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JAN 24 1994

U.S. Department of Energy
Oak Ridge Field Office
P.O. Box 2001
Oak Ridge, TN 37831-8723

Attention: David G. Adler, Site Manager
Former Sites Restoration Division

Subject: St. Louis Airport Site - Environmental Surveillance -
Report of 1992-1993 Results

Dear Mr. Adler:

Enclosed is a report summarizing the results of environmental surveillance conducted at SLAPS during 1992-1993. The report indicates that there were no significant changes in conditions from those reported previous years -- and no significant long term trends are apparent.

This material was prepared under my direction or supervision in accordance with a system designed to ensure that the information submitted was properly gathered and evaluated. To the best of my knowledge and belief it is true, accurate, and complete.

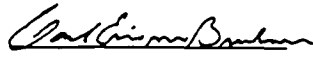

Sincerely,



Gerald L. Palau
Project Manager - FUSRAP

GLP:

Enclosure: As stated

Concurrence: C.E. von Buelow  J.G. Wood 

ACTION REQ'D	[] YES	[X] NO	DUE DATE _____
RESPONSE TO CHRON NO. _____			
<input type="checkbox"/> FAA	<input type="checkbox"/> Permit	<input type="checkbox"/> Milestone	<input type="checkbox"/> O&R
<input type="checkbox"/> CCN	<input type="checkbox"/> CAR	<input type="checkbox"/> Mid-Yr	<input type="checkbox"/> Yr-End
<input type="checkbox"/> Periodic Rpt			



Bechtel National, Inc.

Enclosure
Environmental Surveillance Report for the
St. Louis Airport Site
Covering Calendar Year 1992 through July 1993

Environmental surveillance of the U.S. Department of Energy's (DOE) St. Louis Airport Site (SLAPS) and surrounding area began in 1984 and was suspended in July, 1993. SLAPS is a part of the Formerly Utilized Sites Remedial Action Program (FUSRAP). The environmental surveillance activities at SLAPS during 1992 through July, 1993 included the measurement of airborne radon concentrations and external gamma radiation exposure rates; and the analysis of surface water, sediment, and groundwater samples for radium-226, thorium-230, and total uranium concentrations. Groundwater samples were also analyzed for specific conductance and pH.

Environmental surveillance results have been compared with applicable Environmental Protection Agency (EPA) standards; federal, state, and local applicable or relevant and appropriate requirements (ARARs); and/or DOE derived concentration guidelines (DCGs). Environmental standards, ARARs, and DCGs are established to protect public health and the environment.

ENVIRONMENTAL SURVEILLANCE RESULTS

During 1992-1993, average airborne radon concentrations (Table 1) ranged from 0.40 to 0.77 pCi/L (0.015 to 0.028 Bq/L), well below the DOE guidelines of 3.0 pCi/L at the boundary. The average external gamma radiation exposure rate (Table 2) at SLAPS was 526 mR/yr above background at the property line; the high average was due primarily to the high exposure rates at locations 2, 10, and 11 (average rate of 1801 mR/yr above background). If the rates for locations 2, 10 and 11 were dropped from the calculation for the average rate along the property line, the average rate would be 48 mR/yr above background. Detector locations for airborne radon and external gamma radiation are shown in Figure 1. All of the airborne radon and external gamma radiation detectors were removed with the demobilization of the site in July, 1993.

Concentrations of radium-226, thorium-230, and total uranium, in surface water (Table 3) ranged from 0.34 to 2.59 pCi/L (0.013 to 0.096 Bq/L), 0.30 to 1.09 pCi/L (0.011 to 0.040 Bq/L), and 1.84 to 5.97 pCi/L (0.055 to 0.221 Bq/L), respectively. These concentrations are well below the DOE DCGs of 100, 300, and 600 pCi/L for radium-226, thorium-230, and total uranium, respectively. Additional surface water samples taken at the Chain-of-Rocks Water Treatment Plant in the third quarter of 1992 are shown in Table 4. Sampling locations for surface water and sediment are shown in Figures 1 and 2.

Concentrations of radium-226, thorium-230, and total uranium in sediment (Table 5) ranged from 0.64 to 1.09 pCi/g (0.024 to 0.040 Bq/g), 0.23 to 1.79 pCi/g (0.009 to 0.066 Bq/g), and 3.06 to 5.56 pCi/g (0.113 to 0.206 Bq/g), respectively.

Concentrations of radium-226, thorium-230, and total uranium, in groundwater (Table 6) ranged from 0.85 to 2.56 pCi/L (0.031 to 0.095 Bq/L), 0.32 to 1.41 pCi/L (0.012 to 0.052 Bq/L), and 0.06 to 5620 pCi/L (0.002 to 208 Bq/L), respectively. The concentrations of uranium in

groundwater were below the DOE DCG of 600 pCi/L in all wells except M11-9 (see Figure 3 for well locations). This well is installed either through or adjacent to buried radioactive materials. However, because SLAPS is fenced, the public does not have access to these capped and locked wells; in addition, there is no known consumption of groundwater in the vicinity of the site.

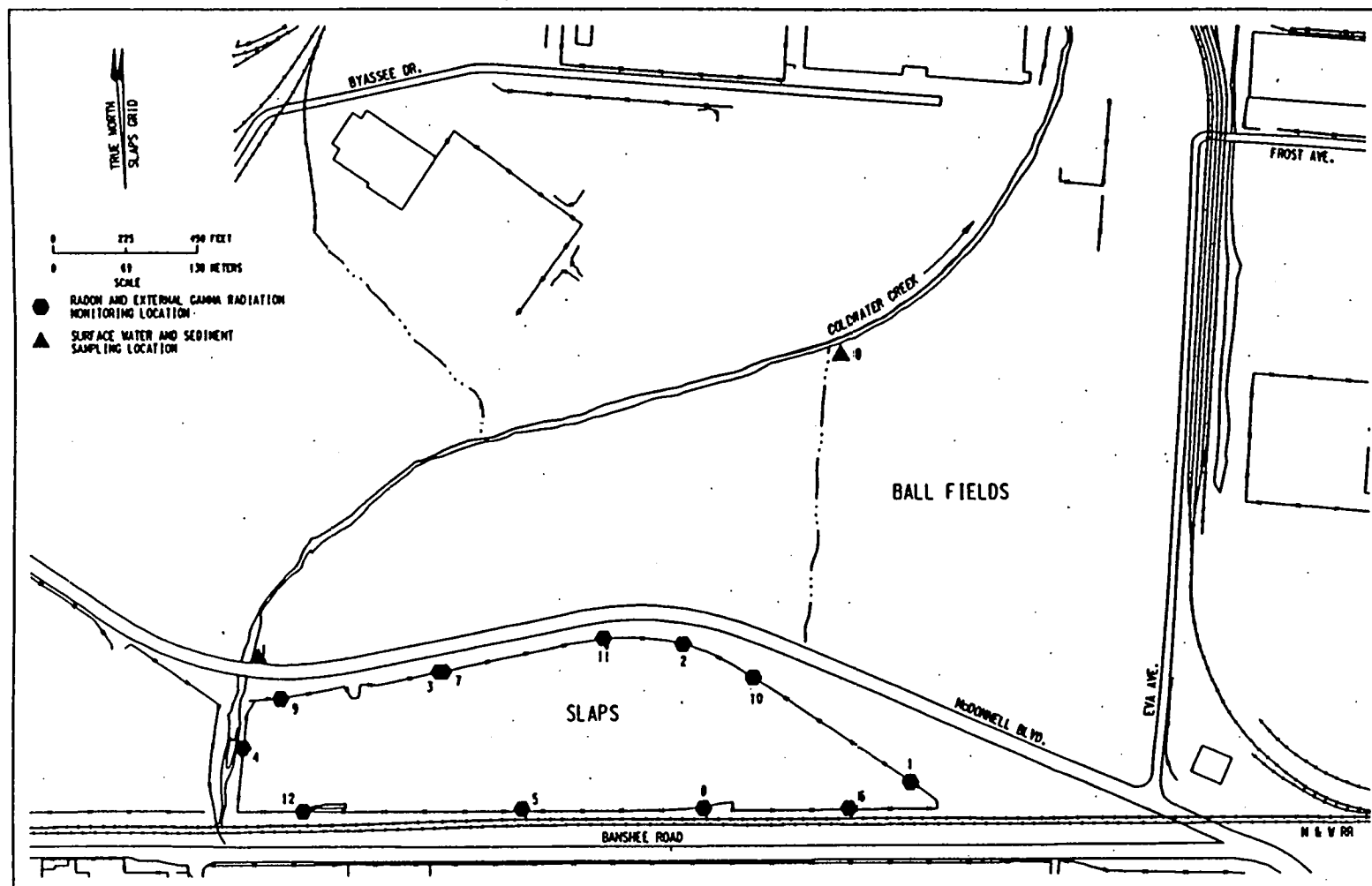
Groundwater samples were also analyzed for specific conductance and pH (Table 7). Specific conductance ranged from 280 to 3310 $\mu\text{mhos/cm}$, and pH ranged from 6.31 to 7.49. Analytical results for these indicator parameters show that groundwater at SLAPS is generally of poor quality, as is typical of industrial/urban areas.

To verify that the site is in compliance with the DOE radiation protection standard and to assess the potential effect of the site on public health, the potential radiation dose was calculated for a hypothetical maximally exposed individual and the population within an 80 km (50 mi) radius of the site (Table 8). Based on a conservative scenario, this hypothetical individual would receive an annual exposure, excluding background, of approximately 6.13 mrem/yr (0.0613 mSv/yr). The population within an 80-km (50-mi) radius of SLAPS would receive a collective dose of 0.54 person-rem/yr (0.0054 person-Sv/yr) from materials present onsite. This collective population dose is extremely small compared with the collective population dose due to natural background gamma radiation of 1.6×10^5 person-rem/yr (1.6×10^3 person-Sv/yr) for the population within 80 km (50 mi) of SLAPS.

DOE activities at SLAPS came to an end in July, 1993 with the demobilization of DOE onsite surveillance. SLAPS was in compliance with all applicable regulations during 1992-1993 and has remained in compliance since 1984.

CONCLUSIONS

Environmental sampling data for 1992-1993 was compared to that of the previous 5 years. An expected range was calculated by subtracting and adding 2 standard deviations to the average calculated for the data set of the previous 5 years. Airborne radon concentrations and external gamma radiation exposure rates at SLAPS displayed no significant trends when compared to the environmental surveillance results of the previous 5 years. Twelve of the 42 average radionuclide concentrations in sediment and surface water fell above the expected range; however, there are no apparent trends of increasing or decreasing contaminant levels. It is believed that these data anomalies are caused by the migration of known contamination in Coldwater Creek. Eight of the 29 radionuclide concentrations in groundwater fell above the expected range. Of these eight values, three deviated by less than 1 pCi/L from the expected range, four deviated by more than 1 pCi/L, and only one deviated by more than 10 pCi/L. A program of well cleaning and repair planned for 1992 was cancelled in anticipation of the demobilization of SLAPS in 1993. The further investigations into possible trends at these wells forecast in last year's report were therefore not possible.



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FIGURE 1
ONSITE RADON, EXTERNAL GAMMA RADIATION, SURFACE WATER,
AND SEDIMENT SAMPLING LOCATIONS AT SLAPS

Table 1
Airborne Radon Concentrations^a
at SLAPS in 1992-1993

Detector Location ^b	Quarter						Average
	4-91	1-92	2-92	3-92	4-92	1-93 ^c	
Property Line							
1	< .3	.8	.5	.6	< .3	< .2	0.45
2	.4	.8	1.3	1.0	.6	.5	0.77
3	< .3	< .5	< .3	.8	< .3	< .2	0.40
4	< .3	.5	.6	.5	.3	< .2	0.40
5	.5	.5	1.3	1.5	.6	.2	0.77
6	< .3	.6	.7	.8	< .3	< .2	0.48
8	.4	< .5	1.1	.7	.4	.4	0.58
9	< .3	.6	.6	.8	< .3	< .2	0.47
10	. ^d	.7	.7	1.0	.4	.3	0.52
11	. ^d	.6	1.2	1.0	.6	.4	0.63
12	. ^d	.8	.8	1.0	< .3	< .2	0.52
Quality Control							
7 ^e	< .3	< .5	.5	.8	.4	< .2	0.45
Background							
16 ^f	< .3	.7	< .3	< .3	< .3	< .3	0.37
17 ^g	< .3	< .5	. ^j	< .3	< .3	< .2	0.32
18 ^h	< .3	1.0	.4	.7	.3	. ^k	0.54
19 ⁱ	.4	< .4	< .3	< .3	< .3	.4	0.30
Guideline is 3 pCi/L.							

^a Concentrations are given in units of pCi/L (1 pCi/L = 0.037 Bq/L). Background has not been subtracted from the reported concentrations.

^b Onsite detector locations are shown in Figure 1.

^c Radon canisters set out for the first quarter of 1993 were not removed until the end of the second quarter.

^d These locations were installed in the fourth quarter of 1991.

^e Location 7 is a quality control for location 3.

Table 1
(continued)

Located at a residential property at 4517 Oakland Drive, St. Louis, Missouri, approximately 26 km (16 mi) southeast of SLAPS.

Located at the Federal Aeronautics Administration (FAA) building on McDonnell Boulevard, St. Louis, Missouri, approximately 0.8 km (0.5 mi) east of SLAPS.

Located at the St. Charles County Airport in St. Charles County, Missouri, approximately 32 km (20 mi) northwest of SLAPS.

Located at the Berkeley City Hall on North Hanley Road, Berkeley, Missouri, approximately 2.4 km (1.5 mi) southeast of SLAPS.

No data is available for the second quarter of 1992 at location 17 due to a manufacturing defect in the detector.

No data is available for 1993 at Location 18 due to flooding.

Table 2
External Gamma Radiation Exposure Rates^a
at SLAPS in 1992-1993

Detector Location ^b	Semester			Average
	1-92	2-92	1-93	
Property Line				
1	26	26	17	23
2	2422	2155	2115	2231
3	98	91	87	92
4	24	14	12	17
5	13	16	17	15
6	27	22	25	25
8	23	16	17	19
9	111	73	135	106
10	1163	1074	1109	1115
11	2147	1910	2110	2056
12	88	95	72	85
Quality Control				
7 ^c	91	76	80	82
Background				
16 ^d	95	73	74	81
17 ^e	98	66	71	78
18 ^f	81	59	^h	70
19 ^g	131	104	109	115

Guideline is 100 mR/yr.

^a Rates are given in units of mR/yr. Background has been subtracted from the rates reported for the property line and quality control locations.

^b Onsite detector locations are shown in Figure 1.

^c Location 7 is a quality control for location 3.

^d Located at a residential property at 4517 Oakland Drive, St. Louis, Missouri, approximately 26 km (16 mi) southeast of SLAPS.

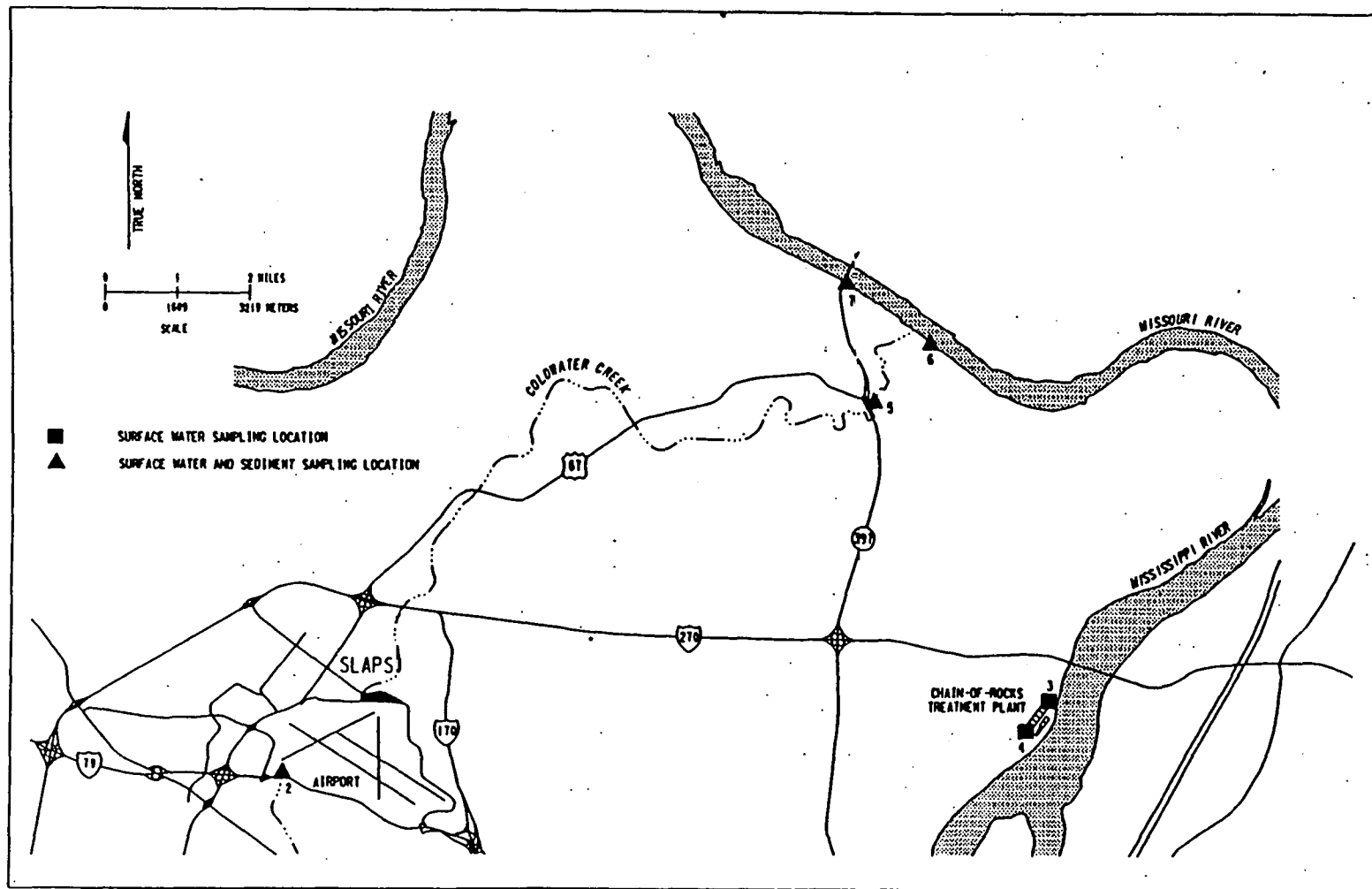
Table 2
(continued)

Located at the Federal Aeronautics Administration (FAA) building on McDonnell Boulevard, St. Louis, Missouri, approximately 0.8 km (0.5 mi) east of SLAPS.

Located at the St. Charles County Airport in St. Charles County, Missouri, approximately 32 km (20 mi) northwest of SLAPS.

Located at the Berkeley City Hall on North Hanley Road, Berkeley, Missouri, approximately 2.4 km (1.5 mi) southeast of SLAPS.

No data is available for 1993 at Location 18 due to flooding.



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FIGURE 2
OFFSITE SURFACE WATER AND SEDIMENT SAMPLING LOCATIONS IN THE SLAPS AREA

Table 3
Radium-226, Thorium-230, and Total Uranium Concentrations^a
in Surface Water in the Vicinity
of SLAPS in 1992

Sampling Location ^b	Radium-226			Thorium-230			Total Uranium ^c		
	Semester		Average	Semester		Average	Semester		Average
	1	2		1	2		1	2	
Downstream									
1	0.49	0.51	0.50	< 0.21	0.71	0.46	5.92	3.11	4.52
3	3.56	0.23	1.90	1.12	0.15	0.64	2.71	3.11	2.91
4	< 0.29	0.39	0.34	0.18	0.57	0.38	1.50	2.17	1.84
5	3.24	0.71	1.98	0.20	0.40	0.30	1.33	3.45	2.39
6	4.85	0.32	2.59	1.63	0.54	1.09	5.59	3.32	4.46
7	2.32	0.11	1.22	0.93	0.17	0.55	3.26	0.95	2.11
8	0.56	0.94	0.75	< 0.27	0.49	0.38	9.02	2.91	5.97
Background									
2 ^d	0.33	0.08	0.21	< 0.19	0.15	0.17	1.02	0.88	0.95

Guidelines for radium-226, thorium-230, and total uranium are 100 pCi/L, 300 pCi/L, and 600 pCi/L respectively.

^a Concentrations are given in units of E-9 $\mu\text{Ci/ml}$ ($1\text{E-}9 \mu\text{Ci/ml} = 1 \text{ pCi/L} = 0.037 \text{ Bq/L}$). Background has not been subtracted from the reported concentrations.

^b Sampling locations are shown in Figures 1 and 2.

^c Total uranium concentrations were determined using the kinetic phosphorescence analysis method.

^d Located at the bridge over Coldwater Creek on Lambert International Drive, St. Louis, Missouri, approximately 4 km (2 mi) southwest of SLAPS.

Table 4
Radium-226, Thorium-230, and Total Uranium Concentrations^a
in Surface Water at the Chain-of-Rocks Water Treatment Plant
in the Third Quarter of 1992

Sampling Location ^b	Radium-226	Thorium-230	Total Uranium ^c
Downstream			
3	0.29	0.79	2.74
4	0.95	0.13	1.09

Guidelines for radium-226, thorium-230, and total uranium are 100 pCi/L, 300 pCi/L, and 600 pCi/L respectively.

^a Concentrations are given in units of E-9 $\mu\text{Ci/ml}$ ($1\text{E-}9 \mu\text{Ci/ml} = 1 \text{ pCi/L} = 0.037 \text{ Bq/L}$). Background has not been subtracted from the reported concentrations.

^b Sampling locations are shown in Figure 2.

^c Total uranium concentrations were determined using the kinetic phosphorescence analysis method.

Table 5
Radium-226, Thorium-230, and Total Uranium Concentrations^a
in Sediment in the Vicinity
of SLAPS in 1992

Sampling Location ^b	Radium-226			Thorium-230			Total Uranium ^c		
	Semester		Average	Semester		Average	Semester		Average
	1	2		1	2		1	2	
Downstream									
1	0.65	0.62	0.64	< 0.19	0.70	0.45	5.59	1.96	3.78
5	1.00	1.00	1.00	0.86	0.78	0.82	5.76	2.17	3.97
6	< 0.69	0.83	0.76	< 0.19	0.27	0.23	3.89	2.23	3.06
7	0.92	0.79	0.86	1.00	0.78	0.89	5.50	2.37	3.94
8	< 0.97	1.20	1.09	1.48	2.10	1.79	7.13	3.99	5.56
Background									
2 ^d	0.72	1.70	1.21	1.42	0.61	1.02	5.88	1.69	3.79

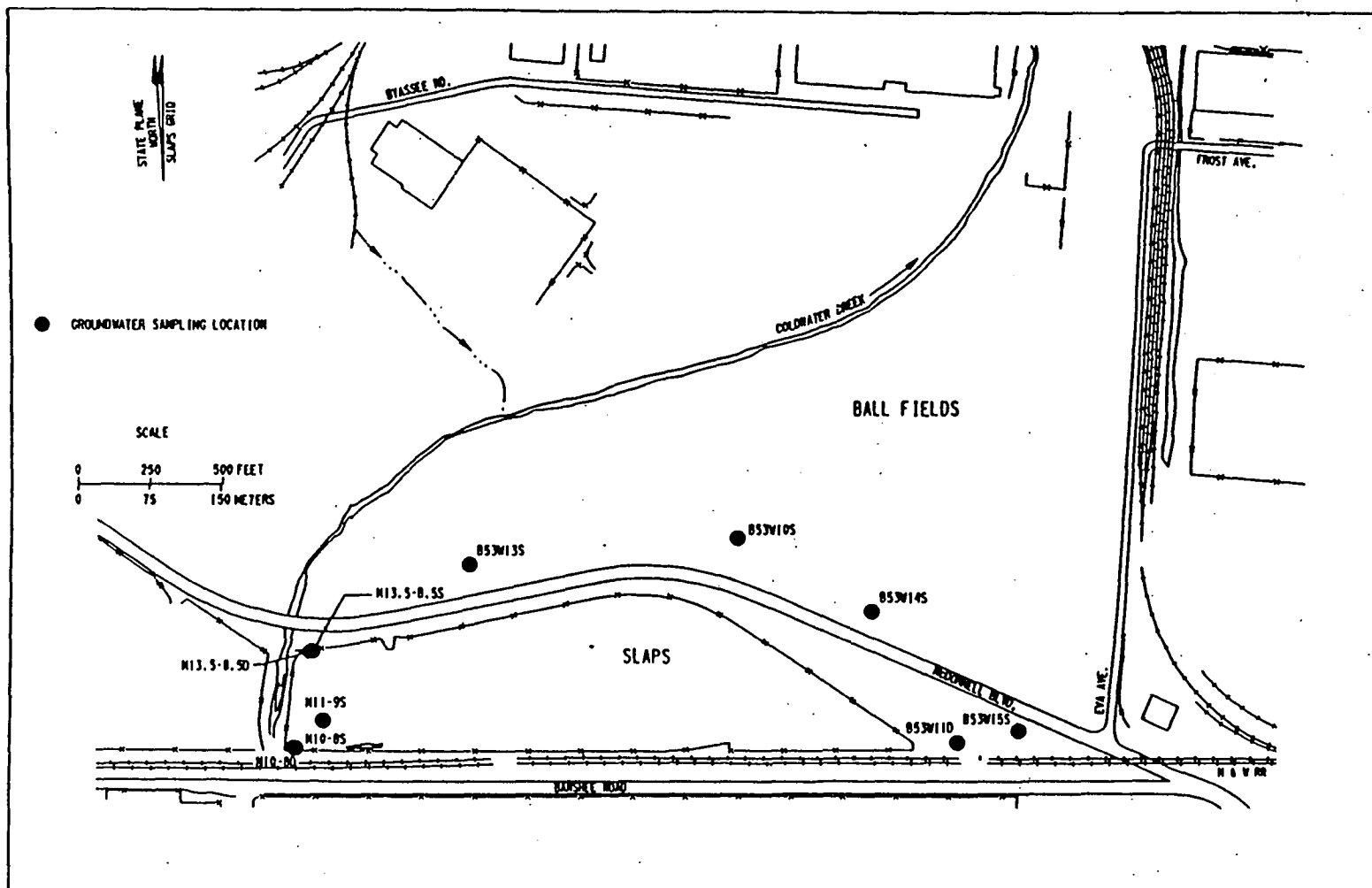
Guidelines for radium-226, thorium-230, and total uranium are 100 pCi/L, 300 pCi/L, and 600 pCi/L respectively.

^a Concentrations are given in units of E-9 $\mu\text{Ci/ml}$ ($1\text{E-9 } \mu\text{Ci/ml} = 1 \text{ pCi/L} = 0.037 \text{ Bq/L}$). Background has not been subtracted from the reported concentrations.

^b Sampling locations are shown in Figures 1 and 2.

^c Total uranium concentrations were determined using the kinetic phosphorescence analysis method.

^d Located at the bridge over Coldwater Creek on Lambert International Drive, St. Louis, Missouri, approximately 4 km (2 mi) southwest of SLAPS.



134F 200.DGN

FIGURE 3
SLAPS GROUNDWATER MONITORING LOCATIONS

Table 6
Radium-226, Thorium-230, and Total Uranium Concentrations^a
in Groundwater in the Vicinity
of SLAPS in 1992

Sample Location ^b	Radium-226	Thorium-230	Total Uranium ^c
Downgradient			
M10-8S	0.85	0.91	6.05
M10-8D	0.88	0.32	0.06
M11-9	. ^d	1.41	5620.45
M13.5-8.5S	2.56	0.84	10.19
M13.5-8.5D	1.76	0.39	0.62
B53W10S	1.26	0.88	2.82
B53W13S	1.66	< 0.37	9.02
B53W14S	1.76	0.34	0.42
Upgradient			
B53W11D ^e	33.80	8.90	18.59
B53W15S ^f	2.29	0.60	6.15

Guidelines for radium-226, thorium-230, and total uranium are 100 pCi/L, 100 pCi/L, and 600 pCi/L respectively.

^a Concentrations are given in units of E-9 $\mu\text{Ci}/\text{ml}$ ($1\text{E-}9 \mu\text{Ci}/\text{ml} = 1 \text{ pCi/L} = 0.037 \text{ Bq/L}$). Background has not been subtracted from reported concentrations.

^b Sampling locations are shown in Figures 1 and 2.

^c Total uranium concentrations were determined using the kinetic phosphorescence analysis method.

^d No data available due to analysis error with insufficient sample for repeating the analysis.

^e Located between McDonnell Boulevard and Banshee Road, St. Louis, Missouri, approximately 30 m (100 ft) east of SLAPS.

^f Located between McDonnell Boulevard and Banshee Road, St. Louis, Missouri, approximately 61 m (200 ft) east of SLAPS.

Table 7
Specific Conductance and pH^a
of Groundwater in the Vicinity
of SLAPS in 1992

Sampling Location ^b	Specific Conductance	pH
Downgradient		
M10-8S	280	6.90
M10-8D	320	7.49
M11-9	290	6.51
M13.5-8.5S	290	6.80
M13.5-8.5D	310	7.37
B53W10S	1015	6.88
B53W13S	3310	6.31
B53W14S	553	6.82
Upgradient		
B53W11D ^c	843	7.35
B53W15S ^d	917	7.06

^a Specific conductance is given in units of $\mu\text{mhos/cm}$ and pH is a standard unit.

^b Sampling locations are shown in Figure 3.

^c Located between McDonnell Boulevard and Banshee Road, St. Louis, Missouri, approximately 30 m (100 ft) east of SLAPS.

^d Located between McDonnell Boulevard and Banshee Road, St. Louis, Missouri, approximately 61 m (200 ft) east of SLAPS.

Table 8
Summary of Calculated Doses^a at SLAPS in 1992

Type	Dose to Hypothetical Maximally Exposed Individual (mrem/yr) ^b	Collective Dose for Population within 80 km of SLAPS (person-rem/yr) ^b
Direct gamma radiation ^c	6.00	. ^d
Drinking water	. ^d	. ^d
Ingestion	. ^d	. ^d
Air immersion	. ^d	. ^d
Inhalation ^e	<u>0.13</u>	<u>0.54</u>
Total	6.13	0.54
Background	69.00	172,500,000.00 ^g
DOE guideline	100.00	N/A ^h
Percent of guideline excluding background	6%	N/A ^h

^a Does not include radon.

^b 1 mrem/yr = 0.01 mSv/yr; 1 person-rem/yr = 0.01 person-Sv/yr.

Does not include contribution from background.

^d Negligible contribution.

^e Calculated using CAP88-PC computer model (Version 3.0).

^f Direct gamma exposure only.

^g Calculated by the following: 69 mrem/yr x (2.5 x 10⁶ people).

^h N/A - Not Applicable.

FIELD EXCHANGE LOG

Type: TETLD Radon Radon/Thoron

Site: SLAPS

Date Installed: 01/28/93

WBS: 153

Date Removed: 7/21/93

Detector Location	Detector Number	Comments
SLAPS - 17	0245M1824	Byrd - Lambert Airport
	0245M1825	✓
	0245M0824	✓
	0245M0825	✓
SLAPS - 9	0245M0816	✓
	0245M0817	✓
	0245M1816	✓
	0245M1817	✓
SLAPS - 4	0245M0806	✓
	0245M0807	✓
	0245M1806	✓
	0245M1807	✓
SLAPS - 12	0245M0822	✓
	0245M0823	✓
	0245M1822	✓
	0245M1823	✓
SLAPS - 3	0245M0805	✓
	0245M0804	✓
	0245M1804	✓
	0245M1805	✓

	Signature/Date Installed	Signature/Date Removed
Sampler 1	<i>Angela K. John</i> 1/18/93	<i>Angela K. John</i> 7/21/93
Sampler 2	<i>John M. Kenny</i> 1/18/93	<i>John M. Kenny</i> 7/21/93

FIELD EXCHANGE LOG

Type:

TETLD

Radon

Radon/Thoron

Site:

SLAPS

Date Installed:

1/18/93

WBS:

153

Date Removed:

7/21/93

Detector Location	Detector Number	Comments
SLAPS-7	0245M0812	✓ QC 8.3
	0245M0813	— QC 8.3
	0245M1812	— QC 8.3
	0245M1813	✓ QC 8.3
SLAPS-11	0245M0820	—
	0245M0821	✓
	0245M1820	✓
	0245M1821	✓
SLAPS-2	0245M1802	✓
	0245M1803	✓
	0245M0802	✓
	0245M0803	✓
SLAPS-10	0245M1818	✓
	0245M1819	✓
	0245M0818	✓
	0245M0819	✓
SLAPS-1	0245M0800	✓
	0245M0801	✓
	0245M1800	✓
	0245M1801	✓

Sampler 1

Sampler 2

Signature/Date Installed

Signature/Date Removed

Angela K. [Signature] 1/18/93

John M. Kenny 1/18/93

Angela K. [Signature] 7/21/93

John M. Kenny 7/21/93

FIELD EXCHANGE LOG

Type: TETLD Radon Radon/Thoron

Site: SNAPS

Date Installed: 1/18/93

WBS: 152

Date Removed: 7/21/93

SNAPS - @ Confederate Airport inaccessible due to flood

Detector Location	Detector Number	Comments
SNAPS-6	0245M0811	✓
	0245M0810	✓
	0245M1810	✓
	0245M1811	✓
SNAPS-8	0245M0814	✓
	0245M0815	✓
	0245M1814	✓
	0245M1815	✓
SNAPS-5	0245M0808	✓
	0245M0809	✓
	0245M1808	✓
	0245M1809	✓
SHIPS	0245M9800	✓
SHIPS	0245M9801	✓
<i>[Signature]</i>		

	Signature/Date Installed	Signature/Date Removed
Sampler 1	<i>[Signature]</i> 1/18/93	<i>[Signature]</i> 7/21/93
Sampler 2	<i>[Signature]</i> 1/18/93	<i>[Signature]</i> 7/21/93

FIELD EXCHANGE LOG

Type:

TETLD

Radon

Radon/Thoron

Site

SLAPS

Date Installed:

01/18/93

WBS:

153

Date Removed:

7/21/93

SLAPS @ Conference Air port is inaccessible due to flood water

Detector Location	Detector Number	Comments
SLAPS-17	3753897	Background - Lambert Air
SLAPS-9	3753875	
SLAPS-4	3753853	
SLAPS-12	3753893	
SLAPS-3	3753845	
SLAPS-7	3753865	QC for 3
SLAPS-11	3753888	
SLAPS-2	3753841	
SLAPS-10	3753877	Label ripped
SLAPS-1	3753834	
SLAPS-6	3753864	
SLAPS-8	3753867	
SLAPS-5	3753855	

Signature/Date Installed

Signature/Date Removed

Sampler 1

Cynthia K. John 1/18/93

Cynthia K. John 7/21/93

Sampler 2

John M. Henry 1/18/93

John M. Henry 7/21/93

TETLD SHIPPING/RECEIVING FORM AND CHAIN OF CUSTODY

SITE SLAPS WBS 153

NEW DETECTORS (NO. SHIPPED)	EXPOSED DETECTORS (NO. SHIPPED)	RELINQUISHED BY	RECEIVED BY	DATE	TIME	PACKAGING CONDITION	COC SEALS IN PLACE & UNBROKEN
	54	Angela K. John	WRS	7/23/93	1:00pm	Good	Yes

Landauer, Inc.
FUSRAP Radon/Thoron Report

Detector No.	Location	Station No.	Type (M/F)	Start Date	End Date	Days Exposed	DL Flag	Total Exposure (pCi/L-days)	Average Conc. (pCi/L)	Std. Dev. (%)	Gross Tracks	Bkg Tracks	Net Tracks	Area Counted (sq mm)	Net Tracks per sq mm per day	BNI Flag	Landauer Process Number	DATAFUSR Number
003753834	SLAP	01	F	01/18/93	07/21/93	184	*	30.0	0.20	18.3	30	0.89	29.11	18.60	0.09	U	A16355	15466
003753841	SLAP	02	F	01/18/93	07/21/93	184		94.6	0.50	12.0	69	0.89	68.11	18.60	0.20		A16355	15466
003753845	SLAP	03	F	01/18/93	07/21/93	184	*	30.0	0.20	18.6	29	0.89	28.11	18.60	0.09	U	A16355	15466
003753853	SLAP	04	F	01/18/93	07/21/93	184	*	30.0	0.20	18.6	29	0.89	28.11	18.60	0.09	U	A16355	15466
003753855	SLAP	05	F	01/18/93	07/21/93	184		45.8	0.20	15.4	42	0.89	41.11	18.60	0.12		A16355	15466
003753864	SLAP	06	F	01/18/93	07/21/93	184	*	30.0	0.20	18.6	29	0.89	28.11	18.60	0.09	U	A16355	15466
003753865	SLAP	07	F	01/18/93	07/21/93	184	*	30.0	0.20	19.2	27	0.89	26.11	18.60	0.08	U	A16355	15466
003753867	SLAP	08	F	01/18/93	07/21/93	184		74.7	0.40	13.1	58	0.89	57.11	18.60	0.17		A16355	15466
003753875	SLAP	09	F	01/18/93	07/21/93	184	*	30.0	0.20	18.9	28	0.89	27.11	18.60	0.08	U	A16355	15466
003753877	SLAP	10	F	01/18/93	07/21/93	184		56.7	0.30	14.4	48	0.89	47.11	18.60	0.14		A16355	15466
003753888	SLAP	11	F	01/18/93	07/21/93	184		76.5	0.40	13.0	59	0.89	58.11	18.60	0.17		A16355	15466
003753893	SLAP	12	F	01/18/93	07/21/93	184	*	30.0	0.20	19.2	27	0.89	26.11	18.60	0.08	U	A16355	15466
003753897	SLAP	17	F	01/18/93	07/21/93	184	*	30.0	0.20	20.4	24	0.89	23.11	18.60	0.07	U	A16355	15466

Page 1

Reported by: _____ 02/16/94

Cataloging Form

{Technical/Project Managers fill in C through G, K through Q. RM completes other fields}

A. Document ID Number: Assigned by database 00-391 B. Further Information Required?: ☐

C. Operable Unit (Choose One):

USACE ☐
St. Louis Sites ☐
Downtown ☐
North County ☒
Madison Sites ☐
Inaccessible Areas ☐
PRP ☐
Oversight Committee ☐

D. Site (Optional):

SLDS VPs ☐
Mallinckrodt ☐
SLAPS ☒
SLAPS VPs ☐
CWC ☐
HISS ☐
Madison ☐

E. Area (Optional): _____

F. Primary Document Type (Choose One):

Site Management Records <input type="checkbox"/>	Remedial Action <input type="checkbox"/>
Removal Response <input type="checkbox"/>	Public Affairs/Community Relations <input type="checkbox"/>
Remedial Investigation <input checked="" type="checkbox"/>	Congressional Relations <input type="checkbox"/>
Feasibility Study <input type="checkbox"/>	Freedom of Information Act <input type="checkbox"/>
Record of Decision <input type="checkbox"/>	Real Estate <input type="checkbox"/>
Remedial Design <input type="checkbox"/>	Project Management <input type="checkbox"/>

G. Secondary Document Type (see back of form): Sampling / Analysis Data & Plans

H. Bechtel Number: _____ I. SAIC Number: _____

J. MARKS Number(Choose One): FN: 1110-1-8100e ☐ FN: 1110-1-8100f ☐ FN: 1110-1-8100g ☐

K. Subject/Title: Environmental Surveillance Report of 1992-1993 Results

L. Author: _____ M. Author's Company: Bechtel

N. Recipient(s): _____ O. Recipient(s) Company: Fusrap

P. Version (Choose One): Draft ☐ Final ☒ Q. Date: 1-24-94

R. Include in the ARF? ☒ S. Include in the AR? ☒ T. Filed as Confidential/Privileged? ☐

U. Document Format (Choose one):

Paper <input checked="" type="checkbox"/>	Photographic <input type="checkbox"/>	Cartographic/Oversize <input type="checkbox"/>
Electronic <input type="checkbox"/>	Audio-visual <input type="checkbox"/>	Microform <input type="checkbox"/>

V. Filed in AR Volume Number: _____

W. Physical Location (Choose One):

Central Files <input checked="" type="checkbox"/>	Microfilm Vendor <input type="checkbox"/>	In ARF <input type="checkbox"/>
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COMM REF

ADMIN RCD

SUBJECT SLAPS - Report of 1992/1993 ENVIRONMENTAL SURVEILLANCE RESULTS
FROM PALACI TO Adler, D COMM DATE 01/24/94

ADDR CODE 1 1 CLOSING CCN 153 WBS

SUBJECT CODE 7430 AFFECTED DOCUMENT

RESPONSE TRACKING INFORMATION

ACTION DESCRIPTION:

PRIMARY:

OWED TO: OWED BY: (ORG)

(ORG) TARGET DATE 1/1 CLOSING CCN COMPL DATE 1/1 CLOSING REF

SECONDARY:

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MESSAGE:

WIA W/O

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FSRD NOTEBOOKS								SAFETY & HEALTH		BEH		
READING FILE								ENVR COMPLIANCE		BEH		
DOE/P&CD:	French/Sistrunk	DCO						WASTE MGMT		BEH		
DOE/HQ:	J. Wagener	DHQ						PROCUREMENT		BPO		
								PROJECT ADMINISTRATION		BPA		
								TECHNICAL REPORTS		BTR		
								PROJECT AUTOMATION		BAU		
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ORNL:		ORNL						PDCC: SENSITIVE/CHRON FILE			<u>1</u>	