Data Summary Report
IHSS Group 600-6

June 2003

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Enclosure

IHSS Group 600-6 Real and QC Data (compact disc)

ACRONYMS AND ABBREVIATIONS

AL	action level
AR	Administrative Record
CDPHE	Colorado Department of Public Health and Environment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOE	U.S. Department of Energy
DQA	Data Quality Assessment
DQO	Data Quality Objective
EPA	U.S. Environmental Protection Agency
HRR	Historical Release Report
IA	Industrial Area
IASAP	Industrial Area Sampling and Analysis Plan
IHSS	Individual Hazardous Substance Site
K-H	Kaiser-Hill Company L.L.C.
LCS	Laboratory Control Sample
MDL	method detection limit
MS/MSD	matrix spike/matrix spike duplicates
NA	not applicable
ND	non-detect
NFAA `	No Further Accelerated Action
PAC	Potential Area of Concern
PARCCS	precision, accuracy, representativeness, completeness, comparability, and sensitivity
QC	quality control
RCRA	Resource Conservation and Recovery Act
RFCA	Rocky Flats Cleanup Agreement
RFETS	Rocky Flats Environmental Technology Site
RIN	report identification number
RPD	representative percent difference
SAP	Sampling and Analysis Plan
SWD	Soil Water Database
ug/kg	microgram per kilogram
V&V	verification and validation
WRW	Wildlife Refuge Worker

1.0 INTRODUCTION

This Data Summary Report summarizes characterization activities conducted at Individual Hazardous Substance Site (IHSS) Group 600-6 at the Rocky Flats Environmental Technology Site (RFETS or Site) in Golden, Colorado. Characterization activities were planned and executed in accordance with the Industrial Area (IA) Sampling and Analysis Plan (SAP) (IASAP) (DOE 2001a) and IASAP Addendum #IA-02-01 (DOE 2001b).

IHSS Group 600-6 consists of Potential Area of Concern (PAC) 600-1005, Process Waste Spill – Portal 1. The location of IHSS Group 600-6 (PAC 600-1005) is shown on Figure 1.

2.0 SITE CHARACTERIZATION

Characterization of IHSS Group 600-6 consisted of historical knowledge (DOE 1994) and two sampling locations with specifications as described in IASAP Addendum #IA-02-01 (DOE 2001b). No existing characterization data were identified for this PAC. The sampling specifications for the characterization samples collected are listed in Table 1. The location of these samples are shown on Figure 2. Deviations from the IASAP Addendum consisted of moving the two sampling locations approximately 30 feet to the northeast to adequately cover the revised boundaries of PAC 600-1005. All analytical results are non-detect and a summary of these results is presented in Table 2. Raw data, consisting of real and quality control (QC), are enclosed on a compact disc.

Analytical results indicate that No Further Accelerated Action (NFAA) for IHSS Group 600-6 is warranted for the following reasons:

- All contaminant concentrations are less than RFCA Wildlife Refuge Worker (WRW) action levels (ALs).
- All contaminant concentrations are less than Ecological Receptor ALs.
- There is no identified potential to exceed surface water standards at a POC from this IHSS Group.

A subsurface soil risk screen is not required because this PAC was the result of an isolated surface soil spill and subsurface soil was not evaluated. In addition, a comparison table of the analytical results to the WRW and Ecological Receptor ALs is not included because all of the results are non-detect.

Approval of this Data Summary Report constitutes regulatory agency concurrence of this IHSS Group as an NFAA. This information and NFAA determination will be documented in the FY03 Historical Release Report (HRR).

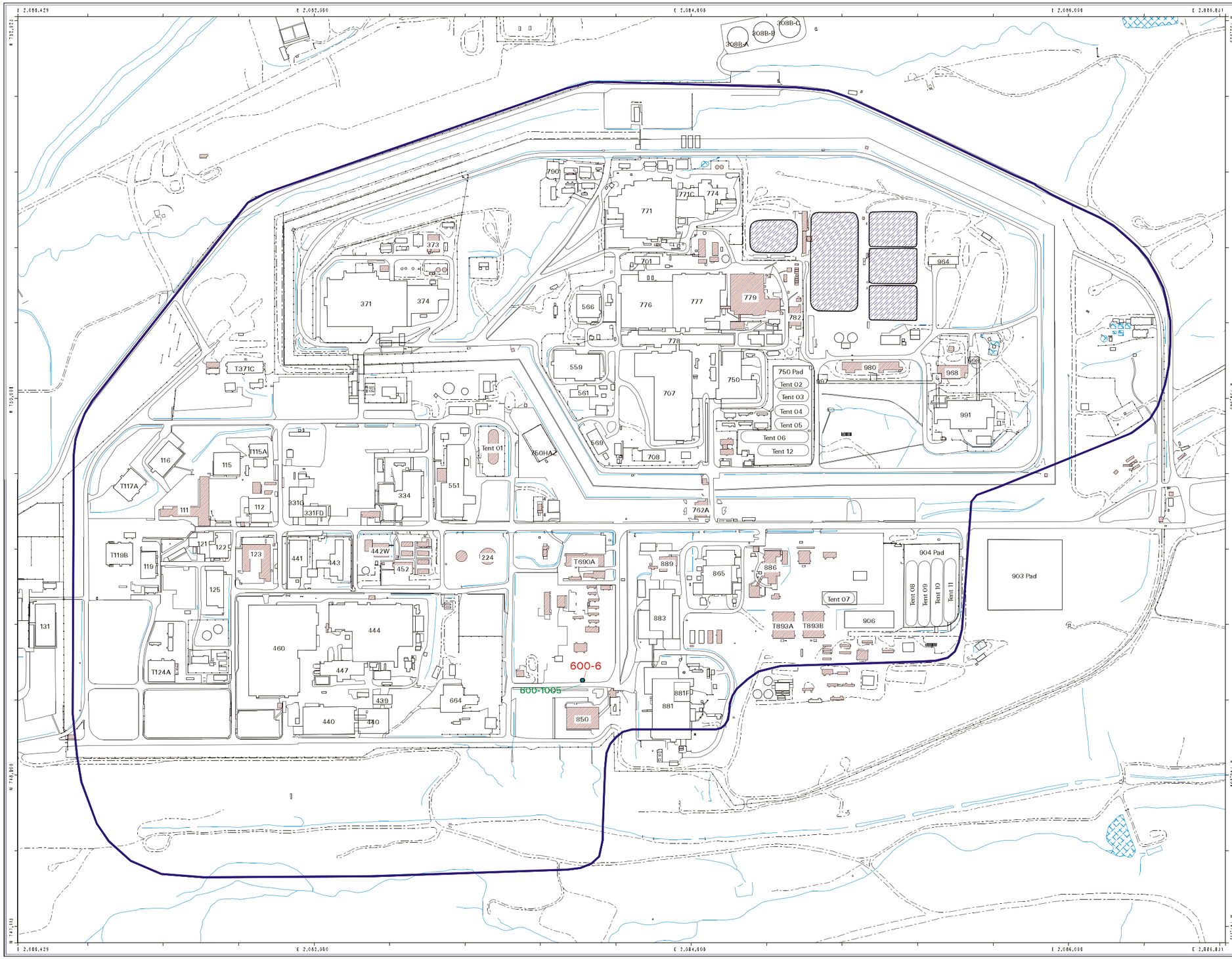

Figure 1

IA Group Location Map

EXPLANATION

IHSS Grouping

600-6

Standard Map Features

- Buildings and other structures
- Demolished buildings
- Solar Evaporation Ponds (SEPs)
- Lakes and ponds
- Streams, ditches, or other drainage features
- Fences and other barriers
- Paved roads
- Dirt roads
- Industrial Area Operable Unit Boundary

DATA SOURCE BASE FEATURES:
FACs
Historical Release Report (HRR)
2nd Annual Update
Sept. 30, 1997

Individual Hazardous Substance Sites (IHSS)
DOE, 1992, HRR Report and Subsequent Updates.

Buildings, fences, hydrography, roads and other structures from 1994 aerial fly-over data captured by EG&G RSL, Las Vegas. Digitized from the orthophotographs, 1/95

Scale = 1 : 6330
1 inch represents approximately 528 feet

150 0 300 600 ft

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

GIS Dept. 303-966-7707

Prepared by: DynCorp THE ART OF TECHNOLOGY

Prepared for: KAISER-HILL COMPANY

September 24, 2002

NT_Svr w:/projects/fy2002/02-0935/ia-600-6.aml

Table 1
IHSS Group 600-6 - Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Lab Method
600-6	PAC 600-1005 – Former Pesticide Storage Area	CD35-A001	2083426.50	748490.04	surface soil	A	Pesticides/Herbicides	SW-846 8151A
		CD35-A002	2083422.16	748484.70	surface soil	A	Pesticides/Herbicides	SW-846 8151A

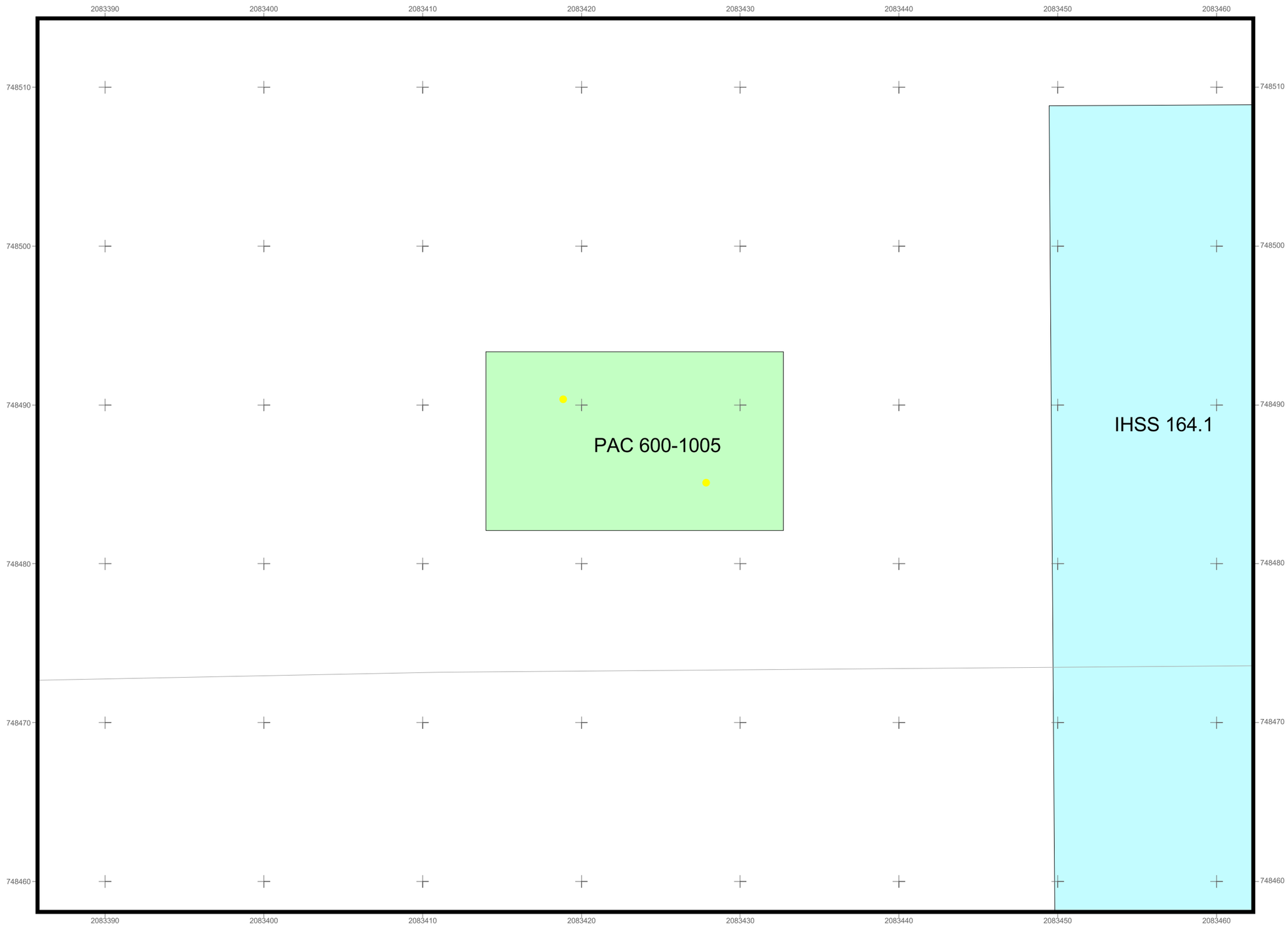

Figure 2
Sampling Locations
PAC 600-1005

Key

- PAC
- IHSS
- Paved area
- Dirt road
- Stream, ditch, or other drainage
- Sampling Location

Disclaimer:
Neither the U.S. Government, Kaiser Hill, LLC., Dyncorp I&ET, any agency thereof, or any of their employees makes any warranty, express or implied, or assumes and legal liability or responsibility for the accurracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represented that its use would not infringe privately owned rights.

N

5 0 5 10 Feet

Scale = 1:100

State Plan Coordinate Projection
Colorado Central Zone
Dataum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: Date: June 2003

RADMS

Prepared for:

KAISER•HILL COMPANY

File: w:/projects/fy2002/600-6char.apr

Table 2
IHSS 600-6 - Summary of Analytical Results

Analyte	Total Number Samples Collected	Samples above Detection Limit	Detection Frequency (%)	Maximum Concentration	Average Concentration	Tier I Action Level	Tier II Action Level	Background Mean +2SD	Unit
2,2-Dichloropropanoic Acid	2	0	0	43	43	NA	NA	NA	ug/kg
2,4,5-Trichlorophenoxyacetic Acid	2	0	0	22	21.5	NA	NA	NA	ug/kg
2,4-DB	2	0	0	87	86	NA	NA	NA	ug/kg
2,4-Dichlorophenoxyacetic Acid, Salts And Esters	2	0	0	87	86	NA	NA	NA	ug/kg
Dicamba	2	0	0	43	43	NA	NA	NA	ug/kg
Dichlorprop	2	0	0	87	86	NA	NA	NA	ug/kg
MCPA	2	0	0	8700	8600	NA	NA	NA	ug/kg
MCPP	2	0	0	8700	8600	NA	NA	NA	ug/kg
Phenol, 2-(1-Methylpropyl)-4,6-Dinitro-	2	0	0	13	13	NA	NA	NA	ug/kg
Propanoic Acid, 2-(2,4,5-Trichlorophenoxy)	2	0	0	22	21.5	NA	NA	NA	ug/kg
4,4'-DDD	2	0	0	18	9.9	1,870,000	18,700	NA	ug/kg
4,4'-DDE	2	0	0	18	9.9	1,320,000	13,200	NA	ug/kg
4,4'-DDT	2	0	0	18	9.9	1,320,000	13,200	NA	ug/kg
Aldrin	2	0	0	18	9.9	26,400	264	NA	ug/kg
Alpha-BHC	2	0	0	18	9.9	71,100	711	NA	ug/kg
Azinphos-Methyl	2	0	0	890	490	NA	NA	NA	ug/kg
Beta-BHC	2	0	0	18	9.9	249,000	2,490	NA	ug/kg
Bolstar (Sulprofos)	2	0	0	180	99	NA	NA	NA	ug/kg
Chlordane (Technical)	2	0	0	180	99	NA	NA	NA	ug/kg
Chlorpyriphos	2	0	0	89	49	NA	NA	NA	ug/kg
Coumaphos	2	0	0	180	99	NA	NA	NA	ug/kg
Delta-BHC	2	0	0	18	9.9	NA	NA	NA	ug/kg
Demeton (O,S Total)	2	0	0	89	49	NA	NA	NA	ug/kg
Diazinon	2	0	0	89	49	NA	NA	NA	ug/kg
Dichlorovos	2	0	0	180	99	NA	NA	NA	ug/kg
Dieldrin	2	0	0	18	9.9	28,000	280	NA	ug/kg
Dimethoate	2	0	0	180	99	NA	NA	NA	ug/kg
Disulfoton	2	0	0	89	49	NA	NA	NA	ug/kg
Endosulfan I	2	0	0	18	9.9	1,000,000,000	11,500,000	NA	ug/kg
Endosulfan II	2	0	0	18	9.9	1,000,000,000	11,500,000	NA	ug/kg

Table 2
IHSS 600-6 - Summary of Analytical Results

Analyte	Total Number Samples Collected	Samples above Detection Limit	Detection Frequency (%)	Maximum Concentration	Average Concentration	Tier I Action Level	Tier II Action Level	Background Mean +2SD	Unit
Endosulfan Sulfate	2	0	0	18	9.9	1,000,000,000	11,500,000	NA	ug/kg
Endrin	2	0	0	18	9.9	2,300,000	576,000	NA	ug/kg
Endrin Aldehyde	2	0	0	18	9.9	NA	NA	NA	ug/kg
Ethoprop	2	0	0	89	49	NA	NA	NA	ug/kg
Famphur	2	0	0	350	193	NA	NA	NA	ug/kg
Fensulfothion	2	0	0	320	176.5	NA	NA	NA	ug/kg
Fenthion	2	0	0	89	49	NA	NA	NA	ug/kg
Gamma-BHC [Lindane]	2	0	0	18	9.9	345,000	3,450	NA	ug/kg
Heptachlor	2	0	0	18	9.9	99,600	996	NA	ug/kg
Heptachlor Epoxide	2	0	0	72	39.65	49,300	493	NA	ug/kg
Malathion	2	0	0	210	116	NA	NA	NA	ug/kg
Merphos	2	0	0	89	49	NA	NA	NA	ug/kg
Methoxychlor	2	0	0	35	19.3	9,610,000	9,610,000	NA	ug/kg
Mevinphos	2	0	0	320	176.5	NA	NA	NA	ug/kg
Naled	2	0	0	2700	1485	NA	NA	NA	ug/kg
0,0,0-Triethyl Phosphorothioate	2	0	0	89	49	NA	NA	NA	ug/kg
Parathion, Ethyl	2	0	0	89	49	NA	NA	NA	ug/kg
Parathion, Methyl	2	0	0	89	49	NA	NA	NA	ug/kg
Phorate	2	0	0	89	49	NA	NA	NA	ug/kg
Ronnel	2	0	0	89	49	NA	NA	NA	ug/kg
Sulfotep	2	0	0	89	49	NA	NA	NA	ug/kg
Tetrachlorovinphos (Stirophos	2	0	0	320	176.5	NA	NA	NA	ug/kg
Tetrachlorvinphos (Rabon; Stir	2	0	0	89	49	NA	NA	NA	ug/kg
Thionazin	2	0	0	89	49	NA	NA	NA	ug/kg
Tokuthion (Protothiofos)	2	0	0	89	49	NA	NA	NA	ug/kg
Toxaphene	2	0	0	1800	990	407,000	4,070	NA	ug/kg
Trichloronate	2	0	0	89	49	NA	NA	NA	ug/kg

3.0 DATA QUALITY ASSESSMENT

The Data Quality Objectives (DQOs) for this project are described in the IASAP (DOE 2002). All DQOs for this project were achieved based on the following:

- Regulatory agency approved sampling program design (IASAP Addendum #IA-02-01[DOE 2002]);
- Collection of samples in accordance with the sampling design;
- Results of the Data Quality Assessment as described in the following sections.

3.1 Data Quality Assessment Process

The DQA process ensures that the type, quantity, and quality of environmental data used in decision making are defensible and is based on the following guidance and requirements:

- EPA QA/G-4, 1994a, Guidance for the Data Quality Objective Process;
- EPA QA/G-9, 1998, Guidance for the Data Quality Assessment Process; Practical Methods for Data Analysis; and
- DOE Order 414.1A, 1999, Quality Assurance.

Verification and validation (V&V) of the data are the primary components of the DQA. The final data are compared with original project DQOs and evaluated with respect to project decisions; uncertainty within the decisions; and quality criteria required for the data, specifically precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS). Validation criteria are consistent with the following RFETS-specific documents and industry guidelines:

- EPA 540/R-94/012, 1994b, USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review;
- EPA 540/R-94/013, 1994c, USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review; and
- Kaiser-Hill Company, L.L.C.(K-H) V&V Guidelines:
- General Guidelines for Data Verification and Validation, DA-GR01-v1, 1997a.
- V&V Guidelines for Isotopic Determinations by Alpha Spectrometry, DA-RC01-v1, 1998.
- V&V Guidelines for Volatile Organics, DA-SS01-v1, 1997b.
- V&V Guidelines for Semivolatile Organics, DA-SS02-v1, 1997c.
- V&V Guidelines for Metals, DA-SS05-v1, 1997d.

- Lockheed-Martin, 1997, Evaluation of Radiochemical Data Usability, ES/ER/MS-5.

This report will be submitted to the Comprehensive Environmental, Response, Compensation and Liability Act (CERCLA) Administrative Record (AR) for permanent storage 30 days after being provided to the Colorado Department of Public Health and Environmental (CDPHE) and/or the U.S. Environmental Protection Agency (EPA).

3.2 Verification and Validation of Results

Verification ensures that data produced and used by the project are documented and traceable in accordance with quality requirements. Validation consists of a technical review of all data that directly support the project decisions so that any limitations of the data relative to project goals are delineated and the associated data are qualified accordingly. The V&V process defines the criteria that constitute data quality, namely PARCCS parameters. Data traceability and archival are also addressed. V&V criteria include the following:

- Chain-of-custody;
- Preservation and hold-times;
- Instrument calibrations;
- Preparation blanks;
- Interference check samples (metals);
- Matrix spikes/matrix spike duplicates (MS/MSD);
- Laboratory control samples (LCS);
- Field duplicate measurements;
- Chemical yield (radiochemistry);
- Required quantitation limits/minimum detectable activities (sensitivity of chemical and radiochemical measurements, respectively); and
- Sample analysis and preparation methods.

Evaluation of V&V criteria ensures that PARCCS parameters are satisfactory (i.e., within tolerances acceptable to the project). Satisfactory V&V of laboratory quality controls are captured through application of validation “flags”or qualifiers to individual records.

Raw hardcopy data (e.g., individual analytical data packages) are currently filed by RIN and are maintained by Kaiser-Hill Analytical Services Division (K-H ASD); older hardcopies may reside in the Federal Center in Lakewood, Colorado. Electronic data are stored in the RFETS Soil and Water Database (SWD).

3.2.1 Accuracy

The following measures of accuracy were evaluated.

- Laboratory Control Sample Evaluation;
- Surrogate Evaluation;
- Field Blanks; and
- Sample Matrix Spike Evaluation.

Results are compared to method requirements and project goals. The results of these comparisons are summarized where the result could impact project decisions. Particular attention is paid to those values near ALs when QC results could indicate unacceptable levels of uncertainty for decision-making purposes.

Laboratory Control Sample Evaluation

The frequency of Laboratory Control Sample (LCS) measurements, relative to each laboratory batch, is given in Table 3. LCS frequency was adequate based on at least one LCS per batch. The minimum and maximum LCS results are also tabulated, by chemical, for the entire project. Any qualifications of results due to LCS performance exceeding upper or lower tolerance limits are captured in the V&V flags, described in the Completeness Section. All LCS recoveries are within tolerance limits.

Surrogate Evaluation

The frequency of surrogate measurements, relative to each laboratory batch, is given in Table 4. Surrogate frequency was adequate based on at least one set per sample. The minimum and maximum surrogate results are also tabulated, by chemical, for the entire project. Any qualifications of results due to surrogate performance exceeding upper or lower tolerance limits are captured in the V&V flags described in the Completeness Section.

Field Blank Evaluation

Results of the field blank sampling and analysis are given in Tables 5 and 6. Adequate frequency of field blank evaluation is given by a 5% or greater ratio of blank samples to real samples. Detectable amounts of contaminants within the blanks, which could indicate possible cross-contamination of samples, are evaluated if the same contaminant is detected in the associated real samples. When the real result is less than 10 times the blank result, the real result is eliminated.

Table 3
Laboratory Control Sample Evaluation

CAS Number	Analyte	Result Type	Result	Unit	Test Method
333-41-5	DIAZINON	LC1	102	%REC	SW-846 8151A
94-75-7	2,4,-D	LC1	69	%REC	SW-846 8151A
93-72-1	2,4,5,-TP	LC1	73	%REC	SW-846 8151A
93-76-5	2,4,5-T	LC1	74	%REC	SW-846 8151A
58-89-9	GAMMA-BHC (LINDANE)	LC1	85	%REC	SW-846 8151A
309-00-2	ALDRIN	LC1	87	%REC	SW-846 8151A
298-00-0	METHYL PARATHION	LC1	88	%REC	SW-846 8151A
76-44-8	HEPTACHLOR	LC1	89	%REC	SW-846 8151A
8065-48-3	DEMETON (O,S TOTAL)	LC1	91	%REC	SW-846 8151A
56-38-2	PARATHION	LC1	91	%REC	SW-846 8151A
60-57-1	DIELDRIN	LC1	91	%REC	SW-846 8151A
50-29-3	4,4'-DDT	LC1	91	%REC	SW-846 8151A
72-20-8	ENDRIN	LC1	92	%REC	SW-846 8151A
121-75-5	MALATHION	LC1	94	%REC	SW-846 8151A
298-02-2	PHORATE	LC1	96	%REC	SW-846 8151A

Table 4
Surrogate Recovery Summary

Surrogate Recoveries				
Number of Samples	Analyte	Minimum	Maximum	Unit Code
None				

Table 5
Sample Frequency

Test Method Name	Sample QC Code	Number of Samples
SW-846 8151A	DUP	1
SW-846 8151A	REAL	2

Table 6
Field Blank Summary

Analyte	Maximum Detected	Unit
2,4,5,-TP	22	UG/KG
2,4,5-T	22	UG/KG
2,4,-D	86	UG/KG
2,4-DB	86	UG/KG
DALAPON	43	UG/KG
DICAMBA	43	UG/KG
DICHLORO-ACETIC ACID (DCAA) (S	68	%REC

Analyte	Maximum Detected	Unit
DICHLOROPROP	86	UG/KG
DINOSEB	13	UG/KG
MCPA	8600	UG/KG
MCPP	8600	UG/KG

Sample Matrix Spike Evaluation
The frequency of MS measurements, relative to each lab batch, is given in Table 7. MS frequency was adequate based on at least one MS per batch. The minimum and maximum of MS results are also tabulated, by chemical, for the entire project. Any qualifications of results due to MS performance are captured in the V&V flags as described in the Completeness Section. All MS recoveries were within tolerance limits.

Table 7
Sample Matrix Spike Evaluation

CAS Number	Analyte	Result Type	No. LAB Batch ID	No. Samples	Result	Unit
93-72-1	2,4,5,-TP	MS1	1	1	94	%REC
93-76-5	2,4,5-T	MS1	1	1	75	%REC
94-75-7	2,4,-D	MS1	1	1	71	%REC
8065-48-3	DEMETON (O,S TOTAL)	MS1	1	1	97	%REC
333-41-5	DIAZINON	MS1	1	1	97	%REC
121-75-5	MALATHION	MS1	1	1	90	%REC
298-00-0	METHYL PARATHION	MS1	1	1	86	%REC
56-38-2	PARATHION	MS1	1	1	90	%REC
298-02-2	PHORATE	MS1	1	1	93	%REC

3.2.2 Precision

Matrix Spike Duplicate Evaluation
Laboratory precision is measured through use of MSD. Adequate frequency of MSD measurements is indicated by at least one MSD in each lab batch; Table 8 indicates that MSD frequencies were adequate. Any qualifications of results due to MSD performance exceeding upper tolerance limits are captured in the V&V flags as described in the Completeness Section.

Table 8
Sample Matrix Spike Duplicate Evaluation

Analyte Name	Result	Unit
2,4,5,-TP	84	%REC
2,4,5-T	68	%REC
2,4,-D	64	%REC
DEMETON (O,S TOTAL)	97	%REC
DIAZINON	96	%REC
MALATHION	88	%REC
METHYL PARATHION	84	%REC
PARATHION	88	%REC
PHORATE	94	%REC

Field Duplicate Evaluation

Field duplicate results reflect sampling precision, or overall repeatability of the sampling process. The frequency of field duplicate collection should exceed 1 field duplicate per 20 real samples, or 5 percent. Sampling frequencies were adequate for all analytical suites. A common metric for evaluating precision is the relative percent difference (RPD) value; RPD values are given in Table 9. Ideally, RPDs of less than 35 percent (in soils) indicate satisfactory precision. Values exceeding 35 percent only affect project decisions if the imprecision is great enough to cause contradictory decisions relative to the COC (i.e., one sample indicates clean soil whereas the QC partner does not). As indicated by the data in Table 9, there are no analytes with RPDs greater than 35 percent.

Table 9
RPD Evaluation

Analyte	Maximum of RPD
2,4,5,-TP	11%
2,4,5-T	10%
2,4,-D	10%
DEMETON (O,S TOTAL)	0%
DIAZINON	1%
MALATHION	2%
METHYL PARATHION	2%
PARATHION	2%
PHORATE	1%

Completeness

A total of 2 samples were collected and analyzed for pesticides in accordance with the IASAP (DOE 2001) and IASAP Addendum #IA-02-01 (DOE 2002). There were no deviations from the IASAP Addendum.

Based on original project DQOs, a minimum of 25 percent of ER Program analytical (and radiological) results must be formally verified and validated. Of that percentage, no more than 10 percent of the results may be rejected, which ensures that analytical lab practices are consistent with quality requirements. Table 10 shows the number and percentage of validated records (codes without “1”), the number and percentage of verified records, and the percentage of rejected records for each analyte group. Eighty-three percent of the data was validated. These data indicate the frequency of V&V and rejection rates are within quality requirements.

Table 10
Validation and Verification Summary

Validation Code	Number of Records	Solid
Null	6	6
V	30	30
Total	36	36
Total Validated	30	30
% Validated	83.33%	83.33%
Total Verified	30	30
% Verified	83%	83%
% Rejected	0%	0%

KEY: V = Validated

3.2.3 Sensitivity

Reporting limits, in units of ug/kg for organics, mg/kg for metals, and pCi/g for radionuclides, were compared with RFCA Tier I and Tier II ALs and RFCA WRW and Ecological Receptor ALs. Adequate sensitivities of analytical methods were attained for all results. "Adequate" sensitivity is defined as a reporting limit (RL) less than an analyte's associated AL, typically less than one-half the AL.

3.3 Summary of Data Quality

One field duplicate sample was collected. Results from the duplicate sample analysis are within the same range as the real samples. Additionally, laboratory quality control data indicate that analyses were within tolerance limits. Data collected and used for IHSS Group 600-6 is adequate for decision-making.

4.0 REFERENCES

DOE, 1994, Historical Release Report, Seventh Quarterly Update, January 1 to March 31.

DOE, 1999, DOE Order 414.1A, Quality Assurance.

DOE, 2001a, Industrial Area Sampling and Analysis Plan, Rocky Flats Environmental Technology Site, Golden, Colorado, June.

DOE, 2001b, Industrial Area Sampling and Analysis Plan Addendum #IA-02-01, Rocky Flats Environmental Technology Site, Golden, Colorado, November.

EPA QA/G-4, 1994, Guidance for the Data Quality Objective Process.

EPA QA/G-9, 1998, Guidance for the Data Quality Assessment Process; Practical Methods for Data Analysis.

Kaiser-Hill (K-H), 1997a, General Guidelines for Data Verification and Validation, DA-GR01-v1, December.

K-H, 1997b, V&V Guidelines for Volatile Organics, DA-SS01-v1, December.

K-H, 1997c, V&V Guidelines for Semivolatile Organics, DA-SS02-v1, December.

Lockheed-Martin, 1997, Evaluation of Radiochemical Data Usability, ES/ER/MS-5.

ENCLOSURE
(compact disc)

IHSS GROUP 600-6
REAL AND QC DATA