



ASX Announcement (ASX:AXE)

7 February 2019

First assays confirm copper discovery at Blue Hills

Highlights

- Copper mineralisation from surface in first RC drilled at Hood and supportive of Archer's geological model.
- Assay results from hole HDRC19-01 include:
 - o 24m at 0.10% copper from surface.
- Broad zones of intrusive albitite rich rock observed in holes HDRC19-01 and interpreted to indicate the presence of a large intrusive related copper-gold mineralising event.
- Drilling at Blue Hills expected to be completed next week.
- Further assay results from Hood, Hawkeye and Katniss expected over the coming weeks.

Archer Exploration Limited ("Archer", the "Company") (ASX:AXE) is pleased to provide an update of the reverse circulation (RC) drilling program (Program) at the Hood prospect, which is part of Archer's Blue Hills Copper-gold Project, located approximately 240 km north of Adelaide, South Australia (see About Blue Hills).

The maiden RC drill program at Hood continues to deliver encouraging results with copper intersected from surface in the first hole drilled at Hood (drill hole HDRC19-01) reporting 24m @ 0.10% copper. Full results for holes HDRC19-01 and HDRC 19-02 are shown in Table 2 at the end of this announcement.

The assay results and geological observations from HDRC19-01 and HDRC19-02 holes completed at Hood, with all of the information to date, suggests the presence of a large intrusive related copper-gold mineralising event.

Hole HDRC 19-02 was drilled 51 metres to the south-west of hole HDRC 19-01. The fact that the copper mineralisation in hole HDRC 19-02 did not commence from surface may indicate that the target zone of copper-gold mineralisation is likely located closer to the northern hole HDRC 19-01 than where HDRC19-02 was drilled. In that context, the broad low-grade interval encountered in HDRC19-01 is considered very encouraging by Archer.

In addition to the presence of copper, zones of albitite and molybdenum mineralisation were also intersected in holes HDRC19-01 and HDRC19-02 and when combined with geological observations of the surrounding host rock sequence also provides strong support for an intrusive style mineralising event.

ACN: 123 993 233



This initial reconnaissance RC drilling at Hood has provided information which will allow Archer to better target the higher-grade areas with future exploration.

Archer's Executive Chairman, Greg English, said "At Hood we have received positive results from the first drill holes ever drilled in this area, and we believe that the results from HDRC19-01 could represent the edge of a much larger system.

"Importantly, the presence of molybdenum, albitite and alteration in both holes HDRC19-01 and HDRC 19-02 supports our conceptual model that an intrusive style mineralising event is driving the copper-gold mineralisation at Hood" said Mr English.

Assay results

An interval of 24m at 0.10% copper was intersected from surface in drill hole HDRC19-01. This mineralisation appears to be reflected in the hole drilled underneath it to the south (HDRC19-02) where an interval of some 46m (from 40m) of 0.05% copper is intersected in a similar alteration style. The relatively low grade in the intervals of copper mineralisation refelct that holes HDRC19-01 and HDRC19-02 are close to the main mineralised area.

Composite samples submitted for analyses have been received for HDRC19-01 and most of HDRC19-02. Both holes have had significant alteration (bleaching) observed during the drilling, with the alteration likely due to a significant sodic (Na) alteration event. The significance of this alteration is that it can provide a vector towards an intrusion and potentially economic copper mineralisation.



Plate 1. HDRC19-01 depths 54 and 55m showing the bleaching at 55m (sodic alteration).

ACN: 123 993 233



Observations

This section contains a summary of the observations of geology from the drilling along with a description of the assay results (shown in italics). Full assay results for holes HDRC19-01 and HDRC19-02 are shown in Table 2 at the end of this announcement.

Drill hole HDRC19-01

A highly altered sequence of Tapley Hill Formation (THFm) was intersected over the hole, alteration observed includes silicification (± carbonate) which has led to bleaching of the rocks. Potential propylitic alteration evinced by the vein styles.

- 0 to 29m downhole depth highly oxidised shale with hematite veinlets was observed.
 These veinlets are possibly after magnetite. Rock chip samples indicate these are typically mineralised.
 - Assay results over this interval confirm the presence of copper mineralisation with associated elevated molybdenum mineralisation.
- 29 to 60m weathered THFm. Intrusive albitite rich rock identified at 55m along with the presence of hydrothermal quartz and some chalcopyrite.
 - Lower grade copper mineralisation present to end of this section however, molybdenum values remain elevated.
- 60 to 69m minor zones of bleaching encountered. Most of the rock was completely recrystalised with all sedimentary textures are obliterated.
 - Copper mineralisation decreases as sodicity (Na) increases, the significance of this is to be investigated once all results have been reviewed.
- 85 to 115m end of hole (EOH) variably altered dolomite comprising chlorite±hematite veinlets. The hole was stopped due to the collapsing nature of the ground.

This interval is mostly unmineralised however, sodium (Na) levels increase with depth.

Drill hole HDRC19-02

A weakly graphitic altered sequence of Tapley Hill Formation (THFm) was intersected at the top of the hole until alteration was encountered at 79m downhole to the end of the hole (127m).

• 0 to 79m downhole depth - sequence of weakly graphitic THFm was encountered. It is interpreted that the presence of graphite is due to heating of the highly carbonaceous rocks to a point where the carbon becomes graphite. Quartz (qtz)-carbonate (cb) ± hematite (he) (ex magnetite (mt)) veinlets observed throughout this interval, with the frequency increasing towards the bottom of the interval, where trace chalcopyrite (cpy) is observed.

Assay results show copper mineralisation from 40 – 80m downhole, with composite samples of 0.10% copper. Elevated molybdenum also present with copper mineralisation.



• 79 to 105m - variably altered dolomite was intersected with veining comprising qtz-cb-he-cpy. The chlorite content increases towards the end of the interval. Minor breccias observed in some rock fragments.

Assay results show a transition from copper mineralisation into sodic environment with elevated sodium (Na) values.

105 to 127m (EOH) - chlorite becomes a common mineral throughout the rock, qtz-cb-he(mt) ± cpy also observed.

This interval is mostly unmineralised however, sodium (Na) levels increase with depth.

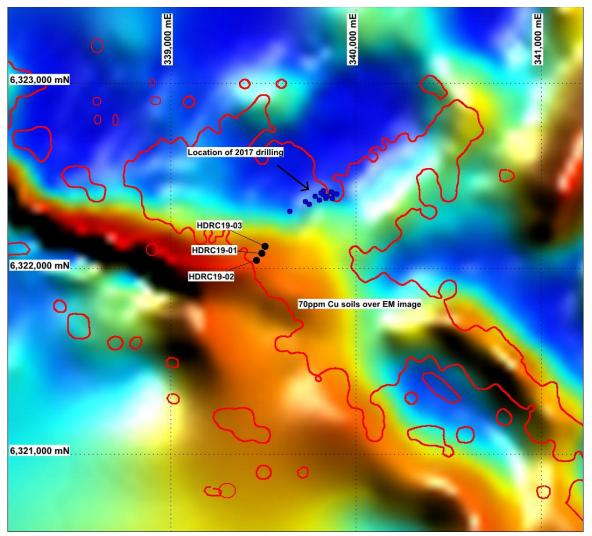


Figure 1. Image showing the collar location of drillholes HDRC19-01, HDRC19-02 and HDRC19-03 and the collar locations of drillholes drilled in 2017 (ASX announcement 07/06/17).





Next Steps

Additional assays will be reported as they become available. Drilling continues to test soil anomalies and geophysical targets previously identified by Archer over the wider Blue Hills area, with the other target areas being Katniss and Hawkeye, approximately 4.5km to the North of the holes being reported at Hood.

- Ends -

For further information, please contact:

Contact Details Shareholders

Mr Greg English For more information about Archer's Executive Chairman activities, please visit our:

Dr Mohammad Choucair
Chief Executive Officer

Website
https://archerx.com.au/

Tel: +618 8272 3288

Twitter

https://twitter.com/archerxau?lang=en

Competent Person Statement

The information in this announcement that relates to Exploration Results is based on information compiled by Mr Wade Bollenhagen, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and is a full-time employee of Archer Exploration Limited.

Mr Bollenhagen has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Bollenhagen consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



About Blue Hills

Archer's 100% owned Blue Hills copper gold project is part of the larger North Burra project area which covers an area of more than 3,000km². Blue Hills is located approximately 240 km north of Adelaide, South Australia and within 50km of the Moomba to Adelaide Gas Pipeline, the Hallet 203 MW gas power station, the trans Australia railway line, Barrier Highway, high voltage power line, known aquifers and the established townships of Peterborough and Jamestown.

Archer has discovered three large gold and copper in soils anomalies at Blue Hills, namely Hood, Hawkeye and Katniss. Regional exploration programs have identified multiple other targets which are yet to be tested by Archer (Figure 2).

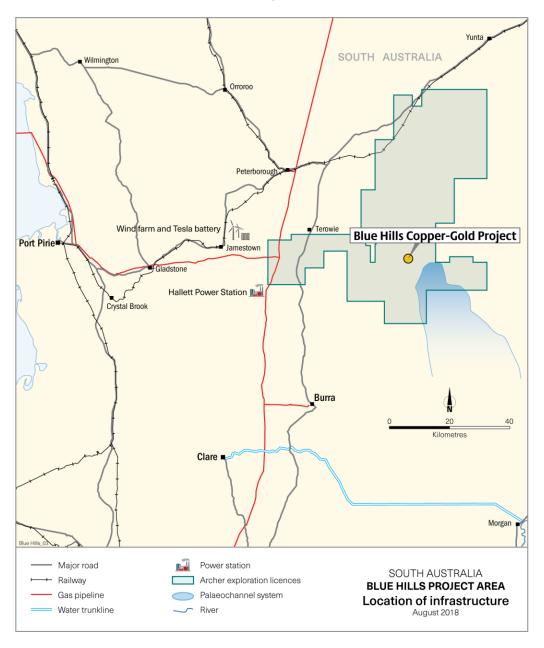


Figure 2. The Blue Hills Project Area and the location of infrastructure and the Archer exploration licences.



JORC Code, 2012 Edition - Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code Explanation	Commentary
Sampling Techniques	 Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. 	 A combination of 4m composite samples and individual metre samples were submitted due to alteration and proximity to alteration observed by the geologist during geological interpretation. Sampling was guided by Archer's protocols as the program was exploratory in nature. Certified standards were submitted by the company during analyses. All samples were sent to ALS laboratory in Adelaide for preparation and forwarded to Peth for multi-element analyses. All samples are crushed using LM2 mill to -4 mm and pulverised to nominal 80% passing -75 µm.
Drilling Techniques	Drill type (e.g. core, reverse circulation, open hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	The drill type is a Reverse Circulation (RC) with a 5.25 inch face sampling hammer bit. The samples are collected after passing through a 2 tier splitter attached underneath the mounted cyclone. The drill company was B&T Lehmann Drilling.





Criteria	JORC Code Explanation	Commentary
Drill Sample Recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	 No assessment of recoveries was documented. All efforts were made to ensure that the sample was representative. No relationship is believed to exist, but no work has been done to confirm this.
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	 All samples were geologically logged, as the hole collars were never accurately surveyed (a hand-held GPS was used) no data can be used for mineral resource estimation. Logging was qualitative and quantitative, i.e. percentages of vein material and host rock were estimated as well as noted.
Sub-Sampling Techniques and Sample Preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the insitu material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 All drilling was Reverse Circulation (RC), with a face sampling hammer bit. All samples were riffle split on a 2-tiered splitter, except for those that are wet, these were speared in the bag, by laying it on the side and taking a cross cutting representative sample. Samples from 55m onwards have been wet as the volume of water is considered to be significant. Initial samples submitted for assay are composites, this material is collected from the individual split sample. No additional quality control measures were taken for the sample submission. The sample sizes are considered appropriate for the material being sampled.





Criteria	JORC Code Explanation	Commentary
Quality of Assay Data and Laboratory Tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	 Certified standards were used in the assessment of the analyses. Analyses was by ALS Perth using their ME-MS61 technique for multi-elements. The laboratory uses their own certified standards during analyses. AU-TL43 was the technique used for gold detection.
Verification of Sampling and Assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 No verification of sampling, no use of twinned holes. Data is exploratory in nature and exists as excel spread sheets. No data adjustment.
Location of Data Points	 Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	 MGA94 Zone 54 grid coordinate system is used. A hand-held GPS was used to identify the sample location Quality and adequacy is appropriate for this level of exploration





Criteria	JORC Code Explanation	Commentary
Data Spacing and Distribution	 Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	 There is no pattern to the sampling, the spacing is random, the location of the holes was determined by the land surface as no clearing was undertaken for the drill rig so many sites were unsuitable to drill. Some of these may have produced different results to the one being reported, some of the more significant electro-magnetic responses have not yet been drill tested. Data spacing and distribution are sufficient to establish the degree of geological and grade continuity for future drill planning, but not for resource reporting. The size of the system being explored is extremely large and 3 5.25inch holes are very much an early indicator at best. Considerable area remains untested.
Orientation of Data in Relation to Geological Structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	 It is unknown whether the drill holes have interested the mineralisation in a perpendicular manner. The mineralised horizon is obscured by a veneer of transported material, from observations of the strike of outcrop it was believed that the mineralised structure was being drilled perpendicularly. Bedding in the area dips to the SE (about 30°), there is a high angle foliation to this in places (striking NNE) in places. The soil anomaly at Hood (topic of release) is orthogonal to the direction being drilled (roughly striking 135°). It is believed there is no bias has been introduced.
Sample Security	The measures taken to ensure sample security.	 It is assumed that best practices were undertaken at the time All residual sample material (pulps) are stored securely.
Audits or Reviews	The results of any audits or reviews of sampling techniques and data.	None undertaken.



Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code Explanation	Commentary
Mineral Tenement and Land Tenure Status	 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	 Tenement status confirmed on SARIG. All work being reported is from EL 5794 (owned by SA Exploration Pty Ltd, a subsidiary of AXE). The tenement is in good standing with no known impediments.
Exploration Done by Other Parties	Acknowledgment and appraisal of exploration by other parties.	No exploration has been undertaken by any other parties
Geology	Deposit type, geological setting and style of mineralisation.	 The mineralisation was initially interpreted to be strataform, however field evidence indicates that it was emplaced by hydrothermal fluids. Significant sodic alteration is being identified in the field and in thin section. The nature of this is developing, but is believed to be the edge of a larger system.





Criteria	JORC Code Explanation	Commentary
Drillhole Information	 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: Easting and northing of the drill hole collar Elevation or RL (Reduced Level - elevation above sea level in metres) of the drill hole collar Dip and azimuth of the hole Downhole length and interception depth Hole length If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	Refer to announcement to which this document is attached, in particular tables titled: • "Summary of drill hole information" • "Summary of drilling results"
Data Aggregation Methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	Composite (4m) and single (1m) intervals are being reported, the individual samples comprising the composites have been collected and will be submitted for assay.
Relationship Between Mineralisation Widths and Intercept Lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known'). 	 All assay intervals are down hole length, the true width not known. Geometry is not precisely known as out crops are obscured by cover, bedding dips 30° to SE and foliation in the area is high angle to this (orthogonal). Down hole intercepts are reported. True widths are likely to be 60-70% of the down hole widths.





Criteria	JORC Code Explanation	Commentary
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	See main body of report.
Balanced Reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	The reporting is considered to be balanced.
Other Substantive Exploration Data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Albitite dykes have been identified in the area and are supported by petrology descriptions of rock chips being reported. These findings indicate the presence of intrusion events over a considerable area (4km NNE)
Further Work	 The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	50 mm casing has been placed for future down hole geophysical testing as well as deepening with diamond drilling.



Annexure 1

Table 1: Summary of drill hole information at Hood

The following table provides information on RC drilling results undertaken by Archer in January 2019 in relation to the Program at Hood.

Hole ID	Easting	Northing	RL (m)	Final Depth (m)	Dip (°)	Azimuth (°)
HDRC19-01	339492	6322081	293	115	-60	030
HDRC19-02	339464	6322044	283	127	-60	030

Table 2: Summary of drilling results

Hole ID	from	to	Au (ppm)	Cu (ppm)	Mo (ppm)	Na (%)
HDRC19-01	0	4	0.005	1035	5.48	1.85
HDRC19-01	4	8	0.006	950	2.95	1.51
HDRC19-01	8	12	0.009	1365	3.53	1.59
HDRC19-01	12	16	0.009	1060	3.45	1.33
HDRC19-01	16	20	0.007	822	3.84	1.5
HDRC19-01	20	24	0.004	766	3.7	1.03
HDRC19-01	24	28	0.004	1055	2.31	1.29
HDRC19-01	28	32	0.003	787	2.06	1.44
HDRC19-01	32	36	0.003	341	2.07	1.33
HDRC19-01	36	40	0.002	271	1.85	1.14
HDRC19-01	40	44	0.001	444	3.06	1.11
HDRC19-01	44	48	0.001	467	2.62	0.95
HDRC19-01	48	52	0.001	642	3.41	1.16
HDRC19-01	52	56	0.002	594	5.05	0.89
HDRC19-01	56	60	0.006	371	4.89	0.67
HDRC19-01	60	64	0.002	77	1.53	2.22
HDRC19-01	64	68	0.003	229	0.97	2.62
HDRC19-01	68	72	0.003	65	1.05	2.37
HDRC19-01	72	76	0.003	21	0.79	2.25
HDRC19-01	76	80	0.002	111	0.46	2.05
HDRC19-01	80	84	0.003	19	0.39	2.02
HDRC19-01	84	88	0.003	27	0.38	1.96
HDRC19-01	88	92	0.002	19	0.22	2.22
HDRC19-01	92	96	0.006	83	6.63	1.85



Hole ID	from	to	Au (ppm)	Cu (ppm)	Mo (ppm)	Na (%)
HDRC19-01	96	100	0.004	27	0.72	2.03
HDRC19-01	100	104	0.003	19	0.46	2.57
HDRC19-01	104	108	0.003	9	0.27	2.51
HDRC19-01	108	112	0.006	4	0.48	4.78
HDRC19-01	112	115	0.005	3	0.53	3.94
HDRC19-02	0	4	0.003	168	4.58	1.42
HDRC19-02	4	8	0.003	131	4.79	1.75
HDRC19-02	8	12	0.002	221	4.9	1.7
HDRC19-02	12	16	0.001	208	3.49	1.66
HDRC19-02	16	20	<0.001	166	3.43	1.57
HDRC19-02	20	24	0.001	139	3.48	1.6
HDRC19-02	24	28	0.001	273	4.05	1.69
HDRC19-02	28	32	0.001	186	3.51	1.43
HDRC19-02	32	36	0.001	158	3.47	1.42
HDRC19-02	36	40	0.001	164	3.46	1.39
HDRC19-02	40	44	<0.001	329	4	1.17
HDRC19-02	44	48	0.001	668	4.56	1.72
HDRC19-02	48	52	<0.001	343	3.78	1.56
HDRC19-02	52	56	<0.001	616	3.82	1.25
HDRC19-02	56	60	<0.001	716	3.52	1.09
HDRC19-02	60	64	<0.001	405	3.52	0.9
HDRC19-02	64	68	<0.001	1115	4.48	1.31
HDRC19-02	68	72	<0.001	428	4.79	0.52
HDRC19-02	72	76	<0.001	439	4.92	0.21
HDRC19-02	76	77	<0.001	464	5.48	0.11
HDRC19-02	77	78	<0.001	495	3.99	0.08
HDRC19-02	78	79	0.001	1000	4.33	0.08
HDRC19-02	79	80	0.002	233	7.86	0.69
HDRC19-02	80	81	0.219	378	16.35	0.52
HDRC19-02	81	82	0.122	746	5.37	1.66
HDRC19-02	82	83	0.023	597	11.75	1.34
HDRC19-02	83	84	0.074	870	8.58	0.89
HDRC19-02	84	85	0.025	398	7.32	0.94
HDRC19-02	85	86	0.006	271	1.66	1.46



Hole ID	from	to	Au (ppm)	Cu (ppm)	Mo (ppm)	Na (%)
HDRC19-02	86	87	0.005	113	1.03	1.77
HDRC19-02	87	88	0.003	121	1.01	1.91
HDRC19-02	88	89	0.003	99	0.51	2.3
HDRC19-02	89	90	0.002	79	0.22	2.11
HDRC19-02	90	91	0.003	95	0.71	2.21
HDRC19-02	91	92	0.002	24	0.43	2.14
HDRC19-02	92	93	0.002	66	0.37	2.09
HDRC19-02	93	94	0.002	5	0.26	2.4
HDRC19-02	94	95	0.003	164	0.26	2.16
HDRC19-02	95	99	0.003	52	0.36	2.51
HDRC19-02	99	103	0.002	18	0.27	4.22
HDRC19-02	103	105	0.002	83	0.3	4.53
HDRC19-02	105	110	0.002	6	1.3	6.14
HDRC19-02	110	114	0.01	21	0.34	2.67
HDRC19-02	114	118	0.002	48	0.38	2.06
HDRC19-02	118	120	0.004	10	0.3	2.3