

Cameco Australia Pty Ltd

KING RIVER EL5891 - 2000 Exploration Summary

Category	Exploration	Contractor	Coverage	Objectives	Results
Exploration Drilling	Diamond drilling	Wallis Drilling	Ten holes completed, total 3166.9m drilled (one hole abandoned), 532.5m of precollar.	To characterise and test the prospectivity of the Aurari Fault, and to determine the bedding, foliation, structure, alteration and mineralogy of the basement lithologies within the alteration envelope surrounding the fault zone or adjacent to the fault.	Recognition of prospective meta-pelitic/psammitic/amphibolitic assemblage, alteration features consistent with the movement of mineralising fluids and traces of uranium ± gold and palladium in both sandstone and basement. Oenpelli dolerite spatial relationship to mineralised occurrences imply that it acts in a constraining role for fluid movement. Structurally related distribution of mineralisation, within severely structurally disturbed gneissic host in hanging wall of the Aurari Fault, sandwiched between confining doleritic intrusives. Extensive shearing and brecciation are a feature of the host rock. Indications of both localised dip and strike slip movement, probability of larger scale offsets. Aurari Fault is a 'dry' structure that has undergone several periods of reactivation. There is an apparent north-south strike to the main mineralised body of 320 metres, with an inferred extension eastwards under the shallowly dipping dolerite.
Geophysics: Airborne	Multispectral Survey	DeBeers	5m pixels over 488 square kilometres	To map minerals and identify clay alteration patterns over the exploration licences	Data modelling and interpretation is currently in progress.
	Magnetics and Radiometrics	UTS	408 line km, 50 m spaced EW lines, 30 m height	The aim of the survey was to further define the Aurari fault zone and identify magnetic highs.	Many new lineaments were identified. No significant radiometric anomalies were observed away from those previously identified.
Geophysics: Ground	Gravity	Daishsat	50m stations, 9 line Km in 3 traverses.	To investigate the gravity signature of the Aurari fault.	A gravity low of up to 3 mgal occurs across the three traverses and is attributed to increased clay and Cretaceous cover associated with the Aurari fault. Kombolgie sandstone is interpreted to also contribute to the gravity lows. A secondary low is coincident with a previous drillhole and correlates with an interpreted structure, as well as a north-south lineament, evident in the detailed airborne magnetics.
Geophysics: Downhole	Downhole Multiparameter Survey	Scintrex	3 holes for 1148m - natural gamma, spectral gamma (radiometrics), magnetic susceptibility, resistivity, self-potential and waveform sonic. Plus vector magnetics and temperature for 2 holes.	To increase the physical property database and determine whether physical property changes are associated with uranium mineralisation.	Variable resistivity in sandstone correlated to alteration and/or weathering. Dolerite conductive, with resistive zones, not correlated to fresh/alterd dolerite. Gneiss and mafic gneiss form a resistive halo around amphibolites. Majority of amphibolite has increased magnetics. Uranium mineralisation highly correlated with increased U, Th, and K. Mineralisation not related to magnetics, inversely correlated to resistivity (moderately conductive). Increased K may reflect increased illite/alteration.
Lithogeochemistry	Outcrop / Fractures	NTEL	3 samples	To identify U anomalism within fractures which may represent leakage from U deposit at depth by using low level detection methods.	No significant U mineralisation was observed, however other parameters are currently being interpreted
	Outcrop	NTEL	115 samples	To identify U anomalism and add to the library of background outcrop characteristics.	No significant U mineralisation was observed, however other parameters are currently being interpreted
	Drilling - Composites	NTEL	616 samples; nominally 5m composites	To identify U mineralisation and "pathfinder" elements. To characterise lithologies based on geochemical signature.	Mineralisation was noted in several drill holes with the best intersections being: KRD0664 4.1m@1886.3 ppm U, KRD0666 2.4m@1413 ppm U
	Drilling - Fractures	NTEL	68 samples from selected fractures	To identify U anomalism within fractures which may represent leakage from U deposit at depth by using low level detection methods.	11 Samples returned results of >7ppmU. Best results: KRD410 - 3297.97ppmU, KD404 - 14.05ppmU, KRD0658 - 63.38ppmU, KRD0661 - 27.74ppmU, KRD0664 - 249.48ppmU, KRD0665 - 62.5ppmU, KRD0667 - 86.03ppmU. Indicates that fracture / vein sampling is valid.
Multispectral Studies	PIMA - Drill Core Samples	Cameco	3111 PIMA readings on drill core, nominally one sample per row of core	To continue building a library of background and anomalous spectral signatures for the project and Arnhem Land.	Results compliment the lithological logging and lithogeochemistry, interpretation is ongoing.
	PIMA - Outcrop Samples	Cameco	115 readings on outcrop samples.	To continue building a library of background and anomalous spectral signatures for the project and Arnhem Land.	Results compliment the lithological mapping and lithogeochemistry
Research and Development	Petrography samples	Pontifex and Associates - Adelaide	183 samples, nominally one per 5m of core	To document the lithological variations throughout the stratigraphic column; retain for later reference.	Petrographic sections to be reviewed by Cameco staff
	Scanning Electron Microscope Probe Analysis	University of Saskatchewan Canada	26 samples, mineralised and non-mineralised.	To document the mineralogical variations across the mineralised/alterd sections of core	In Progress