the structural geology of the region.

Northern Gold N.L. also purchased multiclient aerial geophysics from World Geoscience. The data covered areas not previously held by Northern Gold N.L.

The results of the geophysics were used primarily as imaged processed data for regional interpretation of exploration concepts (Socic, 1996).

During the 1996/97 field season, Northern Gold N.L. completed an MMI geochemical soil sampling program based on previous digital data interpretations.

The MMI geochemical soil sampling program targeted an anomalous gold zone, with results up to 162 ppb Au, identified by a RAB drilling program in 1995. The soil sampling program was completed over two lines, 500 metres in length. A total of 43 samples, including duplicates, were collected at 25 metre intervals and submitted to Amdel for Au, Ag, Pd, Ni and Co analysis using WAM 'B' digest method (Socic, 1997).

The results returned from the sampling program were generally disappointing. The highest result obtained was 0.55 ppb Au (Sample No. 188907, 8541725N : 762844E). The MMI geochemical soil sampling results are reported in Socic, 1997.

During the 1997/98 field season, Northern Gold N.L. completed an MMI geochemical soil sampling program and a comprehensive literature review of all exploration completed within the licence area (Mottram, 1998).

The review comprised the collection of all available exploration data within the Mount Ringwood area, at the Northern Territory Department of Mines and Energy. The data collected included stream, soil, rock chip, costean, RAB, RC and diamond collar location and assay information. This data was incorporated within Northern Gold N.L.'s database to be used within both Mapinfo and Micromine (Mottram, 1998).

The MMI geochemical soil sampling program targeted the northwestern extensions of the previously identified RAB/MMI anomaly, along the interpreted Pine Creek Shear Corridor (Mottram, 1998).

The soil sampling program was completed over three, 400 metre spaced lines. A total of 54 samples, including duplicates, were collected at 50 metre intervals and submitted to Amdel for Au, Ag, Pd, Ni and Co analysis using WAM 'B' digest method. The results returned outlined low order north-west extensions of the black soil Au anomaly, coincident with the anomalous RAB drill results. The highest result obtained was 0.83 ppb Au (Sample No. 189810, 8542520.5N : 762406E). This work is reported in Mottram, 1998.

Northern Gold N.L. completed further infill MMI geochemical soil sampling over the southern block of the licence, during the 1998/99 year of tenure.

Samples were collected on 50 metre centres along three, 400 metre spaced lines. A total of 62, 'B' horizon, soil samples, including duplicates, were submitted to Amdel Laboratories Ltd., in Perth, for analysis of Au, Ag, Ni, Co, and Pd, using WAM 'B' MMI technique, analysis of Cd, Cu, Pb and Zn by WAM 'A' MMI method, and analysis of Au, Pt, Pd, Cu, Pb, Zn, Ag, As, Ni, U, Co, Cd, Bi, Mo, Sb, Ti, Se, Te, Ce, La, Nb, Nd, W, Y and Zr using Deep Leach 11 (IC8/11) analytical method (Mottram, 1999).

The soil sampling returned low order results, with a maximum value of 0.88 ppb Au (WAM 'B', Sample No. 191201, 8542325N : 762955E), consistent with results from previous programs, outlining low tenor northwest trending black soil anomalies. Similar, but slightly higher, results over the same trend were returned for the Deep Leach 11 method, with the peak result being 3.18 ppb Au (IC8/11, Sample No. 191201, 8542325N : 762955E). This work is reported in Mottram, 1999.

4.0 1999/2000 EXPLORATION COMPLETED

During the 1999/2000 exploration season, Northern Gold N.L. contracted Arnhem Exploration Services to complete an infill soil sampling program over EL 8887.

4.1 Infill Soil Sampling Program

The infill soil sampling program was completed over the southern block of the licence, targeting previously defined low level gold and arsenic anomalism.

Samples, consisting of approximately 4 kilograms of soil, sieved to a -5 millimetre size fraction, were collected on 50 metre centres along two, 200 metre spaced lines. A total of 39, B-horizon, soil samples (Sample Nos 60001 - 60039), including duplicates, were submitted to Assaycorp, in Pine Creek, for low level analysis of Au, and analysis of Ag, As, Cu, Pb and Zn by ICP-MS technique. The analytical methods and detection limits are listed in Table 1. The sample locations are shown on plan in Figure 3 and presented in Appendix 1.

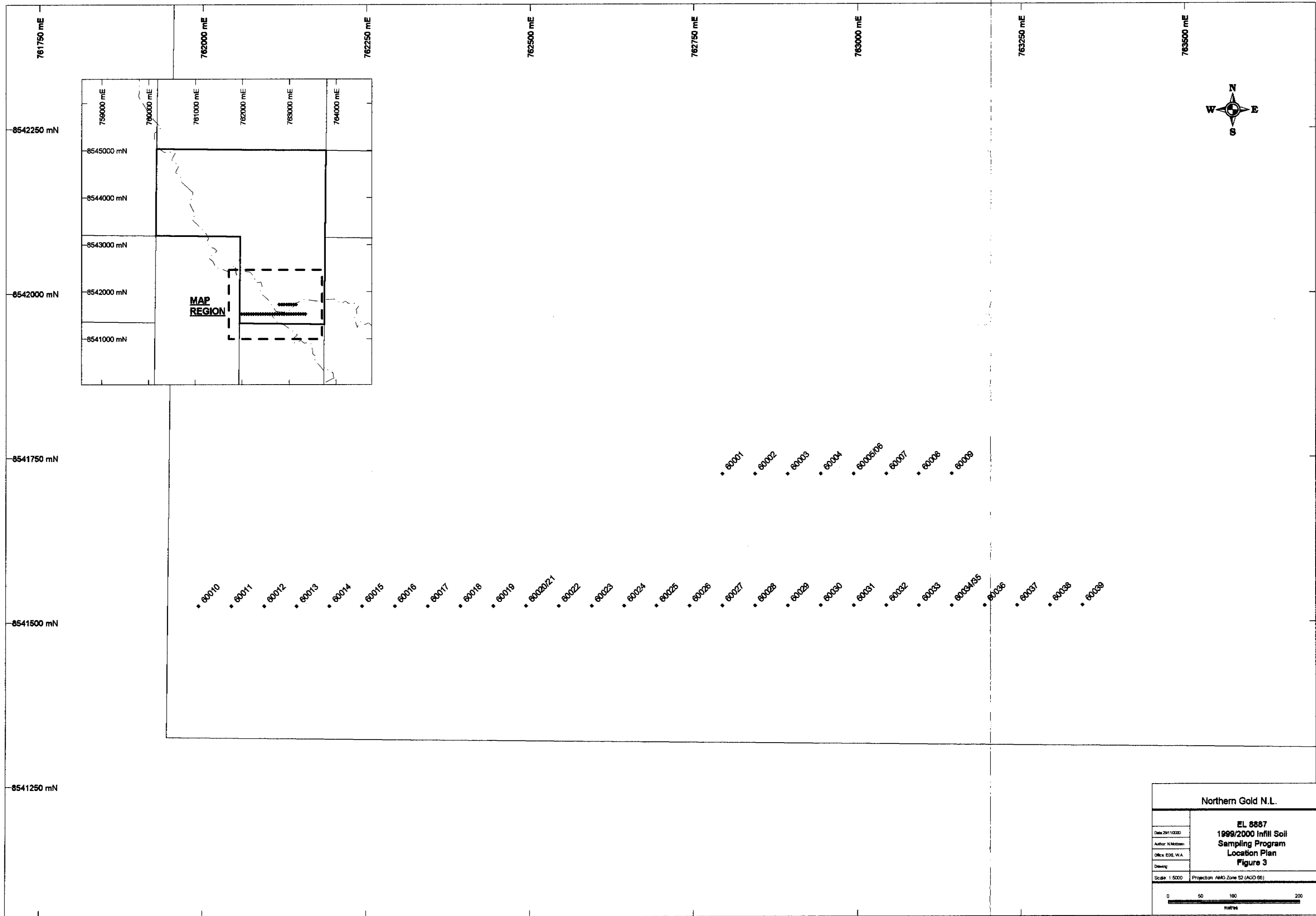
Table 1 Infill Soil Sampling Program Analytical Methods and Detection Limits

Element	Analytical Method	Digest	Technique	Detection Limit	Units
Au	FALL	FA	AAS	1	ppb
Au(R)	FALL	FA	AAS	1	ppb
Ag	G400M	MA4	ICP-MS	0.05	ppm
As	G400M	MA4	ICP-MS	0.5	ppm
Cu	G400M	MA4	ICP-MS	0.2	ppm
Zn	G400M	MA4	ICP-MS	0.5	ppm
Pb	G400M	MA4	ICP-MS	0.2	ppm

4.1.1 Infill Soil Sampling Program Results

The soil sampling program returned disappointing results. The peak values returned were 7 ppb Au, with a repeat analysis of 11 ppb Au, (Sample No. 60031, 8541525N : 762994E) and 4 ppb Au (Sample No. 60032, 8541525N : 763044E).

The results from the soil sampling program are presented in Appendix 1.



Northern Gold N.L.	
Date: 29/1/2000 Author: N.McKinnon Office: EDS, W.A. Drawing:	EL 8887 1999/2000 Infill Soil Sampling Program Location Plan Figure 3
Scale: 1:5000	Projection: AMG Zone 52 (AGD 66)

5.0 1999/2000 EXPENDITURE

Expenditure over EL 8887, during the 1999/2000 year of tenure, totalled \$7,775. Details of this expenditure are listed below as Table 2.

Table 2 EL 8887 1999/2000 Expenditure

<u>COSTS</u>	<u>AMOUNT</u>
Report and Plan Preparation	280
Tenement Management	200
Data Review	80
Assays	850
Consumables	65
Geological Contractors	395
Motor Vehicle Expenses and Fuel	225
Casual Wages	2,370
Salaries	2,015
Subtotal	6,480
Administration @ 20%	1,295
TOTAL	<u>\$7,775</u>

6.0 2000/01 PROPOSED WORK PROGRAM

The proposed work program for the 2000/01 year of tenure will include geological mapping, MMI geochemical soil sampling and assaying.

The programs will be completed over the southern area of the licence to further define the previously identified gold and arsenic anomalism.

An estimation of the cost of these programs is listed in Table 3.

Table 3 EL 8887 2000/01 Proposed Work Program

<u>COSTS</u>	<u>AMOUNT</u>
MMI Soil Sampling	2,000
Assaying	2,000
Geological Mapping	500
Data Compilation, Reporting, etc.	1,000
TOTAL	<u>\$5,500</u>

7.0 REFERENCES

- MOTTRAM, N., (1998). EL 8887 1997/98 Annual Report, 08/11/97 to 07/11/98. Unpublished report by Northern Gold N.L. for the NTDME.
- MOTTRAM, N., (1999). EL 8887 1998/99 Annual Report, 08/11/98 to 07/11/99. Unpublished report on behalf of Northern Gold N.L. for the NTDME.
- SLADE, T., (1995). EL 8887, Annual Report to 7th December 1995. Unpublished report by Northern Gold N.L. for the NTDME.
- SOCIC, N., (1996). EL 8887 1995/96 Annual Report, 08/11/95 to 07/11/96. Unpublished report by Northern Gold N.L. for the NTDME.
- SOCIC, N., (1997). EL 8887 1996/97 Annual Report, 08/11/96 to 07/11/97. Unpublished report by Northern Gold N.L. for the NTDME.

APPENDIX 1

1999/2000 Infill Soil Sampling Program Locations and Assay Results

Sample No.	AMG52 North	AMG52 East	Au ppb	Au(R) ppb	As ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
60001	8541725	762794	L		15.7	28.4	23.3	34.8	0.11
60002	8541725	762844	L		20.4	36.2	26.4	36.7	0.1
60003	8541725	762894	L	L	24.3	27.4	21.4	26.5	0.11
60004	8541725	762944	L		11.6	26.3	22.8	26.9	0.09
60005	8541725	762994	3		25.8	34.3	25.1	34.4	0.09
60006	8541725	762994	2		27.5	35.5	25.5	36.5	0.1
60007	8541725	763044	1		18.5	32	21.3	43.8	0.09
60008	8541725	763094	L		13.2	25.8	22.1	59.5	0.08
60009	8541725	763144	L		19.4	26.8	23.8	39.5	0.09
60010	8541525	761994	1		7.7	21.2	18.6	19.9	0.19
60011	8541525	762044	L	L	19.4	29.4	22.3	21.9	0.1
60012	8541525	762094	2		17.1	35.2	23.7	26.2	0.12
60013	8541525	762144	3		12	32.3	22.8	25.7	0.12
60014	8541525	762194	2		23.3	38.6	25.5	27.6	0.12
60015	8541525	762244	L	L	12	33.5	24	26.5	0.12
60016	8541525	762294	L		29.5	48.1	28.9	33.2	0.11
60017	8541525	762344	L		23.9	45.1	29.3	36.7	0.11
60018	8541525	762394	L		14.3	44.6	29.8	36.7	0.13
60019	8541525	762444	L		16.1	47.2	32.8	36.7	0.14
60020	8541525	762494	L		12.4	37.1	32.8	30.7	0.11
60021	8541525	762494	L		11.9	37.3	33.5	30.8	0.11
60022	8541525	762544	L		15.4	44.9	30	34.7	0.11
60023	8541525	762594	2		18.1	45.2	31.8	36.8	0.19
60024	8541525	762644	L		9	31.3	28.1	32.2	0.11
60025	8541525	762694	L		8.9	27.5	26.1	32.4	0.11
60026	8541525	762744	1		11.4	32.6	25.9	30.4	0.1
60027	8541525	762794	2		15.8	37	27.2	34.6	0.1
60028	8541525	762844	1		17.4	41.3	26.6	36.3	0.09
60029	8541525	762894	L		21	40.5	25.9	36.4	0.1
60030	8541525	762944	1		18.1	38.1	25.6	40.4	0.08
60031	8541525	762994	7	11	20.8	21.6	20.8	39	0.11
60032	8541525	763044	4		21	26.2	22.4	41.9	0.09
60033	8541525	763094	2		34	43.6	30	50.5	0.09
60034	8541525	763144	2		23.1	41.2	23	39.5	0.08
60035	8541525	763144	2		21.3	40.1	22	39.6	0.12
60036	8541525	763194	L		18.5	35.2	30.1	38	0.13
60037	8541525	763244	L		25.3	47.4	30.3	55.5	0.13
60038	8541525	763294	L		37.3	45	30.5	44.7	0.12
60039	8541525	763344	L		12.3	27.4	19.6	27.2	0.14