State of New Mexico
ENVIRONMENT DEPARTMENT
DOE OVERSIGHT BUREAU
P.O. Box 1663, MS/J-993
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January 29, 1998

Mat Johansen, DOE AIP POC
U. S. Department of Energy
Los Alamos Area Office, MS A316
Los Alamos, New Mexico 87544

SUBJECT: DOE Oversight Bureau submittal of 1997 soil and sediment environmental surveillance data

Dear Mr. Johansen:

The New Mexico Environment Department (NMED) DOE Oversight Bureau performed independent and split-sampling with ESH-18 and ESH-20 staff at Los Alamos during 1997. Results (Tables 1 and 2) contain radiochemical and trace metal data from soil and sediment samples. The data are being submitted for your review. After a 30 working day review and comment period the data will be available for release to applicable agencies. Contact David Englert at 827-1536 if you have any questions.

Sincerely,

Stephen Yanicak

Steve Yanicak, LANL POC
DOE Oversight Bureau

attachments
SY:DEE:dee

cc: John Parker, Chief, NMED DOE Oversight Bureau
Phil Fresquez, LANL, EHS-20, MS M887
Bruce Gallaher, LANL, EHS-18, MS K497
Santa Fe File

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TABLE 2. NMED DOE OVERSIGHT BUREAU SEDIMENT ANALYSIS
1997 RADIOCHEMICAL AND METALS

		Radiochemical																Metals	
LOCATION	Date	Sr-90	uncertainty	Cs-137	uncertainty	Total U	uncertainty	Pu-238	uncertainty	Pu-239,240	uncertainty	Am-241	uncertainty	Gross Alpha	uncertainty	Gross Beta	uncertainty	Be	Pb
	Collected		2 x sigma		2 x sigma		2 x sigma		2 x sigma		2 x sigma		2 x sigma		2 x sigma		2 x sigma		
		(pCi/g)		(pCi/g)		(ug/g)		(pCi/g)		(pCi/g)		(pCi/g)		(pCi/g)		(pCi/g)		(ug/g)	(ug/g)
LAO-1	05/07	<0.17	BDL	0.105	0.05	3.02	0.41	<0.10	BDL	0.95	0.23	<0.226	BDL	2.94	0.65	1.82	0.58	<0.5	22
DPS-4	05/07	0.78	0.18	2.00	0.157	1.15	0.15	<0.13	BDL	0.12	0.08	<0.134	BDL	1.97	0.52	4.14	0.72	<0.5	9.7
Acid Weir	05/06	0.68	0.18	0.267	0.050	3.02	0.41	0.11	0.07	16.90	2.10	<0.190	BDL	14.6	1.9	1.34	0.73	0.5	140
Pueblo 2	05/09	<0.15	BDL	<0.038	BDL	0.91	0.12	<0.10	BDL	0.56	0.17	<0.196	BDL	1.16	0.41	<0.66	BDL	<0.5	4.0
Pueblo @ SR-4	06/12	<0.17	BDL	<0.041	BDL	2.54	0.34	<0.08	BDL	0.47	0.15	<0.162	BDL	1.99	0.54	0.84	0.44	<0.5	6.7
Mortandad @ GS-1*	05/07	0.58	0.15	13.5	0.888	0.95	0.13	5.87	0.84	5.47	0.80	8.31	0.712	20.1	2.5	13.8	1.8	<0.5	5.6
Mortandad @ MCO-5*	05/07	1.00	0.21	15.1	0.988	0.77	0.10	2.14	0.40	7.20	1.00	6.33	0.548	14.8	1.9	11.0	1.5	<0.5	4.1
Mortandad A5 (San Ild)	08/14	0.37	0.15	<0.127	BDL	3.30	0.46	0.009	0.014	0.0053	0.0087	<0.442	BDL	3.7	1.0	3.26	0.67	0.7	10
Mortandad A8 (San Ild)	08/14	<0.21	BDL	<0.144	BDL	1.73	0.24	0.010	0.017	0.003	0.013	<0.634	BDL	2.48	0.68	2.10	0.60	<0.6	8.3
Mortandad A10 (San Ild)	08/14	<0.25	BDL	<0.126	BDL	1.25	0.17	0.003	0.012	0.0016	0.0089	<0.510	BDL	1.93	0.60	1.35	0.45	<0.6	[illegible]
TA-54, G-6	04/11	<0.16	BDL	0.147	0.055	3.16	0.43	<0.11	BDL	0.21	0.10	<0.259	BDL	3.01	0.68	2.55	0.60	0.7	[illegible]
TA-54, G-8	04/11	<0.15	BDL	0.514	0.078	2.58	0.35	0.18	0.10	0.24	0.11	<0.200	BDL	3.20	0.74	3.58	0.73	<0.5	6.6
TA-49, AB-3	04/23	<0.16	BDL	0.125	0.055	2.32	0.32	<0.03	BDL	0.29	0.12	<0.233	BDL	2.72	0.65	2.49	0.63	<0.5	6.5
TA-49, AB-6	04/23	<0.16	BDL	0.265	0.052	2.43	0.33	<0.10	BDL	<0.05	BDL	<0.157	BDL	3.44	0.79	3.83	0.71	0.9	13
Ancho 0.01	03/19	<0.15	BDL	0.160	0.053	2.55	0.35	<0.09	BDL	<0.07	BDL	<0.230	BDL	4.9	1.3	3.5	1.0	0.7	7.9
Pajarito @ culvert	10/08	NA		NA		NA		NA		NA		NA		3.39	0.74	0.7	1.14	NA	NA
White Rock Canyon																			
Chaquehui	09/30	1.56	0.38	0.14	0.06	NA		0.02	0.03	0.00	0.03	NA		2.60	0.59	2.37	1.00	NA	NA
Ancho	09/29	2.05	0.42	0.07	0.03	NA		0.01	0.02	0.01	0.02	NA		1.52	0.54	-0.53	1.01	NA	NA
Ancho @ Rio Grande	09/29	5.62	0.65	0.23	0.07	NA		0.01	0.01	0.00	0.01	NA		1.91	0.67	1.44	1.13	NA	NA
Frijoles @ Rio Grande	09/30	3.63	0.55	0.05	0.04	NA		-0.01	0.03	0.01	0.02	NA		1.28	0.46	2.28	0.95	NA	NA
Rio Grande @ Frijoles	09/30	2.74	0.39	0.09	0.06	NA		0.00	0.02	0.01	0.01	NA		3.32	0.77	3.62	1.22	NA	NA

Cochiti Lake Sediments

		TOC	PCB's	reporting limits	Hg	QL	Pu-238	uncertainty	Pu-239,240	uncertainty
								2 x sigma		2 x sigma
Upper Cochiti	10/29	2.5 %	ND	53 ug/kg	BQL	0.155 ug/g	0.00	0.02	0.01	0.02

NA = Not analyzed
*Mortandad Stations had additional gamma isotope measurements
San Ild = San Ildefonso lands
Reported on dry weight basis
BQL = Below Quantification Limit and QL = Quantification Limit
ND = non detect
BDL = Below Detection Level
TOC = Walkley Black Total Organic Carbon, reporting limit = 0.05%
PCB's = Polychlorinated Biphenols, Aroclors 1016, 1221, 1232, 1242, 1249, 1254 and 1260 reported below detection levels of 53 ug/kg
Reported uncertainties are the Estimated Total Propagated Uncertainties (2 x sigma)

TABLE 1. NMED DOE OVERSIGHT BUREAU SOIL ANALYSIS
1997 RADIOCHEMICAL AND METALS

		Radiochemical															Metals	
LOCATION	Date	Sr-90	uncertainty	Cs-137	uncertainty	Total U	uncertainty	Pu-238	uncertainty	Pu-239,240	uncertainty	Am-241	Gross Alpha	uncertainty	Gross Beta	uncertainty	Be	Pb
	Collected		2 x sigma		2 x sigma		2 x sigma		2 x sigma		2 x sigma			2 x sigma		2 x sigma		
		(pCi/g)		(pCi/g)		(ug/g)		(pCi/g)		(pCi/g)		(pCi/g)	(pCi/g)		(pCi/g)		(ug/g)	(ug/g)
PERIMETER																		
White Rock, East	03/24	<0.17	BDL	0.259	0.055	2.67	0.36	<0.06	BDL	<0.06	BDL	<0.254	7.0	1.4	6.3	1.1	1.3	23
San I, Sacred Area	04/03	<0.17	BDL	0.247	0.050	2.42	0.33	<0.07	BDL	<0.06	BDL	<0.149	3.29	0.77	3.04	0.69	0.6	12
Airport, West	03/24	<0.17	BDL	0.120	0.061	3.08	0.42	<0.07	BDL	<0.06	BDL	<0.248	4.06	0.89	3.97	0.74	0.8	23
Tsankawi	03/24	<0.18	BDL	0.111	0.061	4.97	0.67	0.04	0.04	<0.04	BDL	<0.280	3.67	0.77	2.95	0.65	1.0	20
Sportsman Club	03/24	0.25	0.11	0.359	0.075	3.53	0.48	<0.10	BDL	<0.07	BDL	<0.215	4.11	0.83	5.08	0.84	0.7	16
ON-SITE																		
S Site, TA-16	03/31	0.22	0.12	0.958	0.131	8.00	1.10	<0.07	BDL	0.07	0.06	<0.404	6.9	1.2	7.3	1.1	1.0	[illegible]
TA-15, R Site Rd	03/31	0.30	0.11	0.482	0.072	4.50	0.61	<0.09	BDL	<0.08	BDL	<0.167	5.7	1.1	6.7	1.0	0.9	16
TA-50	03/31	<0.18	BDL	<0.055	BDL	2.84	0.39	<0.08	BDL	<0.05	BDL	<0.189	5.8	1.1	3.53	0.73	0.9	15
TA-53, East	04/01	0.21	0.11	0.876	0.100	4.35	0.59	<0.08	BDL	0.10	0.06	<0.287	4.22	0.83	4.81	0.82	0.8	19
TA-21, DP Site	03/24	<0.17	BDL	0.155	0.051	2.52	0.34	<0.10	BDL	0.85	0.21	<0.172	6.2	1.2	4.13	0.77	0.9	41
TA-8, GT Site	03/24	0.81	0.18	1.050	0.111	2.75	0.38	<0.10	BDL	0.05	0.05	<0.307	5.5	1.0	5.96	0.94	0.5	19

Reported on dry weight basis
BDL = Below Detection Level
Reported uncertainties are the Estimated Total Propagated Uncertainties (2 x sigma)