UCSF GLOBAL HEALTH SCIENCES

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Campus Box 1224
University of California, San Francisco
San Francisco, CA 94143-1224

March 21, 2012

David Lippman
Director, Facilities & Operations
Las Virgenes Municipal Water District
4232 Las Virgenes Road
Calabasas, CA 91302

Dear Mr. Lippman:

I am writing to report that we have completed all testing on the soil samples collected from your facility, and this letter shall serve as the report.

Soil sampling:

On November 22, 2011, I conducted a soil sampling survey on the grounds of your reservoir facility. The samples were taken from several spots within the footprint of the proposed tank on Site A and Site C, areas adjacent to Sites A and C, and along the access road that connects the main dam to the Site C location. The purpose of the sampling was to obtain soil to assay by a polymerase chain reaction (PCR) assay designed to detect DNA from the *Coccidioides* spp. fungus.

Soil testing:

All testing procedures were conducted at UC Davis. We tested for *Coccidioides* DNA using a 3 step "nested" PCR that was adapted from methods recently published in Fungal Ecology 5(2):177-190 (2012). If *Coccidioides* DNA is present in the sample in detectable quantities, the assay results in production of a 170 base pair PCR product. The presence or absence of this product is determined by agarose gel electrophoresis and staining. Positive and negative control reactions are run along with the test sample. Test results are considered valid, within the sensitivity parameters of the assay, if a PCR product is obtained from the positive control reaction and no products are observed in the negative control reactions.

Results:

Under the conditions of the testing, no PCR products consistent with *Coccidioides* DNA were visualized from any of the samples. A table of the results is attached summarizing the origin of the samples and the results.

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Interpretation of Results:

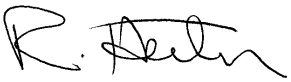
The failure to detect DNA consistent with *Coccidioides* spp. should not be interpreted to mean that the fungus does not exist in the soils of your facility. The methods have limitations of sensitivity such that a threshold fungal burden would have to be exceeded in any given sample before it would be detected by the methods. Having said this, a good number of samples were collected and tested, and it is my professional opinion that the sampling and testing methods were sufficient to address your concerns about the potential risk of exposure for *Coccidioides* spp. resulting from the construction activities associated with the proposed construction.

Recommendations:

As I previously communicated to you, the implementation of dust-control measures during construction at your facility is still recommended and is consistent, I believe, with the requirements of air quality control regulations in your county.

I hope that these efforts and recommendations are helpful. Please let me know if I can provide any additional information or service in this matter.

Sincerely yours,



Richard F. Hector, Ph.D., J.D.

cc: Dr. S. Johnson, UC Davis
Enclosure

LVWD Collection 11/22/2011

Sample	Description	PCR Result	Positive Control	Negative Control
101	Site C undisturbed soil	-	+	-
102	Site C undisturbed soil	-	+	-
103	Site C undisturbed soil	-	+	-
104	Site C undisturbed soil	-	+	-
105	Site C undisturbed soil	-	+	-
106	Site C undisturbed soil	-	+	-
107	Site C undisturbed soil	-	+	-
108	Site C undisturbed soil	-	+	-
109	Site C undisturbed soil	-	+	-
110	Owl Regurgitations	-	+	-
111	Site C undisturbed soil	-	+	-
112	Site C burrow	-	+	-
113	Site C burrow	-	+	-
114	Site C burrow on road	-	+	-
115	Site C burrow on road	-	+	-
116	Hillside along road	-	+	-
117	Hillside burrow along road	-	+	-
118	Site A undisturbed soil	-	+	-
119	Site A undisturbed soil	-	+	-
120	Site A undisturbed soil	-	+	-
121	Site A undisturbed soil	-	+	-
122	Site A undisturbed soil	-	+	-
123	Site A undisturbed soil	-	+	-
124	Site A top of bluff	-	+	-
125	Site A top of bluff	-	+	-
126	Site A fence line	-	+	-
127	Site A fence line	-	+	-
128	Site A large burrow	-	+	-
129	Site A near gate	-	+	-
130	Site A gate	-	+	-
131	Site A East side edge of tank site	-	+	-
132	Site A NE corner of site	-	+	-