

#### **18 FEBRUARY 2014**

**ALLIANCE RESOURCES LTD** 

**ASX:** AGS

ABN: 38 063 293 336

Market Cap: A\$58 M @ A\$0.17 Shares on issue: 341,172,309

**Cash:** \$22.6 M (31 Dec 2013)

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**Projects:** 

Four Mile (25%): uranium

**East Frome:** copper, basemetals

Cabeza de Vaca, Chile: copper-gold

**Share Registry:** 

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# **EXPLORATION TARGET**Four Mile Northeast Uranium Prospect

Alliance Resources Ltd is pleased to advise an Exploration Target for the Four Mile Northeast (FMNE) uranium prospect of:

8 to 18 million tonnes of mineralisation at a grade range 0.20% to 0.24% uranium oxide ( $U_3O_8$ ), containing 19,000 to 35,500 tonnes  $U_3O_8$  (41 to 78 million lb  $U_3O_8$ )<sup>(1)</sup>

The potential quantity and grade is conceptual in nature. There has been insufficient exploration drilling to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

The Exploration Target was estimated in order to provide the market with an assessment of the potential scale of the FMNE deposit using the Exploration Results from FMNE to 6 February 2014.

The Exploration Target takes no account of geological complexity, possible mining method or metallurgical recovery factors. It is acknowledged that the currently available data is insufficient spatially in terms of the density of drill holes, and in quality, in terms of Alliance's final audit of procedures for down hole data, data acquisition and processing, for the results of this analysis to be classified as a Mineral Resource in accordance with the JORC Code. The analysis undertaken has been essentially statistical and geostatistical with minimal reference to geology, although it is clear that stratigraphy, lithology and structure have a major impact on the continuity and grade of uranium mineralisation at FMNE.

Following completion of the regional drilling in the southern part of ML6402, the next phase of drilling will comprise infill drilling between the existing lines that have identified the location of redox boundaries and/or uranium mineralisation in order to test the validity of the Exploration Target. This further work will commence in 2014, however the completion date for this work may be outside the program and budget which runs to 31 December 2014<sup>(2)</sup>.

The Exploration Target is reported in accordance with Clause 17 of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 Edition) (JORC Code).

- 1. Note: Grade x thickness (GT) cutoff of mineralized drill hole intercepts of  $0.5m \times 0.03\% \ U_3O_8$ . A cut-off of  $0.03m\% \ U_3O_8$  applied to polygon and block GT values for tonnage calculations. Mineralisation rounded to the nearest 1 million tonnes. Grades rounded to the nearest two decimal places. Contained metal rounded to the nearest 500 t or 1 Mlb.
- 2. The Four Mile (ML6402) Revised Start-Up Plan and Program and Budget that Quasar, with ACE dissenting, approved on 29 January 2014.



#### **Background**

The Four Mile Uranium Project (**Project**) area is located 550 kilometres north of Adelaide in South Australia. Alliance's 100% owned subsidiary, Alliance Craton Explorer Pty Ltd (**ACE**) is the registered holder of 25% of ML6402 and EL5017. Quasar Resources Pty Ltd (**Quasar**) is the registered holder of 75% and acts as the manager of the Project.

Exploration drilling at FMNE, located 1,200 metres to the north-east of the Four Mile East uranium deposit, has been successful in the discovery of new high grade uranium mineralisation over a strike length of 2,200 metres. Additional high grade intersections have been made along strike in the far north east of ML6402 adjacent to Heathgate Resources Pty Ltd's (Heathgate) Pepegoona uranium deposit. The new discovery in part surrounds, and is therefore contiguous with, Heathgate's Pannikan uranium deposit to the south (see Figure 1). It is apparent from these associations that there is a regional scale roll front along which high grade uranium mineralisation is present at Four Mile West, Four Mile East, Pannikan, Pepegoona and now FMNE. Between FMNE and the high grade intersections close to the border with Pepegoona is a strike length of 1,000 metres on which no drilling has taken place and which therefore holds potential for further discovery.

Figure 1 shows the location of FMNE prospect.

Exploration results utilised in the estimation of the Exploration Target are presented in Table B. Refer also to ASX announcements dated 19 December 2013, 17 January 2014 and 6 February 2014.

The area has been subdivided into three zones for the purpose of Exploration Target estimation. Zone 1 includes 41 drill holes in the north-east sector, Zone 3 includes 11 drill holes in the far north east sector adjacent to Heathgate's Pepegoona deposit and Zone 2 is the area of no drilling between Zone 1 and Zone 3. An Exploration Target for Zone 2 is not included as future drilling in this zone is uncertain. The surrounding boundary limit for the estimations conforms in part to the boundary of ML6402 (see Figure 2).

Multiple uranium intercepts in the majority of the drill holes show that several roll front type bodies may be present. The individual bodies are likely to have ribbon style geometries arrayed along a regional north east strike. There is insufficient drill hole data to define individual roll fronts.

It should be noted that ACE has not had the opportunity to examine and audit the data, data acquisition and processing procedures used by Heathgate and Quasar for determination of down hole thickness and grades and the information set out in this announcement is taken from Quasar's reports to ACE.

In order to provide estimates of the Exploration Target at FMNE the cumulative thickness-weighted average grade and the cumulative grade x thickness (GT) values from the Prompt Fission Neutron (PFN) down hole logs of drill holes have been used to inform a 2D dataset. Where PFN data was not available, in drill holes FMD002, FMD007 and FMD038, equivalent  $U_30_8$  grade data from gamma logs has been used. Grade and GT continuity between individual intersections or between cumulative GT values in drill holes at nominal spacing of 400m x 100m is insufficient for the purpose of estimating a mineral resource estimate. Variogram analysis of the 2D dataset confirms that there is no spatial correlation between cumulative GT values over a distance of 2,000 metres, the best fit model being linear with a flat sill close to the sample variance at 4.85 (sample variance 5.75). However, for the purpose of an upper Exploration Target estimate, continuity of uranium mineralisation (i.e. not specific cumulative GT values) over the area of exploration drilling has been assumed. This assumption is supported by variogram analysis of the average grade data which yielded a best fit model exponential variogram with a nugget variance of 0.01, a sill of 0.054 and a range of 237 metres.

Several estimates of *in situ* uranium endowment based on the cumulative GT of drill hole intercepts have been made using different estimation methods. These estimates have been used to infer an Exploration Target of *in* 



situ uranium endowment for the area between Four Mile East and the border of ML6402 with Heathgate's ML6387. Refer Table A.

#### Criteria

**Geology and geological interpretation:** The mineralisation is of the sandstone uranium type, associated with redox interfaces. The mineralisation announced today is interpreted to lie within an apparent regional roll-front type redox interface that embraces the Four Mile West, Four Mile East, Pepegoona and Pannikan deposits over a total strike length of 7.5 kilometres.

A detailed interpretation of the sedimentary sequence is not yet available for these preliminary drill holes.

Mineralisation is hosted in Mesozoic sediments of the Frome Embayment and underlain by crystalline Meso/Palaeoproterozoic basement, with Mesoproterozoic granites considered source rocks. Other deposits occur in Tertiary sands of the overlying Callabonna Sub Basin of the Lake Eyre Basin, extending over an area of approximately 25,000km<sup>2</sup> between the Mount Painter Inlier in the northwest, Olary Block to the south and Broken Hill Block to the east.

**Drilling technique (and data spacing):** Drill holes are drilled vertically using the rotary mud method. Depth to top of mineralisation varies from 205.8 to 278.7 metres. Depth to base of mineralisation varies from 206.4 to 279.3 metres. Maximum depth drilled was 397 metres. Drill hole fences are mostly 400m apart with hole locations spaced at 100m intervals along the fences, although there are exceptions to this spacing due to the shape of Mineral Lease 6402. The actual location of drill holes to be completed is dependent on the discovered locations of redox/roll fronts.

Sampling and sub-sampling techniques: The principal sampling method was by downhole geophysical Prompt Fission Neutron (PFN) and gamma probes in rotary mud drill holes for both grade and lithological logging, with insitu sample intervals varying in the range 1-10cm. The natural gamma tool is calibrated for uranium grade at the 'Adelaide Model' geophysical calibration pits. The PFN is calibrated at the purpose built calibration facility located at Beverley. Sub-samples of the chip cuttings are stored in chip trays as a physical record of the intersection sequence. Handheld XRF analyses of chip tray samples are collected. The rotary mud chip cuttings are collectively photographed at the drill site.

**Sample analysis method:** The majority of PFN grade logging directly measures in-situ uranium grade, thus avoiding the issue of variable radiometric disequilibrium that can affect results from gamma, which measures daughter products. Both natural gamma and PFN grade tools were calibrated at the SA government (DWLBC) 'Adelaide Model' pits at Frewville and later (PFN only) in a purpose-built facility at Beverley.

**Estimation Methodology:** Several estimation methods have been used to provide a range of Exploration Target estimates:

- Unconstrained polygonal using Voronoi-Direchlet tessalation to define an area of influence for each cumulative grade x thickness value.
- Restricted polygonal as above with polygon areas greater than 20,000 m<sup>2</sup> cut to 20,000 m<sup>2</sup>.
- Block Kriging, 50 x 50m blocks: 400x 100m search ellipse oriented  $45^{\circ}E$ . A minimum of 1 data value required within the search area to inform a block.
- Block Kriging, 50 x 50m blocks: 400x 100m search ellipse oriented 45°E. A minimum of 3 data values required within the search area to inform a block.
- Inverse Distance Weighting (IDW) block model, 50 x 50m blocks: 400x 100m search ellipse oriented 45°E.
   A minimum of 1 data value required within the search area to inform a block.
- Inverse Distance Weighting (IDW) block model, 50 x 50m blocks: 400x 100m search ellipse oriented 45°E.
   A minimum of 3 data values required within the search area to inform a block.



Cut-off grade, including the basis for the selected cut-off grade: Estimates were made at a GT cut-off, applied to drill intercepts of 0.5 m minimum thickness and 0.03% minimum  $U_3O_8$  grade, with up to 1 m of internal dilution allowed. A cut-off factor of 0.03m%  $U_3O_8$  was applied to the output block GT values following processing using the kriging and IDW algorithms. A dry bulk density factor of 1.8 tonnes/m³ was used for the conversion of volume to mass.

#### Criteria use for classification, including drill and data spacing and distribution:

A classification is not applicable for an Exploration Target. Drill and data spacing is described elsewhere.

#### Mining and metallurgical methods and parameters:

As noted above, the assessment takes no account of possible mining method or metallurgical methods and parameters.

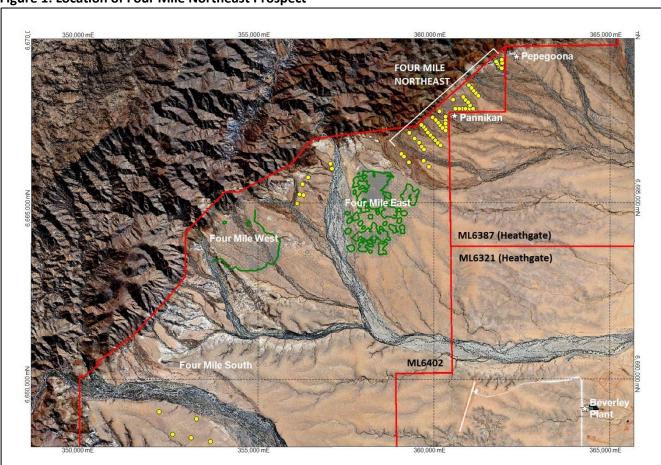


Figure 1: Location of Four Mile Northeast Prospect



Figure 2: Plan showing the location of Four Mile Northeast drill holes and the confining boundary for the Exploration Target estimations

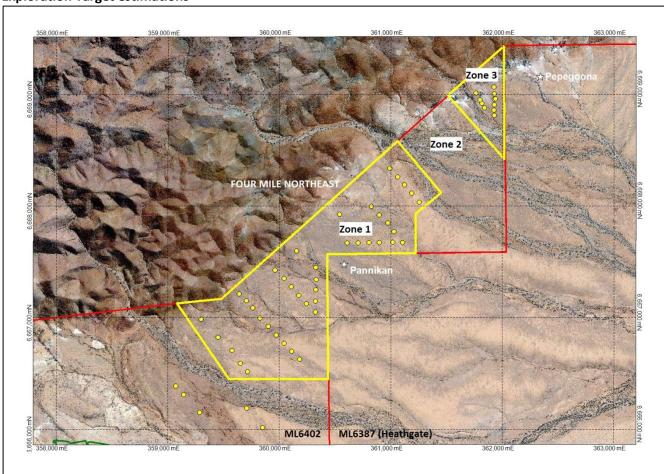


Table A: Exploration Target – summary of estimates

Method	Mineralised Mass (tonnes)	Average Grade (%U₃O <sub>8</sub> )	U <sub>3</sub> O <sub>8</sub> (tonnes)	U <sub>3</sub> O <sub>8</sub> (lb)
Upper Bound				
Polygonal unconstrained	15,000,000	0.24	35,500	78,000,000
Block Kriging	18,000,000	0.2	35,500	78,000,000
IDW block model	17,000,000	0.2	35,000	77,000,000
Lower Bound				
Polygonal restricted (20K m <sup>2</sup> )	8,000,000	0.24	19,000	41,000,000
Block Kriging	11,000,000	0.21	23,500	51,000,000
IDW block model	11,000,000	0.22	23,500	52,000,000

<sup>\*</sup>Minor apparent multiplication mismatches are due to post-computational rounding of all entries to 2 significant figures.



Table B: Significant intersections above cut-off criteria of 0.03% pU₃O₀, minimum width of 0.5 metres and maximum internal dilution of 1 metre. Drill hole collar locations based on handheld GPS coordinates. Intercepts >0.5m% (GT-PFN) highlighted. Dip is -90 degrees and azimuth 0 (i.e. all holes are drilled vertically).

				Total										
ID	GDA94 E	GDA94 N	RL (m)	Depth			Gamma					PFN		
			(,	(m)										
					From (m)	To (m)	Interval (m)	eU3O8(%)	GТ	From (m)	To (m)	Interval (m)	pU3O8 (%)	GТ
FMD0001	360329	6667342	128.90	276		225.30	3.70	0.21	0.78	221.60	225.30	3.70	0.14	0.51
FMD0001	300323	0007342	120.50	270	227.20	232.20	5.00	0.21	1.05	227.20	232.20	5.00	0.18	0.92
FMD0001					253.60	256.40	2.80	0.20	0.56	253.60	256.40	2.80	0.26	0.73
FMD0002	359900	6666924	131.95	282	246.98	254.94	7.96	0.37	2.94		Bloc			-
FMD0002					219.80	221.03	1.23	0.05	0.06		Bloc	ked		-
FMD0002					241.36	243.05	1.69	0.05	0.08		Bloc	ked		-
FMD0003	359827	6666996	135.46	276	216.80	218.80	2.00	0.03	0.07	216.80	218.80	2.00	0.07	0.14
FMD0003					249.00	256.00	7.00	0.74	5.18	249.00	256.00	7.00	1.19	8.32
FMD0004	359760	6667090	139.83	282	258.90	259.80	0.90	0.18	0.16	258.90	259.80	0.90	0.13	0.12
FMD0005	359574	6666706	138.02	276	251.00	252.00	1.00	0.035	0.035	251.00	252.00	1.00	0.03	0.03
FMD0006	359972	6666845	131.43	270	246.00	255.00	9.00	0.60	5.40	246.00	255.00	9.00	0.85	7.65
FMD0007	359650	6666591	136.66	276	243.00 251.00	244.00	1.00	0.04	0.04		Nol			
FMD0007 FMD0008	359072	6666389	141.40	110	251.00	252.00	1.00			L cant grade	No	PFIN		
FMD0009	359142	6666311	139.41	137						cant grade				
FMD0010	3597142	6666518	134.95	276						cant grade				
FMD0011	360041	6666771	130.71	276	234.00	239.30	5.30	0.05	0.27	234.00	239.30	5.30	0.05	0.27
FMD0011	500011	0000771	150171	2,0	245.00	247.40	2.40	0.15	0.36	245.00	247.40	2.40	0.16	0.38
FMD0012	359286	6666153	135.83	220						cant grade				
FMD0013	360327	6667450	129.66	276	256.60	258.40	1.80	0.21	0.38	256.60	258.40	1.80	0.15	0.27
FMD0014	360325	6667150	127.35	276	230.00	233.70	3.70	0.04	0.13	230.00	233.70	3.70	0.04	0.15
FMD0014					237.70	239.40	1.70	0.02	0.03	237.70	239.40	1.70	0.03	0.05
FMD0015	360325	6667250	128.52	270	222.00	224.60	2.60	0.03	0.06	222.00	224.60	2.60	0.03	0.08
FMD0015					243.60	249.50	5.90	0.11	0.65	243.60	249.50	5.90	0.14	0.85
FMD0015					249.50	256.00	6.50	0.37	2.41	249.50	256.00	6.50	0.54	3.51
FMD0016	360175	6667201	132.07	276		219.50	1.70	0.04	0.07	217.80	219.50	1.70	0.06	0.10
FMD0016					230.90	231.50	0.60	0.06	0.04	230.90	231.50	0.60	0.06	0.04
FMD0016					232.50	233.30	0.80	0.05	0.04	232.50	233.30	0.80	0.05	0.04
FMD0016 FMD0017	360107	6667278	135.59	276	241.40 238.50	246.20 239.10	4.80 0.60	0.06	0.29	241.40 238.50	246.20 239.10	4.80 0.60	0.06 0.07	0.29
FMD0017	300107	0007278	155.59	2/0	242.00	242.50	0.50	0.06	0.04	242.00	242.50	0.50	0.07	0.04
FMD0017					254.30	254.80	0.50	0.10	0.05	254.30	254.80	0.50	0.11	0.06
FMD0017					258.00	261.70	3.70	0.22	0.81	258.00	261.70	3.70	0.39	1.44
FMD0018	359638	6667215	148.52	282	253.80	257.00	3.20	0.48	1.54	253.80	257.00	3.20	0.45	1.44
FMD0018					258.60	263.10	4.50	0.04	0.18	258.60	263.10	4.50	0.05	0.23
FMD0018					263.80	265.50	1.70	0.17	0.29	263.80	265.50	1.70	0.30	0.51
FMD0018					268.40	271.00	2.60	0.42	1.09	268.40	271.00	2.60	0.39	1.01
FMD0019	360243	6667125	129.02	276	222.00	232.00	10.00	0.08	0.80	222.00	232.00	10.00	0.10	1.00
FMD0020	360109	6666701	129.34	276	h	220.00	1.00	0.16	0.16	219.00	220.00	1.00	0.20	0.20
FMD0020					229.60	230.70	1.10	0.02	0.02	229.60	230.70	1.10	0.05	0.06
FMD0021	359707	6666190	132.31	276	255.60	256.70	1.10	0.03	0.03	255.60	256.70	1.10	0.07	0.08
FMD0022	359850	6666019	128.83	272	210.00	220.00	4.00			cant grade	220.00	4.00	0.00	0.11
FMD0023	360182	6666629	127.95	272	219.00	220.80	1.80	0.07	0.13	219.00	220.80	1.80	0.08	0.14
FMD0024 FMD0025	360155 359962	6667598 6667425	137.84 141.97	346 282	258.80 258.00	259.40 258.80	0.60	0.02 0.16	0.01	258.80 258.00	259.40 258.80	0.60	0.03 0.11	0.02
FMD0025	339902	0007425	141.97	202	266.40	273.40	7.00	0.16	1.19	266.40	273.40	7.00	0.11	0.09
FMD0025	359703	6667153	143.09	378		234.20	0.50	0.17	0.02	233.70	234.20	0.50	0.12	0.03
FMD0026	333703	0007133	143.03	3,6	260.40	261.30	0.90	0.04	0.10	260.40	261.30	0.90	0.09	0.03
FMD0027	359299	6666988	153.73	104						cant grade				
FMD0028	360043	6667353	138.70	294	245.20	246.00	0.80	0.04	0.03	245.20	246.00	0.80	0.06	0.05
FMD0028					247.80	248.70	0.90	0.06	0.05	247.80	248.70	0.90	0.08	0.07
FMD0028					264.10	266.50	2.40	0.04	0.10	264.10	266.50	2.40	0.06	0.14
FMD0028					269.60	270.50	0.90	0.04	0.04	269.60	270.50	0.90	0.05	0.04
FMD0029	360325	6667050	125.87	276	221.90	222.60	0.70	0.01	0.01	221.90	222.60	0.70	0.05	0.03
FMD0029					225.40	228.40	3.00	0.05	0.15	225.40	228.40	3.00	0.06	0.18
FMD0030	359450	6666824	143.78	276	249.80	250.80	1.00	0.13	0.13	249.80	250.80	1.00	0.06	0.06



Table B (continued): Significant intersections above cut-off criteria of 0.03%  $pU_3O_8$ , minimum width of 0.5 metres and maximum internal dilution of 1 metre. Drill hole collar locations based on handheld GPS coordinates. Intercepts >0.5m% (GT-PFN) highlighted. Dip is -90 degrees and azimuth 0 (i.e. all holes are drilled vertically).

ID	GDA94 E	GDA94 N	RL (m)	Total Depth			Gamma					PFN		
	GDA34_E	05/13-1-11	,	(m)										
					From (m)	To (m)	Interval (m)	eU3O8(%)	GT	From (m)	To (m)	Interval (m)	pU3O8 (%)	GT
FMD0031	356425	6665728	170.11	156					No signifi	cant grade				
FMD0032	357053	6666106	153.39	228	128.20	129.00	0.80	0.07	0.06	128.20	129.00	0.80	0.09	0.07
FMD0033	356267	6665530	165.13	157						cant grade				
FMD0034	356178	6665243	158.54	168	120.70	121.60	0.90	0.12	0.11	120.70	121.60	0.90	0.12	0.11
FMD0035	356111	6664984	153.04	148						cant grade				
FMD0036	357095	6665965	150.24	168						cant grade				
FMD0037	356298		157.57	166	131.20	131.80	0.60	0.07	0.04	131.20	131.80	0.60	0.10	0.06
FMD0038	361925	6668955	119.97	288	225.50	231.30	5.80	0.10	0.58		No			
FMD0038					243.70	246.00	2.30	0.07	0.16		No			
FMD0038 FMD0038					253.20 277.50	255.50 278.50	2.30 1.00	0.08	0.18		No No			
FMD0039	361925	6669005	121.57	397	242.00	243.10	1.10	0.13	0.13	242.00	243.10	1.10	0.07	0.08
FMD0039	301323	0009003	121.57	331	248.20	252.00	3.80	0.11	0.65	248.20	252.00	3.80	0.30	1.14
FMD0039					254.10	255.60	1.50	0.41	0.62	254.10	255.60	1.50	0.53	0.80
FMD0039					260.10	261.60	1.50	0.41	0.30	260.10	261.60	1.50	0.35	0.53
FMD0040	361925	6668907	119.57	300	205.80	206.40	0.60	0.04	0.02	205.80	206.40	0.60	0.26	0.16
FMD0040					218.10	218.80	0.70	0.01	0.01	218.10	218.80	0.70	0.07	0.05
FMD0040					220.00	235.30	15.30	0.06	0.92	220.00	235.30	15.30	0.13	1.99
FMD0040					236.50	237.00	0.50	0.14	0.07	236.50	237.00	0.50	0.20	0.10
FMD0040					244.30	245.00	0.70	0.21	0.15	244.30	245.00	0.70	0.17	0.12
FMD0040					246.10	248.40	2.30	0.24	0.55	246.10	248.40	2.30	0.31	0.71
FMD0040					250.10	255.00	4.90	0.83	4.07	250.10	255.00	4.90	1.83	8.97
FMD0040					275.10	276.40	1.30	0.11	0.14	275.10	276.40	1.30	0.12	0.16
FMD0041	361923	6668857	118.32	294	226.40	228.00	1.60	0.08	0.13	226.40	228.00	1.60	0.15	0.24
FMD0041					229.20	229.80	0.60	0.05	0.03	229.20	229.80	0.60	0.07	0.04
FMD0041					236.00	237.60	1.60	0.09	0.14	236.00	237.60	1.60	0.13	0.21
FMD0041					245.00	245.50	0.50	0.12	0.06	245.00	245.50	0.50	0.13	0.07
FMD0041					254.40	255.20	0.80	0.18	0.14	254.40	255.20	0.80	0.25	0.20
FMD0042	361838	6668879	120.95	300	209.30	210.00	0.70	0.05	0.03	209.30	210.00	0.70	0.15	0.10
FMD0042	254025	5550044	445.70	200	234.10	236.50	2.40	0.08	0.19	234.10	236.50	2.40	0.12	0.29
FMD0043	361926	6668811	115.79	300	233.10	234.00	0.90	0.08	0.07	233.10	234.00	0.90	0.11	0.10
FMD0043					244.80 251.60	245.80 254.90	1.00	0.08	0.08	244.80 251.60	245.80 254.90	1.00 3.30	0.09	0.09 1.49
FMD0043					266.50	267.50	3.30 1.00	0.33	1.16 0.22	266.50	267.50	1.00	0.45 0.30	0.30
FMD0043					269.80	270.50	0.70	0.22	0.20	269.80	270.50	0.70	0.40	0.30
FMD0044	361815	6668920	122.40	294	226.90	227.80	0.90	0.11	0.10	226.90	227.80	0.90	0.40	0.23
FMD0044	501015	0000520	122.10		233.30	236.80	3.50	0.09	0.32	233.30	236.80	3.50	0.13	0.46
FMD0044					240.50	241.68	1.18	0.14	0.17	240.50	241.68	1.18	0.22	0.26
FMD0044					245.10	250.90	5.80	0.33	1.91	245.10	250.90	5.80	0.55	3.19
FMD0044					252.60	257.20	4.60	0.21	0.97	252.60	257.20	4.60	0.46	2.12
FMD0044					261.60	263.00	1.40	0.17	0.24	261.60	263.00	1.40	0.14	0.20
FMD0045	361936	6668961	120.32	294	221.60	229.30	7.70	0.09	0.69	221.60	229.30	7.70	0.19	1.46
FMD0045	_				234.10	234.70	0.60	0.09	0.05	234.10	234.70	0.60	0.14	0.08
FMD0045					243.70	245.00	1.30	0.44	0.57	243.70	245.00	1.30	0.60	0.78
FMD0045					250.50	251.10	0.60	0.06	0.04	250.50	251.10	0.60	0.09	0.05
FMD0045					252.60	253.30	0.70	0.14	0.10	252.60	253.30	0.70	0.11	0.08
FMD0045					254.60	255.30	0.70	0.11	0.08	254.60	255.30	0.70	0.17	0.12
FMD0045	0.5:	000			276.50	277.40	0.90	0.34	0.31	276.50	277.40	0.90	0.61	0.55
FMD0046		6668950	123.01	390	152.10	153.60	1.50	0.12	0.18	152.10	153.60	1.50	0.09	0.14
FMD0046					241.20	242.60	1.40	0.08	0.11	241.20	242.60	1.40	0.15	0.21
FMD0046					251.60	255.90	4.30	0.14	0.60	251.60	255.90	4.30	0.30	1.29
FMD0046 FMD0046					256.80 278.70	257.40	0.60	0.11	0.07 0.05	256.80 278.70	257.40	0.60	0.15 0.09	0.09
FMD0046	361760	6669011	125.07	126	2/8./0	279.30	0.60				279.30	0.60	0.09	0.05
FMD0047		1	121.66	90	<del> </del>					cant grade cant grade				
า เงเมนน48	301924	6005003	121.00	90	L				ino zikulu	carri graue				





Table B (continued): Significant intersections above cut-off criteria of 0.03% pU $_3$ O $_8$ , minimum width of 0.5 metres and maximum internal dilution of 1 metre. Drill hole collar locations based on handheld GPS coordinates. Intercepts >0.5m% (GT-PFN) highlighted. Dip is -90 degrees and azimuth 0 (i.e. all holes are drilled vertically).

				Total												
ID	GDA94 E	GDA94 N	RL (m)	Depth			Gamma					PFN				
	_	_		(m)												
							Interval					Interval				
					From (m)	To (m)	(m)	eU3O8(%)	GT	From (m)	To (m)	(m)	pU3O8 (%)	GT		
FMD0049	360804	6667672	123.77	282	245.90	248.20	2.30	0.48	1.10	245.90	248.20	2.30	0.89	2.05		
FMD0049					260.70	262.70	2.00	0.50	1.00	260.70	262.70	2.00	0.87	1.74		
FMD0050	360896	6667671	122.18	282					No signifi	cant grade						
FMD0051	361016	6667675	120.28	282					No signifi	cant grade						
FMD0052	361105	6667671	118.46	276					No signifi	cant grade						
FMD0053	361026	6667771	120.14	282	237.50	238.10	0.60	0.16	0.10	237.50	238.10	0.60	0.16	0.10		
FMD0053					239.00	239.50	0.50	0.05	0.03	239.00	239.50	0.50	0.14	0.07		
FMD0054	360707	6667671	126.18	276	260.90	262.30	1.40	0.61	0.85	260.90	262.30	1.40	0.68	0.95		
FMD0054					264.10	264.70	0.60	0.08	0.05	264.10	264.70	0.60	0.09	0.05		
FMD0055	360896	6667918	122.42	282	264.50	265.30	0.80	0.20	0.16	264.50	265.30	0.80	0.10	0.08		
FMD0056	361187	6668115	120.65	288	219.50	220.10	0.60	0.04	0.02	219.50	220.10	0.60	0.15	0.09		
FMD0056					221.70	222.80	1.10	0.29	0.32	221.70	222.80	1.10	0.43	0.47		
FMD0056					227.30	227.80	0.50	0.05	0.03	227.30	227.80	0.50	0.11	0.06		
FMD0057	360972	6667849	120.48	282					No signifi	cant grade						
FMD0058	360824	6667998	123.01	218				[	Orill hole a	abandoned	i					
FMD0059	361123	6668188	122.10	288					No signifi	cant grade						
FMD0060	361254	6668035	119.21	282					No signifi	cant grade						
FMD0061	360607	6667671	128.76	282	261.50	262.30	0.80	0.31	0.25	261.50	262.30	0.80	0.52	0.42		
FMD0061					264.40	265.10	0.70	0.12	0.08	264.40	265.10	0.70	0.14	0.10		
FMD0062	360988	6668338	126.16	378	214.10	215.10	1.00	0.27	0.27	214.10	215.10	1.00	0.48	0.48		
FMD0062					216.60	217.10	0.50	0.06	0.03	216.60	217.10	0.50	0.18	0.09		
FMD0063	361060	6668262	123.39	294					No signifi	cant grade						
FMD0064	360541	6667925	132.60	282	217.30	217.80	0.50	0.08	0.04	217.30	217.80	0.50	0.09	0.05		
FMD0064					260.90	261.90	1.00	0.39	0.39	260.90	261.90	1.00	0.53	0.53		
FMD0065	352195	6659078	185.81	91					No signifi	cant grade						
FMD0066	353255	6658879	165.89	120					No signifi	cant grade						
FMD0067	353107	6658336	170.86	138		No significant grade										
FMD0068	353654	6658237	167.72	144		No significant grade										
FMD0069	352579	6658438	176.33	110		No significant grade										



# JORC Code Table 1 checklist of assessment and reporting criteria

Criteria	Commentary
Sampling techniques	The principal sampling method was by downhole geophysical PFN and gamma probes in rotary mud drill holes for both grade and lithological logging, PFN grade logging directly measures in-situ uranium grade, thus avoiding the issue of variable radiometric disequilibrium that can affect results from gamma, which measures uranium daughter products.  The natural gamma tool is calibrated for uranium grade at the 'Adelaide Model' geophysical calibration pits. The PFN is calibrated at the purpose built calibration facility located at Beverley.
Drilling techniques	Drill holes are drilled vertically using the rotary mud method. Depth to top of mineralisation varies from 205.8 to 278.7 metres. Depth to base of mineralisation varies from 206.4 to 279.3 metres. Maximum depth drilled was 397 metres.
Drill sample recovery	Rotary mud chip cuttings are collectively photographed at the drill site. Chip tray samples are kept in storage.
Logging	Chip samples are not collected for laboratory chemical assay.
Sub-sampling techniques and sample preparation	Sub-samples of the chip cuttings are stored in chip trays as a physical record of the intersection sequence. Handheld XRF analyses of chip tray samples are collected.  The rotary mud chip cuttings are collectively photographed at the drill site.
Quality of assay data and laboratory tests	PFN directly measures uranium grade. There is no conventional assay data and no laboratory tests were carried out.
Verification of sampling and assaying	PFN tools are regularly calibrated at a calibration facility located at Beverley. No sampling or conventional assaying was carried out.
Location of data points	Collar coordinates were determined by handheld GPS. Survey data are GDA94, MGA Zone 54.
Data spacing and distribution	Although full grid drilling was not envisaged for this drill program, provisional drill holes were planned in fences mostly 400m apart with hole locations spaced at 100m intervals along the fences, although there are exceptions to this spacing due to the shape of Mineral Lease 6402. The actual location of drill holes to be completed is dependent on the discovered locations of redox/roll fronts.
Orientation of data in relation to geological structure	Drill holes fences are oriented perpendicular to the interpreted strike of the large scale regional roll-front redox boundary. Vertical drilling intersects the expected subhorizontal sediments and mineralization at close to right angles.
Sample security	Drill hole cuttings are stored at the Beverley Mine.
Audits or reviews	The raw data underpinning the information contained herein has <b>not</b> been independently reviewed by Mr Bowden and Mr Johnston as CP for Alliance and relies





Criteria	Commentary
	on information provided by Quasar Resources Pty Ltd, the manager and holder of a 75% interest in the Project
Mineral tenement and land tenure status	Mineral Lease 6402 is held 25% by Alliance Craton Explorer Pty Ltd (a wholly owned subsidiary of Alliance Resources Limited)(ACE) and 75% by Quasar Resources Pty Ltd (Quasar), an affiliate of Heathgate Resources Pty Ltd (Heathgate), both wholly owned subsidiaries of private US corporation, General Atomics. Quasar as manager for the project, utilizes staff, facilities and equipment at Heathgate's adjacent Beverley Mine site.
	A Native Title Mining Agreement is in effect with traditional owners.  The 12,206ha mining lease was granted for a period of 10 years from 26 April 2012
	and production planning is progressing for the Four Mile East deposit.
Exploration done by other parties	The Oilmin-Transoil-Petromin Group discovered Beverley in 1969 and ISL development was proposed by South Australian Uranium Corp in 1982 but did not proceed until after Heathgate acquired it in 1990 and commenced production in 2000. In 2005 Quasar resumed exploration drilling at 4,000m x 2,000m spacing on the 'Arkaroola' licence to the west (then held by ACE). This led to the discovery of Four Mile East in hole AK010 which returned 1m @ 0.16% eU308 from 181m depth.
Geology	The mineralisation is of the sandstone uranium type, associated with redox interfaces.  The mineralisation announced today is interpreted to lie within an apparent regional roll-front type redox interface that embraces the Four Mile West, Four Mile East, Pepegoona and Pannikan deposits over a total strike length of 7.5 kilometres.
	A detailed interpretation of the sedimentary sequence is not yet available for these preliminary drill holes.
	Mineralisation is hosted in Mesozoic sediments of the Frome Embayment and underlain by crystalline Meso/Palaeoproterozoic basement, with Mesoproterozoic granites considered source rocks. Other deposits occur in Tertiary sands of the overlying Callabonna Sub Basin of the Lake Eyre Basin, extending over an area of approximately 25,000km² between the Mount Painter Inlier in the north west, Olary Block to the south and Broken Hill Block to the east.
Drill hole Information	Drill hole coordinates together with uranium mineralized intersections detected by PFN and gamma log probes are presented in Table B.
Data aggregation methods	PFN grade logging directly measures in-situ uranium grade and thickness. For gamma logs, the area under an anomalous gamma curve is proportional to the grade x thickness (GT) of the mineralised intercept. In both cases calibration data unique to the individual probe are used to "correct" the measured data to standard measures in purpose built calibration facilities. In order to derive an estimate of equivalent uranium grade from gamma logs it is necessary to estimate the intercept thickness (T) and calculate grade by division grade G=GT/T. Anomalous intersections indicated by the down hole gamma probe are expected to exceed the true width due to the "shoulder effect" whereby radiation is "recorded'" by the probe as it approaches and leaves the mineralised zone. Classically, the shoulder effect is compensated in gamma logs by a deconvolution process. This process is not utilised by Quasar which, as a "rule of thumb", applies the PFN derived thickness to the gamma log GT to obtain gamma log equivalent grade.





Criteria	Commentary
Relationship between mineralisation widths and intercept lengths	Unless there has been significant structural disturbance the sedimentary beds are expected to be sub-horizontal and the intersected thickness is expected to be close to the true thickness.
Diagrams	Plan Figure 1: Distribution of regional drilling at Four Mile; Plan Figure 2: Four Mile Northeast drill hole locations showing uranium intercepts >0.03% pU $_3$ O $_8$ and Table B: Significant intersections above cut-off criteria of 0.03% pU $_3$ O $_8$ , minimum width of 0.5 metres and maximum internal dilution of 1 metre, are included in this announcement. For Exploration Target tonnage calculations a cut-off of 0.03m% U $_3$ O $_8$ was applied to the output polygon and block GT data.
Balanced reporting	The results for all significant intersections (i.e. intersections with significant reportable uranium equivalent grade) are shown in Table B.
Other substantive exploration data	Assuming no sampling or calibration errors, the difference between the gamma derived equivalent uranium grade and the PFN measured uranium grade should be a measure of disequilibrium within the mineralised intersection. Inspection of the exploration results implies significant disequilibrium is present in this area.
Further work	The current drill program is in progress.

#### Steve Johnston Managing Director

#### **Competent Person's Statement**

The information in this report that relates to Exploration Results is based on information compiled by Mr Andrew Bowden who is a Chartered Geologist and Fellow of the Geological Society of London, a Recognised Overseas Professional Organisation included in a list promulgated by the ASX from time to time and Mr Stephen Johnston who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Bowden and Mr Johnston are part-time and full-time employees, respectively, of Alliance Resources Ltd and have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Bowden and Mr Johnston consent to the inclusion in the report of the matters based on their information the form and context in which it appears.