

# NEWSLETTER

Serving the Petroleum and Geothermal Community

Nevada Petroleum and Geothermal Society; P. O. Box 11526; Reno, NV 89510

Visit our NPS Homepage: <http://www.nbmgs.unr.edu/nps/>

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## Dinner Meeting: Thursday Feb 5, 2015

**Speaker:** John N. Louie, Ph.D.  
Nevada Seismological Laboratory  
University of Nevada, Reno

**Topic:** Advanced seismic imaging of geothermal reservoirs in Nevada- Is there a geothermal seismic signature?

**Place:** Ramada Reno Hotel  
1000 East 6<sup>th</sup> Street, Reno, Nevada

**Cocktail Reception 6:30, Skyline Bar, 14th Floor**

**Dinner Served at 7:00 PM**

**NPGS Members \$20; Non-Members \$23; Students \$10**

*Please RSVP with the following link:*

<https://docs.google.com/forms/d/1o3irBGp9IdezwrdiIS-nIwA5rGS0h5RtzbML61tE5MI/viewform>

NPGS is charged for every meal that is reserved. If you cannot keep your reservation, please cancel prior to the meeting.

**SEE CALENDAR Page 19 for upcoming meetings**

► ***NPGS Monthly Dinner Meeting – Feb 5, 2015***

***Advanced seismic imaging of geothermal reservoirs in Nevada- Is there a geothermal seismic signature?***

John N. Louie, Nevada Seismological Laboratory, University of Nevada, Reno; Satish K. Pullammanappallil and William Honjas, Optim, Reno, Nevada

In the geothermal fields of the Great Basin physiographic province of western North America, drilling success or failure often depends on hitting fault or fracture zones. Advanced seismic reflection imaging has proven to be the only effective geophysical means of accurately targeting geothermal drilling. At target depths of 1 to 2 kilometers, the pay zones are often less than 0.1 km wide. The development of advanced seismic imaging techniques has led to drilling success rates of 80% at some prospects. Advanced imaging is able to focus direct images of steeply dipping faults as seismic reflectors, allowing accurate planning of geothermal drill targets. The technology achieves the focusing and accurate location of structure and stratigraphy through thick piles of heterogeneous Tertiary volcanics, below complex surficial basin structure. This capability is allowing researchers to use these seismic images to carry out advanced seismic attribute analyses, model testing, and verification of tectonic hypotheses. We are further refining the imaging methodologies, conducting joint inversions of seismic along with other geophysical measurements, and inspecting the amplitude-versus-offset (AVO) characteristics of geothermal reservoirs in Nevada.

► ***About the Speaker***

John Louie, Ph.D.

***Professor of Geophysics***

217 Laxalt Mineral Engineering Bldg.

Nevada Seismological Laboratory

Department of Geological Sciences and Engineering

Mackay School of Earth Sciences and Engineering

College of Science

The University of Nevada MS 0174

1664 N. Virginia Street

Reno, NV 89557-0141

<http://crack.seismo.unr.edu/~louie/>

Following from UNR website: <http://www.unr.edu/geology/people/john-louie>

Dr. John Louie has over twenty years university teaching and research experience in geophysics. He has published with students several well-cited papers on innovations in seismic imaging of earthquake faults in California, Nevada, and New Zealand. Over the last 10 years, Dr. Louie has developed a faster and more efficient site-assessment survey technique for earthquake-hazard evaluation. The refraction microtremor technique, a Nevada-owned technology, has been successfully commercialized by graduates and has become a standard engineering survey method worldwide. Research on this technology continues, focusing on measuring thousands of sites in California, Nevada, and New Zealand.

► **Welcome New NPGS Members:**

Elder, Kent                      InterAct                      Client Relations Mgr                      Ventura, CA

► **Scheduled Nevada BLM Geothermal Lease Sales:**

Sale Date	Nominations Due	Sale Posting Date	Protest Deadline
September 16, 2015	February 6, 2015	June 18, 2015	July 17, 2015

[http://www.blm.gov/nv/st/en/prog/minerals/leasable\\_minerals/geothermal0/ggeothermal\\_leasing.html](http://www.blm.gov/nv/st/en/prog/minerals/leasable_minerals/geothermal0/ggeothermal_leasing.html)

► **Scheduled Nevada BLM Oil & Gas Lease Sales:**

***Nevada's Competitive Oil & Gas Lease Sale Schedule  
(Tentative)***

Sale Date	Parcels Offered for District Office at Sale	*EOIs Due	Sale Posting Date	Protest Deadline
March 10, 2015	Elko/Southern Nevada	June 12, 2014	December 10, 2014	January 9, 2015
June 9, 2015	Battle Mountain	September 12, 2014	March 11, 2015	April 10, 2015
September 15, 2015	Winnemucca/Carson City	December 19, 2014	June 17, 2015	July 17, 2015
December 8, 2015	Ely	March 13, 2015	September 9, 2015	October 9, 2015

\*EOI = Expression of Interest

For listings of parcels for the Dec sale, use the following link:

[http://www.blm.gov/nv/st/en/prog/minerals/leasable\\_minerals/oil\\_gas/oil\\_and\\_gas\\_leasing.html](http://www.blm.gov/nv/st/en/prog/minerals/leasable_minerals/oil_gas/oil_and_gas_leasing.html)

► **AAPG Bulletins Available:**

NPGS Member, Gene Saucier has 12 volumes of AAPG Bulletins in very good condition he would like to give to anyone interested in having them, for a small donation to the NPGS Student Fund. They are unbound volumes 76 (1992) to 87 (2003). The books can be picked up from Gene at his home in Reno. Please call Gene to make arrangements 775-825-2863.

► **Summary of 2013 and 2014 (partial) Nevada Oil Production and Drilling Activity**  
 Submitted by Jerry Walker

Data from Nevada Division of Minerals' "Nevada Oil Patch" and "Oil and Gas Permits"

2013 Bimonthly Period	Oil Production barrels	Average Daily Oil Production barrels per day	Nevada Division of Minerals Issued Drilling Permits	Rig Count	Actively Drilling Wells
Jan/Feb	54,786	929	#938: <b>V.F. Neuhaus Properties 26-1 Apex</b> , 26-T10N-R56E, Nye Co, prop TD 2,050'	1	Makoil 14A-12 Portuguese Mtn.
Mar/Apr	58,712	962	#939: <b>Noble EOS-3N Corehole</b> , 36-T34N-R55E, Elko Co, prop TD 928' #940: <b>Bestoso Oil &amp; Gas 1 ARC</b> , 20-T5N-R61E, Nye Co, prop TD 14,000' #941: <b>Noble M2C-M2-11B Humboldt</b> , 2-T34N-R58E, Elko Co, prop TD 12,489' #942: <b>Noble M2C-M2-21B Humboldt</b> , 2-T34N-R58E, Elko Co, prop TD 12,422'	1	Makoil 14A-12 Portuguese Mtn. (Completed as D&A in 2015)
May/June	55,272	906	#943: <b>Kelpetro Operating 36-1 Christina</b> , 36-T7N-R54E, Nye Co, prop TD 4,000' #944: <b>Makoil 1-32 Leoman Spring</b> , 1-T10N-R56E, Nye Co, prop TD 4,000' #945: <b>Noble M10C-M10-22A Humboldt</b> , 10-T34N-R58E, Elko Co, prop TD 12,700' #946: <b>Noble M10C-M10-11B Humboldt</b> , 10-T34N-R58E, Elko Co, prop TD 12,700'	0	---
July/Aug	57,225	923	#947: <b>Noble H33P-H33-33B Humboldt</b> , 33-T35N-R58E, Elko Co, prop TD 14,621' #948: <b>Noble H33P-H33-44A Humboldt</b> , 33-T35N-R58E, Elko Co, prop TD 14,542' #949: <b>Noble M2C-M2-S1 Humboldt</b> , 2-T34N-R58E, Elko Co, prop TD 12,422' #950: <b>Noble M2C-M2-S2 Humboldt</b> , 2-T34N-R58E, Elko Co, prop TD 12,422' #951: <b>Noble M2C-M2-S3 Humboldt</b> , 2-T34N-R58E, Elko Co, prop TD 12,422'	1	Makoil 1-32 Leoman Spring (Completed as D&A in 2013)
Sep/Oct	55,871	916	#952: <b>Western General 4-34 Tom Spring</b> , 4-T8N-R57E, Nye Co, prop TD 9,780' #953: <b>Tetuan 32-30 Mariagness</b> , 30-T15N-R57E, White Pine Co, prop TD 4,500'	1	Noble M2C-M2-21B Humboldt (This is the initial well Noble drilled in their Tertiary Elko Shale resource play. Spud 2-Sep-2013.)
Nov/Dec	53,806	882	---	2	Noble M2C-M2-21B Humboldt (Completed as an oil producer April 2014) Tetuan 32-30 Mariagness

Number of drilling permits issued in 2013: 16

Number of wells drilled or drilling in 2013: 4

2014 Bimonthly Period	Oil Production barrels	Average Daily Oil Production barrels per day	Nevada Division of Minerals Issued Drilling Permits	Rig Count	Actively Drilling Wells
Jan/Feb	49,958	847	#954: True Oil 13-31 DY-Federal, 31-T7N-R57E, Nye Co, prop TD 6,200'	2	Noble M10C-M10-11B Humboldt Tetuan 32-30 Mariagness (Completed as D&A in 2014)
Mar/Apr	52,881	861	---	0	---
May/June	54,721	897	#955: Noble S25G-S25-33A Marys River, 25-T38N-R60E, Elko Co, prop TD 14,312' #956: Noble S25G-S25-22B Marys River, 25-T38N-R60E, Elko Co, prop TD 14,380' #957: Noble S12J-S12-23A Marys River, 12-T38N-R60E, Elko Co, prop TD 14,062' #958: Noble S12J-S12-33B Marys River, 12-T38N-R60E, Elko Co, prop TD 14,000'	0	---
July/Aug	54,202	874	#959: Noble K1L-2D Huntington, 1-T29N-R55E, Elko Co, prop TD 12,000' #960: Noble K1L-1V Huntington, 1-T29N-R55E, Elko Co, prop TD 10,192' #961: Noble K2J-1D Huntington, 2-T29N-R55E, Elko Co, prop TD 12,000' #962: Andomeda 33-1B Tomera Ranch, 33-T31N-R52E, Eureka Co, prop TD 1,200'	0	---
Sep/Oct	52,348	858	#963: Noble K2J-1V Huntington, 2-T29N-R55E, Elko Co, prop TD 10,015' #964: Noble G18C-1V Huntington, 18-T30N-R56E, Elko Co, prop TD 11,762' #965: Noble G20L-1V Huntington, 20-T30N-R56E, Elko Co, prop TD 10,869'	3	Andomeda 33-1B Tomera Ranch Noble S25G-S25-33A Marys River SAM Oil 27-1R Pluto
Nov/Dec			---	1	Noble S25G-S25-33A Marys River

Number of drilling permits issued in 2014: 12  
Number of wells drilled or drilling in 2014: 5

Compiled by Jerry Walker, 1-Feb-2015

### ► **NBMG, UNR – Two New Faculty Openings**

ASSOCIATE PROFESSOR – Geothermal Specialist (tenure-track)  
ASSISTANT PROFESSOR – Neotectonics (tenure-track)

#### **ASSOCIATE PROFESSOR – Geothermal Specialist (tenure-track)**

The Nevada Bureau of Mines and Geology (NBMG) at the University of Nevada, Reno seeks applicants with expertise in geothermal energy research. Nevada is one of the most exciting regions in the world to do research in the geosciences and one of the best in the U.S. for the study of geothermal resources.

**Position Responsibilities:** The primary responsibilities of this position will be to develop broad programs in research and education in the field of geothermal energy while serving as Director of the Great Basin Center for Geothermal Energy. The applicant is expected to conduct a nationally competitive research program that will include innovative approaches to understanding the complexities of fluid flow in the crust with a concentration on Nevada and the surrounding Great Basin region. The successful candidate will also be expected to contribute to the development of datasets and reports on Nevada's geothermal resources, maintain geothermal databases as part of NGDS (National Geothermal Data System), and provide state resource assessments. Education will include teaching courses in geothermal related topics in the Department of Geological Sciences and Engineering (DGSE), supervising graduate students, and contributing to developing a geothermal curriculum. Research and educational efforts will involve multi-departmental and multi-institutional efforts, with scientists from academia, industry, other institutions, and government labs. The successful candidate will be asked to communicate effectively with the public and community leaders regarding the geothermal resources of Nevada.

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Qualifications: Applicants must have a doctorate in geology, geologic engineering, geophysics, or a related geoscience field by the time of hire and a demonstrated record of research on topics related to geothermal energy as indicated by dissertation research, industry experience, and/or peer-reviewed publications. The successful candidate must have at least 5 years of postdoctoral experience (either in industry or academia) in geothermal research in such areas as rock mechanics, 3D modeling, geophysical techniques, reservoir engineering, and/or geochemistry. Excellent communication skills, as demonstrated in written application materials; commitment to public service; potential for, or established record of publications; and ability to attract funding are essential. The successful candidate must also have demonstrated ability to develop/coordinate programs and work in teams to accomplish major goals.

Because the individuals will be competing for funding from a variety of sources, including industry and federal agencies, for fundamental and applied geoscience research (e.g., NSF, DOE, and USGS), preference will be given to candidates who explain achievable plans for funded research on Nevada-focused topics in geothermal energy in their letters of interest. In addition, preference will be given to candidates who understand NBMG's role as the state geological survey of Nevada, especially to those who can articulate a plan of how NBMG can better serve stakeholders (citizens, government, and industry) on issues related to geothermal resources.

Salary and Date of Appointment: The position will be a tenure-track faculty appointment at the associate professor level with an academic-year base salary that is competitive with other research universities. Starting date will be July 1, 2015 or shortly thereafter, depending on availability of the successful candidate.

To apply, please visit: <https://www.unrsearch.com/postings/16685>. Please submit a letter expressing your interest in the position, research plans; names, e-mail, postal addresses, and telephone numbers of at least three references; a complete vita; and electronic copies of up to three of your publications. Application deadline is March 1, 2015. For further information about NBMG, please consult our website (<http://www.nbmg.unr.edu>).

The University of Nevada, Reno is committed to Equal Employment Opportunity/Affirmative Action in recruitment of its students and employees and does not discriminate on the basis of race, color, religion, sex, age, creed, national origin, veteran status, physical or mental disability, and sexual orientation. The University of Nevada employs only United States citizens and aliens lawfully authorized to work in the United States. Women and under-represented groups are encouraged to apply.

[http://www.nbmg.unr.edu/docs/Associate\\_Professor\\_Geothermal\\_Specialist.pdf](http://www.nbmg.unr.edu/docs/Associate_Professor_Geothermal_Specialist.pdf)

#### **ASSISTANT PROFESSOR – Neotectonics (tenure-track)**

The Nevada Bureau of Mines and Geology (NBMG) at the University of Nevada, Reno seeks applicants with expertise in neotectonics and Quaternary geology. Nevada is one of the most exciting regions in the world to conduct research in the geosciences, particularly in the fields of neotectonics and geologic hazards.

Position Responsibilities: The primary responsibilities of this position will be to develop programs in research and education in the field of neotectonics with emphasis on paleoseismic and earthquake hazard research in Nevada and the surrounding region. Research will focus on landscape evolution primarily as it relates to Quaternary faulting, utilizing innovative approaches, such as LiDAR, to conduct detailed geologic mapping and dating of Quaternary units and surfaces. The successful candidate will also be expected to contribute to the development of datasets and reports on Nevada's Quaternary faults and seismic activity, including periodic assessments and syntheses of hazards facing its major cities and infrastructure. Education will include teaching courses in the successful candidate's area of expertise, such as neotectonics, geologic hazards, and Quaternary geology in the Department of Geological Sciences and Engineering and supervising graduate students. Research and educational efforts will involve integrated multi-departmental (e.g. Nevada Seismological Laboratory) and multi-institutional efforts, with scientists from academia, industry, other institutions, and government labs. The successful candidate will be asked to communicate effectively with the public and community leaders regarding natural hazards in Nevada and coordinate mitigation and response efforts with local and federal emergency management agencies.

Qualifications: Applicants must have a doctorate in geology or a related geoscience field by the time of hire and a demonstrated record of research on topics related to neotectonics as indicated by dissertation research, industry experience, and/or peer-reviewed publications. Excellent communication skills, as demonstrated in written application materials; commitment to public service; potential for, or established record of publications; and ability to attract funding are essential. The successful candidate must also have the ability to develop and coordinate programs and work in teams to accomplish major goals.

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Preference will be given to candidates with academic or industry experience in neotectonics. Expertise in paleoseismology (e.g. trenching), surficial processes, Quaternary dating techniques, LiDAR, and/or InSAR will be valued. Preference will be given to candidates who have demonstrated research productivity with publications in peer-reviewed literature. The successful candidate will compete for funding from a variety of sources, including federal agencies interested in fundamental and applied geoscience research (e.g., NSF, USGS, Department of Energy, and Bureau of Land Management) and industry. Therefore, preference will be given to candidates who explain achievable plans for funded research on Nevada-focused topics in neotectonics in their letters of interest. In addition, preference will be given to candidates who understand the role of NBMG as the state geological survey of Nevada and can articulate how NBMG can better serve stakeholders (citizens, government, and industry) on issues related to geologic hazards.

**Salary and Date of Appointment:** The position will be a tenure-track faculty appointment at the assistant professor level with an academic-year base salary that is competitive with other research universities. Starting date will be July 1, 2015 or shortly thereafter, depending on availability of the successful candidate.

To apply, please visit: <https://www.unrsearch.com/postings/16813>. Please submit a letter expressing your interest in the position and research plans; names, e-mail addresses, postal addresses, and telephone numbers of at least three references; a complete curriculum vitae; and electronic copies of up to three of your publications to <http://jobs.unr.edu/>. Application deadline is March 10, 2015. For further information about NBMG, please consult our website (<http://www.nbmgs.unr.edu>).

The University of Nevada, Reno is committed to Equal Employment Opportunity/Affirmative Action in recruitment of its students and employees and does not discriminate on the basis of race, color, religion, sex, age, creed, national origin, veteran status, physical or mental disability, and sexual orientation. The University of Nevada employs only United States citizens and aliens lawfully authorized to work in the United States. Women and under-represented groups are encouraged to apply.

[http://www.nbmgs.unr.edu/docs/Assistant\\_Professor\\_Neotectonics.pdf](http://www.nbmgs.unr.edu/docs/Assistant_Professor_Neotectonics.pdf)

Thank you,

James E. Faulds, Ph.D.  
Director/State Geologist/Professor  
Nevada Bureau of Mines and Geology  
University of Nevada, Reno, MS 178  
Reno, NV 89557  
(775)-682-8751

► **Endowed Chair in Petroleum Geology for Western State University, Colorado**

Job Bulletin

Page 1 of 2



**WESTERN STATE COLORADO UNIVERSITY**  
invites applications for the position of:

## **Rady Chair in Petroleum Geology**

**SALARY:** See Position Description

**OPENING DATE:** 09/08/14

**CLOSING DATE:** Continuous

**POSITION:**

Western State Colorado University invites applications for the Rady Chair in Petroleum Geology. The Rady Chair is made possible by a generous endowment from the Paul M. Rady Family Foundation.

**DUTIES:**

The successful candidate will work with the department to recruit students into the petroleum geology program, to place students in professional jobs and internships, and to develop industry support for the program. Teaching responsibilities include developing and teaching undergraduate courses in petroleum geology with an emphasis on subsurface mapping, log analysis, seismic interpretation and workstation techniques. The successful candidate will also teach courses in the geology core curriculum that support the petroleum emphasis.

**QUALIFICATIONS:**

Significant experience in the oil and gas industry is required. The ideal candidate should have a broad range of experience within the oil and gas industry, including significant time spent at a major oil company and experience in the independent sector. A Master's degree in geology or related field is required. Candidates must possess a strong commitment to undergraduate education as well as demonstrable teaching excellence. The successful candidate will demonstrate the ability to serve as the chief liaison between the program and industry partners.

If the successful candidate has a Master's degree, the Rady Chair is a non-tenure track position. If the successful candidate has a PhD degree, the position can be tenure track.

**ADDITIONAL APPLICATION INFORMATION:**

**Start date:** spring 2015, or as agreed.

**Salary Range:** Salary will be commensurate with experience and qualifications, approximately \$90,000-94,000 per year.

**To apply,** use our online application at [www.western.edu/jobs](http://www.western.edu/jobs) (scroll up the page and select the "apply" link). **Required attachments** to your online application include a cover letter, curriculum vitae, statements of teaching and research philosophies, and academic transcripts.

Three letters of recommendation are also required and these must be submitted via email to Lori Clement: [lclement@western.edu](mailto:lclement@western.edu)

Please direct questions regarding the position to Dr. Allen Stork: [astork@western.edu](mailto:astork@western.edu)

Unofficial transcripts are acceptable during screening. Official transcripts are required prior to



employment.

Screening of applications will begin November 15 and continue until the position is filled.

Western is a residential, four-year public University with an enrollment of 2,400 students who come from across Colorado and all fifty states. Faculty members share a strong commitment to personalized undergraduate education with the liberal arts as its core. They are student-oriented, collegial, energetic, and engaged in the campus and community. The curriculum provides professional flexibility where experiential learning and interdisciplinary approaches are valued. The University is located in Gunnison, Colorado, a rural community 200 miles southwest of Denver. At an elevation of 7,700 feet in the Southern Rocky Mountains, the Gunnison Valley provides significant year-round outdoor recreational opportunities. Employees have chosen Western because of the quality of life combined with rewarding careers. Visit <http://www.western.edu> to learn more about Western.

*Western State Colorado University is an affirmative action/equal opportunity educator and employer.*

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APPLICATIONS MAY BE FILED ONLINE AT:  
<http://www.western.edu/jobs>

600 N. Adams Street  
Gunnison, CO 81231  
970-943-3142

Position #51495F-FY15-1  
RADY CHAIR IN PETROLEUM GEOLOGY  
LC



**GEOLOGICAL SOCIETY OF NEVADA  
2015 SYMPOSIUM**

**ANNOUNCEMENT and  
CALL FOR PAPERS**

**ABSTRACT DEADLINE EXTENDED**

**THEME: New Concepts and Discoveries**

**WHEN: MAY 14-24, 2015**

**WHERE: JOHN ASCUAGA'S NUGGET  
RENO/SPARKS, NEVADA**

The Geological Society of Nevada invites contributions for oral, poster, and core shack presentations covering a broad range of geological topics for its upcoming seventh symposium. The symposium's focus is New Concepts and Discoveries emphasizing both the major deposit types and the trends that have sustained the mining industry for several decades as well as other deposit types and areas that may eventually have greater influence. The focus of the meeting is to utilize case studies; descriptions of new and reinvigorated deposits and targets; framework geology; tectonics and metallogeny; and the latest deposit concepts and exploration technologies.

Oral presentations require abstracts and a written paper that will be peer-reviewed and published in the Symposium Proceedings following the meeting. Poster presentations require abstracts and written papers are encouraged. Core shack presenters are welcome to submit abstracts and written papers, but are not required to do so.

Draft abstracts up to 500 words should be submitted **no later than October 1, 2014**. Written papers should be 2,000 to 20,000 words and include figures and tables.

Information for contributors is available on-line at: <http://www.gsnv.org/2015-symposium/>. Submit abstracts to John Muntean and Moira Smith via e-mail at: [munteani@unr.edu](mailto:munteani@unr.edu) and [msmith@pilotgold.com](mailto:msmith@pilotgold.com).

**GSN-SEG FORUM  
SUNDAY, MAY 17<sup>TH</sup>, 2015**

**TOPIC:**

Carlin-like Gold Deposits: What Can We Learn  
Beyond the Known Trends and Nevada

**TECHNICAL PROGRAM  
MONDAY-THURSDAY  
MAY 18<sup>TH</sup>- 21<sup>ST</sup>, 2015**

**Focus Topics:**

- Regional Geology and Metallogeny of the Great Basin
- Exploration Technology
- Case Histories of Discoveries and Exploration Update
- Intrusion-Related Cu-Au-Mo Deposits
- Northeastern Nevada: The New Frontier
- Advances in Carlin-type Gold Deposits
- Epithermal Deposits
- Diversification: Looking Beyond Gold, Copper and Silver

**Questions? Contact us at:**

<http://www.gsnv.org/2015-symposium/> or email at [mollymhunsaker@2015GSNSymposium.org](mailto:mollymhunsaker@2015GSNSymposium.org)

**Meeting Co-Hosts**



**FIELD TRIPS**

**MAY 14<sup>TH</sup>-16<sup>TH</sup> AND MAY 21<sup>ST</sup>-23<sup>RD</sup>, 2015**

**Pre-meeting:**

- Introduction of Carlin Gold Deposits
- Epithermal Deposits of Northern Nevada
- Mining for Non-Geologists: Exploration to Reclamation

**Post-meeting:**

- The Pequoop Trend-Nevada's Newest "Carlin" Trend
- Epithermal Deposits of Central Nevada
- Porphyry-related Deposits of Nevada
- The Famous Comstock Gold and Silver District

**SHORT COURSES**

**MAY 14<sup>TH</sup>-16<sup>TH</sup> AND MAY 21<sup>ST</sup>-23<sup>RD</sup>, 2015**

**TOPICS TO BE ANNOUNCED**

**EXHIBITS**

An active exhibit hall will provide excellent industry exposure for your company or organization. Space will go fast for this popular venue, so **please reserve your booth early!** Contact Elizabeth Zbinden or Mary Stollenwerk at [exhibits@2015GSNSymposium.org](mailto:exhibits@2015GSNSymposium.org) for more information.

**Sponsorship Opportunities**

We invite you to join GSN as we continue the tradition of excellence in presentations, field trips, and short courses. Opportunities are available for Patronage sponsorships, along with specific events. Please visit the website: [www.gsnv.org/symposium](http://www.gsnv.org/symposium) or e-mail Dave Shaddrick at: [dshaddrick@aol.com](mailto:dshaddrick@aol.com)

The **Geological Society of Nevada (GSN)** is a non-profit scientific society whose principal mission is to promote the advancement of the geological sciences, especially as they relate to Nevada. The Society encourages the dissemination of scientific and practical knowledge through semiformal presentations, field trips and symposia as well as by publishing the literature resulting from these activities.



# GRC Workshop

## Yellowstone National Park

**June 22-26, 2015**

The workshop will include a tour of the major geologic features of Yellowstone Park, the first national park in the world and the site of the greatest concentration of geothermal features on the planet, and discussions of its volcanic history, geochemistry, and hydrology.

The trip will be led by Duncan Foley, Gene Suemnicht, and Joe Moore. Duncan has led geologic and photographic tours of the park since the 1970's and is familiar with its features, moods and history. Gene and Joe each have more than 30 years experience in geothermal systems worldwide.

**Highlights include:**

- The 13 MW net capacity U.S. Geothermal Raft River geothermal power plant and the Raft River Enhanced Geothermal System site where stimulation activities are being conducted.
- The geological and geothermal features of the Yellowstone super volcanic system.
- 300 plus geysers – more than half of all the geysers in the world.
- More than 10,000 thermal features comprised of brilliantly colored hot springs, bubbling mudpots, and steaming fumaroles.
- Grand Teton National Park



~ Cost is \$1,500 per person for GRC Members, \$1,700 for non-members.

~ The price will include travel by bus from Salt Lake City and 4 nights double-occupancy accommodation in West Yellowstone. Also included are 4 lunches, one dinner, one reception and trip materials.

~ Not included are the cost of flights to and from, and accommodation in Salt Lake City on June 21 and 26, and the cost of breakfasts each day and 3 dinners.

Register for this exciting GRC Workshop/Field Trip opportunity by completing the registration form overleaf or by going online at: <https://eseries.geothermal.org>

Register by June 12 – only 50 spaces available.

Cancellations before May 22 will incur a \$100 fee. No cancellations will be allowed after May 22.

If you have any questions contact the GRC at [grc@geothermal.org](mailto:grc@geothermal.org) or phone 530.758.2360.

**Go to [www.geothermal.org/workshops.html](http://www.geothermal.org/workshops.html) for the latest information including Visa applications.**

► **News from Nevada Bureau of Mines & Geology:**

*From: Charlotte Stock*

*The following information is taken directly from emails provided by Charlotte Stock, Nevada Bureau of Mines & Geology*

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<http://www.nbgm.unr.edu/Departments/PubSales/PubSales.html>

**New Oil and Gas Logs Scanned and Online at the GBSSRL**

Eight new logs for oil wells drilled 2012 to 2013 have been scanned and are now available for viewing on the NBMG website at this link:

[ftp://ftp.nbgm.unr.edu/pub/NBMG/Oil\\_Gas/Oil\\_well\\_log\\_additions\\_since\\_2011](ftp://ftp.nbgm.unr.edu/pub/NBMG/Oil_Gas/Oil_well_log_additions_since_2011)

The directories for each log are listed by API number, permit, company, and well:

27-007-05265 922 TETUAN RESOURCES CORP. MARYS RIVER 34-26

27-011-05285 724 GRANT CANYON OIL AND GAS LLC BLACK UNIT NO. 19

27-023-05555 804 MAKOIL INC. TRAP SPRING NO. 27-32X

27-023-05586 876 PETRO WORLD NEVADA CORP. COBBLE QUESTA NO. 1-12

27-023-05610 916 DESERT DISCOVERIES LLC PARADISE UNIT NO. 2-12

27-023-05615 924 MAKOIL INC. WELL NO. 33-44

27-023-05618 927 WINN EXPLORATION CO. INC. RAGGED RIDGE NO. 1

27-033-05316 877 WINN EXPLORATION CO. INC. LONG CANYON FEDERAL NO. 24-1

**Reminder: Free Radon Test Kits through February**

Please click on links below to find out how you can *protect your family* from the second leading cause of lung cancer in the United States. **Free short-term testing kits are available** from Dec. 1 **through Feb. 28, 2015** from your Cooperative Extension Office.

<http://www.unce.unr.edu/radon/>

Click here for NBMG resources on radon:

<http://www.nbgm.unr.edu/Geohazards/Radon.html>

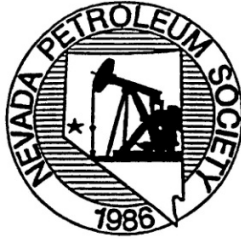
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Company/Affiliation \_\_\_\_\_

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Street City State Zip Code

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Street City State Zip Code

Preferred Mailing Address?  WORK -or-  RESIDENCE

Work Phone \_\_\_\_\_ Residence Phone \_\_\_\_\_ Fax \_\_\_\_\_

Mobile Phone \_\_\_\_\_ Email \_\_\_\_\_

Member of AAPG?  YES -or-  NO

Professional References – list two references with phone numbers and addresses

1) Name \_\_\_\_\_ Phone \_\_\_\_\_

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2) Name \_\_\_\_\_ Phone \_\_\_\_\_

Address \_\_\_\_\_  
Street City State Zip Code

Education – list colleges and universities attended, degree(s) received, and date of degree(s) (OPTIONAL)

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**Membership Type**

- ACTIVE \$20.<sup>00</sup>/year  
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 STUDENT \$10.<sup>00</sup>/year  
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Signature \_\_\_\_\_

Date \_\_\_\_\_

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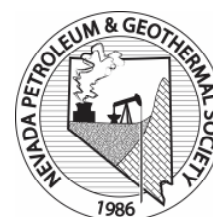
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# Nevada Petroleum and Geothermal Society

## Publication Price List - October 2013



<b>Paper</b>	<b>CD-ROM</b>	<b>Download from Dropbox</b>	<b>Title</b>
<b>SPECIAL VOLUMES</b>			
NPS1 n/a	<b>NPS1c</b> \$80.00	<b>NPS1y</b> \$65.00	Oil Fields of the Great Basin (1994) R.A. Schalla and E.H. Johnson, editors, 31 papers on regional and field specific geology, 5 plates, soft cover with plastic comb binding, 380 p.
NPS2 n/a	n/a	n/a	Membership Directory (only available free on the Web at <a href="http://www.nbmg.unr.edu/nps/membershipdir.htm">http://www.nbmg.unr.edu/nps/membershipdir.htm</a> )
<b>NPS15</b> <del>\$20.00</del> \$5.00	n/a	n/a	TerraScan's Geologic Map of the Eastern Great Basin, Nevada and Utah (1978, rev. 1987) compiled and edited by E.L. Howard, 3 sheets (includes cross-sections) \$20.00/NPS or \$25.00/non-NPS, order by phone for discounted price of \$5.00
NPS21 n/a	<b>NPS21c</b> \$35.00	<b>NPS21y</b> \$20.00	Carboniferous–Permian (Late Paleozoic) Hydrocarbon System, Rocky Mountains–Great Basin Region, U.S., Major Historic Exploration Objective (2001, updated 2003) J. Peterson, RMAG Open-File Report, 54 p., 45 illustrations
<b>FIELD TRIP GUIDEBOOKS</b>			
NPS3 n/a	<b>NPS3c</b> \$35.00	<b>NPS3y</b> \$20.00	Oil Fields, Production Facilities and Reservoir Rocks of Northern Nye Co, Nevada (1989) compiled by W.J. Ehni and D.M. Evans, 8 abstracts and papers, 30 p.
<b>NPS4</b> \$15.00	<b>NPS4c</b> \$35.00	<b>NPS4y</b> \$20.00	Oil Fields and Geology of the Pine Valley, Eureka County Area, Nevada (1990) D.M.H. Flanigan, L.J. Garside, and M. Hansen, editors, 15 papers and abstracts, 74 p. (xerox copy only – unbound)
NPS5 n/a	<b>NPS5c</b> \$35.00	<b>NPS5y</b> \$20.00	Geology of White River Valley, the Grant Range, Eastern Railroad Valley and Western Egan Range, Nevada (1991) D.M.H. Flanigan, M. Hansen, and T.E. Flanigan, editors, 10 papers and abstracts, 74 p.
<b>NPS6</b> \$25.00	<b>NPS6c</b> \$40.00	<b>NPS6y</b> \$25.00	Structural Geology and Petroleum Potential of Southwest Elko County, Nevada (1992) J.H. Trexler, Jr., T.E. Flanigan, D.M.H. Flanigan, M. Hansen, and L.J. Garside, editors, 9 papers, 2 plates, 96 p.
<b>NPS7</b> \$33.00	<b>NPS7c</b> \$48.00	<b>NPS7y</b> \$33.00	Structural and Stratigraphic Relationships of Devonian Reservoir Rocks, East Central Nevada (1993), C.W. Gillespie, editor, 15 papers, 3 plates, 203 p.
NPS8 n/a	<b>NPS8c</b> \$40.00	<b>NPS8y</b> \$25.00	Dating of Pre-Tertiary Attenuation Structures in Upper Paleozoic and Mesozoic Rocks and the Eocene History in Northeast Nevada and Northwest Utah (1994) C.H. Thorman, C.J. Nutt, and C.J. Potter, editors, 11 papers, 125 p.
NPS9 n/a	<b>NPS9c</b> \$55.00	<b>NPS9y</b> \$40.00	Structural and Stratigraphic Investigations and Petroleum Potential of Nevada, with Special Emphasis South of the Railroad Valley Producing Trend (1994) S.W. Dobbs and W.J. Taylor, editors, two volumes bound as one, 13 papers, 22 plates, 281 p.

<b>Paper</b>	<b>CD-ROM</b>	<b>Download from Dropbox</b>	<b>Title</b>
<b>NPS10</b> \$25.00	<b>NPS10c</b> \$40.00	<b>NPS10y</b> \$25.00	Mississippian Source Rocks in the Antler Basin of Nevada and Associated Structural and Stratigraphic Traps (1995) M.W. Hansen, J.P. Walker, and J.H. Trexler, Jr., editors, 16 papers and 7 abstracts, 166 p.
<b>NPS11</b> \$25.00	<b>NPS11c</b> \$40.00	<b>NPS11y</b> \$25.00	Cenozoic Structure and Stratigraphy of Central Nevada (1996) W.J. Taylor and H. Langrock, editors, 11 papers, 122 p.
<b>NPS12</b> \$25.00	<b>NPS12c</b> \$40.00	<b>NPS12y</b> \$25.00	The Roberts Mountains Thrust, Elko and Eureka Counties, Nevada (1997) A.J. Perry and E.W. Abbott, editors, 4 papers, 2 abstracts and reference papers/abstracts, 86 p.
<b>NPS13</b> n/a	<b>NPS13c</b> \$40.00	<b>NPS13y</b> \$25.00	Hydrocarbon Habitat & Special Geologic Problems of the Great Basin (1998) D.E. French and R.A. Schalla, editors and co-chair
<b>NPS14</b> \$35.00	<b>NPS14c</b> \$50.00	<b>NPS14y</b> \$35.00	Cenozoic Geology of the Northern Colorado River Extensional Corridor, Nevada and Arizona: Economic Implications of Extensional Segmentation Structures (1999) J.E. Faulds, editor, 183 p., 3 color plates
<b>NPS16</b> \$30.00	<b>NPS16c</b> <b>\$45.00</b>	<b>NPS16y</b> \$30.00	Structure & Stratigraphy of the Eureka, Nevada Area (2001) Marilyn S. Miller and Jerome P. Walker, editors, 108 p., 11 color plates
<b>NPS17</b> n/a	<b>NPS17c</b> \$50.00	<b>NPS17y</b> \$35.00	Detachment and Attenuation in Eastern Nevada and its Application to Petroleum Exploration (2002) W. Ehni and J. Faulds, editors, 163 p.
<b>NPS18</b> \$25.00	<b>NPS18c</b> \$40.00	<b>NPS18y</b> \$25.00	Oil, Gas, and Geothermal Occurrences in Northwestern Nevada (2003) S. Foster, editor, 102 p.
<b>NPS19</b> n/a	<b>NPS19c</b> \$50.00	<b>NPS19y</b> \$35.00	Megabreccias and Impact Breccias of East Central Nevada (2004) C.W. Gillespie and S. Foster, editors
<b>NPS20</b> n/a	<b>NPS20c</b> n/a	<b>NPS20y</b> n/a	Great Basin Paleozoic Carbonate Platform: Facies, Facies Transitions, Depositional Models, Platform Architecture, Sequence Stratigraphy, and Predictive Oil and Gas Reservoir and Mineral Host Models (2006) H.E. Cook and J.J. Corboy, 129 pages, out of print (report from USGS Open-File Report 2004-1078, <b>free on Web at <a href="http://pubs.usgs.gov/of/2004/1078/">http://pubs.usgs.gov/of/2004/1078/</a></b> )
<b>NPS22</b> n/a	<b>NPS22c</b> \$40.00	<b>NPS22y</b> \$25.00	Geology, Geothermal Resources and Petroleum Exploration of Neogene Basins in the Reno, Nevada Area (2007, 2nd ed., includes two papers not in 1st ed.) S. Limerick, editor, 7 papers, 3 reprints, and roadlog, 140 p.
<b>NPS23</b> \$25.00	<b>NPS23c</b> \$40.00	<b>NPS23y</b> \$25.00	Sedimentology and Tectonic Setting of the Late Cretaceous to Eocene Sheep Pass Formation in the Southern Egan Range (2008) P. Druschke, trip leader; J. Trexler, Jr., editor
<b>NPS24</b> \$30.00	<b>NPS24c</b> \$45.00	<b>NPS24y</b> \$30.00	Geothermal and Petroleum Developments in Several Extensional Basins of the Central Walker Lane, Nevada (2013) L.J. Garside, editor, 11 papers, 131 p.

These publications are only available from the Nevada Bureau of Mines and Geology (NBMG). If a publication is out of print or unavailable, it is marked "n/a" (not available). **Please check with us for the most current prices.** Thanks.

**NBMG contact information:**

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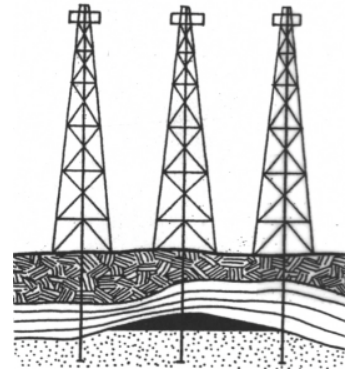
Fax: (775) 784-6690

Web: <http://www.nbmgs.unr.edu>

Web: <http://www.nbmgs.unr.edu/nps/>

## Oil and gas resources from NBMG

The following publications are available from the Nevada Bureau of Mines and Geology. **NBMG publications that are underlined are also available free on the Web at <http://www.nbmgs.unr.edu/>.**



Oil and gas information page on the NBMG website  
<http://www.nbmgs.unr.edu/Oil&Gas/index.html>

### Bulletins

**B104** Oil and gas developments in Nevada: **Garside, Hess, Fleming and Weimer (1988), \$15.00, for updates, see OF01-7, OF04-1, and M162**

### Educational Series

E-6 **Oil and gas in Nevada** (Student book for grades 4-8, 23 pages) \$3.45  
E-24 **Nevada oil**: Division of Minerals (Brochure, 1996) free

### Lists

L-8 **List of oil and gas wells drilled in Nevada since 1907**: Hess, Davis, and Boldi (2001, updated 2003) *superseded by OF04-1, see also OF01-7*

L-12 **Nevada oil and gas well catalog (NVOILWEL)**, *superseded by OF04-1, see also OF01-7*  
Complete list of Nevada oil and gas well exploration data, 1906-present. Listed logs and cuttings are housed at NBMG. Shows, geologic tops and tests are given when available.

### Maps

**M162** **Petroleum data map of Nevada**: Garside and Hess (2007), 1:1,000,000, \$15.00

### Mineral Industry Series

The Nevada Mineral Industry is **published annually**, beginning in 1979. Each volume has a **section on oil and gas in Nevada**. Most of these reports are available *free on the Web* at <http://www.nbmgs.unr.edu/>.

### Open-File Reports

OF83-5 **Nevada oil shale**: Garside, 10 pages, \$4.00 (for more oil shale information, see also USGS MF-1546 and MF-2091)

OF86-13 **Nevada petroleum production statistics, 1954-1986**: Hess, Loomis and Garside, 14 pages, \$5.00

**OF92-5** **Nevada oil and gas source-rock database**: Hess, compilation of source-rock analyses performed on cuttings samples taken at varying depth intervals from oil and gas exploration wells in Nevada up to 1992, complete print-out, \$20.00

OF96-6c **Nevada oil and gas wells, 1907-1996**: 1:1,000,000 color digital map of Nevada showing major roads, county boundaries, and locations of oil wells drilled since 1907, original printout, \$20.00, *see also OF01-7, M162*

**OF01-7** **Nevada oil and gas well database map**: Hess, CD and 4 page text, \$15.00

Contains the following: L-12; updated OF96-6, partial; L-8; B104 text; digital base layers of Nevada data in Shapefile and Arc/Info export file format designed for use at scale 1:1,000,000 (county, towns, roads, USGS topo boundaries for 1:100,000 and 1:24,000, Township and Range); georeferenced raster graphic of the Nevada state base map, B&W, scale 1:1,000,000; 18 USGS digital raster graphic maps (DRG), 1:250,000-scale, topo maps in tiffw format

OF00-2 **Hydrocarbon assessment of the Yucca Mountain vicinity, Nye County, Nevada**: French, 78 pages and 4 plates, \$44.40

**OF04-1** **Nevada oil and gas well database (NVOILWEL)**: Hess (2004), \$86.40 for photocopy

**OF07-7** **Assessment of the potential for carbon dioxide sequestration with enhanced oil recovery in Nevada**: LaPointe, Price, and Hess (2007), 24 pages, \$7.20

**OF11-2** **Qualitative petroleum potential map of Nevada**: Garside and Hess (2011), plate 1:1,000,000 and text

**OF11-6** **Oil and gas well information for Nevada – 2011 update**: Hess, Henson, David, Limerick, Siewe, and Niles; portable hard drive, 105 GB, 9643 files, \$115; free on web at <http://www.nbmgs.unr.edu/Oil&Gas/NVWellInfo.html>

### Reports

**R51** **Preliminary assessment of the potential for carbon dioxide disposal by sequestration in geological settings in Nevada**: Price and others (2005), CD-ROM or paper copy, 35 pages, \$15.00

**R52** **Assessment of the potential for carbon dioxide sequestration by reactions with rocks in Nevada**: Sturmer, LaPointe, Price, and Hess (2007) \$22.00 paper

### USGS

Assessment of undiscovered oil and gas resources of the Eastern Great Basin Province, 2005, Fact Sheet

**FS-2005-3053**, free at <http://pubs.usgs.gov/fs/2005/3053/>

**Basin and Range Carbonate Aquifer System Study**:

<http://nevada.usgs.gov/barcass/data.htm>

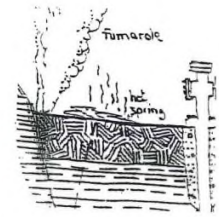
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# Geothermal resources in Nevada



## Geothermal information page on the NBMG website

<http://www.nbmq.unr.edu/Geothermal/index.html>

The following publications on geothermal resources are available from the Nevada Bureau of Mines and Geology. NBMG items that are underlined are available **free on the Internet** and can be viewed at <http://www.nbmq.unr.edu/>.

### Bulletins

- B65 Mineral and water resources of Nevada: Cornwall (1964) pp. 267-269, \$7.00
- B89 Geology and mineral deposits of Pershing County, Nevada: Johnson (1977) pp. 104-106, \$21.00
- B91 Thermal waters of Nevada: Garside and Schilling (1979) \$22.00, *for update see L-5*
- B97 Discovery and geology of the Desert Peak geothermal field—a case history: Benoit, Hiner, and Forest (1982), \$15.00 (*see also OF03-27*)
- B99B Mineral resources of northern Nye County, Nevada: Kleinhampl and Ziony (1984) pp. 37-38, \$19.00

### Educational Series

- E-7 Geothermal resources in Nevada: Student reading/activity book for grades four through eight, 27 pp., \$4.05
- E-15 Nevada geothermal electric power production, brochure (1992) 2 pp., \$0.60
- E-35 Major mines, oil fields, and geothermal plants in Nevada
- E-46 Taking the pulse of the Earth
- E-51 Life's a beach: In search of ancient shorelines and volcanoes in the Grimes Point and Lahontan Mountains area

### Lists

- L-5 Index to geothermal well files housed at NBMG: Davis and Hess (2009) *updates* App. 2 of B91, \$19.50

### Maps

- M126 Nevada geothermal resources: Shevenell, Garside, and Hess (2000), *superseded by M161*
- M141 Nevada geothermal resources (second edition): Shevenell and Garside (2005), 1:750,000, \$16.00 for paper copy, *available folded or rolled, superseded by M161*
- M146 Geologic map of the Fraser Flat quadrangle and the west half of the Moses Rock quadrangle, Washoe Co., NV
- M151 Geothermal potential map of the Great Basin, western United States: Coolbaugh and others (2005), 1:1,000,000, \$30.00, *rolled only*
- M161 Nevada geothermal resources: Penfield, Shevenell, Garside, and Zehner (2010), 1:750,000, \$18.00, *folded or rolled, supersedes M126 and M141*

### Mineral Industry Series

MI-1979 through current year—The Nevada mineral industry is published annually and has a section on geothermal activities, varies with year, MI-1994-current year available free on Internet at <http://www.nbmq.unr.edu/> and click on "Online Documents."

### Newsletters

Nevada Geology Newsletter no. 19, page 3 (Summer 1993) "Low-temperature geothermal resources in Nevada" by Larry Garside, free

### Open-File Reports

- OF83-6 Preliminary map of thermal wells in the Moana geothermal area, Reno, Nevada: Garside, \$8.00
- OF87-2 Mineral resource inventory – U.S. Navy master land withdrawal area, Churchill County, Nevada: Quade and Tingley, \$92.00
- OF94-2 Nevada low-temperature geothermal resource assessment: 1994: Garside, with a bibliography by Davis and Garside, \$40.00 for text and plate, or \$20.00 for text on disk, or \$7.00 for plate only
- OF96-2-9 Reconnaissance photogeologic map of young (Quaternary and late Tertiary) faults in Nevada: (Plate 9) 1:1,000,000, map and text, \$15.00
- OF03-27 Preliminary geologic map of the Desert Peak-Brady geothermal fields, Churchill County, Nevada: Faulds and Garside (2003), \$15.00 (*see also B97*)
- OF06-5 Mineral- and energy resource potential for White Pine County, Nevada
- OF06-6 Mineral- and energy resource potential for Pershing County, Nevada
- OF06-7 Mineral- and energy resource potential for Lyon County, Nevada
- OF06-12 Potential resources associated with proposed roadless areas in Nevada
- OF09-10 Preliminary geothermal potential and exploration activity in Nevada: Zehner, Coolbaugh, and Shevenell, 1:1,000,000-scale plate and text, \$20.00 (*supersedes OF09-1*)
- OF10-6 Preliminary geologic map of the Lee-Allen geothermal area, Churchill County, Nevada
- OF11-3 Preliminary geologic map of the Reese River geothermal area, Lander County, Nevada
- OF11-10 Descriptive logs, skeletonized samples, and photographs of core from Presco Energy's thermal gradient wells P3-1, P 10-1, and P 32-2 in the Rye Patch area, Pershing County, Nevada: Davis (2011, Web version only)

- OF11-11 Preliminary geologic map of the northern Lake Range, San Emidio geothermal area, Washoe County, Nevada: Rhodes, Faulds, and Ramelli, scale 1:24,000, \$18.00
- OF12-3 Data tables and graphs of geothermal power production in Nevada: Shevenell, Price, and Hess (1985-2011, Web version only)

### Reports

- R21 Geothermal exploration and development in Nevada through 1973
- R25 Evaluation of geothermal activity in the Truckee Meadows, Washoe County, Nevada: Bateman and Scheibach (1975), \$4.00
- R33 Papers on mineral deposits of western North America: (1979), presented at the Fifth Quadrennial Symposium of IAGOD, \$10.00
- R41 Precious-metal mineralization in hot springs systems, NV-CA: Tingley and Bonham (1986), \$15.00
- R43 Mineral resources of the Kumiva Peak 30' by 60' Quadrangle: Tingley (1989) pp. 16-17, \$5.00
- R44 Mineral resources of the Pahrnatag Range 30' by 60' Quadrangle: Tingley (1989) pp. 8-9, \$5.00
- R45 Mineral resources of the Overton 30' by 60' Quadrangle: Tingley (1989) pp. 12-13, \$5.00
- R46 Mineral resources of the Timpahute Range 30' by 60' Quadrangle: Tingley (1991) pp. 30-31, \$5.00
- R51 Preliminary assessment of the potential for carbon dioxide disposal by sequestration in geological settings in Nevada

### Special Publications

- SP4 Geology of Nevada: a discussion to accompany the Geol. map of Nevada (see below): Stewart (1980), \$25.00
- 00001 Geologic map of Nevada: Stewart and Carlson, U.S.G.S. (1978) 1:500,000, *available rolled only*, \$20.00 *available free on the Internet at <<http://keck.library.unr.edu/>> and click on "Great Basin geoscience dataset" or at <<http://www.nbmj.unr.edu/dox/dox.htm>>, see SP4 for descriptive text*

### Urban Map Series

- 3Ah Energy and mineral resources map of the Las Vegas SE Quadrangle: Papke and Bell (1973) *available rolled or folded*, \$2.00
- 4Ah Energy and mineral resources map of the Reno Quadrangle: Bingler, Bonham, and Luza (1973) *available rolled or folded*, \$2.00
- 5Ah Energy and mineral resources map of the Washoe City Quadrangle: Papke and Jones (1978) *available rolled or folded*, \$2.00

### Nevada Petroleum Society

- NPS5 Geology of White River Valley, the Grant Range, Eastern Railroad Valley and Western Egan Range, Nevada
- NPS18 Oil, gas and geothermal occurrences in northwestern Nevada
- NPS22 Geology, Geothermal Resources and Petroleum Exploration of Neogene Basins in the Reno, Nevada Area

### USGS Publications

- C1249 Geothermal energy – clean power from the earth's heat: Duffield and Sass, *free on the Internet at <<http://geopubs.wr.usgs.gov/circular/c1249/>>*
- I-1701 Bouguer gravity anomalies, depth to bedrock, and shallow temperature in the Humboldt House geothermal area, Pershing County, Nevada: Schaefer (1986), \$9.00
- OF74-271 Geothermal systems of northern Nevada: Hose and Taylor (1974), 30 pages, call for prices
- OF74-1066 The chemical composition and estimated minimum thermal reservoir temperatures of the principal hot springs of northern and central Nevada, call for prices
- OF81-918 Geothermal resources of the western arm of the Black Rock Desert, northwestern Nevada, part I, geology and geophysics: Schaefer, Welch, and Maurer (1983), 41 pages and 4 plates, call for prices
- OF02-374 A helicopter-borne magnetic survey over Dixie Valley geothermal field, Nevada: A web site for distribution: Pearson, deRidder and Johnson (2002), *available free on the Internet at <<http://pubs.usgs.gov/of/2002/ofr-02-0374/>>*, call for prices
- OF02-384 High-resolution aeromagnetic survey to image shallow faults, Dixie Valley geothermal field, Nevada: Grauch (2002), *<<http://pubs.usgs.gov/of/2002/ofr-02-0384/>>*, call for prices

### Other Resources

Great Basin Center for Geothermal Energy is at <http://www.unr.edu/geothermal/>.

### For more information, please contact:

Nevada Bureau of Mines and Geology  
Great Basin Science Sample and Records Library  
2175 Raggio Parkway  
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<b>Nevada Petroleum and Geothermal Society Calendar: Year 2014-2015</b>	
Feb 5, 2015	<b>NPGS Monthly Dinner Meeting</b> – Thursday Feb 5, 6:30 PM <i>Speaker: John Louie, Ph.D.</i> <i>Topic: Advanced Seismic Imaging of Geothermal Reservoirs in Nevada – Is there a Geothermal Seismic Signature?</i> <i>See Page 1 For Details</i>
Mar 5, 2015	<b>NPGS Monthly Dinner Meeting</b> – Thursday Mar 5, 6:30 PM <i>Speaker: Dr. David Boden</i> <i>Topic: Iceland Trip – Sustainability</i>
Mar 10, 2015	<b>Nevada BLM Oil &amp; Gas Lease Sale, Reno NV</b> <b>Elko NV District, posting date: Dec 10, 2014</b> <a href="http://www.blm.gov/nv/st/en/prog/minerals/leasable_minerals/oil_gas/oil_and_gas_leasing.html">http://www.blm.gov/nv/st/en/prog/minerals/leasable_minerals/oil_gas/oil_and_gas_leasing.html</a>
Apr 2, 2015	<b>NPGS Monthly Dinner Meeting</b> – Thursday Apr 2, 6:30 PM <i>Speaker: Sean Long</i> <i>Possible Topic: A Valley and Ridge in the Basin and Range</i>
May 7, 2015	<b>NPGS Monthly Dinner Meeting</b> – Thursday May 7, 6:30 PM <i>Speaker: Ben Delwiche – Ormat Nevada</i> <i>Topic: McGuinness Hills Project</i>
May 14-24, 2015	<b>GSN Symposium 2015</b> <b>John Ascuaga's Nugget Hotel and Casino in Sparks, Nevada</b> <a href="http://www.gsnv.org/2015-symposium">www.gsnv.org/2015-symposium</a> <a href="http://www.nbmng.unr.edu/docs/GSN_2015_Symposium.pdf">http://www.nbmng.unr.edu/docs/GSN_2015_Symposium.pdf</a>
May 31-Jun 3, 2015	<b>AAPG Annual Convention and Exhibition 2015</b> <b>Denver, CO</b> <a href="http://www.aapg.org">www.aapg.org</a>
Jun 22-26, 2015	<b>GRC Workshop – Yellowstone National Park</b> GRC Website: <a href="http://www.geothermal.org/yellowstone.html">http://www.geothermal.org/yellowstone.html</a> For any questions or concerns, please contact Anh Lay by email at <a href="mailto:alay@geothermal.org">alay@geothermal.org</a> or by phone at (530) 758-2360 ext. 100.
<b>Oct 2-5, 2016</b>	<b>Rocky Mountain Section/Pacific Section Meeting – AAPG 2016</b> 2016 joint RMS-AAPG/PS-AAPG annual meeting Paris Hotel, Las Vegas, Nevada. Host societies: Idaho Association of Professional Geologists and the Nevada Petroleum & Geothermal Society.

The NPGS Newsletter is provided to members of the Nevada Petroleum and Geothermal Society. For information about membership and events, see the NPGS website at <http://www.nbmng.unr.edu/nps/> To submit articles, corrections or suggestions for the newsletter; Contact Vicki Ehni 775-883-1107, cell 775-720-6387; email [vehni@aol.com](mailto:vehni@aol.com) .