ROCKY FLATS PLANT

NEPA DIVISION, PLANT REVIEW

CATEGORICAL EXCLUSION WORKSHEET

1. Date: 10/1/91

2. Activity/Project Name: IAG Site Characterization Activities in Floodplains/Wetlands for OUs 1, 2, 5 and 6 and the Geologic Characterization Program

3. Authorization or EJO:

5. NEPA Division Reviewer: Bill Moore

6. Categorical Exclusion Proposed:

   "Site characterization and environmental monitoring, including siting, construction or operation of characterization and monitoring devices, under CERCLA and RCRA, if the activities would not . . . adversely affect environmentally sensitive areas . . ."

   NOTE: EC 59-91, ("IAG Site Characterization Activities") was reviewed by NCC on May 22, 1991. That project was recommended for a CX under the same exclusion proposed here. The current activities are a sub-set of the activities included in the earlier EC. In reviewing the proposed CX, DOE HQ determined (in RFO/CX-017-91, copy attached) that the CX would only apply to site characterization activities outside floodplains and wetlands. HQ directed that another proposed CX be prepared for the work in floodplains, describing what effects, if any, such work would have on the floodplain/wetlands so it could be determined if a CX were applicable to the floodplain/wetland work. The present document is that second proposed CX

Would the proposed action:

7. Adversely affect federally-listed endangered, threatened, or proposed candidate species, or state-listed endangered or threatened species or their habitat?

   No.

8. Adversely affect floodplains or wetlands?

   No

9. Threaten public health or safety?

   No

10. Have possible effects on the environment which are likely to be highly controversial?

    No

ADMIN RECORD

11. Have possible effects on the environment which are highly uncertain or involve unique or unknown risks?

    No

12. Establish a precedent for future actions that will have significant effects, or represent a decision in principle about a future consideration?

    No

13. Be substantially related to other actions that have individually insignificant but cumulatively significant impacts?

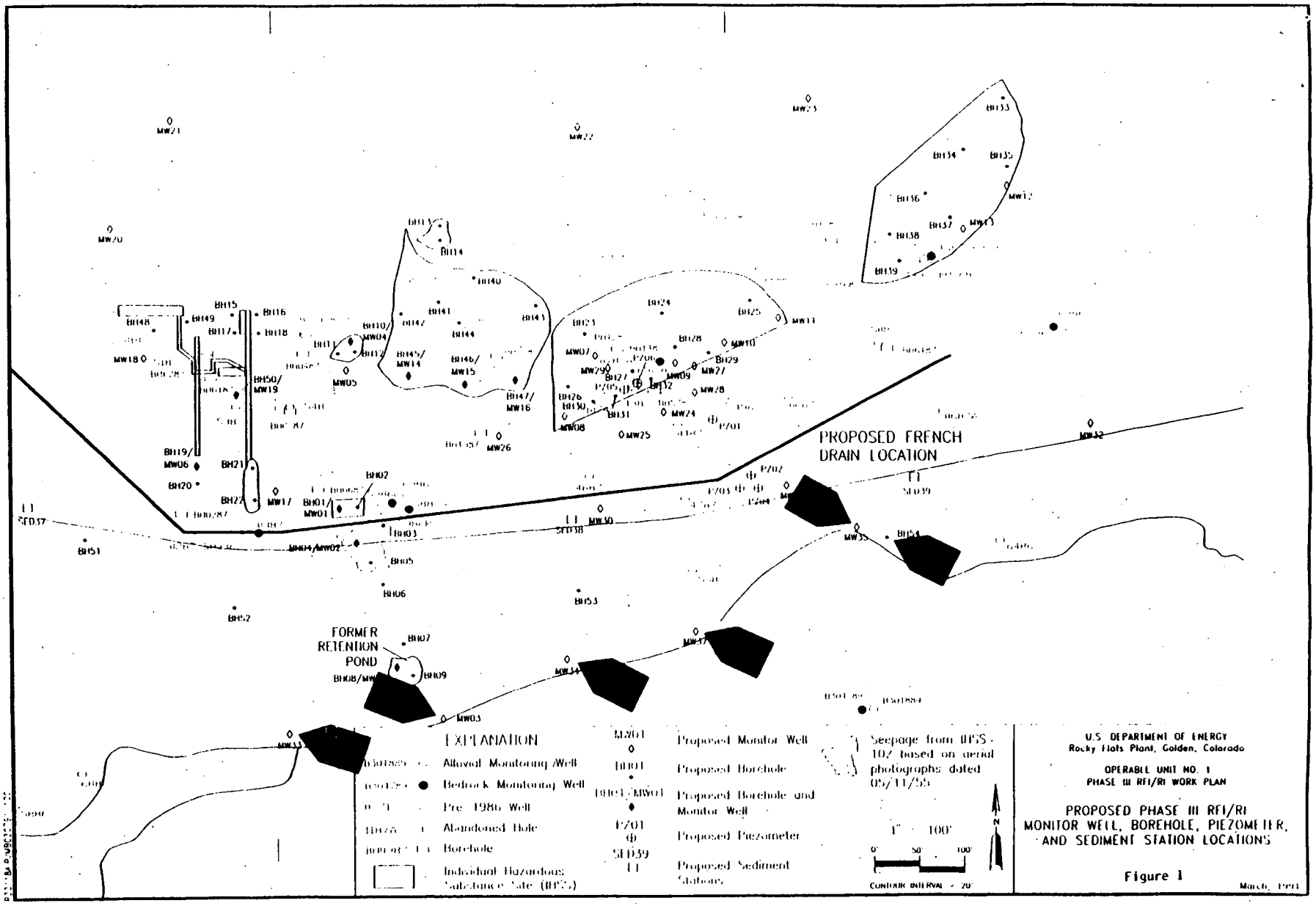
    No

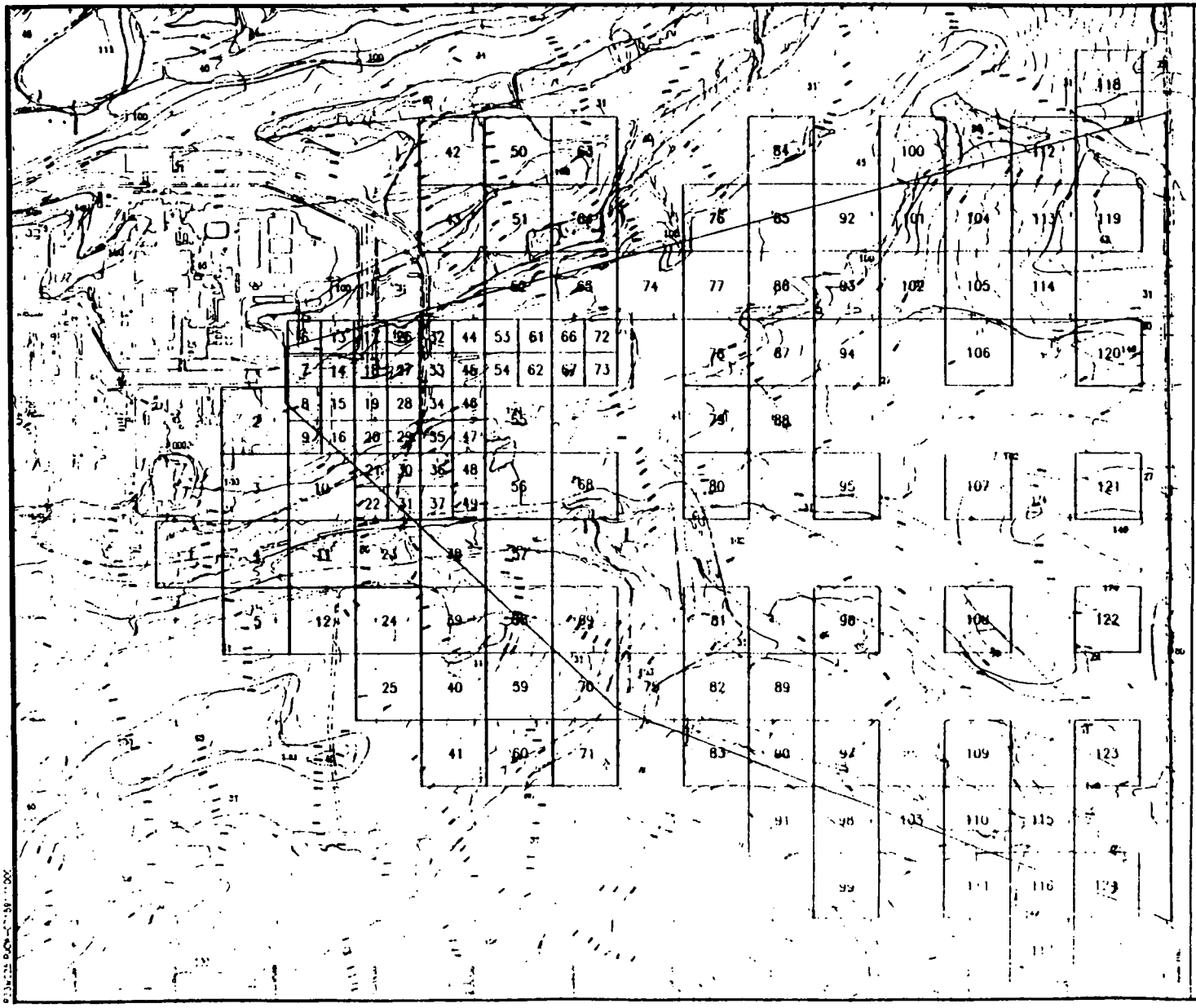
14. Adversely effect federal, state, or locally designated natural areas, prime agricultural land, special water sources, or historic, archeological, or architectural sites?

    No

15. Other comments.

    Of the various aspects of the project,drilling is the most disruptive. Drilling will take place in, but have no adverse effects on, the 100-year floodplain. It is possible that some drilling may also take place in wetlands but the activity is of such a nature as to cause no adverse effects to wetlands.


PROPOSED FRENCH DRAIN LOCATION
FORMER RETENTION POND
EXPLANATION
Alluvial Monitoring Well
Bedrock Monitoring Well
Pre 1986 Well
Abandoned Hole
Borehole
Individual Hazardous Substance Site (IHSS)
Proposed Monitor Well
Proposed Borehole
Proposed Borehole and Monitor Well
Proposed Piezometer
Proposed Sediment Station
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
March, 1991



EXPLANATION

ESTIMATED MAXIMUM EXTENT OF SURFICIAL SOILS CONTAINING TRU dpm/g ACTIVITY BY CDH PROTOCOL

25 — 10 ACRE SAMPLING PLOT LOCATIONS

25 — 10 ACRE SAMPLING PLOT LOCATIONS NORTH AND SOUTH OF OPERABLE UNIT 2

25 — 2.5 ACRE SAMPLING PLOT LOCATIONS

98 — SOIL TYPE BOUNDARY AND NUMBER

SOURCE: U.S. DEPARTMENT OF AGRICULTURE, 1980

SOIL TYPE NUMBER	SERIES
27	DENVER
29	DENVER-KUTCH
31	DENVER-KUTCH-MIDWAY
42	ENGLEWOOD
45	FLATIRONS
60	HAMERSON
80	LEYDEN-PREMEA-STANDLEY
88	MIDWAY
100	NEDERLAND
102	NUNN
103	NUNN
140	STANDLEY-NUNN
174	WILLOWMAN-LEYDEN

1" = 1000'

0' 500' 1000'

CONTOUR INTERVAL = 20'

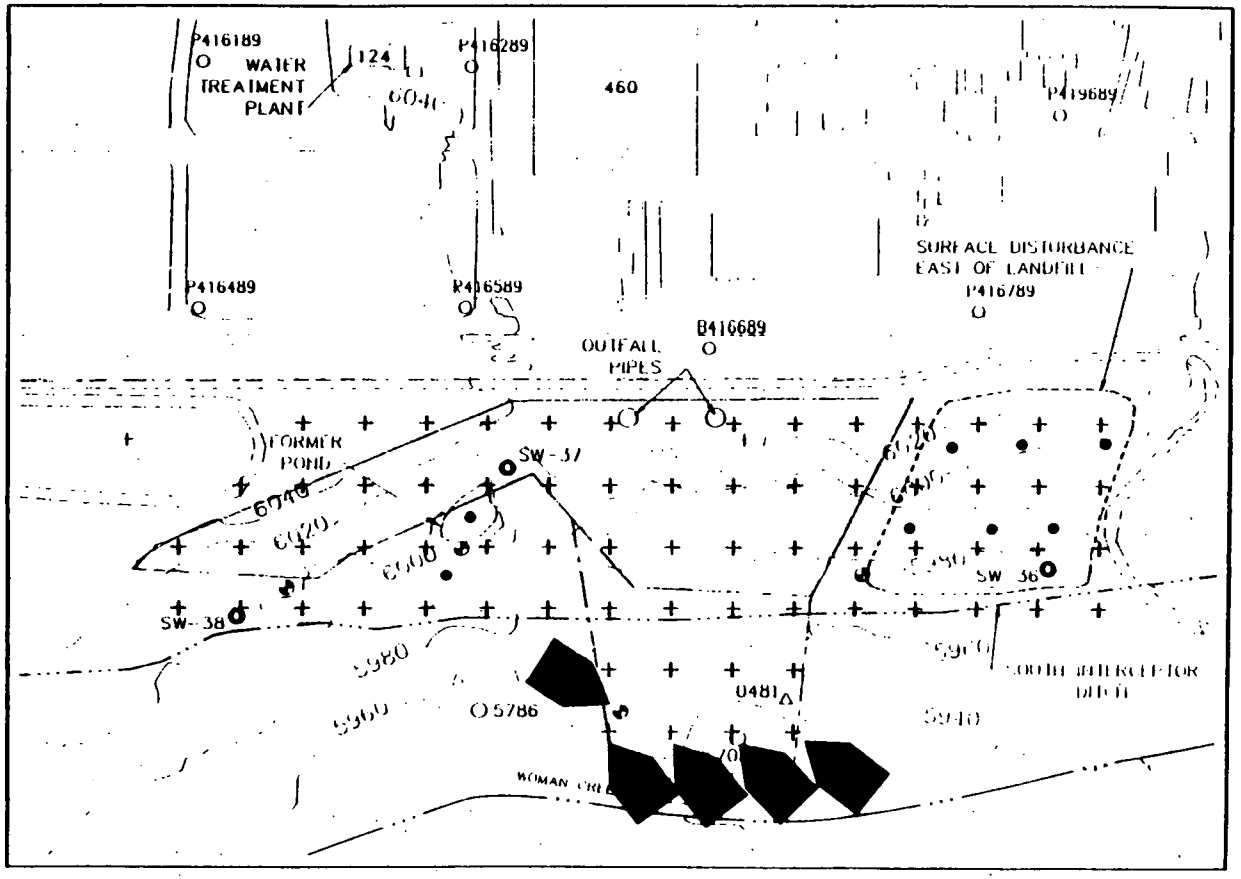
U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

OPERABLE UNIT NO. 2
PHASE II RFI/RI WORK PLAN (ALLUVIAL)

PROPOSED SURFICIAL SOIL SAMPLING PLOT IDENTIFICATION NUMBERS

Figure 2

August 1991



N

0 100 200

SCALE: 1" = 200'

EXPLANATION

INDIVIDUAL HAZARDOUS SUBSTANCE SITE

SW-1 EXISTING SURFACE WATER SAMPLING LOCATION

5786 EXISTING ALLUVIAL GROUNDWATER MONITORING WELL

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

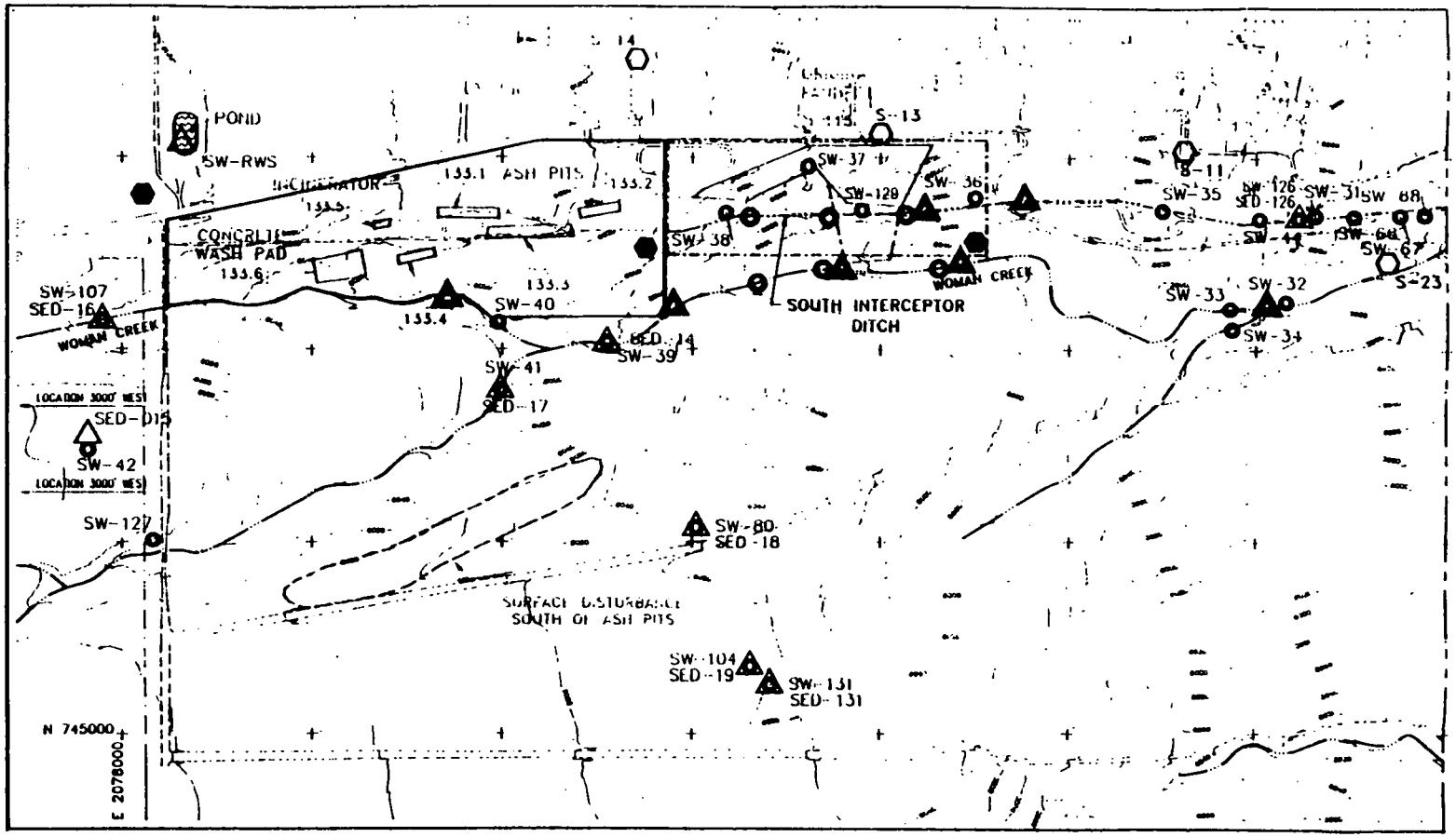
U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

OPERABLE UNIT 5
PHASE I RFI/RI WORK PLAN

PROPOSED SAMPLING AND WELL LOCATIONS
IHSS 115
ORIGINAL LANDFILL

Figure 3

REV. AUGUST 1991
MARCH 1991



EXPLANATION

- 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

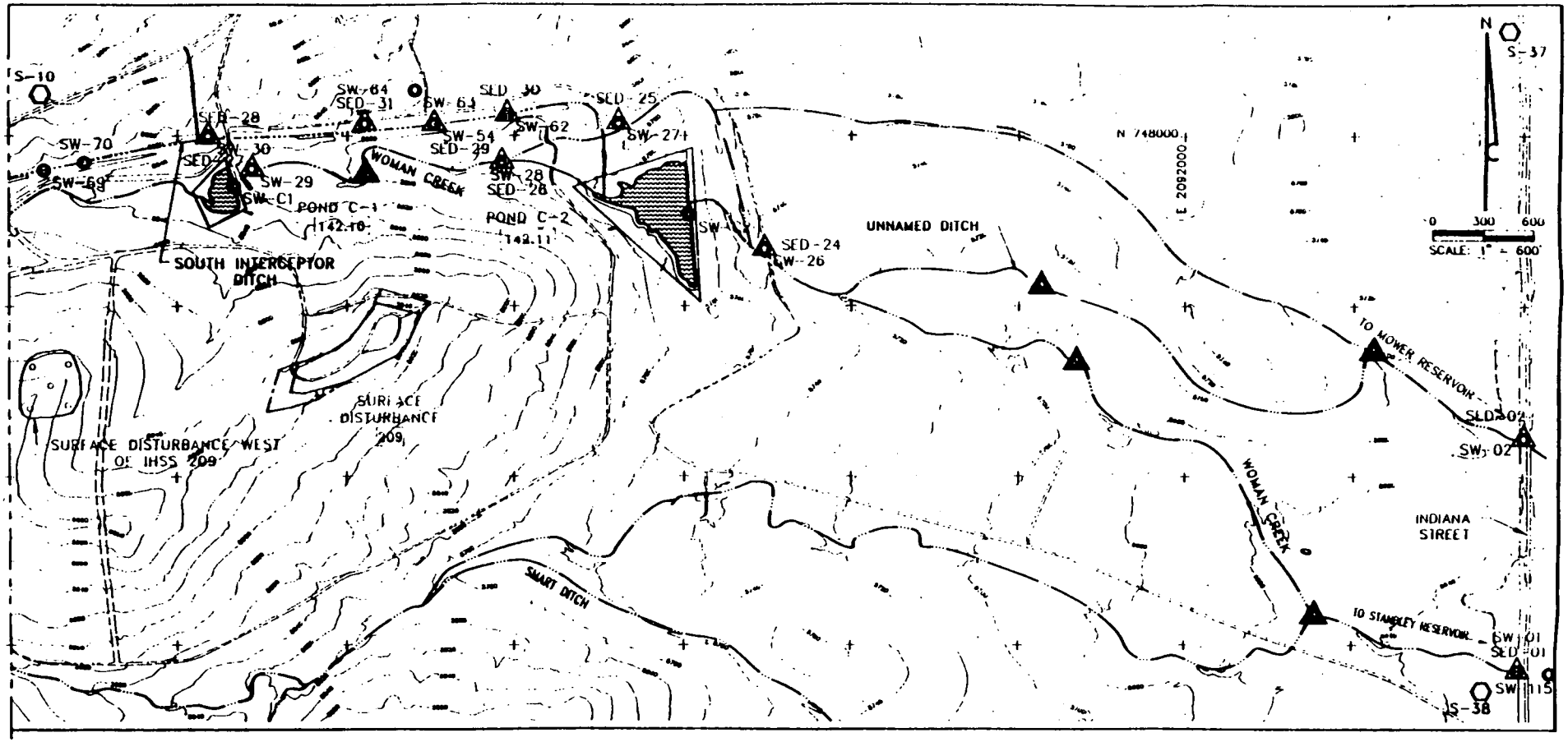
OPERABLE UNIT 5
PHASE I RFI/RI WORK PLAN

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

Figure 4

REV AUGUST 1991
MARCH 1991

25067-5A



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

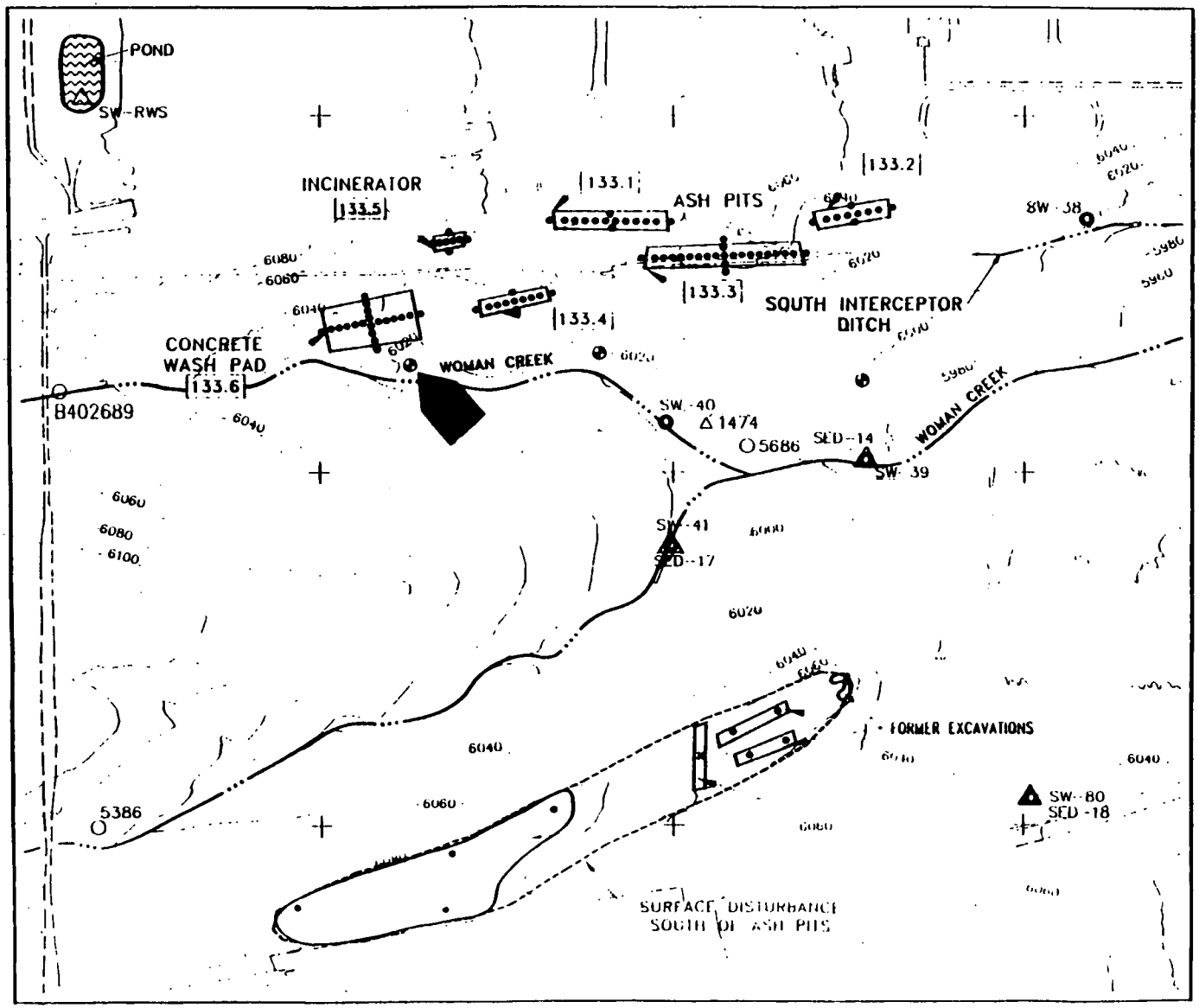
OPERABLE UNIT 5
PHASE I RFI/RI WORK PLAN

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

Figure 5

REV. AUGUST 1991
MARCH 1991

25060108



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

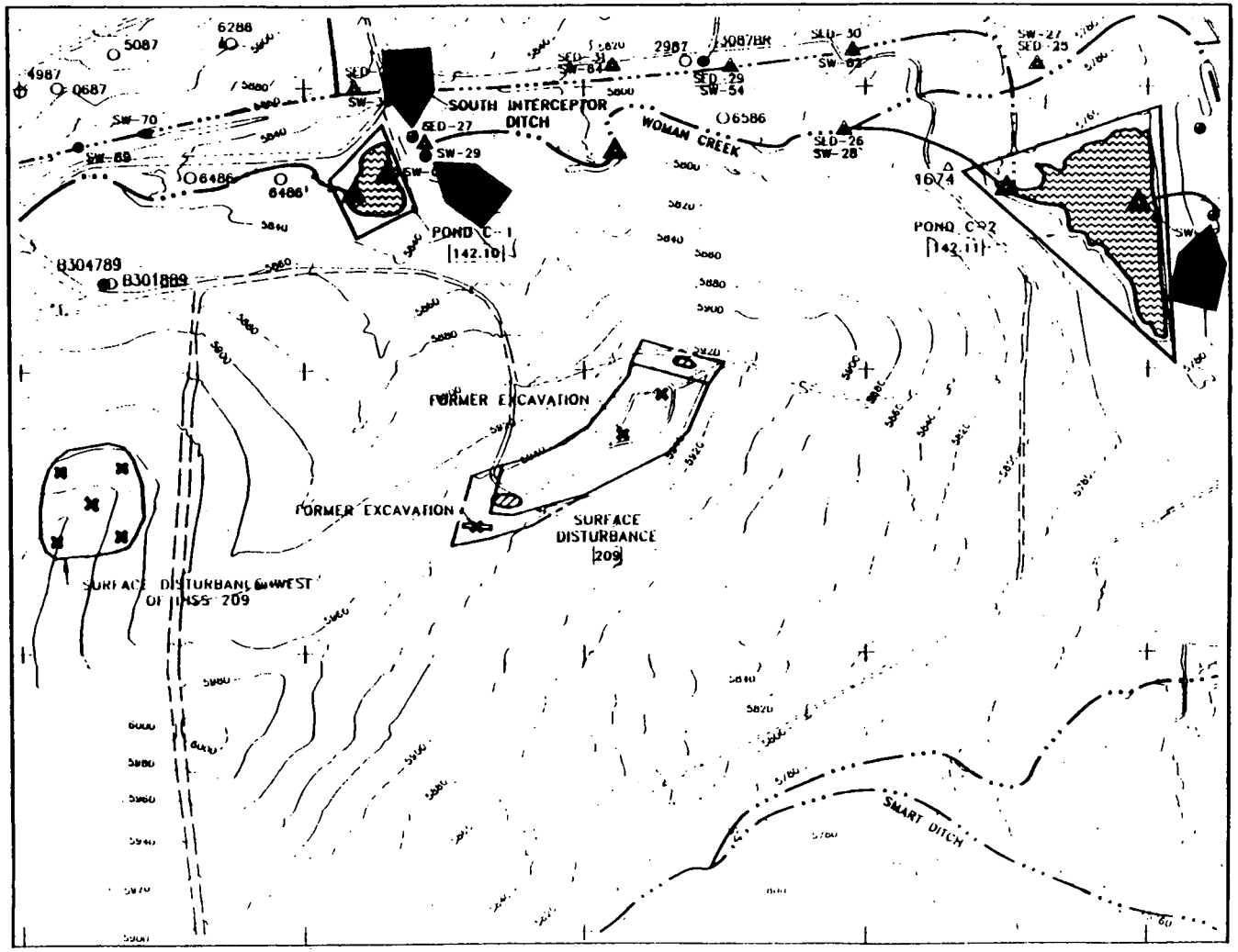
U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

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 1991
MARCH 1991



N

0 200 400

SCALE: 1" = 400'

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
- PONDLIKE DEPRESSION
- INTERMITTENT STREAM
- DIRT ROAD
- PRELIMINARY EXTENSION OF THE SURFACE DISTURBANCE BASED ON A SITE RECONNAISSANCE
- ORIGINAL STREAM CHANNEL NEAR POND C-2
- PROPOSED SURFACE SAMPLE LOCATION
- PROPOSED WELL LOCATION*
- PROPOSED SEDIMENT SAMPLING LOCATION**

**3 OTHER LOCATIONS IN EACH POND WILL BE SELECTED AT RANDOM

*ALL PROPOSED LOCATIONS ARE APPROXIMATE

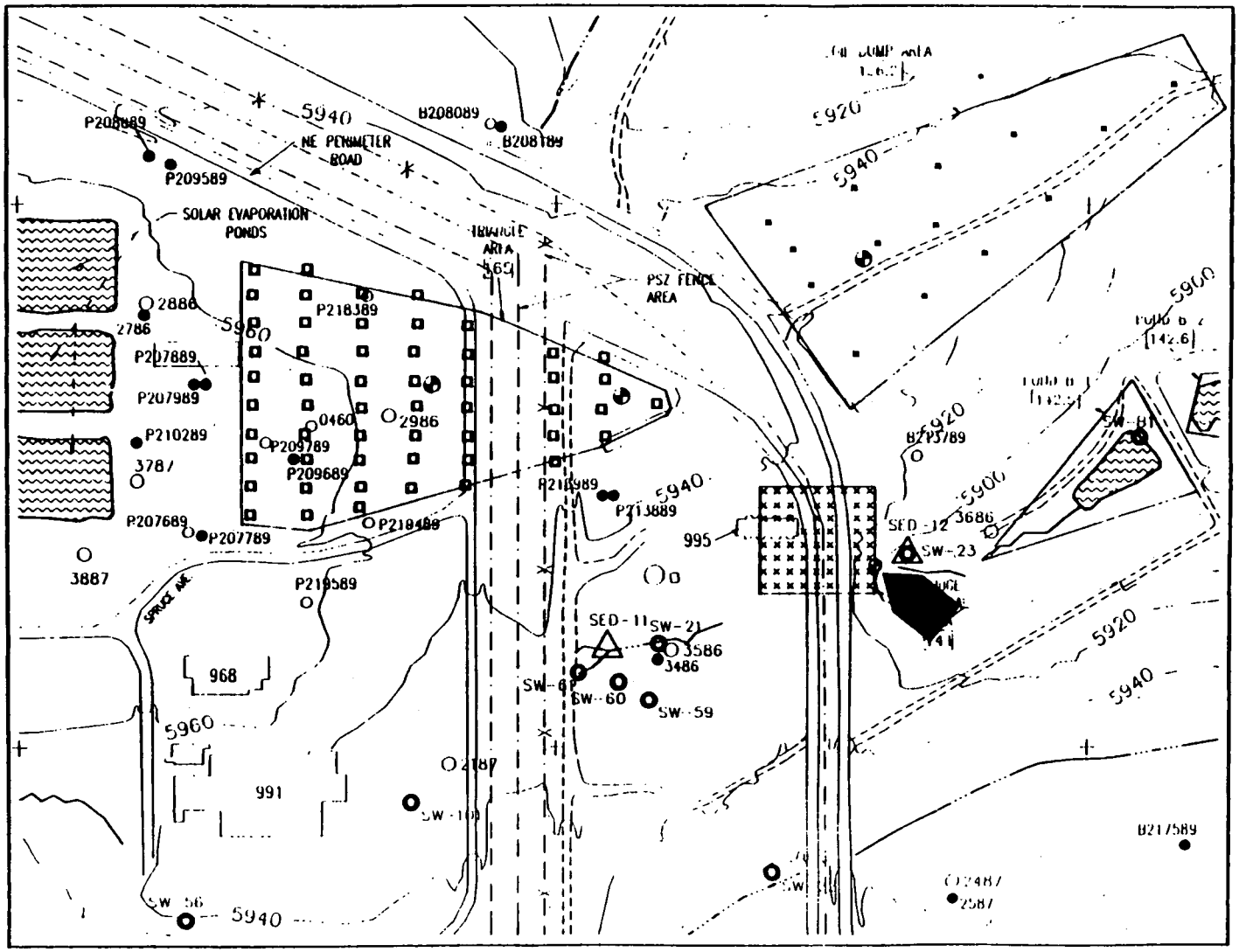
U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

OPERABLE UNIT 5
PHASE I RFI/RI WORK PLAN

PROPOSED SAMPLING & WELL LOCATIONS, IHSS 142.10-11, PONDS C-1 & C-2, IHSS 209 SURFACE DISTURBANCE, & THE SURFACE DISTURBANCE WEST OF IHSS 209

Figure 7

REV AUGUST 1991
MARCH 1991



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FOR COMMENTS AND DISCUSSION ONLY

N

0 100 200

SCALE: 1" = 200'

EXPLANATION

- 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
- 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 SAMPLING LOCATION[1]

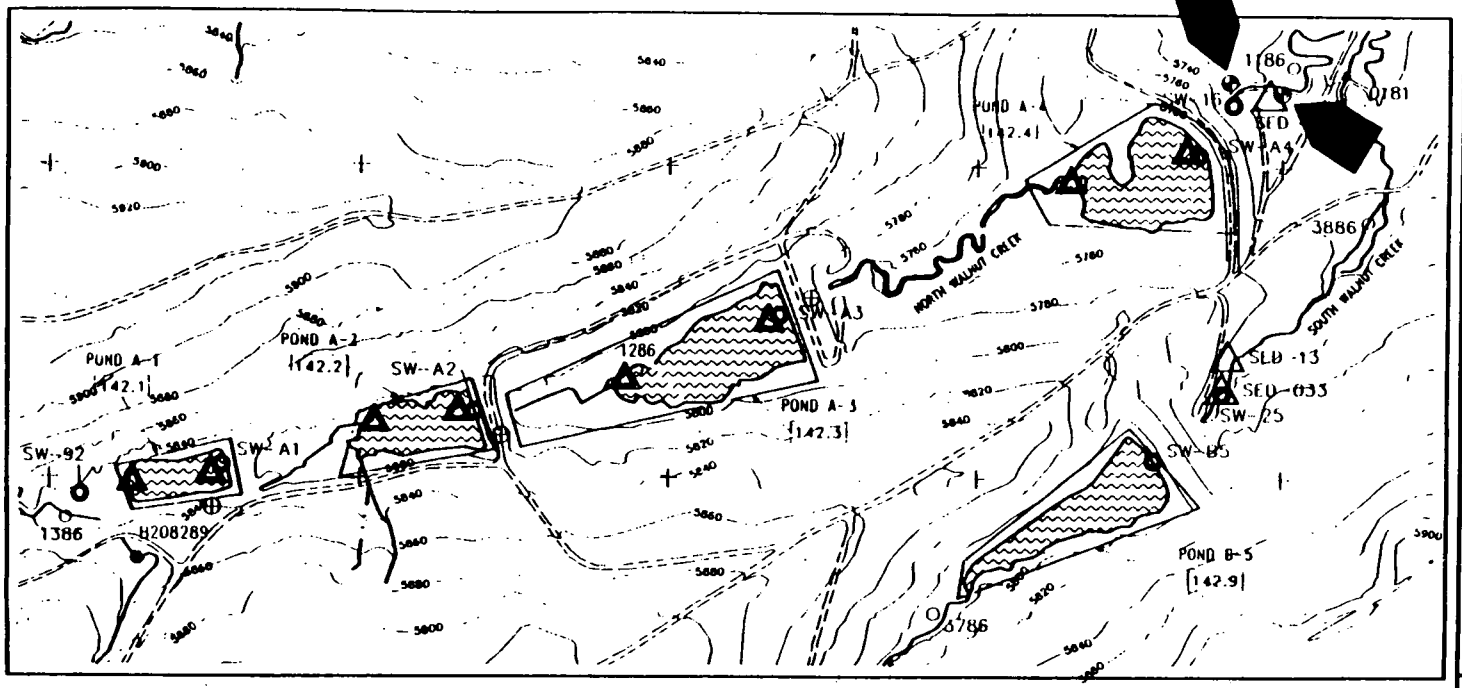
[1] ALL PROPOSED LOCATIONS ARE APPROXIMATE

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

OPERABLE UNIT 6
PHASE I RFI/RI WORK PLAN

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

Figure 8 APRIL 1991



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FOR COMMENTS AND DISCUSSION ONLY

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0 200 400

SCALE: 1" = 400'

EXPLANATION

- 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.

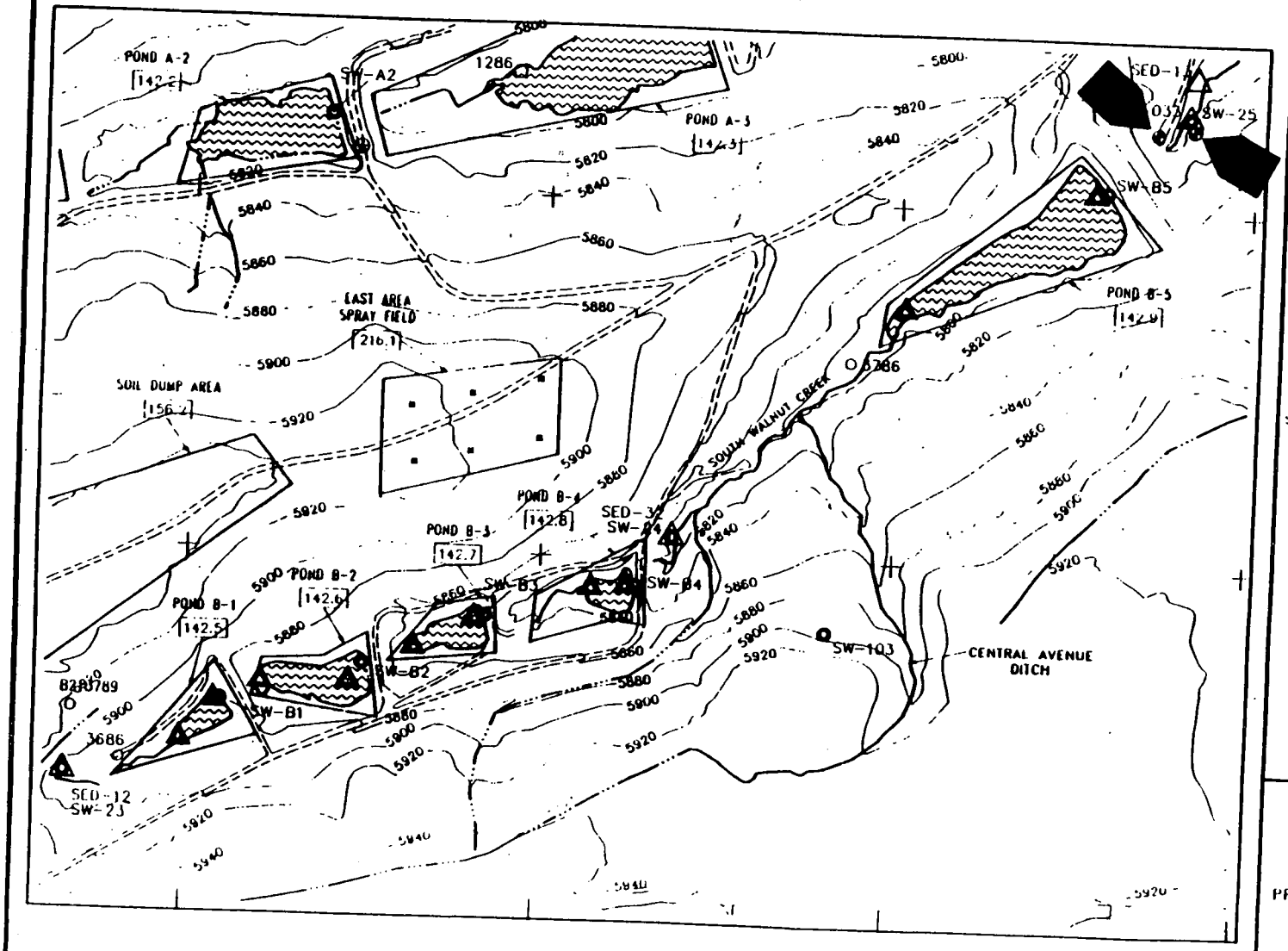
[1] ALL PROPOSED LOCATIONS ARE APPROXIMATE

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

OPERABLE UNIT 6
PHASE I RFI/RI WORK PLAN

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

Figure 9 APRIL 1991



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N

0 150 300

SCALE: 1" = 300'

EXPLANATION

- INDIVIDUAL HAZARDOUS SUBSTANCE SITE
- SW-1 EXISTING SURFACE WATER SAMPLING LOCATION
- 5786 EXISTING ALLUVIAL GROUNDWATER MONITORING WELL
- SED-12 EXISTING SEDIMENT SAMPLING LOCATION
- INTERMITTENT STREAM
- DIRT ROAD
- 968 ROCKY FLATS BLDG NO
- PROPOSED WELL LOCATION [1]
- PROPOSED BORING AND SURFACE SAMPLE LOCATION [1]
- PROPOSED SEDIMENT SAMPLE LOCATION [1,2]
- PROPOSED BEDROCK WELL LOCATIONS FOR SITE-WIDE GEOLOGICAL CHARACTERIZATION PROGRAM [1]

[1] ALL PROPOSED LOCATIONS ARE APPROXIMATE

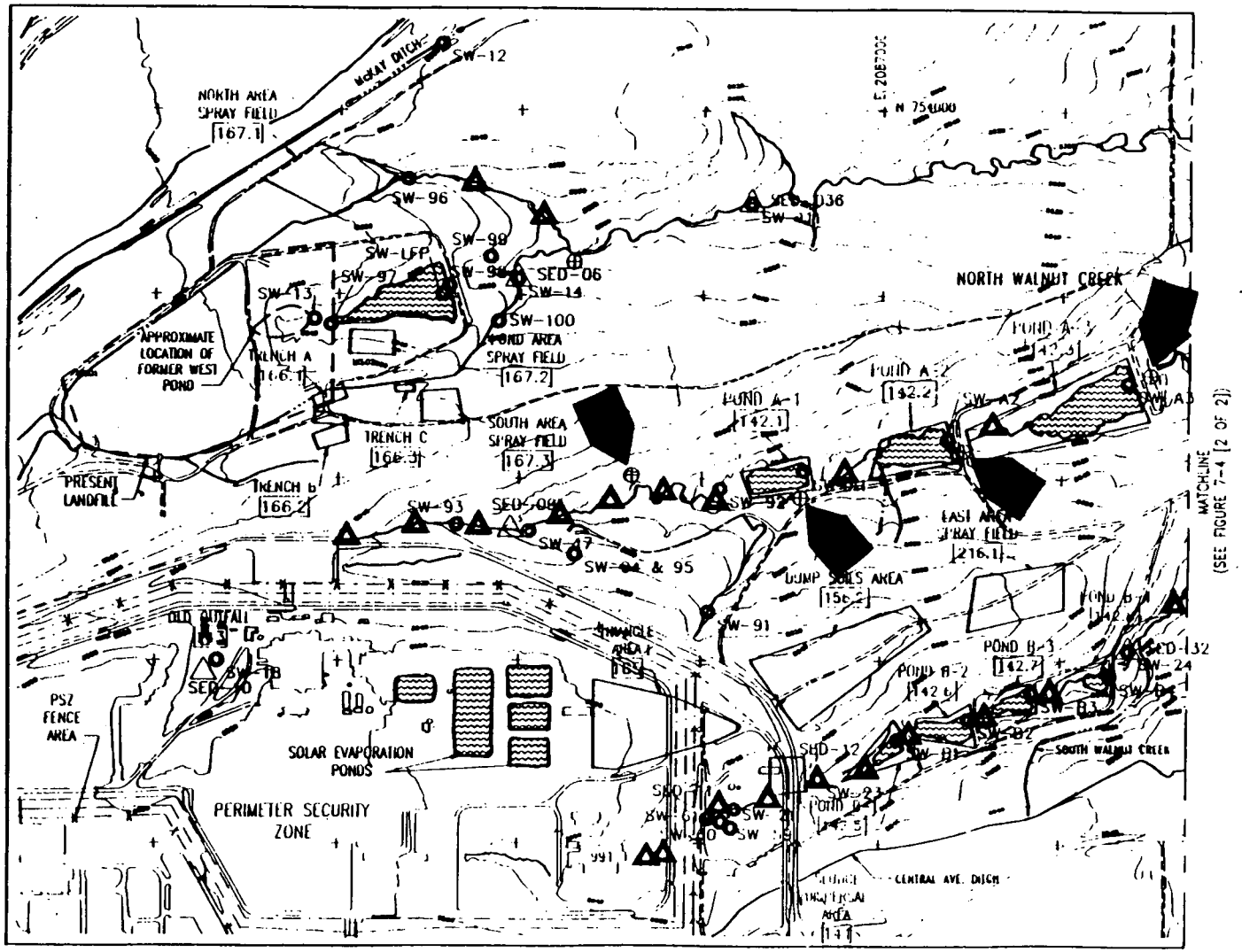
[2] THREE OTHER LOCATIONS IN EACH POND WILL BE SELECTED AT RANDOM

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



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N

0 300 600

SCALE: 1" = 600'

EXPLANATION

- INDIVIDUAL HAZARDOUS SUBSTANCE SITE (IHSS) IN OPERABLE UNIT 6
- [11.1] 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

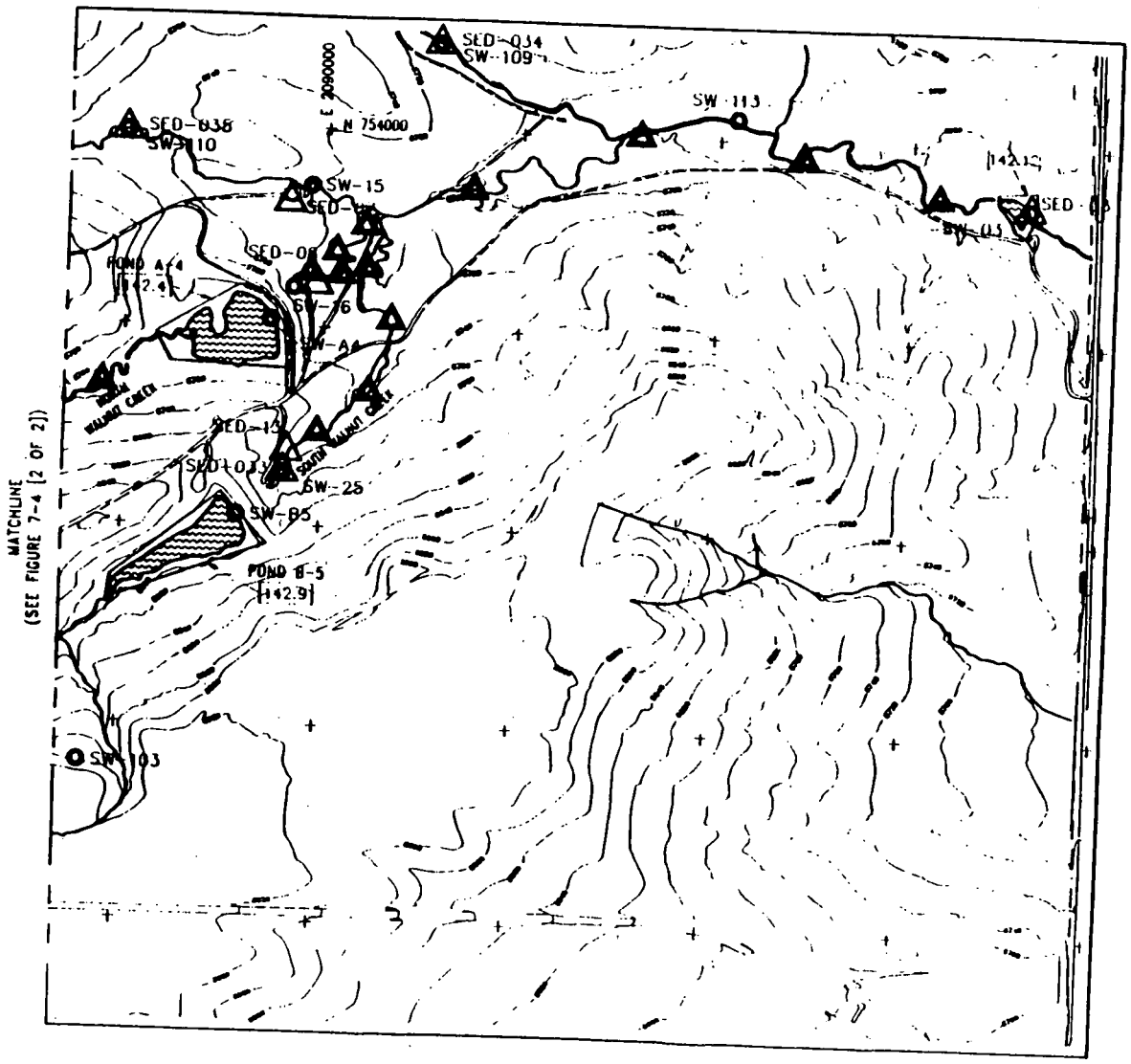
U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

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

APRIL 1991



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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-12 EXISTING SEDIMENT SAMPLE LOCATION

DIRT ROAD

PROPOSED LOCATIONS FOR SEDIMENT SAMPLES[1]

[1] ALL PROPOSED LOCATIONS ARE APPROXIMATE

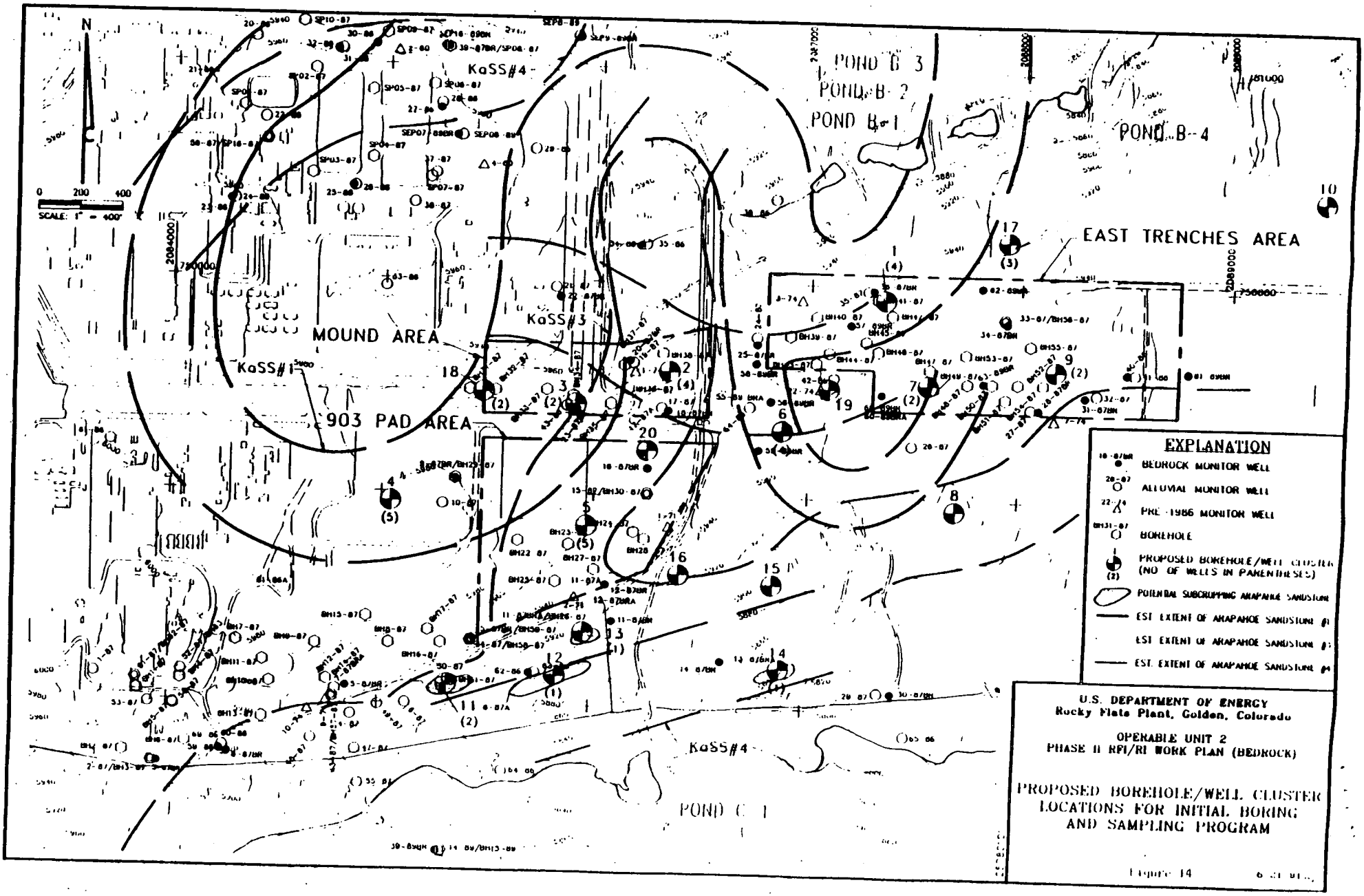
U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

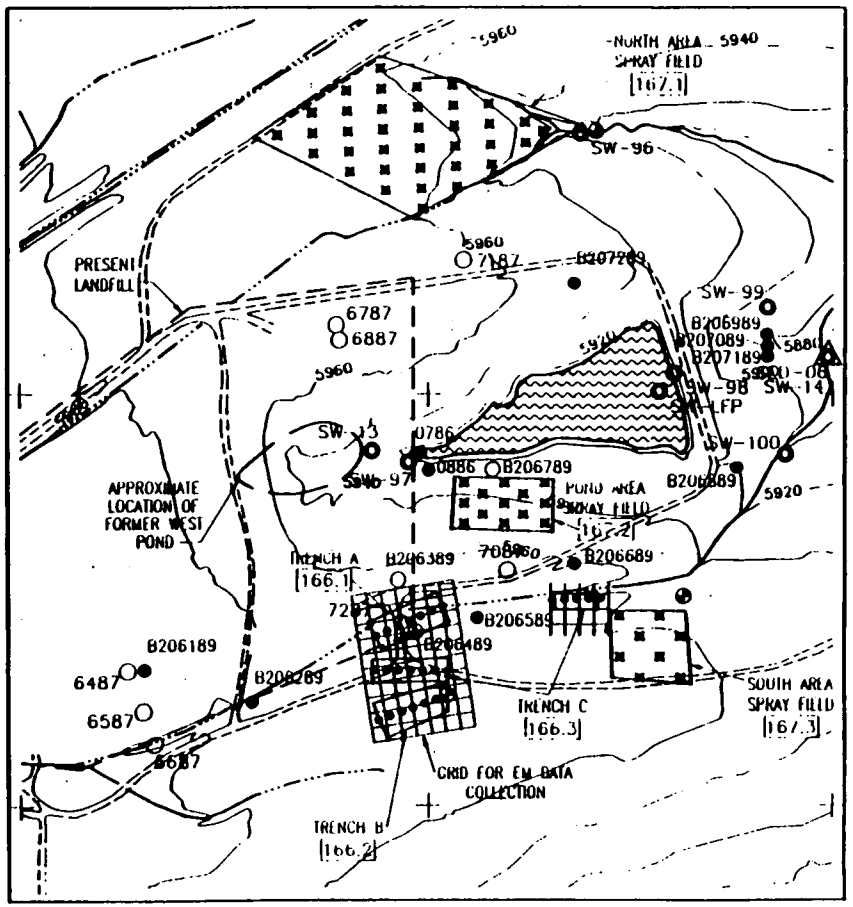
OPERABLE UNIT 6
PHASE I RFI/RI WORK PLAN

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

Figure 12

APRIL 1991


N
0 200 400
SCALE: 1" = 400'
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
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
Figure 14



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

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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