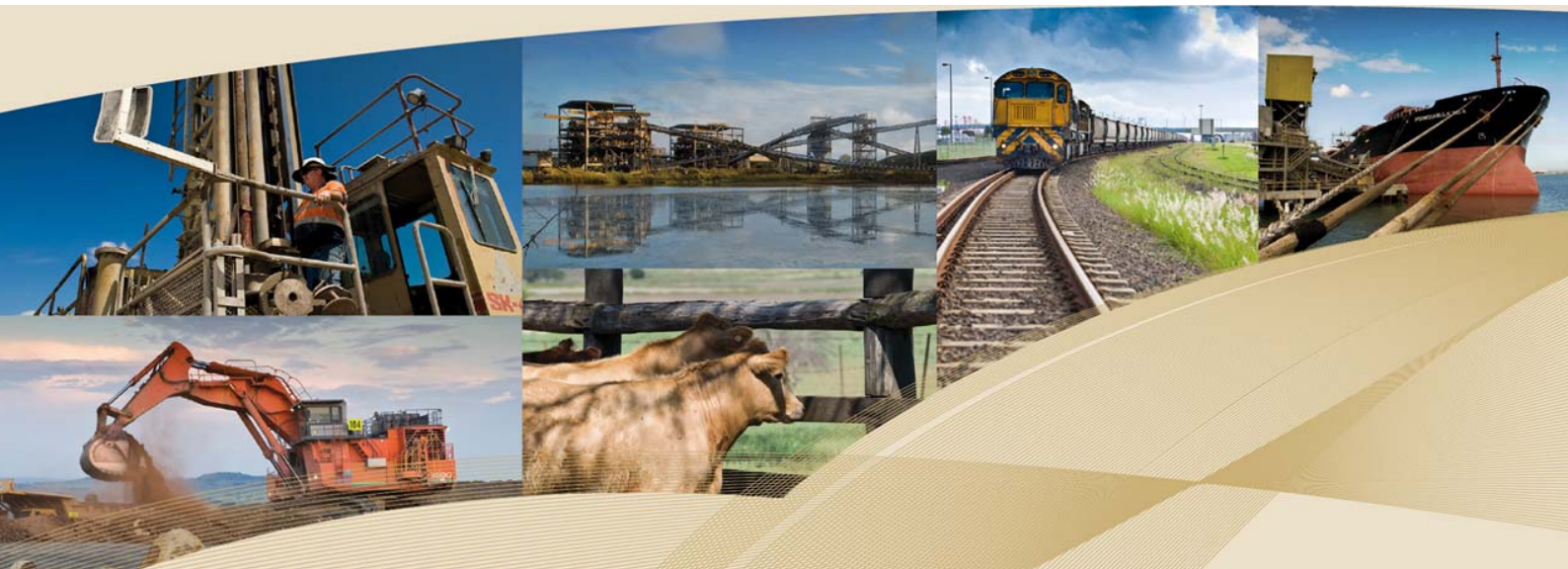


# Tasmania Project EL49/2007 York Plains **Annual Report**



4 September 2011 – 3 September 2012

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EL49/2007 2012 Annual Report  
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# Contents

<b>INTRODUCTION .....</b>	<b>4</b>
<b>EXPLORATION RATIONALE .....</b>	<b>5</b>
<b>GEOLOGICAL SETTING .....</b>	<b>5</b>
<b>REVIEW OF PREVIOUS WORK .....</b>	<b>7</b>
<b>EXPLORATION COMPLETED 2009-2010 .....</b>	<b>7</b>
<b>EXPLORATION COMPLETED 2010-2011 .....</b>	<b>7</b>
<b>EXPLORATION COMPLETED 2011-2012 .....</b>	<b>7</b>
<b>GEOLOGICAL EVALUATION OF THE YORK PLAINS DEPOSIT .....</b>	<b>8</b>
<b>ENVIRONMENT .....</b>	<b>8</b>
<b>REFERENCES .....</b>	<b>8</b>
<b>KEYWORDS .....</b>	<b>8</b>

## INDEX OF FIGURES

Figure 1 Location of EL 49/2007 York Plains .....	4
Figure 2 Geological Map of the York Plains Coalfield .....	6

# Introduction

This report summarises the activities carried out by New Hope Exploration Pty Ltd on the currently held Exploration Licence EL 49/2007, York Plains for the twelve month period 4<sup>th</sup> September 2011 to 3<sup>rd</sup> September 2012.

Tenement:	EL49/2007
Date Granted:	4 <sup>th</sup> May 2008
Location:	<b>York Plains</b> (7 km NE of Oatlands)
Holder:	New Hope Exploration Pty Ltd 3/22 Magnolia Drive Brookwater QLD 4300.

Exploration Licence 49/2007 was granted to New Hope Exploration Pty Ltd on 4th September 2008 to explore for coal over 96 square kilometres of land in the vicinity of York Plains (Figure 1)

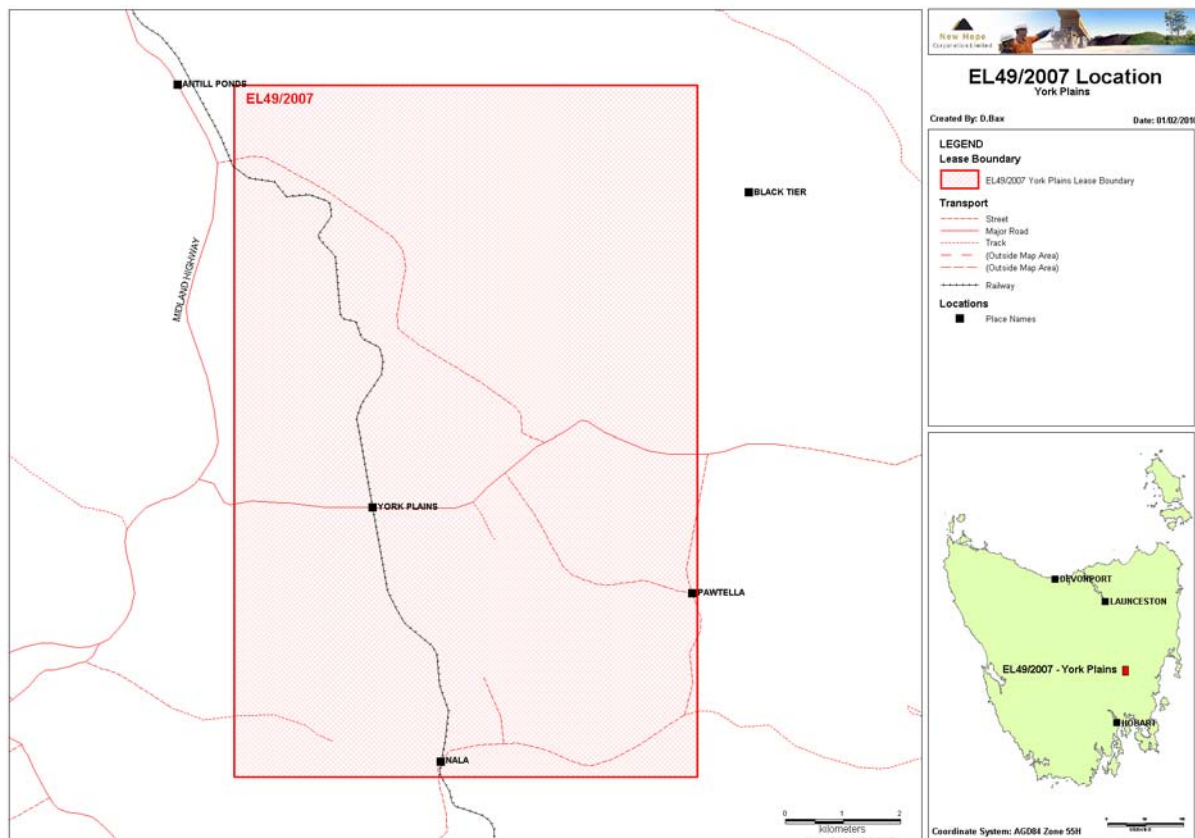


FIGURE 1 LOCATION OF EL 49/2007 YORK PLAINS

## Exploration Rationale

New Hope Exploration Pty Ltd is focusing on over looked Australian coal prospects. By reviewing existing open file historical data and securing prospective tenure we can re-model deposits, and explore areas that have the potential to contain sufficient resources of appropriate qualities to warrant further work. NHE then applies modern end use technologies to establish feasibility.

The aim of the program is to:

- To test coal (sub-bituminous) seam qualities and their applicability to Coal to Liquids (CTL) technology
- To confirm the extent of the known resource in the lease area.
- And assess if an economic resource exists

## Geological Setting

The target coal resource at York Plains Coalfield occurs within the Upper Parmeener Supergroup. The Supergroup has been disrupted by large scale Jurassic dolerite intrusions, faulting and to a lesser extent by Tertiary volcanic complexes (Figure 2).

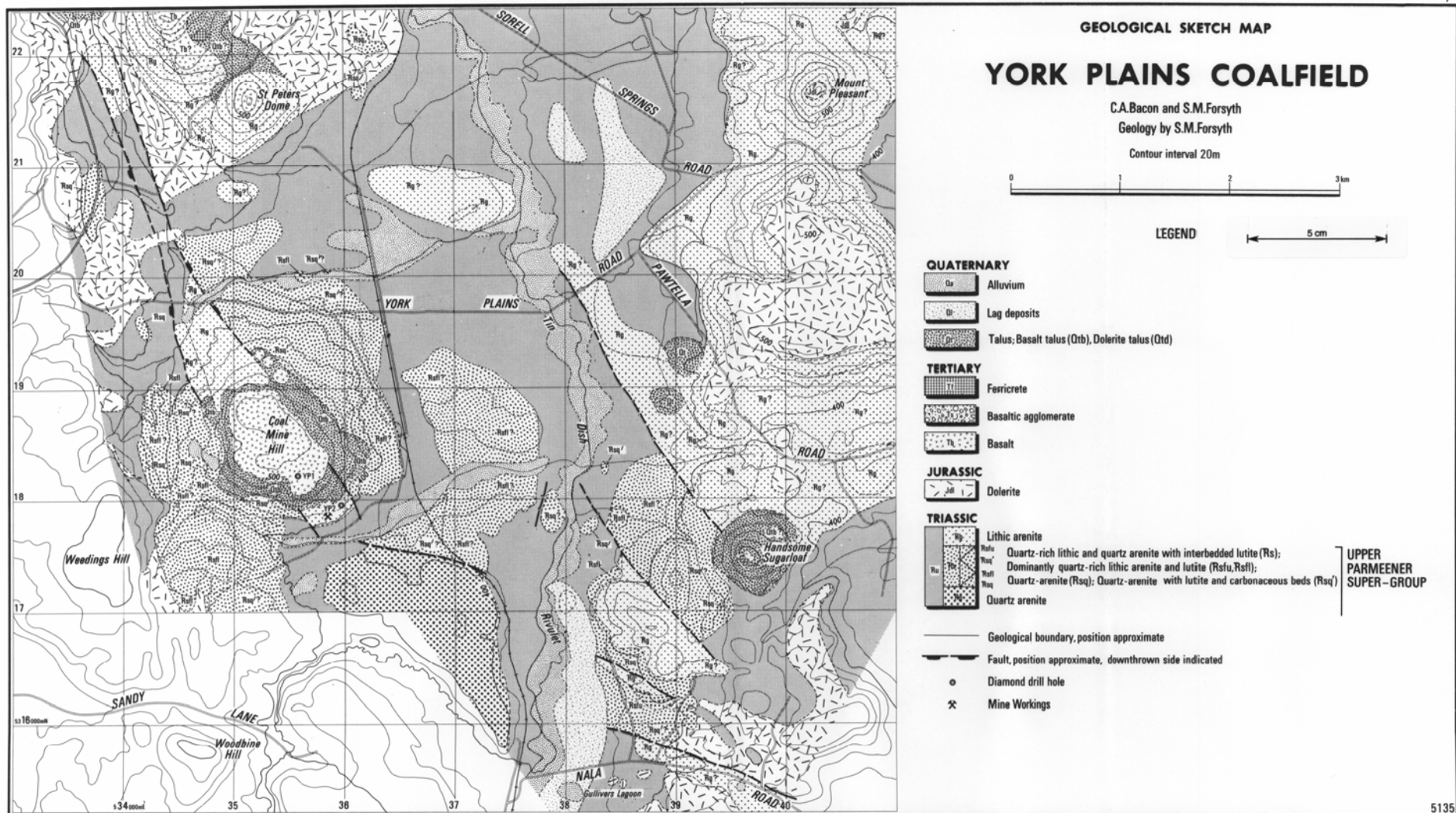
Excluding Permian horizons, most of the Upper Parmeener Supergroup stratigraphic units identified by Forsyth (1984) occur in the York Plains district. These stratigraphic units are:

Rg	-	Volcanic lithic arenite with subordinate lutite and coal seams
Rsf	-	Lutite and dominantly quartz-rich lithic arenite with minor coal seams
Rs	-	Quartz arenite and lutite with carbonaceous beds and subordinate lithic arenite and coal seams
Rs	-	Lutite with quartz rich lithic arenite
Rs	-	Quartz arenite and lutite, occasionally with quartz sandstone
Rm	-	Micaceous lutite and micaceous quartz sandstone frequently with other silicified, bioturbated and mottled purple lutite
Rp	-	Quartz arenite with subordinate lithic rich horizons

The target coal seams are recorded within the upper most Rg unit of the Carnian age (late Triassic). However thinner coal seams have been recorded elsewhere in the two underlying stratigraphic units (Rsf and Rs).

The depositional environment of the York Plains coalfield is considered to have been fluvialatile, with single channel rivers depositing sand in the channels, silt in overbank regions and mud in the back swamps.

The coal appears to have originated in peat swamps formed over the back swamp muds. These back swamps were subject to regular flooding and burial of thick transgressive bodies of sand.



**FIGURE 2 GEOLOGICAL MAP OF THE YORK PLAINS COALFIELD**

## Review of Previous work

As per the supporting statements for the EL application, New Hope Coal has undertaken a review of the EL areas, historical data and constructed a geological database and model. This process is underway and the expenditure to date encompasses this work.

Documents reviewed:

EL 18/82 – Parattah 84-2294 Geological and Coal Resource Estimation - York Plains Area 15/12/1988 CRA Exploration PTY Limited

EL 18/82 – Parattah 85-2479 Large Core Drilling of the York Plains Coal Deposit 9/08/1985 CRA Exploration PTY Limited

EL 28/79 – Colebrook/York Plains Coalfields Tasmanian Coal Prospects Exploration Progress Report Six months ended 16/10/1981 Capricorn Mining Limited

Bacon C.A 1985 Petrographic and Proximate Analyses of Coal from the York Plains Coalfields

Additionally, The Coal Resources of Tasmania Bulletin 64, by C.A. Bacon 1991, was also a valuable reference for wider searches and understanding of the Tasmanian Coal fields.

## Exploration Completed 2009-2010

During the reporting period the following was undertaken:

- Visited selected drill sites
- Ground-based field inspections and weather monitoring
- Interviews with potential service providers
- Drawing up contracts with selected service providers
- Negotiations with landowners
- Visitation to Tasmanian Minerals Council
- Meetings with Michael Leonard, John Pemberton and other Mineral Resources of Tasmania personnel
- Regular communication with John Pemberton of MRT on progress with the exploration program (delayed due to extended wet season)

## Exploration Completed 2010-2011

During the reporting period the following was undertaken:

- Ground-based field inspections and weather monitoring
- Ongoing discussions with selected service providers
- Continued negotiations with landowners
- Exploration drilling – stratigraphic confirmation of historical drillholes
- 8-inch coring for a bulk sample for Coal to Liquids analysis

## Exploration Completed 2011-2012

During the reporting period, no field based activities were undertaken, and, a review of the drilling information from the 2011 exploration program showed that not enough data was obtained to infer coal seam extensions, or to build a geological model. This was because the previous program was designed to confirm the location and stratigraphy in the historical drill

holes, rather than to provide further information to allow further modelling work to be carried out. However, the planned program for 2012 is designed to use geophysical techniques to define where the extension of the coal resources may be located, as well as comparing geological and geophysical anomalies to target further drilling.

## Geological Evaluation of the York Plains Deposit

A geological database has been created in the Minescape GDB module incorporating 36 drill holes with lithological data, and includes the drilling data from the 2011 exploration program.

Due to the nature of the deposit, correlations between all of the boreholes were not able to be produced, and therefore, a cross section across the region was not possible.

Further work is still required to complete the stratigraphic correlations at York Plains, however it is inferred that given the geological nature of the deposit, this will be a difficult task. Work will continue in the next reporting period to ensure a stratigraphic model is produced to further define resource boundaries and additional targets.

## Environment

No environmental disturbance has been created at York Plains during 2011-2012. All drill hole rehabilitation was completed in the previous reporting period.

## References

BACON, C.A. 1991. The coal resources of Tasmania. *Bull. geol. Surv. Tasm.*64.

FORSYTH, S.A 1984. New data on rock distribution, York Plains area, Unpubl.Rep.Dep.Mines Tasm. 1984/1986

## Keywords

Coal, Sub-bituminous coal, York Plains Coalfield, Coal to Liquids.