ENEGEX
ASX Announcement

ASX:ENX 30 July 2021

# Quarterly Activity Report 30 June 2021

## Highlights

- **Two new exploration licences granted in the South-West Terrane, taking Enegex's granted South-West Terrane tenure to 20 tenements across 3,576km$^2$.**
- **Initial field reconnaissance work undertaken at Enegex's northern-most SW Terrane project, Miamoon**
- **Systematic exploration program underway to generate robust targets for testing**

## 1. West Yilgarn Ni-Cu-PGE Province – Enegex 100%

### *1.1 Background*

Enegex (ASX: **ENX**) has built a commanding tenure position in the West Yilgarn Ni-Cu-PGE province, the prospectivity of which has been highlighted by Chalice Mining's Julimar Ni-Cu-PGE discovery. Enegex's tenure now comprises 20 granted exploration licences totalling 3,576km$^2$ following the grant of two tenements during the quarter.

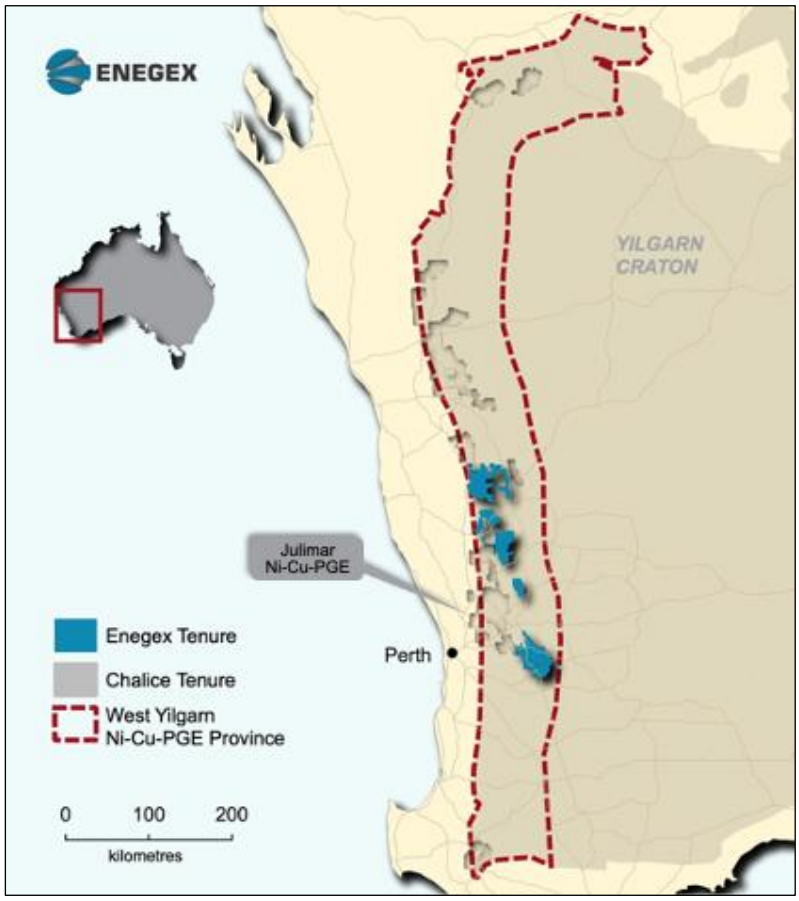


*Figure 1 Enegex's West Yilgarn Ni-Cu-PGE Province Tenure*

Globally, giant Ni-Cu-PGE deposits have been discovered proximal to the margin of Archean age cratons (eg Norilsk, Jinchuan, the Thompson Belt and Voisy's Bay). The Western margin of the Archean-age Yilgarn Craton in Western Australia has not until now been systematically explored for Ni-Cu-PGE mineral systems. However, following the Julimar discovery, this mineral province is now the focus of significant exploration activity (***Figure 2***)

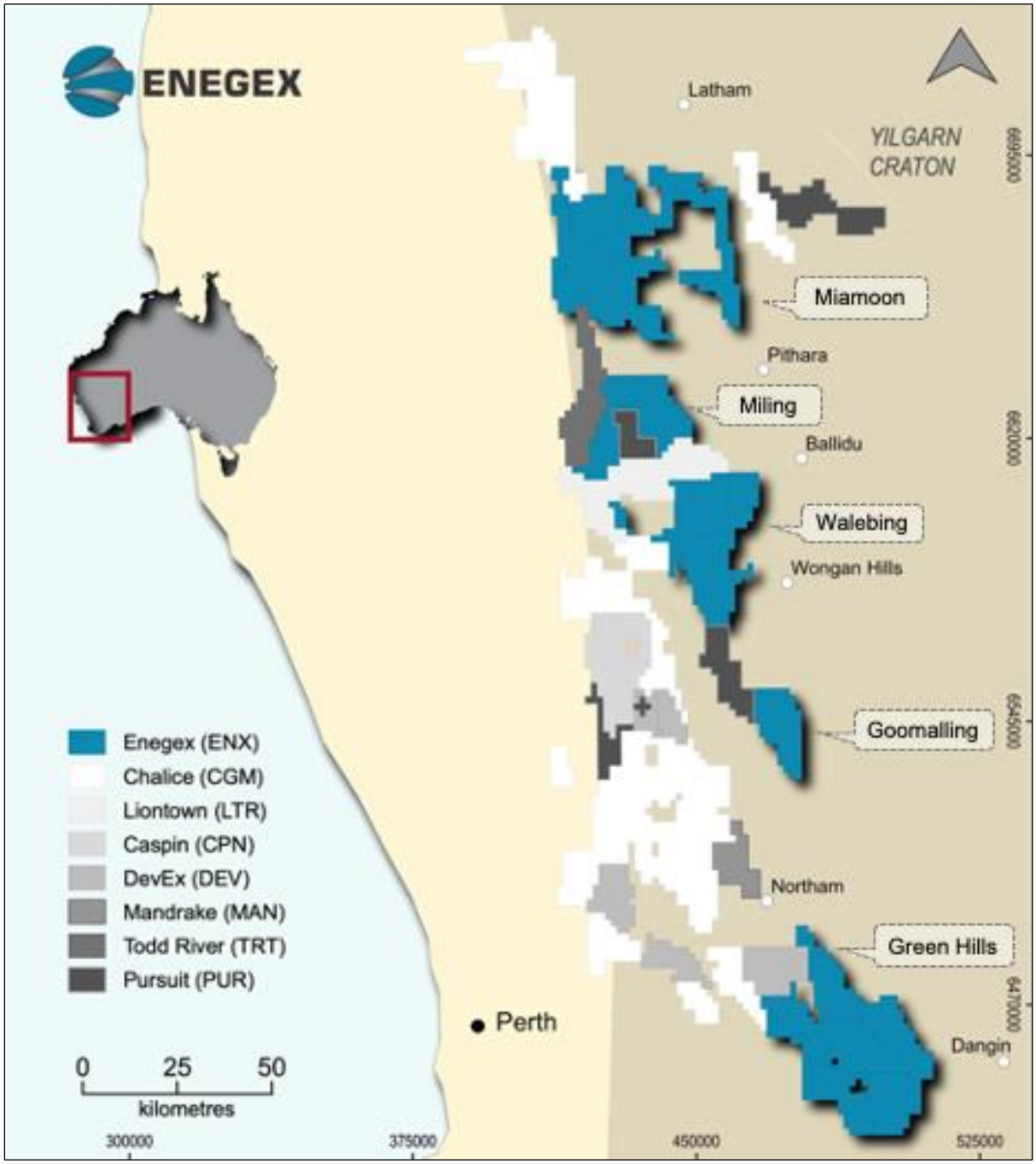


***Figure 2*** *West Yilgarn Ni-Cu-PGE Province Explorers*

The Julimar deposit is hosted in a mafic-ultramafic intrusive rock sequence that was previously interpreted as granitic domain. Following the discovery of the Julimar deposit, hundreds of potential mafic-ultramafic intrusions have been identified within the West Yilgarn Ni-Cu-PGE province.

### *1.2 Enegex's Projects Prospectivity*

Enegex's tenure in this highly prospective region is divided into five project areas; Miamoon, Miling, Walebing, Goomalling and Green Hills.

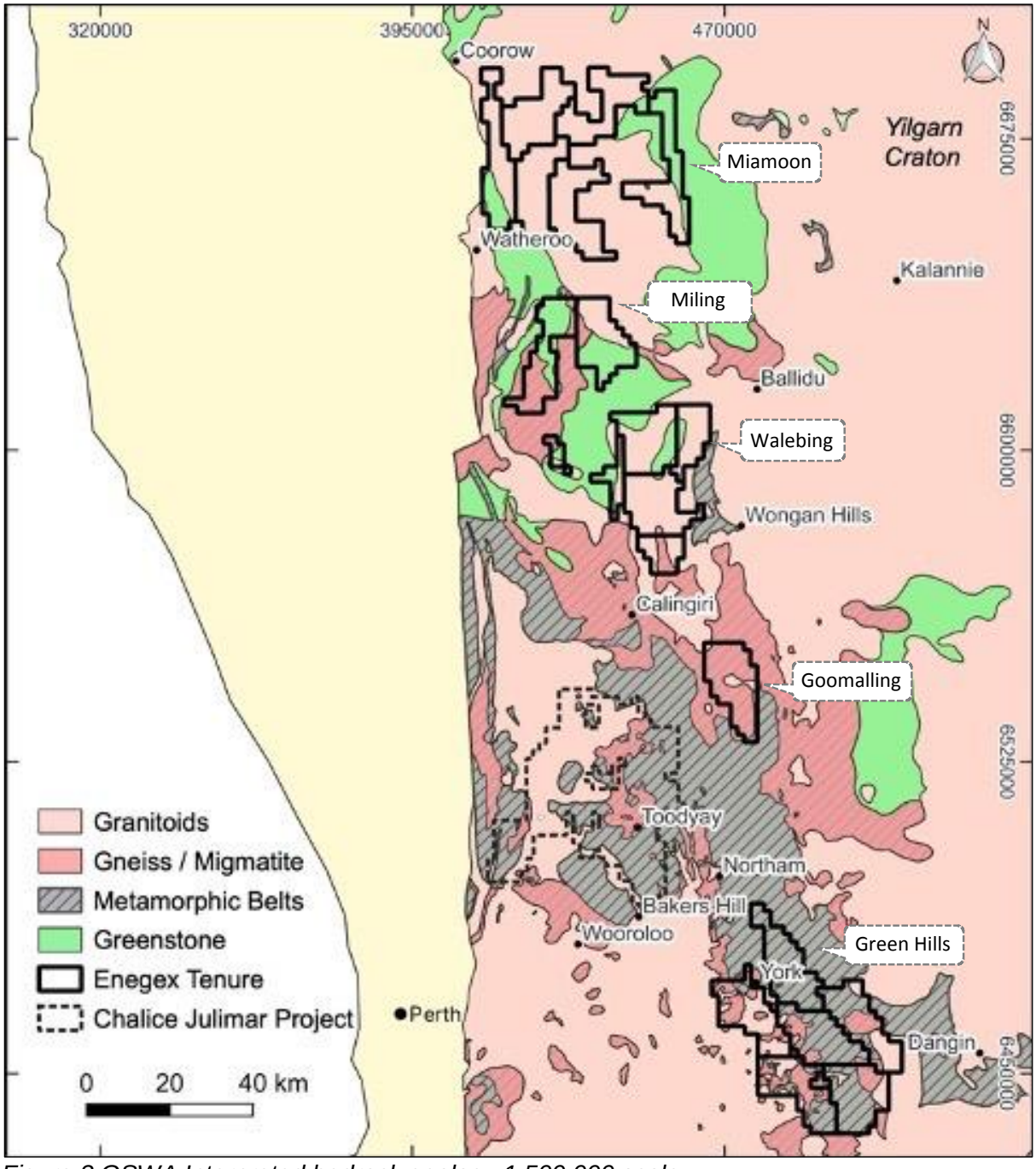


*Figure 3 GSWA Interpreted bedrock geology 1:500,000 scale*

Enegex considers its project areas to have potential to contain mafic-ultramafic intrusive bodies - similar to the rocks hosting the Julimar Project. The basement geology of Enegex's project areas is interpreted to consist of metamorphosed sedimentary, greenstone and granitic rocks (see ***Figure 3***). Map detail is limited due to soil cover which is generally thicker in the north (at Miamoon) and thins in the south. Notwithstanding the limited map detail, Enegex's project areas have been identified to host mafic-ultramafic rock sequences with small areas of outcrop and interpreted bedrock geology recorded on GSWA maps.

Within Enegex's project areas there are a number of features with distinctive "highs" in the magnetic and gravity data such as at Enegex's Miling and Miamoon projects. These are interpreted to contain mafic and ultramafic intrusive bodies and are priority areas for groundwork including geochemistry and subsequent ground-based geophysics in order to define drilling targets.

### *1.3 Enegex Activities*

During the quarter Enegex undertook initial limited reconnaissance of areas within the Miamoon project area available for public access. No outcropping geology was identified in these areas due to depth of cover. To facilitate geochemical sampling of priority areas under cover, work is underway to identify local landowners, with the aim of negotiating access arrangements. Further planned activities during the quarter were frustrated by Western-Australia COVID-19 border restrictions limiting the ability of Enegex's Melbourne-based exploration team to access the project areas.

The presence of magnetic high features in regional magnetic data sets may represent strongly magnetic mafic-ultramafic intrusions, However, some mafic-ultramafic intrusions will exhibit no obvious magnetic signature in regional datasets. With this in mind, Enegex is undertaking a systematic approach to its project areas in order to identify potential mafic-ultramafic intrusive targets. Priorities include:

- compiling a database of previous drilling and geochemical sampling across the project areas
- ongoing interpretation of existing geophysical, geological and geochemical datasets, with an emphasis on coincident magnetic and gravity highs and mapped mafic and ultramafic occurrences
- follow-up of mapped mafic-ultramafic intrusions with more detailed work
- geological mapping and rock chip sampling of southern areas where cover is shallower
- prioritisation of targets for gravity acquisition
- prioritisation of targets for ground EM

## 2. Hart Dolerite Project, East Kimberley - Enegex 100%

Enegex has one granted exploration tenement (E80/5354), covering 374km$^2$, in the eastern margin of the Kimberley Basin of Western Australia. An additional 350km$^2$ is still under application.

The geology of the project area has been mapped as "Hart Dolerite", a regionally extensive Proterozoic sill complex. The project area has had very little previous exploration. Mapping and exploration (by other companies) immediately to the north of the project area has identified that the Hart Dolerite is made up of a layered intrusive suite of rocks.

The Hart Dolerite shows high mineral potential. It consists of a number of mafic sills that are typically tholeiitic - meaning that they are similar in composition to basalt, but are richer in silica and iron and poorer in aluminum. Tholeiites occur in continental flood basalt provinces, back-arc basins, volcanic arcs and mid ocean ridges. Horizons may develop within a differentiated tholeiitic sill that offer a greater mineralisation prospectivity (eg iron rich zones as a target for gold mineralisation). Tholeiites are also prospective for intrusion-hosted Noril'sk style Ni-Cu-PGE deposits.

The widespread volcanics within the Halls Creek Oregon are indicative of potential in the co-magmatic intrusive units. Several mafic-ultramafic intrusive units in the Halls Creek Oregon (which flanks the eastern side of the Kimberley Basin) are modelled with medium to high potential, consistent with the presence of known tholeiitic intrusion-hosted Ni sulphide deposits and numerous prospects in this area. These include the Savannah deposit (previously Sally Malay), and the Copernicus deposit hosted by the Alice Downs Ultramafics.

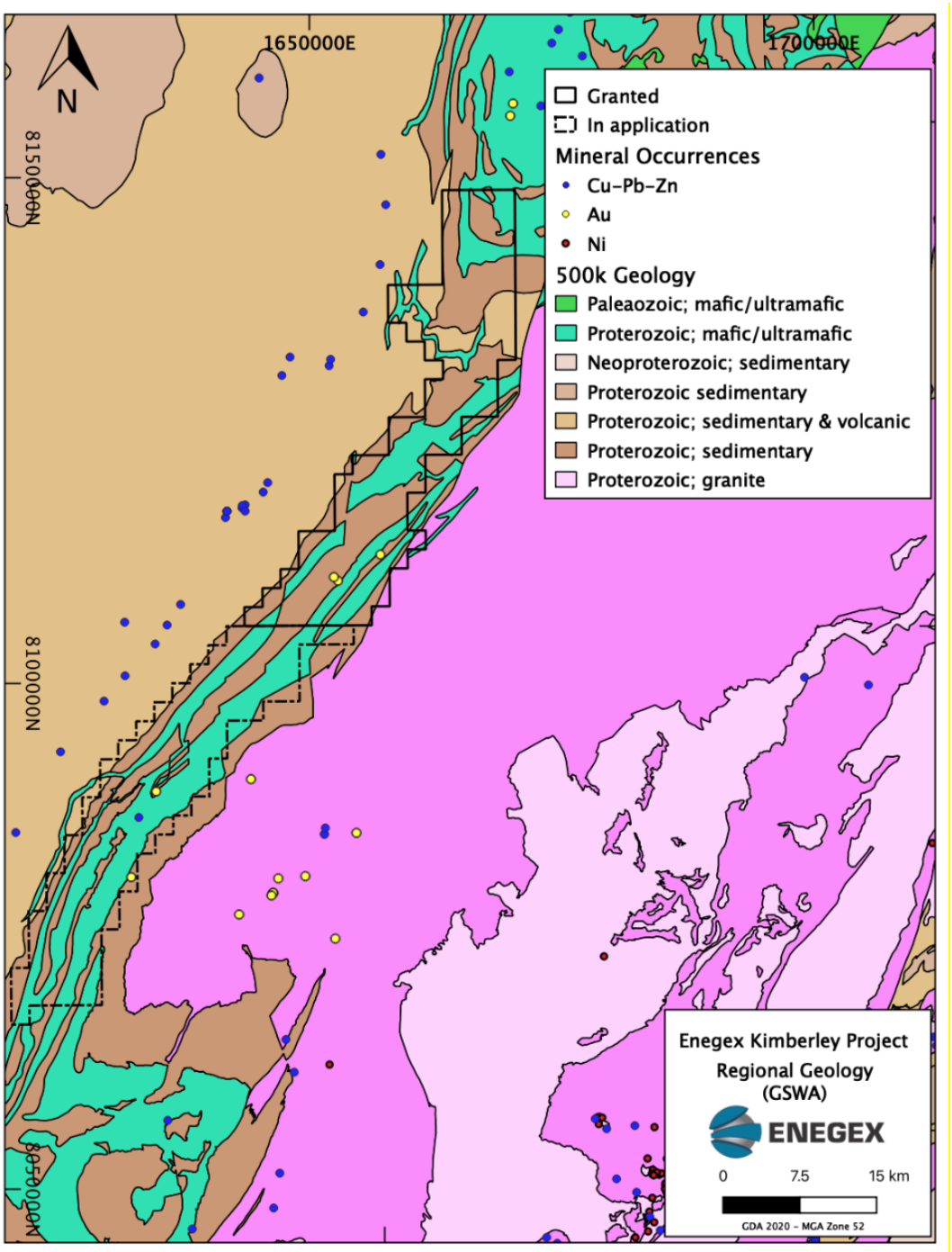


*Figure 4 Enegex Kimberley tenements shown on regional geology*

## 3. Corporate

### *3.1 Options Exercised*

During the quarter 998,400 $0.03 (3 cent) options expiring 31 August 2022 were exercised, raising a further $29,952.

**By Order of the Board**

**R J Wright**
Company Secretary
Melbourne, Australia
30 July 2021

**Additional Information Required by Listing Rules 5.3.3 and 5.4.3**

**Mining Tenements held/applied for at the end of the quarter and their location**

| Tenement | Enegex interest | $Km^2$ | Tenement status |
|---|---|---|---|
| **Western Australia (Kimberley Region)** | | | |
| E 80/5354 | 100% | 373.79 | Granted |
| E 80/5355 | 100% | 350.22 | Application |
| **Western Australia (South-West Terrane)** | | | |
| E 70/5439 | 100% | 203.55 | Granted |
| E 70/5440 | 100% | 206.21 | Granted |
| E 70/5441 | 100% | 85.43 | Granted |
| E 70/5442 | 100% | 82.40 | Granted |
| E 70/5446 | 100% | 207.76 | Granted |
| E 70/5459 | 100% | 207.64 | Granted |
| E 70/5457 | 100% | 207.55 | Granted |
| E 70/5458 | 100% | 208.00 | Granted |
| E 70/5460 | 100% | 207.71 | Granted |
| E 70/5463 | 100% | 207.97 | Granted |
| E 70/5444 | 100%* | 204.00 | Granted |
| E 70/5445 | 100%* | 203.93 | Granted |
| E 70/5566 | 100% | 203.78 | Granted |
| E 70/5567 | 100% | 204.06 | Granted |
| E 70/5568 | 100% | 203.47 | Granted |
| E 70/5569 | 100% | 203.83 | Granted |
| E 70/5570 | 100% | 203.45 | Granted |
| E 70/5571 | 100% | 203.72 | Granted |
| E 70/5580 | 100% | 214.18 | Granted |
| E 70/5631 | 100% | 115.06 | Granted |

* via First Right of Refusal

**Tenements acquired during the quarter and their location**

Nil

**Tenements disposed of during the quarter and their location**

Nil

**Beneficial percentage interests held in farm-in or farm-out agreements at the end of the Quarter:**

Nil

**Additional Information Required by Listing Rule 5.3.5**

**Payments to related parties during the quarter included in Appendix 5B – Quarterly Cash Flow Report**

Payments were made to directors and their associates during the quarter totaling approximately $32,000. Payments were for contracted services including consulting fees, office costs and administrative support.