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Conclusions

Conclusions

- Zn-Pb-Ag mineralisation was structurally controlled and occurred during D₄. The timing of mineralisation is determined from relationships of the ores to structures at all scales. Similarities between the copper and Zn-Pb-Ag orebodies including orebody geometries and the structural processes involved in mineralisation show that they formed at similar times.
- The paragenetic sequence contains only one episode of base metal deposition. The earliest sulphide to be deposited was microcrystalline pyrite. Its deposition constrains the earliest possible timing of base metal mineralisation. Microcrystalline pyrite is located along crenulated and crenulation cleavages including S₂ and S₃, and occasionally S₄. Base metal sulphide mineralisation overprinted at least two episodes of carbonate alteration. The carbonate-base metal overprinting sequence identified by petrographic analysis is reflected at the mine-scale by Zn-Pb-Ag wrapping around silica-dolomite alteration bodies.
- At the mine-scale, mineralisation was related to the development of NNW-plunging disharmonic folds. Disharmonic folds with smaller folds, typically of different orientation, are located at the centres of ore shoots. Similarly orientated folds with a paucity of smaller folds on their short limbs are located at the margins of the ores indicating that the nature of these folds was important to the localisation of mineralisation. The geometries of the copper and Zn-Pb-Ag orebodies are similar at the orebody-scale indicating a common structural history.
- At exposure-scales, the Zn-Pb-Ag ores are represented by breccias containing folded clasts and by bedding-parallel sulphide accumulations. It is these latter occurrences that have often been cited in the past as evidence of pre-deformation mineralisation. However, microscopic examination of all textural variants of the ores shows that even the bedding parallel accumulations are structurally controlled. In all cases sulphides overprint tectonic cleavages or replace infill minerals deposited in veins that formed during D₄.
- Textural zoning in the Zn-Pb-Ag orebody parallels the NNW-plunging folds. Zonation comprises a core of breccias with a rim of textural styles characterised by replacement along foliations and represents a variation outwards of decreasing fluid rock ratio. A change in the relative abundance of galena and sphalerite, with the former being most voluminous in the core, and sphalerite dominating in the distal areas/zones, shows the possible influence of the structural regime on the geochemistry of the hydrothermal

system.

- Syn-tectonic mineralisation is unequivocally indicated by all textural styles as well as the ubiquitous correlation between metal distribution and tectonic structures. The broad nature of this study over a range of scales assures that these features are highly representative of the entire deposit.
- Remobilisation of a sulphide accumulation in the vicinity of the deposit can be unequivocally ruled out. The mine-scale study showed there is no overprinted distribution that is incongruent with the structurally controlled one. Consideration of remobilisation at this scale, as well as pre-deformation mineralisation models in the mine-scale analysis, demonstrates that such processes are incompatible with the features of this orebody. Additionally, detailed examination of ore textures failed to delineate any base metal sulphide deposition prior to D₄. Consequently, bedding-parallel sulphide textures are not wholly diagnostic of pre-deformation mineralisation, as has been suggested by some workers.
- The commonality of features between the copper and Zn-Pb-Ag orebodies demonstrates they have a shared structural history and is further evidence for synchronous copper and Zn-Pb-Ag mineralisation. These include orebody geometry, as already mentioned, plus relationships to folding at the mine-scale and the same textural components at micro-scales. Common textural components include the deposition of the ore assemblage in veins along shear bands or tectonic foliations. The ore assemblage in both deposit styles overprints a similar carbonate alteration sequence. The simplest explanation for the features of these deposits is that the metal components entered the broader depositional environs together and were separated as a result of variations in the structural setting that impacted on fluid evolution by affecting the stability of metals in solution.
- The NNW-SSE-striking folds that controlled mineralisation were initiated during D₃ by the formation of horizontal shear bands. The main phase of tightening occurred during D₄ and was accommodated by opposing shear senses across S₄ on either side of the hinge. The sizes of the folds reflect competency domains in the rock, which are indicated by the limited extent of the D₃ shear bands between such domains. Folds have lower interlimb angles near the margins of competency domains, because there is an increasing tendency for reactivation of bedding in these locations to accommodate differences in the amount of shortening between the domains. In this manner, differential folding, resulting from D₃ was accentuated in D₄, causing dilation and localised ore deposition. This process occurred at all scales.
- Dilation occurred to resolve space problems between adjacent parts of the rock

experiencing different rotations caused by inhomogeneous deformation. This dilation can only occur if there is material to occupy the local increase in volume otherwise deformation would repartition to resolve the space problem and prevent the adjacent blocks rotating apart. In the case of Mount Isa, dilation or deformation drove fluid flow rather than the other way round.

- Asymmetric boudins were formed by segmentation of competent layers by a disjunctive cleavage while crenulation cleavage equivalent developed in adjacent shale beds. Consequently, the maximum principal stress was perpendicular to the interboudin planes during segmentation, and not layering. Bulk shearing during segmentation occurred along the actively forming foliations rather than layering. Reactivation of layering in the weaker layers occurred after segmentation and partially masks deformation corresponding to the interboudin planes. Deformation and separation of boudins occurred during the later deformations. Classification schemes aimed at assisting kinematic interpretation, which include shearing along layering as the causative deformation, would be misleading in this case.
- Flanking folds formed by rotation of the external host element while the orientation of the internal host element and the cutting element remained largely unchanged. Rotation was caused by shearing along S_4 , which was more intense in the external host element compared to the internal host element. Consequently, S_4 created the bulk shearing element and was the causative deformation. The cutting element formed by dilation of a D_2 shear band in D_4 . Initial displacement along the cutting element was related to the formation of the shear band. Later displacement along the cutting element accommodated rotation of the wall rock blocks. Flanking shear bands formed when the D_2 shear bands were overprinted by veins. Flanking structures preserve evidence of the deformation history because they contain inhomogeneous deformation.

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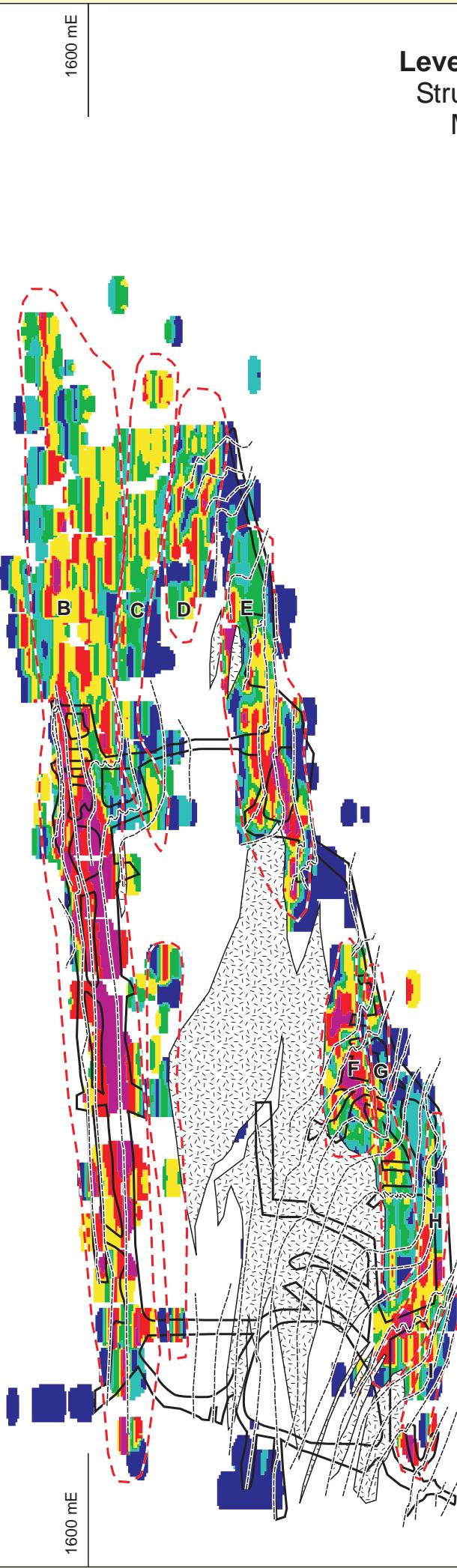
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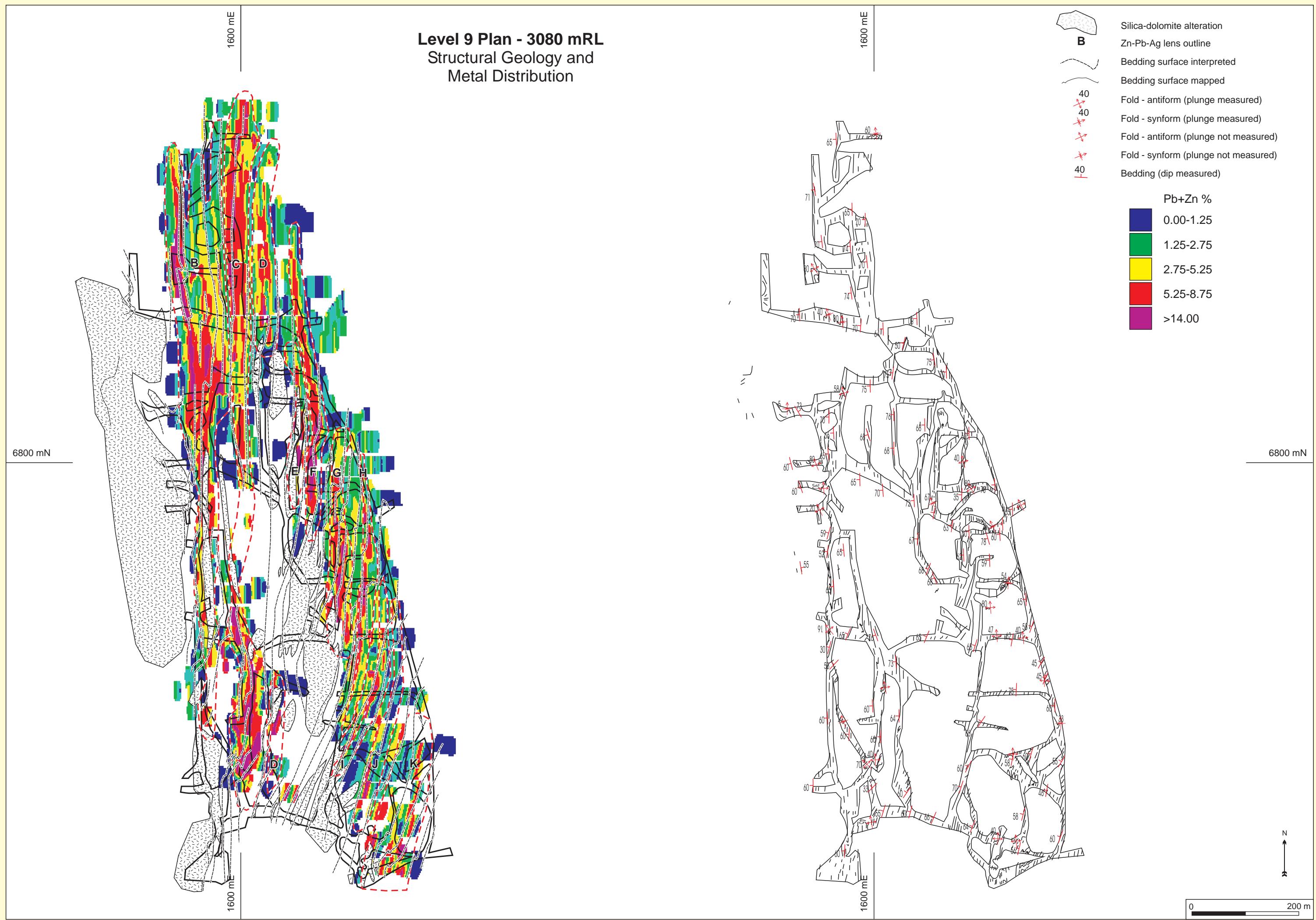
Appendix A

- Metal distribution in plan with structural framework
- Metal distribution in longitudinal sections (PDF – on CD)

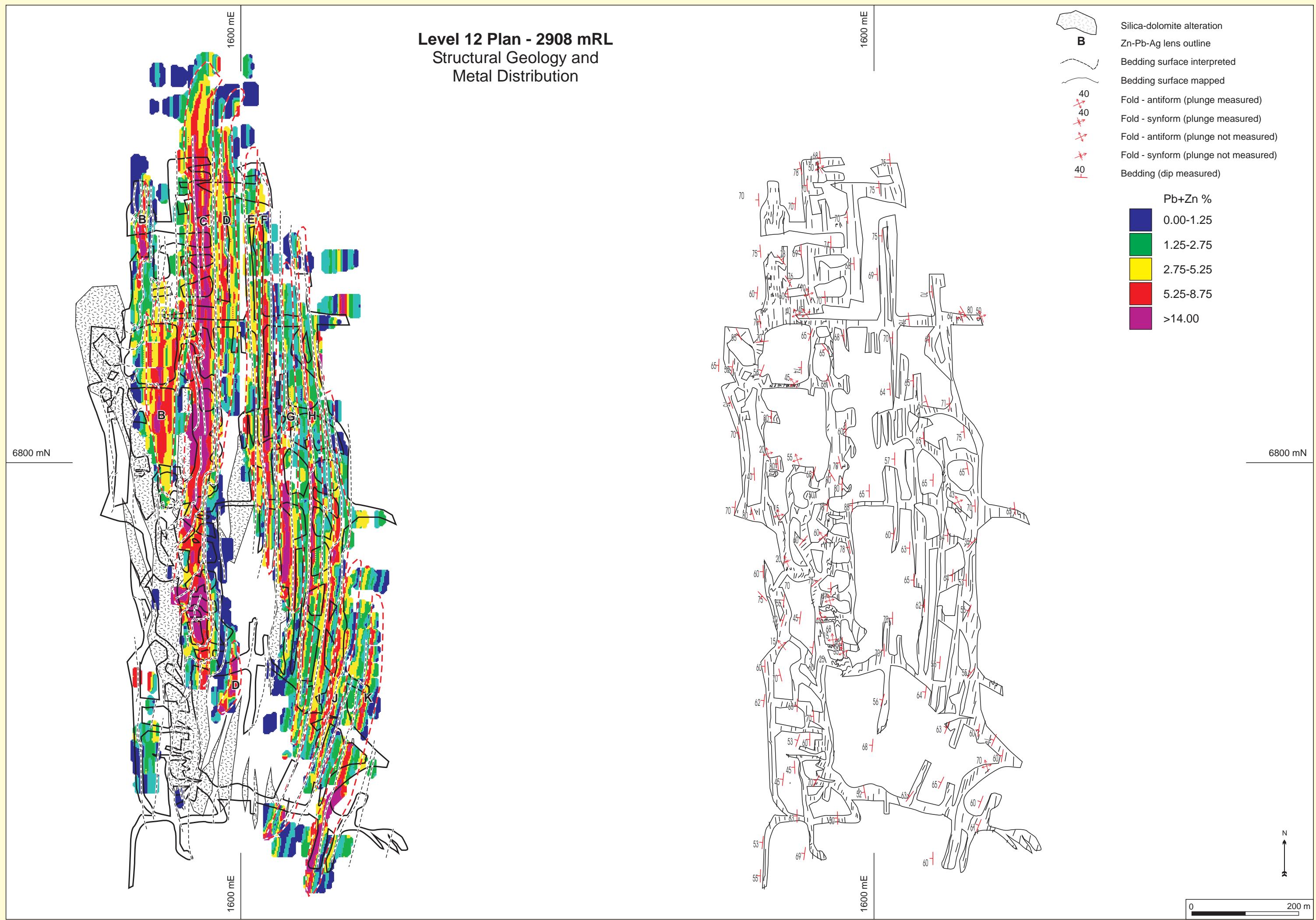
Level 5 Plan - 3290 mRL
Structural Geology and
Metal Distribution



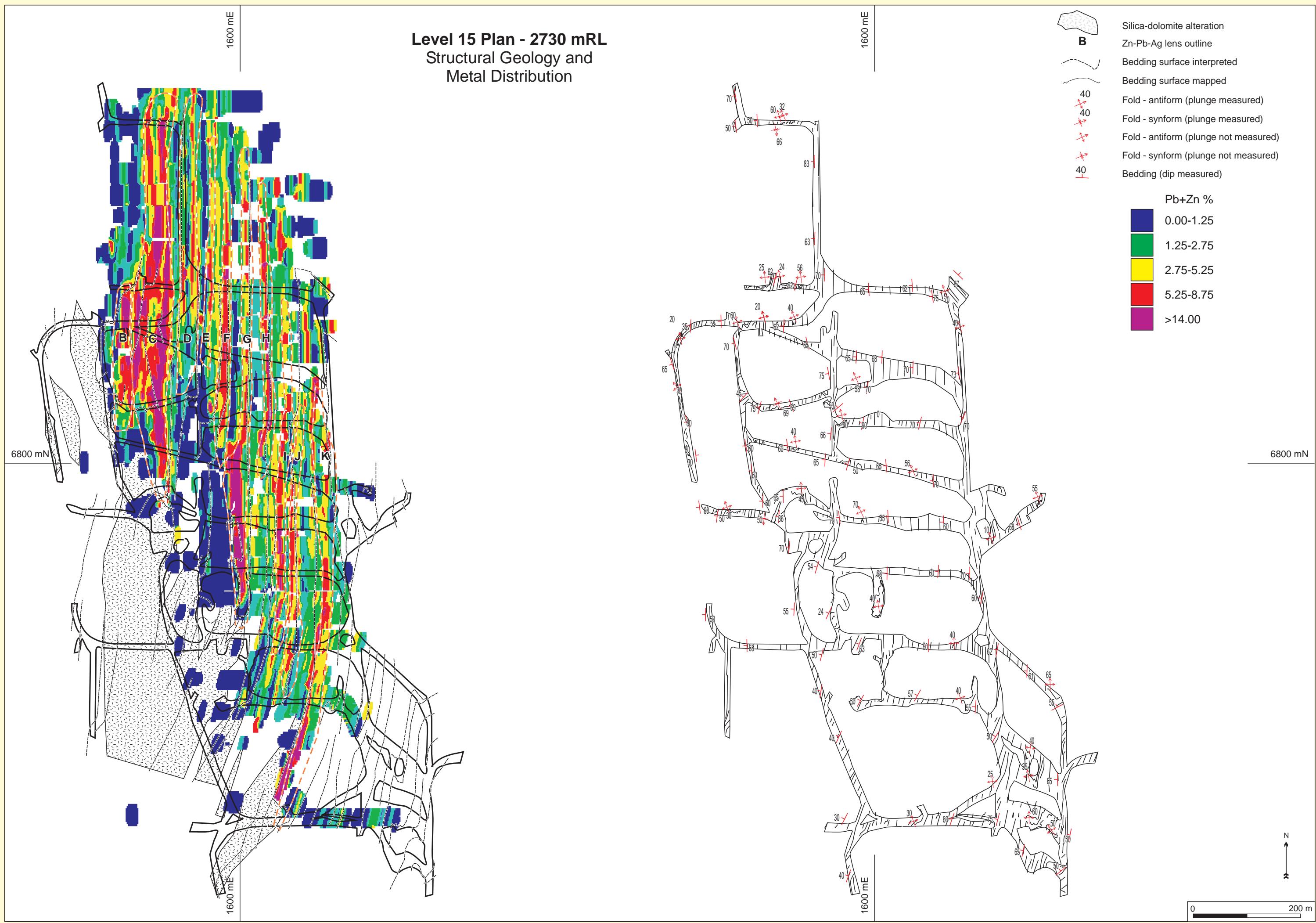
Level 9 Plan - 3080 mRL
Structural Geology and
Metal Distribution



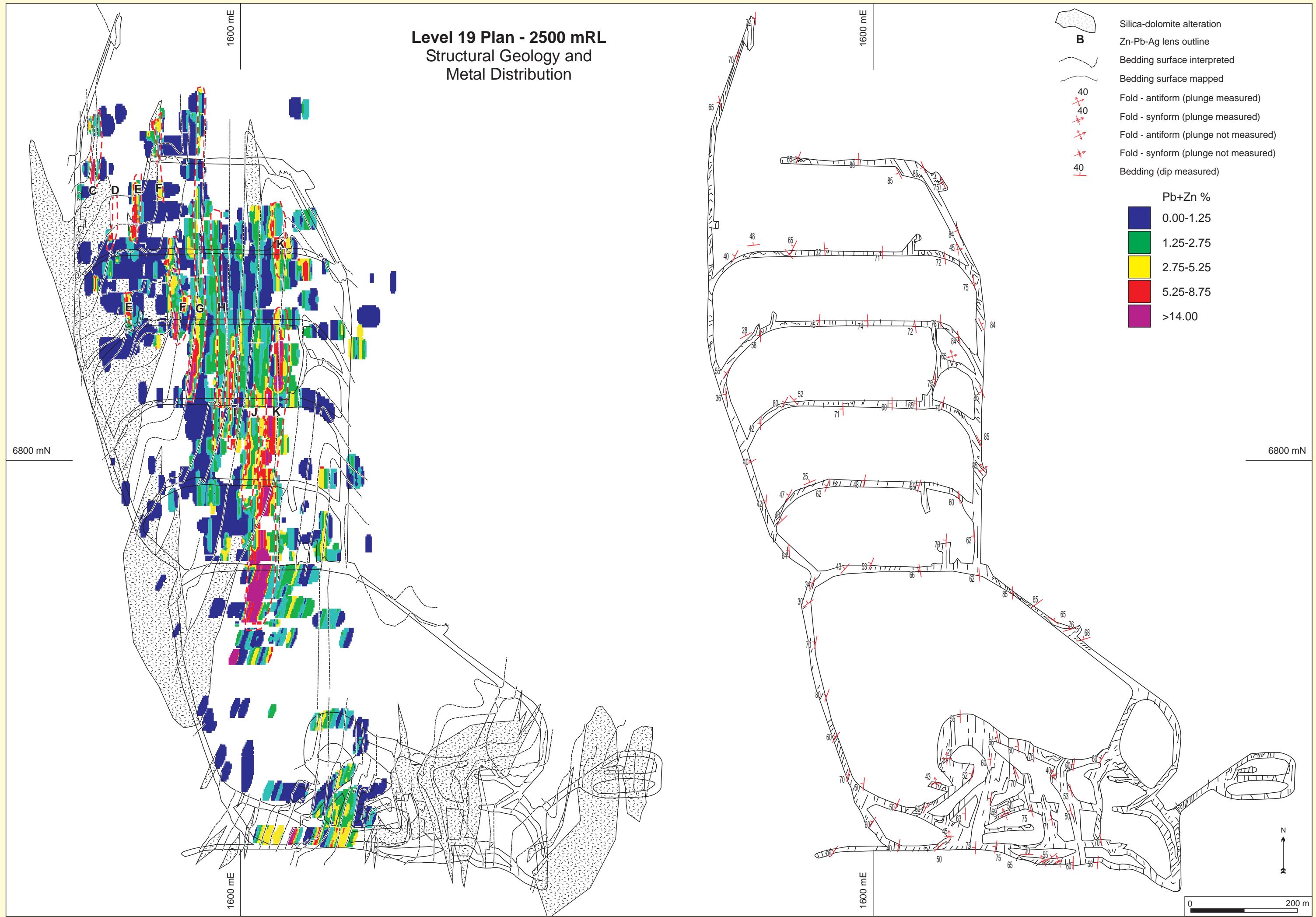
Level 12 Plan - 2908 mRL
Structural Geology and Metal Distribution

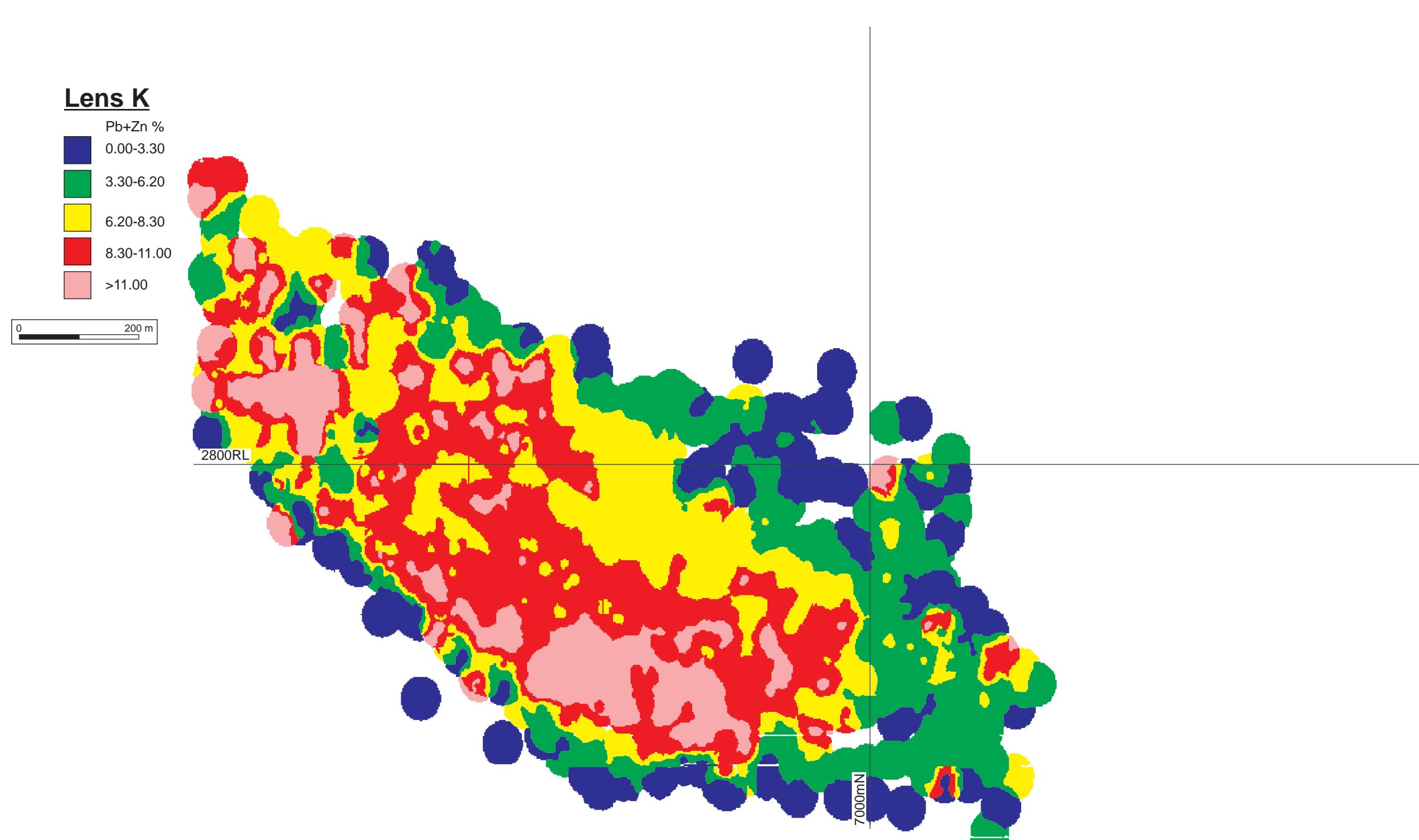
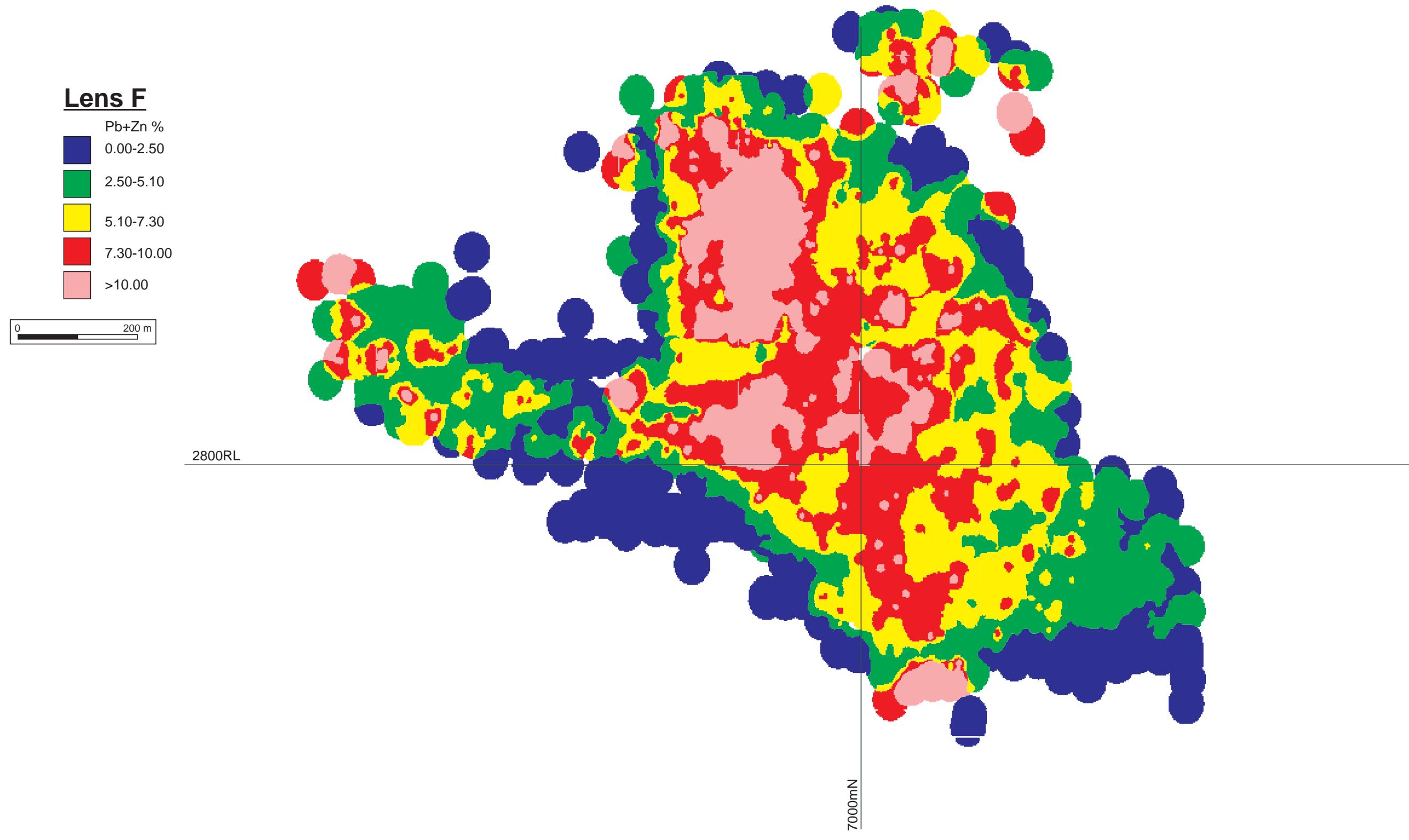
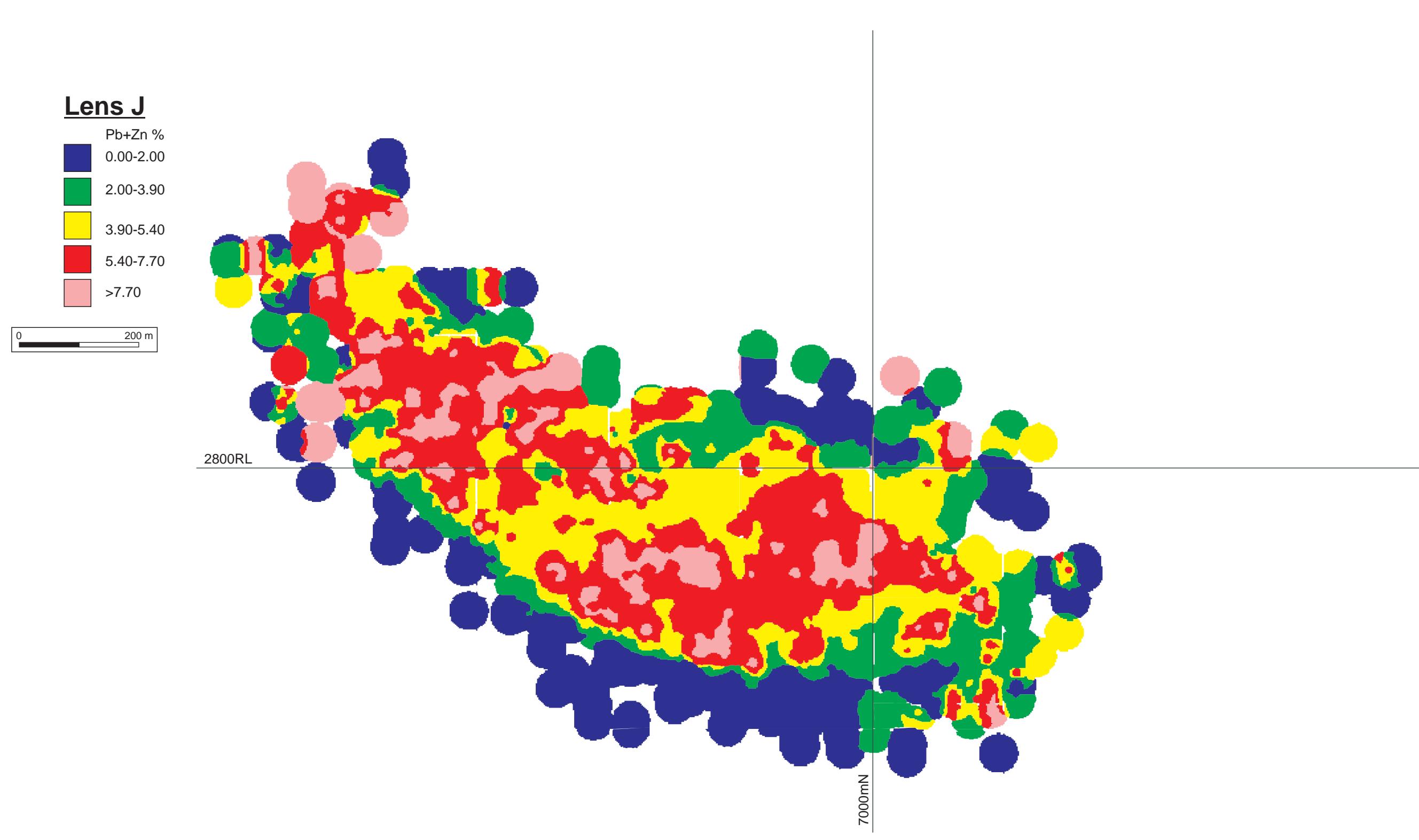
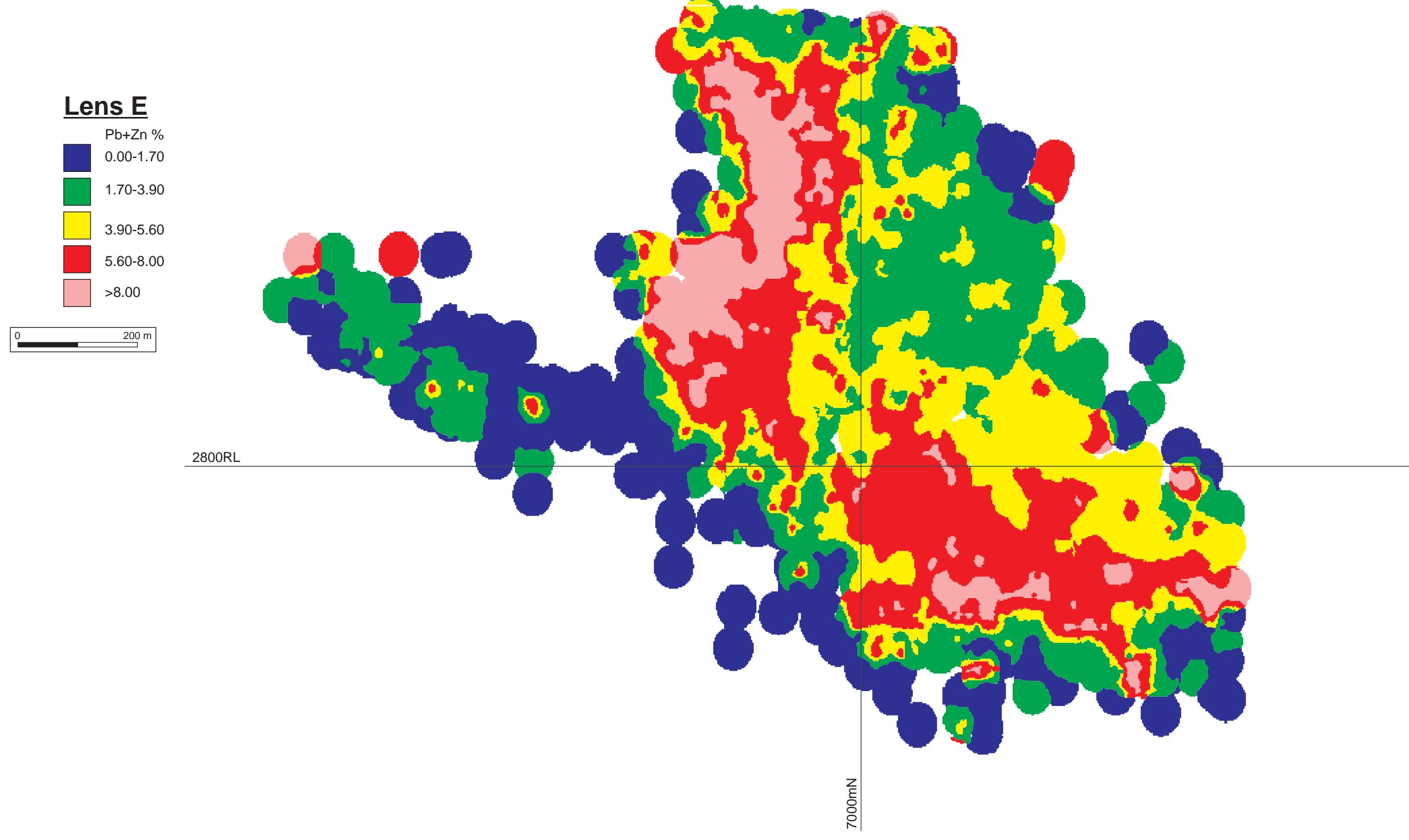
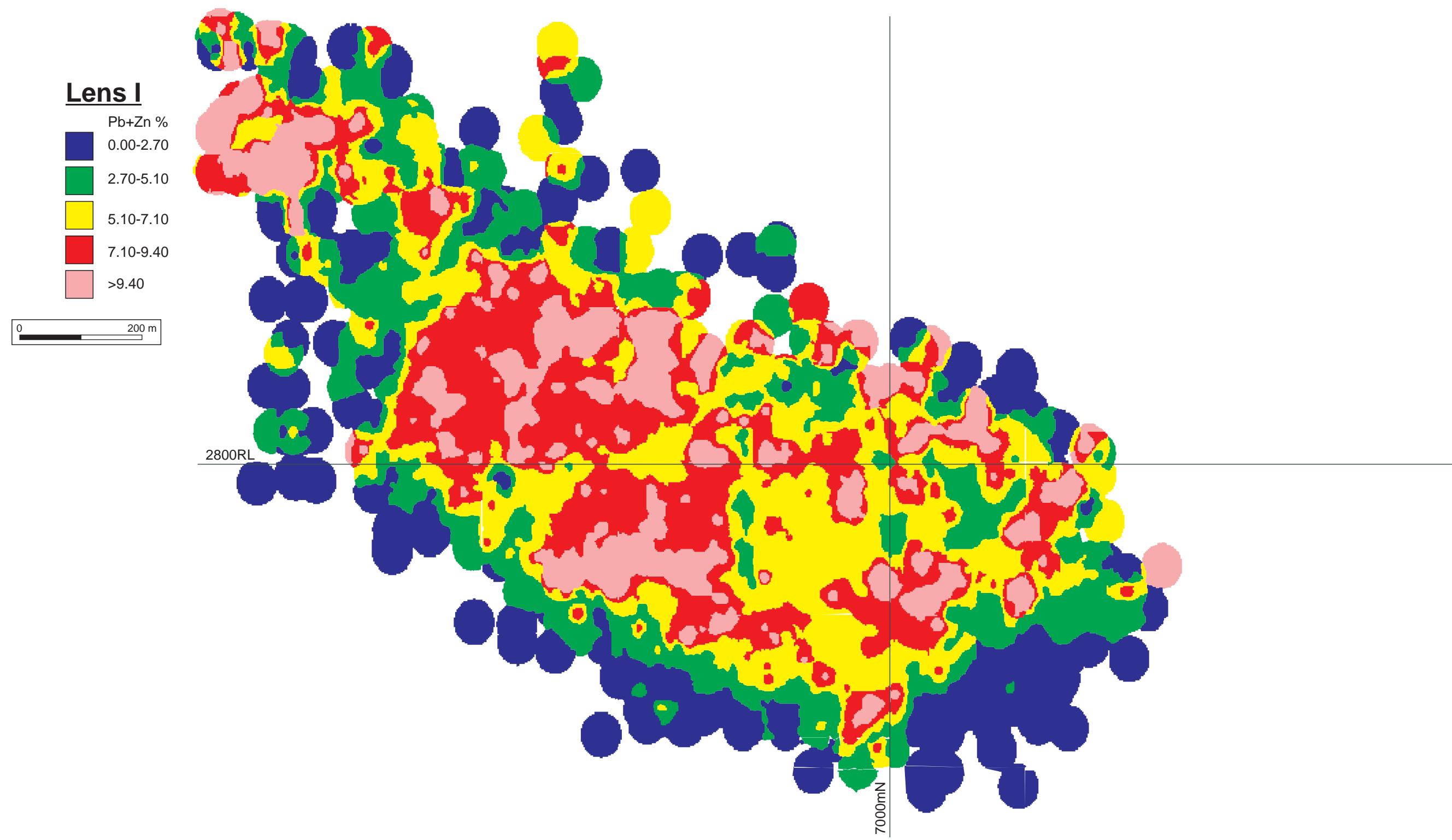
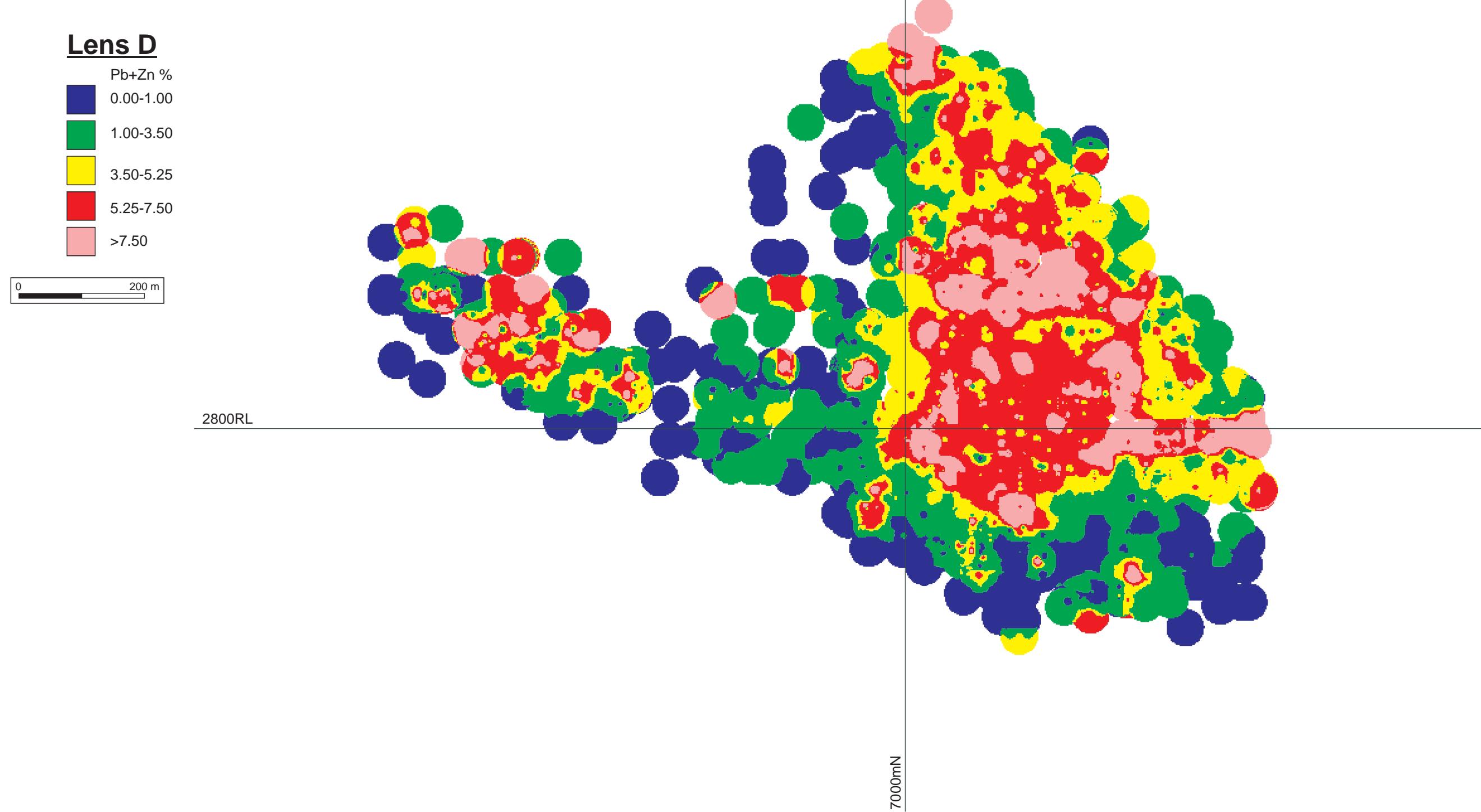
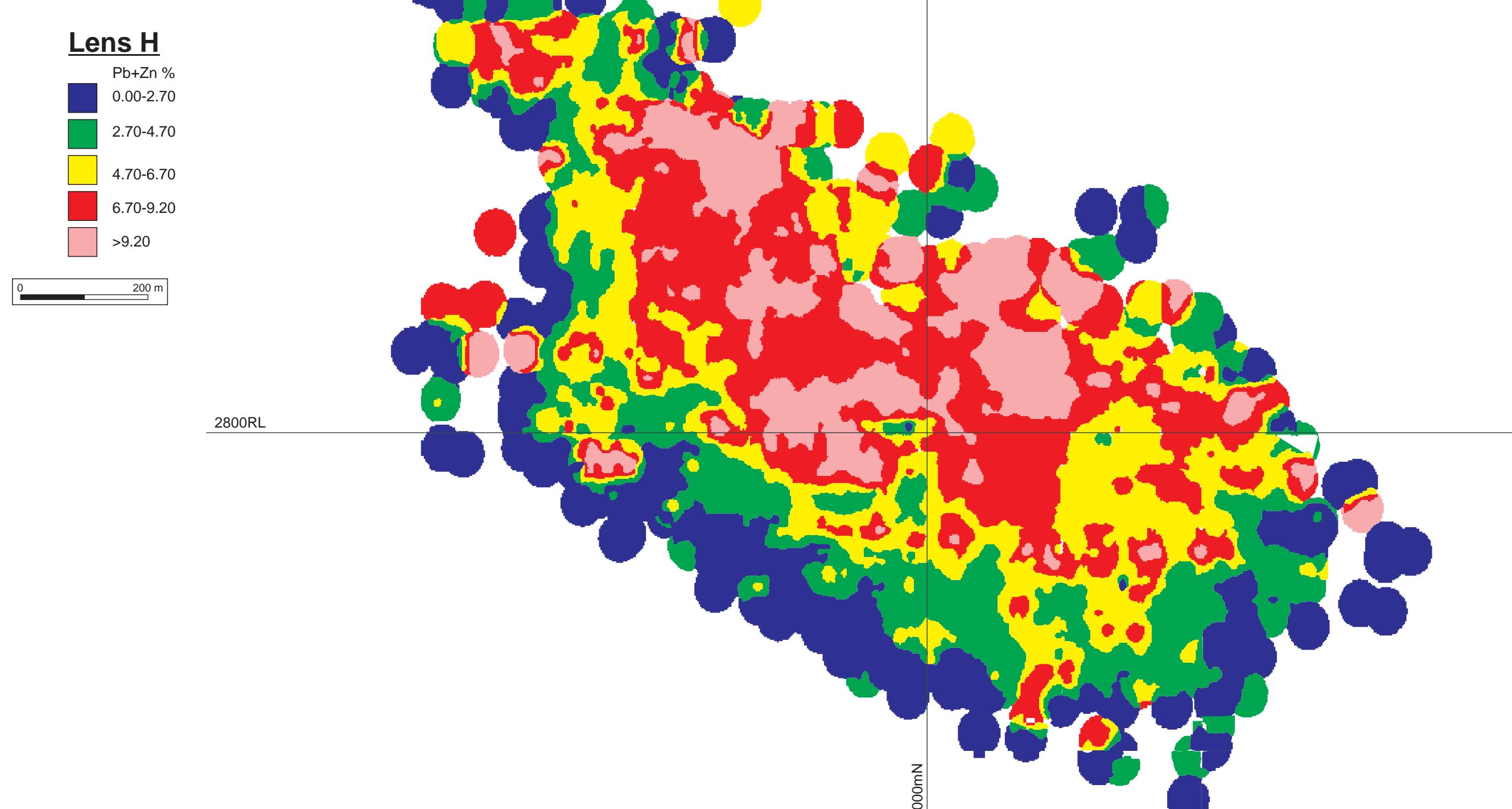
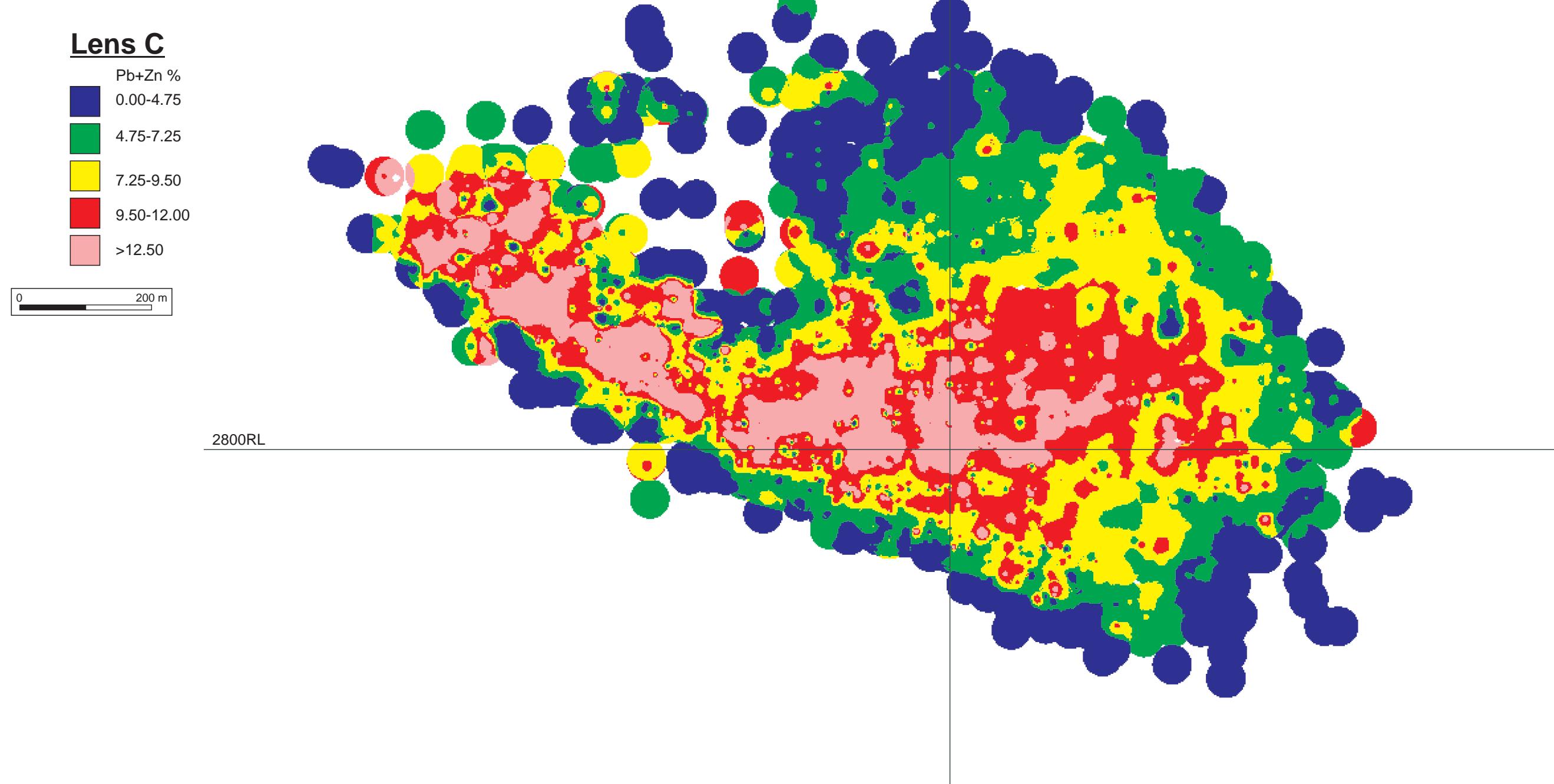
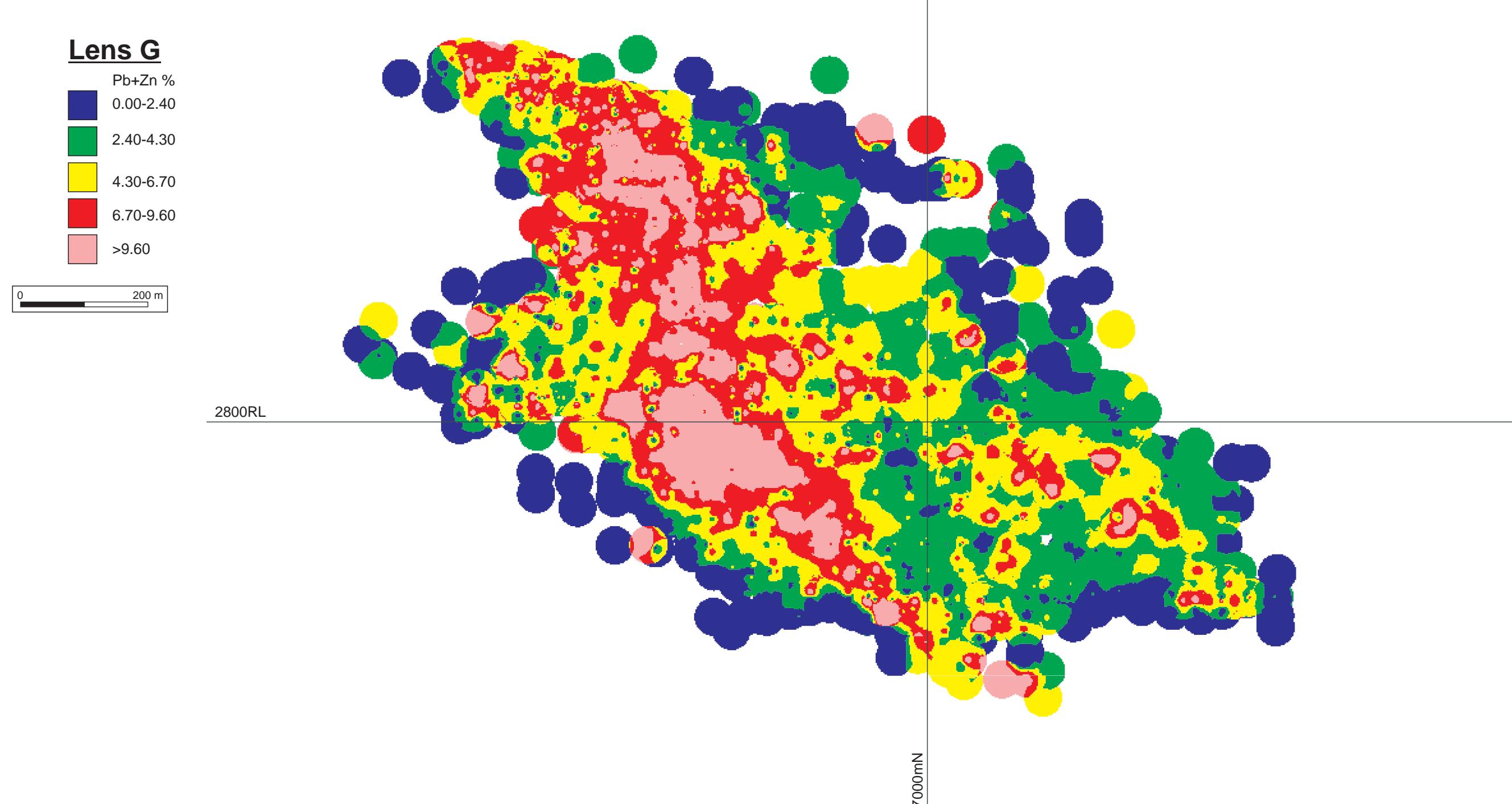
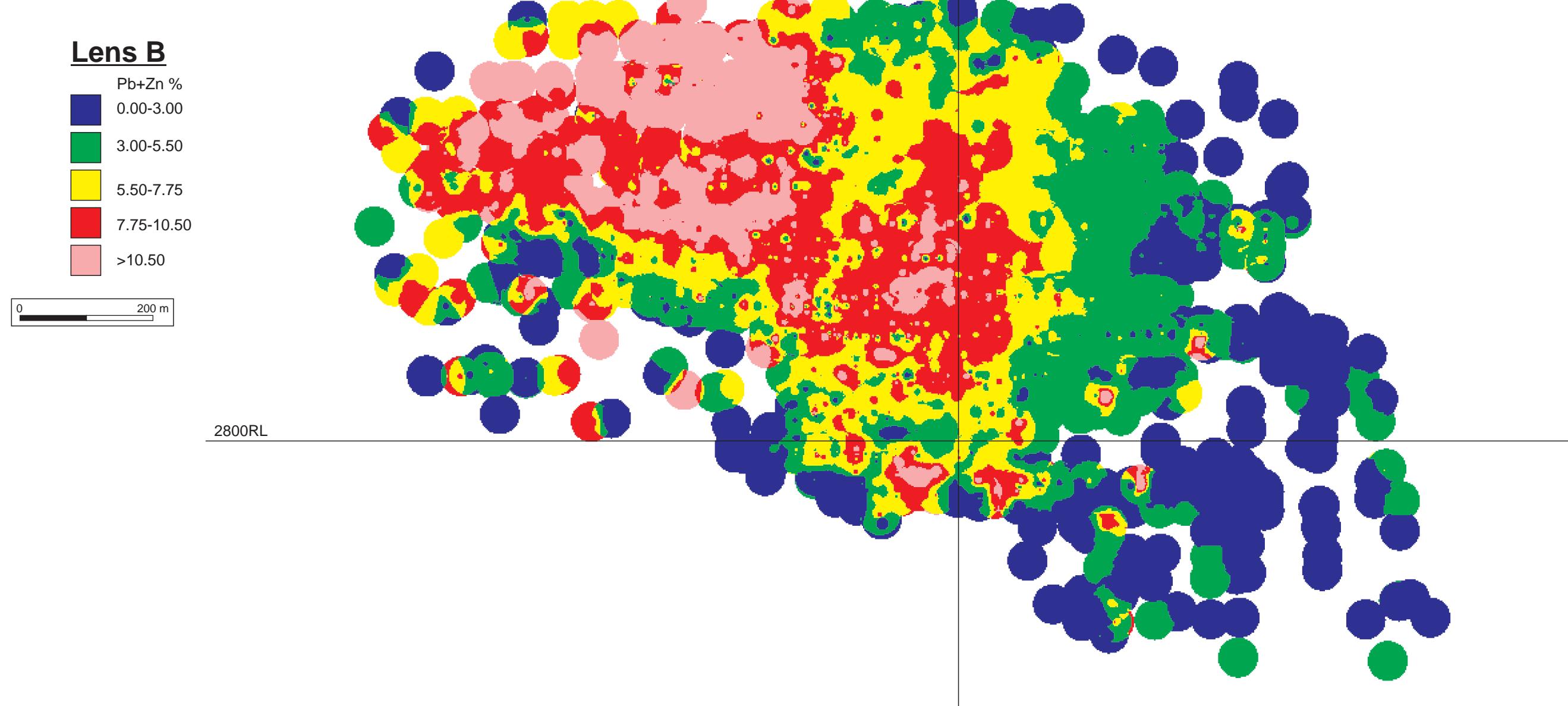


Level 15 Plan - 2730 mRL
Structural Geology and
Metal Distribution



Level 19 Plan - 2500 mRL
Structural Geology and
Metal Distribution

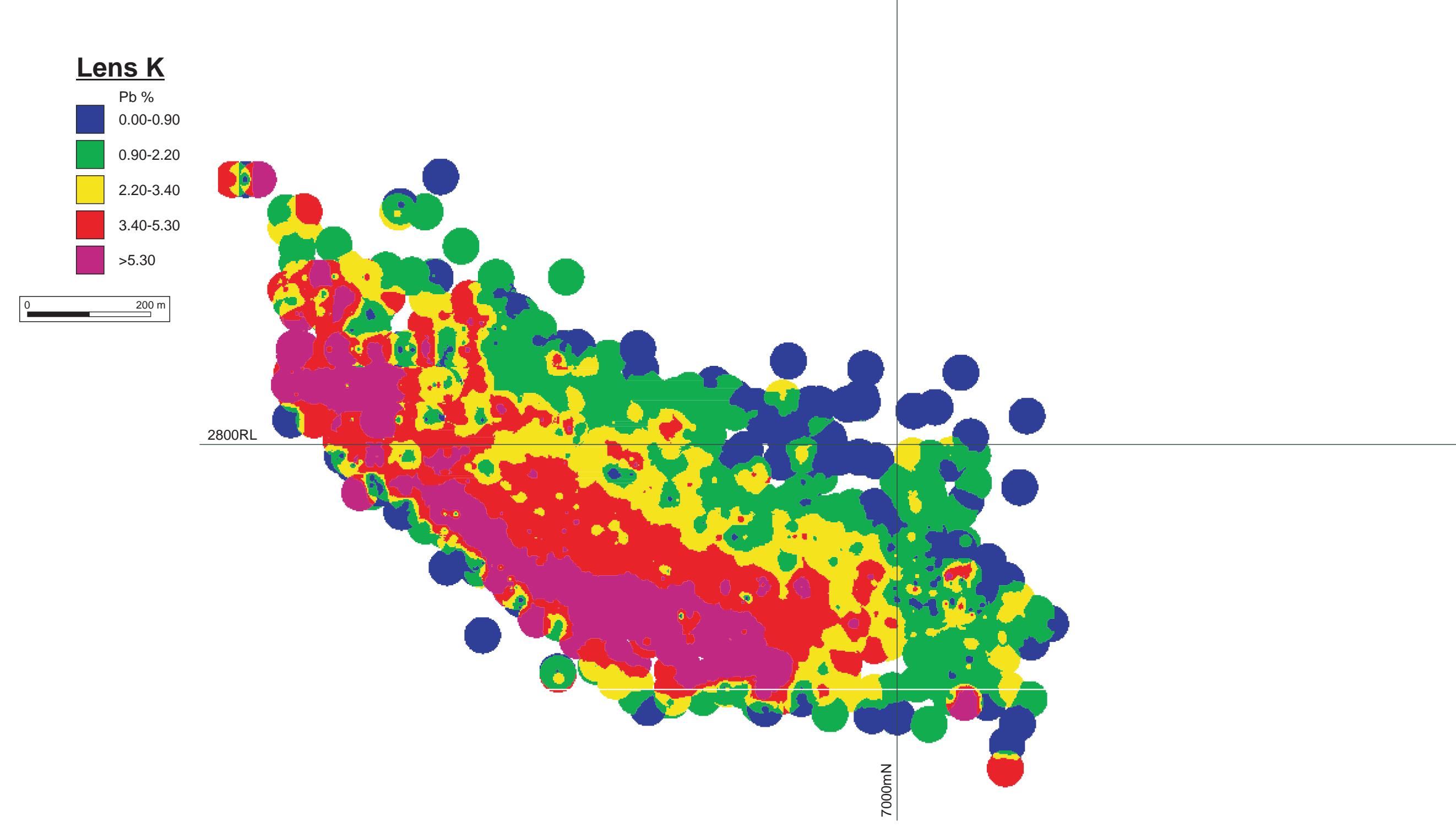
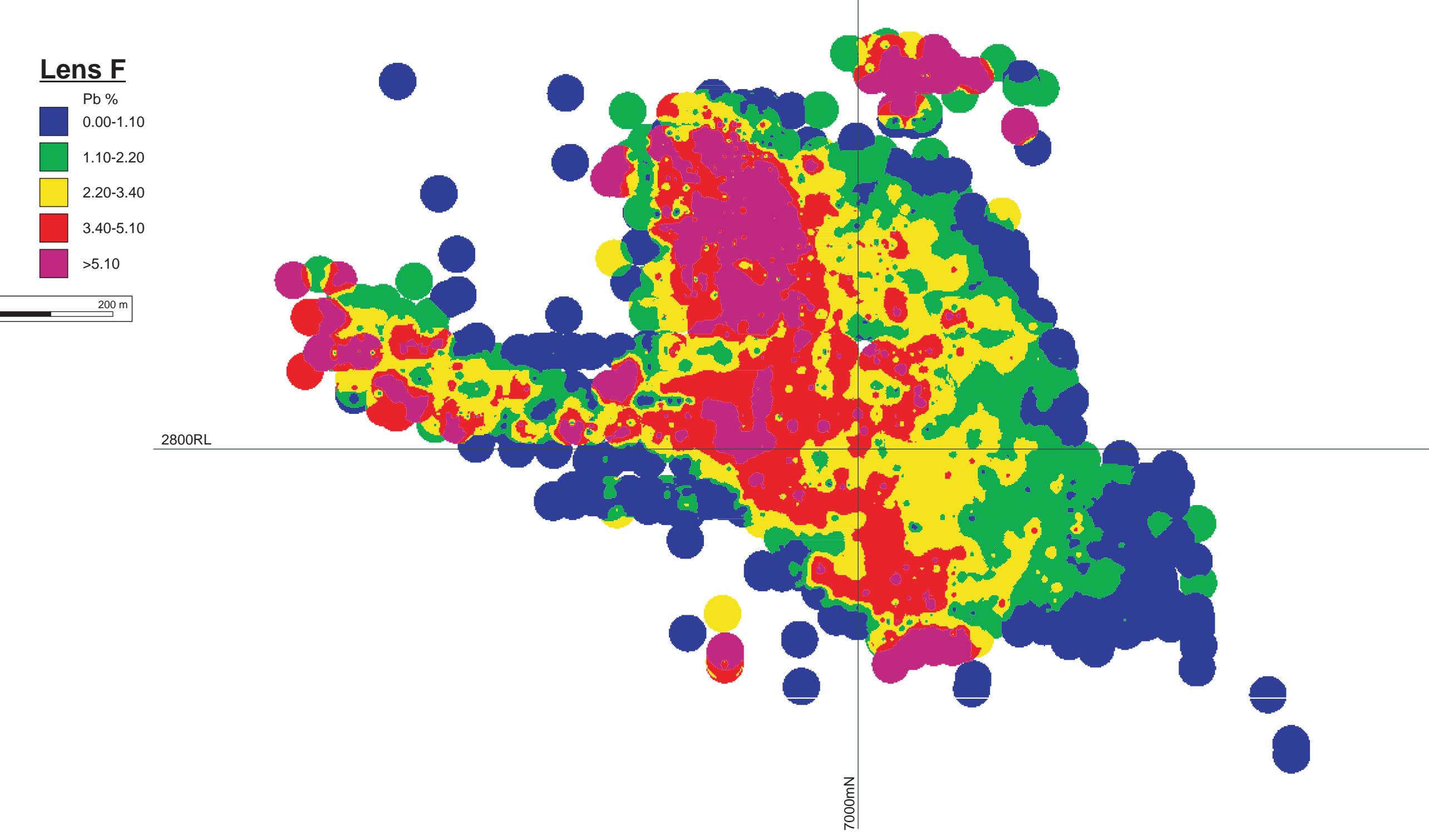
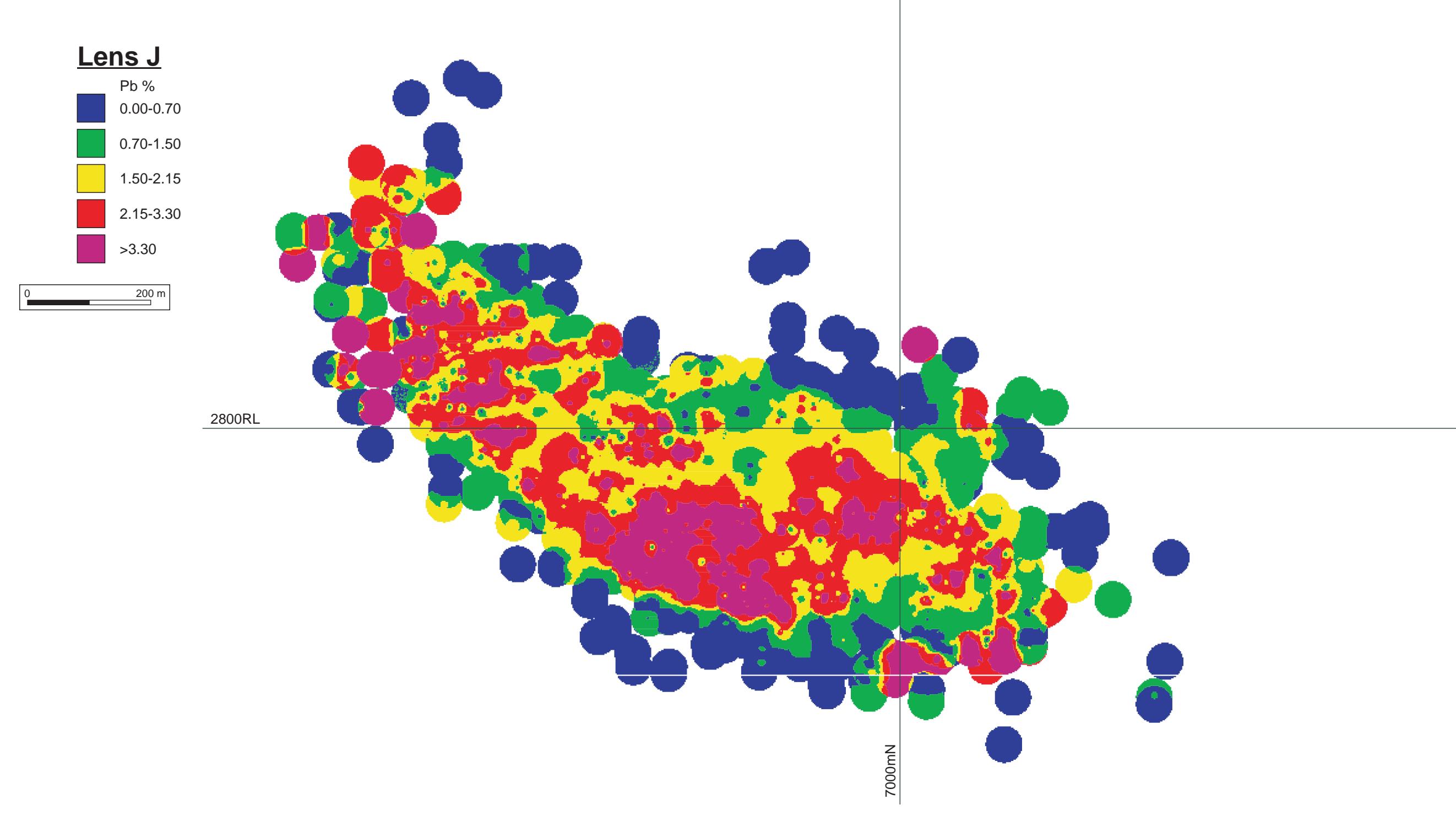
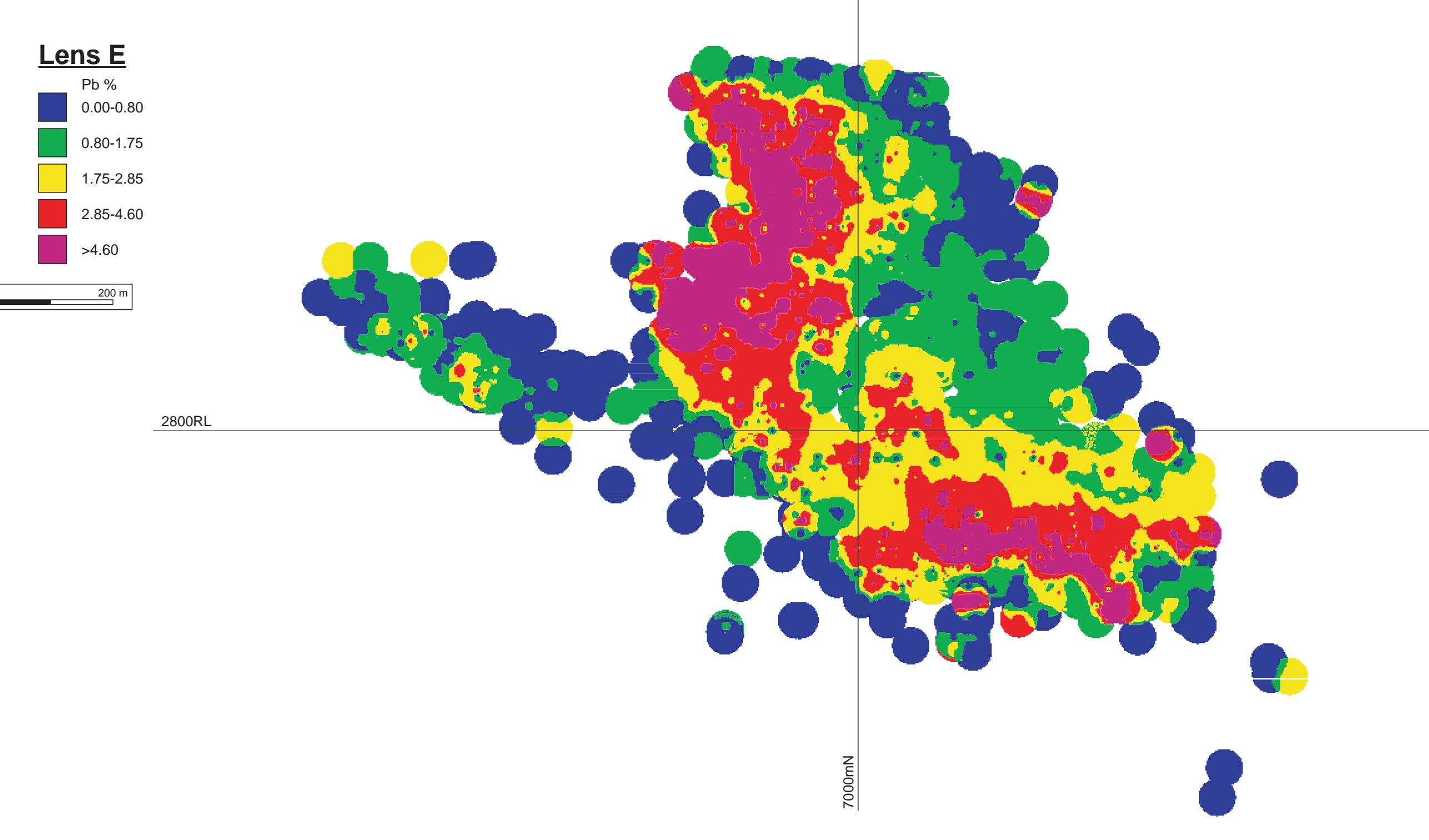
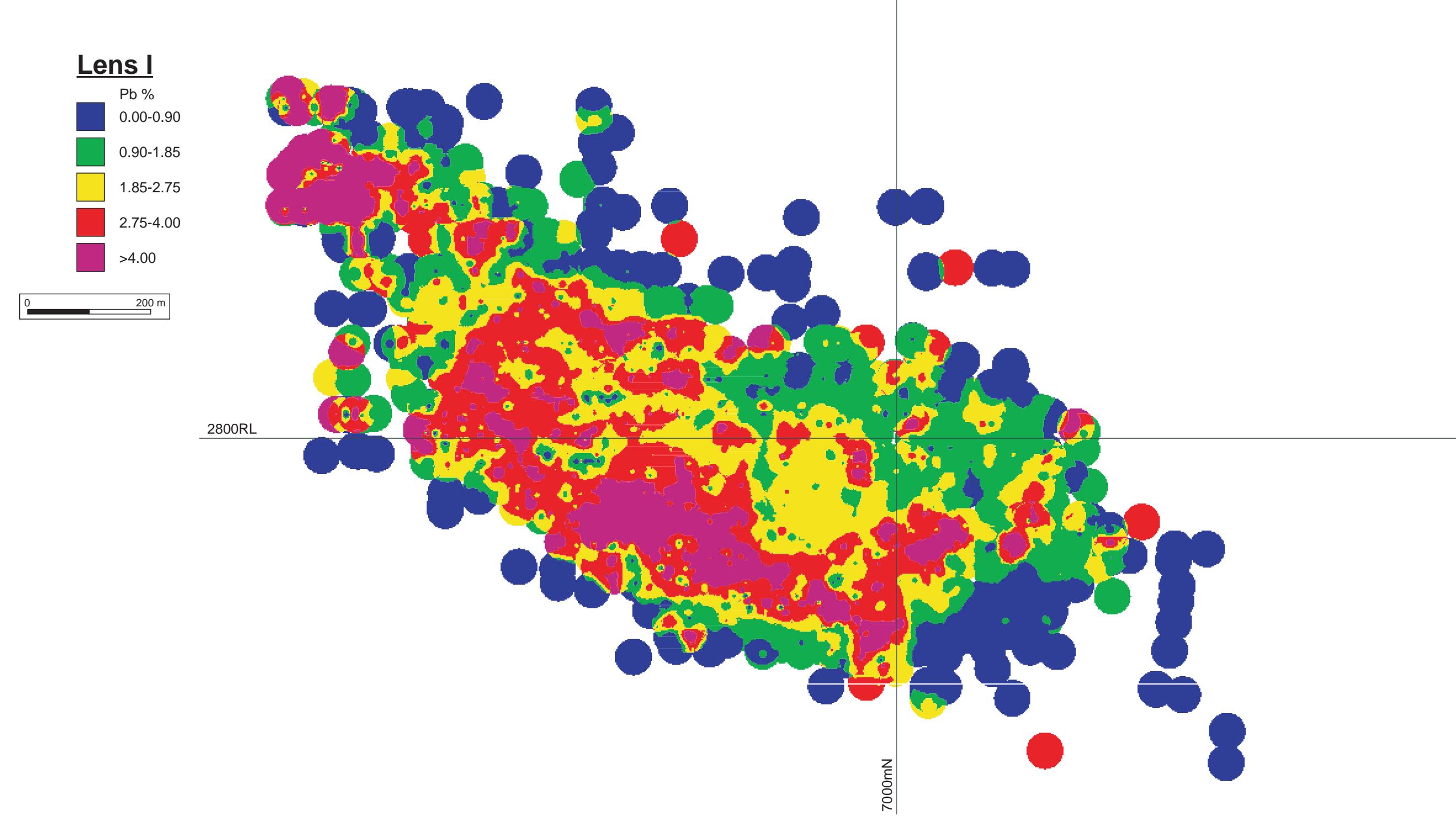
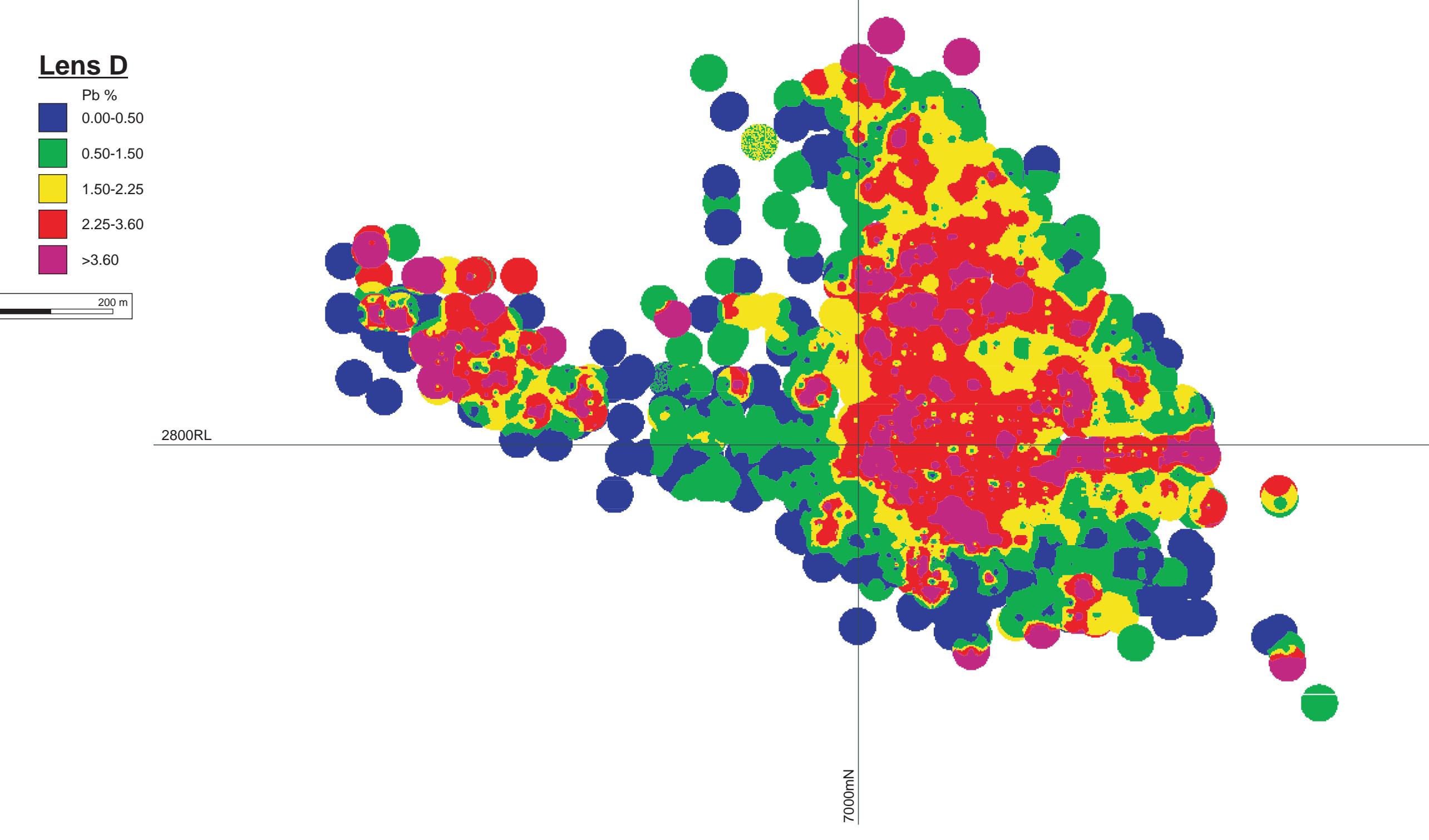
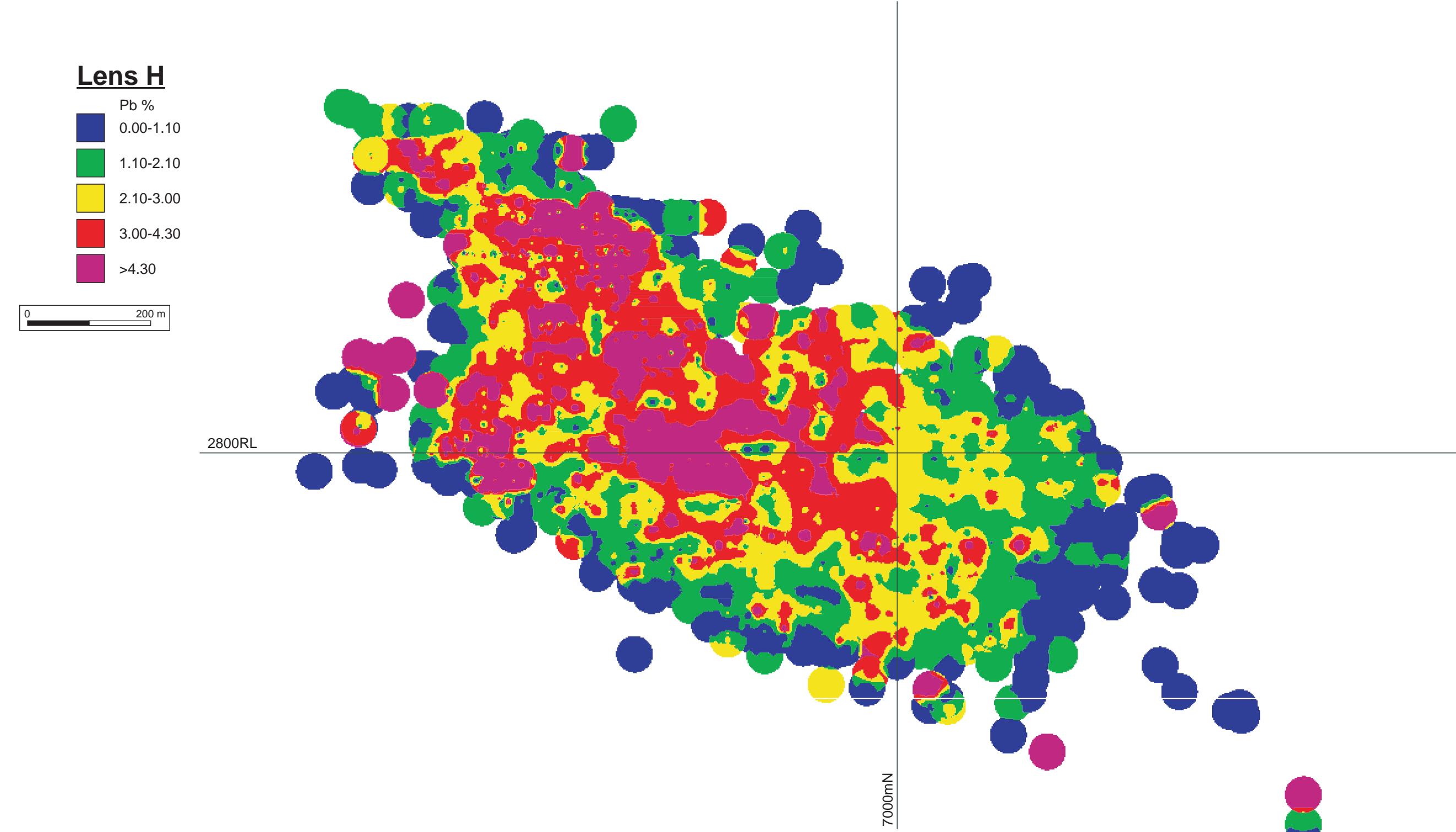
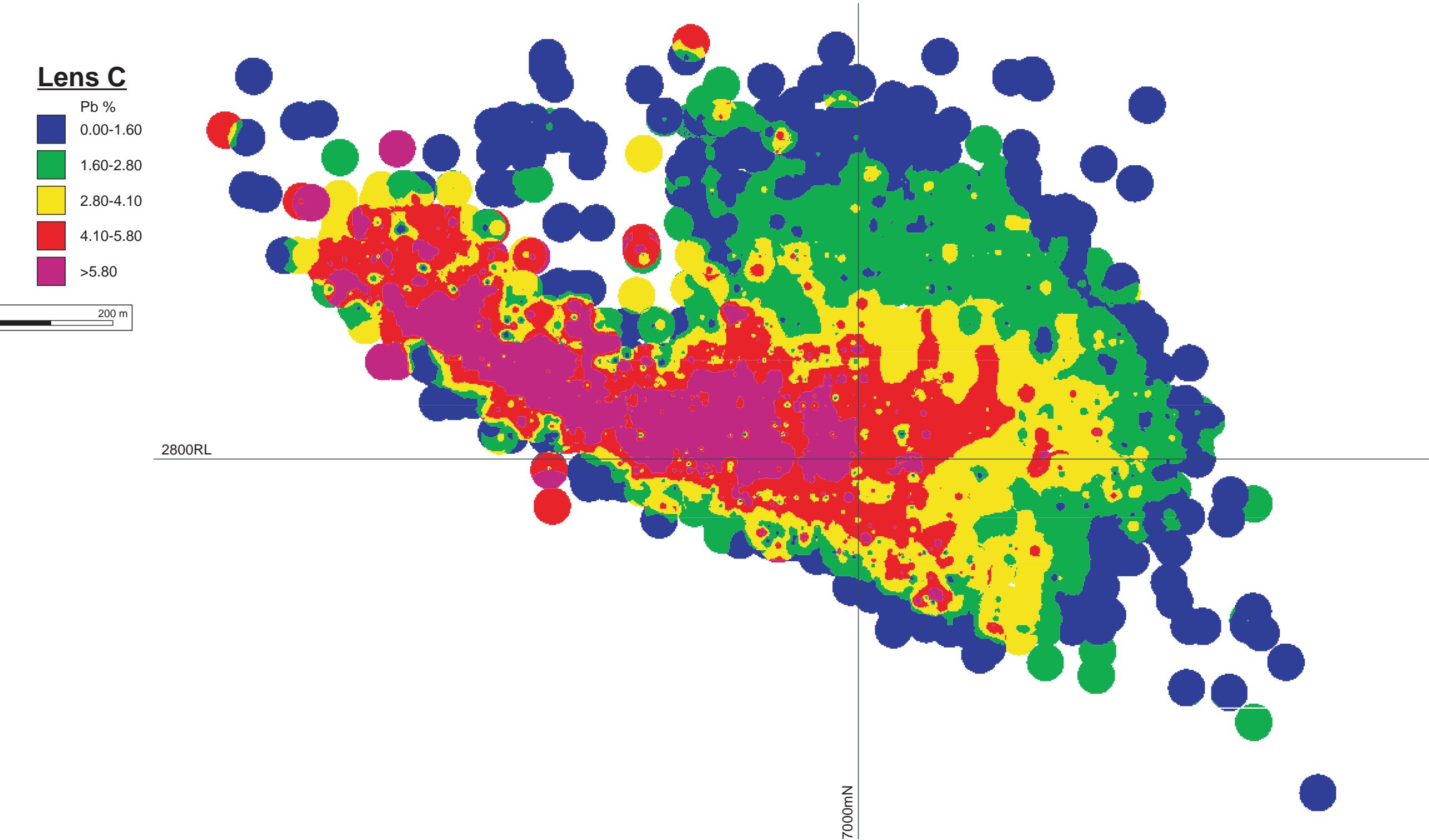
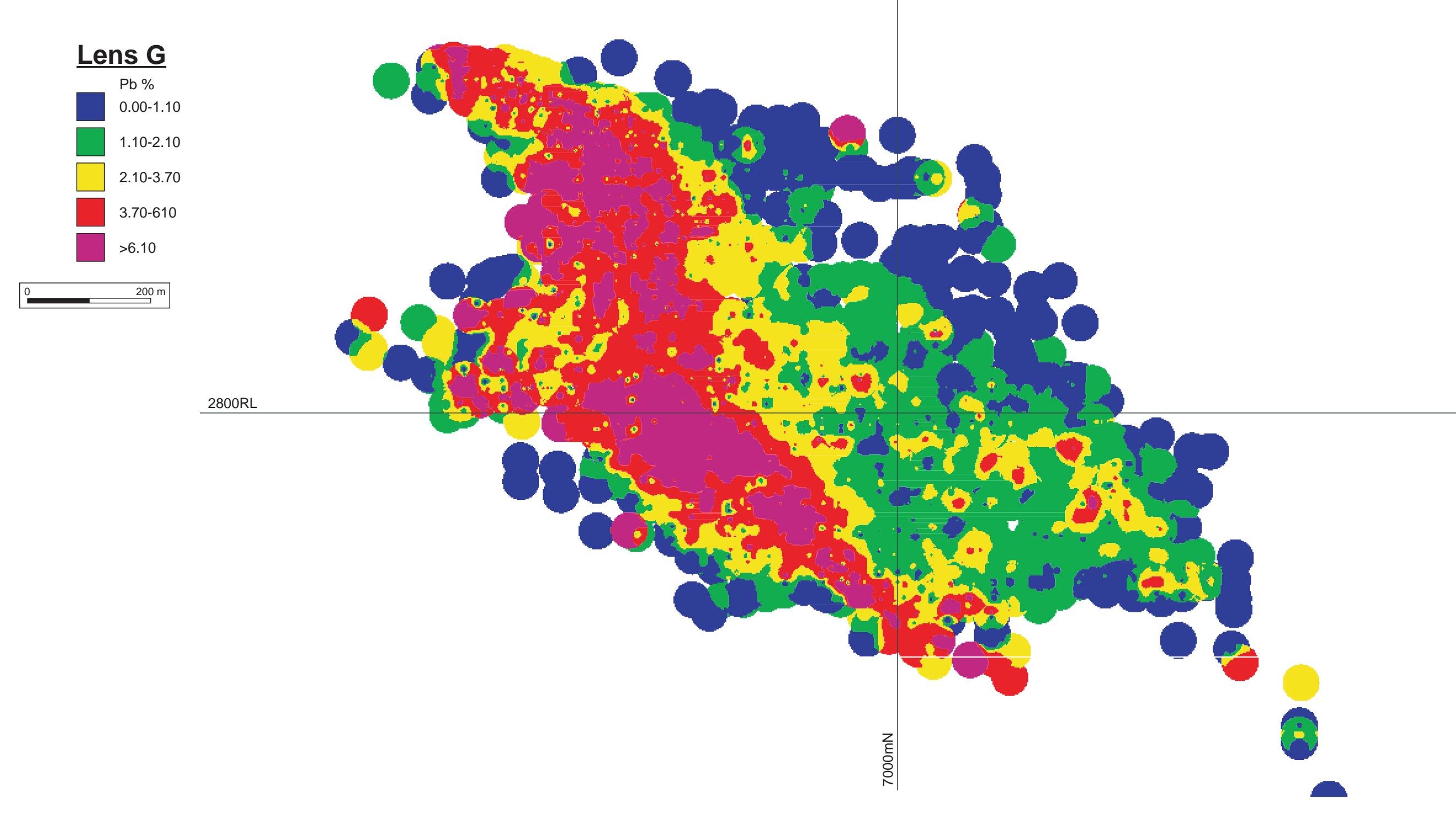
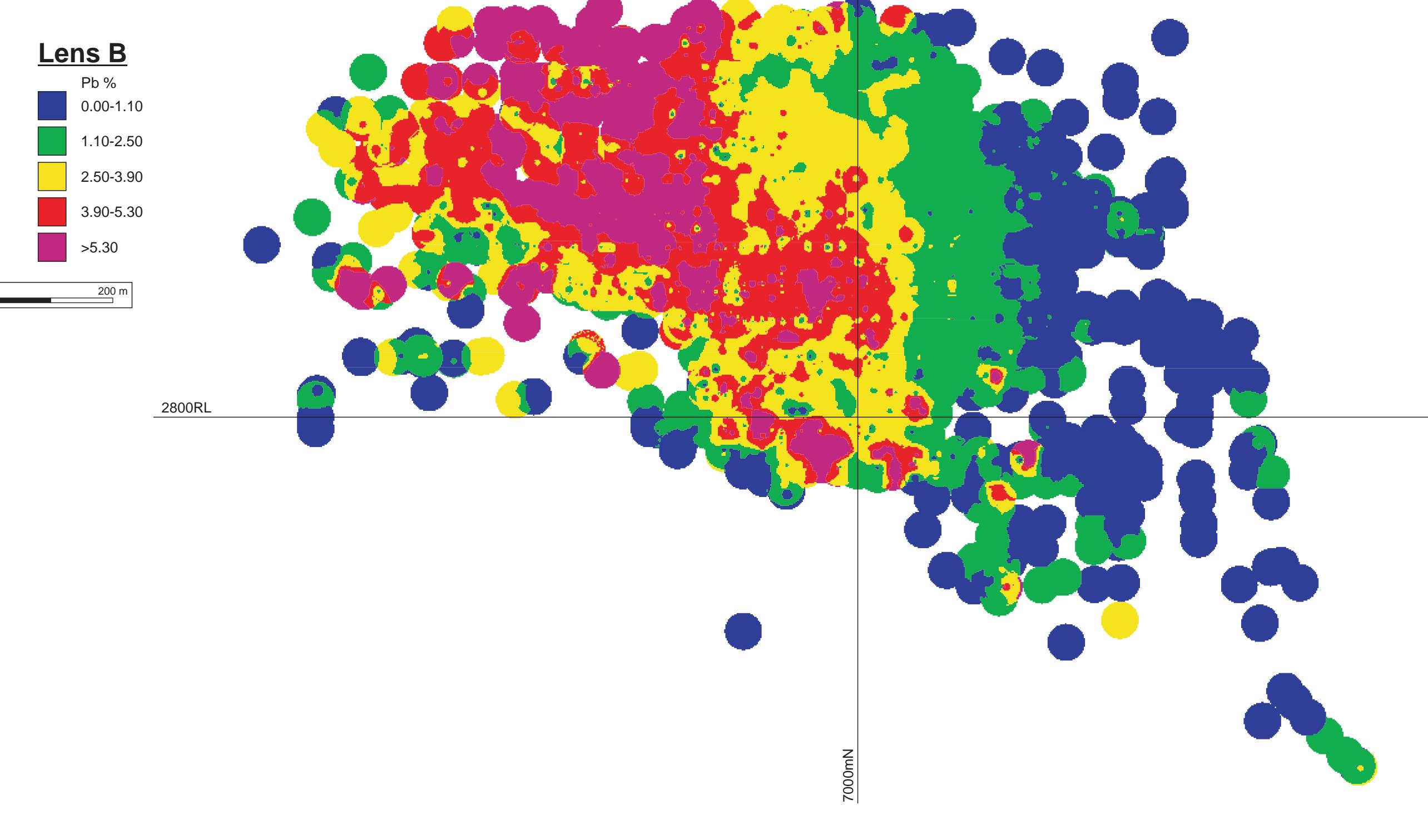




APPENDIX A - Pb+Zn grade
Individual Zn-Pb-Ag Lenses
Longitudinal Sections - Looking West
Mount Isa Lead Mine

Appendix A Longitudinal Sections (Looking West) of Pb+Zn grade of the ten Zn-Pb-Ag lenses. Lens B and Lens K are located on the west and east margins of the deposit respectively. Each contour interval represents 20% of the gridded data.


Compiled By Toby Davis, February 2002



APPENDIX A - Pb grade
Individual Zn-Pb-Ag Lenses
Longitudinal Sections - Looking West
Mount Isa Lead Mine

Appendix A Longitudinal Sections (Looking West) of Pb grade of the ten Zn-Pb-Ag mineralised lenses. Lens B and Lens K are located on the west and east margins of the deposit respectively. Each contour interval represents 20 % of the gridded data.

Compiled By Toby Davis, February 2002



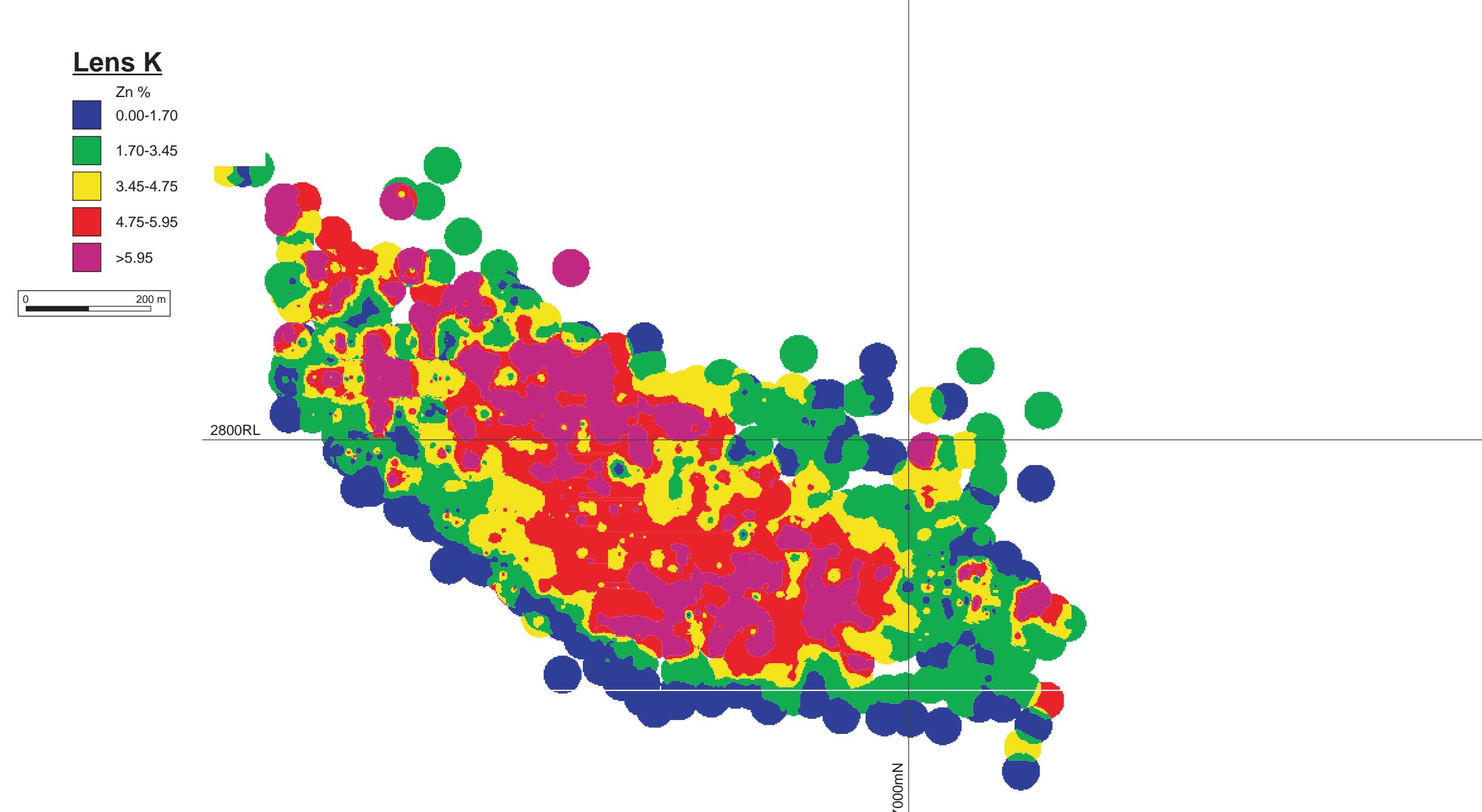
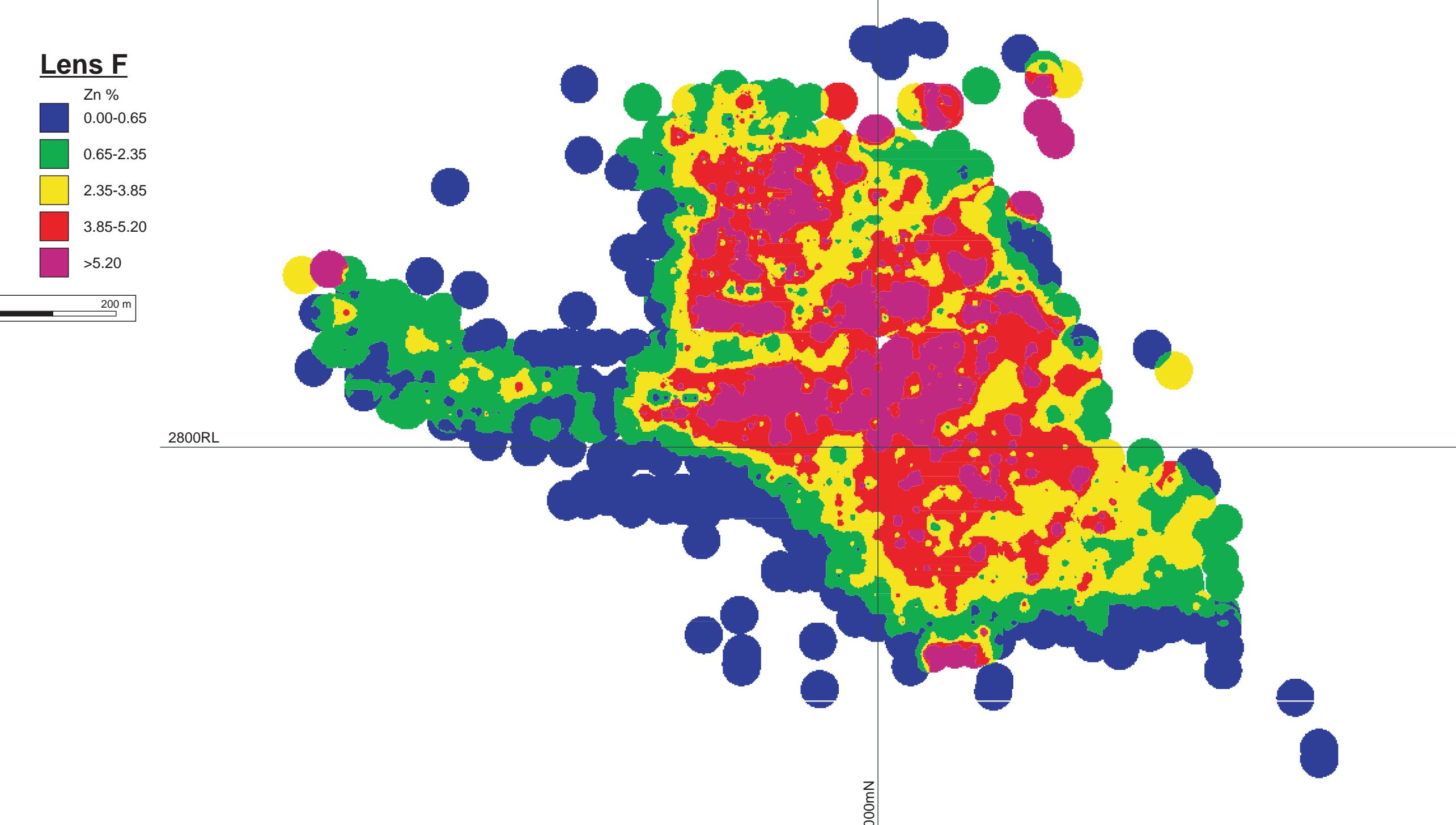
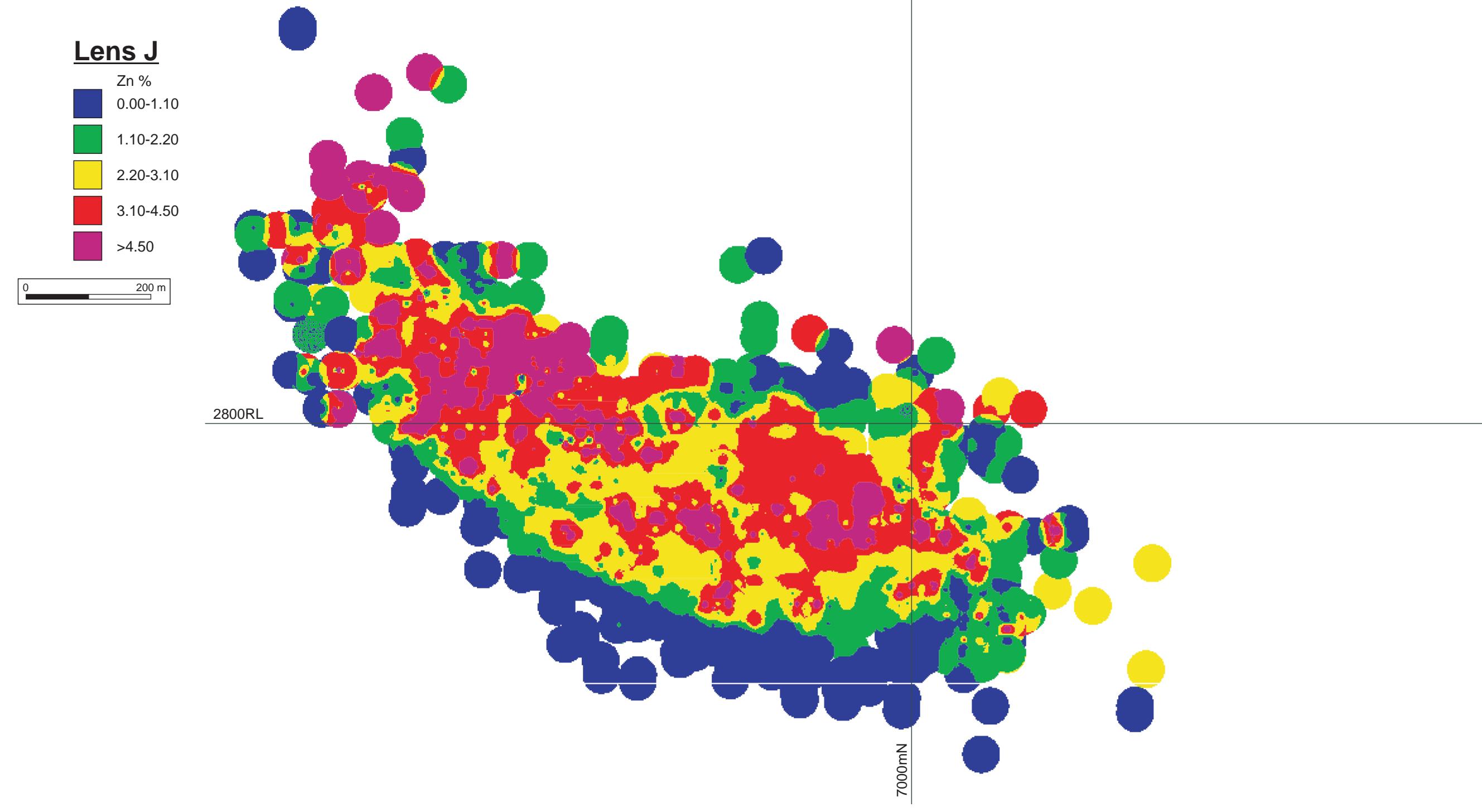
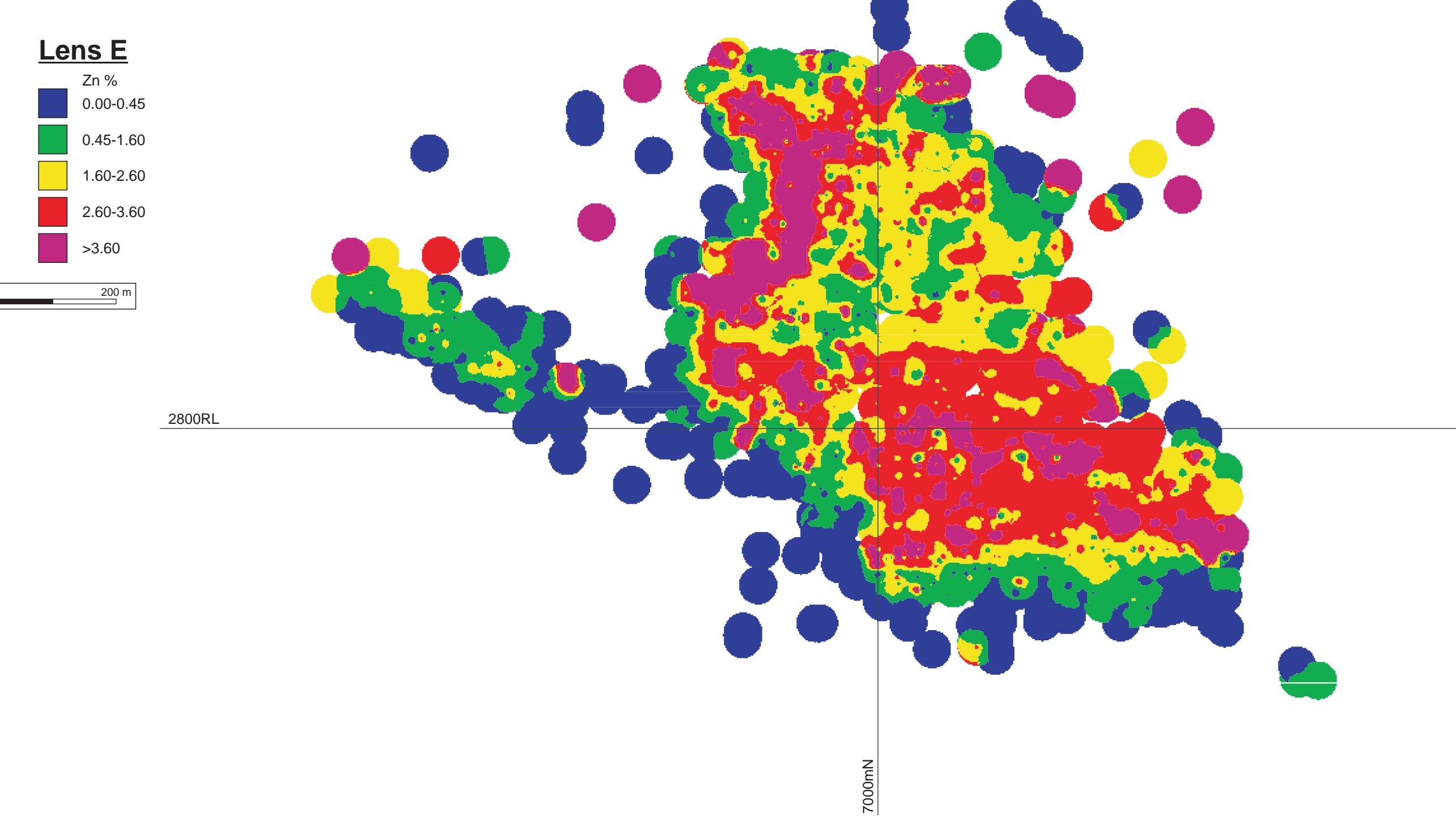
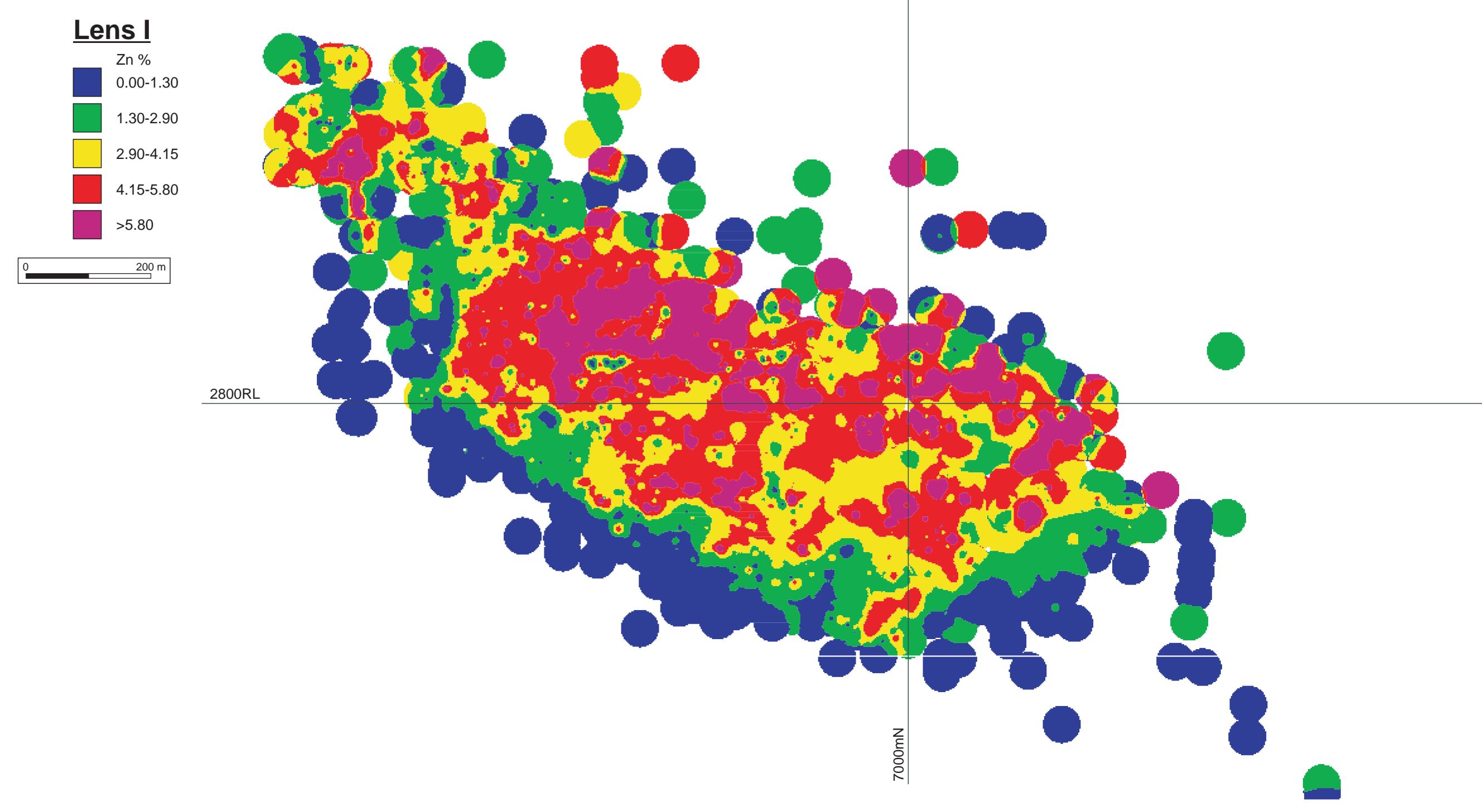
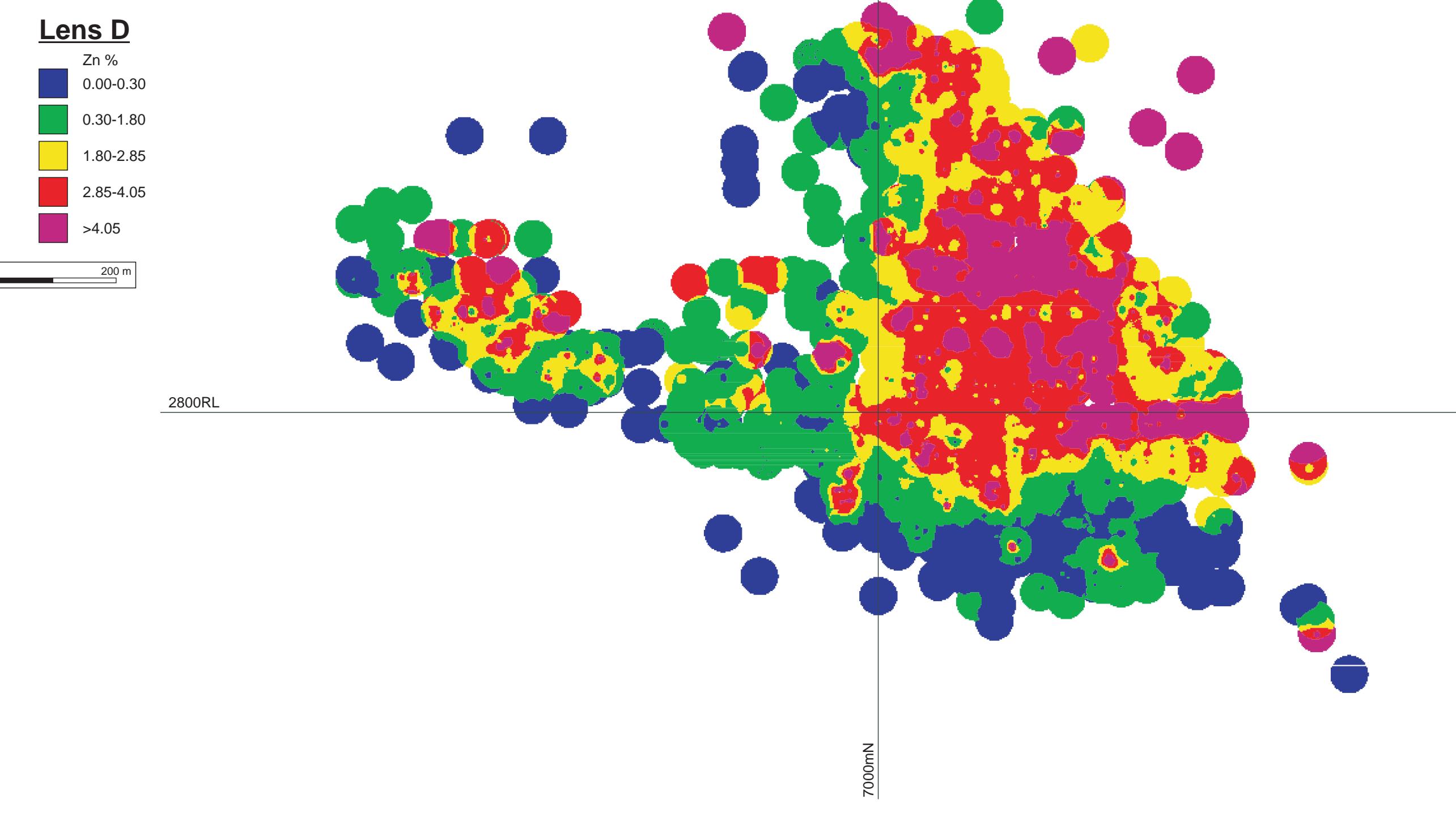
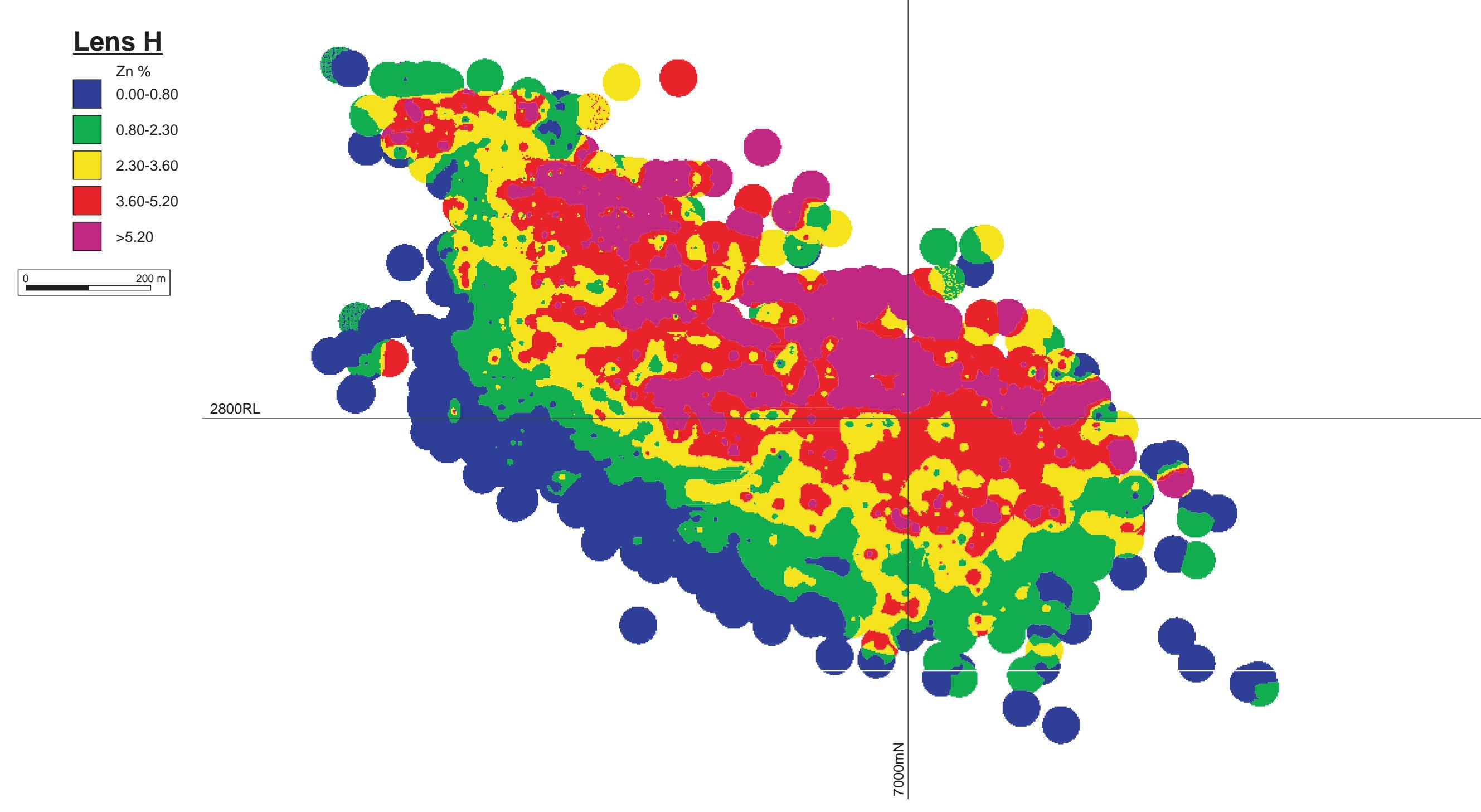
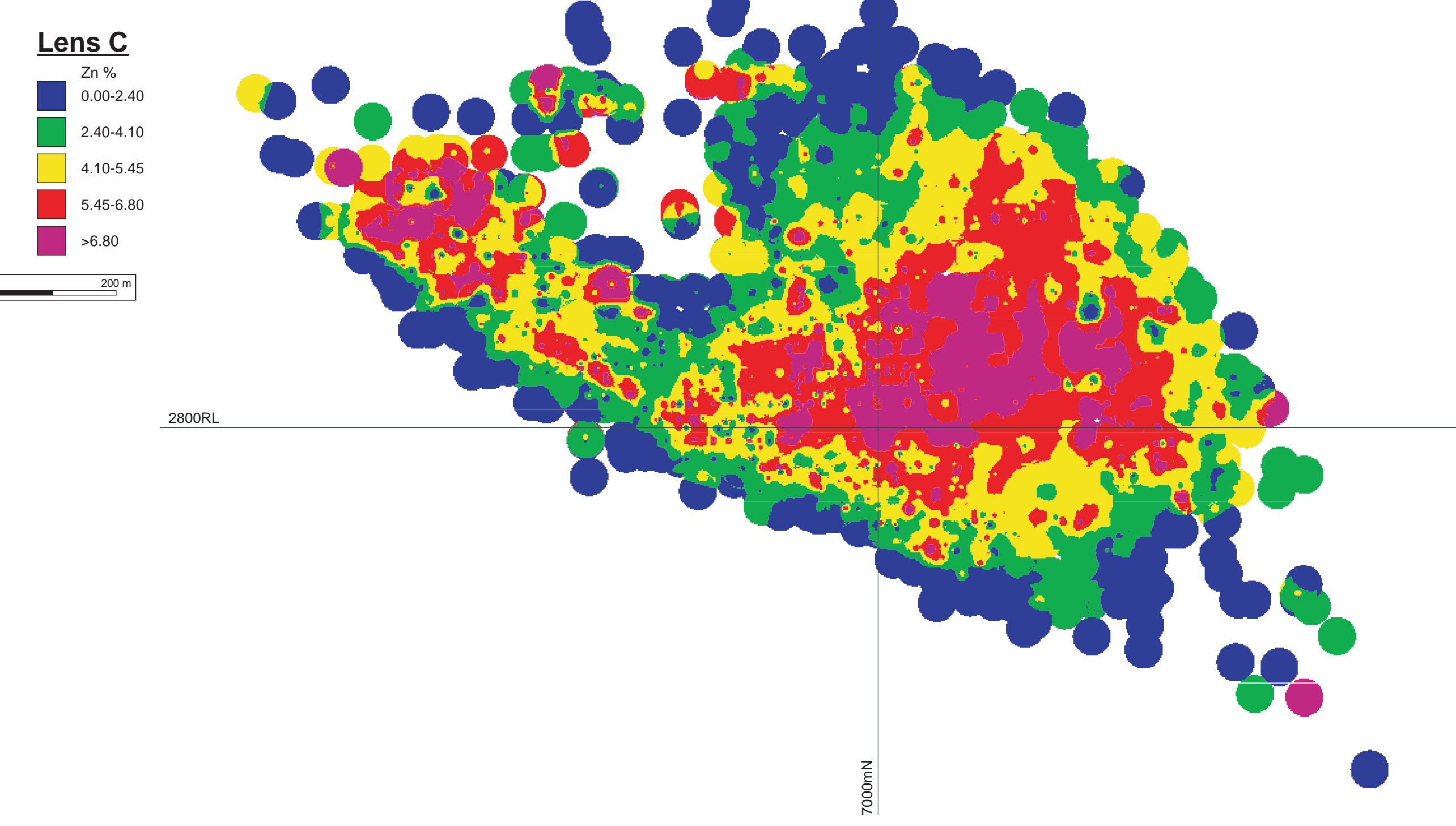
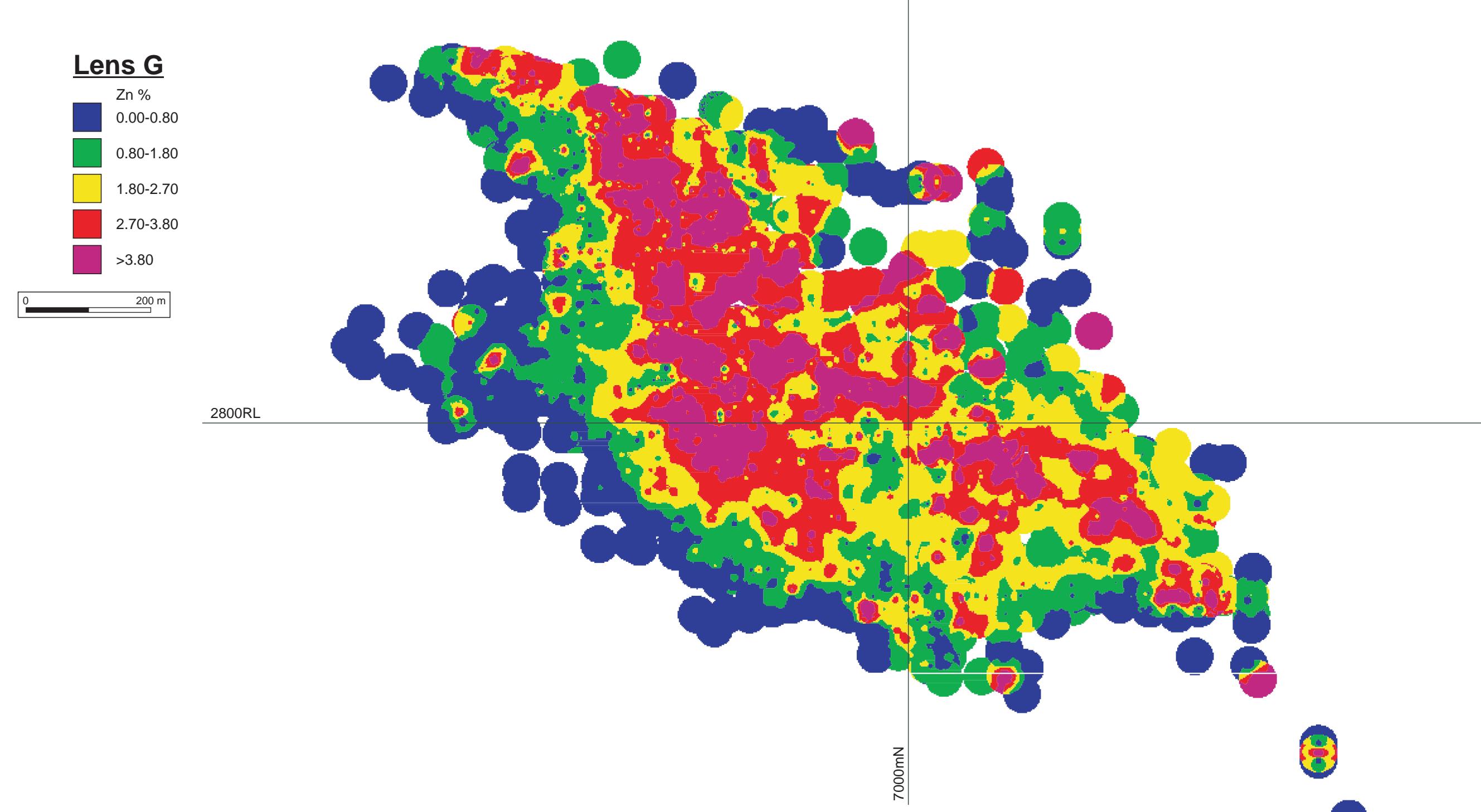
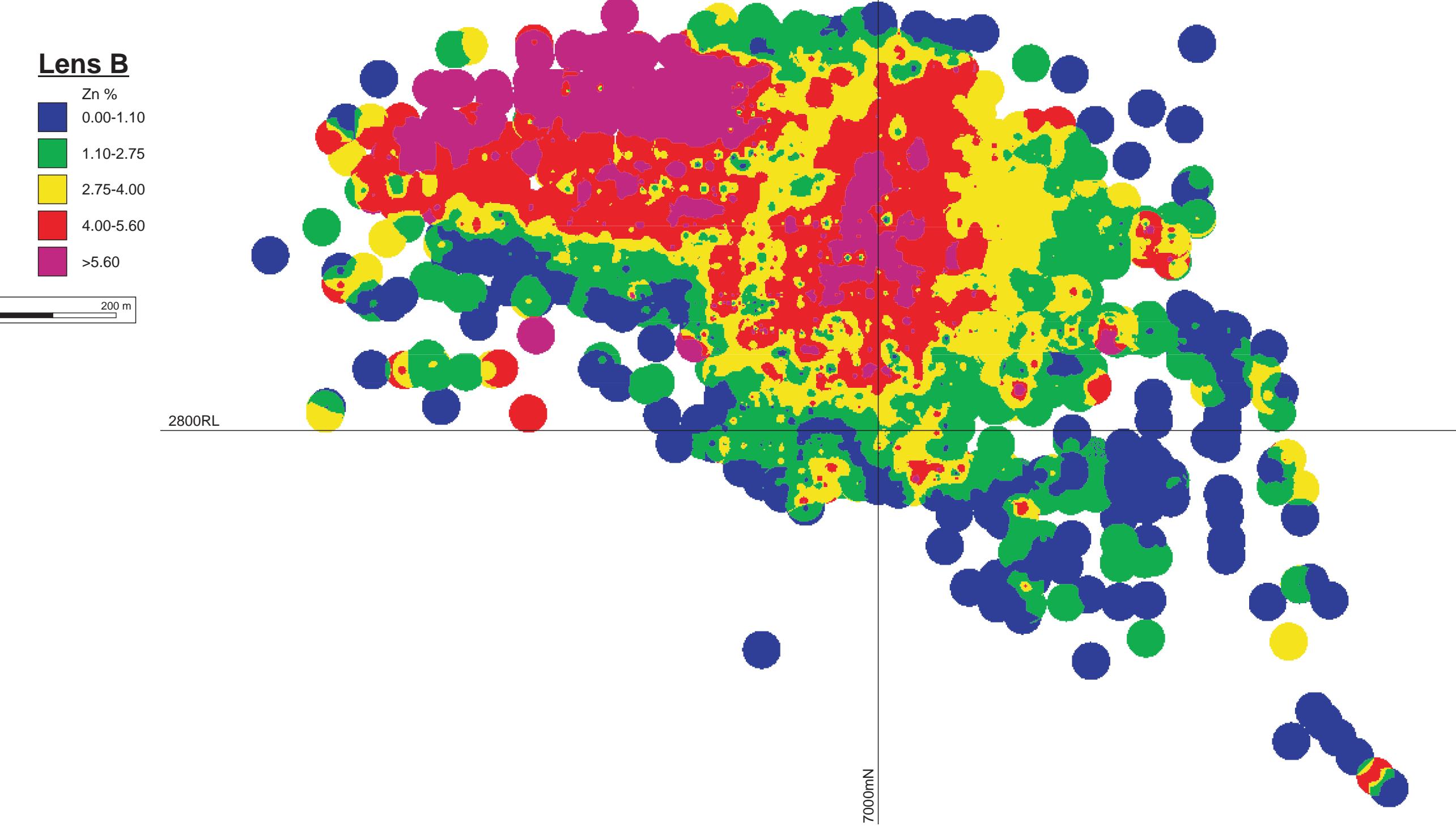
APPENDIX A - Pb:Zn Ratio
Individual Zn-Pb-Ag Lenses
Longitudinal Sections - Looking West
Mount Isa Lead Mine

<0.3
0.3
0.5
1
2
3
>3

0 200 m

Appendix A Longitudinal Sections (Looking West) of Pb:Zn ratio of the ten Zn-Pb-Ag lenses.
Lens B and Lens K are located on the west and east margins of the deposit respectively.

Compiled By Toby Davis, February 2002



APPENDIX A - Zn grade
 Individual Zn-Pb-Ag Lenses
 Longitudinal Sections - Looking West
 Mount Isa Lead Mine

Appendix A Longitudinal Sections (Looking West) of Zn grade of the ten Zn-Pb-Ag mineralised lenses. Lens B and Lens K are located on the west and east margins of the deposit respectively. Each contour interval represents 20 % of the gridded data.

Compiled By Toby Davis, February 2002

Appendix B

Structural Data

- Field data
- Structural data compiled from mine maps

Field Data

Traverse	Site	Northing	Easting	Level	S ₀	S ₂	S ₃	S ₄	Vn _{dol}	Vn _{dol} 2	F ₂	F ₃	F ₄	Fault	Joint	Joint 2	HSZ
7350XC16L		7349.00	1636.30	16	75-275												
7350XC16L		7349.40	1637.40	16	60-286												
7350XC17L	2	7350.00	1671.00	2600	79-044												
7350XC17L		7351.50	1680.50	2600	85-085												
7350XC17B		7352.20	1577.50	17b	65-299					60-095							
7350XC17D		7352.30	1625.30	17d	71-273						49-201						
7350XC17D		7352.30	1569.80	17d	69-277					54-122							
7350XC16B		7352.30	1640.20	16b	49-325												
7350XC17D	9	7352.50	1598.00	17d	74-272					50-055							
7350XC17D		7352.50	1566.20	17d	66-260					41-124							
7350XC16B		7352.50	1648.00	16b	59-335										54-321		
7350XC17D	10	7352.60	1594.20	17d	76-264					59-085							
7350XC17D		7352.60	1593.00	17d	71-261					58-068	64-010						
7350XC17D	11	7352.60	1591.50	17d	71-214					53-065							
7350XC16B		7352.60	1637.30	16b	56-295												
7350XC16L		7352.70	1652.70	16	72-020												
7350XC17D		7352.80	1610.80	17d	71-275					61-116							
7350XC17D	8	7352.80	1606.80	17d	68-274					66-090							
7350XC17D		7352.80	1604.00	17d	69-270					49-120							
7350XC17D		7352.80	1589.40	17d	69-272					56-054							
7350XC17D	12	7352.80	1585.10	17d	70-244					66-071							
7350XC17D		7352.80	1545.50	17d	75-254					65-051							
7350XC17L		7353.00	1652.50	2600	80-040												
7350XC17L		7353.00	1635.00	2600	61-032						60-000	48-032					
7350XC17D		7353.00	1635.00	17d	74-260					66-060	48-341						
7350XC17D		7353.00	1632.00	17d	70-270												
7350XC17D		7353.00	1622.00	17d	70-270					60-070	53-108						
7350XC16B		7353.00	1648.80	16b	75-008												
7350XC17L		7353.25	1676.50	2600	85-070												
7350XC16B		7353.30	1651.00	16b	74-025												
7350XC17B		7353.40	1640.00	17b	70-028												
7350XC17D	1	7353.40	1635.40	17d	70-263												
7350XC16L		7353.40	1662.00	16	72-020					28-140							
7350XC16L		7353.40	1660.00	16	72-020					76-130							
7350XC17L		7353.50	1644.00	2600	64-020												
070NDR1		7353.50	1676.70	2600	80-070												
7350XC16B		7354.20	1595.50	16b	76-269												
7350XC16B		7354.30	1591.20	16b	69-280												
7350XC16L		7354.40	1643.70	16	74-042						33-117	54-340					
7350XC17B		7355.20	1642.90	17b	50-305							52-340					
7350XC17D		7355.30	1637.70	17d	80-040						55-333						
7350XC17L	1	7356.20	1639.70	2600	68-265												
7350XC17L	1	7356.20	1639.70	2600	47-355												
7350XC17L	1	7356.20	1639.70	2600	50-005												
M73inc17A		7356.20	1639.70	17a	65-015					50-152							
M73inc17A		7356.20	1639.70	17a	65-015					46-145							

Traverse	Site	Northing	Easting	Level	S _o	S ₂	S ₃	S ₄	Vn _{dol}	Vn _{dol} 2	F ₂	F ₃	F ₄	Fault	Joint	Joint 2	HSZ
M73inc17A		7356.20	1639.70	17a	65-015				40-140								
M73inc17A		7356.20	1639.70	17a	65-015				40-138						30-133		
M70 inc 17B(ii)		7356.40	1649.70	17b	70-002									65-334			
7350XC16B		7358.90	1653.10	16b	79-021												
7350XC16L		7359.70	1645.60	16	80-040				76-206						24-122	28-121	
M73inc17A	2	7360.00	1640.00	17a	54-005												
M73inc17A	2	7360.00	1640.00	17a	61-031												
M73inc17A	2	7360.00	1640.00	17a	56-025				62-174						70-171		
N73inc17C		7363.00	1648.00	17d	65-002												
M70 inc 17B(ii)		7363.30	1652.30	17b	75-035												
7350XC16B		7363.60	1654.40	16b	74-014				41-201						17-098		
M70 inc 17B(ii)		7364.60	1648.00	17b	62-019												
N73inc17C	13	7365.50	1637.00	17d	69-032												
M70 inc 17B(ii)		7366.00	1652.70	17b	70-050												
M73inc17A		7367.00	1638.70	17a	65-020							50-340					
N73inc17C	12	7367.20	1633.60	17d	71-039										90-044		
N73inc17C	12	7367.20	1633.60	17d	71-039										85-059		
M70 inc 17B(ii)		7367.30	1647.80	17b	56-005												
N73inc16B		7367.50	1659.80	16b	80-059												
N73inc17C	11	7367.70	1634.20	17d	71-039				60-293	59-162	52-324		45-325				
N73inc17C	10	7368.00	1629.00	17d	84-254												
N73inc16B		7368.00	1649.00	16b	69-025												
N73inc17C		7368.20	1627.80	17d	79-245												
M70 inc 17B(ii)		7368.30	1652.60	17b	68-025						56-330						
N73inc17C	9	7368.60	1626.20	17d	76-262												
N73inc17C	14	7368.60	1653.80	17d	76-044										26-125	32-235	
N73inc16L		7368.80	1638.80	16	75-034										15-242	65-235	15-184
N73inc16A		7369.00	1654.60	16	73-009												
N73inc16A		7370.00	1657.00	16	73-009								74-050				
7350XC17D		7370.50	1579.10	17d	68-255				51-205	58-035							
N73inc16A		7371.70	1661.20	16	73-009										75-050		
N73inc17C	7	7372.00	1612.30	17d	65-268				45-154	44-120							
N73inc16B		7372.40	1636.50	16b	74-034												
N73inc17C		7372.50	1646.00	17d	78-011										26-105		
N73inc17C		7372.50	1651.30	17d	66-015										32-235		
N73inc17C		7372.70	1660.80	17d	85-070												
N73inc17C		7373.00	1607.00	17d	82-265				44-120								
N73inc16B		7373.80	1652.30	16b	84-045												
M70 inc 17B(ii)		7374.00	1652.50	17b	80-056								53-336		31-126	31-126	
N73inc16A		7374.00	1654.80	16					86-285								
M73inc17B		7374.20	1598.20	17b	69-278								55-338				
N73inc16B		7374.20	1635.80	16b	69-025												
N73inc16L		7375.00	1629.00	16	55-331												
N73inc16A		7375.20	1667.40	16									75-060				
N73inc16L		7375.60	1638.50	16	69-040				84-256	30-135			48-319				
N73inc16A		7376.00	1669.00	16									88-260				

Traverse	Site	Northing	Easting	Level	S _o	S ₂	S ₃	S ₄	Vn _{dol}	Vn _{dol} 2	F ₂	F ₃	F ₄	Fault	Joint	Joint 2	HSZ
N73inc17C		7376.40	1657.60	17d	81-040												
N73inc17C		7378.30	1647.60	17c	73-018				64-159								
N73inc16A		7378.60	1664.70	16											30-151		
N73inc16L		7378.80	1626.30	16	60-320												
M73inc17A		7379.00	1639.20	17a	75-013								61-322				
N73inc17C		7379.50	1662.00	17d	85-070									62-050			
N73inc16B		7379.50	1632.50	16b	69-025												
N73inc16L		7379.80	1632.00	16	69-031				49-181	89-318							
M73inc17A		7380.00	1645.00	17a	76-035									45-141			
N73inc17C		7381.80	1647.60	17c	80-038									24-139	16-135		
7350XC17D		7381.80	1669.70	17e	75-055									79-189			
N73inc17C	16	7382.00	1665.10	17d	85-070									80-060			
N73inc16B		7382.50	1630.50	16b	81-041												
N73inc16A		7382.90	1679.00	16	75-070									80-250			
N73inc16A		7382.90	1679.00	16	76-086												
N73inc16A		7382.90	1679.00	16	80-056				54-230					65-060			
N73inc16L		7383.00	1624.00	16	69-031									50-192			
M73inc17B		7383.50	1598.20	17b	71-268									75-005			
7350XC17D		7383.80	1673.50	17e	76-050									68-225			
N73inc16A		7383.80	1671.20	16	89-090				60-152								
7350XC17B		7384.00	1600.80	17b	60-268												
N73inc16A		7384.70	1672.70	16	75-064												
N73inc17C	6	7385.40	1604.70	17d	71-270												
M73inc17A		7386.40	1640.00	17a	76-035					35-127	70-352			34-110			
N73inc16B		7386.50	1629.50	16b	75-032												
N73inc16L		7387.50	1622.00	16	51-321												
N73inc16B		7387.60	1608.50	16b	71-274									74-265			
M73inc17B		7387.80	1593.00	17b	65-268				85-085					25-195			
N73inc16B		7388.30	1609.40	16b	71-274									72-108			
N73inc17C		7388.40	1647.60	17c	80-038												
N73inc16B	5	7388.50	1610.00	16b	71-274									77-267			
N73inc16L		7389.40	1626.60	16	70-032				50-170					70-028			
M73inc17A		7392.00	1644.20	17a	75-057												
N73inc17C	5	7393.20	1598.50	17d	71-268				35-075			49-340		15-126	76-005		
N73inc16B		7393.80	1623.80	16b	85-052												
N73inc16B		7394.00	1633.80	16b	80-040									74-059	20-238		
N73inc16L		7394.40	1625.00	16	72-024												
N73inc16A		7395.00	1678.00	16	81-051				75-180								
N73inc17C		7396.40	1652.40	17c	67-039												
N73inc17C		7397.00	1647.80	17c	75-030												
N73inc16B	4	7397.10	1615.30	16b	71-274												
M73inc17B		7397.30	1599.70	17b	69-285								54-342				
N73inc16B		7397.40	1622.00	16b	76-050												
7350XC17D		7397.50	1624.00	17e	80-055												
N73inc16B	3	7397.90	1620.70	16b								58-334		76-262			

Traverse	Site	Northing	Easting	Level	S ₀	S ₂	S ₃	S ₄	Vn _{dol}	Vn _{dol} 2	F ₂	F ₃	F ₄	Fault	Joint	Joint 2	HSZ	
N73inc16L		7399.30	1624.00	16	78-046										20-138			
M73inc17A		7399.40	1639.70	17a	79-035						53-110							
N73inc16B		7399.60	1632.60	16b	76-055													
M73inc17B		7400.00	1594.20	17b	80-272										15-117			
N73inc16B		7400.60	1627.40	16b	80-040										76-057	22-153		
N73inc17C		7403.00	1605.50	17c	75-274				60-275									
M73inc17A		7404.00	1638.80	17a	80-040						50-110							
M73inc17A		7404.00	1638.80	17a	80-040						22-125							
M73inc17B		7404.00	1638.20	17b	75-030									70-349				
M73inc17B		7404.50	1595.00	17b	80-272										23-095			
N73inc16A		7406.00	4680.50	16	88-255													
M73inc17B		7406.20	1601.20	17b	80-272													
N73inc17C		7406.20	1644.20	17c	74-028				84-128									
M73inc17B		7406.40	1595.40	17b	80-272										75-000			
N73inc16B		7406.60	1636.60	16b							55-326							
7350XC17D		7406.70	1629.40	17e	86-068						65-340							
7350XC17D	3	7407.00	1652.30	17e	77-054										81-051			
7350XC17D	3	7407.00	1652.30	17e	77-054				70-239						70-110			
N73inc16B		7407.30	1630.30	16b	76-045										74-046			
N73inc17C		7408.00	1643.40	17c	74-028										55-319			
M73inc17B		7408.40	1596.50	17b	64-271													
7350XC17D		7408.70	1631.00	17e	75-036													
7350XC17D		7409.40	1631.70	17e	83-265													
M73inc17B		7410.70	1634.70	17b					80-139						55-325			
N73inc16B		7412.00	1641.80	16b	76-045													
M73inc17B		7412.20	1605.70	17b	69-284													
M73inc17B		7413.00	1607.30	17b	67-310													
M73inc17B		7413.40	1618.50	17b	81-030										61-340			
M73inc17B		7413.60	1611.20	17b	85-060										55-322			
7350XC17D		7414.50	1666.20	17e	77-054				88-135	26-150								
N73inc16B	1	7415.00	1636.90	16b	76-045										74-035			
N73inc16A		7416.10	1662.00	16	84-050													
N73inc17C		7416.20	1607.10	17c	68-275													
N73inc17C		7417.20	1609.40	17c	70-280													
N73inc17C		7417.80	1639.00	17c	75-021										55-319			
M73inc17B		7418.00	1612.20	17b	79-034													
M73inc17B		7418.20	1620.80	17b	80-040													
M73inc17B		7418.20	1616.70	17b	81-030										80-038			
N73inc17C		7420.40	1615.40	17c	80-045													
N73inc16B		7420.70	1645.80	16b	76-045										81-050			
7350XC17D		7421.50	1657.40	17e	77-054				20-158	20-305								
7350XC17D		7422.30	1642.00	17e	74-040										77-070			
N73inc17C		7422.50	1626.20	17c	85-250													
N73inc17C		7422.60	1622.50	17c	76-045										57-338			
N73inc16B		7422.90	1655.00	16b	82-045													
N73inc17C		7423.00	1628.90	17c	73-035										51-330			

Level	mE	mN	Dip/plunge- Direction	Structure	Level	mE	mN	Dip/plunge- Direction	Structure
19	1727.77	6194.56	?-026	Synform	19	1760.51	6322.97	55-179	S_0
19	1728.08	7177.53	72-174	S_0	19	1760.64	6245.46	70-193	S_0
19	1729.02	6089.71	45-001	Antiform	19	1762.17	6609.13	60-182	S_0
19	1729.07	6630.53	68-188	S_0	19	1762.31	6148.48	65-181	S_0
19	1729.09	6241.40	20-349	Synform	19	1762.65	6200.55	57-181	S_0
19	1729.58	7310.60	?-032	Antiform	19	1763.33	6210.04	53-182	S_0
19	1729.62	7183.59	?-017	Synform	19	1764.28	7156.74	85-338	S_0
19	1730.12	6088.76	45-359	Synform	19	1764.42	7185.18	75-339	S_0
19	1730.36	6614.89	70-180	S_0	19	1765.35	6154.19	68-182	S_0
19	1730.42	6268.62	75-186	S_0	19	1765.45	7197.16	81-334	S_0
19	1730.48	6197.00	50-225	S_0	19	1765.59	7025.57	90-167	S_0
19	1730.82	6598.10	75-173	S_0	19	1767.1	6606.27	65-177	S_0
19	1730.88	7184.25	?-018	Antiform	19	1768.18	6723.33	65-177	S_0
19	1731.29	7307.63	?-002	Antiform	19	1770.04	6176.82	63-185	S_0
19	1732.03	6903.28	75-176	S_0	19	1770.4	7182.06	81-334	S_0
19	1733.02	6181.88	67-180	S_0	19	1771.31	7164.21	78-348	S_0
19	1733.4	6134.60	70-189	S_0	19	1771.51	6222.08	52-193	S_0
19	1733.54	6747.60	70-165	S_0	19	1772.88	7145.40	88-166	S_0
19	1734.47	7180.63	?-330	Antiform	19	1773.2	6717.40	65-180	S_0
19	1735.77	6085.34	60-212	S_0	19	1773.4	7016.30	87-161	S_0
19	1735.79	6093.03	35-350	Antiform	19	1775.45	7169.66	88-332	S_0
19	1736.02	7181.68	?-323	Synform	19	1775.86	6134.73	60-195	S_0
19	1736.54	7045.66	80-164	S_0	19	1776.9	6182.89	61-196	S_0
19	1736.63	6093.91	35-350	Synform	19	1777.49	6101.42	70-195	S_0
19	1737.93	7047.30	60-350	Synform	19	1777.69	6101.42	?-196	S_0
19	1737.97	6296.44	68-183	S_0	19	1778.98	6238.04	59-196	S_0
19	1738.25	6217.91	52-183	S_0	19	1779.84	6858.34	85-167	S_0
19	1739.75	7046.89	60-348	Antiform	19	1780.22	6605.26	62-173	S_0
19	1740.16	6194.18	59-185	S_0	19	1780.73	7155.11	78-333	S_0
19	1740.93	7172.92	70-167	S_0	19	1780.87	6714.85	63-179	S_0
19	1741.29	6148.05	63-186	S_0	19	1781.07	6282.86	60-174	S_0
19	1741.71	6743.68	60-179	S_0	19	1781.17	6079.36	75-183	S_0
19	1742.16	6297.32	55-182	S_0	19	1781.19	6864.22	85-326	S_0
19	1742.29	6984.61	65-344	Antiform	19	1781.75	7133.10	75-172	S_0
19	1742.36	6177.92	65-182	S_0	19	1782.42	6213.51	59-195	S_0
19	1743.02	6318.19	60-172	S_0	19	1782.48	6209.38	63-192	S_0
19	1744.07	6270.07	70-182	S_0	19	1782.72	6178.05	65-186	S_0
19	1744.29	6245.51	60-180	S_0	19	1785.4	6268.44	60-183	S_0
19	1744.7	7042.19	?-002	Antiform	19	1785.64	6286.42	60-176	S_0
19	1745.19	6212.90	59-187	S_0	19	1785.82	6985.50	90-158	S_0
19	1745.76	6608.56	63-176	S_0	19	1786.3	7139.64	?-341	Antiform
19	1746.08	6195.68	55-186	S_0	19	1786.34	7141.58	?-345	Synform
19	1746.36	7234.26	84-158	S_0	19	1786.63	7136.88	62-323	S_0
19	1747.21	6230.87	60-190	S_0	19	1787.43	6701.05	65-177	S_0
19	1747.28	7174.85	45-349	Antiform	19	1787.43	7142.08	?-345	Antiform
19	1747.44	7176.25	40-349	Antiform	19	1787.97	6660.80	62-176	S_0
19	1747.44	6982.77	60-350	Antiform	19	1788.36	6830.29	80-315	S_0
19	1748.62	7228.06	84-341	S_0	19	1788.4	6081.56	75-190	S_0
19	1749.32	7168.39	78-163	S_0	19	1788.82	6791.19	85-335	S_0
19	1788.84	6195.50	63-190	S_0	19	1817.96	6184.14	?-343	Antiform
19	1788.9	6822.07	75-317	S_0	19	1818.84	6580.88	70-173	S_0
19	1789.42	6651.75	54-178	S_0	19	1818.88	6088.02	75-204	S_0
19	1789.62	6216.81	62-190	S_0	19	1820.43	6209.97	?-000	Antiform
19	1790.05	6733.18	75-167	S_0	19	1820.68	6581.84	75-336	Antiform
19	1790.19	6958.12	85-149	S_0	19	1821.75	6185.88	30-000	Antiform
19	1790.43	6932.42	85-157	S_0	19	1821.88	6244.41	50-185	S_0
19	1790.47	6141.32	80-194	S_0	19	1824.67	6262.07	68-184	S_0
19	1790.57	6910.93	85-153	S_0	19	1825.05	6185.95	35-010	Antiform
19	1790.89	7127.48	75-175	S_0	19	1825.07	6207.47	?-001	Synform
19	1791.08	6738.50	?-346	Antiform	19	1825.34	6286.68	65-167	S_0
19	1791.6	6263.74	60-180	S_0	19	1825.88	6139.03	70-180	S_0
19	1791.78	7042.31	84-328	S_0	19	1827.51	6238.79	52-180	S_0
19	1791.8	7014.24	80-166	S_0	19	1829.49	6214.52	40-131	S_0
19	1792.32	7092.27	87-164	S_0	19	1829.99	6573.10	80-154	S_0
19	1792.34	6314.37	60-174	S_0	19	1830.75	6285.97	70-163	S_0
19	1792.44	7097.02	80-336	S_0	19	1831.42	6579.25	79-170	S_0
19	1793.73	6593.88	64-176	S_0	19	1832.93	6247.04	56-189	S_0

Level	mE	mN	Dip/plunge- Direction	Structure	Level	mE	mN	Dip/plunge- Direction	Structure
19	1793.99	6867.07	86-329	S ₀	19	1833.03	6159.33	50-335	Antiform
19	1794.28	6294.06	63-177	S ₀	19	1833.67	6294.68	56-170	S ₀
19	1794.3	6881.80	?-359	Synform	19	1833.77	6569.98	79-349	S ₀
19	1794.72	6190.71	63-187	S ₀	19	1835.79	6076.59	56-192	S ₀
19	1795.26	6283.03	70-176	S ₀	19	1837.86	6140.50	40-336	Antiform
19	1795.33	7113.89	?-357	Antiform	19	1837.94	6146.80	60-357	Synform
19	1795.37	6881.56	?-358	Antiform	19	1838.24	6279.12	63-176	S ₀
19	1795.46	6155.81	80-198	S ₀	19	1840.34	6074.57	65-190	S ₀
19	1795.7	6648.37	66-176	S ₀	19	1840.38	6199.54	60-214	S ₀
19	1795.74	6753.30	85-112	S ₀	19	1843.34	6203.37	35-202	S ₀
19	1796.09	6260.19	50-192	S ₀	19	1843.34	6120.09	?-342	Antiform
19	1796.21	6633.12	65-173	S ₀	19	1843.92	6562.63	88-347	S ₀
19	1796.37	6123.39	60-192	S ₀	19	1846.05	6225.95	70-173	S ₀
19	1796.51	6176.51	70-197	S ₀	19	1847.82	6119.08	68-208	S ₀
19	1797.27	6966.47	81-146	S ₀	19	1847.85	6566.86	85-180	S ₀
19	1797.42	7006.72	84-164	S ₀	19	1847.93	6170.40	50-177	S ₀
19	1797.52	6918.30	80-332	S ₀	19	1848.05	6276.48	60-179	S ₀
19	1797.58	6146.02	60-198	S ₀	19	1848.29	6071.27	72-180	S ₀
19	1797.64	7098.43	84-162	S ₀	19	1850.42	6224.50	85-180	S ₀
19	1797.96	7042.36	83-336	S ₀	19	1852.25	6142.46	70-323	S ₀
19	1798.1	6787.45	89-322	S ₀	19	1852.9	6117.94	60-281	S ₀
19	1798.34	7089.82	82-335	S ₀	19	1854.39	6555.16	88-337	S ₀
19	1798.58	7061.08	70-150	S ₀	19	1854.63	6070.30	65-179	S ₀
19	1798.82	7094.29	?-353	Synform	19	1855.03	6176.25	85-155	S ₀
19	1798.89	7047.85	83-337	S ₀	19	1857.07	6066.92	75-181	S ₀
19	1799.71	6591.38	62-178	S ₀	19	1857.49	6230.87	65-158	S ₀
19	1799.95	7093.22	?-357	Antiform	19	1857.81	6202.84	70-170	S ₀
19	1801.3	6308.52	60-182	S ₀	19	1859.06	6211.54	63-160	S ₀
19	1802.61	6256.49	70-190	S ₀	19	1861.72	6274.20	60-174	S ₀
19	1803.42	6782.94	?-355	Synform	19	1862.52	6548.22	76-353	S ₀
19	1804.08	6782.27	?-353	Antiform	19	1863.1	6215.71	62-166	S ₀
19	1804.44	6198.01	60-185	S ₀	19	1864.05	6203.98	80-154	S ₀
19	1805.49	6590.27	65-180	S ₀	19	1868.49	6544.50	?-346	Synform
19	1805.95	6276.00	65-178	S ₀	19	1868.7	6148.31	85-326	S ₀
19	1807.84	6588.91	62-173	S ₀	19	1869.73	6059.49	69-221	S ₀
19	1807.85	6772.58	63-327	Antiform	19	1870.19	6065.91	55-231	S ₀
19	1810.04	6313.57	80-002	S ₀	19	1870.34	6544.98	?-345	Antiform
19	1811	6172.65	69-188	S ₀	19	1872.83	6062.30	54-300	S ₀
19	1812.35	6295.55	70-183	S ₀	19	1872.93	6269.45	65-175	S ₀
19	1813.72	6249.20	63-188	S ₀	19	1874.1	6547.43	75-309	S ₀
19	1815.43	6155.60	60-190	S ₀	19	1875.08	6054.35	49-309	S ₀
19	1815.7	6166.19	60-190	S ₀	19	1876.77	6175.24	60-172	S ₀
19	1815.8	6177.87	67-187	S ₀	19	1879.33	6087.44	63-180	S ₀
19	1816.72	6269.80	75-183	S ₀	19	1879.85	6276.22	70-177	S ₀
19	1817.33	6124.48	65-185	S ₀	19	1880.4	6052.90	58-307	S ₀
19	1817.65	6228.06	60-339	Synform	19	1880.8	6113.85	79-321	S ₀
19	1817.73	6113.19	64-188	S ₀	19	1881.77	6541.76	88-293	S ₀
19	1817.81	6138.20	55-186	S ₀	19	1881.89	6087.97	70-306	S ₀
19	1882.31	6058.88	63-314	S ₀	19	1963.14	6053.82	60-183	S ₀
19	1882.37	6155.85	75-163	S ₀	19	1963.44	6235.44	60-188	S ₀
19	1883.6	6191.19	62-182	S ₀	19	1964.29	6480.28	68-259	S ₀
19	1885.07	6532.04	?-342	Antiform	19	1964.63	6085.73	68-177	S ₀
19	1888.71	6057.16	59-269	S ₀	19	1971.3	6482.68	60-358	Antiform
19	1889.15	6214.61	70-347	S ₀	19	1971.94	6465.90	?-353	Antiform
19	1891.29	6526.17	65-233	S ₀	19	1972.74	6483.10	?-357	Synform
19	1892.56	6155.11	75-171	S ₀	19	1973.09	6466.60	?-354	Synform
19	1895.88	6256.49	60-178	S ₀	19	1974.79	6473.65	62-240	S ₀
19	1899.18	6056.06	40-225	S ₀	19	1979.48	6160.73	70-154	S ₀
19	1899.8	6135.47	67-165	S ₀	19	1979.67	6469.35	66-274	S ₀
19	1903.11	6055.45	69-226	S ₀	19	1981.46	6485.51	58-239	S ₀
19	1903.27	6518.26	70-207	S ₀	19	1985.89	6464.91	63-254	S ₀
19	1905.05	6051.78	?-338	Antiform	19	1989.81	6054.48	60-179	S ₀
19	1906.45	6156.38	75-176	S ₀	19	1991.24	6461.04	62-265	S ₀
19	1906.57	6523.35	65-198	S ₀	19	1998.87	6159.20	65-162	S ₀
19	1908.46	6051.29	?-344	Synform	19	2002.29	6451.99	68-276	S ₀
19	1913.03	6251.75	?-343	Synform	19	2011.31	6055.36	58-185	S ₀
19	1913.47	6511.60	?-337	Antiform	19	2012.52	6251.78	60-235	S ₀

Level	mE	mN	Dip/plunge- Direction	Structure	Level	mE	mN	Dip/plunge- Direction	Structure
19	1913.51	6250.03	60-167	S ₀	19	2015.44	6110.73	75-154	S ₀
19	1915.81	6142.02	69-170	S ₀	19	2017.81	6188.82	48-187	S ₀
19	1916.6	6250.15	?-330	Antiform	19	2018.9	6134.33	80-149	S ₀
19	1917.12	6259.08	70-159	S ₀	19	2019.22	6246.51	60-210	S ₀
19	1919	6050.95	56-335	Antiform	19	2022.51	6103.16	70-171	S ₀
19	1919.23	6129.23	68-166	S ₀					
19	1920.23	6052.37	56-336	Synform					
19	1921	6056.01	55-233	S ₀					
19	1921.89	6504.32	74-324	S ₀					
19	1923.2	6050.88	62-226	S ₀					
19	1924.99	6509.20	75-301	S ₀					
19	1926.1	6255.53	75-248	S ₀					
19	1927.22	6207.28	45-339	Synform					
19	1927.86	6249.24	?-019	Antiform					
19	1927.97	6050.17	45-343	Antiform					
19	1928.73	6205.03	60-359	S ₀					
19	1930.04	6157.04	73-166	S ₀					
19	1930.55	6245.72	70-253	S ₀					
19	1930.96	6210.58	40-337	Synform					
19	1931.19	6053.21	56-223	S ₀					
19	1931.49	6140.92	71-170	S ₀					
19	1932.05	6050.01	55-339	Antiform					
19	1932.44	6097.76	65-180	S ₀					
19	1933.1	6083.97	60-182	S ₀					
19	1933.45	6051.27	55-340	Synform					
19	1933.7	6245.21	?-011	Synform					
19	1935.48	6249.99	85-153	S ₀					
19	1942.1	6103.91	70-162	S ₀					
19	1942.22	6215.13	70-178	S ₀					
19	1942.44	6496.37	76-304	S ₀					
19	1942.46	6055.22	60-213	S ₀					
19	1945.48	6247.39	70-241	S ₀					
19	1947.15	6493.42	65-277	S ₀					
19	1947.92	6053.38	60-201	S ₀					
19	1948.66	6223.92	73-180	S ₀					
19	1949.63	6242.60	60-214	S ₀					
19	1950.62	6158.76	70-162	S ₀					
19	1950.92	6112.26	70-161	S ₀					
19	1952.21	6224.72	75-156	S ₀					
19	1953.8	6197.08	60-174	S ₀					
19	1955.55	6489.56	62-238	S ₀					
19	1955.63	6479.19	72-254	S ₀					
19	1959.13	6159.46	50-166	S ₀					
19	1960.46	6120.70	70-167	S ₀					
19	1960.78	6194.22	53-168	S ₀					
19	1960.88	6487.53	62-248	S ₀					
19	1962.01	6475.37	76-250	S ₀					

Appendix C

Sample Data

Sample Data

Sample Number	JCU cat. #	Location				Orientation	Structural Readings				Notes
		mN	mE	Lev	Site		S ₀	S ₂	S ₃	S ₄	
3002		6021.7	1986.4	5	S60W XC site 2	77-020F	66-275				
3002-H1	71169	6021.7	1986.4	5	S60W XC site 2	Horiz.	000	350	060	320	East-dipping Folded dolomite vein in pyritic slae. Flanking fold around vein. S ₄ stain accumulation around the cutting element. Fibrous quartz in the shadows of Py porphs parallel to bedding Alternation between flanking fold and flanking shear bands along the veins
3002-H2	71170	6021.7	1986.4	5	S60W XC site 2	Horiz.	355		030	320	
3002-H3	71171	6021.7	1986.4	5	S60W XC site 2	Horiz.					
3002-V1	71172	6021.7	1986.4	5	S60W XC site 2	Vert. 270	80W		65W	85W	
3002-V2	71173	6021.7	1986.4	5	S60W XC site 2	Vert. 270	60W	75E	60W	90	
3002-V3	71174	6021.7	1986.4	5	S60W XC site 2	Vert. 270	90	70E	20W		
3005		6053.0	1900.0	5	S60W XC site 5	71-219H	46-297	E-dip	flat	EBU	Dol-cp vein surrounded by flanking fold S4, vert with East block up shear sense
3005-H1	71175	6053.0	1900.0	5	S60W XC site 5	Horiz.	324	000	020	300	
3005-H2	71176	6053.0	1900.0	5	S60W XC site 5	Horiz.	090		060		
3005-H3	71177	6053.0	1900.0	5	S60W XC site 5	Horiz.	050	000	060	345	
3005-H4	71178	6053.0	1900.0	5	S60W XC site 5	Horiz.	055	025		000	
3005-V1	71179	6053.0	1900.0	5	S60W XC site 5	Vert. 270	50W	50W		80W	In fold hinge
3005-V2	71180	6053.0	1900.0	5	S60W XC site 5	Vert. 270					In fold hinge
3005-V3	71181	6053.0	1900.0	5	S60W XC site 5	Vert. 270	50W				In fold hinge
3005-V4	71182	6053.0	1900.0	5	S60W XC site 5	Vert. 270				75W	Weak S5. Chchlorite beards around pyrite
3006		6459.0	1969.0	5	T61NDR Site 1	68-236	80E	65E	vert	64W	Dolomiteic shale with veins, in the hinge of folds, S4 has east block down shear sense
3006-H1	71183	6459.0	1969.0	5	T61NDR Site 1	Horiz.	345		020	340	Bedding strikes 325, vein strikes 020
3006-H2	71184	6459.0	1969.0	5	T61NDR Site 1	Horiz.	330			335	
3006-H3	71185	6459.0	1969.0	5	T61NDR Site 1	Horiz.	342	000		330	
3006-V1	71186	6459.0	1969.0	5	T61NDR Site 1	Vert. 270	68W	65E	vert	45-64W	
3011		6465	1953.0	5	T64 Tipple Site 1	50-206F		62-091			Hangingwall of HSZ, Carbonate veins surrounding HSZ. Flanking folds around veins in pyritic shale
3011-H1	71187	6465	1953.0	5	T64 Tipple Site 1	Horiz.	020		070	330	
3011-V1	71188	6465	1953.0	5	T64 Tipple Site 1	Vert. 270	75W	70E	60W	90	
3011-V2	71189	6465	1953.0	5	T64 Tipple Site 1	Vert. 270	50W	65E	60E	80	
3017		6200.4	1924.0	5	S61 NE XC						
3017-V1	71190				S61 NE XC	Vert. 270	55W		5W	90	Carbonaceous shale with a moderate abundance of cleavage seams. Between the seams are areas of what appears to be remnant siltstone and neoform carbonate and quartz domains. S3,S4, cleavage overprinting relationships. The composition of the seams is demonstrated in reflected light to be graphite overprinted by fine graine pyrite. Pyrite metasomatism
3018		6199.5	1924.2	5	S61 NE XC						

Sample Number	JCU cat. #	Location				Orientation	Structural Readings				Notes
		mN	mE	Lev	Site		S ₀	S ₂	S ₃	S ₄	
3018-H1	71191	6199.5	1924.2	5	S61 NE XC	Vert. 270	035	025			
3018-V1	71192	6199.5	1924.2	5	S61 NE XC	Vert. 270	75W	40E		80W	carbonaceous siltstone, graphite and pyrite along cleavage
3018-V2	71193	6199.5	1924.2	5	S61 NE XC	Vert. 270	60W	70E		88W	Reactivation of S2
3020		6215.3	1948.0	5	S61 NE XC						
3020-H1	71194	6215.3	1948.0	5	S61 NE XC	Horiz.					Fold clast breccia and sphalerite band. Dilation and folding involving reactivation of bedding
3020-V1	71195	6215.3	1948.0	5	S61 NE XC	Vert. 270	85W	70E	45W	90	
3021		6215.8	1950.0	5	S61 NE XC						carbonaceous siltstone, with well developed crens where there has not been any neoformation of carbonate. Where there is neoform carbonate, crenulations are preservedin the carbonaceous seams. Sp and qz metasomatism in adjacent mudstones only occurs in areas that are along strike of crenulation sleavages
3021-V1	71196	6215.8	1950.0	5	S61 NE XC	Vert. 270	80W	70E	45W	90	
3021-V2	71197	6215.8	1950.0	5	S61 NE XC	Vert. 270	45E		45W	60W	
3021-V3	71198	6215.8	1950.0	5	S61 NE XC	Vert. 270	90		55E	70E	
3021-V4	71199	6215.8	1950.0	5	S61 NE XC	Vert. 270	85W				
3022		6215.6	1949.4	5	S61 NE XC						Fine grained sphalerite
3022-H1	71200	6215.6	1949.4	5	S61 NE XC	Horiz.	020	000	050	340	
3022-V1	71201	6215.6	1949.4		S61 NE XC	Vert. 270	40W	60W	5W		
3024				9	S XC Site 3	71-030F	55-285		31W	vert	Siltstone with crystalline dolomite, cut by dol vein. Close to HSZ. S4 has east block up shear sense
3024-H1	71202					Horiz.	045			330	
3024-V1	71203					Vert. 270	65W	35E	10W	90	
3024-V2	71204					Vert. 270	40W	40E		90	
3031		6902.3	1691.8	5	6904 XC Site 3	84-331F					Flanking fold around dol vein. Coarse grained pyrite in the flanking structure. Pyritic shale, anastomosing seams. Dilation along layering by shearing along vert. S4 forming cte-sp-gn-qz veins parallel to bedding
3031-H1	71205	6902.3	1691.8	5	6904 XC Site 3	Horiz.	330		040		
3031-H2	71206	6902.3	1691.8	5	6904 XC Site 3	Horiz.					
3031-H3	71207	6902.3	1691.8	5	6904 XC Site 3	Horiz.	345		020	320	
3031-H4	71208	6902.3	1691.8	5	6904 XC Site 3	Horiz.	000	005		325	
3031-V1	71209	6902.3	1691.8	5	6904 XC Site 3	Vert. 270	45W			90	
3031-V2	71210	6902.3	1691.8	5	6904 XC Site 3	Vert. 270		58E	60W	90	S2, East up; S3, top east; S4 east up
3031-V3	71211	6902.3	1691.8	5	6904 XC Site 3	Vert. 270	10E				
3031-V5	71212	6902.3	1691.8	5	6904 XC Site 3	Vert. 270	50W	80E		90	
3031-V6	71213	6902.3	1691.8	5	6904 XC Site 3	Vert. 000	35N		6N		North plunging quartz fibres in vein
3031-V7	71214	6902.3	1691.8	5	6904 XC Site 3	Vert. 000					North (30) and south (65) plunging quartz fibres in vein
3034		6902.9	1690.1	5	6904 XC site 3		63-268	75-070	68-280	vert	Pyritic shale on the margins of Zn-Pb-Ag package. East dipping dolomite veins. S4 is vert. with east up shear sense. Some recrystallised shale. Widespread carbonate metasomatism.Veining along S3.
3034-H1	71215	6902.9	1690.1	5	6904 XC site 3	Horiz.	000			330	
3034-H2	71216	6902.9	1690.1	5	6904 XC site 3	Horiz.	030	000	070	320	
3034-V1	71217	6902.9	1690.1	5	6904 XC site 3	Vert. 270	55W	55E		90	
3034-V2	71218	6902.9	1690.1	5	6904 XC site 3	Vert. 270	60W	65E		90	
3034-V3	71219	6902.9	1690.1	5	6904 XC site 3	Vert. 270	70W	50E	70W	80E	
3040		6908.7	1668.2	5							Carbonaceous shales and siltstones cut by east dipping dolomite veins.
3040-H1	71220						345	000	030		

Sample Number	JCU cat. #	Location				Orientation	Structural Readings				Notes
		mN	mE	Lev	Site		S ₀	S ₂	S ₃	S ₄	
3041		6909.5	1663.8	5	6904 XC Site 4	85-265					Pyritic shale adjacent ot recrystallised shale. Flanking strucutre around vein
3041-H1	71221	6909.5	1663.8	5	6904 XC Site 4	Horiz.	000			330	
3041-V1	71222	6909.5	1663.8	5	6904 XC Site 4	Vert. 270	65W		20W	75W	
3042		6909.6	1661.7	5	6904 XC Site 5	74-000H					Pyritic shale, discordant dolomite-pyrite veins. Anastomosing pyrite seams
3042-H1	71223	6909.6	1661.7	5	6904 XC Site 5	Horiz.	350				
3042-H1	71224	6909.6	1661.7	5	6904 XC Site 5	Horiz.					
3042-H2	71225	6909.6	1661.7	5	6904 XC Site 5	Horiz.					
3042-V1	71226	6909.6	1661.7	5	6904 XC Site 5	Vert. 270	70W	45E		90	
3042-V1B	71227	6909.6	1661.7	5	6904 XC Site 5	Vert. 270	70W	60E	30W	90	
3042-V2	71228	6909.6	1661.7	5	6904 XC Site 5	Vert. 270	70W	50E		80W	
3042-V2B	71229	6909.6	1661.7	5	6904 XC Site 5	Vert. 270					
3042-V3	71230	6909.6	1661.7	5	6904 XC Site 5	Vert. 270	62W	48E	45W	90	
3046		6900.8	1635.9	5	6904 XC Site 5	90-342					Pyritic shale cut by East dipping dolomite veins
3046-H2	71231	6900.8	1635.9	5	6904 XC Site 5	Horiz.	345	000	035		
3046-H3	71232	6900.8	1635.9	5	6904 XC Site 5	Horiz.	355		090		
3046-H4	71233	6900.8	1635.9	5	6904 XC Site 5	Horiz.	340		030	320	
3046-V1	71234	6900.8	1635.9	5	6904 XC Site 5	Vert. 270	55W	70E	15W	90	
3046-V2	71235	6900.8	1635.9	5	6904 XC Site 5	Vert. 270	55W	60E		90	
3046-V3	71236	6900.8	1635.9	5	6904 XC Site 5	Vert. 270	55W				
3052		6900.7	1626.9	5	6904 XC Site 10	72-265 F			050		Pyritic shale containing fine dolomite veins.
3052-H1	71237	6900.7	1626.9	5	6904 XC Site 10	Horiz.	000				
3052-V1	71238	6900.7	1626.9	5	6904 XC Site 10	Vert. 270	60W	60E	20E	90	bedding parallel vein
3052-V2	71239	6900.7	1626.9	5	6904 XC Site 10	Vert. 270	70W	70E	30E	90	
3054		6900.7	1619.8	5	6904 XC Site 10	41-050					Dolomite-quartz altered high strain zone
3054-H1	71240	6900.7	1619.8	5	6904 XC Site 10	Horiz.					
3054-H2	71241	6900.7	1619.8	5	6904 XC Site 10	Horiz.					
3054-V1	71242	6900.7	1619.8	5	6904 XC Site 10	Vert. 270					
3054-V2	71243	6900.7	1619.8	5	6904 XC Site 10	Vert. 270	85W			90	
3055		6900.6	1620	5	6904 XC Site 10						Fold clast breccia
3055-H1	71244	6900.6	1620	5	6904 XC Site 10	Horiz.	000		065	330	
3055-H2	71245	6900.6	1620	5	6904 XC Site 10	Horiz.	0				
3055-V1	71246	6900.6	1620	5	6904 XC Site 10	Vert. 270	70W	60E		90	
3055-V2	71247	6900.6	1620	5	6904 XC Site 10	Vert. 270	80W	62E		90	
3055-V2	71248	6900.6	1620	5	6904 XC Site 10	Vert. 270	85W	58E	70W	90	
3055-V3		6900.6	1620	5	6904 XC Site 10	Vert. 270					
3057		6906.5	1599.4	5	6904 XC	56-015F					S2 hosted vein in shales

Sample Number	JCU cat. #	Location				Orientation	Structural Readings				Notes
		mN	mE	Lev	Site		S ₀	S ₂	S ₃	S ₄	
3057-H1	71249	6906.5	1599.4	5	6904 XC	Horiz.	000	030		320	
3057-H2	71250	6906.5	1599.4	5	6904 XC	Horiz.	000		050		
3057-V1	71251	6906.5	1599.4	5	6904 XC	Vert. 270	65W	60E	20w	80E	
3057-V1	71252	6906.5	1599.4	5	6904 XC	Vert. 270		55E		90	
3057-V2	71253	6906.5	1599.4	5	6904 XC	Vert. 270					
3060		6906.7	1581.4	5	6904 XC Site 20						pyritic shale interbedding with siltstone cut by dolomite veins. Flanking structures
3060-H1	71254	6906.7	1581.4	5	6904 XC Site 20	Horiz.	330	000		330	
3060-H2	71255	6906.7	1581.4	5	6904 XC Site 20	Horiz.	334			330	
3060-V1	71256	6906.7	1581.4	5	6904 XC Site 20	Vert. 270					
3060-V2	71257	6906.7	1581.4	5	6904 XC Site 20	Vert. 270					
3060-V4	71258	6906.7	1581.4	5	6904 XC Site 20	Vert. 190	70N				
3065		6900.7	1570.4	5	6904 XC						
3065-V1	71259					Vert. 270	90	45E	20W	80W	
4003-1	71260	Core sample			930203, 91.1 m						Pyritic shale with crystalline dolomite
4005-1	71261	Core sample			930203, 125 m						Laminated microcrystalline sphalerite. Sphalerite disseminated along foliations.
4006-1	71262	Core sample			930203, 125.95 m						Fine grained sphalerite microbreccia. Breccia contains galena overprinting sphalerite. Massive galena band. Microcrystalline pyrite in anastomosing seams. Sp and carbonate on Q-domains between pyrite seams.
4007-1	71263	Core sample			930203, 99.6 m						Bands of massive and laminated microcrystalline sphalerite. Sphalerite in elongate aggregates overprinting foliations. Etched sample.
4007-2	71264	Core sample			930203, 99.6 m						Laminated microcrystalline sphalerite. Sphalerite disseminated along foliations.
4008-1	71265	Core sample			930203, 100 m						Microcrystalline sphalerite replacing mudstone along foliations. Fine grained sphalerite breccia with microcrystalline sphalerite alteration of shale clasts
4010-1	71266	Core sample			930203, 127.7 m						Fine grained sphalerite band next to microcrystalline pyrite band. Sphalerite overprinting neocrystalline carbonate in the band. Pyrite in anastomosing seams overprinting foliations.
4012-1	71267	Core sample			930203, 146.30 m	Vertical EW section					Fine grained sphalerite bands that terminate in the hinge of a fold. Sphalerite aggregates overprint S4 and crystallographic cleavages of carbonates. Carbonate alteration proceed sphalerite mineralisation.
4016-1	71268	Core sample			930203, 17.3 m						Microcrystalline sphalerite along foliations. Microcrystalline pyrite with anastomosing seams

Sample Number	JCU cat. #	Location				Orientation	Structural Readings				Notes
		mN	mE	Lev	Site		S ₀	S ₂	S ₃	S ₄	
4017-1	71269	Core sample		810307,	224 m						Microcrystalline laminated sphalerite and microcrystalline pyrite ith anastomosing seams. Bedding parallel sp-cb veins
4020-1	71270	Core sample		810307,	42.5 m						Filiation fill breccia with chalcopyrite-pyrite fill. Brecciation overprints microcrystalline pyrite alteration.
4025-1	71271	Core sample		810307,	73.8 m						Transition stratiform carbonate alteration. Patches of sulphides overprinting coarse grained dolomite. Quartz-calcite alteration along coarse grained carbonate grain boundaries. Rounded clast breccias next to carbonate band. Probed sample.
4035-1	71272	Core sample		820208,	140.2 m						Coarse grained stratiform silica dolomite alteration from the transitional zone. Remnant bedding fabric discernable in sample. Microcrystalline sphalerite alteration.
4041-1	71273	Core sample		820208,	154.6 m						Carbonaceous shale with bedding trains of carbonate porphyroblasts containing basemetals sulphides
4042-1	71274	Core sample		841014,	54.9 m						Fold clast breccia with very weak sulphide alteration only. Crenulation cleavages hosting sulphide veins in adjacent carbonaceous shales
4043-1	71275	Core sample		841014,	36.5 m						Fine grained sphalerite band. Sphalerite replacing carbonate in bedding parallel veins that are amalgamations of porphyroblasts between microcrystalline pyrite seams
4047-1	71276	Core sample		841014,	102.85 m						
4047-2	71277	Core sample		841014,	102.85 m						
4057-1	71278	Core sample		771208,	256.8 m						Stratiform, coarse grained carbonate, containing quartz-calcite and chalopyrite alteration in pached that are centred on grain boundaries of the coarse grained carbonate.
4063-1	71279	Core sample		771208,	261.8 m						Microcrystalline pyrite band. Anastomosing seams of pyrite, which overprints tectonic foliations, and neocrystalline carbonate and quartz between the seams.
4066-1	71280	Core sample		970304,	26.5 m						Laminated microcrystalline sphalerite bands. Galena overprints sphalerite. Microcrystalline sphalerite along fractures in adjacent massive mudstone.
4067-1	71281	Core sample		970304,	31.0 m						Fine grained sphalerite bands and microbreccia. Smple has been etched and shows different sphalerite grainsize domains.

Sample Number	JCU cat. #	Location				Orientation	Structural Readings				Notes
		mN	mE	Lev	Site		S ₀	S ₂	S ₃	S ₄	
4068-1	71282	Core sample			970304, 35.2 m						Microcrystalline pyrite band. Anastomosing seams of pyrite, which overprints tectonic foliations. Microcrystalline sphalerite front extending outwards from S ₂ in massive mudstone bed. Quartz alteration intersstitial to carbonate. Higher abundance of galena and chalcopyrite near the vein.
4070-1	71283	Core sample			970304, 42.5 m						Fine grained sphalerite bands and microbreccia with abundant galena. Microcrystalline sphalerite alteration of clasts.
4074-1	71284	Core sample			920304, 19.8 m						Near massive fine grained sphalerite band
4077-1	71285	Core sample			920304, 52.0 m						Microcrystalline sphalerite alteration. Bands contain elongate aggregates of pyrrhotite
4078		Core sample 6175 Mn-1976	3273 RL	T618V1 197.7- 197.2	Vert. EW						Asymmetric boudin sample. Interbedded siltstone and shale. Microcrystalline pyrite and sphalerite alteration in the shales as well as bedding parallel cb-sp-gn-py veins.
4078-V1	71286	Core sample				65W	48E	23W	75W		
4078-V2	71287	Core sample				75W	55E		90		
4078-V3	71288	Core sample				55W	57E	25W	90		
4078-V4	71289	Core sample				45W	42E	20W			
4078-V5	71290	Core sample				65W	55E	5W	90	Etched	
4078-V6	71291	Core sample				50W	75E		90		
4078-V7	71292	Core sample				70W	62E	30W	80W		
4079		Core sample 6175 Mn-1976	3286 RL	T618V1 184.1- 184.5	Vert. EW						Asymmetric boudin sample. Interbedded siltstone and shale. Microcrystalline pyrite and sphalerite alteration in the shales as well as bedding parallel cb-sp-gn-py veins.
4079-V1	71293	Core sample				45W	60E		90		
4079-V2	71294	Core sample				60W	60E	25W	90		
4079-V3	71295	Core sample				65W	57E	48W	90		
4079-V4	71296	Core sample				42W	70E	10W	75W		
4079-V5	71297	Core sample				35W	40E	10W	90		
4079-V6	71298	Core sample				45W	68E		80W		
4079-V7	71299	Core sample				40W	60E		80W		
E001		7360	1640	17A	M73 incline	80-042F					Fine grained sphalerite band in siltstone/carbonaceous shales. Host rock has carbonaceous seams
E001-H1	71300	7360	1640	17A	M73 incline	Horiz.					
E001-V1	71301	7360	1640	17A	M73 incline	Vert. 270					
E001-V10	71302	7360	1640	17A	M73 incline	Vert. 120	70SE	90	58NW		
E001-V2	71303	7360	1640	17A	M73 incline	Vert. 270					
E001-V3	71304	7360	1640	17A	M73 incline	Vert. 270	75E	65E		70W	
E001-V5	71305	7360	1640	17A	M73 incline	Vert. 270	80E	75E	85E	69W	
E001-V6	71306	7360	1640	17A	M73 incline	Vert. 180	80S	62N		50S	
E001-V7	71307	7360	1640	17A	M73 incline	Vert. 210		60N		64S	
E001-V8	71308	7360	1640	17A	M73 incline	Vert. 240	85E	75N		75S	

Sample Number	JCU cat. #	Location				Orientation	Structural Readings				Notes
		mN	mE	Lev	Site		S ₀	S ₂	S ₃	S ₄	
E001-V9	71309	7360	1640	17A	M73 incline	Vert. 150	30N	45NW	90	20N	
E002		7353	1660	17	7350 XC site 1	80-040F	80-040				Galena Breccia
E002-H1	71310	7353	1660	17	7350 XC site 1						Rounded clast breccia in pyritic shale. Anastomosing pyrite seams overprinting cleavages and shear bands.
E002-V	71311	7353	1660	17	7350 XC site 1			68E	80E		S3 east block down, S2 east block up
E003		7413	1618	17B	M73inc	80-024F	79-034				
E003-H	71312	7413	1618	17B	M73inc						Microcrystalline sphalerite band overprinted by pyrrhotite. Sulphide deposition stops at discordant fracture (S2)
E003-H1	71313	7413	1618	17B	M73inc	Horiz.	295		090?	320	
E003-V2	71314	7413	1618	17B	M73inc	Vert. 270		58E	76E	70W	S2, east block up; S3 east block down; S4, east block down
E003-V3	71315	7413	1618	17B	M73inc	Vert. 270	85E			57W	
E004		7405	1639	17B	M73inc	36-037F					Fine grained sphalerite band. Microcrystalline sp alteration of massive mudstone
E004-V1	71316	7405	1639	17B						70W to vert	S4, East block Down shear sense. Roation of S4 by reactivation of bedding. Dilation across bedding where S4 on one side and reactivation of bedding on the other
E005		7078	1745	17	7050 XC	75-140F	84-052				Pyritic shale. Anastomosing seams overprinting tectonic cleavages
E005-H1	71317	7078	1745	17	7050 XC	Horiz.		020?	60		
E005-H2	71318	7078	1745	17	7050 XC	Horiz.	325	010		355?	
E005-V1	71319	7078	1745	17	7050 XC	Vert. 270	75E	55E?	90	55W	
E006		7078	1745	17	7050 XC	63-355H					Pyritic shale. Anastomosing seams overprinting tectonic cleavages.
E006-V1	71320	7078	1745	17	7050 XC	Vert. 270		50E	vert	75W	Contin west dipping dolomitic veins
E007		6972	1760	17	P70 inc	86-239	88-051				Pyritic shale. Anastomising seams of microcrystalline pyrite overprinting tectonic cleavages. Neocrystalline carbonate and quartz and some pyrrhotite and sphalerite in the q-domains
E007-H1	71321	6972	1760	17	P70 inc	Horiz.	333	000	060	335	
E007-H2	71322	6972	1760	17	P70 inc	Horiz.	340	000	018	329	
E007-H2	71323	6972	1760	17	P70 inc	Horiz.	339	000	025		
E007-H3	71324	6972	1760	17	P70 inc	Horiz.					
E007-H3	71325	6972	1760	17	P70 inc	Horiz.					
E007-V1	71326	6972	1760	17	P70 inc	Vert. 270	80W	60E	80E	60W	
E007-V1	71327	6972	1760	17	P70 inc	Vert. 270	75W	48E	vert	70W	
E007-V2	71328	6972	1760	17	P70 inc	Vert. 270		75E	75W	60W	
E007-V3	71329	6972	1760	17	P70 inc	Vert. 270	90?	65N	40S	13S	
E007-V4	71330	6972	1760	17	P70 inc	Vert. 210	65S		30N		
E007-V5	71331	6972	1760	17	P70 inc	Vert. 240	90			50S	
E007-V6	71332	6972	1760	17	P70 inc	Vert. 300	65N	85N	80S	38N	
E007-V7	71333	6972	1760	17	P70 inc	Vert. 330		30S	46N	0	
E008		7078	1746	17	7050 XC	75-171					Pyritic shale. Anastomising seams of microcrystalline pyrite overprinting tectonic cleavages. Neocrystalline carbonate and quartz and some

Sample Number	JCU cat. #	Location			Orientation	Structural Readings				Notes
		mN	mE	Lev		S ₀	S ₂	S ₃	S ₄	
E026-H1	71355				Horiz.		000	050	340	Interbedded thinly bedded massive siltstone and carbonaceous shale. Aastomosing graphitic seams in the shales. Cleavages in siltstones
E026-V1	71356				Vert. 270	78E	53E	vert	80W	
E027						75E	65E		50W	
E027-V1	71357				Vert. 270					Rounded clast breccia.
E028		16C	7350 XC 3A							Laminated shale/mudstone containg carbonate porphyroblasts. Pyrrhotite alteration overprinting carbonate porphyroblasts.
E028-H	71358	16C	7350 XC 3A		Horiz.					
E028-H1	71359	16C	7350 XC 3A		Horiz.	320	356		332	
E028-V	71360	16C	7350 XC 3A		Vert. 270	70E	45E	85W		
E028-V1	71361	16C	7350 XC 3A		Vert. 270	80E	45E		56W	
EM28	6330.7	1811.6	27D	6335 XC (?)						Brecciated silicified shale. Chalcopyrite-quaty fill in veins along fractures
EM18-H1	71362	6330.7	1811.6	27D	6335 XC (?)	Horiz.	090		315	
EM18-V1	71363	6330.7	1811.6	27D	6335 XC (?)	Vert. 270	10E	30E	85W	Bedding is shallowly east pitching and EW striking
EM20		6330.7	1811.6	27D	6335 XC (?)					Brecciated silicified shale. Chalcopyrite-quaty fill in veins along fractures
EM20-H1	71364	6330.7	1811.6	27D	6335 XC (?)	Horiz.	N-S?			N-S, NE-SW and NNW-SSE striking veins
EM20-V1	71365	6330.7	1811.6	27D	6335 XC (?)	Vert. 270	20W			
EM25										Brecciated silicified shale. Chalcopyrite-quaty fill in veins along fractures
EM25-V1	71366	6315.9	1906.4	27D	6335 XC (?)	Vert. 270				
EM26		6336.8	1957.1	27C	T63 TLBY					Brecciated and Silicified carbonaceous shales
EM26-H1	71367	6336.8	1957.1	27C	T63 TLBY	Horiz.	090	000	030	Reactivation of S2?
EM26-V1	71368	6336.8	1957.1	27C	T63 TLBY	Vert. 270	50W	60E	30W	Sulphide aggregates at the intersection of veins with ither veins or bedding
EM27-V1	71369	6338.9	1991.9	27C	6340 XC	Vert. 270	70W	70E	30W	vert Silicified carbonaceous shale. S3 top east, S2, East up, S4 East up
EM28		6368.3	2032.6	27C	6350 XC					Silicified carbonaceous shale. Copper breccia. East and west dipping veins containing chalcopyrite.
EM28-H1	71370	6368.3	2032.6	27C	6350 XC	Horiz.	015	000		330
EM28-V1	71371	6368.3	2032.6	27C	6350 XC	Vert. 270	vert	60E	50W	vert S3, top to the east; S2 east block up; S4 East block up
EM28-V2	71372	6368.3	2032.6	27C	6350 XC					
EM5										Sample below the Paroo Fault
EM5-H1	71373	6135.5	1931.1	27C	S61 Fuel bay	Horiz.				Quartzite with abundant muscovite between quartz grains.
EM5-V1	71374	6135.5	1931.1	27C	S61 Fuel bay	Vert. 270				
W001		7346	1596	16B	7350 XC	85-018H				Galena rich breccia, containg all three breccia patterns in an interbeddedcarbonaceous shale and siltstone unit
W001-H1	71375	7346	1596	16B	7350 XC	Horiz.				Foliation fill breccia
W001-V1	71376	7346	1596	16B	7350 XC	Vert. 270	65W	40E	30W	90 Foliation fill breccia and fold clast breccia
W001-V2	71377	7346	1596	16B	7350 XC	Vert. 270	50W	70E	50W	90 Foliation fill breccia
W001-V3	71378	7346	1596	16B	7350 XC	Vert. 270	75W	60E	20W	90 Foliation fill breccia and rounded clast breccia
W001-V4	71379	7346	1596	16B	7350 XC	Vert. 270				Fols salt breccia with saddle reefs

Sample Number	JCU cat. #	Location				Orientation	Structural Readings				Notes
		mN	mE	Lev	Site		S ₀	S ₂	S ₃	S ₄	
W001-V5	71380	7346	1596	16B	7350 XC	Vert. 270					Etched sample of fold clast breccia and foliaiton fill breccia
W001-V6	71381	7346	1596	16B	7350 XC	Vert. 270					Etched sample of fold clast breccia and rounded clast breccia. fold clast breccia appear to be an intermediary to the rounded clast breccia
W001-V7	71382	7346	1596	16B	7350 XC	Vert. 270					Rounded clast breccia
W001-V8	71383	7346	1596	16B	7350 XC	Vert. 270					Rounded clast breccia
W002		7347	1584	17	M7317B						Flanking structure in interbeddd siltstone and pyritic shale.
W002-H1	71384	7347	1584	17	M7317B	Horiz.	000	000			Microcrystalline pyrite band. Anastomosing semas overprinting foliaitons
W002-H10	71385	7347	1584	17	M7317B	Horiz.	000	000	030		
W002-H2	71386	7347	1584	17	M7317B	Horiz.	000				Microcrystalline pyrite band. Anastomosing semas overprinting foliaitons. Dolomite vein
W002-H3	71387	7347	1584	17	M7317B	Horiz.	000				Microcrystalline pyrite band. Anastomosing semas overprinting foliaitons. Dolomite vein
W002-H4	71388	7347	1584	17	M7317B	Horiz.	000				Rounded clast breccia. Discordant breccia vein. Shale clasts in vein. Several overprinting generations of carbonate deposition.
W002-H5	71389	7347	1584	17	M7317B	Horiz.	000				Fine grained spahlerite microbreccia
W002-H6	71390	7347	1584	17	M7317B	Horiz.	000		050		Microcrystalline pyrite band. Anastomosing semas overprinting foliaitons.
W002-H7	71391	7347	1584	17	M7317B	Horiz.	010				Dolomite breccia vein. Clearly show the vein overprinting relationship.
W002-H8	71392	7347	1584	17	M7317B	Horiz.					Rounded clast breccia. .
W002-H9	71393	7347	1584	17	M7317B	Horiz.	000				Interbedded mudstone and pyritic shale
W002-V1	71394	7347	1584	17	M7317B	Vert. 270	70W	65E	40W	80E	Dolomite vein cutting pyritic shale. Flanking fold around vein.
W002-V10	71395	7347	1584	17	M7317B	Vert. 270					
W002-V11	71396	7347	1584	17	M7317B	Vert. 270					
W002-V11	71397	7347	1584	17	M7317B	Vert. 230					Rounded clast breccia
W002-V12	71398	7347	1584	17	M7317B	Vert. 270					
W002-V12	71399	7347	1584	17	M7317B	Vert. 270					
W002-V13	71400	7347	1584	17	M7317B	Vert. 270					
W002-V14	71401	7347	1584	17	M7317B	Vert. 270					
W002-V14	71402	7347	1584	17	M7317B	Vert. 270					
W002-V15	71403	7347	1584	17	M7317B	Vert. 270					
W002-V15	71404	7347	1584	17	M7317B	Vert. 270					
W002-V2	71405	7347	1584	17	M7317B	Vert. 270					
W002-V3	71406	7347	1584	17	M7317B	Vert. 270					Dolomite breccia vein.
W002-V4	71407	7347	1584	17	M7317B	Vert. 270	65W	75E		85E	Rounded clast breccia
W002-V5	71408	7347	1584	17	M7317B	Vert. 270	70W	75E	40W	85E	Pyritic shale

Sample Number	JCU cat. #	Location				Orientation	Structural Readings				Notes
		mN	mE	Lev	Site		S ₀	S ₂	S ₃	S ₄	
W002-V6	71409	7347	1584	17	M7317B	Vert. 270	20W	70E			vert. Dolomite vein. Internal host element
W002-V7	71410	7347	1584	17	M7317B	Vert. 270	55W	70E		80E	Pyritic shale. Interbedded with mudstone. External host element
W002-V8	71411	7347	1584	17	M7317B	Vert. 270	65W	50E	40W	90	Pyritic shale cut by a dolomite vein with flanking shear bands and folds
W003A		7035	1729	17	7050 XC	76-358H	60-270				Microcrystalline sphalerite bands. Laminated and pink bands. Bedding parallel pyrrhotite bands
W003A-H1	71412	7035	1729	17	7050 XC	Horiz.					
W003A-V1	71413	7035	1729	17	7050 XC	Vert. 270	70W	50E	25W	90	Microcrystalline sphalerite along fractures in mudstone
W003A-V2	71414	7035	1729	17	7050 XC	Vert. 270	70W	70E	60W	vert	Etched. Elongate aggregates of equigranular sphalerite
W005		7054	1736	17	7050 XC site 4	65-275	65-275				Fine grained sphalerite band. Sphalerite overprinting discordant dolomite veins. Surrounded by pyritic shale.
W005-H1	71415	7054	1736	17	7050 XC site 4	Horiz.	000	034			
W005-H2	71416	7054	1736	17	7050 XC site 4	Horiz.	000				
W005-V1	71417	7054	1736	17	7050 XC site 4	Vert. 270	64W	60E		85E	Etched. Two grain size domains. Calcite veins cut ankerite veins
W005-V2	71418	7054	1736	17	7050 XC site 4	Vert. 270		74E			
W007		7041	1724	17A	070SED site1	75-265H	75-265				Carbonaceous shale. Anastomosing graphitic seams
W007-H1	71419	7041	1724	17A	070SED site1	Horiz.	65	330	060	338	
W007-V1	71420	7041	1724	17A	070SED site1	Vert. 270	80W?	54E		9	Fibrous carbonate in replacement vein. Wall rock across vein indicates no extension
W008		7037	1727	17A	070SED site1	62-260H					Laminated shale and interbedded mudstone. Microcrystalline sphalerite bands overprinted by euhedral pyrite and galena.
W008-H1	71421	7037	1727	17A	070SED site1	Horiz.	345		090	310	
W008-V1	71422	7037	1727	17A	070SED site1	Vert. 270	70W	45E	0	80E	Etched.
W009		6953	1749	17A	P70inc	77-277H					Pyritic shale. Anastomosing seams of pyrite and massive blocks in boudin trains.
W009-H1	71423	6953	1749	17A	P70inc	Horiz.	005				
W009-V1	71424	6953	1749	17A	P70inc	Vert. 270	90	40E		75E	
W010		6957	1757	17A	P70inc						
W010-V1		6957	1757	17A	P70inc	Vert. 270	82-234	55E		90	Pyritic shale interbedded with massive mudstone and cut by dolomite vein.
W011		7347	1583	17B	7350 XC	59-014F	69-263	34-034			Pyritic shale.
W011-H1	71425	7347	1583	17B	7350 XC	Horiz.	340	310			
W011-H2	71426	7347	1583	17B	7350 XC	Horiz.					
W011-V1	71427	7347	1583	17B	7350 XC	Vert. 270	80W	70E	65W	90	Bedding parallel qz-ce-py veins.
W011-V2	71428	7347	1583	17B	7350 XC	Vert. 270	74W	65E		90	Pyrite clearly deposited along S4
W011-V3	71429	7347	1583	17B	7350 XC	Vert. 270	55W	62E		85W	Rounded clast breccia
W011-V4	71430	7347	1583	17B	7350 XC	Vert. 270					
W014		7371	1580	17D	7350 XC	82-340H					
W014-H1	71431	7371	1580	17D	7350 XC	Horiz.	007			345	Saddle reef containing qz-ce-sp. Dilation in pyritic shale between massive siltstone layers
W016		7345	1550	17D	7350 XC	82-011H		37-118			Pyritic shale with bedding parallel and discordant cte-qz-ap veins.
W016-H1	71432	7345	1550	17D	7350 XC	Horiz.					Carbonate-sp porphyrs. Anastomosing py seams

Sample Number	JCU cat. #	Location				Orientation	Structural Readings				Notes
		mN	mE	Lev	Site		S ₀	S ₂	S ₃	S ₄	
W016-H2	71433	7345	1550	17D	7350 XC	Horiz.	010		070	330	Discordant vein. Fibous carbonate and quartz, replacement along the margins.
W016-V1	71434	7345	1550	17D	7350 XC	Vert. 270	70W	45E	25W	90	Carbonate-sp porphs
W018		7349	1640	16	7350 XC	66-286F					Fold clast breccia in carbonaceous shale
W018-H1	71435	7349	1640	16	7350 XC	Horiz.	040		055	345	Fold clast breccia in carbonaceous shale
W018-H2	71436	7349	1640	16	7350 XC	Horiz.		350	020	334	Fold clast breccia in carbonaceous shale
W018-V1	71437	7349	1640	16	7350 XC	Vert. 270	65W	60E	20W	90	Fold clast breccia in carbonaceous shale
W018-V2	71438	7349	1640	16	7350 XC	Vert. 270	70W	65E	45W	80E	Fold clast breccia in carbonaceous shale
W018-V3	71439	7349	1640	16	7350 XC	Vert. 000	45N	40S		85S	Fold clast breccia in carbonaceous shale
W018-V4	71440	7349	1640	16	7350 XC	Vert. 030	30S	20S	30N	85N	Fold clast breccia in carbonaceous shale
W018-V5	71441	7349	1640	16	7350 XC	Vert. 070	60SW		53E	75E	Fold clast breccia in carbonaceous shale
W018-V6	71442	7349	1640	16	7350 XC	Vert. 110	80SW	25E	25W	87E	Fold clast breccia in carbonaceous shale
W018-V7	71443	7349	1640	16	7350 XC	Vert. 130	77W	70S	40N	90	Fold clast breccia in carbonaceous shale
W018-V8	71444	7349	1640	16	7350 XC	Vert. 150	70NW		40N	76S	Fold clast breccia in carbonaceous shale
W018-V9	71445	7349	1640	16	7350 XC	Vert. 170	50N		25N	90	Fold clast breccia in carbonaceous shale
W020			16	7350 XC	84-170H						
W020-H1	71446						357	000?		325	Carbonaceous shale containing abundant cb porphs and microcrystalline sphalerite overprinting them. Anastomosing microcrystalline pyrite seams
W020-V1	71447						68W	45E	10W	85E	
W021		7389	1610	16B	N73inc	84-191H	357				
W021-H1	71448	7389	1610	16B	N73inc						Brecciated carbonaceous shale. Some clasts have pyritic alteration others do not.
W021-V1	71449	7389	1610	16B	N73inc						
W022		7389	1609	16B	N73inc	79-266F					
W022-H1	71450	7389	1609	16B	N73inc	Horiz.	335				Pyritic shale. Anastomosing seams of pyrite overprinting cleavages.
W022-V1	71451	7389	1609	16B	N73inc	Vert. 270	70W	60E		90	Asymmetric boundins.
W022-V2	71452	7389	1609	16B	N73inc	Vert. 270	80W	38E		80E	
W024		7384	1636	16B	N73inc	86-152H					
W024-H1	71453	7384	1636	16B	N73inc	Horiz.	000				Carbonaceous seams in mudstone.
W024-V1	71454	7384	1636	16B	N73inc	Vert. 270	75W		50W	80E	
W024-V2	71455	7384	1636	16B	N73inc	Vert. 270					
W025		7348	1635	16B	N73inc	71-270H					
W025-H1	71456	7348	1635	16B	N73inc	Horiz.	000	010		340	Micocrystalline pyrite and sphalerite. Cb-qz porphs
W025-V1	71457	7348	1635	16B	N73inc	Vert. 270	70W	56E	65W	90	
W025-V2	71458	7348	1635	16B	N73inc	Vert. 270					
W029		7348	1625	16B	N73inc	78-006F					
W029-H1	71459	7348	1625	16B	N73inc	Horiz.	340	000	030		Carbonaceous shale with micocrystalline and fine grained sphalerite overprinting carbonate porphs grading in rounded clast breccia.
W029-V1	71460	7348	1625	16B	N73inc	Vert. 270	71W	65E	38W	83E	
W031		7348	1622	16B	7230 XC	77-163H					

Sample Number	JCU cat. #	Location				Orientation	Structural Readings				Notes
		mN	mE	Lev	Site		S ₀	S ₂	S ₃	S ₄	
W031-H1	71461	7348	1622	16B	7230 XC	Horiz.	355			330	Laminated microcrystalline sphalerite band.
W031-H2	71462	7348	1622	16B	7230 XC	Horiz.					
W031-H3	71463	7348	1622	16B	7230 XC	Horiz.	352	010		325	
W031-V1	71464	7348	1622	16B	7230 XC	Vert. 270		55E		85E	Etched
W031-V2	71465	7348	1622	16B	7230 XC	Vert. 270	70W				Contains pink microcrystalline sphalerite band
W032		7348	1622	16B	7230 XC	74-179H					
W032-H1	71466	7348	1622	16B	7230 XC	Horiz.	350		070	320	Pyritic shale. Pyrite in anastomosing seams that overprint crenulation cleavages. Neocrystalline carbonate between pyrite seams
W032-V1	71467	7348	1622	16B	7230 XC	Vert. 270	60W	55E	50W	80W	
W033		7348	1620	16B	7230 XC	50-349F					
W033-H1	71468	7348	1620	16B	7230 XC	Horiz.	020			320?	Pyritic shale. E-W fold F1?
W035		7348	1615	16B	7230 XC	88-350F					
W035-H1	71469	7348	1615	16B	7230 XC	Horiz.	010			330	Pyritic shale with bedding parallel sphalerite veins. Sigmoidal Q-domain veins
W035-V1	71470	7348	1615	16B	7230 XC	Vert. 270	75W			80E	
W036						85-355H					
W036-H1	71471					Horiz.	000		075	322	Rounded clast breccia in pyritic shale interbedded with siltstone
W036-V1	71472					Vert. 270	65W	75E	35W	80E?	
W038		7054	1736	17	7050 XC	88-120					
W038-H1	71473					Horiz.					Fine grained sphalerite in fold hinge. Elongate aggregates of sphalerite in S4. Sphalerite overprints microcrystalline pyrite
W038-H2	71474					Horiz.					
W038-V1	71475					Vert. 270	70W		50W	70E	
W039											
W039-H1	71476					Horiz.	000			335	Carbonaceous shale.
W039-V1	71477					Vert. 270	78W		60W	80E	

Appendix D

Diamond Core Logs

Vein Minerals

Code	Explanation
cp	Chalcopyrite
dol	Dolomite
gn	Galena
po	Pyrrhotite
py	Pyrite
sp	Sphalerite
qz	Quartz

Textural Codes

Code	Explanation
CPB	Chalcopyrite breccia
FCBx	Fold clast breccia
FFBx	Foliation fill breccia
FGSp	Fine grained sphalerite band
LMCSp	Laminated microcrystalline sphalerite
MCPy	Microcrystalline pyrite
MMCSp	Massive microcrystalline sphalerite
Nod	'nodular' layer
Sil-dol	Stratiform silica dolomite alteration
RCBx	Rounded clast breccia

Diamond Drill Hole Summary Log

MS Code: 771208

Hole Name:

Dip: - 28

Azimuth: 87.08

From (m)	To (m)	Notes
General Note: Quarter core that has been chisled rather than cut.		
228.00	229.00	Medium grained crystalline rock with a green tinge. Po-py-cp along remnant bedding fabric.
229.00	231.00	Coarse grained, crystalline, olive green carbonate (siderite?), massive fabric, disseminated po-cp.
231.00	231.90	Thick bedded siltstones with abundant euhedral pyrite crystals, 1-2 mm.
231.90	233.20	Very coarse grained crystalline dolomite and black siltstone. The crystalline dolomite contains disseminated sulphides
233.20	234.60	Black siltstone with fine (1-2 mm) crosscutting dolomite veins.
234.60	236.70	Very coarse grained crystalline dolomite and black siltstone. Clasts in the crystalline dolomite have a laminated fabric.
236.70	239.50	Black siltstone.
239.50	241.20	Dark green fine grained siltstone with disseminated po-cp. Fine (1-2 mm) cross cutting po-cp veins.
241.20	241.80	MCPy and crystalline dolomite bands. Crystalline dolomite is overprinted by po.
241.80	242.60	Fine to medium grained crystalline green carbonate (siderite?) overprinted by cp-gn. Po (40%), Carb (60%)
242.60	244.00	Fine to medium grained crystalline green carbonate, with a remnant but apparently recrystallised fabric.
244.00	248.00	Fine grained green siltstone with original fabric.
248.00	250.30	Fine grained crystalline green carbonate overprinted by Po and cut by coarse grained dol-cp-po veins up to 8 mm wide.
250.30	251.90	Dark green siltstone with a recrystallised fabric and overprinted by po
251.90	255.30	Very coarse grained carbonate with a slight green tinge (dol and sid?). Overprinted by qz-cp-po veins.
255.30	260.40	Medium grained green crystalline carbonate (+qz?) rock with a remnant bedding fabric. Over printed by po and fine grained cp.
260.40	261.50	MCPy banded with medium grained crystalline dolomite bands. Dolomite is overprinted by 5-6 mm wide po bands.
261.50	263.40	Altered siltstones, green colour, remnant fabric.
263.40	266.90	MCPy banded with coarse grained dolomite bands and silicously altered siltstones.
265.90	266.80	Altered siltstone banded with shale giving the rock a green tinge and cut by fine (1 mm) po veins.
266.80	267.50	Altered siltstone banded with shale giving the rock a green tinge and cut by fine gn-po veinlets
267.50	268.50	Altered siltstones banded with shale and MCPy alteration.
268.50	268.70	1430 FW TMB
268.70	274.00	Black, weakly altered siltstone with remnant fabric.
274.00	282.00	MCPy banded with crystalline dolomite banded 1 mm to 2.5 cm.
282.00	283.10	Weakly altered siltstone.
283.10	288.00	MCPy - crystalline dolomite banding.
288.00	289.00	Altered siltstone overprinted by po.
289.00	292.70	Weakly altered siltstones.
EOH		

Diamond Drill Hole Rock Type Log

MS Code: 771208

Hole Name:

Dip: - 28

Azimuth: 87.08

From (m)	To (m)	Rock Type	Ore package
228.0	229.0	Silica-dolomite alteration	
229.0	231.0	Silica-dolomite alteration	
231.0	231.9	Thick bedded siltstone	
231.9	233.2	Silica-dolomite alteration with remnant layering	
233.2	234.6	Thick bedded siltstone	
234.6	236.7	Silica-dolomite alteration with remnant layering	
236.7	239.5	Thin bedded siltstone	
239.5	241.2	Thin bedded siltstone	
241.2	241.8	Interbedded siltstones and shales	
241.8	242.6	Siltstone undifferentiated	
242.6	244.0	Silica-dolomite alteration	
244.0	248.0	Siltstone undifferentiated	
248.0	250.3	Silica-dolomite alteration	
250.3	251.9	Siltstone undifferentiated	
251.9	255.3	Silica-dolomite alteration	0014?
255.3	260.4	Silica-dolomite alteration	0014?
260.4	261.5	Interbedded siltstones and shales	
261.5	263.4	Siltstone undifferentiated	
263.4	256.9	Interbedded siltstones and shales	1410?
265.9	266.8	Siltstone undifferentiated	
266.8	267.5	Basemetal sulphide bands between thick bedded siltstone	1430
267.5	268.5	Interbedded siltstones and shales	
268.5	268.7	1430 FW TMB	
268.7	274.0	Siltstone undifferentiated	
274.0	282.0	Interbedded siltstones and shales	
282.0	283.1	Siltstone undifferentiated	
283.1	288.0	Carbonaceous shales	
288.0	289.0	Siltstone undifferentiated	
289.0	292.7	Siltstone undifferentiated	
EOH			

Diamond Drill Hole Summary Log

MS Code: 810307
Hole Name: O651 W11
Dip: 33.83
Azimuth: 269.2

From (m)	To (m)	Notes
General Note: Up hole drilled from the FW to the HW. Chisled not sawed.		
0.0	8.7	Interbedded sequence of thin bedded siltstone and MCPy shale. MCPy bands 1-20 cm with 10-30 cm spacing. Some weak laminated banded sp mineralisation.
8.7	13.2	Thin bedded siltstone, weak MCPy alteration only.
13.2	18.4	Interbedded sequence of thin bedded siltstone, MCPy shale and laminated banded sp. Sp bands 1-3 cm, MCPy 1-10 cm separated by 10 cm intervals of thin bedded siltstone. Not very confident on the thin bedded siltstone because of the fractured surface, may be thick bedded.
18.4	20.0	Barren thin bedded siltstone.
20.0	24.3	Pb-Zn mineralised interval. Interbedded MCPy, laminated banded sp, thick bedded siltstone and gn-sp breccia. Gn mineralisation is more concentrated in the HW compared to the FW. MCPy bands are 0.5-4 cm wide, Sp bands 1-3 cm wide. 1 gn breccia, fine to medium grained.
24.3	26.5	Barren thin bedded siltstone.
26.5	31.2	Banded MCPy thick bedded siltstone sequence. The MCPy in this hole contains wavy MCPy and massive blocky MCPy. The hole below this one contained only wavy MCPy.
31.2	34.7	Thin bedded siltstone with minor thin laminated shale.
34.7	34.9	TMB 1430 FW
34.9	38.0	1430 OB. Contains laminated banded sp throughout, and coarse grained gn-sp breccias towards the hanging wall. Mantled by MCPy alteration of the laminated shales. The MCPy regularly contains crystalline dol between wavy MCPy in places these contain cp. Gn breccias contain py proths.
38.0	39.8	Thin bedded siltstone with minor thin laminated shale.
39.8	43.9	1410 OB. Numerous medium to coarse grained gn-sp breccias towards the hanging wall. These are clast supported. Cp commonly occurs with the galena, usually along the wall rock-galena breccia contact and in cross cutting veins adjacent to the breccia. Where cp is present the Fe sulphide is po but where cp is absent it is py. Laminated banded sp is common in the interval but difficult to recognise because of the strong gn and cp mineralisation.
43.9	47.2	Thin bedded siltstone with minor thin laminated shale.
47.2	55.3	0014 orebody. Numerous medium to coarse grained gn-sp-cp breccias. Gn commonly occurs in bedding cutting S2 fractures. The gn breccias are coincidental with laminated banded sp that is very common in the interval and appear to be overprinted by the gn breccias. Sp is more dominant in the FW areas where there is less gn mineralisation which is dominant in the HW. This interval comprises 2 Pb-Zn mineralised intervals, one on the HW is mantled by MCPy alteration and contains most of the gn mineralisation with only minor gn-sp-cp breccias. The second, on the FW, contains abundant breccias and only minor MCPy alteration but mineralisation is much stronger.
55.3	58.6	Thin bedded siltstone with minor thin laminated shale.
58.6	61.0	1314 OB. Very coarse grained siderite (?) abundant po with sid-sp±gn mineralisation and native silver. The rock has a distinctively different texture, looks more coarse grained. This interval in the lower hole comprises coarse grained dol and qz-cp-po mineralisation. TMB @ 59.4 18 mm grey pink.
61.0	65.0	Thin bedded siltstone with minor thin laminated shale. Minor weak MCPy alteration and laminated banded sphalerite mineralisation at two places.
65.0	67.1	1312 OB. Abundant laminated banded sp mineralisation and some medium to coarse grained gn breccias.
67.1	72.9	Thin bedded siltstone and laminated shale.

From (m)	To (m)	Notes
72.9	75.1	1380 OB. TMB @ 73.90 m. Consists of coarse grained crystalline dolomite, gn breccias, without sp, surrounded by MCPy alteration.
75.1	77.1	Barren siltstones, thin bedded and thick bedded with minor laminated shale.
77.1	81.1	Coarse grained mineralisation, gn crystalline dolomite, chl?,MCPy.
81.1	82.2	Thin bedded siltstone and laminated shale. Barren.
82.2	87.0	Coarse grained mineralisation
87.0	EOH	Barren siltstone and laminated shale.

Diamond Drill Hole Rock Type Log

MS Code: 810307

Hole Name: O651 W11

Dip: 33.83

Azimuth: 269.2

From (m)	To (m)	Rock Type	Ore package
0.0	8.7	Interbedded siltstone with thin bedded being dominant	
8.7	13.2	Thin bedded siltstone	
13.2	18.4	Basemetal sulphide bands between thick bedded siltstone	0017
18.4	20.0	Thin bedded siltstone	
20.0	24.3	Basemetal sulphide bands between thick bedded siltstone	0016
24.3	26.5	Thin bedded siltstone	
26.5	31.2	Interbedded siltstone with thick bedded being dominant	0015
31.2	34.7	Thin bedded siltstone	
34.7	34.9	TMB 1430 FW	
34.9	38.0	Basemetal sulphide bands between thick bedded siltstone	1430
38.0	39.8	Thin bedded siltstone	
39.8	43.9	Basemetal sulphide bands between thick bedded siltstone	1410
43.9	47.2	Thin bedded siltstone	
47.2	55.3	Basemetal sulphide bands between thick bedded siltstone	0014
55.3	58.6	Thin bedded siltstone	
58.6	61.0	Silica-dolomite alteration with remnant layering	1314
61.0	65.0	Interbedded siltstone with thin bedded being dominant	
65.0	67.1	Basemetal sulphide bands between thick bedded siltstone	1312
67.1	72.9	Thin bedded siltstone	
72.9	75.1	Basemetal sulphide bands between thick bedded siltstone	1380
75.1	77.1	Thin bedded siltstone	
77.1	81.1	Silica-dolomite alteration with remnant layering	1320
81.1	82.2	Thin bedded siltstone	
82.2	87.0	Silica-dolomite alteration with remnant layering	
87.0	EOH	Interbedded siltstones	

Diamond Drill Hole Sulphide Band Log

MS Code: 810307

Hole Name: O651 W11

Dip: 33.83

Azimuth: 269.2

From (m)	To (m)	Ore Textural Style	From (m)	To (m)	Ore Textural Style
0.290	0.300	MCPy	9.265	9.285	LMCSp
0.330	0.335	MCPy	9.315	9.330	MCPy
0.350	0.385	MCPy	9.390	9.410	MCPy
0.450	0.480	MCPy	9.490	9.505	MCPy
0.490	0.610	MCPy	9.565	9.575	MCPy
0.970	0.990	MCPy	9.635	9.660	MCPy
1.010	1.020	MCPy	10.600	10.750	Sil-Dol
1.110	1.120	MCPy	10.750	10.900	MCPy
1.270	1.285	MCPy	11.130	11.165	MCPy
1.800	1.810	MCPy	11.265	11.320	MCPy
2.075	2.110	MCPy	13.120	13.170	MCPy
2.180	2.190	MCPy	13.200	13.350	MCPy
2.440	2.460	MCPy	13.430	13.520	MCPy
2.500	2.510	MCPy-nod	13.640	13.655	MCPy
2.604	2.608	MCPy-nod	13.660	13.715	FGSp
2.618	2.632	FGSp	13.735	13.890	FGSp
2.646	2.668	MCPy-nod	13.900	13.940	MCPy
2.798	2.808	MCPy-nod	13.940	14.010	FGSp
2.845	2.860	MCPy	14.010	14.030	MCPy
2.870	2.880	MCPy	14.050	14.190	MCPy
2.880	2.895	FGSp	14.690	14.740	Nod
2.945	2.980	MCPy	15.020	15.170	Nod
2.990	3.000	FGSp	15.215	15.235	MCPy
3.050	3.440	LMCSp	15.300	15.310	MCPy
3.480	3.592	MCPy	15.450	15.535	FGSp
3.515	3.540	MCPy	15.620	15.627	FGSp
3.562	3.570	MCPy	15.855	15.905	FGSp
5.100	5.116	MCPy	15.925	15.955	FGSp
5.157	5.327	MCPy	15.985	15.995	LMCSp
5.265	5.275	MCPy	16.150	16.170	MCPy
5.575	5.630	MCPy	16.170	16.210	FGSp
5.830	5.860	MCPy	16.325	16.330	MCPy
5.910	5.940	MCPy	16.425	16.445	FGSp
5.955	6.000	MCPy	16.490	16.515	MCPy
6.100	6.230	MCPy	16.525	16.535	FGSp
6.920	7.120	MCPy	16.570	16.595	MCPy
7.190	7.590	MCPy	16.625	16.670	FGSp
7.595	7.625	MCPy	16.700	16.710	FGSp
7.655	7.690	MCPy	16.760	16.770	MCPy
7.740	7.950	MCPy	17.055	17.075	MCPy
7.930	7.950	MCPy	17.150	17.180	LMCSp
7.995	8.035	MCPy	17.190	17.220	LMCSp
8.030	8.043	MCPy	17.300	17.510	FGSp
8.070	8.160	MCPy	17.510	17.560	MCPy
8.370	8.390	MCPy	17.575	17.587	FGSp
8.430	8.440	MCPy	17.587	17.612	MCPy
8.450	8.455	MCPy	17.623	17.663	FGSp
8.476	8.481	MCPy	17.643	17.663	MCPy
8.488	8.493	MCPy	17.820	17.830	MCPy
8.525	8.545	FGSp	17.885	17.915	MCPy
9.010	9.020	MCPy	17.940	17.970	MCPy
9.044	9.059	MCPy	18.100	18.200	MCPy
9.175	9.205	MCPy	18.265	18.290	MCPy
9.242	9.257	FGSp	18.300	18.350	MCPy
9.257	9.262	MCPy	19.980	20.340	FGSp

From (m)	To (m)	Ore Textural Style	From (m)	To (m)	Ore Textural Style
20.700	20.890	FGSp	29.945	29.970	MCPy
20.890	20.930	MCPy	29.990	30.025	MCPy
21.000	21.005	MCPy	30.050	30.075	MCPy
21.110	21.116	MCPy	30.130	30.190	MCPy
21.116	21.120	FGSp	30.195	30.315	MCPy
21.130	21.135	FGSp	30.295	30.345	MCPy
21.135	21.140	MCPy	30.390	30.440	MCPy
21.200	21.230	MCPy	30.570	30.920	Sil-Dol
21.230	21.290	MCPy	31.060	31.160	Sil-Dol
21.290	21.380	FGSp	35.035	35.050	MCPy
21.380	21.400	FGSp	35.075	35.085	MCPy
21.400	21.415	RCBx	35.110	35.135	MCPy
21.415	21.480	FGSp	35.140	35.260	MCPy
21.480	21.560	MCPy	35.180	35.290	MCPy
21.560	21.700	FGSp	35.220	35.230	FCBx
21.760	21.790	MCPy	35.240	35.270	FCBx
21.800	22.000	MCPy	35.280	35.330	LMCSp
22.030	22.100	MCPy	35.435	35.835	LMCSp
22.140	22.200	MCPy	35.750	35.760	LMCSp
22.280	22.300	MCPy	35.760	35.775	FCBx
22.400	22.450	MCPy	35.775	35.782	LMCSp
22.490	22.530	MCPy	35.840	35.844	MCPy
22.565	22.610	MCPy	35.990	36.080	LMCSp
22.610	22.640	MCPy	36.080	36.130	FGSp
22.700	22.740	MCPy	36.165	36.195	FGSp
22.790	22.800	MCPy	36.195	36.220	LMCSp
22.845	22.885	MCPy	36.230	36.237	LMCSp
22.940	23.000	MCPy	36.245	36.265	LMCSp
23.000	23.035	FGSp	36.270	36.275	LMCSp
23.035	23.060	MCPy	36.295	36.310	LMCSp
23.085	23.115	MCPy	36.310	36.370	FCBx
23.550	23.570	MCPy	36.310	36.360	FCBx
23.570	23.620	FGSp	36.370	36.430	LMCSp
23.620	23.690	RCBx	36.440	36.560	FCBx
23.690	23.770	MCPy	36.560	36.600	LMCSp
23.770	23.810	MCPy	36.670	36.710	FCBx
24.030	24.230	MCPy	36.710	36.740	LMCSp
26.560	26.660	FGSp	36.740	36.770	FFBx
27.150	27.190	MCPy	36.850	36.870	FFBx
27.225	27.255	LMCSp	36.870	36.890	LMCSp
27.270	27.305	LMCSp	36.900	37.100	FFBx
27.370	27.395	MCPy	37.100	37.150	MCPy
27.450	27.530	MCPy	37.150	37.200	LMCSp
27.610	27.630	MCPy	37.200	37.220	FCBx
27.760	27.765	MCPy	37.270	37.450	LMCSp
27.860	27.980	MCPy	37.400	37.800	Nod
28.110	28.210	MCPy	38.040	38.065	MCPy
28.245	28.270	MCPy	38.065	38.135	FCBx
28.290	28.400	MCPy	38.135	38.250	MCPy
28.470	28.500	MCPy	38.200	38.350	Nod
28.590	28.600	MCPy	38.380	38.390	MCPy
28.770	28.785	MCPy	38.970	39.030	MCPy
28.885	28.910	MCPy	39.700	39.890	MCPy
28.925	28.950	MCPy	39.940	40.020	LMCSp
29.140	29.215	MCPy	40.200	40.230	LMCSp
29.250	29.300	MCPy	40.250	40.280	LMCSp
29.420	29.450	MCPy	40.300	40.320	MCPy
29.510	29.680	FGSp	40.360	40.375	MCPy
29.650	29.672	MCPy	40.480	40.510	LMCSp
29.672	29.695	LMCSp	40.510	40.520	FCBx
29.745	29.752	LMCSp	40.520	40.545	LMCSp
29.780	29.795	LMCSp	40.545	40.585	MCPy
29.870	29.920	MCPy	40.585	40.635	LMCSp

From (m)	To (m)	Ore Textural Style	From (m)	To (m)	Ore Textural Style
40.750	40.780	Nod	59.760	59.790	Sil-Dol
40.810	40.825	MCPy	59.790	59.810	FCBx
40.870	40.885	MCPy	59.810	60.520	Sil-Dol
40.940	40.965	FFBx	60.450	60.480	FCBx
41.040	41.050	MCPy-nod	60.500	61.000	Sil-Dol
41.100	41.160	MCPy	65.200	65.205	FGSp
41.160	41.360	FFBx	65.350	65.375	FCBx
41.520	41.610	MCPy	65.720	65.770	LMCSp
41.610	41.910	FFBx	65.800	65.820	LMCSp
41.910	42.510	RCBx	65.820	65.855	FCBx
41.970	42.130	RCBx	65.890	65.905	FGSp
42.130	42.340	MCPy-nod	65.965	65.980	MMCSp
42.330	42.490	FFBx	66.020	66.045	FCBx
42.490	42.570	FFBx	66.045	66.100	FGSp
42.810	42.900	RCBx	66.130	66.135	FGSp
42.960	42.990	FFBx	66.180	66.230	FGSp
43.060	43.240	FFBx	66.260	67.170	MCPy
43.280	43.290	FGSp	73.070	73.220	MCPy
43.290	43.330	FFBx	73.220	73.260	Nod
43.330	43.460	LMCSp	73.500	73.540	Nod
43.460	43.475	FFBx	73.600	73.840	Nod
43.475	43.745	MCPy	73.840	73.860	FFBx
43.755	43.880	FCBx	73.860	74.470	Sil-Dol
43.870	43.970	FGSp	74.370	74.410	Nod
47.210	47.310	LMCSp	74.470	74.510	FFBx
47.345	47.475	LMCSp	74.500	74.770	FFBx
47.670	47.810	LMCSp	74.780	74.970	Nod
47.810	47.860	FCBx	77.000	77.100	FFBx
47.860	47.890	LMCSp	77.100	77.200	Sil-Dol
47.950	48.090	LMCSp	77.200	77.400	Sil-Dol
48.190	48.290	LMCSp	77.340	77.370	FFBx
48.340	48.345	CPB	77.460	80.060	Sil-Dol
48.345	48.390	LMCSp	80.100	80.290	Sil-Dol
48.390	48.440	FFBx	80.290	80.580	FFBx
48.510	48.540	FFBx	80.790	81.000	Sil-Dol
48.555	48.595	FFBx	80.910	81.180	MCPy
49.000	49.070	FFBx			
49.360	49.390	FFBx			
49.580	49.640	FFBx			
49.750	49.800	FFBx			
49.900	49.960	FFBx			
50.500	50.540	RCBx			
50.640	50.690	FCBx			
50.690	50.940	MCPy			
51.000	51.210	MCPy			
51.500	51.650	MCPy			
52.150	52.250	MCPy			
52.400	52.410	FCBx			
52.410	52.520	MCPy			
52.520	52.530	FCBx			
52.580	52.620	FCBx			
52.930	53.000	MCPy			
53.000	53.020	RCBx			
53.160	53.190	MCPy			
53.250	53.350	MCPy			
53.450	54.950	MCPy			
55.200	55.300	MCPy			
59.000	59.660	Sil-Dol			
59.600	59.645	RCBx			
59.615	59.645	Sil-Dol			
59.660	59.670	RCBx			
59.670	59.700	Sil-Dol			
59.700	59.760	FFBx			

Diamond Drill Hole Veining Log

MS Code: 810307

Hole Name: O651 W11

Dip: 33.83

Azimuth: 269.2

Vein HW (m)	Thickness (mm)	Vein Minerals	Vein HW (m)	Thickness (mm)	Vein Minerals
0.410	4.0	dol.py	18.725	2.0	dol.py
1.132	2.0	dol.py	19.030	<1	py
1.168	2.0	dol.py	19.240	<1	py
1.204	2.0	dol.py	19.270	<1	py
1.232	2.0	dol.py	19.410	<1	py
1.245	2.0	dol.py	19.440	2.0	py
1.455	4.0	dol.py	19.730	2.0	py
1.500	5.0	dol.py	19.780	2.0	py
1.585	4.0	dol.py	19.835	<1	dol
1.722	4.0	dol.py	19.840	<1	dol
1.910	2.0	dol.py	19.920	4.0	dol
1.925	2.0	dol.py	19.970	4.0	dol
2.225	2.0	dol.py	20.030	4.0	dol
3.390	5.0	dol.py	20.290	1.0	dol
3.740	5.0	dol.py	20.340	2.0	dol
3.795	5.0	dol.py	20.480	5.0	dol
3.880	4.0	dol.py	20.560	<1	dol
3.905	2.0	dol.py	20.620	2.0	dol,py
3.925	5.0	dol.py	20.650	5.0	dol,py
3.950	5.0	dol.py	21.200	5.0	dol,py
5.620	5.0	dol.py	21.280	5.0	dol,py
5.790	3.0	py	21.430	4.0	dol,py
5.790	3.0	py	21.570	4.0	dol,py
6.070	2.0	py	21.580	4.0	dol,py
6.360	3.0	dol	21.720	<1	dol,py
6.480	3.0	dol	21.800	5.0	dol,py
6.635	5.0	dol	21.830	10.0	dol,py
6.825	2.0	dol	22.350	4.0	dol,py
6.905	2.0	dol	22.530	2.0	dol,py
9.200	3.0	dol,py	22.600	2.0	dol,py
10.100	1.0	dol,py	22.620	2.0	dol,py
10.920	4.0	dol,py	22.640	2.0	dol,py
10.940	4.0	dol,py	23.060	2.0	dol,py
11.840	<1	dol,py	23.190	2.0	dol,py
11.880	<1	dol,py	23.230	2.0	dol,py
11.910	<1	dol,py	23.310	5.0	dol
11.950	<1	dol,py	23.380	2.0	dol
12.260	<1	dol,py	23.480	2.0	dol
12.520	<1	dol,py	23.970	4.0	dol,py
13.255	5.0	py,dol	24.090	4.0	dol,py
13.400	2.0	py,dol	24.150	4.0	dol,py
13.420	2.0	py,dol	24.420	4.0	dol,py
13.855	<1	py,dol	24.640	4.0	dol,py
13.933	2.0	py,dol	24.650	4.0	dol,py
14.350	<1	py,dol	24.840	4.0	dol,py
14.400	<1	py,dol	24.910	2.0	dol,py
14.560	<1	py,dol	24.950	2.0	dol,py
14.670	<1	py,dol	25.160	2.0	dol
15.140	2.0	py,dol	25.200	6.0	dol
15.300	2.0	py,dol	25.230	3.0	dol
16.310	3.0	gn,dol	25.320	2.0	dol
17.080	3.0	py,dol	25.360	2.0	dol
17.960	4.0	py,dol	25.420	<1	dol,py
18.400	2.0	po	25.490	<1	dol,py
18.490	6.0	dol,py	25.870	<1	dol,py
18.500	6.0	dol,py	25.920	<1	dol,py
18.580	2.0	dol,py	25.990	<1	dol,py

Vein HW (m)	Thickness (mm)	Vein Minerals	Vein HW (m)	Thickness (mm)	Vein Minerals
26.060	3.0	dol	40.350	2.0	dol.py,gn
26.100	<1	dol	40.410	1.0	dol,py
26.200	<1	dol	40.420	1.0	py
26.390	4.0	dol	40.520	5.0	dol,py
26.420	2.0	dol	44.030	2.0	dol,py
26.900	2.0	py	44.280	23.0	dol,py
26.930	2.0	py	44.440	8.0	dol,py
26.990	<1	dol,py	46.260	1.0	dol,py
27.080	3.0	dol,py	46.300	1.0	dol
27.150	2.0	dol,py	46.370	1.0	dol,py
27.320	<1	py	50.000	1.0	dol,py
27.540	2.0	py,dol	50.220	6.0	py
27.640	3.0	py,dol	50.320	1.0	dol
27.730	<1	py,dol	50.440	1.0	dol
27.763	3.0	dol,py	51.000	15.0	dol,py
27.772	3.0	dol,py	51.140	2.0	dol,py
28.300	3.0	dol,py	51.200	15.0	dol,py
28.570	2.0	py,dol	51.400	6.0	dol
28.680	11.0	py,dol	51.750	25.0	dol,qz,cp
28.800	4.0	dol,py	51.930	2.0	dol
29.260	5.0	dol,py	52.020	15.0	dol
29.340	5.0	dol,py	52.200	4.0	dol
29.500	1.0	dol,py	52.380	3.0	dol
29.690	4.0	po	52.660	2.0	dol
29.840	2.0	po	52.680	5.0	dol
30.290	2.0	dol	52.770	4.0	dol
30.400	2.0	dol,py	52.850	3.0	dol
30.520	2.0	dol,py	53.470	1.0	dol
30.830	2.0	py	53.530	8.0	dol
31.130	4.0	dol,py	53.580	3.0	dol
31.280	5.0	dol	53.610	2.0	dol
31.370	2.0	dol	53.760	1.0	dol
31.480	2.0	dol,py	53.760	4.0	dol,cp
31.620	<1	dol,py	53.780	10.0	dol,cp
31.690	1.0	dol,py	53.870	10.0	dol,cp
32.020	1.0	dol,py	54.080	7.0	dol,cp
32.140	3.0	py,dol	54.150	3.0	dol
32.250	1.0	py,dol	54.170	3.0	dol
32.340	2.0	py,dol	54.260	4.0	dol
32.380	5.0	py,dol	54.360	12.0	dol
32.670	5.0	dol	54.380	10.0	dol
32.720	9.0	dol	54.400	3.0	dol
33.300	4.0	dol,py	54.420	5.0	dol
33.430	2.0	dol,py	54.450	4.0	dol
33.620	3.0	dol,py	54.540	1.0	dol
34.100	3.0	dol,py	55.320	2.0	dol
34.650	2.0	dol,py	55.740	1.0	dol
35.360	1.0	dol,py	55.810	1.0	py
35.460	2.0	dol,py	55.840	4.0	dol
35.710	3.0	dol,py	57.450	1.0	dol,qz
35.820	<1	dol,py	57.490	1.0	dol,qz
36.010	2.0	dol,py	57.590	2.0	dol,qz
38.680	2.0	dol,py	57.830	2.0	py,dol
38.920	2.0	dol	57.890	2.0	qz
39.120	1.0	dol,py	58.220	3.0	dol
39.220	1.0	dol,cp	58.290	5.0	dol
39.280	2.0	dol,cp	58.350	2.0	py,dol
39.560	5.0	dol	60.840	1.0	dol
39.620	1.0	py	61.010	5.0	dol
39.650	6.0	dol,py	61.030	1.0	dol
39.790	1.0	dol,py	61.050	12.0	dol
39.830	6.0	dol	62.340	3.0	dol
40.040	2.0	py	62.380	1.0	dol
40.140	2.0	dol,py	62.560	1.0	dol
40.180	5.0	dol,py	67.730	1.0	dol,py

Vein HW (m)	Thickness (mm)	Vein Minerals	Vein HW (m)	Thickness (mm)	Vein Minerals
68.310	1.0	dol.py	91.990	2.0	dol.py
68.380	1.0	dol.py	92.020	2.0	dol.py
68.480	1.0	dol.py	92.110	1.0	dol.py
68.550	1.0	dol.py	95.460	6.0	dol.py
68.770	1.0	dol.py	95.920	1.0	dol.py
68.860	1.0	dol.py	95.940	1.0	dol.py
69.400	2.0	dol.py	97.180	2.0	dol
69.510	2.0	dol.py	97.250	5.0	dol
72.670	5.0	dol	97.470	4.0	dol
72.740	3.0	dol	97.500	5.0	dol
72.780	4.0	dol	97.530	3.0	dol
72.890	6.0	qz	97.600	2.0	dol
73.120	4.0	qz	97.630	2.0	dol
73.350	20.0	dol	97.750	1.0	dol
79.500	12.0	qz,sp	98.020	1.0	dol
82.310	2.0	dol,cp	98.630	1.0	dol
82.490	1.0	dol,cp	98.770	12.0	dol
82.610	1.0	dol,cp	99.120	3.0	dol.py
86.290	30.0	dol	99.280	1.0	dol
87.250	1.0	dol	99.710	2.0	dol
87.260	1.0	dol	100.580	4.0	dol
87.300	1.0	dol	101.300	4.0	dol
87.620	1.0	dol	101.660	1.0	dol
87.920	2.0	dol	101.720	2.0	dol
88.320	2.0	dol	103.110	3.0	dol
88.350	1.0	dol	103.120	4.0	dol
88.410	1.0	dol	103.310	1.0	dol
90.050	3.0	dol.py	105.340	3.0	dol.py
91.610	3.0	dol.py	109.990	4.0	dol.py
91.670	5.0	dol.py			

Diamond Drill Hole Summary Log

MS Code: 820208

Hole Name: M651 EH1

Dip: -3.3

Azimuth: 90.3

From (m)	To (m)	Notes
		General Notes: Log from 108 to EOH. Corresponds to the 1312, 1314, 0014, 1410 and 1430 orebodies.
108.8	111.8	barren interbedded sequence of thin bedded siltstone and thin bedded laminated shales.
111.8	114.4	Thick bedded siltstone and minor thin bedded siltstone. Cc-py veining.
114.4	114.7	Fogy alteration.
114.7	115.9	Sp with minor gn mineralised interval. Laminated Sp mineralisation and interbedded siltstones. The abundance of siltstone increases down the hole.
115.9	119.7	Barren interbedded thin bedded siltstone and thin bedded laminated shale.
119.7	121.2	Fogy and sp mineralisation. Sp mineralisation is a combination of laminated banded sp and S0 parallel. MCPy @ 121.0, ! Cm wide.
121.2	121.5	Interbedded sequence of thin bedded siltstone and thin bedded laminated shale.
121.5	124.3	Thick bedded siltstone.
124.3	126.1	Interbedded thick bedded siltstone and MCPy.
126.1	126.8	Interbedded thin bedded siltstone and banded sp mineralisation.
126.8	127.6	Interbedded siltstone and thin bedded laminated shale.
127.6	134.9	Zn-Pb mineralised sequence. Gn Pb mineralisation is most abundant in the HW and decreases towards the FW of the interval. Gn breccias are matrix supported in the HW and clast supported in the FW. Sp mineralisation and S0 parallel sp veins occur throughout. TMB @ 127.65, 1 cm wide, 0014 HW TMB.
134.9	138.6	Interbedded sequence of thin bedded and thick bedded siltstone.
138.6	144.5	Pb-Zn mineralised sequence. The HW of the interval is gn rich and the FW is FGPy and dol rock. 1410 OB.
144.5	146.5	Interbedded sequence of thick bedded siltstone and thin bedded laminated shales that comprise less than 5%
146.5	150.1	Pb-Zn mineralised interval. Abundant FGPy alteration. TMB @ 150.1, 10 cm thick, 1430 FW TMB.
150.1	150.5	Thin bedded siltstone.
150.5	153.1	Interbedded sequence of thin bedded siltstone and thick bedded siltstone.
153.1	155.7	Interbedded sequence of thick bedded siltstone and FGPy shale. Abundant Dol veins.
155.7	157.0	Sp mineralised interval. Laminated banded sp.
157.0	159.8	Thin bedded siltstone.
159.8	160.7	Interbedded sequence of FGPy and thin bedded siltstone. TMB @ 160.75, 1 cm thick.
160.7	161.2	Thin bedded siltstone.
EOH		

Diamond Drill Hole Rock Type Log

MS Code: 820208

Hole Name: M651 EH1

Dip: -3.3

Azimuth: 90.3

From (m)	To (m)	Rock Type	Ore package
108.8	111.8	Interbedded siltstone with thin bedded being dominant	
111.8	114.4	Thick bedded siltstone	
114.4	114.7	Carbonaceous shale	
114.7	115.9	Basemetal sulphide bands between thick bedded siltstone	1312
115.9	119.7	Thin bedded siltstone	
119.7	121.2	Basemetal sulphide bands between thick bedded siltstone	1314
121.2	121.5	Interbedded siltstone with thin bedded being dominant	
121.5	124.3	Thick bedded siltstone	
124.3	126.1	Interbedded siltstone with thick bedded being dominant	
126.1	126.8	Basemetal sulphide bands between thin bedded siltstone	0014
126.8	127.6	Interbedded siltstone and shale	
127.6	134.9	Basemetal sulphide bands between thick bedded siltstone	0014
134.9	138.6	Siltstone undifferentiated	
138.6	144.5	Basemetal sulphide bands between thick bedded siltstone	1410
144.5	146.5	Thick bedded siltstone	
146.5	150.1	Basemetal sulphide bands between thick bedded siltstone	1430
150.1	150.5	Thin bedded siltstone	
150.5	153.1	Siltstone undifferentiated	
153.1	155.7	Interbedded siltstone with thick bedded being dominant	
155.7	157.0	Basemetal sulphide bands between thick bedded siltstone	0015
157.0	159.8	Thin bedded siltstone	
159.8	160.7	Interbedded siltstone with thin bedded being dominant	
160.7	161.2	Thin bedded siltstone	
EOH			

Diamond Drill Hole Sulphide Band Log

MS Code: 820208

Hole Name: M651 EH1

Dip: -3.3

Azimuth: 90.3

From (m)	To (m)	Ore Textural Style	From (m)	To (m)	Ore Textural Style
108.945	108.950	MCPy	126.512	126.537	LMCSp
108.965	108.969	MCPy	127.700	127.715	MCPy
108.980	108.987	MCPy	127.790	127.810	FGSp
109.000	109.003	MCPy	127.810	127.835	MCPy
114.400	114.865	MCPy	127.850	128.550	FFBx
114.875	114.900	MCPy	128.590	128.640	FCBx
114.905	114.910	MCPy	128.640	128.740	RCBx
114.910	114.965	MMCSp	128.740	129.040	FCBx
114.955	114.965	MCPy	129.050	129.110	FFBx
114.990	114.997	LMCSp	129.130	129.220	FCBx
115.015	115.030	LMCSp	129.220	129.250	FFBx
115.050	115.090	MCPy	129.250	129.450	FCBx
115.095	115.330	MCPy	129.450	129.520	FFBx
115.140	115.155	RCBx	129.630	129.700	FFBx
115.400	115.410	MCPy	131.480	131.520	FFBx
115.415	115.425	MCPy	131.725	131.750	FFBx
115.425	115.445	FCBx	131.875	131.900	FFBx
115.460	115.467	MCPy	132.163	132.173	FCBx
115.530	115.545	MCPy	132.173	132.190	FFBx
115.555	115.575	MCPy	132.250	132.280	FFBx
115.585	115.595	RCBx	132.400	132.550	FFBx
115.753	115.763	FCBx	132.560	132.570	FCBx
115.850	115.860	FCBx	132.570	132.600	FFBx
116.030	116.060	MMCSp	132.600	132.620	FCBx
116.100	116.106	MCPy	132.600	133.020	FCBx
116.460	116.465	MCPy	133.110	133.140	FCBx
116.475	116.480	MCPy	133.280	133.980	FFBx
116.485	116.490	MCPy	133.980	134.080	FCBx
116.710	116.750	MCPy	134.390	134.430	FGSp
117.310	117.315	MCPy	134.460	134.650	FGSp
117.340	117.355	MCPy	134.760	134.810	FGSp
117.380	117.430	MCPy	138.705	138.945	MCPy
119.470	119.480	MCPy	138.945	139.105	FCBx
119.700	120.990	MCPy	139.105	139.145	FGSp
120.990	120.995	RCBx	139.105	139.280	FCBx
120.995	121.005	MCPy	139.280	139.350	LMCSp
124.250	124.260	MCPy	139.435	139.460	FCBx
124.450	124.505	MCPy	139.480	139.550	FGSp
124.520	124.670	MCPy	139.550	139.860	FFBx
124.725	124.755	MCPy	139.840	139.900	FFBx
124.755	124.765	FGSp	139.920	140.060	FCBx
125.000	125.035	MCPy	140.100	140.340	FGSp
125.075	125.145	MCPy	140.695	140.703	FGSpBx
125.175	125.215	MCPy	140.750	140.770	MCPy
125.240	125.265	MCPy	141.100	141.195	FCBx
125.320	125.550	MCPy	141.215	141.330	MCPy
125.585	125.610	MCPy	141.330	141.390	LMCSp
125.635	125.640	MCPy	141.390	141.440	MCPy
125.785	125.800	MCPy	141.465	141.495	MCPy
125.865	125.885	MCPy	141.500	141.590	LMCSp
125.910	125.980	MCPy	141.590	141.615	FCBx
126.030	126.040	MCPy	141.615	141.717	LMCSp
126.250	126.260	FFBx	141.730	141.760	MCPy
126.380	126.390	FFBx	141.800	141.890	LMCSp
126.475	126.480	FFBx	141.890	141.920	FCBx

From (m)	To (m)	Ore Textural Style	From (m)	To (m)	Ore Textural Style
141.930	142.300	LMCSp	153.100	153.300	MCPy
142.355	142.375	LMCSp	153.650	153.680	MCPy
142.375	142.405	MCPy	153.775	153.795	MCPy
142.440	143.090	FCBx	153.820	153.850	MCPy
143.100	143.300	Sil-Dol	153.930	153.960	MCPy
143.440	143.460	MCPy	154.430	154.480	MCPy
143.485	143.495	MCPy	154.655	154.675	MCPy
143.660	143.700	MCPy	154.750	154.755	MCPy
143.715	143.730	MCPy	154.800	154.820	MCPy
143.795	143.815	MCPy	154.860	154.910	MCPy
143.855	143.860	MCPy	155.020	155.050	MCPy
143.880	143.890	MCPy	155.250	155.330	MCPy
143.900	144.250	MCPy	155.390	155.395	MCPy
144.400	144.440	MCPy	155.460	155.470	MCPy
144.440	144.500	FCBx	155.480	155.490	MCPy
144.660	144.690	MCPy	155.580	155.600	MCPy
144.790	144.840	MCPy	155.600	155.680	FGSp
145.685	145.715	MCPy	155.690	155.700	MCPy
145.805	145.835	MCPy	155.730	155.780	MCPy
146.550	146.660	FCBx	155.895	155.925	MCPy
146.650	146.740	MCPy	156.010	156.030	MCPy
146.780	147.310	MCPy	156.030	156.130	LMCSp
147.565	147.570	MCPy	156.250	156.280	LMCSp
147.585	147.600	LMCSp	156.300	156.320	LMCSp
147.615	147.620	MCPy	156.400	156.405	FGSp
147.635	147.640	MCPy	156.500	156.510	LMCSp
147.675	147.700	MCPy	156.510	156.520	FGSp
147.730	147.990	FGSp	157.071	157.081	
148.420	148.460	FFBx	157.090	157.095	FGSp
149.100	149.120	LMCSp	159.800	159.820	Sil-Dol
149.200	149.210	FFBx	159.820	160.050	MCPy
149.310	149.315	FFBx	160.110	160.125	MCPy
149.315	149.405	MCPy	160.165	160.225	MCPy
149.430	149.450	FFBx	160.270	160.520	MCPy
149.450	149.530	LMCSp	160.520	160.570	MCPy
149.600	149.610	FGSpBx	160.570	160.580	RCBx
149.600	149.680		160.580	160.620	MCPy
149.680	149.700	RCBx			
149.720	149.860	MCPy			

Diamond Drill Hole Veining Log

MS Code: 820208

Hole Name: M651 EH1

Dip: -3.3

Azimuth: 90.3

Vein HW (m)	Thickness (mm)	Vein Minerals	Vein HW (m)	Thickness (mm)	Vein Minerals
108.110	1.000	dol	118.000	4.000	dol
108.210	1.000	dol,py	118.210	4.000	dol
109.260	2.000	dol,py	118.270	6.000	dol
109.404	3.000	dol,py	118.530	3.000	dol,qz
109.960	4.000	dol	118.690	1.000	dol
110.480	0.100	dol	118.705	1.000	dol
110.500	0.100	dol	118.710	1.000	dol
110.680	2.000	dol,py	119.230	2.000	dol
110.755	1.000	dol,py	119.460	5.000	dol,py
110.800	4.000	dol,py	119.500	5.000	dol,py
111.050	1.000	dol,py	119.560	5.000	dol,py
111.520	2.000	dol,py	119.710	3.000	dol,py
111.720	4.000	qz,dol	119.750	5.000	dol,py
111.840	1.000	qz,dol	120.250	1.000	py,dol
111.860	1.000	qz,dol	120.330	3.000	sp,po
111.870	1.000	qz,dol	121.340	2.000	qz,dol
112.033	1.000	qz,dol	121.800	3.000	dol
112.120	7.000	dol,qz,py	121.910	4.000	dol
112.135	1.000	py,dol	122.030	2.000	dol
112.370	3.000	py,dol	122.080	4.000	dol
112.515	4.000	dol	122.250	1.000	dol
112.560	2.000	dol	122.500	2.000	dol
112.730	1.000	dol	122.790	2.000	dol
112.890	2.000	dol,py	122.940	1.000	dol
112.965	3.000	dol,py	123.420	1.000	dol
113.020	1.000	dol,py	123.620	3.000	dol
113.080	1.000	dol,py	124.050	3.000	dol,py
113.290	3.000	dol,py	124.060	3.000	dol,py
113.300	2.000	dol	124.080	2.000	dol,py
113.335	2.000	dol	124.370	11.000	dol,po
113.345	2.000	qz,py	124.430	3.000	dol,po
113.520	1.000	dol	124.540	6.000	dol,py
113.640	1.000	dol	125.050	2.000	dol,py
113.950	2.000	dol,py	125.776	3.000	dol,py
114.180	2.000	dol	125.785	6.000	dol,py
114.285	5.000	dol,py	125.845	4.000	dol,py
114.355	5.000	dol,py	125.955	3.000	py,dol
114.370	2.000	dol,py	125.965	1.000	dol
114.430	3.000	dol,py	125.982	3.000	dol,cp
114.460	3.000	dol,py	126.025	3.000	po
114.530	3.000	dol,py	126.230	5.000	dol
114.610	1.000	dol,py	126.240	5.000	dol
115.030	1.000	dol,py	126.870	0.100	dol
115.320	1.000	dol	127.025	0.100	dol
115.380	2.000	sp,dol	127.065	0.100	dol
115.485	2.000	sp,dol	127.135	3.000	dol
115.515	2.000	sp,dol	127.166	0.100	dol
115.580	2.000	sp,dol	127.212	1.000	dol
115.595	2.000	dol	127.223	1.000	dol
115.830	4.000	dol	127.231	1.000	dol
115.990	2.000	dol	127.355	1.000	dol
116.030	2.000	sp,dol	127.450	0.100	dol
116.230	1.000	dol	127.458	0.100	dol
116.320	1.000	dol	127.495	0.100	dol
117.350	5.000	py,dol	127.540	0.100	py
117.540	1.000	dol	127.550	0.100	py
117.650	1.000	dol	127.580	1.000	py

Vein HW (m)	Thickness (mm)	Vein Minerals	Vein HW (m)	Thickness (mm)	Vein Minerals
127.660	1.000	py	148.290	20.000	dol
127.750	2.000	py,dol	148.445	35.000	dol
129.802	0.100	dol	149.280	20.000	dol
130.000	3.000	dol	149.410	1.000	dol
131.595	0.100	dol	149.650	150.000	qz,py
131.875	0.100	dol	150.230	1.000	py
131.917	0.100	dol	150.250	1.000	py
132.085	0.100	dol	150.310	2.000	py
132.090	0.100	dol	150.330	1.000	py
132.310	0.100	dol	150.360	1.000	py
134.050	6.000	py,dol	150.370	1.000	
134.080	0.100	py,dol	150.377	1.000	dol
134.095	0.100	py,dol	150.420	1.000	dol
134.100	0.100	py,dol	150.425	1.000	py
134.110	0.100	py,dol	150.445	1.000	py
134.115	0.100	py,dol	150.456	1.000	dol,py
135.110	5.000	dol	150.490	3.000	dol,py
135.302	2.000	dol	150.568	1.000	dol
135.315	3.000	dol	150.607	1.000	dol
135.337	5.000	dol	150.632	1.000	dol
135.419	3.000	dol	151.070	7.000	dol,py
135.975	1.000	dol	151.085	6.000	dol,py
135.982	3.000	dol	151.120	9.000	dol,py
136.070	3.000	dol	151.173	2.000	dol,py
136.280	2.000	dol	154.400	24.000	dol,py
136.300	3.000	dol	154.455	29.000	dol,py
136.330	2.000	dol	154.505	3.000	dol,py
136.400	2.000	dol	154.538	120.000	dol,py
136.475	2.000	dol	151.205	5.000	dol,py
136.505	2.000	dol	151.245	8.000	dol,py
137.080	1.000	dol,py	151.285	7.000	dol
137.225	3.000	dol	151.350	3.000	dol
137.650	4.000	dol	151.385	1.000	dol
137.740	1.000	dol	152.100	3.000	dol
137.820	1.000	dol	152.153	9.000	dol
137.950	1.000	dol	152.450	2.000	dol
137.980	2.000	dol	152.572	4.000	dol
138.020	11.000	dol	152.700	14.000	dol
138.220	5.000	dol	152.780	16.000	dol
138.230	1.000	dol	152.937	10.000	dol
138.345	2.000	py	153.014	20.000	dol
138.410	2.000	dol	153.068	22.000	dol
140.440	2.000	dol,po,cp	153.166	10.000	dol,py
141.030	20.000	dol	153.310	30.000	dol,py
141.050	2.000	dol	153.390	60.000	dol,py
141.060	1.000	dol	153.575	12.000	dol,py
141.085	10.000	dol	153.686	2.000	dol,py
141.317	4.000	dol	153.700	29.000	dol,py
143.274	20.000	dol	153.990	20.000	dol,py
143.520	10.000	dol,cp	154.120	12.000	dol,py
143.644	7.000	dol,qz,py	154.162	5.000	dol,py
143.700	2.000	dol,qz,py	154.200	26.000	dol,py
144.145	1.000	sp,dol	154.708	26.000	dol,py
144.234	2.000	py	155.255	18.000	dol,py
144.304	1.000	py	155.345	3.000	dol,py
144.380	2.000	py	155.430	5.000	dol,py
144.590	3.000	qz,py	155.800	3.000	dol,po
144.770	3.000	py	155.935	4.000	dol,po
145.520	8.000	dol	156.015	2.000	dol,po
145.540	3.000	dol	156.275	1.000	dol,po
145.960	2.000	dol	159.435	1.000	dol,po
146.875	10.000	dol	159.467	1.000	dol,po
147.030	25.000	dol	159.495	1.000	dol,po
147.420	5.000	dol	159.532	1.000	dol,po
147.690	26.000	dol	159.690	4.000	dol,po
147.825	10.000	dol	159.780	20.000	dol,po

Vein HW (m)	Thickness (mm)	Vein Minerals	Vein HW (m)	Thickness (mm)	Vein Minerals
160.190	8.000	dol.po	160.875	5.000	qz,py
160.320	8.000	dol.po	161.065	10.000	qz,py
160.730	9.000	dol.po			

Diamond Drill Hole Summary Log

MS Code: 840717

Hole Name:

Dip:

Azimuth:

From (m)	To (m)	Notes
		General Notes: 0005 orebody 54.9 to 99.4 m. The main orezone has been Met tested so there is no core left for logging between 67.9-71.9 m and 92.8-99.8 m
49.3	61.3	Interbedded siltstones and FGPy shales with bedding parallel dol-sp veins (Mbdsp). Siltstones: thickbedded (50%), Thinbedded (20%) Shales: 30%
61.3	67.9	FGPy 95%, laminated with minor sp-gn breccias
67.9	71.9	Core missing due to met testing
71.9	88.7	interbedded thinbedded and thinkly bedded siltstones, minor laminated shales 1-2 cm and containing FGPy alteration
88.7	89.7	Mbdsp (80%), and thikbedded siltstones (20%)
89.7	92	Laminated FGPy
92	92.8	Thickbedded silsones
92.8	99.4	Core missing due to met testing
99.4	100.5	FGPy (90%) interbedded with silstones (10%)
EOH		

Diamond Drill Hole Summary Log

MS Code: 841014
Hole Name: M669 ED2
Dip: -21
Azimuth: 93.73

From (m)	To (m)	Notes
		General Notes: Drilled West to East from 12 OB to 1410 OB and into the hangingwall of the 1430 OB. The orebody location are constrained by TMB's, most notably to think 13 OB TMB
20.0	21.0	Sp mineralisation from the footwall part of the 12 OB
21.0	24.7	Weak Sp mineralisation in an interbedded thick bedded siltstone and laminated shale footwall of the 12 OB
24.7	30.3	Interbedded sequence of thin bedded siltstone and laminated shale. Siltstone bed thickness 0.5-2.0 cm. Laminated shale bed thickness <0.5 cm and comprise of carbonaceous seams. 1.3 cm TMB @ 25.7 m.
30.3	41.0	Zinc mineralised sequence, laminated banded sp and massive banded sp, minor gn breccias. Mineralisation is interbedded with thick bedded siltstones. 4 mm TMB @36.36 m and 65 mm TMB @37.6 @37.37 m (0013)
41.0	42.2	Interbedded thick bedded siltstone with minor laminated shale. Barren
42.2	50.8	Interbedded thin bedded siltstone and laminated shale. Barren.
50.8	59.3	Zn mineralised sequence, very weak Pb mineralisation only (1breccia). Mineralised shales are interbedded with thick bedded siltstones.
59.3	61.9	Interbedded sequence of thin bedded siltstone and laminated shale. Minor weak Sp mineralisation at 60.8-61.0 m.
61.9	62.3	Sp mineralisation interbedded with thick bedded siltstones.
62.3	64.5	barren interbedded thin bedded siltstone and thin laminated shale
64.5	67.3	Zn-Pb-Ag weak Pb in gn-sp breccias. Zn: Laminated banded sp and massive banded sp. 1380 OB
67.3	79.6	Barren interbedded thin bedded siltstones. Thin laminated shales and minor thick bedded siltstone. TMB @ 69.56m (1380 FW TMB)
79.6	92.5	Pb-Zn mineralised sequence. Abundant FGPy associated with mineralised bands. Bands are 5-20 cm separated by 20-40 cm zones of thin bedded siltstone and thin laminated shales. Abundant coarse grained dolomite with FGPy and Sp. Several breccias. TMB @ 91.75 m 1314 TMB.
92.5	96.9	Barren, interbedded thin bedded siltstone and thin laminated shale.
96.9	98.6	Zn mineralised sequence, Massive banded sp and Sp breccias. FGPy along the HW.
98.6	101.3	Interbedded sequence of thick bedded siltstone, thin bedded siltstone and thin laminated shale beds. Narrow bands of FGPy shale, <1cm wide dispersed throughout the sequence.
101.3	103.7	Zn mineralised sequence. TMB @ 103.5 m, 14 OB HW TMB. Laminated banded Sp, massive banded Sp and some Breccias. Abundance dolomite alteration.
103.7	106.8	Barren thick bedded siltstone and thin laminated shale.
106.8	109.8	Zn mineralised sequence. Moderate FGPy alteration.

Diamond Drill Hole Rock Type Log

MS Code: 841014

Hole Name: M669 ED2

Dip: -21

Azimuth: 93.73

From (m)	To (m)	Rock Type	Ore package
20.0	21.0	Basemetal sulphide bands between thick bedded siltstone	
21.0	24.7	Basemetal sulphide bands between thin bedded siltstone	
24.7	30.3	Interbedded siltstone with thin bedded being dominant	
30.3	41.0	Basemetal sulphide bands between thick bedded siltstone	
41.0	42.2	Thick bedded siltstone	
42.2	50.8	Interbedded siltstone with thin bedded being dominant	
50.8	59.3	Basemetal sulphide bands between thick bedded siltstone	0013
59.3	61.9	Interbedded siltstone with thin bedded being dominant	
61.9	62.3	Basemetal sulphide bands between thick bedded siltstone	1320
62.3	64.5	Interbedded siltstone with thin bedded being dominant	
64.5	67.3	Basemetal sulphide bands	1380
67.3	79.6	Interbedded siltstone with thin bedded being dominant	
79.6	92.5	Basemetal sulphide bands between thin bedded siltstone	1314
92.5	96.9	Interbedded siltstone with thin bedded being dominant	
96.9	98.6	Basemetal sulphide bands	0014
98.6	101.3	Interbedded siltstone with thick bedded being dominant	
101.3	103.7	Basemetal sulphide bands	0014
103.7	106.8	Interbedded siltstone with thick bedded being dominant	
106.8	109.8	Basemetal sulphide bands	0014

Diamond Drill Hole Sulphide Band Log

MS Code: 841014

Hole Name: M669 ED2

Dip: -21

Azimuth: 93.73

From (m)	To (m)	Ore Textural Style	From (m)	To (m)	Ore Textural Style
20.055	20.065	FGSpBx	36.335	36.380	LBS
20.075	20.090	FGSpBx	36.405	36.450	LBS
20.090	20.097	FGSp	36.520	36.630	Sil-Dol
20.190	20.195	FGSpBx	36.660	36.670	FGSp
20.218	20.222	FGSpBx	36.800	36.815	FGSp
20.229	20.234	FGSpBx	36.815	36.850	FCBx
20.245	20.257	FGSpBx	36.850	37.010	FGSp
20.257	20.287	FGSp	37.850	37.860	nod
20.275	20.280	FGSp	37.875	37.880	nod
20.285	20.295	FCBx	37.900	37.907	nod
20.295	20.320	FGSpBx	37.940	37.970	nod
20.330	20.350	FGSp	38.030	38.085	nod
20.350	20.375	FGSpBx	38.110	38.165	nod
20.375	20.385	FGSp	38.165	38.175	FGSp
20.385	20.445	FGSpBx	38.215	38.275	nod
20.470	20.480	FGSp	38.280	38.300	nod
20.500	20.630	FGSpBx	38.300	38.330	nod
20.665	20.672	FGSp	38.350	38.390	FGSp
21.330	21.380	MCPy	38.445	38.480	MCPy-LMCSp
22.525	22.590	Sil-Dol	38.510	38.550	MCPy-LMCSp
22.630	22.658	Sil-Dol	38.565	38.595	MCPy-LMCSp
22.810	23.080	MCPy	38.600	38.680	MCPy-LMCSp
23.130	23.170	LBS	38.700	38.740	MCPy-LMCSp
23.400	23.410	LBS	38.740	38.790	FGSp
23.440	23.480	MCPy	38.810	38.830	FGSp
23.540	23.580	LBS	38.915	39.015	LBS
23.595	23.650	LBS	39.090	39.120	LBS
23.680	23.710	LBS	39.240	39.350	FGSp
23.825	23.890	LBS	39.400	39.505	FGSp
23.890	23.930	FCBx	39.512	39.562	FGSp
23.930	23.935	FGSpBx	39.635	39.765	LBS
23.990	24.020	LBS	39.835	39.880	FCBx
24.160	24.170	LBS	39.880	39.930	LBS
24.210	24.310	FCBx	40.140	40.180	LBS
24.310	24.630	LBS	40.240	40.260	LBS
30.355	30.400	nod	40.282	40.298	LBS
30.600	30.695	LBS	40.360	40.400	LBS
30.695	30.703	RCBx	40.480	40.510	LBS
30.703	31.163	LBS	40.500	40.520	LBS
31.900	32.695	LBS	40.635	40.765	LBS
32.695	32.705	FCBx	40.820	40.855	LBS
32.705	32.745	FGSp	40.935	40.975	LBS
32.745	32.925	LBS	41.012	41.050	LBS
34.850	34.870	FCBx	41.260	41.310	nod
34.955	34.970	FCBx	50.810	50.825	FGSp
34.975	34.995	FCBx	50.840	50.860	MCPy
35.025	35.210	FCBx	50.915	50.933	MCPy
35.210	35.235	FGSp	50.933	50.948	FGSp
35.265	35.315	FGSp	50.980	50.985	FGSp
35.330	35.340	FGSp	50.991	51.003	FGSp
35.360	35.365	FGSp	51.002	51.022	MCPy
35.410	35.770	FGSpBx	51.035	51.040	MCPy
35.790	35.860	FGSp	51.055	51.063	MCPy
35.870	36.020	LBS	51.063	51.073	FGSp
36.105	36.320	LBS	51.073	51.103	MCPy

From (m)	To (m)	Ore Textural Style	From (m)	To (m)	Ore Textural Style
51.205	51.215	MCPy	56.919	56.934	LBS
51.255	51.267	MCPy	56.934	56.964	FGSpBx
51.330	51.385	nod	56.964	57.284	LBS
51.432	51.452	nod	57.284	57.299	FGSp
51.470	51.480	nod	57.510	57.522	FGSp
51.495	51.500	nod	57.625	57.655	MCPy-LMCSp
51.600	51.685	LBS	57.700	57.705	FGSpBx
51.715	51.720	LBS	57.705	57.730	MCPy-LMCSp
51.860	51.960	FCBx	57.735	57.755	MCPy-LMCSp
52.035	52.077	LBS	57.795	57.845	MCPy-LMCSp
52.125	52.185	LBS	57.940	57.975	MCPy-LMCSp
52.220	52.230	LBS	58.000	58.016	MCPy-LMCSp
52.248	52.252	LBS	58.032	58.047	LBS
52.286	52.296	LBS	58.047	58.067	FFBx
52.296	52.308	FGSp	58.067	58.070	MCPy
52.308	52.352	MCPy	58.082	58.162	LBS
52.352	52.357	FGSp	58.163	58.180	FGSp
52.365	52.368	FGSp	58.200	58.225	FGSpBx
52.380	52.540	FGSp	58.225	58.245	LBS
52.590	52.835	LBS	58.355	58.360	MCPy
52.925	53.060	LBS	58.375	58.385	LBS
53.195	53.335	LBS	58.385	58.398	FGSp
53.230	53.253	MCPy	58.395	58.440	FGSp
53.265	53.280	LBS	58.490	58.600	LBS
53.280	53.295	FGSp	58.568	58.578	FGSpBx
53.295	53.315	LBS	58.578	58.608	LBS
53.333	53.343	FGSp	58.735	58.770	LBS
53.460	53.477	FGSpBx	58.770	58.795	FGSp
53.477	53.509	LBS	58.795	58.835	LBS
53.509	53.519	FGSpBx	59.115	59.140	FGSp
53.640	53.645	FGSpBx	59.595	59.605	FGSpBx
53.645	53.660	LBS	59.632	59.640	FGSpBx
53.670	53.695	LBS	60.830	60.910	LBS
53.815	53.830	LBS	60.978	61.018	FGSp
53.830	53.842	FGSpBx	61.910	61.935	LBS
53.842	53.932	LBS	61.935	61.955	FGSp
53.975	54.005	LBS	61.962	61.992	LBS
54.005	54.015	FGSpBx	62.021	62.031	LBS
54.015	54.025	LBS	62.135	62.190	LBS
54.025	54.032	FGSp	62.190	62.212	FGSpBx
54.090	54.160	LBS	62.212	62.229	MCPy
54.160	54.170	FGSp	62.450	62.456	FGSpBx
54.210	54.225	LBS	62.462	62.480	MCPy
54.225	54.230	FGSpBx	62.613	62.618	MCPy
54.230	54.270	LBS	62.618	62.628	FGSpBx
54.270	54.280	FGSpBx	62.628	62.663	MCPy
54.280	54.315	LBS	62.708	62.715	MCPy
54.360	54.375	LBS	64.500	64.620	nod
54.375	54.380	FGSpBx	64.650	64.654	FGSpBx
54.380	54.397	LBS	64.654	64.658	MCPy
54.535	54.548	LBS	64.665	64.690	FGSpBx
54.612	54.630	LBS	64.905	64.915	FGSpBx
54.698	54.708	LBS	64.915	64.930	MCPy
54.715	54.755	LBS	64.955	64.980	MCPy
54.773	54.779	LBS	65.000	65.030	FGSp
54.779	54.784	FGSpBx	65.030	65.130	LBS
54.784	54.832	LBS	65.180	65.250	LBS
56.470	56.600	LBS	65.250	65.255	FGSpBx
56.600	56.700	nod	65.395	65.435	LBS
56.751	56.756	LBS	65.435	65.440	FGSpBx
56.822	56.843	LBS	65.440	65.490	LBS
56.895	56.915	LBS	65.490	65.500	FGSpBx
56.915	56.919	FGSp	65.580	65.600	LBS

From (m)	To (m)	Ore Textural Style	From (m)	To (m)	Ore Textural Style
65.600	65.720	FCBx	88.290	88.303	LBS
65.760	65.795	FCBx	88.334	88.554	FGSpBx
65.795	65.805	LBS	88.550	88.575	FCBx
65.805	65.855	FGSp	88.550	88.570	FGSp
65.855	65.885	LBS	88.645	88.725	FCBx
65.960	66.020	MCPy-LMCSp	88.780	88.850	FGSpBx
66.070	66.180	MCPy-LMCSp	88.955	89.110	FCBx
66.250	66.285	MCPy-LMCSp	89.600	89.650	FGSpBx
66.285	66.305	FGSpBx	89.650	89.830	FGSp
66.350	66.365	FGSp	91.220	91.340	MCPy-LMCSp
66.485	66.500	LBS	91.420	91.490	FGSp
66.500	66.510	FGSpBx	91.490	91.690	LBS
66.510	66.525	LBS	91.690	91.800	FGSpBx
66.545	66.557	FGSpBx	91.830	91.940	FCBx
66.610	66.810	LBS	91.940	91.970	FGSp
66.875	66.945	FGSpBx	92.085	92.095	FGSp
67.165	67.205	FGSp	92.095	92.102	LBS
67.205	67.270	FGSpBx	92.103	92.130	MCPy
75.495	75.515	FGSp	92.330	92.350	LMCSp
75.575	75.600	FGSp	92.402	92.427	MCPy
75.600	75.615	FGSpBx	92.485	92.545	MCPy
77.424	77.427	MCPy	96.890	96.950	MCPy
77.508	77.521	MCPy	96.950	97.090	MCPy
77.730	77.770	LMCSp	97.090	97.140	FGSp
77.815	77.885	FGSp	97.140	97.165	LBS
77.885	77.892	MCPy	97.165	97.170	FGSp
79.600	79.670	LMCSp	97.170	97.230	nod
79.760	79.870	LMCSp	97.230	97.233	FGSp
79.795	79.855	LMCSp	97.233	97.378	MCPy-LMCSp
80.030	80.080	MCPy	97.330	97.385	FGSp
80.283	80.287	MCPy	97.405	97.480	Sil-Dol
80.365	80.405	MCPy	97.510	97.555	MCPy
80.680	80.690	MCPy	97.600	97.855	FGSp
80.695	80.705	FGSpBx	97.927	97.931	FGSp
80.770	81.010	nod	97.970	97.980	FGSp
81.050	81.110	nod	97.990	98.002	FGSp
81.140	81.150	MCPy	98.015	98.020	FGSp
81.150	81.165	FGSpBx	98.025	98.030	FGSp
81.165	81.230	MCPy	98.055	98.095	FGSp
81.350	81.410	MCPy	98.110	98.115	FGSp
81.520	81.670	MCPy	98.194	98.197	FGSp
81.700	81.880	FCBx	98.200	98.205	FGSp
81.910	81.940	MCPy	98.213	98.217	FGSp
82.015	82.035	MCPy	98.224	98.231	FGSp
82.260	82.280	MCPy	98.239	98.251	FGSp
82.280	82.310	FGSpBx	98.290	98.295	FGSp
82.325	82.335	FGSpBx	98.380	98.397	FGSpBx
83.830	83.850	MCPy	98.415	98.425	FGSpBx
83.960	84.000	MCPy	100.110	100.120	MCPy
84.050	84.070	MCPy	100.148	100.175	MCPy
84.250	84.267	MCPy	100.227	100.237	MCPy
84.755	84.775	MCPy	100.248	100.255	MCPy
84.825	84.845	MCPy	101.823	101.826	MCPy
84.903	84.923	MCPy	101.835	101.838	MCPy
84.998	85.033	MCPy	101.838	101.848	FGSpBx
85.195	85.220	MCPy	101.848	101.870	MCPy
86.900	87.190	MCPy-LMCSp	101.870	101.895	nod
87.360	87.520	FGSpBx	102.040	102.140	LMCSp
87.740	87.765	LBS	102.140	102.184	FGSp
87.765	87.825	MCPy-LMCSp	102.184	102.187	RCBx
87.842	87.870	LBS	102.187	102.193	FGSp
87.876	88.110	FGSpBx	102.205	102.285	FGSpBx
88.280	88.290	FGSp	102.285	102.300	RCBx

From (m)	To (m)	Ore Textural Style	From (m)	To (m)	Ore Textural Style
102.300	102.335	FGSpBx	106.540	106.575	MCPy
102.390	102.400	FGSp	106.750	106.770	MCPy
102.421	102.450	nod	106.795	106.860	MCPy
102.450	102.525	FGSp	106.930	106.950	LBS
102.553	102.640	Sil-Dol	106.950	106.972	FGSp
102.640	102.717	FGSp	107.065	107.085	nod
102.772	102.790	MCPy-LMCSp	107.120	107.130	MCPy
102.790	102.820	FGSp	107.130	107.165	FGSp
102.820	102.840	LBS	107.165	107.195	MCPy
102.860	102.890	MCPy-LMCSp	107.205	107.285	LBS
102.930	103.060	MCPy-LMCSp	107.360	107.375	MCPy
103.065	103.165	FGSp	107.375	107.405	LBS
103.175	103.215	LBS	107.405	107.430	FGSp
103.205	103.257	LBS	107.430	107.505	nod
103.302	103.380	LBS	107.535	107.575	nod
103.400	103.455	LBS	107.675	107.685	FGSp
103.475	103.500	FGSpBx	108.085	108.095	FGSp
103.520	103.605	FGSpBx	108.110	108.130	FGSp
103.605	103.620	FGSpBx	108.190	108.210	FGSp
103.620	103.655	MCPy-LMCSp	108.265	108.295	FGSp

Diamond Drill Hole Veining Log

MS Code: 841014

Hole Name: M669 ED2

Dip: -21

Azimuth: 93.73

Vein HW (m)	Thickness (mm)	Vein Minerals	Vein HW (m)	Thickness (mm)	Vein Minerals
21.325	3.0	dol.py	53.410	1.0	dol.py
21.440	11.0	dol.py	53.620	1.0	dol.py
21.740	6.0	dol.py	53.790	1.0	dol.py
21.810	4.0	dol.py	54.000	2.0	dol.py
22.060	11.0	dol.py	54.190	1.0	dol.py
22.090	5.0	dol.py	54.470	1.0	dol.py
22.110	11.0	dol.py	54.510	1.0	dol.py
22.410	3.0	dol.py	54.970	1.0	dol.py
22.625	3.0	dol.py	55.020	1.0	dol.py
22.670	4.0	dol.py	55.550	2.0	dol.py
22.740	6.0	dol.py	55.910	1.0	dol.py
23.100	5.0	dol.py	61.930	2.0	dol.py
24.160	3.0	dol.py	62.870	1.0	dol
25.130	2.0	dol.py	62.890	2.0	dol
25.160	1.0	dol.py	62.940	3.0	dol
25.260	2.0	dol.py	63.090	2.0	dol
25.610	5.0	dol.py	71.430	1.0	dol
26.870	3.0	dol.py	71.510	1.0	dol
30.300	6.0	dol.po.py	71.810	1.0	dol
30.410	10.0	dol.po.py	72.110	1.0	dol
30.460	2.0	dol	72.540	2.0	dol
31.315	2.0	dol.py	73.540	1.0	dol.py
31.470	3.0	dol.py	74.590	10.0	dol.py
31.540	3.0	dol.py	74.970	5.0	dol
31.710	2.0	dol	76.090	4.0	dol.py
31.820	2.0	dol	76.910	2.0	dol.py
34.900	4.0	dol.py	79.000	2.0	dol.py
35.700	3.0	dol.py	79.360	3.0	dol.py
35.865	2.0	dol.py	79.980	3.0	dol.py
37.045	3.0	dol	80.960	4.0	dol.py
37.500	3.0	dol.py	80.995	6.0	dol.py
38.000	3.0	dol.py	81.210	3.0	dol.py
38.460	2.0	dol.py	81.450	2.0	dol.py
39.020	1.0	dol.py	81.620	3.0	dol.py
39.130	1.0	dol.py	82.300	3.0	dol.py
39.550	2.0	dol.py	82.530	2.0	dol
39.760	3.0	dol.py	82.620	3.0	dol
39.840	0.1	dol.py	82.750	2.0	dol.py
40.080	1.0	dol.py	83.550	3.0	dol
40.180	1.0	dol.py	83.585	2.0	dol
42.150	1.0	dol	83.840	15.0	dol
42.390	1.0	dol	83.930	3.0	dol.py
42.460	1.0	dol	84.050	1.0	dol.py
43.090	8.0	dol	84.060	1.0	dol.py
43.630	3.0	dol	86.110	5.0	dol
44.440	3.0	dol	86.405	2.0	dol.py
44.500	4.0	dol	86.670	6.0	dol
45.000	3.0	dol	87.060	6.0	dol
45.230	5.0	dol.py	88.650	4.0	dol.py
45.710	2.0	dol.py	89.900	3.0	dol.py
50.900	2.0	dol.py	90.810	5.0	dol.py
52.530	5.0	dol.py	91.090	3.0	dol.py
52.630	5.0	dol.py	91.200	5.0	dol.py
52.850	2.0	dol.py	91.830	4.0	dol.py

Vein HW (m)	Thickness (mm)	Vein Minerals	Vein HW (m)	Thickness (mm)	Vein Minerals
92.300	3.0	dol.py	98.460	5.0	dol
92.420	1.0	dol.py	98.900	4.0	dol
92.430	2.0	dol.py	99.355	2.0	dol.py
92.750	2.0	dol	99.900	4.0	dol.py
93.255	4.0	dol.py	100.630	2.0	dol.py
93.930	10.0	dol	100.910	2.0	dol.py
94.800	2.0	dol.py	104.200	4.0	dol.py
95.130	2.0	dol.py	106.630	2.0	dol.py
95.180	1.0	dol.py	106.710	2.0	dol.py
95.220	3.0	dol.py	106.840	5.0	po
95.240	5.0	dol.py	107.475	2.0	dol.py
95.450	3.0	dol.py	107.640	1.0	py
95.520	3.0	dol.py	107.780	2.0	dol.py
95.980	3.0	dol.py	107.790	2.0	dol.py
96.120	2.0	dol	108.130	3.0	dol.py
96.150	4.0	dol	108.300	2.0	dol.py
98.430	4.0	dol			

Diamond Drill Hole Summary Log

MS Code: 930203
Hole Name: K663 ED2
Dip: - 60
Azimuth: 87.67

From (m)	To (m)	Notes
		General Note: Intersects K interval below the NNW plunging high grade shoot. Drilled from west to east.
55.7	74.0	Crystalline dolomite with qz-cp mineralisation. CP only occurs with qz alteration. Some occasional host rock intervals up to 30 cm wide but make up less than 5% of the interval.
74.0	79.0	Banded siltstone and carbonaceous shales 0.1 - 3cm with 5-10 cm thick crystalline dolomite bands that contain wavy FGPy bands up to 3 mm. The abundance and thickness of crystalline dolomite bands decreases down the hole.
79.0	91.0	Banded siltstone, light and grey siltstone with carbonaceous bands. The more carbonaceous bands the darker the rock. Carbonaceous seams: 1-2 mm, 5% of the rock. A few crystalline dolomite seams.
91.0	93.2	Bedding parallel and cross cutting crystalline dolomite alteration > 50% of the rock. FGPy alteration immediately surrounding the dolomite alteration and throughout the dolomite altered interval. FGPy is banded with black bands that appear to have only weak FGPy alteration and some "detrital" carbonates. The bedding parallel crystalline dolomite is fine to medium grained and preserve the carbonaceous cleavages and stylolites possibly because there is no carbonate in these to recrystallise. Bedding parallel crystalline dolomite appears to be cut by 0.5-1 mm qz-cp-po±cc veins.
93.2	96.3	Bedding parallel crystalline dolomite, less of the rock (60%) interbanded with FGPy ~30% of crystalline dolomite bands. 1-7 mm cross cutting veins. This interval contains more unaltered host rock than the previous interval.
96.3	100.4	Zn-Pb mineralised interval. Gn-Sp breccias and banded sp interbanded with thick bedded siltstone and laminated carbonaceous shales. Laminated intervals are mineralised whereas the more thickly bedded intervals are not. There are three peaks of Gn mineralisation that contain fine grained gn breccias with qz-cp alteration nearby. Banded sp mineralisation occurs throughout the interval and becomes mostly banded massive away from the gn-cp-qz mineralisation. Gn commonly occurs with or very close to cp. The main Fe sulphide is po which occurs as cross cutting veins and bedding parallel bands similar to the FGPy but slightly coarser grained. Appears to overprint mottled banded Sp mineralisation along with cp.
100.4	103.6	Siltstone with carbonaceous seam banding. Siltstones: 0.5-2 cm. Carbonaceous Seams: <1mm-10 mm. ~30%. Some stilpnomelane bands 5-8 mm wide with lath like po crystals.
103.6	105.8	Strong buff green alteration with Po lath overprinted by qz-cc?cp alteration. Po is fine grained.
105.8	109.6	Sp-Gn mineralised interval. Banded very fine sp overprinted by po-gn, and 1-2 mm pyrite porphyrs. The intensity of the sp mineralisation decreases down the interval and both gn and sp form more discrete bands. Interbedded siltstones are massively bedded 1-25 cm thick. Mineralisation is stronger in laminated horizons. At the end of this interval is a FGPy band 15 cm wide with 60% FGPy.
109.6	111.0	Near massively banded dolomitic siltstone with disseminated FGPy and weak carbonaceous seams evenly distributed.
111.0	112.5	Banded siltstone with carbonaceous seams. Siltstone: 0.3-4 cm ~75%. Carbonaceous seams: <<0.5 mm grouped in 10 mm bands, ~30%.
112.5	113.0	Banded siltstone with carbonaceous seams and FGPy bands cut by 0.2-3 mm dol/cc veins. Siltstone: 0.2-1 cm, ~70%, seams: 0.8-10 mm, ~10% FGPy bands 1-5 mm, ~20%.

From (m)	To (m)	Notes
113.0	114.7	Banded FGPy and crystalline dolomite. FGPy: wavy bands, <1-8 mm, near massive ~50%, crystalline dolomite bands: 2-10 mm, ~50%. Minor grey nearly massive carbonaceous seams: 5-6 mm, ~20%.
114.7	118.3	Banded siltstone and FGPy shale with medium grained gn mineralisation. Galena is either in FG breccias or cross cutting fractures around folds. Some cp where there has been most gaping along bedding planes (115.0 m) with carbonate infill, and minor gn in these areas only. FGPy bands: 3mm - 2cm ~5%, weaker alteration than in previous intervals. Siltstones: massively bedded 1-20 cm, ~30%, or laminated <1 mm laminations. mineralisation occurs in the more laminated units.. Cross cutting cc-py-o veins, 0.5-20 mm. Total lack of banded sp mineralisation.
118.3	123.8	laminated siltstone with carbonaceous seams and numerous cross cutting 1-4 mm cc-py veins. Siltstones: <5-20 mm Seams:<1mm for individual seams, 10 mm for bands~30%.
123.8	124.7	Banded siltstone with FGPy and crystalline dolomite bands. Crystalline dolomite bands occur alongside FGPy. Coarser grained crystalline dolomite bands occur next to coarse grained cross cutting cc-qz-cp-po veins. Po is most abundant in layers cut by the veins and away from them in that layer as opposed to layers that are not cut by the veins. Weak zone of cc-qz-cp-po alteration hosted in cross cutting veins altering along bedding.
124.7	129.4	Alternating seams of FGPy and gn-sp banded siltstone. Sulphide alteration occurs in areas where there is lamination between siltstone and carbonaceous seams. The most finely laminated areas look like differentiation between sulphide mineralised and massive bedded siltstones 2-10 cm thick. FGPy intervals contain crystalline dolomite between wavy FGPy bands. Gn is present in gn-sp breccias that are sp. Sp occurs as FGSp with a similar texture to the FGPy. Where FGSp is next to FGPy the sp is laterally the Q domains whereas FGPy is in the Carbonaceous seams. Py is biased to altering the seams and sp the dol in Q domains.
129.4	130.8	Banded siltstones and carbonaceous seams and minor laminated shales 3-4 cm. Carbonaceous seams: ~35%, siltstone:70%.
130.8	132.5	Banded siltstone and carbonaceous seams as above, cut by cc-py veins, <0.5-3 mm. Veins increase in abundance down the hole.
132.5	133.1	Banded FGPy and carbonaceous shale overprinted qz-cc-po-cp veins with bedding parallel crystalline dolomite, strongly fractured but centre of weak but definite brecciation.
133.1	133.5	FGPy adjacent to a 20 cm band of FGSp with a wavy FGPy-like fabric.
133.5	134.3	Crystalline dolomite with wavy FGPy and banded FGPy-carbonaceous shale.
134.3	136.5	Banded siltstone and massive banded sulphides. Very fine sp some FGPy throughout, mostly associated with crystalline dolomite bands (5-8 mm) with included FGPy. Several FG Gn breccias in the last 40 cm of the interval.
136.5	137.2	Thick bedded (2-20 cm) siltstone with numerous FGPy bands (1-30 mm).
137.2	139.3	Banded siltstone and FGPy alteration. Siltstone: 5-30 mm ~30%. FGPy alteration: <1-150 mm, ~70%, comprises 30-40% wavy FGPy bands <1-5 mm and ~60% crystalline dolomite alteration in bands 5-10 mm wide.
139.3	143.2	Thin bedded siltstone: 1-2 cm, and carbonaceous seams <<1-3 mm. Bedding is cut by qz-cc-py-po veins.
143.2	145.5	Banded FGPy and siltstone. FGPy: 4-15 cm bands of 40% wavy pyrite lamination and 60% crystalline dolomite. Siltstone: 2-10 cm, ~50% with fine dolomite veins.
145.5	146.5	Interbanded siltstone and banded sp mineralisation. Siltstone: 2-5 cm massively bedded (~70%), banded sp 1-2 cm VFG some FG, ~30%
146.5	148.2	Siltstone banded with FGPy. SLST: 5 mm-3 cm, FGPy <1 mm-2.5 cm, cut by 1-3 mm cc veins
EOH		

Diamond Drill Hole Rock Type Log

MS Code: 930203

Hole Name: K663 ED2

Dip: - 60

Azimuth: 87.67

From (m)	To (m)	Rock Type	Ore package
55.7	74.0	Silica-dolomite alteration	
74.0	79.0	Silica-dolomite alteration with remnant layering	
79.0	91.0	Siltstone undifferentiated	
91.0	93.2	Silica-dolomite alteration with remnant layering	
93.2	96.3	Silica-dolomite alteration with remnant layering	
96.3	100.4	Basemetall sulphide bands between thick bedded siltstone	0014
100.4	103.6	Thin bedded siltstone	
103.6	105.8	Thin bedded siltstone	
105.8	109.6	Basemetall sulphide bands between thick bedded siltstone	1410
109.6	111.0	Thin bedded siltstone	
111.0	112.5	Thin bedded siltstone	
112.5	113.0	Thin bedded siltstone	
113.0	114.7	Silica-dolomite alteration with remnant layering	
114.7	118.3	Basemetall sulphide bands between thick bedded siltstone	1430
118.3	123.8	Thin bedded siltstone	
123.8	124.7	Thin bedded siltstone	
124.7	129.4	Basemetall sulphide bands between thick bedded siltstone	0015
129.4	130.8	Thin bedded siltstone	
130.8	132.5	Thin bedded siltstone	
132.5	133.1	Carbonaceous shale	
133.1	133.5	Basemetall sulphide bands between thick bedded siltstone	0016
133.5	134.3	Silica-dolomite alteration with remnant layering	
134.3	136.5	Basemetall sulphide bands between thick bedded siltstone	
136.5	137.2	Thick bedded siltstone	
137.2	139.3	Interbedded siltstone with thin bedded being dominant	
139.3	143.2	Thin bedded siltstone	
143.2	145.5	Interbedded siltstone with thick bedded being dominant	
145.5	146.5	Basemetall sulphide bands between thick bedded siltstone	
146.5	148.2	Interbedded siltstone with thin bedded being dominant	
EOH			

Diamond Drill Hole Sulphide Band Log

MS Code: 930203

Hole Name: K663 ED2

Dip: - 60

Azimuth: 87.67

From (m)	To (m)	Ore Textural Style	From (m)	To (m)	Ore Textural Style
52.600	52.630	MCPy	87.400	87.450	Sil-Dol
52.601	52.671	MCPy	87.460	87.520	Sil-Dol
52.602	52.622	MCPy	87.505	87.525	Sil-Dol
52.603	53.003	MCPy	87.600	87.690	Sil-Dol
52.607	52.677	MCPy	87.700	87.740	Sil-Dol
52.608	52.658	Sil-Dol	89.500	89.530	MCPy
54.304	54.323	Sil-Dol	89.650	89.700	Sil-Dol
57.500	57.664	Sil-Dol	90.800	90.830	MCPy
74.409	74.429	Sil-Dol	90.950	90.960	MCPy
74.410	74.412	Sil-Dol	90.985	90.990	MCPy
74.411	74.413	Sil-Dol	91.050	91.850	Sil-Dol
74.590	74.620	Sil-Dol	92.000	93.200	Sil-Dol
74.665	74.675	Sil-Dol	93.200	93.300	MCPy
74.760	74.790	Sil-Dol	93.380	93.430	FFBx
75.500	75.750	Sil-Dol	93.430	93.445	CPB
77.600	77.650	Sil-Dol	93.475	93.480	MCPy
77.850	77.865	MCPy	93.500	93.515	FFBx
77.857	78.027	Sil-Dol	93.500	93.545	MCPy
78.030	78.032	MCPy	93.740	93.760	FFBx
78.037	78.039	MCPy	94.148	94.153	MCPy
78.060	78.090	Sil-Dol	94.160	94.200	RCBx
78.090	78.100	MCPy	94.550	94.570	FFBx
78.150	78.610	Sil-Dol	94.590	94.600	RCBx
78.760	78.800	MCPy	94.600	94.630	Sil-Dol
78.800	78.810	Nod	94.605	94.695	FFBx
78.825	78.835	MCPy	94.630	94.650	MCPy
78.840	78.880	Nod	94.720	94.755	MMCSp
78.880	78.900	Sil-Dol	94.800	94.803	MCPy
78.900	79.190	Sil-Dol	94.850	94.870	MCPy
79.200	79.230	MCPy	94.855	94.862	MMCSp
79.290	79.310	Nod	94.965	94.970	FFBx
83.670	83.710	Nod	94.965	95.005	MCPy
83.730	83.745	MCPy	95.060	95.120	MCPy
83.745	83.810	Sil-Dol	95.770	96.320	Sil-Dol
83.810	83.825	MCPy	96.100	96.660	FCBx
83.825	83.855	Sil-Dol	96.730	96.740	FCBx
83.875	83.885	Sil-Dol	96.750	96.890	FFBx
83.890	83.920	Sil-Dol	96.910	97.160	FFBx
83.925	83.940	MCPy	98.800	99.000	CPB
83.940	83.960	Sil-Dol	99.010	99.040	FCBx
83.970	84.000	Sil-Dol	99.060	99.100	FGSpBX
84.015	84.035	Sil-Dol	99.235	99.275	FGSpBX
84.035	84.051	MCPy	99.275	99.335	FCBx
84.090	84.140	Sil-Dol	99.450	99.550	LMCSp
84.185	84.210	Sil-Dol	99.550	99.590	FCBx
84.240	84.244	MCPy	99.620	99.650	LMCSp
84.300	84.420	MCPy	99.810	99.860	LMCSp
84.445	84.455	Nod	99.860	100.040	FCBx
84.505	84.508	Nod	100.185	100.210	LMCSp
84.565	84.573	Nod	100.240	100.390	FCBx
84.580	84.585	Nod	100.390	100.540	MCPy
84.635	84.640	Nod	102.745	102.747	MCPy
84.765	84.770	Nod	103.770	103.774	MCPy
84.790	84.795	Nod	103.800	103.819	Sil-Dol
86.760	86.840	Sil-Dol	105.930	105.960	FGSpBX

From (m)	To (m)	Ore Textural Style	From (m)	To (m)	Ore Textural Style
106.000	106.007	FFBx	124.700	124.760	MCPy
106.130	106.140	FCBx	124.780	124.840	MCPy
106.210	106.220	FCBx	124.870	124.885	MCPy
106.270	106.285	FCBx	124.910	124.930	LMCSp
106.660	106.690	FFBx	124.930	124.960	Nod
106.780	106.790	FGSpBX	125.005	125.040	LMCSp
106.845	106.940	FGSpBX	125.050	125.110	MCPy
106.845	106.850	RCBx	125.160	125.220	MCPy
106.850	107.010	FGSpBX	125.170	125.188	LMCSp
107.175	107.208	FGSpBX	125.240	125.260	MCPy
107.275	107.360	LMCSp	125.250	125.280	LMCSp
107.390	107.440	LMCSp	125.420	125.430	MCPy
107.440	107.485	FCBx	125.500	125.515	MCPy
107.485	107.540	LMCSp	125.515	125.520	FGSpBX
107.640	107.655	LMCSp	125.528	125.550	FGSpBX
107.665	107.675	RCBx	125.550	125.566	FCBx
107.700	107.750	LMCSp	125.635	125.758	FFBx
107.775	108.165	LMCSp	125.790	125.880	MCPy
108.265	108.295	LMCSp	125.880	125.915	FCBx
108.450	108.650	FGSp	125.960	125.980	LMCSp
108.805	108.875	FCBx	126.040	126.060	MCPy
108.895	108.925	FCBx	126.200	126.215	MCPy
108.900	108.930	LMCSp	126.255	126.275	MCPy
109.000	109.025	MCPy	126.285	126.320	MCPy
109.250	109.305	FCBx	126.390	126.450	MCPy
109.340	109.820	MCPy	126.470	126.500	MCPy
109.415	109.420	FFBx	126.530	126.535	MCPy
109.635	109.640	MCPy	126.650	126.665	MCPy
109.640	109.750	MCPy	126.690	126.705	MCPy
110.180	110.200	MCPy	126.750	126.850	Nod
110.600	110.660	Sil-Dol	126.880	126.883	MCPy
111.175	111.185	MCPy	126.888	126.893	MCPy
111.245	111.270	MCPy	126.910	126.913	MCPy
111.290	111.305	MCPy	126.920	126.922	MCPy
112.610	112.613	MCPy	126.953	126.961	Sil-Dol
112.625	112.628	MCPy	126.970	127.070	Sil-Dol
112.675	112.680	MCPy	127.090	127.180	Sil-Dol
112.685	112.692	MCPy	127.135	127.188	LMCSp
112.765	112.780	MCPy	127.200	127.206	LMCSp
112.900	112.960	MCPy	127.240	127.278	LMCSp
113.000	113.240	MCPy	127.330	127.387	LMCSp
113.350	113.900	MCPy	127.458	127.465	LMCSp
113.800	113.850	MCPy	127.460	127.710	Sil-Dol
113.850	116.110	MCPy	127.726	127.740	FGSp
113.960	113.985	FFBx	127.910	128.180	Sil-Dol
114.530	114.537	FFBx	128.310	128.380	Nod
114.895	114.950	RCBx	128.420	128.480	Nod
115.260	115.360	FFBx	128.505	128.590	LMCSp
115.530	115.600	FFBx	128.665	128.715	LMCSp
115.750	115.880	MCPy	128.766	128.788	LMCSp
115.760	115.790	FFBx	128.845	128.862	LMCSp
115.960	116.000	MCPy	128.938	128.974	LMCSp
116.110	116.670	MCPy	129.005	129.080	LMCSp
116.290	116.360	MCPy	129.093	129.096	LMCSp
116.400	117.100	MCPy	129.155	129.270	LMCSp
117.200	117.300	MCPy	129.630	129.640	MCPy
117.470	117.510	RCBx	129.680	129.710	MCPy
117.490	117.695	RCBx	132.580	132.620	MCPy
117.800	118.090	MCPy	132.660	132.690	MCPy
119.065	119.072	MCPy	132.705	133.015	Sil-Dol
123.730	123.930	MCPy	133.050	133.160	MCPy
123.930	124.130	MCPy	133.192	133.212	FFBx
124.290	124.710	Nod	133.212	133.269	LMCSp

From (m)	To (m)	Ore Textural Style	From (m)	To (m)	Ore Textural Style
133.250	133.360	Sil-Dol	139.165	139.185	Sil-Dol
133.500	133.760	Sil-Dol	139.240	139.250	Nod
133.760	133.840	MCPy	143.215	143.325	MCPy
134.050	134.140	Sil-Dol	143.340	143.395	MCPy
134.230	134.290	Sil-Dol	143.450	143.620	MCPy
134.630	134.850	LMCSp	143.840	143.843	MCPy
134.882	134.886	LMCSp	143.855	143.900	Nod
135.010	135.045	MCPy	143.935	143.950	Nod
135.120	135.127	MCPy	144.005	144.012	Nod
135.170	135.260	Sil-Dol	144.050	144.120	MCPy
135.215	135.245	FCBx	144.165	144.210	Sil-Dol
135.270	135.288	LMCSp	144.250	144.260	Nod
135.305	135.311	LMCSp	144.280	144.292	Nod
135.328	135.341	LMCSp	144.310	144.460	MCPy
135.360	135.372	MCPy	144.310	144.450	MCPy
135.420	135.427	MCPy	144.420	144.460	Nod
135.422	135.426	LMCSp	144.470	144.525	Nod
135.490	135.522	MCPy	144.490	144.497	MCPy
135.504	135.508	LMCSp	144.540	144.550	MCPy
135.508	135.515	FCBx	144.540	144.620	MCPy
135.515	135.525	LMCSp	144.625	144.680	MCPy
135.580	135.650	Sil-Dol	144.670	144.690	MCPy
135.600	135.640	MCPy	144.720	144.729	MCPy
135.650	135.680	MCPy	144.720	144.740	MCPy
135.665	135.680	Nod	144.790	144.805	MCPy
135.800	135.840	Nod	144.800	144.850	Nod
135.910	136.010	MCPy	144.840	144.870	MCPy
135.920	135.960	LMCSp	144.880	144.890	MCPy
135.960	135.985	FCBx	145.440	145.490	MCPy
136.080	136.086	FCBx	145.570	145.577	MCPy
136.115	136.125	FCBx	145.695	145.845	MCPy
136.270	136.360	FFBx	145.730	145.770	MCPy
136.450	136.455	MCPy	145.893	145.914	LMCSp
136.473	136.480	FCBx	145.920	145.925	MCPy
136.690	136.705	MCPy	145.940	145.945	MCPy
136.720	136.750	MCPy	145.960	145.980	MCPy
136.830	136.840	MCPy	146.015	146.020	MCPy
136.855	136.860	MCPy	146.070	146.074	LMCSp
136.890	136.902	MCPy	146.094	146.096	MCPy
136.920	136.950	MCPy	146.155	146.192	LMCSp
136.965	136.969	MCPy	146.206	146.239	LMCSp
137.058	137.062	MCPy	146.370	146.410	MCPy
137.058	137.062	MCPy	146.410	146.430	LMCSp
137.070	137.077	MCPy	146.490	146.520	MCPy
137.250	137.265	MCPy	146.497	146.522	LMCSp
137.275	137.310	MCPy	146.540	146.550	MCPy
137.330	137.860	Sil-Dol	146.560	146.590	MCPy
137.515	137.520	FCBx	146.635	146.648	MCPy
137.650	137.660	FCBx	146.735	146.765	MCPy
138.048	138.268	MCPy	146.865	146.870	MCPy
138.106	138.110	MCPy	146.890	146.898	MCPy
138.125	138.415	Sil-Dol	146.920	146.940	MCPy
138.420	138.470	Sil-Dol	147.030	147.070	MCPy
138.510	138.550	Sil-Dol	147.095	147.105	MCPy
138.600	138.670	Nod	147.348	147.369	MCPy
139.100	139.125	Sil-Dol	147.490	147.515	MCPy

Diamond Drill Hole Veining Log

MS Code: 930203

Hole Name: K663 ED2

Dip: - 60

Azimuth: 87.67

Vein HW (m)	Thickness (mm)	Vein Minerals	Vein HW (m)	Thickness (mm)	Vein Minerals
53.411	<1	po	81.740	3.00	dol
53.555	<1	po	81.900	1.00	dol
53.610	<1	po	81.995	2.00	dol
53.914	<1	dol	82.095	1.00	dol
54.040	1.00	dol	82.155	<1	dol
54.100	<1	dol,po	82.218	3.00	dol, py
54.265	<1	cp,po,dol	82.312	1.00	dol, py
54.271	1.00	cp,po,dol	82.580	2.00	py,dol
54.303	5.00	dol,cp	82.800	<1	py,dol
54.330	<1	cp,dol	83.070	2.00	py,dol
54.515	2.00	dol,cp	83.150	2.00	dol, py
73.750	3.00	dol	84.700	3.00	dol, py
73.930	3.00	dol	84.770	10.00	dol,qz
74.112	<1	dol,po	84.920	<1	dol
74.130	<1	dol,po	85.270	<1	dol
74.132	<1	dol,po	85.360	<1	dol
74.146	<1	dol,po	85.415	<1	dol
74.152	<1	dol,po	85.460	<1	dol
74.225	<1	dol,po	85.695	1.00	dol, py
74.239	<1	dol,po	85.700	1.00	dol, py
74.255	<1	dol,po	86.030	1.00	dol
74.279	<1	dol,po	86.187	2.00	dol
74.294	<1	dol	86.200	10.00	dol
74.302	<1	dol	86.225	4.00	dol
74.390	30.00	cp,dol	86.286	2.00	dol
74.475	5.00	dol,cp,po	86.590	<1	dol
74.515	1.00	dol	86.635	1.00	dol
75.025	1.00	dol	86.770	70.00	dol
75.070	1.00	dol	87.350	2.00	dol
75.144	3.00	dol	87.690	2.00	dol
75.190	2.00	dol	88.110	3.00	qz,po
75.240	5.00	dol	88.530	2.00	po
78.995	4.00	dol,po	88.598	10.00	py
79.021	7.00	dol,po	88.750	2.00	dol,po
79.060	7.00	dol,po	89.275	3.00	dol,po
79.270	1.00	dol,po	89.310	10.00	dol
79.285	1.00	dol	89.600	4.00	dol
79.335	2.00	dol,po	93.700	4.00	dol
79.505	5.00	dol,po	93.940	1.00	dol
79.545	2.00	dol,po	93.980	2.00	po,dol
79.720	4.00	dol,po,py	94.050	10.00	qz,cp,sp,gn
79.810	1.00	dol,po,py	94.112	2.00	dol, py
79.840	1.00	dol	94.150	3.00	dol, py
79.900	11.00	dol	94.300	4.00	dol, py
80.560	2.00	dol	94.306	2.00	dol, py
81.060	10.00	dol	94.324	2.00	dol, py
81.260	3.00	dol	94.345	3.00	dol, py
81.380	<1	dol	94.355	3.00	dol, py
81.430	<1	dol	94.364	1.00	dol, py
81.454	<1	dol	94.371	2.00	dol, py
81.468	<1	dol	94.378	2.00	dol, py
81.560	1.00	dol	97.622	2.00	dol,po
81.590	<1	dol	97.649	3.00	dol,po
81.660	<1	dol	97.789	4.00	dol,po

Vein HW (m)	Thickness (mm)	Vein Minerals	Vein HW (m)	Thickness (mm)	Vein Minerals
97.820	1.00	dol.po	129.120	2.00	po,sp
97.840	1.00	dol.po	129.230	5.00	sp.po,dol
98.050	3.00	po,dol	129.250	11.00	sp.po,dol
98.103	4.00	po,dol	129.410	5.00	po,dol
98.135	4.00	po,dol	129.570	5.00	po,dol
98.222	4.00	po,dol	129.685	5.00	po,dol
98.300	2.00	po,dol	130.000	11.00	po,dol
98.400	2.00	po,dol	130.720	2.00	dol
98.548	2.00	po,dol	130.830	<1	dol
98.570	2.00	po,cp,dol	130.850	<1	dol
98.675	3.00	po,cp,dol	130.925	<1	dol
98.690	4.00	po,cp,dol	130.940	<1	dol
98.755	2.00	po,cp,dol	130.990	<1	dol
98.790	4.00	po,cp,dol	131.000	<1	dol
98.935	4.00	po,cp,dol	131.040	<1	dol
111.258	5.00	dol.py.po	131.440	1.00	dol
111.310	3.00	dol.py.po	131.490	1.00	dol
111.371	3.00	dol.py.po	131.510	2.00	dol
112.815	1.00	dol	131.520	2.00	dol
112.828	3.00	dol	131.730	2.00	dol
112.835	1.00	dol	131.760	11.00	dol
112.842	<1	dol	131.790	11.00	dol
112.848	1.00	dol	131.905	5.00	dol
117.750	3.00	py,dol	132.050	2.00	dol
118.700	2.00	py,dol	132.250	2.00	dol
118.910	4.00	py,dol	132.330	2.00	dol
119.782	1.00	py	132.950	4.00	dol
119.835	3.00	dol, py	133.130	3.00	dol
119.850	3.00	po,dol	133.300	2.00	dol
119.940	2.00	po,dol	135.090	2.00	dol
119.944	11.00	po,dol	135.630	2.00	dol
119.988	<1	po,dol	135.630	2.00	dol
119.994	<1	po,dol	135.700	11.00	dol
120.015	3.00	po,dol	135.730	20.00	dol
120.030	3.00	po,dol	135.755	2.00	dol
120.133	1.00	po,dol	135.765	2.00	dol
120.205	<1	po,dol	135.780	4.00	dol
120.800	<1	py,dol	135.870	2.00	dol
120.850	2.00	py,dol	135.910	2.00	po,dol
120.865	2.00	py,dol	135.930	2.00	po,dol
120.958	<1	py,dol	135.960	2.00	po,dol
121.004	<1	py,dol	136.000	1.00	po,dol
121.015	<1	py,dol	136.120	2.00	po,dol
121.045	2.00	dol, py	136.450	2.00	dol, py
121.105	2.00	dol, py	136.500	2.00	dol, py
122.450	2.00	dol, py	136.600	2.00	py
122.580	11.00	dol, py	136.710	2.00	dol, py
122.790	4.00	dol, py	137.380	2.00	dol, py
123.178	1.00	dol	137.780	2.00	dol
123.200	4.00	dol, py	139.000	10.00	dol
123.290	4.00	dol, py	139.665	5.00	dol
123.770	4.00	dol, py	140.060	2.00	py,dol
124.110	4.00	po,dol	140.130	14.00	po,py,dol
124.410	4.00	dol, py	140.300	2.00	py,dol
124.620	5.00	dol, py	143.820	<1	dol
124.750	2.00	dol, py	143.990	<1	dol
127.885	2.00	dol	144.030	<1	dol
128.025	12.00	dol	145.500	<1	dol
128.500	5.00	po,dol	146.100	<1	dol, py
128.500	5.00	po,dol	146.900	<1	dol, py
128.820	2.00	po,dol	147.130	<1	dol, py
128.995	2.00	sp,dol	147.180	<1	dol, py
147.230	<1	dol, py	147.620	<1	dol, py
147.460	<1	dol, py	147.630	<1	dol, py
147.480	<1	dol, py	147.650	<1	dol, py
147.500	<1	dol, py			

Diamond Drill Hole Summary Log

MS Code: 970304

Hole Name:

Dip:

Azimuth:

From (m)	To (m)	Notes
0.00	2.7	Interbanded tkslt and FGPy shale with several MBSp overprinting the FGPy. 1 Fg gn-sp breccia
2.70	4.20	Interbanded Tnslt and Lshl. Minor Tlslt. Barren
4.20	9.10	Zn-Pb-Ag mineralised sequence with tkslt interbanded with FGP and gn-sp and some Mbdsp around the breccias and at the end of the interval. Gn abundance is highest relative to sp at the hangingwall of the sequence.
9.10	13.60	Interbanded tnslt with minor Lshl. Towards the bottom of the interval the Tlslt increases and with this the FGP alteration commences weakly in the Lshl between the tkslt.
13.60	16.80	FGPy shale with Lshl and minor tnslt. FGPy shale, 30-40%, laminated shales and siltstones: 60%.
16.80	19.00	Banded sp and FGPy mineralisation. FGPy: 60%, siltstone: 10%, massive very fine grained banded sp mineralisation and abundant gn: 30%
19.00	20.00	Massive fine grained sp-gn mineralisation overprinting FGPy. Interbedded siltstones have very strong light grey alteration - siderite?
20.00	25.90	Intebanded Lshl and siltstones. Sp-gn mineralisation. Lshl: 80%. Sp mineralisation in laminated shales with FGPy alteration. Massive banded sp mineralisation has margin of Laminated banded sphalerite overprinting FGPy. Numerous bedding parallel sp-dol viens. Moderate alteration of the included siltstones. Minor gn mineralisation only.
25.90	28.60	sp-gn mineralisation. Interbanded Lshl (65%) and Tkslt. Lshl mineralised with sp-po mineralisation. 50% Laminated bended sp and 50% massive banded sp. Several fine grained sp-gn bands and some gn-sp breccias. Light grey alteration of siltstones in and around the mineralisation. The strongest buff alteation is immediatly below the thick gn-sp breccia. No FGPy alteration.
28.60	35.20	Sp-FGPy mineralisation. Interbedded Tlslt (80%) and Lshl (25%). LShl is overprinted byFGPy and then massive banded sp-dol±gn. Light grey alteration of the intervening siltstones.
35.20	36.80	massive sulphides FGPy (85%) overprinted by Sp (15%) and Po (10%).
36.80	44.70	Lshl (75%), Tkslt (25%), Tnslt (5%). Lshl overprinted by FGPy then sp-po±gn. Laminated sp the massive banded sp. Light grey alteration of some intervening siltstones accompanied by po alteration.
44.70	47.10	FGPy shale (90%), Tnslt (10%), light grey alteration with po. Some minor sp mineralisation at the end of the interval.
47.10	48.50	Interbanded Tkslt and sp mineralisation. Silstones: 60%, sp mineralisation 40%, Laminated and massive banded (20:80). Abundant Po. Intense light grey alteration of the silstones.
48.50	50.80	Interbanded Tkslt (50%, 2-10 cm) and FGPy (50%, 2-10 cm) shales. Moderate light grey alteration of the silstones.
50.80	52.50	interbanded Tkslt (65%, 1-5 cm) and banded sp mineralisation. Lbdsp (10%) marginal to massive banded sp-dol±gn-po. Intense alteration of the silstones.
52.50	53.5	Interbanded tkslt 40% Tnslt 30% FGP 10%<1cm bands. Only weak alteration of the siltstones.