

Operator's Wellbore Survey Group ISCWSA OWSG Sub-Committee Report

API RP 78 WELLBORE POSITIONING



Agenda

- OWSG Report
 - Mission & Introduction
 - Anti-Trust
 - Recent Meetings
 - Meeting Topics in 2022
 - Focus Areas
- RP-78 Update
- Q&A

Agenda

Operator's Wellbore Survey Group

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

- OWSG Founded in 2012
- Sub-Committee Chair Jonathan Lightfoot (Oxy)
- Schedule 6 Meetings a year (Every other Month)
- 2022 Meetings: Jan 25, Mar 29, June 13, Aug 09, Sept 28
- Upcoming Meeting: Nov 22 (Houston Pot-Luck Lunch) In Person

OWSG Overview

Anti-Trust Statement

We are meeting to help develop and promote good practices in wellbore surveying necessary to support wellbore construction 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.

Anti-Trust Revision 4

Meetings

- Microsoft Teams Virtual Meetings
- Fourth Tuesday of every other Month
- 2023 Schedule: Jan 24, Mar 28, May 23, July 25, Sept 26 & November 28
- Time: 8 am 10:30 am Central Standard Time (US Houston Time)
- Core Membership Exploration & Production Operators
- Meetings are open to all Major, Medium, Small, Independent & National Oil and Gas Production Companies and Service Providers
- No membership fees or dues required, Free to participate
- 3-4 Planned Collaboration Discussions and/or Presentations Each Meeting
- Discussions geared towards Operator Issues and Practices

The Industry Steering Committee on Wellbore Survey Accuracy (ISCWSA)

Recent Attendees

- September 28, 2022
- 25 Total
- 16 Operators
- 9 Non-Op Guests

Name	Operator Affiliation
Jonathan Lightfoot	Оху
Pete Clark	Chevron
Dalis Deliu	ConocoPhillips
Frank Gao	Оху
Tatiana Gobert	Оху
Ryan Carlson	XTO (ExxonMobil)
Juan Sierra	Оху
Matt Weber	Shell
Bill Allen	Вр
David Baker	ConocoPhillips
Juan Jose Exposito	CEPSA EP SA
Heather Vannoy	EOG Resources
Nicholas Robertson	Вр
Matt Weber	Shell
Will Tank	Оху
Petter Kvandal	Akerbp

Guest Name	Affiliation
Philip Gurden	Gurden Technical Consultancy
Tim Paton	Superior QC
Mike Calkins	Three Sigma Well Design, LLC
David Gutierrez	Superior QC
Chad Hanak	Superior QC
Marc Willerth	HP Tech
Jerry Codling	Halliburton
Adrian Ledroz	Gyrodata
Philip Harbidge	Path Control

OWSG Meeting Topics in 2022

- API RP-78 Will Tank
- Power BI Well Placement Dashboard -Nicholas Robertson (bp)
- Independent Advanced Magnetic Survey Correction Verification & Evaluation Workflow – Chad Hanak (Superior QC) & Phil Gurden (Gurden Technical Consultancy
- Practical Solutions for Everyday Purvey Issues – Permian Basin Case Study – Dalis Deliu (ConocoPhillips)
- Drillbotics Introduction Fred Florence

- IOGP P7 Adoption Discussion
- Wellbore Quality Metrics The Precision Placement Value Proposition
- MWD Sensor Calibration & Lab Standards
- Advanced Trajectory Design with Bezier Curves – Ali Karimi (Oxy)
- Intro to Sustained Inclination & the Measure of Lateral Straightness – Pete Clark (Chevron)
- Review Upcoming Events

OWSG Topics

Focus Areas

- Operational Practices
- Realtime Drilling Automation
- Management of Change & Safe Separation
- Human Factors
- Industry Collaboration
- Feedback to ISCWSA Sub-Committees Operator Challenges & Needs
- Consistent Approach for Wellbore Trajectory Related Quality Metrics
- Outreach to Geothermal, Carbon Sequestration, HDD (Trenchless) & Mining Associations, Groups & Technical Sections
- Academic Support (Student Engagement such as SPE Student Chapters & Drillbotics)

Focus Areas 8

RP-78 Wellbore Positioning

Will Tank (Oxy) – Chair

Jonathan Lightfoot (Oxy) – Vice-Chair

Pete Clark (Oxy) – Technical Advisor

Ben Coco (API) – API Sponsor & Facilitator

Evan G. Bernard – Technical Editor





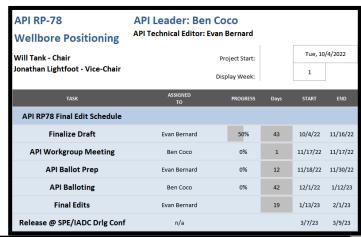
The Industry Steering Committee on Wellbore Survey Accuracy (ISCWSA)

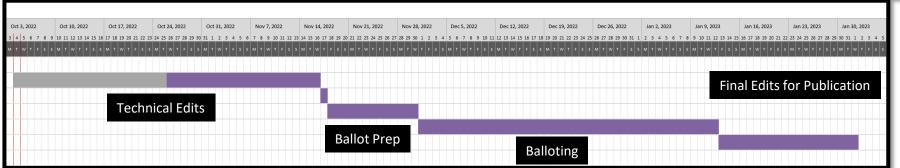
Current Timeline:

- July 31 Technical Editor Work Began
- Nov 16 Technical Writer Draft Complete
- Nov 17 API RP-78 Workgroup Mtg
- Nov 30 Final API Doc Prep for Balloting
- Dec 1 API Ballot Released for voting & comment, (6 weeks)
- Jan 13 Feb 1 Final Edits for Publication
- March 6th Final Publication Date

Industry Notification

March 7th - 9th at the SPE/IADC Drilling & Completions Conference





API RP-78 Timeline



Questions