ROCKY FLATS SITE
REGULATORY CONTACT RECORD

Purpose: Replacement of Monitoring Well 45605 (B991 Slump)

Contact Record Approval Date: November 29, 2007

Site Contact(s) / Affiliation(s): Scott Surovchak / DOE; John Boylan / Stoller; Linda Kaiser / Stoller

Regulatory Contact(s) / Affiliation(s): Carl Spreng / CDPHE

Discussion:
Monitoring well 45605 was installed as a Sentinel well to monitor the disrupted French drain that fed surface water location SW056 (prior to closure). To address the low concentrations of VOCs in water discharged by the drain, this outlet was removed during Site closure and the drain was disrupted. (See *Closeout Report for Surface Water Station SW056 Outfall*, Nov. 2005, for more information.) Following this, the constructed hillside in which the French drain was installed became unstable and a slump developed. The slump eventually damaged the monitoring well, reduced its useful lifetime, and presented health and safety concerns for personnel working in the area. In October and November 2007 well 45605 was abandoned and this slumping hillside was regraded.

Resolution:
Now that the regrade has been completed, the replacement of well 45605 can proceed. The original well was installed in consultation with the regulators, and was situated approximately 10 ft. north (downgradient) of the buried French drain and 10 ft. west (upgradient) of the disrupted eastern end of the drain. This location provided access to ground water collected by the remnants of the drain. The replacement well will be installed approximately 10 ft. west of the previous well location (so as to be beyond the area of disturbance posed by the original borehole, but still monitor collected ground water), using survey coordinates to determine this location. The diameter of the replacement well will be between 0.75 inch to 2 inches. The design of the well will approximate that of well 45605, taking into account the regrading that has been performed and limitations of well materials (i.e., standard lengths), and the need to satisfy the original DQOs. The well will penetrate at least a few inches into the weathered bedrock and monitor what may be reasonably expected to represent the saturated surficial materials (predominantly artificial fill), as did the original well. The method used to install the well will be at the Site's discretion, and may range from direct-push methods (e.g., Geoprobe™) to sonic, hollow-stem auger, or other drill rig; any method that uses no drilling fluids or other potential contamination agents to install the well will provide the necessary borehole information and an appropriate monitoring well.

The well will be identified as either 45607 or 45608, depending on whether it is installed in calendar year 2007 or 2008. The exact timing of this installation is at the Site's discretion, but will be completed sufficiently in advance of the end of the second calendar quarter of 2008 to allow well development and the collection of ground water samples representing that quarter. The monitoring classification, analytical suite, and all other DQOs and requirements previously met by well 45605 shall be transferred to the replacement well.

Contact Record Prepared by: **John Boylan**

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