

SPEC BUY

Current Price	\$0.28
Valuation	\$0.95
Target Price	\$0.48

Ticker: **TIE**
Sector: **Metals & Mining**

Current Shares on Issue (m): **347.0**
Market Cap (\$m): **95.4**
Net Cash (\$m): **17.0**
Enterprise Value (\$m): **78.4**

52 wk High/Low: **\$0.42** **\$0.06**
12m Av Daily Vol (m): **650k**

Cote D'Ivoire Projects	Stage
Abujar	Scoping Study
Boundiali	Exploration
Bougouanou	Exploration
Sinfra	Exploration

Mineral Inventory	Mt	Grade (g/t)	Au (Moz)
	45.5	1.5	2.2

Directors:

Caigen Wang	Managing Director
Francis Harper	Non-Executive Chairman
Mark Strizek	Executive Director
Hanjing Xu	Non-Executive Director
Paul Kitto	Non-Executive Director

Major Shareholders

Hong Kong Ausino Investment	13.2%
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Share Price Graph



Please refer to important disclosures at end of the report (from page 9)

Monday, 24 February 2020

Tietto Minerals

Rapid growth at Abujar – Site visit

Analysts: Matthew Keane | Jeff Sansom

Quick Read

Argonaut recently visited Tietto Minerals' (TIE) Abujar Gold Project in Côte d'Ivoire. Abujar comprises 70km of prospective strike along a prominent structural trend in the Hana-Lobe Belt. To date, TIE has explored just 15km of this strike, but already defined a 2.15Moz resource after commencing drilling in early-2018. The site visit confirmed our view the project has considerable upside and will continue to grow with the ongoing 50,000m drill campaign. The Company is due to release an updated resource in Q3 2020, which we foresee growing to >3Moz with a significant lift in the Indicated category. An initial Scoping Study is due to be released in the current quarter. TIE is likely to be funded through to a decision to mine with ~\$17m cash. Speculative BUY recommendation.

Event & Impact: Site Visit | Positive

Rapid resource growth: TIE has drilled just 15km of a 70km long structural corridor on its 1,114km² landholding at Abujar with the current resource at 2.15Moz @ 1.5g/t Au. Furthermore, the Company has focussed on just one of three defined sub-parallel prospective shear zones. Recent deep holes into the Abujar (AG) deposit have shown continuity of mineralisation at depth. Importantly, grade, alteration and thickness all appear to be increasing with depth (outside current resources). Argonaut sees the potential for >3Moz within 15 km, incorporating the AG and Abujar-Pischoon-Golikro (APG) deposits and the largely untested 8.5km zone between the two. Regionally, TIE has defined 23 targets which could potentially see Abujar join the group of +5Moz deposits within the West African Birimian Greenstone Belt.

Aggressive drilling underway: TIE is ~20,000m into an aggressive 50,000m drill campaign, incorporating both infill and extensional drilling. Prior to the Q3 2020 resource update, much of the AG and APG deposits should be drilled down to a ~50m x 25m pattern, sufficient for the Indicated confidence level. Extensional drilling is testing zones between AG and APG and along strike north of AG. Once a significant open pittable resource has been defined, TIE plans to test depth extensions with a series of ~600m deep holes. The Company is also testing the Eastern and Western shears which flank the current resource.

Scoping study: TIE is due to release a Scoping Study for Abujar in the current quarter. We believe the Company will initially target a 2.0-2.5Mtpa mill. We estimate a head grade of ~2g/t and starter pit strip ratios of less than 5:1. Initial metallurgical testwork has shown excellent recoveries >98% in all rock types with gravity recoveries up to 84%.

Recommendation

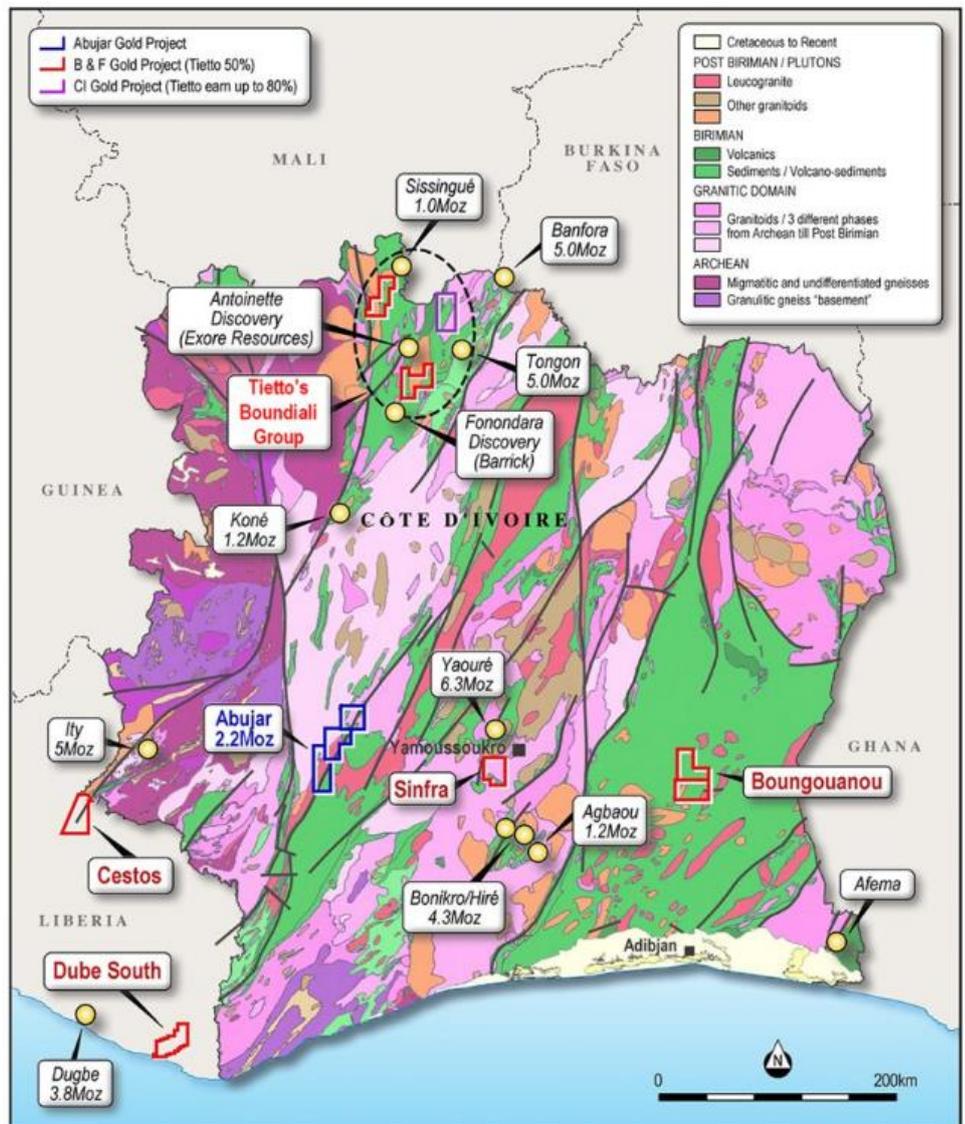
Argonaut has modelled TIE on the assumption of a 2.25Mtpa processing plant with a 10-year mine life. We derive a project level NPV₉ of \$496m and a Company NAV of \$0.95/sh (see page 6 for further detail). We assign a 50% risk weighting to account for the early stage nature of the project to achieve a \$0.48/sh target price. SPEC BUY recommendation maintained.

Site Visit

Argonaut recently visited TIE's Abujar Gold Project...

Argonaut recently visited TIE's Abujar Gold Project in Côte d'Ivoire. The project comprises three contiguous tenements with a total land area of 1,114km². To date, roughly 15km of a 70km northeast southwest structural trend has been explored and the project is littered with artisanal workings. Two deposits have been defined to date, including AG to the north and APG to the south. The site visit included an inspection of current drill areas in the AG and APG areas, a review of diamond core and a tour of the established exploration camp.

Figure 1. Abujar Project Location



Source: TIE

...located in south-western Côte d'Ivoire near the major centre of Daloa

Strong team

Argonaut was impressed by TIE's team on the ground, and cost effective self-owned drill rigs

TIE has a strong team on site. The geological team is headed up by Exploration Manager Mathieu Ageneau who has over a decade's experience in West African Birimian gold projects. It also includes a number of experienced local geologists and technical staff. The Company owns and operates its own diamond rigs, which provide exceptionally low drilling rates of just ~US\$35/m and achieve up to 5,000m a month operating 3-4 rigs.

The project has numerous artisanal workings...

...evidence of high grade near surface gold

Figure 2. Artisanal workings in the northernmost areas of the AG deposit



Figure 3. Diamond drilling at the AG deposit



Figure 4. TIE Abujar Project camp

The company has cheaply constructed a well-functioning camp...

...which will effectively service the project through to the start of construction



Source: Argonaut / TIE

TIE is well advance in a 50,000m drill program...

...which represents more metres than that drilled to achieve the current 2.15Mo resource

The current resource does not include recent drilling...

...including significant wide drill intercepts up to 400m below surface

Intensive drilling program underway

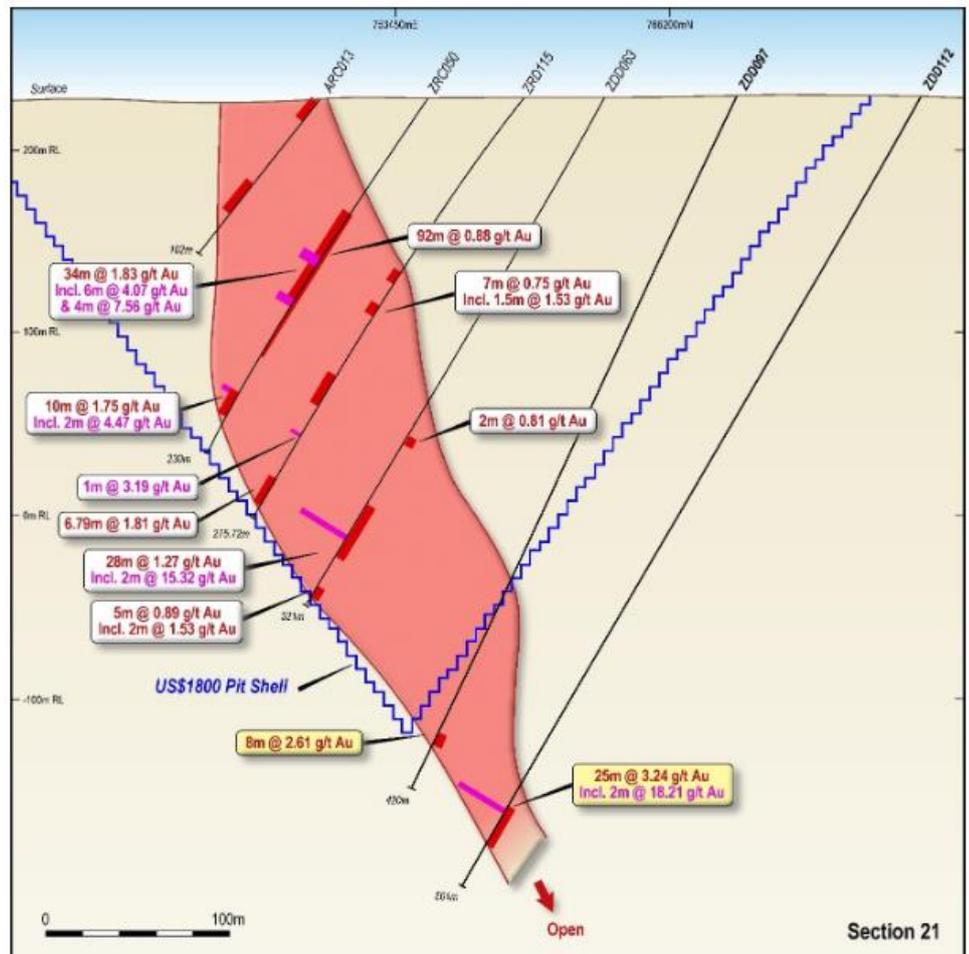
The Company is ~20,000m into a planned 50,000m drill program with four diamond rigs currently operating. This comprises one rig infill drilling the AG resource, one infill drilling north to south at APG, one testing the 8.5km zone between AG and APG, and one on regional exploration. Infill drilling is decreasing hole spacing down to a circa 50m by 25m spacing, which should be adequate to lift the resource into the Indicated category. Once this program is complete, the Company is likely to further test the depth extents with a series of ~600m deep holes at AG and ~200m deep holes at APG.

Rapidly expanding resource

The current 2.15Moz resource at 1.5g/t incorporates 1.81Moz at 1.6g/t from the AG deposit and 0.35Moz at 1.0g/t from the APG deposit. This resource does not include any results from the current 50,000m program as well as ~3,000 assays from the previous program. It also excludes deeper drilling with recent results including:

- 25m @ 3.24 g/t Au from 450m incl. 2m @ 18.21 g/t Au from 450m
- 7m @ 3.77 g/t Au from 438m incl. 2m @ 10.96 g/t Au from 441m

Figure 5. Cross section through AB north, showing a deep drilling intercept



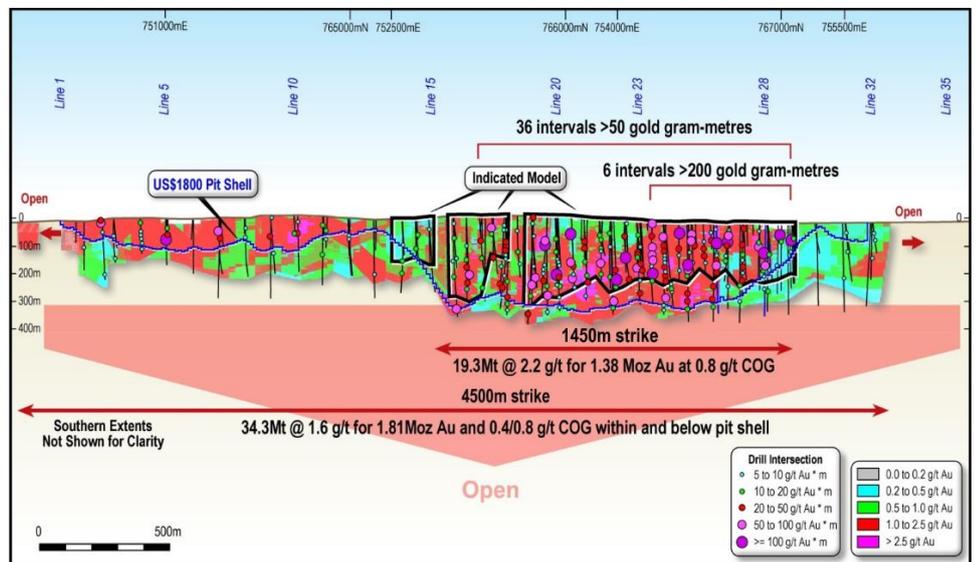
Source: TIE

The 2.15Moz resource contains a higher grade zone at the north of the AG deposit...

High grade at the northern end

Within the 2.15Moz resource is a higher grade zone in the northern end of the AG deposit incorporating 1.4Moz at 2.2g/t Au. This zone runs for ~1.4km and includes over 36 intervals with >50 gold gram metres and 6 intervals with >200 gold gram metres. Mineralisation is relatively distinct with intense albite, chlorite and silica alteration. While grade drops away in section lines 30-32 (see Figure 6 below), the structure continues and there is a high probability of additional high shoots to the north. The latest geological interpretation indicates the presence of multiple high grade southerly plunging shoots along the mineralised shear.

Figure 6. Long section of the AG deposit showing the higher grade northern sub-resource



...totalling 1.4Moz at 2.2g/t over a ~1.4km strike length

Source: TIE

Figure 7. High grade intercept from hole ZDD084



The northern end of AG contains over 6 intercepts of +200 gold gram metres

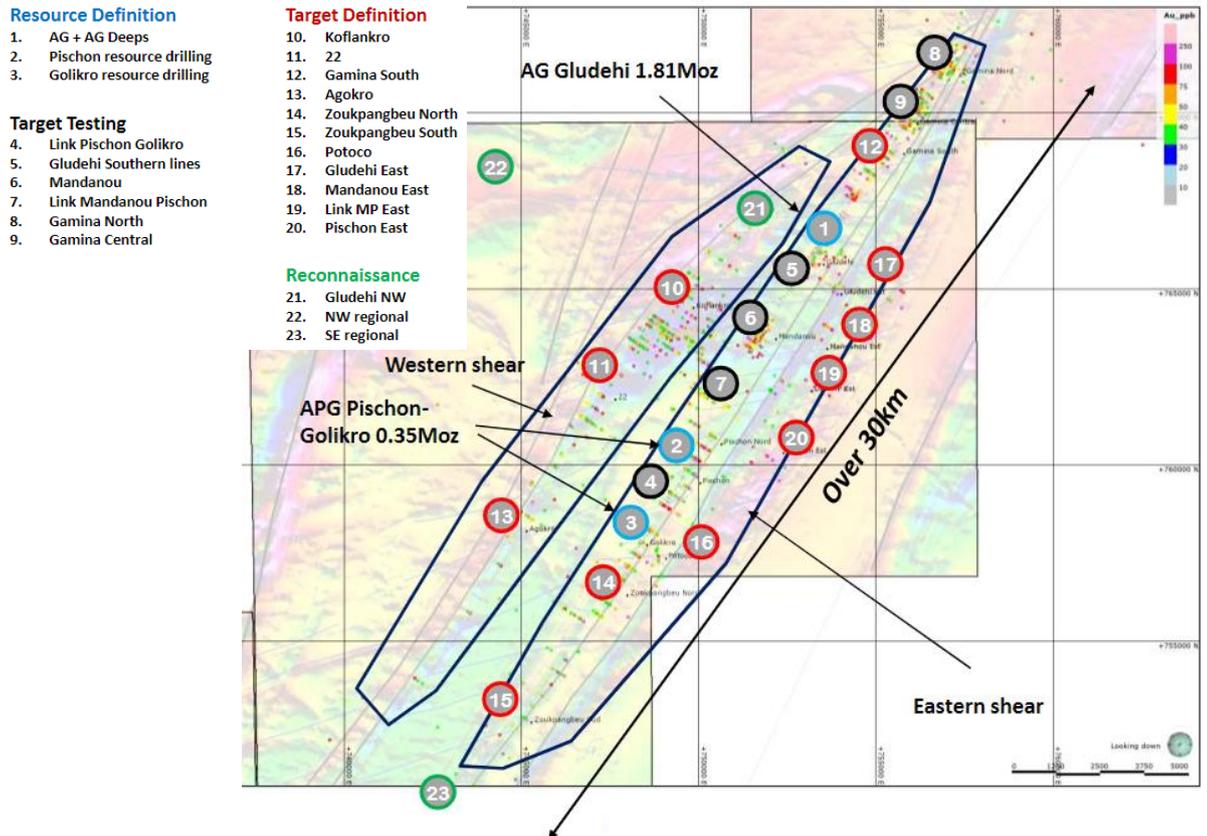
Source: Argonaut

Flight to 3Moz and beyond

Argonaut predicts that the Abujar resource could surpass 3Moz in the next update, due in Q3 2020. This would be derived from the current 15km strike extent incorporating AG, APG and the 8.5km largely untested zone in-between. Conceptually, we see the potential for this to grow beyond 5Moz from parallel shears and to the north and south along the

70km long structural trend. TIE has a pipeline of 23 drill targets within a 30km strike zone, including geochemical targets on the Eastern and Western shears.

Figure 8. Abujar regional targets



Source: TIE

Conceptual Valuation

The Company is yet to release a Scoping Study or Preliminary Economic Assessment, however in an effort to determine what the stock could be worth under a mining scenario, Argonaut has made a number of assumptions based on publically available information. We base our mine development and operating scenario on geological and resource data, reported metallurgical test work and metrics for similar gold development projects. On this basis, we have modelled a 2.0-2.5Mtpa operation treating ~24Mt @ 2.0g/t Au over a 10-year mine life. We see potential for a high grade, low strip starter pit in the northern area of the AG deposit. We believe a 4-5-year starter pit to a depth of ~100 below surface could yield head grades of ~3.5g/t over an 80-120m wide zone of stacked mineralised shoots with a waste to strip ratio below 5:1. Our LOM strip ratio estimate is ~7.5:1 and our model applies gold recoveries of 96%, which is conservative versus recent test work (>98%). We have adopted mining and processing cost estimates from the latest resource update (US\$3.40/t and US\$21.0/t respectively) and apply sustaining capital of ~\$4mpa to derive a LOM all-in sustaining cost (AISC) of ~US\$932/oz. Our pre-production capital assumption, based on similar scale conventional CIL processing facilities, is US\$140m incorporating infrastructure and working capital requirements.

Table 1. Argonaut TIE model assumptions

Metric	Unit	Model Assumption
Long Term Gold Price	US\$/oz	1,350
AUD/USD FX	#	0.72
Mining Inventory	Mt	23
Resource Recovery ¹	%	67%
Diluted Grade	g/t	2.0
LOM Strip Ratio	Waste/Ore	7.5:1
Mine Life	Yrs	10
Mill Throughput	Mtpa	2.25
Recoveries	%	96%
Gold Production	Koz pa	145
AISC	US\$/oz	932
Development Capex	US\$m	140
Sustaining Capex	US\$m pa	4
Average EBITDA	US\$m pa	141
Abujar NPV ₃ (100% Basis)	A\$m	551

Source: Argonaut

¹ Based on current resources of 2.15Moz

Argonaut derives a \$551m valuation for the Abujar Project and assigns ~\$35m for other projects, exploration upside and resources not consumed in our mining scenario. Note that our post-tax project valuation does not include the proposed 5-year tax holiday that is offered to mining development projects. Our sum of parts valuation does apply the 10% Government free carry interest in mining projects, resulting in a \$496m contribution from Abujar. We have assumed ~70:30 debt to equity funding for development capital and assume maximum shares on issue of ~540m (including equity dilution). TIE trades on an undemanding EV/Resource of A\$34/oz based on current resources or A\$24/oz based on our projected 3Moz resource in the the next update in Q3 2020.

Table 2. Argonaut valuation summary

NAV Valuation	Base Case	Value Per Share
Sum of Parts	AUD M	AUD / Share
Abujar Gold Project (90%)	495.8	0.91
Other Projects	10.0	0.02
Exploraton Upside	25.0	0.05
Corporate NPV	(26.0)	(0.05)
Cash	17.0	0.03
Debt	-	-
Total	522	0.95
Risk Discount		50%
Target Price		0.48

Source: Argonaut

Key Risks

Argonaut regards the following as the key risks for Tietto Resources:

Jurisdictional Risk

TIE is operating in West Africa, which has been subject to a number of political and insurgent incidents in recent years. However, we note that most recently, these have been focussed in northern regions of Burkina Faso and Mali. Since the end of the second civil war and last military coups in 2011, Côte d'Ivoire has focussed on political stability and rebuilding infrastructure. To support this, in 2016 a new mining code was introduced aimed at attracting foreign investment with the ultimate goal of increasing the mining industry's contribution to GDP from 2% up to 10% over the the next 5 years. The country has 12 commercial operating mines and three mines under construction (See Argonaut research: [Elephant country can be dangerous](#)).

Resource Risk

As with all resource estimations, the Abujar resource comprises a number of assumptions which can only be definitively proved or disproved upon the commencement of ore processing and subsequent metal reconciliation. TIE has used an aggressive US\$1,800/oz open pit shell for its latest resource, but has then overlain economic assumptions including a US\$1,600/oz price for the applied cut-off grade of 0.4g/t and mining and processing costs of US\$3.40/t and US\$21.0/t respectively. These are reasonable in Argonaut's view. However, much of the gold in the AB and AGB deposits is concentrated in a veins averaging 10cm to 3m wide within the main shear zone. This style of mineralisation commonly pinches and swells and can vary significantly between drill lines.

Financing Risk

TIE is a junior explorer and developer who will need ongoing funding for exploration, permitting, studies and ultimately project development. The Company is currently well-funded with ~A\$17m cash and no major debt obligations, which should be sufficient to fund operations through to a decision to mine. However, additional capital will need to be raised upon a Final Investment Decision (FID) for construction and the company will need to access debt and/or equity markets at this time.

Permitting Risk

In order to commence mining of Abujar, TIE will require the requisite mining, environmental and exploitation permits from Côte d'Ivoire regulators. Argonaut does not foresee and major issues on this front, as the site is already heavily disturbed by artisanal mining and there are no major villages located within the resource footprint. The Government has shown strong intentions to develop its mining industry and currently has three mines under construction and 18 granted exploitation permits.

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Important Disclosure

The analyst(s) owns shares in TIE

Information Disclosure

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