

## **Petroleum Group Committee review of BGS decision to relocate offshore hydrocarbon cores from Gilmerton to Keyworth**

Summary – 24<sup>th</sup> November 2009

### **Conclusions**

The Petroleum Group Committee ('PG') has endeavoured to offer a balanced and considered view to Council of GSL on the BGS decision to move core from Gilmerton to Keyworth. This view was informed by the committee's experience and that of the committee's colleagues, the 'Tribal' report, and PG discussions with BGS staff. PG considered the current facilities at Gilmerton and Keyworth, the intended new Keyworth facilities, usage patterns at Gilmerton and other related matters and concerns.

BGS evidently has the best intentions in its role as custodian and manager of the offshore core resource, and BGS staff running the various facilities are rightly credited in the Tribal report. However BGS is financially constrained, under pressure to reduce running costs and this context is evidently key to BGS' decision.

BGS assert Gilmerton usage is 20-25% from Scotland and whilst not an absolute or perfect measure, directionally this seems likely to be broadly reflective of use, although not all feel the statistic is truly representative. PG discussed with BGS what possibilities might exist to maintain Gilmerton but understands that site constraints and cost prohibit further substantive site development.

Current user facilities at Gilmerton are good but there are capacity limits. Current user facilities at Keyworth are less good but benefit from mechanised core handling, unlike Gilmerton. In the context of reducing BGS running costs through reducing number of sites and given the geographic spread of users, there is no optimum location for this core material. Keyworth is not a particularly accessible location but is not prohibitively inaccessible.

The planned new Keyworth site sounds like it will be a very good facility with two additional, large, confidential core viewing areas, mechanised handling and access to all the other on-site BGS facilities which may bring additional user benefits. A PG nominee has been invited to attend meeting(s) of the BGS Collections Advisory Committee meeting(s) where the facilities specifications are determined, in order to provide user input.

PG felt that an online core photographic archive could be a substantial additional resource to supplement the physical cores. For cost reasons this would best involve scanned original core photographs. BGS were enthusiastic about this possibility and will further explore with PG whether/how this could be realised. Additionally, PG considers that an industry-BGS dialogue would be beneficial regarding the possibility of BGS holding industry 'surplus' or e.g. resinated slab core on behalf of industry via a legacy storage payment mechanism.

Issues regarding transportation and preservation of core during transport were discussed at length. BGS has considerable experience moving core from Gilmerton to Keyworth, albeit not on the large scale of the planned move, but has well-established general processes. BGS has agreed to publish in due course details of the intended preservation/transport process with the intent of re-assuring users of BGS' stated confidence that this material, which currently resides in cardboard boxes (see photos below), can be safely moved.

Preservation during transportation was the most widely stated concern of the PG. Whilst PG was sympathetic to BGS' constrained position, and to the aspirations around the new facility,

until the packing/transport process has been analysed in further detail, costed and published, a majority of PG committee members were unwilling to wholeheartedly support the planned move at this stage.

Given the financial constraints on BGS, it is unfortunate to say the least, that the vocal public debate has focussed exclusively on the relatively narrow Gilmerton issue. BGS' decision is clearly driven by wider funding constraints which impact upon BGS ability to act as custodian of invaluable and essentially irreplaceable material which bears upon the UK's future energy security.

## **Introduction**

Petroleum Group Committee ('PG') was asked by President of GSL to review the above topic prior to GSL Council meeting on 25<sup>th</sup> November. PG endeavoured to do so in as well-informed and balanced a fashion as possible, informed by the experience of PG members and their colleagues, the Tribal report commissioned by BGS to assess options and recommend a preferred course of action, and both email and teleconference discussion with BGS staff. PG excluded consideration of BGS decision-making and consultation processes or other elements of the *status quo ante* which were felt not fruitful to explore.

The matter was debated in two teleconference calls between a subset of PG members, the second of which involved Richard Hughes (BGS Director of Information and Knowledge Exchange) and Ian Jackson (BGS Operations Manager). BGS input and assistance in clarifying matters and responding to PG questions is acknowledged and appreciated.

## **Discussion Notes**

### **Context of BGS Decision**

Perhaps not widely appreciated though explicit in the Tribal evaluation mandate is BGS driver to reduce running costs. BGS describes their financial position as "highly pressurised" and the geographic spread of curated data and material over multiple sites leads to excessive running costs. BGS has a duty to respond responsibly to this situation and can be readily seen to be in a situation of endeavouring to maintain a high standard and provision of service in a financially constrained environment.

### **Current facilities at Gilmerton**

Seen as broadly 'fit for purpose' from a user perspective (core description and core presentation/workshop), albeit often fully in use and hence needed to be booked some time ahead; could be larger. Considered readily accessible by public transport albeit distant for southern and international users. Recognition that manual handling issues exist at Gilmerton though HSE record understood to be exemplary.

*Question:* could Gilmerton be cost effectively upgraded to expand/improve viewing facilities and reduce the manual handling?

*Response:* BGS explained that palletised storage (per Keyworth) is the most efficient storage approach and cannot be accommodated at Gilmerton without a complete rebuild (ceilings too low, foundations too weak), involving temporary core storage and major user disruption, if indeed planning permission were securable, which was doubted.

### **Current facilities at Keyworth**

Seen by users as less amenable than Gilmerton; no separate fully enclosed viewing space and no facilities for more than one group to work privately, canteen shared with BGS staff and little offsite facilities. Not as accessible by public transport. Recognised that highly mechanised handling is in use and is operationally preferred as it all but eliminates manual handling.

### **New facilities at Keyworth**

BGS press release announces a new, purpose built facility at Keyworth. Unfortunately no detail on what is envisaged and how the facilities would compare with those presently at Gilmerton and Keyworth. Clearly if designed as, and funded to be a world class facility, this could be a considerable benefit, with greater proximity to BGS staff and analytical facilities but absence of detail allows room for a more sceptical view as to what may be built if funding is limited.

*Question:* what is planned at the new Keyworth facility and how will it compare with present Gilmerton/Keyworth facilities? Will BGS seek user input into requirements definition?

*Response:* BGS advised that Keyworth core storage will be doubled in size with mechanised racking and room for much future growth. Access to photographic, laboratory facilities, BGS staff and other on-site facilities seen as advantageous. BGS are reviewing other facilities to ensure best practice. Two confidential viewing labs to be established of a size akin to those at Gilmerton, additional to the existing viewing labs. PG would be welcome to visit Keyworth to review the existing arrangements. Also noted that the facilities do need to function to National Archives standards. BGS intend for a world-class addition to the existing facilities.

BGS invited PG to nominate an individual to attend BGS Collections Advisory Committee meeting(s) where the facilities specifications are determined.

### **Location and accessibility**

Various views expressed as to whether Gilmerton is or is not preferred over Keyworth. Those in N England/Scotland prefer Gilmerton. Those in central/south England seemed to prefer Keyworth, to the extent that preferences were expressed. General view that Gilmerton is more accessible because Edinburgh seen as better connected.

### **Transport of cores**

Substantial reservations raised as to the ability to shift such large quantities of rock to Keyworth. Assumed that the main holding of BGS is the biscuit cut, not resinated slabs, packed in cardboard boxes.

*Questions:* have transport/preservation costs been fully considered and factored-in to the cost-benefit analysis? Has there been consideration as to how to protect/preserve the core and what operational procedures to use to do so? What is the timeline – how long/will Gilmerton be out of action during any move? Whilst all the material in the store will have been moved there historically by lorry to its present location, will dozens of lorry convoys get the same care and attention as a single lorry dispatched by an operator? To what extent will the value of the resource be impaired by damage in transit?

*Response:* BGS have costed transport and preservation with a contingency to allow for areas where further work is needed to determine the optimum preservation

method (e.g. double-boxing) and are confident the £330k mentioned in the Tribal report is sufficient. Bar-coded and palletised boxes of onshore core have been dispatched from Gilmerton to Keyworth in presumably much smaller quantities over many years. BGS is not aware of damage to core as a result of such transport. Noted that some core is in a sub-optimal condition due to prior usage over the years.

At Keyworth, pallets are transferred direct into the racking. BGS would expect minimal user disruption at Gilmerton as the process is well-defined.

Details of the planned transport/preservation procedures are not fully defined but BGS are happy to publish these in due course and repeatedly asserted their commitment to move the material without damage and their belief based on experience that this is readily achievable. In the absence of detail on this process, a significant number of PG committee members retained reservations as to the ability to transport the core effectively. Some typical photos of current boxed Gilmerton core are attached.

### **Current Gilmerton usage patterns**

Tribal report is less than clear in terms of statistical analysis of usage. Seems intuitively difficult to accept that only 25% of use arises from Scottish users.

*Question:* What is a core store 'use' (sensu Tribal) and if considered in terms of core store days, would the 25% from Scotland statistic still be accurate?

*Response:* BGS advised "A core store "use" sensu Tribal is single invoice for commercial customers or a single waived (notional) invoice for academic customers. It might represent 1 or more labs for 1 or more days. On average, 1 core store "use" typically reflects 2.52 "core-lab days". During 2007-8 & 2008-9 Scottish academic visits averaged 1.9 "core-lab days" and Scottish commercial visits 2.0 "core-lab days", so the 25% Scottish usage is in fact an over-estimate and it should be approximately 20%".

*Question:* if BGS had looked at the origination of users (e.g. from the visitors book), what would be the usage distribution?

*Response:* BGS advised very difficult to assess usage on this basis due to data limitations and felt that if it were possible, such an approach would not substantially skew the outcome. BGS felt that invoice-based was the most objective way to assess the usage and they had done so in good faith to provide the best analysis.

### **Other**

Separation of physical core from core photos (incomplete suite in released well dataset as photos understood not to be an obligatory data release item) seen as a less than effective approach. A complete photographic archive of core, accessible online, would be a valuable and useful way to maximise the utility of this material and, whilst not inexpensive, could be recorded as part of any move process and associated re-boxing of material?

*Question:* could an online core photograph database be realised?

*Response:* BGS felt that cost to photograph would be prohibitive but if the operator's original core photographs could be compiled into a complete set and with necessary

permissions, there were no obvious technical barriers to creating such an online dataset, in the same way that NPD do in Norway.

PG undertook to further explore this idea with BGS and, if deemed realisable, to assist in securing the necessary data from operators as this would lead to an extremely valuable database, recording the condition of cores soon after their recovery.

Surplus industry core: there are suggestions, believed not to be apocryphal, that some companies have dumped core material deemed 'excess to requirements'. It seems extraordinarily short-sighted to be doing so if instead the material could be used to improve the BGS collection. Is there a communication channel from industry to BGS whereby alternative mechanisms for BGS to hold at least 'surplus' core, if not even hold a larger suite of core material from industry such as the resonated slabs, perhaps with a legacy payment to BGS? This deserves consideration through e.g. CDA, UKOG.

### Typical Gilmerton offshore core



