

Southern Uranium Limited

Presentation:

Sharpening the drill bits for 2010

RIU Explorers Conference, Fremantle WA
February 2010

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Southern Uranium

Presenter's CV - John Anderson

John is the foundation Managing Director of Southern Uranium which listed on the ASX in April 2007.

A geologist by training and minerals explorer by profession, John has worked with Aberfoyle and MIM, the latter as General Manager for Australian and African exploration.

His vision for Southern Uranium is the discovery of large and competitive iron oxide uranium copper and gold deposits particularly in the resurgent Gawler Craton.

Disclaimer

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Southern Uranium

Southern Uranium at a Glance...

Capital Structure

Total shares on issue 115,000,000

CITIC Australia Pty Ltd 16,428,571 (14.3%)

Talbot Group Holdings Pty Ltd 16,706,881 (14.5%)

Unlisted options on issue 9,800,000

Cash at bank - \$2.96million (at 31 December 2009)

Status

Preparing for a major drill campaign on key projects:-

- Ridgeback IOCGU targets, northern Yorke Peninsula, SA
- Jungle Dam iron ore, Eyre Peninsula, SA
- Multiple IOCGU geochemical targets, Eyre Peninsula, SA
- Calvert Hills vanadium prospect, NT



Southern Uranium

Southern Uranium was spun out of Southern Gold in 2007 with the initial objective of exploring in South Australia for iron oxide copper gold uranium deposits (otherwise known as IOCGU or Olympic Dam-style deposits) and for palaeochannel uranium.

One of Southern Uranium's strengths is the backing of cornerstone investors CITIC Australia and Talbot Group Holdings which have a first right of refusal on any asset disposals.

Since listing, Southern Uranium has expanded its exploration portfolio to include pure uranium plays in the Northern Territory and Queensland.

The recent departure of Southern Gold has provided the company with the opportunity to diversify our commodity list from uranium copper and gold to include other commodities, starting with two opportunities for iron ore and vanadium identified in our current project areas.

The Company is now focusing on four projects and is preparing for a major drill campaign to test a range of quality targets over the next four months.

Our remaining prospectus cash is adequate to undertake the next phase of drilling however we recognise the need to raise further funds to fully realise the potential of our portfolio over the next two or three years.

At a share price of around 8.5c (at 19/02/10), Southern Uranium is capitalised at about \$10 million.

Southern Uranium's Business Plan

- Aiming High and Well

- Objective of making fresh greenfields discoveries of large competitive resources in copper gold silver uranium and iron ore
- Opportunity to apply expertise with new targeting ideas and exploration technologies to the covered & under-explored extensions to Australia's pedigree Proterozoic belts
- Strategy of acquiring large selective ground holdings where remodelling the geological framework & application of new technologies will achieve the breakthroughs needed for the next generation of resource discoveries



Southern Uranium

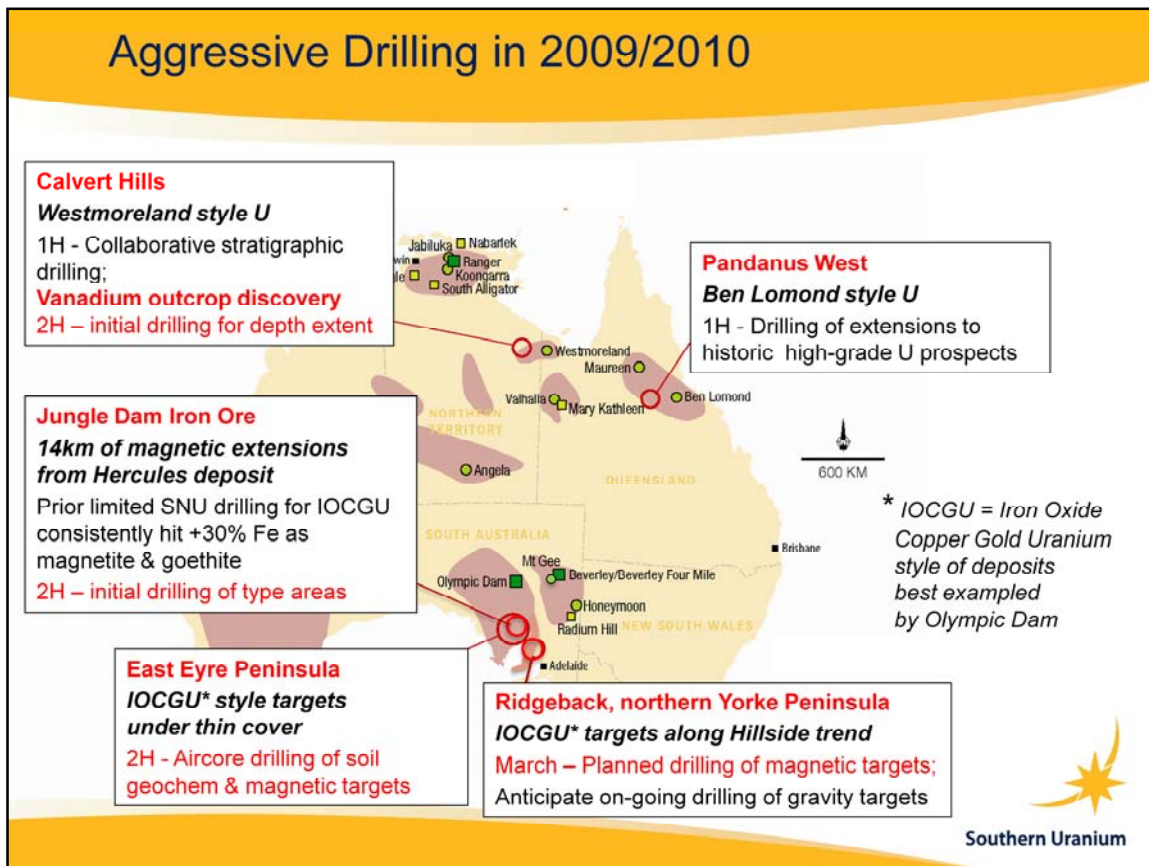
Southern Uranium has the passion to find large high quality resources and sees abundant opportunity to do that in Australia.

Australia is not exploration mature. It was exploration stymied by downturns and the curse of cover over target geology. The industry is emerging from those restrictions as we get smarter on where to look and how to look under cover on extensions to pedigree belts that will produce discoveries again.

Our team at Southern Uranium has the history, expertise and drive to make these discoveries. We have been involved in a number of base and precious metal and heavy mineral sand discoveries, including some developed into mines.

Southern continues to develop new ideas and to apply new technologies to make the step changes needed for the next generation of discoveries Australia requires to build on its mining heritage.

This approach is often espoused in our industry, but Southern Uranium is doing it. In essence we are using our larger company backgrounds to do aggressive exploration as larger companies used to but we are filling the exploration gap with our smaller company drive.



Southern Uranium is entering an exciting phase as we prepare to drill test our priority projects.

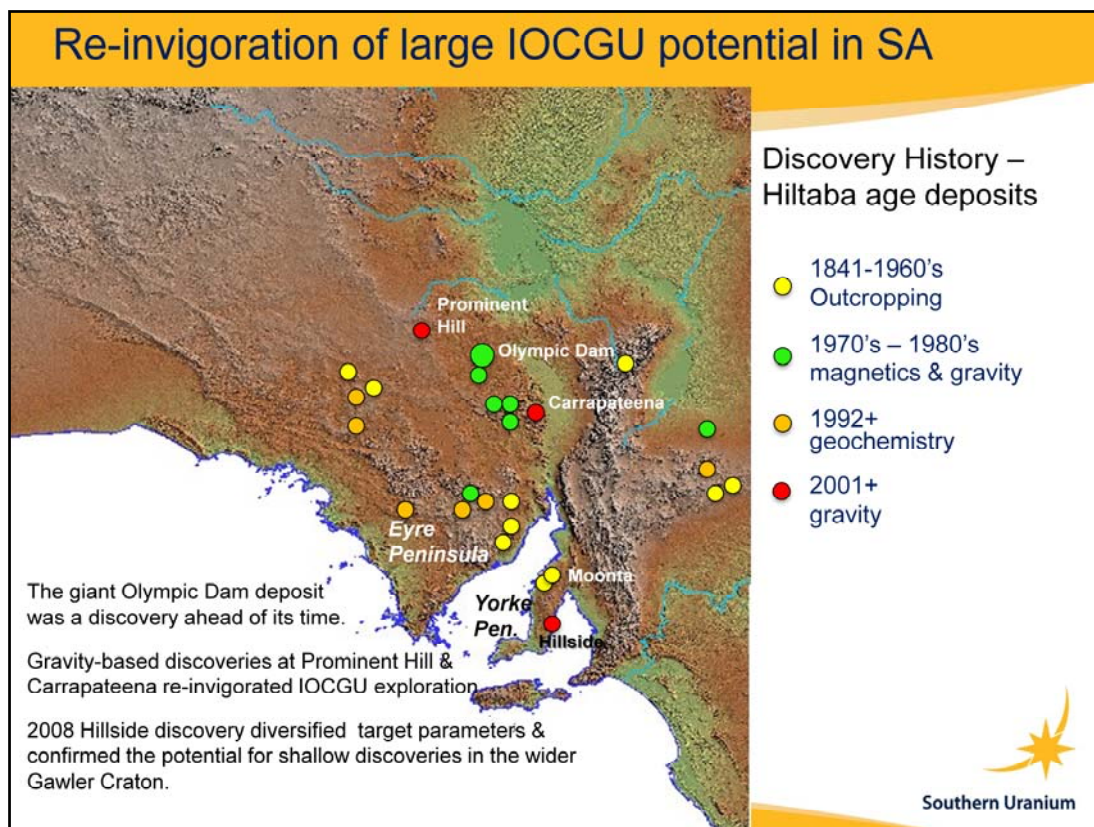
We have already this financial year undertaken diamond drilling at Calvert Hills in collaboration with the NT Geological Survey to establish the extension of the uranium prospective rocks from Westmoreland into the NT. That work redirected us to the Vanadis vanadium prospect that may also lead us to uranium and gold possibilities.

At Pandanus West in north Queensland, we undertook 1,148m of percussion drilling around historic uranium prospects just before Christmas. The drilling is still being assessed with the best intersection of 6m @ 402ppm U_3O_8 .

We spend over 70% of our annual budget of about \$3Mpa on the Gawler Craton of South Australia. On eastern Eyre Peninsula, we are completing infill soil sampling on nine large geochemical target areas with the intention to restart aircore drilling of refined targets around May.

This work has been leapfrogged in priority by the exciting Ridgeback project on northern Yorke Peninsula, another part of the southern Gawler Craton. Here we secured the northern extensions of the key structure associated with the recent Hillside discovery by Rex Minerals. Our high priority magnetic targets are similar to the Hillside signature and are being prepared for drilling in March.

Recently Southern Uranium took the opportunity to reassess the iron ore potential of the Jungle Dam prospect within the East Eyre project. The potential is high within a long magnetic trend that has only been tested by a few drill holes, the majority of which intersected plus 30% iron grades.



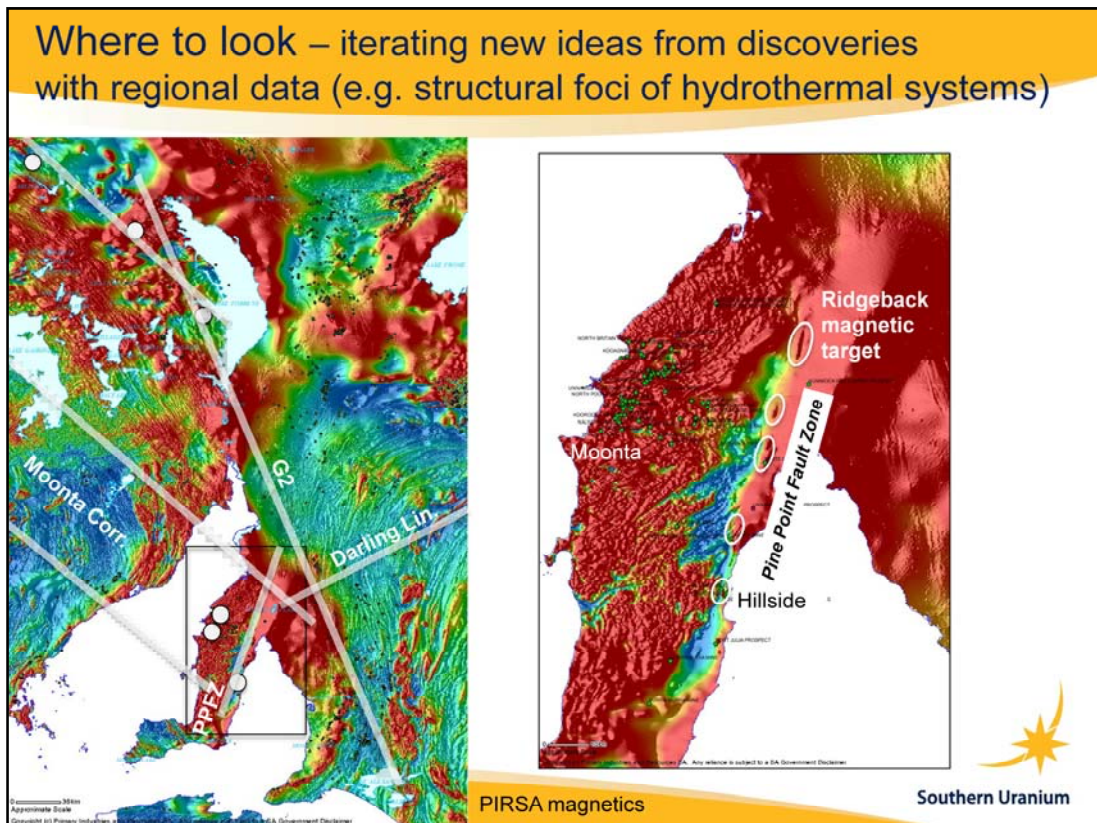
South Australia is an excellent destination for greenfields exploration that readily fits Southern Uranium's strategy. We are aggressively applying our expertise in the region.

The positive factors for SA start with its growing copper gold and uranium and now iron ore pedigree demonstrated by the recent discovery history. It is still a geological frontier offering significant opportunities in its prospective terrains that are pervasively covered. The state is junior and uranium friendly. The government initiative data, for which the state is famous, has ongoing value. After two decades of collecting pre-competitive data, value is now being added by government agencies revising the geological frameworks and therefore opening up new potential for metal resources. This was brought home by the discovery of Kalgoorlie-age rocks on Eyre Peninsula

The industry's expectation that more IOCGU discoveries are to be made in SA was realised with the Hillside discovery in 2008. But this time on Yorke Peninsula, next to the coast and under less than 150m of cover; and associated with host rocks that were magnetic, not just dense. So with exploration being an iterative process, Hillside provides the opportunity to re-evaluate where and how to look for additional IOCGU-style deposits with the increasing prospect that there will be more discoveries in wider locations.

The Hillside discovery also supported Southern Uranium's strategy of seeking shallow IOCGU deposits on the Eyre and Yorke Peninsulas as a better proposition than deep drilling through hard cover on the Stuart Shelf around Olympic Dam.

The distribution of Hiltaba deposits on this plan shows two distinct corridors reflecting a NW structural control that has influenced the Company's selection of exploration ground.

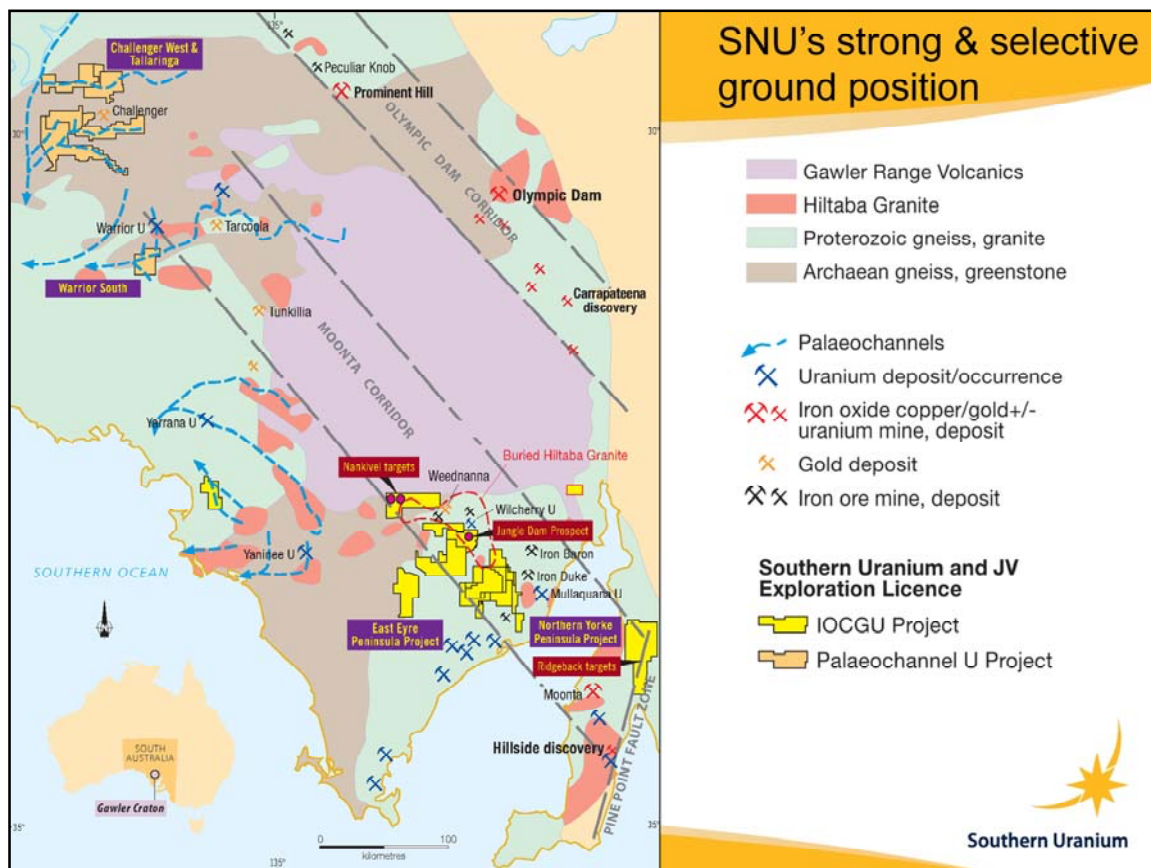


To elaborate on this, exploration in the eighties and nineties was focused on the NNW G2 corridor as it was initially thought to be the primary control on IOCGU deposits. However any strong structural set can play a role. The Prominent Hill and Carrapateena discoveries highlighted the NW orientation. Hillside is in the NNE Pine Point Fault Zone (PPFZ) and even NE structures such as the Darling Lineament are identified at deposit scale to control mineralisation.

Looking more closely at the PPFZ, there are a series of regularly spaced NNE magnetic anomalies and copper or uranium occurrences along the fault zone. Southern Uranium's model is the flow of mineralising fluids and therefore hydrothermal ore deposits were better concentrated in the intersection of NW and NE structures with the deep primary PPFZ. So metals were concentrated in these positions to produce higher grade deposits with discrete magnetic signatures.

This is in contrast with the rest of the Moonta region where abundant smaller structures may have dispersed the iron and target metals producing the widespread alteration and magnetic signature that attracted and disappointed past explorers on the western side of the peninsula.

The feeder structures into the PPFZ may be the NE magnetic projections from the west towards the magnetic targets within the PPFZ. This could be a major targeting aspect of the PPFZ that is already solidly pegged.



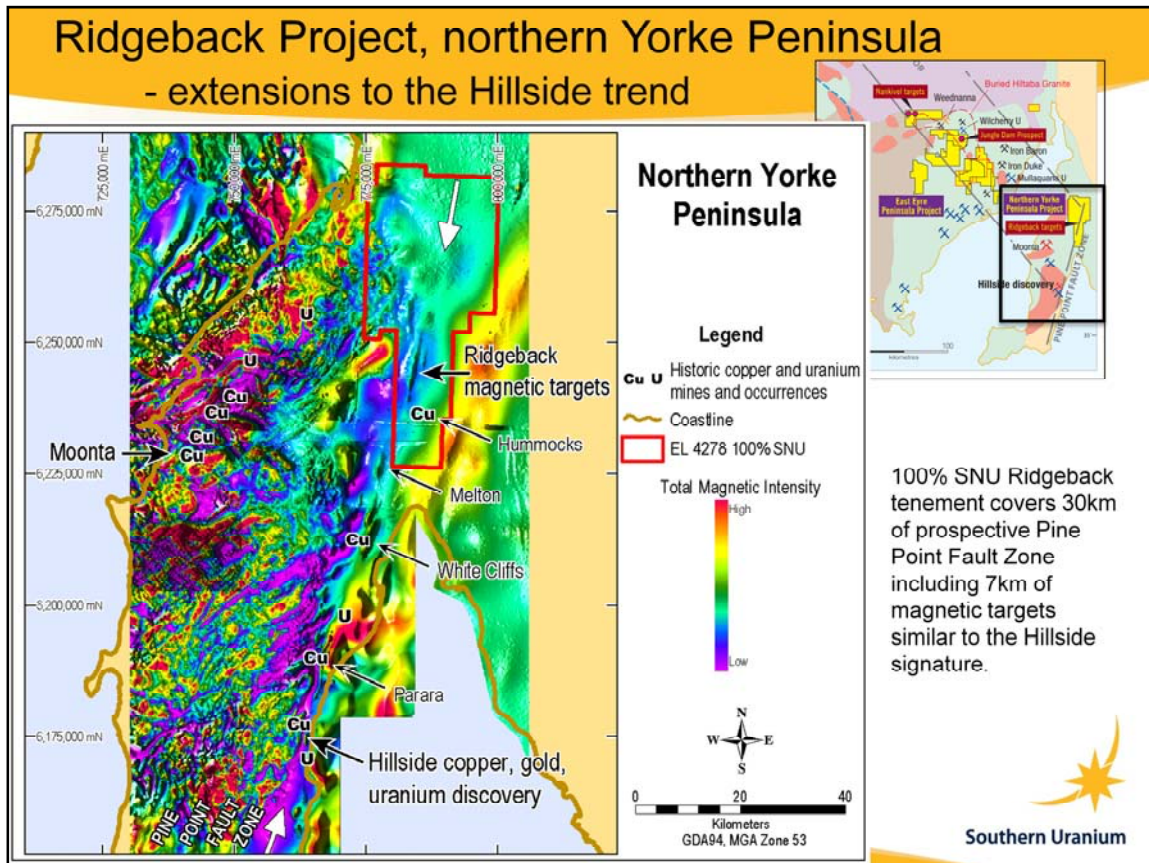
Southern Uranium established and modifies its selected exploration areas according to these evolving ideas. We are focusing our exploration for IOCGUs and related deposits in the southern Gawler Craton. Here the thin generally unconsolidated cover is a better proposition than drilling deep targets under thick hard cover on the Stuart Shelf near Olympic Dam where much of the potential is also hindered by access issues with the Woomera weapons testing area.

The Hillside discovery firmed up our concept that the Moonta corridor is the focus for Hiltaba Granites and related mineralisation.

The intersection of NNE primary structures, NW secondary structures and tertiary NE structures are good places for large Hiltaba aged and IOCGU-style deposits to have formed. We see that at all scales including at Olympic Dam, Menninnie and Telephone Dams, Tunkillia and Moonta. We also see a progression from deeper Cloncurry-style magnetite hosted deposits in the Moonta end of the corridor to epithermal breccia and vein style targets that formed at shallower depths beneath the volcanics at this central part of the corridor.

We now recognise a variety of dense, magnetic and vein mineralisation formed during the Hiltaba event presenting a range of potential commodities from copper-gold-uranium, uranium only, iron ore, gold or silver. Southern Uranium's primary tactic is to apply blanket coverage with modern partial leach geochemistry in the thinly covered Eyre Peninsula. This is aimed at adding a method to the geophysical targeting that is empirical and actually measures the metals we are looking for.

We were primed to respond to the Hillside discovery by pegging the remaining extensions of the Pine Point Fault Zone (or PPFZ) after the significance of the Rex discovery became evident early in 2009.



That took us on another targeting route because our magnetic targets are under a few hundred metres of consolidated cover that is not amenable to geochemical targeting.

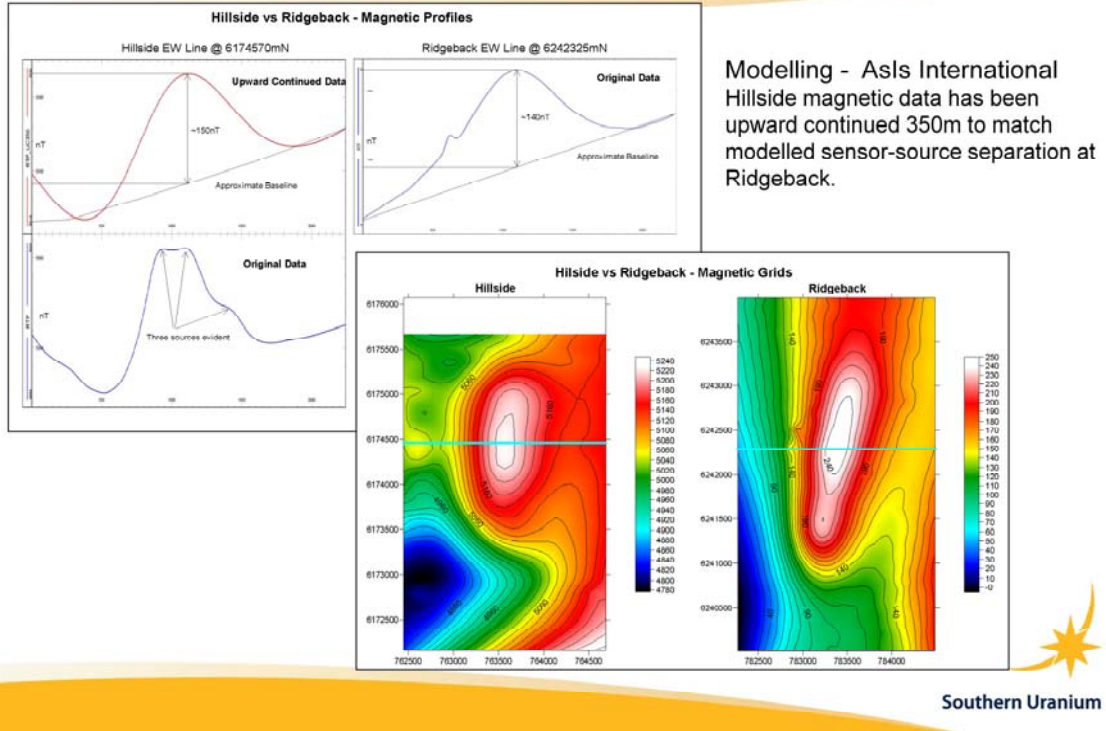
This is another version of the magnetics produced by Southern Uranium to highlight the targeted magnetic features. It confirms the long length of the Ridgeback anomalies and their coincidence with a strong magnetic projection from the southwest. Both aspects are positive for the magnetic targets to be part of a strong hydrothermal system.

The magnetic image also confirms the tenement is located at a highly prospective position where structural elements of the regional lineaments described earlier intersect at about the position of the magnetic anomalies.

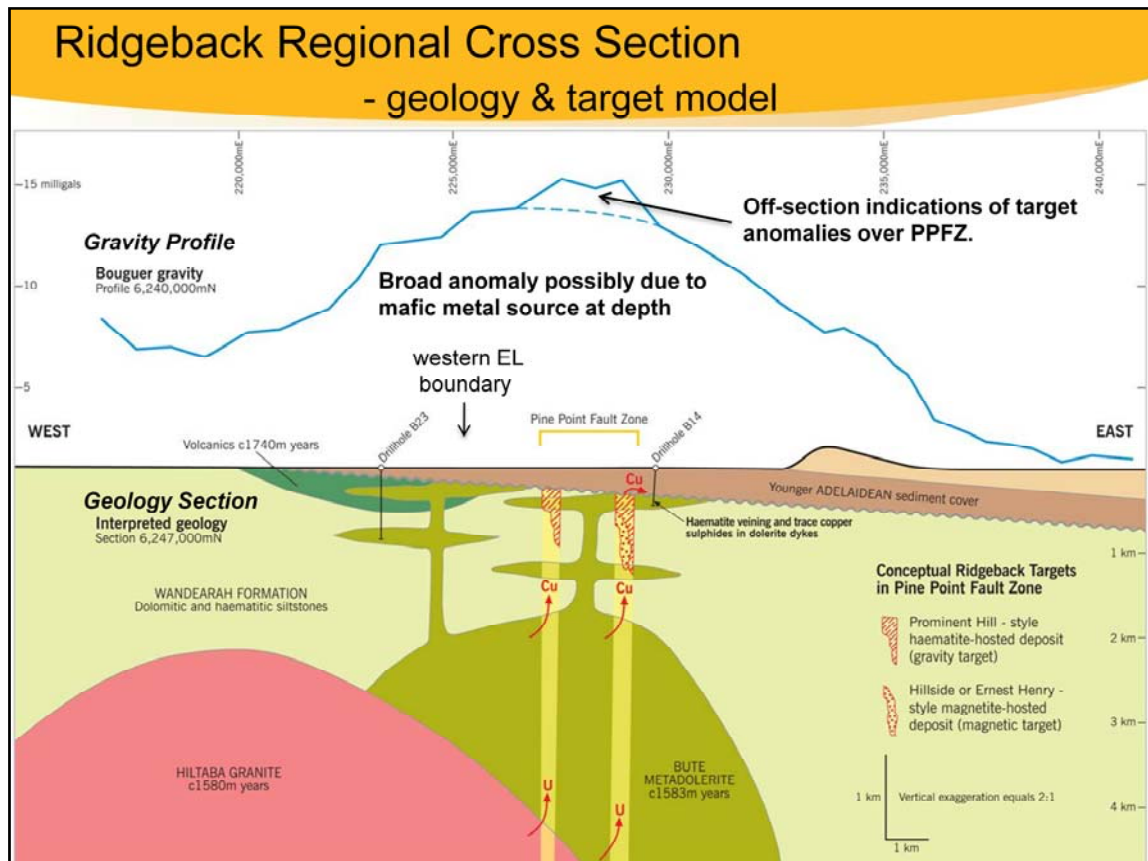
The Pine Point Fault Zone is one of SA's best exploration addresses and we hope it will emulate the big northerly structures throughout Australia that host major deposits often at regular intervals. The best example is the Isa fault system and other notable names are the Golden Mile and the Emu Fault hosting McArthur River.

An exception is the SW orientation of the 7km long line of lode at Broken Hill, parallel with the Darling Fault Zone. North Broken Hill Limited projected that fault from Broken Hill through the Ridgeback area and explored there for Isa style deposits in the seventies.

Comparison with Hillside magnetic signatures (Modelling - AsIs International)



Our consultant geophysicist has done a comparison of our magnetic targets with the Hillside signature. When the Hillside magnetic profile is adjusted to a similar depth of cover as at Ridgeback as shown here, the amplitude and areal size of the anomalies are very similar for both targets.



Here is the aforementioned geological cross section at the bottom of the slide and the gravity profile in blue at the top. Note the two representations are separated by about 7km and the geological section has a 2X vertical exaggeration.

The targets are shown in red stipple within the interpreted PPFZ.

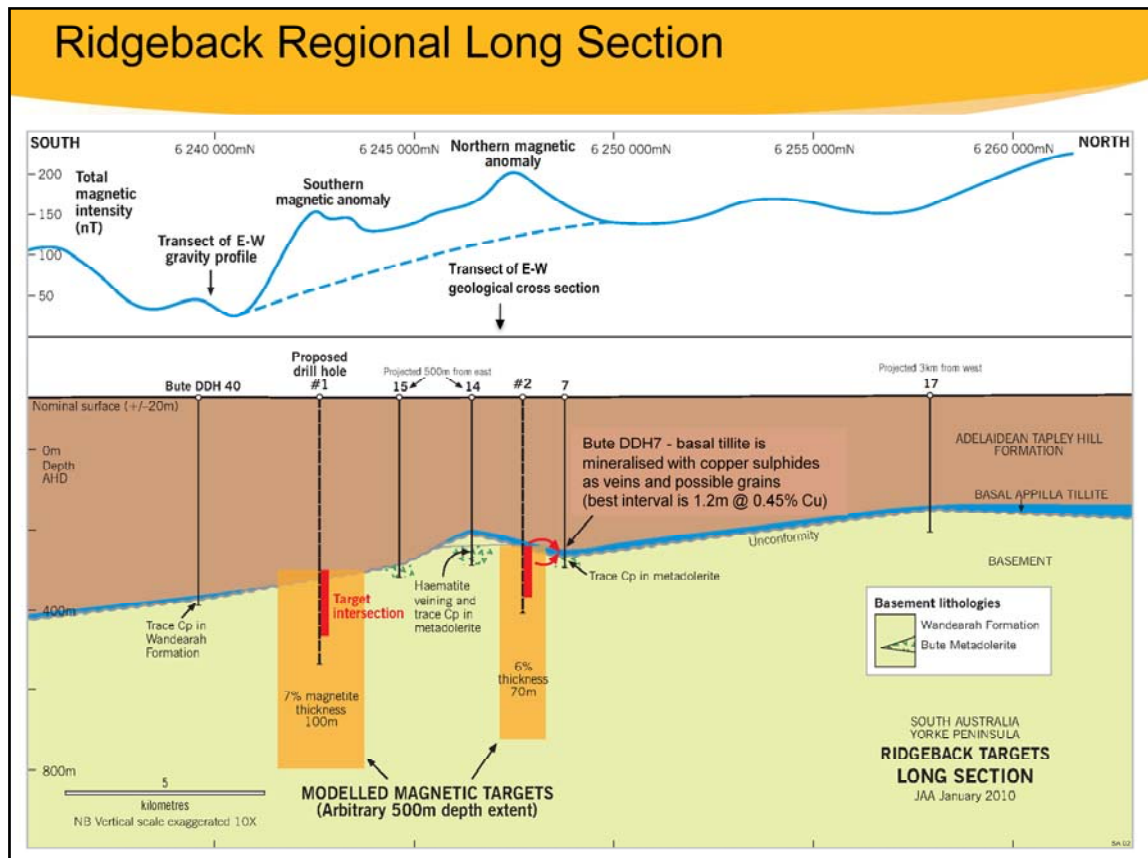
The seventies drilling, including holes not shown on the section, demonstrated the cover of Adelaidean sedimentary rocks shown in brown consistently dip to the east with thicknesses of 300m to 500m across the target PPFZ represented in yellow.

Hole B14 intersected altered metadolerite well away from and did not test the magnetic target. The alteration and mineralisation in the metadolerite indicate a halo to a large hydrothermal system.

The broad spaced data points of the gravity traverse indicate a broad anomaly attributed to a deeper mass of Bute Metadolerite as intersected at the top of the basement. The requisite Hiltaba Granite was already interpreted by SADME to be adjacent to the prospect and is a potential source of uranium for the hydrothermal system. New work by the successor to SADME, Primary Industries and Resources South Australia (PIRSA) showed the metadolerite is probably also of Hiltaba age and is a prime ingredient as a copper source as is present in the Olympic Dam area and also near Hillside in central Yorke Peninsula.

Government drilling showed the country rock is altered and mineralised as far east as the drilling goes to our EL boundary within 3km of the targets. This is in keeping with the magnetic projection extending from the Moonta area northeast towards the Ridgeback area.

We will now look at a long section perpendicular to this one.



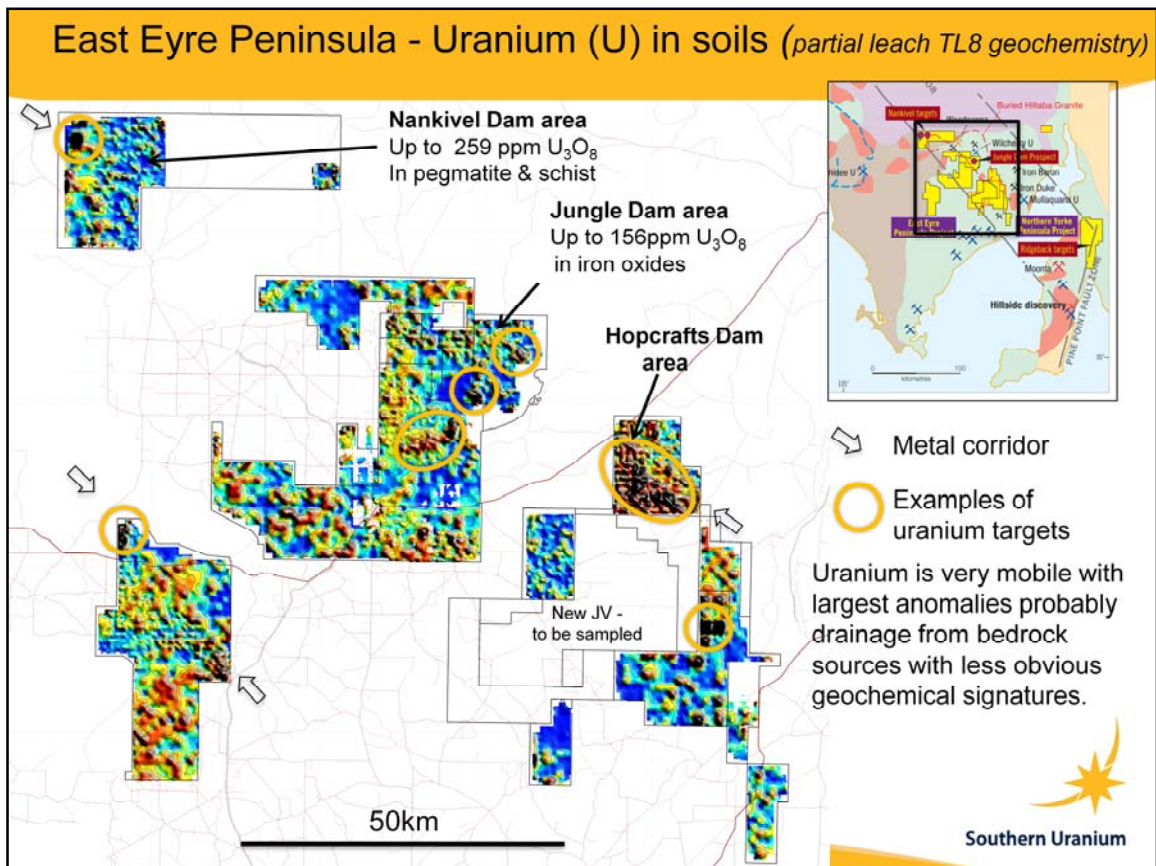
The prior geological cross section traverses through about hole 14 and the transect of the gravity profile is shown 7km further south.

The differences to the prior slide are the blue profile is magnetics and the vertical exaggeration is 10X the horizontal scale.

The two modelled magnetic targets are the northern target of about 1km length and the southern target about 2km long. The 375m and 425m depths to the tops of the modelled bodies are consistent with the unconformity depths in the adjacent drill holes. The depth extent for both targets is arbitrarily shown as 500m, remembering there is distortion by the scale exaggeration.

The section is exaggerated so the variations in the depth of the basement and the thicknesses of the basal Adelaidean unit can be shown. Significantly, hole 14 indicates the northern magnetic target is associated with a palaeo-topographic high. As such, the mineralised basal unit shown in blue in hole 7 is immediately downslope from the basement high and the target. This supports the unusual mineralisation of the basal unit in that hole as being derived from undrilled mineralisation in the magnetic target.

Southern Uranium proposes to drill a hole into both targets as soon as access agreements are finalised with landowners.



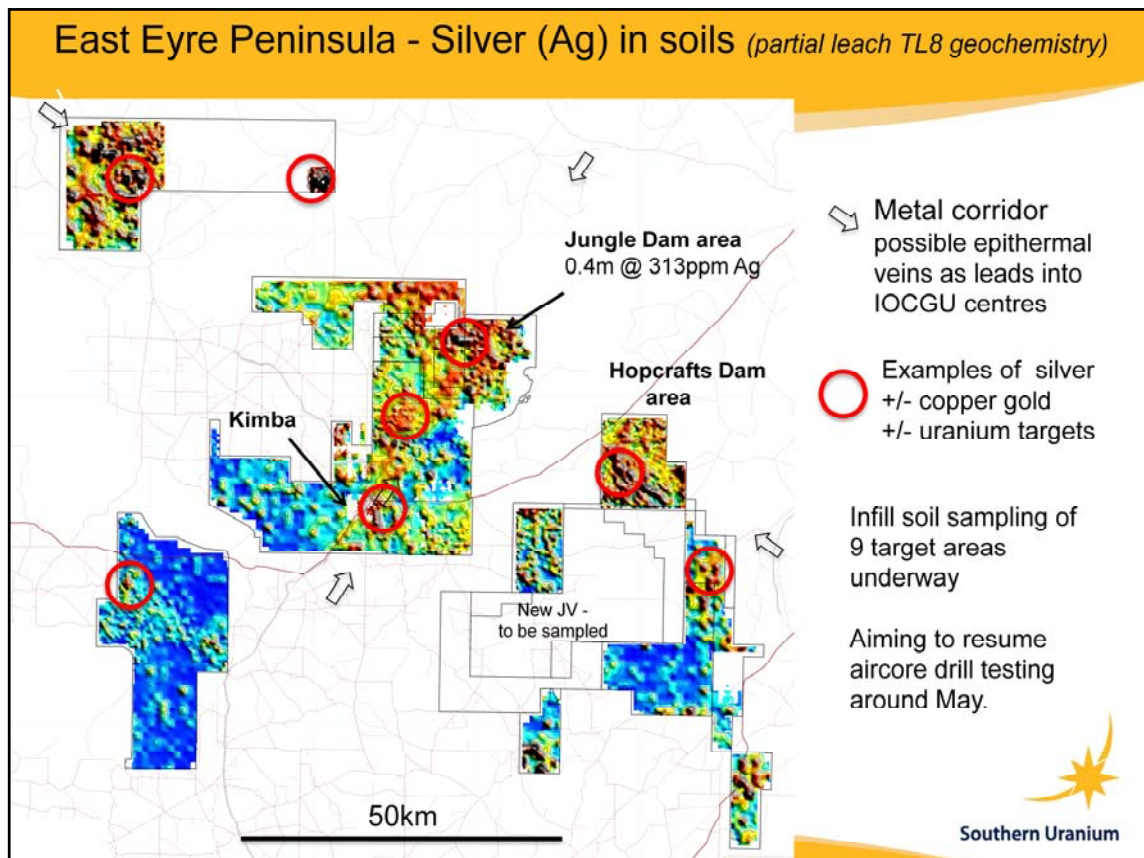
Southern Uranium is also opening up the eastern Eyre Peninsula with its large proprietary geochemical dataset represented here by the uranium-in-soil image.

With the knowledge that Telephone Dam and Weednanna were discovered by soil geochemistry, we undertook initial trials with partial leach soil analyses and drilling that intersected anomalous uranium, silver and iron at Jungle Dam. This confirmed the regional application of modern soil geochemistry is a stepchange tactic for exploring this thinly covered part of the Gawler Craton.

Southern Uranium has completed first pass coverage with soil geochemistry over the original 2700sq km of tenements. The initial results were very positive in showing interpreted bedrock responses so we have added another 900sq km for surveying through a new joint venture. Preliminary drilling of three target areas showed tighter geochemical patterns were required so nine target areas are currently being infilled with sampling to 250m grids.

Uranium-in-soil anomalies in particular are proving to be difficult to define due to mobility and will benefit from the tighter grids. Even at this stage, northwest corridors reflecting structural controls are evident on this image.

The anomalous NW corridor through the Hopcrafts, Jungle and Nankivel Dam areas is of particular interest with uranium intersections in preliminary drilling at Jungle and Nankivel Dam.

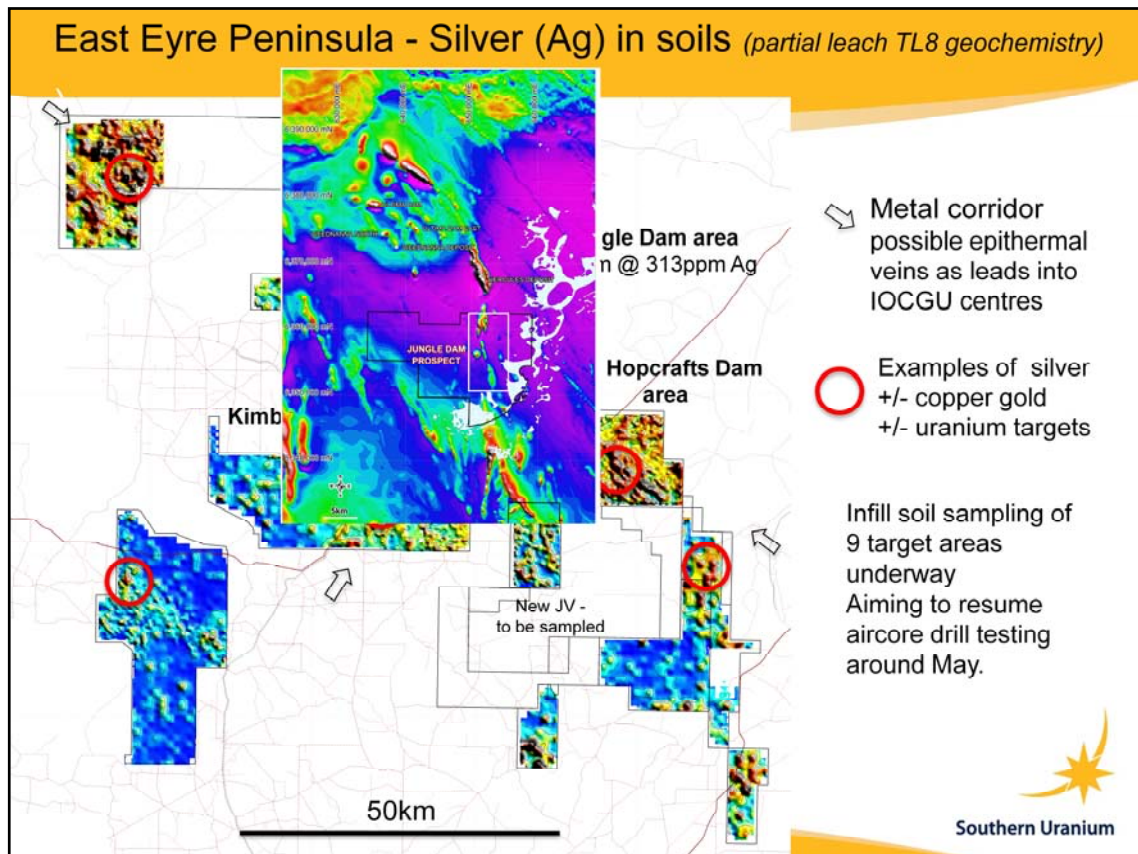


The northwest structural patterns are also seen in the silver-in-soil image.

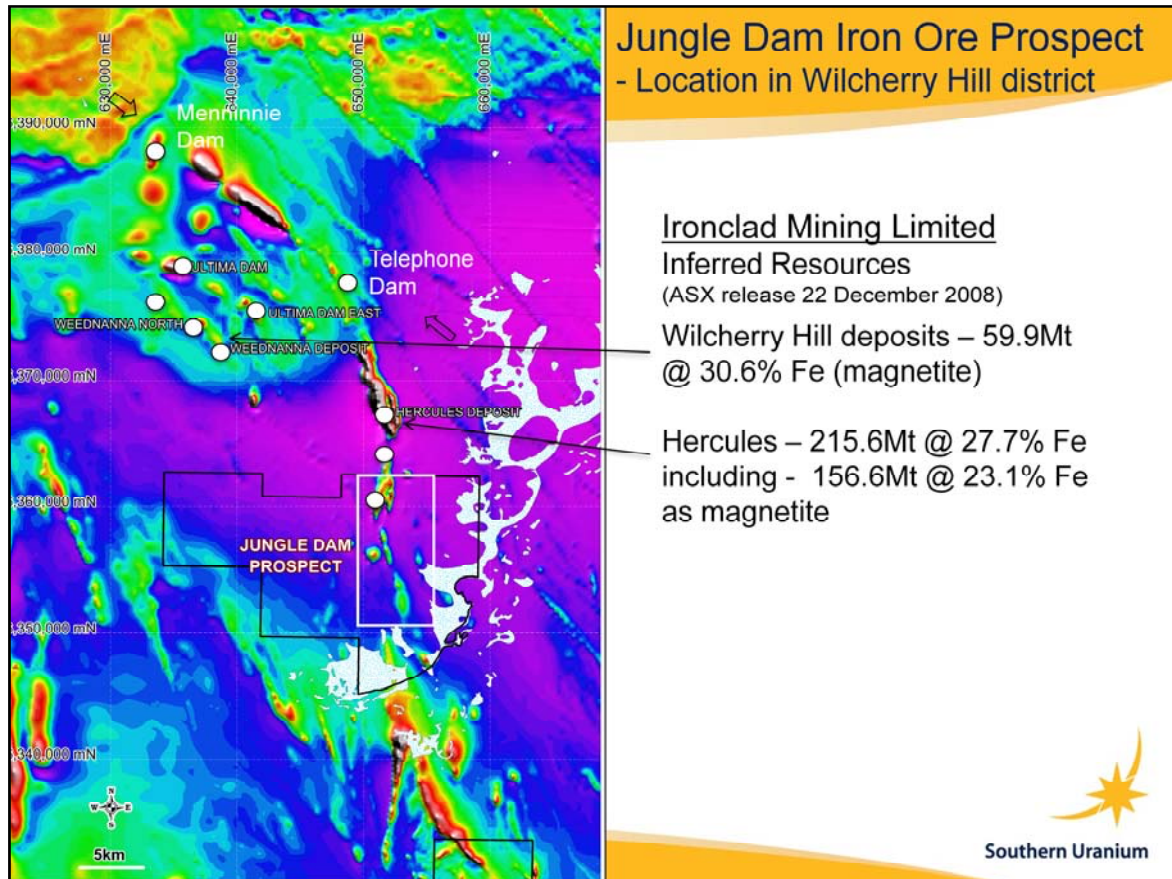
Silver is a valuable pathfinder to multi-metal targets like Hopcrafts Dam and has also assisted the direct targeting of the northwest trending silver vein at Jungle Dam. The silver vein is analogous with the epithermal vein prospect at Parkinsons Dam in northeastern Eyre Peninsula.

Southern Uranium looks forward to resuming aircore drilling of the detailed soil geochemical and associated geophysical targets on eastern Eyre Peninsula within a few months.

Using the terminology of Ian Finch of Ironclad, our neighbour at Wilcherry Hill, the Jungle Dam area is a real jewel box such that the iron ore potential at Jungle Dam is a recent addition to our key projects.



The magnetic image for the Wilcherry Hill district is overlain for registration and expanded....

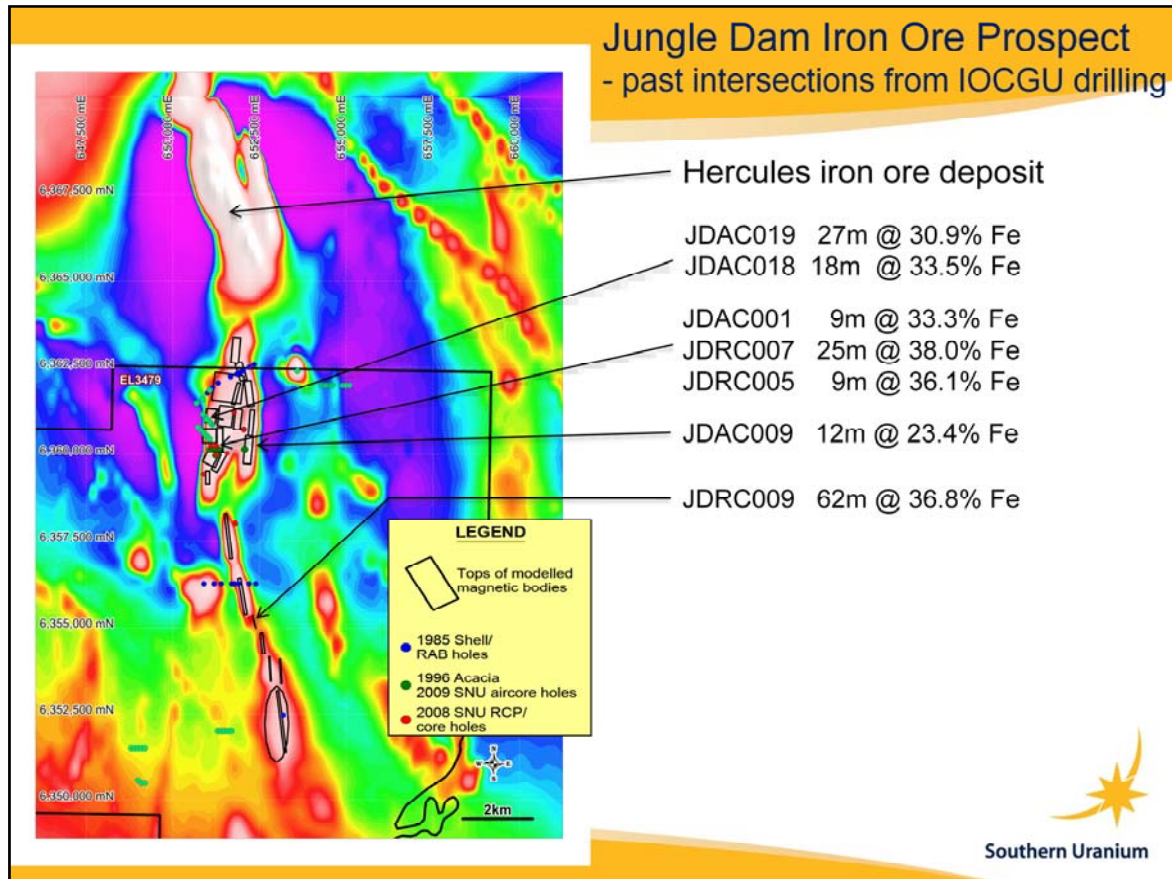


...to show the distribution of the abundant mineralisation with the lead zinc silver (Menninnie Dam, Telephone Dam), silver (original Jungle Dam prospect), gold (Weednanna), copper (Mawson), uranium (many of above mentioned deposits) and iron (Wilcherry Hill, Hercules) deposits.

All these are attributed to, or were enhanced by, the Hiltaba mineralising event. The driver is likely to be a blind granite under Wilcherry Hill that in gravity data is seen to project southeast under the Jungle Dam area.

The Jungle Dam iron prospect lies along an interpreted sigmoidal stratotectonic structure that may have captured the iron formations of the Hutchison group as at OneSteel's Middleback deposits. During the Hiltaba event, the structure is considered to be the focus for mineralisation at NNE/NW intersections.

Jungle Dam is one such location where the southern extensions from the Hercules iron formation appear to be structurally remobilised by the overprint of NNE and NW structures.



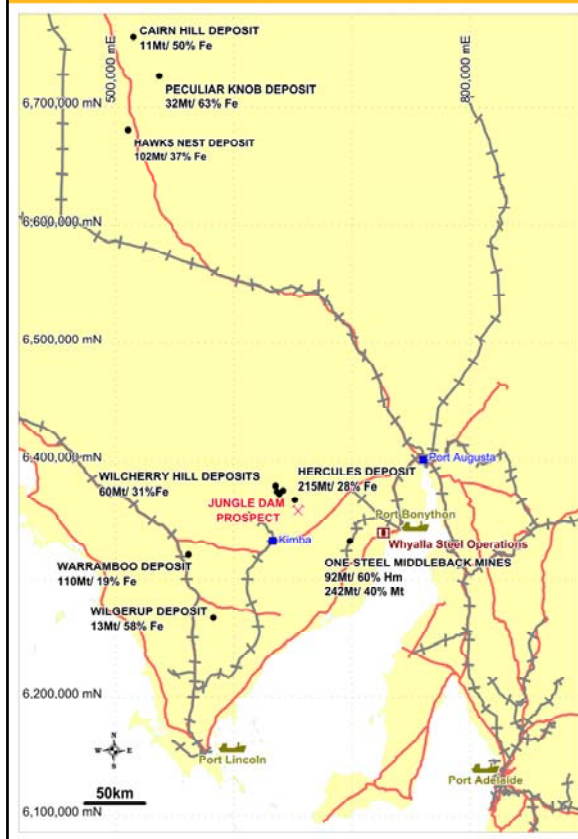
This is the likely reason the magnetics are more subdued than at Hercules. Our reconnaissance drilling for IOCGU-style deposits, aimed at gravity and soil geochemical targets, and earlier drilling for lead zinc by Acacia Resources Limited managed to place nine holes into the magnetic trend. Six holes achieved intersections of more than 30% iron, grades that are compatible with those of established iron deposits nearby.

Iron zones of up to 100m width are possible in places and most of the zones intersected are within 40m of the surface. Magnetite is observed in most intersections although haematite replacement by either weathering or hydrothermal processes are evident and there is also potential for goethite in detrital deposits.

Our consultant's modelling indicates about 14km of prospective strike in fold or fault repetitions. The prospective strike is entirely covered by 10 to 50m of unconsolidated clay and sand. So the results of the scant drilling are encouraging Southern Uranium to undertake an initial program of iron ore exploration with 3,000m of budgeted drilling. This will further test the thicknesses, grades and metallurgical characteristics of the iron zones working away from the prior intersections.

All the target areas have cultural heritage clearances and the program is expected to commence within a few months.

Jungle Dam Iron Ore Prospect



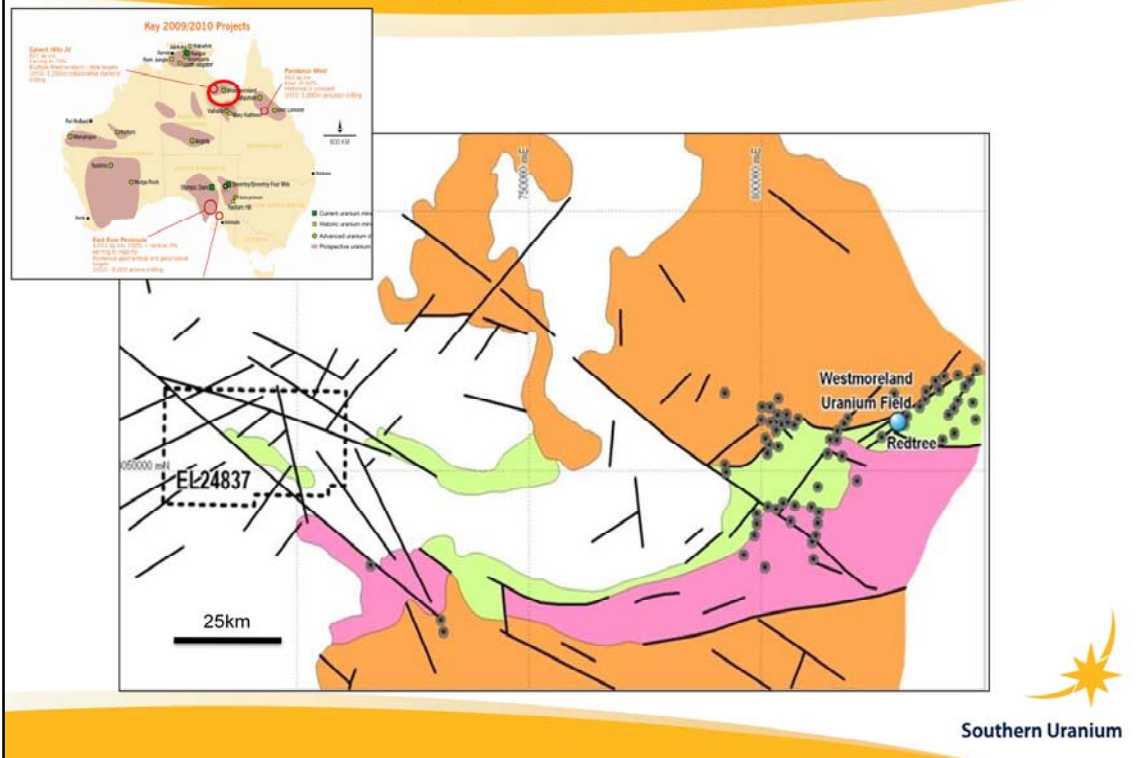
Grades are compatible
to nearby deposits

Well located to
transport infrastructure



The Jungle Dam area is well placed to transport infrastructure being about 150km by road from the proposed port facility at Port Bonython to the east and the railhead at Port Augusta to the northeast.

Calvert Hills NT – same geology & strong structural controls as at the Westmoreland field

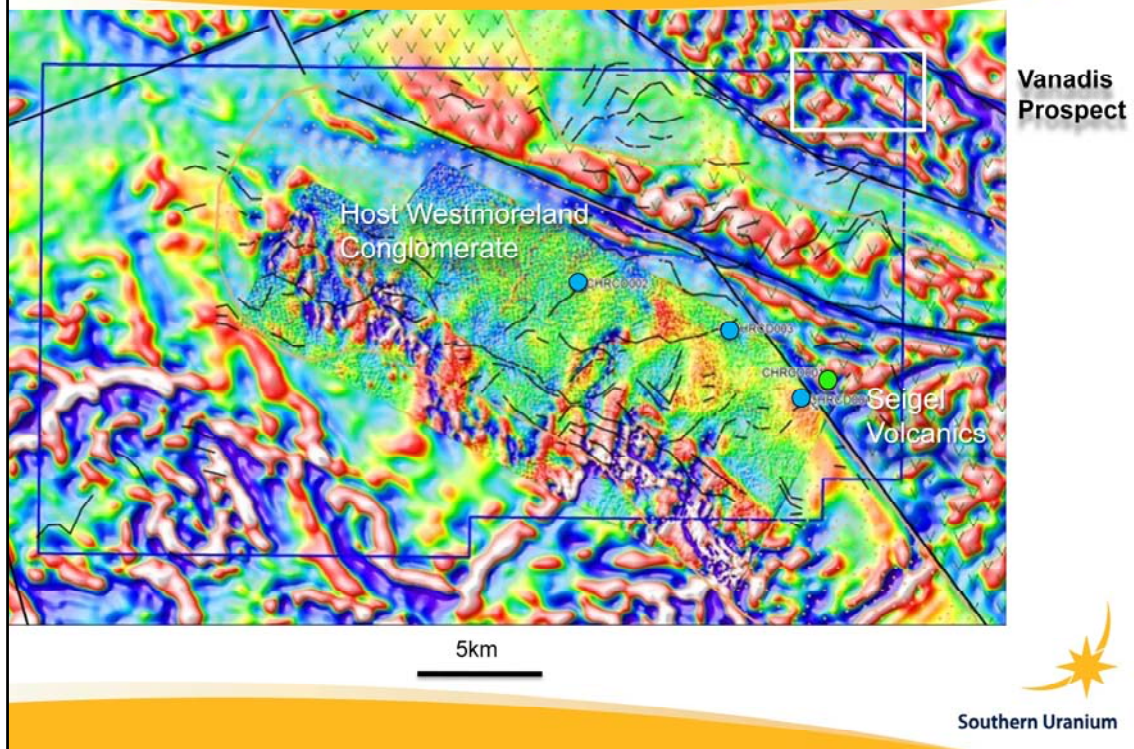


Moving to our key project in the Northern Territory, Calvert Hills is a joint venture established with Crescent Gold Limited to explore regional geological extensions of the Westmoreland uranium field into the NT.

Southern Uranium flew regional geophysical surveys to remodel the geological framework under thin cover.

We are looking for the upper parts of the Westmoreland Conglomerate and intersecting NE and NW structures as these are the key controls on the uranium mineralisation at Westmoreland.

Calvert Hills NT– drill holes shown on 1VD magnetics *Confirmation and refinement of geological interpretation*



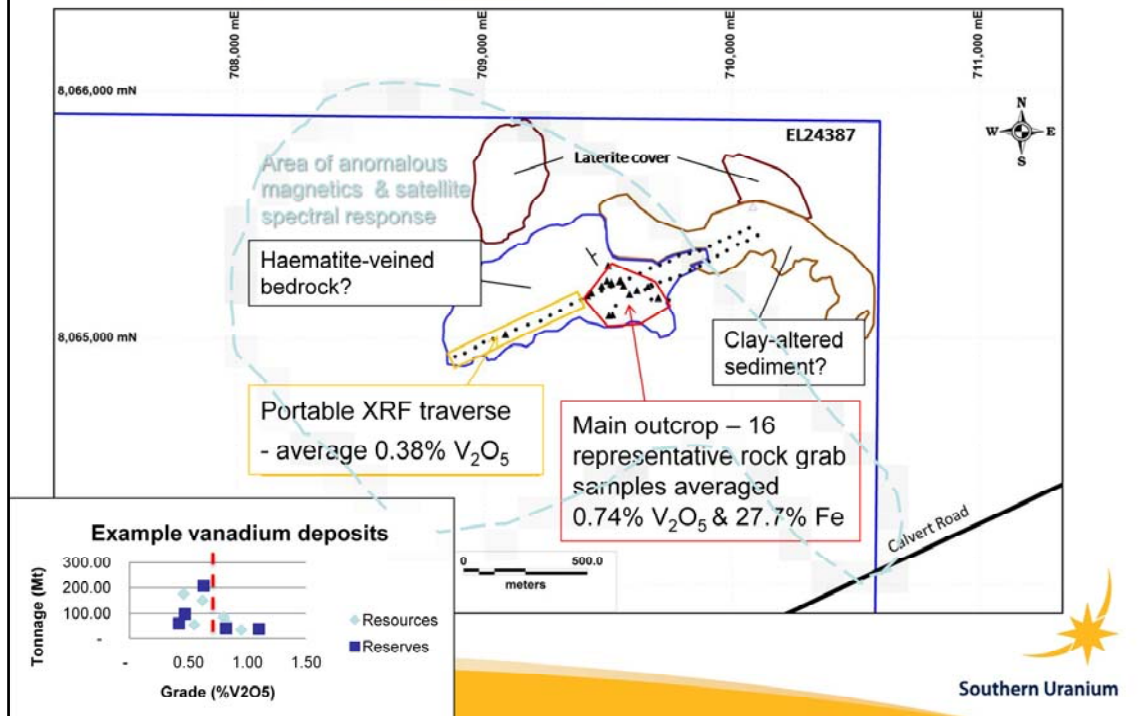
Four diamond holes were drilled during September 2009 with collaborative funding from the NT Government.

The revised distribution of Westmoreland Conglomerate was confirmed by all four holes intersecting the conglomerate under varying depths of cover. One hole (green) intersected Seigel Volcanics before intersecting the top of the Westmoreland Conglomerate.

No substantial uranium was intersected by the holes however the stratigraphic drilling was successful and we continue to evaluate the regional uranium potential.

The success of the drilling redirected us to another area with a Seigel-like magnetic signature in the NE corner of the tenement. This led us to discover vanadium-rich outcrops at the end of the dry season.

Vanadis Vanadium Prospect



The low outcrop appears to be highly weathered haematite-stockworked bedrock. In the 200m diameter area of strongest outcrop, rock grab samples averaged 0.74% V_2O_5 . A traverse of portable XRF readings extended the mineralised zone 700m across weaker outcrop, rubble and ferruginous soils to the west.

The potential area of vanadium mineralisation is further enlarged to over a one kilometre diameter area by magnetic and satellite spectral anomalism.

The depth extent of the mineralisation cannot be estimated without drilling.

The potential grade and possible size of the Vanadis prospect would be competitively placed with those attributes of other vanadium deposits.

More mapping and sampling is required in the dry season ahead of a scout drill program to establish the depth potential and true source rock to the vanadium and whether there is potential for other metals such as gold or platinum metals that may be possible in this geological environment.

An upcoming program of substantial drilling January to June 2010

Key Project	Proposed Program (planned timing)	Budget
Ridgeback IOCGU Yorke Peninsula	<ul style="list-style-type: none"> Detailed Gravity (Jan/Feb) 1,400m diamond drilling of magnetic targets (March) 	\$600K
Jungle Dam iron ore Eyre Peninsula	<ul style="list-style-type: none"> 3,000m RCP & aircore drilling (April) 	\$330K
East Eyre Pen. IOCGU Gawler Craton	<ul style="list-style-type: none"> Infill soil sampling (to March) 4,000m aircore & RCP drilling (May) 	\$500K
Vanadis prospect vanadium Calvert Hills, NT	<ul style="list-style-type: none"> Surface sampling (April) 600m RCP drilling (June) 	\$210K



To conclude, Southern Uranium is continuing a strong active program in its key projects over the current six-month period. This is anticipated to make definitive tests of a number of exciting targets.

A substantial amount of drilling is scheduled according to the target priorities. We are aiming to commence drilling of our highest priority targets at Ridgeback very soon.

Of the surface work that continues to define targets, the detailed gravity survey at Ridgeback is completed and data is awaited.

The infill soil sampling continues to progress well on East Eyre Peninsula with new analyses also expected soon for incorporation into the large dataset.

Due to the priorities and seasonal timetables of the first three projects, further surface sampling at Vanadis has been rescheduled to the end of the wet season with provisional drilling allocated to the middle of 2010.

Substantial follow up drilling of the current and new targets is anticipated in the next financial year so we are considering funding options for this work.

Southern Uranium is well positioned to achieve our objective of making the Company a successful explorer and developer of quality metal resources.

Competent Person Statement

The information in this presentation that relates to Exploration Results and Mineral Resources is based on information compiled by John Anderson (BSc(Hons)Geol) who is a member of the Australasian Institute of Mining and Metallurgy and is bound by and follows the Institute's codes and recommended practices. Mr Anderson is a full-time employee of Southern Uranium Limited. He has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Anderson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



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