129822

Department of Energy

Oak Ridge Operations
P.O. Box 2001
Oak Ridge, Tennessee 37831— 8723

May 12, 1995

Mr. Robert M. Geller
Federal Facilities Section Chief
Department of Natural Resources
Division of Environmental Quality
P.O. Box 176
Jefferson City, MO 65102-0176

Dear Mr. Geller:

ST. LOUIS AIRPORT SITE VICINITY PROPERTIES - TRANSMITTAL OF POST-REMEDIAL ACTION RESULTS

This letter transmits a summary of the post-remedial action sampling and survey results confirming completion of remediation of properties 19, 20, 41, 43, 44, and 45. These results are not only well below the DOE guidelines, they are also barely distinguishable from the background concentrations and exposure rates.

Included in this letter are figures showing the approximate sample and direct reading survey locations, tables reporting the radiation instrument survey results, and the analytical results from the samples collected. Based on these results, all six properties have been released for use without radiological restrictions.

The final Post Remedial Action Report is anticipated to be completed by the end of 1995. It is also anticipated that the Oak Ridge Institute of Science and Education, the independent verification contractor will also publish their own report in late 1995. As always, if you have any questions or concerns, please call me at (615) 576-9634.

Sincerely,

David G. Adler, Site Manager
Former Sites Restoration Division

Enclosures

cc: Dan Wall, EPA

TABLE 1

SLAPS VP'S POST-RA SOIL SAMPLE RESULTS

		U-234 (pCi/g)		U-235 (pCi/g)		U-238 (pCi/g)		Ra-226 (pC/g)		Th-230 (pCi/g)		Th-232 (pCi/g)	
GRID #	Sample ID	result	error	result	error	result	error	result	error	result	error	result	error
1	134-41-003	0.90	0.29	0.04	0.05	0.94	0.31	1.30	0.46	1.30	0.55	1.20	0.53
2	134-41-004	1.50	0.51	0.08	0.08	1.30	0.44	1.46	0.51	2.26	0.90	1.39	0.65
3	134-41-005	1.50	0.58	*<0.14	0.12	1.50	0.57	1.79	0.61	3.65	1.31	1.04	0.56
5	134-41-011	1.20	0.37	0.06	0.06	1.70	0.49	1.40	0.51	1.90	0.62	0.97	0.40
6	134-41-012	1.30	0.38	0.04	0.05	1.30	0.38	1.60	0.50	1.90	0.79	1.50	0.67
7	134-41-013	1.40	0.41	<0.07	0.05	1.60	0.45	1.30	0.57	3.70	1.20	1.30	0.56
8	134-41-014	1.10	0.37	<0.07	0.06	1.70	0.51	1.30	0.44	2.70	0.85	0.85	0.39
4	134-43-010	2.10	0.58	0.12	0.09	8.80	2.00	1.80	0.55	2.60	0.90	1.30	0.56
9	134-43-015	1.40	0.44	*<0.07	0.06	1.10	0.36	1.80	0.63	2.20	0.71	0.96	0.42
10	134-19-020	1.00	0.34	*<0.04	0.05	0.91	0.32	1.10	0.43	2.30	0.77	0.91	0.42
11	134-19-021	1.10	0.37	<0.07	0.03	1.10	0.35	0.72	0.33	3.30	1.00	0.68	0.36
12	134-19-031	0.82	0.33	<0.09	0.06	0.92	0.36	0.75	0.32	1.60	0.59	0.61	0.33
13	134-19-032	1.40	0.43	<0.09	0.08	1.20	0.38	1.60	0.58	1.60	0.61	1.20	0.51
14	134-19-039	0.77	0.30	<0.09	0.04	0.95	0.36	1.20	0.40	2.60	0.78	0.82	0.37
15	134-19-043	0.65	0.27	<0.08	0.06	0.77	0.31	1.50	0.50	3.30	0.92	1.00	0.41
16	134-19-042	0.92	0.38	<0.12	0.05	1.10	0.44	0.90	0.40	2.90	0.80	1.10	0.41
17	134-20-040	1.00	0.38	0.08	0.08	1.40	0.49	1.10	0.40	2.50	0.76	1.00	0.42
18	134-20-044	0.75	0.29	0.10	0.09	0.96	0.35	0.80	0.30	3.20	0.95	1.10	0.45
19	134-20-045	1.00	0.39	0.10	0.10	0.89	0.35	0.60	0.30	4.10	1.10	1.50	0.53
20	134-19-046	1.10	0.35	<0.04	0.04	0.85	0.29	0.80	0.30	3.90	1.00	0.81	0.34
21	134-44-047	0.97	0.36	*<0.13	0.06	0.89	0.34	1.60	0.60	3.70	1.00	0.99	0.42
22	134-44-051	1.60	0.53	<0.09	0.07	1.50	0.50	1.60	0.65	3.40	1.00	1.10	0.46
23	134-44-052	1.10	0.83	<0.22	0.17	2.30	1.40	0.79	0.42	6.60	1.90	1.30	0.58
23	134-44-23A-01	0.73	0.28	0.10	0.09	0.96	0.34	1.30	0.46	2.90	0.85	0.70	0.34
23	134-44-23A-02	2.10	0.60	0.04	0.00	1.90	0.56	1.30	0.43	1.40	0.50	0.58	0.29
23	134-44-23A-03	0.98	0.36	<0.05	0.05	1.50	0.50	1.00	0.40	1.40	0.51	0.43	0.26
23	134-44-23A-04	1.10	0.35	<0.08	0.04	1.00	0.34	0.68	0.35	2.40	0.73	0.75	0.34
24	134-45-053	8.1	1.9	0.3	0.15	8.6	2	2	0.61	3.1	1.2	1.1	0.59
25	134-45-054	1.4	0.41	0.06	0.06	1.4	0.41	1.3	0.49	2.2	0.75	0.59	0.33
26	134-45-055	1.3	0.45	0.05	0.07	1.1	0.39	1.7	0.55	2.4	0.76	0.7	0.35
	avg. background	1.1		0.1		1.1		0.9		1.3		1.0	

* The "less than" (<) notation indicates that the radioactive contamination was below the detection limit of the analytical technique and/or the detection instrument . Therefore, the actual concentration of radioactivity in a sample is less than the reported value preceded by the "less than" symbol

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TABLE 2

SLAPS VP'S Post-Remedial Action
External Gamma Radiation Exposure Rates

background = 9.4 uR/h
DOE limit = 11.4 uR/h above background

Location	Survey Number	Exposure Rate (uR/h)
Grid # 1	134PIC001	10.4
Grid # 2	134PIC02	10.0
Grid # 3	134PIC02	10.4
Grid # 4	134PIC02	10.4
Grid # 5	134PIC03	9.9
Grid # 6	134PIC03	9.8
Grid # 7	134PIC03	9.9
Grid # 8	134PIC03	9.9
Grid # 9	134PIC03	10.1
Grid # 10	134PIC05	7.5
Grid # 11	134PIC05	7.2
Grid # 12	134PIC05	7.2
Grid # 13	134PIC05	8.6
Grid # 14	134PIC05	8.4
Grid # 15	134PIC05	8.4
Grid # 16	134PIC05	8.4
Grid # 17	134PIC04	9.3
Grid # 18	134PIC05	8.4
Grid # 19	134PIC05	8.3
Grid # 20	134PIC05	7.7
Grid # 21	134PIC06	9.6
Grid # 22	134PIC06	10.5
Grid # 23	134PIC06	10.4
Grid # 24	134PIC06	10.1
Grid # 25	134PIC06	10.1
Grid # 26	134PIC06	10.1

TABLE 3

Summary of Post-Remedial Action Radiological Survey Results

Location	Direct Surface Contamination		Transferable Contamination	
	Alpha Sample Activity Range (dpm/100 cm2)	Beta/Gamma Sample Activity Range (dpm/100 cm2)	Alpha Sample Activity Range (dpm/100 cm2)	Beta/Gamma Sample Activity Range (dpm/100 cm2)
Property 44				
North Wall Culvert				
1) East Wall Grid	< BKG - 35	103 - 361	0	0 - 16
2) West Wall Grid	17 - 35	129 - 284	0	0 - 20
Concrete Pad N. Culvert				
1) West	26	594	0	12
2) Middle	< BKG	774	0	0
3) East	36	542	0	0
4) Pipe	26	361	0	4
Property 43				
South Wall Culvert				
1) Culvert Bottom 1'	<BKG	852	0	8
2) Culvert Bottom 2'	<BKG	594	0	0
3) West Wall Grid	<BKG - 26	282 - 328	0	0 - 24
4) East Wall Grid	<BKG - 35	268 - 340	0 - 3	0
DOE Guideline	5000	5000	1000	1000

< BKG - This notation means that in converting from the direct readings (cpm) to dpm the resulting value was negative.

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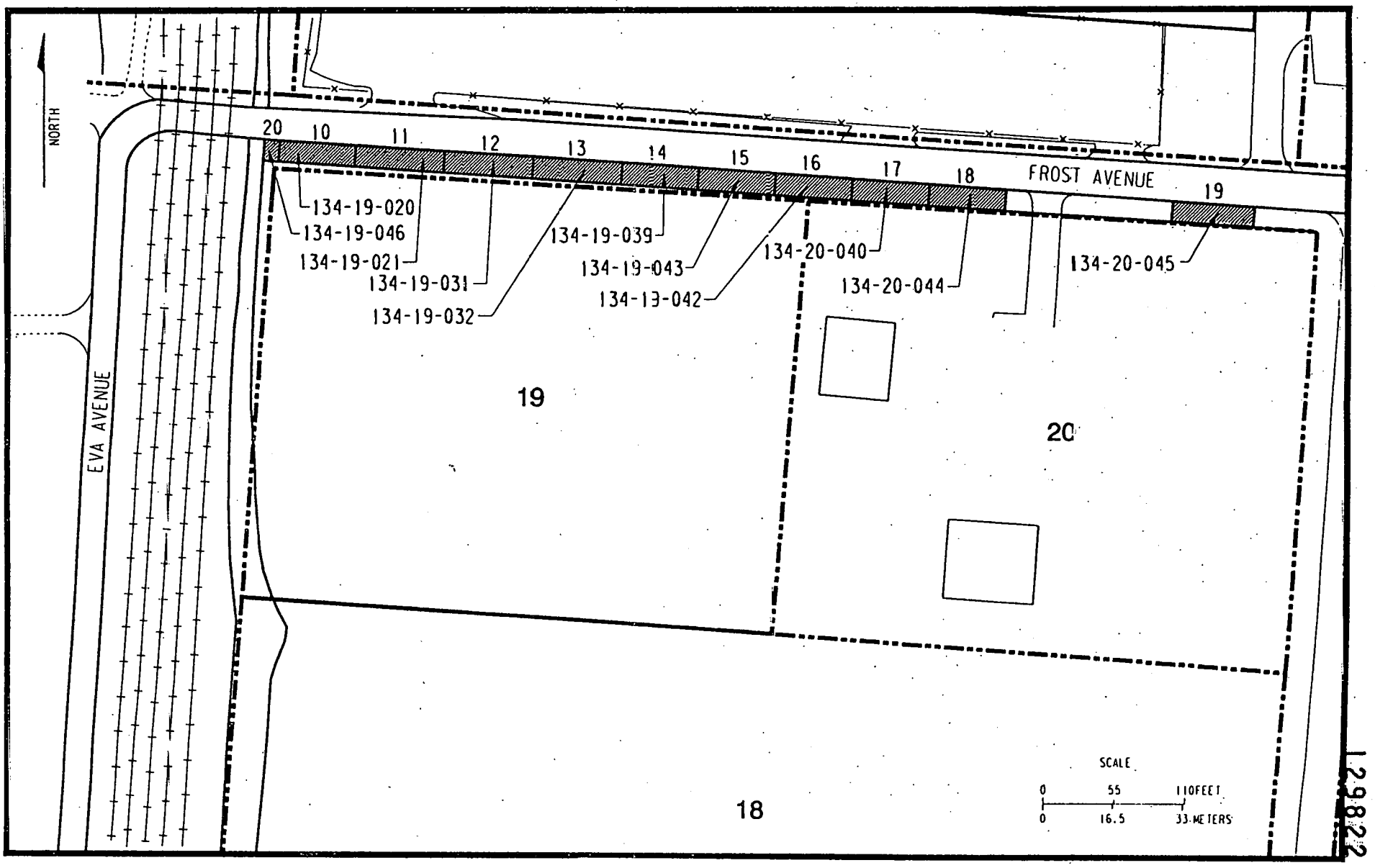

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St. Louis Airport Site Vicinity Properties
Post-Remedial Action Sample Locations

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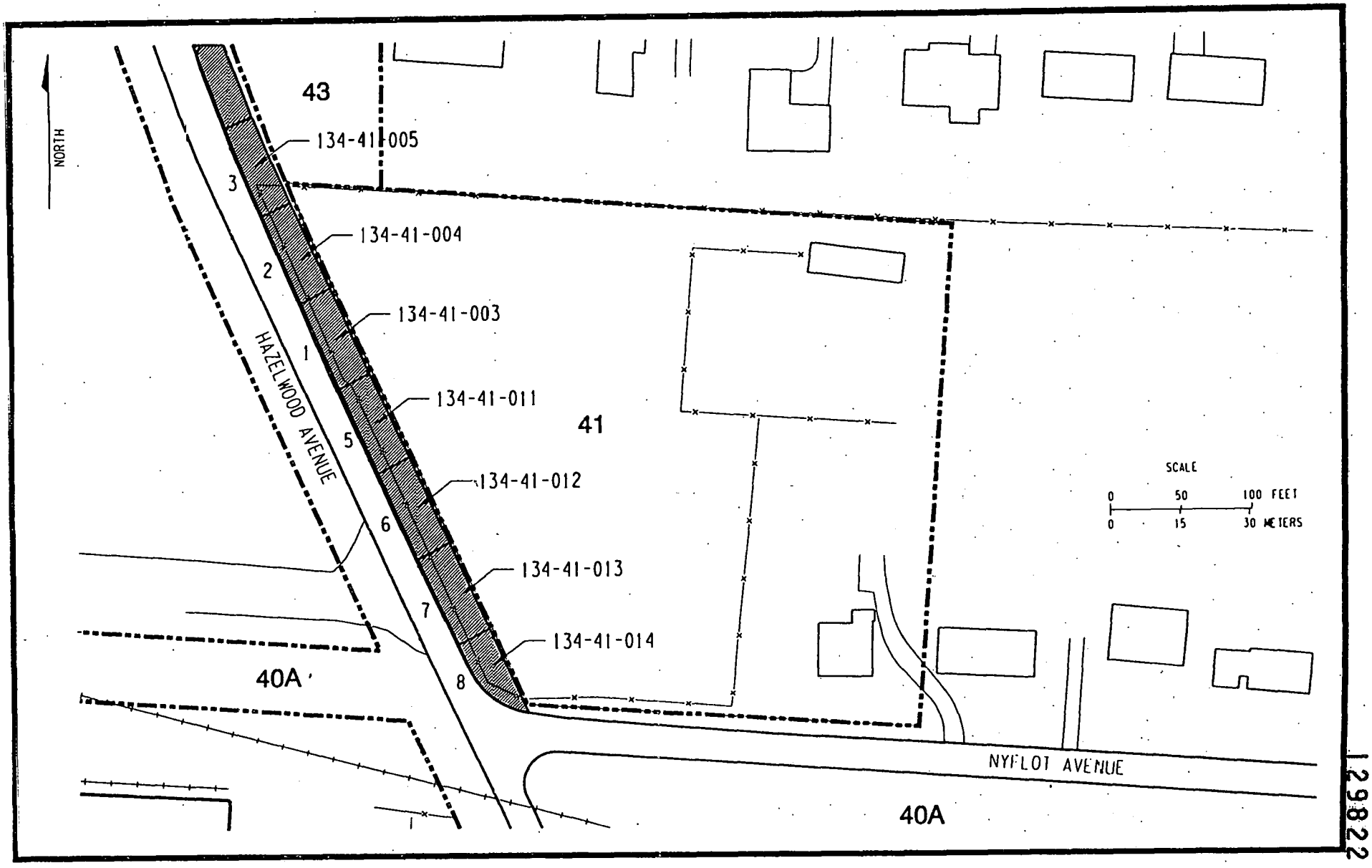

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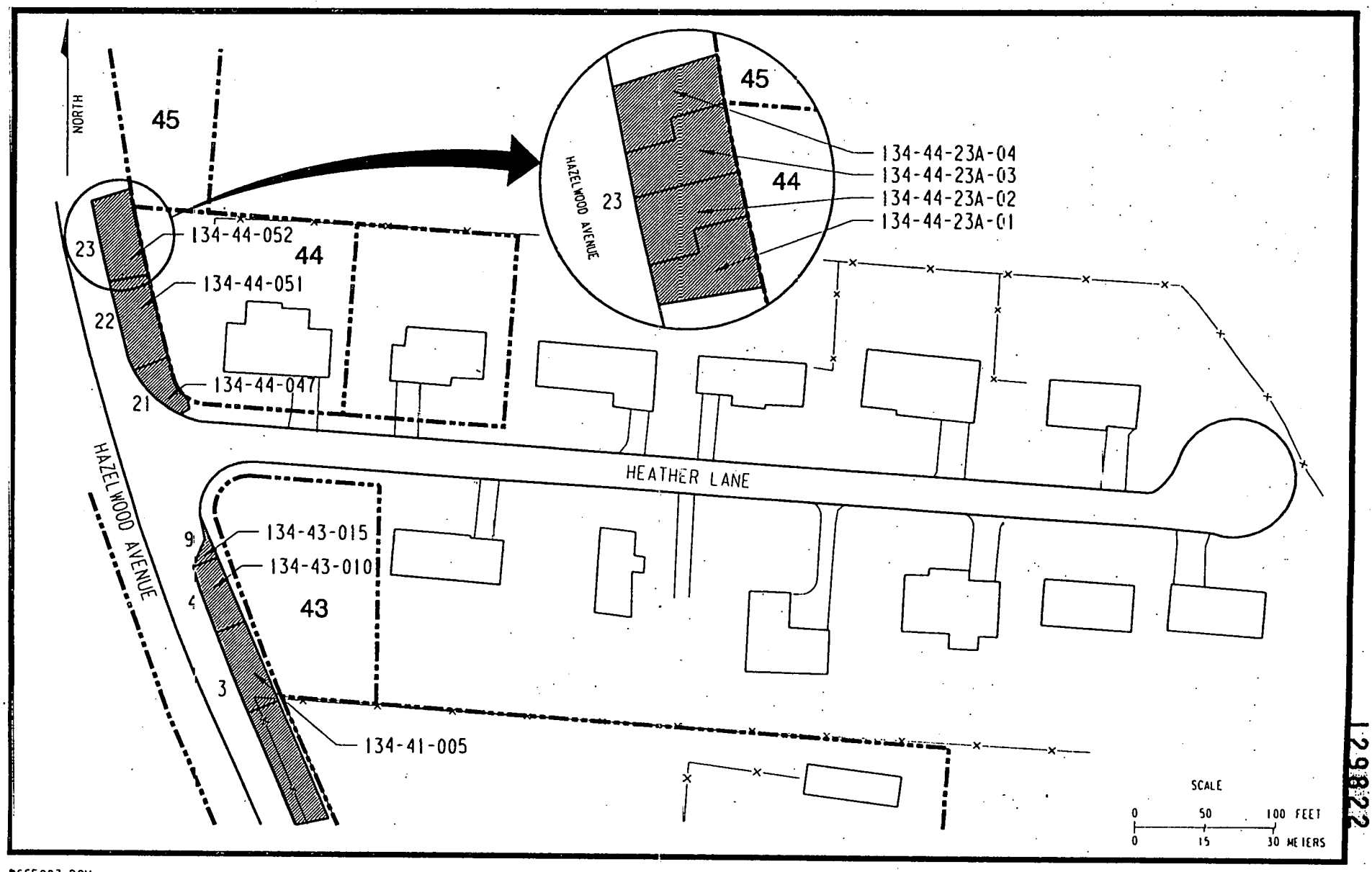
St. Louis Airport Site Vicinity Properties
Post-Remedial Action Sample Locations



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St. Louis Airport Site Vicinity Properties
Post-Remedial Action Sample Locations

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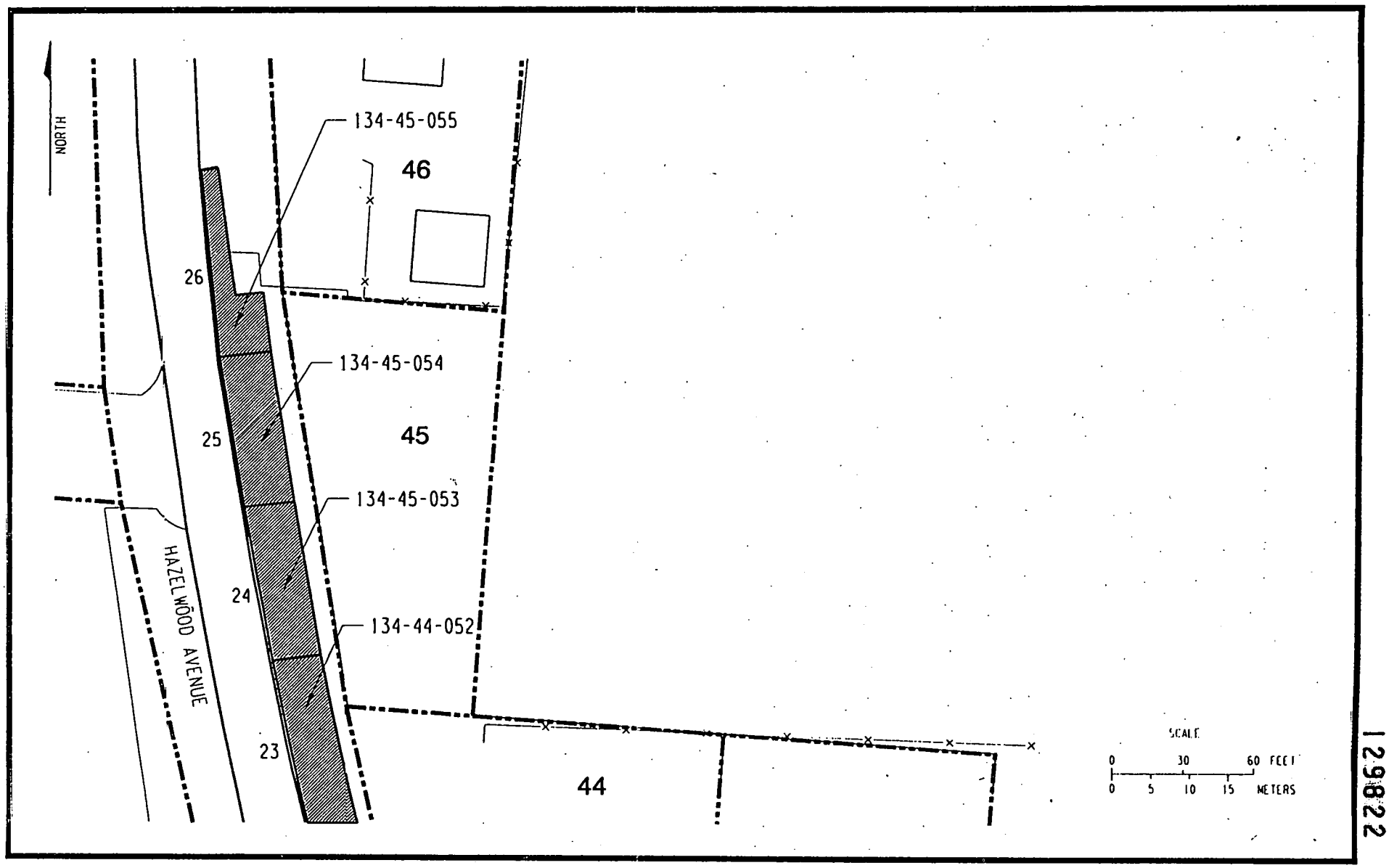

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St. Louis Airport Site Vicinity Properties
Post-Remedial Action Sample Locations

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Formerly Utilized Sites Remedial Action Program (FUSRAP)

ADMINISTRATIVE RECORD

for the St. Louis Site, Missouri

U.S. Department of Energy

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