NOTICE

All drawings located at the end of the document.

RMRS Rocky Mountain Remediation Services, L.L.C.
...protecting the environment

SUPPLEMENTAL HEALTH AND SAFETY PLAN FOR THE PRE-REMEDIAL INVESTIGATION OF IHSSs 170, 174A, & 175B, PROPERTY UTILIZATION & STORAGE YARD

RF/RMRS-97-049
Rev. 0

August 12, 1997

Supplemental Health and Safety Plan for the Pre-Remedial Investigation of IHSSs 170, 174A, and 174B, Property Utilization & Storage Yard

DOCUMENT CLASSIFICATION REVIEW WAIVER PER CLASSIFICATION OFFICE

August 12, 1997

This Supplemental Health and Safety Plan addresses the task specific hazards associated with the Pre-Remedial Investigation of IHSSs 170, 174A, and 174B, Property Utilization and Storage Yard. Field activities will be conducted using this HASP for task and area specific hazards, and the RMRS HASP for the 1996 WARP (RF/ER-96-0016) for programmatic and general hazards.

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

Document Number: RF/RMRS-97-049, Rev. 0

Effective Date: 08/14/97

Organization: Environmental Restoration

Title

Supplemental Health and Safety Plan for the Pre-Remedial Investigation of IHSSs 170, 174A, and 174B, Property Utilization & Storage Yard

Mark R. Wood
RMRS Project Manager Date: 8/11/97

M.D. Schreckengast
Health and Safety Supervisor Date: 8/11/97

Wade Russell
Site Safety Officer/Health and Safety Specialist Date: 8.11.97

Radiological Engineering Date: 08/11/97

Quality Assurance Date: 8/11/97

SUPPLEMENTAL HEALTH AND SAFETY PLAN
PRE-REMEDIAL INVESTIGATION OF IHSSs 170, 174A, and 174B,
PROPERTY UTILIZATION & STORAGE YARD
DURING AUGUST TO SEPTEMBER 1997

(Supplement to the Health and Safety Plan for the 1996 WARP, April 1996, RF/ER-96-0016)

Introduction

This Supplemental Health and Safety Plan (HASP) covers planned subsurface soil and groundwater sampling activities to be performed in IHSSs 170, 174A, and 174B, also known as the Property Utilization & Storage Yard (PU&D Yard), as shown in Figure 1-1. Field activities are scheduled during August to September 1997. The HASP for the 1996 Well Abandonment and Replacement Program (WARP) remains the main HASP, and will be followed except where this supplemental HASP supersedes the 1996 document. The activities are substantially similar in scope and potential hazard as those described in the geotechnical boring subtask described in the WARP HASP.

This Supplemental HASP is only for the work to be conducted for this pre-remedial investigation of the PU&D Yard. The core recovery and groundwater collection program proposed per the Sampling and Analysis Plan (SAP) (RF/RMRS-97-036) is designed to characterize the PU&D Yard to confirm or disprove the potential presence of a VOC contaminant source in subsurface soil for remedial activities and define the vertical and areal extent of subsurface contamination, if observed. The scope of this proposed activity is limited to the collection of surface soil samples for radiological analysis, soil samples by the hollow-stem auger drilling method for VOC and metals analysis, and groundwater samples for VOC analysis. Sample analyses and interpretation will be the responsibility of RMRS. Activities described in this Supplemental HASP will be performed by or at the direction of Environmental Restoration Projects personnel. **Project contacts and emergency phone numbers are listed in Table 1.**

Table 1.
Emergency Contact Telephone and Pager Numbers

Fire	x2911	Poison Center	629-1123
Ambulance	x2911	Security	x2911

Nearest Emergency Medical Services Are Located At Building 122 as shown on Figure 1-1.

Nearest telephone is located at: Firing range, PU&D Building, T893B

Additional Project Telephone Numbers

Vice President - ER - Ann Tyson	x4829/d1101
ER Projects Manager - Marla Broussard	x6007/d4010/r3740
H&S Manager - Ken Jenkins	x5374/d7455/r4505
Project Manager - Mark Wood	x6689/d5904/r3755
Field Manager/Geologist - Mark Wood	x6689/d5904/r3755
H&S Supervisor - Dave Farler	x4340/d5248/r3743
HSS/Site Safety Officer - Wade Russell	x5356/d6136/r3728
HAZMAT Emergency Response	x2911/r2911
RFETS Shift Supervisor	x2914/r3301
Occupational Health General Information	x2594

Note: d = digital page, the digital page system can be activated on plantsite by dialing extension 4000, then following the instructions. r = radio number.

Description of Planned Intrusive Activities.

A hollow-stem auger drill rig will be used to drill 15 to 30 boreholes to collect subsurface soil samples for volatile organic compound (VOC) analyses. Approximately 60 to 120 soil cores will be collected up to a depth of approximately 20 feet per the SAP. Soil core samples will be transported directly to the analytical laboratories after screening for radiological and VOC contamination and minimizing site personnel contact with potentially contaminated soils. Collection of groundwater samples will be performed per the SAP. Drill cuttings will be containerized, temporarily stored in a 90-day RCRA permitted area pending analytical results, and then final disposition per FO.29.

Hazard Assessment.

Wildlife: No wildlife hazards in addition to those addressed in the WARP HASP are anticipated as a result of the planned intrusive activities.

Chemical and Radiological Hazards: Chemical hazards in addition to those addressed in the WARP HASP are anticipated as a result of the planned intrusive activities and summarized in the Supplemental Table 5-3, Chemical

Supplemental Table 5-3 Chemical Hazard Summary

CHEMICAL	MATRIX	OSHA PEL	ACGIH TLV	NIOSH REL	STEL	CIELING	IDLH	SKIN NOTATION	CORROSIVE IRRITANT	BOILING POINT °F	VAPOR PRESSURE	FLASH POINT °F	UEL (%)	LEL (%)
1,1-Dichloroethene	S	1 ppm	5.0 ppm	(A)	20 ppm	ND	(A)			89 °F	500 mm	-2 °F	15.5	6.5
Benzo-(a)pyrene	S	0.2 mg/m^3	(A2)	(A) 0.1 mg/m^3	ND	ND	(A) 80 mg/m^3							
Copper	S	1.0 mg/m^3	1.0 mg/m^3	1.0 mg/m^3	ND	ND	10 mg/m^3			4703 °F	0 mm	NA	NA	NA
Nickel	S	1.0 mg/m^3	1.0 mg/m^3	(A) 0.015 mg/m^3	ND	ND	(A) 10 mg/m^3			5139 °F	0 mm	NA	NA	NA
Selenium	S	0.2 mg/m^3	0.2 mg/m^3	0.2 mg/m^3	ND	ND	1.0 mg/m^3			1265 °F	0 mm	NA	NA	NA
Vanadium (respirable dust as V_2O_5)	S	0.05 mg/m^3	0.05 mg/m^3	0.05 mg/m^3 (15 min Ceiling)	ND	0.5 mg/m^3	70 mg/m^3			3182 °F	0 mm	NA	NA	NA

Notes:

Units are as specified in the column headings unless otherwise noted.

(A) NIOSH Identified Carcinogen
(A2) ACGIH Suspected Human Carcinogen
(1) NIOSH REL Value
(2) OSHA PEL Value
(3) ACGIH TLV Value

NA = Not Applicable
ND = Not Determined

Hazard Summary. This work involves potential contact with soil and/or water containing concentrations of chemicals in the parts per billion range and metals in the parts per million range. Site specific data provided in Table 2 indicates the potential for hazardous levels of metal contamination in surface soil in the work area of IHSS 174A. Particular attention will be paid to dust suppression and air monitoring activities at locations which could potentially produce contaminated soil or groundwater, and personnel will use real-time air monitoring results to determine when and if it is necessary to upgrade to higher levels of PPE. Table 3 summarizes potential contamination hazards.

Table 2
Maximum Contaminant Concentrations in Soil and Downgradient Wells

Compound	Surface Soil Samples IHSS 174A	Well 70393 (µg/L)	Well point 61495 (µg/L)
1,1,1-Trichloroethane	160 µg/Kg	84	54
1,1-Dichloroethene	-	20	15
Tetrachloroethene	94 µg/Kg	9	2
Trichloroethene	-	36	7
Beryllium	35 mg/Kg	-	-
Copper	108 mg/Kg	-	-
Chromium	43.5 mg/Kg	-	-
Lead	814 mg/Kg	-	-
Nickel	53.4 mg/Kg	-	-
Selenium	20.4 mg/Kg	-	-
Vanadium	43,400 mg/Kg	-	-
Aroclor-1254	9 mg/Kg	-	-
Benzo(a)pyrene	0.26 mg/Kg	-	-

Table 3
Potential Contamination Hazards

Task Description	Potential Contaminants	PPE to be Used
Soil borings, disturbance of subsurface soil and collection of soil samples.	Soil and saturated soil with low levels of volatile organic compounds, metals, polynuclear aromatic hydrocarbons, and polychlorinated biphenyl's.	Start in Level D. Air monitoring and/or soil conditions (wet, muddy) may indicate need to upgrade to Modified D, C, or B at the discretion of the HSS.
Groundwater sampling.	Groundwater with low levels of volatile organic compounds.	Start in Level D. Air monitoring and/or soil conditions (wet, muddy) may indicate need to upgrade to Modified D, C, or B at the discretion of the HSS.

Physical Cold and heat stress preventative guidelines detailed in the WARP HASP and the RMRS Heat Stress Program (Appendix B) will be followed. Care will be taken to prevent injury due to slips, trips, and/or falls. The drill rigs wheels will be blocked during drilling and sampling operations and only the driller, driller's helper, geologist, and site safety officer will be allowed in the immediate vicinity of the vehicle. Borehole locations will be cleared for the presence of overhead and underground utility lines prior to the commencement of intrusive activities.

Unanticipated Hazards or Conditions
Any hazards that may be encountered which are of an unusual nature or which represent an unknown threat will be managed in accordance with this RMRS policy statement. "In the event unanticipated hazards or conditions are encountered, the project activities will pause to assess the potential hazard or condition. The potential hazard or condition will be evaluated to determine the severity or significance of the hazard or condition and whether the controls on the project are sufficient to address the hazard or condition. Based on this initial evaluation, a determination will be made whether to proceed with controls currently in place; segregate the hazard or condition from the project activity, if it can be done safely; or curtail operations to address the unexpected hazard or condition. Concurrence to proceed down the selected path must be obtained from the RMRS Vice President or thier designee. In addition, the resumption of field activities involving radiological issues will be in accordance with Article 345 of the RFETS Radiological Control Manual."

Equipment Decontamination/Radiological Contamination Monitoring

Equipment used for drilling and sampling will be decontaminated to the extent possible within the work area. Radiological contamination monitoring will be performed for total fixed plus removable and removable alpha and beta/gamma contamination prior to release from RFETS per HSP 18.10 and approval of the survey(s) by Radiological Operations Supervisor. If contamination levels are below releasable limits, the equipment may then be released to the 891 Yard by the Site Safety Officer/health and safety specialist (HSS). If additional decontamination is necessary the equipement will be transported to the Main Decontamination Facility for additonal decontamination.

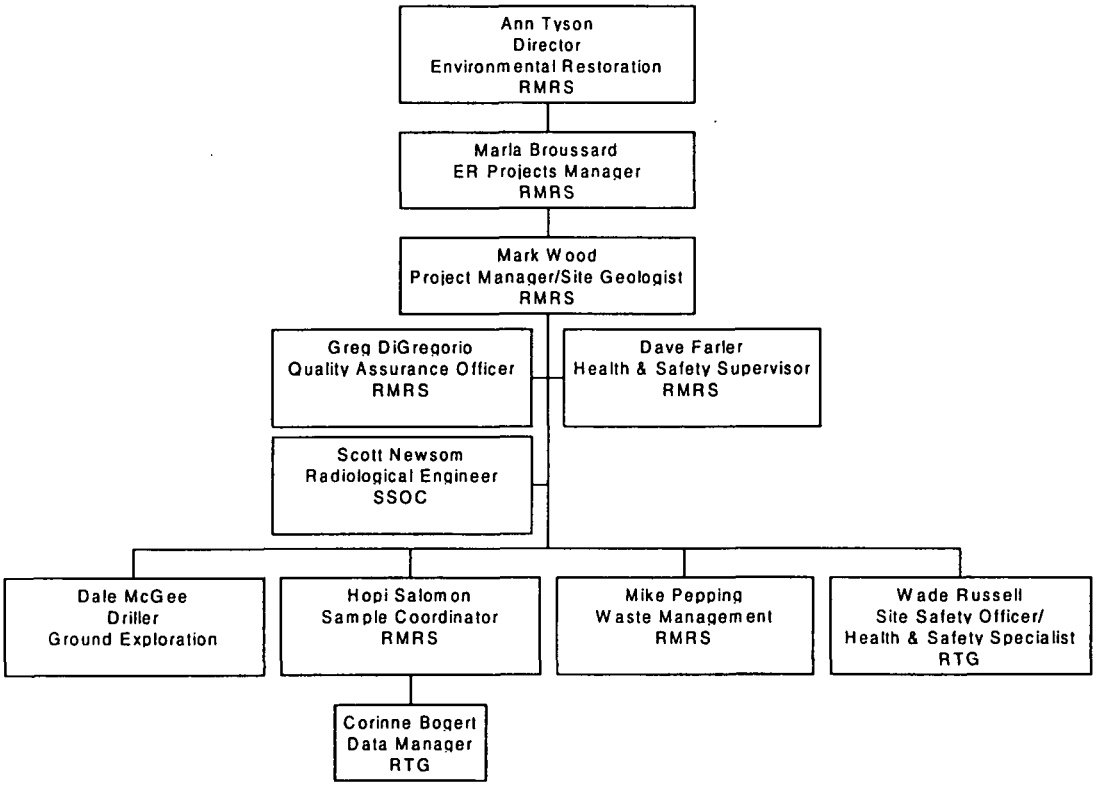
Project Organization

Figure 2-1 shows the project organization chart and project responsibilities.

Personnel

Personnel monitoring and decontamination procedures as described in the FY96 WARP HASP remain in effect.

Figure 2-1
Project Organization



I have read the contents of this Supplemental HASP, and I am familiar with the FY96 WARP HASP, and agree to comply with the contents within.

Name	Signature	Title	Date

Activity Hazard Analysis for the Supplemental Health and Safety Plan Pre-Remedial Investigation of IHSS's 170, 174A, and 174B, Property Utilization & Storage Yard

ACTIVITY DESCRIPTION: Soil borings and soil and groundwater sampling using a truck-mounted drill rig.

Activity	Potential Hazard	Protective Control Measures
1) Soil borings, including soil core and groundwater sampling	Slips, trips, and falls	Pre-activity work area survey to identify potential hazards associated with operations. Secure area, use safety shoes and glasses. Hazard assessment per section 5.3.6.*
	Exposure to airborne radioactive or chemical contaminants	On-site monitoring requirements will be established prior to project implementation per Section 6.0 and 7.0.*
	Dermal exposure with radioactive or chemical contaminants in soils and groundwater	Establish monitoring program prior to operations. Define appropriate level of PPE.
	Mechanical/hydraulic hazards	Pre-work safety discussion and procedures identified in Section 5.3.1.*
	Noise exposure	Hearing protection will be required during drilling and Geoprobe hammer operations.
	Electrical hazards	Clearances will be maintained per Section 5.3.2.*
	Hot work hazards	Fire and heat protection will be required during welding and cutting of steel casings.
	Vehicular and pedestrian traffic.	Site control will be maintained per Section 6.0.*
	Underground/above-ground utilities	Utility clearances will be performed per Section 5.3.*
	Manual material lifting	Personnel will follow safe lifting practices per Section 5.3.*
	Falling objects	Hard hats, steel-toed boots, and safety glasses will be worn per Section 8.0.*
	Cold stress/heat stress	Pre-work discussion to ensure awareness. Follow guidance in RFETS Heat Stress Program (Appendix B) and Section 5.7.*
2) Equipment decontamination	Contact with potentially contaminated rinse water	Personnel PPE will be defined prior to decon operations.
	Similiar exposure hazards as identified above	PPE and monitoring requirements consistent with intrusive and sampling operations.
	High pressure steaming, as appropriate	PPE as described in Section 8.0.*

*refers to the appropriate section in the WARP 1996 HASP RF/ER-96-0016

H&S CONCURRENCE: M.D. Schneckenburger DATE: 8-12-97

PROJECT MANAGER CONCURRENCE: Mark Wood DATE: 8-12-97

Revised Appendix A of Supplemental HASP for the Pre-Remedial Investigation of IHSS's 170, 174A, and 174B, Property Utilization & Storage Yard

Site Location and Description:

Location : PU&D Yard and vicinity

Description: Drill 15 to 30 soil borings using drilling rig and collect soil and groundwater samples.

Suspect Contaminants:

MONITORING REQUIREMENTS — ACTION LEVELS

	PEL	Instrument	Range	Level D modified	Level C	Level B	Notes
Hydrocarbons		TVA-1000B or					
		Minirae w/ 11.7 ev lamp					
		PID	0-2,000 ppm	>bkg	N/A	*	*Any sustained reading above background
		FID	0-50,000ppm	>bkg	N/A	*	in the BZ
Particulates	3 mg/m3	MIE Miniram	0.1-100 mg/m3	0.5 mg /m3	0.5 mg /m3	*	*Dust Control (misting) will be used above 1.5 mg/m3 In areas where copper and vandadium dust are suspected, dust control will be used to minimize dust generation at or below 0.5 mg/m3.

Personal Monitoring

Contaminant	Analytical Method
Monitoring for VOA's using personal sampling methods is required for sustained levels in BZ, upgrade for respiratory protection.	NIOSH Methods
Monitoring for Methane in suspected areas, stop work above 25% LEL explosion hazard. withdraw from area immediately.	Range 0-100% LEL, MSA Passport or equivalent.

Personal Protective Equipment

Type of Work	Level D Doe Coveralls	Level D Modified	Tyvek Coveralls	Saranex Coveralls	Nitrile Gloves	Silvershield Gloves	Latex Gloves	Leather Work Gloves	Face Shield	Rubber Apron	Full Face Respirator	Level B Supplied Air
Drilling	*	(3), (1)	(3)	(1)	*			*	(1)			(2)
Soil Sampling/ Logging Core	*	(3), (1)	(3)	(1)	*			*	(1)			(2)
Sampling groundwater	*	(3), (1)	(3)	(1)	*				(1)			(2)
Handling IDM	*	(3), (1)	(3)	(1)	*			*	(1)			(2)

(1) If high VOA's reading or free liquids are encountered personal will upgrade to Saranex and Face Shields. Sustained readings of VOC's in breathing zone will require backing off and allowing samples to vent, if there is no wind present the use of large industrial size fan will be used. If work practices warrant, or wet/muddy conditions exist, Tyvek is required.

(2) If workers must work where VOC readings are sustained in the breathing zone, work will stop and supplied air respiratory protection will be used and more protective PPE requirements.

(3) If RWP is needed

(*) Required under normal operations or can be changed at the desecration of HSS. Drillers will wear both inner and outer (11 mil) nitrile gloves.

Notes

PEL = Permissible Exposure Limit
PID = Photoionization Detector
FID = Flameionization Detector
ppm = parts per million
BZ = breathing zone
mg/m3 = milligrams per cubic meter
PPE = Personal Protective Equipment
VOA = Volatile Organic Analyte
IDM = Investigative derived materials (typically soils)
OSHA = Occupational Safety and Health Administration
EPA = U.S. Environmental Protecton Agency
USCG = U.S. Coast Guard

APPENDIX B
RMRS RFETS HEAT STRESS PROGRAM
AND
HEALTH & SAFETY FIELD FORMS

HEAT STRESS GUIDELINES FOR LIGHT WORK

	(1)	(2)	(3)	(4)
WORK/REST	WBGT°F	WBGT°F	WBGT°F	WBGT°F
Continuous	86	76	72	68
75/25%	87	77	73	69
50/50%	89	78.5	74.5	70.5
25/75%	90	79.9	75.9	71.9

HEAT STRESS GUIDELINES FOR MODERATE WORK

	(1)	(2)	(3)	(4)
WORK/REST	WBGT°F	WBGT°F	WBGT°F	WBGT°F
Continuous	80	70	66	62
75/25%	82	72.4	68.4	64.4
50/50%	85	74.9	70.9	66.9
25/75%	88	77.9	73.9	69.9

HEAT STRESS GUIDELINES FOR HEAVY WORK

	(1)	(2)	(3)	(4)
WORK/REST	WBGT°F	WBGT°F	WBGT°F	WBGT°F
Continuous	77	67	63	59
75/25%	78	68.6	64.6	60.6
50/50%	82	72.2	68.2	64.2
25/75%	86	76	72	68

(1) No Personal Protective Equipment
(2) One pair coveralls (Anti C), modesty garments, gloves, hood, shoe covers.... (Level D Haz Mat PPE)
(3) Two pair coveralls (Anti C), modesty garments, gloves, hood, shoe covers....
or
One pair coveralls (Anti C), modesty garments, gloves, hood, respirator. (Level C Haz Mat PPE)
(4) Two pair coveralls (Anti C), modesty garments, gloves, hood, shoe covers, respirator. (Level A&B Haz Mat PPE)

PROPERTY UTILIZATION AND STORAGE YARD
PRE-REMEDIAL INVESTIGATION
Operator's Daily Heavy Equipment Inspection Checklist

Equipment: CME 75 Drill Rig Mounted on Ford 900 Date: _____

Inspect Each Item Listed Below	Item OK	Item Not OK	Explain actions if not OK
Tracks			
Hoist Cylinder			
Tilt Cylinder			
Bucket/Pins/Teeth			
Hoisting and Lowering Cables			
Coupling Device(s)			
Engine Oil Level			
Water/Antifreeze			
Hydraulic Controls/Fluid/Hoses			
Water Pump/Hoses			
Hydraulic System Lockout			
Supplied Air Tanks and Tank Mounts			
Safety Belt			
Horn			
Lights			
Backup Alarm			
Fire Extinguisher			
Fuel Level			
Oil Pressure			
Brakes/Emergency Brake			
Ladders			
Steering			
Wipers			
Mirrors Side/Rearview			
Remarks:			

Logbook Control Number: _____

Operator: _____ / _____ Date: _____
(print) (signature)

C:\WPDOCS\PU&D\CME75

PROPERTY UTILIZATION AND STORAGE YARD
PRE-REMEDIAL INVESTIGATION
Daily Industrial Hygiene Air Monitoring Log

Date	Time	Location	TVA PID (ppm)	TVA FID (ppm)	Mini-Ram (mg/m³)	Noise (dBA)	CGI (%LEL)	HNU PID (ppm)	Other	Activity/Action

Logbook Control Number: _____

Foxboro TVA-1000 S/N _____

MIE MiniRam S/N _____

HNU DL-101-2 S/N _____

Ametek Mark-3 S/N _____

Other _____

MSA Passport S/N _____

HSS: _____ / _____ Date _____
(print) (signature)

C:\WPDOCS\PU&D\IHMONIT

PROPERTY UTILIZATION AND STORAGE YARD
PRE-REMEDIAL INVESTIGATION
Daily Health and Safety Log

Date	Time	Observations

Logbook Control Number:_____

HSS:_____/_____ Date_____
(print) (signature)

PROPRETY UTILIZATION AND STORAGE YARD
PRE-REMEDIAL INVESTIGATION
Daily Wind Speed/Cold Stress Log

Date	Time	Temp (°F)	Wind Speed (mph)	Wind Chill (F°)	Action

Logbook Control Number: _____

HSS: _____/_____ Date_____
(print) (signature)

PROPERT UTILIZATION AND STORAGE YARD
PRE-REMEDIAL INVESTIGATION
Daily WBGT Log

Date	Time	WBGT (°F)	Action

Logbook Control Number: _____

WBGT S/N _____

HSS: _____/_____ Date_____
(print) (signature)

C:\WPDOCS\PU&D\WBGTLOG

RESOURCE TECHNOLOGIES GROUP, INC.

Industrial Hygiene Air Sampling Form

GENERAL INFORMATION*

Building:_____ Room/Area:_____ Work Package Number:_____ Date_____

Description of Work:_____

_____

Engineering Controls:_____

_____

Observations, Strategies, Worker Comments:_____

_____

_____

PERSONNEL INFORMATION*

Person Sampled:_____ Employee #:_____ Job Title:_____

Company:_____ Supervisor:_____

Specific Task Performed:_____

Personal Protective Equipment Worn _____

_____

SAMPLING INFORMATION*

Sample Number:_____ Type of Sample: (circle) Personal/Area/Field Blank/Media Blank

Calibrator:_____ Serial #:_____ Date Calibrated:_____ Date Due:_____

Sampling Pump:_____ Serial #:_____

Media:_____ Lot #:_____

Pre Calibration Flow Rate:_____ Post Calibration Flow Rate:_____ Average Flow Rate:_____

Time On:_____

Time Off:_____ >>>>>Run Time:_____ Total Time:_____ Calibration Temp:_____°F

Time On:_____

Time Off:_____ >>>>>Run Time:_____ Total Volume:_____ Site Temp:_____°F

Time On:_____

Time Off:_____ >>>>>Run Time:_____ Analytical Method(s):_____

Representative Exposures:

Name	Employee #	Name	Employee #
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

INDUSTRIAL HYGIENE

Industrial Hygienist:_____ Employee #:_____ Company:_____ Date:_____

Peer Review:_____ Employee #:_____ Company:_____ Date:_____

* Use back for additional information.

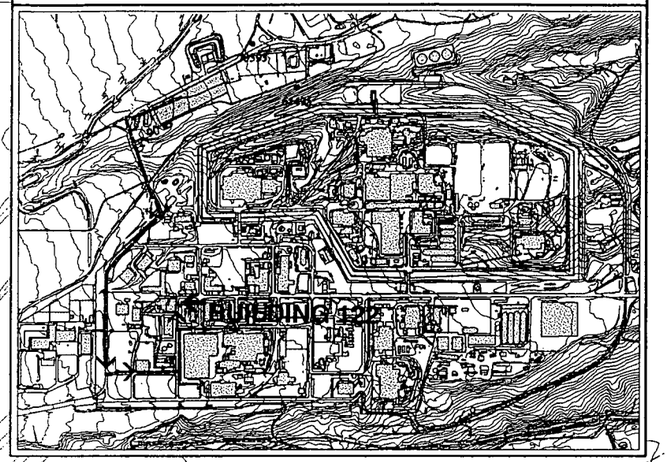
ADDITIONAL INFORMATION

INDUSTRIAL HYGIENE

Industrial Hygienist:_____ Employee #:_____ Company:_____ Date:_____

Peer Review:_____ Employee #:_____ Company:_____ Date:_____

Location of IHSS 170, Rocky Flats Environmental Technology Site



SG038294
TCA111=41.71
TCE=1.49
PCE=1.2
CH4=50
ACE=5.54
BZ=2.87

SG038194
TCA111=32.61
CH4=50

SG038394
PCE=1
CH4=20

SG043694
PCE=13
CH4=20

SG043994
PCE=1.5

174A

01297

SG036594
ACE=1.04

Soil Stain

SG029994
TCA111=39
PCE=4.7
CH4=220

01397

SG029894
TCA111=3.5
CH4=20

SG027594
TCA111=11
PCE=2.4
CH4=200
ACE=1.9

SG027494
TCA111=2.8
CH4=80

SG050294
TCA111=1.84

Soil Stain

Soil Stain

SG027394
TCA111=4.52
PCE=1.51

SG025094
TCA111=6.6
PCE=1.19

Revised Location of 174B

IHSS 170

01197

01097

IHSS's 170, 174A & 174B Property Utilization & Storage Yard Location Map Figure 1-1

EXPLANATION

- OU10 IHSS
- Oil Stain Location
- New RFCA Groundwater Monitoring Wells under FY97 WARP
- Groundwater well location
- Power Poles
- Soil-Gas Sampling Location
- Soil-Gas Sampling Location with concentrations of volatile organic compounds equal to or above the detection limit of 1.0 microgram per liter (*See note)
- Surface Soil Sample with Volatile Organic Compounds detected

Investigative Borings will be located on each soil gas and surface soil sample location with detectable volatile organic compounds and the two surface oil stain locations.

Standard Map Features

- Buildings or other structures
- Streams, ditches, or other drainage features
- Fences and other barriers
- Paved roads
- Dirt roads
- Contours (5 foot)

DATA SOURCE:
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

NOTE:
Concentrations are in ug/L

ACE = Acetone
BZ = Benzene
CH4 = Methane
PCE = Tetrachloroethene
TCA111 = 1,1,1-Trichloroethane
TCE = Trichloroethene

N

0 50 100 ft

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD27

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

Prepared by:

RMRS Rocky Mountain Remediation Services, L.L.C.
Geographic Information Systems Group
Rocky Flats Environmental Technology Site
P.O. Box 464
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MAP ID: 97-0128

August 06, 1997