



## ASX ANNOUNCEMENT – DISCOVEX RESOURCES LIMITED

08/08/2023

# Maiden gold exploration commences at Prairie Downs

## *Additional targets generated at the Sylvania Project*

- **1,383 soil samples completed proximal to the Prairie Downs Fault.**
- **Geochemical sampling represents the first systematic gold exploration completed over the structure and surrounding areas.**
- **Multiple gold and base metal mineralised trends defined.**
- **Anomalous results coincident with interpreted NW trending structures up to 78ppb Au and 1,315ppm Pb.**
- **Priority one targets to be followed up with infill sampling and IP geophysics.**

## Putting the Explore back into Modern Exploration

DiscoverEx Resources Limited (ASX: DCX or the Company) is pleased to provide an update to ongoing field activities at the Sylvania Project, located approximately 13km south-west of Newman, Western Australia. A systematic broad-spaced (400 x 200m) soil sampling program has been completed, representing the first gold exploration ever completed proximal to the Prairie Downs Fault Zone (“PDFZ”). The PDFZ is a locally significant mineralised structure which is host to multiple base-metal targets including the Prairie Downs Indicated and Inferred zinc-lead-silver Resource of 2.98Mt @ 4.94% Zn, 1.59% Pb & 15.0g/t Ag (**Table 1**), however has been largely overlooked with respect to gold exploration.

Multiple anomalous gold zones have now been identified with many targets located on structures sub-parallel to the PDFZ, potentially indicating a structural splay network is interconnected at depth. Together with the gold targets, anomalous lead results were also returned. All gold and base metal anomalies will be subject to an infill soil sampling program and induced polarisation (“IP”) geophysical survey, scheduled to begin in late August.

DCX Managing Director, Toby Wellman, commented:

*“The prospect pipeline at Sylvania continues to grow, with the identification of additional gold and base metal targets proximal to the Prairie Downs Fault Zone. Infill sampling will commence later in the month together with a comprehensive geophysical survey, to complement the already existing quality targets defined within the project.”*

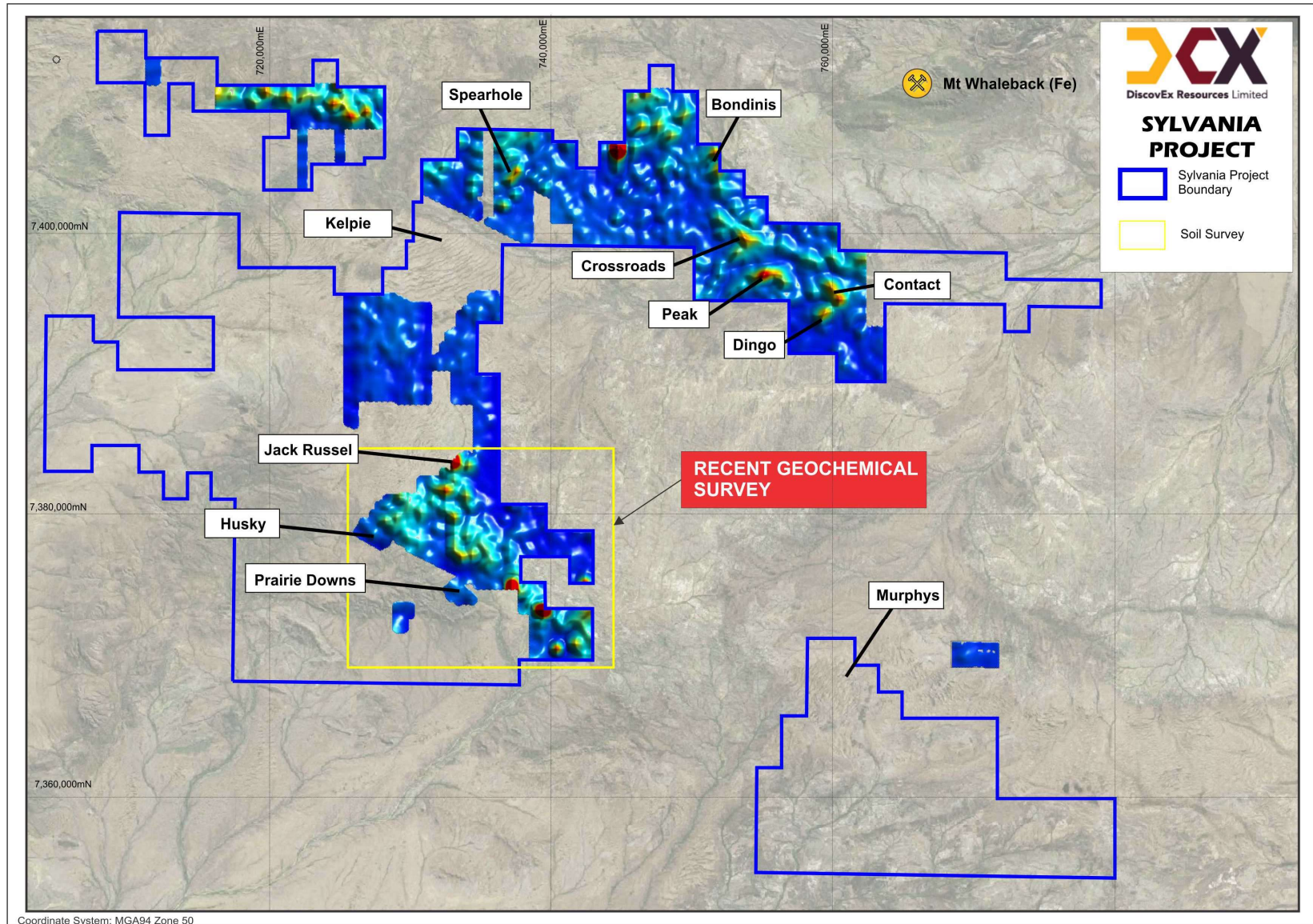


Figure 1: Contoured gold in soil results from the Sylvania Project

## Soil Sampling

A total of 1,383 soil samples were taken from the southern tenements within the Sylvania Project, concentrating on the PDFZ and surrounding Fortescue Group basalts, dolerites and shales. Sampling avoided large areas of transported material, only focussing on subcrop/outcrop or areas where thin transported cover was interpreted. This is particularly relevant to the north-west extents of the grid, where sampling terminated on the edge of an extensive sand plain.

Samples were taken on a broad 400 x 200m grid over the bulk of the exposed Fortescue Group rocks, with a tighter 100 x 50m grid completed over the Husky and Prairie Downs Prospects. This closer spaced sampling was designed to “fingerprint” the surface expression of known mineralised areas; particularly where historic Zn-Pb-Cu-Au drill intersections have been returned. Of particular interest are the areas proximal to where elevated gold and copper grades have been returned from historic drilling (Husky), and where quartz veins exhibiting “epithermal” type textures have been recorded. The identification of these textures potentially implies the PDFZ may be part of the feeder system for epithermal mineralisation, with Husky potentially representing a higher tenor gold rich zone.

All soil results have now been returned, with significant large-scale anomalous gold trends defined (**Figure 2**) up to 3.5km in length. Many of these anomalous trends are spatially coincident with mapped NW trending structures. The highest tenor gold result of 79ppb Au was returned within one of these higher strain zones, where shearing is associated with strong carbonate alteration and stringer quartz veining.

In addition to the generated gold anomalies, significant lead results have also been returned, with elevated results up to 1,315ppm Pb. The bulk of the anomalous results are located at the Prairie Downs and Husky Prospects as well as proximal to the contact of the Sylvania inlier with overlying Fortescue Group rocks (**Figure 3**).

## Gold Targeting

The Prairie Downs Fault Zone has been subject to multiple generations of historic base metal exploration however, gold potential has been largely overlooked. This geochemical surface sampling program represents the first systematic gold specific program completed over the area and has resulted in the identification of several gold anomalies with results including 79ppb Au, 74ppb Au and 46pp Au (**Figure 2**). Elevated gold assays are interpreted as trending NW, sub-parallel to the PDFZ and are coincident with mapped zones of significant shearing and alteration. These identified structures, some up to 150m in width are likely interconnected to the PDFZ through regional thrusting or linking fault structures that potentially play a key role in the development of, not only gold, but also base metal deposits in the region.

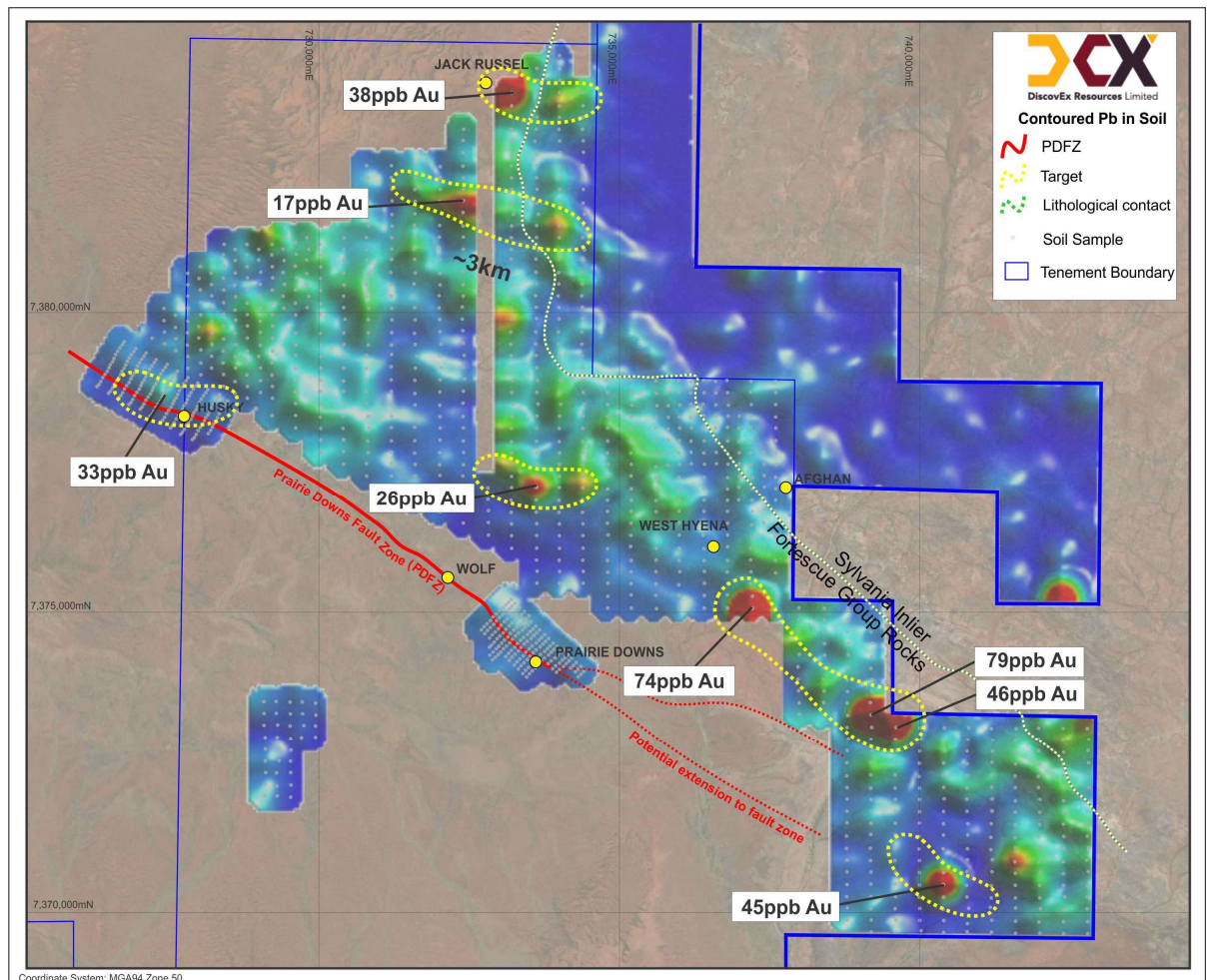


Figure 2: Contoured gold in soil results from the Prairie Downs area.

A proposed follow-up infill sampling program is planned to begin in late August, with the existing broad spaced pattern to be infilled to 100 x 100m within identified target areas. The additional sampling will provide further detail to the nature, orientation and alteration of each individual target. Prospect scale mapping will also be completed together with the sampling, to complement existing regional datasets.

### **Base Metal Targeting**

Given the prospectivity of the area for base metal mineralisation (Prairie Downs Resource, etc), all samples were also analysed via aqua regia for a 44-element suite inclusive of copper, lead and zinc. The most compelling results were returned from the lead assays, particularly as they relate to the Husky Prospect and the Sylvania inlier margin (**Figure 3**).

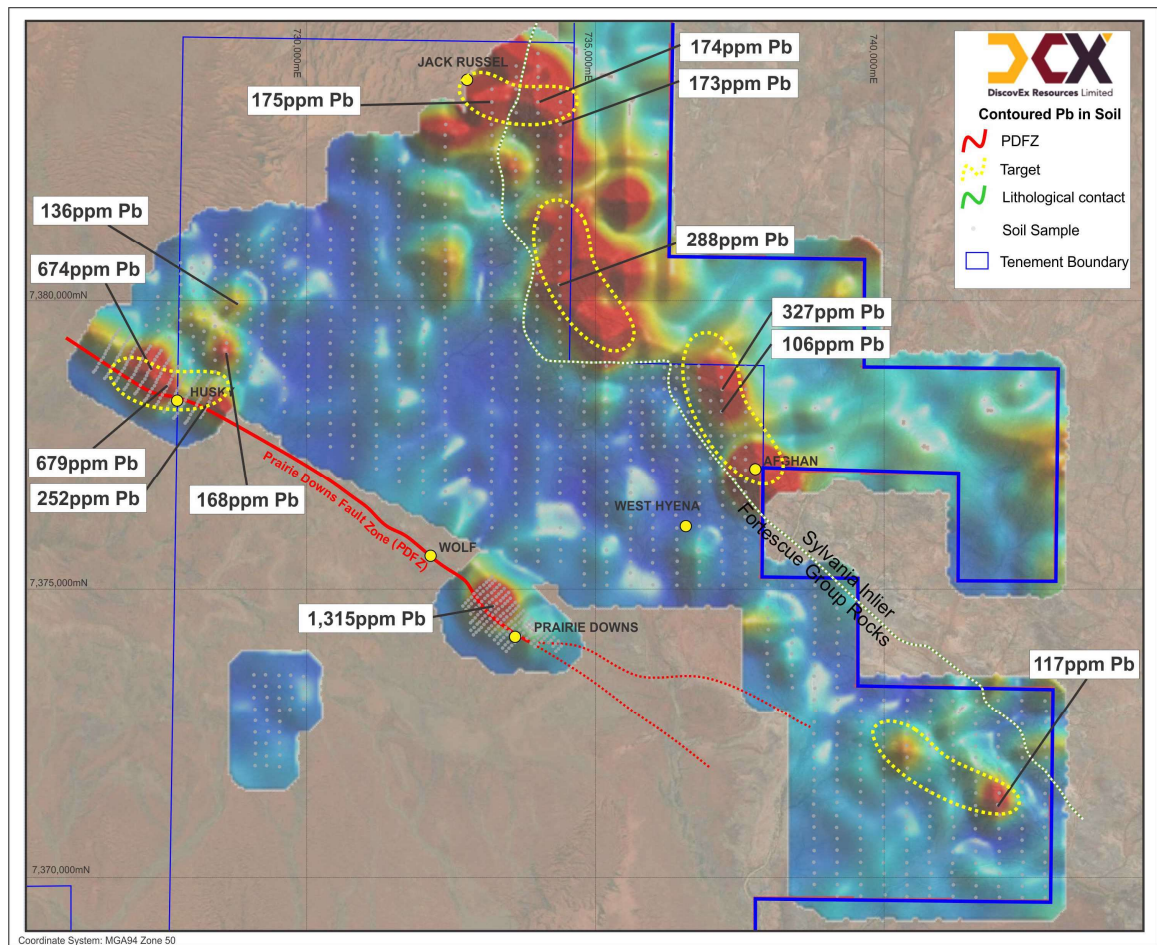


Figure 3: Contoured lead in soil results from the Prairie Downs area.

Best results from the Husky Prospect includes 679ppm Pb, 674ppm Pb and 252ppm Pb, all associated within siltstones and shales of the Jerrinah Formation (Fortescue Group). It is not uncommon for this particular geological unit to have elevated base metal concentrations; however, the encouraging aspect of these results is that the highest lead assays were returned at the intersection of the siltstones and shales with the PDFZ, again indicating this structure is a major mineralised fluid pathway. Follow up work at Husky will involve an IP survey, targeting the down plunge intersection of the west dipping Jerrinah shale with the sub-vertical PDFZ as well as prospect scale mapping.

In addition to the Husky Prospect, the edge of the Sylvania Inlier has highlighted a semi-continuous zone of lead anomalism along its western contact with the unconformably overlying Fortescue Group. The significance of this is currently unknown, however infill sampling (100 x 100m) will confirm its continuity with existing best results of 327ppm Pb, 288ppm Pb and 174ppm Pb. Regional mapping at the edge of the Archaen inlier has identified the bulk of the underlying geology consists of granite, with SW trending shear zones throughout. Common NNW trending quartz veining is also present however at this stage, these appear to be unrelated to any mineralisation.

**Table 1: Prairie Downs June 2010 Resource Statement (reported at 1% Zn cut off grade)**

Zone	Resource classification	Tonnes	Zinc (%)	Lead (%)	Silver (ppm)
Central	Indicated	310,000	5.55	1.69	15.8
East	Indicated	930,000	6.68	1.73	22.2
Main Splay	Indicated	670,000	3.75	1.01	6.3
West	Indicated	360,000	3.88	2.24	11.8
<b>Total Indicated</b>		<b>2,280,000</b>	<b>5.22</b>	<b>1.59</b>	<b>15.0</b>
Central	Inferred	220,000	3.62	1.88	18.4
East	Inferred	140,000	5.81	1.73	21.1
Intermediate Splay	Inferred	90,000	4.62	1.69	22.4
Main Splay	Inferred	190,000	3.13	1.24	5.9
West	Inferred	70,000	3.51	1.17	6.8
<b>Total Inferred</b>		<b>700,000</b>	<b>4.03</b>	<b>1.58</b>	<b>14.9</b>
<b>Total</b>		<b>2,980,000</b>	<b>4.94</b>	<b>1.59</b>	<b>15.0</b>

**Competent Person's Statement**

The information in this announcement that relates to Exploration Results is based on and fairly represents information and supporting documentation compiled by Mr Toby Wellman, a competent person who is a Member of The Australasian Institute of Mining and Metallurgy (MAusIMM). Mr Wellman has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is 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 (the "JORC Code"). Mr Wellman is the Executive Technical Director and Exploration Manager of DiscovEx Resources Limited and consents to the inclusion in this announcement of the Exploration Results in the form and context in which they appear.

The forward looking statements in this announcement are based on the Company's current expectations about future events. They are, however, subject to known and unknown risks, uncertainties and assumptions, many of which are outside the control of the Company and its Directors, which could cause actual results, performance or achievements to differ materially from future results, performance or achievements expressed or implied by the forward looking statements in this announcement. Forward looking statements generally (but not always) include those containing words such as 'anticipate', 'estimates', 'should', 'will', 'expects', 'plans' or similar expressions.

Authorised for release by and investor enquiries to:

**Mr Toby Wellman**  
**Managing Director**  
 T: 08 9380 9440

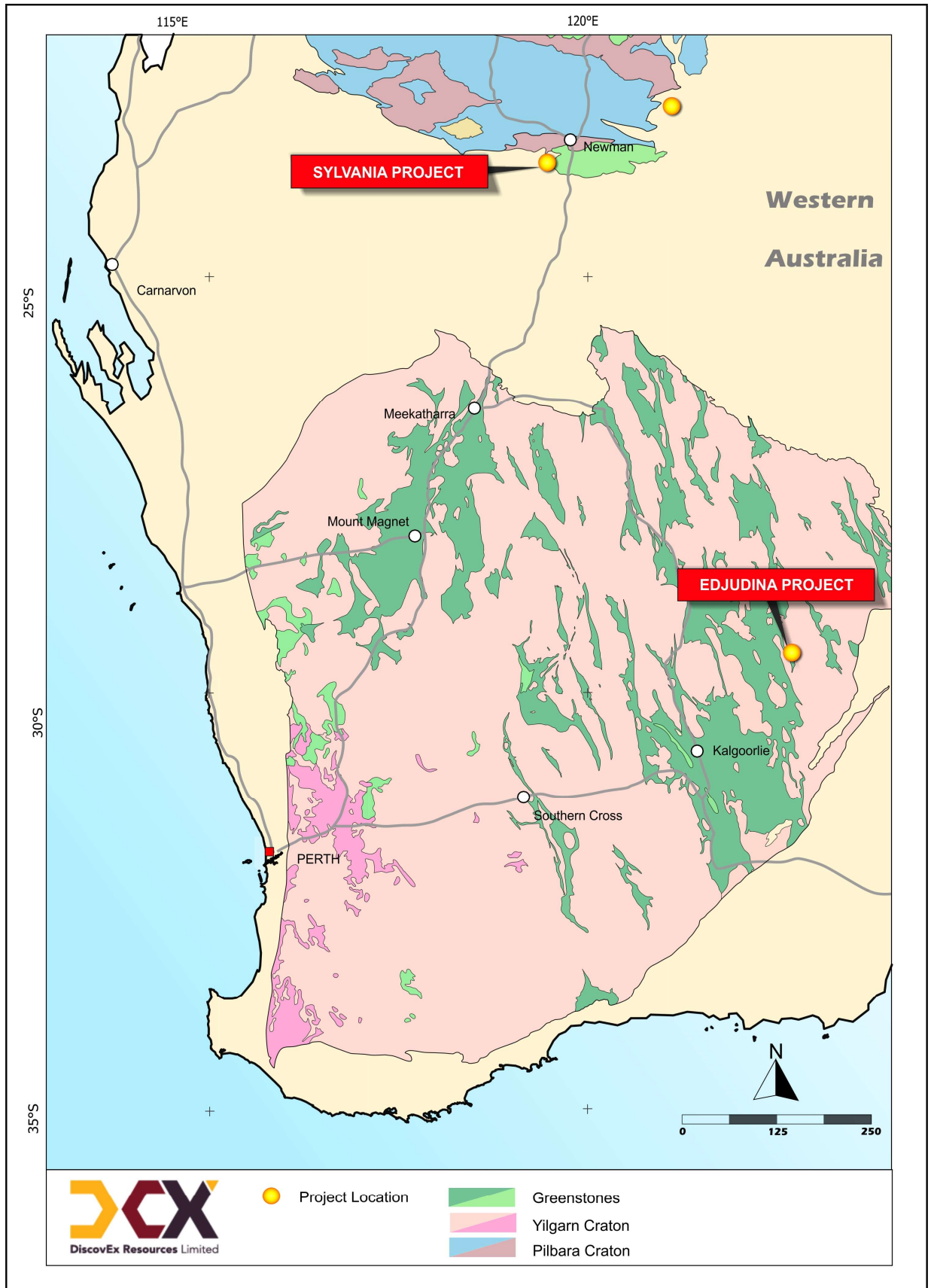


Figure 4: DiscovEx Project locations in Western Australia (modified from Czarnota et al., 2010)

**JORC CODE 2012 EDITION TABLE 1**

**Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>• <i>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.</i></li> </ul>	Soil sampling – samples were collected from a depth between 5-30cm below surface and sieved in the field to -0.5mm, achieving a sample weight between 100g - 200g.
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>• <i>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).</i></li> </ul>	Not applicable as no drilling undertaken
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>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.</i></li> </ul>	Multi-element analysis for soil sampling including gold was completed using 50g aqua regia with an MS finish completed by ALS.
<b>Logging</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	Not applicable as no drilling undertaken
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> </ul>	<p>Not applicable as no drilling undertaken.</p> <p>Soil samples were sieved to -0.5mm in the field and sent to the laboratory for further sieving down to -80mesh. No further sample</p>





Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<p>preparation was completed.</p> <p>No standards or blanks were completed by DiscovEx with all QAQC samples submitted by ALS including Standards inserted every 25th sample and blanks inserted every 50th sample.</p> <p>No field duplicates were taken however lab checks were completed every ~25-30 samples.</p> <p>The sample sizes are appropriate for the first pass nature of the exploration.</p>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>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.</li> </ul>	<p>Soil samples were submitted to Intertek ALS (Perth). Multi-element analysis including gold was completed using 50g aqua regia with an MS finish.</p> <p>Aqua regia is considered a partial digest.</p> <p>No geophysical tools were used to determine any element concentrations used in the reported results.</p> <p>No standards, blanks or duplicates were completed by DiscovEx with all QAQC samples submitted by ALS including Standards inserted every 25th sample and blanks inserted every 50th sample.</p>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<p>Field checking of anomalies has been completed by senior staff.</p> <p>Sampling personnel movements are logged via GPS and spot trackers, confirming locations of sampling points.</p> <p>No twinning of samples was completed</p> <p>Data is recorded digitally at the project within standard industry software with assay results received digitally also.</p> <p>All data is stored within a suitable database. No assay adjustments have been made.</p>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<p>Sample locations recorded with a handheld Garmin GPS (+/- 3m). Sampling personnel movements are logged via GPS and spot trackers, confirming locations of sampling points.</p> <p>MGA94 zone 50.</p> <p>No information is available on the quality or adequacy of topographic control.</p> <p>Samples were collected on a 400 x 200m, 200 x 200m and 100 x 50m grids.</p>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological</li> </ul>	<p>Sample spacing is insufficient to establish geological or grade continuity.</p>

Criteria	JORC Code explanation	Commentary
	<p><i>and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <ul style="list-style-type: none"> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	No compositing was completed.
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <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></li> </ul>	Samples were collected on a 400 x 200m, 200 x 200m and 100 x 50m grids, such that a uniform dataset has been achieved. The 200m spaced samples are oriented North-South such that there may be a bias towards this direction. The 50m spaced samples are oriented 30 and 45 degrees perpendicular to the strike of the Prairie Downs Fault zone.
<b>Sample security</b>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	Sample paper packets were stored in boxes of 30 and delivered by sample crews directly to the lab or via Centurion transport from the Newman Depot.
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	No audits or reviews of the sampling technique were completed.

Criteria	JORC Code explanation	
<b>Section 2 – Reporting of Exploration Results</b>		
<b>Mineral tenement and land tenure status</b>	<p><i>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.</i></p>	<p>Samples were collected within tenements E52/3996 and E52/3997 and are part of the greater Sylvania Project. The two tenements are held by Lighthouse Resource Holdings Pty Ltd 90% (a 100% owned subsidiary of Discovex Resources Limited) and Crest Investment Group 3 Ltd – 10%.</p> <p>The tenements are all located in Western Australia.</p> <p>The tenements do not host any wilderness or national parks. The tenements are located within several areas of native title interest including the Ngarlawagga and Nharnuwangga peoples land.</p>
	<p><i>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.</i></p>	The tenements are in good standing
<b>Exploration done by other parties</b>	<p><i>Acknowledgment and appraisal of exploration by other parties.</i></p>	<p>Numerous exploration companies have conducted exploration at Prairie Downs and surrounding areas over a number of years. This includes:</p> <p>Australian Ores and Minerals NL/Hill Minerals NL (Zn/Pb, 1969-1974)</p> <p>Shell Minerals Exploration (Australia) Pty Ltd (Zn/Pb, 1974-1975)</p> <p>CRA Exploration Pty Ltd (U, 1974)</p> <p>Pancontinental Mining Ltd/PMC Exploration Australia Pty Ltd (U, 1979-1987)</p> <p>Urancerz Australia Pty Ltd (U, 1981)</p> <p>Concord Mining NL (1987 – 1991)</p> <p>Sovereign Resources (Australia) NL (Cu/Pb/Zn, 1991-1997)</p> <p>Hampton Hill Mining NL (Au/Cu, 1996 – 1999)</p>

		<p>Fodina Minerals Pty Ltd/Outokompu Exploration Ventures Pty Ltd (Cu/Pb/Zn, 1994-1996)          Capricorn Resources NL (Zn/Pb, 1998)          Prairie Down Metals Pty Ltd (Zn/Pb/Fe, 2005 – 2010)          Ivernia Inc. (Zn/Pb – 2010-2012)          Dynasty Resources (Fe, 2010-2017)          Marindi Metals (Zn/Pb, 2013-2016)</p>
<b>Geology</b>	<p><i>Deposit type, geological setting and style of mineralisation.</i></p>	<p>The Prairie Downs deposit is located within a sequence of sediments (Prairie Downs Formation) and Archaen greenstones (Fortescue Group) which onlap the granitic Sylvania Dome. The hanging-wall rocks are mafic volcanics and the footwall lithologies range from mafic lavas, mafic pyroclastics and cherty metasediments. The mineralisation appears to have a strong association with the brecciated zones and could broadly be described as stratabound. There are clear associations of mineralisation to the hanging-wall and footwall contacts of the breccias however there are quite well-defined zones of cross-cutting mineralisation that are probably related to zones of enhanced fluid flow caused by fracture zones. The Husky South prospect is located on the Prairie Downs Fault. The fault loosely marks the contact between the Fortescue group and the Bresnahan group and hosts high grade zinc and lead mineralisation.</p>
<b>Drill hole Information</b>	<p><i>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:</i></p>	No drilling or exploration results have been reported within this announcement
	<p><i>Easting and northing of the drill hole collar</i></p>	No drilling has been reported within this announcement
	<p><i>Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></p>	No drilling has been reported within this announcement
	<p><i>Dip and azimuth of the hole</i></p>	No drilling has been reported within this announcement
	<p><i>Down hole length and interception depth</i></p>	No drilling has been reported within this announcement
	<p><i>Hole length.</i></p>	No drilling has been reported within this announcement
	<p><i>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.</i></p>	No drilling has been reported within this announcement
<b>Data aggregation methods</b>	<p><i>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.</i></p>	No weighting/cut offs were used when reporting results within this release



	<p><i>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.</i></p>	No aggregate intercepts have been reported within this release
	<p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	No metal equivalents have been used within this announcement
<b>Relationship between mineralisation widths and intercept lengths</b>	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p>	No relationship between widths and intercept lengths have been made as all results are point samples
	<p><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p>	No drilling results have been reported within this release
	<p><i>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').</i></p>	No drilling has been reported within this announcement
<b>Diagrams</b>	<p><i>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 locations and appropriate sectional views.</i></p>	Refer to Figures 1, 3 and 4 within this Announcement.
<b>Balanced reporting</b>	<p><i>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.</i></p>	All results (both high and/or low) have been used when included within this announcement.
<b>Other substantive exploration data</b>	<p><i>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.</i></p>	No other exploration other than that mentioned above has been used.
<b>Further work</b>	<p><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></p>	Further targeting of anomalism through extensive soil sampling will take place over the coming quarters, followed by AC drilling if appropriate.
	<p><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></p>	Refer to Figures 1, 3 and 4 within this Announcement.