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National Nuclear Security Administration
Los Alamos Site Office, MS A316
Environmental Restoration Program
Los Alamos, New Mexico 87544
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Date: March 16, 2007
Refer to: EP2007-0020

Mr. James Bearzi
NMED-Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Subject: Available Data and Cleanup Activities for Area of Concern C-00-041

Dear Mr. Bearzi:

The purpose of this letter is to transmit available data for Area of Concern (AOC) C-00-041, as requested in an email dated December 11, 2006, from the New Mexico Environment Department (NMED) (Swarna Vonteddu) to Los Alamos National Laboratory (LANL) (Becky Coel-Roback). Available sediment and stormwater data from recent sampling events at AOC C-00-041, the former location of an asphalt batch plant, are included with this letter.

In addition to the request for available data, the email provided clarification on the activities to be conducted at AOC C-00-041, which is part of the Guaje/Barrancas/Rendija Canyons Aggregate Area. This AOC was the subject of a voluntary corrective action conducted in 1995 to remove tar and asphalt. As a result of heavy rains during August 2006, more tar and asphalt were exposed, and LANL sought NMED guidance regarding the scope of the current field campaign. On the basis of the email message from Ms. Vonteddu, LANL will proceed with the approach outlined in the approved investigation work plan for the Guaje/Rendija/Barrancas Canyons Aggregate Area, which is to remove visible tar and asphalt to the extent practicable and conduct sediment sampling. These field activities are ongoing and will be completed over the next few months, as weather allows. Sampling activities are also proceeding at other sites within the Guaje/Barrancas/Rendija Canyons Aggregate Area, despite significant snow accumulation.

The results of the cleanup and sampling effort at AOC C-00-041, as described above and in the approved work plan, will be included in the Guaje/Barrancas/Rendija Canyons Aggregate Area investigation report, which is due to NMED on August 31, 2007. Based on these results, we will confer with NMED to determine what additional actions, if any, are needed at AOC C-00-041. Please note that any further remediation at AOC C-00-041 will need to be approved by the current property owner, the United States Forest Service.

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If you have any questions regarding the enclosed data or any activities being conducted within the Guaje/Barrancas/Rendija Canyons Aggregate Area, please contact Becky Coel-Roback at (505) 665-5011 or becky_cr@lanl.gov.

Sincerely,

Carolyn A. Mangeng, Acting Associate Director
Environmental Programs
Los Alamos National Laboratory

Sincerely,

George J. Rael, Assistant Manager
Department of Energy
Los Alamos Site Office

CAM/GJR/BCR:ew

Enclosure(s): 1) Four data tables for AOC C-00-041

Cy: (w/enc)
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G. Rael, DOE-LASO, MS A316
T. Skibitski, DOE-OB
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C. Mangeng, ADEP, MS J591
ADEP File, MS J591
EP-CAP File, MS M992
IRM-RMMSO, MS A150
RPF, MS M707

Table 1
Inorganic Chemicals Detected above Background Value in Sediments from AOC C-00-041
(all units are mg/kg)

Sample ID	Location ID	Depth (ft)	Media	Aluminum	Arsenic	Cadmium	Chromium	Iron	Lead	Magnesium	Mercury	Selenium	Vanadium
Sediment Background Value				**15400**	**3.98**	**0.4**	**10.5**	**13800**	**19.7**	**2370**	**0.1**	**0.3**	**19.7**
CARE-06-72870	RE-26903	0.00–0.75	Sediment	—	5.36	0.633 (UJ)	11.4 (J-)	14300	28.4 (J-)	—	—	1.77 (J)	23.9 (J-)
CARE-06-72871	RE-26904	0.00–1.64	Sediment	15500	5.36	0.64 (UJ)	11.1 (J-)	—	20.6 (J-)	—	—	0.967 (J)	22.7 (J-)
CARE-06-72872	RE-26905	0.00–1.21	Sediment	—	—	0.618 (UJ)	—	—	—	—	—	1.21 (J)	—
CARE-06-72873	RE-26906	0.00–0.39	Sediment	—	—	0.598 (UJ)	—	—	—	—	—	1.8 (U)	—
CARE-06-72874	RE-26907	0.00–1.05	Sediment	—	4.46	0.661 (UJ)	—	—	23.2 (J-)	—	—	1.98 (U)	—
CARE-06-72875	RE-26908	0.00–0.66	Sediment	—	—	0.558 (UJ)	—	—	—	—	0.174	1.67 (U)	—
CARE-06-72876	RE-26909	0.16–0.82	Sediment	—	4.68	0.669 (UJ)	—	—	26.9 (J-)	—	—	0.937 (J)	—
CARE-06-72877	RE-26909	0.82–1.48	Sediment	17300	4.97	0.67 (UJ)	11.3 (J-)	—	—	2510 (J+)	—	2.4	23.6 (J-)
CARE-06-72878	RE-26911	0.33–1.44	Sediment	—	4.93	0.653 (UJ)	—	—	23.4 (J-)	—	—	2.05	19.8 (J-)
CARE-06-72879	RE-26912	0.00–0.75	Sediment	—	4.53	0.646 (UJ)	—	—	—	—	—	1.91 (J)	21.4 (J-)

Table 2
Organic Chemicals Detected in Sediment Samples from AOC C-00-041
(all units are mg/kg)

Sample ID	Location ID	Depth (ft)	Media	Anthracene	Aroclor-1242	Aroclor-1254	Aroclor-1260	DDE[4,4'-]	DDT[4,4'-]	Di-n-butylphthalate	Fluoranthene	Phenanthrene	Pyrene	TPH Diesel Range Organics
CARE-06-72871	RE-26904	0.00–1.64	Sediment	—	—	—	—	—	—	—	—	—	—	1.45 (J)
CARE-06-72872	RE-26905	0.00–1.21	Sediment	—	—	—	—	—	—	0.0549 (J)	—	—	—	1.76 (J)
CARE-06-72873	RE-26906	0.00–0.39	Sediment	0.0706	—	0.0035 (J)	0.0047	—	—	0.0504 (J)	0.0231 (J)	0.0142 (J)	0.0146 (J)	6.41
CARE-06-72874	RE-26907	0.00–1.05	Sediment	—	0.013	0.0137	0.0023 (J)	0.00236	0.00359 (J)	0.0525 (J)	0.0139 (J)	—	—	1.66 (J)
CARE-06-72875	RE-26908	0.00–0.66	Sediment	—	—	—	0.0023 (J)	—	—	—	0.0243 (J)	0.0146 (J)	0.017 (J)	—
CARE-06-72876	RE-26909	0.16–0.82	Sediment	—	—	—	—	—	—	—	0.0147 (J)	—	0.00512	1.84 (J)
CARE-06-72877	RE-26909	0.82–1.48	Sediment	—	—	—	—	0.00108 (J)	0.00153 (J)	—	0.0153 (J)	—	0.00375	1.62 (J)
CARE-06-72878	RE-26911	0.33–1.44	Sediment	—	—	—	—	—	—	—	—	—	0.00578	—
CARE-06-72879	RE-26912	0.00–0.75	Sediment	—	—	—	0.0021 (J)	0.000732 (J)	0.00171 (J)	—	0.0185 (J)	—	0.00572	1.41 (J)

Table 3
Data from Unfiltered Stormwater Samples, Station R-SMA-1, in AOC C-00-041
(data in units of mg/L, except as noted)

Sample Date	Alkalinity-CO_3+HCO_3	Alkalinity-HCO_3	Aluminum	Ammonia as Nitrogen	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chemical Oxygen Demand	Chromium	Cobalt	Copper	Cyanide (Total)	Diesel Range Organics	Dissolved Organic Carbon
May 3, 2005	68	68	65.8	—	0.018	0.605	0.0052	0.001	34.3	194	—	0.0183	0.0586	0.006	0.13 J-	8.95
Aug. 12, 2005	76.6	—	7.58	0.112	—	0.134	—	0.00037	11.3	60.2	0.0055	0.0023	0.0102	—	0.18	—
Aug. 24, 2005	28.2	—	39.2	0.124	0.007	0.232	0.0025	0.00069	10.8	136	0.0248	0.007	0.0235	—	0.22	—
Sep. 29, 2005	39.1	—	16	0.104 J-	—	0.104 J+	—	0.00024	9.45	75.6	0.0095	0.0021	0.0213	—	0.14 J-	—
Aug. 1, 2006	—	—	24.9 J		—	0.22	0.0016	0.00028	5.69	132	0.0132	0.0057	0.0144	—	0.0484 J	—
Sep. 11, 2006	—	—	17	0.115	—	0.155	0.0011	0.00026	9.9	49.8	0.0064	0.0034	0.0111	—	0.165	—
Oct. 15, 2006	—	—	14.1	0.124 J	—	0.319	0.0024	0.00052	15.1	222	0.0085	0.0083	0.0184	—	0.119 J+	—

Table 3 (continued)

Sample Date	Hardness	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	pH (standard untis)	Potassium	Silver	Sodium	Suspended Sediment Concentration	Thallium	Vanadium	Zinc
May 3, 2005	138	51.2	0.11	12.7	1.85	—	0.0021	0.0194 J+	—	16	0.0003	64.7	1600	—	0.0814	0.316
Aug. 12, 2005	37.8	4.44	0.0277	2.32	0.266	—	—	0.0085	—	5.84	—	25.8	4520	—	0.0138	0.06
Aug. 24, 2005	52.3	27.6	0.0477	6.12	0.577	—	—	0.0146	—	9.42	—	12.7	3940	0.00041	0.0433	0.153
Sep. 29, 2005	35.6	9.13	0.0188	2.91	0.159	—	—	0.0073	—	6.06	—	22.2	688	—	0.0167	0.0818
Aug. 1, 2006	30.7	16.6 J	0.0242	4	0.458	—	—	0.0122	7.12	6.82	0.00034	2.13	658 J	—	0.0295	0.0929
Sep. 11, 2006	37.6	10.7	0.0265	3.13	0.323	—	—	0.0064	6.94	6.8	—	4.43	1360	—	0.0192	0.0657
Oct. 15, 2006	52.1	8.81	0.0637	3.52	1	0.00065	—	0.0133	7.02	6.26	—	9.85	1460 J	—	0.0237	0.116

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Inorganic Chemicals Detected above Background Value in Sediments from AOC C-00-041
(all units are mg/kg)

Sample ID	Location ID	Depth (ft)	Media	Aluminum	Arsenic	Cadmium	Chromium	Iron	Lead	Magnesium	Mercury	Selenium	Vanadium
Sediment Background Value				**15400**	**3.98**	**0.4**	**10.5**	**13800**	**19.7**	**2370**	**0.1**	**0.3**	**19.7**
CARE-06-72870	RE-26903	0.00–0.75	Sediment	—	5.36	0.633 (UJ)	11.4 (J-)	14300	28.4 (J-)	—	—	1.77 (J)	23.9 (J-)
CARE-06-72871	RE-26904	0.00–1.64	Sediment	15500	5.36	0.64 (UJ)	11.1 (J-)	—	20.6 (J-)	—	—	0.967 (J)	22.7 (J-)
CARE-06-72872	RE-26905	0.00–1.21	Sediment	—	—	0.618 (UJ)	—	—	—	—	—	1.21 (J)	—
CARE-06-72873	RE-26906	0.00–0.39	Sediment	—	—	0.598 (UJ)	—	—	—	—	—	1.8 (U)	—
CARE-06-72874	RE-26907	0.00–1.05	Sediment	—	4.46	0.661 (UJ)	—	—	23.2 (J-)	—	—	1.98 (U)	—
CARE-06-72875	RE-26908	0.00–0.66	Sediment	—	—	0.558 (UJ)	—	—	—	—	0.174	1.67 (U)	—
CARE-06-72876	RE-26909	0.16–0.82	Sediment	—	4.68	0.669 (UJ)	—	—	26.9 (J-)	—	—	0.937 (J)	—
CARE-06-72877	RE-26909	0.82–1.48	Sediment	17300	4.97	0.67 (UJ)	11.3 (J-)	—	—	2510 (J+)	—	2.4	23.6 (J-)
CARE-06-72878	RE-26911	0.33–1.44	Sediment	—	4.93	0.653 (UJ)	—	—	23.4 (J-)	—	—	2.05	19.8 (J-)
CARE-06-72879	RE-26912	0.00–0.75	Sediment	—	4.53	0.646 (UJ)	—	—	—	—	—	1.91 (J)	21.4 (J-)

Table 2
Organic Chemicals Detected in Sediment Samples from AOC C-00-041
(all units are mg/kg)

Sample ID	Location ID	Depth (ft)	Media	Anthracene	Aroclor-1242	Aroclor-1254	Aroclor-1260	DDE[4,4'-]	DDT[4,4'-]	Di-n-butylphthalate	Fluoranthene	Phenanthrene	Pyrene	TPH Diesel Range Organics
CARE-06-72871	RE-26904	0.00–1.64	Sediment	—	—	—	—	—	—	—	—	—	—	1.45 (J)
CARE-06-72872	RE-26905	0.00–1.21	Sediment	—	—	—	—	—	—	0.0549 (J)	—	—	—	1.76 (J)
CARE-06-72873	RE-26906	0.00–0.39	Sediment	0.0706	—	0.0035 (J)	0.0047	—	—	0.0504 (J)	0.0231 (J)	0.0142 (J)	0.0146 (J)	6.41
CARE-06-72874	RE-26907	0.00–1.05	Sediment	—	0.013	0.0137	0.0023 (J)	0.00236	0.00359 (J)	0.0525 (J)	0.0139 (J)	—	—	1.66 (J)
CARE-06-72875	RE-26908	0.00–0.66	Sediment	—	—	—	0.0023 (J)	—	—	—	0.0243 (J)	0.0146 (J)	0.017 (J)	—
CARE-06-72876	RE-26909	0.16–0.82	Sediment	—	—	—	—	—	—	—	0.0147 (J)	—	0.00512	1.84 (J)
CARE-06-72877	RE-26909	0.82–1.48	Sediment	—	—	—	—	0.00108 (J)	0.00153 (J)	—	0.0153 (J)	—	0.00375	1.62 (J)
CARE-06-72878	RE-26911	0.33–1.44	Sediment	—	—	—	—	—	—	—	—	—	0.00578	—
CARE-06-72879	RE-26912	0.00–0.75	Sediment	—	—	—	0.0021 (J)	0.000732 (J)	0.00171 (J)	—	0.0185 (J)	—	0.00572	1.41 (J)

Table 3
Data from Unfiltered Stormwater Samples, Station R-SMA-1, in AOC C-00-041
(data in units of mg/L, except as noted)

Sample Date	Alkalinity-CO_3+HCO_3	Alkalinity-HCO_3	Aluminum	Ammonia as Nitrogen	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chemical Oxygen Demand	Chromium	Cobalt	Copper	Cyanide (Total)	Diesel Range Organics	Dissolved Organic Carbon
May 3, 2005	68	68	65.8	—	0.018	0.605	0.0052	0.001	34.3	194	—	0.0183	0.0586	0.006	0.13 J-	8.95
Aug. 12, 2005	76.6	—	7.58	0.112	—	0.134	—	0.00037	11.3	60.2	0.0055	0.0023	0.0102	—	0.18	—
Aug. 24, 2005	28.2	—	39.2	0.124	0.007	0.232	0.0025	0.00069	10.8	136	0.0248	0.007	0.0235	—	0.22	—
Sep. 29, 2005	39.1	—	16	0.104 J-	—	0.104 J+	—	0.00024	9.45	75.6	0.0095	0.0021	0.0213	—	0.14 J-	—
Aug. 1, 2006	—	—	24.9 J		—	0.22	0.0016	0.00028	5.69	132	0.0132	0.0057	0.0144	—	0.0484 J	—
Sep. 11, 2006	—	—	17	0.115	—	0.155	0.0011	0.00026	9.9	49.8	0.0064	0.0034	0.0111	—	0.165	—
Oct. 15, 2006	—	—	14.1	0.124 J	—	0.319	0.0024	0.00052	15.1	222	0.0085	0.0083	0.0184	—	0.119 J+	—

Table 3 (continued)

Sample Date	Hardness	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	pH (standard untis)	Potassium	Silver	Sodium	Suspended Sediment Concentration	Thallium	Vanadium	Zinc
May 3, 2005	138	51.2	0.11	12.7	1.85	—	0.0021	0.0194 J+	—	16	0.0003	64.7	1600	—	0.0814	0.316
Aug. 12, 2005	37.8	4.44	0.0277	2.32	0.266	—	—	0.0085	—	5.84	—	25.8	4520	—	0.0138	0.06
Aug. 24, 2005	52.3	27.6	0.0477	6.12	0.577	—	—	0.0146	—	9.42	—	12.7	3940	0.00041	0.0433	0.153
Sep. 29, 2005	35.6	9.13	0.0188	2.91	0.159	—	—	0.0073	—	6.06	—	22.2	688	—	0.0167	0.0818
Aug. 1, 2006	30.7	16.6 J	0.0242	4	0.458	—	—	0.0122	7.12	6.82	0.00034	2.13	658 J	—	0.0295	0.0929
Sep. 11, 2006	37.6	10.7	0.0265	3.13	0.323	—	—	0.0064	6.94	6.8	—	4.43	1360	—	0.0192	0.0657
Oct. 15, 2006	52.1	8.81	0.0637	3.52	1	0.00065	—	0.0133	7.02	6.26	—	9.85	1460 J	—	0.0237	0.116

Table 4
Data from Filtered Stormwater Samples, Station R-SMA-1, in AOC C-00-041
(data in mg/L)

Sample Date	Alkalinity-CO_3+HCO_3	Aluminum	Barium	Cadmium	Calcium	Chromium	Cobalt	Copper	Dissolved Organic Carbon
May 3, 2005	—	5.8	0.0724	0.0002	19	0.0042	0.0115	0.0051	—
Aug. 12, 2005	—	1.9	0.0304	—	6.16	0.003	—	0.0035	19.2
Aug. 24, 2005	—	0.903	0.0227	—	5.64	0.0012	—	0.0032	11.2
Sep. 29, 2005	—	2.09	0.0323	—	7.79	0.0017	—	0.0054	14.1
Aug. 1, 2006	26.8	0.289 J	0.0273	—	5.81	0.0012	—	—	12.6
Sep. 11, 2006	26.3	0.678	0.025	—	6.91	—	0.0011	—	8.81
Oct. 15, 2006	31.2	0.303	0.021	—	6.3	—	—	—	8.68 J+

Table 4 (continued)

Sample Date	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Sodium	Vanadium	Zinc
May 3, 2005	60.4	2.9	—	3.15	0.0319	0.0035	5.68	57.8	0.0068	0.0277
Aug. 12, 2005	19.7	1.01	0.0011	1.04	0.0083	0.0018	4.24	13	0.0041	0.0418
Aug. 24, 2005	17.3	0.503	0.00063	0.793	0.0221	0.0018	3.21	11.1	0.0032	0.0142
Sep. 29, 2005	24.5	1.18	0.0013	1.22	0.0096	0.0024	3.78	19.7	0.0044	0.014
Aug. 1, 2006	18.5	0.205 J	0.00053	0.957	0.0034	0.0018	3.95	11.2	—	—
Sep. 11, 2006	21.8	0.379	—	1.1	0.0034	0.0011	2.71	2.58	0.003	0.0062
Oct. 15, 2006	19.7	0.183	—	0.969	0.0052	0.00093	2.86	8.86	0.0017	0.004

Table 4
Data from Filtered Stormwater Samples, Station R-SMA-1, in AOC C-00-041
(data in mg/L)

Sample Date	Alkalinity-CO_3+HCO_3	Aluminum	Barium	Cadmium	Calcium	Chromium	Cobalt	Copper	Dissolved Organic Carbon
May 3, 2005	—	5.8	0.0724	0.0002	19	0.0042	0.0115	0.0051	—
Aug. 12, 2005	—	1.9	0.0304	—	6.16	0.003	—	0.0035	19.2
Aug. 24, 2005	—	0.903	0.0227	—	5.64	0.0012	—	0.0032	11.2
Sep. 29, 2005	—	2.09	0.0323	—	7.79	0.0017	—	0.0054	14.1
Aug. 1, 2006	26.8	0.289 J	0.0273	—	5.81	0.0012	—	—	12.6
Sep. 11, 2006	26.3	0.678	0.025	—	6.91	—	0.0011	—	8.81
Oct. 15, 2006	31.2	0.303	0.021	—	6.3	—	—	—	8.68 J+

Table 4 (continued)

Sample Date	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Sodium	Vanadium	Zinc
May 3, 2005	60.4	2.9	—	3.15	0.0319	0.0035	5.68	57.8	0.0068	0.0277
Aug. 12, 2005	19.7	1.01	0.0011	1.04	0.0083	0.0018	4.24	13	0.0041	0.0418
Aug. 24, 2005	17.3	0.503	0.00063	0.793	0.0221	0.0018	3.21	11.1	0.0032	0.0142
Sep. 29, 2005	24.5	1.18	0.0013	1.22	0.0096	0.0024	3.78	19.7	0.0044	0.014
Aug. 1, 2006	18.5	0.205 J	0.00053	0.957	0.0034	0.0018	3.95	11.2	—	—
Sep. 11, 2006	21.8	0.379	—	1.1	0.0034	0.0011	2.71	2.58	0.003	0.0062
Oct. 15, 2006	19.7	0.183	—	0.969	0.0052	0.00093	2.86	8.86	0.0017	0.004