

**ISCWSA - Operator Wellbore Survey Group (OWSG) Meeting**  
**Held at Southwestern Energy – Houston, TX**  
**14 November 2013 – 11:00 to 17:00**

**Agenda:**

- 11:00 Thanksgiving Lunch
- 12:30 Welcome and Agenda ; Site Safety Orientation
- OWSG Mission Statement and Anti-Trust Statement
- OWSG Standard Tool Error models Update (Pete Clark / Son Pham)
- Status of LinkedIn groups
- ISCWSA #38 (New Orleans) recap / discussion
- SPE Hits and Misses Workshop recap / discussion
- Comparison of ranging methods
- Performance and their impact on MWD survey requirements (open discussion)
- Recommended practice for Declination & Grid Convergence (Pete Clark)
- Probability of Collision for right angle intersections (discussion)
- Separation factor by Expansion (discussion)
- OWSG Survey Good Practice Recommendations (Neil Bergstrom)
- How to move forward with this?
- Raw Sensor Data / Survey Data format update (Mark / Pete)
- Next-Generation MWD tools (discussion)
- Next meeting agenda, Date, & Location
- Other business as needed
- After meeting social hour / dinner for any interested. Location TBD

**Attendance & Contacts**

**Meeting Notes:**

Lunch

Site Safety Orientation

Review of Agenda:

OWSG Standard Tool Error models Update (Pete Clark / Son Pham)

- Presentation from Steve Grindrod's Sub-Committee update
- Include ATW poster
- Set A, B, D, and E Don
- Set C waiting on two additional updates
- Emphasis that Set C only checked to confirm with ISCWSA
- These are ISCWSA compatible models
- OWSG distributed model (supplied model)
- Maybe include and open source disclaimer – Use at your own risk
- Misalignment term increased from 0.06 to 0.1 deg
- Verification level for set A and B
- Initial email will be sent out to key directional software vendors and then will be forwarded to OWSG members
- Checksum and individual vendors should build in security
- BP already doing internal test of software releases before it is approved for global use. Industry needs similar tests.
- Develop a venue so vendors can perform test and have opportunity to improve on software silently.
- Ed Dew – do we have any test wells where we can perform test and calibration. Is this a potential JIP for the industry? Maybe Angus J. would be a good focal point. DEA is a potential. Train up Pike's Peak?

#### 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.

#### Status of LinkedIn groups

- Ed Dew suggested that we post some MWD LinkedIn discussion on the ISCWSA LinkedIn.

#### ISCWSA #38 (New Orleans) recap / discussion

- Automated magnetic ground shot instrumentation – Alexandre Gonsette
- Automated Collision scans – Carol Mann. As an operator group, this can be promoted to be part of software features. David B. is there a standard projection method? BP looking 200 – 300 ft ahead to project trend. Pete C. suggested that we take on standard procedure for projecting ahead. Oxy projecting ahead min. of 500ft because drilling is so fast and as we get closer then we need to increase the frequency. [Jonathan and Roger will produce a draft for guideline for projecting ahead for the next OWSG meeting.](#)

#### SPE Hits and Misses Workshop recap / discussion

- Talked about the Grand Canyon well and why it was off by 200 ft. Jonathan L. has some good photographs of this well.
- One of the big challenges of Anti-collision is a sound database
- Notes and some of the presentation will be available on the ISCWSA web site.
- [Suggested that Roger G. present it at the next OWSG meeting. 45 min. for the next meeting.](#)
- Traveling cylinder exercise can be provided by Ian Mitchell. Thought it was quite useful.
- ISCWSA had the Denver meeting to attract land people.
- Good distribution of attendance from both operator and service companies.

#### Comparison of ranging methods

- Summary comparison from Neil B. Access independent and access dependent method.

#### Real-time Anti-Collision Work Flow Process (Roger Goobie)

- Allowable deviation from plan
- As risk increase (with projection ahead) survey frequency
- Real-time where multiple users can look at the same data
- Can send information to IPAD or smart phone.
- Can send text to speech – can send text
- AC monitoring GUI – Traveling cylinder and ladder plot – on ladder plot
- With target well in the center, what is the eou of the offset well
- Magnetic scan line – when closer then can expect magnetic interference

- Traveling cylinder with all error transferred to offset well.
- Allowable deviation distance. Risk analysis.

#### Recommended practice for Declination & Grid Convergence (Pete Clark)

- Objective Recommended practice for Declination and convergence – short and concise
- Promote consistency with DD/MWD provider and directional software companies
- To be published on the [www.iscwsa.net](http://www.iscwsa.net) web site.
- Recommended practice scope
  - Plots and report
  - How do we get it to rig site to get it correctly implemented
  - EPSG code included (as recommended practice)
  - For location for convergence value calculation (have Long/Lat, rid AND Name)
  - Leave out the wellbore orientation arrow (NOT include this as an option)
  - Spell out exact description of correction
  - Keep it all consistent and keep all three arrows TN GN and MN
  - Valid date? Still to be discussed.
  - Recommended that DD sign off as witness
  - Group in agreement with the recommendation – Pete will send out the revised draft

#### Grid Convergence (David Baker) – Description and Calculation

- Anyone can calculate grid convergence – how do we check it?
- GeogCRS.datum = ProjCRS.Datum (org)
- Simple method for grid convergence
- Do the error models have a LaPlace correction – but general response is that the value is so small that the correction is not necessary

Performance agreement and their impact on MWD survey requirements (open discussion)

Probability of Collision for right angle intersections (discussion) – not covered

Separation factor by Expansion (discussion) - not covered

OWSG Survey Good Practice Recommendations (Neil Bergstrom) – not covered

How to move forward with this? – not covered

Raw Sensor Data / Survey Data format update (Mark / Pete) – not covered

Next-Generation MWD tools (discussion) – not covered

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