Dinner Meeting: Thursday, Feb 2, 2012

Speaker: Lowell Price
Oil, Gas, and Geothermal Program Manager
Commission on Mineral Resources
Nevada Division of Minerals
Carson City, Nevada

Title: Oil, Gas, and Geothermal Exploration and Production in Nevada

Place: Ramada Reno Hotel, Washoe Room
1000 East 6th Street, Reno, Nevada

Agenda: Cocktails begin at 6:30 PM
Dinner Served at 7:00 PM

Dinner Costs:
NPS Members $ 20; Non-Members $23; Students $10

Menu
Buffet style; including chicken & beef entrees, side dishes and salad.

**RSVP
RSVP Tuesday Jan 31, 2012

Diane Phillips (775) 267-4663 or trailsend@pyramid.net
Oil, Gas, and Geothermal Exploration and Production in Nevada

Topics of discussion will be centered around oil, gas, and geothermal exploration throughout Nevada and the resulting production. Oil and gas exploration has been located primarily in the eastern portion of Nevada, where production is established in Railroad Valley, south of Ely, and Pine Valley, south of Carlin. The presentation will include location of fields, discovery date, producing formations, historical production curves, images taken within the field areas and recent to possible upcoming exploration activity.

Geothermal permitting, sundry notices, and drilling activities consume approximately 95% of my work at the Division of Minerals. Locations of existing geothermal electrical generation facilities, mega-watt (MW) nameplate capacities, net outputs to existing electrical grid, types of geothermal electrical generation (i.e. flash and binary), images taken at plant facilities and exploration areas, and recent to current exploration activities will be discussed.

About the Speaker:

Lowell Price received his Bachelor’s degree in Geology from the University of Texas at Arlington in 1978. As the Oil, Gas, and Geothermal Program Manager for the Commission on Mineral Resources, Nevada Division of Minerals in Carson City, Nevada, he oversees oil, gas, and geothermal permitting and drilling activities within the State of Nevada. Prior to the Division of Minerals, Lowell was Operations Geologist for Epoch Well Services and Horizon Well Logging, performing well site geology in Nevada, California, Alaska, Belize, and Guatemala.

Previously, Lowell was partner and exploration geologist with Dray and Price Exploration in the Rockies & mid-continent. He worked as Operations Geologist with Saudi Aramco at the Ghawar Oil Field and staff exploration geologist with Independence Mining, exploring for gold in the Bull Run Mountains and Independence Range. He worked as a contract exploration geologist for Freeport McMoRan, Tenneco Minerals, Chevron Resources, Morrison Knudson, Western States Minerals, and Independence Mining, exploring for gold in various regions of the Great Basin. Earlier in his career, Lowell was an exploration/structural geologist for Amoco International Oil Company (AIOC) and worked the Africa and Middle East Region and the Denver Region – primarily thrust systems – Oman (Oman Mountains Thrust System), United Arab Emirates (Oman Mountains Thrust System), Egypt (Gulf of Suez), Tunisia, Morocco, Gabon, and Rocky Mountains (Rocky Mountains Thrust System north of UP Strip).

Lowell Price; Oil, Gas, and Geothermal Program Manager
Nevada Commission on Mineral Resources; Nevada Division of Minerals
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Office: 775-684-7045; Cell: 775-721-1774; Fax: 775-684-7052
Lprice@govmail.state.nv.us http://minerals.state.nv.us/
Proposed Name Change for NPS – Membership Business:

Please take the time to read the following and direct any comments or suggestions you may have to the Board (officers listed on Page 1).

The board of NPS would like to consider a name change from *Nevada Petroleum Society* to *Nevada Petroleum and Geothermal Society*. This name change will respect the history of NPS while also recognizing the emerging importance of geothermal energy in the region.

We encourage comments over the next month on the proposed name change and will discuss these at our upcoming meeting in March, after which we will call for a vote from the membership.

Specific reasons for the name change include:

- Geothermal will likely have a large long-term positive economic impact on Nevada, as evidenced by recent economic trends, revenues, etc. We are truly known as one of the best places in the world for geothermal energy thanks to our tectonic setting. Despite some current problems with some of the smaller companies, the future is bright for geothermal.

- Reno is the hub for geothermal development in the western U.S., with many companies having offices or headquarters here. Although there are many geothermal geologists in the area, only a few regularly attend our meetings. We are clearly missing out on a large segment of the local geoscience population. A name change may attract a larger fraction of this population to our meetings and events.

- The name change would probably have positive effects on the future of NPS. Currently, our membership lacks significant numbers of younger members. Sponsoring students has helped some with this, but has not fully translated yet into a healthy cadre of young members. Geothermal is now attracting some of the best and brightest students, as well as the imagination of a younger generation. A name change would put us in the best position to attract younger geoscientists involved in geothermal energy.

- The ongoing commitment to petroleum-related talks and field trips will not be adversely impacted by this name change. Talks presented at NPS meetings have been diverse, and that diversity will not change. Also, we have checked with the AAPG, and the proposed name change will not impact our affiliation with AAPG in any way.

- Names are important. And, the proposed name change is meant to highlight the two major foci of the society. Non-members will see the new name and recognize that NPGS is the place to go for energy-related talks and information. Currently, many non-members do not realize that good geothermal (and other) talks can be heard at a meeting sponsored by a petroleum-named society. The name change also could increase the number of hits to our website when someone does a search for “geothermal” and “Nevada”. If more people visit our website, then that could increase sales of our publications to people who otherwise might not have known about the society.

- Some bureaucratic work would result from the name change. These include changes in the checking account, web site, post office address-name, and logo. These changes can be accomplished effectively, and our current President and Vice-President are willing to dedicate time to do so.
► National Geothermal Academy – Jun 18 – Aug 10, 2012:

The National Geothermal Academy is an 8-week intensive summer course in all aspects of geothermal energy development and utilization. The course is offered for 6 credits at either the undergraduate or graduate level. Individual weeks are offered as professional development. In summer 2012 Modules 2,3,4 or 5,6,7 are offered as 3 credit sections.

Schedule for this summer is June 18 to August 10, 2012


Applications are due February 15, by 5pm in the applicants local time zone.

http://www.unr.edu/geothermal/NGA.htm

► Next Scheduled Oil & Gas Lease Sale – Mar 13, 2012:


► Results - Geothermal Lease Sale - Tuesday, January 24, 2012


► UNR/NWRA Spring Dinner Forum – Wednesday, March 28, 2012

Geothermal Power Production in Nevada - Monte Morrison, USA for Alterra Power Corp.
Super 8 Meadow Wood Courtyard, 5851 S. Virginia Street, Reno, NV 89502
For information and reservations : www.nvwra.org 775-473-5473


Open Forum: Future of Nevada Bureau of Mines and Geology
January 20, 2012

Executive Summary


The group concluded that NBMG and its supporters should primarily pursue three approaches.
1. **Endowment**: Build a permanent endowment to help provide long-term support for some of NBMG’s vital State geological survey functions that are underfunded by the State through UNR.

2. **Political**: Enlist the political support of representatives from the geological community (including the mining, geothermal, oil and gas, and engineering/development industries in the State) and other stakeholders who benefit from NBMG’s work.

3. **Projects**: Create specific projects (including an industrial associates approach in which several companies donate funds) that address needs of and are supported financially by industry.

More detailed notes on these and other potential solutions discussed at the meeting can be found below.

In addition, it was suggested that a cost-benefit analysis of NBMG be conducted and that subsequent meetings be held (possibly prior to the next few GSN monthly meetings) to analyze potential solutions in greater detail.

**Comprehensive Summary**

**Introductory Remarks:**
- Dave Shaddrick welcomed the group, and Lew Gustafson outlined the purpose of the meeting – to initiate dialog about resolving the budget crisis facing NBMG, the State’s geological survey.
- Handouts about NBMG’s plight and accomplishments were available at the back of the room.
- Jon Price provided a brief background on the current budget crisis. The most recent cut in State funds through the University of Nevada, Reno (UNR) was $1.1 million, from $2.1 million/year in 2011 to $1.0 million/year for fiscal year 2013, which will begin July 1, 2012. This resulted in reduction of the State-funded staff from 18.2 to 9.5 positions. The hardest hit was to the Bureau’s information office and cartography areas, which were reduced to one half-time position for each. The funding cut to these two vital areas was $350,000 per year. In addition, NBMG lost several positions in the scientist ranks. An additional $350,000 per year for four geologist positions is needed to adequately cover the mission of the State geological survey. The total short fall is therefore ~$700,000 per year.
- Jon announced that he will retire from UNR in June and introduced Jim Faulds as the likely next State Geologist and Director of NBMG. He noted that Jim, who has been with NBMG since 1997, is a geologic mapper (with dozens of published maps) and expert in structural geology, tectonics, and geothermal systems. Jim has published widely on extensional and strike-slip tectonics, salt deposits, and structural controls on geothermal systems, including relations between current geothermal activity and young epithermal mineral deposits. He has mapped the Searchlight mining district in southern Nevada, in the Carlin trend, in the Walker Lane, and in several known geothermal resource areas. He has taught courses in structural geology, tectonics, geothermal exploration, and field geology, including serving as Director of UNR’s geology field camp for 5 years. He is also the current President of the Nevada Petroleum Society.
- Jim, Chris Henry, and Jon discussed NBMG activities that help industry and referred to a letter of support for NBMG’s mission as the state geological survey from the Dean of the UNR College of Science.
- Ron Parratt, Alan Coyner, and Dennis Bryan discussed their perspectives on NBMG’s, including views from exploration companies, the Nevada Division of Minerals, and the Nevada Commission on Mineral Resources. Alan noted that approximately 80% of the Division’s funds come from mining-claim fees.

**Possible solutions – largest support for the following approaches.**
- **Endowment**: Build a permanent endowment to help provide long-term support for some of NBMG’s vital State geological survey functions that are underfunded by the State through UNR.
  - Seek support from variety of stakeholders.
  - Stakeholders include mining industry, geothermal industry, insurance industry, local energy companies, and petroleum industry (e.g., ExxonMobil).
  - Possibly engage individuals who have greatly benefited from industry activities in Nevada.
- **Political**: Enlist the political support of representatives from the geological community (including the mining, geothermal, oil and gas, and engineering/development industries in the State) and other stakeholders who benefit from NBMG’s work.
  - This would include political support with the State Legislature to restore at least some of the funds that were cut from NBMG’s budget, so that the basic functions of the State geological survey can be covered.
  - Seek political support for letting State funds flow directly to NBMG as a line item.
  - Could tie large endowment contributions with letting State funds flow directly to NBMG.
- **Projects**: Create specific projects (including an industrial associates approach in which several companies donate funds) that address needs of and are supported financially by industry.
  - These would be projects that can best be accomplished with NBMG’s involvement, knowledge, and commitment to making information public for the benefit of Nevada.
  - Projects could focus on specific regions (e.g., new Geologic Map of Eureka County) or topical studies (e.g., relations between epithermal mineral deposits and geothermal activity).

- **Internal NBMG funds**: Minor funding can be generated directly by NBMG through sales of its maps and reports. Currently, most of these materials can be obtained online for free.
  - Raise prices on products – not much support.
  - Charge for downloads from NBMG website – widely supported. Specific suggestions:
    - Charge for individual publication.
    - Charge for certain amount of megabytes.
    - Publication membership charge – annual charge allowing full online access to all publications.
    - Charge for blocks of publications (e.g., similar to GSA, 5 or 10 pubs/block).
  - Revenues from selling online publications could possibly fund up to 0.5 positions in the information office, but data needs to be acquired to understand full potential.

- **Public relations**: Improve visibility of NBMG through various activities, including:
  - Legislative field trips for higher profile NBMG products.
  - Interacting with public broadcasting in State (e.g., radio clips on KUNR).
  - Displays illustrating NBMG activities or highlighting Nevada geology at NBMG’s information office and the Mackay Museum.

- **Cost-Benefit Analysis**: Several participants advised that a cost-benefit analysis of NBMG (and its products) should be undertaken to help explain the value of our State geological survey to industry leaders, politicians, and the UNR administration.

**Other possible solutions with less support included**:
- **Annual operating costs**: Soliciting donations for operating costs of information office and Cart/GIS work.
  - Including one-time bridging funds to cover the current shortfall while building the endowment, regaining State support, and creating specific projects.
  - This could include approaching the Commission on Mineral Resources to request that additional funds from the reserve account of the Division of Minerals be allocated to help cover NBMG’s functions that dovetail with the mission of the Division.

- **Raising fees**: Increasing fees on one or more resource-related activities in the State.
  - Fees on mining claims – through the Commission on Mineral Resources/Nevada Division of Minerals
  - Drilling permit fees on geothermal wells – through the Commission on Mineral Resources/Nevada Division of Minerals
  - Fees on unreclaimed mine lands – through the Nevada Department of Conservation and Natural Resources/NDEP – for cooperative programs with the U.S. Geological Survey.
# Nevada Petroleum Society – Publication List 2012

## SPECIAL VOLUMES

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<td>NPS 1</td>
<td>Oil Fields of the Great Basin (1994)</td>
<td>R.A. Schalla and E.H. Johnson</td>
<td>31</td>
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<td>NPS 2</td>
<td>Membership Directory</td>
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<td>NPS 15</td>
<td>TerraScan’s Geologic Map of the Eastern Great Basin</td>
<td>E.L. Howard</td>
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<td>NPS 21</td>
<td>Carboniferous–Permian (Late Paleozoic) Hydrocarbon System</td>
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## FIELD TRIP GUIDEBOOKS

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<td>NPS 3</td>
<td>Oil Fields, Production Facilities and Reservoir Rocks of Northern Nye County, Nevada (1989)</td>
<td>W.J. Ehni and D.M. Evans</td>
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<td>NPS 4</td>
<td>Oil Fields and Geology of the Pine Valley</td>
<td>D.M.H. Flanigan, L.J. Garside, and M. Hansen</td>
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<td>NPS 5</td>
<td>Geology of White River Valley</td>
<td>D.M.H. Flanigan, L.J. Garside, and M. Hansen</td>
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<td>NPS 7</td>
<td>Structural and Stratigraphic Relationships of Devonian Reservoir Rocks</td>
<td>C.W. Gillespie</td>
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<td>NPS 8</td>
<td>Dating of Pre-Tertiary Attenuation Structures in Upper Paleozoic</td>
<td>S.W. Dobbs and W.J. Taylor</td>
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<td>NPS 9</td>
<td>Structural and Stratigraphic Investigations and Petroleum Potential</td>
<td>J.P. Walker and J.H. Trexler, Jr.,</td>
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<td>NPS 10</td>
<td>Mississippian Source Rocks in the Antler Basin of Nevada</td>
<td>M.W. Hansen</td>
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<td>NPS 11</td>
<td>Cenozoic Structure and Stratigraphy of Central Nevada</td>
<td>W.J. Taylor and H. Langrock</td>
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<td>NPS 12</td>
<td>The Roberts Mountains Thrust, Elko and Eureka Counties</td>
<td>A.J. Perry and E.W. Abbott</td>
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<td>NPS 13</td>
<td>Hydrocarbon Habitat &amp; Special Geologic Problems of the Great Basin</td>
<td>D.E. French and R.A. Schalla</td>
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<td>NPS 14</td>
<td>Cenozoic Geology of the Northern Colorado River Extensional Corridor</td>
<td>J.E. Faulds</td>
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<td>NPS 16</td>
<td>Structure &amp; Stratigraphy of the Eureka, Nevada Area</td>
<td>Marilyn S. Miller and Jerome P. Walker</td>
<td>108</td>
<td>$30.00 ($NPS16b), CD only $30.00 ($NPS16c)</td>
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<td>NPS 17</td>
<td>Detachment and Attenuation in Eastern Nevada</td>
<td>W. Ehni and J. Faulds</td>
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<td>$35.00 ($NPS17b), CD only $15.00 ($NPS17c)</td>
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<td>NPS 18</td>
<td>Oil, Gas, and Geothermal Occurrences in Northwestern Nevada</td>
<td>S. Foster</td>
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<td>Megabreccias and Impact Breccias of East Central Nevada</td>
<td>C.W. Gillespie and S. Foster</td>
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<td>NPS 22</td>
<td>Geology, Geothermal Resources and Petroleum Exploration of Neogene Basins in the Reno, Nevada Area</td>
<td>S. Limerick</td>
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<td>NPS 23</td>
<td>Sedimentology and Tectonic Setting of the Late Cretaceous to Eocene Sheep Pass Formation in the Southern Egan Range</td>
<td>P. Druschke</td>
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These publications are only available from the Nevada Bureau of Mines and Geology (NBMG).

**NBMG contact information:** Phone: (775) 682-8766, Fax: (775) 784-6690
Web: [http://www.nbmg.unr.edu](http://www.nbmg.unr.edu)
Web: [http://www.nbmg.unr.edu/nps/](http://www.nbmg.unr.edu/nps/)
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.nbmg.unr.edu/.

Oil and gas information page on the NBMG website
http://www.nbmg.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.nbmg.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)
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.nbmg.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


Basin and Range Carbonate Aquifer System Study:
http://nevada.usgs.gov/barcass/data.htm

Ordering information for Nevada Bureau of Mines and Geology
Sales office located at Great Basin Science Sample and Records Library, 2175 Raggio Parkway, Reno, NV 89512
Phone: (775) 682-8766   Fax: (775) 784-6690   Web: http://www.nbmg.unr.edu
Geothermal resources from NBMG

Geothermal information page on the NBMG website
http://www.nbmg.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.nbmg.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)

**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.nbmg.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
OF08-10  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)

**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 Pahranagat 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**
Nevada Petroleum Society; Feb 2012

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.nbmg.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
I-1701 Bouguer gravity anomalies, depth to bedrock, and shallow temperature in the Humboldt House geothermal area, Pershing County, Nevada: Schaefer (1986), $9.00
OF74-1066 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

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 Phone: (775) 682-8766
Great Basin Science Sample and Records Library Fax: (775) 784-6690
2175 Raggio Parkway E-mail: nbmg@unr.edu
Reno, NV 89512 www.nbmg.unr.edu
### Nevada Petroleum Society Calendar: Year 2012-2013

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb 2, 2012</td>
<td><strong>NPS Monthly Dinner Meeting</strong> – Thursday Feb 2, 6:30 PM</td>
<td>Ramada Reno Hotel, 1000 E 6&lt;sup&gt;th&lt;/sup&gt; St, Reno, NV</td>
</tr>
<tr>
<td></td>
<td><strong>Speaker</strong>: Lowell Price, Oil, Gas &amp; Geothermal Program Manager, Division of Minerals, Carson City, NV</td>
<td><strong>Title</strong>: Oil, Gas and Geothermal Exploration and Production in Nevada</td>
</tr>
<tr>
<td></td>
<td><strong><a href="mailto:Lprice@govmail.state.nv.us">Lprice@govmail.state.nv.us</a></strong> <a href="http://minerals.state.nv.us/">http://minerals.state.nv.us/</a></td>
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<td></td>
<td><strong>Details on Page 1</strong></td>
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<tr>
<td>Feb 13, 2012</td>
<td>Northern Nevada SME Meeting, Monday, Feb 13, 2012 - 6PM</td>
<td>Please visit our page <a href="http://www.smennv.org">www.smennv.org</a> for more details</td>
</tr>
<tr>
<td></td>
<td>Social Hour 6 PM, Dinner 6:45 PM and Technical Session, at 7:30 PM</td>
<td>Circus - Circus Hotel and Resort, Mandalay Room in Convention Center 500 N Sierra Street, Reno, NV</td>
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<tr>
<td></td>
<td>Members $22/person and Non-Members $25/person payable at the door</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RSVP Required by noon, THURSDAY, Feb 9, 2012</td>
<td>Kaitlin C. Sweet 775.225.6147, email: <a href="mailto:kcsweet@enviroincus.com">kcsweet@enviroincus.com</a></td>
</tr>
<tr>
<td>Feb 17, 2012</td>
<td>GSN Monthly Dinner Meeting – Friday Feb 17, 6:00 PM</td>
<td>Elks Lodge, 597 Kumle Lane, Reno, NV</td>
</tr>
<tr>
<td></td>
<td>Drinks at 6:00 PM, dinner at 7:00 PM, and talk at 8:00 PM.</td>
<td>Contact Laura Ruud at (775) 323-3500 or e-mail <a href="mailto:gsn@gsnv.org">gsn@gsnv.org</a> for reservations.</td>
</tr>
<tr>
<td>March 1, 2012</td>
<td><strong>NPS Monthly Dinner Meeting</strong> – Thursday Mar 1, 6:30 PM</td>
<td>Ramada Reno Hotel, 1000 E 6&lt;sup&gt;th&lt;/sup&gt; St, Reno, NV</td>
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<tr>
<td></td>
<td><strong>Speaker</strong>: Yoram Bronicki, Ormat Technologies, Inc.</td>
<td><strong>President and Director, Chief Operating Officer</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Topic</strong>: Ormat’s Worldwide Geothermal Business</td>
<td></td>
</tr>
<tr>
<td>April 5, 2012</td>
<td><strong>NPS Monthly Dinner Meeting</strong> – Thursday Apr 5, 6:30 PM</td>
<td>Ramada Reno Hotel, 1000 E 6&lt;sup&gt;th&lt;/sup&gt; St, Reno, NV</td>
</tr>
<tr>
<td></td>
<td><strong>Speaker</strong>: Dr. Andrew Hanson</td>
<td><strong>Associate Professor, UNLV Dept of Geoscience, Las Vegas, NV</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Topic</strong>: Molecular organic geochemistry of Railroad Valley Oils and Source Rocks</td>
<td><a href="mailto:andrew.hanson@unlv.edu">andrew.hanson@unlv.edu</a> <a href="http://geoscience.unlv.edu/andrewwhanson.htm">http://geoscience.unlv.edu/andrewwhanson.htm</a></td>
</tr>
<tr>
<td>May 3, 2012</td>
<td><strong>NPS Monthly Dinner Meeting</strong> – Thursday May 3, 6:30 PM</td>
<td>Ramada Reno Hotel, 1000 E 6&lt;sup&gt;th&lt;/sup&gt; St, Reno, NV</td>
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<td></td>
<td><strong>Speaker</strong>: TBA</td>
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<td>Date</td>
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| Sep 9-12, 2012 | **Rocky Mountain Section – AAPG 2012**  | **Grand Junction, Colorado - Sep 9-12, 2012** | Hosted by Grand Junction Geological Society  