

**ISCWSA - Operator Wellbore Survey Group (OWSG) Meeting**  
**Held at OXY – Houston, TX**  
**23 Jan 2014 – 11:30 to 17:00**

**Agenda:**

1. OWSG Standard Error Model Set – It has been questioned whether the ISCWSA (OWSG is an ISCWSA working group) should properly endorse specific error models. This should be discussed and is expected to be put to a vote at the next general ISCWSA meeting. Pete Clark and Son Pham can give an update on availability of the models in Compass IPM format and on the documentation. The models in Excel format are available at Steve Grindrod's website:  
<http://www.copsegrove.com/Pages/OWSGSurveyToolErrorModels.aspx> Has anyone done comparisons of the various models? Especially using the Anti-collision committee standard set of well paths?(Those well paths are at [http://www.iscwsa.net/index.php/download\\_file/view/241/85/](http://www.iscwsa.net/index.php/download_file/view/241/85/) as a .docx file with and embedded .xlsx file)
2. Differences between the OWSG MWD error model and the industry standard error model. This is in the axial interference term – a change from  $0.25 + 0.6 \sin(\text{inc}) \sin(\text{azim})$  degrees to an allowable 300 nT of Z-axis interference. The effect varies with geomagnetic latitude. I hope to have some examples of the practical difference this may make on ellipses, and how this might change how non-mag spacing is calculated. Perhaps Pete Clark or Son Pham can discuss why this change was made?
3. As I recall we never got to the API Well Name/Number recommendations from David Baker (unless I was not paying attention). This would be useful and interesting for the group.
4. Probability of Collision – I can show how I have been doing this for new horizontals to old near-vertical wells, with a simple spreadsheet calculation. This is a simplification of the method in SPE-36484 (Williamson, 1998)
5. OWSG Survey Good Practice recommendations – how to proceed and get some hard recommendations. I presented a very general overview at ISCWSA #39 (New Orleans) at [www.iscwsa.net](http://www.iscwsa.net) >meeting minutes. Direct Link:  
[http://www.iscwsa.net/index.php/download\\_file/view/237/75/](http://www.iscwsa.net/index.php/download_file/view/237/75/)
6. Raw Sensor Data / Survey Data Transfer format update – Mark Michell is working on this under the auspices of the OGP as an update to the OGP P7 format.
7. Next generation MWD tools – discussion of what is needed and practical for the next generation of survey and ranging tools, and how to encourage development.
8. Brian Mracek of Brion Energy sent me a presentation about TVD comparisons in their SAGD wells which we might use as a starting point for discussions of how to improve TVD measurements.
9. Pete Clark (ISCWSA Chair) or Son Pham (ISCWSA Program Chair) should be able to give some details about the next general ISCWSA meeting. They will be putting together an agenda for that meeting so contact them if you have suggestions or a presentation.
10. Angus Jamieson is teaching a Wellbore Survey Focal Point class in Houston that week. There may be an opportunity for a social meeting at a local pub with Angus and/or some of his class after the formal meeting.

**Attendance & Contacts – refer to the contact and attendance list.**

**Meeting Notes:**

Lunch and Social Time

Welcome / Site Safety Orientation

Anti-Trust Statement:

- We are meeting to help develop and promote good practices in wellbore surveying necessary to support oil and gas operations which enhance safety and competition.
- The meeting will be conducted in compliance with all laws including the antitrust laws, both state and federal. We will not discuss prices paid to suppliers or charged to customers nor will we endorse or disparage vendors or goods or services, divide markets, or discuss with whom we will or will not do business, nor other specific commercial terms, because these are matters for each company or individual to independently evaluate and determine.

OWSG Mission Statement:

- To promote practices that provide confidence that reported wellbore positions are within their stated uncertainty.

OWSG Recommended Practice – declination and Convergence (Pete Clark)

- Follow-up from previous meeting
- Presented draft for release to be published on the ISCWSA.net website.
  - Objectives
  - North reference
  - Declination
  - Convergence
  - North Arrow
  - Example North arrow
- Recommended change - Replace Direction Driller to Surveyor and witnessed by the Directional Driller
- Recommended change - Once survey is inputted then provider must verify the output.
- Pete will send out with corrections then give group some time to comment and then publish on ISCWSA.net (target to finish by end of February)
- Maybe should publish under OWSG Good Practices (Common Minimum Practices)
- Propose update this format in the eBook
- Roger will work on the Wall plot and AC checklist (Jonathon, Avinash, & Roger)
- David – Propose setting up base camp for sharing and editing documents (Pete will check with SPE) – can be applicable to the ISCWSA as well (may be funded by SPE)
- EOWR Common Minimum Practices (Lisa, Avinash, Nestor)
- Ed will lead development of Common Minimum Practice for Survey (Ed, Bert, David) – surface accuracy – should be put together a workflow. As built surveys (as drilled survey) – include statement of accuracy. Promote consistence for all operating areas. Include EPSG. Surface location survey deliverable. Mark will communicate with the APSG for definition.
- All members desire to have a Tool Error Model based Field Acceptance Criteria (FAC).

OWSG Standard Tool Error Model Set

- [Steve email and models sent out initially to key service, software, and consultants](#)
- [Pete then forwarded email to rest of OWSG](#)
- [Published on Copsegrove development website](#)
- [Pete showed Model selection spreadsheet. – will be sent out with the meeting minutes](#)

- Pete is working with Peleton to develop this in WellView (to be implemented in WellView 10).
- Jonathon suggested passing this onto Petrel, Paradigm, etc. Pete and Steve Mullin met with APSG. Another ATW regarding position uncertainty.
- SPE Paper will be at ATCE in Amsterdam
- Work as a group to get the OWSG Tool Error Models to get converted to IPM files (Son, Pete, Lisa, Steve, and Jerry).
- In relation to ISCWSA – OWSG – developed under the guidance of the OWSG group – does not exclude any other error models. Discussed AMIL Axial Interference term.

#### API Well Name / Number update (David Baker)

- PPDM (Professional Petroleum data Management Association)
- Revised API Number and Global Well Identification Framework (Dallas Data Management Workshop, 5 December 2013)
- Global Well Identification Framework
  - Purpose – practice for ID wellbore, independent of country, Province & Company. Follow with “What is a well?”
  - Global Framework Specifications
  - Principles
- Updating of the API Bulletin D12A (last published in 1979)
- Drilling environment has changed with Multi-lateral and Identify ALL wellbores
- Guiding Principles
  - Every well and wellbore is identified by an API Number
  - The API number is a unique number
  - The API number is a permanent number
  - The API number from the Primary Assigning Authority supersedes any other Identifier in public circulation
  - Every API number is related to a well origin
  - The API number conforms to this standard
  - The principles are hierarchical
  - Designed to be applied
  - [www.ppdm.org](http://www.ppdm.org)

#### Mission Statement and OWSG Organization

- How often should we have these meetings
- Proposed meeting once every quarter – or every two months and skip when we have ISCWSA Meeting
- 20 March for the next meeting BP will host
- BP and ConocoPhillips for the next two meeting
- Brainstorm list Prioritize
- How do we stream raw sensor measurement via WITSML?

ISCWSA Meeting – Most likely 8-9 May 2014 (Thur – Fri) – Long Beach, CA –