

ASX Release

9th July 2019

Double Magic: Merlin and Quick Shears Prospects Update

- Deep penetrating ground EM commenced at Merlin and Quick Shears
- Assay results confirm Ni-Cu sulphides at Quick Shears in outcrop
- Outcrop assays up to 0.25% Nickel, 0.11% Copper
- Ongoing Quick Shears mapping campaign reveals extensive outcropping Ni-Cu sulphide system
- Buxton-IGO West Kimberley regional JV progressing with 2019
 Spectrem airborne EM completed and results being processed

Buxton Resources Limited (ASX:BUX) is pleased to update the market that the first batch of laboratory assays from samples collected during the 2019 Quick Shears mapping campaign have been received. The results confirm that several recently discovered sulphide bearing rocks contain Ni-Cu-Co mineralisation (Table 1, Figure 1).



Figure 1. Quick Shears interpreted prospective corridor (dashed black lines), showing modelled VTEM conductors, recently discovered Ni-Cu sulphide in outcrop, including recently received assay locations confirming Ni-Cu, over high-resolution ground gravity at Merlin and a large regional gravity high (interpreted mafic-ultramafic complex).

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The mapping campaign has established that magmatic rocks containing visible pyrrhotite and chalcopyrite occur throughout E04/1972 and these rocks are interpreted to be part of the Ruins Dolerite which is host to magmatic sulphide style Ni-Cu-Co mineralisation at the contiguous Merlin Project.

Significantly, several results from this batch of samples are coincident with VTEM anomalies along with pending samples containing visible sulphides and occur within a regional gravity high, interpreted to be a substantial mafic-ultramafic intrusive complex at depth (Figure 1).

The mapping campaign and assay results have identified multiple high priority Ni-Cu targets which will be tested with a deep penetrating moving loop SQUID EM survey. This survey has recently commenced at the Merlin Project and the survey will extend to the northwest into the Quick Shears Project tenure.

West Kimberley Regional JV airborne EM (Spectrem) has been completed with results pending.



Figure 2. Buxton's West Kimberley Ni-Cu-Co tenure, highlighting the location of Merlin and Quick Shears Projects, BUX-IGO WKJV tenure and the recently acquired Baracus Tenure over interpreted bedrock geology (GSWA 1:500,000)



Sample ID	Easting	Northing	Ni ppm	Cu ppm	Co ppm
10908	650756	8130806	2,494	1,094	124
10879	651469	8130332	1,820	839	129
10901	651462	8130338	1,326	793	99
10890	651505	8130308	1,179	359	71
10934	652679	8128555	866	335	68
10918	651337	8130473	839	404	67
10933	652653	8128562	823	323	64
10896	651370	8130468	630	260	58
10900	651462	8130338	600	205	61
10886	651474	8130332	545	230	60
10906	650797	8130824	522	209	55
10884	650731	8130853	515	186	55
10939	652444	8128979	481	129	53
10907	650775	8130824	478	170	54
10935	652556	8128640	456	141	53
10895	651366	8130483	454	132	53
10937	652548	8128631	373	182	60
10878	651474	8130359	371	146	51
10902	651474	8130352	284	103	47
10929	645861	8135636	142	86	57
10894	651373	8130494	138	34	46
10899	651458	8130319	126	12	46
10931	645857	8135630	123	86	53
10877	652328	8129316	110	37	45
10897	651325	8130440	110	64	46
10938	652346	8129101	103	34	44
10893	651394	8130532	95	35	43
10885	650890	8130854	85	32	44
10927	645857	8135647	83	86	46
10903	651547	8130382	77	9	43
10892	651392	8130546	63	13	40
10876	652627	8129056	55	16	43
10875	652593	8129075	52	31	42
10910	645564	8133598	52	100	44
10874	652566	8129091	39	21	43

Table 1. Recent Rock Chip Assay Results



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Competent Persons

The information in this report that relates to Exploration Results is based on information compiled by Mr Eamon Hannon, Member of the Australasian Institute of Mining and Metallurgy, and Mr Derek Marshall, Member of the Australian Institute of Geoscientists. Mr Hannon and Mr Marshall are full-time employees of Buxton Resources. Mr Hannon and Mr Marshall have sufficient experience which is relevant to the activity being undertaken to qualify as a "Competent Person", as defined in the 2012 edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Hannon and Mr Marshall consent to the inclusion in this report of the matters based on the information in the form and context in which it appears.



JORC Table: Section 1 – Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down-hole 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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.	 Initial exploration at the Quick Shears Project by Buxton Resources Limited (Buxton) has comprised mapping and rock chip sampling. Outcrop and rock chip samples have been analysed on site by portable XRF to assist with sample selection and mapping. Selected rock chip samples were submitted to Intertek Genalysis Laboratories in Perth for analysis by four acid digestion with a 48-element finish utilising ICP-OES and ICP-MS. Ground gravity at the Merlin Prospect was performed by Atlas Geophysics Pty Ltd using a single 2-person foot- borne crew. Stations were acquired on a 100m x 100m square grid pattern. Southern Geoscience Consultants have reviewed, processed and modelled all geophysical data.
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).	Not applicable, no drilling has been undertaken by Buxton at the Quick Shears Project.
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.	Not applicable, no drilling has been undertaken by Buxton at the Quick Shears Project.
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 rock chips taken by Buxton are geologically logged.
Sub-sampling techniques and sample preparation	55	Entire rock chips are submitted to the laboratory for sample preparation and analysis. Sample sizes are considered appropriate to the grainsize and mineralisation observed.
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.	Rock chip samples submitted are analysed by four acid digestion which is considered a "near-total" digest for most elements.



	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.	Gravity: - 2 x V100 Hi Target GNSS receivers, one base station and one RTK rover - Scientrex CG-5 digital automated gravity meter Helicopter EM: - - VTEM Max system (UTS Geophysics Pty Ltd) - EM sensor 35m, magnetic sensor 75m - Data recording rate 10 points per second (approximately every 2m along line) - Transmitter loop diameter 35m - Line spacing: 250m with 125m infill Handheld XRF: - - Readings are routinely taken during mapping, however these analyses are only used for internal company purposes.
	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	No standards, duplicates or blanks were submitted with rock chips, however numerous samples were broken to keep representative samples that could be used for petrographic analysis or assay in the future. Intertek Genalysis routinely run checks, standards and blanks as part of their analyses process.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Rock chips have been reviewed by numerous company personnel to confirm the recorded observations by the field geologist.
	The use of twinned holes.	Not applicable, no drilling has been undertaken by Buxton at the Quick Shears Project.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All data is collected initially on paper and handheld GPS. This data is hand entered to spread sheets and validated by Company geologists. This data is then imported into the company database and extra validation is carried out. Physical data sheets are stored at the company office. Digital data is securely archived on and off-site.
	Discuss any adjustment to assay data.	Not applicable, there has been no adjustment to assay data.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Handheld GPS (+/-5m) as well as reference to topographical, remote sensing and known reference points.
	Specification of the grid system used.	MGA51 (GDA94).
	Quality and adequacy of topographic control.	GPS data has been used for topographic control and is deemed sufficient for this stage of exploration.
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.	The programs are reconnaissance and spacing is deemed appropriate for this stage of exploration.
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.	The programs are reconnaissance and orientation are deemed appropriate for this stage of exploration.
Sample security	The measures taken to ensure sample security.	Samples were packaged and stored in secure storage from the time of gathering through to submission. Laboratory best practice methods were employed by the laboratory upon receipt. Returned pulps will be stored at a secure company warehouse.



Audits or reviews	The re
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e results of any audits or reviews of sampling chniques and data. No audits of the sampling techniques or data were carried out due to the early stage of exploration. It is considered by the Company that industry best practice methods have been employed at all stages of the exploration.

JORC Table: Section 2 – Reporting of Exploration Results

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 Merlin and Quick Shears Projects referred to below are all located in the Kimberley region of Western Australia. The Merlin Prospect consists of 3 granted exploration licences (E04/1533, E04/2026 & E04/2142) held in the name of Alexander Creek Pty Ltd. Alexander Creek Pty Ltd is a wholly (100%) owned subsidiary of Buxton Resources Limited. The Merlin Prospect tenements are subject to a 24-month option period where Independence Group NL (IGO) has the exclusive right to strike an earn-in and JV agreement [readers are referred to ASX:BUX announcement on the 29 November 2018 for further information]. The Quick Shears Prospect consists of 3 granted exploration licences (E04/1972, E04/2314 & E04/2423) held in the name of Timothy Vincent Tatterson or Fissure Exploration Pty Ltd. Buxton acquired New World Cobalt Limited's (formally Ram Resources Limited) rights and interest in the Quick Shears Prospect [readers are
	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.	referred to ASX:BUX announcement on the 6 November 2018 for further information]. The tenements are in good standing with DMIRS and there are no known impediments for exploration on these tenements.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Historical exploration on the Quick Shears tenements was limited to a single phase of work conducted by Ram Resources Limited (ASX:RMR) during the period 2015- 2016. This comprised a helicopter EM survey (VTEM), ground EM and three diamond drill holes on E04/1972.
Geology	Deposit type, geological setting and style of mineralisation.	Known mineralisation at the Merlin Project is considered to be primary orthomagmatic intrusion related Ni-Cu-Co sulphide. Recently observed mineralisation on the Quick Shears tenure appears to be of the same nature. The Project areas lie within the Palaeoproterozoic Hooper Province of the King Leopold Orogen in the Kimberley region of Western Australia. The geology of the Project is characterized by a thick turbiditic meta- sediments and silicic volcanics of the Marboo Formation which are intruded by the Ruins Dolerite intrusive suite. The Ruins Dolerite is a medium- to fine-grained mafic- ultramafic intrusive that is host to the known nickel- copper sulphide mineralization. This mineralization is interpreted to represent primary orthomagmatic sulphide mineralization, however, there appears to be re-mobilisation and alteration of the mineralization in places.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material	Not applicable, no drilling has been undertaken by Buxton at the Quick Shears Project.
	drill holes:	



	o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	
	o dip and azimuth of the hole	1
	o down hole length and interception depth	
	o 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.	
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.	Not applicable, there has been no data aggregation or metal equivalents reported.
	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.	
Relationship between mineralisation widths	These relationships are particularly important in the reporting of Exploration Results.	Not applicable, no mineralisation widths or intercepts have been reported.
and intercept lengths	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 down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	
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 text, tables and figures in body of release.
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.	Not applicable, all exploration results have been reported.
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.	There is no other exploration data that is deemed to be meaningful or material.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step- out drilling).	Due to the early stage of exploration on Quick Shears tenure this is still to be established.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	See text and figures in body of release. Regionally, the extensive land package containing significant exposure of the nickeliferous host Ruins Dolerite are of exploration interest.