Northern Gold N.L. A.C.N. 009 620 937

Northern Territory Operations Office:-

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EL 7316

FIRST AND FINAL REPORT

To JANUARY 1992

Pine Creek Sheet SD 52.08 Union Reef 14/6-I, 5270.1

ompiled for Northern Gold NL
y Dr Gregor Partington
ovember 1991

SUMMARY

A first-pass exploration program composed of geological mapping, soil sampling, stream sediment sampling and a literature review was carried out on EL 7316 to test the area for Au and base metal mineralisation. Results were not encouraging, no areas of significant mineralisation were found in the tenement, and the license was surrendered.

A total of $8,802 was spent on the licence during the anniversary year.

CONTENTS

APPENDICES

FIGURES

1 INTRODUCTION

1.1 Title and location

EL 7316 was granted on 11th of March 1991 to Northern Gold for a period of four years. The licence covered five blocks and had an expenditure covenant of $19,500 for the first year of tenure. EL 7316 is located 10 km west of Frances Creek (Figure 1) within the Cullen Mineral Field. Access to the tenement is via the main road from Pine Creek to Frances Creek and is restricted to four wheel drive vehicles within the tenement due to the rugged nature of the terrain.

1.2 Previous Work

This licence was acquired to test for the northern continuation of the mineralisation discovered at Mt. Porter by Renison Exploration. Previous work on the tenement was carried out by Billiton Australia (Mackay, 1989) and included stream sediment sampling and limited rock-chip sampling. No significant mineralisation was encountered. However a several low level anomalous rock-chip samples were collected from small quartz veins in the vicinity of the Mt. porter Anticline. Much of the tenement covers incised colluvial flats, with creeks that offer poor trap sites. Although the stream sediment sample results were disappointing it appears that the extension of the Mt. Porter Anticline was not adequately tested for Au mineralisation. The aims of the 1991 program was to structurally map the tenement with the aid of enhanced geophysical data, placing emphasis on the northern continuation of the Mt. Porter anticline, locating hanging-wall reverse shears on sub parallel asymmetric folds where identified in tenement, field checking the geochemical sampling carried out by Billiton and finally use all these data to selectively soil sample specific target areas.

2 REGIONAL GEOLOGY

EL 7316 is situated within the Pine Creek Geosyncline, a tightly to isoclinally folded sequence of mainly pelitic and psammitic Lower Proterozoic sediments with interlayered tuff units. All the lithologies in the area have been metamorphosed to low, and in places medium grade, metamorphic assemblages. For the purposes of this report the prefix meta is implied, but omitted, from rock names and descriptions. The sequence has been intruded by pre-orogenic dolerite sills of the Zamu Dolerite and a number of late syn-orogenic to post-orogenic Proterozoic granitoids. Largely undeformed Middle and Late Proterozoic, Palaeozoic and Mesozoic strata as well as Cainozoic sediments and laterite overlie the Pine Creek Geosyncline lithologies.

3 EXPLORATION COMPLETED

Northern Gold completed a first-pass exploration program consisting of a literature study from the library of the Department of Mines, interpretation of geophysical data, geological mapping, stream sediment sampling and soil sampling to test the area for gold and basemetal mineralisation. The geology of the tenement and surrounding area is shown on Figure 2.

3.1 Local Geology

The regional geology of the tenement area consists of the Mt. Partridge Group, the South Alligator Group which has been intruded by sills of Zamu dolerite, and the Burrell Creek Formation. The sediments and Zamu dolerite have been intruded by the Mckinlay Granite, the Mt. Porter Granite and the Allamber Springs Granite. The oldest group in the area, the Partridge Group, which hosts the Frances Creek iron ore deposits, comprises sandstone, conglomerate, arkose, siltstone, shale and ironstone. These are conformably overlain by The Koolpin formation which consists of a lower sequence of chert, carbonate and shale and an upper sequence of dominantly carbonaceous mudstone, shale and chert. The Koolpin formation is conformably overlain by tuffaceous chert and siltstone which form

the Gerowie Tuff. These are in turn conformably overlain by the Mt. Bonnie formation which consists of a lower sequence of mudstone and ironstone, a middle sequence of mudstone and minor greywacke and an upper sequence of greywacke and siltstone. The Burrell Creek formation which is the youngest sedimentary sequence in the area consists of medium grain to fine grained feldspathic greywacke, siltstone and mudstone. All sedimentary lithologies have been hornfelsed in the vicinity of the granite contacts and commonly contain cordierite and/or andalucite. Regional metamorphism has reached upper greenschist and is overprinted by the granite contact metamorphism. The sediments have been folded by at least two folding episodes. F1 has produced tight upright to overturned folds which trend 352° and plunge 26° to the north west (e.g. the Mt. Porter Anticline). A pervasive cleavage which trends 356 and dips 78° to the south west is axial planar to these folds. Narrow revers shears on the western limb of F1 anticlines and associated saddle-reef quartz veins are present in the tenement. The F1 folds and associated structures have been refolded by a series of east-west trending open folds which have been assigned as F2. Both folding events pre-date granite intrusion. The central part of the tenement has two regional scale high strain zones, evident on enhanced geophysical images, which comprises phyllite, after greywacke and siltstone, which forms a distinctive northwest trending anastomosing foliation. This foliation is associated with a vertical stretching lineation and itrafolial folds with fold axes which generally parallel the stretching lineation.

Two rock-chip samples were collected from quartz veins parallel to the F1 axial planar cleavage and from the hinge zone of anticlines in the area (15504-15505: Fig. 3). These were analysed for Au fire assay.

3.2 Stream Sediment Sampling

A total of 20 stream sediment samples were collected from internal creeks and their tributaries through the tenement (15750-15769: Fig. 3). About 2 kg of sediment sieved to -6mm was collected at each sample site. The stream sediment samples were and submitted to Analabs in Darwin for BLEG Au analysis.

3.3 Soil Sampling

The program was designed to test for subparallel structures and the northern continuation of the Mt. Porter anticline. One graticular block was sampled using -6mm sieve fraction with approximately 2 kg of sample collected from each sample site. A total of 75 samples were collected from 1100 metre lines spaced 500 metres apart (16501-16575). The samples consisted of 25 metre sub-samples composited every 100 metres (Fig. 4). These samples were sent to Analabs in Darwin for BLEG Au and Pb, Zn, Cu, As and Ag analysis.

4 EXPLORATION RESULTS

4.1 Geological Reconnaissance

The continuation of the Mt. Porter Anticline to the south was identified and soil sampled (Fig.2). Several parasitic folds and sub-parallel shear zones were also identified and sampled. The results from the rock-chip sampling are given in Appendix 1 and shown on Figure 5. No anomalous results were returned.

4.2 Sampling Results

Assay results for both stream sediment samples and soil samples are given in Appendix 1 and locations displayed on Figures 3 and 4. Sample results are shown on Figures 5 and 6. No consistent stream sediment anomalies or soil anomalies were identified. Because of the poor sample results from the sampling of suitable structures, the poor regional stream results and the poor soil results it was recommended that no further work be carried out on this tenement. The licence was subsequently surrendered

5 CONCLUSION

The first pass exploration completed on EL 7316 failed to define areas of possible economic mineralisation and the tenement was surrendered.

6 REFERENCES

Mackay, C.R., 1989. EL 6222 Mckinlay River North annual report for the period ending 30th October, 1989. NTGS report No. CR89/720.

7 EXPENDITURE

Expenditure on EL 7316 during the anniversary year totalled $9,442. Details of this expenditure are listed below as Table 1.

Field Expenses	$306
Assays	$1547
Consumables	$75
Drafting and Computing	$71
Mapping and aerial photography	$328
Report Preparation	$300
Motor Vehicle Costs	$915
Wages and Salaries	$3,500
SUBTOTAL	**$7,042**
10% N.T. Administration	$704
15% Head Office Administration	$1,056
TOTAL	**$8,802**

Table 1.

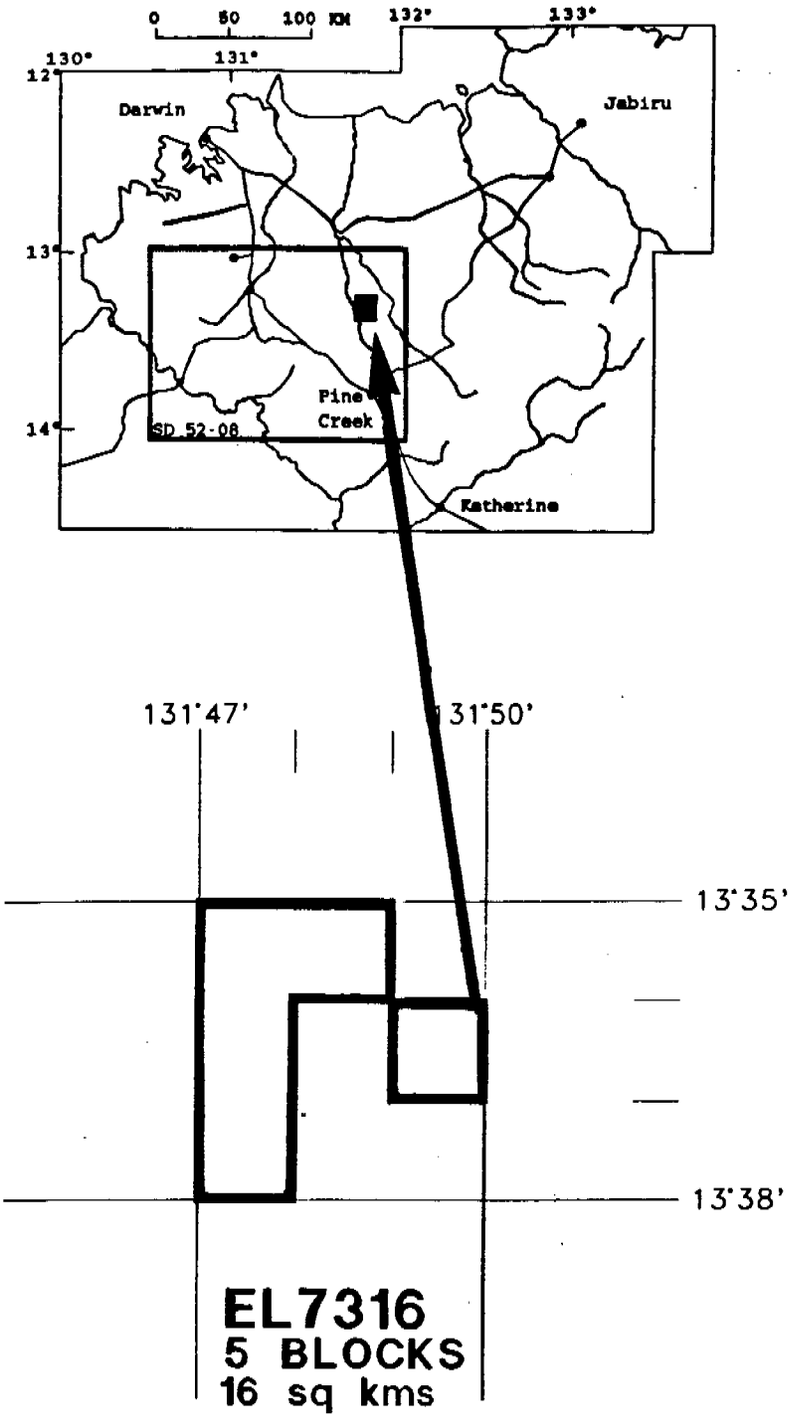
0 50 100 KM
130°
131°
132°
133°
12°
13°
14°
Darwin
Jabiru
Pine Creek
SD 52-08
Katherine
131°47'
131°50'
13°35'
13°38'
EL7316
5 BLOCKS
16 sq kms

Figure 1

Appendix 1

Assay results

ANALABS

A Division of Inchcape Inspection and Testing Services Australia Pty. Ltd.

Stream + Rock

Phone (089)472355

Cnr Coonawarra & Mataram St Winnellie NT

Fax (089)843984

ANALYTICAL REPORT No. 10755.21.05506

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

INVOICE TO:

Northern Gold N.L.
c/- Post Office
Adelaide River
NT 0896

ORDER No.	PROJECT
N 01042	

DATE RECEIVED	RESULTS REQUIRED
20/09/91	ASAP

No. OF PAGES OF RESULTS	DATE REPORTED	No. OF COPIES
4	30/09/91	1

TOTAL No. OF SAMPLES: 74

SAMPLE NUMBERS	SAMPLE DESCRIPTION	ELEMENT/METHOD
15701/9,15501/05	RO Prep : GP019,GP009	Au,Au(R),Au(S)/GG313
15710/69	SO Prep :	Au,Au(R),Au(S)/GA340

REMARKS

RESULTS TO

Attn. Michelle Stokes
Northern Gold N.L.
c/- Post Office
Adelaide River
NT 0896

RESULTS TO

RESULTS TO

AUTHORISED OFFICER

ANALABS

A Division of Inchcape Inspection and Testing Services Australia Pty. Ltd.

EL 7316 Bail.

Phone (089)472355

Cnr Coonawarra & Mataram St Winnellie NT

Fax (089)843984

ANALYTICAL REPORT No. 110755.21.05805

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

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Adelaide River
NT 0896

ORDER No.	PROJECT
N 01077	

DATE RECEIVED	RESULTS REQUIRED
05/11/91	ASAP

No. OF PAGES OF RESULTS	DATE REPORTED	No. OF COPIES
4	25/11/91	1

TOTAL No. OF SAMPLES: 75

SAMPLE NUMBERS	SAMPLE DESCRIPTION	ELEMENT/METHOD
16501/575	SO Prep : GP019	Au/GG340,Pb,Zn,As,Cu,Ag/GA101

REMARKS

RESULTS TO

Attn. Michelle Stokes
Northern Gold N.L.
c/- Post Office
Adelaide River
NT 0896

RESULTS TO

RESULTS TO

ANALABS

A Division of Inchcape Inspection and Testing Services Australia Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	110755.21.05506	30/09/91	N 01042	1 OF 4

TUBE No.	SAMPLE No.	Au	Au	Au(R)	Au(S)	Au(R)	Au(S)			
1			–	–	–	–	–			
2			–	–	–	–	–			
3			–	–	–	–	–			
4	15504	0.010	–	–	–	–	–			
5	15505	0.009	–	–	–	–	–			
6			–	–	–	–	–			
7			–	–	–	–	–			
8			–	–	–	–	–			
9			–	–	–	–	–			
10			–	–	–	–	–			
11			–	–	–	–	–			
12			–		–	–	–			
13			–	–	–	–	–			
14			–	–	–	–	–			
15		–		–	–	–	–			
16		–		–	–	–	–			
17		–		–	–	–	–			
18		–		–	–	–	–			
19		–		–	–	–	–			
20		–		–	–	–	–			
21		–		–	–	–	–			
22		–		–	–	–	–			
23		–		–	–	–	–			
24		–		–	–	–	–			
25		–		–	–	–	–			

Results in ppm unless otherwise specified
T = element present; but concentration too low to measure
X = element concentration is below detection limit
— = element not determined

AUTHORISED OFFICER B. van Blommestein.

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ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	110755.21.05506	30/09/91	N 01042	3 OF 4

TUBE No.	SAMPLE No.	Au	Au	Au(R)	Au(S)	Au(R)	Au(S)			
1		–		–	–	–	–			
2		–		–	–	–	–			
3		–		–	–	–	–			
4		–		–	–	–	–			
5	15750	–	<0.15	–	–	–	–			
6	15751	–	<0.15	–	–	–	–			
7	15752	–	<0.15	–	–	–	–			
8	15753	–	<0.15	–	–	–	–			
9	15754	–	<0.15	–	–	–	–			
10	15755	–	0.15	–	–	–	–			
11	15756	–	<0.15	–	–	–	–			
12	15757	–	<0.15	–	–	–	–			
13	15758	–	<0.15	–	–	–	–			
14	15759	–	2.96	–	–	–	–			
15	15760	–	0.25	–	–	–	–			
16	15761	–	0.30	–	–	–	–			
17	15762	–	<0.15	–	–	–	–			
18	15763	–	1.21	–	–	–	–			
19	15764	–	<0.15	–	–	–	–			
20	15765	–	0.71	–	–	–	–			
21	15766	–	<0.15	–	–	–	–			
22	15767	–	<0.15	–	–	–	–			
23	15768	–	<0.15	–	–	–	–			
24	15769	–	<0.15	–	–	–	–			
25										

Results in ppm unless otherwise specified
T = element present; but concentration too low to measure
X = element concentration is below detection limit
– = element not determined

AUTHORISED OFFICER B. van Rinsvelt

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ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	110755.21.05506	30/09/91	N 01042	4 OF 4

TUBE No.	SAMPLE No.	Au	Au	Au(R)	Au(S)	Au(R)	Au(S)			
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23	DETECTION	0.005	0.15	0.005	0.005	0.15	0.15			
24	UNITS	PPM	PPB	PPM	PPM	PPB	PPB			
25	METHOD	GG313	GA340	GG313	GG313	GA340	GA340			

Results in ppm unless otherwise specified
T = element present; but concentration too low to measure
X = element concentration is below detection limit
— = element not determined

AUTHORISED OFFICER B. van Blommestein.

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ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	110755.21.05805	25/11/91	N 01077	1 OF 4

TUBE No.	SAMPLE No.	Cu	Zn	As	Ag	Au	Pb			
1	16501	10	20	<100	0.5	1.65	20			
2	16502	15	25	<100	<0.5	0.65	10			
3	16503	15	30	<100	0.5	0.85	15			
4	16504	20	40	<100	0.5	0.95	25			
5	16505	15	55	<100	0.5	0.65	60			
6	16506	10	35	<100	1.0	0.45	20			
7	16507	20	55	<100	0.5	0.65	65			
8	16508	25	70	100	0.5	1.40	70			
9	16509	20	100	100	<0.5	1.10	125			
10	16510	30	135	100	0.5	1.20	255			
11	16511	30	145	100	0.5	1.60	265			
12	16512	70	245	100	0.5	0.80	455			
13	16513	40	205	100	0.5	0.40	275			
14	16514	25	65	<100	0.5	0.90	65			
15	16515	15	45	<100	0.5	2.65	30			
16	16516	15	30	<100	0.5	0.95	15			
17	16517	10	35	<100	<0.5	2.15	5			
18	16518	20	40	<100	<0.5	1.75	15			
19	16519	10	20	<100	<0.5	0.35	15			
20	16520	15	25	<100	0.5	0.45	15			
21	16521	10	20	<100	0.5	0.30	10			
22	16522	15	30	<100	0.5	0.45	25			
23	16523	25	45	<100	<0.5	0.80	40			
24	16524	25	45	<100	<0.5	1.00	20			
25	16525	15	30	<100	0.5	0.50	25			

Results in ppm unless otherwise specified
T = element present, but concentration too low to measure
X = element concentration is below detection limit

AUTHORISED OFFICER Wayne S. Turner

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ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	110755.21.05805	25/11/91	N 01077	2 OF 4

TUBE No.	SAMPLE No.	Cu	Zn	As	Ag	Au	Pb			
1	16526	20	50	<100	<0.5	2.15	35			
2	16527	15	35	<100	0.5	1.05	15			
3	16528	20	45	<100	<0.5	1.45	20			
4	16529	15	35	<100	<0.5	1.20	5			
5	16530	15	50	<100	<0.5	0.70	15			
6	16531	15	35	100	<0.5	0.70	55			
7	16532	25	40	<100	0.5	0.90	25			
8	16533	20	75	<100	0.5	2.75	30			
9	16534	20	75	<100	0.5	5.50	40			
10	16535	30	85	100	<0.5	1.05	85			
11	16536	25	65	<100	<0.5	1.25	45			
12	16537	20	55	<100	<0.5	0.75	25			
13	16538	15	20	<100	<0.5	0.45	45			
14	16539	15	35	<100	<0.5	0.60	15			
15	16540	20	30	<100	<0.5	1.00	15			
16	16541	20	30	<100	<0.5	0.65	15			
17	16542	15	55	<100	<0.5	1.60	30			
18	16543	25	105	<100	0.5	1.85	50			
19	16544	25	125	<100	0.5	1.80	55			
20	16545	25	120	<100	0.5	2.30	55			
21	16546	25	120	<100	0.5	1.25	45			
22	16547	25	125	<100	0.5	1.65	55			
23	16548	20	75	<100	<0.5	1.15	40			
24	16549	15	40	<100	0.5	0.80	40			
25	16550	15	35	<100	<0.5	0.60	30			

Results in ppm unless otherwise specified
T = element present; but concentration too low to measure
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AUTHORISED OFFICER Wayne S. Turner

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ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	110755.21.05805	25/11/91	N 01077	3 OF 4

TUBE No.	SAMPLE No.	Cu	Zn	As	Ag	Au	Pb			
1	16551	20	45	<100	<0.5	1.30	25			
2	16552	30	70	<100	<0.5	0.70	40			
3	16553	25	110	100	<0.5	2.35	40			
4	16554	15	45	<100	<0.5	0.60	25			
5	16555	25	105	<100	<0.5	0.35	55			
6	16556	20	50	<100	<0.5	0.45	40			
7	16557	15	60	<100	<0.5	1.51	30			
8	16558	15	40	<100	<0.5	1.95	25			
9	16559	20	110	<100	<0.5	1.05	30			
10	16560	25	125	<100	0.5	1.25	55			
11	16561	25	110	<100	0.5	1.15	55			
12	16562	15	25	<100	<0.5	1.10	20			
13	16563	15	25	<100	<0.5	0.70	20			
14	16564	15	30	<100	<0.5	0.70	20			
15	16565	15	35	<100	0.5	0.65	35			
16	16566	20	45	100	<0.5	0.90	55			
17	16567	20	50	<100	<0.5	1.85	55			
18	16568	20	35	100	<0.5	0.80	45			
19	16569	25	55	<100	0.5	0.70	55			
20	16570	25	65	<100	0.5	2.25	45			
21	16571	20	95	<100	0.5	10.10	65			
22	16572	25	105	100	<0.5	6.25	95			
23	16573	30	110	<100	<0.5	0.65	60			
24	16574	30	115	<100	<0.5	0.70	90			
25	16575	30	135	<100	<0.5	1.95	85			

Results in ppm unless otherwise specified
T = element present; but concentration too low to measure
X = element concentration is below detection limit
— = element not determined

AUTHORISED OFFICER Wayne S. Turne

800 000mE
802 000mE
804 000mE
806 000mE
808 000mE
8 496 000mN
8 494 000mN
8 492 000mN
Pgr
Pgs
Pgf
Pmi
Pm
Pmg
Pcs
Psk
Pp
Pph
Psl
Pdz
Hornfels
Dam
Fe Mine
FRANCES CREEK
UNION EXTENDED
I
N
0
km
Northern Gold N.L.
EL 7316
REGIONAL GEOLOGICAL PLAN
Figure 2
COMPILED BY G. Partington
DATE December 1991
SCALE 1 : 25000

801000E
802000E
803000E
804000E
805000E
806000E
8498000N
8497000N
8496000N
8495000N
8494000N
8493000N
8492000N
8491000N

15758
15759
15760
15761
15753
15755
15754
15757
15750
15764
15762
15765
15756
15751
15752
15766
15763
15767
15768

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EL 7316 Stream Sediment+ and Rock-chip* Location Map
Figure 3

SCALE	DATE	SHEET
1: 25000	17/12/91	1 of 1
	REF No.	
	Plotted with MICROMINE	

801000E
802000E
803000E
804000E
805000E
8497000N
8496000N
8495000N
8494000N
8493000N
8492000N
8491000N
16557 16558 16559 16560 16562 16563 16564 16565 16566 16567 16568 16569 16570 16571 16572 16573 16574 16575
16561
16538 16539 16541 16542 16543 16544 16545 16546 16547 16548 16549 16550 16551 16552 16553 16554 16555 16556
16540
16519 16521 16522 16523 16524 16525 16526 16527 16528 16529 16530 16531 16532 16533 16534 16535 16536 16537
16520
16501 16502 16503 16504 16505 16506 16507 16508 16509 16510 16511 16512 16513 16514 16515 16516 16517 16518

Northern Gold NL

EL 7316 SOIL SAMPLE LOCATIONS
FIGURE 4

SCALE	DATE	SHEET
1: 20000	08/11/91	1 of 1
	REF No.	
	Plotted with MICROMINE	

801000E
802000E
803000E
804000E
805000E
806000E
8498000N
8497000N
8496000N
8495000N
8494000N
8493000N
8492000N
8491000N

+L
+2.98
+0.23
+0.15
+0.71

Northern Gold NL

EL 7316 Stream Sediment+ and Rock-chip Results*
* ppm + ppb
Figure 5

SCALE	DATE	SHEET
1: 25000	17/12/91	1 of 1
	REF No.	
	Plotted with MICROMINE	

801000E
802000E
803000E
804000E
805000E

8497000N
8496000N
8495000N
8494000N
8493000N
8492000N
8491000N

+1.51 +1.95 +1.05 +1.15 +1.10 +0.70 +0.70 +0.65 +0.90 +1.85 +0.80 +0.70 +2.25 +10.10 +8.25 +0.65 +0.70 +1.95
1.25

+0.45 +0.60 +0.65 +1.60 +1.85 +1.80 +2.30 +1.25 +1.65 +1.15 +0.80 +0.80 +1.30 +0.70 +2.35 +0.60 +0.35 +0.45
1.00

+0.35 +0.30 +0.45 +0.80 +1.00 +0.50 +2.15 +1.05 +1.45 +1.20 +0.70 +0.70 +0.90 +2.75 +5.50 +1.05 +1.25 +0.75
0.45

+1.65 +0.65 +0.85 +0.95 +0.65 +0.45 +0.65 +1.40 +1.10 +1.20 +1.60 +0.80 +0.40 +0.90 +2.65 +0.95 +2.15 +1.75

Northern Gold NL

EL 7316 SOIL SAMPLE
RESULTS Au
FIGURE 6

SCALE	DATE	SHEET
1: 20000	17/12/91	1 of 1
	REF No.	
	Plotted with MICROMINE	

Key To Geological Map

Cambrian-Recent Lithologies

- al — Alluvium
- co — Colluvium
- l — Laterite
- do-33 — Dolomite
- l-39 — Limestone
- si-41 — Siltstone
- s-2 — Sandstone
- c-25 — Conglomerate
- sh-55 — Shale
- ba — Basalt

Proterozoic Lithologies And Their Metamorphic Equivalents

- PU-44 — Upper Proterozoic*
- PM-44 — Middle Proterozoic*
- PL-44 — Lower Proterozoic*
- Pg-13 — Proterozoic Granitoid*
- Pd-45 — Proterozoic Dolerite*
- Pf-58 — Finniss River Group*
- Ps-53 — South Alligator Group*
- Pso-48 — Mt Bonnie Formation*
- Pvg-29 — Garrowie Tuff*
- Psk-53 — Koolpin Formation*
- Ppw-3 — Mt Partridge Group*
- Pn-34 — Namoona Group*
- Ar-15 — Rum Jungle Complex*
- Aw-15 — Waterhouse Complex*

- Pyb-47 — Buckshee breccia
- Pdo-42 — Oenpelli dolerite
- Pve-9 — Edith River volcanics
- Pvs-9 — El Sherana Group
- Pgr-13 — Granite
- Pga-13 — Adamellite
- Pgg-13 — Granodiorite
- Pgs-13 — Syenite
- Pdz-45 — Zamu dolerite
- Pgz-45 — Zamu gabbro
- Pgsh-51 — Garnet-mica schist
- Pgm-58 — Greywacke/mudstone
- Pgf-58 — Feldspathic greywacke
- Pgt-58 — Tombstone greywacke
- Pgq-58 — Quartz greywacke
- Pgm-58 — Greywacke/siltstone
- Pca-26 — Conglomerate:angular clasts
- Pcr-26 — Conglomerate:rounded clasts
- Psl-7 — Siltstone
- Psg-7 — Siltstone/greywacke
- Pmi-48 — Mudstone/ironstone/chert
- Pmg-61 — Mudstone/greywacke
- Pm-56 — Mudstone
- o o o o — Mudstone nodules
- ——— — Iron stone
- Pcs-29 — Chert/siltstone
- Psc-29 — Siltstone/chert

* Undifferentiated Units
Recent lithologies prefixed: C-Cambrian-Ordovician-Permian, M-Mesozoic

Key To Geological Map

- Pvt-29 — Tuff
- Pgp-9 — Quartz porphyry
- Pdi-9 — Diorite
- Pdl-9 — Lamprophyre
- Psh-54 — Shale
- Pshb-54 — Shale breccia
- Pshc-53 — Carbonaceous shale
- Pshg-53 — Gossanous shale
- Pcm-29 — Massive chert
- Ps-3 — Sandstone
- Pca-34 — Carbonate
- Pph/ — Phyllite/precursor
- Pcl/ — Chlorite schist/precursor
- Pp — Pegmatite

Topographic Symbols

- Mine
- Prospect
- Road
- Creek
- Fence
- Railway
- Track
- Waterhole

* Undifferentiated Units
Recent lithologies prefixed: C-Cambrian-Ordovician-Permian, M-Mesozoic

Geological Symbols

- Shear zone/fault zone
- Shear fabric
- High strain zone
- Foliation
- Cleavage
- Stockwork
- Quartz vein
- Stretching lineation
- Intersection lineation
- Crenulation lineation
- Boudin neck
- Bedding
- F1 fold axis
- F2 fold axis
- Synform/antiform
- Fault
- Vergence
- Younging
- Unconformity
- Fold Vergence