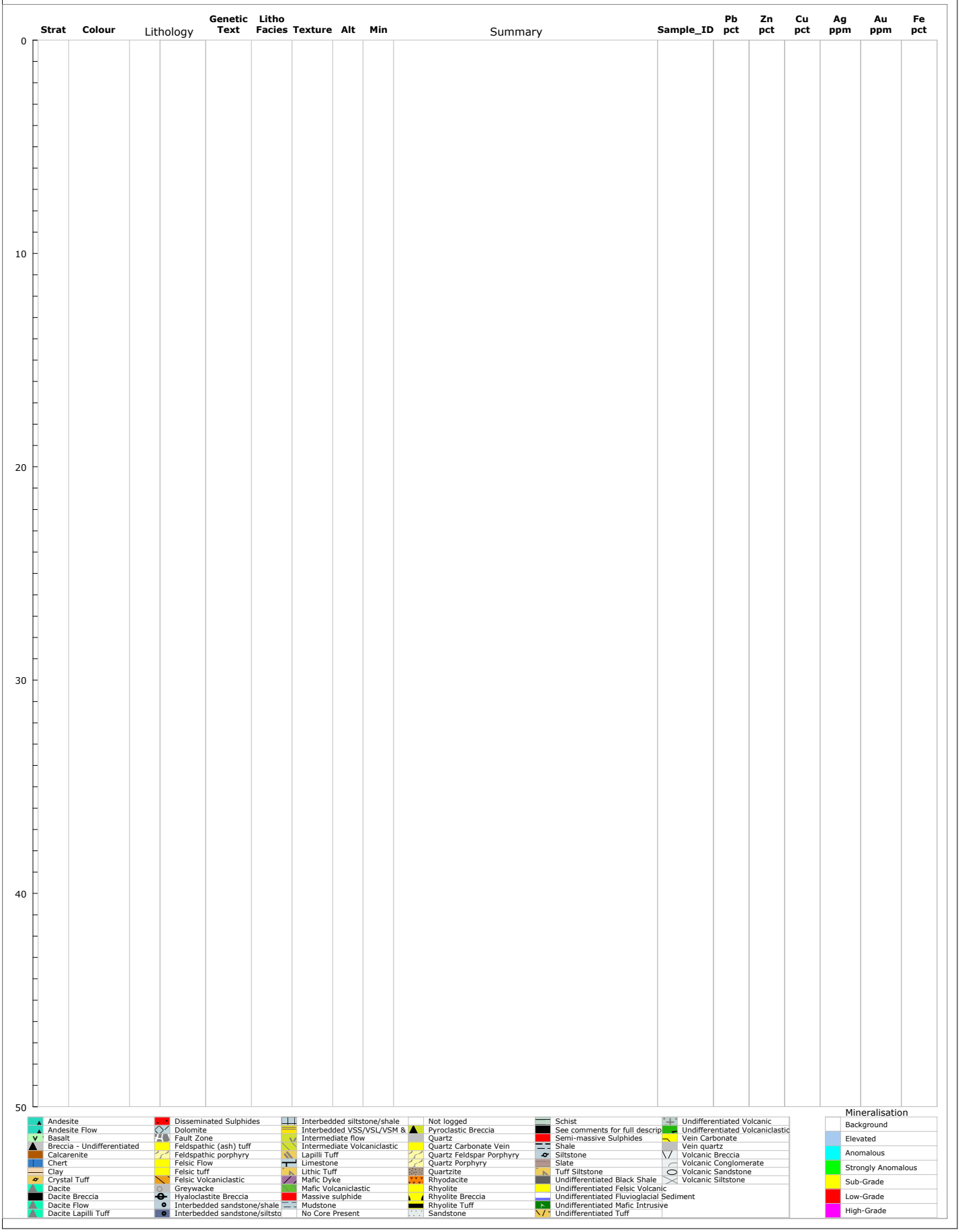
ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R-D2

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:**	1798.1 m
CoordSys:	MGA55 (GDA94)	**DrillCompany:**	BLY



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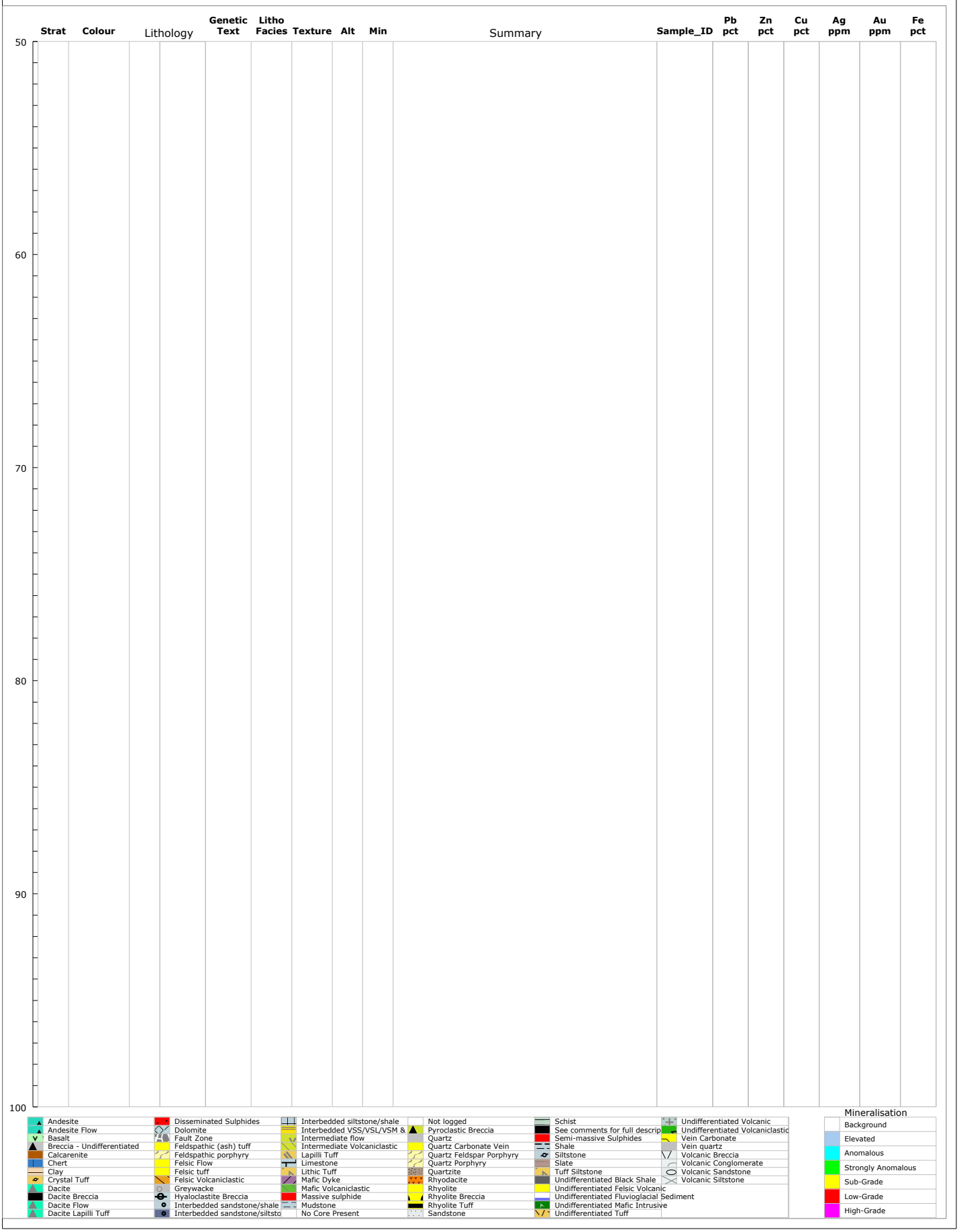

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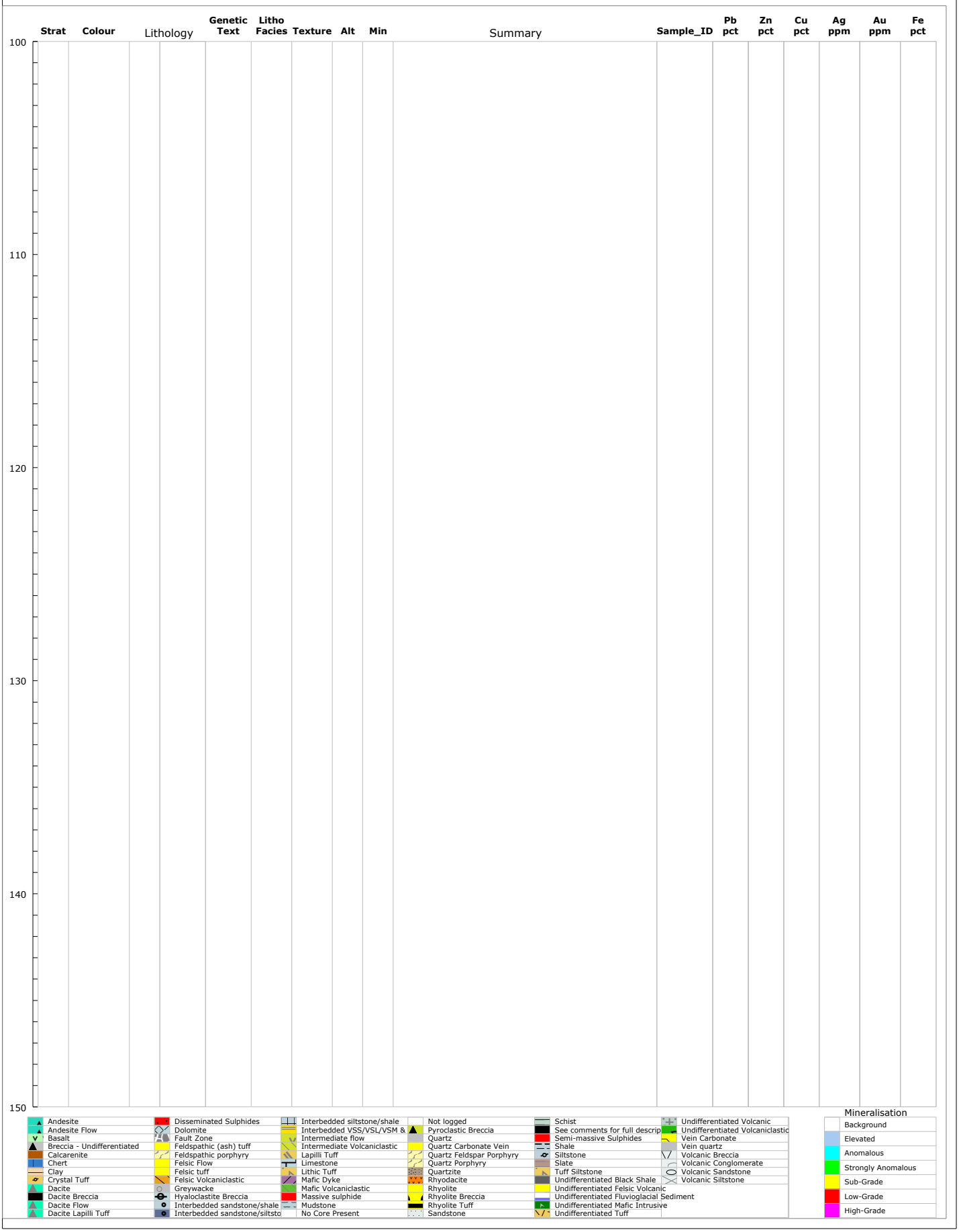

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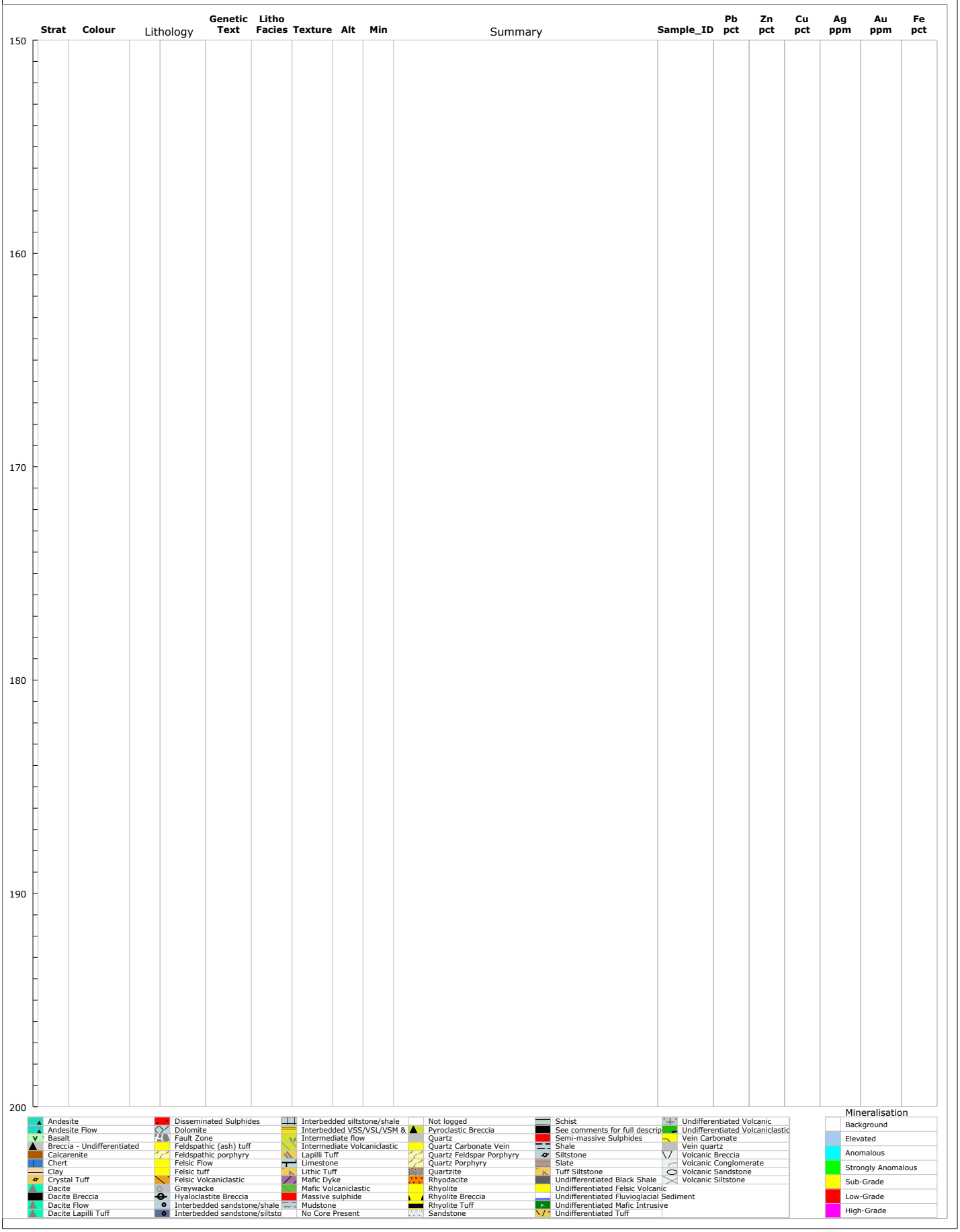

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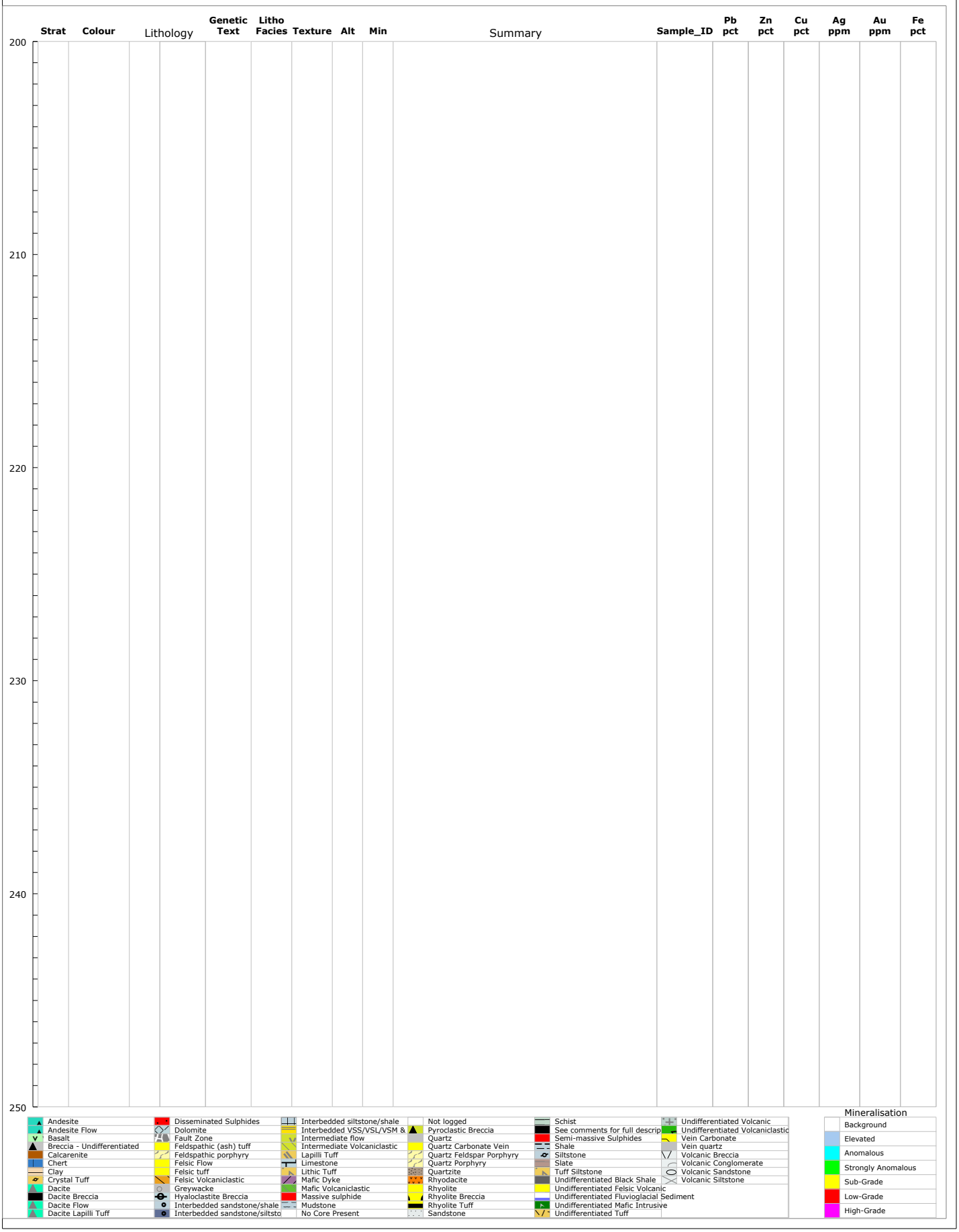

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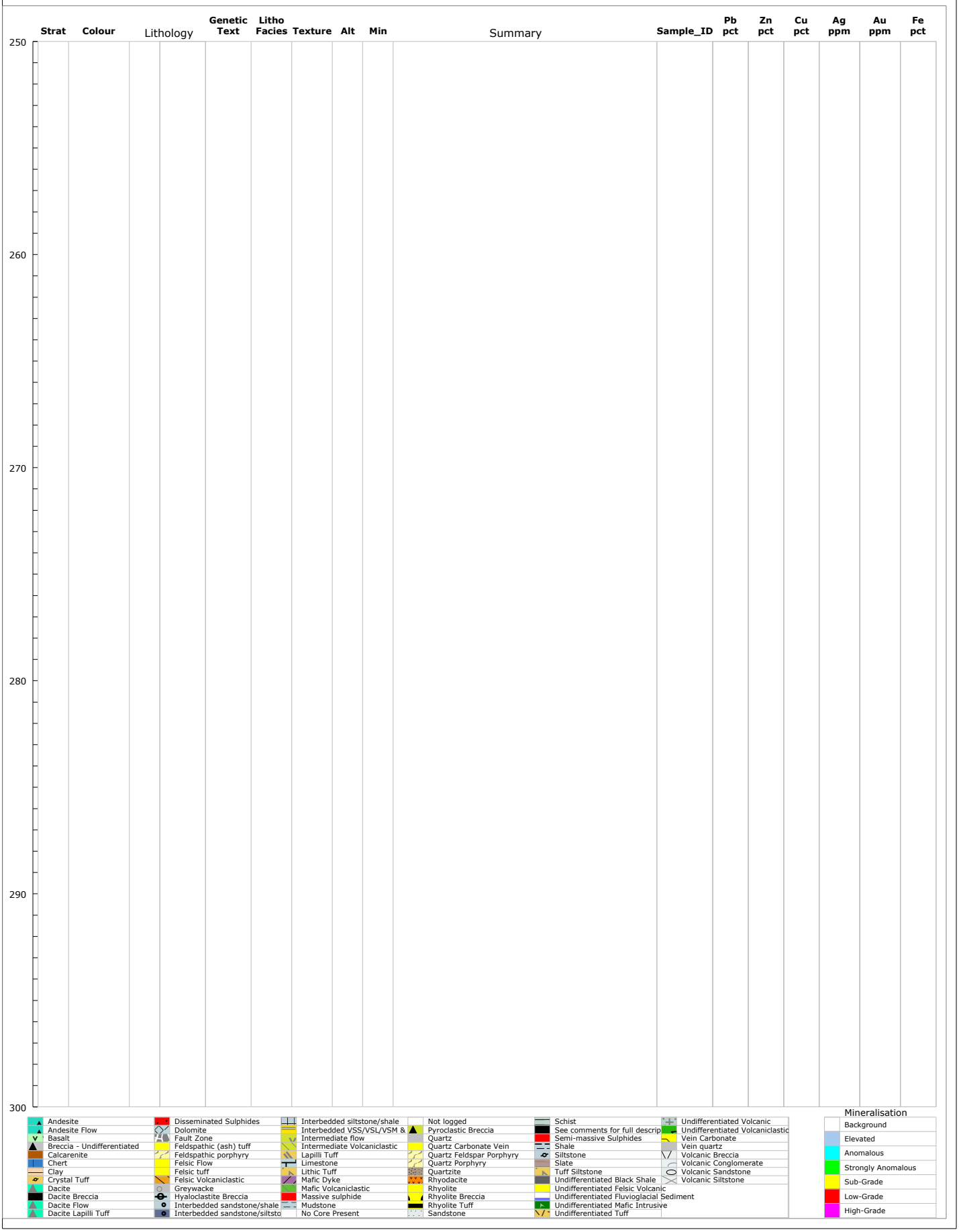

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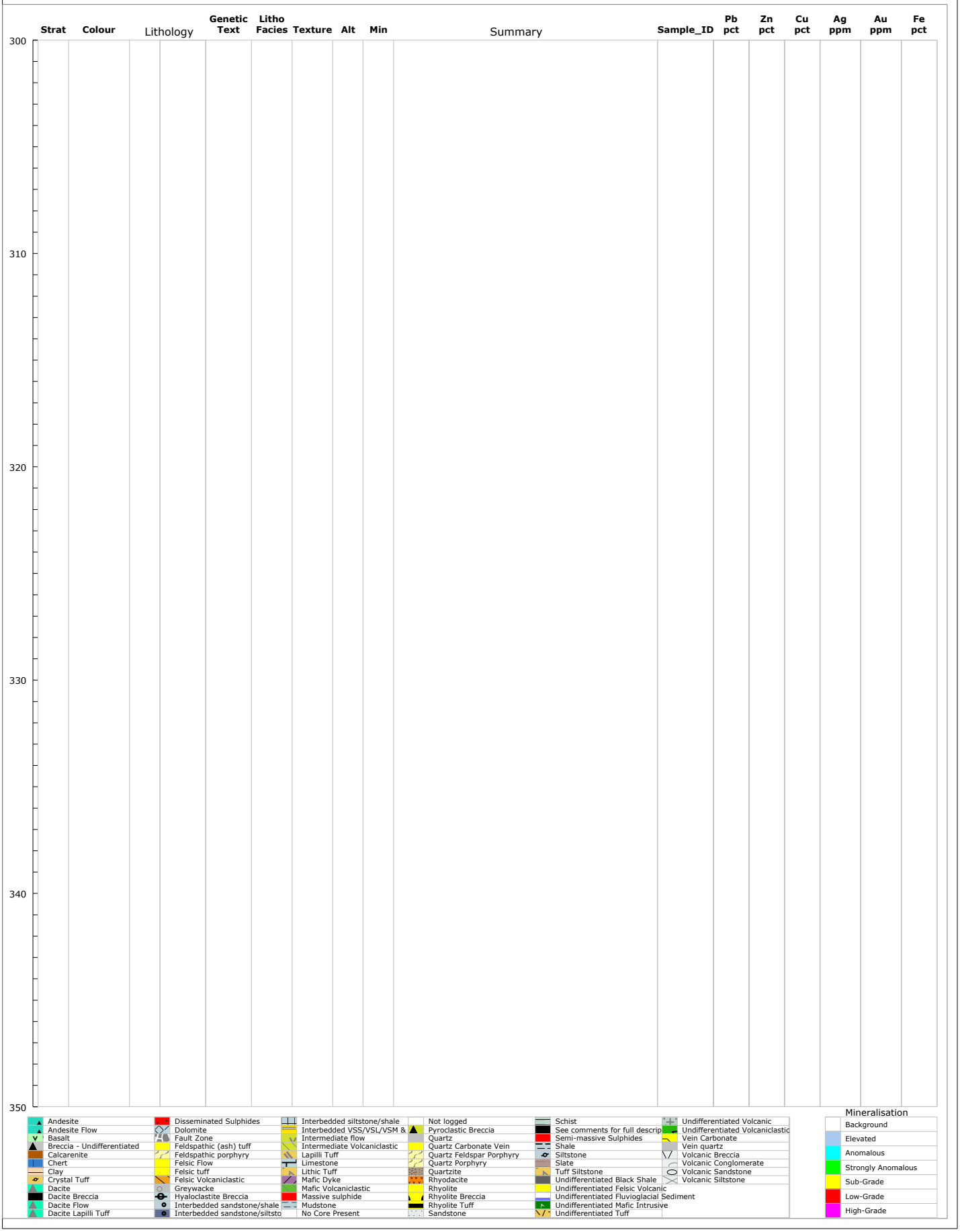

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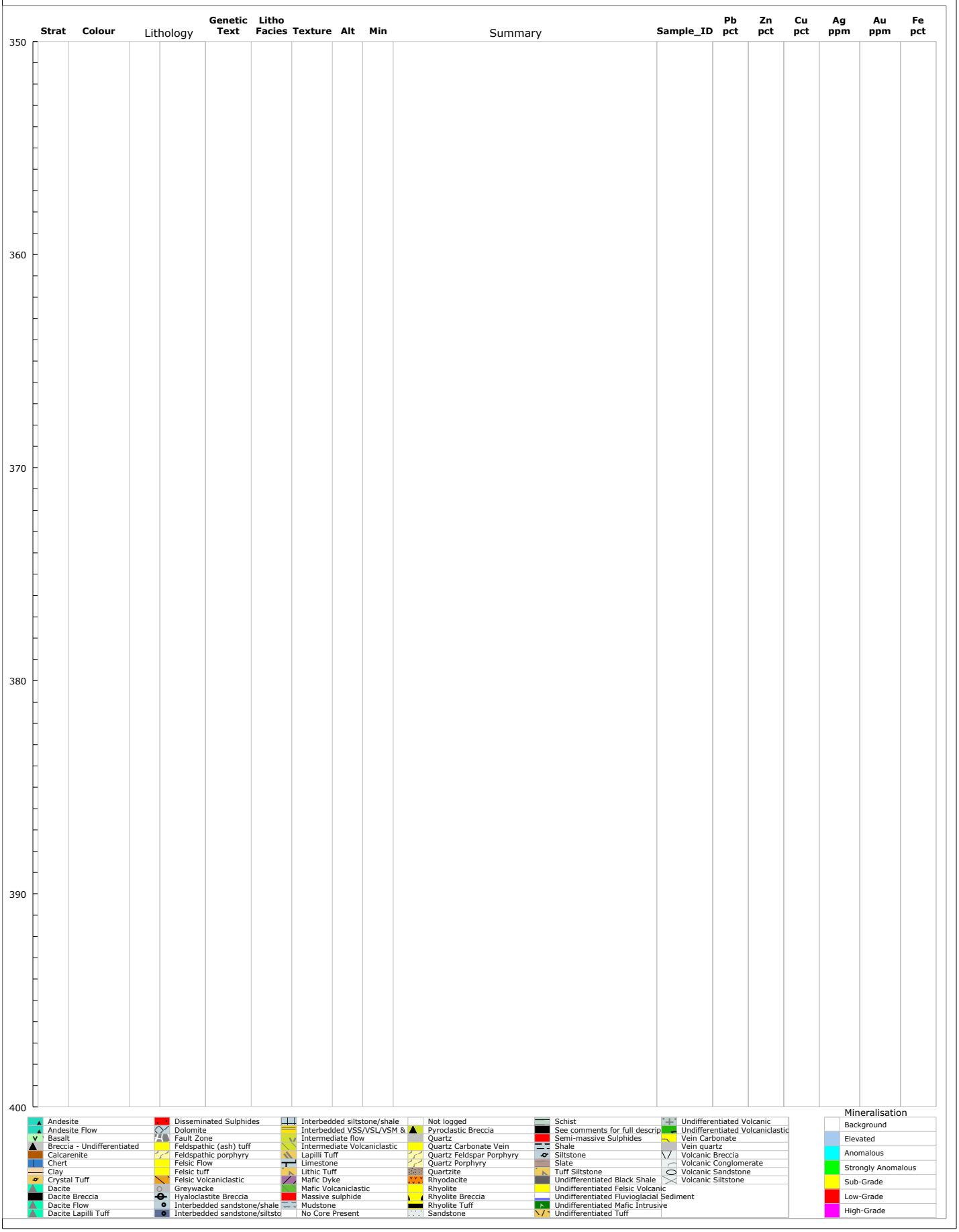

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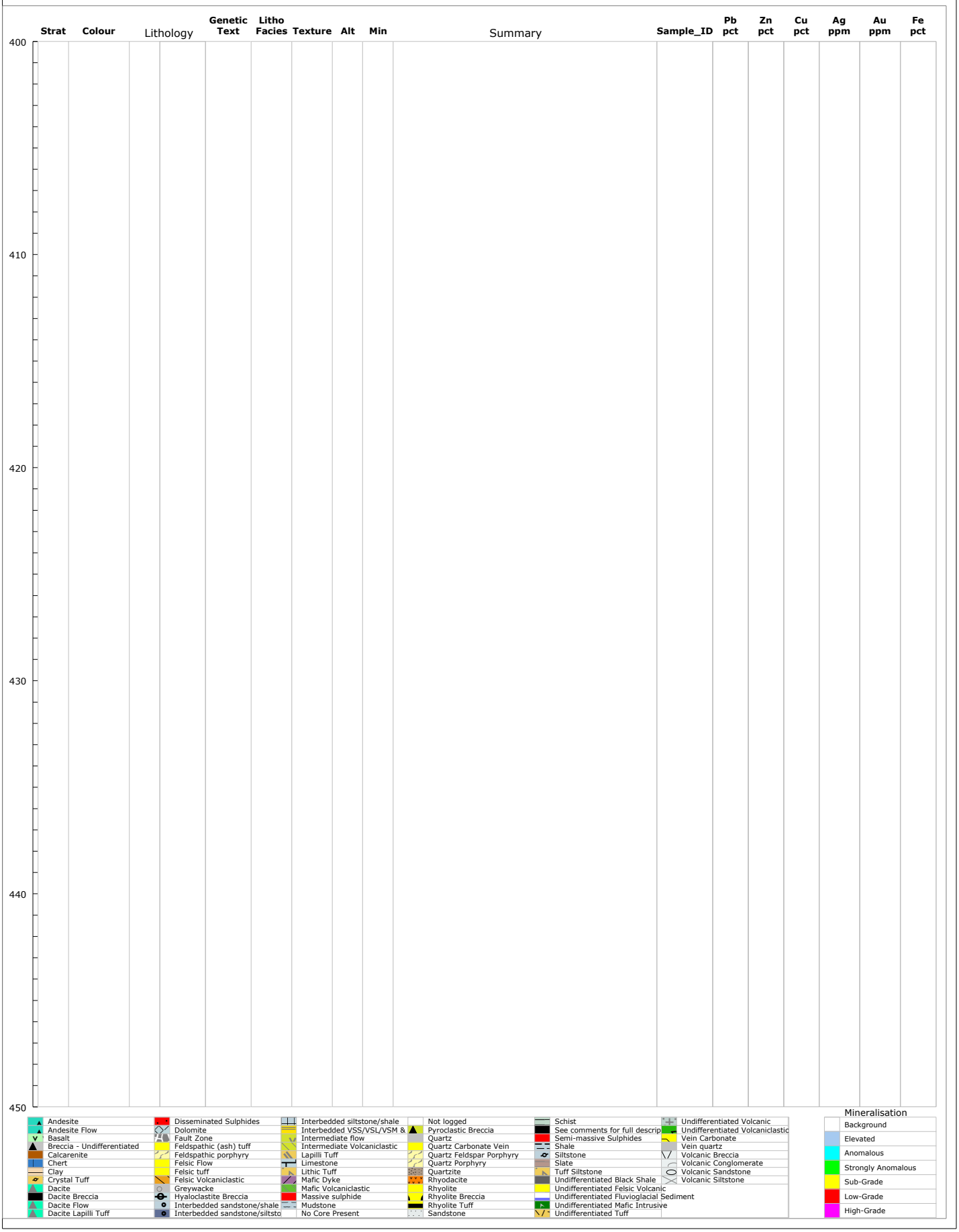

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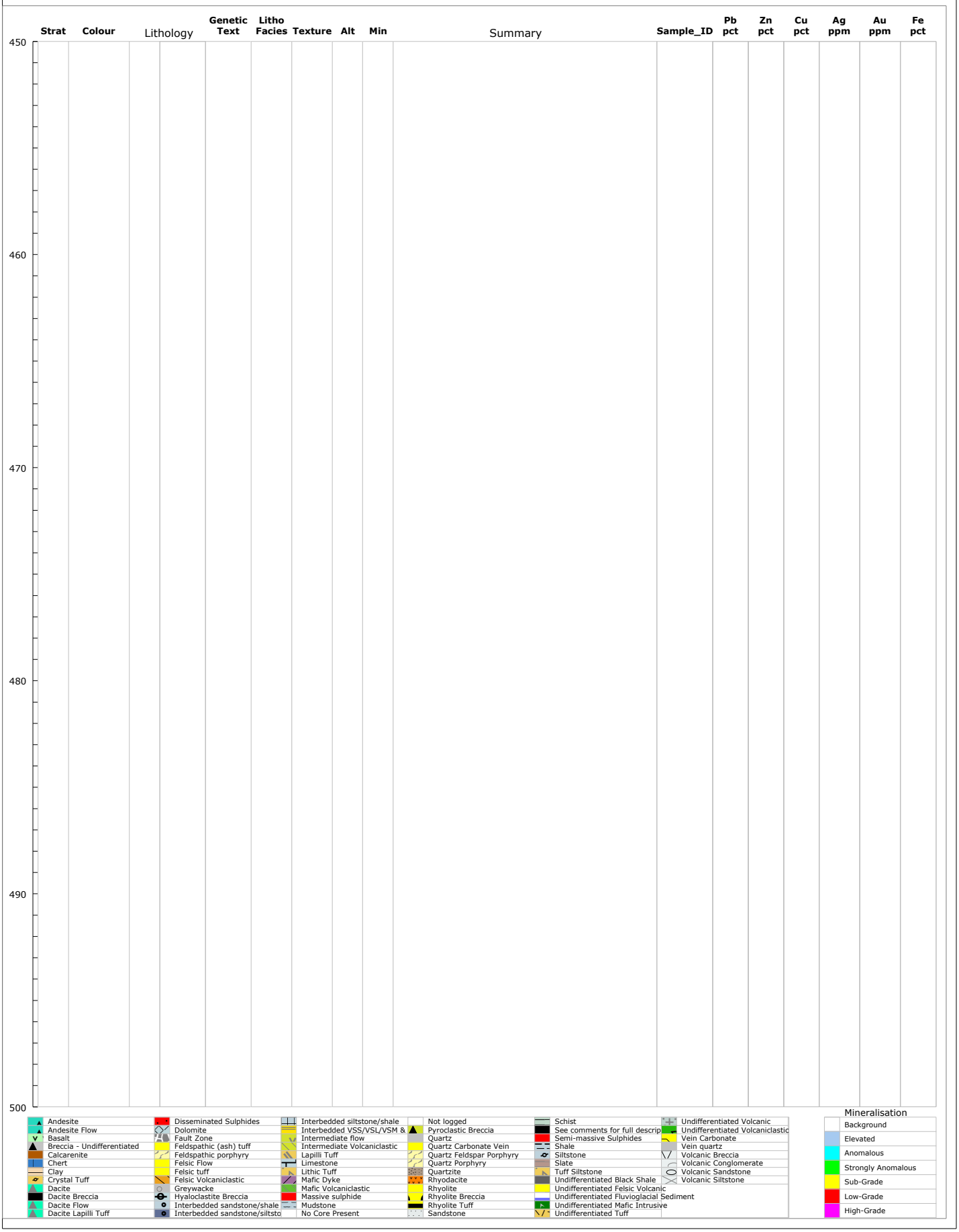

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Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
MBV	GRY	VDA	VolClas	brc				Wedging off, full core from 547.4							
MBV	GRY	VBX	VolClas	brc	pum	cl si		Felsic pumice bearing volcaniclastic breccia.							

500
510
520
530
540
550

Andesite
Andesite Flow
Basalt
Breccia - Undifferentiated
Calcarenite
Chert
Clay
Crystal Tuff
Dacite
Dacite Breccia
Dacite Flow
Dacite Lapilli Tuff
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
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
Not logged
Pyroclastic Breccia
Quartz
Quartz Carbonate Vein
Quartz Feldspar Porphyry
Quartz Porphyry
Quartzite
Rhyodacite
Rhyolite
Rhyolite Breccia
Rhyolite Tuff
Sandstone
Schist
See comments for full descrip
Semi-massive Sulphides
Shale
Siltstone
Slate
Tuff Siltstone
Undifferentiated Black Shale
Undifferentiated Felsic Volcanic
Undifferentiated Fluvioglacial Sediment
Undifferentiated Mafic Intrusive
Undifferentiated Tuff
Undifferentiated Volcanic
Undifferentiated Volcaniclastic
Vein Carbonate
Vein quartz
Volcanic Breccia
Volcanic Conglomerate
Volcanic Sandstone
Volcanic Siltstone

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

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MBV	GRY	VBX	VolClas	brc	pum	cl si		Felsic pumice bearing volcaniclastic breccia.							
MBV	WHT-GRY	VBX	VolClas	brc	cbn	cb qt		Zone of pervasive Cb-Qz "flooding".							
MBV	GRY	VBX	VolClas	brc	pum	cl cb		Felsic pumice bearing volcaniclastic breccia							
MBV	GRY	FTZ	Clay	ftz	pum	cl		Small fault with a 3cm band of puggy material. Does not appear to be a significant fault. 30 degrees to LCA							
MBV	GRY	VBX	VolClas	brc				Felsic volcaniclastic, includes a 2m dyke.							
MBV	WHT	VBX	VolClas	brc	cbn	cb qt		Another intense zone of Cb-Qz "flooding"							

550 560 570 580 590 600

Andesite, Andesite Flow, Basalt, Breccia - Undifferentiated, Calcarenite, Chert, Clay, Crystal Tuff, Dacite, Dacite Breccia, Dacite Flow, Dacite Lapilli Tuff

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

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

Not logged, Pyroclastic Breccia, Quartz, Quartz Carbonate Vein, Quartz Feldspar Porphyry, Quartz Porphyry, Quartzite, Rhyodacite, Rhyolite, Rhyolite Breccia, Rhyolite Tuff, Sandstone

Schist, See comments for full descrip, Semi-massive Sulphides, Shale, Siltstone, Slate, Tuff Siltstone, Undifferentiated Black Shale, Undifferentiated Felsic Volcanic, Undifferentiated Fluvioglacial Sediment, Undifferentiated Mafic Intrusive, Undifferentiated Tuff

Undifferentiated Volcanic, Undifferentiated Volcaniclastic, Vein Carbonate, Vein quartz, Volcanic Breccia, Volcanic Conglomerate, Volcanic Sandstone, Volcanic Siltstone

Mineralisation

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

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MBV	WHT	VBX	VolClas	brc	cbn	cb		Another intense zone of Cb-Qz "flooding"							
MBV	GRY	VBX	VolClas	brc	pum	qt		Dacitic to rhyolitic volcaniclastic breccia with common pumice. Individual mass flow units are typical graded and are composed of rhyodacite clasts, feldspar lithics and pumiceous material.							
						si									
						cl									

600
610
620
630
640
650

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

Mineralisation
Background
Elevated
Anomalous
Strongly Anomalous
Sub-Grade
Low-Grade
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650 660 670 680 690 700

Andesite
Andesite Flow
Basalt
Breccia - Undifferentiated
Calcarenite
Chert
Clay
Crystal Tuff
Dacite
Dacite Breccia
Dacite Flow
Dacite Lapilli Tuff
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
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
Not logged
Pyroclastic Breccia
Quartz
Quartz Carbonate Vein
Quartz Feldspar Porphyry
Quartz Porphyry
Quartzite
Rhyodacite
Rhyolite
Rhyolite Breccia
Rhyolite Tuff
Sandstone
Schist
See comments for full descrip
Semi-massive Sulphides
Shale
Siltstone
Slate
Tuff Siltstone
Undifferentiated Black Shale
Undifferentiated Felsic Volcanic
Undifferentiated Fluvioglacial Sediment
Undifferentiated Mafic Intrusive
Undifferentiated Tuff
Undifferentiated Volcanic
Undifferentiated Volcaniclastic
Vein Carbonate
Vein quartz
Volcanic Breccia
Volcanic Conglomerate
Volcanic Sandstone
Volcanic Siltstone

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700
710
720
730
740
750

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Andesite Flow
Basalt
Breccia - Undifferentiated
Calcarenite
Chert
Clay
Crystal Tuff
Dacite
Dacite Breccia
Dacite Flow
Dacite Lapilli Tuff
Disseminated Sulphides
Dolomite
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Feldspathic porphyry
Felsic Flow
Felsic tuff
Felsic Volcaniclastic
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Intermediate Volcaniclastic
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Limestone
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Mafic Dyke
Mafic Volcaniclastic
Massive sulphide
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Undifferentiated Mafic Intrusive
Undifferentiated Tuff
Undifferentiated Volcanic
Undifferentiated Volcaniclastic
Vein Carbonate
Vein quartz
Volcanic Breccia
Volcanic Conglomerate
Volcanic Sandstone
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750 760 770 780 790 800

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Andesite Flow
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Breccia - Undifferentiated
Calcarenite
Chert
Clay
Crystal Tuff
Dacite
Dacite Breccia
Dacite Flow
Dacite Lapilli Tuff
Disseminated Sulphides
Dolomite
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Feldspathic (ash) tuff
Feldspathic porphyry
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Felsic tuff
Felsic Volcaniclastic
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Intermediate Volcaniclastic
Lapilli Tuff
Limestone
Lithic Tuff
Mafic Dyke
Mafic Volcaniclastic
Massive sulphide
Mudstone
No Core Present
Not logged
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Quartz
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Quartz Porphyry
Quartzite
Rhyodacite
Rhyolite
Rhyolite Breccia
Rhyolite Tuff
Sandstone
Schist
See comments for full descrip
Semi-massive Sulphides
Shale
Siltstone
Slate
Tuff Siltstone
Undifferentiated Black Shale
Undifferentiated Felsic Volcanic
Undifferentiated Fluvioglacial Sediment
Undifferentiated Mafic Intrusive
Undifferentiated Tuff
Undifferentiated Volcanic
Undifferentiated Volcaniclastic
Vein Carbonate
Vein quartz
Volcanic Breccia
Volcanic Conglomerate
Volcanic Sandstone
Volcanic Siltstone

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MBV	GRY	VBX	VolClas	brc	pum	si cl		Dacitic to rhyolitic volcaniclastic breccia with common pumice. Individual mass flow units are typical graded and are composed of rhyodacite clasts, feldspar lithics and pumiceous material.							
MBV	WHT-GRY	VBX	VolClas	brc	cbn	cb qt		Another Cb zone, however, not as intense as previous intervals.							
MBV	GRY	VBX	VolClas	brc	pum fph	cb cl		Felsic volcaniclastic breccia, containg common feldspar lithics and pumiceous material. Moderately sorted and matrix supported.							

800 810 820 830 840 850

Andesite
Andesite Flow
Basalt
Breccia - Undifferentiated
Calcarenite
Chert
Clay
Crystal Tuff
Dacite
Dacite Breccia
Dacite Flow
Dacite Lapilli Tuff
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
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
Not logged
Pyroclastic Breccia
Quartz
Quartz Carbonate Vein
Quartz Feldspar Porphyry
Quartz Porphyry
Quartzite
Rhyodacite
Rhyolite
Rhyolite Breccia
Rhyolite Tuff
Sandstone
Schist
See comments for full descrip
Semi-massive Sulphides
Shale
Siltstone
Slate
Tuff Siltstone
Undifferentiated Black Shale
Undifferentiated Felsic Volcanic
Undifferentiated Fluvioglacial Sediment
Undifferentiated Mafic Intrusive
Undifferentiated Tuff
Undifferentiated Volcanic
Undifferentiated Volcaniclastic
Vein Carbonate
Vein quartz
Volcanic Breccia
Volcanic Conglomerate
Volcanic Sandstone
Volcanic Siltstone

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

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R-D2

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:**	1798.1 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
MBV	GRY	VBX	VolClas	brc	pum fph	cb cl		Felsic volcaniclastic breccia, containg common feldspar lithics and pumiceous material. Moderately sorted and matrix supported.							
MBV	GRY	VRD	Extrusv	mas	aph	si cb		Dacitic to rhyolitic coherent lava. Varies from Qz phenocryst bearing to aphanitic. Common 2-10mm Cb veins. Occasional cross cutting mafic dykes.							

850 860 870 880 890 900

Andesite, Andesite Flow, Basalt, Breccia - Undifferentiated, Calcarenite, Chert, Clay, Crystal Tuff, Dacite, Dacite Breccia, Dacite Flow, Dacite Lapilli Tuff, 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, 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, Not logged, Pyroclastic Breccia, Quartz, Quartz Carbonate Vein, Quartz Feldspar Porphyry, Quartz Porphyry, Quartzite, Rhyodacite, Rhyolite, Rhyolite Breccia, Rhyolite Tuff, Sandstone, Schist, See comments for full descrip, Semi-massive Sulphides, Shale, Siltstone, Slate, Tuff Siltstone, Undifferentiated Black Shale, Undifferentiated Felsic Volcanic, Undifferentiated Fluvioglacial Sediment, Undifferentiated Mafic Intrusive, Undifferentiated Tuff, Undifferentiated Volcanic, Undifferentiated Volcaniclastic, Vein Carbonate, Vein quartz, Volcanic Breccia, Volcanic Conglomerate, Volcanic Sandstone, Volcanic Siltstone

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

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R-D2

Project: ROS Rosebery

Prospect: RMN Rosebery Mine North

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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	VRD	Extrusv	mas	aph	si cb		Dacitic to rhyolitic coherent lava. Varies from Qz phenocryst bearing to aphanitic. Common 2-10mm Cb veins. Occasional cross cutting mafic dykes.							

900
910
920
930
940
950

Andesite
Andesite Flow
Basalt
Breccia - Undifferentiated
Calcarenite
Chert
Clay
Crystal Tuff
Dacite
Dacite Breccia
Dacite Flow
Dacite Lapilli Tuff
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
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
Not logged
Pyroclastic Breccia
Quartz
Quartz Carbonate Vein
Quartz Feldspar Porphyry
Quartz Porphyry
Quartzite
Rhyodacite
Rhyolite
Rhyolite Breccia
Rhyolite Tuff
Sandstone
Schist
See comments for full descrip
Semi-massive Sulphides
Shale
Siltstone
Slate
Tuff Siltstone
Undifferentiated Black Shale
Undifferentiated Felsic Volcanic
Undifferentiated Fluvioglacial Sediment
Undifferentiated Mafic Intrusive
Undifferentiated Tuff
Undifferentiated Volcanic
Undifferentiated Volcaniclastic
Vein Carbonate
Vein quartz
Volcanic Breccia
Volcanic Conglomerate
Volcanic Sandstone
Volcanic Siltstone

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

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R-D2

Project: ROS Rosebery

Prospect: RMN Rosebery Mine North

Northing:	5377807.9 mN	**Dip:**	-90.00
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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	VRD	Extrusv	mas	aph	si cb		Dacitic to rhyolitic coherent lava. Varies from Qz phenocryst bearing to aphanitic. Common 2-10mm Cb veins. Occasional cross cutting mafic dykes.							

950 960 970 980 990 1000

Andesite
Andesite Flow
Basalt
Breccia - Undifferentiated
Calcarenite
Chert
Clay
Crystal Tuff
Dacite
Dacite Breccia
Dacite Flow
Dacite Lapilli Tuff
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
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
Not logged
Pyroclastic Breccia
Quartz
Quartz Carbonate Vein
Quartz Feldspar Porphyry
Quartz Porphyry
Quartzite
Rhyodacite
Rhyolite
Rhyolite Breccia
Rhyolite Tuff
Sandstone
Schist
See comments for full descrip
Semi-massive Sulphides
Shale
Siltstone
Slate
Tuff Siltstone
Undifferentiated Black Shale
Undifferentiated Felsic Volcanic
Undifferentiated Fluvioglacial Sediment
Undifferentiated Mafic Intrusive
Undifferentiated Tuff
Undifferentiated Volcanic
Undifferentiated Volcaniclastic
Vein Carbonate
Vein quartz
Volcanic Breccia
Volcanic Conglomerate
Volcanic Sandstone
Volcanic Siltstone

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

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R-D2

Project: ROS Rosebery

Prospect: RMN Rosebery Mine North

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CoordSys:	MGA55 (GDA94)	**DrillCompany:**	BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary
MBV	GRY	VRD	Extrusv	mas	aph	si cb		Dacitic to rhyolitic coherent lava. Varies from Qz phenocryst bearing to aphanitic. Common 2-10mm Cb veins. Occasional cross cutting mafic dykes.
DK	GRN	IMK	Intrusv			cl cb		Large, green mafic dyke with common irregular Cb veining.

Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct

1000 1010 1020 1030 1040 1050

Andesite
Andesite Flow
Basalt
Breccia - Undifferentiated
Calcarenite
Chert
Clay
Crystal Tuff
Dacite
Dacite Breccia
Dacite Flow
Dacite Lapilli Tuff
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
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
Not logged
Pyroclastic Breccia
Quartz
Quartz Carbonate Vein
Quartz Feldspar Porphyry
Quartz Porphyry
Quartzite
Rhyodacite
Rhyolite
Rhyolite Breccia
Rhyolite Tuff
Sandstone
Schist
See comments for full descrip
Semi-massive Sulphides
Shale
Slate
Tuff Siltstone
Undifferentiated Black Shale
Undifferentiated Felsic Volcanic
Undifferentiated Fluvioglacial Sediment
Undifferentiated Mafic Intrusive
Undifferentiated Tuff
Undifferentiated Volcanic
Undifferentiated Volcaniclastic
Vein Carbonate
Vein quartz
Volcanic Breccia
Volcanic Conglomerate
Volcanic Sandstone
Volcanic Siltstone

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

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R-D2

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:**	1798.1 m
CoordSys:	MGA55 (GDA94)	**DrillCompany:**	BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary
DK	GRN	IMK	Intrusv			cl cb		Large, green mafic dyke with common irregular Cb veining.
MBV	GRY-GRN	VRD	Extrusv		aph	cl si		Predominantly aphanitic dacite lava with small zones of breccia. Strong alteration due to overlying dyke and also increasing towards the Mt Black Fault.

Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
D1395292	0.0	0.0	0.0	0.03		7.6
D1395293	0.0	0.0	0.0	0.01		5.8
D1395294	0.0	0.0	0.0	0.08		7.2
D1395295	0.0	0.0	0.0	-0.01		2.7

1050 1060 1070 1080 1090 1100

Andesite, Andesite Flow, Basalt, Breccia - Undifferentiated, Calcarenite, Chert, Clay, Crystal Tuff, Dacite, Dacite Breccia, Dacite Flow, Dacite Lapilli Tuff

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

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

Not logged, Pyroclastic Breccia, Quartz, Quartz Carbonate Vein, Quartz Feldspar Porphyry, Quartz Porphyry, Quartzite, Rhyodacite, Rhyolite, Rhyolite Breccia, Rhyolite Tuff, Sandstone

Schist, See comments for full descrip, Semi-massive Sulphides, Shale, Siltstone, Slate, Tuff Siltstone, Undifferentiated Black Shale, Undifferentiated Felsic Volcanic, Undifferentiated Fluvioglacial Sediment, Undifferentiated Mafic Intrusive, Undifferentiated Tuff

Undifferentiated Volcanic, Undifferentiated Volcaniclastic, Vein Carbonate, Vein quartz, Volcanic Breccia, Volcanic Conglomerate, Volcanic Sandstone, Volcanic Siltstone

Mineralisation

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

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R-D2

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:**	1798.1 m
CoordSys:	MGA55 (GDA94)	**DrillCompany:**	BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary
MBV	GRY-GRN	VRD	Extrusv		aph	cl si		Predominantly aphanitic dacite lava with small zones of breccia. Strong alteration due to overlying dyke and also increasing towards the Mt Black Fault.

Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
D1395296	0.0	0.0	0.0	-0.01		2.3
D1395297	0.0	0.0	0.0	0.14		3.5
D1395298	0.0	0.0	0.0	-0.01		1.4
D1395299	0.2	0.1	0.0	4.86		5.3
D1395301	0.0	0.0	0.0	0.02		3.2

1100 1110 1120 1130 1140 1150

Andesite
Andesite Flow
Basalt
Breccia - Undifferentiated
Calcarenite
Chert
Clay
Crystal Tuff
Dacite
Dacite Breccia
Dacite Flow
Dacite Lapilli Tuff
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
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
Not logged
Pyroclastic Breccia
Quartz
Quartz Carbonate Vein
Quartz Feldspar Porphyry
Quartz Porphyry
Quartzite
Rhyodacite
Rhyolite
Rhyolite Breccia
Rhyolite Tuff
Sandstone
Schist
See comments for full descrip
Semi-massive Sulphides
Shale
Siltstone
Slate
Tuff Siltstone
Undifferentiated Black Shale
Undifferentiated Felsic Volcanic
Undifferentiated Fluvioglacial Sediment
Undifferentiated Mafic Intrusive
Undifferentiated Tuff
Undifferentiated Volcanic
Undifferentiated Volcaniclastic
Vein Carbonate
Vein quartz
Volcanic Breccia
Volcanic Conglomerate
Volcanic Sandstone
Volcanic Siltstone

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

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R-D2

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:**	1798.1 m
CoordSys:	MGA55 (GDA94)	**DrillCompany:**	BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary
MBV	GRY-GRN	VRD	Extrusv		aph	cl si		Predominantly aphanitic dacite lava with small zones of breccia. Strong alteration due to overlying dyke and also increasing towards the Mt Black Fault.
FTZ	BUF-GRY	FTZ	Clastic	ftz	fol	se cb		Mt Black Fault zone. Composed of fully competent core, however, there is a strong foliation through the rock with streaky Se alteration.
HW	BUF-GRN	VCF	VolClas	brc	qph pol	cl se		Strongly Se-Cl altered and silicified Qz crystals rich volcaniclastic breccia. Alteration is marked within this interval, with the Cl commonly in veinlets and the matrix, with the Se occuring in wisps and bands. Qz crystals and sub-angular to sub-raounded and 1-10mm in size. Other clasts are present (polymict) however, they are either rare or overprinted by alteration. These are generally silstone/mudstone clasts.

Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
D1395302	0.0	0.0	0.0	0.15		1.2
D1395303	0.0	0.0	0.0	-0.01		1.6
D1395304	0.1	0.1	0.0	1.71		1.7
D1395305	0.0	0.1	0.0	0.25		2.3
D1395306	0.0	0.0	0.0	0.03		1.8

1150 1160 1170 1180 1190 1200

Andesite, Andesite Flow, Basalt, Breccia - Undifferentiated, Calcarenite, Chert, Clay, Crystal Tuff, Dacite, Dacite Breccia, Dacite Flow, Dacite Lapilli Tuff

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

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

Not logged, Pyroclastic Breccia, Quartz, Quartz Carbonate Vein, Quartz Feldspar Porphyry, Quartz Porphyry, Quartzite, Rhyodacite, Rhyolite, Rhyolite Breccia, Rhyolite Tuff, Sandstone

Schist, See comments for full descrip, Semi-massive Sulphides, Shale, Siltstone, Slate, Tuff Siltstone, Undifferentiated Black Shale, Undifferentiated Felsic Volcanic, Undifferentiated Fluvioglacial Sediment, Undifferentiated Mafic Intrusive, Undifferentiated Tuff

Undifferentiated Volcanic, Undifferentiated Volcaniclastic, Vein Carbonate, Vein quartz, Volcanic Breccia, Volcanic Conglomerate, Volcanic Sandstone, Volcanic Siltstone

Mineralisation

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

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R-D2

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:**	1798.1 m
CoordSys:	MGA55 (GDA94)	**DrillCompany:**	BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary
HW	BUF-GRN	VCF	VolClas	brc	qph pol	cl se		Strongly Se-Cl altered and silicified Qz crystals rich volcaniclastic breccia. Alteration is marked within this interval, with the Cl commonly in veinlets and the matrix, with the Se occuring in wisps and bands. Qz crystals and sub-angular to sub-raounded and 1-10mm in size. Other clasts are present (polymict) however, they are either rare or overprinted by alteration. These are generally silstone/mudstone clasts.
HW	GRY-GRN	VCF	VolClas	brc	fph	cl si		Feldspar crystal rich volcaniclastic (or arguably a feldspar phyric lava but no obvious chilled margins etc). Rare to no Qz crystals present now, a definite change in lithology here although the contact is somewhat ambiguous.
HW	GRY	VSS	VolClas		san	se si		Sandy to ashy volcaniclastic with shale rip ups.
HW	GRY-BLK	SSH	Clastic		slt	cb		Shale to fine silstone with common irregular to planar 1-3mm Cb veins.
HW	GRN-GRY	VBX	VolClas	brc	qfp pol	cl si		Moderately sorted Fd>>Qz crystal bearing volcaniclastic breccia. Chlorite alteration makes identifying crystals difficult but appears to be more Fd dominant. This is one comformably graded unit from the begining of the shale/silstone.

Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
D1395307	0.0	0.0	0.0	0.01		1.6
D1395308	0.0	0.0	0.0	0.16		3.1
D1395309	0.0	0.0	0.0	0.03		1.7
D1395310	0.0	0.0	0.0	0.13		2.3
D1395311	0.0	0.0	0.0	0.23		2.6

Andesite, Andesite Flow, Basalt, Breccia - Undifferentiated, Calcarenite, Chert, Clay, Crystal Tuff, Dacite, Dacite Breccia, Dacite Flow, Dacite Lapilli Tuff

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

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

Not logged, Pyroclastic Breccia, Quartz, Quartz Carbonate Vein, Quartz Feldspar Porphyry, Quartz Porphyry, Quartzite, Rhyodacite, Rhyolite, Rhyolite Breccia, Rhyolite Tuff, Sandstone

Schist, See comments for full descrip, Semi-massive Sulphides, Shale, Siltstone, Slate, Tuff Siltstone, Undifferentiated Black Shale, Undifferentiated Felsic Volcanic, Undifferentiated Fluvioglacial Sediment, Undifferentiated Mafic Intrusive, Undifferentiated Tuff

Undifferentiated Volcanic, Undifferentiated Volcaniclastic, Vein Carbonate, Vein quartz, Volcanic Breccia, Volcanic Conglomerate, Volcanic Sandstone, Volcanic Siltstone

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

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R-D2

Project: ROS Rosebery

Prospect: RMN Rosebery Mine North

Northing:	5377807.9 mN	**Dip:**	-90.00
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CoordSys:	MGA55 (GDA94)	**DrillCompany:**	BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary
HW	GRN-GRY	VBX	VolClas	brc	qfp pol	cl si		Moderately sorted Fd>>Qz crystal bearing volcaniclastic breccia. Chlorite alteration makes identifying crystals difficult but appears to be more Fd dominant. This is one comformably graded unit from the begining of the shale/silstone.
HW	GRY-GRN	VBX	VolClas	brc	qfp pol	cl si		Fine volcaniclastic silstone which grades into a Qz-Fd rich volcaniclastic breccia. The breccia is poor to moderately sorted with occasional larger 10-30mm silstone clasts.
						qt cb		Calcite vein or a strongly silicified volcaniclastic?
HW	WHT	QCV		vc	slt	cb		Silstone to borderline shale with occasional pumice floats shale rip ups
HW	GRY-BUF	VSL	VolClas	itb	pum	si		

Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
D1395312	0.0	0.0	0.0	0.09		2.9
D1395313	0.0	0.0	0.0	0.04		2.9
D1395314	0.0	0.0	0.0	0.09		3.1
D1395315	0.0	0.0	0.0	0.02		0.9
D1395316	0.0	0.0	0.0	0.03		1.9

Andesite, Andesite Flow, Basalt, Breccia - Undifferentiated, Calcarenite, Chert, Clay, Crystal Tuff, Dacite, Dacite Breccia, Dacite Flow, Dacite Lapilli Tuff

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

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

Not logged, Pyroclastic Breccia, Quartz, Quartz Carbonate Vein, Quartz Feldspar Porphyry, Quartz Porphyry, Quartzite, Rhyodacite, Rhyolite, Rhyolite Breccia, Rhyolite Tuff, Sandstone

Schist, See comments for full descrip, Semi-massive Sulphides, Shale, Siltstone, Slate, Tuff Siltstone, Undifferentiated Black Shale, Undifferentiated Felsic Volcanic, Undifferentiated Fluvioglacial Sediment, Undifferentiated Mafic Intrusive, Undifferentiated Tuff

Undifferentiated Volcanic, Undifferentiated Volcaniclastic, Vein Carbonate, Vein quartz, Volcanic Breccia, Volcanic Conglomerate, Volcanic Sandstone, Volcanic Siltstone

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

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R-D2

Project: ROS Rosery

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:**	1798.1 m
CoordSys:	MGA55 (GDA94)	**DrillCompany:**	BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary
HW	GRY-BUF	VSL	VolClas	itb	slt pum	cb si		Silstone to borderline shale with occasional pumice floats shale rip ups
HW	BUF-GRY	VBX	VolClas	brc	fia qfp	si se		Fine volcaniclastic silstone which grades into a Qz-Fd, fiamme bearing volcaniclastic breccia.
HW	BUF	VBX	VolClas	brc	qfp	si cb		Fine silstone that grades into a Qz-Fd crystal rich volcaniclastic breccia similar to above unit. Rare to no fiamme in this sequence however.
HW	GRY	VBX	VolClas	brc	pol qfp	si se		Fine volcaniclastic silstone/sandstone which grades into a coarse grained polymict volcaniclastic mass flow breccia. The coarse basal unit is composed of common 4-6cm rhyolitic clasts, 5-40mm silstone clasts,fiamme, and a matrix dominanted by 1-8mm sub-rounded Qz crystals.

Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
D1395317	0.0	0.0	0.0	0.04		1.7
D1395318	0.0	0.0	0.0	0.02		1.6
D1395319	0.0	0.0	0.0	0.54		2.9
D1395320	0.0	0.0	0.0	0.22		1.8
D1395321	0.0	0.0	0.0	0.44		2.1

1300 1310 1320 1330 1340 1350

Andesite
Andesite Flow
Basalt
Breccia - Undifferentiated
Calcarenite
Chert
Clay
Crystal Tuff
Dacite
Dacite Breccia
Dacite Flow
Dacite Lapilli Tuff
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
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
Not logged
Pyroclastic Breccia
Quartz
Quartz Carbonate Vein
Quartz Feldspar Porphyry
Quartz Porphyry
Quartzite
Rhyodacite
Rhyolite
Rhyolite Breccia
Rhyolite Tuff
Sandstone
Schist
See comments for full descrip
Semi-massive Sulphides
Shale
Slate
Tuff Siltstone
Undifferentiated Black Shale
Undifferentiated Felsic Volcanic
Undifferentiated Fluvioglacial Sediment
Undifferentiated Mafic Intrusive
Undifferentiated Tuff
Undifferentiated Volcanic
Undifferentiated Volcaniclastic
Vein Carbonate
Vein quartz
Volcanic Breccia
Volcanic Conglomerate
Volcanic Sandstone
Volcanic Siltstone

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

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R-D2

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:**	1798.1 m
CoordSys:	MGA55 (GDA94)	**DrillCompany:**	BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary
HW	GRY	VBX	VolClas	brc	pol qfp	si se		Fine volcaniclastic silstone/sandstone which grades into a coarse grained polymict volcaniclastic mass flow breccia. The coarse basal unit is composed of common 4-6cm rhyolitic clasts, 5-40mm silstone clasts,fiamme, and a matrix dominanted by 1-8mm sub-rounded Qz crystals.
HW	BUF	VBX	VolClas	brc	pum fol	se cb		Cream, foliated volcaniclastic breccia dominated by 5-20mm bands of intensely Se altered pumiceous material. 2-4mm sub-rounded Qz crytals are common with rarer 5-20mm silstone clasts. The intense Se alteration gives this interval a strongly foliated texture. Distinct change in colour/texture/alteration to the above unit.
BS	BLK-GRY	SSH	Clastic	bed	slt	cb py		Black shales. This shale unit is the typical Rosebery black shale unit, with laminar Cb-Py veining. The top contact appears to brecciated within annealed Cb veining. The veining at the top of the shale is folded. Further down hole towards 1397m the unit is borderline shale/silstone.
								Fine volcaniclastic silstone which conformably grades downhole from the above shale unit. Trace disseminated Py. Unit contains thin <1cm interbeds of more ashy material.
HO	BUF-GRY	VSL	VolClas	bed	slt fol	py se		Strongly Cb-Py altered volcaniclastic sandstone. Cb occurs as thick veins and more pinky Mn-Cb which is spotty in texture. The py is generally patchy to disseminated. Possibly the Cb cap to below mineralisation.
HOTS	BUF-BRN	VSS	VolClas		cbn	cb py		

Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
D1395322	0.0	0.0	0.0	0.13		1.9
D1395323	0.0	0.1	0.0	0.11		2.4
D1395324	0.1	0.2	0.0	1.94		1.2
D1395325	0.0	0.0	0.0	0.13		1.2
D1395326	0.0	0.0	0.0	0.15		1.0
D1395001	0.1	0.1	0.0	8.00	0.12	6.6
D1395002	0.0	0.0	0.0	4.00	0.08	5.4

Andesite, Andesite Flow, Basalt, Breccia - Undifferentiated, Calcarenite, Chert, Clay, Crystal Tuff, Dacite, Dacite Breccia, Dacite Flow, Dacite Lapilli Tuff

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

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

Not logged, Pyroclastic Breccia, Quartz, Quartz Carbonate Vein, Quartz Feldspar Porphyry, Quartz Porphyry, Quartzite, Rhyodacite, Rhyolite, Rhyolite Breccia, Rhyolite Tuff, Sandstone

Schist, See comments for full descrip, Semi-massive Sulphides, Shale, Slate, Tuff Siltstone, Undifferentiated Black Shale, Undifferentiated Felsic Volcanic, Undifferentiated Fluvioglacial Sediment, Undifferentiated Mafic Intrusive, Undifferentiated Tuff

Undifferentiated Volcanic, Undifferentiated Volcaniclastic, Vein Carbonate, Vein quartz, Volcanic Breccia, Volcanic Conglomerate, Volcanic Sandstone, Volcanic Siltstone

Mineralisation

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

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R-D2

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:**	1798.1 m
CoordSys:	MGA55 (GDA94)	**DrillCompany:**	BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary
HOTS	BUF-BRN	VSS	VolClas		cbn	cb py		Strongly Cb-Py altered volcaniclastic sandstone. Cb occurs as thick veins and more pinky Mn-Cb which is spotty in texture. The py is generally patchy to disseminated. Possibly the Cb cap to below mineralisation.
HO	GRY-BUF	VSS	VolClas		fph	cb ch		Pervasively Cb altered Fd lithic rich volcaniclastic sandstone (breccia?). Looks more like FW than HO due to the feldspars. Only calling this host as it is in the correct position, however, the lithology is not convincing.
HODS	BRN-BUF	VSS	VolClas			cb py	sp ga	Moderately mineralised interval of Sp and Gn
HOTS	BUF-BRN	VSL	VolClas	bed	slt	cb py	sp	Fine grained volcaniclastic silstone with blebs and veinlets of Py and trace Sp. Transitional contact into the FW unit below. This is convincingly host like lithology. There is a very sharp contact from the above moderately mineralised interval to this weakly mineralised silstone. Maybe this is due to a sharp change in lithology?
FW	GRY-GRN	VBX	VolClas	brc	fph fia	cb cl		Feldspar lithic rich and fiamme bearing volcaniclastic breccia. This unit conformably grades into a breccia from the above silstone unit. This interval contains common 1-3mm angular Fd lithics and common dark bands of fiamme.

Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
D1395002	0.0	0.0	0.0	4.00	0.08	5.4
D1395003	0.0	0.0	0.0	1.00	0.01	3.6
D1395004	0.0	0.0	0.0	-1.00	0.01	2.2
D1395327	0.0	0.0	0.0	0.48		2.3
D1395005	0.1	0.1	0.0	9.00	0.03	2.6
D1395328	0.0	0.0	0.0	3.22		3.0
D1395006	0.9	2.1	0.0	45.00	1.43	1.4
D1395007	5.7	7.5	0.3	65.00	0.58	5.8
D1395009	2.9	3.0	0.1	15.00	0.08	6.5
D1395010	3.9	6.5	0.1	14.00	0.29	6.3
D1395012	1.3	3.8	0.4	105.00	0.26	11.5
D1395013	1.2	1.6	0.2	93.00	0.09	4.9
D1395014	0.1	0.5	0.0	18.00	0.03	3.7
D1395015	0.4	0.1	0.1	161.00	0.06	3.8
D1395016	0.2	0.5	0.0	5.00	0.01	1.6
D1395017	0.1	0.7	0.0	2.00	0.01	1.6
D1395018	0.0	0.0	0.0	1.00	0.01	1.2
D1395019	0.0	0.0	0.0	-1.00	0.01	1.3
D1395020	0.0	0.0	0.0	21.00	0.02	3.9
D1395329	0.0	0.0	0.0	0.48		1.0
D1395330	0.0	0.0	0.0	0.16		3.9
D1395331	0.0	0.0	0.0	0.09		1.4

Andesite, Andesite Flow, Basalt, Breccia - Undifferentiated, Calcarenite, Chert, Clay, Crystal Tuff, Dacite, Dacite Breccia, Dacite Flow, Dacite Lapilli Tuff, 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, 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, Not logged, Pyroclastic Breccia, Quartz, Quartz Carbonate Vein, Quartz Feldspar Porphyry, Quartz Porphyry, Quartzite, Rhyodacite, Rhyolite, Rhyolite Breccia, Rhyolite Tuff, Sandstone, Schist, See comments for full descrip, Semi-massive Sulphides, Shale, Siltstone, Slate, Tuff Siltstone, Undifferentiated Black Shale, Undifferentiated Felsic Volcanic, Undifferentiated Fluvioglacial Sediment, Undifferentiated Mafic Intrusive, Undifferentiated Tuff, Undifferentiated Volcanic, Undifferentiated Volcaniclastic, Vein Carbonate, Vein quartz, Volcanic Breccia, Volcanic Conglomerate, Volcanic Sandstone, Volcanic Siltstone

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

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R-D2

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:**	1798.1 m
CoordSys:	MGA55 (GDA94)	**DrillCompany:**	BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary
FW	GRY-GRN	VBX	VolClas	brc	fph fia	cb cl		Feldspar lithic rich and fiamme bearing volcaniclastic breccia. This unit conformably grades into a breccia from the above silstone unit. This interval contains common 1-3mm angular Fd lithics and common dark bands of fiamme.
BS	GRY-BLK	SSH	Clastic	bed	slt	py cb	sp	Black Shale. Common thin 0.5-2mm Py and Cb veinlets which contain trace amounts of red Sp. This appears to be a "typical" Rosebery hangingwall BS unit. Upper and lower contacts appear to be conformable.
HOTS	BUF-GRY	VSL	VolClas	bed	slt	se py	sp	Fine grained volcaniclastic silstone with occasional 0.5-2mm Py veinlets +/- red Sp. Has a banded cream and grey colour possibly you to varying levels of Se alteration. Trace red coloured Sp typically vein hosted, this unit definitely has a "hosty" look to it.
HO	GRY	VSS	VolClas	mso	san	cb py		Volcaniclastic sandstone. This is a conformable transition from the above silstone into this coarser sandstone and has thus been called host. Although this interval contains occasional thin Py veinlets there is no obvious Sp present.
TZ	GRY	VSL	VolClas	bed	pum slt	si se		This interval is predominantly a very fine host looking siltstone with dark Se feldspar phyric patches which to this author appear to be pumice. The occurence of these pumice rafts must be due to "floats" which have stayed bouyant and dropped out with the fine sediments. Difficult rock tro put a name to hence calling it transitional.
FW	GRY	VBX	VolClas	brc	pum fph	cb si		Feldspar lithic rich unit with pumiceous material. Calliing this footwall however not 100% convinced. It is possible that the below fault occurs before the unit develops into proper footwall lithology. There are interesting interbeds of very fine siltstone which indicated there are multiple beds in this sequence.

Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
D1395332	0.1	0.1	0.0	1.93		2.2
D1395333	0.0	0.0	0.0	0.04		1.3
D1395334	0.0	0.0	0.0	1.07		3.8
D1395335	0.0	0.0	0.0	0.14		2.3
D1395336	0.0	0.0	0.0	0.01		1.9

Andesite, Andesite Flow, Basalt, Breccia - Undifferentiated, Calcarenite, Chert, Clay, Crystal Tuff, Dacite, Dacite Breccia, Dacite Flow, Dacite Lapilli Tuff

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

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

Not logged, Pyroclastic Breccia, Quartz, Quartz Carbonate Vein, Quartz Feldspar Porphyry, Quartz Porphyry, Quartzite, Rhyodacite, Rhyolite, Rhyolite Breccia, Rhyolite Tuff, Sandstone

Schist, See comments for full descrip, Semi-massive Sulphides, Shale, Slate, Tuff Siltstone, Undifferentiated Black Shale, Undifferentiated Felsic Volcanic, Undifferentiated Fluvioglacial Sediment, Undifferentiated Mafic Intrusive, Undifferentiated Tuff

Undifferentiated Volcanic, Undifferentiated Volcaniclastic, Vein Carbonate, Vein quartz, Volcanic Breccia, Volcanic Conglomerate, Volcanic Sandstone, Volcanic Siltstone

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

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R-D2

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:**	1798.1 m
CoordSys:	MGA55 (GDA94)	**DrillCompany:**	BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary
FW	GRY	VBX	VolClas	brc	pum fph	cb si		Feldspar lithic rich unit with pumiceous material. Calliing this footwall however not 100% convinced. It is possible that the below fault occurs before the unit develops into proper footwall lithology. There are interesting interbeds of very fine siltstone which indicated there are multiple beds in this sequence.
FTZ	GRY	FTZ	Clastic	ftz		cb		Rosebery Fault. There main zone occurs from 1512.9-1513.1m which contains large amounts of fine pug and fault gouge material.
HW	GRY-YEL	VBX	VolClas	brc		se si		Intensely Se-Cb altered and silicified volcaniclastic due proximity to fault.
HW	GRY-YEL	VBX	VolClas	brc	pum	se si		Intensely Se-Cb altered and silicified volcaniclastic breccia. Still very altered likely due to fault proximity. Intensely Se altered irregular shaped patches are likely to be pumice. Difficult to distinguish other clasts. Qz crystal bearing.
FTZ	GRY-BRN	FTZ	Clastic	ftz	pum	ch qt se cb	py po	Possibly an annealed fault or just a brecciated vein. Not a significant fault. Py-Po min in patches.
HW	GRY-BUF	VBX	VolClas	brc				Similar pumice bearing unit as above the fault in the previous interval. Se-Cb alteration is slowly become less intense towards 1556.7m. This is probably not a contact at this depth, as it appears to be the same volcaniclastic unit however it marks a distinct decrease in alteration.

Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
D1395337	0.0	0.0	0.0	0.02		1.5
D1395338	0.0	0.0	0.0	0.05		1.5
D1395339	0.0	0.0	0.0	0.08		2.6
D1395340	0.0	0.0	0.0	0.03		1.2
D1395341	0.0	0.0	0.0	0.18		1.2

Andesite, Andesite Flow, Basalt, Breccia - Undifferentiated, Calcarenite, Chert, Clay, Crystal Tuff, Dacite, Dacite Breccia, Dacite Flow, Dacite Lapilli Tuff, 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, 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, Not logged, Pyroclastic Breccia, Quartz, Quartz Carbonate Vein, Quartz Feldspar Porphyry, Quartz Porphyry, Quartzite, Rhyodacite, Rhyolite, Rhyolite Breccia, Rhyolite Tuff, Sandstone, Schist, See comments for full descrip, Semi-massive Sulphides, Shale, Siltstone, Slate, Tuff Siltstone, Undifferentiated Black Shale, Undifferentiated Felsic Volcanic, Undifferentiated Fluvioglacial Sediment, Undifferentiated Mafic Intrusive, Undifferentiated Tuff, Undifferentiated Volcanic, Undifferentiated Volcaniclastic, Vein Carbonate, Vein quartz, Volcanic Breccia, Volcanic Conglomerate, Volcanic Sandstone, Volcanic Siltstone

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

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R-D2

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:**	1798.1 m
CoordSys:	MGA55 (GDA94)	**DrillCompany:**	BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary
HW	GRY-BUF	VBX	VolClas	brc	pum	se cb		Similar pumice bearing unit as above the fault in the previous interval. Se-Cb alteration is slowly become less intense towards 1556.7m. This is probably not a contact at this depth, as it appears to be the same volcaniclastic unit however it marks a distinct decrease in alteration.
HW	GRY	VBX	VolClas	brc	pum pol	se cb		Pumice bearing polymict volcaniclastic breccia. The pumice are typically angular but elongate and stretched. Occasional sub-angular silstone or rhyolite clasts. MAtrix supported volcaniclastic ~80%.
HW	GRY	VBX	VolClas	brc	pol	se cb		Volcaniclastic breccia - no clear contact at 1580.1m but it marks where there is a change in clast composition from pumice dominant to shale clast dominant. Shale clasts range from 5-50mm and are typically stretched and elongate. Larger 30cm shales are more likely to be interbeds rather than clasts (however, the contacts are generally sharp and planar before moving into a more sandy unit).
BS	GRY-BLK	SSH	VolClas	bed	slt	cb py		Black shale to silty unit with occasioanl 1-2mm Cb +/- Py veinlets which are typically cross cut the bedding plane. Possible that thhis shale unit is a large clast due to sharp contacts at each end.
HW	GRY-GRY	VBX	VolClas	brc		se py		Fine grained volcaniclastic breccia to coarse sandstone. Occasional 5-40mm elongate shale rip ups and rare dacite or silstone clasts.

Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
D1395342	0.0	0.0	0.0	0.10		1.2
D1395343	0.0	0.0	0.0	0.09		0.7
D1395344	0.0	0.0	0.0	0.20		1.2
D1395345	0.0	0.0	0.0	0.06		1.2
D1395346	0.0	0.0	0.0	0.23		3.8

Andesite, Andesite Flow, Basalt, Breccia - Undifferentiated, Calcarenite, Chert, Clay, Crystal Tuff, Dacite, Dacite Breccia, Dacite Flow, Dacite Lapilli Tuff

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

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

Not logged, Pyroclastic Breccia, Quartz, Quartz Carbonate Vein, Quartz Feldspar Porphyry, Quartz Porphyry, Quartzite, Rhyodacite, Rhyolite, Rhyolite Breccia, Rhyolite Tuff, Sandstone

Schist, See comments for full descrip, Semi-massive Sulphides, Shale, Siltstone, Slate, Tuff Siltstone, Undifferentiated Black Shale, Undifferentiated Felsic Volcanic, Undifferentiated Fluvioglacial Sediment, Undifferentiated Mafic Intrusive, Undifferentiated Tuff

Undifferentiated Volcanic, Undifferentiated Volcaniclastic, Vein Carbonate, Vein quartz, Volcanic Breccia, Volcanic Conglomerate, Volcanic Sandstone, Volcanic Siltstone

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

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R-D2

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:**	1798.1 m
CoordSys:	MGA55 (GDA94)	**DrillCompany:**	BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary
HW	GRY-GRY	VBX	VolClas	brc		se py		Fine grained volcaniclastic breccia to coarse sandstone. Occasional 5-40mm elongate shale rip ups and rare dacite or silstone clasts.
BS	GRY-BLK	VSL	VolClas	bed	slt san	cb py		Interbedded shale/silstone with occasional larger (>50cm) interbeds of sandstone.
HO	GRY-BUF	VSL	VolClas	bed	slt	py cb		Fine grained volcaniclastic siltstone. "Host" like rock, with common 1-3mm Cb veinlets +/- Py-Po.
HW	BUF-GRN	VBX	VolClas		qph pum	se py		Qz crystal rich sandstone to volcaniclastic breccia. Common Se altered pumice in the more clastic intervals. Heaps of Qz! Generally they are rounded to sub-rounded and 0.5-1mm.

Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
D1395347	0.0	0.0	0.0	0.15		3.7
D1395348	0.0	0.0	0.0	0.15		4.3
D1395351	0.0	0.0	0.0	0.21		4.3
D1395352	0.0	0.0	0.0	0.65		3.6

1600 1610 1620 1630 1640 1650

Andesite, Andesite Flow, Basalt, Breccia - Undifferentiated, Calcarenite, Chert, Clay, Crystal Tuff, Dacite, Dacite Breccia, Dacite Flow, Dacite Lapilli Tuff

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

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

Not logged, Pyroclastic Breccia, Quartz, Quartz Carbonate Vein, Quartz Feldspar Porphyry, Quartz Porphyry, Quartzite, Rhyodacite, Rhyolite, Rhyolite Breccia, Rhyolite Tuff, Sandstone

Schist, See comments for full descrip, Semi-massive Sulphides, Shale, Siltstone, Slate, Tuff Siltstone, Undifferentiated Black Shale, Undifferentiated Felsic Volcanic, Undifferentiated Fluvioglacial Sediment, Undifferentiated Mafic Intrusive, Undifferentiated Tuff

Undifferentiated Volcanic, Undifferentiated Volcaniclastic, Vein Carbonate, Vein quartz, Volcanic Breccia, Volcanic Conglomerate, Volcanic Sandstone, Volcanic Siltstone

Mineralisation

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

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R-D2

Project: ROS Rosebery

Prospect: RMN Rosebery Mine North

Northing:	5377807.9 mN	**Dip:**	-90.00
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RL:	434.5 mRL	**Total Depth:**	1798.1 m
CoordSys:	MGA55 (GDA94)	**DrillCompany:**	BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary
HW	BUF-GRN	VBX	VolClas		qph pum	se py		Qz crystal rich sandstone to volcaniclastic breccia. Common Se altered pumice in the more clastic intervals. Heaps of Qz! Generally they are rounded to sub-rounded and 0.5-1mm.
HOTS	GRN-BUF	VSS	VolClas		san	py se		Intensely Py-Se altered medium to coarse grained sandstone. Strong patchy to disseminated Py mineralisation. Still Qz xtal rich.
HOTS	BUF-GRY	VSS	VolClas	bed	san slt	se ba se py	sp ga	Small interval of barite mineralisation with thin bands of pale honey brown Sp and Ga. The mineralisation appears to rim the barite. Appears to be primary and not vein hosted.
HOTS	BUF-GRY	VSS	VolClas					Volcaniclastic sandstone to siltstone. Common 1-3mm Cb-Py veins. Host looking rock.
HW	BUF-GRN	VBX	VolClas		san	se		Qz crystal rich volcaniclastic sandstone which grades into a medium grained polymict volcaniclastic breccia. Compositionally it is dominated by pumice a Qz xtals with rare silstone clasts.
					fol qph	se cb		Intensely Se altered fine to medium grained volcaniclastic breccia. The intense Se alteration gives this rock a wispy like texture, and the Se bands can commonly be seen"wrapping" around the more siliceous clasts.
HW	GRY-GRN	VBX	VolClas					

Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
D1395353	0.0	0.0	0.0	2.42		1.1
D1395021	0.0	0.0	0.0	3.00	0.01	1.8
D1395354	0.0	0.0	0.0	1.12		1.2
D1395022	0.0	0.1	0.0	6.00	-0.01	1.9
D1395023	0.0	0.0	0.0	2.00	-0.01	1.4
D1395024	0.0	0.1	0.0	5.00	-0.01	1.0
D1395025	0.0	0.0	0.0	2.00	-0.01	2.4
D1395026	0.0	0.0	0.0	2.00	-0.01	1.8
D1395027	0.0	0.0	0.0	3.00	-0.01	2.0
D1395028	0.0	0.1	0.0	2.00	-0.01	1.5
D1395029	0.0	0.0	0.0	4.00	-0.01	1.7
D1395030	0.0	0.0	0.0	3.00	-0.01	1.6
D1395031	0.0	0.0	0.0	2.00	-0.01	3.5
D1395032	0.5	0.3	0.1	104.00	-0.01	2.7
D1395355	0.0	0.0	0.0	1.12		1.4
D1395034	0.0	0.1	0.0	2.00	-0.01	3.5
D1395035	0.0	0.0	0.0	8.00	-0.01	2.2
D1395036	0.0	0.0	0.0	14.00	0.01	3.0
D1395037	0.0	0.0	0.0	8.00	-0.01	3.0
D1395038	0.0	0.0	0.0	7.00	-0.01	3.1
D1395039	0.0	0.0	0.0	7.00	-0.01	4.4
D1395040	0.0	0.0	0.0	7.00	-0.01	4.5
D1395041	0.0	0.0	0.0	12.00	-0.01	3.9
D1395042	0.0	0.0	0.0	4.00	0.02	4.7
D1395043	0.0	0.1	0.0	6.00	0.01	3.3
D1395044	0.0	0.0	0.0	5.00	-0.01	2.8
D1395356	0.0	0.1	0.0	0.96		2.0
D1395045	0.0	0.0	0.0	6.00	0.01	3.8
D1395357	0.0	0.0	0.0	0.18		1.3

Andesite, Andesite Flow, Basalt, Breccia - Undifferentiated, Calcarenite, Chert, Clay, Crystal Tuff, Dacite, Dacite Breccia, Dacite Flow, Dacite Lapilli Tuff, 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, 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, Not logged, Pyroclastic Breccia, Quartz, Quartz Carbonate Vein, Quartz Feldspar Porphyry, Quartz Porphyry, Quartzite, Rhyodacite, Rhyolite, Rhyolite Breccia, Rhyolite Tuff, Sandstone, Schist, See comments for full descrip, Semi-massive Sulphides, Shale, Siltstone, Slate, Tuff Siltstone, Undifferentiated Black Shale, Undifferentiated Felsic Volcanic, Undifferentiated Fluvioglacial Sediment, Undifferentiated Mafic Intrusive, Undifferentiated Tuff, Undifferentiated Volcanic, Undifferentiated Volcaniclastic, Vein Carbonate, Vein quartz, Volcanic Breccia, Volcanic Conglomerate, Volcanic Sandstone, Volcanic Siltstone

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

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R-D2

Project: ROS Rosery

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:**	1798.1 m
CoordSys:	MGA55 (GDA94)	**DrillCompany:**	BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary
HW	GRY-GRN	VBX	VolClas		fol qph	se cb		Intensely Se altered fine to medium grained volcaniclastic breccia. The intense Se alteration gives this rock a wispy like texture, and the Se bands can commonly be seen"wrapping" around the more siliceous clasts.
HW	GRN-BUF	VBX	VolClas	brc	pum qph	si se		Intensely silicified and Se altered, coarse grained volcaniclastic breccia dominated by pumice and Qz-Fd phyric dacite/rhyolite clasts. This is the distinct unit that has been intersected below the new ore position below the Rosebery Fault.

Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
D1395358	0.0	0.0	0.0	0.54		2.1
D1395359	0.0	0.0	0.0	0.04		3.7
D1395361	0.0	0.0	0.0	0.01		3.0
D1395362	0.0	0.0	0.0	0.08		3.2

1700 1710 1720 1730 1740 1750

Andesite
Andesite Flow
Basalt
Breccia - Undifferentiated
Calcarenite
Chert
Clay
Crystal Tuff
Dacite
Dacite Breccia
Dacite Flow
Dacite Lapilli Tuff
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
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
Not logged
Pyroclastic Breccia
Quartz
Quartz Carbonate Vein
Quartz Feldspar Porphyry
Quartz Porphyry
Quartzite
Rhyodacite
Rhyolite
Rhyolite Breccia
Rhyolite Tuff
Sandstone
Schist
See comments for full descrip
Semi-massive Sulphides
Shale
Siltstone
Slate
Tuff Siltstone
Undifferentiated Black Shale
Undifferentiated Felsic Volcanic
Undifferentiated Fluvioglacial Sediment
Undifferentiated Mafic Intrusive
Undifferentiated Tuff
Undifferentiated Volcanic
Undifferentiated Volcaniclastic
Vein Carbonate
Vein quartz
Volcanic Breccia
Volcanic Conglomerate
Volcanic Sandstone
Volcanic Siltstone

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

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: 397R-D2

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:**	1798.1 m
CoordSys:	MGA55 (GDA94)	**DrillCompany:**	BLY

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary
HW	GRN-BUF	VBX	VolClas	brc	pum qph	si se		Intensely silicified and Se altered, coarse grained volcaniclastic breccia dominated by pumice and Qz-Fd phyric dacite/rhyolite clasts. This is the distinct unit that has been intersected below the new ore position below the Rosebery Fault.

Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
D1395363	0.0	0.1	0.0	0.72		1.7
D1395364	0.0	0.0	0.0	0.31		1.3
D1395365	0.0	0.0	0.0	0.07		0.9
D1395366	0.0	0.0	0.0	0.02		1.2
D1395367	0.0	0.0	0.0	0.05		1.7

1750 1760 1770 1780 1790 1800

Andesite
Andesite Flow
Basalt
Breccia - Undifferentiated
Calcarenite
Chert
Clay
Crystal Tuff
Dacite
Dacite Breccia
Dacite Flow
Dacite Lapilli Tuff
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
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
Not logged
Pyroclastic Breccia
Quartz
Quartz Carbonate Vein
Quartz Feldspar Porphyry
Quartz Porphyry
Quartzite
Rhyodacite
Rhyolite
Rhyolite Breccia
Rhyolite Tuff
Sandstone
Schist
See comments for full descrip
Semi-massive Sulphides
Shale
Siltstone
Slate
Tuff Siltstone
Undifferentiated Black Shale
Undifferentiated Felsic Volcanic
Undifferentiated Fluvioglacial Sediment
Undifferentiated Mafic Intrusive
Undifferentiated Tuff
Undifferentiated Volcanic
Undifferentiated Volcaniclastic
Vein Carbonate
Vein quartz
Volcanic Breccia
Volcanic Conglomerate
Volcanic Sandstone
Volcanic Siltstone

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