



15 January 2024

HERITAGE CLEARANCES RECEIVED FOR PRIORITY MOGUL VMS DRILL TARGETS

Highlights

- Heritage clearances have been received for area covering priority drill targets at the Mogul VMS Project in the Pilbara region of Western Australia.
- Drilling to be co-funded through Exploration Incentive Scheme grant of \$180,000.
- Program to test priority bedrock IP targets beneath high-grade rock-chips and drilling at the Mogul Cu-Pb-Zn-Ag-Au project in the Pilbara region of Western Australia.
- Previous drilling interpreted as up-dip from the conductive response, results include:
 - 3.65m @ 3.9 % Cu, 2.89 % Pb, 3.12% Zn, 189 g/t Ag from 12.75m (PDH5)
 - 0.45m @ 4.35 % Cu, 2.2 % Pb, 9.45 % Zn from 84.75 (PDH9, *see M4M:ASX, Acquisition of Mogul Copper-Zinc VMS Project, 28/09/2022*)
- Funding available from December 2023- November 2024, with permitting underway and Program of work application submitted to DEMIRS.

15 January 2024: Macro Metals Limited (ASX: **M4M**, **Macro Metals**, **Macro**, or the **Company**) is pleased to announce that heritage survey clearances have been received for the priority drill targets at the Mogul VMS Project in the Pilbara region of Western Australia.



Figure 1: NAC / Macro Metals Nellie Creek Survey crew (L-R: Lawrence Malana, Declan Crusoe, Remakus Wilberforce, & Morgan Day)

Commenting on the heritage survey clearances, Macro Metals Chairman Peter Hulich stated: *“Receipt of the heritage clearances allows us to access the priority drill targets at the Mogul Project. The Nyamal Aboriginal Corporation were instrumental in completing the heritage surveys and I thank them for their help and cooperation.”*

“With the Program of Works applications now submitted to DEMIRS, we look forward to updating shareholders on the final approvals to commence our co-funded drill campaign”.

The Mogul VMS Project

The Mogul VMS Project is a Cu-Pb-Zn-Ag-Au project 60km east of Nullagine in Western Australia on tenement E46/1399. The project was acquired by Macro Metals in 2022 (**see ASX announcement 28th September 2022 “Acquisition of Mogul Copper-Zinc VMS Project”**) and hosts a cluster of gossans including the Mogul and CEC gossan which were discovered in the 1970’s and return highly anomalous Copper results of up to 36% Cu and 11% Zn (WAMEX a6531).

Diamond drilling undertaken by Carpentaria Exploration in 1975 return 3.65m @ 3.9 % Cu and 3.12 % Zn from 12.75 -16.4 m and 0.4m @ 4.35 % Cu and 9.45 % Zn from 12 -16m (WAMEX a6531). A subsequent 8-hole RC drill program by Peninsular Gold beneath the CEC gossan in 1997 returned best copper results of 4m @ 3.11 % Cu and 1.47 % Zn from 12 -16m and best Zinc results of 4m @ 9.52 % Zn from 40-44m (WAMEX a50290).

The prospect geology consists of steeply dipping anticlinal belt of Archean greenstones, metasediments and volcanics, surrounded by younger Archean greywackes, shales, conglomerates, and tuffs. The project is cut by a regional North-South faults with multiple gossans being mapped along the Western strike of the fault. The occurrence of multiple gossans being mapped along the strike of the regional North-South fault also points to the potential for multiple clusters of mineralisation, as seen at prominent VMS deposits such as Golden Grove.

Upon acquisition of the project, Macro commissioned an I.P. survey (**see ASX announcement 30th August 2023 “Mogul VMS IP Survey defines multiple untested targets”**) which highlighted two priority exploration targets (Fig 1.0), with one anomaly down dip from the previously announced high-grade surface mineralisation and drilling (**Fig 2.0, see ASX announcement 28th February 2023 “Mogul Copper-Zinc VMS Project Site Visit”**). Encouragingly, this historic drilling did not reach the deeper basement responses (Fig. 2.0) which the company intends to test using the \$180,000 of EIS co-funding, in addition to testing a second, larger I.P. response associated with a resistive zone, lying west of the previously defined Mogul mineralisation (Fig 3.0).

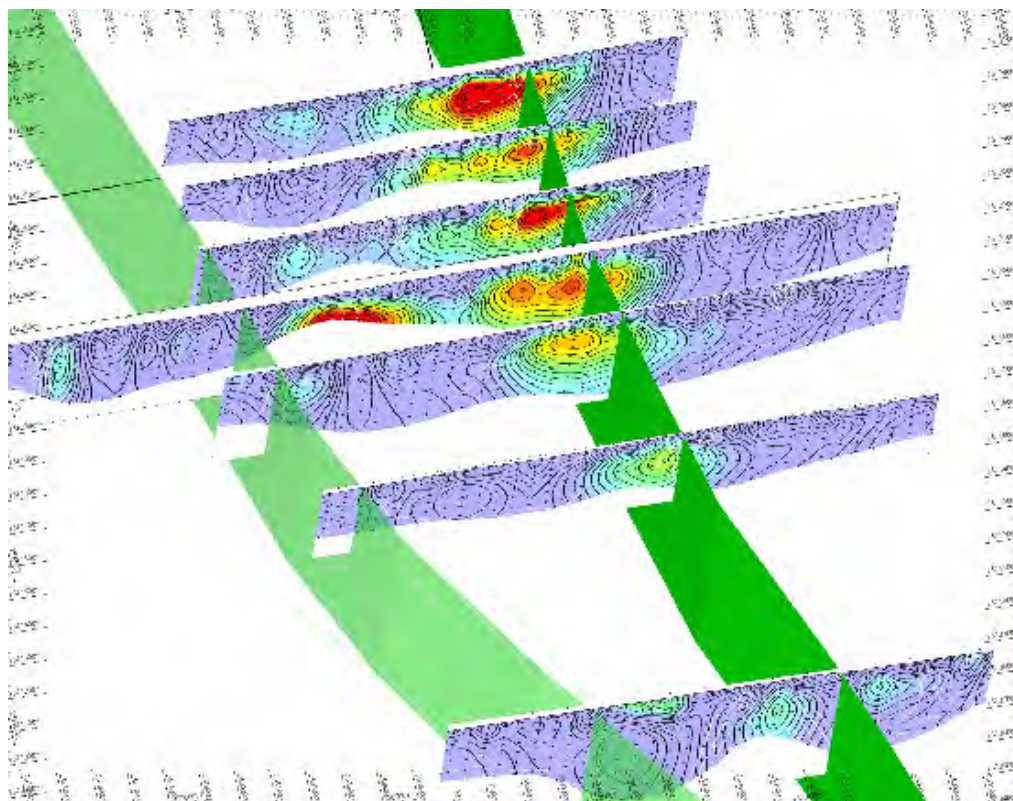


Figure 2: Stacked I.P. survey lines and chargeability between regional faults at Mogul VMS project.

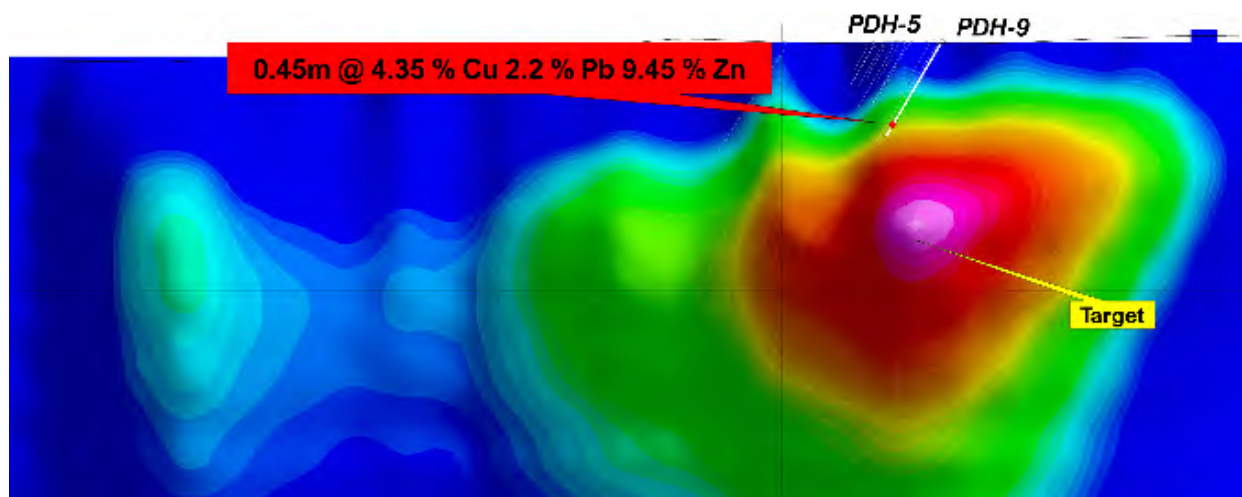


Figure 3: Eastern I.P. target from 2023 IP Survey on Line 7,572,300mN down dip from high-grade, near surface mineralisation.

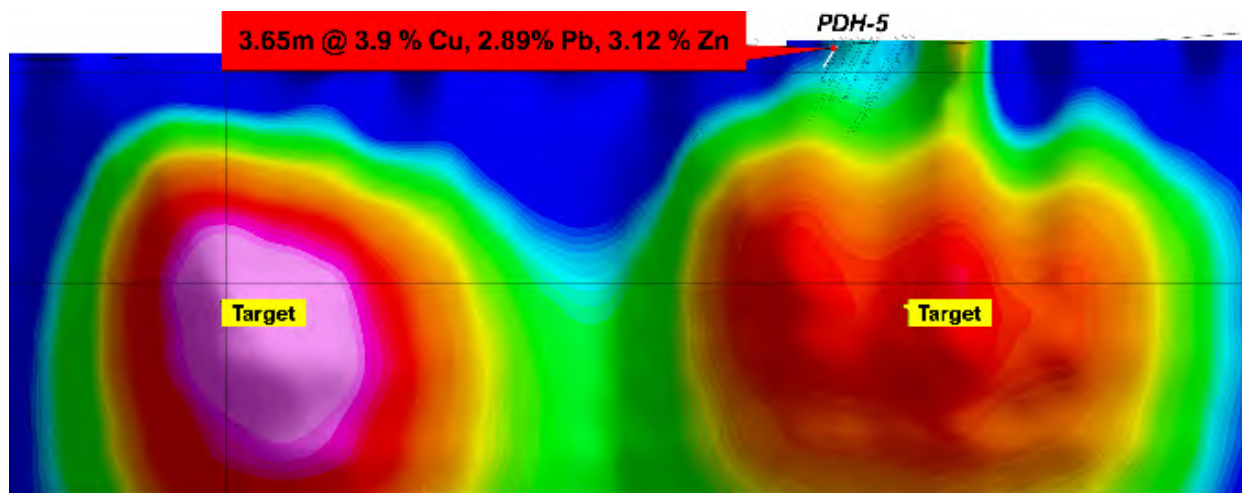


Figure 4: Western and Eastern I.P. targets from 2023 IP Survey on Line 7,572,100mN.



Figure 5: Regional Project Location Plan

Co-funded drilling grant

Macro Metals has been awarded \$180,000 to fund exploration drilling at its Mogul VMS project in the Pilbara region of Western Australia.

The grant is from the Exploration Incentive Scheme (EIS) which is a Western Australian State Government initiative that aims to encourage exploration in Western Australia by co-funding 50% of direct drilling costs. The granting of \$180,000 was the maximum amount available for a multi-hole program.

Macro Metals intends to use this funding to test the I.P. anomalies generated in the survey results announced in August (**see ASX announcement 30th August 2023 “Multiple Untested Targets Defined by IP Survey Across Mogul VMS Project”**). The survey has highlighted two priority exploration targets, with one anomaly down dip from the previously announced high-grade surface mineralisation and drilling, and a second, larger I.P. responses associated with a resistive zone, lying west of the previously defined Mogul mineralisation.

This announcement is authorised for release by the Board of Directors of Macro Metals Limited.

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Competent Persons Statement

The information in this report that relates to Mineral Resources is based on information compiled by Mr. Andrew Taylor, MAIG. Mr. Taylor has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking 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. Taylor consents to the inclusion of the data contained in relevant resource reports used for this announcement as well as the matters, form and context in which the relevant data appears.

Table 1: JORC Code, 2012 Edition. Section 1.

Criteria	JORC Code explanation	Commentary
<i>Sampling techniques</i>	<i>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.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <i>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.</i>	- Data Acquisition: Zonge Engineering - Dipole - Dipole Induced Polarisation Survey - Survey consisted of 7 lines (11.35km) - Dipole spacing 100m and collected to n=15 - IP survey receiver used was a GDD GRX32 - IP survey transmitter used was GDD TxII - Electrodes consisted of Pb-CI non-polarising porouspots. - Processing and modelling of the final product was also completed by Value Adding Resources Consultants 2D Inversion Software Zonge TS2DIP
<i>Drilling techniques</i>	<i>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).</i>	Not applicable
<i>Drill sample recovery</i>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> <i>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.</i>	Not applicable
<i>Logging</i>	<i>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.</i> <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> <i>The total length and percentage of the relevant intersections logged.</i>	Not applicable



Criteria	JORC Code explanation	Commentary
<i>Sub-sampling techniques and sample preparation</i>	• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> • <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> • <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> • <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> • <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i> • <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Not applicable
<i>Quality of assay data and laboratory tests</i>	• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> • <i>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.</i> • <i>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.</i>	• Not applicable
<i>Verification of sampling and assaying</i>	• <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> • <i>Discuss any adjustment to assay data.</i>	• Not applicable
<i>Location of data points</i>	• <i>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.</i> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i>	• Line spacing was 200m
<i>Data spacing and distribution</i>	• <i>Data spacing for reporting of Exploration Results.</i> • <i>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.</i>	• Not applicable

Criteria	JORC Code explanation	Commentary
	Whether sample compositing has been applied.	
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.	IP lines were sub-perpendicular to the strike of the local geology and structures.
Sample security	The measures taken to ensure sample security.	Not applicable.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No reviews or audits have been undertaken.

Table 2: JORC Code, 2012 Edition. Section 2.

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.	E46/1399 is in the Pilbara region of Western Australia.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	- A full search and compilation of historic exploration has been completed. - Work included stream sediment, soil and rock sampling, geological mapping and drilling.
Geology	Deposit type, geological setting and style of mineralisation.	- Kogi believes the style and geochemical signature of the prospect is consistent with Volcanic Massive Sulphide mineralisation. - The prospect covers a steeply dipping anticlinal belt of Archean greenstones, metasediments and volcanics, surrounded by younger Archean greywackes, shales, conglomerates, and tuffs. The project is cut by a regional North-South fault with multiple gossans being mapped along the Western strike of the fault.
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 drill holes: - easting and northing of the drill hole collar - elevation or RL (Reduced Level – elevation above sea level in metres) of	Not applicable.



Criteria	JORC Code explanation	Commentary
	<i>the drill hole collar</i> ○ <i>dip and azimuth of the hole</i> ○ <i>down hole length and interception depth</i> ○ <i>hole length.</i> • <i>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.</i>	
<i>Data aggregation methods</i>	• <i>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.</i> • <i>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.</i> • <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	• Not applicable.
<i>Relationship between mineralisation widths and intercept lengths</i>	• <i>These relationships are particularly important in the reporting of Exploration Results.</i> • <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> • <i>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').</i>	• Not applicable.
<i>Diagrams</i>	• <i>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.</i>	• Maps and cross sections are included in the body of the announcement.
<i>Balanced reporting</i>	• <i>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.</i>	• All results are reported.
<i>Other substantive exploration data</i>	• <i>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.</i>	• All relevant data are reported in this release.



Criteria	JORC Code explanation	Commentary
<i>Further work</i>	<i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	Permitting for exploration drilling is underway.

Table 3: Rock Chip Sample Data and Assays

SAMPLE_ID	LOCATION	EAST	NORTH	RL	Cu_%	Ag_g/t	Au_g/t	Pb_%	Zn_%
MM001	Mogul Gossan	258987	7572595	425	33	948	2.07	1.07	3.6
MM002	Mogul Gossan	258987	7572595	425	13.95	182	4.9	3.41	2.84
MM003	Mogul Gossan	258987	7572595	425	3.04	269	2.13	9.25	0.714
MM004	Mogul Gossan	258987	7572595	425	0.647		3.72	0.94	3.85

Table 3: Drill Hole Collar Data

WAMEX	HOLE_ID	EAST	NORTH	RL	DEPTH	DIP	AZI	ORIG_EAST	ORIG_NORTH
a50290	PG1	259085.5	7572221	425	40	-60	270	10080	10120
a50290	PG2	259117.6	7572220	425	60	-60	270	10112	10120
a50290	PG3	259136.1	7572205	425	60	-60	270	10130	10105
a50290	PG4	259107.2	7572150	425	40	-60	270	10100	10050
a50290	PG5	259084.2	7572131	425	40	-60	270	10078	10030
a50290	PG6	259092.1	7572111	425	45	-60	270	10086	10010
a50290	PG7	259114.9	7572112	425	65	-60	270	10108	10010
a50290	PG8	259103.2	7572101	425	65	-60	270	10092	10000
a6531	PDH9	259144.9	7572200	425	97	-60	270	10140	10100
a6531	PDH4	259144.8	7572251	425	110.3	-58	270	10140	10150
a6531	PDH6	259095.2	7572100	425	86	-60	270	10090	9985
a6531	PDH7	259003.7	7572203	425	115.55	-57	270	9998	10116
a6531	PDH2	258850.6	7572694	425	104	-60	270	9890	10456
a6531	PDH5	259079.2	7572152	425	24	-60	270	10075	10050
a6531	PDH8	259114.7	7572151	425	64.75	-60	270	10110	10050
a6531	PDH1	258979.9	7572620	425	141.55	-60	270	9970	10400

Table 4: Drill Hole Assay Data

Hole	From	To	Length	Au_g/t	Ag_g/t	Cu_%	Pb_%	Zn_%
PG1	16	20	4		1.8	0.038	0.0403	0.4466
PG4	32	36	4			0.00665	0.00205	0.3373
PG4	36	40	4	0.02		0.00802	0.00212	1.2801
PG5	8	12	4	0.02	0.02	0.019	0.00586	1.2688
PG5	12	16	4	0.74	70.5	3.1104	0.1867	1.4722
PG5	16	20	4	0.23	24.4	0.1254	0.2867	0.2899
PG5	28	32	4		0.1	0.00643	0.00044	0.7626
PG6	20	24	4		0.04	0.0087	0.00135	0.342
PG6	24	28	4	0.07	8.8	0.0434	0.1808	0.4429
PG6	28	32	4	0.02	0.5	0.00948	0.00273	0.3466
PG8	36	40	4	0.03	1.8	0.0115	0.0427	0.4057
PG7	40	44	4	0.42	9.4	0.4243	0.2399	9.5168
PG7	44	48	4	0.02	0.5	0.00931	0.00817	0.3979
PG7	48	52	4		0.2	0.00787	0.00292	0.0242

Hole	From	To	Length	Au_g/t	Ag_g/t	Cu_%	Pb_%	Zn_%
PDH9	84.75	85.2	0.45		195	4.35	2.2	9.45
PDH5	12.75	16.4	3.65		189	3.9	2.89	3.12
PDH5	18.9	20.4	1.5		7.8	0.45	0.17	
PDH8	46.95	47.5	0.55		26.5	0.31	0.94	4

Table 5: Rock Chip Assay Data (previous operators)

WAMEX	Location	Sample	Minedex	East	North	RL	Cu_%	Pb_%	Zn_%
a6531	CEC Gossan	QY9403	S0026163	259060	7572137	425	36	0.79	0.34
a6531	Mogul Gossan	QY9411	S0027166	258987	7572595	425	1.1	3.2	11
a6531	Mogul Gossan	17122	S0027166	258987	7572595	425	21	2.5	2.6