

## Project Summary

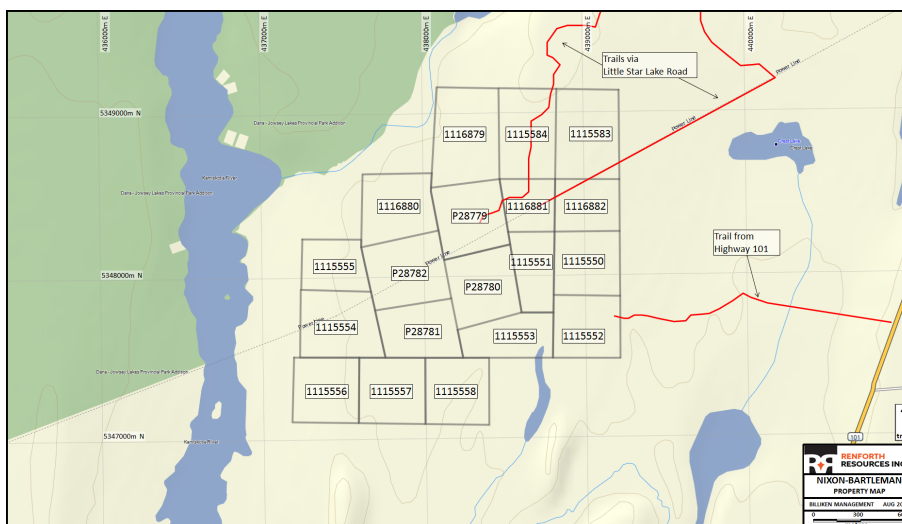
# Nixon-Bartleman Property

SW Timmins, Ontario



Channel Sample Assayed 22.1 g/t Au, pyrite stringers in quartz and jasper flooding

Located approximately 40km SW of Timmins the 100% owned Nixon-Bartleman property hosts gold mineralization from surface, sampled over 500m of strike with evidence of en-echelon veining, and in drill core with the highest drilled sample recently (2009) obtained being 19.36 g/t Au over 0.30m. The Property consists of 19 claims, 4 of which are patent claims, over approximately 313 hectares, on the Porcupine-Destor Deformation Zone, a 2% royalty runs with the patent claims. The known gold occurrences at Nixon-Bartleman are on the 4 patent claims. Patent claims have both surface and subsurface rights, and were granted prior to the implementation of the Mining Act in Ontario. This absolves patent claims, and their holders, of the requirements under the Mining Act, which include the transfer of the duty to consult from the Crown to holders of conventionally staked claims. Exploration more advanced than prospecting on the staked claims which surround the patents will require permit application.

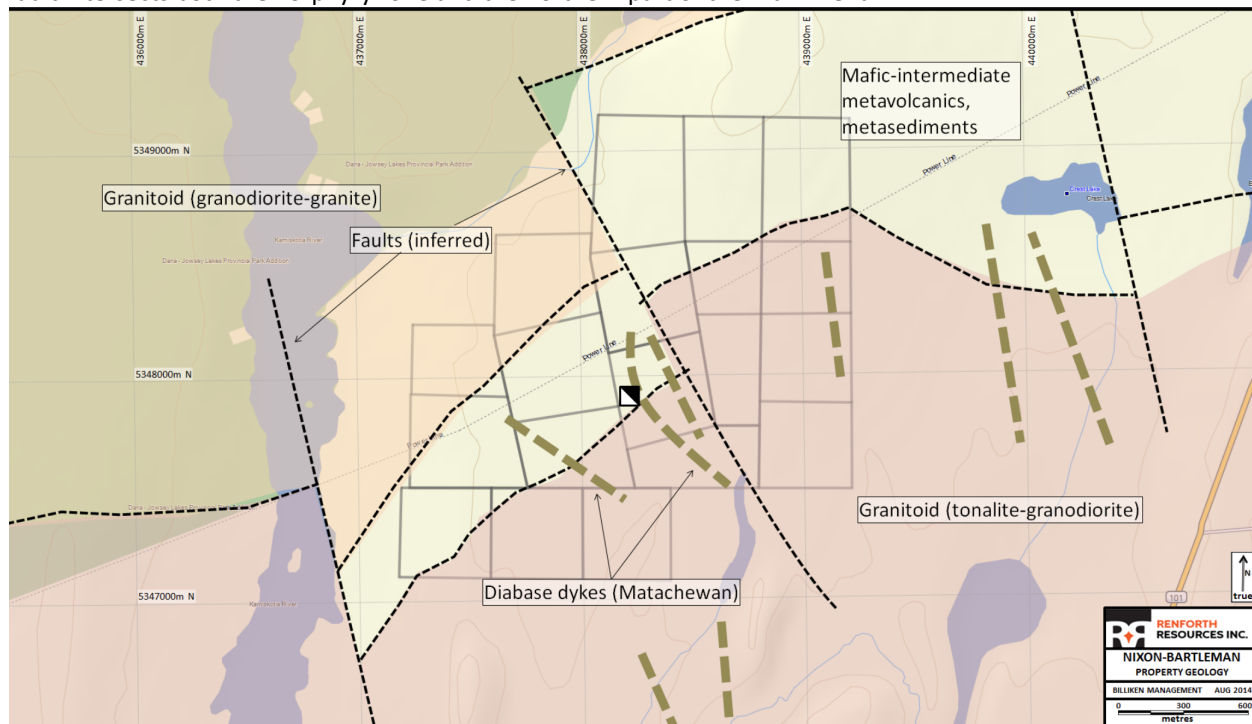


### **Structural Setting**

The Porcupine-Destor Deformation Zone, and its splays, is the key structural control on gold mineralization in the region. Three gold mines are presently operating in the Timmins/Porcupine camp – Dome, Hoyle Pond and Timmins West (the latter only 25km east of Nixon Bartleman). Other past and recent producers in the area include McIntyre, Hollinger, Bell Creek and Pamour. The Timmins/Porcupine district has been and remains an extremely prolific gold camp - to 2001, 67 million ounces have been produced. The Porcupine-Destor Deformation Zone is also a key control on the gold deposits in the Matheson camp another 50km east of Timmins.

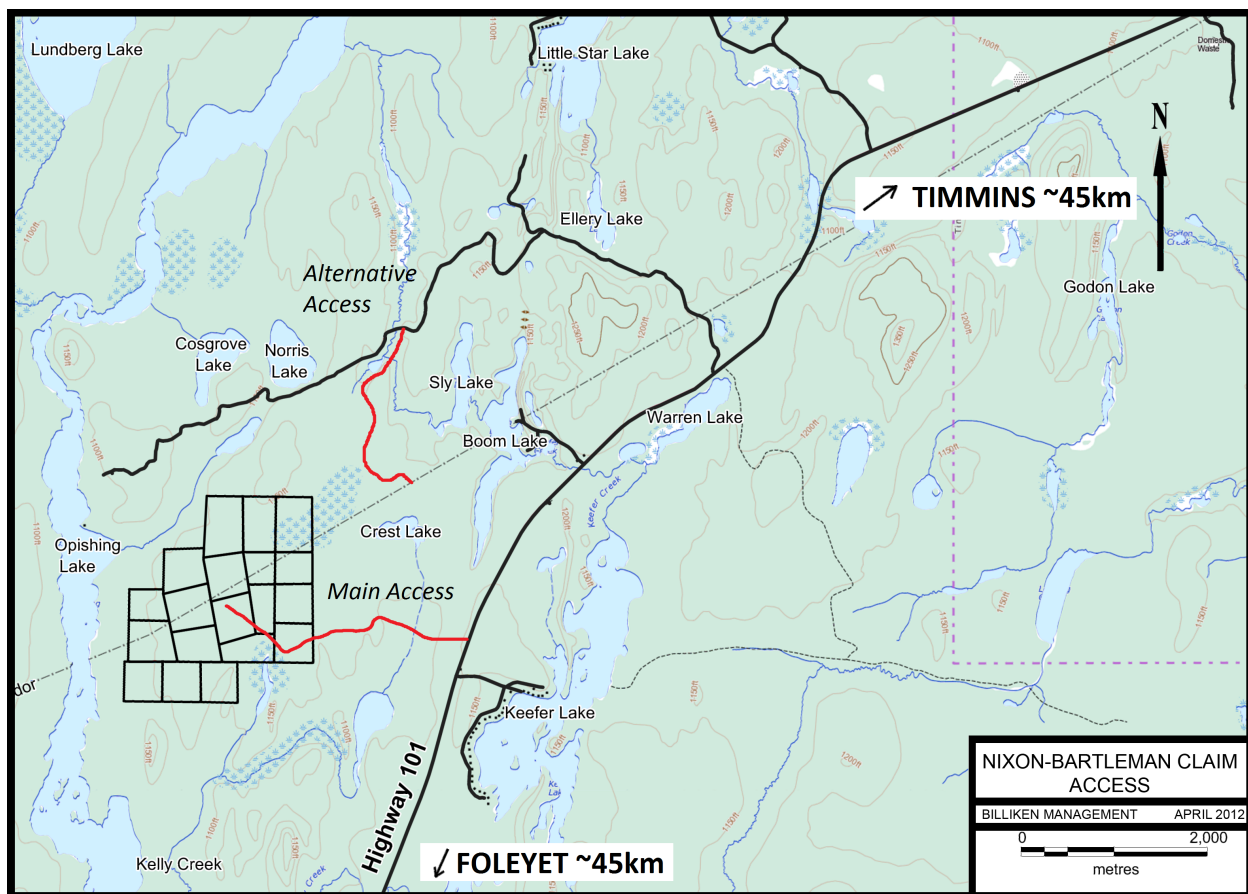
Many of these key structures and lithologies that control deposits in the Porcupine camp are also present on the property. These along with factors such as those listed below support the potential that the Nixon-Bartleman property is highly prospective for a shear hosted gold deposit. A few of the favourable factors include but are not limited to:

- The westward extension of the Porcupine-Destor deformation zone, the locus for all of the gold deposits of the Porcupine camp, passes through the property
- A gold occurrence - the Nixon-Bartleman occurrence - exists on the property, and is similar in mineralization, associated trace elements, alteration, structural style, etc. to the gold deposits of the Porcupine camp.
- A second gold occurrence associated with a silica zone at the contact between a feldspar porphyry intrusive and the volcanic stratigraphy was discovered during the 2004 - 2005 PGM exploration program. The occurrence has been tested only in a cursory fashion.
- Several geophysical and geochemical targets delineated during the PGM exploration program remain to be tested, including a high priority biogeochemical linear tree bark/twig Au anomaly which roughly overlies the cross-cutting fault for about 400m. Assuming the fault is post-mineralization and of a brittle nature, then it might act as a conduit for gold in crustal fluids to be brought near and to surface. The anomaly lies roughly in the area where the fault intersects both the Porphyry zone and the northern part of the Main Trend.



### **Property Access**

The Nixon-Bartleman property can be accessed via Highway 101 which leads from Foleyet and Chapleau in the south to Timmins in the north. Access to the claims is via the Little Star Lake Road which branches west from Highway 101 about 3 km north of the edge of Cochrane District.



### **Property History**

The date of discovery of the Nixon-Bartleman gold showings is not known. However, the area was staked in the 1920s by W H Hansen and was known as the “Moore Group”. Assays from this period range up to 0.50 oz/t (Keast 1997). Jobert Keefer Gold Mines held the four patents from 1934 to 1938 and completed several programs of trenching, stripping, channel sampling and diamond drilling. Channel assays reached a high of 1.13 oz/t. No drill results are available from this time.

In 1946, Goldale Mines obtained the property, which was then known as Nixon-Bartleman. Outcropping veins were resampled very successfully (including a 28.8 g/t sample from a 1.22 m channel) and a second round of drilling was undertaken. A 3 m-deep shaft was sunk on the most prospective vein.

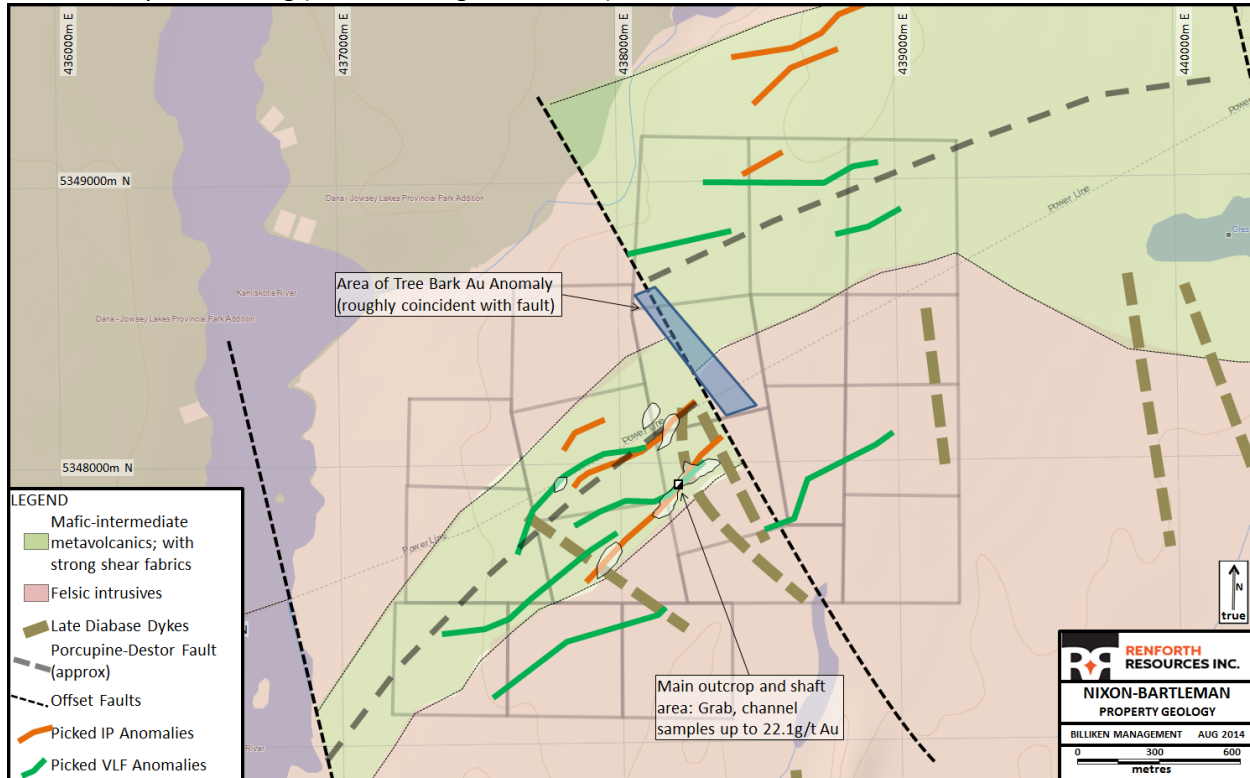
From the 1950s to early 1990s the area of the main showings did not see any significant work. In this era the property was referred to as the Sims Option and the Keefer Property. A series of geophysical and drill programs took place in outlying areas of the property, including drilling of strike-extensions by Hollinger in 1961 and drilling of conductive anomalies by Mingold Resources in 1990. The five Mingold DDH's totalled 387 m and encountered semi-massive sulphide lenses and disseminated pyrite, although no anomalous gold values were encountered (Davies and Boucher 1990).

The property was obtained by Teddy Bear Valley Mines in 1996, who cut a new grid across the entire property and completed a ground magnetic survey. A comprehensive mapping program accompanied by some grab and channel sampling was then undertaken.

PGM Ventures completed a comprehensive series of exploration programs in 2004 and 2005 (Boissoneault 2004, 2005). These included the drilling of 21 DDH totaling 3,973 m, beneath the main showings as well as outlying and on-strike targets. IP and geochemical (soil, vegetation) surveys were taken using the grid across the whole property. Further stripping was completed around the main showings, producing a near-continuous area of outcrop roughly 200 m long by 40 m wide. Systematic channel samples were cut across strike along the whole length of this area. Drill results from underneath the main showings were generally difficult to interpret but assay results ranged up to

39.8 g/t Au over 1 m (PGM-04-02). Mineralized intervals were also encountered in parallel structures elsewhere on the property. Channel sample assays ranged up to 18.65 g/t Au.

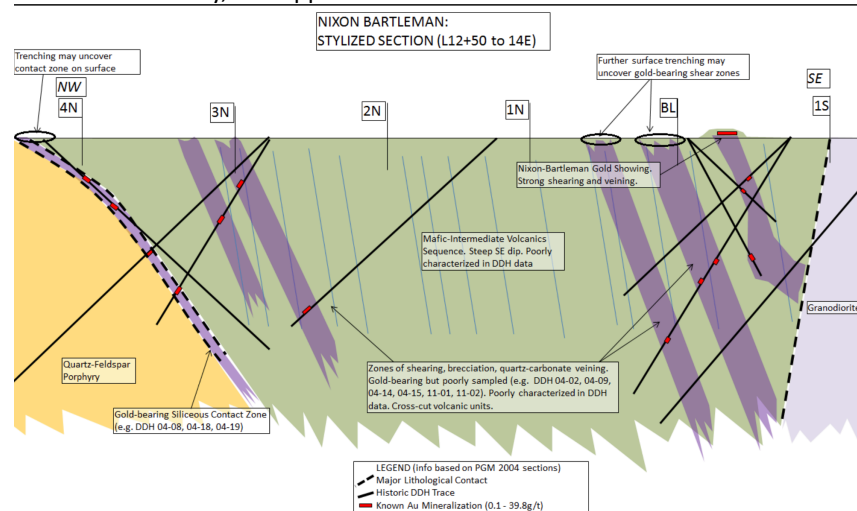
United Reef Limited completed a follow-up drill program in 2011, comprising seven DDH totalling 597 m. Six of these holes were drilled under the main showings; results were again difficult to correlate but assays also ranged high, up to 19.364 g/t Au over 0.3 m (UR-11-02). The seventh hole tested and confirmed an outlying anomaly discovered by PGM drilling (Billiken Management, 2011).



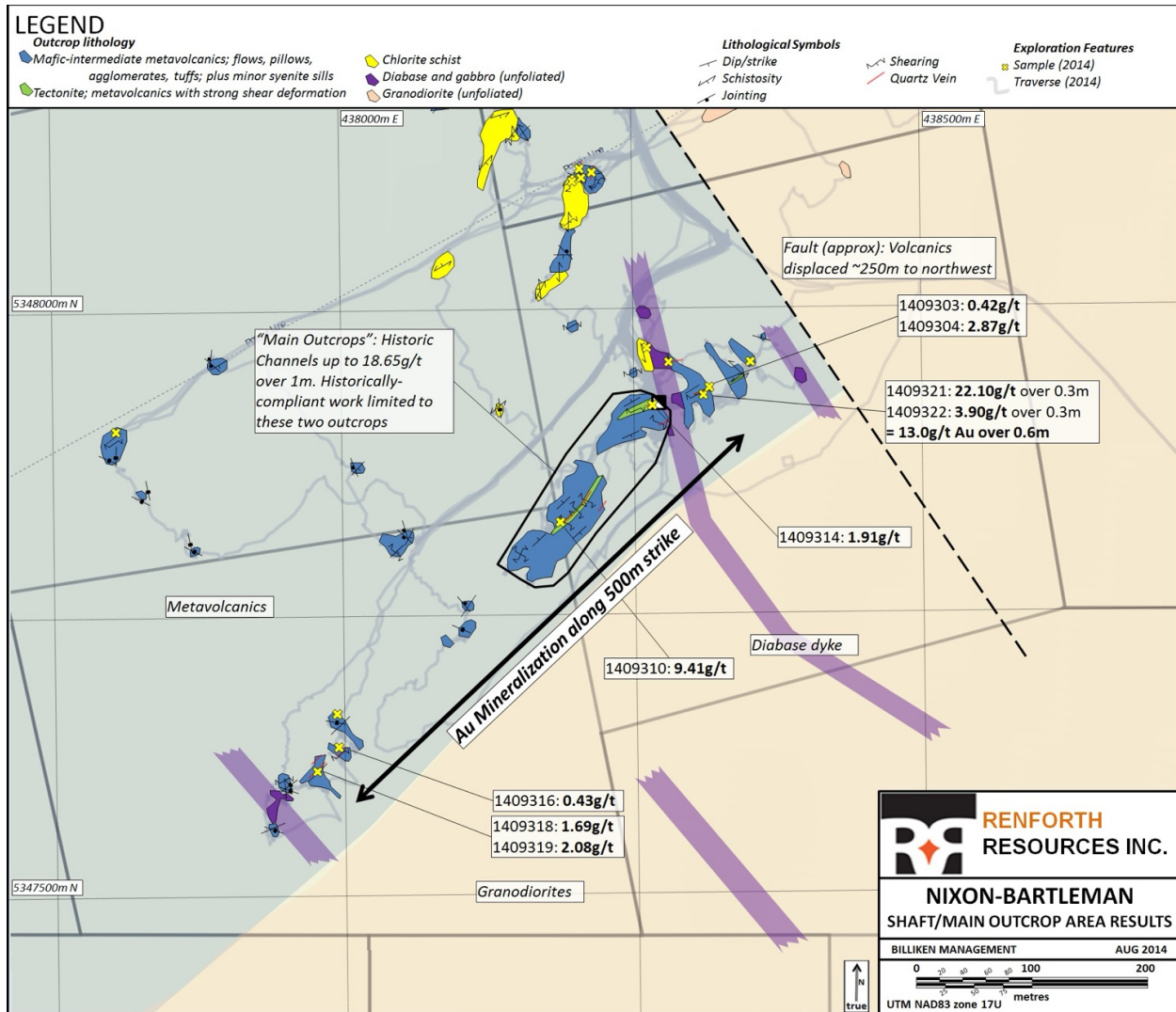
### Gold at Nixon-Bartleman

Gold mineralization close to the Porcupine-Destor system is typically found within “pinch and swell” quartz-carbonate veins within sheared mafic volcanic units. This is true of the Nixon-Bartleman mineralization as well as numerous significant deposits in the Timmins Area.

Gold at Nixon-Bartleman is found in free form as fine to coarse disseminations within boudinaged quartz veins and/or vein wallrocks. There is a strong association with sulphides, particularly cubic pyrite. Chalcopyrite and galena are also present intermittently, and appear to be most common within veins in the vicinity of the shaft.







### Recent Project Interpretation

The 2014 sampling program has shown that gold mineralization exists on surface elsewhere on the property beyond the main outcrop. Notable results came from stripped areas both northeast and southwest of the main outcrop, covering over 450 m of strike. This trend, assuming it constitutes a single structure, can also be seen to cut across significant regional features including the Matachewan dyke and its accompanying shear structure. Mineralogically it is strongly evident that gold is found alongside pyrite, particularly when in its cubic form, within quartz veins, along vein margins, and in shear structures. This style of mineralization lends itself to geophysical exploration via Induced Polarization (IP). Two 500 m-long concordant IP anomalies can be seen in PGM data, one roughly stretching the whole length of the stripped outcrops and the other running close to the powerline. Both appear to be truncated by the fault, and the former is coincident with a longer magnetic trend. The IP anomalies may indicate two parallel mineralized trends but are doubtlessly influenced at least partly by cultural and overburden factors.

The limited spread of available outcrop means that it is difficult to imply any information regarding additional parallel trends from this program. Mineralized veins and shears were seen in 2004 and 2011 drill core from locations away from the main trend, but incomplete core sampling and lack of surface outcrop prevents any meaningful interpretation of those results at this time. Samples taken on the powerline did not return gold values, however the presence of galena and chalcopyrite might still suggest a link to the gold mineralization seen on the main trend.

Investigations of the main outcrop, as well as the results of the confirmatory sample, show that mineralization correlates with cross-cutting shear structures at least on outcrop scales. A number of large-scale cross-cutting shear and fault structures, at a variety of azimuths, are known to exist on the property and it is entirely possible that some of these are mineralized or play a role in facilitating mineralization. Of particular interest is the NNW-trending schistose shear zone that runs east of the shaft.

The bark gold anomaly has so far never been explored or confirmed by any other methodology. No outcrop was found within the area of the bark anomaly in 2014. However, the correlation with the inferred fault could prove to be significant.

The identification of granodiorite outcrops along the powerline to the northeast strongly supports the existence of the NW-trending fault. The throw of the fault must be sinistral and at least 250 m. It can be assumed that the mineralized trend will likely continue wherever the equivalent host units have been displaced to; however, there are no outcrops in the appropriate areas of the property.

