

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R



Project: ROS

Rosebery

Prospect: RMN

Rosebery Mine North

Northing: 5377807.9 mN

Dip: -90.00

Easting: 379927.0 mE

MAG_Azim: 241.00

RL: 434.5 mRL

Total Depth: 1858.1 m

CoordSys: MGA55 (GDA94)

DrillCompany: BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
NC	GRY	CLS		brc				No Core							
MBV	GRY	VBX		brc				White, strongly weathered volcanics. Broken/rubby core with significant core loss.							
MBV	GRY	VDR		brc				Dacite clast dominant volcanoclastic mass flow. Clast composed of poorly sorted 1 - 15cm dacite clasts, less common 1-5cm rhyolitic clasts, and occasional small 5-20mm fiamme. Moderately broken core with brown weathering in fractures.							
NC	GRY	CLS		brc				No Core							
MBV	GRY	VDR		brc				Light grey to brown, dacite clast dominant volcanoclastic mass flow. Abundant sub-rounded to sub-angular dacite clasts, with occasional more rhyolitic clasts and rare fiamme. Core is moderately broken with brown oxide weathering in fractures.							
MBV	GRY	VBX		brc				Brown to white, strongly weathered undifferentiated volcanics with significant core loss.							
MBV	GRY	VDR		brc				Grey to dark grey, dacite clast dominant volcanoclastic mass flow. Common 2->20cm sub-angular to sub-rounded dacite clasts, occasional more rhyolitic looking clasts with feldspar phenocrysts, dark feldspar phyrlic fiamme bands up to 5cm and possibly rare siltstone/mudstone clasts. Strongly silicified with weak Se-Py alteration of matrix.							

<ul style="list-style-type: none"> ▲ Andesite ▲ Andesite Flow ▲ Basalt ▲ Breccia - Undifferentiated ▲ Calcarenite ▲ Chert ▲ Clay ▲ Crystal Tuff ▲ Dacite ▲ Dacite Breccia ▲ Dacite Flow ▲ Dacite Lapilli Tuff 	<ul style="list-style-type: none"> ■ Disseminated Sulphides ■ Dolomite ■ Fault Zone ■ Feldspathic (ash) tuff ■ Feldspathic porphyry ■ Felsic Flow ■ Felsic tuff ■ Felsic Volcanoclastic ■ Greywacke ■ Hyaloclastite Breccia ■ Interbedded sandstone/shale ■ Interbedded sandstone/siltsto 	<ul style="list-style-type: none"> ■ Interbedded siltstone/shale ■ Interbedded VSS/VSL/VSM & ■ Intermediate flow ■ Intermediate Volcanoclastic ■ Lapilli Tuff ■ Limestone ■ Lithic Tuff ■ Mafic Dyke ■ Mafic Volcanoclastic ■ Massive sulphide ■ Mudstone ■ No Core Present 	<ul style="list-style-type: none"> ■ Not logged ■ Pyroclastic Breccia ■ Quartz ■ Quartz Carbonate Vein ■ Quartz Feldspar Porphyry ■ Quartz Porphyry ■ Quartzite ■ Rhyodacite ■ Rhyolite ■ Rhyolite Breccia ■ Rhyolite Tuff ■ Sandstone 	<ul style="list-style-type: none"> ■ Schist ■ See comments for full descrip ■ Semi-massive Sulphides ■ Shale ■ Siltstone ■ Slate ■ Tuff Siltstone ■ Undifferentiated Black Shale ■ Rhyolite ■ Undifferentiated Felsic Volcanic ■ Undifferentiated Fluvio-glacial Sediment ■ Undifferentiated Mafic Intrusive ■ Undifferentiated Tuff 	<ul style="list-style-type: none"> ■ Undifferentiated Volcanic ■ Undifferentiated Volcanoclastic ■ Vein Carbonate ■ Vein quartz ■ Volcanic Breccia ■ Volcanic Conglomerate ■ Volcanic Sandstone ■ Volcanic Siltstone 	<p>Mineralisation</p> <ul style="list-style-type: none"> ■ Background ■ Elevated ■ Anomalous ■ Strongly Anomalous ■ Sub-Grade ■ Low-Grade ■ High-Grade
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MBV	GRY	VDR		brc				Grey to dark grey, dacite clast dominant volcanoclastic mass flow. Common 2- >20cm sub-angular to sub-rounded dacite clasts, occasional more rhyolitic looking clasts with feldspar phenocrysts, dark feldspar phyric fiamme bands up to 5cm and possibly rare siltstone/mudstone clasts. Strongly silicified with weak Se-Py alteration of matrix.							
MBV	GRY	VDR		brc				Grey to dark grey dacite clast dominant volcanoclastic mass flow. 54.8m marks the approximate start of a new flow, with a finer moderately sorted top occurring from ~55 to 59m. From 59m onwards it is similar composition to above described mass flow.							
MBV	GRY	VDR		brc				New flow from 84.7m, with a finer moderately sorted, 1-20mm clasts sized flow occurring to 89m from which it coarsens down hole. Otherwise similar to above described dacite clast dominant mass flow unite - however, occasional fiamme bands up to 15cm are now present.							

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MBV	GRY	VDR		brc				New flow from 84.7m, with a finer moderately sorted, 1-20mm clasts sized flow occurring to 89m from which it coarsens down hole. Otherwise similar to above described dacite clast dominant mass flow unite - however, occasional fiamme bands up to 15cm are now present.							
MBV	GRY	VDR		brc				Dark grey, fine grained large clast or dyke? Sharp contacts either end which to not appear to have any chilled margins. However, assuming it is a clast, it is very large compared to the average grain size of 2-4cm either side of clast. Appears to be an almost sandy but dark composition - this is not a typical dacite/rhyolite clast hence the uncertainty. Does not have to typical appearance of most dykes seen in the MBV though.							
MBV	GRY	VDR		brc				Light grey to dark grey, dacite clast dominate volcanoclastic mass flow. Probably becomes a monomict breccia from ~130 to 140m, where it is mainly large clasts with only minor amounts of matrix. This is likely passing through the carapace of the dacite lave dome.							
MBV	GRY	VDA		mas				Light grey, silicified and weakly Se altered, fine grained coherent dacite lava. Has become a coherent lava now, which moves between a 0.5-1mm feldspar phyric texture to a more typical aphanitic texture. Common 1-2cm Qz-Cb veins.							

Mineralisation														
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▲ Basalt	■ Fault Zone	▨ Intermediate flow	■ Quartz	■ Semi-massive Sulphides	■ Vein Carbonate									
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MBV	GRY	VDA		mas				Light grey, silicified and weakly Se altered, fine grained coherent dacite lava. Has become a coherent lava now, which moves between a 0.5-1mm feldspar phyrlic texture to a more typical aphanitic texture. Common 1-2cm Qz-Cb veins.							
MBV	GRY	VDR		brc				Light grey, silicified and weakly Se altd, monomict dacite breccia. Moving away from the coherent dacite dome.							
MBV	GRY	VDR		brc				Has become brecciated again, mainly dacite clasts however, smaller 2-5cm dark bands of fiamme are now present.							
F	GRY	FTZ		ftz				Small brittle fault. Around 25-30 degrees to CA. Not a significant fault. Dacite clast dominant mass flow with now common dark bands of fiamme.							
MBV	GRY	VDR		brc											
MBV	GRY	VDA		brc				Grey to pale yellow, coherent dacite lava with common dark 1-2mm sub-angular feldspar phenocrysts. From ~ 198 to 202m becomes common Qz-Cb veining leading to increased associated alteration.							

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MBV	GRY	VDR		brc				Grey, weakly Se-Py altered and silicified, dacite clast dominant volcanoclastic mass flow. Large sub-angular dacite clasts up to >20cm with common dark wispy bands of fiamme which occur up to >15cm in size. Would likely be a monomict breccia bar the occurrence of fiamme. <10% matrix is common.							
MBV	GRY	VDR		brc				Fine top of a moderately sorted mass flow -1-3cm clasts present. Coarsens up with large >60mm dacite clasts present from ~270m.							
MBV	GRY	VDR		brc				Grey, weak Se-Py altered and silicified moderately sorted dacitic mass flow sequence. Another mass flow occurs from 311m as the grain size becomes finer gain, however, there is no clear fine top - indicating a rapid deposition. The mass flow sequence from 285- 311m is generally moderate to well sorted, with typical grain size 5-10mm dacite clasts and abundant 1 -2mm feldspar lithic crystals supported in a grey matrix.							

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MBV	GRY	VDA		mas				Grey to pale yellow, weak to moderate Se-Cb altered and silicified, coherent dacite lava. Texture of the lava varies between aphanitic to zones with common <0.5 - 1mm feldspar phenocrysts. The aphanitic texture may be due to the increased Se alteration in some parts which has over printed any phenocrysts. Common 10-20mm planar Qz-Cb veining.							

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MBV	GRY	VDR		brc				Grey to dark grey, weakly Se-Py-Cb altered and silicified, dacite volcanoclastic mass flow with common fiamme. Sharp contact between the lava and volcanoclastic, 20-30 degrees to CA.							
MBV	GRY	VDR		brc				Same unit however, this zone contains large sub-rounded shaped Cb veining (now siderite).							
MBV	GRY	VDR		brc				Grey, weakly Se-Py-Cb altered and silicified, dacite-fiamme mass flow. Continuation of the above mass flow sequence - large 30-50mm sub-angular dacite clasts now present as the flow coarsens down hole.							

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410	MBV	GRY	VDR					brc								Grey to dark grey, weakly Se-Py altered and silicified, moderately sorted feldspar lithic rich volcanoclastic with common fiamme and occasional dacite clasts. Appears to a feldspar lithic rich volcanoclastic rather than a lava - occasional fiamme and dacite clasts can be identified. Generally poor to moderately sorted with feldspars typical 1-2mm and angular to sub-angular.
420																
430																
440	MBV	GRY	VDR					brc								Grey, weakly Se-Cb altered and silicified, dacite autobreccia. Rock generally and matrix supported dacite breccia - likely a hyaloclastite on the carapace of a lava.
450																

<ul style="list-style-type: none"> ▲ Andesite ▲ Andesite Flow ▼ Basalt ▲ Breccia - Undifferentiated ▲ Calcarenite ▲ Chert ▲ Clay ▲ Crystal Tuff ▲ Dacite ▲ Dacite Breccia ▲ Dacite Flow ▲ Dacite Lapilli Tuff 	<ul style="list-style-type: none"> ■ Disseminated Sulphides ■ Dolomite ■ Fault Zone ■ Feldspathic (ash) tuff ■ Feldspathic porphyry ■ Felsic Flow ■ Felsic tuff ■ Felsic Volcanoclastic ○ Greywacke ○ Hyaloclastite Breccia ○ Interbedded sandstone/shale ○ Interbedded sandstone/siltstone 	<ul style="list-style-type: none"> ■ Interbedded siltstone/shale ■ Interbedded VSS/VSL/VSM & ■ Intermediate flow ■ Intermediate Volcanoclastic ■ Lapilli Tuff ■ Limestone ■ Lithic Tuff ■ Mafic Dyke ■ Mafic Volcanoclastic ■ Massive sulphide ■ Mudstone ■ No Core Present 	<ul style="list-style-type: none"> ■ Not logged ▲ Pyroclastic Breccia ■ Quartz ■ Quartz Carbonate Vein ■ Quartz Feldspar Porphyry ■ Quartz Porphyry ■ Quartzite ■ Rhyodacite ■ Rhyolite ■ Rhyolite Breccia ■ Rhyolite Tuff ■ Sandstone 	<ul style="list-style-type: none"> ■ Schist ■ See comments for full descrip ■ Semi-massive Sulphides ■ Shale ■ Siltstone ■ Slate ■ Tuff Siltstone ■ Undifferentiated Black Shale ■ Rhyolite ■ Undifferentiated Felsic Volcanic ■ Undifferentiated Fluvioglacial Sediment ■ Undifferentiated Mafic Intrusive ■ Undifferentiated Tuff 	<ul style="list-style-type: none"> ■ Undifferentiated Volcanic ■ Undifferentiated Volcanoclastic ■ Vein Carbonate ■ Vein quartz ■ Volcanic Breccia ■ Volcanic Conglomerate ■ Volcanic Sandstone ■ Volcanic Siltstone 	<p>Mineralisation</p> <ul style="list-style-type: none"> ■ Background ■ Elevated ■ Anomalous ■ Strongly Anomalous ■ Sub-Grade ■ Low-Grade ■ High-Grade
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ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R



Project: ROS

Rosebery

Prospect: RMN

Rosebery Mine North

Northing: 5377807.9 mN
Easting: 379927.0 mE
RL: 434.5 mRL
CoordSys: MGA55 (GDA94)

Dip: -90.00
MAG_Azim: 241.00
Total Depth: 1858.1 m
DrillCompany: BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
MBV	GRY	VDR		brc				Grey, weakly Se-Cb altered and silicified, dacite autobreccia. Rock generally and matrix supported dacite breccia - likely a hyaloclastite on the carapace of a lava.							
MBV	GRY	VDA		mas				Grey, weak to moderate Cb-Se-Cl altered and silicified, feldspar phyric dacite lava with common 5-20mm Cb-Qz veins. The rock appears to brecciated in parts however, this is more likely to be a secondary hydraulic fracturing. Common 1-2mm feldspar phenocrysts.							
MBV	GRY	VDR		brc				Grey, weak to moderate Cb-Cl-Py altered and silicified, dacite breccia. Rocks becomes a autobreccia/hyaloclastite as it moves away from the coherent lava.							
MBV	GRY	VDR		brc				Same unit as above however there is some intense zones of Cb veining up to 40cm.							
MBV	GRY	VDR		brc				Grey, moderately Cb-Se altered and silicified, dacite breccia.							
MBV	GRY	VDR		brc				Grey to dark grey, weak to moderate Cb-Se altered and silicified, matrix supported moderately sorted feldspar lithic rich breccia with occasional fiamme and dacite clasts. Weakly foliated.							

<ul style="list-style-type: none"> ▲ Andesite ▲ Andesite Flow ▲ Basalt ▲ Breccia - Undifferentiated ▲ Calcarenite ▲ Chert ▲ Clay ▲ Crystal Tuff ▲ Dacite ▲ Dacite Breccia ▲ Dacite Flow ▲ Dacite Lapilli Tuff 	<ul style="list-style-type: none"> ■ Disseminated Sulphides ○ Dolomite ○ Fault Zone ○ Feldspathic (ash) tuff ○ Feldspathic porphyry ○ Felsic Flow ○ Felsic tuff ○ Felsic Volcaniclastic ○ Greywacke ○ Hyaloclastite Breccia ○ Interbedded sandstone/shale ○ Interbedded sandstone/siltsto 	<ul style="list-style-type: none"> ■ Interbedded siltstone/shale ■ Interbedded VSS/VSL/VSM & ■ Intermediate flow ■ Intermediate Volcaniclastic ■ Lapilli Tuff ■ Limestone ■ Lithic Tuff ■ Mafic Dyke ■ Mafic Volcaniclastic ■ Massive sulphide ■ Mudstone ■ No Core Present 	<ul style="list-style-type: none"> ■ Not logged ▲ Pyroclastic Breccia ▲ Quartz ▲ Quartz Carbonate Vein ▲ Quartz Feldspar Porphyry ▲ Quartz Porphyry ▲ Quartzite ▲ Rhyodacite ▲ Rhyolite ▲ Rhyolite Breccia ▲ Rhyolite Tuff ▲ Sandstone 	<ul style="list-style-type: none"> ■ Schist ■ See comments for full descrip ■ Semi-massive Sulphides ■ Shale ○ Slate ○ Tuff Siltstone ■ Undifferentiated Black Shale ■ Undifferentiated Felsic Volcanic ■ Undifferentiated Fluvio-glacial Sediment ■ Undifferentiated Mafic Intrusive ■ Undifferentiated Tuff 	<ul style="list-style-type: none"> ■ Undifferentiated Volcanic ■ Undifferentiated Volcaniclastic ■ Vein Carbonate ■ Vein quartz ○ Volcanic Breccia ○ Volcanic Conglomerate ○ Volcanic Sandstone ○ Volcanic Siltstone 	<p>Mineralisation</p> <ul style="list-style-type: none"> ■ Background ■ Elevated ■ Anomalous ■ Strongly Anomalous ■ Sub-Grade ■ Low-Grade ■ High-Grade
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ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R



Project: ROS

Rosebery

Prospect: RMN

Rosebery Mine North

Northing: 5377807.9 mN
Easting: 379927.0 mE
RL: 434.5 mRL
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Dip: -90.00
MAG_Azim: 241.00
Total Depth: 1858.1 m
DrillCompany: BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
MBV	GRY	VDR		brc				Grey to dark grey, weak to moderate Cb-Se altered and silicified, matrix supported moderately sorted feldspar lithic rich breccia with occasional fiamme and dacite clasts. Weakly foliated.							

<ul style="list-style-type: none"> ▲ Andesite ▲ Andesite Flow ▲ Basalt ▲ Breccia - Undifferentiated ▲ Calcarenite ▲ Chert ▲ Clay ▲ Crystal Tuff ▲ Dacite ▲ Dacite Breccia ▲ Dacite Flow ▲ Dacite Lapilli Tuff 	<ul style="list-style-type: none"> ■ Disseminated Sulphides ■ Dolomite ■ Fault Zone ■ Feldspathic (ash) tuff ■ Feldspathic porphyry ■ Felsic Flow ■ Felsic tuff ■ Felsic Volcaniclastic ○ Greywacke ○ Hyaloclastite Breccia ○ Interbedded sandstone/shale ○ Interbedded sandstone/siltsto 	<ul style="list-style-type: none"> ■ Interbedded siltstone/shale ■ Interbedded VSS/VSL/VSM & ■ Intermediate flow ■ Intermediate Volcaniclastic ■ Lapilli Tuff ■ Limestone ■ Lithic Tuff ■ Mafic Dyke ■ Mafic Volcaniclastic ■ Massive sulphide ■ Mudstone ■ No Core Present 	<ul style="list-style-type: none"> ■ Not logged ▲ Pyroclastic Breccia ■ Quartz ■ Quartz Carbonate Vein ■ Quartz Feldspar Porphyry ■ Quartz Porphyry ■ Quartzite ■ Rhodacite ■ Rhyolite ■ Rhyolite Breccia ■ Rhyolite Tuff ■ Sandstone 	<ul style="list-style-type: none"> ■ Schist ■ See comments for full descrip ■ Semi-massive Sulphides ■ Shale ■ Siltstone ■ Slate ■ Tuff Siltstone ■ Undifferentiated Black Shale ■ Undifferentiated Felsic Volcanic ■ Undifferentiated Fluvio-glacial Sediment ■ Undifferentiated Mafic Intrusive ■ Undifferentiated Tuff 	<ul style="list-style-type: none"> ■ Undifferentiated Volcanic ■ Undifferentiated Volcaniclastic ■ Vein Carbonate ■ Vein quartz ■ Volcanic Breccia ■ Volcanic Conglomerate ○ Volcanic Sandstone ○ Volcanic Siltstone 	<p>Mineralisation</p> <ul style="list-style-type: none"> ■ Background ■ Elevated ■ Anomalous ■ Strongly Anomalous ■ Sub-Grade ■ Low-Grade ■ High-Grade
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ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R



Project: ROS

Rosebery

Prospect: RMN

Rosebery Mine North

Northing: 5377807.9 mN
Easting: 379927.0 mE
RL: 434.5 mRL
CoordSys: MGA55 (GDA94)

Dip: -90.00
MAG_Azim: 241.00
Total Depth: 1858.1 m
DrillCompany: BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
MBV	GRY	VDR		brc				Grey to dark grey, weak to moderate Cb-Se altered and silicified, matrix supported moderately sorted feldspar lithic rich breccia with occasional fiamme and dacite clasts. Weakly foliated.							
MBV	GRY	VDR		brc				White to grey, dacitic mass flow with intense Cb veining/flooding. Similar to above unit but now with abundant Cb veining.							

<ul style="list-style-type: none"> ▲ Andesite ▲ Andesite Flow ▲ Basalt ▲ Breccia - Undifferentiated ▲ Calcarenite ▲ Chert ▲ Clay ▲ Crystal Tuff ▲ Dacite ▲ Dacite Breccia ▲ Dacite Flow ▲ Dacite Lapilli Tuff 	<ul style="list-style-type: none"> ■ Disseminated Sulphides ■ Dolomite ■ Fault Zone ■ Feldspathic (ash) tuff ■ Feldspathic porphyry ■ Felsic Flow ■ Felsic tuff ■ Felsic Volcaniclastic ○ Greywacke ○ Hyaloclastite Breccia ○ Interbedded sandstone/shale ○ Interbedded sandstone/siltsto 	<ul style="list-style-type: none"> ■ Interbedded siltstone/shale ■ Interbedded VSS/VSL/VSM & ■ Intermediate flow ■ Intermediate Volcaniclastic ■ Lapilli Tuff ■ Limestone ■ Lithic Tuff ■ Mafic Dyke ■ Mafic Volcaniclastic ■ Massive sulphide ■ Mudstone ■ No Core Present 	<ul style="list-style-type: none"> ■ Not logged ▲ Pyroclastic Breccia ■ Quartz ■ Quartz Carbonate Vein ■ Quartz Feldspar Porphyry ■ Quartz Porphyry ■ Quartzite ■ Rhodacite ■ Rhyolite ■ Rhyolite Breccia ■ Rhyolite Tuff ■ Sandstone 	<ul style="list-style-type: none"> ■ Schist ■ See comments for full descrip ■ Semi-massive Sulphides ■ Shale ■ Siltstone ■ Slate ■ Tuff Siltstone ■ Undifferentiated Black Shale ■ Rhyolite ■ Undifferentiated Felsic Volcanic ■ Undifferentiated Fluvioglacial Sediment ■ Undifferentiated Mafic Intrusive ■ Undifferentiated Tuff 	<ul style="list-style-type: none"> ■ Undifferentiated Volcanic ■ Undifferentiated Volcaniclastic ■ Vein Carbonate ■ Vein quartz ■ Volcanic Breccia ■ Volcanic Conglomerate ○ Volcanic Sandstone ○ Volcanic Siltstone 	<p>Mineralisation</p> <ul style="list-style-type: none"> ■ Background ■ Elevated ■ Anomalous ■ Strongly Anomalous ■ Sub-Grade ■ Low-Grade ■ High-Grade
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ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R



Project: ROS

Rosebery

Prospect: RMN

Rosebery Mine North

Northing: 5377807.9 mN
Easting: 379927.0 mE
RL: 434.5 mRL
CoordSys: MGA55 (GDA94)

Dip: -90.00
MAG_Azim: 241.00
Total Depth: 1858.1 m
DrillCompany: BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
600	MBV	GRY	VDR					White to grey, dacitic mass flow with intense Cb veining/flooding. Similar to above unit but now with abundant Cb veining.							
	DK	GRN	IMK					Pale grey to pale yellow, fine grained massive felsic dyke. This is possibly a fine top of a new mass flow, as it does not have the appearance of typical dykes in the MBV. However, because of the sharp contacts it is more likely an intrusive. Upper contact is about 10 degrees to CA.							
	MBV	GRY	VDR					Pale grey, weakly Se-Cb altered, weakly foliated, poor to moderately sorted, feldspar crystal rich dacitic mass flow. Generally finer grained with common 2-3mm feldspar crystals and occasional dark bands of fiamme. Looks possibly coherent in parts but more likely just a fine grained - matrix supported breccia.							
610															
620															
630															
640															
650	MBV	GRY	VDR					White to grey, intensively Cb veined/flooded interval of volcanic breccias.							

Mineralisation									
▲ Andesite	■ Disseminated Sulphides	▨ Interbedded siltstone/shale	▲ Not logged	■ Schist	■ Undifferentiated Volcanic	■ Background	■ Undifferentiated Volcanic	■ Elevated	■ Anomalous
▲ Andesite Flow	■ Dolomite	▨ Interbedded VSS/VSL/VSM &	▲ Pyroclastic Breccia	■ See comments for full descrip	■ Undifferentiated Volcaniclastic	■ Anomalous	■ Vein Carbonate	■ Strongly Anomalous	■ Sub-Grade
▲ Basalt	■ Fault Zone	▨ Intermediate flow	▲ Quartz	■ Semi-massive Sulphides	■ Vein Carbonate	■ Strongly Anomalous	■ Vein quartz	■ Low-Grade	■ High-Grade
▲ Breccia - Undifferentiated	■ Feldspathic (ash) tuff	▨ Intermediate Volcaniclastic	▲ Quartz Carbonate Vein	■ Shale	■ Vein quartz	■ Sub-Grade	■ Volcanic Breccia	■ Low-Grade	■ High-Grade
▲ Calcarenite	■ Feldspathic porphyry	▨ Lapilli Tuff	▲ Quartz Feldspar Porphyry	■ Siltstone	■ Volcanic Breccia	■ Low-Grade	■ Volcanic Conglomerate	■ High-Grade	
▲ Chert	■ Felsic Flow	▨ Limestone	▲ Quartz Porphyry	■ Slate	■ Volcanic Conglomerate	■ High-Grade	■ Volcanic Sandstone		
▲ Clay	■ Felsic tuff	▨ Lithic Tuff	▲ Quartzite	■ Tuff Siltstone	■ Volcanic Sandstone		■ Volcanic Siltstone		
▲ Crystal Tuff	■ Felsic Volcaniclastic	▨ Mafic Dyke	▲ Rhyodacite	■ Undifferentiated Black Shale	■ Volcanic Siltstone				
▲ Dacite	■ Greywacke	▨ Mafic Volcaniclastic	▲ Rhyolite	■ Undifferentiated Felsic Volcanic	■ Undifferentiated Felsic Volcanic				
▲ Dacite Breccia	■ Hyaloclastite Breccia	▨ Massive sulphide	▲ Rhyolite Breccia	■ Undifferentiated Fluvio-glacial Sediment	■ Undifferentiated Fluvio-glacial Sediment				
▲ Dacite Flow	■ Interbedded sandstone/shale	▨ Mudstone	▲ Rhyolite Tuff	■ Undifferentiated Mafic Intrusive	■ Undifferentiated Mafic Intrusive				
▲ Dacite Lapilli Tuff	■ Interbedded sandstone/siltsto	▨ No Core Present	▲ Sandstone	■ Undifferentiated Tuff	■ Undifferentiated Tuff				

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R



Project: ROS

Rosebery

Prospect: RMN

Rosebery Mine North

Northing: 5377807.9 mN
Easting: 379927.0 mE
RL: 434.5 mRL
CoordSys: MGA55 (GDA94)

Dip: -90.00
MAG_Azim: 241.00
Total Depth: 1858.1 m
DrillCompany: BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
MBV	GRY	VDR		brc				White to grey, intensively Cb veined/flooded interval of volcanic breccias.							
MBV	GRY	VDR		brc				Dark grey, weak to moderate Cl-Se and variably Ab altered, graded dacite mass flow sequence with common fiamme. Coarsens down hole towards 704m with large 20 - 70mm grey to pink dacite clasts present.							

<ul style="list-style-type: none"> ▲ Andesite ▲ Andesite Flow ▼ Basalt ▲ Breccia - Undifferentiated ▲ Calcarenite ▲ Chert ■ Clay ▲ Crystal Tuff ○ Dacite ■ Dacite Breccia ▲ Dacite Flow ▲ Dacite Lapilli Tuff 	<ul style="list-style-type: none"> ■ Disseminated Sulphides ■ Dolomite ▲ Fault Zone ▲ Feldspathic (ash) tuff ▲ Feldspathic porphyry ▲ Felsic Flow ▲ Felsic tuff ▲ Felsic Volcaniclastic ○ Greywacke ○ Hyaloclastite Breccia ○ Interbedded sandstone/shale ○ Interbedded sandstone/siltsto 	<ul style="list-style-type: none"> ■ Interbedded siltstone/shale ■ Interbedded VSS/VSL/VSM & Intermediate flow ■ Intermediate Volcaniclastic ▲ Lapilli Tuff ■ Limestone ▲ Lithic Tuff ▲ Mafic Dyke ■ Mafic Volcaniclastic ■ Massive sulphide ■ Mudstone ■ No Core Present 	<ul style="list-style-type: none"> ■ Not logged ▲ Pyroclastic Breccia ▲ Quartz ▲ Quartz Carbonate Vein ▲ Quartz Feldspar Porphyry ▲ Quartz Porphyry ▲ Quartzite ▲ Rhyodacite ▲ Rhyolite ▲ Rhyolite Breccia ▲ Rhyolite Tuff ■ Sandstone 	<ul style="list-style-type: none"> ■ Schist ■ See comments for full descrip ■ Semi-massive Sulphides ■ Shale ○ Siltstone ■ Slate ■ Tuff Siltstone ■ Undifferentiated Black Shale ■ Undifferentiated Felsic Volcanic ■ Undifferentiated Fluvio-glacial Sediment ■ Undifferentiated Mafic Intrusive ■ Undifferentiated Tuff 	<ul style="list-style-type: none"> ■ Undifferentiated Volcanic ■ Undifferentiated Volcaniclastic ■ Vein Carbonate ■ Vein quartz ■ Volcanic Breccia ■ Volcanic Conglomerate ■ Volcanic Sandstone ■ Volcanic Siltstone 	<p>Mineralisation</p> <ul style="list-style-type: none"> ■ Background ■ Elevated ■ Anomalous ■ Strongly Anomalous ■ Sub-Grade ■ Low-Grade ■ High-Grade
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ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R



Project: ROS

Rosebery

Prospect: RMN

Rosebery Mine North

Northing: 5377807.9 mN
Easting: 379927.0 mE
RL: 434.5 mRL
CoordSys: MGA55 (GDA94)

Dip: -90.00
MAG_Azim: 241.00
Total Depth: 1858.1 m
DrillCompany: BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
MBV	GRY	VDR		brc				Grey, moderately Se-Cl-Cb altered and silicified, fine grained matrix supported volcanoclastic breccia.							
DK MBV	GRN GRY	IMK VDR		mas brc				Dark green to grey, Cl altered fine grained massive dyke. Dark grey, moderate to strongly Cl-Se altered, fine grained matrix supported dacite breccia.							
DK MBV	GRN GRY	IMK VDR		mas brc				Dark green to grey, fine grained and massive dyke. Grey, moderately Se-Cb altered and strongly silicified, moderately foliated, fine grained matrix supported dacite breccia. Typically common 2-3mm feldspar crystals are present which are variably Ab altered. Occasional dark bands of fiamme. Generally a finer grained flow.							

Lithology Legend										Mineralisation																																																									
▲ Andesite	■ Disseminated Sulphides	▨ Interbedded siltstone/shale	■ Not logged	■ Schist	■ Undifferentiated Volcanic	■ Background	■ Basalt	■ Dolomite	■ Interbedded VSS/VSL/VSM & Intermediate flow	■ See comments for full description	■ Semi-massive Sulphides	■ Undifferentiated Volcanoclastic	■ Elevated	■ Breccia - Undifferentiated	■ Fault Zone	■ Quartz	■ Vein Carbonate	■ Anomalous	■ Calcarenite	■ Feldspathic (ash) tuff	■ Quartz Carbonate Vein	■ Vein quartz	■ Strongly Anomalous	■ Chert	■ Feldspathic porphyry	■ Quartz Feldspar Porphyry	■ Siltstone	■ Volcanic Breccia	■ Clay	■ Felsic Flow	■ Quartz Porphyry	■ Slate	■ Volcanic Conglomerate	■ Crystal Tuff	■ Felsic tuff	■ Tuff Siltstone	■ Volcanic Sandstone	■ Dacite	■ Felsic Volcanoclastic	■ Rhyodacite	■ Undifferentiated Black Shale	■ Dacite Breccia	■ Greywacke	■ Mafic Dyke	■ Rhyolite	■ Undifferentiated Felsic Volcanic	■ Dacite Flow	■ Hyaloclastite Breccia	■ Mafic Volcanoclastic	■ Rhyolite Breccia	■ Undifferentiated Fluvioglacial Sediment	■ Dacite Lapilli Tuff	■ Interbedded sandstone/shale	■ Massive sulphide	■ Rhyolite Tuff	■ Undifferentiated Mafic Intrusive	■ Low-Grade	■ Interbedded sandstone/siltstone	■ Mudstone	■ Sandstone	■ Undifferentiated Tuff	■ High-Grade	■ No Core Present				

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Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
MBV	GRY	VDR		brc				Grey, moderately Se-Cb altered and strongly silicified, moderately foliated, fine grained matrix supported dacite breccia. Typically common 2-3mm feldspar crystals are present which are variably Ab altered. Occasional dark bands of fiamme. Generally a finer grained flow.							

Mineralisation																																																																												
▲ Andesite	■ Disseminated Sulphides	▨ Interbedded siltstone/shale	■ Not logged	■ Schist	■ Undifferentiated Volcanic	■ Background	▲ Andesite Flow	■ Dolomite	▨ Interbedded VSS/VSL/VSM &	▲ Pyroclastic Breccia	■ See comments for full descrip	■ Undifferentiated Volcaniclastic	■ Elevated	▲ Basalt	■ Fault Zone	■ Intermediate flow	■ Quartz	■ Semi-massive Sulphides	■ Vein Carbonate	■ Anomalous	▲ Breccia - Undifferentiated	■ Feldspathic (ash) tuff	■ Intermediate Volcaniclastic	■ Quartz Carbonate Vein	■ Shale	■ Vein quartz	■ Strongly Anomalous	▲ Calcarenite	■ Feldspathic porphyry	■ Lapilli Tuff	■ Quartz Feldspar Porphyry	■ Siltstone	■ Volcanic Breccia	■ Sub-Grade	▲ Chert	■ Felsic Flow	■ Limestone	■ Quartz Porphyry	■ Slate	■ Volcanic Conglomerate	■ Low-Grade	▲ Clay	■ Felsic tuff	■ Lithic Tuff	■ Quartzite	■ Tuff Siltstone	■ Volcanic Sandstone	■ Undifferentiated Mafic Intrusive	▲ Crystal Tuff	■ Felsic Volcaniclastic	■ Mafic Dyke	■ Rhodacite	■ Undifferentiated Black Shale	■ Volcanic Siltstone	■ High-Grade	▲ Dacite	■ Greywacke	■ Mafic Volcaniclastic	■ Rhyolite	■ Undifferentiated Felsic Volcanic	■ Undifferentiated Fluvioglacial Sediment	▲ Dacite Breccia	■ Hyaloclastite Breccia	■ Massive sulphide	■ Rhyolite Breccia	■ Rhyolite Tuff	■ Undifferentiated Mafic Intrusive	▲ Dacite Flow	■ Interbedded sandstone/shale	■ Mudstone	■ Sandstone	■ Undifferentiated Tuff	▲ Dacite Lapilli Tuff	■ Interbedded sandstone/siltsto	■ No Core Present	■ Sandstone

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Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
MBV	GRY	VDR		brc				Grey, moderately Se-Cb altered and strongly silicified, moderately foliated, fine grained matrix supported dacite breccia. Typically common 2-3mm feldspar crystals are present which are variably Ab altered. Occasional dark bands of fiamme. Generally a finer grained flow.							
DK	GRN	IMK		mas				Green to grey, moderately Cl altered, fine grained massive dyke.							
MBV	GRY	VDR		brc				Grey, moderately Cl-Cb-Se altered and silicified, fine grained feldspar crystal rich mass flow with occasional bands of fiamme. Moderately foliated at 40 to 50 degrees to CA.							
DK	GRN	IMK		mas				Dark grey to green, Cl altered, fine grained massive dyke.							
MBV	GRY	VDR		brc				Light grey, moderately Se-Cl-Cb altered, fine grained matrix supported volcanoclastic. Very fine grained, with no obvious crystal or clasts apparent.							

Mineralisation														
▲ Andesite	■ Disseminated Sulphides	▨ Interbedded siltstone/shale	■ Not logged	■ Schist	■ Undifferentiated Volcanic									
▲ Andesite Flow	■ Dolomite	▨ Interbedded VSS/VSL/VSM &	▲ Pyroclastic Breccia	■ See comments for full descrip	■ Undifferentiated Volcanoclastic									
▲ Basalt	■ Fault Zone	▨ Intermediate flow	■ Quartz	■ Semi-massive Sulphides	■ Vein Carbonate									
▲ Breccia - Undifferentiated	■ Feldspathic (ash) tuff	▨ Intermediate Volcanoclastic	■ Quartz Carbonate Vein	■ Shale	■ Vein quartz									
▲ Calcarenite	■ Feldspathic porphyry	▨ Lapilli Tuff	■ Quartz Feldspar Porphyry	■ Siltstone	■ Volcanic Breccia									
▲ Chert	■ Felsic Flow	▨ Limestone	■ Quartz Porphyry	■ Slate	■ Volcanic Conglomerate									
▲ Clay	■ Felsic tuff	▨ Lithic Tuff	■ Quartzite	■ Tuff Siltstone	■ Volcanic Sandstone									
▲ Crystal Tuff	■ Felsic Volcanoclastic	▨ Mafic Dyke	■ Rhyodacite	■ Undifferentiated Black Shale	■ Volcanic Siltstone									
▲ Dacite	■ Greywacke	▨ Mafic Volcanoclastic	■ Rhyolite	■ Undifferentiated Felsic Volcanic										
▲ Dacite Breccia	■ Hyaloclastite Breccia	▨ Massive sulphide	■ Rhyolite Breccia	■ Undifferentiated Fluvio-glacial Sediment										
▲ Dacite Flow	■ Interbedded sandstone/shale	▨ Mudstone	■ Rhyolite Tuff	■ Undifferentiated Mafic Intrusive										
▲ Dacite Lapilli Tuff	■ Interbedded sandstone/siltsto	▨ No Core Present	■ Sandstone	■ Undifferentiated Tuff										

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R



Project: ROS

Rosebery

Prospect: RMN

Rosebery Mine North

Northing: 5377807.9 mN
Easting: 379927.0 mE
RL: 434.5 mRL
CoordSys: MGA55 (GDA94)

Dip: -90.00
MAG_Azim: 241.00
Total Depth: 1858.1 m
DrillCompany: BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
MBV	GRY	VDR		brc				Light grey, moderately Se-Cl-Cb altered, fine grained matrix supported volcaniclastic. Very fine grained, with no obvious crystal or clasts apparent. Dark green, strongly Cl altered, fine grained massive dyke. Pale grey, moderately Cb-Se altered and silicified, fine grained matrix supported volcaniclastic. Generally matrix dominant - which is a pale grey siltstone/mudstone type grain size. No obvious larger clasts present with only occasional feldspar crystals in matrix.							
DK	GRN	IMK		mas											
MBV	GRY	VDR		brc											
MBV	GRY	VDA		mas				Grey, moderately Se-Cb altered and strongly silicified, foliated dacite lava. Becomes coherent around 968m - though there is no clear contact. Lava is feldspar phyric and Cb veining is becoming common.							

Mineralisation																																																																											
▲ Andesite	■ Disseminated Sulphides	▨ Interbedded siltstone/shale	▲ Not logged	■ Schist	■ Undifferentiated Volcanic	■ Background	▲ Andesite Flow	■ Dolomite	▨ Interbedded VSS/VSL/VSM &	▲ Pyroclastic Breccia	■ See comments for full descrip	■ Undifferentiated Volcaniclastic	■ Elevated	▲ Basalt	■ Fault Zone	▨ Intermediate flow	■ Quartz	■ Semi-massive Sulphides	■ Vein Carbonate	■ Anomalous	▲ Breccia - Undifferentiated	■ Feldspathic (ash) tuff	▨ Intermediate Volcaniclastic	■ Quartz Carbonate Vein	■ Shale	■ Vein quartz	■ Strongly Anomalous	▲ Calcarenite	■ Feldspathic porphyry	▨ Lapilli Tuff	■ Quartz Feldspar Porphyry	■ Siltstone	■ Volcanic Breccia	■ Sub-Grade	▲ Chert	■ Felsic Flow	▨ Limestone	■ Quartz Porphyry	■ Slate	■ Volcanic Conglomerate	■ Low-Grade	▲ Clay	■ Felsic tuff	▨ Lithic Tuff	■ Rhyolite	■ Tuff Siltstone	■ Volcanic Sandstone	■ High-Grade	▲ Crystal Tuff	■ Felsic Volcaniclastic	▨ Mafic Dyke	■ Rhyodacite	■ Undifferentiated Black Shale	■ Volcanic Siltstone	■ Dacite	■ Greywacke	○ Hyaloclastite Breccia	■ Rhyolite	■ Undifferentiated Felsic Volcanic	■ Undifferentiated Fluvio-glacial Sediment	■ Dacite Breccia	○ Interbedded sandstone/shale	■ Massive sulphide	■ Rhyolite Breccia	■ Undifferentiated Mafic Intrusive	■ Dacite Flow	○ Interbedded sandstone/siltsto	▨ Mudstone	■ Rhyolite Tuff	■ Undifferentiated Tuff	■ Dacite Lapilli Tuff	■ Interbedded sandstone/siltsto	▨ No Core Present	■ Sandstone	■ Sandstone

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R



Project: ROS

Rosebery

Prospect: RMN

Rosebery Mine North

Northing: 5377807.9 mN
Easting: 379927.0 mE
RL: 434.5 mRL
CoordSys: MGA55 (GDA94)

Dip: -90.00
MAG_Azim: 241.00
Total Depth: 1858.1 m
DrillCompany: BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
MBV	GRY	VDA		mas				Grey, moderately Se-Cb altered and strongly silicified, foliated dacite lava. Becomes coherent around 968m - though there is no clear contact. Lava is feldspar phyric and Cb veining is becoming common.							
DK	GRN	IMK		mas				Pale green to grey, Cl and Cb altered, fine grained dyke. Irregular and patchy Cb veining. Weakly foliated.							
MBV	GRY	VDA		mas				Pale grey, moderately Se-Cb-Cl altered and silicified, massive dacite lava with common 2 - 20mm planar Cb veining. Generally fine grained to aphanitic lava with occasional patchy Ab alteration. Alteration has possibly over printed main phenocrysts phase.							

Mineralisation														
▲ Andesite	■ Disseminated Sulphides	▨ Interbedded siltstone/shale	■ Not logged	■ Schist	■ Undifferentiated Volcanic									
▲ Andesite Flow	■ Dolomite	▨ Interbedded VSS/VSL/VSM &	▲ Pyroclastic Breccia	■ See comments for full descrip	■ Undifferentiated Volcaniclastic									
▲ Basalt	■ Fault Zone	▨ Intermediate flow	■ Quartz	■ Semi-massive Sulphides	■ Vein Carbonate									
▲ Breccia - Undifferentiated	■ Feldspathic (ash) tuff	▨ Intermediate Volcaniclastic	■ Quartz Carbonate Vein	■ Shale	■ Vein quartz									
▲ Calcarenite	■ Feldspathic porphyry	▨ Lapilli Tuff	■ Quartz Feldspar Porphyry	■ Siltstone	■ Volcanic Breccia									
▲ Chert	■ Felsic Flow	▨ Limestone	■ Quartz Porphyry	■ Slate	■ Volcanic Conglomerate									
▲ Clay	■ Felsic tuff	▨ Lithic Tuff	■ Quartzite	■ Tuff Siltstone	■ Volcanic Sandstone									
▲ Crystal Tuff	■ Felsic Volcaniclastic	▨ Mafic Dyke	■ Rhyodacite	■ Undifferentiated Black Shale	■ Volcanic Siltstone									
▲ Dacite	■ Greywacke	▨ Mafic Volcaniclastic	■ Rhyolite	■ Undifferentiated Felsic Volcanic										
▲ Dacite Breccia	■ Hyaloclastite Breccia	▨ Massive sulphide	■ Rhyolite Breccia	■ Undifferentiated Fluvio-glacial Sediment										
▲ Dacite Flow	■ Interbedded sandstone/shale	▨ Mudstone	■ Rhyolite Tuff	■ Undifferentiated Mafic Intrusive										
▲ Dacite Lapilli Tuff	■ Interbedded sandstone/siltsto	▨ No Core Present	■ Sandstone	■ Undifferentiated Tuff										

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R



Project: ROS

Rosebery

Prospect: RMN

Rosebery Mine North

Northing: 5377807.9 mN
Easting: 379927.0 mE
RL: 434.5 mRL
CoordSys: MGA55 (GDA94)

Dip: -90.00
MAG_Azim: 241.00
Total Depth: 1858.1 m
DrillCompany: BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
MBV	GRY	VDR		brc				Pale grey to cream, strongly Cb-Se altered, dacitic volcanoclastic breccia.	D1395368	0.0	0.0	0.0	0.01		2.8
F	GRY	FTZ		ftz				Broken and puggy fault. Significant core loss.							
MBV	GRY	VDA		mas				Pale yellow to pink, strongly Cb-Se and variably Ab altered, silicified, dacite lava. Alteration is quite variable and generally strong to intense. Some secondary brecciation is present likely due to the proximity of faulting.	D1395369	0.0	0.0	0.0	0.02		2.6
									D1395370	0.0	0.0	0.0	0.06		3.4
									D1395371	0.0	0.0	0.0	0.07		2.4
									D1395372	0.0	0.0	0.0	0.03		4.7
DK	GRN	IMK		mas				Dark grey to green, intensely Cl altered, fine grained and massive dyke. Contacts not as sharp/linear as previous dykes in hole.							

Lithology Legend										Mineralisation			
▲ Andesite	■ Disseminated Sulphides	▨ Interbedded siltstone/shale	■ Not logged	■ Schist	■ Undifferentiated Volcanic	■ Background	■ Andesite Flow	■ Dolomite	■ Interbedded VSS/VSL/VSM &	▲ Pyroclastic Breccia	■ See comments for full descrip	■ Undifferentiated Volcanoclastic	■ Elevated
▲ Basalt	■ Fault Zone	■ Intermediate flow	■ Quartz	■ Semi-massive Sulphides	■ Vein Carbonate	■ Anomalous	▲ Breccia - Undifferentiated	■ Feldspathic (ash) tuff	■ Intermediate Volcanoclastic	■ Quartz Carbonate Vein	■ Shale	■ Vein quartz	■ Strongly Anomalous
■ Calcarenite	■ Feldspathic porphyry	■ Lapilli Tuff	■ Quartz Feldspar Porphyry	■ Slate	■ Volcanic Breccia	■ Sub-Grade	■ Chert	■ Limestone	■ Quartz Porphyry	■ Tuff Siltstone	■ Volcanic Conglomerate	■ Low-Grade	■ High-Grade
■ Clay	■ Felsic tuff	■ Mafic Dyke	■ Rhyodacite	■ Undifferentiated Black Shale	■ Volcanic Sandstone		■ Crystal Tuff	■ Lithic Tuff	■ Rhyolite	■ Undifferentiated Felsic Volcanic	■ Undifferentiated Fluvio-glacial Sediment		
■ Dacite	■ Greywacke	■ Mafic Volcanoclastic	■ Rhyolite Breccia	■ Undifferentiated Mafic Intrusive	■ Volcanic Siltstone		■ Dacite Breccia	■ Hyaloclastite Breccia	■ Rhyolite Tuff	■ Undifferentiated Tuff			
■ Dacite Flow	■ Interbedded sandstone/shale	■ Massive sulphide	■ Sandstone				■ Dacite Lapilli Tuff	■ Interbedded sandstone/siltsto	■ No Core Present				

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R



Northing: 5377807.9 mN

Dip: -90.00

Easting: 379927.0 mE

MAG_Azim: 241.00

RL: 434.5 mRL

Total Depth: 1858.1 m

CoordSys: MGA55 (GDA94)

DrillCompany: BLY

Project: ROS

Rosebery

Prospect: RMN

Rosebery Mine North

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
DK	GRN	IMK		mas				Dark grey to green, strong to intense Cl altered, massive dyke. Dyke commonly contains pink albite altered dacite clasts. Possible formed due to intrusion into a semi-lithified dacite breccia. Contact at 1204.1 is very arbitrary - it is very difficult to distinguish a clear contact as to when the lithology moves back into a dacite.	D1395378	0.0	0.0	0.1	0.32		7.4
MBV	GRY	VDA		mas				Grey to pale cream, strongly Cb-Se-Cl altered and silicified, coherent dacite lava with common 5 -20mm Cb veins. Becomes brecciated in some parts and small fractures in the lava are typically in filled by Cl.	D1395379	0.0	0.0	0.0	0.18		5.1
								Pale grey, moderately Cb-Py altered, fine grained dyke. Not the typical green Cl altered dyke seen in the MBV. Spotty Py mineralisation. Lower contact at 45 degrees to CA.	D1395380	0.0	0.0	0.0	0.43		1.7
								Pale grey, moderate to strong Cb-Cl-Se altered, coherent dacite lava with common <1mm Cl veinlets and 5-10mm Cb veins.							
								Pale grey, moderately Cb-Py altered, fine grained dyke. Similar to 1231.5 to 1232.4m.	D1395381	0.0	0.0	0.0	0.24		3.6
DK	GRY	IMK		mas				Pale grey, strongly Se-Cb altered and strongly silicified, dacite lava to breccia. Difficult to distinguish due to alteration.							
MBV	GRY	VDA		mas				Mt Black Fault position. Core is completely competent and only appears to be weakly sheared or moderately foliated. Not confident on calling this a fault, however, it appears to be the only logical position given the lower apparently HW siltstones and the upper MBV. Would not call this a fault other then because it marks the transition into HW rocks. In the very least the fault lies somewhere between 1241 to 1248m.							
DK	GRY	IMK		mas				Pale grey to pale cream, moderate to strong Se-Cb altered and strongly silicified, very fine grained siltstone. Core is very hard due to silicification and appears to be a fine siltstone that marks the top of the HW sequence. However, arguably this may be a type of lava however it is a very fine grained and silicified unit regardless.	D1395382	0.0	0.0	0.0	0.22		7.0
MBV	GRY	VDR		brc											
F	GRY	FTZ		ftz											
HW	GRY	VBX		brc				Pale grey, strongly Se-Cb-Cl altered, moderately foliated, polymict volcanoclastic breccia. Clasts are composed of common 1-2mm sub-rounded Qz crystals and occasionally larger 5 - 20mm sub-rounded siltstone clasts. This is certainly the start of HW proper 1256m (disregarding the more ambiguous unit from 1242 - 1248m)							
HW	GRY	VBX		brc											

Lithology Legend										Mineralisation			
▲ Andesite	■ Disseminated Sulphides	▨ Interbedded siltstone/shale	▲ Not logged	■ Schist	■ Undifferentiated Volcanic	■ Background	■ Undifferentiated Volcanic	■ Elevated	■ Anomalous	■ Strongly Anomalous	■ Sub-Grade	■ Low-Grade	■ High-Grade
▲ Andesite Flow	■ Dolomite	▨ Interbedded V5S/V5L/V5M &	▲ Pyroclastic Breccia	■ See comments for full descrip	■ Undifferentiated Volcanoclastic	■ Anomalous	■ Undifferentiated Volcanoclastic	■ Elevated	■ Anomalous	■ Strongly Anomalous	■ Sub-Grade	■ Low-Grade	■ High-Grade
▲ Basalt	■ Fault Zone	▨ Intermediate flow	▲ Quartz	■ Semi-massive Sulphides	■ Vein Carbonate	■ Anomalous	■ Vein Carbonate	■ Elevated	■ Anomalous	■ Strongly Anomalous	■ Sub-Grade	■ Low-Grade	■ High-Grade
▲ Breccia - Undifferentiated	■ Feldspathic (ash) tuff	▨ Intermediate Volcanoclastic	▲ Quartz Carbonate Vein	■ Shale	■ Vein quartz	■ Anomalous	■ Vein quartz	■ Elevated	■ Anomalous	■ Strongly Anomalous	■ Sub-Grade	■ Low-Grade	■ High-Grade
▲ Calcarenite	■ Feldspathic porphyry	▨ Lapilli Tuff	▲ Quartz Feldspar Porphyry	■ Siltstone	■ Volcanic Breccia	■ Anomalous	■ Volcanic Breccia	■ Elevated	■ Anomalous	■ Strongly Anomalous	■ Sub-Grade	■ Low-Grade	■ High-Grade
▲ Chert	■ Felsic Flow	▨ Limestone	▲ Quartz Porphyry	■ Slate	■ Volcanic Conglomerate	■ Anomalous	■ Volcanic Conglomerate	■ Elevated	■ Anomalous	■ Strongly Anomalous	■ Sub-Grade	■ Low-Grade	■ High-Grade
▲ Clay	■ Felsic tuff	▨ Lithic Tuff	▲ Quartzite	■ Tuff Siltstone	■ Volcanic Sandstone	■ Anomalous	■ Volcanic Sandstone	■ Elevated	■ Anomalous	■ Strongly Anomalous	■ Sub-Grade	■ Low-Grade	■ High-Grade
▲ Crystal Tuff	■ Felsic Volcanoclastic	▨ Mafic Dyke	▲ Rhodactite	■ Undifferentiated Black Shale	■ Volcanic Siltstone	■ Anomalous	■ Volcanic Siltstone	■ Elevated	■ Anomalous	■ Strongly Anomalous	■ Sub-Grade	■ Low-Grade	■ High-Grade
▲ Dacite	■ Greywacke	▨ Mafic Volcanoclastic	▲ Rhyolite	■ Undifferentiated Felsic Volcanic	■ Undifferentiated Black Shale	■ Anomalous	■ Undifferentiated Felsic Volcanic	■ Elevated	■ Anomalous	■ Strongly Anomalous	■ Sub-Grade	■ Low-Grade	■ High-Grade
▲ Dacite Breccia	■ Hyaloclastite Breccia	▨ Massive sulphide	▲ Rhyolite Breccia	■ Undifferentiated Fluvio-glacial Sediment	■ Undifferentiated Felsic Volcanic	■ Anomalous	■ Undifferentiated Fluvio-glacial Sediment	■ Elevated	■ Anomalous	■ Strongly Anomalous	■ Sub-Grade	■ Low-Grade	■ High-Grade
▲ Dacite Flow	■ Interbedded sandstone/shale	▨ Mudstone	▲ Rhyolite Tuff	■ Undifferentiated Mafic Intrusive	■ Undifferentiated Felsic Volcanic	■ Anomalous	■ Undifferentiated Mafic Intrusive	■ Elevated	■ Anomalous	■ Strongly Anomalous	■ Sub-Grade	■ Low-Grade	■ High-Grade
▲ Dacite Lapilli Tuff	■ Interbedded sandstone/siltsto	▨ No Core Present	▲ Sandstone	■ Undifferentiated Tuff	■ Undifferentiated Felsic Volcanic	■ Anomalous	■ Undifferentiated Tuff	■ Elevated	■ Anomalous	■ Strongly Anomalous	■ Sub-Grade	■ Low-Grade	■ High-Grade

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R



Project: ROS

Rosebery

Prospect: RMN

Rosebery Mine North

Northing: 5377807.9 mN
Easting: 379927.0 mE
RL: 434.5 mRL
CoordSys: MGA55 (GDA94)

Dip: -90.00
MAG_Azim: 241.00
Total Depth: 1858.1 m
DrillCompany: BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
HW	GRY	VBX		brc				Pale grey, strongly Se-Cb-Cl altered, moderately foliated, polymict volcaniclastic breccia. Clasts are composed of common 1-2mm sub-rounded Qz crystals and occasionally larger 5 - 20mm sub-rounded siltstone clasts. This is certainly the start of HW proper 1256m (disregarding the more ambiguous unit from 1242 - 1248m)	D1395383	0.0	0.4	0.0	0.14		2.2
HW	GRY	VBX		brc				Pale grey to cream, strongly Se-Cl-Cb altered, generally moderately sorted fine grained polymict volcaniclastic breccia. Strong alteration makes identification of clasts difficult, however, it appears to be feldspar and Qz lithic crystal rich unit. No obvious larger clasts are present.	D1395384	0.0	0.1	0.0	0.08		3.3
									D1395385	0.0	0.0	0.0	0.19		2.5
									D1395386	0.0	0.0	0.0	1.04		2.2
HW	GRY	VBX		brc				Pale grey to green, strongly Se-Cl-Cb altered, moderately foliated, polymict volcaniclastic mass flow. Unit is dominated by common 2 - 10mm sub-rounded Qz crystals. To ~1340m the unit is generally moderate to well sorted. However from 1340 to 1360m the unit starts to coarsen down hole, with larger clasts occurring including 5 - 30mm sub-angular siltstone clasts, occasional 30 - 50mm feldspar phyrlic rhyo-dactic clasts and larger 5 - 15mm fat Qz crystals. Se-Cl alteration is quite intense in parts - typically with the Se taking up much of the foliation.	D1395387	0.0	0.0	0.0	0.08		1.4

Lithology Legend										Mineralisation												
▲ Andesite	■ Disseminated Sulphides	▨ Interbedded siltstone/shale	■ Not logged	■ Schist	■ Undifferentiated Volcanic	■ Background	■ Andesite Flow	■ Dolomite	■ Interbedded VSS/VSL/VSM &	■ Pyroclastic Breccia	■ See comments for full descrip	■ Undifferentiated Volcaniclastic	■ Elevated	■ Basalt	■ Fault Zone	■ Intermediate flow	■ Quartz	■ Semi-massive Sulphides	■ Vein Carbonate	■ Vein quartz	■ Anomalous	
▲ Breccia - Undifferentiated	■ Feldspathic (ash) tuff	■ Intermediate Volcaniclastic	■ Quartz Carbonate Vein	■ Shale	■ Undifferentiated Volcaniclastic	■ Strongly Anomalous	▲ Calcarenite	■ Feldspathic porphyry	■ Lapilli Tuff	■ Quartz Feldspar Porphyry	■ Siltstone	■ Vein quartz	■ Sub-Grade	■ Chert	■ Felsic Flow	■ Limestone	■ Quartz Porphyry	■ Slate	■ Volcanic Breccia	■ Volcanic Conglomerate	■ Low-Grade	
■ Clay	■ Felsic tuff	■ Lithic Tuff	■ Rhyodacite	■ Tuff Siltstone	■ Undifferentiated Black Shale	■ Strongly Anomalous	■ Crystal Tuff	■ Felsic Volcaniclastic	■ Mafic Dyke	■ Quartzite	■ Tuff Siltstone	■ Volcanic Sandstone	■ Sub-Grade	■ Dacite	■ Greywacke	■ Rhyolite	■ Rhyolite Breccia	■ Undifferentiated Felsic Volcanic	■ Undifferentiated Fluvio-glacial Sediment	■ Volcanic Siltstone	■ Low-Grade	
■ Dacite Breccia	■ Hyaloclastite Breccia	■ Mafic Volcaniclastic	■ Rhyolite Breccia	■ Rhyolite Tuff	■ Undifferentiated Mafic Intrusive	■ High-Grade	■ Dacite Flow	■ Interbedded sandstone/shale	■ Massive sulphide	■ Sandstone	■ Undifferentiated Tuff	■ Undifferentiated Mafic Intrusive	■ High-Grade	■ Dacite Lapilli Tuff	■ Interbedded sandstone/siltsto	■ Mudstone	■ Sandstone	■ No Core Present	■ No Core Present	■ No Core Present	■ No Core Present	■ No Core Present

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R



Project: ROS

Rosebery

Prospect: RMN

Rosebery Mine North

Northing: 5377807.9 mN
Easting: 379927.0 mE
RL: 434.5 mRL
CoordSys: MGA55 (GDA94)

Dip: -90.00
MAG_Azim: 241.00
Total Depth: 1858.1 m
DrillCompany: BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
HW	GRY	VBX		brc				Pale brown to cream, moderately Cb-Se-Si altered and silicified, graded volcanoclastic breccia with occasional 1-10mm sub-rounded Qz crystals. Fine siltstone top which coarsens into a mottled/gritty textured Qz bearing volcanoclastic. Hard, silicified rock.	D1395404	0.0	0.0	0.0	0.11		1.3
HW	GRY	VBX		brc				Pale grey to green, moderate to strongly Se-Cl-Cb altered and silicified, graded Qz-bearing volcanoclastic breccia. Fine to coarse sandstone at 1466m which grades coarse volcanoclastic breccia. Clast predominantly composed of 2-10mm sub-rounded Qz crystals and occasional 40-60mm sub-angular Qz-Fd phyrlic milky white coloured rhyolite clasts. Clearly more abundant Qz crystals than previous unit.	D1395405	0.0	0.0	0.0	0.13		1.9
HW	GRY	VBX		brc				Pale green to straw yellow, pervasively Se-Cl and silicified, fine grained volcanoclastic siltstone to fine sandstone. Distinct wispy/banded Se altered rock. Likely this was originally a bedded fine siltstone unit which has been pervasively altered by Se. Possible pseudo-fiamme textures in parts. Trace disseminated Py and red Sp. Arguably host rock starts here, however, due Se banding and occasional coarser material this is not unequivocally host rock.	D1395406	0.0	0.1	0.0	0.16		1.5
HO	GRY	VSS		brc				Pale grey to cream, strongly Cb-Se altered, fine to medium grained volcanoclastic sandstone with trace disseminated/spotty Py and thin <1mm Qz-C+/-Py veinlets. As we move down hole, the rock starts to develop a dominant augen texture - which gives a pseudo-clastic appearance where the augen texture is more developed.	D1395407	0.0	0.0	0.0	1.12		1.3
									D1395408	0.0	0.0	0.0	0.33		1.0

<ul style="list-style-type: none"> ▲ Andesite ▲ Andesite Flow ▲ Basalt ▲ Breccia - Undifferentiated ▲ Calcarenite ▲ Chert ▲ Clay ▲ Crystal Tuff ▲ Dacite ▲ Dacite Breccia ▲ Dacite Flow ▲ Dacite Lapilli Tuff 	<ul style="list-style-type: none"> ■ Disseminated Sulphides ■ Dolomite ■ Fault Zone ■ Feldspathic (ash) tuff ■ Feldspathic porphyry ■ Felsic Flow ■ Felsic tuff ■ Felsic Volcanoclastic ■ Greywacke ■ Hyaloclastite Breccia ■ Interbedded sandstone/shale ■ Interbedded sandstone/siltsto 	<ul style="list-style-type: none"> ■ Interbedded siltstone/shale ■ Interbedded VSS/VSL/VSM & ■ Intermediate flow ■ Intermediate Volcanoclastic ■ Lapilli Tuff ■ Limestone ■ Lithic Tuff ■ Mafic Dyke ■ Mafic Volcanoclastic ■ Massive sulphide ■ Mudstone ■ No Core Present 	<ul style="list-style-type: none"> ■ Not logged ■ Pyroclastic Breccia ■ Quartz ■ Quartz Carbonate Vein ■ Quartz Feldspar Porphyry ■ Quartz Porphyry ■ Quartzite ■ Rhyodacite ■ Rhyolite ■ Rhyolite Breccia ■ Rhyolite Tuff ■ Sandstone 	<ul style="list-style-type: none"> ■ Schist ■ See comments for full descrip ■ Semi-massive Sulphides ■ Shale ■ Siltstone ■ Slate ■ Tuff Siltstone ■ Undifferentiated Black Shale ■ Undifferentiated Felsic Volcanic ■ Undifferentiated Fluvio-glacial Sediment ■ Undifferentiated Mafic Intrusive ■ Undifferentiated Tuff 	<ul style="list-style-type: none"> ■ Undifferentiated Volcanic ■ Undifferentiated Volcanoclastic ■ Vein Carbonate ■ Vein quartz ■ Volcanic Breccia ■ Volcanic Conglomerate ■ Volcanic Sandstone ■ Volcanic Siltstone 	<p>Mineralisation</p> <ul style="list-style-type: none"> ■ Background ■ Elevated ■ Anomalous ■ Strongly Anomalous ■ Sub-Grade ■ Low-Grade ■ High-Grade
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ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R



Project: ROS

Rosebery

Prospect: RMN

Rosebery Mine North

Northing: 5377807.9 mN
Easting: 379927.0 mE
RL: 434.5 mRL
CoordSys: MGA55 (GDA94)

Dip: -90.00
MAG_Azim: 241.00
Total Depth: 1858.1 m
DrillCompany: BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
HO	GRY	VSS		brc				Pale grey to cream, strongly Cb-Se altered, fine to medium grained volcanoclastic sandstone with trace disseminated/spotty Py and thin <1mm Qz-C+/-Py veinlets. As we move down hole, the rock starts to develop a dominant augen texture - which gives a pseudo-clastic appearance where the augen texture is more developed.	D1395409	0.0	0.0	0.0	4.12		1.5
									D1395410	0.0	0.0	0.0	0.15		1.1
									D1395411	0.0	0.0	0.0	0.50		1.4
									D1395412	0.0	0.0	0.0	0.58		1.5
									D242282	0.0	0.0	0.0	2.00	-0.01	1.8
									D242283	0.0	0.0	0.0	1.00	-0.01	1.8
									D242284	0.0	0.1	0.0	1.00	-0.01	1.4
HOTS	GRY	VSL		brc			sp ga	Pale grey to cream, strongly Cb-Se altered and silicified, volcanoclastic siltstone to sandstone with trace sulphides. Red Sp occurs in patches and also in Qz veins which also contains minor Gn and Py-Po. Augen texture is again well developed - it appears as the finer and more silicified siltstone bands are wrapped around by the softer Se altered material creating this augen texture.	D242285	0.0	0.1	0.0	1.00	-0.01	1.4
									D242286	0.0	0.0	0.0	1.00	-0.01	1.3
									D242287	0.1	0.1	0.0	1.00	-0.01	1.6
									D1395413	0.0	0.1	0.0	0.52		1.5
									D242288	0.2	0.3	0.0	2.00	-0.01	1.9
									D242289	0.0	0.0	0.0	1.00	0.01	1.5
									D242290	0.2	0.3	0.0	5.00	0.01	1.8
									D242291	0.4	0.6	0.0	4.00	-0.01	2.2
									D242292	0.0	0.1	0.0	2.00	-0.01	2.1
									D242293	0.0	0.1	0.0	1.00	0.01	2.0
									D242294	0.4	0.4	0.0	4.00	0.01	1.6
									D242295	0.3	0.3	0.0	3.00	-0.01	1.4
									D242296	1.4	0.9	0.1	14.00	0.07	1.4
									D242297	1.1	1.1	0.1	7.00	0.02	1.4
									D242298	0.1	0.1	0.0	1.00	-0.01	1.6
									D242299	0.1	0.3	0.5	1.00	0.01	1.8

Mineralisation	
Background	
Elevated	
Anomalous	
Strongly Anomalous	
Sub-Grade	
Low-Grade	
High-Grade	

Andesite	Disseminated Sulphides	Interbedded siltstone/shale	Not logged	Schist	Undifferentiated Volcanic
Andesite Flow	Dolomite	Interbedded VSS/VSL/VSM &	Pyroclastic Breccia	See comments for full descrip	Undifferentiated Volcanoclastic
Basalt	Fault Zone	Intermediate flow	Quartz	Semi-massive Sulphides	Vein Carbonate
Breccia - Undifferentiated	Feldspathic (ash) tuff	Intermediate Volcanoclastic	Quartz Carbonate Vein	Shale	Vein quartz
Calcarenite	Feldspathic porphyry	Lapilli Tuff	Quartz Feldspar Porphyry	Siltstone	Volcanic Breccia
Chert	Felsic Flow	Limestone	Quartz Porphyry	Slate	Volcanic Conglomerate
Clay	Felsic tuff	Lithic Tuff	Quartzite	Tuff Siltstone	Volcanic Sandstone
Crystal Tuff	Felsic Volcanoclastic	Mafic Dyke	Rhyodacite	Undifferentiated Black Shale	Volcanic Siltstone
Dacite	Greywacke	Mafic Volcanoclastic	Rhyolite	Undifferentiated Felsic Volcanic	
Dacite Breccia	Hyaloclastite Breccia	Massive sulphide	Rhyolite Breccia	Undifferentiated Fluvio-glacial Sediment	
Dacite Flow	Interbedded sandstone/shale	Mudstone	Rhyolite Tuff	Undifferentiated Mafic Intrusive	
Dacite Lapilli Tuff	Interbedded sandstone/siltsto	No Core Present	Sandstone	Undifferentiated Tuff	

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R



Project: ROS

Rosebery

Prospect: RMN

Rosebery Mine North

Northing: 5377807.9 mN

Dip: -90.00

Easting: 379927.0 mE

MAG_Azim: 241.00

RL: 434.5 mRL

Total Depth: 1858.1 m

CoordSys: MGA55 (GDA94)

DrillCompany: BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
HOTS	GRY	VSL		brc			sp	<p>Pale grey to cream, strongly Cb-Se altered and silicified, volcaniclastic siltstone to sandstone with trace sulphides. Red Sp occurs in patches and also in Qz veins which also contains minor Gn and Py-Po. Augen texture is again well developed - it appears as the finer and more silicified siltstone bands are wrapped around by the softer Se altered material creating this augen texture.</p> <p>Grey to maroon, strongly Cb-Se altered, volcaniclastic siltstone to sandstone with ratty bands and patches of maroon to red coloured Sp +/- Gn. This represent a small interval of Z lens-like mineralisation which looks to grade around 3-4% Zn.</p> <p>Pale grey to cream, moderate to strongly Cb-Se altered, fine grained volcaniclastic siltstone to fine sandstone with trace specks of red Sp and Py. Augen texture becomes less developed towards 1570m.</p>	D242299	0.1	0.3	0.5	1.00	0.01	1.8
HODS	GRY	VSL		brc		ga	D1395414		0.1	0.2	0.0	0.59		0.8	
HOTS	GRY	VSL		brc		sp	D242301		3.1	6.3	0.2	26.00		0.18	
						py	D242303		0.0	0.0	0.0	1.00		0.02	
						sp	D242304		0.0	0.0	0.0	-1.00		-0.01	
						py	D242305		0.0	0.0	0.0	1.00		-0.01	
							D242306		0.0	0.1	0.0	1.00		-0.01	
							D242307		0.0	0.1	0.0	1.00		0.02	
							D242308		0.0	0.1	0.0	1.00		-0.01	
							D1395415		0.0	0.0	0.0	0.09		2.5	
TZ	GRY	VSS		brc					D1395416	0.0	0.0	0.0	0.07		1.4
									D1395417	0.0	0.0	0.0	0.05		1.5
									D1395418	0.0	0.0	0.0	0.07		2.5
FWTS	GRY	VBX		brc			py	<p>Pale grey to olive green, moderately Cb-Se-Cl altered, feldspar crystal lithic bearing volcaniclastic breccia with occasional interbeds of siltstone material. Trace disseminated Py. The coarser feldspar lithic rich zones appear as they could be clasts (rhyolite clasts?), due to the sharp contacts they have with the finer siltstone units. However, they are more likely to be volcaniclastics - and the feldspar lithic unit from ~1612m appears volcaniclastic.</p>							

Mineralisation									
▲ Andesite	■ Disseminated Sulphides	▨ Interbedded siltstone/shale	⚠ Not logged	■ Schist	⚠ Undifferentiated Volcanic				
▲ Andesite Flow	■ Dolomite	▨ Interbedded VSS/VSL/VSM &	▲ Pyroclastic Breccia	■ See comments for full descrip	⚠ Undifferentiated Volcaniclastic				
▲ Basalt	■ Fault Zone	▨ Intermediate flow	▲ Quartz	■ Semi-massive Sulphides	⚠ Vein Carbonate				
▲ Breccia - Undifferentiated	■ Feldspathic (ash) tuff	▨ Intermediate Volcaniclastic	▲ Quartz Carbonate Vein	■ Shale	⚠ Vein quartz				
▲ Calcarenite	■ Feldspathic porphyry	▨ Lapilli Tuff	▲ Quartz Feldspar Porphyry	■ Siltstone	⚠ Volcanic Breccia				
▲ Chert	■ Felsic Flow	▨ Limestone	▲ Quartz Porphyry	■ Slate	⚠ Volcanic Conglomerate				
▲ Clay	■ Felsic tuff	▨ Lithic Tuff	▲ Quartzite	■ Tuff Siltstone	⚠ Volcanic Sandstone				
▲ Crystal Tuff	■ Felsic Volcaniclastic	▨ Mafic Dyke	▲ Rhyodacite	■ Undifferentiated Black Shale	⚠ Volcanic Siltstone				
▲ Dacite	■ Greywacke	▨ Mafic Volcaniclastic	▲ Rhyolite	■ Undifferentiated Felsic Volcanic					
▲ Dacite Breccia	■ Hyaloclastite Breccia	▨ Massive sulphide	▲ Rhyolite Breccia	■ Undifferentiated Fluvio-glacial Sediment					
▲ Dacite Flow	■ Interbedded sandstone/shale	▨ Mudstone	▲ Rhyolite Tuff	■ Undifferentiated Mafic Intrusive					
▲ Dacite Lapilli Tuff	■ Interbedded sandstone/siltsto	▨ No Core Present	▲ Sandstone	■ Undifferentiated Tuff					

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R



Northing: 5377807.9 mN
Easting: 379927.0 mE
RL: 434.5 mRL
CoordSys: MGA55 (GDA94)

Dip: -90.00
MAG_Azim: 241.00
Total Depth: 1858.1 m
DrillCompany: BLY

Project: ROS
Rosebery
Prospect: RMN
Rosebery Mine North

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
FWTS	GRY	VBX		brc			py	Pale grey to olive green, moderately Cb-Se-Cl altered, feldspar crystal lithic bearing volcanoclastic breccia with occasional interbeds of siltstone material. Trace disseminated Py. The coarser feldspar lithic rich zones appear as they could be clasts (rhyolite clasts?), due to the sharp contacts they have with the finer siltstone units. However, they are more likely to be volcanoclastics - and the feldspar lithic unit from ~1612m appears volcanoclastic.	D1395419	0.0	0.0	0.0	0.13		1.5
									D1395420	0.0	0.0	0.0	0.04		1.6
F FWTS	GRY GRY	FTZ VBX		ftz brc			py	Rusty brown, pervasively Cb-Se altered, rubbly and broken fault with significant core loss. Minor puggy material. Does not appear to be a significant fault. Pale grey to cream, strong to intensely Cb-Se altered and silicified, feldspar crystal lithic rich volcanoclastic breccia with occasional dark wispy bands of fiamme. Trace disseminated Py and Cb alteration appears to be increasing with proximity to the Rosebery Fault.	D1395421	0.0	0.0	0.0	0.13		1.6
									D242309	0.0	0.0	0.0	1.00	0.09	1.7
									D1395422	0.1	0.1	0.0	0.86		1.4
									D242310	0.0	0.2	0.0	1.00	0.01	3.0
									D242311	0.0	0.2	0.0	1.00	-0.01	2.3
									D242312	0.1	0.2	0.0	2.00	0.04	4.2
									D242313	0.1	0.2	0.0	3.00	0.19	5.2
									D242314	0.1	0.2	0.0	3.00	0.06	3.9
FWDS	GRY	VBX		brc			py	Grey to brown, intensely Cb-Se-Py altered, feldspar phyruc volcanoclastic breccia. Carbonate alteration has become intense now, and there is also increased abundance in Py which occurs as patches and blebs. Possibly some minor Sp mineralisation also. Rosebery fault position. Main focus of fault is 1634.5 to 1634.6m, where there is dark grey puggy material and broken core with tourmaline alteration. Significant fault. Most breaks in core are at a low angle to LCA (70 - 80 degrees). Intensely Cb altered with some minor sulphides present.							
F	GRY	FTZ		ftz											
HW	GRY	VBX		brc											
HW	GRY	VBX		brc				Pale yellow to grey, pervasively Se-Cb altered and silicified, annealed hydraulic breccia. This strongly effected by the above fault- some secondary brittle fracturing has broken core however it is re-healed.							
								Pale yellow to grey, intense and pervasively Se-Cb altered and silicified, strongly foliated, volcanoclastic breccia with minor/trace sulphides. Rock has a distinct change in foliation after the Rosebery Fault - typically ~30 degrees to LCA. Alteration overprints most primary textures - however the larger clasts are not as pervasively altered. Because of the larger clasts it is likely these units are a series of mass flows. The larger clasts range from 2 - 20mm, are typically sub-angular and elongate (stretched) and appear to be mudstone/siltstone clasts. Sulphides are predominantly composed of trace Py +/- Po, and trace Ga which is vein hosted.	D1395423	0.0	0.0	0.0	0.21		2.4

Mineralisation	
Background	
Elevated	
Anomalous	
Strongly Anomalous	
Sub-Grade	
Low-Grade	
High-Grade	

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R



Project: ROS

Rosebery

Prospect: RMN

Rosebery Mine North

Northing: 5377807.9 mN
Easting: 379927.0 mE
RL: 434.5 mRL
CoordSys: MGA55 (GDA94)

Dip: -90.00
MAG_Azim: 241.00
Total Depth: 1858.1 m
DrillCompany: BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
1650	HW	GRY	VBX		brc			Pale yellow to grey, intense and pervasively Se-Cb altered and silicified, strongly foliated, volcanoclastic breccia with minor/trace sulphides. Rock has a distinct change in foliation after the Rosebery Fault - typically ~30 degrees to LCA. Alteration overprints most primary textures - however the larger clasts are not as pervasively altered. Because of the larger clasts it is likely these units are a series of mass flows. The larger clasts range from 2 - 20mm, are typically sub-angular and elongate (stretched) and appear to be mudstone/siltstone clasts. Sulphides are predominantly composed of trace Py +/- Po, and trace Ga which is vein hosted.	D1395424	0.0	0.2	0.0	1.27		3.8
1660									D1395425	0.0	0.1	0.0	0.27		4.9
1670									D1395426	0.0	0.0	0.0	0.24		3.1
1680	F HW	GRY GRY	FTZ VBX		ftz brc			Small fault predominantly composed of brittle/broken core with minor pug. Not a significant fault. Pale yellow to grey, intensely Se-Cb altered, mudstone clast bearing epiclastics. Same unit as 1635 to 1673m, as above the small fault. Increased fracturing which have been in filled by occasionally Py-Po bearing Qz-Cb veins.							
1680	HW	GRY	VBX		brc			Pale green to grey, strongly Se-Cb altered, mudstone clast bearing epiclastics. The rock has now taken on an overall green tinge rather than the pale yellow/creamy colour of the previous units. This change in colour likely indicates a decrease in alteration intensity as it moves away from the Rosebery Fault, however, the rock is still strongly altered. There is also an increase 2 - 8mm planar Qz-Cb veining. Large 20 - 60mm sub-angular siltstone/mudstone clasts become frequent as we move down hole towards 1730m. Although it is difficult to identify a fine top to these units, they are clearly grading down hole. Foliation of rock now ~40 degrees to LCA.	D1395427	0.0	0.0	0.0	0.09		2.3
1690									D1395428	0.0	0.0	0.0	0.12		4.0

<ul style="list-style-type: none"> ▲ Andesite ▲ Andesite Flow ▲ Basalt ▲ Breccia - Undifferentiated ▲ Calcarenite ▲ Chert ▲ Clay ▲ Crystal Tuff ▲ Dacite ▲ Dacite Breccia ▲ Dacite Flow ▲ Dacite Lapilli Tuff 	<ul style="list-style-type: none"> ■ Disseminated Sulphides ■ Dolomite ■ Fault Zone ■ Feldspathic (ash) tuff ■ Feldspar porphyry ■ Felsic Flow ■ Felsic tuff ■ Felsic Volcanoclastic ■ Greywacke ■ Hyaloclastite Breccia ■ Interbedded sandstone/shale ■ Interbedded sandstone/siltstone 	<ul style="list-style-type: none"> ■ Interbedded siltstone/shale ■ Interbedded VSS/VSL/VSM & Quartz ■ Intermediate flow ■ Intermediate Volcanoclastic ■ Lapilli Tuff ■ Limestone ■ Lithic Tuff ■ Mafic Dyke ■ Mafic Volcanoclastic ■ Massive sulphide ■ Mudstone ■ No Core Present 	<ul style="list-style-type: none"> ■ Not logged ■ Pyroclastic Breccia ■ Quartz ■ Quartz Carbonate Vein ■ Quartz Feldspar Porphyry ■ Quartz Porphyry ■ Quartzite ■ Rhodacite ■ Rhyolite ■ Rhyolite Breccia ■ Rhyolite Tuff ■ Sandstone 	<ul style="list-style-type: none"> ■ Schist ■ See comments for full description ■ Semi-massive Sulphides ■ Shale ■ Siltstone ■ Tuff Siltstone ■ Undifferentiated Black Shale ■ Undifferentiated Felsic Volcanic ■ Undifferentiated Fluvio-glacial Sediment ■ Undifferentiated Mafic Intrusive ■ Undifferentiated Tuff 	<ul style="list-style-type: none"> ■ Undifferentiated Volcanic ■ Undifferentiated Volcanoclastic ■ Vein Carbonate ■ Vein quartz ■ Volcanic Breccia ■ Volcanic Conglomerate ■ Volcanic Sandstone ■ Volcanic Siltstone 	<p>Mineralisation</p> <ul style="list-style-type: none"> ■ Background ■ Elevated ■ Anomalous ■ Strongly Anomalous ■ Sub-Grade ■ Low-Grade ■ High-Grade
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ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R



Project: ROS

Rosebery

Prospect: RMN

Rosebery Mine North

Northing: 5377807.9 mN
Easting: 379927.0 mE
RL: 434.5 mRL
CoordSys: MGA55 (GDA94)

Dip: -90.00
MAG_Azim: 241.00
Total Depth: 1858.1 m
DrillCompany: BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
HW	GRY	VBX		brc				Pale green to grey, Se-Cb-Py altered, foliated, fine grained volcanoclastic siltstones to volcanoclastic breccia. A series of graded mass flows occur in this interval, with fine siltstone/shale tops marking the start of each new flow at depths of 1749.1, 1756.2, 1767.2 and 1792.4. The finer siltstone units are a dark grey to black colour, however, are not quite a classic shale. The coarser material after the siltstone is predominantly composed of small ~1-2mm mudstone rip-ups to larger 20 - 40mm siltstone/mudstone clasts. Other clasts are difficult to identify due to alteration, however, the rock does have a polymict look to it (this could be due to the poly-chromatic appearance of the rock though). This sequence does have the appearance of Rosebery Hanging wall Epiclastic sequence from around the 3200mN holes - albeit significantly more deformed and altered. Matrix in the coarser units typically contains weak to moderate disseminated Py alteration.	D1395434	0.0	0.0	0.0	0.16		5.4
									D1395435	0.0	0.0	0.0	0.20		9.8
									D1395436	0.0	0.0	0.0	0.17		3.1
									D1395437	0.0	0.0	0.0	0.16		5.1
									D1395438	0.0	0.0	0.0	0.22		1.4

<ul style="list-style-type: none"> ▲ Andesite ▲ Andesite Flow ▲ Basalt ▲ Breccia - Undifferentiated ▲ Calcarenite ▲ Chert ▲ Clay ▲ Crystal Tuff ▲ Dacite ▲ Dacite Breccia ▲ Dacite Flow ▲ Dacite Lapilli Tuff 	<ul style="list-style-type: none"> ■ Disseminated Sulphides ■ Dolomite ■ Fault Zone ■ Feldspathic (ash) tuff ■ Feldspathic porphyry ■ Felsic Flow ■ Felsic tuff ■ Felsic Volcanoclastic ■ Greywacke ■ Hyaloclastite Breccia ■ Interbedded sandstone/shale ■ Interbedded sandstone/siltstone 	<ul style="list-style-type: none"> ■ Interbedded siltstone/shale ■ Interbedded VSS/VSL/VSM & Intermediate flow ■ Intermediate Volcanoclastic ■ Lapilli Tuff ■ Limestone ■ Lithic Tuff ■ Mafic Dyke ■ Mafic Volcanoclastic ■ Massive sulphide ■ Mudstone ■ No Core Present 	<ul style="list-style-type: none"> ■ Not logged ■ Pyroclastic Breccia ■ Quartz ■ Quartz Carbonate Vein ■ Quartz Feldspar Porphyry ■ Quartz Porphyry ■ Quartzite ■ Rhodacite ■ Rhyolite ■ Rhyolite Breccia ■ Rhyolite Tuff ■ Sandstone 	<ul style="list-style-type: none"> ■ Schist ■ See comments for full description ■ Semi-massive Sulphides ■ Shale ■ Slate ■ Tuff Siltstone ■ Undifferentiated Black Shale ■ Undifferentiated Felsic Volcanic ■ Undifferentiated Fluvio-glacial Sediment ■ Undifferentiated Mafic Intrusive ■ Undifferentiated Tuff 	<ul style="list-style-type: none"> ■ Undifferentiated Volcanic ■ Undifferentiated Volcanoclastic ■ Vein Carbonate ■ Vein quartz ■ Volcanic Breccia ■ Volcanic Conglomerate ■ Volcanic Sandstone ■ Volcanic Siltstone 	Mineralisation <ul style="list-style-type: none"> ■ Background ■ Elevated ■ Anomalous ■ Strongly Anomalous ■ Sub-Grade ■ Low-Grade ■ High-Grade
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ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R



Northing: 5377807.9 mN

Dip: -90.00

Project: ROS

Easting: 379927.0 mE

MAG_Azim: 241.00

Rosebery

RL: 434.5 mRL

Total Depth: 1858.1 m

Prospect: RMN

CoordSys: MGA55 (GDA94)

DrillCompany: BLY

Rosebery Mine North

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct	
HW	GRY	VBX		brc				Pale green to grey, Se-Cb-Py altered, foliated, fine grained volcanoclastic siltstones to volcanoclastic breccia. A series of graded mass flows occur in this interval, with fine siltstone/shale tops marking the start of each new flow at depths of 1749.1, 1756.2, 1767.2 and 1792.4. The finer siltstone units are a dark grey to black colour, however, are not quite a classic shale. The coarser material after the siltstone is predominantly composed of small ~1-2mm mudstone rip-ups to larger 20 - 40mm siltstone/mudstone clasts. Other clasts are difficult to identify due to alteration, however, the rock does have a polymict look to it (this could be due to the poly-chromatic appearance of the rock though). This sequence does have the appearance of Rosebery Hanging wall Epiclastic sequence from around the 3200mN holes - albeit significantly more deformed and altered. Matrix in the coarser units typically contains weak to moderate disseminated Py alteration.	D1395439	0.0	0.0	0.0	0.06		4.8	
BS	GRY	SSH		brc												
V	GRY	VC		vc												
HW	GRY	VBX		brc				Dark grey to black, Cb-Py altered, volcanoclastic shale to siltstone. White Qz-Cb vein. Possibly in filled a fault as above the vein there is shale and below is epiclastics. Grey to pale brown, strongly Se-Cb altered, foliated, mudstone bearing volcanoclastic breccia. Similar epiclastics to those described as in 1737 to 1806m. Grey to pale yellow, strongly Se-Cb altered, silicified, foliated, volcanoclastic siltstone to sandstone. A series of thinly interbedded sandstone to siltstones. Some smaller intervals coarser enough to be a breccia.	D1395440	0.0	0.0	0.0	0.14		3.7	
HW	GRY	VSL		brc												
HW	GRY	VSL		brc					D1395441	0.0	0.0	0.0	0.14		3.4	
HW	GRY	VBX		brc				Pale yellow to grey, strong to intensely Se-Cb altered and silicified, foliated, mudstone clast bearing epiclastics. Se alteration appears to have picked up again.	D1395442	0.0	0.0	0.0	0.18		5.7	
HW	GRY	VBX		brc												
HW	GRY	VBX		brc												
HW	GRY	VSS		brc				Pale grey to yellow, strongly Se-Cb altered, fine to medium grained massive volcanoclastic sandstone. This is quite a massive and uniform textured rock. Arguably an aphanitic lava however, there are no obvious chilled margin contacts - more likely a sandstone unit. No obvious bedding. Small white Qz vein	D1395443	0.0	0.0	0.0	0.35		7.9	
V	GRY	VQ		vq												
HW	GRY	VSL		brc					Pale grey to yellow, moderate to strongly Se-Cb altered and silicified, fine grained massive volcanoclastic siltstone. Again as with the previous unit, possibly a felsic aphanitic lava, however, this is more likely a sandstone. Unit starts to grade up towards end of hole.							

Lithology Legend										Mineralisation		
▲ Andesite	■ Disseminated Sulphides	▨ Interbedded siltstone/shale	■ Not logged	■ Schist	■ Undifferentiated Volcanic	■ Background	■ Basalt	■ Dolomite	■ Interbedded VSS/VSL/VSM &	▲ Pyroclastic Breccia	■ See comments for full descrip	■ Undifferentiated Volcanoclastic
▲ Andesite Flow	■ Fault Zone	■ Intermediate flow	■ Quartz	■ Semi-massive Sulphides	■ Vein Carbonate	■ Elevated	■ Breccia - Undifferentiated	■ Feldspathic (ash) tuff	■ Intermediate Volcanoclastic	■ Quartz Carbonate Vein	■ Shale	■ Anomalous
■ Calcarenite	■ Feldspathic porphyry	■ Lapilli Tuff	■ Limestone	■ Quartz Feldspar Porphyry	■ Vein quartz	■ Strongly Anomalous	■ Chert	■ Felsic Flow	■ Limestone	■ Quartz Porphyry	■ Slate	■ Sub-Grade
■ Clay	■ Felsic tuff	■ Mafic Dyke	■ Lithic Tuff	■ Quartzite	■ Tuff Siltstone	■ Low-Grade	■ Crystal Tuff	■ Felsic Volcanoclastic	■ Rhyolite	■ Undifferentiated Black Shale	■ Volcanic Conglomerate	■ High-Grade
■ Dacite	■ Greywacke	■ Mafic Volcanoclastic	■ Rhyolite	■ Rhyolite Breccia	■ Undifferentiated Felsic Volcanic	■ Dacite Breccia	■ Hyaloclastite Breccia	■ Massive sulphide	■ Rhyolite Tuff	■ Undifferentiated Fluvio-glacial Sediment	■ Volcanic Sandstone	■ Dacite Flow
■ Dacite Breccia	■ Interbedded sandstone/shale	■ Mudstone	■ No Core Present	■ Sandstone	■ Undifferentiated Mafic Intrusive	■ Dacite Flow	■ Interbedded sandstone/siltsto	■ No Core Present	■ Sandstone	■ Undifferentiated Tuff	■ Volcanic Siltstone	■ Dacite Lapilli Tuff

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R



Project: ROS

Rosebery

Prospect: RMN

Rosebery Mine North

Northing: 5377807.9 mN
Easting: 379927.0 mE
RL: 434.5 mRL
CoordSys: MGA55 (GDA94)

Dip: -90.00
MAG_Azim: 241.00
Total Depth: 1858.1 m
DrillCompany: BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
HW	GRY	VSL		brc				Pale grey to yellow, moderate to strongly Se-Cb altered and silicified, fine grained massive volcanoclastic siltstone. Again as with the previous unit, possibly a felsic aphanitic lava, however, this is more likely a sandstone. Unit starts to grade up towards end of hole.	D1395444	0.2	0.1	0.0	7.46		4.9

<ul style="list-style-type: none"> ▲ Andesite ▲ Andesite Flow ▲ Basalt ▲ Breccia - Undifferentiated ▲ Calcarenite ▲ Chert ▲ Clay ▲ Crystal Tuff ▲ Dacite ▲ Dacite Breccia ▲ Dacite Flow ▲ Dacite Lapilli Tuff 	<ul style="list-style-type: none"> ■ Disseminated Sulphides ■ Dolomite ■ Fault Zone ■ Feldspathic (ash) tuff ■ Feldspathic porphyry ■ Felsic Flow ■ Felsic tuff ■ Felsic Volcanoclastic ○ Greywacke ○ Hyaloclastite Breccia ○ Interbedded sandstone/shale ○ Interbedded sandstone/siltsto 	<ul style="list-style-type: none"> ■ Interbedded siltstone/shale ■ Interbedded VSS/VSL/VSM & ■ Intermediate flow ■ Intermediate Volcanoclastic ■ Lapilli Tuff ■ Limestone ■ Lithic Tuff ■ Mafic Dyke ■ Mafic Volcanoclastic ■ Massive sulphide ■ Mudstone ■ No Core Present 	<ul style="list-style-type: none"> ■ Not logged ▲ Pyroclastic Breccia ■ Quartz ■ Quartz Carbonate Vein ■ Quartz Feldspar Porphyry ■ Quartz Porphyry ■ Quartzite ■ Rhyodacite ■ Rhyolite ■ Rhyolite Breccia ■ Rhyolite Tuff ■ Sandstone 	<ul style="list-style-type: none"> ■ Schist ■ See comments for full descrip ■ Semi-massive Sulphides ■ Shale ■ Siltstone ■ Slate ■ Tuff Siltstone ■ Undifferentiated Black Shale ■ Rhyolite ■ Undifferentiated Felsic Volcanic ■ Undifferentiated Fluvio-glacial Sediment ■ Undifferentiated Mafic Intrusive ■ Undifferentiated Tuff 	<ul style="list-style-type: none"> ■ Undifferentiated Volcanic ■ Undifferentiated Volcanoclastic ■ Vein Carbonate ■ Vein quartz ■ Volcanic Breccia ■ Volcanic Conglomerate ○ Volcanic Sandstone ○ Volcanic Siltstone 	<p>Mineralisation</p> <ul style="list-style-type: none"> ■ Background ■ Elevated ■ Anomalous ■ Strongly Anomalous ■ Sub-Grade ■ Low-Grade ■ High-Grade
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