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EL 6305

RELINQUISHMENT REPORT To 24th October 1990

Pine Creek SD52-8 Burrundie 14/6-IV, 5270.4

Licensee: Knave Pty. Ltd.

Operator: Northern Gold NL

Compiled for Northern Gold NL
by Greg Partington
and Michelle Stokes

CONTENTS

SUMMARY

A first-pass exploration programme was carried out on the relinquished area of EL 6305 in 1989 to test the area for Au, base metal and Sn-Ta mineralization. Rock chip sampling and stream sediment sampling were completed and results were not considered sufficiently anomalous to warrant further work.

1 INTRODUCTION

EL 6305 was granted on 24 October 1988 to Mining Development Company Ltd. for a period of five years. Northern Gold entered into a farmin agreement over this tenement on 25 September 1989. The licence covered two blocks (6.48 kilometre^2) and one block (the subject of this report see figure 1) was relinquished in November 1990.

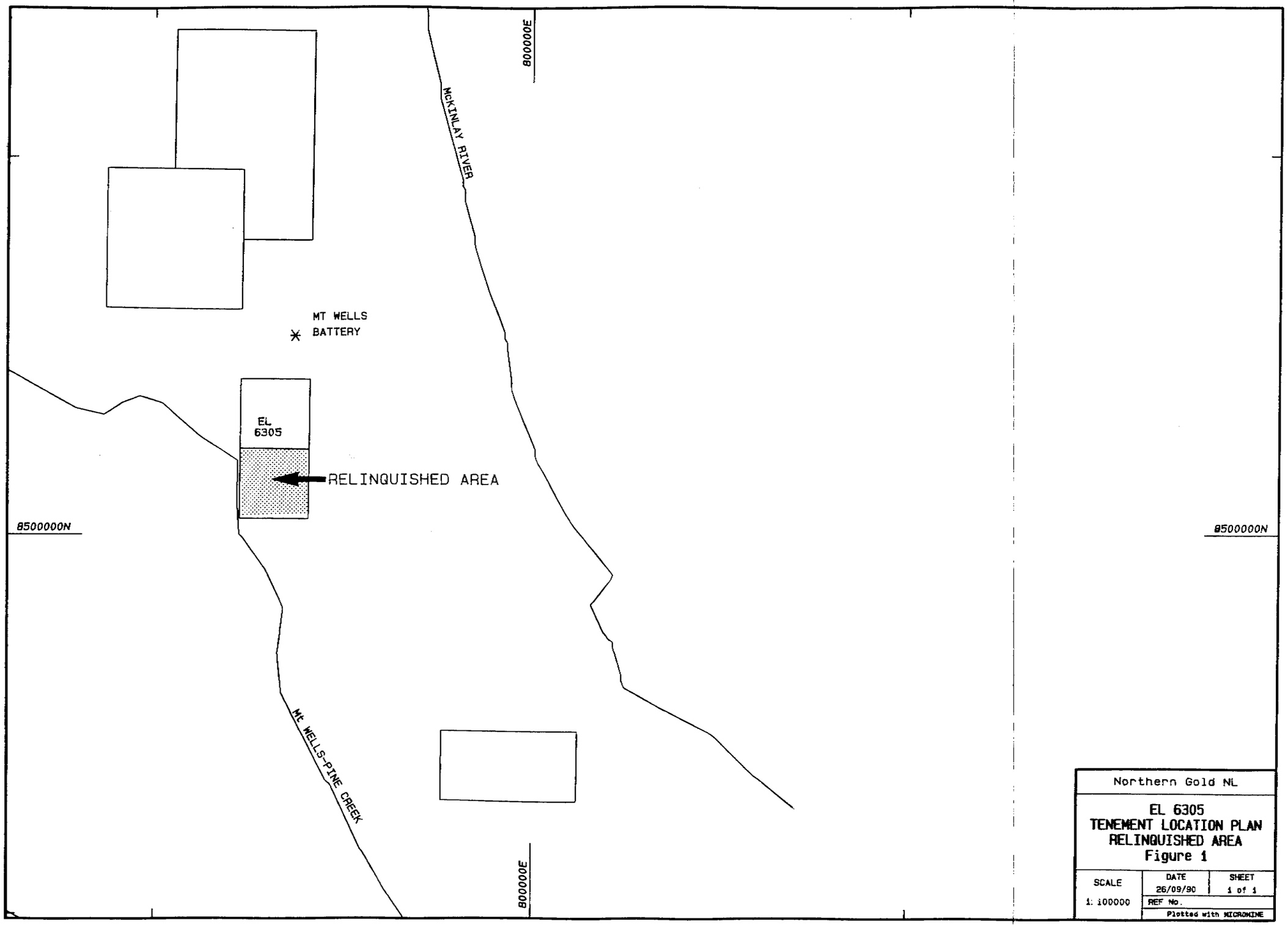
EL 6305 is located about 1 kilometre south of the Mt Wells Tin mine (Figure 1) within the Cullen Mineral Field. Access to EL 6305 is via the Mt. Wells-Fountainhead or Mt. Wells Pine Creek roads. Access within the licence is restricted to four wheel drive only due to the rugged nature of the terrain.

A search of the Mines Department open files revealed that no modern gold or base metal exploration had been carried out over the licence area.

2 GEOLOGY

2.1 Regional Geology

EL 6305 is situated within the Pine Creek Geosyncline, a tightly to isoclinally folded sequence of mainly pelitic and psammatic (continental to shallow water) Lower Proterozoic sediments with interlayered tuff units. All the lithologies in the area have been metamorphosed mostly to low and in places medium grade metamorphic assemblages. The sequence has been intruded by pre-orogenic dolerite sills 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.


800000E
McKINLAY RIVER
MT WELLS
BATTERY
EL
6305
RELINQUISHED AREA
8500000N
8500000N
Mt WELLS-PINE CREEK
800000E
Northern Gold NL
EL 6305
TENEMENT LOCATION PLAN
RELINQUISHED AREA
Figure 1
SCALE
1:100000
DATE
26/09/90
SHEET
1 of 1
REF No.
Plotted with MICROMINE

3 NORTHERN GOLD EXPLORATION

3.1 Exploration Completed

Northern Gold completed a first-pass exploration programme designed to test EL 6305 for gold, base metal and Sn-Ta mineralization.

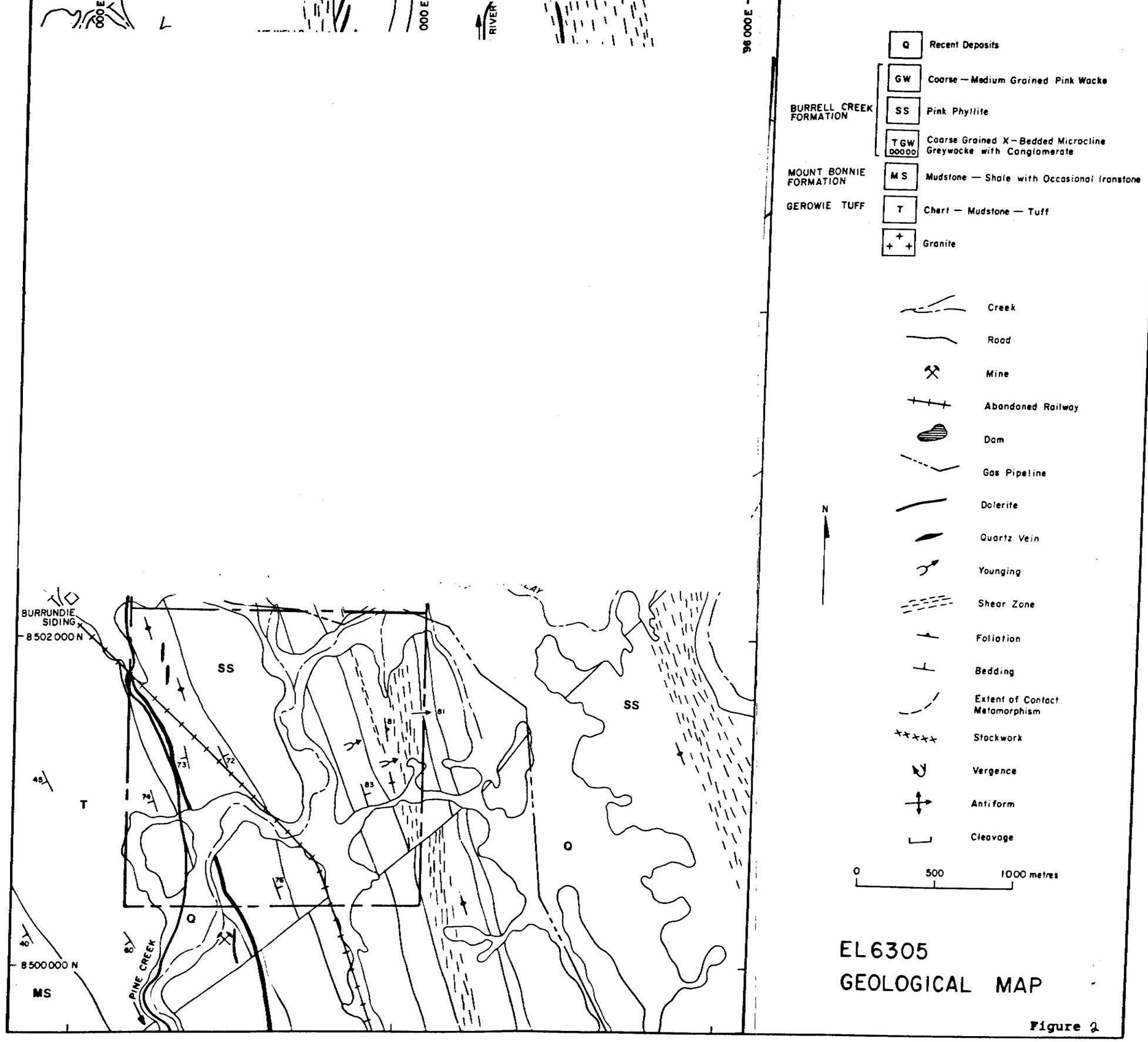
3.1.1 Geological reconnaissance

A geological reconnaissance was carried out over EL 6305 and a geological map was produced (Figure 2). One rock chip sample (7613) was collected from the tenement and this was submitted to AAL in Pine Creek for analysis of Au, As, Cu, Pb, Zn, Mo, Ag, Sn and Ta. Sample description and result are presented in Appendix 1, and locations shown on Figure 3.

EL 6305 comprises rocky ridges dissected by alluvial plains of the Mckinlay River system. The alluvial plains are predominantly soil covered, although this cover is often only a few metres deep, as Proterozoic lithologies are often exposed in the deeper creeks. The Burrell Creek Formation, which forms all of the outcrop in the tenement, consists of interbedded sandy siltstone, siltstone, phyllite, slate and greywacke. These lithologies have a similar strike and dip to the underlying lithologies. However facing directions, derived from cross-bedding in greywacke and siltstone units are occasionally reversed.

3.1.3 Stream sediment sampling

A total of 24 stream sediment samples were collected within the relinquished area of EL 6305. About 2 kg of sediment sieved to -6mm was collected from the best available trapsites in smaller creeks draining directly from areas of outcrop. The samples were submitted to



EL6305
GEOLOGICAL MAP

Figure 2

792000E

793000E

794000E

EL 6305 (RETAINED)

8502000N

8502000N

+7607
+7606
+7608
+7545
+7528
+7529
+7605
+7590
+7589
+7613
+7588
+7604
+7591
+7587
+7586
+7585
+7584
+7583
+7592

EL 6305 (RELINQUISHED)

+7594
+7593
+7603
8501000N
+7595
8501000N
+7602
+7596
+7597
+7601
+7598
+7599
+7600

792000E

793000E

794000E

Northern Gold NL

EL 6305 (Relinquished)
ROCK AND SREAM SEDIMENT
SAMPLE LOCATIONS
Figure 3

SCALE	DATE	SHEET
1: 10000	21/11/90	1 of 1
	REF No.	
	Plotted with MICROMINE	

Australian Assay Laboratories (AAL) in Pine Creek for a bulk cyanide leach for Au and ICP analysis for Ag, As, Mo, Cu, Pb and Zn. Sample results are presented in Appendix 2, and locations are shown on Figure 3.

4 CONCLUSIONS

Assay results received were not considered sufficiently anomalous to warrant further work on the area.

APPENDIX 1

ROCK CHIP DESCRIPTIONS AND RESULTS

Au = ppb, All others = ppm, L = Below detection

	Au	Cu	Pb	Zn	As	Ag	Mo	Sn	Ta
7613 quartz vein	0.05	38	28	37	290	L	L	L	L

APPENDIX 2

STREAM SEDIMENT SAMPLE RESULTS

Au = ppb, others = ppm, L = below detection

Sample	Au	Cu	Pb	Zn	As	Ag	Mo	Sn	Ta
7528	0.1	48	10	12	10	L	L	7	L
7529	5.1	43	6	21	9	L	L	10	L
7545	L	42	5	14	8	L	L	6	L
7583	L	26	L	10	5	L	L	13	L
7584	L	38	L	11	18	L	L	L	L
7585	0.9	25	L	10	6	L	L	13	L
7586	L	26	10	14	7	L	L	L	L
7587	L	28	5	12	24	L	L	6	L
7588	0.2	35	7	14	10	L	2	L	L
7589	L	27	6	11	13	L	L	12	L
7590	0.5	29	L	16	10	L	2	7	L
7591	0.6	29	6	17	9	L	L	L	L
7592	L	34	L	19	4	L	L	L	L
7593	L	48	L	14	12	L	L	L	L
7594	L	68	L	16	15	L	L	L	L
7595	L	36	7	15	10	L	L	5	L
7596	0.1	30	L	7	7	L	L	L	L
7597	L	35	7	9	11	L	L	7	L
7598	L	42	7	10	8	L	3	L	L
7599	L	34	L	12	11	L	L	L	L
7600	L	33	9	14	9	L	L	L	L
7601	L	36	8	16	15	L	L	5	L
7602	0.2	29	8	18	7	L	L	L	L
7603	0.4	26	11	13	9	L	L	L	L
7604	L	32	11	11	15	L	L	L	L
7605	0.1	28	8	16	25	L	L	6	L
7606	L	32	L	12	13	L	L	L	L
7607	L	27	11	10	26	L	L	8	L