ACN 102 912 783

Amadeus Project

EL 24704, EL 24870 & EL 24876,

Group Reporting (GR 048/09)

Annual Report for the Year Ending 28th February 2011.

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Summary.

This report details the exploration activities carried out by Cauldron Energy Ltd. (Cauldron) within its Amadeus Project in the Northern Territory, during the period 1st March 20010 to 28th February 2011. This work included the submission of an new Mining Management Plan (MMP), in September 2010. The MMP proposes an RC drilling program comprising 100 holes throughout the project. Cauldron is currently waiting for final approval from the Department.

Unseasonal rainfall throughout the year has resulted in an interrupted and shortened field season and as such it has not been possible to complete the proposed field programs.

A field trip commenced in late 2010, however, upon arrival to Alice Springs was postponed due to highly unseasonal weather patterns associated with cyclone Yasi. The purpose of this trip was to check on the status of previously completed rehabilitation and scope out the necessary preparation works which may be required for the proposed drill program.

Field activities and research undertaken by Cauldron has demonstrated the potential of the Amadeus Basin to host significant uranium mineralisation. This coupled with the limited exploration undertaken during the past 20 years and the occurrence of anomalous results at the Orange Creek prospect indicates the potential for further occurrences of similar roll front uranium mineralisation within the relatively under-explored southern parts of the basin, covered by Cauldron licences.

The initial drilling completed during late 2008, confirms suitable conditions for uranium mineralisation within the Orange Creek Syncline. Potential also remains for the discovery of further uranium mineralisation within the project area both at depth and along strike.

1.0 Introduction.

Cauldron's Amadeus Uranium Project covers the central and eastern parts of the Amadeus Basin, to the south of Alice Springs, which is prospective for sandstone hosted uranium mineralisation.

This report details the exploration activities carried out by the company at the Amadeus Project during the period 1st March 2010 to 28th February 2011. This work included research, geological interpretation, target generation, field reconnaissance, and submission of a new Mining Management Plan (MMP) to the Northern Territory Government Department of Resources.

2.0 Location, Access and Tenure.

The Amadeus Uranium Project comprises EL's 24704, 24876 and 24870 and is located 30 to 60 km south of Alice Springs in the Northern Territory. Access to the project area is provided by a number of major unsealed roads, including the Maryvale Road and the Santa Teresa Road. (Fig. 1)

The project covers 1,474 km² and is found on the Alice Springs SF 53-14, Henbury SF 53-01 and Rodinga SG 53-02 1:250,000 map sheets, centred on 381000 E / 7333000 N (GDA94).

Table 1. Amadeus Project Tenement Details.

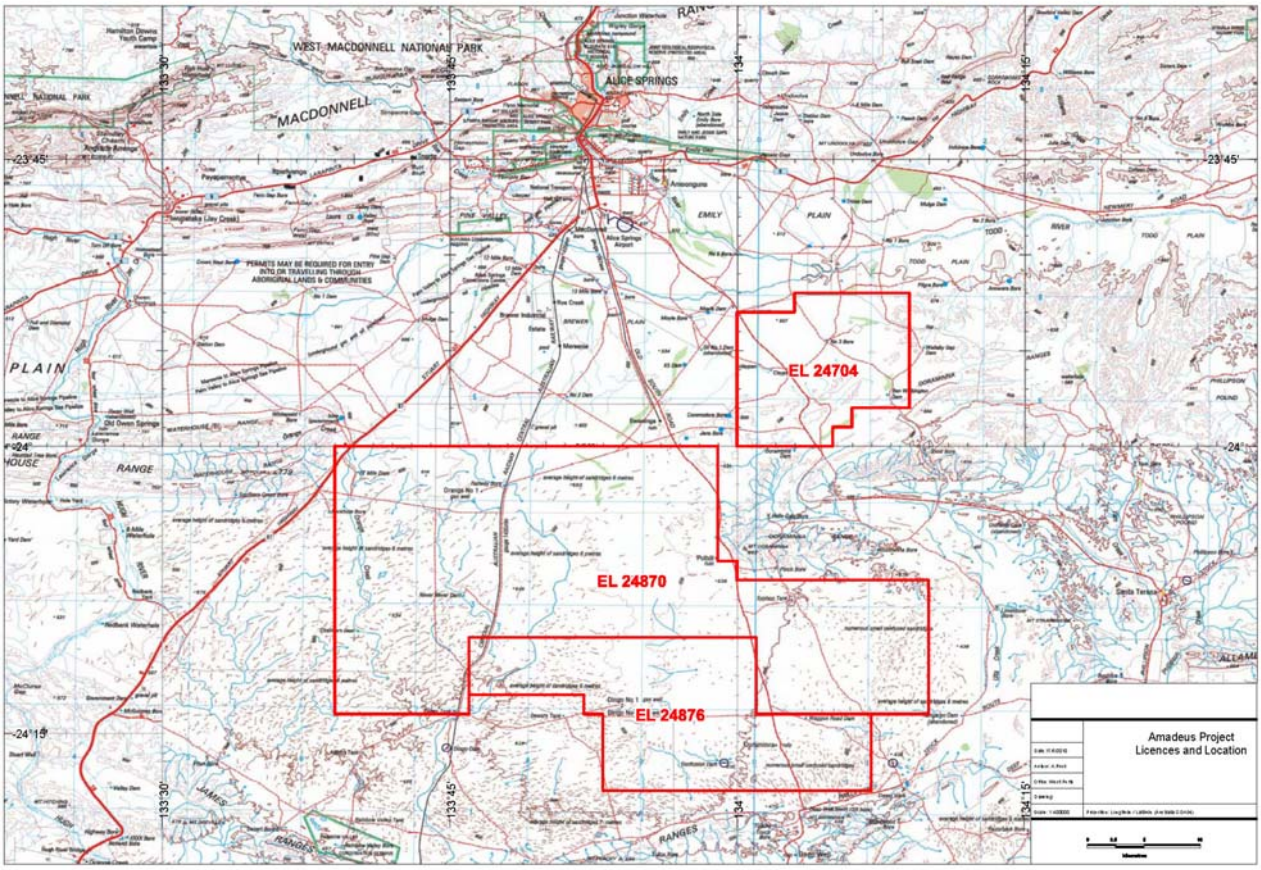
Licence	Holder	Date Granted	Area km²	Minimum Expenditure
EL 24876	Cauldron Energy Ltd	18/04/2006	345	$70,000
EL 24870	Cauldron Energy Ltd	16/07/2007	934	$145,000
EL 24704	Cauldron Energy Ltd	02/03/2006	195	$60,000

3.0 Regional Geology.

The Amadeus Basin is a large east west trending intra-cratonic basin of Late Proterozoic to Carboniferous aged marine and continental sediments. These were derived from the surrounding early to mid Proterozoic granites and metamorphic rocks of the Arunta Block to the north and Musgrave Block to the south.

The basin is rimmed by the Phanerozoic Canning Basin to the west, The Musgrave block to the south, the Palaeozoic Pedirka Basin to the east and the Arunta Block to the north. Sedimentation commenced about 900 Mya and resulted in a sequence up to 10,000 metres thick. The basal (Late Proterozoic) sequence comprises shelf, sediments, lagoonal and continental fluvio-glacial deposits which are disconformably overlain by Cambrian continental to shallow marine sediments including carbonates and evaporate. Late Cambrian and Ordovician marine sediments disconformably overlie parts of the basin, with Devonian – Carboniferous continental sediments unconformably overlaying other areas. (Freeman et al 1990)

Figure 1. Amadeus Project Location.



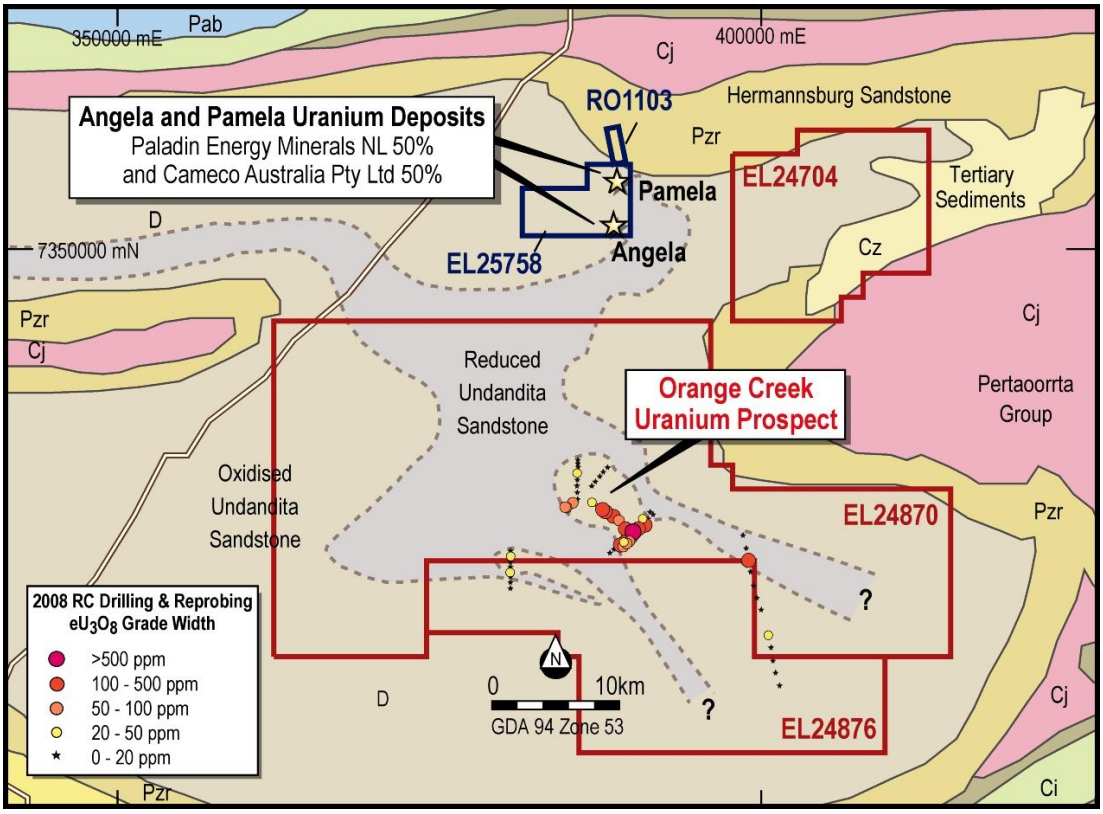
Extensive broad folding and thrusting along the northern basin margin, during the Alice Springs Orogeny (Devonian-Carboniferous) and along the southern margin during the late Proterozoic Petermann Orogeny, has given rise to the broad regional synclines and anticlines that are visible today. (Freeman et al 1990)

4.0 Project Geology.

The project area is typified by undulating sandy plains overlying the Devonian Undandita sandstone Member of the Brewer Conglomerate, part of the Pertnjara Group. Exposures of the Undandita Member are common in the northern part of the basin but lacking over much of the project area.

The Undandita Member is the youngest unit in the Amadeus Basin and is the host for the Angela and Pamela uranium deposits as well as a number of other uranium prospects throughout the basin. It was deposited in a fluviatile braided channel environment and ranges from fine to coarse grained lithic arenite through to medium to coarse grained lithic arkose. Thin mudstone and siltstone units are common. The sandstone interfingers with the Brewer Conglomerate and reaches a maximum thickness of 3000m in the Missionary Syncline, 15 km south west of Alice Springs. (Borshoff & Farris 1990) Source rocks for the Brewer Conglomerate include uranium enriched granitic orthogneiss of the Iwupataka Metamorphic Complex and the Teapot Granite Complex. (Lally and Bajwah, 2006)

Figure 2. Amadeus Project Geology and Tenements.



The Undandita Member is generally oxidised but contains a wedge of reduced sediments between regionally extensive upper and lower redox boundaries. This reduced wedge is extensive throughout the basin and is found both in the Missionary Syncline, where it is associated with uranium mineralisation at Pamela and Angela, and in the Orange Creek Syncline where it is associated with mineralisation at the Orange Creek Prospect. (Fig. 2)

The Angela and Pamela uranium deposits are located at the eastern end of the missionary syncline, 25 km north of Cauldrons licence EL 24876. The deposits are hosted within a sequence of pebbly sandstone, minor siltstone and conglomerates, deposited within a braided stream system. (Borshoff & Farris 1990)

The main Angela ore body has an east-west strike in excess of 5700 metres and has a gentle plunge of 9º to the west. The uranium mineralisation remains open down plunge. The Angela deposit consists of a series of stacked horizons made up of one or more small roll front uranium occurrences. Uranium mineralisation consists of uraninite and pitchblende with minor coffinite on grain coatings and in voids. Secondary carnotite mineralisation occurs within the weathered profile and at depth due to decomposition of the primary uranium minerals.
Uranium mineralisation is primarily hosted within medium to coarse grained feldspathic lithic arenites that are partly cemented by calcite. The lithic fragments were primarily derived from the metasediments, schists, gneiss and granites of the Arunta Complex to the north. Detailed ground mapping in association with historic shallow vacuum drilling indicated that uranium mineralisation is associated with gently north dipping redox boundaries within the Undandita Sandstone.

The redox boundary forms an irregular interdigitation of oxidised and reduced facies along which the uranium occurrences are found. Enrichment of uranium occurs at

noticeable steps in the redox boundary between higher and lower stratigraphic levels. These steps are in the order of 5-40 metres and are interpreted to be associated with an east trending fault or structural break. (Borshoff & Farris 1990)

5.0 Previous Exploration.

During the 1970's and early 1980's the Amadeus basin was the centre of active uranium exploration, with the focus on sandstone hosted roll front uranium mineralisation within the late Devonian aged Undandita Sandstone. A number of significant uranium deposits and occurrences were identified including the Pamela and Angela uranium deposits located along the northern basin margin and the Orange Creek prospect on Cauldron's licence EL 24870.

Uranerz Australia P/L (Uranerz) held a large area within the Amadeus Basin during the 1970's and early 1980's and undertook basin wide exploration for uranium mineralisation. Most of this work was concentrated on the Angela and Pamela deposits with preliminary work undertaken at the Orange Creek Prospect, now covered by Cauldron's licences EL 24870 and EL 24876.

5.1 Angela and Pamela Deposits

First pass airborne and ground based radiometric surveys, during 1972, identified three surface uranium anomalies. Follow up trenching and drilling led to the recognition of the Pamela and Angela prospects in 1973 and 1974. Detailed ground mapping in association with shallow vacuum drilling indicated that uranium mineralisation is associated with gently north dipping redox boundaries within the Undandita Member.

Follow up exploration over a 10 year period by Uranerz Australia P/L (Uranerz) and joint venture (JV) partners Carpentaria Exploration Company P/L delineated a measured resource of 4700 tonnes eU_3O_8 (average grade 0.13%) to a depth of 650m within the Angela deposit and associated satellite ore bodies. A further 1950 tonnes at an average grade of 0.1% U_3O_8 is stated as an indicated resource. (Borshoff & Farris 1990) The Angela deposit was recently awarded to the Angela Project Joint Venture, between Paladin Energy Minerals NL (50%) and Cameco Australia P/L (50%).

5.2 Orange Creek Prospect

Uranerz undertook exploration for uranium over the Orange Creek Syncline during the period 1977 to 1981. Work included geological mapping, airborne spectrometry, vacuum drilling, track etch and shallow rotary airblast and deeper percussion drilling. Uranerz reported that redox boundaries within the Undandita sandstone in the Orange Creek Syncline are more difficult to define because of weak gradational oxidation at the boundaries combined with surface weathering effects which extends to depths in excess 30m.

An extensive reconnaissance shallow vacuum drilling program was conducted over the basin during 1978-79 to map the redox boundary. All holes were logged and bottom-hole samples analysed for uranium. A track etch survey was carried out with cups placed in each hole. (Fig. 3)

Drilling at Orange Creek defined a shallow spoon shaped feature formed by the upper oxidised sediments in the centre of the syncline and indicated anomalism on its western margin. The redox boundary in this area proved to be a well-defined synclinal feature dipping at shallow angles to a maximum depth of 90m in the centre of the syncline. Broadly spaced follow up percussion drilling (64 holes for 3,873 metres) conducted during 1979 and 1980 intersected uranium mineralisation associated with the regional redox front between depths of 13 to 72 metres and located a well defined step of 45m in the redox boundary. (Taylor, 1980 and Anon, 1981)

A number of significant intersections were recorded, including 3.40 metres @ 413ppm eU_3O_8 from hole OC 08, 1 metre @ 328ppm eU_3O_8 from hole OC 11, 1.25 metre @ 421ppm eU_3O_8 from hole OC 14, 0.45 metre @ 864ppm eU_3O_8 from hole OC 60 and 1.55 metres @ 370ppm eU_3O_8 from OC 64.

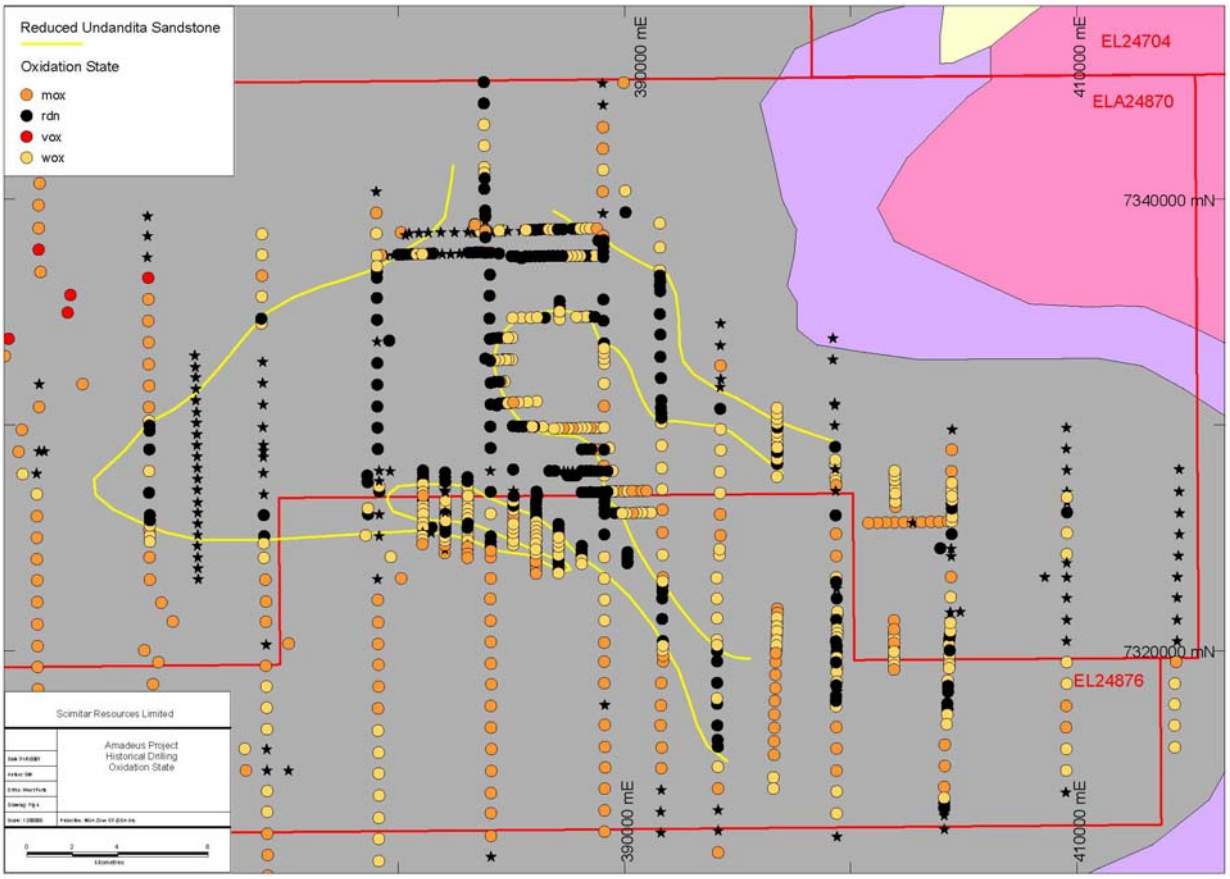
Work undertaken by Cauldron since the granting of the project licences has included the acquisition of available open file reports, historical data, aeromagnetic and radiometric imagery.

As part of a basin wide review of data and the creation of an electronic data base for the Amadeus Project, all the available open file historical reports were acquired from the NT government. The data from these reports has been entered into a data base, which references drill collar data with downhole information including geology, uranium assay results, oxidation states and radiometric data. Plans from the historical reports were scanned and geo-referenced in Mapinfo. Collar positions in UTM coordinates were extracted from these plans so that the data could be used in modern GIS computing packages. Results from percussion and vacuum drilling targeting uranium were reviewed and incorporated into the company database. This data is being used to target further exploration programs within the Amadeus Basin.

Data sourced from Uranerz's vacuum drilling program was re-interpreted, utilising the new data in Mapinfo and Micromine to accurately define the boundary between oxidised and reduced sediments within the tenement. From this work it appears that in a number of areas, packages of alternating reduced and oxidised sediments exist, which may provide a better locus for the formation of uranium mineralisation. (Fig. 3)

During April 2008 the company commenced an RC drilling program comprising 12 holes for 707 metres targeting the Orange Creek Prospect within EL 24870. Due to hard ground conditions the drilling program was temporarily suspended while a larger drill rig was located. The initial drilling intersected near surface uranium mineralisation in a number of holes. The holes were drilled vertically and logged with a gamma down hole tool by Borehole Wireline Pty Ltd. Results from down hole gamma logging included 0.45m at 190ppm eU3O8 from 39.70m depth in AMRC008. (Table 2)

Figure 3. Amadeus Project Historic Drilling with Oxidation State.



Drilling re-commenced in July 2008 with a larger Gemco RC drill rig with auxiliary compressor from Johannsen Drilling. A total of 27 holes for 3,046 metres were completed targeting three target areas within the Orange Creek Syncline and covering 20 km of the redox boundary. Significant uranium mineralisation associated with the boundary between oxidised and reduced sediments was intersected within the Undandita sandstone in two of these areas at depths of 22-60m. (Fig. 4 and 5)

A total of seven holes for 999m were drilled across the central part of the Orange Creek Syncline on 400m spacings with significant uranium mineralisation intersected across the centre and southern side of the syncline at depths of 30-40m. A second area of broadly spaced drilling, 12 holes for 1,250m, intersected uranium mineralisation on the regional redox boundary, a further 9 km to the southeast in a section of the Orange Creek Syncline that had not previously been tested by drilling. (Fig. 5)

All holes were drilled vertically to depths of 100 and 150 metres and were wireline logged with a downhole gamma probe by Borehole Wireline Pty Ltd. A number of significant results were returned from the logging, including;

AMRC 015	**0.55m**	**at**	**344**	**eU_3O_8 ppm**
AMRC 016	**1.00m**	**at**	**926**	**eU_3O_8 ppm**
AMRC 017	**0.55m**	**at**	**288**	**eU_3O_8 ppm**
AMRC 030	**0.75m**	**at**	**349**	**eU_3O_8 ppm**

Exploration at the Orange Creek prospect conducted by Uranerz Australia P/L in the 1970's resulted in a total of 64 percussion drill holes for 3,873 metres. Many of these holes have been relocated by Cauldron and accurate co-ordinates have been collected to provide more precise target generation. Many of these percussion holes were cased and capped with PVC and remain open to some depth. A total of 58 holes have been identified to date of which 53 arein good condition and were able to be re-logged by Borehole Wireline Pty Ltd using their down hole gamma probe. Significant results from re-logging were recorded, including 2.55m at 460ppm eU_3O_8 from 13.45m in OC008. (Table 2) (Rust 2009)

Table 2. Amadeus Project Significant Uranium Results 2008

Hole	East GDA94	North GDA94	From (m)					cutoff	Company
AMRC005	389807	7328391	22.95	0.25m	at	140ppm	eU3O8	100ppm	Scimitar
AMRC008	390657	7329237	39.70	0.45m	at	191ppm	eU3O8	100ppm	Scimitar
AMRC009	390940	7329526	33.50	0.45m	at	142ppm	eU3O8	100ppm	Scimitar
AMRC015	390391	7328959	36.67	0.55 m	at	344ppm	eU3O8	100ppm	Scimitar
AMRC016	390654	7329227	39.01	1.00 m	at	926ppm	eU3O8	100ppm	Scimitar
		including		**0.80 m**	**at**	**1125ppm**	eU3O8	**200ppm**	**Scimitar**
		including		**0.60 m**	**at**	**1406ppm**	eU3O8	**400ppm**	**Scimitar**
AMRC017	390946	7329528	34.01	0.55 m	at	288ppm	eU3O8	100ppm	Scimitar
AMRC018	391507	7330091	26.61	0.20 m	at	137ppm	eU3O8	100ppm	Scimitar
AMRC018	391507	7330091	27.21	0.20 m	at	114ppm	eU3O8	100ppm	Scimitar
AMRC023	381205	7326000	34.34	0.25 m	at	110ppm	eU3O8	100ppm	Scimitar
AMRC026	381192	7327156	54.63	0.20 m	at	125ppm	eU3O8	100ppm	Scimitar
AMRC030	399746	7327060	59.61	0.75 m	at	349ppm	eU3O8	100ppm	Scimitar
		including		**0.50 m**	**at**	**452ppm**	eU3O8	**200ppm**	**Scimitar**
AMRC035	401330	7321246	91.28	0.20 m	at	120ppm	eU3O8	100ppm	Scimitar
AMRC035	401330	7321246	82.18	3.60 m	at	62	eU3O8	50 ppm	Scimitar
OC002	389600	7328125	18.50	0.95m	at	220ppm	eU3O8	100ppm	Uranerz
OC004	389695	7328225	12.80	0.50m	at	145ppm	eU3O8	100ppm	Uranerz
OC006	389695	7328320	15.85	0.60m	at	182ppm	eU3O8	100ppm	Uranerz
OC008	389795	7328230	13.30	3.80m	at	369ppm	eU3O8	100ppm	Uranerz
		including		**2.55m**	**at**	**460ppm**	**eU3O8**	**200ppm**	**Uranerz**
OC008	389795	7328230	20.65	0.45m	at	249ppm	eU3O8	100ppm	Uranerz
OC010	389890	7328220	36.60	0.60m	at	187ppm	eU3O8	100ppm	Uranerz
OC012	389895	7328325	21.80	0.40m	at	170ppm	eU3O8	100ppm	Uranerz
OC014	389744	7328120	30.15	0.65m	at	438ppm	eU3O8	100ppm	Uranerz
OC014	389744	7328120	31.20	0.60m	at	132ppm	eU3O8	100ppm	Uranerz
OC020	391501	7329866	24.60	0.70m	at	246ppm	eU3O8	100ppm	Uranerz
		including		**0.05m**	**at**	**298ppm**	**eU3O8**	**200ppm**	**Uranerz**
OC024	390208	7328563	38.50	0.50m	at	169ppm	eU3O8	100ppm	Uranerz
OC038	385961	7331318	26.15	0.45m	at	134ppm	eU3O8	100ppm	Uranerz
OC044	386344	7333743	49.45	0.30m	at	107ppm	eU3O8	100ppm	Uranerz
OC047	385532	7331042	11.15	0.50m	at	131ppm	eU3O8	100ppm	Uranerz
OC047	385532	7331042	19.40	0.50m	at	127ppm	eU3O8	100ppm	Uranerz
OC049	385455	7331103	19.70	0.45m	at	132ppm	eU3O8	100ppm	Uranerz
OC053	387570	7331404	69.45	0.35m	at	169ppm	eU3O8	100ppm	Uranerz
		including		**0.20m**	**at**	**204ppm**	**eU3O8**	**200ppm**	**Uranerz**
OC053	387570	7331404	70.75	0.20m	at	111ppm	eU3O8	100ppm	Uranerz
OC055	388355	7330866	51.00	1.15m	at	135ppm	eU3O8	100ppm	Uranerz
OC057	389205	7330284	32.60	0.50m	at	241ppm	eU3O8	100ppm	Uranerz
		including		**0.35m**	**at**	**295ppm**	**eU3O8**	**200ppm**	**Uranerz**
OC058	389610	7330024	33.20	0.35m	at	154ppm	eU3O8	100ppm	Uranerz
OC060	390048	7329333	26.00	0.90m	at	354ppm	eU3O8	100ppm	Uranerz
		including		**0.70m**	**at**	**425ppm**	**eU3O8**	**200ppm**	**Uranerz**
OC061	388156	7331015	58.15	0.55m	at	187ppm	eU3O8	100ppm	Uranerz
		including		**0.25m**	**at**	**258ppm**	**eU3O8**	**200ppm**	**Uranerz**
OC061	388156	7331015	71.60	0.65m	at	367ppm	eU3O8	100ppm	Uranerz
		including		**0.50m**	**at**	**441ppm**	**eU3O8**	**200ppm**	**Uranerz**
OC064	390172	7328846	28.90	1.85m	at	229ppm	eU3O8	100ppm	Uranerz
		including		**0.65m**	**at**	**295ppm**	**eU3O8**	**200ppm**	**Uranerz**
		including		**0.60m**	**at**	**273ppm**	**eU3O8**	**200ppm**	**Uranerz**
OC064	390172	7328846	34.15	1.05m	at	181ppm	eU3O8	100ppm	Uranerz
		including		**0.40m**	**at**	**273ppm**	**eU3O8**	**200ppm**	**Uranerz**

Note: Readings taken from Scimitar's recent work at Amadeus, utilising downhole gamma probing conducted by Borehole Wireline SA

Figure 4. Amadeus Project RC Drilling and Uranium Results

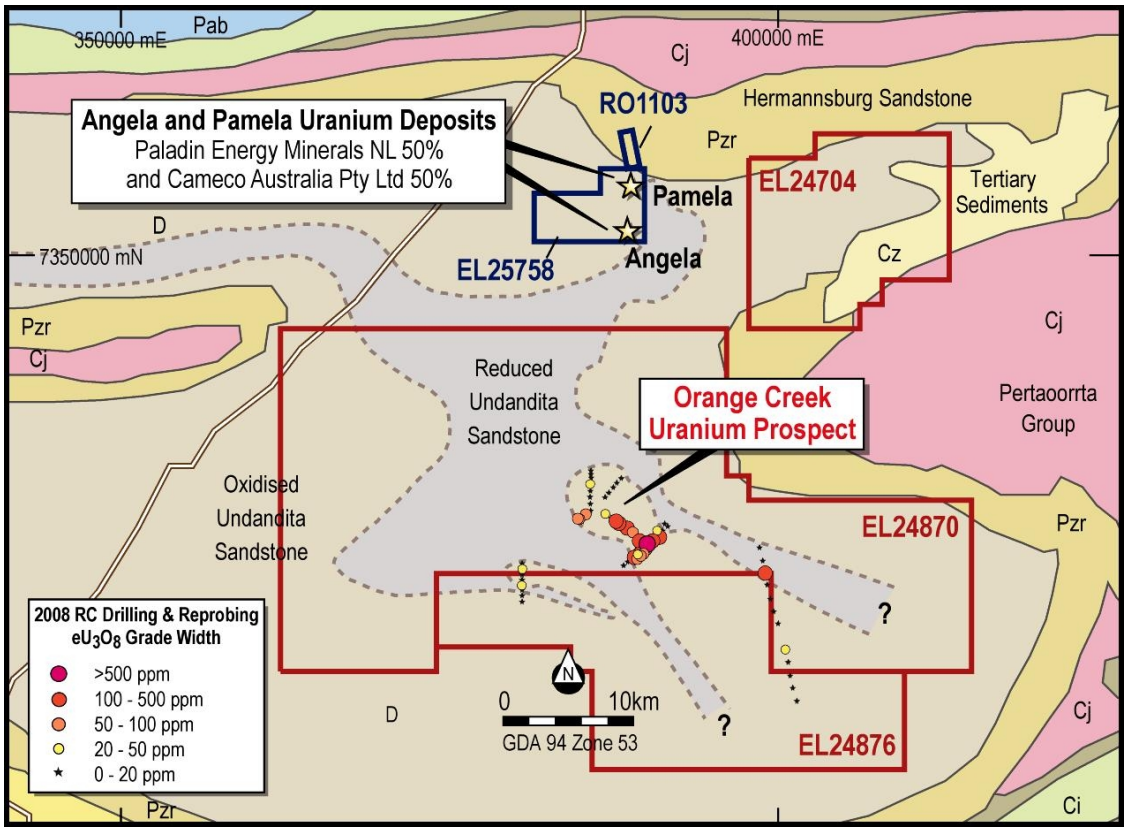
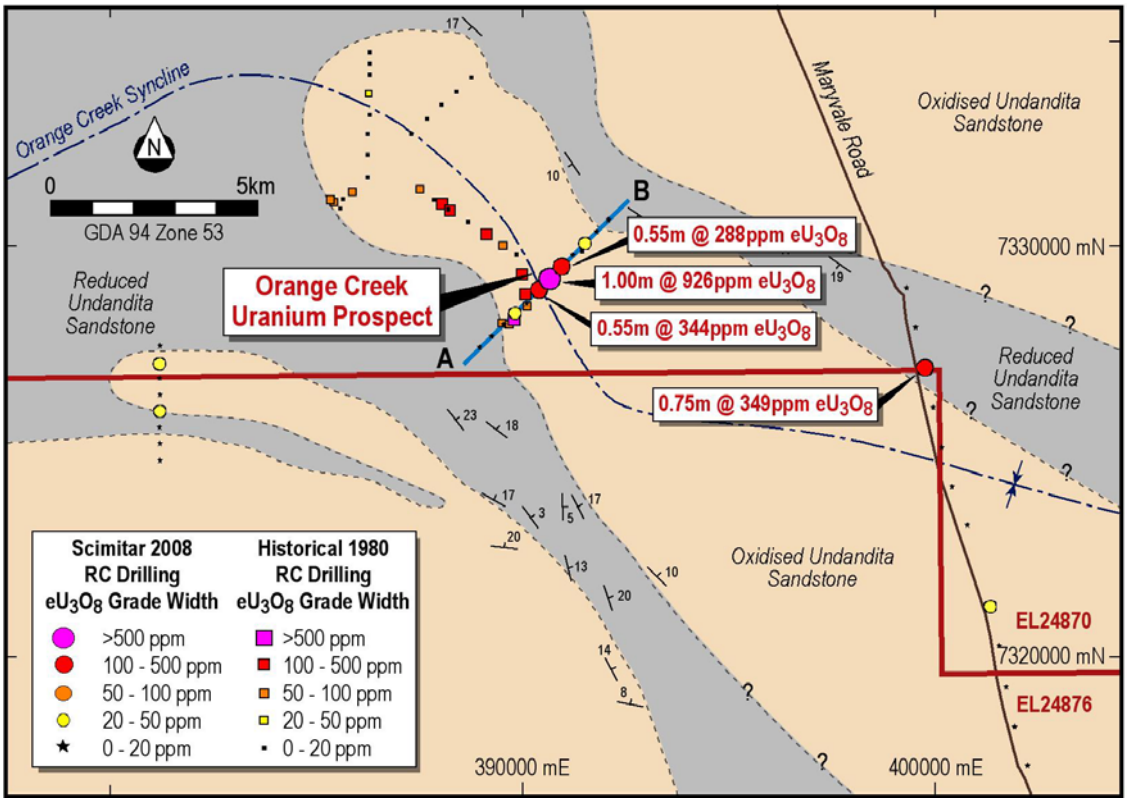


Figure 5. Orange Creek Prospect Significant Results



In the 2009 exploration year a total of 27 drill sites were rehabilitated during the year, with the drill samples returned to the sumps. All sumps were back filled with at least one metre of topsoil cover over the drill samples and all holes were capped and the drill sites scarified to assist rehabilitation. A number of access tracks have been kept open for future drilling programs.

6.0 Work Completed.

Cauldron completed submitted a new Mining Management Plan, which was submitted to the Department in September 2010. The MMP proposes an RC drilling program comprising 100 holes throughout the project. Cauldron is currently waiting for final approval from the Department. Unseasonal rainfall throughout the year has resulted in an interrupted and shortened field season and as such it has not been possible to complete the proposed field programs.

A field trip commenced in late 2010 however upon arrival to Alice Springs was postponed due to highly unseasonal weather patterns associated with cyclone Yasi. The purpose of this trip was to check on the status of previously completed rehabilitation and scope out the necessary preparation works which may be required for the proposed drill program.

7.0 Conclusions and Recommendations.

Field activities and research completed by Cauldron has demonstrated the potential of the Amadeus Basin to host significant uranium mineralisation. This coupled with the limited exploration during the past 20 years and the occurrence of anomalous results at the Orange Creek prospect indicates the potential for further occurrences of similar roll front uranium mineralisation within the relatively under-explored southern parts of the basin, covered by Cauldron licences.

The initial drilling completed during late 2008, confirms suitable conditions for uranium mineralisation within the Orange Creek Syncline. Potential also remains for the discovery of further uranium mineralisation within the project area both at depth and along strike.

Work proposed for the coming year includes RC drilling targeting uranium mineralisation within the Orange Creek Syncline. These programs are expected to commence during the first half of 2011. It is also anticipated that within the early portion of 2011 a field trip to site to check vegetation regrowth in rehabilitated areas is planned and to scope necessary field preparations for the drill program will be completed.

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