

Figure 17 – Burial model modified (from Bacon *et al*, 2000)

3.4 Reservoirs

3.4.1 Pre-Carboniferous (Larapintine) Reservoirs

The primary reservoirs within the Larapintine Petroleum System are carbonates of the Gordon Group. Leached and dolomitized limestones, reefal and fractured reservoirs could be anticipated but not much is known about these sequences. Likewise, the overlying sandstones of lower Eldon Group are potential reservoirs but, to date, no accurately documented information is available.

Palaeokarst features have been reported within Gordon Group at various location including Eugenana, Florentine Valley, Tyerna, Ida Bay, Lake Sydney and Moina. This implies that any Gordon Group limestone sub-aerially exposed before Parmeener Supergroup deposition may also have developed karst features. An Ordovician carbonate reservoir perhaps karstified with cavernous porosity and enhanced with fractures is also a Pre-Carboniferous reservoir possibility. However, palaeokarst has not been intersected by drilling but it is in outcrops. There is no porosity/permeability data on such a rock in the Tasmania Basin. The notion of a karst reservoir preserved “at depth” is speculative at this stage. However, GSLM is proposing to drill one or two stratigraphic wells in 2007 which could greatly improve knowledge of the Pre-Carboniferous. This is discussed in Section 3.4.

The Arndell Sandstone conformably overlies the Gordon Group limestone, in the Tiger Range area. The sandstone sequence is approximately 250 metres thick, but is a very fine-grained sandstone with a poor porosity of only 5%.

The expected depths of burial and temperatures in the Pre-Carboniferous section would severely reduce porosity and permeability in any siliciclastic reservoir (eg. Eldon Group). Given the deformation of the section during the Devonian, it is reasonable to postulate that fractures are present and could enhance reservoir quality and aid hydrocarbon recovery. Recovery from such a reservoir, typically, will not exceed 25%. Gas recovery would be much higher. To date, there is no core or log from these intervals “at depth” to support these ideas.

3.4.2 Permian to Triassic (Gondwana) Reservoirs

3.4.2.1 Lower Parmeener Supergroup "Freshwater Facies"

Within the Lower Parmeener Supergroup, there are a number of sandstone intervals with good reservoir characteristics. These sandstones are considered to be extensive and porosities vary, but range to over 20%.

The potential reservoirs in the Lower Parmeener Supergroup are summarised in Table 6.

| | Formation | Porosity (%) | Thickness (m) | Environment |
|-----------------------------------|-------------------------|----------------|---------------|---------------------------------------|
| Lower Parmeener Supergroup | Risdon Sandstone | 13.7- 14.7 2.1 | 4 - 8 | barrier complex shallow. marine shelf |
| | Minnie Point Formation | 14.1- 16.6 | ? | shallow marine shelf |
| | Rayner Sandstone | 3.97 | ? | ? basal conglomerate |
| | Liffey / Faulkner Group | 12.8 | ? | coastal channel |
| | Bundella Formation | 7.4- 22.3 | ? | shallow, marine shelf |
| | | | | |

Table 6 - Porosity of sandstone units within the Lower Parmeener Supergroup (modified from Woods, 1995)

The Risdon Sandstone is prevalent throughout the study area, with a thickness of usually 4 metres to 8 metres. The Rayner Sandstone and Malbina Formation samples exhibit a relatively immature mineralogy compared to the more porous samples. The Rayner Sandstone is highly bioturbated and poorly sorted in comparison to the very well sorted, channel facies of the Faulkner Group.

The Minnie Point and Malbina Formations are also extensive throughout the south east of the study area, but become much thinner further to the south. Well to moderately sorted sandstone units occur at the base and top of the formation. Porosity varies markedly between sandstone units, which are up to several metres in thickness.

The Permian Liffey/Faulkner Group reservoirs are widespread. The depositional environment of the Liffey/Faulkner Group (Maynard, 1996) includes glacial, fluvial, coastal and marine depositional environments. The section is about 30 metres thick within the basin. In southern Tasmania around Granton, it exceeds 40 metres. In central Tasmania, it is divided into 7 units of an average thickness of 20-35 metres, with varying reservoir porosity (Table 7). Continuity is undetermined and the reservoir potential is poorer for the deeper parts of the basin.

The mature mineralogy of the high energy channel sand facies occurs with coastal plain facies and consists primarily of very well sorted, fine to medium-grained sandstone. Good primary porosity and permeability may be expected. Reid and Burrett (2004) report that porosity for the Liffey Group ranges up to 27%. The sandstones are often laterally extensive point bars within a braided stream environment. These facies often grade or pinch-out into well consolidated siltstone and shale, thus providing stratigraphic traps for the accumulation of hydrocarbons (North, 1985).

The available permeability data (Reid, 2004), suggests Permian formations are very marginal as oil reservoirs. In several wells, namely Hunterston-1 and Shittim-1 this may be attributed (in some part) to the influence of intrusions. Petrography at Hunterston-1 indicates the presence of silica overgrowth and secondary carbonate cement. Wells without obvious influence from intrusions on reservoir quality are Ross-1 and Tunbridge-1 (Reid, 2004, and Maynard, 1996). These wells do not show very high permeability either. It is very likely that the reservoir is generally poor to fair quality and the presence of dolerite can reduce it even further. The best permeability by far, of 166 mD, is from the far eastern side of the onshore basin at shallow depth in the Douglas River area. The next highest permeability is 8.8 mD at Ross-1. This suggests that low permeability (1 to 10 mD) is quite likely. Data from Hunterston-1 suggests the presence of intrusions can take permeability below 1 mD. The Permian sequence does not represent a very effective oil reservoir.

This poor reservoir quality is consistent with the explanation for the AFT measurements that suggest kilometres of overburden were eroded between 100 and 50 Ma. The models of Reid (2004) and Bacon *et al* (2000) suggest the Permian reservoirs are buried to a depth of 4,000 plus kilometres and exposed to temperatures over 100 degrees C for almost 100 Ma. Silica overgrowth occurs at temperatures over 100 degrees C. This aside, there is the risk of direct and/or indirect reduction of reservoir quality by intrusions. There may be a higher risk in areas where carbonate is present in the Ordovician as a thin section examination of the Liffey Group from Hunterston-1 indicated carbonate cements. The source of this carbonate is thought to be the carbonates intersected in the Precambrian section of the well.

| | Unit 1 | Unit 2 | Unit 3 | Unit 4 | Unit 5 | Unit 6 | Unit 7 |
|-------------------------|---------------------------------|--|-------------------------------------|---|---------------------------------|--|-------------------------------------|
| Lithology | white-grey sandstone | interbedded white-grey sandstone, dark grey mudstone | white-grey sandstone | heavily bioturbated sandstone to mudstone | white-grey sandstone | interbedded white-grey sandstone, and dk grey mudstone | heavily bioturbated sandstone |
| Composition | qtz (75%), feldspar, mica, clay | | qtz (>75%), feldspar mica, clay | qtz (70%), feldspar mica, clay | qtz (>70%), feldspar mica, clay | | qtz (70%), feldspar mica, clay |
| Grain Size | medium to very fine | medium to silt | fine to very fine | medium to very fine | coarse to very fine | medium to silt | medium to very fine |
| Grain Morphology | sub-angular to sub-rounded | | sub-angular to sub-rounded | sub-angular to sub-rounded | sub-angular to sub-rounded | | sub-angular to sub-rounded |
| Sorting | well sorted | | well sorted | Mod- poorly sorted | well sorted | | Mod.-poorly sorted |
| Framework | close packed | | close packed | relatively open | close packed | | relatively open |
| Cement | minor silica | | minor silica | minor silica (mainly clay matrix) | minor silica & some carbonate | | minor silica (mainly clay 1 matrix) |
| Porosity | 10 -15% (1-5% at Poatina) | variable | 2 -5% at Poatina, up to 25% at Ross | 9 -27% | 10 -25% | variable | 5-7% |
| Thickness | 10m (Golden V.) to 1m | 1 to 11m | 5 to 11 m | 3 to 9m | ave 11 m | 1 to 3m | 3 to >7m |

Table 7 - Summary of the characteristics of units in the Liffey/Faulker Group reservoirs (modified from Maynard, 1996)

In central Tasmania, the Liffey/Faulker Group was intersected in several drill holes around central Tasmania near the axis of Tiers Fault including Golden Valley, Great Lake Tail Race Tunnel, Great Lake Penstock at Poatina, Ross, Tunbridge Tier and Bothwell.

Fissile and non-fissile siltstones comprise the Bundella Formation. These have a consistent thicknesses and the sandstones exhibit fair to good porosity. The Bundella Formation was deposited on a shallow, low energy marine shelf.

3.4.2.2 Upper Parmeener Supergroup "Fluvial Sequences"

The Upper Parmeener Supergroup contains up to 600 metres of terrestrial fluvial sandstones. Substantial coal measures occur within Upper Triassic sandstones in the northeast of the basin and the Cygnet Coal Measure of late Permian age.

The Upper Parmeener Supergroup has been divided into four potential reservoir units. The Upper Permian carbonaceous sandstone, Unit 1 (equivalent to Cygnet Coal Measures), is up to 50 metres thick and has poor to moderate porosity (10%) (Bedi, 2003).

The Triassic quartzose sandstone, Unit 2, has the best potential reservoir. It is up to 250 metres thick and has excellent porosity (23%) but only fair permeability (9.8 mD). These quartzose sandstones are characterized by authigenic quartz overgrowths with reduced porosity and lowered permeabilities. The sandstones were deposited in a braid plain environment resulting in thickly bedded clean sandstones, largely free of heterogeneities (Bedi, 2003).

The volcanic lithic sandstones with coal measures, Units 3 and 4 have poor porosity and permeability (0.08mD). Sandstones in these units are characterized by mechanical compaction and alteration of lithic grains to clay matrix. The volcanic lithic sandstones were deposited in a meandering fluvial environment resulting in abundant lutite intervals, which may act as seals (Bedi, 2003).

3.5 Seals

3.5.1 Jurassic

By the early Jurassic the Parmeener Supergroup formed in a shallow syncline, plunging towards the south-southeast, with possibly some gentle folding in an otherwise sub-horizontal succession (Hergt *et al.*, 1989). Large volumes of tholeiitic dolerite intruded as sills into the Tasmanian crust during the Middle Jurassic.

The dolerite is exposed over an area of 30,000 square kilometres and has an estimated average thickness of 500 metres (Hergt *et al.*, 1989). Most dolerite intrusions have the form of a flattened cone connected to a source or sources at the deepest point, the limbs are concordant or approximately concordant with abrupt transgressions when rising to higher levels (Leaman, 1976). The metamorphic effects resulting from dolerite intrusion are usually confined to within a few metres of the intrusion margin, the effect being more severe at the roof of the intrusions.

In the Hobart area, two or three dolerite sheets are commonly present. These sheets are either less than 1 metre, or 300 to 400 metres thick. The thicker sheets in middle or lower Permian rocks are typically 30 square kilometres in area, while in Triassic rocks, they are more extensive (Leaman, 1975). In contrast, only a single sill, intruding the Upper Parmeener Supergroup, has been recognized in the northern part of the basin (Central Plateau, Ben Lomond and the Fingal Tier, Figure 6) (Bacon *et al.*, 2000). A single, 650 metre thick dolerite sheet was intersected near the Upper-Lower Parmeener Supergroup boundary in Hunterston-1 (Reid *et al.*, 2003). From the interpreted seismic this sheet appears to cover many hundreds of square kilometres.

There is limited well data, fault and fracture information at depth to ascertain whether the dolerite can be classed as a regional seal. At depth, in areas away from major faults where significant fractures are not expected and the dolerite is tight, it would be considered to be

a reasonable seal. Jurassic dolerite intrusive sheets can also be classed as effective seals based on their very high velocities of approximately 6500 m/s.

3.5.2 Permian

There is no quantitative seal data, such as Mercury Capillary Injection Pressure (MCIP), for any formation. Bacon *et al* (2000) observed that “muddy lithologies” dominate the Lower Parmeener Group. The Liffey Group is generally described as a non-marine sand in a dominantly muddy marine section. This implies a basin-wide low stand event. In a study of Liffey Group cores, Maynard (1996) interprets inter-bedded sandstone and silt/mudstone.

Intra-formational seals are likely to be present. Like any intra-formational seal in a fluvial section, it is moderately high-risk due to limited lateral extent. The Malbina and Cascades Group Formations are also marine mudstone formations (Figure 5 and Figure 15). Potential seal units occur above the Liffey Group sandstones as siltstone in the lower part of the Cascades Group as 1-5 centimetre thick volcanic ash layers within this group (Burrett and Reid, 2004).

These Permian formations are not homogeneous and there is the possibility they are waste zones (non-commercial, extremely low permeability reservoirs). The potential for waste zones could not be assessed from the current data available. The Ferntree Formation is the result of widespread marine conditions that mark the top of the Lower Parmeener Group. It is not composed of a highly plastic clay but it seems to be a reasonable candidate for a regional seal. Unfortunately, it does not directly overlie the targeted Liffey Group (Figure 15).

3.5.3 Pre-Carboniferous

Currently, there is no quantitative data on seal quality. In deformed Palaeozoic rocks such as these, it is expected that permeability will be quite low in general.

Effective fine-grained seal lithologies are possible in the marine Gordon Group limestones. As discussed previously, some form of intra-formational seal would need to be invoked in the Tiger Range Group for the Eldon Formation.

Early Permian Tillites were widely deposited on the Devonian unconformity of the Tabberabberan Orogeny. If a Mesozoic to Tertiary charge from hypothetical Ordovician sources is supposed, the Stockers Tillite could provide a seal to sub unconformity traps.

3.6 Play Types

Due to the very early stage in exploration, to date, no wells have been drilled to test structural closures in the Tasmania Basin. The limited seismic data, of poor to fair quality, does not allow structural traps to be accurately defined within the Lower Parmeener Supergroup. The seismic survey, acquired in 2001, would need to be extended by further seismic surveys and drilling programs to identify more potential traps.

As discussed in Section 2.2, the seismic exploration progress report provided to RPS by GSLM in June, 2007, states that the 2001, 2006 and 2007 seismic program identified and clarified several major and additionally, many minor structures. To date, interpretation of the acquired seismic data has identified several fault block traps and small anticlines with shallow targets in the Gondwana Petroleum System. Deeper targets have been identified by GSLM in the Larapintine Petroleum System, mainly Ordovician in the Central Highlands. Further seismic work is planned by GSLM for November, 2007, to February, 2008. An extensive drilling program is also planned by GSLM for 2007.

Potential traps may have been created by faulting in the Early to Middle Jurassic and associated with dolerite intrusion in the Middle Jurassic, and Cretaceous to Tertiary faulting (Reid and Burrett, 2004). Mid Cretaceous to Early Tertiary faulting was dominantly extensional (Stacey and Berry, 2004) and may have compromised traps formed in the

Jurassic, prior to maximum burial and maturation of the Lower Parmeener Supergroup in the Cretaceous.

Two main plays have been identified in the Tasmania Basin. These are the Permian and the Pre-Carboniferous. The Pre-Carboniferous play is an immature concept. There are few boreholes that have intersected more than a few hundred metres past the Devonian Unconformity. The seismic resolution is very poor at this level. Reservoirs rely on fracture porosity to be present to enhance either the Eldon Group sandstone or karstified Ordovician limestones.

The potential source rocks would be Ordovician algal-rich sediments, capable of producing oil and gas. GSLM have proposed a 1,965 metre stratigraphic well (Gezer-1) for 2007 in the Bellevue area (Figure 18) which would certainly increase the understanding of reservoirs, seal, source rock potential and maturity of the Pre-Carboniferous section. A stratigraphic well (to be named) is also proposed in the Thunderbolt area (Figure 18), sited on topographic indications of a possible Pre-Carboniferous structured basement. Understanding of the Pre-Carboniferous play elements in the Longford Sub-basin will be enhanced by the planned Lachish-1 and Hebron-1 stratigraphic wells (Figure 18).

The play elements of the Permian play are better defined. The section seems to be quite unstructured in a regional sense and bedding has quite low dips. This lack of structure supports the idea that the regional Cretaceous uplift was gentle, thus preserving any hydrocarbon accumulations existing at the time. However, the basin is quite flat-lying, so identifying the location of a high confidence closure on the existing sparse 2D seismic data in the Carboniferous to Jurassic section is quite difficult.

Normal faults are more prominent in the Longford Sub-basin. These could represent Tertiary extension which post dates the expected Mid Cretaceous charge event. Regardless of this issue, the visible faults run right to the surface, indicating recent movement, and suggesting that the fault dependent closures have a risk of being breached. Some of these normal faults appear to have undergone reverse re-activation supporting the Late Tertiary compressional event suggested by Stacey and Berry (2004). If fault independent closure can be located on some large fault blocks, these could form exploration targets. However, the timing of trap formation and possible hydrocarbon expulsion would still be an issue.

GSLM are proposing a stratigraphic borehole (Egdon-1) on a small anticlinal feature called the Bracknell Dome probably formed by the draping of Tertiary sediments over earlier rocks enhanced by the late Tertiary compressional event.

The Bracknell Dome and other features of interest are displayed in Figure 18. Dolerite may lie at 600 metres, however, the proposed Egdon-1 well is intended to test this interpretation. Seal and charge are extremely risky in this area and the well is considered to be stratigraphic.

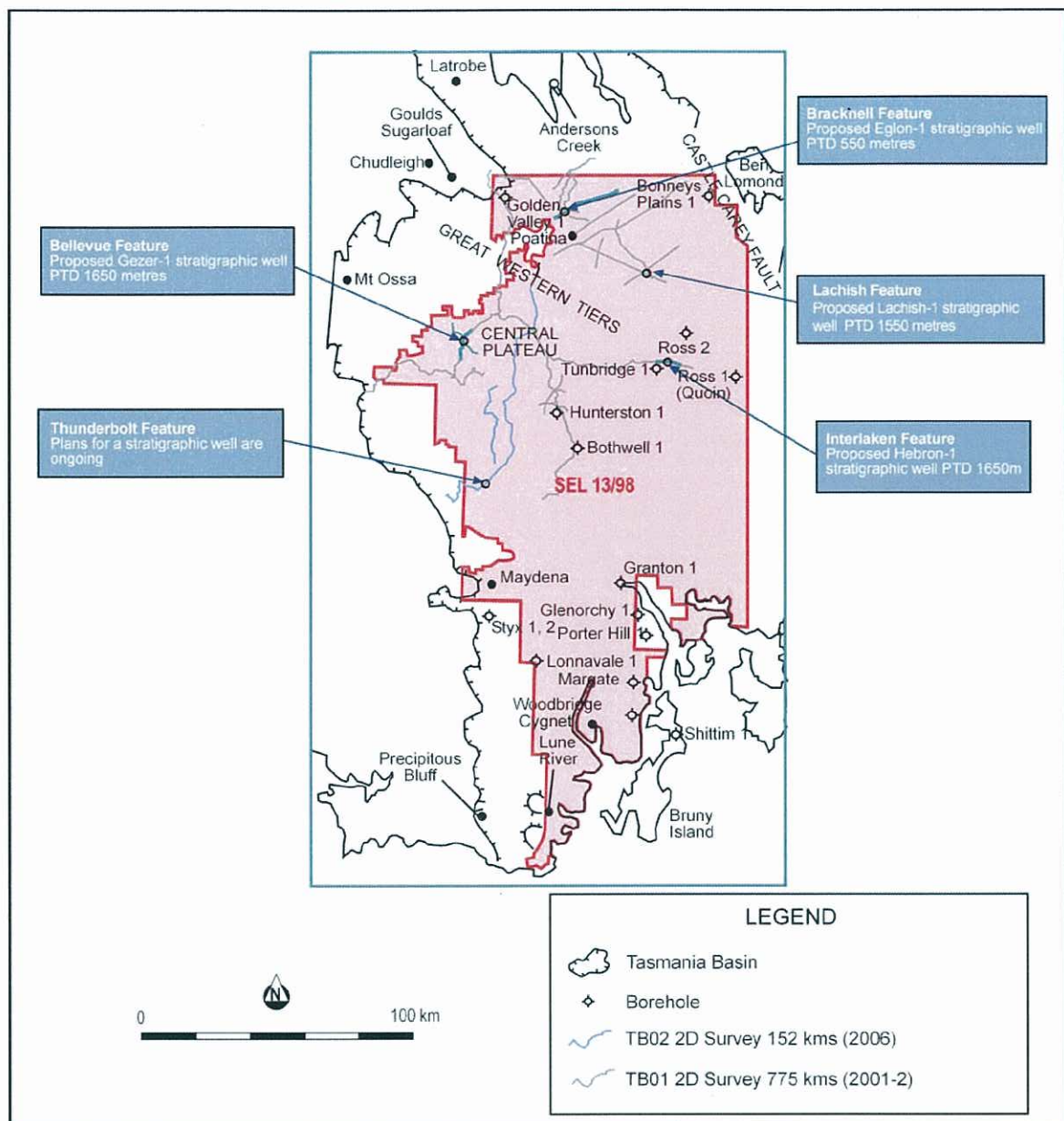


Figure 18 – Locations of features of interest

The Bracknell Dome feature has also been identified on a gravity map of the Longford Sub-basin (Figure 19).

Figure 20 shows a location map of the Longford Sub-basin, highlighting seismic lines TB-01-SA and TB01-PM. Figure 21 shows seismic line TB01-SA and the location of the Bracknell Dome, which is also the general location of the proposed Egton-1 stratigraphic well. Figure 27 shows seismic line TB01-PM with structural and stratigraphic interpretations. Figure 23 shows a TWT contour map of a package interpreted on the TB01-SA and TB01-PM seismic lines.

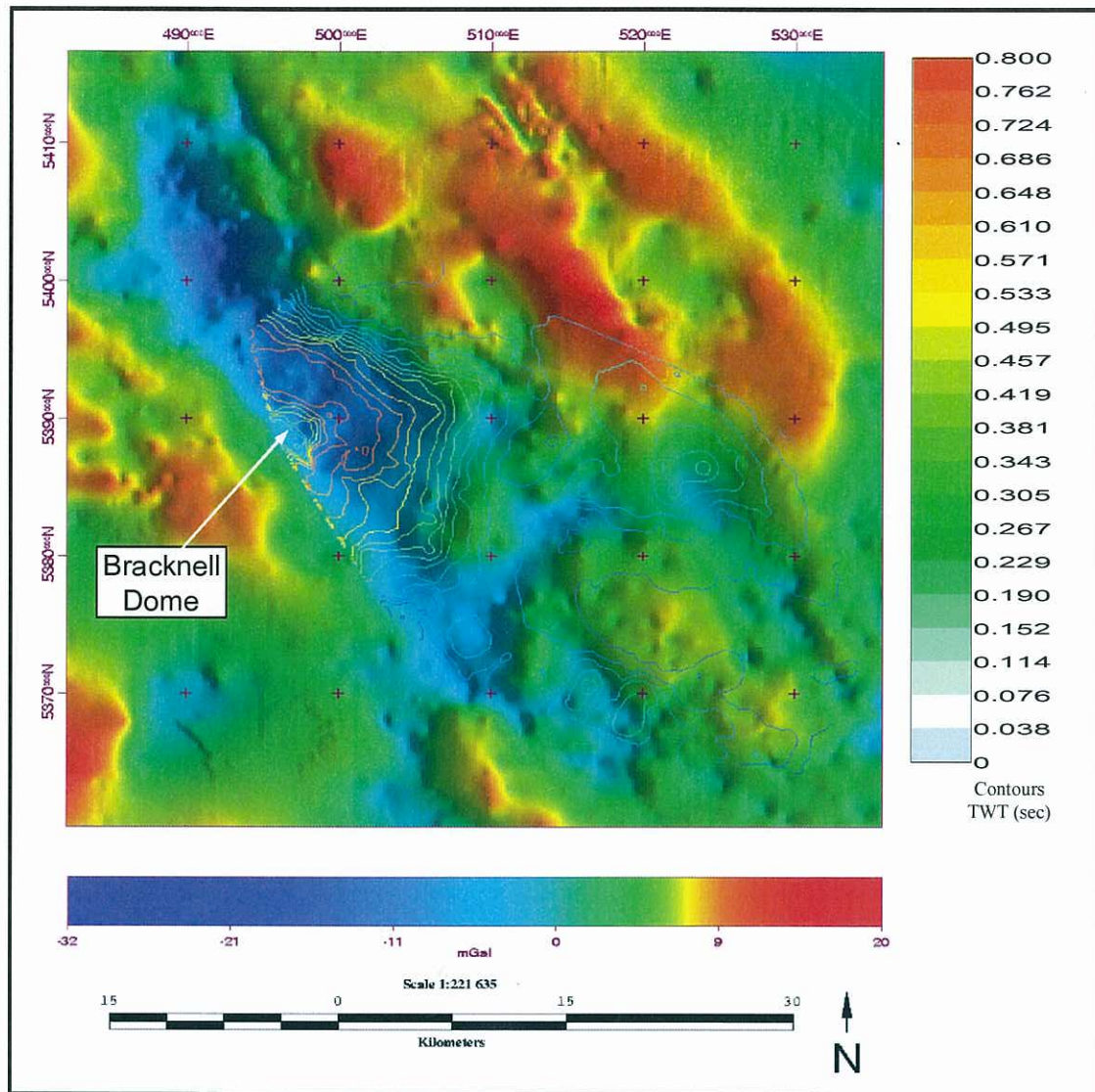


Figure 19 – Gravity map of the Longford Sub-basin highlighting the Bracknell Dome feature (modified after Heath, 2004)

Another stratigraphic test is planned in the Longford Sub-basin at Lachish-1 which will investigate expected Permian stratigraphy below a poorly-defined, possibly domal dolerite feature. This well has a planned TD of 1,550 metres which, it is hoped, will take the well into the Pre-Carboniferous. The dolerite sheets may have formed structural highs after erosion. This play concept has several risks. On the Hunterston-1 mud log, the background gas in the dolerite seems similar to the sedimentary sections. Natural fractures in dolerite are described on the Hunterston-1 mud log. Regardless of this issue, Hunterston-1 shows that proximity to a dolerite body may reduce reservoir quality to <1 mD. Hunterston-1 was not drilled at the crest of the so-called Hunterston Dome and so the well is a stratigraphic test.

A potential Triassic play has been proposed by Reid (2004) (Figure 15). There is no porosity, permeability or seal integrity data published. Coals are proposed as the source. There is minor coal stratigraphically low in the Upper Parmeener Group (Cygnets and Adventure Bay Coal Measures) occurring in the south-eastern, western and northern edges of the basin (Anon, 2005). The Coal Measures generally contain two seals less than 1 metre thick, with ash contents of 25 to 30% (Anon, 2005). The invoking of a wide spread "lutite" seal in the Mid Upper Parmeener (Figure 14) seems to be difficult to justify in a supergroup which consists of four cycles of fluvial to minor swamp deposition.

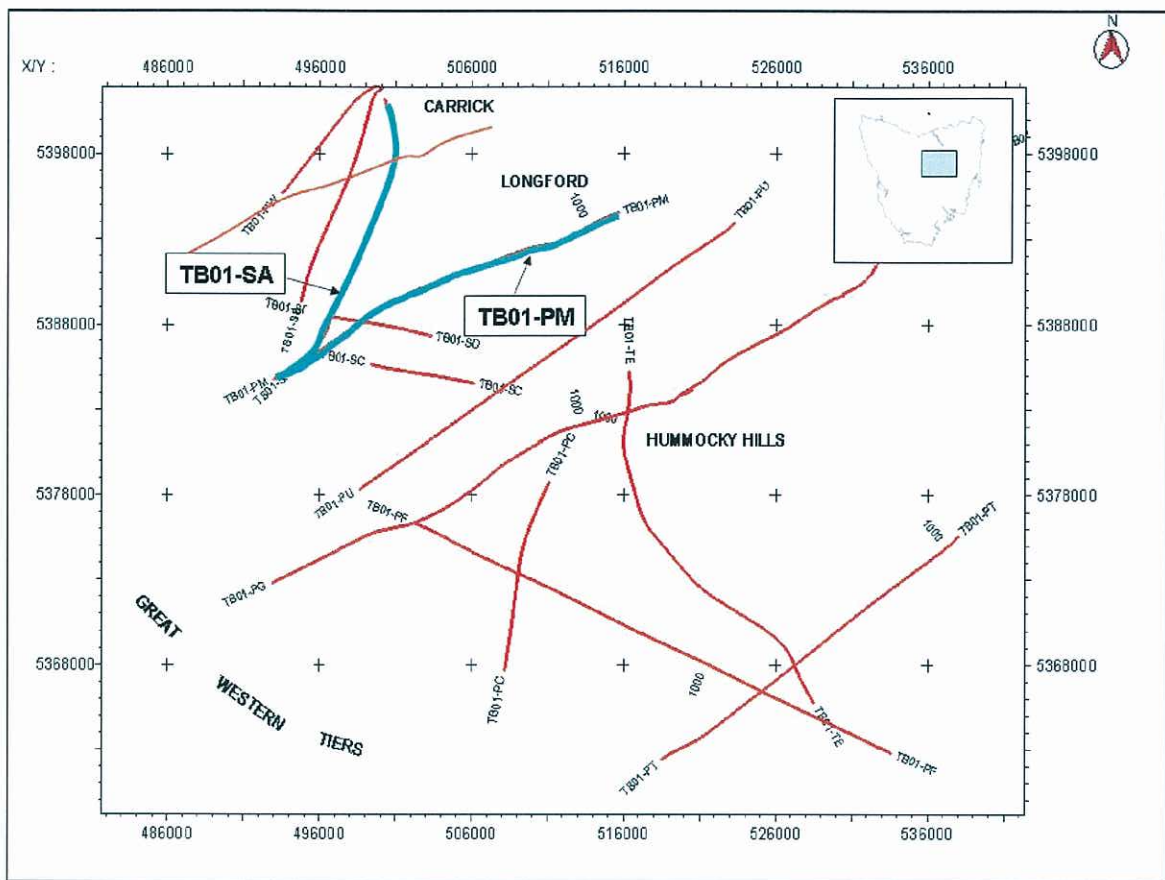


Figure 20 - Longford Sub-basin location map highlighting seismic lines TB01-SA and TB-01 PM (modified after Heath, 2004)

The best developed coal by far is at the top of the Triassic (Anon, 2005 and Bacon *et al*, 2000), making charge and seal problematic (Figure 14). As noted earlier, if the Ferntree Formation is an effective regional seal then Permian charge will not reach the Triassic. A Triassic play would rely on fluvial intra-formational seals with their intrinsic risk.

3.6.1 Stratigraphic Plays

Stratigraphic plays and traps are a theoretical possibility at any level but pursuit of them is impractical, given the limited 2D seismic coverage and variable seismic image quality.

Larger scale stratigraphic plays/traps (i.e. zero edge traps) are limited. The southern zero edge of the Liffey/Faulkner Group has been defined by MRT to be in the Cygnet area. It appears that no indications of hydrocarbons were located in any of the several bore holes drilled. The zero edge of the Liffey Group is eroded in the west and probably in the east. The proximal portion of the Liffey Group in the north of the basin does not present a viable zero edge play, being very likely to have poor top seal. Once again, such plays are inherently high risk, and require a very sharp transition from reservoir to good seal rock. Helium was detected in the Jericho-1 and Shittim-1 wells. There is no known structure at either of these wells. It is assumed this gas has made its way, along with hydrocarbon gases, from Pre-Carboniferous rocks down dip.

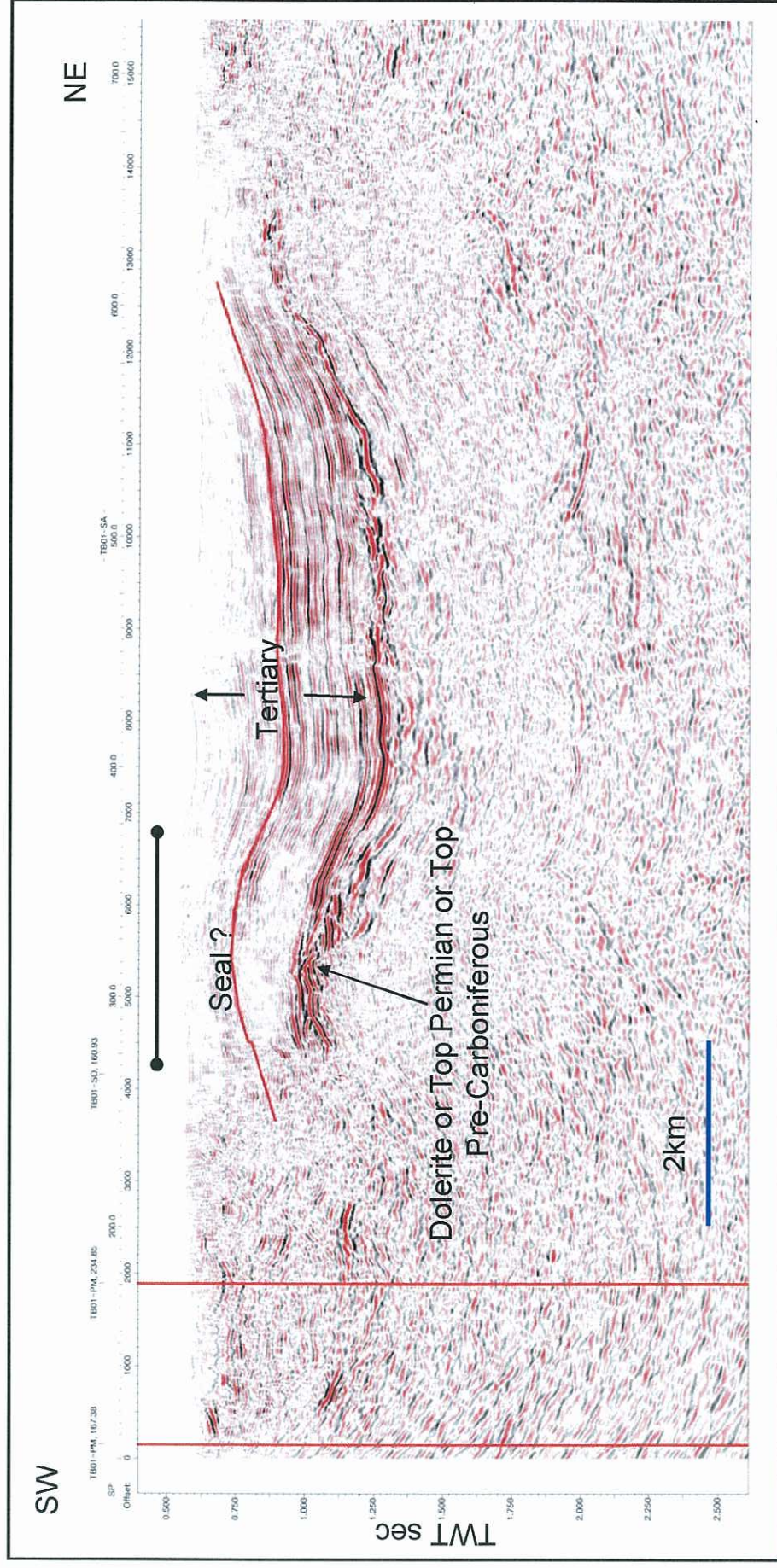


Figure 21 – Seismic line TB01-SA showing Bracknell Dome (proposed location of Eglon-1 stratigraphic well). Line location shown on Figure 20

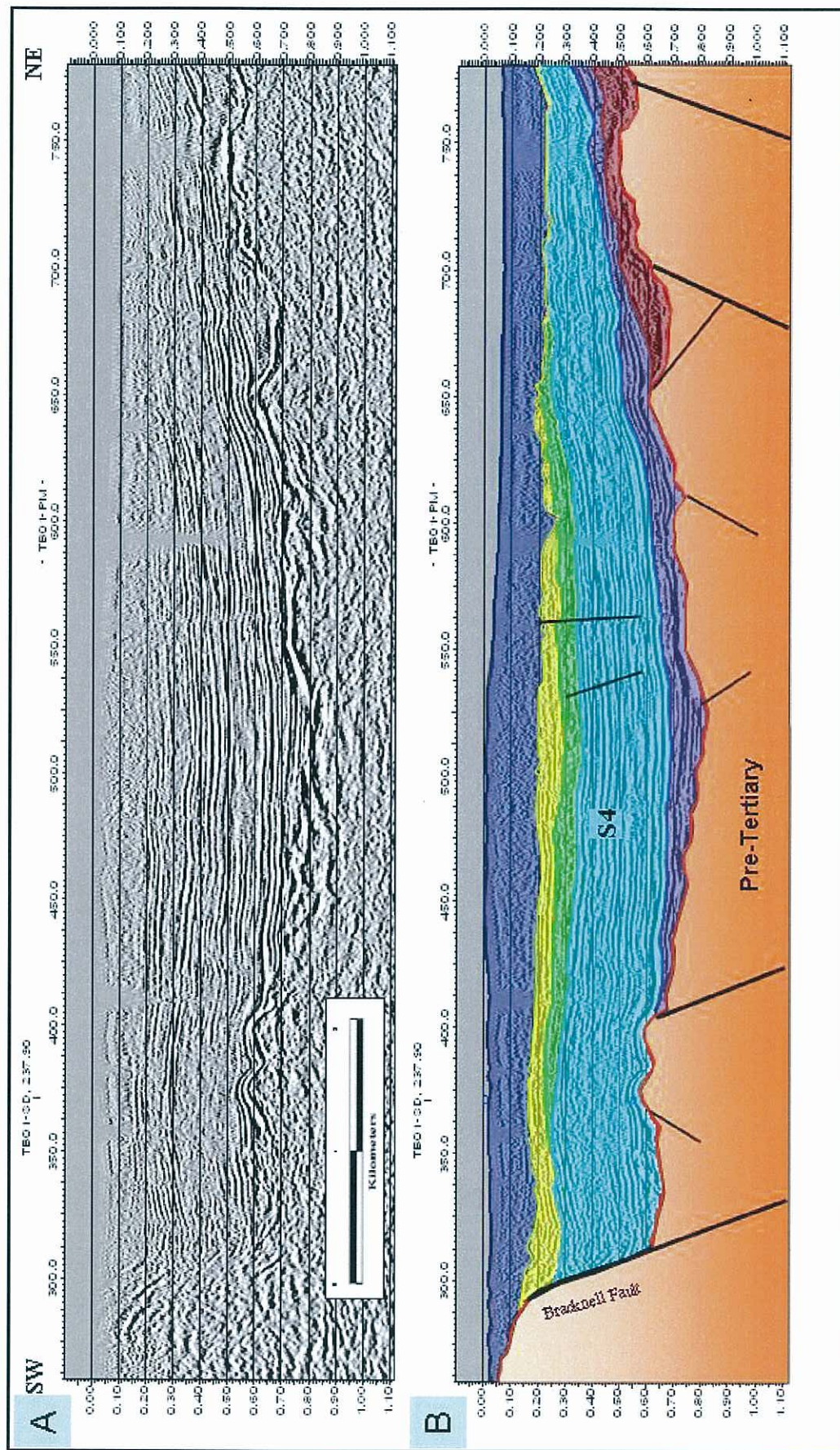


Figure 22 – Seismic line TB01-PM. “A” is non-interpreted and “B” is interpreted. Line location is shown on Figure 20 (modified after Lane, 2003)

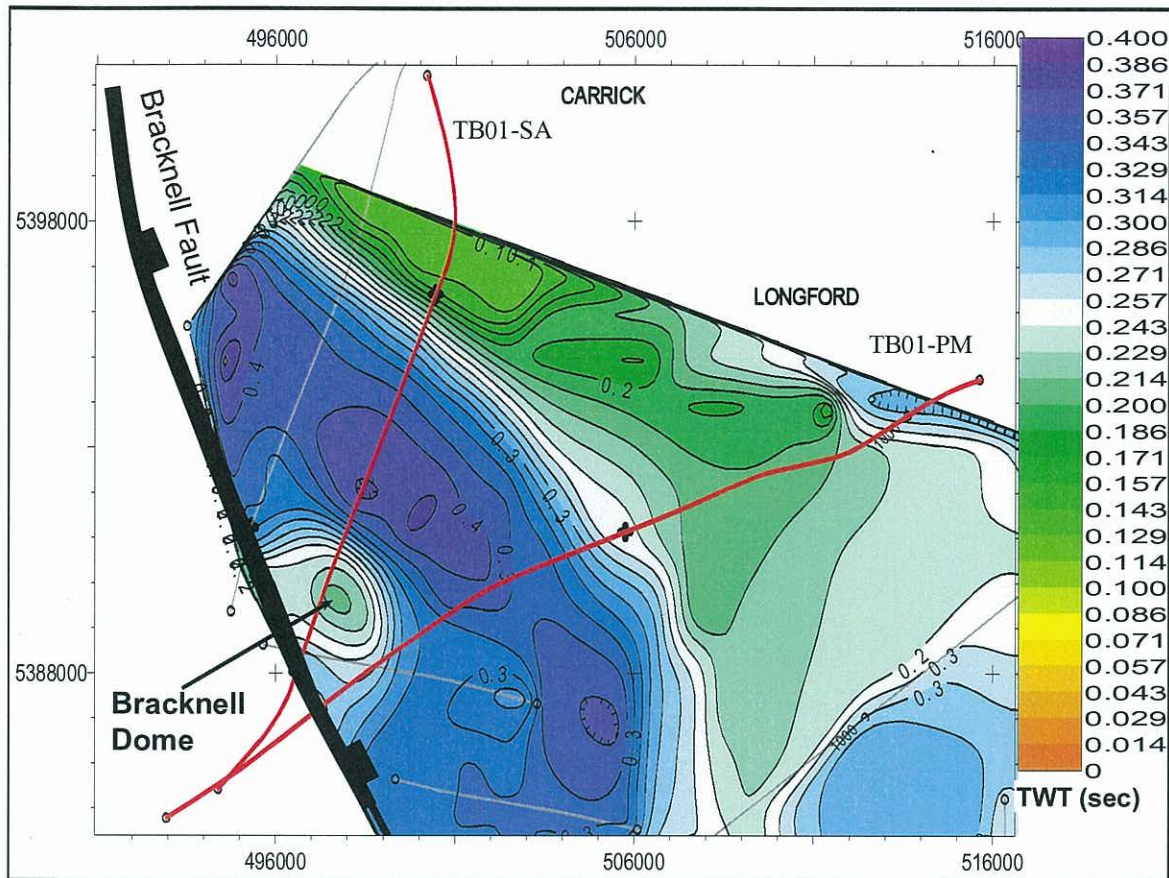


Figure 23 – TWT map of the top of the S4 package (modified after Lane, 2003)

3.7 Petroleum Prospectivity

There is limited seismic in the area because of hilly, treed terrain. The imaging is poor on much of the 2001 data though this might be improved by reprocessing with velocity data from Hunterston-1. In 2006, GSLM recorded 152 kilometres of 2d seismic data and in 2007, 270.5 kilometres of 2d seismic data was completed, interpreted and integrated into the seismic database. Further seismic work is planned by GSLM for November, 2007, to February, 2008. To date, interpretation of the acquired seismic data has identified several fault block traps and small anticlines with shallow targets in the Gondwana Petroleum System. Deeper targets have been identified by GSLM in the Larapintine Petroleum System, mainly Ordovician in the Central Highlands. The data gained from the extensive drilling program, planned by GSLM for 2007, and the further seismic work will give rise to further understanding of the potential prospectivity of the permit area.

On the available data, there are only two features that can be identified with any confidence, the Bellevue Feature and the Interlaken Feature. Both of these are very high-risk due to lack of seismic and well control.

All resources are classified as Prospective Resources under the SPE/WPC/AAPG/SPEE resources classification system (Figure 24) taken from the Petroleum Resources Management System document (2007).

The risks discussed throughout this document are geological risks only.

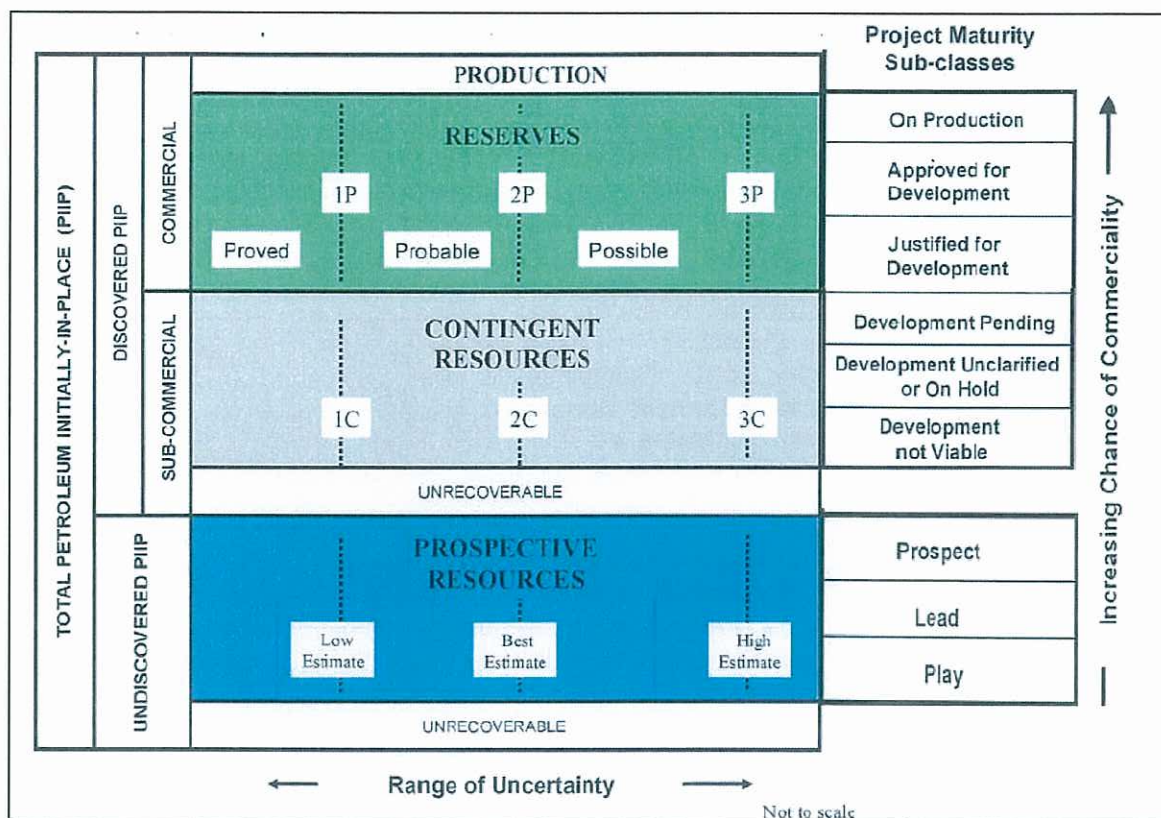


Figure 24 – SPE/WPC/AAPG/SPEE resources classification system

3.7.1 SEL 13/98 Leads Volumetrics and Risk Analysis

3.7.1.1 Interlaken Feature – Permian (proposed stratigraphic well Hebron-1)

The Interlaken Feature is located to the east of the permit area (Figure 18). It is a tilted fault block with dolerite, probably intruding above the Liffey Group reservoir. The feature is immature and poorly defined on a single seismic line which crosses the feature (Figure 25).

A number of assumptions have been made in order to develop an indicative, prospective volume. There is no strike line to constrain the fault block size. Some modest assumptions have been made regarding strike dimension. All volumetric inputs are shown in Appendix B.

Faults go to the surface, so the volumetric case being risked constitutes sufficient fault independent closure to contain the Liffey Reservoir at around 38 metres thick. An oil and gas case was run using a probabilistic method. While the source may well be present, the maturity and timing of the trap formation increases the overall charge risk.

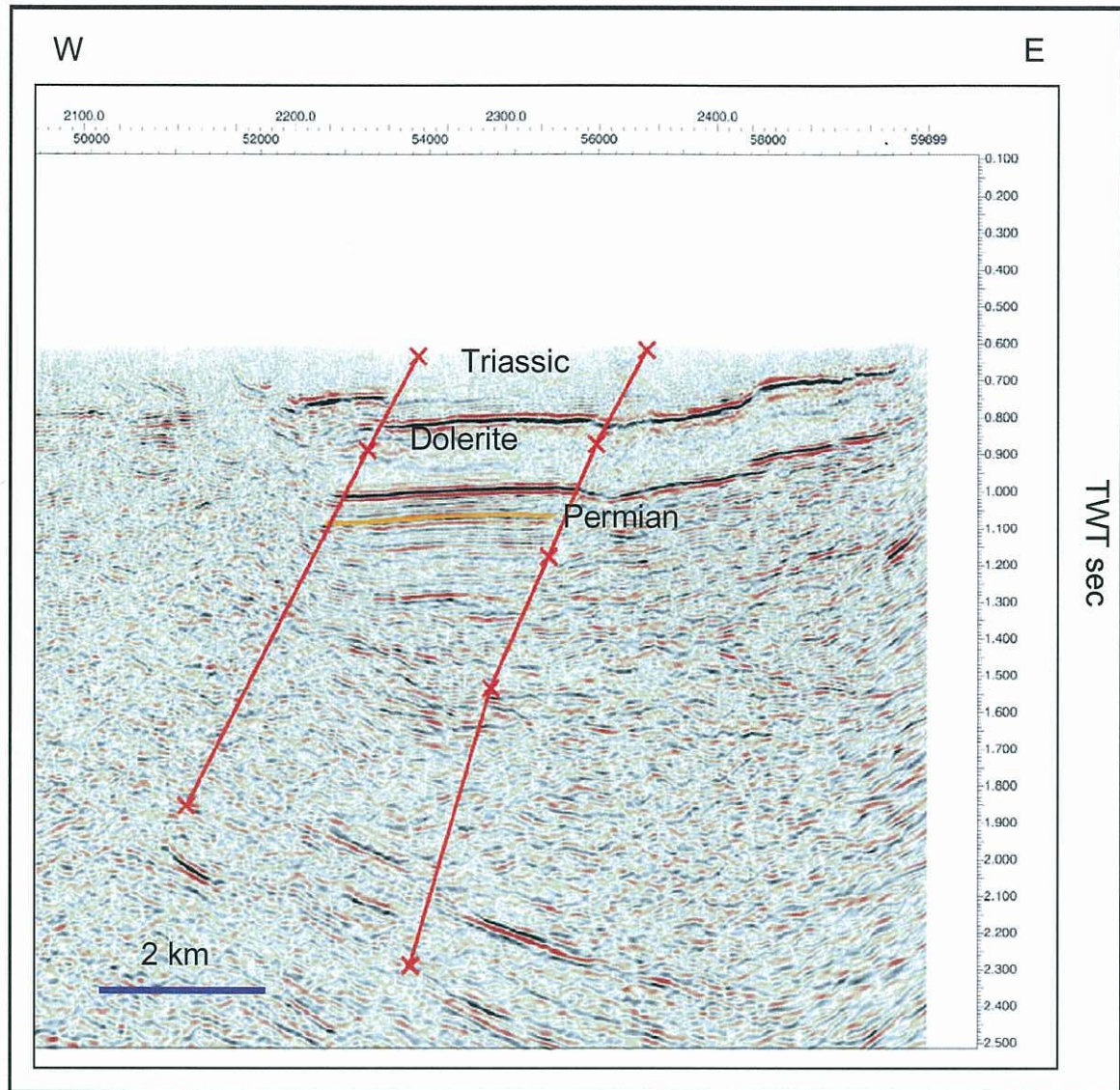


Figure 25 – Seismic line TB01-ST through the Interlaken Feature. Line location shown on Figure 18

The chances of success of the Interlaken Feature are presented in Table 8, and unrisks volumes of oil and gas are tabulated in Table 9.

| Risk Factor | Percent |
|--------------------------|-------------|
| Charge | 30 |
| Reservoir | 70 |
| Seal | 60 |
| Trap | 10 |
| | |
| Chance of Success | 1.26 |

Table 8 – Chance of success of Interlaken Feature

| | Low Estimate | Best Estimate | High Estimate | Mean |
|---|--------------|---------------|---------------|------|
| OIL CASE | | | | |
| Undiscovered Oil Initially-in-Place (MMbbls) | 10 | 27 | 65 | 33 |
| Prospective Resource (MMbbls) | 1 | 4 | 12 | 6 |
| GAS CASE | | | | |
| Undiscovered Gas Initially-in-Place (Bcf) | 11 | 30 | 69 | 36 |
| Prospective Resource (Bcf) | 8 | 21 | 48 | 25 |

Table 9 – Unrisked oil and gas volumes of the Interlaken Feature

3.7.1.2 Bellevue Feature – Pre-Carboniferous (proposed stratigraphic well Gezer-1)

The Bellevue Feature is located in the Central Plateau in central Tasmania (Figure 18). It is identified on two seismic lines, TB01-PB and TB01-TD (Figure 26, Figure 27 and Figure 28).

The crest of the structure is offset from these interpreted seismic lines and extends to outside the range of the lines displayed. It is assumed, optimistically, that the amplitude of the fold seen in Figure 27 is representative of the actual crest which may lie to the north.

There are three potential reservoirs in the feature. The deeper two are suggested by higher amplitudes. There is no well control for this interpretation and the higher amplitudes are inferred to result from karst porosity in the Ordovician limestone.

The upper level (Level 1), without amplitude, is interpreted to be siliciclastic Eldon Formation reservoirs. At Levels 2 and 3, fault dependent and fault independent closures have been estimated. The chances of success for each level of the Bellevue Feature is presented in Table 10. Because of the large uncertainties of each element and the poor definition of the feature at each level, the chance of success is considered the same at each level. The volumes of unrisked oil and gas for each level are presented in Table 11 to Table 15.

| Risk Factor | Percent |
|--------------------------|-------------|
| Charge | 20 |
| Reservoir | 40 |
| Seal | 50 |
| Trap | 10 |
| | |
| Chance of Success | 0.40 |

Table 10 – Chance of success of the Bellevue Feature

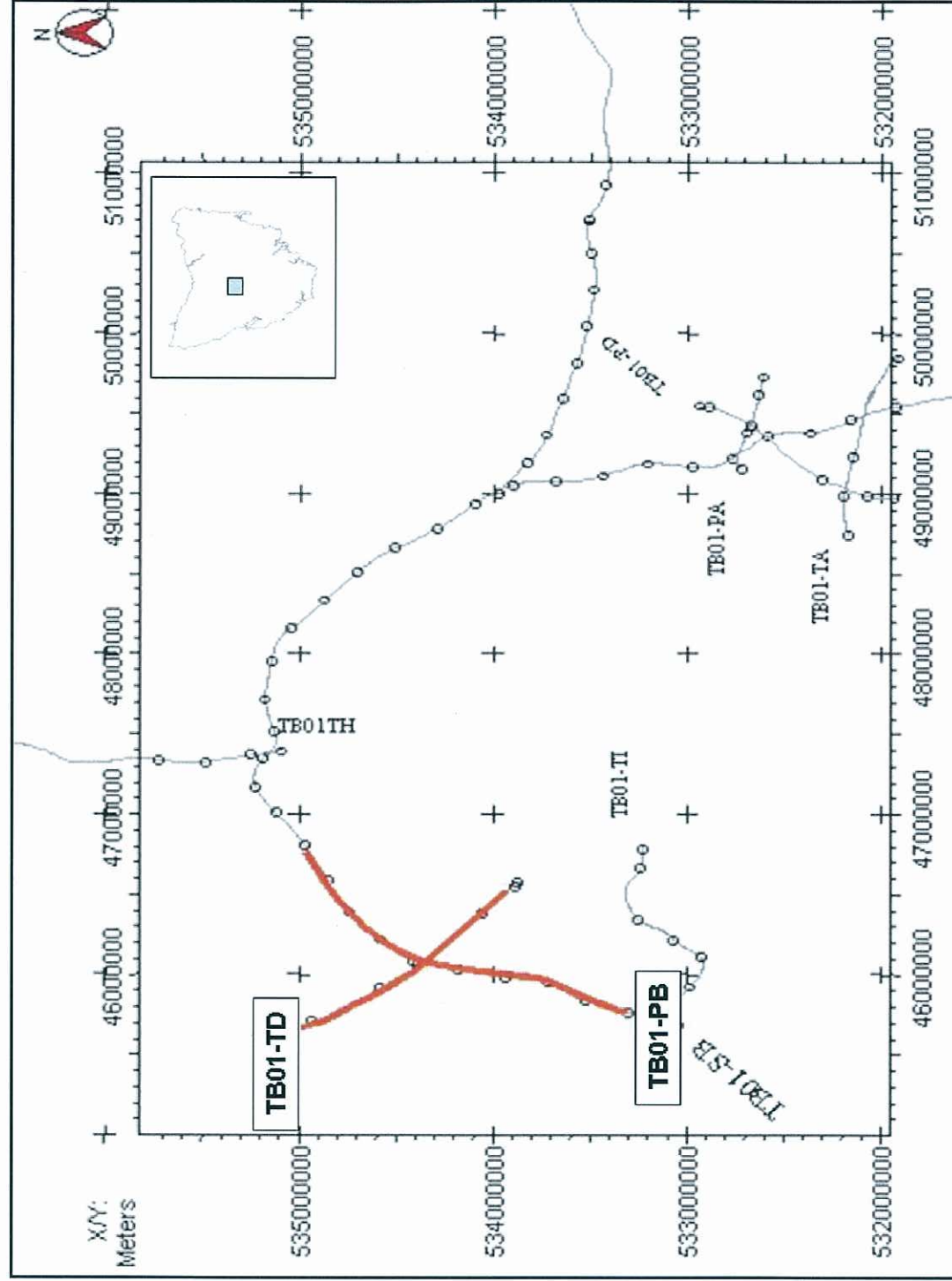


Figure 26 – Locations of seismic lines TB01-PB and TB01-TD