CORRES CONTROL
INCOMING LTR NO

3998 RF 91

DUE DATE

ACTION

DIST	LTR	ENC
BENJAMIN A		
BRETZKE, J C		
BURLINGAME, A H		
COPP, R D		
CROUCHER, D W		
DAVIS, J G		
FEVERED, J E	X	X
FERRERA, D.W.		
FERRIS, L R		
FRAIKOR, F J		
FRANCIS, G E		
GOODWIN, R		
HANNI, B J		
HEALY, T J		
DEKER, E H		
JENS, J P		
KERSH, J M	X	X
KIRBY, W A		
KRIEG, D		
KUESTER A W		
LEE, E M		
MAJESTIC, J R		
MARX, G E		
MATHEWS T A		
MEURRENS, B E		
MORGAN, R V		
PIZZUTO, V M		
POTTER, G L		
SAFFELL, B F		
SANDLIN N B		
SWANSON E R		
WIEBE, J.S.		
WILKINSON R B		
WILSON, J.M		
YOUNG E R		
ZANE, J O		
Tricia S	X	X
Hotz L	X	X
CORRES CONTROL	X	X
TRAFFIC		

Reviewed for Addressee
Corres Control RFP
10-9-91

DATE BY

Ref Ltr #

morandum

Department of Energy
Rocky Flats Office

OCT 9 1 43 PM '91

RUC
CORRESPONDENCE CONTROL

OCT 0 8 1991

ERD PMP 8543

Section D Categorical Exclusion for Geologic and Ecologic Characterization Within Wetlands or Floodplains at Rocky Flats Plant (RFO/CX025-91)

Ralph Lightner, Director Southwestern Area Programs Division, EM-45

Enclosed is a draft categorical exclusion (CX) for proposed work to characterize the geology and ecology of the Rocky Flats Plant This portion of the characterization work may occur within wetlands or floodplains on the plant site The studies outlined in the CX will be conducted to provide data in support of cleanup activities to be performed under RCRA and CERCLA The work is scheduled to begin immediately and continue through December 1993

Please contact Tricia Powell (FTS 345-3260) to discuss the planned activity

David P Simonson
Assistant Manager
for Environmental Management

Attachment

cc w/attachment
A Rampertaap, EM-453
L Lawson, EM-431
S Nesta, EG&G/RF

ADMIN RECORD

RF 46522 (Rev 6/91)

SECTION D DETERMINATION
CATEGORICAL EXCLUSION (CX) DETERMINATION RFO/CX025-91

Proposed Action: Field Activities for Geologic and Ecologic Characterization Within Floodplains or Wetlands

Location: Rocky Flats Plant, Golden, CO

Proposed by: U S Department of Energy, Rocky Flats Office

Description of the Proposed Action:

Rocky Flats Plant proposes to carry out field activities to gather data to characterize the geology and ecology of the plant site within wetlands and floodplains in support of the remediation of RCRA and CERCLA sites This work may be performed both within and outside the boundaries of operable units 1, 2, 5 and 6 The characterization work would include 1) establishing new surface water and sediment sampling stations and collecting samples, 2) collecting soil and soil gas samples, and 3) drilling new water wells and collecting groundwater samples, and 4) drilling to obtain geologic cores

To establish new surface water and sediment sampling stations, stakes would be driven into the ground at the edge of a stream or water body The stakes would be used as reference points so that samples can be taken from the same locations periodically Water and sediment samples would be taken by driving or walking to the sample site and collecting up to a few pounds of sediment or a few quarts of water

Soil and soil gas samples may be collected within floodplains from grids 38, 51, 52, 57, 81, 96, 109 and 115 shown on Figure 2 using three different methods The first soil sampling method uses a Colorado Department of Health sampler to remove two to three tablespoons of soil from the ground surface anywhere within the grid The second soil sampling method that would be used is backhoe excavation of soil pits nine feet long, five feet wide and four feet deep to gather samples from the soil profile within each grid The sample pits will be refilled with the excavated earth after sampling Sampling soil gas (Figures 3 and 8) is to be accomplished by using a hand auger to drill a one inch diameter hole 18 to 24 inches deep A probe is inserted into the hole to sample any gases that escape from the soil

Drilling new water wells and core holes would involve driving a truck mounted drilling rig to the locations shown on Figures 1, 3, 6, 7, 8, 9, 10, 11, 13 and 14 to drill holes four to six inches in diameter Drilling activities that may be within the 100 year floodplain or wetlands are highlighted by heavy arrows on the figures As a general principle, drilling in wetlands would be avoided because of the added difficulties of setting up a drill rig and drilling in saturated soils, but it may be necessary to locate one or more holes within a wetland As holes are drilled, drill cuttings would be brought to the surface and shoveled into drums for analysis of contaminants and appropriate disposal Drilling activity will result in the trampling of vegetation for up to 200 square feet around the drill hole

All of these activities are scheduled to occur between May 1991 and December 1993 They will not introduce or cause the inadvertent or uncontrolled movement of hazardous substances or non-native organisms, or adversely affect environmentally sensitive areas listed in the guidelines Because of the nature of the proposed activities, no adverse impacts are expected to wetlands or floodplains

2:617

Categorical Exclusion to be applied

3 Site characterization and environmental monitoring, including siting, construction, or operation of characterization and monitoring devices, under CERCLA and RCRA, if these activities would not introduce or cause the inadvertent or uncontrolled movement of hazardous substances as defined in section 101(33) of CERCLA, or non-native organisms, and would not adversely affect environmentally sensitive areas as defined in paragraph 4 (DOE NEPA Guidelines, 55FR37178)

DOE NEPA REGULATIONS SECTION D DETERMINATION
CATEGORICAL EXCLUSION DETERMINATION - RFO/CX 025-91
Geologic and Ecologic Characterization Within Floodplains and Wetlands at Rocky Flats Plant

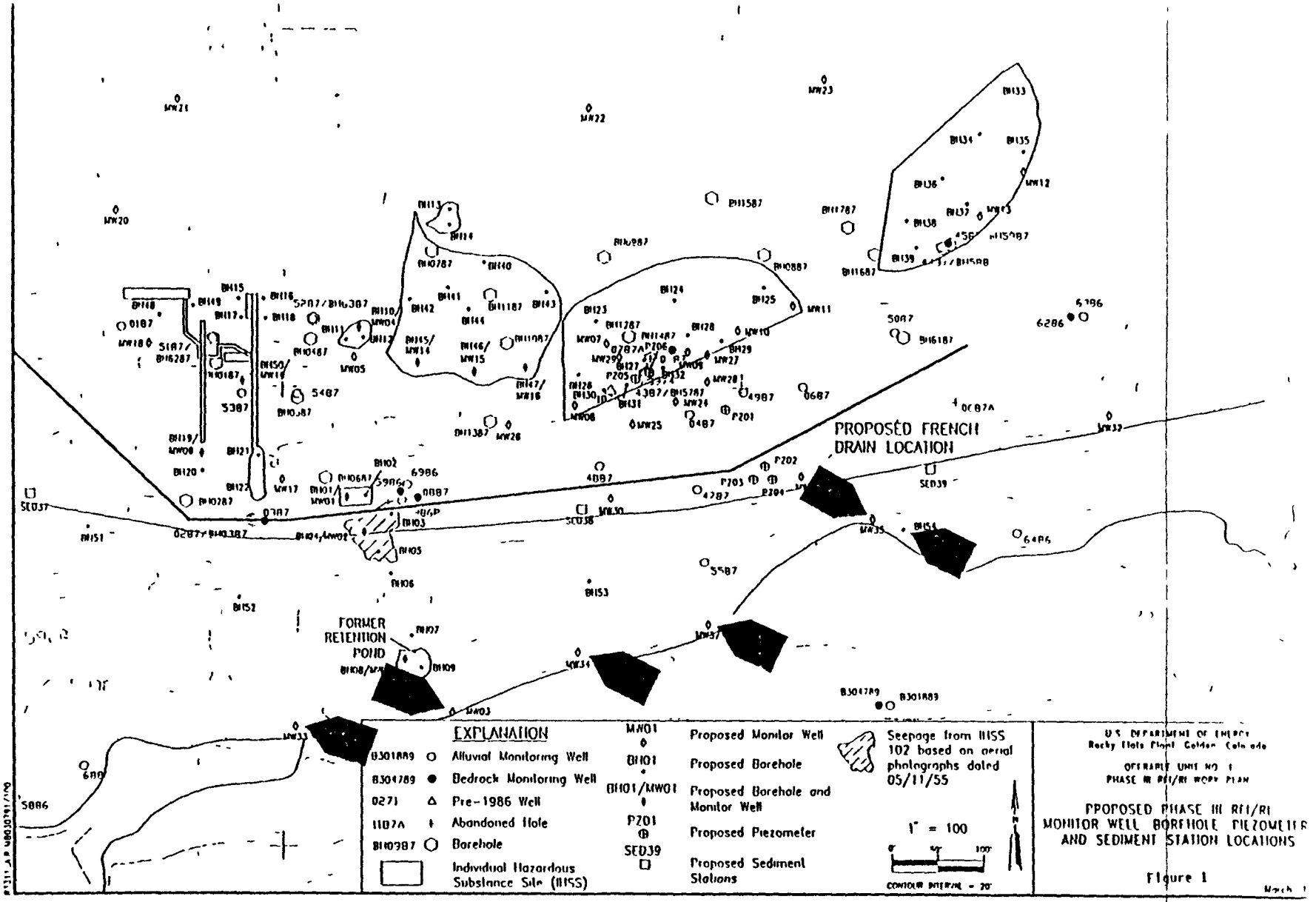
I have determined that the proposed action meets the requirements for a categorical exclusion as defined in the Section D of the DOE NEPA Guidelines Therefore, I approve the categorical exclusion of the proposed action from further NEPA review and documentation

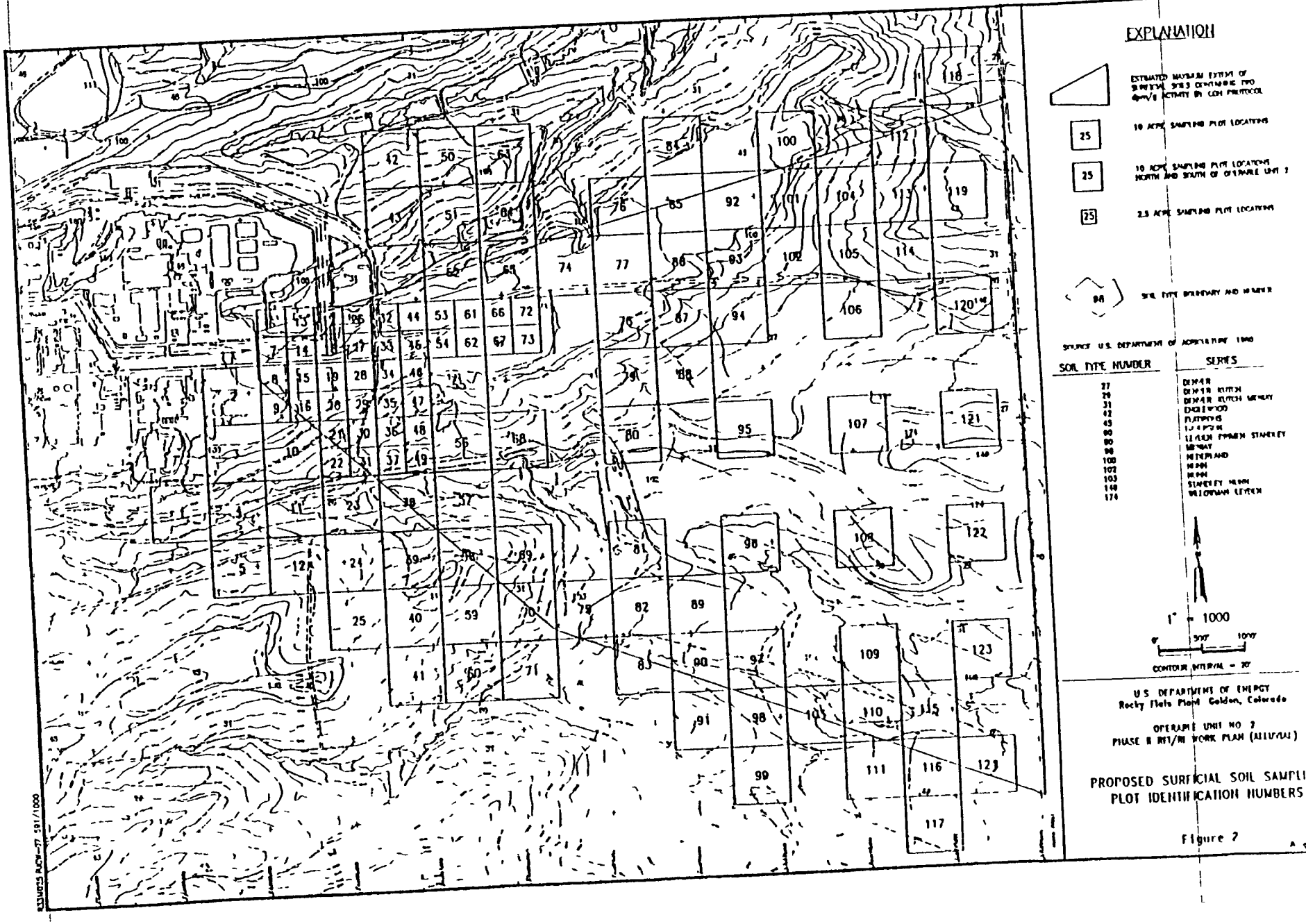
Date _____ Signature _____
Leo Duffy
Title Director, Environmental Restoration & Waste Mgmt

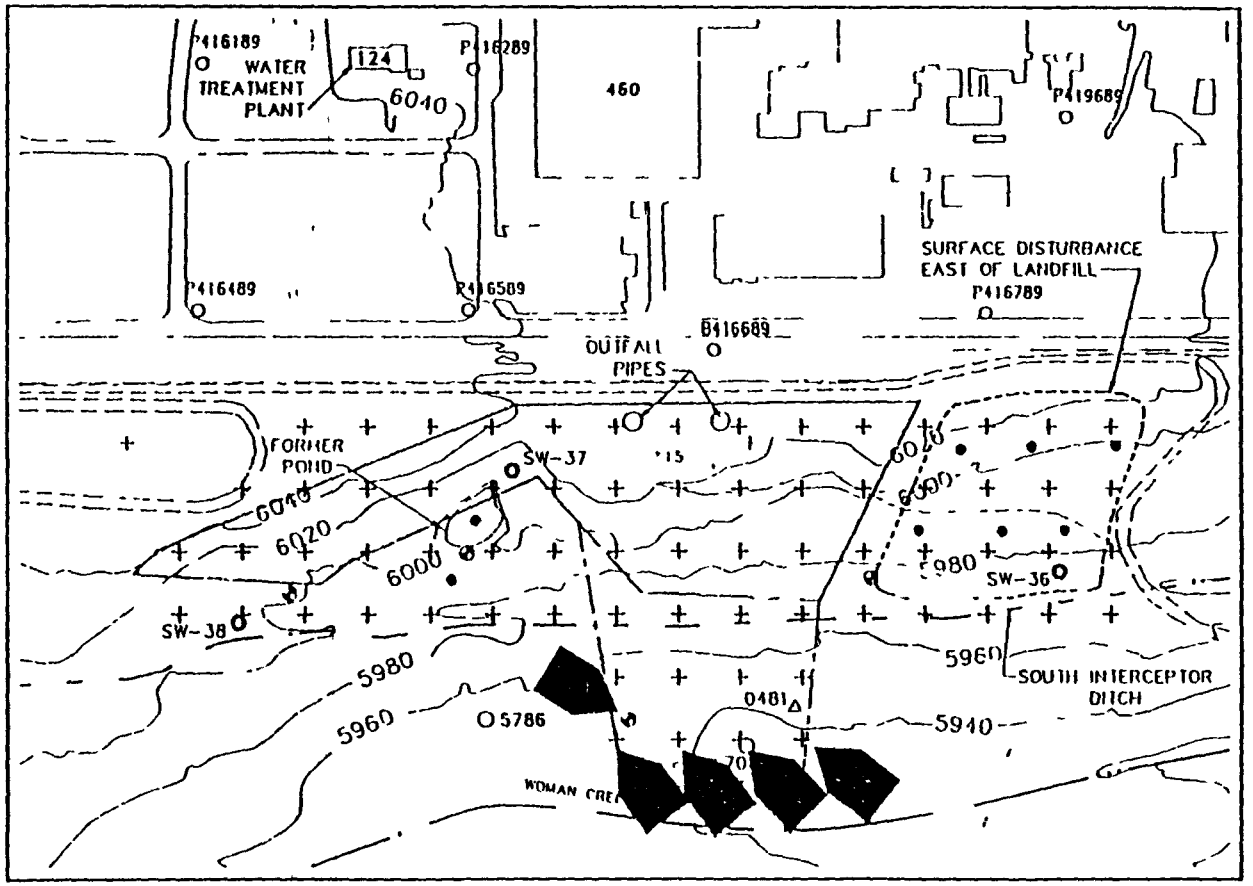
EH-25 has reviewed this determination and has no objection

Date _____ Signature _____
Carol M Borgstrom
Title Director, Office of NEPA Oversight

361


PROPOSED FRENCH DRAIN LOCATION
FORMER RETENTION POND
EXPLANATION
0301889 Alluvial Monitoring Well
8304789 Bedrock Monitoring Well
0271 Pre-1986 Well
1107A Abandoned Hole
BH0987 Borehole
Individual Hazardous Substance Site (IHSS)
MW01 Proposed Monitor Well
BH01 Proposed Borehole
BH01/MW01 Proposed Borehole and Monitor Well
P201 Proposed Piezometer
SED39 Proposed Sediment Stations
Seepage from IHSS 102 based on aerial photographs dated 05/11/55
1" = 100
CONTOUR INTERVAL = 20'
U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado
OPERABLE UNIT NO. 1
PHASE III RFI/RI WORK PLAN
PROPOSED PHASE III RFI/RI MONITOR WELL BOREHOLE PIEZOMETER AND SEDIMENT STATION LOCATIONS
Figure 1


EXPLANATION
10 ACRE SAMPLING PLOT LOCATIONS
10 ACRE SAMPLING PLOT LOCATIONS NORTH AND SOUTH OF OPERABLE UNIT 2
2.5 ACRE SAMPLING PLOT LOCATIONS
SOIL TYPE BOUNDARY AND NUMBER
SOIL TYPE NUMBER
SERIES
1" = 1000
CONTOUR INTERVAL = 20'
U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant Golden, Colorado
OPERABLE UNIT NO. 2
PHASE II RI/FS WORK PLAN (ALLUVIAL)
PROPOSED SURFICIAL SOIL SAMPLING
PLOT IDENTIFICATION NUMBERS
Figure 2



N

0 100 200
SCALE 1" = 200'

EXPLANATION

- INDIVIDUAL HAZARDOUS SUBSTANCE SITE
- SW-1 EXISTING SURFACE WATER SAMPLING LOCATI
- 5786 EXISTING ALLUVIAL GROUNDWATER MONITORING W
- 0481 PRE-1986 MONITORING WELL
- INTERMITTENT STREAM
- DIRT ROAD
- 124 ROCKY FLATS BLDG NO
- PRELIMINARY EXTENSION OF THE LANDFILL BASED ON A SITE RECONNAISSANCE
- PROPOSED WELL LOCATION*
- PROPOSED SOIL BORING LOCATION*
- PROPOSED SOIL GAS SAMPLES*

*ALL PROPOSED LOCATIONS ARE APPROXIMATE

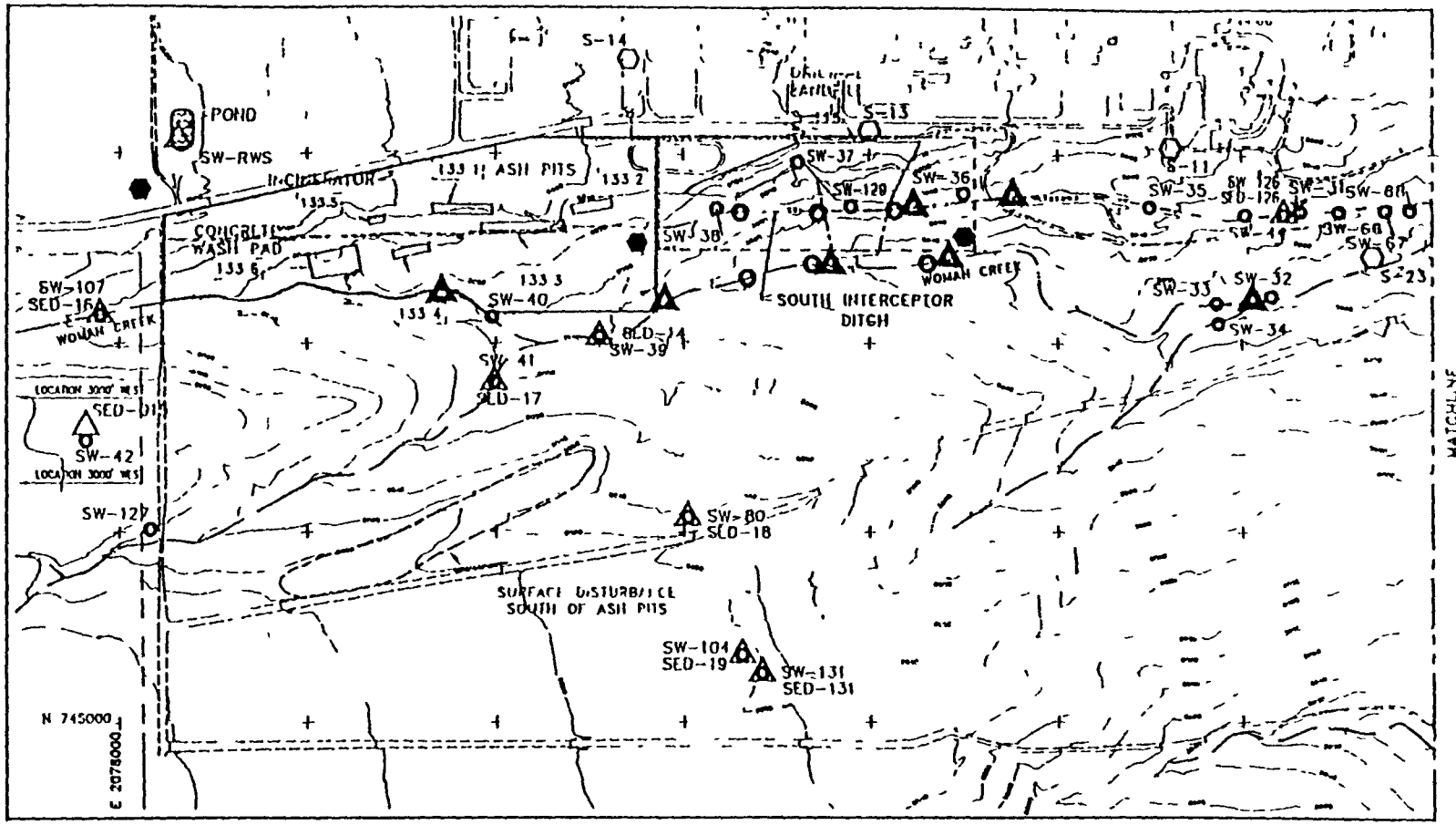
U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT 5
PHASE I RFI/RI WORK PLAN

PROPOSED SAMPLING AND WELL LOCATIONS
IHSS 115
ORIGINAL LANDFILL

Figure 3

REV AUGUST
MARCH 19



EXPLANATION

- 115 — INDIVIDUAL HAZARDOUS SUBSTANCE SITE
- SW-1 — EXISTING SURFACE WATER LOCATION
- SED-1 — EXISTING SEDIMENT SAMPLING LOCATION
- INTERMITTENT STREAM
- DIRT ROAD
- PRELIMINARY EXTENSION OF THE SURFACE DISTURBANCE BASED ON A RECONNAISSANCE
- S-23 — EXISTING RADIOACTIVE AMBIENT AIR MONITORING PROGRAM LOCATION
- PROPOSED SEDIMENT SAMPLE LOCATION
- PROPOSED RADIOACTIVE AMBIENT AIR MONITORING PROGRAM LOCATION
- PROPOSED SURFACE WATER LOCATION
- PROPOSED GERMANIUM SURVEY FOR ASH PIT AREA
- 1990 GERMANIUM SURVEY BOUNDARY AROUND OLD LANDFILL

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT 5
PHASE I RFI/RI WORK PLAN

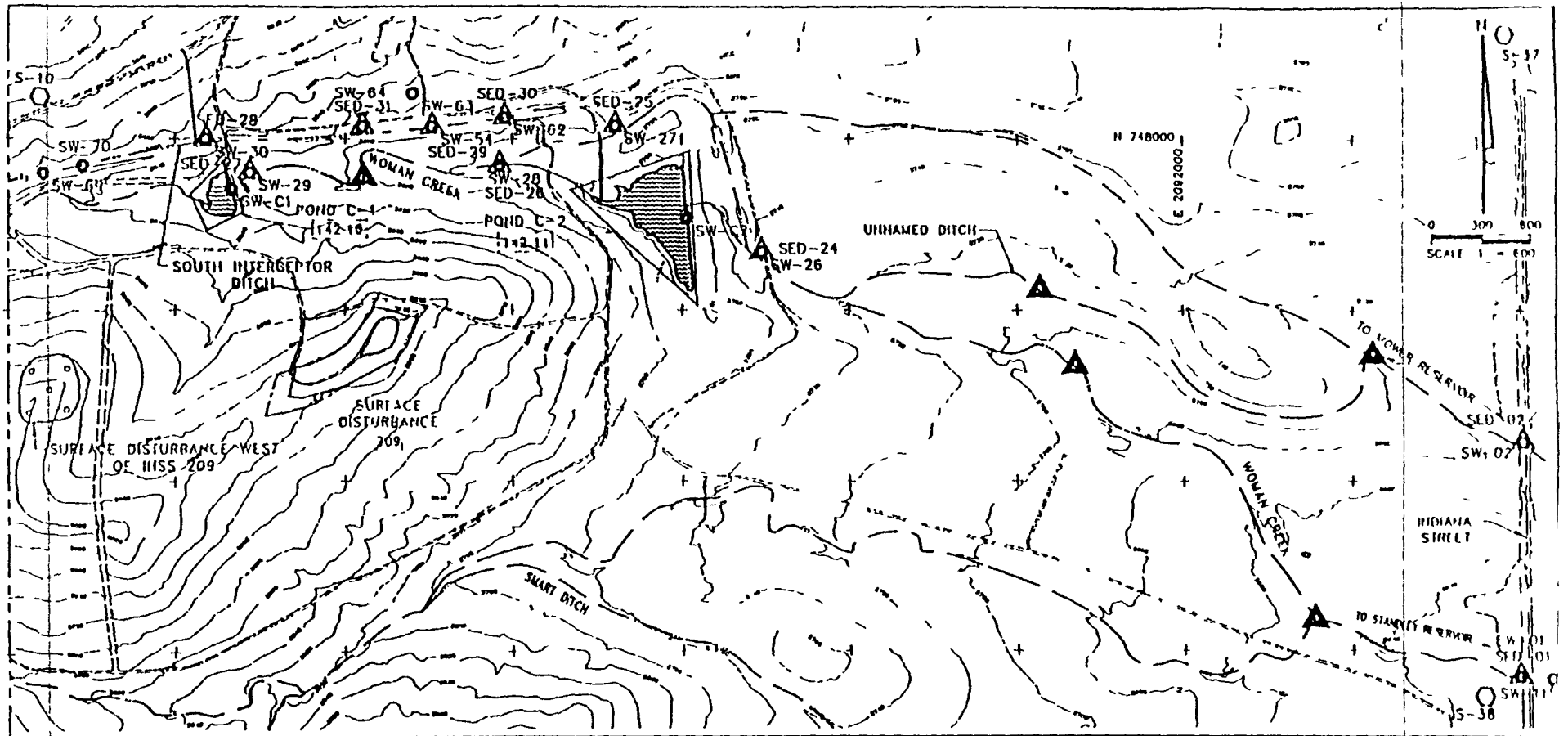
SEDIMENT & SURFACE WATER SAMPLING SITES & AIR MONITORING STATIONS ALONG WOMAN CREEK AND THE SOUTH INTERCEPTOR DITCH

Figure 4

REV. AUGUST 199
MARCH 1991

2506010A

7-61



MATCHLINE
(SEE FIGURE 7-2 [1 OF 2])

EXPLANATION

- [115] INDIVIDUAL HAZARDOUS SUBSTANCE SITE
- SW-1 EXISTING SURFACE WATER LOCATION
- SED-1 EXISTING SEDIMENT SAMPLING LOCATION
- INTERMITTENT STREAM
- DIRT ROAD
- PRELIMINARY EXTENSION OF THE SURFACE DISTURBANCE BASED ON A RECONNAISSANCE
- ORIGINAL STREAM CHANNEL NEAR POND C-2
- S-23 EXISTING RADIOACTIVE AMBIENT AIR MONITORING PROGRAM LOCATION
- PROPOSED SEDIMENT SAMPLE LOCATION

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT 5
PHASE I RFI/RI WORK PLAN

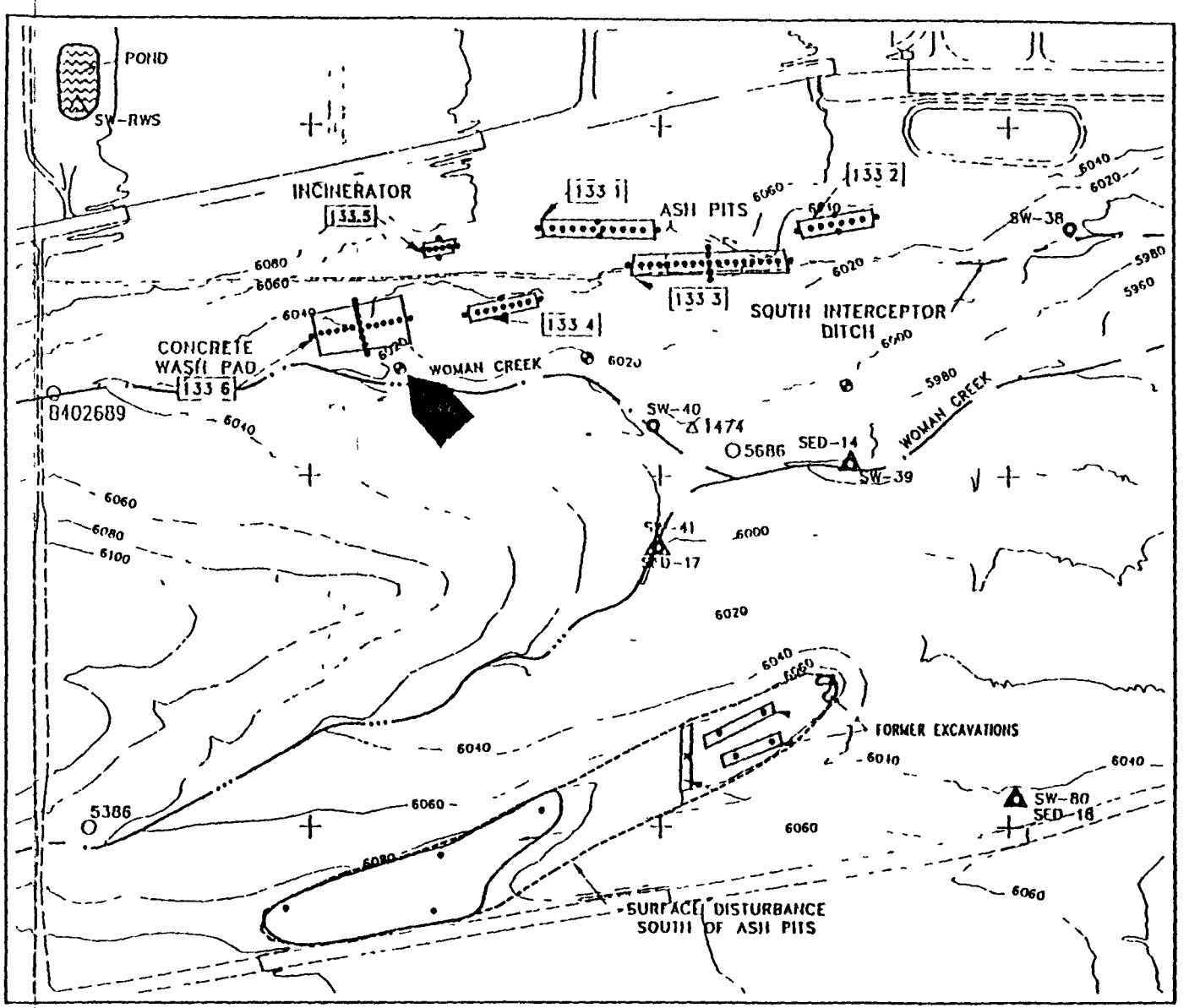
SEDIMENT & SURFACE WATER SAMPLING SITES & AIR MONITORING STATIONS ALONG WOMAN CREEK AND THE SOUTH INTERCEPTOR DITCH

Figure 5

REV. AUGUST 19
MARCH 199

2506010B

8-61



N

0 150 300
SCALE 1 = 300

EXPLANATION

- [115] INDIVIDUAL HAZARDOUS SUBSTANCE SITE
- SW-1 EXISTING SURFACE WATER SAMPLING LOCATION
- 5786 EXISTING ALLUVIAL GROUNDWATER MONITORING WELL
- SED-17 EXISTING SEDIMENT SAMPLING LOCATION
- 1474 PRE-1986 MONITORING WELL
- PROPOSED SOIL BORING LOCATION
- PROPOSED WELL LOCATION
- PROPOSED SURFACE SAMPLING LOCATION
- INTERMITTENT STREAM
- DIRT ROAD

*ALL PROPOSED LOCATIONS ARE APPROXIMATE

U S DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden Colorado

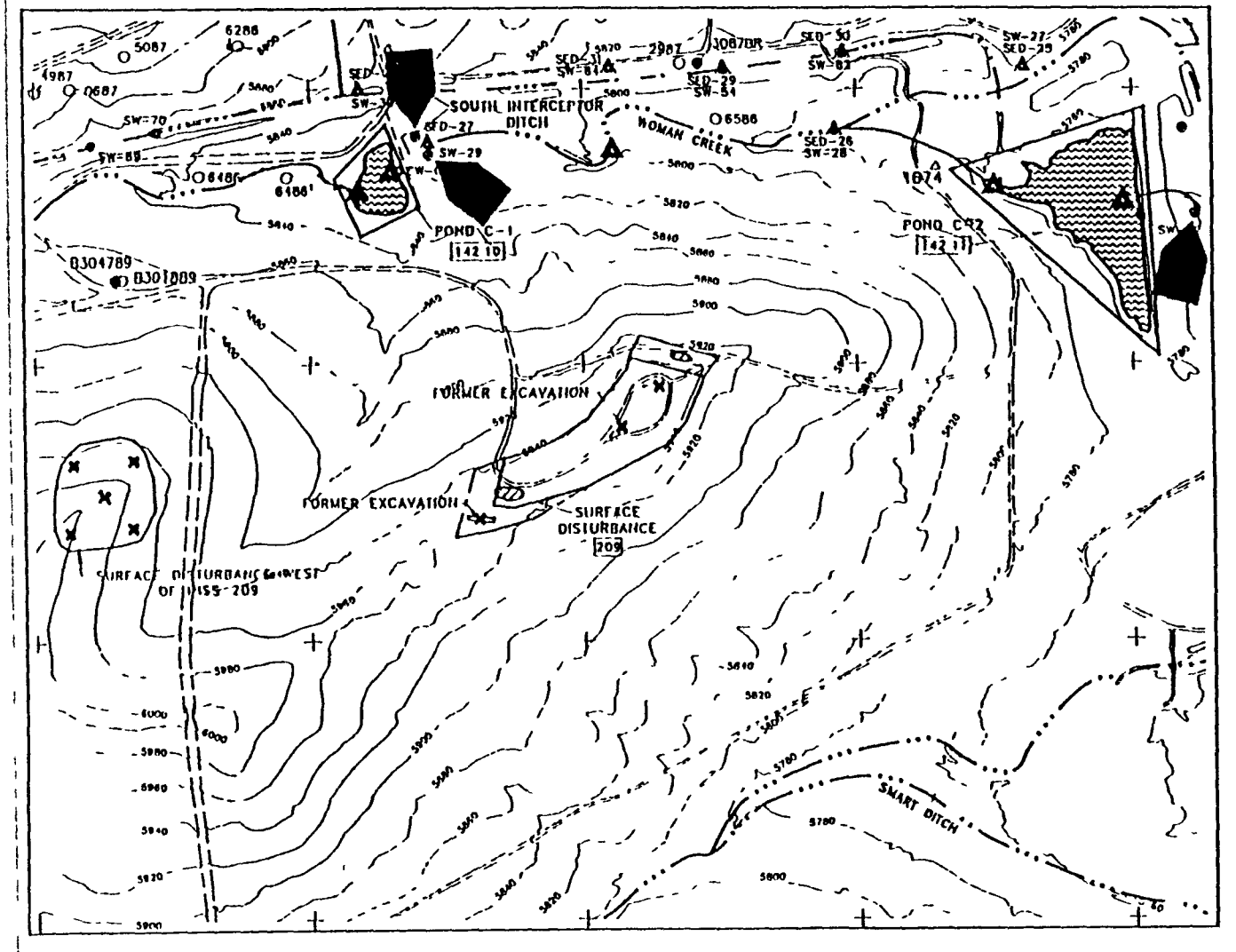
OPERABLE UNIT 5
PHASE I RFI/RI WORK PLAN

PROPOSED SAMPLING & WELL LOCATIONS
ASH PITS 1-4, INCINERATOR,
CONCRETE WASH PAD (IHSS 133 1-6),
AND ADDITIONAL SURFACE DISTURBANCE

Figure 6

REV AUGUST 199
MARCH 1991

250601 1



U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

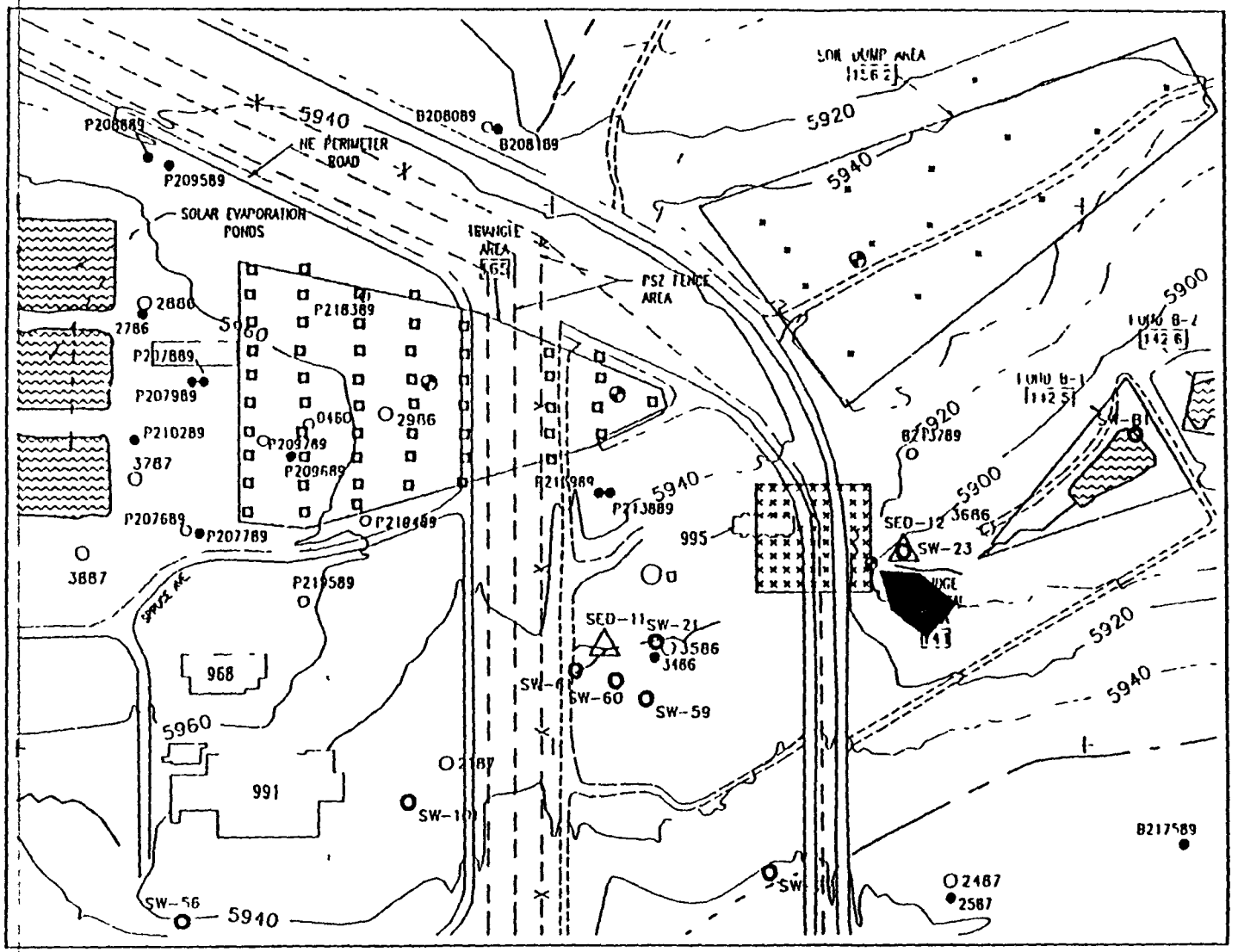
OPERABLE UNIT 5
PHASE I RFI/RI WORK PLAN

PROPOSED SAMPLING & WELL LOCATIONS
IHSS 142 10-11, PONDS C-1 & C-2
IHSS 209 SURFACE DISTURBANCE & THE
SURFACE DISTURBANCE WEST OF
IHSS 209

Figure 7

REV AUGUST
MARCH 1

2506012



DRAFT
FOR COMMENTS AND DISCUSSION ONLY

N

0 100 200
SCALE 1" = 200

EXPLANATION

- 115 — INDIVIDUAL HAZARDOUS SUBSTANCE SITE
- SW-1 — EXISTING SURFACE WATER SAMPLING LOC
- 5786 — EXISTING ALLUVIAL GROUNDWATER MONITORING
- SED-17 — EXISTING SEDIMENT SAMPLING LOCATION
- 3087 — EXISTING BEDROCK GROUNDWATER MONITORING
- DIRT ROAD
- INTERMITTENT STREAM
- 968 — ROCKY FLATS BLDG NO
- PROPOSED SOIL GAS SURVEY LOCATION[1]
- PROPOSED WELL LOCATION[1]
- PROPOSED SURFACE SAMPLING LOCATION[1]
- PROPOSED BORING AND SURFACE SAMPLIN LOCATION[1]

[1] ALL PROPOSED LOCATIONS ARE APPROXIMA

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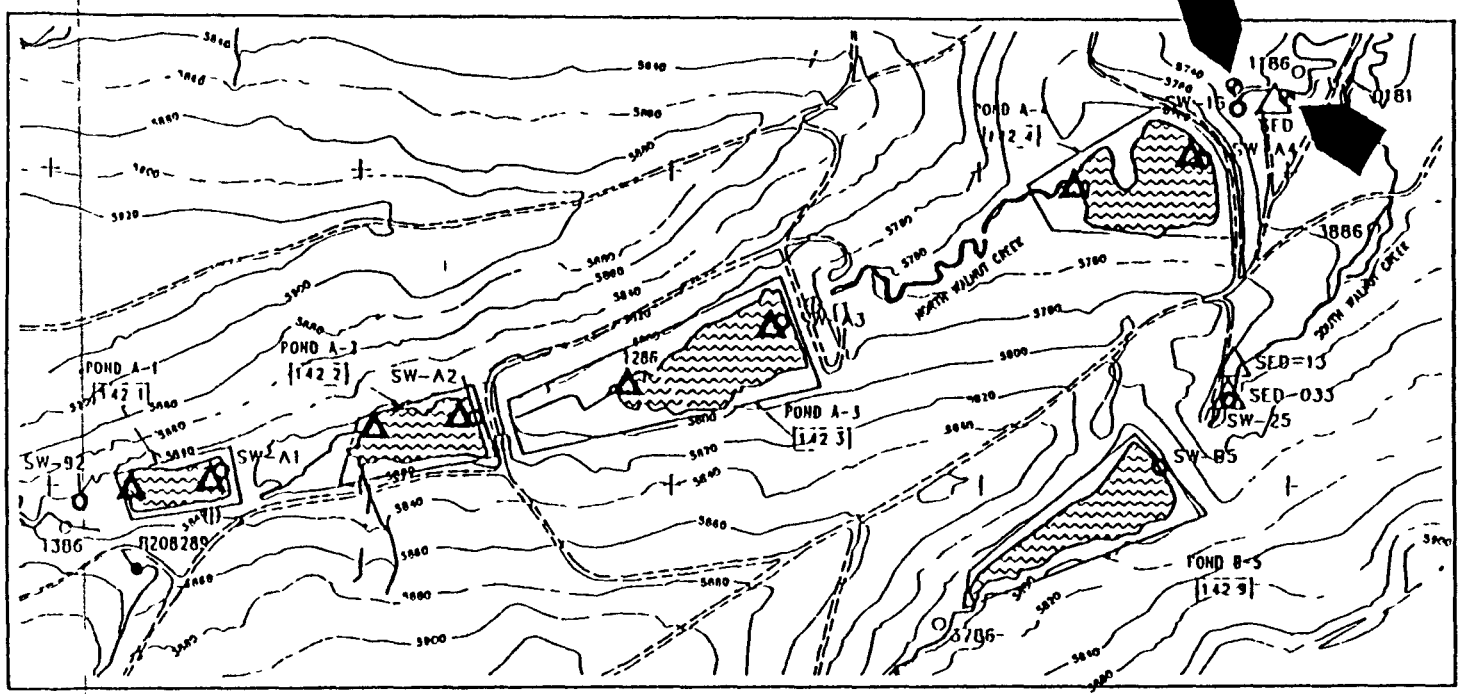
Rocky Flats Plant Golden Colorado

OPERABLE UNIT 6
PHASE I RFI/RI WORK PLAN

PROPOSED SAMPLING AND WELL LOCATIONS
IHSS 141 SLUDGE DISPERSAL
IHSS 165 TRIANGLE AREA
IHSS 156.2 SOIL DUMP AREA

Figure 8 APRIL



DRAFT

FOR COMMENTS AND DISCUSSION ONLY

N

0 200 400

SCALE 1 = 400

EXPLANATION

- [11*] INDIVIDUAL HAZARDOUS SUBSTANCE SITE
- SW-1 EXISTING SURFACE WATER SAMPLING LOCATION
- 5786 EXISTING ALLUVIAL GROUNDWATER MONITORING WELL
- SED-17 EXISTING SEDIMENT SAMPLING LOCATION
- 3087 EXISTING BEDROCK GROUNDWATER MONITORING WELL
- 0181 EXISTING PRE-1986 WELL
- INTERMITTENT STREAM
- DIRT ROAD
- PROPOSED WELL LOCATION[1]
- PROPOSED SEDIMENT SAMPLE LOCATION[1]
- PROPOSED BEDROCK WELL LOCATIONS FOR SITE-WIDE GEOLOGICAL CHARACTERIZATION PROGRAM[1] These wells are shown in Figure 11

[1] ALL PROPOSED LOCATIONS ARE APPROXIMATE

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Rocky Flats Plant Golden Colorado

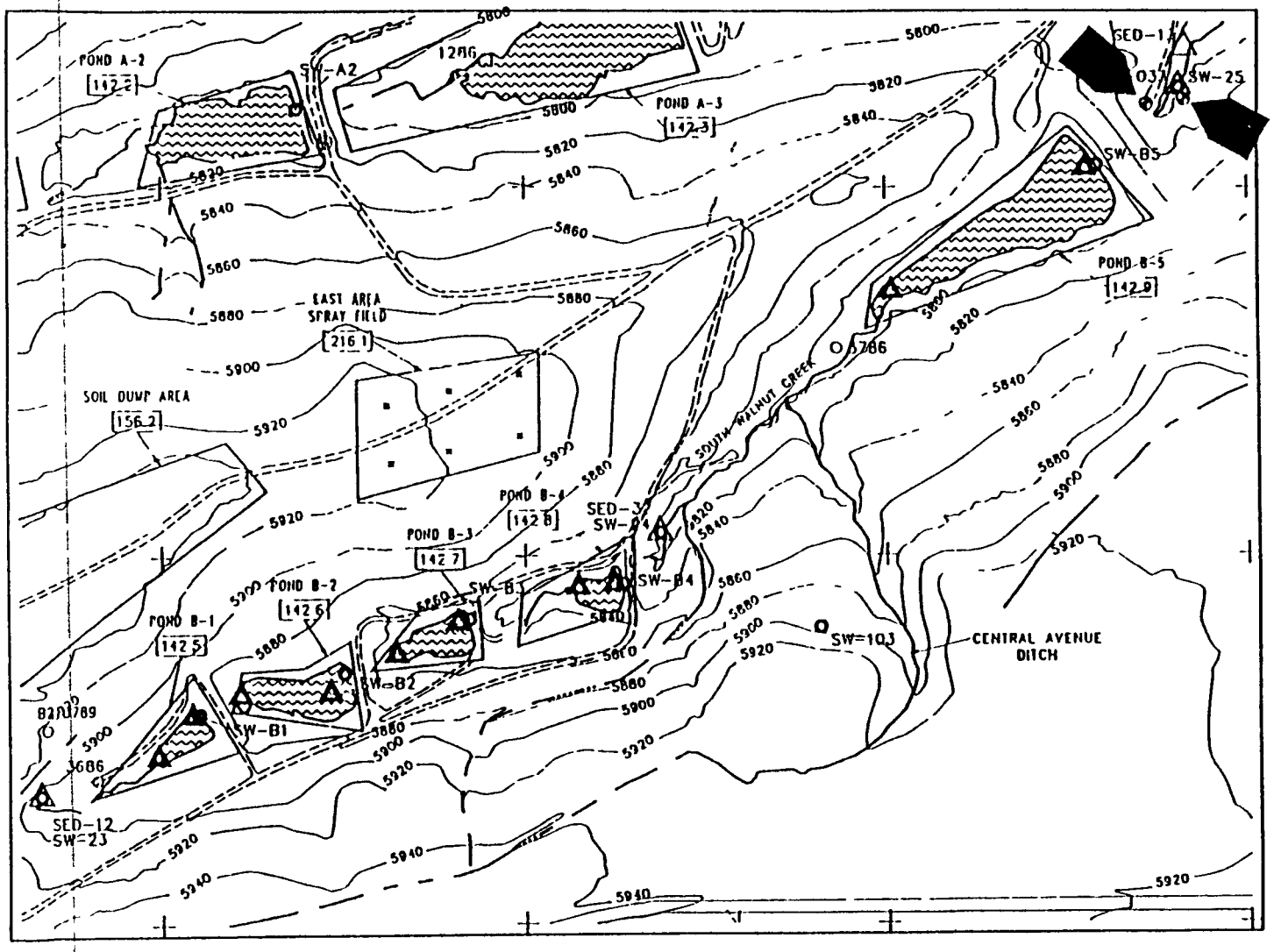
OPERABLE UNIT 6
PHASE I RFI/RI WORK PLAN

PROPOSED SAMPLING & WELL LOCATIONS
IHSSs 142.1-4
A-SERIES DETENTION PONDS
ALONG NORTH WALNUT CREEK

Figure 9 APRIL 1991

7-2

14417



DRAFT
FOR COMMENTS AND DISCUSSION ONLY

N

0 150 300
SCALE 1 = 300

EXPLANATION

- [11] INDIVIDUAL HAZARDOUS SUBSTANCE SITE
- SW-1 EXISTING SURFACE WATER SAMPLING LOCATION
- 5786 EXISTING ALLUVIAL GROUNDWATER MONITORING WELL
- SED-17 EXISTING SEDIMENT SAMPLING LOCATION
- INTERMITTENT STREAM
- DIRT ROAD
- [968] ROCKY FLATS BLDG NO
- PROPOSED WELL LOCATION [1]
- PROPOSED BORING AND SURFACE SAMPLE [1] LOCATION
- PROPOSED SEDIMENT SAMPLE LOCATION [1,2]
- PROPOSED BEDROCK WELL LOCATIONS FOR SITE-WIDE GEOLOGICAL CHARACTERIZATION PROGRAM [1]

[1] ALL PROPOSED LOCATIONS ARE APPROXIMATE

[2] THREE OTHER LOCATIONS IN EACH POND WILL BE SELECTED AT RANDOM

U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

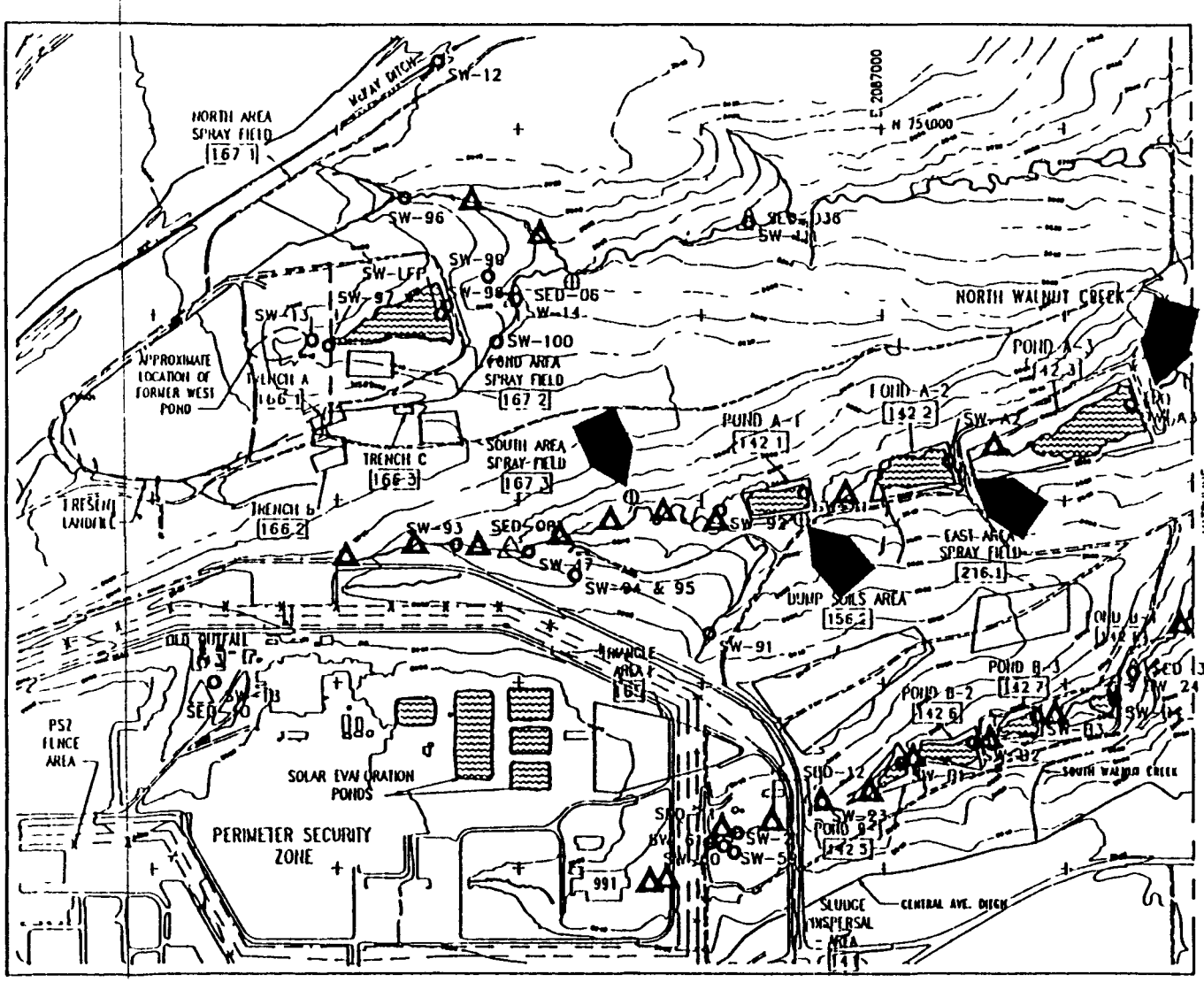
OPERABLE UNIT 6
PHASE I RFI/RI WORK PLAN

PROPOSED SAMPLING & WELL LOCATIONS
IHSSs 142.5-9,
B-SERIES DETENTION PONDS
ALONG SOUTH WALNUT CREEK
IHSS 216.1 EAST AREA SPRAY FIELD

Figure 10 APRIL 1991

7-3

13(17



DRAFT

FOR COMMENTS AND DISCUSSION ONLY

N

0 300 600

SCALE 1 = 600

EXPLANATION

- INDIVIDUAL HAZARDOUS SUBSTANCE SITE (IHSS) IN OPERABLE UNIT 6
- [1.1] IHSS REFERENCE NUMBER
- SW-1 EXISTING SURFACE WATER SAMPLING LOCATION
- SED-17 EXISTING SEDIMENT SAMPLE LOCATION
- PERIMETER SECURITY ZONE
- DIRT ROAD
- PROPOSED LOCATIONS FOR SEDIMENT SAMPLES[1]
- PROPOSED BEDROCK WELL LOCATIONS FOR SITE-WIDE GEOLOGICAL CHARACTERIZATION PROGRAM[1]

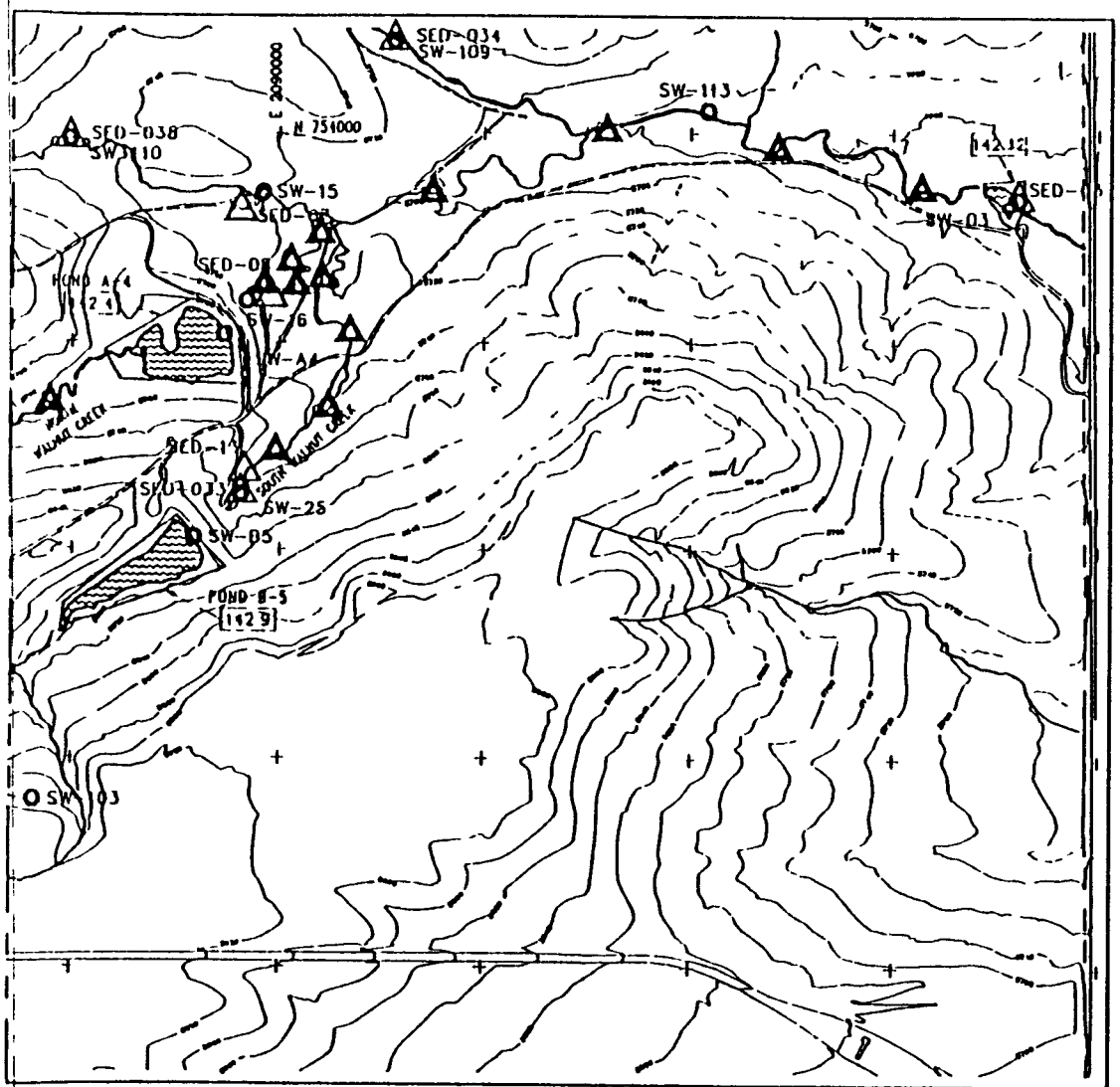
[1] ALL PROPOSED LOCATIONS ARE APPROXIMATE

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT 6
PHASE I RFI/RI WORK PLAN

SEDIMENT SAMPLING SITES AND SITE-WIDE PROGRAM BEDROCK WELLS ON NORTH AND SOUTH WALNUT CREEKS

Figure 11



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FOR COMMENTS AND DISCUSSION ONLY

N

0 300 600
SCALE 1 = 600

EXPLANATION

INDIVIDUAL HAZARDOUS SUBSTANCE SITE (IHSS) IN OPERABLE UNIT 6

[115] IHSS REFERENCE NUMBER

SW-1 EXISTING SURFACE WATER SAMPLING LOCATION

SED-17 EXISTING SEDIMENT SAMPLE LOCATION

===== DIRT ROAD

PROPOSED LOCATIONS FOR SEDIMENT SAMPLES[1]

[1]ALL PROPOSED LOCATIONS ARE APPROXIMATE

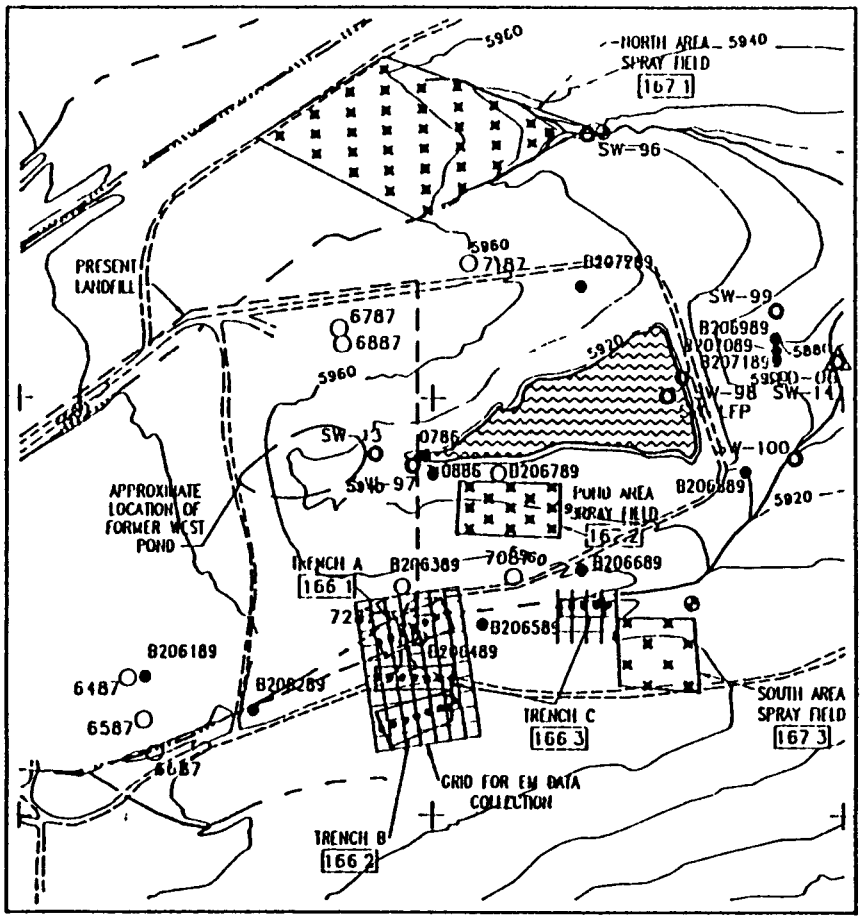
U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT 6
PHASE I RFI/RI WORK PLAN

SEDIMENT SAMPLING SITES AND SITE-WIDE PROGRAM BEDROCK WELLS ON NORTH AND SOUTH WALNUT CREEKS

Figure 12

APRIL 1991



Preliminary information from the U S Army Corps of Engineers shows no flood plain for the drainageways on this map

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FOR COMMENTS AND DISCUSSION ONLY

N

0 150 300
SCALE 1 = 300

EXPLANATION

- [115] INDIVIDUAL HAZARDOUS SUBSTANCE SITE
- SW-1 EXISTING SURFACE WATER SAMPLING LOCATION
- 5786 EXISTING ALLUVIAL GROUNDWATER MONITORING WELL
- SED-17 EXISTING SEDIMENT SAMPLING LOCATION
- 3087 EXISTING BEDROCK GROUNDWATER MONITORING WELL
- INTERMITTENT STREAM
- DIRT ROAD
- PROPOSED SOIL BORING LOCATION[1]
- PROPOSED WELL LOCATION[1]
- PROPOSED BORING AND SURFACE SAMPLE LOCATION[1]
- PROPOSED ELECTROMAGNETIC SURVEY LINE LOCATION[1]

[1]ALL PROPOSED LOCATIONS ARE APPROXIMATE

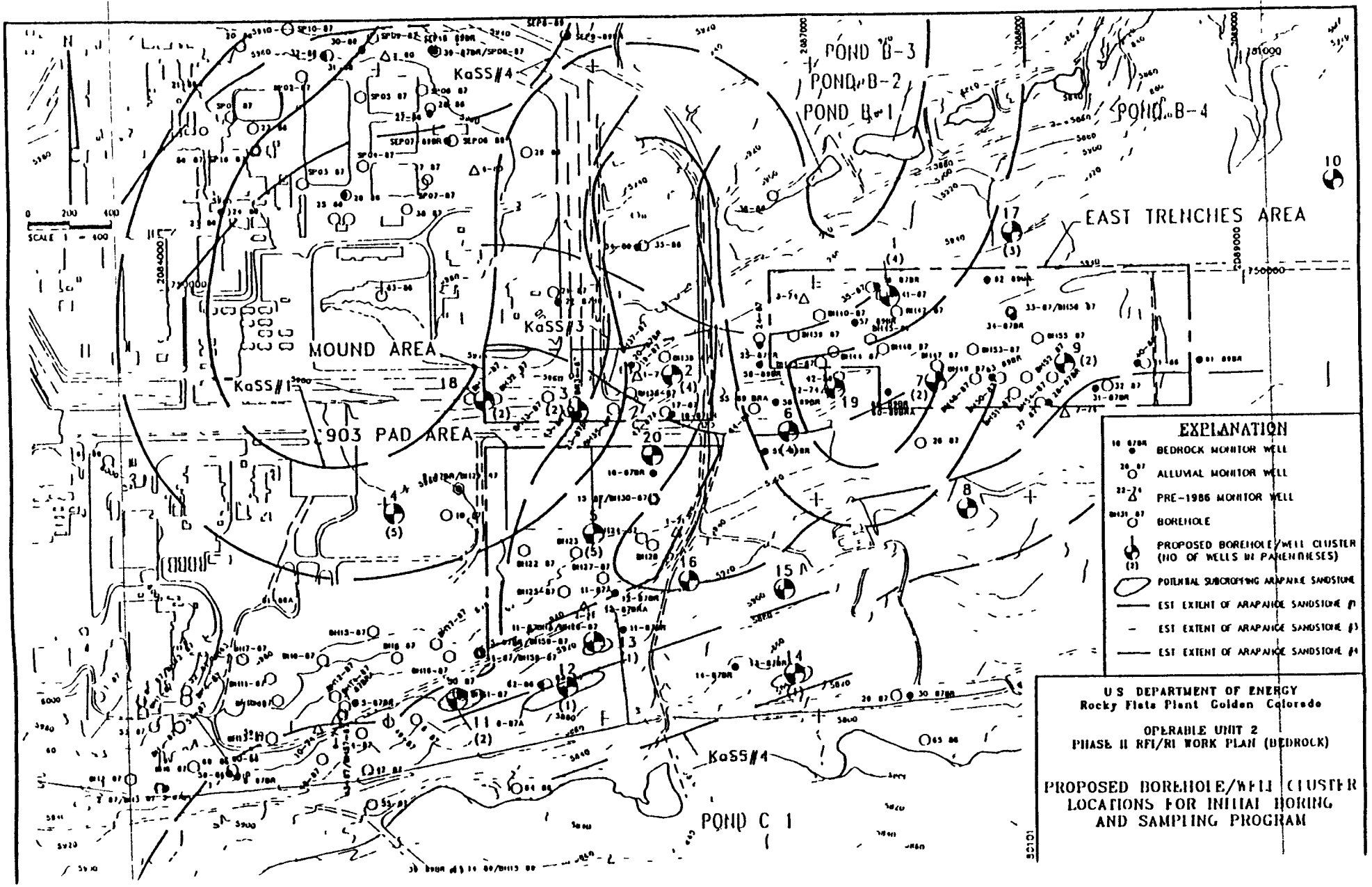
U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT 6
PHASE I RFI/RI WORK PLAN

PROPOSED SAMPLING & WELL LOCATIONS
IHSSs 166 1-3, TRENCHES A, B, & C
IHSSs 167 1-3 NORTH AREA,
POND AREA AND SOUTH AREA

Figure 13

APRIL 1991


POND B-3
POND B-2
POND B-1
POND B-4
EAST TRENCHES AREA
MOUND AREA
903 PAD AREA
KaSS#1
KaSS#3
KaSS#4
POND C 1
SCALE 1 = 400
EXPLANATION
BEDROCK MONITOR WELL
ALLUVIAL MONITOR WELL
PRE-1986 MONITOR WELL
BOREHOLE
PROPOSED BOREHOLE/WELL CLUSTER (NO OF WELLS IN PARENTHESES)
POTENTIAL SUBCROPPING ARAPAHOE SANDSTONE
EST EXTENT OF ARAPAHOE SANDSTONE #1
EST EXTENT OF ARAPAHOE SANDSTONE #3
EST EXTENT OF ARAPAHOE SANDSTONE #4
U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado
OPERABLE UNIT 2
PHASE II RFI/RI WORK PLAN (BEDROCK)
PROPOSED BOREHOLE/WELL CLUSTER LOCATIONS FOR INITIAL BORING AND SAMPLING PROGRAM