ALASKA GEOLOGY

Newsletter of the Alaska Geological Society, Inc.

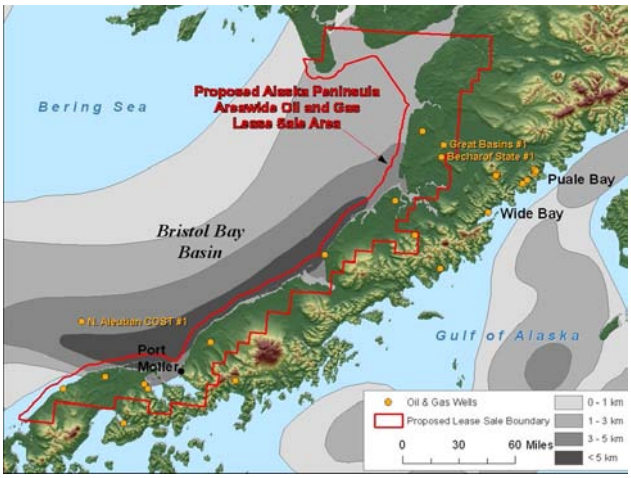
Bristol Bay – Alaska Peninsula Region
Overview of 2004 – 2007 Energy Research

Rocky R. Reifenstuhl
Alaska Division of Geological and Geophysical Surveys, Fairbanks, Alaska

Paul L. Decker
Alaska Division of Oil and Gas, Anchorage, Alaska

Note: AGS meetings will be at the BP Energy Center for 2008-2009.
Please check the website (www.alaskageology.org) and issues of the AGS newsletter for updates.
This newsletter promotes the May luncheon talk of the Alaska Geological Society,
to be held Thursday, May 21st, at the BP Energy Center.

State-led field and subsurface investigations into the geology and petroleum systems of the Alaska Peninsula region culminated with the publication of a final report volume in December, 2008. This multi-year project combined stratigraphic, structural/tectonic, geochemical, reservoir quality, and subsurface studies in addition to preliminary geologic mapping in order to characterize key aspects of the Tertiary and Mesozoic successions that control the hydrocarbon potential of this frontier region. The final report is a collection of nine technical papers authored by fourteen contributors, now available for free download from the Alaska Division of Geological & Geophysical Surveys publications web page (http://www.dggs.dnr.state.ak.us/pubs/pubs?reqtype=citation&ID=17921). This report presents previously unpublished data and interpretations, but does not contain other important findings associated with the project published in earlier reports.



Alaska Geological Society Luncheon

Date & Time: **Thursday, May 21st, 11:30 am – 1:00 pm**

Program: **Bristol Bay – Alaska Peninsula**

Speakers: ***Rocky Reifenstuhl, Alaska DGGS***
Paul Decker, Alaska DOG

Place: **BP Energy Center**

Reservations: **Please make your reservation before noon Tuesday, May 19th, 2009.**

Cost:
Seminar only, no meal: Free
Reserve a box lunch: $13
Nonmember: $15

Reserve a hot lunch: $20
Nonmember: $22

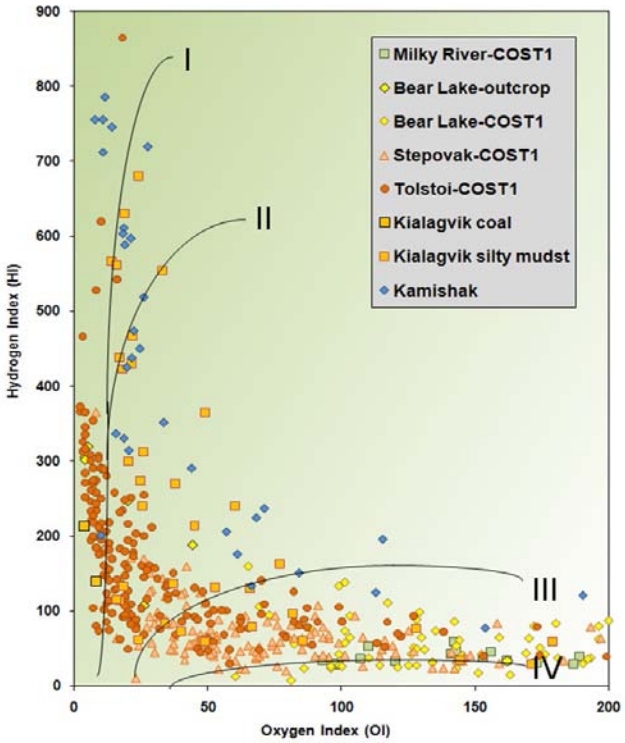
No reservation: add $5 to the above
(on an "as-available" basis only)

E-mail reservations: **vp@alaskageology.org**
Or phone (907) 230-1672
(Tom Morahan, AGS VP)

For more information: visit the AGS website:

www.alaskageology.org

Twenty-eight wells have been drilled on the Alaska Peninsula in addition to the North Aleutian Basin COST #1 well drilled offshore in Bristol Bay. Most wells reported at least modest oil and gas shows, but none have produced commercially. New field data identify and characterize various components of the region's potential



petroleum systems. Numerous observations indicate effective source rocks for both oil and gas in the Mesozoic section and mainly for gas in Tertiary units. Thermogenic methane seeps vigorously from Cretaceous outcrops at Port Moller hot springs. Both oil and gas seep from Jurassic formations southwest of Puale Bay (gas is 91% methane, 7% nitrogen, and 2% carbon dioxide). Good to excellent oil- and gas-prone Mesozoic source rocks were profiled in the context of measured sections from exposures at Puale Bay. Micritic limestones of the Triassic Kamishak Formation exhibit up to 5.28% total organic carbon and hydrogen indices as high as 785 mg/g. Shaly siltstones of the Jurassic Kialagvik Formation yield corresponding values reaching 3.51% TOC and 680 mg/g HI. Tertiary and Upper Cretaceous coals and carbonaceous shales are dominantly gas-prone, but some facies of the Tolstoi Formation show local potential to source liquid hydrocarbons. This observation may explain frequent but minor oil shows encountered while drilling in Tertiary formations. Thermal maturity data suggest coaly kerogen in Tertiary units may locally be mature enough for thermogenic generation onshore, where vitrinite reflectance ranges 0.5–0.8% in the Bear Lake Formation. Data from the NAS COST #1 well reveal oil window maturity and projected gas window maturities within the Tolstoi Formation in the deeper parts of the basin offshore. We present the first published vitrinite reflectance data to corroborate previous pyrolysis-based maturity estimates for the Mesozoic source rocks exposed at Puale Bay. Thermal maturity averages 0.60% R_o in the Kamishak Formation (23 samples) and 0.53% R_o in the Kialagvik Formation (28 samples), both near the onset of hydrocarbon generation. Clearly, these source rocks are mature for oil and gas beneath nearby seeps. Prospective reservoir lithologies have been quantified using about 300 porosity and permeability samples and indicate viable Tertiary reservoirs, particularly in the 743-meter-thick Miocene Bear Lake Formation. Mesozoic sandstones are degraded by zeolite alteration, and are unlikely to form significant conventional reservoirs. Extensive structuring has occurred in multiple phases of subsidence and arc uplift. Both structural and stratigraphic trapping configurations are likely to occur, though traps are difficult to map in much of the onshore area due to extensive surficial cover and scant seismic data. Intra-reservoir seal facies have been identified in fine-grained nonmarine and shallow marine units. Mercury injection capillary pressure studies predict seal capacities capable of sustaining hydrocarbon columns ranging from 250 to 2,500 feet. This is a crucial finding, as it alleviates a previously widespread perception that the lack of blanketing marine shales might condemn the area from a petroleum resource perspective. Further exploration will be required to determine whether these critical geologic components have interacted to form functioning petroleum systems with producible accumulations of either oil or gas. Probabilistic resource assessments were not within the project's scope; the MMS estimated mean technically recoverable resources of the North Aleutian basin beneath the outer continental shelf at 753 million barrels of oil and natural gas liquids and 8.6 trillion cubic feet of gas (Sherwood and others, 2006). This four-year program was funded by the U.S. DOE, AKDGGS, AKDOG, and Bristol Bay Native Corporation.

About the Authors:

Rocky Reifenstuhl began his Alaska work in 1977, which included 18 months with Marline Oil Corporation. In 1981 he began working as a field geologist for the Alaska Division of Geological & Geophysical Surveys, and received a B. Sc. in geology (University of Alaska Fairbanks) in 1983. Rocky has published some 80 geologic maps and reports from every region of Alaska

Paul Decker joined the Alaska Division of Oil and Gas in 2004, where he works closely with geologists and geophysicists from both the DOG Resource Evaluation section (Anchorage) and the Division of Geological & Geophysical Surveys (Fairbanks). Current responsibilities include petroleum systems research emphasizing integrated interpretations of subsurface and outcrop data, and serving as liaison to industry and other agencies to promote exploration and facilitate collaborative research. From 1988 through 2004, Paul worked in new ventures exploration and development for ARCO, Phillips, and ConocoPhillips in Anchorage. He holds Ph.D. and M.S. degrees in structural geology from the University of Wisconsin—Madison, and a B.S. degree in geology from Fort Lewis College in Durango, Colorado.

Distinguished Service Award

Dr. Kirk Sherwood, AGS member, has received a 2009 Distinguished Service Award from the Pacific Section AAPG. The award is presented to members who have distinguished themselves in singular and beneficial long-term service to the Pacific Section.

Kirk Sherwood is currently the lead geologist for the Resource and Economic Analysis section of the Minerals Management Service in Anchorage. He received his PhD from the University of Wisconsin – Madison in 1979.

Kirk's contributions to the MMS programs are numerous. He has done extensive seismic interpretation and mapping of the Chukchi, Beaufort, and Hope basins. He has published and made presentations on the tectonics and seismic stratigraphy of the Chukchi basin (including to the AGS). He's led the geologic oil and gas resource assessments of the Chukchi, Hope, and Beaufort basins, and he has led similar assessments of the National Petroleum Reserve-Alaska. Kirk has led the team assessing the geologic parameters for the industry bid viability determinations of the Chukchi and Beaufort Sea Sales. He's also published widely cited interpretations of the Burger gas discovery in the Chukchi and OCS gas resources of the Arctic.

Congratulations to Kirk!!!!

Report on the 2009 AGS TECHNICAL CONFERENCE

The 2009 Tech Conference was held April 24, 2009 on the campus of the University of Alaska Fairbanks at the Reichardt Building and the Museum of the North. Total attendance for this year's event was around 70 people including a strong representation by industry, academe, and governmental organizations. Seven speakers and 28 posters were presented on a wide variety of topics relating to Alaska geoscience. This year's keynote address was by Gary Fuis, USGS Menlo Park, who provided a very interesting and enjoyable summary of Alaskan crustal structure and evolution revealed through the Trans-Alaska Crustal Transect project.

The conference organizers would like to extend a big thanks to the speakers, poster presenters, and volunteers, who made this event possible. We particularly appreciate the support of our conference sponsors, Petrotechnical Resources Alaska, ConocoPhillips, Alaska Division of Geological & Geophysical Surveys, the University of Alaska Department of Geology and Geophysics, and the University of Alaska Museum of the North.

See you in back in Fairbanks in 2011!

Patrick Druckenmiller, AGS Tech Conference Co-chair

Alaska Geological Society is pleased to announce the 2009 AGS Scholarship Awardees:

Susana Salazar Jaramillo, Ph.D. candidate at University of Alaska - Fairbanks. *Late Cretaceous paleoclimate of the North Slope (Prince Creek Formation) and central Alaska Range (Cantwell Formation)*.

Andrew Caruthers, Ph.D. candidate at University of British Columbia. *Geochemical and paleontological study of Early Jurassic extinction and marine anoxia in the Kingak Formation*.

Julie Elliott, Ph.D. candidate at the University of Alaska - Fairbanks. *Active tectonics of southeast and southcentral Alaska constrained by GPS; focus on the St. Elias orogen*.

Stephanie Mrozek, Masters student at University of Alaska - Fairbanks. *Economic geologic study of Mike Lake Au-Cu skarn, Yukon Territory, Canada*.

Megan Cardenas Undergraduate student in Geology at University of Alaska - Anchorage. Submitted a proposal for an undergraduate research project to characterize the surface and groundwater of the Anchorage Bowl

Alaska Geological Society 2009 Honorary Membership And Distinguished Service Award to:

Florence Marie Robinson Weber

The AGS is pleased to honor Florence Weber as one of our own and as someone who has contributed so much to Alaska geology. Thank you, Florence!

Florence Weber – Extraordinary geologist, scientist, and adventurer

By Ric Wilson, USGS colleague and friend

Originally from Milwaukee, Wisconsin, Florence attended the University of Chicago studying for a degree in geology. There, in her sophomore year, she met Florence Rucker (Collins) and began a lifelong friendship when they were paired in a geology field course by a professor who "wanted to get the two Florences together." While undergraduates at Chicago, the Florences had been regaled with stories of Alaska by fellow student Joe Hoare, who had worked with the USGS during 1942 and later. After graduating in June 1943, they both took temporary jobs at Shell Oil in Houston, replacing the men who had left to fight in World War II. While there—inspired by an exhibit of US warplanes "intended to raise patriotic feelings" but which instead piqued their interest in learning to fly—they obtained pilot licenses. After the war, they returned to the University for more study. Both women completed their Master's degrees in geology in 1948. While in graduate school, they took a summer road trip to Alaska over the newly opened Alaska Highway. They decided they liked it, and were able to secure positions in 1949 with the Naval Oil Unit of the US Geological Survey. They worked in Alaska until 1954, when the Survey moved the office to Washington, D.C. They followed to D.C. and "spent two years writing reports," which became the 12 chapters of USGS Professional Paper 305, which discusses the subsurface and engineering geology aspects of the USGS exploration of NPRA between 1944 and 1953. In order to get back into the field, they made use of their pilot licenses and offered the Survey a special service: access by seaplane into the interior of Alaska. Moving together to Alaska, the two Florences flew up from Washington, D.C., in a SuperCub on floats; that plane continues to be flown by Florence Collins' daughters out of Lake Minchumina. "They wouldn't hire women as fieldworkers otherwise," Florence Collins said. "The float plane could go places the guys couldn't go." (In part, paraphrased from the Spring 2004 Charitable Giving brochure of the University of Chicago.)

During Florence Weber's long career with the USGS, she was involved in many important studies in Alaska, authoring or co-authoring more than 100 maps, articles, and abstracts. Following the work on NPRA, starting in the late 1950s, Florence worked on and produced a number of studies examining routes for proposed roads across Alaska. She published a study for a road to McGrath and produced an internal report for a road to Nome; today her work on the road to Nome should prove of interest to the State. Beginning a long association with Troy Péwé, she and Troy collaborated on a number of engineering geologic studies around the state. Concurrently, Florence began building expertise on the regional bedrock geology of Interior Alaska and with Troy and Clyde Wahrhaftig published a geologic map of the Fairbanks quadrangle in 1966. Florence continued her engineering geologic work and produced engineering geologic maps for the Trans Alaska Pipeline System route through Interior Alaska in 1971. In collaboration with Bob Chapman and Bond Taber, Florence coauthored a preliminary geologic map of the Livengood quadrangle, also published in 1971. In 1976, a series of detailed geologic maps of the Fairbanks area were published in collaboration with Troy Péwé. In 1986, she went back to the Livengood area as a project leader for the Alaska Mineral Resource Assessment Program (AMRAP) and produced a much improved and more detailed Livengood quadrangle geologic map. Also coming out of that work, a Middle Devonian gastropod from the Cascadian Ridge unit of the Livengood quadrangle was named after her, *Mastigospira weberae*.

Always willing apply her skills to something different, in the mid-1980s, Florence joined the Port Moller, Alaska Peninsula AMRAP project to guide the mapping of surficial deposits. Her insight led to recognition that glaciers originating offshore had a significant role on the Alaska Peninsula. This in turn had a major impact on the interpretation of the stream-sediment geochemistry and ultimately the final resource assessment. Because the glaciers flowed from offshore and across highly mineralized Unga Island, the moraines they left on the Alaska Peninsula were gold-bearing and contributed gold to the stream-sediments draining those moraines. Once stream-sediment sampling was done upstream of the moraines, it was recognized that Florence was correct and that the apparent mineralization on the mainland associated with that area was not present. Her work on the Alaska Peninsula continued and with her assistance, a revised Cold Bay and False Pass quadrangle geologic map was

produced that incorporated mapping of glacial deposits, along with a paper describing the major new interpretation of the regional glacial record.

Florence's regional stratigraphic insights allowed her to make a very strong case for significantly greater motion along the Tintina Fault System than was previously recognized, in part due to recognition of the system having 3 distinct strands. Similarly, she suggested that some of the same overthrusting processes seen along the Tintina Fault System may have taken place along the Denali Fault System.

Over the years, a number of well-earned honors have come her way. Florence joined the Geological Society of America in 1950 and was elected to Fellowship in the Society in 1967. With the support and urging of her many friends and colleagues, the University of Alaska Fairbanks awarded Florence an Honorary Doctor of Science in May 1987. And in the mid-1990s, she was awarded the U.S. Department of the Interior Meritorious Service Award for her long and productive career in service to the Nation. Florence has over 100 publications on Alaska geology as senior author or co-author.

One of Florence's skills was as a ham radio operator (now KL7AZ) and in the 1950s she developed a "radiopal" communication with Al Weber (now KL7AG), who lived in Anchorage. This communication blossomed into romance and in 1959 they were married and Al moved to Fairbanks. Outside of the office, Florence and Al were always involved in some adventure, whether it was bicycling around the state, canoeing and kayaking on many rivers, learning to play various musical instruments, or learning to scuba dive. Trips included New Zealand, Australia, and many a motor home tour of the US and Canada. The number of motorhomes they have worn out is impressive. In 1957, Florence was one of the women featured in a National Geographic article about 6 women and 1 man who traveled down the Yukon River from Whitehorse to Eagle by Folboat. Because there were two Florences on the trip, they were nicknamed Ru and Ro, for Florence Rucker and Florence Robinson, respectively. According to the National Geographic article, Florence Robinson (Weber) was called a watchbird, because she never dozed off on the days they drifted down the river; she was always watching for hazards and interesting things to see. After completing the Whitehorse to Eagle trip, the two Florences continued 150 miles downstream to Circle. The article was named after a popular (but politically incorrect) song of the day, "Squaws Along the Yukon."

One of the compliments paid to Florence recently was that unlike many of the geologists of her day who were quite territorial, when she found something interesting, she was quick to bring in appropriate experts to and share the discovery, even to the extent of turning it over to those she brought in.

Community Education Corner - Science Fair

By Jana DaSilva Lage

The 54th Annual Alaska State Science and Engineering Fair was held on March 28th at Begich Middle School in Anchorage. Jana Lage and Kelley Stair were on hand to judge for the AGS Special Awards. Earth and Space Science and Environmental Science Projects in the High School, Middle School, and Elementary Divisions were reviewed. In the end, the following 11 students received awards:

High School Division

There were no awards given in this category.

Middle School Division

Peter Moma (7th Grade) *Using Pyrocystis Fusiformis as a bioindicator for mine waste toxicity*
Christopher Seamount (6th Grade) *Seismic Soil*
Mark Holder (8th Grade) *Does the Active Layer of Soil in Barrow Freeze up at a Constant Rate?*

Elementary Division

Amanda Alexander (4th Grade) *Would soil type affect a dinosaur print?*
Elijah Faso-Formoso (3rd Grade) *Erosion from Place to Place*
Meredith Heinrich (4th Grade) *How do Magnets affect Crystal Growth?*
Kerrigan Beagley (3rd Grade) *Eggshellent Oil Bath*
Kanesia Price (6th Grade) *Water Filtration*
Cody Keith (6th Grade) *Fossil Finds: Trilobites of the Wheeler Formation*
Isabelle Libbrecht (4th Grade) *How are Fossils Formed?*
Connor Moma (6th Grade) *Measuring the toxicity of volcanic ash with Pyrocystis Fusiformis*

The students will receive a $25 gift card to Barnes and Noble and are invited to attend our May luncheon. The students' projects will be posted on the AGS web site under Science Fair.

Meeting Information:

These links were all active as of 03/08/08. Please send updates to the editor: Greg Wilson 263-4748, or e-mail to Gregory.c.wilson at conocophillips.com

The **American Geological Institute** provides a comprehensive list of national and international geoscience meetings at: **http://calendar.agiweb.org**

Local Meetings:

American Water Resources Association—Alaska Section
http://www.awra.org/state/alaska/index.html

Alaska Geological Society
http://www.alaskageology.org
Lunch meetings are held monthly September through May in Anchorage. For more information, contact Jim Clough, 451-5030.

Alaska Miners Association
http://www.alaskaminers.org/
The Anchorage branch of the AMA holds weekly meetings at 7 AM every Friday at the Denny's on Northern Lights and Denali. They hold regular luncheon meetings in association with SME. For more information, contact the AMA office at 563-9229.

American Institute of Professional Geologists
http://www.aipg.org
AIPG holds regular quarterly evening Section meetings in Anchorage and Fairbanks. For more information contact Mark Lockwood, President, at Shannon & Wilson, Inc., in Fairbanks, 907-460-7239.

Chugach Gem & Mineral Society
http://www.chugachgms.org
CG&MS holds all meetings at the First United Methodist Church on 9th Avenue. Contact their hotline at 566-3403 for information on regular monthly business meetings, monthly potlucks, and guidebook sales, including the new Alaska Rockhound Guidebook.

Geophysical Society of Alaska
http://gsa.seg.org/
Luncheon meetings are held monthly September through May at the ConocoPhillips Tower. For more information, contact Monte Mabry, 265-1653

Society of Petroleum Engineers
http://alaska.spe.org/
For more information, contact Jack Hartz at 375-8239.

UAS Environmental Science Program
http://www.uas.alaska.edu/envs

National Association of Geology Teachers (NAGT)
http://www.nagt.

Letter to the Membership of the Alaska Geological Society from the Board of Directors:

Dear Members,

The purpose of the Alaska Geological Society as written in the original 1958 Bylaws is:

ARTICLE II.
PURPOSE

The purpose of this Corporation, hereinafter referred to as "the Society", is to promote interest in and understanding of geology and the related earth sciences and to provide a common organization for those individuals interested in geology and the related earth sciences.

To this end, for many years, AGS has 1) distributed a newsletter that announces upcoming geoscience-related events, lectures, meetings, and volunteer opportunities like the science olympiad and judging of science fairs, 2) organized monthly geoscience lectures for the non-field season months of the year, 3) held annual technical conferences that alternate between Anchorage and Fairbanks to promote student involvement, 4) organized fieldtrips which were held annually until AAPG's insurance policy no longer covered field trips, and 5) distributed scholarships to deserving graduate and undergraduate students doing geology projects in Alaska.
At present, the Alaska Geological Society administers 2 scholarship funds: the AGS Scholarship, and the Don Richter Memorial Scholarship. In 2005, when AGS was approached by the Richter family to host a scholarship in Don's name, we discovered in our Bylaws that we are a 501c6 nonprofit, which means that no contributions to AGS are tax-deductible. A 501c6 is a nonprofit that advocates for political purposes, and since that is not our purpose or our practice -- we are focused on advancing the knowledge of Alaskan geology -- the AGS Board of Directors voted to change to a 501c3 nonprofit, which is a tax status that allows tax deductible contributions. The Board would like to have a 501c3 tax status so that we can grow our scholarship funds for 3 reasons: 1) to be able to receive tax-deductible contributions, and matching contributions from employers, 2) to increase the scholarship accounts to the point where they are self-sustaining, and 3) to increase the size of the scholarships we can afford to award. (At present, we have a annual budget that allows us to give awards in the $500 to $1000 range.)

The membership voted to make the change to a 501c3 nonprofit in December of 2004 by a voice vote, but the Board subsequently decided we should have an official ballot vote. The membership voted overwhelmingly for the change to a 501c3 by ballot in December 2008. In January 2009, we sent our application to change to a 501c3 to the IRS. IRS replied with a qualified rejection -- we need to add some specific language to our bylaws to meet the IRS requirements for 501c3 nonprofit tax status. We have now added this language to our Bylaws, and in this special edition of the newsletter, you can read the updated bylaws. We had the Foraker Group lawyers review our new 2009 Bylaws draft, and they suggested we add some language on conflict of interest and indemnification of Board members. The Board has deliberated for 3 months on the details of these changes, and has finally produced a long overdue update of the 1958 bylaws.

In a nutshell, the changes the Board has unanimously voted to make include:
1) Addition of conflict of interest language in Article V Directors, Section 13, and in Article VI Officers, section 11.
2) Addition of Article IX Indemnification, to protect members of the Alaska Geological Society from lawsuits against actions performed in good faith on behalf of the Society. This would include, for example, board members and field trip leaders.
3) Updated definitions of AGS member and board meetings procedures, records management, duties of officers, board members, and committees, and fiscal management.
4) A new Article XII defining the scholarships and the process by which they are awarded.
5) The IRS-required changes, which include language in Articles V and VI, conflict of interest and the disposition of AGS funds with respect to AGS Board and committee members , language in Article XI Disposition of Assets, Article X, Fiscal Management, and in XII, the disposition of scholarship funds. The main concern of IRS is how AGS legally safeguards its funds to be spent only on the purposes for which they are intended.

To show you all the corrections we made line by line would be impossible in the newsletter venue -- but both sets of Bylaws area available on our website so that you can compare them if you wish to do so http://www.alaskageology.org/bylawschanges.htm .

Now it is your turn. The Membership must vote to **Approve** or **Disapprove** these amendments to the AGS bylaws in order for them to be adopted (or not). Please take the time to read through the 2009 Bylaws draft, determine whether you approve of them or not, and vote on the ballot included in this newsletter. If you have any questions, or would like a set of these mailed to you, please contact Sue Karl, Bylaws Committee chair, at 907-786-7428, or skarl@usgs.gov.

We, the Board, appreciate your time and attention to this matter.

Alaska Geological Society
May 2009, Election Ballot
for Officers and Board Members

AGS Officers

☐ ***President Elect*** – Tom Morahan
(President for 2010-2011)

☐ ***Vice President*** – Ken Helmold

☐ ***Secretary*** – Chad Hults

☐ ***Treasurer*** – Al Hunter

Write-in Candidate(s)
☐ _____
Position and Name

Write-in Candidate(s)
☐ _____
Position and Name

2009-2011 Board Members
There are four open positions for the AGS Board, you may vote for up to 4

☐ *Board Member* – Dave Boyer

☐ *Board Member* – Marwan Wartes

☐ *Board Member* – Dick Garrard

☐ *Board Member* – Lee Ann Munk

2009-2011 AAPG Delegate
(only Active AAPG members may vote for the AAPG delegate)

☐ ***AAPG Delegate*** – David Hite

Amendment to Alaska Geological Society Bylaws
Please read the informational letter on the back of this ballot and visit our website for the changes in bylaws at:
http://www.alaskageology.org/bylawschanges.htm

Shall the Alaska Geological Society amend the bylaws of the organization with the changes approved by a vote of the Alaska Geological Society Board of Directors at the May 21, 2009 board meeting?

☐ ***Approve***

☐ ***Disapprove***

Please mail your ballot by May 21, 2009 to:
Alaska Geological Society PO Box 101288
Anchorage, Alaska 99510
or bring it to the Thursday May 21, 2009
AGS Annual Meeting and Luncheon

Enhanced Alaska Digital Well Log Data Since 1989

With no data hassles, do more geology in less time.
Make regional sandstone and other maps batch-mode

All digital log files

- Are depth shifted to match resistivity curves.
- Have core data rendered as a depth-shifted well log curve.
- Have standardized mnemonics.
- If suitable curves are available, have a Volume of Shale curve for more effective cross sections.
- Allow you to specify your own choice of mnemonics before delivery.
- Are updated periodically with new wildcat wells.
- Are delivered in LAS 2.0 format.

North Slope Data Bank

553 wildcats and key field wells
Includes a Volume of Shale curve based on the gamma ray curve

Cook Inlet Data Bank

1030 wells including all wildcats and many field wells.
Includes a Volume of Shale curve created from the SP curve, but based on four other curves as well.

A spreadsheet file of wells and curves is available from Daniel E. Shier, dan@rockypine.com, www.rockypine.com

From the President's Desk ….

This has been another busy year for your Alaska Geological Society. As a volunteer organization, we rely on the many suggestions and ideas of our members and the efforts of your elected board and officers and appointed committee chairs. The May 21st AGS luncheon is the final luncheon of the 2008-2009 season and our official annual meeting. Beyond the slate of candidates, our election ballot includes a vote on an amendment to our bylaws. This vote is necessary because we want to change to 501c3 non-profit tax status that allows tax deductible contributions to AGS. Please take the time to read the informational letter on the back of the ballot, and read the new and old bylaws that are posted on our web site at http://www.alaskageology.org/bylawschanges.htm . Many thanks to the Bylaws Committee and especially to Sue Karl who took on this difficult and time-consuming task of reviewing our bylaws and striving to make them compliant with the necessary changes to comply with current (2009) requirements for 501c3 non-profit corporations.

On behalf of this year's AGS Board, Officers, and committee chairs, we wish you all a safe, warm and "bug-free" summer. And have fun!

- Jim

GSA and AGS Picnic

The Geophysical Society of Alaska and AGS picnic is scheduled for Wednesday, May 27th, from 5-9 pm at Ruth Arcand Park, 3900 Abbott Rd. Plan to come, bring family, and enjoy the food and socializing. Details coming soon on food provided and ticket prices (to be posted on our website www.alaskageology.org)

If you have never been there, please check out the location on the web beforehand. The park is off of Abbott Rd. (extension of Dimond Blvd.) between Service High School and Lake Otis Pkwy. Look for a marked turnoff to the south (on the right if coming from New Seward.)

In Memoriam:

Donald P. Blasko

by Bob Hoekzema (AMA) and Joe Kurtak (BLM)

Donald Paul Blasko, 73, long time Alaskan resident, last permanent Chief of the U. S. Bureau of Mine's (USBM) Alaska Field Operations Center (AFOC), and major contributor to Alaska's mining and energy resource industries passed away on March 15, 2009 at his home in Rock Springs, Wyoming.

Don was born in Rock Springs on May 25, 1935, the son of Benedict and Elsie Blasko. He attended schools in Rock Springs and helped his parents with their café in his formative years. Don graduated from the University of Wyoming with a Bachelor's Degree in Petroleum Engineering. Summers were spent working for the federal government on the Big Sandy-Farson irrigation project in southeast Wyoming and for the U.S. Bureau of Mines (USBM) Petroleum Research Center in Laramie. Upon graduation he became a full-time employee of the USBM and conducted petroleum resource studies throughout the Rocky Mountain states.

In 1964, Don was given the assignment of establishing a petroleum resource office for the USBM in Anchorage, Alaska. He arrived in Anchorage just 5 months after the March 27, 1964 earthquake and opened the office in the basement of the old post office building on Fourth Avenue. He was a regular at the Bert's Drug Store coffee counter just across G Street and held many successful luncheon meetings at that establishment. Soon after he became an active member of the Alaska Geologic Society and held various positions within the organization.

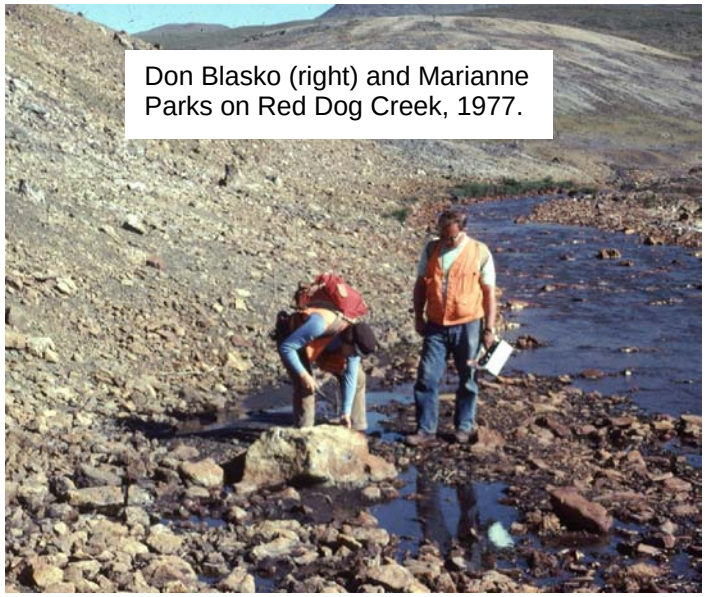
During his early years in Alaska he conducted oil resource studies and compiled oil, gas and mineral resource information in cooperation with Tom Marshall, Phil Holdsworth, and Kevin Malone, which were published in USBM Minerals Yearbooks and other publications such as *RI 7688 – Oil Fields and Crude Oil Characteristics, Cook Inlet Basin, Alaska*. He also became an acknowledged expert on coal fires and helped eliminate active coal fires on the Kenai Peninsula near Ninilchik and maintained the readiness of the USBM Mine Safety railroad car which was stationed in Palmer for potential use in the Sutton Coal Fields and Healy.

One of Don's major legacies was his successful effort to identify, locate and describe oil and gas seeps in Alaska. The USBM published the results of his field studies as Reports of Investigations and Open File Reports. These include *RI 8122 – Oil and Gas Seeps in Alaska, Alaska Peninsula, Western Gulf of Alaska*, *RI 8136 – Oil and Gas Seeps in Alaska, North Central Gulf of Alaska*, and *OP 1976 – Occurrences of Oil and gas Seeps Along the Gulf of Alaska.*

In 1972 Don was assigned as the USBM representative on the Resource Planning Team of the Joint State-Federal Alaska Land Use Council which, at that time, was substantially involved with issues related to the Alaska Native Claims Settlement Act (ANCSA) which was signed into law on December 18, 1971 by President Nixon. He provided minerals information and made recommendations concerning the mineral potential of federal lands being considered for selection and later for lands being considered for inclusion in National Parks, Monuments Wildlife Refuges and wilderness areas under the auspices of the Alaska National Interests Lands Conservation Act (ANILCA) that was signed into law by President Carter on December 2, 1980. In part, due to Don's efforts, the USBM was provided special funding to conduct mineral resource evaluation studies of federal lands being considered for withdrawal under ANILCA. These included studies in the southern National Petroleum Reserve – Alaska (NPRA) in 1977 and 1978 as well as a contract to WGM to evaluate resource potential in the Delong Mountains area. Don worked on the NPRA projects along with Jake Jansons, Marianne Parks, and Don Baggs and was responsible for contracting support services for those efforts. The studies ultimately resulted in the discovery of significant new base metal mineralization in the Brooks Range (Drenchwater Creek and Story Creek, etc.) and the substantiation of a significant zinc-lead-silver deposit at Red Dog Creek. As a result, the NANA Corporation selected the Red Dog area as a portion of their ANCSA entitlement – the rest of the Red Dog story is well known history.

A young Don Blasko in Southern NPR-A, 1977

The AFOC Anchorage office's next big project was the mineral resource evaluation of the Chugach National Forest under the Roadless Area Review and Evaluation II (RARE II) program. This work extended from 1979-1982. Don's role was Anchorage Office Branch Chief. One of his greatest contributions to the effort, and a great example of how Don was able to get things done, was his successful contracting of a World War II sub-chaser (the Grebe) as a support facility for a two month reconnaissance of mineral resources in Prince William Sound. He arranged to have a helicopter platform constructed on the aft deck which proved to be very convenient. However, at times watching the float equipped helicopter teetering on the platform in rough weather was a somewhat frightening experience. Don's creativity in the selection and preparation of the sub-chaser was in large part responsible for the success of the 1979 field season. The project supervisor, Jake Jansons, writes:



Don Blasko (right) and Marianne Parks on Red Dog Creek, 1977.

> "The selection of the sub-chaser by Blasko was brought about because for funding and bookkeeping purposes it would fall under the transportation category. This was important. Because of the oil shortages at that time, our travel budget was small and tightly controlled (for AFOC) – but transportation was not."

Don was promoted to Chief, of the Bureau's Intermountain Field Operations Center in Denver in 1983. However, he returned to Alaska in 1985 as Chief, AFOC following John Mulligan's retirement. He helped to develop the Strategic Mineral Initiative which was designed to assess Alaska's strategic mineral potential and the successful Mining District Mineral Assessment Program which began the same year. The program survived the closure of the USBM in 1996 and was continued by Bureau of Land Management until 2007. The wealth of minerals information generated by these assessments was a direct result of Don's efforts early in the program.

Joe Kurtak, a geologist originally hired by Don to work on the RARE II studies, remembers:

> "Don was a mentor to many of us just starting our professional careers in Alaska. He went out of his way to provide the support we needed to get field work done in the most remote of locations. He instilled in us a sense of professionalism and that what we were doing would benefit the future of mineral resources in Alaska. Also that as public servants we were obligated to provide minerals information on a timely basis to the taxpayers. His ability to add some humor to even the most intense of situations was a godsend."

Nathan Rathbun, a minerals sampler hired by Don in early 1980, remembers:

> "Don was a great leader and lead by example. He demonstrated to all of us that, no matter what your position and title, the job must get done. Don was seen many times manning the barrel pump to refuel the helicopter. He also taught us the value of networking. His knowledge of people and his contacts around the state were invaluable to completing field projects. He always took care of the service providers, generously tipping or bringing a token of appreciation to those who helped out. Things are done differently in Alaska and Don frequently proved it to many Washington DC desk jockeys and similar types by taking them to the most remote, foul weathered, bug infested places in Alaska. Don was a great story teller and could entertain for hours by sharing his adventures and those of others."

In addition to his professional career, Don was an avid outdoorsman, enjoying hunting and fishing in much of south-central Alaska. He also took part in winter sports and joined the Sourdough Ski Patrol at the Alyeska Ski Area in the late 1960s. During the ensuing years he put in many volunteer hours on the ski hill and was instrumental in the construction of the patrol aid room at Alyeska.

Don retired in 1993 and returned to Wyoming where he pursued various part time employments including mineral resource consulting work, driving a crew bus for railroad employees and a school bus for Sweetwater County, WY, and transporting mail from Rock Springs to Jackson. He spent several summers as a campground host in Wyoming and Alaska. He enjoyed road trips to visit his children and grandchildren and teaching them how to fish. His surviving family members include one son, Benedict J. Blasko of Laramie and grandchildren Joseph B. and Lea Rain Blasko; one daughter Brenda R. Blasko-Payte and granddaughter Taylor of Montrose , CO; cousins Rosemarie Griffon of Lincoln California, and Elsie Mae Kushland of Homedale, ID, and several nieces and nephews.

The Alaska Geological Society, Inc.
P.O. Box 101288
Anchorage AK 99510

On the web at: http://www.alaskageology.org

The Alaska Geological Society is an organization which seeks to promote interest in and understanding of Geology and the related Earth Sciences, and to provide a common organization for those individuals interested in geology and the related Earth Sciences.

This newsletter is the monthly (September-May) publication of the Alaska Geological Society, Inc. Number of newsletters/month: ~300

EDITOR
Greg Wilson
ConocoPhillips Alaska, Inc.,
P.O. Box 100360
Anchorage AK 99510-0360
e-mail: Gregory.c.wilson at conocophillips.com
(907) 263-4748 (office)

MEMBERSHIP INFORMATION

AGS annual memberships expire November 1. The annual membership fee is $15/year. You may download a membership application from the AGS website and return it at a luncheon meeting, or mail it to the address above.

Contact membership coordinator Mark Olson with changes or updates (e-mail: mark.a.olson at conocophillips.com; phone: 907-263-4250)

All AGS publications are now available for on-line purchase on our website. Check to see the complete catalogue.
http://www.alaskageology.org/publications

ADVERTISING RATES

Advertisements may be purchased at the following rates:
1/10 Page--$150/9mo, $60/1mo; size=1.8 x 3.5 inch
1/4 Page--$300/9mo, $75/1mo; size=4.5 x 3.5 or 2.2 x 7.5 inch
1/3 Page- $375/9mo, $85/1mo; size=7.0 x 3.5 or 3.0 x 7.5 inch
1/2 Page--$525/9mo, $100/1mo; size=9.0 x 3.5 or 4.5 x 7.5 inch
Full Page--$800/9mo, $130/1mo; size=7.5 x 9.0 inch
1mo rate=(9mo rate/9)+$40 (rounded up).

Contact Tim Ryherd (907) 269-8771 for advertising information.

Newsletter Delivery Options

Your newsletter should be arriving via both an emailed PDF and regular mail. If you have an email account, but have not received the PDF, please let the editor know. Also, if you wish to opt out of the paper copy, please let the editor know.

2008 - 2009 Alaska Geological Society Board

Note: e-mail addresses now contain “at” instead of “@” Please change to @ when typing.

		Phone	e-mail	Workplace
President	Jim Clough	451-5030	Jim.clough at alaska.gov	DNR / DGGS
Past-President	Art Banet	334-5316	Arthur.banet at mms.gov	BLM
President-Elect	Tom Homza	770-3701	Thomas.Homza at shell.com	Shell
Vice-President	Tom Morahan		Geowiz at aol.com	PRA / Chevron
Treasurer	Al Hunter	263-7947	Alhunter at chevron.com	Chevron
Secretary	Ken Helmold	269-8673	Ken.helmold at alaska.gov	DNR / DOG
Director 07-2009	Diane Shellenbaum	375-8241	Diane.shellenbaum at alaska.gov	DNR / DOG
Director 07-2009	Ted Bornemann	373-4028	Erhard2002 at hotmail.com	
Director 07-2009	Peter Barker	248-7114	Pbarker at gci.net	
Director 07-2009	Robert Gillis	451-5024	Robert.gillis at Alaska.gov	DNR / DGGS
Director 08-2010	Laura Silliphant	375-8240	Laura.silliphant at Alaska.gov	DNR / DOG
Director 07-2009	Rick Levinson	265-1530		ConocoPhillips Alaska

Committees and Delegates

AAPG Delegate	Arlen Ehm	277-1432	arlenehm at gci.net	Geological Consultant
AAPG Delegate	David Hite	258-9059	Hitelamb at alaska.net	Geological Consultant
Advertising	Tim Ryherd	269-8771	Tim.ryherd at Alaska.gov	DNR / DOG
Com. Ed./Science Fair	Jana DaSilva Lage	339-6452	Jana.lage at asrcenergy.com	ASRC Energy Services
Fairbanks Coordinator	Rocky Reifenstuhl	451-5026	Rocky.reifenstuhl at Alaska.gov	DNR / DGGS
Field Trips	Tom Plawman	227-2781	tplawman at gci.net	BP
Bylaws	Sue Karl	786-7428	Skarl at usgs.gov	USGS
Memberships	Mark Olson	263-4250	Mark.a.olson at conocophillips.com	ConocoPhillips Alaska
Newsletter Editor	Greg Wilson	263-4748	Gregory.c.wilson at conocophillips.com	ConocoPhillips Alaska
Publications	Peter Johnson	334-5329	Peter.Johnson at mms.gov	Minerals Mgmt. Service
Scholarship	Robert Blodgett	786-7416	Rblodgett at usgs.gov	USGS contractor
AGS Website	Jan Hazen		Jan at homestead-graphics.com	