



## **Request for Expression of Interest for Laboratory Geologic Logging Services**

CH2M Hill Plateau Remediation Company (CHPRC) is interested in receiving information on the availability of laboratory geologic logging services in support of CERCLA vadose zone soil characterization conducted by CHPRC on the Central Plateau at the Hanford Site, Washington.

### **BACKGROUND**

CHPRC intends to perform extensive characterization of vadose zone soils beneath waste sites associated with the 200-BC-1 and the 200-WA-1 Operable Units, both of which are located on the Central Plateau Area of the Hanford Site. 200-BC-1 includes 27 waste sites and 200-WA-1 includes 163 waste sites. For the purposes of this Request for Expression of Interest (REI), the vadose zone includes soils from between 15 feet in depth to the top of the water table, which is on the order of 450 feet deep depending upon the exact location.

The intent of the characterization is to determine the nature and extent of vadose zone contamination. Current plans call for vadose zone soils to be sampled from core sections recovered during the drilling of boreholes. Continuous cores, two to five feet long and 2-6 inches in diameter, are anticipated to be taken from each borehole from 15 feet below ground surface to total depth. For the 200-BC-1 and the 200-WA-1 Operable Units, approximately 3,250 cores are anticipated to be taken over a three to four year period. Drilling and coring operations may start in late FY18 or early FY19. Retrieved core sections will be contained in Lexan liners. Between five and twenty five core sections should be retrieved daily.

CHPRC desires that cores be divided length-wise, described lithologically using standard geological lithologic nomenclature, and photographed such that the full length of the entire five foot core is captured in a single photograph. Image resolution should allow for small-scale features in the core to be clearly visible in the photograph.

Additionally, core segments will be sampled and the samples sent to an offsite commercial laboratory under contract to CHPRC for analysis. To aid in the selection of sample locations, each core section will be scanned with a radiological survey meter to determine zones of elevated radioactivity or "hot spots". CHPRC may also want each core section be surveyed with an organic vapor meter and a hand-held X-ray fluorescent instrument in order to determine possible zones of organic and heavy metal contamination. Analytical hold times start at the time the core is removed from the borehole. Since a number of analytes have short hold times, core processing and sampling must be performed expeditiously.

Reports will be prepared for each borehole in a format to be specified by CHPRC to document geologic logging activities and results.



## **PROCUREMENT INFORMATION**

The intent of this REI is to obtain information on potential vendors with expertise in geologic logging (describing lithology in cores), core photography, identification of intervals of possible radiologic and chemical contamination through the use of hand-held field screening instruments, taking core samples for laboratory analysis, shipping samples in compliance with DOT and International Air Transport Association regulations to laboratories designated by CHPRC, and report preparation.

Potential vendors must be able to supply a facility in which the geologic logging, photography, sampling, and core storage at <6°C are to take place. The facility may be either located off the Hanford Site or on the Hanford Site. If the vendor proposes to transport a facility to the Hanford Site, it must be of a size and configuration to accommodate the activities described above. If the facility is located off the Hanford site, potential vendors shall maintain a current Nuclear Regulatory Commission (NRC) or State Radioactive materials license in adherence with 10 Code of Federal Regulations (CFR) Part 30, 10CFR Part 40, and 10CFR Part 70. Potential vendors shall maintain the appropriate NRC or State License having a possession limit such that samples containing a mixture of radionuclides, including transuranics, can be received and properly disposed (CHPRC may require the vendor to dispose of residual core material or CHPRC may require that residual core material be returned to the Hanford Site). Potential vendors shall have sufficient financial assurance to disposition all sample residues and laboratory wastes and decommission the laboratory facility per the requirements of the NRC.NUREG-1556, Volume 15, "Consolidated Guidance about Materials Licenses: Guidance About Change of Control and About Bankruptcy Involving Byproduct, Source, or Special Nuclear Material Licenses."

## **RESPONSES TO EXPRESSION OF INTEREST**

Interested vendors are invited to submit an expression of interest letter to the email address given below. Expressions of interest must be received by CHPRC no later than July 19, 2017. The expression of interest letter shall include a brief description of the vendor's company, the vendor's experience in geologic logging, experience with hand-held field instruments to survey core samples, and sampling; and the location and type of facility the vendor might propose in which to conduct the activities described above. Depending upon vendor interest shown in response to this REI, a Request for Proposal for geologic laboratory logging services may be issued. That proposal may include some or all of the activities described herein.

## **THERE IS NO SOLICITATION AT THIS TIME**

This request for capability information does not constitute a request for proposals; submission of any information in response to this market survey is purely voluntary; CHPRC assumes no financial responsibility for any costs incurred.

CHPRC will evaluate market information to ascertain potential market capacity to provide services consistent with those described in this REI. Telephone inquiries will not be accepted or



acknowledged, and no feedback or evaluations will be provided to companies regarding their submissions.

**SUBMISSION INSTRUCTIONS**

Interested parties who consider themselves qualified to perform the above-listed services are invited to submit a capability statement in response to this REI by **July 19, 2017**. The capability statements and comments shall be no more than a total of fifteen (15) pages, and no smaller than 12 point font. All responses must be emailed to [Tracey\\_A\\_Burch@rl.gov](mailto:Tracey_A_Burch@rl.gov) .