

DECLARATION OF ALEXANDER SCHRIENER, JR.

I, Alexander Schriener, Jr., declare as follows:

1. I make this declaration in connection with Magma Power Company's Evidence and Policy Statement for the Central Valley Regional Water Quality Control Board's hearing on the Draft Cleanup and Abatement Order for Central, Cherry Hill, Empire, Manzanita, and West End Mines, Colusa County. I am competent to make this declaration, make this declaration from my personal knowledge, professional experience, and professional judgment, and could and would competently testify to the following facts if called as a witness.
2. I am the Director of Geothermal Resources of CalEnergy Operating Corporation, which is an indirect subsidiary of CalEnergy Generation, LLC ("CalEnergy"), which acquired the assets of Magma Power Company ("Magma"). I have held this position since March 2009. Through my position, I am familiar with the recordkeeping systems maintained by CalEnergy for geothermal exploration and development activities in which Magma engaged.
3. I am registered by the State of California as a professional geologist (# 7198). I hold a M.S. degree in Geology from Oregon State University (1978), and a B.S. degree in Geology from the University of Washington (1976). I also completed various aspects of post-graduate training related to Geology between 1979 and 2008.
4. I have more than 31 years of experience in the geothermal energy sector as a resource manager for geothermal operators and as an independent consultant. I have worked on numerous geothermal fields, projects, and prospects within the State of California. Following receipt of my M.S. degree, I held various positions at Unocal Geothermal Division in Santa Rosa, California and Indio, California (1978-1993); at Magma Power Company in Brawley, California and Jakarta, Indonesia (1993-95); and at CalEnergy Operating Corporation at Ridgecrest, California and Calipatria, California (1995-2000). I worked as an independent consultant for Earthrock Consulting in California between 2000 and 2003. I subsequently held positions at Vertex Engineering Services, Inc. in

California (2003-04) and Earth Systems Southwest in California (2004-09), before joining CalEnergy Operating Corporation in March 2009. Attached hereto as Exhibit A is a true and correct copy of my statement of qualifications.

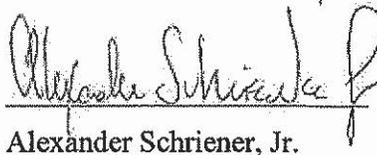
5. I have reviewed copies of the documents described in Attachment B of the Regional Board Prosecution Team's August 26, 2009 submission. These documents include a geothermal lease for approximately 171.3 acres in Colusa County between Magma (as lessee) and Bailey Minerals and J.W. Weightman (as lessor) dated June 3, 1965 ("Geothermal Lease"), a true and correct copy of which is attached hereto as Exhibit B.
6. During my more than 31 years of professional experience in the geothermal energy sector, I have reviewed numerous geothermal leases and I am familiar with interpretation of the terms of geothermal leases. Based on my extensive professional experience, it is my opinion that references in the Geothermal Lease to "minerals" are to geothermal minerals, not minerals generally as might be meant in a general minerals lease or mining lease. References to geothermal minerals would have been included in the Geothermal Lease because at the time it was entered into (1965), geothermal energy had not yet been defined as a mineral right for purposes of royalty calculation. Geothermal leases that predated enactment of the Geothermal Steam Act of 1970, 30 U.S.C. §§ 1001-1027, generally reflected this uncertainty and included references to geothermal minerals.
7. Based on my review of a copy of the Geothermal Lease and other documents described in Attachment B of the Regional Board Prosecution Team's August 26, 2009 submission, it is my opinion that under the terms of these documents no surface rights were transferred to Magma besides those rights necessary to explore and develop subsurface geothermal energy.
8. I have reviewed the CalEnergy files that contain documents concerning geothermal exploration and development activities in Colusa County, California in which Magma engaged. I also have reviewed well records available through the California Division of Oil, Gas and Geothermal Resources for the exploratory geothermal well known as "Wilbur Hot Springs 1", "Magma Power Wilbur-1" or "W-1." These documents and records include the following: (a) "Well Summary Report of Geothermal Energy Well"

for W-1 dated April 3, 1967, a true and correct copy of which is attached hereto as Exhibit C; (b) "History of Geothermal Energy Well" for W-1 dated April 3, 1967, a true and correct copy of which is attached hereto as Exhibit D; and (c) "Report of Well Abandonment" for W-1 dated September 16, 1969, a true and correct copy of which is attached hereto as Exhibit E. The following statements are based on my review of these documents and records and my independent investigation.

9. Magma drilled and operated an exploratory geothermal well on the north side of Sulphur Creek that was known as "Wilbur Hot Springs 1", "Magma Power Wilbur-1" and "W-1." This well was spud on September 22, 1965, drilled to a depth of 1,226 feet, and completed on December 14, 1965. According to the available records, Magma completed the drilling work on W-1 safely and without incident.
10. W-1 did not result in geothermal energy development, and Magma abandoned the well on June 19, 1968. Relevant documents demonstrate that the abandonment was done pursuant to State standards under the approval of the California Division of Oil and Gas ("DOG") and accepted by the agency. To the best of my knowledge, Magma did not build or improve a road in connection with the drilling, operation, or abandonment of W-1.
11. After W-1 was abandoned in June 1968, Magma did not engage in any other geothermal exploration or development activity on the real property covered by the Geothermal Lease or anywhere else in Colusa County.
12. Magma's activities have exclusively focused on exploration, drilling, and development of geothermal resources. There is no indication in the CalEnergy files I reviewed that Magma ever operated a mine or mining site in Colusa County, or that Magma had any involvement in mining operations or other activities in Colusa County that created mining waste or caused or contributed to the discharge of mining waste into Sulphur Creek.
13. The CalEnergy files that contain documents concerning real property interests in Colusa County, California held by Magma have been reviewed for purposes of this matter. Based on that review, in which I participated, and my independent investigation, Magma

never owned a mining site or any other real property in Colusa County, and Magma has possessed no real property interest in Colusa County since 1968.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed this 16 day of September, 2009 at Colipatria, California.

A handwritten signature in cursive script, appearing to read "Alexander Schriener, Jr.", written over a horizontal line.

Alexander Schriener, Jr.

LEGAL_US_W # 62688847.1

Exhibit A

Alexander Schriener, Jr., PG

Director of Geothermal Resources

Years of Experience: 31

QUALIFICATIONS

Professional Geologist, State of California, 1990 (No. 7198)

MS, Geology, Oregon State University, 1978

BS, Geology, University of Washington, 1976

Post Graduate Training – 1979 – 2008

College and business seminar classes in personal management and supervision, and public speaking; OSHA and general safety training; project economics; well drilling and completion techniques; remote sensing; reservoir engineering; reservoir simulation modeling; wireline log analysis; and exploration and development techniques for energy and mining resources.

PROFESSIONAL EXPERIENCE

March 2009 to present	CalEnergy Operating Corporation Calipatria, CA
2004 – March 2009	Earth Systems Southwest Indio, CA
2003 – 2004	Vertex Engineering Services, Inc. Rohnert Park and Irvine CA
2000 – 2003	Earthrock Consulting (Independent Consulting) Ridgecrest and Bermuda Dunes, CA
1995 – 2000	CalEnergy Operating Corporation Ridgecrest and Calipatria, CA
1993 – 1995	Magma Power Company Brawley, CA and Jakarta Indonesia
1978 – 1993	Unocal Corporation Santa Rosa and Indio, CA

Mr. Schriener has over 31 years experience in the geothermal energy sector of alternative energy both as a resource manager for geothermal operators and as an independent consultant. He has experience in resource management, including geology, geochemistry, geophysics, drilling, reservoir modeling, land leasing, development and exploration. He is a California Registered Geologist.

Mr. Schriener has been an expert and material witness in four separate legal cases involving geothermal energy resource and land - leasing issues. He has participated in the formation of the following BLM Geothermal Units and in the following regulatory issues:

- Glass Mountain Federal Geothermal Unit Area, Siskiyou County CA
- Desert Peak Federal Geothermal Participating Area, Churchill County, NV
- Telephone Flat Participating Area, Siskiyou County CA
- Telephone Flat EIR/EIS 48.9 MW geothermal project, Siskiyou County, CA
- Coso, Plan of Operations for Geothermal Properties Inc.
- Truckhaven, Imperial County CA DEIS and FEIS, as commenter for interested party.

Previously, Mr. Schriener held various positions at Unocal Geothermal Division, in Santa Rosa and Indio, California; at Magma Power Company, in Brawley California and Jakarta Indonesia; at CalEnergy Operating Corporation, at Ridgecrest and Calipatria, California, Vertex Engineering Services in Rohnert Park, California, with Earthrock Consulting in Ridgecrest and Bermuda Dunes, California, at Earth Systems Southwest in Bermuda Dunes, California and currently with CalEnergy Operating Corporation.

HIGHLIGHTS OF RESPONSIBILITIES AND EXPERIENCE

- Directs all resource activities (reservoir engineering, drilling, geology, geochemistry, and geophysics) for the existing 360 MW of geothermal power at the Salton Sea geothermal field and directs resource activities related to expansion of the field.
- Performed preliminary site assessments (Phase I) entailing site reconnaissance, historical research, regulatory agency records and database searches, aerial photograph review and final report preparation and performed site characterizations (Phase II) entailing subsurface explorations, sampling of soil and groundwater, chemical analyses of samples, evaluation of laboratory data, preparation of final report including recommendations for remediation.
- Designed and implemented remediation programs such as groundwater monitoring and sampling, delineation of contaminant plumes and monitoring well installations and developments.
- Co-Principal Investigator that successfully drilled and completed a \$700,000 DOE co-funded cost shared drilling program at the Emigrant Prospect in Esmeralda County, NV.
- Performed Claim Investigation and Cost Analyses for claims filed for reported losses occurring at locations throughout the U.S., entailing site investigations and submit reports identifying the cause of loss, cost to date, cost to complete, and mitigation and subrogation issues.
- Member of team that successfully received over \$300,000 in DOE loans guarantees for an Enhanced Geothermal Energy Project at the Desert Peak Geothermal Area, Churchill County NV.
- Assisted in over \$5 million in asset sales for various geothermal operators for properties in California, Nevada and Oregon.

CalEnergy Operating Corporation

- Owner and Operator of Independent consulting firm that specializes in project development, asset sales and management of complex multi-disciplinary environmental analysis and permit approvals for geothermal energy development projects.
- Directed all resource activities (reservoir engineering, drilling, geology, geochemistry, geophysics) for 580 MW of geothermal power in the western US (Coso CA, Salton Sea CA, Roosevelt Hot Springs UT, Desert Peak NV).
- Geologic supervisor for last 440 MW developed by Unocal at The Geysers (Units 12 - 20) and directed resource issues for development of 161 MW at the Salton Sea Field (Units 2-5).
- Directed the geologic aspects of over 400 new geothermal wells and well workovers and have directed and had accountability for combined total annual budget of over \$60 Million and staff of over 20 professional and hourly employees.
- Member of team that successfully negotiated three 400 MW contracts with PLN and Pertamina in Republic of Indonesia and was named Exploration Manager for project in Indonesia.
- Participated in the exploration and discovery of the Glass Mountain (Telephone Flat) geothermal field Siskiyou County CA.

US Geothermal Fields, Projects and Prospects Worked on and Studied:

- California -- The Geysers, Salton Sea, Brawley, East Brawley, South Brawley, Heber, Truckhaven, Clear Lake Basin, Sulphur Bank Mine, Lassen Peak, Medicine Lake Volcano (Glass Mountain), Long Valley (Mammoth), Coso, Surprise Valley, Calistoga, Mt. Shasta, and general California.
- US other -- Roosevelt Hot Springs and Cove Fort UT; Rye Patch, Beowowe, Fish Lake, Steamboat and Desert Peak, NV; Baca (Valles Caldera) NM; Newberry, Crater Lake, Alvord Desert, OR, general Cascades Range WA and OR; and general Basin and Range OR, ID, NV, UT and AZ.

PROFESSIONAL AFFILIATIONS

Member, Geological Society of America (GSA)
Member, American Association of Petroleum Geologists (AAPG)
Member, Geothermal Resources Council (GRC)

PUBLICATIONS

Schriener Jr., A, "The Geology and Mineralization of the Northern Part of the Washougal Mining District, Skamania County, Washington", August 1978, Unpublished MS Thesis, Oregon State University.

Schriener Jr., A., Shepard, R. and Field, C. W., "Geology and Petrology of the Epizonal Silver Star Plutonic Complex, Clark and Skamania Counties, Washington" 1979, Abstracts with Programs, Geol. Soc of America Meeting, v.11, no. 3.

Schriener Jr., A., and Suemnicht, G., "Subsurface Intrusive Rocks at The Geysers Geothermal Area, California", 1980, Abstracts with Programs, Geol. Soc of America Meeting, v.12, no. 3.

Schriener Jr., A., and Shepard, R., "Geology and Mineral Deposits of the Washougal Mining District, Skamania County, Washington" 1980, Abstracts with Programs, Geol. Soc of America Meeting, v.12, no. 3.

Schriener Jr., A, Lane, M, Rudisill, J, Trotter, J, and Wright, T, 1981, "AAPG Field Trip Guide #2, The Geysers Geothermal Field," Field Trip Guidebook for 1981 Annual Meeting of America Assoc of Petroleum Geologists in San Francisco, Ca.

Schriener Jr., A, and Suemnicht, G., "Subsurface Intrusive Rocks at The Geysers Geothermal Area, California", 1981, US Geol Survey Open File Report 81-355, Proceedings of Symposium Mineral Deposition in Pacific NW USA.

Schriener Jr., A, and Shepard, R., "Geology and Mineral Deposits of the Silver Star Mining District, Skamania County, Washington", 1981, US Geol Survey Open File Report 81-355, Proceedings of Symposium Mineral Deposition in Pacific NW USA.

Lutz, S.J., Hulen, J.B., and Schriener Jr., A, "Alteration, Geothermometry, and Granitoid Intrusions in Well GMF 31-17, Medicine Lake Volcano Geothermal System, California", January 2000, Conference Proceedings, 25th Stanford Geothermal Program Conference (SGP-TF-162).

Schriener Jr., A., "Field Trip #1 Salton Sea and Heber Geothermal Fields Imperial Valley California and Cerro Prieto Mexico Geothermal Facility, Baja Mexico, August 24-25, 2001", Field Trip Guidebook, 25th Geothermal Resources Council Annual Meeting Field Trip.

Schochet, D., Robertson-Tait, and A., Schriener Jr., A, "Desert Peak East, Nevada: A Step Toward EGS Commercialization in the Basin and Range", September 2002, Conference Proceedings, 26th Geothermal Resources Council Annual Meeting Transactions.

Schriener Jr., A., "Field Trip #1: Coso and Mammoth Geothermal Fields, Inyo and Mono Counties CA, September 20-21, 2002", Field Trip Guidebook, 26th Geothermal Resources Council Annual Meeting Field Trip.

Lutz, Susan Juch, Schriener Jr, Alexander, Schochet, Daniel, and Robertson-Tait, Ann, "Geologic Characterization of Pre-Tertiary Rocks at the Desert Peak East EGS Project Site, Churchill County, Nevada", October 2003, Conference Proceedings, 27th Geothermal Resources Council Annual Meeting Transactions.

Hulen, Jeffrey B, Nash, Gregory D, Deymonaz, John, and Schriener, Alex, 2005, "DOE Enables the Emigrant Geothermal Exploration and Slimhole Drilling Projects in Fish Lake Valley, Nevada", July/August 2005, Geothermal Resources Bulletin, p. 176-183.

Schriener Jr., Alexander, "General Geology of the Salton Sea Geothermal Field (SSGF) and the Obsidian Butte Rhyolite Flow, Imperial County, CA", July 2005, presentation to Inland Geological Society, Riverside, CA.

Lovekin, James W, and Schriener Jr., Alexander, "Field Trip #2: Geothermal Developments of the Imperial Valley, California, September 10, 2006", Field Trip Guidebook, 30th Geothermal Resources Council Annual Meeting Field Trip.

Schriener Jr., Alexander, "Geothermal Energy and Geology of the Imperial Valley, California, December 1, 2007." Field Trip Guidebook, San Diego Assoc. of Geologists, San Diego, CA.

Deymonaz, John, Hulen, Jeffrey B, Nash, Gregory D, and Schriener Jr. Alex, 2008, "Esmeralda Energy Final Scientific Technical Report, Emigrant Slimhole Drilling Project", DOE GRED III, Report No.: DE-FC36-04GO14339, Dated January 2008, 324 pp.