



19 October 2011

## **PERKOA JV PROJECT: FINAL ASSAYS RECEIVED CONFIRM HIGH-GRADE SILVER MINERALISATION**

### **KEY POINTS**

- **Assay results from final five holes received confirm silver, lead, and zinc mineralisation adjacent to the current Perkoa mine workings.**
- **The presence of high-grade silver and base metal mineralisation is consistent with the assumptions used in the enhanced business case for expanding the Perkoa mine and increasing production throughput to 1Mt per annum**
- **Best drilled thickness intersections include:**
  - **PS335**
    - **31.4m at 104g/t Ag and 2.47% Zn between 79m and 110.4m.**
  - **PS334**
    - **35.5m at 95g/t Ag and 0.81% Pb between 159m and 194.5m.**
  - **PS333**
    - **22.25m at 83g/t Ag and 0.60% Zn between 58.75m and 81m,**
    - **13.07m at 2.18% Zn and 0.51% Pb between 82m and 95.07m,**
    - **13.15m at 97g/t Ag and 0.48% Pb between 97.85m and 111m.**
  - **PS336**
    - **12.25m at 41g/t Ag and 2.17% Zn between 83m and 95.25m,**
    - **21.8m at 191g/t Ag and 1.01% Pb between 96.7m and 118.5m.**
  - **PS332**
    - **6m at 144g/t Ag and 1.55% Pb between 155m and 161m,**
- **Detailed evaluation of open-cut mining options are being considered, together with metallurgical testing to determine optimal processing throughput, processing circuit and metal product recoveries for silver and lead.**

Blackthorn Resources Limited (ASX: BTR) (“the Company” or “Blackthorn Resources”) is pleased to provide final assay results from the five remaining holes drilled at the Perkoa JV Project in Burkina Faso, West Africa.

The Perkoa JV Project is a high grade, underground zinc mine that is currently under construction, being managed and operated by JV partner Glencore International (50.1%) (Blackthorn Resources 39.9%).

The 14 hole exploration drilling program was completed for a total of 2,387.38 meters as shown in Table 1. The drilling program was designed to target mineralisation along strike from the Perkoa deposit and within potentially mineable open-cut depths, as illustrated in Figure 1.

The confirmation of high grade silver and lead mineralisation along strike and adjacent to the existing ore body adds significant upside for the Perkoa JV Project, and supports the proposal by JV partner Glencore, to evaluate an investment case to expand the mine, increase production and extract silver/lead concentrate into the production stream.

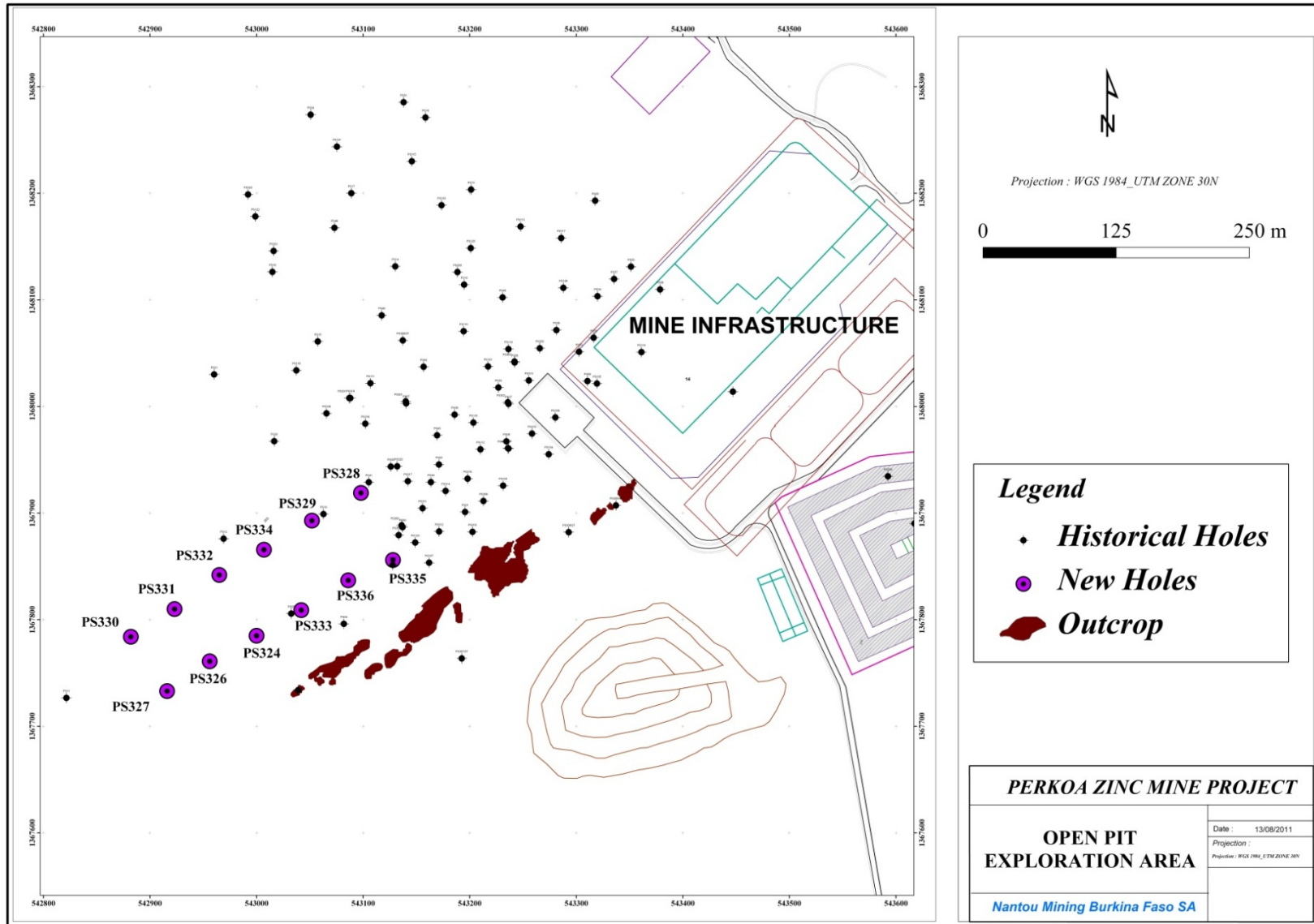
**TABLE 1– Drilling Summary for 14 cored drill holes at Perkoa JV Project, Burkina Faso**

<b>Drill hole ID</b>	<b>Easting (mE) WGS 84 ***</b>	<b>Northing (mN) WGS 84 ***</b>	<b>RL (m)</b>	<b>Dip (°)</b>	<b>Azimuth (°)</b>	<b>End of Hole Depth (m)</b>
PS323 *	543,083.502	1,367,838.054	293.183	-55	152	121.85
PS324	542,998.636	1,367,784.804	293.092	-55	152	152.64
PS325 *	543,093.978	1,367,913.665	292.825	-55	152	81.50
PS326	542,956.533	1,367,758.304	292.619	-55	152	157.15
PS327	542,914.118	1,367,731.530	292.885	-55	152	150.00
PS328 **	543,098.255	1,367,916.469	292.877	-55	152	210.00
PS329	543,048.633	1,367,892.951	292.320	-55	152	214.30
PS330	542,880.040	1,367,785.694	292.467	-55	152	210.00
PS331	542,922.666	1,367,812.514	291.997	-55	152	217.90
PS332	542,964.547	1,367,839.014	292.229	-55	152	210.40
PS333	543,041.991	1,367,810.770	293.052	-55	152	150.00
PS334	543,006.672	1,367,865.787	292.517	-55	152	211.80
PS335	543,129.107	1,367,859.096	293.880	-55	152	148.90
PS336 **	543,081.591	1,367,837.075	293.291	-55	152	150.94
<b>TOTAL</b>						<b>2,387.38</b>

\* Abandoned drill holes

\*\* Re-drilled drill holes

\*\*\* Surveyed drill hole collar co-ordinates



**FIGURE 1** – Perkoa drill hole location plan showing targets for drill holes.

### Sampling and Assay Program

Following the completion of drilling activities samples of core were taken and sent to the ALS Chemex laboratory in Ouagadougou for preparation. Selected samples were analysed for gold at the ALS Chemex laboratory in Ouagadougou. Prepared sample splits were subsequently sent to the ALS Chemex laboratory in Johannesburg, South Africa and Vancouver, Canada for analysis of base metals, lead, zinc and silver. A series of blanks, duplicates and certified reference samples for QA/QC purposes were also submitted to the laboratory.

Upon receipt of assays from the five drill holes, the mineralised zones were broadly identified and reviewed to determine mineral zonation between silver, lead and zinc. Mineralised zones were assessed using 20g/t Ag, 0.3% Pb, 0.5% Zn, and 0.15g/t Au cut-off grades to evaluate the mineralised intersections for reporting purposes. Only mineralised intersections with weighted average cut-off grades greater than 20g/t Ag, 0.3% Pb and 0.5% Zn are reported and highlighted in bold in Table 2. True-width intersections are not quoted, as additional interpretation is required to correlate data from adjacent holes.

Assay results for gold were also received but are not included herein as assays were of low tenure and below the 0.15g/t Au cut-off.

**TABLE 2 –** Summary of assay results for drill holes PS332 to PS336 (above reporting cut-off)

#### Drill hole – PS332

	Depth From (m)	Depth To (m)	Drilled Interval (m)	Silver Assay (g/t)	Lead Assay (%)	Zinc Assay (%)
	139	140	1	<b>85.60</b>	<b>0.51</b>	0.01
<b>6m at 144 g/t Ag, &amp; 1.55 % Pb</b>	155	161	6	<b>143.88</b>	<b>1.55</b>	0.08
	169	170	1	<b>197.00</b>	<b>1.37</b>	0.03
<b>13.4m at 29 g/t Ag, &amp; 0.33 % Pb</b>	182.6	184	1.4	15.60	<b>0.37</b>	<b>0.45</b>
	185	188	3	19.05	<b>0.47</b>	<b>0.60</b>
	191.7	194	2.3	<b>88.16</b>	<b>0.73</b>	0.30
	195.35	196	0.65	18.5	<b>0.46</b>	0.02

**Drill hole - PS333**

	Depth From (m)	Depth To (m)	Drilled Interval (m)	Silver Assay (g/t)	Lead Assay (%)	Zinc Assay (%)
<b>22.25m at 83 g/t Ag, 0.60 % Pb, &amp; 0.78 % Zn</b>	58.75	81	22.25	<b>83</b>	<b>0.60</b>	<b>0.78</b>
	including					
	58.75	66	7.25	<b>124.93</b>	<b>1.05</b>	<b>1.07</b>
	69	70	1	<b>42.1</b>	0.23	<b>4.51</b>
	70	71.35	1.35	<b>160</b>	<b>1.05</b>	<b>0.71</b>
	72.92	75	2.08	<b>106.89</b>	<b>0.57</b>	0.34
	79	81	2	<b>83.7</b>	<b>0.68</b>	0.23
<b>13.07m at 26 g/t Ag, 0.51 %Pb, &amp; 2.18 %Zn</b>	82	82.8	0.8	-	0.13	<b>0.59</b>
	83.8	86	2.2	7.61	0.14	<b>1.32</b>
	87.85	92.30	4.45	27.08	<b>0.51</b>	<b>2.81</b>
	94.35	95.07	0.72	29.58	<b>0.41</b>	<b>16.20</b>
<b>13.15m at 97 g/t Ag, &amp; 0.48 % Pb</b>	97.85	98.5	0.65	11.40	0.15	<b>7.06</b>
	71.35	81	9.65	<b>57.29</b>	<b>0.35</b>	0.19
	98.5	101	2.5	<b>98.2</b>	<b>0.71</b>	0.05
	102	111	9	<b>109.70</b>	<b>0.48</b>	0.02

**Drill hole - PS334**

	Depth From (m)	Depth To (m)	Drilled Interval (m)	Silver Assay (g/t)	Lead Assay (%)	Zinc Assay (%)
	89	92	3	0.25	-	<b>0.89</b>
	142	143	1	<b>29.1</b>	0.11	0.12
	151	153.1	2.1	<b>68.26</b>	<b>0.80</b>	1.31
	155	155.9	0.9	6.7	0.26	<b>2.22</b>
	159	194.50	35.5	<b>94.97</b>	<b>0.81</b>	0.40
<b>35.5m at 95 g/t Ag, &amp; 0.81 % Pb</b>	including					
	162	163	1	<b>271</b>	<b>1.58</b>	0.04
	166	173	7	<b>107.58</b>	<b>0.49</b>	0.03
	186	192.75	6.75	<b>224.32</b>	<b>2.43</b>	<b>1.68</b>

**Drill hole - PS335**

	Depth From (m)	Depth To (m)	Drilled Interval (m)	Silver Assay (g/t)	Lead Assay (%)	Zinc Assay (%)
	73	75	2	<b>63.55</b>	<b>0.61</b>	0.10
<b>31.4m at 104 g/t Ag, 0.44 % Pb &amp; 2.47 % Zn</b>	79	110.4	31.4	<b>104.66</b>	0.44	<b>2.47</b>
	including					
	79	84.6	5.6	<b>39.64</b>	0.38	<b>6.20</b>
	92.4	104	11.6	132.00	0.56	0.69
	104	110.4	6.4	<b>210.19</b>	0.59	<b>5.33</b>

**Drill hole - PS336**

	Depth From (m)	Depth To (m)	Drilled Interval (m)	Silver Assay (g/t)	Lead Assay (%)	Zinc Assay (%)
	66	72	6	19.42	0.31	<b>0.99</b>
	75.6	77.82	2.22	<b>60.53</b>	0.39	0.07
	80	81	1	<b>38.60</b>	0.26	0.42
<b>12.25m at 41 g/t Ag, 0.84 % Pb &amp; 2.17% Zn</b>	83	95.25	12.25	<b>40.91</b>	0.84	<b>2.17</b>
	including					
	86.28	88.76	2.48	26.94	0.40	<b>8.54</b>
	91	95.25	4.25	<b>18.49</b>	0.44	0.85
<b>21.8m at 191 g/t Ag, &amp; 1.01 % Pb</b>	101	107	6	<b>309.28</b>	<b>1.98</b>	<b>0.94</b>
	110	111	1	<b>644.00</b>	<b>3.01</b>	0.03
	115	118.5	3.5	<b>251.57</b>	<b>0.94</b>	0.03
	132	133	1	<b>96.00</b>	0.21	0.02

**Enhanced business case at Perkoa**

Receipt of the final assays from the Perkoa drilling program has provided further encouragement to the Company for the investment case proposed by Glencore in September 2011 to enhance operations at Perkoa. The enhanced business case proposes an increase in mine capacity and expansion of operations to include open-cut mining to extract and process high grade silver, lead and zinc ore adjacent to the current underground mine development.



Glencore is currently testing approximately 400 kilograms of core material to verify estimates of recoveries and metallurgical properties.

The processing circuit is being reviewed by Glencore to include the extraction of a separate silver/lead concentrate product. In addition, the rate of processing throughput is being revised in conjunction with potential open-cut mining to improve the production rate to 1Mt per annum.

Detailed technical and financial information provided by Glencore is currently being evaluated by Blackthorn Resources to determine the viability of the enhanced business case proposal. Once the results of these reviews are finalised, incorporating the yet to be received results of technical analysis of core material, a final decision on the expansion case will be made. This decision is expected by mid-November 2011.

Funding for Blackthorn Resources' share of incremental capital is available via project finance facility from Glencore based on terms agreed in May 2011.

Managing Director Scott Lowe said

*"The final positive assay results from Perkoa are consistent with the assumptions used in the enhanced business case proposed by Glencore. The discovery of high-grade silver adjacent to the Perkoa zinc ore reserve provides further confidence that the business case for Perkoa can be improved to provide increased value to stakeholders. The Company is now thoroughly reviewing the technical and financial details to consider these improvements going forward."*

**ATTRIBUTION**

The information in this report that relates to Exploration Results at the Perkoa JV Project in Burkina Faso is based on information compiled by Mr Adama Barry, who is a member of The Australasian Institute of Mining and Metallurgy. Mr Barry has 23 years' experience in mineral exploration and is a full-time employee of Nantou Mining Limited BV, a subsidiary of Blackthorn Resources Ltd in Burkina Faso. Mr Barry has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined by the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Barry consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Notes:

1. Analysis of samples was performed by ALS Chemex, an ISO/17025 accredited laboratory, using conventional fire assay procedures with AAS finish on 30g aliquots for gold. Base metals were analysed for multiple elements by four acid digest followed by multi-element inductively coupled plasma mass spectrometry (ICP-MS). A Quality Assurance/Quality Control (QA/QC) program includes chain of custody protocol, a systematic submittal of 10% QA/QC samples including field duplicates, field blanks and certified reference samples into the flow of samples submitted to the laboratory as well as re-assaying of the mineralised zones.
2. Samples were obtained by splitting nominal sized HQ/NQ diamond-core in quarters to obtain approximately 2kg samples. Quarter core was submitted to the laboratory for analysis, mineralised half core will be used for metallurgical tests and the remaining quarter core stored in core trays at the Perkoa site in Burkina Faso.
3. For review of mineralisation from DDH drilling, a 20g/t Ag, 0.3% Pb, 0.5% Zn, and 0.15 g/t Au cut-off were applied to mineralised intervals and weighted averages above 20g/t Ag, 0.3% Pb and 0.5% Zn were calculated for reporting purposes.

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Ends