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EL 8170
1997 ANNUAL REPORT

16.7.96 - 15.7.97

McKinlay River and Pine Creek
1:100,000 Map Sheet

Title Holders:- Territory Goldfields N.L.
Managed by:- Northern Gold N.L.

July 1997

Author:- L. Cahir

NTDME

Northern Gold N.L., Adelaide River

Northern Gold N.L., Perth Office

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1.0 SUMMARY

The licence area contains low-grade metasediments and metavolcanics of Palaeoproterozoic age which have been folded strongly and intruded extensively by pre-orogenic dolerite. The area has potential for gold mineralisation, particularly of the large tonnage, low grade type in quartz stockworks or complex vein systems. While no specific gold occurrences or old workings are known, small tin, manganese (-iron) and lead (-zinc) vein-type deposits do occur and appear to be fault-controlled (Fawcett, 1995).

During the 1995/96 year of tenure, Northern Gold N.L. completed a work program based on the acquisition and manipulation of digital data, and a regional soil sampling program. The soil sampling program was conducted over eleven 200 metre spaced lines, each line being 800 metres in length. A total of 312 samples were collected. The results were disappointing, with the highest value returned being 5 ppb Au (Socic 1996).

During September Northern Gold N.L. completed a soil sampling program over a domal dolerite structure within the Gerowie Tuff three kilometres to the north west of the Watts Creek north program. The program returned a weak, but coincident lead/zinc and arsenic anomaly with peak spot values to 136 ppm Pb, 234 ppm Zn and 46 ppm As. No anomalous values were obtained for gold.

The licence was granted to Northern Territory Gold Mines N.L, on 16/7/93 for a period of six (6) years. EL 8170 is held by Territory Goldfields and managed by Northern Gold N.L.

The covenant for the 1996/97 year of tenure is $9,000 while the expenditure totaled $12,157.

2.0 LOCATION AND TENURE

EL 8170 is located approximately 190 kilometres south-east of Darwin and 50 kilometres north-northwest of Pine Creek on the Mount Masson and Union Reef 1:50,000 map sheets (Figure 1).

Access is via the Stuart Highway, then via unsealed road adjacent to the old railway line to Burrundie Siding then north via unsealed road and pastoral tracks. The licence lies wholly within the Ban Ban Springs Perpetual Pastoral Lease 1111 (NT Portions 695 & 1344).

EL 8170 originally consisted of 42 graticular blocks and was granted to Northern Territory Gold Mines N.L. on 16 July 1993 for a period of six years. Due to compulsory relinquishment, the tenement now consists of 21 blocks, 67 square kilometres in area, lying between latitudes 13°15' south and 13°32' south and longitudes 131°45 east and 131°47' east.

The tenement is held by Territory Goldfields N.L., and managed by Northern Gold N.L.

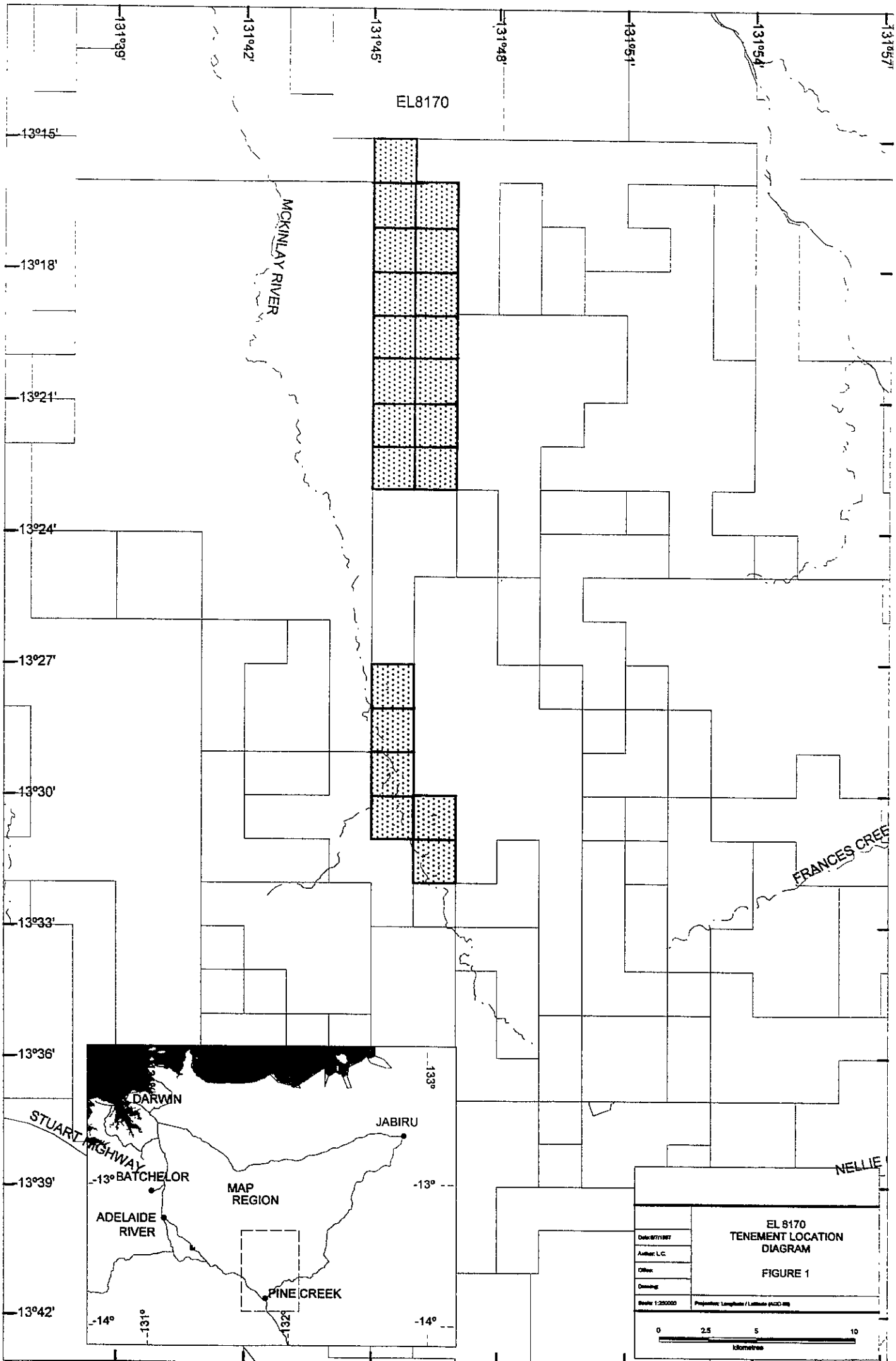
The covenant for the 1996/97 year of tenure was $9,000.

3.0 GEOLOGY

3.1 Regional Geology

EL 8170 is situated within the Pine Creek Geosyncline, a tightly to isoclinally folded sequence of mainly pelitic and psammitic Lower Proterozoic sediments with interlayered tuff units. All the lithologies in the area have been metamorphosed to low, and in places, medium grade, metamorphic assemblages. For the purpose of this report, the prefix meta- is implied, but omitted from the rock names and descriptions.

The sequence has been intruded by pre-orogenic dolerite sills of the Zamu Dolerite and a large 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 laterites, overly the Pine Creek Geosyncline.


EL8170
131°39'
131°42'
131°45'
131°48'
131°51'
131°54'
131°57'
13°15'
13°18'
13°21'
13°24'
13°27'
13°30'
13°33'
13°36'
13°39'
13°42'
MCKINLAY RIVER
FRANCES CREE
NELLIE
DARWIN
STUART HIGHWAY
JABIRU
BATCHELOR
ADELAIDE RIVER
PINE CREEK
MAP REGION
-13°
-14°
131°
132°
133°
EL 8170
TENEMENT LOCATION DIAGRAM
FIGURE 1
0
2.5
5
10
kilometres

3.2 Local Geology

The licence area is made up of units of the South Alligator and Mount Partridge Groups. These include the Wildman Siltstone, Koolpin Formation, Gerowie Tuff and Mount Bonnie Formation. The Zamu Dolerite intrudes this sequence.

All units have undergone tight to isoclinal folding about north-northwest - south-southeast axes which are sub-horizontal and plunge mainly to the north.

Both bedding and cross faulting have deformed the units.

4.0 PREVIOUS WORK

The Mount Wells Tin Mine to the west of the southern portion of the licence area was discovered in 1879 and worked intermittently until 1929, with a recorded production of approximately 100,000t grading 1% Sn. The Mount Wells Battery was established in 1961 to aid mining in the Pine Creek district. The battery was upgraded and sold in 1981 to Jingellic Minerals NL. Ownership of the mine and facilities passed to Territory Resources in 1983 (Fawcett, 1995).

The Rosemary Tin Mine is situated in the central part of the licence. Six core holes were drilled by the Northern Territory Geological Survey which downgraded its potential (Fawcett, 1995).

The multi-client high resolution, airborne geophysical survey flown by Aerodata in 1988 (with additions in 1991 and 1992) unfortunately covers only the southern portion of the licence area.

Detailed mineral exploration has been undertaken by many title holders. The highlights of previous exploration are summarised below, and given in Fawcett, 1995,:

ATP 2226 "Mary River Joint Venture" - Australian Geophysical Pty Limited Kenneth McMahon and Partners Pty Limited (1969).

- Extensive radiometric surveying plus follow-up stream-sediment and soil geochemistry.
- Widespread, low-order Pb soil anomaly on MD grid.
- Narrow anomalous Pb zones associated with Adam Creek Fault.

EL351 - Central Pacific Minerals N.L., Pietsch (1973)

- Soil and rock geochemistry for Sn mostly to the south of Jessops Tin Mine

EL947 - Comalco Limited Chaku (1975)

- Stream-sediment sampling of McKinlay River and tributaries for Au (pan concentrates).
- No anomalous samples in streams draining present licence area.

EL 1296, 1592 - Occidental Minerals Corporation of Australia, Swingler (1979)

- High-resolution airborne magnetic and radiomagnetic survey for uranium at contact between Palaeoproterozoic and Mesoproterozoic rocks in Mount Douglas area.
- Follow-up stream-sediment geochemistry produced Pb and As anomalies associated with the Koolpin Formation, none of which was deemed significant.
- Most exploration to near north and west of present licence area.

EL 3121 - Aquitaine Minerals Pty. Ltd. and International Nickel Australasia Limited, D'Auvergne (1982).

- Unsuccessful follow-up of stream-sediment geochemistry of Occidental Minerals Corporation of Australia over same areas.

EL 4759 - Kable Resources Pty. Ltd. and Dominion Mining Limited, Burn (1988).

- Extensive costeaning to north-northwest and south-southeast of old Watts Creek alluvial diggings by Kable plus follow-up mapping, sampling and reverse circulation drilling by Dominion of low-grade, stockwork - type Au mineralisation.
- Southern Stockwork Zone (SSZ), Watts Creek North and Watts Creek South prospects.

EL 4944 - BP Australia Gold Pty Ltd., Walker (1989)

- Followup to earlier BLEG sampling by Kennecott Explorations (Australia) Ltd.
- Four prospects, Hill 5, Hill 156, Central Anomaly and L82185 Anomaly delineated.
- Hill 5 prospect received detailed mapping plus gridding, costeaning and induced polarisation survey followed by reverse circulation drilling (5 holes with best intercept being 6m of 6 ppm Au).
- Elevated As values associated with Hill 5 and Hill 156 prospects.
- Surface samples of quartz or quartz-haematite veins with values to 0.4 ppm Au.

EL 5139 (Douglas Creek East) Dominion Mining Limited, Curnow and Tyson (1990).

- BLEG, silt and pan-concentrate stream-sediment plus rock geochemistry.
- No significantly anomalous values.
- Initially part of Golden Dyke Joint Venture with Peko Wallsend Operations Limited.
- Most emphasis on Middle Koolpin Formation.

EL 5140 (Douglas Creek West) - Dominion Mining Limited, Burn (1989).

- As for EL 5139
- BLEG stream-sediment values to 6.5 ppb Au.

EL 5512 - Geopeko, Sowerby (1990)

- BLEG stream-sediment anomaly associated with faulted anticline of Koolpin Formation.
- Followup to earlier work by Electroytic Zinc Company of Australasia Ltd and Norgold Ltd.
- BLEG values to 22.0 ppb, soil values to 106 ppb, rock values to 0.33 ppm.

EL 5534 - Union Reefs Gold N.L., Mulroney (1991)

- Mapping and rock sampling for Au.
- Several weakly anomalous samples.

EL 5548 - Eastern Gold NL, Vakel (1989)

- Anomalous As and Zn but no anomalous Au rock geochemistry.
- Two quartz-vein systems evaluated.

EL 6095 (Mount Douglas) - Geopeko, Sowerby (1990)

- BLEG stream-sediment geochemistry with background levels only.

EL 6143 - Trescabe Pty. Ltd; Geopeko, Sowerby (1990).

- Extensive soil sampling to south and east of Rosemary Tin Mine.
- Exploration led to the mining of the small Touhys North and South Au deposits in ironstones developed above fine-grained, sulphidic metasediments.

EL 6184 - Wyrala Pty Ltd, Mining Management Services Pty Ltd (1990).

- Rock sampling in Mount Harris Tinfield.
- Moderate As anomalies associated with gossanous, quartz-veined siltstone.

EL 6185 (Watts), 6186 (Masson) - Riomin Australia Gold Limited, Penney (1990).

- Earlier work by BP Australia Gold Pty Limited also relates.
- BLEG and silt stream-sediment geochemistry plus follow-up rock-geochemistry.
- Several values greater than 3 ppb Au plus one rock value of 1.6 ppm (latter from fine-grained metasediment containing pyrite and arsenopyrite) in EL 9185.
- BLEG values less than 2 ppb Au in EL 6186; also one rock value of 0.12 ppm Au.

EL 6444 (Frances Creek) - Billiton Australia, Machay (1991).

- BLEG stream-sediment geochemistry with values less than 5 ppb Au.
- One rock sample with 0.17% Zn.

Territory Goldfields carried out research of all available geological and exploration - related data. Acquisition and digitising of colour aerial photography for the McKinlay River project area was also completed (Fawcett, 1995).

Northern Gold N.L. completed a work program based on digital data acquisition and manipulation. Landsat Imagery, SPOT Imagery and AGSO mapping were obtained and used in conjunction with aerial mapping to determine the best method of exploration to be used on the licence (Socic 1996).

GIS and satellite imagery were used to log soil types, indicating that the region comprises mainly lateritised lower saprolite.

Interpretation of the GIS and remote sensing imagery shows that the southern blocks of the tenement are covered mainly by quaternary alluvials. The northern blocks of the tenement are dominated by folded sequences of the Mount Bonnie Formation, Gerowie Tuff, Koolpin Formation and the Zamu Dolerite. Gerowie Tuff outcrops within the tenement in the north of available satellite image.

During the 1995/96 year of tenure, Northern Gold N.L. completed a soil sampling program over EL 8170. The soil sampling program consisted of eleven 800 metre long by 200 metre spaced lines. Samples were collected at 20 metre intervals and composited to 40 metres. A total of 312 samples (Sample Nos. 142001 - 142312), including duplicates were collected and sieved to -6 millimetre fraction. All samples were submitted to Assaycorp, in Pine Creek, for 50 gram quartz flush, low level fire assay technique and analysed for Au, As, Pb, Cu and Zn (Socic 1996).

5.0 1996/97 EXPLORATION

5.1 Soil Sampling Program

During September Northern Gold N.L. completed a soil sampling program over a domal dolerite structure within the Gerowie Tuff three kilometres to the north west of the Watts Creek north program. The small high grade Mckinlay gold mine lies along the same structure 5 kilometres to the north-northwest. Soil sampling in this area consisted of five 800 metre long by 400 metre spaced lines. About 2 kilograms of soil, sieved to -6mm, was collected at 25 metre intervals and composited at 100 metres along each line. A total of 42 samples, including duplicates were collected and submitted to Assaycorp of Pine Creek for Au As, Cu, Zn, and Pb BLEG analysis.

5.1.1 Soil Sampling Program Results

The regional soil sampling program returned a weak, but coincident lead/zinc and arsenic anomaly with peak spot values to 136 ppm Pb, 234 ppm Zn and 46 ppm As. No anomalous values were obtained for gold. Soil sample locations and results are presented in Appendix 1 and shown on Figure 2.

EL 8170 Regional Soil Sampling

SAMPLE	AMG E	AMG N	Au PPB	As PPM	Cu PPM	Pb PPM	Zn PPM
144600	799070	8509960	0.005	2	12	6	22
144601	799070	8509960	0.005	2	11	5	21
144602	798982.61	8509926.67	0.005	2	8	12	19
144603	798895.21	8509893.34	0.4	2	7	23	15
144604	798807 82	8509860.02	3.2	4	6	20	20
144605	798720.43	8509826.69	0.8	6	8	34	28
144606	798633.03	8509793.36	0.6	7	14	36	47
144607	798545.64	8509760.03	0.005	3	16	19	28
144608	798458.25	8509726.7	0.4	5	14	34	33
144609	798936.69	8510309.57	1.1	4	14	25	19
144610	798849.3	8510276.25	1	4	10	19	13
144611	798761.9	8510242.92	0.2	2	12	18	23
144612	798674.51	8510209.59	1	9	15	25	22
144613	798587.11	8510176.26	1	10	14	69	28
144614	798499.72	8510142.93	0.4	6	14	87	19
144615	798412.33	8510109.61	0.4	3	15	25	24
144616	798324.93	8510076.28	0.2	2	12	24	21
144617	798803.38	8510659.15	0.8	2	26	21	36
144618	798715.98	8510625.82	0.7	6	23	45	47
144619	798628.59	8510592.49	0.4	12	29	58	59
144620	798541.2	8510559.16	0.6	15	16	84	42
144621	798541.2	8510559.16	0.2	14	16	73	40
144622	798453.8	8510525.84	3.2	46	21	233	142
144623	798366.41	8510492.51	2.5	24	15	98	61
144624	798279.02	8510459.18	0.6	9	20	39	30
144625	798191.62	8510425.85	0.2	6	17	19	27
144626	798670.07	8511008.72	0.005	3	14	12	15
144627	798582.67	8510975.39	0.2	9	16	35	20
144628	798495.28	8510942.07	1.4	24	23	71	54
144629	798407.89	8510908.74	1.8	16	38	158	75
144630	798320.49	8510875.41	1.2	22	19	53	35
144631	798233.1	8510842.08	1.7	10	11	75	18
144632	798145.7	8510808.75	2.6	5	6	41	13
144633	798058.31	8510775.43	1.2	2	11	51	31
144634	798536.75	8511358.3	0.2	2	14	5	18
144635	798449.36	8511324.97	0.2	5	17	10	26
144636	798361.97	8511291.64	0.4	2	17	14	27
144637	798274.57	8511258.31	1.2	3	17	33	25
144638	798187.18	8511224.98	0.8	5	10	49	15
144639	798099.79	8511191.66	0.8	2	13	23	14
144640	798012.39	8511158.33	1.2	2	11	37	26
144641	798012.39	8511158.33	1	1	12	34	25
144642	797925	8511125	2.4	2	16	33	38

797000 AMGEAS

798000 AMGEAS

799000 AMGEAS

800000 AMGEAST

8511000 AMGNORTH

×2.4 1.2 ×1.0 ×0.6 ×0.8 ×1.2 ×0.4 ×0.2 ×0.2

×1.2 ×2.6 ×1.7 ×1.2 ×1.8 ×1.4 ×0.2 ×0.005

×0.2 ×0.8 ×2.5 ×3.2 0.6 ×0.2 ×0.4 ×0.7 ×0.8

×0.2 ×0.4 ×0.4 ×1.0 ×1.0 ×0.2 ×1.0 ×1.1

×0.4 ×0.005 ×0.6 ×0.8 ×3.2 ×0.4 ×0.005 0.005 ×0.005

511000 AMGNORTH

10000 AMGNORTH

8510000 AMGNORTH

797000 AMGEAST

798000 AMGEAST

799000 AMGEAST

Northern Gold N.L.

EL 8170
SOIL SAMPLE
RESULTS
Au PPB
Figure 2.

Scale	DATE	SHEET
1: 10000	30/09/96	1 of 1
	REF No. J5	
	Plotted with MICROMINE	

797500 mE
798000 mE
798500 mE
799000 mE
799500 mE
800000 mE

8512000 mN
8511500 mN
8511000 mN
8510500 mN
8510000 mN
8509500 mN
8509000 mN
8508500 mN

144642 144641 144639 144638 144637 144636 144635 144634
144640
144633 144632 144631 144630 144629 144628 144627 144626
144625 144624 144623 144622 144620 144619 144618 144617
144621
144616 144615 144614 144613 144612 144611 144610 144609
144608 144607 144606 144605 144604 144603 144602 144601
144600

MCKINLAY RIVER

MAP REGION

NORTHERN GOLD N.L.

EL 8170
REGIONAL SOIL SAMPLING
SAMPLE LOCATION PLAN

Figure 2A

Date 13/10/1997
Author N SOCIC
Office Adel Rres
Drawing
Scale 1 to 000
Projection AMG Zone 52 (AGD 66)

0 100 200 400
metres

5.2 Conclusion

The regional soil sampling results show that the Mckinlay fold structure was a focus for circulating metaliferous hydrothermal fluids, and is more prospective for base metal exploration targets in this area of EL 8170. Further geochemical sampling to the south within EL 8170 closer to the Watts Creek gold prospect would be more prospective for targeting gold mineralisation.

6.0 1996/97 EXPENDITURE

The expenditure on EL 8170 during the 1996/97 year of tenure totaled $12,157. Details of this expenditure are listed below as Table 1.

Table 1 EL 8170 1996/97 Expenditure

COSTS	AMOUNT
Accomm., Field, Travel Expenses	440
Assays	1,300
Casual Wages	2,040
Motor Vehicle Charges and Fuel	1,690
Report Compilation	400
Data Review	250
Tenement Management	612
Salaries and Wages	3,840
Subtotal	**$10,572**
Administration @ 15%	1,585
TOTAL	**$12,157**

7.0 1997/98 PROPOSED WORK PROGRAM

Exploration work proposed for the 1997/98 year of tenure will include geological mapping, regional soil sampling and assaying.

An estimation of the cost of these programs is given below in Table 2.

Table 2 EL 8170 1997/98 Proposed Work Program

COSTS	AMOUNT
Geological Mapping	1,200
Regional Soil Sampling	1,000
Assaying	500
Drafting and Computing	1,000
Report Preparation	500
Salaries and Wages	1,800
TOTAL	**$6,000**

8.0 REFERENCES

FAWCETT, C., (1995). EL 8170 McKinlay River East, Annual Report 16.07.94 to 15.07.95. Unpublished report by Territory Goldfields N.L. to the NTDME.

HOSKING, A.J., (1994). Northern Territory Gold Mines N.L., Exploration Licence 8170 McKinlay River East, First Annual Report For Year Ending 15/7/94. Unpublished company report to the NTDME.

SOCIC, N., (1996). EL 8170 McKinlay River East, Annual Report 16.07.95 to 15.07.96. Unpublished report by Northern Gold NL to the NTDME.

APPENDIX 1

Soil Sampling Program Locations and Results

ASSAYCORP

ASSAY CODE: AC 31739

Sample	Au (ppb)	Total Wt (gms)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)
144262	2.0	2161	64	98	107	21
144263	1.6	1166	57	76	64	21
144264	1.7	1090	19	33	61	7
144265	0.9	1104	12	23	34	4
144266	0.8	1193	13	41	34	7
144267	0.3	1194	11	25	27	3
144268	0.3	1047	13	64	217	7
144269	0.4	1577	20	23	50	7
144270	0.5	1293	21	19	33	5
144271	0.6	1685	19	17	30	3
144272	0.4	1658	13	15	18	2
144273	0.4	1897	13	17	22	2
144274	0.6	1980	17	25	36	10
144275	1.2	1342	18	33	56	6
144276	<0.1	1050	19	34	76	8
144277	0.5	1335	16	31	41	6
144278	0.2	1543	15	28	34	5
144279	0.6	1469	18	30	40	5
144280	<0.1	867	13	25	24	7
144281	0.3	947	13	25	20	10
144282	0.5	627	11	24	27	5
144283	1.4	693	14	34	50	9
144284	<0.1	1089	20	20	33	6
144285	<0.1	1205	17	29	34	7
144286	<0.1	1414	13	18	38	7

ASSAYCORP

ASSAY CODE: AC 31739

Sample	Au (ppb)	Total Wt (gms)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)
144287	3.0	1040	14	22	32	2
144288	<0.1	1158	18	29	44	5
144289	<0.1	938	14	26	19	4
144290	<0.1	1000	17	31	44	5
144291	<0.1	1270	14	46	28	2
144292	0.5	1204	16	56	64	6
144293	0.4	1876	17	27	32	9
144294	1.0	2156	18	37	39	12
144295	1.0	1716	18	46	44	16
144296	0.5	1274	23	67	80	16
144297	<0.1	1819	22	35	52	7
144298	0.2	2338	21	29	59	6
144299	0.2	2173	22	54	94	3
144300	<0.1	2402	21	32	55	4
144301	<0.1	2225	21	34	57	3
144302	<0.1	2521	19	15	39	2
144303	<0.1	2833	15	9	32	2
144304	<0.1	2650	21	18	46	2
144305	<0.1	2839	16	44	75	<1
144306	0.8	2240	26	108	118	6
144307	<0.1	2475	16	79	70	12
144308	0.4	1472	16	75	68	11
144309	0.2	1595	16	45	28	5
144310	0.4	1590	19	59	58	5
144311	0.4	2047	17	39	44	4

ASSAYCORP

ASSAY CODE: AC 31739

Sample	Au (ppb)	Total Wt (gms)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)
144312	0.8	2824	23	37	64	5
144313	0.4	2868	20	34	81	2
144314	0.4	2429	15	22	37	<1
144315	0.2	2798	12	17	22	<1
144316	0.4	2489	13	12	25	2
144317	0.6	2609	15	12	26	1
144322	0.6	1095	22	136	195	10
144323	1.1	842	22	91	234	12
144324	0.6	994	21	93	119	6
144325	1.1	869	17	60	80	7
144326	1.1	892	24	41	74	6
144327	0.6	1520	19	29	51	4
144328	0.5	1237	15	19	27	1
144329	0.2	1549	16	15	25	5
144330	0.4	897	16	33	24	3
144331	1.4	1529	26	62	92	14
144332	0.2	1899	24	55	60	8
144333	0.4	1525	17	26	30	9
144334	0.8	1242	23	27	64	9
144335	1.0	1969	25	33	84	17
144336	0.4	1810	19	25	56	6
144337	0.4	1813	17	28	61	4
144338	0.4	2602	17	19	36	3
144339	0.8	1582	18	28	69	4
144340	1.2	1963	23	38	84	13

ASSAYCORP

ASSAY CODE: AC 31739

Sample	Au (ppb)	Total Wt (gms)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)
144341	0.8	1651	24	40	83	19
144342	1.2	1622	16	26	43	4
144343	0.5	1156	14	26	35	3
144344	0.6	1625	20	17	56	9
144345	0.4	1987	18	18	33	5
144346	0.8	1732	19	24	60	7
144347	0.4	3148	20	46	64	4
144348	0.6	2220	21	29	47	2
144349	0.4	2760	18	31	34	3
144350	0.4	1765	19	14	37	1
144351	0.6	2590	21	18	36	1
144352	0.5	1258	19	29	46	1
144353	1.6	1757	17	173	105	3
144354	0.8	1552	20	18	40	3
144355	1.4	1153	18	15	36	2
144356	0.6	1391	19	13	34	2
144357	0.6	1463	23	23	38	5
144358	1.2	976	28	24	63	7
144359	1.4	1285	61	34	96	8
144360	2.4	1277	86	14	116	11
144361	3.4	1550	85	13	110	14
144362	3.8	1433	70	40	302	8
144363	3.6	1762	49	53	223	5
144364	2.4	1524	42	28	146	2
144365	2.4	1908	66	48	256	12

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Sample	Au (ppb)	Total Wt (gms)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)
144366	3.0	1824	87	155	313	12
144367	1.8	1959	80	49	220	10
144368	1.8	954	17	23	32	3
144369	1.2	1523	24	27	49	5
144370	4.2	1786	73	31	202	10
144371	4.0	1432	90	14	216	9
144372	2.8	2369	54	39	502	12
144373	2.6	1623	47	52	277	12
144374	1.6	2097	57	53	168	21
144375	4.0	1585	65	187	390	27
144376	3.2	2273	82	68	491	26
144377	4.4	1868	101	81	326	27
144378	0.8	1361	45	88	188	6
144379	3.1	1180	79	30	245	10
144380	2.8	1040	75	18	193	9
144381	2.8	1554	76	19	202	10
144382	3.8	1575	116	15	193	12
144383	5.2	1552	159	24	349	5
144384	1.4	1853	51	540	1440	14
144385	2.4	2148	48	900	3140	24
144386	1.6	1964	42	417	1230	18
144387	1.4	1934	45	126	430	11
144388	1.4	1376	42	24	223	5
144389	3.2	1548	62	210	638	24
144390	2.4	1623	61	67	368	11

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Sample	Au (ppb)	Total Wt (gms)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)
144391	2.0	1267	58	116	263	14
144392	3.0	1352	45	57	177	8
144393	2.2	1135	71	52	324	10
144394	2.0	1405	70	30	264	12
144395	1.8	931	59	41	222	10
144396	1.2	1021	30	40	64	17
144397	1.0	1341	49	33	55	10
144398	1.2	1940	79	43	85	23
144399	2.2	2153	93	77	123	18
144400	2.0	1100	88	32	127	17
144401	3.2	1309	83	29	127	15
144402	2.0	1744	96	18	169	13
144403	0.8	1901	66	23	124	9
144404	1.8	1979	43	16	63	7
144405	3.8	16015	51	54	174	12
144406	1.6	1237	40	21	83	6
144407	4.8	1696	75	21	111	11
144408	4.0	1732	79	20	202	12
144409	3.4	1794	48	18	111	4
144410	7.6	2240	107	85	422	22
144411	3.8	1110	59	37	198	12
144412	5.2	1379	56	104	206	50
144413	7.9	1400	93	166	246	46
144414	6.0	1639	101	50	258	19
144415	1.2	1670	46	34	126	10

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Sample	Au (ppb)	Total Wt (gms)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)
144416	0.8	1677	27	34	103	5
144417	2.2	1719	63	84	173	16
144418	3.4	1027	48	118	65	22
144419	4.0	1789	19	35	39	25
144420	1.9	960	55	31	166	10
144421	2.1	1147	56	30	181	8
144422	2.5	1190	68	19	217	8
144423	5.0	2260	80	21	276	7
144424	1.6	1995	48	112	333	6
144425	1.8	2094	46	38	106	9
144426	2.0	1420	47	36	111	7
144427	2.4	1554	74	218	235	10
144428	1.8	1221	55	42	165	8
144429	1.2	1790	44	18	138	4
144430	1.6	1208	35	17	74	2
144431	4.0	2090	71	98	282	25
144432	6.0	1693	54	304	435	55
144433	8.0	1302	80	123	286	42
144434	2.8	1631	75	80	195	28
144435	0.7	1351	17	21	55	3
144436	0.8	1175	12	32	36	2
144437	2.2	1377	61	72	56	13
144442	2.8	1528	76	14	219	11
144443	3.8	957	72	21	175	9
144444	5.1	1009	82	17	178	9

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Sample	Au (ppb)	Total Wt (gms)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)
144445	3.2	1109	82	22	192	9
144446	2.4	1497	62	30	194	11
144447	2.8	1190	54	27	191	8
144448	2.9	1250	67	22	191	10
144449	2.8	1088	70	28	190	14
144450	1.8	951	64	25	208	12
144451		1710	78	22	216	10
144452	1.6	1524	37	26	77	3
144453	1.7	1038	41	37	82	2
144454	1.2	1978	51	82	130	11
144455	0.6	1051	29	77	74	5
144456	<0.1	2054	13	17	28	4
144457		1481	32	55	49	9
144458	0.8	1525	88	122	69	14
144459	1.8	1969	33	108	67	14
144460	3.2	1554	25	98	40	39
144461	3.3	1346	23	82	38	35
144462	4.0	1716	19	37	22	18
144463	4.0	1666	95	8	157	13
144464	1.6	1184	69	22	193	11
144465	2.6	1367	85	32	193	13
144466	2.2	1795	69	16	142	14
144467	1.2	1846	70	47	128	14
144468	0.6	1472	23	34	60	9
144469	<0.1	1657	27	34	47	8

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Sample	Au (ppb)	Total Wt (gms)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)
144470	1.4	1575	49	60	114	8
144471	0.4	2297	27	63	92	9
144472	<0.1	1426	19	33	64	9
144473	<0.1	1772	14	17	31	7
144474	<0.1	1539	17	17	35	9
144475	<0.1	1903	31	31	43	8
144476	0.8	2058	37	17	104	8
144477	2.0	1580	50	14	132	8
144478	<0.1	1138	34	227	211	23
144479	1.6	1956	118	226	395	58
144480	1.2	762	117	262	202	35
144481	1.9	1251	112	267	194	32
144482	1.0	2056	83	135	147	23
144483	0.8	1632	28	51	59	9
144484	1.2	1837	39	146	93	17
144485	1.0	1323	46	113	80	16
144486	1.0	2119	26	101	117	14
144487	2.0	1775	18	109	127	16
144488	2.4	1867	29	92	85	15
144489	0.8	1599	58	100	77	9
144490	3.0	1592	100	144	109	15
144491	3.0	1953	72	210	47	26
144492	3.6	1766	96	169	380	19
144493	0.8	1655	30	53	42	8
144494	0.6	1859	55	166	89	16

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Sample	Au (ppb)	Total Wt (gms)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)
144495	4.0	1887	89	975	670	44
144496	4.2	1854	95	329	83	27
144497	5.6	2328	92	35	190	13
144498	2.8	1798	91	24	181	12
144499	2.1	1276	64	22	210	9
144500	4.8	1059	63	79	252	25
144501	4.4	1762	61	81	255	27
144502	14.2	1354	65	109	294	28
144503	10.6	1955	69	30	141	15
144504	3.6	2313	54	29	104	11
144505	0.8	1659	17	31	23	6
144506	0.6	2031	19	31	25	5
144507	0.5	1121	14	38	25	4
144508	0.2	1309	14	21	31	3
144509	<0.1	1760	10	25	15	3
144510	0.4	1393	13	34	31	5
144511	0.5	1293	23	45	43	11
144512	0.4	1479	13	27	48	9
144513	0.8	1096	23	57	151	26
144514	0.8	1723	43	77	138	12
144515	3.0	2320	88	75	187	16
144516	1.0	2444	77	93	94	10
144517	1.4	2412	66	124	113	9
144518	2.2	2162	16	147	112	14
144519	1.1	1109	14	241	91	34

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Sample	Au (ppb)	Total Wt (gms)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)
144520	0.5	1225.	11	92	40	13
144521	0.6	1856	13	95	44	18
144522	8.0	2458	114	15	140	22
144523	1.4	1931	57	22	127	9
144524	0.6	1490	40	14	62	8
144525	3.2	1909	88	24	77	19
144526	2.0	1583	95	18	164	13
144527	5.2	1617	104	14	183	6
144528	3.6	1557	93	27	123	8
144529	1.2	2123	62	21	138	7
144530	0.8	2389	26	25	51	4
144531	<0.1	2071	11	12	22	2
144532	<0.1	1759	14	11	20	3
144533	<0.1	1216	11	16	14	1
144534	<0.1	1487	9	7	14	1
144535	1.2	2005	27	16	43	4
144536	1.8	1336	12	19	27	9
144537	0.4	1728	41	39	112	7
144538	<0.1	2037	14	20	28	3
144539	0.4	2371	15	17	41	1
144540	0.7	1335	37	29	78	4
144541	0.4	2097	41	27	85	9
144542	1.0	1854	61	54	115	6
144543	1.0	1518	61	53	151	12
144544	1.8	1777	15	41	37	1

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Sample	Au (ppb)	Total Wt (gms)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)
144545	3.4	1625	14	76	55	13
144546	2.3	1455	19	79	74	14
144547	0.4	1445	23	22	39	4
144548	0.8	2386	29	20	44	9
144549	3.2	1622	50	26	62	13
144550	5.6	2441	105	24	166	14
144551	2.8	1620	93	25	138	10
144552	2.0	1637	59	16	97	9
144553	5.5	1165	17	26	36	5
144554	0.4	1721	12	21	25	4
144555	0.4	1362	13	27	20	4
144556	0.2	1831	13	16	22	3
144557	0.2	1818	11	20	22	5
144558	1.0	2039	32	46	107	6
144559	0.8	1679	55	61	301	1
144560	2.5	1063	90	106	321	8
144561	2.4	1140	85	135	302	24
144562	2.7	1214	92	44	213	18
144563	2.0	1692	105	28	118	15
144564	1.8	1710	93	46	98	15
144565	0.4	2214	22	23	39	7
144566	<0.1	1213	10	14	20	4
144567	0.2	1335	10	18	23	2
144568	0.2	1394	12	16	24	2
144569	1.0	2715	31	27	39	5

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Sample	Au (ppb)	Total Wt (gms)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)
144570	0.8	1583	70	32	88	21
144571	1.4	1522	71	49	242	10
144572	1.8	1323	60	39	204	5
144573	1.3	1112	21	20	38	3
144574	0.2	1342	13	16	23	3
144575	<0.1	1191	13	17	25	2
144576	0.4	759	10	21	20	1
144577	<0.1	1268	8	18	19	<1
144578	0.6	1085	5	8	12	1
144579	0.2	1794	15	27	25	6
144580	1.1	1348	43	162	122	18
144581	1.0	1523	43	140	118	16
144582	1.4	1732	53	40	100	14
144583	0.6	1496	30	34	76	10
144584	0.9	1303	24	62	257	5
144585	<0.1	1164	12	24	46	4
144586	0.2	2517	15	23	40	3
144587	0.2	1569	10	12	20	2
144588	0.8	1779	21	20	25	2
144589	<0.1	1079	8	14	12	1
144590	0.7	857	12	20	25	2
144591	0.7	1336	17	41	28	7
144592	1.0	1195	17	45	36	7
144593	0.6	1495	16	55	70	6
144594	<0.1	1091	9	18	19	2

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Sample	Au (ppb)	Total Wt (gms)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)
144595	<0.1	1530	9	10	21	1
144596	<0.1	1414	9	10	16	2
144597	<0.1	1135	11	13	20	2
144598	0.4	1472	9	15	23	1
144599	0.8	1581	11	21	33	1
144600	<0.1	1673	12	6	22	2
144601	<0.1	1473	11	5	21	2
144602	<0.1	1091	8	12	19	2
144603	0.4	2163	7	23	15	2
144604	3.2	1563	6	20	20	4
144605	0.8	1933	8	34	28	6
144606	0.6	1717	14	36	47	7
144607	<0.1	2736	16	19	28	3
144608	0.4	1507	14	34	33	5
144609	1.1	1400	14	25	19	4
144610	1.0	2506	10	19	13	4
144611	0.2	1223	12	18	23	2
144612	1.0	1678	15	25	22	9
144613	1.0	2220	14	69	28	10
144614	0.4	2321	14	87	19	6
144615	0.4	1568	15	25	24	3
144616	0.2	1512	12	24	21	2
144617	0.8	1226	26	21	36	2
144618	0.7	1229	23	45	47	6
144619	0.4	2347	29	58	59	12

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Sample	Au (ppb)	Total Wt (gms)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)
144620	0.6	2796.	16	84	42	15
144621	0.2	1379	16	73	40	14
144622	3.2	2689	21	233	142	46
144623	2.5	1303	15	98	61	24
144624	0.6	2049	20	39	30	9
144625	0.2	1864	17	19	27	6
144626	<0.1	2918	14	12	15	3
144627	0.2	2126	16	35	20	9
144628	1.4	1675	23	71	54	24
144629	1.8	1028	38	158	75	16
144630	1.2	2370	19	53	35	22
144631	1.7	1441	11	75	18	10
144632	2.6	2220	6	41	13	5
144633	1.2	1245	11	51	31	2
144634	0.2	1963	14	5	18	2
144635	0.2	1583	17	10	26	5
144636	0.4	1476	17	14	27	2
144637	1.2	1630	17	33	25	3
144638	0.8	1509	10	49	15	5
144639	0.8	1604	13	23	14	2
144640	1.2	877	11	37	26	2
144641	1.0	1864	12	34	25	1
144642	2.4	1947	16	33	38	2