



Department of Energy
Office of Science
Berkeley Site Office
Lawrence Berkeley National Laboratory
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Berkeley, California 94720

OCT 15 2009

VIA FIRST CLASS MAIL AND E-MAIL

Bruce Castle, Supervising Geologist
Erler & Kalinowski, Inc.
1870 Ogden Drive
Burlingame, California 94010

Subject: U.S. Department Of Energy (DOE), Office of Science Chicago Office (SC-CH),
Freedom of Information Act (FOIA) Request #CH-09-22

Dear Mr. Castle:

I am the authorizing official responsible for making the determination required by Section 1004.5(b) of the DOE regulations found at 10 CFR Part 1004, which implements the FOIA, 5 U.S.C. 552.

On August 4, 2009, you submitted an e-mail to the Lawrence Berkeley National Laboratory (LBNL), Archives and Records Office. Your e-mail set out the following request:

In a LBNL publication, "Analysis of Background Distributions of Metals in the Soil at Lawrence Berkeley National Laboratory" (June 2002, Revised April 2009), page 2, reference is made to "All analytical results were compiled in a relational database (4th Dimension, version 6.05, ACI, Inc., Cupertino, California) that contains the metal concentration for each sample as well as other relevant sample descriptors. The descriptors include, for example, a unique sample identifier, the sampling depth, and the geologic formation from which the sample was collected." I would like to request a copy of this background metals database as described. I am researching background metals concentrations in California soils and would like to work with the raw data instead of the plots and descriptive statistics presented in the paper cited above.

Ultimately that request was referred to Patrick M. Burke at the DOE Berkeley Site Office and on September 1, 2009, upon your indication of willingness to pay production costs, the request was formally logged-in as FOIA request no. CH-09-22.

On September 28, you and Mr. Burke had an exchange of e-mails in which he informed you that LBNL had compiled the requested data and that we were prepared to provide it to you in 4th Dimension format. You, in turn, stated you preferred that the data file be provided "in either a Microsoft Access format or even a simple Excel flat file" and agreed to a 10-day extension in order for us to determine whether the file could be formatted accordingly.

On September 30, Mr. Burke sent you an e-mail informing you that the file could be converted, but that it would cost an estimated \$284 to do so. On October 5, you declined the offer to convert the data base and asked us to send it to you in 4th Dimension format, instead. You also asked if we could provide you a printed copy of the data base as well. The Lab has informed us that a print out of the file would run about 3,000 pages and would cost about \$200 to produce, but that "about 90% of this information is available in the RFI report that is available to the public both in hard copy and in our web site..."

(<http://www.lbl.gov/ehs/erp/html/documents.shtml>).

The requested data file is contained on the enclosed CD and as an electronic file attached to a pdf version of this letter that we will send you via e-mail. Please note the following disclaimer that relates to the data file we are providing you:

Attached as you requested is a 4th Dimension (2004) database that contains the data used in the report *Analysis of Background Distribution of Metals in Soil at Lawrence Berkeley National Laboratory* (June 2002, Revised April 2009) (LBNL-1782E). The attachment consists of 4 files that constitute the 4th Dimension database. The attached database includes all soil samples collected at the Ernest Orlando Lawrence Berkeley National Laboratory (LBNL) by the LBNL Environmental Restoration Program (ERP) prior to June 20, 2002, and analyzed for metals. A subset of these data was used to develop the upper estimates of background concentrations of metals at LBNL presented in the 2009 report (LBNL-1782E). That report discussed the exclusion of data from potentially contaminated areas and apparent outliers in the database as the first step in the estimate of background metals concentrations. The attached files represent the full sample database and do not reflect these exclusions. Caution should therefore be exercised when using the attached data.

The natural background concentration of a chemical in rock and soil can vary substantially between and even within sites, depending largely on the specific rock units present and the nature of the parent material from which the soil formed. The natural background concentration of a chemical is therefore most appropriately evaluated by the collection of on-site samples or by reference to local data from sites with the same rock/soil types. The metals concentrations in the attached database are derived from samples collected from specific rock types

at LBNL, and are therefore not generally applicable for developing background levels of metals at other sites with different rock types

This constitutes our full release of records responsive to your request. No fees will be assessed.

If you have questions regarding this response, please contact me or Mr. Burke, he can be reached at (510) 486-7203.

Sincerely,


Aundra Richards
Site Office Manager

Enclosure:
As Stated