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DEFIANCE MINING NL

A.C.N. 009161522

ANNUAL REPORT FOR THE PERIOD

30 MAY 1999 TO 29 MAY 2000

FOR EL 18/91 - MANGANA

Report No : Def 089D
Date due : 29 April 2000
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: Connemarra Gold Mines (1)
: Mineral Resources Tasmania (1)

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Annual Report for the period 30 May 1999 to 29 May 2000 - EL 18/91 Mangana
Connemara Gold Mines Proprietary Limited; Defiance EL18/91
Jackson, D.G.

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1. Summary

Defiance Mining NL are exploring EL 18/91 at Mangana in Joint Venture with Connemarra Gold Mines Pty Ltd, a wholly owned subsidiary of the Mining Contractor, Barminco Pty Ltd.

The targets are high-grade gold bearing reefs containing more than 50,000 ozs and similar in style to the Mangana Reef in adjacent tenement 24M/93.

Since the Joint Venture was signed in September 1998, Defiance has concentrated its field program within 43M/89 near Mathinna, located approximately 20km to the north of EL 18/91.

Work completed in EL 18/91 during the previous reporting period involved compilation of all available, readily accessible data into a GIS format, production of suitable maps and prioritising of drill targets.

Work in the current reporting period comprised the drilling of two RC percussion drill holes into the Golden Entrance Reef for a total of 180m and follow up sampling on a anomalous soil sample on Blackboy Ridge.

2. Introduction

EL 18/91 "Mangana", of approximately 9sq km, is centred on the town of Mangana approximately 65 km east of Launceston. The licence, which is now nearing its ninth anniversary, is due for renewal on 29 May 2000.

Connemarra Gold Mines Pty Ltd now holds the tenement, which has been previously held by Alex White and Resolute Samantha Ltd. Defiance Mining NL has signed a joint venture with Connemarra, whereby they can earn a 50% equity in this and other associated tenements, by spending $1 million on exploration for high-grade gold reefs.

The licence is a mixture of private land on alluvial flats and State Forest in adjacent hilly country. Access is generally excellent with a sealed road to Launceston and strategically placed gravel roads throughout the tenement.

3. Conclusions and Recommendations

- Initial drill testing of the Golden Entrance line of workings was disappointing with a best result of 1m at 0.5g/t Au in MT097. The two holes drilled in this program were not situated in the best position and further drill testing should be completed on this reef along strike to the southwest.

- Follow soil sampling of a group of anomalous soil samples on Blackboy Ridge downgraded the prospectivity of the anomaly.

- Drill testing of the Argyle line of reefs along strike from the Golden Entrance Reef should be contemplated.

4. Geology

EL 18/91 lies near the southern end of the 90-km long, north-north-west trending, line of gold deposits that extend from Mangana in the south to Lyndhurst on the north coast.

The gold deposits occur as auriferous quartz reefs, hosted in the Mathinna Beds, a folded sequence of Silurian-Ordovician age sediments. The Mathinna beds are intruded by younger, Devonian-Carboniferous age granites and are in part overlain by Permo-Triassic glacial marine sediments, Jurassic dolerites and Tertiary basalts.

The gold bearing veins are structurally controlled and occur in a range of orientations and forms within zones of shearing and tectonic deformation. Typical vein features are:

Width	0.1-1.0m	up to 10m
Length	10-100m	up to 350m
Depth	<100m	up to 580m
Grade	15-30g/t	cut off 10g/t
Strike	variable	NW to NE dominant
Dip	typically steep	70-80°
Mineralogy	quartz, arsenopyrite, pyrite	minor galena, chalcopyrite, sphalerite

This overall geological setting is very similar to the high grade, quartz vein style mineralisation in the slate belts of central and eastern Victoria which have historical production of approximately 80Mozs.

5. Summary of Previous Exploration

The first gold discovery in Tasmania was made at Mangana in 1852. As exploration extended to the north, further discoveries were made in the Lyndhurst-Mangana belt (including additional discoveries in Mangana EL 18/91) and at Lisle, Lefroy and Beaconsfield.

In this first phase of mining, production peaked sometime prior to 1884. In the Lyndhurst-Mangana zone, activity was concentrated on the southern section between Mangana and Alberton within a 70km by 5km belt of deformed sediments.

In about 1887, after the first phase of mining had largely been completed, a Mr A Loane discovered a reef (Loane's Reef) in the abandoned adit of the Golden Gate mine. Sinking of a shaft to evaluate this reef discovered an additional reef (Main Reef). These two reefs were subsequently mined down to about 280m depth and probably each produced somewhere between 50,000 and 100,000 ozs.

Further exploration at depth below, and adjacent to, these reefs discovered a further two reefs (East and West Reefs) which were mined from 250-470m depth. The New Golden Gate Shaft was subsequently extended to 549m.

The bulk of the 265,000 ozs of gold from the New Golden Gate mine was produced in the years 1888 to 1904. Intermittent production occurred through to 1929 when the workings were finally abandoned. New Golden gate production represents approximately 16% of Tasmania's historical production.

Early mills were generally simple stamp and gravity mills, which recovered most of the coarse free gold, but gold associated with sulphides was lost. The New Golden Gate mill experimented with cyanide extraction of their sulphides with limited success.

An important feature of the area is that many of the quartz veins never outcropped and were only discovered during underground development aimed at other veins.

Modern day exploration activity has seen a number of companies hold tenure over the Mangana area, however, very few have carried out drilling programs in the area of the old mines. Recent drilling programs have largely concentrated in the Mathinna area.

A large number of old workings remain untested by drilling.

A more detailed summary of historical exploration is available in MacDonald (1996)

6. Summary of Work Completed

6.1 Soil Geochemistry

Resolute Samantha Ltd collected a large number of soil and auger samples over Mangana EL 18/91 while they held tenure. These samples were collected at 100m by 50m spacing with 100m by 25m infill in anomalous zones.

One anomaly on Blackboy Ridge which had a best reported result of 206ppb Au and 570ppm As and several other adjacent samples with 10-40ppb Au was followed up with ten repeat soil samples. The best value repeated as 44ppb Au and 140ppm As, however, all the adjacent samples repeated as <1ppb Au and <10ppm As, thus significantly downgrading the anomaly.

Samples were collected by removing leaf litter off the surface and then digging a small hole to collect soil that was then sieved through a 2mm sieve. Oversize was discarded and the minus 2mm fraction was analysed at Analabs in Burnie for Au by method F614 (detection limit 1ppb Au) and As by method H102 (detection limit 1ppm As). Samples were either collected from the same hole as the original sample (often still visible) or from a site immediately adjacent to the original sample site.

A full listing of the soil sample data is contained in Appendix 1.

6.2 RC Drilling

Two RC percussion holes (MT097 & 98) were drilled to intersect the Golden Entrance Reef as part of a larger program in the Mangana area, principally targeted at the Mangana Reef in adjacent ML 24M/93.

For ease of access the holes were positioned on the top of the ridge near the northwestern end of the old workings. The targeted intersection points with the reef were 30m and 50m below the collar of the No 1 shaft. The original proposed section line was on a bearing of 045^0 magnetic (060^0 AMG) from No 1 shaft, at right angles to the line of the reef. However the hole positions had to be moved 10m to the northwest because of heritage concerns and the hole azimuths were subsequently adjusted by a small amount to retain the same intersection points. Hole positions are itemised in Table 1. RL coordinates are notional because of the lack of suitable local survey control.

Hole No	AMG East	AMG North	RL	AMG Azimuth	Inclination	Depth (m)
MT097	574797.2	5393136.6	432.0	226	50	84
MT098	574797.6	5393137.1	431.8	226	60	96

Table 1. Golden Entrance Reef – Drill Hole Positions.

Samples were collected in a large plastic bag from the drill cyclone at 1m intervals. Following lithological logging, samples of barren material with no quartz or sulphides present, were generally collected at 2m or 4m intervals (rarely 1m or 3m) using a 50mm poly spear. In zones of moderate interest based on the lithological logging, poly speared samples were collected every metre. In samples containing significant amounts of quartz and/or sulphides, samples were collected every metre using a riffle splitter.

Samples were sent to Analabs in Burnie where they were analysed for (detection limits in brackets) the following:

- Au (10ppb) by fire assay.
- As (1ppm) by a triple acid digest with an AAS vapour hydride finish. Samples reporting >50ppm were re-analysed using an AAS finish.

While a number of quartz rich reefs were intersected in both holes, the sulphide content of the quartz was very low, possibly in part due to deep weathering, and Au assay results were disappointing. The best intersection was 1m from 43m at 0.5g/t Au in RC00MT097.

Drill logs and assays are attached in Appendix 2 and the drill holes are plotted on Plan Nos TAS 096 & 097.

6.3 Survey Control

East Coast Surveying from St Helens established AMG survey control to the vicinity of the Golden Entrance workings. AMG coordinates were established for the two drill hole collars and several points along the line of the old workings.

7. Proposed Future Program

Future targets remaining to be tested include additional holes to the south east on the Golden Entrance Reef and the Argyle Reef, the extension of the Golden Entrance Reef, across the other side of Sailers Gully. Approximately 6-8 holes for a total of about 800m of RC drilling are proposed.

8. References

Ashley, J, 1995. Resolute Samantha Group Northeast Tasmania "Mathinna Project" Interpretation of Aeromagnetic Data.

Colville, R. 1998. Connemarra Gold Mines Pty Ltd, Mathinna Gold Project, Annual Report on Exploration Licence 3/97 for the Twelve months ending 19 September 1998.

Jackson, DG, 1999. Defiance Mining NL, Annual Report 1999 EL 17/91 "Mangana".

MacDonald, G. 1996. Resolute Samantha Limited, Annual Report 1995 EL 17/91 "Mathinna".

9. Expenditure Statement – EL18/91

For the period 1 April 1999 to 31 March 2000

Item	$
MRT/ Legal/NNTT Costs	410.00
Rates and Charges	166.90
Salaries & Wages	5561.07
Travel & Accommodation	84.60
Consumables - Drilling	356.40
Overheads at 10%	731.00
Total	**7309.96**

Note:

Costs associated with drilling at the Golden Entrance Reef in early March 2000 have not yet been entered into the Defiance accounts system. These costs would include approximately $6000 for RC drilling, $1500 for assays, $100 for site preparation and rehabilitation, and an additional $1000 for supervision. This will be reported in the next annual report.

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APPENDIX 1

Soil Geochemical Data

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Blackboy Ridge Soil Sample Follow Up

			Repeat Assays			Original Assays			
Sample No	Grid East	Grid North	Au	Au(R1)	As	Au	Au(R1)	Au(R2)	As
106456	9800	10800	<1		1	2			<10
106457	9750	10800	<1		<1	4			190
106458	9700	10800	44	42	140	206	176	202	570
106459	9650	10800	<1		7	38			<10
106460	9600	10800	<1		5	12			<10
106461	9600	10700	<1		4	6			<10
106462	9650	10700	<1	<1	<1	32			<10
106463	9700	10700	<1		<1	18			<10
106464	9750	10700	<1		1	2			<10
106465	9800	10700	<1	<1	<1	2			<10

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APPENDIX 2

Drill Logs and Assays

DEFIANCE MINING NL - MATHINNA PROJECT - REVERSE CIRCULATION DRILL HOLE LOG

Prospect	Golden Enterance	**Geologist**	TC Downs	**Easting**	574797.2	**Hole No**	RC00MT097
Date Commenced	2.3.00	**Drillers**	Diamond Drill Tas	**Northing**	5393136.6	**Azimuth**	226 AMG
Date Completed	2.3.00	**Hole Depth**	84m	**RL**	432.0	**Inclination**	50

Depth		Lithology						Sampling		
From	To	Colour	Description	Mineralisation	Alteration	% Qtz	Desc	From	To	Sample No
0	1	lbr	Siltstone, weathered			2	w fe	0	2	111445
1	2	y & br	Siltstone, weathered			1	w fe	2	3	111446
2	3	y & br	Siltstone, weathered			95	w fe gr	3	4	111447
3	4	y, br & g	Siltstone, weathered			90	w fe	4	6	111448
4	5	gr & br	Siltstone and Sandstone, weathered			5	w	6	7	111449
5	6	br & gr	Sandstone, mostly weathered			2	w	7	9	111450
6	7	br & gr	Sandstone and Siltstone, weathered			25	w	9	11	111451
7	8	br	Sandstone, weathered			0		11	13	111452
8	9	br	Sandstone and Siltstone, weathered			0		13	15	111453
9	10	gr, y &br	Siltstone and Sandstone, weathered			0		15	17	111454
10	11	gr, y &br	Sandstone and Siltstone, weathered			0		17	19	111455
11	12	ol, gr & br	Sandstone and Siltstone, weathered			10	w fe	19	21	111456
12	13	lbr & lgr	Sandstone, weathered			0.5	w	21	23	111457
13	14	br & lbr	Sandstone, weathered			0.5	w	23	25	111458
14	15	gr & br	Siltstone and Sandstone, weathered			0		25	27	111459
15	16	br & y	Sandstone, weathered			0		27	28	111460
16	17	gr & lbr	Sandstone, mostly weathered			0.5	w	28	29	111461
17	18	gr & lbr	Sandstone, mostly weathered			0				
18	19	br	Sandstone, weathered			0				
19	20	br & y	Sandstone and Siltstone, weathered			0.5	w			
20	21	br & gr	Sandstone, mostly weathered			0				
21	22	gr & lbr	Siltstone and Sandstone, weathered			3	w fe			
22	23	gr & y	Siltstone and Sandstone, weathered			5	w fe			
23	24	lbr	Siltstone and Sandstone, weathered			25	w			
24	25	lgr & lbr	Siltstone, mostly weathered			10	w fe			
25	26	lgr & lbr	Sandstone and Siltstone, mostly weathered			3	w			
26	27	lgr & lbr	Sandstone and Siltstone, mostly weathered			0				
27	28	lbr	Siltstone, weathered			50	w			
28	29	lgr & lbr	Siltstone, mostly weathered			20	w			
29	30	lbr & lgr	Siltstone, mostly weathered			1	w			

DEFIANCE MINING NL - MATHINNA PROJECT - REVERSE CIRCULATION DRILL HOLE LOG

Prospect	Golden Enterance	**Geologist**	TC Downs	**Easting**	574797.2	**Hole No**	RC00MT097
Date Commenced	2.3.00	**Drillers**	Diamond Drill Tas	**Northing**	5393136.6	**Azimuth**	226 AMG
Date Completed	2.3.00	**Hole Depth**	84m	**RL**	432.0	**Inclination**	50

Depth		Lithology						Sampling		
From	To	Colour	Description	Mineralisation	Alteration	% Qtz	Desc	From	To	Sample No
30	31	lgr & lbr	Siltstone, partially weathered			0		29	31	111462
31	32	lbr & kk	Siltstone, weathered			80	w	31	32	111463
32	33	lbr	Siltstone, weathered			95	w	32	33	111464
33	34	lbr & lgr	Siltstone, mostly weathered			10	w	33	34	111465
34	35	lgr & lbr	Siltstone, mostly weathered		indents	0		34	36	111466
35	36	lbr	Siltstone, weathered		indents	0		36	38	111467
36	37	br & lgr	Siltstone and Sandstone, mostly weathered			0		38	39	111468
37	38	lbr, kk & lg	Siltstone, mostly weathered		indents	5	w fe	39	40	111469
38	39	lbr & lgr	Siltstone, mostly weathered		indents, br spots	40	w fe	40	41	111470
39	40	kk, lgr & lb	Siltstone and Sandstone, partially weathered			20	w fe	41	42	111471
40	41	lbr & lgr	Siltstone, mostly weathered		indents	80	w fe	42	43	111472
41	42	lgr & lbr	Siltstone, mostly weathered			90	w fe	43	44	111473
42	43	gr	Siltstone, partially weathered			90	w fe gr	44	45	111474
43	44	gr	Siltstone, partially weathered			95	w fe gr	45	47	111475
44	45	gr & lgr	Siltstone, partially weathered		indents, br spots	85	w fe gr	47	49	111476
45	46	br & gr	Siltstone and Sandstone, mostly weathered		indents, br spots	0		49	51	111477
46	47	gr & br	Siltstone and Sandstone, mostly weathered			0.5	w	51	54	111478
47	48	gr	Siltstone, some weathering			1	w	54	56	111479
48	49	gr & y	Siltstone, some weathering			0		56	57	111480
49	50	gr & y	Siltstone, some weathering		br spots	0		57	58	111481
50	51	gr & lbr	Siltstone, some weathering			0.5	w fe	58	59	111482
51	52	gr & br	Siltstone, some weathering		indents, br spots	0		59	60	111483
52	53	gr	Siltstone, some weathering		indents	0.5	w			
53	54	gr	Siltstone, some weathering		indents, br spots	0				
54	55	gr	Siltstone, some weathering		indents, br spots	0				
55	56	gr & lbr	Siltstone, partially weathered		indents, br spots	2	w fe			
56	57	gr & lbr	Siltstone, partially weathered			25	w fe			
57	58	gr & lbr	Siltstone, partially weathered			30	w fe			
58	59	gr & lbr	Siltstone, partially weathered			70	w fe			
59	60	gr	Siltstone, some weathering			85	w fe			

DEFIANCE MINING NL - MATHINNA PROJECT - REVERSE CIRCULATION DRILL HOLE LOG

Prospect	Golden Enterance	**Geologist**	TC Downs	**Easting**	574797.2	**Hole No**	RC00MT097
Date Commenced	2.3.00	**Drillers**	Diamond Drill Tas	**Northing**	5393136.6	**Azimuth**	226 AMG
Date Completed	2.3.00	**Hole Depth**	84m	**RL**	432.0	**Inclination**	50

Depth		Lithology						Sampling		
From	To	Colour	Description	Mineralisation	Alteration	% Qtz	Desc	From	To	Sample No
60	61	gr	Siltstone, some weathering			25	w fe	60	61	111484
61	62	gr & lgr	Siltstone, some weathering			60	w fe	61	62	111485
62	63	gr & lbr	Siltstone, partially weathered		indents	40	w fe	62	63	111486
63	64	gr & lbr	Siltstone, some weathering		indents, br spots	25	w fe	63	65	111487
64	65	gr & lbr	Siltstone, some weathering		indents	25	w fe	65	67	111488
65	66	gr & lbr	Siltstone, some weathering		indents	1	w fe	67	69	111489
66	67	gr, lbr & lgr	Siltstone, some weathering		indents	0		69	71	111490
67	68	gr & lbr	Siltstone, some weathering		indents, br spots	0		71	72	111491
68	69	gr & lbr	Siltstone, some weathering			10	w fe	72	73	111492
69	70	gr & lbr	Siltstone, partially weathered		indents	15	w fe	73	75	111493
70	71	gr, br & lbr	Sandstone, mostly weathered			5	w	75	77	111494
71	72	lbr & lgr	Siltstone and Sandstone, mostly weathered			50	w fe	77	79	111495
72	73	lbr	Siltstone, weathered			25	w	79	82	111496
73	74	ol & br	Siltstone and Sandstone, weathered			5	w	82	84	111497
74	75	gr, ol, lbr	Sandstone, mostly weathered			0				
75	76	gr, ol, lbr	Sandstone and Siltstone, mostly weathered			2	w			
76	77	ol & lbr	Sandstone, some weathering			2	w			
77	78	ol, lbr & lgr	Sandstone and Siltstone, some weathering			0				
78	79	gr, lgr & lbr	Sandstone and Siltstone, some weathering			10	w fe			
79	80	ol	Sandstone, some weathering			0				
80	81	ol, br & lbr	Sandstone, partially weathered			0				
81	82	gr & lbr	Sandstone, partially weathered			0				
82	83	ol & br	Sandstone, partially weathered			0		Surveys		
83	84	ol, br & gr	Sandstone, partially weathered			0				
								Depth	Azimuth	Inclination
			EOH at 84m							
								30	216	50
								60	219	51.5
								84	220	53.5

DEFIANCE MINING NL - MATHINNA PROJECT - REVERSE CIRCULATION DRILL HOLE LOG

Prospect	Golden Entrance	**Geologist**	DGJ & TCD	**Easting**	574797.6	**Hole No**	RC00MT098
Date Commenced	3.3.00	**Drillers**	Diamond Drill Tas	**Northing**	5393137.1	**Azimuth**	226 AMG
Date Completed	3.3.00	**Hole Depth**	96m	**RL**	431.9	**Inclination**	60

Depth		Lithology						Sampling		
From	To	Colour	Description	Mineralisation	Alteration	% Qtz	Desc	From	To	Sample No
0	1	ybr	Siltstone and Sandstone, weathered			0		0	3	111498
1	2	ybr	Siltstone and Sandstone, weathered			0		3	4	111499
2	3	ybr	Siltstone and Sandstone, weathered			0		4	5	111500
3	4	ybr	Siltstone and Sandstone, weathered			70	w fe gr	5	6	111501
4	5	ybr & gr	Siltstone and Sandstone, weathered			80	w fe gr	6	8	111502
5	6	ybr & gr	Sandstone and Siltstone, weathered			60	w fe	8	12	111503
6	7	ybr	Sandstone mg, weathered			0.5	w	12	14	111504
7	8	ybr	Sandstone mg, weathered			0		14	15	111505
8	9	ybr & gr	Sandstone mg, weathered			0		15	19	111506
9	10	lbr	Sandstone and Siltstone, weathered			0.5	w fe	19	23	111507
10	11	lbr	Sandstone mg, weathered			0		23	27	111508
11	12	lbr	Siltstone and Sandstone, weathered			0		27	31	111509
12	13	lbr	Siltstone and Sandstone, weathered			0				
13	14	lbr	Sandstone and Siltstone, weathered			0				
14	15	lbr	Siltstone and Sandstone, weathered			10	w fe			
15	16	lbr	Sandstone and Siltstone, weathered			0				
16	17	lbr	Sandstone and Siltstone, weathered			0				
17	18	lbr	Siltstone and Sandstone, weathered			1	w fe			
18	19	br	Sandstone mg, weathered			0				
19	20	ybr	Sandstone, weathered			0				
20	21	ybr	Sandstone, weathered			3	w fe			
21	22	lbr	Sandstone, weathered			0				
22	23	lbr	Sandstone, weathered			0				
23	24	lbr	Sandstone, weathered			0				
24	25	lbr	Sandstone and Siltstone, weathered			0.5	w fe			
25	26	lbr	Sandstone, weathered			1	w fe			
26	27	lbr	Siltstone, weathered			1	w fe			
27	28	lbr	Sandstone and Siltstone, weathered		Spots	0				
28	29	ybr & gr	Sandstone, partially weathered			0				
29	30	ybr & gr	Sandstone, partially weathered			0				

DEFIANCE MINING NL - MATHINNA PROJECT - REVERSE CIRCULATION DRILL HOLE LOG

Prospect	Golden Entrance	**Geologist**	DGJ & TCD	**Easting**	574797.6	**Hole No**	RC00MT098
Date Commenced	3.3.00	**Drillers**	Diamond Drill Tas	**Northing**	5393137.1	**Azimuth**	226 AMG
Date Completed	3.3.00	**Hole Depth**	96m	**RL**	431.9	**Inclination**	60

Depth		Lithology						Sampling		
From	To	Colour	Description	Mineralisation	Alteration	% Qtz	Desc	From	To	Sample No
30	31	ybr & lgr	Sandstone, partially weathered			0		31	35	111510
31	32	ybr & lgr	Sandstone, partially weathered			3	w fe	35	39	111511
32	33	ybr & lgr	Sandstone, partially weathered			0		39	43	111512
33	34	ybr	Sandstone and Siltstone, partially weathered			1	w fe	43	44	111513
34	35	ybr	Siltstone and Sandstone, weathered		Spots	10	w fe	44	45	111514
35	36	ybr & lgr	Sandstone, partially weathered			0		45	46	111515
36	37	lbr	Sandstone and Siltstone, partially weathered			1	w fe	46	47	111516
37	38	ybr	Sandstone, weathered			0		47	48	111517
38	39	lbr & lgr	Sandstone, partially weathered			0		48	50	111518
39	40	lbr & lgr	Siltstone, partially weathered		Indents & br spots	0		50	51	111519
40	41	lbr & lgr	Siltstone, partially weathered		Indents & br spots	0		51	52	111520
41	42	lbr & lgr	Siltstone, partially weathered		Indents & br spots	0		52	53	111521
42	43	lgr & lbr	Siltstone, partially weathered		Indents & br spots	1	w fe	53	54	111522
43	44	lbr & lgr	Siltstone, partially weathered		Indents & br spots	25	w fe	54	55	111523
44	45	lbr & lgr	Siltstone, partially weathered		Indents & br spots	2	w fe	55	56	111524
45	46	lgr & lbr	Siltstone, partially weathered		Indents & br spots	70	w fe	56	57	111525
46	47	br & lgr	Siltstone, partially weathered		Indents & br spots	20	w fe	57	59	111526
47	48	lgr & lbr	Siltstone and Sandstone, partially weathered		Indents & br spots	20	w fe			
48	49	br & lgr	Sandstone and Siltstone, partially weathered		Spots	0				
49	50	br & lgr	Sandstone, partially weathered			0				
50	51	lbr	Sandstone and Siltstone, weathered			60	w fe			
51	52	lgr & lbr	Siltstone, partially weathered			80	w fe			
52	53	lgr & lbr	Siltstone, partially weathered			90	w fe			
53	54	lbr & lgr	Siltstone, weathered			98	fe w			
54	55	br & gr	Sandstone and Siltstone, partially weathered			85	w fe gr			
55	56	gr & lbr	Siltstone and Sandstone, partially weathered			50	w fe			
56	57	gr	Sandstone, minor weathering			10	w fe			
57	58	gr & lbr	Sandstone, minor weathering			0.5	w			
58	59	gr	Sandstone, minor weathering			5	w			
59	60	gr & lbr	Sandstone, minor weathering			0				

DEFIANCE MINING NL - MATHINNA PROJECT - REVERSE CIRCULATION DRILL HOLE LOG

Prospect	Golden Entrance	**Geologist**	DGJ & TCD	**Easting**	574797.6	**Hole No**	RC00MT098
Date Commenced	3.3.00	**Drillers**	Diamond Drill Tas	**Northing**	5393137.1	**Azimuth**	226 AMG
Date Completed	3.3.00	**Hole Depth**	96m	**RL**	431.9	**Inclination**	60

Depth		Lithology						Sampling		
From	To	Colour	Description	Mineralisation	Alteration	% Qtz	Desc	From	To	Sample No
60	61	gr	Sandstone, minor weathering			0		59	62	111527
61	62	gr, lgr & lbr	Sandstone, partially weathered			2	w	62	63	111528
62	63	gr, lbr & br	Sandstone and Siltstone, partially weathered			20	w fe gr	63	64	111529
63	64	gr & lbr	Sandstone and Siltstone, partially weathered			10	w fe	64	68	111530
64	65	gr & lbr	Sandstone and Siltstone, partially weathered			1	w fe	68	72	111531
65	66	gr & lbr	Siltstone, partially weathered			0		72	73	111532
66	67	gr	Sandstone, minor weathering			0		73	75	111533
67	68	gr & lbr	Sandstone, partially weathered			0		75	76	111534
68	69	gr, br & lbr	Sandstone, partially weathered			0		76	77	111535
69	70	gr & br	Sandstone, partially weathered			0		77	78	111536
70	71	gr & lbr	Sandstone, partially weathered			0		78	80	111537
71	72	gr, lgr & lbr	Sandstone and Siltstone, partially weathered			0		80	82	111538
72	73	gr	Sandstone, partially weathered			90	w fe	82	84	111539
73	74	gr	Sandstone, partially weathered			2	w fe	84	86	111540
74	75	gr & lbr	Siltstone and Sandstone, partially weathered			0		86	88	111541
75	76	gr & lbr	Siltstone and Sandstone, partially weathered			50	w fe	88	90	111542
76	77	gr	Siltstone, minor weathering			1	w			
77	78	gr & lbr	Siltstone, partially weathered			50	w fe			
78	79	gr & lbr	Siltstone, partially weathered			20	w fe			
79	80	gr & lbr	Siltstone, partially weathered			1	w			
80	81	gr & lbr	Sandstone and Siltstone, partially weathered			15	w fe			
81	82	lgr	Sandstone, partially weathered			25	w fe			
82	83	gr & lbr	Siltstone, partially weathered			10	w fe			
83	84	lgr & lbr	Sandstone, partially weathered			3	w fe			
84	85	lgr, lbr & ol	Sandstone, mostly weathered			20	w fe			
85	86	lgr, lbr & ol	Sandstone, partially weathered			3	w			
86	87	gr	Siltstone, minor weathering			0				
87	88	lgr & lbr	Sandstone and Siltstone, partially weathered			0				
88	89	lgr & br	Sandstone, minor weathering	Tr asp ?		0.5	w fe			
89	90	lgr & br	Sandstone, partially weathered			2	w fe			

DEFIANCE MINING NL - MATHINNA PROJECT - REVERSE CIRCULATION DRILL HOLE LOG

Prospect	Golden Entrance	**Geologist**	DGJ & TCD	**Easting**	574797.6	**Hole No**	RC00MT098
Date Commenced	3.3.00	**Drillers**	Diamond Drill Tas	**Northing**	5393137.1	**Azimuth**	226 AMG
Date Completed	3.3.00	**Hole Depth**	96m	**RL**	431.9	**Inclination**	60

Depth		Lithology						Sampling		
From	To	Colour	Description	Mineralisation	Alteration	% Qtz	Desc	From	To	Sample No
90	91	ol & br	Siltstone and Sandstone, partially weathered			0.5	w fe	90	93	111543
91	92	ol & br	Sandstone, partially weathered			0		93	96	111544
92	93	gr	Siltstone, minor weathering			0				
93	94	lgr & br	Sandstone, minor weathering			0				
94	95	lbr & gr	Sandstone, partially weathered			0				
95	96	lbr & gr	Sandstone, partially weathered			0				
			EOH at 96m							
			Surveys							
			Depth / Azimuth / Inclination							
			30 / 216 / 60.5							
			60 / 220.5 / 61.5							
			90 / 227 / 64							

641020

Hole No	Sample No	Riffle Split	From	To	Au	Au(R)	Au(R2)	Au(S)	As(ppm)
MT097	111445		0	2	-0.01				-1
MT097	111446	Y	2	3	-0.01				18
MT097	111447	Y	3	4	-0.01				11
MT097	111448		4	6	-0.01				13
MT097	111449		6	7	-0.01				11
MT097	111450		7	9	-0.01				31
MT097	111451		9	11	-0.01				2
MT097	111452		11	13	-0.01				-1
MT097	111453		13	15	-0.01				3
MT097	111454		15	17	-0.01	-0.01			-1
MT097	111455		17	19	-0.01				-1
MT097	111456		19	21	-0.01				-1
MT097	111457		21	23	-0.01				17
MT097	111458		23	25	-0.01				6
MT097	111459		25	27	-0.01				10
MT097	111460		27	28	-0.01				6
MT097	111461		28	29	-0.01				9
MT097	111462		29	31	-0.01				3
MT097	111463	Y	31	32	-0.01				36
MT097	111464	Y	32	33	-0.01				17
MT097	111465		33	34	-0.01				30
MT097	111466		34	36	-0.01				26
MT097	111467		36	38	-0.01				32
MT097	111468		38	39	-0.01				85
MT097	111469		39	40	-0.01				23
MT097	111470	Y	40	41	-0.01				32
MT097	111471	Y	41	42	-0.01				36
MT097	111472	Y	42	43	0.1				210
MT097	111473	Y	43	44	0.53	0.48			355
MT097	111474	Y	44	45	0.08				120
MT097	111475		45	47	0.06				120
MT097	111476		47	49	0.04	0.04			90
MT097	111477		49	51	0.03				115
MT097	111478		51	54	-0.01				115
MT097	111479		54	56	-0.01	-0.01			39
MT097	111480		56	57	-0.01				60
MT097	111481		57	58	-0.01				95
MT097	111482	Y	58	59	-0.01				55
MT097	111483	Y	59	60	-0.01				75
MT097	111484		60	61	-0.01				60
MT097	111485	Y	61	62	-0.01				85
MT097	111486		62	63	-0.01				65
MT097	111487		63	65	-0.01				15
MT097	111488		65	67	-0.01				37
MT097	111489		67	69	-0.01				14
MT097	111490		69	71	-0.01				5
MT097	111491		71	72	-0.01				18
MT097	111492		72	73	-0.01				3
MT097	111493		73	75	-0.01				7
MT097	111494		75	77	-0.01				8
MT097	111495		77	79	-0.01				8
MT097	111496		79	82	-0.01				8
MT097	111497		82	84	-0.01				2
MT097	111498		0	3	-0.01				6
MT098	111499	Y	3	4	-0.01				35

641021

Hole No	Sample No	Riffle Split	From	To	Au	Au(R)	Au(R2)	Au(S)	As(ppm)
MT098	111500	Y	4	5	-0.01				13
MT098	111501	Y	5	6	-0.01				13
MT098	111502		6	8	-0.01				22
MT098	111503		8	12	-0.01				14
MT098	111504		12	14	-0.01	-0.01			2
MT098	111505		14	15	-0.01				9
MT098	111506		15	19	-0.01				6
MT098	111507		19	23	-0.01	-0.01			8
MT098	111508		23	27	-0.01				13
MT098	111509		27	31	-0.01				13
MT098	111510		31	35	-0.01				13
MT098	111511		35	39	-0.01				15
MT098	111512		39	43	-0.01				29
MT098	111513		43	44	-0.01				20
MT098	111514		44	45	-0.01				38
MT098	111515	Y	45	46	-0.01				70
MT098	111516		46	47	0.07				90
MT098	111517		47	48	0.02				65
MT098	111518		48	50	-0.01				41
MT098	111519	Y	50	51	0.02				60
MT098	111520	Y	51	52	0.04				41
MT098	111521	Y	52	53	-0.01				12
MT098	111522	Y	53	54	-0.01				23
MT098	111523	Y	54	55	0.09				160
MT098	111524	Y	55	56	0.11				90
MT098	111525		56	57	0.11				3
MT098	111526		57	59	0.06				23
MT098	111527		59	62	0.06				100
MT098	111528		62	63	0.05	0.05			60
MT098	111529		63	64	0.06	0.05			85
MT098	111530		64	68	0.02				75
MT098	111531		68	72	0.02				29
MT098	111532	Y	72	73	-0.01				49
MT098	111533		73	75	-0.01				38
MT098	111534		75	76	0.02				20
MT098	111535		76	77	0.02				55
MT098	111536		77	78	0.02				34
MT098	111537		78	80	-0.01				23
MT098	111538		80	82	-0.01				6
MT098	111539		82	84	-0.01				3
MT098	111540		84	86	-0.01				3
MT098	111541		86	88	0.02				-1
MT098	111542		88	90	-0.01				1
MT098	111543		90	93	-0.01				2
MT098	111544		93	96	-0.01				-1

641022

DEFIANCE MINING NL

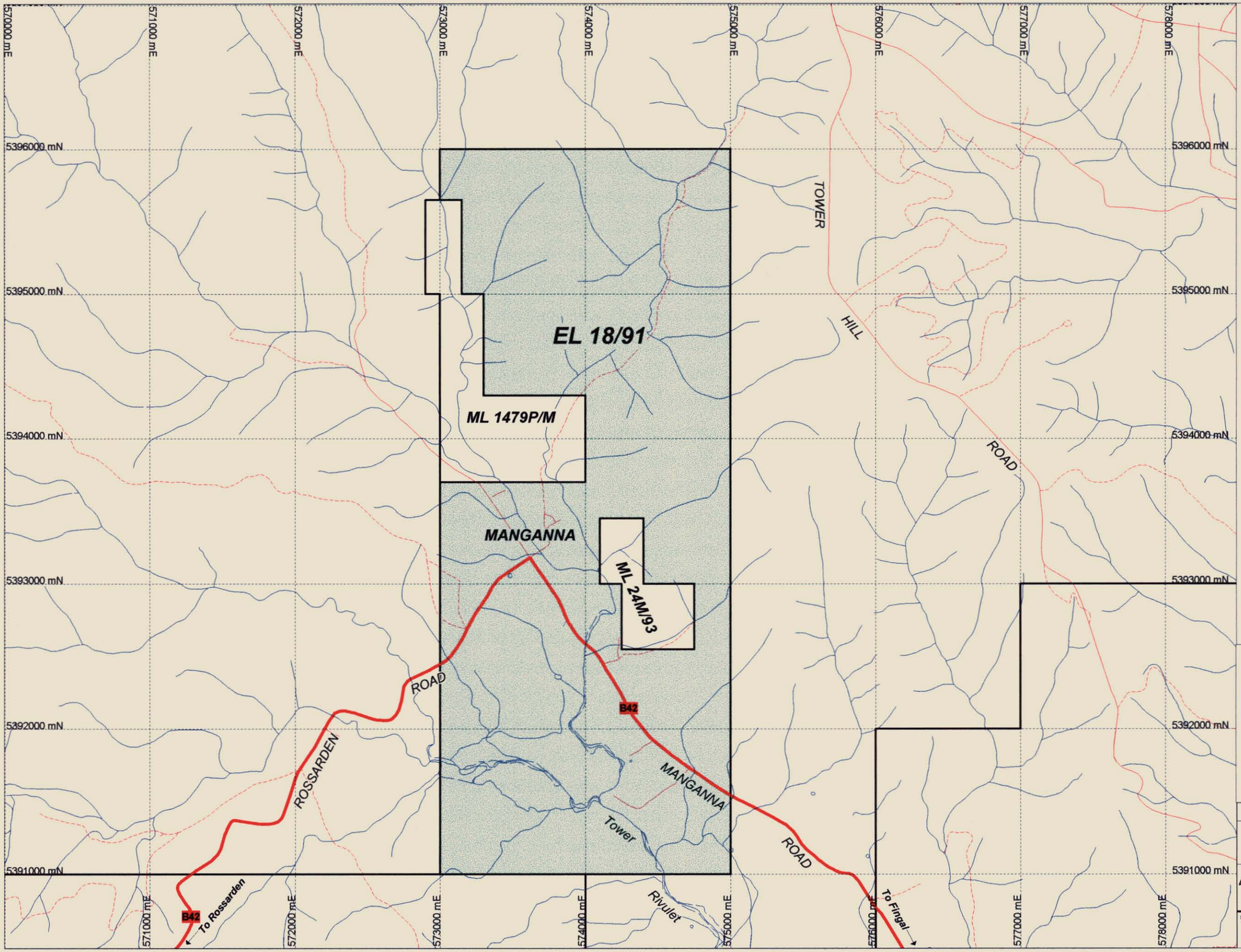
A.C.N. 009161522

ANNUAL REPORT FOR THE PERIOD

30 MAY 1999 TO 29 MAY 2000

FOR EL 18/91 - MANGANA

Report No : Def 089D
Date due : 29 April 2000
Author : DG Jackson
Accepted By : AG Keogh
Signature :
Copies : Defiance Mining (1)
: Connemarra Gold Mines (1)
: Mineral Resources Tasmania (1)



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Connemara Gold Mines Proprietary Limited; Defiance
Jackson, D.G.

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Connemara Gold Mines Proprietary Limited; Defiance
Jackson, D.G. EL18/91

570000 mE
571000 mE
572000 mE
573000 mE
574000 mE
575000 mE
576000 mE
577000 mE
578000 mE

5396000 mN
5395000 mN
5394000 mN
5393000 mN
5392000 mN
5391000 mN

AGS
HGS
AGS
HGS
AGS

5 cm

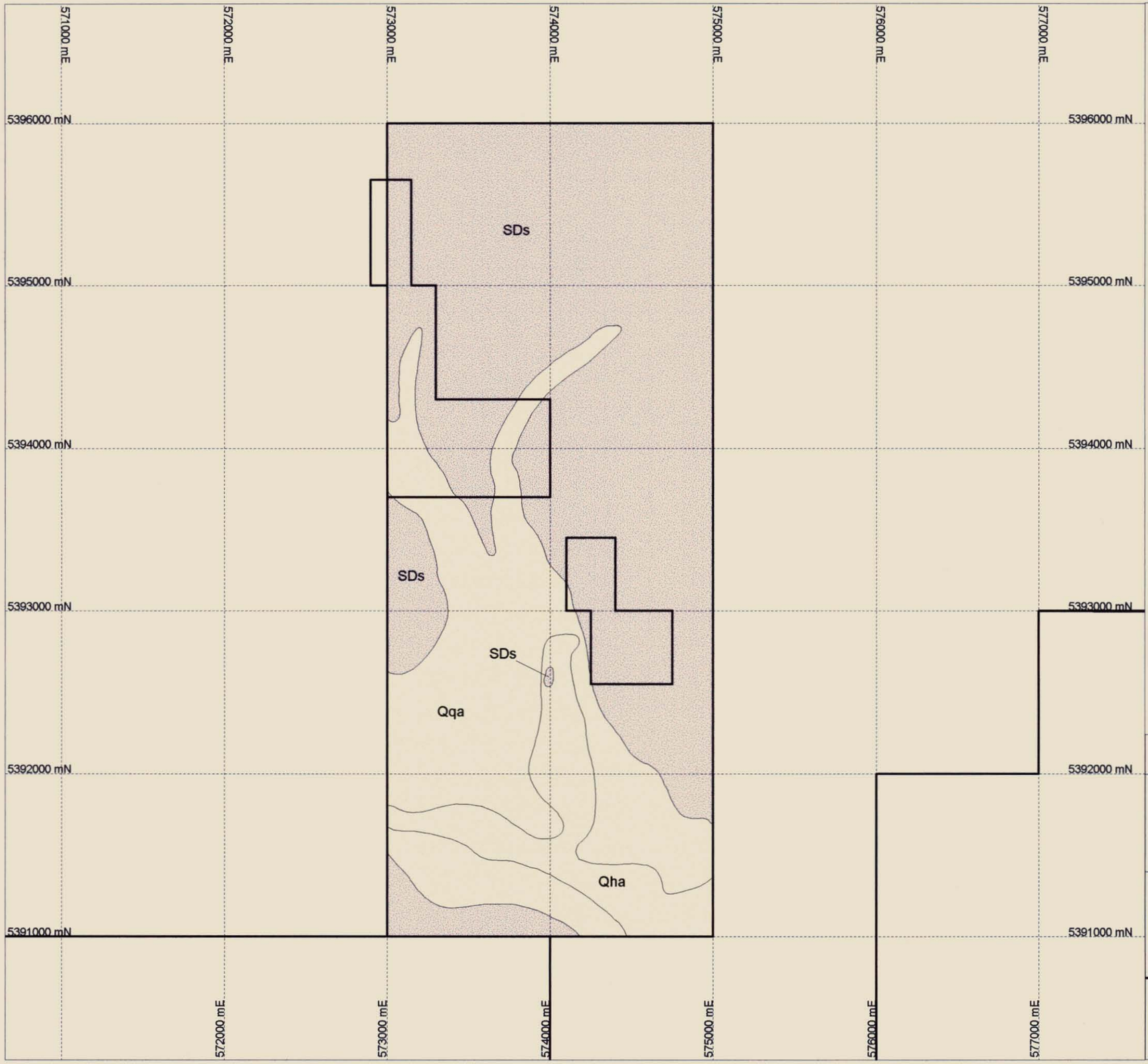
RC Drillhole Collar
AGS Airborne Geophysical Survey
HSG Airborne Geophysical Survey and Historical Soil Geochemistry Survey
Roads
River

DEFIANCE MINING NL

Mathinna Joint Venture
Exploration Activity Map
EL 18/91

Date: 7/4/2000	Geologist: DG Jackson
Author: TC Downs	Plan No: TAS042
Projection: AMG Zone 55 (AGD 84)	

Scale: 1:25000
0 500 1000
metres



CAINOZOIC

QUATERNARY

- Qhm — Mine tailings and man disturbed ground
- Qha — Stream alluvium, swamp and marsh deposits
- Qqa — Older alluvium of river terraces
- Qc — Qcc — Colluvium - derived from Mathinna Group
- Qpt — Talus consisting of dolerite and subordinate Upper Parmeener rocks.
- Qpb — Dolerite block fields probably underlain by clay from weathered dolerite, with interstitial fines
- Qpd — Toppled dolerite masses (>100m), coherent or partly disaggregated, produced by cliff failure.

TERITARY

- Conglomerate with rounded clasts of Mathinna Group and very rare weathered dolerite, often partly cemented by iron oxides

PALAEOZOIC

MESOZOIC

TRIASSIC

- Rt — Dominantly lithic sandstone with minor mudstone and coal
- Rtm — Quartz rich lithic sandstone and minor quartz sandstone (Rt), with mudstone and carboaceous mudstone (Rtm)
- Rqc — Cross bedded quartz sandstone

PERMIAN

- Pj — Fine grained, slightly feldspathic quartz sandstone, micaceous shale and minor carbonaceous mudstone.
- Pm — Poorly sorted grey mudstone, siltstone and rare sandstone, unfossiliferous except for rare forams
- Pmp — Bed of pebbly sandstone indicated (Pmp)
- Pp — Thick-bedded usually poorly sorted, pebbly sandstone passing upward to interbedded sandstone, siltstone and mudstone. Marine fossils abundant in places
- Pwl — Dominantly bioclastic limestone
- Pl — Marine fossiliferous mudstone siltstone and minor sandstone and bioclastic limestone
- Pt — Fine grained pebbly sandstone with phosphatic nodules. Marine fossils present in some areas
- Pll — Mudstone siltstone and poorly sorted sandstone. Uncommon marine fossils.
- Pv — Dominantly well sorted quartz sandstone, usually cross-bedded and commonly with interbedded inter-laminated carbonaceous shale lesser conglomerate and rare coal
- Pb — Poorly sorted pebbly mudstone, sandstone and minor conglomerate, marine fossils present in places (Pb); dominantly thick-bedded to massive , medium to coarse-grained quartz sandstone and minor conglomerate (Pbs)

EARLY DEVONIAN (?) -SILLURIAN-ORDOVICIAN (?)

- SDx — Quartzwacke turbidite sequence of interbedded sandstone siltstone and mudstone (SDx); sequences with significant mudstone indicated (SDsp);
- SDs — dominantly sandstone and siltstone (SDs); some quartzite units indicated (SDsq)
- SDp — Dominantly mudstone and siltstone (SDp)
- Metapsammite (SDsm, SDspm), metaquartzite (SDsqm)

IGNEOUS ROCKS

TERTIARY

- Tbb — Basinite

JURASSIC

- Jd — Dolerite - grain size <0.2mm (vf). Areas with later very fine-grained dykes shown (fd)

- Gmia — Aplite

MAJOR GRANITIC INTRUSIONS

SCOTTSDALE BATHOLITH

- Generally equigranular medium to coarse grained, leucocratic biotite alkali feldspar granite/adamellite with pale pink feldspar.
- Dssp — Sparsely to moderately porphyritic (quartz and K feldspar), fine to coarse grained biotite granite
- DEVONIAN
- Dssc — Equigranular coarse to very coarse grained biotite +/- hornblende adamellite / granodiorite with pink to white feldspars

BLUE TIER BATHOLOITH

- Dbg — Medium grained, equigranular to rarely porphyritic (KF), biotite-hornblende granodiorite Locally with a strong grain foliation. Variable but usually strongly magnetic (Dbgs). Weakly magnetic (Dbgw)

BEN LOMOND GRANITE

- Dlaw — Fine to coarse grained equigranular to porphyritic (KF) alkali feldspar granite

DEFIANCE MINING NL

Mathinna Joint Venture
Regional Geology Map
EL 18/91

641025

Date:30/3/2000	Geologist: DG Jackson
Author: TC Downs	Plan No: TAS043
Projection: AMG Zone 55 (AGD 84)	

Scale: 1:25000

0 — 500 — 1000

metres

5 cm

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Annual Report for the period 30 May 1999 to 29 May 2000 - EL 18/91 Mangana Connemara Gold Mines Proprietary Limited; Defiance Jackson, D.G.

EL18/91

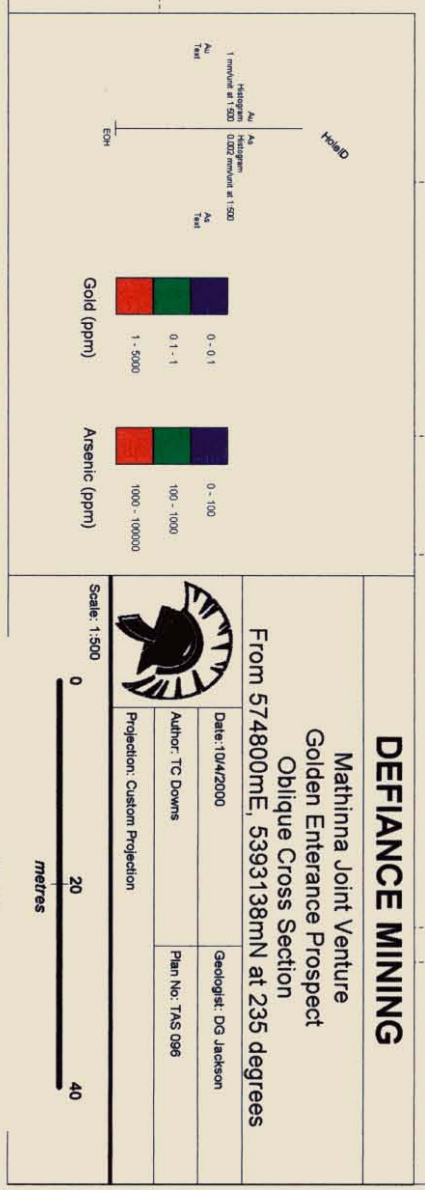
300mRL
320mRL
340mRL
360mRL
380mRL
400mRL
420mRL

5393140mN
574800mE
574780mE
5393120mN

MT098
MT097
96.0m
84.0m

5393140mN
574800mE
574780mE
5393120mN
574760mE
5393100mN
574740mE
574720mE
5393080mN

320mRL
340mRL
360mRL
380mRL
400mRL
420mRL



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Connemara Gold Mines Proprietary Limited; Defiance
Jackson, D.G. EL18/91

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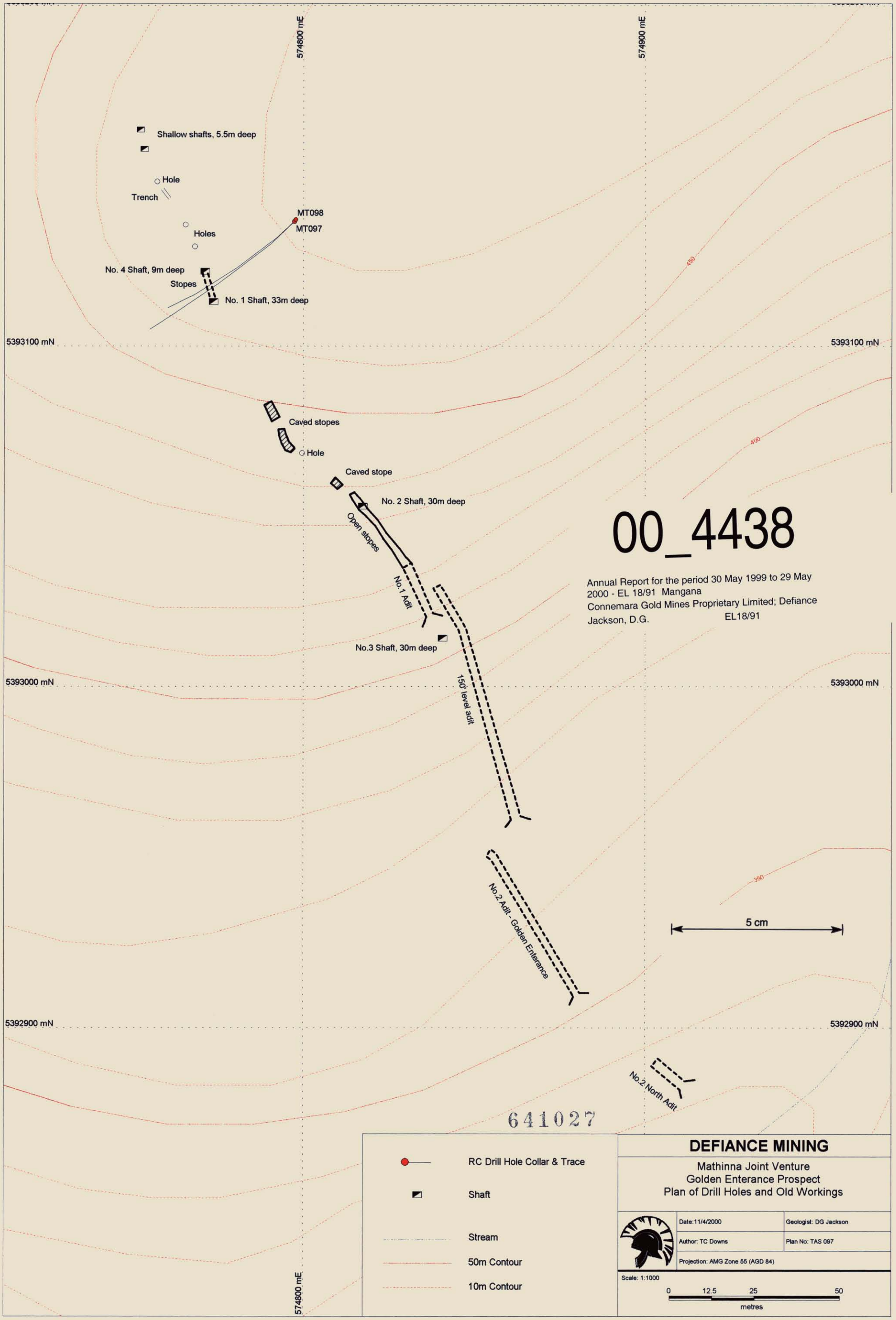
DEFIANCE MINING

Mathinna Joint Venture
Golden Enterance Prospect
Oblique Cross Section
From 574800mE, 5393138mN at 235 degrees

Date: 10/4/2000
Geologist: DG Jackson
Author: TC Downs
Plan No: TAS 096
Projection: Custom Projection

Scale: 1:500
0 20 40
metres

5 cm



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Annual Report for the period 30 May 1999 to 29 May 2000 - EL 18/91 Mangana
Connemara Gold Mines Proprietary Limited; Defiance
Jackson, D.G. EL18/91