



## ASX ANNOUNCEMENT

22 March 2010

### KEMPFIELD RESOURCES INCREASED BY 88% TO 21.2m OZ OF SILVER

#### Highlights

- 21.2 million ounces of contained Silver, an 88% increase on the Prospectus resource, equivalent to 326,000 ozs of Gold at a silver/gold ratio of 65 to 1.
- Plus:
  - 30,000 ozs of contained Gold;
  - 110,000 tonnes of contained Zinc as sulphide;
  - 55,000 tonnes of contained Lead as sulphide.
- Zones are open at depth and along strike, indicating potential for further resource upgrades.
- Results of Scoping Studies into Heap Leach and Agitated Leach/Flotation Projects are Imminent.

Argent Minerals Limited today announced that a revised estimate of the silver/lead/zinc/barite resources at its Kempfield, property, where Argent is earning a 70% interest from Golden Cross Resources Limited, has been undertaken by consulting geologists Hellman and Schofield Pty Ltd. The revised estimates are set out in Table 1. Preliminary indications are that between 50 and 80% of these resources may be available for open pit mining.

Also reported is the resource estimate which was included in the Company's prospectus issued in conjunction with its listing on the ASX on 4th April 2008.

**Table 1 Kempfield Resources**

	Million Tonnes	Silver		Lead %	Zinc %	Gold g/t	Barite %
		g/t	mill ozs				
April 2008 Prospectus Resource							
All zones (at 60g/t Ag only cut-off)	3.7	95	11.3	0.5	0.7	-	26
March 2010 Resource							
Oxide and Transitional (at 40g/t Ag only cut-off)	3.2	79	8.1	-	-	0.09	23
Sulphide (at 80g/t Ag equivalent cut-off)	6.7	62	13.2	0.8	1.7	0.11	17

**Total Silver 9.9m tonnes at 67g/t for 21.2 million ounces of Silver.**



\*At 40g/t Silver only cut-off for the oxide and transitional material and at 80g/t Silver equivalent for the sulphide material (where 20g/t silver is equivalent to 1% lead or 1% zinc or any proportional combination thereof).

Drilling programmes undertaken since the company listed in April 2008 have been very successful with approximately 8,000 metres of mainly RC drilling in 120 holes being completed over the period resulting in an additional 4.8 million ozs of silver at an approx cost of 15 cents per ounce.

The changes in the cut-off grade from 60g/t Ag to 40g/t Ag for the oxide and transitional material and from 60g/t Ag only to 80g/t Ag equivalent for the sulphide reflect the increase in the silver price between 2000-2001 when the resource estimates quoted in the Prospectus were made (A\$9 per ounce) and now (A\$18 per ounce) and the value of the lead and zinc in the sulphide mineralization. The revised cut off grades have resulted in an additional 5.1 million ozs of silver.

## JORC Code Classification

Approximately 75% of the tonnes in the overall resource are classified as Measured or Indicated under the JORC Code. 80% of the contained silver and 68% of the contained lead and zinc report to the Measured or Indicated categories. Details are set out in Table 2 below.

**Table 2– Kempfield Resources-JORC Code Classification**

	Million Tonnes	Silver		Gold g/t	Lead %	Zinc %	Ag Eq g/t
		g/t	Mill ozs				
Oxide and Transitional (at 40g/t Ag only cut-off)							
Measured	1.4	87.0	4.0	0.08	-	-	-
Indicated	1.3	74.6	3.2	0.09	-	-	-
Inferred	0.4	66.3	0.9	0.08	-	-	-
Total	3.2	79.2	8.1	0.09	-	-	-
Sulphides (at 80g/t Ag Equivalent cut-off)							
Measured	1.2	80.5	3.0	0.09	0.9	1.3	124.5
Indicated	3.5	61.4	6.8	0.11	0.8	1.6	109.4
Inferred	2.0	51.3	3.4	0.12	0.8	1.9	105.3
Total	6.7	61.6	13.2	0.11	0.8	1.7	111.3



The oxide and transitional resources are relatively high grade, generally lie within 30 metres of the surface and are amenable to leaching (both agitated and heap leaching) to recover silver and gold.

Approximately 88% is classified as Measured or Indicated. The much larger sulphide resources lying below the oxide and transitional resources have lower average silver grades (61.6g/t) but contain 2.5% combined lead/zinc.

The sulphide mineralization is amenable to leaching to recover some of the contained silver and to flotation of the leach tail to produce a zinc concentrate and a silver rich lead concentrate. Approximately 72% of the sulphide resource is classified as Measured or Indicated.

## Potential for Additional Resources

The Kempfield tenement contains a Volcanic Massive Sulphide (VMS) system which is over three kilometres in north-south strike length and varies from 300 to 400 metres in width, see Figure 1.

The system contains many zones of mineralised lenses which have only been drilled to an average depth of 70 metres with the deepest hole drilled so far to a depth of approximately 200 meters vertical depth.

Many of these lenses show higher lead/zinc grades and are open at depth (see Table 3). There are several gaps along strike which also require further drilling.

There is a strong expectation that further drilling will substantially increase the resources.

**Table 3**

Zone	Hole No.	From (m)	Interval (m)	Silver (g/t)	Gold (g/t)	Lead (%)	Zinc (%)	CBM* (%)
McCarron	AKRC13	80	10	128	-	5.7	5.0	10.7
McCarron North	AKRC74	40	16	190.7	0.53	3.14	4.89	8.03
	Including	50	6	356.0	1.07	4.66	6.94	11.6
BJ	AKRC19	142	12	38.0	0.10	1.26	6.30	7.56
	Including	142	4	48.0	0.1	1.52	9.57	11.1
Quarries	AKRC73	50	6	4.12	0.17	2.97	6.86	9.8
	Including	52	2	62.2	0.28	2.70	9.29	12.0

\* CBM = Combined Base Metals (Lead% + Zinc%).

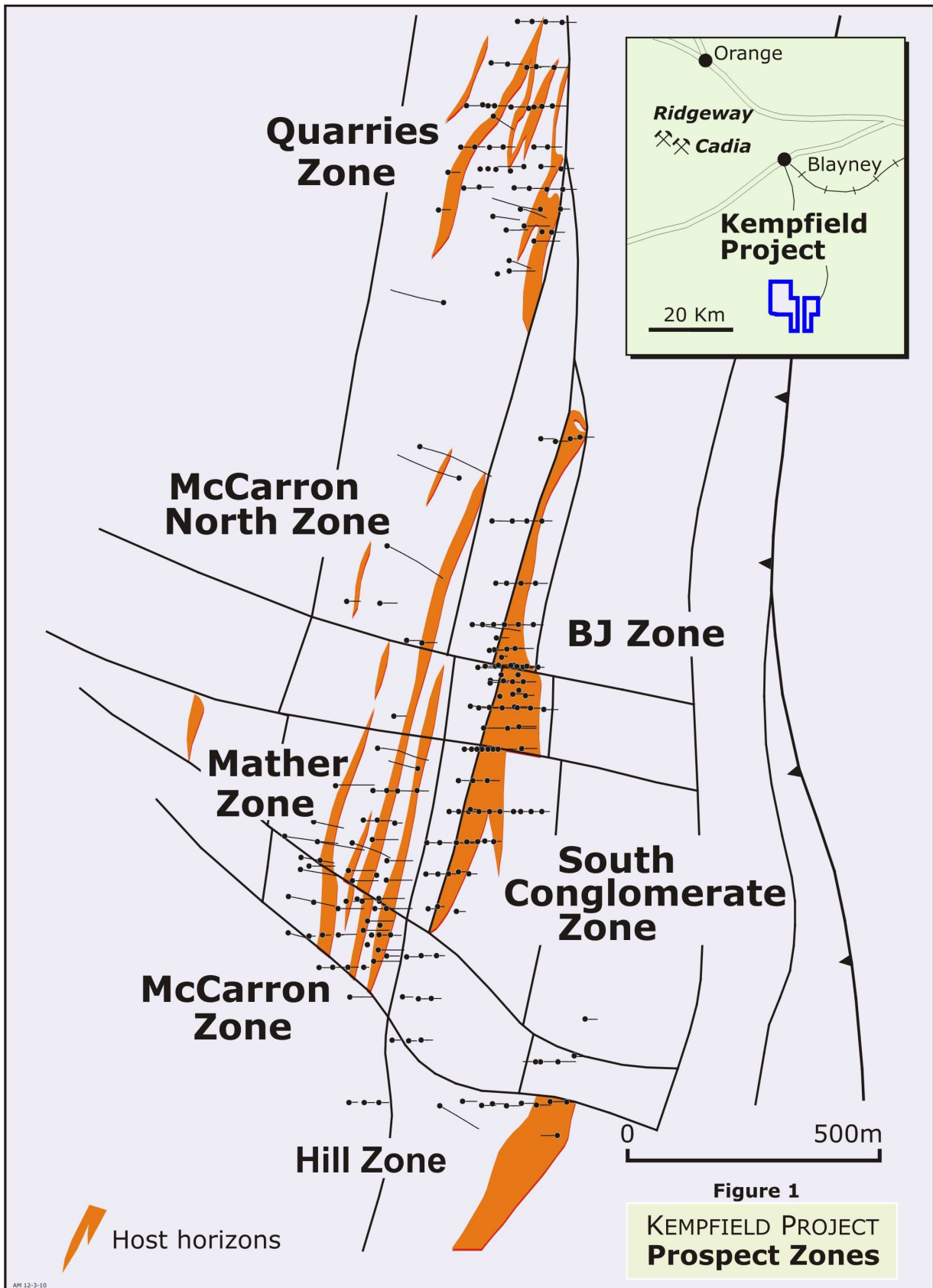


Figure 1



## BJ ZONE

The BJ zone contains 42% of the tonnes, 50% of the contained silver and 23% of the contained lead and zinc. Drilling was particularly successful and resulted in an increase of 33% in both tonnes and contained silver. The bulk of the mineralisation occurs in a number of lenses, which in aggregate have a north-south strike length of approximately 260 metres. They have an aggregate width of 120 metres and extend to 180 metres below the surface. The zone is open at depth and to the south and contains (as do the other two zones) plunging shoots of higher grade lead/zinc, e.g. Hole AKRC19 which intersected 14 metres at 7.7% combined lead/zinc and 41g/t Ag from 142 metres down hole (see the following cross section). These will be the target of future exploration drilling to identify additional resources.

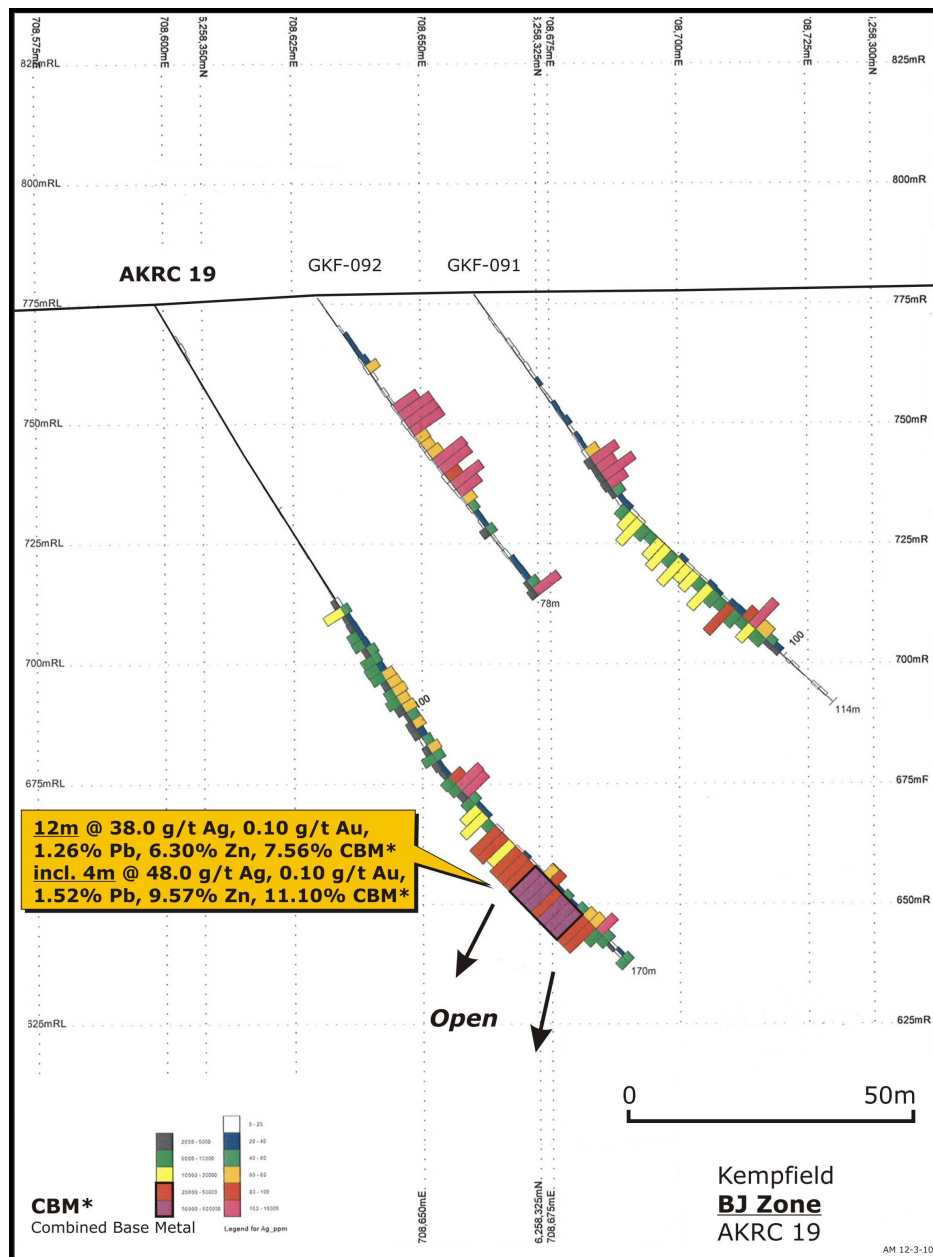


Figure 2



## McCarron Zone

This zone contains 45% of the tonnes, 36% of the silver, 60% of the lead and zinc and 95% of the gold in the Kempfield resource. The sulphide resource comprises 5.4 mt at 37g/t silver, 2.5% combined lead/zinc and 0.2g/t gold. The zone comprises three lenses that have a combined north/south strike length of some 450 metres and are open at depth and to the north. Recently completed and reported drill holes at North McCarron e.g. Holes AKRC62, 74, 77 and 79 have outlined a zone of high grade silver lead and zinc mineralization. Hole AKRC77 was particularly noteworthy in intersecting 40 metres, from 26 metres down hole, at 222g/t Ag, 0.31g/t Au and 3.8% combined lead-zinc-including 4 metres at 1285g/t Ag. Many high grade silver/lead/zinc shoots are open at depth, e.g. Hole AKRC13 which intersected 10 metres at 128g/t Ag plus 10.7% combined lead/zinc and Hole AKRC74 (see below) which intersected 6 metres averaging 356.0 g/t Ag plus 11.6% lead-zinc. These high grade shoots will require follow up drilling.

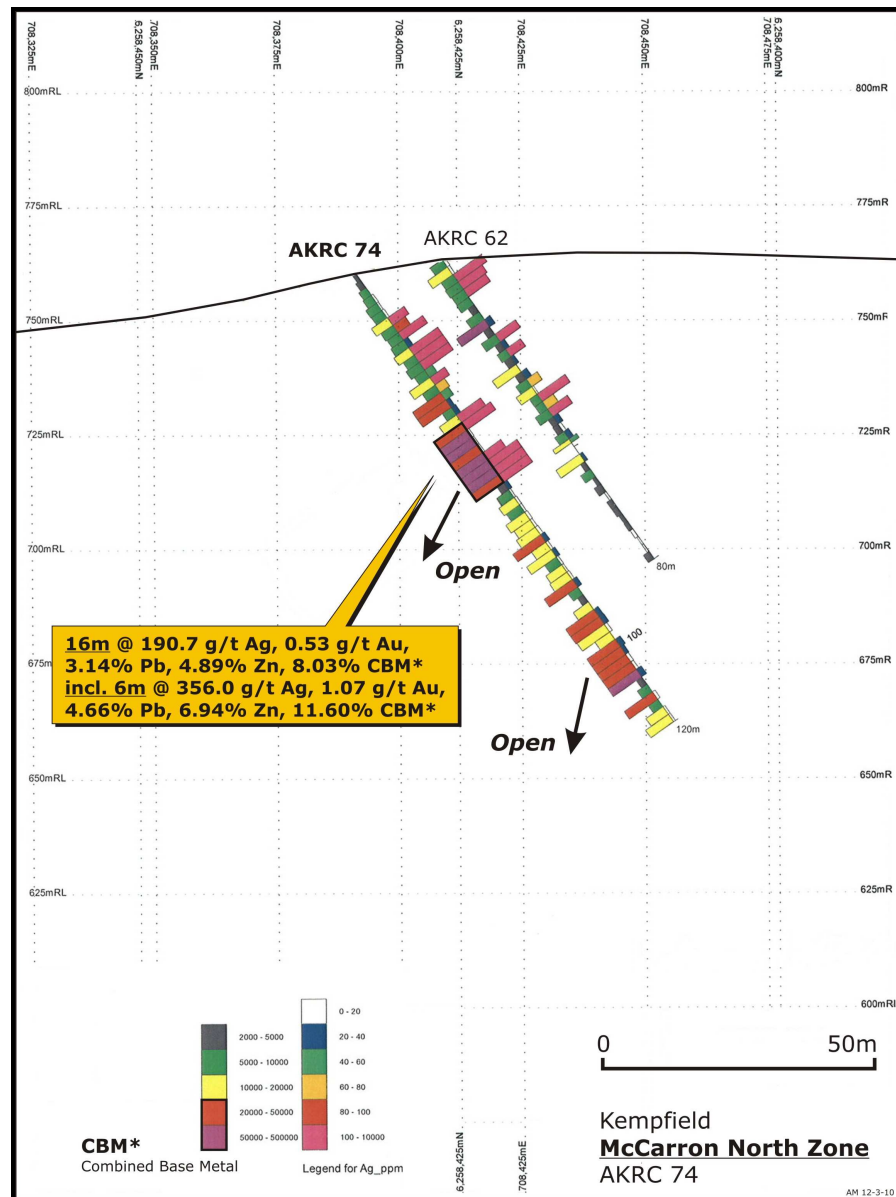


Figure 3



## Quarries Zone

This zone consists of several lenses and remains open to the south, north and at depth as is evidenced by Hole AKRC 73 (see below). The zone is notable for some areas of very high barite grades. Part of the Quarries Zone is covered by four granted mining leases which contain two barite quarries.

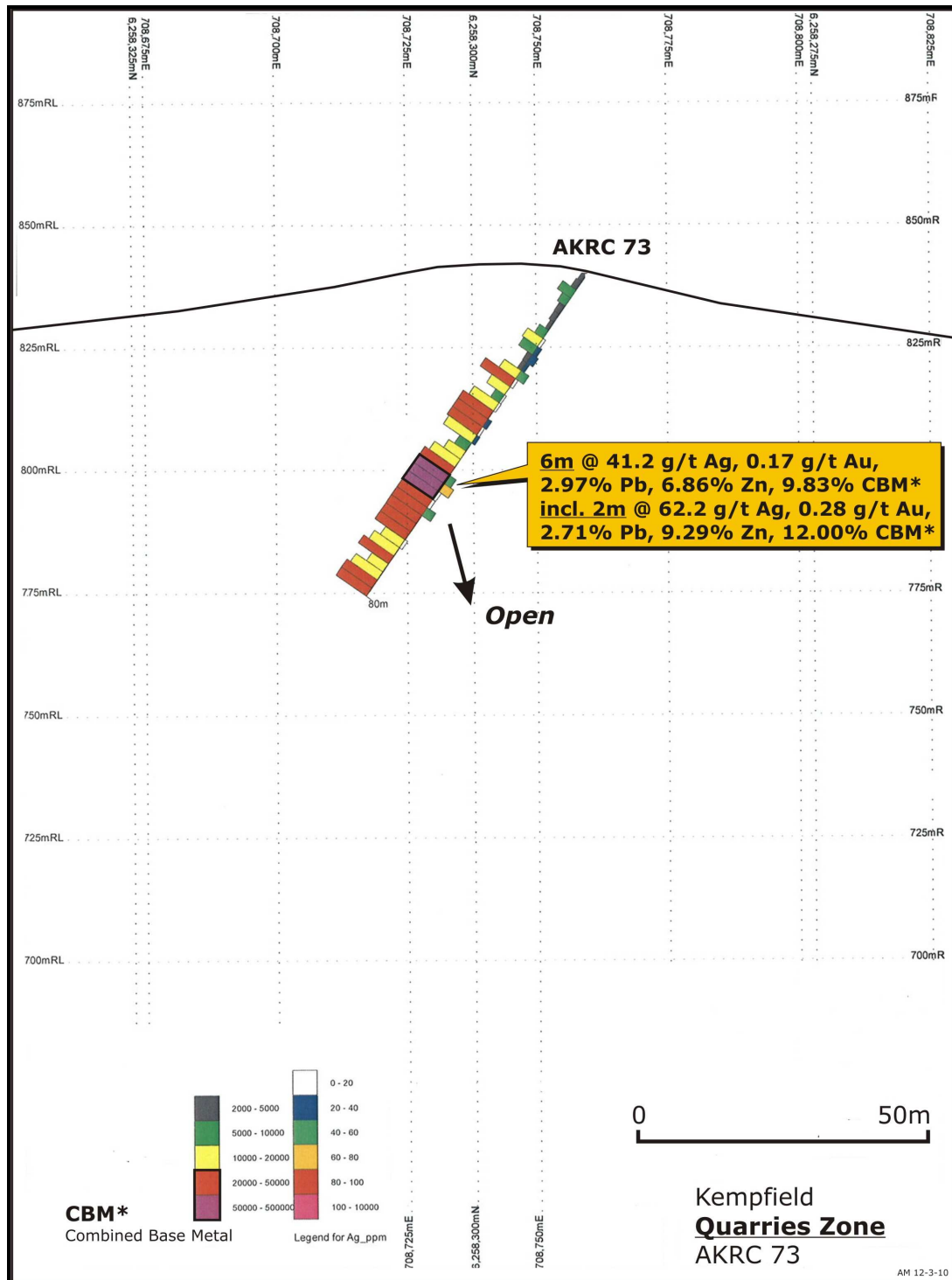


Figure 4



## Methodology

All resource estimates were generated by Hellman & Schofield using Ordinary Kriging. Holes are generally drilled on 25 metres cross-sections, with holes typically 30 metres apart on section lines.

Grades were estimated using 1 metre drill hole sample composites into 5 metres x 12.5 metres (or 10 metres) x 10 metres blocks in easting, northing and elevation respectively. The cut off grades and metal equivalents were provided by Argent.

## Metal Equivalents

A metal equivalent of 20g/t Ag being equivalent to 1% Pb or 1% Zn is based on the following assumptions made by Argent which considers that there is reasonable potential for the metals to be recovered.

## Metal Prices

Silver A\$ 18.00 per ounce (58 cents per gram)

Lead A\$ 2000 per tonne (\$20 per 1%)

Zinc A\$ 2000 per tonne (\$20 per 1%)

Lead and zinc prices used in determining the metal equivalent ratios were reduced by \$500 per tonne to allow for deductions relating to smelter and transport charges.

## Assumed Metallurgical Recoveries (based on preliminary metallurgical test work)

Silver 63%

Lead 51%

Zinc 60%

For more information:

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## Competent Person Statements

The information in this report that relates to mineral resources on the Kempfield Tenements is based on information compiled by Mr. van der Heyden who is a Member of the Australian Institute of Mining and Metallurgy and a full time employee of Hellman & Schofield Pty Ltd.

The data used to derive the mineral resource estimate was supplied by Argent Minerals Limited and compiled, in the case of data produced prior to January 2007 by Mr Chris Torrey who is a Member of the Australian Institute of Geoscientists and a full time employee of CTEX Pty Ltd an independent geological consultancy and, in the case of data produced since January 2007, by Dr Vladimir David.

Mr van der Heyden, Mr Torrey and Dr David 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 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

Mr van der Heyden, Mr Torrey and Dr David consent to the inclusion in this Report of the information compiled by them in the form and context in which they appear.

The information in this Report that relates to Exploration is based on information compiled by David Timms and Dr Vladimir David who are members of the Australian Institute of Geoscientists, and Technical Consultants to Argent, and who have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as Competent Persons as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

Mr Timms and Dr David consent to the inclusion in the report of the matters based on the information in the form and context in which it appears.