



Oregon Geologist Examiner

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Next Board Meeting:

September 12, 2008
8:30 AM

*(Preceded by Work Session
September 11, 2008, 7PM)*

Baker City, Oregon

An Oregon RG Working “Outside the Box”

Published by Leister, Case History, May 2008, More Than Just Hot Air

From a spill dating back to the 1970s, Togiak Fisheries was faced with 70,000 tons of diesel- and gasoline-contaminated soil on the shores of Togiak Bay, Alaska. The remote fish-processing facility wanted to sell, but the plant was stuck with the price tag of \$12 million to clean up the contaminated site. The cost was overwhelming, yet so were the challenges that go into cleaning a 5-acre site this remote. Without any roadways, all supplies and equipment would have to be shipped in by barge or plane.

In comes an Oregon Registered Geologist working “outside the box”! Brady Environmental was able to complete the project for \$4 million, dramatically lower than the \$12 million market rate, due to its patented system using Leister hot-air tools.

Taking a Different Approach with Leister Heaters

So how did the Brownfield Redevelopment and Consulting Company do it? Geologist Patrick Brady, President and owner of Sisters, Ore.-based Brady Environmental, found a better solution. He developed an Evaporative Desorption Thermal Soil Treatment System using hot air instead of an open flame — the traditional model — relying on high-quality Leister heaters to evaporate soil moisture and contaminants.

The expensive, traditional method of soil treatment uses an open flame to boil off the water, which creates contaminants that must first be cleaned before being released into the air. Plus, the operation, maintenance and fuel costs associated with open-flame technology greatly inflate the price of the cleaning process.

Trust in Leister

During the research and design stages for the Evaporative Desorption Thermal Soil Treatment System, Brady stumbled upon Assembly Supplies Co., a distributor of Leister Process Technologies hot-air tools, such as heaters, blowers and controllers, among others. He soon chose to use Leister tools in his innovative system.

“After meeting with Dennis Van Grol (owner of Assembly Supplies Co.) and seeing other applications where the Leister tool was used, I felt very comfortable with it,” said Brady. “I wanted to make sure it could be operated continuously because we turn on the oven for five months and never turn it off.”

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Continuing Education and the Registered Geologist

Over the past number of years, the Board has had discussions about continuing education. The Board believes that continuing education provides ongoing protection for the public. It is the consensus of the Board that a renewal requirement of ongoing professional development should be considered.

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Knight's Notes

The lazy, hazy, crazy days of summer are back! While those on the east side of the state welcome warm weather with the daily accustomed sunshine, the Willamette Valley Oregonians celebrate the return of sunshine during the summer months and appreciate the opportunity to see colored skies! Staff has been in and out taking advantage of vacation time and wonderful weather.

But the work of the Board continues no matter what the season. The Board's Outreach Committee Chair Stephen Taylor, PhD, RG, is pursuing opportunities for the Board to be out amongst the Oregon citizenry. A proposal was submitted to the Oregon Watershed Enhancement Board for presenting a panel discussion at the biennial meeting convening in Eugene in November. The Board may also have staff a booth. If you have experience working with Watersheds here in Oregon and would like to serve as a volunteer of the Board, please contact staff. In addition, the Board will submit a request to participate in the national meeting of the Geological Society of America (GSA) when it convenes in Portland, Oregon, in October 2009.

If you know of opportunities for Outreach, contact the Board staff. Teaching the citizens of Oregon begins one outreach effort at a time and one person at a time. The lead article certainly focuses on a very unique practice of geology and should be of interest to cities and counties.!

The annual Board picnic was well attended on Saturday, July 26, 2008. A big thank you to former Board Member Dr. William Orr, RG and his wife Liz for hosting this event for the sixth year!

Here's to a great summer!

Susanna Knight
Administrator



Outside the Box

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And, indeed, the Leister products stood the test of time. Today, Brady Environmental incorporates 12 of the Leister LE 40,000 heaters — Leister's most powerful device with 39kw — to pump hot air into three of its soil ovens. Each heater is supplied with one Airpack blower.

The Leister tool regulates the heat. By monitoring the system to ensure the temperature hovers around 1,000 degrees Fahrenheit, Brady can guarantee the air never reaches the oxidation temperature of 1,300 degrees, which produces emissions.

"Leister heaters are an integral tool in our patented process and it doesn't produce the pollution that other systems produce doing the same thing," said Brady.

A Significant Cost Savings

In 2001, Brady and his twin brother, John, filed a patent application for the Evaporative Desorption Thermal Soil Treatment System. The U.S. patent was issued in December 2004. This soil oven is a modular design in an airflow system. Vapors are extracted, and the contaminants they contain are destroyed before being released into the air.

"Others can go in and it costs them \$250 to \$600 a ton to clean the remote Arctic site, but I can clean the soil for \$50 or \$150 a ton," said Brady. "My machine is much more portable, so I can fly it to a particular spot for \$150,000, whereas the old technology would cost \$1.5 million to get it there by barge or truck."

Results Driven

As a result of the Evaporative Desorption Thermal Soil Treatment System, Brady was able to cut down his labor pool by a third. "That dramatically cuts down my cost," he says. But to Brady, it's not only about the money he saves; it's about the communities he revives. "The secondary effect this system has is it stimulates the local economy and produces hundreds of jobs in these areas. It makes for a better community... it takes the smell away," says Brady. "Because the Leister tool is an integral part of the patent, it really does a lot of good beyond just saving me money. It's a thing called environmental justice."

ATTENTION ALL ENGINEERING GEOLOGISTS

Surveys for the Engineering Geology Task Analysis were emailed to every one of you with an email in our database. Sadly, the survey response was very poor. The company charged with the task will now send a paper version to each of you (except those that already received and completed a paper version).

The Board is investing *substantial* budget dollars in this venture to update the examination. In order to get a quality return on the budgeted dollars, **YOU MUST RESPOND. PLEASE, COMPLETE THE SURVEY AND RETURN IT.** Making a personal call to each of you would be a tough charge. Please don't force staff to do that.

-- THANK YOU.



Geologic Map of the Umatilla Basin Released

The Oregon Department of Geology and Mineral Industries (DOGAMI) recently released Open-File Report O-07-15: PRELIMINARY GEOLOGIC MAP OF THE UMATILLA BASIN, MORROW AND UMATILLA COUNTIES, OREGON, by Ian P. Madin, RG and Ronald P. Geitgey.

The Umatilla Basin is a large region of northeastern Oregon bounded generally by the Blue Mountains to the south and east and the Columbia River to the north. The study area comprises all of the Umatilla River drainage basin within Umatilla and Morrow counties. The major urban areas in the study area are Pendleton, Hermiston, Milton-Freewater and Boardman. The study area also includes the U.S. Army Umatilla Weapons depot and the lands of the Confederated Tribes of the Umatilla Indian Reservation.

Large portions of the area have been labeled critical groundwater areas by the Oregon Water Resources Department and are closed to new water well drilling. It is largely the concern over falling groundwater levels that prompted the Oregon Geologic Map Advisory Committee to make the Umatilla Basin a top priority for new geologic mapping. This new map is meant to be an initial compilation and digitization of existing data that can serve to guide and focus future in depth studies and detailed mapping. This geologic map was funded in part by the U.S. Geological Survey (USGS) National Cooperative Geologic Mapping Program.

“This new map will be a huge help in understanding how to enhance and protect groundwater quantity and quality, especially involving storage issues,” said Larry Givens, DOGAMI Governing Board member and County Commissioner with Umatilla County. “It helps give us the opportunity to move toward developing a sustainable water supply that’s not only critical for everyone in Umatilla and Morrow counties, but for the whole state.”

Read the complete news release online at:

<http://www.oregongeology.com>

Continuing Education

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The statutory language for registration of professional geologists in Oregon does not currently contain any language to empower the Board to initiate such a requirement. However, continuing education is a common requirement for professional registration renewal, particularly in the technical professions of engineering, architecture, geology, etc. Legislatures ask two major questions when deciding upon changes in statutes: 1) what is the will of the people? and 2) what are the best practices regarding the issues? So the best first step for the Board as they pursue a continuing education requirement is to request comments from the Registered Geologists that they regulate, seeking their opi-

nion regarding such a legislative change. History shows that Legislators believe that continuing education provides ongoing protection for the consumer.

If and when it is time to prepare the Legislative Concept for the statutory change, it would be very helpful to have validation from registrants that they are in support of this requirement. Now is the time for you to give input to the Board. You may do so via email or letters to Board staff for inclusion in Board meeting business. If you would like to come before the Board and provide oral input, please contact staff to make such arrangements.

Registration Updates

The result of the March 2008 ASBOG National examination was released on April 24, 2008. Below is the list of successful candidates:

New Geologist-in-Training after passing the March 2008 ASBOG Examination:

Fawcett, Della	T2209	04/24/2008
Holmes, Adrian	T2210	04/24/2008
Kerin, Jane-Clair A.	T2211	04/24/2008
Ramsey, Eleanore J.	T2213	04/24/2008
Robinson, Larry R.	T2214	04/24/2008
Simpkins, Sunny B	T2215	04/24/2008
Woodcock, Jason P.	T2218	04/24/2008

Percentage Pass Rate for Fundamental Exam: 73%

New Registered Geologists after successfully completing the March 2008 ASBOG Examination:

McConnell, Siobhan R.	G2088	04/24/2008
Titkemeier, Kelly R.	G2097	04/24/2008
Newton, James B.	G2122	04/24/2008
Johnston, Robin R.	G2163	04/24/2008
Chapman, Erik R.	G2208	04/24/2008
Omo, Stephen M.	G2212	04/24/2008
Starr, Jesse R.	G2216	04/24/2008
Swank, Mark W.	G2217	04/24/2008

Percentage Pass Rate for Practice Exam: 89%

Cooperative Registration:

Marquardt, Shalom S.	G2206	03/06/2008
Nielsen, Jordan W.	G2207	03/31/2008
Humphreys, Paul W.D.	G2219	06/11/2008
Woodhull, Steven D.	G2220	07/01/2008

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Lapsed Registrations

The following registrants no longer have an active registration for practicing geology in Oregon. The registration expired on the date noted below. If your name appears below, but your renewal payment was processed and/or you have a current registration card, please contact the Board office so the database can be properly corrected.

Brad **Bessinger**, G2117 (4/30/2008); Donald M. **Coberely**, G1866 (5/31/2008); Mark E. **Dariento**, G1552 (5/31/2008); Jed **Douglas**, G2166 (4/30/2008); Craig **Fan-shier**, G1644 (5/31/2008); Roy **Jensen**, G1785 (4/30/2008); Rafiqul **Khandoker**, G1888 (5/31/2008); James G.D. **Peale**, G1875 (5/31/2008); Anneliese **Ripley** (G1258) (5/31/2008); Catherine S. **Roso**, G1799 (5/31/2008); and John **Silko**, G1232 (5/31/2008)

2008 Calendar of Upcoming Events

- Sept. 11-12: OSBGE Quarterly Board Meeting
Baker City, Oregon
- Oct. 3: ASBOG Exams
Salem, Oregon
Engineering Geology Exam
Salem, Oregon
- Nov. 6-7: COE
Chicago, Illinois
- Nov. 8: National ASBOG Meeting
Chicago, Illinois