Relinquishment Report
EL 58/2008

E & P INVESTMENTS AUSTRALIA PTY LTD

June 2013

INTRODUCTION

E & P Investments Australia Pty Ltd ("E&P" or "the Company") made application for an exploration permit over an onshore area of Tasmania on November 25, 2008. The application was for a Category 4 Onshore Exploration Licence over an approximate area of 1560 sq km, located on the eastern coastline between Scamander and Cape Lodi.

Given the lack of onshore Tasmanian exploration success to date, E&P believed it fundamental that some evidence of possible trapped hydrocarbons is confirmed before the significant commitment to seismic acquisition and drilling is made. Providing the surface geochemistry confirms an economic zone of interest, a specific 2D seismic grid would be designed and acquired to cover the identified zone so that traditional geophysical interpretation and mapping can be conducted. The licence SEL 58/2008 was first granted on July 3, 2009 by the Director of Mines and deemed to expire on 22 June, 2014.

The Company has completed two Gore surveys and engaged independent consultants to assist in the planning and interpretation of the data, and has reviewed the commerciality of the only significant zone of interest to attempt to justify further commitment to exploration over EL 58/2008 (the Permit).

The Gore survey results were largely disappointing, with a few small zones identified from the results of the first survey. Most zones only provided a few positive sample results defining the closures, and the Company had concerns that some of the results possibly resulted from contamination. In particular, the positive sample points related to the zones near St Mary's were heavily discounted due to probable contamination given their proximity to built up areas and the extensive coal mining and transport operations.

Accordingly, a second Gore survey was conducted which specifically targeted three of the positive zones on the coast with a number of higher probability recordings so that a higher density grid of Gore infill samples could be installed, where greater care was taken to avoid existing infrastructure and roads. The infill samples confirmed that the two northern zones were not valid. However, a small zone immediately to the west of Seymour remained valid and further geological assessment and economic screening was undertaken.

The zone lies in close proximity to a potential mapped fault derived from analysis of existing aero-magnetic data. It was calculated that the zone of interest had an estimated closure that may correlate to a potential trap of approximately 2 km2.

Given these findings, the Company elected to relinquish a large proportion of the permit area, and concentrate on the Seymour area of the permit **resulting in the reduction of the permit area to 41 sq km.** On September 14, 2011 this reduction was acknowledged by the Tenement Management Officer and reflected as amendments to the permit boundary maps.

E&P wished to focus on this one area where at least some evidence of hydrocarbons had been demonstrated by the two Gore surveys, and committed to desktop studies to

determine if sufficient prospectivity and potential for commercial traps could be established to justify further field activity, including limited 2D seismic acquisition.

Over the past 12 months, the Company continued with reviews by our previous consultants, Drs Geoff O'Brien and Tim Rawlings, but the parties quickly agreed that the options were limited and their efforts in lateral thinking exhausted. The Company decided to introduce new thinking into the reviews and engaged 3D-GEO Pty Ltd (3D-GEO), a Melbourne base geotechnical consultancy firm with extensive experience in the Gippsland and Bass Basins.

3D-GEO's reviewed all data and reports held or generated by E&P and its consultants, including off-shore 2D seismic acquired by Esso over T69B in 1969.

3D-GEO concluded:

1. There is no proof of maturity and expulsion e.g. an isopach of Basement to Tertiary.
2. Other than the Gore sampling, and limited radiometrics in the northern part of the permit (described in the Rawlings report, November 2010), no established petroleum technique has been completed for testing hydrocarbon leakage. However, it is accepted that the higher radiometric readings in the north did not correlate with any positive leakage readings with the Gore sampling.
3. Limited shallow wells have been documented, hence stratigraphy/geochem is theoretical eg. Bicheno well.
4. There is no proof of structuring that would result in traps. The most important dataset is the geological map that needs to be reviewed and used optimally.

3D-GEO believed that there is some data to undertake a further prospectivity analysis and recommend this be undertaken by a specialist consultant experienced in this specific region.

E&P then engaged Dr Mike Hall, recommended by 3D-GEO, to undertake a review and make recommendations regarding further exploration activity or relinquishment of the permit.

Dr Hall reviewed stratigraphy, source, reservoir, seal, expulsion, migration and potential for traps of hydrocarbons in the permit area. Preservation was also considered as any possible traps and reservoir now occur at shallow depths and would likely to be infiltrated by ground water causing biodegradation.

Dr Hall concluded that no significant faulting occurred during Permian-Triassic deposition and there is no evidence of folding during deposition or immediately after in or around the permit area. Therefore, the likelihood of any traps being available at the time of peak generation and migration is extremely low to improbable. Regional uplift and related faulting in the mid to late Cretaceous and early Tertiary, after a time gap of approximately 70 million years, led to differential elevation, including local burial in narrow zones such as the Derwent, Tamar and Devonport (Mersey) grabens, but mainly exposure and erosion over large areas. Hence over most of Tasmania the petroleum system would have become “frozen” and subjected to degradation from this time.

Dr Hall stated that given that the hydrocarbon system was almost certainly once active, it is not surprising that traces still linger, possibly leading to some of the positive findings with the Gore sampling.

Basis of full permit relinquishment

To date, approximately $463,000 has been expended by E&P on the exploration and management of the Permit.

As noted in the previous 2012 Annual Report, E&P elected to undertake one final review using an independent geophysical firm, 3D-GEO Pty Ltd, experienced in the region with strong expertise in geological modeling and working in regions with limited data (such as PNG).

Following 3D-GEO's recommendation, E&P then commissioned a second report from Dr Hall to confirm the likelihood of any realistic prospectivity existed in the permit area. Unfortunately, Dr Hall's findings and recommendation has not been positive. E&P and its consultants have therefore concluded no further exploration activity is warranted.

Accordingly, E&P has elected to relinquish the remaining 41 sq km of SEL58/2008, and will lodge the required surrender application form and surrender fee ($151.20) seeking the Departments of Infrastructure, Energy and Resources approval and confirmation of this application.

Attachment 1
East Tasmania Petroleum Report
Dr Mike Hall

3D GEO

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E&P Investments Australia Pty Ltd
EL 58/2008
Seymour Region, Eastern Tasmania
Geotechnical Overview

3D-GEO Pty Ltd

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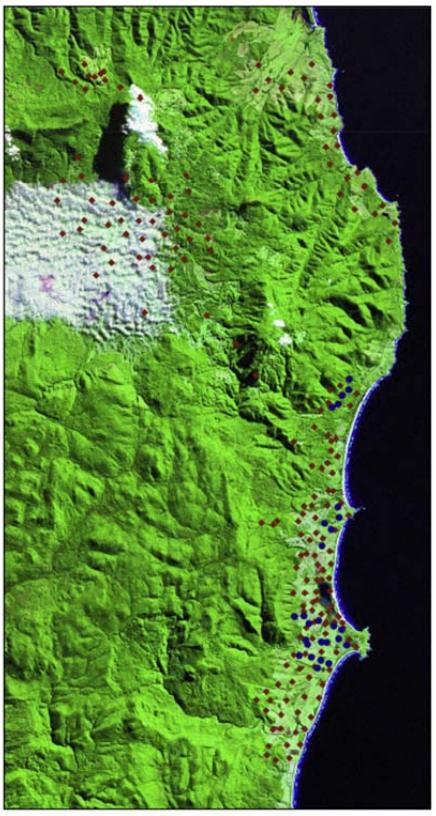
Prepared By: Professor Mike Hall

May 2013



COMMENTS ON EXPLORATION LICENCE EL 58/2008

Regional Setting

Permian-Triassic sediments in eastern Tasmania are located near the present day outcrop edge of a basin that once almost certainly covered the entire Tasmanian landmass. The regional stratigraphy comprises a basal marine section, including glacial sediments, filling in an irregular basement topography, followed by fluvial then shallow marine sediments, with estuarine to deltaic sediments at the top (Lower Parmeener Group). An erosional unconformity is overlain by further fluvial sediments, with some basalt flows and thin coal seams (Upper Parmeener Group). The total maximum sediment thickness (in southern Tasmania) is approximately 2000 m. These sediments are intruded, Tasmania-wide, by Jurassic dolerite sills (up at least 485 m thick) and were displaced by normal faults, most likely in the late Cretaceous – early Tertiary.

Organic rich mudstone (Tasmanite = oil shale) up to 2 m thick occurs locally in the lower part of succession. A vitrinite reflectance value of 1.3 has been recorded in SE Tasmania and is indicative of a gas window temperature of approximately 155^0C. The regional pattern shows an increase in values towards the west. Depending on the geothermal gradient (possibly 25 to 35^0C/km), it is estimated that between 6 and 4.5 km of sediments could have been removed from above the inferred source rock sample.

Licence Area

Stratigraphy

Basement rocks consist of strongly folded Silurian-Devonian sandstone and shale with a penetrative slaty cleavage. These have been intruded by late Devonian granite bodies and form an “economic basement” to the overlying Permian–Triassic sediments.

Lower Parmeener Group: this has a variable thickness of up to 385 m, strongly influenced by the undulating basement topography. Fluvial sandstone and shale at the base are overlain by sandstone and mudstone; limestone, calcareous mudstone and sandstone; glauconitic sandstone; and sandy mudstone. However, the lower marine sequence, which contains the best and possibly only reliable source rocks in Tasmania, is missing here, due to the area being near the eastern, thinner edge of the basin.

Upper Parmeener Group: this is up to 230 m thick and includes sandstone with basalt; and sandstone with interbedded mudstone and minor coal.

Jurassic dolerite, up to at 480 m thick.

The maximum preserved thickness of sediments, basalt and dolerite in the area is approximately 1,100 m.

Source Rocks

There is no evidence of a significant volume of source rocks in the area, although the coal seams and associated mudstones in the Triassic section might be considered a possible source.

Reservoir

The overall section is very sand prone, but it is probable that rocks now at or close to the surface have been much more deeply buried (see later) and would have a reduced porosity. Some sandstone is also bioturbated (i.e. they have been "mixed up" such that their reservoir potential may have been reduced). Calcite cement is recorded in some Triassic sandstone and would also have caused porosity reduction. In the limestone, clear, coarse calcite also occludes porosity; the uncompacted fabric of the rock suggests that cementation occurred early.

Seal

Possible seal lithologies occur in the area, although their true sealing capacity has not been tested. One such unit, a 60 m thick mudstone at the top of the Lower Parmeener sequence, is described as heavily bioturbated and could conceivably be regarded as a "thief zone" (i.e. a poor seal and/or non-productive reservoir).

Expulsion and Migration

Because of the lack of obvious source rocks in the area, the scarcity of maturity (i.e. VR) records and the fact that the one sample taken from the Upper Parmeener Group (VR = 0.56) is just sub-mature indicates that the lower preserved stratigraphy has probably been in the oil window but has now been tectonically elevated well above it. As such, any hydrocarbon residue within the rocks, due to the original maturation or migration, would be "sniffable" and could also be taken into the ground water through springs and seeps.

Structure/Traps

The preserved sediments are sub-horizontal, with a regional dip of 1^0 to the southeast, but steeper close to faults. The main faults cutting these sediments strike NS and show normal offsets up to at least 270 m at Long Point near Seymour. Minor E-W and NW striking faults have also been mapped, with most showing displacement down to the west.

The faults penetrate the entire Permian-Triassic section and no thickness changes have been recorded across them, therefore it is highly probably that the faults are all post depositional (and possible related to mid Cretaceous, Tasman Sea "break up").

There are no obvious folds in the P-T sediments; therefore the presence of anticlinal traps is negligible. There is a very, very small possibility of fault trapping, but because of the overall sandy nature of the sediments it is unlikely the faults would seal over their entire length.

Preservation

Because any possible and potential reservoir units now occur at shallow depths or are exposed, it is likely that they would have been infiltrated by ground water and any resident or residual hydrocarbon biodegraded.

Summary

The “Tasmanian Petroleum System” is best regarded as a fossil system, in that it does include most of the requirements of a system that has generated hydrocarbons, with the probably exception of traps. Locally excellent source rock (of undetermined extent and volume) does occur in northern Tasmania, but wherever encountered it is mature to over mature and no longer preserved in a location in which it would continue to generate hydrocarbons. Potential seal and reservoir lithologies also occur, but some at least of the reservoir units have undergone burial diagenesis and consequent porosity occlusion.

Over much of Tasmania the rocks of the petroleum system are exposed and eroded, and dislocated by late Cretaceous and Tertiary faults. The time of deepest burial, and hence hydrocarbon generation, would have been immediately after the emplacement of the Jurassic dolerite sills, which added considerable thickness, and effective additional burial, to the existing Permian–Triassic sedimentary section. Accepting that generation did occur, although there is no obvious evidence as to what the geothermal gradient was, the most likely time is mid-late Jurassic (about 170-180 million years ago). Hydrocarbon migration probably occurred very shortly after and migration pathways would have been controlled by the geometry of the basin at that time. Migration from southern Tasmania towards the north is likely, based on the assumed architecture of the basin at the time, but this has been modified by more recent tectonic events and is somewhat speculative.

Unfortunately the maturity map based on vitrinite reflectance, and included in one report, is deceiving in that it is derived from random sampling and has no clear stratigraphic significance. For example, a sample from the St Mary’s area in the northeast with a VR of 0.56 comes from a coal seam in the upper portion of the stratigraphy and cannot be compared to a sample from another stratigraphic position anywhere in Tasmania. However, there is an obvious increase in overall maturity levels towards the west and southwest. A consequence of this level of maturities is that a considerable thickness of overlying sediments (and dolerite) have been removed from above the stratigraphic level of the sample. Also, hydrocarbons most commonly occur in reservoirs situated at higher stratigraphic levels than those containing mature source rocks.

No significant faulting occurred during Permian-Triassic deposition and there is no evidence of folding during deposition or immediately after. Therefore, the likelihood of any traps being available at the time of peak generation and migration is extremely low to improbable. Regional uplift and related faulting in the mid to late Cretaceous and early Tertiary, after a time gap of approximately 70 million years, led to differential elevation, including local burial in narrow zones such as the Derwent, Tamar and Devonport (Mersey) grabens, but mainly exposure and erosion over large areas. Hence over most of Tasmania the petroleum system would have become “frozen” and subjected to degradation from this time. Given that the hydrocarbon system was almost certainly once active, it is not surprising that traces still linger.

Prepared by
Professor Mike Hall
Senior Geotechnical Advisor
3D-Geo Pty Ltd
27 May 2013

Attachment 2
Curriculum Vitae of Dr Mike Hall

Curriculum Vitae

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Date of Birth: 24 March 1938, Dunedin, New Zealand

Citizenship: Dual New Zealand and Australian

Marital Status: Married, one son and one daughter

CURRENT POSITION

Professorial Fellow, School of Geosciences, Monash University, Melbourne.

QUALIFICATIONS

BSc. Victoria University of Wellington, New Zealand, 1960.

MSc(Hons) in Geology, Victoria University of Wellington, New Zealand, 1964.

Diploma of Imperial College (Structural Geology and Rock Mechanics), Imperial College of Science and Technology, London University, UK, 1969.

PhD in Structural Geology, Imperial College of Science and Technology, London University, UK, 1972.

RESEARCH INTERESTS

Structural and stratigraphic aspects of the origin and evolution of sedimentary basins. Deposition environments and sequence stratigraphy.

WORK EXPERIENCE

1995 - present Professorial Fellow, Monash University, Melbourne

Leader of the Basin Studies Group and involved in the teaching of seismic interpretation, petroleum geology, and stratigraphy for 3rd Year course "Sediments, Basins and Resources". Also supervising postgraduate students [BSc(Hons), MSc and PhD] working in the Otway Basin, Victoria, Wanganui Basin, New Zealand, and northern and western Tasmania.

Officially retired at end 2007, but continue to supervise post graduate students and do a small amount of teaching in an honorary capacity.

1982 - 95 Geological Associate, BHP Petroleum, Melbourne

Structural geology specialist in the small Corporate Exploration Group, later renamed Technical Services Group, reporting directly to the Chief Geologist. Also deputy leader of the Geological Council that was charged with providing technical guidance and quality control, and introduced evaluation guidelines for prospect assessment and regional basin analysis. Worked on basins throughout Australia, PNG, New Zealand, South and Southeast Asia, Middle East, North Africa and North and South America.

1977 - 81 Senior Structural Geologist, later Principal Structural Geologist, BHP Minerals, Perth, Western Australia

Worked largely on structural geology problems, as well as regional geology, and reported directly to the Western Australia Exploration Manager and indirectly to the Chief Geologist Research. This work involved extended amounts of field mapping, both at regional and very detailed scales, photo geological interpretation and interpretation of aeromagnetics, ground geophysics and geochemical results, as well as logging drill core.

1972 - 77 Senior Research Geologist, BHP Minerals, Melbourne

Worked in the Exploration Research Group and reported directly to the Chief Geologist, Research and Planning. Involved in both project generation and project work as a structural geology specialist. This necessitated extensive field surveys, both at a regional and detailed scale, in most states of Australia.

1964 - 68 Geologist, BHP Minerals Exploration

Based at Rockhampton, Queensland, in 1964, and initially involved in regional mapping in the surrounding area and later in the selection of prospective areas for more detailed evaluation. Based in Hobart, Tasmania, 1965-68, and worked in southwest Tasmania during the summer months and in the Yilgarn area of Western Australia and again at Rockhampton during the winter months.

1960 - 64 Geologist, New Zealand Geological Survey, Lower Hutt, New Zealand

With the Regional Mapping section, based at Lower Hutt. Work included photo geological interpretation for both regional and detailed geological mapping, especially of "problem" areas, and tracing active faults, and preparation of maps and explanatory notes after extensive periods of fieldwork. Also worked on a geothermal power project and in exploration for water resources. During the 1963-64 summers I was seconded to a geological party from the University of Minnesota, USA, and spent three months in the Ellsworth Mountains, West Antarctica.