

ECIM



ECIM & CDA

Joint Data Management Workshop

Aberdeen

30th June 2015

Data Management during a Downturn Maximising the Value of Data Management

Proceedings

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1 Workshop Overview

1.1 Background

ECIM and CDA have agreed to work together in Europe to facilitate and encourage Data Management professionals to enhance their professional and technical competence, primarily through development, community building, and establishing a Body of Knowledge for the discipline.

As part of this work, both organisations have undertaken to organise a series of workshops on themes of immediate relevance to industry data managers based in Europe.

These are the proceedings of the first such workshop, held in Aberdeen on 30th June 2015.

1.2 Workshop Purpose

Over the past year, the oil price has fallen from over \$100 per barrel to a little over \$60. The impact of this fall on the UKCS oil industry has been dramatic, resulting in a number of short term measures to manage costs, and consideration of longer term measures to address regulatory, fiscal, and tax issues related to UKCS competitiveness.

However, recent studies¹ show that for the UKCS industry to remain sustainable at a \$60 oil price, a deeper, transformational change is required across the full oil industry supply chain, and that data, and data managers have a fundamental role to play in this change².

This workshop explored the structural issues within the UKCS industry cast into sharp relief by the low oil price, and considered the opportunities offered through effective integration of good data management practice throughout the oil and gas business value chain to improve cost efficiency, and reveal unexpected sources of further savings.

1.3 Workshop Programme

Start	End	
12:30	13:00	Tea, Coffee, and Registration
13:00	13:15	Welcome and Introduction – Malcolm Fleming, Chief Executive, CDA
13:15	13:45	Keynote: Evolution or Revolution: Creating a Sustainable Business in a \$60 World Mike Tholen, Economics Director, Oil & Gas UK
<p>Over the last decade, the industry has expanded on the back of strong oil price growth and lost its focus on bottom line performance. Now at a time of lower oil prices and diminished production, we need to reinvent ourselves to create a business that can survive and prosper in a \$60 world.</p> <p>Top quartile cost performance will be an essential first step, but we need to use all the knowledge, data and tools at our disposal if the industry is to be transformed. Efficient data management can help unlock value and promote growth in such a competitive environment.</p>		
13:45	14:10	Trusted Data at your Fingertips

¹ See, for example, the PwC report on ‘Seven fundamentals to drive excellence in oil and gas operations’ available at: <http://www.pwc.co.uk/oil-gas/publications/seven-fundamentals-to-drive-excellence-oil-gas-operations.jhtml>

² One of the eight Oil and Gas Authority highest priority actions identified in its [Call to Action](#) is to ‘improve the quantity, timeliness, and reliability of data available ... to the industry’:

Start	End	
		George Rorie, Subsurface & Wells Support & Deployment Manager – Europe And Sub-Saharan Africa, Shell Projects & Technology
<p>Technical data energizing the industry: how one major energy company is leveraging technical data to improve business performance. Learn how Shell is approaching the challenge of managing a huge volume of technical data, and using this to enable business improvements and innovative solutions.</p>		
14:10	14:35	The Role of Data Management in a Changed World Simon Cushing, Head of Strategic Consulting, Venture Information Management
<p>Oil and gas companies recognize that the application of data-driven techniques to optimize planning and decision-making has huge potential to help them compete in today's world, and to be successful in future.</p> <p>Successful initiatives in this arena are underpinned by a foundation of practical and fit-for-purpose data integration. At the same time, the need for many established data management tasks will diminish as automation increases and technology evolves.</p> <p>This presentation suggests information and data managers should seek to add value and develop their roles by helping our companies exploit their data, for example adopting analytical approaches in addition to established data management practices. This will be an important contribution to success in today's – and tomorrow's – market.</p>		
14:35	14:45	Question & Answer – Led by Malcolm Fleming
14:45	15:15	Refreshments and Networking
15:15	15:40	Four Reasons to be Cheerful: Practical Data Management and Application Ideas to Prove Value Jonathan Jenkins, Director, NDB Ltd
<p>Jonathan will present a quick review of how the downturn has affected the subsurface support business and look to stimulate discussion on how we remain positive and optimistic in the services we provide.</p> <p>To kick us off, he will present two discrete money saving ideas and two new data areas under explored and needing urgent attention that promise years of sustained demand. A Big Data free zone!</p>		
15:40	16:05	What is the Role of a Data Manager? Data Loader, Line Manager, Budget Holder, Business Analyst, Contract Negotiator, Leader? Jonathan Fleetham, Senior G&G Data Analyst, Maersk Oil
<p>Data managers more than ever before need to work and support many parts of the E&P business. Not only do they need to be able to provide domain knowledge around data and information, they must also be able to translate the high level requirements and objectives that our businesses set, by turning them into real deliverables, demonstrating cost savings, efficiencies and innovations.</p> <p>Jonathan will present Maersk Oil's experience in 2015, on what Data Managers must be doing to help contribute to our organisations' future growth.</p>		
16:05	16:40	Working Session: Putting Change into Practice – Led by Daniel Brown & Richard Salway
<p>An interactive group-working session, building on the information and ideas presented during the workshop, to identify realistic opportunities within data management to improve cross-industry cost efficiency in support of MER UK, and to determine practical approaches to deliver them.</p>		

Start	End	
16:40	17:15	Putting Change into Practice: Speaker Feedback and Panel Q&A Moderated by Malcolm Fleming
Time for the workshop speakers to respond to the opportunities identified during the working session, and for them to answer further questions on the workshop topic in an informal session.		
17:15		Close, and ‘grab a beer’

1.4 Workshop Presentations

The presentations given by each of the speakers are available to registered workshop attendees only at the ECIM Workshop website:

www.ecim.no/download3006

1.5 Guest Speakers

CDA and ECIM were pleased to welcome the following guest speakers to the Workshop:

- Mike Tholen, Economics Director, Oil and Gas UK
- George Rorie, Subsurface & Wells Support & Deployment Manager – Europe And Sub-Saharan Africa, Shell Projects & Technology
- Simon Cushing, Head of Strategic Consulting, Venture Information Management
- Jonathan Jenkins, Director, NDB Ltd.
- Jonathan Fleetham, Senior G&G Data Analyst, Maersk Oil

Full speaker biographies can be found in Appendix B: Speaker Biographies.

2 **Keynote: Evolution or Revolution: Creating a Sustainable Business in a \$60 World**

2.1 **Aim**

The keynote presentation was aiming to give a brief overview of the current economic climate of the UKCS, why the collapse in oil price may have occurred, what we can learn from other industries that have gone through a similar depression, and what we as an industry can do to recover.

2.2 **Presentation Overview**

Mike Tholen, Economics Director at Oil & Gas UK, opened the workshop with a presentation outlining the wider industry view of the current economic climate with a focus on what can be done to mitigate the impact of \$60 oil.

Mike presented the current view of the very demanding business environment of the UKCS: low oil price, low production rates and low drilling activity. The current climate also marks a predicted peak in expenditure in the UKCS with investment projected to fall to £6-9bn in 2016-17. For the first time since the 1970s the UKCS, basin wide, had a net annual negative cash flow.

The approach to mitigating the impact of the low oil price and the consequential drilling and production issues was summarised in the Wood Report's tripartite approach to maximise economic recovery in the UKCS (MER UK). This calls for a collaborative approach between the regulator (OGA), the treasury and industry to proactively tackle this multifaceted issue. It also calls for a stronger regulator presence to regulate, influence and promote investment in the UK.

This can be accomplished by reducing the tax burden that is diminishing the global competitiveness of the UKCS, encouraging transparency of data, revitalising exploration via the 21st Century Exploration Roadmap and the shooting of government sponsored seismic, and protecting critical infrastructure to avoid a domino effect of decommissioning.

These challenges are not unique to the oil and gas industry and lessons can be taken from other industries and what they learnt when faced with comparable problems. Cutting costs is not the only answer to the issue; efficiency and transformational change need to be scrutinised and implemented to be sustainable at \$60 oil. Furthermore, there is a limit to what individual companies can do in isolation. The key to having a competitive market at \$60 is pan industry collaboration as can be seen in the Efficiency Task Force.

This ethos can be applied to data management to improve business process, standardisation and promote better culture and behaviours.

2.3 **Conclusions and Q&A**

The takeaway from the presentation was the UKCS has the infrastructure and the knowledge to survive at \$60 oil but collaboration is needed to maximise the potential of the mature basin and remain globally competitive.

Question: Have we looked to other countries for advice?

Answer: Yes, other countries bordering the North Sea as well as others such as Australia were consulted along with other industries to see if applicable solutions were presented. However, the UKCS is unique in costs of production coupled with the current oil price resulting in a complex problem that no other country has experienced to the same extent.

3 Presentation: Trusted Data at Your Fingertips

3.1 Aim

Efficient data management requires as its foundation an optimised combination of tools, technology, and clear business process.

In “Trusted Data at Your Fingertips”, George Rorie described Shell’s approach to ensuring data is available to decision makers at the right time, and meets at least the minimum level of quality required.

3.2 Presentation Overview

George Rorie, the Sub-surface & Wells Support and Deployment Manager for Shell Europe, is a CDA Council and Board member, has previously led Shell’s European Data Management Team, and is a current member of the Shell Global Technical Data Management Leadership Team.

In 2009, Shell created a distinct hybrid organisation composed of IT, and Research and Development functions, bringing together into a single organisation those involved in the creation and deployment of IT solutions.

This ‘Technical and Competitive IT organisation’, or TaCIT incorporates Technical Data Management as a key discipline, recognised and trusted as a peer to the other sub-surface disciplines (Geology, Geophysics, etc.). This recognition has been key to improving the professionalism, influence, and capability of Data Management within Shell.

Shell believes that technical information technology is critical to its competitiveness, as evidenced by systems such as SIPMAP – the Shell-developed seismic processing software that originated as an internal Shell project, and has been in continuous development since 1975.

Technical Data is regarded as an operational asset, in which every Shell employee has a stake in its quality. Incomplete data increases risk. Risks require controls, and controls have costs. Running a business with insufficient data costs more. The challenge is to ensure the availability of the minimum amount of data required to make a decision. That data should be captured and assured up front, first time, and then relied upon.

To achieve this, a number of steps must be taken. Governance is needed to make and implement decisions on data standards. These require collaboration and innovation across the whole industry, and have the potential to reduce or eliminate rework and reformatting costs. This is an exciting challenge. Competence is also important – and should be defined and measured, and appropriate training provided to staff to gain the skills they need.

Embedding data quality maintenance should be considered a challenge in business culture change of equal magnitude to that of personal safety. Data Quality should become as instinctive as wearing a seat belt. The case must be compelling and obvious, and deviation uncomfortable.

Within Technical Data Management, staff members have access to career ladders equivalent to those available in the subsurface disciplines, as is to be expected by those embarking on new careers. Technical Data Management plans are embedded in each business unit. Shell has developed harmonised data quality standards, and a global data quality standard scorecard that has proved effective in driving beneficial managerial behaviours.

To succeed, data managers need to build examples of where data management has delivered – showcases of how user experiences can be different – and then make these the

norm, rather than the exception. This change needs the support of effective business data champions to make progress.

Shell is already making progress. George presented two examples: in the simplification of handover of engineering information in capital projects – where handover step itself was eliminated through use of data and information systems shared between the project and operations organisations; and the emergency response area, where data and systems required for emergency response management are also used on a day to day basis for more routine purposes, and hence are familiar, and contain data of a quality improved by day to day usage.

3.3 Conclusions and Q&A

George concluded by offering two questions that can be put to business leaders to help them understand the role of data in their organisations:

- How do you know you can trust your data?
- Which data is most critical to you?

It is George's view that despite current challenges, there has never been a better time to be in data management. Existential crises drive innovation, the business need is strong and compelling, and technology choices have never been more diverse, or better able to meet that business need.

Questioners raised the need, from a standards development perspective, to ensure representation of the International Oil Companies within the standards committee development SEG-Y2.

4 Presentation: The Role of Data Management in a Changed World

4.1 Aim

Simon Cushing, Head of Strategic Consulting at Venture Information Management suggests in this presentation that information and data managers in the E&P world need to take the initiative within their companies in extracting value from data. Traditional data and information management techniques will remain important but some skills will no longer be required as automation increases. Data managers must evolve and supplement traditional skills with data analytical techniques to exploit the value locked up in the data and information they manage.

4.2 Overview

Simon began his presentation with a look at the importance of the big new trend in E&P: data driven business optimisation. Big data and analytics are being heavily promoted both as a way of dealing with the volume explosion of acquired data but also to extract value from this data. Using data to inform decisions, improve productivity and reduce risk has always been important but now companies are starting to use multiple sources of data in combination to tell new stories.

Simon illustrated this with the ‘Getting value from data’ pyramid. At the base of this pyramid is ‘improved data management’. This can be seen as the traditional practice but with continual refinement applied to improve data integrity (quality, accessibility, relevance and standardisation). The aim is to step up the pyramid to ‘wider information integration’. By getting all the basics right, data can be integrated and combined in new ways. Finally by utilising analytical techniques and improved ‘analytical capability’, insight can be gained which will extract real value from the data beyond the sum of its parts.

The barriers to this are still however the same as they have always been, data quality, ease of use, integration and the challenge of scaling across the organisation. Compared to other industries, E&P generally has a low level of DM maturity. There is isolated good practice in some data architectures but generally data and information integration across silos, departments and disciplines is poor.

E&P data is often glibly described as an asset by oil and gas companies but is treated more as something that *describes* an asset and not as an asset in itself. Other industries actively manage data and information *for use* which leads to better integration, insight and monetisation of the asset (the data). The rise of the Chief Information Officer is testament to this going beyond IT and IM to actively chasing increased value from data and information.

Historically the focus of data and information management in E&P has been around the bottom of the pyramid in data integrity. The real value adding contribution that could be made by data and information managers however is higher up the pyramid. So how can this be achieved?

- We need to work across silos in partnership with all other aspects of the business to help identify what questions we need to answer and then to help find the answers in the data and information both as it comes and when combined together in new ways.
- We need to be enquiring and flexible. Information managers are technical generalists who need to be aware of many different disciplines and not focussed down technical cul-de-sacs. We need to be aware of the use cases for a wide range of data types and help our customers (who usually are focussed down technical cul-de-sacs) look into the next street at what others are doing.
- We need to actively encourage collaboration and collaborate actively with others.

- We need to understand our data and continually update our skill sets.
- We need to put our data to work.

4.3 Questions

A questioner observed that treating data as a corporate asset which will give your company a competitive edge is at odds with the concept of MER UK. This might be good from a selfish shareholder point of view but needs to be overcome regarding E&P G&G data if MER UK is to succeed.

Simon agreed, but emphasised that, for G&G data more sharing and collaboration is needed.

A further question related to the pyramid, seeking examples from other industries where the shift to analytics has proven its worth. Simon highlighted the investment made in the football industry in applying real time data analytical tools to live video analysis of football players' performance on the field, used to inform the club manager during the game of when a player needs to be substituted.

Question 3

Simon's final question related to how the value of data as an asset might be 'sold' to the business? He responded that if through scenario planning you can show where your savings can be and if you can show how you can do it in hours rather than weeks they will go for it. Data managers need to become more like business analysts and be proactive rather than reactive and really take our ideas to the business.

We need to use the language of standard business practices (to get the message across) but these standard business practices can also be a barrier to looking at things differently. It is hard but cultural and behavioural change needs to happen.

A good example from industry is the recent work done by the OGA on well failure analysis. Case studies have shown that much greater cross discipline integration amongst the technical teams could have avoided dry holes being drilled.

5 Presentation: Four Reasons to be Cheerful

5.1 Aim

Despite the challenging business climate (particularly felt in consultancies and service providers at the end of the supply chain), Jonathan Jenkins, Director of NDB Limited, provided at least four areas for hope, and in which creative business minds could seek new opportunities for activity, growth, and investment.

5.2 Presentation Overview

In challenging economic times (projects postponed, rates reduced, sub-contractors eliminated, and requests for efficiencies non-stop), there are still opportunities out there for creative, business-minded data managers to identify and grow new business.

Firstly, production data – the ‘last taboo’ – is an area of increasing regulatory interest, and an NDB client survey reveals substantial uncertainty in the volumes of fluids flowing into, and out of UKCS wells, as provided by well operators.

A fresh approach to production allocation is required to ensure figures used to support decisions on areas ranging from well investment to field Cessation of Production are as good as they can be. Few operators have central data stores offering a single source of truth for all fluid flows within a well – but such a data management system is well within the professional grasp of G&G data managers. This is just a different data type.

Secondly, there are improvements we can make in how data managers and business process come together. Workflows printed and stuck to walls are no help – we don’t need outdated processes painstakingly documented, but the minimum level of process documentation required to deliver a job, ideally embedded as guidance within tools and systems (can we improve on Microsoft’s “Clippy” paperclip?), rather than look up of the next step on yellowing wall chart.

Jonathan’s third point related to the impact of the current crisis on the corporate memory. “Only” 9% of jobs will go – but this 9% is likely to incorporate a high number of those ready to opt for retirement, representing a disproportionately large impact on the availability of corporate knowledge. A Data Management Maturity Survey helps to identify risk areas to work on, while also highlighting the role of process and procedure as guidelines for the wise, rather than rules requiring unswerving obedience: managed process flexibility is a hallmark of high maturity.

Finally, Jonathan observed that the data management requirements for meeting decommissioning obligations are substantial, and are likely (he feels) to be an area of increased regulatory focus. Preparation now, through audits of PON9 compliance, will save money in the long term.

Putting the above together, Jonathan finished by quoting the 1% rule: that a number of small improvements, put together, can have a dramatic impact on the effectiveness of an organisation. We should remember that data is recognised as critical to the business, and that data managers can make a real, sustainable difference to business performance.

6 Presentation: What is the Role of a Data Manager?

6.1 Aim

The events of the last year have involved Jonathan Fleetham, a Maersk Senior Data Analyst, in activities not normally considered “Data Management”. Here, he revisits our understanding of what it is to be a data manager in a modern oil and gas company, and what this means for our professional development needs

6.2 Overview

Over the last year, Maersk Oil has been through two significant cost reduction exercises: an initial round of rapid cost control (referred to as “Fit for Growth”), followed by a longer process of cost transformation, that continues to the present day. The activities required of data managers during this work has led Jonathan to question his conception of what it means to be a “Data Manager”.

For example, the Fit for Growth process required more contract management, than data management skills. Contracts and spend were reviewed, resulting in a renegotiation of all key contracts, a 30% headcount reduction, a corresponding 2015 budget reduction, and a set of annual objectives with a focus on contract and spend management. Some outcomes of the process were within Jonathan’s control; but others were made externally, due to financial imperatives, and their consequences just had to be accepted, and dealt with.

As an upside, insourcing of work resulted in opportunities for some team members to perform tasks that would normally have been performed by contractors, providing unexpected training benefits.

In thinking through the range of work performed over the last twelve months, Jonathan arrived at the following categories:

Service delivery: the need to keep the lights on, but also be clear on what can be turned off, postponed, or slowed, with an acceptable business impact.

Budget and contract management: in which data managers need to remind themselves of what is in the contracts that have been signed by the company – as the other party cannot be relied on for this.

Simplicity, Efficiency, and Innovation: seeking opportunities to make the business more agile, so it can easily scale up, or scale down as demand changes, whether through insourcing, outsourcing, offshoring, etc. Improving business process efficiency requires time that is hard to find when 30% of the workforce has been cut.

Change Management: individuals can only handle so much change at a time.

Business Analysis and Project Management: skills that data managers needs to have to effect real, lasting change.

Negotiation skills: arising from training within Maersk in its shipping arm, and extremely useful, although often require broader influencing skills that are less teachable. These are required to counter ideas for cost savings that might offer a short term gain for a much larger, long term loss, to make sure issues are not just kicked down the road.

Finance: as to be seen as credible, data managers need to have their finances in order.

Jonathan finished by summarising the opportunities that data managers have to make a positive impact to their industry. He acknowledged the suggestions of previous speakers, but also emphasised the role of collaboration in the future UKCS, that a balance needs to be

DM during a Downturn – Maximising the value of Data Management

struck between data managers' instincts to keep everything, versus the real need to declutter; and to approach all of this from a business perspective.

To make a truly effective contribution at this time, data managers should understand the economics of the business they work in, and what is needed to ensure it remains economically viable.

7 Working Session: Putting Change into Practice

7.1 Aim

This session was jointly led by Daniel Brown and Richard Salway of CDA with the aim to build on the information and ideas resented during the workshop, to identify realistic opportunities within data management to improve cross-industry cost efficiency in support of MER UK and to determine practical approaches to deliver them.

7.2 Presentation Overview

The working session was an interactive group session with the workshop split by table to discuss problems and solutions to the biggest challenges facing individual companies and industry as a whole.

Each group was tasked with identifying the most significant data management challenge or contribution to cost efficiency that is internal to the individual organisation and also the most significant data management challenge or opportunity that is external to the individual companies. The group then presented back to the workshop with the goal, reality, obstacles and way forward for the chosen challenges.

The internal challenges identified ranged from communicating the value of data management to senior management to the cost of storage and full trust in the accuracy and validity of data. External challenges focused on standards and taxonomy across the industry.

7.3 Conclusions

The session aimed to deliver actions that can be taken as individuals and collectively to contribute to the goal of becoming sustainable in a world of \$60 oil.

The session highlighted that each company is experiencing internal challenges and that other companies may have encountered similar obstacles which lessons can be learnt from. The session also allowed the companies to discuss the shared problems the industry is facing and debate collaborative ways to solve them.

8 Plenary: Question & Answer

8.1 Aim

This final session in the workshop aimed to address any remaining questions participants had for the presenters; and also to develop a consensus on areas where further collaborative work is required, either through subsequent workshops, or more immediately as an industry working group

8.2 Process

Malcolm Fleming presented a number of themes arising from the workshop, and asked for a show of hands to indicate the level of associated participant interest. The results were as follows:

Theme	Votes
Decommissioning: how to reduce costs further	22
How can Data Managers contribute to reducing the failure risk of exploration wells?	9
How can we address the storage conundrum: that destroying redundant data in storage costs more than keeping it there?	21
How do we achieve recognition of Data Management as a professional discipline?	10
Do Data Managers have the right skills to contribute to the \$60 challenge?	2
Is there interest in a collaborative project related to Data Management Benchmarking?	7
Ideas and candidates for the Big Prizes that can be realised through more and effective collaboration	31

8.3 Conclusions and Q&A

Two themes were taken forward for further development: Decommissioning; and the opportunities made available through collaboration.

8.3.1 Decommissioning

A number of decommissioning issues were discussed, including the current perceived lack of guidance available as to the process, growing understanding that the data activities required to support decommissioning must start well before CoP (as good data is required to develop good decommissioning cost estimates), and the need for interdisciplinary involvement from pipeline, subsurface, and engineering teams, amongst others.

General support was expressed for a workshop to be held on this theme, in Aberdeen, later in the year.

8.3.2 Big Prizes in Collaboration

Ideas for Big Prizes arising from more effective collaboration were suggested in the areas of,

- Production Data
- Common Standards
- National Data Repositories
- Quality Assurance of Data (in relation to compliance requirements anticipated from the OGA)
- Analytics
- Sharing of documentation relating to Licenses
- Life of Field Data

Malcolm proposed that these ideas be ranked in the usual 2x2 grid, showing impact against the easiness with which the idea could be implemented.

There was general support for a further meeting to progress this area, later in the year.

9 Appendix A: Workshop Attendees

Organisation	Delegate Name
Accenture	Martin Mackenzie
Apache North Sea	Lewis Faryma
BP Exploration Ltd.	Izzi Davidson
BP Exploration Ltd.	Isobel Emslie
Cegal	John Sayer
Cegal	Jeremy Trenchard
Centrica plc	Hazel Cowan
Centrica plc	David Sneddon
CGG Data Management Services	Christine Butler
Chevron North Sea Ltd.	Will Jones
CNR International (UK) Ltd.	Judith Rennie
Common Data Access Ltd.	Terry Alexander
Common Data Access Ltd.	Daniel Brown
Common Data Access Ltd.	Malcolm Fleming
Common Data Access Ltd.	Raye McRitchie
Common Data Access Ltd.	Richard Salway
Common Data Access Ltd.	Sakthi Sithamparanathan
ConocoPhillips UK Ltd.	Chris Bamber
ConocoPhillips UK Ltd.	Arunkumar Chithambaram
ConocoPhillips UK Ltd.	Ashley Dunlop
ConocoPhillips UK Ltd.	Andrew Reader
ConocoPhillips UK Ltd.	Marcia Ritthammer
CouttsGibb	Paul Gibb
DataCo Ltd	Jane Hodson
DataCo Ltd	Madubuko Okoro-Ogbobe
E@P Consulting Ltd	Gerard Lyons
ECIM	Reidar Kalvig
EnQuest plc	Neil Murray
Flare Solutions	Lee Hatfield
GDF Suez E&P UK Ltd.	Nick Fosbery
GDF Suez E&P UK Ltd.	Emma Stokes
Geotech Systems Ltd	Gareth Grundy
Interica Ltd	Jamie Hisee
Iron Mountain	Pamela Leadbeatter
Iron Mountain	Douglas Paul
Katalyst Data Management	David Norburn
Llahven Ltd	Neville Hall
Lockheed Martin	Jennie Morrison
Maersk Oil North Sea UK Ltd.	Jonathan Fleetham
Marathon Oil U.K. LLC	Stan Milne
Merlin Energy Resources Limited	Felicity Goldrick

Organisation	Delegate Name
NDB Ltd	Jonathan Jenkins
Nexen Petroleum UK Ltd	Dayo Adebayo
Oil & Gas UK	Mike Tholen
Schlumberger	Martyn Lyons
Shell Exploration & Production Ltd.	Jeannie Bowman
Shell Exploration & Production Ltd.	Sarah Cormack
Shell Exploration & Production Ltd.	Angus Dobbie
Shell Exploration & Production Ltd.	Katie Izat
Shell Exploration & Production Ltd.	Kevin McLay
Shell Exploration & Production Ltd.	Andrew McNeil
Shell Exploration & Production Ltd.	George Rorie
TAQA Bratani Ltd.	Sheena Hickey
TAQA Bratani Ltd.	Susan Robertson
Torriconia Ltd	Henry Allen
TOTAL E&P UK Ltd.	Karin Grindrod
Troika International Ltd	Audrey Hughes
Troika International Ltd	Jill Lewis
Venture Information Management	Phil Brading
Venture Information Management	Simon Cushing
Venture Information Management	Alex Kinash

10 Appendix B: Speaker Biographies

<p>Mike Tholen Economics Director, Oil & Gas UK</p>
<p>As Economics Director for Oil & Gas UK, Mike seeks to foster a business environment which sustains the competitiveness of this mature oil and gas province. Particular responsibilities within the oil and gas industry trade body include fiscal and energy policy and regulatory affairs. He is actively engaged with HM Treasury and the OGA on the future of the UK oil and gas fiscal and regulatory regime which will be critical to deliver the full potential of the basin.</p>
<p>George Rorie Subsurface & Wells Support & Deployment Manager – Europe And Sub-Saharan Africa, Shell Projects & Technology</p>
<p>George works for Shell’s Project and Technology organisation, responsible for the introduction and ongoing operations of software and data standards for Subsurface Technical Professionals. He has 25 years of experience in the Oil industry in a wide range of IT and Data Management roles. His academic background is in Computer Science and Electrical Engineering. He is currently a member of the CDA Council and CDA Board.</p>
<p>Simon Cushing Head of Strategic Consulting, Venture Information Management</p>
<p>Simon has more than 25 years’ experience in the upstream oil and gas industry, with a focus on gaining business value from petrotechnical technology and data, information and knowledge management. He has developed Venture’s Academy and Learning Services, and is active in several of the industry’s current professionalization initiatives.</p>
<p>Jonathan Jenkins Director, NDB Ltd</p>
<p>Jonathan Jenkins has a solid Oil and Gas background, having started as a mud logger in Angola before moving on to become a geophysicist in Venezuela and a radar interpreter in Canada. Whilst working for Landmark in Texas, Jonathan helped integrate disparate technologies and became an expert in pushing seismic interpretation to the limit using waveform shaping analysis. After co-founding NDB in 2004 his technical skills ebbed away but he is fortunate to have a great team with him who can walk the talk.</p>
<p>Jonathan Fleetham Senior G&G Data Analyst, Maersk Oil</p>
<p>Jonathan Fleetham is responsible for operational data management support for Maersk Oil’s UK business unit. He has 19 years’ E&P experience in the UK and Norway, fulfilling a variety of service delivery roles with Venture IM, SIS and Fugro Robertson, and holds a BSc (Hons) in Geology from Royal Holloway University of London.</p>