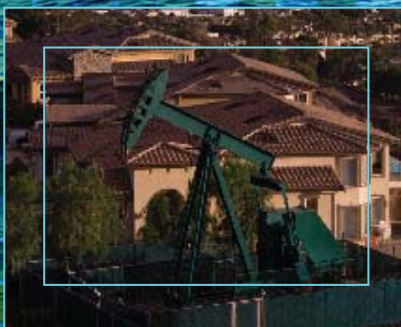
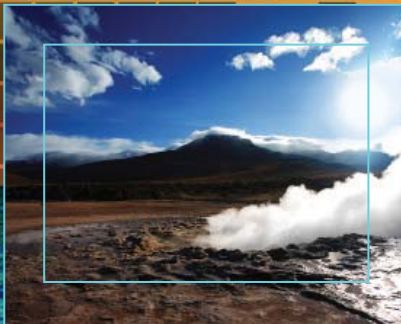


2011 Western Region Meeting, SPE
Pacific Section, AAPG

Arctic to the Cordillera: Unlocking the Potential



6 - 14 May 2011

Technical Sessions 9 - 11 May 2011

Anchorage, Alaska, USA

www.spe.org/events/wrm

www.psaapg.org

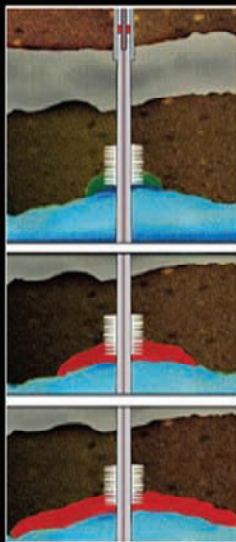


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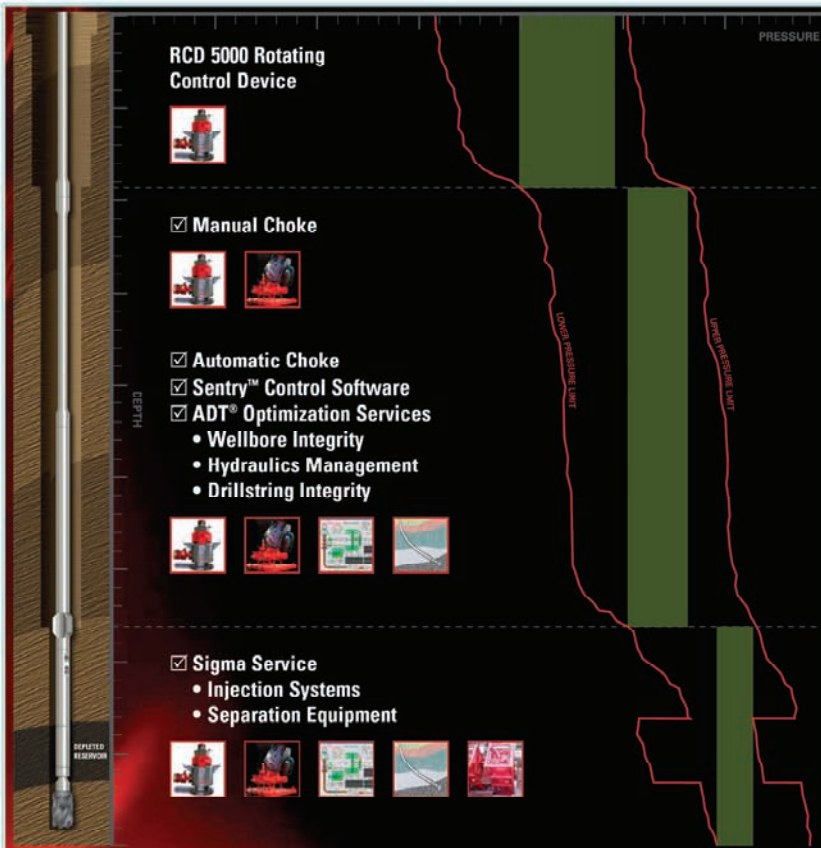


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Rob.Warren@halliburton.com

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SCHEDULE OF EVENTS

Schedule as of February 15, 2011. Times and locations are subject to change. For updates, visit www.psaapg.org, www.spe.org/events/wrm, and <http://www.ptcwestcoast.org/>.

Friday, May 6, 2011

- | | |
|-------------|---|
| 0730 – 2000 | AAPG Field Trip No. 1 (Turnagain Arm – Resurrection Bay) |
| 0900 – 1600 | AAPG Short Course No. 1 (Core Workshop) – Bayview Core Facility |

Saturday, May 7, 2011

- | | |
|-------------|--|
| 0730 – 1900 | AAPG Field Trip No. 1 (Turnagain Arm – Resurrection Bay) |
| 0800 – 1700 | AAPG Short Course No. 2 (Tectonic Evolution) – Room TBD |
| 0800 – 1700 | Committee Meetings – Room 301 |
| 0900 – 1700 | Exhibit Decorator Move-In |
| 1000 – 1400 | Registration Set Up – Hotel Lobby |
| 1500 – 1800 | Registration Open – Hotel Lobby |

Sunday, May 8, 2011

- | | |
|-------------|--|
| 0700 – 1700 | Executive Council/Committee Meetings – Rooms 301 and 305 |
| 0800 – 1700 | Committee Meetings – Room 301 |
| 0800 – 1800 | Registration – Hotel Lobby |
| 0800 – 1500 | Exhibitor Move-In – Kuskokwim/Yukon/Foyer/Atrium |
| 0900 – 1600 | SPE Student Paper Session |
| 1000 – 1700 | Speaker/Judges Room – Room 308 |
| 1400 – 1700 | Spouse Hospitality – Hospitality Suite |
| 1600 – 1800 | Opening Session – Howard Rock Ballroom |
| 1600 – 1800 | Exhibit Opening – Kuskokwim/Foyer/Atrium |
| 1800 – 2000 | Icebreaker in Exhibit Hall – Kuskokwim /Foyer/Atrium |
| 1800 – 2000 | SPE Student Poster Session |

Monday, May 9, 2011

- | | |
|-------------|---|
| 0700 – 0745 | Speakers/Judges Breakfast – The Summit |
| 0700 – 1700 | Speaker/Judges Room – Room 308 |
| 0700 – 1700 | Executive Council/Committee Meetings – Room 301 |
| 0730 – 1700 | Registration – Hotel Lobby |
| 0730 – 1000 | Spouse Hospitality – Hospitality Suite |
| 0800 – 0900 | AAPG-House of Delegates Breakfast – The Summit |
| 0800 – 1830 | Exhibitors/Posters – Kuskokwim/Yukon/Foyer/Atrium |
| 0800 – 1700 | Technical Sessions – Howard Rock A, B, and C; Susitna Room; Rooms 305 and 311 |
| 0930 – 1430 | Spouse Tour (Alyeska tour) |
| 1130 – 1330 | PS-AAPG Convention Luncheon – Howard Rock Ballroom |
| 1500 – 1700 | Spouse Hospitality– Hospitality Suite |

Tuesday, May 10, 2011

0700 – 0745	Speakers/Judges Breakfast – The Summit
0700 – 1730	Speaker/Judges Room – Room 308
0700 – 1700	Executive Council/Committee Meetings – Room 301
0730 – 1600	Registration – Hotel Lobby
0730 – 1500	Spouse Hospitality – Hospitality Suite
0800 – 1700	Exhibitors/Posters – Kuskokwim/Yukon/Foyer/Atrium
0800 – 1700	Technical Sessions – Howard Rock A, B, and C; Susitna Room; Rooms 305 and 311
0930 – 1430	Spouse Tour (tour of Anchorage)
1130 – 1300	AAPG Division of Public Affairs Luncheon – TBD
1130 – 1330	WR-SPE Convention Luncheon & Awards – Howard Rock Ballroom
1845 – 2200	Tuesday Night Entertainment – Alaska Native Heritage Center

Wednesday, May 11, 2011

0700 – 0745	Speakers/Judges Breakfast – The Summit
0700 – 1730	Speaker/Judges Room – Room 308
0700 – 1700	Executive Council/Committee Meetings – Room 301
0730 – 1200	Registration – Hotel Lobby
0730 – 1400	Spouse Hospitality – Hospitality Suite
0800 – 1400	Exhibitors/Posters – Kuskokwim/Yukon/Foyer/Atrium
0800 – 1700	Technical Sessions – Howard Rock A, B, and C; Susitna Room; Rooms 305 and 311
1300 – 1800	AAPG Field Trip No. 2 (Tertiary & Holocene Deposits, Nenana Basin)
1400 – 1600	Exhibitor/Decorator Tear Down – Kuskokwim/Yukon/Foyer/Atrium
1700 – 1800	PS AAPG Executive Committee Meeting – Hospitality Suite

Thursday, May 12, 2011

0800 – 1700	AAPG Short Course No. 3 (Managing Your Business) – Room TBD
0800 – 1200	SPE Short Course No. 1 (Multiphase Metering) – Room TBD
0800 – 1700	SPE Short Courses No. 3 and 4 (Thermal Recovery; Drilling & Completions for the PE Exam) – Rooms TBD
0800 – 1800	AAPG Field Trip No. 2 (Tertiary & Holocene Deposits, Nenana Basin)
0800 – 1700	AAPG Field Trip No. 3 (Wishbone Hill)
0830 – 2000	AAPG Field Trip No. 4 (Upper Cook Inlet)
1300 – 1700	SPE Short Course No. 2 (Introduction to Well Logging) – Room TBD

Friday, May 13, 2011

0800 – 1800	AAPG Field Trip No. 4 (Upper Cook Inlet)
0800 – 2000	AAPG Field Trip No. 2 (Tertiary & Holocene Deposits, Nenana Basin)
0800 – 1200	SPE Short Course No. 5 (Downhole Water Control) – Room TBD
0800 – 1700	SPE Short Course No. 7 (Prod. & Res. Engineering for the PE Exam) – Room TBD
1300 – 1700	SPE Short Course No. 6 (OCS Regulatory Review) – Room TBD

Saturday, May 14, 2011

0800 – 1800	AAPG Field Trip No. 4 (Upper Cook Inlet)
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Letter from the PSAAPG President, Cynthia Huggins

I want to invite you all to join us in Anchorage, gateway to one of the “Last Frontiers” for oil exploration, development, and production. The Pacific Section AAPG, SEPM, the Pacific Coast Section of the SEG, will be participating along with the host society, the Alaska Geological Society, and the Western Region of the SPE. David Hite and his team have worked tirelessly to ensure that these organizations provide a cross-discipline environment offering attendees a wide variety of technical presentations, poster sessions, short courses, and field trips.

The theme of the conference is Arctic to the Cordillera: Unlocking the Potential. You will have the opportunity to see how much potential is left to be realized, how much work has been done to characterize it, and how much work is yet to be completed. A wide array of oral and poster sessions have been compiled by Sandy Phillips and Steve Wright. There will be fourteen oral and five poster sessions to peak and keep your interest during the conference. On a regional scale there are sessions on Geology and Hydrocarbon Potential of the North Slope, Offshore Beaufort and Chukchi Seas, Geology and Tectonics of North Alaska, Petroleum Systems in Alaska and the Western Cordillera, and Paleozoic and Proterozoic Geology of Alaska. On the development side there are sessions covering North Slope fields and the Cook Inlet. There are a wide range of sessions related to oil field production and modeling, including Reservoir Modeling, Reservoir Quality, and Case Histories with the application of geophysical data and seismic. There are sessions focusing on technology advances and applications, as well as advances in seismic data acquisition and processing.

For those of you who want to get out and touch the rocks, there will be four field trips, one before and three after the conference. Before the conference, Sue Karl and Rod Combellick are leading the Turnagain Arm-Resurrection Bay Field Trip that traverses the Mesozoic accretionary complex and a portion of the 1964 megathrust deformation zone in south-central Alaska. Don't forget your calf-high rubber boots and good rain-wind gear!

After the conference, Dave LePain, Ken Helmold, Bill Morris, Greg Wilson, Bob Gillis and Marwan Wartes will be leading folks down to the Cook Inlet to study sedimentology, reservoir quality, and tectonic setting of Late Miocene-Early Pliocene gas-bearing formations, in Upper Cook Inlet, Alaska. Mike Belowich and Anne Pasch will be leading a trip to the Wishbone Hill. This daylong excursion in four-wheel drive vans from Anchorage into south-central Alaska's lower Matanuska Valley will expose participants to bituminous coal fields, the old Evan Jones coal mine and strip pits that are still open.

The final field trip will take participants to the Tertiary (coal bearing) and Holocene deposits of the Nenana Basin, Alaska. Jerry Siok and Steve Wilbur will lead the traverse up the Susitna River Valley through the central Alaska Range to Tertiary interior basins. If the weather permits we will have classic views of Denali, the highest peak in North America. The drive north will be a general tour of central Alaska geology and will include stops overlooking the Alaska Range with discussions and displays illustrating the tectonics of south-central Alaska. Along the way, you have the opportunity to observe large scale fluvial depositional systems and be able to relate stream processes to outcrop scale features.

In addition to the technical sessions and field trips, there will be short courses and a core workshop focusing on the reservoirs of the North Slope oil fields. The core workshop will address sedimentology, depositional environment, and the reservoir character and factors controlling porosity and permeability. Planned short courses include a one day short course on the Tectonic Evolution of Arctic Alaska and its influence on North Slope Basin Evolution and Petroleum Systems taught by David Houseknecht and Wes Wallace. The course will address the regional impact on subsidence deposition and deformation within the basin.

So please take advantage of all this hard work by the volunteers of the participating organizations and make plans to attend the convention. Alaska and its oil patch experience will be rolled out for you in a stimulating technical program and great field trips. Come see the latest technology and avail yourself of the opportunity to see old friends and meet new ones. I hope to see you in Anchorage this May!

Cheers,
Cynthia Huggins - President
Pacific Section AAPG

Message from the Western Region SPE Director, A.M. Sam Sarem

On behalf of SPE and the Western North America Region, I warmly welcome you to the 2011 SPE Western Regional/AAPG Pacific Section Cordilleran Joint Meeting. Such meetings and conferences are at the heart of SPE's mission to disseminate technology and support the professional development of current and future engineers in the oil industry. Your enthusiastic participation as attendees and/or authors is critical to the meeting's success as well as SPE's. This is also true for sponsors and exhibitors that support the development resources in this region of western North America.

Due to the enthusiastic and outstanding leadership of Michael Husband, General Meeting Chair; Matthew Mower, the Alaska section Chair and its hard-working Section BOD, generous support of sponsors and participation by the exhibitors, and efficient assistance of SPE staff, we are positioned to have another memorable SPE Event.

Holding the 2011 joint Western Regional Meeting in Anchorage, Alaska provides the ideal setting for bringing together the technical and professional industry leaders for exciting discussions. Also, for exchange of ideas regarding this industry's challenges and innovative technologies for the development of oil and gas resources.

To facilitate sharing experiences and networking, this meeting offers a comprehensive technical program that covers a variety of subjects including challenges of heavy oil to low permeability fractured reservoirs, simulation to stimulation, regulatory and HSE issues to field management and smart field technologies. The proximity to the massive Prudhoe Bay should result in a stimulating discussion on Efficient Waterflooding Processes. Additionally, we will have an excellent set of exhibits of the latest technologies for your perusal and learning. And, the registration fee will be waived for the Legion of Honor SPE Members (those who have been a member of SPE in good standing for 50 or more years).

The SPE Western North America Region student paper contest will also be held just prior to the conference. The top presentations will be highlighted in a "Best of WRM 2011 Student Paper" session where attendees will hear and share topics with newest generation of engineers entering this industry.

We welcome also those from other US and international regions that share the need for the same kinds of technology mentioned above.

I thank you for your participation in the 2011 SPE WNAR/AAPG Pacific Section Cordilleran Joint Meeting and for supporting your professional society. I am confident that this will be a great learning experience for you.

All the best,

A.M. Sam Sarem, SPEI Director
Western North American Region

Message from the 2011 Convention Co-Chairs

We are pleased to announce the 2011 joint meeting of the Pacific Section of the American Association of Petroleum Geologists and the Western North America Region of the Society of Petroleum Engineers. The theme of the meeting is "Arctic to the Cordillera: Unlocking the Potential." The theme is appropriate because Alaska is one of the primary areas of North America in which large reserves of conventional and unconventional oil and gas remain to be discovered and produced. In addition, Anchorage is the ideal setting for such a discussion as it is the business hub where most of the plans are made about the exploration and development of Alaska's oil and gas resources. Past success in Alaska provides an excellent example of what new forward thinking and risk taking can achieve.

The joint AAPG and SPE conference provides the framework for discussions about the potential that still lies before us, the hurdles to be overcome in an increasingly difficult operating environment, and the technologies which have and will make for successful outcomes. The diverse program of field trips, short courses, oral technical sessions, and poster sessions will provide ample opportunities for stimulating discussions on topics that have had little exposure outside of the state. That said, many of these problems are not unique to Alaska, nor are the problem solving approaches. Ultimately, this conference is intended to bring together experiences from mature and frontier provinces for sharing and discussion. We hope that the meeting will serve to provide some new insights and demonstrate the continued validity of many existing applications. With those thoughts in mind, we extend to all a warm welcome to Anchorage.

Pacific Section AAPG
David M. Hite
Consultant

Western Region SPE
Michael Husband
BP Alaska Exploration

Exhibitors

Schlumberger
Seismic Micro-Technology
Canadian Mat Systems
Dowland-Bach
Echometer Company
Mapmakers Alaska
I.H.S.
Weatherford Laboratories

Space is still available; please contact Tom Walsh at twalsh@petroak.com.

86th Annual Meeting of the Pacific Section, American Association Petroleum Geologists
and
81st Annual Meeting of the Western Region, Society of Petroleum Engineers
with
Pacific Section, Society for Sedimentary Geology (SEPM)
Pacific Coast Section, Society of Exploration Geophysicists
Alaska Geological Society

Pacific Section AAPG Officers

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Vice President	Jeff Gartland
Secretary	Tony Reid
Treasurer	Cheryl Blume
Treasurer-Elect	Jana McIntyre
Past President	Scott Hector
Editor In Chief	Ed Washburn

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President-Elect	Ken Helmold
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Treasurer	Al Hunter
Secretary	Chad Hults
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Program Chairperson	Forest Bommarito
Membership Chairperson	Dan Young
Treasurer	Jenny Cronlund
Secretary	Olivia Bommarito
SPEI Director, W North America	Sam Sarem
SPE Sections Manager	Brian Wiggins

Local Committee

AAPG Co-chair	David Hite
SPE Co-chair	Michael Husband
Oral Program Co-chairs	Sandy Phillips, Gordon Pospisil, Randy Roadifer, Jack Hartz
Poster Session Co-chairs	Reed Boeger, Maggie Orlando, Steve Wright
Exhibits	Igbokwe Chidiebere, Tom Walsh
Field Trips	Tom Plawman
Short Courses and Workshops	Jerry Anderson, Pat Collins, Robert Morse, Jane Williamson
Registration	Heather Heusser, Julie Houle, Dan Young
Finance	Olivia Bommarito, Jenny Cronlund, Al Hunter
Corporate Sponsorship/Advertising	Jenny Jemison, Doug Waters
Judging	Peter Barker, Reed Boeger, Abhijit Dandekar, Maggie Orlando
Publications / Website	Joe Anders, Steve Davies, Esther Fueg, Jan Hazen, Peter Johnson, Taylor West

General Information

Find up to the minute information at <http://www.psaapg.org> or <http://www.alaskageology.org>. Please contact the general meeting co-chairs: David Hite, hiteconsult@acsalaska.net (AAPG) or Michael Husband, michael.husband@bp.com (SPE) if you have questions. Local hosts are the Alaska Geological Society and Alaska Section Society of Petroleum Engineers.

Registration

For the conference, registration and payment will be online only.

Early registration deadline: April 15, 2011 Cancellation deadline: April 22, 2011

Register at <http://www.psaapg.org/convention.aspx>.

SPE Short Course registration is separate (register at <http://www.pttcwestcoast.org>).

All meeting badges will be distributed on-site.

- **Early registration rates; (before April 15, 2011)**

Professional SPE and AAPG Members: Full meeting = \$250; One day = \$100

Professional Nonmembers: Full meeting = \$300; One day = \$125

Student: Full meeting = \$65; One day = \$35

Guest or Spouse*: \$60;

K-12 Professional: \$60

Field Trip or Short Course only: \$35

Joint Proceedings CD-ROM (includes SPE papers): available for purchase onsite at the conference

- **Late or on-site registration rates**

Professional Members: Full meeting = \$300; One day = \$125

Professional Nonmembers: Full meeting = \$350; One day = \$140

Student: Full meeting = \$90; One day = \$45

Guest or Spouse*: \$75

K-12 Professional: \$75

AAPG Field Trip or Short Course only: \$45

SPE Short Course: \$100 - \$200 (Register @ <http://www.pttcwestcoast.org/>)

Joint Proceedings CD-ROM (includes SPE papers): available for purchase onsite at the conference

* Guest or Spouse registration fee does not allow access to technical sessions.

On-Site Registration and Badge Pickup Schedule

Registration will be in the main lobby of the hotel on Saturday afternoon and Sunday through Wednesday

- Saturday, May 7 3:00 PM – 6:00 PM
- Sunday, May 8 8:00 AM – 6:00 PM
- Monday, May 9 7:30 AM – 5:00 PM
- Tuesday, May 10 7:30 AM – 4:00 PM
- Wednesday, May 11 7:30 AM – Noon

The Venue

The meeting is being held in downtown Anchorage. Temperatures are cool to mild in early May (30-50°F), with a possibility of rain showers.

Convention Hotel – Anchorage Sheraton Hotel

- 401 East 6th Avenue
- Anchorage, Alaska 99501
- Phone: 1-907-276-8700
- Fax: 1-907-276-7561

Hotel Accommodations

A block of rooms has been reserved at a discounted rate at the meeting venue hotel, the Anchorage Sheraton Hotel at 401 East 6th Avenue, Anchorage, Alaska 99501. **The deadline for the hotel reservation at the discounted rate of USD\$105 + tax/standard room is April 21, 2011. Rates for other rooms are Club Level = \$135/night, Suites = \$400-\$600/night and 3rd and 4th persons/room are \$10/night each.** Any reservation requests received after the deadline date will be available on a space and rate available basis. To make hotel reservations proceed to the PS-AAPG website <http://www.psaapg.org> and click on the "reserve a room at convention hotel" link.

Parking

Meeting attendees can park on-site in the self parking areas of the Sheraton for \$10/day, with in and out privileges. Attendees will need to go to the front desk and tell them that you are attending the conference.

Dining

There are numerous restaurants at the Sheraton and within 8-10 blocks of the hotel. Most of these can be reached by a 10-15 minute walk west along 5th or 6th Avenues.

Getting Around the Area

Most local attractions and abundant restaurants are within walking distance of the conference hotel. The other options are cabs and rental cars. The local mass transit (bus system) is not conducive to easy access and spot-to-spot travel in the downtown area.

Internet Access at the Meeting

Overnight Guests: Internet Locations and Charges

- In Room (Wi-Fi): \$9.95/day (each calendar day)
- The Link by Sheraton-Lobby Level: 4 internet PC's with complimentary access for overnight guests
- Lobby (Wi-Fi): Complimentary Wi-Fi access for overnight guests

Non Overnight Guests-Locations and Charges

- Available in the Link by Sheraton or Lobby at a charge (\$5.95 for 15 minutes)

Accessibility

AAPG and SPE are committed to making its meetings accessible to all.

Cancellations, Changes, and Refunds

Requests for additions, changes, and cancellations must be received by April 15, 2011. No refunds will be made on cancellation notices received after this date. Refunds will be mailed after the meeting; refunds for fees paid by credit card will be credited to the card identified on the registration form. The meeting cannot provide refunds for on-site registration, Abstracts with Programs, or event ticket sales.

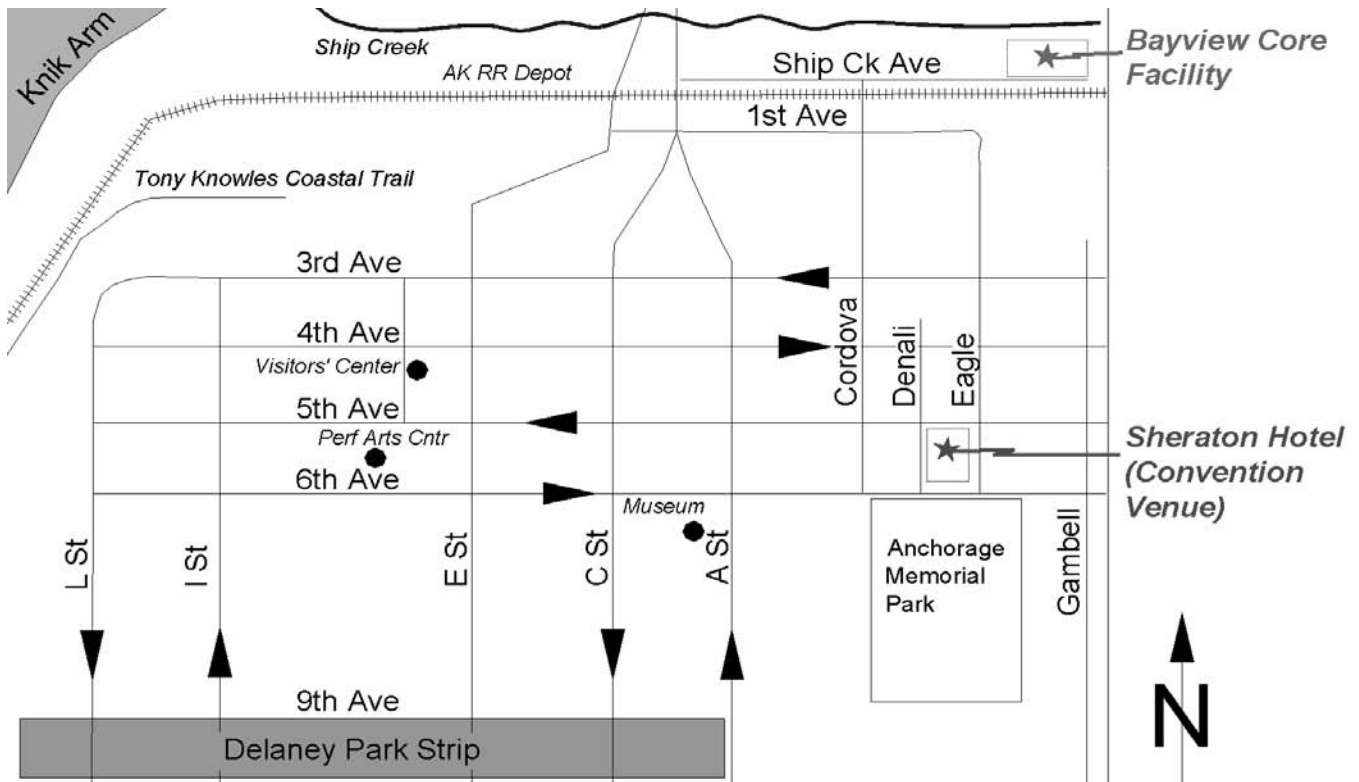
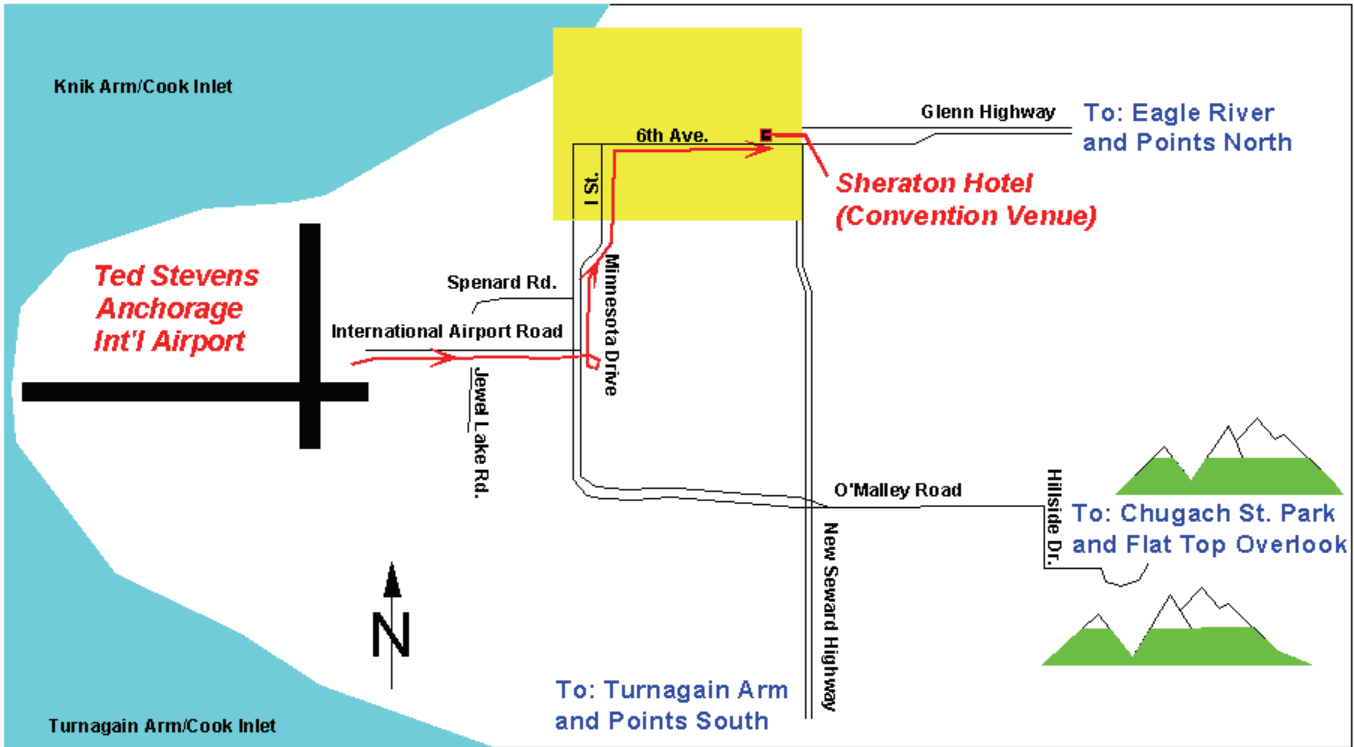
Directions

From Ted Stevens Anchorage International Airport

The Anchorage Sheraton Hotel is located about 6 miles northeast of the Ted Stevens Anchorage International Airport.

Driving Directions

- Head south to W. International Airport Road
- Continue straight onto W. International Airport Road
- Turn left at the Spenard Rd/Jewel lake Rd. Intersection
- Turn left at Minnesota Dr. and drive north
- Continue on I St. (Minnesota becomes I St.)
- Turn right on W. 6th Avenue.
- Continue east to 401 East 6th Avenue (at the northeast corner of 6th Avenue and Denali St.)



Simplified Maps of the Anchorage Area

Special Events

- Opening session: Sunday, May 8, 4:00 – 6:00 PM Howard Rock Ballroom
- Exhibit Opening; Sunday, May 8, 6:00 PM, Kuskokwim Room, Foyer, and Atrium
- Ice Breaker in Exhibits area: Sunday, May 8, 6:00 – 8:00 PM Kuskokwim Room, Foyer and Atrium. Come enjoy hors d'oeuvres with the exhibitors.
- Speakers breakfasts: Monday May 9 through Wednesday May 11, 7:00 AM – 7:45 AM, The Summit
- Pacific Section AAPG Luncheon: Monday May 9, 11:30 AM – 1:30 PM; Howard Rock Ballroom, **\$45/person**
- Society of Petroleum Engineers Luncheon: Tuesday May 10, 11:30 AM – 1:30 PM; Howard Rock Ballroom, **\$45/person**
- An Evening at the Alaska Native Heritage Center – sponsored in part by **BP Exploration (Alaska), Inc.**, Tuesday May 10, 6:45 PM – 10:00 PM, **\$40/person including bus transport to the Center**

Business Meeting and Luncheons

- AAPG House of Delegates Breakfast: 8:00 – 9:00 AM, Monday, May 9, The Summit.
- Division of Professional Affairs luncheon: 11:30 AM – 1:00 PM, Tuesday May 10, Susitna Room; Speaker Dr. Mark Myers, Vice Chancellor for Research at the University of Alaska Fairbanks; topic – The North Slope of Alaska 43 years after Prudhoe Bay State No. 1 – Opportunities and Challenges. \$45/person
- Pacific Section AAPG Executive Committee Meeting: Wednesday, May 11, 5:00 – 6:00 PM, Hospitality Suite

Guest Activities

Two optional spouse or guest tours are offered for those not attending the technical sessions during the active convention hours. One is the Highlights of Anchorage Tour and the other is the Alyeska Tour – a first class ski resort.

Alyeska Tour (May 9, 2011)

Just 40 miles outside of the Anchorage city limits awaits a true beauty of the most magnificent kind at the Alyeska Resort. A short, scenic drive along the Turnagain Arm provides many photo opportunities. Once into Girdwood, the old road will take you past downtown Girdwood and into the heart of Alaska's first class ski resort. Nestled among the Chugach Mountains, Alyeska Resort offers up the great outdoors, lush green forests, majestic mountains, fresh air, and tons of history. An aerial tram ride to the top of Mount Alyeska will provide you with many more photo opportunities and breath-taking views. Once you have reached the summit, you will enjoy lunch at Seven Glaciers Restaurant, Alaska's only AAA four diamond eatery offering signature Alaskan entrees in an elegant atmosphere. After lunch, you will have a chance to peruse the mountain top museum and learn about the early beginnings of this mining town turned ski resort. **Roundtrip time 4-5 hours.**

Date: May 9, 2011. Departs Sheraton Hotel at 9:30 AM and returns about 2:30 PM

Cost: USD \$75 per person (Includes roundtrip transportation, narrated tour, tram fee, lunch at Seven Glaciers Restaurant, and ADS escort.)

Minimum required: 30

Highlights of Anchorage Tour (May 10, 2011)

This city adventure starts with a pick up from the Sheraton Hotel. The tour will begin at the Port of Anchorage and Ship Creek. Take in the views of the city from the port as your tour guide explains the history of the Port of Anchorage and the Ship Creek area. Next we travel to Earthquake Park and the busiest seaplane base in the world, Lake Hood! Follow your tour guide through Earthquake Park to see the site of the memorial of the 1964

Earthquake. See what happened to the land as it broke apart and slid into the Cook Inlet. Cook Inlet views and pictures from here are a favorite for guests! Down the street, visit the historic original site of the David Green Master Furrier Showroom, which offers a selection of furs not found anywhere else in the world! Lunch will be at the Sourdough Mining Company, where you will be taken back to the mining days of our great city at this family-owned Alaskan restaurant. After lunch visit the largest chocolate fountain in the world at the Alaska Wild Berry Products gift store and souvenir shop. This small family-owned shop boasts the finest Alaska made chocolates, jellies, jams, and other treats. Walk through the park at your leisure and see a replica of a rustic, old-time Alaskan town. After lunch and a walk in the park, guests will travel to Potter's Marsh for an opportunity to see wildlife, and a view of Cook Inlet. **Roundtrip Time: 4-5 hours.**

Date: May 10, 2011. Departs Sheraton Hotel at 9:30 AM and returns about 2:30.

Cost: USD \$70 per person (Includes roundtrip transportation, narrated Anchorage tour, lunch at Sourdough Mining Company and Wild Berry Alaska products, stop at David Green Master Furriers, stop at Potter's Marsh, and ADS escort)

Minimum required: 30

Volunteers Needed

Volunteers are desperately needed, especially for judging the AAPG oral and poster sessions, if you are interested please contact Peter Barker @ pbarker@gci.net or call 907-248-7114.

Technical Program

Organization of the Oral Sessions

Most of the AAPG oral theme sessions will consist of 20-minute presentations (roughly 15 minutes for talk and 5 minutes for questions/discussion). Most SPE talks will be in 30-minute time slots. For both the AAPG and the SPE sessions, this may not be the final program. Please refer to the program addendum in your registration packet or at the registration booth for the final SPE presentation listing.

Presentation Hardware and Software

In all sessions, only one laptop computer (PC) running Windows 7 operating system with PowerPoint 2007 software, one LCD projector, and one screen will be provided. Speakers will not be able to use their own computer for presentations. All speakers should double-check their presentations, especially speakers who built their talks on another platform (e.g., Mac), by loading and running it on the computers in the Speaker Ready Room (Room 308) to ensure it runs properly.

Uploading your presentations

Plan to upload your presentations via a USB drive or CD in the Speaker Ready Room (Room 308). For morning sessions, please have your presentations loaded by no later than 7:15 AM on the morning of the talk, but loading the presentation the afternoon before the talk is preferred. Speaker Ready Room will open at 10:00 AM on Sunday. For afternoon sessions, please have your presentations loaded by 12 noon on the day of the talk. Speaker Ready Room volunteers will be available to help with uploading your talk.

Poster sessions

AAPG poster presentations will take place in the Yukon Room on the 2nd floor adjacent to the Howard Rock Ballroom. For morning sessions, posters should be displayed from 8:30 AM to 12 noon. Presenters should be present between 9:30 and 11:30 AM. For afternoon sessions, posters should be displayed from 1:30 PM to 5:00 PM. Presenters should be present between 2:30 and 4:30 PM. All posters must fit on 8 ft. x 4 ft. display board using push pins or Velcro (provided). Electrical connections and internet service are not available in the designated poster areas.

For general information about the technical sessions and symposia, contact the Oral Session Co-Chairs Sandra Phillips (AAPG) Sandra.Phillips@bp.com or Jack Hartz (SPE) jhartz@alaska.com and for Poster Sessions contact Steve Wright (AAPG) sswr@chevron.com.

FIELD TRIPS

Field Trip 1

Title: Turnagain Arm-Resurrection Bay Field Trip

Dates: May 6-7, 2011 (Depart Sheraton Hotel 7:30 AM Friday, May 6. Return to Sheraton Hotel 7:00 PM Saturday, May 7)

Field Trip Leaders: Susan Karl (USGS) and Rod Combellick (Alaska DGGG)

For more information contact Susan Karl at skarl@usgs.gov.

Cost: USD \$551 double occupancy, \$591 single occupancy - includes transportation and admissions, 1 dinner, 1 breakfast, 2 box lunches, and snacks.

Minimum Number of Participants: 25

Maximum Number of Participants: 35

Requirements: Calf-high rubber boots will be needed for approaching some exposures on this trip. We will hope for sunny weather but good rain-wind gear and cool-weather clothing are also advised.

Description: This 2-day field trip will traverse the Mesozoic accretionary complex and a portion of the 1964 megathrust deformation zone in South Central Alaska. Day 1 will be a transect across the accretionary complex as it is exposed along Turnagain Arm. We will also observe the consequences of Paleocene to Eocene spreading ridge subduction and late Holocene Pacific plate subduction as manifested by the 1964 M9.2 earthquake, including evidence of great paleoearthquakes as recorded in coastal marsh deposits. On Day 2 we will visit the Alaska Sea Life Center, view Seward Harbor (the location of one of the 1964 tsunamis that were responsible for 106 of the 115 deaths related to the 1964 earthquake), and we'll take a boat tour to look at the Resurrection Peninsula ophiolite, part of the active spreading center that was subducted in the early Eocene. The boat tour will include opportunities to see coastal birds and marine life, as well as spectacular scenery.

Field Trip 2

Title: Tertiary Coal Bearing and Holocene Deposits, Nenana Basin, Alaska

Dates: May 11-13, 2011 (Depart Sheraton Hotel 1:00 PM Wednesday, May 11. Return to Sheraton Hotel 8:00 PM Friday, May 13)

Field Trip Leaders: Jerry Siok (BP Exploration (Alaska), Inc.) and Steve Wilbur, Ph.D.

For more information contact Jerry Siok at jerry.siok@bp.com.

Cost: USD \$600 double occupancy, \$700 single occupancy - Cost includes all transportation (from & return to the Sheraton), two nights lodging, breakfasts, box lunches in the field and snacks along the way. Participants are responsible for their own dinners.

Minimum Number of Participants: 20

Maximum Number of Participants: 27

Requirements: This trip departs Anchorage at 1 PM on day 1 and returns to Anchorage by 8 PM on day 3. Trip participants must be physically able to walk 1 mile roundtrip up Suntrana Creek, ascend alluvial fans and walk on braided gravel bars. Typical weather in early May can range from warm and clear to wet, cold and snow. Rain gear and cool-weather clothing are recommended. Suitable waterproof footwear with ankle supports or rubber boots are required for the walk up the Suntrana type section on day 2. This time of year should afford good visibility of outcrops, but weather is very unpredictable – so be prepared.

Description: This trip will depart Anchorage and traverse up the Susitna River Valley through the central Alaska Range to Tertiary Interior basins. The drive north will be a general tour of central Alaska geology and include stops overlooking the Alaska Range with discussions and displays illustrating the tectonics of south-central Alaska. Weather permitting, we will have classic views of Denali, the highest peak in North

America. Along the way we will observe large scale fluvial depositional systems and be able to relate stream processes to subsequent outcrop scale features. Two (2) nights will be spent in Healy, 250 miles North of Anchorage. We will examine in detail outcrop examples of Tertiary to Holocene fluvial and alluvial sequences in the Nenana Basin. Recent oil and gas exploration drilling has targeted these systems further north in the basin. We will walk up the type section of the Tertiary Coal Bearing Usibelli Group and Nenana Gravels with world class badland outcrop exposures. Usibelli Coal Mine Inc. is the only operating coal mine in Alaska. They will show us their state of the art engineering, modern mining equipment, active mine operations and reclamation activities.

Field Trip 3

Title: Wishbone Hill Field Trip

Dates: May 12 (Depart Sheraton Hotel 8:00 AM, Thursday May 12. Return to Sheraton 5:00 PM, May 12)

Field Trip Leaders: Mike Belowich (Alaska Earth Sciences), Anne Pasch, University of Alaska Anchorage

For more information contact Mike Belowich at mbelowich@alaskaearthsciences.com.

Cost: USD \$60 - includes box lunch and drinks.

Minimum Number of Participants: 8

Maximum Number of Participants: 22

Requirements: Weather in May can be variable. Participants for the Wishbone Hill field trip should come prepared for the elements with proper hiking footwear, warm clothing, and raingear.

Description: The Wishbone Hill Field Trip is a daylong excursion by four-wheel drive vans from Anchorage into south-central Alaska's lower Matanuska Valley and its bituminous coal field, to see the old Evan Jones coal mine and still open strip pits. Leaders will meet field trip participants in the lobby of the Sheraton Hotel in downtown Anchorage at 8:00 AM on May 12th to give a brief overview of the field trip prior to boarding. A bedrock geologic road log and other materials on the area will be provided to participants.

The field trip area to be visited is very important in Alaska's early coal mining industry. The U.S. Navy's interest in high quality bituminous steaming coal for use in its early 20th Century Pacific Fleet was the driving force behind the initial construction of the Alaska Railroad to reach the Chickaloon coal field, located about 20 miles east of Wishbone Hill. Also around this time period (1914 – 1920), spur railroad lines were built to the Wishbone Hill area by the Alaska Engineering Commission to access the coal resources there. Interestingly, Anchorage was initially founded in 1915 as a tent camp for workers building the railroad to these coal fields. There is currently renewed interest by companies looking to reestablish the coal mines for export purposes as a result of the increasing global demand for high quality bituminous coal which the area possesses. Wishbone Hill is also a world class paleontological site for Early Tertiary fossils.

The first stop on the tour will be an overlook of Usibelli Coal Mine's new proposed Wishbone Hill strip mine that will be described by Rob Brown, Usibelli Project Manager for Wishbone Hill coal development. The group will then move on to the old Evan Jones Mine located near Sutton, at which point Mike and Anne will lead the tour.

Field Trip 4

Title: Sedimentology, Reservoir Quality, and Tectonic Setting of Late Miocene-Early Pliocene Gas-Bearing Formations, Upper Cook Inlet, Alaska

Dates: May 12-14 (Depart Sheraton Hotel 8:30 AM Thursday, May 12. Return to Sheraton Hotel 6:00 PM Saturday, May 14)

Field Trip Leaders: Dave LePain (Alaska DGGs), Ken Helmold (Alaska DOG), Bill Morris (Conoco-Phillips), Greg Wilson (Conoco-Phillips), Bob Gillis (Alaska DGGs), Marwan Wartes (Alaska DGGs)

For more information contact Dave LePain at dave.lepain@alaska.gov.

Cost: USD \$565 double occupancy, \$675 single occupancy - includes all transportation (start and finish at the Sheraton Hotel), all meals, two nights lodging, and field guide. Dinners in Soldotna and Homer will include a no host bar. A limited number of single occupancy rooms will be reserved for participants on a first come, first served basis.

Minimum Number of Participants: 21
Maximum Number of Participants: 35

Requirements: Trip participants must be physically able to walk up to 1 ½ to 2 miles roundtrip on each beach walk, which will include descending/ascending steep gravel beach access roads and walking on soft sand and gravel. Typical weather in early May can range from warm and mild to wet, cool, and windy. Lightweight rain gear and warm wind-blocking clothing are recommended. Suitable footwear, such as lightweight hiking boots or rubber boots, is highly recommended.

Description: The Cook Inlet forearc basin is a long-lived feature that extends from Shelikof Strait in the southwest through the east-west length of the Matanuska Valley in the northeast. The stratigraphic record of this basin includes a thick Mesozoic succession overlain by nearly 26,000 feet of Tertiary non-marine coal-bearing strata. All significant petroleum production to date has come from Tertiary age reservoirs in upper Cook Inlet. This field trip examines the sedimentology, sand body geometries, and reservoir quality of gas-bearing late Miocene and early Pliocene strata (Beluga and Sterling Formations) exposed in coastal bluffs between Soldotna and Homer on the Kenai Peninsula. The tectonic context of the forearc basin is explored during the first day through several stops in Mesozoic age rocks of the accretionary complex bordering the eastern basin margin. The sedimentology and sand body geometries of the upper Sterling Formation are examined the second day through two beach walks, the first at Clam Gulch south of Soldotna and the second at a location near Ninilchik. Exposures of the Beluga Formation are examined the third day through a beach walk northwest of Homer. Brief sedimentologic, petrologic, and tectonic overviews will be presented prior to the start of each beach walk. Participants will return to Anchorage by 6 PM the third day.

AAPG SHORT COURSES AND WORKSHOPS

AAPG Short Course 1

Title: Core Workshop: Reservoir Potential of the Western North Slope

Dates: May 6, 2011 9:00 AM to 4:00 PM

Course Leaders: Dick Garrard (FEX), David LePain (Alaska Division of Geological and Geophysical Surveys), Ken Helmold (Alaska Division of Oil and Gas), Paul Decker (Alaska Division of Oil and Gas), Greg Wilson (Conoco-Phillips), Dave Houseknecht (US Geological Survey), Ken Papp (Alaska Department of Natural Resources)

For more information contact Dick Garrard at garrard@alaska.net.

Location: Bayview Core Facility (ConocoPhillips) Anchorage

Cost: USD \$100 – lunch/refreshments provided

Maximum Number of Participants: 45

Description: Reservoir quality and continuity is a significant concern for exploration and development opportunities across the Western North Slope. Hydrocarbon bearing reservoirs are present throughout the stratigraphic interval ranging from the early Ellesmerian (Mississippian) through to the mid-Brookian (Upper Cretaceous). The associated sedimentary facies include non-marine fluvial, deltaic, shallow marine and deep water turbidite clastics. Carbonate reservoir are more limited and are restricted to the Lisburne (Mississippian to Pennsylvanian) and Shublik (Triassic).

The Western North Slope Core Workshop will include a number of representative cores provided by Industry and the GMC covering the key reservoirs. Apart from core descriptions, other information will include facies analysis, porosity and permeability determinations, and petrology. If possible this information will also be related to outcrop and subsurface data such as seismic.

AAPG Short Course 2

Title: Tectonic Evolution of Arctic Alaska and Its Influence on North Slope Basin Evolution and Petroleum Systems

Dates: May 7, 2011 8:00 AM to 5:00 PM

Course Leader: David Houseknecht (US Geological Survey), Wes Wallace (University of Alaska, Fairbanks)

For more information contact David Houseknecht at dhouse@usgs.gov.

Location: Sheraton Hotel, Room to be determined

Cost: USD \$50

Maximum Number of Participants: 45

Description: David Houseknecht and Wes Wallace will present a one-day short course on how the tectonic history of Arctic Alaska has influenced the evolution of the North Slope sedimentary basin. The Brooks Range, its Siberian extension, and the Arctic Ocean basin provide the regional framework for the basin. We will summarize the major events in their evolution and then address the regional impact of those events on subsidence, deposition, and deformation within the basin. Our objective is to provide a regional context in which to place the deposition of source and reservoir rocks, generation and migration of hydrocarbons, and formation of stratigraphic and structural traps. We will emphasize the history from Jurassic to present, but will review how earlier events have influenced that later history.

AAPG Short Course 3

Title: Managing Your Business using PRMS (1-day)

Dates: May 12, 2011 8:00 AM to 5:00 PM

Course Leaders: John Etherington (PRA International Ltd.)

For more information contact John Etherington at prainternational@shaw.ca.

Location: Sheraton Hotel, Room to be determined

Cost: USD \$135

Minimum Number of Participants: 35

Maximum Number of Participants: 50

Description: In March 2007, the Society of Petroleum Engineers (SPE) released new guidelines to for the classification of petroleum reserves and resources. This Petroleum Resources Management System (PRMS) is co-sponsored by the World Petroleum Council (WPC), the American Association of Petroleum Geologists (AAPG), and the Society of Petroleum Evaluation Engineers (SPEE). These same sponsors have formed a Joint Committee for Reserves Evaluator Training (JCRET) to review and endorse training courses in the area of resources assessment and reporting. This course is the first endorsed by JCRET and discusses how companies are implementing PRMS to better manage their business. JCRET provides 0.8 continuing education credits (CEU's) for this course.

Topics include:

- background to the revision project
- basic principles and key guidelines in PRMS
- support of resources project and portfolio management
- integration with regulatory reserves disclosures (includes a comparison of PRMS guidelines to SEC and other disclosure rules)
- hybrid deterministic/probabilistic assessments
- accommodating unconventional resources
- improving quality assurance/quality control in resource evaluations
- interface with mineral classifications and evolving accounting standards

Course Leader: John Etherington is Managing Director of PRA International Ltd., a Calgary-based consulting firm advising industry on resources assessment, reserves disclosures, and portfolio management processes. He previously spent over 32 years with Mobil Oil in Canada, USA, and international Exploration and Producing assignments including five years in Mobil's central resources audit group. John served on the SPE Oil and Gas Reserves Committee with primary responsibility for the 2006 mapping of major international petroleum resources classification systems and the 2007 PRMS project. He also coordinated SPE's interface with the United Nations Framework Classification and the International Accounting Standards Board's Extractive Activities projects. He was an SPE Distinguished lecturer in 2005/6, has presented papers on resources evaluation issues at AAPG, EAGE, and SPE conferences, and conducted training for over 900 geoscientists and engineers from 40 countries.

SPE SHORT COURSES

These short courses are provided jointly by Petroleum Technology Transfer Council (PTTC) and Alaska SPE. Thanks to Schlumberger Testing Services, Multi Phase Meters, Inc. and Halliburton for their donations to these workshops.

Registration and Payment: Short course registrations and payments are being handled separately from the Joint Meeting payments. Registration includes workshop, materials, refreshments, and lunch. The workshops costs are \$100 for a half day workshop and \$200 for a full day workshop. Advance registration required and seating is limited and based on when payment received. The easiest way to reserve a seat is registering online at <http://www.pttcwestcoast.org/>. Payment can be made online using PayPal, or made by check to "PTTC", or you can contact us by phone with your Visa or MasterCard only. PTTC West Coast, 5100 California Ave Suite 200, Bakersfield, CA 93309-0726; Phone: PTTC West Coast at (661) 635-0559; Email: pttcwestcoast@cccogp.org

SPE Short Course 1

Title: Multiphase Metering

Dates: May 12, 2011 8:00 AM to 12:00 PM

Course Leader: Parviz Mehdizadeh (Production Technology, Inc.)

Location: Sheraton Hotel, Room – TBD

Cost: USD \$100

Description: Multiphase meter is a replacement for the traditional test separator and a new way to conduct production measurements and well testing. Some 3000 multiphase meters have been installed worldwide. The technology has been recognized as "enabling technology" for developing satellite reservoirs in GOM and North Slope. The objective of this workshop is to familiarize the production and facility engineers with the operating principle of multiphase and wet gas metering and their application in production operations. Examples of field installations and operating experience will be provided to demonstrate the application and benefits of this technology.

Topics include:

- Production Measurements – Well Testing, Why MP meters
- Multiphase/wet gas measurement techniques
- Poor Well Test Data - Single phase Devices used in MP measurements
- Alaska Regulatory Requirements, MP meters used in NS operations
- Vendor 1 - Principle, Capability /Limitation, Example of Field installation
- Vendor 2 - Principle, Capability /Limitation, Example of Field installation
- Vendor 3 - Principle, Capability /Limitation, Example of Field installation
- Operators comments on current installations, Q&A

Course Leader: Parviz Mehdizadeh holds a B.S. (1960) degree in Physics, an M.S. (1962) and a Ph.D. (1969) in Chemical Engineering and Material Science, all from The University of Oklahoma. He worked at ConocoPhillips from 1962-1993. During this time he was involved in numerous technology development and application projects related to production operations. He directed the Conoco-Norwegian Government technology development programs during the 1979-84, which included projects dealing with offshore structural design and processing of fluids offshore. During the next 5 years, he worked on the Subsea wellhead and production hardware for marginal field developments. From 1989 to 1993, Parviz directed the development and testing of the multiphase and water cut meters for production measurements in new asset developments. He also managed the construction and operation of the Conoco multiphase field test facility in Lafayette, LA. Since 1993 Parviz has been in the consulting practice. He has been involved in the development and field installation of multiphase meters in various locations around the world. He has provided technical advice on selection and specification of multiphase meters for well testing. He has also worked with companies who are involved in the development of novel water cut and multiphase metering systems. Dr. Mehdizadeh is a founding member of the Texas A&M Multiphase Metering Users Roundtable and has presented numerous workshops and training seminars on multiphase metering. He has served on the SPE 2004 Well Operations Program Subcommittee, the SPE Committee on Facilities and Construction, and ASME Sub-Committee 19 on Wet Gas Metering. Parviz has worked with the American Petroleum Institute - Committee on Petroleum Measurements, to develop the API Technical Report 2566 on multiphase metering systems and with Alaska Oil & Gas Conservation Commission to write guidelines for qualification of multiphase metering for well testing.

SPE Short Course 2

Title: Introduction to Well Logging

Dates: May 12, 2011 1:00 PM to 5:00 PM

Course Leader: Todd Sidoti (Schlumberger)

Location: Sheraton Hotel, Room – TBD

Cost: USD \$100

Description: This course is for those who are interested in learning how to read and do simple interpretations with basic open hole wireline logs. Emphasis will be on older logs that are common in mature Alaska basins. The types of logs covered are resistivity, spontaneous potential (SP), sonic, gamma, density and neutron.

Interpretations include:

- Recognizing the presence of gas, oil and salt water
- Using quick look analysis to identify potential producing zones
- Estimating reservoir quality
- Estimating water/oil saturation using a simple Archie Equation
- Short exercises will be included as part of the course so be sure to bring a calculator that does exponents (for Archie's Equation).

Course Outline

- Borehole environment and log header and scales
- Electrical logs-Resistivity and SP
- Radioactive logs-GR, Neutron, Density
- Water saturations using Archie's equation
- Final exercises

SPE Short Course 3

Title: Thermal Recovery

Dates: May 12, 2011 8:00 AM to 5:00 PM

Course Leader: Anthony R. Kovscek (Stanford University) and Louis Castanier (Stanford University)

Location: Sheraton Hotel, Room – TBD

Cost: USD \$200

Description: Steam injection, and thermal recovery in particular, is the most popular enhanced oil recovery method. This one-day course is intended to cover thermal recovery principles and practice from analytical models for vertical wells to field-scale simulation. Both steam injection and in-situ combustion methods are examined. The course consists of lecture, examples, and case studies.

Course Outline:

- Heavy-oil overview: physical properties and thermal recovery processes/potential
- Fundamentals of thermal recovery: viscosity versus temperature functions, and thermal expansivity of oil and rock
- Fundamentals of thermal recovery: viscosity versus temperature
- Analytical and semi-analytical models for evaluation of cyclic steam and steam-drive recovery efficiency.
- Wellbore heat losses
- Case studies of field implementation
- Overview of steam assisted gravity drainage
- In-situ combustion from laboratory tests to field studies

Who Should Attend: This course is intended for engineers and geologists who wish to expand their knowledge of thermal recovery methods and heavy oil. Primarily a reservoir engineering viewpoint is taken. Prior experience with steam injection, in-situ combustion, and heat and mass transfer in porous media is not assumed.

Course Leaders: Dr. Tony Kavscek is an Associate Professor of Energy Resources Engineering and Director of the SUPRI-A project on Thermal and Unconventional Hydrocarbon Recovery. He holds PhD and BS degrees from the University of California, Berkeley and the University of Washington, respectively.

Louis Castanier is Technical Manager of SUPRI-A. He holds PhD, ME, and BS degrees from Toulouse University. Collectively, the SUPRI-A group has contributed over 250 reports and papers on thermal and heavy oil recovery to the literature.

SPE Short Course 4

Title: Drilling and Completions for the PE Exam

Dates: May 12, 2011 8:00 AM to 5:00 PM

Course Leader: Bing Wines (Winrock Engineering Inc)

Location: Sheraton Hotel, Room – TBD

Cost: USD \$200

Description: This course is designed to be an introduction to the Drilling and Completion Engineering Technical Specialty Areas for the Professional Exam. Drilling topics covered include Drilling Operations, Rig Designs, Mud, Cementing, Drilling Hydrostatics, Drill String, Well Control, Bits and Casing Designs. Completion topics covered include Tubing String, Packers and Acid/Frac Designs. BE SURE TO BRING A CALCULATOR TO CLASS.

Course Outline:

Drilling

- Rig Power, Pumps, Design
- Drilling Line
- Mud Design
- Cement Design
- Cementing Placement
- Hydrostatics
- Drill String Design
- Well Control
- Bit and Bit Hydraulics
- Casing Design
- Well Design

Completion

- Tubing String
- Pressures Piston Effect
- Buckling Effect
- Ballooning Effect
- Temperature Effect

- Acid/Frac Design
- Treating Pressures
- Perforations
- Dual Fracs
- Limited Entry Fracs

Course Leader: Gary Bing Wines graduated from the University of Oklahoma in 1962 with a B.S. Degree in Petroleum Engineering and worked for Cities Service Oil Company in Odessa, Texas, and Great Bend, Kansas. He moved to Oklahoma City and worked for Tenneco and Lear Petroleum before getting into the Consulting business in 1976 as Winrock Engineering, Inc. He was a member of the SPE Engineering Registration Committee from 1973 to 1989 (16 years) and was chairman for two terms in 1975 and 1976. He prepared and scored Petroleum Professional Exams for SPE and NCEES in the mid 1970's and helped to prepare and score exams through 1986. He was the primary author of the first edition of the SPE book, "A Guide to Professional Registration for Petroleum Engineers" in 1979 and helped re-edit it through its fifth edition in 1985. He helped set up and co-instructed the first Professional Registration Review Course for Petroleum Engineers in 1979 for SPE and continued to co-instruct the Course through 1988 for SPE. Since 1989, he has continued to instruct similar P.E. Review Courses throughout the U.S. He has authored several papers on Professional Registration. He is currently a licensed Professional Engineer in Oklahoma. He became a SPE Distinguished Member in 1987, received a SPE Regional Service Award in 1989 and became a forty-five year SPE member in 2010.

SPE Short Course 5

Title: Downhole Water Control

Dates: May 13, 2011 8:00 AM to 12:00 PM

Course Leader: Robert Lane (Texas A&M)

Location: Sheraton Hotel, Room – TBD

Cost: USD \$100

Description: This downhole water control course will cover:

- Mechanisms of excess water or gas production and poor sweep in matrix and fractured reservoirs.
- Diagnosis of excess water or gas production mechanisms.
- Factors that affect selection of appropriate candidate wells for water or gas shut off in producers and sweep improvement treatment of injectors.
- Established technologies for water and gas shutoff and conformance improvement.
- Which technologies work best for given problem types (traditional methods plus chemical methods).
- Misconceptions about what water and gas shutoff chemicals can do; where they will and won't work.
- Status of emerging water and gas shut off and sweep improvement technologies.
- Case histories will be relevant to water problems in Western US/Alaska reservoirs.

Course Outline:

- The oilfield fluid cycle and the impacts of excess water production.
- Mechanisms of excess fluid production and cycling.
- Determining mechanisms of water and gas influx using existing data.
- Additional diagnostics, with emphasis on low cost approaches.
- Technical and economic issues of established and emerging technologies.
- Mechanical methods and cement.
- Downhole separation methods.
- Polymer gel technologies: what they do best (and what they do not!); design, placement and field QC.
- Case histories of field work addressing problems relevant to the region.

Course Leader: Dr. Robert Lane has extensive experience in both academia and industry. He spent 15 years working with international operators in research and field operations engineering positions. He has experience in formation damage, producer and injector stimulation, remedial cementing, coiled-tubing workovers and water and gas shutoff in Alaska. He also spent eight years as an independent consultant to national and international operators solving excess water and gas production problems. He has been an SPE Distinguished Lecturer (1999 2000) on chemical methods of water and gas shut off. Dr. Lane currently holds the Aghorn Energy Development Professorship in Petroleum Engineering at Texas A&M University, College Station.

SPE Short Course 6

Title: OCS Regulatory Review - BOEMRE

Dates: May 13, 2011 1:00 PM to 5:00 PM

Course Leaders: Representatives the US Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE).

Location: Sheraton Hotel, Room – TBD

Cost: USD \$100

Description: The course will provide an overview of existing regulations related to drilling, completion, and operations for federal leases. Particular focus will be placed upon recent approved regulation additions and revisions and other regulations being considered.

SPE Short Course 7

Title: Production and Reservoir Engineering for the PE Exam

Dates: May 13, 2011 8:00 AM to 5:00 PM

Course Leader: Bing Wines (Winrock Engineering Inc)

Location: Sheraton Hotel, Room – TBD

Cost: USD \$200

Description: This course is designed to be an introduction to the Production and Reservoir Engineering Technical Specialty Areas for the Professional Exam. Production topics covered include Rod Pump Design, Pumping Unit Design, Dynamometer and Submersible Pump Designs. Reservoir topics covered include Fluids, Volumetrics, Dry Gas, General Oil and Material Balance Equations. BE SURE TO BRING A CALCULATOR TO CLASS.

Course Outline:

Production

- Rod String Design
- Dynamometer Loads
- Pumping Unit Design
- Submersible Pump Design

Reservoir

- Fluids
- Volumetrics
- Sizing Rules
- Dry Gas Equations
- Generalized Oil Equations
- Material Balance
- Typing Reservoirs
- Indices

Course Leader: Gary Bing Wines (see the description for SPE Short Course 4)

PS-AAPG TECHNICAL PROGRAM

Please be advised that the session listing included here is preliminary due to the fact that the deadline for abstract submission has been extended. The final Technical Program will be available at a later date on the Pacific Section AAPG website, www.psaapg.com, and in the Abstracts with Program distributed at the conference.

ORAL TECHNICAL SESSIONS



SYMPOSIUM IN HONOR OF KEN BIRD

Ken Bird joined the USGS in 1974 following the completion of geology degrees at Oregon State University (B.S. 1961) and the University of Wisconsin (M.S. 1964, Ph.D. 1967), and seven years in the petroleum industry, mostly with Shell Oil Company. During more than 35 years of work for the USGS, Ken established a distinguished record of research, with emphasis on the regional geology, stratigraphy, paleogeography, and petroleum systems of the Alaska North Slope and the broader Arctic. His numerous published papers on the region represent a fundamental body of work that is essential reference material for novice and veteran geologists alike. Throughout his USGS career, Ken's demeanor and authoritative knowledge of North Slope petroleum systems provided a calm, assured, and unfailingly reliable scientific perspective to volatile policy issues during many briefings and hearings in Washington D.C. And, beyond his many scientific accomplishments, Ken is held in high esteem as a gentleman and friend to associates throughout the USGS, other Federal and State agencies, academia, and the petroleum industry. Although he retired in 2010, Ken continues to pursue his passion for the geology and petroleum systems of Arctic Alaska as a distinguished USGS Scientist Emeritus.

SESSION NO.1 - Symposium

S1. AAPG: Geology and Hydrocarbon Potential of the North Slope, Offshore Beaufort and Chukchi Seas: in Honor of Ken Bird

TBD – AM/PM, Sheraton Hotel, Meeting Room – TBD

Gil Mull and Marwan Wartes, Presiding

- 1-1 1073196 Niglio, L.*: **Imaging Giant Stratigraphic Traps Using 3D Seismic Data in Brookian Lower Cretaceous Rocks, NPR-A**
- 1-2 1077789 Peterson, R. H.*; Craig, J.; Sherwood, K.; Lu, M.; Aleshire, L.: **The Offshore Arctic, National Assessment Results for the Beaufort and Chukchi Seas**
- 1-3 1078543 Saltus, R.*; Phillips, J. D.: **Short-wavelength Gravity and Magnetic Anomalies Related to Shallow Sedimentary Structures, North Slope, Alaska**
- 1-4 1079577 Houseknecht, D. W.*; Burruss, R. C.; Bird; K. J.; O'Sullivan, P. O.; Connors, C.: **Tertiary Uplift in the Northern National Petroleum Reserve in Alaska (NPRA) – Geology, Timing, and Influence on Petroleum Systems**
- 1-5 1079973 Moore, T. E.*; Potter, C. J.: **Wedge-tip Relations of the Early Cretaceous Brooks Range Deformation Front near the Dalton Highway**
- 1-6 1080071 Sanders, C. M.*; Wallace, W. K.: **Structural Geometry of the Big Bend Anticline, Brooks Range Foothills, Alaska**
- 1-7 1080269 Duncan, E. A*.: **The Brookian Foredeep: World Class Source Rocks with World Class Unconventional Resource Potential**
- 1-8 1080411 Homza, T.*; Bergman, S. C.; Worrall, D. M.; Jaeger, G.; Scheidemann, R. C.; Steffens, G. S.; DiMarco, M.; Winefield, P.; Van Oosterhout, C.; Hafkenscheid, E.: **A Review of the Age of**

Rifting in the Alaskan Beaufort Sea and the Nature of the Lower Cretaceous Unconformity (LCU)

- 1-9 1080656 Keller, M. A.*: **Seeing the Forest but Not, Until Recently, the Trees: Understanding Marine Snow as a Building Block of Organic Carbon Rich Mudstones**
- 1-10 1080393 Flaig, P.*; van der Kolk, Garrard, R.: **Regional Geology and Reservoir Potential of the Schrader Bluff, Prince Creek, and Sagwon Member of the Sagavanirktok Formation (Late Cretaceous-Early Tertiary), Sagavanirktok Quadrangle, North Slope, Alaska**
- 1-11 1080693 Wallace, W. K.*; Duncan A.; Polkowski, S.; Sanders, C. M.; Speeter, G.; Wartes, M. A.; Delaney, P.; Gillis, R. J.; Herriott, T. M.; Loveland, A.; Reifensuhl, R.; Swenson, R.; Decker, P. L.: **Contrast in Style and Evolution of Structures Between the Central and Eastern Foothills of the Brooks Range Sagavanirktok Quadrangle, North Slope, Alaska**
- 1-12 1080722 Houseknecht, D. W.; Covault, J. A.*; Helmold, K.P.: **Implications of Tectonic Reorganization for Cretaceous Turbidite-Reservoir Architecture in the Brookian Sequence, North Slope, AK**
- 1-13 1080808 Wartes, M. A.*; Gillis, R. J.; Decker, P. L.: **Improving the Nomenclature of the Brookian Depositional System in Northern Alaska: the Role of Sequence Stratigraphy**

SESSION NO.2

S2. AAPG: Tectonics, Sedimentation and Energy Resource Potential of Southern Alaska

TBD – AM/PM, Sheraton Hotel, Meeting Room – TBD

Dave LePain and Bob Gillis, Presiding

- 2-1 1079907 Haeussler, P. J.*; Saltus, R.: **Focusing of Pliocene and Younger Deformation in the Cook Inlet Basin, Alaska, caused by Mantle Dynamics Related to Subduction and Collision of the Yakutat Microplate**
- 2-2 1079621 Martini, B. A.*; Walsh, P.; Delwiche, L.; Owens, L.; Lide, C.; Payne, A.: **Geothermal Resource Definition at Mt. Spurr, Alaska**
- 2-3 1073216 Herriott, T. M.*; Nye, C. J.; Wartes, M. A.; LePain, D. L.; Gillis, R. J.; Reger, R. D.: **Sedimentology, Age, and Geologic Context of a Pleistocene Volcaniclastic Succession near Spurr Volcano, Alaska**
- 2-4 1080478 Gillis, R. J.*; LePain, D. L.; Herriott, T. M.; Wartes, M. A.; Decker, P. L.; O'Sullivan, P.: **Structural and Stratigraphic Evidence for Transtensional Control of Paleogene Syn-tectonic Deposition along the Northwestern Periphery of the Cook Inlet Forearc Basin**
- 2-5 1079461 LePain, D. L.*; Gillis, R. J.; Wartes, M. A.; Herriott, T. M.; Stanley, R. G.; Helmold, K. P., Peterson, C.S: **Deposition of Paleocene(?)–Eocene West Foreland Formation, Northwest Margin Cook Inlet Basin: Record of Coeval Faulting and Explosive Volcanism**
- 2-6 1080476 Benowitz, J.*; Herreid, S.; Fitzgerald, P.; Roeske, S.; O'Sullivan, P.; Haeussler, P. J.; Layer, P. W.: **The Topographically Asymmetrical Alaska Range: Multiple Tectonic Drivers through Space and Time**
- 2-7 1080567 LePain, D. L.*; Gillis, R. J.; Wartes, M. A.; Stanley, R. G.; Helmold, K. P.: **Deposition of Middle Jurassic Tuxedni Group, Lower Cook Inlet, Alaska: Initial Exhumation of an Early Jurassic Island Arc and Incipient Motion on the Bruin Bay Fault Zone**
- 2-8 1080810 Wartes, M. A.*; Herriott, T. M.; Gillis, R. J.; LePain, D. L.; Helmold, K. P.; Stanley, R. G.: **Stratigraphic Evidence for Late Jurassic Activity on the Bruin Bay Fault, Iniskin Peninsula, Lower Cook Inlet, Alaska**

SESSION NO.3

S3. AAPG: Cook Inlet Oil and Gas Fields

TBD – AM/PM, Sheraton Hotel, Meeting Room – TBD

David Hite and Denise Stone, Presiding

- 3-1 1078412 Stanley, R. G.*; Valin, Z. C.; Potter, C. J.; Lillis, P. G.; Lewis, K. A.; Nelson, P. A.; Schenk, C. J.; Saltus, R.; Phillips, J. D.; Shah, A. K.; Houseknecht, D. W.; Rouse, W. A.: **Assessment of Undiscovered Oil and Gas Potential, Cook Inlet Basin, Alaska**
- 3-2 1079080 Voorhees, B. J.*; Schmitt, D. A.: **Reservoir Geology and Development History of the Grayling Gas Sands Reservoir, McArthur River Field, Trading Bay Unit, Cook Inlet, Alaska**
- 3-3 1080104 Stone, D. M.*: **Exploration Strategies in the Cook Inlet Basin**
- 3-4 1080452 Hunter, W. A.*; Waugaman, J.; Schmitt, D. A.; Frankforter, M.: **McArthur River Field, Cook Inlet, Alaska**
- 3-5 1080470 Eastham, K.*: **Swanson River Field: From Statehood to Storage and Beyond**

SESSION NO.4

S4. AAPG: Recent Advances in Exploration and Development on the North Slope

TBD – AM/PM, Sheraton Hotel, Meeting Room – TBD

Kip Cerveny, Presiding

- 4-1 1079616 Pavia, G.*; Blue, S.; Renkert, L.; Burkhart, J. E.: **The Arctic Regulatory and Stakeholder Experience**
- 4-2 1080327 Jaeger, G.*; Rosenblatt, R. L.; Homza, T. X.; Prusak, D.; Hurst, C.; Buerkert, T. P.: **Offshore Alaska: Prospect Maturation Techniques in Challenging Arctic Environments**
- 4-3 1080754 Venepalli, K. K.*; Mongrain, J.; Hanks, C. L.: **Implications of the Pore-Scale Distribution of Frozen Water for the Production of Hydrocarbon Reservoirs Located in the Permafrost**
- 4-4 1075537 Huckabay, W. A.*; Wardlaw, W.: **Jones Island: Charming Aspects of an Unsuccessful 700 MMBO Prospect and What May Have Gone Wrong**

SESSION NO.5

S5. AAPG: Technology: Advances and Applications

TBD – AM/PM, Sheraton Hotel, Meeting Room – TBD

TBD, Presiding

- 5-1 1032953 Allan, M. E.*; Lalicata, J. J.: **The Belridge Giant Oil Field – 100 Years of History and a Look to the Future**
- 5-2 1080783 Fritsche, A. E.*: **Miocene Hypabyssal Magmatic Stoping in the Santa Monica Mountains of Southern California**

SESSION NO.6

S6. AAPG: Alternative Energy: Progressing the Future

TBD – AM/PM, Sheraton Hotel, Meeting Room – TBD

Cathy Hanks, Presiding

- 6-1 1080428 Sparrow, S. D.*; Schnabel, W. E.; Byrd, A.; Holdmann, G.: **Short-rotation Woody Biomass as Alternative Energy Source for Interior and Southcentral Alaska**

SESSION NO.7

S7. AAPG/SEPM: Reservoir Quality: Analysis and Prediction

TBD – AM/PM, Sheraton Hotel, Meeting Room – TBD

Ken Helmold and Calum Macaulay, Presiding

- 7-1 1080237 Macaulay, C. I.*; Bryndzia, L. T.; Jackson, A. K.: **Development of Reservoir and Acoustic Properties Models for Cretaceous Turbidite Sands on the North Slope, Alaska**
- 7-2 1079420 Helmold, K. P.*; Peterson, C. S.; LePain, D. L.; Wartes, M. A.; Gillis, R. J.; Herriott, T. M.; Stanley, R. G.: **Reservoir Potential of Tertiary and Mesozoic Sandstones, Cook Inlet, Alaska**
- 7-3 1080759 Peterson, C. S.*; Helmold, K. P.; Shellenbaum, D. P.; LePain, D. L.: **Using Geophysical Logs to Estimate Relative Uplift in Upper Cook Inlet Basin, Alaska**

SESSION NO.8

S8. AAPG/SEPM: Petroleum Systems in Alaska and the Western Cordillera

TBD – AM/PM, Sheraton Hotel, Meeting Room – TBD

Kenneth Peters and Les Magoon, Presiding

- 8-1 1070376 Peters, K. E.*; Schenk, O.; Bird, K. J.; Magoon, L. B.: **Could 4D Petroleum System Modeling Have Predicted Failure of the Mukluk Wildcat Well, North Slope, Alaska?**
- 8-2 1079744 Houseknecht, D. W.*; Bird, K. J.: **Tectonic Influences on Thermal Maturation History of Arctic Alaska and the Southern Part of the Canada Basin**
- 8-3 1079809 Lillis, P. G.*; Stanley, R. G.: **Petroleum Generation Modeling for Cook Inlet Basin, Alaska**
- 8-4 1079496 He, M.*; Graham, S.; Moldowan, M.; Lampe, C.; Scheirer, A.; Peters, K. E.; Magoon, L. B.: **Two-dimensional Burial History Model and Geochemical Evidence Shed Light on Petroleum Systems and Mixed Oil in the Vallecitos Area and Oil Field, San Joaquin Basin, California**
- 8-5 1080787 Hasiotis, S. T.*; van der Kolk, D.; Flaig, P.; Wood, L. J.: **Preliminary Report on the Trace Fossils in a Shoreface to Coastal-Plain Transition: Schrader Bluff and Prince Creek Formations at Shivugak Bluff, North Slope, Alaska**

POSTER TECHNICAL SESSIONS

SESSION NO.9 - Symposium

S9. AAPG: Geology and Hydrocarbon Potential of the North Slope, Offshore Beaufort and Chukchi Seas: in Honor of Ken Bird

TBD – AM/PM, Sheraton Hotel, Meeting Room - Yukon

Tom Homza, Presiding

- 9-1 1079385 Dumoulin, J. A.*; Burruss, R. C.; Blome, C. D.: **Lithofacies, Age and Geochemistry of the Otuk Formation (Triassic) in the Red Dog District, Northwest Alaska**
- 9-2 1075616 Houseknecht, D. W.*; Schenk, C. J.; Wartes, M. A.; Mull, G.: **Early Cretaceous Syntectonic Sedimentation along the Southern Margin of the Colville Foredeep – Stratigraphy and Depositional Facies in the lower Fortress Mountain Formation**
- 9-3 1079626 Shimer, G.*; Hanks, C.: **Core-based Interpretation of Parasequence Stratigraphy within the Cretaceous Nanushuk Formation, Umiat, Alaska**
- 9-4 1078529 Wentz, R.*; Hanks, C.; Wallace, W.; McCarthy, P.: **Fracture Distribution and Character in Exposed Cretaceous Rocks near the Umiat anticline, North Slope of Alaska**
- 9-5 1080475 Herriott, T. M.*; Wartes, M.; Gillis, R. J.; Reifensstuhl, R. R.; Decker, P.; Wallace, W.; Speeter, G.: **Structural and Stratigraphic Implications of Detailed Geologic Mapping of Ellesmerian and Brookian units in the Echooka and Ivishak Rivers Region, East-central North Slope, Alaska**
- 9-6 1080644 Davis, J. M.*; McCarthy, P.; Hanks, C.: **Petrologic and Geochemical Controls on Diagenesis for the Nanushuk Formation, North Slope, Alaska**
- 9-7 1080743 Flaig, P.*; van der Kolk, D. A.; Wood, L. J.; Garrard, R.: **Integrated Facies Analysis, LiDAR-enhanced Architectural Analysis and Petrography of a Potential Paleocene Reservoir: The Prince Creek Formation at Sagwon Bluffs, North Slope, Alaska**
- 9-8 1080736 van der Kolk, D. A.*; Whalen, M. T.; Newberry, R. J.; McCarthy, P.; Wartes, M.: **Geology and Source Rock Evaluation of the Lower Cretaceous Pebble Shale Unit, Northeastern Alaska**
- 9-9 1080565 Stockmeyer, J. M.*; Frierson, A. N.; Connors, C.; Houseknecht, D. W.: **Interplay between Sequence Stratigraphy and Structure in the Eastern Colville Basin, North Slope, Alaska**
- 9-10 1080940 Loveland, A. M.*; Wartes, M.; Gillis, R. J.; Reifensstuhl, R. R.; Delaney, P.; Wallace, W.; Decker, P.: **Detailed Mapping in the Kavik River Area, Eastern North Slope, Alaska: New Constraints on Stratigraphy and Structural Style**
- 9-11 1080735 Gillis, R. J.*; Wartes, M. A.; Loveland, A.; Decker, P.: **Insights from Recent Geologic Mapping of the South-central Sagavanirktok Quadrangle, North Slope, Alaska**
- 9-12 1080726 Rouse, W. A.; Houseknecht, D. W.*; Bird, K. J.; Garrity, C. P.: **Regional Geologic Framework for Appraising Continuous Petroleum Resources in Source-Rock Systems of Arctic Alaska**

SESSION NO.10

S10. AAPG: Integrated Reservoir Characterization and Field Studies

TBD – AM/PM, Sheraton Hotel, Meeting Room - Yukon

TBD, Presiding

- 10-1 1080035 Henley, G.*; Negrini, R.; Gordon, S.; Hirst, B.: **Miocene Uplift and Unconformities at Wheeler Ridge, Kern County, CA**

- 10-2 1079569 Phillips, J. D.*; Stanley, R. G.: **A 3D Magnetic Property Model of the Cook Inlet Basin, South-Central Alaska – Imaging Tertiary Structural Traps and Mesozoic Sedimentary Thickness**

SESSION NO.11

S11. AAPG: Tectonics, Sedimentation and Energy Resource Potential of South & Central Alaska

TBD – AM/PM, Sheraton Hotel, Meeting Room - Yukon

Dave LePain and Bob Gillis, Presiding

- 11-1 1078548 Saltus, R.*; Haeussler, P. J.: **Why Cook Inlet is so Special (Geophysically)**
- 11-2 1077871 Stanley, R. G.*; Lillis, P. G.: **Preliminary Interpretation of Rock-Eval Pyrolysis and Vitrinite Reflectance Results From the Nunivak 1 Well in the Nenana Basin, Central Alaska**
- 11-3 1079602 Mongrain, J.*; McCarthy, P.; Mongrain, J.; LePain, D. L.: **Sand Body Geometries in Miocene-Pliocene Nonmarine Deposits, Cook Inlet Forearc Basin, South-Central Alaska**
- 11-4 1080654 Gillis, R. J.*; Wartes, M.; O'Sullivan, P.: **Preliminary Findings from Reconnaissance Structural Studies along the Bruin Bay Fault System and Adjacent Areas, South-Central Alaska**
- 11-5 1080716 Tomsich, C. M.*; Hanks, C.; Coakley, B. J.: **Basement Depth and Stratigraphic Thickness Solutions from Modeled Gravity Data for the Tanana and Nenana Basins and Implications for CO2 Sequestration**
- 11-6 1080710 Clough, J.*; Blodgett, R. B.; Banet, A. C.: **New Insights on Tertiary Coals of Southeast Alaska**
- 11-7 1080637 Shah, A. K.*; Lewis, K. A.; Saltus, R.; Stanley, R. G.: **Shallow Sedimentary Features of Cook Inlet, Alaska and Surroundings Revealed by Aeromagnetic Data**

SESSION NO.12

S12. AAPG: Paleozoic-Mesozoic Geology of Alaska and Adjacent Regions

TBD – AM/PM, Sheraton Hotel, Meeting Room - Yukon

Robert Blodgett and Jim Clough, Presiding

- 12-1 1080627 Tomsich, C. S.*; McCarthy, P.; Fiorillo, A. R.: **Integrated Paleoenvironmental Reconstruction of the Late Cretaceous (Maastrichtian) Lower Cantwell Formation near Sable Mountain, Denali National Park, Alaska**
- 12-2 1080109 Baranov, V. V.*; Blodgett, R. B.: **Correlation of Lower Devonian Strata of the Soda Creek Limestone, Medfra Quadrangle, West-Central Alaska and the Arctic Areas of Eastern Siberia on the Basis of Rhynchonellid Brachiopods**
- 12-3 1079864 Blodgett, R. B.*; Boucot, A. J.; Skaflestad, J.: **Upper Silurian Facies and Fauna of Northeast Chichagof Island, Southeast Alaska**
- 12-4 1080717 van der Kolk, D. A.*; Flaig, P.; Wood, L. J.; Hasiotis, S. T.: **High-Latitude Shoreface to Coastal-Plain Transitions: The Schrader Bluff and Prince Creek Formations at Shivugak Bluff, North Slope, Alaska**
- 12-5 1051695 Blodgett, R. B.*; Rohr, D. M.; Boucot, A. J.: **The Siberian Origin of the Alexander Terrane of Southeast Alaska**
- 12-6 1080532 Sandy, M.; Blodgett, R. B.*: **Mesozoic Brachiopods from Alaska as Paleogeographic, Paleocological and Tectonic Tools in Terrane Analysis, including additional Western Cordillera Localities**
- 12-7 1080789 Hasiotis, S. T.*; Fiorillo, A.; Kobahyashi, Y.: **Invertebrate and Vertebrate Ichnofossils from the Lower Part of the Upper Cretaceous Cantwell Formation, Denali National Park and Preserve, Alaska: Insights into the Paleoenvironments, Paleohydrology, and Paleoclimate of High Latitude Continental Paleoecosystems**

SPE TECHNICAL PROGRAM

Monday, 9 May, 0830 —1200

Room 1

REGULATORY AND HSE

Session Chairpersons: Joseph Anders, BP; Michael Bill, ASRC Energy Services; John D Hartz, Consultant

This session is dedicated to the regulations in the oil and gas industry and how those regulations (current, new and proposed) impact the development of oil and gas. Also included in this session are papers related to CO2 sequestration.

- 0830 Keynote Speaker** Cathy Foerster, Alaska Oil and Gas Conservation Commission.
“AOGCC’s response to Macondo.”
- 0900 144011 Offshore Accidents, Regulations and Industry Standards**
R.C. Visser, Belmar Engineering
- 0930 144555 The Impact of California's Greenhouse Gas Law on The Upstream Oil & Gas Industry**
D.J. Winslow, Chevron
- 1030 144588 California Division of Oil, Gas, and Geothermal Resources: Orphan Well Program**
B.H. Hesson, Gas & Geothermal Resources
- 1100 144613 Strategies to Maximize Entrapment of CO2 into Saline Aquifers**
M. Javaheri, K. Jessen, University of Southern California
- 1130 144493 Applying Fractional Flow Theory to Determine the CO2 Storage Capacity of a Geological Formation**
R. Moghanloo, L.W. Lake, University of Texas at Austin

Room 2

EFFICIENT WATERFLOODING PROCESSES

Session Chairpersons: Henry Bensmiller, ExxonMobil; Abhijit Dandekar, University of Alaska

This technical paper session focuses on physical and analytical processes to improve waterflooding efficiency. Session provides diverse topics from technical progress in modeling, lab work and field trials.

- 0830 Keynote Speaker** TBD
- 0900 129692 Demonstration of Low-Salinity EOR at Interwell Scale, Endicott Field, Alaska**
F.A. Paskvan, J.C. Seccombe, A. Lager, G.R. Jerauld, B.S. Jhaveri, T.A. Buikema, J.R. Denis, S. Bassler, K.J. Webb, A.P. Cockin, E. Fueg, BP
- 0930 144602 Efficiency of Oil Recovery by Low Salinity Water Flooding in Sandstone Reservoirs**
R.M. Azmy, H.A. Nasr-EI-Din, Texas A&M University
- 1030 121761 Incremental Oil Success from Waterflood Sweep Improvement in Alaska**
D.S. Ohms, J.D. McLeod, C.J. Graff, H. Frampton, BP; J. Morgan, Jimtech; S. Cheung, K. Chang, Nalco Energy Services
- 1100 129967 Results of a Three-Well Waterflood Sweep Improvement Trial in the Prudhoe Bay Field Using a Thermally Activated Particle System**
M.E. Husband, D.S. Ohms, H. Frampton, S.R. Carhart, B.H. Carlson, BP; K. Chang, Nalco Energy Services; J. Morgan, Jimtech
- 1130 144580 Reservoir Management Using Streamline-Assisted Well Connectivity Map and Application to Rate Optimization**
A. Datta-gupta, H. Park, Texas A&M University
- Poster 144529 How Reliable are Interwell Connectivity Estimates?**
D. Kaviani, University of Calgary; M. Soroush, Petroleum University of Tech Iran; J.L. Jensen, University of Calgary

Monday, 9 May, 1330 —1700

Room 1

HEAVY OIL - I

Session Chairpersons: Andrei Popa, Chevron; Chris West, BP

Comprehensive planning, testing, evaluating and modeling of thermal, chemical and miscible recovery processes in heavy oil reservoirs.

- 1330 144599 A Combined Experimental and Simulation Workflow to Improve Predictability of In Situ Combustion**
M. Bazargan, B. Chen, M. Cinar, G. Glatz, A. Lapene, Z. Zhu, L. Castanier, M.G. Gerritsen, A.R. Kavscek, Stanford University
- 1400 144546 Mechanics of Heavy Oil and Bitumen Recovery by Hot Solvent Injection**
T. Babadagli, V. Pathak, University of Alberta; N. Edmunds, Laricina Energy
- 1430 144358 Viscosity Reduction EOR with CO₂ and Enriched CO₂ to Improve Recovery of Alaska North Slope Viscous Oils**
S.X. Ning, B.S. Jhaveri, BP; N. Jia, Schlumberger; B. Chambers, BP; J. Gao, Schlumberger
- 1530 144541 New Experimental Model Design for Systematic Investigation of Capillarity and Drainage Height Roles in the Vapor Extraction Process**
F. Ahmadloo, K. Asghari, A. Henni, University of Regina; N.P. Freitag, Saskatchewan Research Council
- 1600 144554 Upscaling for Field Scale In-situ Combustion Simulation**
Z. Zhu, M. Bazargan, A. Lapene, A.R. Kavscek, M.G. Gerritsen, L.M. Castanier, Stanford University
- 1630 144517 Experimental Investigation of In-situ Combustion at Low Air**
A. Alamatsaz, R.G. Moore, S.A. Mehta, M.G. Ursenbach, University of Calgary
- Poster 144596 Acoustic Wave Testing System for Monitoring the Vapor chamber in Vapor Extraction Process**
W. Zhou, R. Paranjape, University of Regina
- Poster 144552 Experimental Investigation and Numerical Simulation of Steamflooding in Heavy Oil Fractured Reservoir**
Y. Souraki, M. Ashrafi, H. Karimaie, O. Torsaeter, Norwegian University of Science and Technology

Room 2

PRODUCTION OPERATIONS AND STIMULATION

Session Chairpersons: Andrew Bond, Pioneer Natural Resources; Shirish Patil, University of Alaska

As reservoir developments around the world become more challenging, the use of cutting edge technology to reduce the cost of operations becomes critical. This session highlights several of these important technologies in the production and stimulation arena.

- 1330 144618 Geochemical Allocation of Commingled Oil Production From 2-6 Pay Zones**
M.A. McCaffrey, Weatherford; D.S. Ohms, BP; M. Werner, ConocoPhillips; C.L. Stone, BP; D.K. Baskin, B.A. Patterson, Weatherford
- 1400 144573 World's Deepest Thru-Tubing Conveyed Electric Submersible Pumps**
J.Y. Julian, BP; J.C. Patterson, ConocoPhillips; B.E. Yingst, W.R. Dinkins, Baker Hughes; C.G. Igbokwe, BP
- 1430 144071 The Effects of Wall Slip in a Couette Rheometer When Measuring and Comparing Hydraulic Fracturing Fluids**
S.J. Churchill, University of Saskatchewan
- 1530 144615 Tapered-Bean Steam Chokes Revisited**
S. Griston-Castrup, Integrated Sciences Group; F. Latif, Vintage Production California; A. Al Kalbani, Occidental Petroleum

- 1600 144584 **Multiphase Meter Data Quality, Equipment Health, and Optimization Through a Collaborative, Web-Based Tool**
C. Taylor, R.J. Staats, Schlumberger
- 1630 143942 **Sandstone Reservoir Stimulation Using High-Temperature Deep-Penetrating Acid**
M.J. Economides, University of Houston; P. Feng, D. Wang, C. Wang, H. Wang, China Oilfield Services
- Poster 143943 **Studying the Breaking Mechanism of Polymer-Based In-situ Gelled Acids**
A.M. Gomaa, H. Nasr-El-Din, Texas A&M University

Tuesday, 10 May, 0830 —1200

Room 1

INOVATIVE DRILLING AND COMPLETION TECHNIQUES

Session Chairpersons: Jennifer Julian, BP; Brian Noel, ConocoPhillips

Advanced drilling and completion technologies and testing methods.

- 0830 144535 **Comparing the Results of a Full-Scale Buckling Test Program to Actual Well Data: A New Semi-Empirical Buckling Model and Methods of Reducing Buckling Effects**
S.B. Mitchell, N.B. Moore, WWT International; V. Hazzard, J. Franks, Pioneer Natural Resources; G. Liu, Pegasus Vertex
- 0900 144537 **Understanding Shale Heterogeneity - Key to Minimizing Drilling Problems in Horn River Basin**
S. Khan, S.A. Ansari, H. Han, N. Khosravi, Schlumberger
- 0930 144575 **Outer Concentric String Casing Damage Evaluation: Advancements in Electromagnetic Inspection Data Interpretation for Common North Slope Well Completions**
J.P. Burton, Proactive Diagnostic Services
- 1030 144471 **Application of Case-Based Reasoning for Well Fracturing Planning and Execution**
A.S. Popa, W.D. Wood, S.D. Cassidy, Chevron
- 1100 144585 **Use of a Novel Ball-Activated Initiator Sub Saves an Operator \$75,000 in Rig Time and Intervention Cost by Enabling Transition From a Two-Trip to a Single-Trip Completion System**
I. Kent, R.C. Fleming, T.A. Rathwell, A.A. Gatin, Halliburton
- 1130 144593 **Advanced Drilling Technology Has Potential to Mitigate Significant NPT and Associated Risks While Drilling Western North American Regional Reservoirs**
D.M. Gala, T. Barbato, S.A. Cenberlitas, J. Crenshaw, Weatherford

Room 2

LOW PERMEABILITY FRACTURED RESERVOIRS

Session Chairpersons: Todd Hoffman, Golder Associates; Jack Walker, ConocoPhillips

Unconventional reservoirs are a large part of domestic production, and these types of reservoirs require more sophisticated engineering analysis. This diverse session examines a number of different techniques to improve understanding and recovery from low permeability fractured reservoirs including papers on production, stimulation, EOR, economics, field applications, experimental work and modeling.

- 0830 **Keynote Speaker** Ed Duncan, President, Great Bear Petroleum, LLC.
“Not Any Shale Will Do: Unconventional Resources and New Ventures Screening Methods.”
- 0900 144128 **Innovative Use of Open-Hole Formation Pressure Testing in Waterflood Optimization of an Ultra-Tight, Light Oil Reservoir**
P.J. Zannitto, Shell; M. Rahman, M.E. Allan, Aera Energy
- 0930 144525 **Thermally Induced Fracture Reconsolidation of Diatomite Under No Flow Conditions**
A.R. Kovscek, Stanford University; G. Tang, Chevron

- 1030 144528 **How Shale Gas Explosive Growth is Changing Gas Supply Costs and Influencing Western North America Gas Supply**
S. Mauger, Ziff Energy Group
- 1100 144462 **Experimental and Numerical Study of Steam flooding in Fractured Porous Media**
M. Ashrafi, Y. Souraki, H. Karimaie, O. Torsaeter, Norwegian University of Science and Technology
- 1130 144526 **Is there a "Silver Bullet Technique" to Stimulating California's Monterey Shale?**
N.A. El Shaari, BJ Services; W.A. Minner, StrataGen Engineering
- Poster 144560 **A New Approach in Dual Porosity Model for Naturally Fractured Reservoirs**
H. Jabbari, Z. Zeng, University of North Dakota
- Poster 144590 **Petrophysics of Triple Porosity Tight Gas Reservoirs with a Link to Gas Productivity**
R. Aguilera, H. Deng, J. Leguizamon, University of Calgary

Tuesday, 10 May, 1330 —1700

Room 1

HEAVY OIL - II

Session Chairpersons: Reza Rastegar, Chevron; Jalal Torabzadeh, California State University

Comprehensive planning, testing, evaluating and modeling of thermal, chemical and miscible recovery processes in heavy oil reservoirs.

- 1330 144470 **A Data Mining Approach to Unlock Potential from an Old Heavy Oil Field**
A.S. Popa, S.D. Cassidy, Chevron
- 1400 144551 **Evaluation of the Efficiency of Post-CHOPS (Cold Heavy Oil Production with Sand) Applications**
T. Babadagli, N. Al-Huraibi, University of Alberta
- 1430 144598 **Experimental Study of Coinjection of Potential Solvents with Steam to Enhance SAGD Process**
M. Ardali, D. Mamora, M.A. Barrufet, Texas A&M University
- 1530 144558 **Experimental Study of Hot Fluid Injection into Athabasca Oil Sand Reservoir**
R. Hashemi, P. Pereira-Almao, University of Calgary
- 1600 144543 **Numerical Optimization of Clearwater Formation's Response to SAGD Under New Well Configurations**
M. Tavallali, B.B. Maini, T.G. Harding, University of Calgary
- 1630 144524 **Recovery Mechanism of Steam Injection in Heavy Oil Carbonate Reservoir**
G. Tang, A. Inouye, D. Lowry, V. Lee, W. Lin, Chevron
- Poster 144570 **Polymer Screening Criteria for EOR Application - A Rheological Characterization Approach**
J.J. Trivedi, University of Alberta; T. Urbissinova, Buzachi Operating; E. Kuru, University of Alberta
- Poster 144582 **Simulation Study of 2-D SAGD Experiment and Sensitivity Analysis of Laboratory Parameters**
M. Ashrafi, Y. Souraki, H. Karimaie, O. Torsaeter, J. Kleppe, Norwegian University of Science and Technology

Tuesday, 10 May, 1330 —1700

Room 2

SMART FIELDS AND FIELD MANAGEMENT

Session Chairpersons: Michael Husband, BP; Danielle Ohms, BP; Tom Tang, Chevron

This session primarily covers implementation of smart technologies in wells and fields for reservoir management.

- 1330 144617 A Ten-year Summary of California Oilfield Production and Development**
E.L. Berger, C.J. Angelo, Ramsgate Engineering
- 1400 144576 Ranking the Resource Potential of the Woodford Shale in New Mexico**
V.S. Bammidi, New Mexico Institute of Mining and Technology; R.S. Balch, Petroleum Recovery Research Center; T.W. Engler, New Mexico Institute of Mining and Technology
- 1430 144468 Implementing Intelligent Field Integrated Solutions for Reservoir Management, San Joaquin Valley Case Study**
A.S. Popa, K.L. Horner, S.D. Cassidy, S.J. Opsal, Chevron
- 1530 144498 Transitioning from Intelligent Well to Intelligent Reservoir**
U. Ahmed, K. Sun, Baker Hughes
- 1600 144469 Intelligent Field Programs Enable Operational Excellence in a Challenging Environment. Pushing the Limits of Large Data Transfer For Real-time Monitoring and Surveillance Operations in San Joaquin Valley**
A.S. Popa, M.A. Barrett, S.D. Cassidy, Chevron
- 1630 Plenary Session Pros and Cons of Enabling Intelligent Well and Reservoir Capability in Onshore Mature Fields**
Panelists TBD

Wednesday, 11 May, 0830 —1200

Room 1

ADVANCED RESERVOIR MODELING AND HISTORY MATCHING

Session Chairpersons: Iraj Ershaghi, University of Southern California; Anthony Kovscek, Stanford University

This session presents state-of-the-art application of reservoir simulation and history-matching techniques to infer reservoir performance and the presence of reservoir heterogeneity.

- 0830 144577 Analyzing Wellbore Temperature Distributions Using Nonisothermal Multiphase Flow Simulation**
Z. Wang, R.N. Horne, Stanford University
- 0900 144579 Use of Phase Streamlines for Covariance Localization in Ensemble Kalman Filter for Three-Phase History Matching**
A. Datta-gupta, S. Watanabe, Texas A&M University
- 0930 144057 Modeling Fractured Horizontal Wells As Dual Porosity Composite Reservoirs - Application To Tight Gas, Shale Gas And Tight Oil Cases**
I.G. Brohi, M. Pooladi-darvish, Fekete; R. Aguilera, University of Calgary
- 1030 144578 Improving Characterization and History Matching Using Entropy Weighted Ensemble Kalman Filter for Non-Gaussian Distributions**
J.J. Trivedi, S. Nejadi, J.Y. Leung, University of Alberta
- 1100 144547 Field Scale Modeling of Tracer Injection in Naturally Fractured Reservoirs Using the Random-Walk Simulation**
T. Babadagli, E. Stalgorova, University of Alberta
- 1130 144515 A High Resolution Approach in Predicting Reservoir Performance from Diatomite Reservoirs**
N. Akhimiona, Chevron; P.W. Corbett, K.A. Lewis, Heriot-Watt University

- Poster 144583 A Semi-Analytic Method for History Matching Fractured Shale Gas Reservoirs**
R.A. Wattenbarger, O. Samandarli, Texas A&M University; H.A. Al Ahmadi, Saudi Aramco
- Poster 144612 Application of Potential Theory to Modeling of ECBM Recovery**
H. Shojaei, K. Jessen, University of Southern California

Wednesday, 11 May, 0830 —1200

Room 2

Best of the SPE Western Region Student Papers

Session Chairpersons: Gordon Pospisil, BP; Randahl D. Roadifer, ConocoPhillips Alaska, Inc.

This session will cover the selected best of the student papers from the student paper contests.

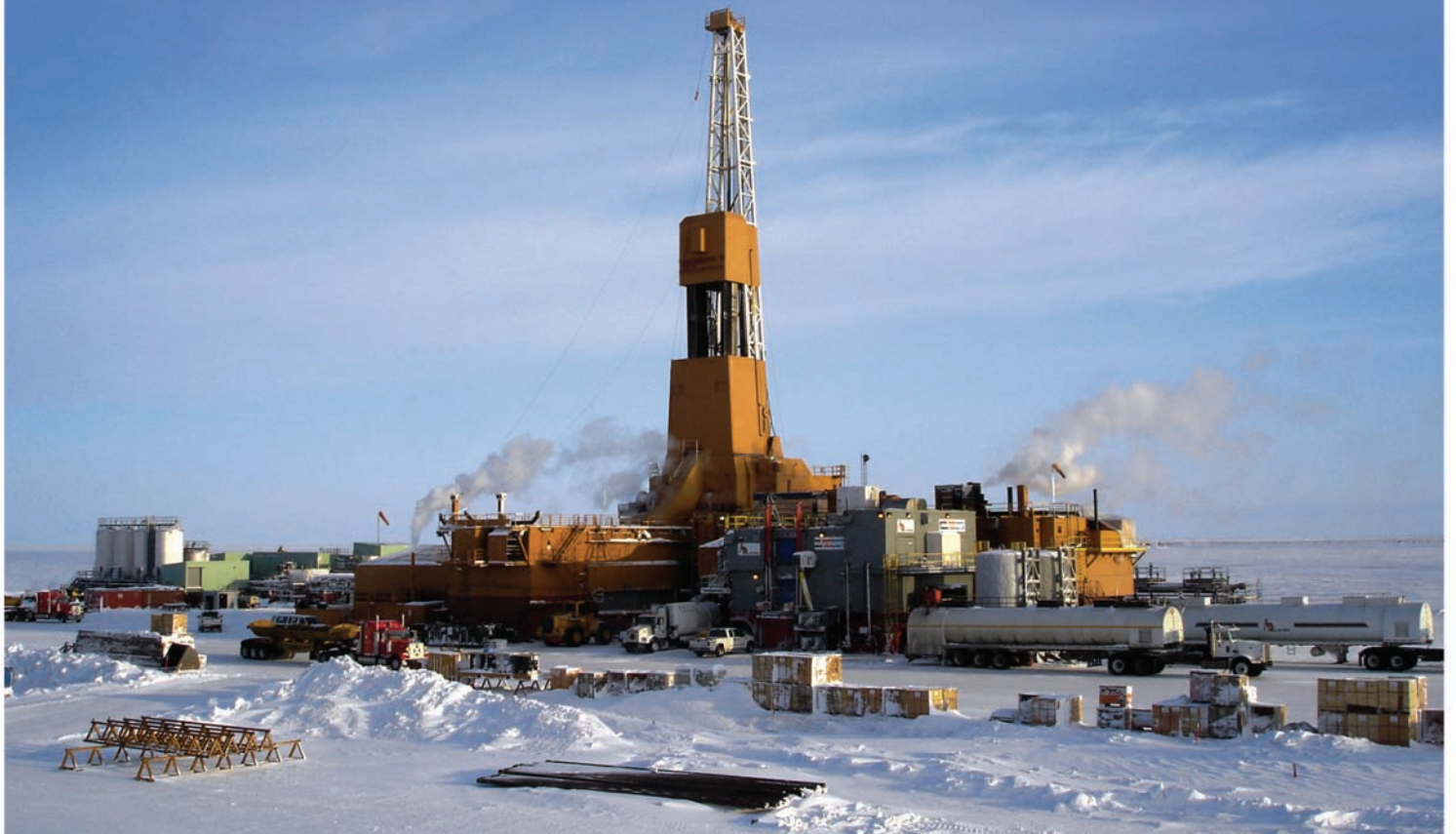
**0830-
1130** **TBD**

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