

15 August 2024

# Orient West deep drillhole returns up to 420g/t Ag Eq. highlighting UG resource potential

Critical minerals and base metals explorer **Iltani Resources Limited** (ASX: ILT, "Iltani" or "the Company") is pleased to announce results from the deep diamond drill hole plus down hole and fixed loop electromagnetic surveys (DHEM and FLEM) recently completed at Orient, part of its Herberton Project in northern Queensland. The deep diamond drill hole (ORD001) was funded by the Queensland Government through Round 8 of the Collaborative Exploration Initiative (CEI) under the Queensland Department of Resources' Industry Development Plan.

#### **HIGHLIGHTS:**

- ORD001 intersected the down dip extension of the Orient West silver-lead-zinc-indium vein system, which continues to be open at depth.
- Material results include 6m @ 189 g/t Ag Eq. from 207.8m inc. 2m @ 420 g/t Ag Eq. from 210.8m and 270m down dip of a high-grade intersection in ORR029 (interpreted as the same vein), demonstrating significant potential to build a material high grade UG resource at Orient West.
- The diamond drill hole is located 250m east of the high-grade core zone at Orient West indicating potential to further extend the high-grade core zone to the NW
- Orient West vein system produces a very strong response to EM. Two main conductors were defined, representing the lower and upper parts of the sulphide-rich vein system.
- The upper conductor is interpreted to be part of the high-grade vein system intersected in ORD001 representing a high-priority drill target
- The lower conductor has a strike extent of at least 400m, extending from close to surface (approx. 80m depth) to 420m depth and again represents a high-priority drill target

**Iltani Managing Director Donald Garner** commented: *"Our recent deep diamond hole (ORD001) at Orient Silver-Indium Project was designed as a 'wildcat' hole to test a deeper magnetic anomaly at Orient West combined with a DHEM/FLEM survey.* 

The upper part of the hole was a resounding success, hitting a down dip extension of the Orient West vein system, with the best intersection of **6m @ 189 g/t Ag Eq. from 207.8m inc. 2m @ 420 g/t Ag Eq. from 210.8m.** This intersection is (a) 270m down-dip of an intersection in ORR029, (b) open at depth and (c) is approximately 250m east of the high-grade core zone at Orient West, demonstrating the potential to deliver a high-grade UG resource and increase the size of the high-grade core.

The DHEM/FLEM survey demonstrated the vein system produces a very strong response to EM. Two main conductors were defined, representing the lower and upper parts of the sulphide-rich vein system. These conductors represent high-priority drill targets, and we plan to use EM to help us better target the sulphide rich (high-grade) vein systems at Orient.

Unfortunately, the deeper part of the hole was not as successful, intersecting a broad zone of stockwork-style quartz-carbonate  $\pm$  pyrite veining between 668.0m to 692.0m enveloped within a zone of strong phyllic alteration but no economic assays.

I acknowledge the support of the QLD Government in drilling this hole, with grant funding received through Round 8 of the Collaborative Exploration Initiative (CEI) under the QLD Department of Resources' Industry Development Plan."



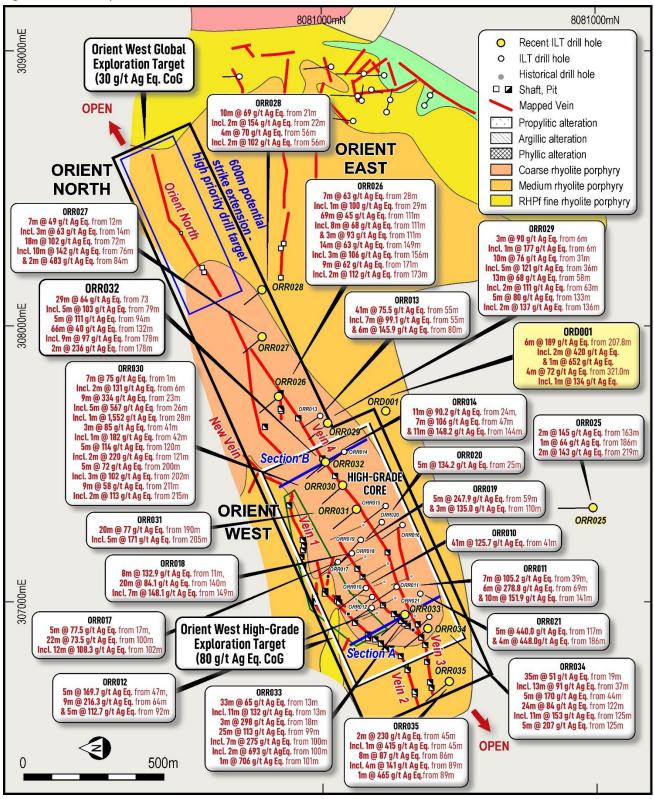


#### Figure 1 Orient Deep Diamond Hole











#### 1. Orient Deep Diamond Hole (ORD001)

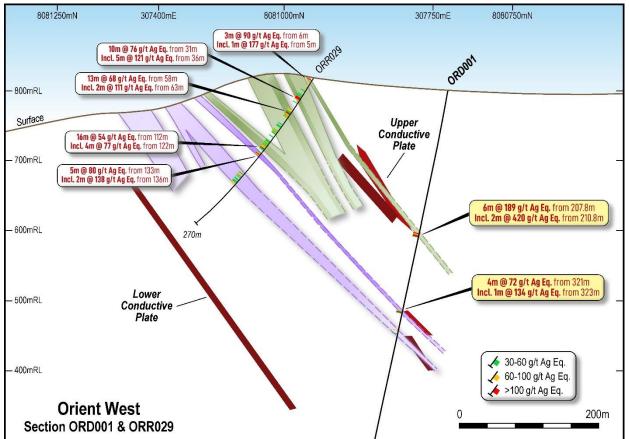
Diamond drill hole ORD001 was commenced on 8 June and took 26 days to complete. The total downhole length of the hole was 794.2m (drilled to approximately 780m vertical depth). The hole was drilled as an HQ diameter hole from surface to 200m and then as an NQ diameter hole to the end of hole.

ORD001 intersected a brown to grey fine- to medium-grained pyroclastic welded crystal + lithic ± lapilli tuff containing potassic feldspar-amphibole-quartz grading into zones of potassium feldspar-quartz with lithic fragments to 10mm. The entire hole displays variable propylitic to phyllic alteration.

The tuffaceous host rocks are cut by several zones of sulphide veining, quartz + calcite + sericite  $\pm$  chlorite  $\pm$  pyrite veins and more pervasive calcite + rhodochrosite vein stockworks. The pyrrhotite-pyrite-galena-sphalerite sulphide veining has widths ranging from micro veinlets to 50mm, are of variable density over zones of up to six metres and have an orientation similar to the sulphide vein mineralisation at Orient West (i.e. averaging 50° to 135° with secondary orientations of 35° to 181° and 25° to 225°). Phyllic-style alteration is more strongly developed within wall rock peripheral to sulphide veins. There does not appear to be any lithological control on the development of veining and mineralised zones.

The crystalline quartz  $\pm$  calcite  $\pm$  sericite-illite  $\pm$  chlorite  $\pm$  pyrite veins appear to be the earliest phase and occasionally display a laminated, sheared or brecciated texture. A later retrograde overprint by a mixed composite of sphalerite  $\pm$  pyrrhotite  $\pm$  pyrite  $\pm$  galena sulphides occurs as either millimetre-scale marginal ribbons or scattered triangulate infill along gangue crystal interstices of the earlier veins, as well as a spatially separate veining phase.

Increased magnetic intensity readings are predominantly associated with zones of sulphide veining, reflecting increased pyrrhotite content within the veins.



#### Figure 3 Orient Deep Diamond Hole Cross Section



#### Zone 1 (207.8m to 213.8m):

The drill hole intersected high-grade silver-lead-zinc-indium mineralisation from 207.8m to 213.8m downhole. The mineralisation consisted of a series of sub-planar sulphide veins of up to 50mm width and disseminated replacement style mineralisation within the phyllic-altered host pyroclastic tuff. The zone returned an intersection of **6m @ 189 g/t Ag Eq. from 207.8m including 2m @ 420 g/t Ag Eq. and 1m @ 652 g/t Ag Eq.** This likely represents the down dip continuation of the most easterly vein set at Orient West, some 270m down-dip from the nearest drill intersection in ORR029 (**3m @ 90 g/t Ag Eq. from 6m inc. 1m @ 177 g/t Ag Eq. from 6m downhole**). Although vein width did not exceed 50mm, the pyrrhotite present was of sufficient quantity for the veins to be responsive to the down hole EM survey.

From (m)	To (m)	Intersect (m)	Ag g/t	In g/t	Pb %	Zn %	Ag Eq. g/t
207.8	213.8	6.00	48.7	46.3	1.2%	1.5%	188.9
210.8	212.8	2.00	102.7	125.7	2.3%	3.5%	419.5
211.8	212.8	1.00	169.0	188.0	4.0%	5.1%	651.6

Table 1 ORD001 Zone 1 Material Assay Data

#### Zone 2 (320.8m to 325m):

A further zone of Ag-Pb-In-Zn mineralisation was intersected between 320.8m to 325m downhole, associated with a series of quartz-carbonate-base metal veins of up to 10mm width and some disseminated replacement style mineralisation.

Table 2 ORD001 Zone 2 Material Assay Data

From (m)	To (m)	Intersect (m)	Ag g/t	In g/t	Pb %	Zn %	Ag Eq. g/t
321.0	325.0	4.00	6.5	28.9	0.2%	0.9%	71.8
323.0	324.0	1.00	5.2	72.8	0.1%	1.8%	133.7

This zone assayed **4m @ 72 g/t Ag Eq. from 321.0m including 1m @ 134 g/t Ag Eq.** The lower grade of this intersection can be attributed to the lesser density of sulphide veins and disseminated sulphides. This zone also likely represents the down dip continuation of the Orient West mineralisation, with the nearest intercept 310m up dip.

#### **Deeper Mineralisation:**

A broad zone of stockwork-style quartz-carbonate ± pyrite veining of up to 120mm width was intersected between 668.0m to 692.0m enveloped within a zone of strong phyllic alteration. The zone represented the most intense alteration intersected within the hole, however assays indicated that no significant mineralisation was present. A tin-rich vein (1.0m @ 1.31% Sn) was intersected from 357.0m downhole. The timing of the quartz-carbonate veining in relation to the sulphide veins intersected earlier in the hole due to a lack of interaction between the vein sets is not known at this stage.



#### 2. DHEM Survey Results

In July 2024, Australian Geophysical Services (AGS) acquired downhole EM (DHEM) on hole ORD001 followed by a single line of fixed-loop EM (FLEM) at surface. The data generated was interpreted and modelled by Kate Hines of Mitre Geophysics (Mitre).

The FLEM line was not planned as part of the initial survey, but was undertaken in an attempt to better define conductors that were detected by the DHEM survey but were a considerable distance from the down hole EM source and hence could not be accurately modelled.

able 5 Okboot Diffini Survey Falameters				
Date	10-11th July 2024			
Contractor	Australian Geophysical Services			
Collar location (GDA94 MGA55)	307754mE, 8080814mN, 800RL			
Hole azimuth, dip, depth	320, 80, 650m			
Tx current	85A			
Components	AUV			
Frequency	1Hz			
Transmitter	GeoRESULTS DRTX TX4			
Receiver	DigiAtlantis			
Probe No	#184			
Units:	pT/A			
Channels	36 channels over the interval 0.087 to 218.259			
Loop	ORD001_L1			

Table 3 ORD001 DHEM Survey Parameters

11-12th July 2024
Australian Geophysical Services
83A-86A
XYZ, X component along the line (325°) and Y to the southwest (235°)
1Hz
GeoRESULTS DRTX TX4
SMARTem24
pT/A
36 channels over the interval 0.087 to 218.259
ORD001_L1

Table 4 ORD001 FLEM Survey Parameters

The Orient West vein system produces a very strong response to EM. Two main conductors were defined: **Deep\_FLEM\_220S** and **OHR\_@180m\_100S / OHR\_@180m\_250S**, representing the lower and upper parts of the sulphide vein system.

The large conductive plate **Deep\_FLEM\_220S** has a strike length greater than 400m (probably far greater, but detection restricted by distance from EM source) and a depth extent of 420m. The plate extends to within 80m of the surface (possibly closer to surface, uncertain due to the distance of the receiver spacing from the EM down hole source), with its nearest edge about 120m northwest from ORDD001 at 480m downhole. This plate correlates with the 2020 drone magnetics isosurface, as well as with the low resistivity and high chargeability shells from the 2021 IP survey.



The precise location and linearity of the conductor plate has not been accurately determined due to the distance of the conductor from the EM source. To ensure the nature and location of the plate is better defined, several holes from the upcoming RC program have been extended to depths that will pass through the interpreted plate conductor.

The upper sulphide system is represented by OHR\_@180m\_100S and OHR\_@180m\_250S which appear to extend within 100m of the surface. These plates also correlate with the high-grade intersection in ORD001 of 6.0m at 189g/t Ag Eq. from 207.8m downhole including 2.0m at 420g/t Ag Eq. and 1.0m at 652g/t Ag Eq.

The two main conductors appear to define the upper and lower boundaries of the entire mineralised zone as defined by drilling to date. The intervening veins are not detected, but it is important to understand that the DHEM and FLEM survey was not designed to energise these shallow veins. This means that that transmitter loop is poorly coupled, (i.e., the EM survey was designed to target deep conductors), which in turns means that the shallower mineralisation was not energised. Additionally, the intervening veins (West 1, West 2, West 5, West 22 etc) are likely to be too far away from ORD001 to have been detected.

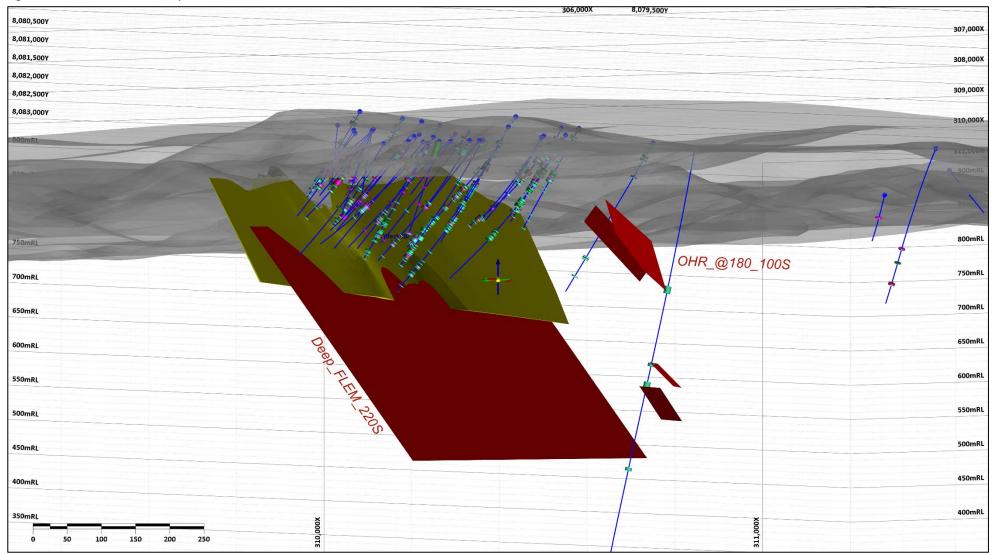
The strong response, despite the poor coupling, means that EM can be a highly effective tool for defining the epithermal pyrrhotite-associated mineralisation, like application of EM at the Renison in Tasmania. For the Orient area, larger scale surface or airborne EM surveys should be considered in preference to IP or magnetics due to the better resolution and lower uncertainty inherent in EM. DHEM will be effective extending the search radius of drill holes and accurately delineating the ore geometry and size.

The downhole magnetic profile (acquired simultaneously with the DHEM) indicates that ORD001 has not intersected the target magnetic model which means that the magnetic source is either deeper or in the wrong location.

This is a result of uncertainty in modelling magnetic data increasing exponentially with depth, probably combined with the effects of remanence. To fix this, the magnetic modelling will be redone using the true remanence values and hard boundaries, which will the give a more accurate representation of depth and geometry. Determining the true remanence values requires oriented hand samples and/or drill core to be sent to a laboratory to have the remanence strength and direction measured, which is a relatively insignificant cost and will greatly improve the accuracy of magnetic models. This will be undertaken once additional core has been drilled (to provide a range of samples through varying lithology and the massive sulphide mineralisation) with the expected outcome of better defining magnetic targets throughout the Orient area.

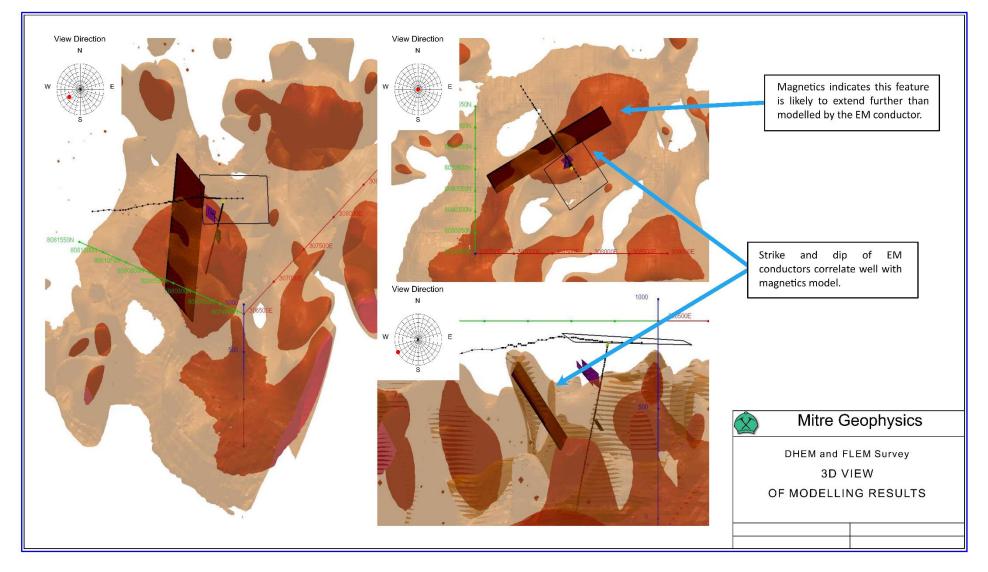


#### Figure 4 All modelled veins and plate conductors





#### Figure 5 EM plate models with Drone magnetics model iso surfaces. 12500nT and 5000nT isosurfaces are shown





### 3. Conclusions

The deep diamond hole (ORD001) was funded by the Queensland Government, with Iltani receiving a \$299,000 grant through Round 8 of the Collaborative Exploration Initiative (CEI) under the Queensland Department of Resources' Industry Development Plan.

The CEI funding contributed to drilling a deep diamond hole (to ~780m vertical depth) in order to test a large scale geophysical anomaly located beneath the Orient West silver-lead-zinc-indium mineralised system plus conducting a Downhole Electromagnetic (DHEM) survey on completion of the deep diamond drill hole.

- ORD001 was collared and drilled approximately 250m east of the high-grade core of Orient West (refer to Figure 2) and intersected high-grade mineralisation (6m @ 189 g/t Ag Eq. from 207.8m including 2m @ 420 g/t Ag Eq. and 1m @ 652 g/t Ag Eq.) extending the high grade core
- The high-grade mineralisation intersected is interpreted to be the probable down-dip extension (270m down-dip) of the mineralisation intersected in ORR029, indicating the high-grade mineralisation extends a depth (and remains open) demonstrating the potential for UG mining at Orient West
- DHEM/FLEM surveys were an outstanding success with the Orient West vein system producing a very strong response to EM. Two main conductors were defined: Deep\_FLEM\_220S and OHR\_@180m\_100S / OHR\_@180m\_250S, representing the lower and upper parts of the sulphide vein system
  - The large conductive plate Deep\_FLEM\_220S has a strike length in excess of 400m (probably far greater, but detection restricted by distance from EM source) and a depth extent of 420m. The plate extends to within 80m of the surface (possibly closer, uncertain due to coupling), with its nearest edge about 120m northwest from ORDD001 at 480m downhole.
  - The upper sulphide system is represented by OHR\_@180m\_100S and OHR\_@180m\_250S which appear to extend within 100m of the surface. These plates also correlate with the high-grade intersection in ORD001 of 6.0m at 189g/t Ag Eq. from 207.8m downhole including 2.0m at 420g/t Ag Eq. and 1.0m at 652g/t Ag Eq.
- Higher temperature mineralisation was intersected at depth, with a broad zone of stockworkstyle quartz-carbonate ± pyrite veining of up to 120mm width intersected between 668.0m to 692.0m enveloped within a zone of strong phyllic alteration. The zone represented the most intense alteration intersected within the hole, however assays indicated that no significant mineralisation was present plus a tin-rich vein (1.0m @ 1.31% Sn) was intersected from 357.0m downhole.

Recently announced exploration at Deadman Creek (ASX release dated 6 August 2024: Iltani Deadman Creek sampling returns encouraging results) has confirmed that the Orient System (Orient West, Orient East, Orient North and Deadman Creek) has a surface extent of 5 to 6km<sup>2</sup>. Iltani has yet to locate the source(s) of the metal-rich hydrothermal fluids that have circulated in this system. Unfortunately. our first deep hole was not a discovery hole and we will revisit this at a future date.

We intend to focus on the mineralisation we have drilled to date at Orient West and Orient East. The deep diamond drill hole has extended the high-grade mineralisation by 250m to the east, confirmed the Orient West system remains open at depth, and now we know that the Orient West vein system produces a very strong response to EM – giving us an additional tool to better target and extend the high-grade sulphide rich mineralisation at Orient.



#### 4. Next Steps

Activities planned at Iltani's Orient silver-indium project during August include the following:

- Drill program design work at Orient West (infill drilling to deliver a Mineral Resource Estimate) and Orient East (drilling to deliver an Exploration Target) has been completed and Iltani will commence marking out drill pads in anticipation of site clearance activities.
- Orient West infill drilling is designed to target the core of higher-grade mineralisation
- Wulguru Technical Services Pty Ltd. (Wulguru) to commence preliminary flora and fauna studies at Orient. This work will enable Iltani to better understand the baseline study requirements required for a mining lease application.
- Wulguru will also undertake a drone lidar survey to provide an accurate digital terrain model (DTM) required for future Mineral Resource Assessment work.
- Iltani exploration team will complete the Deadman Creek sampling exercise, targeting the southern stockwork area in Deadman Creek.

#### Authorisation

This announcement has been approved for issue by Donald Garner, Iltani Resources Managing Director.

#### **Contact Details**

For further information, please contact:

Donald Garner Managing Director Iltani Resources Limited +61 438 338 496 dgarner@iltaniresources.com.au Nathan Ryan Investor Relations NWR Communications +61 420 582 887 nathan.ryan@nwrcommunications.com.au



#### **Competent Persons Statement**

#### **Exploration Results**

The information in this report that relates to Exploration Results is based on information compiled by Mr Erik Norum who is a member of The Australasian Institute of Geologists (AIG), and is an employee of Iltani Resources Limited., and who has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves' (JORC Code).

Mr Norum consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

#### **Metallurgical Equivalent Calculation**

The equivalent silver formula is Ag Eq. =  $Ag + (Pb \times 35.5) + (Zn \times 50.2) + (In \times 0.47)$ 

•			
Metal	Price/Unit	Recovery	
Silver	US\$20/oz	87%	
Lead	US\$1.00/lb	90%	
Zinc	US\$1.50/lb	85%	
Indium	US\$350/kg	85%	

Table 5 Metal Equivalent Calculation - Recoveries and Commodity Prices

It is Iltani's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.



#### About Iltani Resources

Iltani Resources (ASX: ILT) is an ASX listed company focused exploring for the base metals and critical minerals required to create a low emission future. It has built a portfolio of advanced exploration projects in Queensland and Tasmania with multiple high quality, drill-ready targets. Iltani has completed drilling at the Orient Silver-Indium Project, part of its Herberton Project, in Northern Queensland. The drilling has returned outstanding intercepts of silver-lead-zinc-indium mineralisation, positioning Orient as Australia's most exciting silver-indium discovery.

Other projects include the Northern Base Metal, Southern Gold and Rookwood Projects in Queensland plus the Mt Read Project, a highly strategic 99km<sup>2</sup> licence in Tasmania's Mt Read Volcanics (MRV) Belt, located between the world-class Rosebery and Hellyer-Que River polymetallic (CuPbZn) precious metal rich volcanic hosted massive sulphide deposits.

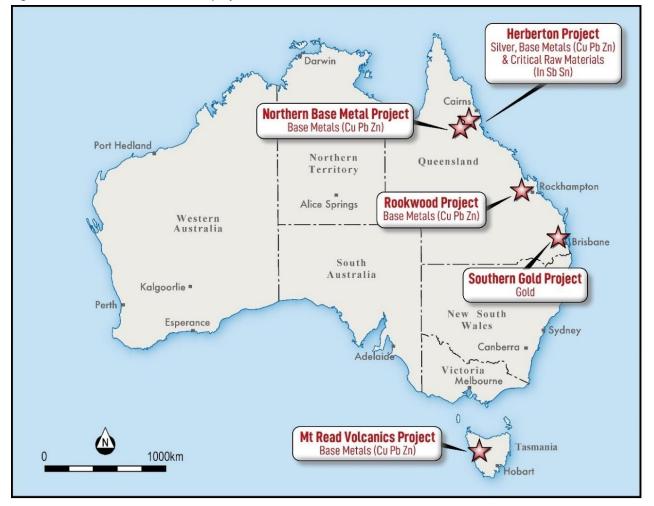


Figure 6 Location of Iltani Resources' projects in Queensland and Tasmania



Table 6 Orient West ORD001 Drillhole Data

DH ID	Easting	Northing	Elevation (m)	Dip	Azi (Mag)	Azi (Grid)	Depth (m)
ORD001	307754	8080814	800	-80	313.5	320	794.2

Table 7 Assay Data (ORD001)

Sample	From	То	Intersect	Ag	In	Pb	Zn	Ag Eq.	Sn
ID	(m)	(m)	(m)	g/t	g/t	%	%	g/t	%
123872	205.8	206.8	1.00	4.82	0.87	0.143%	0.171%	18.89	0.01%
123873	206.8	207.8	1.00	4.89	1.12	0.141%	0.150%	17.93	0.01%
123874	207.8	208.8	1.00	26.40	10.30	0.676%	0.800%	95.40	0.04%
123875	208.8	209.8	1.00	22.90	4.83	0.584%	0.469%	69.45	0.25%
123876	209.8	210.8	1.00	26.70	6.35	0.654%	0.546%	80.31	0.04%
123877	210.8	211.8	1.00	36.40	63.40	0.700%	1.920%	187.43	0.03%
123878	211.8	212.8	1.00	169.00	188.00	3.950%	5.060%	651.60	0.03%
123879	212.8	213.8	1.00	10.60	4.64	0.387%	0.454%	49.31	0.02%
123880	213.8	214.8	1.00	4.81	2.77	0.163%	0.230%	23.44	0.01%
123881	214.8	215.8	1.00	3.45	1.58	0.118%	0.123%	14.53	0.00%
123882	215.8	216.8	1.00	0.75	0.15	0.024%	0.024%	2.89	0.00%
123884	321.0	322.0	1.00	8.14	15.90	0.237%	0.842%	66.29	0.03%
123885	322.0	323.0	1.00	7.59	17.60	0.242%	0.651%	57.13	0.04%
123886	323.0	324.0	1.00	5.23	72.80	0.061%	1.835%	133.72	0.03%
123887	324.0	325.0	1.00	5.02	9.30	0.162%	0.300%	30.18	0.03%
123888	325.0	326.0	1.00	2.76	1.62	0.110%	0.086%	11.73	0.01%
123889	349.0	350.0	1.00	5.79	22.20	0.178%	0.903%	67.86	0.01%
123890	350.0	351.0	1.00	1.16	1.25	0.043%	0.079%	7.20	0.01%
123891	351.0	352.0	1.00	0.68	0.37	0.037%	0.049%	4.62	0.00%
123892	352.0	353.0	1.00	3.43	0.91	0.173%	0.195%	19.76	0.02%
123893	353.0	354.0	1.00	1.05	0.28	0.051%	0.048%	5.39	0.01%
123894	354.0	355.0	1.00	11.20	3.21	0.436%	0.391%	47.81	0.03%
123895	355.0	356.0	1.00	2.57	0.68	0.069%	0.096%	10.15	0.02%
123896	356.0	357.0	1.00	2.69	1.46	0.089%	0.148%	13.94	0.03%
123897	357.0	358.0	1.00	4.42	3.66	0.129%	0.302%	25.88	1.31%
123898	358.0	359.0	1.00	2.66	1.99	0.076%	0.155%	14.06	0.02%
123899	477.0	478.0	1.00	1.28	0.97	0.065%	0.079%	8.00	0.01%
123900	478.0	479.0	1.00	0.37	0.19	0.013%	0.014%	1.64	0.00%
123901	479.0	480.0	1.00	1.56	2.29	0.027%	0.132%	10.21	0.01%
123902	480.0	481.0	1.00	1.08	2.94	0.016%	0.145%	10.29	0.01%
123903	481.0	482.0	1.00	0.62	1.76	0.012%	0.095%	6.64	0.01%
123905	668.0	669.0	1.00	1.20	0.46	0.012%	0.009%	2.28	0.01%
123906	669.0	670.0	1.00	0.35	0.58	0.005%	0.014%	1.50	0.01%
123907	670.0	671.0	1.00	0.26	0.59	0.005%	0.017%	1.59	0.01%
123908	671.0	672.0	1.00	0.20	0.65	0.004%	0.015%	1.41	0.01%
123909	672.0	673.0	1.00	0.37	0.73	0.003%	0.012%	1.43	0.01%
123910	673.0	674.0	1.00	0.25	0.77	0.002%	0.010%	1.19	0.02%
123911	674.0	675.0 676.0	1.00	0.19	0.78	0.001%	0.005%	0.85	0.02%
123912	675.0		1.00	0.23	0.68	0.002%		0.89	0.02%
123913	676.0	677.0	1.00	0.10	0.20	0.003%	0.009%	0.72 0.74	0.00%
123914 123915	677.0	678.0	1.00	0.13 0.22	0.17	0.004%	0.008%		0.00%
	678.0	679.0 680.0	1.00 1.00	0.22	0.47	0.008%	0.018%	1.52	0.01%
123916	679.0							1.95	0.01%
123917	680.0	681.0	1.00	0.30	0.33	0.009%	0.010%	1.29	0.01%
123918	681.0	682.0	1.00	0.14	0.44	0.005%	0.008%	0.92	0.01%
123919	682.0	683.0	1.00	0.22	0.45	0.004%	0.006%	0.91	0.02%



Sample	From	То	Intersect	Ag	In	Pb	Zn	Ag Eq.	Sn
ID	(m)	(m)	(m)	g/t	g/t	%	%	g/t	%
123920	683.0	684.0	1.00	0.12	0.34	0.003%	0.007%	0.70	0.01%
123921	684.0	685.0	1.00	0.10	0.28	0.002%	0.008%	0.73	0.00%
123922	685.0	686.0	1.00	0.13	0.26	0.003%	0.009%	0.82	0.00%
123923	686.0	687.0	1.00	0.12	0.46	0.002%	0.006%	0.73	0.01%
123924	687.0	688.0	1.00	0.12	0.73	0.003%	0.008%	0.96	0.02%
123926	688.0	689.0	1.00	0.28	0.32	0.006%	0.013%	1.27	0.02%
123927	689.0	690.0	1.00	1.46	0.28	0.027%	0.021%	3.59	0.01%
123928	690.0	691.0	1.00	0.07	0.33	0.002%	0.002%	0.36	0.03%
123929	691.0	692.0	1.00	0.33	0.50	0.003%	0.007%	1.03	0.02%
123930	692.0	693.0	1.00	0.30	0.59	0.003%	0.013%	1.35	0.01%
123931	609.0	610.0	1.00	0.37	0.64	0.013%	0.030%	2.62	0.00%
123932	610.0	611.0	1.00	0.48	0.92	0.022%	0.040%	3.71	0.00%
123933	611.0	612.0	1.00	0.80	1.25	0.008%	0.045%	3.96	0.01%
123934	612.0	613.0	1.00	1.91	1.27	0.024%	0.046%	5.67	0.02%



#### JORC Code, 2012 Edition – Table 1 (Iltani Drilling)

#### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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 down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>Drilling reported is HQ and NQ diamond core drilling.</li> <li>Iltani Resources completed 1 diamond hole for 794.2m drilled. The drilling was completed by Dubbo, NSW based drilling contractors Durock Drilling Pty Ltd.</li> <li>HQ and NQ diamond core was geologically logged, then sample intervals determined based of geological information. The intervals were then half cut. One half of the core was then submitted for laboratory analysis, typically sampled at one metre intervals.</li> <li>Samples were bagged and sent to Australian Laboratory Services Pty Ltd (ALS) in Townsville for preparation and analysis.</li> <li>Preparation consisted of drying of the sample and the entire sample being initially jaw crushed to 70% passing 6mm and pulverised to 85% passing 75 microns in a ring and puck pulveriser.</li> <li>Analysis consisted of four acid digest with Inductively Coupled Plasma Mass Spectrometry (ICP-MS) (ME-MS61) analysis for the following elements: Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y Zn, Zr.</li> <li>Ore grade sample analysis consisted of four acid digests with Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES) finish. This was carried out for Ag, Pb, Zn, Sn &amp; In.</li> <li>Indium over limit sample analysis was carried out using Inductively Coupled Plasma Mass Spectrometry (ICP-MS) (ME-MS61) (In-ICP61) at ALS Vancouver facility in Canada</li> </ul>
Drilling techniques	<ul> <li>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).</li> </ul>	<ul> <li>The drilling was completed using a track mounted diamond rig utilising standard HQ and NQ diameter diamond core bits.</li> <li>All diamond core was oriented utilising an Axis Orientation tool</li> <li>Downhole surveys were undertaken at nominal 30m intervals during drilling utilising a digitally controlled Axis Champ Gyro instrument</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and</li> </ul>	<ul> <li>Core sample recovery was determined by measuring core interval between drillers blocks and comparing to driller's stated metreage. In some instances the driller would note intervals of poor recovery.</li> <li>Iltani personnel and Durock Drilling crew monitor sample recovery. Overall recovery was good with some minor zones of lost core due to fractured and broken ground.</li> <li>No significant bias has been noted between recovery</li> </ul>



Criteria	JORC Code explanation	Commentary
	grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	and grade.
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Diamond core was initially processed by experienced field technicians by determining core recovery, RQD, determining quality of orientation marks, marking core axis based on orientation marks. The core was then geologically logged including lithology, alteration a graphic log and structural measurements by a qualified geologist. Lithology, veining, alteration, mineralisation, weathering and structural data are recorded in the geology table of the drill hole database. Final and detailed geological logs were forwarded following sampling.</li> <li>Geological logging of the diamond core is qualitative and descriptive in nature.</li> <li>Observations were recorded appropriate to the sample type based on visual field estimates of sulphide content and sulphide mineral species.</li> <li>All drill holes are logged to the end of hole (EoH).</li> </ul>
Sub-sampling	If core, whether cut or sawn and	<ul> <li>All drill holes are logged to the end of hole (EoH).</li> <li>Diamond core was cut for sampling using a</li> </ul>
techniques and sample	whether quarter, half or all core taken.	dedicated diamond saw with half core sent for analysis, the remaining half retained.
preparation	<ul> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>The onsite geologist selects the mineralised interval for analysis from geological logging, based on identification of either rock alteration and/or visual sulphides.</li> <li>Industry standard sample preparation is conducted under controlled conditions within the laboratory and is considered appropriate for the sample types.</li> <li>QAQC samples (standards) were submitted at a frequency of approximately 1 in 15. Regular reviews of the sampling were carried out by Iltani Geologist to ensure all procedures and best industry practice were followed.</li> <li>Sample sizes and preparation techniques are considered appropriate for the nature of mineralisation.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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</li> </ul>	<ul> <li>Industry standard assay techniques were used to assay for silver and base metal mineralisation (ICP for multi-elements with a four-acid digest)</li> <li>No geophysical tools, spectrometers or handheld XRF instruments have been used to determine assay results for any elements.</li> <li>Monitoring of results of standards (inserted at a minimum rate of 1:15) is conducted regularly. QAQC data is reviewed for bias prior to uploading results in the database.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>derivation, etc.</li> <li>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.</li> </ul>	
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>No drill holes were twinned.</li> <li>Primary data is collected on paper logs; data verification and storage are accomplished by Iltani contractor and staff personnel.</li> <li>All drillhole data was compiled in Excel worksheets and imported into Micromine to query 3D data and generate drill plans and cross sections.</li> <li>No adjustment to assay data has been made.</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Drill hole collar locations are initially set out using a hand held GPS.</li> <li>Downhole surveys completed at nominal 30m intervals by driller using a digitally controlled Axis Champ Gyro instrument.</li> <li>All exploration works are conducted in the GDA94 zone 55 grid.</li> <li>Topographic control is based on airborne geophysical survey and it is considered adequate.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drilling was targeted on a magnetic and IP geophysical anomaly determined by an experienced consultant geophysicist.</li> <li>Drill hole spacing is not adequate to report geological or grade continuity.</li> <li>No sample compositing has been applied.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this</li> </ul>	<ul> <li>The drill holes were orientated to intersect the interpreted mineralisation zones as perpendicular as possible based on information to date.</li> <li>Due to locally varying intersection angles between drillholes and lithological units all results will be defined as downhole widths.</li> <li>No drilling orientation and sampling bias has been recognised at this time and it is not considered to have introduced a sampling bias.</li> </ul>





Criteria	JORC Code explanation	Commentary
	should be assessed and reported if material.	
Sample security	<ul> <li>The measures taken to ensure sample security.</li> </ul>	<ul> <li>Drill core was transported from the drill rig by Iltani staff, then stored in a lockable shed. All core processing, cutting and sampling was conducted in the shed. Samples for despatched were placed in sealed polyweave bags then put on a pallet and transported to ALS Townsville by a freight carrying company.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>No audits or reviews have been carried out at this point</li> </ul>



### 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	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The drill program was conducted on EPM27223.</li> <li>EPM27223 is wholly owned by Iltani Resources Limited</li> <li>All leases/tenements are in good standing</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Exploration activities have been carried out (underground mapping, diamond drilling, surface geochemical surveys and surface mapping, pre- feasibility study) by Great Northern Mining Corporation and Mareeba Mining and Exploration over the West and East Orient areas from 1978 to 1989.</li> <li>Exploration activities have been carried out (soils and rock chip sampling) around Orient West and East by Monto Minerals Limited from 2014 to 2017</li> <li>Red River Resources carried out mapping, sampling and geophysical exploration (drone mag survey and IP survey) in 2020 and 2021.</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>Mineralisation occurs in vein systems up to 2m wide (controlled by fractures/shears) containing argentiferous galena, cerussite, anglesite, sphalerite, pyrite, marmatite, cassiterite (minor), and stannite (minor).</li> <li>The lead-zinc-silver-indium mineralisation at Orient is believed to represent part of an epithermal precious metals system. The Orient vein and stockwork mineralisation are associated with a strongly faulted and deeply fractured zone near the margin of a major caldera subsidence structure</li> </ul>
Drill hole Information	<ul> <li>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, including, easting and northing, elevation or RL, dip and azimuth, down hole length, interception depth and hole length.</li> <li>If the exclusion of this information is justified the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>Iltani Resources completed a single diamond core drill hole to 794.2m depth. The drill hole design was solely based on interpreted aeromagnetic and ground IP data by a suitably qualified and experienced geophysicist. The drill hole was designed to test a geophysical anomaly to determine whether this target may represent the feeder mineralising zone for the shallower mineralisation investigated by Iltani through previous RC drilling.</li> <li>Refer to Table 6 (ORD001 Drillhole Data) and Table 7 (Assay Data), in attached ASX release which provide the required data.</li> </ul>



Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul> <li>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.</li> </ul>	<ul> <li>No data aggregation methods have been used.</li> <li>Metal equivalents are used (silver equivalent)</li> <li>The equivalent silver formula is Ag Eq. = Ag + (Pb x 35.5) + (Zn x 50.2) + (In x 0.47)</li> <li>Metal Equivalent Calculation - Recoveries and</li> </ul>
	<ul> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	Metal       Price/Unit       Recovery         Silver       US\$20/oz       87%         Lead       US\$1.00/lb       90%         Zinc       US\$1.50/lb       85%         Indium       US\$300/kg       85%         It is Iltani's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole</li> </ul>	<ul> <li>Drilling is generally perpendicular to the structures with the diamond hole at 80° into structures dipping between 30° and 60°.</li> </ul>
Diagrams	<ul> <li>length, true width not known').</li> <li>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 plans and sections.</li> </ul>	Refer to plans and sections within report
Balanced reporting	<ul> <li>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.</li> </ul>	<ul> <li>The accompanying document is considered to represent a balanced report</li> </ul>
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported.</li> </ul>	<ul> <li>All meaningful and material data is reported</li> </ul>
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).	• Exploration of the target area is ongoing. Iltani plans to follow up on the positive drilling results with further field work including mapping and rock chip/soil sampling and drilling is planned