

27 February 2012

# SAMADUA PROJECT: NEW DISCOVERY WITH HIGH GOLD AND COPPER RESULTS FROM ROCK CHIP AND SOIL SAMPLING.

#### ASX: PSP

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#### **KEY PROJECTS**

ACEH

Ownership: earning 73% Location: Aceh, Indonesia

#### **TENNANT CREEK**

Ownership: 100% Location: NT, Australia

# **Highlights:**

- Prosperity has completed field exploration and data compilation on the Samadua Project, the seventh gold-copper anomalous magnetic target defined in IUP held by PT. Aspirasi Widya Chandra (AWC), part of its Aceh portfolio in Northern Sumatra, Indonesia.
- Significant gold and copper grades have been returned from rock chip, float, channel and soil sampling. The area (500 x 350 metres) and level of anomalism is comparable to that determined for the Kuini and Pelumat Projects.
- High metal values are associated with a zone of magnetic anomalism related to magnetite alteration in sheared microdiorite.
- Significant highly anomalous rock chip, float and soil results include: Rock samples: 25.7g/t Au, 3.2g/t Ag;

16.2g/t Au, 97.6g/t Ag, 23.2% Cu, 4340 ppm Mo; 8.27g/t Au, 2.9g/t Ag, 0.75% Cu, 82 ppm Mo; 4.28g/t Au, 5.1g/t Ag, 0.85% Cu, 444 ppm Bi;

Soil samples: 5.55g/t Au, 1.1g/t Ag, 51 ppm Cu, 96 ppm Mo; 4.46g/t Au, 1.1g/t Ag, 637 ppm Cu, 36 ppm Mo; 0.95g/t Au, 0.4g/t Ag, 4310 ppm Cu, 702 ppm Mo; 0.84g/t Au, 1540 ppm Cu, 5 ppm Mo;

 Four anomalies have been selected and will be tested in an initial 4-6 drill hole program.

Prosperity Resources Limited (ASX: PSP) is pleased to release results from geological mapping and geochemical sampling from its 2011-2012 sampling program at the Samadua Project in southern Aceh. The program was similar to that undertaken at the Pala, Jelatang, Panton Luas, Mutiara, Pelumat and Kuini targets in follow up of its successful regional helicopter-borne magnetic survey.



Information from the aeromagnetic program was released to the ASX on 15 September 2010 and examples of 3D inversion modelling of the magnetic data on 22 February 2011. ASX releases of 2<sup>nd</sup> and 6<sup>th</sup> February 2012 give results from drilling at Kuini.

The Samadua Project is one of ten known magnetic skarn and intrusive targets recognised by Prosperity along 60 kilometres of strike length in Prosperity's 410 square kilometre Aceh Project. The location of Prosperity exploration activities in southern Aceh are shown in Figure 18.

Chairman Mr. Mo Munshi said, "These new very encouraging geochemical results from Samadua yet again provide us with encouragement to continue our first pass exploration program in this poorly explored region of the Indonesian Volcanic Arc and further demonstrate the regional prospectivity of our portfolio in Aceh".

## **Geology, Geochemistry and Site Setting**

The systematic grid based mapping and rock chip and channel and soil sampling over the southern Samadua area reported here follows from earlier reconnaissance rock chip prospecting in the wider Samadua area in 2009 (eg 25m @ 0.53g/t Au and 0.13% Cu, and others) and an anomalous soil line taken along the main Samadua ridge in 2010 which produced gold and copper results up to 0.73 g/t Au and 0.31% Cu (peak assays) coincident with a lower order aeromagnetic anomaly and a few small prospecting pits dug by local villagers.

The recently completed more detailed geochemical survey returned anomalous and locally highly anomalous gold and copper results at numerous sites over the southern anomaly and a low between this and the northern anomaly area. Copper in rock samples greater than 250ppm (i.e. > background) was very common, with some sites having results >500ppm, and locally >1000 ppm. Molybdenum is notably anomalous in a limited number of samples. Results are shown in Figures 6-13.

The Samadua aeromagnetic anomalies are shown in Figure 1 with the geochemical target as determined boxed in yellow.

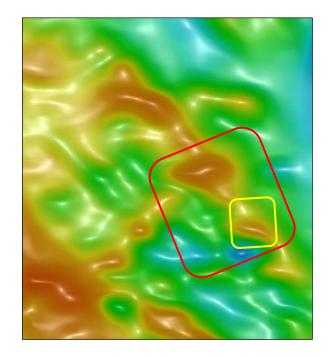


Figure 1: View of Samadua RTP TMI airborne magnetic anomalies with target anomaly boxed in yellow. Red box is wider Samadua area noted in text above.



Follow-up mapping undertaken in late 2011 and 2012 along with the grid-based soil sampling indicate that the six most anomalous sample points coincide with a 275 metre long section of the main ridge. All the anomalous samples correspond to the highest airborne magnetic response coincident with zones of strong secondary magnetite hosted in intrusive microdiorite the preferred host to mineralisation in the Tapaktuan Belt in southern Aceh. (See Tables at end of release for results).

Traversing of creeks and ridges identified significant zones of silicification and secondary magnetite, chlorite, sericite and epidote alteration. Numerous spaced-out intervals of shear-hosted intense silicification locally with semi-massive magnetite alteration or magnetite ±sulphide ±silica veinlet and fracture fill (with malachite staining as shown in Figure 2) have been identified throughout the prospect. An example of small scale local gold working is shown in Figure 4. A summary geology map is shown in Figure 5.

One 0.5 metre wide shear zone within a small mine working contained a sub-vertical massive silica-magnetitechalcopyrite (-secondary chalcocite-covellite) vein several centimetres wide. These spaced-out domains of deformed microdiorite intrusive are quite widespread throughout the prospect and are typically surrounded by pervasively silicified and secondary magnetite altered coherent microdiorite.



Figure 2: Malachite staining on microdiorite derived from magnetite ±sulphide ±silica veinlet fracture fill.

A 500 metre long x 350 metre wide portion of the Samadua Prospect, centred on the main ridge has been sampled to date, for a total of 116 composite soil samples (Figures 6 to 13). Work is ongoing and additional composite channel samples are being collected. Tables at end of release give details and locations of the most anomalous samples collected. Each soil sample was made by compositing auger samples taken from three sites disposed 12.5 metres apart along the traverse line with results plotted at the central point of the three samples. The grid soil results shown in the figures thus show each single composited soil sample result plotted at 50 metre intervals. This method improves the resolution of the sampling of alteration and mineralisation developed in spaced-out zones related to fractures and shears.

The work program to date has generated some potential drill targets and tentative traverses, collar sites and sections for these are shown in Figures 14 to 17. An existing road at the base of slope on the south side, or stream running along the south-eastern edge, of the main Samadua Ridge, located 300 metres vertically below the ridge-top, represent likely locations for the initial holes.





Figure 3: (Left) Example of fine green disseminated malachite after chalcopyrite in weathered sheared and altered microdiorite. Similar material probably gives rise to the widespread elevated copper background anomalism.

The distribution of gold in rock samples is shown over geology in Figure 6 and in soil samples over magnetics in Figure 7; contoured gold is shown in Figure 8. Figure 9 shows distribution of copper in rock samples over geology and in soil samples over magnetics in Figure 10, with contoured copper values in Figure 11. Distribution of molybdenum in rock and soil samples over geology is shown Figures 12 and 13.

Table 1 and 2 at the end of the release show the rock chip and soil data from Samadua sorted on gold values with the forty highest gold values shown with associated elements to illustrate the nature and geochemical characteristics of the anomalism.



Figure 4: Small artisinal gold workings into mineralised shears in altered microdiorite at Samadua.



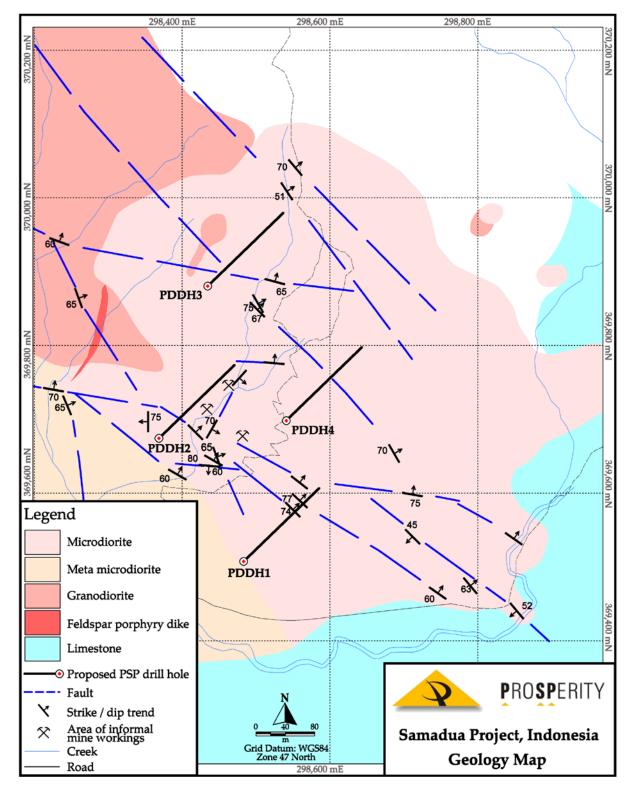


Figure 5: Summary geology with proposed drill hole collar locations and traces indicated.



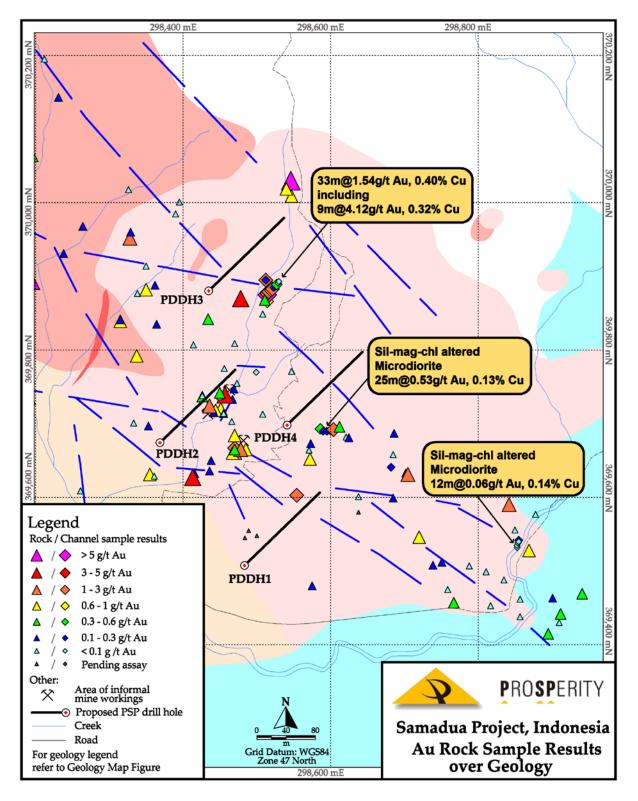


Figure 6: Gold rock sample results over summary geology. Proposed drill hole collar locations and traces indicated.



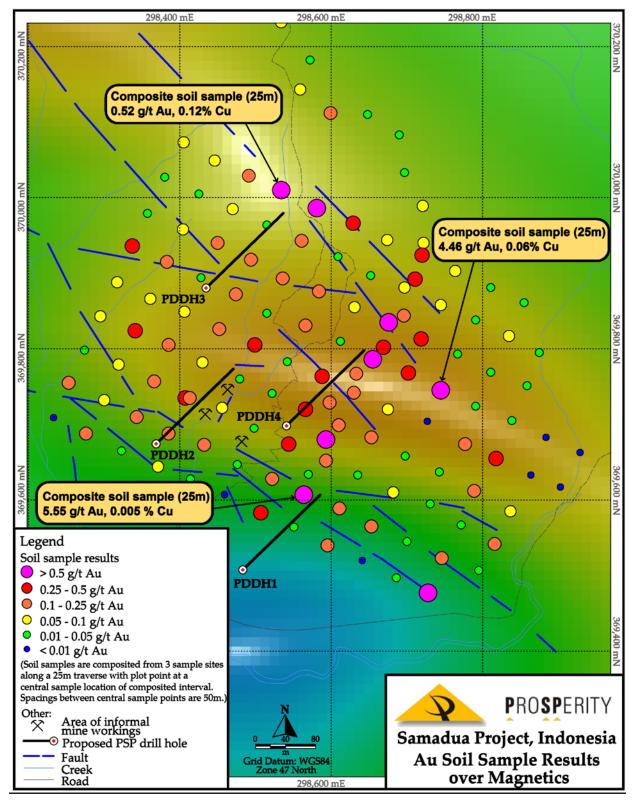


Figure 7: Gold soil results over RTP TMI magnetic image. Proposed drill hole collar locations and traces indicated.



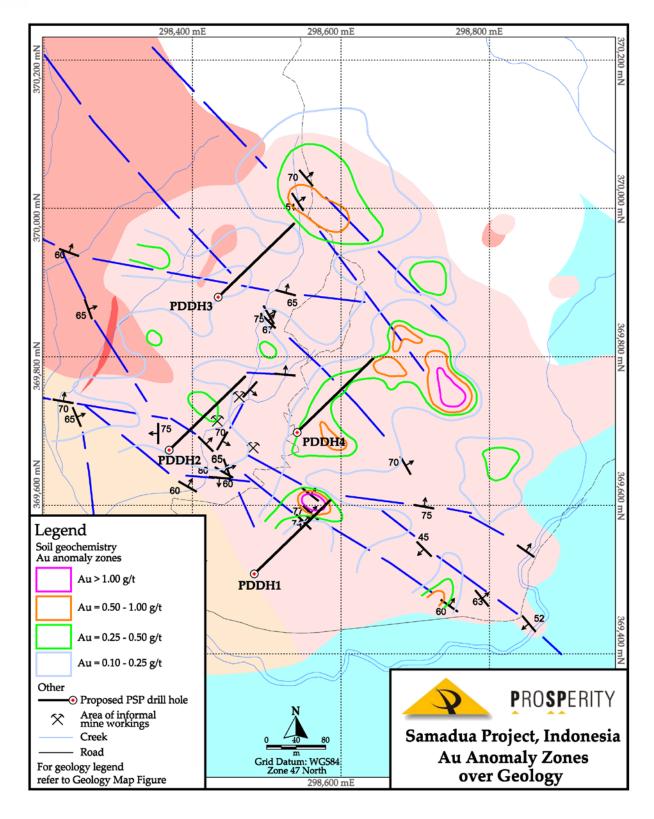


Figure 8: Contoured gold in soil anomaly zones over summary geology. Proposed drill hole collar locations and traces indicated.



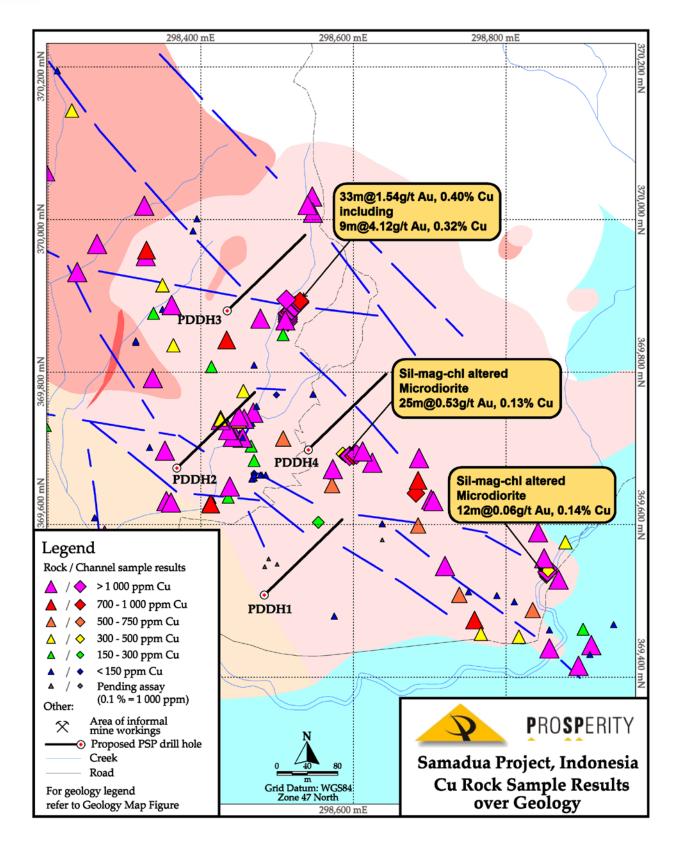


Figure 9: Copper rock chip results over summary geology. Proposed drill hole collar locations and traces shown.



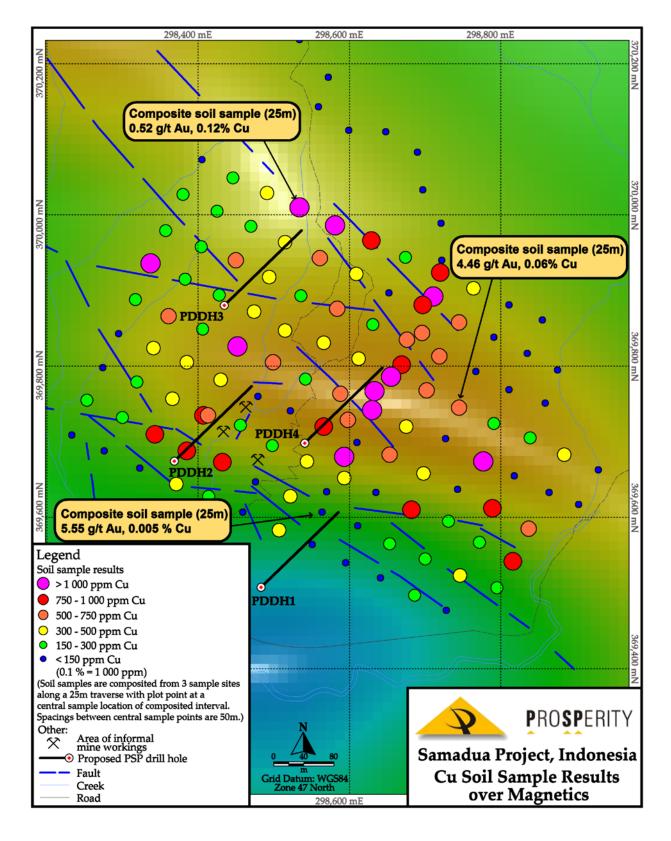


Figure 10: Copper soil samples over RTP TMI magnetic image. Proposed drill hole collar locations and traces.



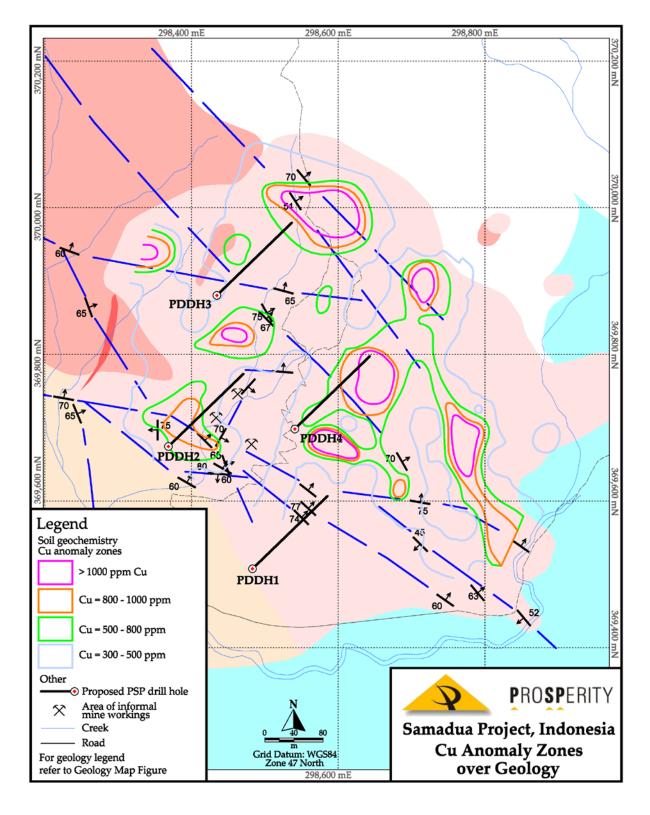


Figure 11: Contoured copper in soil anomaly zones over summary geology. Proposed drill hole collar locations and traces indicated.



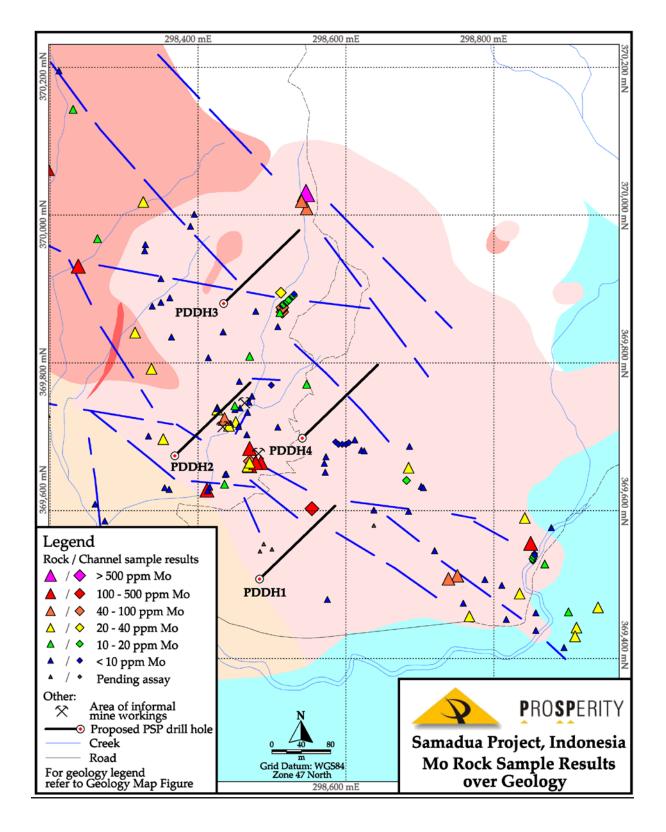


Figure 12: Molybdenum rock chip results over summary geology. Proposed drill hole collar locations and traces indicated.



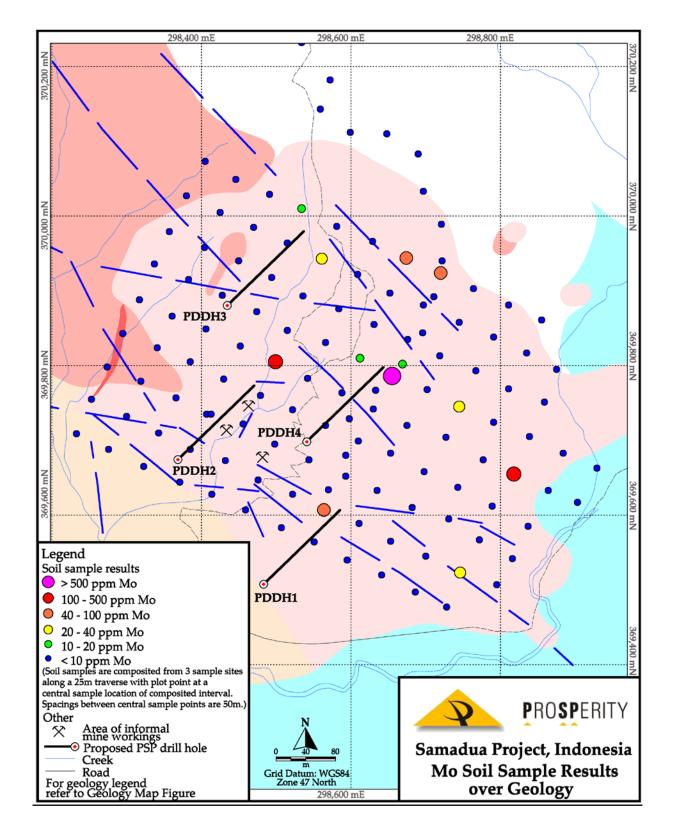


Figure 13: Molybdenum soil samples over geology. Proposed drill hole collar locations and traces indicated.



## **Drilling Program**

The tentative proposed drilling program is designed to test the geochemistry, various alteration zones and geology at depth associated with the magnetic anomaly. The final hole collar locations shown on the figures may be changed based on results from ongoing mapping and sampling. Cross sections of the holes and their relation to surface geochemistry are shown on Figures 14-17 below. Hole depths may extend to 300 metres or more in this initial program depending upon characteristics of alteration and mineralisation intersected.

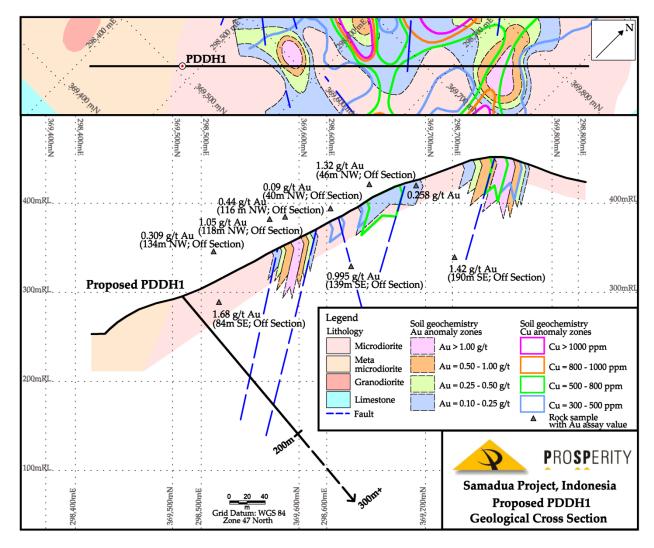


Figure 14: Plan and section of proposed drill hole PDDH1 at Samadua prospect showing relationship of geology and soil and rock chip geochemistry.



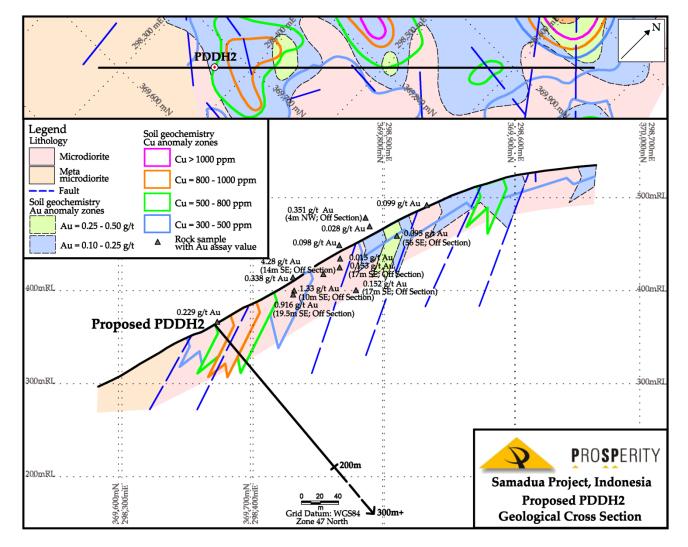


Figure 15: Plan and section of proposed drill hole PDDH2 at Samadua prospect showing relationship of geology and soil and rock chip geochemistry.



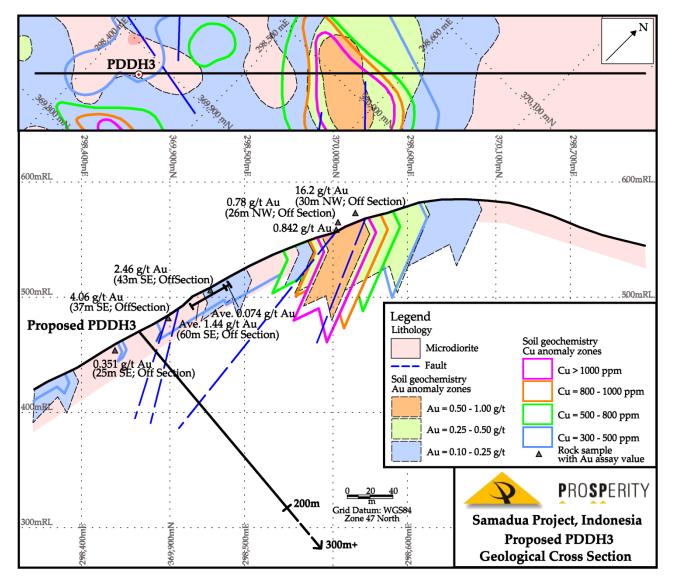


Figure 16: Plan and section of proposed drill hole PDDH3 at Samadua prospect showing relationship of geology and soil and rock chip geochemistry.



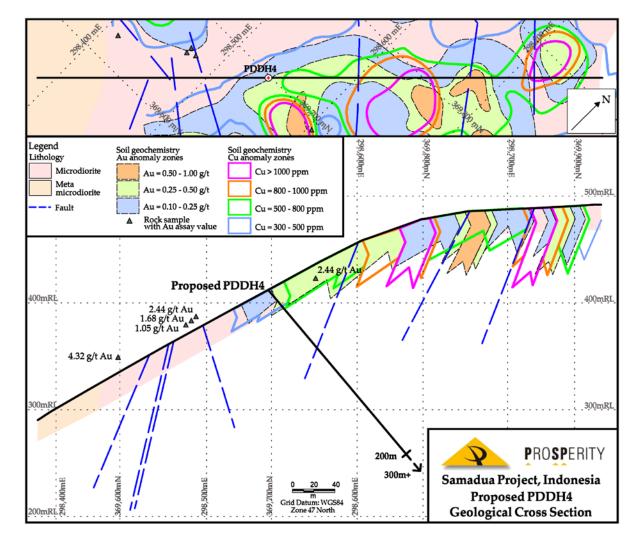


Figure 17: Plan and section of proposed drill hole PDDH4 at Samadua prospect showing relationship of geology and soil and rock chip geochemistry.

A second stage drilling program will be designed based on prospectivity determined in the initial four holes and on results from additional field work in the wider area.



# Table 1: Samadua rock chip samples sorted on gold values. Forty highest gold bearing samples shown with associated elements. The highest gold values are samples of chalcopyrite-rich skarn associated mineralisation.

Samadua Prosp	amadua Prospect AWC IUP Aceh, Indonesia - Rock Samples WGS84 Zone 47 North												
Prospect	Sample_ID	Tenement	Easting	Northing	Altitude	Au1 (g/t)	Au2 (g/t)	Ag ppm)	As (ppm)	Bi (ppm)	Cu (ppm)	Fe (%)	Mo (ppm)
Samadua	R04619	AWC	298193	369895	396	25.7	25.8	3.2	2	0	5	2.69	Ċ
Samadua	R03147	AWC	298546	370030	593	16.2	13.1	97.6	5	49	232000	7.74	4340
Samadua	R00526	AWC	298514	369875	495	8.27	7.63	2.9	6	0	7520	13.7	82
Samadua	R04437	AWC	298413	369627	351	4.32	4.24	1	10	0	819	4.7	3
Samadua	F04236	AWC	298457	369739	419	4.28	4.28	5.1	19	444	8540	5.3	2
Samadua	R04632	AWC	298478	369870	498	4.06	4.33	4.2	12	134	1580	5	4
Samadua	R00528	AWC	298516	369879	497	2.59	0	1.8	3	11	881	8.3	17
Samadua	R04450	AWC	298328	369952	481	2.49	2.5	1.2	3	0		33.7	4
Samadua	R03628	AWC	298512	369895	494	2.46	1.96	1	4	3		6.5	21
Samadua	R02520	AWC	298478	369665	389	2.44	2.49	0.6	83	53		>10	157
Samadua	R03613	AWC	297853	369341	164	2.24	2.5	1.1	20	34	2190	8.76	
Samadua	R02275	AWC	298554	369603	370	2.08	0	1	139	0		24.9	167
Samadua	R04502	AWC	299549	370501	659	2.08	2.12	2.9	10	2		14.9	
Samadua	R04209	AWC	298705	369631	414	2.05	2.13	9.4	12	0	3150	25.9	2
Samadua	R03630	AWC	297300	370635	388	2	2.98	0.5	12	0	4	2.23	
Samadua	C02523	AWC	298470	369667	393	1.68	1.71	0.7	39	35	122	>10	57
Samadua	R00527	AWC	298514	369877	496	1.49	0	1.2	4	0	1130	7.54	4
Samadua	R04451	AWC	298842	369590	301	1.42	0	9.2	5	0	12000	22.4	28
Samadua	R04440	AWC	298436	369724	415	1.33	1.93	30.9	11	19	19000	8.72	42
Samadua	R02244	AWC	298604	369692	467	1.32	1.34	1.4	7	0	3370		C
Samadua	R00530	AWC	298521	369883	498	1.26	0	1.7	5	0	544	13.7	15
Samadua	R02249	AWC	298470	369661	386	1.05	1.05	2.6	51	11	22	15.7	128
Samadua	R04213	AWC	298720	369546	368	0.995	0	1.6	3	0		2.92	6
Samadua	R04507	AWC	298869	369528	317	0.958	0	4.3	14	0	3410	17.8	
Samadua	R00525	AWC	298514	369872	493	0.936	0	1.5	0	0	3540	8.29	20
Samadua	F04233	AWC	298444	369718	392	0.916	1.01	1.2	4	16	1890	6.5	
Samadua	R02518	AWC	298485	369665	389	0.911	0	0.6	168	48	36	>10	140
Samadua	R02527	AWC	298315	369839	413	0.866	0.987	0.1	3	2	13	2.84	C
Samadua	R02530	AWC	298350	369882	438	0.853	0.655	0.3	8	0	20	4.44	8
Samadua	R03146	AWC	298547	370009	587	0.842	0.929	2.2	7	0		6.84	65
Samadua	R02264	AWC	301606	370507	724	0.809	0		25	0		1.82	51
Samadua	F04809	AWC	297652	369321	170	0.785	0.839	2.9	23	16	653	13	12
Samadua	R04556	AWC	298540	370019	553	0.78	0		2	0		6.53	61
Samadua	R00529	AWC	298519	369881	497	0.745	0	4.4	0	0		6.44	6
Samadua	R02250	AWC	298467	369660	386	0.729	0.731	1.6	20	4	25	12.9	
Samadua	R04625	AWC	298451	369720	396	0.714	0	0.6	10	15	16	18.3	
Samadua	R02524	AWC	298470	369684	377	0.713	0	2	18	16	244	>10	311
Samadua	R03091	AWC	298337	369792	392	0.694	0	2.1	0	0	4690	21	24
Samadua	R04204	AWC	298572	369652	412	0.69	0	1.1	13	22	546	23	1
Samadua	R00523	AWC	298514	369866	493	0.642	1.16	1.7	0	0	7080	6.61	10



Samadua Prospect AWC IUP Aceh, Indonesia - Soil Samples WGS84 Zone 47 North Northing Altitude Bi (ppm) Fe (%) Prospect SampleID Tenement Easting Au (q/t) Cu (ppm) Ag (ppm) Mo (ppm) Samadua S001516 AWC 298564 369607 388 5.55 1.1 0 51 13.6 96 Samadua S001469 AWC 298745 369745 475 4.46 1.1 4 637 7.41 36 S001471 0.952 0.4 702 Samadua AWC 298655 369786 503 0 4310 13.6 S001497 AWC 298581 369986 546 0.842 0.3 13 1540 6.84 5 Samadua S000929 AWC 298593 425 0.726 0.9 10 3080 8.58 0 Samadua 369680 5 0.625 0.4 5 8.69 Samadua S001498 AWC 298728 369477 300 102 2 Samadua S001479 AWC 298676 369835 514 0.543 0.2 6 720 8.59 Samadua S001548 AWC 298534 370010 574 0.52 0.8 0 1190 7.63 13 Samadua S000932 AWC 298669 369802 505 0.482 0.2 6 760 8.04 13 AWC 478 0.467 0.3 0 4 Samadua S001539 298337 369936 1320 21 287 AWC 390 0.464 0.2 0 9.36 Samadua S001456 298818 369655 131 0.2 0 298566 369720 464 0.437 6.9 2 Samadua S001451 AWC 859 6.99 89 Samadua AWC 369924 534 0.407 0.1 0 896 S001494 298720 7 Samadua S001478 AWC 298719 369813 499 0.393 0.2 733 8.85 0 AWC 298407 384 4 920 6.59 5 Samadua S001444 369735 0.339 0.1 0 2 642 0.303 0.2 9.51 Samadua S000944 AWC 298515 370276 72 8 0.288 2 Samadua S001496 AWC 298629 369966 557 0.3 904 6.99 2 Samadua S000934 AWC 298711 369892 0.284 0.2 1410 7.28 3 528 2 Samadua S001503 AWC 298507 369583 353 0.283 0.4 2 395 7.14 119 Samadua S001463 AWC 298499 460 0.278 0.2 0 585 8.53 369805 0.272 0 2 S001461 AWC 298588 483 0.4 7.45 Samadua 369763.7 563 3 439 0.27 0 9.35 Samadua S001530 AWC 298341 369824 0.1 361 Samadua S001441 AWC 298544 369674 424 0.266 0.4 0 403 7.16 1 4 Samadua S001470 AWC 298702 369768 498 0.2650.1 2 502 8.49 S001450 AWC 298610 369699 454 0.218 0.1 6 70 1.08 1 Samadua S001460 AWC 298630 485 0.215 0.5 2 1150 6.86 1 Samadua 369742 0 Samadua S001449 AWC 442 0.19 0 5.74 298653 369683 0.1 612 Samadua S001508 AWC 298276 369688 327 0.176 0 0 66 3.99 0 Samadua S001435 AWC 298816 369542 388 0.174 0.5 0 970 2.75 1 0.172 1 Samadua S001446 AWC 298789 369612 385 1.3 0 883 8.5 S001515 AWC 365 0.17 0.3 0 8.78 3 Samadua 298611 369589 67 5 6 AWC 513 6.27 Samadua S001482 298536 369893 0.169 0.1 290 17 4 Samadua S000931 AWC 298633 369767 486 0.165 0 1030 4.33 Samadua S001532 AWC 298452 369826 460 0.162 0.3 3 1200 7.58 4 7 2 Samadua S001524 AWC 298413 369735 384 0.1590.3 574 6.04 AWC 298561 531 0.154 0.7 0 7.6 21 Samadua S001490 369943 672 AWC 298584 369876 515 0.153 0.1 10 529 7.87 7 Samadua S001481 0 Samadua S001501 AWC 298595 369540 329 0.144 0.2 0 144 6.25 Samadua S001529 AWC 298385 369805 446 0.144 1.7 0 469 6.85 2 Samadua S001517 AWC 298522 369628 389 0.141 0.3 0 449 6.93 3

 Table 2: Samadua soil samples sorted on gold values. Forty highest gold bearing samples shown with associated elements.



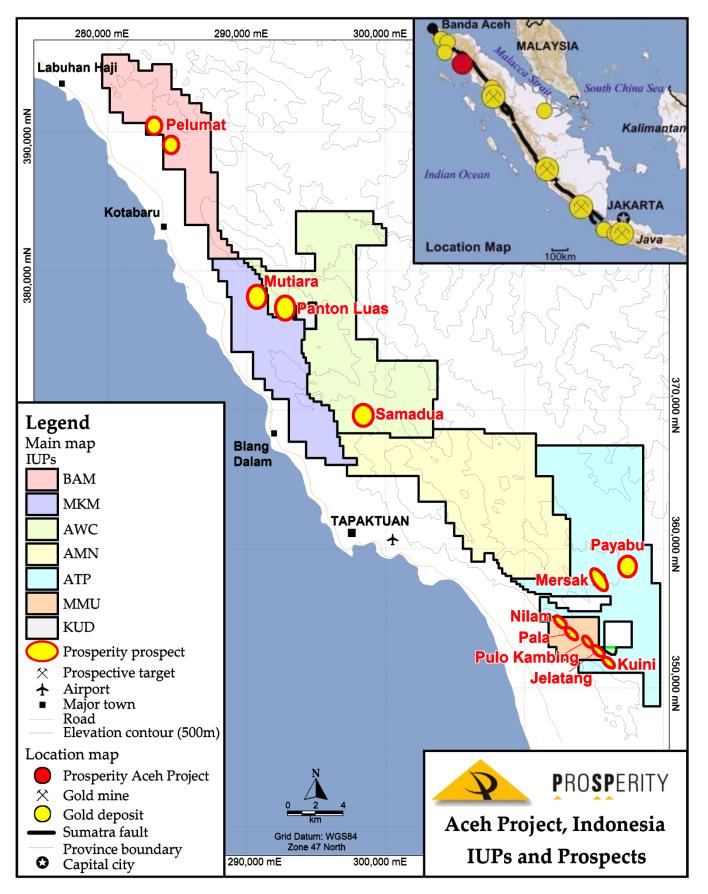


Figure 18: Location of Prosperity Licences (IUPs) and joint venture areas with assessed project target zones.



Grid Coordinates on all figures WGS84 Zone 47 North

Analyses were undertaken by Intertek, Jakarta using 50g fire assay for Au (Method FA50, Aqua regia finish); low base metals by ICP-OES (Method IC01); high base metals (>1%, Method GA50).

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#### **Competent Person Statement**

The exploration activities and results contained in this report have been reviewed by Dr. Neil F. Rutherford. Dr Rutherford is a Fellow of the Australian Institute of Geoscientists and is a full time employee of Rutherford Mineral Resource Consultants, mineral industry consultants. He has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration, and to the activity which he is undertaking to qualify as a Competent Person as defined in the December 2004 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code).

This review and comments by Dr Rutherford incorporated in the release text are based upon field inspection of the Aceh Project areas during 2010 and 2011 along with input from his associates who have worked on the property. All of the significant information reported herein was available to Dr Rutherford and was reviewed for this release. Dr. Neil Rutherford has consented to the inclusion in this report of the matters based on this information in the form and context in which it appears.