1st Qtr 2014

Remembering SCA Founder Dan Tearpock (1948-2014)

On Sunday, February 9, 2014, Daniel J. Tearpock passed away peacefully in his Houston home surrounded by family, following a three year battle with pancreatic cancer. He leaves behind a substantial personal and professional legacy, and will be missed by his family, many friends and professional colleagues, and students of geology around the world.

Daniel John Tearpock was born in Nanticoke, Pennsylvania on August 31, 1948 to parents John and Laura-Nita Tearpock. Raised in Pennsylvania coal-mining country, Dan's childhood was spent exploring the woods and mines close to his house, collecting fossils, quartz and other minerals and dreaming of exploring other planets. As a boy, his career path was already clear: he wanted to become a geologist.

Dan married Paula Shultz in 1969, and the couple had two daughters: Nicole and Danielle. While the couple divorced they remained close and continued as business associates until 2012.

After graduating from Bloomsburg Univesity in 1970 with a B.A. in Earth Sciences, Dan started a computer consulting company, a business whose sale two years later provided part of the funds needed to return to school for his master's Degree in Geology from Temple University in 1977.

continued on page 2

A quarterly publication of Subsurface Consultants & Associates, LLC

geoLOGIC NEWS

SCA President Hal Miller (center) with future and past participants of the Daniel J. Tearpock Geoscience Certification Program, Ghada Sultan Abdulla Rashed Al Moulani (left) and Aqeel Ahmed Ali (right) both of BAPCO.

this issue

Message from the President P.1
Remembering Dan Tearpock P.1
Exploring the Ten Habits P.3
Generation Gap Survey Insights P.4
Training Course Development P.5
SCA on the Move P.6

Message from the President, Hal F. Miller:

Are you tired of hearing about the great crew change yet? You might as well get used to it because the solution is not yet firmly within grasp. I recently attended the Geo 2014 Conference in Bahrain and was surprised at the pervasiveness of the demographic bubble throughout our industry.

As you might expect, the conference was heavily attended by representatives of the main industry players from the region; Saudi Aramco, Bahrain Petroleum Co. (BAPCO), Tatweer Petroleum Co. (Bahrain), Kuwait Oil Co. (KOC), Petroleum Development Oman (PDO), and Abu Dhabi National Oil Co. (ADNOC), as well as US and European IOCs, the major service companies, and specialized service providers like SCA. Many of these companies expressed concern about effective knowledge transfer in light of the talent drain, the plug on which has evidently been pulled.

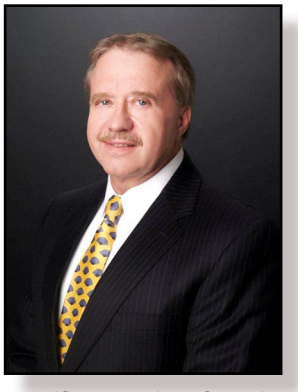
The conference technical themes included excellent presentations on the conventional and emerging unconventional plays in the Middle East. Besides many interesting geology presentations, I attended a number of sessions highlighting exciting advances in reservoir imaging, analysis and surveillance. Vendors are advancing new technologies such as down-hole fiber optics. Coincident with new technologies are massive increases in data collection, and in the tools needed to analyze, process and integrate the data.

A relatively minor topic on the agenda turned out to be one of the most common themes throughout, beginning with the opening ceremony presentations; technology transfer from the senior generation of oil finders and technologists who are rapidly approaching retirement to the rapidly expanding ranks of early career Geoscientists and Engineers. There were many demographic curves incorporated into talks showing the pervasive, double-humped (Bactrian?) distributions. Presenters consistently expressed concerns about how the continuously shrinking senior hump can hope to get its business done while at the same time providing adequate mentoring for the junior hump.

Thanks to all who participated in the memorial activities for Dan Tearpock. The Houston memorial service and special recognitions to honor his memory were fitting tributes to his legacy. The outpouring of support from Dan's professional community was much appreciated by his family and all of us who were touched by his remarkable life.

SCA conducted a survey in December of 2013 to gain fresh perspective on this issue by focusing on perceptions of the Millennial generation, both as self-reflection among members of that cohort,

continued on page 5



Remembering Daniel J. Tearpock

August 31, 1948 - February 9, 2014

Celebration of Life
Houston, Texas
March 1, 2014

Tribute Speaker: Ron Harrell, Chairman Emeritus, Ryder Scott

Tribute Speaker: Dick Bischke, Co-Author of ASGM Book

Tribute Speaker: Father Mark, Catholic Charismatic Center

Tribute Speaker: Mary Atchison, SCA V. P. of Training Operations

Tribute Speaker: Ricky Gilbert, Long time Friend of Dan

specific to subsurface interpretation and mapping. His significant subsurface mapping expertise was the foundation for the books he was to co-author in the years to come: *Applied Subsurface Geological Mapping*, *Quick Look Techniques for Prospect Evaluation*, and *Applied Subsurface Geological Mapping with Structural Methods – 2nd Edition*.

When Tenneco was sold in 1988, Dan struck out on his own, forming Subsurface Consultants & Associates, LLC. The business grew quickly from a four-person shop of ex-Tenneco employees to an international consulting and training firm with multiple branch offices. At the same time, Dan's Applied Subsurface Geological Mapping book grew in recognition, becoming a Prentice Hall Technical best seller in 18 months.

Over the years, Dan was a frequent public speaker and committee member, a prolific author of professional papers, and an officer for organizations such as the AAPG Division of Professional Affairs and JCORET (a collaboration of multiple technical organizations, which he helped found to provide industry input to the SEC reserve reporting process). As the CEO of Subsurface Consultants & Associates, LLC (SCA), Dan built SCA into an internationally recognized upstream training and consulting firm.

Dan was the 62nd member to be inducted into the Russian Academy of Natural Sciences, US Section, and was the 40th person to receive the Kapitsa Medal. His success as a businessman also received notice: in 1986 and 1998, he was an Entrepreneur of the Year Finalist, a distinction sponsored by USA Today, NASDAQ, Ernest & Young, LLP and the Kauffman Foundation.

The course of Dan's career took him around the world, for both work and pleasure. His wide-ranging professional travels included significant time in the Middle East, Europe, Venezuela, Thailand, Canada, Malaysia, Taiwan, and Korea, and he found enjoyment vacationing in Spain, England, the Mayan Riviera, and the North American Rockies, among many other destinations.

In 2011, Dan married long-time sweetheart Diana Poon and welcomed Cindy Au as his step-daughter.

In 2012, after 24 years as Chairman and CEO, Dan chose to take on a new role in the company he built: that of Chairman Emeritus. That decision coincided with a year of significant recognition in the industry, including receipt of the DPA Heritage Award, nomination to the Bloomsburg University College of Science and Technology Advisory Board, and the AAPG Honorary Member Award.

In addition to his success as a geologist, Dan had many outside interests. To help pay for college he opened a taekwondo studio and was a kick boxer. In the 1990's he was a body builder and participated in several competitions. He played multiple instruments, composed music, was an artist and self-published a science fiction novel. The Tearpock Family band traveled and played all over the state of Pennsylvania.

Dan was active in public life, and gave generous donations of time and resources to social and political causes about which he was passionate. He sponsored numerous children through the Christian Children's Fund. He also funded the Daniel J. Tearpock Scholarship at Bloomsburg University for a junior or senior in good academic standing pursuing a degree in the earth sciences or geoscience.

His final years were enriched by ever growing commitments to service and his Catholic faith. Together, he and his wife Diana donated funds to help build a Catholic retreat in Humble, Texas and volunteered at MD Anderson to help other patients with pancreatic cancer. Dan was a regular visitor to the House of Tears (Southwest Houston) and started a prayer group where he would pray over people in need.

Dan was a dedicated family man who never missed a track meet, softball game, dance team function, band concert or piano recital. He is survived by his mother, Laura-Nita Tearpock of Mocanaqua, PA; wife Diana Poon Tearpock of Houston, TX; daughters Nicole McMorris-Lavergne & Danielle Lavergne of Broussard, LA, and step-daughter Cindy Au of Houston, TX; four grandsons – Tyler McMorris, Justin, Jonathon, and Jesse Hitt; and great-granddaughter, Nena Belle Hitt.

Exploring the Ten Habits: Habit 5B - Accurate Seismic Correlations

by Bob Shoup

In SCA's ongoing blog series highlighting, "The Ten Habits of Highly Successful Oil Finders" we continue featuring Habit Five:

Successful oil finders ensure that their seismic and well correlations are accurate and loop-tied.

In our last column we addressed the failure to make accurate well log correlations and correlate the whole well log, a significant cause of dry holes. This blog will discuss how the failure to make accurate loop-tied seismic correlations results in inaccurate maps which lead to unnecessary dry holes.

Assumptions

Whenever we are interpreting 2D and 3D seismic data, we make a number of assumptions whether we are aware of them or not. Our first assumption is that the data being used are of reasonable quality and have been correctly processed and loaded. The second assumption is that the two-way time to depth conversion is known through our deepest mapped horizon. Finally, we assume we have interpreted the seismic lines correctly. More often than not, one or more of these assumptions is incorrect, so it is up to the interpreter to remain diligent regarding all of these assumptions.

Interpretation Workflow

One way to help ensure accurate seismic interpretations and avoid interpretation pitfalls is to establish a workflow that reinforces application of industry best practices and the 10 Habits. We find the following steps useful:

1) Before beginning your interpretation, double check that the wells and seismic lines or the 3D survey have been loaded correctly.

2) Scale the seismic lines to approximately a 1:1 aspect ratio then scroll through the data set and review the data to determine the structural style and data quality. Switch back and forth between a traditional color bar and a color bar that highlights amplitudes; threshold this color bar to highlight only extreme amplitudes. Note and document any "FLTs" (funny looking things).

3) Once you have scrolled through the data set, tie the well control to the data, noting faults as well as key horizons encountered in the wells. Make sure that the well ties fit the data. If not, return to step one.

4) Interpret the faults and map the fault surfaces. Review the fault surface maps and make sure that they are geologically reasonable.

5) Interpret and map the key horizons. Be sure to loop tie your lines. If you use the workstation for auto picking, ensure that the correlations are consistent by checking to see that they loop tie.

6) Create fault polygons for the interpreted horizons. Integrate the horizon maps with the fault surface maps to generate accurate fault polygons where needed.

7) Generate amplitude and seismic attribute maps. Ensure any prospective amplitude or attribute anomalies conform to geologic structure, or that they are situated within a geologically valid trap.

8) Review the list of funny looking things and see if any are indicative of potential hydrocarbons or prospects.

Loop Tying

One tremendous advantage of having a seismic data grid is the ability to loop tie our correlations to ensure we are consistently picking the same fault or horizon from line to line. Failure to loop tie will result in miscorrelation of a horizon or aliasing faults; that is connecting two separate faults as one. This often results in the mapping of a screw fault, which are geologically impossible except in strike-slip settings (See Habit 1).

Traps defined by aliased faults are almost always dry holes waiting to happen, such as the case illustrated below in Figure 1. The interpreters picked every 10 cross-lines of the 3D survey to define the structure. The interpreters avoided using in-lines as they were acquired parallel to the strike of the faults, and the "faults were difficult to interpret on the in-lines". Three principal faults were identified (Faults 1, 2, and 3, Figure 1), with fault 1 interpreted as a bifurcating fault with two splays (1a, and 1 b). Two production platforms can be seen on the map. Platform A is producing from a closure downthrown to Fault 2. Two wells from Platform B were drilled as long-reach wells to produce from the closure upthrown to Fault 3 and another well was drilled into the closure upthrown to Fault 1. Since that well proved the fault block to be productive, Platform B was installed to produce that block and the block upthrown to Fault 1b.

The interpreters defined a small closure downthrown to Fault 1 and upthrown to Fault 1a and a well from Platform B was planned to drain this fault closure (yellow dot, Figure 1). When the well was drilled, the reservoir was encountered at the predicted depth but only had gas shows. In the subsequent post-mortem audit, the reviewers loop-tied the fault picks and mapped the fault surfaces, demonstrating that Fault 1 was not a single fault with two bifurcating splays, but three separate en echelon faults (Figure 2). The closure targeted by the well did not exist; and the drilled well was an avoidable dry hole

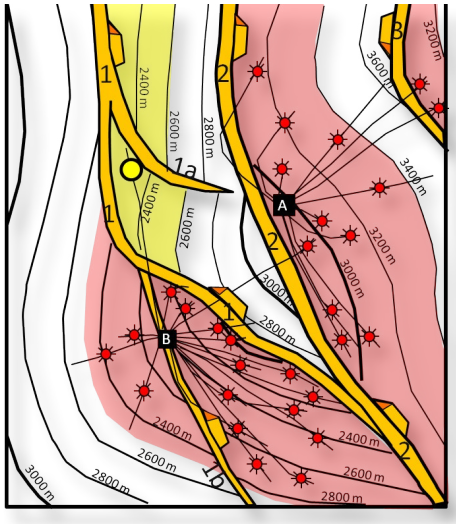


Figure 1

continuedonpage7

Featured Instructor: John Keasberry

SCA welcomes John Keasberry as our newest training instructor. Mr. Keasberry will be teaching **"Principles of Integrated Petroleum Geoscience"** in a public session July 28-August 1, 2014, at SCA's Houston training facility. His course is also available for private, in-house training sessions.

John Keasberry has over 35 years of experience as a geoscientist and training consultant for national, major, and independent oil and gas companies around the world. He has developed and taught both lecture and field courses in Geology, Geophysics, and Reservoir Engineering in major universities as well as international corporations. He specializes in exploration strategies, seismic interpretation, asset evaluation, and data management, analysis and interpretation.

Mr. Keasberry has managed projects and evaluated opportunities in the UK, the Netherlands, Norway and the North Sea, Ecuador, North America, and Africa. A native of the Netherlands, he is a graduate of the University of Leiden, and holds a Master's Degree in both Geology and Geophysics. He is a member of the Royal Geological and Mining Society of the Netherlands, the Petroleum Exploration Society of Great Britain, the Petroleum Geological Society, and the Geological Society of Leiden.

New Courses in SCA's 2014 Training Catalog

Computer-Based Courses

Computer Mapping Principles
5 days

This course provides participants with the knowledge and techniques needed to make more accurate and geologically correct maps through proper data management, establishing an iterative process between seismic interpretation and mapping.

Unconventional Courses

Evaluating Shale Oil & Gas Reservoirs
2 days

Evaluation of Unconventional Resource Plays
5 days

Geophysics and Engineering Courses

Applied Geomechanics
5 days

Evaluation and Management of Fractured Reservoirs
5 days

Introduction to Petrophysics and Formation Evaluation
5 days

Seismic Data (2D, 3D & 4D) Interpretation (revised 2013)
5 days

Well Log Interpretation
5 days

Updated Management Course

Project Management and Team Leadership Skills
2 days

****

For a complete list of the 2014 public course schedule including course descriptions, target audience and dates available, please visit our website at

www.scacompanies.com

Generation Gap Survey Results Highlight Industry Challenges, Offer Reasons for Optimism

After a rigorous design and testing process, SCA went live in early December with an online survey aimed at measuring technical knowledge, workplace culture, and other factors pertinent to workers on either side of the energy industry generation gap. The full results of this survey informed SCA's presentation at the GEO 2014 conference in Bahrain this March, and we wanted to highlight some of the more interesting findings.

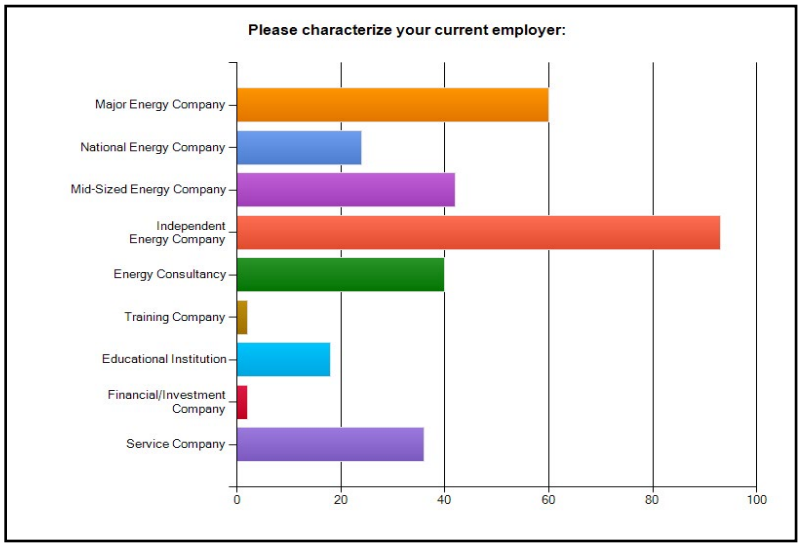


Figure 1

The survey was conducted in English, and survey responses were collected online through a Survey Monkey web link. Responses were solicited via email blast, professional societies, and social media. All responses were treated as anonymous. When reporting the results, we are defining the Baby Boomer (or "Boomer") Generation as those born between 1946-1964, Generation X as those born between 1965-1981, and Millennials as those born between 1982-1993.

The survey collected 352 total responses. Respondents primarily specialized in geoscience, and the largest numbers were employed at independent energy companies, followed by majors and mid-sized energy companies. Across generations, responding members of the Boomer Generation were more likely to be employed at independent energy companies (35.8%) or consultancies (19.2%), while Generation X and Millennials were more frequently employed by majors (27.6% and 24.2%), with independents taking second in popularity (25 % and 22.6%, respectively).

Professional Skills Development

Of the total population surveyed, most have access to continued skills development in the form of short course training (81.7%), field trips (57.9%), professional societies (83.3%), in-house training (64.3%), or career coaching (19.8%). Some noted their employers sponsor and encourage professional society memberships and participation, while others are free to participate, but expected to pay their own way.

Five-Year Path: Millennials versus Baby Boomers

Projecting ahead five years, Millennials were nearly evenly split between remaining in the same company in either a managerial or technical role (42.8%),

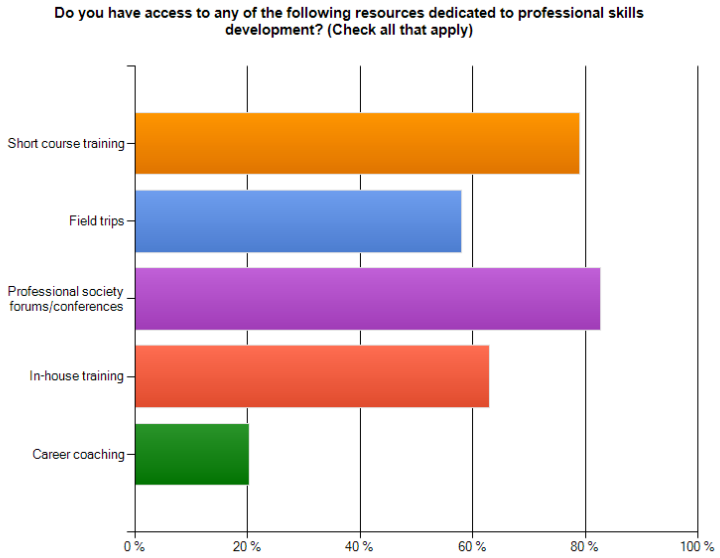


Figure 2

continued on page 6

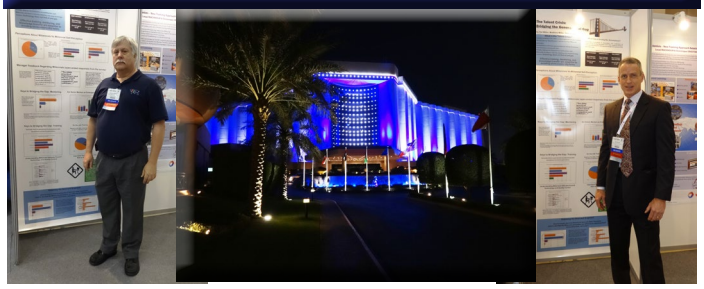
PRESIDENT'S MESSAGE, continued from page

and as viewed by the Gen X'ers and Baby Boomers. The results are summarized in a separate article in this newsletter, and in a poster which I presented at the conference along with Bob Shoup, SCA Associate, Trainer and co-author(pictured below left). SCA Recruiting Specialist and Millennial Matthew Miller was also a co-author. The poster drew considerable interest and inspired many good discussions. We encountered general agreement, including among Millennials, that effective mentoring, along with internal/external training and early career job assignment movement are essential tools to accelerating career development. An interesting point from our survey; those involved in mentoring often spend 10% and in some cases up to 25% of their time in this activity. This is a heavy load on top of regular job expectations and will only increase as more retire.

To his credit, the distinguished and highly respected senior Geoscientist Mr. Samer Ashgar of Saudi Aramco concluded that there is no need to panic. The good news is that the industry is rapidly building its workforce with many very smart and technologically proficient young people from all over the world. Yes, there will be some growing pains (dry holes?) but as the Millennials mature and move into mid-career during the coming years the industry should see continuation of the healthy and vibrant environment that we now enjoy.

Hal F. Miller

GEO2014
Bahrain International Exhibition and Convention Centre



The Art and Science of Training Course Development

SCA is introducing several new courses this year, some of which have been developed in-house, and others which are new courses offered exclusively through our company. Despite what one might assume, these courses do not simply arrive as full-fledged final products. Instead, they are extensively tested and subject to numerous test-runs, focus groups, and beta versions prior to their official debuts.

So what is the SCA approach? Per SCA President, Hal Miller, ""I draw the comparison between the early phases of the US auto industry, when the big three car manufacturers were essentially telling people what they wanted. Then enter in the Japanese manufacturers, with much more consumer-oriented designs, and they were able to take away market share from the American companies. As we are developing these courses and preparing them for market, I have that phenomenon in mind – how can we design these courses with the end-user, the student, as the primary concern?"

When an instructor approaches SCA with a new course, it must proceed through a multi-step vetting process. Only after an extensive review and appraisal and instructor fulfillment of intensive requirements can a new course be added to our roster.

About the Development of Computer Mapping Principles and Evaluating Shale Oil & Gas Reservoirs

Because SCA is so well known for Dan Tearpock's "Applied Subsurface Geological Mapping" course, for many years the industry had requested a computer mapping class. SCA was aware of the need to bridge the gap between the "tried and true" geologic principles taught in our traditional pencil and paper mapping courses and the reality of today's workplaces that are heavily centered on workstation technology. The task of creating this unique course was given to SCA's long time instructor, Alan Cherry, who has an integrated skill set including strong 2D and 3D geophysical interpretation, field development, reservoir engineering, formation evaluation, economic assessment, reserves evaluation, drilling, completion, and production operations

Per Hal Miller: "The Computer Mapping Principles course is one we had first brainstormed years ago, and over time, we refined what we wanted the course to be based on extensive conversations with colleagues and clients. After an in-house presentation to ensure the content flowed effectively, we put a preview in front of some trusted clients, and made adjustments based on their feedback." That feedback informed a new version of the complete course, which will be beta tested from start to finish by a small group before SCA's first public offering April 21-25, 2014.

Another set of courses sparked by client demand were SCA's new "Evaluating Shale Oil & Gas Reservoirs" and "Evaluation of Unconventional Resource Plays" courses taught by Michael Zebrowski. Hal explained the need for these additions thusly, "When we traveled to China to meet with some business people about shale exploration, we heard loud and clear that what they wanted and needed was not a basic introductory course, but something with more detailed explanations and applied exercises, taught by an instructor with current, real-world experience. Mike Zebrowski was just the man for the job. These are not purely academic courses – they are designed for working professionals who have an urgent business interest in acquiring information."

Zebrowski's "Evaluating Shale Oil and Gas Reservoirs" course was reviewed by the SCA committee according to our standard process. However, it underwent an additional refinement when a client with specific interests in unconventionals collaborated with the instructor to make it most relevant to their audience, a professional staff ranging from new hires to 40 year veterans. This kind of mutually beneficial exchange allows SCA to keep our offerings relevant and fresh in an ever-changing training market.

The SCA Difference

As shown in the examples above, SCA eschews a "one-size-fits-all" model of training, preferring instead to create and rigorously update courses and recommended training tracks that reflect the dynamic nature of our industry. We pride ourselves on offering the most up-to-date information available through an elite and industry-engaged roster of instructors. SCA encourages instructors to ensure their materials encompass the latest developments in technology, so that participants come away ready to apply their knowledge to today's workplaces.

Generation Gap Survey (continued from page 4)

or switching to a different company in either a managerial or technical role (46.4%). Small percentages were interested in consulting, or pursuing work outside of the energy industry.

Boomers, on the other hand, saw future opportunity in independent consulting, or looked forward to outright retirement.

Career Motivators: Millennials versus Baby Boomers

Some of the most interesting results were revealed in the rankings of career motivators. For Boomers, financial rewards were the career motivator that most frequently ranked as number one, followed by work/life balance and respect from colleagues. For Millennials, work/life balance had primary importance for the greatest number of respondents, flanked by career path progression and financial rewards.

Willingness to recommend the energy industry

One area where there was widespread agreement was whether the energy industry is one they would recommend to young people looking for a rewarding career. Across generations, the willingness to recommend was at 93% and above.

It is worthwhile to note that reported knowledge of geological principles and familiarity with quality control techniques was mostly consistent across the generations surveyed. It would seem that despite complaints from older generations, there is relative consensus on what constitutes best practices, although the younger generations might do well to acknowledge and learn from the accumulated, applied expertise of the generations before them before plunging ahead. The future of our industry, with the essential support of mentors, professional societies, and ongoing professional development, looks to be in good hands.

For more results, please see the published survey summary, available on SCA's website. Upon request, SCA's Matthew Miller, a project co-author, is also available for in-house or professional group presentations of these results, other key takeaways and the central arguments of SCA's well-received GEO 2014 poster presentation.

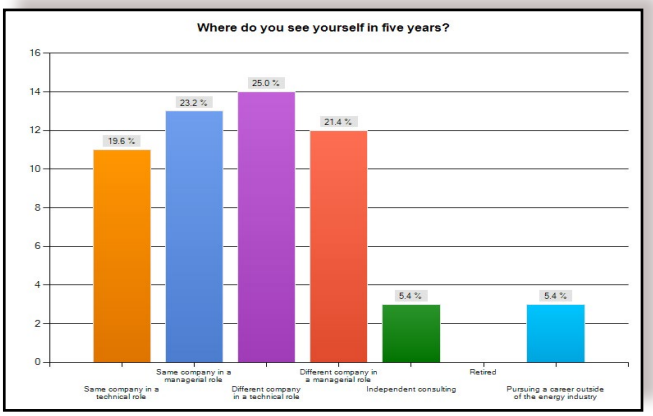


Figure 3 - 5 year path, Millennials

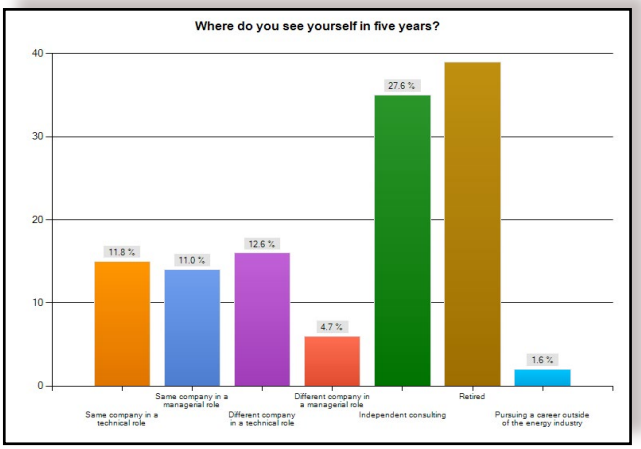


Figure 4 - 5 year path, Boomers

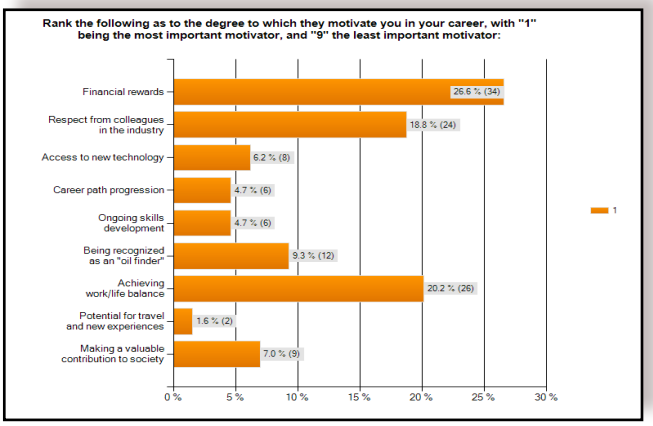


Figure 5 - #1 Career Motivator, Boomers

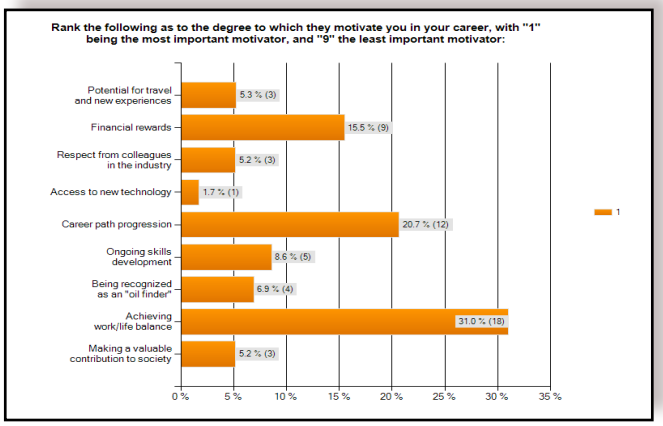


Figure 6 - #1 Career Motivator, Millennials

SCA Employee Anniversaries

Alison Greene
2 years on January 3

Mary Atchison
5 years on January 19

Don Lanman
10 years on March 9

Habit 5B: Accurate Seismic Correlations (continued from page 3)

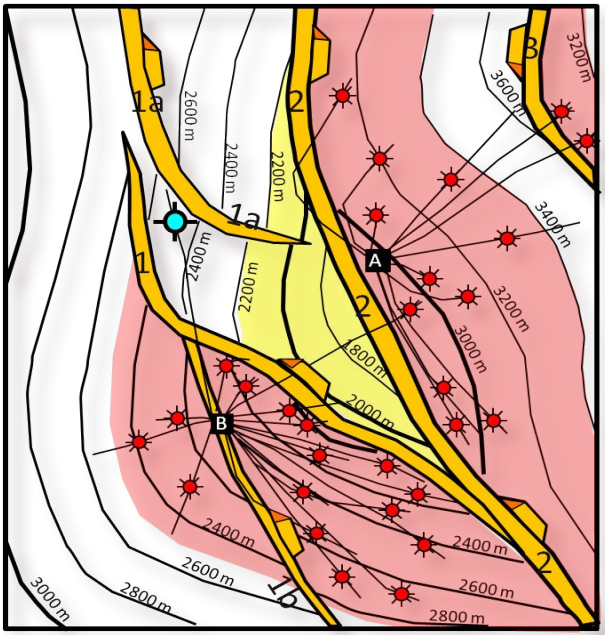
The original map (Figure 1) also suffered from incorrectly mapping through a major fault shadow associated with Fault 2. The structural high in the fault block downthrown to Faults 1 and 1a was mapped as a downthrown fault closure against Fault 1 and 1a. Using restored fault tops and proper mapping techniques such as contour compatibility, the review team was able to demonstrate that the actual structure was an upthrown closure against Fault 2 (Figure 2).

Fault shadows can cause significant challenges to mappers in that they distort the seismic events upthrown to faults. Fault shadows are created when an anisotropic formation, usually a shale, crosses a fault. The fault shadow can be recognized as a zone of distorted seismic below the downthrown intersection of the anisotropic formation and the fault. The zone of distortion can usually be defined by a vertical line (Figure 3).

In the example shown in Figure 3, we can see a compound fault shadow. The first fault shadow, shown by the green dashed line, is set up when the blue horizon (~1.0 sec) crosses the green fault. The second fault shadow (blue dashed line), is set up where the blue horizon crossed the blue fault. Another fault shadow can be observed along the eastern edge of the line where the blue horizon crosses the purple fault.

Incorrectly mapping across fault shadows can result in dry holes, such as the one Illustrated above, or in missed opportunities when upthrown traps are improperly mapped as non-closed structures.

There are several methods an interpreter can use to avoid miss-mapping across fault shadows. The most reliable method is to use restored tops when you have wells that cross the fault. In the absence of wells, one can map the upthrown block only up to the line of the fault shadow (dashed green line Figure 3). Secondly, map the downthrown block, which is not impacted by the fault shadow. Finally, using the concepts of contour compatibility and vertical separation, one can complete contouring through the fault shadow.



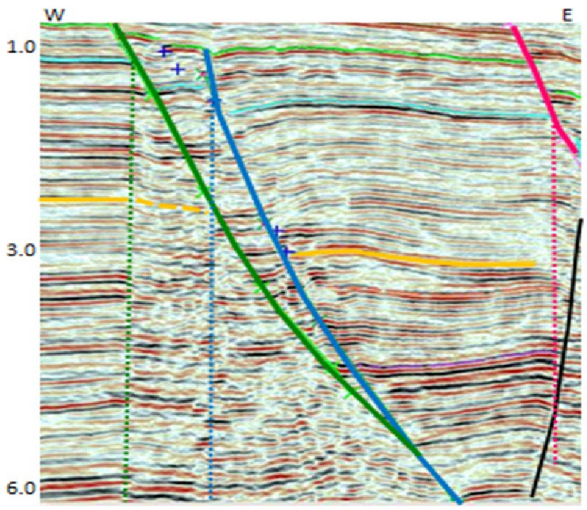


Figure 3

Editor's Note: To learn more about seismic interpretation we encourage you to register for SCA's Seismic Interpretation Workshop. To learn more about subsurface mapping and the concepts of contour compatibility and vertical separation, register for SCA's signature course, Applied Subsurface Geologic Mapping.

2014 Upcoming Training Courses

APRIL
- 03/31-04/01/14 - Evaluating Shale Oil and Gas Reservoirs - Houston, Texas
- 04/07-11/14 - Cased Hole and Production Log Evaluation - Houston, Texas
- 04/21-25/14 - Computer Mapping with Generic Software - Houston, Texas

MAY
- 05/05-09/14 - Applied Subsurface Geological Mapping - Houston, Texas
- 05/12-15/14 - Drilling Basics for the Geoscientist - Houston, Texas
- 05/19-23/14 - Applied Sequence Stratigraphy of Clastic Depositional Systems - Houston, Texas

JUNE
- 06/02-06/14 - Applied Subsurface Geological Mapping - Calgary, Canada
- 06/02-06/14 - Integration of Rock Logs, Test and Seismic Data - Houston, Texas
- 06/09-13/14 - AVO, Inversion & Attributes: Principles & Applications - Houston, Texas

JULY
- 06/30-07/02/14 - Quality Control for Subsurface Maps (QLTs) - Houston, Texas
- 07/14-18/14 - Applied Subsurface Geological Mapping - Houston, Texas
- 07/21-25/14 - Basic Petroleum Geology - Houston, Texas
- 07/28-08/01/14 - Principles of Integrated Petroleum Geoscience - Houston, Texas

AUGUST
- 08/04-08/14 - Applied Subsurface Geological Mapping - Dallas, Texas
- 08/11-10/31/14 - The Daniel J. Tearpock Geoscience Certification Program - Houston, TX
- 08/11/14 - Basics of the Petroleum Industry - Houston, Texas
- 08/12-15/14 - Structural Styles in Petroleum Exploration and Production - Houston, Texas
- 08/16-17/14 - Structural and Sequence Stratigraphy Field Course - Texas Hill Country
- 08/18-22/14 - Cased Hole and Production Log Evaluation - Houston, Texas
- 08/18-22/14 - Practical Interpretation of Open Hole Logs - Houston, Texas
- 08/25-26/14 - Economic Evaluation of Petroleum Opportunities - Houston, Texas
- 08/25-29/14 - Practical Seismic Exploration and Development - Houston, Texas

SEPTEMBER
- 09/02-05/14 - Mapping and Interpreting Clastic Reservoirs - Houston, Texas
- 09/08-12/14 - Applied Subsurface Geological Mapping - Houston, Texas
- 09/15-17/14 - Seismic Interpretation Workshop - Houston, Texas

Reserve Your Seat Today!
www.scacompanies.com

AUTHORIZED IACET PROVIDER

REGISTRATION should be made at least one month prior to the start of a course. Paid registrations will be accepted until the day before the course. Registrants will receive a confirmation e-mail within 48 hours of registration and will receive complete venue information two weeks prior to the first day of class. Registration is confirmed upon receipt of payment.

About SCA

Subsurface Consultants & Associates, LLC (SCA) provides upstream consultancy and training to stakeholders in the oil and gas industry. Founded in 1988 by Daniel J. Tearpock, SCA's four primary services include geoscience and engineering consulting, upstream projects and studies, training services, and direct hire recruitment.

Industry Events

AAPG	April 6-9, 2014	Houston, TX
OTC	May 4-7, 2014	Houston, TX
EAGE	June 16-19, 2014	Amsterdam, Netherlands
URTEC	August 25-27, 2014	Denver, CO
AAPG ICE	September 14-17, 2014	Istanbul, Turkey
SPE	October 27-29, 2014	Amsterdam, Netherlands

SCA HAS TRAINED OVER 26, 000 GEOSCIENTISTS AND ENGINEERS AND HAS EVALUATED OVER 5,000 PROSPECTS WORLDWIDE IN OVER 50 COUNTRIES

SCA on the Move

The Ten Habits of Highly Successful Oil Finders

Bob Shoup continued his run of successful presentations of "The Ten Habits of Highly Successful Oil Finders," with a February talk for the South East Asia Petroleum Society and a March in-house event with Kuwait Oil Company. If you are interested in bring this talk to your organization, contact Mary Atchison at matchison@scacompanies.com

* * * * * * * * * * *

Building Relationships in the Middle East

Hal Miller and Bob Shoup travelled to the Middle East to present at the GEO 2014 Convention and Exhibition in Bahrain, March 9-12. The subject of Bob's well-received talk was "How Workstations Cause Dry Holes," while Hal and Bob participated in the poster presentations on the topic of "The Talent Crisis: Bridging the Generational Gap". The energy industry talent crisis is an issue that stretches across international borders, as indicated by the high degree of interest in SCA's poster. As examined in this issue of GeoLOGIC, training, mentoring, and cross-generational understanding are keys to navigating this period of transition.

* * * * * * * * * * *

AAPG Convention: April 6-9 in Houston, Texas

Later in the spring, SCA will be exhibiting at the AAPG 2014 Convention and Exhibition in Houston, Texas. This event will take place April 6-9 at the George R. Brown Convention Center. We look forward all year to this rich networking and professional development opportunity, and know we will see many of you there. Please stop by booth 1248 to say hello. Also, we have a supply of exhibit-hall only passes we would be happy to share - contact Alison Greene (agreene@scacompanies.com) for details.