Mt Jewell set to shine

Investment Highlights

- **Pioneer Resources Ltd (PIO)** is a Perth-based exploration company with interests in gold, manganese and nickel projects in the Eastern Goldfields of Western Australia. The company is fully funded for exploration at its Mt Jewell gold project near Kalgoorlie in Q4 and represents an early stage investment opportunity, ahead of RC drilling in December. PIO has identified two thick zones of gold mineralisation within the Lignum Dam trend (Hughes and Tregurtha) and plans to drill test several encouraging targets along strike of the +1Moz Golden Cities camp. We anticipate exploration momentum and RC drilling at Mt Jewell will provide a key catalyst for PIO in Q4.

- **Scheduled drilling.** PIO’s 100%-owned Mt Jewell project (750km²) is located 50km north of Kalgoorlie, yet remains relatively underexplored. A 26,000m RAB drilling programme is in progress to infill soil geochemical anomalies at several prospects within the wider project area (to be completed by November). Follow up RC drilling will target granite-hosted gold mineralisation at the Lignum Dam trend, to extend previously identified mineralisation at the Hughes and Tregurtha prospects (HT). RAB drilling at the Golden Cities North trend is currently testing more than six prospective regional targets and we expect that RC drilling will follow on some or all of these targets.

- **Location upside.** The HT prospects are located 30km from the operating Paddington gold mine and processing facility, where Norton Goldfields Ltd (NGF) mined 720kt of ore in the June Q at 1.55g/t Au. We note that supplementary ore lifted the mill grade to 1.71g/t Au, and based on our assumption that there is a +2.5g/t Au high grade core at Hughes we recognise that PIO is a logical counterparty for toll treating ore at nearby facilities (Hughes and Tregurtha prospects are ~1km apart).

- **Pipeline of projects.** PIO owns prospective exploration tenements which adjoin the southern boundary of the Mt Thirsty nickel project owned by Barra Resources Ltd (BAR) and Fission Energy Ltd (FIS). Recent RC drilling at Mt Thirsty returned high tenor Ni sulphides (6m at 3.4% Ni from 201m) within 500m of PIO’s tenement boundary. Among various other JV projects, PIO has a 40% free-carried interest in the Acra joint venture with Xstrata and NSR royalties over copper-gold and/or iron ore-manganese production at its Ravensthorpe project.

- **Investment thesis.** Very little exploration has been undertaken at Mt Jewell, despite its proximity to Kalgoorlie and being immediately along strike of a proven gold camp at Golden Cities (+1Moz). PIO has drill tested 30% of the known soil anomalism at Mt Jewell and has generated a series of targets for drilling along proven mineralised structures which reflect potential for additional gold discoveries.

- **Catalysts.** (1) Exploration momentum and start up of RC drilling at Lignum Dam/Golden Cities North in December, (2) positive assay results confirming extensions at HT, (3) potential new gold discoveries at Golden Cities North prospects.

- **Risks.** (1) PIO is at an early stage of exploration at Mt Jewell and no JORC-compliant resources have been delineated, (2) RC drilling may not result in the discovery of economic gold deposits, (3) conventional feasibility risk associated with mineral exploration.

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**22 September 2010**

<table>
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<tr>
<th>RIC: PIO.AX</th>
<th>BBG: PIO</th>
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<tbody>
<tr>
<td>Issued Capital</td>
<td>m</td>
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<tr>
<td>Price</td>
<td>A$</td>
</tr>
<tr>
<td>Market Cap.</td>
<td>A$m</td>
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<tr>
<td>Net Debt/Equity</td>
<td>%</td>
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<tr>
<td>Cash</td>
<td>A$m</td>
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**Disclaimer:** Patersons Securities acted as Lead Manager to a Placement and SPP to raise A$1.8m at A$0.03/sh in August 2010. Patersons received fees for this service.

**12 Month Share Price Performance**
Background and Project History

Historically, Pioneer Resources Ltd (PIO) has been focussed on nickel exploration. However, dwindling nickel prices prompted PIO to diversify its portfolio of exploration tenements and explore for gold, initially on already held tenements. Very little gold exploration was undertaken by previous owners at Mt Jewell and the ground remains relatively underexplored.

In 1996, Kalgoorlie prospector Bill Allen convinced AMX Resources Ltd to explore for gold in the Scotia Dome granite, which marked the first modern exploration for gold in the project area. It was widely thought that significant gold deposits did not occur in granite, although by late 1997, the Havana, Suva and Federal deposits were identified (AMX Resources and CTR). These are collectively known as the Golden Cities camp which had an aggregate, pre-mined resource of circa 1.2Moz of gold. More than 10 years later, PIO commenced RAB drilling in the adjacent granite and drilled the first RC holes in August 2009. These returned encouraging results at two prospect areas - Hughes and Tregurtha.

Capital Structure

PIO has 316.9m shares on issue, which includes shares issued via placement and 81m options (exercisable at various prices between $0.085 and $0.30). PIO is fully funded for exploration with estimated cash of $4.8m, following a share placement in August which raised $1.8m.

Substantial shareholders include Xstrata Nickel Australia Ltd (17.7%).
Mt Jewell – The key value driver

Mt Jewell consists of 750km$^2$ of exploration tenements, located 30km north of Kalgoorlie, Western Australia. Essentially, the project is a modern discovery in a historic goldfield. It has the advantages of major infrastructure, sealed roads, gas, water, and electricity, yet the ground remains relatively unexplored for gold. The main feature of the Hughes-Tregurtha deposits is the width of the mineralised zones (drilling at Hughes in the June Quarter returned 20m at 4.08g/t Au from 32m, including 8m at 8.75g/t Au in LDRC067). Meanwhile, Mt Jewell offers significant regional potential at the Golden Cities North prospect, where RAB drilling has defined a series of target areas for drilling along strike of the Golden Cities camp.

Figure 2: PIO’s Mt Jewell project in Western Australia

Source: PIO
Hughes-Tregurtha

In August 2009, PIO discovered gold mineralisation at the Hughes and Tregurtha prospects within the Lignum Dam trend. PIO has drilled 105 RC holes at the prospects and identified both supergene and primary mineralisation over a combined strike length of 650m. Mineralisation is hosted entirely within the granodiorite; a similar setting to NGF’s Golden Cities camp, where three deposits totalling +1Moz are located within a <5km radius. Assuming this is a credible analogue, we expect there is potential for PIO to delineate additional mineralised zones along trend, in close proximity to those discovered at Hughes and Tregurtha within a 20km radius.

Mineralisation at Hughes and Tregurtha appears to be in the form of higher grade shoots within a broad envelope of lower grade material (Hughes mineralisation averages 20m true width and grading circa 2.0g/t Au). There is strong continuity at both prospects, although further drilling is required to determine the extent of mineralisation.

While at an early stage, the broad outline of mineralisation suggests a likely commercialisation of ounces. We believe PIO will ultimately prove up three or four open pits at the project to deliver a +250koz resource.
Positive metallurgy

Preliminary metallurgical test work has confirmed excellent characteristics for both Hughes and Tregurtha ores, indicating that HT is amenable to conventional CIL/P processing and has minimal deleterious elements and low reagent consumption. This supports our view that the Mt Jewell deposits would be an attractive source of third party mill feed at nearby facilities, although more work is required to shore up JORC-compliant resources.

![Figure 6: Hughes Metallurgical Testwork Results](source:PIO)

### Table 2. Metallurgical Recovery Results

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<thead>
<tr>
<th>Unit</th>
<th>Transition</th>
<th>Fresh</th>
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<tbody>
<tr>
<td>Head Assay g/t Au</td>
<td>2.54</td>
<td>2.55</td>
</tr>
<tr>
<td>Calc head g/t Au</td>
<td>2.68</td>
<td>2.33</td>
</tr>
<tr>
<td>Residue g/t Au</td>
<td>0.185</td>
<td>0.12</td>
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<tr>
<td>Recovery %</td>
<td>93.10%</td>
<td>94.86%</td>
</tr>
<tr>
<td>Gravity Gold %</td>
<td>8.68%</td>
<td>14.49%</td>
</tr>
<tr>
<td>Cyanide consumption Kg/t</td>
<td>1.01</td>
<td>0.68</td>
</tr>
<tr>
<td>Lime consumption Kg/t</td>
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<td>0.27</td>
</tr>
<tr>
<td>Arsenic ppm</td>
<td>13</td>
<td>22</td>
</tr>
<tr>
<td>Silver ppm</td>
<td>-</td>
<td>0.6</td>
</tr>
<tr>
<td>Copper ppm</td>
<td>99</td>
<td>106</td>
</tr>
<tr>
<td>Sulphur (sulphide) %</td>
<td>0.03</td>
<td>0.48</td>
</tr>
<tr>
<td>True SG</td>
<td>2.74</td>
<td>2.72</td>
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</table>

Source: PIO

Forward programme

PIO plans to mobilise an RC drill rig into the HT area in Q4, following completion of ongoing RAB infill drilling. While it remains early days, HT is emerging as a moderate stripping opportunity, somewhat improved by a strong supergene component and wide ore thickness. We view the Q4 drilling programme as a significant catalyst in that it will test additional mineralised zones at HT, provide a sense of potential scale to known mineralisation and test prospective regional targets at Golden Cities North.
Regional targets identified

PIO has defined more than six priority targets for follow up drilling at Golden Cities North over the coming 12 months. RAB drilling in Q2 confirmed a geochemical anomaly at Criterion over an approximate strike of 1,800m, hosted within a perspective NW-SE trend. PIO intends to increase RAB density from 160mx80m to 80mx40m centres before RC drilling in Q4. RAB work has defined significant anomalies at Grand, Pianto, Hughes West, Hillsborough and Top prospects, which are also being in-filled.

Notably, recent field work investigated a line of prospector’s workings which contained visible gold in mullock over a strike length of ~800m at Hillsborough. Workings were developed on two parallel quartz veins, and were not developed into fresh rock. PIO considers that the limited historic drilling in this area failed to accurately test the target and is an example of the potential for future target generation within the greater project area.

Source: PIO
Mt Thirsty South – Nearology

PIO’s 100%-owned Mt Thirsty South project adjoins the southern end of the Barra Resources (BAR)/Fission Energy (FIS) JV tenure. In May 2010, drilling at the BAR-FIS project intersected high tenor massive sulphides. Drilling highlights included 6m at 3.40% Ni from 201m in MTRC015 (including 2m at 6.75% Ni from 203m). Similarly, in August, the JV announced that a second hole (MTRC020), 50m north of MTRC015 had intersected a 2m thick zone of massive sulphide from 208m. This was interpreted to be the same basal contact as MTRC015.

PIO’s tenement boundary is 500m south of MTRC015 and magnetic imaging suggests that there is a continuation of the prospective contact into PIO’s tenure. Mapping at Mt Thirsty South continued in the June Q and an EM survey is planned in Q4. Mt Thirsty hosts a significant laterite nickel resource (29Mt at 0.56% Ni, 0.14% Co), although the recent Ni sulphide intersections by BAR-FIS is expected to enhance the prospectivity of the wider Mt Thirsty region.

Below is an interpreted cross section of the BAR-FIS Mt Thirsty JV project and regional geology map illustrating PIO’s tenement boundary.

Ravensthorpe

PIO has entered a sale agreement with Tectonic Resources Ltd (TTR) whereby TTR can earn 100% of all minerals excluding iron and manganese. As consideration, TTR will pay PIO a 1.5% NSR on any future gold and copper production and issue PIO 500,000 TTR options.

PIO has also entered an option agreement with Mineral Resources Limited (MIN) whereby MIN will pay PIO a royalty on any future iron ore or manganese production. Should MIN elect not to exercise its option, iron ore and manganese rights will revert to TTR in return for a 3.5% NSR payable to PIO on future production.
Directors and Management

Craig McGown, Independent Non-Executive Chairman

Mr McGown was appointed a Director on 13 June 2008. Mr McGown is an investment banker with over 35 years of experience consulting to companies in Australia and internationally, particularly in the natural resources sector. He holds a Bachelor of Commerce degree, is a Fellow of the Institute of Chartered Accountants and an Affiliate of the Financial Services Institute of Australasia. Mr McGown is an executive director of the corporate advisory business New Holland Capital Pty Ltd and prior to that appointment was the chairman of DJ Carmichael Pty Limited. Mr McGown has had extensive experience in the corporate finance sector, including mergers and acquisitions, capital raisings in both domestic and international financial markets, asset acquisitions and asset disposals, initial public offerings and corporate restructurings. During the three year period to the end of the financial year, Mr McGown held directorships in Bass Metals Ltd (7 July 2004 to present), Peel Exploration Limited (1 February 2008 to present) and Entek Energy Ltd (10 July 2008 to present).

David John Crook, Managing Director

Mr Crook was appointed a Director on 11 August 2003. Mr Crook is a geologist with over 29 years of experience in exploration, mining and management, predominantly within Western Australia. Mr Crook has investigated nickel sulphide, nickel laterite, gold, and other commodity resources and has an excellent discovery record. He has held senior exploration and mining operations roles, including contract negotiation and management and corporate evaluations.

Allan Trench, Independent Non-Executive Director

Dr Trench was appointed a Director on 8 September 2003. Dr Trench is a mineral economist, geophysicist and business management consultant with minerals experience including nickel, gold, vanadium and mineral sands. Dr Trench led nickel sulphide exploration teams for WMC Resources in the Widgiemooltha-Pioneer and Leinster-Mt Keith regions of WA in the mid 1990’s. He has subsequently worked with McKinsey and Company, KCGM Pty Ltd and is now with CRU, an independent business analysis and consultancy group. During the three year period to the end of the financial year, Dr Trench also held directorships in Navigator Resources Ltd (14 November 2005 to present), Venturex Resources Limited (12 November 2008 to present) and Hot Chili Ltd (19 July 2010 to present).

Thomas Wayne Spilsbury, Independent Non-Executive Director

Mr Spilsbury was appointed a Director on 4 January 2010. Mr Spilsbury is a geologist who received his B.Sc. (Honors Geology) in 1973 from the University of British Columbia and his M.Sc. (Applied Geology) in 1982 from Queens University in Ontario. He brings over 35 years of experience in mineral exploration and management, including 28 years with Teck Cominco Limited and was their former General Manager, Exploration – Asia Pacific. In this role, he held responsibility for managing an extensive exploration portfolio including large-scale gold and base metal projects in Australia and China. Mr Spilsbury has worked throughout Western Canada, the United States, Asia and Australia. Mr Spilsbury currently holds directorships in Minco Silver Corporation, GGL Resources Corp and International Lithium Corp.

Company Secretary, Julie Wolseley

Ms Wolseley was appointed Company Secretary on 11 August 2003. Ms Wolseley is the principal of a corporate advisory company with over 19 years of experience acting as company secretary to a number of ASX listed public companies operating primarily in the resources sector. Previously Ms Wolseley was an audit manager both in Australia and overseas for an international accounting firm. Ms Wolseley also holds a directorship on the board of OM Holdings Limited.