TERRITORY RESOURCES N.L.

REPORT ON MINING ACTIVITIES AND PROPOSALS

FOR MINERAL CLAIMS N898, 899 AND 900.

W.R.ORMSBY

JUNE 1988

TERRITORY RESOURCES NL REPORT ON MINING ACTIVITIES AND PROPOSALS FOR MINERAL CLAIMS N 898, 899 AND 900 GROVE HILL - NORTH POINT AREA, NORTHERN TERRITORY

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W.R. ORMSBY JUNE, 1988

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- 1. Report "Drilling Results North Point, MCN 898, Grove Hill Area, Northern Territory" W.R. Ormsby June, 1988.
- Letter "Proposed Alluvial Mining Operations Grove Hill Locality" Jerry Whitfield, August 1987.

1.0 Introduction

Mineral Claims N 898, 899 and 900 are situated in the Grove Hill/ North Point locality, approximately 2km SW of the old Grove Hill Siding.

These claims were granted on 30 December 1985 for a period of three years to Territory Mining Pty Ltd. and later transferred to Territory Resources NL.

This report covers the exploration and mining work carried out on MCNs 898, 899 and 900 to the end of June 1988, and proposals for future work on these areas.

2.0 Geology

All three mineral claims are underlain by the Lower Proterozoic Mount Bonnie Formation of the South Alligator Group.

Bedrock outcrop is restricted to a low hill on the eastern side of MCN 898 where it comprises a greywacke unit hosted within interbedded mudstones and siltstones.

Mineral Claim 898 is situated on the western side of a gently north plunging anticline. Bedding generally dips at approximately 60 degrees to the west. Quartz veining is common in the greywacke unit, and most frequently follows cleavage which dips steeply to the east.

Hardrock gold mineralisation occurs predominantly in quartz veins within the greywacke unit, which appears to form the northern extension of the 'Priscilla Line' of mineralisation. First discovery of gold along the Priscilla Line was made in 1872, and sporadic mining continued until 1910.

Surficial deposits of Cenozoic eluvium, colluvium, alluvium, laterite and black soils overlie bedrock over the western portion of MCN 898, and completely cover MCNs 899 and 900. These deposits contain gold derived directly from the adjoining Priscilla Line. The richest of these 'alluvial' areas were worked by Chinese miners late last century, and are marked by zones of intensive potholing.

3.0 Exploration/Mining Activities

Prior to the granting of MCNs 898 to 900, literature research, photogeological interpretation (1:25,000 scale) and some bulldozer trenching were conducted over the area as part of the exploration of EL 4415 (Orridge, 1985).

During the first two years of tenure, the following work was carried out on MCNs 898, 899 and 900 in conjunction with exploration of the surrounding exploration licence 4415.

- An aeromagnetic survey was conducted in 1985.

In 1986, Consulting Geologist, Ron Lees carried out an extensive pitting and mapping program designed to examine the extent of the alluvial deposits in the area. This program extended into MCNs 899 and 900.

- Four costeans were excavated on MCN 898 (North Point) and mapped and sampled in detail, to follow-up previous indications of hardrock gold mineralisation.

The work outlined above is fully documented in the second and third Annual Reports for EL 4415; Jettner(1986) and Jettner(1987).

In 1987, a haul road was constructed to enable bulk testing and mining of the eluvial/colluvial and alluvial deposits on MCNs 898, 899 and 900 and the surrounding areas. The proposed alluvial mining plan for these areas was submitted to the Department of Mines and Energy on 7 August 1987 (see attachment 2), and approved on 4 September 1987.

In association with this plan, MCN 898 (North Point) and part of MCN 899 (Neates Gully) were cleared by bulldozer and scrub rake during early November 1987. Bulk sampling and mining commenced shortly afterwards.

Bulk samples were taken from approximately the upper metre of laterite/wash and processed through the Sandy Creek Plant. Pit locations and testing results are shown in figure 1.

The upper half metre of laterite and eluvial/colluvial material was mined from the eastern section of MCN 898 (North Point) where it overlies an extensively quartz veined greywacke and adjoining mudstone/siltstone unit within the Mt Bonnie Formation. The easternmost section of this mining along the crest of the hill extended to bedrock, however the surficial deposits thicken considerably downslope, and only the upper portion of them have been mined towards the west. A total of approximately 18,000 loose cubic metres of material has been processed through the Sandy Creek Plant from this area, and returned an average grade of 0.25 grams/loose cubic metre (figure 1).

Mining also took place along Neates Gully in MCN 899, where approximately 70 centimetres of colluvial and alluvial material was removed from two pits, and processed

through the Sandy Creek Plant (see figure 1 for details). A total of approximately 18,800 loose cubic metres of ore was processed, for an average grade of 0.23 grams/loose cubic metre from MCN 899.

In addition, approximately 4,000 loose cubic metres of ore was mined from two small pits of colluvial/alluvial material in MCN 900 (figure 1). Average grade ore grade was 0.35 grams/loose cubic metre.

The hardrock potential of MCN 898 was further examined in March 1988, when the area exposed by mining was geologically mapped, and nine percussion holes were drilled in the southern portion of the lease. Some encouraging assay results were obtained, although the main mineralised greywacke unit was not intersected. The results of this work are documented in the accompanying report (attachment 1).

4.0 Mining/Exploration Proposals

The 'alluvial' gold mining on MCNs 898, 899 and 900 was prematurely stopped for legal reasons regarding access to the leases. Mining had not in most cases reached basement, which is at least 1 to 2 metres below the surface. For this reason, the pits have been left open until mining can resume. This is particularly important considering the fact that ore grades have generally been found to increase close to the basement in this area.

It is proposed that mining will continue in the existing pits until economic basement has been reached. Thereafter, it is intended to continue mining further along the areas outlined in figure 2, in accordance with the 'Proposed Alluvial Mining Operations - Grove Hill Locality' (attachment 2).

Upon completion of a pit, rehabilitation will consist of re-spreading any overburden, contouring and reshaping of the pit sides, and re-spreading of topsoil over the pit floor.

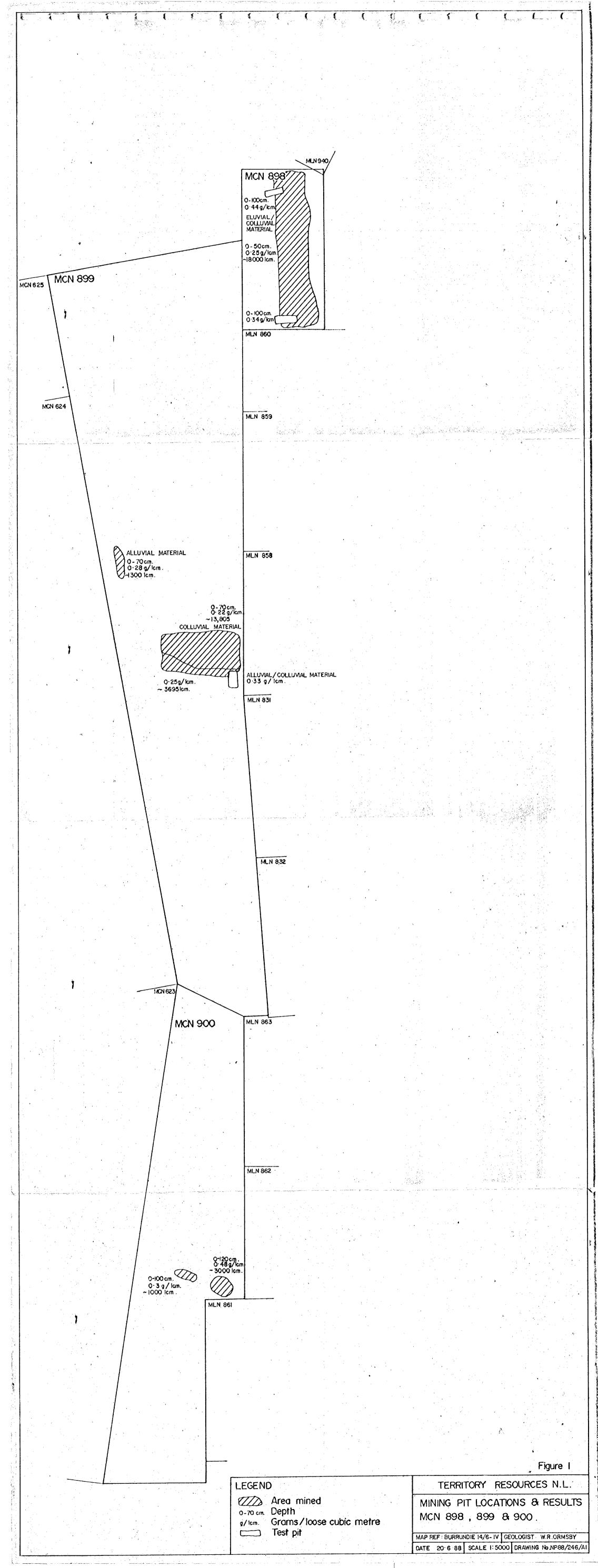
Further evaluation of the hardrock gold mineralisation in MCN 898 is planned to progress in two stages.

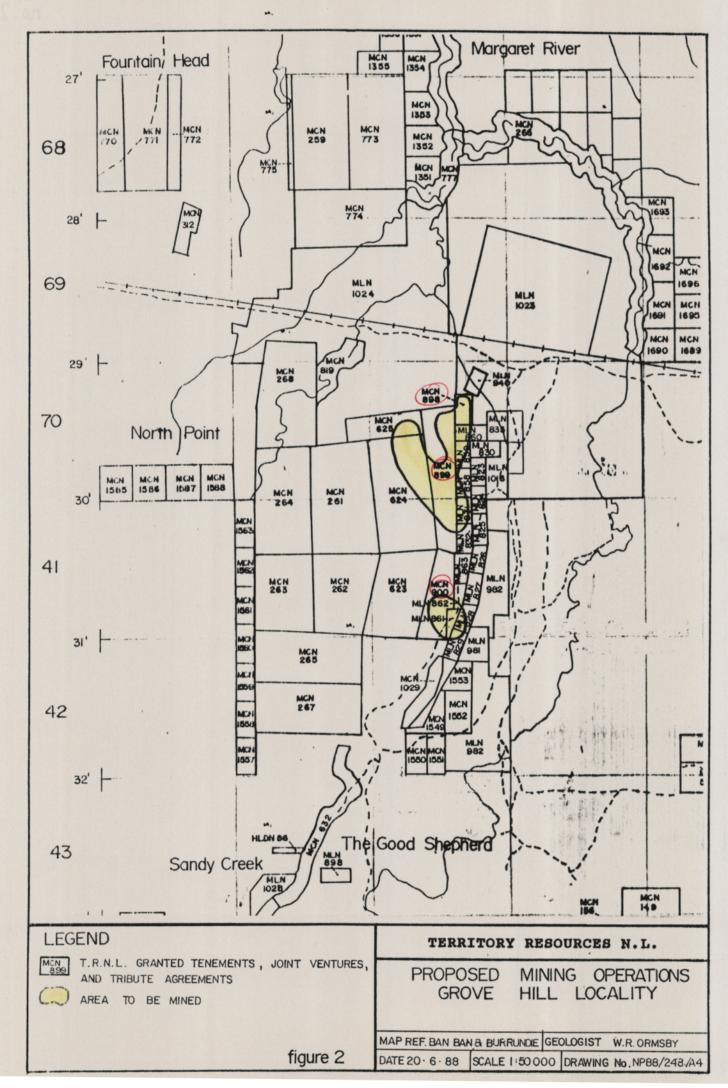
- Stage 1: An additional four costeans spaced at 50m intervals are planned along the grid lines 200S, 250S, 300S and 350S (see figure 3) to delineate the exact position of the greywacke unit, and examine the gold mineralisation within this unit.
- Stage 2: Reverse circulation drilling will then take place along lines spaced between the costeans to evaluate the gold mineralisation within the greywacke and immediately adjoining mudstone/siltstone units at depth.

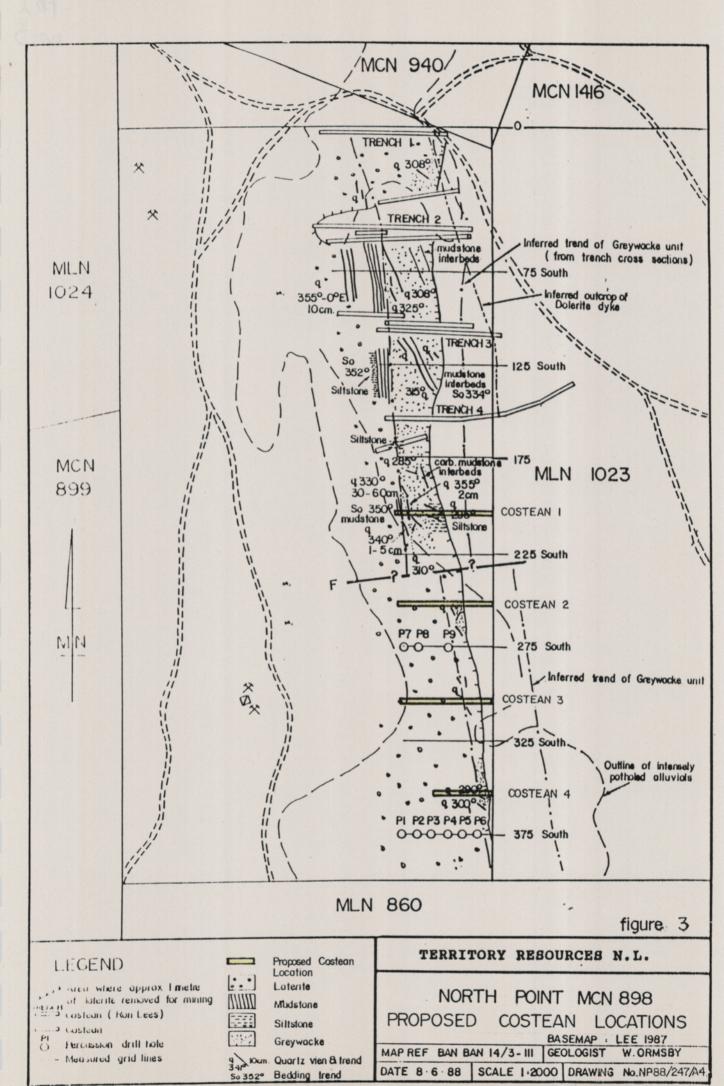
5.0 References

- JETTNER, A., 1986: Exploration licence 4415, Margaret River Northern Territory, Annual Report for Year 2 (1985/86). Unpublished Report for Ken Day Pty Ltd.
- JETTNER, A., 1987: Exploration licence 4415, Margaret River - Northern Territory, Annual Report for Year 3 (1986/87). Unpublished report for Territory Resources NL.
- ORRIDGE, G., 1985: Exploration licence 4415, Margaret River, near Pine Creek, Northern Territory.

 Annual Report for 1984-85. Unpublished report by G. Orridge & Associates, Geonorth, for Ken Day Pty Ltd.







TERRITORY RESOURCES N.L.

DRILLING RESULTS NORTH POINT, MCN 898

GROVE HILL AREA, NORTHERN TERRITORY

MARCH 1988

TERRITORY RESOURCES NL DRILLING RESULTS NORTH POINT, MCN 898 GROVE HILL AREA, NORTHERN TERRITORY MARCH 1988

W.R. ORMSBY JUNE, 1988

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Appendix 1 Assay Results

Figures

- 1. Location Map
- 2. Drilling Results (interpretive cross-section)
- 3. Geological Map MCN 898

1.0 Introduction

Nine percussion drill holes totaling 162m were drilled on the southern portion of MCN 898 to examine continuity of the gold mineralisation which was encountered in costeans in the northern section of the claim.

2.0 <u>Drilling Details</u>

The drill rig utilised was an Atlas Copco ROC 812HCS-00, of the top-hammer percussion type.

Nine holes were drilled along the measured traverses 375S and 275S (refer to figure 1) to a total depth of 18m each. All holes were inclined at 70 degrees to the east, and were 8m apart except for P8 and P9 which were 16m apart. Hole diameters were generally 3 inches, except for P1 and P9 which were 4.5 inches.

Sample intervals were initially nominally 2m (P1 and P2), however, depth control was poor. The marking of a 2m length on the boom resulted in alternating 1.65m and 2.0m sample intervals for holes P3 to P5 (rod length 3.65m). For the remaining holes (P6-P9) the sample intervals were standardised at 1.8m. Rock chip samples were obtained from the dust collector by re-circulating compressed air through the system, however sample recovery was not complete, resulting in some contamination of the samples.

An approximate 5kg sample was pipe-split from each sample interval, logged, and then despatched for gold fire assay by AMDEL. A total of 92 samples were submitted to AMDEL including four repeat samples.

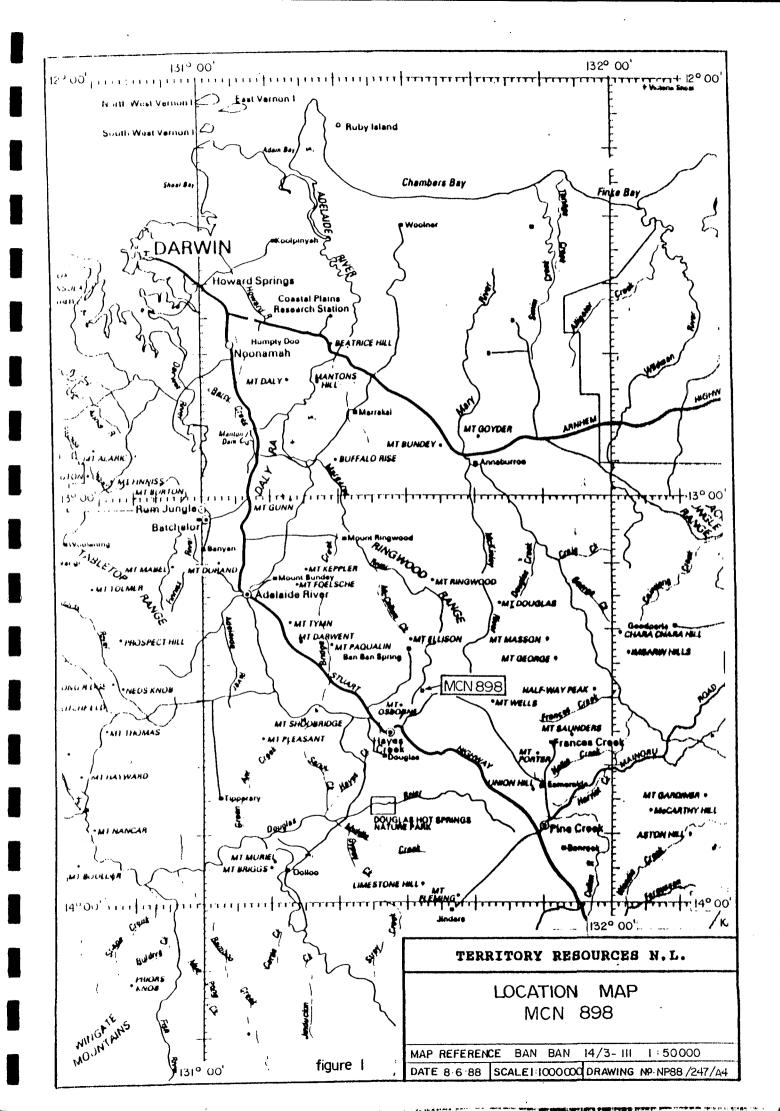
3.0 Results (Refer to figure 2)

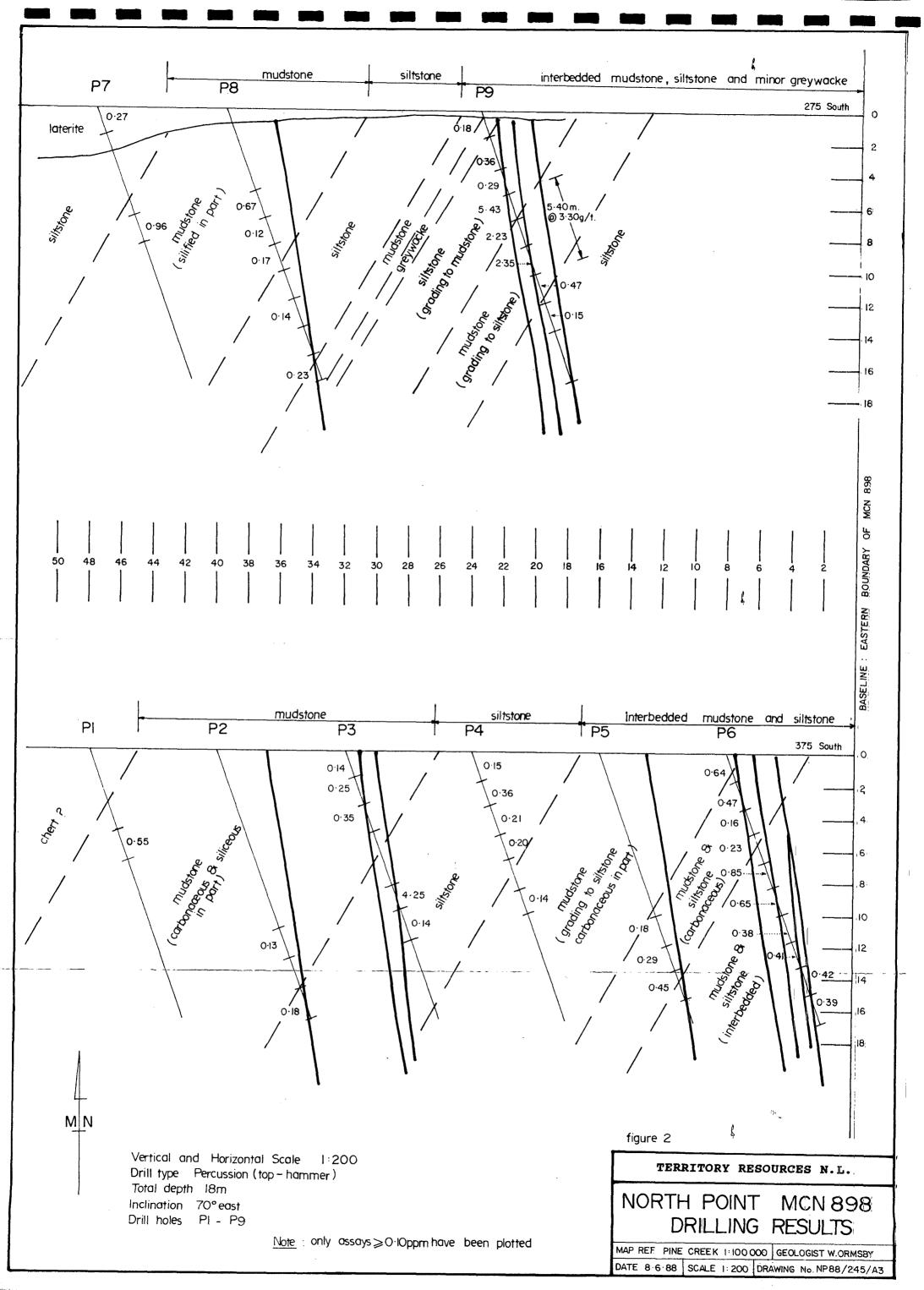
3.1 Stratigraphy

The stratigraphy at North Point comprises the Lower Proterozoic Mount Bonnie Formation of the South Alligator Group. Costeaning in the northern section of the claim by Lees (1987) revealed a greywacke unit hosted within interbedded mudstones and siltstones.

Quartz veining within the greywacke unit forms the main host to gold mineralisation in the region. The drill holes were designed to intercept the greywacke unit along it's projected southern extensions.

Unfortunately, only the western-most edge of the greywacke unit was encountered in drill holes P9 and P6.





The generalised stratigraphy is listed below: .

laterite, eluvial and colluvial material

unconformity

Siltstone and/or chert

Mudstone - medium grey, carbonaceous, siliceous and silty in part.

Siltstone - distinctive light brown to pink, light grey in part, siliceous in part.

Interbedded mudstone, siltstone and minor greywacke - medium grey mudstone, carbonaceous in part grades to siltstone; variable brown, grey, green and purple siltstone, light grey greywacke.

3.2 Structure

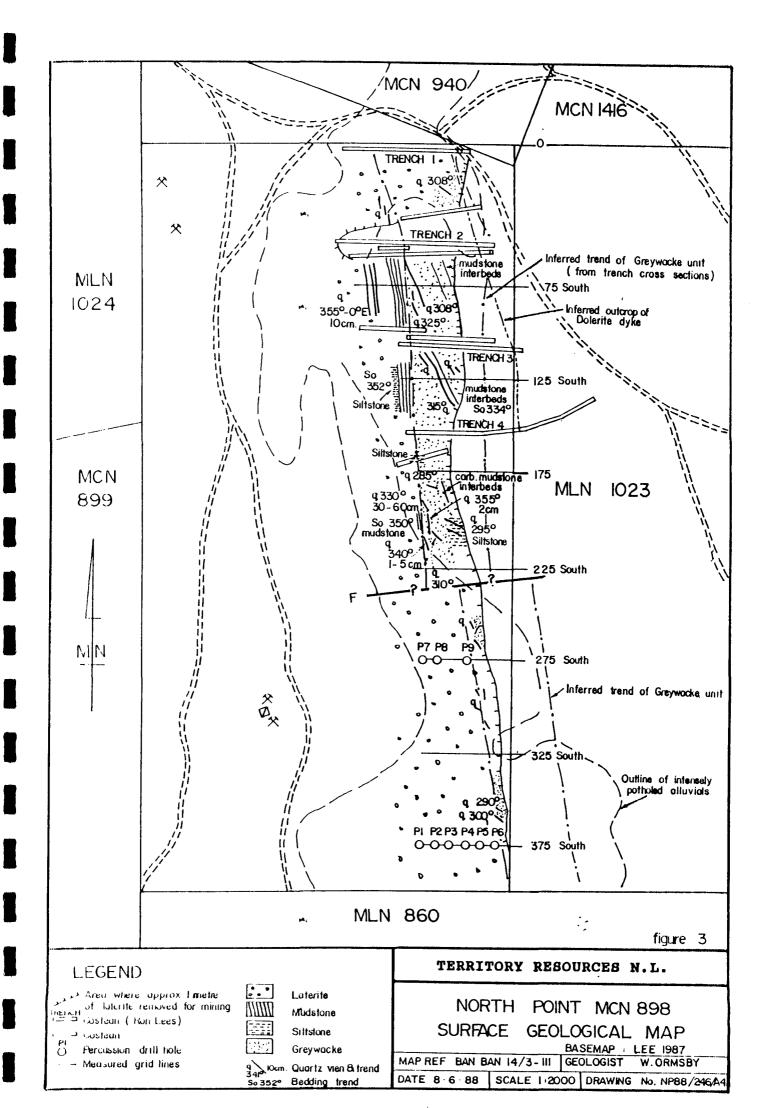
The results of this drilling agree in general with the structural data obtained by Lees(1987) from the northern section of the mineral claim.

Specifically, the average bedding orientation obtained by Lees was 350/58W. The interpretive cross-sections in figure 2 utilise a constant bedding dip of 60 degrees west. Similarly, an average dip of 80 degrees east was utilised for the mudstone and siltstone hosted quartz veins.

Based upon extrapolation of the trends obtained by Lees however, the greywacke unit should have been encountered in the majority of the holes drilled. The data to date suggests that a fault situated between approximately 225S and 275S may have displaced the greywacke unit to the east, south of 225S (figure 3).

3.3 Mineralisation

All holes intersected sections with anomalous gold values (>0.1ppm) as shown in figure 2. At least some quartz was observed in most of the anomalous samples, and all assays >1.0ppm were associated with predominantly blue-grey quartz samples. The best intersection was encountered in hole P9, where an average of 3.3g/t was obtained over 5.4 metres. Assay results are listed in Appendix 1.



4.0 Conclusions

- Drilling intersected predominantly interbedded mudstones and siltstones overlying, and to the west of the main mineralised greywacke unit.
- The greywacke unit appears to be displaced to the east, south of the area costeaned by Ron Lees.
- As found elsewhere in the region, the higher gold values are associated with quartz veins.
- Encouraging gold mineralisation has been obtained from the region adjacent to the main mineralised zone, thereby increasing the prospectivity of the greywacke unit immediately to the east.

5.0 References

LEES R.E., 1987: Geological Report on Yam Creek Diggings/North Point Area near Grove Hill, N.T.. Unpublished report for Territory Resources N.L.

APPENDIX 1



Amdel Limited (Incorporated in S.A.) P.O. Box 58 Berrimah, N.T. 5788

Telephone (089) 32 2637 Telex: AA85987

7th April 1988

Our Ref

D1021/88

REPORT NUMBER D1021/88

CLIENT

Territory Resources N.L.

CLIENT REFERENCE

Order Number 3941

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DATE RECEIVED

8th March 1988

Alan Ciplys

Manager

AMDEL Limited (N.T.)

70 W.O.

Report D1021/88 Page 1

ANALYSIS

•	SAMPLE MARK	Au ppm	Au(ppm) REPEATS	DEPTH (m)
	TR 2901	0.03	· 	0-1.8
	TR 2902	0.05		18-36
	TR 2903	0.05		3.6~5.4
	TR 2904	0.67		5.4-7.2
	TR 2905	-0.12-		7.2-9.0
	TR 2906	0.17		9-0-10-8
	TR 2907	0.08		10.8-12.6
	TR 2908	0.14		12-6-14-4
	TR 2909	0.03		14.4-16.2
	TR 2910	0.23		16.2 - 18.0
	TR 2911	0.18		0-1.8
	TR 2912	0.36	på,	1-8-3-6
	TR 2913	0.29		3.6-54
	TR 2914	5.43		5-1-72
	TR 2915	2.23		4.0-10.8
	TR 2916	2.34		A
	TR 2917	2.36		9.0-10.8 Repeat
	TR 2918	0.47		10.8-12.6
	TR 2919	0.15	0.00	12.6-14.4
	TR 2920	0.11	0.06	14.4-162
	TR 2921	0.07		16-2-18-0
	TR 2922	0.64		0-1.8
	TR 2923	0.47		18-3.6
	TR 2924	0.16	0.00	36-54
	TR 2925	0.19	0.28	5-4-7-2

METHOD: PM3/2



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ANALYSIS

SAMPLE	Au	Au(ppm)	DEPTH (m)
MARK	ppm	REPEATS	
TR 2926	0.85	0.40	7 2-90
TR 2927	0.65		90-108
TR 2928	0.38		108-126
TR 2929	0.41		126-144
TR 2930	0.44		144-162
TR 2931	0.37		162-180
TR 2932	0.42		162-180 Repeat
METHOD	: PM3/2		

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ANALYSIS

lor.E	SAMPLE MARK	Au ppm	Au(ppm) REPEATS	DEPTH (m)
PG	TR 2926 TR 2927 TR 2928 TR 2929 TR 2930 TR 2931 TR 2932	0.85 0.65 0.38 0.41 0.44 0.37 0.42	0.40	7.2-9.0 9.0-10.8 10.8-12.6 12.6-14.4 14.4-16.2 16.2-18.0 16.2-18.0 Repeat
	METHOD	: PM3/2		



Amdel Limited (Incorporated in S.A.) P.O. Box 58 Berrimah, N.T. 5788

Telephone (089) 32 2637 Telex: AA85987

8th April 1988

Our Ref

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REPORT NUMBER D1049/88

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:

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16th March 1988

Alan Ciplys

Manager

AMDEL Limited (N.T.)

TOW.O.



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ANALYSIS

HOLE	SAMPLE MARK	Au ppm	Au(ppm) REPEATS	DEPTH (m)
P 7	TR2933	0.27	************	0-1.8
•	TR2934	0.06		1.8-3.6
	TR2935	0.06		2.1 - 5.4
	TR2936	0.07		And the same and t
	TR2937	0.96		5·4 - 7·2 7·2 - 9·0
	TR2938	0.05		9.0-10.8
	TR2939	0.02	0.05	10.0-10.6
	TR2940	0.03		12.6 - 14.4
	TR2941	0.04	s A ₄	14.4 - 16.2
	TR2942	0.03		16.2 - 18.0
PI	TR2943	0.05		0-1-8
	TR2944	0.09		1.8-3.6
	TR2945	0.05		3.6-5.4
	TR2946	0.55		5.4-7.2
	TR2947	0.08	0.10	7.29.0
	TR2948	0.04		9-0 - 10-8
	TR2949	0.03		10.8 - 12.6
	TR2950	<0.01		12-6-14-4
	TR2951	0.02		14.4-16.2
	TR2952	0.04		16:2-18:0
P2	TR2953	0.04		0 = 2
	TR2954	0.03	2.22	2-4
	TR2955	0.01	0.02	
	TR2956	0.01	-v	6.78
	TR2957	0.05		8-12

METHOD: PM3/2

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ANALYSIS

HOLE	SAMPLE MARK	Au ppm	Au(ppm) REPEATS	DEPTH (m)
P2	TR2958 TR2959 TR2960 TR2961	0.13 0.08 0.18 0.18	* * * * * * * * * * * * * * * * * * *	12-14 14-16 16-18
02	TR2962		i agina	16-18 Repeat
P3	TR2963 TR2964 TR2965 TR2966 TR2967 TR2968 TR2969 TR2970 TR2971	0.14 0.16 0.31 0.39 0.01 0.05 4.25 0.14 0.07	nisoing 0.34	0-2 2-3.65 3.65-5.65 3.65-5.65 Repeat 5.65-7-3 7.3-9.3 9.3-10.95 10.95-12.95
	TR2972 TR2973	0.04	0.05	14.6 - 16.6
P4	TR2974 TR2975 TR2976 TR2977 TR2978 TR2979 TR2980 TR2981 TR2982	0.06 0.15 0.36 0.21 0.20 0.06 0.14 0.08 0.06 0.06		16.6 - 18.25
	TR2983	0.03	0.04	16.6-18.25

METHOD: PM3/2



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ANALYSIS

HOLE	SAMPLE MARK	Au ppm	Au(ppm) REPEATS	DEPTH (m)	
P5	TR2984 TR2985 TR2986 TR2987 TR2988 TR2989 TR2990 TR2991 TR2992 TR2993	0.04 0.05 0.06 0.06 0.05 0.18 0.29 0.45 0.72	0.05	0-2 2-3.65 3.65-5.65 5.65-7.3 7.3-9.3 9.3-10.95 10.95-12.95 12.95-14.6 14.6-16.6 16.6-18.25	

MEIHOD: PM3/2

PROPOSED ALLUVIAL MINING OPERATIONS
GROVE HILL LOCALITY

J. WHITFIELD

AUGUST 1987



PLEASE ADDRESS ALL MAIL TO: P.O. Box 36846 Winnellie, N.T. 5789 Lot 1332 Winnellie Road, Winnellie N.T. 5789

TERRITORY RESOURCES N.L.

Telephone: (089) 84 5155 Fax: 470205

7 August 1987

The Secretary
Department of Mines and Energy
GPO Box 2901
DARWIN NT 5794

Dear Sir

Re: <u>Proposed Alluvial Mining Operations - Grove Hill</u>
<u>Locality</u>

In accordance with Section 89 of the Northern Territory Mining Act we wish to advise the Department re Territory Resources' proposed alluvial gold mining operations in the Grove Hill locality.

It is proposed that several sites will be systematically mined. These include North Point, Neates Gully and an area west of the Iron Blow Mine. These areas are shown on the attached map.

It is proposed to undertake the mining operations as follows:

Location of Mining Sites

The areas to be mined are located approximately 3km south west of Grove Hill siding as shown on the Ban Ban 1:50 000 Mining Tenement Map (approximately 13km east of Hayes Creek, which is 150km south of Darwin on the Stuart Highway).

More specifically, the mine sites fall within the following blocks:-

BAN BAN 1: 50 000 Sheet 14/3-III Block 1370 BURRUNDIE 1: 50 000 Sheet 14/6-IV Block 1341

Tenement Holdings

Tenements to be mined fall into two categories:

- a. Granted Mineral Claims held by Territory Resources NL
- b. Granted Mineral Leases held by Mullins
 Investments Pty Ltd which are to be transferred
 to Dundas Gold Corporation.

With regard to the Mineral Leases, Territory Resources has reached an agreement to mine these areas on a tribute basis. This agreement commences of 1 September 1987 for an initial period of 12 months.

The attached map shows the tenements held by each party.

Access

Access from the Sandy Creek Treatment Plant to the areas to be mined will be by way of a newly constructed road which generally runs parallel to and west of the existing Grove Hill/Golden Dyke access.

This road is to be properly constructed and maintained to accommodate heavy articulated haulage trucks and where possible will follow the more substantial soils adjacent to the base of the Priscilla line of hills.

For reasons of safety this access road will be for use by haulage trucks and maintenance vehicles only and no public access will be permitted.

Bulk Sampling

Prior to the mining of any areas, bulk samples of up to 500 cubic metres will be extracted and processed at the Sandy Creek Treatment Plant.

Each area will be assessed and factors such as ore grade, depth of overburden and suitability of material for the treatment plant will used to determine the specific site and sequence of the mining operation.

Mining and Treatment

Subject to results obtained from the bulk sampling stage it is planned that mining will commence in the location with the shortest haulage distance to Sandy Creek and progress northerly to North Point.

Mining will be undertaken using bulldozers to remove the vegetation, topsoil and overburden, after which ore for loading will be pushed up.

Loading of the haul trucks will then be carried out by front end loader.

Pit sizes will vary from 1m - 3m in depth and up to 2ha in area with approximately 2500 cubic metres of ore to be extracted daily.

All material will then be carted to Sandy Creek for treatment in the existing gravity gold treatment plant.

Rehabilitation

Rehabilitation will consist of re-spreading any overburden, the contouring and reshaping of the pit sides and the re-spreading of topsoil over the pit floor.

Haul roads and access tracks no longer required will be ripped to promote growth of natural vegetation.

Rehabilitation will be carried out on a progressive basis.

We would like to point out that this type of operation is very dependent on localised conditions and therefore detailed long term planning is not always possible.

As previously stated, materials from these areas, the Biddlecombe and Leech area and Sandy Creek will be mined alternately to comply with Tribute Agreements and seasonal conditions within the area, with the aim of providing a continuity of ore to the Sandy Creek treatment plant.

We trust this is sufficient information for your requirements. Should you require further information we will be happy to provide same.

We will endeavour to keep the Department informed at all times of our progress and future plans.

Yours faithfully

Jerry Whitfield Tenement Officer

cc. Mr Bob Adams, Director of Mines

encl.

