



13 November 2023

Test work confirms silver-indium production potential at Orient, QLD

Critical minerals and base metals explorer **Iltani Resources Limited** (ASX:ILT, "Iltani" or "the Company") is pleased to announce that recently received historical metallurgical test work results for its Orient project in Queensland, have confirmed the potential to produce high quality lead-silver and zinc-indium-silver concentrates.

HIGHLIGHTS:

- Historical metallurgical test work for the Orient project confirms its potential to produce high quality lead-silver and a zinc-indium-silver concentrates.
 - Test work indicates the lead-silver concentrate would grade 48% Pb and 2,250g/t Ag, and the zinc-indium concentrate would grade 47-48% Zn, 2,000 g/t In and 200 g/t Ag.
 - Indium's strategic importance as a critical raw material has been noted by multiple studies.
 - This production potential positions Orient as one of Australia's largest silver-indium projects and a strategically located potential supplier of indium concentrates going forward.
 - Iltani is now able to restate recent Orient drilling results on a **silver equivalent (Ag Eq.) grade** basis. Iltani's recently completed Stage 1 RC drilling program highlights this potential, with excellent drill intercepts at both Orient West and Orient East. Notable intercepts include:
 - Orient West: ORR010: **41m @ 125.3 g/t Ag Eq. from 60m downhole** and ORR013: **41m @ 71.4 g/t Ag Eq. from 55m downhole**
 - Orient East: ORR001: **38m @ 190.0 g/t Ag Eq. from 19m downhole** and ORR003: **41m @ 107.2 g/t Ag Eq. from 39m downhole**
 - Iltani will **shortly commence a Stage 2 drilling campaign** to follow up Stage 1 drilling, seeking to extend mineralisation drilled in Stage 1 and test multiple high priority stockwork targets.
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Iltani Managing Director Donald Garner commented:

"Iltani has recently received a large package of historical data including drill logs, assays results and technical studies (mine design, feasibility studies and metallurgical test work) for a number of projects in the Herberton region. The bulk of the data relates to Iltani's Orient and Isabel projects, and dates from the 1970s to 1980s. This data enables Iltani to accelerate work in a much more focussed and cost effective manner on these projects.

An immediate benefit is our ability to confirm that the Orient project can produce separate high quality lead-silver and zinc-indium-silver concentrates, positioning Iltani as a potential supplier of this key critical raw material."



1. Metallurgical Test Work Summary

Great Northern Mining Corporation (GNMC) commissioned Robertson Research Australia Pty Ltd to carry out metallurgical test work on core samples from the Orient West deposit in 1988 (Laboratory Flotation Investigation of West Orient Lead-Zinc Ore Drill Core Composite Sample).

Test work confirmed that is viable to produce two separate high quality concentrates, **a lead-silver concentrate grading approximately 48% Pb and 2,250 g/t Ag and a zinc-indium-silver concentrate grading 47-48% Zn, 2,000 g/t In and 200 g/t Ag.**

Based on enquiries to date, Iltani believes that both concentrates will be able to be sold, and the following elements (silver, indium, lead and zinc) can be included in a metal equivalent calculation, having a reasonable potential to be recovered and sold.

Indium is in solid solution in the sphalerite (zinc iron sulphide, $(\text{Zn,Fe})\text{S}$), and as such the indium recovery tracks the zinc recovery to the zinc concentrate.

Indium is defined as a critical raw material by multiple studies driven by its strategic end uses and potentially constrained supply (dominated by China).

The production of indium tin oxide (ITO) continues to account for most global indium consumption. ITO thin film coatings were primarily used for electrically conductive purposes in a variety of flat-panel displays—most commonly liquid crystal displays (LCDs). Night-vision goggles, and other related technologies. Solar cells and smartphone displays also use indium.

Other indium end uses included alloys (aerospace engineering and automotive manufacturing) and solders, where is low melting point, makes it useful for soldering applications, such as microelectronics.

In the test work carried out, the antimony recovery to the lead concentrate was similar to or slightly higher than the lead recovery and was in accordance with expectation based on the known mineralogy of the antimony which is intimately associated with the lead. The antimony is expected to be present in jamesonite (lead-antimony-iron sulphide, $\text{Pb}_4\text{FeSb}_6\text{S}_{14}$) and boulangerite (lead-antimony sulphide, $\text{Pb}_5\text{Sb}_4\text{S}_{11}$). The test work indicated the lead concentrate would contain 2-3% Sb, however Iltani does not expect the antimony in the lead concentrate to be payable, and as such antimony will not currently be part of the metal equivalent calculation.

Tin is likely present as both stannite (copper-iron-tin sulphide, $\text{Cu}_2\text{FeSnS}_4$) and cassiterite (tin oxide, SnO_2), with the stannite tending to report mainly to the lead concentrate. At this stage, Iltani does not expect the tin in the lead concentrate to be payable, and as such will not currently be part of the metal equivalent calculation. Further test work will be required to better understand whether it is economically viable to recover the cassiterite to a tin concentrate. As such, Iltani will not currently include tin as part of the metal equivalent calculation.



2. Orient Drilling Results

Iltni is pleased to be able to restate that recently released Stage 1 RC drilling results on a silver equivalent grade basis.

Table 1 Orient West Stage 1 RC Program - Material Intercepts

Hole	From (m)	To (m)	Intersect (m)	Ag g/t	Pb %	Zn %	In g/t	Ag Eq g/t
ORR010	60	101	41	34.8	0.69%	0.99%	35	125.3
<i>incl.</i>	67	72	5	74.5	1.52%	1.12%	47	206.6
<i>and</i>	90	98	8	73.0	1.15%	2.64%	116	350.9
<i>incl.</i>	93	95	2	172.5	2.61%	5.86%	296	697.6
ORR011	21	26	5	19.3	0.49%	0.63%	5	70.7
	39	46	7	19.0	0.59%	1.15%	16	105.2
	69	75	6	79.2	1.56%	2.51%	38	278.3
<i>incl.</i>	71	74	3	145.2	2.75%	4.54%	73	504.9
	114	115	1	30.7	0.85%	0.69%	2	96.4
	141	151	10	49.9	0.89%	1.07%	35	151.5
<i>incl.</i>	148	150	2	201.4	3.23%	3.95%	148	583.4
ORR012	47	52	5	79.6	1.75%	0.51%	5	169.6
	64	73	9	88.1	1.61%	1.12%	31	215.9
<i>incl.</i>	67	70	3	227.7	3.99%	2.54%	62	525.7
	92	97	5	30.9	0.51%	1.03%	25	112.4
ORR013	15	17	2	173.5	3.76%	0.03%	17	316.3
	55	96	41	21.2	0.53%	0.57%	6	71.4
<i>incl.</i>	55	62	7	28.1	0.72%	0.83%	8	99.1
<i>and</i>	80	86	6	49.1	1.09%	0.98%	19	145.9
<i>and</i>	94	96	2	45.2	1.17%	1.51%	20	171.9
	131	132	1	31.7	0.86%	1.16%	22	130.7
ORR014	2	15	13	12.6	0.34%	0.12%	2	31.6
	24	35	11	24.7	0.62%	0.78%	9	90.1
	47	54	7	31.6	0.75%	0.74%	11	100.5
	95	96	1	45.9	1.22%	1.35%	19	165.8
	124	126	2	38.1	1.00%	1.21%	30	148.3
	144	155	11	33.8	0.63%	1.32%	54	147.6
<i>inc.</i>	148	150	2	81.9	0.87%	4.68%	250	464.5
ORR016	15	17	2	31.9	0.94%	1.00%	1	316.3

Intersection width (m) is downhole width not true width

Figure 1 Orient West Drill Collar Location (material intersections only)

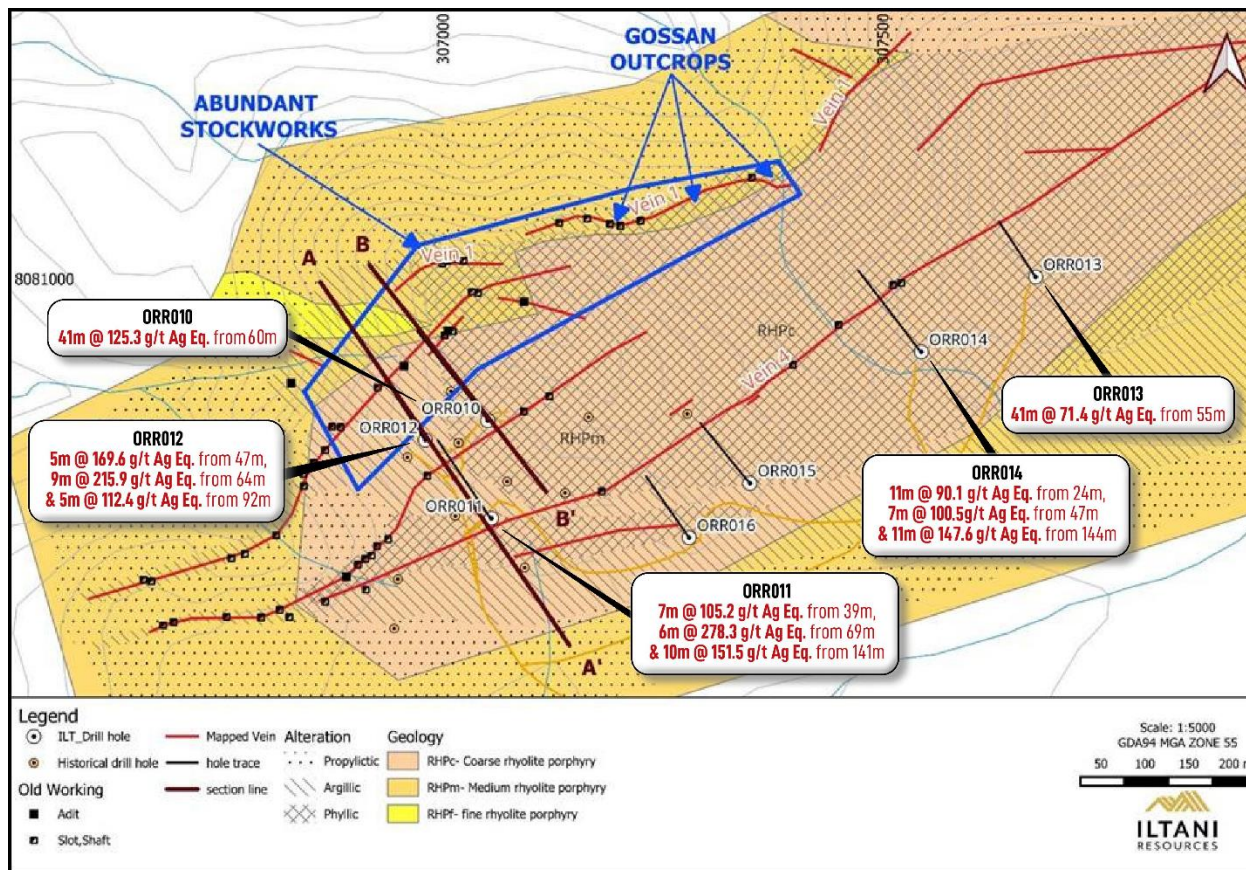


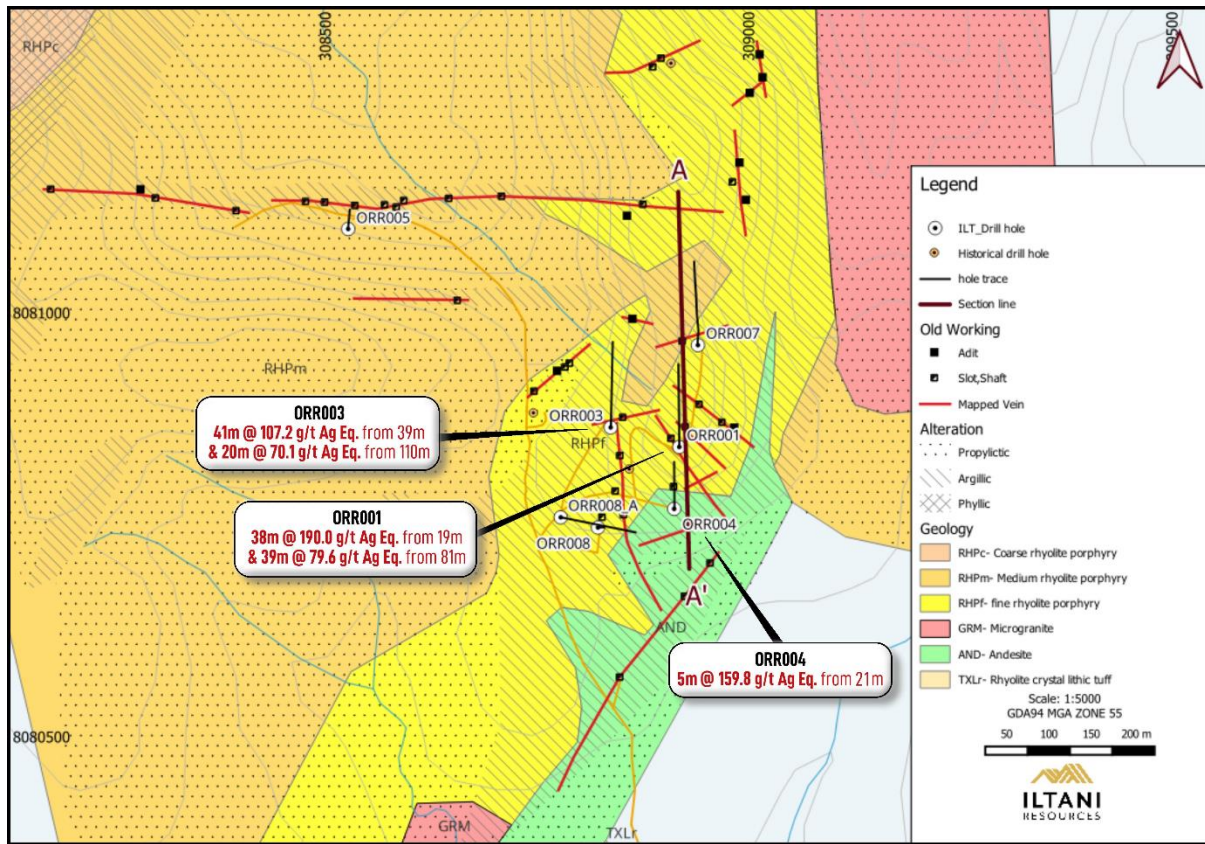
Table 2 Orient East Stage 1 RC Program - Material Intercepts

Hole	From (m)	To (m)	Intersect (m)	Ag g/t	Pb %	Zn %	In g/t	Ag Eq g/t
ORR01	19	57	38	68.6	1.29%	1.44%	7	190.0
<i>incl.</i>	20	24	4	89.3	2.00%	2.08%	22	275.0
<i>and</i>	27	34	7	179.5	2.99%	3.25%	12	454.4
	81	120	39	22.4	0.58%	0.71%	2	79.6
<i>incl.</i>	99	100	1	118.0	2.81%	2.87%	33	377.2
ORR003	39	80	41	35.5	0.78%	0.83%	5	107.2
<i>incl.</i>	50	52	2	95.0	1.89%	1.59%	11	247.0
<i>and</i>	59	64	5	121.5	2.45%	2.48%	27	345.6
	110	130	20	20.1	0.52%	0.60%	3	70.1
ORR004	21	26	5	33.0	0.76%	1.95%	4	159.8
ORR005	34	36	2	80.6	1.86%	1.60%	37	244.2
ORR008A	29	37	8	20.1	0.48%	0.59%	1	67.2
<i>incl.</i>	33	35	2	41.9	0.97%	1.33%	3	144.5

Intersection width (m) is downhole width not true width



Figure 2 Orient East Drill Collar Location (material intersections only)

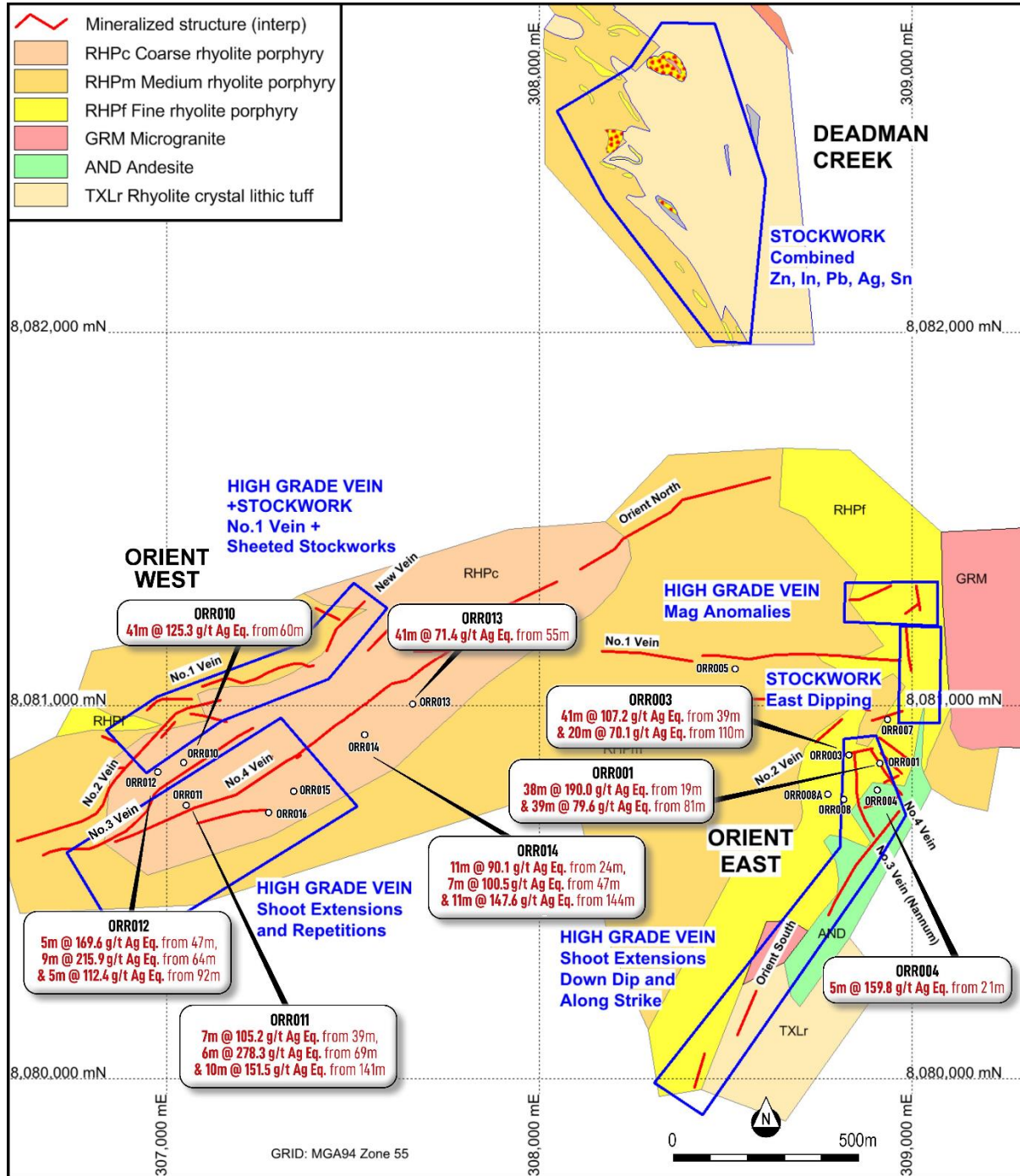


For further details, refer to the following Iltani ASX releases: Iltani confirms significant new discovery of silver-lead-zinc-indium-antimony-tin system at Orient, QLD (24 October 2023) and Iltani hits wide intersections of silver-lead-zinc-indium-antimony-tin mineralisation at Orient (13 October 2023).

3. Next Steps

Ittani will shortly commence the next stage of exploration at the Orient project, following up on the Stage 1 RC drilling program and the recently completed mapping. Ittani aims to extend the mineralisation intersected in Stage 1 and test stockwork targets generated by mapping. Mineralisation intersected in the Stage 1 drilling remains open at depth and along strike, combined with the target areas (Figure 3) from recent mapping, demonstrates size and scale of the Orient System.

Figure 3 Orient Target Areas





Authorisation

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

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Metallurgical Equivalent Calculation

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

Table 3 Metal Equivalent Calculation - Recoveries and Commodity Prices

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%

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

This ASX announcement contains information extracted from ASX market announcements reported in accordance with the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (2012 JORC Code). Further details (including 2012 JORC Code reporting tables where applicable) of exploration results referred to in this ASX announcement can be found in the following announcements lodged on the ASX:

Table 4 Iltani Orient Drilling ASX release

Date	Announcement
13 October 2023	Iltani hits wide intersections of silver-lead-zinc-indium-antimony-tin mineralisation at Orient
24 October 2023	Iltani confirms significant new discovery of silver-lead-zinc-indium-antimony-tin system at Orient, QLD

These announcements are available for viewing on the Company's website www.iltaniresources.com.au. Iltani Resources confirms that it is not aware of any new information or data that materially affects the information included in any original ASX announcement.



About Iltani

Iltani Resources (ASX: ILT) is a recently listed ASX company focused on the base metals and critical raw materials 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, including a high priority silver-indium system at Orient, part of its Herberton Project, which will be its initial focus for exploration.

Other projects include the Northern Base Metal, Southern Gold and Rookwood Projects in Queensland plus the Mt Read Project, a highly strategic 99km² licence in Tasmania’s Mt Read Volcanics (MRV) Belt, located between the world-class Rosebery and Hellyer-Que River volcanic hosted massive sulphide deposits.

Figure 4 Location of Iltani Resources' projects in Queensland and Tasmania

