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NAS CECIL FIELD, FL
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FINAL REPORT FOR FIELD INVESTIGATION AT FACILITY 239 POTENTIAL SOURCE OF CONTAMINATION 51 GOLF COURSE SITE WITH TRANSMITTAL MEMORANDUM NAS CECIL FIELD FL
6/12/2003
U S EPA REGION IV

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 4, SCIENCE and ECOSYSTEM SUPPORT DIVISION
ATHENS, GEORGIA 30605

4SESD-EIB

JUN 1 2 2003

MEMORANDUM

SUBJECT: Final Report, NAS Cecil Field Golf Course Site, Jacksonville, Florida.
SESD Project No.: 03-0032

FROM: Fred Sloan
Superfund and Air Section

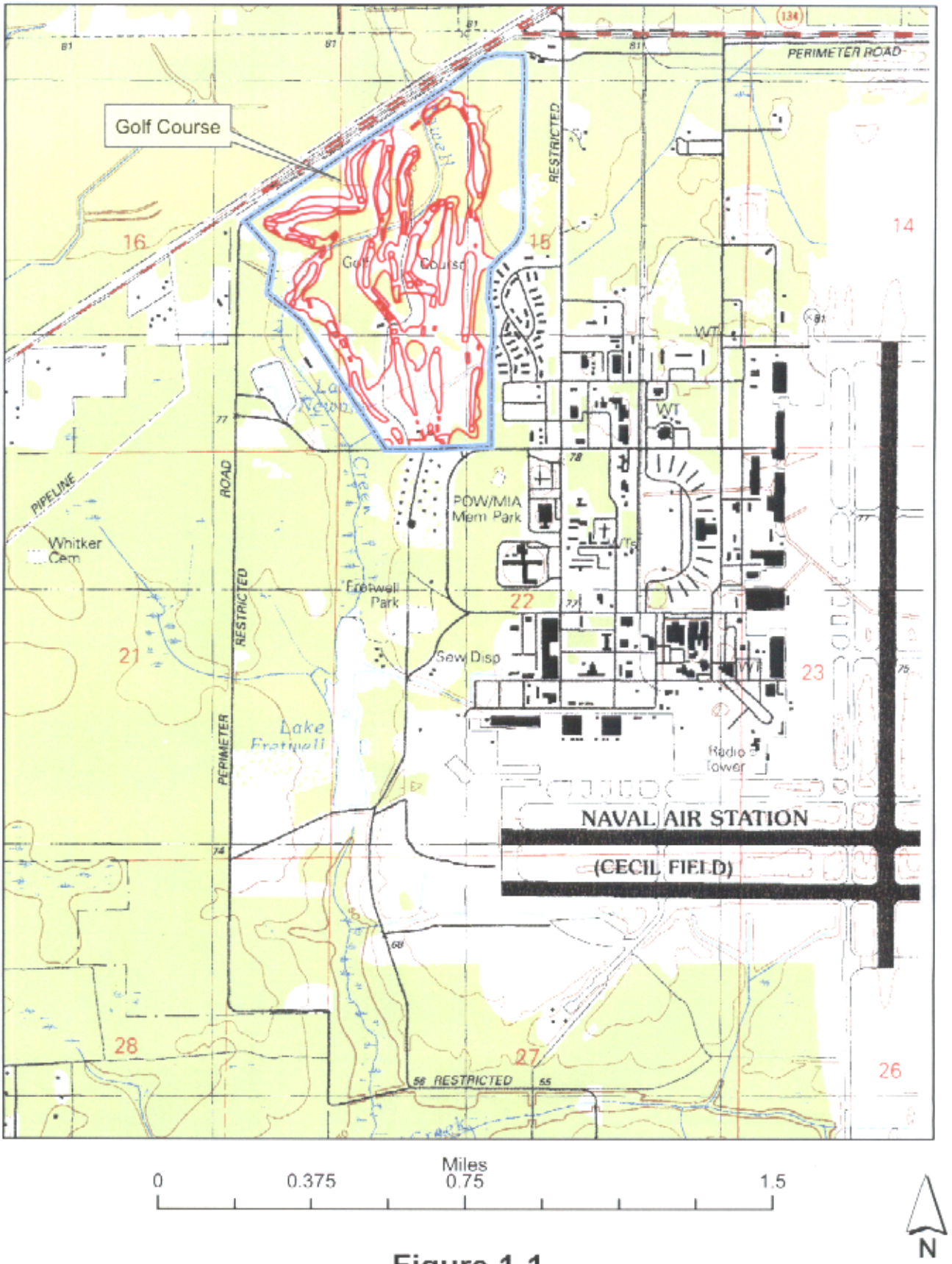
THRU: Don Hunter, Acting Team Leader
Superfund and Air Section

TO: Deborah Vaughn-Wright
BRAC Team
Federal Facilities Branch
Waste Management Division

Attached is the final report for the subject investigation. Additional copies of the color figures are also included.

If you have any questions or comments, please call me at 706-355-8617, or email at sloan.fred@epa.gov.

Attachments



Miles
0 0.375 0.75 1.5

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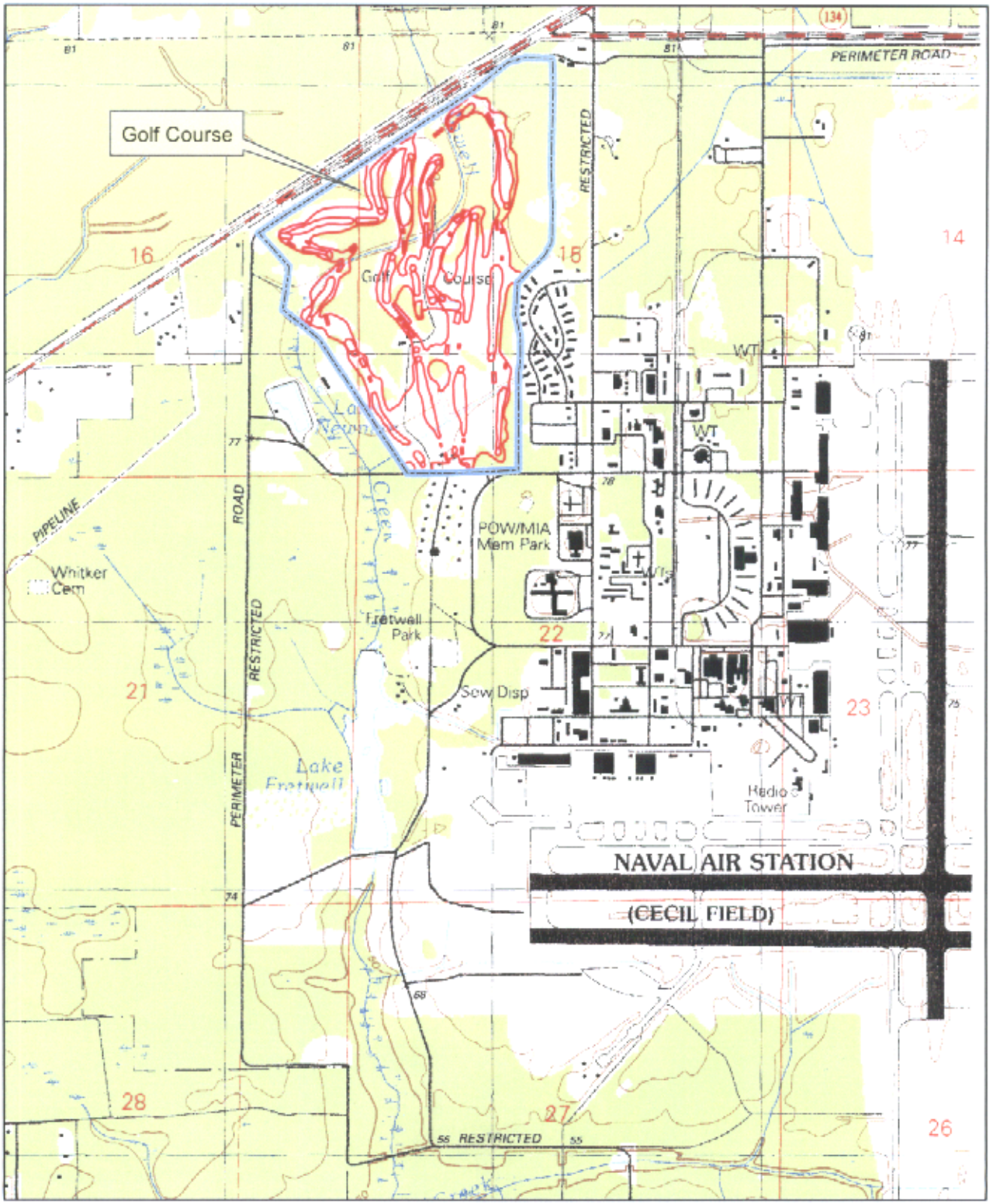
Figure 1-1
Site Location Map
NAS Cecil Field
Jacksonville, Florida



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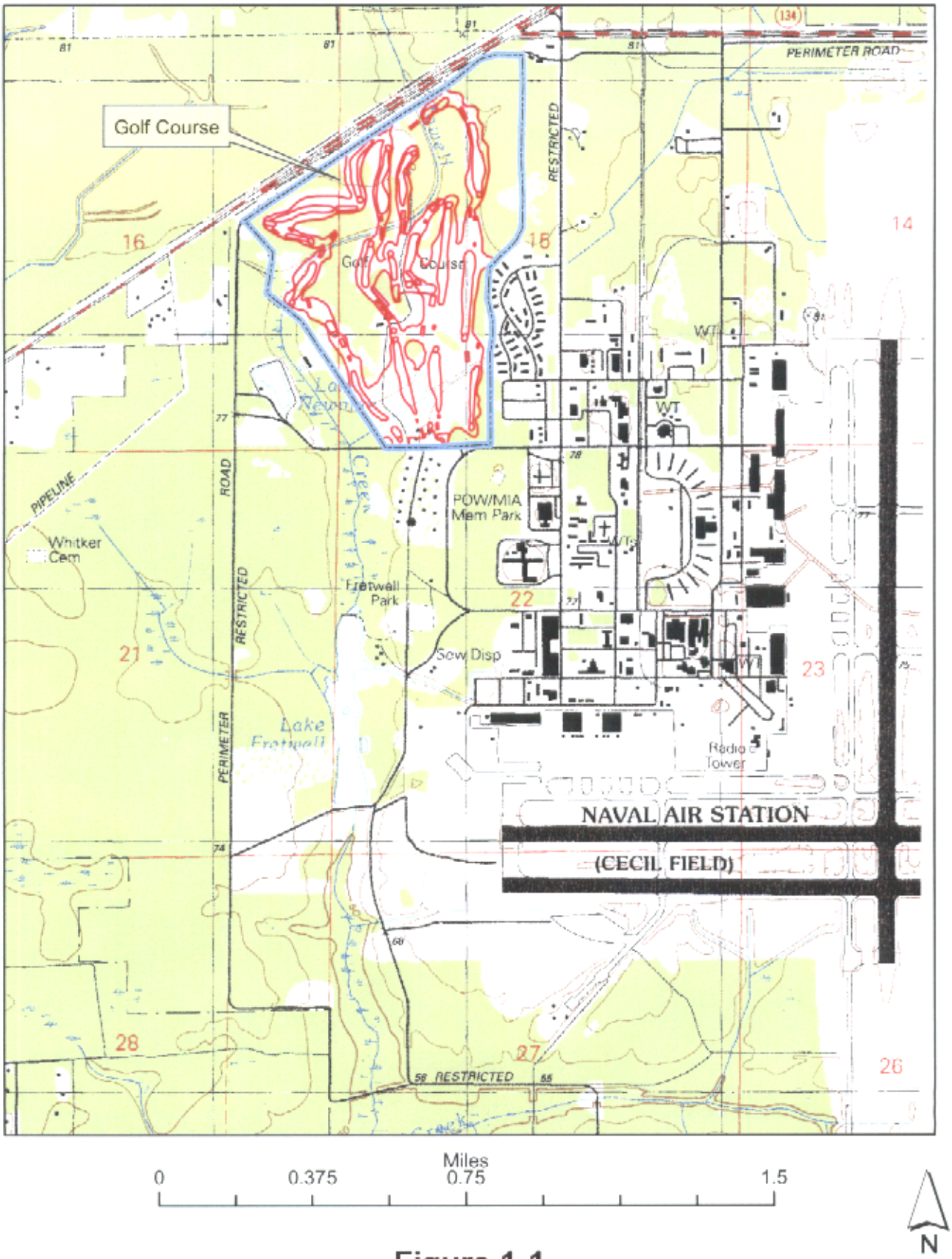

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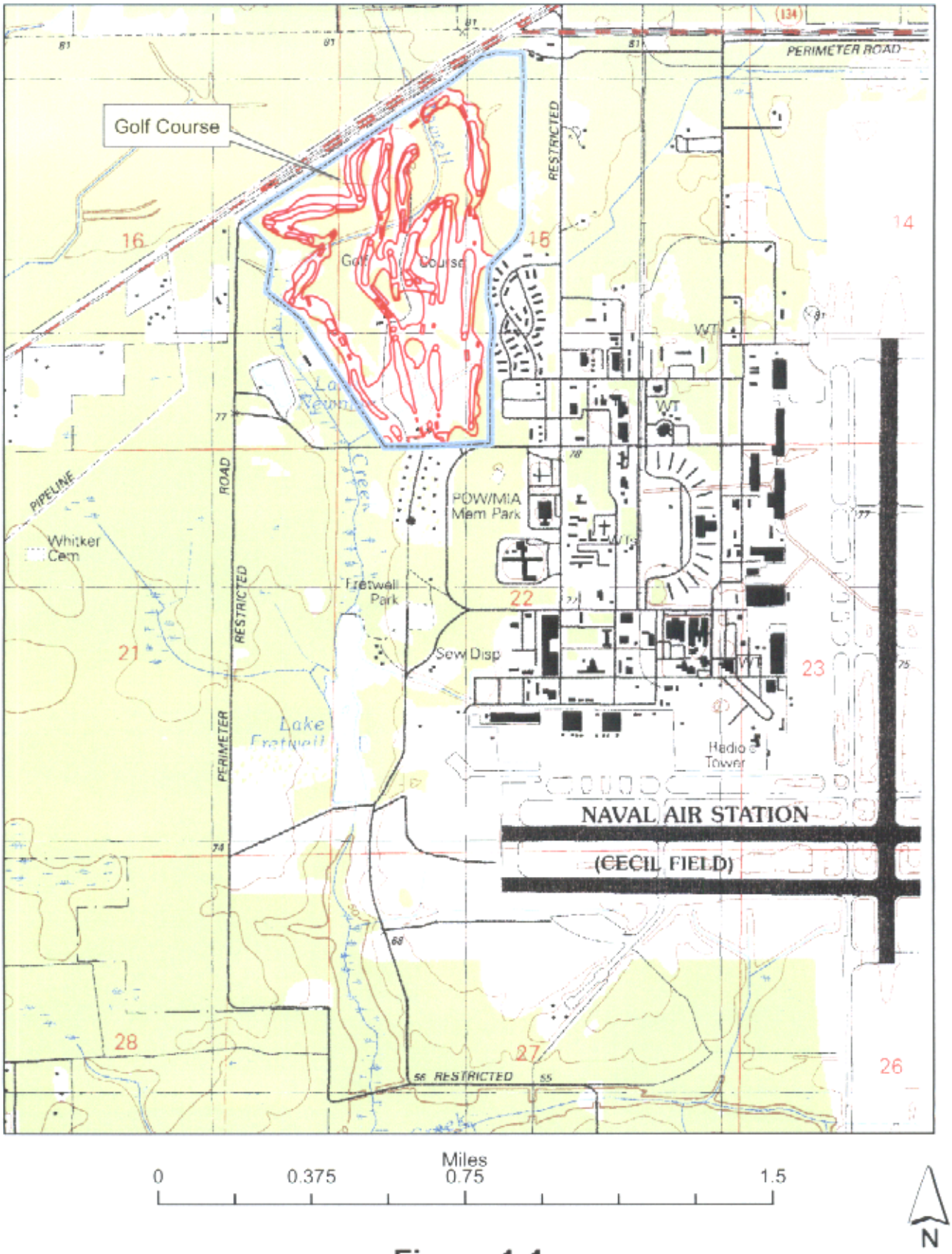

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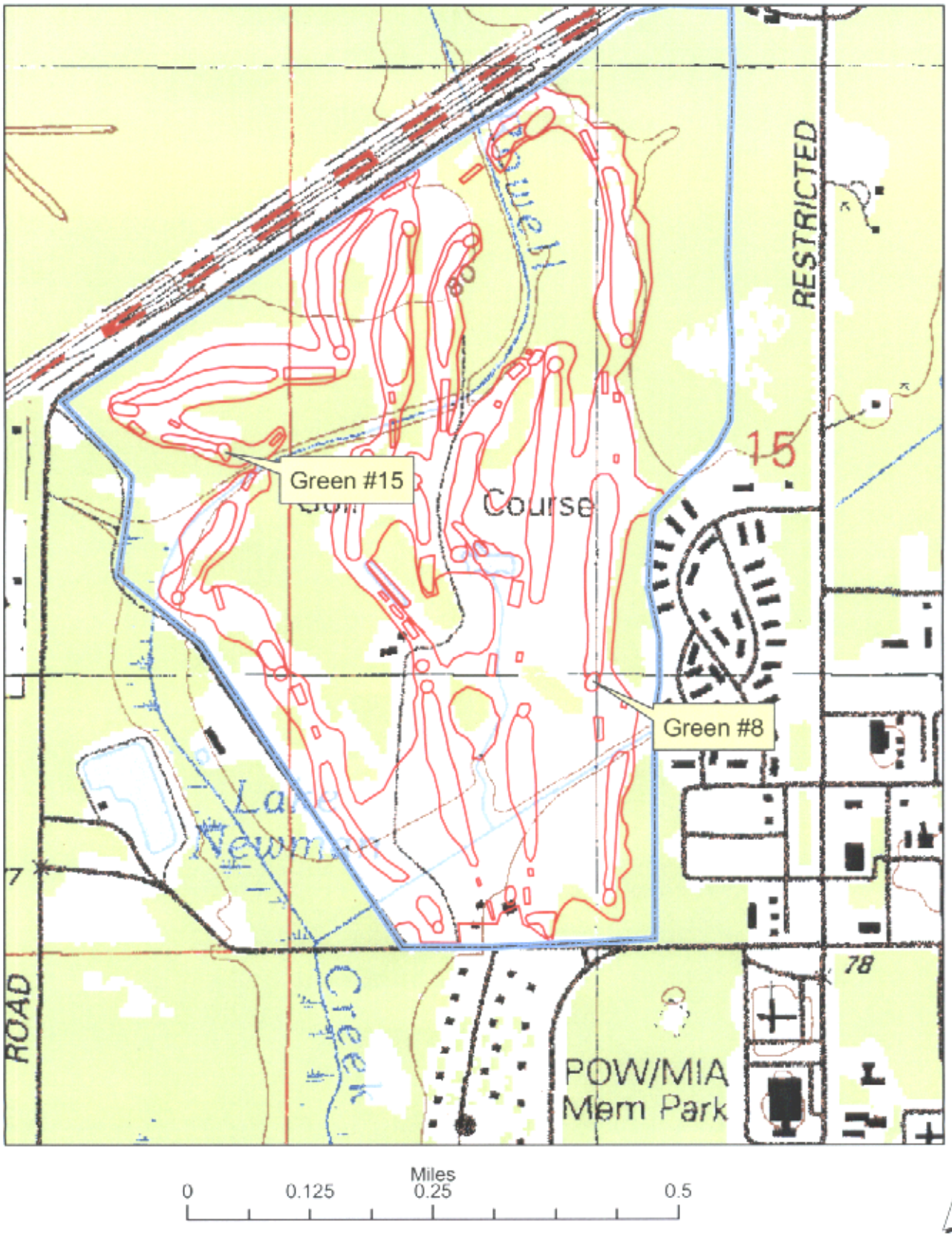
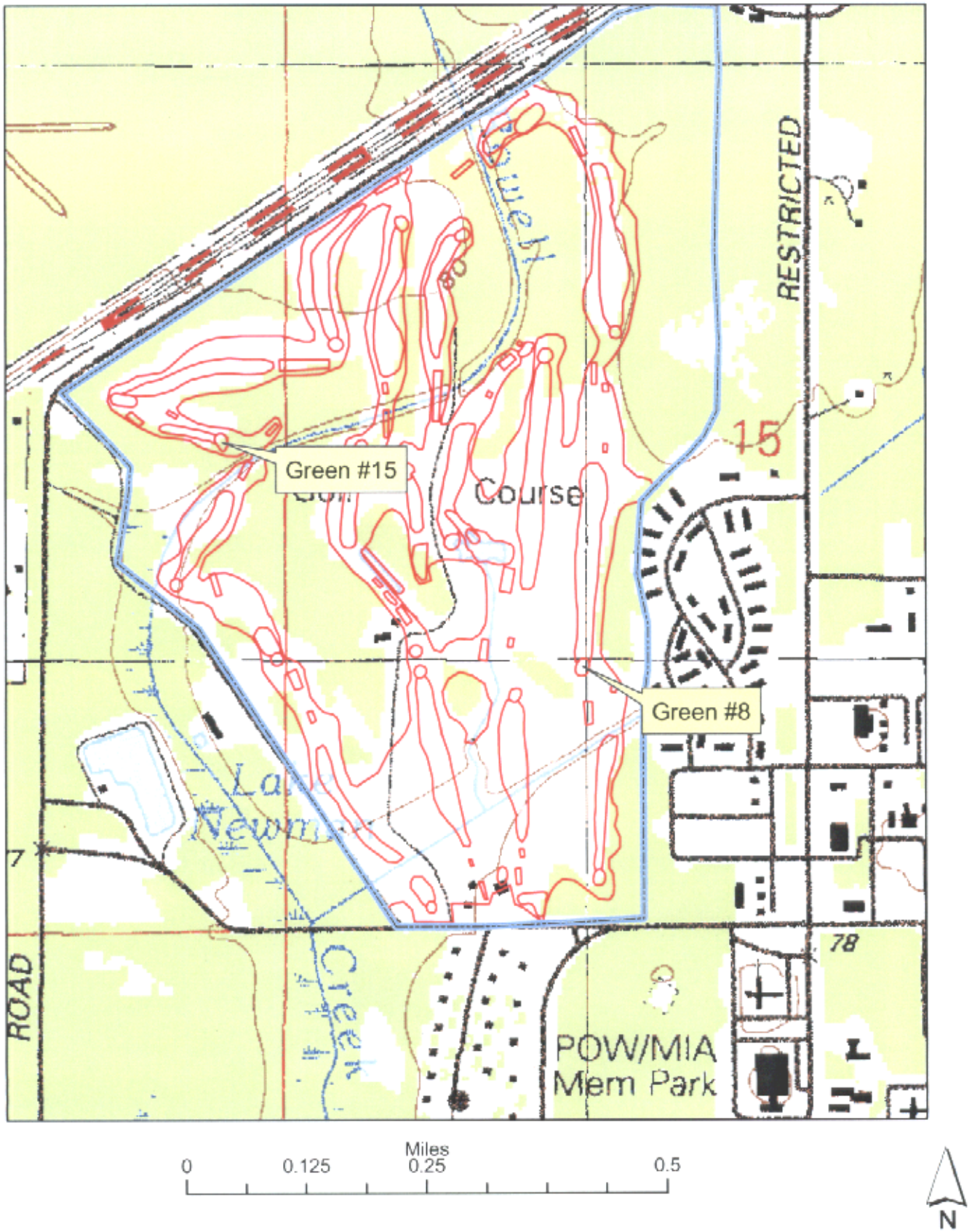


Figure 1-2
Study Areas Map
NAS Cecil Field
Jacksonville, Florida



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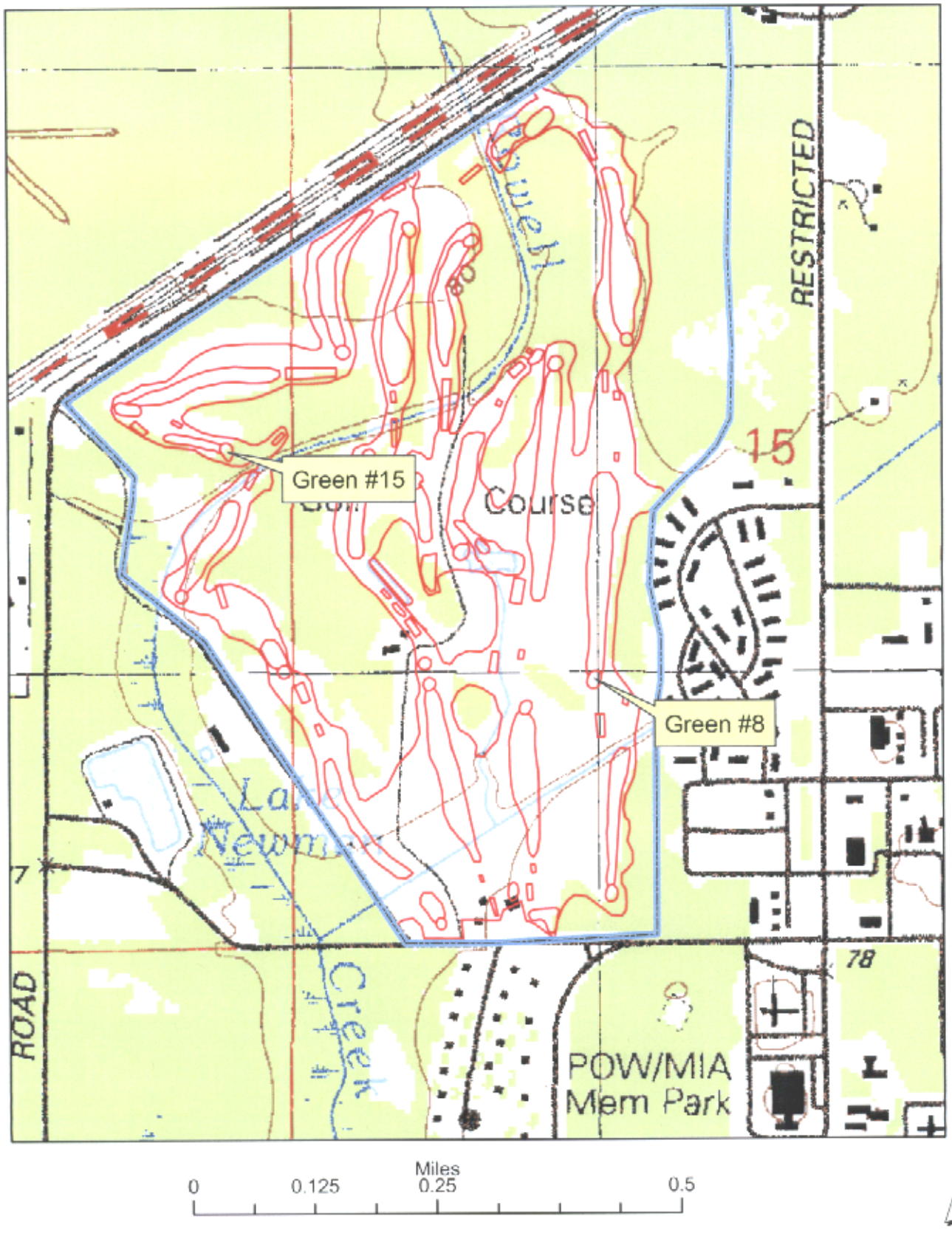

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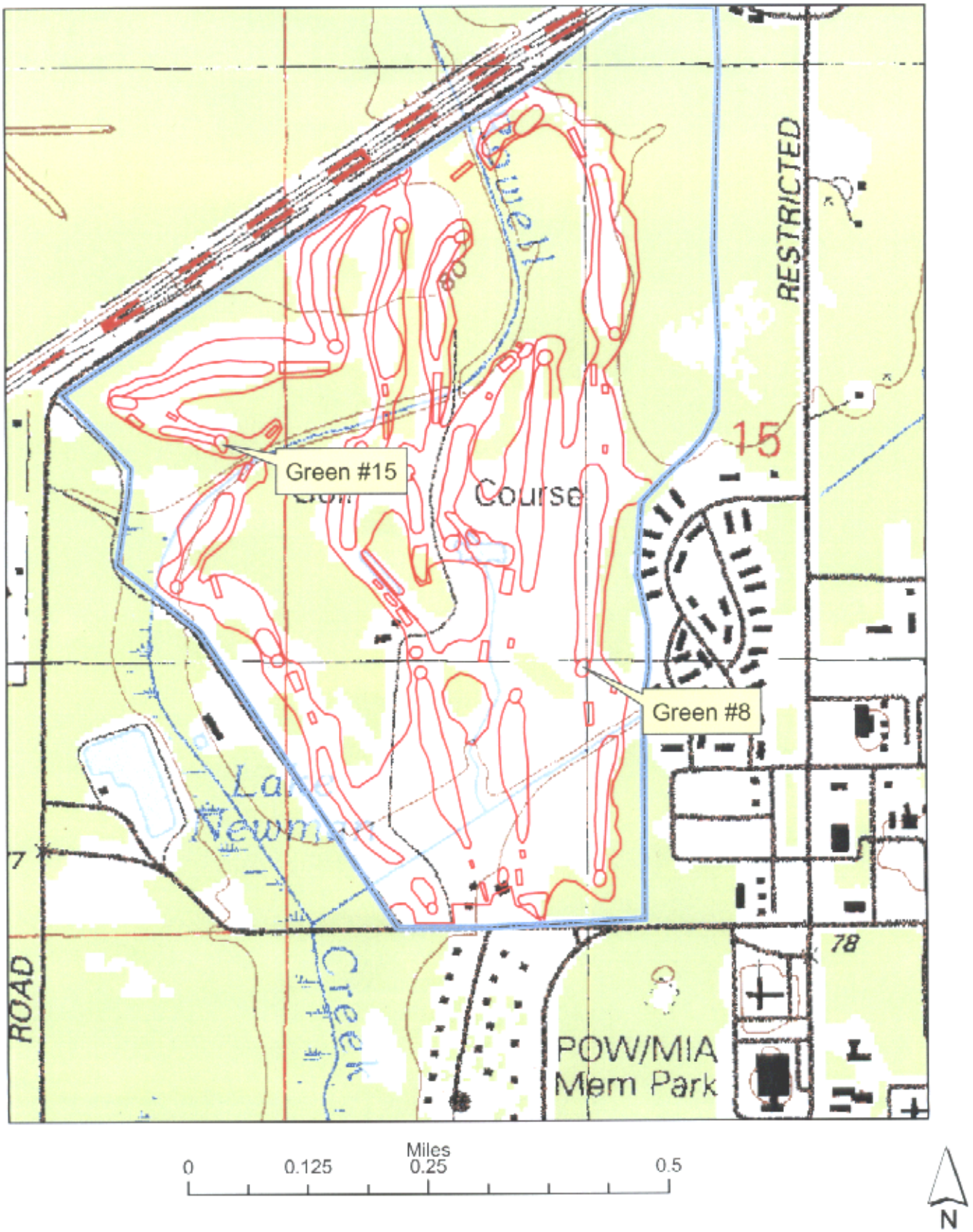

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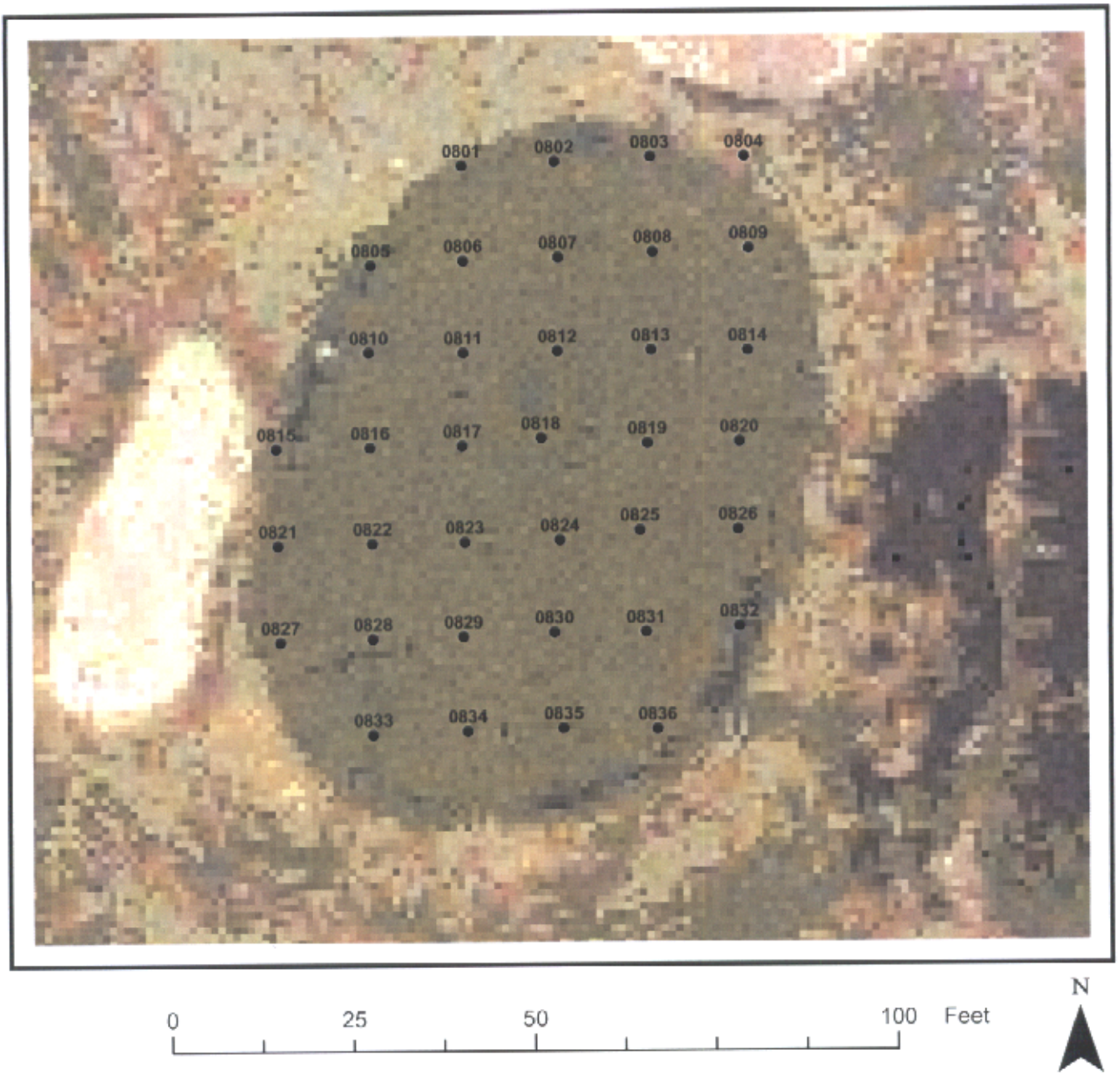
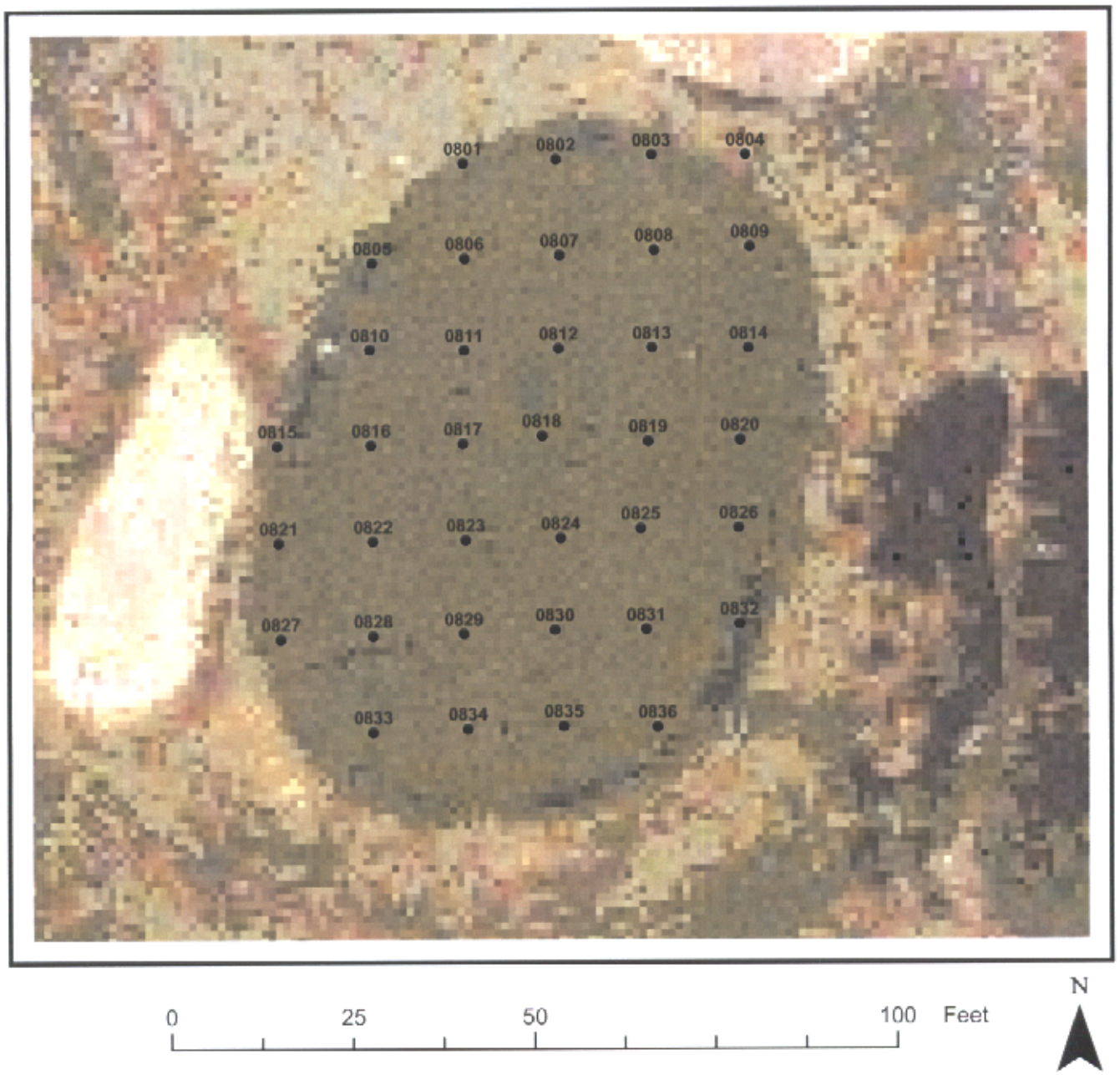


Figure 3-1
Sample Locations
Green 8
NAS Cecil Field
Jacksonville, FLorida



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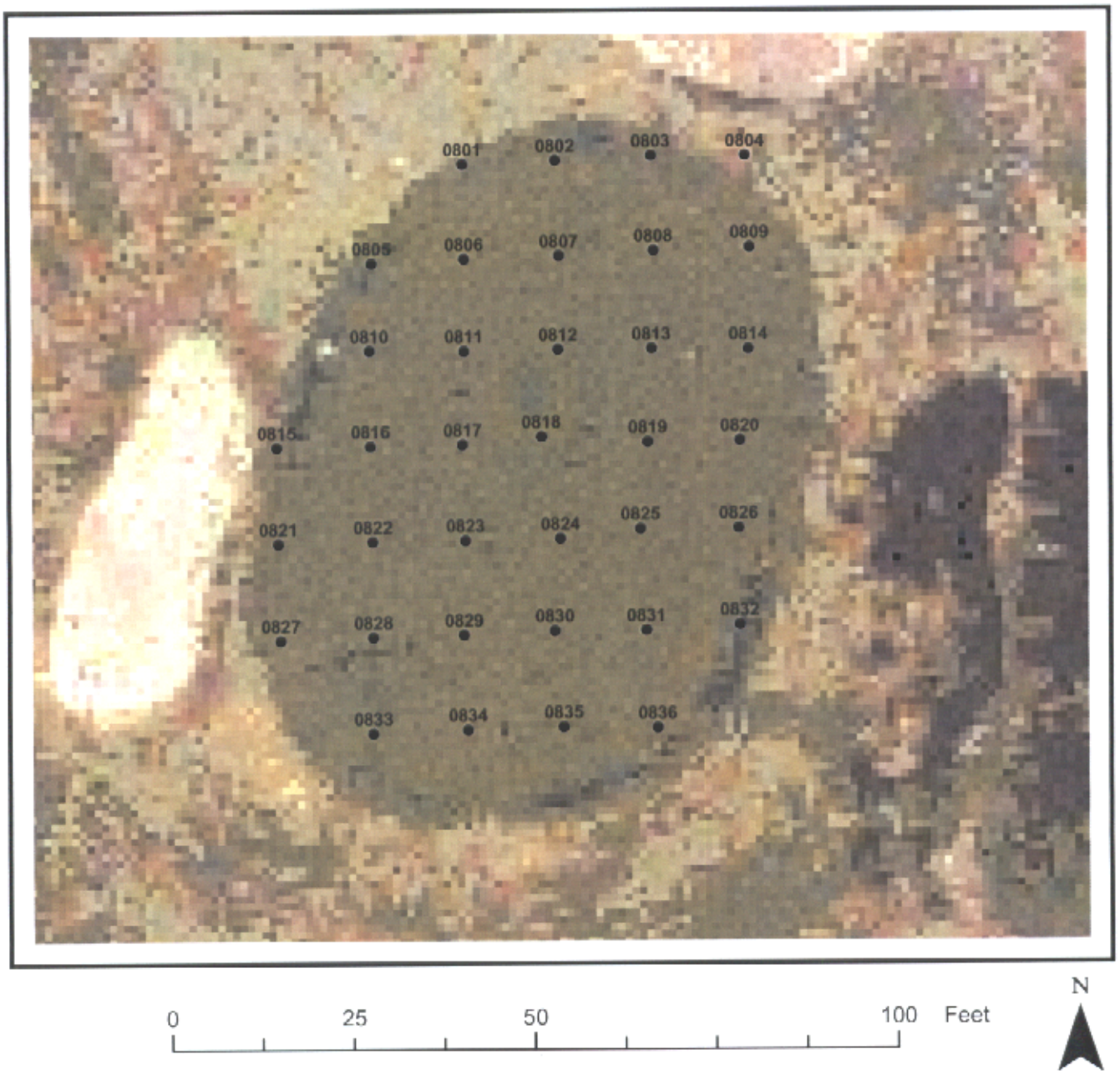

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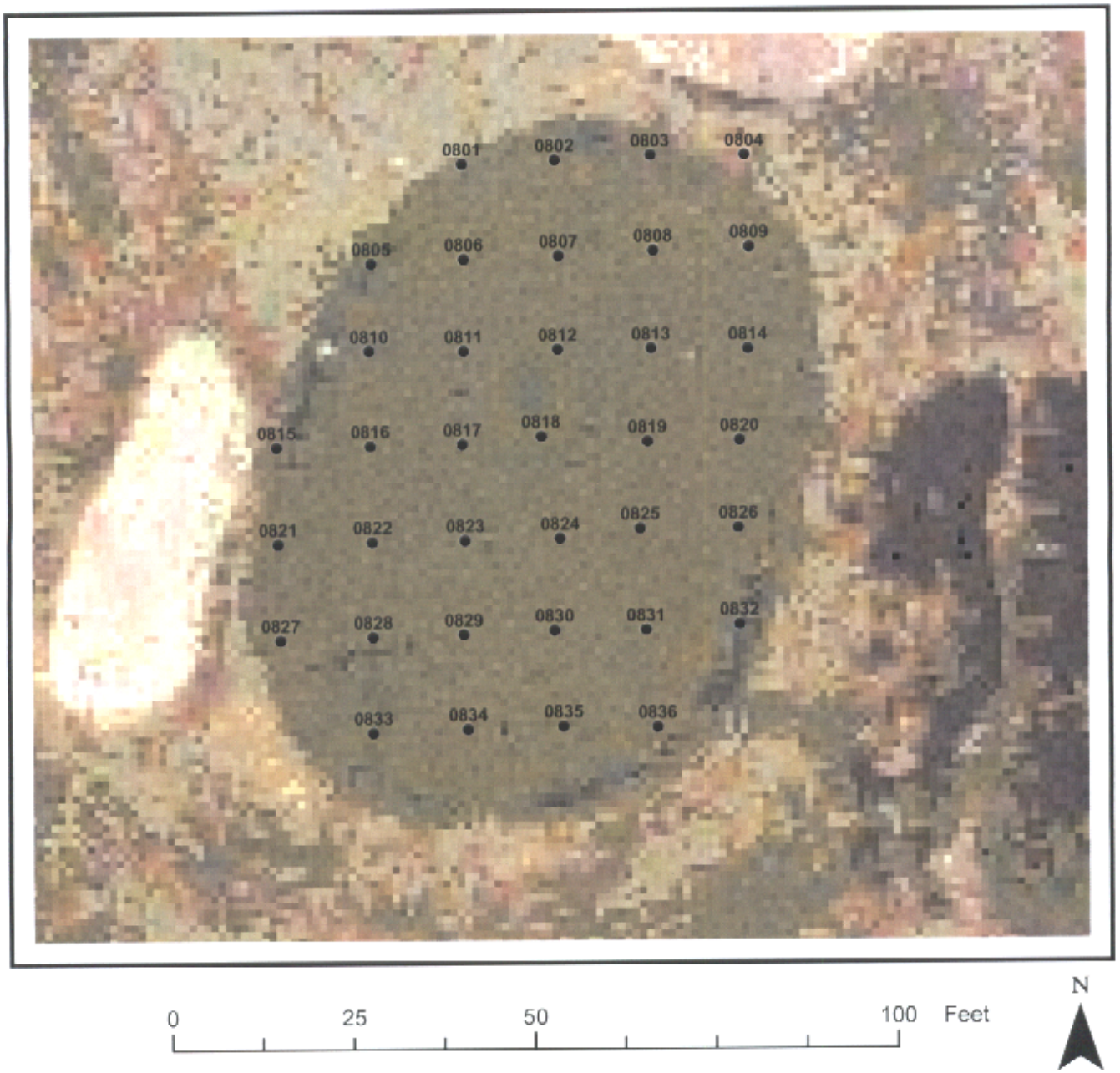

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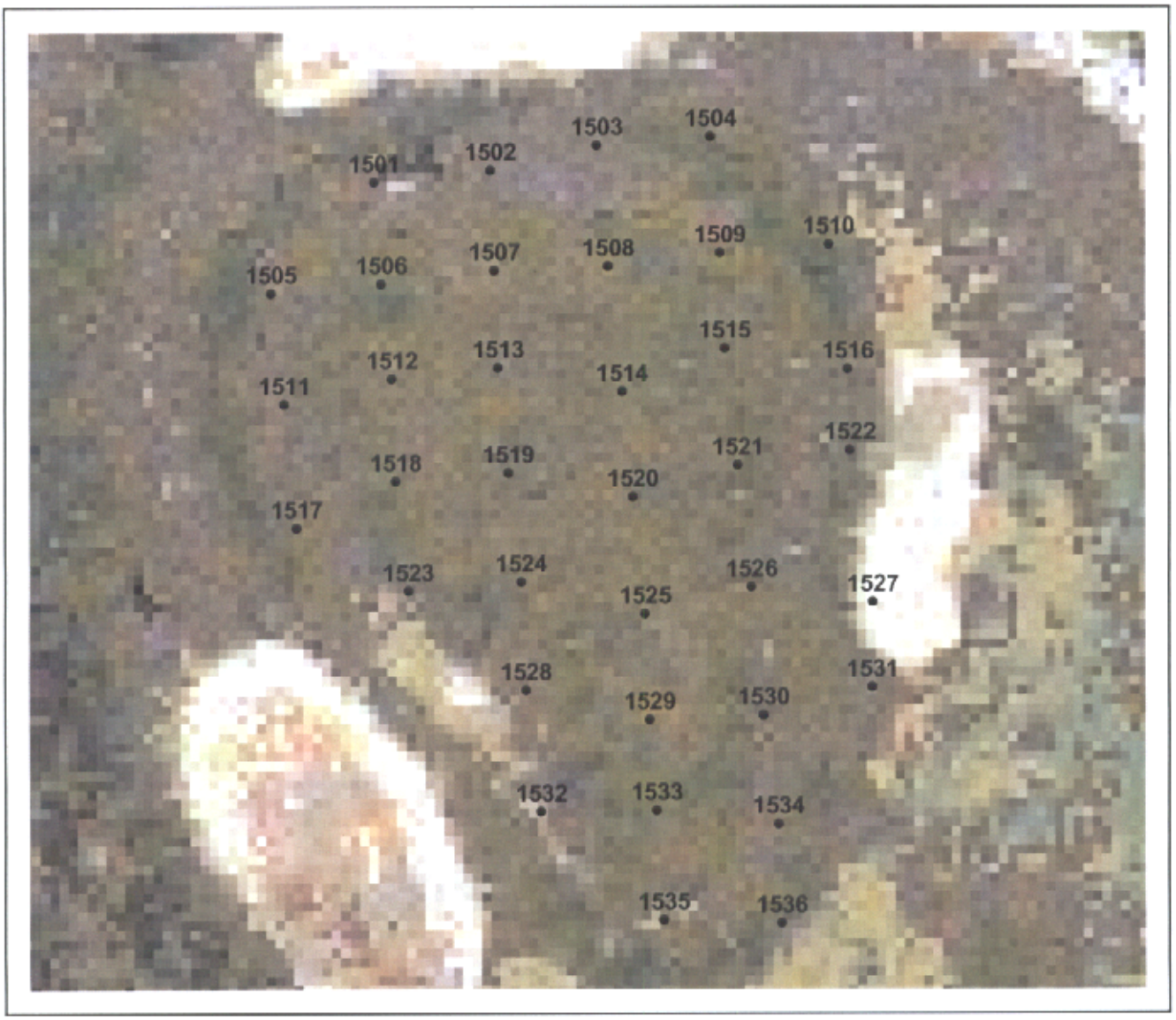
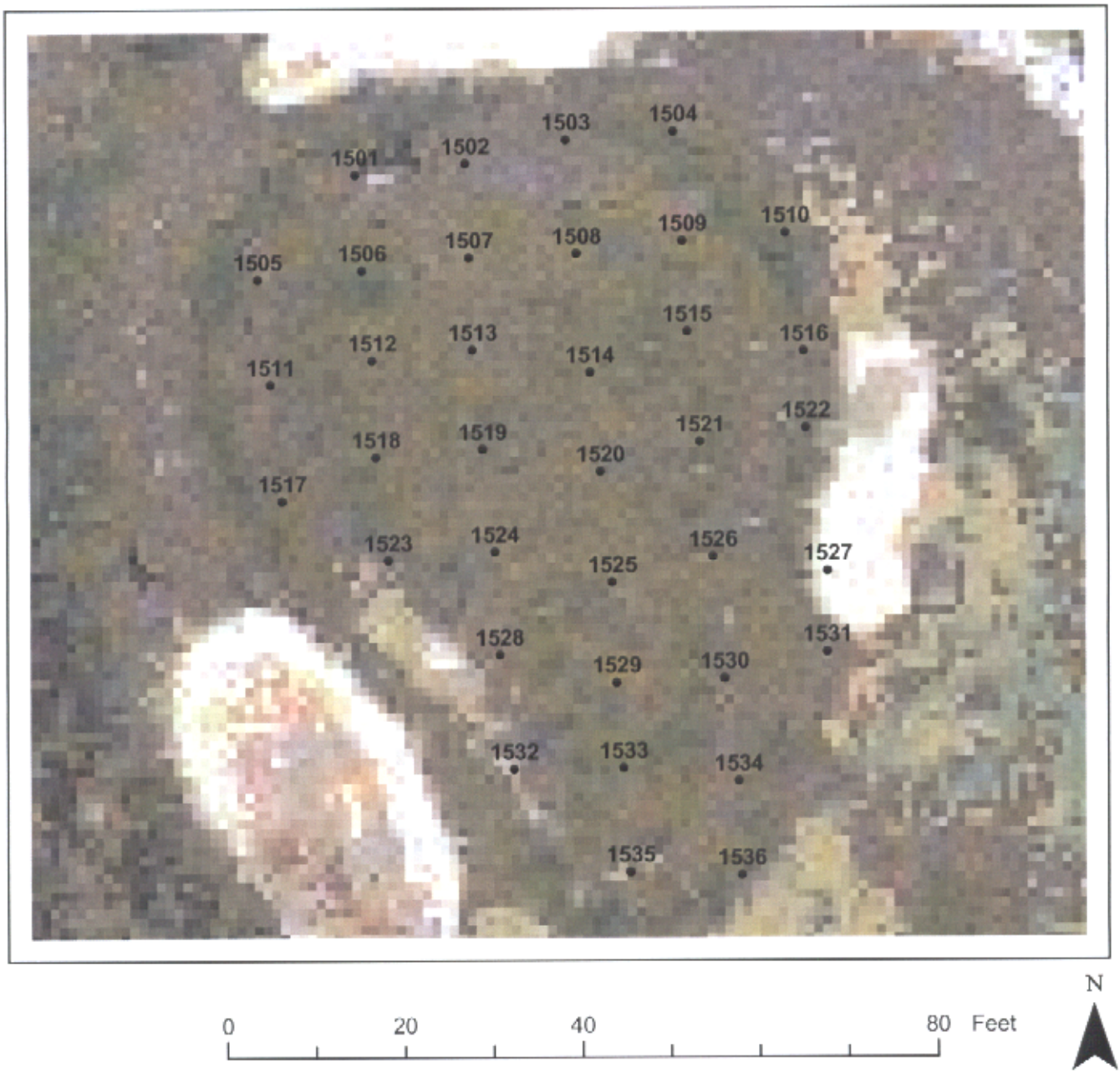


Figure 3-2
Sample Locations
Green 15
NAS Cecil Field
Jacksonville, Florida



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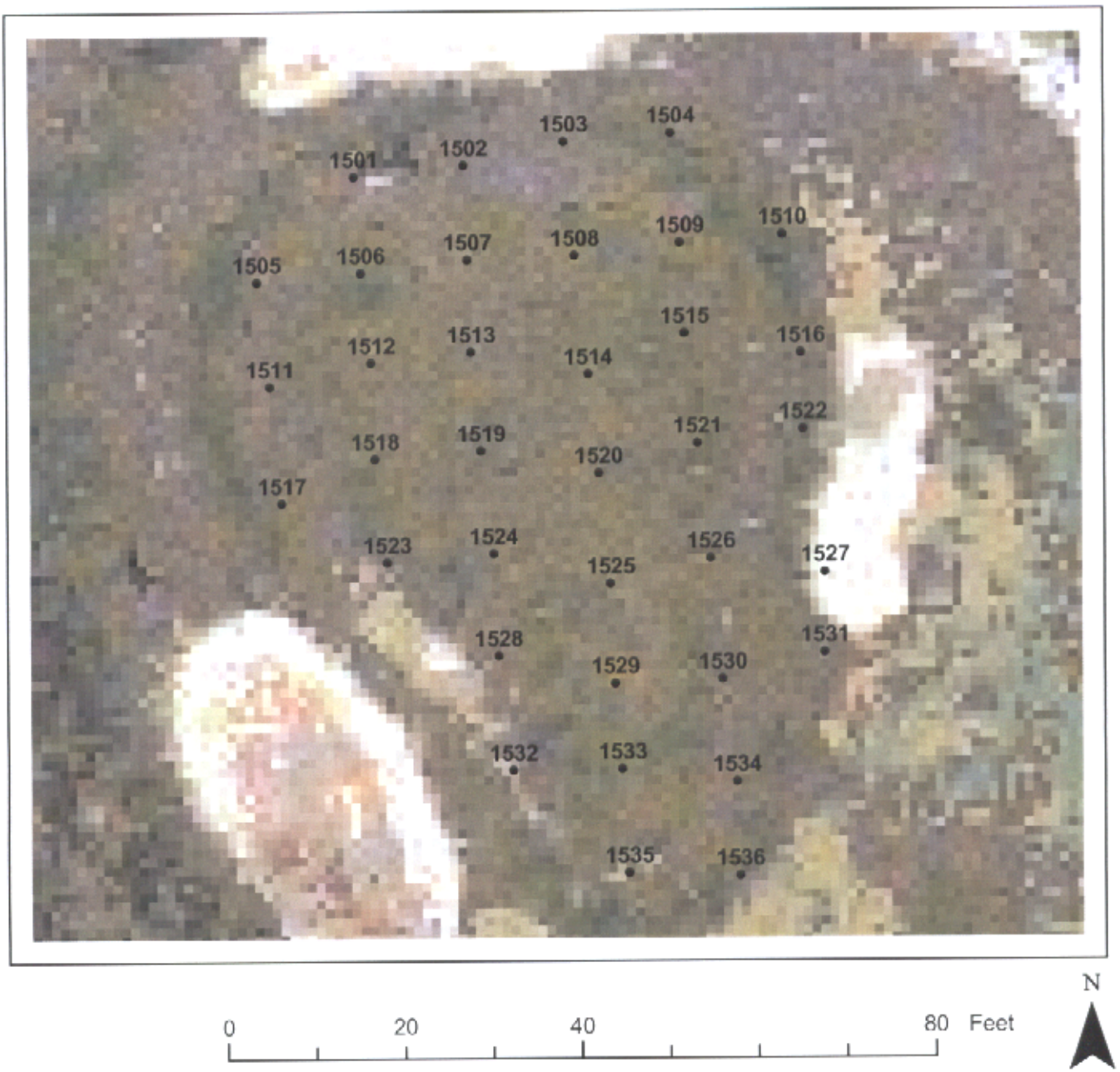

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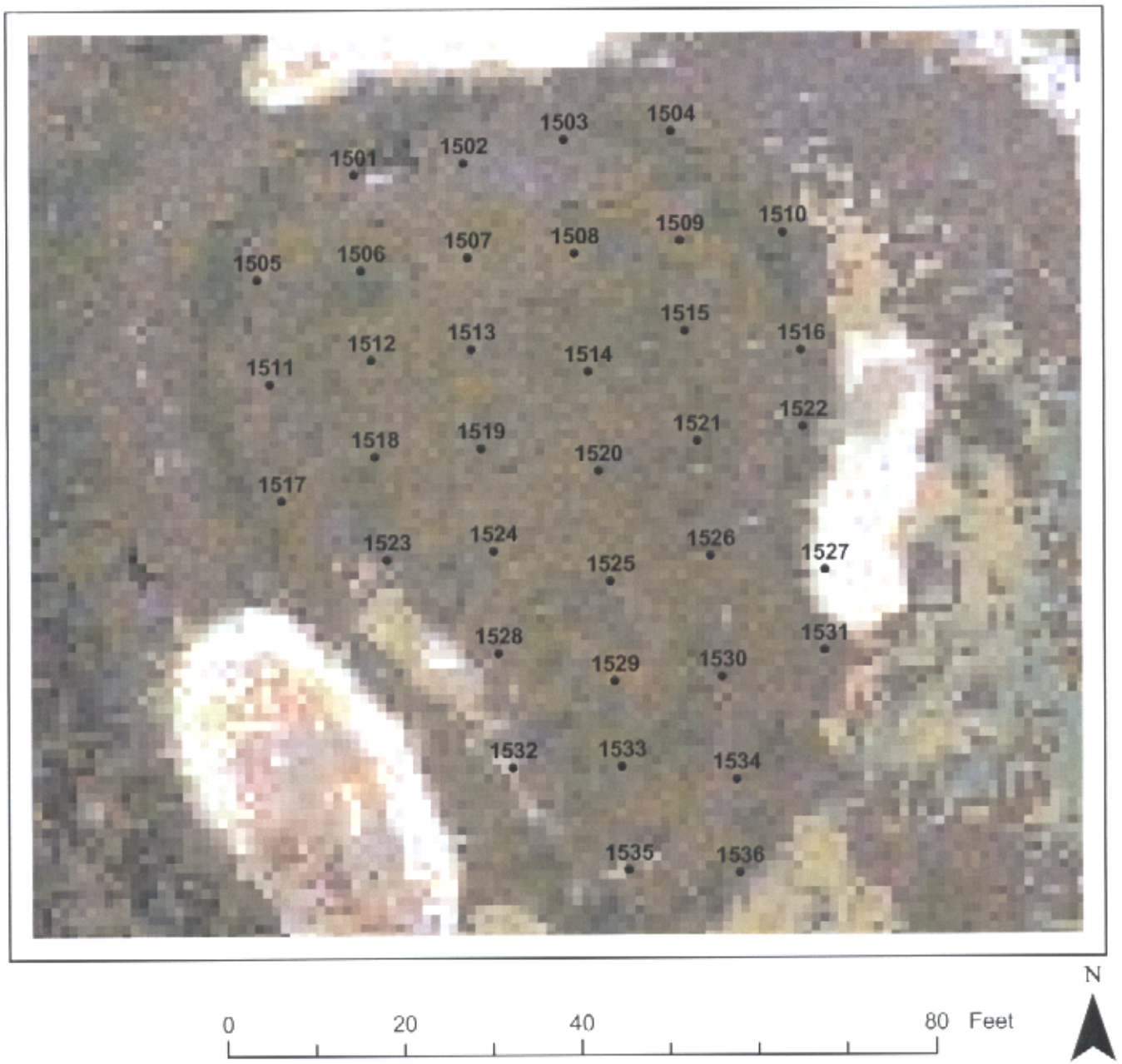

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Jacksonville, Florida

United States Environmental Protection Agency, Region 4
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Science and Ecosystem Support Division (SESD)
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FINAL REPORT FOR THE NAS CECIL FIELD GOLF COURSE SITE, JACKSONVILLE, FLORIDA

Remedial Project Manager: Debbie Vaughn-Wright
Waste Management Division

SESD Project Leader: Fred Sloan
03-0032
Science and Ecosystems Support Division

United States Environmental Protection Agency, Region 4
June, 2003

Executive Summary

The purpose of this investigation was to determine if data collected from all greens during an earlier Navy study is representative of individual greens. Specifically, if data collected from individual greens have similar ranges and variability, then the data collected from the Navy's initial investigation may be used to characterize the greens. This was accomplished by determining the range of concentration of arsenic, chlordane, dieldrin, and heptachlor epoxide across two of the greens. In discussions, a shorthand method of discussing this assumption has developed. This shorthand terminology states: "a green is a green." What is meant by this terminology is that, if, in this investigation, the range and variability of the four constituents are similar across these two greens (#8 and #15), this will support the hypothesis that the range and variability are similar across all eighteen greens.

It was decided at the July BCT (Base Closure Team) meeting that the predicted range of the contaminants would be from the UCL90 on the 10th percentile to the LCL90 on the 90th percentile. Ted Simon of the USEPA Office of Technical Services (OTS) has calculated these ranges and the number of samples required to have a 95% probability of exceeding that predicted range. The number of samples required per green is 36.

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1.0 INTRODUCTION

During the weeks of October 7 and October 15, 2002, the USEPA Region 4, Science and Ecosystem Support Division (SESD) conducted a Field Investigation (FI) at the Facility 239, PSC-51 Golf Course Site (NAS Cecil Field Golf Course). The golf course is located in Duval County, Florida (see **Figure 1-1**). This investigation was requested by Dawn Taylor and Debbie Vaughn-Wright of the USEPA, Region 4, Waste Management Division, Federal Facilities Branch.

The purpose of this investigation was to determine whether the data collected across all greens by the Navy should be considered representative of data collected at individual greens.

1.1 Background/Site Location

The golf course at Cecil Field was developed approximately 56 years ago. It is located at 13715 Lake Newman Street, Jacksonville, Florida, on the site of the former NAS Cecil Field. The sod on the putting greens was replaced in 1991.

1.2 Previous Sampling Activities

During the Navy study, one to two soil samples were collected from each of the 18 putting greens. High levels of arsenic, dieldrin, chlordane, and heptachlor epoxide were found in some of these samples, while other samples had reported low or non-detectable concentrations.

1.3 Current Field Investigation

For this investigation, SESD collected samples from the green with the lowest reported arsenic concentration (#15) and the highest reported concentration (#8). Soil samples were collected from 36 locations on green #15 and 36 locations on green #8. Samples were analyzed for arsenic, chlordane, dieldrin, and heptachlor epoxide to determine the statistical distribution of these contaminants on the golf course putting greens. **Figure 1-2** shows the locations of the greens.

2.0 SAMPLING/DATA QUALITY OBJECTIVES

2.1 Data Quality Objectives

The Data Quality Objectives (DQO) process for Superfund was used to develop the QAPP, in accordance with the Guidance for the DQO Process (EPA QA/G-4, 2000). DQOs are useful in identifying the study objectives and decisions to be made and the criteria by which the data will be assessed. These data are then used for decision making.

DQOs need to be established prior to data collection and integrated with the project planning process so that sufficient data of known quality are collected to support sound decision making. DQOs are developed using an interactive approach to decision-making based on seven steps detailed in the guidance. The seven steps are:

- Problem statement
- Identify the decisions
- Identify the inputs into the decision
- Define the boundaries of the study
- Develop decision rules
- Specify tolerable limits on decision errors
- Optimize the design for obtaining data

The DQOs for this project were developed by Dr. Ted Simon, USEPA, Region 4.

2.1.1 Problem Statement

The problem here is determining whether the data collected from greens across the entire golf course during the Navy's initial investigation are representative of data that would be collected from individual greens in terms of their ranges and variability. Because of the uncertainty in future land use, the areal density of sampling may not be sufficient to characterize smaller individual exposure units in the future residential scenario. Simply put, the problem is whether the existing Navy data can be used to determine the EPC for the 4 constituents in question.

2.1.2 Identify the Decision

The decision is as follows: if a constituent fails the "predicted range" test, then the Brown and Forsythe test will be applied to examine the range and variability of the data. If it is concluded that the data on the individual greens are dissimilar with regard to their ranges and variability, then additional activities or investigations may be conducted. Should additional work be needed, the nature of these activities will be specified further at that time.

2.1.3 Decision Inputs

There are two inputs to this decision. The first input is the Navy's surface soil sampling results. The second input is the set of results that will be obtained from this proposed sampling.

2.1.4 Study Boundaries

For the range of the individual chemicals, the geographic study boundaries will be green #8, which had highest concentration of arsenic in the Navy study, and green #15 which had the lowest concentration of arsenic. The contaminants of interest are arsenic, chlordane, dieldrin, and heptachlor epoxide. Each of these contaminants had UCL95 values exceeding the FDEP soil clean-up target levels (SCTLs), based on the Navy study.

2.1.5 Decision Rule

The null hypothesis was that the proposed samples would have the same range as the Navy study. The alternative hypothesis was that the proposed sample would have a lower range than the Navy study. To be more explicit, the null hypothesis was that the data from a green would fall outside the predicted range (i.e., at least one point is less than the minimum and at least one point is greater than the maximum of the predicted range). The alternate hypothesis was that all data would fall within the predicted range or only one of the extremes of the predicted range is exceeded. If the data for the four constituents from both greens have concentrations outside both ends of the predicted range, then the greens data collected from the initial investigation can be used to determine the exposure point concentration for the greens. If the null hypothesis is not true, then the Brown & Forsythe test will be run for those constituents that fail. If the Brown and Forsythe test indicates that variability of both sets of green data is similar, then the data from the initial investigation can be used. If the variability between the greens is not similar, additional evaluation or investigation may be necessary.

The decision rule functions to determine whether the existing Navy data may be used to characterize exposure units smaller than the entire golf course, e.g. a future residential scenario.

2.1.6 Error Limits

The specification of the error limits requires (1) a choice about the percentiles of the contaminants identified in the Navy study that represent the two ends of the range and (2) a choice about the confidence limits on these percentiles. For the first, the 5th percentile and the 95th percentile of the Navy Data will be used to represent the range. There is a 90% range of variability in samples used to represent the true range. Second, the upper 90th confidence limit of the 10th percentile of the proposed sample and the lower 90th confidence limit of the 90th percentile of the data from this investigation will be used as tolerable limits on this range. These will be called the "inner" confidence limits percentiles. The concentration range between the inner confidence limits is called the predicted range.

2.1.7 Optimize Sampling Design

The choice of the null hypothesis allows the use of a predicted range determined from confidence limits on percentiles from the Navy study data as representative of the proposed sample. A nonparametric method to obtain the optimum number of samples was used to determine whether the Navy data is representative of all greens and hence, any single green.

Predicted Range of Contaminant Concentrations on a Single Green

Estimated quantiles can be obtained by interpolation. Gilbert (1987) provides a method for nonparametric estimation of confidence limits on quantiles:

$$LCL = p(n+1) - Z_{1-\alpha/2}\sqrt{np(1-p)}$$

$$UCL = p(n+1) + Z_{1-\alpha/2}\sqrt{np(1-p)}$$

Where p = percentile or quantile of interest
N = sample size
$Z_{1-\alpha/2}$ = Z-score corresponding to the level of confidence

Using arsenic as an example, the lower confidence limit of the 90th percentile of the arsenic concentrations on the greens is:

$$LCL = 0.90(22+1) - 1.96\sqrt{22*0.90(1-0.90)} = 21.48$$

Linear interpolation between the 21st and 22nd ranked values indicates a value of 22.3 ppm is the lower 90 percent confidence limit on the 90th percentile.

For the upper confidence limit of the 10th percentile of the arsenic concentrations on the greens is:

$$UCL = 0.10(22+1) - 1.96\sqrt{22*0.10(1-0.10)} = 4.52$$

Linear interpolation between the 4th and 5th ranked values indicates a value of 3.5 ppm is the upper 90 percent confidence limit on the 10th percentile. Therefore, 3.5 ppm to 22.3 ppm is the predicted range for arsenic. However, practical limitations in sample analysis limit data reporting to only two significant digits. Therefore the predicted range that will be used for arsenic is 3.5 ppm to 22 ppm.

Table 2-1 shows the LCL and UCL (as a rank), the interpolation (as a concentration), and the predicted range (including any necessary rounding) for all four contaminants.

Nonparametric Method for Power Calculation and Sample Number

A nonparametric bootstrap estimation method was used to obtain the probability that another random sample from the same data set (fictively, a single green according to the null hypothesis) would have a 95% probability of exceeding the predicted range of 3.5 to 22 ppm.

If every green has similar arsenic concentrations for example (the null hypothesis), then how many samples would be needed to be 95% confident that the greens were indeed similar. Note this is a measure of the power of this statistical procedure. If the concentrations of arsenic occurred in a normal or lognormal distribution, standard statistical methods could be used to estimate power.

10000 bootstrap iterations of a range of sample sizes from n=26 through n=40 were constructed using Excel and Crystal Ball software. A cell with a conditional statement assigned a value of 1 to a forecast if any of the predicted ranges were exceeded in any given bootstrap iteration at a given sample size. If none of the ranges were exceeded, the cell was assigned the value of zero. With many iterations, the mean of this forecast cell (with values of either one or zero) would equal the probability of exceeding the range given that the samples were obtained from identical populations. The probability of exceeding the predicted ranges will be greater than 95% if 36 samples from a single green are taken.

3.0 METHODOLOGY

Surface soil samples were collected during this field investigation. The purpose of the sampling was to determine the range and variability of the four constituents in question at individual greens.

3.1 Sampling Design

Seventy-two sampling locations were selected as follows. The area of each green was divided by the number of samples (36) to provide the area of each sample grid. The square root of the area in turn provided the dimensions of the sample grid. Sample locations were at the center of each of the 36 sample grids. The grid centers were then placed on the greens manually using GPS (real-time, submeter accuracy) to ensure that each sample location fell within the boundary of the green. Sampling locations are shown on **Figures 3-1** and **3-2**.

3.2 Sample Collection and Handling Procedures

All samples were containerized, preserved, handled, and documented in accordance with the EISOPQAM. A copy of the manual, in addition to the Field Health and Safety Plan, was maintained by the field project leader for reference during all phases of the field sampling activities.

Samples were collected using the same procedures as the Navy contractor: the cup-cutter (6" diameter turf cutting auger used for boring cup holes) was used to remove approximately 4" of turf. The turf was then set aside to plug the hole at the completion of sampling. The sample was then collected from the open hole using a spoon (approximately 3" depth). The sample was then thoroughly mixed and containerized.

3.3 Sample Analysis and Validation

Samples were analyzed by the SESD laboratory. Samples for arsenic analysis had a Quantitation Limit less than 3.5 mg/kg. Samples for chlorinated pesticide analysis had a Quantitation Limit less than 22 ug/kg for dieldrin and heptachlor epoxide, and less than 450 ug/kg for chlordane.

Using sampling and analytical procedures as outlined in the Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (EISOPQAM, EPA 2001) and the Analytical Support Branch Operations and Quality Control Manual (ASBOQCM, EPA 2001) errors introduced in the decision making process were minimized.

4.0 RESULTS

The analytical results are presented in **Tables 4-1** through **4-4**.

Table 4-5 presents a summary of the data in relation to the predicted ranges of the QAPP. As can be seen in that table, arsenic and dieldrin concentrations exceed their predicted ranges on green #8. None of the other analytes exceeded their predicted range on green #8. No analytes exceeded their predicted range on green #15.

5.0 REFERENCES

1. U.S. EPA, EPAQA/G-4, Guidance for the Data Quality Objectives Process, EPA/600/R-96/055, August 2000.

2. U.S. EPA, EPAQA/G-5, EPA Guidance for Quality Assurance Project Plans, EPA/600/R-98/018, February 1998.

3. U.S. EPA, Region 4, Analytical Support Branch Operations and Quality Control Manual Revision 1, (ASBOQCM). July 2001.

4. U.S. EPA, Region 4, Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (EISOPQAM). November 2001.

APPENDIX A

Figures

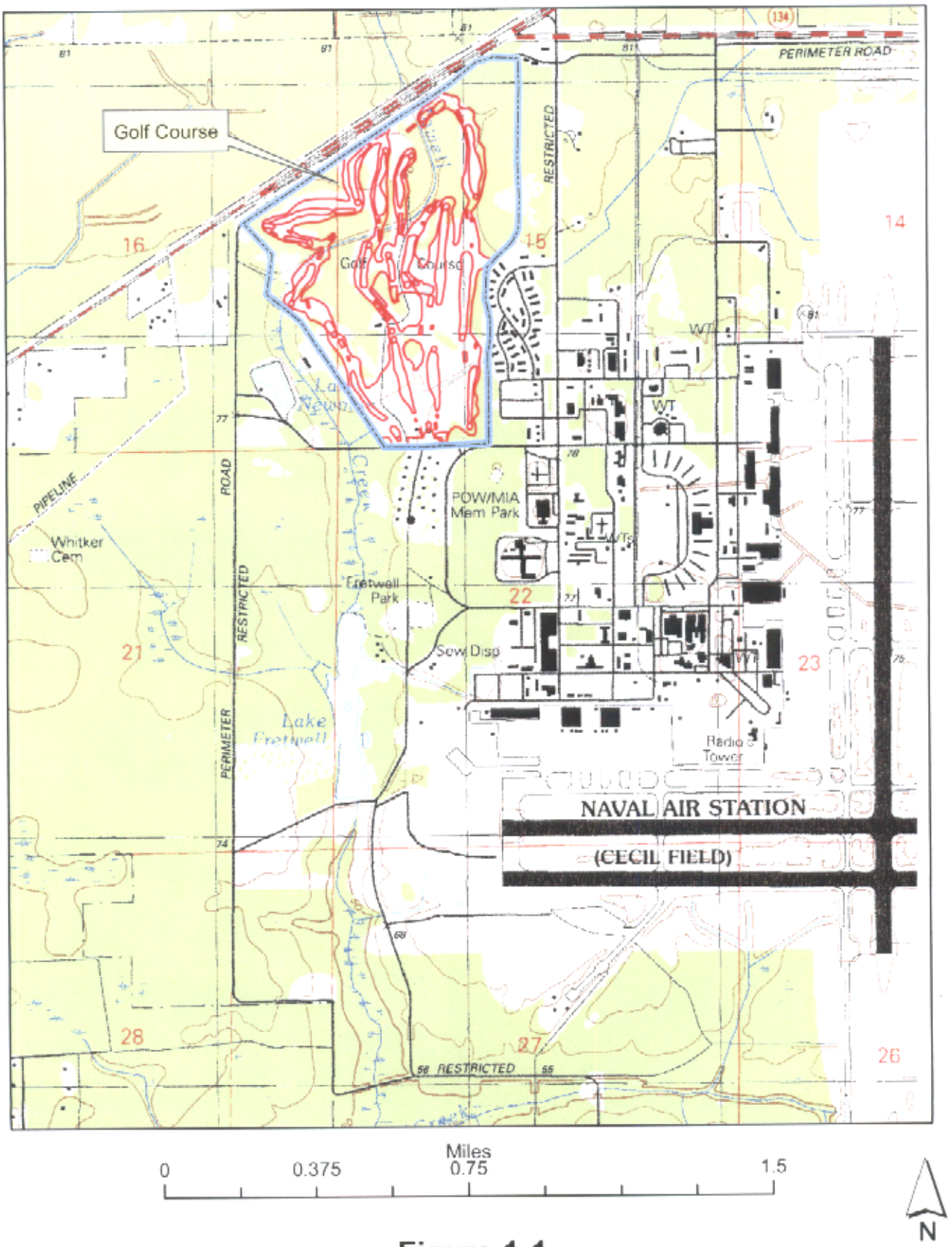

Figure 1-1
Site Location Map
NAS Cecil Field
Jacksonville, Florida

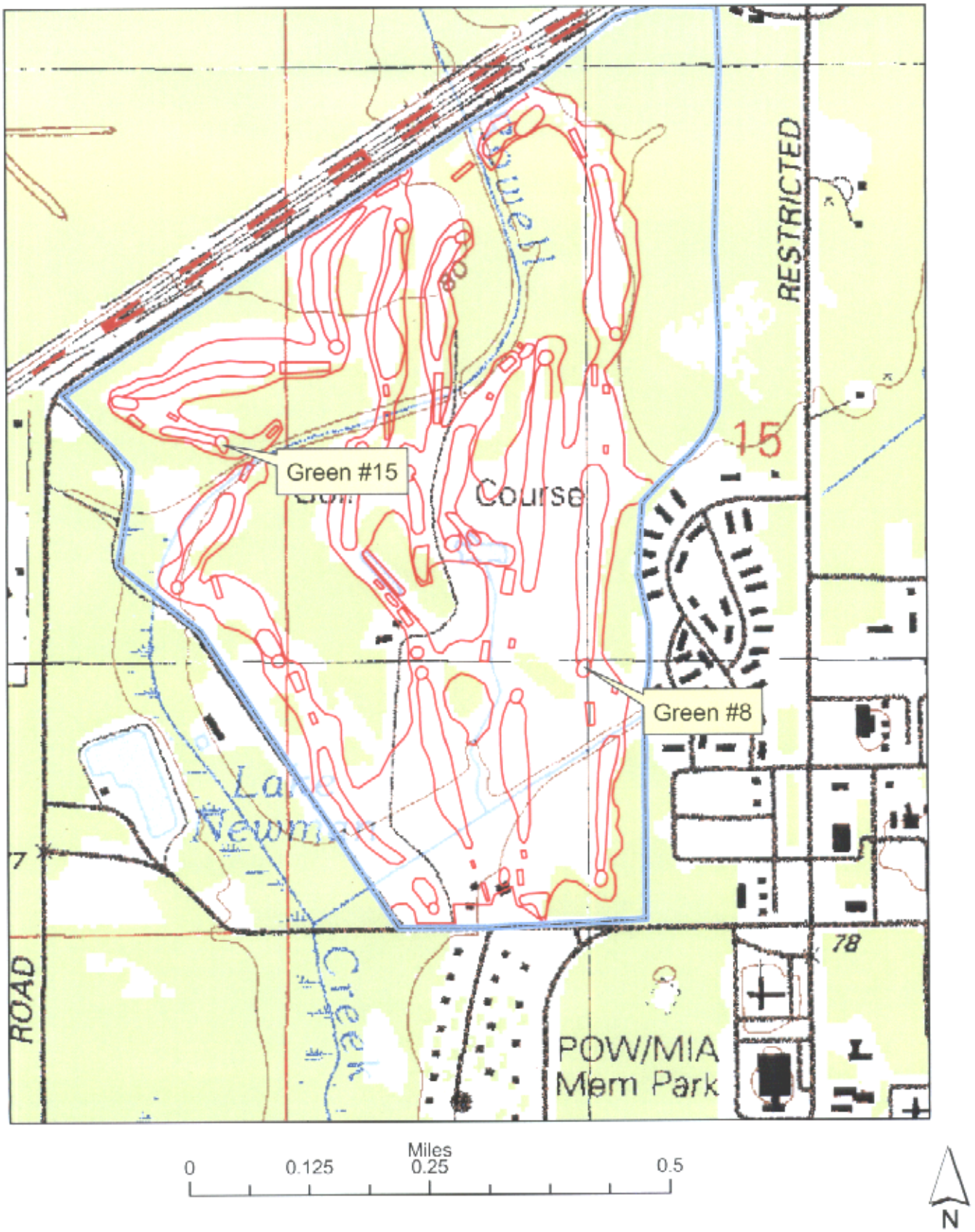

Figure 1-2
Study Areas Map
NAS Cecil Field
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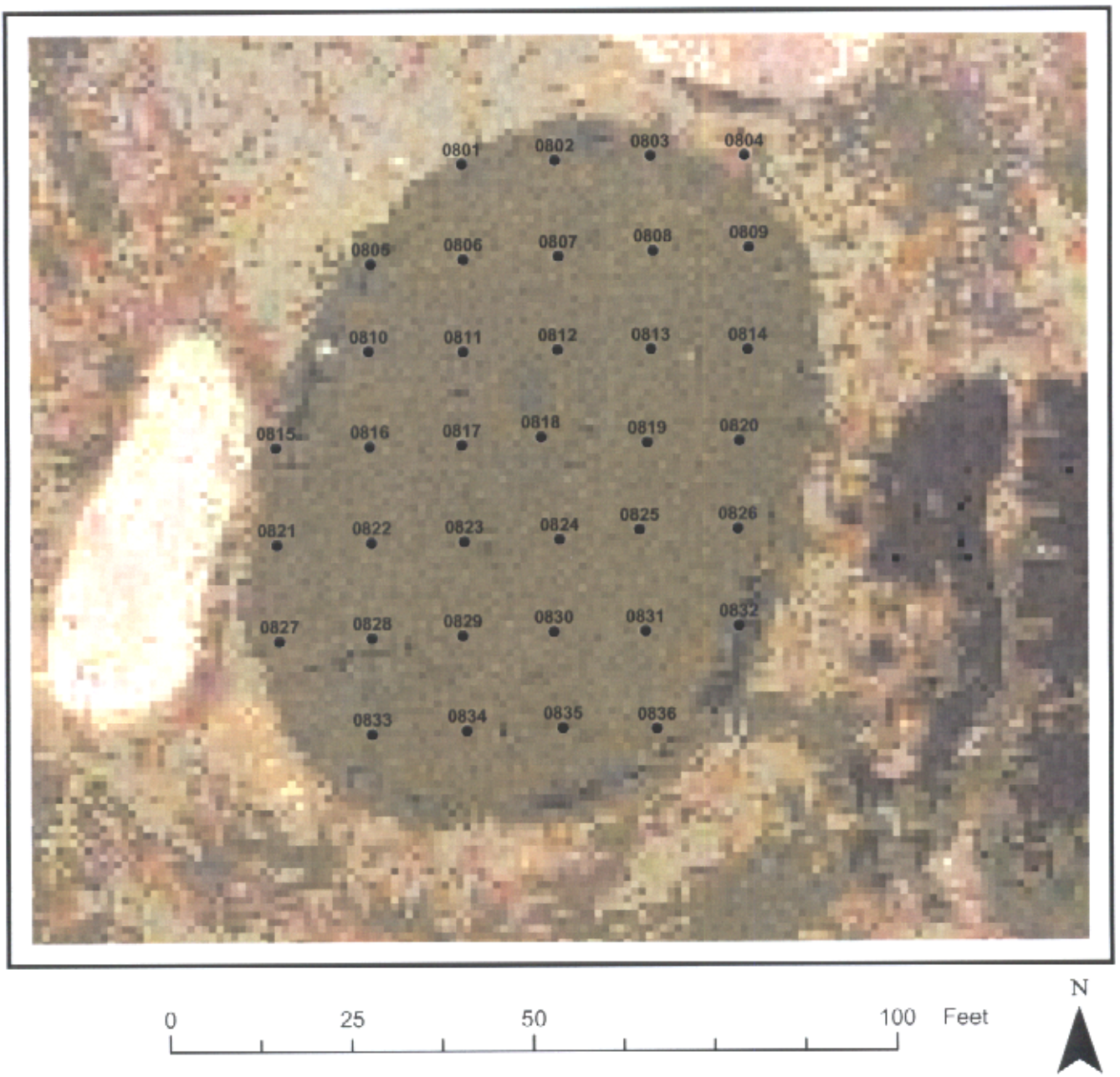

Figure 3-1
Sample Locations
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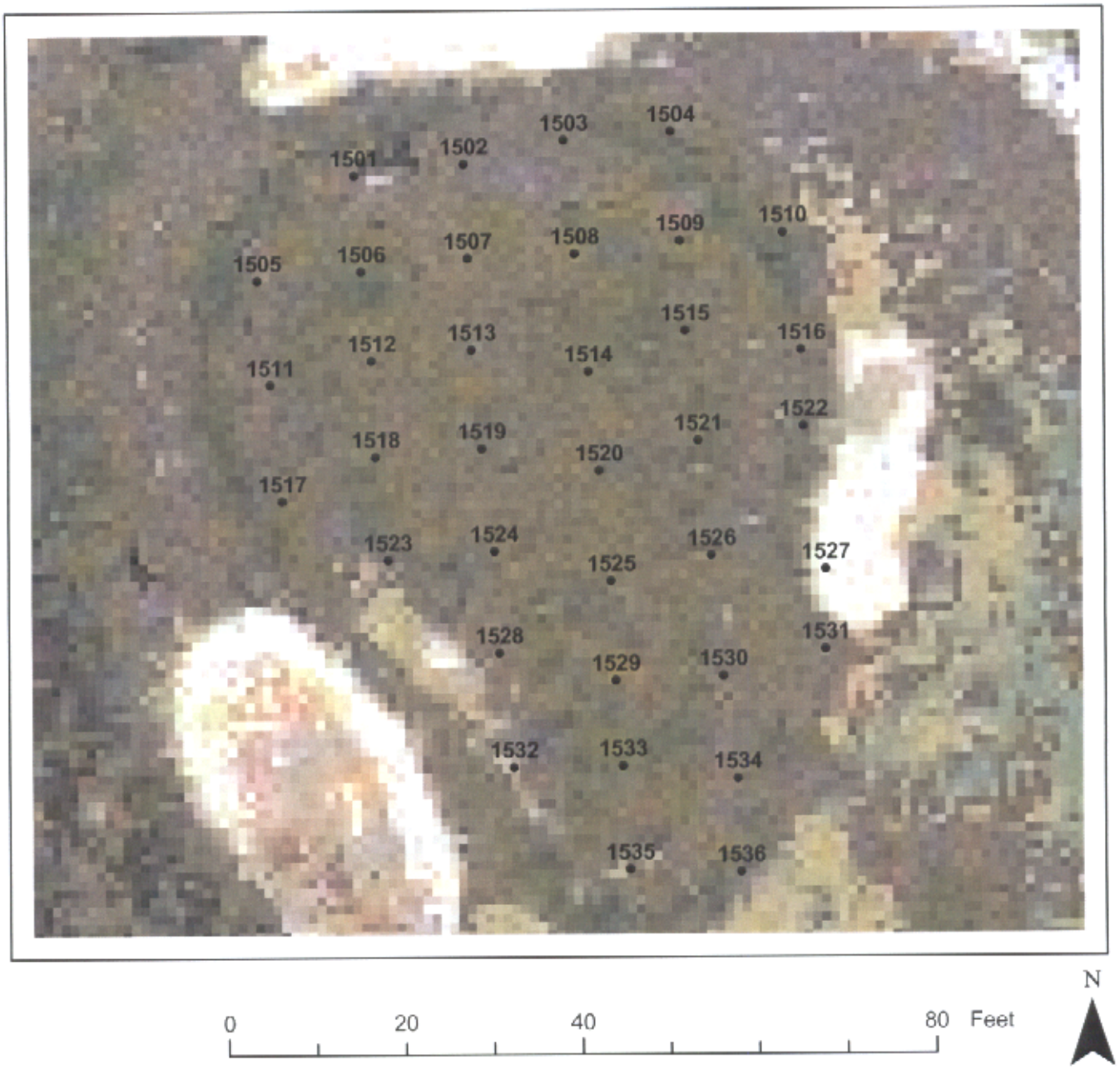

Figure 3-2
Sample Locations
Green 15
NAS Cecil Field
Jacksonville, Florida

APPENDIX B

Tables

Table 2-1 Calculated Contaminant Ranges				
	Arsenic (mg/kg)	Chlordane (ug/kg)	Dieldrin (ug/kg)	H. Epoxide (ug/kg)
LCL90 on 90%ile as a rank	21.48	24.07	26.66	26.66
UCL90 on 10%ile as a rank	4.52	4.93	5.34	5.34
LCL90 on 90%ile as a concentration	22.3	59000	448.5	522
UCL90 on 10%ile as a concentration	3.5	450	22.4	22.2
Final predicted range (with rounding)	3.5 - 22	450 - 59000	22 - 450	22 - 520

Table 4-1
Arsenic Concentrations
Green 8
Cecil Field
October 2002

		801	802	803	804	805	806	807	808
		946	945	940	935	1010	1005	1007	1000
		10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002
Arsenic	MG/KG	11 AJ	8.5	10	14	16	10	7.8	4.9

		809	810	811	812	813	814	815	816
		955	1030	1033	1030	1023	1021	1103	1100
		10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002
Arsenic	MG/KG	12	7	9.3 AJ	12	6.8 AJ	7.3	2	7.6

		817	818	819	820	0820SPL	821	822	823
		1058	1057	1054	1050	1050	1136	1135	1125
		10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002
Arsenic	MG/KG	12	6.1	9.1	3.3	7.4	6	6.1 A	28

		824	825	826	827	828	829	830	0830SPL
		1124	1122	1120	1322	1320	1318	1315	1315
		10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002
Arsenic	MG/KG	14	20	10	10	14	8.4	6.3	5.3

		831	832	833	834	835	836	0836SPL
		1314	1310	1340	1338	1333	1336	1330
		10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002
Arsenic	MG/KG	14 AJ	27	5.8	7.4	15	34	50

Data Qualifiers

A-Average value. J-Estimated value.

Table 4-2
Pesticide Concentrations
Green 8
Cecil Field
October 2002

		801	802	803	804	805	806	807	808
		946	945	940	935	1010	1005	1007	1000
		10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002
% Moisture	%	15	15	14	12	17	14	17	15
alpha-Chlordane /2	UG/KG	610 N	1400	720	670	240	2000	120 J	400
Chlordane (Tech. Mixture) /1	UG/KG	6600	13000	6900	7000	2500	19000	1200 J	4100
Dieldrin	UG/KG	290	100 N	76	120	92	130 N	7.1 JN	32 N
gamma-Chlordane /2	UG/KG	630	1400	710	680	230	2100	120 J	410
Heptachlor Epoxide	UG/KG	66 JN	120 J	57 J	63 J	26	180 J	9.8 JN	21 N

		809	810	811	812	813	814	815	816
		955	1030	1033	1030	1023	1021	1103	1100
		10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002
% Moisture	%	13	12	17	15	17	11	6	12
alpha-Chlordane /2	UG/KG	3300	1600	660	350	620	1100	110	290
Chlordane (Tech. Mixture) /1	UG/KG	30000	16000	6500	3900	6400	11000	2100	3300
Dieldrin	UG/KG	240	100 N	49 N	31 N	52 N	110 N	37	23 N
gamma-Chlordane /2	UG/KG	3300	1600	740	360	650	1200	96	280
Heptachlor Epoxide	UG/KG	210 J	110 J	33 J	22 J	42 J	U	6 J	16 JN

		817	818	819	820	0820SPL	821	822	823
		1058	1057	1054	1050	1050	1136	1135	1125
		10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002
% Moisture	%	17	14	17	7.8	8.6	12	10	16
alpha-Chlordane /2	UG/KG	770	99	540	800	710	1400	350	1900
Chlordane (Tech. Mixture) /1	UG/KG	7800	1100 J	5600	7800	7400	14000	3700	18000
Dieldrin	UG/KG	68 N	6.7 JN	58 N	68 N	99	310	61 J	310 J
gamma-Chlordane /2	UG/KG	830	100	600	810	740	1300	340	2200
Heptachlor Epoxide	UG/KG	U	4.6 J	31 JN	53 J	4.5 JN	18 JN	12 JN	U

Table 4-2 (Continued)
Pesticide Concentrations
Green 8
Cecil Field
October 2002

		824	825	826	827	828	829	830	0830SPL
		1124	1122	1120	1322	1320	1318	1315	1315
		10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002
% Moisture	%	18	15	8.3	14	15	16	13	14
alpha-Chlordane /2	UG/KG	700	1200	860	2500	760 J	570	700	680
Chlordane (Tech. Mixture) /1	UG/KG	7600	11000	8900	23000	7400 J	5700	6500	6500
Dieldrin	UG/KG	160 J	150 J	110	290	100 J	69 J	100	110 J
gamma-Chlordane /2	UG/KG	800	1300	880	2500	840 J	620	790	790
Heptachlor Epoxide	UG/KG	U	6.5 JN	7.4 JN	280 JN	14 JN	U	U	U

		831	832	833	834	835	836	0836SPL
		1314	1310	1340	1338	1333	1336	1330
		10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002	10/08/2002
% Moisture	%	14	14	14	13	12	19	19
alpha-Chlordane /2	UG/KG	3500	3400	640	1200	2400	20000	16000
Chlordane (Tech. Mixture) /1	UG/KG	36000	30000	6300	11000	21000	180000	150000
Dieldrin	UG/KG	610 J	1200 J	110	190 J	410	5100	3900 J
gamma-Chlordane /2	UG/KG	4100	3400	680	1400	2600	23000	18000
Heptachlor Epoxide	UG/KG	U	98 JN	12 JN	2 JN	7 JN	440 JN	130 JN

J-Estimated value.
N-Presumptive evidence of presence of material.
U-Material was analyzed for but not detected.
1.When no value is reported, see chlordane constituents.
2.Constituents or metabolites of technical chlordane.

Table 4-3
Arsenic Concentrations
Green 15
Cecil Field
October 2002

		1501	1502	1503	1504	1505	1506	1507	1508
		1046	1045	1050	1052	1055	1058	1105	1107
		10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002
Arsenic	MG/KG	6.2 AJ	3.8	8.5	6.9	3.1	3.5	5	4.4
		1509	1510	1511	1512	1513	1514	1514SLP	1515
		1110	1115	1118	1120	1124	1124	1124	1125
		10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002
Arsenic	MG/KG	2	7.2	7.5 AJ	4.5	4.5	3.6	3.3	5.1
		1516	1517	1518	1519	1520	1521	1521SLP	1522
		1128	1305	1308	1310	1314	1316	1316	1320
		10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002
Arsenic	MG/KG	5.4	4.8	7.1	3.2	5.3 AJ	2.6	5.2	2.9
		1523	1524	1525	1526	1527	1528	1529	1530
		1323	1346	1327	1330	1331	1335	1336	1341
		10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002
Arsenic	MG/KG	5.6	1.9	5.4	6	1.1	6.6	4.1 AJ	2.6
		1530SLP	1531	1532	1533	1534	1535	1536	
		1341	1342	1415	1350	1354	1357	1359	
		10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	
Arsenic	MG/KG	3.4	7.7	6.4	2.5	6.1	10	7.6	

Data Qualifiers

A-Average value. J-Estimated value.

Table 4-4
Pesticide Concentrations
Green 15
Cecil Field
October 2002

		1501	1502	1503	1504	1505	1506	1507	1508
		1046	1045	1050	1052	1055	1058	1105	1107
		10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002
% Moisture	%	20	19	16	20	11	14	16	17
alpha-Chlordane /2	UG/KG	28	9.7	36	16	U	U	U	U
Chlordane (Tech. Mixture) /1	UG/KG	440	300	480	220	U	U	160 J	54 J
Dieldrin	UG/KG	U	U	U	U	U	U	U	U
gamma-Chlordane /2	UG/KG	28	15	37	20	U	U	3.2 J	U
Heptachlor Epoxide	UG/KG	U	U	U	U	U	U	U	U

		1509	1510	1511	1512	1513	1514	1514SLP	1515
		1110	1115	1118	1120	1124	1124	1124	1125
		10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002
% Moisture	%	13	15	20	15	18	14	14	16
alpha-Chlordane /2	UG/KG	U	210	U	5.1 J	44	U	U	U
Chlordane (Tech. Mixture) /1	UG/KG	U	2100	60 J	80 J	460	U	U	U
Dieldrin	UG/KG	U	14 JN	U	U	U	U	U	U
gamma-Chlordane /2	UG/KG	U	260	U	4.3 J	38	U	U	U
Heptachlor Epoxide	UG/KG	U	15 JN	U	U	U	U	U	U

		1516	1517	1518	1519	1520	1521	1521SLP	1522
		1128	1305	1308	1310	1314	1316	1316	1320
		10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002
% Moisture	%	14	14	20	9.8	16	15	14	11
alpha-Chlordane /2	UG/KG	U	110	U	U	2.1 J	U	U	U
Chlordane (Tech. Mixture) /1	UG/KG	68 J	1100	U	U	35 J	U	U	60 J
Dieldrin	UG/KG	U	U	U	U	U	U	U	U
gamma-Chlordane /2	UG/KG	U	110	U	U	1 JN	U	U	U
Heptachlor Epoxide	UG/KG	U	U	U	U	U	U	U	U

Table 4-4 (Continued)
Pesticide Concentrations
Green 15
Cecil Field
October 2002

		1523	1524	1525	1526	1527	1528	1529	1530
		1323	1346	1327	1330	1331	1335	1336	1341
		10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002
% Moisture	%	13	12	15	13	9.5	10	13	9.1
alpha-Chlordane /2	UG/KG	2 J	U	1.2 J	1.6 J	27	13	U	U
Chlordane (Tech. Mixture) /1	UG/KG	42 J	U	25 J	U	350	180	U	U
Dieldrin	UG/KG	U	U	U	U	U	U	U	U
gamma-Chlordane /2	UG/KG	1.8 JN	U	1 JN	1.4 JN	35	12	U	U
Heptachlor Epoxide	UG/KG	U	U	U	U	2.4 J	U	U	U

		1530SLP	1531	1532	1533	1534	1535	1536
		1341	1342	1415	1350	1354	1357	1359
		10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002	10/16/2002
% Moisture	%	8.8	11	13	8.8	11	15	15
alpha-Chlordane /2	UG/KG	U	370	U	U	3.3 J	5.5 J	28
Chlordane (Tech. Mixture) /1	UG/KG	U	3600	U	U	U	61 J	320
Dieldrin	UG/KG	U	57	U	U	U	2.6 JN	U
gamma-Chlordane /2	UG/KG	U	370	U	4.8 JN	1.4 J	4.1 J	33
Heptachlor Epoxide	UG/KG	U	42	U	U	U	U	U

Data Qualifiers

J-Estimated value.
N-Presumptive evidence of presence of material.
U-Material was analyzed for but not detected.
1.When no value is reported, see chlordane constituents.
2.Constituents or metabolites of technical chlordane.

ATTACHMENT

Table 4-5
Summary Statistics
Cecil Field
October 2002

Green 8		Samples(1)	Minimum	Maximum	Range Low	Range High	Mean	Range Exceeded
Arsenic	MG/KG	36	2	34	3.5	22	11	Yes
Chlordane	UG/KG	36	1100	18000	450	59000	15000	No
Dieldrin	UG/KG	36	6.7	5100	22	450	300	Yes
Alpha Chlordane	UG/KG	36	99	20000	NA	NA	1600	NA
Gamma Chlordane	UG/KG	36	96	2300	NA	NA	1800	NA
Heptachlor Epoxide	UG/KG	36	2	440	22	570	62	No

Green 15		Samples(1)	Minimum	Maximum	Range Low	Range High	Mean	Range Exceeded
Arsenic	MG/KG	36	1.1	10	3.5	22	5	No
Chlordane	UG/KG	36	25	3600	450	59000	320	No
Dieldrin	UG/KG	36	2.6	57	22	450	16	No
Alpha Chlordane	UG/KG	36	1.2	370	NA	NA	33	NA
Gamma Chlordane	UG/KG	36	1	370	NA	NA	34	NA
Heptachlor Epoxide	UG/KG	36	2.4	42	22	570	15	No

1. These summaries do not include split sample data (sample numbers ending in SPL).
NA - No range was specified for these analytes.

Sample **142** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1501 /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 10:46
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
6.2 AJ	MG/KG	ARSENIC

MATRIX PRECISION OUTSIDE METHOD CONTROL LIMITS

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **143** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1502 /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 10:45
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
3.8	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **144** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1503 /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 10:50
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
8.5	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **145** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1504 /
Media: SURFACE SOIL (0' - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 10:52
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
6.9	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **146** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1505 /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 10:55
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
3.1	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **147** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1506 /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 10:58
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
3.5	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **148** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1507 /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 11:05
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
5.0	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **149** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1508 /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 11:07
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
4.4	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **150** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1509 /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 11:10
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
2.0	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **151** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1510 /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 11:15
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
7.2	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **152** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1511 /
Media: SURFACE SOIL (0' - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 11:18
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
7.5 AJ	MG/KG	ARSENIC

MATRIX PRECISION OUTSIDE METHOD CONTROL LIMITS

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **153** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1512 /
Media: SURFACE SOIL (0' - 12')

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 11:20
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
4.5	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **154** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1513 /
Media: SURFACE SOIL (0' - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 11:24
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
4.5	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample 155 FY 2003 Project: 03-0053

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1514 /
Media: SURFACE SOIL (0' - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 11:24
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
3.6	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **156** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1514SLP /
Media: SURFACE SOIL (0' - 12')

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 11:24
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
3.3	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **157** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1515 /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 11:25
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
5.1	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **158** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1516 /
Media: SURFACE SOIL (0' - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 11:28
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
5.4	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **159** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1517 /
Media: SURFACE SOIL (0" - 12')

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 13:05
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
4.8	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **160** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1518 /
Media: SURFACE SOIL (0' - 12')

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 13:08
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
7.1	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **161** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1519 /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 13:10
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
3.2	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **162** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1520 /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 13:14
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
5.3 AJ	MG/KG	ARSENIC

MATRIX PRECISION OUTSIDE METHOD CONTROL LIMITS

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **163** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1521 /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 13:16
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
2.6	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **164** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1521SLP /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 13:16
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
5.2	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample 165 FY 2003 Project: 03-0053

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1522 /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 13:20
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
2.9	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **166** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1523 /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 13:23
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
5.6	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **167** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1524 /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 13:46
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
1.9	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **168** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1525 /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 13:27
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
5.4	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **169** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1526 /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 13:30
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
6.0	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **170** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1527 /
Media: SURFACE SOIL (0' - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 13:31
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
1.1	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample 171 FY 2003 Project: 03-0053

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1528 /
Media: SURFACE SOIL (0' - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 13:35
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
6.6	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **172** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1529 /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 13:36
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
4.1 AJ	MG/KG	ARSENIC

MATRIX PRECISION OUTSIDE METHOD LIMITS

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **173** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1530 /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 13:41
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
2.6	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **174** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1530SLP /
Media: SURFACE SOIL (0' - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 13:41
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
3.4	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **175** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1531 /
Media: SURFACE SOIL (0" - 12')

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 13:42
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
7.7	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample 176 FY 2003 Project: 03-0053

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1532 /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 14:15
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
6.4	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample 177 FY 2003 Project: 03-0053

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1533 /
Media: SURFACE SOIL (0' - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 13:50
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
2.5	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **178** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1534 /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 13:54
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
6.1	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **179** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1535 /
Media: SURFACE SOIL (0' - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 13:57
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
10	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample **180** FY **2003** Project: **03-0053**

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 1536 /
Media: SURFACE SOIL (0" - 12")

Produced by: Wasko, Mike
Requestor:
Project Leader: FSLOAN
Beginning: 10/16/2002 13:59
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
7.6	MG/KG	ARSENIC

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4

Science and Ecosystem Support Division
980 College Station Road
Athens, Georgia 30605-2720

MEMORANDUM

Date: 11/26/2002

Subject: Results of PESTICIDES/PCB Sample Analysis
03-0032 NAS Cecil Field
Jacksonville, FL

From: Revells, Lavon

To: Sloan, Fred

CC: SESD/EIB/SAS

Thru: Cosgrove, Bill
Chief,Organic Chemistry Section
Analytical Support Branch

Attached are the results of analysis of samples collected as part of the subject project. If you have any questions, please contact me

Sample Disposal Policy:

According to our records this project is not part of a criminal investigation.
Because of our limited space for long term sample storage, we must perform disposals on a routine basis.

Therefore, please take note that within 90 days of the date of this memo, the original samples and all extracts associated with the samples will be disposed of as required by all applicable and appropriate statutes

These samples may be held in custody for longer than 90 days only by contacting our sample coordinator, Debbie Colquitt, by e-mail at Colquitt Debbie@epa.gov.

ATTACHMENT

Sample 34 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0801 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 09:46

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
66 JN	UG/KG	HEPTACHLOR EPOXIDE
290	UG/KG	DIELDRIN
6600	UG/KG	CHLORDANE (TECH. MIXTURE) /1
630	UG/KG	GAMMA-CHLORDENE /2
610 N	UG/KG	ALPHA-CHLORDANE /2
15	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms. 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 35 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0802 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 09:45

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
120 J	UG/KG	HEPTACHLOR EPOXIDE
100 N	UG/KG	DIELDRIN
13000	UG/KG	CHLORDANE (TECH. MIXTURE) /1
1400	UG/KG	GAMMA-CHLORDENE /2
1400	UG/KG	ALPHA-CHLORDANE /2
15	%	% MOISTURE

A-average value NA-not analyzed NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present resampling and reanalysis is necessary for verification
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 36 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0803 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 09:40

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
57 J	UG/KG	HEPTACHLOR EPOXIDE
76	UG/KG	DIELDRIN
6900	UG/KG	CHLORDANE (TECH MIXTURE) /1
710	UG/KG	GAMMA-CHLORDENE /2
720	UG/KG	ALPHA-CHLORDANE /2
14	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit.
R-qc indicates that data unusable compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 37 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0804 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 09:35

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
63 J	UG/KG	HEPTACHLOR EPOXIDE
120	UG/KG	DIELDRIN
7000	UG/KG	CHLORDANE (TECH. MIXTURE) /1
680	UG/KG	GAMMA-CHLORDENE /2
670	UG/KG	ALPHA-CHLORDANE /2
12	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value N-presumptive evidence of presence of material
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit.
R-qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 38 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0805 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 10:10

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
26	UG/KG	HEPTACHLOR EPOXIDE
92	UG/KG	DIELDRIN
2500	UG/KG	CHLORDANE (TECH. MIXTURE) /1
230	UG/KG	GAMMA-CHLORDENE /2
240	UG/KG	ALPHA-CHLORDANE /2
17	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 39 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0806 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 10:05

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
180 J	UG/KG	HEPTACHLOR EPOXIDE
130 N	UG/KG	DIELDRIN
19000	UG/KG	CHLORDANE (TECH. MIXTURE) /1
2100	UG/KG	GAMMA-CHLORDENE /2
2000	UG/KG	ALPHA-CHLORDANE /2
14	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 40 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0807 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 10:07

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
9.8 JN	UG/KG	HEPTACHLOR EPOXIDE
7.1 JN	UG/KG	DIELDRIN
1200 J	UG/KG	CHLORDANE (TECH. MIXTURE) /1
120 J	UG/KG	GAMMA-CHLORDENE /2
120 J	UG/KG	ALPHA-CHLORDANE /2
17	%	% MOISTURE

QUANT. IS SUSPECT BASED ON QC DATA

A-average value. NA-not analyzed NAI-interferences. J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present resampling and reanalysis is necessary for verification
C-confirmed by gcms: 1.when no value is reported. see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 41 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0808 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 10:00

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
21 N	UG/KG	HEPTACHLOR EPOXIDE
32 N	UG/KG	DIELDRIN
4100	UG/KG	CHLORDANE (TECH MIXTURE) /1
410	UG/KG	GAMMA-CHLORDENE /2
400	UG/KG	ALPHA-CHLORDANE /2
15	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 42 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0809 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 09:55

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
210 J	UG/KG	HEPTACHLOR EPOXIDE
240	UG/KG	DIELDRIN
30000	UG/KG	CHLORDANE (TECH. MIXTURE) /1
3300	UG/KG	GAMMA-CHLORDENE /2
3300	UG/KG	ALPHA-CHLORDANE /2
13	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1 when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 43 FY 2003 Project 03-0032

SPECIFIED TESTS

Facility NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0810 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 10:30

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
110 J	UG/KG	HEPTACHLOR EPOXIDE
100 N	UG/KG	DIELDRIN
16000	UG/KG	CHLORDANE (TECH. MIXTURE) /1
1600	UG/KG	GAMMA-CHLORDENE /2
1600	UG/KG	ALPHA-CHLORDANE /2
12	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported. see chlordane constituents. 2.constituents or metabolites of technical chlordane

Sample 44 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0811 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 10:33

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
33 J	UG/KG	HEPTACHLOR EPOXIDE
49 N	UG/KG	DIELDRIN
6500	UG/KG	CHLORDANE (TECH. MIXTURE) /1
740	UG/KG	GAMMA-CHLORDENE /2
660	UG/KG	ALPHA-CHLORDANE /2
17	%	% MOISTURE

A-average value NA-not analyzed NAI-interferences. J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 45 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 0812 /
Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon
Requestor:
Project Leader: FSLOAN
Beginning: 10/08/2002 10:30
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
22 J	UG/KG	HEPTACHLOR EPOXIDE
31 N	UG/KG	DIELDRIN
3900	UG/KG	CHLORDANE (TECH. MIXTURE) /1
360	UG/KG	GAMMA-CHLORDENE /2
350	UG/KG	ALPHA-CHLORDANE /2
15	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 46 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 0813 /
Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon
Requestor:
Project Leader: FSLOAN
Beginning: 10/08/2002 10:23
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
42 J	UG/KG	HEPTACHLOR EPOXIDE
52 N	UG/KG	DIELDRIN
6400	UG/KG	CHLORDANE (TECH. MIXTURE) /1
650	UG/KG	GAMMA-CHLORDENE /2
620	UG/KG	ALPHA-CHLORDANE /2
17	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

Sample 47 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 0814 /
Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon
Requestor:
Project Leader: FSLOAN
Beginning: 10/08/2002 10:21
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
69 U	UG/KG	HEPTACHLOR EPOXIDE
110 N	UG/KG	DIELDRIN
11000	UG/KG	CHLORDANE (TECH. MIXTURE) /1
1200	UG/KG	GAMMA-CHLORDENE /2
1100	UG/KG	ALPHA-CHLORDANE /2
11	%	% MOISTURE

A-average value. NA-not analyzed NAI-interferences. J-estimated value N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported see chlordane constituents 2 constituents or metabolites of technical chlordane

Sample 48 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 0815 /
Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon
Requestor:
Project Leader: FSLOAN
Beginning: 10/08/2002 11:03
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
6.0 J	UG/KG	HEPTACHLOR EPOXIDE
37	UG/KG	DIELDRIN
2100	UG/KG	CHLORDANE (TECH. MIXTURE) /1
96	UG/KG	GAMMA-CHLORDENE /2
110	UG/KG	ALPHA-CHLORDANE /2
6.0	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value N-presumptive evidence of presence of material
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit
R-ec indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification
C-confirmed by gcms 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 49 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0816 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revelis, Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 11:00

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
16 JN	UG/KG	HEPTACHLOR EPOXIDE
23 N	UG/KG	DIELDRIN
3300	UG/KG	CHLORDANE (TECH. MIXTURE) /1
280	UG/KG	GAMMA-CHLORDENE /2
290	UG/KG	ALPHA-CHLORDANE /2
12	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported. see chlordane constituents 2 constituents or metabolites of technical chlordane

Sample 51 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0818 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells. Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 10:57

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
4.6 J	UG/KG	HEPTACHLOR EPOXIDE
6.7 JN	UG/KG	DIELDRIN
1100 J	UG/KG	CHLORDANE (TECH. MIXTURE) /1
100	UG/KG	GAMMA-CHLORDENE /2
99	UG/KG	ALPHA-CHLORDANE /2
14	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences J-estimated value N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

Sample 52 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0819 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 10:54

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
31 JN	UG/KG	HEPTACHLOR EPOXIDE
58 N	UG/KG	DIELDRIN
5600	UG/KG	CHLORDANE (TECH. MIXTURE) /1
600	UG/KG	GAMMA-CHLORDENE /2
540	UG/KG	ALPHA-CHLORDANE /2
17	%	% MOISTURE

A-average value NA-not analyzed NAI-interferences J-estimated value N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification
C-confirmed by gcms. 1.when no value is reported see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 53 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station 0820 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLCAN

Beginning: 10/08/2002 10:50

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
53 J	UG/KG	HEPTACHLOR EPOXIDE
68 N	UG/KG	DIELDRIN
7800	UG/KG	CHLORDANE (TECH. MIXTURE) /1
810	UG/KG	GAMMA-CHLORDENE /2
800	UG/KG	ALPHA-CHLORDANE /2
7.8	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 54 FY 2003 Project 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program SFE

Id/Station: 0820SPL /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader FSLOAN

Beginning: 10/08/2002 10:50

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
4.5 JN	UG/KG	HEPTACHLOR EPOXIDE
99	UG/KG	DIELDRIN
7400	UG/KG	CHLORDANE (TECH. MIXTURE) /1
740	UG/KG	GAMMA-CHLORDENE /2
710	UG/KG	ALPHA-CHLORDANE /2
8.6	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents. 2.constituents or metabolites of technical chlordane

Sample 55 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0821 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells. Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 11:36

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
18 JN	UG/KG	HEPTACHLOR EPOXIDE
310	UG/KG	DIELDRIN
14000	UG/KG	CHLORDANE (TECH MIXTURE) /1
1300	UG/KG	GAMMA-CHLORDENE /2
1400	UG/KG	ALPHA-CHLORDANE /2
12	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms. 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 56 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0822 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 11:35

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
12 JN	UG/KG	HEPTACHLOR EPOXIDE
61 J	UG/KG	DIELDRIN
3700	UG/KG	CHLORDANE (TECH. MIXTURE) /1
340	UG/KG	GAMMA-CHLORDENE /2
350	UG/KG	ALPHA-CHLORDANE /2
10	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification
C-confirmed by gcms. 1 when no value is reported. see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 57 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program SFE

Id/Station: 0823 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 11:25

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
49 U	UG/KG	HEPTACHLOR EPOXIDE
310 J	UG/KG	DIELDRIN
18000	UG/KG	CHLORDANE (TECH. MIXTURE) /1
2200	UG/KG	GAMMA-CHLORDENE /2
1900	UG/KG	ALPHA-CHLORDANE /2
16	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1 when no value is reported, see chlordane constituents. 2.constituents or metabolites of technical chlordane

Sample 58 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 0824 /
Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon
Requestor:
Project Leader: FSLOAN
Beginning: 10/08/2002 11:24
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
28 U	UG/KG	HEPTACHLOR EPOXIDE
160 J	UG/KG	DIELDRIN
7600	UG/KG	CHLORDANE (TECH. MIXTURE) /1
800	UG/KG	GAMMA-CHLORDENE /2
700	UG/KG	ALPHA-CHLORDANE /2
18	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 59 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0825 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 11:22

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
6.5 JN	UG/KG	HEPTACHLOR EPOXIDE
150 J	UG/KG	DIELDRIN
11000	UG/KG	CHLORDANE (TECH. MIXTURE) /1
1300	UG/KG	GAMMA-CHLORDENE /2
1200	UG/KG	ALPHA-CHLORDANE /2
15	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the min mum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms. 1 when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 60 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 0826 /
Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon
Requestor:
Project Leader: FSLOAN
Beginning: 10/08/2002 11:20
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
7.4 JN	UG/KG	HEPTACHLOR EPOXIDE
110	UG/KG	DIELDRIN
8900	UG/KG	CHLORDANE (TECH. MIXTURE) /1
880	UG/KG	GAMMA-CHLORDENE /2
860	UG/KG	ALPHA-CHLORDANE /2
8.3	%	% MOISTURE

A-average value NA-not analyzed NAI-interferences J-estimated value N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 61 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0827 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 13:22

Ending:

RESULTS	UNITS	ANALYTE
280 JN	UG/KG	HEPTACHLOR EPOXIDE
290	UG/KG	DIELDRIN
23000	UG/KG	CHLORDANE (TECH. MIXTURE) /1
2500	UG/KG	GAMMA-CHLORDENE /2
2500	UG/KG	ALPHA-CHLORDANE /2
14	%	% MOISTURE

A-average value. NA-not analyzed NAI-interferences J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 62 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 0828 /
Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon
Requestor:
Project Leader: FSLOAN
Beginning: 10/08/2002 13:20
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
14 JN	UG/KG	HEPTACHLOR EPOXIDE
100 J	UG/KG	DIELDRIN
7400 J	UG/KG	CHLORDANE (TECH. MIXTURE) /1
840 J	UG/KG	GAMMA-CHLORDENE /2
760 J	UG/KG	ALPHA-CHLORDANE /2
15	%	% MOISTURE

QUANT. IS SUSPECT BASED ON QC DATA

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 63 FY 2003 Project 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 0829 /
Media: SURFACE SOIL (0" - 12")

Produced by Revells, Lavon
Requestor
Project Leader FSLOAN
Beginning 10/08/2002 13:18
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
13 U	UG/KG	HEPTACHLOR EPOXIDE
69 J	UG/KG	DIELDRIN
5700	UG/KG	CHLORDANE (TECH. MIXTURE) /1
620	UG/KG	GAMMA-CHLORDENE /2
570	UG/KG	ALPHA-CHLORDANE /2
16	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 64 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 0830 /
Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon
Requestor:
Project Leader: FSLOAN
Beginning: 10/08/2002 13:15
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
16 U	UG/KG	HEPTACHLOR EPOXIDE
100	UG/KG	DIELDRIN
6500	UG/KG	CHLORDANE (TECH. MIXTURE) /1
790	UG/KG	GAMMA-CHLORDENE /2
700	UG/KG	ALPHA-CHLORDANE /2
13	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 65 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0830SPL /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 13:15

Ending

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
15 U	UG/KG	HEPTACHLOR EPOXIDE
110 J	UG/KG	DIELDRIN
6500	UG/KG	CHLORDANE (TECH. MIXTURE) /1
790	UG/KG	GAMMA-CHLORDENE /2
680	UG/KG	ALPHA-CHLORDANE /2
14	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification
C-confirmed by gcms. 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 66 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0831 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 13:14

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
59 U	UG/KG	HEPTACHLOR EPOXIDE
610 J	UG/KG	DIELDRIN
36000	UG/KG	CHLORDANE (TECH. MIXTURE) /1
4100	UG/KG	GAMMA-CHLORDENE /2
3500	UG/KG	ALPHA-CHLORDANE /2
14	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification
C-confirmed by gcms: 1 when no value is reported. see chlordane constituents 2 constituents or metabolites of technical chlordane

Sample 67 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0832 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 13:10

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
98 JN	UG/KG	HEPTACHLOR EPOXIDE
1200 J	UG/KG	DIELDRIN
30000	UG/KG	CHLORDANE (TECH MIXTURE) /1
3400	UG/KG	GAMMA-CHLORDENE /2
3400	UG/KG	ALPHA-CHLORDANE /2
14	%	% MOISTURE

A-average value NA-not analyzed. NAI-interferences J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 68 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Ceci Field Jacksonville, FL

Program: SFE

Id/Station: 0833 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 13:40

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
12 JN	UG/KG	HEPTACHLOR EPOXIDE
110	UG/KG	DIELDRIN
6300	UG/KG	CHLORDANE (TECH. MIXTURE) /1
680	UG/KG	GAMMA-CHLORDENE /2
640	UG/KG	ALPHA-CHLORDANE /2
14	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

Sample 69 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0834 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 13:38

Ending

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
2.0 JN	UG/KG	HEPTACHLOR EPOXIDE
190 J	UG/KG	DIELDRIN
11000	UG/KG	CHLORDANE (TECH. MIXTURE) /1
1400	UG/KG	GAMMA-CHLORDENE /2
1200	UG/KG	ALPHA-CHLORDANE /2
13	%	% MOISTURE

A-average value NA-not analyzed NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 70 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL
Program: SFE
Id/Station: 0835 /
Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon
Requestor:
Project Leader: FSLOAN
Beginning: 10/08/2002 13:33
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
7.0 JN	UG/KG	HEPTACHLOR EPOXIDE
410	UG/KG	DIELDRIN
21000	UG/KG	CHLORDANE (TECH. MIXTURE) /1
2600	UG/KG	GAMMA-CHLORDENE /2
2400	UG/KG	ALPHA-CHLORDANE /2
12	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms. 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 71 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0836 /

Media: SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 13:36

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
440 JN	UG/KG	HEPTACHLOR EPOXIDE
5100	UG/KG	DIELDRIN
180000	UG/KG	CHLORDANE (TECH. MIXTURE) /1
23000	UG/KG	GAMMA-CHLORDENE /2
20000	UG/KG	ALPHA-CHLORDANE /2
19	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1 when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 72 FY 2003 Project: 03-0032

SPECIFIED TESTS

Facility: NAS Cecil Field Jacksonville, FL

Program: SFE

Id/Station: 0836SPL /

Media SURFACE SOIL (0" - 12")

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN

Beginning: 10/08/2002 13:30

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
130 JN	UG/KG	HEPTACHLOR EPOXIDE
3900 J	UG/KG	DIELDRIN
150000	UG/KG	CHLORDANE (TECH. MIXTURE) /1
18000	UG/KG	GAMMA-CHLORDENE /2
16000	UG/KG	ALPHA-CHLORDANE /2
19	%	% MOISTURE

A-average value NA-not analyzed. NAI-interferences J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane