BARRICK GOLD OF AUSTRALIA LIMITED

(ABN 19 008 143 137)

PROJECT 8440

TANAMI (NT) JV

SUPPLEJACK PROJECT

EL5888, EL8809, EL9788 and EL22965

ANNUAL REPORT

Period 1 January 2004 – 31 December 2004

TECHNICAL REPORT No. 1147

Wave 4860, Breaden 4859, Mallee 4759
MAP SHEET: SE52-11 (Birrindudu), SE52-15 (Tanami)

DISTRIBUTION:

1. BGAL – Perth 8440.331
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Graeme Purcell

February 2005

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1.0 SUMMARY

The Supplejack Project comprises Exploration Licences (EL) 5888, 8809, 9788 and 22965 and forms part of the Tanami (NT) JV, a Joint Venture agreement between Tanami Gold NL (TGNL) and Barrick Gold of Australia Limited (BGAL). The tenements were granted during 2002-2003 for a period of six years.

Work conducted during 2004 involved geological compilation and detailed aircore drilling of a significant Au-As rock chip anomaly identified during previous reconnaissance work. These activities are summarised in Table 1 and illustrated in Figure 1. There were no on-ground activities undertaken on EL 22965 as the access agreement with the Central Land Council is currently pending.

Table 1
Summary of Exploration Activities

Tenement	Rock Chips	Lags	Drill BLEG	Aircore Drilling	
				Holes	Metres
EL 5888	-	-	13	14	650
EL 8809	-	-	51	78	3,880
EL 9788	-	-	-	-	-
EL 22965	-	-	-	-	-
Totals			**64**	**92**	**4,530**

2.0 LOCATION AND ACCESS

The Supplejack Project is located approximately 250km east-southeast of Halls Creek, in the northwestern portion of the Tanami Desert. The tenement group lies on the Tanami (SE52-15) and Birrindudu (SE52-11) 1:250,000 geological map sheets. Access from Halls Creek is southeast via the unsealed Tanami Highway for approximately 320km to the Tanami Mine, then 80km north along the Lajamanu (Hooker Creek) Road to the Supplejack Downs homestead, then 40km northwest using station and access tracks. Access from Alice Springs is northwest via the Tanami Highway for approximately 700km until the Lajamanu turnoff.

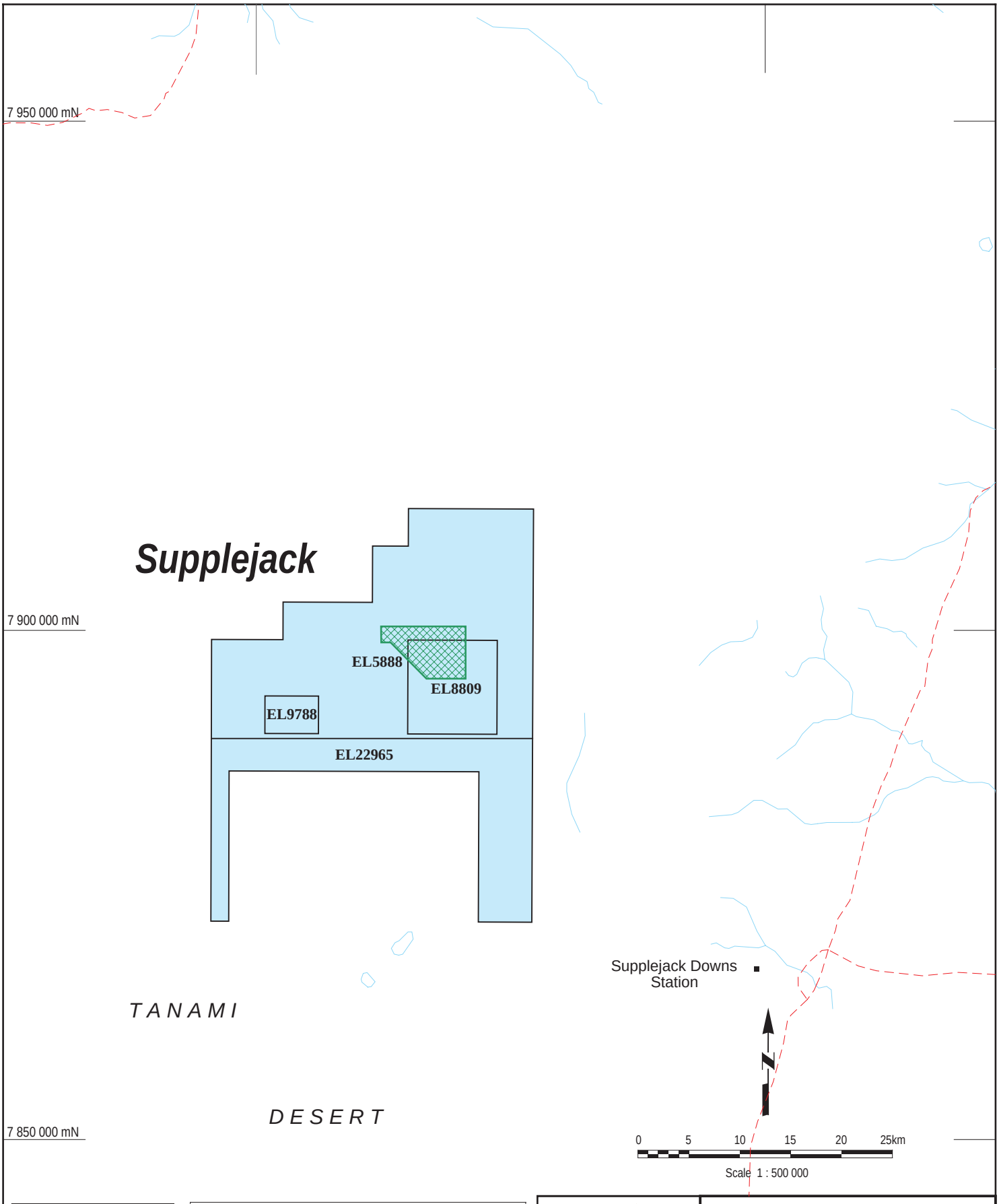
When conducting exploration activities, a temporary fly-camp was used as the exploration base. The tenement group is traversed by station tracks to the south. One track created to provide access to former leases, and in poor condition, provides access to the central and northern areas of the Project (Figure 2). The Lajamanu community is the nearest established town and is approximately 190km by road to the northeast.

The area is affected annually by high temperatures and seasonal rainfall associated with the northern monsoon, which generally extends from November to April. During this time access via road may be restricted due to wet conditions.

The project covers an area of gently undulating hills and aeolian sand plains, dominated by spinifex, acacia thickets and sparse stands of eucalypts. Scarps of flat lying Proterozoic sandstones (20-50m) surround the plains to the north, east and west of the project, and support little but spinifex and sparse acacia scrub. Occasional springs and ephemeral waterholes occur close to these scarps.

3.0 TENURE

The Supplejack Project comprises four Exploration Licences, and forms part of the Tanami (NT) JV project. Details are listed in Table 2 and illustrated in Figure 3.



Locality Map

Legend

Barrick Tenements

Area of AC drilling

Projection Based on AGD84 (Zone 52)

BARRICK AUSTRALIA

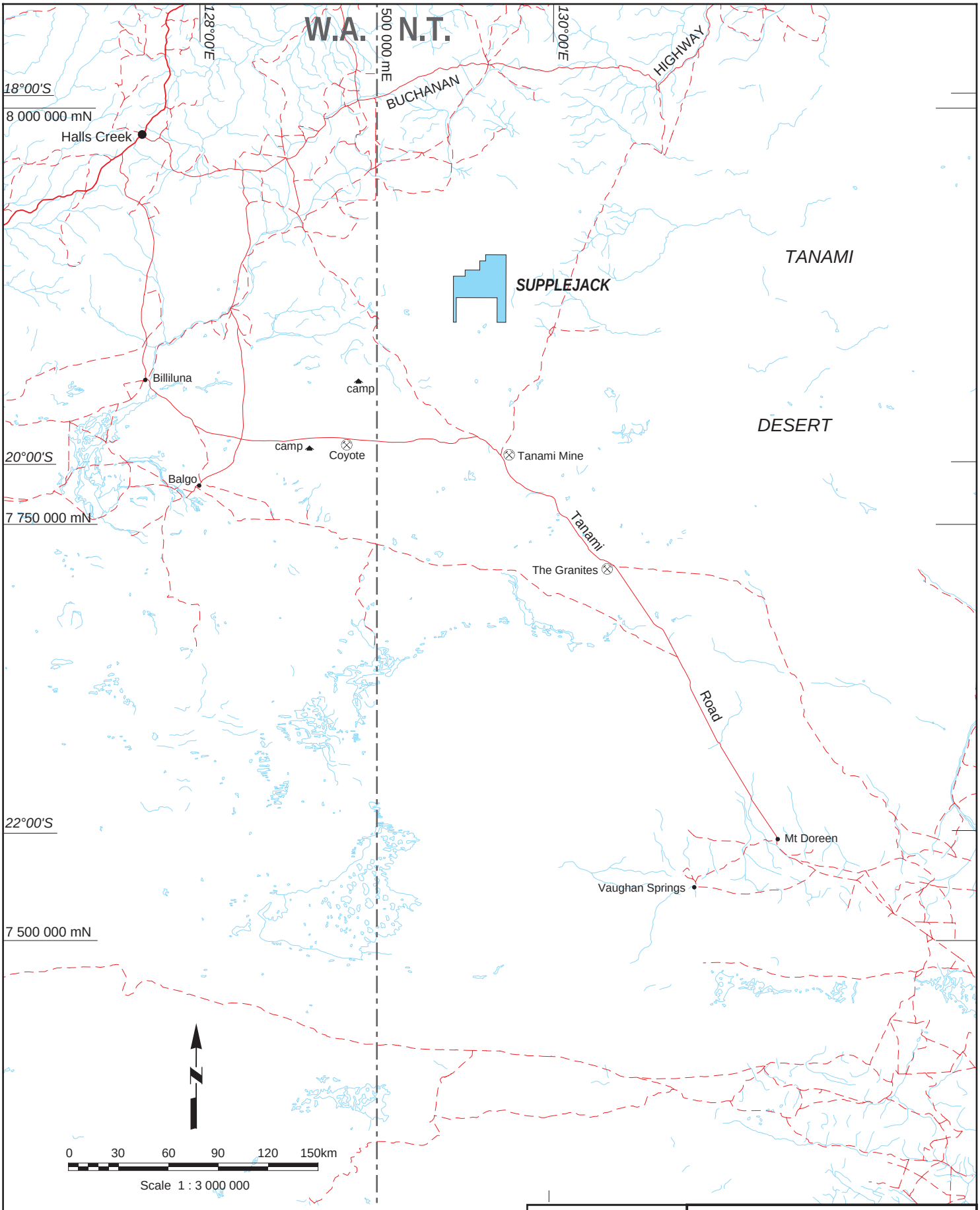
SUPPLEJACK EXPLORATION INDEX MAP

Project: **8440 - TANAMI (NT) JV**

Originator: G.P.	Date Drawn: Feb 2004	Scale	Technical Report No.
Drawn By: D.F.B.	Revised:	1 : 500 000	1147

Ref : FILE: I:\Drafting\Tanami\Taten022.dgn
DATE: 24-Feb-05 10:38

Figure No.: 1



BARRICK AUSTRALIA

SUPPLEJACK LOCATION

Project: 8440 - TANAMI (NT) JV

Originator: G.P.	Date Drawn: Dec 2000	Scale	Technical Report No.
Drawn By: D.F.B.	Revised: Jan 2004	1 : 3 000 000	1147

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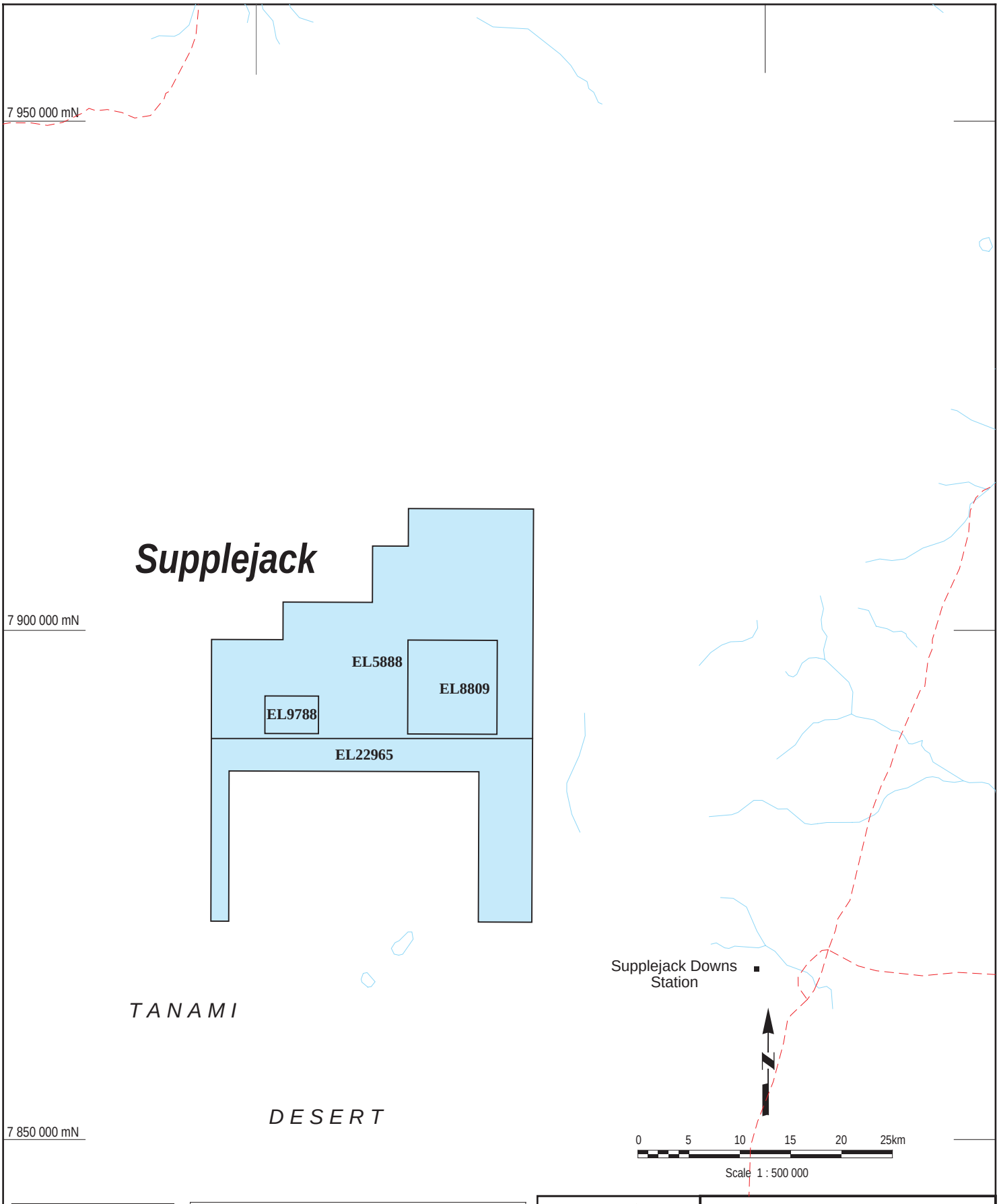
DATE: 10-Feb-04 08:44

Figure No.: 2



Locality Map

Legend

Barrick Tenements

Projection Based on AGD84 (Zone 52)

BARRICK AUSTRALIA

SUPPLEJACK TENEMENTS

Project: **8440 - TANAMI (NT) JV**

Originator: G.P.	Date Drawn: Feb 2004	Scale	Technical Report No.
Drawn By: D.F.B.	Revised:	1 : 500 000	1147

Ref : FILE: I:\Drafting\Tanami\Taten022.dgn
DATE: 24-Feb-05 10:38

Figure No.: 3

Tanami Exploration NL, a wholly owned subsidiary of Tanami Gold NL (TGNL), is the registered title-holder of this tenement. Barrick Gold of Australia Limited (BGAL) are managers of exploration through the Tanami (NT) JV agreement with TGNL, commencing 13 December 2000.

Table 2
Tenement Register (as at 31 Dec 03)

Tenement	Area	Commences	Expires	Req. Exp. (2nd Year)	Comments
EL 5888	155 blocks (497.5km^2)	22 Aug 2002	21 Aug 2008	$45,500	
EL 8809	25 blocks (80.3km^2)	17 Oct 2002	16 Oct 2008	$25,000	
EL 9788	6 blocks (19.3km^2)	22 Aug 2002	21 Aug 2008	$10,500	
EL 22965	68 blocks (218.3km^2)	13 Feb 2003	12 Feb 2009	$32,000	Access agreement pending
Totals	**186 blocks (597.1km^2)**			**$113,000**	

4.0 GEOLOGY

4.1 Regional Geology

Basement is rarely exposed and is composed of Archaean granites and gneisses. Basement rocks have SHRIMP U-Pb zircon dates of 2504 ± 4Ma and 2514 ± 3Ma. The basement was subjected to the Barramundi Orogeny (1882 ± 14Ma), prior to the deposition of the overlying sediments.

Post-Barramundi rifting led to deposition of mafic volcanics, volcaniclastics and subordinate clastics and calc-silicates of the McFarlane Peak Group. This was succeeded by the deposition of the Tanami Group in a passive margin environment. These rocks include carbonaceous siltstone, minor banded ironstone and calc-silicates of the Dead Bullock Formation, which is conformably overlain by several thousand metres of turbiditic sandstones of the Killi-Killi Formation.

The sedimentary pile was later intruded by doleritic sills, prior to and during the subsequent deformation of the Tanami Orogenic Event. The Tanami Orogenic Event occurred between 1830-1845Ma and was a period of regional deformation and metamorphism across the Tanami Inlier. The Pargee Sandstone, a thick molasse of interbedded conglomerate, sands and minor silts, was deposited unconformably on the Tanami Group in a sub-basin created during the Tanami Orogenic Event.

Local intracontinental rifting (1825 to 1815Ma), led to subaqueous and subaerial sedimentation and felsic to mafic volcanism forming the Mount Charles Formation, Mount Winnecke Group and the Nanny Goat Volcanics.

Three overlapping periods of I-type granitic plutonism occurred at this time producing the Winnecke Suite (1830-1820Ma), the Inningarra-Coomarie Suites (1820-1810Ma) and the Granites-Frederick Suites (1810-1790Ma). The Palaeoproterozoic basement was then exhumed, eroded and covered by the Neoproterozoic Birrindudu Group sediments comprising the Gardiner Sandstone, Talbot Well Formation and Coomarie Sandstone.

The region has been cut by large west-northwest trending faults. These structures manifest themselves as large prominent quartz ridges or as drainages. Recent field mapping indicates that these structures were long lived with various episodes and orientations of movement.

Gold mineralisation in the Tanami is extensive. The endowment of the region exceeds 13Moz of gold with the Callie system being the largest single deposit, which contains more than 6Moz of gold. Mineralisation in the Tanami region is diverse, ranging from epithermal styles at the Tanami group of mines, to the deeper lode gold deposit at Groundrush. Locally some deposits favour certain lithologies, however it is clear that gold mineralisation is lithologically indiscriminate and occurs in almost all rock types across the Tanami region.

4.2 Local Geology

Geology of the tenement comprises granite with deformed and metamorphosed sediments of the Tanami Complex. Lithologies include shale, siltstones, carbonaceous shale, ferruginous shale, chert, dolerite and fine to medium-grained greywacke. Massive granitic stocks intrude the sediments. The Brown's Range Dome comprises uplifted Archaean basement and outcrops 20km to the west of the Project. Surrounding the tenement group are thick sequences of flat lying Birrindudu Group sediments. The sandstone forms elevated plateaus, which unconformably overlie Tanami Complex rocks, and rise from 20 - 50m above the surrounding topography.

Aeromagnetic interpretation suggests numerous structures traverse the tenement, dominated by NNE trending shear corridor in the western portion of the Project area. Weakly developed WNW trending Trans-Tanami Style Fault Zones, and smaller-scale brittle faults transect the area. The package has been multiply deformed giving rise to a well-developed fold interference pattern. Evidence suggests that thrusting has occurred within the package, giving rise to stratigraphic thickening and repetition.

Outcrop of Tanami Complex lithologies is sparse. Highly weathered subcrop is more common in the northern portion of the Project and limited to slight topographic rises where deflationary lag is well developed. Elsewhere, stratigraphy is commonly overlain by a transported horizon of variable thickness, with localised palaeochannel development. A veneer of aeolian sand from 1-3m thick covers the majority of the tenement.

5.0 PREVIOUS EXPLORATION

There is no record of historical exploration within the Supplejack tenement group.

Early explorers Davidson and Talbot passed through the region in 1901 and 1909 respectively, where they recorded the presence of gold at a number of locations, including The Granites, Tanami and Larranganni Bluff (Kookaburra/Sandpiper mineralised system). More recent activities by the NTGS within the Tanami region have been extensive. A mapping project of the Birrindudu (SE52-11) 1:250,000 geological map sheet is in progress.

Barrick first conducted exploration within the tenement group during 2003 with all activities detailed in Purcell, 2004.

6.0 EXPLORATION ACTIVITIES AND RESULTS

All exploration activities were carried out on the Australian Map Grid (AMG84) in Zone 52.

6.1 Aircore (AC) Drilling

A programme of 87 holes for 4,530m (SUAC0001-0087) were drilled to test significant mineralisation identified from rock-chip sampling of quartz veining within carbonaceous and Fe-rich sediments during 2003 (Old Soldier Prospect), and prospective lithostructural positions identified from geophysics. Holes were drilled on a 100 x 100m, 100 x 200m and 400 x 200m pattern on a local grid (GN @ 315°) or on AMG.

A further 5 holes for 135m (SUWB0001-0005) were drilled attempting to establish a water bore for general (non-drinking) camp use and drilling activities. Holes were logged and

sampled as per the techniques described below. Two of these holes were successful which produced low to moderate flow of slightly brackish water. All details of hole, water and casing depths are included in Appendix 1.

Bostech Drilling P/L completed the AC drilling under contract to blade refusal (unless abandoned). The drilling was either vertical or angled at –60° towards 225° magnetic.

All drill holes were sampled at 1m increments, collected via a cyclone and placed in 1m piles on the ground beside each hole. A nominal 2kg composite sample was obtained by spear sampling from one to five adjacent one-metre samples. The samples were stored in numbered plastic bags and were submitted to Genalysis Laboratory Services P/L in Adelaide for preparation and to Perth for analysis. All samples were analysed for Au by the B/ETA technique (lower detection limit of 0.1ppb) and As by ICP MS (0.5ppm). Multi-element analyses were completed on geological event horizons or geologically interesting horizons (eg quartz veining) by Aqua Regia digest with ICP MS and AAS finish, including Ag (lower detection limit of 0.1ppm), Ba (1ppm), Be (0.05ppm), Bi (0.01ppm), Cd (0.05ppm), Ce (0.01ppm), Co (0.1ppm), Cs (0.002ppm), Cu (1ppm), Li (0.1ppm), Mo (0.1ppm), Ni (1ppm), Pb (1ppm), Pd (0.01ppm), Pt (0.005ppm), Sb (0.02ppm), Sc (1ppm), Se (1ppm), Sn (0.05ppm), Sr (0.02ppm), Ta (0.01ppm), Te (0.05ppm), Th (0.01ppm), Tl (0.01ppm), U (0.01ppm), W (0.05ppm), Zr (0.1ppm) and Zn (1ppm).

A BLEG analysis was also carried out on the majority of AC holes. The sampling strategy targeted the pisolitic or lag rich horizon that was located below the aeolian sand. The pisolitic/lag rich intervals were sieved (-6mm+2mm) to remove aeolian sand and organic contamination. A nominal weight of 500g of lag was collected and stored in snap-lock plastic bags within numbered calico bags. The samples were dispatched to Ultra Trace Laboratories (Perth). The samples were subjected to bulk cyanide leach with an ICP-MS finish to a detection limit of 0.05ppb Au.

The AC drilling data files are listed in Appendix 1. Drill intersections (>10ppb Au) are summarised in Table 3 and shown on Plate 1.

Drilling of the Old Soldier prospect intersected a differentiated mafic intrusive body with intercalated Dead Bullock Fm sediments and sporadic bucky to fractured and ferruginous quartz veining. A broad granite intrusive body was noted immediately to the south of the prospect area.

The mafic body comprises a pyroxene - talcose rich ultramafic base with sparse remnant cumulate texture that grade into a pyroxene rich dolerite then a classic sub-ophitic textured dolerite. A fine-grained dolerite (chilled margin?) caps the sequence, that overall displays a north plunging right way up orientation. Intercalated sediments comprise chert, fine to medium-grained quartzose and matrix rich volcanic derived greywacke, shale, carbonaceous shale and fine-grained strongly ferruginous sediments (low-grade BIF). Sporadic quartz veining was noted throughout the prospect area, though was not strongly manifest around the mineralised quartz veining identified at surface. No obvious alteration was noted, however a fine spotted texture was observed within some sediments that may be related to hornfelsing from the mafic or granitic intrusives.

No significant assays (+1g/t Au) were returned. Results from the immediate area surrounding the +2g/t Au rock chips were disappointing, generally in the range of 100-200ppb Au and peaking at 401ppb Au. Broad arsenic anomalism is noted, generally at 100-300 ppm and peaking at 1770ppm. Multi-elements such as Ba, Bi, W, Te were also elevated. Anomalism appears associated with sporadic quartz veining and within the saprolite horizon.

Drilling conducted away from the Old Soldier Prospect, targeting potential lithostructural positions, intersected differentiated mafic intrusives and intercalated sediments comprising chert, fine to medium-grained quartzose and matrix rich volcanic derived greywacke, shale, carbonaceous shale and fine-grained strongly ferruginous sediments (low-grade BIF). Sporadic quartz veining was rarely noted.

No significant assays (+1g/t Au) were returned. Results were disappointing, generally in the range of 10-100ppb Au. Sporadic arsenic anomalism was noted, generally at 50-150 ppm. No significant multi-element anomalism was noted.

Table 3
Old Soldier Prospect
Significant RAB/AC Drill Anomalism
2004

Hole	Co-ordinates		RL	Azi	Dip	Depth	Gold Anomalism > 10 ppb			
	N	E					From (m)	To	Length (m)	Grade (ppb)
SUAC0001	7896459.6	569035.4	400	225	-60	83	0-8	c	8	26.0
							15-19	c	4	16.3
							29-60	c	31	23.9
							69-72	cw	6	25.6
							74-80	cw	6	25.6
SUAC0002	7896530.3	569106.1	400	225	-60	82	40-52	c	12	33.9
							56-68	c	12	24.0
SUAC0003	7896601	569176.8	400	225	-60	55	0-14	c	14	16.2
							43-47	c	4	11.7
SUAC0004	7896671.8	569247.5	400	225	-60	44	8-33	c	25	98.5
SUAC0005	7896742.5	569318.2	400	225	-60	30	0-3	c	3	99.2
							27-30	c	3	99.8
SUAC0006	7896813.2	569388.9	400	225	-60	31	25-31	c!	6	96.1
SUAC0007	7896883.9	569459.6	400	225	-60	65	22-23		1	24.2
							31-64	c	33	39.0
SUAC0008	786954.6	569530.3	400	225	-60	26	21-24	c	3	22.7
SUAC0009	7896388.9	569106.1	400	225	-60	87	8-20	c	12	56.4
							21-29	c	8	24.5
							33-38	c	5	22.7
							39-64	c	25	20.4
							74-78	c	4	15.3
							86-87	!	1	125.1
SUAC0010	7896459.6	569176.8	400	225	-60	24	4-8	c	4	11.5
							22-24	cw!	2	15.3
SUAC0011	7896462.6	569178.8	400	225	-60	66	4-12	c	8	13.8
							24-28	c	4	19.4
							33-38	c	5	17.2
							50-55	c	5	24.9

Table 3
Old Soldier Prospect
Significant RAB/AC Drill Anomalism
2004

Hole	Co-ordinates		RL	Azi	Dip	Depth	Gold Anomalism > 10 ppb			
	N	E					From (m)	To	Length (m)	Grade (ppb)
SUAC0012	7896965.7	569282.8	400	225	-60	82	8-33	c	25	31.4
							35-52	c	17	19.2
							64-68	cw	4	24.3
							76-80	cw	4	10.3
SUAC0013	7896636.4	569353.6	400	225	-60	49	14-19	c	5	14.0
							21-49	c!	28	81.3
SUAC0014	7896742.5	569459.6	400	225	-60	48	0-4	c	4	15.4
							8-11	c	3	65.3
							15-17	c	2	15.1
							19-28	c	9	91.2
							40-44	c	4	63.2
SUAC0015	7896813.2	569530.3	400	225	-60	38	23-31	c	8	27.0
							37-38	!	1	15.4
SUAC0016	7896530.3	568964.6	400	225	-60	93	0-10	c	10	42.3
							22-52	c	30	19.2
							66-82	cw	16	38.6
SUAC0017	7896601	569035.4	400	225	-60	90	33-46	c	16	23.5
							57-65	c	8	119.6
							73-77	c	4	26.9
SUAC0018	7896671.8	569106.1	400	225	-60	45	21-25	c	4	15.9
							39-44	c	5	73.3
SUAC0019	7896742.5	569176.8	400	225	-60	33	8-12	c	4	25.5
							25-33	c!	8	40.1
SUAC0020	7896813.2	569247.5	400	225	-60	33	17-20	c	3	32.7
							32-33	c!	1	10.3
SUAC0021	7896883.9	568318.2	400	225	-60	63	9-11		2	32.1
							20-40	c	20	27.3
							48-59	c	11	68.4
SUAC0022	7896954.6	568388.9	400	225	-60	34	6-7	c	1	49.6
							27-31	c	4	23.9
SUAC0024	7896176.8	568752.5	400	225	-60	36	14-18	c	4	10.3

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Old Soldier Prospect
Significant RAB/AC Drill Anomalism
2004

Hole	Co-ordinates		RL	Azi	Dip	Depth	Gold Anomalism > 10 ppb			
	N	E					From (m)	To	Length (m)	Grade (ppb)
SUAC0025	7896247.5	568823.2	400	225	-60	60	10-11		1	10.9
							16-17		1	10.3
							31-41	c	10	24.3
SUAC0026	7896318.2	568823.2	400	225	-60	66	10-11		1	11.5
							12-16	c	4	12.0
							30-34	c	4	20.0
							62-66	c!	4	12.1
SUAC0027	7896388.9	568964.6	400	225	-60	53	20-22		2	72.4
							28-29		1	16.4
							24-47	c	5	11.4
							51-53	!	2	13.3
SUAC0028	7896388.9	568681.8	400	225	-60	36	28-29		1	18.2
							33-35	c	2	18.5
SUAC0029	7896530.3	568823.2	400	225	-60	39	28-32	c	4	24.5
SUAC0030	7896671.8	568964.6	400	225	-60	72	0-8	c	8	43.9
							14-20	c	6	17.0
							24-42	c	18	37.2
							43-48	c	5	11.9
							52-55	c	3	33.3
							59-71	c	12	25.7
SUAC0033	7897096	569388.9	400	225	-60	30	28-29		1	14.4
SUAC0034	7896566	569145	400	45	-60	55	4-12	c	8	12.2
							39-47	c	8	37.6
SUAC0035	7896528	569252	400	45	-60	67	8-12	c	4	13.6
							43-47	c	4	19.9
							53-54		1	30.0
SUAC0037	7896848.5	568717.2	400	0	-90	37	21-33	c	12	68.8
SUAC0038	7896989.9	568858.6	400	0	-90	32	14-15		1	401.5
							22-23	c!	10	44.2
SUAC0039	7897131.4	569000	400	0	-90	47	30-38	c	8	14.1
							39-44	c	5	19.6

Table 3
Old Soldier Prospect
Significant RAB/AC Drill Anomalism
2004

Hole	Co-ordinates		RL	Azi	Dip	Depth	Gold Anomalism > 10 ppb			
	N	E					From (m)	To	Length (m)	Grade (ppb)
							46-47	!	1	15.8
SUAC0044	7897272.8	569707.1	400	0	-90	31	30-31	!	1	16.0
SUAC0048	7896141.4	569141.4	400	0	-90	59	10-49	cw	39	50.0
							56-57		1	13.6
SUAC0049	7896282.8	569282.8	400	0	-90	76	0-7	c	7	17.0
							19-41	c	22	41.2
							46-58	c	12	32.6
SUAC0050	7896424.3	569424.3	400	0	-90	55	16-20	c	4	18.2
							31-55	c!	23	22.3
SUAC0051	7896565.7	569565.7	400	0	-90	58	12-16	c	4	12.3
							20-31	c	11	19.9
							34-46	c	12	20.3
							57-58	!	1	11.5
SUAC0052	7896707.1	569707.1	400	0	-90	35	24-32	c	8	25.3
SUAC0053	7896848.5	569848.5	400	0	-90	59	12-16	c	4	12.5
SUAC0054	7896990	569990	400	0	-90	50	32-33		1	15.0
SUAC0055	7897131.4	570131.4	400	0	-90	47	45-47	!	2	15.4
SUAC0056	7897272.8	570272.8	400	0	-90	69	39-43	c	4	29.5
							56-60	c	4	10.2
							53-68	c	5	14.3
SUAC0057	7896141.4	571262.7	400	0	-90	58	8-20	c	12	12.4
SUAC0058	7896282.8	569848.5	400	0	-90	47	0-12	c	12	17.8
							16-20	c	4	12.8
							24-32	c	8	88.4
							34-38	c	4	21.0
SUAC0059	7896424.3	569990	400	0	-90	58	16-25	c	9	68.2
							35-36		1	12.9
							43-58	c!	15	59.3
SUAC0063	7895717.2	569848.5	400	0	-90	68	29-33	c	4	41.1
							37-49	c	12	13.6
							56-60	cw	4	17.3

Table 3
Old Soldier Prospect
Significant RAB/AC Drill Anomalism
2004

Hole	Co-ordinates		RL	Azi	Dip	Depth	Gold Anomalism > 10 ppb			
	N	E					From (m)	To	Length (m)	Grade (ppb)
							67-68	w!	1	12.8
SUAC0064	7895858.6	569990	400	0	-90	70	0-4	c	4	42.9
							19-21	c	3	13.8
							23-35	c	12	92.6
							43-47	c	4	12.9
							55-56		1	21.8
							66-70	cw!	4	15.1
SUAC0065	7896000	570131.4	400	0	-90	77	4-16	c	12	25.3
							24-28	c	4	11.1
SUAC0065	7896000	570131.4	400	0	-90	77	29-30		1	20.3
							34-51	c	17	30.2
							75-77	!	2	20.0
SUAC0066	7896141.4	570272.8	400	0	-90	54	16-41	c	25	20.0
							50-53	c	3	15.9
SUAC0067	7896282.8	570414.2	400	0	-90	68	12-20	c	8	20.5
							64-67	c	3	11.8
SUAC0074	7898000	566800	400	0	-90	49	40-44	c	4	13.6
SUAC0078	7898000	566000	400	0	-90	61	38-42	c	4	15.8
SUAC0080	7900500	566400	400	0	-90	55	29-33	c	4	16.7
							37-48	cw	11	15.6
SUAC0081	7900500	566200	400	0	-90	64	44-48	c	4	10.1
SUAC0083	7900500	565800	400	0	-90	49	33-37	c	4	108.6
SUAC0086	790000	565200	400	0	-90	60	16-20	c	4	24.3
							34-38	c	4	20.8
							52-56	cw	4	18.1
							59-60	w!	1	34.6

c = composite sample	* = assays not received	! = mineralisation at base of hole
+ = hole incomplete	W = wet sample	? = data subject to verification

6.2 Petrology

A batch of 5 samples collected during reconnaissance work conducted in November 2003 were submitted for petrological examination to Pontifex and Associates Pty. Ltd. Full descriptions were received February 2004.

All detailed descriptions and locations are included as Appendix 2.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The AC drilling conducted at the Old Soldier Prospect and targeted lithostructural positions failed to intersect any significant mineralisation, highlight any substantial vein corridors or repeat the mineralisation identified at surface. The dominance of mafic lithologies in the immediate prospect area, and the lack of significant veining, downgrades it's potential to host significant sediment hosted mineralisation. It is considered that limited potential exists for a stand-alone bulk tonnage operation and no further work is recommended in this instance, however, remnant potential still exists for a smaller satellite style orebody.

8.0 REFERENCES

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7902500 mN

7900000 mN

7897500 mN

7895000 mN

562500 mE

565000 mE

567500 mE

570000 mE

572500 mE

575000 mE

SUWB0005

SUWB0004

SUWB0003

SUWB0002

SUWB0001

SUAC0084

SUAC0083

SUAC0082

SUAC0081

SUAC0080

SUAC0079

SUAC0087

SUAC0086

SUAC0085

EL 5888

SUAC0078

SUAC0077

SUAC0076

SUAC0075

SUAC0074

SUAC0073

SUAC0072

SUAC0071

SUAC0070

SUAC0047

SUAC0046

SUAC0042

SUAC0045

SUAC0041

SUAC0044

SUAC0056

SUAC0040

SUAC0043

SUAC0055

SUAC0039

SUAC0033

SUAC0054

SUAC0038

SUAC0032

SUAC0053

SUAC0062

SUAC0037

SUAC0031

SUAC0052

SUAC0061

SUAC0036

SUAC0030

SUAC0051

SUAC0060

SUAC0029

SUAC0050

SUAC0059

SUAC0068

SUAC0028

SUAC0049

SUAC0058

SUAC0067

SUAC0048

SUAC0057

SUAC0066

SUAC0065

SUAC0064

SUAC0063

SUAC0069

SUAC0001 - 0020
SUAC0023 - 0027
SUAC0034 - 0035

EL 8809

BARRICK AUSTRALIA

SUPPLEJACK AIRCORE DRILL HOLE LOCATION

Project: 8440 - TANAMI (NT) JV

0 0.5 1 2

kilometres

Originator: G.P. Drawn: D.F.B.	Projection: AMG Zone 52 (AGD 84)	Technical Report No. 1147
Date: 24/2/2005 Scale: 1:25000	Workspace:	Plate No.: 1

APPENDIX 1

VERIFICATION LISTING FORM

TEMPLATE 7 - VERIFICATION LISTING FORM

Exploration Work Type	File Name	Format
Office Studies		
Literature search		
Database compilation		
Computer modelling		
Reprocessing of data		
Report	Tr1147_A_2005	pdf
Airborne Exploration Surveys		
Aeromagnetics		
Radiometrics		
Electromagnetics		
Gravity		
Digital terrain modelling		
Other (specify)		
Remote Sensing		
Aerial photography		
LANDSAT		
SPOT		
MSS		
Radar		
Other (specify)		
Ground Exploration Surveys		
Geological Mapping		
Regional		
Reconnaissance		
Prospect		
Underground		
Costean		
Ground geophysics		
Radiometrics		
Magnetics		
Gravity		
Digital terrain modelling		
Electromagnetics		
SP/AP/EP		
IP		
AMT		
Resistivity		
Complex resistivity		
Seismic reflection		
Seismic refraction		
Well logging		
Geophysical interpretation		
Other (specify)		
Geochemical Surveying		
Surface Geochemistry	Tr1147geochem.txt	WA SG2
Stream sediment		
Soil		
Rock chip		
Laterite		
Water		
Biogeochemistry		
Isotope		
Whole rock		
Mineral analysis		
Other (specify)	Petrology Report & descriptions – Appendix 2	
Drilling		
Data Dictionary	Drillkingdict.txt	
Collar	Tr1147coll.txt	WA SL2
Assay	Tr1147ass.txt	WA DG2
Survey	Tr1147surv.txt	WA DS2
Lithology	Tr1147litho.txt	WA DL1
Events	Tr1147event.txt	WA DL1
Recovery	Tr1147rec.txt	WA DL1
Magnetic Susceptibility	Tr1147mag.txt	WA DL1
Quartz		
Water		
Translation	Translat.txt	
Alteration	Tr1147altn.txt	WA DL1
Vein	Tr1147vein.txt	WA DL1
Structure		
Drill	Tr1147drill.txt	WA DL1

APPENDIX 2

PETROLOGICAL REPORT

MINERALOGICAL REPORT No. 8449

by Ian R. Pontifex MSc.

January 27th, 2004

TO :	Mr Graeme Purcell Barrack Gold of Aust Ltd Level 10, 2 Mill Street PERTH WA 6000
YOUR REFERENCE :	Order No. E11932
MATERIAL :	Rock samples from Tanami Tenements
IDENTIFICATION :	Nos. 1 to 10
WORK REQUESTED :	Thin section preparation, petrographic description and report.
SAMPLES & SECTIONS :	Returned to you with this report.
DIGITAL COPY :	Enclosed with hard copy of this report.

PONTIFEX & ASSOCIATES PTY. LTD.

SUMMARY COMMENTS

Ten rock samples from the Tanami Inlier are described in this report from normal thin sections as requested. Comprehensive field notes were provided for each sample, with comments to be addressed by the petrography, including questions on possible stratigraphic representation. These are incorporated within the individual descriptions, and included in the following summary comments.

Relict textures interpreted through extensive alteration indicate three apparently related samples, numbers 1, 3 and 6, representing original cherty-iron-silicate (amphibole-rich) BIF ± calc-silicate horizons, which have been variously modified by weathering/oxidation of Fe-rich minerals and by secondary low temperature silicification probably supergene but possibly epithermal. Goethitic boxwork after garnets occur in oxidised bands in #1 and finer possible ex-pyrite in #3. Sample #3 has more abundant amphibole than #1 and #6, possibly two different original species in different layers. It may be transitional to calc-silicate, rather than BIF per se, and therefore possibly some affinity with sample #4. Sample 6 has primary, albeit metamorphically recrystallised decussate microplaty hematite, (as well as oxidised ex-amphiboles and intercalated chert layers), indicating transition from silicate facies BIF to primary chert-iron oxide BIF.

Previous petrological studies of samples from the Tanami by Pontifex and Associates, notably by Alan Purvis, suggests that these three samples correlate with various inherently Fe-Si-rich chemical sediments ± calc-silicate associations within the Dead Bullock Formation, Tanami Group (published NTGS stratigraphy), some of which host gold mineralisation. This is largely consistent with the interpretations in your covering notes (except that sample #3 is questioned as a greywacke).

Other relatively different individual lithologies (and stratigraphies) are basically as follows :

#2 The petrography indicates this sample as a pelitic schist, weakly carbonaceous, with an apparent S_1 and S_2 fabric. Stratigraphically this lithology is not especially diagnostic, but given the association you report with sample #1 and some fabric, it may be compared with similar schists/shales in Dead Bullock Formation.

#4 Predominantly a former mass of decussate amphibole (?tremolite) pervasively silicified (supergene). Subordinate widespread ‘sericite’. Minor residuals of smectite and sparse disseminated opaque oxides. Precursor interpreted as a calc-silicate and as noted above, possibly compares with #3. Stratigraphic position uncertain but possibly Dead Bullock Formation. [Possible fuschite could not be confirmed but geochemistry for Cr may help.]

#10 Fine graphitic quartzose hornfels (schist) crowded with abundant small porphyroblasts of former andalusite ± possible sillimanite, deformed and retrograded to sericite, also minor weathered garnets and random meta-crysts of muscovite. Probably Dead Bullock Formation equivalent, with some characteristics suggesting proximity to a (granitoid) intrusion which induced contract metamorphism.

INDIVIDUAL DESCRIPTIONS

Sample #1

Interpreted as an original chert/silicate-facies BIF, metamorphically recrystallised with bands alternately dominated by (grey) metachert, and by (dark brown) oxidised former Fe-rich amphibole. The latter has minor goethitic boxwork/replica after garnet.

Field Note : *Poorly developed cherty BIF? The sample is sourced from an area of poorly exposed bedrock comprising highly weathered strongly ferruginous sediments with interbedded boudinaged chert horizons. We interpret this sample/package to represent exposed Dead Bullock Formation.*

Handspecimen

This rock is largely compact massive, fine grained quartzitic and banded. Darker brown goethitic-quartzose planar bands 10mm to 20mm thick / alternate with grey "pure" quartzose (cherty) layers of similar thickness.

Petrographic

The grey layers consist almost entirely of quartz (polygonal) micromosaic, with a consistent grain size about 0.1mm, and apparently recrystallised chert. Minor oxidised single fibrous crystals about 0.1mm in size and small clusters of these to 0.3mm have a random distribution through this chert with an overall vaguely layered distribution. These oxidised crystals are interpreted to represent original iron-rich amphibole such as cummingtonite – grunerite, (or possibly ex-stilpnomelane).

The subequal number of intercalated dark brown macrolayers are dominated by clusters of the oxidised fine fibrous crystals of almost certain former amphibole ± minor possibly primary hematite, together with lesser cherty quartz, or by even more concentrated (85%) oxidised fine fibrous mineral with sparse interstitial quartz. These oxidised bands also incorporate minor goethitic boxwork/replica probably after ex-garnet crystals (?or possibly ex-pyrite crystals), up to 3mm in size.

Sample #2 **Grey very fine pelitic schist (silty shale), not especially compact or indurated but with a very weak apparent S_2 fabric across a weak primary S_1 schistosity at a high angle. Weakly carbonaceous.**

Field Note : *Weakly carbonaceous shale? This sample is sourced from the same locality as Sample 1.*

Handspecimen

Homogeneous, pale to mid-grey very fine (pelitic), micaceous (?sericitic ± illitic) schist or shale.

Petrographic

At least 75% of this thin section consists of moderately compact commonly oriented (schistose) sericite with minor dispersed silt size grains of quartz and of detrital muscovite, and local shredded thin lenses of sericite along the schistosity. A very weak apparent S_2 fabric defined by poorly defined micro-kinking of the sericite cuts across a (?primary S_1) fine schistosity at a high angle. A weak dark clouding suggests sparse dispersed carbonaceous material, but too fine to be specifically identified by optical microscope, particularly in thin section (transmitted light).

The other approximate 25% of the rock consists of coarser silt to fine quartz sand grains of quartz, lesser detrital muscovite and limonite-lined, leached-out voids which may represent weathered lithic detritus.

Sample #3 **Layered rock, originally dominated by massive decussate fine amphibole (bundles). In paler bands this amphibole is supergene-silicified, with minor scattered goethite and limonite-altered patchy sericite. The darker bands are dominated by decussate fine amphibole, possibly a different species to the above, more intensely oxidised to goethite, with minor scattered small boxwork after pyrite (and/or possible garnet).**

Field Note : *Fine to medium grained, bedded (?) and weakly folded ferruginous sediment. Again sourced from the same locality as Sample 1. Greywacke?*

Handspecimen

This rock has irregularly alternating planar layers 5mm to 10mm thick, of microcrystalline cherty quartz (pale layers), together with dark brown layers of a similarly fine goethite oxidised phase. A silicate facies BIF is suggested, macroscopically comparable with samples 1 and 6.

Petrographic

Petrographically, the relatively pale bands are dominated (about 65%) by an original compact mass of irregularly interlocking bundles mostly <0.5mm, of subradiating fine fibrous amphibole, now completely pseudomorphically replaced by secondary silica (probably supergene). About 20% of these bundles are also partly altered to dark brown goethite. Scattered small diffuse patches throughout these same pale bands consist of brown limonite alteration, possibly also after the amphibole, but possibly after another phase which may have been intermediately sericite-altered.

The dark brown macrolayers consist of concentrated goethitic alteration after apparently the same masses of fine amphibole described above, with less silica, but also including the yellowish-brown limonite-altered-sericite patches. These dark layers incorporate minor scattered boxwork, almost certainly after very small pyrite crystals (but possibly after garnet).

This lithology may be a silicate-facies BIF, but the possibility of more than one species of original amphibole, and less primary chert than may be expected in such a BIF, suggests transition to calc-silicate and therefore some affinity with sample #4.

Sample #4

Pre-existing mass predominantly of decussate former amphibole (tremolite?), now completely pervasively silicified (probably supergene). Includes subordinate scattered pale-greenish 'sericite', minor very fine residuals of smectite? Alteration and sparse minute Fe and/or Ti oxide grains.
Numerous conformable and crosscutting veins of sparry quartz enclosing voids of zoned fine prismatic to chalcedonic quartz (may be supergene or epithermal).

Field Note : *Silica-sericite (± fuschite?) altered dolerite. This sample is sourced from poorly exposed, strongly lateritised dolerite that appears to have undergone hydrothermal alteration.*

Handspecimen

Fairly homogeneous, tough siliceous pale greenish cream massive rock, with local tabular surfaces/partings but no clear evidence of layering. Local parallel thin zoned layer-veinlets, and rare crosscutting veins, composed variably of sparry and chalcedonic quartz.

Petrographic

At thin section scale, there is no clear evidence of planar layering, except the late stage parallel veins lined by coarse-sparry-prismatic quartz (with dog-tooth arrangement) enclosing central drusy voids between occupied by microsparry to chalcedonic quartz, and rarer opalline quartz in the inner-most cavity. Two narrow veins of this composition cut across the parallel veins.

The thin section shows relict textures dominated by a mass of randomly interlocking original ragged prisms of probable amphibole, up to 3mm individual length, possibly tremolite. This original mass has been extensively pervasively invaded and replaced by irregularly patchy microcrystalline to cryptocrystalline silica. Minor scattered small relicts of smectitic flakes occur throughout the quartz apparently as an intermediate alteration stage possibly derived from 'primary' micas, associated with the amphibole. Trace extremely small grains of Fe and Ti oxide are disseminated.

Precursor probably a calc-silicate. Stratigraphic position uncertain but could be Dead Bullock Formation. The possibility of the "sericite" being fuschite could not be resolved optically, but an analysis for Cr may help resolve this. There is no clear evidence of a former dolerite, in particular a check of a polished sections failed to identify relict disseminated titaniferous-iron oxide grains which would be diagnostic of a former dolerite, and would be expected to be preserved as leucoxenitic spots, even in a rock so pervasively silicified.

Sample #10

Fine graphitic quartz hornfels ('schist') crowded with abundant small porphyroblasts of sericite replicas after probable (distorted) andalusite ± possible sillimanite. Lesser leached-oxidised probable ex-garnets, and random fresher (and later?) metacrysts of muscovite. Fine graphite disseminated through the matrix also locally clustered in some muscovite crystals. Possible carbonaceous pelitic fine sandy sediment, contact-metamorphosed, then retrograded.

Field Note : *Massive dolerite. Recrystallised or primary sub-ophitic texture?*

Handspecimen

This small handspecimen is characterised (under binocular microscope) by numerous white irregular spots of apparent sericite about 1mm size and brownish-limonitic partly leached out 'spots' of similar size, all scattered through a dark grey very fine matrix. Macroscopically, the spots could be microporphyroblasts.

Petrographic

The thin section shows most white spots to consist of sericite with a relict very fine micro-contorted to wispy fibrous texture interpreted to replace former deformed crystals of andalusite and/or minor possible ex-sillimanite. These seem to be replicas of early porphyroblasts, average size about 1mm, randomly scattered to form about 30% of the rock. Lesser limonitic party leached-out spots of similar size (15%) also appear to be inherently porphyroblastic (possibly ex-garnets), but also partly interstitial to the matrix micromosaic. Discrete small (1mm) random muscovite flakes (10%) are relatively fresher/unaltered possibly relatively later metacrysts/porphyroblasts. Minor local patches of metamorphic vein quartz occur locally.

The whole rock matrix consists of a metamorphic micromosaic of quartz with minor interstitial oxidised clay-sericite probably after feldspar, also with disseminated and locally clustered extremely fine graphite. This fine graphite is selectively abundant within some of the muscovite metacrysts. There is only a very weak schistose fabric in this matrix, rather it is relatively more massive-hornfelsic, and considered together with the porphyroblasts may represent a carbonaceous pelitic sediment within a contact metamorphic zone (proximal to a granitoid intrusive?).

Thin Section	Northing	Easting	Field Description.
1	7895890	569685	Coarsely bedded cherty BIF
2	7895890	569685	weakly carbonaceous shale
3	7895890	569685	fine to medium-grained, bedded, slightly folded ferruginous sediment. Greywacke?
4	7892455	568465	silica - sericite (+/- fuschite?) altered dolerite.
10	7892455	568465	Dolerite. Recrystallized?