

OPEN FILE

EL 5325 - WOOLWONGA NORTH
PINE CREEK DISTRICT, NORTHERN TERRITORY

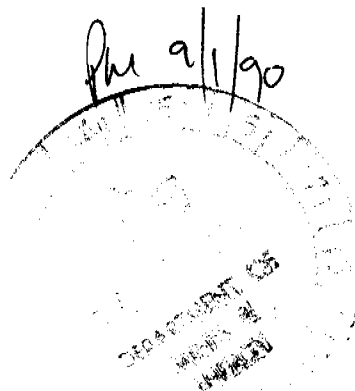
FINAL REPORT AFTER TWO YEARS OF TENURE
5 OCTOBER 1987 - 4 OCTOBER 1989

Distribution:

DOMINION MINING LTD, DARWIN
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NTDME, DARWIN

N R BURN
DECEMBER 1989

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1. **SUMMARY**

This report covers the 1989 exploration activities completed by Dominion Mining Ltd on EL 5325 known as Woolwonga North.

The exploration licence covers ground north of Dominion's Woolwonga prospect. No previous investigation was conducted by Territory Resources NL prior to the transfer of tenement in November 1988.

During 1989 Dominion completed a program of surface mapping, scree sampling and rotary air blast (RAB) drilling.

The surface mapping outlined two zones of residual soil/outcrop through the property. Scree sampling of one zone detected one anomalous value of 1.18 ppm Au which was tested by a minor RAB drill program totalling 494m.

No anomalous values were detected by the RAB drilling and no further drilling was conducted.

Three mineral claims were pegged west of the Margaret River prior to the expiry date of 4 October 1989. These cover ground contiguous from the Woolwonga Mine Development Zone.

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2. **INTRODUCTION**

Exploration licence 5325, consisting of 240 hectares in the Ban Ban Springs locality, was granted on 5 October 1987.

Title was granted to Territory Resources NL whose exploration program was directed at evaluating the alluvial gold potential of the tenement. The discovery of the hard rock gold prospect at Woolwonga to the south, greatly enhanced the potential of the licence.

Financial difficulties during 1988 forced Territory Resources into receivership and Dominion purchased the exploration licence under tender.

3. LOCATION AND TENURE

Exploration licence 5325 was located approximately 130km southeast of Darwin and 25km northeast of Hayes Creek on the McKinlay River 1:100 000 Sheet 5271 (See Figure 1).

Access from Darwin is via the Stuart Highway for 160km to the Grove Hill/Fountainhead turn-off. A sealed road leads to the old Fountainhead siding on the abandoned North Australia railway and a formed gravel road continues to Ban Ban Homestead. Station tracks give access to the property.

The exploration licence (240 hectares) was granted to Territory Resources NL on the 5th October 1987 for a two year period.

Dominion Gold Operations Pty Ltd purchased the exploration licence from Territory Resources on 15th November 1988.

Three mineral claim applications (MCN (A) 3705-707) were pegged before the expiry date of 4 October 1989.



True North

775,000mE.

13° 33'

34'

13° 35'

788,000mE.

8,520,000mN.

13° 24'

COSMO-HOWLEY
GAS PIPELINE

8,516,000mN.

WOOLWONGA

E.L. 5325

13° 24'

13° 27'

WOOLWONGA TO COSMO HAUL ROAD

AMADEUS BASIN
DARWIN GAS PIPELINE

13° 27'

13° 34'

13° 35'

E.L. 5325

PROJECT	WOOLWONGA NORTH				STATE	N.T.			
Orig.	M.T.	date	3/89	Drawn	F.C.	date	4/89	Scale	1:50 000
Checked		Figure No.	1	Plate No.		Plan No.	2D-15		

DOMINION MINING LIMITED

4. GEOLOGY

4.1 Regional Geology

The geology of the Pine Creek Basin has been well documented by the BMR, eg Wallace et al (1985), Needham et al (1980).

The Lower Proterozoic sequence was deposited by alternating shallow marine and continental environments in an intracratonic basin setting. Following intrusion by conformable dolerite sills, a major period of deformation and regional metamorphism related to granitic intrusion caused a series of tight, upright folds. Early Proterozoic stratigraphy of the Pine Creek/Adelaide River area is listed in Table 1.

4.2 LOCAL GEOLOGY

Within the exploration licence boundaries, outcrop is generally poor and the area is underlain by the Mt Bonnie Formation of the South Alligator Group and the Burrell Creek Formation of the Finnis River Group.

Tertiary alluvial and colluvial sediments occur along the course of the Margaret River system with overlying Quaternary silts and black soil plains.

Very little structural data is evident from surface outcrop. East of the Margaret River are low lying ridges of Burrell Creek Formation greywacke. These ridges trend 310-320°M and are dominantly "tombstone" greywacke with a subvertical fabric.

TABLE 1

EARLY PROTEROZOIC STRATIGRAPHY OF ADELAIDE RIVER/PINE CREEK AREA

<u>GROUP</u>	<u>FORMATION</u>	<u>MEMBER</u>	<u>LITHOLOGIES</u>	<u>THICKNESS</u> <u>m</u>
Finniss River	Burrell Creek		Greywacke, siltstone, mudstone, rare chert iron formation and conglomerate.	3000
South Alligator	Mt Bonnie	Upper	Mudstone, siltstone, chert, iron formation.	100-250
		Lower	Greywacke, mudstone, siltstone, chert, carbonaceous mudstone, rare conglomerate.	50-150
	Gerowie Tuff		Chert, mudstone, siltstone.	200-400
	Koolpin	Upper	Carbonaceous mudstone, mudstone, siltstone.	50-150
		Middle	Iron formation, mudstone, siltstone.	
		Lower	Micaceous mudstone, siltstone, minor carbonaceous mudstone.	
Mount Partridge	Wildman Siltstone		Mudstone, phyllite, siltstone, carbonaceous mudstone, sandstone.	200-400
	Mundogie		Quartzsite, arkose, pebble conglomerate, mudstone, siltstone.	

NB Thickness given above are for Type Areas only.

5. **PREVIOUS EXPLORATION**

No field exploration activities were completed by Territory Resources during the first year of tenure due to its financial difficulties.

No other data was acquired from Territory Resources following the transfer to Dominion.

6. 1989 EXPLORATION

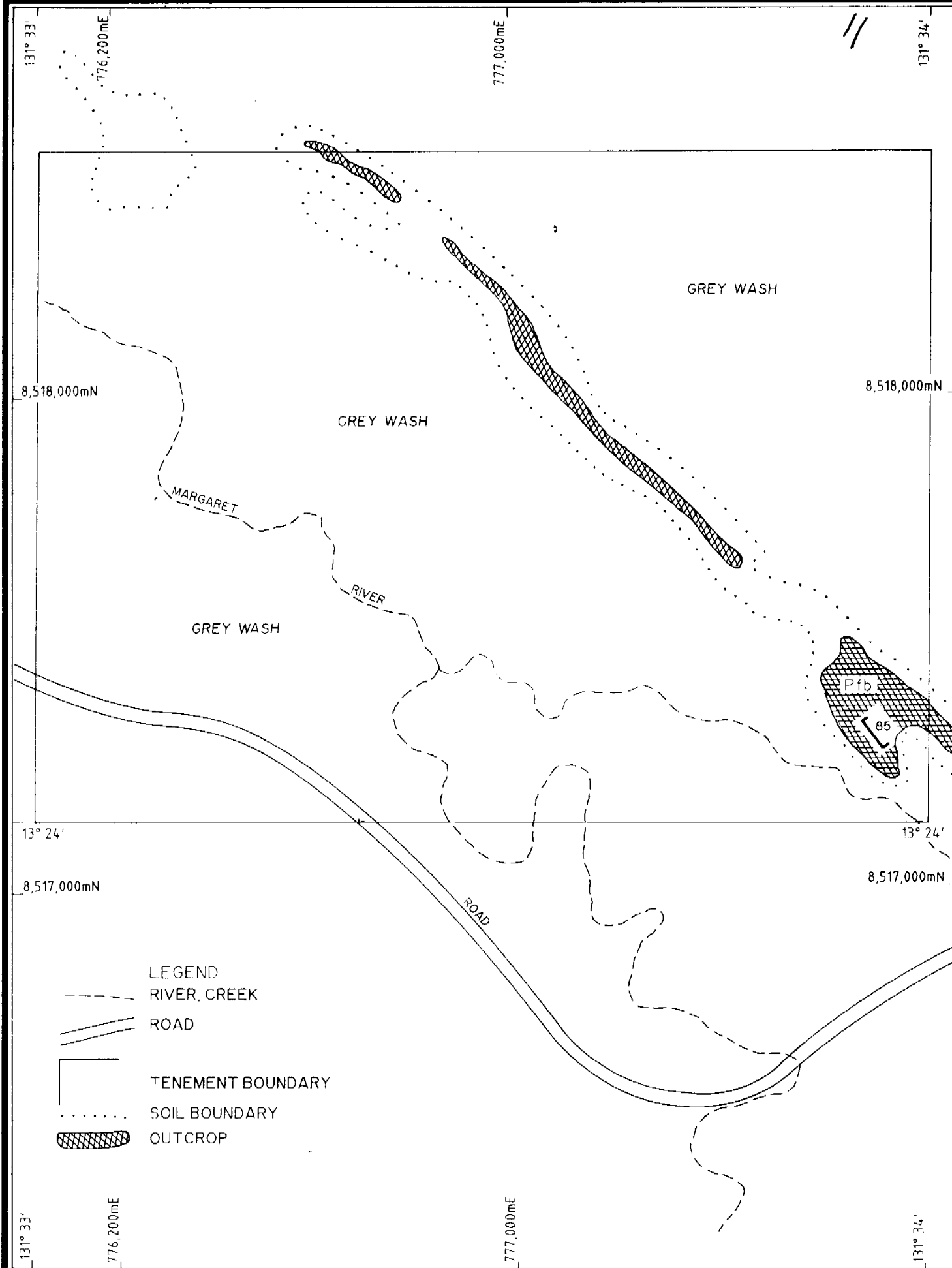
Exploration conducted by Dominion during 1989 included surface mapping, minor rock chip sampling and RAB drilling.



Surface mapping at 1:10,000 aerial photograph scale delineated areas of residual/pisolitic soil within large areas of grey wash plains. One major ridge of 'tombstone' greywacke, interpreted as Burrell Creek Formation, trends $\approx 150^\circ \text{M}$ through the licence (See Figure 2).


Four quartz scree samples were collected from a residual soil area in the NW corner of the tenement. One anomalous result of 1.18 ppm Au was received from a sugary quartz breccia with pyrite and arsenopyrite (See Figure 3).

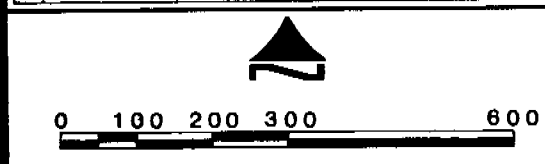
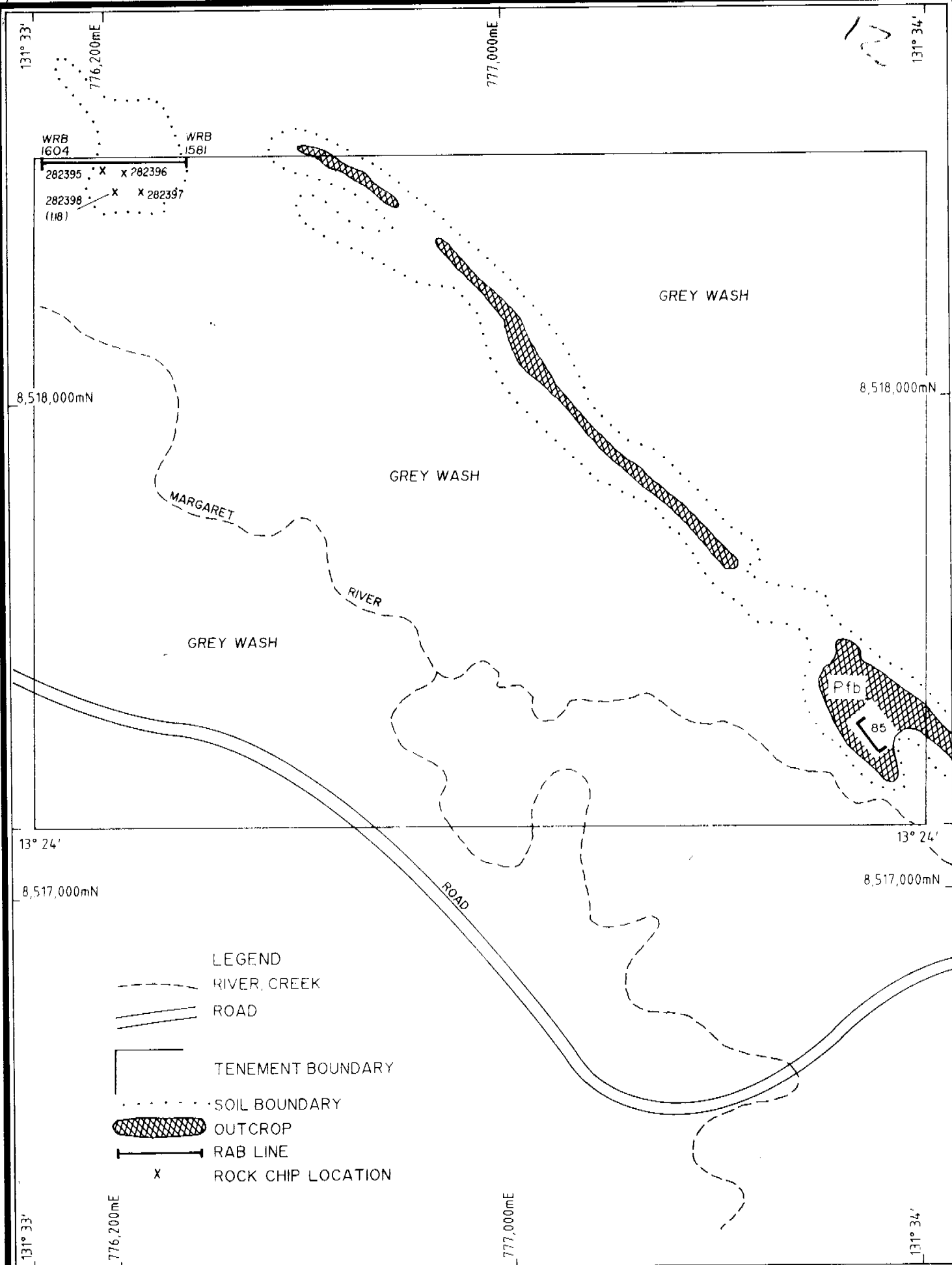
A minor RAB drill program to investigate this anomaly was conducted. Twenty four holes for 494m (157 Samples) were drilled parallel to the northern boundary across the residual soil zone. One anomalous result of 0.24 ppm Au (colluvium) was received and therefore no further drilling was contemplated.

Prior to the expiry date, three mineral claims were pegged to cover the south western corner of the tenement ie MCN (A) 3705-3707.



		<h2 style="text-align: center;">E.L. 5325 GEOLOGY</h2>	
			
PROJECT WOOLWONGA		STATE N.T.	
ORIGINATOR N.B.		Date 12/89	
SCALE 1:10000		FIGURE NO: 2	
PLAN NO: 2D - T65		DATE 01/90	

 **Dominion Mining Limited**



E.L. 5325 GEOCHEMISTRY

PROJECT	WOOLWONGA		STATE	N.T.
ORIGINATOR	N.B.	Date 12/89	DRAWN	F.C. Date 01/90
SCALE 1:10000	FIGURE NO:	3	PLAN NO: 2D - T64	



Dominion Mining Limited

7. CONCLUSIONS

The surface mapping of EL 5325 has indicated two zones of residual soils. Scree sampling of one pisolitic zone revealed one anomalous value of gold mineralization which was tested by RAB drilling.

No anomalous RAB drill results were received and therefore no further infill drilling was initiated.

Due to the poor geochemical results, no further exploration was completed. Three mineral claims were pegged in the southwest corner of the tenement for mine development purposes of the adjacent Woolwonga prospect.

8. EXPENDITURE

EL 5325 forms part of Dominions Woolwonga NORTH PROJECT AREA. Pro-rata EXPENDITURE for the year to 30 NOV 89 is tabulated below.

DIRECT COSTS

Assays	4 867	
Aerial Photography	412	
Survey and Gridding	2 346	
Earthworks	1 597	
Geophysics	11 156	
Drilling - RAB	1 661	
Drilling - RC	4 867	
Land Rates/Rentals	709	
Equipment (Purchase & Hire)	1 642	Sub-Total \$ 29 257

INDIRECT COSTS

Vehicle Expenses	463	
Travel/Accommodation	316	
Field Supplies/Consumables	1 431	
Freight & Cartage	111	
Salaries & Wages	7 902	
Drafting	423	
Camp Rental & Consumeables	2 955	
Admin - Office	7 246	Sub Total \$ 20 847

Total		<hr/> \$ 50 104
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9. REFERENCES

Needham R.S., Crick I.H. & Stuart-Smith P.B. (1980)
"Regional Geology of the Pine Creek
Geosyncline" in proceedings of the
International Uranium Symposium,
International Atomic Energy Agency, Vienna,
p1-22.

Wallace D.A., Stuart-Smith P.G., Needham R.S. & Roarty M.S.
(1985) "The Geology of the McKinlay River
Area, Northern Territory, Australia".
Bureau of Mineral Resources 1:100 000
Geological Sheet 5271.

APPENDIX 1 ROCK CHIP RESULTS

ANALABS

ANALYTICAL DATA

SAMPLE REF.

REPORT NUMBER

REPORT DATE

ANALYST

Page

ANALYSIS

76.0.21.03629

12/07/89

005244

1 OF 3

TUBE No.	SAMPLE No.	A	B	C	D	E	F	G	H	I
1	286398	0.024	-	-						
2	286399	0.036	-	0.048						
3	286400	0.024	-	-						
4	286401	0.036	-	-						
5	286402	0.054	0.064	-						
6	286403	0.036	-	-						
7	282395	<0.012	-	-						
8	282396	<0.012	-	-						
9	282397	<0.012	-	-						
10	282398	1.248	1.116	-		1.182				
11	232825	<0.012	-	-						
12	232826	<0.012	-	-						
13	232827	0.024	-	-						
14	232828	<0.012	-	-						
15	232829	0.012	-	-						
16	232830	<0.012	-	-						
17	232831	<0.012	-	-						
18	232832	<0.012	-	-						
19	232833	<0.012	-	-						
20	232834	<0.012	-	-						
21	232835	<0.012	-	-						
22	232836	0.012	-	-						
23	232837	<0.012	-	-						
24	232838	0.024	-	-						
25	232839	0.228	-	-						

Results in ppm unless otherwise specified
 * element present but concentration too low to measure
 * element concentration is below detection limit
 * element not determined

AUTHORISED OFFICER

APPENDIX 2 RAB DRILL RESULTS

WOOLWONGA NORTH RAB DRILLING AND MINERALIZATION SUMMARY

1989

HOLE NO.	NORTHING	EASTING	AZIMUTH/DIP (MAG)	TOTAL DEPTH (M)	DATE DRILLED	NO OF SAMPLES	RESULTS RECEIVED	MINERALIZATION SUMMARY (Au g/t ORIGINAL RE ASSAY
WRB 1581	EL 5325 Fenceline	287.5	090/60	22	12/9/89	6		NIL MINERALIZATION
1582		275	090/60	23	12/9/89	7		NIL "
1583		262.5	090/60	20	12/9/89	6		NIL "
1584		250	090/60	17	12/9/89	5		NIL "
1585		237.5	090/60	23	13/9/89	7		NIL "
1586		225	090/60	23	13/9/89	7		NIL "
1587		212.5	090/60	20	13/9/89	6		NIL "
1588		200	090/60	23	13/9/89	10		NIL "
1589		187.5	090/60	23	13/9/89	6		0-2m: 2m @ 0.24 (CIV)
1590		175	090/60	23	13/9/89	7		NIL MINERALIZATION
1591		162.5	090/60	23	13/9/89	8		NIL "
1592		150	090/60	23	13/9/89	7		NIL "
1593		137.5	090/60	23	13/9/89	7		NIL "
1594		125	090/60	23	13/9/89	6		NIL "
1595		112.5	090/60	23	13/9/89	9		NIL "
WRB 1596		100	090/60	23	13/9/89	9		NIL "

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WOOLWONGA NORTH RAB DRILLING AND MINERALIZATION SUMMARY

1989

HOLE NO.	NORTHING	EASTING	AZIMUTH/DIP (MAG)	TOTAL DEPTH (M)	DATE DRILLED	NO OF SAMPLES	RESULTS RECEIVED	MINERALIZATION SUMMARY (Au g/t ORIGINAL RE ASSAY
WRB 1597	EL 5325 Fenceline	87.5	090/60	21	13/9/89	8		NIL MINERALIZATION
1598		75	090/60	8	13/9/89	3		NIL "
1599		62.5	090/60	15	13/9/89	5		NIL "
1600		50.0	090/60	14	13/9/89	4		NIL "
1601		37.5	090/60	19	13/9/89	6		NIL "
1602		25	090/60	23	13/9/89	7		NIL "
1603		12.5	090/60	21	13/9/89	6		NIL "
1604		0	090/60	18	13/9/89	5		NIL "

cc