

16 November 2020

Australian Securities Exchange Limited
Level 40, Central Park,
152-158 St Georges Terrace
PERTH WA 6000

Structural Geology Review Confirms Copper-Gold Exploration Potential at Fiery Creek

Ironbark Zinc Limited (“Ironbark”, “the Company” or “IBG”) is pleased to update its shareholders with respect to ongoing geological review work at its 100% owned Fiery Creek Copper Gold Project in NSW (“Fiery Creek”).

Fiery Creek is located on EL6925, approximately 5km along strike from the historic Cowarra Gold Mine, in the southern Lachlan Fold Belt. This recent study was completed by E J Cowan PhD FAusIMM & E Grunsky PhD PGeo (BC) and built upon the work announced to the ASX on 14 October 2020.

Highlights

- Two major structural features were identified as likely controlling the Au mineralisation, with the Fiery Creek structural setting appearing to be analogous to the Ballarat East deposit in the Victorian Goldfields.
- Principal Component Analysis (PCA) was conducted on historic soil survey data comprising of arsenic, copper, lead and zinc assays. The highest arsenic and copper grades occur closest to the historic workings and may assist with drill target identification.
- Historic field work by Horizon Resources was confirmed as high quality. Further structural mapping is required however to determine fold plunges across the property with a view to determining the long-range mineralisation continuities.
- Five initial high priority drill targets were identified from this preliminary review. All are proximal to historic workings (and coincide with high arsenic values) but are either undrilled or have only seen shallow (~20m) drilling to date.

IBG Managing Director Michael Jardine:

“Fiery Creek continues to excite as a gold play and is developing as a large-scale, yet underexplored, exploration opportunity.

Alongside continuing to assess a variety of funding routes, including options to bring in partners at a project level, Ironbark intends to kick start the exploration process immediately by applying for approvals to conduct non disturbing activities across the tenement (this is likely to include structural mapping and an aerial geophysical survey) and concurrently for disturbing activities potentially including soil sampling, rock chip analysis and drilling both inside and outside the Macanally Conservation Area.

The indicative timeline for the non-disturbing work program completion is early Quarter 1 2021. Upon completion, Ironbark expects to have one or more walk-up drill targets identified outside the Macanally Conservation Area which can be tested promptly thereafter. The data collection and approval process for disturbing activities within the Macanally Conservation Area are expected to take at least six months, suggesting H2 2021 as the likely timing for any such work.

Following the continuing tight focus on overhead expenditure throughout the current year, Ironbark is comfortable advancing the Fiery Creek exploration program outlined above from within its current cash reserves.

Structural Controls at Fiery Creek

The tectonic grain at Fiery Creek generally trends North-South, consistent with the Lachlan Fold Belt more generally. However there appear to be subtle NE-NNE trending discontinuities that crosscut the tectonic grain in the region of EL6925 and these are interpreted to be late-stage low displacement events that accommodated the strain during late-stage folding (Figure 1).

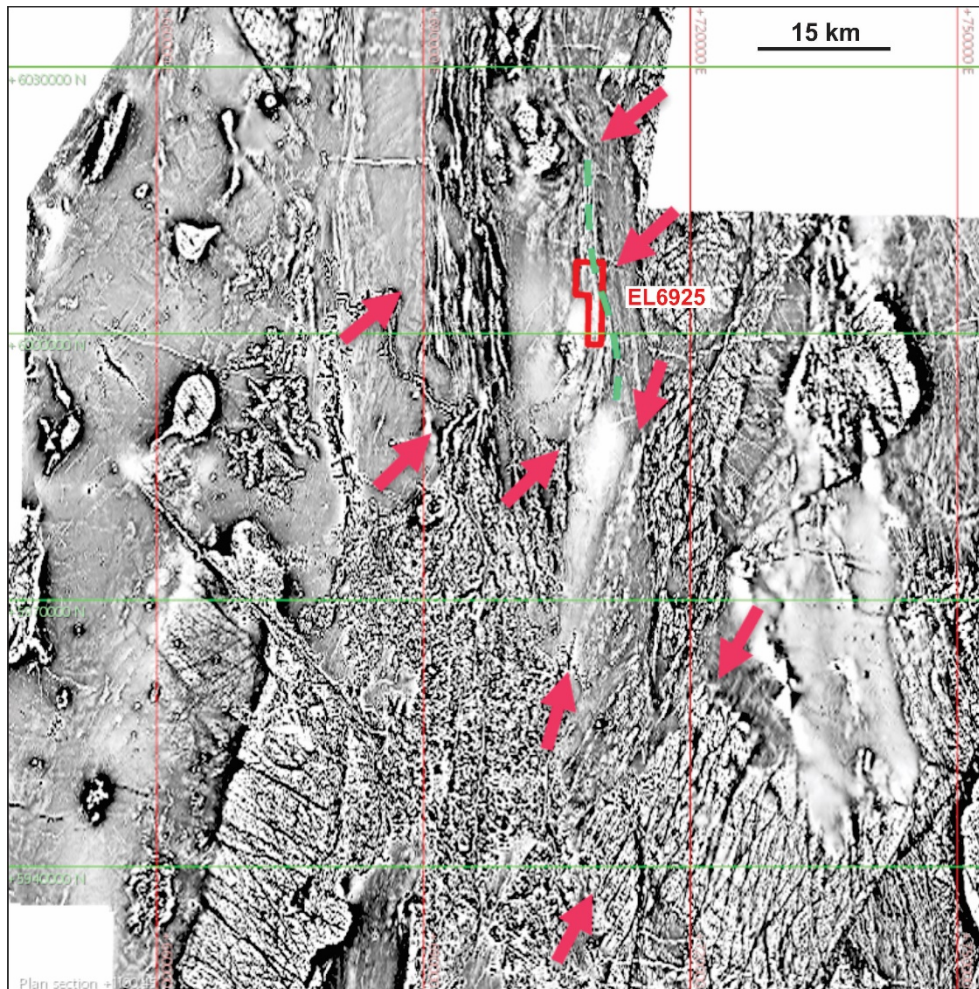


Figure 1: Regional magnetic (RTP1VD) image showing the tectonic grain (dashed green line) and NE-NNE trending discontinuities (red arrows).

In the Victorian goldfields structurally controlled orogenic – style gold mineralisation is synchronous with these late-stage faults that cross-cut the fold hinges developed in the Ordovician turbidites, giving rise to the Ballarat East gold mineralisation analogue.

A Deposit Analogue?

At Ballarat East, host rocks are tightly folded Ordovician turbidites with subhorizontal fold plunges (Fiery Creek turbidites are the same age), and both are N-S trending.

The presence of faults cross-cutting the tectonic grain is obvious at Ballarat East at the deposit scale. Whilst the cross-cutting faults are not generally mineralised, they may create dilation zones which act as favourable sites for gold deposition (Figure 2).

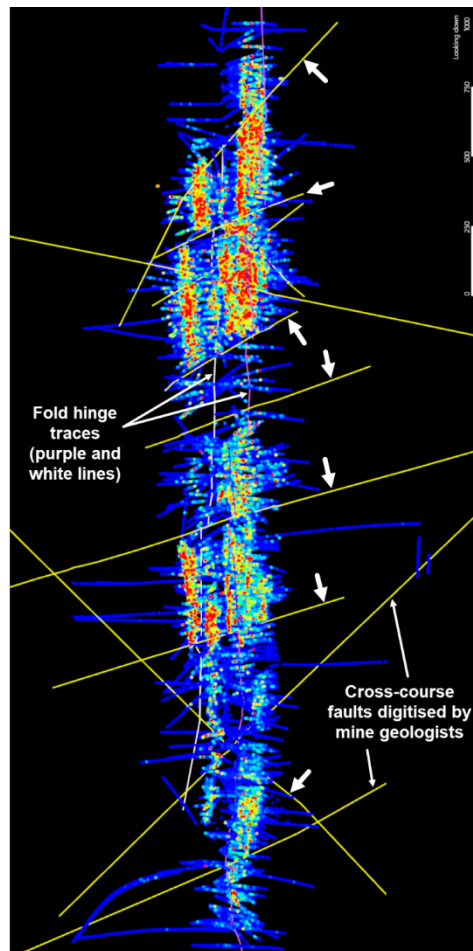


Figure 2: Structure of Ballarat East.

At Ballarat East, both high-grade and low-grade zones are restricted between domains bounded by the cross-cutting faults. The width of the gold mineralisation at Ballarat East is 500m, which is similar to the width of the alteration zone and the old workings at Fiery Creek, however the strike length of Fiery Creek is three times longer than Ballarat East (Figure 3).

Unlike Fiery Creek, Ballarat East is completely blind with no gold grade of any significance in the upper 150m of the deposit. Significant pockets of mineralisation were not encountered until about 200m below surface at Ballarat East, with high-grade mineralisation located as deep as 500m below surface.

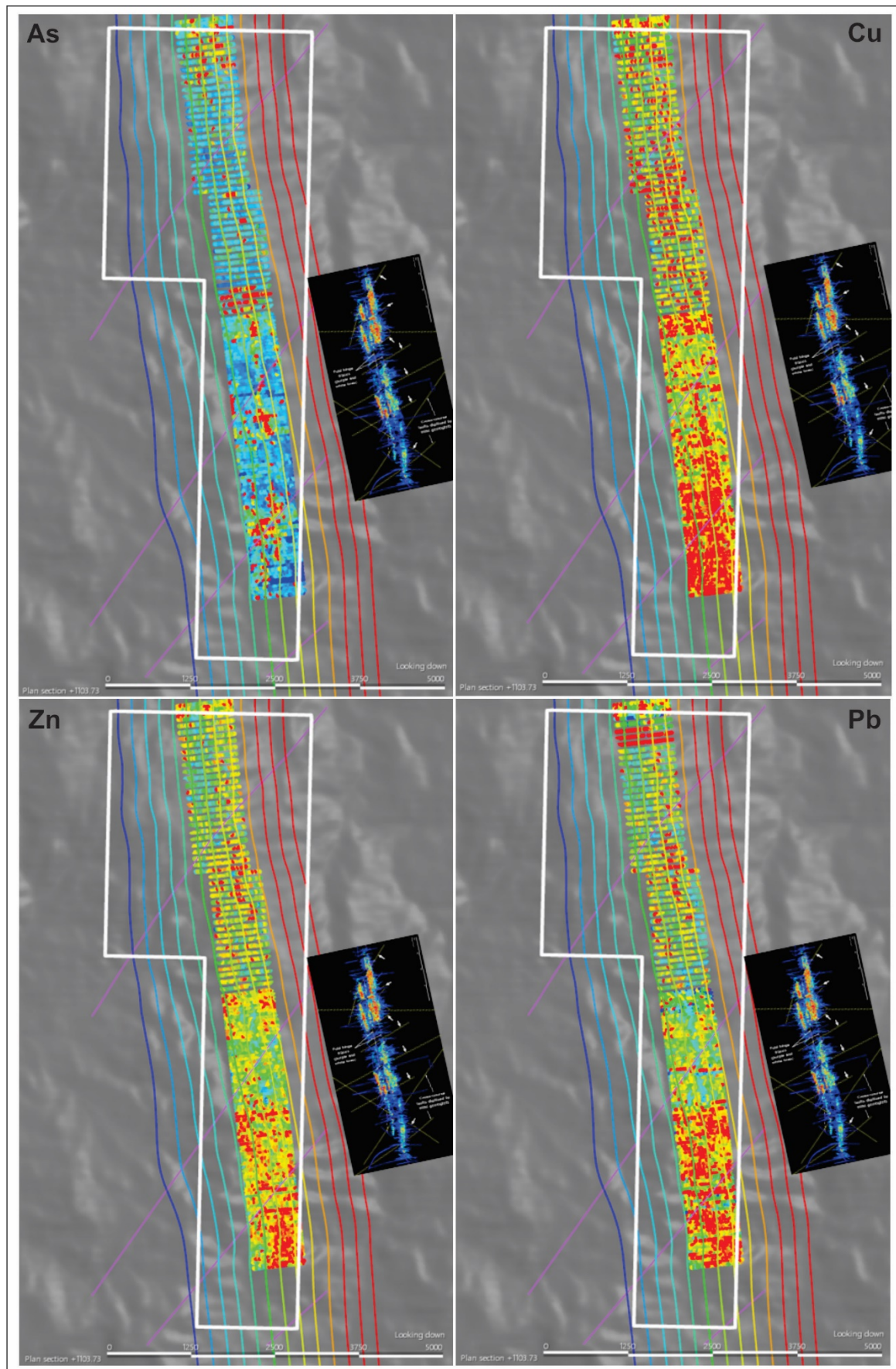


Figure 3: Comparing Ballarat East to Fiery Creek at the same scale, showing the results of the Horizon Resources soil survey. Further information on the soil survey is contained in the JORC Table 1.

Soil Analysis

Principal Components Analysis (PCA) was conducted on the historic soil data, comprising two data sets:

1. As, Cu, Pb, Zn together with distance to workings (DW)
2. As, Cu, Pb, Zn together with dip of cleavage (S1)

While gold was not assayed in the historic data set, approximately 650 historic workings on EL6925 provide excellent indications for the presence of gold at surface and in the immediate sub- surface regions.

The highest grades of As are situated near the workings, and these sites may represent the higher temperature fluid outflow zones. The PCA analysis using the distance to workings (DW) indicates that the peak grades of Cu, Pb and Zn are more distant from the workings in this order (Figure 4). This gradational character (As → Cu → Pb → Zn) may be the result of a temperature gradient that existed during the mineralisation process.

The relationship of the Au to this zonation is unknown, but if it is assumed that the gold is closer to the highest temperature, then the zones of As enrichment are the highest priority target zones. The PCA analysis using the dip of the S1 cleavage shows that there is also a relationship of high grades of As in areas of lower dips of measured cleavage (S1). Further information on the soil geochemistry data is contained in the JORC Table 1.

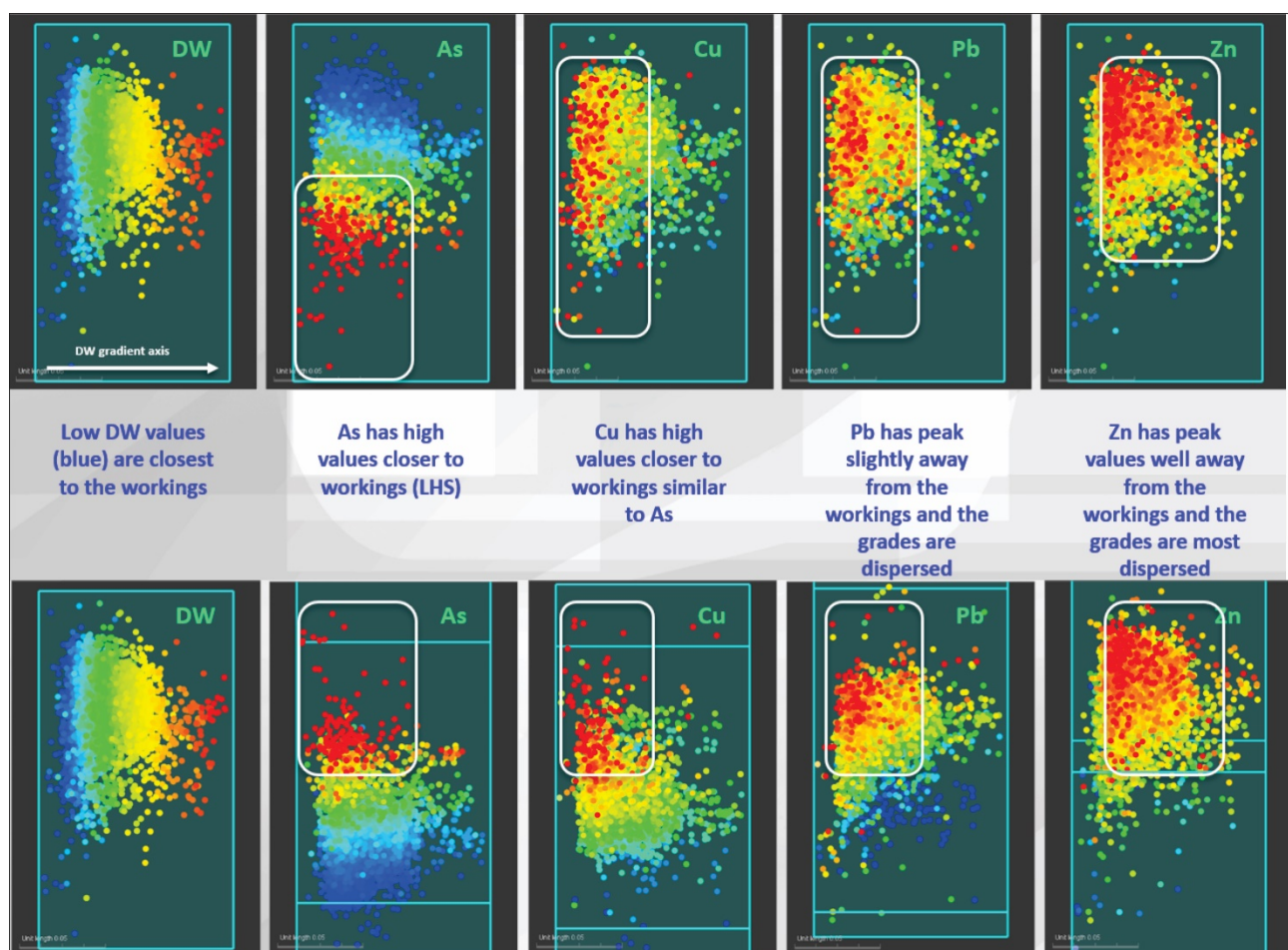


Figure 4: PCA analysis of the historic Horizon Resources soils data. Bottom images are the same data as the top, but elemental data has been rotated about the gradient axis of the distance to workings to clarify the patterns. Further information on the soil survey is contained in the JORC Table 1.

Further Details

This notice is authorised to be issued by the Board. Please contact Managing Director Mr. Michael Jardine for any further inquiries on either mjardine@ironbark.gl or +61 424 615 047.

Competent Persons Statement

The information included in this report that relates to historic Exploration Results is based on and fairly represents information compiled by Ms Elizabeth Laursen (B. ESc Hons (Geol), GradDip App. Fin., MSEG, MAIG), an employee of Ironbark Zinc Limited. Ms Laursen has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Ms Laursen is a member of the Australian Institute of Geoscientists and Society of Economic Geologists. Ms Laursen consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

Competent Persons Disclosure

Ms Laursen is an employee of Ironbark Zinc Limited and currently holds securities in the company.

JORC Table 1

Historic Soil Survey

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where ‘industry standard’ work has been done this would be relatively simple (eg ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> Information on sample collection was not recorded. Sample lines were spaced 100m in the north part of the survey and 50m in the south as shown on Figure A. Sample spacing was 20m.
Drilling techniques	<ul style="list-style-type: none"> Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	<ul style="list-style-type: none"> No drilling reported.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. 	<ul style="list-style-type: none"> No drilling reported.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> No logging was conducted.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> Sub-sampling techniques not reported.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations 	<ul style="list-style-type: none"> The laboratory used and assay technique was not provided in the final report. However other exploration conducted by Horizon Resources N.L. within this licence area (including mapping and drilling) were conducted by industry standard practices appropriate for gold and base metal exploration.

Criteria	JORC Code explanation	Commentary
	<p><i>factors applied and their derivation, etc.</i></p> <ul style="list-style-type: none"> <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i> 	<ul style="list-style-type: none"> A total of 4,067 sample points were digitized with assays for copper, zinc, lead and arsenic.
Verification of sampling and assaying	<ul style="list-style-type: none"> <i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> Historic reports have been reviewed by independent and company personnel.
Location of data points	<ul style="list-style-type: none"> <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> Data points were recorded on local grid and digitized by Ironbark into MGA 1994 Z 55 coordinates.
Data spacing and distribution	<ul style="list-style-type: none"> <i>Data spacing for reporting of Exploration Results.</i> <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i> <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> No mineral resource has been estimated.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i> 	<ul style="list-style-type: none"> No drilling reported.

Criteria	JORC Code explanation	Commentary
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Sample security measures unknown.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> Available data has been reviewed by independent and company personnel.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> The Fiery Creek Prospect is located within Exploration Licence 6925 in southeastern NSW. The licence is 100% owned by Ironbark Zinc Limited. Part of the licence covers the Macanally State Conservation Area (SCA) which is a designation by the NSW Government that, subject to the appropriate approvals, explicitly allows for minerals exploration. The Licence was recently renewed and expires in October 2022.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> The deposit was previously explored by WMC and Horizon Minerals.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Fiery Creek Project lies within the Molong-South Coast Anticlinorial Zone of the Lachlan Fold Belt in New South Wales. The licence is dominated by Ordovician sediments of the Adaminaby Group, the Silurian Jerangle Metamorphic Complex and Yalmy Group sediments and is bound to the east by Devonian Granites. The prospect area consists of NNW-SSE elongated system of quartz vein hosted copper and gold mineralisation.
Drill hole Information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> easting and northing of the drill hole collar 	<ul style="list-style-type: none"> Considering there are 4,067 sample points it is not considered practical to present these results in tabular form. All sample points and assay results by range are shown on Figures A-I. The total number of samples that fall in each range is also shown.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> ○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar ○ dip and azimuth of the hole ○ down hole length and interception depth ○ hole length. ● If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	
Data aggregation methods	<ul style="list-style-type: none"> ● In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. ● Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. ● The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> ● No weighted average techniques or cut off grades have been used. ● No metal equivalents have been reported.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> ● These relationships are particularly important in the reporting of Exploration Results. ● If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. ● If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	<ul style="list-style-type: none"> ● Only surface samples were taken.
Diagrams	<ul style="list-style-type: none"> ● Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar 	<ul style="list-style-type: none"> ● Refer to Figures A to I.

Criteria	JORC Code explanation	Commentary
	<i>locations and appropriate sectional views.</i>	
Balanced reporting	<ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> All arsenic, lead, zinc and copper results are presented on Figures A to I.
Other substantive exploration data	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	<ul style="list-style-type: none"> Geological mapping, drilling, rock chips and geophysics have been conducted, further information on rock chips and drilling was released to the ASX on 14 October 2020.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> Assessment of the permitting process and field work planning based on that assessment which will likely include detailed mapping and detailed aerial magnetic survey.

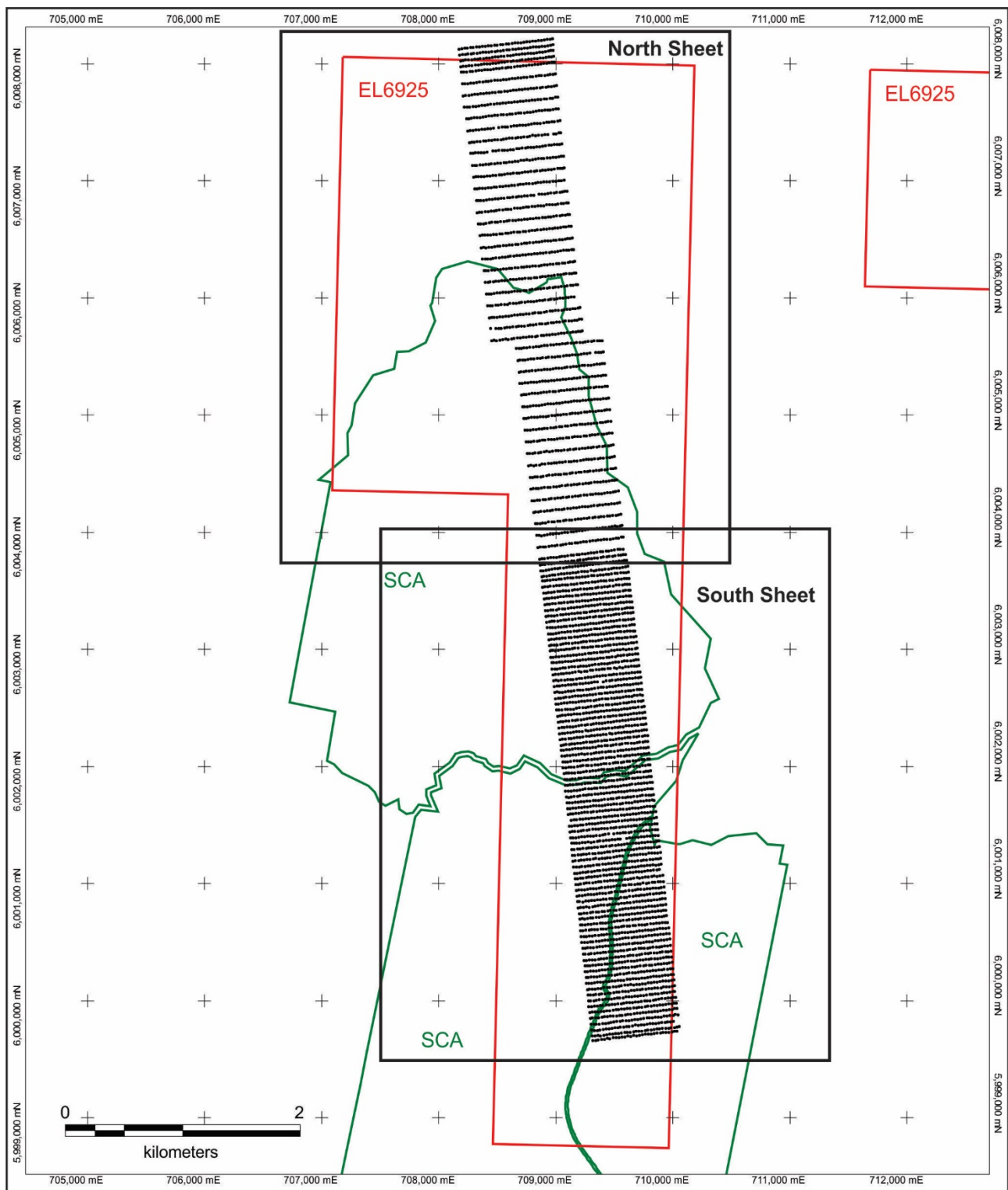


Figure A: Plan view of EL6925 showing the State Conservation Area, location of all soil samples and the north and south sheet that correspond to Figures B-I.

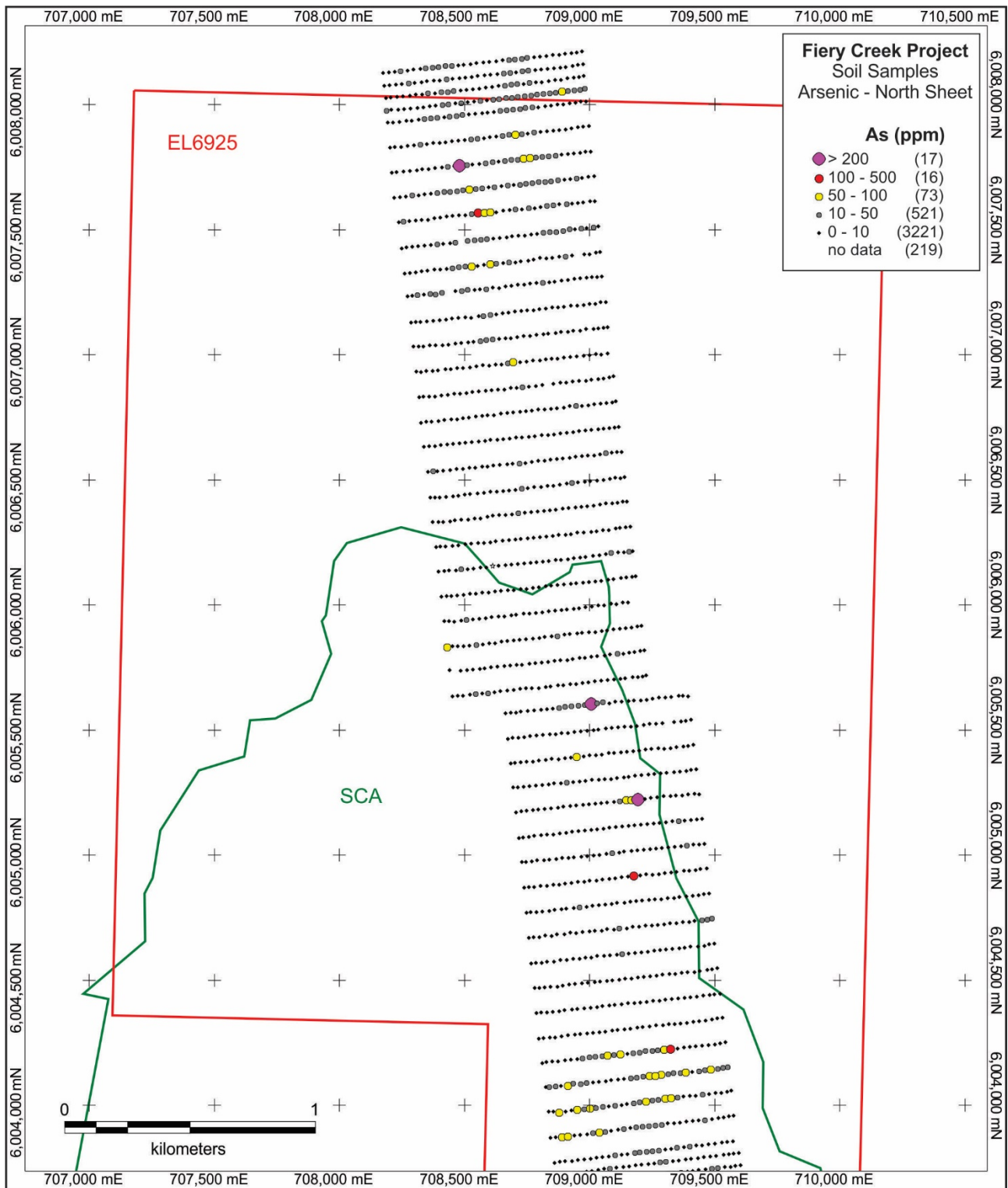


Figure B: Arsenic soil sample results on the north sheet.

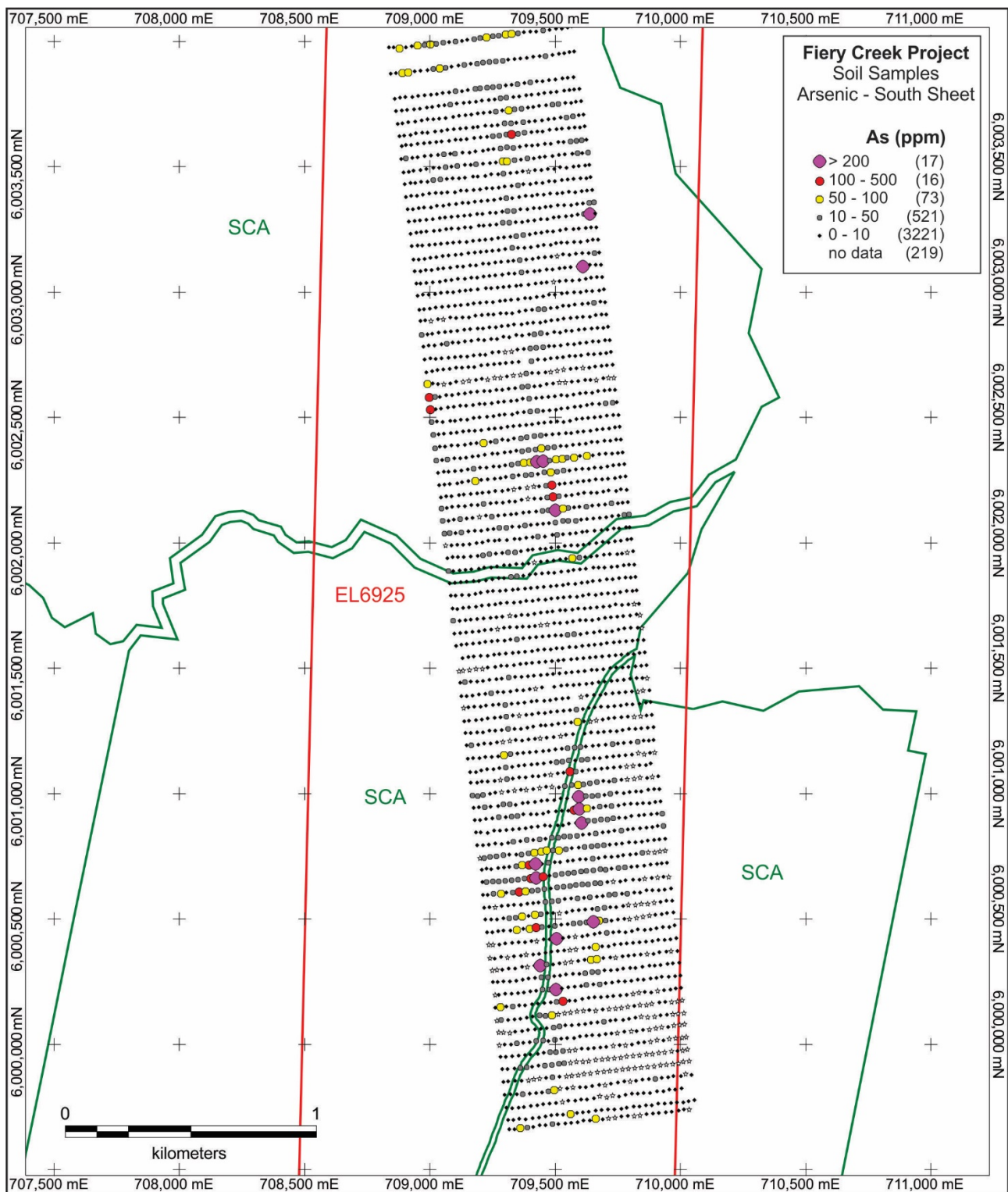


Figure C: Arsenic soil sample results on the south sheet.

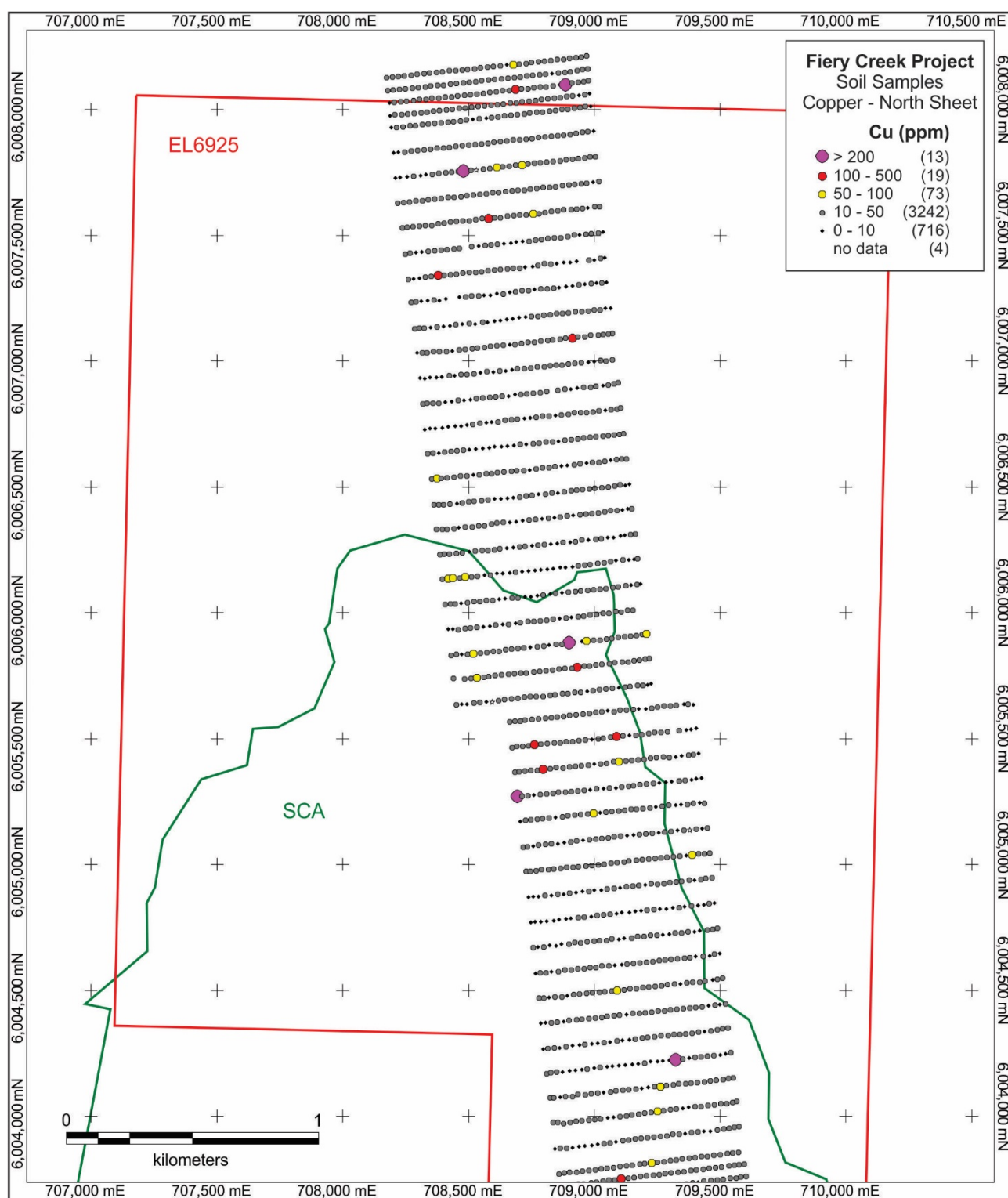


Figure D: Copper soil sample results on the north sheet.

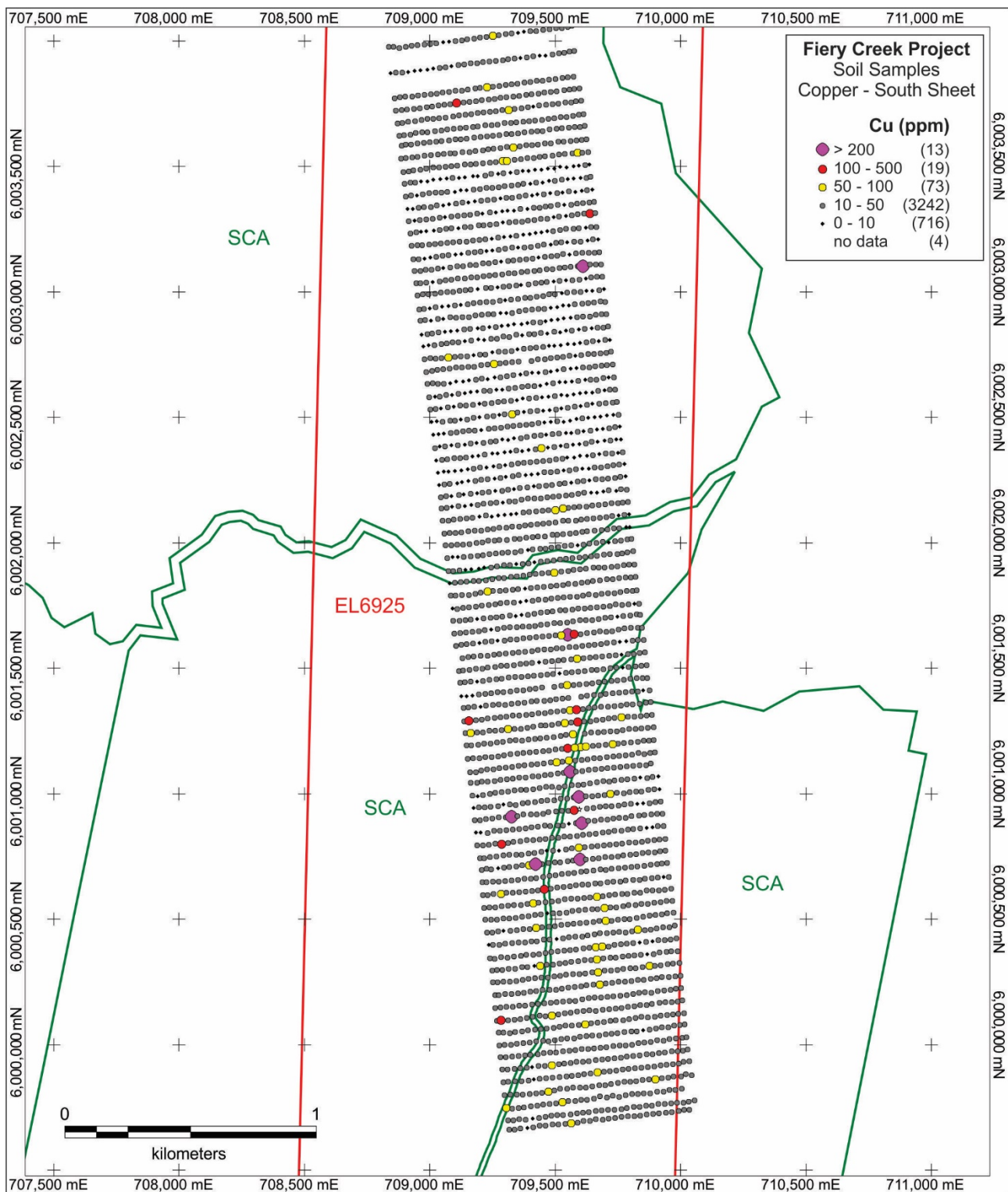


Figure E: Copper soil sample results on the south sheet.

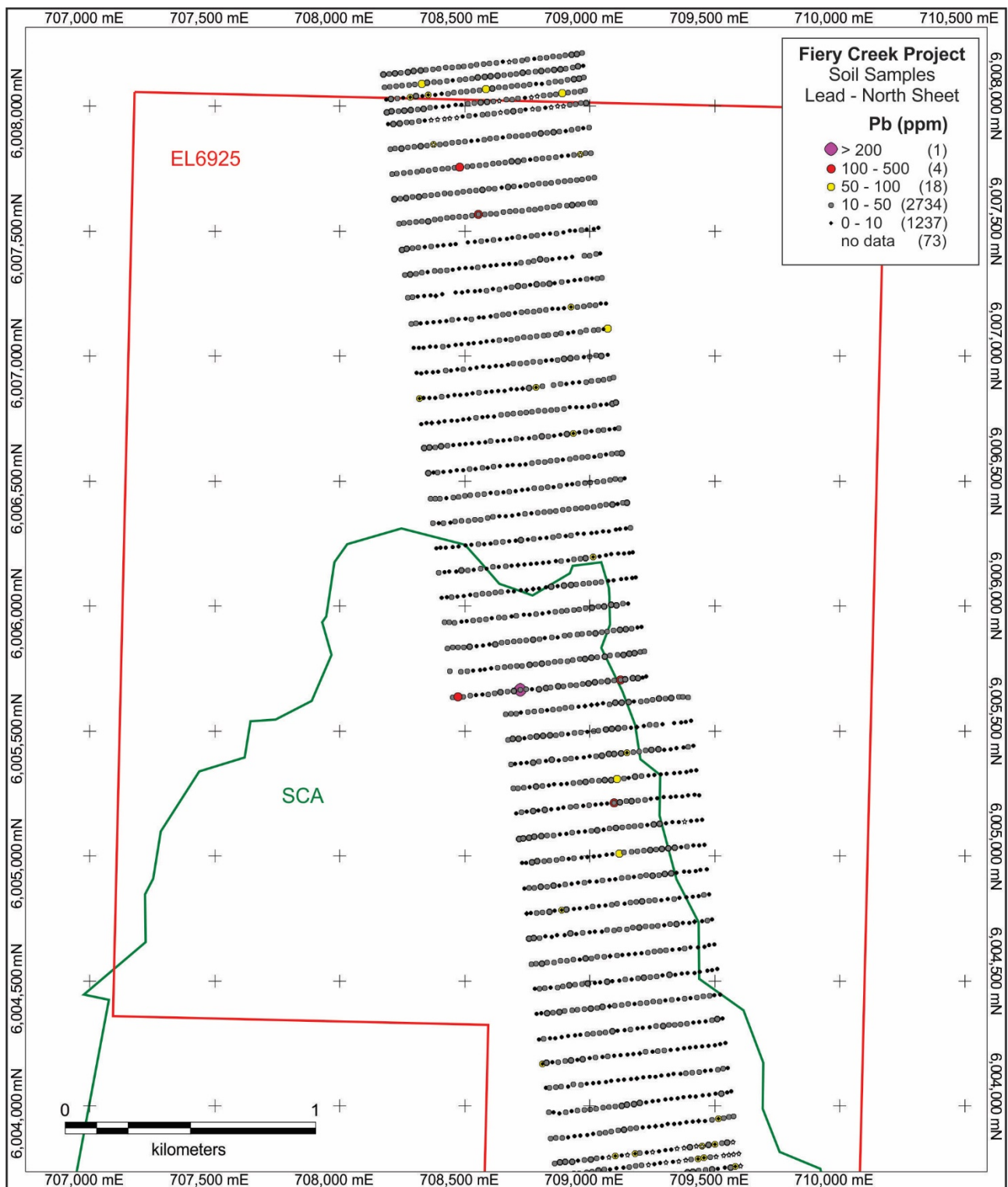


Figure F: Lead soil sample results on the north sheet.

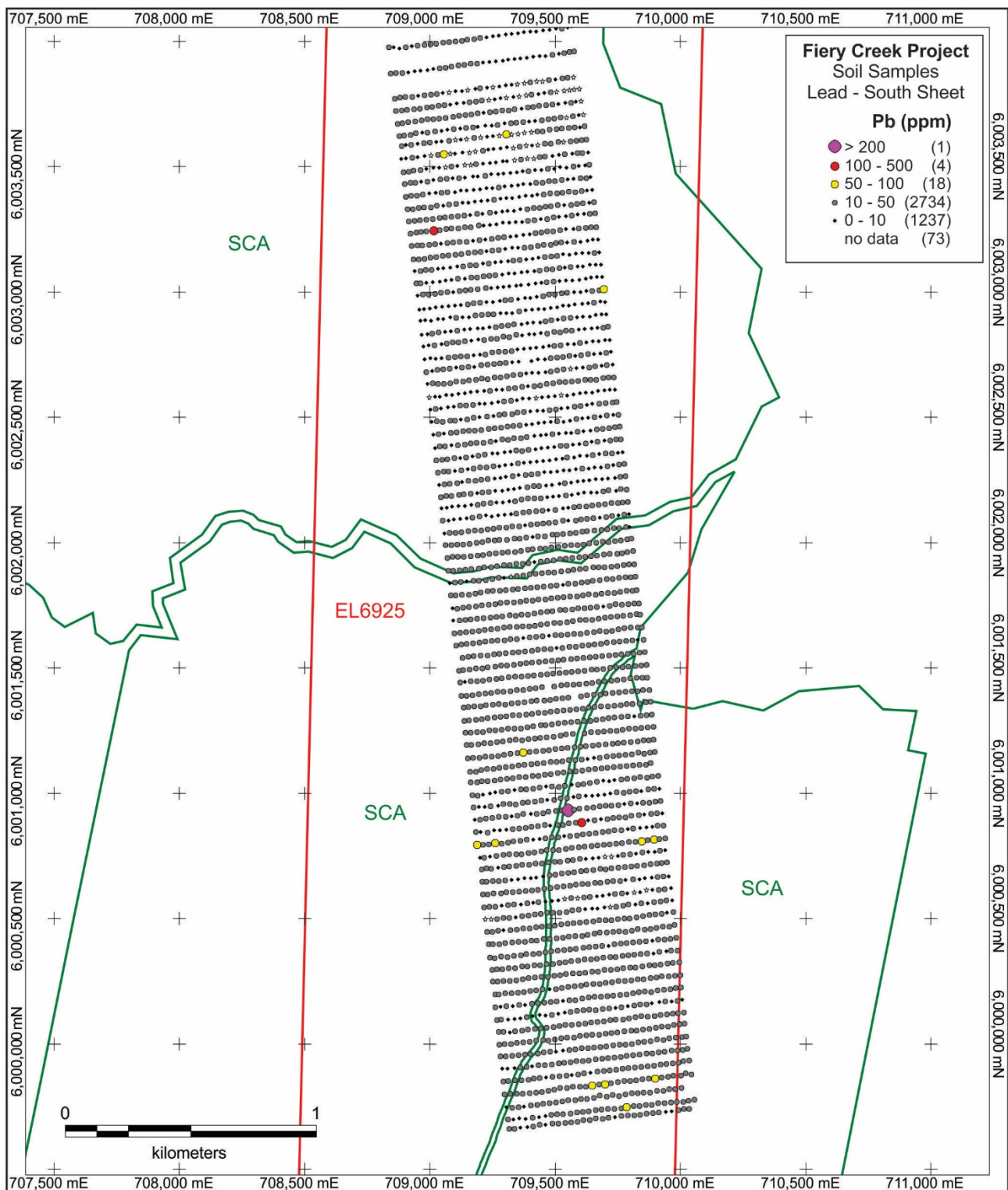


Figure G: Lead soil sample results on the south sheet.

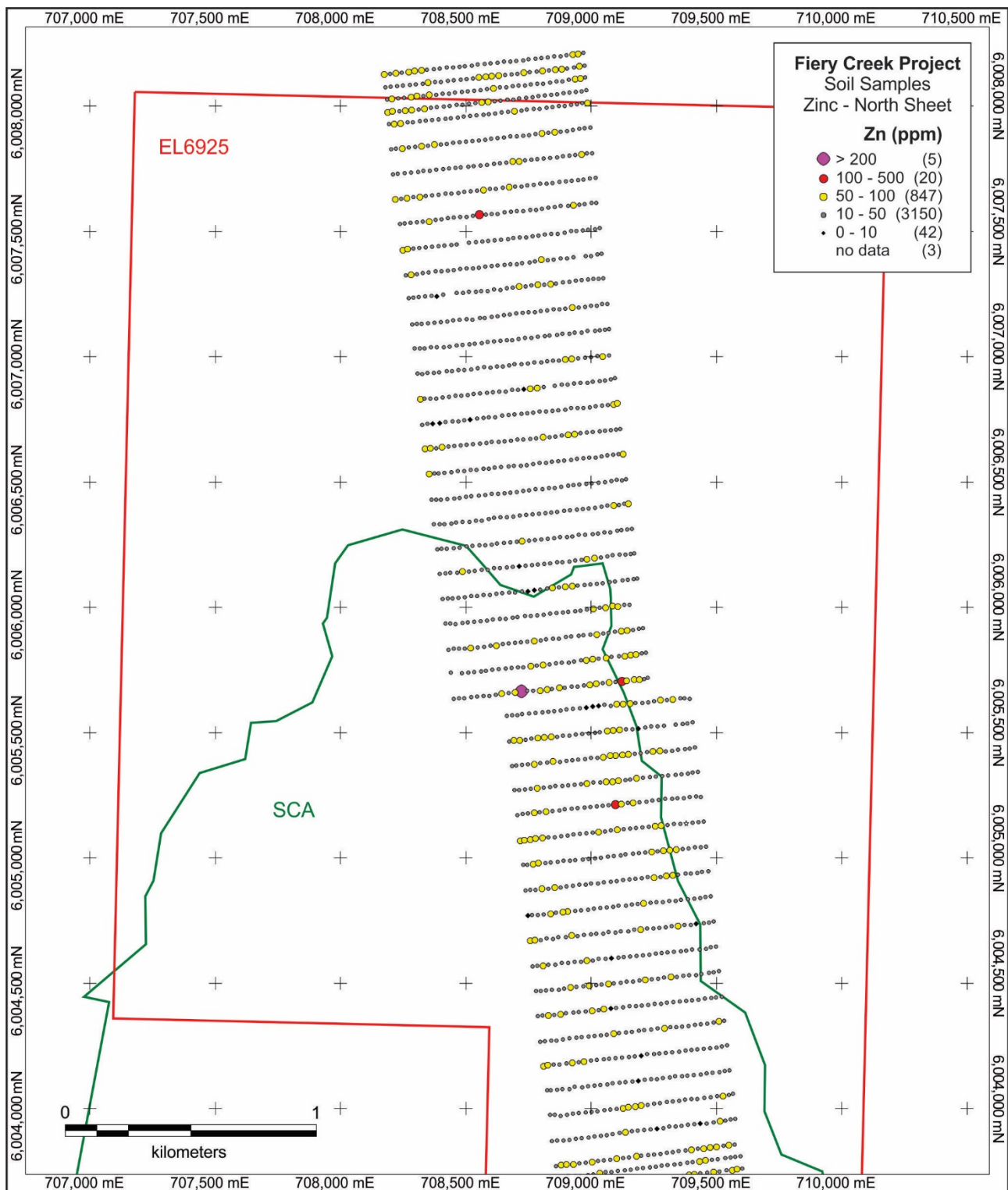


Figure H: Zinc soil sample results on the north sheet.

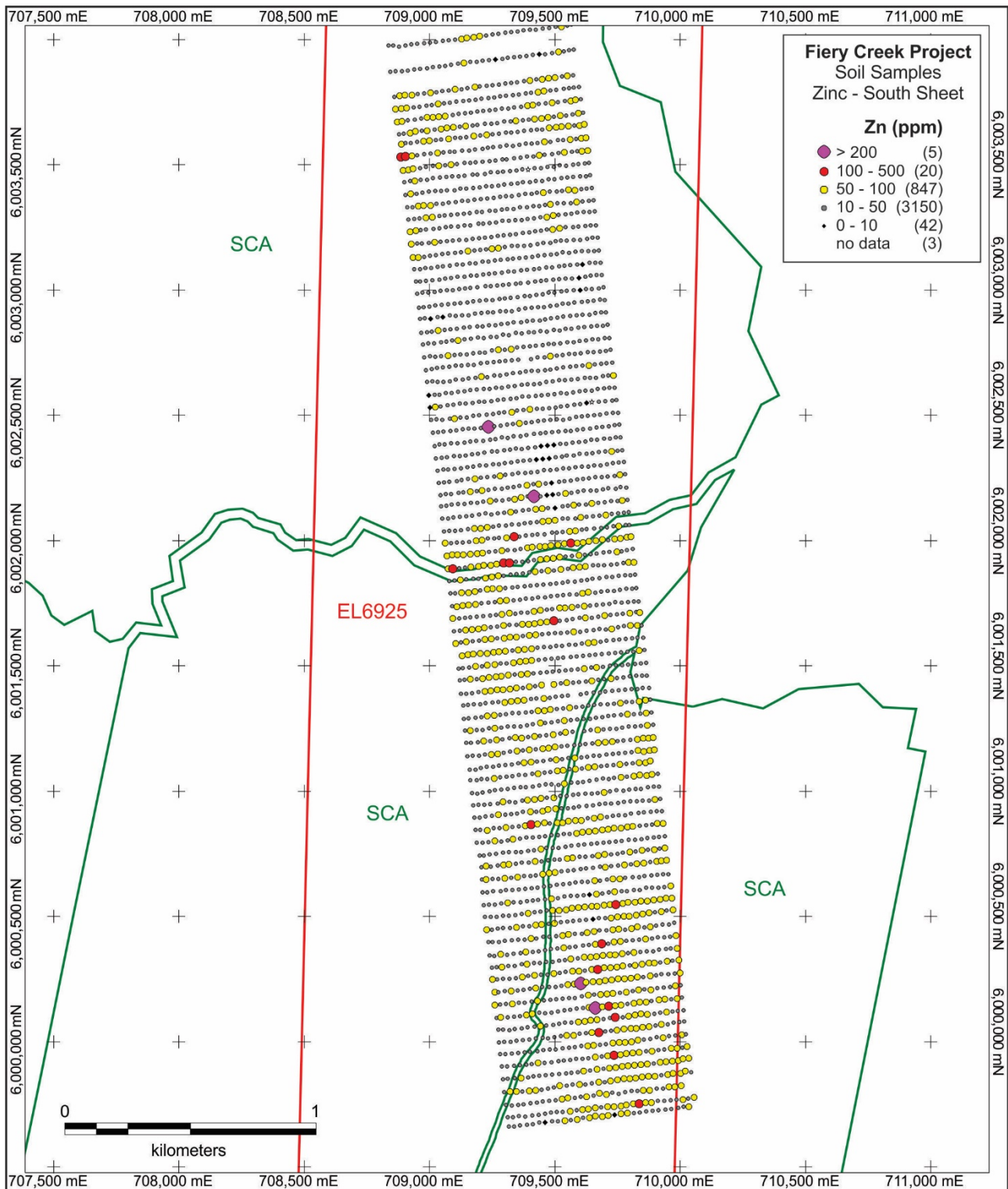


Figure I: Zinc soil sample results on the south sheet.