



EL8633 - WOLFRAM

ANNUAL REPORT
YEAR ONE OF TENURE

25.11.94 - 24.11.95 Wandie 1:50,000 and Ranford Hill 1:100,000 Scale Map Sheets





Distribution:

C. Fawcett November 1995

NTDME Territory Goldfields NL, Darwin Barnjarn Mining Company

Territory Goldfields N.L.

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1.0 SUMMARY

EL8633 is located within the Wandie project area on the Wandie 1:50,000 and Ranford Hill 1:100,000 scale map sheets.

Exploration conducted over EL8633 has been carried out as part of a regional programme over the Wandie project area.

Lag sampling was carried out by Dominion Gold Operations Pty Ltd during the first year of tenure. The licence was granted to Dominion in November 1994. Territory Goldfields NL acquired the licence in May 1995.

2.0 LOCATION AND TENURE

EL8633 is located approximately 45km east-southeast of Pine Creek on the Wandie 1:50,000 and Ranford Hill 1:100,000 scale map sheets. The licence forms part of the Wandie project area and is described by latitudes 13°56'S and 13°57'S and longitudes 132°12'E and 132°14'E (Figures 1 and 2).

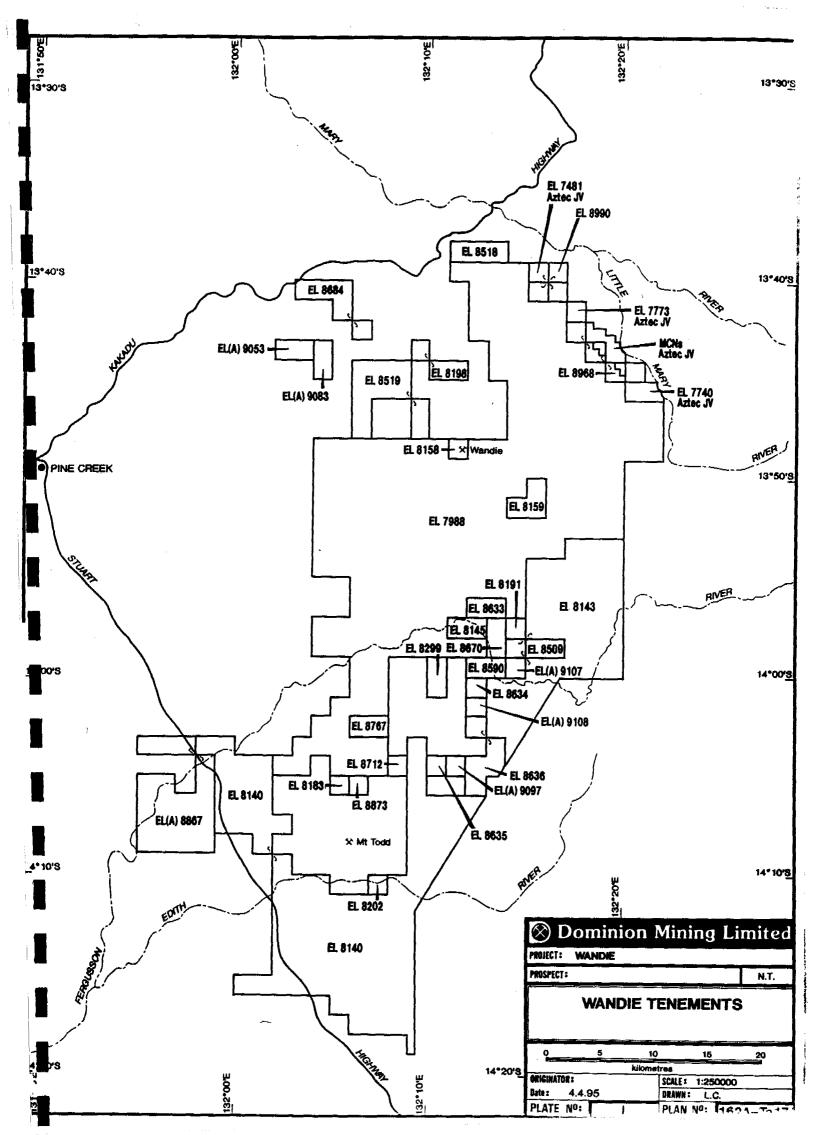
The licence was granted to Dominion Gold Operations Pty Ltd on 25 November 1994 for a period of three years. Territory Goldfields NL subsequently acquired the licence in May 1995.

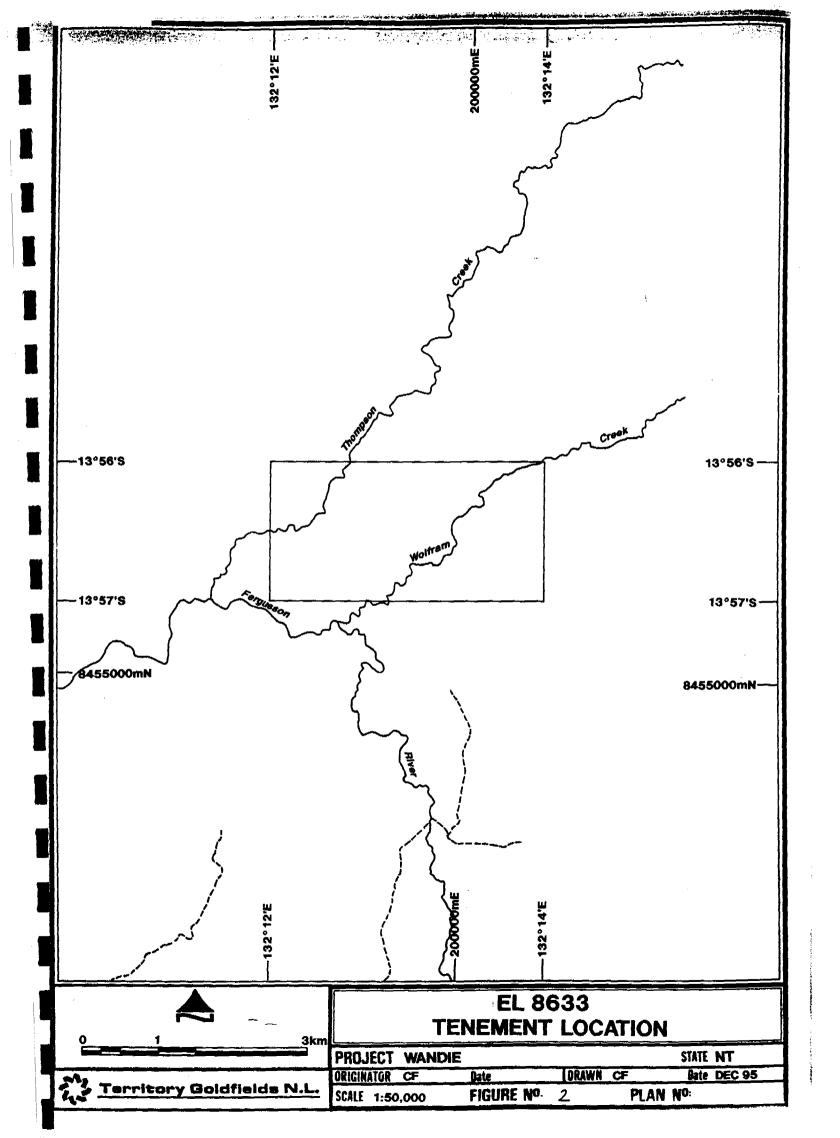
3.0 GEOLOGY

3.1 Regional Geology

The Pine Creek Inlier is a roughly triangular area of about 66,000km² south and east of Darwin, which contain Early Proterozoic metasedimentary rocks resting on a gneissic and granitic archaean basement. The metasediments represent fluviatile, shallow water and intertidal basinal sequence up to 14km thick (Needham et al, 1980).

During the Top End Orogeny (1870-1780Ma) the rocks were metamorphosed to mainly greenschist facies, however, amphibolite facies dominates in the northeast in the Alligator Rivers region. Proven Archaean rocks are restricted to mainly granitegneiss of the Rum Jungle, Waterhouse and Nanambu Complexes which formed mantled gneiss domes near the presently exposed western and eastern margins of the inlier.





The sedimentary rocks are mainly shale, siltstone, sandstone, conglomerate, carbonate rocks and iron formations. Felsic to mafic volcanism and associated tuffaceous sediments are also present. The sedimentary sequence is intruded by transitional igneous rocks including pre-tectonic dolerite sills and syn to post tectonic granitoid plutons and dolerite lopoliths and dykes. Largely undeformed platform covers of Middle Proterozoic to Mesozoic strata overlie these Lower Proterozoic sediments.

3.2 Local Geology

The licence area is dominated by Burrell Creek Formation sediments and alluvial sediments from the Fergusson River drainage system.

Folding is complex and appears to trend northwest through the area (Figure 3).

4.0 PREVIOUS EXPLORATION

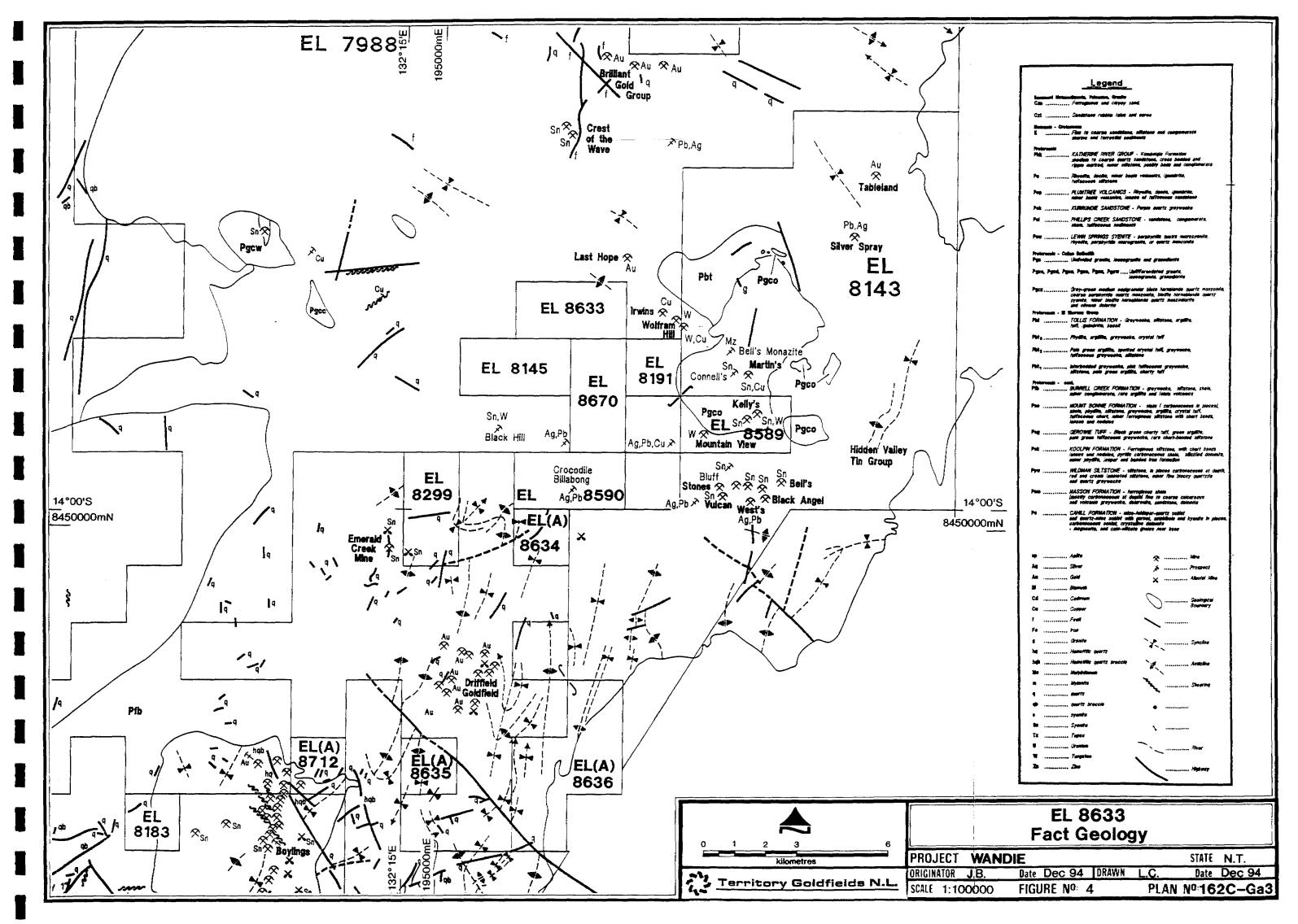
The area has previously been explored by Geopeko Ltd as part of EL1558 (1979). The work consisted of an airborne geophysical survey, photogeological reconnaissance mapping and geological mapping. Gridding and auger drilling was carried out to the north over the Wandie goldfields.

Billiton carried out exploration work immediately to the south of EL8633 (1991). This involved soil sampling and ground magnetics and electromagnetics. Results were disappointing.

A grid-based geophysical survey was undertaken over the Wolfram Hill Mine and surrounds in 1938 by the Northern Territory Geophysical Survey team. The aim of the survey was to trace probable continuation of the main reef, in which mineralisation occurred, through the sandy bed of Wolfram Creek and on its northern bank, and if possible, to indicate the presence of quartz-wolfram lenses. Three different geophysical techniques were used:

- (1) Potential Ratio;
- (2) Magnetic; and
- (3) Self-Potential method.

Driffield Mining Pty Ltd undertook a selective rock chip sampling and reconnaissance programme over old mine workings and prospective areas in 1988. They concluded that the preliminary evaluation and rock chip survey confirmed the region's potential for gold mineralisation, and a detailed comprehensive rock chip sampling programme of the region was justified.



5.0 1994 - 1995 EXPLORATION

During the first year of tenure, Dominion carried out a lag sampling programme resulting in the collection of 15 samples. Lag sampling involves the collection of approximately 2kg of +2mm -6mm material taken from the ground surface. This is achieved by using a wide, heavy duty broom to sweep up surface material, which is then sieved to the required size fraction.

Samples were submitted to Amdel, Darwin for analysis of Au, As and Bi. Results can be seen in Appendix 1 (Figures 4 and 5).

6.0 PROPOSED PROGRAMME

The proposed exploration programme for the second year of tenure will involve infill lag sampling or RAB bedrock drilling if needed. This will provide 800m x 200m coverage. Further infilling to 400m x 100m may be carried out in anomalous areas outlined.

The minimum expenditure for this programme is expected to be \$2,500.

7.0 EXPENDITURE

The expenditure for the first year of tenure is as follows:

Assays	180.00
Employee Costs	810.00
Vehicle Costs	400.00
Camp and Field	1000.00
Drafting and Computing	140.00

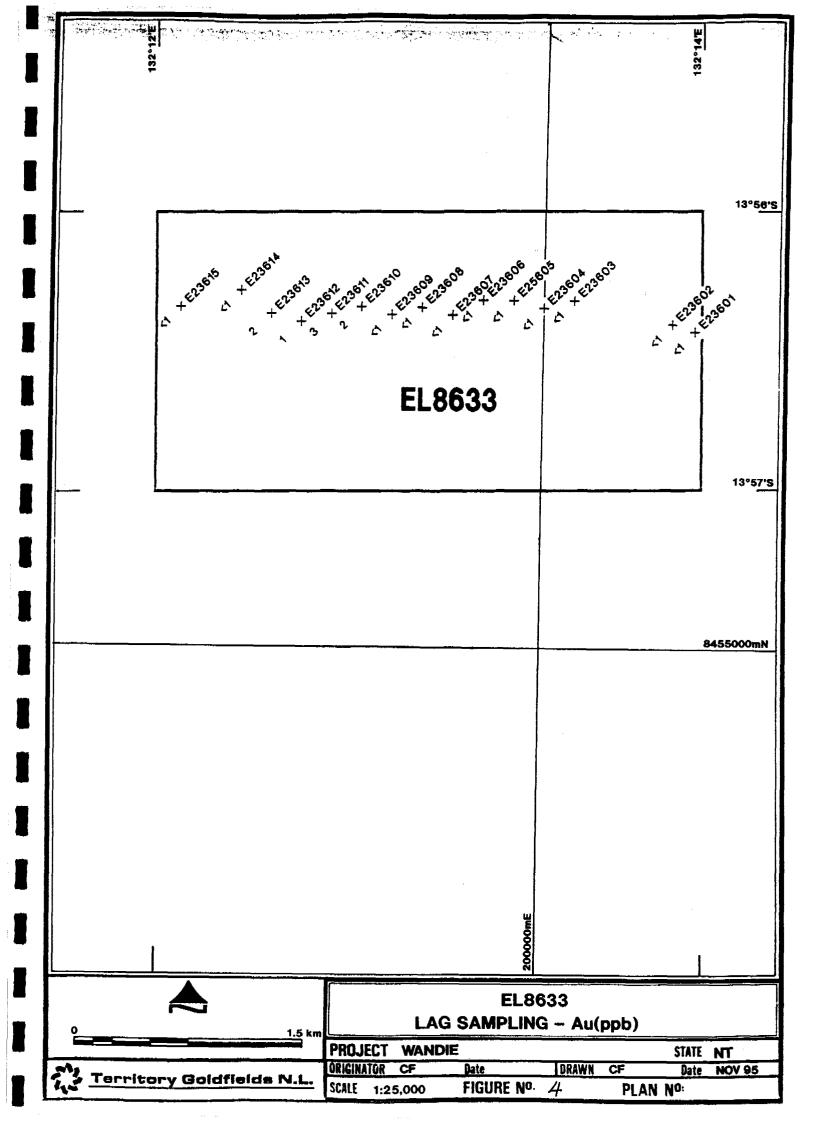
Total \$2530.00

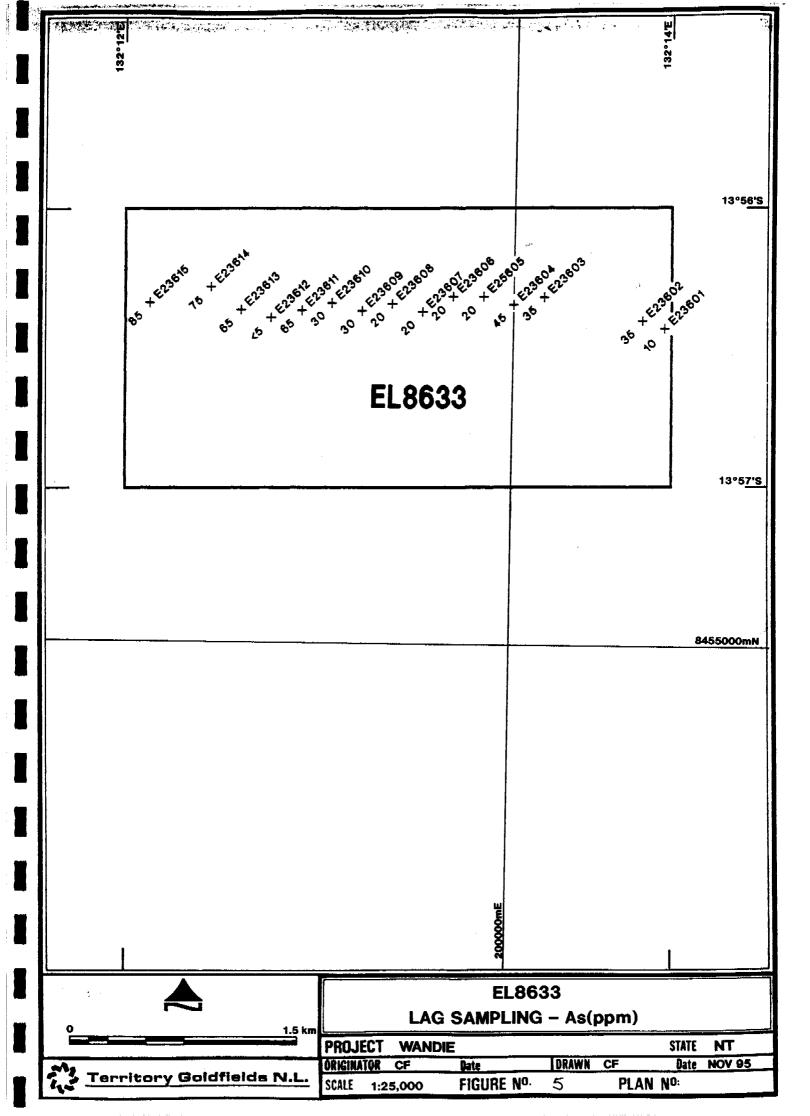
8.0 REFERENCES

Balde, R., Annual Report for Exploration Licence No. 1558, for the period 29.12.77 - 28.12.78, unpublished report by Geopeko Ltd.

Koerber, D., Billiton Australia, EL4730 - Wolfram Hill Joint Venture, Annual Report for period ending 15 March 1992, unpublished report to the NTDME

Needham, R.S., Crick, J.H. and Stuart-Smith, P.G. (1980)
'Regional Geology of the Pine Creek Geosyncline', in Proceedings of the International Uranium Symposium, International Atomic Energy Agency, Vienna p1-22.





APPENDIX 1

LAG SAMPLE LOGS AND ASSAY RESULTS

8457200N

GEOCHEMICAL SAMPLING

EL 7988

Project: WOLFRAM HILL

Prospect: FERGUSSON R

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Sample Type: _____

+2 -6 mm

Sampler: Andy & Wayne

Date: <u>/4 · 09 · 9</u>4

Laboratory:

AN / WM ...
Analytical Methods:

Co-ordinate /	Slope	Primary Descriptor	Secondary Descriptor			Pph Analysis			
Location	Vector	Primary Descriptor	Alta.	Morn	Prefix	Aس	As	Bi	
3457 100N 201000E		Saw B5 outerop	13		E23601	>	10	4 1	
3457150N 200850E		SgwBRS atcrop			602	×	عد	"	
457200 N 20060-E		NS Allovial to	rrace		_	1			
457200N 400 E		NS "	e e						
457300N		Sow 60 Sond 38	્યું	0202	603	*	35	x.l	
7457250 N 200000 E		Saw R6		9202	604	У	45	٠٠,	
457300N 199800E	,	Syw R5 gzosterop		az 30	605	λ	20	١,	
457300N		SONR6	e .	9202	606	*	20	"	
457200 N 400 €		Sque Smd 20			607	y	20	٠,	
250 N 200E		Squ60 Smil 40		 	608	×	20	, '	
199000 E	·	Sgw80 Sand 15		9205	609	×	30	-,	
198800 E		Saw R4		1 2 2 1 2 2	610	2	30	4	
600 E 150N		SONRE		9205	611	3	62)	
400E 457200N		SquB5 outerp			612	1	۷5	۷١	
200E 457 350 N		Sqw50		7250	613	2	65	٠,	+ t _e
198000 E		Samso graterop		9250	614	>	75	1	
157200N 117800E 457240N		NS Thompson Rock	flood	Lia no VISI	le odero	0 01	lag.		
197600E		5gw 60		-740	615	د	<i>J</i> 85		



Final

ANALYTICAL REPORT

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Job: 4DN1341 O/N: 20754

		WINTITTE	TH 1/11-0:	~-
SAMPLE	Au	Au Dp1	As	Bi
E23601	<1		10	<1
E23602	<1		35	<1
E23603	<1		35	<1
E23604	<1		45	<1
E23605	<1		20	<1
E23606	<1		20	<1
E23607	<1		20	<1
E23608	<1		20	<1
E23609	<1		30	<1
E23610	2		30	<1
E23611	3	2	65	1
E23612	1		<5	<1
E23613	2		65	<1
E23614	<1	<1	75	1
E23615	<1		85	2
UNITS DET.LIM SCHEME	ppb 1 FA3	ppb 1 FA3	ppm 5 AA7	ppm 1 AA7