



VENTURE

MINERALS

**EL31/2003 HEAZLEWOOD
TASMANIA
CONTACT CREEK PROJECT**

**PARTIAL RELINQUISHMENT REPORT
FOR PERIOD ENDED 14TH JUNE 2013**

Venture Minerals Ltd – Bass Metals Ltd Joint Venture

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All figures and grids MGA Zone 55 GDA94.

**SUMMARY
CONTACT CREEK PROJECT
TASMANIA**

EL31/2003

**PARTIAL RELINQUISHMENT REPORT
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ABSTRACT

Exploration Licence 31/2003 located in NW Tasmania is currently held in joint venture by Venture Minerals Ltd (manager) and Bass Metals Ltd. Bass Metals Ltd commenced management of the Heazlewood exploration licence (EL31/2003) on 26th March 2005 and in 2009 a joint venture was formed with Venture Minerals for the Fe, Sn & W rights. The Venture Minerals – Bass Metals JV is relinquishing 8 km² that is no longer considered suitably prospective for Fe, Sn and/or W to reduce EL31/2003 to 14 km². Activities and results for the released area as reported previously are summarized, and results for activities completed since annual reporting for EL31/2003 are presented (namely 7 panned concentrate samples collected from tributaries entering into the Heazlewood River).

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1. INTRODUCTION

This report is a partial relinquishment proposal for the Heazlewood exploration licence EL31/2003, for the period ended 6th June 2013. During the 4th year of tenure a 34 km² partial relinquishment was conducted reducing the licence to cover a total area of 101 km². A further 80 km² was relinquished during 2011 reducing the licence to 21 km². From 2005 EL31/2003 was subject to a joint venture agreement between Bass Metals and Pioneer Nickel Ltd (PIO), and from 2009 a joint venture was formed with Venture Minerals for the Fe, Sn & W rights. This joint venture arrangement remains in place and PIO has reduced its interest to a 2% NSR.

The tenement was originally claimed because it encompasses a large ultramafic complex considered prospective for Avebury-style nickel mineralisation. In more recent years exploration has been focused on the aureole of the Meredith Granite for Mt Lindsay-style Sn-W-magnetite skarn and carbonate replacement deposits.

1.1 Location

The tenement is located approximately 25 km west of the township of Waratah in the north-west of Tasmania (Figure 1). Access to the area is via the sealed Waratah Road. Access within the tenement is via a limited number of 4WD and ATV tracks, which require river crossings. Access to the majority of the tenement is on foot. More remote areas of the tenement can only easily be accessed by helicopter, and three helicopter landing pads were established north of the Whyte River in 2011.

Topographically the area is of significant relief with limited vehicular access. The most widespread vegetation community in the area is *Nothofagus* rainforest with lesser zones of *Eucalyptus nitida* and *Eucalyptus obliqua*.

The licence area can be found on the Savage River 1:25,000 topographic map sheet and the Arthur River 1:100,000 map sheet.

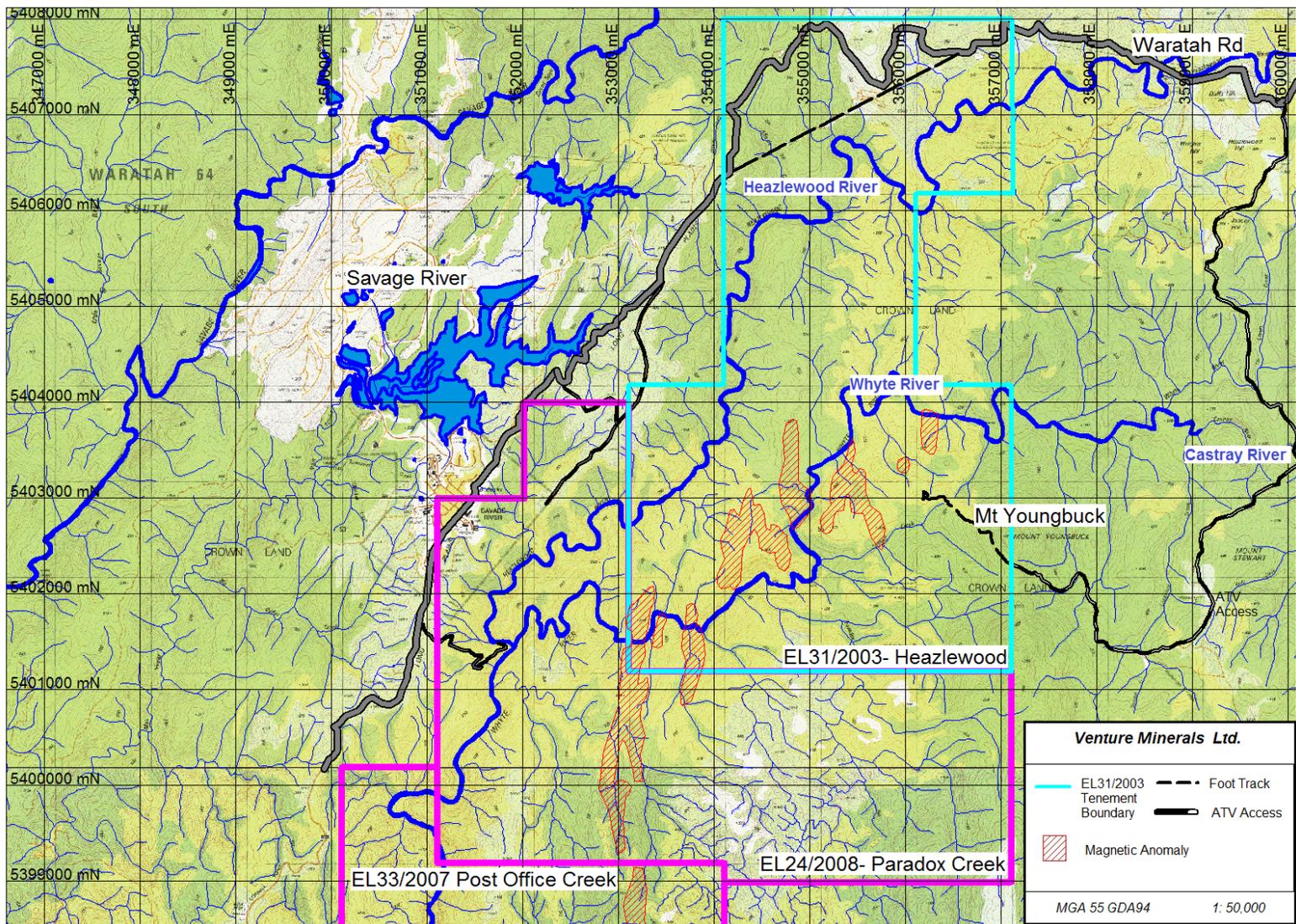


Figure 1. Heazlewood EL31/2003 is located in north-western Tasmania.

1.2 Geology Overview:

From west to east the basement geology of EL31/2003 consists of three main geological units the Oonah Formation, overlain by the Success Creek Group followed by the Crimson Creek Formation, which were intruded by the dolerites and still later the Meredith Granite (Figure 2). In the north-east of the tenement the basement consists of the Heazlewood Ultramafic Complex. This interpretation is based on a combination of mapping by the Tasmanian Geological Survey, Aberfoyle and most recently Venture Minerals.

Heazlewood Ultramafic Complex, Early Cambrian Ultramafics

In the early phases of the Tyennan Orogeny, the east-facing Tasmania passive margin collided with an oceanic arc, resulting in the obduction of mafic-ultramafic complexes across much of Tasmania. The original shallow-dipping geometry of the allochthonous sheets has been substantially disrupted by later Cambrian and Devonian deformation, so that the present surface occurrences are typically steeply dipping and fault bounded. Three ultramafic-mafic rock associations are commonly in fault juxtaposition within the complexes: layered Pyroxenite-Dunite, layered Dunite-Harzburgite and layered Pyroxenite-Peridotite and associated Gabbro (Seymour *et al*, 2006).

Crimson Creek Formation

The Crimson Creek Formation represents a correlate of the Upper Neoproterozoic-Lower Cambrian Togari Group sedimentary and mafic volcanic succession. The group can be subdivided into four main phases of sedimentation; a lower dolomitic succession with basal siliceous conglomerate-sandstone, a phase of mafic rift volcanism and associated volcanoclastic sedimentation, renewal of shallow-marine carbonate sedimentation, and at the top, a Cambrian phase of deep-water siliciclastic sedimentation (Seymour *et al*, 2006).

Success Creek Group

The Neoproterozoic – Early Cambrian Success Creek Group is not as conspicuously deformed as the Oonah Formation, and four formations are generally recognised, comprising a basal conglomerate with sandstone lenses, overlain by quartz sandstone

with minor siltstone and conglomerate (Dalcoath Formation), then black mudstone, siltstone and minor quartz sandstone, and finally siliceous siltstone, red chert and mudstone with minor quartz sandstone, conglomerate and dolomite (Renison Bell Formation, Brown, 1962).

Oonah Formation

The Oonah Formation is a thick, polydeformed Proterozoic quartz wacke turbidite succession, widespread in western Tasmania. The formation comprises of two lithological associations. The dominant quartz wacke turbidite association, which includes minor alkaline dolerite intrusions and lavas, consists of interbedded quartz sandstone, quartz wacke, siltstone and pelite. The secondary lithological association is predominately pelite and/or carbonate including mafic volcanics and conglomerate in some places. Near Zeehan this association is host to a number of Devonian vein, skarn and replacement-tin deposits, and at Mt Bischoff a dolomitic unit hosted major Devonian tin lodes (Seymour *et al*, 2006).

The Meredith Granite

World-class tin and tungsten ore bodies, as well as many lead, silver, gold, zinc, copper and bismuth deposits of different styles, are genetically and spatially related to the emplacement of high-level Middle Devonian to Early Carboniferous granitoids in Western Tasmania. The major bodies are the Housetop, Granite Tor, Grassy, Dalcoath, Meredith, Heemskirk and Interview granites, and these include both I and S types. Styles of mineralisation associated with the Devonian granitoids include stratabound carbonate replacement cassiterite-massive sulphide, silicate and magnetite skarns, and disseminated and vein deposits.

Economically, the stratabound carbonate-replacement cassiterite-massive sulphide mineralisation forms the most important Devonian ore type, with major deposits at Renison Bell (26 Mt at 1.46% Sn), Mt Bischoff (10.54 Mt at 1.1% Sn) and Cleveland (12.4 Mt at 0.62% Sn, 0.25% Cu) (MRT Report, 2005).

Tertiary Basalts

Radiometric dates from basalts across Tasmania indicate an age range of between 16.4Ma and 64.5Ma (Everard *et al.*, 2004).

1.3 Exploration Rationale

The Heazlewood licence was acquired through a joint venture arrangement between BSM and PIO because of the perceived nickel potential of the large ultramafic complex that made up the central third of the original tenement. Due to the close proximity of the Meredith Granite to the ultramafic complex the potential for Avebury-style nickel-skarn/remobilised mineralisation was considered high.

In recent years exploration has been largely directed towards finding Mt Lindsay-style skarn mineralisation around the Meredith Contact, and EL31/2003 has been reduced to reflect this exploration focus. The dolomite units within the Success Creek group and the calcareous sandstones within the Crimson Creek Fm adjacent to the Meredith Granite are the targets for skarn or carbonate replacement Sn, W and magnetite mineralisation.

Aberfoyle in the 1980's identified a scheelite bearing magnetite-pyrrhotite-amphibole skarn at Mt Youngbuck on the south-eastern margin of EL31/2003. The Mt Youngbuck skarn is exposed at surface and shows up as a conspicuous north-trending high on magnetic imagery. The six north trending magnetic ridges situated to the west of Mt Youngbuck could also represent magnetite and/or pyrrhotite bearing skarns although surface geochemical sampling of the Contact Creek area indicates mineralisation does not reach the surface.

2. REVIEW OF HISTORICAL WORK

Comstaff – 1968 to 1983 (EL1/1968, EL5/1963)

Target: Osmiridium, Tin, VHMS and Gold.

- Conducted a large volume of work over the 20 year period, however very little hard data was reported and little factual information can be derived from the reports.
- Assessed all Os workings with gridding, mapping sampling and trenching.
- No new Os mineralisation was discovered.
- Completed regional drainage sampling over most of the area underlain by the Crimson Creek Formation.

- Followed up anomalous areas with gridded soil sampling, most notably in the Friday Creek area (anomalous Cu, Zn, Ni, Ag, and Sn).
- No geochemical anomalism was located on the follow up grids, or ridge and spur sampling.
- Completed an aerial DIGHEM survey, 13 potential targets defined. Data from the survey is unavailable. An interpretation of the DIGHEM was included in a report, without a grid by which to locate it.
- A number of the DIGHEM anomalies were followed up with soil geochemistry, ground EM.
- 2x EM conductors were drilled (both outside EL31/2003), with the target response being explained by the presence of black shales.
- No mineralisation of any form was located in the course of the work.
- The quality of the work is difficult to assess as the details were not reported; it is possible that further follow up might be worthwhile in the Friday Creek area.

Metals Exploration – 1985 to 1989 (EL21/1985)

Target: Pt and Ni Bedrock mineralisation within the Heazlewood Complex.

- Compiled previous work, noted problems with Comstaff data.
- Conducted significant mapping and sampling programs over known mineralisation and some EM and ground magnetic surveys.
- Best results at Fenton's from costean sampling were; 4m @ 1.03ppm Pt, 6m @ 6.7ppm Pt, 9m @ 4.0ppm Pt, 6m @ 5.8ppm Pt. They tended to repeat poorly and were ascribed to surface weathering related nugget effects.
- Best rock chips collected at Brassy Hill;
- 2.5% Cu, 4.3g/t Au.
- 8.0% Cu, 18.3 g/t Au
- 15%Pb, 3.9% Zn
- 4.7% Ni
- Made stratigraphic correlations for mineralisation.
- Os, Ir, Ru, Pt - associated with chromite rich dunites (Fentons).
- Pt, Ru, Rh – associated with inter-layered dunite/peridotite.
- Ni, S, Pt, Au, Pd – epigenetic mineralisation crosscut by recent structures (Lord Brassey).
- Drilling at Caudry's and Lord Brassey failed to locate economic mineralisation.
- Drilling of the NiS breccia at Fenton's failed to intersect mineralisation at depth.

Billiton – 1987 (EL20/1985)

Target: Sulphide replacement Tin deposits and vein hosted tin/tungsten deposits.

- The Comstaff DIGHEM data was reviewed, and follow up work recommended at the Rachel Anomaly.

- Two lines of Ground magnetics and auger sampling were carried out.
- No significant anomalism was discovered.
- None of the remaining DIGHEM anomalies were considered to be related to a bedrock pyrrhotite source.
- No further work was completed.

Geopeko – 1990 to 1993 (EL45/1989)

Target: VHMS Base Metals and Gold Mineralisation.

- Carried out a regional water sampling program utilizing new CSIRO techniques to define geochemically anomalous areas.
- Delineated some anomalous areas, in the Crimson Creek Formation but found the results difficult to repeat, the work may have been of limited value.
- Followed up some anomalous areas with ridge and spur auger sampling and rock chip sampling.
- The project was considered to be a low priority and the work was not pursued to completion.

CRA – 1992 to 1996 (EL36/1992)

Target: Bedrock Ni and Cu/Au mineralisation.

- Compiled previous work, noted problems with Comstaff data.
- Carried out a regional sediment sampling program.
- Followed up several anomalous areas with infill sediment sampling and rock chip sampling.
- Reviewed the Cu/Au mineralisation at Duffs Hill.
- Determined Ni mineralisation to be consistent with silicate Ni sources.
- Cu/Au mineralisation to be confined to remobilized, low tonnage deposits hosted in faults of Devonian Age.

Allegiance Mining NL – 2001 to 2002 (EL14/2001)

Target: Avebury Style Ni Sulphides

- Interpreted regional magnetics/gravity data, did not conduct any field work.
- Concluded that the Heazlewood complex underlies much of the EL at relatively shallow depths.
- The interpretation suggested that the Meredith granite was of the order of 6km deep under the Heazlewood Complex.
- Concluded that the southern portion of the EL better fitted their exploration model.
- Relinquished the northern portion of the EL containing the outcropping Heazlewood complex which was subsequently picked up by Pioneer. Allegiance's EL did not cover the area which now comprises the NE portion of EL31/2003 (Rachel and Friday Creek area), containing the Crimson Creek rocks.

Pioneer Nickel Ltd – 2003 to 2004 (EL31/2003)

Target: Bedrock Ni and Cu/Au mineralisation.

- In preparation for field work, all available digital data was collated in MapInfo format and reprocessed. The geophysical data was then used to complete new interpretations for target identification.

**3. REVIEW OF PREVIOUS WORK
(Within the area to be reduced)**

Bass Metals Ltd 2006-2013 (EL31/2003)

Target: Bedrock Ni, PGEs, Au and nickel-skarn mineralisation.

- Compilation of historical exploration reports and data
- Acquisition and processing of ASTER satellite data
- Validation and review of existing data and capturing of data in a proprietary Geoinformatics Exploration Inc database system named FracSIS
- Carrying out three-dimensional modelling of the captured data
- Target generation and ranking of exploration targets using further proprietary software and Monte Carlo probabilistic algorithms.

Venture Minerals Ltd 2009-2013 (EL31/2003)

Target: Sn-W-Fe skarn mineralisation

- Acquisition of Worldview 2 imagery.

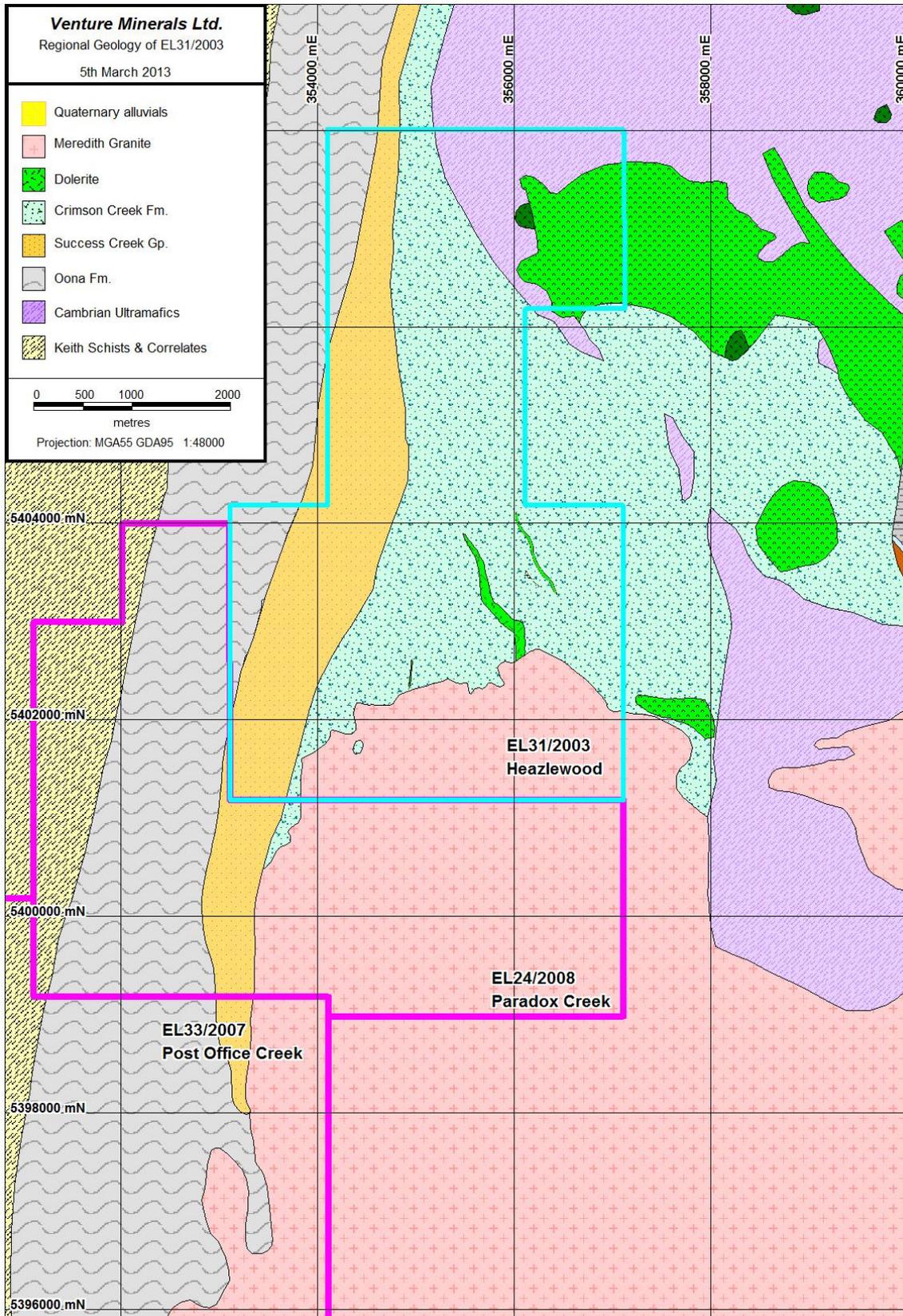


Figure 2. Regional geology of the Heazlewood tenement

4. EXPLORATION COMPLETED DURING THE REPORT PERIOD (March 2013-June 2013)

In the March – June period 2013 Venture Minerals completed a small stream sediment sampling program, consisting of 7 panned concentrate samples collected from tributaries entering into the Heazlewood River (Figure 3). The area to the immediate south and north of the Heazlewood River in the north of EL31/2003 is considered low priority for Sn, W and Fe exploration.

The aim of the stream sediment program was to check the area north of the Contact Creek target for any anomalism with respect to Sn, W and skarn associated elements. All stream sediment samples were assayed for a broad suite of elements including Sn and W at ALS Global by XRF on pressed powders, MS on liquor from a 4 acid digest (hydrochloric, nitric, perchloric and hydrofluoric), and ICP on a 2 acid digest.

Stream sediment assays reflected the composition of catchment lithology and contained no significant anomalism indicating skarn mineralisation, if present, is very unlikely to be exposed. The area is concluded to be of low prospectivity and is recommended for relinquishment.

5. REQUEST FOR PARTIAL RELIQUISHMENT

Venture Mineral's exploration is focussed on the most southern portion of the Heazlewood exploration licence. No exploration activities are planned for the ground surrounding the Heazlewood River in the north of EL31/2003 and a request for reduction of 8 km² (36% for licence area) has been lodged by the Venture Minerals – Bass Metals Joint Venture with Mineral Resources Tasmania. This will reduce the licence from 22 km² to 14 km² (Figure 4).

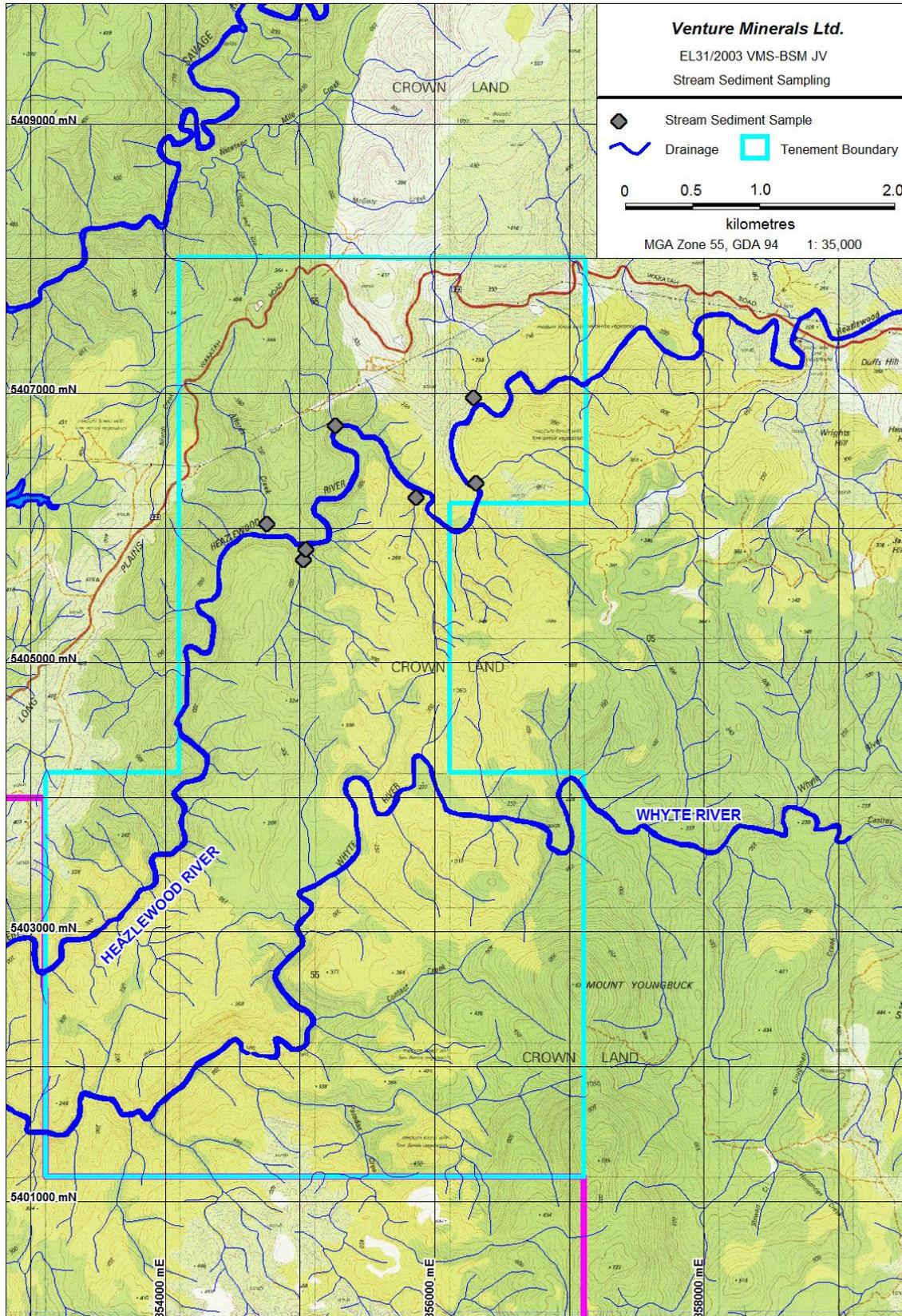


Figure 3. Stream sediment sample locations

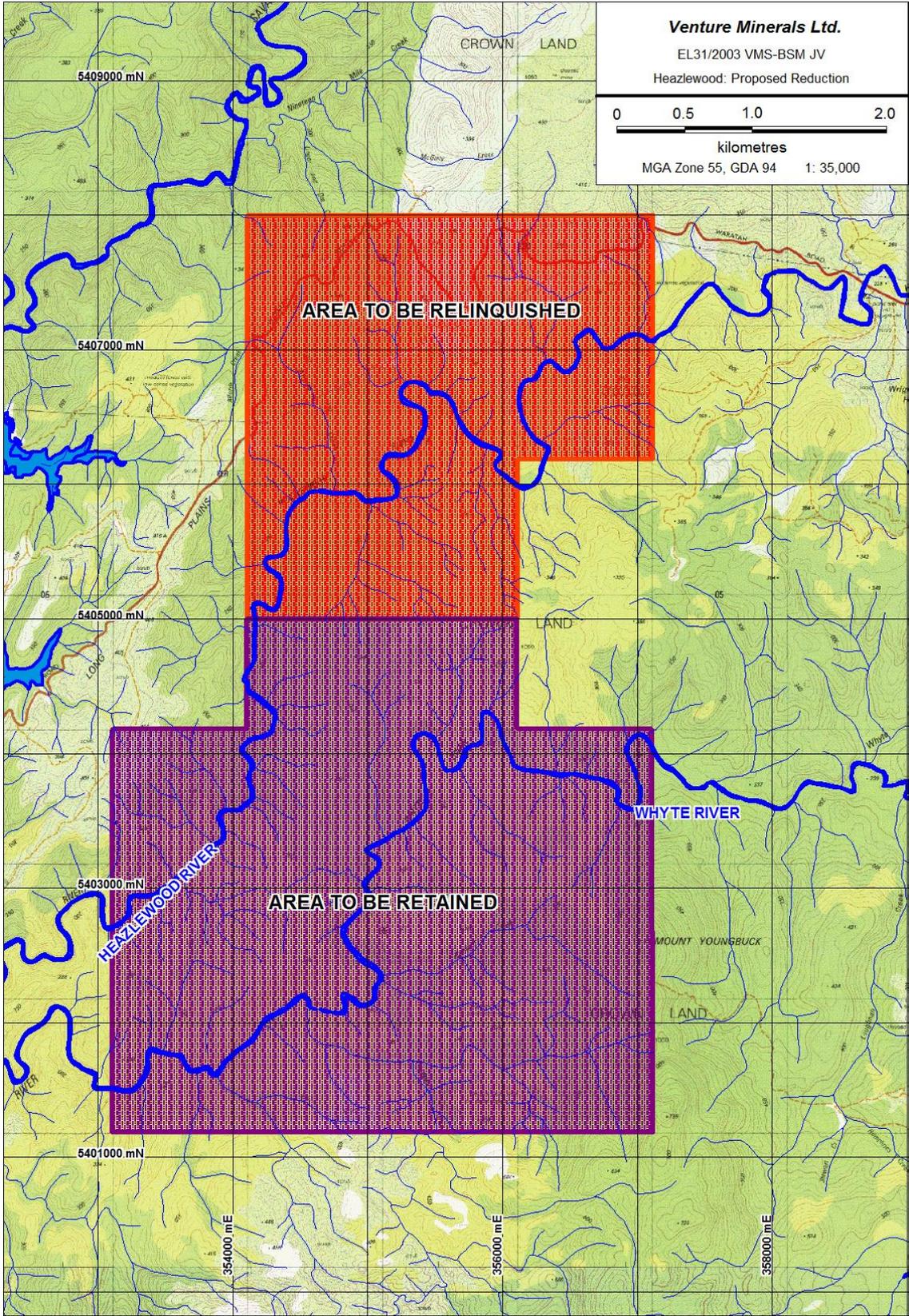


Figure 4. Proposed reduction of EL31/2003

6. REFERENCES

Kalla, J., 2006. Exploration Licence EL31/2003 – Heazlewood, Tasmania, Annual Report for the period ended 26th March 2006, Bass Metals Limited. Report to the Tasmanian Mines Department.

Seymour, D.B., Green, G.R., Calver, C.R., 2006. The Geology and Mineral Deposits of Tasmania: a summary. Bulletin 72 Tasmanian Geological Survey, Mineral Resources Tasmania.

Tasmap Lands, 1977. Arthur River LTIS Sheet 7915 Edition 1, Tasmania 1:100,000 Topographic Base

Department of Primary Industries and Water, 2007. The List Land Information System Tasmania, 1:25,000 Raster Block 3 Datum GDA94, Digital Data CD-ROM

Brown, A.V, 1962. Geology of the Dundas, Mt Lindsay- Mt Youngbuck Region, Geological Survey Bulletin 62, Department of Mines.

Bass Metals Ltd, 1990. Annual Report 27/03/2011 – 26/03/2012, Exploration Licence 33/2003, Heazlewood Prospect. Bass Metals Ltd. Annual report to Mineral Resources Tasmania.

APPENDIX A
VENTURE MINERALS
STREAM SEDIMENT SAMPLE LOCATIONS AND ASSAYS

Appendix A: EL31/2003 Stream Sediment Sample Locations and Assays

H0002	Version	5							
H0003	Date_generated	13/06/2013							
H0004	Reporting_period_end_date	26/03/2013							
H0005	State	TAS							
H0100	Tenement	EL31/2003							
H0101	Tenement_holder	Bass Metals Ltd							
H0102	Project_name	Heazlewood							
H0106	Tenement_operator	Venture Minerals Ltd							
H0150	250K_map_sheet_number	SK5520 Tasmania Northwest							
H0151	100K_map_sheet_number	7914 Pieman							
H0152	50K_map_sheet_number	na							
H0153	25K_map_sheet_number	3440 Savage River							
H0200	Start_date_of_data_acquisition	26/02/2013							
H0201	End_date_of_data_acquisition	21/03/2013							
H0202	Data_format	SG3							
H0203	Number_of_data_records	7							
H0204	Date_of_metadata_update	13/06/2012							
H0500	Feature_Located	sample location							
H0501	Geodetic_datum	GDA94							
H0502	Vertical_datum	na							
H0503	Projection	MGA							
H0531	Projection_zone	55							
H0532	Surveying_instrument	Garmin GPS60CSx							
H0533	Surveying_Company	Venture Minerals Ltd							
H0600	Sample_code	STREAM							
H0601	Sample_type	stream sediment							
H0602	Sample_description	see data							
H0700	Sample_preparation_code	na							
H0701	Sample_preparation_details	na							
H0702	Job_no	see data							
H0800	Assay_code	see data							
H0801	Assay_company	ALS Chemex, Adelaide, Perth & Brisbane							
H0802	Assay_description	ME-ICP61 = 4-acid digest including HF with ICPOES finish, ME-MS62 = 4-acid digest including HF with MS finish, ME-XRF05 = XRF on pressed pellets							
H0900	Remarks:								
H1001	Sample	E_MGA55	N_MGA55	Surv_accuracy	Sampling_description	Lith_description	Site_description	Batch	Date
H1002		metres	metres	centimetres					
H1003		20	20						
D	NHSS001	355266	5406770	10	8x pans w/ 6.4mm sieve	ifg-img euh cr-dominated bk heavies in fines; coarse fraction = ST + UM & trace qz gravel-cobble	low volume stream in narrow, steep-sided gully	AD13027539	21/03/2013
D	NHSS002	354756	5406038	18	8x pans w/ 6.4mm sieve	coarse fraction = SM, qzSS + minor platy micaceous SMH gravel-cobble & minor wt (?vein) qz, some granitic?	moderate volume stream in narrow, steep-sided gully	AD13027539	21/03/2013
D	NHSS003	355026	5405771	15	9x pans w/ 6.4mm sieve	SM-ST cobble bedload w/ minor bk heavies in fines	moderately steep narrow gully w/ moderate volume stream	AD13027539	21/03/2013
D	NHSS004	355048	5405849	9	6x pans w/ 6.4mm sieve	SM-ST-SS cobble sediment load w/ numerous muddy gravel banks	meandering moderate volume stream w/ several uddy gravel banks; small floodplain near junction with Heazlewood River	AD13027539	21/03/2013
D	NHSS005	356292	5406978	12	10x pans w/ 6.4mm sieve	coarse fraction = subangular-subrounded UM w/ trace lam SM & wt qz fragments. Trace ZQT.	sample from sandtrap at base of moderately steep ~2m high waterfall w/ low water volume. ?UM outcrop w/ minor wt ?sr veins.	AD13027539	21/03/2013
D	NHSS006	356311	5406343	5	8x pans w/ 6.4mm sieve	angular-subrounded mafic-ultramafic cobble-boulder bedload. Numerous ifg-img euh cr-dominated bk heavies.	broad gully w/ small low volume stream; weakly incised, log-choked, w/ small gravel banks.	AD13027539	21/03/2013
D	NHSS007	355865	5406233	4	11x pans w/ 6.4mm sieve	angular-rounded SS w/ minor ST-SM & rare qz gravel-cobble bedload. Trace rd-bn mineral in heavy fines	shallow gully, weakly incised meandering, low volume stream	AD13027539	21/03/2013

Appendix A: EL31/2003 Stream Sediment Sample Locations and Assays

Version																		
Date_generated																		
Reporting_period_end_date																		
State																		
Tenement																		
Tenement_holder																		
Project_name																		
Tenement_operator																		
250K_map_sheet_number																		
100K_map_sheet_number																		
50K_map_sheet_number																		
25K_map_sheet_number																		
Start_date_of_data_acquisition																		
End_date_of_data_acquisition																		
Data_format																		
Number_of_data_records																		
Date_of_metadata_update																		
Feature_Located																		
Geodetic_datum																		
Vertical_datum																		
Projection																		
Projection_zone																		
Surveying_instrument																		
Surveying_Company																		
Sample_code																		
Sample_type																		
Sample_description																		
Sample_preparation_code																		
Sample_preparation_details																		
Job_no																		
Assay_code																		
Assay_company																		
Assay_description																		
Remarks:																		
Sample	Sn %	Sn %	WO3 %	Ag ppm	As ppm	Bi ppm	Cr ppm	Cu ppm	Ni ppm	P %	Pb ppm	La ppm	Zn ppm	Be ppm	Cs ppm	Rb ppm	Comments	
	ME-XRF05	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-XRF12	ME-ICP61	ME-ICP61	ME-XRF12	ME-ICP61	ME-ICP61	ME-ICP61	ME-MS62s	ME-MS62s	ME-MS62s		
NHSS001	<5	<10	<10	0.03	<5	0.04	>10000	9	582	190	5	10	190	0.48	0.77	16.3		
NHSS002		5 <10	<10	0.02	<5	0.1	98	5	5	100	5	10	12	0.68	1.5	20.8		
NHSS003	<5	<10	<10	0.04	14	0.17	421	38	69	700	12	10	133	1.74	1.36	28.2		
NHSS004	<5	<10	<10	0.07	9	0.16	>10000	30	85	590	12	10	149	1.43	1.15	23.6		
NHSS005	<5	<10	<10	0.02	<5	<0.01	>10000	2	757	20	<2	<10	136	0.07	0.1	1.1		
NHSS006		21 <10	<10	0.02	<5	0.01	>10000	10	412	50	<2	30	193	0.12	0.44	3.1		
NHSS007		8 <10	<10	2.49	<5	0.07	213	8	14	200	10	10	42	0.69	1	33.4		