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# THIRD ANNUAL REPORT

## FOR EXPLORATION LICENCE 7821

## FOR THE PERIOD 14/8/94 TO 13/8/95

## TENNANT CREEK DISTRICT, NORTHERN TERRITORY

## BARKLY SOUTH PROSPECT

## TENNANT CREEK 1:250,000 SHEET SE 53-14

## VOLUME 1 OF 1

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**DATE:** SEPTEMBER 1995

**AUTHORISED BY:** DJ Hall

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TITLE: THIRD ANNUAL REPORT FOR EXPLORATION LICENCE 7821 FOR THE PERIOD 14/8/94 TO 13/8/95, TENNANT CREEK DISTRICT, NORTHERN TERRITORY, BARKLY SOUTH PROSPECT

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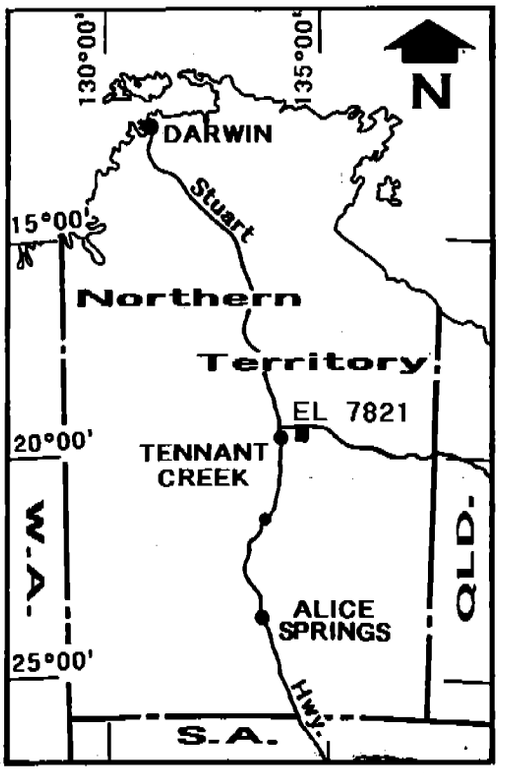



## 1. SUMMARY

Exploration Licence 7821 (Barkly South Prospect) is located 19km ENE of Tennant Creek township. During the third year of tenure all bedrock and palaeosol geochemical assays collected during vacuum drilling in years two and three of tenure were assessed.

Both sets of assays supported a weakly anomalous geochemical zone trending west-north-west through the centre of the grid. Work undertaken on EL 7821 during year three included an infill vacuum drilling programme comprising 58 holes for 590 metres, designed to validate the previous bedrock geochemistry and define the tenor of the inferred anomaly prior to deeper drill testing. Drilling intersected a sequence of Cambrian sandstone, cherts and silcrete, interpreted to overly Warramunga sediments at depth. No geochemical values of significance were returned from this drilling, and its concluded that the initial low level anomalism is also attributed to background values in the Cambrian basin sediments.

## 2. INTRODUCTION

### 2.1 Location and Access

Exploration Licence 7821 (Barkly South Prospect) is located approximately 19km ENE of Tennant Creek township (refer Figure 1). Access to the licence area from Tennant Creek township is ENE by winding station tracks via Lone Star Mine to Gigantic Mine and then north for approximately two kilometres.

### 2.2 Climate and Physiography

The climate of the Tennant Creek area is mild to warm and dry throughout autumn, winter and spring. The summers are hot (often in excess of 35°C) with associated seasonal rainfall between December and March which frequently impedes field work programmes.

The majority of EL 7821 covers a flat lying area comprising an extensive clay pan devoid of vegetation to the south. The central and northern portion of the licence consists of dense eucalyptic bushland associated with the discharge of Tennant Creek after heavy rainfall. Access to this area is difficult and best traversed via a fenceline trending east-west through the centre of the licence area. The eastern margin of the licence area hosts low lying hills which drain along their western margin where several waterholes exist along a seasonal creek bed.

### 2.3 Tenure

Exploration Licence 7821 (EL 7821) was granted to Poseidon Gold Limited (PosGold) on 14 August 1992, for a period of six years. The licence originally consisted of 18 graticular blocks and was reduced to nine and five graticular blocks at the end of the second and third years of tenure respectively, in accordance with Section 26 of the Mining Act. The covenant for the third year of tenure totalled $6,750.

### 2.4 Previous Exploration

Prior to PosGold acquiring EL 7821 no known exploration had been conducted within the Barkly South prospect. During the first year of tenure work conducted by PosGold included the compilation of airborne magnetic data, photogeological mapping, geomorphological mapping and regional vacuum drilling, followed by regional and prospect-scale interpretation in year two of tenure (refer Worland, 1993, 1994).

## 3. REGIONAL GEOLOGY

The Tennant Creek Inlier comprises gneissic basement successively overlain by unconformable Proterozoic sediments of the Warramunga Group, Hatches Creek Group and Tomkinson Creek Beds. These sediments have been intruded by Proterozoic aged granites, and subsequently overlain by Cambrian sediments (Le Messurier *et al*, 1990). The Warramunga Group contains all of the economically viable mineral deposits in the Tennant Creek region.

The Warramunga Group is overlain by the Flynn Sub-Group. The Warramunga Group comprises a sequence of argillaceous sedimentary rocks including siliceous greywacke, siltstone, shale and haematite shale with zones of disseminated haematite-magnetite

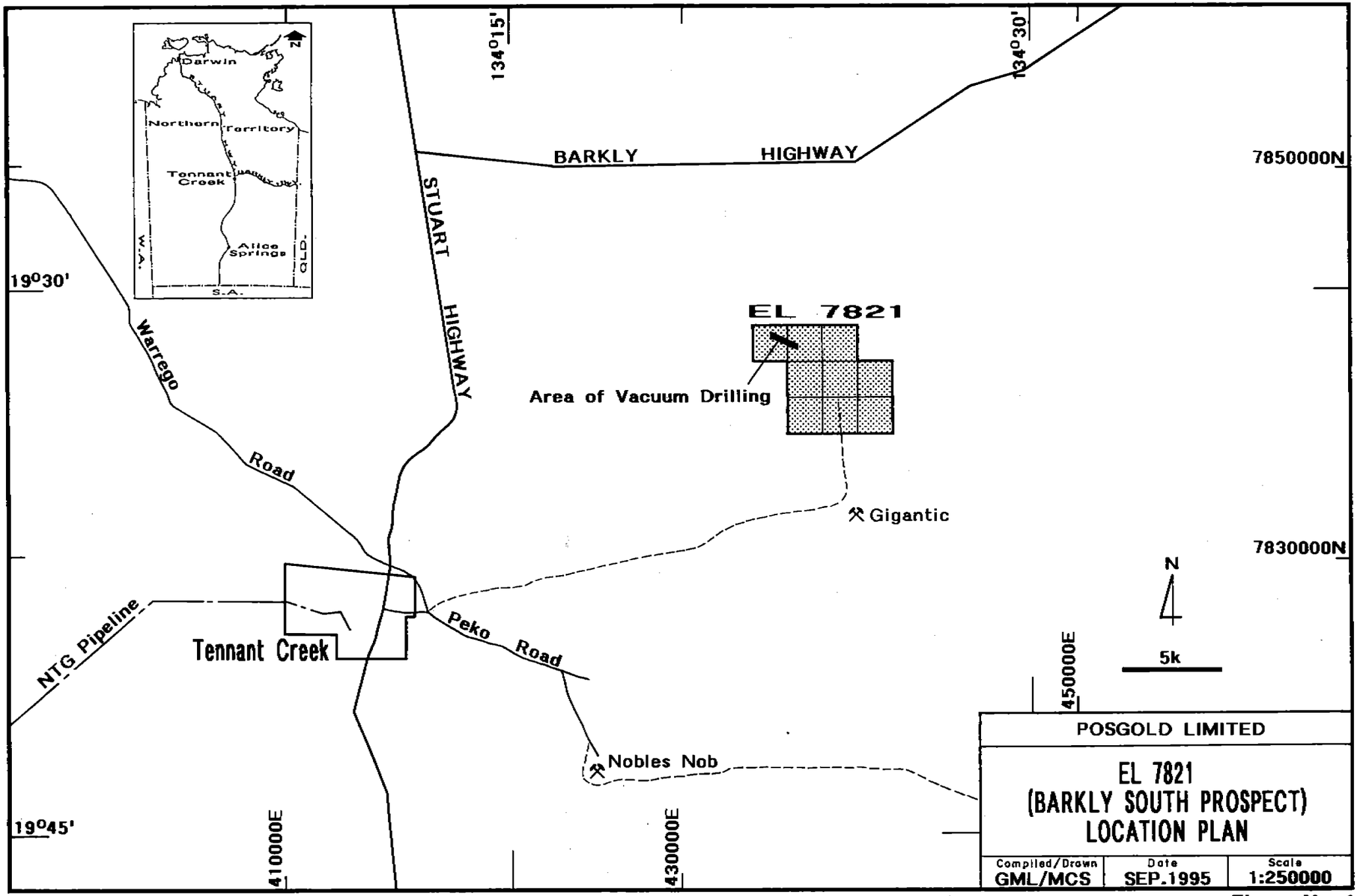

Darwin
Northern Territory
Tennant Creek
Alice Springs
W.A.
QLD.
S.A.
134°15'
134°30'
BARKLY HIGHWAY
7850000N
19°30'
STUART HIGHWAY
Warrego Road
EL 7821
Area of Vacuum Drilling
Gigantic
7830000N
N
5k
NTG Pipeline
Tennant Creek
Peko Road
Nobles Nob
450000E
19°45'
410000E
430000E
POSGOLD LIMITED
EL 7821
(BARKLY SOUTH PROSPECT)
LOCATION PLAN
Compiled/Drawn
GML/MCS
Date
SEP.1995
Scale
1:250000

Figure No. 1

being common throughout. Quartz-feldspar porphyry lenses occur as both cross-cutting and conformable units within the sedimentary sequences. The Flynn Sub-Group comprises a sequence of argillaceous to quartz-rich arenaceous sedimentary rocks, coarser up sequence, with abundant quartz veining. All of the mineralised ironstones are contained in the Warramunga Group.

The Warramunga Group exhibits three deformational phases and is metamorphosed to greenschist facies. The first deformational episode resulted in tight to isoclinal, upright folds with east-west axes. Two later episodes of faulting consist of WNW trending faults and shear zones with south-side-up movement, and NW trending faults often filled with quartz, showing sinistral movement.

## 4. LOCAL GEOLOGY

Exploration Licence 7821 covers an area mainly consisting of a flat lying alluvial flood plain controlled by the seasonal discharge from Tennant Creek which flows east into the licence area. Aeromagnetic data suggests that beneath cover lies an array of rock types including Warramunga Group sedimentary rocks, Proterozoic granites and Cambrian sedimentary rocks. In the east of the licence area a low-lying range of mostly flat lying Cambrian sedimentary rocks trends north-south and contains small outcrop areas of Warramunga Group rocks.

## 5. EXPLORATION UNDERTAKEN DURING THE PERIOD 14/8/94 TO 13/8/95

The first year of exploration identified a series of intersecting structural lineaments in the aeromagnetic data, which were geochemically and geologically tested by a regional vacuum drilling programme. The area tested consists of a combination of Cambrian Gum Ridge Formation, Warramunga Group sedimentary rocks and granite concealed by an overlying sequence of alluvial gravel, sand and silcrete lenses. The bedrock geochemistry shows anomalous Au, Cu and Bi trends coincident with both a north trending and an east-south-east trending lineament identified from the aeromagnetic data (Worland, 1993).

During the second year of tenure results for the overburden samples collected during the vacuum drilling programme were received. The 56 overburden samples collected were wet screened prior to the -2mm, +100µm fraction undergoing heavy mineral concentration (HMC). The HMC samples were then analysed for Au, Cu, Bi, Fe, Mn, Pb, Zn, Ag, Cd and Mo at low detection limits by Analabs, Perth. The results offered some encouragement with peak assays of 13 ppb Au, 933 ppm Cu, 8 ppm Bi, 990 ppm Zn and 4,740 ppm Mn.

Both the bedrock and HMC assay results indicated a coincident zone of anomalism which trends WNW through the centre of the grid and is represented by bedrock assays of up to 4 ppb Au, 24 ppm Cu and 5 ppm Bi, as well as HMC assays of up to 13 ppb Au, 533 ppm Cu, 990 ppm Zn and 4,740 ppm Mn.

Based on an interpretation of the low tenor WNW trending geochemical anomaly, a programme of infill bedrock vacuum drilling was planned and implemented to test the coherence of the interpreted anomaly, and validate the initial drilling.

A total of 58 holes (BKSV-057 to BKSV-114) were drilled for 590 metres (average 10.2m/hole). Vacuum drilling was undertaken by Tracey's Drilling of Tennant Creek

using a tractor mounted Edson rig, and holes were spaced at 50m intervals along 12 lines spaced at 125 metres. A total of 58 bedrock samples were collected from the bottom of each hole.

Drilling revealed a sequence of dark grey, highly siliceous chert, sandstones, and saprolitic siltstone beneath variably thick silcrete and calcrete. Several holes were drilled to refusal at 4 to 8 metres in the cherts. These are interpreted to belong to the Cambrian Gum Ridge Formation. Minor saprolitic siltstone was also interpreted possibly belonging to the Warramunga Group.

All bedrock samples were submitted to ALS in Alice Springs for determination of Au, Cu, Bi, Fe and Mn by aqua regia AAS (methods PM205 and G001).

All samples returned very low assay values, with all Au reporting below detection (1 ppb) and peak values of 16 ppm Cu, 5 ppm Bi, 3.63% Fe and 263 ppm Mn.

A total of 12 original vacuum holes were redrilled during this programme. Reinterpretation of the original logs revealed that several of these holes were logged as silicified sediment siltstone/sandstone, and probably inferred to be Warramunga Group when in fact the holes probably intersected silicified cherts of the Cambrian Gum Ridge Formation.

This is reflected in the infill bedrock geochemistry, which did not support the inferred WNW trending zone of subtle anomalism.

## 6. CONCLUSIONS AND RECOMMENDATIONS

The exploration conducted to date on EL 7821 has identified Warramunga Group rocks overlain by Cambrian Gum Ridge Formation cherts in the central portion of the licence. A weakly anomalous geochemical zone was tested with further infill vacuum drilling, and was not upgraded. Consequently no further work will be undertaken on this prospect.

## 7. EXPENDITURE STATEMENT FOR THE PERIOD 14/8/94 TO 13/8/95

During the third year of tenure EL 7821 incurred an expenditure of $8,324 compared with a covenant of $6,750. A breakdown of the expenditure is detailed below:

| EXPENSE | | COST |
|---|---|---|
| Employee Costs | $ | 1,796 |
| Overheads | $ | 1,310 |
| Assays | $ | 933 |
| Operating Costs | $ | 906 |
| Tenement Costs | $ | 405 |
| Research | $ | 24 |
| Drilling | $ | 2,950 |
| TOTAL | $ | 8,324 |

## 8. FUTURE EXPLORATION PROGRAMME

### 8.1 Proposed Exploration from 14/8/95 to 13/8/96

The exploration programme proposed for EL 7821 for the fourth year of tenure will concentrate on investigation of subtle magnetic anomalies in the eastern section of the licence, which may be representative of ironstones or iron-rich Warramunga Group sediments, which are overlain by outcropping Cambrian basin sediments. Exploration proposed includes geological mapping, rock chip and soil sampling, and a ground magnetics survey to determine the depth and possible source of the magnetic features.

### 8.2 Proposed Expenditure from 14/8/95 to 13/8/96

To complete the exploration programme for EL 7821 detailed in section 8.1, the expenditure in year four of tenure is anticipated as follows:

| EXPENSE | | COST |
|---|---|---|
| Employee Costs | $ | 2,000 |
| Overheads | $ | 500 |
| Assays | $ | 1,000 |
| Operating Costs | $ | 1,000 |
| Specialist Services | $ | 1,000 |
| Research | $ | 500 |
| TOTAL | $ | 6,000 |

## 9. REFERENCES

Le Messurier, P. Williams, B.T. and Blake, D.H., 1990. Tennant Creek Inlier - Regional Geology and Mineralisation. *Geology of the Mineral Deposits of Australia and Papua New Guinea (Ed. F E Hughes)*, pp 829-838 (The Australasian Institute of Mining and Metallurgy).

Worland, R.J., 1993. Annual Report for EL 7821 for the Period 14/8/92 to 13/8/93, Tennant Creek District. Report to the NTDME. PosGold Limited.

Worland, R.J., 1994. Second Annual Report for Exploration Licence 7821 for the Period 14/8/93 to 13/8/94, Tennant Creek District, NT. Report to the NTDME. No. 13498. PosGold Limited.

# APPENDIX ONE

EL 7821 - BARKLY SOUTH PROSPECT
VACUUM DRILLHOLE INFORMATION

EL 7821 - BARKLY SOUTH
VACUUM DRILLHOLE INFORMATION
Vacuum Downhole Lithology

| BHID | Easting (AMG) | Northing (AMG) | Sample Number | From (m) | To (m) | Lithology Code |
|---|---|---|---|---|---|---|
| BKSV-057 | 434500. | 7841200. | 551771. | 1.20 | 4.00 | CHT/Si |
| BKSV-058 | 434500. | 7841250. | 551772. | 3.00 | 5.00 | CHT/Si |
| BKSV-059 | 434500. | 7841300. | 551773. | 6.00 | 8.00 | CHT/Si |
| BKSV-060 | 434500. | 7841351. | 551774. | 5.00 | 8.00 | VOLC/CAL |
| BKSV-061 | 434500. | 7841400. | 551775. | 4.00 | 8.00 | SS |
| BKSV-062 | 434500. | 7841450. | 551776. | 3.00 | 7.00 | SL/Si |
| BKSV-063 | 434500. | 7841500. | 551777. | 4.00 | 13.00 | SL |
| BKSV-064 | 434500. | 7841551. | 551778. | 3.00 | 5.00 | SAP/SL |
| BKSV-065 | 434375. | 7841600. | 551779. | 5.00 | 12.00 | SAP/clay |
| BKSV-066 | 434375. | 7841551. | 551780. | 4.00 | 6.00 | SS/bl |
| BKSV-067 | 434375. | 7841500. | 551781. | 3.00 | 4.00 | CHT/Si |
| BKSV-068 | 434375. | 7841450. | 551782. | 3.00 | 8.00 | CALCR |
| BKSV-069 | 434375. | 7841400. | 551783. | 4.00 | 5.00 | CHT/Si |
| BKSV-070 | 434375. | 7841351. | 551784. | 5.00 | 6.00 | CHT/Si |
| BKSV-071 | 434375. | 7841300. | 551785. | 5.00 | 7.00 | CHT/Si |
| BKSV-072 | 434750. | 7841151. | 551786. | 5.00 | 8.00 | SS/lam |
| BKSV-073 | 434750. | 7841200. | 551787. | 4.00 | 8.00 | SL/bl |
| BKSV-074 | 434750. | 7841250. | 551788. | 3.00 | 10.00 | SL/SS |
| BKSV-075 | 434750. | 7841300. | 551789. | 2.00 | 23.00 | SILC/SAP |
| BKSV-076 | 434625. | 7841400. | 551790. | 3.00 | 15.00 | SILC/SAP |
| BKSV-077 | 434625. | 7841351. | 551791. | 4.00 | 8.00 | SILCR/SS |
| BKSV-078 | 434625. | 7841300. | 551792. | 3.00 | 11.00 | SILCR/SS |
| BKSV-079 | 434625. | 7841250. | 551793. | 4.00 | 8.00 | SAP/SL |
| BKSV-080 | 434625. | 7841200. | 551794. | 4.00 | 9.00 | SILC/CHT |
| BKSV-081 | 434875. | 7841050. | 551795. | 5.00 | 9.00 | CHT/SS |
| BKSV-082 | 434875. | 7841100. | 551796. | 5.00 | 22.00 | CHT/V/qV |
| BKSV-083 | 434875. | 7841151. | 551797. | 4.00 | 41.00 | NBR |
| BKSV-084 | 434875. | 7841200. | 551798. | 4.00 | 6.00 | CHT/SS |
| BKSV-085 | 435000. | 7841151. | 551799. | 4.00 | 9.00 | SS/SILCR |
| BKSV-086 | 435000. | 7841100. | 551800. | 3.00 | 5.00 | SILC/CHT |
| BKSV-087 | 435000. | 7841050. | 551801. | 3.00 | 6.00 | CHT/SS |
| BKSV-088 | 435000. | 7841000. | 551802. | 4.00 | 5.00 | CALC/CHT |
| BKSV-089 | 435125. | 7840900. | 551803. | 8.00 | 17.00 | SILC/SAP |
| BKSV-090 | 435125. | 7840951. | 551804. | 3.00 | 6.00 | SILCR |
| BKSV-091 | 435125. | 7841000. | 551805. | 4.00 | 11.00 | SILCR/SS |
| BKSV-092 | 435125. | 7841050. | 551806. | 6.00 | 6.10 | NBR |
| BKSV-093 | 435125. | 7841100. | 551807. | 6.00 | 19.00 | SL/S |
| BKSV-094 | 435250. | 7840975. | 551808. | 5.00 | 9.00 | SAP/SS |
| BKSV-095 | 435250. | 7840925. | 551809. | 6.00 | 21.00 | SILC/CHT |
| BKSV-096 | 435375. | 7840900. | 551810. | 6.00 | 10.00 | CHT/Si |
| BKSV-097 | 435250. | 7840875. | 551811. | 4.00 | 9.00 | NBR |
| BKSV-098 | 435250. | 7840825. | 551812. | 4.00 | 10.00 | NBR |
| BKSV-099 | 435375. | 7840850. | 551813. | 8.00 | 21.00 | SILC/CHT |
| BKSV-100 | 435375. | 7840800. | 551814. | 8.00 | 11.00 | SILCR/Si |
| BKSV-101 | 435375. | 7840751. | 551815. | 9.00 | 9.10 | NBR |
| BKSV-102 | 435500. | 7840700. | 551816. | 12.00 | 16.00 | SAP/SL |
| BKSV-103 | 435500. | 7840751. | 551817. | 6.00 | 12.00 | SLCR |
| BKSV-104 | 435500. | 7840800. | 551818. | 6.00 | 17.00 | SILC/CHT |
| BKSV-105 | 435500. | 7840850. | 551819. | 8.00 | 10.00 | SILCR |
| BKSV-106 | 435625. | 7840850. | 551820. | 6.00 | 10.00 | SILC/CL |

EL 7821 - BARKLY SOUTH
VACUUM DRILLHOLE INFORMATION
Vacuum Downhole Lithology

| BHID | Easting (AMG) | Northing (AMG) | Sample Number | From (m) | To (m) | Lithology Code |
|---|---|---|---|---|---|---|
| BKSV-107 | 435625. | 7840800. | 551821. | 8.00 | 16.00 | SILCR/SS |
| BKSV-108 | 435625. | 7840751. | 551822. | 8.00 | 8.10 | NBR |
| BKSV-109 | 435625. | 7840700. | 551823. | 14.00 | 17.00 | SL |
| BKSV-110 | 435625. | 7840650. | 551824. | 10.00 | 17.00 | SILCR/SS |
| BKSV-111 | 435750. | 7840600. | 551826. | 6.00 | 13.00 | SILCR |
| BKSV-112 | 435750. | 7840650. | 551827. | 10.00 | 10.10 | NBR |
| BKSV-113 | 435750. | 7840700. | 551828. | 13.00 | 13.10 | NBR |
| BKSV-114 | 435750. | 7840751. | 551829. | 4.00 | 10.00 | SILCR/SS |

BHID = DRILLHOLE IDENTIFICATION

LITHOLOGICAL LEGEND

ROCK TYPE:
- CHT - CHERT
- SL - SILTSTONE
- SS - SANDSTONE
- SILCR - SILCRETE
- CALCR - CALCRETE
- VOLC - VOLCANIC
- SAP - SAPROLITE
- NBR - NO BEDROCK INTERSECTED

MINERALOGY/ALTERATION:
- clay - CLAY
- Si - SILICIFICATION
- bl - BLEACHED
- lam - LAMINATED
- qV - QUARTZ VEIN

# APPENDIX TWO

EL 7821 - BARKLY SOUTH PROSPECT
VACUUM DRILLHOLE BEDROCK GEOCHEMISTRY

EL 7821 - BARKLY SOUTH
VACUUM DRILLHOLE INFORMATION
Vacuum Assay Bedrock Data

| BHID | Sample Number | From (m) | To (m) | AU ppb | CU ppm | BI ppm | FE % | MN ppm |
|---|---|---|---|---|---|---|---|---|
| Detection Limit : | | | | 1 | 1 | 1 | 0.01 | 5 |
| BKSV-057 | 551771. | 1.20 | 4.00 | TR | 16.00 | TR | 1.95 | 148.00 |
| BKSV-058 | 551772. | 3.00 | 5.00 | TR | 5.00 | TR | 1.51 | 73.00 |
| BKSV-059 | 551773. | 6.00 | 8.00 | TR | 2.00 | TR | 1.48 | 91.00 |
| BKSV-060 | 551774. | 5.00 | 8.00 | TR | 6.00 | TR | 1.95 | 16.00 |
| BKSV-061 | 551775. | 4.00 | 8.00 | TR | 3.00 | TR | 1.87 | 14.00 |
| BKSV-062 | 551776. | 3.00 | 7.00 | TR | 2.00 | TR | 2.06 | 12.00 |
| BKSV-063 | 551777. | 4.00 | 13.00 | TR | 1.00 | TR | 1.33 | TR |
| BKSV-064 | 551778. | 3.00 | 5.00 | TR | 4.00 | TR | 1.04 | 54.00 |
| BKSV-065 | 551779. | 5.00 | 12.00 | TR | 1.00 | TR | 1.20 | 17.00 |
| BKSV-066 | 551780. | 4.00 | 6.00 | TR | 4.00 | 5.00 | 0.99 | 165.00 |
| BKSV-067 | 551781. | 3.00 | 4.00 | TR | 4.00 | TR | 1.15 | 18.00 |
| BKSV-068 | 551782. | 3.00 | 8.00 | TR | 2.00 | TR | 0.16 | 7.00 |
| BKSV-069 | 551783. | 4.00 | 5.00 | TR | 8.00 | TR | 1.57 | 17.00 |
| BKSV-070 | 551784. | 5.00 | 6.00 | TR | 7.00 | TR | 2.10 | 113.00 |
| BKSV-071 | 551785. | 5.00 | 7.00 | TR | 15.00 | TR | 1.10 | 263.00 |
| BKSV-072 | 551786. | 5.00 | 8.00 | TR | 6.00 | TR | 1.78 | 21.00 |
| BKSV-073 | 551787. | 4.00 | 8.00 | TR | 5.00 | 3.00 | 1.02 | 23.00 |
| BKSV-074 | 551788. | 3.00 | 10.00 | TR | 4.00 | 1.00 | 1.38 | 24.00 |
| BKSV-075 | 551789. | 2.00 | 23.00 | TR | 3.00 | TR | 0.96 | 21.00 |
| BKSV-076 | 551790. | 3.00 | 15.00 | TR | 3.00 | TR | 0.25 | TR |
| BKSV-077 | 551791. | 4.00 | 8.00 | TR | 4.00 | TR | 1.06 | 15.00 |
| BKSV-078 | 551792. | 3.00 | 11.00 | TR | 4.00 | TR | 0.81 | 22.00 |
| BKSV-079 | 551793. | 4.00 | 8.00 | TR | 5.00 | TR | 0.95 | 95.00 |
| BKSV-080 | 551794. | 4.00 | 9.00 | TR | 4.00 | 1.00 | 0.93 | 20.00 |
| BKSV-081 | 551795. | 5.00 | 9.00 | TR | 3.00 | TR | 1.55 | 19.00 |
| BKSV-082 | 551796. | 5.00 | 22.00 | TR | 3.00 | TR | 0.75 | 25.00 |
| BKSV-083 | 551797. | 4.00 | 41.00 | TR | 7.00 | TR | 1.47 | 141.00 |
| BKSV-084 | 551798. | 4.00 | 6.00 | TR | 6.00 | TR | 1.19 | 39.00 |
| BKSV-085 | 551799. | 4.00 | 9.00 | TR | 12.00 | TR | 0.41 | 8.00 |
| BKSV-086 | 551800. | 3.00 | 5.00 | TR | 7.00 | TR | 1.16 | 31.00 |
| BKSV-087 | 551801. | 3.00 | 6.00 | TR | 4.00 | TR | 1.43 | 14.00 |
| BKSV-088 | 551802. | 4.00 | 5.00 | TR | 5.00 | TR | 1.36 | 34.00 |
| BKSV-089 | 551803. | 8.00 | 17.00 | TR | 1.00 | TR | 0.17 | 6.00 |
| BKSV-090 | 551804. | 3.00 | 6.00 | TR | 5.00 | TR | 0.84 | 17.00 |
| BKSV-091 | 551805. | 4.00 | 11.00 | TR | 4.00 | TR | 1.42 | 149.00 |
| BKSV-092 | 551806. | 6.00 | 6.10 | TR | 5.00 | TR | 1.77 | 27.00 |
| BKSV-093 | 551807. | 6.00 | 19.00 | TR | 1.00 | TR | 1.49 | 18.00 |
| BKSV-094 | 551808. | 5.00 | 9.00 | TR | 4.00 | 1.00 | 1.80 | 23.00 |
| BKSV-095 | 551809. | 6.00 | 21.00 | TR | 2.00 | TR | 1.15 | 8.00 |
| BKSV-096 | 551810. | 6.00 | 10.00 | TR | 6.00 | TR | 1.73 | 35.00 |
| BKSV-097 | 551811. | 4.00 | 9.00 | TR | 7.00 | TR | 2.07 | 41.00 |
| BKSV-098 | 551812. | 4.00 | 10.00 | TR | 6.00 | TR | 1.92 | 41.00 |
| BKSV-099 | 551813. | 8.00 | 21.00 | TR | 2.00 | TR | 0.72 | 219.00 |
| BKSV-100 | 551814. | 8.00 | 11.00 | TR | 3.00 | TR | 1.84 | 14.00 |
| BKSV-101 | 551815. | 9.00 | 9.10 | TR | 3.00 | TR | 3.63 | 65.00 |
| BKSV-102 | 551816. | 12.00 | 16.00 | TR | 7.00 | TR | 1.92 | 16.00 |
| BKSV-103 | 551817. | 6.00 | 12.00 | TR | 3.00 | TR | 2.33 | 147.00 |
| BKSV-104 | 551818. | 6.00 | 17.00 | TR | 5.00 | TR | 1.36 | 25.00 |
| BKSV-105 | 551819. | 8.00 | 10.00 | TR | 7.00 | TR | 1.42 | 27.00 |

EL 7821 - BARKLY SOUTH
VACUUM DRILLHOLE INFORMATION
Vacuum Assay Bedrock Data

| BHID | Sample Number | From (m) | To (m) | AU ppb | CU ppm | BI ppm | FE % | MN ppm |
|---|---|---|---|---|---|---|---|---|
| Detection Limit : | | | | 1 | 1 | 1 | 0.01 | 5 |
| BKSV-106 | 551820. | 6.00 | 10.00 | TR | 3.00 | TR | 2.08 | 45.00 |
| BKSV-107 | 551821. | 8.00 | 16.00 | TR | 8.00 | TR | 0.84 | 50.00 |
| BKSV-108 | 551822. | 8.00 | 8.10 | TR | 4.00 | TR | 1.98 | 42.00 |
| BKSV-109 | 551823. | 14.00 | 17.00 | TR | 3.00 | TR | 1.93 | 10.00 |
| BKSV-110 | 551824. | 10.00 | 17.00 | TR | 3.00 | TR | 2.37 | 13.00 |
| BKSV-111 | 551826. | 6.00 | 13.00 | TR | 7.00 | TR | 2.57 | 105.00 |
| BKSV-112 | 551827. | 10.00 | 10.10 | TR | 6.00 | TR | 2.80 | 32.00 |
| BKSV-113 | 551828. | 13.00 | 13.10 | TR | 4.00 | TR | 3.01 | 149.00 |
| BKSV-114 | 551829. | 4.00 | 10.00 | TR | 4.00 | TR | 1.98 | 21.00 |

TR = LESS THAN DETECTION

# APPENDIX THREE

BIBLIOGRAPHIC DATA SHEET

# BIBLIOGRAPHIC DATA-SHEET

| | |
|---|---|
| REPORT NUMBER | |
| REPORT NAME | THIRD ANNUAL REPORT FOR EXPLORATION LICENCE 7821 FOR THE PERIOD 14/8/94 TO 13/8/95, TENNANT CREEK DISTRICT, NORTHERN TERRITORY, BARKLY SOUTH PROSPECT |
| PROSPECT NAME(S) | EL 7821<br>BARKLY SOUTH PROSPECT |
| OWNER/JV PARTNERS | POSGOLD LIMITED |
| KEYWORDS | VACUUM DRILLING<br>GEOCHEMICAL SAMPLING<br>WARRAMUNGA GROUP<br>GUM RIDGE FORMATION |
| COMMODITIES | GOLD |
| TECTONIC UNIT | TENNANT CREEK INLIER<br>GEORGINA BASIN |
| 1:250,000 MAP SHEET | TENNANT CREEK SE 53-14 |
| 1:100,000 MAP SHEET | TENNANT CREEK 52/5 |

433500

434000E

435000E

436000E

7841000N

7840500N

7840000N

BKSV-065
BKSV-066 BKSV-064
BKSV-067 BKSV-063
BKSV-068 BKSV-062
BKSV-069 BKSV-061 BKSV-076
BKSV-070 BKSV-060 BKSV-077
BKSV-071 BKSV-059 BKSV-078 BKSV-075
BKSV-058 BKSV-079 BKSV-074
BKSV-057 BKSV-080 BKSV-073 BKSV-064
BKSV-072 BKSV-083 BKSV-085
BKSV-082 BKSV-086 BKSV-093
BKSV-081 BKSV-087 BKSV-092
BKSV-088 BKSV-091
BKSV-090 BKSV-094
BKSV-089 BKSV-095
BKSV-097 BKSV-096
BKSV-098 BKSV-099 BKSV-105 BKSV-106
BKSV-100 BKSV-104 BKSV-107
BKSV-101 BKSV-103 BKSV-108 BKSV-114
BKSV-102 BKSV-109 BKSV-113
BKSV-110 BKSV-112
BKSV-111

Refer Figure 1 for Location Plan

Figure 2

POSEIDON GOLD LIMITED

EL 7821 - BARKLY SOUTH

VACUUM DRILLHOLE

LOCATION PLAN (INFILL)

| SCALE | DRAWN | DATE | CHECKED |
|---|---|---|---|
| 1:10000 | DATAMINE | 12 SEP 95 | GML |

433500

434000E

435000E

436000E

7841000N

7840000N

SAP/clay
SS/bl SAP/SL
CHT/Si SL
CALCR SL/Si
CHT/Si SS SILC/SAP
CHT/Si VOLC/CAL SILCR/SS
CHT/Si CHT/Si SILCR/SS SILC/SAP
CHT/Si SAP/SL SL/SS
CHT/Sipy SILC/CHT SL/bl CHT/SS
SS/lam NBR SS/SILCR
CHT/V/qV SILC/CHT SL/S
CHT/SS CHT/SS NBR
CALC/CHT SILCR/SS
SAP/SS
SILCR
SILC/CHT
SILC/SAP CHT/Si
NBR SILC/CHT SILCR SILC/CL
NBR SILCR/Si SILC/CHT SILCR/SS
NBR SLCR NBR SILCR/SS
SAP/SL SL NBR
SILCR/SS NBR
SILCR

Refer Figure 1 for Location Plan

Figure 3

POSEIDON GOLD LIMITED

EL 7821 – BARKLY SOUTH

VACUUM DRILLHOLE

BEDROCK LITHOLOGY (INFILL)

| SCALE | DRAWN | DATE | CHECKED |
|---|---|---|---|
| 1:10000 | DATAMINE | 12 SEP 95 | GML |

433500

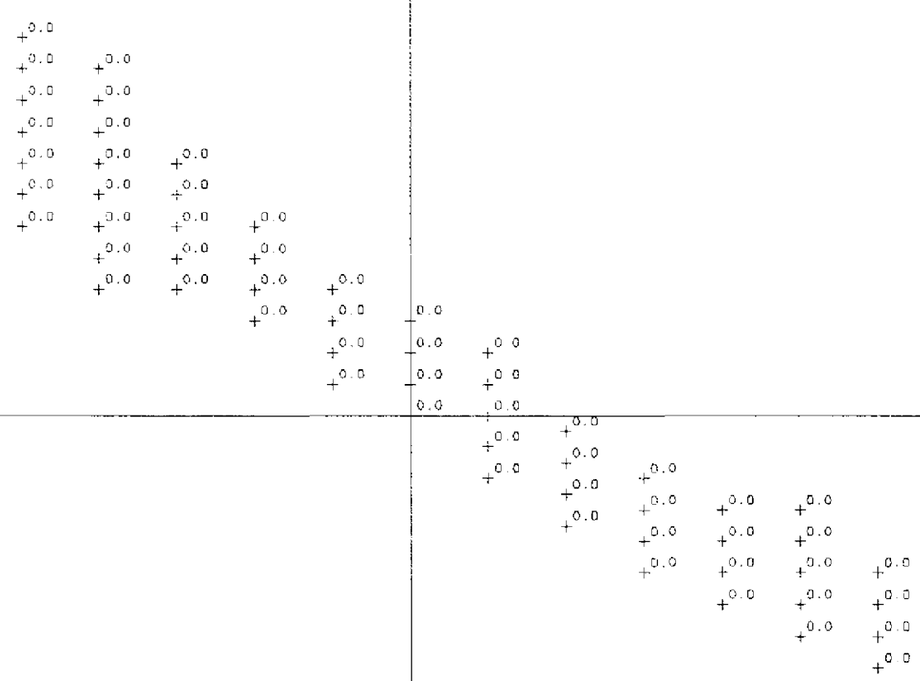
434000E

435000E

436000E

7841000N

7840000N




Refer Figure 1 for Location Plan

Figure 4

POSEIDON GOLD LIMITED

EL 7821 – BARKLY SOUTH

VACUUM DRILLHOLE

BEDROCK GEOCHEMISTRY – Au (ppb)

| SCALE | DRAWN | DATE | CHECKED |
|---|---|---|---|
| 1:10000 | DATAMINE | 12 SEP 95 | GML |

433500

434000E

435000E

436000E

7841000N

7840000N

Refer Figure 1 for Location Plan

Figure 5

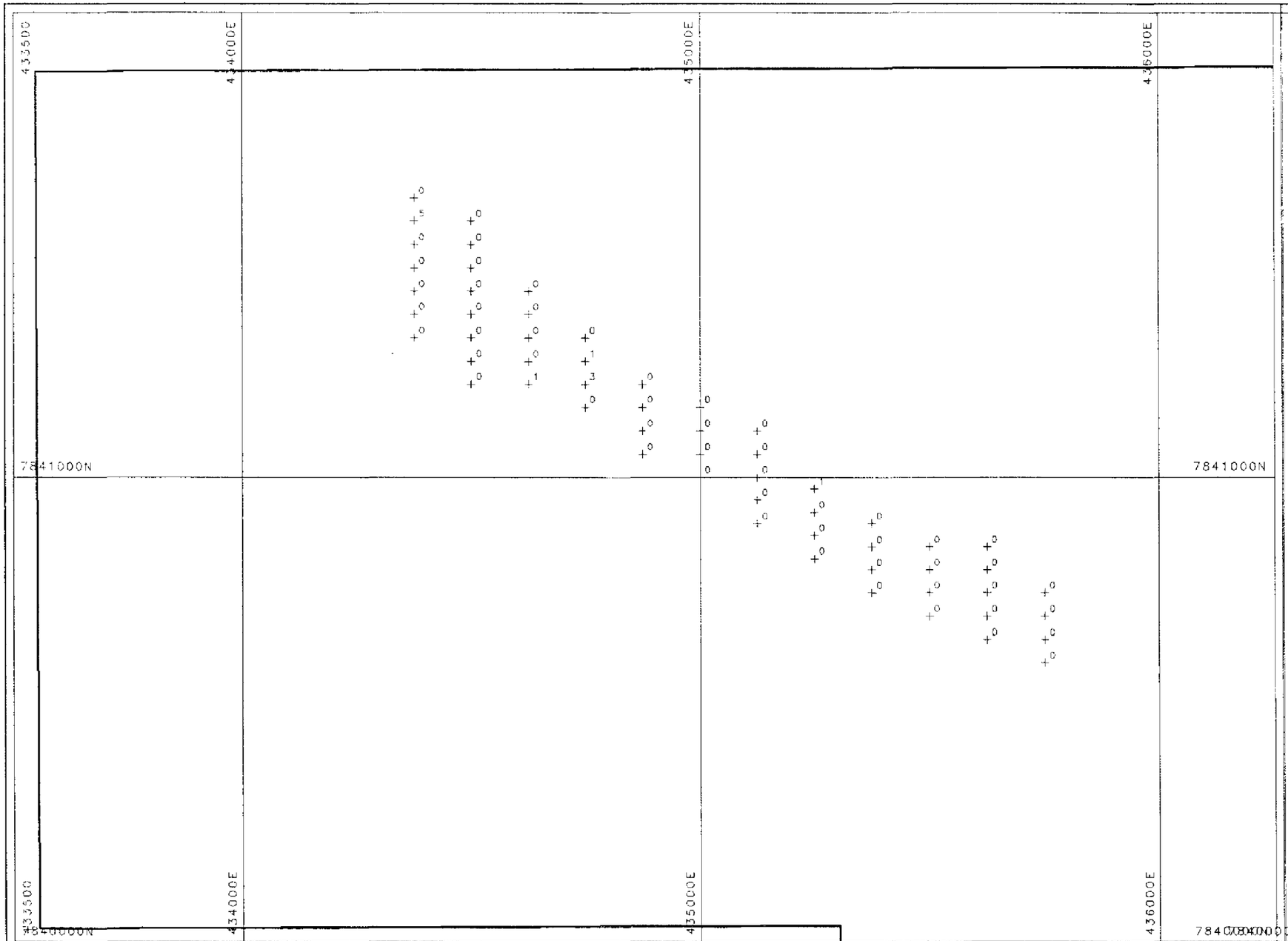
POSEIDON GOLD LIMITED

EL 7821 – BARKLY SOUTH

VACUUM DRILLHOLE

BEDROCK GEOCHEMISTRY – Cu (ppm)

| SCALE | DRAWN | DATE | CHECKED |
|---|---|---|---|
| 1:10000 | DATAMINE | 12 SEP 95 | GML |




Refer Figure 1 for Location Plan

Figure 6

POSEIDON GOLD LIMITED

EL 7821 – BARKLY SOUTH

VACUUM DRILLHOLE

BEDROCK GEOCHEMISTRY – Bi (ppm)

| SCALE | DRAWN | DATE | CHECKED |
|---|---|---|---|
| 1:10000 | DATAMINE | 12 SEP 95 | GML |

433500

434000E

435000E

436000E

7841000N

7840000N

1.20
0.99
1.15
0.16
1.57
2.10
1.10
1.04
1.33
2.06
1.87
1.95
1.48
1.51
1.95
0.25
1.06
0.81
0.95
0.93
0.96
1.38
1.02
1.78
1.19
1.47
0.75
1.55
0.41
1.16
1.43
1.36
1.49
1.77
1.42
0.84
0.17
1.80
1.15
2.07
1.92
1.73
0.72
1.84
3.63
1.42
1.36
2.33
1.92
2.08
0.84
1.98
1.93
2.37
1.98
3.01
2.80
2.67

Refer Figure 1 for Location Plan

Figure 7

POSEIDON GOLD LIMITED

EL 7821 – BARKLY SOUTH

VACUUM DRILLHOLE

BEDROCK GEOCHEMISTRY – Fe (%)

| SCALE | DRAWN | DATE | CHECKED |
|---|---|---|---|
| 1:10000 | DATAMINE | 12 SEP 95 | GML |

433500

434000E

435000E

436000E

7841000N

7840000N

12
155
18
7
17
113
263
54
0
12
14
16
91
73
148
0
15
22
95
20
21
24
23
21
39
141
25
19
8
31
14
34
18
27
149
17
6
23
8
41
41
35
215
14
65
27
25
147
16
45
50
42
10
13
21
149
32
105

Refer Figure 1 for Location Plan

Figure 8

POSEIDON GOLD LIMITED

EL 7821 – BARKLY SOUTH

VACUUM DRILLHOLE

BEDROCK GEOCHEMISTRY – Mn (ppm)

| SCALE | DRAWN | DATE | CHECKED |
|---|---|---|---|
| 1:10000 | DATAMINE | 12 SEP 95 | GML |