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NMED Hazardous Waste Bureau

National Nuclear Security Administration
Los Alamos Site Office, MS A316
Environmental Restoration Program
Los Alamos, New Mexico 87544
(505) 667-4255/FAX (505) 606-2132

Date: April 30, 2008
Refer To: EP2008-0217

James P. Bearzi, Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Subject: 15-Day Sampling Notification for TA-16-340 Complex Phase II Investigation

Dear Mr. Bearzi:

We are planning to start the Phase II drilling and sampling at the TA-16-340 Complex during the week of May 19–23, 2008. The work includes drilling 14 boreholes for a total of approximately 450 ft, removing approximately 100 yd^3 of soil, and collecting approximately 100 solid media and 3 pore-gas samples. The attached table details the number and types of samples and their associated analytical suites to be collected by the Los Alamos National Laboratory (the Laboratory) Environmental Programs Directorate–Corrective Actions Projects (EP-CAP).

Fieldwork will be completed in approximately 4 to 6 weeks and will be conducted in accordance with the following documents:

- Investigation Report for the TA-16-340 Complex [Consolidated Units 13-003(a)-99 and 16-003(n)-99 and Solid Waste Management Units 16-003(o), 16-026(j2), and 16-029(f)], Los Alamos National Laboratory report LA-UR-06-0153, January 2006

- Response to the Notice of Disapproval for the Investigation Report for the TA-16-340 Complex [Consolidated Units 13-003(a)-99 and 16-003(n)-99 and Solid Waste Management Units 16-003(o), 16-026(j2), and 16-029(f)], Los Alamos National Laboratory, EPA ID #NM0890010515 HWB-LANL-06-005, Rev. 0; issued by LANL to the NMED September 2006 (LA-UR-06-0153; EP2006-0913), October 2006

- Approval with Modifications Investigation Report for the TA-16-340 Complex [Consolidated Units 13-003(a)-99 and 16-003(n)-99 and Solid Waste Management Units 16-003(o), 16-026(j2), and 16-029(f)], Los Alamos National Laboratory, EPA ID #NM0890010515 HWB-LANL-06-005, October 2006

Please contact John McCann at (505) 665-1091 (jmccann@lanl.gov) if you have any questions.

Sincerely,

Dave McInroy, Acting Project Director
Environmental Programs–Corrective Actions Project
Los Alamos National Laboratory

Attachment: Table 1, Summary of Borehole Drilling, Sampling, and Analyses Proposed for the TA-16-340 Complex

Cy: (w/enc.)
Laurie King, EPA Region 6, Dallas, TX
Steve Yanicak, NMED-OB, White Rock, NM
Tom Skibitski, NMED-OB, Santa Fe, NM
Melanie Skeet, DOE-LASO (date-stamped letter emailed)
Ed Worth, DOE-LASO, MS A316
Kevin Reid, TPMC, Los Alamos, NM
Don Hickmott, EES-6, MS D462
John McCann, EP-CAP, MS M992
Susan G. Stiger, ADEP, MS M991
Alison M. Dorries, EP-WES, MS M992
Dave McInroy, EP-CAP, MS M992
Peggy Reneau, EP-WES, MS M992
EP-CAP File, MS M992
RPF, MS M707
IRM-RMMSO, MS A150

Table 1
Summary of Borehole Drilling, Sampling, and Analyses Proposed for the TA-16-340 Complex

Consolidated Unit/SWMU	Area Addressed	Issue Addressed	Minimum Borehole Total Depth (ft)	Minimum Number of Soil/Tuff Samples Estimated for Fixed Laboratory Analysis	Minimum Number of Pore Gas or Water Samples Estimated for Fixed Laboratory Analysis	Fixed Laboratory Analysis									
						VOCs	SVOCs	HE Compounds	TAL Metals	Cyanide	Uranium	Nitrate	Anions	Perchlorate	Iso Uranium
13-003(a)-99	Former septic system associated with activities at former TA-13	Define the vertical extent of metal contamination identified at historical sampling location 13-23558.	20 ft	1 (TD)	n/a*	—	—	—	X	—	X	X	X	—	X
		Shallow Drilling Soil/tuff near-surface sampling: Define the southern lateral extent of contamination identified at 13-003(a)-99.	2 ft into tuff or auger refusal	2 (soil and tuff)		—	X (PAH only)	—	X	—	X	X	X	—	X
16-003(n)-99	*Former* Building 16-342 sump and drainlines	Define the vertical extent of contamination: (1) elevated arsenic and PAHs @ 6-6.5 ft at 16-23574 (2) elevated barium and HMX @ 8-8.5 ft at 16-23579	15 ft	2 (1 per BH TD)		X	X	X	X	—	X	X	X	—	X
16-003(o)	*Former* Building 16-340 sumps	Define the vertical extent of contamination: (1) elevated organics @ 4.5 ft at 16-23591 (2) elevated HE (TATB) @ 4–6.5 ft at 16-23597 (3) elevated HE (RDX) @ 4.5 ft at 16-23619	15 ft	3 (1 per BH TD)		X	X	X	X	—	X	X	X	—	X
		Define the vertical extent of contamination beneath former drainline couplings		2 (1 per BH TD)		X	X	X	X	—	X	X	X	—	X
	Former Building 16-340 drainline	Define the vertical extent of contamination along the former Building 16-340 drainline, including VOCs	200 ft	5 (every 40 ft)	3 pore gas: 50 ft 100 ft 200 ft	X	X	X	X	X	X	X	X	X	X
		Resample prescribed intervals for nitrate: (1) 4.0–4.5 ft bgs and (2) 6.0–6.5 ft bgs	10 ft	4 (2 per location)	n/a	—	—	—	—	—	—	X	—	—	X
		Define the vertical extent of contamination: elevated SVOCs and dibenzofuran @ 10.5 ft at 16-24894	20 ft below last detect	1 (TD)		X	X	X	X	—	X	X	X	—	X
	Lower Fishladder drainage	Define the vertical extent of contamination: elevated cobalt and silver @ 3.5 ft at 16-23693		1 (TD)		X	X	X	X	—	X	X	X	—	X

Consolidated Unit/SWMU	Area Addressed	Issue Addressed	Minimum Borehole Total Depth (ft)	Minimum Number of Soil/Tuff Samples Estimated for Fixed Laboratory Analysis	Minimum Number of Pore Gas or Water Samples Estimated for Fixed Laboratory Analysis	Fixed Laboratory Analysis									
						VOCs	SVOCs	HE Compounds	TAL Metals	Cyanide	Uranium	Nitrate	Anions	Perchlorate	Iso Uranium
16-003(o)	Upper Fishladder drainage	**Shallow Drilling** Soil/tuff near surface sampling: Define the lateral extent of contamination of SWMU 16-003(o).	Below soil/tuff interface	4 (2 per location)		X	X	X	X	X	X	X	X	—	X
		Hand Auger / Power Auger Soil/tuff near-surface sampling: Define the lateral extent of contamination of SWMU 16-003(o).		4 (2 per location)		X	X	X	X	X	X	X	X	—	X
		Excavation/Limited Soil Removal Confirmation Sampling Using Hand Auger/Power Auger Elevated levels of arsenic and PAHs identified at 12 soil sampling locations during the 2005 Phase II investigation	2 ft into tuff or auger refusal	24 (2 per location)	n/a	—	X (PAH only)	—	X	—	X	—	—	—	X
				50 (2 per location)		—	X (PAH only)	—	X	—	X	—	—	—	X
16-029(f)	*Former* Building 345 inactive HE sump and drainline	Define the vertical extent of contamination: (1) elevated organics and inorganics @ 6.5 ft at 16-23706.	15 ft	2 (1 per BH TD)	n/a	X	X	X	X	—	X	X	X	—	X
16-026(j2)	*Former* Building 345 former outfall	**Shallow Drilling** Soil/tuff near-surface sampling: Define the lateral extent of contamination in the drainage reach associated with SWMU 16-029(f)	2 ft into tuff or auger refusal	2 (surface and tuff)	n/a	—	X	X	X	—	X	X	X	—	X
Fishladder Canyon	Fishladder alluvial monitoring wells	**Alluvial Groundwater:** Define nature and extent of chemicals present in the alluvial groundwater	n/a	n/a	6 (3 per sampling round)	X	X	X	X	X	X	X	X	X	X

* n/a = Not applicable.