RF/ER-95-0079.UN

DRAFT FINAL

PHASE II RFI/RI REPORT
903 PAD, MOUND, AND
EAST TRENCHES AREA
OPERABLE UNIT NO. 2

VOLUME 3

SECTIONS 4.0 AND 5.0
FIGURES

U.S. Department of Energy
Rocky Flats Environmental Technology Site
Golden, Colorado

May 1995

RECEIVED
APR 20 2006

ADMIN RECORD

(4040-1030-0041-510) (R4-CVRS) (05/22/95 2:37pm)

OU02-A-001579

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°C	degrees Celsius
%R	percent recovery
µCi/L	microcuries per liter
µg/kg	micrograms per kilogram
µg/L	micrograms per liter
µCi/yr	microcuries per year
µm	micrometers
1,1-DCE	1,1-dichloroethene
1,1,1-TCA	1,1,1-trichloroethane
1,2-DCA	1,2-dichlorethane
1,2-DCE	1,2-dichloroethene
ac-ft	acre feet
AEC	Atomic Energy Commission
AET	actual evapotranspiration
Ag	silver
AGL	above ground level
AGS	above ground surface
Al	aluminum
ALARA	as low as reasonably achievable
Am	americium
Am-241	americium-241
$Am_2(CO_3)_3$	americium carbonate
AmO_2	americium dioxide
ANOVA	Analysis of Variance
ANOVA	Analysis of Variance
AOC	Area of Concern
AR	activity ratio
ARARs	applicable or relevant and appropriate requirements
As	arsenic
ASTM	American Society for Testing and Materials
ATD	At time of drilling
atm-m^3/mole	Atmosphere-cubic meter per mole
Ba	barium
BCF	bioconcentration factor
Be	beryllium
BEHP	bis(2-ethylhexyl)phthalate
BGS	below ground surface

BH	borehole
BNA	base neutral acid extractable
Bq	Becquerel
BSL	Background Screening Level
BW	body weight
c/f	coarse fine limit
Ca	calcium
CAS	Chemical Abstract Services
CCl_4	carbon tetrachloride
Cd	cadmium
CDH	Colorado Department of Health
CDPHE	Colorado Department of Public Health and Environment
Ce	cesium
CEARP	Comprehensive Environmental Assessment & Response Program
CEC	cation exchange capacity
CEDE	committed effective dose equivalent
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
cfm	cubic feet per minute
CHC	chlorinated hydrocarbon
$CHCl_3$	chloroform
Ci	curies
Cis-1,2-DCE	cis-1,2-dichloroethene
CLP	Contract Laboratory Program
cm	centimeter
cm/hr	centimeters per hour
cm/s	centimeters per second
cm^3	cubic centimeter
CME	Central Mine Equipment
CMS/FS	Corrective Measures Study/Feasibility Study
Co	cobalt
COC	chemical of concern
COI	chemicals of interest
cpm	counts per minute
Cr	chromium
Cr VI	chromium hexavalent
CRDL	contract required detection limit
CRQL	contract required quantitation limit
CS	claystone
Cs-134	cesium-34
Cs-137	cesium-137

CSM	conceptual site model
CSU	Colorado State University
CT	central tendency
Cu	copper
Cu	copper
CUHP	Colorado Urban Hydrograph Procedure
DCG	Derived Concentration Guide
DCN	document change notice
DF10 qualifier	10x dilution
DF50 qualifier	50x dilution
DMR	document modification request
DNAPL	dense non-aqueous phase liquid
DO	dissolved oxygen
DOE	Department of Energy
dpm/g	disintegrations per minute per gram
DQO	Data Quality Objective
DRCOG	Denver-Regional Council of Governments
DW	dry weight
ECAO	Environmental Criteria and Assessment Office
ED	exposure duration
EDE	effective dose equivalent
EE	Environmental Evaluation
EF	exposure frequency
EG&G	EG&G Rocky Flats, Inc.
EIS	Environmental Impact Statement
EM	electromagnetics
EMC	event mean concentrations
EMD	Environmental Management Department
EPA	Environmental Protection Agency
ER	Environmental Restoration
ERA	Environmental Risk Assessment
ERDA	Energy Research and Development Administration
ERM	Environmental Restoration Management
ET	evapotranspiration
FDM	Fugitive Dust Model
Fe	iron
f_i	fractional uptake
FID	flame ionization detectors
FIDLER	field instrument for the detection of low-energy radiation
FS	feasibility study
FSP	field sampling plan

ft^2/min	square feet per minute
FWHM	full width half maximum
FWS	U.S. Fish and Wildlife Service
g/l	grams per liter
g/cm^3	gram per cubic centimeter
g/s	grams per second
g	grams
GC/MS	gas chromatography/mass spectrometry
GI	gastrointestinal
GIS	geographical information system
gpd/ft^2	gallons per day per square foot
gpm	gallons per minute
GPMPP	Groundwater Protection and Monitoring Program Plan
GPR	ground-penetrating radar
GRRASP	General Radiochemistry and Routine Analytical Services Protocol
GSSI	Geophysical Survey Systems, Inc.
GUI	Graphical User Interface
Gy	gray
HASL	Health and Safety Laboratory
HEPA	High Efficiency Particulate Air
Hg	mercury
HHRA	Human Health Risk Assessment
HI	hazard index
HPGe	high purity germanium
HQ	Hazard Quotient
HRR	Historical Release Report
HSA	hollow-stem auger
HSL	Hazardous Substances List
HSPF	Hydrologic Simulation Program in Fortran
HSU	hydrostratigraphic unit
IA	Industrial Area
IAG	Interagency Agreement
ICRP	International Commission on Radiological Protection
ID	inside diameter
IDL	instrument detection limit
IEUBK	Integrated Exposure Uptake Biokinetic
IHSS	Individual Hazardous Substance Site
IM/IRA	Interim Measures/Interim Remedial Action
IR	intake rate
K	potassium
K	hydraulic conductivity

K_1	Cretaceous Laramie formation
Ka	Cretaceous Arapahoe formation
kg	kilogram
km^2	square kilometer
LCS	laboratory control samples
LF	lateral flow
LHSU	lower hydrostratigraphic unit
Li	lithium
LNAPL	light non-aqueous phase liquid
LOAEL	lowest-observed-adverse-effect level
LR	laboratory replicate
m/s	meters per second
m	meter
m^2	square meter
m^2/g	square meters per gram
mCi	microcurie
MDA	minimal detectable activity
MDL	method detection limit
ME	matrix effect
meg/l	milliequivalents per liter
mg	milligram
mg/kg	milligrams per kilogram
mg/l	milligrams per liter
Mg	magnesium
MKV	Mean Kriging Variance
mm	millimeters
Mn	manganese
Mo	molybdenum
mrem	millirem
MSA	Method of Standard Addition
MSE	mean square error
MW	monitoring well
Na	sodium
NA	not applicable
NAAQS	National Ambient Air Quality Standards
NAPL	Non-aqueous phase liquid
NCP	National Contingency Plan
NCRP	National Council on Radiation Protection and Measurements
ND	not definitive
NE	northeast
NE	not encountered

Ni	nickel
NI	not installed
nm	nanometer
NO_2	nitrite
NO_3	nitrate
NOAEL	no-observed-adverse-effect level
NP	non-plastic
NPDES	National Pollutant Discharge Elimination System
OB	observation well
OD	outside diameter
OH	hydroxide ion
OU	Operable Unit
OVM	organic vapor monitor
PA	protected area
PAH	polynuclear aromatic hydrocarbon
PARCC	precision, accuracy, representativeness, completeness, and comparability
Pb	lead
PC	permeability constant
PCB	polychlorinated biphenyl
PCE	tetrachloroethylene
pcf	pounds per cubic foot
pCi/m^3	picocuries per cubic meter
pCi/ml	picocuries per milliliter
pCi/g	picocuries per gram
pCi/l	picocuries per liter
PCOC	potential chemicals of concern
PERC	perchloroethylene
PID	photoionization detector
PM_{10}	particle matter less than or equal to 10 micrometers in diameter
Po	polonium
ppb	parts per billion
ppm	parts per million
PQL	practical quantitation limit
PRG	preliminary remediation goal
PTFE	polyethylene tetrafluoride
Pu	Plutonium
Pu-239/240	plutonium-239,240
Pu-239	plutonium-239
PVC	polyvinyl chloride
PW	pumping well

QA/QC	quality assurance/quality control
QAA	Quality Assurance Addendum
Qal	valley fill alluvium
QAPP	Quality Assurance Project Plan
Qc	colluvium
QC	quality control
Qrf	Rocky Flats Alluvium
R	radius of influence
Ra	radium
Ra-226	radium-226
Ra-228	radium-228
RAAMP	Radiological Ambient Air Monitoring Program
RAD screen	radiological screen
RAD	radiological
RAO	Remedial Action Objectives
RBC	risk-based concentrations
RBWP	Revised Bedrock Work Plan
RCRA	Resource Conservation and Recovery Act
RDL	required detection limit
RFA	Rocky Flats Alluvium
RfC	Reference Air Concentration
RfD	Reference Dose
RFEDS	Rocky Flats Environmental Database System
RFETS	Rocky Flats Environmental Technology Site
RFI/RI	RCRA Facility Investigation/Remedial Investigation
RFP	Rocky Flats Plant
RI	remedial investigation
RME	reasonable maximum exposure
RNS	rinsate blank results
ROD	Record of Decision
RPD	relative percent difference
SA	Sample Management
SAFER	Streamlined Approach for Environmental Restoration
SAP	sampling and analysis plan
Sb	antimony
SB	source borehole
SCS	Soil Conservation Service
Se	selenium
Se	selenium
SE	southeast
SEAM	Superfund Exposure Assessment Manual

SED	Sediment Sampling Location
SERA	Superfund Amendments and Reauthorization
SF	slope factor
Si	silicon
SID	South Interceptor Ditch
SIR	Subsurface Interface Ratio
SIR	Subsurface Interface Radar
SLTST	siltstone
SM	sample management
Sn	tin
SOP	Standard Operating Procedure
SOW	Statement of Work
SQL	sample quantitation limit
Sr	strontium
Sr-89,90	Strontium-89,90
SS	sandstone
Sv	sievert
SVE	soil vapor extraction
SVOC	semivolatile organic compound
SWL	sample
SWMS	Soil Water Monitoring System
SWMU	Solid Waste Management Unit
TAL	target analyte list
TCE	trichloroethene
TCL	Target Compound List
TD	total depth
TDR	time domain reflectometry
TDS	total dissolved solids
TEDE	total effective dose equivalent
Th	thorium
TIC	tentatively identified compound
TM	Technical Memorandum
TOC	total organic carbon
TPH	total petroleum hydrocarbon
TR	trench
TRC	total residual chlorine
TS	tension sampler
TSP	total suspended particulate
TSS	total suspended solids
U	uranium
U-234	uranium-234

U-235	uranium-235
U-238	uranium-238
UCL	upper confidence limit
UDFCD	Urban Drainage and Flood Control District
UHSU	upper hydrostratigraphic unit
USCS	Unified Soil Classification System
USDA	United States Department of Agriculture
USLE	Universal Soil Loss Equation
UTL	upper tolerance limit of the background data
V	vanadium
VF	volatilization factor
VOC	volatile organic compound
VVDM	Ventilated Valley Dispersion Model
WARP	Well Abandonment and Replacement Program
WQPL	Water Quality Parameter List
WW	wet weight
WWC	Woodward-Clyde Consultants
WWTP	Waste Water Treatment Plant
Z	zinc
Zn	zinc
ZTS	zero tension samplers
ZTS	sero tension samplers

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ANALYTE ABBREVIATIONS

ORGANIC COMPOUNDS

1,1,1,2-PCA	1,1,1,2-TETRACHLOROETHANE
1,1,2,2-PCA	1,1,2,2-TETRACHLOROETHANE
1,1,1-TCA	1,1,1-TRICHLOROETHANE
1,1-DCA	1,1-DICHLOROETHANE
1,1-DCE	1,1-DICHLOROETHENE
1,2-DCA	1,2-DICHLOROETHANE
1,2-DCE	1,2-DICHLOROETHENE
B2EHP	bis(2-ETHYLHEXYL) PHTHALATE
BRDCLM	BROMODICHLOROMETHANE
C_3H_6O	ACETONE
$C_6H_5-CH_3$	TOLUENE
CCl_4	CARBON TETRACHLORIDE
$CHCl_3$	CHLOROFORM
CH_2Cl_2	METHYLENE CHLORIDE
CH_2CHCl	VINYL CHLORIDE
cis-1,2-DCE	cis-1,2-DICHLOROETHENE
DNBP	di-n-BUTYL PHTHALATE
DNOP	di-n-OCTYL PHTHALATE
MEK	2-BUTANONE
MIBK	4-METHYL-2-PENTANONE
MNBK	2-HEXANONE
PCE	TETRACHLOROETHENE
TCE	TRICHLOROETHENE

METALS

Al	ALUMINUM
As	ARSENIC
Ba	BARIUM
Be	BERYLIUM
Ca	CALCIUM
Cd	CADMIUM
Co	COBALT
Cr	CHROMIUM
Cu	COPPER
Hg	MERCURY
Li	LITHIUM
Mg	MAGNESIUM
Mn	MANGANESE
Na	SODIUM
Ni	NICKEL
Pb	LEAD
Sb	ANTIMONY
Se	SELENIUM
Si	SILICON
Sn	TIN
Sr	STRONTIUM
Tl	THALLIUM
V	VANADIUM
Zn	ZINC

RADIONUCLIDES

Am-241	AMERICIUM-241
Cs-137	CESIUM-137
Gr-A	GROSS ALPHA
Gr-B	GROSS BETA
Pu-239/240	PLUTONIUM-239/240
Ra-226	RADIUM-226
Ra-228	RADIUM-228
Sr-89,90	STRONTIUM-89,90
U-233/234	URANIUM-233/234
U-235	URANIUM-235
U-238	URANIUM-238

LABORATORY QUALIFIERS

B = ORGANICS (VOLATILES, SEMIVOLATILES, PESTICIDES/PCBs) INDICATES CHEMICAL WAS IN BOTH THE SAMPLE AND ASSOCIATED METHOD BLANK

B = INORGANICS (METALS & OTHER INORGANICS) DETECTED CONCENTRATION WAS LESS THAN CRDL AND ABOVE IDL

B = RADIONUCLIDES - THE ACTIVITY IN THE METHOD BLANK EXCEEDED THE MINIMAL DETECTABLE ACTIVITY (MDA)

C = PESTICIDE RESULT WHERE IDENTIFICATION WAS CONFIRMED BY GC/MS

C = RADIONUCLIDES - INDICATES ELEVATED TDS

D = ORGANICS - ANALYSIS WAS PERFORMED AT A DILUTION

E = ORGANICS - CHEMICAL EXCEEDS CALIBRATION RANGE OF THE INSTRUMENT

E = INORGANICS - REPORTED VALUE IS ESTIMATED DUE TO INTERFERENCE

F = ALPHA SPECTROMETRY - FWHM EXCEEDED ACCEPTANCE LIMITS

G = INORGANICS - NATIVE ANALYTE >4x SPIKE ADDED

I = INTERFERENCE

J = ORGANICS - POSITIVELY IDENTIFIED BELOW SQL - RESULT IS ESTIMATED

J = INORGANICS & RADIONUCLIDES - ESTIMATED QUANTIFICATION

N = METALS - SPIKE RECOVERIES IN THE MATRIX SPIKE SAMPLE DID NOT MEET ADVISORY LIMITS

S = METALS - THE REPORTED VALUE WAS DETERMINED BY THE METHOD OF STANDARD ADDITION (MSA)

U = ALL ANALYSES - ANALYZED CHEMICAL WAS NOT DETECTED

W = METALS - POST DIGESTION SPIKE DID NOT MEET CONTROL LIMITS

X = INORGANICS - DETECTION LIMIT RAISED, MATRIX INTERFERENCE

X = GRRASP - RESULT BY CALCULATION

X = OPEN AND DEFINED BY LABORATORY

Y = ORGANICS - INDISTINGUISHABLE ISOMER IN TIC

Y = RADIONUCLIDES - CHEMICAL YIELD EXCEEDED ACCEPTANCE LIMITS

* = ORGANICS - OUTSIDE CONTACT REQUIRED QC LIMITS

* = METALS - MATRIX DUPLICATE ANALYSIS DID NOT MEET ADVISORY LIMITS

B-RV = BLANK CONTAMINATION-REAL VALUE: ARBITRARY CODE ASSIGNED TO ORGANIC B-QUALIFIED, NON-VALIDATED CHEMICALS THAT WERE DEEMED PRESENT IN THE ENVIRONMENTAL SAMPLE (i.e. NOT ATTRIBUTABLE TO LAB CONTAMINATION)

UV = CHEMICAL NOT DETECTED; VALID RESULT. e.g., 0.2UV INDICATES CHEMICAL NOT DETECTED AT CONCENTRATION ABOVE THE DETECTION LIMIT OF 0.2 PPB: UV DATA USED TO FACILITATE ISOCONCENTRATION MAP INTERPRETATION ONLY.

PESTICIDES/PCBs

4,4' DDT = DICHLORODIPHENYLTRICHLOROETHANE

PCB = POLYCHLORINATED BIPHENYL

VALIDATION CODES

A = RESULT ACCEPTED WITH QUALIFICATIONS

JA = RESULT ACCEPTED, BUT WAS ESTIMATED

J = ESTIMATED RESULT DUE TO OUTSIDE HOLDING TIME, IMPROPERLY PRESERVED, QUALITY CONTROL PARAMETER OUTSIDE CONTROL LIMIT

N = WILL NOT BE VALIDATED

R = REJECTED RESULT

V = VALID RESULT

Y = ANALYTICAL RESULTS IN VALIDATION PROCESS

Z = VALIDATION WAS NOT REQUESTED OR PERFORMED

OTHER ABBREVIATIONS

(D)	DISSOLVED (FILTERED SAMPLE)
(T)	TOTAL (UNFILTERED SAMPLE)
(DUP)	DUPLICATE (FIELD DUPLICATE)
(P)	PESTICIDES/PCBs
(SVOCs)	SEMIVOLATILE ORGANIC COMPOUNDS
(F)	FILTERED
(U)	UNFILTERED
(UR)	UNFILTERED RADIONUCLIDES
(VOCs)	VOLATILE ORGANIC COMPOUNDS
(PCOC)	POTENTIAL CHEMICAL OF CONCERN
(CRDL)	CONTRACT REQUIRED DETECTION LIMIT
(CRQL)	CONTRACT REQUIRED QUANTITATION LIMIT
(SQL)	SAMPLE QUANTITATION LIMIT
(IDL)	INSTRUMENT DETECTION LIMIT
(TIC)	TENTATIVELY IDENTIFIED COMPOUNDS
(QC)	QUALITY CONTROL
(GC/MS)	GAS CHROMATOGRAPHY/MASS SPECTROMETRY

INORGANIC PARAMETERS

ALK as $CaCO_3$	ALKALINITY AS CALCIUM CARBONATE
HCO_3 as $CaCO_3$	BICARBONATE AS CALCIUM CARBONATE
Cl	CHLORIDE
CN	CYANIDE
DOC	DISSOLVED ORGANIC CARBON
F	FLUORIDE
NO_3/NO_2	NITRATE/NITRITE
O & G	OIL AND GREASE
o-PO_4	ORTHOPHOSPHATE
P	PHOSPHOROUS
SO_4	SULFATE
TDS	TOTAL DISSOLVED SOLIDS
TOC	TOTAL ORGANIC CARBON
TSS	TOTAL SUSPENDED SOLIDS

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ANALYTE ABBREVIATIONS, LABORATORY QUALIFIERS AND VALIDATION CODES

FIGURE 4.2-1

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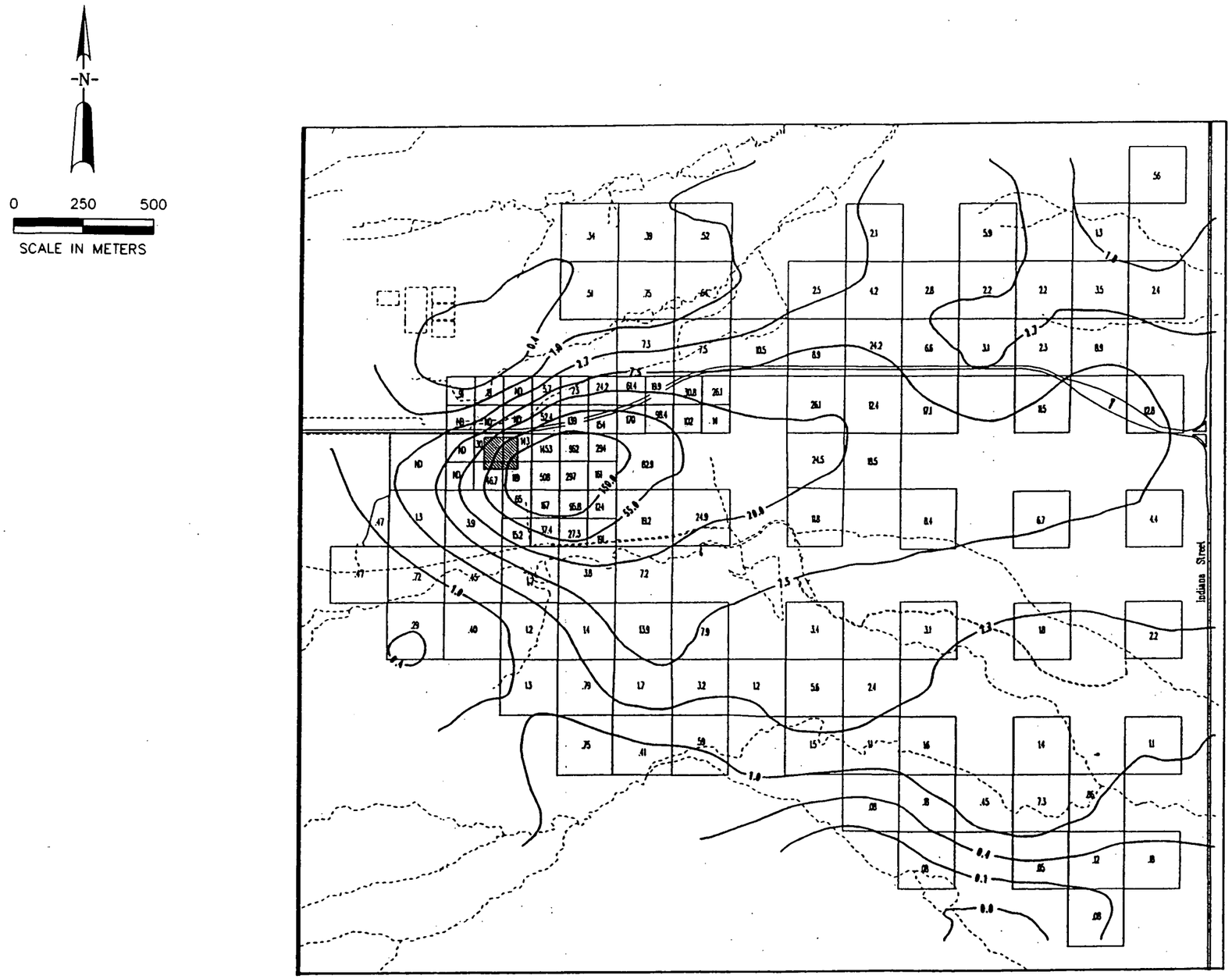

EXPLANATION

82.9 — SAMPLING PLOT WITH OBSERVED VALUE (IN pCi/g) IN THE CENTER

WATER FEATURE

20.0 — Pu-239/240 ISOPLETH USING ORDINARY KRIGING

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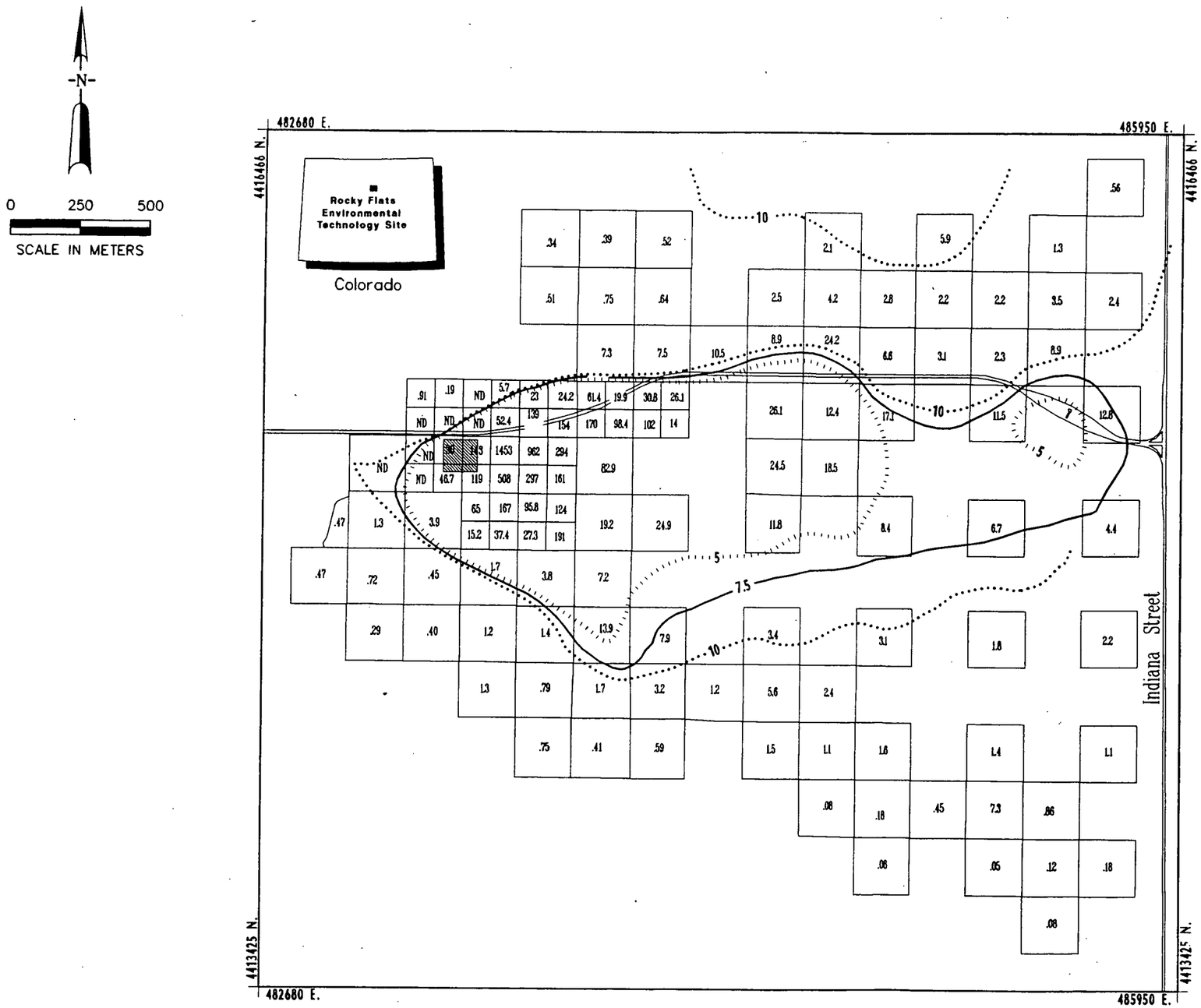
ISOPLETH MAP OF
PLUTONIUM-239/240
IN SOILS

FIGURE 4.2-2

APRIL 1995

OU2RI787 1=1



EXPLANATION

82.9	SAMPLING PLOT WITH OBSERVED VALUE (IN pCi/g) IN THE CENTER
5 / 7.5 / 10	7.5 pCi/g CONTOUR OF Pu-239/240 WITH 90% EMPIRICAL CONFIDENCE LIMITS
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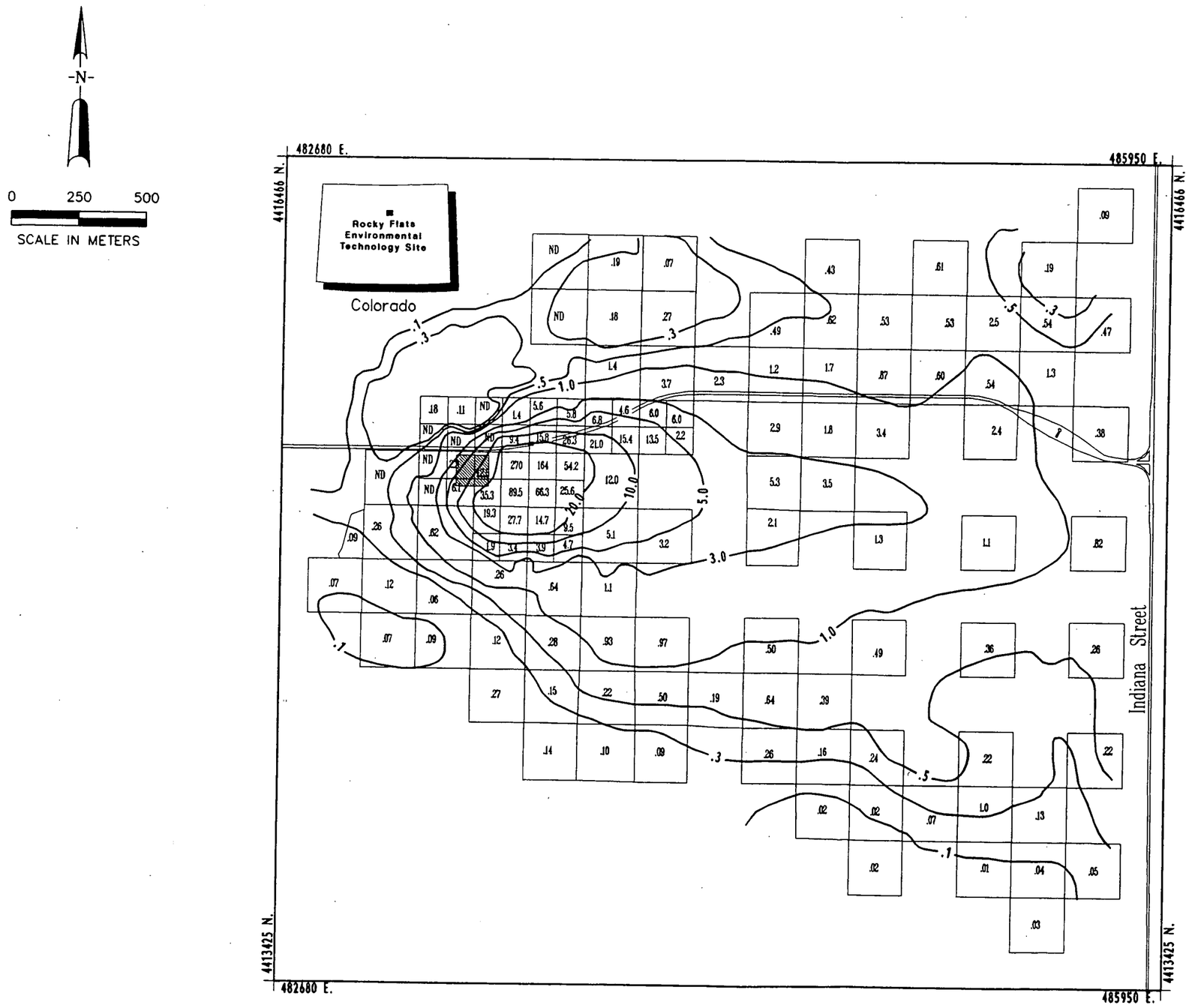
7.5 pCi/g
CONTOUR MAP OF
Pu-239/240

FIGURE 4.2-3

APRIL 1995

OU2RI788 1=1



EXPLANATION

12.0	SAMPLING PLOT WITH OBSERVED VALUE (IN pCi/g) IN THE CENTER
5.0	Am-241 ISOPLETH USING ORDINARY KRIGING
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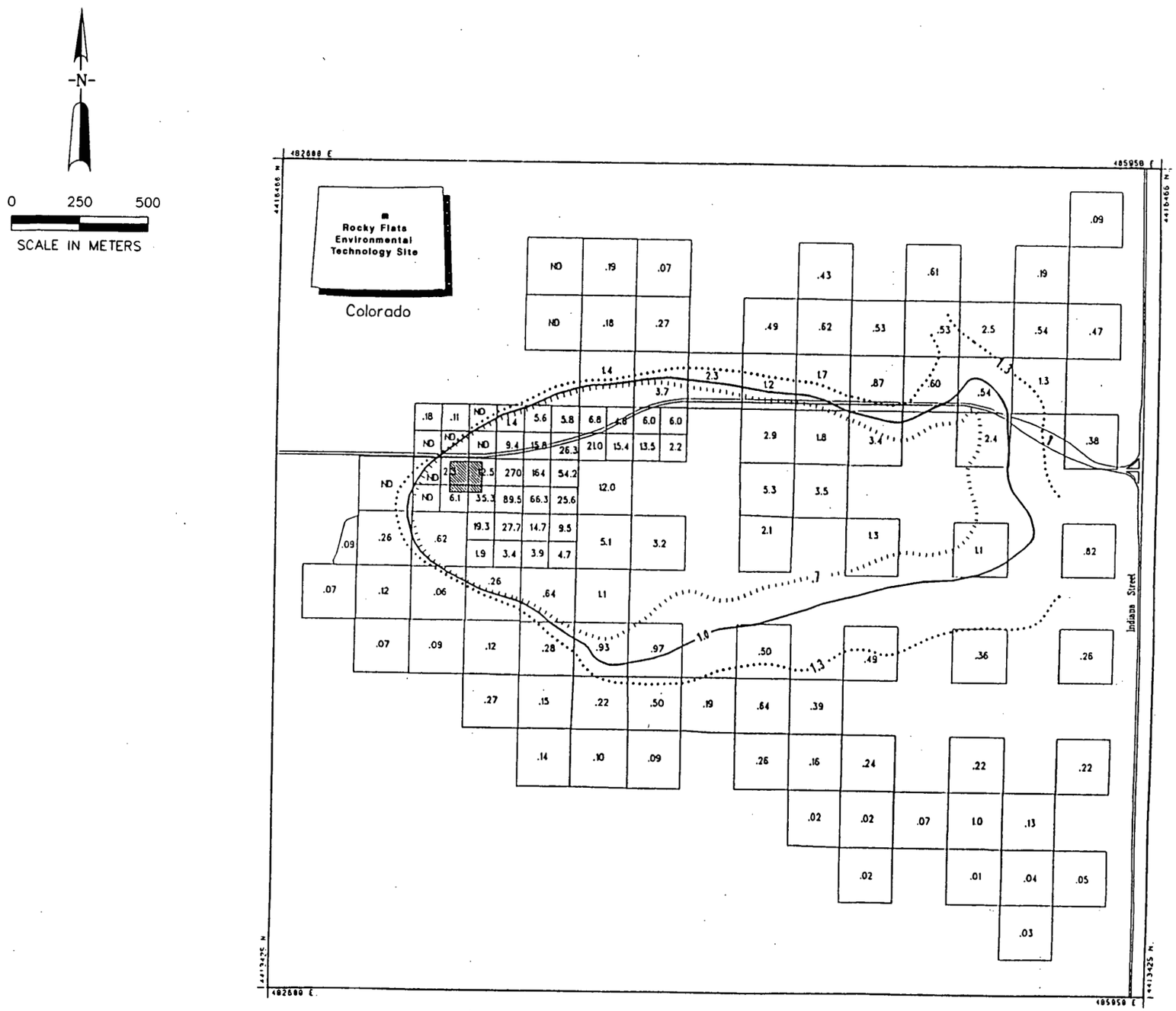
ISOPLETH MAP OF
AMERICIUM-241
IN SOILS

FIGURE 4.2-4

APRIL 1995

OU2RI789 1=1



1991 CDH Results

EXPLANATION

25.6 — SAMPLING PLOT WITH OBSERVED VALUE (IN pCi/g) IN THE CENTER

.7 / 1.0 / 1.3 — 1.0 pCi/g CONTOUR OF Am-241 WITH 90% EMPIRICAL CONFIDENCE LIMITS

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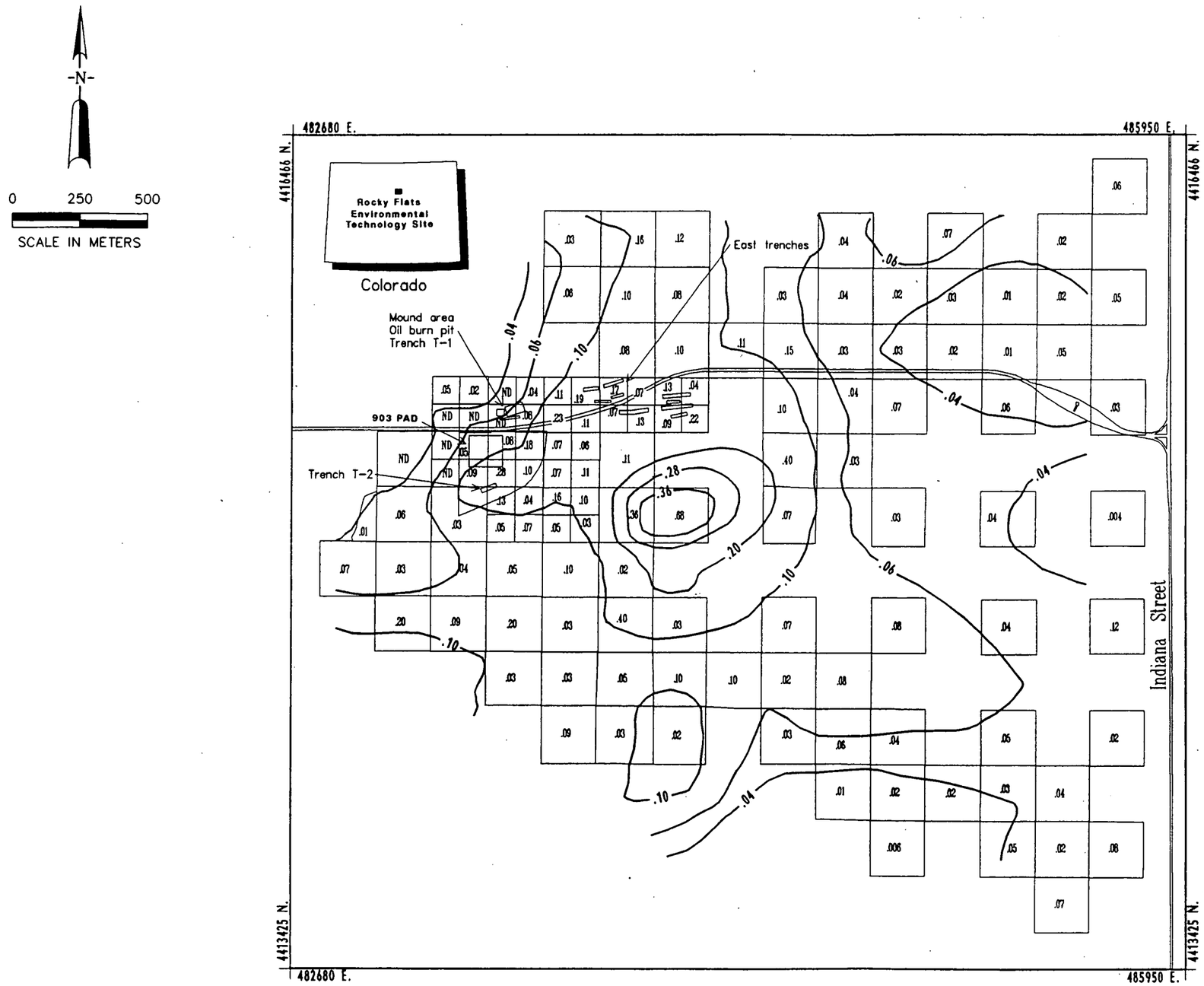
1.0 pCi/g
CONTOUR MAP OF
Am-241

FIGURE 4.2-5 APRIL 1995

OU2RI790 1=1



EXPLANATION

.11 — SAMPLING PLOT WITH OBSERVED VALUE (IN pCi/g) IN THE CENTER

.20 — U-235 ISOPLETH USING ORDINARY KRIGING

IHSS LOCATION

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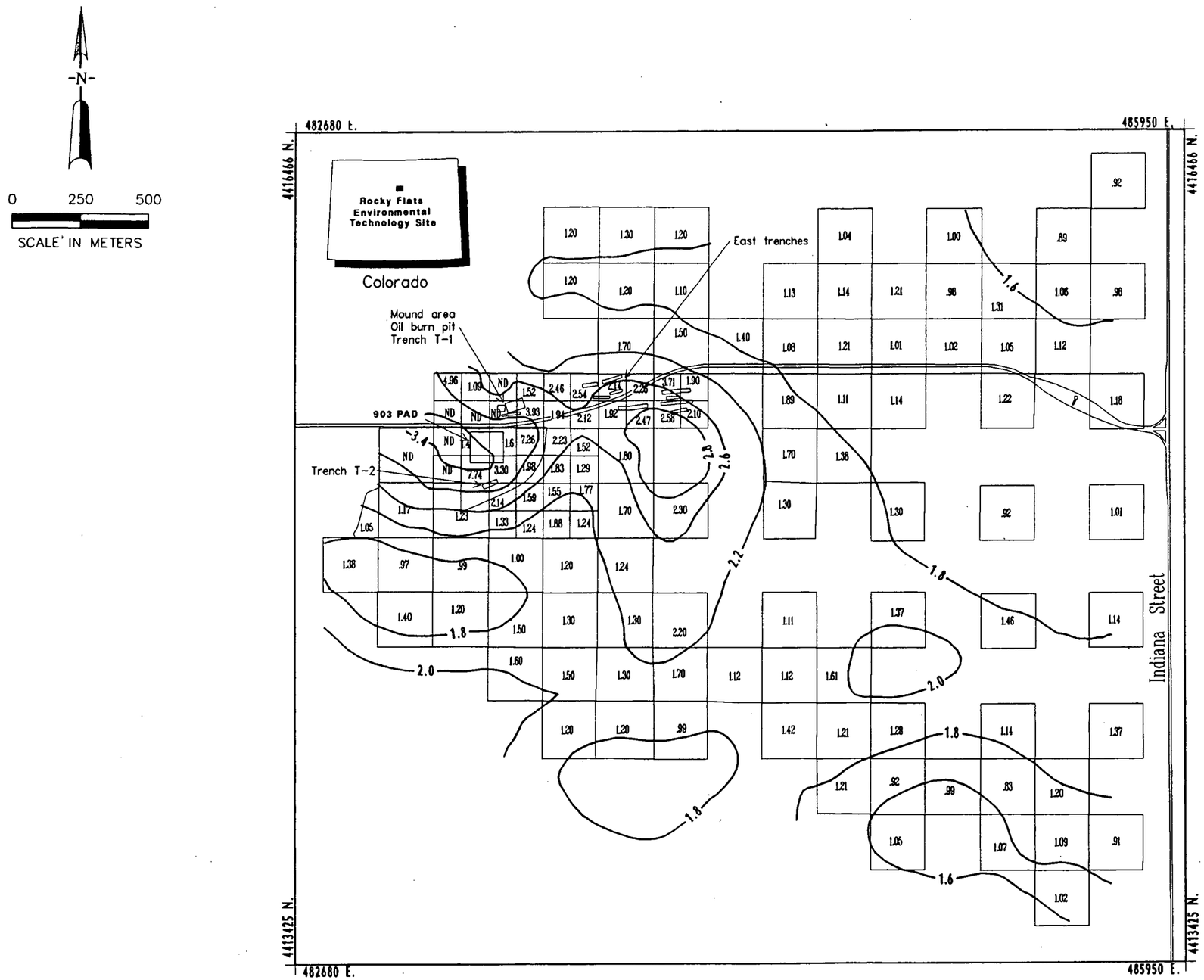
ISOPLETH MAP OF
URANIUM-235
IN SOILS

FIGURE 4.2-6

APRIL 1995

OU2RI791 1=1



EXPLANATION

1.80	SAMPLING PLOT WITH OBSERVED VALUE (IN pCi/g) IN THE CENTER
2.2	U-238 ISOPLETH USING ORDINARY KRIGING
	IHSS LOCATION

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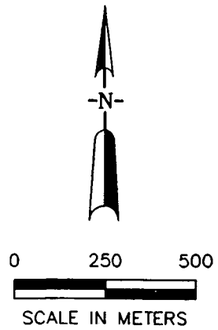
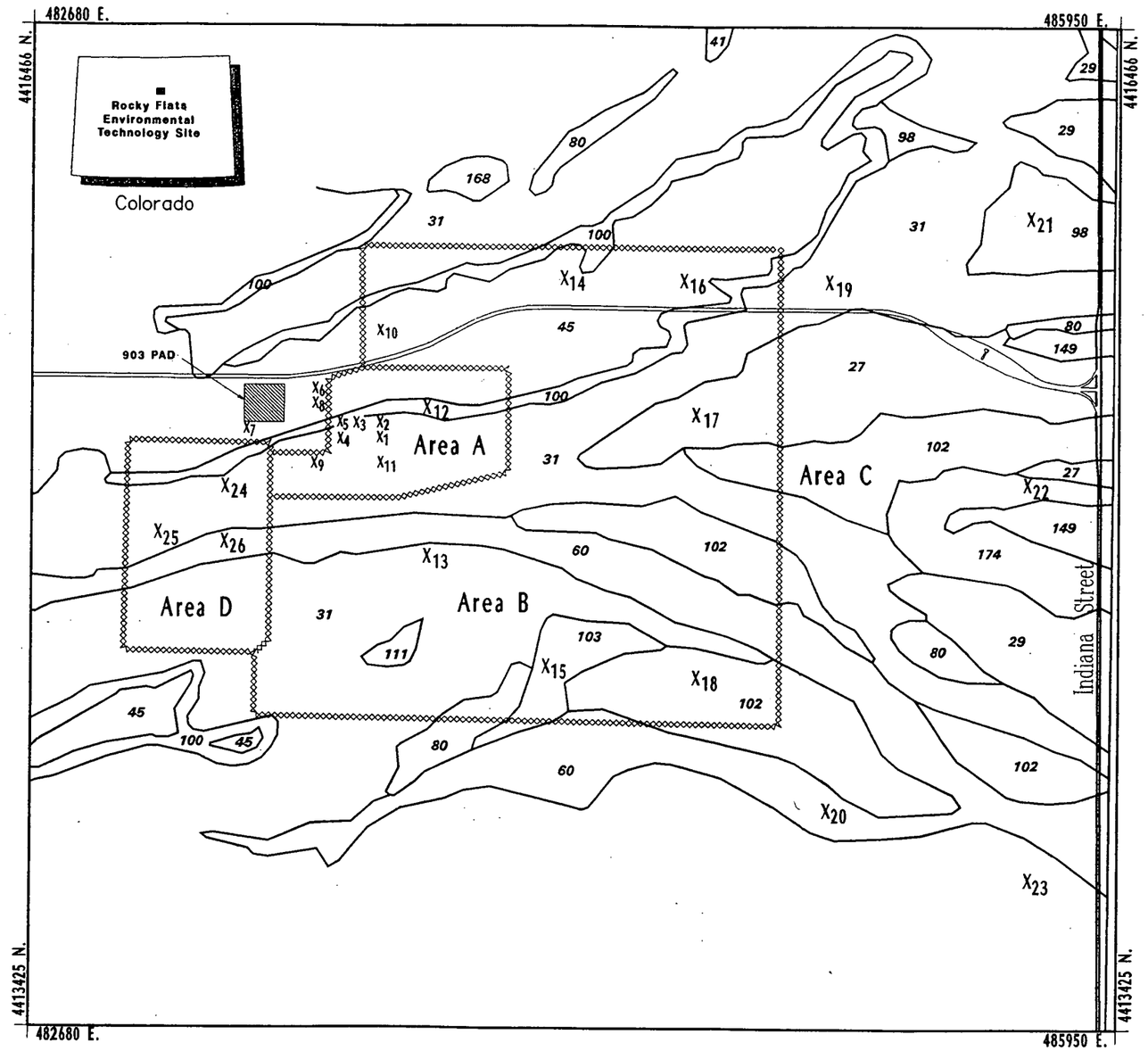
ISOPLETH MAP OF
URANIUM-238
IN SOILS

FIGURE 4.2-7

APRIL 1995

OU2RI792 1=1





EXPLANATION

X_{12} TEST PIT LOCATION

903 PAD

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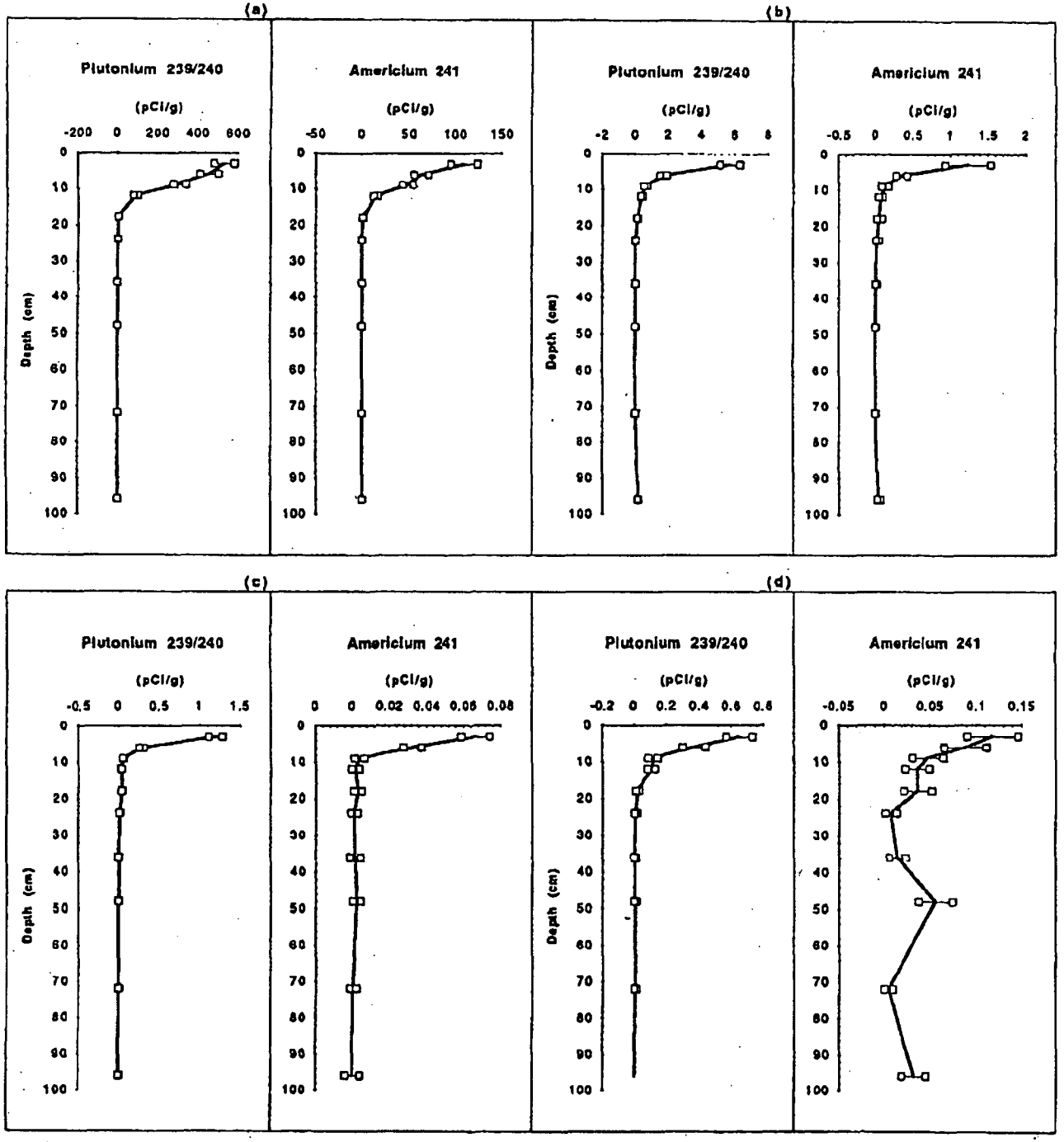
LOCATION OF THE
26 SOIL PITS

FIGURE 4.2-8

APRIL 1995

OU2RI793 1=1



EXPLANATION

THE NEGATIVE VALUES CORRESPOND TO ANALYTICAL ERROR AROUND THE MEASUREMENT WHICH ARE CLOSE TO 0. THE ANALYTICAL ERROR REPRESENTS THE MEASURE OF SPREAD ASSOCIATED WITH EACH ANALYSIS.

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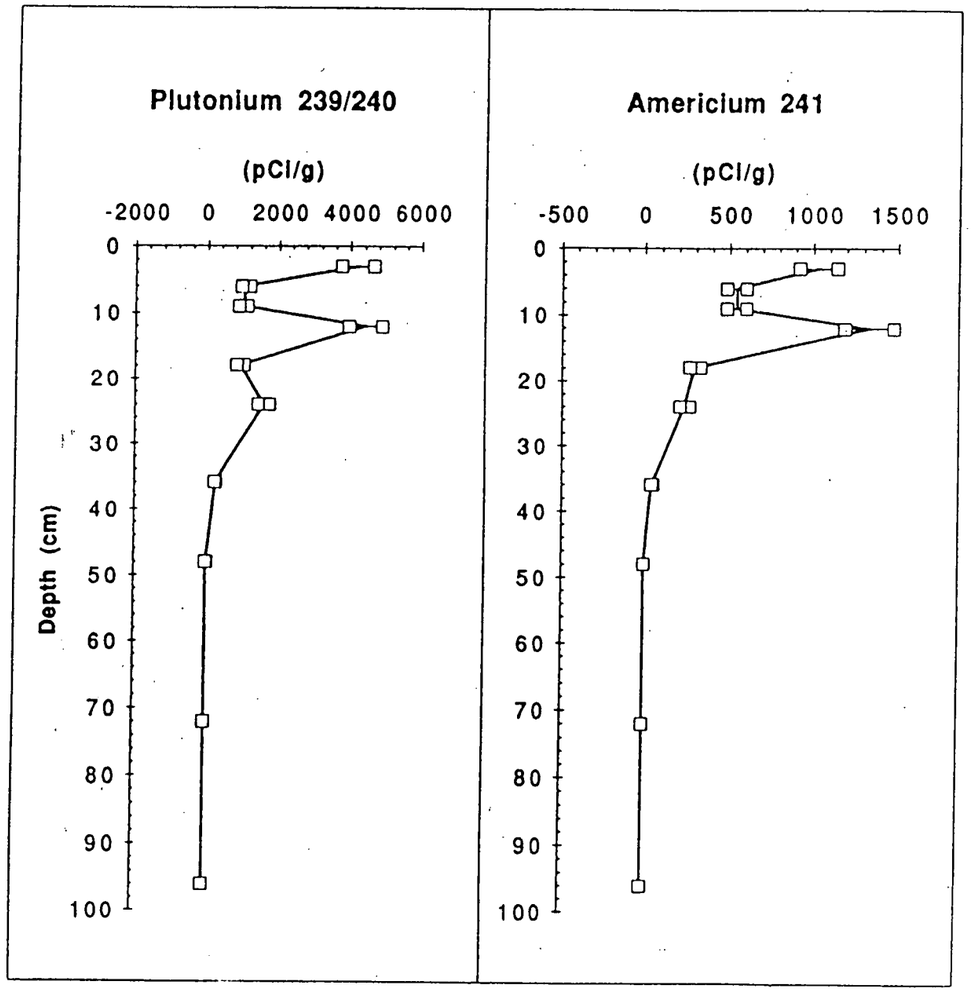
TYPICAL VERTICAL DISTRIBUTION
OF ACTINIDES IN
AREAS A, B, C AND D

FIGURE 4.2-9 APRIL 1995

OU2RI795 1=1

LOCATION 8



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VERTICAL DISTRIBUTION OF
ACTINIDES IN SOIL IMMEDIATELY EAST
OF THE 903 PAD

FIGURE 4.2-10 APRIL 1995

OU2RI794 1=1

SOIL SYMBOLS

- GW WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
- GP POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
- GM SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
- GC CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
- SW WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
- SP POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
- SM SILTY SANDS, SAND-SILT MIXTURES
- SC CLAYEY SANDS, SAND-CLAY MIXTURES
- ML INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
- CL INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
- CH INORGANIC CLAYS OR HIGH PLASTICITY, FAT CLAYS

BEDROCK SYMBOLS

- SANDSTONE
- SILTY SANDSTONE
- CLAYEY SANDSTONE
- SILTSTONE
- SANDY SILTSTONE
- CLAYEY SILTSTONE
- CLAYSTONE
- SANDY CLAYSTONE
- SILTY CLAYSTONE
- CALICHE
- NO RECOVERY OR SAMPLED INTERVAL NOT LOGGED

WATER LEVEL AND LOCATION SYMBOLS

- 5/92 MEASURED HIGH WATER LEVEL AND DATE
- INITIAL WATER AT TIME OF DRILLING
- ALLUVIAL/COLLUVIAL MONITORING WELL LOCATION
- BEDROCK MONITORING WELL LOCATION
- SOURCE BOREHOLE LOCATION
- SOURCE BOREHOLE AND MONITORING WELL LOCATION
- 09991 LOCATION NUMBER. LAST 2 DIGITS INDICATE YEAR IN WHICH LOCATION WAS DRILLED

GROUNDWATER ANALYTE DATA

- ● CCl_4 CARBON TETRACHLORIDE
- ■ $CHCl_3$ CHLOROFORM
- ● TCE TRICHLOROETHENE
- ▲ PCE TETRACHLOROETHENE
- O TOTAL Xylenes
- □ TOTAL VOCs

280 CONCENTRATION (ug/Kg)

— — — —?—? LINE CONNECTING CONCENTRATION VALUES AT SAMPLE POINTS ABOVE WATER LEVEL AT THE TIME OF DRILLING. INFERRED WHERE LIMITED DATA EXISTS.

——— - - ———? LINE CONNECTING CONCENTRATION VALUES AT SAMPLE POINTS BELOW WATER LEVEL AT THE TIME OF DRILLING. INFERRED WHERE LIMITED DATA EXISTS.

— —— — INFERRED GEOLOGICAL CONTACT

LIST OF CROSS-SECTION UNITS

Qrf = ROCKY FLATS ALLUVIUM
Qc = COLLUVIUM
Ka = ARAPAHOE FORMATION
Ka(No.1) = ARAPAHOE FORMATION NO. 1 SANDSTONE
Ka/Kl = ARAPAHOE OR LARAMIE FORMATION
Kl(ss) = LARAMIE FORMATION SANDSTONE

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Golden, Colorado

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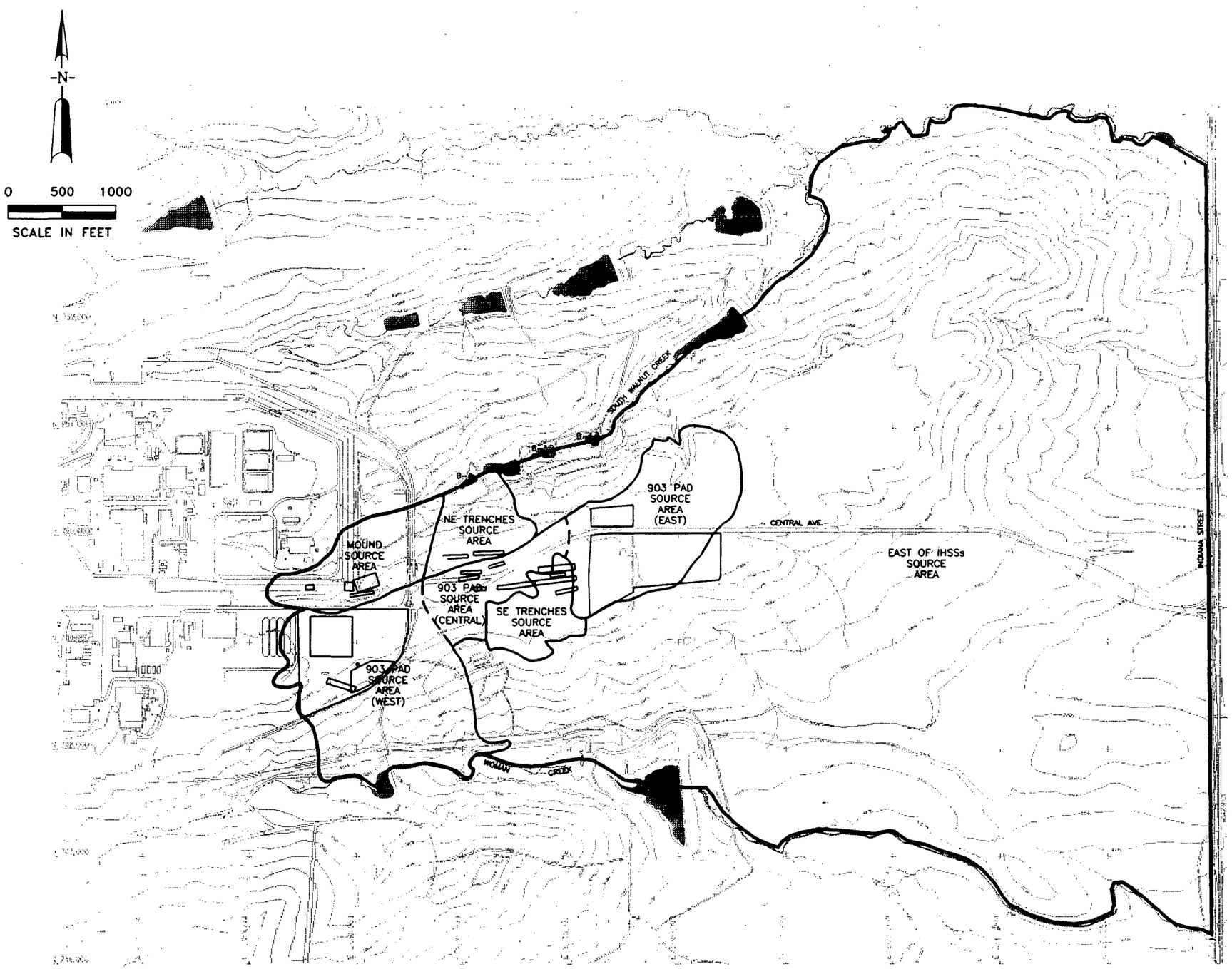
SOURCE BOREHOLE
CROSS-SECTION LEGEND

FIGURE 4.3-1 APRIL 1995

OU2RI819 1=1



EXPLANATION

INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

OU-2 BOUNDARY

SOURCE AREA BOUNDARIES

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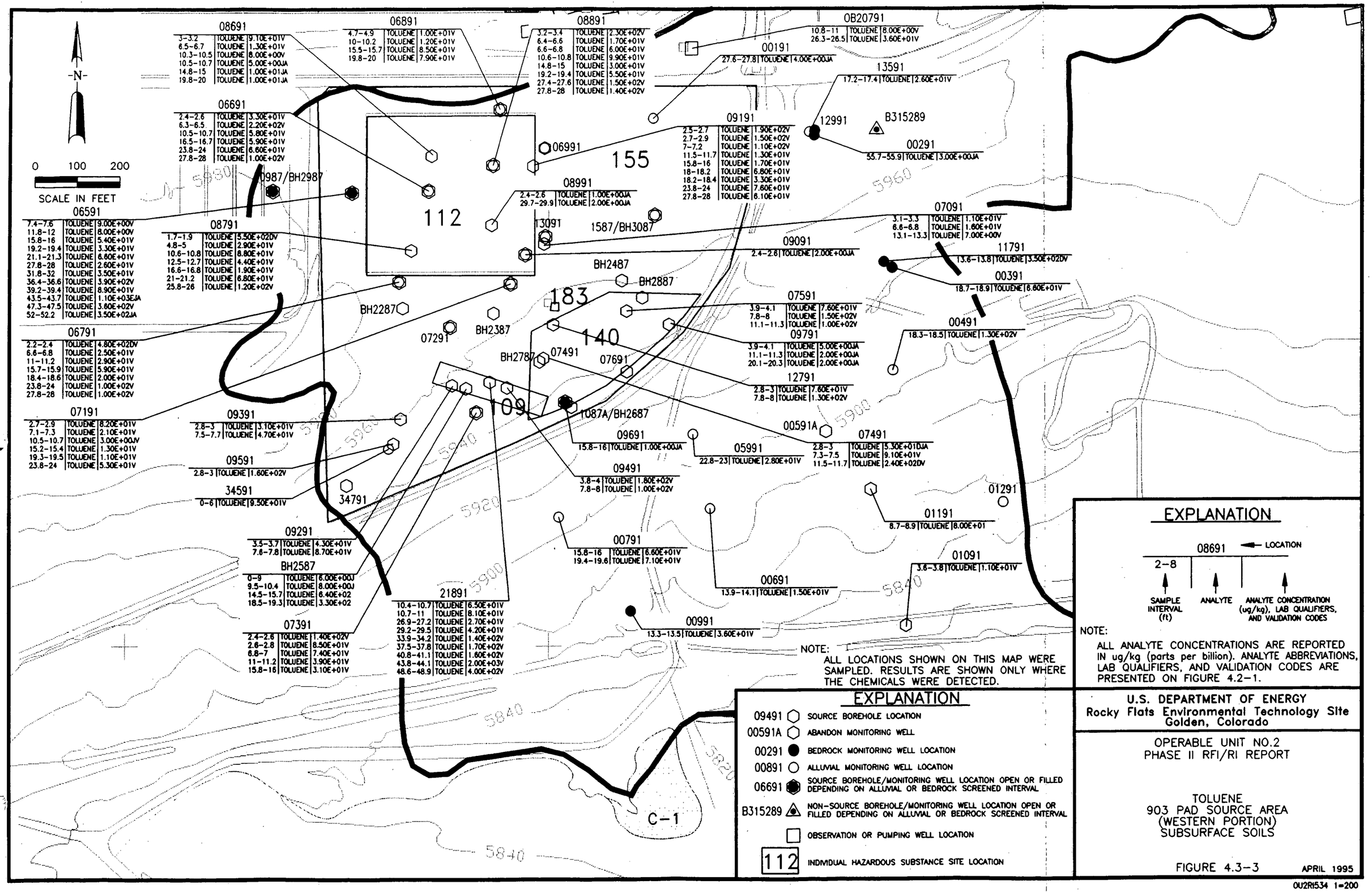
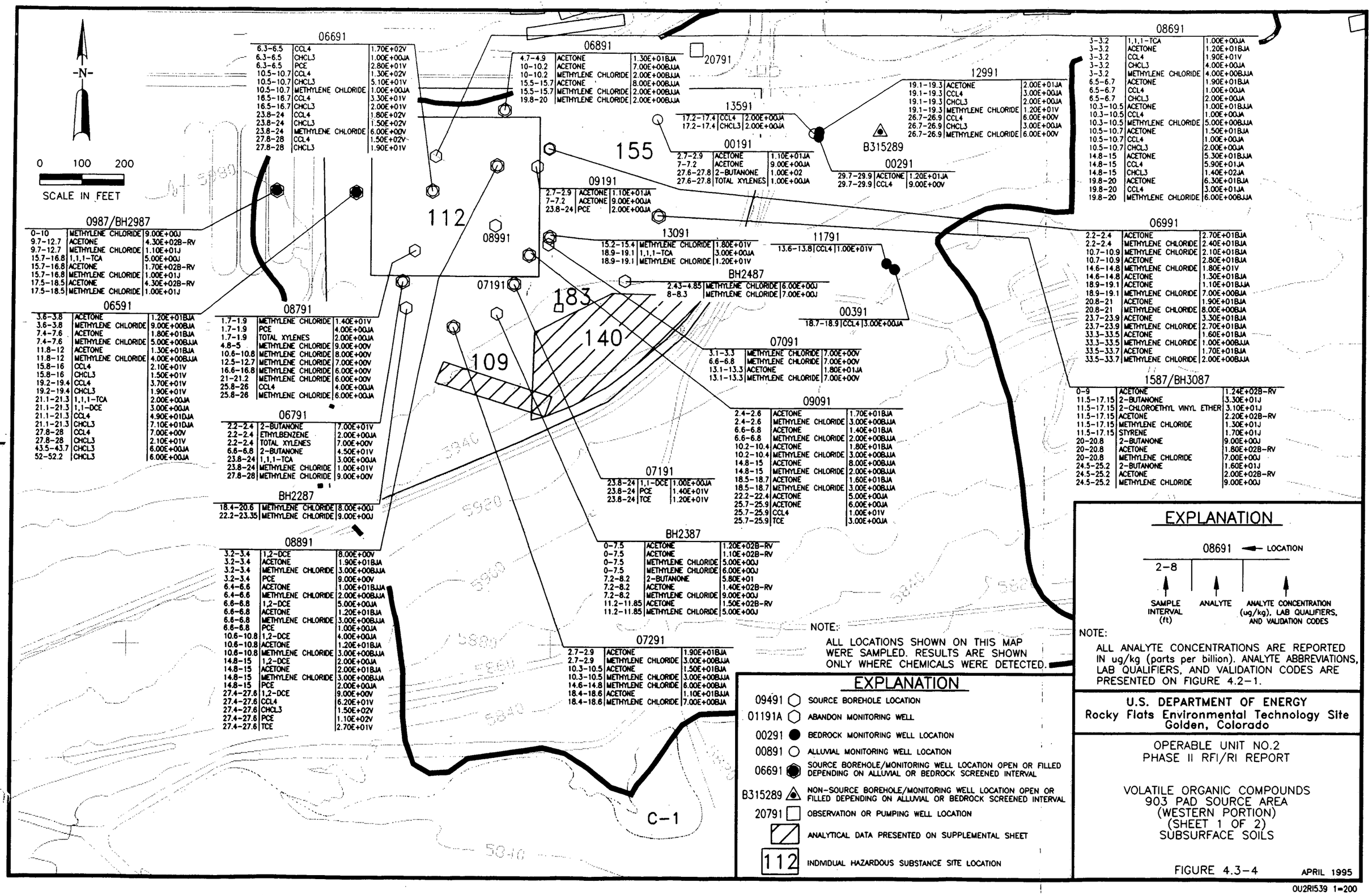
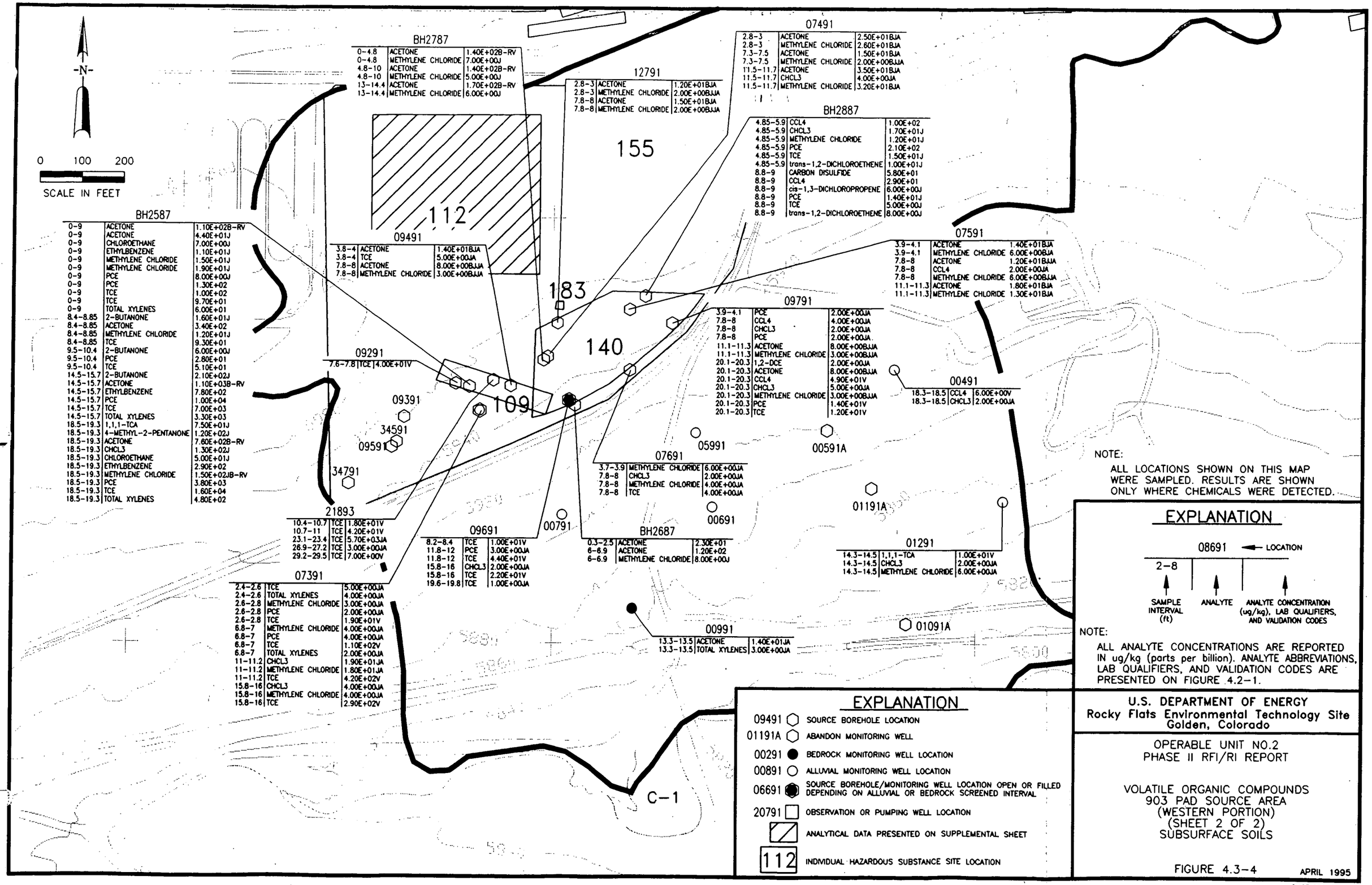
SOURCE AREA BOUNDARIES

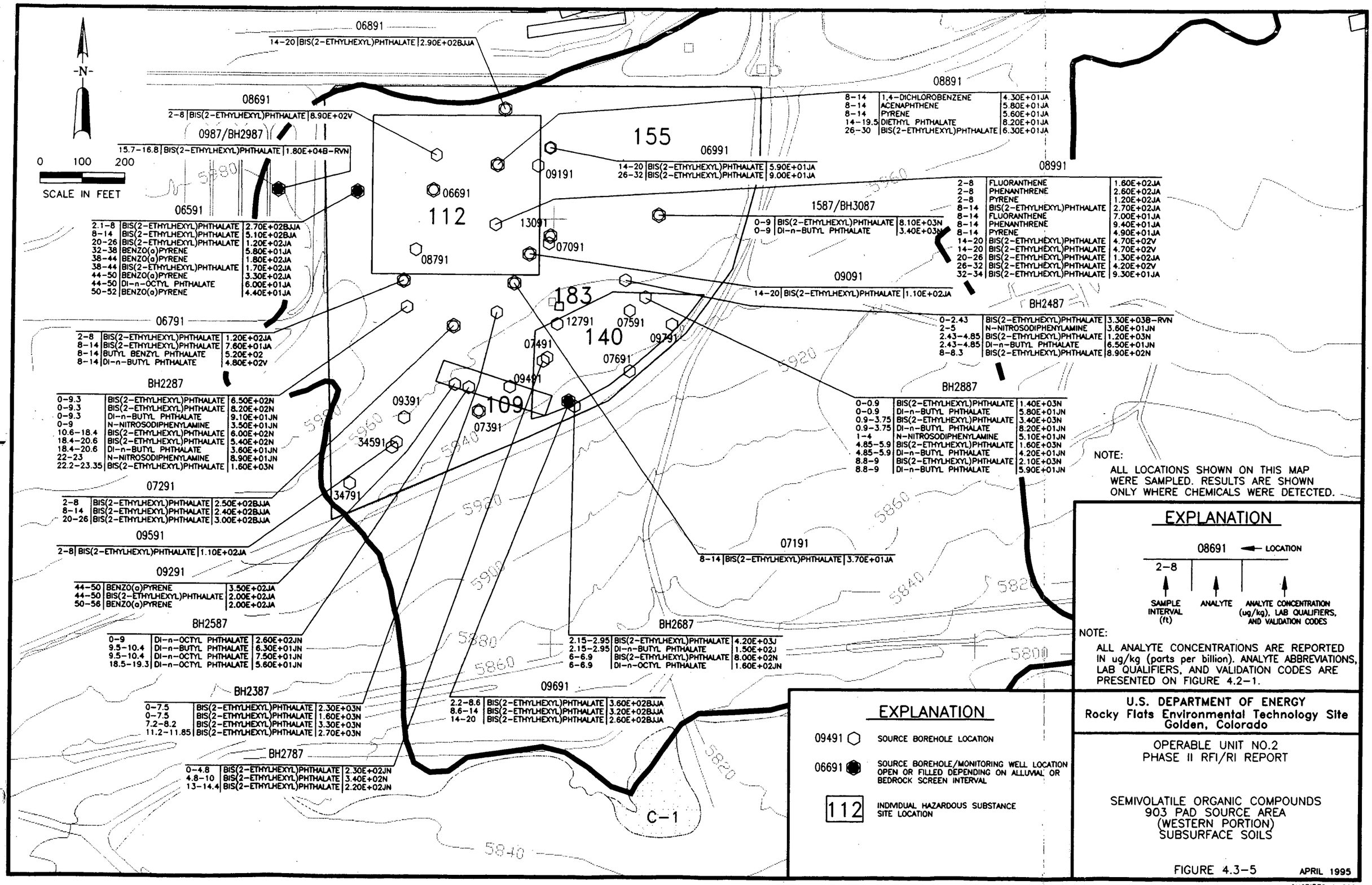
FIGURE 4.3-2 APRIL 1995

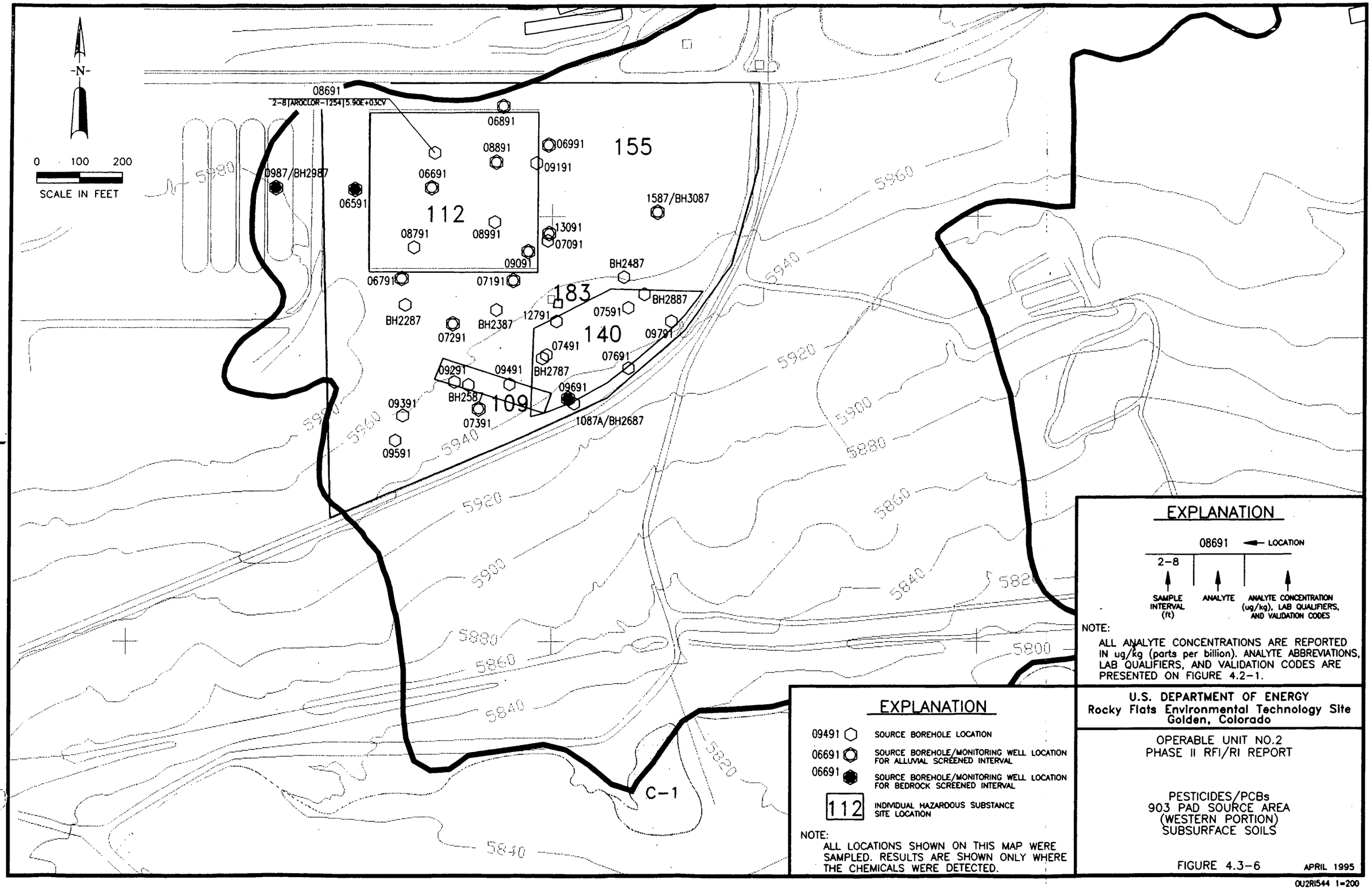
OU2RI820 1=1000

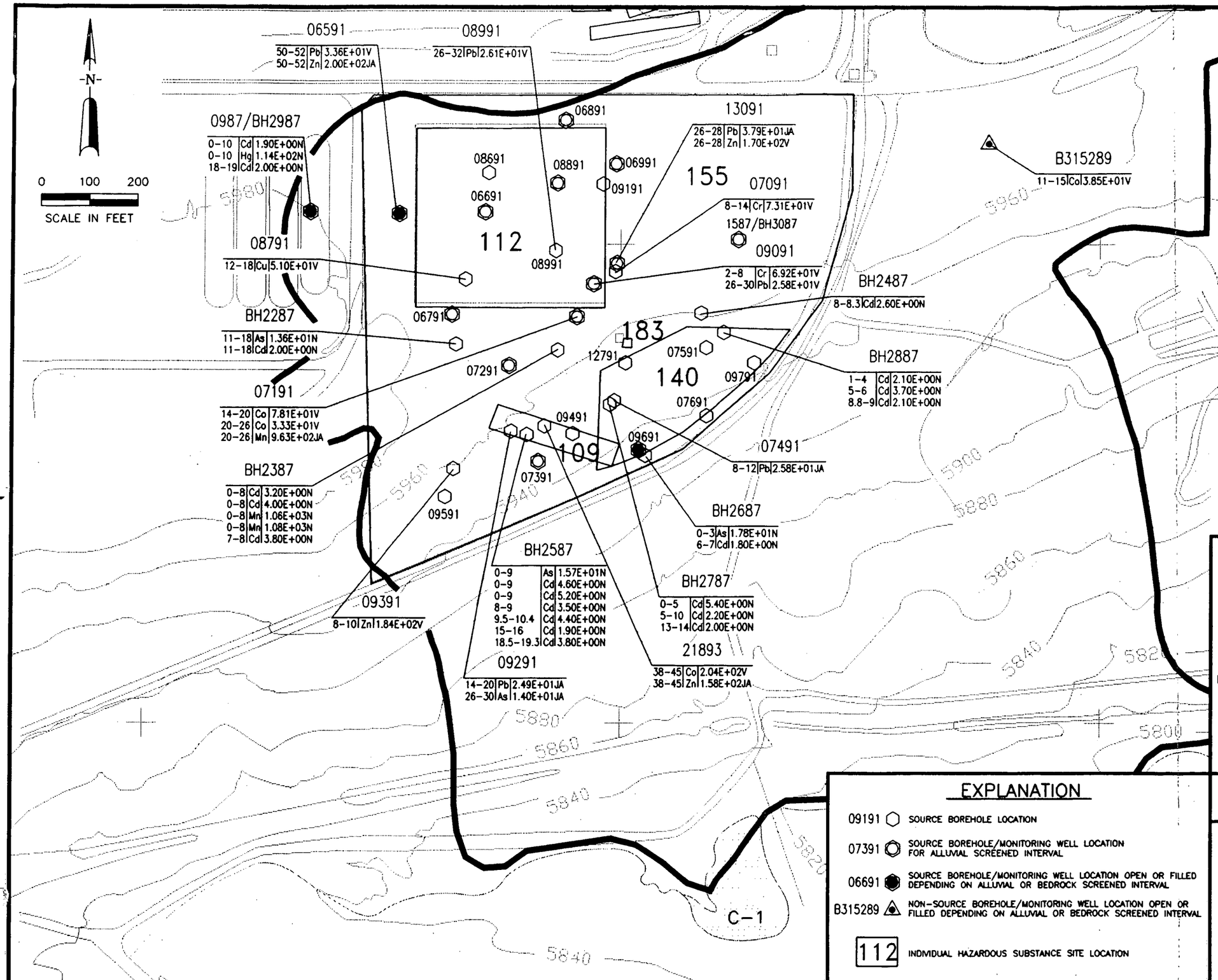

-N-
0 100 200
SCALE IN FEET
08691
3-3.2 TOLUENE 9.10E+01V
6.5-6.7 TOLUENE 1.30E+01V
10.3-10.5 TOLUENE 8.00E+00V
10.5-10.7 TOLUENE 5.00E+00JA
14.8-15 TOLUENE 1.00E+01JA
19.8-20 TOLUENE 1.00E+01JA
06891
4.7-4.9 TOLUENE 1.00E+01V
10-10.2 TOLUENE 1.20E+01V
15.5-15.7 TOLUENE 8.50E+01V
19.8-20 TOLUENE 7.90E+01V
08891
3.2-3.4 TOLUENE 2.30E+02V
6.4-6.6 TOLUENE 1.70E+01V
6.6-6.8 TOLUENE 6.00E+01V
10.6-10.8 TOLUENE 9.90E+01V
14.8-15 TOLUENE 3.00E+01V
19.2-19.4 TOLUENE 5.50E+01V
27.4-27.6 TOLUENE 1.50E+02V
27.8-28 TOLUENE 1.40E+02V
0B20791
10.8-11 TOLUENE 8.00E+00V
26.3-26.5 TOLUENE 3.60E+01V
00191
27.6-27.8 TOLUENE 4.00E+00JA
13591
17.2-17.4 TOLUENE 2.60E+01V
06691
2.4-2.6 TOLUENE 3.30E+01V
6.3-6.5 TOLUENE 2.20E+02V
10.5-10.7 TOLUENE 5.80E+01V
16.5-16.7 TOLUENE 5.90E+01V
23.8-24 TOLUENE 6.60E+01V
27.8-28 TOLUENE 1.00E+02V
06991
155
09191
2.5-2.7 TOLUENE 1.90E+02V
2.7-2.9 TOLUENE 1.50E+02V
7-7.2 TOLUENE 1.10E+02V
11.5-11.7 TOLUENE 1.30E+01V
15.8-16 TOLUENE 1.70E+01V
18-18.2 TOLUENE 6.80E+01V
18.2-18.4 TOLUENE 3.30E+01V
23.8-24 TOLUENE 7.60E+01V
27.8-28 TOLUENE 6.10E+01V
12991
B315289
00291
55.7-55.9 TOLUENE 3.00E+00JA
0987/BH2987
08991
2.4-2.6 TOLUENE 1.00E+00JA
29.7-29.9 TOLUENE 2.00E+00JA
06591
7.4-7.6 TOLUENE 9.00E+00V
11.8-12 TOLUENE 8.00E+00V
15.8-16 TOLUENE 5.40E+01V
19.2-19.4 TOLUENE 3.30E+01V
21.1-21.3 TOLUENE 6.60E+01V
27.8-28 TOLUENE 2.60E+01V
31.8-32 TOLUENE 3.50E+01V
36.4-36.6 TOLUENE 3.90E+02V
39.2-39.4 TOLUENE 8.90E+01V
43.5-43.7 TOLUENE 1.10E+03EJA
47.3-47.5 TOLUENE 3.60E+02V
52-52.2 TOLUENE 3.50E+02JA
08791
1.7-1.9 TOLUENE 5.50E+02DV
4.8-5 TOLUENE 2.90E+01V
10.6-10.8 TOLUENE 8.80E+01V
12.5-12.7 TOLUENE 4.40E+01V
16.6-16.8 TOLUENE 1.90E+01V
21-21.2 TOLUENE 6.80E+01V
25.8-26 TOLUENE 1.20E+02V
112
13091
1587/BH3087
07091
3.1-3.3 TOULENE 1.10E+01V
6.6-6.8 TOULENE 1.60E+01V
13.1-13.3 TOULENE 7.00E+00V
09091
2.4-2.6 TOLUENE 2.00E+00JA
11791
13.6-13.8 TOLUENE 3.50E+02DV
00391
18.7-18.9 TOLUENE 6.60E+01V
BH2487
BH2887
183
BH2287
07591
3.9-4.1 TOLUENE 7.60E+01V
7.8-8 TOLUENE 1.50E+02V
11.1-11.3 TOLUENE 1.00E+02V
00491
18.3-18.5 TOLUENE 1.30E+02V
07291
BH2387
140
BH2787
07491
07691
09791
3.9-4.1 TOLUENE 5.00E+00JA
11.1-11.3 TOLUENE 2.00E+00JA
20.1-20.3 TOLUENE 2.00E+00JA
12791
2.8-3 TOLUENE 7.60E+01V
7.8-8 TOLUENE 1.30E+02V
06791
2.2-2.4 TOLUENE 4.80E+02DV
6.6-6.8 TOLUENE 2.50E+01V
11-11.2 TOLUENE 2.90E+01V
15.7-15.9 TOLUENE 5.90E+01V
18.4-18.6 TOLUENE 2.00E+01V
23.8-24 TOLUENE 1.00E+02V
27.8-28 TOLUENE 1.00E+02V
109
1087A/BH2687
07191
2.7-2.9 TOLUENE 8.20E+01V
7.1-7.3 TOLUENE 2.10E+01V
10.5-10.7 TOLUENE 3.00E+00JV
15.2-15.4 TOLUENE 1.30E+01V
19.3-19.5 TOLUENE 1.10E+01V
23.8-24 TOLUENE 5.30E+01V
09391
2.8-3 TOLUENE 3.10E+01V
7.5-7.7 TOLUENE 4.70E+01V
09691
15.8-16 TOLUENE 1.00E+00JA
05991
22.8-23 TOLUENE 2.80E+01V
00591A
07491
2.8-3 TOLUENE 5.30E+01DJA
7.3-7.5 TOLUENE 9.10E+01V
11.5-11.7 TOLUENE 2.40E+02DV
09591
2.8-3 TOLUENE 1.60E+02V
09491
3.8-4 TOLUENE 1.80E+02V
7.8-8 TOLUENE 1.00E+02V
34591
0-6 TOLUENE 9.50E+01V
34791
01291
01191
8.7-8.9 TOLUENE 8.00E+01
09291
3.5-3.7 TOLUENE 4.30E+01V
7.6-7.8 TOLUENE 8.70E+01V
00791
15.8-16 TOLUENE 6.60E+01V
19.4-19.6 TOLUENE 7.10E+01V
01091
3.6-3.8 TOLUENE 1.10E+01V
BH2587
0-9 TOLUENE 6.00E+00J
9.5-10.4 TOLUENE 8.00E+00J
14.5-15.7 TOLUENE 6.40E+02
18.5-19.3 TOLUENE 3.30E+02
00691
13.9-14.1 TOLUENE 1.50E+01V
21891
10.4-10.7 TOLUENE 6.50E+01V
10.7-11 TOLUENE 8.10E+01V
26.9-27.2 TOLUENE 2.70E+01V
29.2-29.5 TOLUENE 4.20E+01V
33.9-34.2 TOLUENE 1.40E+02V
37.5-37.8 TOLUENE 1.70E+02V
40.8-41.1 TOLUENE 1.60E+02V
43.8-44.1 TOLUENE 2.00E+03V
48.6-48.9 TOLUENE 4.00E+02V
07391
2.4-2.6 TOLUENE 1.40E+02V
2.6-2.8 TOLUENE 8.50E+01V
6.8-7 TOLUENE 7.40E+01V
11-11.2 TOLUENE 3.90E+01V
15.8-16 TOLUENE 3.10E+01V
00991
13.3-13.5 TOLUENE 3.60E+01V
5980
5960
5940
5920
5900
5880
5860
5840
5820
C-1
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
00591A ABANDON MONITORING WELL
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
B315289 NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
OBSERVATION OR PUMPING WELL LOCATION
112 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
08691 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
TOLUENE
903 PAD SOURCE AREA
(WESTERN PORTION)
SUBSURFACE SOILS
FIGURE 4.3-3
APRIL 1995
0U2RI534 1=200


-N-
0 100 200
SCALE IN FEET
06691
6.3-6.5 CCL4 1.70E+02V
6.3-6.5 CHCL3 1.00E+00JA
6.3-6.5 PCE 2.80E+01V
10.5-10.7 CCL4 1.30E+02V
10.5-10.7 CHCL3 5.10E+01V
10.5-10.7 METHYLENE CHLORIDE 1.00E+00JA
16.5-16.7 CCL4 3.30E+01V
16.5-16.7 CHCL3 2.00E+01V
23.8-24 CCL4 1.80E+02V
23.8-24 CHCL3 1.50E+02V
23.8-24 METHYLENE CHLORIDE 6.00E+00V
27.8-28 CCL4 1.50E+02V
27.8-28 CHCL3 1.90E+01V
06891
4.7-4.9 ACETONE 1.30E+01BJA
10-10.2 ACETONE 7.00E+00BJJA
10-10.2 METHYLENE CHLORIDE 2.00E+00BJJA
15.5-15.7 ACETONE 8.00E+00BJJA
15.5-15.7 METHYLENE CHLORIDE 2.00E+00BJJA
19.8-20 METHYLENE CHLORIDE 2.00E+00BJJA
20791
13591
17.2-17.4 CCL4 2.00E+00JA
17.2-17.4 CHCL3 2.00E+00JA
00191
2.7-2.9 ACETONE 1.10E+01JA
7-7.2 ACETONE 9.00E+00JA
27.6-27.8 2-BUTANONE 1.00E+02
27.6-27.8 TOTAL XYLENES 1.00E+00JA
12991
19.1-19.3 ACETONE 2.00E+01JA
19.1-19.3 CCL4 3.00E+00JA
19.1-19.3 CHCL3 2.00E+00JA
19.1-19.3 METHYLENE CHLORIDE 1.20E+01V
26.7-26.9 CCL4 6.00E+00V
26.7-26.9 CHCL3 3.00E+00JA
26.7-26.9 METHYLENE CHLORIDE 6.00E+00V
B315289
00291
29.7-29.9 ACETONE 1.20E+01JA
29.7-29.9 CCL4 9.00E+00V
08691
3-3.2 1,1,1-TCA 1.00E+00JA
3-3.2 ACETONE 1.20E+01BJA
3-3.2 CCL4 1.90E+01V
3-3.2 CHCL3 4.00E+00JA
3-3.2 METHYLENE CHLORIDE 4.00E+00BJJA
6.5-6.7 ACETONE 1.90E+01BJA
6.5-6.7 CCL4 1.00E+00JA
6.5-6.7 CHCL3 2.00E+00JA
10.3-10.5 ACETONE 1.00E+01BJJA
10.3-10.5 CCL4 1.00E+00JA
10.3-10.5 METHYLENE CHLORIDE 5.00E+00BJJA
10.5-10.7 ACETONE 1.50E+01BJA
10.5-10.7 CCL4 1.00E+00JA
10.5-10.7 CHCL3 2.00E+00JA
14.8-15 ACETONE 5.30E+01BJJA
14.8-15 CCL4 5.90E+01JA
14.8-15 CHCL3 1.40E+02JA
19.8-20 ACETONE 6.30E+01BJA
19.8-20 CCL4 3.00E+01JA
19.8-20 METHYLENE CHLORIDE 6.00E+00BJJA
155
112
08991
09191
2.7-2.9 ACETONE 1.10E+01JA
7-7.2 ACETONE 9.00E+00JA
23.8-24 PCE 2.00E+00JA
0987/BH2987
0-10 METHYLENE CHLORIDE 9.00E+00J
9.7-12.7 ACETONE 4.30E+02B-RV
9.7-12.7 METHYLENE CHLORIDE 1.10E+01J
15.7-16.8 1,1,1-TCA 5.00E+00J
15.7-16.8 ACETONE 1.70E+02B-RV
15.7-16.8 METHYLENE CHLORIDE 1.00E+01J
17.5-18.5 ACETONE 4.30E+02B-RV
17.5-18.5 METHYLENE CHLORIDE 1.00E+01J
13091
15.2-15.4 METHYLENE CHLORIDE 1.80E+01V
18.9-19.1 1,1,1-TCA 3.00E+00JA
18.9-19.1 METHYLENE CHLORIDE 1.20E+01V
11791
13.6-13.8 CCL4 1.00E+01V
06991
2.2-2.4 ACETONE 2.70E+01BJA
2.2-2.4 METHYLENE CHLORIDE 2.40E+01BJA
10.7-10.9 METHYLENE CHLORIDE 2.10E+01BJA
10.7-10.9 ACETONE 2.80E+01BJA
14.6-14.8 METHYLENE CHLORIDE 1.80E+01V
14.6-14.8 ACETONE 1.30E+01BJA
18.9-19.1 ACETONE 1.10E+01BJJA
18.9-19.1 METHYLENE CHLORIDE 7.00E+00BJA
20.8-21 ACETONE 1.90E+01BJA
20.8-21 METHYLENE CHLORIDE 8.00E+00BJA
23.7-23.9 ACETONE 3.30E+01BJA
23.7-23.9 METHYLENE CHLORIDE 2.70E+01BJA
33.3-33.5 ACETONE 1.60E+01BJA
33.3-33.5 METHYLENE CHLORIDE 1.00E+00BJJA
33.5-33.7 ACETONE 1.70E+01BJA
33.5-33.7 METHYLENE CHLORIDE 2.00E+00BJJA
07191
183
BH2487
2.43-4.85 METHYLENE CHLORIDE 6.00E+00J
8-8.3 METHYLENE CHLORIDE 7.00E+00J
00391
18.7-18.9 CCL4 3.00E+00JA
140
109
07091
3.1-3.3 METHYLENE CHLORIDE 7.00E+00V
6.6-6.8 METHYLENE CHLORIDE 7.00E+00V
13.1-13.3 ACETONE 1.80E+01JA
13.1-13.3 METHYLENE CHLORIDE 7.00E+00V
06591
3.6-3.8 ACETONE 1.20E+01BJA
3.6-3.8 METHYLENE CHLORIDE 9.00E+00BJA
7.4-7.6 ACETONE 1.80E+01BJA
7.4-7.6 METHYLENE CHLORIDE 5.00E+00BJJA
11.8-12 ACETONE 1.30E+01BJA
11.8-12 METHYLENE CHLORIDE 4.00E+00BJJA
15.8-16 CCL4 2.10E+01V
15.8-16 CHCL3 1.50E+01V
19.2-19.4 CCL4 3.70E+01V
19.2-19.4 CHCL3 1.90E+01V
21.1-21.3 1,1,1-TCA 2.00E+00JA
21.1-21.3 1,1-DCE 3.00E+00JA
21.1-21.3 CCL4 4.90E+01DJA
21.1-21.3 CHCL3 7.10E+01DJA
27.8-28 CCL4 7.00E+00V
27.8-28 CHCL3 2.10E+01V
43.5-43.7 CHCL3 6.00E+00JA
52-52.2 CHCL3 6.00E+00JA
08791
1.7-1.9 METHYLENE CHLORIDE 1.40E+01V
1.7-1.9 PCE 4.00E+00JA
1.7-1.9 TOTAL XYLENES 2.00E+00JA
4.8-5 METHYLENE CHLORIDE 9.00E+00V
10.6-10.8 METHYLENE CHLORIDE 8.00E+00V
12.5-12.7 METHYLENE CHLORIDE 7.00E+00V
16.6-16.8 METHYLENE CHLORIDE 6.00E+00V
21-21.2 METHYLENE CHLORIDE 6.00E+00V
25.8-26 CCL4 4.00E+00JA
25.8-26 METHYLENE CHLORIDE 6.00E+00JA
06791
2.2-2.4 2-BUTANONE 7.00E+01V
2.2-2.4 ETHYLBENZENE 2.00E+00JA
2.2-2.4 TOTAL XYLENES 7.00E+00V
6.6-6.8 2-BUTANONE 4.50E+01V
23.8-24 1,1,1-TCA 3.00E+00JA
23.8-24 METHYLENE CHLORIDE 1.00E+01V
27.8-28 METHYLENE CHLORIDE 9.00E+00V
BH2287
18.4-20.6 METHYLENE CHLORIDE 8.00E+00J
22.2-23.35 METHYLENE CHLORIDE 9.00E+00J
08891
3.2-3.4 1,2-DCE 8.00E+00V
3.2-3.4 ACETONE 1.90E+01BJA
3.2-3.4 METHYLENE CHLORIDE 3.00E+00BJJA
3.2-3.4 PCE 9.00E+00V
6.4-6.6 ACETONE 1.00E+01BJJA
6.4-6.6 METHYLENE CHLORIDE 2.00E+00BJJA
6.6-6.8 1,2-DCE 5.00E+00JA
6.6-6.8 ACETONE 1.20E+01BJA
6.6-6.8 METHYLENE CHLORIDE 3.00E+00BJJA
6.6-6.8 PCE 1.00E+00JA
10.6-10.8 1,2-DCE 4.00E+00JA
10.6-10.8 ACETONE 1.20E+01BJA
10.6-10.8 METHYLENE CHLORIDE 3.00E+00BJJA
14.8-15 1,2-DCE 2.00E+00JA
14.8-15 ACETONE 2.00E+01BJA
14.8-15 METHYLENE CHLORIDE 3.00E+00BJJA
14.8-15 PCE 2.00E+00JA
27.4-27.6 1,2-DCE 9.00E+00V
27.4-27.6 CCL4 6.20E+01V
27.4-27.6 CHCL3 1.50E+02V
27.4-27.6 PCE 1.10E+02V
27.4-27.6 TCE 2.70E+01V
09091
2.4-2.6 ACETONE 1.70E+01BJA
2.4-2.6 METHYLENE CHLORIDE 3.00E+00BJJA
6.6-6.8 ACETONE 1.40E+01BJA
6.6-6.8 METHYLENE CHLORIDE 2.00E+00BJJA
10.2-10.4 ACETONE 1.80E+01BJA
10.2-10.4 METHYLENE CHLORIDE 3.00E+00BJJA
14.8-15 ACETONE 8.00E+00BJJA
14.8-15 METHYLENE CHLORIDE 2.00E+00BJJA
18.5-18.7 ACETONE 1.60E+01BJA
18.5-18.7 METHYLENE CHLORIDE 3.00E+00BJJA
22.2-22.4 ACETONE 5.00E+00JA
25.7-25.9 ACETONE 6.00E+00JA
25.7-25.9 CCL4 1.00E+01V
25.7-25.9 TCE 3.00E+00JA
07191
23.8-24 1,1-DCE 1.00E+00JA
23.8-24 PCE 1.40E+01V
23.8-24 TCE 1.20E+01V
BH2387
0-7.5 ACETONE 1.20E+02B-RV
0-7.5 ACETONE 1.10E+02B-RV
0-7.5 METHYLENE CHLORIDE 5.00E+00J
0-7.5 METHYLENE CHLORIDE 6.00E+00J
7.2-8.2 2-BUTANONE 5.80E+01
7.2-8.2 ACETONE 1.40E+02B-RV
7.2-8.2 METHYLENE CHLORIDE 9.00E+00J
11.2-11.85 ACETONE 1.50E+02B-RV
11.2-11.85 METHYLENE CHLORIDE 5.00E+00J
07291
2.7-2.9 ACETONE 1.90E+01BJA
2.7-2.9 METHYLENE CHLORIDE 3.00E+00BJJA
10.3-10.5 ACETONE 1.50E+01BJA
10.3-10.5 METHYLENE CHLORIDE 3.00E+00BJJA
14.6-14.8 METHYLENE CHLORIDE 6.00E+00BJA
18.4-18.6 ACETONE 1.10E+01BJJA
18.4-18.6 METHYLENE CHLORIDE 7.00E+00BJA
1587/BH3087
0-9 ACETONE 1.24E+02B-RV
11.5-17.15 2-BUTANONE 3.30E+01J
11.5-17.15 2-CHLOROETHYL VINYL ETHER 3.10E+01J
11.5-17.15 ACETONE 2.20E+02B-RV
11.5-17.15 METHYLENE CHLORIDE 1.30E+01J
11.5-17.15 STYRENE 1.70E+01J
20-20.8 2-BUTANONE 9.00E+00J
20-20.8 ACETONE 1.80E+02B-RV
20-20.8 METHYLENE CHLORIDE 7.00E+00J
24.5-25.2 2-BUTANONE 1.60E+01J
24.5-25.2 ACETONE 2.00E+02B-RV
24.5-25.2 METHYLENE CHLORIDE 9.00E+00J
C-1
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDON MONITORING WELL
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
B315289 NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
20791 OBSERVATION OR PUMPING WELL LOCATION
ANALYTICAL DATA PRESENTED ON SUPPLEMENTAL SHEET
112 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
08691 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
VOLATILE ORGANIC COMPOUNDS
903 PAD SOURCE AREA
(WESTERN PORTION)
(SHEET 1 OF 2)
SUBSURFACE SOILS
FIGURE 4.3-4
APRIL 1995
OU2RI539 1=200


-N-
0 100 200
SCALE IN FEET
BH2787
0-4.8 ACETONE 1.40E+02B-RV
0-4.8 METHYLENE CHLORIDE 7.00E+00J
4.8-10 ACETONE 1.40E+02B-RV
4.8-10 METHYLENE CHLORIDE 5.00E+00J
13-14.4 ACETONE 1.70E+02B-RV
13-14.4 METHYLENE CHLORIDE 6.00E+00J
12791
2.8-3 ACETONE 1.20E+01BJA
2.8-3 METHYLENE CHLORIDE 2.00E+00BJJA
7.8-8 ACETONE 1.50E+01BJA
7.8-8 METHYLENE CHLORIDE 2.00E+00BJJA
07491
2.8-3 ACETONE 2.50E+01BJA
2.8-3 METHYLENE CHLORIDE 2.60E+01BJA
7.3-7.5 ACETONE 1.50E+01BJA
7.3-7.5 METHYLENE CHLORIDE 2.00E+00BJJA
11.5-11.7 ACETONE 3.50E+01BJA
11.5-11.7 CHCL3 4.00E+00JA
11.5-11.7 METHYLENE CHLORIDE 3.20E+01BJA
BH2887
4.85-5.9 CCL4 1.00E+02
4.85-5.9 CHCL3 1.70E+01J
4.85-5.9 METHYLENE CHLORIDE 1.20E+01J
4.85-5.9 PCE 2.10E+02
4.85-5.9 TCE 1.50E+01J
4.85-5.9 trans-1,2-DICHLOROETHENE 1.00E+01J
8.8-9 CARBON DISULFIDE 5.80E+01
8.8-9 CCL4 2.90E+01
8.8-9 cis-1,3-DICHLOROPROPENE 6.00E+00J
8.8-9 PCE 1.40E+01J
8.8-9 TCE 5.00E+00J
8.8-9 trans-1,2-DICHLOROETHENE 8.00E+00J
155
112
09491
3.8-4 ACETONE 1.40E+01BJA
3.8-4 TCE 5.00E+00JA
7.8-8 ACETONE 8.00E+00BJJA
7.8-8 METHYLENE CHLORIDE 3.00E+00BJJA
BH2587
0-9 ACETONE 1.10E+02B-RV
0-9 ACETONE 4.40E+01J
0-9 CHLOROETHANE 7.00E+00J
0-9 ETHYLBENZENE 1.10E+01J
0-9 METHYLENE CHLORIDE 1.50E+01J
0-9 METHYLENE CHLORIDE 1.90E+01J
0-9 PCE 8.00E+00J
0-9 PCE 1.30E+02
0-9 TCE 1.00E+02
0-9 TCE 9.70E+01
0-9 TOTAL XYLENES 6.00E+01
8.4-8.85 2-BUTANONE 1.60E+01J
8.4-8.85 ACETONE 3.40E+02
8.4-8.85 METHYLENE CHLORIDE 1.20E+01J
8.4-8.85 TCE 9.30E+01
9.5-10.4 2-BUTANONE 6.00E+00J
9.5-10.4 PCE 2.80E+01
9.5-10.4 TCE 5.10E+01
14.5-15.7 2-BUTANONE 2.10E+02J
14.5-15.7 ACETONE 1.10E+03B-RV
14.5-15.7 ETHYLBENZENE 7.80E+02
14.5-15.7 PCE 1.00E+04
14.5-15.7 TCE 7.00E+03
14.5-15.7 TOTAL XYLENES 3.30E+03
18.5-19.3 1,1,1-TCA 7.50E+01J
18.5-19.3 4-METHYL-2-PENTANONE 1.20E+02J
18.5-19.3 ACETONE 7.60E+02B-RV
18.5-19.3 CHCL3 1.30E+02J
18.5-19.3 CHLOROETHANE 5.00E+01J
18.5-19.3 ETHYLBENZENE 2.90E+02
18.5-19.3 METHYLENE CHLORIDE 1.50E+02JB-RV
18.5-19.3 PCE 3.80E+03
18.5-19.3 TCE 1.60E+04
18.5-19.3 TOTAL XYLENES 4.80E+02
183
140
109
09291
7.6-7.8 TCE 4.00E+01V
09391
34591
09591
34791
21893
10.4-10.7 TCE 1.80E+01V
10.7-11 TCE 4.20E+01V
23.1-23.4 TCE 5.70E+03JA
26.9-27.2 TCE 3.00E+00JA
29.2-29.5 TCE 7.00E+00V
07391
2.4-2.6 TCE 5.00E+00JA
2.4-2.6 TOTAL XYLENES 4.00E+00JA
2.6-2.8 METHYLENE CHLORIDE 3.00E+00JA
2.6-2.8 PCE 2.00E+00JA
2.6-2.8 TCE 1.90E+01V
6.8-7 METHYLENE CHLORIDE 4.00E+00JA
6.8-7 PCE 4.00E+00JA
6.8-7 TCE 1.10E+02V
6.8-7 TOTAL XYLENES 2.00E+00JA
11-11.2 CHCL3 1.90E+01JA
11-11.2 METHYLENE CHLORIDE 1.80E+01JA
11-11.2 TCE 4.20E+02V
15.8-16 CHCL3 4.00E+00JA
15.8-16 METHYLENE CHLORIDE 4.00E+00JA
15.8-16 TCE 2.90E+02V
09691
8.2-8.4 TCE 1.00E+01V
11.8-12 PCE 3.00E+00JA
11.8-12 TCE 4.40E+01V
15.8-16 CHCL3 2.00E+00JA
15.8-16 TCE 2.20E+01V
19.6-19.8 TCE 1.00E+00JA
00791
07691
3.7-3.9 METHYLENE CHLORIDE 6.00E+00JA
7.8-8 CHCL3 2.00E+00JA
7.8-8 METHYLENE CHLORIDE 4.00E+00JA
7.8-8 TCE 4.00E+00JA
00691
BH2687
0.3-2.5 ACETONE 2.30E+01
6-6.9 ACETONE 1.20E+02
6-6.9 METHYLENE CHLORIDE 8.00E+00J
09791
3.9-4.1 PCE 2.00E+00JA
7.8-8 CCL4 4.00E+00JA
7.8-8 CHCL3 2.00E+00JA
7.8-8 PCE 2.00E+00JA
11.1-11.3 ACETONE 8.00E+00BJJA
11.1-11.3 METHYLENE CHLORIDE 3.00E+00BJJA
20.1-20.3 1,2-DCE 2.00E+00JA
20.1-20.3 ACETONE 8.00E+00BJJA
20.1-20.3 CCL4 4.90E+01V
20.1-20.3 CHCL3 5.00E+00JA
20.1-20.3 METHYLENE CHLORIDE 3.00E+00BJJA
20.1-20.3 PCE 1.40E+01V
20.1-20.3 TCE 1.20E+01V
05991
00591A
07591
3.9-4.1 ACETONE 1.40E+01BJA
3.9-4.1 METHYLENE CHLORIDE 6.00E+00BJA
7.8-8 ACETONE 1.20E+01BJJA
7.8-8 CCL4 2.00E+00JA
7.8-8 METHYLENE CHLORIDE 6.00E+00BJJA
11.1-11.3 ACETONE 1.80E+01BJA
11.1-11.3 METHYLENE CHLORIDE 1.30E+01BJA
00491
18.3-18.5 CCL4 6.00E+00V
18.3-18.5 CHCL3 2.00E+00JA
01191A
01291
14.3-14.5 1,1,1-TCA 1.00E+01V
14.3-14.5 CHCL3 2.00E+00JA
14.3-14.5 METHYLENE CHLORIDE 6.00E+00JA
01091A
00991
13.3-13.5 ACETONE 1.40E+01JA
13.3-13.5 TOTAL XYLENES 3.00E+00JA
C-1
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED.
EXPLANATION
08691 ← LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDON MONITORING WELL
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
20791 OBSERVATION OR PUMPING WELL LOCATION
ANALYTICAL DATA PRESENTED ON SUPPLEMENTAL SHEET
112 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
VOLATILE ORGANIC COMPOUNDS
903 PAD SOURCE AREA
(WESTERN PORTION)
(SHEET 2 OF 2)
SUBSURFACE SOILS
FIGURE 4.3-4
APRIL 1995
OU2RI601 1=200


-N-
0 100 200
SCALE IN FEET
06891
14-20 BIS(2-ETHYLHEXYL)PHTHALATE 2.90E+02BJJA
08691
2-8 BIS(2-ETHYLHEXYL)PHTHALATE 8.90E+02V
0987/BH2987
15.7-16.8 BIS(2-ETHYLHEXYL)PHTHALATE 1.80E+04B-RVN
06591
2.1-8 BIS(2-ETHYLHEXYL)PHTHALATE 2.70E+02BJJA
8-14 BIS(2-ETHYLHEXYL)PHTHALATE 5.10E+02BJA
20-26 BIS(2-ETHYLHEXYL)PHTHALATE 1.20E+02JA
32-38 BENZO(a)PYRENE 5.80E+01JA
38-44 BENZO(a)PYRENE 1.80E+02JA
38-44 BIS(2-ETHYLHEXYL)PHTHALATE 1.70E+02JA
44-50 BENZO(a)PYRENE 3.30E+02JA
44-50 DI-n-OCTYL PHTHALATE 6.00E+01JA
50-52 BENZO(a)PYRENE 4.40E+01JA
06791
2-8 BIS(2-ETHYLHEXYL)PHTHALATE 1.20E+02JA
8-14 BIS(2-ETHYLHEXYL)PHTHALATE 7.60E+01JA
8-14 BUTYL BENZYL PHTHALATE 5.20E+02
8-14 DI-n-BUTYL PHTHALATE 4.80E+02V
BH2287
0-9.3 BIS(2-ETHYLHEXYL)PHTHALATE 6.50E+02N
0-9.3 BIS(2-ETHYLHEXYL)PHTHALATE 8.20E+02N
0-9.3 DI-n-BUTYL PHTHALATE 9.10E+01JN
0-9 N-NITROSODIPHENYLAMINE 3.50E+01JN
10.6-18.4 BIS(2-ETHYLHEXYL)PHTHALATE 6.00E+02N
18.4-20.6 BIS(2-ETHYLHEXYL)PHTHALATE 5.40E+02N
18.4-20.6 DI-n-BUTYL PHTHALATE 3.60E+01JN
22-23 N-NITROSODIPHENYLAMINE 8.90E+01JN
22.2-23.35 BIS(2-ETHYLHEXYL)PHTHALATE 1.60E+03N
07291
2-8 BIS(2-ETHYLHEXYL)PHTHALATE 2.50E+02BJJA
8-14 BIS(2-ETHYLHEXYL)PHTHALATE 2.40E+02BJJA
20-26 BIS(2-ETHYLHEXYL)PHTHALATE 3.00E+02BJJA
09591
2-8 BIS(2-ETHYLHEXYL)PHTHALATE 1.10E+02JA
09291
44-50 BENZO(a)PYRENE 3.50E+02JA
44-50 BIS(2-ETHYLHEXYL)PHTHALATE 2.00E+02JA
50-56 BENZO(a)PYRENE 2.00E+02JA
BH2587
0-9 DI-n-OCTYL PHTHALATE 2.60E+02JN
9.5-10.4 DI-n-BUTYL PHTHALATE 6.30E+01JN
9.5-10.4 DI-n-OCTYL PHTHALATE 7.50E+01JN
18.5-19.3 DI-n-OCTYL PHTHALATE 5.60E+01JN
BH2387
0-7.5 BIS(2-ETHYLHEXYL)PHTHALATE 2.30E+03N
0-7.5 BIS(2-ETHYLHEXYL)PHTHALATE 1.60E+03N
7.2-8.2 BIS(2-ETHYLHEXYL)PHTHALATE 3.30E+03N
11.2-11.85 BIS(2-ETHYLHEXYL)PHTHALATE 2.70E+03N
BH2787
0-4.8 BIS(2-ETHYLHEXYL)PHTHALATE 2.30E+02JN
4.8-10 BIS(2-ETHYLHEXYL)PHTHALATE 3.40E+02N
13-14.4 BIS(2-ETHYLHEXYL)PHTHALATE 2.20E+02JN
06691
112
08791
09191
13091
07091
155
06991
14-20 BIS(2-ETHYLHEXYL)PHTHALATE 5.90E+01JA
26-32 BIS(2-ETHYLHEXYL)PHTHALATE 9.00E+01JA
183
12791
07591
140
07491
09791
07691
09491
109
09391
07391
34591
34791
08891
8-14 1,4-DICHLOROBENZENE 4.30E+01JA
8-14 ACENAPHTHENE 5.80E+01JA
8-14 PYRENE 5.60E+01JA
14-19.5 DIETHYL PHTHALATE 8.20E+01JA
26-30 BIS(2-ETHYLHEXYL)PHTHALATE 6.30E+01JA
08991
2-8 FLUORANTHENE 1.60E+02JA
2-8 PHENANTHRENE 2.60E+02JA
2-8 PYRENE 1.20E+02JA
8-14 BIS(2-ETHYLHEXYL)PHTHALATE 2.70E+02JA
8-14 FLUORANTHENE 7.00E+01JA
8-14 PHENANTHRENE 9.40E+01JA
8-14 PYRENE 4.90E+01JA
14-20 BIS(2-ETHYLHEXYL)PHTHALATE 4.70E+02V
14-20 BIS(2-ETHYLHEXYL)PHTHALATE 4.70E+02V
20-26 BIS(2-ETHYLHEXYL)PHTHALATE 1.30E+02JA
26-32 BIS(2-ETHYLHEXYL)PHTHALATE 4.20E+02V
32-34 BIS(2-ETHYLHEXYL)PHTHALATE 9.30E+01JA
1587/BH3087
0-9 BIS(2-ETHYLHEXYL)PHTHALATE 8.10E+03N
0-9 DI-n-BUTYL PHTHALATE 3.40E+03N
09091
14-20 BIS(2-ETHYLHEXYL)PHTHALATE 1.10E+02JA
BH2487
0-2.43 BIS(2-ETHYLHEXYL)PHTHALATE 3.30E+03B-RVN
2-5 N-NITROSODIPHENYLAMINE 3.60E+01JN
2.43-4.85 BIS(2-ETHYLHEXYL)PHTHALATE 1.20E+03N
2.43-4.85 DI-n-BUTYL PHTHALATE 6.50E+01JN
8-8.3 BIS(2-ETHYLHEXYL)PHTHALATE 8.90E+02N
BH2887
0-0.9 BIS(2-ETHYLHEXYL)PHTHALATE 1.40E+03N
0-0.9 DI-n-BUTYL PHTHALATE 5.80E+01JN
0.9-3.75 BIS(2-ETHYLHEXYL)PHTHALATE 3.40E+03N
0.9-3.75 DI-n-BUTYL PHTHALATE 8.20E+01JN
1-4 N-NITROSODIPHENYLAMINE 5.10E+01JN
4.85-5.9 BIS(2-ETHYLHEXYL)PHTHALATE 1.60E+03N
4.85-5.9 DI-n-BUTYL PHTHALATE 4.20E+01JN
8.8-9 BIS(2-ETHYLHEXYL)PHTHALATE 2.10E+03N
8.8-9 DI-n-BUTYL PHTHALATE 5.90E+01JN
07191
8-14 BIS(2-ETHYLHEXYL)PHTHALATE 3.70E+01JA
BH2687
2.15-2.95 BIS(2-ETHYLHEXYL)PHTHALATE 4.20E+03J
2.15-2.95 DI-n-BUTYL PHTHALATE 1.50E+02J
6-6.9 BIS(2-ETHYLHEXYL)PHTHALATE 8.00E+02N
6-6.9 DI-n-OCTYL PHTHALATE 1.60E+02JN
09691
2.2-8.6 BIS(2-ETHYLHEXYL)PHTHALATE 3.60E+02BJJA
8.6-14 BIS(2-ETHYLHEXYL)PHTHALATE 3.20E+02BJJA
14-20 BIS(2-ETHYLHEXYL)PHTHALATE 2.60E+02BJJA
C-1
5980
5960
5940
5920
5900
5880
5860
5840
5820
5800
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED.
EXPLANATION
08691 ← LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREEN INTERVAL
112 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
SEMIVOLATILE ORGANIC COMPOUNDS
903 PAD SOURCE AREA
(WESTERN PORTION)
SUBSURFACE SOILS
FIGURE 4.3-5
APRIL 1995
OU2RI530 1=200


-N-
0 100 200
SCALE IN FEET
08691
2-8|AROCLOR-1254|5.90E+03CV
06891
08891
06991
09191
155
06691
0987/BH2987
06591
112
1587/BH3087
08791
08991
13091
07091
09091
BH2487
06791
07191
183
BH2887
BH2287
BH2387
12791
07591
07291
140
09791
07491
07691
09291
09491
BH2787
09691
BH2587
109
09391
07391
1087A/BH2687
09591
5980
5960
5940
5920
5900
5880
5860
5840
5820
5800
C-1
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR ALLUVIAL SCREENED INTERVAL
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR BEDROCK SCREENED INTERVAL
112 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED.
EXPLANATION
08691 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
PESTICIDES/PCBs
903 PAD SOURCE AREA
(WESTERN PORTION)
SUBSURFACE SOILS
FIGURE 4.3-6
APRIL 1995
OU2RI544 1=200



NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

EXPLANATION

08691 ← LOCATION

2-8

SAMPLE INTERVAL (ft) | ANALYTE | ANALYTE CONCENTRATION (mg/kg), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN mg/kg (parts per million). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.

SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.

EXPLANATION

09191 SOURCE BOREHOLE LOCATION

07391 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR ALLUVIAL SCREENED INTERVAL

06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL

B315289 NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL

112 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado

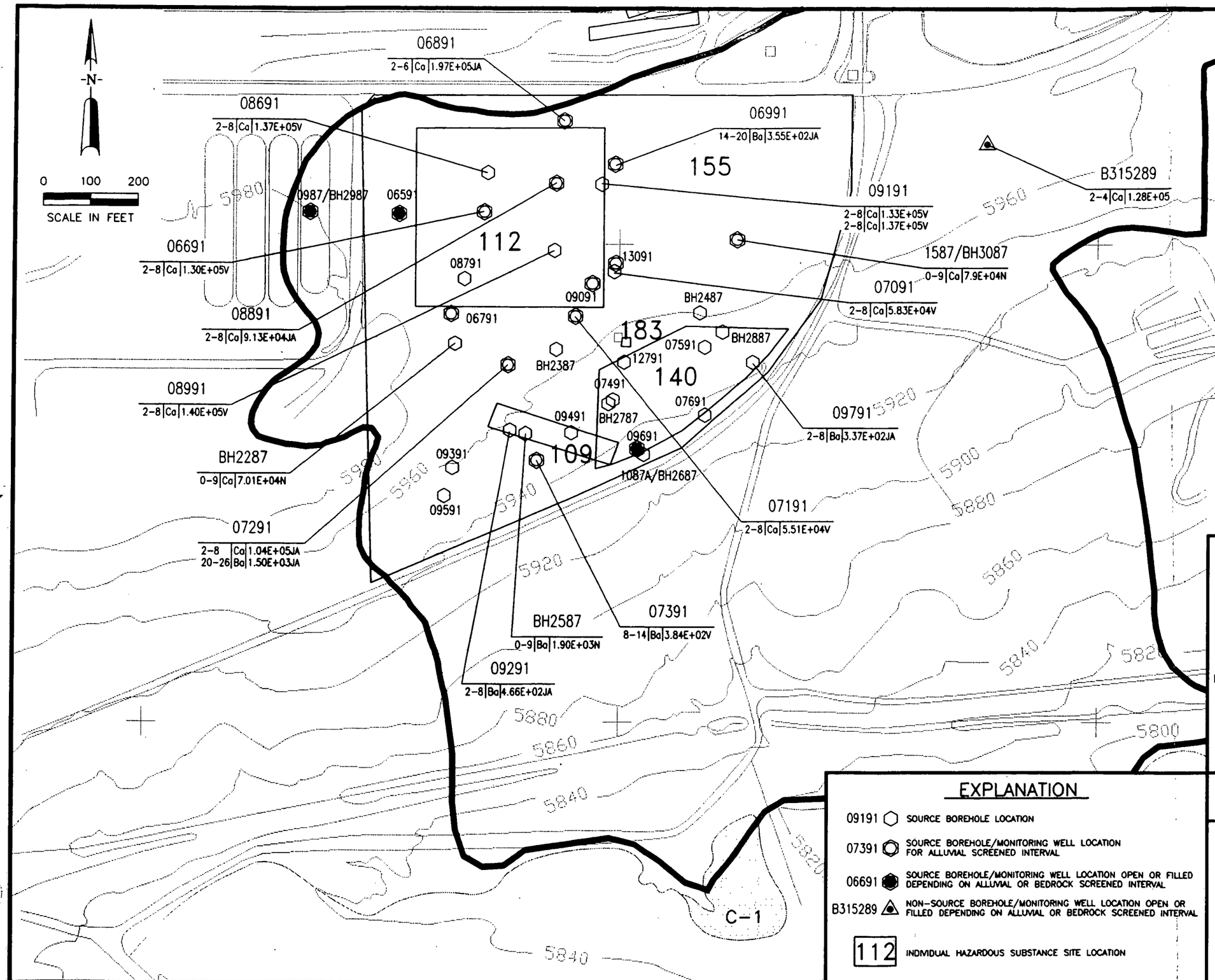
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT

PCOC METALS
903 PAD SOURCE AREA
(WESTERN PORTION)
SUBSURFACE SOILS

FIGURE 4.3-7

APRIL 1995

OU2RI552 1=200



NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

EXPLANATION

08691 ← LOCATION

2-8

- SAMPLE INTERVAL (ft)
- ANALYTE
- ANALYTE CONCENTRATION (mg/kg), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:

ALL ANALYTE CONCENTRATIONS ARE REPORTED IN mg/kg (parts per million). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.

SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.

EXPLANATION

09191 SOURCE BOREHOLE LOCATION

07391 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR ALLUVIAL SCREENED INTERVAL

06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL

B315289 NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL

112 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

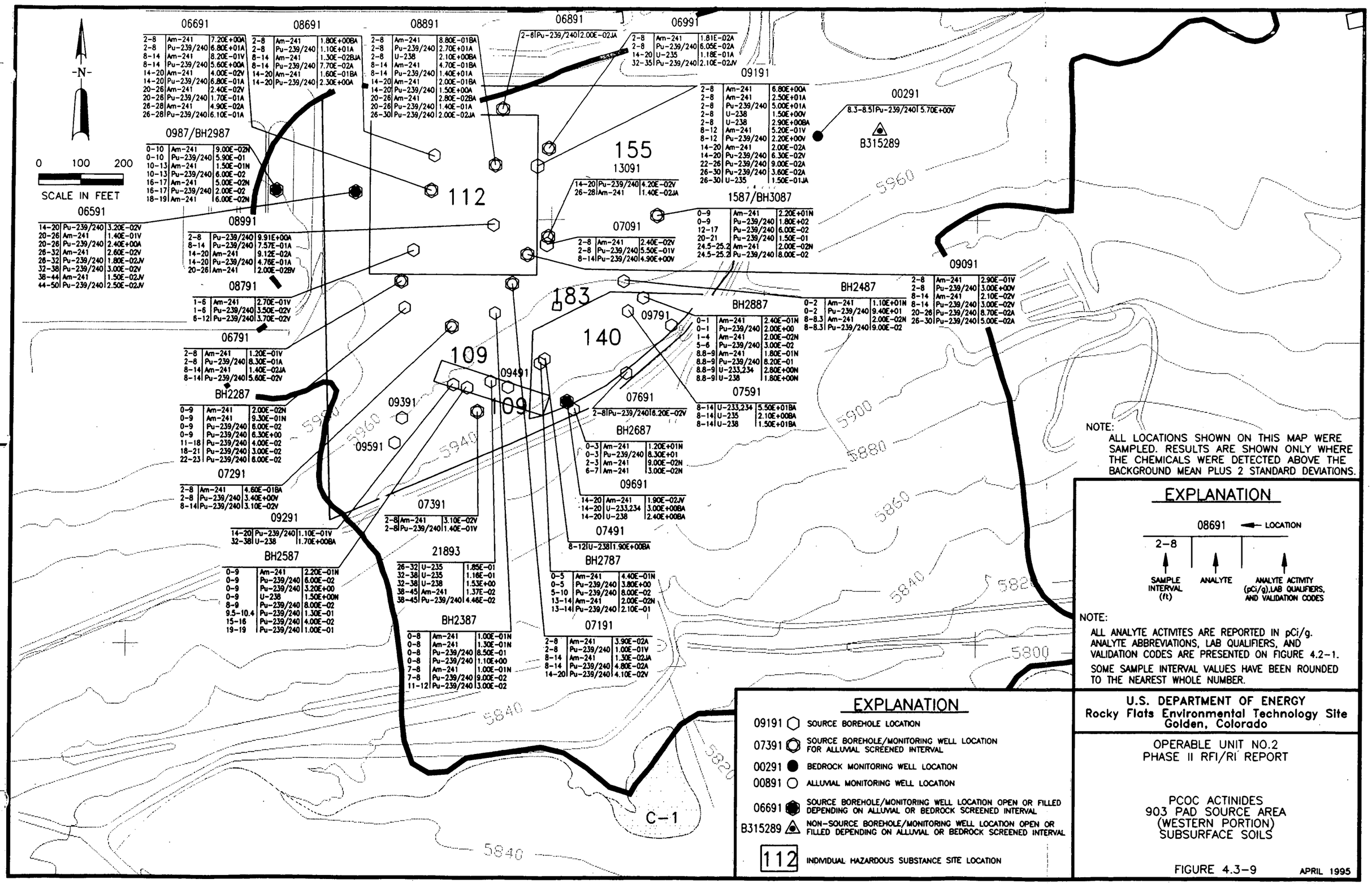
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado

OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT

PCOC METALS
(Ba, Ca)
903 PAD SOURCE AREA
(WESTERN PORTION)
SUBSURFACE SOILS

FIGURE 4.3-8 APRIL 1995

OU2RI547 1=200



NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

EXPLANATION

08691 ← LOCATION

2-8

SAMPLE INTERVAL (ft) | ANALYTE | ANALYTE ACTIVITY (pCi/g), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE ACTIVITES ARE REPORTED IN pCi/g. ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.

EXPLANATION

09191 SOURCE BOREHOLE LOCATION

07391 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR ALLUVIAL SCREENED INTERVAL

00291 BEDROCK MONITORING WELL LOCATION

00891 ALLUVIAL MONITORING WELL LOCATION

06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL

B315289 NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL

112 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

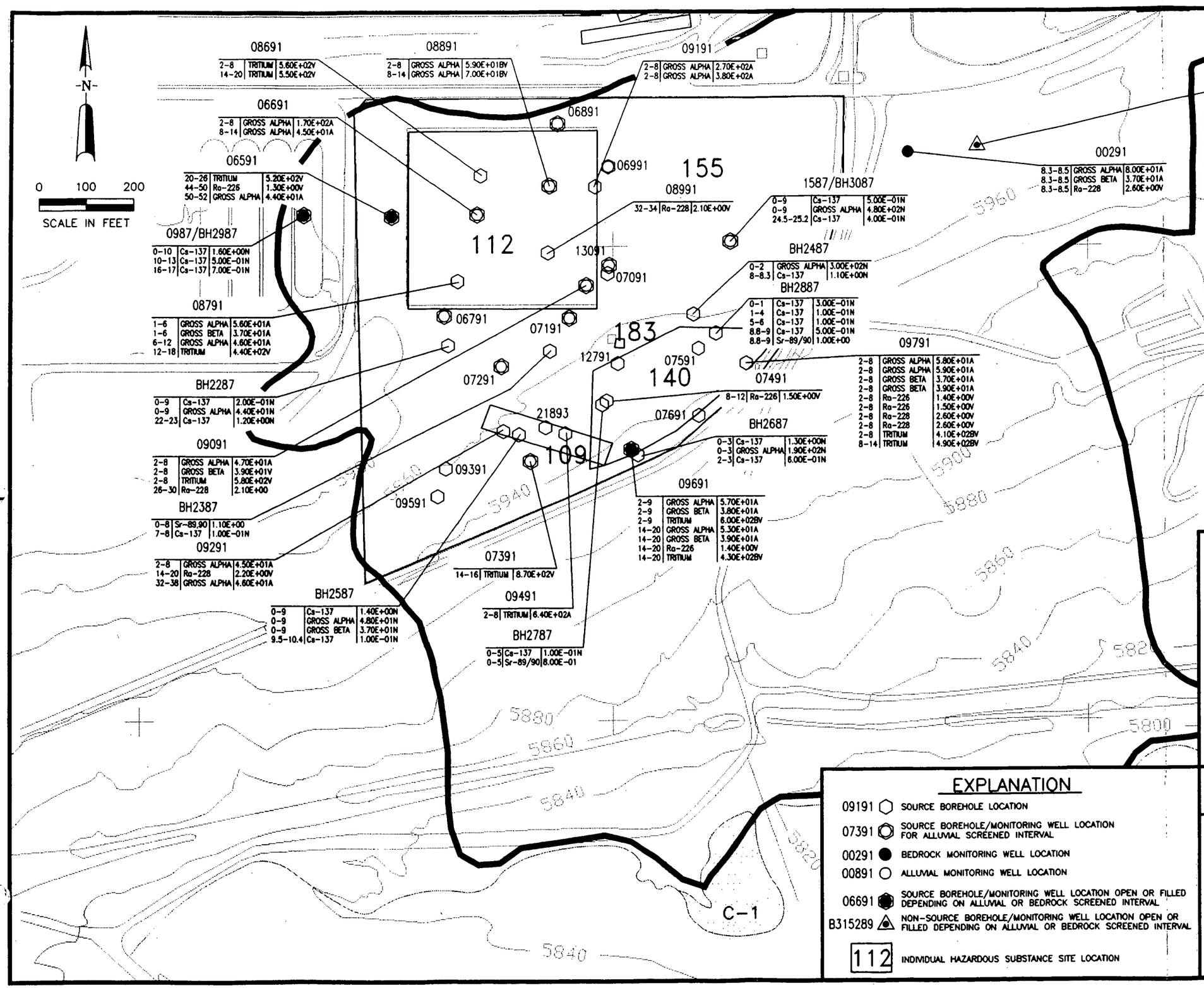
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado

OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT

PCOC ACTINIDES
903 PAD SOURCE AREA
(WESTERN PORTION)
SUBSURFACE SOILS

FIGURE 4.3-9 APRIL 1995

OU2RI562 1=200



NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

EXPLANATION

08691 ← LOCATION

2-8

SAMPLE INTERVAL (ft) | ANALYTE | ANALYTE ACTIVITY (pCi/g), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE ACTIVITES ARE REPORTED IN pCi/g. ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.

EXPLANATION

09191 SOURCE BOREHOLE LOCATION

07391 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR ALLUVIAL SCREENED INTERVAL

00291 BEDROCK MONITORING WELL LOCATION

00891 ALLUVIAL MONITORING WELL LOCATION

06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL

B315289 NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL

112 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

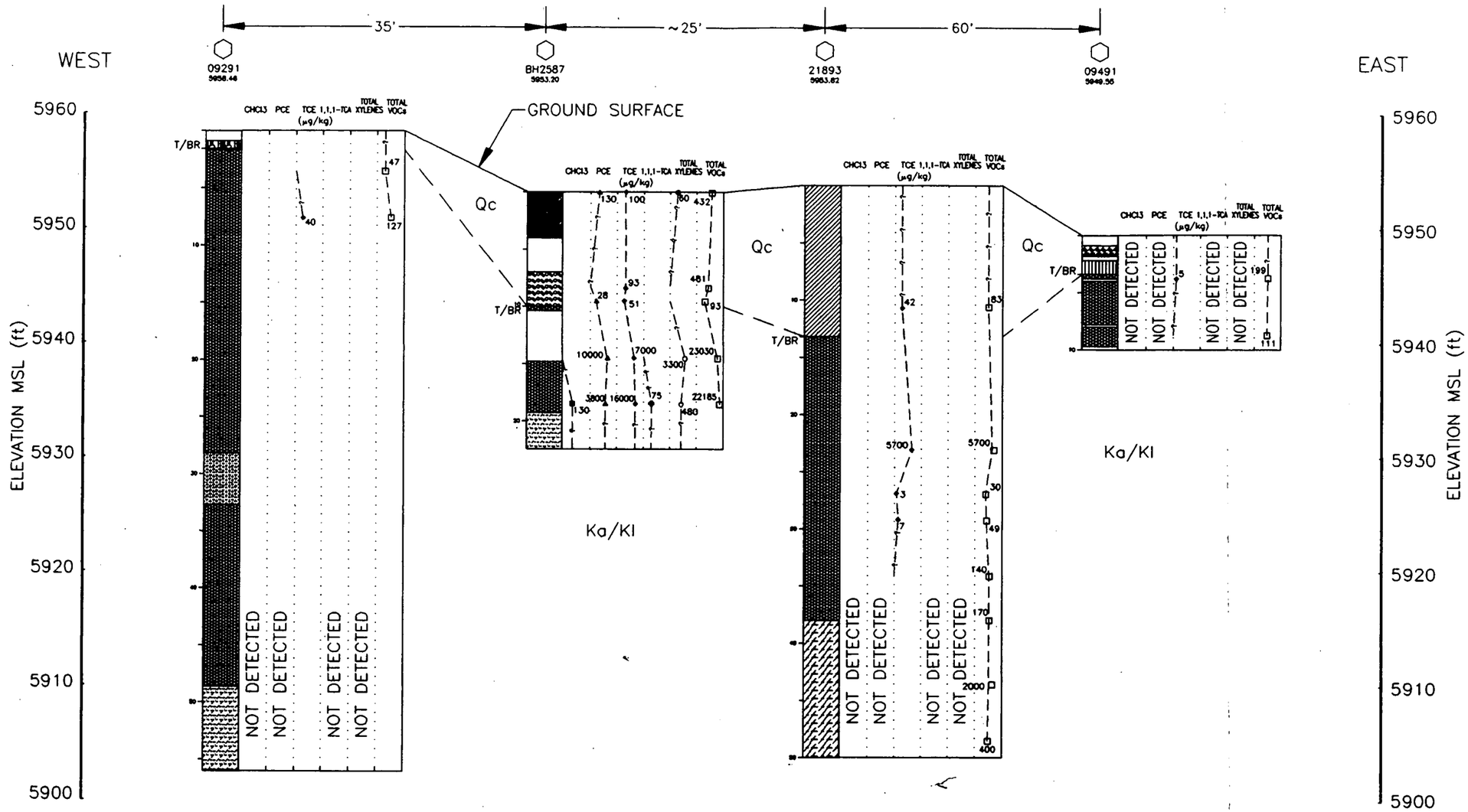
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado

OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT

PCOC RADIONUCLIDES
(NON-ACTINIDES)
903 PAD SOURCE AREA
(WESTERN PORTION)
SUBSURFACE SOILS

FIGURE 4.3-10 APRIL 1995

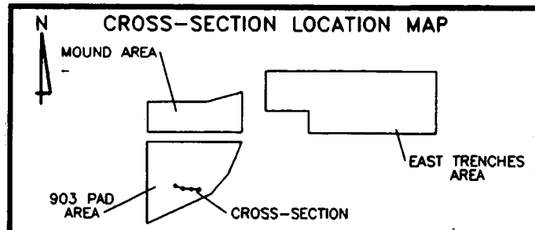
OU2RI557 1=200



VERTICAL 0 – 10 SCALE IN FEET

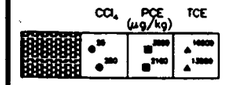
NOTE: HORIZONTAL DISTANCE NOT TO SCALE.

CROSS-SECTION LOCATION MAP



EXPLANATION

T/BR = TOP OF BEDROCK
⬡ = LOCATION SYMBOL
3486 = LOCATION NAME
5912.00 = GROUND SURFACE ELEVATION (ft)



EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (µg/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

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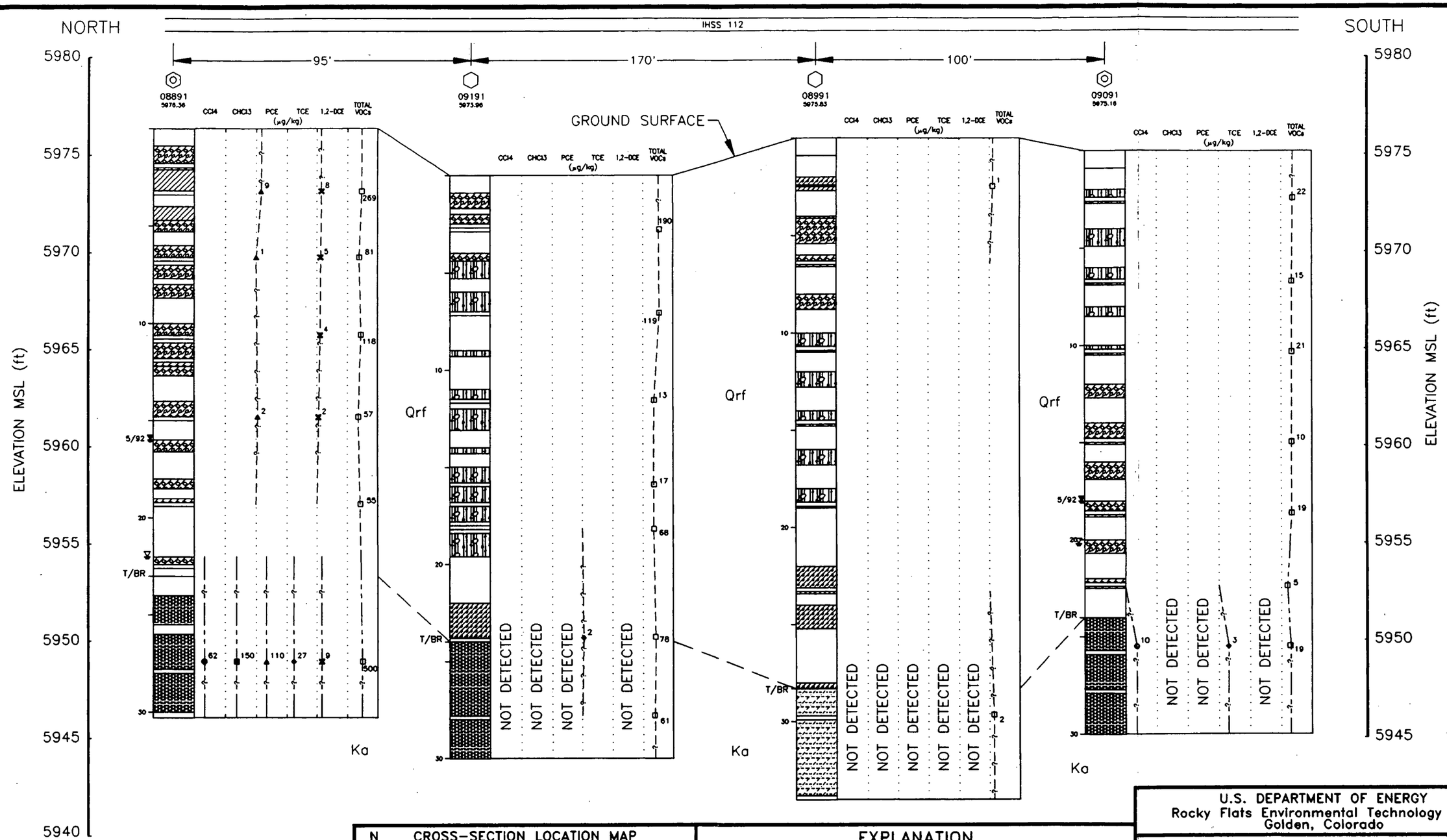
OPERABLE UNIT 2
PHASE II RFI/RI REPORT

SOURCE BOREHOLE CROSS-SECTION IHSS 109 (TRENCH T-2)

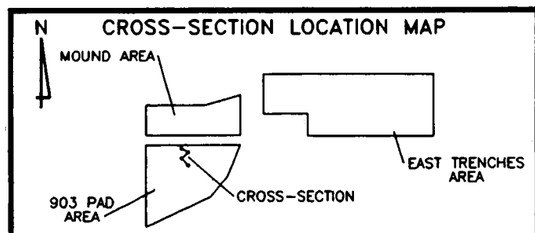
FIGURE 4.3-11 APRIL 1995

OU2RI644 1-1



VERTICAL 0 5 SCALE IN FEET

NOTE: HORIZONTAL DISTANCE NOT TO SCALE.



EXPLANATION

T/BR = TOP OF BEDROCK
⬡ = LOCATION SYMBOL
3486 = LOCATION NAME
5912.00 = GROUND SURFACE ELEVATION (ft)

EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (µg/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

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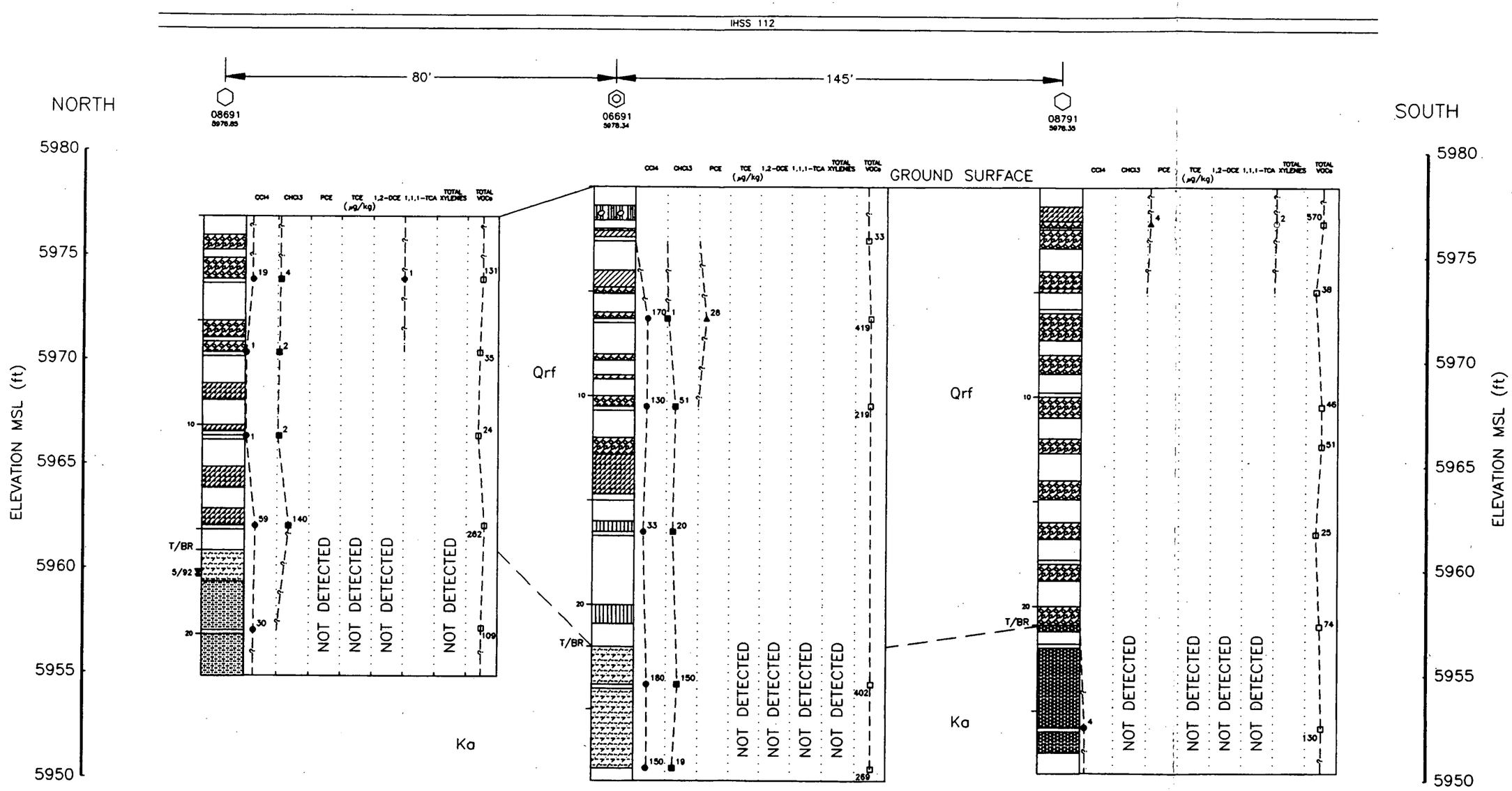
PHASE II RFI/RI REPORT

SOURCE BOREHOLE CROSS-SECTION IHSS 112 (903 PAD) EASTERN CROSS-SECTION

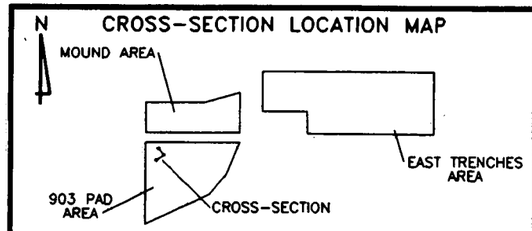
FIGURE 4.3-12 APRIL 1995

OU2RI645 1=1



VERTICAL 0 — 5 SCALE IN FEET

NOTE: HORIZONTAL DISTANCE NOT TO SCALE.



EXPLANATION

T/BR = TOP OF BEDROCK
⬡ = LOCATION SYMBOL
3486 = LOCATION NAME
5912.00 = GROUND SURFACE ELEVATION (ft)

EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (µg/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

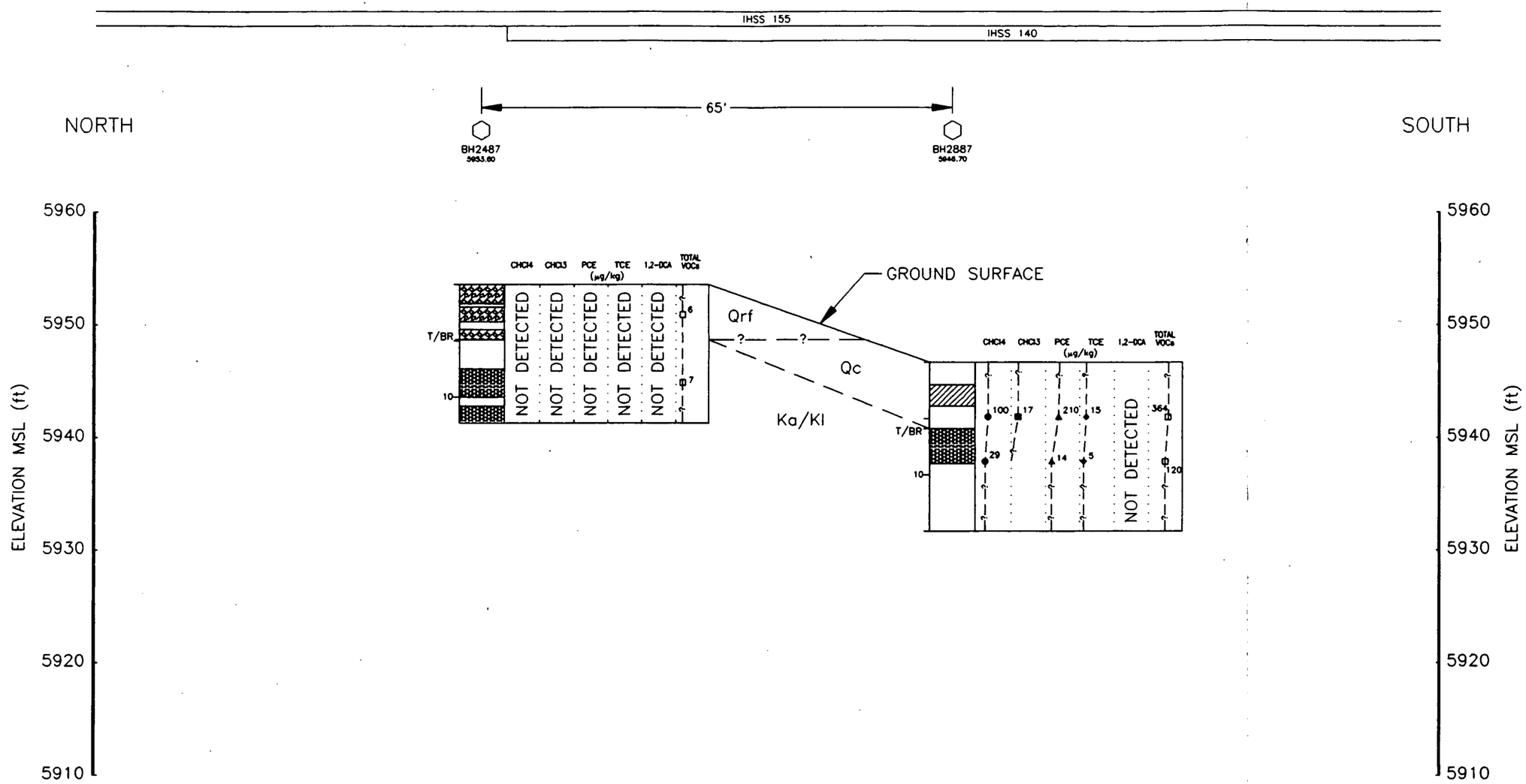
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado

OPERABLE UNIT 2
PHASE II RFI/RI REPORT

SOURCE BOREHOLE
CROSS-SECTION
IHSS 112 (903 PAD)
WESTERN CROSS-SECTION

FIGURE 4.3-13 APRIL 1995

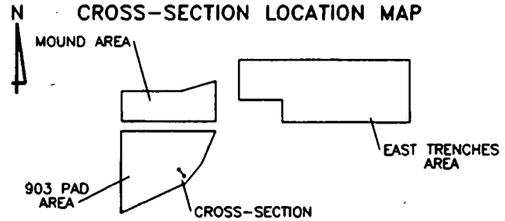
OU2RI646 1=1



VERTICAL 0 — 10 SCALE IN FEET

NOTE: HORIZONTAL DISTANCE NOT TO SCALE.

CROSS-SECTION LOCATION MAP



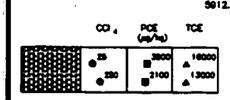
EXPLANATION

T/BR = TOP OF BEDROCK

⬡ = LOCATION SYMBOL

3486 = LOCATION NAME

5912.00 = GROUND SURFACE ELEVATION (ft)



EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (µg/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

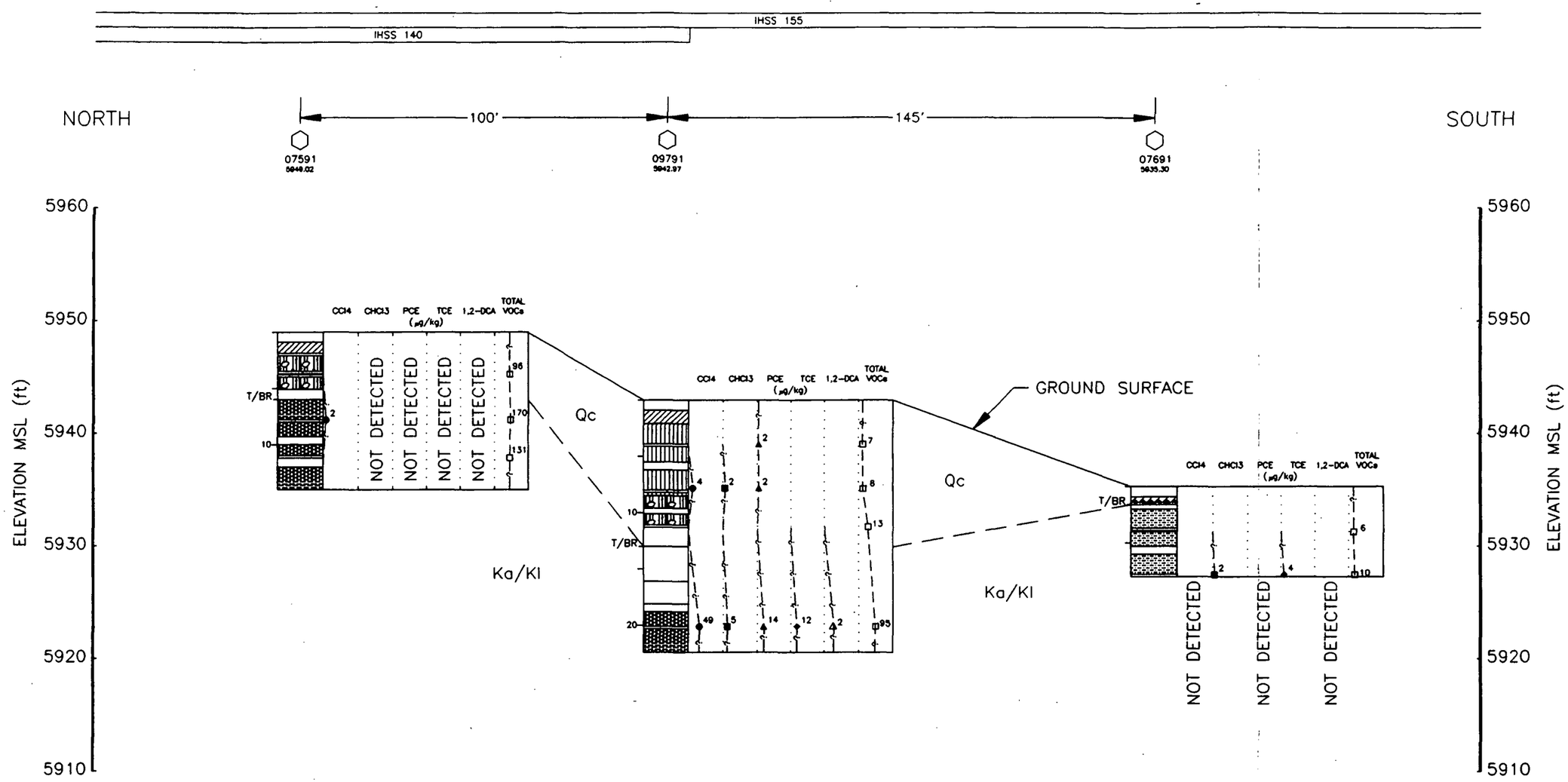
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado

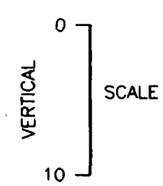
OPERABLE UNIT 2
PHASE II RFI/RI REPORT

SOURCE BOREHOLE
CROSS-SECTION
IHSS 140
(REACTIVE METAL DESTRUCTION SITE)
EASTERN CROSS-SECTION
(SHEET 1 OF 2)

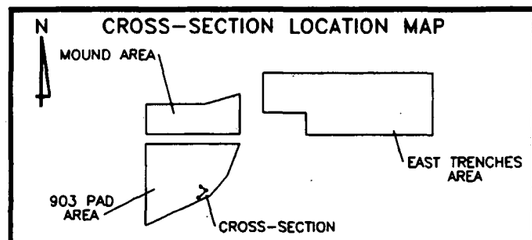
FIGURE 4.3-14 APRIL 1995

OU2RI647 1=1





NOTE: HORIZONTAL DISTANCE NOT TO SCALE.



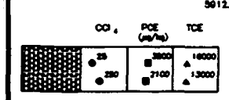
EXPLANATION

T/BR = TOP OF BEDROCK

⬡ = LOCATION SYMBOL

3486 = LOCATION NAME

5912.00 = GROUND SURFACE ELEVATION (ft)



EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (µg/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

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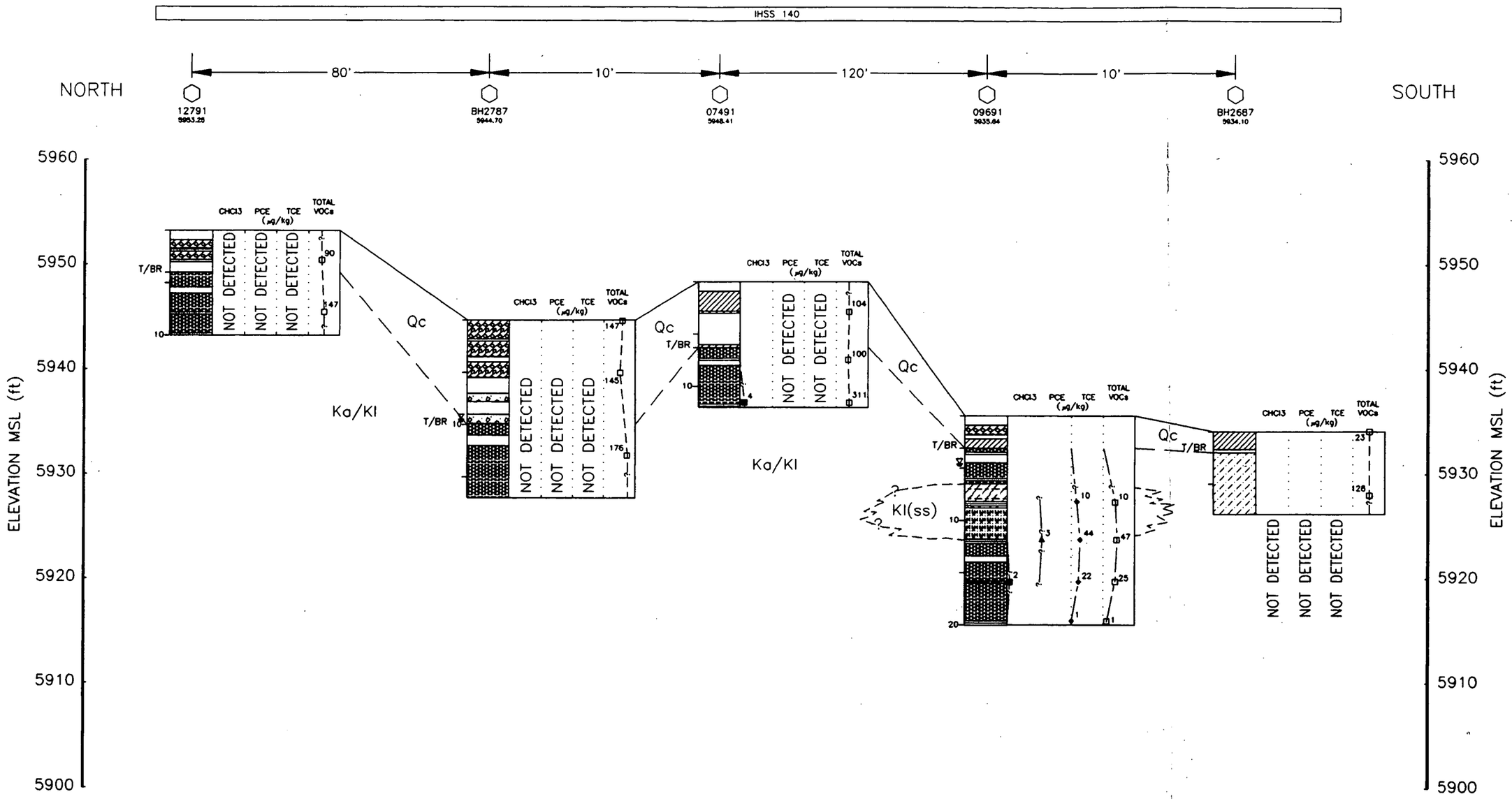
Rocky Flats Environmental Technology Site
Golden, Colorado

OPERABLE UNIT 2
PHASE II RFI/RI REPORT

SOURCE BOREHOLE
CROSS-SECTION
IHSS 140
(REACTIVE METAL DESTRUCTION SITE)
EASTERN CROSS-SECTION
(SHEET 2 OF 2)

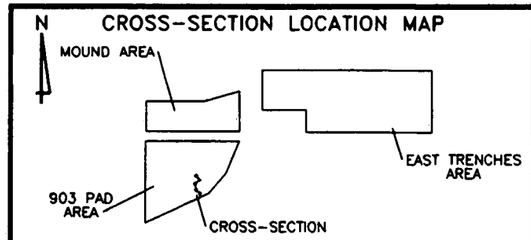
FIGURE 4.3-14 APRIL 1995

OU2RI648 1=1



VERTICAL 0 — 10 SCALE IN FEET

NOTE: HORIZONTAL DISTANCE NOT TO SCALE.



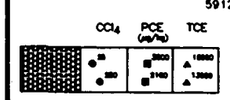
EXPLANATION

T/BR = TOP OF BEDROCK

⬡ = LOCATION SYMBOL

3486 = LOCATION NAME

5912.00 = GROUND SURFACE ELEVATION (ft)



EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (µg/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

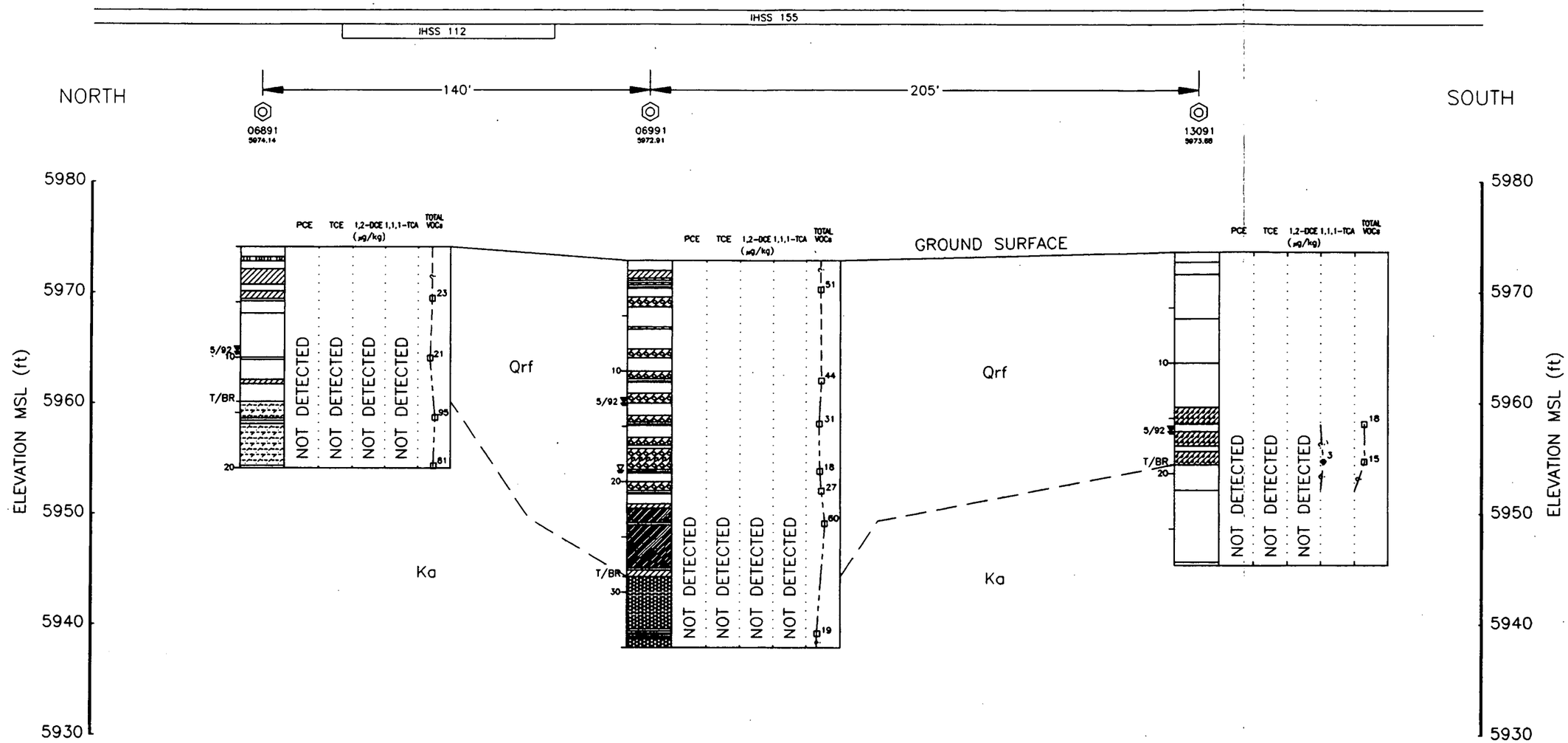
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado

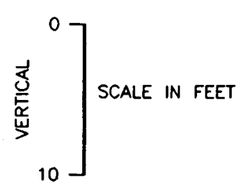
OPERABLE UNIT 2
PHASE II RFI/RI REPORT

SOURCE BOREHOLE CROSS-SECTION IHSS 140 (REACTIVE METAL DESTRUCTION SITE) WESTERN CROSS-SECTION

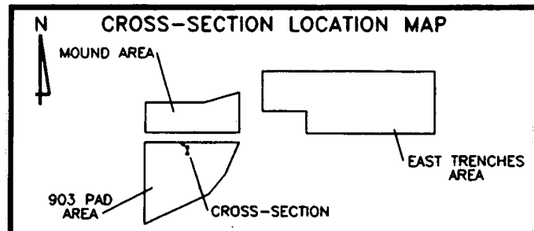
FIGURE 4.3-15 APRIL 1995

OU2RI649 1=1





NOTE: HORIZONTAL DISTANCE NOT TO SCALE.



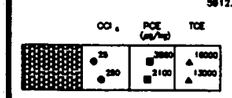
EXPLANATION

T/BR = TOP OF BEDROCK

⬡ = LOCATION SYMBOL

3486 = LOCATION NAME

5912.00 = GROUND SURFACE ELEVATION (ft)



EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (µg/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

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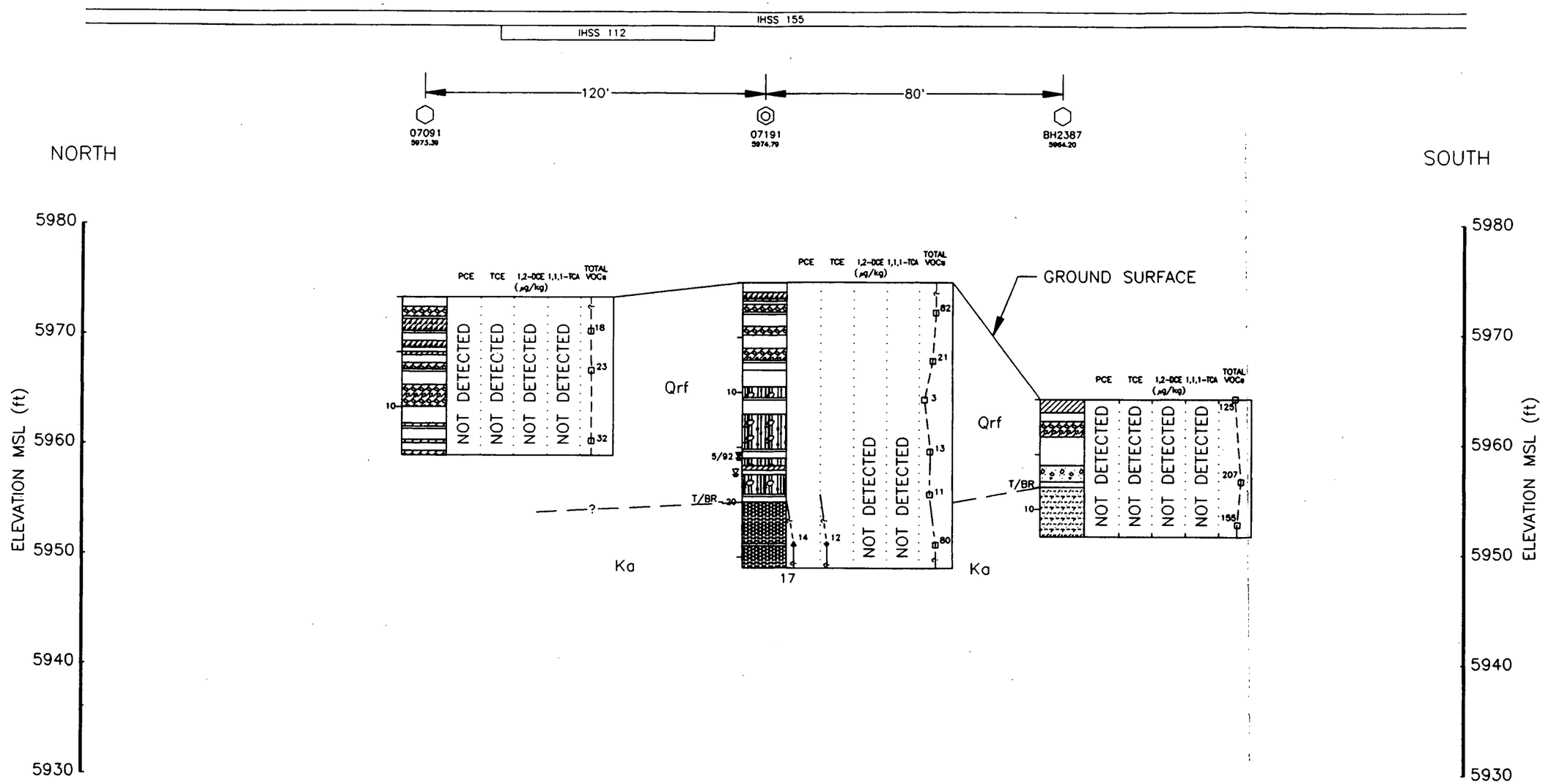
Rocky Flats Environmental Technology Site
Golden, Colorado

OPERABLE UNIT 2
PHASE II RFI/RI REPORT

SOURCE BOREHOLE
CROSS-SECTION
IHSS 155 (903 LIP)
EASTERN CROSS-SECTION
(SHEET 1 OF 2)

FIGURE 4.3-16 APRIL 1995

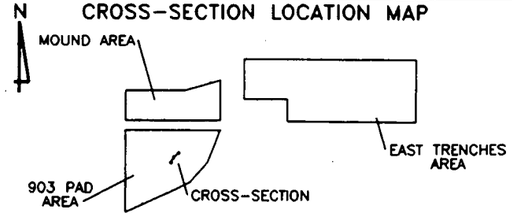
OU2RI650 1=1



VERTICAL 0 — 10 SCALE IN FEET

NOTE: HORIZONTAL DISTANCE NOT TO SCALE.

CROSS-SECTION LOCATION MAP



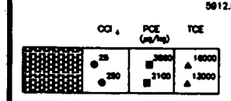
EXPLANATION

T/BR = TOP OF BEDROCK

⬡ = LOCATION SYMBOL

3486 = LOCATION NAME

5912.00 = GROUND SURFACE ELEVATION (ft)



EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (µg/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

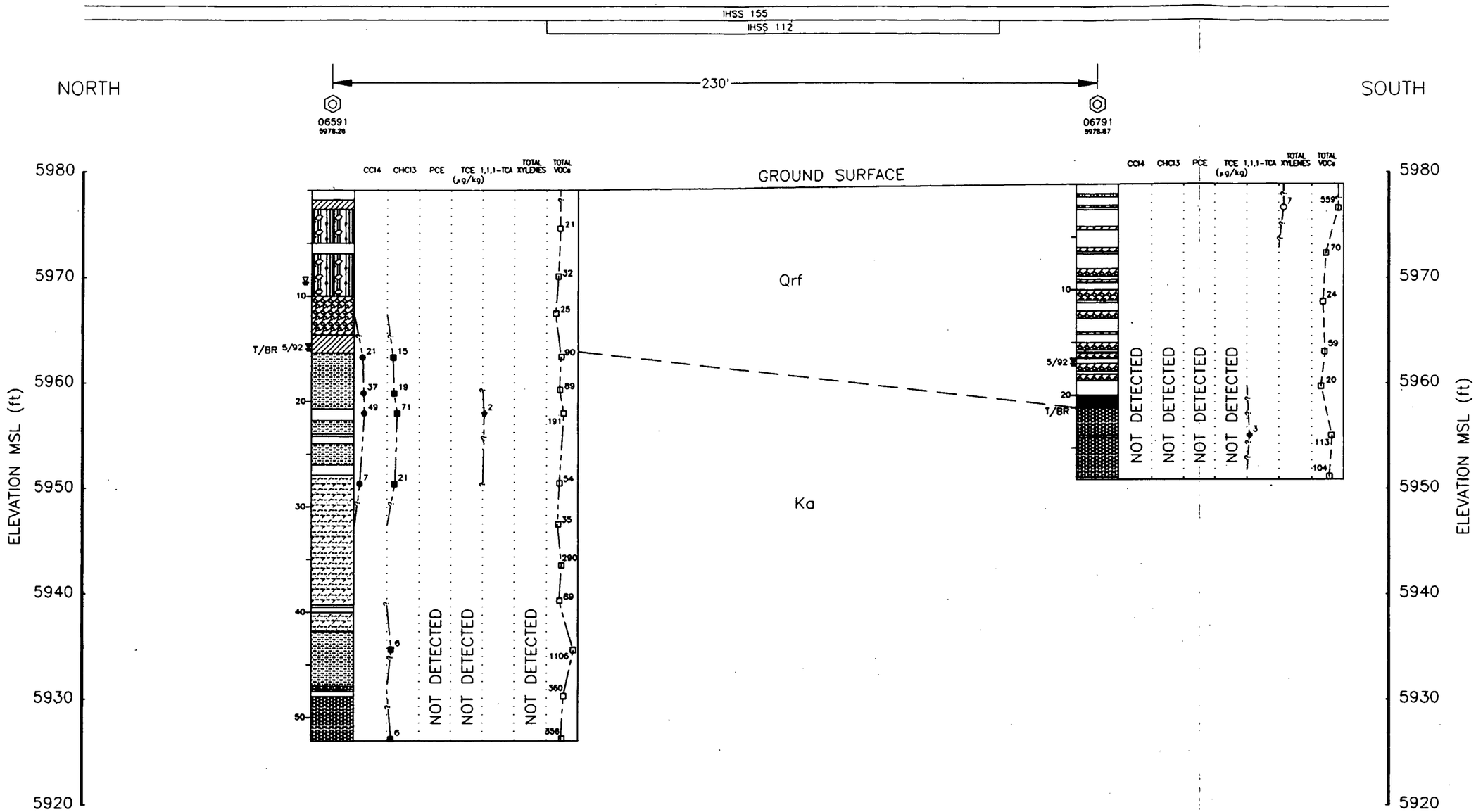
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado

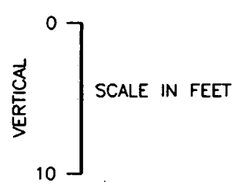
OPERABLE UNIT 2
PHASE II RFI/RI REPORT

SOURCE BOREHOLE CROSS-SECTION IHSS 155 (903 LIP) EASTERN CROSS-SECTION (SHEET 2 OF 2)

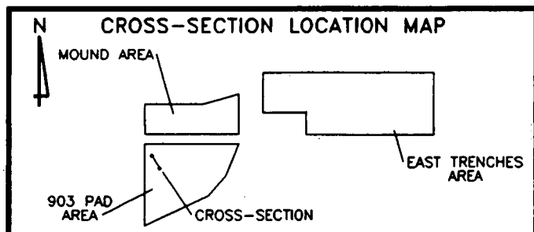
FIGURE 4.3-16 APRIL 1995

OU2RI651 1=1



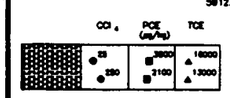


NOTE: HORIZONTAL DISTANCE NOT TO SCALE.



EXPLANATION

T/BR = TOP OF BEDROCK
⬡ = LOCATION SYMBOL
3486 = LOCATION NAME
5912.00 = GROUND SURFACE ELEVATION (ft)



EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (µg/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

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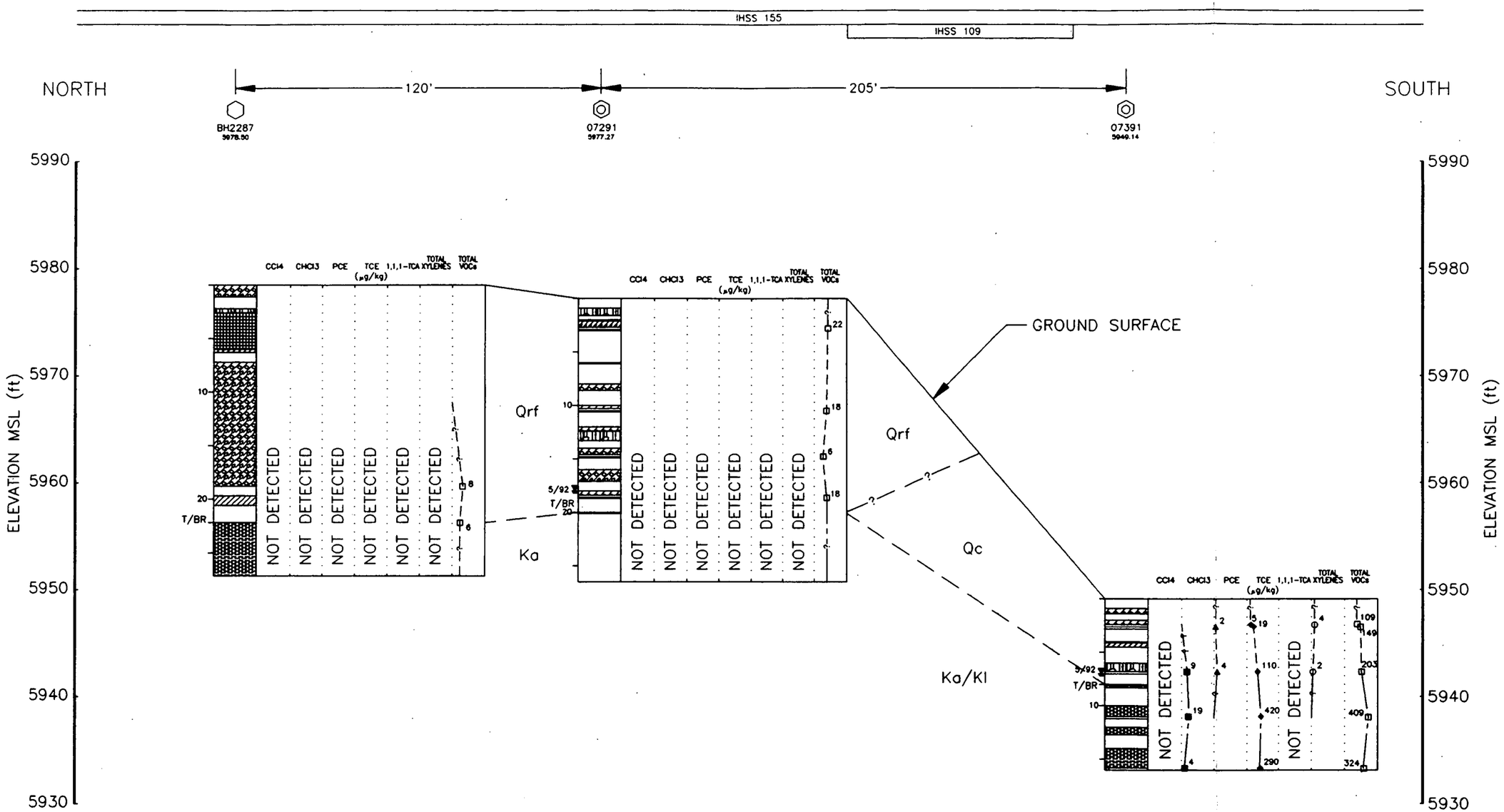
Rocky Flats Environmental Technology Site
Golden, Colorado

OPERABLE UNIT 2
PHASE II RFI/RI REPORT

SOURCE BOREHOLE CROSS-SECTION IHSS 155 (903 LIP) WESTERN CROSS-SECTION (SHEET 1 OF 2)

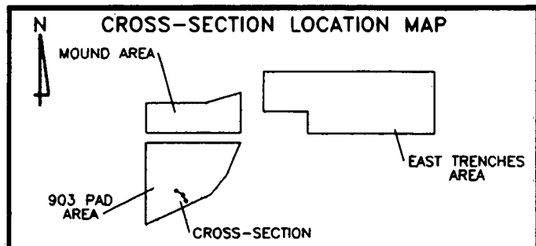
FIGURE 4.3-17 APRIL 1995

OU2RI652 1-1



VERTICAL 0 — 10 SCALE IN FEET

NOTE: HORIZONTAL DISTANCE NOT TO SCALE.



EXPLANATION

T/BR = TOP OF BEDROCK
⬡ = LOCATION SYMBOL
3486 = LOCATION NAME
5912.00 = GROUND SURFACE ELEVATION (ft)

EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (µg/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

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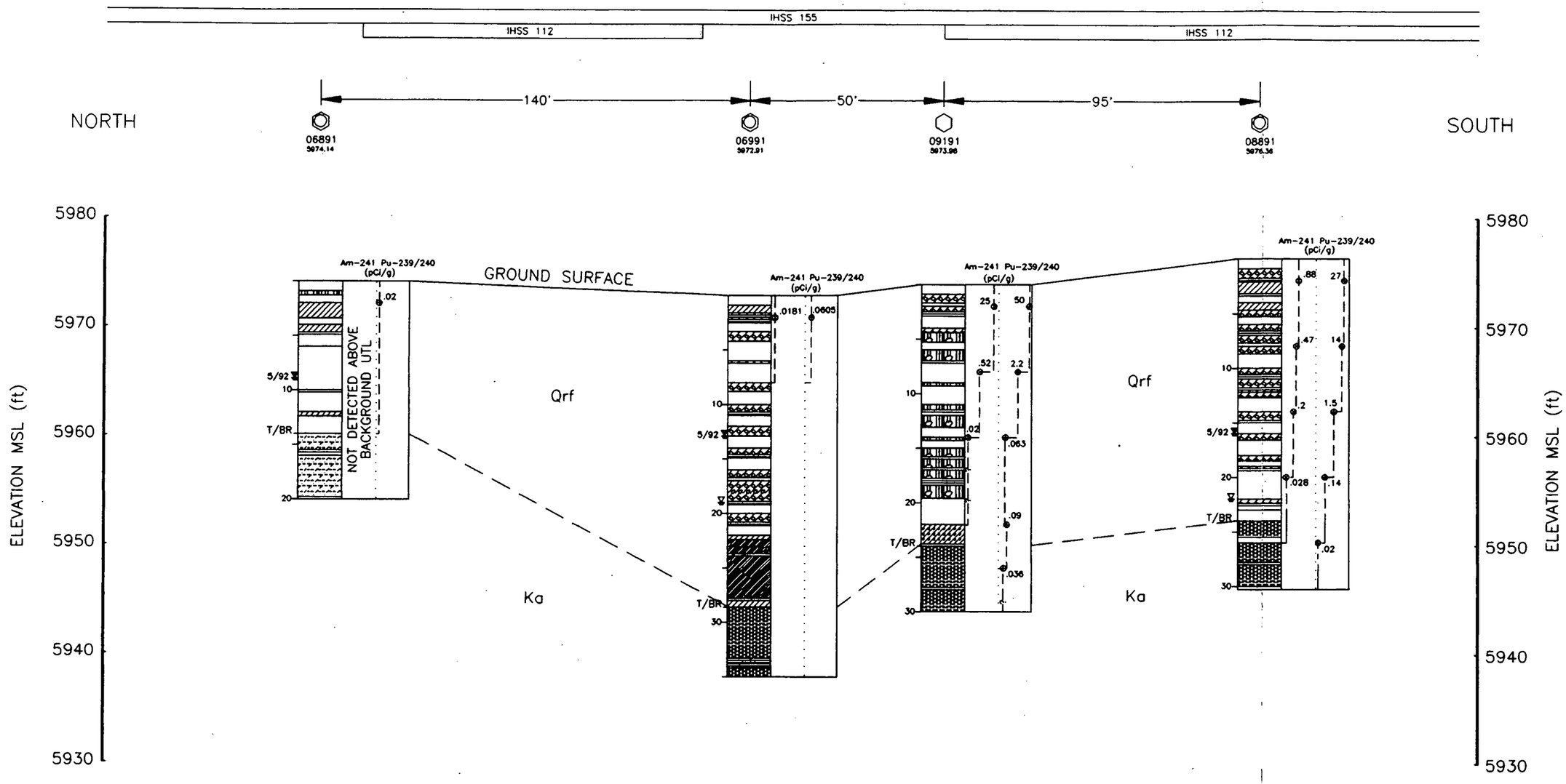
OPERABLE UNIT 2
PHASE II RFI/RI REPORT

SOURCE BOREHOLE
CROSS-SECTION
IHSS 155 (903 LIP)
WESTERN CROSS-SECTION
(SHEET 2 OF 2)

FIGURE 4.3-17 APRIL 1995

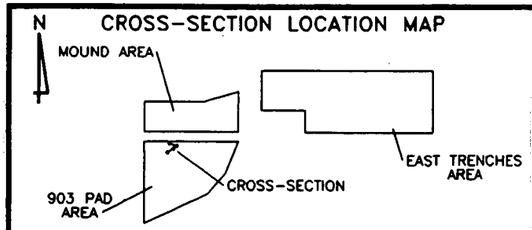
OU2RI653 1=1



VERTICAL 0 — 10 SCALE IN FEET

NOTE: HORIZONTAL DISTANCE NOT TO SCALE.

CROSS-SECTION LOCATION MAP



NOTE: ALL ANALYTICAL VALUES REPORTED ARE GREATER THAN THE BACKGROUND MEAN PLUS TWO STANDARD DEVIATIONS.

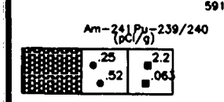
EXPLANATION

T/BR = TOP OF BEDROCK

⬡ = LOCATION SYMBOL

3486 = LOCATION NAME

5912.00 = GROUND SURFACE ELEVATION (ft)



EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 100 (pCi/g). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

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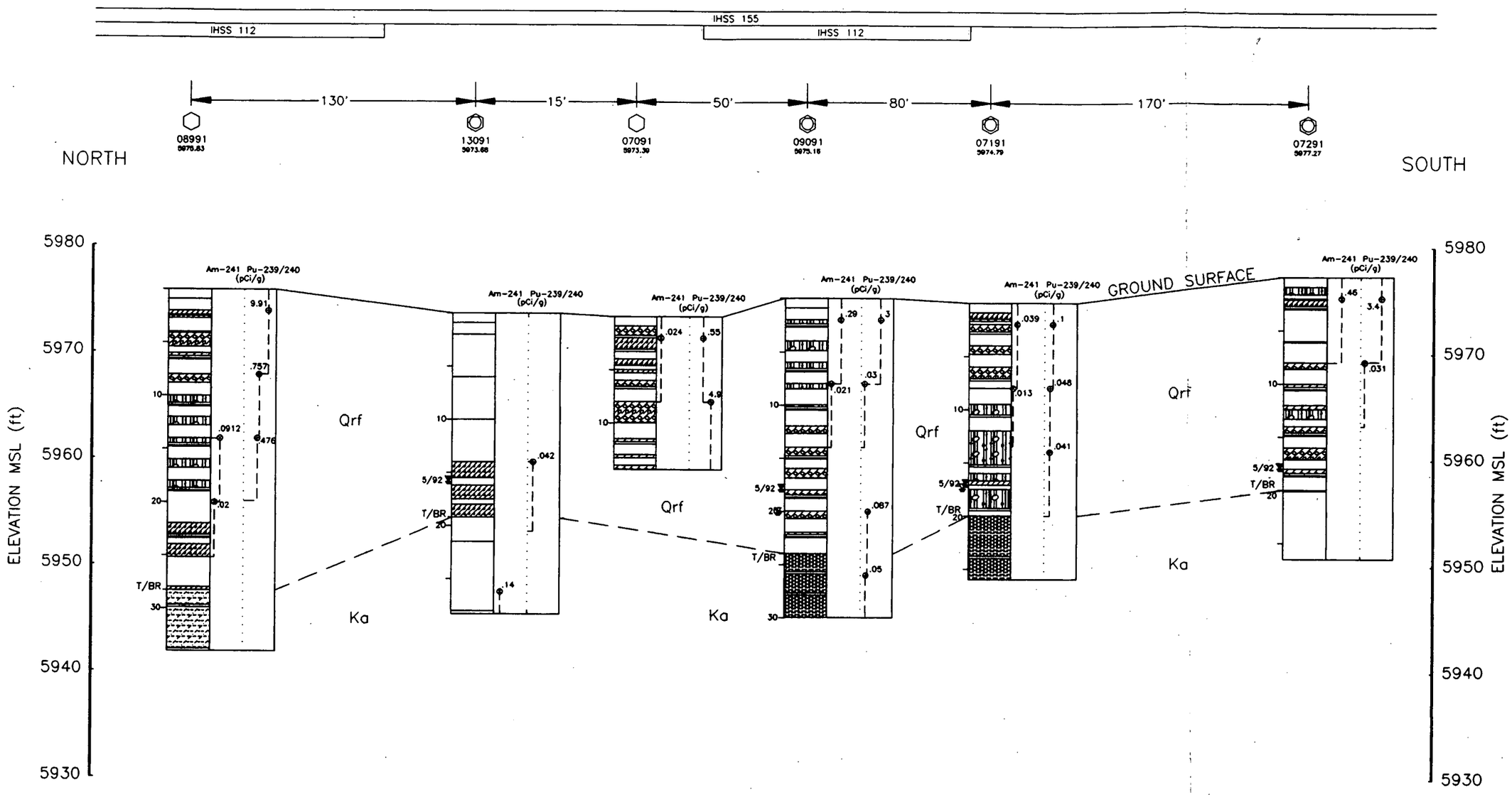
PHASE II RFI/RI REPORT

RADIONUCLIDE SOURCE BOREHOLE CROSS-SECTION
IHSS 112 (903 PAD)
EASTERN CROSS-SECTION
(SHEET 1 OF 2)

FIGURE 4.3-18 APRIL 1995

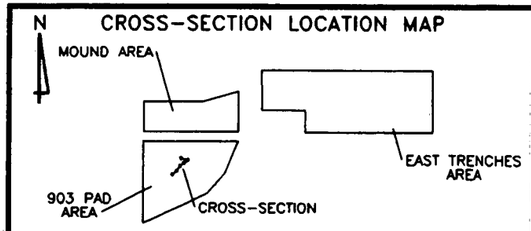
OU2RI666 1=1



VERTICAL 0 — 10 SCALE IN FEET

NOTE: HORIZONTAL DISTANCE NOT TO SCALE.

CROSS-SECTION LOCATION MAP



NOTE: ALL ANALYTICAL VALUES REPORTED ARE GREATER THAN THE BACKGROUND MEAN PLUS TWO STANDARD DEVIATIONS.

EXPLANATION

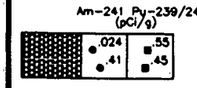
T/BR = TOP OF BEDROCK

⬡ = LOCATION SYMBOL

3486 = LOCATION NAME

5912.00 = GROUND SURFACE ELEVATION (ft)

Am-241 Pu-239/240 (pCi/g)



EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 100 (pCi/g). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

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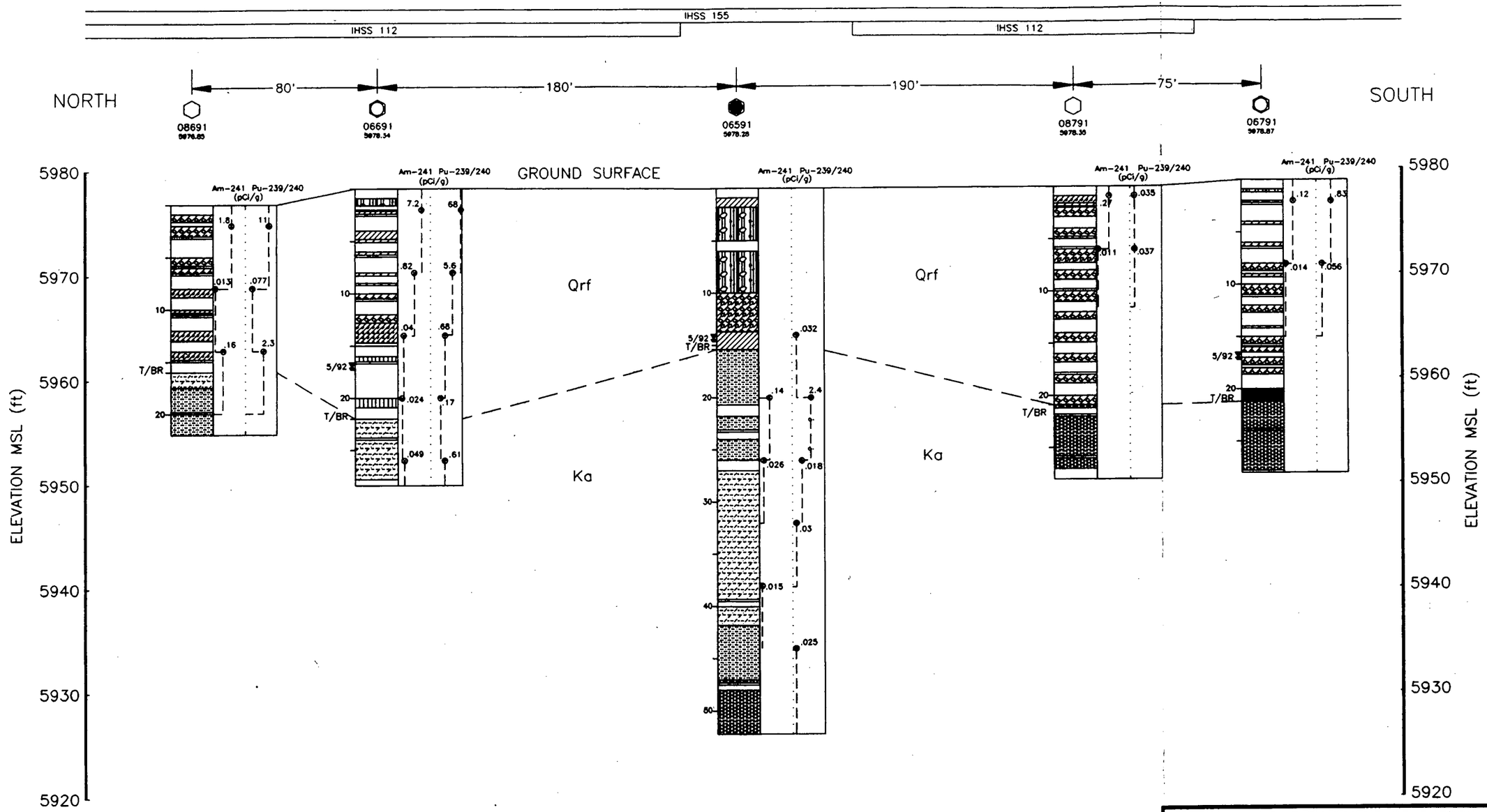
PHASE II RFI/RI REPORT

RADIONUCLIDE SOURCE BOREHOLE CROSS-SECTION
IHSS 112 (903 PAD)
EASTERN CROSS-SECTION
(SHEET 2 OF 2)

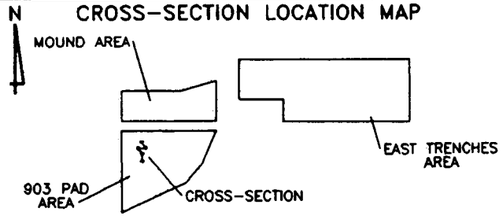
FIGURE 4.3-18 APRIL 1995



VERTICAL 0 — 10 SCALE IN FEET

NOTE: HORIZONTAL DISTANCE NOT TO SCALE.

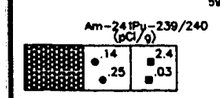
CROSS-SECTION LOCATION MAP



NOTE: ALL ANALYTICAL VALUES REPORTED ARE GREATER THAN THE BACKGROUND MEAN PLUS TWO STANDARD DEVIATIONS.

EXPLANATION

T/BR = TOP OF BEDROCK
⬡ = LOCATION SYMBOL
3486 = LOCATION NAME
5912.00 = GROUND SURFACE ELEVATION (ft)



EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 100 (pCi/g). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

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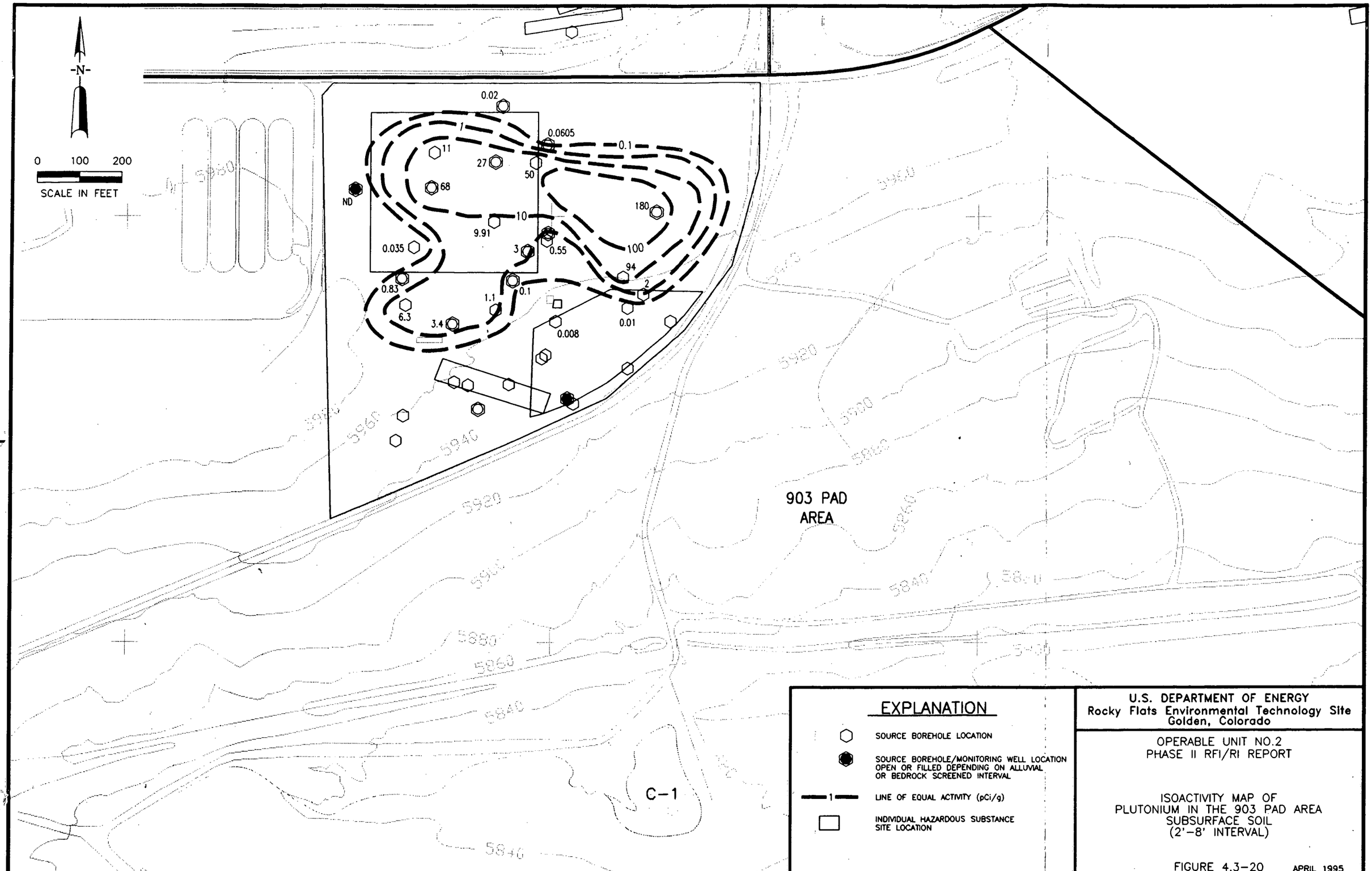
RADIONUCLIDE SOURCE BOREHOLE CROSS-SECTION IHSS 112 (903 PAD) WESTERN CROSS-SECTION

FIGURE 4.3-19 APRIL 1995

OU2RI668 1=1


-N-
0 100 200
SCALE IN FEET
0.02
0.0605
0.1
11
27
50
68
ND
180
10
9.91
0.035
3
0.55
100
94
2
0.83
1.1
0.1
6.3
3.4
0.008
0.01
903 PAD
AREA
C-1
5960
5940
5920
5900
5880
5860
5840
5820
EXPLANATION
SOURCE BOREHOLE LOCATION
SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
1
LINE OF EQUAL ACTIVITY (pCi/g)
INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
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Golden, Colorado
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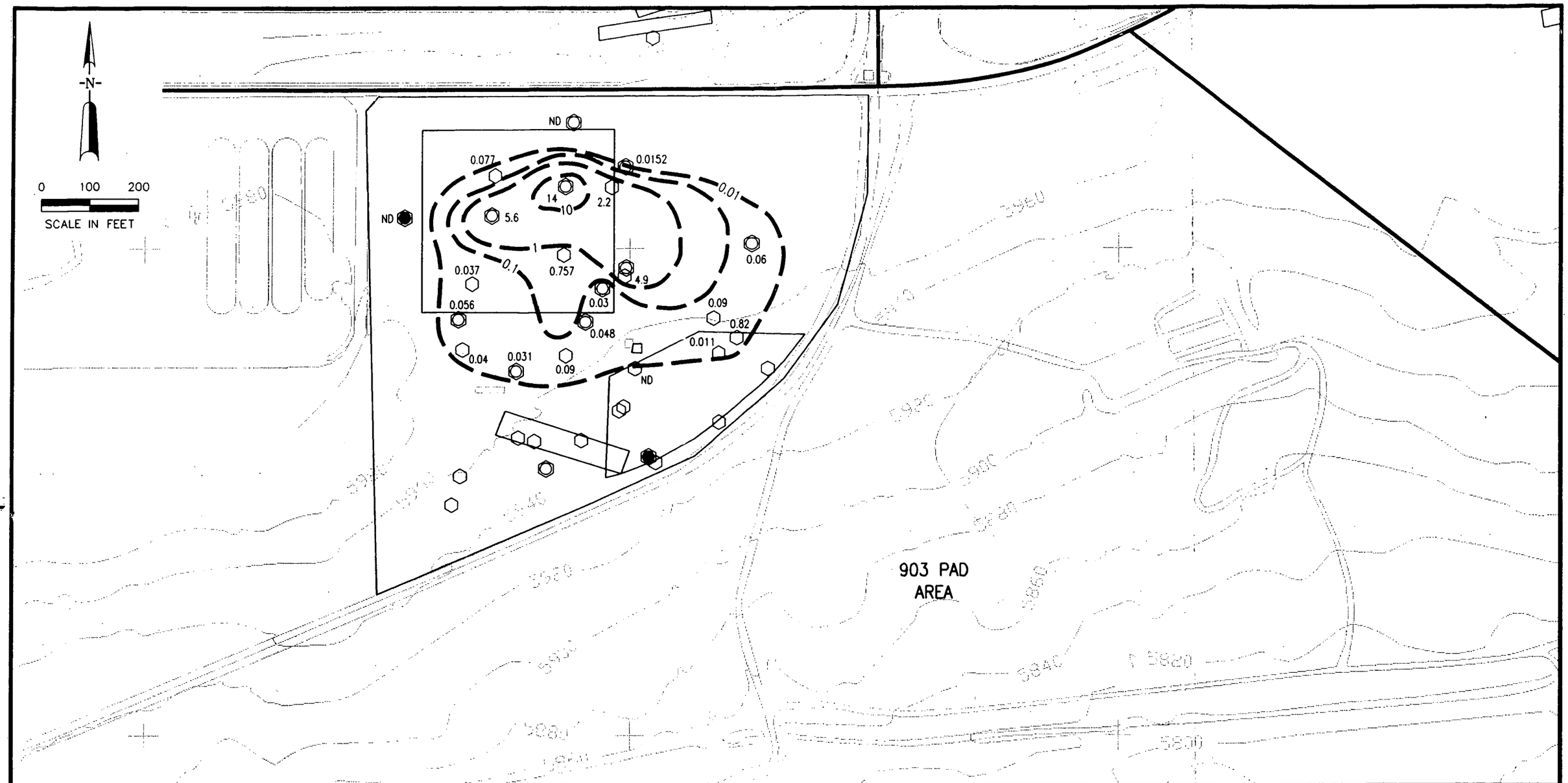
PHASE II RFI/RI REPORT
ISOACTIVITY MAP OF
PLUTONIUM IN THE 903 PAD AREA
SUBSURFACE SOIL
(2'-8' INTERVAL)
FIGURE 4.3-20
APRIL 1995
OU2RI671 1=200



EXPLANATION

- SOURCE BOREHOLE LOCATION
- SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
- 1 — LINE OF EQUAL ACTIVITY (pCi/g)
- INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

U.S. DEPARTMENT OF ENERGY
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OPERABLE UNIT NO.2
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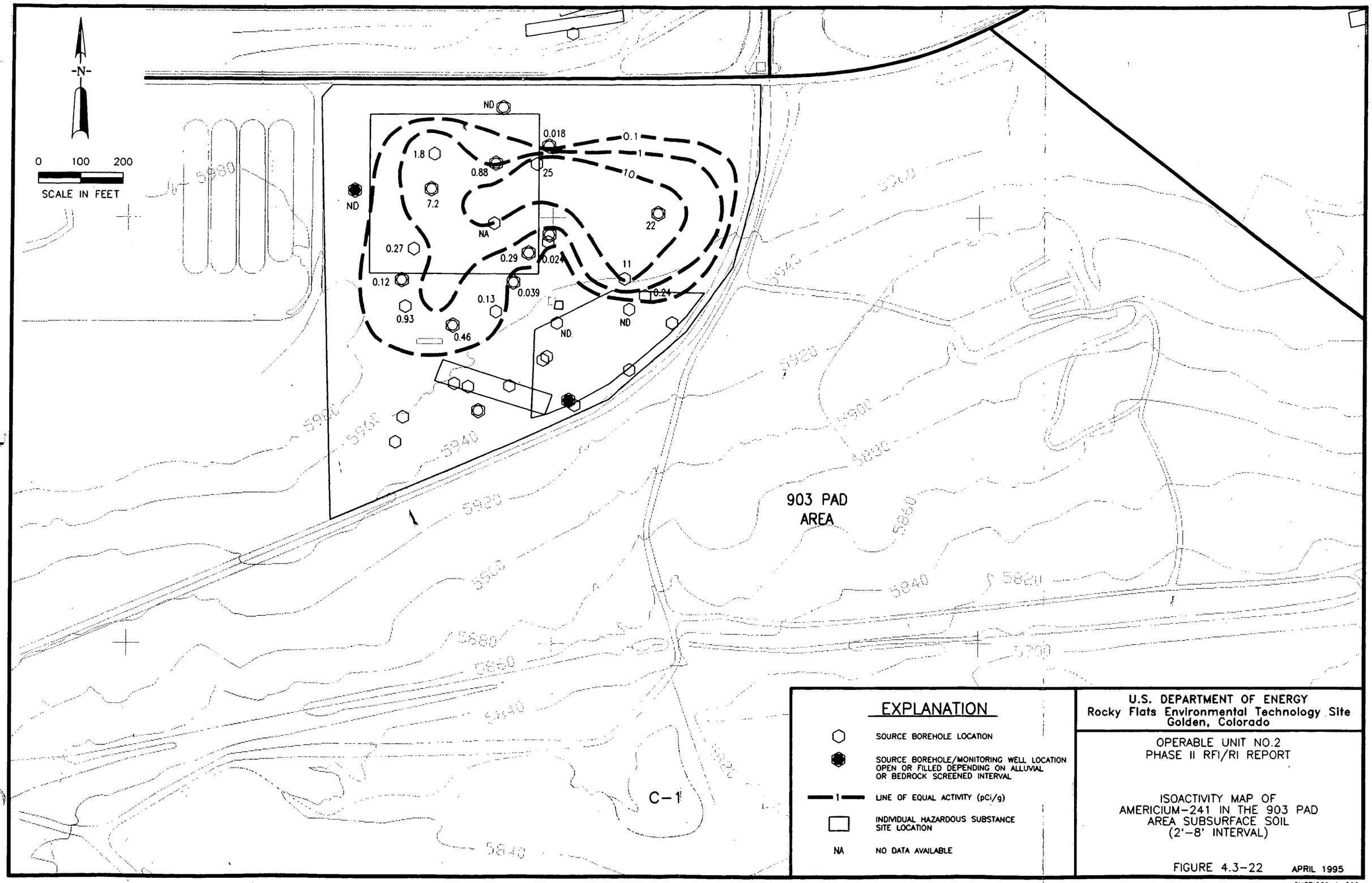
ISOACTIVITY MAP OF PLUTONIUM
IN THE 903 PAD AREA
SUBSURFACE SOIL
(8'-14' INTERVAL)

FIGURE 4.3-21 APRIL 1995

OU2RI672 1=200



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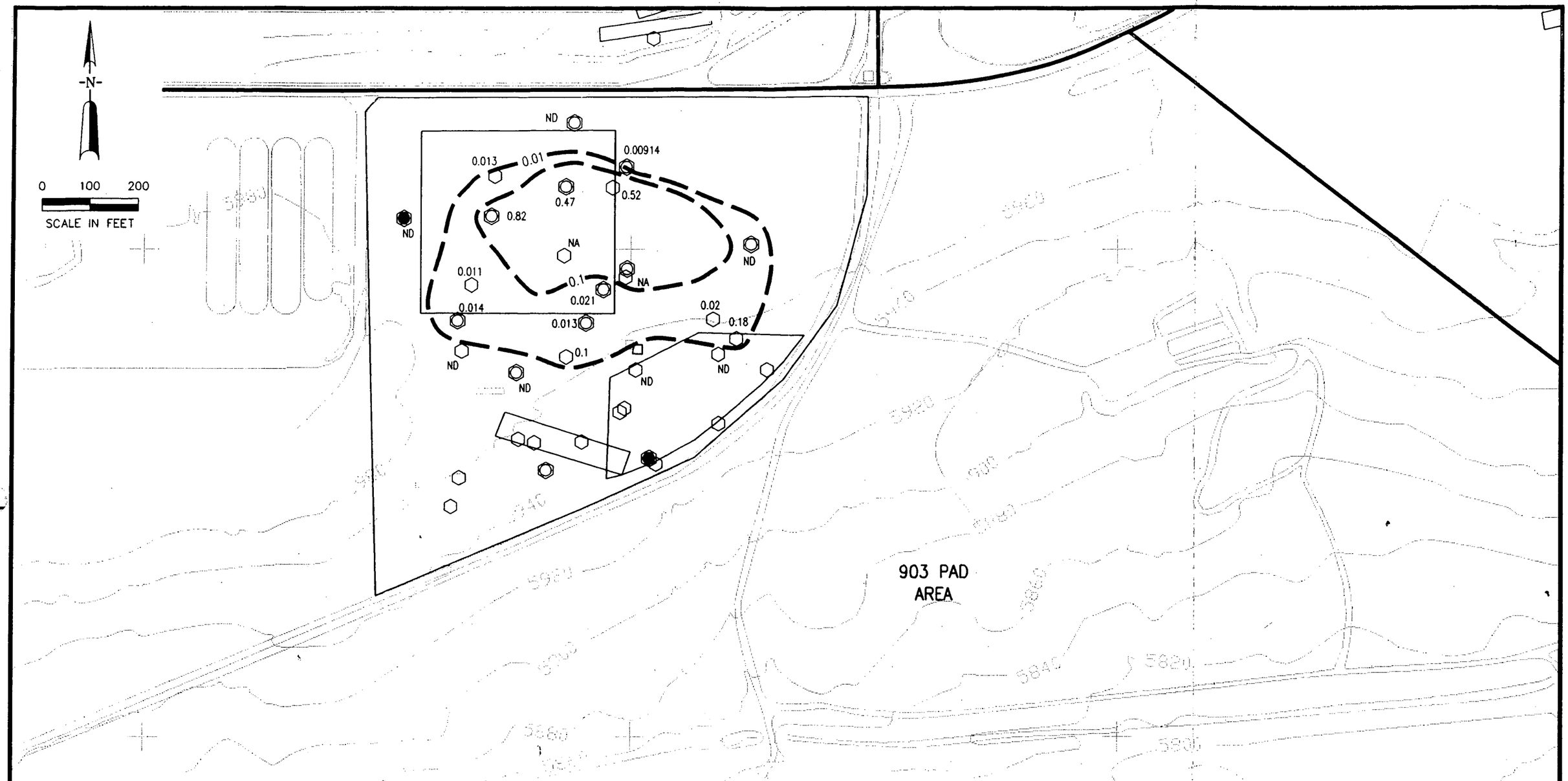
ISOACTIVITY MAP OF
AMERICIUM-241 IN THE 903 PAD
AREA SUBSURFACE SOIL
(2'-8' INTERVAL)

FIGURE 4.3-22 APRIL 1995

OU2RI669 1=200



EXPLANATION

- SOURCE BOREHOLE LOCATION
- SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
- 1 — LINE OF EQUAL ACTIVITY (pCi/g)
- INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
- NA — NO DATA AVAILABLE

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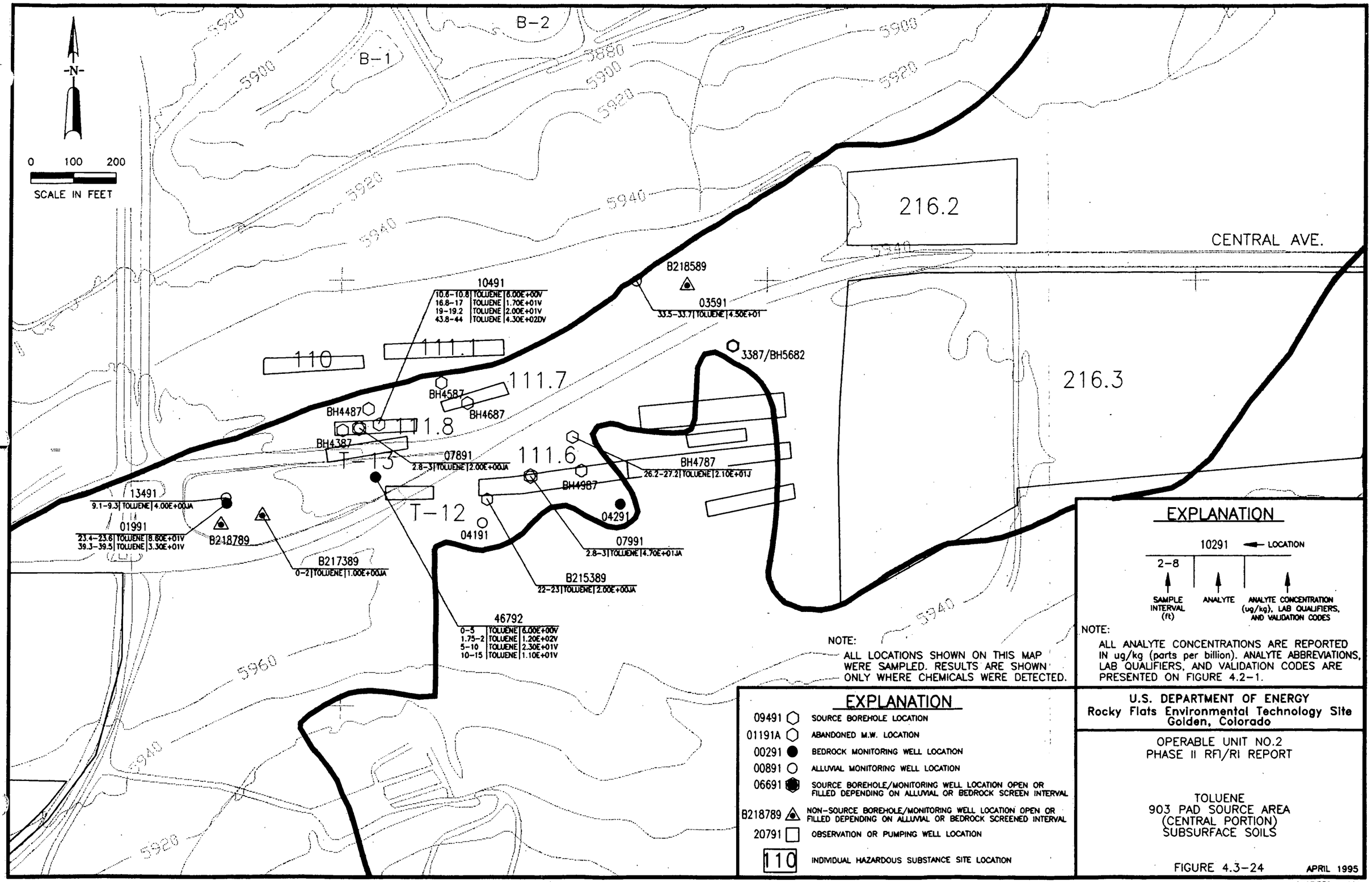
ISOACTIVITY MAP OF
AMERICIUM-241 IN THE 903 PAD
AREA SUBSURFACE SOIL
(8' TO 14' INTERVAL)

FIGURE 4.3-23 APRIL 1995

OU2RI670 1=200


-N-
0 100 200
SCALE IN FEET
B-1
B-2
5920
5900
5880
5940
5960
216.2
216.3
CENTRAL AVE.
110
111.1
111.7
111.8
111.6
T-13
T-12
10491
10.6-10.8 TOLUENE 6.00E+00V
16.8-17 TOLUENE 1.70E+01V
19-19.2 TOLUENE 2.00E+01V
43.8-44 TOLUENE 4.30E+02DV
B218589
03591
33.5-33.7 TOLUENE 4.50E+01
3387/BH5682
BH4587
BH4687
BH4487
BH4387
07891
2.8-3 TOLUENE 2.00E+00JA
BH4787
26.2-27.2 TOLUENE 2.10E+01J
BH4987
04291
07991
2.8-3 TOLUENE 4.70E+01JA
13491
9.1-9.3 TOLUENE 4.00E+00JA
01991
23.4-23.6 TOLUENE 8.60E+01V
39.3-39.5 TOLUENE 3.30E+01V
B218789
B217389
0-2 TOLUENE 1.00E+00JA
04191
B215389
22-23 TOLUENE 2.00E+00JA
46792
0-5 TOLUENE 6.00E+00V
1.75-2 TOLUENE 1.20E+02V
5-10 TOLUENE 2.30E+01V
10-15 TOLUENE 1.10E+01V
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W. LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREEN INTERVAL
B218789 NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
20791 OBSERVATION OR PUMPING WELL LOCATION
110 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
10291 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
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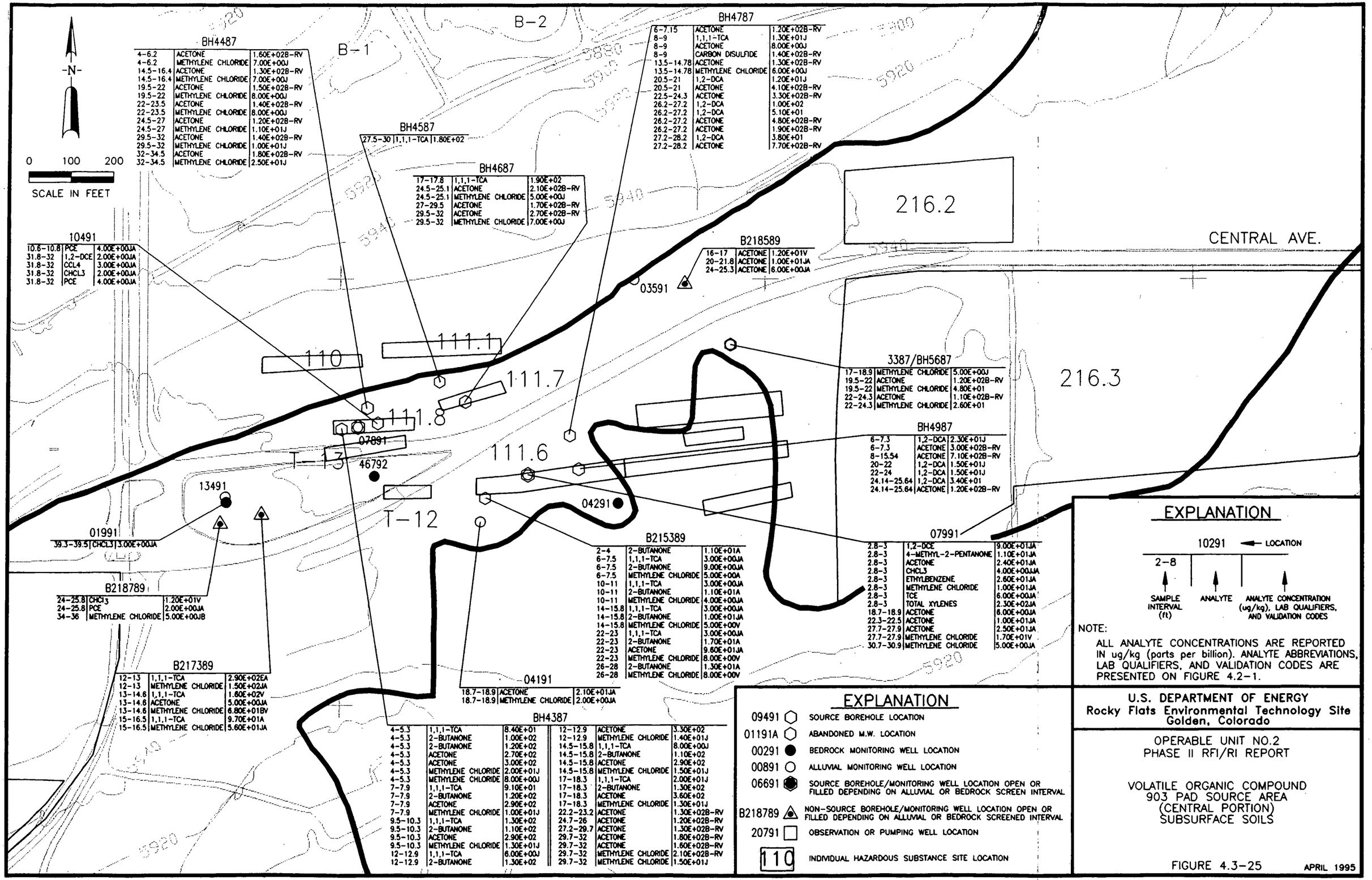
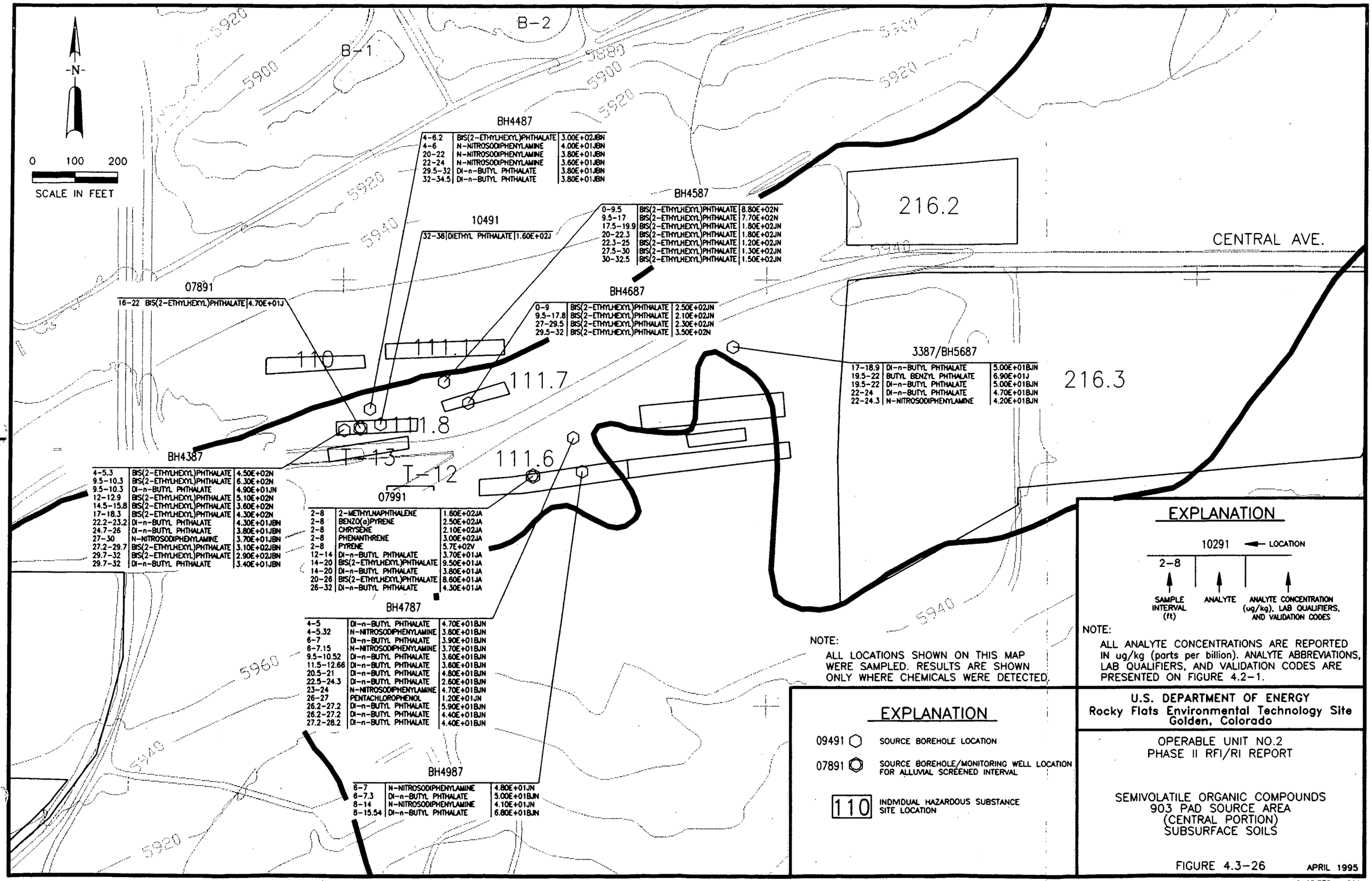
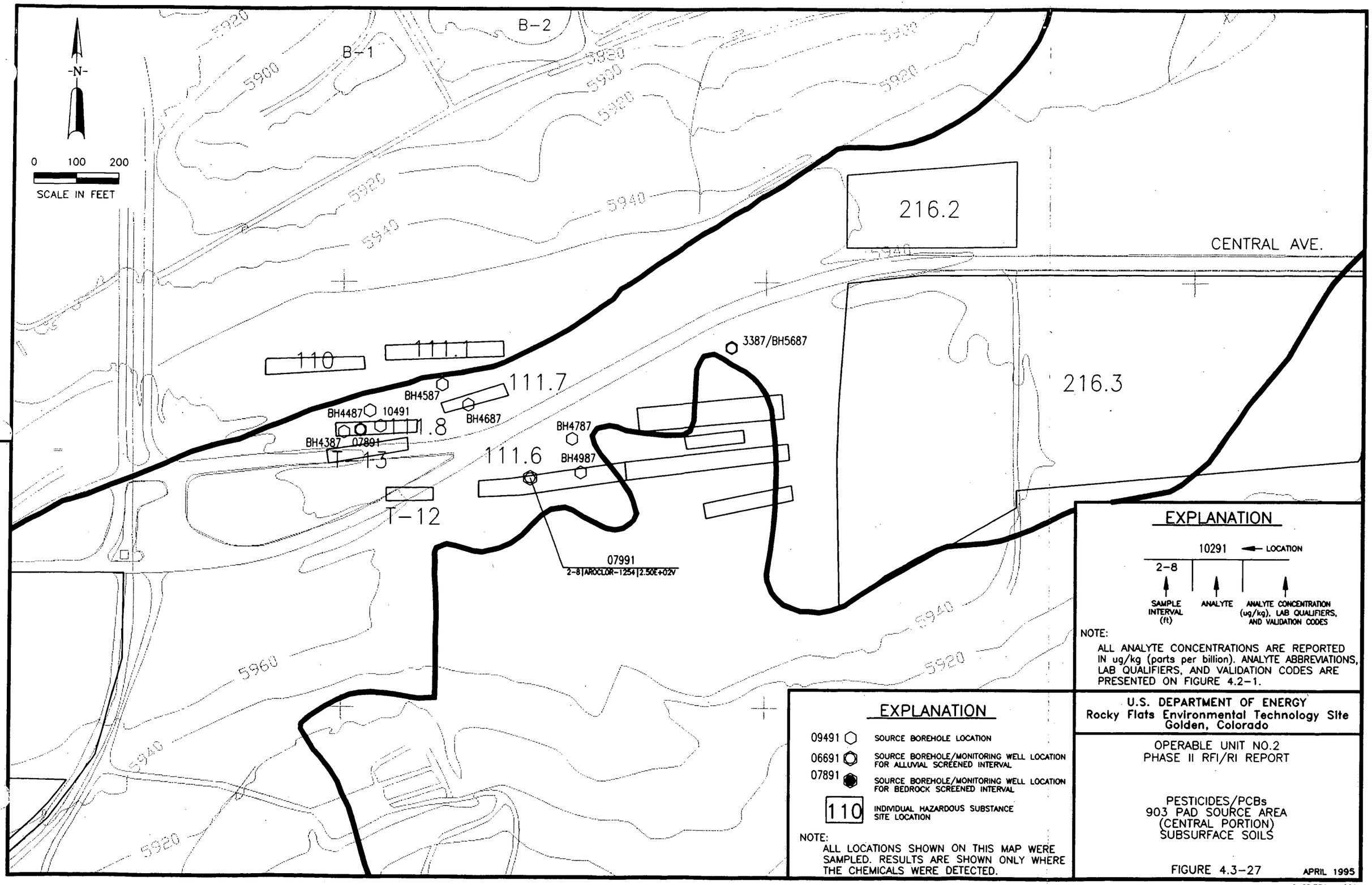
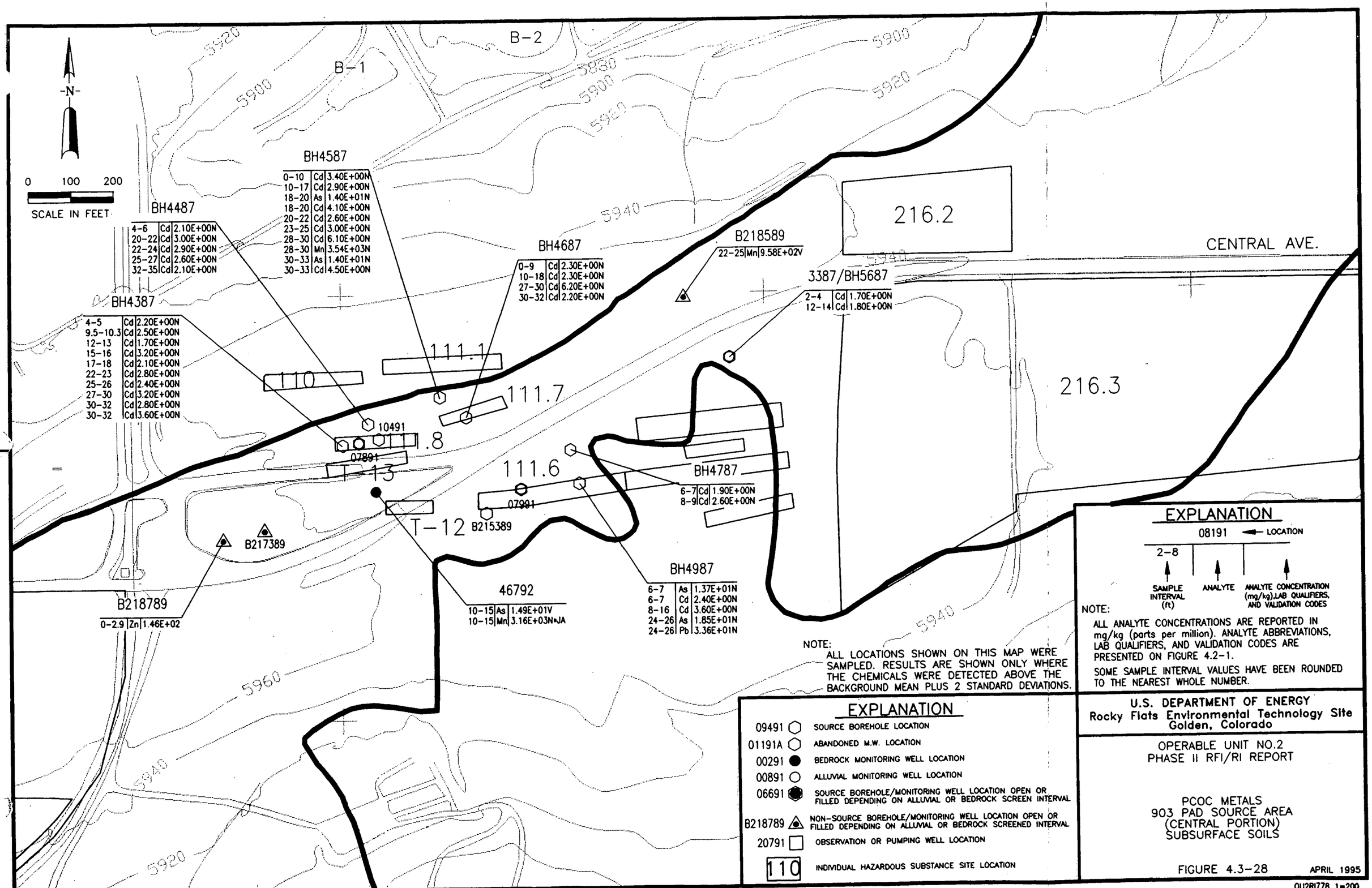
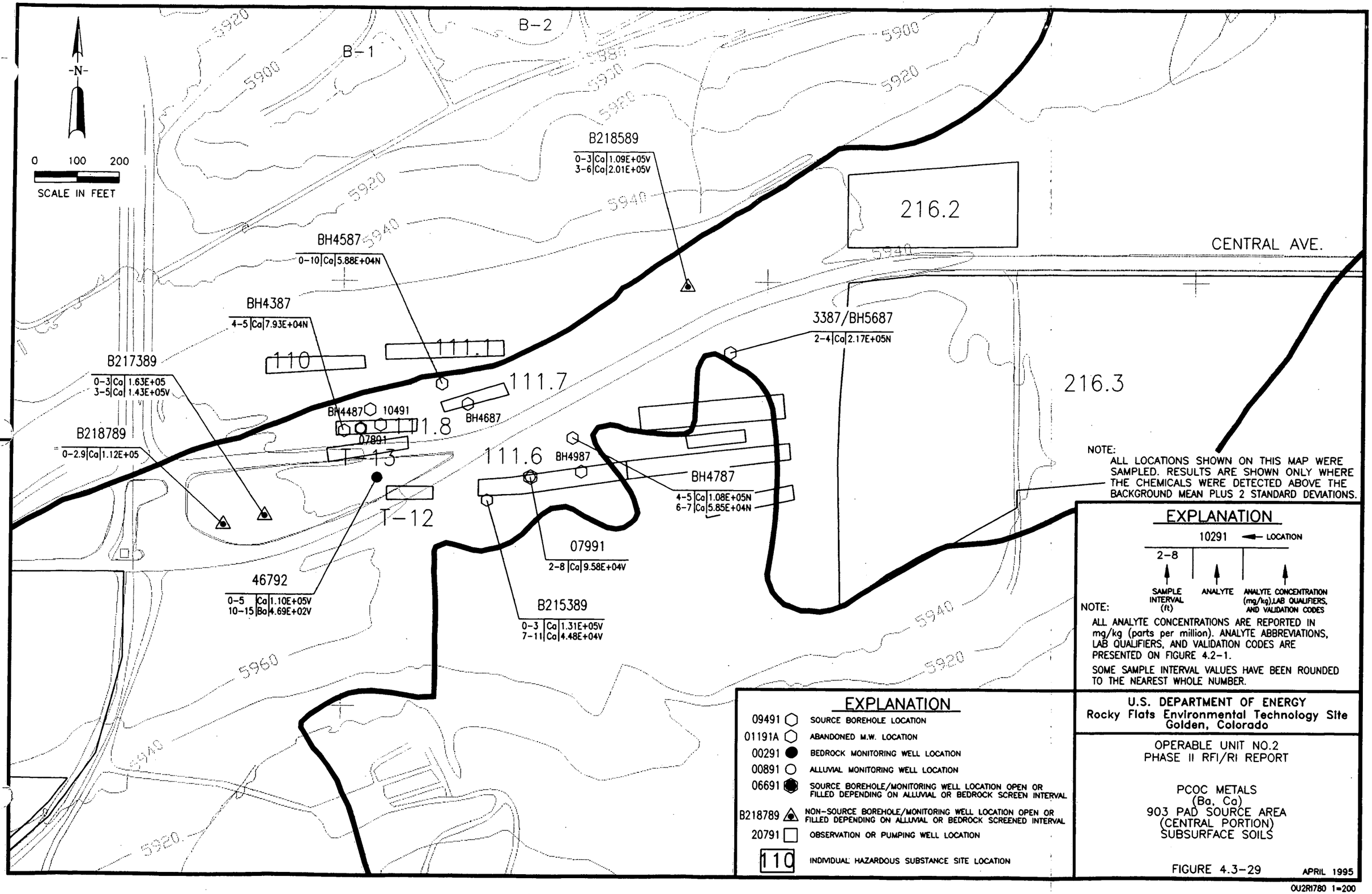
PHASE II RFI/RI REPORT
TOLUENE
903 PAD SOURCE AREA
(CENTRAL PORTION)
SUBSURFACE SOILS
FIGURE 4.3-24
APRIL 1995
OU2RI536 1=200

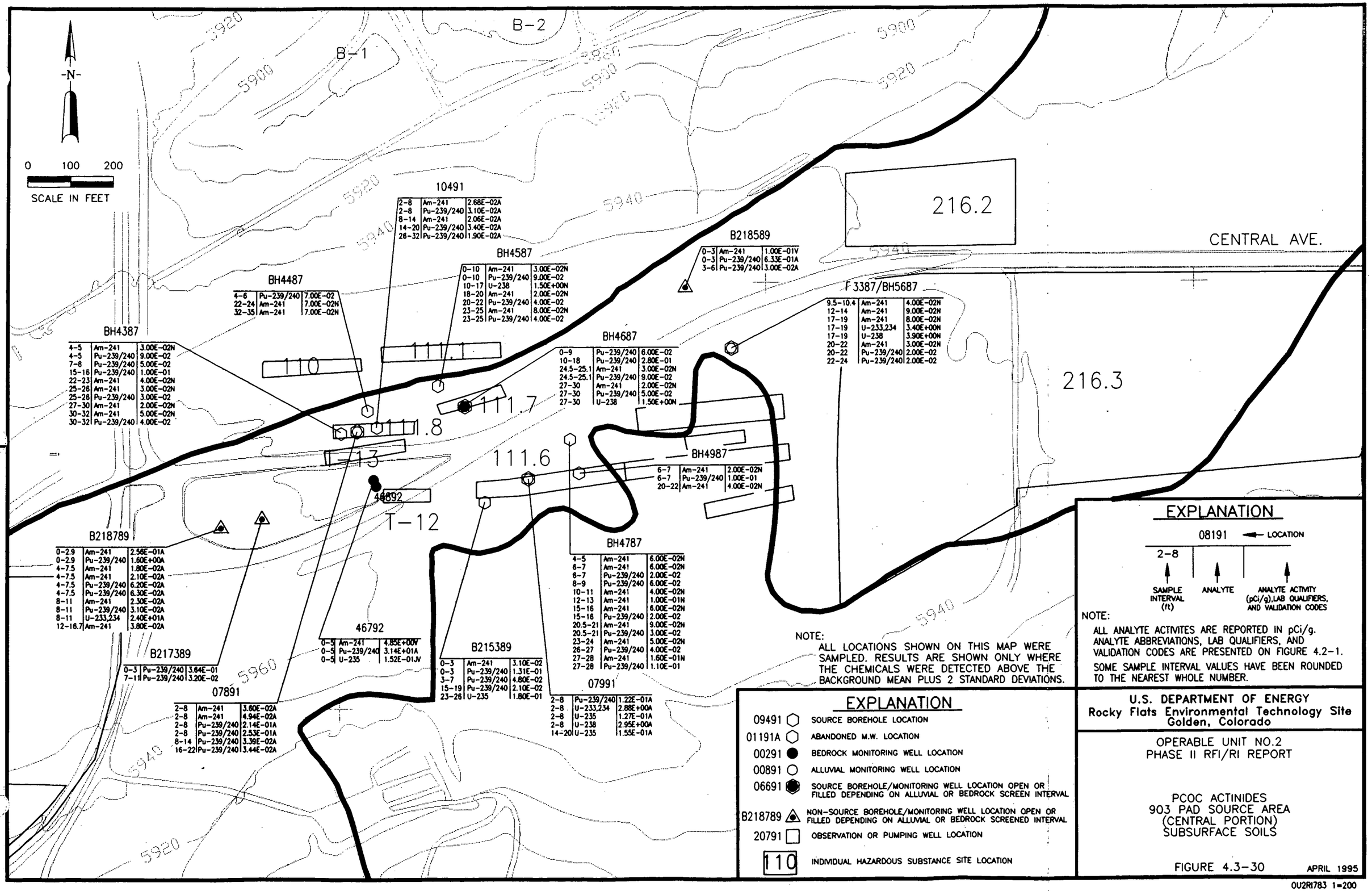

-N-
0 100 200
SCALE IN FEET
B-1
B-2
T-12
T-13
CENTRAL AVE.
216.2
216.3
110
111.1
111.7
111.8
111.6
5850
5900
5920
5940
5960
BH4487
4-6.2 ACETONE 1.60E+02B-RV
4-6.2 METHYLENE CHLORIDE 7.00E+00J
14.5-16.4 ACETONE 1.30E+02B-RV
14.5-16.4 METHYLENE CHLORIDE 7.00E+00J
19.5-22 ACETONE 1.50E+02B-RV
19.5-22 METHYLENE CHLORIDE 8.00E+00J
22-23.5 ACETONE 1.40E+02B-RV
22-23.5 METHYLENE CHLORIDE 8.00E+00J
24.5-27 ACETONE 1.20E+02B-RV
24.5-27 METHYLENE CHLORIDE 1.10E+01J
29.5-32 ACETONE 1.40E+02B-RV
29.5-32 METHYLENE CHLORIDE 1.00E+01J
32-34.5 ACETONE 1.80E+02B-RV
32-34.5 METHYLENE CHLORIDE 2.50E+01J
BH4587
27.5-30 1,1,1-TCA 1.80E+02
BH4687
17-17.8 1,1,1-TCA 1.90E+02
24.5-25.1 ACETONE 2.10E+02B-RV
24.5-25.1 METHYLENE CHLORIDE 5.00E+00J
27-29.5 ACETONE 1.70E+02B-RV
29.5-32 ACETONE 2.70E+02B-RV
29.5-32 METHYLENE CHLORIDE 7.00E+00J
BH4787
6-7.15 ACETONE 1.20E+02B-RV
8-9 1,1,1-TCA 1.30E+01J
8-9 ACETONE 8.00E+00J
8-9 CARBON DISULFIDE 1.40E+02B-RV
13.5-14.78 ACETONE 1.30E+02B-RV
13.5-14.78 METHYLENE CHLORIDE 6.00E+00J
20.5-21 1,2-DCA 1.20E+01J
20.5-21 ACETONE 4.10E+02B-RV
22.5-24.3 ACETONE 3.30E+02B-RV
26.2-27.2 1,2-DCA 1.00E+02
26.2-27.2 1,2-DCA 5.10E+01
26.2-27.2 ACETONE 4.80E+02B-RV
26.2-27.2 ACETONE 1.90E+02B-RV
27.2-28.2 1,2-DCA 3.80E+01
27.2-28.2 ACETONE 7.70E+02B-RV
10491
10.6-10.8 PCE 4.00E+00JA
31.8-32 1,2-DCE 2.00E+00JA
31.8-32 CCL4 3.00E+00JA
31.8-32 CHCL3 2.00E+00JA
31.8-32 PCE 4.00E+00JA
B218589
16-17 ACETONE 1.20E+01V
20-21.8 ACETONE 1.00E+01JA
24-25.3 ACETONE 6.00E+00JA
03591
3387/BH5687
17-18.9 METHYLENE CHLORIDE 5.00E+00J
19.5-22 ACETONE 1.20E+02B-RV
19.5-22 METHYLENE CHLORIDE 4.80E+01
22-24.3 ACETONE 1.10E+02B-RV
22-24.3 METHYLENE CHLORIDE 2.60E+01
BH4987
6-7.3 1,2-DCA 2.30E+01J
6-7.3 ACETONE 3.00E+02B-RV
8-15.54 ACETONE 7.10E+02B-RV
20-22 1,2-DCA 1.50E+01J
22-24 1,2-DCA 1.50E+01J
24.14-25.64 1,2-DCA 3.40E+01
24.14-25.64 ACETONE 1.20E+02B-RV
07991
07891
46792
13491
04291
01991
39.3-39.5 CHCL3 3.00E+00JA
B218789
24-25.8 CHCL3 1.20E+01V
24-25.8 PCE 2.00E+00JA
34-36 METHYLENE CHLORIDE 5.00E+00JB
B217389
12-13 1,1,1-TCA 2.90E+02EA
12-13 METHYLENE CHLORIDE 1.50E+02JA
13-14.6 1,1,1-TCA 1.60E+02V
13-14.6 ACETONE 5.00E+00JA
13-14.6 METHYLENE CHLORIDE 6.80E+01BV
15-16.5 1,1,1-TCA 9.70E+01A
15-16.5 METHYLENE CHLORIDE 5.60E+01JA
B215389
2-4 2-BUTANONE 1.10E+01A
6-7.5 1,1,1-TCA 3.00E+00JA
6-7.5 2-BUTANONE 9.00E+00JA
6-7.5 METHYLENE CHLORIDE 5.00E+00A
10-11 1,1,1-TCA 3.00E+00JA
10-11 2-BUTANONE 1.10E+01A
10-11 METHYLENE CHLORIDE 4.00E+00JA
14-15.8 1,1,1-TCA 3.00E+00JA
14-15.8 2-BUTANONE 1.00E+01JA
14-15.8 METHYLENE CHLORIDE 5.00E+00V
22-23 1,1,1-TCA 3.00E+00JA
22-23 2-BUTANONE 1.70E+01A
22-23 ACETONE 9.60E+01JA
22-23 METHYLENE CHLORIDE 8.00E+00V
26-28 2-BUTANONE 1.30E+01A
26-28 METHYLENE CHLORIDE 8.00E+00V
04191
18.7-18.9 ACETONE 2.10E+01JA
18.7-18.9 METHYLENE CHLORIDE 2.00E+00JA
BH4387
4-5.3 1,1,1-TCA 8.40E+01
4-5.3 2-BUTANONE 1.00E+02
4-5.3 2-BUTANONE 1.20E+02
4-5.3 ACETONE 2.70E+02
4-5.3 ACETONE 3.00E+02
4-5.3 METHYLENE CHLORIDE 2.00E+01J
4-5.3 METHYLENE CHLORIDE 8.00E+00J
7-7.9 1,1,1-TCA 9.10E+01
7-7.9 2-BUTANONE 1.20E+02
7-7.9 ACETONE 2.90E+02
7-7.9 METHYLENE CHLORIDE 1.00E+01J
9.5-10.3 1,1,1-TCA 1.30E+02
9.5-10.3 2-BUTANONE 1.10E+02
9.5-10.3 ACETONE 2.90E+02
9.5-10.3 METHYLENE CHLORIDE 1.30E+01J
12-12.9 1,1,1-TCA 6.00E+00J
12-12.9 2-BUTANONE 1.30E+02
12-12.9 ACETONE 3.30E+02
12-12.9 METHYLENE CHLORIDE 1.40E+01J
14.5-15.8 1,1,1-TCA 8.00E+00J
14.5-15.8 2-BUTANONE 1.10E+02
14.5-15.8 ACETONE 2.90E+02
14.5-15.8 METHYLENE CHLORIDE 1.50E+01J
17-18.3 1,1,1-TCA 2.00E+01J
17-18.3 2-BUTANONE 1.30E+02
17-18.3 ACETONE 3.60E+02
17-18.3 METHYLENE CHLORIDE 1.30E+01J
22.2-23.2 ACETONE 1.30E+02B-RV
24.7-26 ACETONE 1.20E+02B-RV
27.2-29.7 ACETONE 1.30E+02B-RV
29.7-32 ACETONE 1.80E+02B-RV
29.7-32 ACETONE 1.60E+02B-RV
29.7-32 METHYLENE CHLORIDE 2.10E+02B-RV
29.7-32 METHYLENE CHLORIDE 1.50E+01J
2.8-3 1,2-DCE 9.00E+01JA
2.8-3 4-METHYL-2-PENTANONE 1.10E+01JA
2.8-3 ACETONE 2.40E+01JA
2.8-3 CHCL3 4.00E+00JJA
2.8-3 ETHYLBENZENE 2.60E+01JA
2.8-3 METHYLENE CHLORIDE 1.00E+01JA
2.8-3 TCE 6.00E+00JA
2.8-3 TOTAL XYLENES 2.30E+02JA
18.7-18.9 ACETONE 6.00E+00JA
22.3-22.5 ACETONE 1.00E+01JA
27.7-27.9 ACETONE 2.50E+01JA
27.7-27.9 METHYLENE CHLORIDE 1.70E+01V
30.7-30.9 METHYLENE CHLORIDE 5.00E+00JA
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W. LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREEN INTERVAL
B218789 NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
20791 OBSERVATION OR PUMPING WELL LOCATION
110 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
10291 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
VOLATILE ORGANIC COMPOUND
903 PAD SOURCE AREA
(CENTRAL PORTION)
SUBSURFACE SOILS
FIGURE 4.3-25
APRIL 1995
OU2RI541 1=200


-N-
0 100 200
SCALE IN FEET
B-1
B-2
5920
5900
5880
5940
5960
CENTRAL AVE.
216.2
216.3
110
111.1
111.7
111.8
111.6
T-13
T-12
BH4487
4-6.2 BIS(2-ETHYLHEXYL)PHTHALATE 3.00E+02JBN
4-6 N-NITROSODIPHENYLAMINE 4.00E+01JBN
20-22 N-NITROSODIPHENYLAMINE 3.80E+01JBN
22-24 N-NITROSODIPHENYLAMINE 3.60E+01JBN
29.5-32 DI-n-BUTYL PHTHALATE 3.80E+01JBN
32-34.5 DI-n-BUTYL PHTHALATE 3.80E+01JBN
10491
32-38 DIETHYL PHTHALATE 1.60E+02J
BH4587
0-9.5 BIS(2-ETHYLHEXYL)PHTHALATE 8.80E+02N
9.5-17 BIS(2-ETHYLHEXYL)PHTHALATE 7.70E+02N
17.5-19.9 BIS(2-ETHYLHEXYL)PHTHALATE 1.80E+02JN
20-22.3 BIS(2-ETHYLHEXYL)PHTHALATE 1.80E+02JN
22.3-25 BIS(2-ETHYLHEXYL)PHTHALATE 1.20E+02JN
27.5-30 BIS(2-ETHYLHEXYL)PHTHALATE 1.30E+02JN
30-32.5 BIS(2-ETHYLHEXYL)PHTHALATE 1.50E+02JN
07891
16-22 BIS(2-ETHYLHEXYL)PHTHALATE 4.70E+01J
BH4687
0-9 BIS(2-ETHYLHEXYL)PHTHALATE 2.50E+02JN
9.5-17.8 BIS(2-ETHYLHEXYL)PHTHALATE 2.10E+02JN
27-29.5 BIS(2-ETHYLHEXYL)PHTHALATE 2.30E+02JN
29.5-32 BIS(2-ETHYLHEXYL)PHTHALATE 3.50E+02N
3387/BH5687
17-18.9 DI-n-BUTYL PHTHALATE 5.00E+01BJN
19.5-22 BUTYL BENZYL PHTHALATE 6.90E+01J
19.5-22 DI-n-BUTYL PHTHALATE 5.00E+01BJN
22-24 DI-n-BUTYL PHTHALATE 4.70E+01BJN
22-24.3 N-NITROSODIPHENYLAMINE 4.20E+01BJN
BH4387
4-5.3 BIS(2-ETHYLHEXYL)PHTHALATE 4.50E+02N
9.5-10.3 BIS(2-ETHYLHEXYL)PHTHALATE 6.30E+02N
9.5-10.3 DI-n-BUTYL PHTHALATE 4.90E+01JN
12-12.9 BIS(2-ETHYLHEXYL)PHTHALATE 5.10E+02N
14.5-15.8 BIS(2-ETHYLHEXYL)PHTHALATE 3.60E+02N
17-18.3 BIS(2-ETHYLHEXYL)PHTHALATE 4.30E+02N
22.2-23.2 DI-n-BUTYL PHTHALATE 4.30E+01JBN
24.7-26 DI-n-BUTYL PHTHALATE 3.80E+01JBN
27-30 N-NITROSODIPHENYLAMINE 3.70E+01JBN
27.2-29.7 BIS(2-ETHYLHEXYL)PHTHALATE 3.10E+02JBN
29.7-32 BIS(2-ETHYLHEXYL)PHTHALATE 2.90E+02JBN
29.7-32 DI-n-BUTYL PHTHALATE 3.40E+01JBN
07991
2-8 2-METHYLNAPHTHALENE 1.60E+02JA
2-8 BENZO(a)PYRENE 2.50E+02JA
2-8 CHRYSENE 2.10E+02JA
2-8 PHENANTHRENE 3.00E+02JA
2-8 PYRENE 5.7E+02V
12-14 DI-n-BUTYL PHTHALATE 3.70E+01JA
14-20 BIS(2-ETHYLHEXYL)PHTHALATE 9.50E+01JA
14-20 DI-n-BUTYL PHTHALATE 3.80E+01JA
20-26 BIS(2-ETHYLHEXYL)PHTHALATE 8.60E+01JA
26-32 DI-n-BUTYL PHTHALATE 4.30E+01JA
BH4787
4-5 DI-n-BUTYL PHTHALATE 4.70E+01BJN
4-5.32 N-NITROSODIPHENYLAMINE 3.80E+01BJN
6-7 DI-n-BUTYL PHTHALATE 3.90E+01BJN
6-7.15 N-NITROSODIPHENYLAMINE 3.70E+01BJN
9.5-10.52 DI-n-BUTYL PHTHALATE 3.60E+01BJN
11.5-12.66 DI-n-BUTYL PHTHALATE 3.60E+01BJN
20.5-21 DI-n-BUTYL PHTHALATE 4.80E+01BJN
22.5-24.3 DI-n-BUTYL PHTHALATE 2.60E+01BJN
23-24 N-NITROSODIPHENYLAMINE 4.70E+01BJN
26-27 PENTACHLOROPHENOL 1.20E+01JN
26.2-27.2 DI-n-BUTYL PHTHALATE 5.90E+01BJN
26.2-27.2 DI-n-BUTYL PHTHALATE 4.40E+01BJN
27.2-28.2 DI-n-BUTYL PHTHALATE 4.40E+01BJN
BH4987
6-7 N-NITROSODIPHENYLAMINE 4.80E+01JN
6-7.3 DI-n-BUTYL PHTHALATE 5.00E+01BJN
8-14 N-NITROSODIPHENYLAMINE 4.10E+01JN
8-15.54 DI-n-BUTYL PHTHALATE 6.80E+01BJN
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
07891 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR ALLUVIAL SCREENED INTERVAL
110 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
10291 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
SEMIVOLATILE ORGANIC COMPOUNDS
903 PAD SOURCE AREA
(CENTRAL PORTION)
SUBSURFACE SOILS
FIGURE 4.3-26
APRIL 1995
OU2RI773 1=200


-N-
0 100 200
SCALE IN FEET
B-1
B-2
5900
5920
5940
5960
216.2
216.3
CENTRAL AVE.
110
111.1
111.7
111.8
111.6
T-13
T-12
BH4587
BH4687
BH4487
10491
BH4387
07891
BH4787
BH4987
3387/BH5687
07991
2-8|AROCLOR-1254|2.50E+02V
EXPLANATION
10291 ← LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR ALLUVIAL SCREENED INTERVAL
07891 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR BEDROCK SCREENED INTERVAL
110 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED.
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
PESTICIDES/PCBs
903 PAD SOURCE AREA
(CENTRAL PORTION)
SUBSURFACE SOILS
FIGURE 4.3-27
APRIL 1995
0U2RI776 1=200


-N-
0 100 200
SCALE IN FEET
B-1
B-2
5920
5900
5880
5940
5960
BH4587
0-10 Cd 3.40E+00N
10-17 Cd 2.90E+00N
18-20 As 1.40E+01N
18-20 Cd 4.10E+00N
20-22 Cd 2.60E+00N
23-25 Cd 3.00E+00N
28-30 Cd 6.10E+00N
28-30 Mn 3.54E+03N
30-33 As 1.40E+01N
30-33 Cd 4.50E+00N
BH4487
4-6 Cd 2.10E+00N
20-22 Cd 3.00E+00N
22-24 Cd 2.90E+00N
25-27 Cd 2.60E+00N
32-35 Cd 2.10E+00N
BH4387
4-5 Cd 2.20E+00N
9.5-10.3 Cd 2.50E+00N
12-13 Cd 1.70E+00N
15-16 Cd 3.20E+00N
17-18 Cd 2.10E+00N
22-23 Cd 2.80E+00N
25-26 Cd 2.40E+00N
27-30 Cd 3.20E+00N
30-32 Cd 2.80E+00N
30-32 Cd 3.60E+00N
BH4687
0-9 Cd 2.30E+00N
10-18 Cd 2.30E+00N
27-30 Cd 6.20E+00N
30-32 Cd 2.20E+00N
B218589
22-25 Mn 9.58E+02V
3387/BH5687
2-4 Cd 1.70E+00N
12-14 Cd 1.80E+00N
216.2
216.3
CENTRAL AVE.
110
111.1
111.7
111.8
111.6
T-13
T-12
10491
07891
07991
B217389
B218789
0-2.9 Zn 1.46E+02
B215389
46792
10-15 As 1.49E+01V
10-15 Mn 3.16E+03N*JA
BH4787
6-7 Cd 1.90E+00N
8-9 Cd 2.60E+00N
BH4987
6-7 As 1.37E+01N
6-7 Cd 2.40E+00N
8-16 Cd 3.60E+00N
24-26 As 1.85E+01N
24-26 Pb 3.36E+01N
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W. LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREEN INTERVAL
B218789 NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
20791 OBSERVATION OR PUMPING WELL LOCATION
110 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
08191 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (mg/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN mg/kg (parts per million). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
PCOC METALS
903 PAD SOURCE AREA
(CENTRAL PORTION)
SUBSURFACE SOILS
FIGURE 4.3-28
APRIL 1995
OU2RI778 1=200


-N-
0 100 200
SCALE IN FEET
B-1
B-2
5900
5920
5940
5960
B218589
0-3 Ca 1.09E+05V
3-6 Ca 2.01E+05V
216.2
CENTRAL AVE.
BH4587
0-10 Ca 5.88E+04N
BH4387
4-5 Ca 7.93E+04N
3387/BH5687
2-4 Ca 2.17E+05N
110
111.1
111.7
216.3
B217389
0-3 Ca 1.63E+05
3-5 Ca 1.43E+05V
BH4487
10491
07891
111.8
BH4687
B218789
0-2.9 Ca 1.12E+05
T-13
111.6
BH4987
BH4787
4-5 Ca 1.08E+05N
6-7 Ca 5.85E+04N
T-12
07991
2-8 Ca 9.58E+04V
46792
0-5 Ca 1.10E+05V
10-15 Ba 4.69E+02V
B215389
0-3 Ca 1.31E+05V
7-11 Ca 4.48E+04V
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.
EXPLANATION
10291 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (mg/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN mg/kg (parts per million). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W. LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREEN INTERVAL
B218789 NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
20791 OBSERVATION OR PUMPING WELL LOCATION
110 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
PCOC METALS
(Ba, Ca)
903 PAD SOURCE AREA
(CENTRAL PORTION)
SUBSURFACE SOILS
FIGURE 4.3-29
APRIL 1995
OU2RI780 1=200


-N-
0 100 200
SCALE IN FEET
B-1
B-2
5900
5920
5940
5960
CENTRAL AVE.
216.2
216.3
110
111.1
111.7
111.8
111.6
T-13
T-12
46892
10491
2-8 Am-241 2.68E-02A
2-8 Pu-239/240 3.10E-02A
8-14 Am-241 2.06E-02A
14-20 Pu-239/240 3.40E-02A
26-32 Pu-239/240 1.90E-02A
BH4587
0-10 Am-241 3.00E-02N
0-10 Pu-239/240 9.00E-02
10-17 U-238 1.50E+00N
18-20 Am-241 2.00E-02N
20-22 Pu-239/240 4.00E-02
23-25 Am-241 8.00E-02N
23-25 Pu-239/240 4.00E-02
BH4487
4-6 Pu-239/240 7.00E-02
22-24 Am-241 7.00E-02N
32-35 Am-241 7.00E-02N
BH4387
4-5 Am-241 3.00E-02N
4-5 Pu-239/240 9.00E-02
7-8 Pu-239/240 5.00E-02
15-16 Pu-239/240 1.00E-01
22-23 Am-241 4.00E-02N
25-26 Am-241 3.00E-02N
25-26 Pu-239/240 3.00E-02
27-30 Am-241 2.00E-02N
30-32 Am-241 5.00E-02N
30-32 Pu-239/240 4.00E-02
B218589
0-3 Am-241 1.00E-01V
0-3 Pu-239/240 6.33E-01A
3-6 Pu-239/240 3.00E-02A
BH4687
0-9 Pu-239/240 6.00E-02
10-18 Pu-239/240 2.80E-01
24.5-25.1 Am-241 3.00E-02N
24.5-25.1 Pu-239/240 9.00E-02
27-30 Am-241 2.00E-02N
27-30 Pu-239/240 5.00E-02
27-30 U-238 1.50E+00N
T3387/BH5687
9.5-10.4 Am-241 4.00E-02N
12-14 Am-241 9.00E-02N
17-19 Am-241 8.00E-02N
17-19 U-233,234 3.40E+00N
17-19 U-238 3.90E+00N
20-22 Am-241 3.00E-02N
20-22 Pu-239/240 2.00E-02
22-24 Pu-239/240 2.00E-02
BH4987
6-7 Am-241 2.00E-02N
6-7 Pu-239/240 1.00E-01
20-22 Am-241 4.00E-02N
BH4787
4-5 Am-241 6.00E-02N
6-7 Am-241 6.00E-02N
6-7 Pu-239/240 2.00E-02
8-9 Pu-239/240 6.00E-02
10-11 Am-241 4.00E-02N
12-13 Am-241 1.00E-01N
15-16 Am-241 6.00E-02N
15-16 Pu-239/240 2.00E-02
20.5-21 Am-241 9.00E-02N
20.5-21 Pu-239/240 3.00E-02
23-24 Am-241 5.00E-02N
26-27 Pu-239/240 4.00E-02
27-28 Am-241 1.60E-01N
27-28 Pu-239/240 1.10E-01
B218789
0-2.9 Am-241 2.56E-01A
0-2.9 Pu-239/240 1.60E+00A
4-7.5 Am-241 1.80E-02A
4-7.5 Am-241 2.10E-02A
4-7.5 Pu-239/240 6.20E-02A
4-7.5 Pu-239/240 6.30E-02A
8-11 Am-241 2.30E-02A
8-11 Pu-239/240 3.10E-02A
8-11 U-233,234 2.40E+01A
12-16.7 Am-241 3.80E-02A
B217389
0-3 Pu-239/240 3.64E-01
7-11 Pu-239/240 3.20E-02
46792
0-5 Am-241 4.85E+00V
0-5 Pu-239/240 3.14E+01A
0-5 U-235 1.52E-01JV
B215389
0-3 Am-241 3.10E-02
0-3 Pu-239/240 1.31E-01
3-7 Pu-239/240 4.80E-02
15-19 Pu-239/240 2.10E-02
23-26 U-235 1.80E-01
07991
2-8 Pu-239/240 1.22E-01A
2-8 U-233,234 2.88E+00A
2-8 U-235 1.27E-01A
2-8 U-238 2.95E+00A
14-20 U-235 1.55E-01A
07891
2-8 Am-241 3.60E-02A
2-8 Am-241 4.94E-02A
2-8 Pu-239/240 2.14E-01A
2-8 Pu-239/240 2.53E-01A
8-14 Pu-239/240 3.39E-02A
16-22 Pu-239/240 3.44E-02A
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W. LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREEN INTERVAL
B218789 NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
20791 OBSERVATION OR PUMPING WELL LOCATION
110 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
08191 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE ACTIVITY (pCi/g), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE ACTIVITES ARE REPORTED IN pCi/g. ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.
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Golden, Colorado
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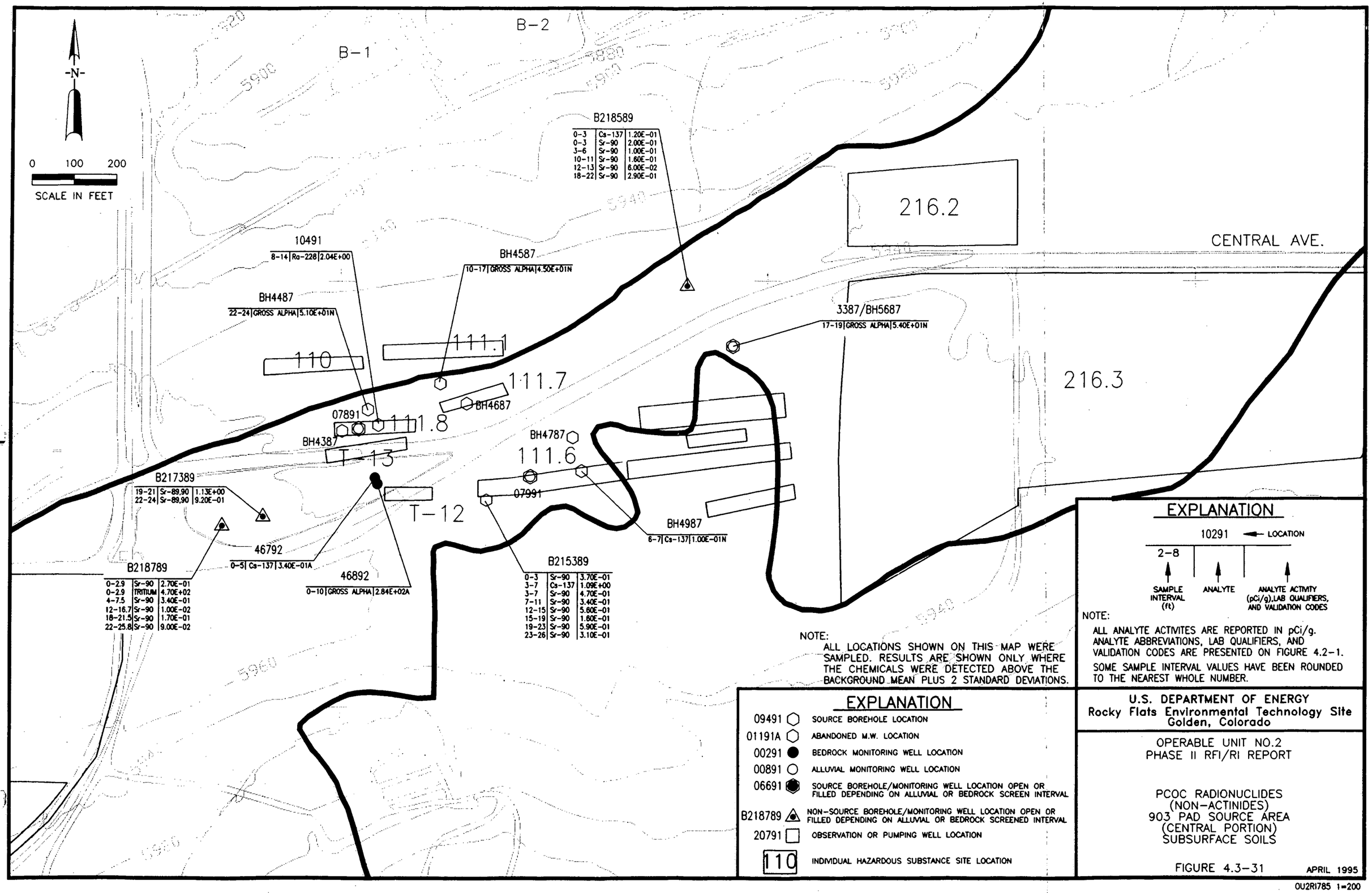
PHASE II RFI/RI REPORT
PCOC ACTINIDES
903 PAD SOURCE AREA
(CENTRAL PORTION)
SUBSURFACE SOILS
FIGURE 4.3-30
APRIL 1995
0U2RI783 1=200


-N-
0 100 200
SCALE IN FEET
B-1
B-2
B218589
0-3 Cs-137 1.20E-01
0-3 Sr-90 2.00E-01
3-6 Sr-90 1.00E-01
10-11 Sr-90 1.60E-01
12-13 Sr-90 6.00E-02
18-22 Sr-90 2.90E-01
216.2
CENTRAL AVE.
10491
8-14 Ra-228 2.04E+00
BH4587
10-17 GROSS ALPHA 4.50E+01N
BH4487
22-24 GROSS ALPHA 5.10E+01N
3387/BH5687
17-19 GROSS ALPHA 5.40E+01N
110
111.1
111.7
BH4687
216.3
07891
111.8
BH4387
T-13
BH4787
111.6
07991
B217389
19-21 Sr-89,90 1.13E+00
22-24 Sr-89,90 9.20E-01
T-12
BH4987
6-7 Cs-137 1.00E-01N
46792
0-5 Cs-137 3.40E-01A
B218789
0-2.9 Sr-90 2.70E-01
0-2.9 TRITIUM 4.70E+02
4-7.5 Sr-90 3.40E-01
12-16.7 Sr-90 1.00E-02
18-21.5 Sr-90 1.70E-01
22-25.8 Sr-90 9.00E-02
46892
0-10 GROSS ALPHA 2.84E+02A
B215389
0-3 Sr-90 3.70E-01
3-7 Cs-137 1.09E+00
3-7 Sr-90 4.70E-01
7-11 Sr-90 3.40E-01
12-15 Sr-90 5.60E-01
15-19 Sr-90 1.60E-01
19-23 Sr-90 5.90E-01
23-26 Sr-90 3.10E-01
5920
5940
5960
5980
5900
5880
5860
5840
5820
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W. LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREEN INTERVAL
B218789 NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
20791 OBSERVATION OR PUMPING WELL LOCATION
110 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
10291 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE ACTIVITY (pCi/g), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE ACTIVITES ARE REPORTED IN pCi/g. ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.
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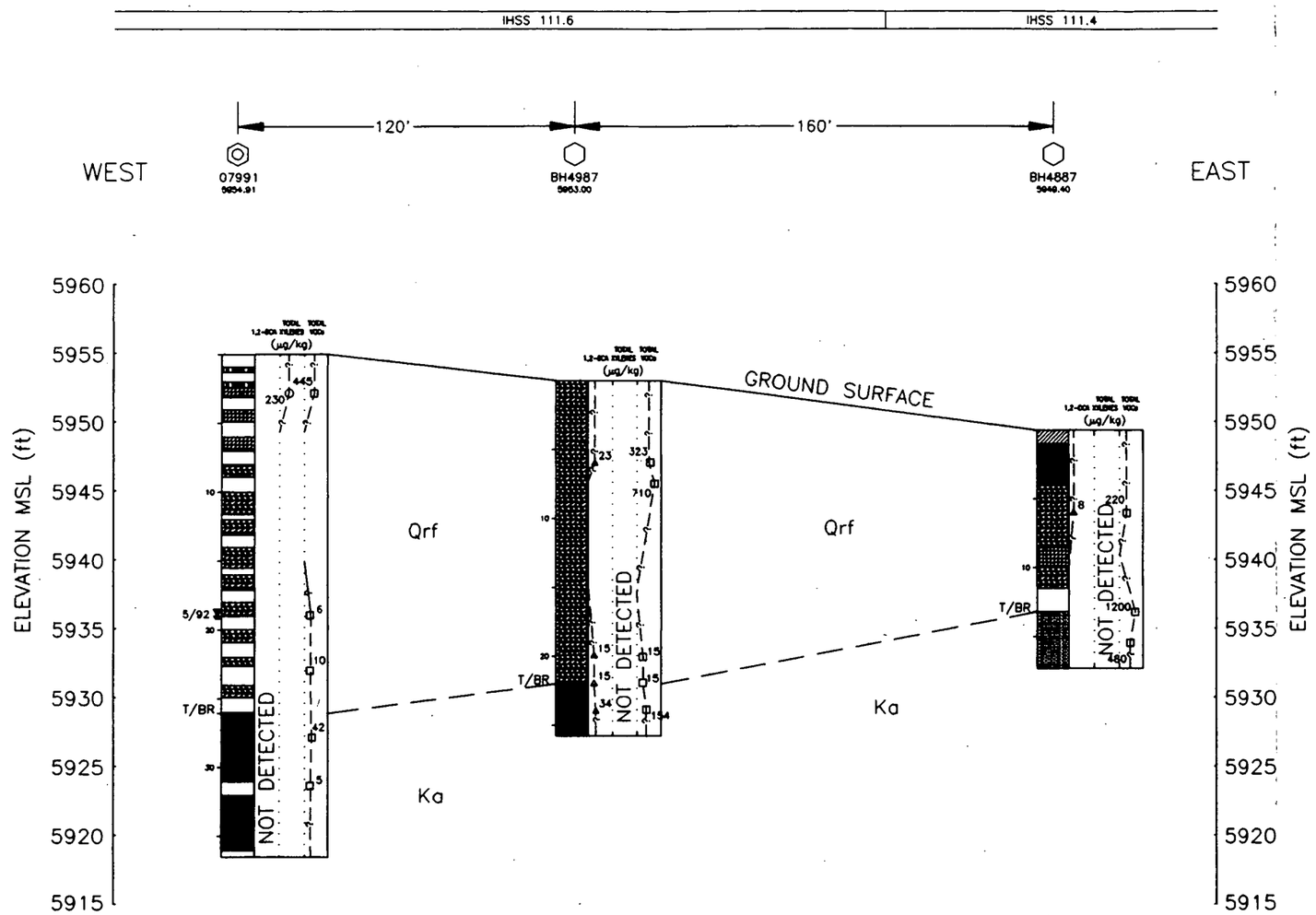
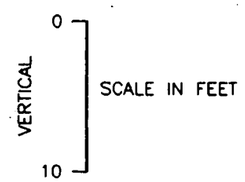
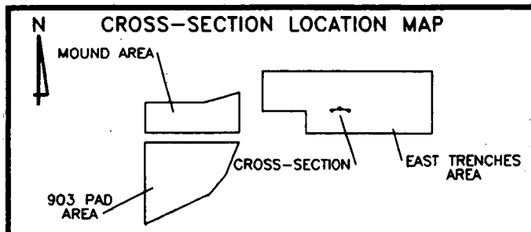
PHASE II RFI/RI REPORT
PCOC RADIONUCLIDES
(NON-ACTINIDES)
903 PAD SOURCE AREA
(CENTRAL PORTION)
SUBSURFACE SOILS
FIGURE 4.3-31
APRIL 1995
OU2RI785 1=200



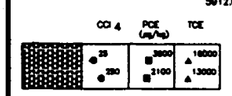


NOTE: HORIZONTAL DISTANCE NOT TO SCALE.



EXPLANATION

T/BR = TOP OF BEDROCK
⬡ = LOCATION SYMBOL
3486 = LOCATION NAME
5912.00 = GROUND SURFACE ELEVATION (ft)



EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (µg/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

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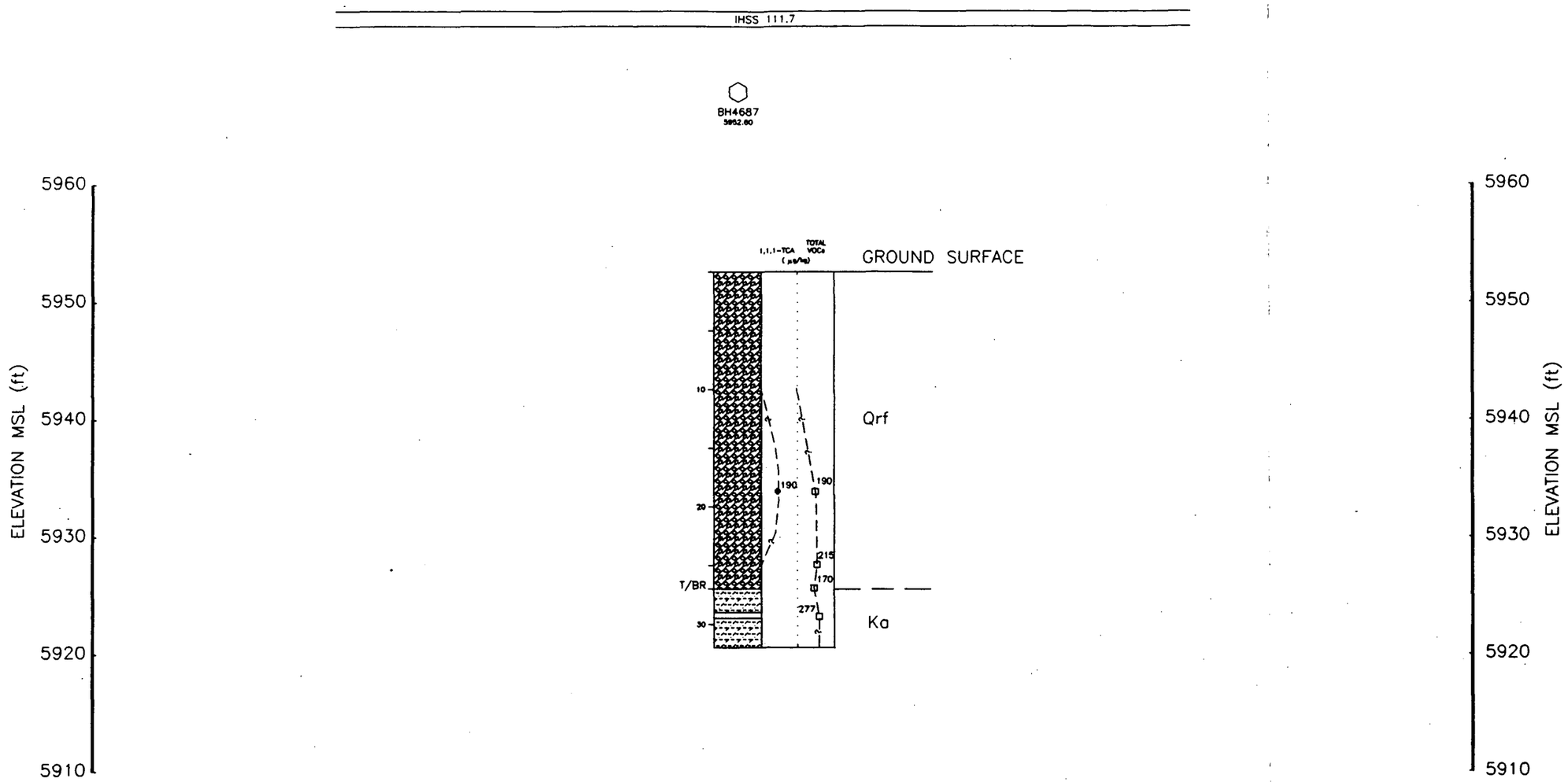
Rocky Flats Environmental Technology Site
Golden, Colorado

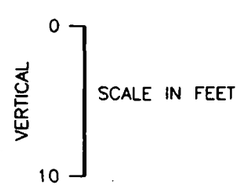
OPERABLE UNIT 2
PHASE II RFI/RI REPORT

SOURCE BOREHOLE CROSS-SECTION IHSS 111.6 (TRENCH T-9)

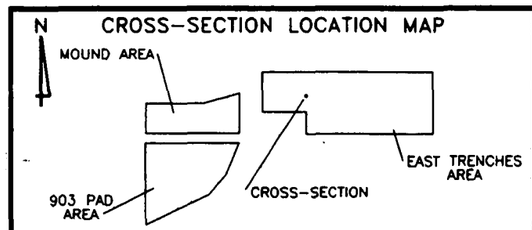
FIGURE 4.3-32 APRIL 1995

OU2RI665 1=1



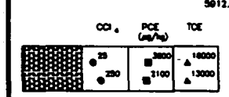


NOTE: HORIZONTAL DISTANCE NOT TO SCALE.



EXPLANATION

T/BR = TOP OF BEDROCK
⬡ = LOCATION SYMBOL
3486 = LOCATION NAME
5912.00 = GROUND SURFACE ELEVATION (ft)



EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (µg/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

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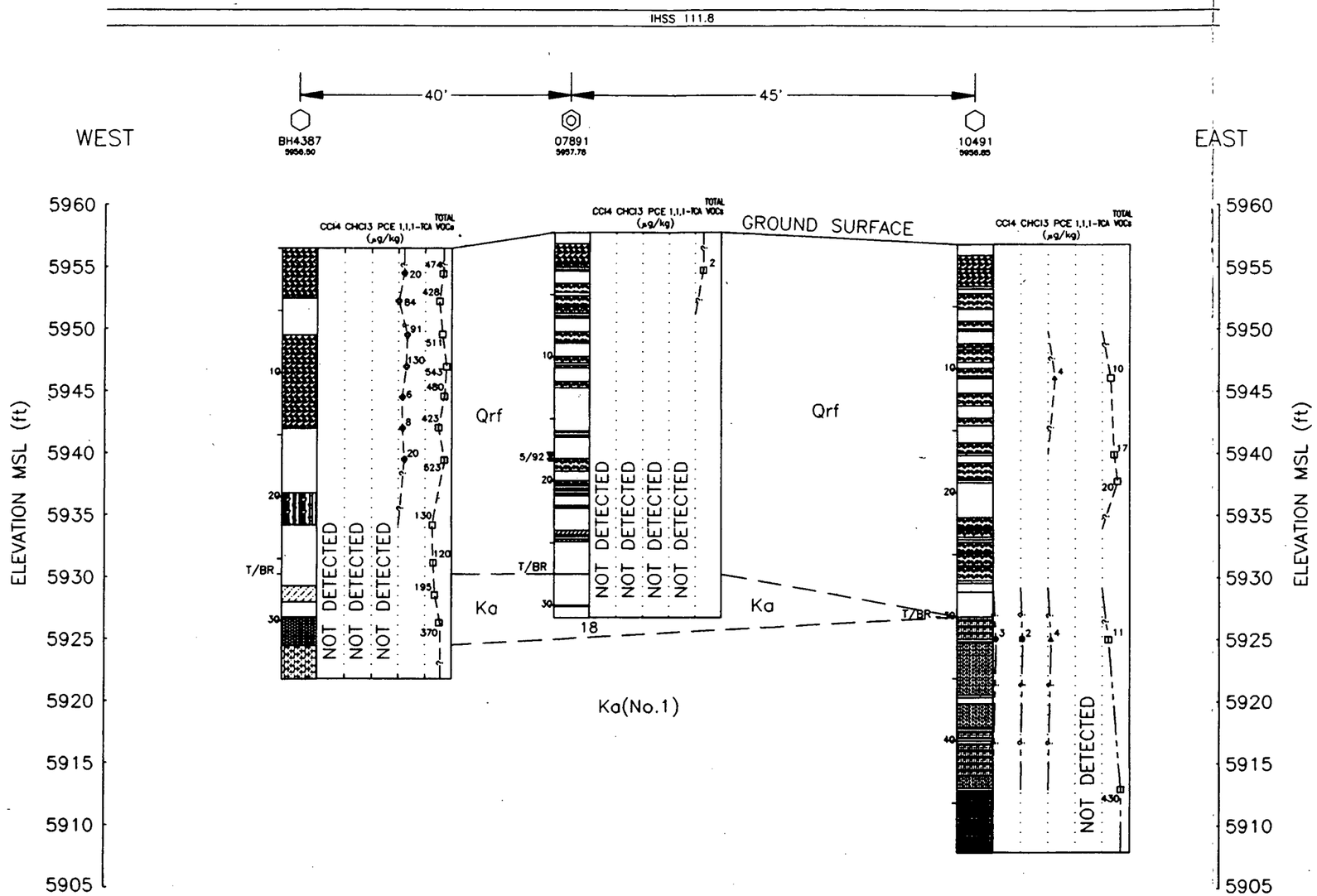
Golden, Colorado

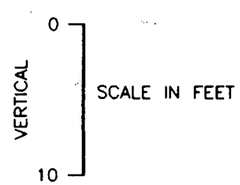
OPERABLE UNIT 2
PHASE II RFI/RI REPORT

SOURCE BOREHOLE
CROSS-SECTION
IHSS 111.7 (TRENCH T-10)

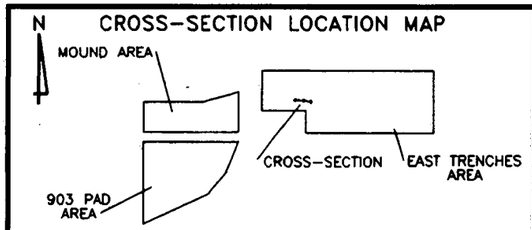
FIGURE 4.3-33 APRIL 1995

OU2R1659 1m1



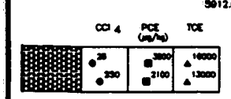


NOTE: HORIZONTAL DISTANCE NOT TO SCALE.



EXPLANATION

T/BR = TOP OF BEDROCK
⬡ = LOCATION SYMBOL
3486 = LOCATION NAME
5912.00 = GROUND SURFACE ELEVATION (ft)



EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (µg/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

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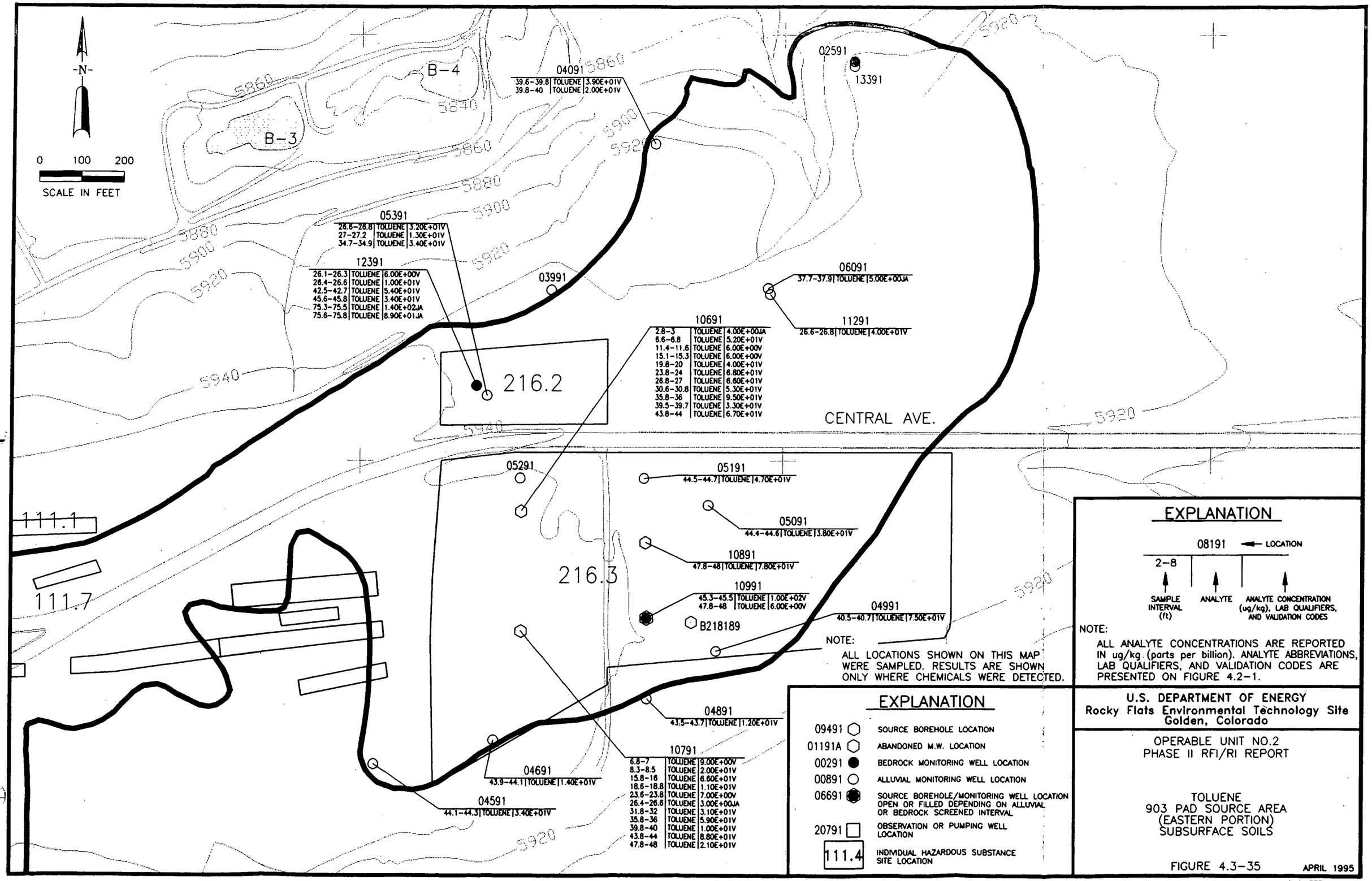
SOURCE BOREHOLE CROSS-SECTION IHSS 111.8 (TRENCH T-11)

FIGURE 4.3-34 APRIL 1995

OU2RI660 1=1


-N-
0 100 200
SCALE IN FEET
B-4
B-3
5860
5840
5880
5900
5920
5940
04091
39.6-39.8 TOLUENE 3.90E+01V
39.8-40 TOLUENE 2.00E+01V
02591
13391
05391
28.6-28.8 TOLUENE 3.20E+01V
27-27.2 TOLUENE 1.30E+01V
34.7-34.9 TOLUENE 3.40E+01V
12391
26.1-26.3 TOLUENE 6.00E+00V
26.4-26.6 TOLUENE 1.00E+01V
42.5-42.7 TOLUENE 5.40E+01V
45.6-45.8 TOLUENE 3.40E+01V
75.3-75.5 TOLUENE 1.40E+02JA
75.6-75.8 TOLUENE 8.90E+01JA
03991
06091
37.7-37.9 TOLUENE 5.00E+00JA
11291
26.6-26.8 TOLUENE 4.00E+01V
10691
2.8-3 TOLUENE 4.00E+00JA
6.6-6.8 TOLUENE 5.20E+01V
11.4-11.6 TOLUENE 6.00E+00V
15.1-15.3 TOLUENE 6.00E+00V
19.8-20 TOLUENE 4.00E+01V
23.8-24 TOLUENE 6.80E+01V
26.8-27 TOLUENE 6.60E+01V
30.6-30.8 TOLUENE 5.30E+01V
35.8-36 TOLUENE 9.50E+01V
39.5-39.7 TOLUENE 3.30E+01V
43.8-44 TOLUENE 6.70E+01V
216.2
CENTRAL AVE.
05291
05191
44.5-44.7 TOLUENE 4.70E+01V
05091
44.4-44.6 TOLUENE 3.80E+01V
10891
47.8-48 TOLUENE 7.80E+01V
216.3
10991
45.3-45.5 TOLUENE 1.00E+02V
47.8-48 TOLUENE 6.00E+00V
B218189
04991
40.5-40.7 TOLUENE 7.50E+01V
111.1
111.7
04891
43.5-43.7 TOLUENE 1.20E+01V
10791
6.8-7 TOLUENE 9.00E+00V
8.3-8.5 TOLUENE 2.00E+01V
15.8-16 TOLUENE 6.60E+01V
18.6-18.8 TOLUENE 1.10E+01V
23.6-23.8 TOLUENE 7.00E+00V
26.4-26.6 TOLUENE 3.00E+00JA
31.8-32 TOLUENE 3.10E+01V
35.8-36 TOLUENE 5.90E+01V
39.8-40 TOLUENE 1.00E+01V
43.8-44 TOLUENE 8.80E+01V
47.8-48 TOLUENE 2.10E+01V
04691
43.9-44.1 TOLUENE 1.40E+01V
04591
44.1-44.3 TOLUENE 3.40E+01V
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W. LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
20791 OBSERVATION OR PUMPING WELL LOCATION
111.4 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
08191 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
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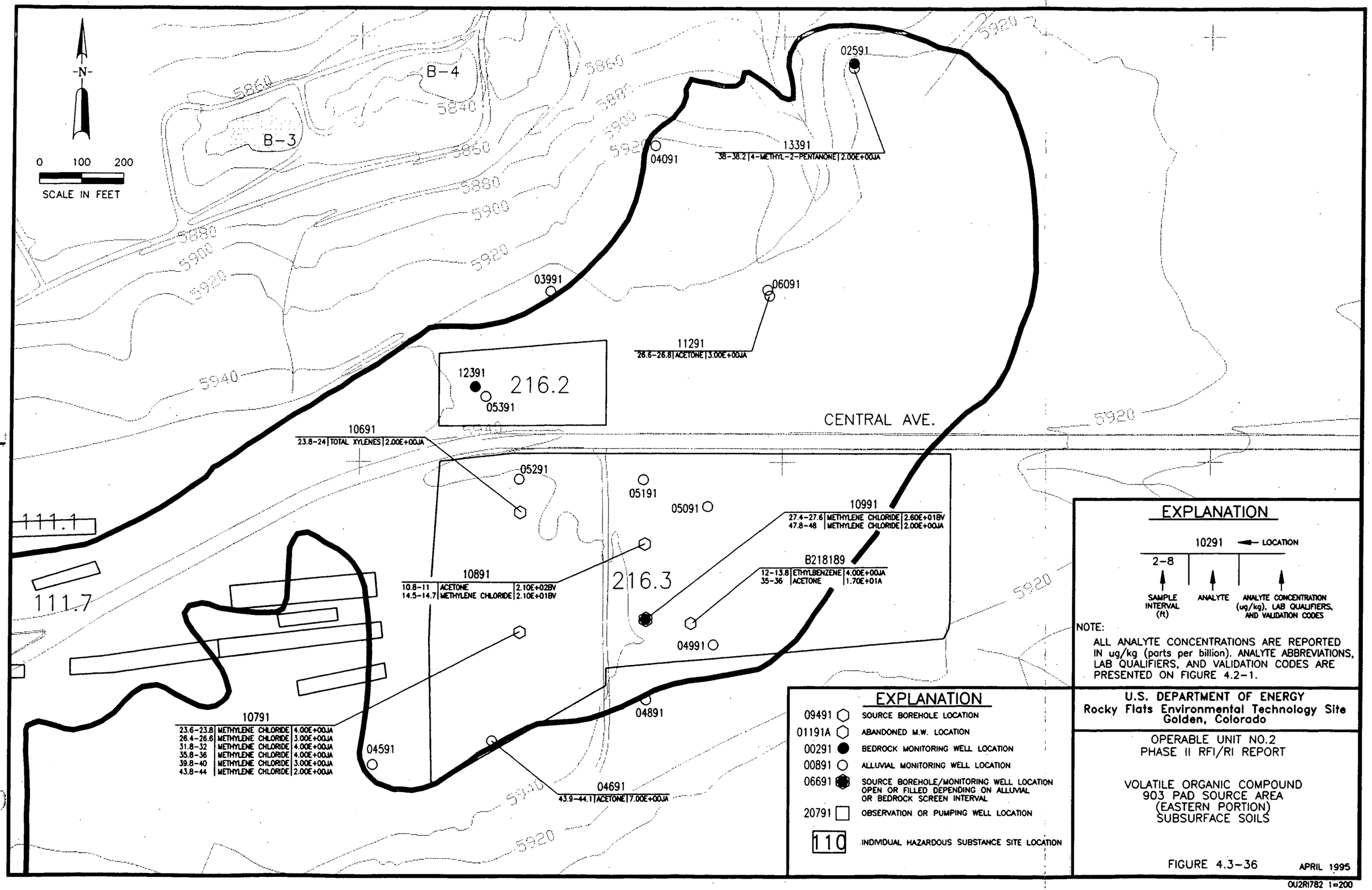
PHASE II RFI/RI REPORT
TOLUENE
903 PAD SOURCE AREA
(EASTERN PORTION)
SUBSURFACE SOILS
FIGURE 4.3-35
APRIL 1995
0U2RI775 1=200


-N-
0 100 200
SCALE IN FEET
B-4
B-3
5860
5840
5880
5900
5920
5940
02591
13391
38-38.2 | 4-METHYL-2-PENTANONE | 2.00E+00JA
04091
03991
06091
11291
26.6-26.8 | ACETONE | 3.00E+00JA
12391
216.2
05391
CENTRAL AVE.
10691
23.8-24 | TOTAL XYLENES | 2.00E+00JA
05291
05191
05091
10991
27.4-27.6 | METHYLENE CHLORIDE | 2.60E+01BV
47.8-48 | METHYLENE CHLORIDE | 2.00E+00JA
B218189
12-13.8 | ETHYLBENZENE | 4.00E+00JA
35-36 | ACETONE | 1.70E+01A
111.1
111.7
10891
10.8-11 | ACETONE | 2.10E+02BV
14.5-14.7 | METHYLENE CHLORIDE | 2.10E+01BV
216.3
04991
04891
10791
23.6-23.8 | METHYLENE CHLORIDE | 4.00E+00JA
26.4-26.6 | METHYLENE CHLORIDE | 3.00E+00JA
31.8-32 | METHYLENE CHLORIDE | 4.00E+00JA
35.8-36 | METHYLENE CHLORIDE | 4.00E+00JA
39.8-40 | METHYLENE CHLORIDE | 3.00E+00JA
43.8-44 | METHYLENE CHLORIDE | 2.00E+00JA
04591
04691
43.9-44.1 | ACETONE | 7.00E+00JA
EXPLANATION
10291 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W. LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREEN INTERVAL
20791 OBSERVATION OR PUMPING WELL LOCATION
110 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
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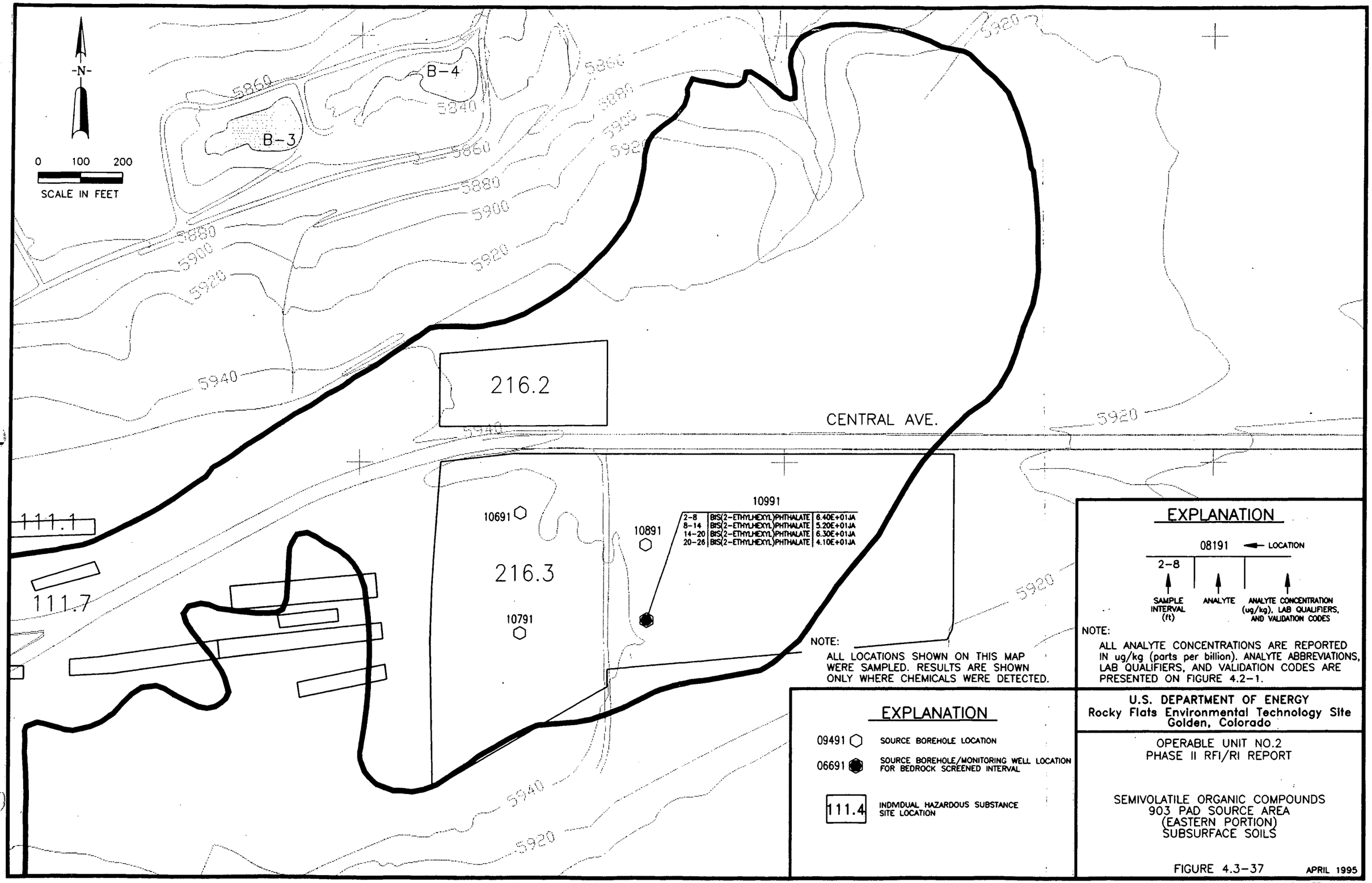
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
VOLATILE ORGANIC COMPOUND
903 PAD SOURCE AREA
(EASTERN PORTION)
SUBSURFACE SOILS
FIGURE 4.3-36
APRIL 1995
OU2RI782 1=200


-N-
0 100 200
SCALE IN FEET
B-4
B-3
5860
5840
5880
5900
5920
5940
216.2
CENTRAL AVE.
111.1
111.7
10691
10891
10991
216.3
10791
2-8 BIS(2-ETHYLHEXYL)PHTHALATE 6.40E+01JA
8-14 BIS(2-ETHYLHEXYL)PHTHALATE 5.20E+01JA
14-20 BIS(2-ETHYLHEXYL)PHTHALATE 6.30E+01JA
20-26 BIS(2-ETHYLHEXYL)PHTHALATE 4.10E+01JA
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR BEDROCK SCREENED INTERVAL
111.4 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
08191 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
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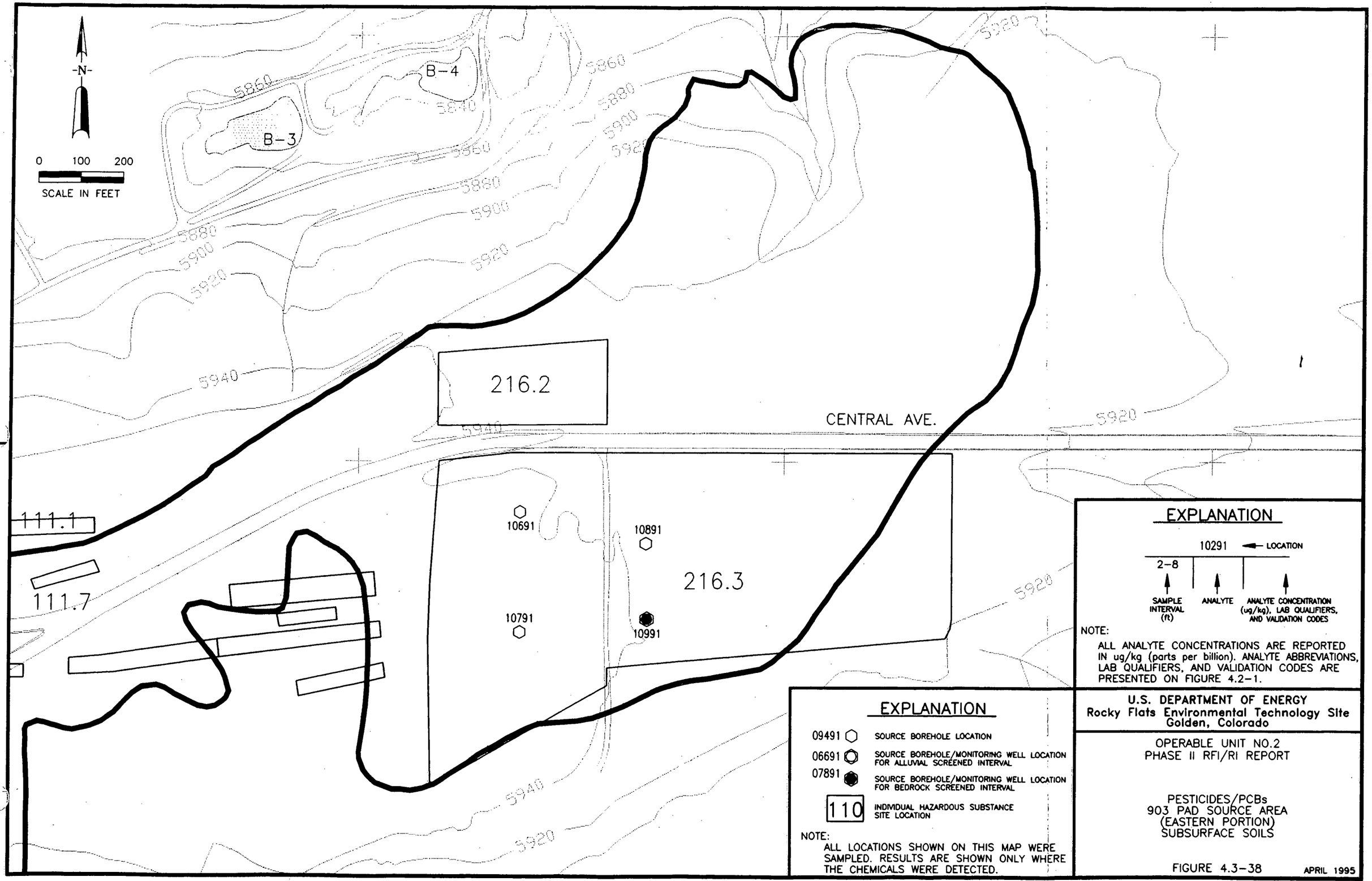
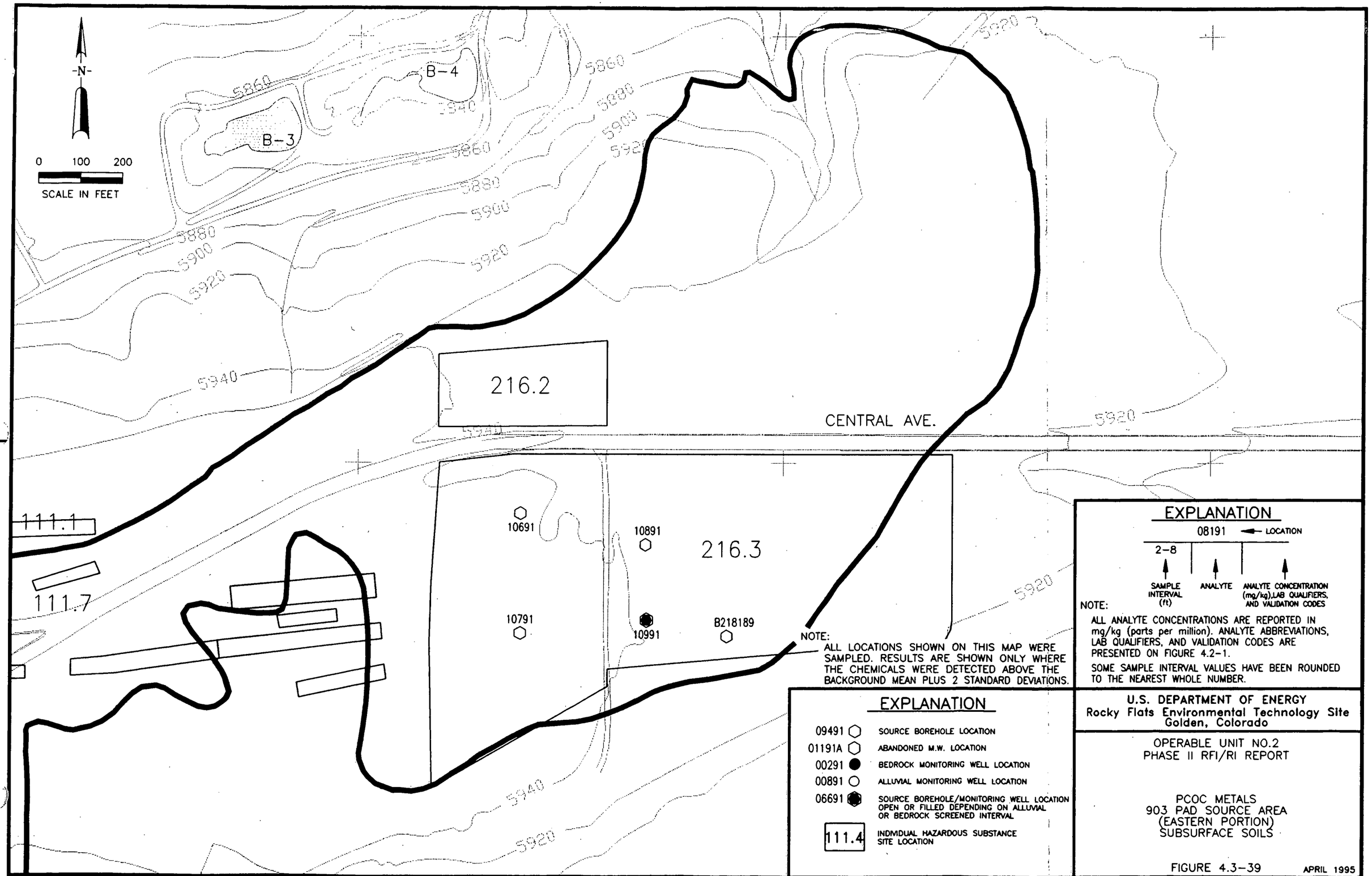
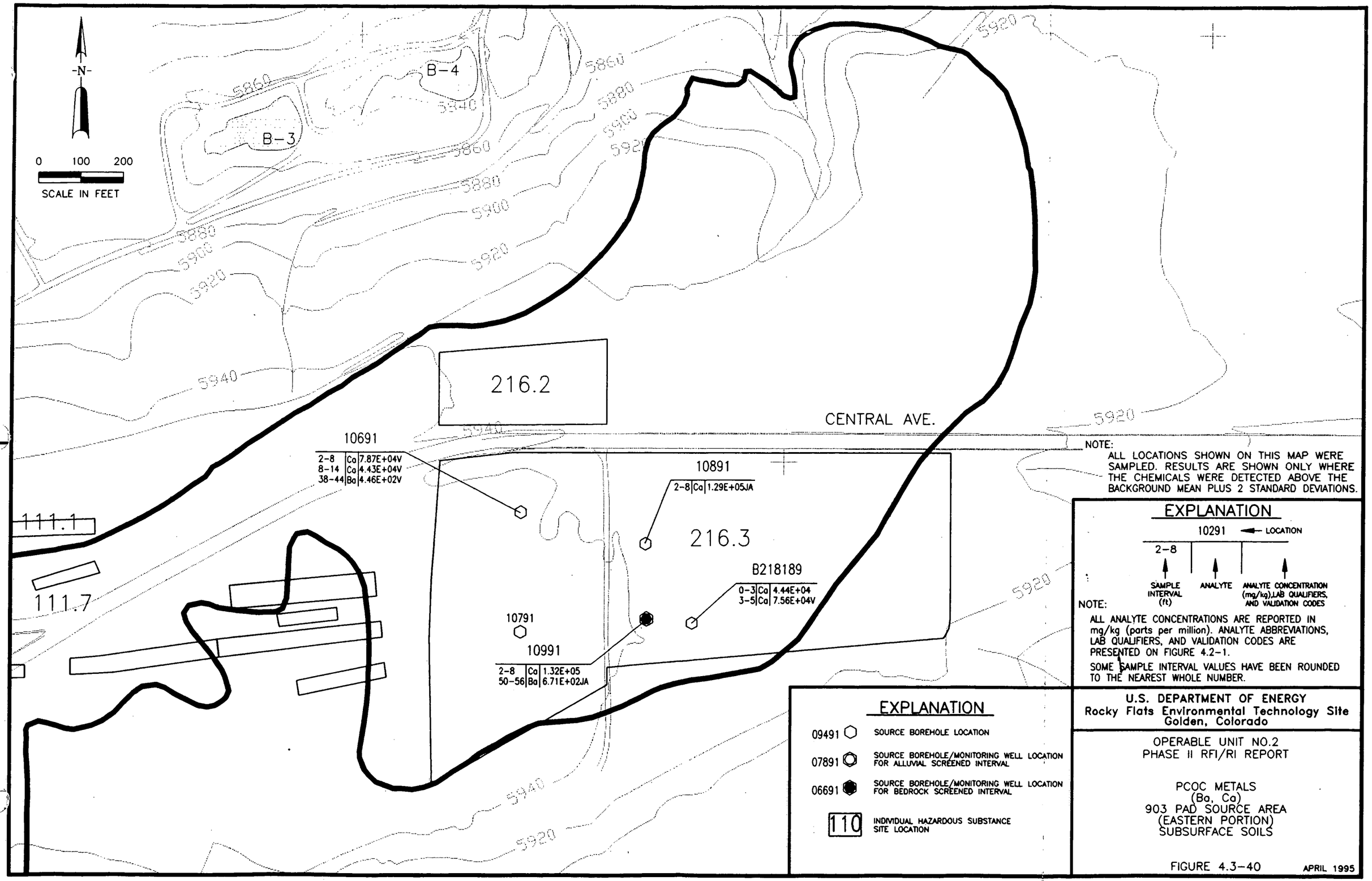
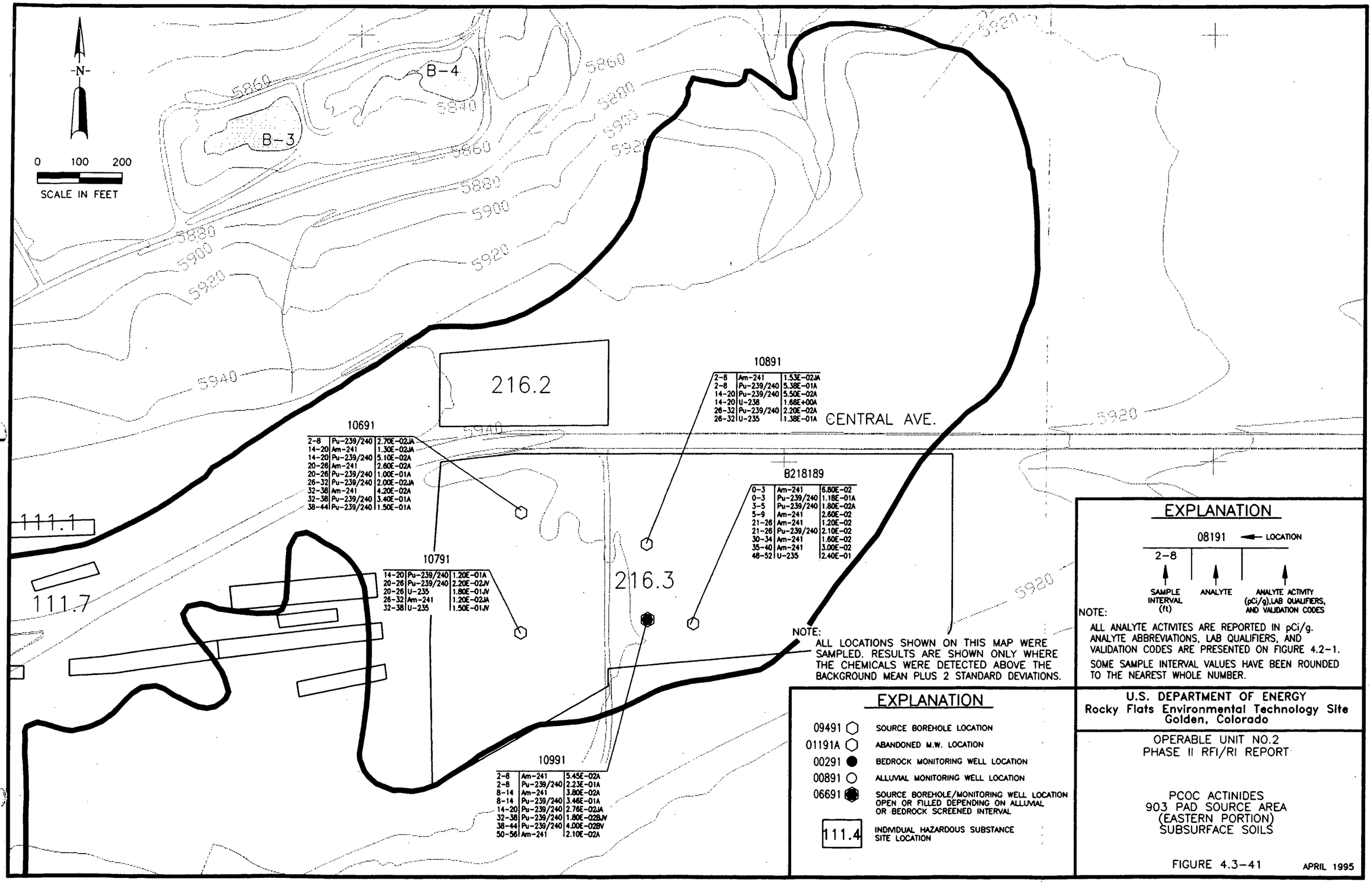
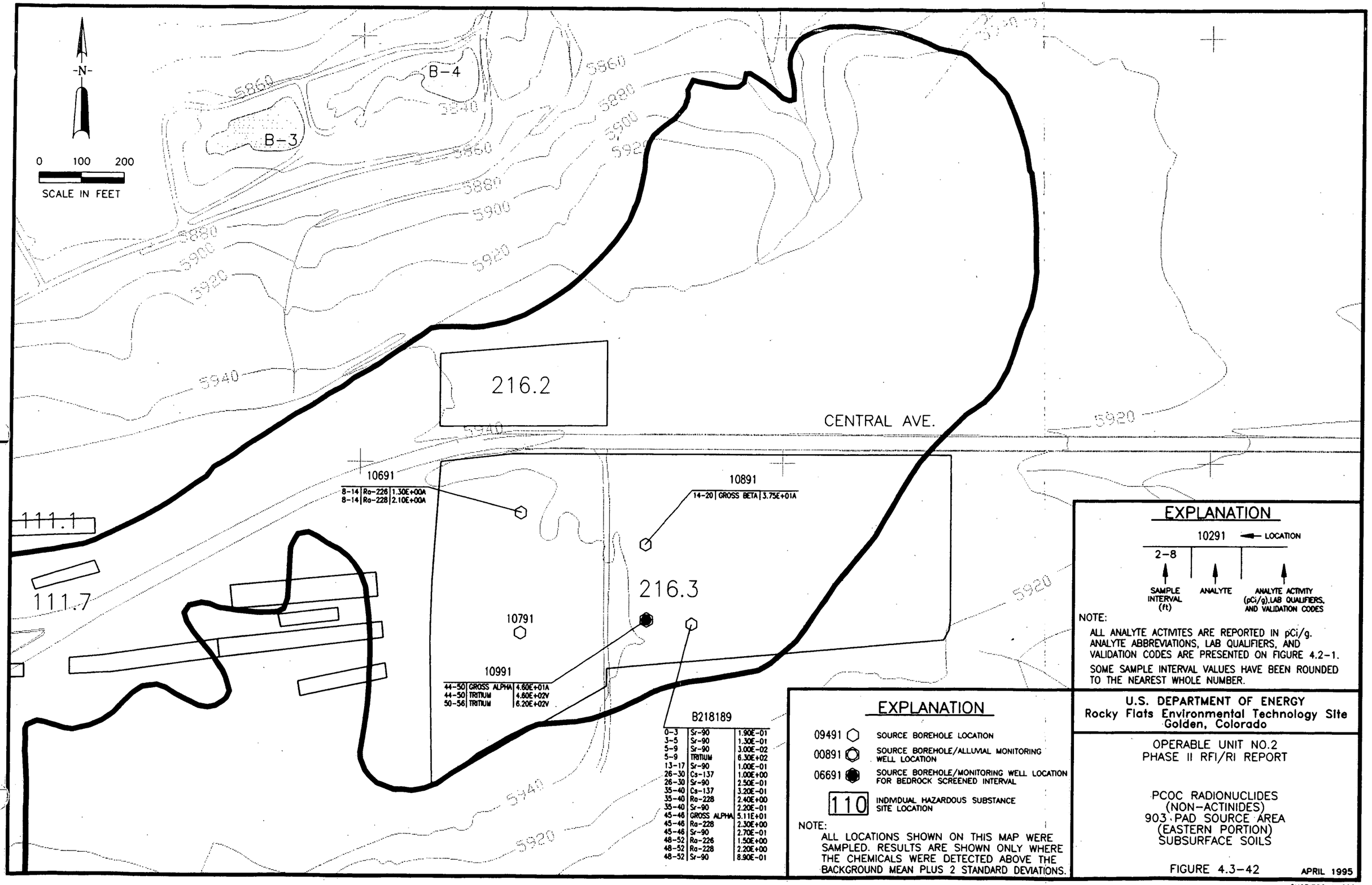
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
SEMIVOLATILE ORGANIC COMPOUNDS
903 PAD SOURCE AREA
(EASTERN PORTION)
SUBSURFACE SOILS
FIGURE 4.3-37
APRIL 1995
OU2RI774 1=200

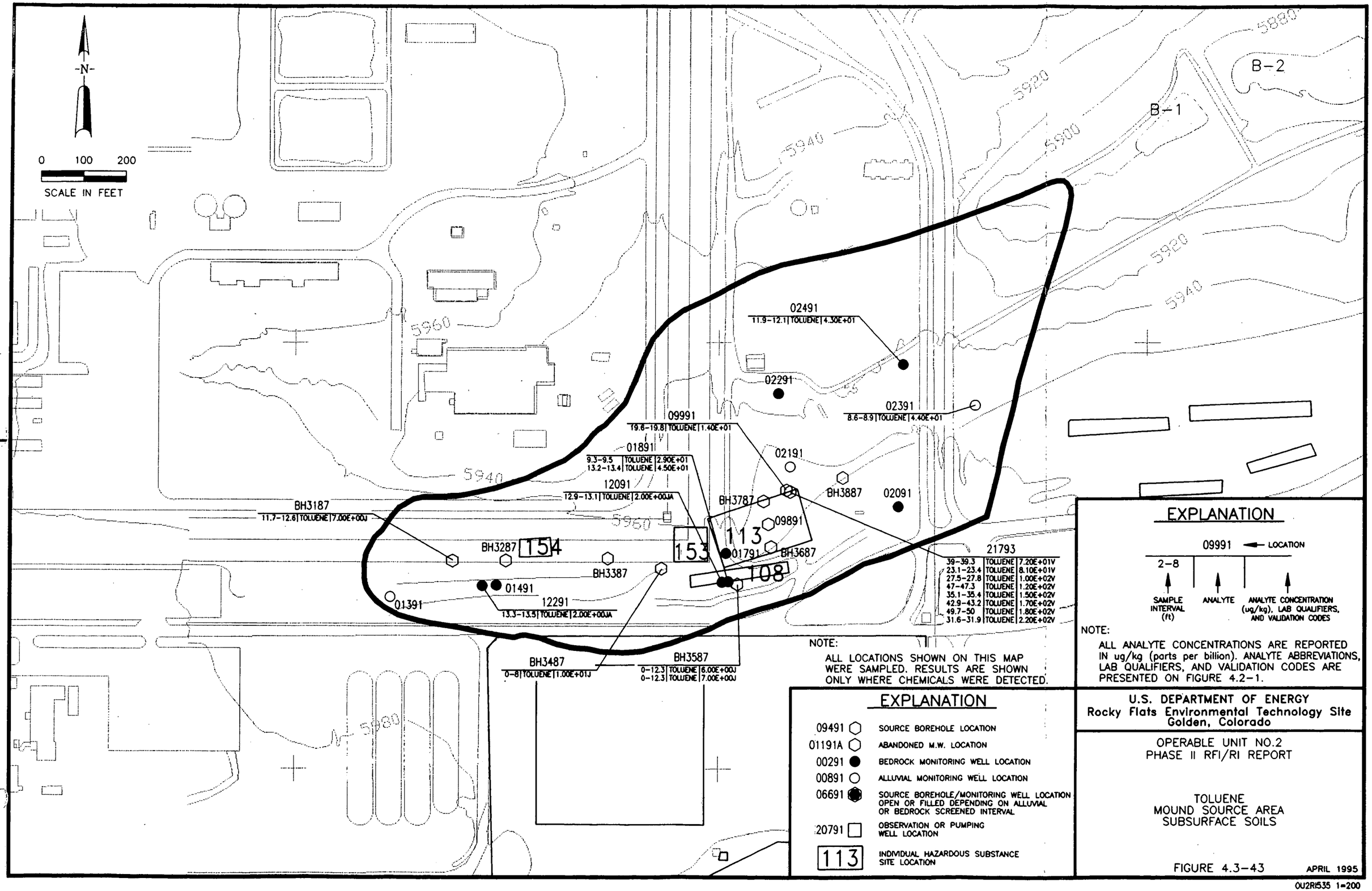

-N-
0 100 200
SCALE IN FEET
B-4
B-3
5860
5880
5900
5920
5940
5960
216.2
CENTRAL AVE.
111.1
111.7
216.3
10691
10891
10791
10991
EXPLANATION
10291 ← LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR ALLUVIAL SCREENED INTERVAL
07891 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR BEDROCK SCREENED INTERVAL
110 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED.
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
PESTICIDES/PCBs
903 PAD SOURCE AREA
(EASTERN PORTION)
SUBSURFACE SOILS
FIGURE 4.3-38
APRIL 1995
OU2RI777 1=200

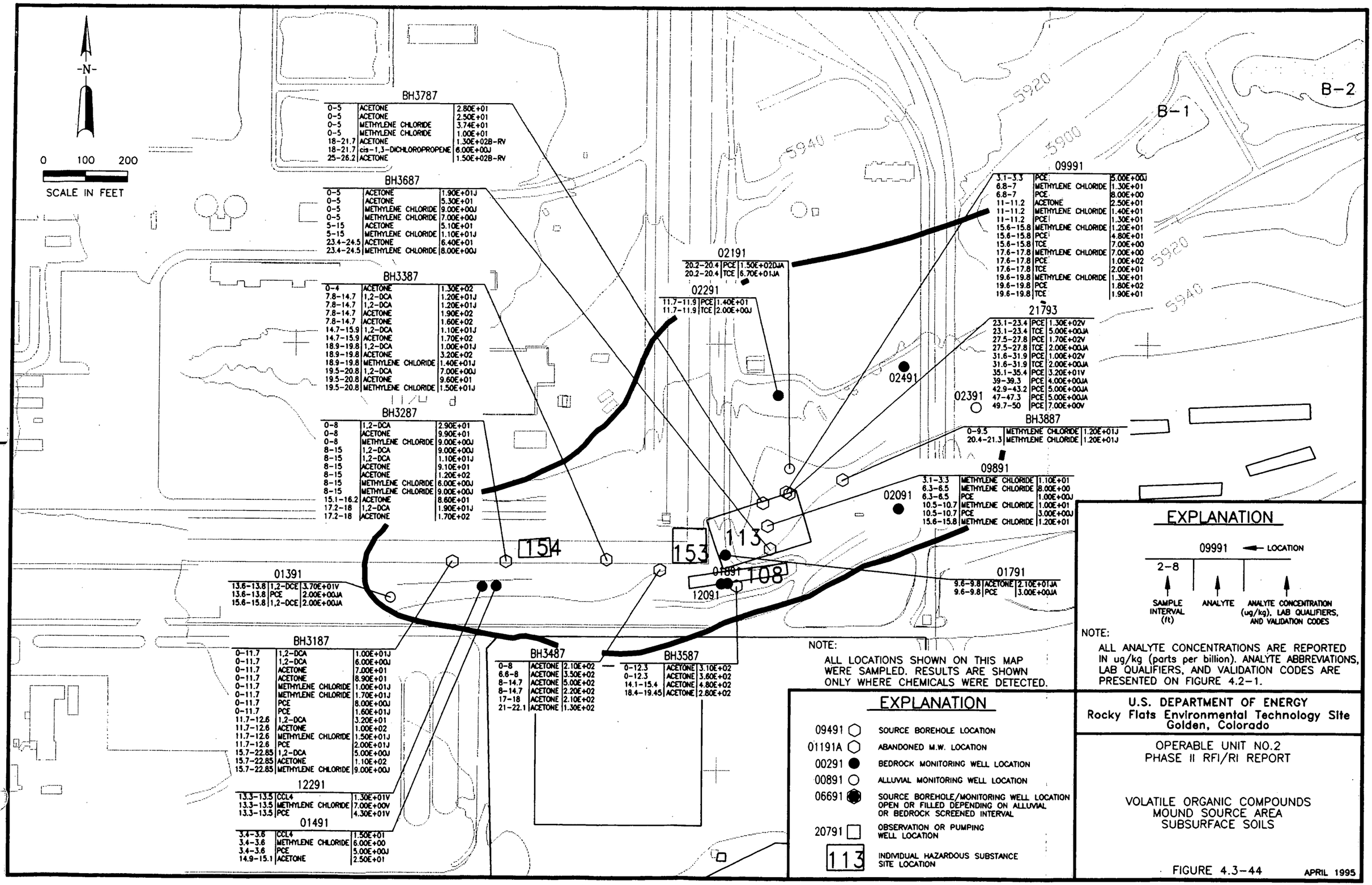

-N-
0 100 200
SCALE IN FEET
B-4
B-3
5860
5880
5900
5920
5940
216.2
CENTRAL AVE.
111.1
111.7
216.3
10691
10891
10791
10991
B218189
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.
EXPLANATION
08191 ← LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (mg/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN mg/kg (parts per million). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W. LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
111.4 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
PCOC METALS
903 PAD SOURCE AREA
(EASTERN PORTION)
SUBSURFACE SOILS
FIGURE 4.3-39
APRIL 1995
OU2RI779 1=200

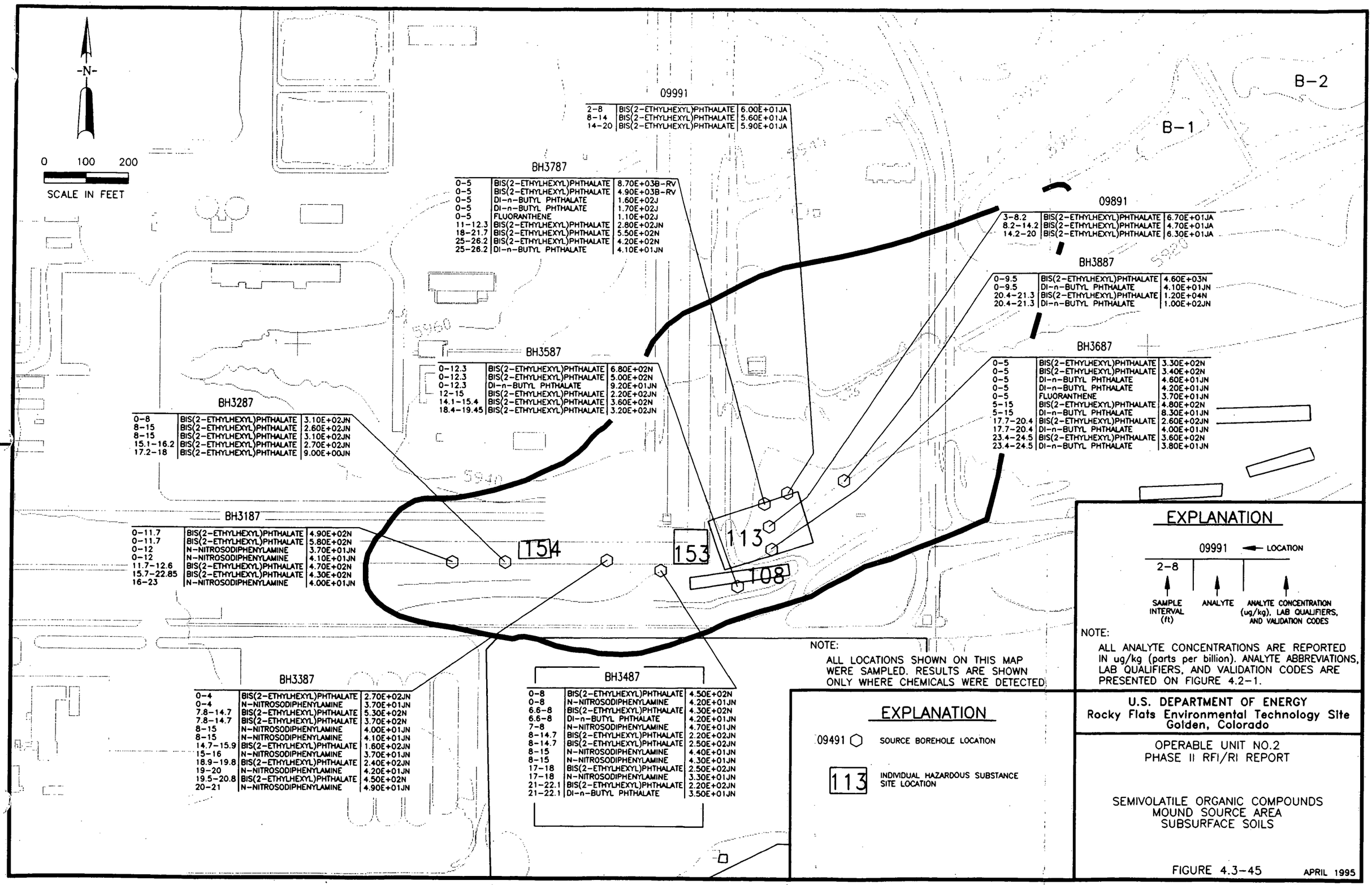

-N-
0 100 200
SCALE IN FEET
B-4
B-3
5860
5880
5900
5920
5940
216.2
CENTRAL AVE.
10691
2-8 Ca 7.87E+04V
8-14 Ca 4.43E+04V
38-44 Ba 4.46E+02V
10891
2-8 Ca 1.29E+05JA
216.3
B218189
0-3 Ca 4.44E+04
3-5 Ca 7.56E+04V
111.1
111.7
10791
10991
2-8 Ca 1.32E+05
50-56 Ba 6.71E+02JA
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.
EXPLANATION
10291 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (mg/kg),LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN mg/kg (parts per million). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
07891 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR ALLUVIAL SCREENED INTERVAL
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR BEDROCK SCREENED INTERVAL
110 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
PCOC METALS
(Ba, Ca)
903 PAD SOURCE AREA
(EASTERN PORTION)
SUBSURFACE SOILS
FIGURE 4.3-40
APRIL 1995
OU2RI781 1=200

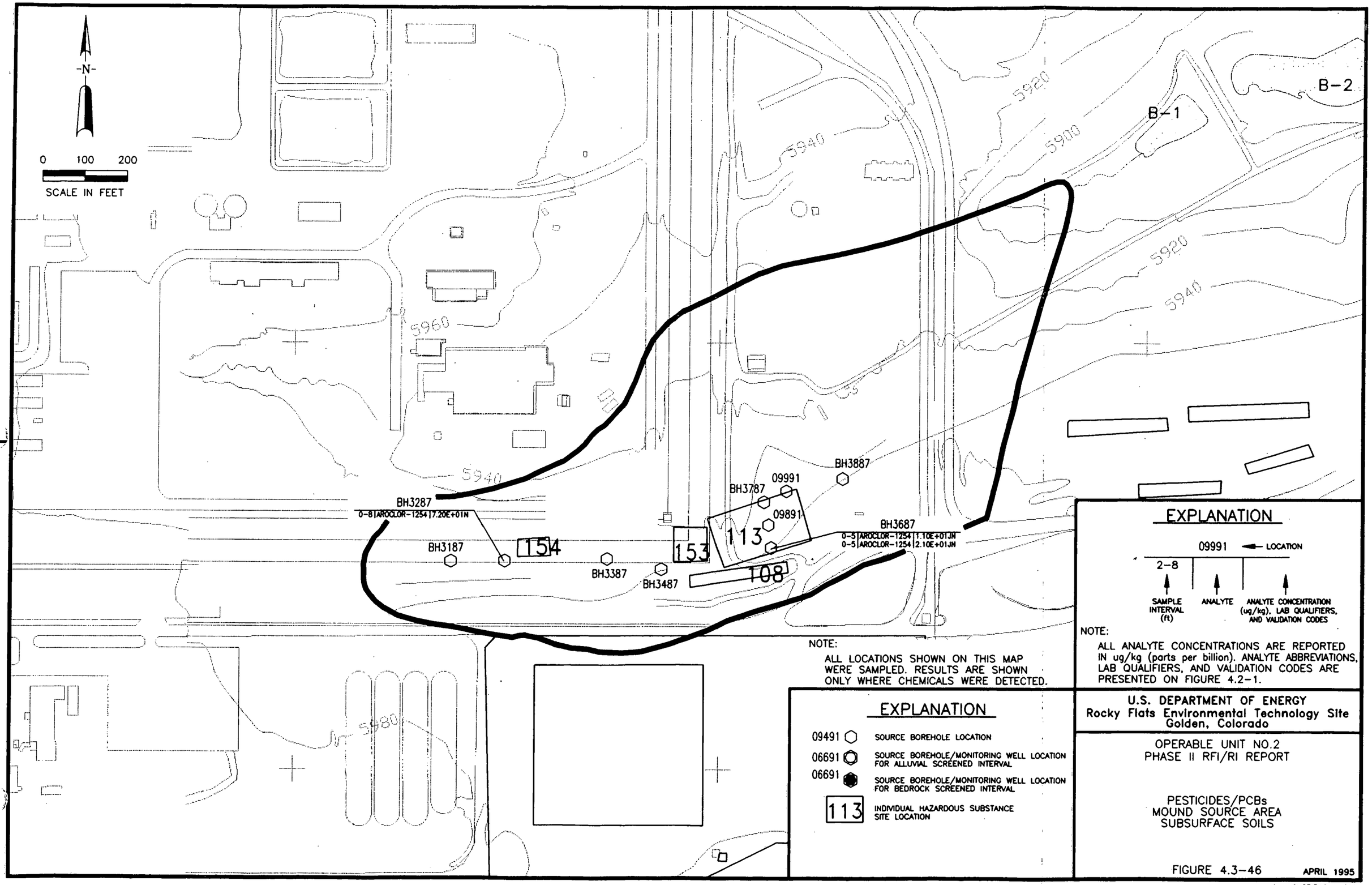

-N-
0 100 200
SCALE IN FEET
B-4
B-3
5860
5840
5880
5900
5920
5940
216.2
216.3
111.1
111.7
CENTRAL AVE.
10691
2-8 Pu-239/240 2.70E-02JA
14-20 Am-241 1.30E-02JA
14-20 Pu-239/240 5.10E-02A
20-26 Am-241 2.60E-02A
20-26 Pu-239/240 1.00E-01A
26-32 Pu-239/240 2.00E-02JA
32-38 Am-241 4.20E-02A
32-38 Pu-239/240 3.40E-01A
38-44 Pu-239/240 1.50E-01A
10891
2-8 Am-241 1.53E-02JA
2-8 Pu-239/240 5.38E-01A
14-20 Pu-239/240 5.50E-02A
14-20 U-238 1.66E+00A
26-32 Pu-239/240 2.20E-02A
26-32 U-235 1.38E-01A
B218189
0-3 Am-241 6.80E-02
0-3 Pu-239/240 1.18E-01A
3-5 Pu-239/240 1.80E-02A
5-9 Am-241 2.60E-02
21-26 Am-241 1.20E-02
21-26 Pu-239/240 2.10E-02
30-34 Am-241 1.60E-02
35-40 Am-241 3.00E-02
48-52 U-235 2.40E-01
10791
14-20 Pu-239/240 1.20E-01A
20-26 Pu-239/240 2.20E-02JV
20-26 U-235 1.80E-01JV
26-32 Am-241 1.20E-02JA
32-38 U-235 1.50E-01JV
10991
2-8 Am-241 5.45E-02A
2-8 Pu-239/240 2.23E-01A
8-14 Am-241 3.80E-02A
8-14 Pu-239/240 3.46E-01A
14-20 Pu-239/240 2.76E-02JA
32-38 Pu-239/240 1.80E-02BJV
38-44 Pu-239/240 4.00E-02BV
50-56 Am-241 2.10E-02A
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.
EXPLANATION
08191 ← LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE ACTIVITY (pCi/g), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE ACTIVITES ARE REPORTED IN pCi/g. ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W. LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
111.4 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
PCOC ACTINIDES
903 PAD SOURCE AREA
(EASTERN PORTION)
SUBSURFACE SOILS
FIGURE 4.3-41
APRIL 1995
OU2RI784 1=200

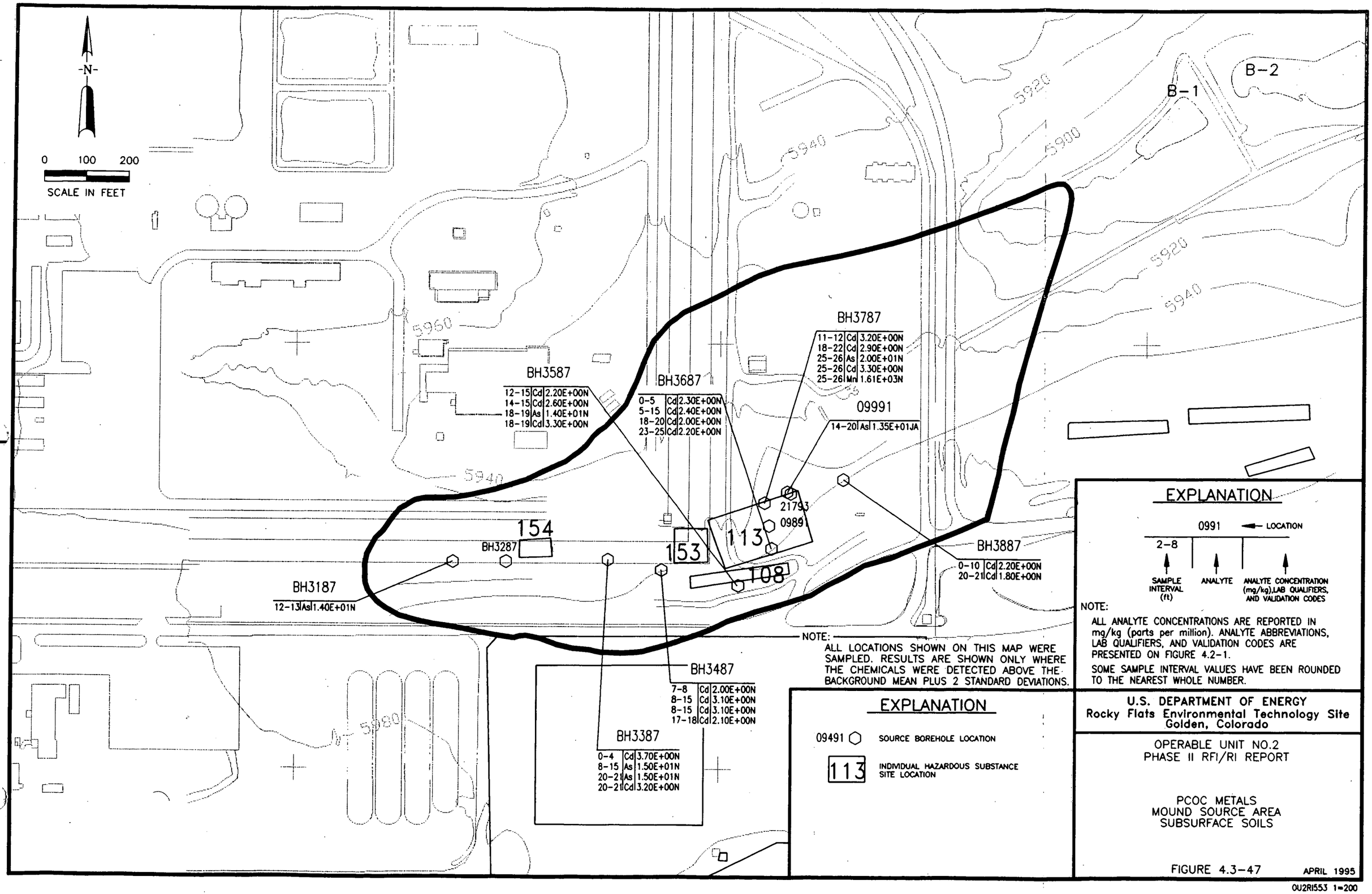

-N-
0 100 200
SCALE IN FEET
B-4
B-3
5860
5840
5880
5900
5920
5940
5960
216.2
CENTRAL AVE.
111.1
111.7
10691
8-14 | Ra-226 | 1.30E+00A
8-14 | Ra-228 | 2.10E+00A
10891
14-20 | GROSS BETA | 3.75E+01A
216.3
10791
10991
44-50 | GROSS ALPHA | 4.80E+01A
44-50 | TRITIUM | 4.80E+02V
50-56 | TRITIUM | 6.20E+02V
B218189
0-3 | Sr-90 | 1.90E-01
3-5 | Sr-90 | 1.30E-01
5-9 | Sr-90 | 3.00E-02
5-9 | TRITIUM | 6.30E+02
13-17 | Sr-90 | 1.00E-01
26-30 | Cs-137 | 1.00E+00
26-30 | Sr-90 | 2.50E-01
35-40 | Cs-137 | 3.20E-01
35-40 | Ra-228 | 2.40E+00
35-40 | Sr-90 | 2.20E-01
45-46 | GROSS ALPHA | 5.11E+01
45-46 | Ra-228 | 2.30E+00
45-46 | Sr-90 | 2.70E-01
48-52 | Ra-226 | 1.50E+00
48-52 | Ra-228 | 2.20E+00
48-52 | Sr-90 | 8.90E-01
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
00891 SOURCE BOREHOLE/ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR BEDROCK SCREENED INTERVAL
110 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.
EXPLANATION
10291 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE ACTIVITY (pCi/g), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE ACTIVITES ARE REPORTED IN pCi/g. ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
PCOC RADIONUCLIDES
(NON-ACTINIDES)
903 PAD SOURCE AREA
(EASTERN PORTION)
SUBSURFACE SOILS
FIGURE 4.3-42
APRIL 1995
OU2RI786 1=200

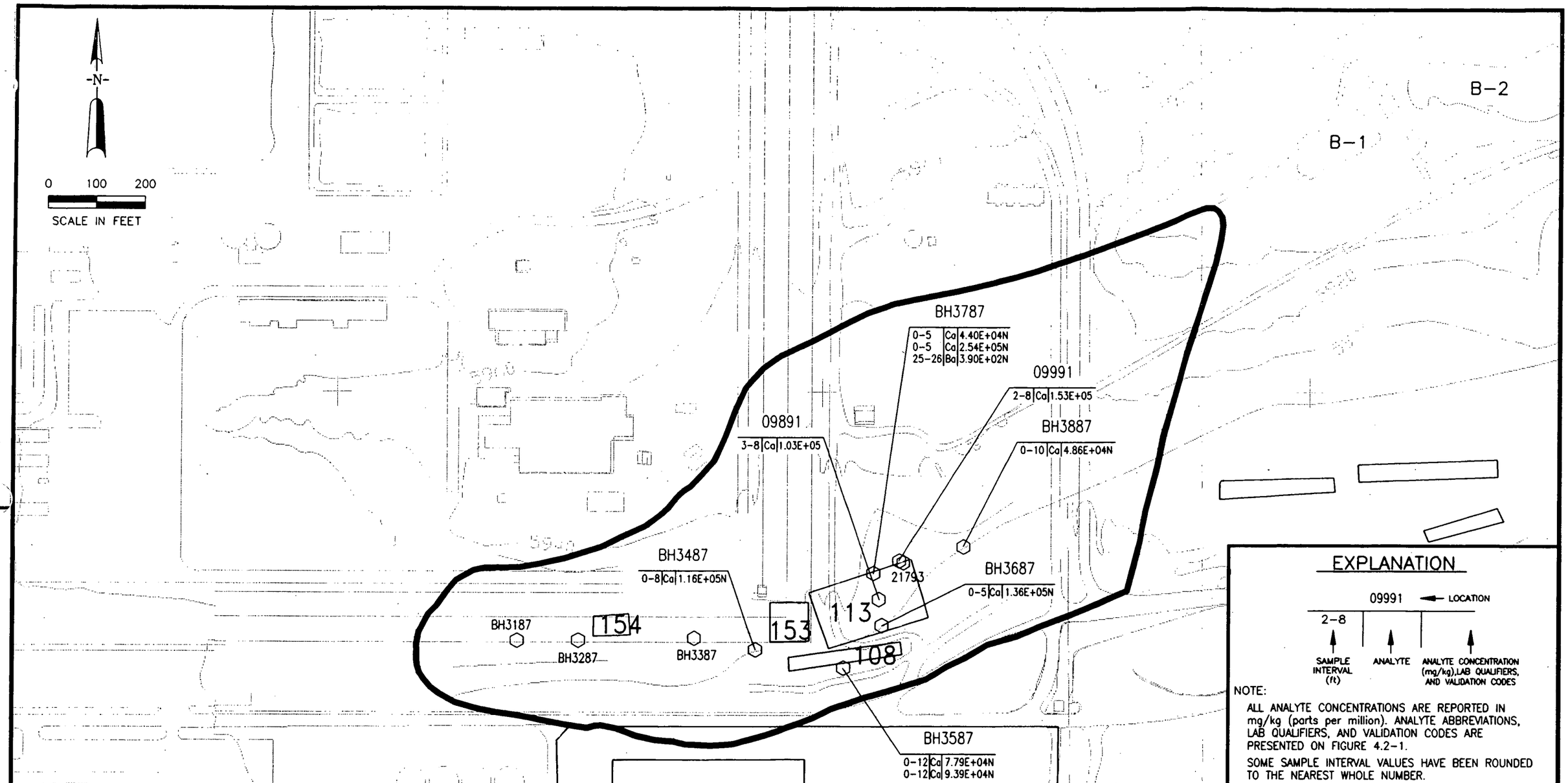

-N-
0 100 200
SCALE IN FEET
B-2
B-1
5880
5920
5900
5940
5920
5940
5960
5940
5960
5980
02491
11.9-12.1 TOLUENE 4.30E+01
02291
02391
8.6-8.9 TOLUENE 4.40E+01
09991
19.6-19.8 TOLUENE 1.40E+01
01891
9.3-9.5 TOLUENE 2.90E+01
13.2-13.4 TOLUENE 4.50E+01
02191
12091
12.9-13.1 TOLUENE 2.00E+00JA
BH3887
02091
BH3187
11.7-12.6 TOLUENE 7.00E+00J
BH3787
09891
113
153
01791
BH3687
BH3287
154
108
BH3387
01491
01391
12291
13.3-13.5 TOLUENE 2.00E+00JA
21793
39-39.3 TOLUENE 7.20E+01V
23.1-23.4 TOLUENE 8.10E+01V
27.5-27.8 TOLUENE 1.00E+02V
47-47.3 TOLUENE 1.20E+02V
35.1-35.4 TOLUENE 1.50E+02V
42.9-43.2 TOLUENE 1.70E+02V
49.7-50 TOLUENE 1.80E+02V
31.6-31.9 TOLUENE 2.20E+02V
BH3487
0-8 TOLUENE 1.00E+01J
BH3587
0-12.3 TOLUENE 6.00E+00J
0-12.3 TOLUENE 7.00E+00J
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED.
EXPLANATION
09991 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W. LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
20791 OBSERVATION OR PUMPING WELL LOCATION
113 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
TOLUENE
MOUND SOURCE AREA
SUBSURFACE SOILS
FIGURE 4.3-43
APRIL 1995
OU2RI535 1=200


-N-
0 100 200
SCALE IN FEET
B-1
B-2
5920
5940
5900
BH3787
0-5 ACETONE 2.80E+01
0-5 ACETONE 2.50E+01
0-5 METHYLENE CHLORIDE 3.74E+01
0-5 METHYLENE CHLORIDE 1.00E+01
18-21.7 ACETONE 1.30E+02B-RV
18-21.7 cis-1,3-DICHLOROPROPENE 6.00E+00J
25-26.2 ACETONE 1.50E+02B-RV
BH3687
0-5 ACETONE 1.90E+01J
0-5 ACETONE 5.30E+01
0-5 METHYLENE CHLORIDE 9.00E+00J
0-5 METHYLENE CHLORIDE 7.00E+00J
5-15 ACETONE 5.10E+01
5-15 METHYLENE CHLORIDE 1.10E+01J
23.4-24.5 ACETONE 6.40E+01
23.4-24.5 METHYLENE CHLORIDE 8.00E+00J
BH3387
0-4 ACETONE 1.30E+02
7.8-14.7 1,2-DCA 1.20E+01J
7.8-14.7 1,2-DCA 1.20E+01J
7.8-14.7 ACETONE 1.90E+02
7.8-14.7 ACETONE 1.60E+02
14.7-15.9 1,2-DCA 1.10E+01J
14.7-15.9 ACETONE 1.70E+02
18.9-19.8 1,2-DCA 1.00E+01J
18.9-19.8 ACETONE 3.20E+02
18.9-19.8 METHYLENE CHLORIDE 1.40E+01J
19.5-20.8 1,2-DCA 7.00E+00J
19.5-20.8 ACETONE 9.60E+01
19.5-20.8 METHYLENE CHLORIDE 1.50E+01J
BH3287
0-8 1,2-DCA 2.90E+01
0-8 ACETONE 9.90E+01
0-8 METHYLENE CHLORIDE 9.00E+00J
8-15 1,2-DCA 9.00E+00J
8-15 1,2-DCA 1.10E+01J
8-15 ACETONE 9.10E+01
8-15 ACETONE 1.20E+02
8-15 METHYLENE CHLORIDE 6.00E+00J
8-15 METHYLENE CHLORIDE 9.00E+00J
15.1-16.2 ACETONE 8.60E+01
17.2-18 1,2-DCA 1.90E+01J
17.2-18 ACETONE 1.70E+02
02191
20.2-20.4 PCE 1.50E+02DJA
20.2-20.4 TCE 6.70E+01JA
02291
11.7-11.9 PCE 1.40E+01
11.7-11.9 TCE 2.00E+00J
09991
3.1-3.3 PCE 5.00E+00J
6.8-7 METHYLENE CHLORIDE 1.30E+01
6.8-7 PCE 8.00E+00
11-11.2 ACETONE 2.50E+01
11-11.2 METHYLENE CHLORIDE 1.40E+01
11-11.2 PCE 1.30E+01
15.6-15.8 METHYLENE CHLORIDE 1.20E+01
15.6-15.8 PCE 4.80E+01
15.6-15.8 TCE 7.00E+00
17.6-17.8 METHYLENE CHLORIDE 7.00E+00
17.6-17.8 PCE 1.00E+02
17.6-17.8 TCE 2.00E+01
19.6-19.8 METHYLENE CHLORIDE 1.30E+01
19.6-19.8 PCE 1.80E+02
19.6-19.8 TCE 1.90E+01
21793
23.1-23.4 PCE 1.30E+02V
23.1-23.4 TCE 5.00E+00JA
27.5-27.8 PCE 1.70E+02V
27.5-27.8 TCE 2.00E+00JA
31.6-31.9 PCE 1.00E+02V
31.6-31.9 TCE 2.00E+00JA
35.1-35.4 PCE 3.20E+01V
39-39.3 PCE 4.00E+00JA
42.9-43.2 PCE 5.00E+00JA
47-47.3 PCE 5.00E+00JA
49.7-50 PCE 7.00E+00V
02491
02391
BH3887
0-9.5 METHYLENE CHLORIDE 1.20E+01J
20.4-21.3 METHYLENE CHLORIDE 1.20E+01J
09891
3.1-3.3 METHYLENE CHLORIDE 1.10E+01
6.3-6.5 METHYLENE CHLORIDE 8.00E+00
6.3-6.5 PCE 1.00E+00J
10.5-10.7 METHYLENE CHLORIDE 1.00E+01
10.5-10.7 PCE 3.00E+00J
15.6-15.8 METHYLENE CHLORIDE 1.20E+01
02091
01791
9.6-9.8 ACETONE 2.10E+01JA
9.6-9.8 PCE 3.00E+00JA
154
153
113
108
01891
12091
01391
13.6-13.8 1,2-DCE 3.70E+01V
13.6-13.8 PCE 2.00E+00JA
15.6-15.8 1,2-DCE 2.00E+00JA
BH3187
0-11.7 1,2-DCA 1.00E+01J
0-11.7 1,2-DCA 6.00E+00J
0-11.7 ACETONE 7.00E+01
0-11.7 ACETONE 8.90E+01
0-11.7 METHYLENE CHLORIDE 1.00E+01J
0-11.7 METHYLENE CHLORIDE 1.70E+01J
0-11.7 PCE 8.00E+00J
0-11.7 PCE 1.60E+01J
11.7-12.6 1,2-DCA 3.20E+01
11.7-12.6 ACETONE 1.00E+02
11.7-12.6 METHYLENE CHLORIDE 1.50E+01J
11.7-12.6 PCE 2.00E+01J
15.7-22.85 1,2-DCA 5.00E+00J
15.7-22.85 ACETONE 1.10E+02
15.7-22.85 METHYLENE CHLORIDE 9.00E+00J
12291
13.3-13.5 CCL4 1.30E+01V
13.3-13.5 METHYLENE CHLORIDE 7.00E+00V
13.3-13.5 PCE 4.30E+01V
01491
3.4-3.6 CCL4 1.50E+01
3.4-3.6 METHYLENE CHLORIDE 6.00E+00
3.4-3.6 PCE 5.00E+00J
14.9-15.1 ACETONE 2.50E+01
BH3487
0-8 ACETONE 2.10E+02
6.6-8 ACETONE 3.50E+02
8-14.7 ACETONE 5.00E+02
8-14.7 ACETONE 2.20E+02
17-18 ACETONE 2.10E+02
21-22.1 ACETONE 1.30E+02
BH3587
0-12.3 ACETONE 3.10E+02
0-12.3 ACETONE 3.60E+02
14.1-15.4 ACETONE 4.80E+02
18.4-19.45 ACETONE 2.80E+02
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W. LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
20791 OBSERVATION OR PUMPING WELL LOCATION
113 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
09991 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
VOLATILE ORGANIC COMPOUNDS
MOUND SOURCE AREA
SUBSURFACE SOILS
FIGURE 4.3-44
APRIL 1995
OU2RI540 1=200


-N-
0 100 200
SCALE IN FEET
B-2
B-1
09991
2-8 BIS(2-ETHYLHEXYL)PHTHALATE 6.00E+01JA
8-14 BIS(2-ETHYLHEXYL)PHTHALATE 5.60E+01JA
14-20 BIS(2-ETHYLHEXYL)PHTHALATE 5.90E+01JA
BH3787
0-5 BIS(2-ETHYLHEXYL)PHTHALATE 8.70E+03B-RV
0-5 BIS(2-ETHYLHEXYL)PHTHALATE 4.90E+03B-RV
0-5 DI-n-BUTYL PHTHALATE 1.60E+02J
0-5 DI-n-BUTYL PHTHALATE 1.70E+02J
0-5 FLUORANTHENE 1.10E+02J
11-12.3 BIS(2-ETHYLHEXYL)PHTHALATE 2.80E+02JN
18-21.7 BIS(2-ETHYLHEXYL)PHTHALATE 5.50E+02N
25-26.2 BIS(2-ETHYLHEXYL)PHTHALATE 4.20E+02N
25-26.2 DI-n-BUTYL PHTHALATE 4.10E+01JN
09891
3-8.2 BIS(2-ETHYLHEXYL)PHTHALATE 6.70E+01JA
8.2-14.2 BIS(2-ETHYLHEXYL)PHTHALATE 4.70E+01JA
14.2-20 BIS(2-ETHYLHEXYL)PHTHALATE 6.30E+01JA
BH3887
0-9.5 BIS(2-ETHYLHEXYL)PHTHALATE 4.60E+03N
0-9.5 DI-n-BUTYL PHTHALATE 4.10E+01JN
20.4-21.3 BIS(2-ETHYLHEXYL)PHTHALATE 1.20E+04N
20.4-21.3 DI-n-BUTYL PHTHALATE 1.00E+02JN
BH3587
0-12.3 BIS(2-ETHYLHEXYL)PHTHALATE 6.80E+02N
0-12.3 BIS(2-ETHYLHEXYL)PHTHALATE 5.00E+02N
0-12.3 DI-n-BUTYL PHTHALATE 9.20E+01JN
12-15 BIS(2-ETHYLHEXYL)PHTHALATE 2.20E+02JN
14.1-15.4 BIS(2-ETHYLHEXYL)PHTHALATE 3.60E+02N
18.4-19.45 BIS(2-ETHYLHEXYL)PHTHALATE 3.20E+02JN
BH3687
0-5 BIS(2-ETHYLHEXYL)PHTHALATE 3.30E+02N
0-5 BIS(2-ETHYLHEXYL)PHTHALATE 3.40E+02N
0-5 DI-n-BUTYL PHTHALATE 4.60E+01JN
0-5 DI-n-BUTYL PHTHALATE 4.20E+01JN
0-5 FLUORANTHENE 3.70E+01JN
5-15 BIS(2-ETHYLHEXYL)PHTHALATE 4.80E+02N
5-15 DI-n-BUTYL PHTHALATE 8.30E+01JN
17.7-20.4 BIS(2-ETHYLHEXYL)PHTHALATE 2.60E+02JN
17.7-20.4 DI-n-BUTYL PHTHALATE 4.00E+01JN
23.4-24.5 BIS(2-ETHYLHEXYL)PHTHALATE 3.60E+02N
23.4-24.5 DI-n-BUTYL PHTHALATE 3.80E+01JN
BH3287
0-8 BIS(2-ETHYLHEXYL)PHTHALATE 3.10E+02JN
8-15 BIS(2-ETHYLHEXYL)PHTHALATE 2.60E+02JN
8-15 BIS(2-ETHYLHEXYL)PHTHALATE 3.10E+02JN
15.1-16.2 BIS(2-ETHYLHEXYL)PHTHALATE 2.70E+02JN
17.2-18 BIS(2-ETHYLHEXYL)PHTHALATE 9.00E+00JN
BH3187
0-11.7 BIS(2-ETHYLHEXYL)PHTHALATE 4.90E+02N
0-11.7 BIS(2-ETHYLHEXYL)PHTHALATE 5.80E+02N
0-12 N-NITROSODIPHENYLAMINE 3.70E+01JN
0-12 N-NITROSODIPHENYLAMINE 4.10E+01JN
11.7-12.6 BIS(2-ETHYLHEXYL)PHTHALATE 4.70E+02N
15.7-22.85 BIS(2-ETHYLHEXYL)PHTHALATE 4.30E+02N
16-23 N-NITROSODIPHENYLAMINE 4.00E+01JN
154
153
113
108
BH3387
0-4 BIS(2-ETHYLHEXYL)PHTHALATE 2.70E+02JN
0-4 N-NITROSODIPHENYLAMINE 3.70E+01JN
7.8-14.7 BIS(2-ETHYLHEXYL)PHTHALATE 5.30E+02N
7.8-14.7 BIS(2-ETHYLHEXYL)PHTHALATE 3.70E+02N
8-15 N-NITROSODIPHENYLAMINE 4.00E+01JN
8-15 N-NITROSODIPHENYLAMINE 4.10E+01JN
14.7-15.9 BIS(2-ETHYLHEXYL)PHTHALATE 1.60E+02JN
15-16 N-NITROSODIPHENYLAMINE 3.70E+01JN
18.9-19.8 BIS(2-ETHYLHEXYL)PHTHALATE 2.40E+02JN
19-20 N-NITROSODIPHENYLAMINE 4.20E+01JN
19.5-20.8 BIS(2-ETHYLHEXYL)PHTHALATE 4.50E+02N
20-21 N-NITROSODIPHENYLAMINE 4.90E+01JN
BH3487
0-8 BIS(2-ETHYLHEXYL)PHTHALATE 4.50E+02N
0-8 N-NITROSODIPHENYLAMINE 4.20E+01JN
6.6-8 BIS(2-ETHYLHEXYL)PHTHALATE 4.30E+02N
6.6-8 DI-n-BUTYL PHTHALATE 4.20E+01JN
7-8 N-NITROSODIPHENYLAMINE 4.70E+01JN
8-14.7 BIS(2-ETHYLHEXYL)PHTHALATE 2.20E+02JN
8-14.7 BIS(2-ETHYLHEXYL)PHTHALATE 2.50E+02JN
8-15 N-NITROSODIPHENYLAMINE 4.40E+01JN
8-15 N-NITROSODIPHENYLAMINE 4.30E+01JN
17-18 BIS(2-ETHYLHEXYL)PHTHALATE 2.50E+02JN
17-18 N-NITROSODIPHENYLAMINE 3.30E+01JN
21-22.1 BIS(2-ETHYLHEXYL)PHTHALATE 2.20E+02JN
21-22.1 DI-n-BUTYL PHTHALATE 3.50E+01JN
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
113 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
09991 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
SEMIVOLATILE ORGANIC COMPOUNDS
MOUND SOURCE AREA
SUBSURFACE SOILS
FIGURE 4.3-45
APRIL 1995
OU2RI529 1=200


-N-
0 100 200
SCALE IN FEET
5960
5940
5920
5900
5940
5920
5940
5980
B-1
B-2
BH3287
0-8|AROCLOR-1254|7.20E+01N
BH3187
154
BH3387
BH3487
153
113
108
BH3787
09991
09891
BH3887
BH3687
0-5|AROCLOR-1254|1.10E+01JN
0-5|AROCLOR-1254|2.10E+01JN
EXPLANATION
09991 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR ALLUVIAL SCREENED INTERVAL
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR BEDROCK SCREENED INTERVAL
113 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
PESTICIDES/PCBs
MOUND SOURCE AREA
SUBSURFACE SOILS
FIGURE 4.3-46
APRIL 1995
OU2RI546 1=200


-N-
0 100 200
SCALE IN FEET
B-1
B-2
5920
5930
5940
5950
5980
BH3787
11-12 Cd 3.20E+00N
18-22 Cd 2.90E+00N
25-26 As 2.00E+01N
25-26 Cd 3.30E+00N
25-26 Mn 1.61E+03N
09991
14-20 As 1.35E+01JA
BH3587
12-15 Cd 2.20E+00N
14-15 Cd 2.60E+00N
18-19 As 1.40E+01N
18-19 Cd 3.30E+00N
BH3687
0-5 Cd 2.30E+00N
5-15 Cd 2.40E+00N
18-20 Cd 2.00E+00N
23-25 Cd 2.20E+00N
21793
09891
154
BH3287
153
113
108
BH3887
0-10 Cd 2.20E+00N
20-21 Cd 1.80E+00N
BH3187
12-13 As 1.40E+01N
BH3487
7-8 Cd 2.00E+00N
8-15 Cd 3.10E+00N
8-15 Cd 3.10E+00N
17-18 Cd 2.10E+00N
BH3387
0-4 Cd 3.70E+00N
8-15 As 1.50E+01N
20-21 As 1.50E+01N
20-21 Cd 3.20E+00N
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
113 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
0991 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (mg/kg),LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN mg/kg (parts per million). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
PCOC METALS
MOUND SOURCE AREA
SUBSURFACE SOILS
FIGURE 4.3-47
APRIL 1995
OU2RI553 1=200



EXPLANATION

09991 ← LOCATION

2-8

SAMPLE INTERVAL (ft) | ANALYTE | ANALYTE CONCENTRATION (mg/kg), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:

ALL ANALYTE CONCENTRATIONS ARE REPORTED IN mg/kg (parts per million). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.

SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.

EXPLANATION

09491 ⬡ SOURCE BOREHOLE LOCATION

113 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

NOTE:

ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

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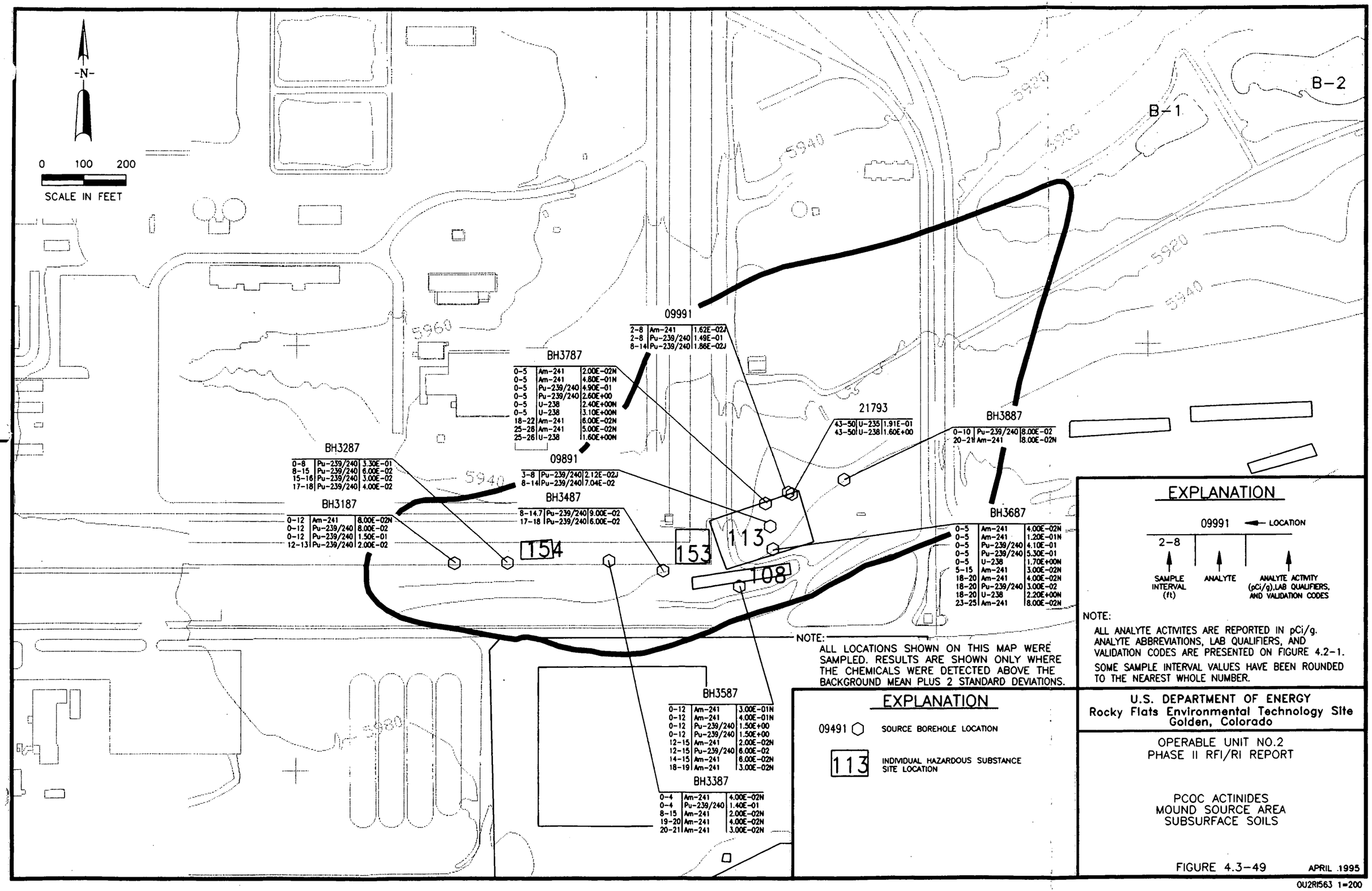
PCOC METALS
(Ba, Ca)
MOUND SOURCE AREA
SUBSURFACE SOILS

FIGURE 4.3-48

APRIL 1995

OU2RI548 1=200


-N-
0 100 200
SCALE IN FEET
B-2
B-1
5900
5905
5940
5920
5940
5960
5940
5980
09991
2-8 Am-241 1.62E-02J
2-8 Pu-239/240 1.49E-01
8-14 Pu-239/240 1.86E-02J
BH3787
0-5 Am-241 2.00E-02N
0-5 Am-241 4.80E-01N
0-5 Pu-239/240 4.90E-01
0-5 Pu-239/240 2.60E+00
0-5 U-238 2.40E+00N
0-5 U-238 3.10E+00N
18-22 Am-241 6.00E-02N
25-26 Am-241 5.00E-02N
25-26 U-238 1.60E+00N
21793
43-50 U-235 1.91E-01
43-50 U-238 1.60E+00
BH3887
0-10 Pu-239/240 8.00E-02
20-21 Am-241 8.00E-02N
BH3287
0-8 Pu-239/240 3.30E-01
8-15 Pu-239/240 6.00E-02
15-16 Pu-239/240 3.00E-02
17-18 Pu-239/240 4.00E-02
09891
3-8 Pu-239/240 2.12E-02J
8-14 Pu-239/240 7.04E-02
BH3487
8-14.7 Pu-239/240 9.00E-02
17-18 Pu-239/240 6.00E-02
BH3187
0-12 Am-241 8.00E-02N
0-12 Pu-239/240 8.00E-02
0-12 Pu-239/240 1.50E-01
12-13 Pu-239/240 2.00E-02
154
153
113
108
BH3687
0-5 Am-241 4.00E-02N
0-5 Am-241 1.20E-01N
0-5 Pu-239/240 4.10E-01
0-5 Pu-239/240 5.30E-01
0-5 U-238 1.70E+00N
5-15 Am-241 3.00E-02N
18-20 Am-241 4.00E-02N
18-20 Pu-239/240 3.00E-02
18-20 U-238 2.20E+00N
23-25 Am-241 8.00E-02N
BH3587
0-12 Am-241 3.00E-01N
0-12 Am-241 4.00E-01N
0-12 Pu-239/240 1.50E+00
0-12 Pu-239/240 1.50E+00
12-15 Am-241 2.00E-02N
12-15 Pu-239/240 6.00E-02
14-15 Am-241 6.00E-02N
18-19 Am-241 3.00E-02N
BH3387
0-4 Am-241 4.00E-02N
0-4 Pu-239/240 1.40E-01
8-15 Am-241 2.00E-02N
19-20 Am-241 4.00E-02N
20-21 Am-241 3.00E-02N
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
113 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
09991 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE ACTIVITY (pCi/g), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE ACTIVITES ARE REPORTED IN pCi/g. ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.
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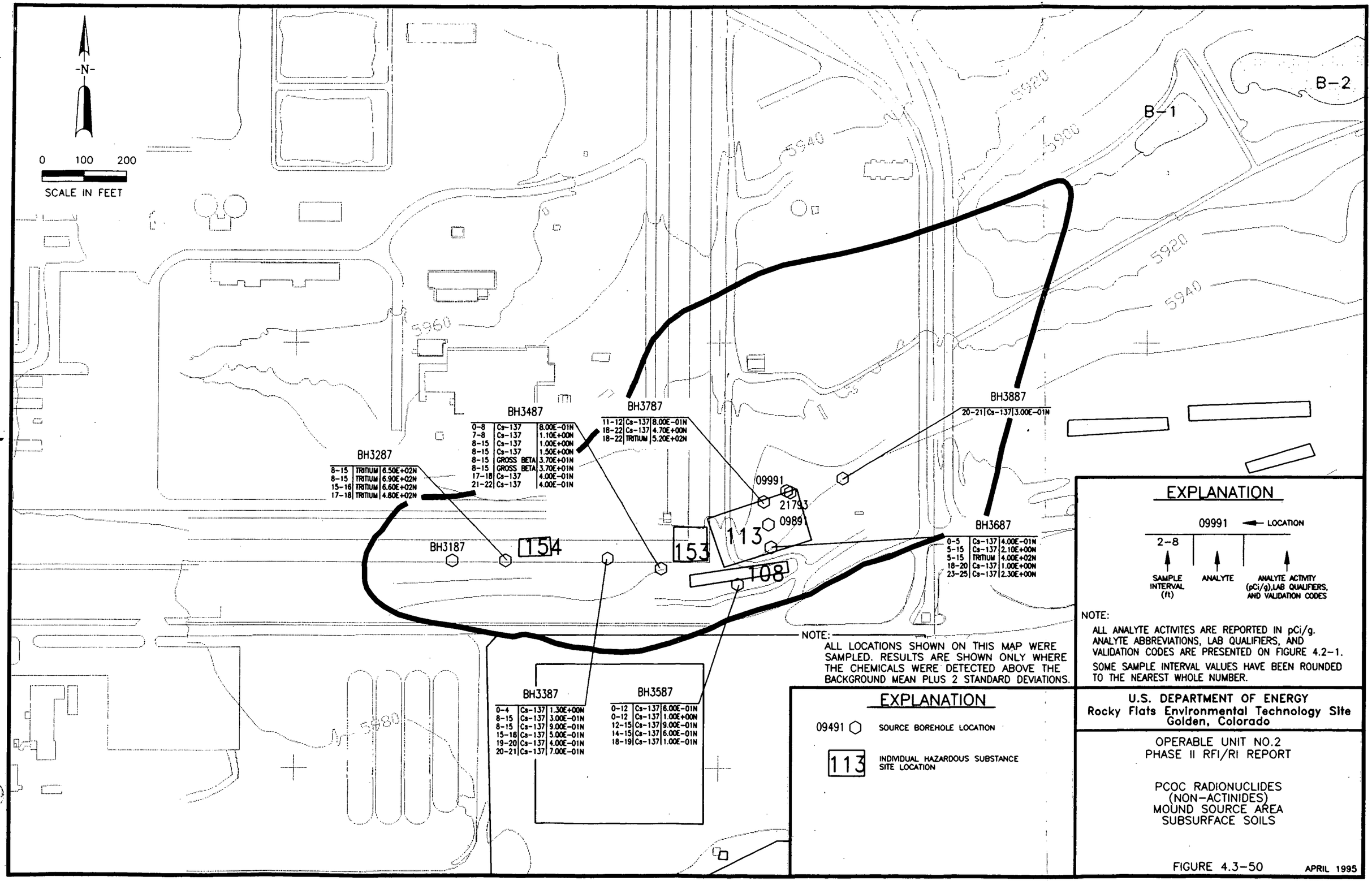
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
PCOC ACTINIDES
MOUND SOURCE AREA
SUBSURFACE SOILS
FIGURE 4.3-49
APRIL 1995
OU2RI563 1=200


-N-
0 100 200
SCALE IN FEET
B-1
B-2
5920
5940
5900
5960
5980
BH3487
0-8 Cs-137 8.00E-01N
7-8 Cs-137 1.10E+00N
8-15 Cs-137 1.00E+00N
8-15 Cs-137 1.50E+00N
8-15 GROSS BETA 3.70E+01N
8-15 GROSS BETA 3.70E+01N
17-18 Cs-137 4.00E-01N
21-22 Cs-137 4.00E-01N
BH3787
11-12 Cs-137 8.00E-01N
18-22 Cs-137 4.70E+00N
18-22 TRITIUM 5.20E+02N
BH3887
20-21 Cs-137 3.00E-01N
BH3287
8-15 TRITIUM 6.50E+02N
8-15 TRITIUM 6.90E+02N
15-16 TRITIUM 6.60E+02N
17-18 TRITIUM 4.80E+02N
09991
21793
09891
BH3187
154
153
113
108
BH3687
0-5 Cs-137 4.00E-01N
5-15 Cs-137 2.10E+00N
5-15 TRITIUM 4.00E+02N
18-20 Cs-137 1.00E+00N
23-25 Cs-137 2.30E+00N
BH3387
0-4 Cs-137 1.30E+00N
8-15 Cs-137 3.00E-01N
8-15 Cs-137 9.00E-01N
15-18 Cs-137 5.00E-01N
19-20 Cs-137 4.00E-01N
20-21 Cs-137 7.00E-01N
BH3587
0-12 Cs-137 6.00E-01N
0-12 Cs-137 1.00E+00N
12-15 Cs-137 9.00E-01N
14-15 Cs-137 6.00E-01N
18-19 Cs-137 1.00E-01N
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
113 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
09991 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE ACTIVITY (pCi/g), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE ACTIVITES ARE REPORTED IN pCi/g. ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.
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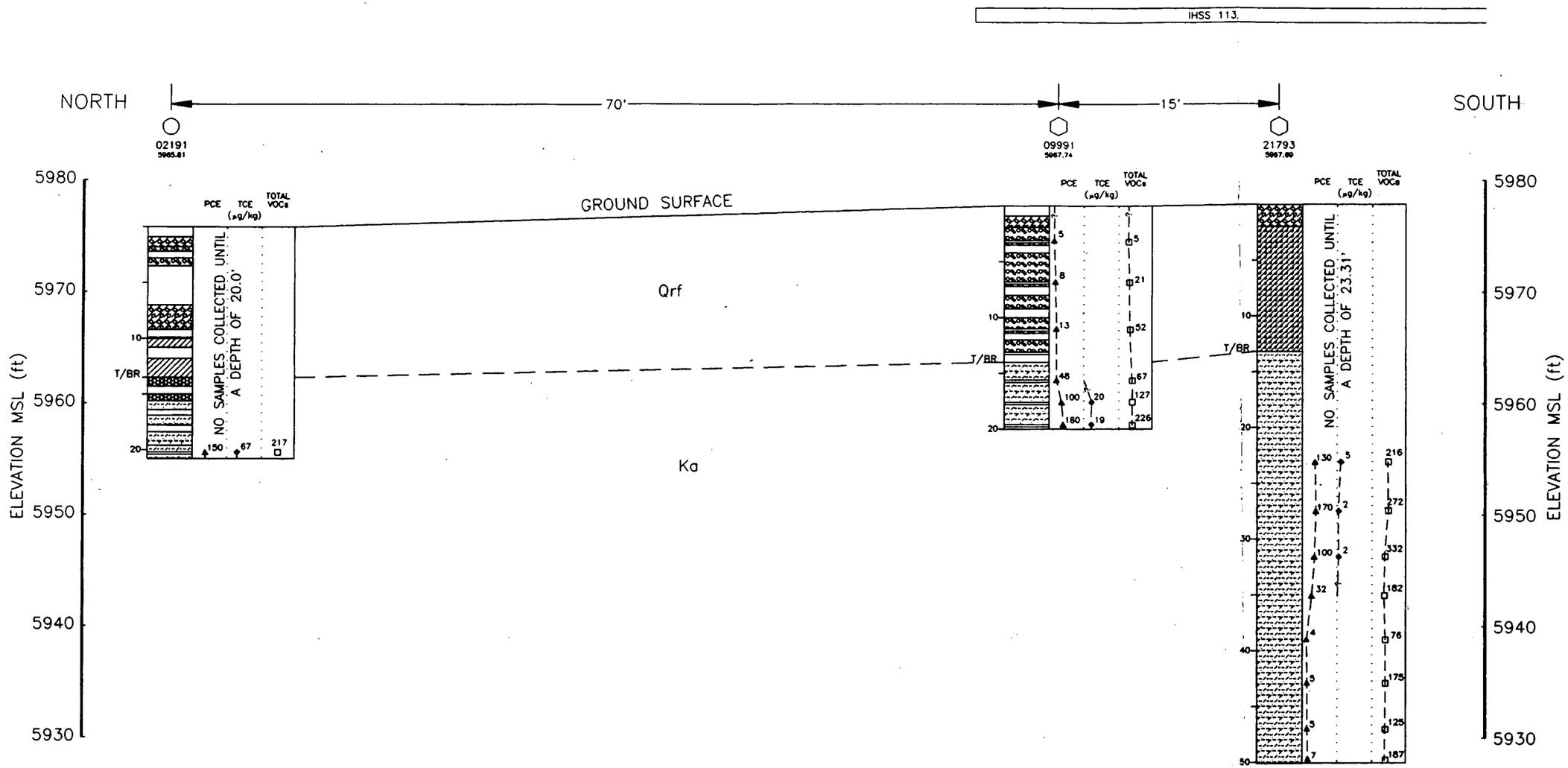
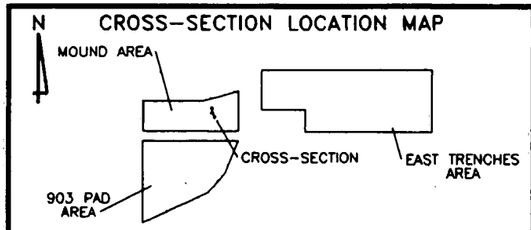
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
PCOC RADIONUCLIDES
(NON-ACTINIDES)
MOUND SOURCE AREA
SUBSURFACE SOILS
FIGURE 4.3-50
APRIL 1995
0U2RI558 1=200



VERTICAL 0 – 10 SCALE IN FEET

NOTE: HORIZONTAL DISTANCE NOT TO SCALE.

CROSS-SECTION LOCATION MAP



EXPLANATION

T/BR = TOP OF BEDROCK

⬡ = LOCATION SYMBOL

3486 = LOCATION NAME

5912.00 = GROUND SURFACE ELEVATION (ft)

PCE TCE (µg/kg)

EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (µg/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

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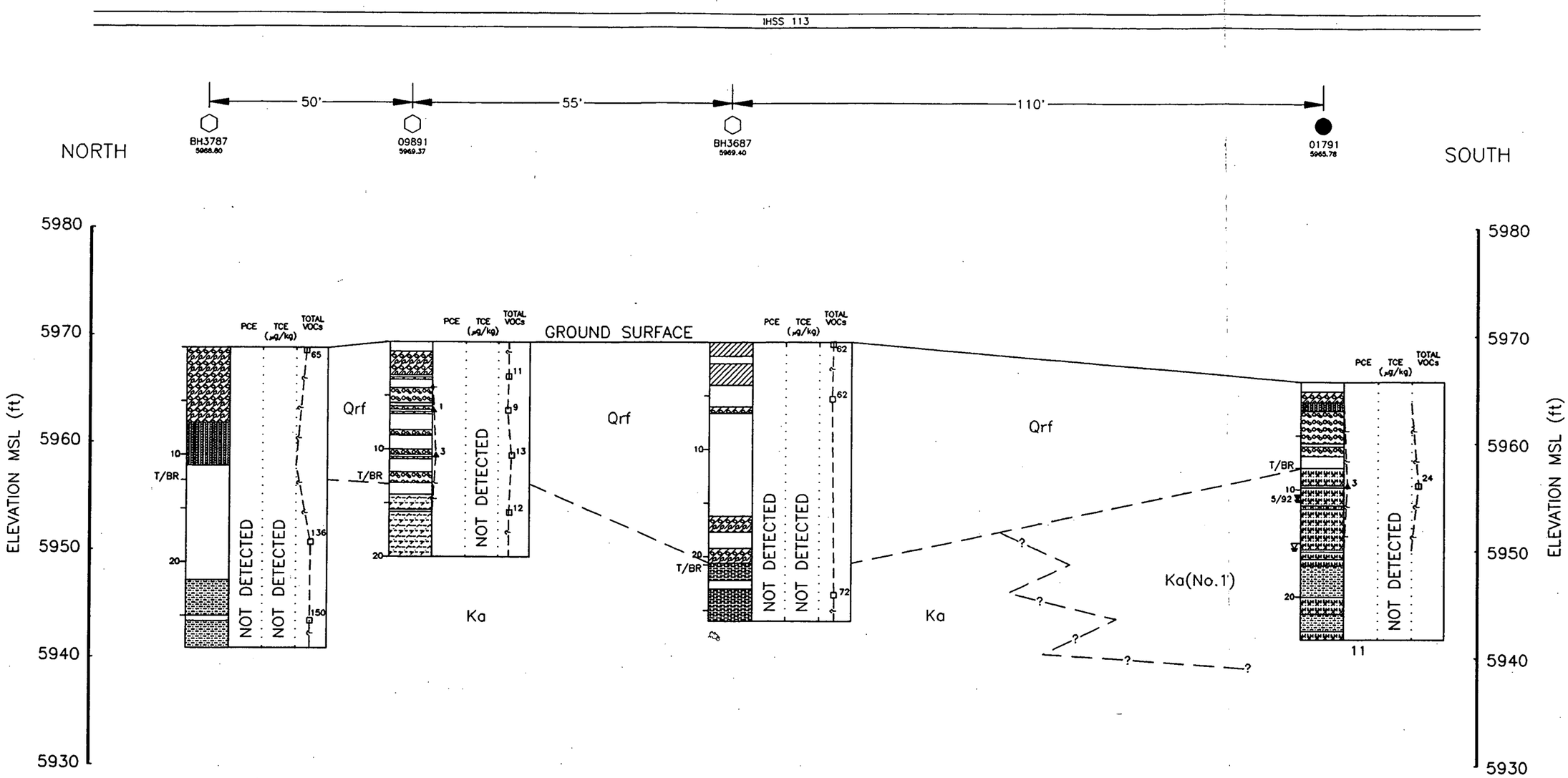
Golden, Colorado

OPERABLE UNIT 2
PHASE II RFI/RI REPORT

SOURCE BOREHOLE
CROSS-SECTION
IHSS 113 (MOUND SITE)
(SHEET 1 OF 2)

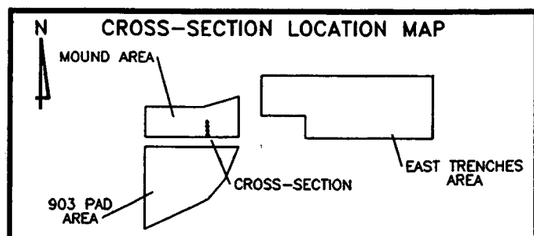
FIGURE 4.3-51 APRIL 1995

OU2RI654 1-1



VERTICAL 0 — 10 SCALE IN FEET

NOTE: HORIZONTAL DISTANCE NOT TO SCALE.



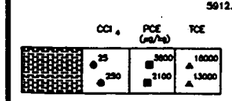
EXPLANATION

T/BR = TOP OF BEDROCK

⬡ = LOCATION SYMBOL

3486 = LOCATION NAME

5912.00 = GROUND SURFACE ELEVATION (ft)



EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (µg/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

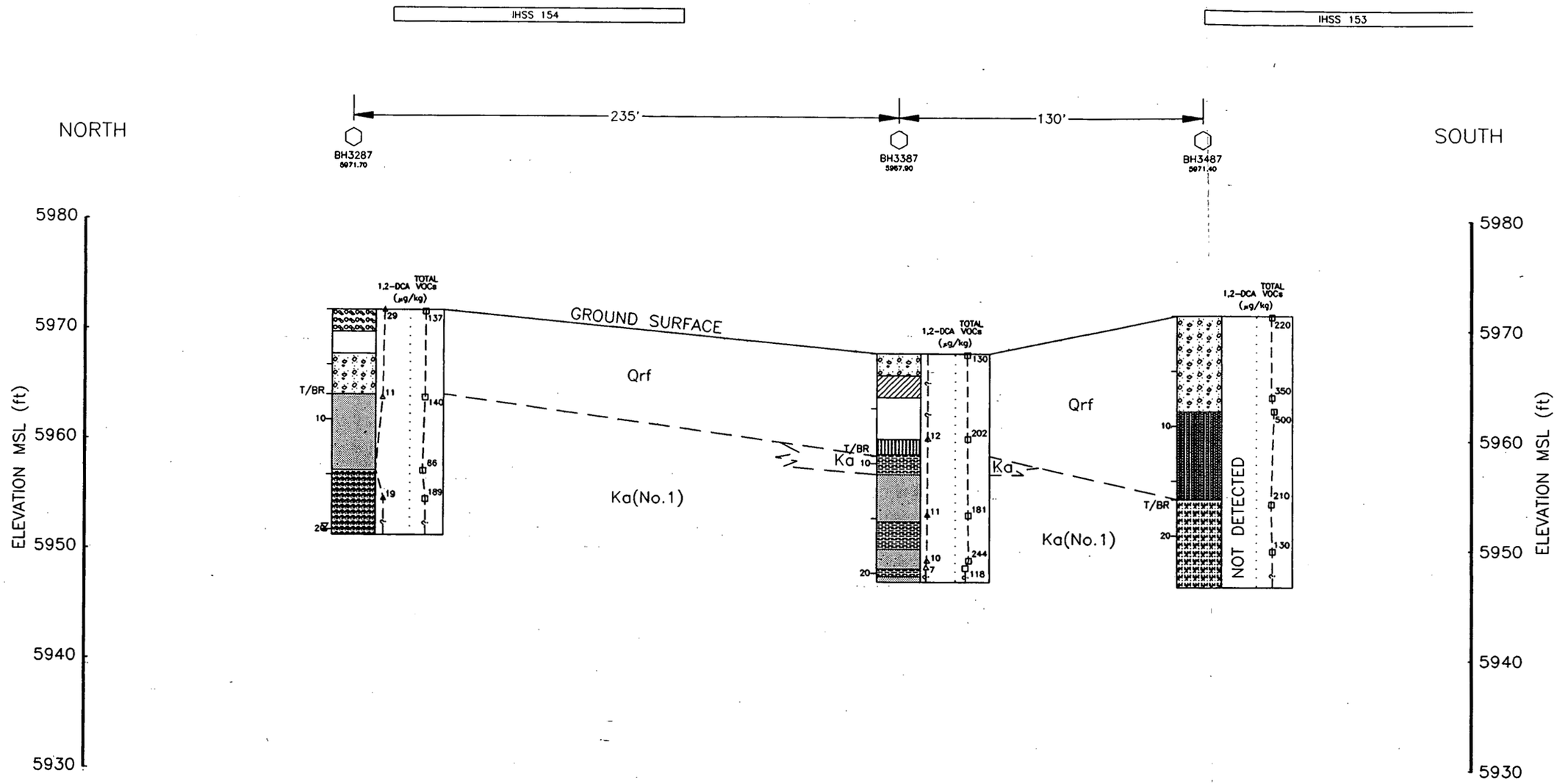
(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

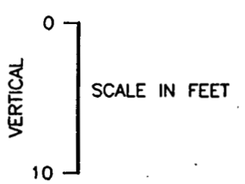
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado

OPERABLE UNIT 2
PHASE II RFI/RI REPORT

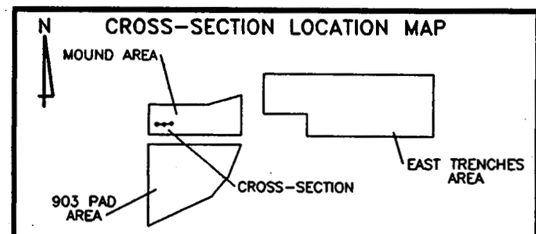
SOURCE BOREHOLE CROSS-SECTION IHSS 113 (MOUND SITE) (SHEET 2 OF 2)

FIGURE 4.3-51 APRIL 1995



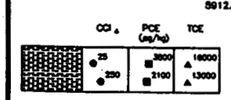


NOTE: HORIZONTAL DISTANCE NOT TO SCALE.



EXPLANATION

T/BR = TOP OF BEDROCK
⬡ = LOCATION SYMBOL
3486 = LOCATION NAME
5912.00 = GROUND SURFACE ELEVATION (ft)



EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (µg/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

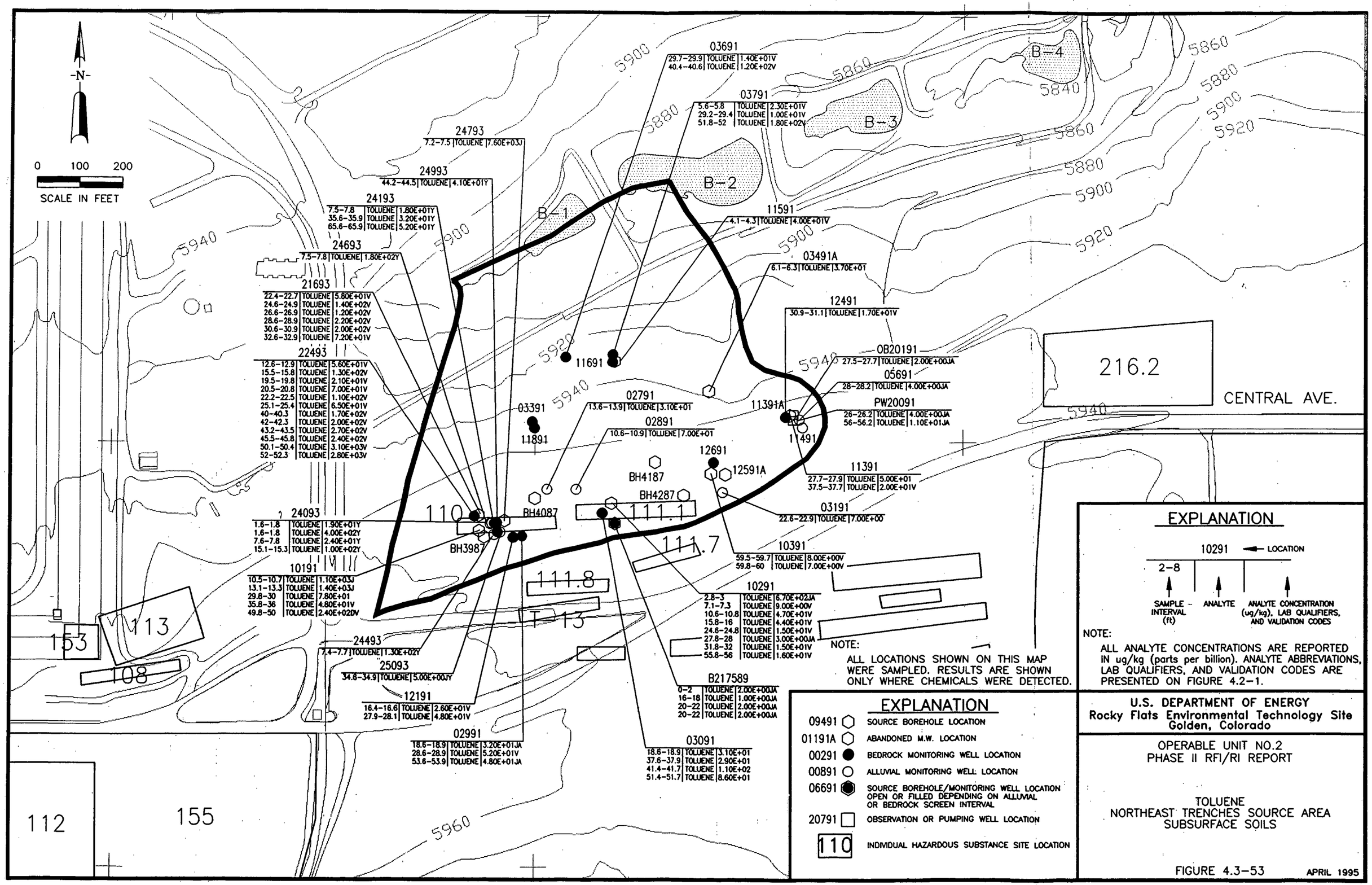
(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado

OPERABLE UNIT 2
PHASE II RFI/RI REPORT

SOURCE BOREHOLE CROSS-SECTION IHSSs 153 AND 154 (PALLET BURN SITE)

FIGURE 4.3-52 APRIL 1995



NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED.

EXPLANATION

10291 ← LOCATION

2-8

SAMPLE - INTERVAL (ft) | ANALYTE | ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.

EXPLANATION

09491 ⬡	SOURCE BOREHOLE LOCATION
01191A ⬡	ABANDONED M.W. LOCATION
00291 ●	BEDROCK MONITORING WELL LOCATION
00891 ○	ALLUVIAL MONITORING WELL LOCATION
06691 ⬢	SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREEN INTERVAL
20791 □	OBSERVATION OR PUMPING WELL LOCATION
110	INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

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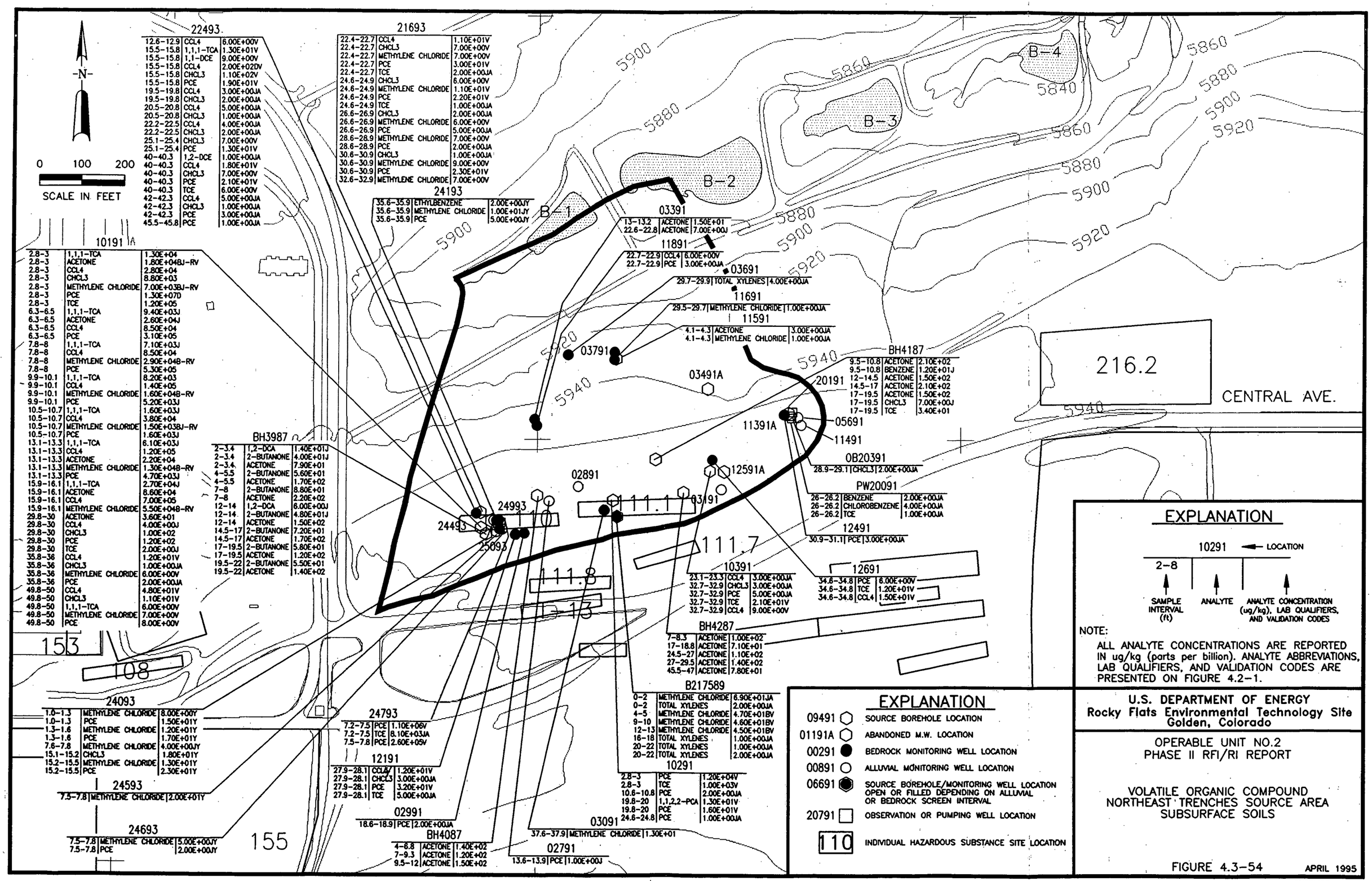
Golden, Colorado

OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT

TOLUENE
NORTHEAST TRENCHES SOURCE AREA
SUBSURFACE SOILS

FIGURE 4.3-53 APRIL 1995

0U2RI603 1=200


-N-
0 100 200
SCALE IN FEET
22493
12.6-12.9 CCL4 6.00E+00V
15.5-15.8 1,1,1-TCA 1.30E+01V
15.5-15.8 1,1-DCE 9.00E+00V
15.5-15.8 CCL4 2.00E+02DV
15.5-15.8 CHCL3 1.10E+02V
15.5-15.8 PCE 1.90E+01V
19.5-19.8 CCL4 3.00E+00JA
19.5-19.8 CHCL3 2.00E+00JA
20.5-20.8 CCL4 5.00E+00JA
20.5-20.8 CHCL3 1.00E+00JA
22.2-22.5 CCL4 4.00E+00JA
22.2-22.5 CHCL3 2.00E+00JA
25.1-25.4 CHCL3 7.00E+00V
25.1-25.4 PCE 1.30E+01V
40-40.3 1,2-DCE 1.00E+00JA
40-40.3 CCL4 1.80E+01V
40-40.3 CHCL3 7.00E+00V
40-40.3 PCE 2.10E+01V
40-40.3 TCE 6.00E+00V
42-42.3 CCL4 5.00E+00JA
42-42.3 CHCL3 1.00E+00JA
42-42.3 PCE 3.00E+00JA
45.5-45.8 PCE 1.00E+00JA
21693
22.4-22.7 CCL4 1.10E+01V
22.4-22.7 CHCL3 7.00E+00V
22.4-22.7 METHYLENE CHLORIDE 7.00E+00V
22.4-22.7 PCE 3.00E+01V
22.4-22.7 TCE 2.00E+00JA
24.6-24.9 CHCL3 6.00E+00V
24.6-24.9 METHYLENE CHLORIDE 1.10E+01V
24.6-24.9 PCE 2.20E+01V
24.6-24.9 TCE 1.00E+00JA
26.6-26.9 CHCL3 2.00E+00JA
26.6-26.9 METHYLENE CHLORIDE 6.00E+00V
26.6-26.9 PCE 5.00E+00JA
28.6-28.9 METHYLENE CHLORIDE 7.00E+00V
28.6-28.9 PCE 2.00E+00JA
30.6-30.9 CHCL3 1.00E+00JA
30.6-30.9 METHYLENE CHLORIDE 9.00E+00V
30.6-30.9 PCE 2.30E+01V
32.6-32.9 METHYLENE CHLORIDE 7.00E+00V
24193
35.6-35.9 ETHYLBENZENE 2.00E+00JY
35.6-35.9 METHYLENE CHLORIDE 1.00E+01JY
35.6-35.9 PCE 5.00E+00JY
10191
2.8-3 1,1,1-TCA 1.30E+04
2.8-3 ACETONE 1.80E+04BJ-RV
2.8-3 CCL4 2.80E+04
2.8-3 CHCL3 8.80E+03
2.8-3 METHYLENE CHLORIDE 7.00E+03BJ-RV
2.8-3 PCE 1.30E+07D
2.8-3 TCE 1.20E+05
6.3-6.5 1,1,1-TCA 9.40E+03J
6.3-6.5 ACETONE 2.60E+04J
6.3-6.5 CCL4 8.50E+04
6.3-6.5 PCE 3.10E+05
7.8-8 1,1,1-TCA 7.10E+03J
7.8-8 CCL4 8.50E+04
7.8-8 METHYLENE CHLORIDE 2.90E+04B-RV
7.8-8 PCE 5.30E+05
9.9-10.1 1,1,1-TCA 8.20E+03
9.9-10.1 CCL4 1.40E+05
9.9-10.1 METHYLENE CHLORIDE 1.60E+04B-RV
9.9-10.1 PCE 5.20E+03J
10.5-10.7 1,1,1-TCA 1.60E+03J
10.5-10.7 CCL4 3.80E+04
10.5-10.7 METHYLENE CHLORIDE 1.50E+03BJ-RV
10.5-10.7 PCE 1.60E+03J
13.1-13.3 1,1,1-TCA 6.10E+03J
13.1-13.3 CCL4 1.20E+05
13.1-13.3 ACETONE 2.20E+04
13.1-13.3 METHYLENE CHLORIDE 1.30E+04B-RV
13.1-13.3 PCE 4.70E+03J
15.9-16.1 1,1,1-TCA 2.70E+04J
15.9-16.1 ACETONE 8.60E+04
15.9-16.1 CCL4 7.00E+05
15.9-16.1 METHYLENE CHLORIDE 5.50E+04B-RV
29.8-30 ACETONE 3.60E+01
29.8-30 CCL4 4.00E+00J
29.8-30 CHCL3 1.00E+02
29.8-30 PCE 1.20E+02
29.8-30 TCE 2.00E+00J
35.8-36 CCL4 1.20E+01V
35.8-36 CHCL3 1.00E+00JA
35.8-36 METHYLENE CHLORIDE 6.00E+00V
35.8-36 PCE 2.00E+00JA
49.8-50 CCL4 4.80E+01V
49.8-50 CHCL3 1.10E+01V
49.8-50 1,1,1-TCA 6.00E+00V
49.8-50 METHYLENE CHLORIDE 7.00E+00V
49.8-50 PCE 8.00E+00V
BH3987
2-3.4 1,2-DCA 1.40E+01J
2-3.4 2-BUTANONE 4.00E+01J
2-3.4 ACETONE 7.90E+01
4-5.5 2-BUTANONE 5.60E+01
4-5.5 ACETONE 1.70E+02
7-8 2-BUTANONE 8.80E+01
7-8 ACETONE 2.20E+02
12-14 1,2-DCA 6.00E+00J
12-14 2-BUTANONE 4.80E+01J
12-14 ACETONE 1.50E+02
14.5-17 2-BUTANONE 7.20E+01
14.5-17 ACETONE 1.70E+02
17-19.5 2-BUTANONE 5.80E+01
17-19.5 ACETONE 1.20E+02
19.5-22 2-BUTANONE 5.50E+01
19.5-22 ACETONE 1.40E+02
03391
13-13.2 ACETONE 1.50E+01
22.6-22.8 ACETONE 7.00E+00J
11891
22.7-22.9 CCL4 6.00E+00V
22.7-22.9 PCE 3.00E+00JA
03691
29.7-29.9 TOTAL XYLENES 4.00E+00JA
11691
29.5-29.7 METHYLENE CHLORIDE 1.00E+00JA
11591
4.1-4.3 ACETONE 3.00E+00JA
4.1-4.3 METHYLENE CHLORIDE 1.00E+00JA
BH4187
9.5-10.8 ACETONE 2.10E+02
9.5-10.8 BENZENE 1.20E+01J
12-14.5 ACETONE 1.50E+02
14.5-17 ACETONE 2.10E+02
17-19.5 ACETONE 1.50E+02
17-19.5 CHCL3 7.00E+00J
17-19.5 TCE 3.40E+01
20191
05691
11491
11391A
0B20391
28.9-29.1 CHCL3 2.00E+00JA
PW20091
26-26.2 BENZENE 2.00E+00JA
26-26.2 CHLOROBENZENE 4.00E+00JA
26-26.2 TCE 1.00E+00JA
12491
30.9-31.1 PCE 3.00E+00JA
12591A
03191
03791
03491A
02891
24993
24493
25093
10391
23.1-23.3 CCL4 3.00E+00JA
32.7-32.9 CHCL3 3.00E+00JA
32.7-32.9 PCE 5.00E+00JA
32.7-32.9 TCE 2.10E+01V
32.7-32.9 CCL4 9.00E+00V
12691
34.6-34.8 PCE 6.00E+00V
34.6-34.8 TCE 1.20E+01V
34.6-34.8 CCL4 1.50E+01V
BH4287
7-8.3 ACETONE 1.00E+02
17-18.8 ACETONE 7.10E+01
24.5-27 ACETONE 1.10E+02
27-29.5 ACETONE 1.40E+02
45.5-47 ACETONE 7.80E+01
B217589
0-2 METHYLENE CHLORIDE 6.90E+01JA
0-2 TOTAL XYLENES 2.00E+00JA
4-5 METHYLENE CHLORIDE 4.70E+01BV
9-10 METHYLENE CHLORIDE 4.60E+01BV
12-13 METHYLENE CHLORIDE 4.50E+01BV
16-18 TOTAL XYLENES 1.00E+00JA
20-22 TOTAL XYLENES 1.00E+00JA
20-22 TOTAL XYLENES 2.00E+00JA
10291
2.8-3 PCE 1.20E+04V
2.8-3 TCE 1.00E+03V
10.6-10.8 PCE 2.00E+00JA
19.8-20 1,1,2,2-PCA 1.30E+01V
19.8-20 PCE 1.60E+01V
24.6-24.8 PCE 1.00E+00JA
03091
37.6-37.9 METHYLENE CHLORIDE 1.30E+01
02791
13.6-13.9 PCE 1.00E+00J
24093
1.0-1.3 METHYLENE CHLORIDE 8.00E+00Y
1.0-1.3 PCE 1.50E+01Y
1.3-1.6 METHYLENE CHLORIDE 1.20E+01Y
1.3-1.6 PCE 1.70E+01Y
7.6-7.8 METHYLENE CHLORIDE 4.00E+00JY
15.1-15.2 CHCL3 1.80E+01Y
15.2-15.5 METHYLENE CHLORIDE 1.30E+01Y
15.2-15.5 PCE 2.30E+01Y
24593
7.5-7.8 METHYLENE CHLORIDE 2.00E+01Y
24693
7.5-7.8 METHYLENE CHLORIDE 5.00E+00JY
7.5-7.8 PCE 2.00E+00JY
24793
7.2-7.5 PCE 1.10E+06V
7.2-7.5 TCE 8.10E+03JA
7.5-7.8 PCE 2.60E+05V
12191
27.9-28.1 CCL4 1.20E+01V
27.9-28.1 CHCL3 3.00E+00JA
27.9-28.1 PCE 3.20E+01V
27.9-28.1 TCE 5.00E+00JA
02991
18.6-18.9 PCE 2.00E+00JA
BH4087
4-6.8 ACETONE 1.40E+02
7-9.3 ACETONE 1.20E+02
9.5-12 ACETONE 1.50E+02
B-1
B-2
B-3
B-4
5860
5880
5900
5920
5940
111.1
111.7
111.8
113
108
153
155
216.2
CENTRAL AVE.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W. LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREEN INTERVAL
20791 OBSERVATION OR PUMPING WELL LOCATION
110 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
10291 ← LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
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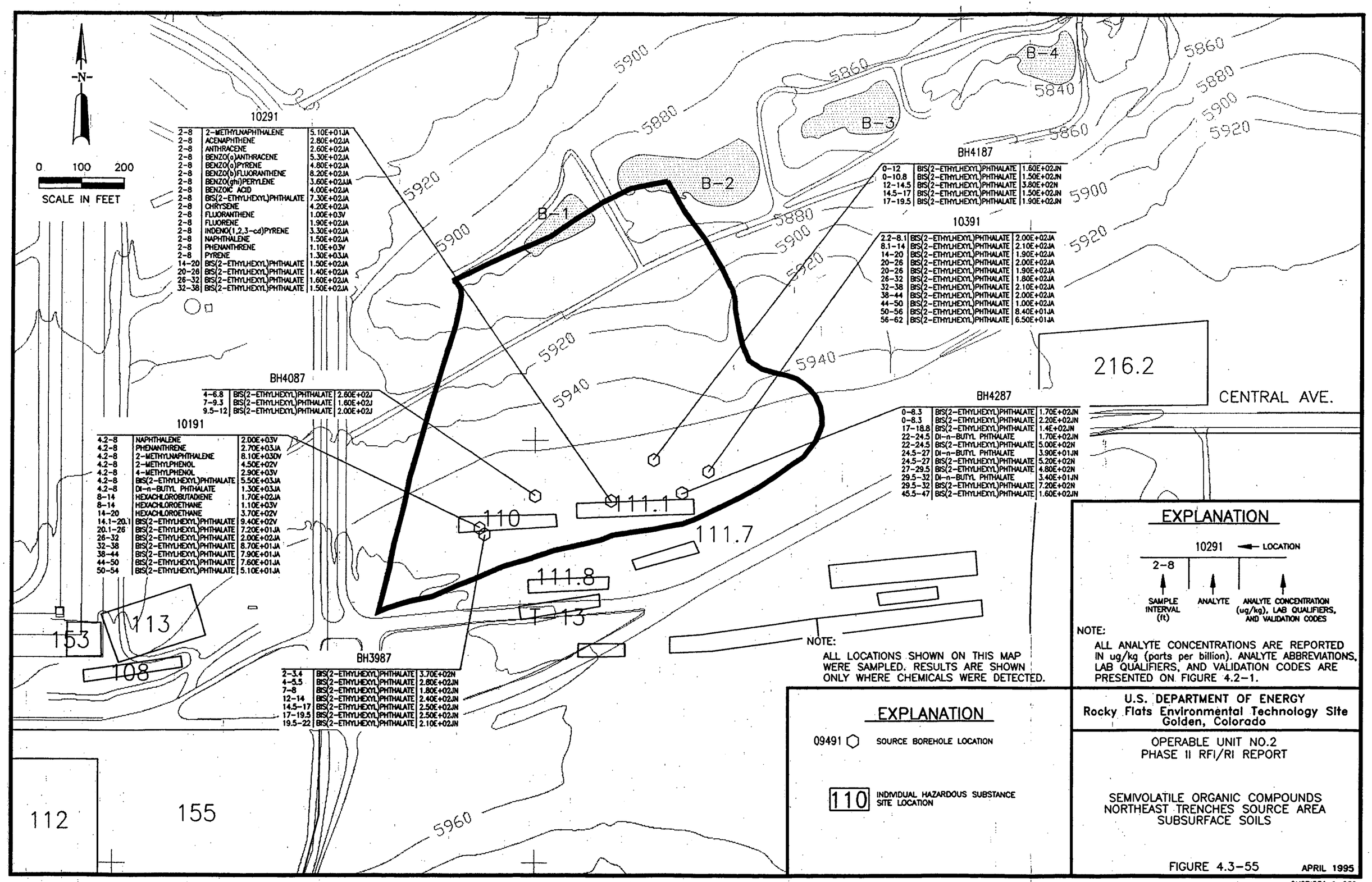
VOLATILE ORGANIC COMPOUND
NORTHEAST TRENCHES SOURCE AREA
SUBSURFACE SOILS
FIGURE 4.3-54
APRIL 1995
0U2RI602 1=200


-N-
0 100 200
SCALE IN FEET
10291
2-8 2-METHYLNAPHTHALENE 5.10E+01JA
2-8 ACENAPHTHENE 2.80E+02JA
2-8 ANTHRACENE 2.60E+02JA
2-8 BENZO(a)ANTHRACENE 5.30E+02JA
2-8 BENZO(a)PYRENE 4.60E+02JA
2-8 BENZO(b)FLUORANTHENE 8.20E+02JA
2-8 BENZO(ghi)PERYLENE 3.60E+02JJA
2-8 BENZOIC ACID 4.00E+02JA
2-8 BIS(2-ETHYLHEXYL)PHTHALATE 7.30E+02JA
2-8 CHRYSENE 4.20E+02JA
2-8 FLUORANTHENE 1.00E+03V
2-8 FLUORENE 1.90E+02JA
2-8 INDENO(1,2,3-cd)PYRENE 3.30E+02JA
2-8 NAPHTHALENE 1.50E+02JA
2-8 PHENANTHRENE 1.10E+03V
2-8 PYRENE 1.30E+03JA
14-20 BIS(2-ETHYLHEXYL)PHTHALATE 1.50E+02JA
20-26 BIS(2-ETHYLHEXYL)PHTHALATE 1.40E+02JA
26-32 BIS(2-ETHYLHEXYL)PHTHALATE 1.60E+02JA
32-38 BIS(2-ETHYLHEXYL)PHTHALATE 1.50E+02JA
BH4087
4-6.8 BIS(2-ETHYLHEXYL)PHTHALATE 2.60E+02J
7-9.3 BIS(2-ETHYLHEXYL)PHTHALATE 1.60E+02J
9.5-12 BIS(2-ETHYLHEXYL)PHTHALATE 2.00E+02J
10191
4.2-8 NAPHTHALENE 2.00E+03V
4.2-8 PHENANTHRENE 2.70E+03JA
4.2-8 2-METHYLNAPHTHALENE 8.10E+03DV
4.2-8 2-METHYLPHENOL 4.50E+02V
4.2-8 4-METHYLPHENOL 2.90E+03V
4.2-8 BIS(2-ETHYLHEXYL)PHTHALATE 5.50E+03JA
4.2-8 DI-n-BUTYL PHTHALATE 1.30E+03JA
8-14 HEXACHLOROBUTADIENE 1.70E+02JA
8-14 HEXACHLOROETHANE 1.10E+03V
14-20 HEXACHLOROETHANE 3.70E+02V
14.1-20.1 BIS(2-ETHYLHEXYL)PHTHALATE 9.40E+02V
20.1-26 BIS(2-ETHYLHEXYL)PHTHALATE 7.20E+01JA
26-32 BIS(2-ETHYLHEXYL)PHTHALATE 2.00E+02JA
32-38 BIS(2-ETHYLHEXYL)PHTHALATE 8.70E+01JA
38-44 BIS(2-ETHYLHEXYL)PHTHALATE 7.90E+01JA
44-50 BIS(2-ETHYLHEXYL)PHTHALATE 7.60E+01JA
50-54 BIS(2-ETHYLHEXYL)PHTHALATE 5.10E+01JA
BH3987
2-3.4 BIS(2-ETHYLHEXYL)PHTHALATE 3.70E+02N
4-4.5 BIS(2-ETHYLHEXYL)PHTHALATE 2.80E+02JN
7-8 BIS(2-ETHYLHEXYL)PHTHALATE 1.80E+02JN
12-14 BIS(2-ETHYLHEXYL)PHTHALATE 2.40E+02JN
14.5-17 BIS(2-ETHYLHEXYL)PHTHALATE 2.50E+02JN
17-19.5 BIS(2-ETHYLHEXYL)PHTHALATE 2.50E+02JN
19.5-22 BIS(2-ETHYLHEXYL)PHTHALATE 2.10E+02JN
BH4187
0-12 BIS(2-ETHYLHEXYL)PHTHALATE 1.60E+02JN
0-10.8 BIS(2-ETHYLHEXYL)PHTHALATE 1.50E+02JN
12-14.5 BIS(2-ETHYLHEXYL)PHTHALATE 3.80E+02N
14.5-17 BIS(2-ETHYLHEXYL)PHTHALATE 1.50E+02JN
17-19.5 BIS(2-ETHYLHEXYL)PHTHALATE 1.90E+02JN
10391
2.2-8.1 BIS(2-ETHYLHEXYL)PHTHALATE 2.00E+02JA
8.1-14 BIS(2-ETHYLHEXYL)PHTHALATE 2.10E+02JA
14-20 BIS(2-ETHYLHEXYL)PHTHALATE 1.90E+02JA
20-26 BIS(2-ETHYLHEXYL)PHTHALATE 2.00E+02JA
20-26 BIS(2-ETHYLHEXYL)PHTHALATE 1.90E+02JA
26-32 BIS(2-ETHYLHEXYL)PHTHALATE 1.80E+02JA
32-38 BIS(2-ETHYLHEXYL)PHTHALATE 2.10E+02JA
38-44 BIS(2-ETHYLHEXYL)PHTHALATE 2.00E+02JA
44-50 BIS(2-ETHYLHEXYL)PHTHALATE 1.00E+02JA
50-56 BIS(2-ETHYLHEXYL)PHTHALATE 8.40E+01JA
56-62 BIS(2-ETHYLHEXYL)PHTHALATE 6.50E+01JA
BH4287
0-8.3 BIS(2-ETHYLHEXYL)PHTHALATE 1.70E+02JN
0-8.3 BIS(2-ETHYLHEXYL)PHTHALATE 2.20E+02JN
17-18.8 BIS(2-ETHYLHEXYL)PHTHALATE 1.4E+02JN
22-24.5 DI-n-BUTYL PHTHALATE 1.70E+02JN
22-24.5 BIS(2-ETHYLHEXYL)PHTHALATE 5.00E+02N
24.5-27 DI-n-BUTYL PHTHALATE 3.90E+01JN
24.5-27 BIS(2-ETHYLHEXYL)PHTHALATE 5.20E+02N
27-29.5 BIS(2-ETHYLHEXYL)PHTHALATE 4.80E+02N
29.5-32 DI-n-BUTYL PHTHALATE 3.40E+01JN
29.5-32 BIS(2-ETHYLHEXYL)PHTHALATE 7.20E+02N
45.5-47 BIS(2-ETHYLHEXYL)PHTHALATE 1.60E+02JN
B-1
B-2
B-3
B-4
5860
5880
5900
5920
5940
5960
216.2
CENTRAL AVE.
110
111.1
111.7
111.8
113
153
108
112
155
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
110 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
10291 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
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Golden, Colorado
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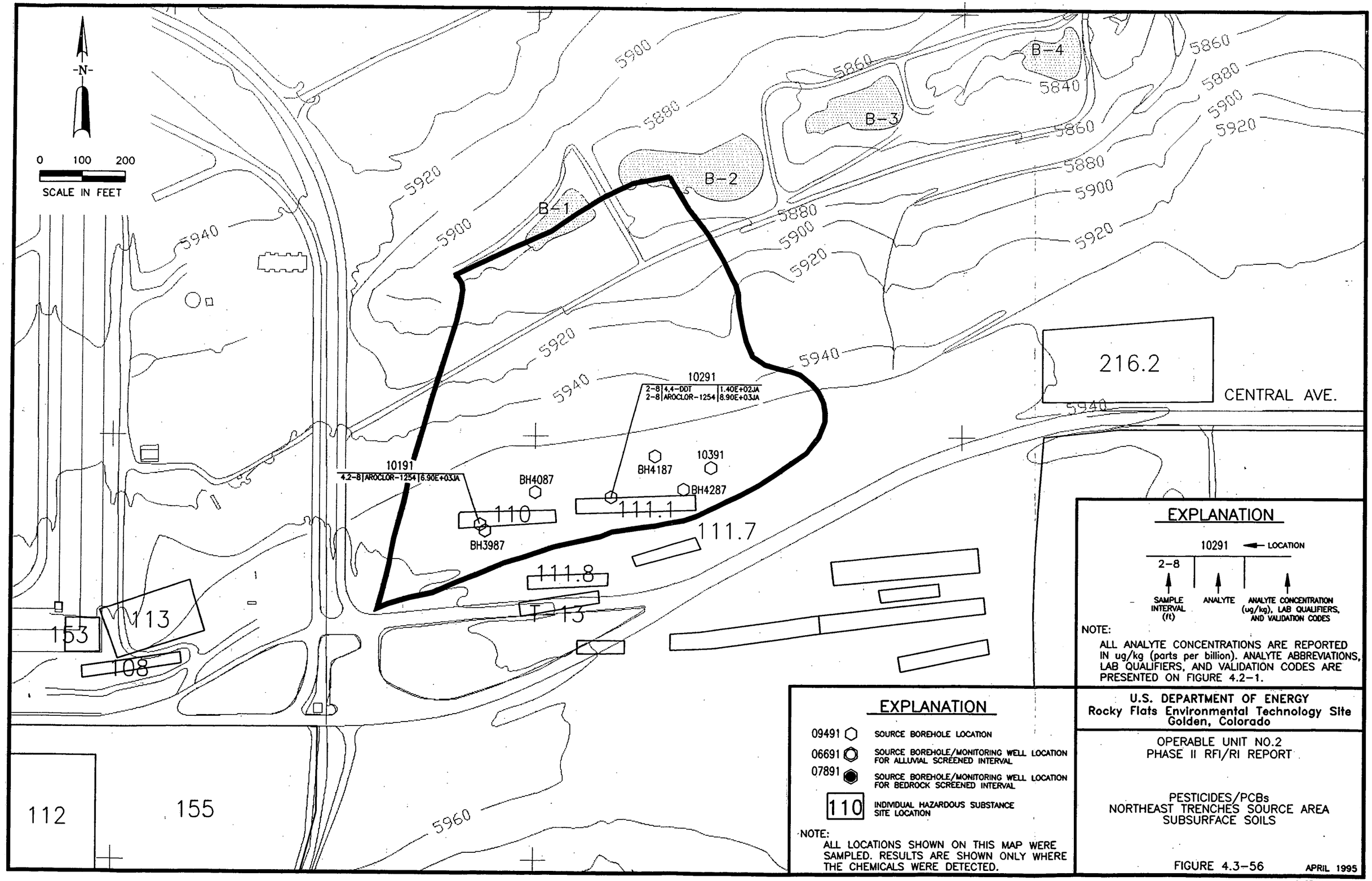
PHASE II RFI/RI REPORT
SEMIVOLATILE ORGANIC COMPOUNDS
NORTHEAST TRENCHES SOURCE AREA
SUBSURFACE SOILS
FIGURE 4.3-55
APRIL 1995
OU2RI531 1=200


-N-
0 100 200
SCALE IN FEET
5900
5880
5860
5840
5920
5940
5960
B-1
B-2
B-3
B-4
10291
2-8 4,4-DDT 1.40E+02JA
2-8 AROCLOR-1254 8.90E+03JA
10191
4.2-8 AROCLOR-1254 6.90E+03JA
BH4087
BH3987
BH4187
10391
BH4287
110
111.1
111.7
111.8
113
153
108
112
155
216.2
CENTRAL AVE.
EXPLANATION
10291 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR ALLUVIAL SCREENED INTERVAL
07891 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR BEDROCK SCREENED INTERVAL
110 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED.
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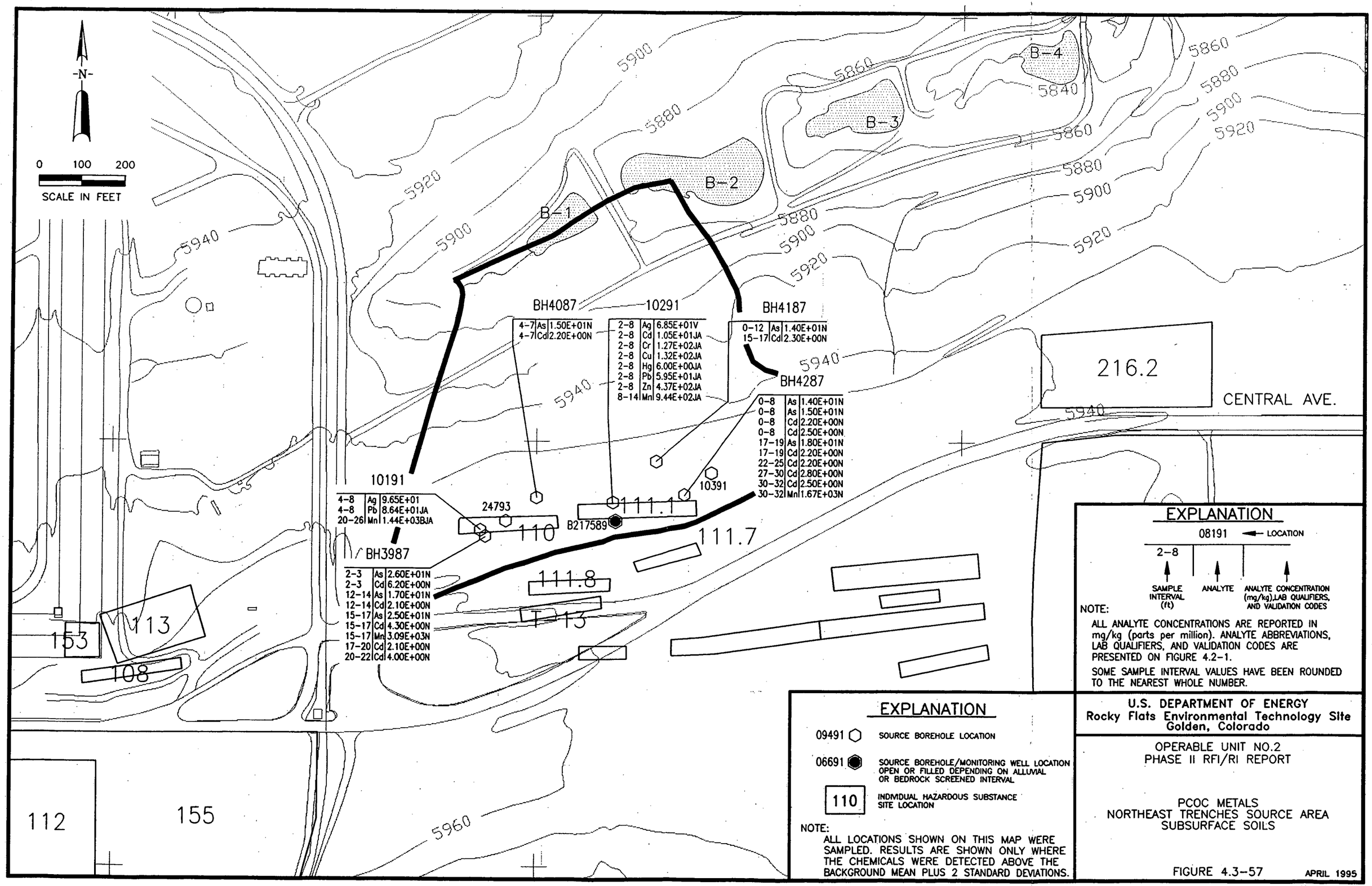
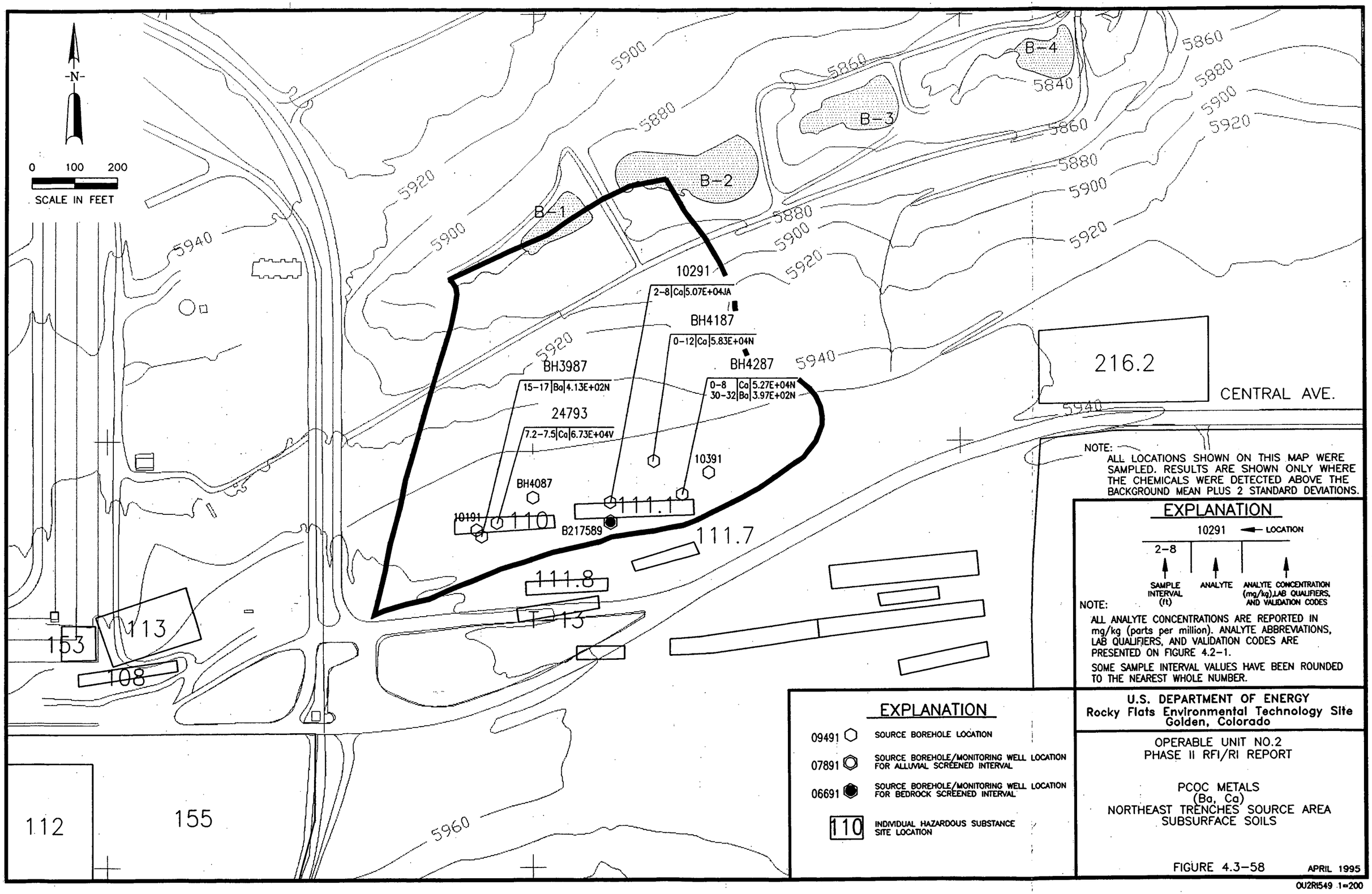
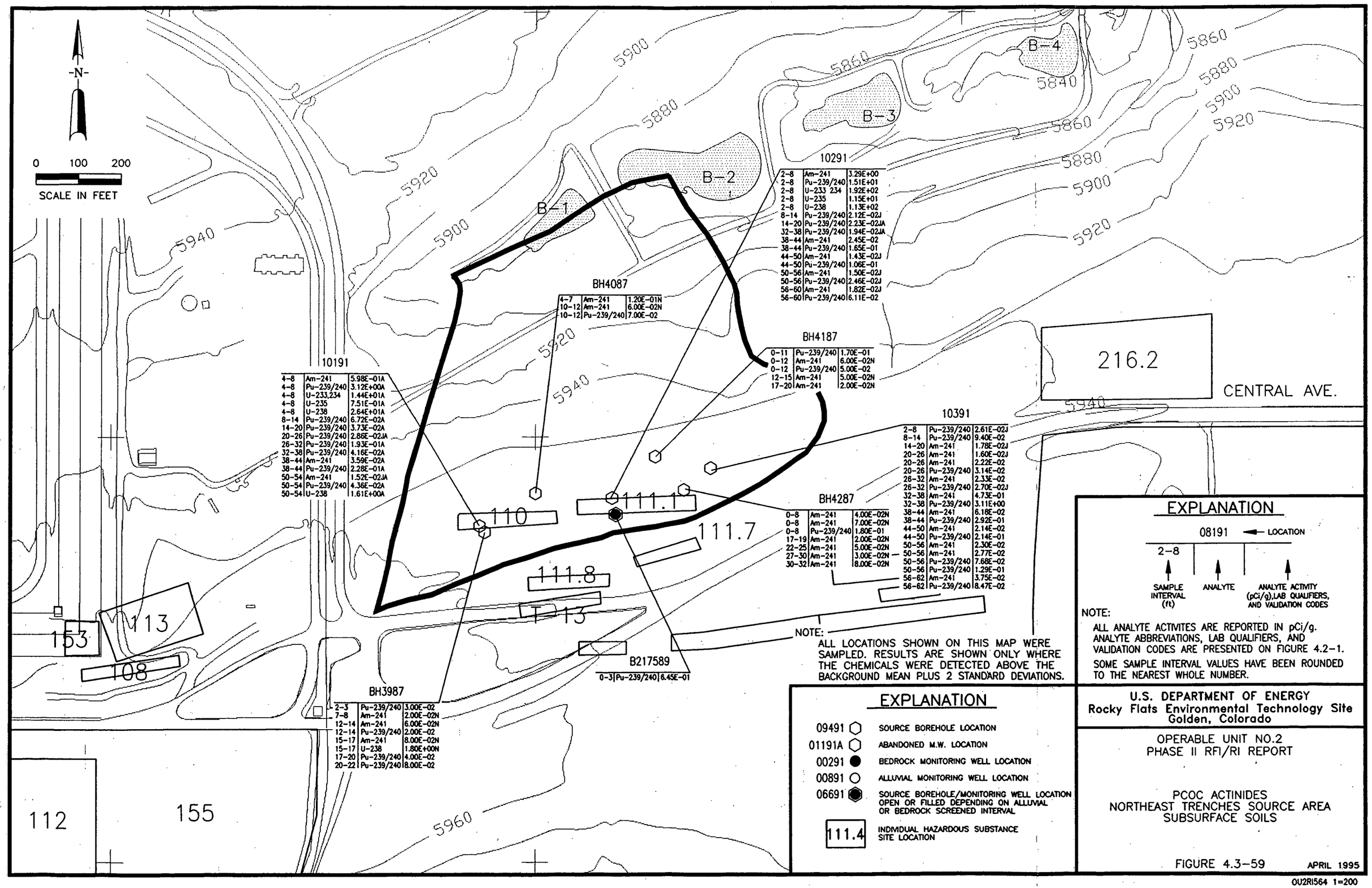
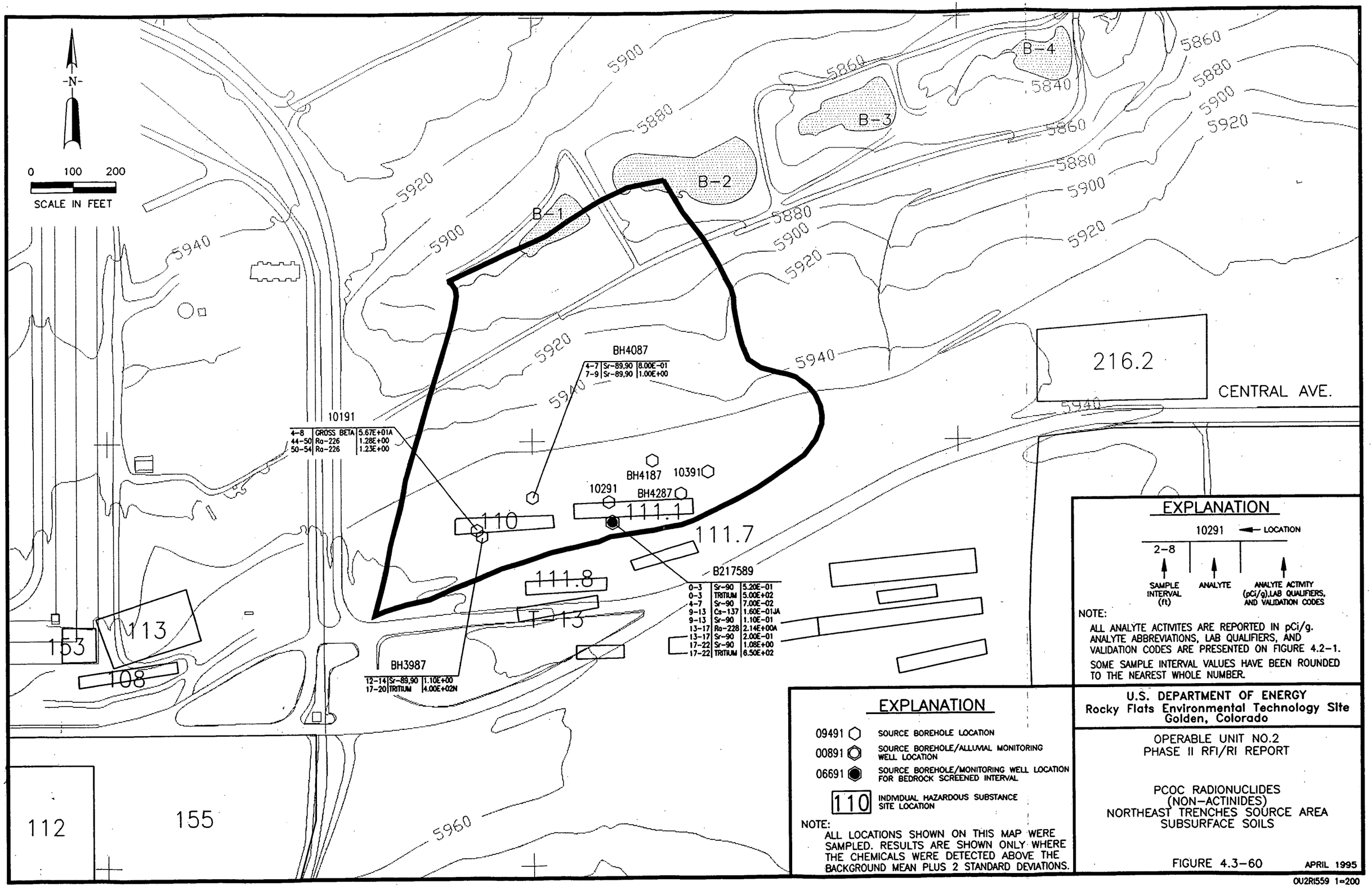
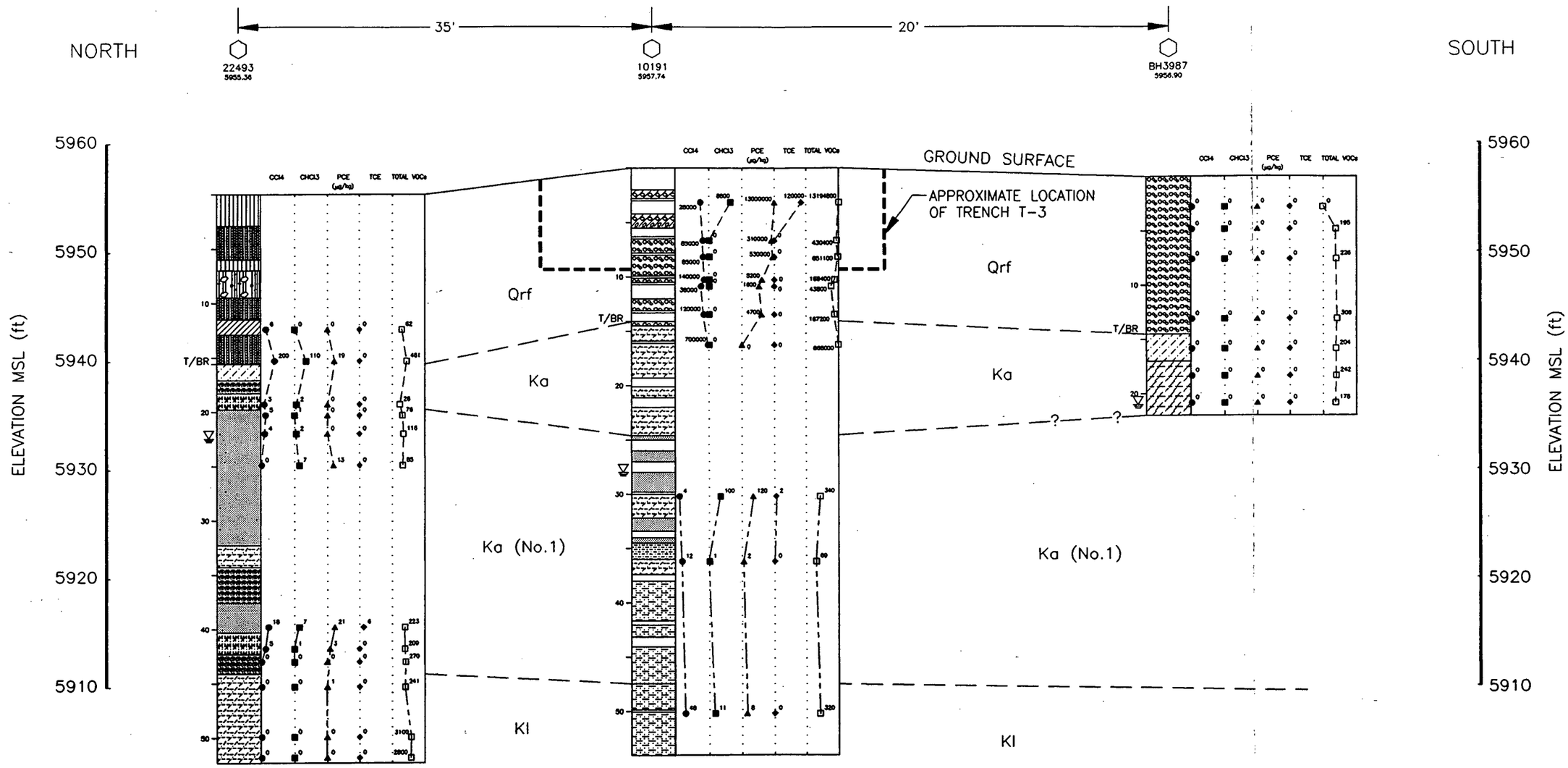
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
PESTICIDES/PCBs
NORTHEAST TRENCHES SOURCE AREA
SUBSURFACE SOILS
FIGURE 4.3-56
APRIL 1995
0U2RI545 1=200


-N-
0 100 200
SCALE IN FEET
B-1
B-2
B-3
B-4
5860
5880
5900
5920
5940
5960
BH4087
10291
4-7 As 1.50E+01N
4-7 Cd 2.20E+00N
2-8 Ag 6.85E+01V
2-8 Cd 1.05E+01JA
2-8 Cr 1.27E+02JA
2-8 Cu 1.32E+02JA
2-8 Hg 6.00E+00JA
2-8 Pb 5.95E+01JA
2-8 Zn 4.37E+02JA
8-14 Mn 9.44E+02JA
BH4187
0-12 As 1.40E+01N
15-17 Cd 2.30E+00N
BH4287
0-8 As 1.40E+01N
0-8 As 1.50E+01N
0-8 Cd 2.20E+00N
0-8 Cd 2.50E+00N
17-19 As 1.80E+01N
17-19 Cd 2.20E+00N
22-25 Cd 2.20E+00N
27-30 Cd 2.80E+00N
30-32 Cd 2.50E+00N
30-32 Mn 1.67E+03N
10191
4-8 Ag 9.65E+01
4-8 Pb 8.64E+01JA
20-26 Mn 1.44E+03BJA
BH3987
2-3 As 2.60E+01N
2-3 Cd 6.20E+00N
12-14 As 1.70E+01N
12-14 Cd 2.10E+00N
15-17 As 2.50E+01N
15-17 Cd 4.30E+00N
15-17 Mn 3.09E+03N
17-20 Cd 2.10E+00N
20-22 Cd 4.00E+00N
24793
B217589
10391
110
111.1
111.7
111.8
113
153
108
112
155
216.2
CENTRAL AVE.
EXPLANATION
08191 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (mg/kg),LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN mg/kg (parts per million). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
110 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
PCOC METALS
NORTHEAST TRENCHES SOURCE AREA
SUBSURFACE SOILS
FIGURE 4.3-57
APRIL 1995
OU2RI554 1=200


-N-
0 100 200
SCALE IN FEET
B-1
B-2
B-3
B-4
5840
5860
5880
5900
5920
5940
5960
10291
2-8 Ca 5.07E+04JA
BH4187
0-12 Ca 5.83E+04N
BH4287
0-8 Ca 5.27E+04N
30-32 Ba 3.97E+02N
BH3987
15-17 Ba 4.13E+02N
24793
7.2-7.5 Ca 6.73E+04V
10391
BH4087
10191
110
111.1
B217589
111.7
111.8
113
153
108
216.2
CENTRAL AVE.
112
155
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.
EXPLANATION
10291 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (mg/kg),LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN mg/kg (parts per million). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
07891 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR ALLUVIAL SCREENED INTERVAL
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR BEDROCK SCREENED INTERVAL
110 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
PCOC METALS
(Ba, Ca)
NORTHEAST TRENCHES SOURCE AREA
SUBSURFACE SOILS
FIGURE 4.3-58
APRIL 1995
OU2RI549 1=200

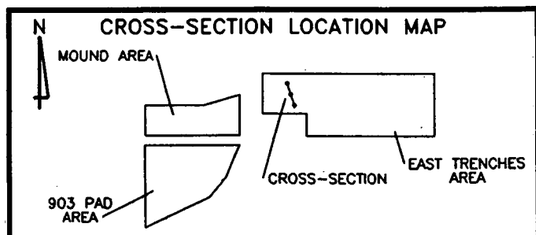

-N-
0 100 200
SCALE IN FEET
5860
5880
5900
5920
5940
5960
B-1
B-2
B-3
B-4
10291
2-8 Am-241 3.29E+00
2-8 Pu-239/240 1.51E+01
2-8 U-233 234 1.92E+02
2-8 U-235 1.15E+01
2-8 U-238 1.13E+02
8-14 Pu-239/240 2.12E-02J
14-20 Pu-239/240 2.23E-02JA
32-38 Pu-239/240 1.94E-02JA
38-44 Am-241 2.45E-02
38-44 Pu-239/240 1.65E-01
44-50 Am-241 1.43E-02J
44-50 Pu-239/240 1.06E-01
50-56 Am-241 1.50E-02J
50-56 Pu-239/240 2.46E-02J
56-60 Am-241 1.82E-02J
56-60 Pu-239/240 6.11E-02
BH4087
4-7 Am-241 1.20E-01N
10-12 Am-241 6.00E-02N
10-12 Pu-239/240 7.00E-02
BH4187
0-11 Pu-239/240 1.70E-01
0-12 Am-241 6.00E-02N
0-12 Pu-239/240 5.00E-02
12-15 Am-241 5.00E-02N
17-20 Am-241 2.00E-02N
10191
4-8 Am-241 5.98E-01A
4-8 Pu-239/240 3.12E+00A
4-8 U-233,234 1.44E+01A
4-8 U-235 7.51E-01A
4-8 U-238 2.64E+01A
8-14 Pu-239/240 6.72E-02A
14-20 Pu-239/240 3.73E-02A
20-26 Pu-239/240 2.86E-02JA
26-32 Pu-239/240 1.93E-01A
32-38 Pu-239/240 4.16E-02A
38-44 Am-241 3.59E-02A
38-44 Pu-239/240 2.28E-01A
50-54 Am-241 1.52E-02JA
50-54 Pu-239/240 4.36E-02A
50-54 U-238 1.61E+00A
10391
2-8 Pu-239/240 2.61E-02J
8-14 Pu-239/240 9.40E-02
14-20 Am-241 1.78E-02J
20-26 Am-241 1.60E-02J
20-26 Am-241 2.22E-02
20-26 Pu-239/240 3.14E-02
26-32 Am-241 2.33E-02
26-32 Pu-239/240 2.70E-02J
32-38 Am-241 4.73E-01
32-38 Pu-239/240 3.11E+00
38-44 Am-241 6.18E-02
38-44 Pu-239/240 2.92E-01
44-50 Am-241 2.14E-02
44-50 Pu-239/240 2.14E-01
50-56 Am-241 2.30E-02
50-56 Am-241 2.77E-02
50-56 Pu-239/240 7.68E-02
50-56 Pu-239/240 1.29E-01
56-62 Am-241 3.75E-02
56-62 Pu-239/240 8.47E-02
BH4287
0-8 Am-241 4.00E-02N
0-8 Am-241 7.00E-02N
0-8 Pu-239/240 1.80E-01
17-19 Am-241 2.00E-02N
22-25 Am-241 5.00E-02N
27-30 Am-241 3.00E-02N
30-32 Am-241 8.00E-02N
216.2
CENTRAL AVE.
110
111.1
111.7
111.8
113
153
108
112
155
B217589
0-3 Pu-239/240 6.45E-01
BH3987
2-3 Pu-239/240 3.00E-02
7-8 Am-241 2.00E-02N
12-14 Am-241 6.00E-02N
12-14 Pu-239/240 2.00E-02
15-17 Am-241 8.00E-02N
15-17 U-238 1.80E+00N
17-20 Pu-239/240 4.00E-02
20-22 Pu-239/240 8.00E-02
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.
EXPLANATION
08191 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE ACTIVITY (pCi/g), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE ACTIVITES ARE REPORTED IN pCi/g. ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W. LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
111.4 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
PCOC ACTINIDES
NORTHEAST TRENCHES SOURCE AREA
SUBSURFACE SOILS
FIGURE 4.3-59
APRIL 1995
OU2RI564 1=200


-N-
0 100 200
SCALE IN FEET
5940
5920
5900
5880
5860
5840
5960
B-1
B-2
B-3
B-4
BH4087
4-7 Sr-89,90 8.00E-01
7-9 Sr-89,90 1.00E+00
10191
4-8 GROSS BETA 5.67E+01A
44-50 Ra-226 1.28E+00
50-54 Ra-226 1.23E+00
BH4187
10391
10291
BH4287
110
111.1
111.7
111.8
113
153
108
112
155
B217589
0-3 Sr-90 5.20E-01
0-3 TRITIUM 5.00E+02
4-7 Sr-90 7.00E-02
9-13 Cs-137 1.60E-01JA
9-13 Sr-90 1.10E-01
13-17 Ra-228 2.14E+00A
13-17 Sr-90 2.00E-01
17-22 Sr-90 1.08E+00
17-22 TRITIUM 6.50E+02
BH3987
12-14 Sr-89,90 1.10E+00
17-20 TRITIUM 4.00E+02N
216.2
CENTRAL AVE.
EXPLANATION
10291 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE ACTIVITY (pCi/g),LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE ACTIVITES ARE REPORTED IN pCi/g.
ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
00891 SOURCE BOREHOLE/ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR BEDROCK SCREENED INTERVAL
110 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
PCOC RADIONUCLIDES
(NON-ACTINIDES)
NORTHEAST TRENCHES SOURCE AREA
SUBSURFACE SOILS
FIGURE 4.3-60
APRIL 1995
OU2RI559 1=200



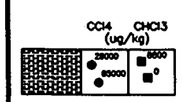
VERTICAL 0 — 10 SCALE IN FEET

NOTE: HORIZONTAL DISTANCE NOT TO SCALE.



EXPLANATION

T/BR = TOP OF BEDROCK
⬡ = LOCATION SYMBOL
3486 = LOCATION NAME
5912.00 = GROUND SURFACE ELEVATION (ft)



EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (ug/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 2.6-3, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

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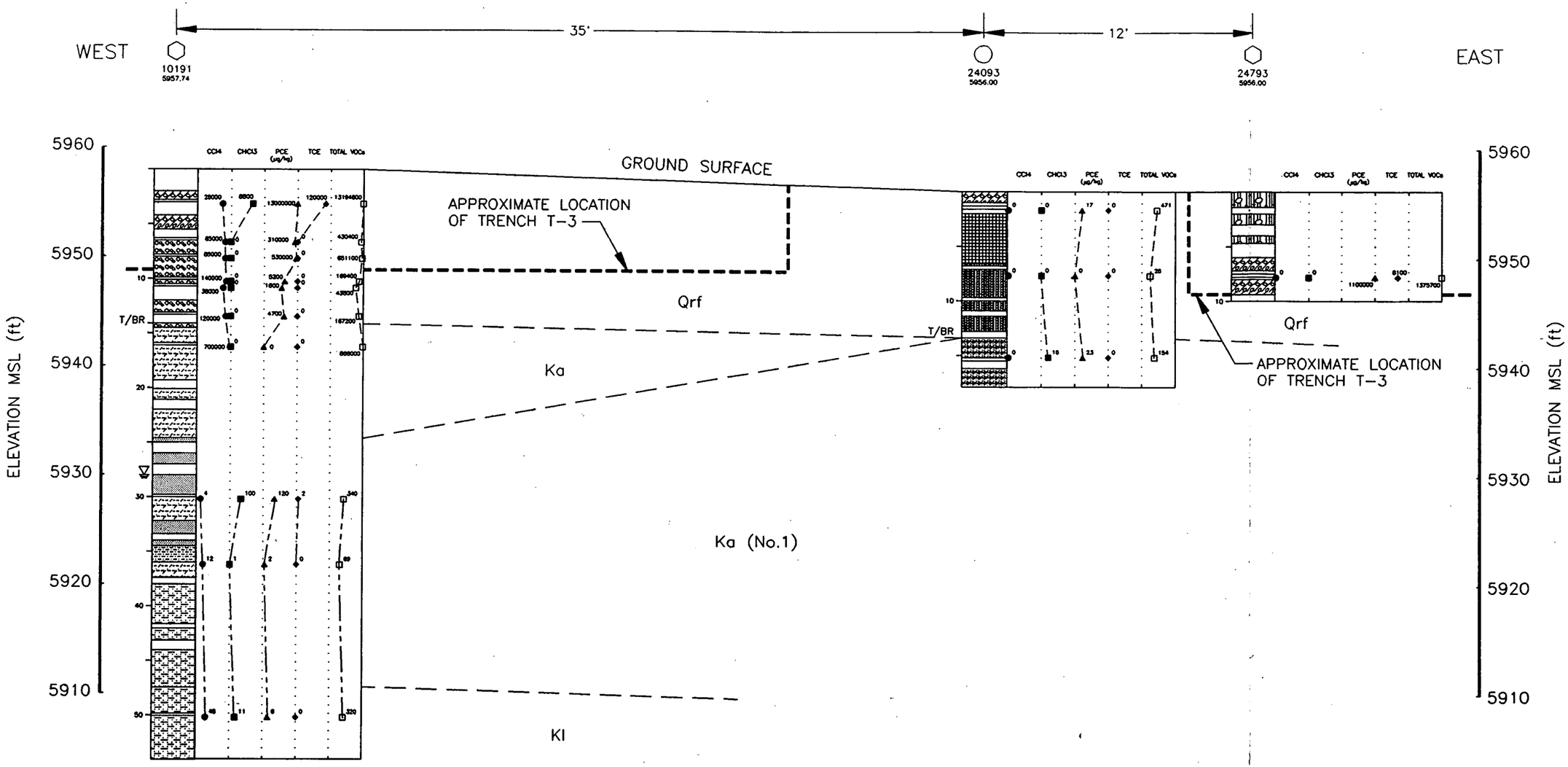
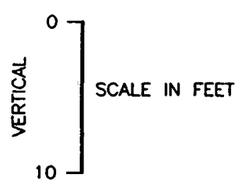
SOURCE BOREHOLE CROSS-SECTION
IHSS 110 (TRENCH T-3)
WESTERN CROSS-SECTION

FIGURE 4.3-61 APRIL 1995

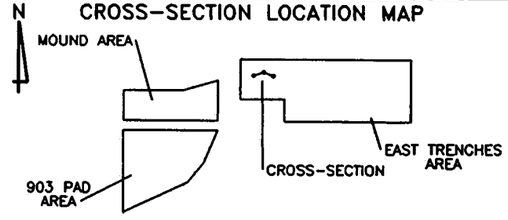
100





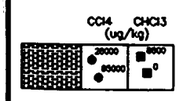
NOTE: HORIZONTAL DISTANCE NOT TO SCALE.

CROSS-SECTION LOCATION MAP



EXPLANATION

T/BR = TOP OF BEDROCK
⬡ = LOCATION SYMBOL
3486 = LOCATION NAME
5912.00 = GROUND SURFACE ELEVATION (ft)



EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (ug/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 2.6-3, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

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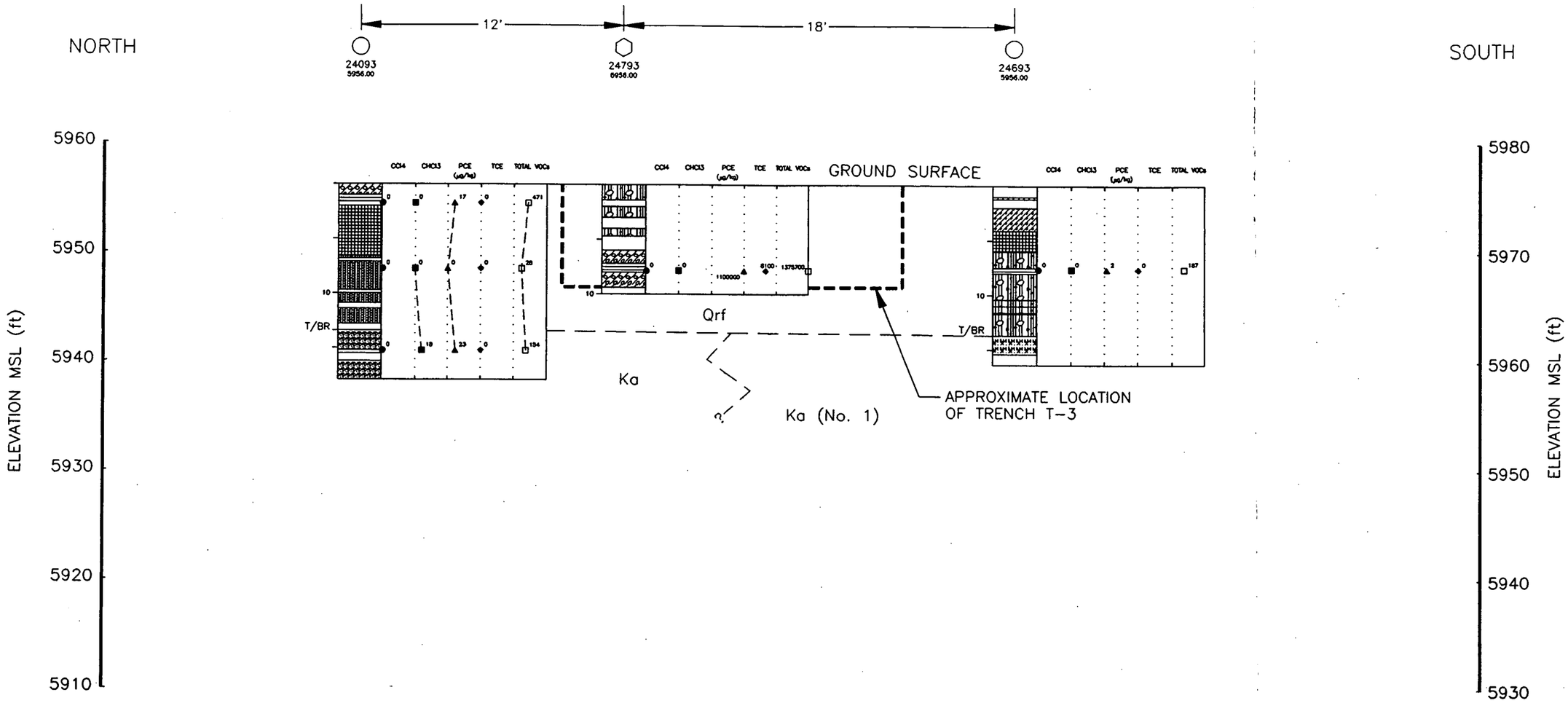
Rocky Flats Environmental Technology Site
Golden, Colorado

OPERABLE UNIT 2
PHASE II RFI/RI REPORT

SOURCE BOREHOLE CROSS-SECTION
IHSS 110 (TRENCH T-3)
EASTERN CROSS-SECTION

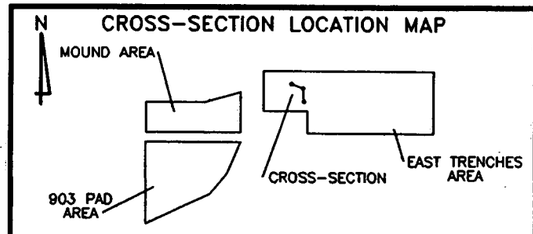
FIGURE 4.3-62

APRIL 1995



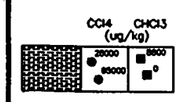
VERTICAL 0 – 10 SCALE IN FEET

NOTE: HORIZONTAL DISTANCE NOT TO SCALE.



EXPLANATION

T/BR = TOP OF BEDROCK
⬡ = LOCATION SYMBOL
3486 = LOCATION NAME
5912.00 = GROUND SURFACE ELEVATION (ft)



EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (ug/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 2.6-3, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

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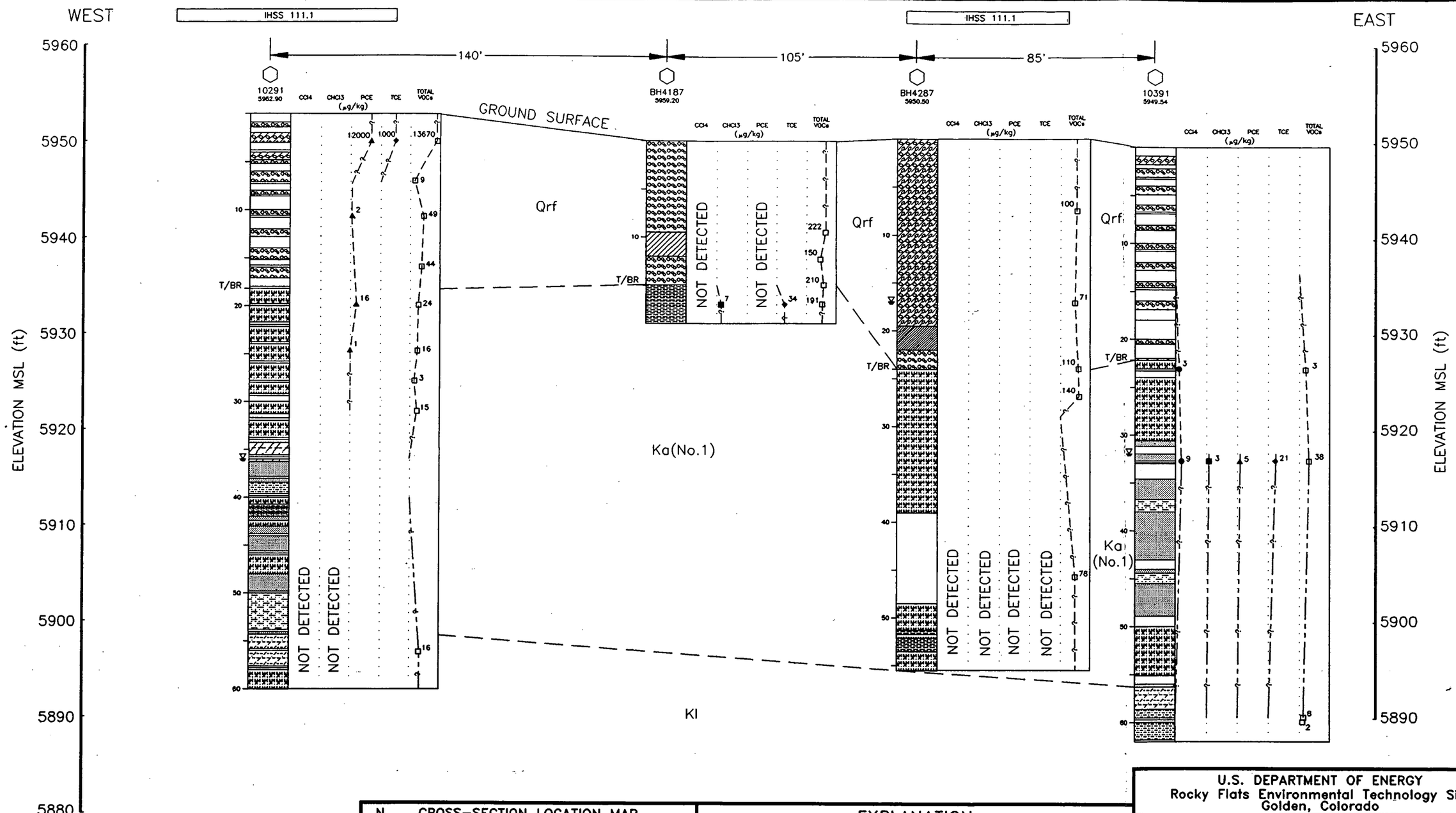
Golden, Colorado

OPERABLE UNIT 2
PHASE II RFI/RI REPORT

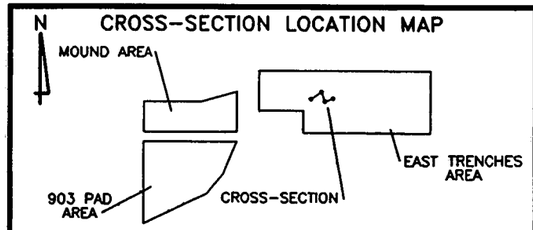
SOURCE BOREHOLE
CROSS-SECTION
IHSS 110 (TRENCH T-3)

FIGURE 4.3-63 APRIL 1995



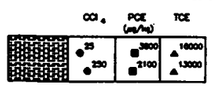
VERTICAL 0 10 SCALE IN FEET

NOTE: HORIZONTAL DISTANCE NOT TO SCALE.



EXPLANATION

T/BR = TOP OF BEDROCK
⬡ = LOCATION SYMBOL
3486 = LOCATION NAME
5912.00 = GROUND SURFACE ELEVATION (ft)



EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (µg/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

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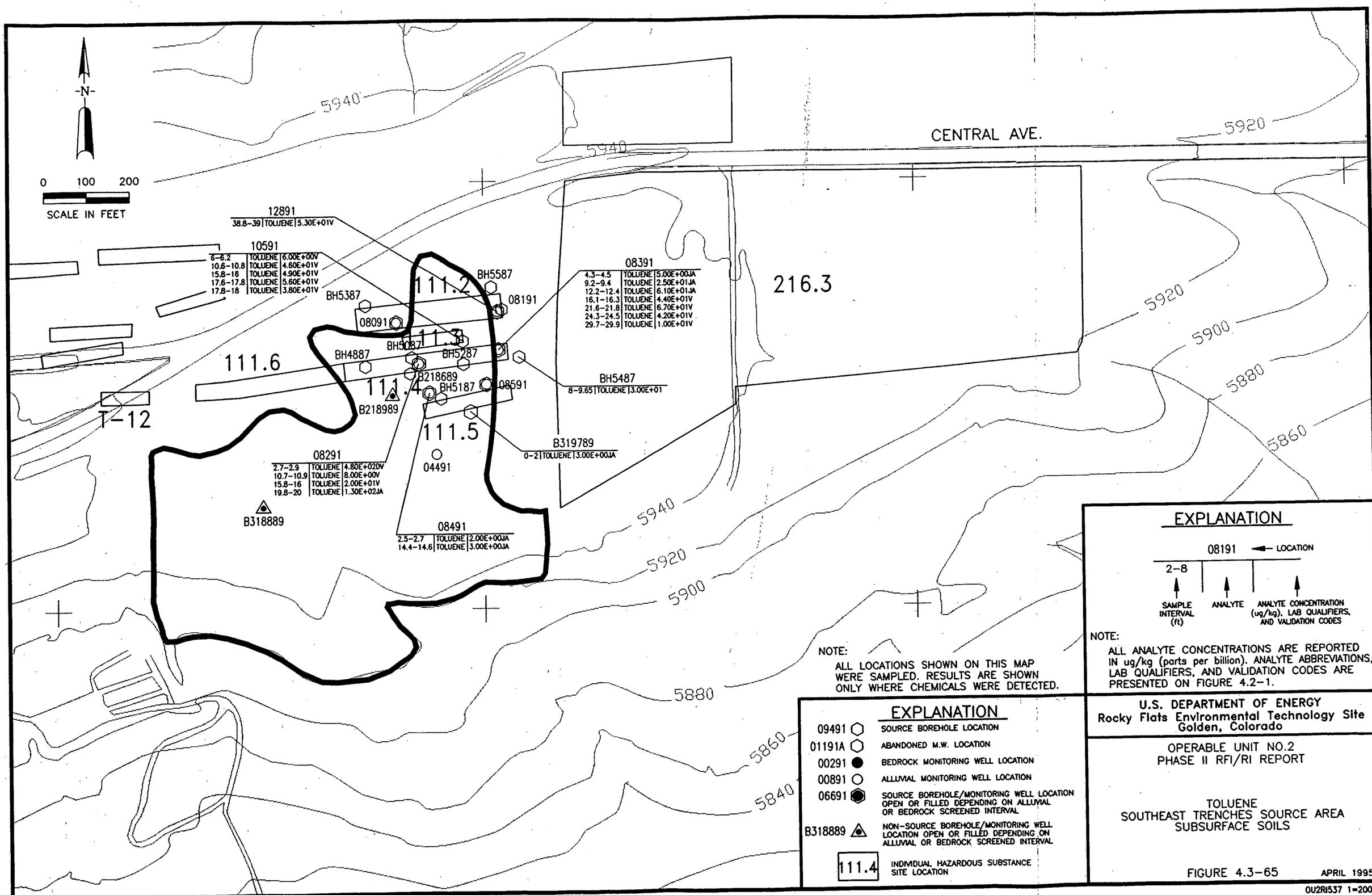
PHASE II RFI/RI REPORT

SOURCE BOREHOLE CROSS-SECTION
IHSS 111.1 (TRENCH T-4)

FIGURE 4.3-64 APRIL 1995


-N-
0 100 200
SCALE IN FEET
CENTRAL AVE.
5940
5920
5900
5880
5860
5840
12891
38.8-39 TOLUENE 5.30E+01V
10591
6-6.2 TOLUENE 6.00E+00V
10.6-10.8 TOLUENE 4.60E+01V
15.8-16 TOLUENE 4.90E+01V
17.6-17.8 TOLUENE 5.60E+01V
17.8-18 TOLUENE 3.80E+01V
08391
4.3-4.5 TOLUENE 5.00E+00JA
9.2-9.4 TOLUENE 2.50E+01JA
12.2-12.4 TOLUENE 6.10E+01JA
16.1-16.3 TOLUENE 4.40E+01V
21.6-21.8 TOLUENE 6.70E+01V
24.3-24.5 TOLUENE 4.20E+01V
29.7-29.9 TOLUENE 1.00E+01V
BH5487
8-9.65 TOLUENE 3.00E+01
B319789
0-2 TOLUENE 3.00E+00JA
08291
2.7-2.9 TOLUENE 4.80E+02DV
10.7-10.9 TOLUENE 8.00E+00V
15.8-16 TOLUENE 2.00E+01V
19.8-20 TOLUENE 1.30E+02JA
08491
2.5-2.7 TOLUENE 2.00E+00JA
14.4-14.6 TOLUENE 3.00E+00JA
BH5587
08191
BH5387
08091
BH5087
BH5287
BH4887
B218689
BH5187
08591
B218989
04491
B318889
111.2
111.3
111.6
111.4
111.5
216.3
T-12
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W. LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
B318889 NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
111.4 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
08191 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
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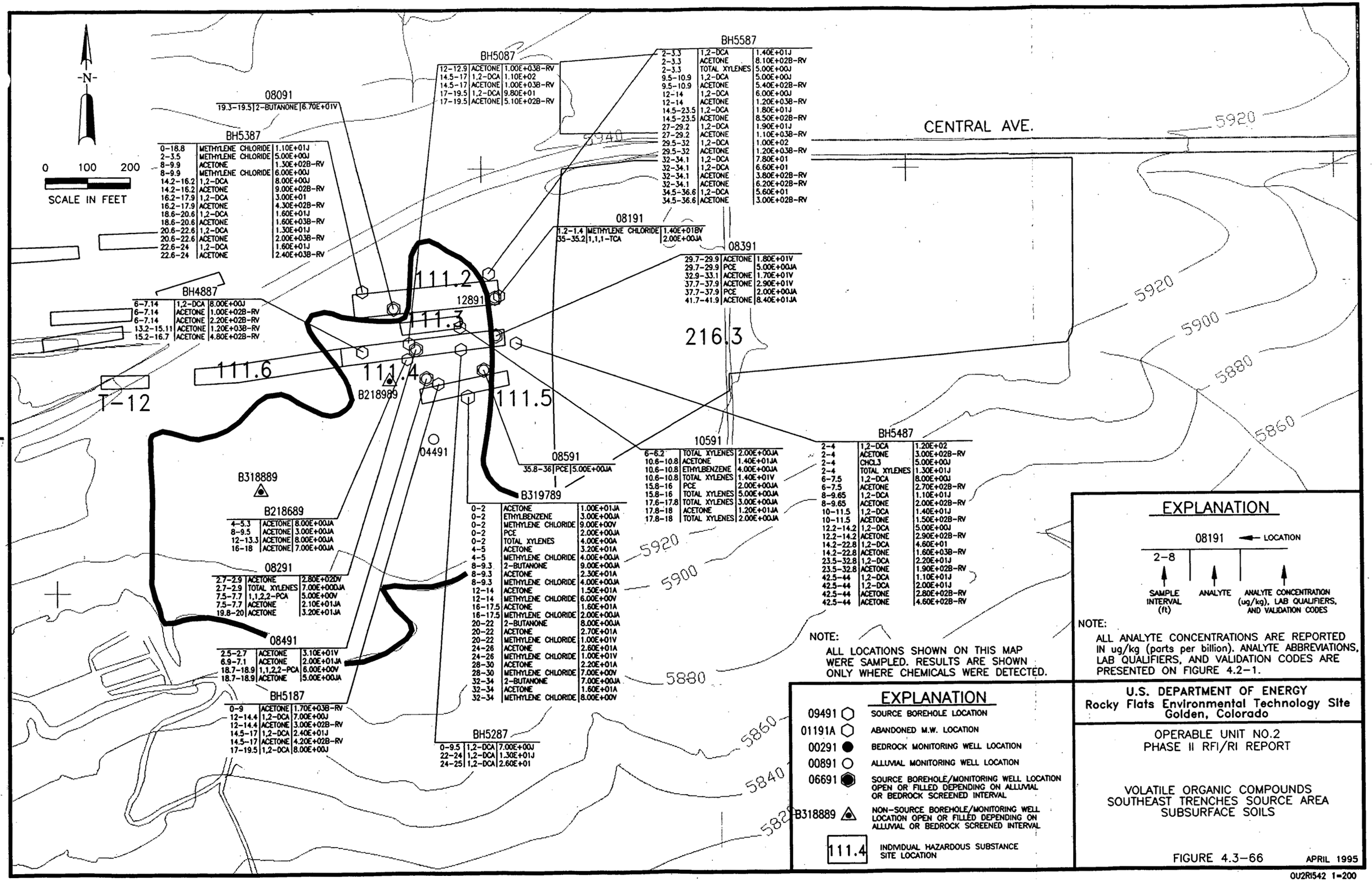
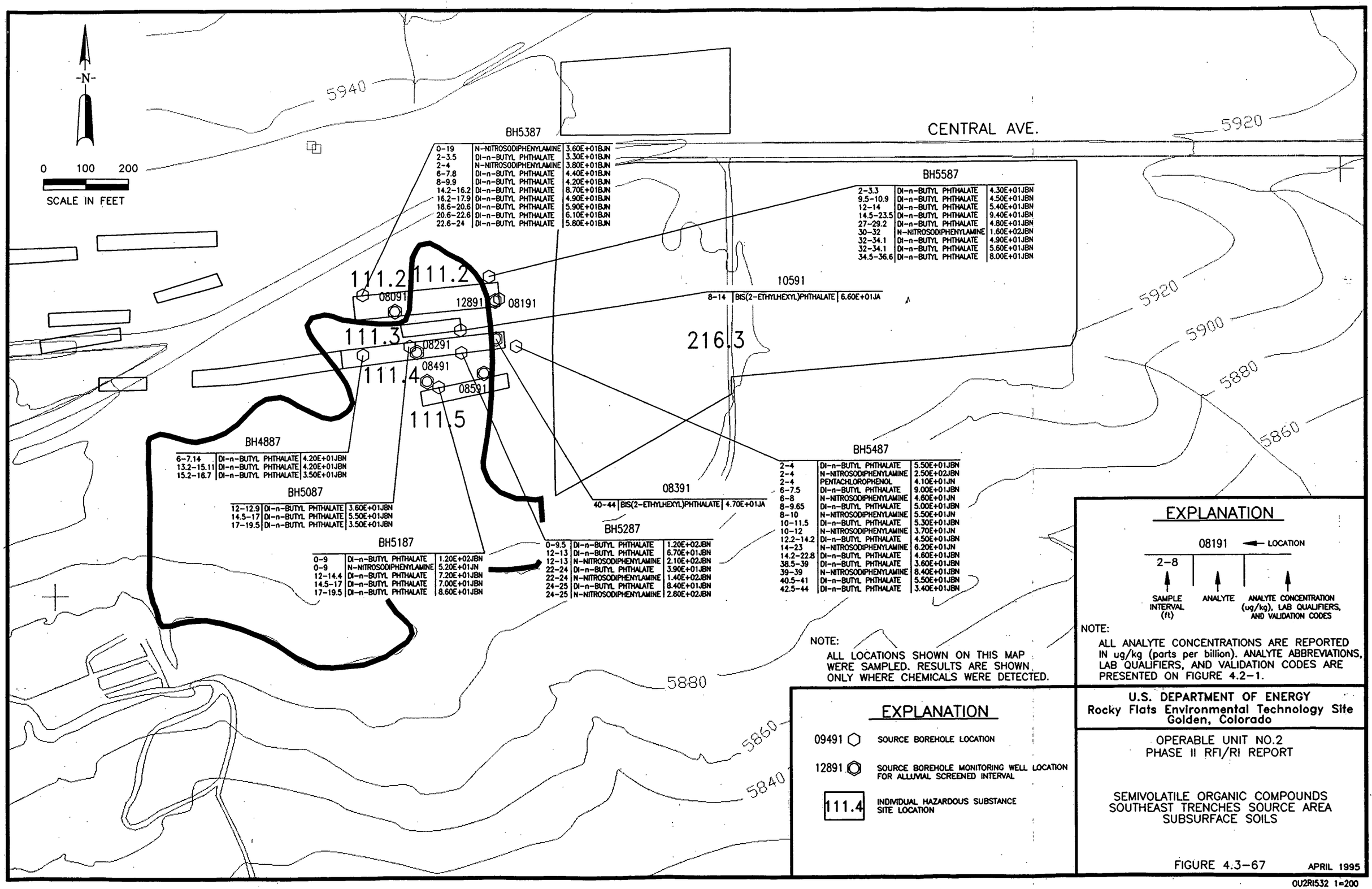
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
TOLUENE
SOUTHEAST TRENCHES SOURCE AREA
SUBSURFACE SOILS
FIGURE 4.3-65
APRIL 1995
0U2RI537 1=200


-N-
0 100 200
SCALE IN FEET
CENTRAL AVE.
5920
5900
5880
5860
5840
5820
111.2
111.3
111.4
111.5
111.6
216.3
12891
B218989
04491
T-12
B318889
B319789
BH5087
12-12.9 ACETONE 1.00E+03B-RV
14.5-17 1,2-DCA 1.10E+02
14.5-17 ACETONE 1.00E+03B-RV
17-19.5 1,2-DCA 9.80E+01
17-19.5 ACETONE 5.10E+02B-RV
08091
19.3-19.5 2-BUTANONE 6.70E+01V
BH5387
0-18.8 METHYLENE CHLORIDE 1.10E+01J
2-3.5 METHYLENE CHLORIDE 5.00E+00J
8-9.9 ACETONE 1.30E+02B-RV
8-9.9 METHYLENE CHLORIDE 6.00E+00J
14.2-16.2 1,2-DCA 8.00E+00J
14.2-16.2 ACETONE 9.00E+02B-RV
16.2-17.9 1,2-DCA 3.00E+01
16.2-17.9 ACETONE 4.30E+02B-RV
18.6-20.6 1,2-DCA 1.60E+01J
18.6-20.6 ACETONE 1.60E+03B-RV
20.6-22.6 1,2-DCA 1.30E+01J
20.6-22.6 ACETONE 2.00E+03B-RV
22.6-24 1,2-DCA 1.60E+01J
22.6-24 ACETONE 2.40E+03B-RV
BH4887
6-7.14 1,2-DCA 8.00E+00J
6-7.14 ACETONE 1.00E+02B-RV
6-7.14 ACETONE 2.20E+02B-RV
13.2-15.11 ACETONE 1.20E+03B-RV
15.2-16.7 ACETONE 4.80E+02B-RV
BH5587
2-3.3 1,2-DCA 1.40E+01J
2-3.3 ACETONE 8.10E+02B-RV
2-3.3 TOTAL XYLENES 5.00E+00J
9.5-10.9 1,2-DCA 5.00E+00J
9.5-10.9 ACETONE 5.40E+02B-RV
12-14 1,2-DCA 6.00E+00J
12-14 ACETONE 1.20E+03B-RV
14.5-23.5 1,2-DCA 1.80E+01J
14.5-23.5 ACETONE 8.50E+02B-RV
27-29.2 1,2-DCA 1.90E+01J
27-29.2 ACETONE 1.10E+03B-RV
29.5-32 1,2-DCA 1.00E+02
29.5-32 ACETONE 1.20E+03B-RV
32-34.1 1,2-DCA 7.80E+01
32-34.1 1,2-DCA 6.60E+01
32-34.1 ACETONE 3.80E+02B-RV
32-34.1 ACETONE 6.20E+02B-RV
34.5-36.6 1,2-DCA 5.60E+01
34.5-36.6 ACETONE 3.00E+02B-RV
08191
1.2-1.4 METHYLENE CHLORIDE 1.40E+01BV
35-35.2 1,1,1-TCA 2.00E+00JA
08391
29.7-29.9 ACETONE 1.80E+01V
29.7-29.9 PCE 5.00E+00JA
32.9-33.1 ACETONE 1.70E+01V
37.7-37.9 ACETONE 2.90E+01V
37.7-37.9 PCE 2.00E+00JA
41.7-41.9 ACETONE 8.40E+01JA
10591
6-6.2 TOTAL XYLENES 2.00E+00JA
10.6-10.8 ACETONE 1.40E+01JA
10.6-10.8 ETHYLBENZENE 4.00E+00JA
10.6-10.8 TOTAL XYLENES 1.40E+01V
15.8-16 PCE 2.00E+00JA
15.8-16 TOTAL XYLENES 5.00E+00JA
17.6-17.8 TOTAL XYLENES 3.00E+00JA
17.8-18 ACETONE 1.20E+01JA
17.8-18 TOTAL XYLENES 2.00E+00JA
08591
35.8-36 PCE 5.00E+00JA
BH5487
2-4 1,2-DCA 1.20E+02
2-4 ACETONE 3.00E+02B-RV
2-4 CHCL3 5.00E+00J
2-4 TOTAL XYLENES 1.30E+01J
6-7.5 1,2-DCA 8.00E+00J
6-7.5 ACETONE 2.70E+02B-RV
8-9.65 1,2-DCA 1.10E+01J
8-9.65 ACETONE 2.00E+02B-RV
10-11.5 1,2-DCA 1.40E+01J
10-11.5 ACETONE 1.50E+02B-RV
12.2-14.2 1,2-DCA 5.00E+00J
12.2-14.2 ACETONE 2.90E+02B-RV
14.2-22.8 1,2-DCA 4.60E+01
14.2-22.8 ACETONE 1.60E+03B-RV
23.5-32.8 1,2-DCA 2.20E+01J
23.5-32.8 ACETONE 1.90E+02B-RV
42.5-44 1,2-DCA 1.10E+01J
42.5-44 1,2-DCA 2.00E+01J
42.5-44 ACETONE 2.80E+02B-RV
42.5-44 ACETONE 4.60E+02B-RV
0-2 ACETONE 1.00E+01JA
0-2 ETHYLBENZENE 3.00E+00JA
0-2 METHYLENE CHLORIDE 9.00E+00V
0-2 PCE 2.00E+00JA
0-2 TOTAL XYLENES 4.00E+00A
4-5 ACETONE 3.20E+01A
4-5 METHYLENE CHLORIDE 4.00E+00JA
8-9.3 2-BUTANONE 9.00E+00JA
8-9.3 ACETONE 2.30E+01A
8-9.3 METHYLENE CHLORIDE 4.00E+00JA
12-14 ACETONE 1.50E+01A
12-14 METHYLENE CHLORIDE 6.00E+00V
16-17.5 ACETONE 1.60E+01A
16-17.5 METHYLENE CHLORIDE 2.00E+00JA
20-22 2-BUTANONE 8.00E+00JA
20-22 ACETONE 2.70E+01A
20-22 METHYLENE CHLORIDE 1.00E+01V
24-26 ACETONE 2.60E+01A
24-26 METHYLENE CHLORIDE 1.00E+01V
28-30 ACETONE 2.20E+01A
28-30 METHYLENE CHLORIDE 7.00E+00V
32-34 2-BUTANONE 7.00E+00JA
32-34 ACETONE 1.60E+01A
32-34 METHYLENE CHLORIDE 8.00E+00V
BH5287
0-9.5 1,2-DCA 7.00E+00J
22-24 1,2-DCA 1.30E+01J
24-25 1,2-DCA 2.60E+01
B218689
4-5.3 ACETONE 8.00E+00JA
8-9.5 ACETONE 3.00E+00JA
12-13.3 ACETONE 8.00E+00JA
16-18 ACETONE 7.00E+00JA
08291
2.7-2.9 ACETONE 2.80E+02DV
2.7-2.9 TOTAL XYLENES 7.00E+00DJA
7.5-7.7 1,1,2,2-PCA 5.00E+00V
7.5-7.7 ACETONE 2.10E+01JA
19.8-20 ACETONE 3.20E+01JA
08491
2.5-2.7 ACETONE 3.10E+01V
6.9-7.1 ACETONE 2.00E+01JA
18.7-18.9 1,1,2,2-PCA 6.00E+00V
18.7-18.9 ACETONE 5.00E+00JA
BH5187
0-9 ACETONE 1.70E+03B-RV
12-14.4 1,2-DCA 7.00E+00J
12-14.4 ACETONE 3.00E+02B-RV
14.5-17 1,2-DCA 2.40E+01J
14.5-17 ACETONE 4.20E+02B-RV
17-19.5 1,2-DCA 8.00E+00J
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W. LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
B318889 NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
111.4 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
08191 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
VOLATILE ORGANIC COMPOUNDS
SOUTHEAST TRENCHES SOURCE AREA
SUBSURFACE SOILS
FIGURE 4.3-66
APRIL 1995
OU2RI542 1=200


-N-
0 100 200
SCALE IN FEET
5940
CENTRAL AVE.
5920
5900
5880
5860
5840
BH5387
0-19 N-NITROSODIPHENYLAMINE 3.60E+01BJN
2-3.5 DI-n-BUTYL PHTHALATE 3.30E+01BJN
2-4 N-NITROSODIPHENYLAMINE 3.80E+01BJN
6-7.8 DI-n-BUTYL PHTHALATE 4.40E+01BJN
8-9.9 DI-n-BUTYL PHTHALATE 4.20E+01BJN
14.2-16.2 DI-n-BUTYL PHTHALATE 8.70E+01BJN
16.2-17.9 DI-n-BUTYL PHTHALATE 4.90E+01BJN
18.6-20.6 DI-n-BUTYL PHTHALATE 5.90E+01BJN
20.6-22.6 DI-n-BUTYL PHTHALATE 6.10E+01BJN
22.6-24 DI-n-BUTYL PHTHALATE 5.80E+01BJN
BH5587
2-3.3 DI-n-BUTYL PHTHALATE 4.30E+01JBN
9.5-10.9 DI-n-BUTYL PHTHALATE 4.50E+01JBN
12-14 DI-n-BUTYL PHTHALATE 5.40E+01JBN
14.5-23.5 DI-n-BUTYL PHTHALATE 9.40E+01JBN
27-29.2 DI-n-BUTYL PHTHALATE 4.80E+01JBN
30-32 N-NITROSODIPHENYLAMINE 1.60E+02JBN
32-34.1 DI-n-BUTYL PHTHALATE 4.90E+01JBN
32-34.1 DI-n-BUTYL PHTHALATE 5.60E+01JBN
34.5-36.6 DI-n-BUTYL PHTHALATE 8.00E+01JBN
10591
8-14 BIS(2-ETHYLHEXYL)PHTHALATE 6.60E+01JA
111.2
111.2
08091
12891
08191
111.3
08291
111.4
08491
08591
111.5
216.3
BH4887
6-7.14 DI-n-BUTYL PHTHALATE 4.20E+01JBN
13.2-15.11 DI-n-BUTYL PHTHALATE 4.20E+01JBN
15.2-16.7 DI-n-BUTYL PHTHALATE 3.50E+01JBN
BH5087
12-12.9 DI-n-BUTYL PHTHALATE 3.60E+01JBN
14.5-17 DI-n-BUTYL PHTHALATE 5.50E+01JBN
17-19.5 DI-n-BUTYL PHTHALATE 3.50E+01JBN
BH5187
0-9 DI-n-BUTYL PHTHALATE 1.20E+02JBN
0-9 N-NITROSODIPHENYLAMINE 5.20E+01JN
12-14.4 DI-n-BUTYL PHTHALATE 7.20E+01JBN
14.5-17 DI-n-BUTYL PHTHALATE 7.00E+01JBN
17-19.5 DI-n-BUTYL PHTHALATE 8.60E+01JBN
08391
40-44 BIS(2-ETHYLHEXYL)PHTHALATE 4.70E+01JA
BH5287
0-9.5 DI-n-BUTYL PHTHALATE 1.20E+02JBN
12-13 DI-n-BUTYL PHTHALATE 6.70E+01JBN
12-13 N-NITROSODIPHENYLAMINE 2.10E+02JBN
22-24 DI-n-BUTYL PHTHALATE 3.90E+01JBN
22-24 N-NITROSODIPHENYLAMINE 1.40E+02JBN
24-25 DI-n-BUTYL PHTHALATE 8.40E+01JBN
24-25 N-NITROSODIPHENYLAMINE 2.60E+02JBN
BH5487
2-4 DI-n-BUTYL PHTHALATE 5.50E+01JBN
2-4 N-NITROSODIPHENYLAMINE 2.50E+02JBN
2-4 PENTACHLOROPHENOL 4.10E+01JN
6-7.5 DI-n-BUTYL PHTHALATE 9.00E+01JBN
6-8 N-NITROSODIPHENYLAMINE 4.60E+01JN
8-9.65 DI-n-BUTYL PHTHALATE 5.00E+01JBN
8-10 N-NITROSODIPHENYLAMINE 5.50E+01JN
10-11.5 DI-n-BUTYL PHTHALATE 5.30E+01JBN
10-12 N-NITROSODIPHENYLAMINE 3.70E+01JN
12.2-14.2 DI-n-BUTYL PHTHALATE 4.50E+01JBN
14-23 N-NITROSODIPHENYLAMINE 6.20E+01JN
14.2-22.8 DI-n-BUTYL PHTHALATE 4.60E+01JBN
38.5-39 DI-n-BUTYL PHTHALATE 3.60E+01JBN
39-39 N-NITROSODIPHENYLAMINE 8.40E+01JBN
40.5-41 DI-n-BUTYL PHTHALATE 5.50E+01JBN
42.5-44 DI-n-BUTYL PHTHALATE 3.40E+01JBN
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
12891 SOURCE BOREHOLE MONITORING WELL LOCATION FOR ALLUVIAL SCREENED INTERVAL
111.4 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
08191 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
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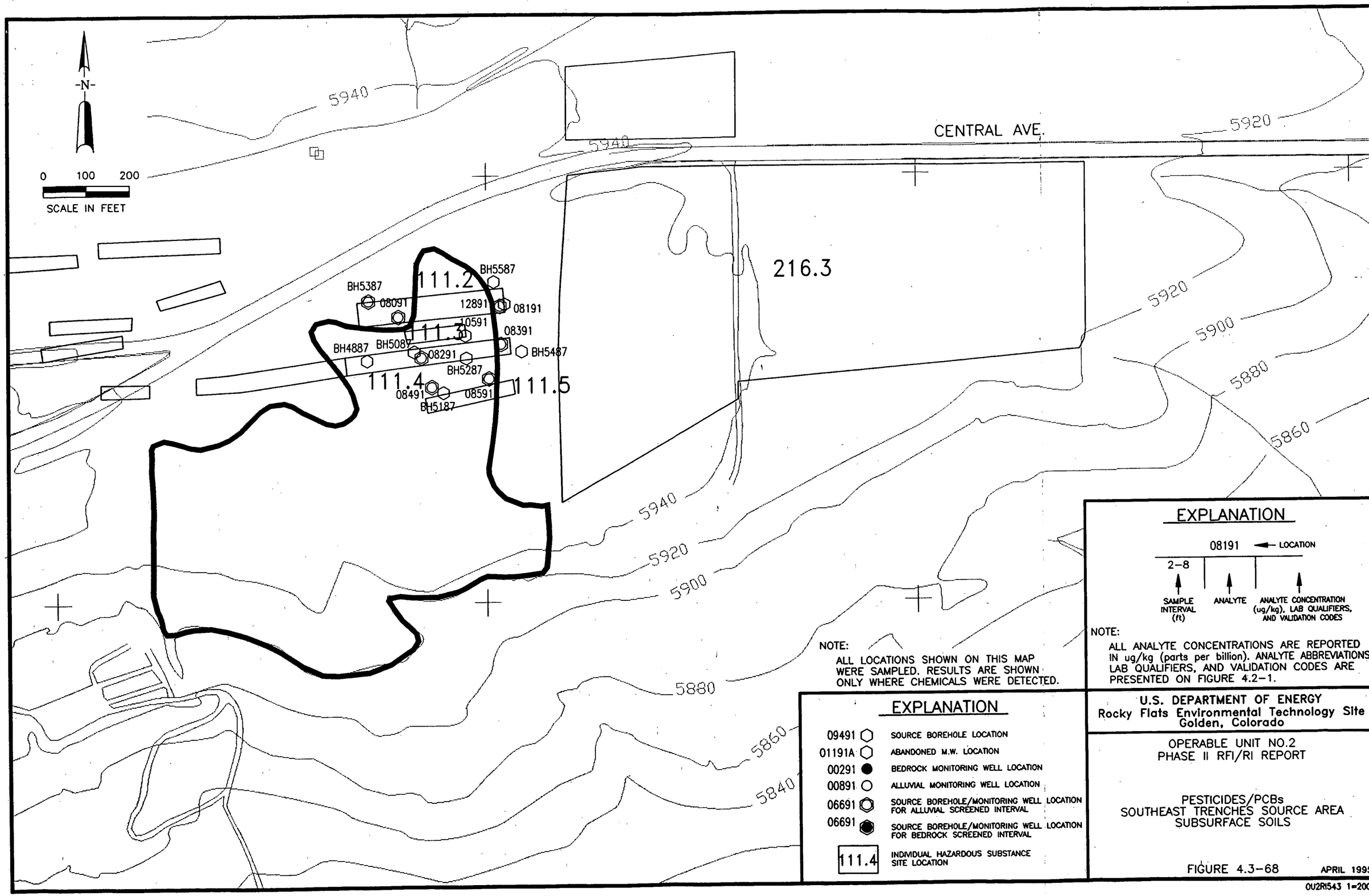
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
SEMIVOLATILE ORGANIC COMPOUNDS
SOUTHEAST TRENCHES SOURCE AREA
SUBSURFACE SOILS
FIGURE 4.3-67
APRIL 1995
OU2RI532 1=200


-N-
0 100 200
SCALE IN FEET
CENTRAL AVE.
5940
5920
5900
5880
5860
5840
216.3
111.2
111.3
111.4
111.5
BH5587
BH5387
08091
12891
08191
10591
08391
BH4887
BH5087
08291
BH5487
BH5287
08491
08591
BH5187
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W. LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR ALLUVIAL SCREENED INTERVAL
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION FOR BEDROCK SCREENED INTERVAL
111.4 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
08191 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
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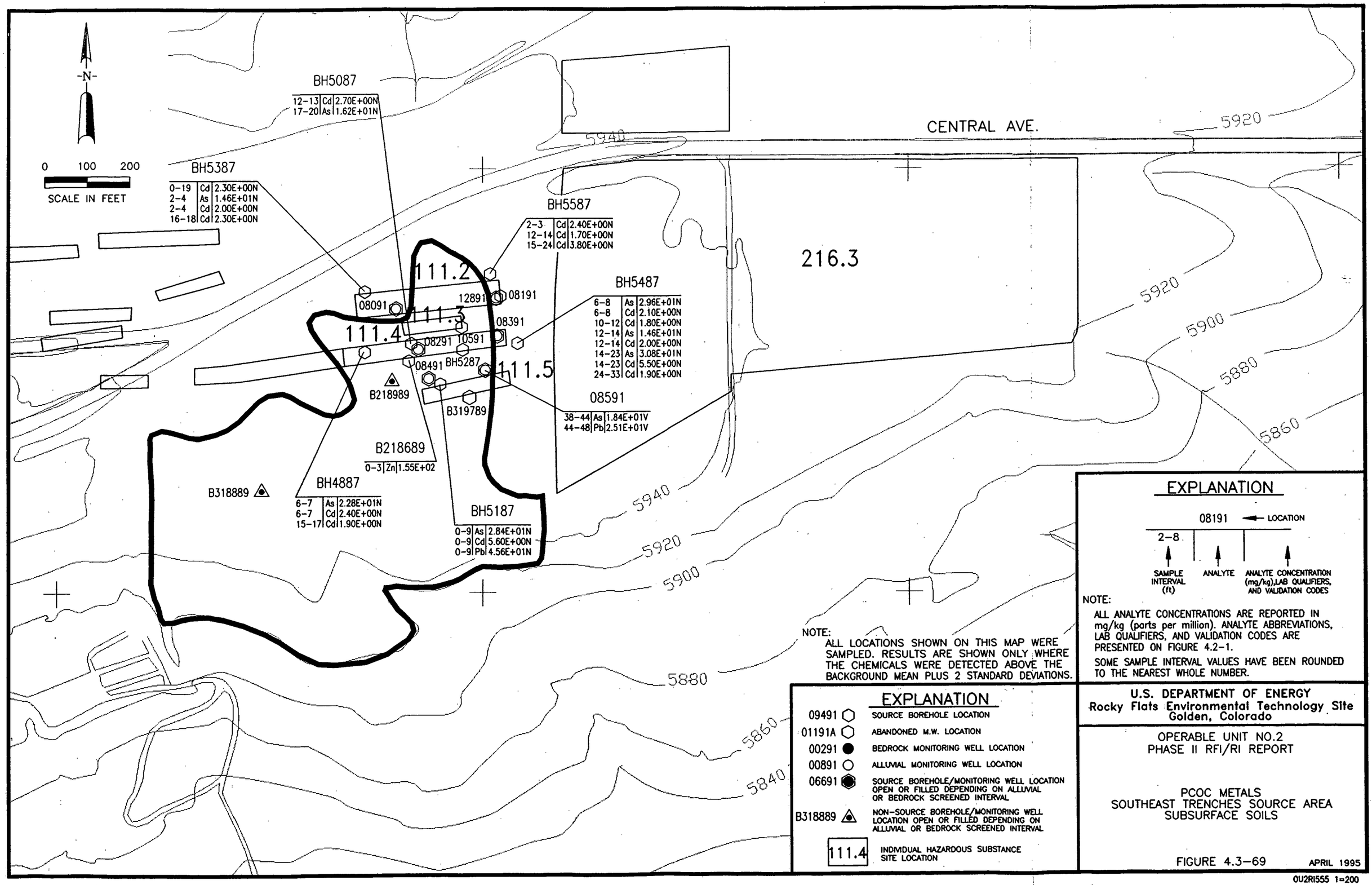
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
PESTICIDES/PCBs
SOUTHEAST TRENCHES SOURCE AREA
SUBSURFACE SOILS
FIGURE 4.3-68
APRIL 1995
OU2RI543 1=200



NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

EXPLANATION

09491	SOURCE BOREHOLE LOCATION
01191A	ABANDONED M.W. LOCATION
00291	BEDROCK MONITORING WELL LOCATION
00891	ALLUVIAL MONITORING WELL LOCATION
06691	SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
B318889	NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
111.4	INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

EXPLANATION

08191 ← LOCATION

2-8 | | |

SAMPLE INTERVAL (ft) | ANALYTE | ANALYTE CONCENTRATION (mg/kg), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN mg/kg (parts per million). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.

SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.

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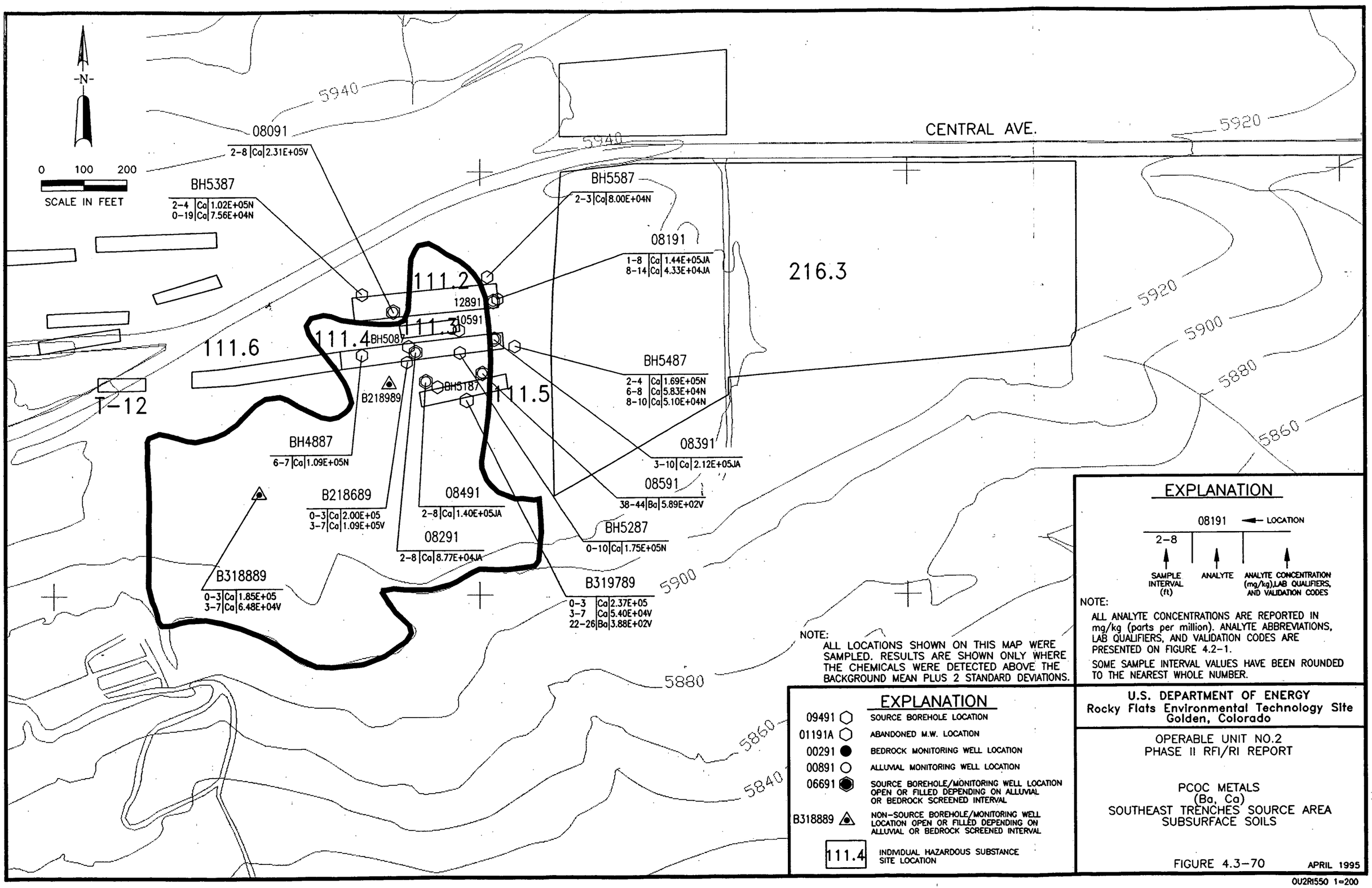
Rocky Flats Environmental Technology Site
Golden, Colorado

OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT

PCOC METALS
SOUTHEAST TRENCHES SOURCE AREA
SUBSURFACE SOILS

FIGURE 4.3-69 APRIL 1995

0U2RI555 1=200



NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

EXPLANATION

09491	SOURCE BOREHOLE LOCATION
01191A	ABANDONED M.W. LOCATION
00291	BEDROCK MONITORING WELL LOCATION
00891	ALLUVIAL MONITORING WELL LOCATION
06691	SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
B318889	NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
111.4	INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

EXPLANATION

08191 ← LOCATION

2-8

SAMPLE INTERVAL (ft) | ANALYTE | ANALYTE CONCENTRATION (mg/kg), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN mg/kg (parts per million). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.

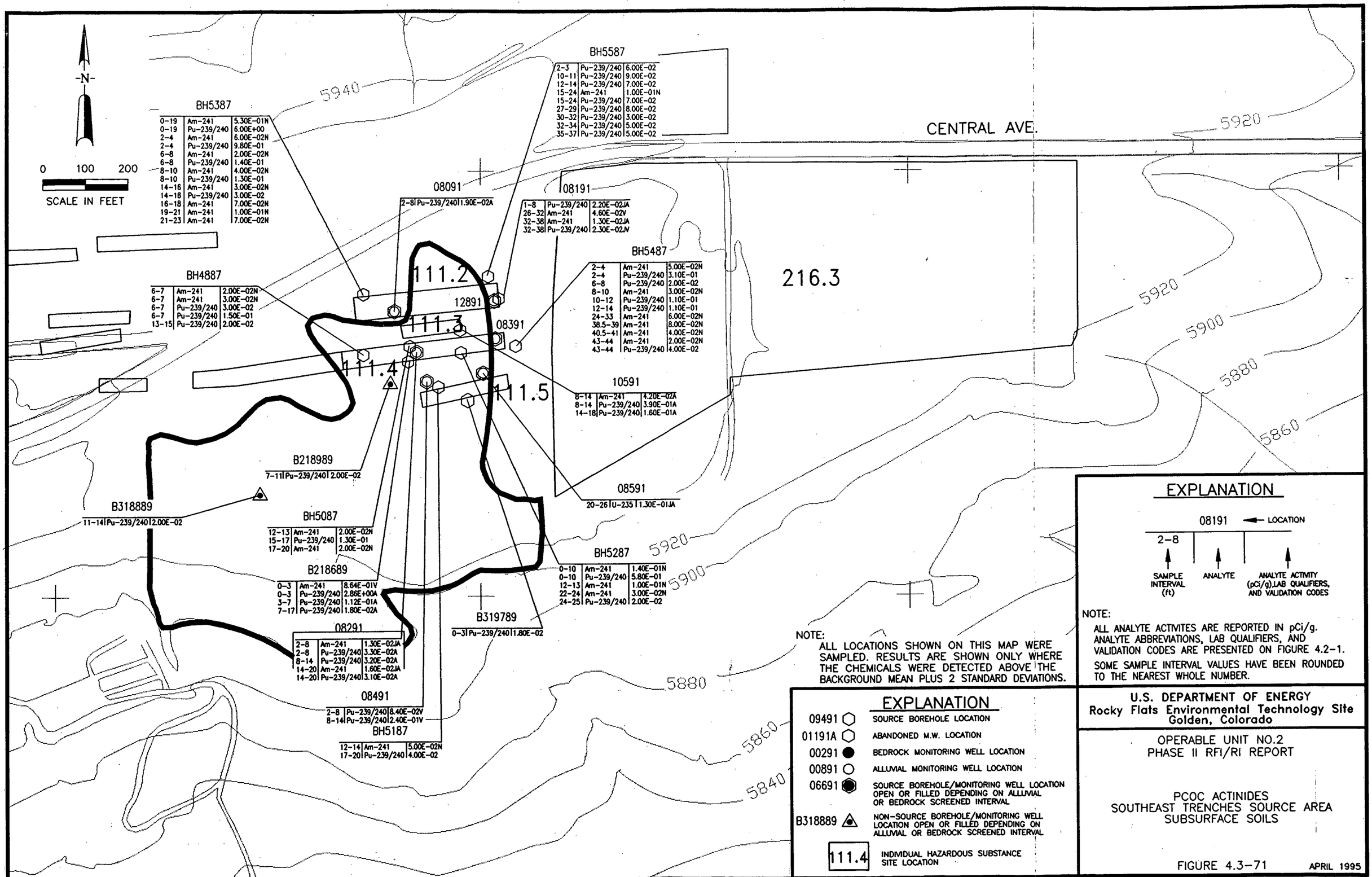
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado

OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT

PCOC METALS
(Ba, Ca)
SOUTHEAST TRENCHES SOURCE AREA
SUBSURFACE SOILS

FIGURE 4.3-70 APRIL 1995

0U2R1550 1=200


-N-
0 100 200
SCALE IN FEET
CENTRAL AVE.
5940
5920
5900
5880
5860
5840
BH5387
0-19 Am-241 5.30E-01N
0-19 Pu-239/240 6.00E+00
2-4 Am-241 6.00E-02N
2-4 Pu-239/240 9.80E-01
6-8 Am-241 2.00E-02N
6-8 Pu-239/240 1.40E-01
8-10 Am-241 4.00E-02N
8-10 Pu-239/240 1.30E-01
14-16 Am-241 3.00E-02N
14-16 Pu-239/240 3.00E-02
16-18 Am-241 7.00E-02N
19-21 Am-241 1.00E-01N
21-23 Am-241 7.00E-02N
BH5587
2-3 Pu-239/240 6.00E-02
10-11 Pu-239/240 9.00E-02
12-14 Pu-239/240 7.00E-02
15-24 Am-241 1.00E-01N
15-24 Pu-239/240 7.00E-02
27-29 Pu-239/240 8.00E-02
30-32 Pu-239/240 3.00E-02
32-34 Pu-239/240 5.00E-02
35-37 Pu-239/240 5.00E-02
08091
2-8 Pu-239/240 1.90E-02A
08191
1-8 Pu-239/240 2.20E-02JA
26-32 Am-241 4.60E-02V
32-38 Am-241 1.30E-02JA
32-38 Pu-239/240 2.30E-02JV
BH4887
6-7 Am-241 2.00E-02N
6-7 Am-241 3.00E-02N
6-7 Pu-239/240 3.00E-02
6-7 Pu-239/240 1.50E-01
13-15 Pu-239/240 2.00E-02
111.2
12891
111.3
08391
111.4
111.5
BH5487
2-4 Am-241 5.00E-02N
2-4 Pu-239/240 3.10E-01
6-8 Pu-239/240 2.00E-02
8-10 Am-241 3.00E-02N
10-12 Pu-239/240 1.10E-01
12-14 Pu-239/240 1.10E-01
24-33 Am-241 6.00E-02N
38.5-39 Am-241 8.00E-02N
40.5-41 Am-241 4.00E-02N
43-44 Am-241 2.00E-02N
43-44 Pu-239/240 4.00E-02
216.3
10591
8-14 Am-241 4.20E-02A
8-14 Pu-239/240 3.90E-01A
14-18 Pu-239/240 1.60E-01A
B218989
7-11 Pu-239/240 2.00E-02
08591
20-26 U-235 1.30E-01JA
B318889
11-14 Pu-239/240 2.00E-02
BH5087
12-13 Am-241 2.00E-02N
15-17 Pu-239/240 1.30E-01
17-20 Am-241 2.00E-02N
BH5287
0-10 Am-241 1.40E-01N
0-10 Pu-239/240 5.80E-01
12-13 Am-241 1.00E-01N
22-24 Am-241 3.00E-02N
24-25 Pu-239/240 2.00E-02
B218689
0-3 Am-241 8.64E-01V
0-3 Pu-239/240 2.86E+00A
3-7 Pu-239/240 1.12E-01A
7-17 Pu-239/240 1.80E-02A
B319789
0-3 Pu-239/240 1.80E-02
08291
2-8 Am-241 1.30E-02JA
2-8 Pu-239/240 3.30E-02A
8-14 Pu-239/240 3.20E-02A
14-20 Am-241 1.60E-02JA
14-20 Pu-239/240 3.10E-02A
08491
2-8 Pu-239/240 8.40E-02V
8-14 Pu-239/240 2.40E-01V
BH5187
12-14 Am-241 5.00E-02N
17-20 Pu-239/240 4.00E-02
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W. LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
B318889 NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
111.4 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
08191 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE ACTIVITY (pCi/g), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE ACTIVITES ARE REPORTED IN pCi/g. ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.
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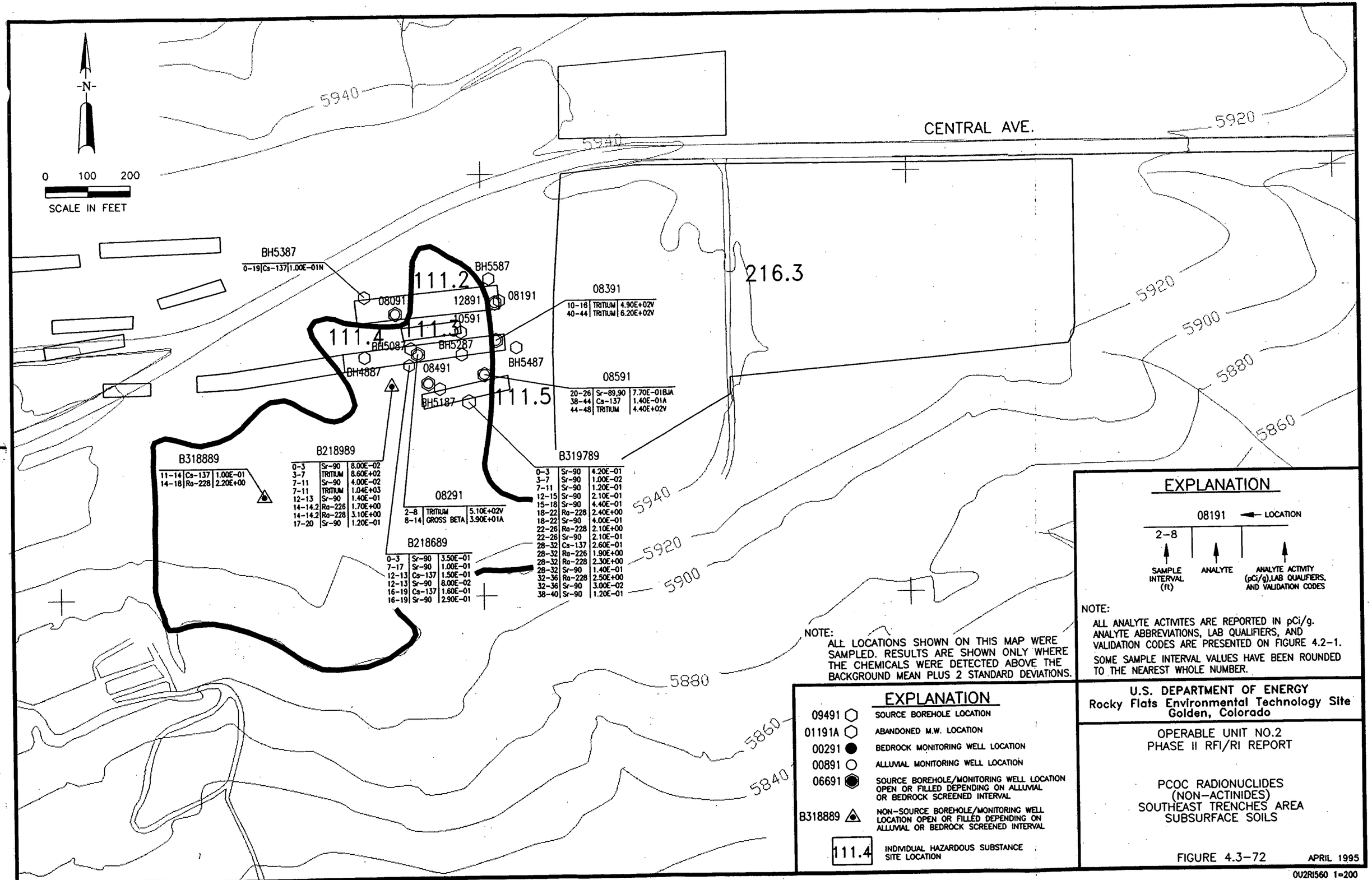
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT
PCOC ACTINIDES
SOUTHEAST TRENCHES SOURCE AREA
SUBSURFACE SOILS
FIGURE 4.3-71
APRIL 1995
OU2RI565 1=200


-N-
0 100 200
SCALE IN FEET
CENTRAL AVE.
5940
5920
5900
5880
5860
5840
216.3
111.2
111.3
111.4
111.5
BH5387
0-19 Cs-137 1.00E-01N
BH5587
08091
12891
08191
10591
BH5087
BH5287
BH5487
BH4887
08491
BH5187
08391
10-16 TRITIUM 4.90E+02V
40-44 TRITIUM 6.20E+02V
08591
20-26 Sr-89,90 7.70E-01BJA
38-44 Cs-137 1.40E-01A
44-48 TRITIUM 4.40E+02V
B318889
11-14 Cs-137 1.00E-01
14-18 Ra-228 2.20E+00
B218989
0-3 Sr-90 8.00E-02
3-7 TRITIUM 8.60E+02
7-11 Sr-90 4.00E-02
7-11 TRITIUM 1.04E+03
12-13 Sr-90 1.40E-01
14-14.2 Ra-226 1.70E+00
14-14.2 Ra-228 3.10E+00
17-20 Sr-90 1.20E-01
08291
2-8 TRITIUM 5.10E+02V
8-14 GROSS BETA 3.90E+01A
B218689
0-3 Sr-90 3.50E-01
7-17 Sr-90 1.00E-01
12-13 Cs-137 1.50E-01
12-13 Sr-90 8.00E-02
16-19 Cs-137 1.60E-01
16-19 Sr-90 2.90E-01
B319789
0-3 Sr-90 4.20E-01
3-7 Sr-90 1.00E-02
7-11 Sr-90 1.20E-01
12-15 Sr-90 2.10E-01
15-18 Sr-90 4.40E-01
18-22 Ra-228 2.40E+00
18-22 Sr-90 4.00E-01
22-26 Ra-228 2.10E+00
22-26 Sr-90 2.10E-01
28-32 Cs-137 2.60E-01
28-32 Ra-226 1.90E+00
28-32 Ra-228 2.30E+00
28-32 Sr-90 1.40E-01
32-36 Ra-228 2.50E+00
32-36 Sr-90 3.00E-02
38-40 Sr-90 1.20E-01
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W. LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
B318889 NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
111.4 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
08191 LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE ACTIVITY (pCi/g), LAB QUALIFIERS, AND VALIDATION CODES
NOTE:
ALL ANALYTE ACTIVITES ARE REPORTED IN pCi/g. ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.
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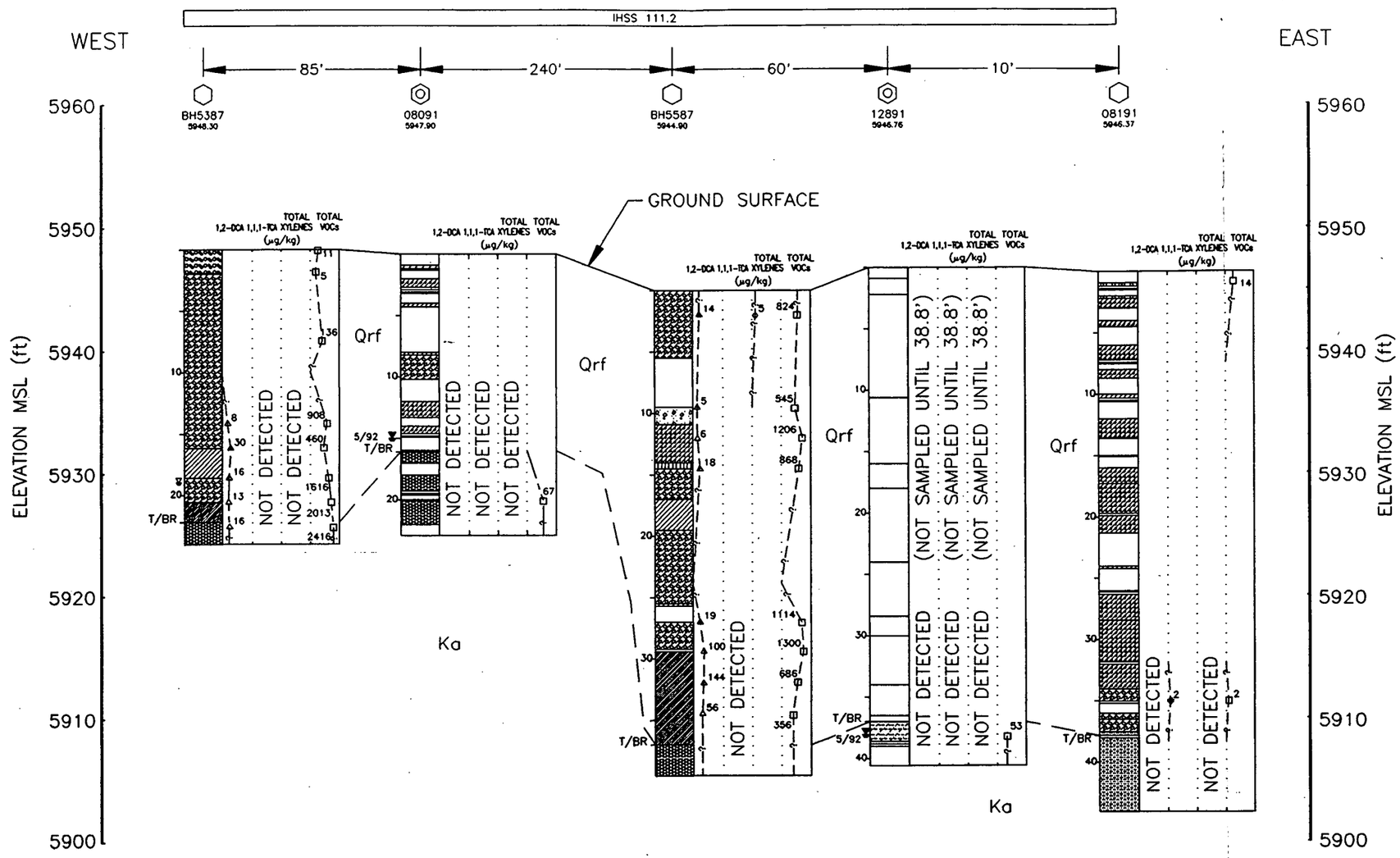
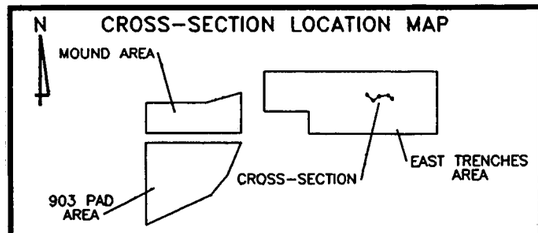
PHASE II RFI/RI REPORT
PCOC RADIONUCLIDES
(NON-ACTINIDES)
SOUTHEAST TRENCHES AREA
SUBSURFACE SOILS
FIGURE 4.3-72
APRIL 1995
0U2RI560 1=200



VERTICAL 0 – 10 SCALE IN FEET

NOTE: HORIZONTAL DISTANCE NOT TO SCALE.



EXPLANATION

T/BR = TOP OF BEDROCK

⬡ = LOCATION SYMBOL

3486 = LOCATION NAME

5912.00 = GROUND SURFACE ELEVATION (ft)

CCl4 PCE (µg/kg) TCE

EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (µg/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

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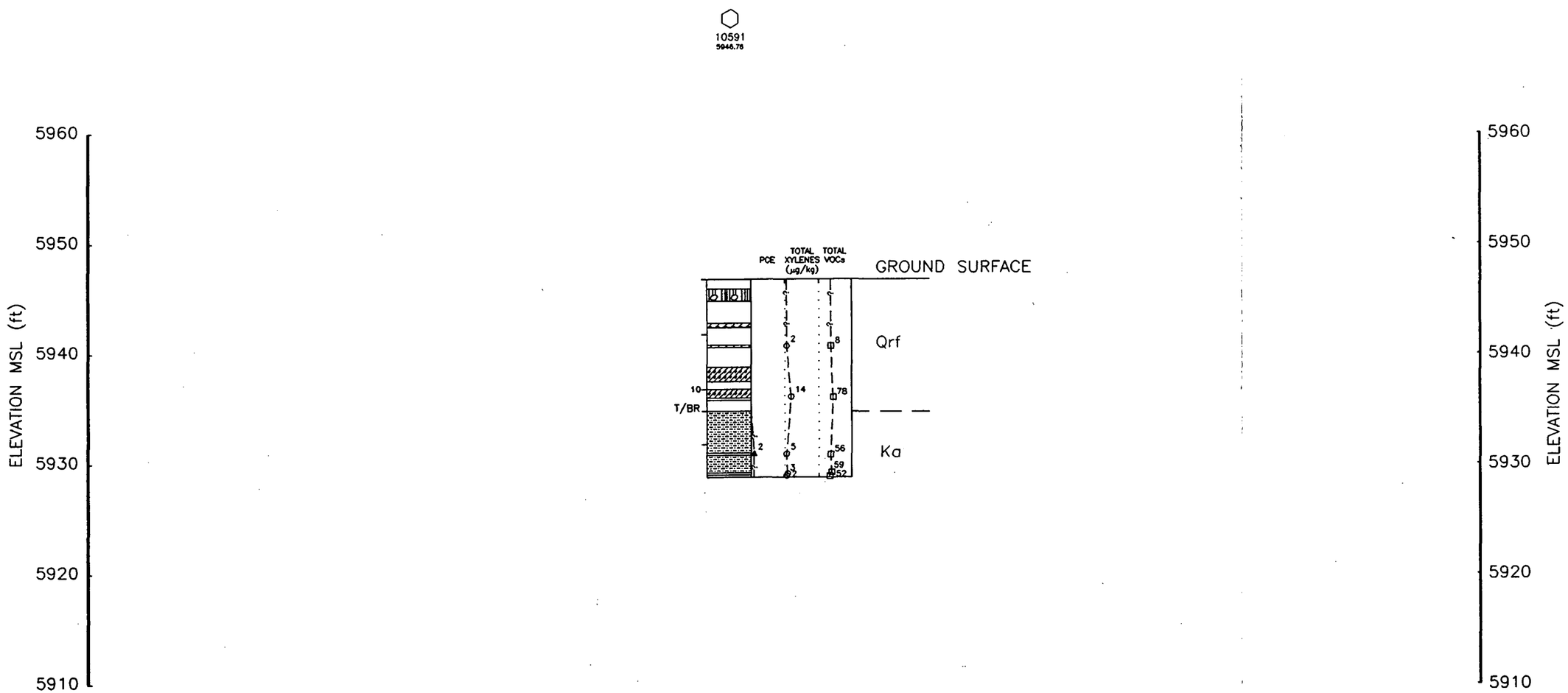
SOURCE BOREHOLE
CROSS-SECTION
IHSS 111.2 (TRENCH T-5)

FIGURE 4.3-73 APRIL 1995

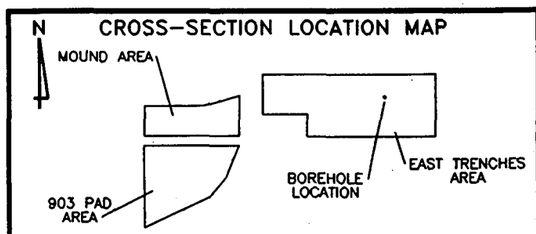
OU2R1661 1-1

IHSS 111.3



VERTICAL 0 – 10 SCALE IN FEET

NOTE: HORIZONTAL DISTANCE NOT TO SCALE.



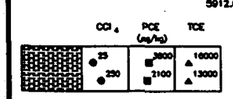
EXPLANATION

T/BR = TOP OF BEDROCK

⬡ = LOCATION SYMBOL

3486 = LOCATION NAME

5912.00 = GROUND SURFACE ELEVATION (ft)



EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (µg/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

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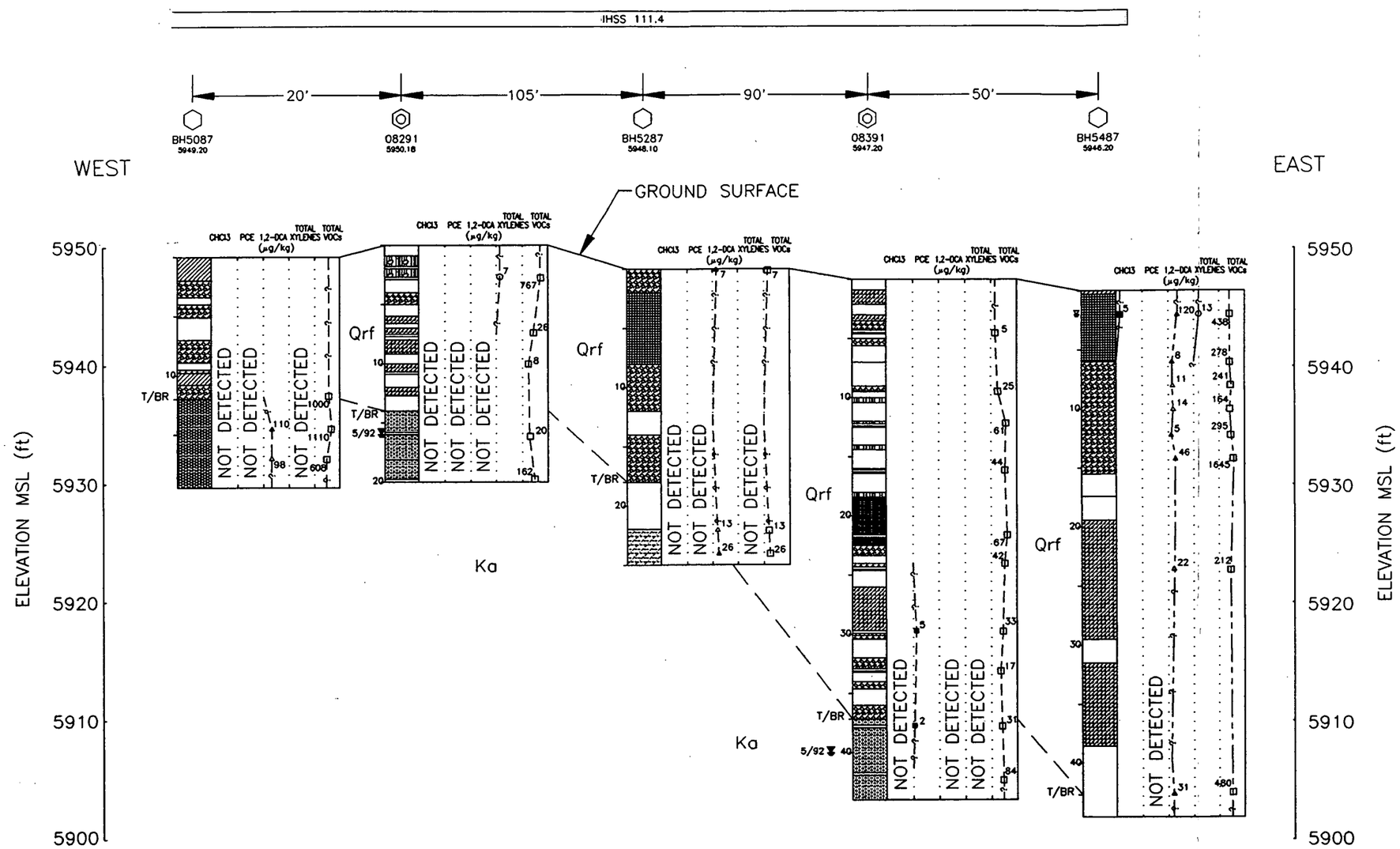
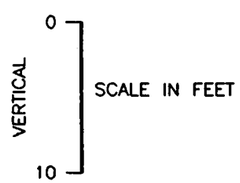
SOURCE BOREHOLE
CROSS-SECTION
IHSS 111.3 (TRENCH T-6)

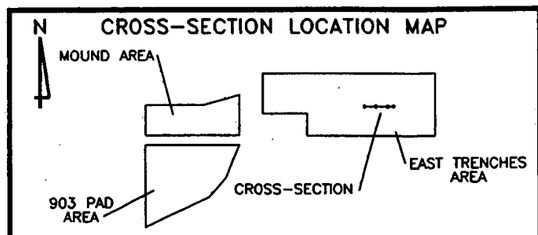
FIGURE 4.3-74 APRIL 1995

OU2RI662 1=1



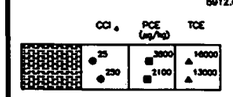


NOTE: HORIZONTAL DISTANCE NOT TO SCALE.



EXPLANATION

T/BR = TOP OF BEDROCK
⬡ = LOCATION SYMBOL
3486 = LOCATION NAME
5912.00 = GROUND SURFACE ELEVATION (ft)



EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (µg/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

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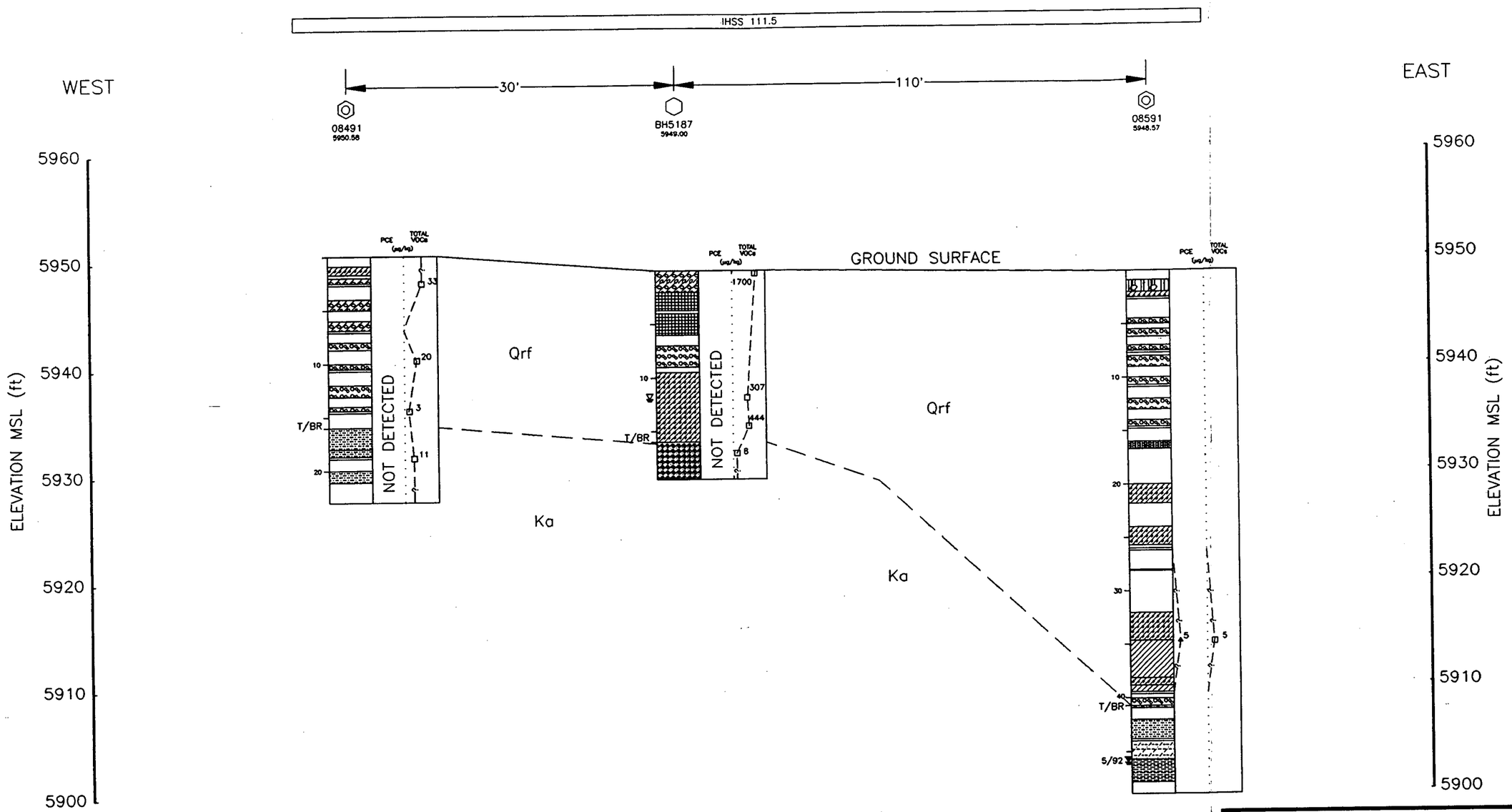
SOURCE BOREHOLE
CROSS-SECTION
IHSS 111.4 (TRENCH T-7)

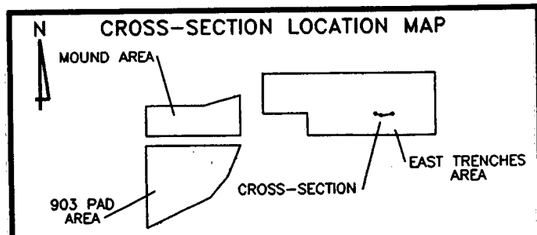
FIGURE 4.3-75 APRIL 1995



VERTICAL 0 – 10 SCALE IN FEET

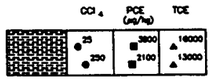
NOTE: HORIZONTAL DISTANCE NOT TO SCALE.

CROSS-SECTION LOCATION MAP



EXPLANATION

T/BR = TOP OF BEDROCK
⬡ = LOCATION SYMBOL
3486 = LOCATION NAME
5912.00 = GROUND SURFACE ELEVATION (ft)



EACH CHEMICAL IS PLOTTED ON A LOGARITHMIC SCALE (INCREASING TO RIGHT) FROM 0 TO 1,000,000 (µg/kg). DATA POINT REPRESENTS TOP OF SAMPLING INTERVAL.

(SEE FIGURE 4.3-1, SOURCE BOREHOLE CHARACTERIZATION LEGEND, FOR SOIL, BEDROCK AND LOCATION SYMBOLS)

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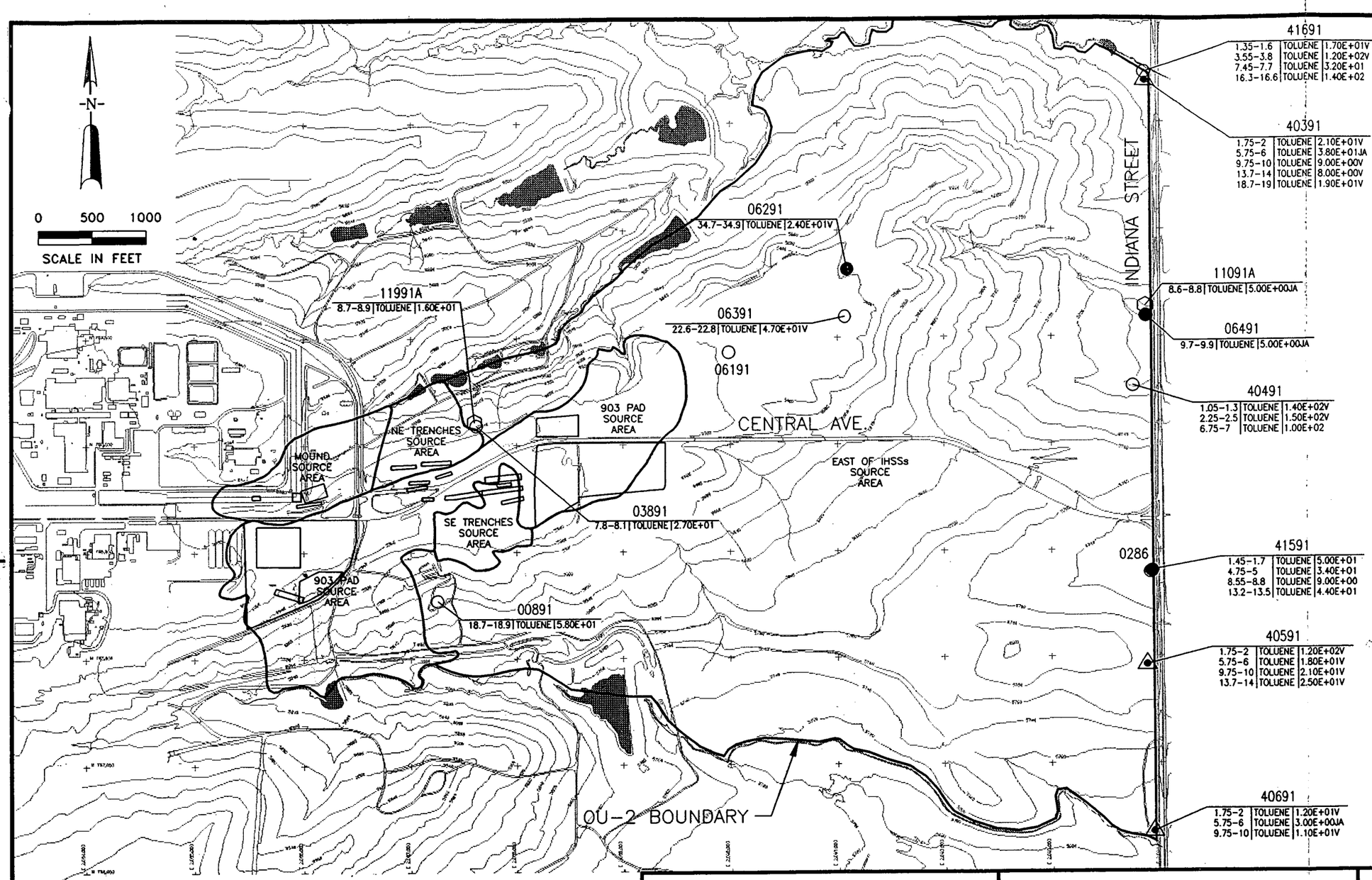
SOURCE BOREHOLE CROSS-SECTION IHSS 111.5 (TRENCH T-8)

FIGURE 4.3-76 APRIL 1995

OU2RI664 1=1



NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED.

EXPLANATION

08691 ← LOCATION

0-11		
↑ SAMPLE INTERVAL (ft)	↑ ANALYTE	↑ ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.

EXPLANATION

09491 ⬡	SOURCE BOREHOLE LOCATION
01191A ⬡	ABANDONED M.W. LOCATION
00291 ●	BEDROCK MONITORING WELL LOCATION
00891 ○	ALLUVIAL MONITORING WELL LOCATION
06691 ⬢	SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
40691 ◈	NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN ORFILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
111.4	INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

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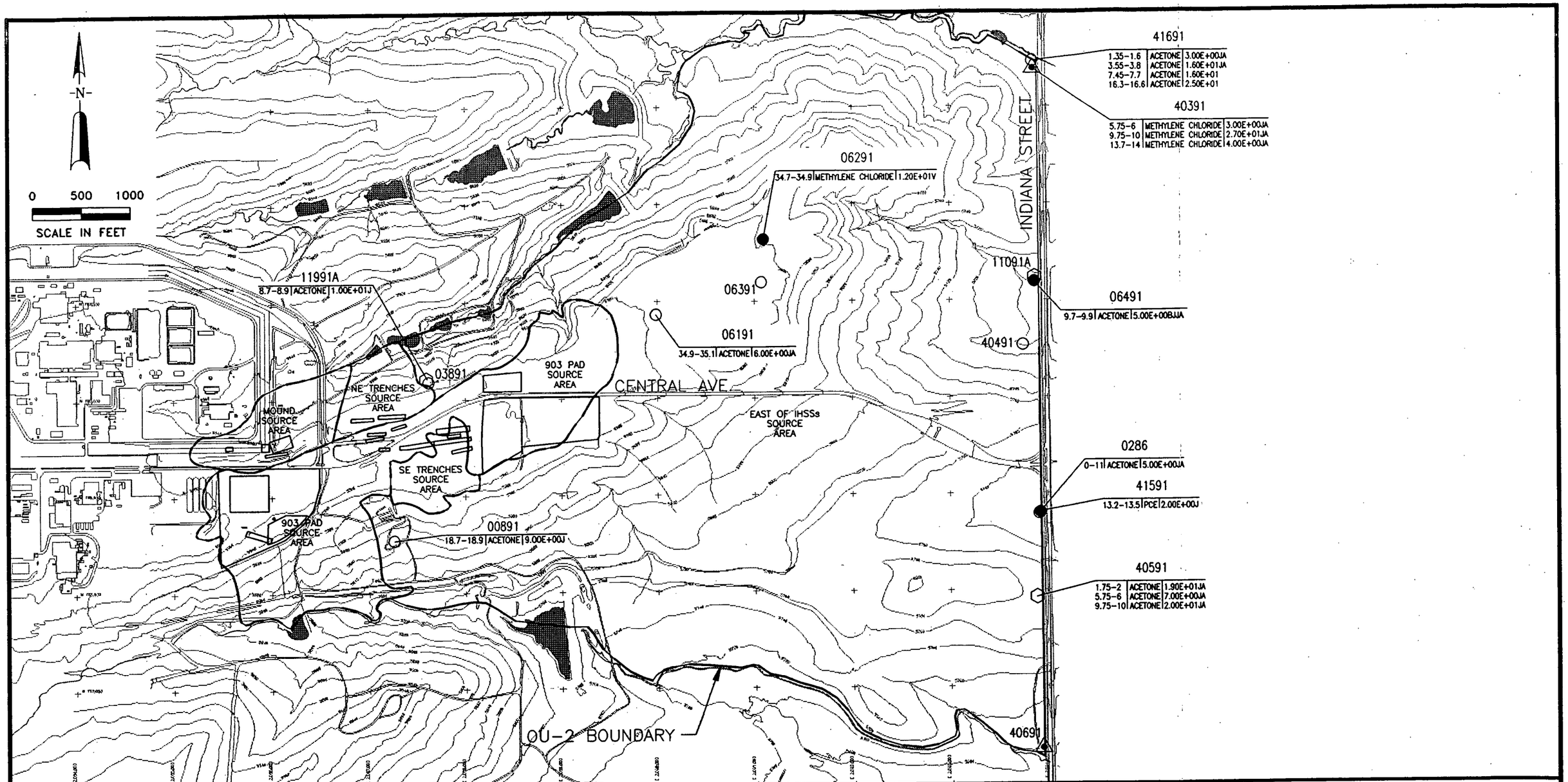
Golden, Colorado

OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT

TOLUENE
EAST OF IHSSs SOURCE AREA
SUBSURFACE SOILS

FIGURE 4.3-77 APRIL 1995

0U2RI538 1=1000



NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED.

EXPLANATION

08691 ← LOCATION

0-11

- SAMPLE INTERVAL (ft)
- ANALYTE
- ANALYTE CONCENTRATION (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.

EXPLANATION

09491	SOURCE BOREHOLE LOCATION
01191A	ABANDONED M.W. LOCATION
00291	BEDROCK MONITORING WELL LOCATION
00891	ALLUVIAL MONITORING WELL LOCATION
06691	SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
40691	NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN ORFILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
111.4	INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

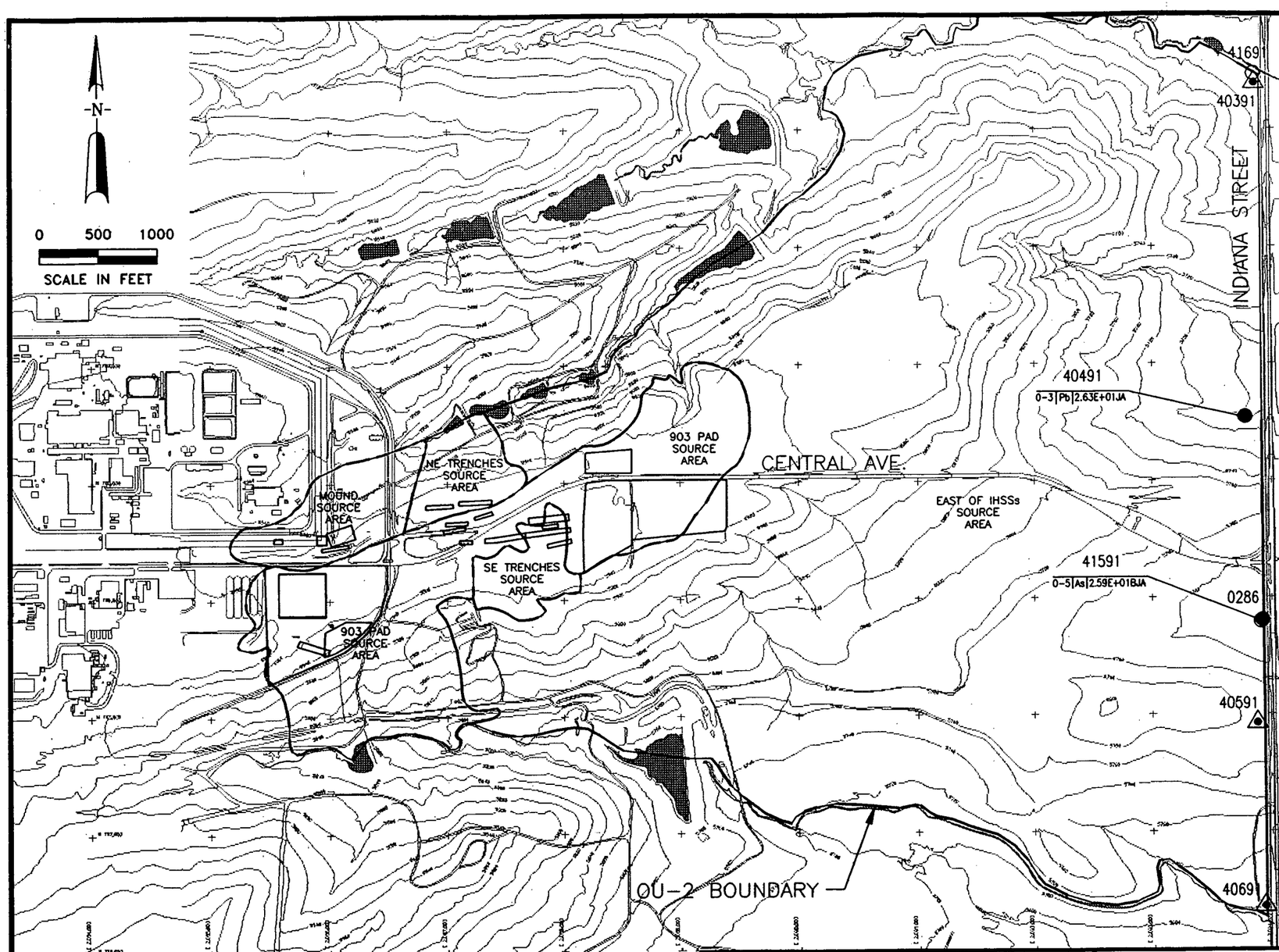
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado

OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT

VOLATILE ORGANIC COMPOUNDS
EAST OF IHSSs SOURCE AREA
SUBSURFACE SOILS

FIGURE 4.3-78 APRIL 1995

OU2RI533 1=1000



NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

EXPLANATION

08691 ← LOCATION

2–8 ↑ SAMPLE INTERVAL (ft)

↑ ANALYTE

↑ ANALYTE CONCENTRATION (mg/kg), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN mg/kg (parts per million). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.

SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.

EXPLANATION

09491 ⬡	SOURCE BOREHOLE LOCATION
00291 ●	BEDROCK MONITORING WELL LOCATION
00891 ○	ALLUVIAL MONITORING WELL LOCATION
40691 ◬	NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN ORFILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
111.4	INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

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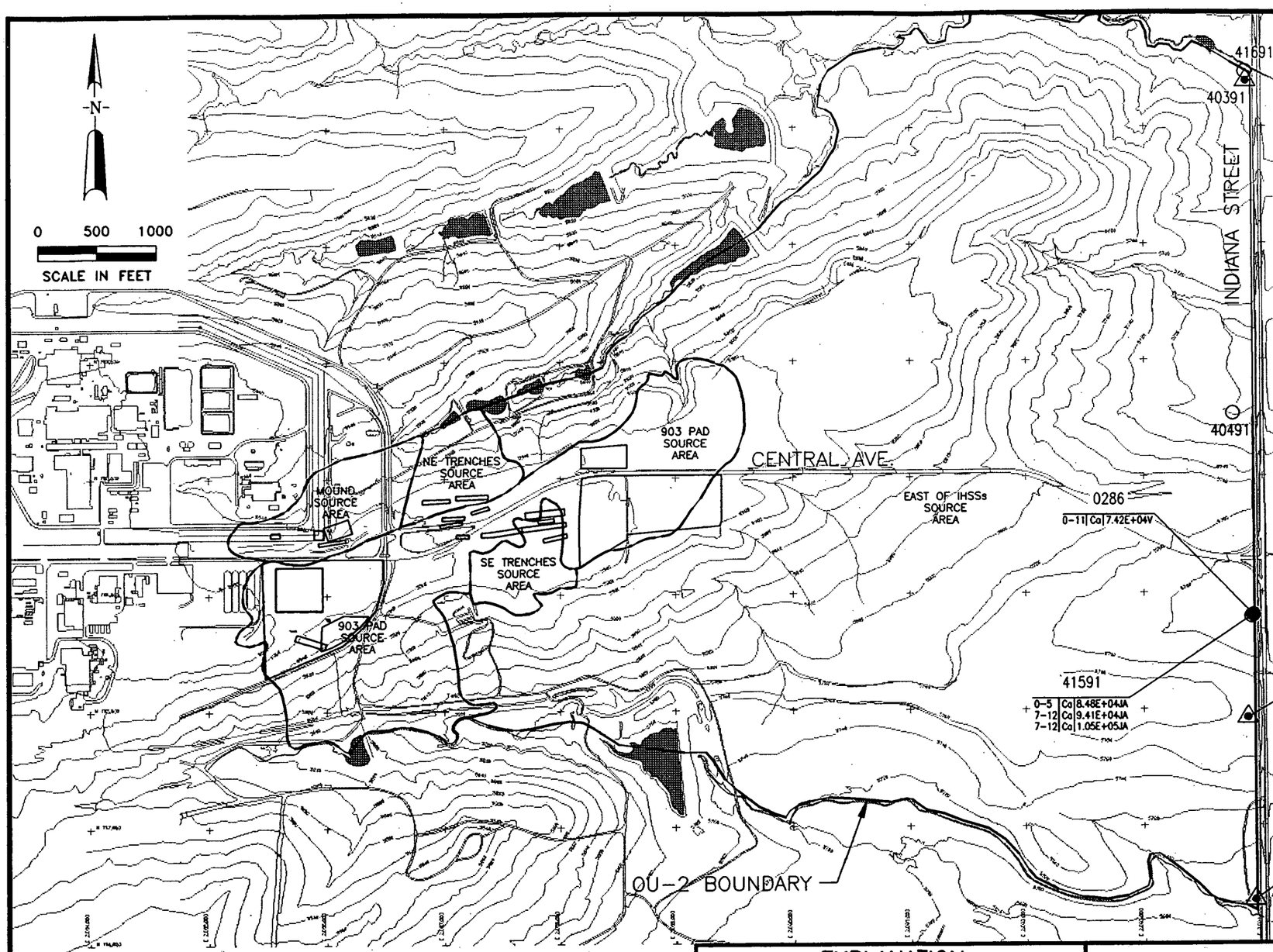
PHASE II RFI/RI REPORT

PCOC METALS
EAST OF IHSSs SOURCE AREA
SUBSURFACE SOILS

FIGURE 4.3-79 APRIL 1995

OU2RI556 1=1000



NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

EXPLANATION

08691 ← LOCATION

2-8 | | |

SAMPLE INTERVAL (ft) | ANALYTE | ANALYTE CONCENTRATION (mg/kg), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN mg/kg (parts per million). ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.

SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.

EXPLANATION

09491 ⬡ SOURCE BOREHOLE LOCATION

00291 ● BEDROCK MONITORING WELL LOCATION

00891 ○ ALLUVIAL MONITORING WELL LOCATION

40691 ◬ NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN ORFILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL

111.4 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

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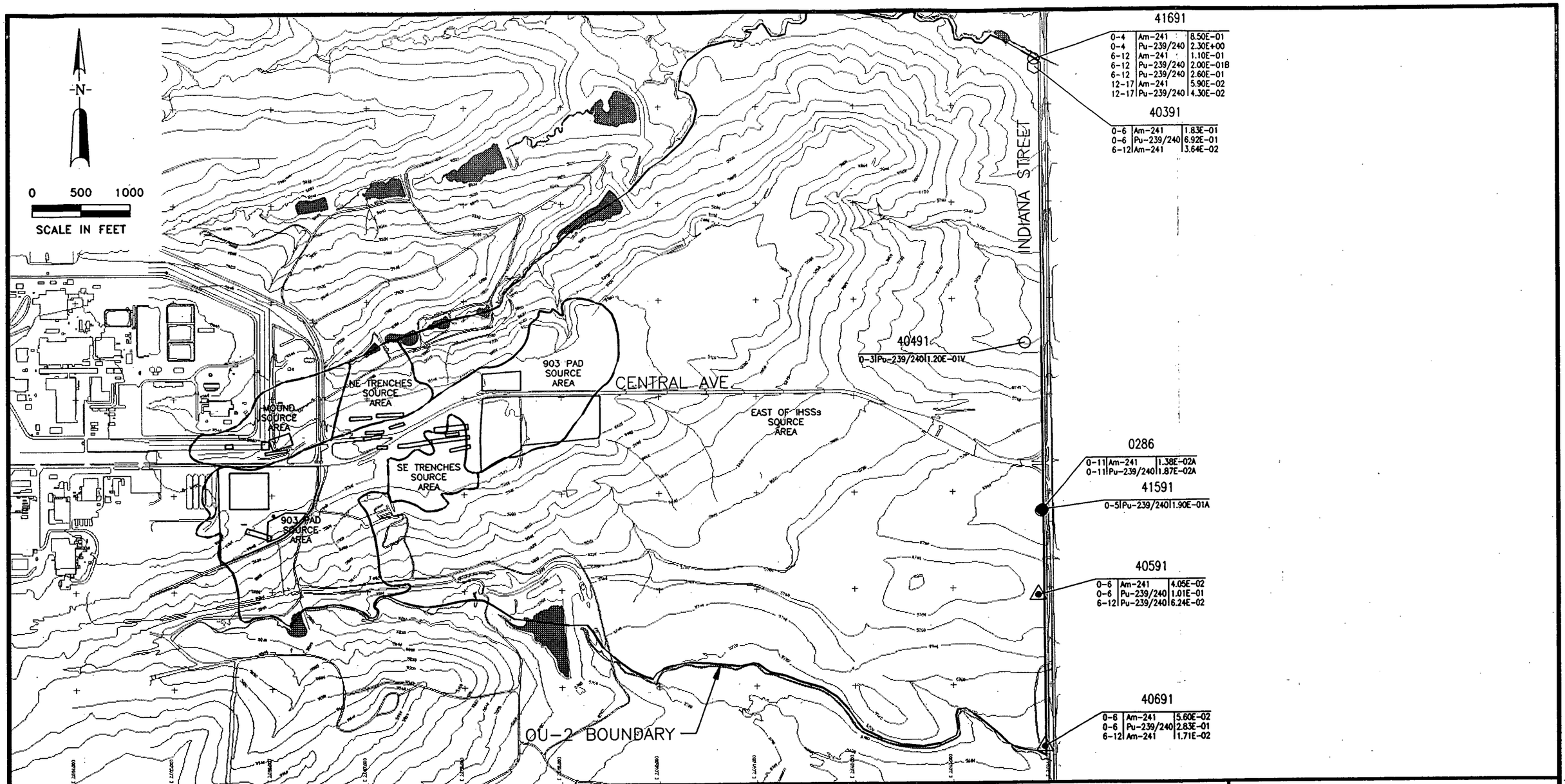
PCOC METALS
(Ba, Ca)
EAST OF IHSSs SOURCE AREA
SUBSURFACE SOILS

FIGURE 4.3-80 APRIL 1995

0U2RI551 1=1000



NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

EXPLANATION

08691 ← LOCATION

0-11		
↑ SAMPLE INTERVAL (ft)	↑ ANALYTE	↑ ANALYTE ACTIVITY (pCi/g), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE ACTIVITES ARE REPORTED IN pCi/g. ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1.
SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.

EXPLANATION

09491 ⬡	SOURCE BOREHOLE LOCATION
00291 ●	BEDROCK MONITORING WELL LOCATION
00891 ○	ALLUVIAL MONITORING WELL LOCATION
40691 ◬	NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN ORFILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
111.4	INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

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Golden, Colorado

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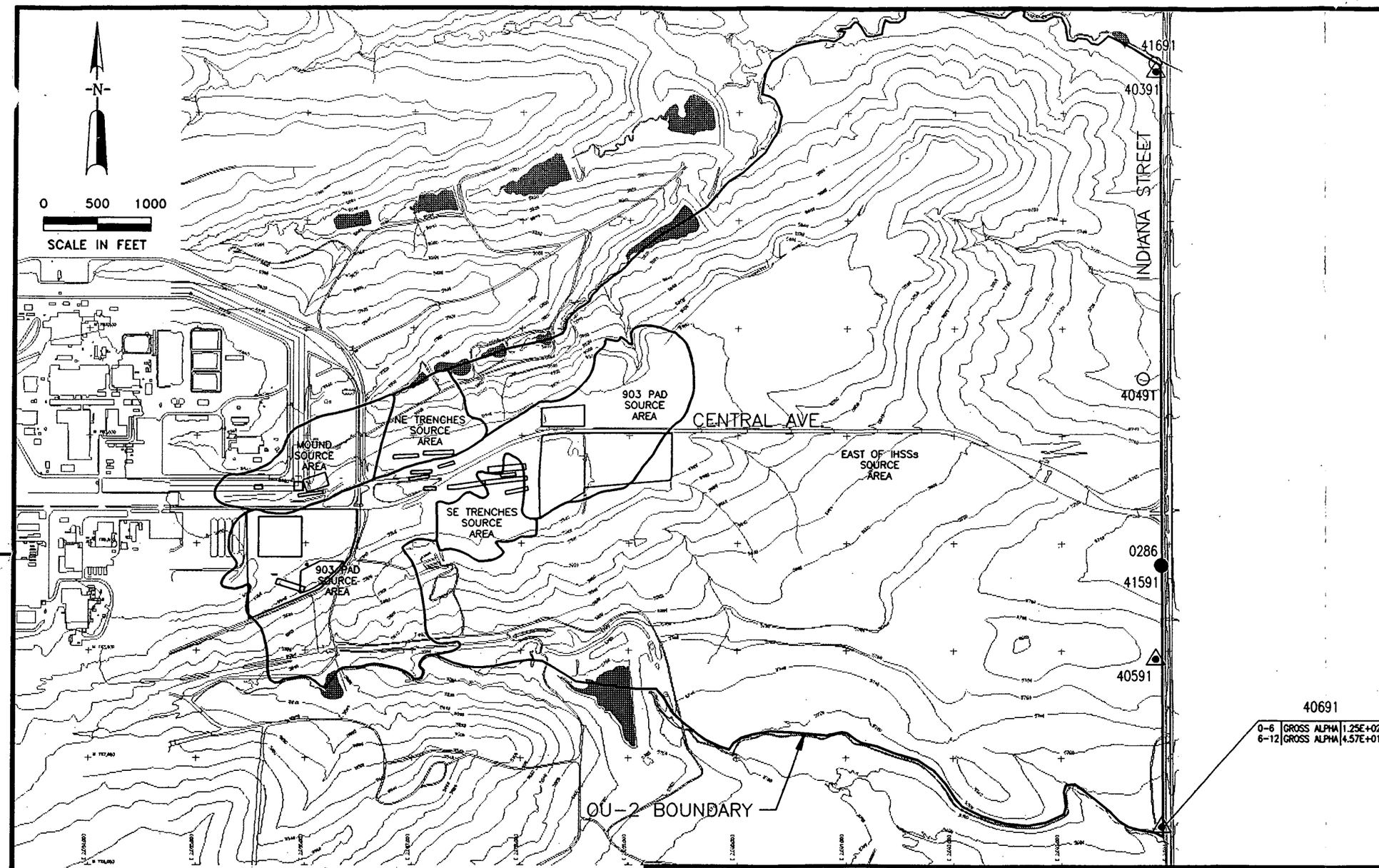
PCOC ACTINIDES
EAST OF IHSSs SOURCE AREA
SUBSURFACE SOILS

FIGURE 4.3-81 APRIL 1995

OU2RI566 1=1000



NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

EXPLANATION

08691 ← LOCATION

0-11

SAMPLE INTERVAL (ft) | ANALYTE | ANALYTE ACTIVITY (pCi/g), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE ACTIVITES ARE REPORTED IN pCi/g. ANALYTE ABBREVIATIONS, LAB QUALIFIERS, AND VALIDATION CODES ARE PRESENTED ON FIGURE 4.2-1. SOME SAMPLE INTERVAL VALUES HAVE BEEN ROUNDED TO THE NEAREST WHOLE NUMBER.

EXPLANATION

09491 ⬡	SOURCE BOREHOLE LOCATION
00291 ●	BEDROCK MONITORING WELL LOCATION
00891 ○	ALLUVIAL MONITORING WELL LOCATION
40691 ◬	NON-SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN ORFILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
111.4	INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

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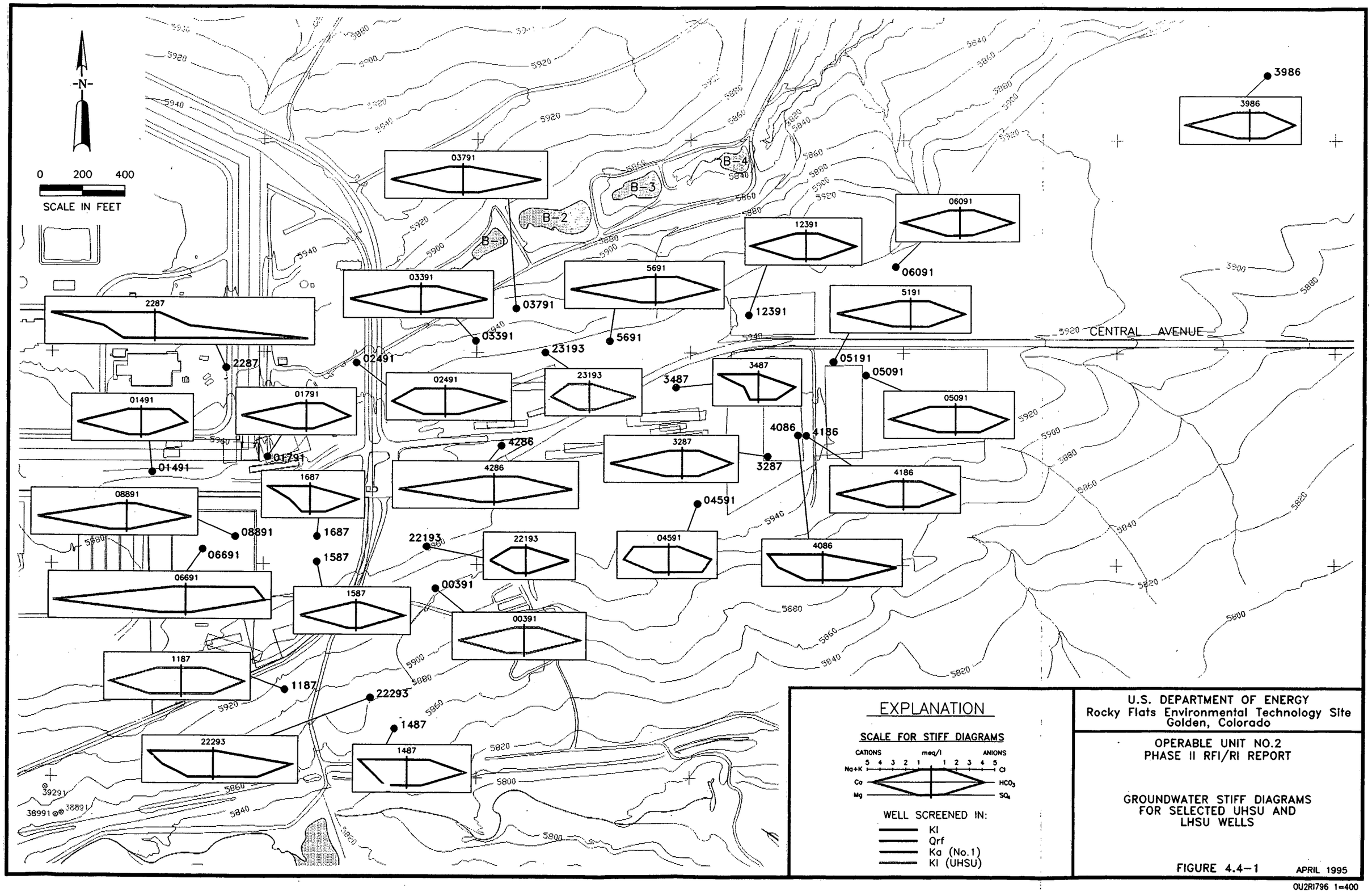
PCOC RADIONUCLIDES
(NON-ACTINIDES)
EAST OF IHSSs SOURCE AREAS
SUBSURFACE SOILS

FIGURE 4.3-82

APRIL 1995

0U2RI561 1=1000



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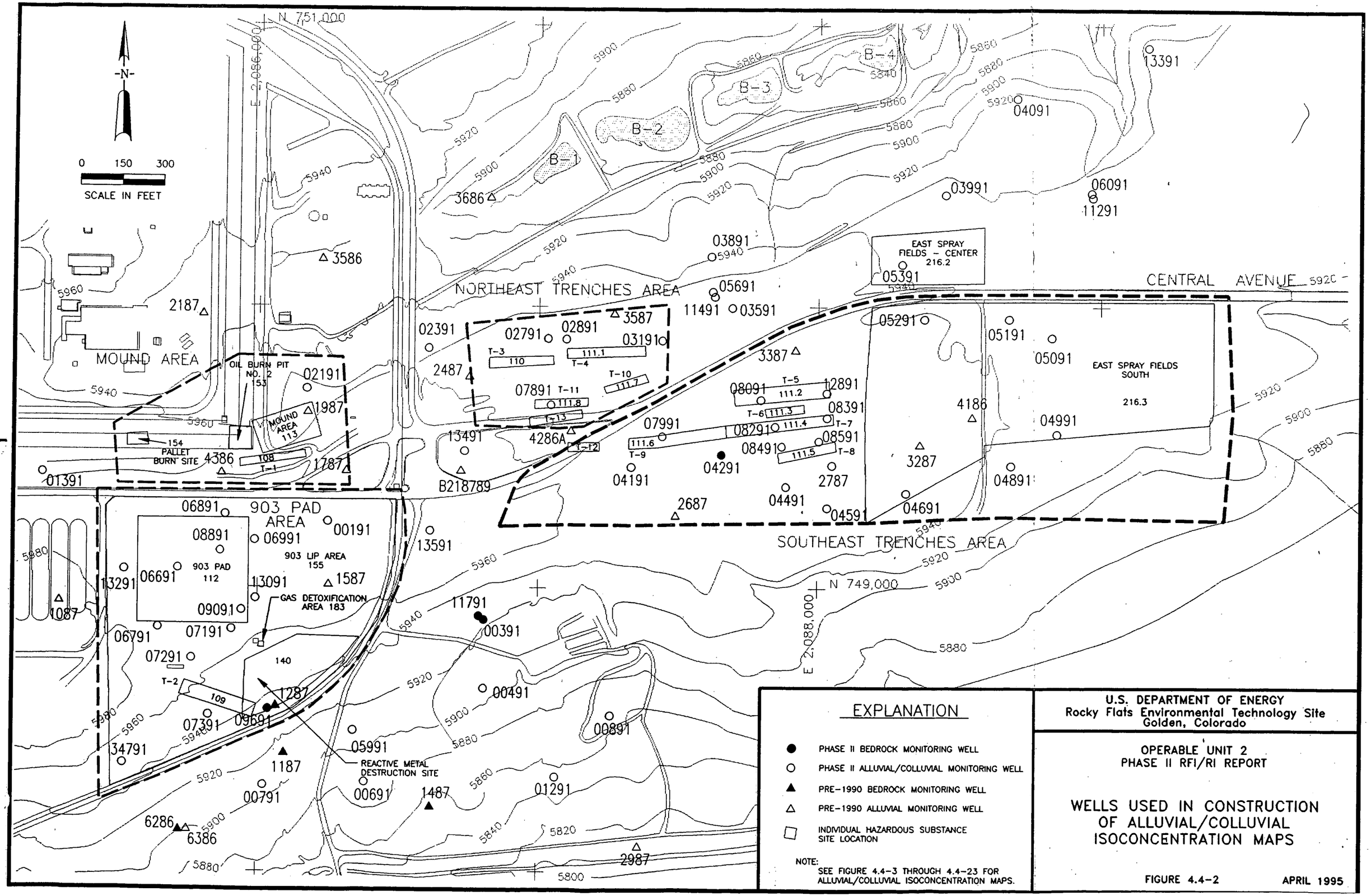
GROUNDWATER STIFF DIAGRAMS
FOR SELECTED UHSU AND
LHSU WELLS

FIGURE 4.4-1 APRIL 1995

OU2RI796 1=400



EXPLANATION

- ● PHASE II BEDROCK MONITORING WELL
- ○ PHASE II ALLUVIAL/COLLUVIAL MONITORING WELL
- ▲ PRE-1990 BEDROCK MONITORING WELL
- △ PRE-1990 ALLUVIAL MONITORING WELL
- □ INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

NOTE:
SEE FIGURE 4.4-3 THROUGH 4.4-23 FOR ALLUVIAL/COLLUVIAL ISOCONCENTRATION MAPS.

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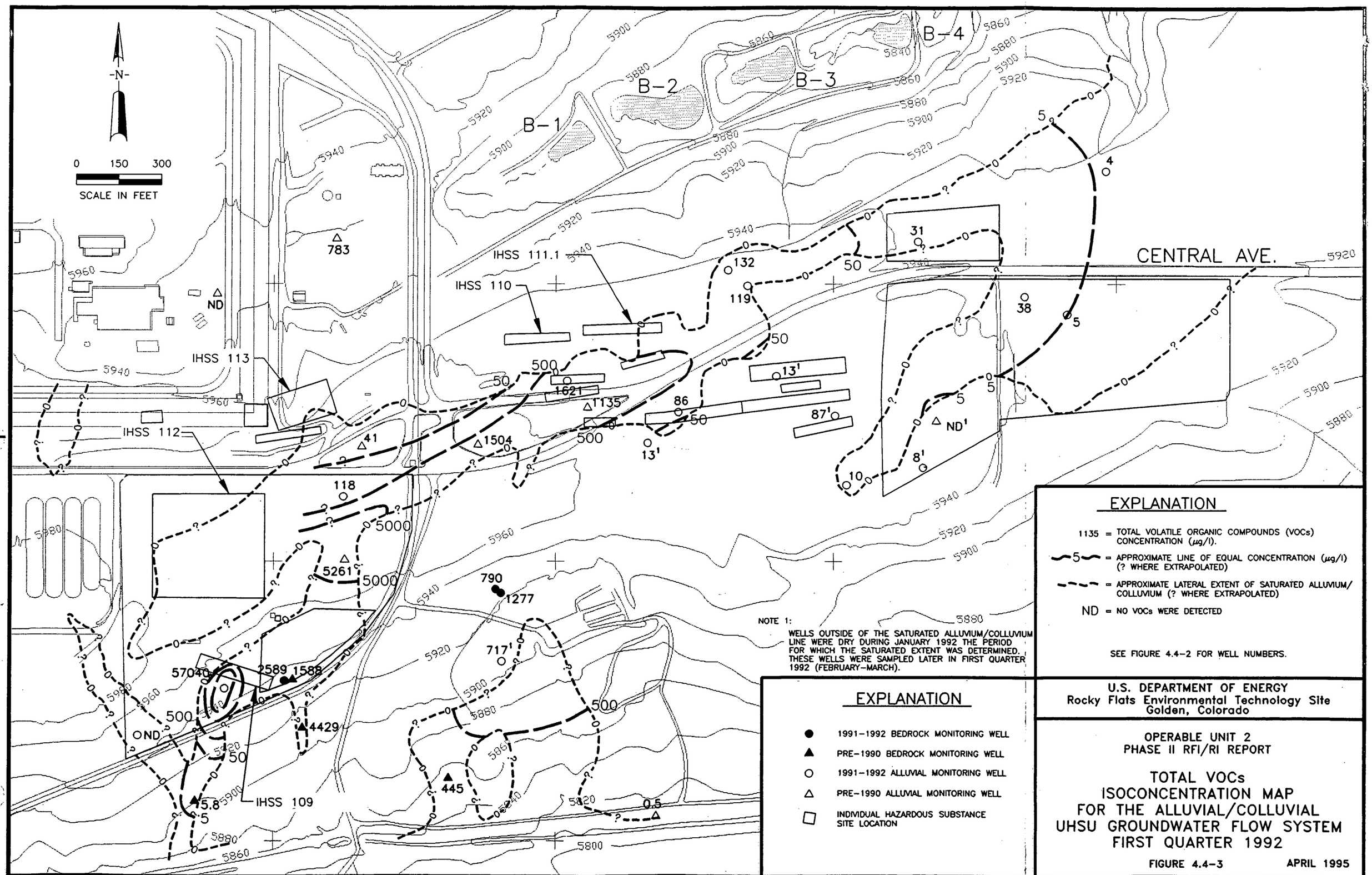
WELLS USED IN CONSTRUCTION OF ALLUVIAL/COLLUVIAL ISOCONCENTRATION MAPS

FIGURE 4.4-2 APRIL 1995



NOTE 1:
WELLS OUTSIDE OF THE SATURATED ALLUVIUM/COLLUVIUM LINE WERE DRY DURING JANUARY 1992 THE PERIOD FOR WHICH THE SATURATED EXTENT WAS DETERMINED. THESE WELLS WERE SAMPLED LATER IN FIRST QUARTER 1992 (FEBRUARY-MARCH).

EXPLANATION

- ● 1991-1992 BEDROCK MONITORING WELL
- ▲ PRE-1990 BEDROCK MONITORING WELL
- ○ 1991-1992 ALLUVIAL MONITORING WELL
- △ PRE-1990 ALLUVIAL MONITORING WELL
- □ INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

EXPLANATION

1135 = TOTAL VOLATILE ORGANIC COMPOUNDS (VOCs) CONCENTRATION (µg/l).

5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)

= APPROXIMATE LATERAL EXTENT OF SATURATED ALLUVIUM/COLLUVIUM (? WHERE EXTRAPOLATED)

ND = NO VOCs WERE DETECTED

SEE FIGURE 4.4-2 FOR WELL NUMBERS.

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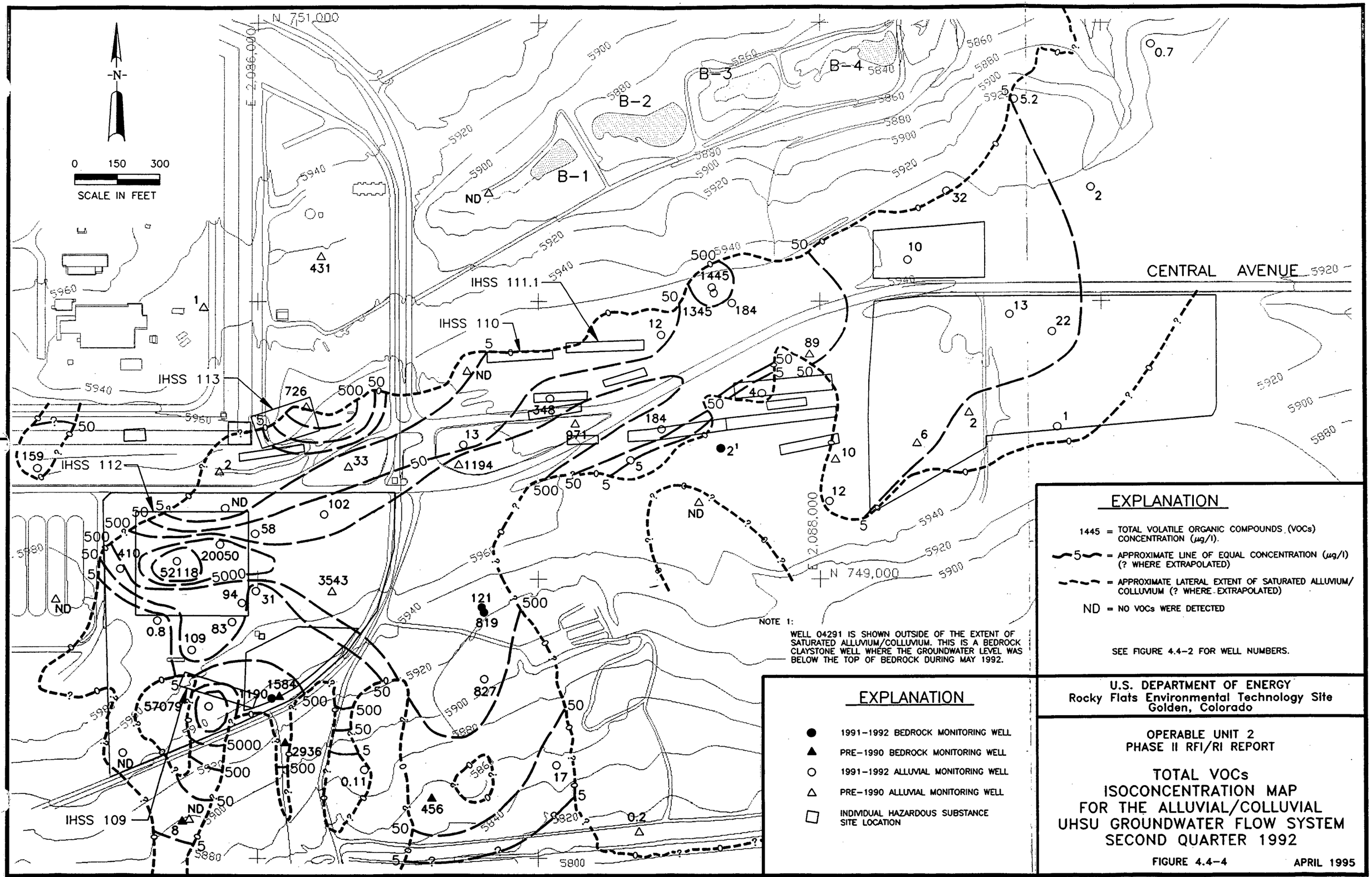
TOTAL VOCs ISOCONCENTRATION MAP FOR THE ALLUVIAL/COLLUVIAL UHSU GROUNDWATER FLOW SYSTEM FIRST QUARTER 1992

FIGURE 4.4-3 APRIL 1995


-N-
0 150 300
SCALE IN FEET
N 751,000
E 2,086,000
E 2,088,000
N 749,000
B-1
B-2
B-3
B-4
CENTRAL AVENUE
IHSS 111.1
IHSS 110
IHSS 113
IHSS 112
IHSS 109
NOTE 1:
WELL 04291 IS SHOWN OUTSIDE OF THE EXTENT OF SATURATED ALLUVIUM/COLLUVIUM. THIS IS A BEDROCK CLAYSTONE WELL WHERE THE GROUNDWATER LEVEL WAS BELOW THE TOP OF BEDROCK DURING MAY 1992.
EXPLANATION
1445 = TOTAL VOLATILE ORGANIC COMPOUNDS (VOCs) CONCENTRATION (µg/l).
5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)
= APPROXIMATE LATERAL EXTENT OF SATURATED ALLUVIUM/ COLLUVIUM (? WHERE EXTRAPOLATED)
ND = NO VOCs WERE DETECTED
SEE FIGURE 4.4-2 FOR WELL NUMBERS.
EXPLANATION
1991-1992 BEDROCK MONITORING WELL
PRE-1990 BEDROCK MONITORING WELL
1991-1992 ALLUVIAL MONITORING WELL
PRE-1990 ALLUVIAL MONITORING WELL
INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
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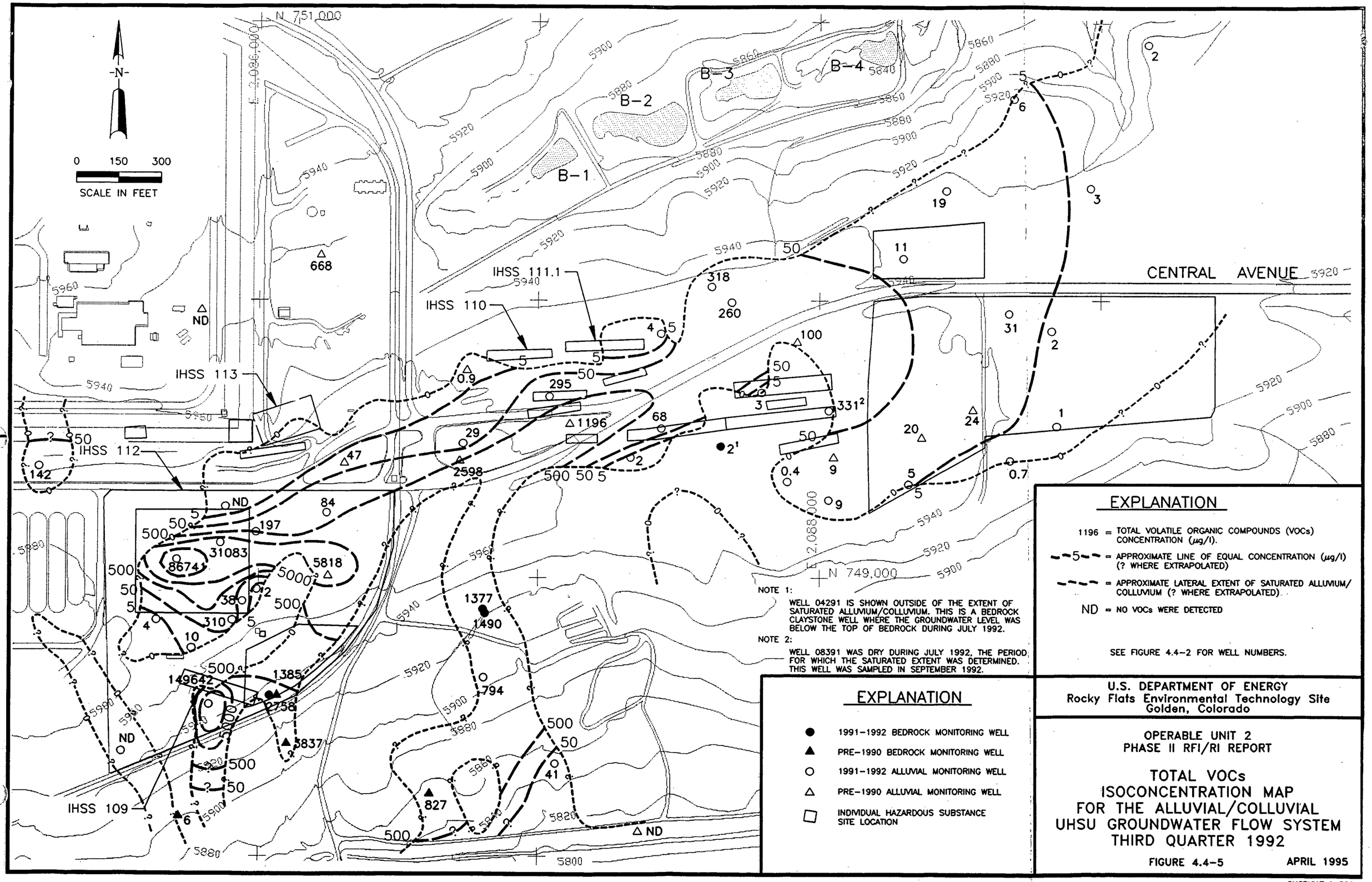
TOTAL VOCs
ISOCONCENTRATION MAP
FOR THE ALLUVIAL/COLLUVIAL
UHSU GROUNDWATER FLOW SYSTEM
SECOND QUARTER 1992
FIGURE 4.4-4
APRIL 1995



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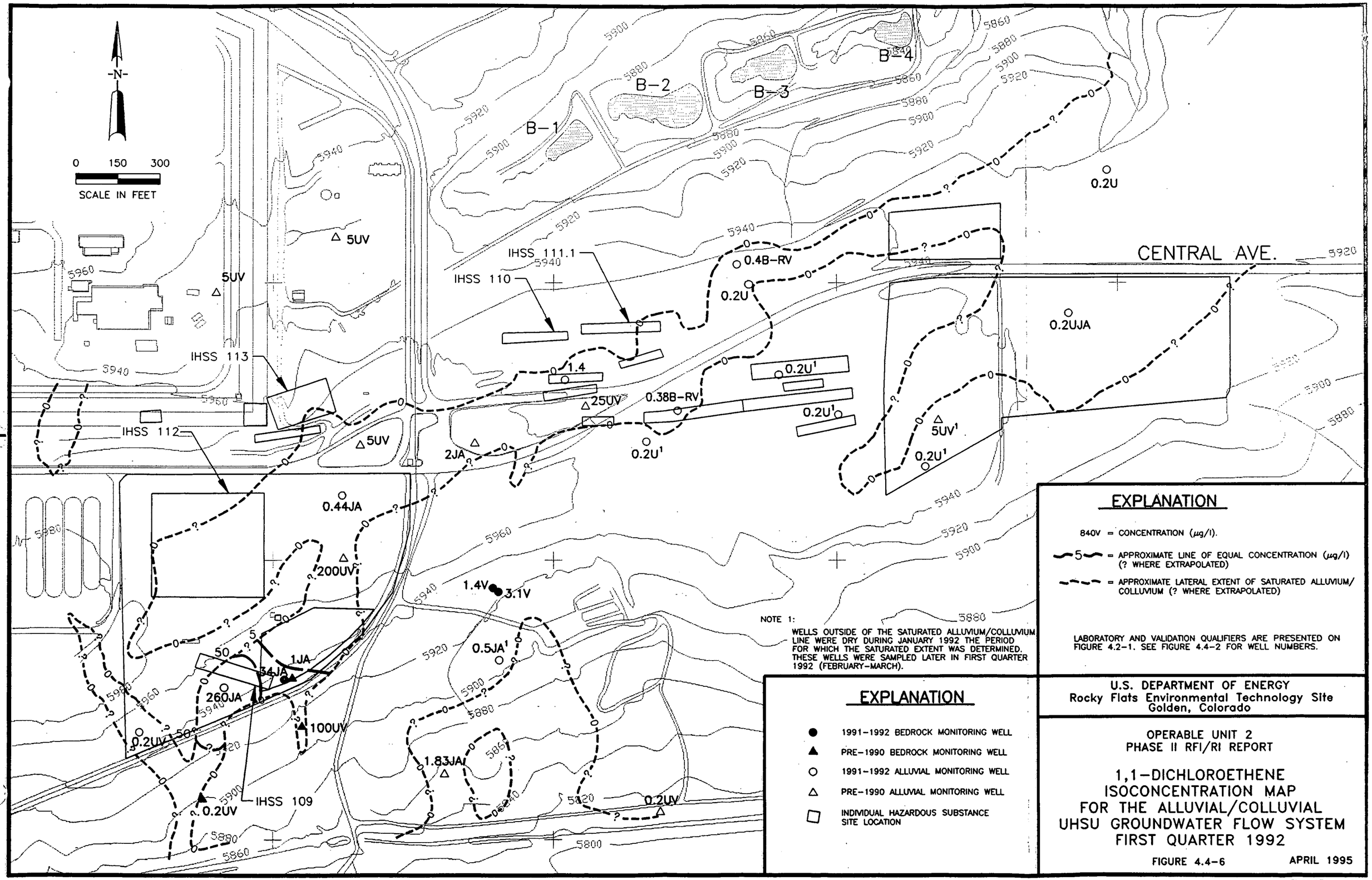
TOTAL VOCs
ISOCONCENTRATION MAP
FOR THE ALLUVIAL/COLLUVIAL
UHSU GROUNDWATER FLOW SYSTEM
THIRD QUARTER 1992

FIGURE 4.4-5 APRIL 1995

OU2RI617 1=300



NOTE 1:
WELLS OUTSIDE OF THE SATURATED ALLUVIUM/COLLUVIUM LINE WERE DRY DURING JANUARY 1992 THE PERIOD FOR WHICH THE SATURATED EXTENT WAS DETERMINED. THESE WELLS WERE SAMPLED LATER IN FIRST QUARTER 1992 (FEBRUARY-MARCH).

EXPLANATION

840V = CONCENTRATION (μg/l).

5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (μg/l) (? WHERE EXTRAPOLATED)

= APPROXIMATE LATERAL EXTENT OF SATURATED ALLUVIUM/COLLUVIUM (? WHERE EXTRAPOLATED)

LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-2 FOR WELL NUMBERS.

EXPLANATION

- ● 1991-1992 BEDROCK MONITORING WELL
- ▲ PRE-1990 BEDROCK MONITORING WELL
- ○ 1991-1992 ALLUVIAL MONITORING WELL
- △ PRE-1990 ALLUVIAL MONITORING WELL
- □ INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

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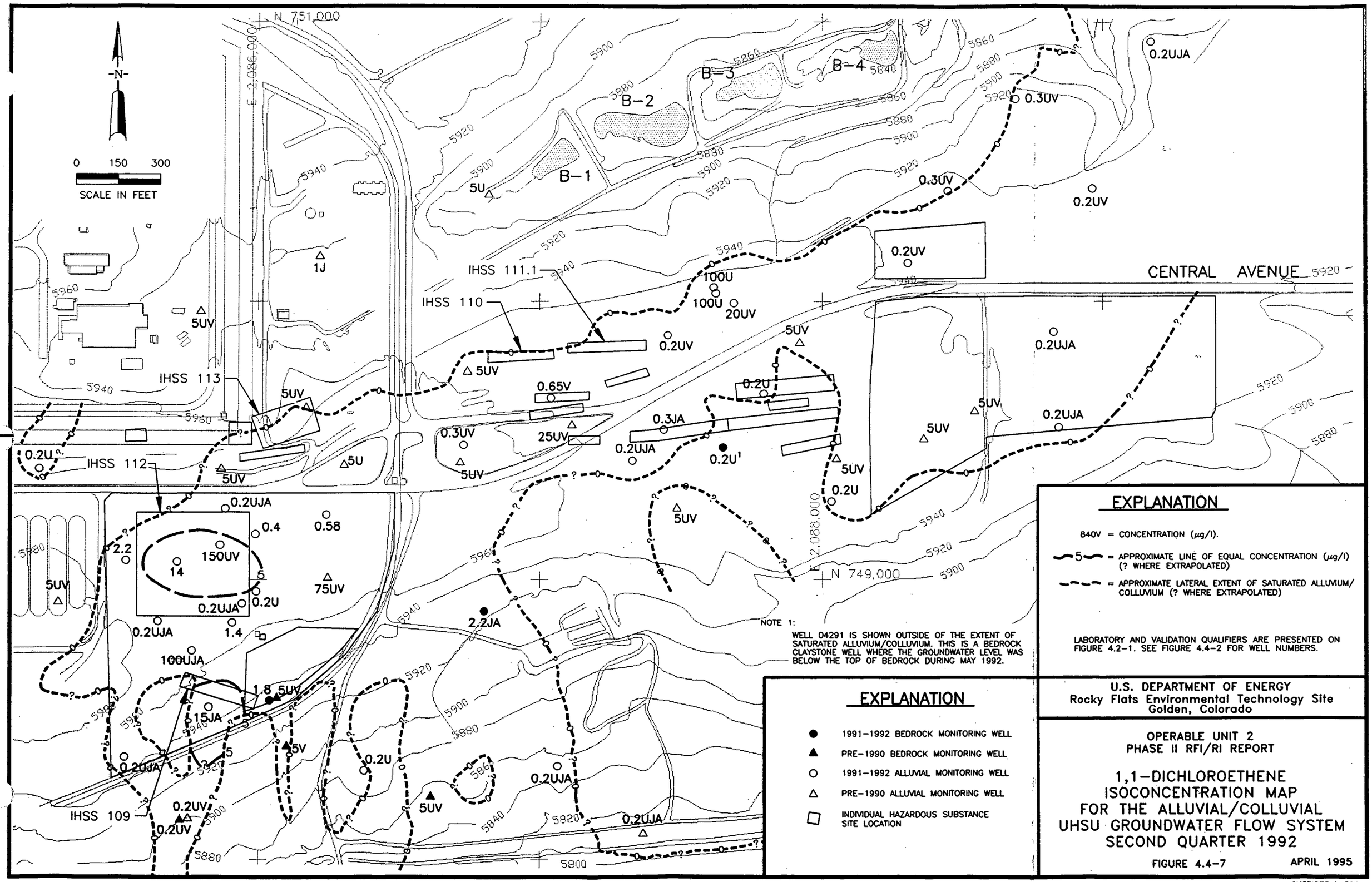
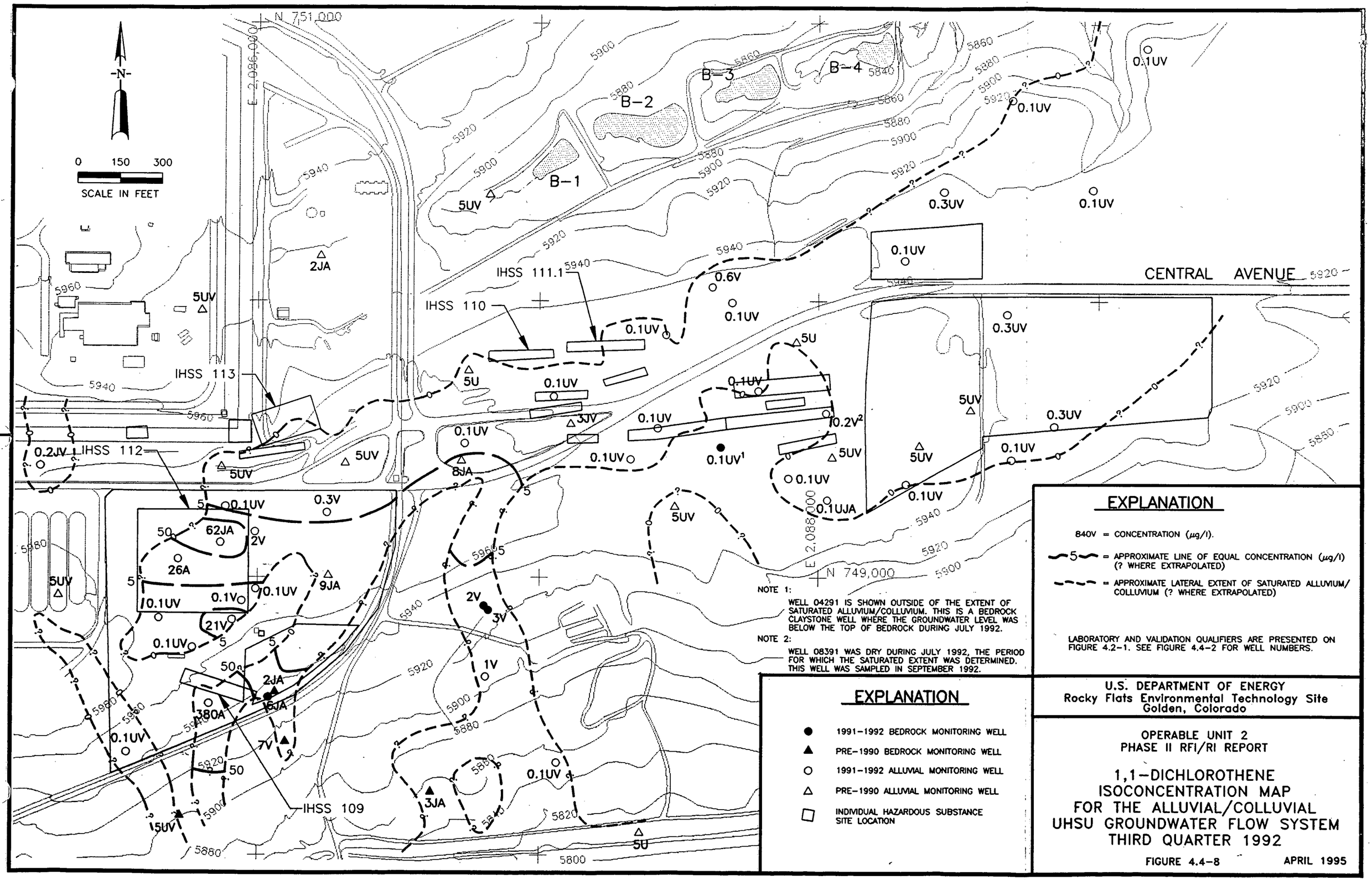
PHASE II RFI/RI REPORT

1,1-DICHLOROETHENE ISOCONCENTRATION MAP FOR THE ALLUVIAL/COLLUVIAL UHSU GROUNDWATER FLOW SYSTEM FIRST QUARTER 1992

FIGURE 4.4-6 APRIL 1995


-N-
0 150 300
SCALE IN FEET
N 751,000
E 2,086,000
E 2,088,000
N 749,000
B-1
B-2
B-3
B-4
CENTRAL AVENUE
IHSS 111.1
IHSS 110
IHSS 113
IHSS 112
IHSS 109
EXPLANATION
840V = CONCENTRATION (µg/l).
5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)
= APPROXIMATE LATERAL EXTENT OF SATURATED ALLUVIUM/ COLLUVIUM (? WHERE EXTRAPOLATED)
LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-2 FOR WELL NUMBERS.
NOTE 1:
WELL 04291 IS SHOWN OUTSIDE OF THE EXTENT OF SATURATED ALLUVIUM/COLLUVIUM. THIS IS A BEDROCK CLAYSTONE WELL WHERE THE GROUNDWATER LEVEL WAS BELOW THE TOP OF BEDROCK DURING MAY 1992.
EXPLANATION
1991-1992 BEDROCK MONITORING WELL
PRE-1990 BEDROCK MONITORING WELL
1991-1992 ALLUVIAL MONITORING WELL
PRE-1990 ALLUVIAL MONITORING WELL
INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT 2
PHASE II RFI/RI REPORT
1,1-DICHLOROETHENE
ISOCONCENTRATION MAP
FOR THE ALLUVIAL/COLLUVIAL
UHSU GROUNDWATER FLOW SYSTEM
SECOND QUARTER 1992
FIGURE 4.4-7
APRIL 1995


-N-
0 150 300
SCALE IN FEET
N 751,000
E 2,086,000
E 2,088,000
N 749,000
CENTRAL AVENUE
B-1
B-2
B-3
B-4
IHSS 111.1
IHSS 110
IHSS 113
IHSS 112
IHSS 109
NOTE 1:
WELL 04291 IS SHOWN OUTSIDE OF THE EXTENT OF SATURATED ALLUVIUM/COLLUVIUM. THIS IS A BEDROCK CLAYSTONE WELL WHERE THE GROUNDWATER LEVEL WAS BELOW THE TOP OF BEDROCK DURING JULY 1992.
NOTE 2:
WELL 08391 WAS DRY DURING JULY 1992, THE PERIOD FOR WHICH THE SATURATED EXTENT WAS DETERMINED. THIS WELL WAS SAMPLED IN SEPTEMBER 1992.
EXPLANATION
840V = CONCENTRATION (µg/l).
5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)
= APPROXIMATE LATERAL EXTENT OF SATURATED ALLUVIUM/ COLLUVIUM (? WHERE EXTRAPOLATED)
LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-2 FOR WELL NUMBERS.
EXPLANATION
1991-1992 BEDROCK MONITORING WELL
PRE-1990 BEDROCK MONITORING WELL
1991-1992 ALLUVIAL MONITORING WELL
PRE-1990 ALLUVIAL MONITORING WELL
INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
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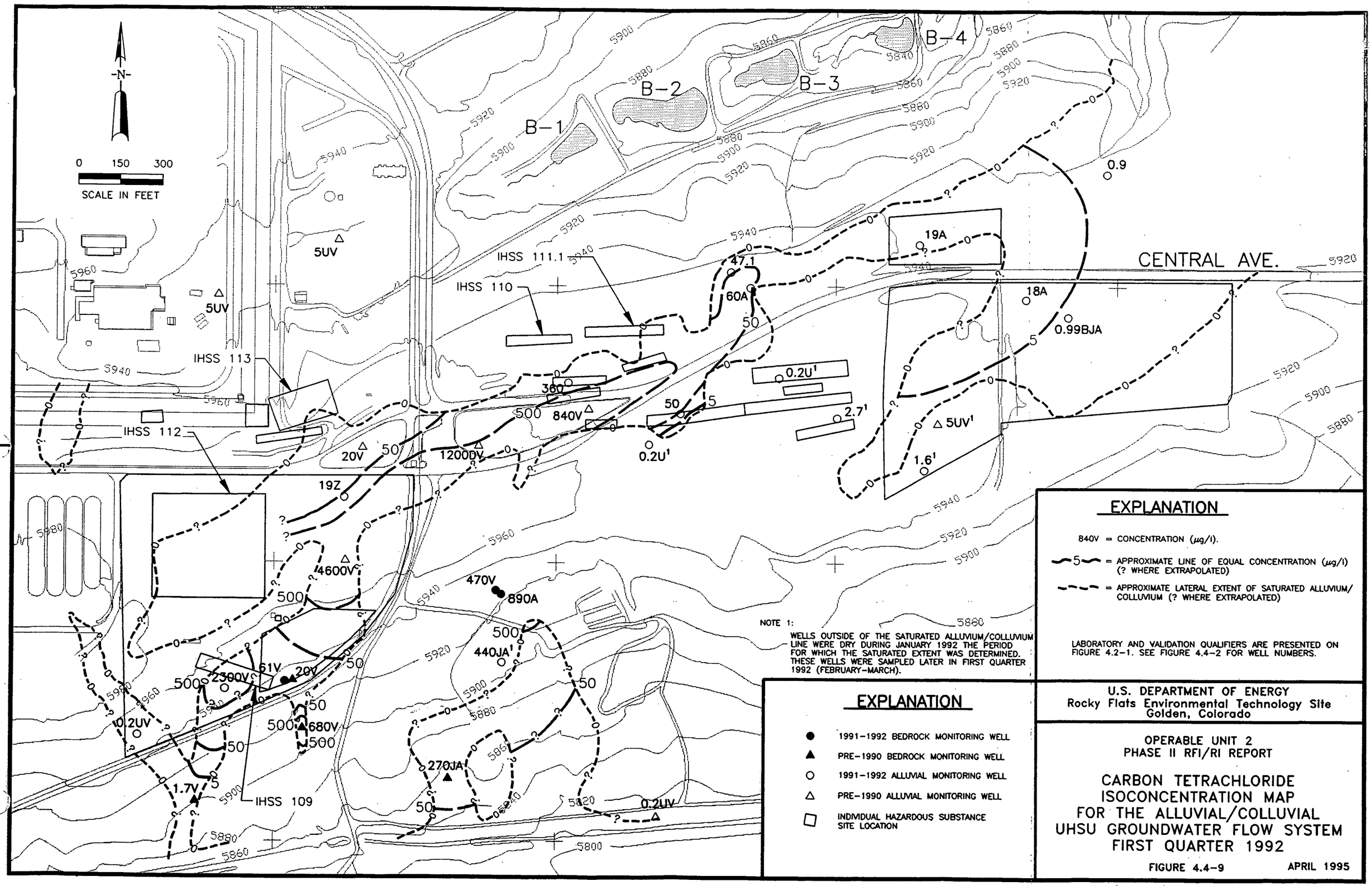
1,1-DICHLOROTHENE
ISOCONCENTRATION MAP
FOR THE ALLUVIAL/COLLUVIAL
UHSU GROUNDWATER FLOW SYSTEM
THIRD QUARTER 1992
FIGURE 4.4-8
APRIL 1995


-N-
0 150 300
SCALE IN FEET
B-1
B-2
B-3
B-4
CENTRAL AVE.
IHSS 111.1
IHSS 110
IHSS 113
IHSS 112
IHSS 109
5UV
19A
18A
0.99BJA
0.9
47.1
60A
50
5
0.2U'
2.7'
360
500
840V
20V
1200DV
19Z
4600V
470V
890A
440JA'
2300V
61V
680V
270JA
1.7V
0.2UV
5UV'
1.6'
NOTE 1:
WELLS OUTSIDE OF THE SATURATED ALLUVIUM/COLLUVIUM LINE WERE DRY DURING JANUARY 1992 THE PERIOD FOR WHICH THE SATURATED EXTENT WAS DETERMINED. THESE WELLS WERE SAMPLED LATER IN FIRST QUARTER 1992 (FEBRUARY-MARCH).
EXPLANATION
1991-1992 BEDROCK MONITORING WELL
PRE-1990 BEDROCK MONITORING WELL
1991-1992 ALLUVIAL MONITORING WELL
PRE-1990 ALLUVIAL MONITORING WELL
INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
840V = CONCENTRATION (µg/l).
5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)
= APPROXIMATE LATERAL EXTENT OF SATURATED ALLUVIUM/ COLLUVIUM (? WHERE EXTRAPOLATED)
LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-2 FOR WELL NUMBERS.
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Rocky Flats Environmental Technology Site
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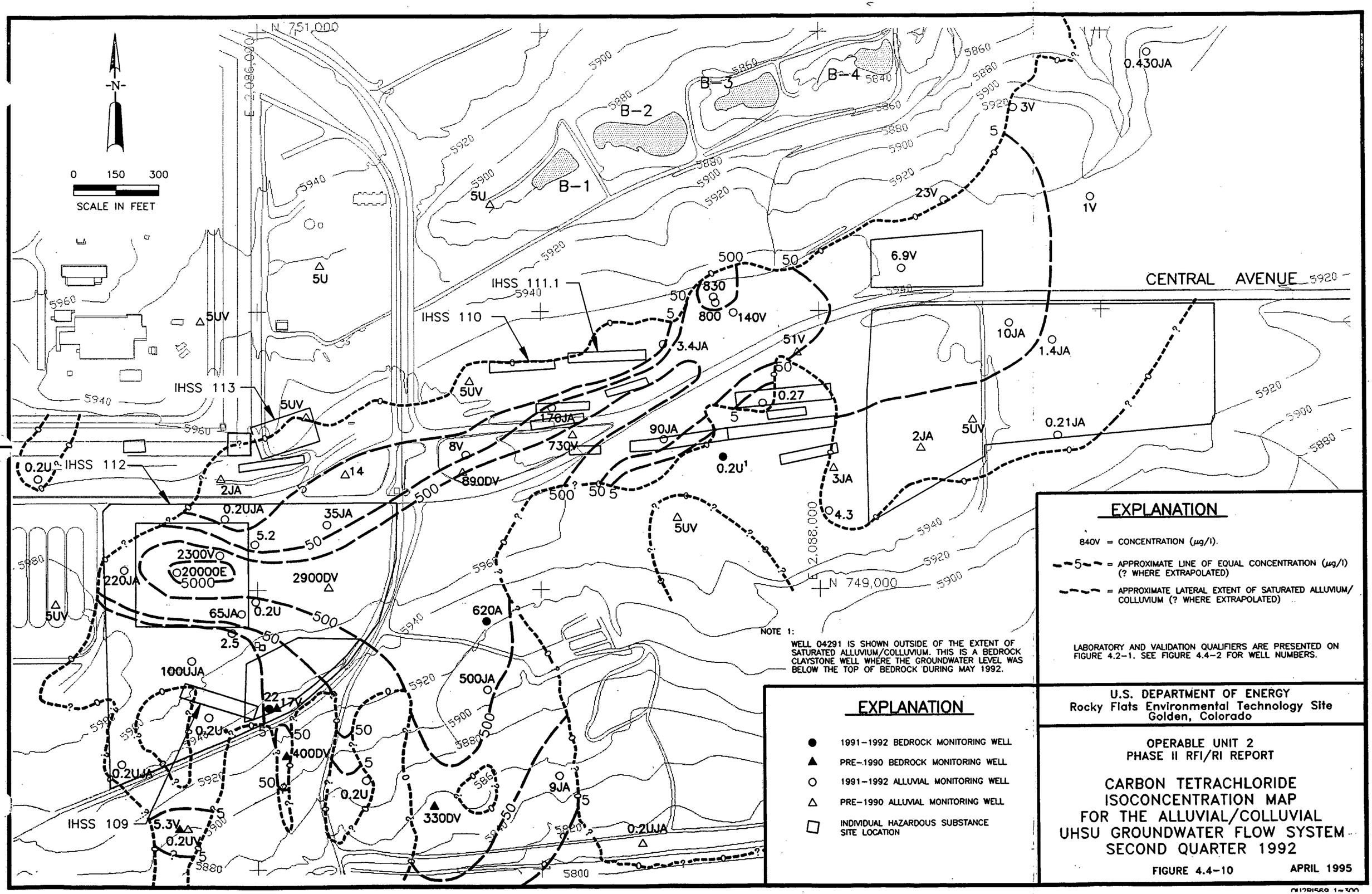
PHASE II RFI/RI REPORT
CARBON TETRACHLORIDE
ISOCONCENTRATION MAP
FOR THE ALLUVIAL/COLLUVIAL
UHSU GROUNDWATER FLOW SYSTEM
FIRST QUARTER 1992
FIGURE 4.4-9
APRIL 1995
0U2RI568 1=300



NOTE 1:
WELL 04291 IS SHOWN OUTSIDE OF THE EXTENT OF SATURATED ALLUVIUM/COLLUVIUM. THIS IS A BEDROCK CLAYSTONE WELL WHERE THE GROUNDWATER LEVEL WAS BELOW THE TOP OF BEDROCK DURING MAY 1992.

EXPLANATION

840V = CONCENTRATION (µg/l).

5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)

= APPROXIMATE LATERAL EXTENT OF SATURATED ALLUVIUM/COLLUVIUM (? WHERE EXTRAPOLATED)

LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-2 FOR WELL NUMBERS.

EXPLANATION

- ● 1991-1992 BEDROCK MONITORING WELL
- ▲ PRE-1990 BEDROCK MONITORING WELL
- ○ 1991-1992 ALLUVIAL MONITORING WELL
- △ PRE-1990 ALLUVIAL MONITORING WELL
- □ INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

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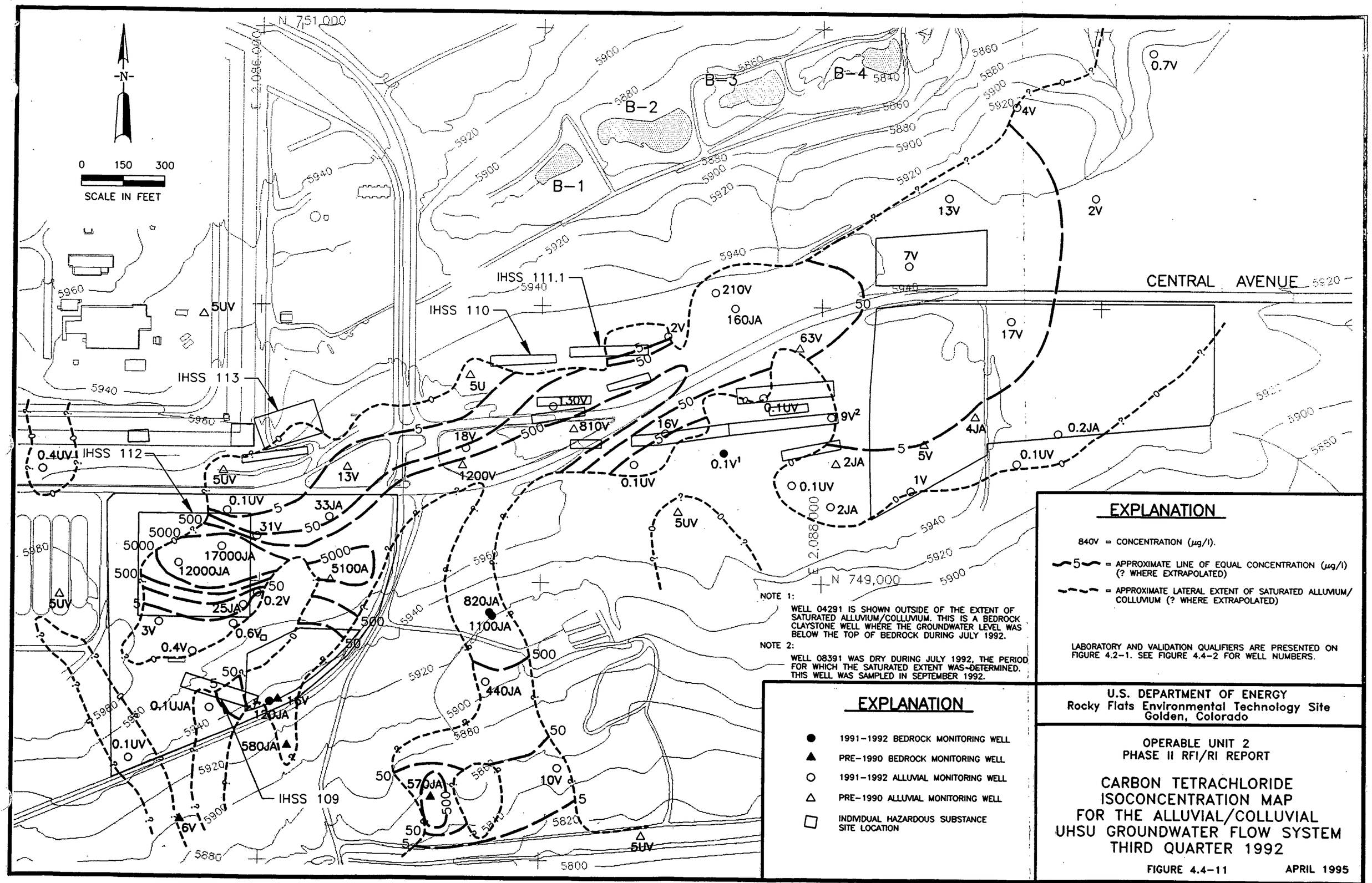
CARBON TETRACHLORIDE ISOCONCENTRATION MAP FOR THE ALLUVIAL/COLLUVIAL UHSU GROUNDWATER FLOW SYSTEM SECOND QUARTER 1992

FIGURE 4.4-10 APRIL 1995



NOTE 1:

WELL 04291 IS SHOWN OUTSIDE OF THE EXTENT OF SATURATED ALLUVIUM/COLLUVIUM. THIS IS A BEDROCK CLAYSTONE WELL WHERE THE GROUNDWATER LEVEL WAS BELOW THE TOP OF BEDROCK DURING JULY 1992.

NOTE 2:

WELL 08391 WAS DRY DURING JULY 1992, THE PERIOD FOR WHICH THE SATURATED EXTENT WAS DETERMINED. THIS WELL WAS SAMPLED IN SEPTEMBER 1992.

EXPLANATION

840V = CONCENTRATION (µg/l).

5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)

= APPROXIMATE LATERAL EXTENT OF SATURATED ALLUVIUM/COLLUVIUM (? WHERE EXTRAPOLATED)

LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-2 FOR WELL NUMBERS.

EXPLANATION

- ● 1991-1992 BEDROCK MONITORING WELL
- ▲ PRE-1990 BEDROCK MONITORING WELL
- ○ 1991-1992 ALLUVIAL MONITORING WELL
- △ PRE-1990 ALLUVIAL MONITORING WELL
- □ INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

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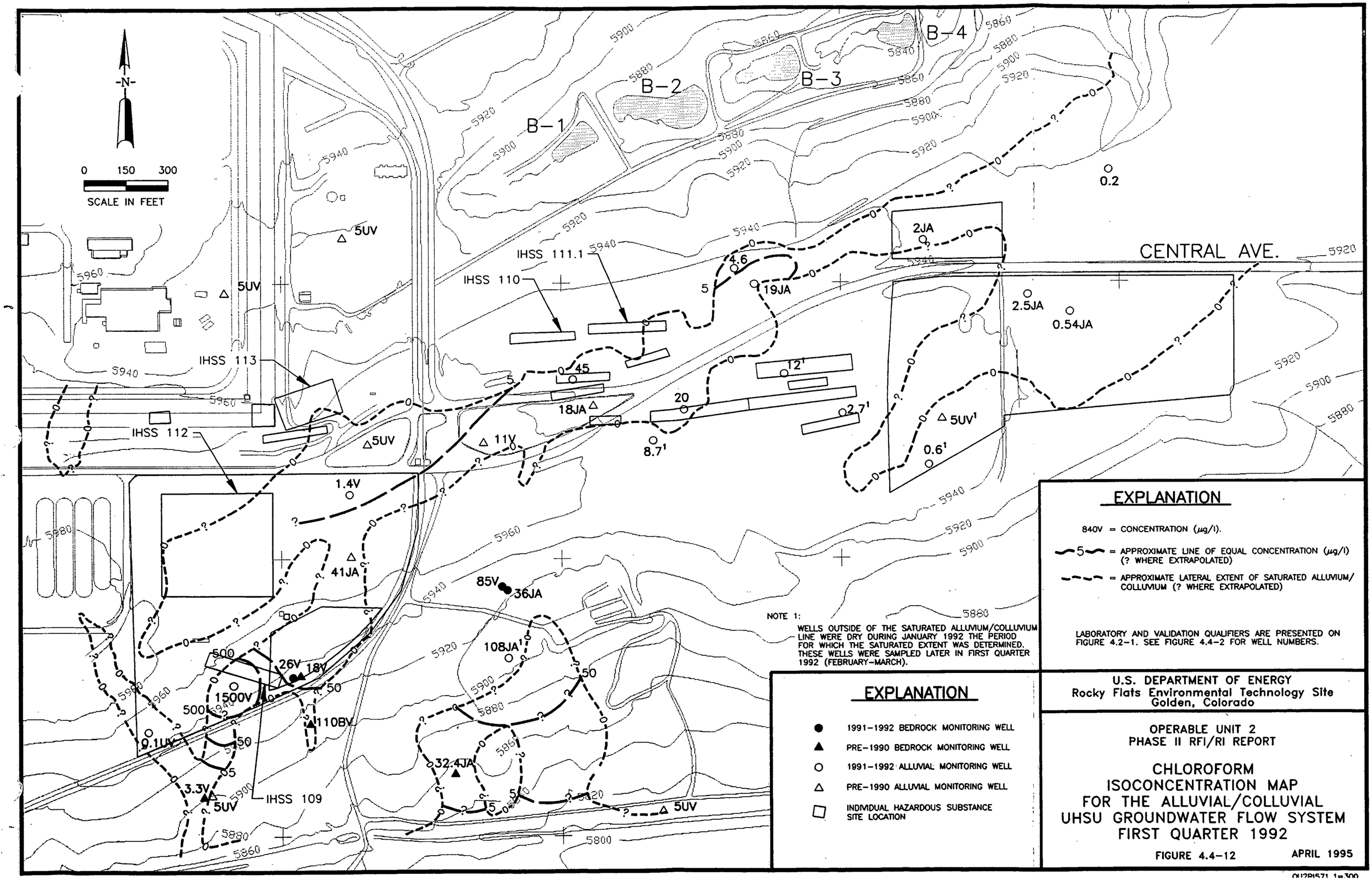
CARBON TETRACHLORIDE ISOCONCENTRATION MAP FOR THE ALLUVIAL/COLLUVIAL UHSU GROUNDWATER FLOW SYSTEM THIRD QUARTER 1992

FIGURE 4.4-11 APRIL 1995

OU2RI570 1=300


-N-
0 150 300
SCALE IN FEET
B-1
B-2
B-3
B-4
CENTRAL AVE.
IHSS 111.1
IHSS 110
IHSS 113
IHSS 112
IHSS 109
5UV
11V
1.4V
41JA
85V
36JA
108JA
32.4JA
26V
18V
1500V
110BV
0.1UV
3.3V
45
18JA
20
8.7
12
2.7
4.6
19JA
2JA
2.5JA
0.54JA
0.2
5UV
0.6
NOTE 1:
WELLS OUTSIDE OF THE SATURATED ALLUVIUM/COLLUVIUM LINE WERE DRY DURING JANUARY 1992 THE PERIOD FOR WHICH THE SATURATED EXTENT WAS DETERMINED. THESE WELLS WERE SAMPLED LATER IN FIRST QUARTER 1992 (FEBRUARY-MARCH).
EXPLANATION
1991-1992 BEDROCK MONITORING WELL
PRE-1990 BEDROCK MONITORING WELL
1991-1992 ALLUVIAL MONITORING WELL
PRE-1990 ALLUVIAL MONITORING WELL
INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
840V = CONCENTRATION (µg/l).
5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)
= APPROXIMATE LATERAL EXTENT OF SATURATED ALLUVIUM/ COLLUVIUM (? WHERE EXTRAPOLATED)
LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-2 FOR WELL NUMBERS.
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Rocky Flats Environmental Technology Site
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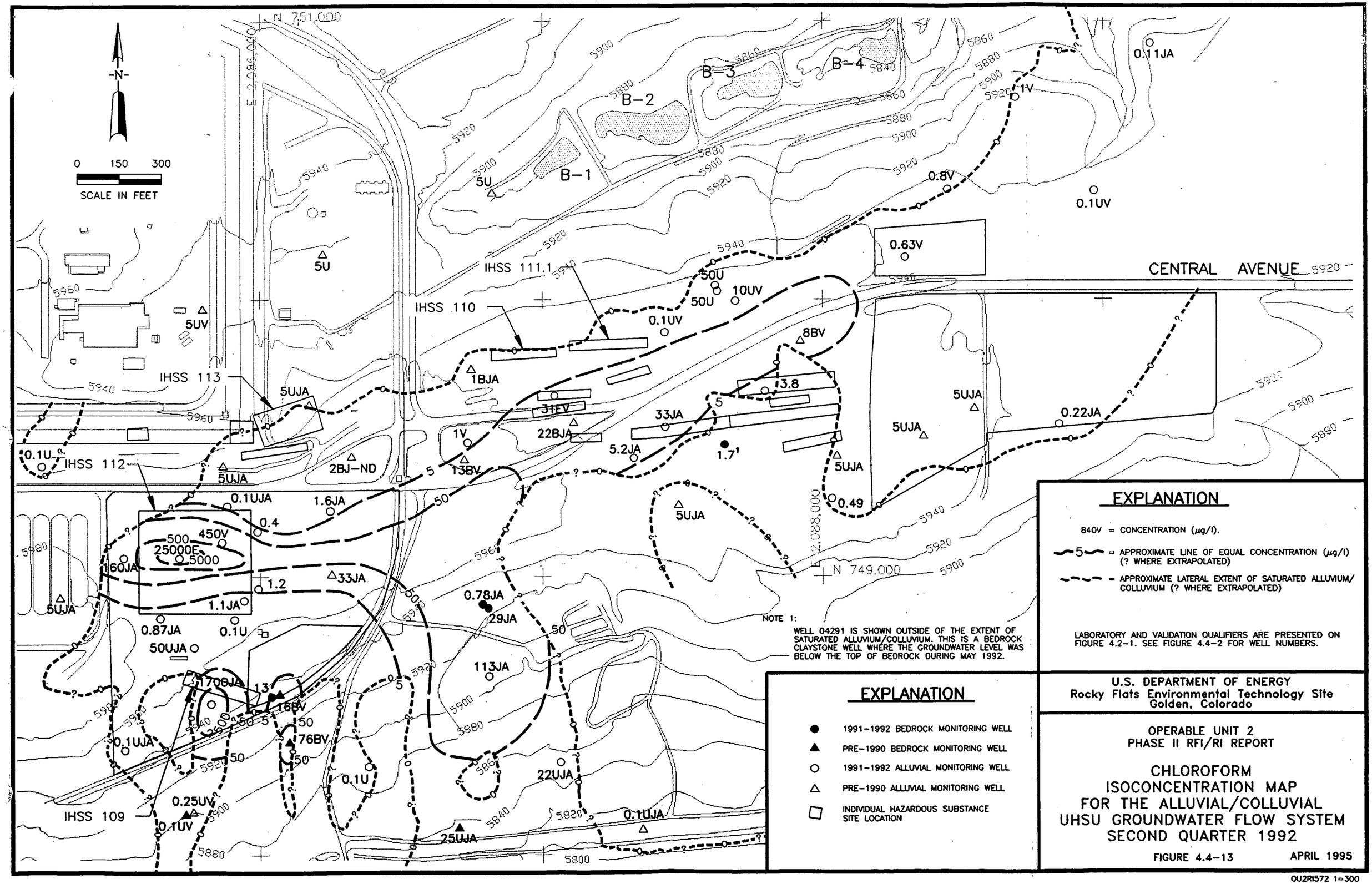
OPERABLE UNIT 2
PHASE II RFI/RI REPORT
CHLOROFORM
ISOCONCENTRATION MAP
FOR THE ALLUVIAL/COLLUVIAL
UHSU GROUNDWATER FLOW SYSTEM
FIRST QUARTER 1992
FIGURE 4.4-12
APRIL 1995



NOTE 1:
WELL 04291 IS SHOWN OUTSIDE OF THE EXTENT OF SATURATED ALLUVIUM/COLLUVIUM. THIS IS A BEDROCK CLAYSTONE WELL WHERE THE GROUNDWATER LEVEL WAS BELOW THE TOP OF BEDROCK DURING MAY 1992.

EXPLANATION

840V = CONCENTRATION (µg/l).

5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)

= APPROXIMATE LATERAL EXTENT OF SATURATED ALLUVIUM/COLLUVIUM (? WHERE EXTRAPOLATED)

LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-2 FOR WELL NUMBERS.

EXPLANATION

- ● 1991-1992 BEDROCK MONITORING WELL
- ▲ PRE-1990 BEDROCK MONITORING WELL
- ○ 1991-1992 ALLUVIAL MONITORING WELL
- △ PRE-1990 ALLUVIAL MONITORING WELL
- □ INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

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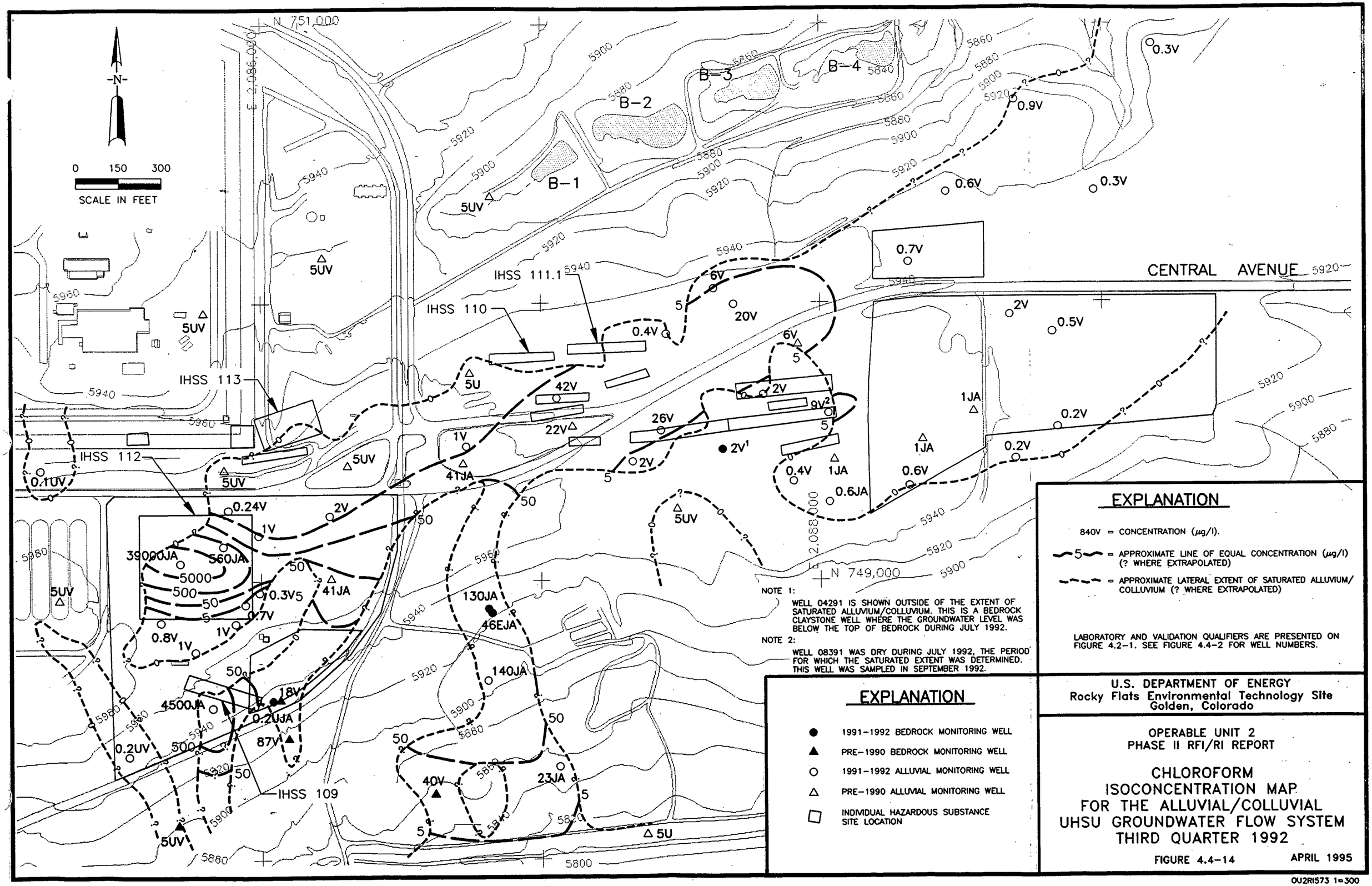
CHLOROFORM
ISOCONCENTRATION MAP
FOR THE ALLUVIAL/COLLUVIAL
UHSU GROUNDWATER FLOW SYSTEM
SECOND QUARTER 1992

FIGURE 4.4-13 APRIL 1995

OU2RI572 1=300



NOTE 1:

WELL 04291 IS SHOWN OUTSIDE OF THE EXTENT OF SATURATED ALLUVIUM/COLLUVIUM. THIS IS A BEDROCK CLAYSTONE WELL WHERE THE GROUNDWATER LEVEL WAS BELOW THE TOP OF BEDROCK DURING JULY 1992.

NOTE 2:

WELL 08391 WAS DRY DURING JULY 1992, THE PERIOD FOR WHICH THE SATURATED EXTENT WAS DETERMINED. THIS WELL WAS SAMPLED IN SEPTEMBER 1992.

EXPLANATION

840V = CONCENTRATION (µg/l).

5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)

= APPROXIMATE LATERAL EXTENT OF SATURATED ALLUVIUM/ COLLUVIUM (? WHERE EXTRAPOLATED)

LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-2 FOR WELL NUMBERS.

EXPLANATION

- ● 1991-1992 BEDROCK MONITORING WELL
- ▲ PRE-1990 BEDROCK MONITORING WELL
- ○ 1991-1992 ALLUVIAL MONITORING WELL
- △ PRE-1990 ALLUVIAL MONITORING WELL
- ☐ INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

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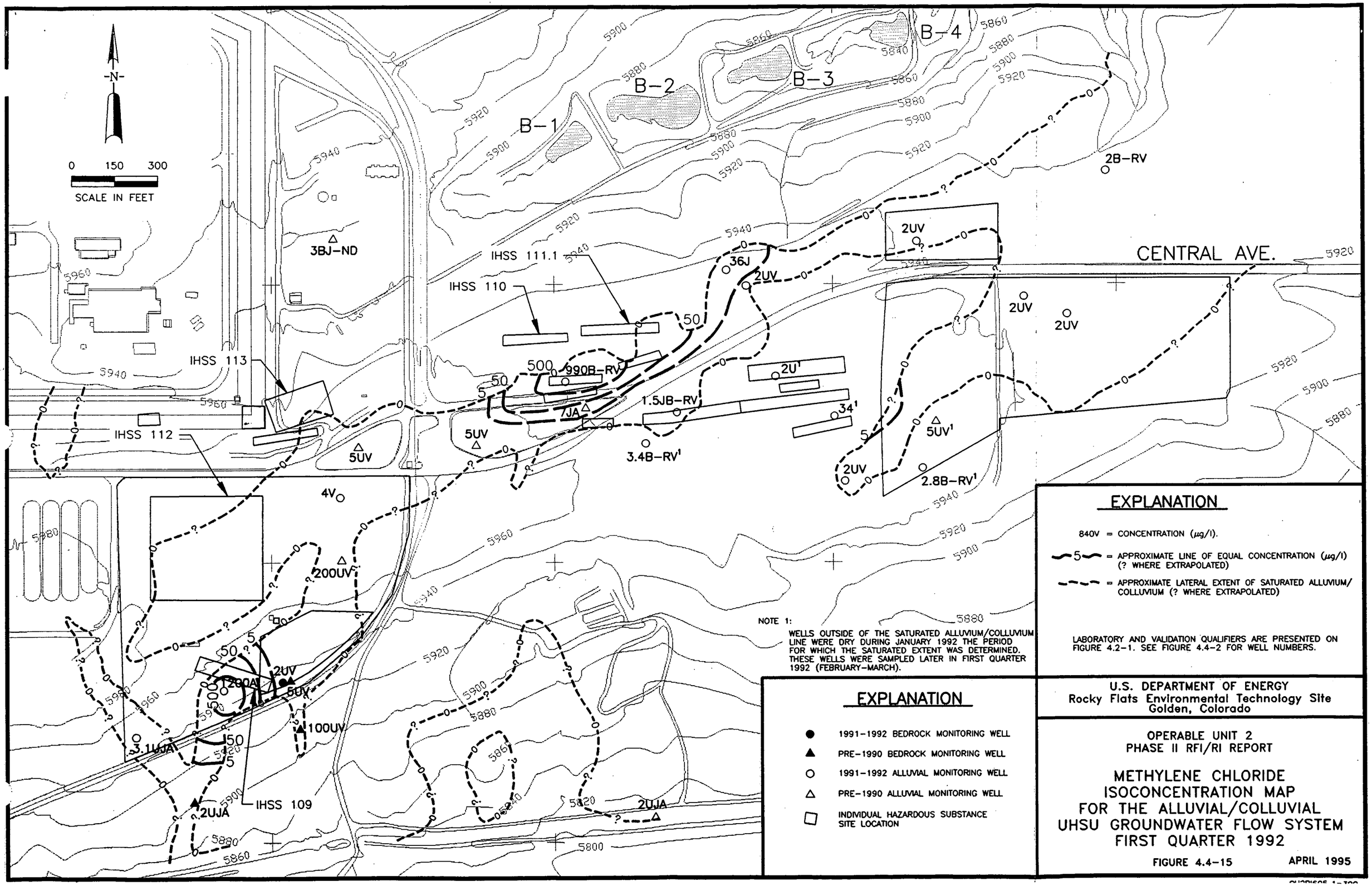
PHASE II RFI/RI REPORT

CHLOROFORM ISOCONCENTRATION MAP FOR THE ALLUVIAL/COLLUVIAL UHSU GROUNDWATER FLOW SYSTEM THIRD QUARTER 1992

FIGURE 4.4-14

APRIL 1995

OU2RI573 1=300



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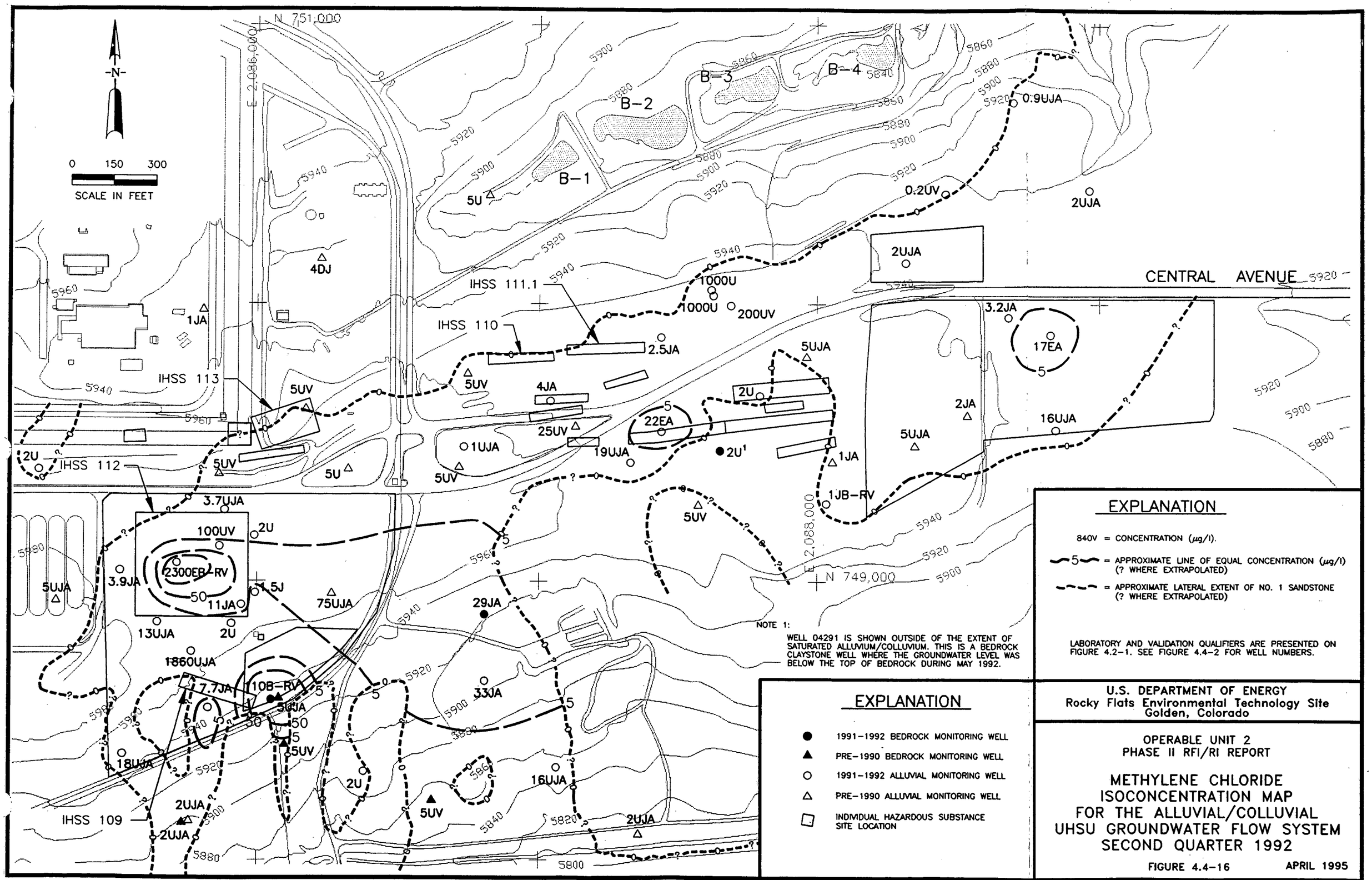
PHASE II RFI/RI REPORT

METHYLENE CHLORIDE
ISOCONCENTRATION MAP
FOR THE ALLUVIAL/COLLUVIAL
UHSU GROUNDWATER FLOW SYSTEM
FIRST QUARTER 1992

FIGURE 4.4-15 APRIL 1995



NOTE 1:
WELL 04291 IS SHOWN OUTSIDE OF THE EXTENT OF SATURATED ALLUVIUM/COLLUVIUM. THIS IS A BEDROCK CLAYSTONE WELL WHERE THE GROUNDWATER LEVEL WAS BELOW THE TOP OF BEDROCK DURING MAY 1992.

EXPLANATION

840V = CONCENTRATION (µg/l).

5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)

= APPROXIMATE LATERAL EXTENT OF NO. 1 SANDSTONE (? WHERE EXTRAPOLATED)

LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-2 FOR WELL NUMBERS.

EXPLANATION

- ● 1991-1992 BEDROCK MONITORING WELL
- ▲ PRE-1990 BEDROCK MONITORING WELL
- ○ 1991-1992 ALLUVIAL MONITORING WELL
- △ PRE-1990 ALLUVIAL MONITORING WELL
- ▢ INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

U.S. DEPARTMENT OF ENERGY
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Golden, Colorado

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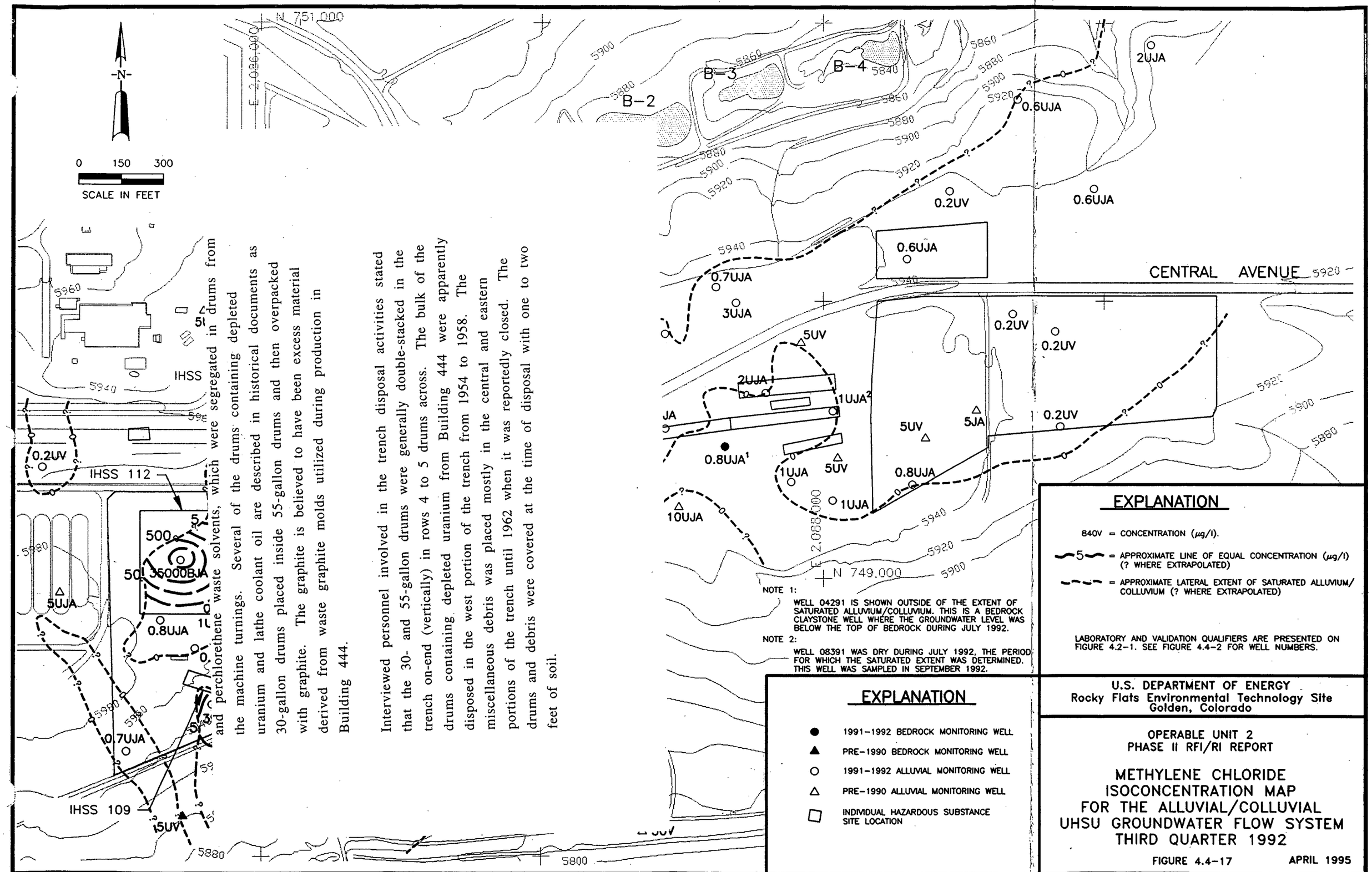
METHYLENE CHLORIDE ISOCONCENTRATION MAP FOR THE ALLUVIAL/COLLUVIAL UHSU GROUNDWATER FLOW SYSTEM SECOND QUARTER 1992

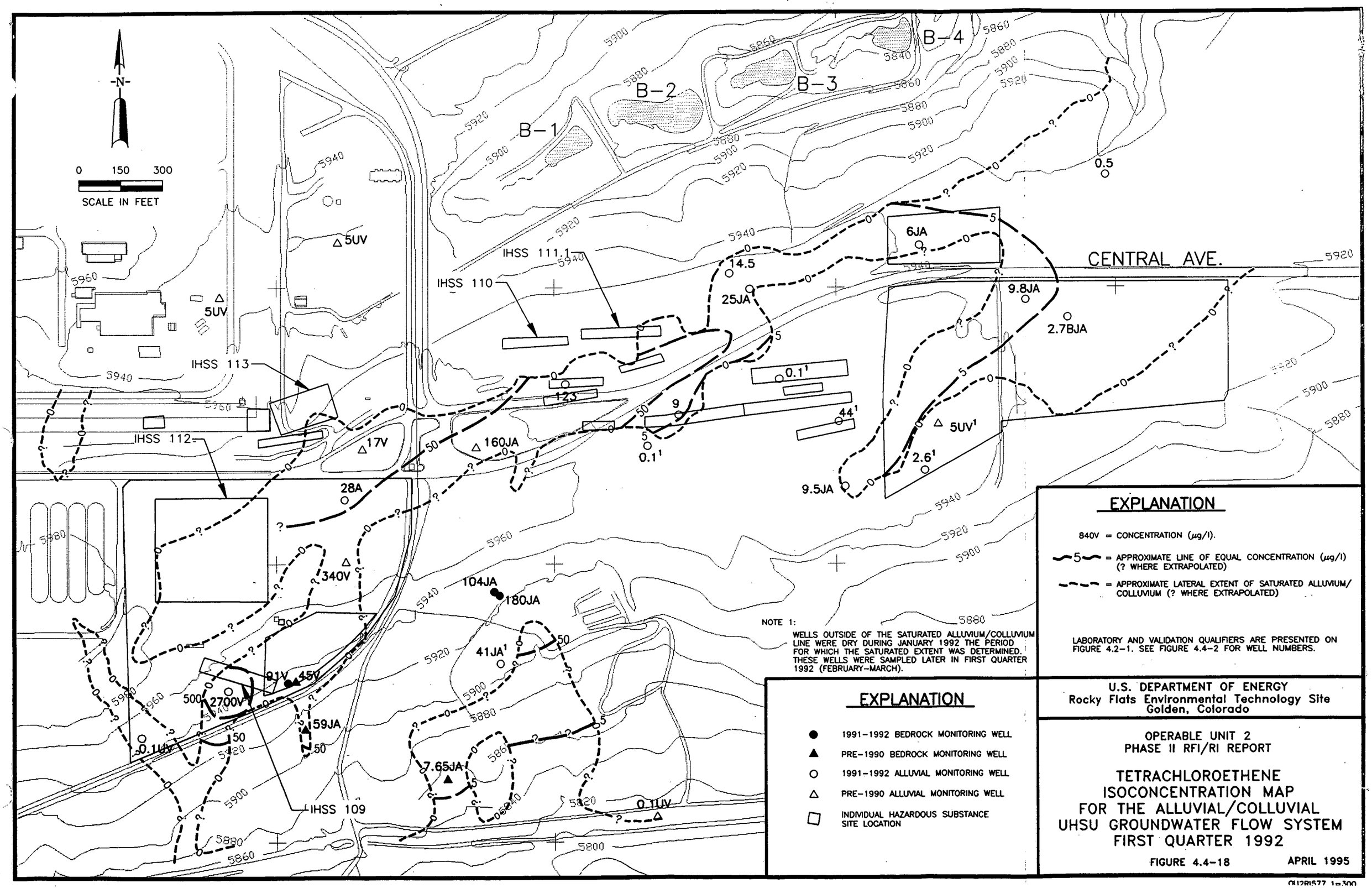
FIGURE 4.4-16 APRIL 1995

OU2RI614 1=300

were segregated in drums from the machine turnings. Several of the drums containing depleted uranium and lathe coolant oil are described in historical documents as 30-gallon drums placed inside 55-gallon drums and then overpacked with graphite. The graphite is believed to have been excess material derived from waste graphite molds utilized during production in Building 444.

Interviewed personnel involved in the trench disposal activities stated that the 30- and 55-gallon drums were generally double-stacked in the trench on-end (vertically) in rows 4 to 5 drums across. The bulk of the drums containing depleted uranium from Building 444 were apparently disposed in the west portion of the trench from 1954 to 1958. The miscellaneous debris was placed mostly in the central and eastern portions of the trench until 1962 when it was reportedly closed. The drums and debris were covered at the time of disposal with one to two feet of soil.





NOTE 1:
WELLS OUTSIDE OF THE SATURATED ALLUVIUM/COLLUVIUM LINE WERE DRY DURING JANUARY 1992 THE PERIOD FOR WHICH THE SATURATED EXTENT WAS DETERMINED. THESE WELLS WERE SAMPLED LATER IN FIRST QUARTER 1992 (FEBRUARY-MARCH).

EXPLANATION

840V = CONCENTRATION (µg/l).

5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)

= APPROXIMATE LATERAL EXTENT OF SATURATED ALLUVIUM/COLLUVIUM (? WHERE EXTRAPOLATED)

LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-2 FOR WELL NUMBERS.

EXPLANATION

- ● 1991-1992 BEDROCK MONITORING WELL
- ▲ PRE-1990 BEDROCK MONITORING WELL
- ○ 1991-1992 ALLUVIAL MONITORING WELL
- △ PRE-1990 ALLUVIAL MONITORING WELL
- □ INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

U.S. DEPARTMENT OF ENERGY
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Golden, Colorado

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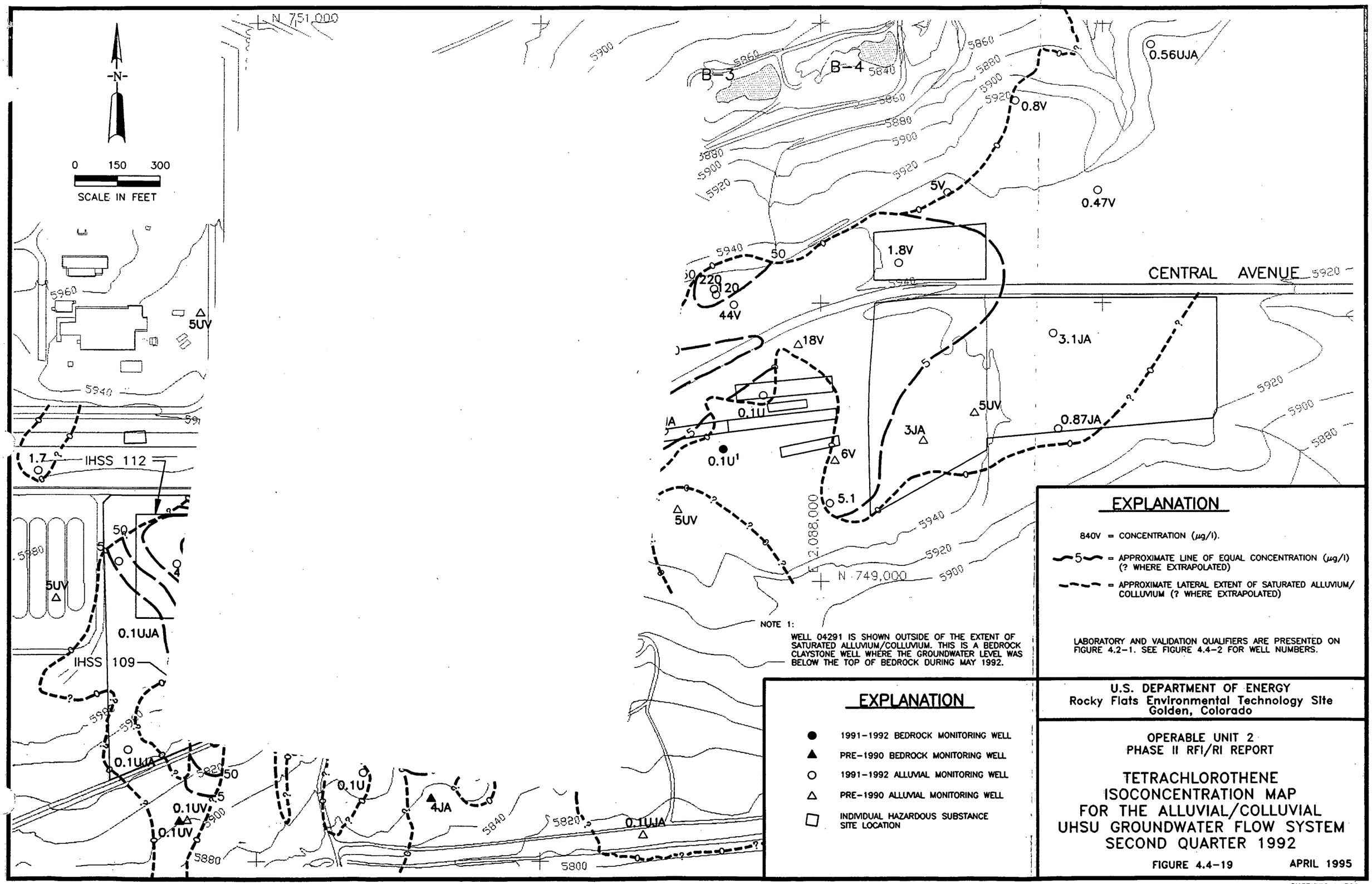
PHASE II RFI/RI REPORT

TETRACHLOROETHENE ISOCONCENTRATION MAP FOR THE ALLUVIAL/COLLUVIAL UHSU GROUNDWATER FLOW SYSTEM FIRST QUARTER 1992

FIGURE 4.4-18 APRIL 1995

OU2RI577 1=300


-N-
0 150 300
SCALE IN FEET
N 751,000
N 749,000
E 2,088,000
B-3
B-4
CENTRAL AVENUE
IHSS 112
IHSS 109
0.56UJA
0.8V
5V
0.47V
1.8V
220
120
44V
18V
0.1U
0.1U¹
6V
5.1
5UV
3.1JA
3JA
0.87JA
1.7
0.1UJA
0.1UV
4JA
NOTE 1:
WELL 04291 IS SHOWN OUTSIDE OF THE EXTENT OF SATURATED ALLUVIUM/COLLUVIUM. THIS IS A BEDROCK CLAYSTONE WELL WHERE THE GROUNDWATER LEVEL WAS BELOW THE TOP OF BEDROCK DURING MAY 1992.
EXPLANATION
840V = CONCENTRATION (µg/l).
5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)
= APPROXIMATE LATERAL EXTENT OF SATURATED ALLUVIUM/ COLLUVIUM (? WHERE EXTRAPOLATED)
LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-2 FOR WELL NUMBERS.
EXPLANATION
1991-1992 BEDROCK MONITORING WELL
PRE-1990 BEDROCK MONITORING WELL
1991-1992 ALLUVIAL MONITORING WELL
PRE-1990 ALLUVIAL MONITORING WELL
INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
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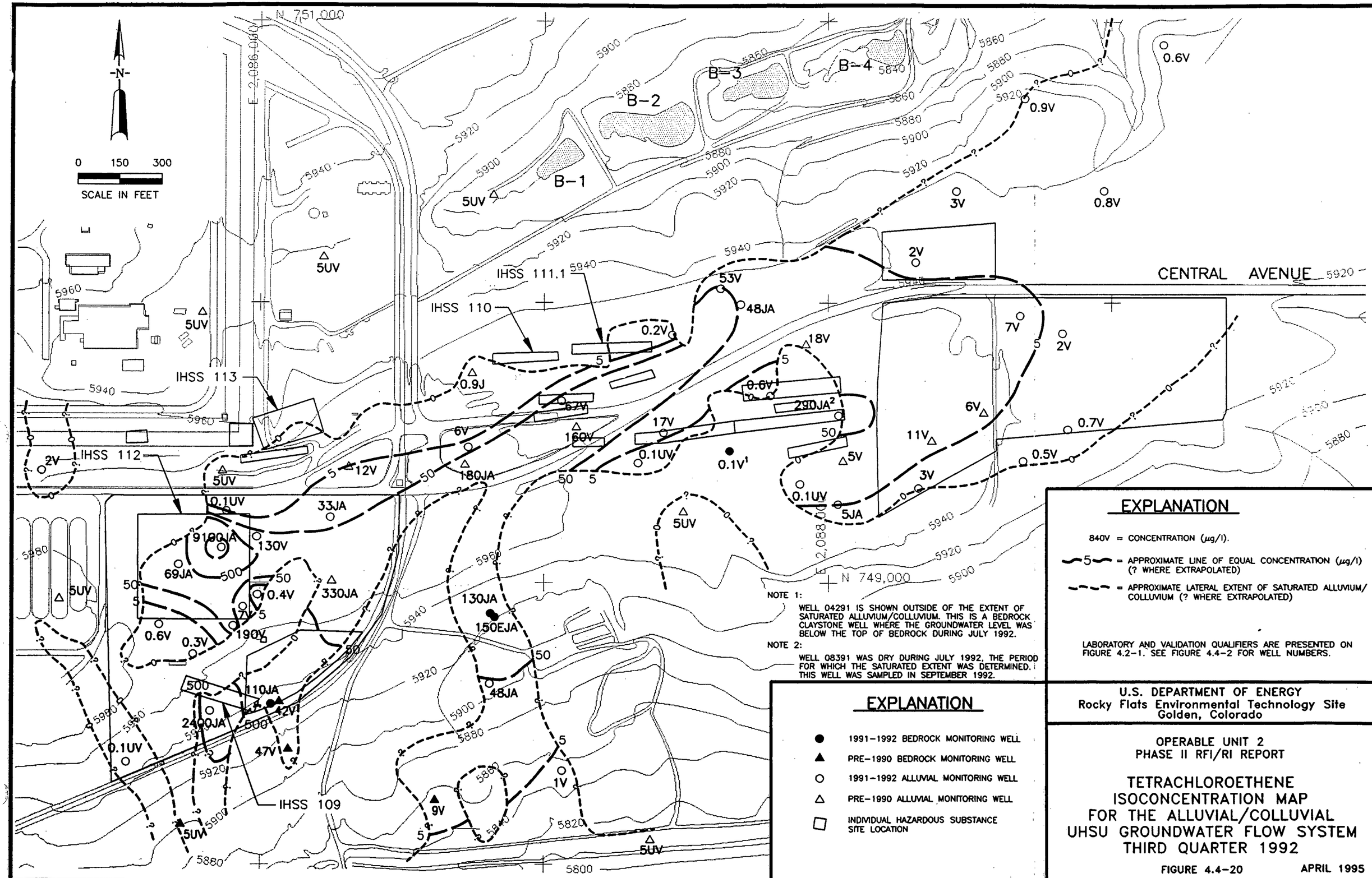
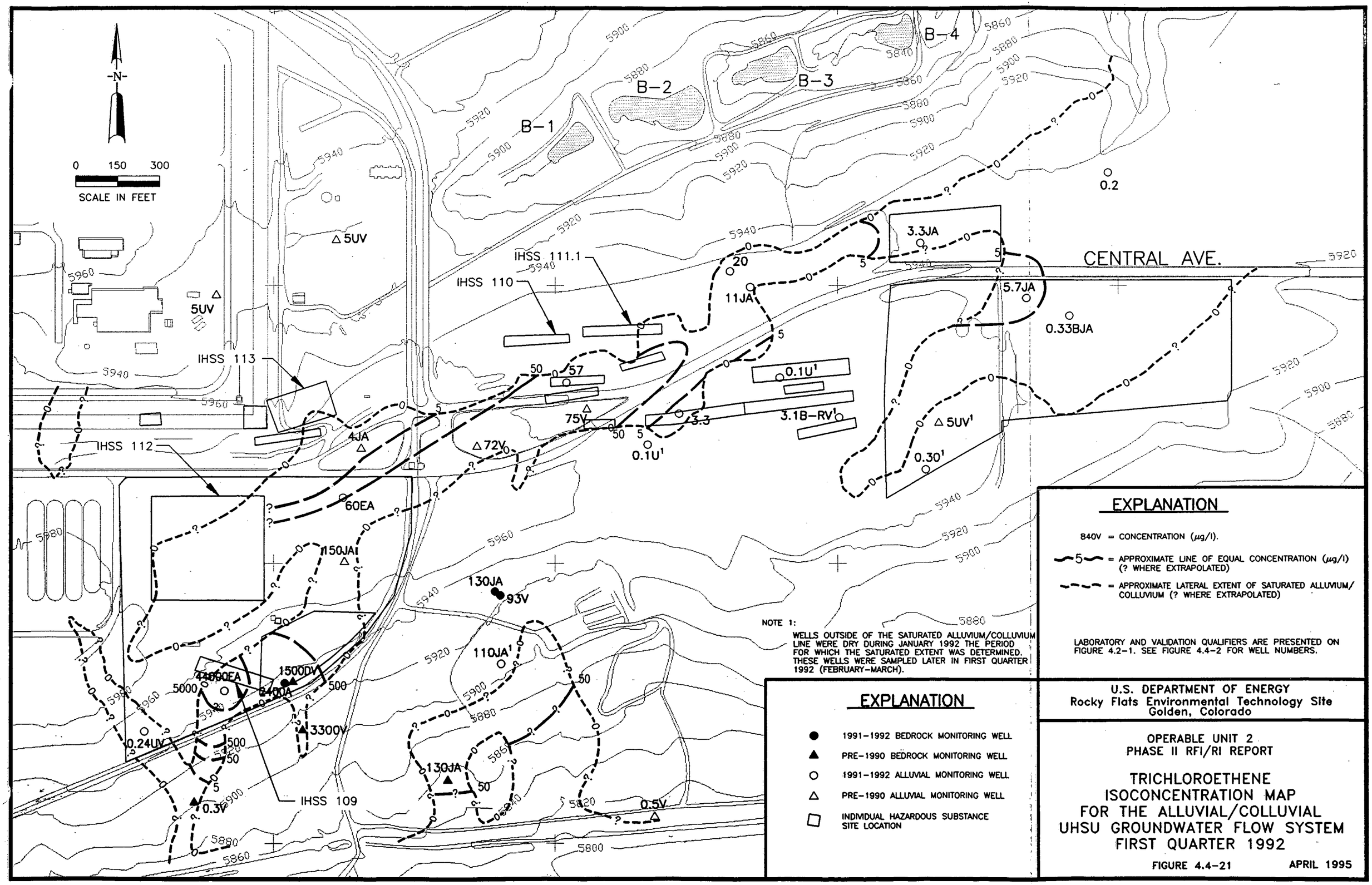
PHASE II RFI/RI REPORT
TETRACHLOROTHENE
ISOCONCENTRATION MAP
FOR THE ALLUVIAL/COLLUVIAL
UHSU GROUNDWATER FLOW SYSTEM
SECOND QUARTER 1992
FIGURE 4.4-19
APRIL 1995


-N-
0 150 300
SCALE IN FEET
N 751,000
E 2,086,000
E 2,088,000
N 749,000
B-1
B-2
B-3
B-4
IHSS 111.1
IHSS 110
IHSS 113
IHSS 112
IHSS 109
CENTRAL AVENUE
EXPLANATION
840V = CONCENTRATION (µg/l).
5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)
= APPROXIMATE LATERAL EXTENT OF SATURATED ALLUVIUM/COLLUVIUM (? WHERE EXTRAPOLATED)
LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-2 FOR WELL NUMBERS.
NOTE 1:
WELL 04291 IS SHOWN OUTSIDE OF THE EXTENT OF SATURATED ALLUVIUM/COLLUVIUM. THIS IS A BEDROCK CLAYSTONE WELL WHERE THE GROUNDWATER LEVEL WAS BELOW THE TOP OF BEDROCK DURING JULY 1992.
NOTE 2:
WELL 08391 WAS DRY DURING JULY 1992, THE PERIOD FOR WHICH THE SATURATED EXTENT WAS DETERMINED. THIS WELL WAS SAMPLED IN SEPTEMBER 1992.
EXPLANATION
1991-1992 BEDROCK MONITORING WELL
PRE-1990 BEDROCK MONITORING WELL
1991-1992 ALLUVIAL MONITORING WELL
PRE-1990 ALLUVIAL MONITORING WELL
INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT 2
PHASE II RFI/RI REPORT
TETRACHLOROETHENE
ISOCONCENTRATION MAP
FOR THE ALLUVIAL/COLLUVIAL
UHSU GROUNDWATER FLOW SYSTEM
THIRD QUARTER 1992
FIGURE 4.4-20
APRIL 1995



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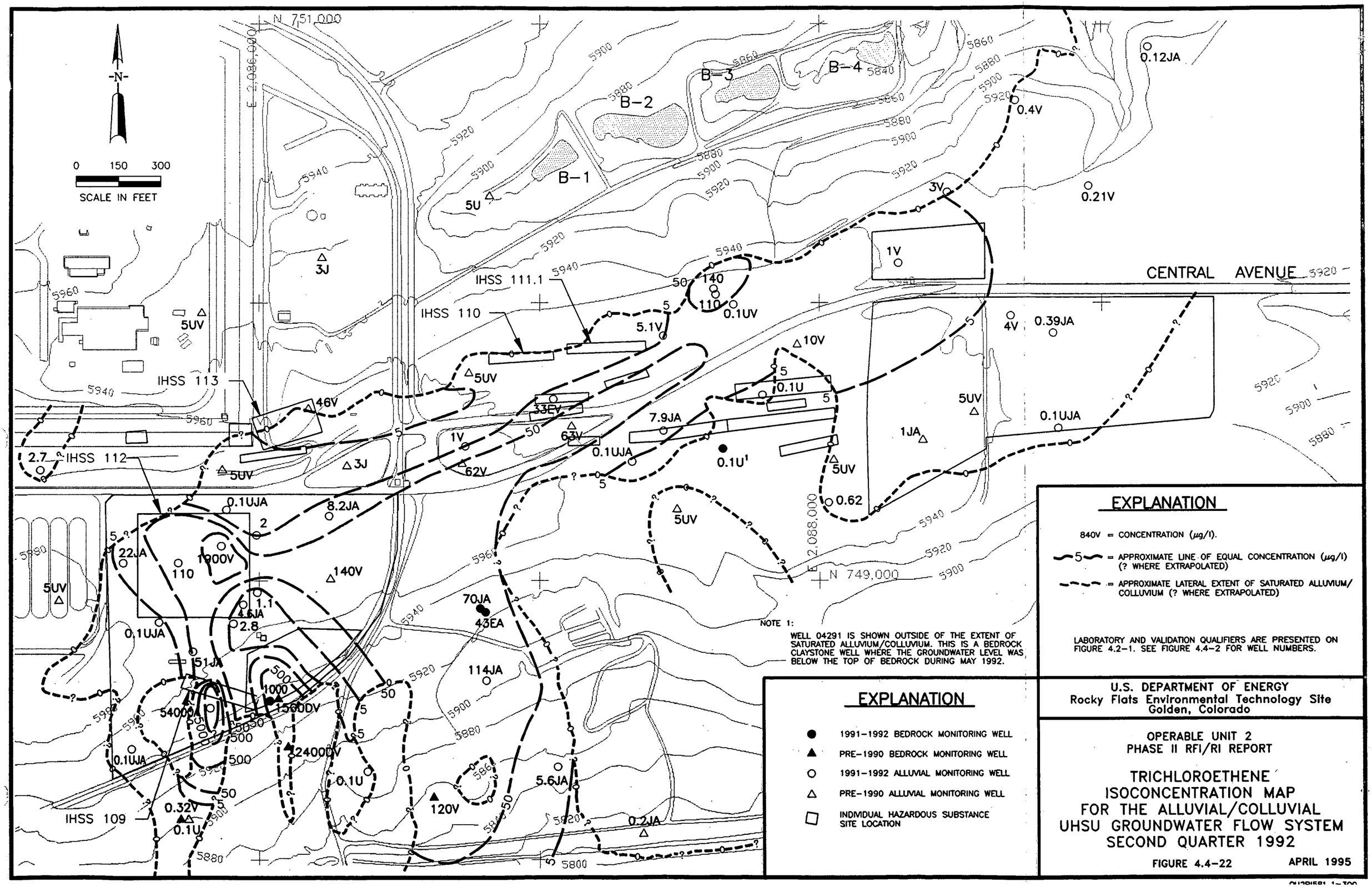
TRICHLOROETHENE ISOCONCENTRATION MAP FOR THE ALLUVIAL/COLLUVIAL UHSU GROUNDWATER FLOW SYSTEM FIRST QUARTER 1992

FIGURE 4.4-21 APRIL 1995



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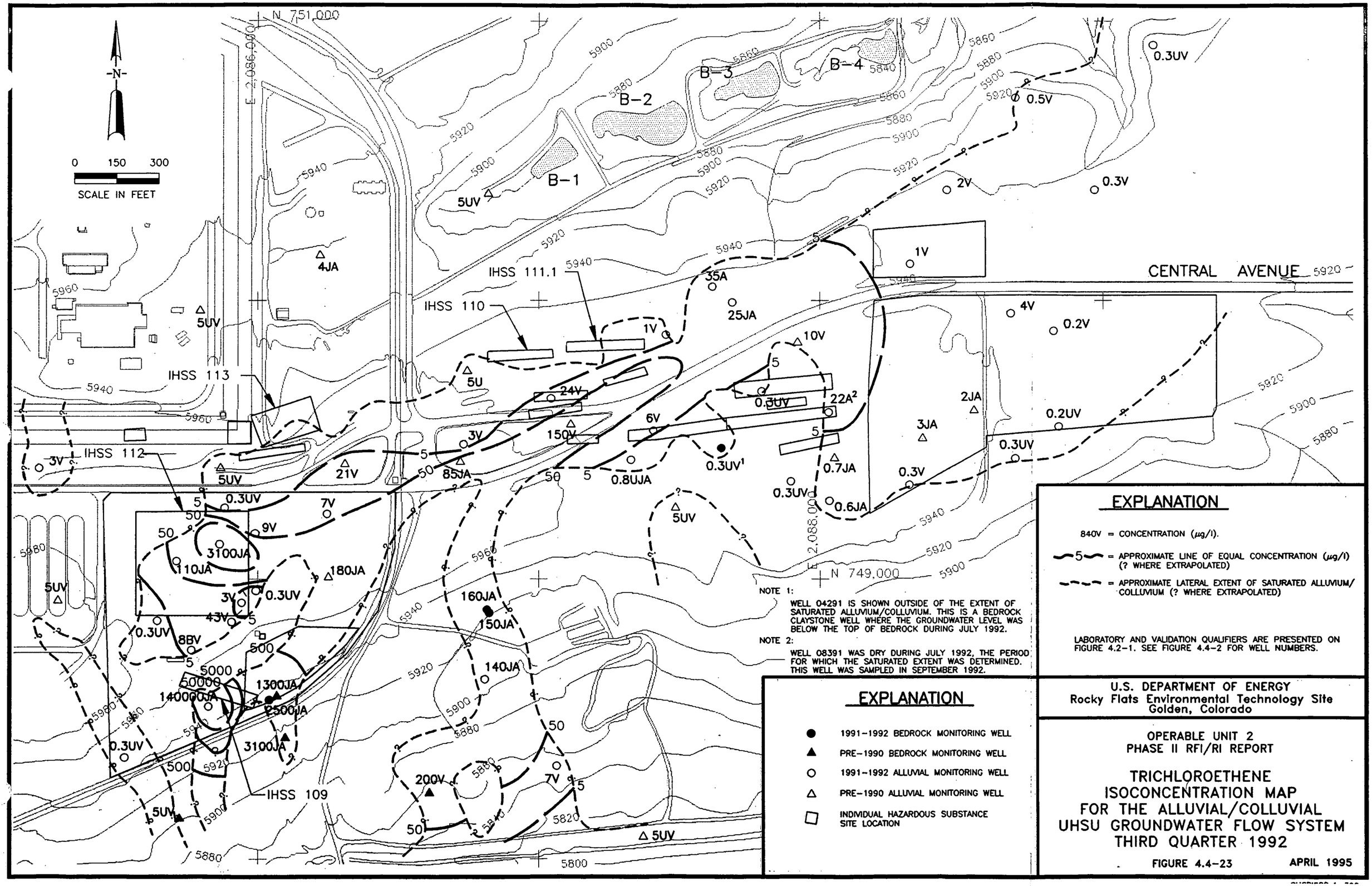
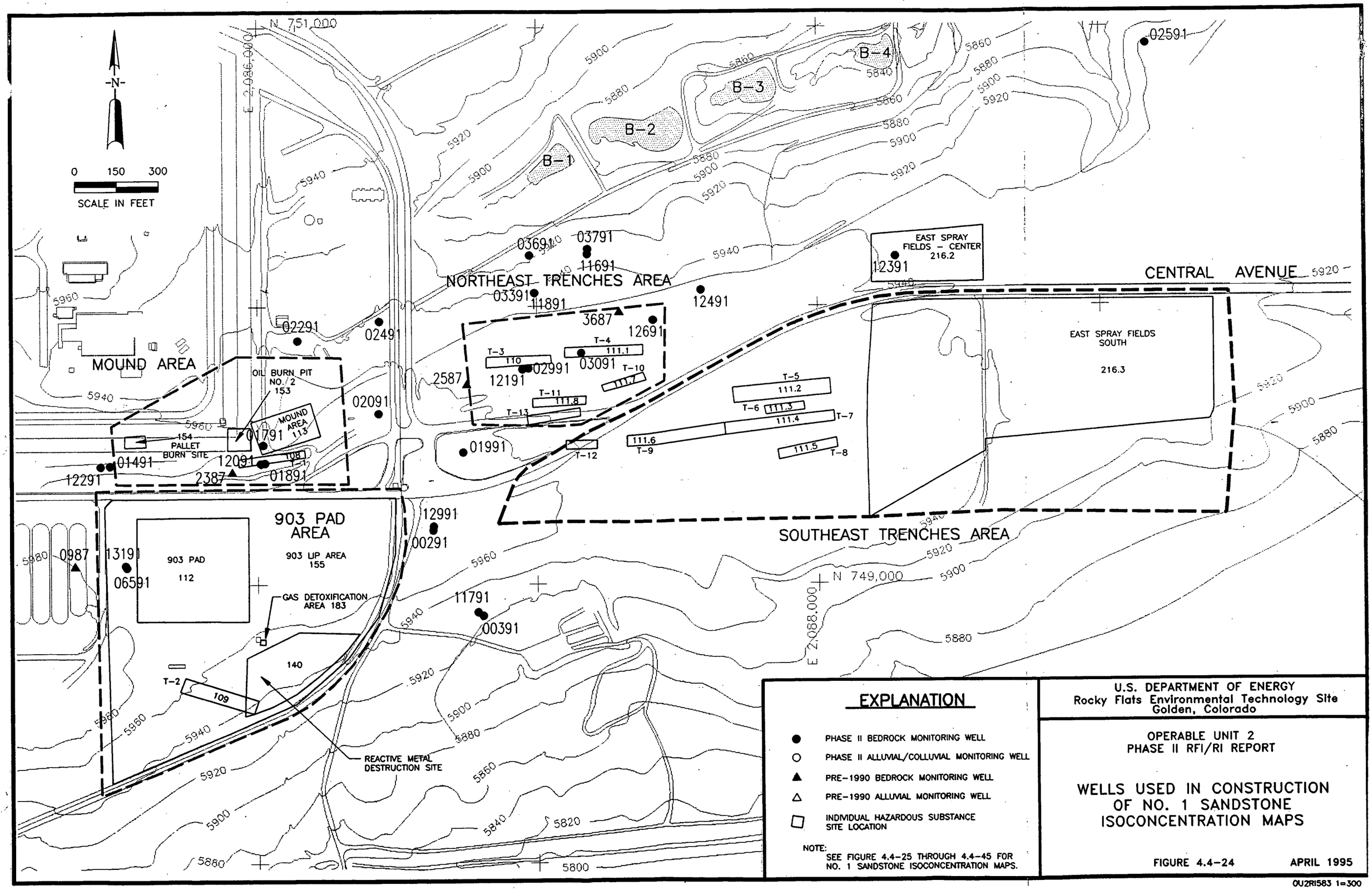
TRICHLOROETHENE ISOCONCENTRATION MAP FOR THE ALLUVIAL/COLLUVIAL UHSU GROUNDWATER FLOW SYSTEM SECOND QUARTER 1992

FIGURE 4.4-22 APRIL 1995


-N-
0 150 300
SCALE IN FEET
N 751,000
E 2,086,000
E 2,088,000
N 749,000
B-1
B-2
B-3
B-4
CENTRAL AVENUE
IHSS 111.1
IHSS 110
IHSS 113
IHSS 112
IHSS 109
EXPLANATION
840V = CONCENTRATION (µg/l).
5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)
= APPROXIMATE LATERAL EXTENT OF SATURATED ALLUVIUM/ COLLUVIUM (? WHERE EXTRAPOLATED)
LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-2 FOR WELL NUMBERS.
NOTE 1:
WELL 04291 IS SHOWN OUTSIDE OF THE EXTENT OF SATURATED ALLUVIUM/COLLUVIUM. THIS IS A BEDROCK CLAYSTONE WELL WHERE THE GROUNDWATER LEVEL WAS BELOW THE TOP OF BEDROCK DURING JULY 1992.
NOTE 2:
WELL 08391 WAS DRY DURING JULY 1992, THE PERIOD FOR WHICH THE SATURATED EXTENT WAS DETERMINED. THIS WELL WAS SAMPLED IN SEPTEMBER 1992.
EXPLANATION
1991-1992 BEDROCK MONITORING WELL
PRE-1990 BEDROCK MONITORING WELL
1991-1992 ALLUVIAL MONITORING WELL
PRE-1990 ALLUVIAL MONITORING WELL
INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT 2
PHASE II RFI/RI REPORT
TRICHLOROETHENE
ISOCONCENTRATION MAP
FOR THE ALLUVIAL/COLLUVIAL
UHSU GROUNDWATER FLOW SYSTEM
THIRD QUARTER 1992
FIGURE 4.4-23
APRIL 1995



EXPLANATION

- ● PHASE II BEDROCK MONITORING WELL
- ○ PHASE II ALLUVIAL/COLLUVIAL MONITORING WELL
- ▲ PRE-1990 BEDROCK MONITORING WELL
- △ PRE-1990 ALLUVIAL MONITORING WELL
- ☐ INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

NOTE:
SEE FIGURE 4.4-25 THROUGH 4.4-45 FOR NO. 1 SANDSTONE ISOCONCENTRATION MAPS.

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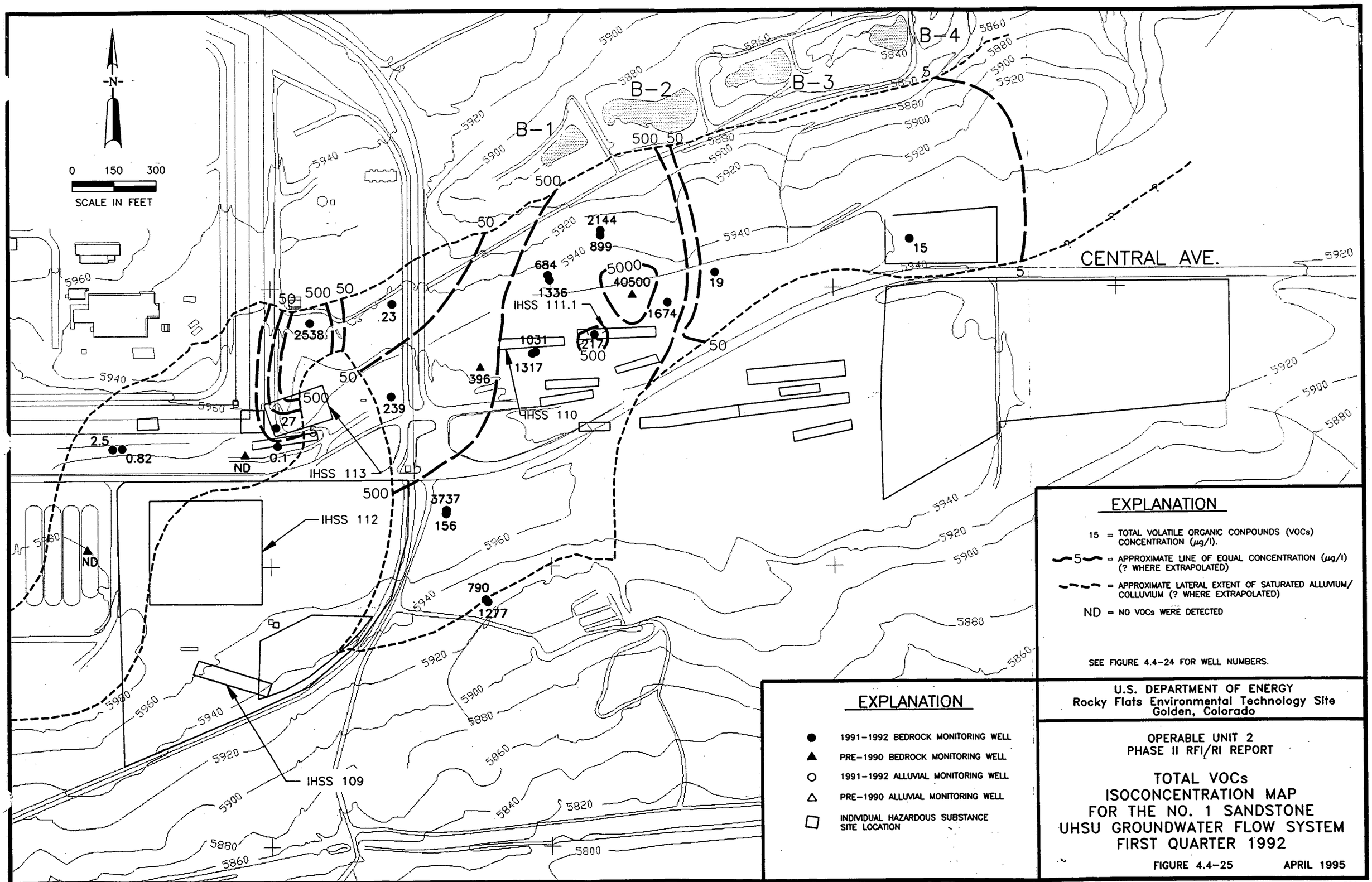
WELLS USED IN CONSTRUCTION OF NO. 1 SANDSTONE ISOCONCENTRATION MAPS

FIGURE 4.4-24 APRIL 1995

0U2RI583 1=300



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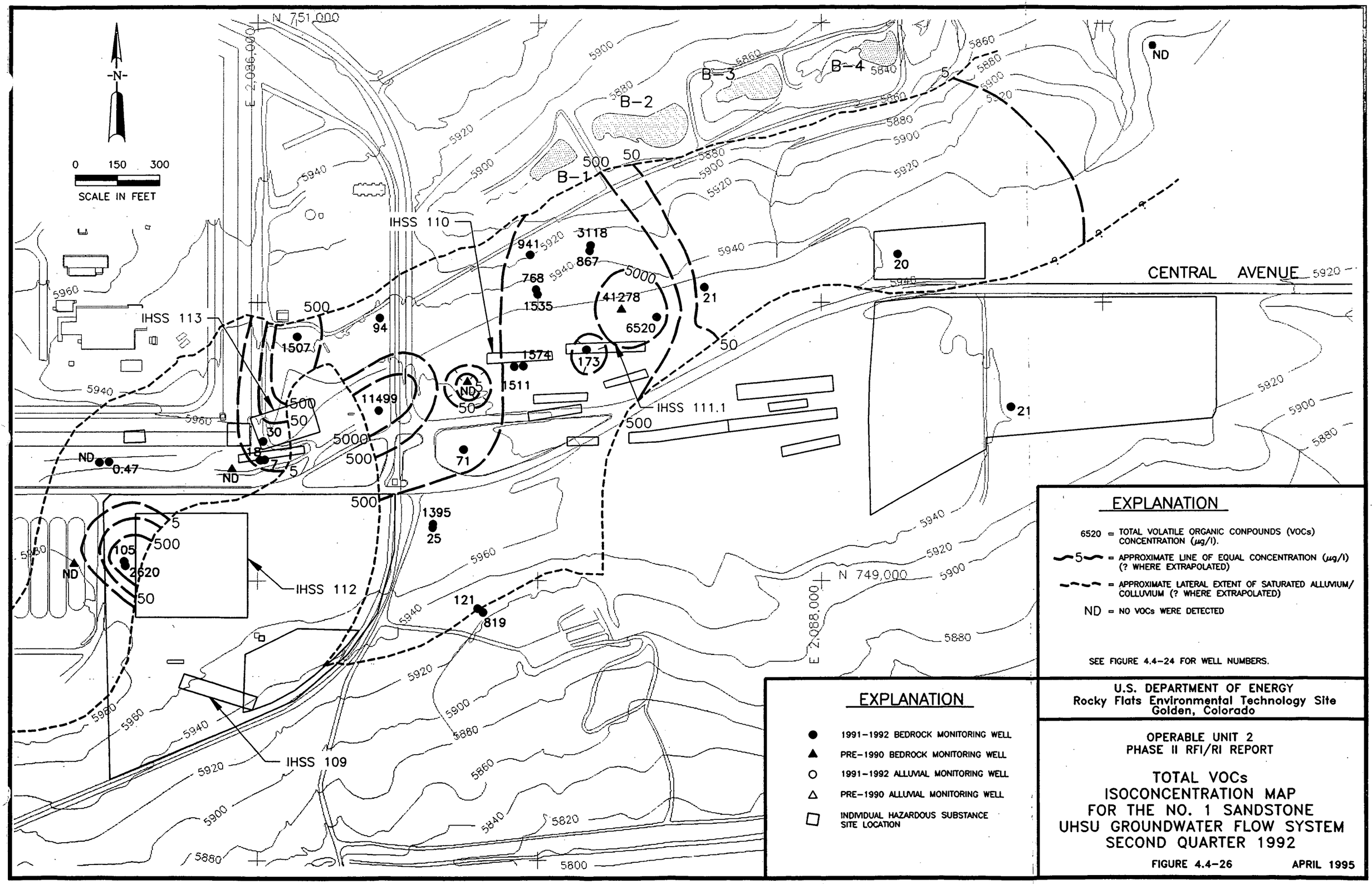
PHASE II RFI/RI REPORT

TOTAL VOCs
ISOCONCENTRATION MAP
FOR THE NO. 1 SANDSTONE
UHSU GROUNDWATER FLOW SYSTEM
FIRST QUARTER 1992

FIGURE 4.4-25 APRIL 1995

OU2RI615 1=300.



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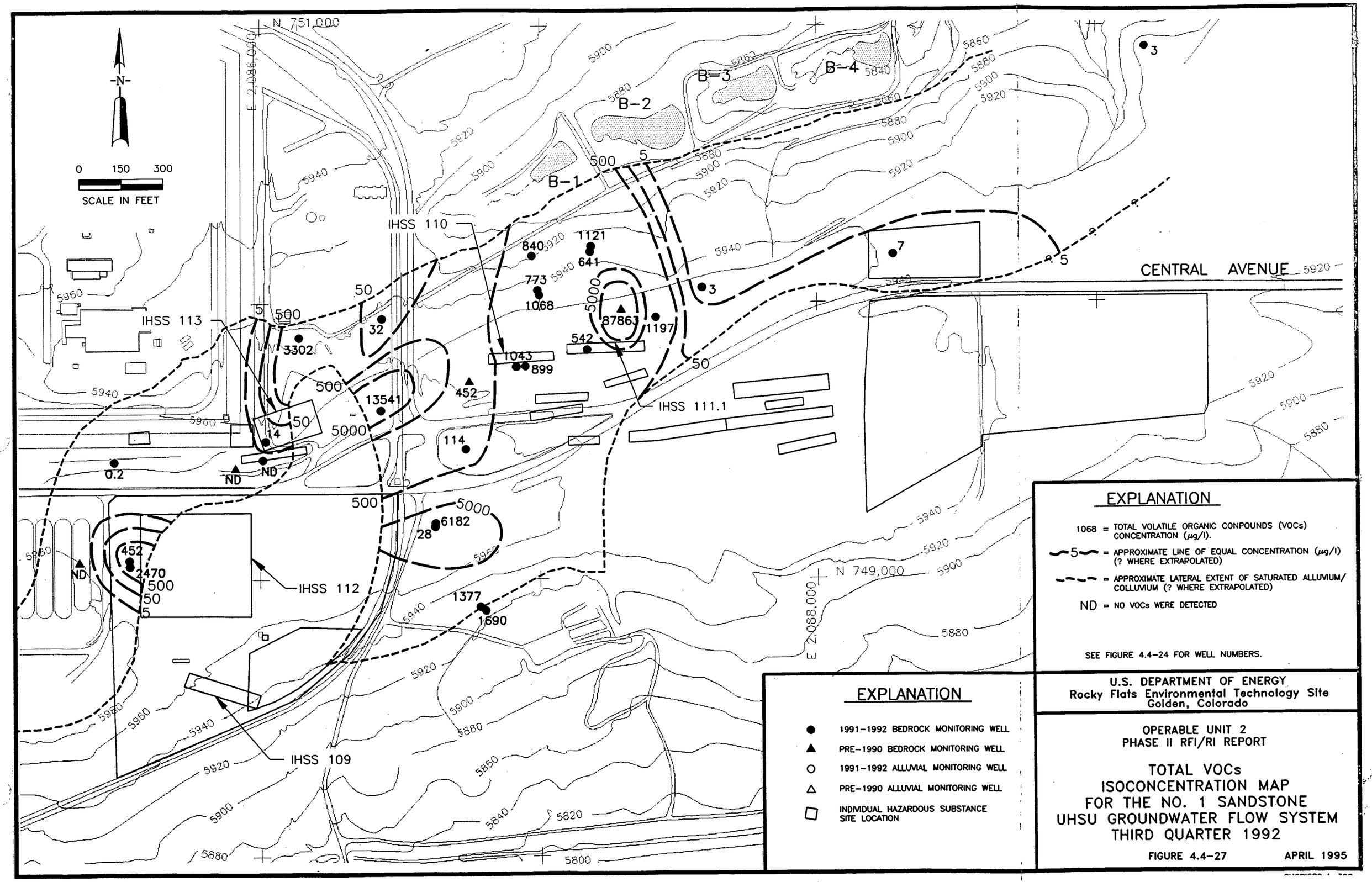
PHASE II RFI/RI REPORT

TOTAL VOCs
ISOCONCENTRATION MAP
FOR THE NO. 1 SANDSTONE
UHSU GROUNDWATER FLOW SYSTEM
SECOND QUARTER 1992

FIGURE 4.4-26 APRIL 1995



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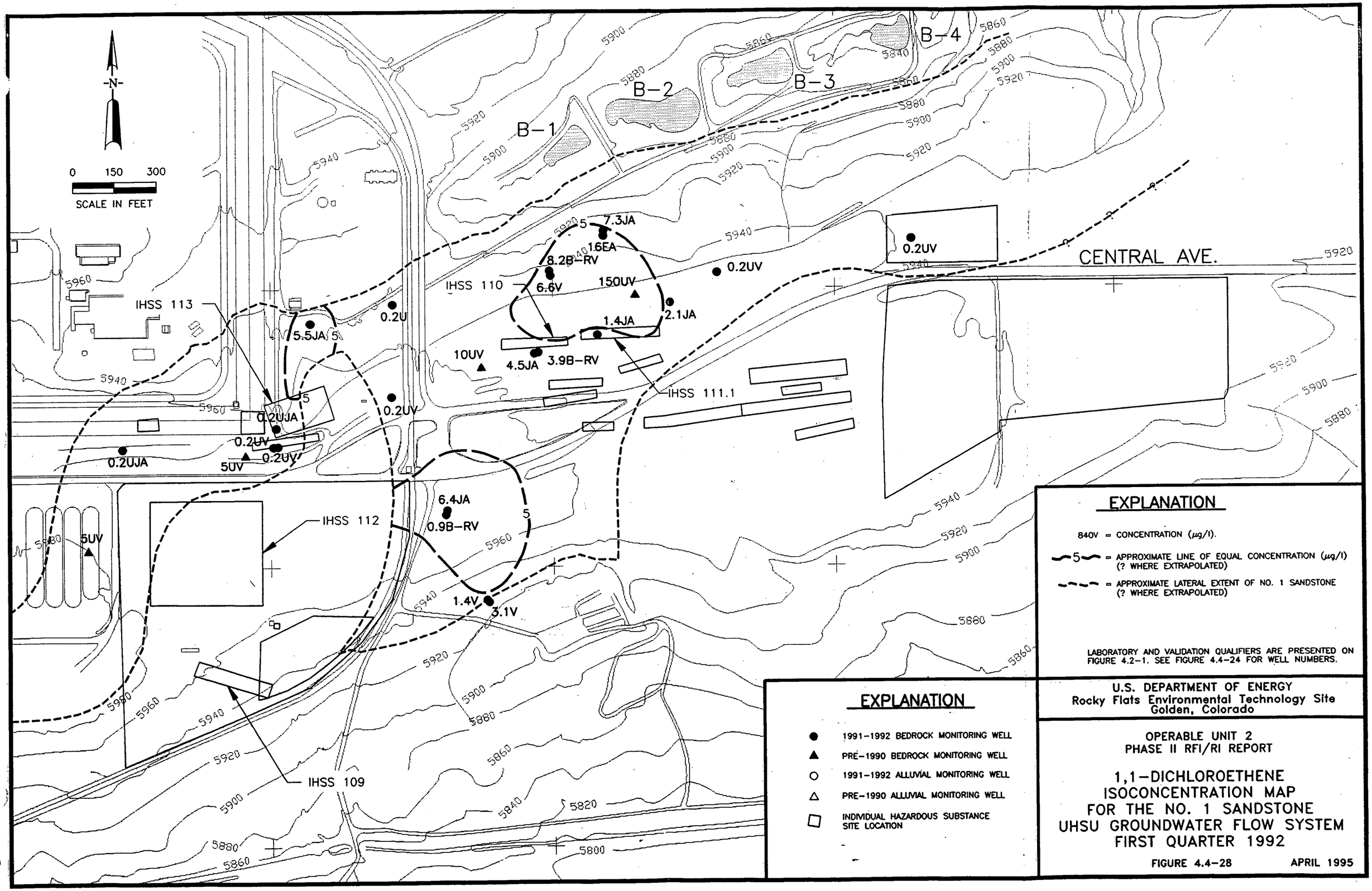
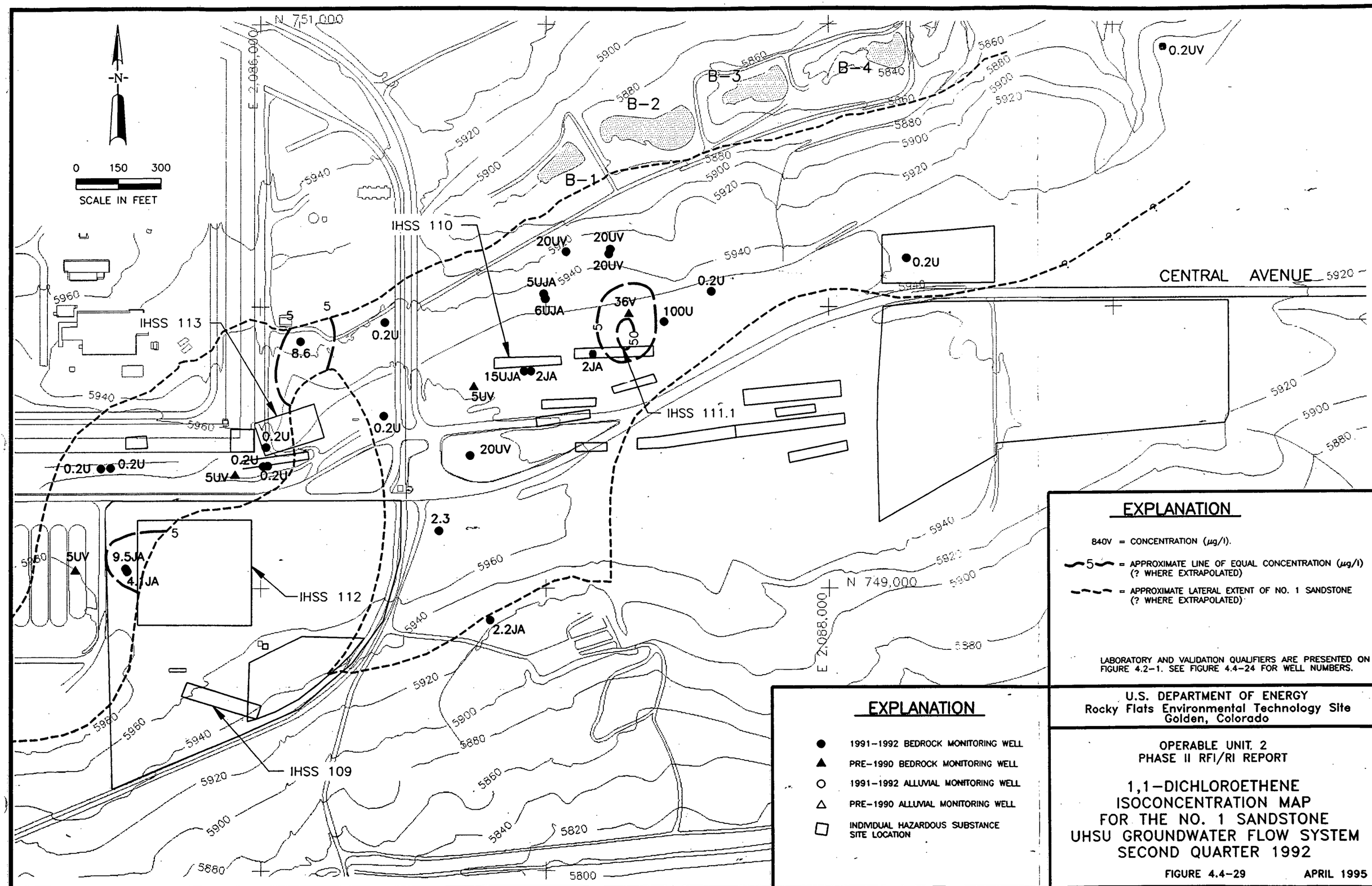
PHASE II RFI/RI REPORT

TOTAL VOCs
ISOCONCENTRATION MAP
FOR THE NO. 1 SANDSTONE
UHSU GROUNDWATER FLOW SYSTEM
THIRD QUARTER 1992

FIGURE 4.4-27 APRIL 1995


N
0 150 300
SCALE IN FEET
B-1
B-2
B-3
B-4
CENTRAL AVE.
IHSS 110
IHSS 111.1
IHSS 112
IHSS 113
IHSS 109
7.3JA
1.6EA
8.2B-RV
6.6V
150UV
2.1JA
1.4JA
4.5JA
3.9B-RV
10UV
0.2UV
0.2U
5.5JA
0.2UJA
5UV
6.4JA
0.9B-RV
1.4V
3.1V
EXPLANATION
840V = CONCENTRATION (µg/l).
5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)
= APPROXIMATE LATERAL EXTENT OF NO. 1 SANDSTONE (? WHERE EXTRAPOLATED)
LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-24 FOR WELL NUMBERS.
EXPLANATION
1991-1992 BEDROCK MONITORING WELL
PRE-1990 BEDROCK MONITORING WELL
1991-1992 ALLUVIAL MONITORING WELL
PRE-1990 ALLUVIAL MONITORING WELL
INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT 2
PHASE II RFI/RI REPORT
1,1-DICHLOROETHENE
ISOCONCENTRATION MAP
FOR THE NO. 1 SANDSTONE
UHSU GROUNDWATER FLOW SYSTEM
FIRST QUARTER 1992
FIGURE 4.4-28
APRIL 1995

130



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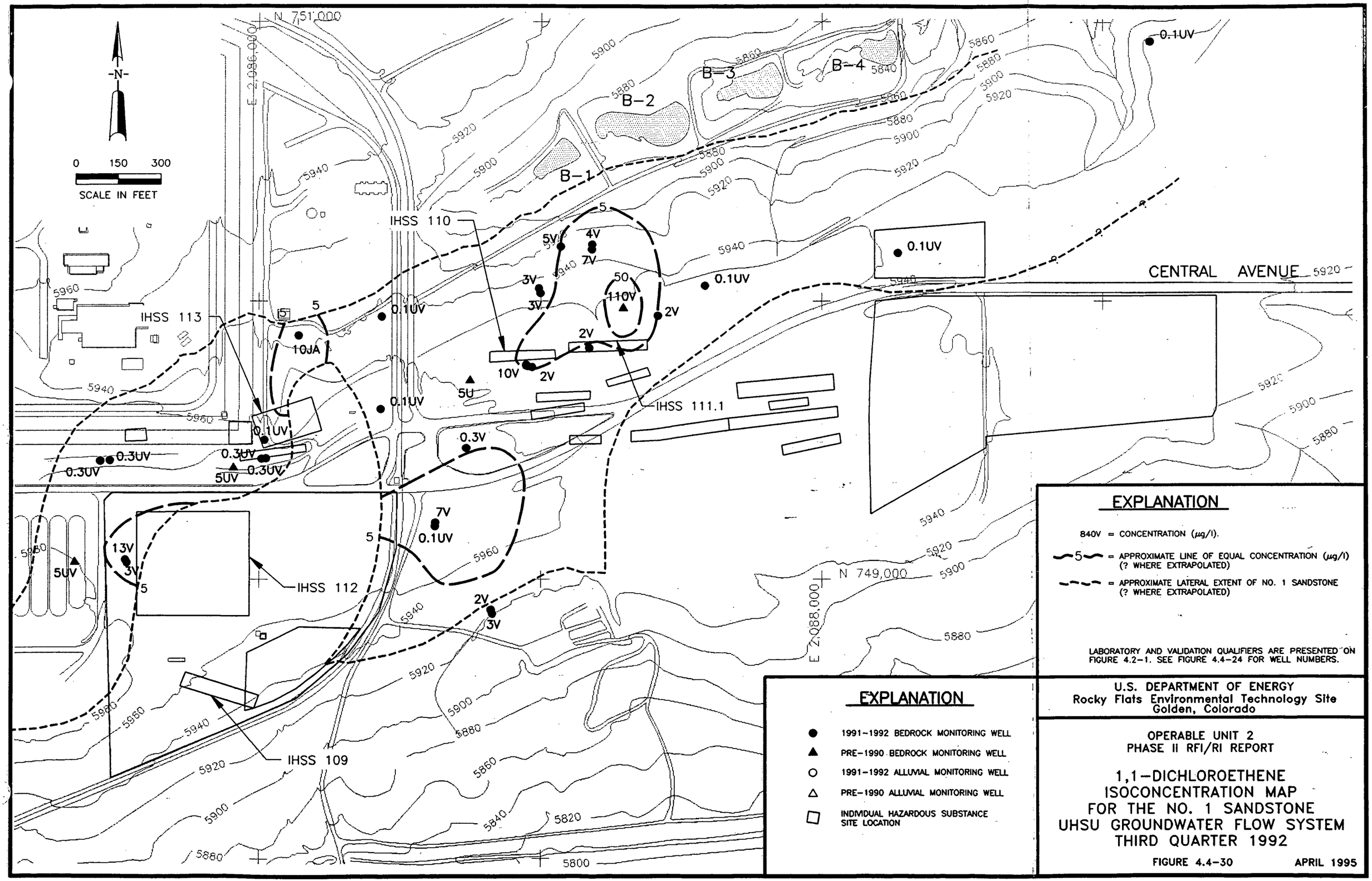
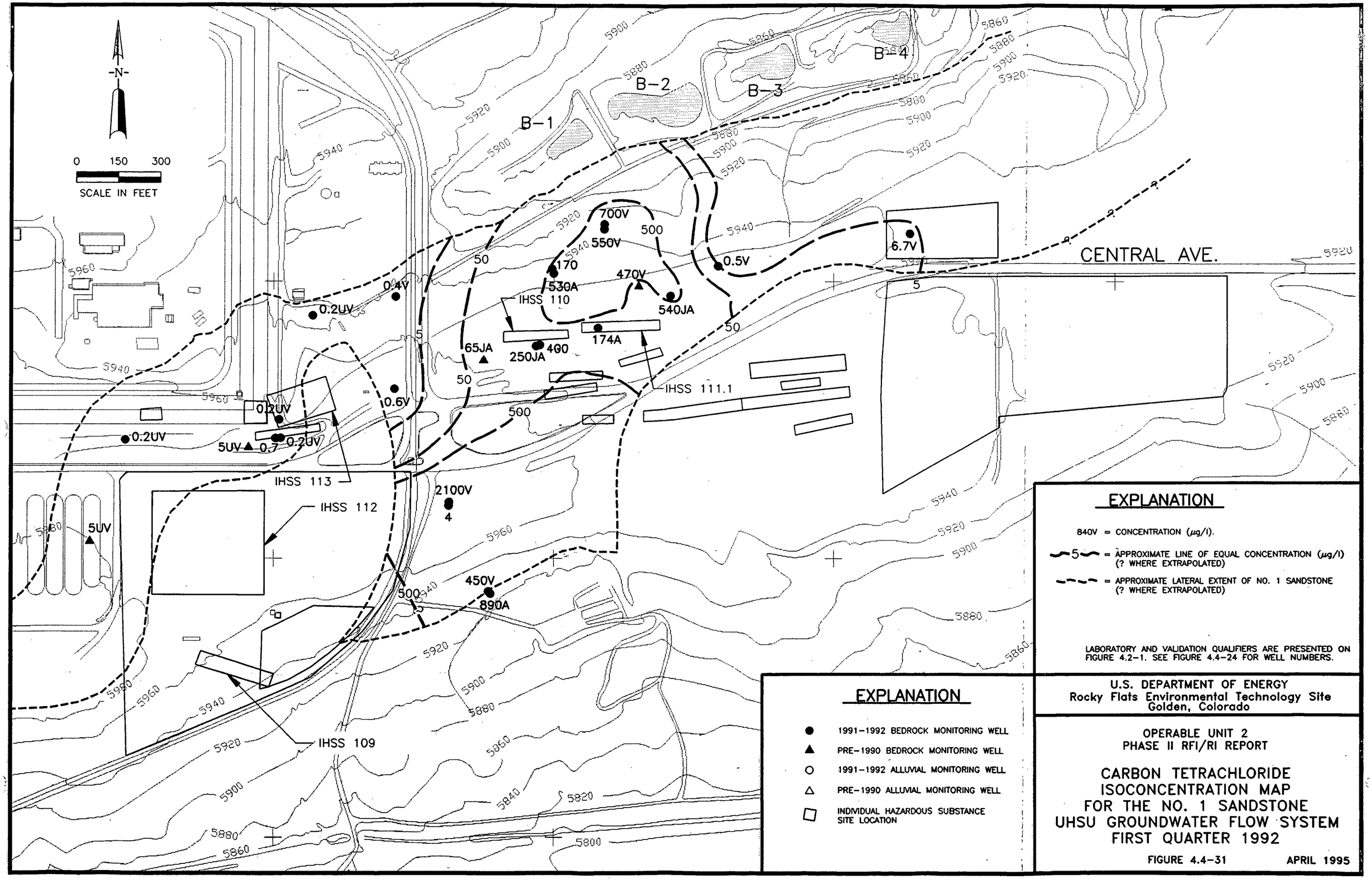
1,1-DICHLOROETHENE
ISOCONCENTRATION MAP
FOR THE NO. 1 SANDSTONE
UHSU GROUNDWATER FLOW SYSTEM
SECOND QUARTER 1992

FIGURE 4.4-29 APRIL 1995


-N-
0 150 300
SCALE IN FEET
N 751,000
E 2,086,000
N 749,000
E 2,088,000
B-1
B-2
B-3
B-4
IHSS 110
IHSS 113
IHSS 111.1
IHSS 112
IHSS 109
CENTRAL AVENUE
0.1UV
10JA
10V
2V
5U
0.3V
0.3UV
5UV
7V
13V
3V
5V
4V
50
110V
EXPLANATION
840V = CONCENTRATION (µg/l).
5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)
= APPROXIMATE LATERAL EXTENT OF NO. 1 SANDSTONE (? WHERE EXTRAPOLATED)
LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-24 FOR WELL NUMBERS.
EXPLANATION
1991-1992 BEDROCK MONITORING WELL
PRE-1990 BEDROCK MONITORING WELL
1991-1992 ALLUVIAL MONITORING WELL
PRE-1990 ALLUVIAL MONITORING WELL
INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT 2
PHASE II RFI/RI REPORT
1,1-DICHLOROETHENE
ISOCONCENTRATION MAP
FOR THE NO. 1 SANDSTONE
UHSU GROUNDWATER FLOW SYSTEM
THIRD QUARTER 1992
FIGURE 4.4-30
APRIL 1995



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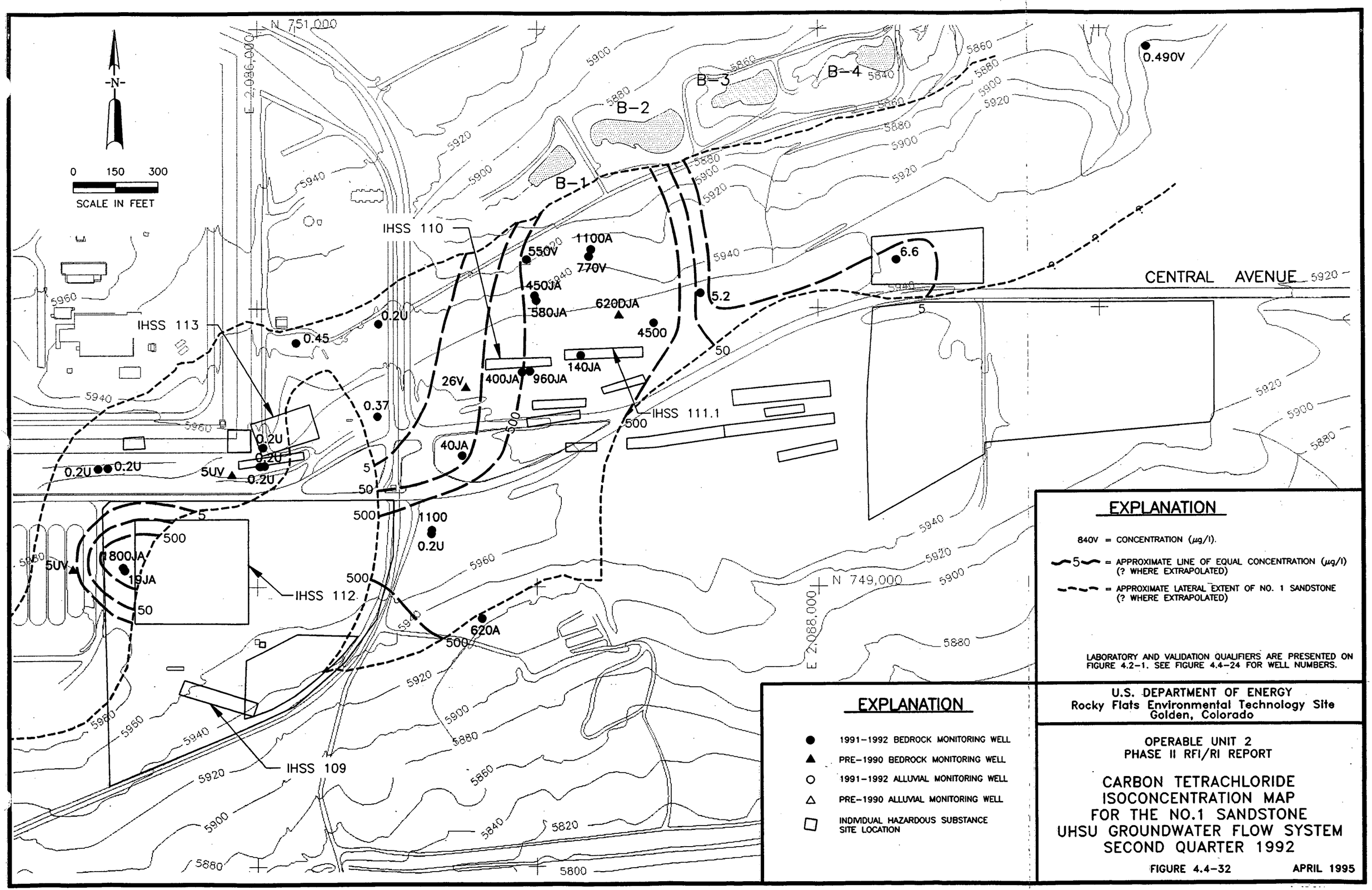
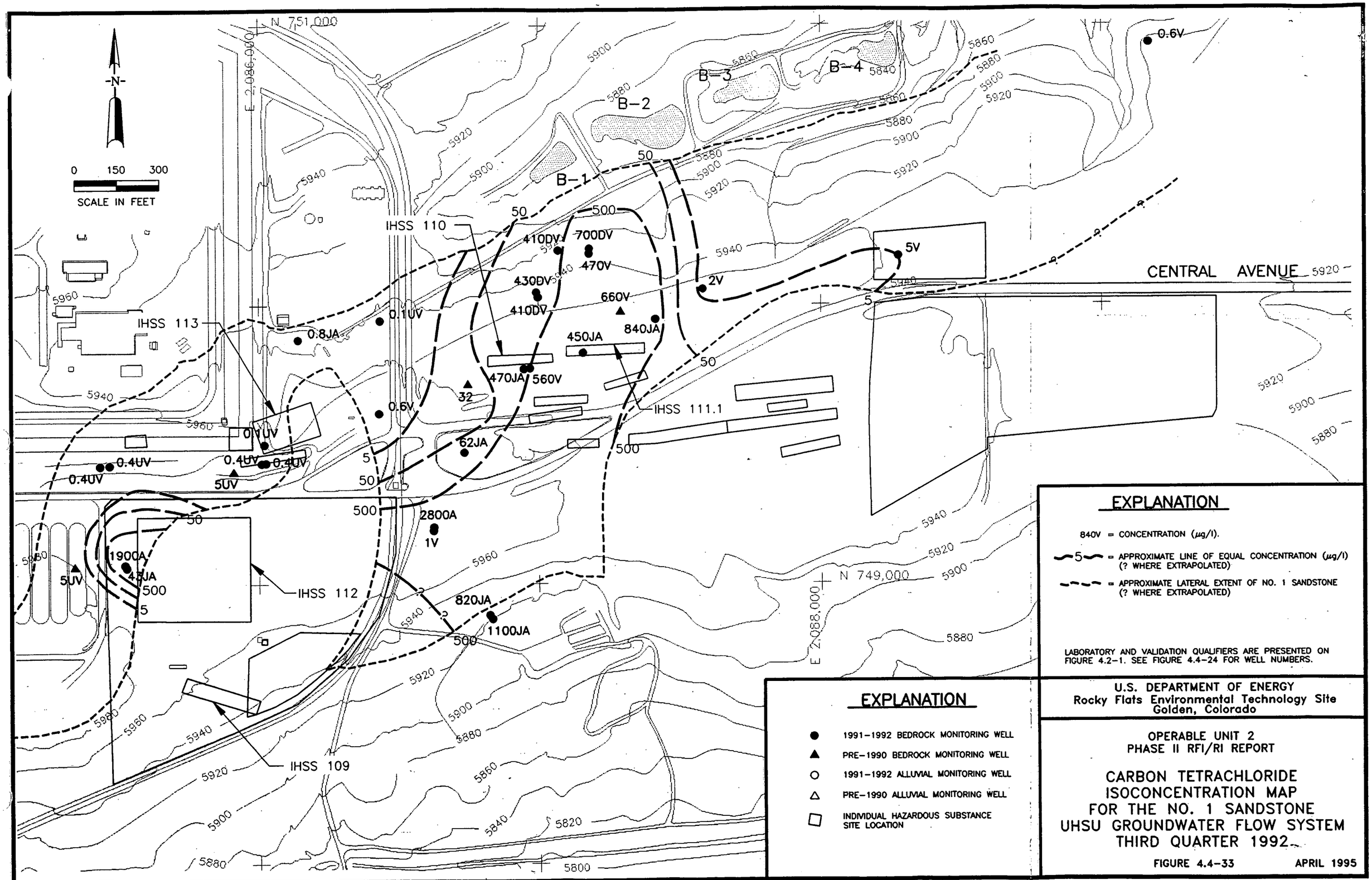
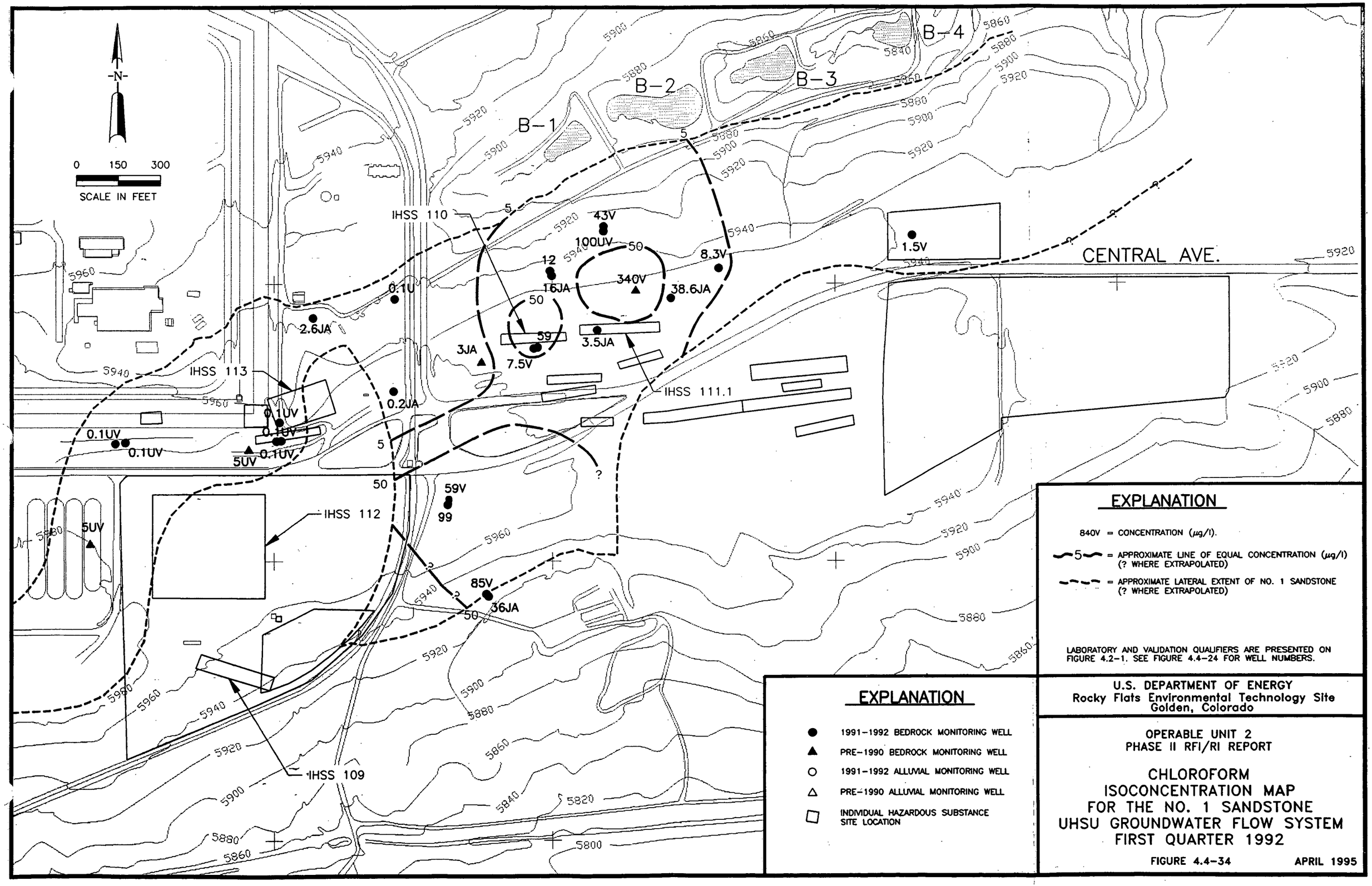
PHASE II RFI/RI REPORT

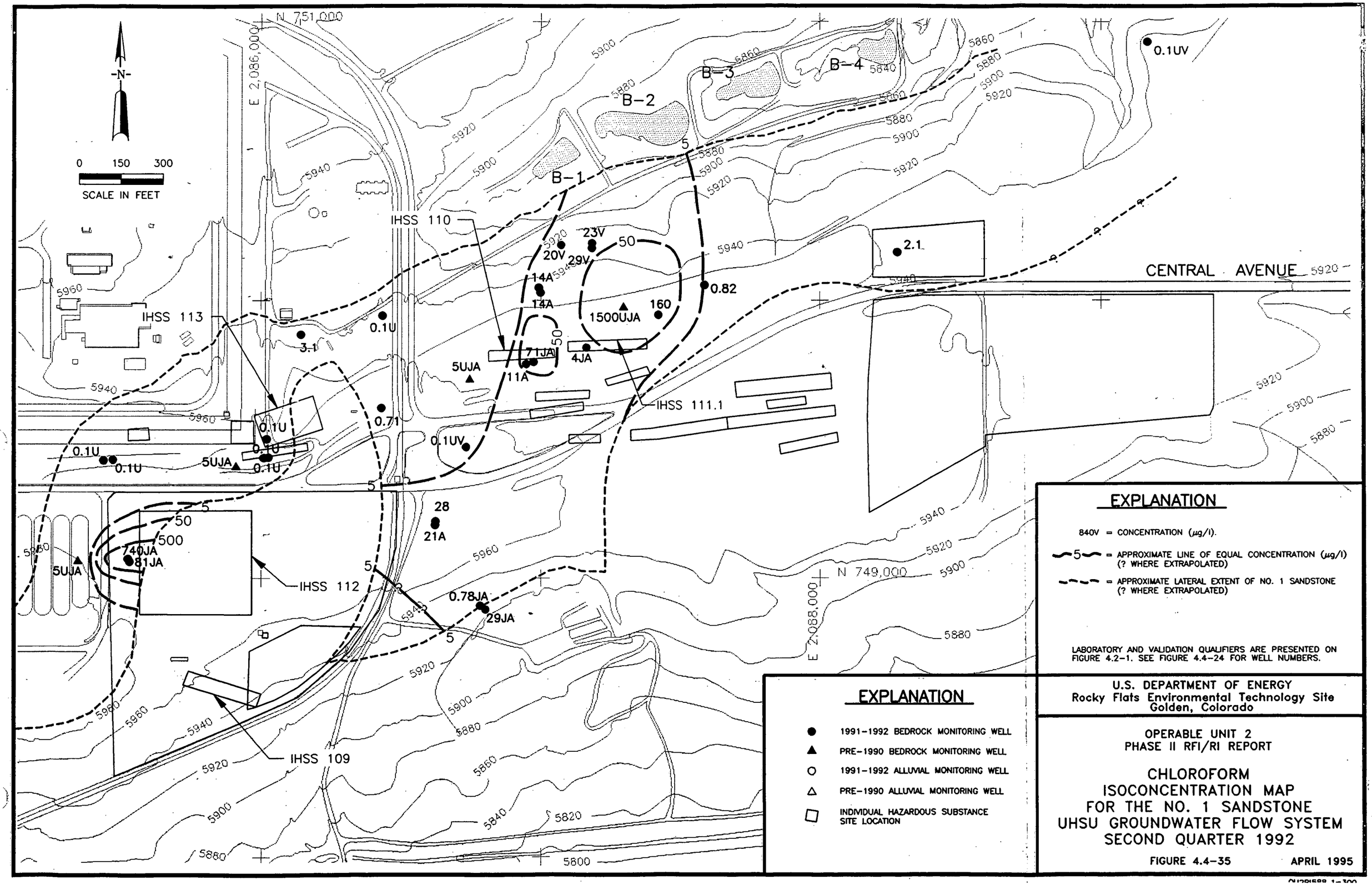
CARBON TETRACHLORIDE ISOCONCENTRATION MAP FOR THE NO. 1 SANDSTONE UHSU GROUNDWATER FLOW SYSTEM FIRST QUARTER 1992

FIGURE 4.4-31 APRIL 1995


-N-
0 150 300
SCALE IN FEET
N 751,000
E 2,086,000
N 749,000
E 2,088,000
B-1
B-2
B-3
B-4
IHSS 110
IHSS 113
IHSS 112
IHSS 109
IHSS 111.1
CENTRAL AVENUE
0.490V
6.6
5.2
1100A
550V
770V
450JA
580JA
620DJA
4500
140JA
400JA
960JA
26V
0.45
0.2U
0.37
40JA
5UV
1100
620A
1800JA
19JA
EXPLANATION
840V = CONCENTRATION (µg/l).
5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)
= APPROXIMATE LATERAL EXTENT OF NO. 1 SANDSTONE (? WHERE EXTRAPOLATED)
LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-24 FOR WELL NUMBERS.
EXPLANATION
1991-1992 BEDROCK MONITORING WELL
PRE-1990 BEDROCK MONITORING WELL
1991-1992 ALLUVIAL MONITORING WELL
PRE-1990 ALLUVIAL MONITORING WELL
INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT 2
PHASE II RFI/RI REPORT
CARBON TETRACHLORIDE
ISOCONCENTRATION MAP
FOR THE NO.1 SANDSTONE
UHSU GROUNDWATER FLOW SYSTEM
SECOND QUARTER 1992
FIGURE 4.4-32
APRIL 1995


N
0 150 300
SCALE IN FEET
N 751,000
E 2,086,000
N 749,000
E 2,088,000
CENTRAL AVENUE
B-1
B-2
B-3
B-4
IHSS 110
IHSS 111.1
IHSS 112
IHSS 113
IHSS 109
0.6V
5V
2V
410DV
700DV
470V
430DV
410DV
660V
840JA
450JA
470JA
560V
32
0.1UV
0.8JA
0.6V
0.1UV
62JA
0.4UV
0.4UV
0.4UV
0.4UV
5UV
2800A
1V
1900A
43JA
5UV
820JA
1100JA
EXPLANATION
840V = CONCENTRATION (µg/l).
5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)
= APPROXIMATE LATERAL EXTENT OF NO. 1 SANDSTONE (? WHERE EXTRAPOLATED)
LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-24 FOR WELL NUMBERS.
EXPLANATION
1991-1992 BEDROCK MONITORING WELL
PRE-1990 BEDROCK MONITORING WELL
1991-1992 ALLUVIAL MONITORING WELL
PRE-1990 ALLUVIAL MONITORING WELL
INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT 2
PHASE II RFI/RI REPORT
CARBON TETRACHLORIDE
ISOCONCENTRATION MAP
FOR THE NO. 1 SANDSTONE
UHSU GROUNDWATER FLOW SYSTEM
THIRD QUARTER 1992
FIGURE 4.4-33
APRIL 1995


-N-
0 150 300
SCALE IN FEET
B-1
B-2
B-3
B-4
IHSS 110
IHSS 113
IHSS 112
IHSS 111.1
IHSS 109
CENTRAL AVE.
43V
100UV
12
16JA
340V
8.3V
38.6JA
1.5V
0.1U
2.6JA
3JA
7.5V
59
3.5JA
0.2JA
0.1UV
5UV
59V
99
85V
36JA
EXPLANATION
840V = CONCENTRATION (µg/l).
5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)
= APPROXIMATE LATERAL EXTENT OF NO. 1 SANDSTONE (? WHERE EXTRAPOLATED)
LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-24 FOR WELL NUMBERS.
EXPLANATION
1991-1992 BEDROCK MONITORING WELL
PRE-1990 BEDROCK MONITORING WELL
1991-1992 ALLUVIAL MONITORING WELL
PRE-1990 ALLUVIAL MONITORING WELL
INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT 2
PHASE II RFI/RI REPORT
CHLOROFORM
ISOCONCENTRATION MAP
FOR THE NO. 1 SANDSTONE
UHSU GROUNDWATER FLOW SYSTEM
FIRST QUARTER 1992
FIGURE 4.4-34
APRIL 1995



EXPLANATION

840V = CONCENTRATION (µg/l).

5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)

= APPROXIMATE LATERAL EXTENT OF NO. 1 SANDSTONE (? WHERE EXTRAPOLATED)

LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-24 FOR WELL NUMBERS.

EXPLANATION

- ● 1991-1992 BEDROCK MONITORING WELL
- ▲ PRE-1990 BEDROCK MONITORING WELL
- ○ 1991-1992 ALLUVIAL MONITORING WELL
- △ PRE-1990 ALLUVIAL MONITORING WELL
- ☐ INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

U.S. DEPARTMENT OF ENERGY
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Golden, Colorado

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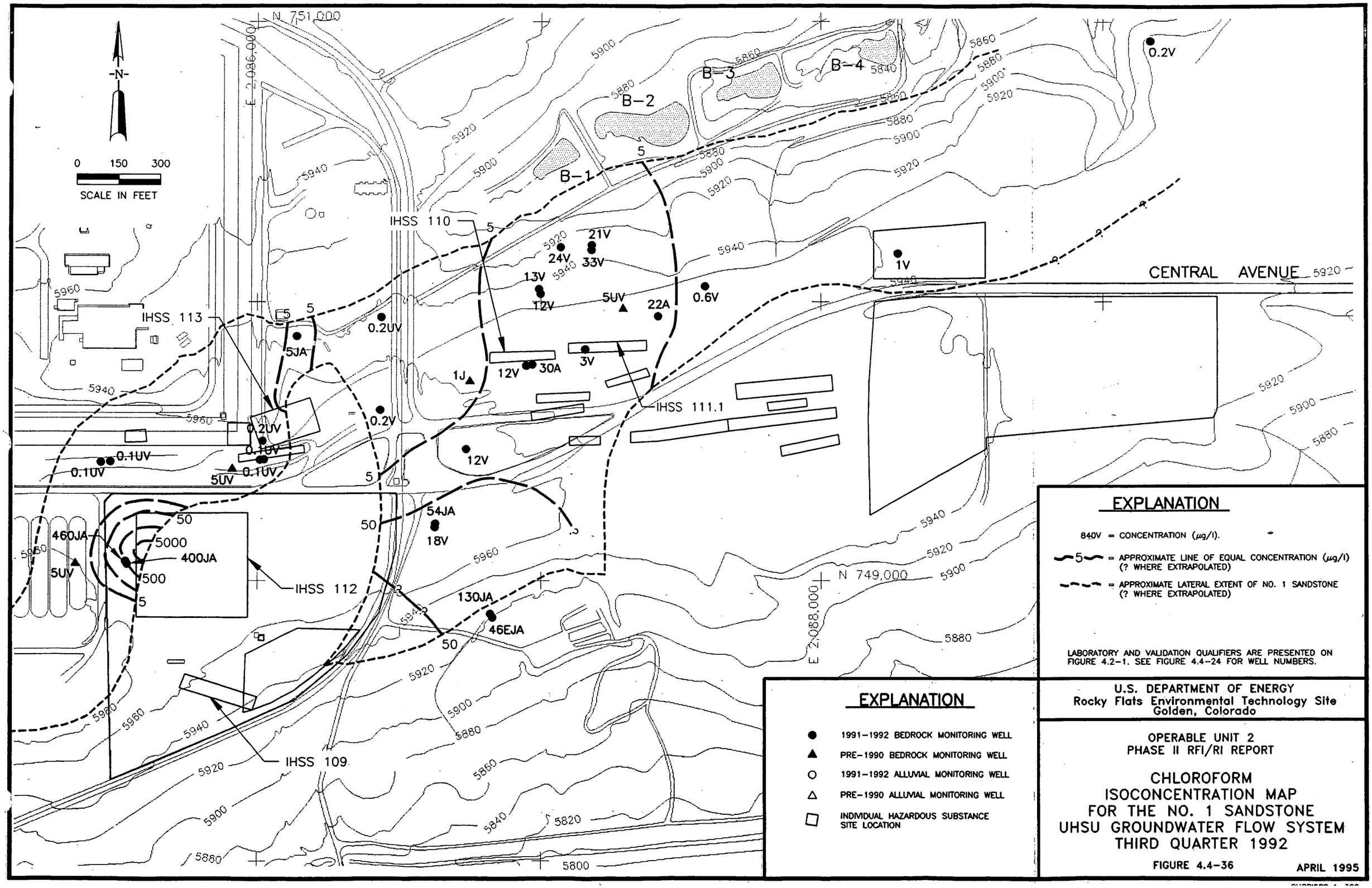
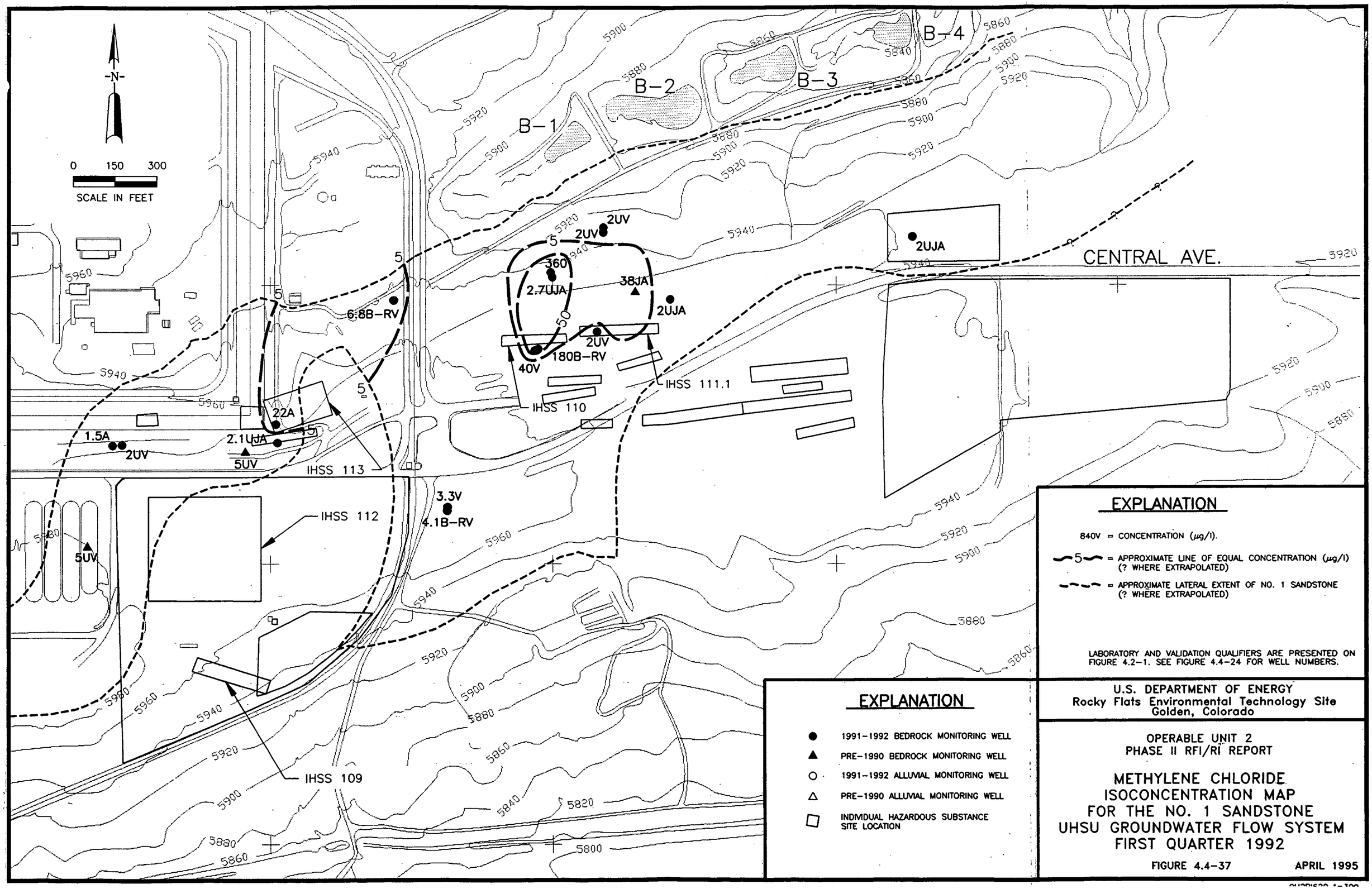
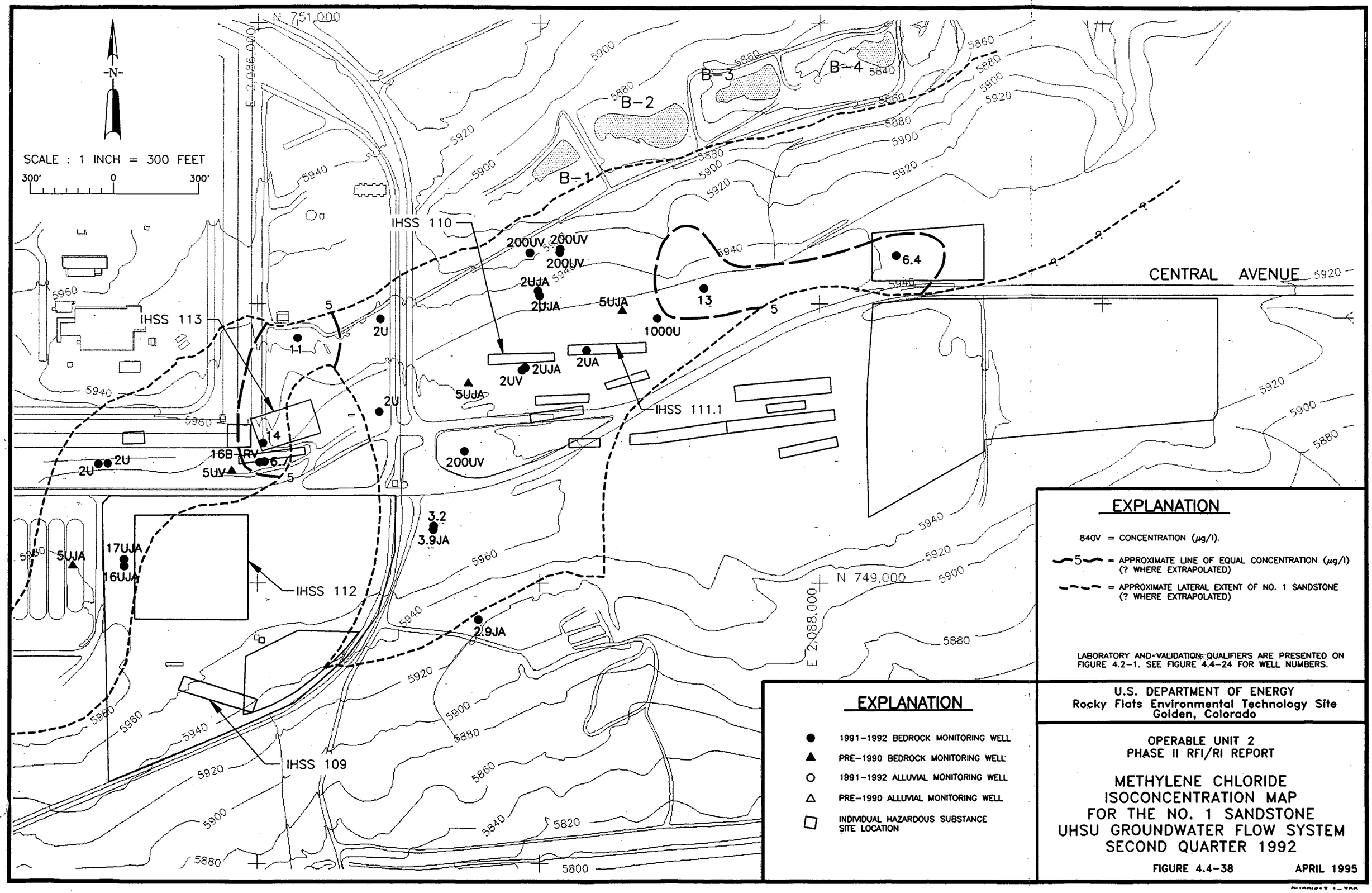
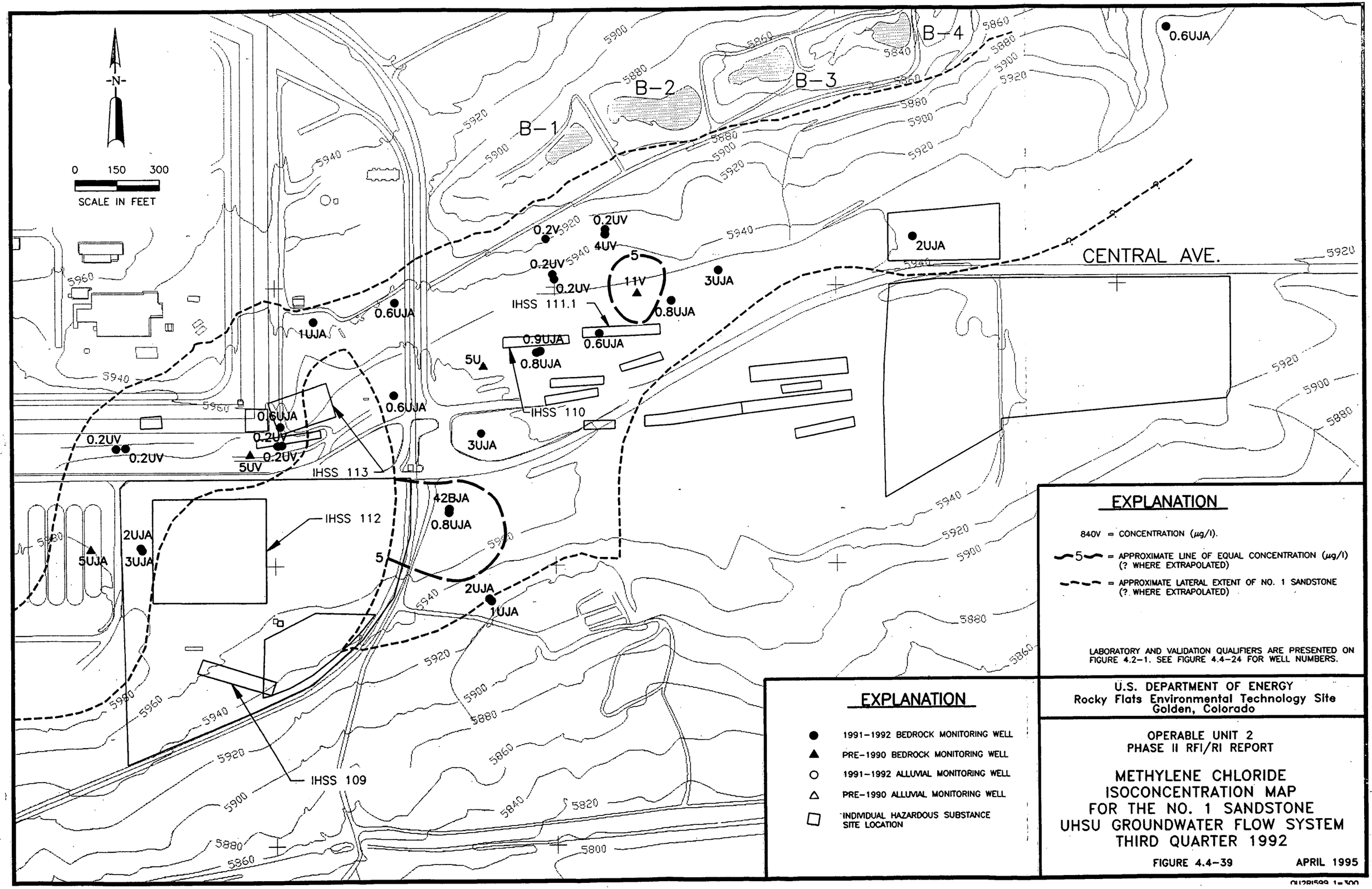
CHLOROFORM
ISOCONCENTRATION MAP
FOR THE NO. 1 SANDSTONE
UHSU GROUNDWATER FLOW SYSTEM
SECOND QUARTER 1992

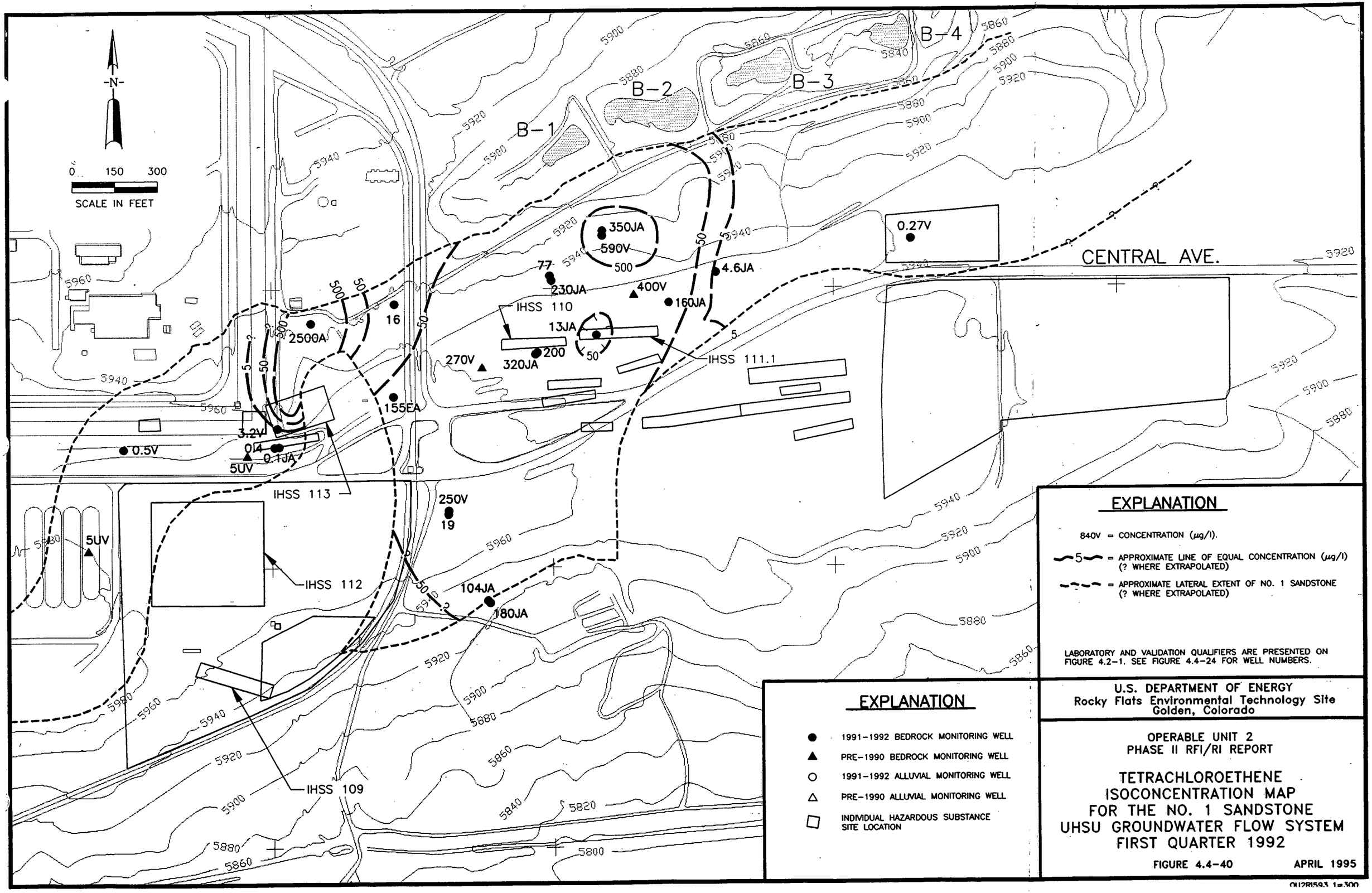
FIGURE 4.4-35 APRIL 1995

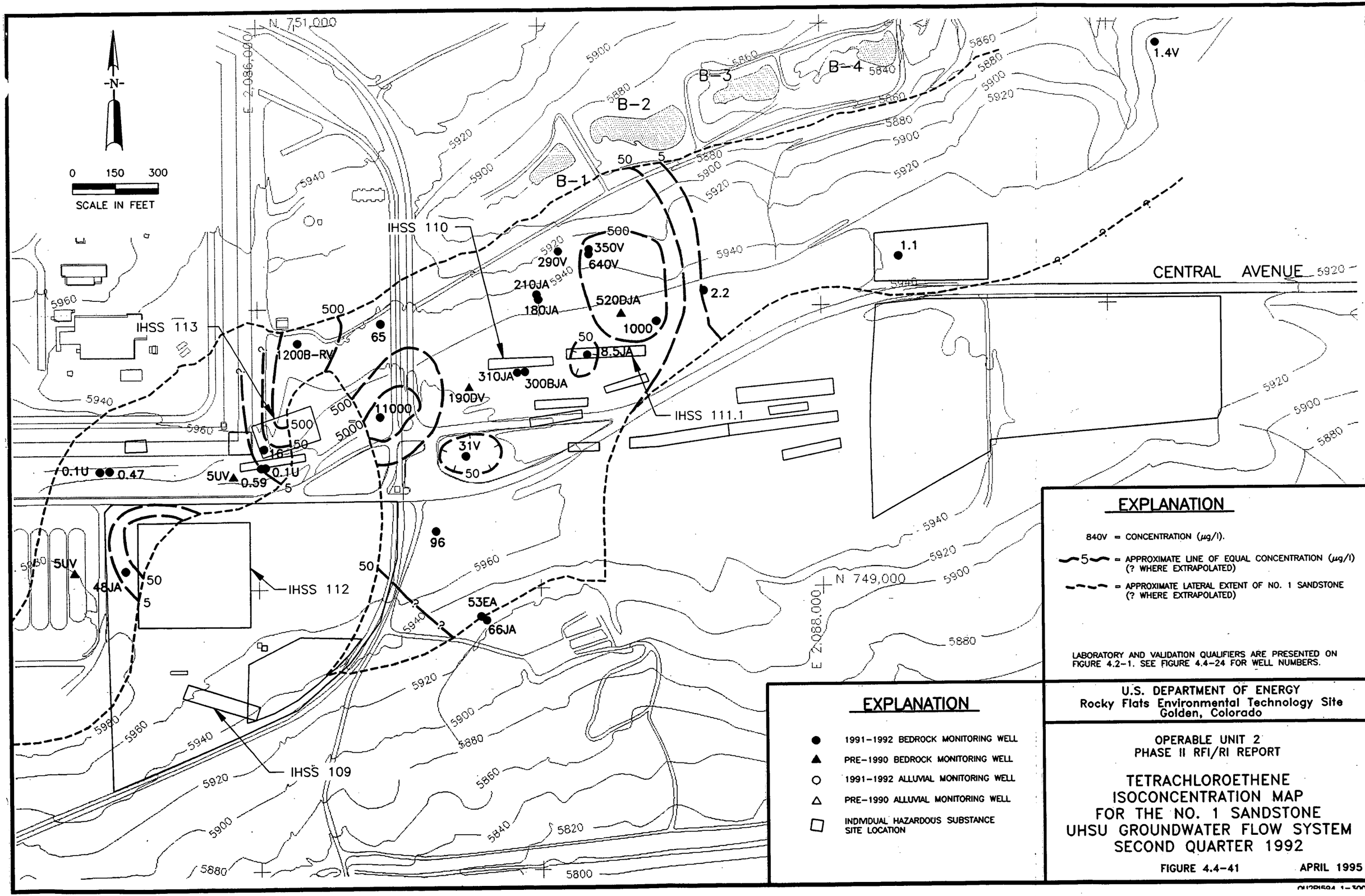

-N-
0 150 300
SCALE IN FEET
N 751,000
E 2,086,000
N 749,000
E 2,088,000
B-1
B-2
B-3
B-4
IHSS 110
IHSS 113
IHSS 111.1
IHSS 112
IHSS 109
CENTRAL AVENUE
0.2V
21V
24V
33V
13V
12V
5UV
22A
0.6V
1V
0.2UV
5JA
1J
12V
30A
3V
0.2V
0.2UV
0.1UV
0.1UV
0.1UV
0.1UV
5UV
12V
54JA
18V
460JA
5000
400JA
500
5UV
130JA
46EJA
5
50
EXPLANATION
840V = CONCENTRATION (µg/l).
5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)
= APPROXIMATE LATERAL EXTENT OF NO. 1 SANDSTONE (? WHERE EXTRAPOLATED)
LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-24 FOR WELL NUMBERS.
EXPLANATION
1991-1992 BEDROCK MONITORING WELL
PRE-1990 BEDROCK MONITORING WELL
1991-1992 ALLUVIAL MONITORING WELL
PRE-1990 ALLUVIAL MONITORING WELL
INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT 2
PHASE II RFI/RI REPORT
CHLOROFORM
ISOCONCENTRATION MAP
FOR THE NO. 1 SANDSTONE
UHSU GROUNDWATER FLOW SYSTEM
THIRD QUARTER 1992
FIGURE 4.4-36
APRIL 1995


-N-
0 150 300
SCALE IN FEET
B-1
B-2
B-3
B-4
CENTRAL AVE.
2UV
2UV
360
2.7UJA
38JA
2UJA
2UJA
6.8B-RV
2UV
180B-RV
40V
IHSS 110
IHSS 111.1
22A
1.5A
2UV
2.1UJA
5UV
IHSS 113
IHSS 112
3.3V
4.1B-RV
5UV
IHSS 109
EXPLANATION
840V = CONCENTRATION (µg/l).
5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)
= APPROXIMATE LATERAL EXTENT OF NO. 1 SANDSTONE (? WHERE EXTRAPOLATED)
LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-24 FOR WELL NUMBERS.
EXPLANATION
1991-1992 BEDROCK MONITORING WELL
PRE-1990 BEDROCK MONITORING WELL
1991-1992 ALLUVIAL MONITORING WELL
PRE-1990 ALLUVIAL MONITORING WELL
INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT 2
PHASE II RFI/RI REPORT
METHYLENE CHLORIDE
ISOCONCENTRATION MAP
FOR THE NO. 1 SANDSTONE
UHSU GROUNDWATER FLOW SYSTEM
FIRST QUARTER 1992
FIGURE 4.4-37
APRIL 1995


-N-
SCALE : 1 INCH = 300 FEET
300' 0 300'
N 751,000
E 2,086,000
N 749,000
E 2,088,000
B-1
B-2
B-3
B-4
IHSS 110
IHSS 113
IHSS 111.1
IHSS 112
IHSS 109
CENTRAL AVENUE
200UV
2UJA
5UJA
13
1000U
6.4
2UA
2UV
2U
11
14
16B-RV
6.7
5UV
17UJA
16UJA
3.2
3.9JA
2.9JA
EXPLANATION
840V = CONCENTRATION (µg/l).
5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)
= APPROXIMATE LATERAL EXTENT OF NO. 1 SANDSTONE (? WHERE EXTRAPOLATED)
LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-24 FOR WELL NUMBERS.
EXPLANATION
1991-1992 BEDROCK MONITORING WELL
PRE-1990 BEDROCK MONITORING WELL
1991-1992 ALLUVIAL MONITORING WELL
PRE-1990 ALLUVIAL MONITORING WELL
INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT 2
PHASE II RFI/RI REPORT
METHYLENE CHLORIDE
ISOCONCENTRATION MAP
FOR THE NO. 1 SANDSTONE
UHSU GROUNDWATER FLOW SYSTEM
SECOND QUARTER 1992
FIGURE 4.4-38
APRIL 1995


-N-
0 150 300
SCALE IN FEET
B-1
B-2
B-3
B-4
CENTRAL AVE.
IHSS 109
IHSS 110
IHSS 111.1
IHSS 112
IHSS 113
0.6UJA
2UJA
3UJA
1UJA
0.2V
0.2UV
4UV
11V
0.8UJA
0.9UJA
5U
5UV
42BJA
5UJA
EXPLANATION
840V = CONCENTRATION (µg/l).
5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)
= APPROXIMATE LATERAL EXTENT OF NO. 1 SANDSTONE (? WHERE EXTRAPOLATED)
LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-24 FOR WELL NUMBERS.
EXPLANATION
1991-1992 BEDROCK MONITORING WELL
PRE-1990 BEDROCK MONITORING WELL
1991-1992 ALLUVIAL MONITORING WELL
PRE-1990 ALLUVIAL MONITORING WELL
INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT 2
PHASE II RFI/RI REPORT
METHYLENE CHLORIDE
ISOCONCENTRATION MAP
FOR THE NO. 1 SANDSTONE
UHSU GROUNDWATER FLOW SYSTEM
THIRD QUARTER 1992
FIGURE 4.4-39
APRIL 1995


-N-
0 150 300
SCALE IN FEET
B-1
B-2
B-3
B-4
CENTRAL AVE.
350JA
590V
500
77
230JA
400V
4.6JA
160JA
IHSS 110
13JA
200
320JA
270V
IHSS 111.1
0.27V
16
2500A
155EA
3.2V
014
0.1JA
5UV
0.5V
IHSS 113
250V
19
5UV
IHSS 112
104JA
180JA
IHSS 109
EXPLANATION
840V = CONCENTRATION (µg/l).
5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)
= APPROXIMATE LATERAL EXTENT OF NO. 1 SANDSTONE (? WHERE EXTRAPOLATED)
LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-24 FOR WELL NUMBERS.
EXPLANATION
1991-1992 BEDROCK MONITORING WELL
PRE-1990 BEDROCK MONITORING WELL
1991-1992 ALLUVIAL MONITORING WELL
PRE-1990 ALLUVIAL MONITORING WELL
INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT 2
PHASE II RFI/RI REPORT
TETRACHLOROETHENE
ISOCONCENTRATION MAP
FOR THE NO. 1 SANDSTONE
UHSU GROUNDWATER FLOW SYSTEM
FIRST QUARTER 1992
FIGURE 4.4-40
APRIL 1995



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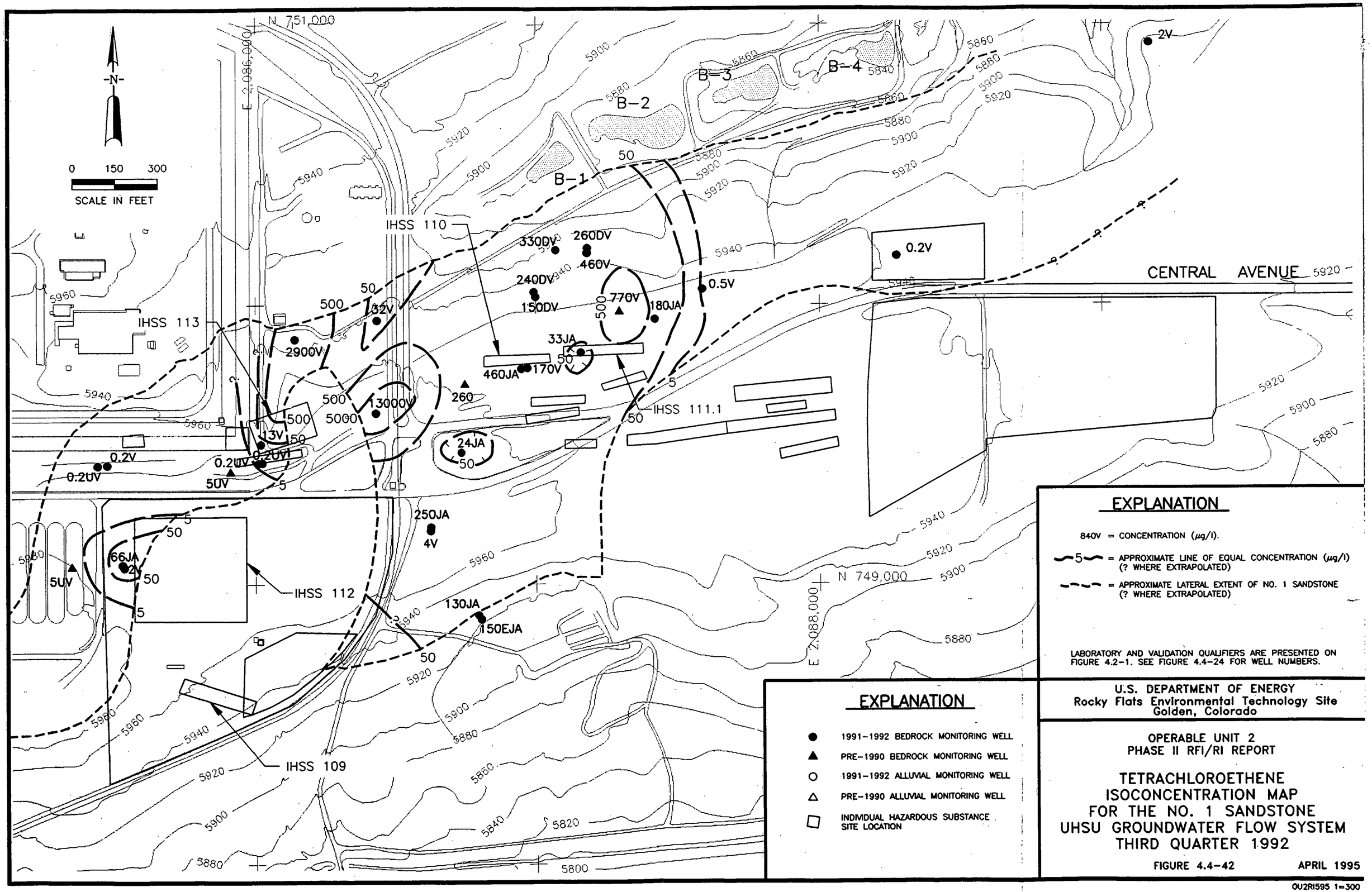
TETRACHLOROETHENE ISOCONCENTRATION MAP FOR THE NO. 1 SANDSTONE UHSU GROUNDWATER FLOW SYSTEM SECOND QUARTER 1992

FIGURE 4.4-41 APRIL 1995



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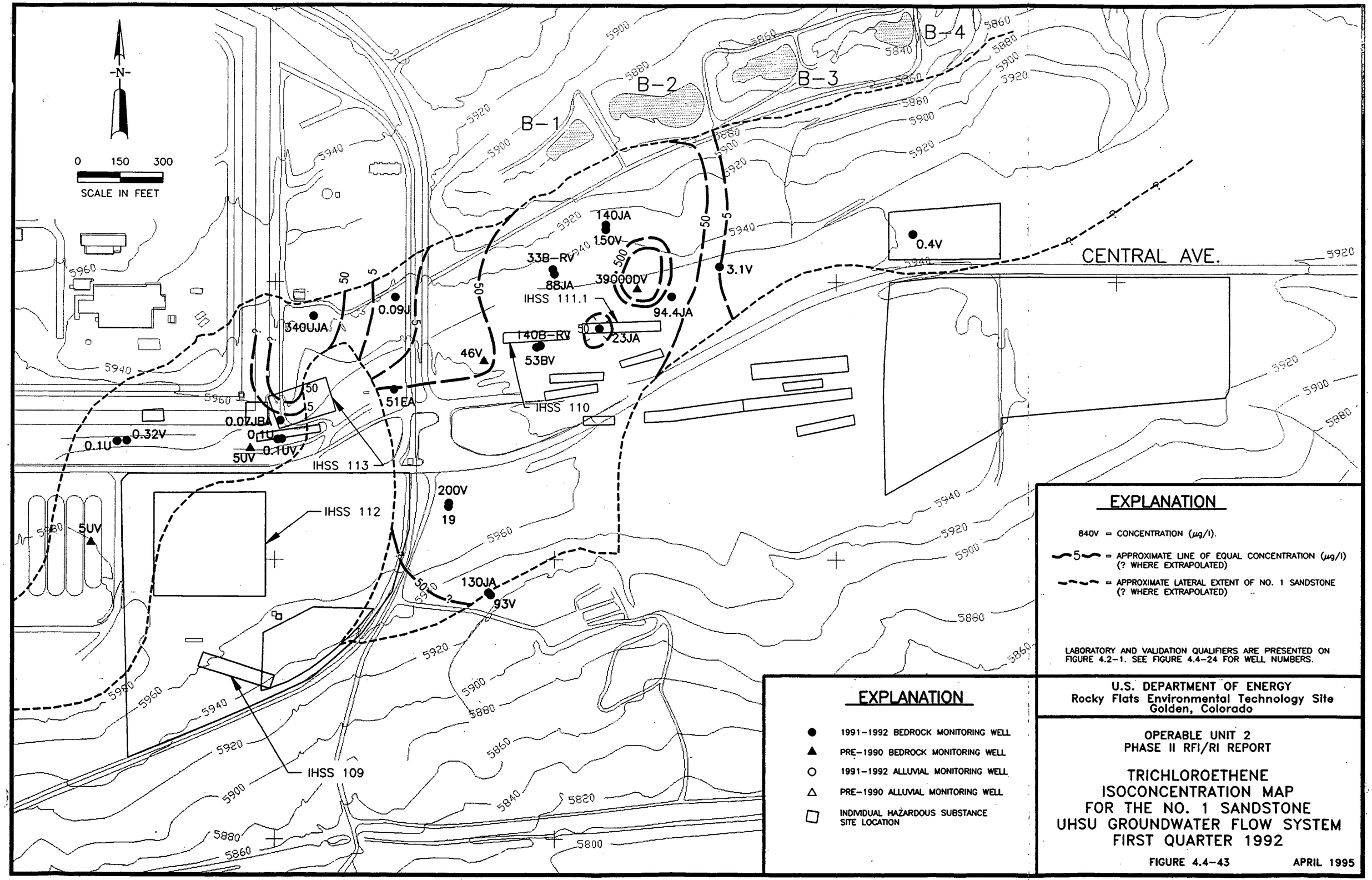
TETRACHLOROETHENE
ISOCONCENTRATION MAP
FOR THE NO. 1 SANDSTONE
UHSU GROUNDWATER FLOW SYSTEM
THIRD QUARTER 1992

FIGURE 4.4-42 APRIL 1995

OU2RI595 1=300



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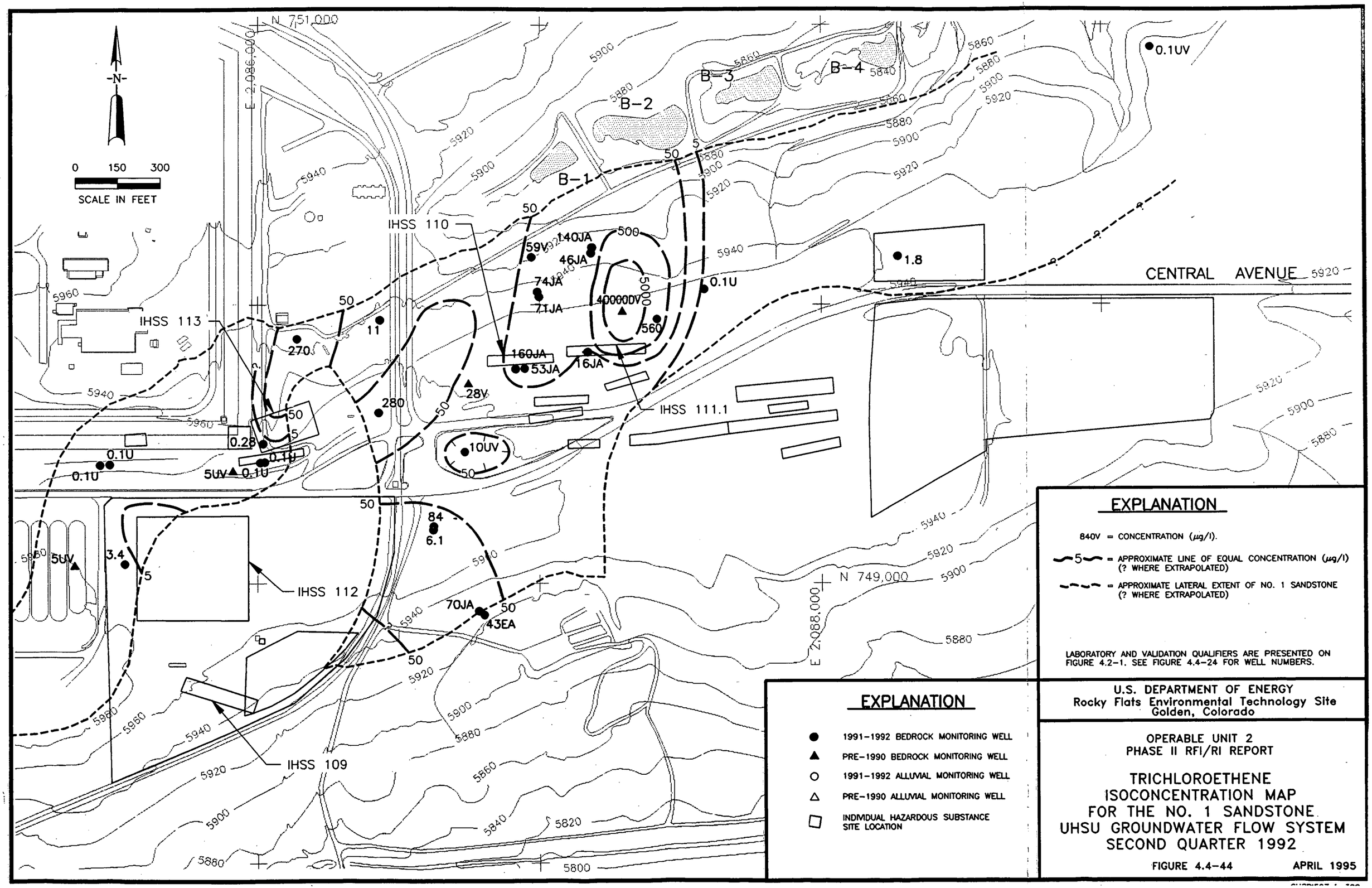
PHASE II RFI/RI REPORT

TRICHLOROETHENE
ISOCONCENTRATION MAP
FOR THE NO. 1 SANDSTONE
UHSU GROUNDWATER FLOW SYSTEM
FIRST QUARTER 1992

FIGURE 4.4-43 APRIL 1995



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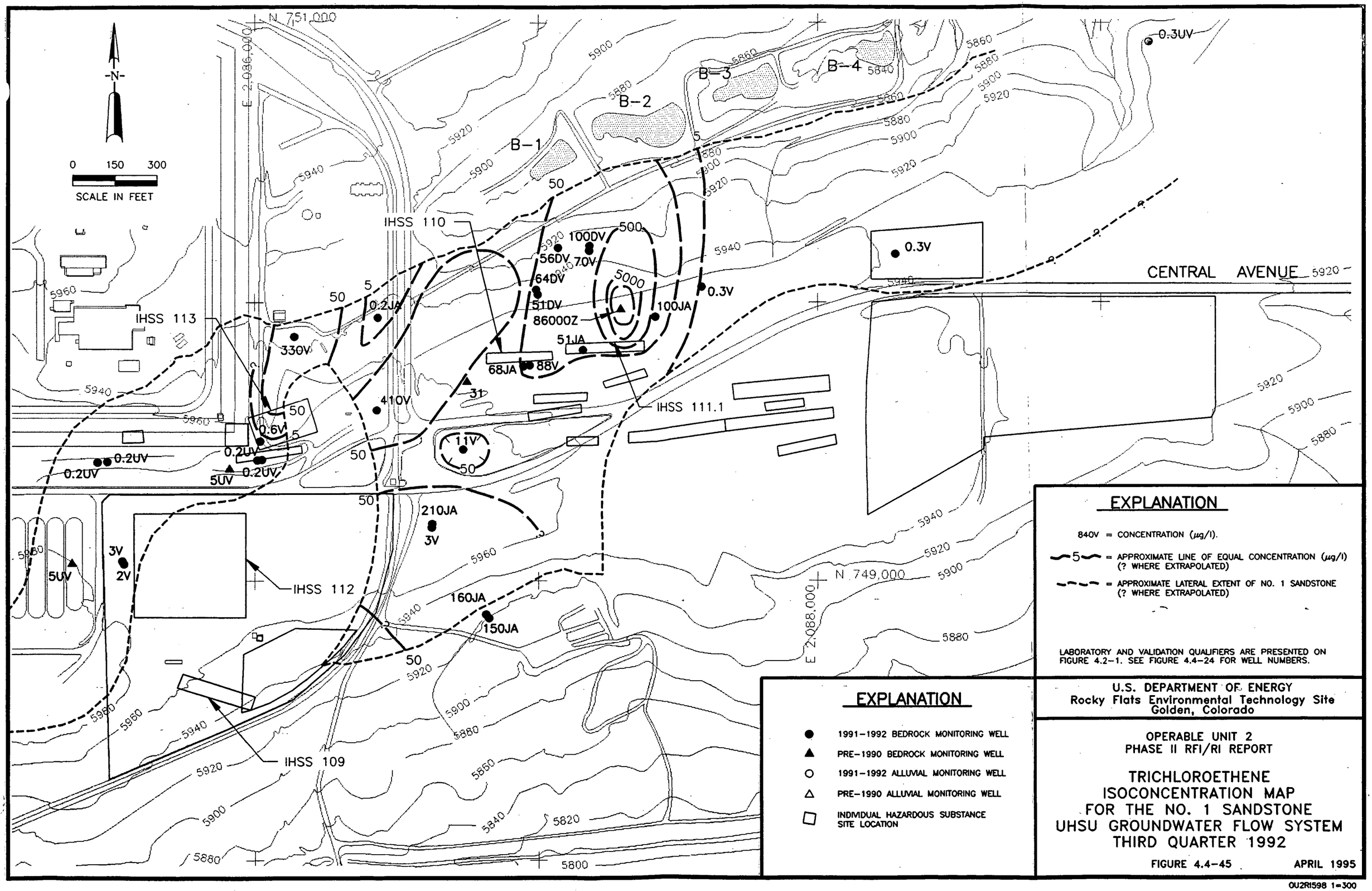
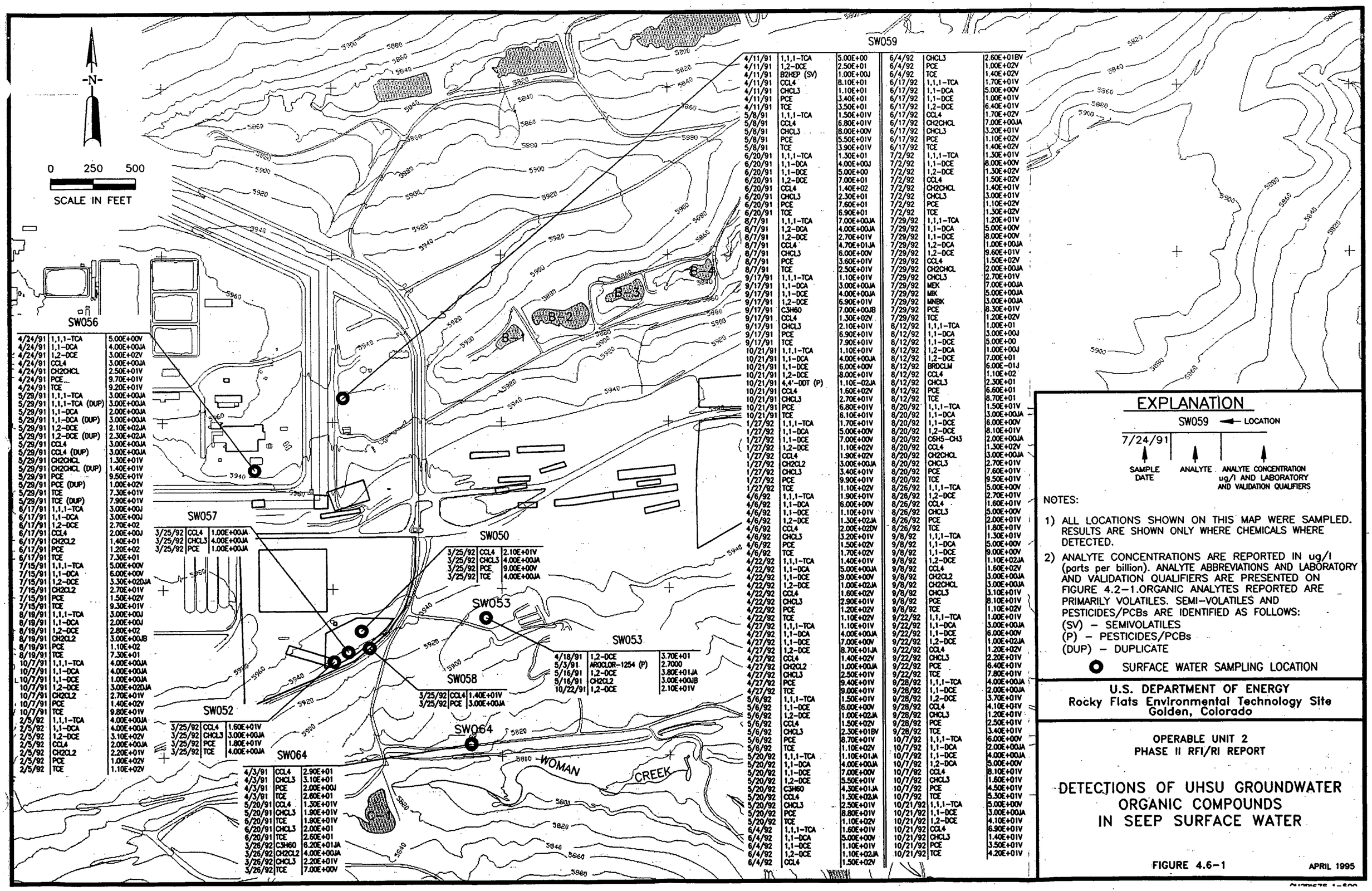
Rocky Flats Environmental Technology Site
Golden, Colorado

OPERABLE UNIT 2
PHASE II RFI/RI REPORT

TRICHLOROETHENE
ISOCONCENTRATION MAP
FOR THE NO. 1 SANDSTONE
UHSU GROUNDWATER FLOW SYSTEM
SECOND QUARTER 1992

FIGURE 4.4-44 APRIL 1995


-N-
0 150 300
SCALE IN FEET
N 751,000
E 2,086,000
N 749,000
E 2,088,000
B-1
B-2
B-3
B-4
IHSS 110
IHSS 113
IHSS 111.1
IHSS 112
IHSS 109
CENTRAL AVENUE
0.3UV
0.3V
100DV
56DV
70V
64DV
51DV
86000Z
51JA
100JA
68JA
88V
330V
0.2JA
410V
0.6V
0.2UV
5UV
11V
210JA
3V
2V
160JA
150JA
EXPLANATION
840V = CONCENTRATION (µg/l).
5 = APPROXIMATE LINE OF EQUAL CONCENTRATION (µg/l) (? WHERE EXTRAPOLATED)
= APPROXIMATE LATERAL EXTENT OF NO. 1 SANDSTONE (? WHERE EXTRAPOLATED)
LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1. SEE FIGURE 4.4-24 FOR WELL NUMBERS.
EXPLANATION
1991-1992 BEDROCK MONITORING WELL
PRE-1990 BEDROCK MONITORING WELL
1991-1992 ALLUVIAL MONITORING WELL
PRE-1990 ALLUVIAL MONITORING WELL
INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT 2
PHASE II RFI/RI REPORT
TRICHLOROETHENE
ISOCONCENTRATION MAP
FOR THE NO. 1 SANDSTONE
UHSU GROUNDWATER FLOW SYSTEM
THIRD QUARTER 1992
FIGURE 4.4-45
APRIL 1995
OU2RI598 1=300



4/24/91	1,1,1-TCA	5.00E+00V
4/24/91	1,1-DCA	4.00E+00JA
4/24/91	1,2-DCE	3.00E+02V
4/24/91	CCL4	3.00E+00JA
4/24/91	CH2CHCL	2.50E+01V
4/24/91	PCE...	9.70E+01V
4/24/91	TCE	9.20E+01V
5/29/91	1,1,1-TCA	3.00E+00JA
5/29/91	1,1,1-TCA (DUP)	3.00E+00JA
5/29/91	1,1-DCA	2.00E+00JA
5/29/91	1,1-DCA (DUP)	3.00E+00JA
5/29/91	1,2-DCE	2.10E+02JA
5/29/91	1,2-DCE (DUP)	2.30E+02JA
5/29/91	CCL4	3.00E+00JA
5/29/91	CCL4 (DUP)	3.00E+00JA
5/29/91	CH2CHCL	1.30E+01V
5/29/91	CH2CHCL (DUP)	1.40E+01V
5/29/91	PCE	9.50E+01V
5/29/91	PCE (DUP)	1.00E+02V
5/29/91	TCE	7.30E+01V
5/29/91	TCE (DUP)	7.90E+01V
6/17/91	1,1,1-TCA	3.00E+00J
6/17/91	1,1-DCA	3.00E+00J
6/17/91	1,2-DCE	2.70E+02
6/17/91	CCL4	2.00E+00J
6/17/91	CH2CL2	1.40E+01
6/17/91	PCE	1.20E+02
6/17/91	TCE	7.30E+01
7/15/91	1,1,1-TCA	5.00E+00V
7/15/91	1,1-DCA	6.00E+00V
7/15/91	1,2-DCE	3.30E+02DJA
7/15/91	CH2CL2	2.70E+01V
7/15/91	PCE	1.50E+02V
7/15/91	TCE	9.30E+01V
8/19/91	1,1,1-TCA	3.00E+00J
8/19/91	1,1-DCA	2.00E+00J
8/19/91	1,2-DCE	2.80E+02
8/19/91	CH2CL2	3.00E+00JB
8/19/91	PCE	1.10E+02
8/19/91	TCE	7.30E+01
10/7/91	1,1,1-TCA	4.00E+00JA
10/7/91	1,1-DCA	4.00E+00JA
10/7/91	1,1-DCE	1.00E+00JA
10/7/91	1,2-DCE	3.00E+02DJA
10/7/91	CH2CL2	2.70E+01V
10/7/91	PCE	1.40E+02V
10/7/91	TCE	9.80E+01V
2/5/92	1,1,1-TCA	4.00E+00JA
2/5/92	1,1-DCA	4.00E+00JA
2/5/92	1,2-DCE	3.10E+02V
2/5/92	CCL4	2.00E+00JA
2/5/92	CH2CL2	2.20E+01V
2/5/92	PCE	1.00E+02V
2/5/92	TCE	1.10E+02V

3/25/92	CCL4	1.00E+00JA
3/25/92	CHCL3	4.00E+00JA
3/25/92	PCE	1.00E+00JA

3/25/92	CCL4	2.10E+01V
3/25/92	CHCL3	4.00E+00JA
3/25/92	PCE	9.00E+00V
3/25/92	TCE	4.00E+00JA

4/18/91	1,2-DCE	3.70E+01
5/3/91	AROCLOR-1254 (P)	2.7000
5/16/91	1,2-DCE	3.80E+01JA
5/16/91	CH2CL2	3.00E+00JB
10/22/91	1,2-DCE	2.10E+01V

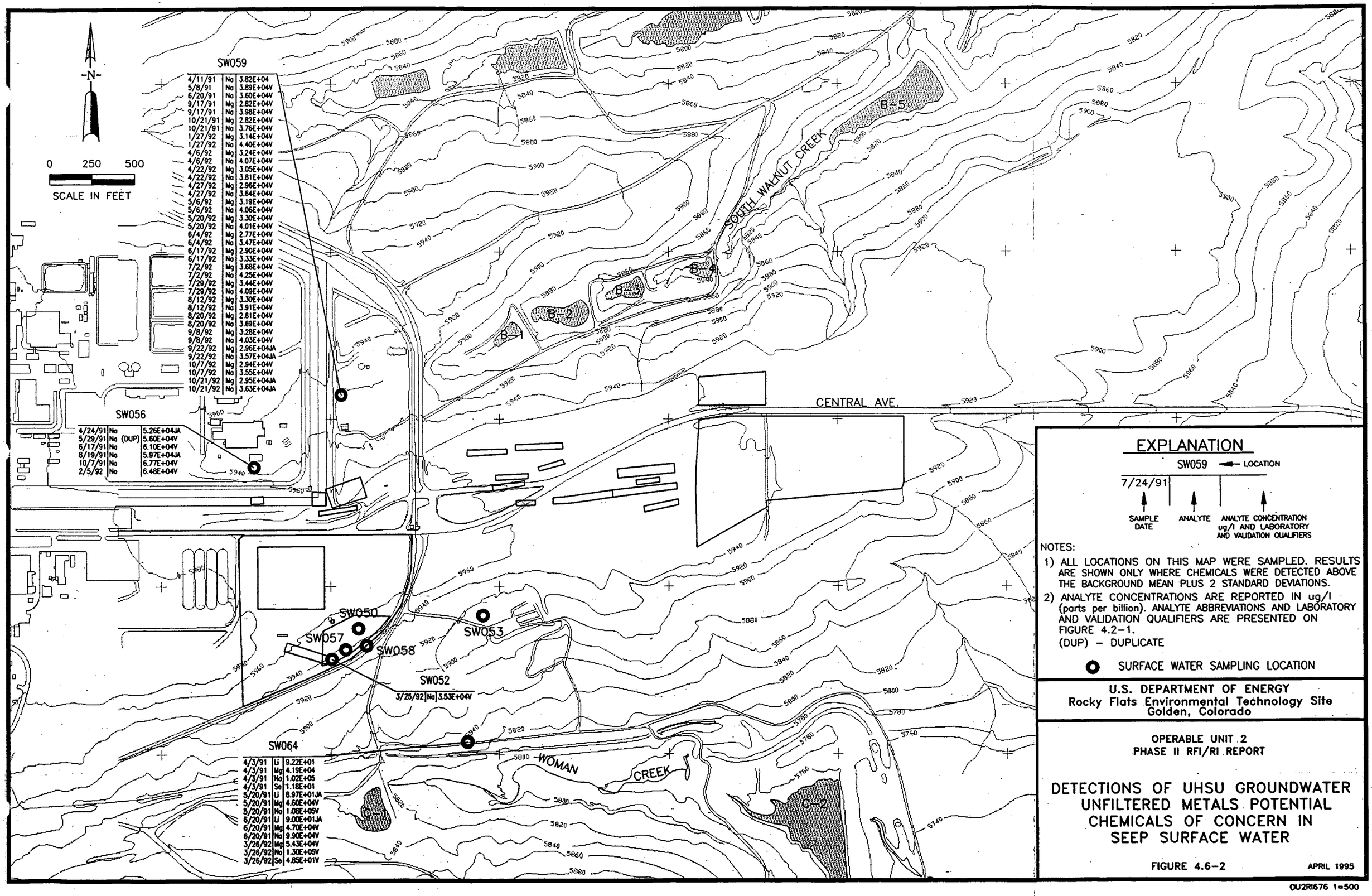
3/25/92	CCL4	1.40E+01V
3/25/92	PCE	3.00E+00JA

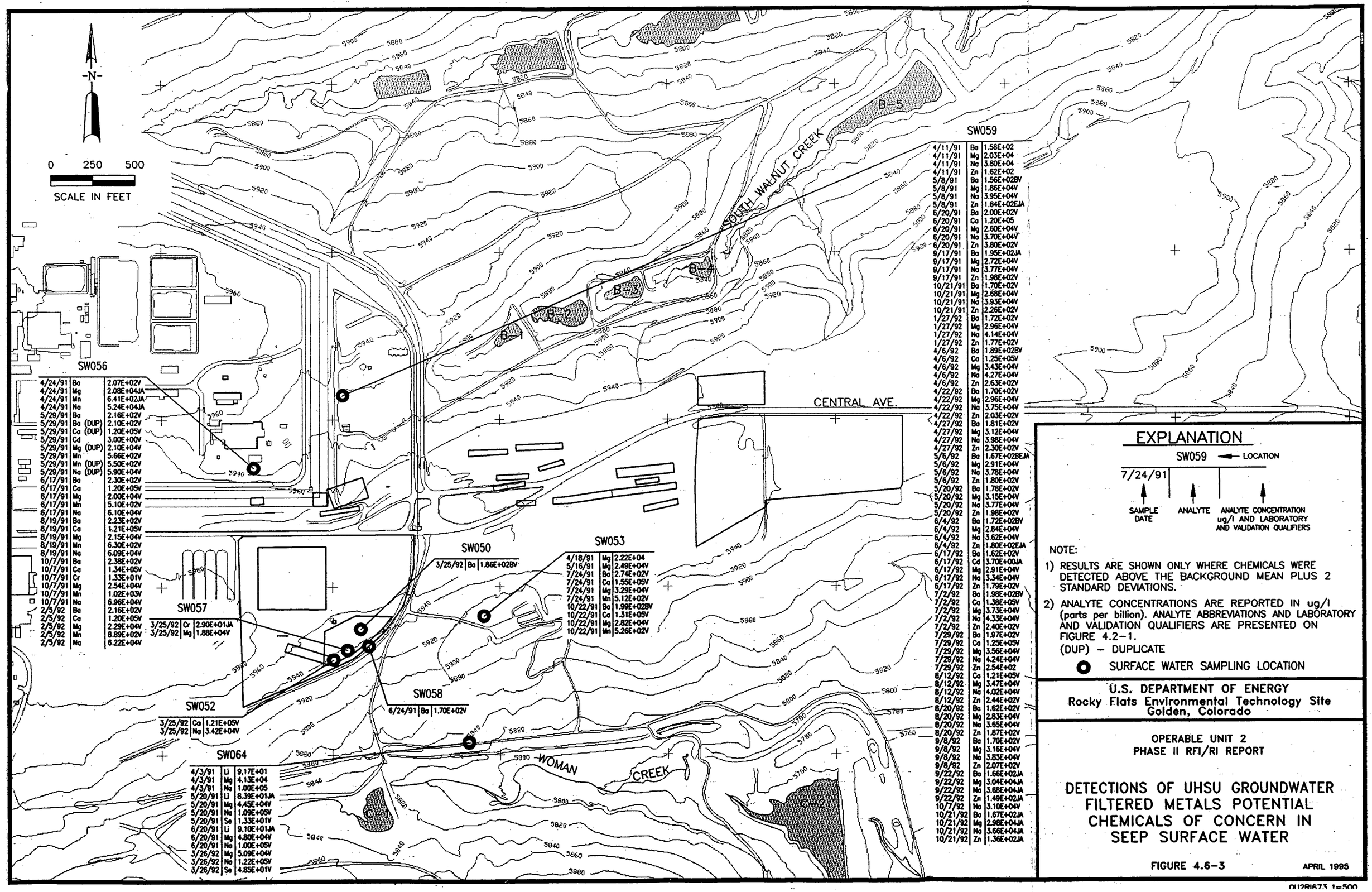
3/25/92	CCL4	1.60E+01V
3/25/92	CHCL3	3.00E+00JA
3/25/92	PCE	1.80E+01V
3/25/92	TCE	4.00E+00JA

4/3/91	CCL4	2.90E+01
4/3/91	CHCL3	3.10E+01
4/3/91	PCE	2.00E+00J
4/3/91	TCE	2.60E+01
5/20/91	CCL4	1.30E+01V
5/20/91	CHCL3	1.90E+01V
6/20/91	TCE	1.90E+01V
6/20/91	CHCL3	2.00E+01
6/20/91	TCE	2.60E+01
3/26/92	C3H6O	6.20E+01JA
3/26/92	CH2CL2	4.00E+00JA
3/26/92	CHCL3	2.20E+01V
3/26/92	TCE	7.00E+00V

SW059

4/11/91	1,1,1-TCA	5.00E+00	6/4/92	CHCL3	2.60E+01BV
4/11/91	1,2-DCE	2.50E+01	6/4/92	PCE	1.00E+02V
4/11/91	B2HEP (SV)	1.00E+00J	6/4/92	TCE	1.40E+02V
4/11/91	CCL4	8.10E+01	6/17/92	1,1,1-TCA	1.70E+01V
4/11/91	CHCL3	1.10E+01	6/17/92	1,1-DCA	5.00E+00V
4/11/91	PCE	3.40E+01	6/17/92	1,1-DCE	1.00E+01V
4/11/91	TCE	3.50E+01	6/17/92	1,2-DCE	6.40E+01V
5/8/91	1,1,1-TCA	1.50E+01V	6/17/92	CCL4	1.70E+02V
5/8/91	CCL4	6.80E+01V	6/17/92	CH2CHCL	7.00E+00JA
5/8/91	CHCL3	8.00E+00V	6/17/92	CHCL3	3.20E+01V
5/8/91	PCE	5.50E+01V	6/17/92	PCE	1.10E+02V
5/8/91	TCE	3.90E+01V	6/17/92	TCE	1.40E+02V
6/20/91	1,1,1-TCA	1.30E+01	7/2/92	1,1,1-TCA	1.30E+01V
6/20/91	1,1-DCA	4.00E+00J	7/2/92	1,1-DCE	8.00E+00V
6/20/91	1,1-DCE	5.00E+00	7/2/92	1,2-DCE	1.30E+02V
6/20/91	1,2-DCE	7.00E+01	7/2/92	CCL4	1.50E+02V
6/20/91	CCL4	1.40E+02	7/2/92	CH2CHCL	1.40E+01V
6/20/91	CHCL3	2.30E+01	7/2/92	CHCL3	3.00E+01V
6/20/91	PCE	7.60E+01	7/2/92	PCE	1.10E+02V
6/20/91	TCE	6.90E+01	7/2/92	TCE	1.30E+02V
8/7/91	1,1,1-TCA	7.00E+00JA	7/29/92	1,1,1-TCA	1.20E+01V
8/7/91	1,2-DCA	4.00E+00JA	7/29/92	1,1-DCA	5.00E+00V
8/7/91	1,2-DCE	2.70E+01V	7/29/92	1,1-DCE	8.00E+00V
8/7/91	CCL4	4.70E+01JA	7/29/92	1,2-DCA	1.00E+00JA
8/7/91	CHCL3	6.00E+00V	7/29/92	1,2-DCE	9.60E+01V
8/7/91	PCE	3.60E+01V	7/29/92	CCL4	1.50E+02V
8/7/91	TCE	2.50E+01V	7/29/92	CH2CHCL	2.00E+00JA
9/17/91	1,1,1-TCA	1.10E+01V	7/29/92	CHCL3	2.70E+01V
9/17/91	1,1-DCA	3.00E+00JA	7/29/92	MEK	7.00E+00JA
9/17/91	1,1-DCE	4.00E+00JA	7/29/92	MIK	5.00E+00JA
9/17/91	1,2-DCE	6.90E+01V	7/29/92	MNBK	3.00E+00JA
9/17/91	C3H6O	7.00E+00JB	7/29/92	PCE	8.30E+01V
9/17/91	CCL4	1.30E+02V	7/29/92	TCE	1.20E+02V
9/17/91	CHCL3	2.10E+01V	8/12/92	1,1,1-TCA	1.00E+01
9/17/91	PCE	6.90E+01V	8/12/92	1,1-DCA	3.00E+00J
9/17/91	TCE	7.90E+01V	8/12/92	1,1-DCE	5.00E+00
10/21/91	1,1,1-TCA	1.10E+01V	8/12/92	1,2-DCA	1.00E+00J
10/21/91	1,1-DCA	4.00E+00JA	8/12/92	1,2-DCE	7.00E+01
10/21/91	1,1-DCE	6.00E+00V	8/12/92	BRDCLM	6.00E-01J
10/21/91	1,2-DCE	8.00E+01V	8/12/92	CCL4	1.10E+02
10/21/91	4,4'-DDT (P)	1.10E-02JA	8/12/92	CHCL3	2.30E+01
10/21/91	CCL4	1.60E+02V	8/12/92	PCE	6.60E+01
10/21/91	CHCL3	2.70E+01V	8/12/92	TCE	8.70E+01
10/21/91	PCE	6.80E+01V	8/20/92	1,1,1-TCA	1.50E+01V
10/21/91	TCE	6.10E+01V	8/20/92	1,1-DCA	3.00E+00JA
1/27/92	1,1,1-TCA	1.70E+01V	8/20/92	1,1-DCE	6.00E+00V
1/27/92	1,1-DCA	5.00E+00V	8/20/92	1,2-DCE	8.10E+01V
1/27/92	1,1-DCE	7.00E+00V	8/20/92	C6H5-CH3	2.00E+00JA
1/27/92	1,2-DCE	1.10E+02V	8/20/92	CCL4	1.30E+02V
1/27/92	CCL4	1.90E+02V	8/20/92	CH2CHCL	3.00E+00JA
1/27/92	CH2CL2	3.00E+00JA	8/20/92	CHCL3	2.70E+01V
1/27/92	CHCL3	3.40E+01V	8/20/92	PCE	7.60E+01V
1/27/92	PCE	9.90E+01V	8/20/92	TCE	9.50E+01V
1/27/92	TCE	1.10E+02V	8/26/92	1,1,1-TCA	5.00E+00V
4/6/92	1,1,1-TCA	1.90E+01V	8/26/92	1,2-DCE	2.70E+01V
4/6/92	1,1-DCA	6.00E+00V	8/26/92	CCL4	1.60E+01V
4/6/92	1,1-DCE	1.10E+01V	8/26/92	CHCL3	5.00E+00V
4/6/92	1,2-DCE	1.30E+02JA	8/26/92	PCE	2.00E+01V
4/6/92	CCL4	2.00E+02DV	8/26/92	TCE	1.80E+01V
4/6/92	CHCL3	3.20E+01V	9/8/92	1,1,1-TCA	1.30E+01V
4/6/92	PCE	1.50E+02V	9/8/92	1,1-DCA	5.00E+00V
4/6/92	TCE	1.70E+02V	9/8/92	1,1-DCE	9.00E+00V
4/22/92	1,1,1-TCA	1.40E+01V	9/8/92	1,2-DCE	1.10E+02JA
4/22/92	1,1-DCA	5.00E+00JA	9/8/92	CCL4	1.60E+02V
4/22/92	1,1-DCE	9.00E+00V	9/8/92	CH2CL2	3.00E+00JA
4/22/92	1,2-DCE	1.00E+02JA	9/8/92	CH2CHCL	3.00E+00JA
4/22/92	CCL4	1.60E+02V	9/8/92	CHCL3	3.10E+01V
4/22/92	CHCL3	2.90E+01V	9/8/92	PCE	8.10E+01V
4/22/92	PCE	1.20E+02V	9/8/92	TCE	1.10E+02V
4/22/92	TCE	1.10E+02V	9/22/92	1,1,1-TCA	1.00E+01V
4/27/92	1,1,1-TCA	1.10E+01V	9/22/92	1,1-DCA	3.00E+00JA
4/27/92	1,1-DCA	4.00E+00JA	9/22/92	1,1-DCE	6.00E+00V
4/27/92	1,1-DCE	7.00E+00V	9/22/92	1,2-DCE	1.00E+02JA
4/27/92	1,2-DCE	8.70E+01JA	9/22/92	CCL4	1.20E+02V
4/27/92	CCL4	1.40E+02V	9/22/92	CHCL3	2.20E+01V
4/27/92	CH2CL2	1.00E+00JA	9/22/92	PCE	6.40E+01V
4/27/92	CHCL3	2.50E+01V	9/22/92	TCE	7.80E+01V
4/27/92	PCE	9.40E+01V	9/28/92	1,1,1-TCA	4.00E+00JA
4/27/92	TCE	9.00E+01V	9/28/92	1,1-DCE	2.00E+00JA
5/6/92	1,1,1-TCA	1.50E+01V	9/28/92	1,2-DCE	3.70E+01V
5/6/92	1,1-DCE	6.00E+00V	9/28/92	CCL4	4.10E+01V
5/6/92	1,2-DCE	1.00E+02JA	9/28/92	CHCL3	1.20E+01V
5/6/92	CCL4	1.50E+02V	9/28/92	PCE	2.50E+01V
5/6/92	CHCL3	2.30E+01BV	9/28/92	TCE	3.40E+01V
5/6/92	PCE	8.70E+01V	10/7/92	1,1,1-TCA	6.00E+00V
5/6/92	TCE	1.10E+02V	10/7/92	1,1-DCA	2.00E+00JA
5/20/92	1,1,1-TCA	1.10E+01JA	10/7/92	1,1-DCE	4.00E+00JA
5/20/92	1,1-DCA	4.00E+00JA	10/7/92	1,2-DCA	5.00E+00V
5/20/92	1,1-DCE	7.00E+00V	10/7/92	CCL4	8.10E+01V
5/20/92	1,2-DCE	5.50E+01V	10/7/92	CHCL3	1.60E+01V
5/20/92	C3H6O	4.30E+01JA	10/7/92	PCE	4.50E+01V
5/20/92	CCL4	1.30E+02JA	10/7/92	TCE	5.30E+01V
5/20/92	CHCL3	2.50E+01V	10/21/92	1,1,1-TCA	5.00E+00V
5/20/92	PCE	8.80E+01V	10/21/92	1,1-DCE	3.00E+00JA
5/20/92	TCE	1.10E+02V	10/21/92	1,2-DCE	4.10E+01V
6/4/92	1,1,1-TCA	1.60E+01V	10/21/92	CCL4	6.90E+01V
6/4/92	1,1-DCA	5.00E+00V	10/21/92	CHCL3	1.40E+01V
6/4/92	1,1-DCE	1.10E+01V	10/21/92	PCE	3.50E+01V
6/4/92	1,2-DCE	1.10E+02JA	10/21/92	TCE	4.20E+01V
6/4/92	CCL4	1.50E+02V			


-N-
0 250 500
SCALE IN FEET
SW059
4/11/91 Na 3.82E+04
5/8/91 Na 3.89E+04V
6/20/91 Na 3.60E+04V
9/17/91 Mg 2.82E+04V
9/17/91 Na 3.98E+04V
10/21/91 Mg 2.82E+04V
10/21/91 Na 3.76E+04V
1/27/92 Mg 3.14E+04V
1/27/92 Na 4.40E+04V
4/6/92 Mg 3.24E+04V
4/6/92 Na 4.07E+04V
4/22/92 Mg 3.05E+04V
4/22/92 Na 3.81E+04V
4/27/92 Mg 2.96E+04V
4/27/92 Na 3.64E+04V
5/6/92 Mg 3.19E+04V
5/6/92 Na 4.06E+04V
5/20/92 Mg 3.30E+04V
5/20/92 Na 4.01E+04V
6/4/92 Mg 2.77E+04V
6/4/92 Na 3.47E+04V
6/17/92 Mg 2.90E+04V
6/17/92 Na 3.33E+04V
7/2/92 Mg 3.68E+04V
7/2/92 Na 4.25E+04V
7/29/92 Mg 3.44E+04V
7/29/92 Na 4.09E+04V
8/12/92 Mg 3.30E+04V
8/12/92 Na 3.91E+04V
8/20/92 Mg 2.81E+04V
8/20/92 Na 3.69E+04V
9/8/92 Mg 3.28E+04V
9/8/92 Na 4.03E+04V
9/22/92 Mg 2.96E+04JA
9/22/92 Na 3.57E+04JA
10/7/92 Mg 2.94E+04V
10/7/92 Na 3.55E+04V
10/21/92 Mg 2.95E+04JA
10/21/92 Na 3.63E+04JA
SW056
4/24/91 Na 5.26E+04JA
5/29/91 Na (DUP) 5.60E+04V
6/17/91 Na 6.10E+04V
8/19/91 Na 5.97E+04JA
10/7/91 Na 6.77E+04V
2/5/92 Na 6.48E+04V
SOUTH WALNUT CREEK
B-1
B-2
B-3
B-4
B-5
CENTRAL AVE.
SW050
SW057
SW058
SW053
SW052
3/25/92 Na 3.53E+04V
SW064
4/3/91 Li 9.22E+01
4/3/91 Mg 4.19E+04
4/3/91 Na 1.02E+05
4/3/91 Se 1.18E+01
5/20/91 Li 8.97E+01JA
5/20/91 Mg 4.60E+04V
5/20/91 Na 1.08E+05V
6/20/91 Li 9.00E+01JA
6/20/91 Mg 4.70E+04V
6/20/91 Na 9.90E+04V
3/26/92 Mg 5.43E+04V
3/26/92 Na 1.30E+05V
3/26/92 Se 4.85E+01V
WOMAN CREEK
C-1
C-2
EXPLANATION
SW059 ← LOCATION
7/24/91
SAMPLE DATE
ANALYTE
ANALYTE CONCENTRATION ug/l AND LABORATORY AND VALIDATION QUALIFIERS
NOTES:
1) ALL LOCATIONS ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.
2) ANALYTE CONCENTRATIONS ARE REPORTED IN ug/l (parts per billion). ANALYTE ABBREVIATIONS AND LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1.
(DUP) - DUPLICATE
SURFACE WATER SAMPLING LOCATION
U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado
OPERABLE UNIT 2
PHASE II RFI/RI REPORT
DETECTIONS OF UHSU GROUNDWATER UNFILTERED METALS POTENTIAL CHEMICALS OF CONCERN IN SEEP SURFACE WATER
FIGURE 4.6-2
APRIL 1995
OU2RI676 1=500



EXPLANATION

SW059 ← LOCATION

7/24/91

SAMPLE DATE | ANALYTE | ANALYTE CONCENTRATION ug/l AND LABORATORY AND VALIDATION QUALIFIERS

NOTE:

1) RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.
2) ANALYTE CONCENTRATIONS ARE REPORTED IN ug/l (parts per billion). ANALYTE ABBREVIATIONS AND LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1.

(DUP) – DUPLICATE

SURFACE WATER SAMPLING LOCATION

U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado

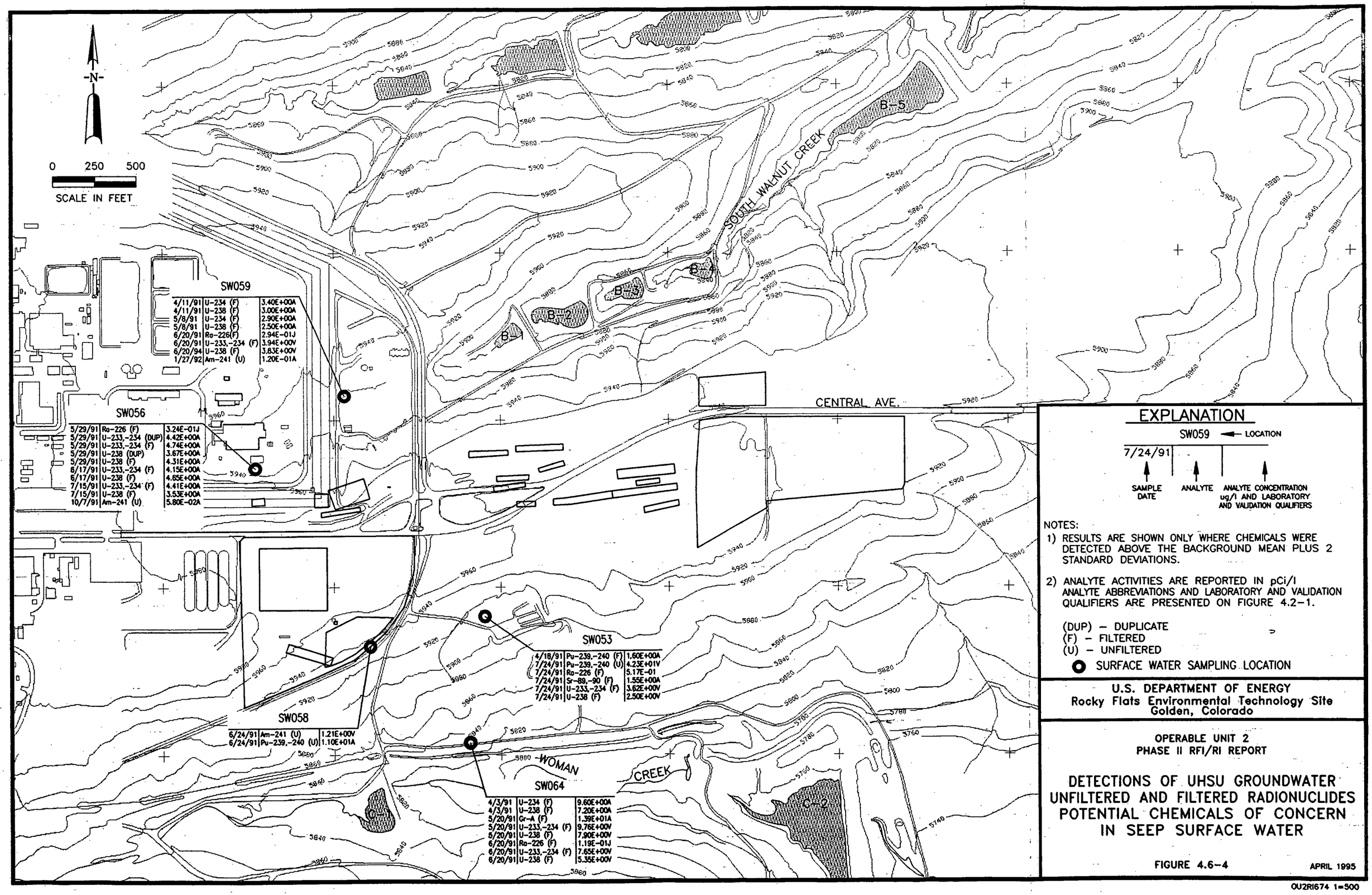
OPERABLE UNIT 2
PHASE II RFI/RI REPORT

DETECTIONS OF UHSU GROUNDWATER FILTERED METALS POTENTIAL CHEMICALS OF CONCERN IN SEEP SURFACE WATER

FIGURE 4.6-3

APRIL 1995

OU2R1673 1=500



EXPLANATION

SW059 ← LOCATION

7/24/91

SAMPLE DATE | ANALYTE | ANALYTE CONCENTRATION ug/l AND LABORATORY AND VALIDATION QUALIFIERS

NOTES:

1) RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

2) ANALYTE ACTIVITIES ARE REPORTED IN pCi/l ANALYTE ABBREVIATIONS AND LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1.

(DUP) – DUPLICATE
(F) – FILTERED
(U) – UNFILTERED
● SURFACE WATER SAMPLING LOCATION

U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado

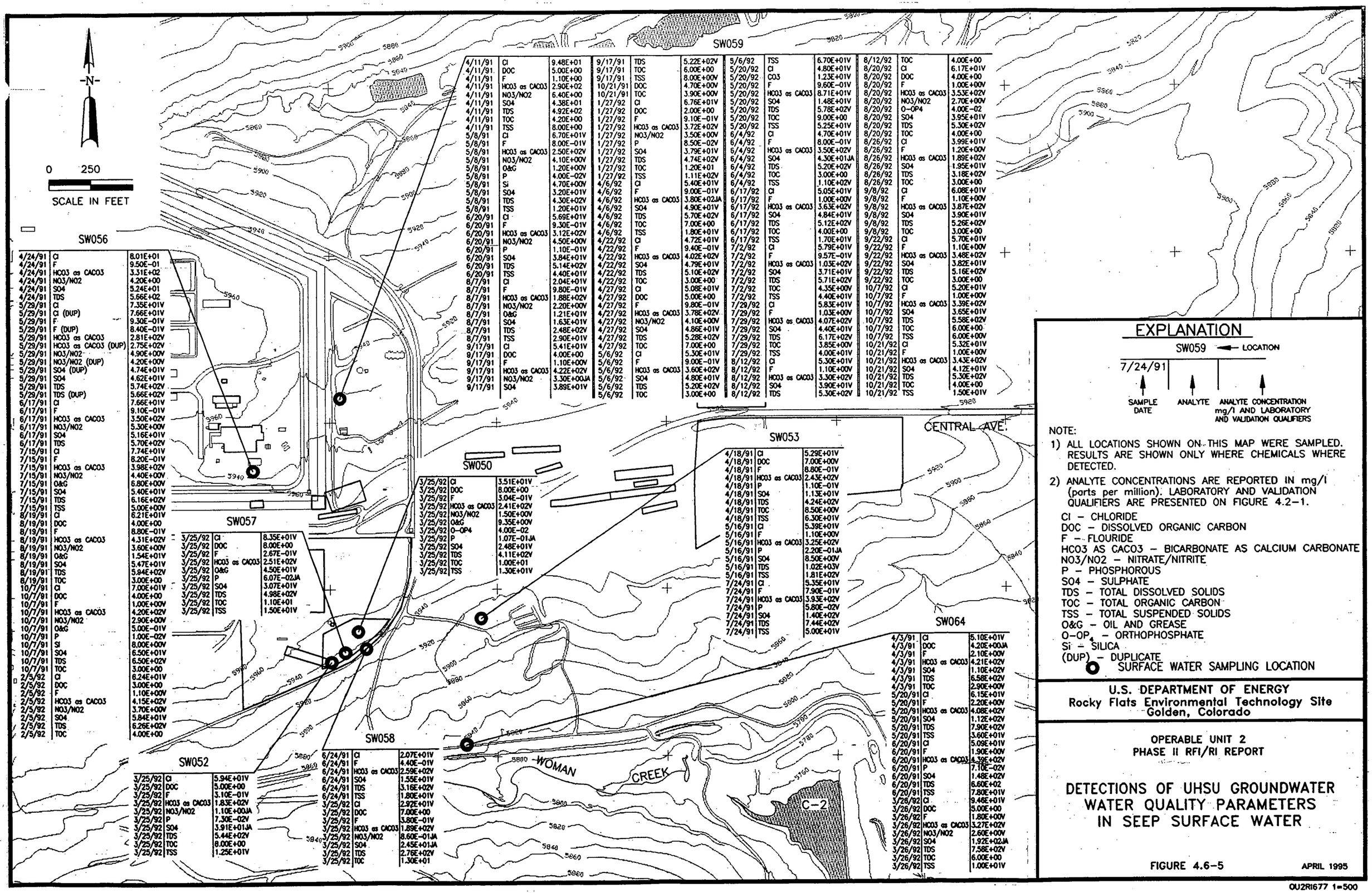
OPERABLE UNIT 2
PHASE II RFI/RI REPORT

DETECTIONS OF UHSU GROUNDWATER UNFILTERED AND FILTERED RADIONUCLIDES POTENTIAL CHEMICALS OF CONCERN IN SEEP SURFACE WATER

FIGURE 4.6-4

APRIL 1995

OU2RI674 1=500



4/11/91	CI	9.48E+01
4/11/91	DOC	5.00E+00
4/11/91	F	1.10E+00
4/11/91	HCO3 as CACO3	2.90E+02
4/11/91	NO3/NO2	6.40E+00
4/11/91	SO4	4.38E+01
4/11/91	TDS	4.92E+02
4/11/91	TOC	4.20E+00
4/11/91	TSS	8.00E+00
5/8/91	CI	6.70E+01V
5/8/91	F	8.00E-01V
5/8/91	HCO3 as CACO3	2.50E+02V
5/8/91	NO3/NO2	4.10E+00V
5/8/91	O&G	1.20E+00V
5/8/91	P	4.00E-02V
5/8/91	Si	4.70E+00V
5/8/91	SO4	3.20E+01V
5/8/91	TDS	4.30E+02V
5/8/91	TSS	1.20E+01V
6/20/91	CI	5.69E+01V
6/20/91	F	9.30E-01V
6/20/91	HCO3 as CACO3	3.12E+02V
6/20/91	NO3/NO2	4.50E+00V
6/20/91	P	1.10E-01V
6/20/91	SO4	3.84E+01V
6/20/91	TDS	5.14E+02V
6/20/91	TSS	4.40E+01V
8/7/91	CI	2.04E+01V
8/7/91	F	9.80E-01V
8/7/91	HCO3 as CACO3	1.88E+02V
8/7/91	NO3/NO2	2.20E+00V
8/7/91	O&G	1.21E+01V
8/7/91	SO4	1.63E+01V
8/7/91	TDS	2.48E+02V
8/7/91	TSS	2.90E+01V
9/17/91	CI	5.41E+01V
9/17/91	DOC	4.00E+00
9/17/91	F	1.10E+00V
9/17/91	HCO3 as CACO3	4.22E+02V
9/17/91	NO3/NO2	3.30E+00JA
9/17/91	SO4	3.89E+01V

9/17/91	TDS	5.22E+02V
9/17/91	TOC	6.00E+00
9/17/91	TSS	8.00E+00V
10/21/91	DOC	4.70E+00V
10/21/91	TOC	3.90E+00V
1/27/92	CI	6.76E+01V
1/27/92	DOC	2.00E+00
1/27/92	F	9.10E-01V
1/27/92	HCO3 as CACO3	3.72E+02V
1/27/92	NO3/NO2	3.50E+00V
1/27/92	P	8.50E-02V
1/27/92	SO4	3.79E+01V
1/27/92	TDS	4.74E+02V
1/27/92	TOC	1.20E+01
1/27/92	TSS	1.11E+02V
4/6/92	CI	5.40E+01V
4/6/92	F	9.00E-01V
4/6/92	HCO3 as CACO3	3.80E+02JA
4/6/92	SO4	4.90E+01V
4/6/92	TDS	5.70E+02V
4/6/92	TOC	7.00E+00
4/6/92	TSS	1.80E+01V
4/22/92	CI	4.72E+01V
4/22/92	F	9.40E-01V
4/22/92	HCO3 as CACO3	4.02E+02V
4/22/92	SO4	4.79E+01V
4/22/92	TDS	5.10E+02V
4/22/92	TOC	3.00E+00
4/27/92	CI	5.08E+01V
4/27/92	DOC	5.00E+00
4/27/92	F	9.80E-01V
4/27/92	HCO3 as CACO3	3.78E+02V
4/27/92	NO3/NO2	4.10E+00V
4/27/92	SO4	4.86E+01V
4/27/92	TDS	5.28E+02V
4/27/92	TOC	7.00E+00
5/6/92	CI	5.30E+01V
5/6/92	F	9.00E-01V
5/6/92	HCO3 as CACO3	3.60E+02V
5/6/92	SO4	4.80E+01V
5/6/92	TDS	5.20E+02V
5/6/92	TOC	3.00E+00

5/6/92	TSS	6.70E+01V
5/20/92	CI	4.80E+01V
5/20/92	CO3	1.23E+01V
5/20/92	F	9.60E-01V
5/20/92	HCO3 as CACO3	8.71E+01V
5/20/92	SO4	1.48E+01V
5/20/92	TDS	5.78E+02V
5/20/92	TOC	9.00E+00
5/20/92	TSS	5.25E+01V
6/4/92	CI	4.70E+01V
6/4/92	F	8.00E-01V
6/4/92	HCO3 as CACO3	3.50E+02V
6/4/92	SO4	4.30E+01JA
6/4/92	TDS	5.20E+02V
6/4/92	TOC	3.00E+00
6/4/92	TSS	1.10E+02V
6/17/92	CI	5.05E+01V
6/17/92	F	1.00E+00V
6/17/92	HCO3 as CACO3	3.63E+02V
6/17/92	SO4	4.84E+01V
6/17/92	TDS	5.12E+02V
6/17/92	TOC	4.00E+00
6/17/92	TSS	1.70E+01V
7/2/92	CI	5.79E+01V
7/2/92	F	9.57E-01V
7/2/92	HCO3 as CACO3	1.03E+02V
7/2/92	SO4	3.71E+01V
7/2/92	TDS	5.71E+02V
7/2/92	TOC	4.35E+00V
7/2/92	TSS	4.40E+01V
7/29/92	CI	5.83E+01V
7/29/92	F	1.03E+00V
7/29/92	HCO3 as CACO3	4.07E+02V
7/29/92	SO4	4.40E+01V
7/29/92	TDS	6.17E+02V
7/29/92	TOC	3.85E+00V
7/29/92	TSS	4.00E+01V
8/12/92	CI	5.30E+01V
8/12/92	F	1.10E+00V
8/12/92	HCO3 as CACO3	3.30E+02V
8/12/92	SO4	3.90E+01V
8/12/92	TDS	5.30E+02V

8/12/92	TOC	4.00E+00
8/20/92	CI	6.17E+01V
8/20/92	DOC	4.00E+00
8/20/92	F	1.00E+00V
8/20/92	HCO3 as CACO3	3.53E+02V
8/20/92	NO3/NO2	2.70E+00V
8/20/92	O-OP4	4.00E-02
8/20/92	SO4	3.95E+01V
8/20/92	TDS	5.30E+02V
8/20/92	TOC	4.00E+00
8/26/92	CI	3.99E+01V
8/26/92	F	1.20E+00V
8/26/92	HCO3 as CACO3	1.89E+02V
8/26/92	SO4	1.95E+01V
8/26/92	TDS	3.18E+02V
8/26/92	TOC	3.00E+00
9/8/92	CI	6.08E+01V
9/8/92	F	1.10E+00V
9/8/92	HCO3 as CACO3	3.87E+02V
9/8/92	SO4	3.90E+01V
9/8/92	TDS	5.26E+02V
9/8/92	TOC	3.00E+00
9/22/92	CI	5.70E+01V
9/22/92	F	1.10E+00V
9/22/92	HCO3 as CACO3	3.48E+02V
9/22/92	SO4	3.82E+01V
9/22/92	TDS	5.16E+02V
9/22/92	TOC	3.00E+00
10/7/92	CI	5.20E+01V
10/7/92	F	1.00E+00V
10/7/92	HCO3 as CACO3	3.39E+02V
10/7/92	SO4	3.65E+01V
10/7/92	TDS	5.58E+02V
10/7/92	TOC	6.00E+00
10/7/92	TSS	6.00E+00V
10/21/92	CI	5.32E+01V
10/21/92	F	1.00E+00V
10/21/92	HCO3 as CACO3	3.43E+02V
10/21/92	SO4	4.12E+01V
10/21/92	TDS	5.30E+02V
10/21/92	TOC	4.00E+00
10/21/92	TSS	1.50E+01V

4/24/91	CI	8.01E+01
4/24/91	F	9.50E-01
4/24/91	HCO3 as CACO3	3.31E+02
4/24/91	NO3/NO2	4.20E+00
4/24/91	SO4	5.24E+01
4/24/91	TDS	5.66E+02
5/29/91	CI	7.35E+01V
5/29/91	CI (DUP)	7.66E+01V
5/29/91	F	9.30E-01V
5/29/91	F (DUP)	8.40E-01V
5/29/91	HCO3 as CACO3	2.81E+02V
5/29/91	HCO3 as CACO3 (DUP)	2.75E+02V
5/29/91	NO3/NO2	4.90E+00V
5/29/91	NO3/NO2 (DUP)	4.20E+00V
5/29/91	SO4 (DUP)	4.74E+01V
5/29/91	SO4	4.62E+01V
5/29/91	TDS	5.74E+02V
5/29/91	TDS (DUP)	5.66E+02V
6/17/91	CI	7.66E+01V
6/17/91	F	9.10E-01V
6/17/91	HCO3 as CACO3	3.50E+02V
6/17/91	NO3/NO2	5.30E+00V
6/17/91	SO4	5.16E+01V
6/17/91	TDS	5.70E+02V
7/15/91	CI	7.74E+01V
7/15/91	F	8.20E-01V
7/15/91	HCO3 as CACO3	3.98E+02V
7/15/91	NO3/NO2	4.40E+00V
7/15/91	O&G	6.80E+00V
7/15/91	SO4	5.40E+01V
7/15/91	TDS	6.16E+02V
7/15/91	TSS	5.00E+00V
8/19/91	CI	6.21E+01V
8/19/91	DOC	4.00E+00
8/19/91	F	8.80E-01V
8/19/91	HCO3 as CACO3	4.31E+02V
8/19/91	NO3/NO2	3.60E+00V
8/19/91	O&G	1.54E+01V
8/19/91	SO4	5.47E+01V
8/19/91	TDS	5.94E+02V
8/19/91	TOC	3.00E+00
10/7/91	CI	7.00E+01V
10/7/91	DOC	4.00E+00
10/7/91	F	1.00E+00V
10/7/91	HCO3 as CACO3	4.20E+02V
10/7/91	NO3/NO2	2.90E+00V
10/7/91	O&G	5.00E-01V
10/7/91	P	1.00E-02V
10/7/91	SI	8.00E+00V
10/7/91	SO4	6.50E+01V
10/7/91	TDS	6.50E+02V
10/7/91	TOC	3.00E+00
2/3/92	CI	6.24E+01V
2/5/92	DOC	3.00E+00
2/5/92	F	1.10E+00V
2/5/92	HCO3 as CACO3	4.15E+02V
2/5/92	NO3/NO2	3.70E+00V
2/5/92	SO4	5.84E+01V
2/5/92	TDS	6.26E+02V
2/5/92	TOC	4.00E+00

3/25/92	CI	3.51E+01V
3/25/92	DOC	8.00E+00
3/25/92	F	3.04E-01V
3/25/92	HCO3 as CACO3	2.41E+02V
3/25/92	NO3/NO2	1.50E+00V
3/25/92	O&G	9.35E+00V
3/25/92	O-OP4	4.00E-02
3/25/92	P	1.07E-01JA
3/25/92	SO4	2.48E+01V
3/25/92	TDS	4.11E+02V
3/25/92	TOC	1.00E+01
3/25/92	TSS	1.30E+01V

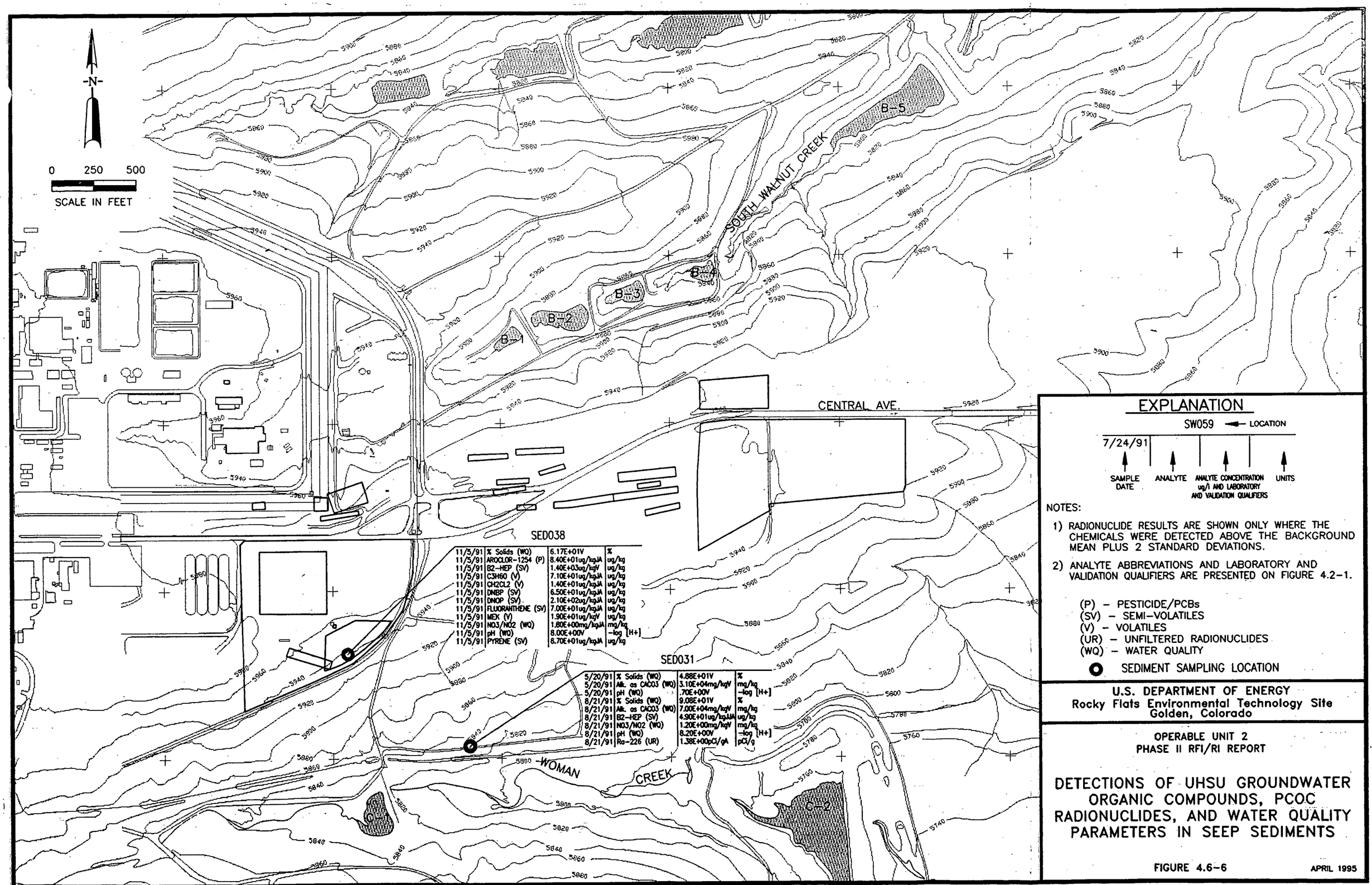
4/18/91	CI	5.29E+01V
4/18/91	DOC	7.00E+00V
4/18/91	F	8.60E-01V
4/18/91	HCO3 as CACO3	2.43E+02V
4/18/91	P	1.10E-01V
4/18/91	SO4	1.13E+01V
4/18/91	TDS	4.24E+02V
4/18/91	TOC	8.50E+00V
4/18/91	TSS	6.30E+01V
5/16/91	CI	5.39E+01V
5/16/91	F	1.10E+00V
5/16/91	HCO3 as CACO3	3.25E+02V
5/16/91	P	2.20E-01JA
5/16/91	SO4	8.50E+00V
5/16/91	TDS	1.02E+03V
5/16/91	TSS	1.81E+02V
7/24/91	CI	5.35E+01V
7/24/91	F	7.90E-01V
7/24/91	HCO3 as CACO3	3.93E+02V
7/24/91	P	5.80E-02V
7/24/91	SO4	1.40E+02V
7/24/91	TDS	7.44E+02V
7/24/91	TSS	5.00E+01V

3/25/92	CI	8.35E+01V
3/25/92	DOC	8.00E+00
3/25/92	F	2.67E-01V
3/25/92	HCO3 as CACO3	2.51E+02V
3/25/92	O&G	4.50E+01V
3/25/92	P	6.07E-02JA
3/25/92	SO4	3.07E+01V
3/25/92	TDS	4.98E+02V
3/25/92	TOC	1.10E+01
3/25/92	TSS	1.50E+01V

3/25/92	CI	5.94E+01V
3/25/92	DOC	5.00E+00
3/25/92	F	3.10E-01V
3/25/92	HCO3 as CACO3	1.83E+02V
3/25/92	NO3/NO2	1.10E+00JA
3/25/92	P	7.30E-02V
3/25/92	SO4	3.91E+01JA
3/25/92	TDS	5.44E+02V
3/25/92	TOC	8.00E+00
3/25/92	TSS	1.25E+01V

6/24/91	CI	2.07E+01V
6/24/91	F	4.40E-01V
6/24/91	HCO3 as CACO3	2.59E+02V
6/24/91	SO4	1.55E+01V
6/24/91	TDS	3.16E+02V
6/24/91	TSS	1.80E+01V
3/25/92	CI	2.92E+01V
3/25/92	DOC	7.00E+00
3/25/92	F	3.80E-01V
3/25/92	HCO3 as CACO3	1.89E+02V
3/25/92	NO3/NO2	8.60E-01JA
3/25/92	SO4	2.45E+01JA
3/25/92	TDS	2.76E+02V
3/25/92	TOC	1.30E+01

4/3/91	CI	5.10E+01V
4/3/91	DOC	4.20E+00JA
4/3/91	F	2.10E+00V
4/3/91	HCO3 as CACO3	4.21E+02V
4/3/91	SO4	1.10E+02V
4/3/91	TDS	6.58E+02V
4/3/91	TOC	2.90E+00V
5/20/91	CI	6.15E+01V
5/20/91	F	2.20E+00V
5/20/91	HCO3 as CACO3	4.08E+02V
5/20/91	SO4	1.12E+02V
5/20/91	TDS	7.90E+02V
5/20/91	TSS	3.60E+01V
6/20/91	CI	5.09E+01V
6/20/91	F	1.90E+00V
6/20/91	HCO3 as CACO3	4.39E+02V
6/20/91	P	7.10E-02V
6/20/91	SO4	1.48E+02V
6/20/91	TDS	6.60E+02
6/20/91	TSS	7.80E+01V
3/26/92	CI	9.46E+01V
3/26/92	DOC	5.00E+00
3/26/92	F	1.80E+00V
3/26/92	HCO3 as CACO3	3.27E+02V
3/26/92	NO3/NO2	2.60E+00V
3/26/92	SO4	1.92E+02JA
3/26/92	TDS	7.58E+02V
3/26/92	TOC	6.00E+00
3/26/92	TSS	1.00E+01V


-N-
0 250 500
SCALE IN FEET
SOUTH WALNUT CREEK
B-1
B-2
B-3
B-4
B-5
CENTRAL AVE.
SED038
11/5/91 % Solids (WQ) 6.17E+01V %
11/5/91 AROCLOR-1254 (P) 8.40E+01ug/kgJA ug/kg
11/5/91 B2-HEP (SV) 1.40E+03ug/kgV ug/kg
11/5/91 C3H60 (V) 7.10E+01ug/kgJA ug/kg
11/5/91 CH2CL2 (V) 1.40E+01ug/kgJA ug/kg
11/5/91 DNBP (SV) 6.50E+01ug/kgJA ug/kg
11/5/91 DNOP (SV) 2.10E+02ug/kgJA ug/kg
11/5/91 FLUORANTHENE (SV) 7.00E+01ug/kgJA ug/kg
11/5/91 MEK (V) 1.90E+01ug/kgV ug/kg
11/5/91 NO3/NO2 (WQ) 1.80E+00mg/kgJA mg/kg
11/5/91 pH (WQ) 8.00E+00V -log [H+]
11/5/91 PYRENE (SV) 8.70E+01ug/kgJA ug/kg
SED031
5/20/91 % Solids (WQ) 4.88E+01V %
5/20/91 Alk. as CACO3 (WQ) 3.10E+04mg/kgV mg/kg
5/20/91 pH (WQ) .70E+00V -log [H+]
8/21/91 % Solids (WQ) 9.08E+01V %
8/21/91 Alk. as CACO3 (WQ) 7.00E+04mg/kgV mg/kg
8/21/91 B2-HEP (SV) 4.90E+01ug/kgJJA ug/kg
8/21/91 NO3/NO2 (WQ) 1.20E+00mg/kgV mg/kg
8/21/91 pH (WQ) 8.20E+00V -log [H+]
8/21/91 Ra-226 (UR) 1.38E+00pCi/gA pCi/g
WOMAN CREEK
C-1
C-2
EXPLANATION
SW059 ← LOCATION
7/24/91
SAMPLE DATE
ANALYTE
ANALYTE CONCENTRATION ug/l AND LABORATORY AND VALIDATION QUALIFIERS
UNITS
NOTES:
1) RADIONUCLIDE RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.
2) ANALYTE ABBREVIATIONS AND LABORATORY AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1.
(P) - PESTICIDE/PCBs
(SV) - SEMI-VOLATILES
(V) - VOLATILES
(UR) - UNFILTERED RADIONUCLIDES
(WQ) - WATER QUALITY
SEDIMENT SAMPLING LOCATION
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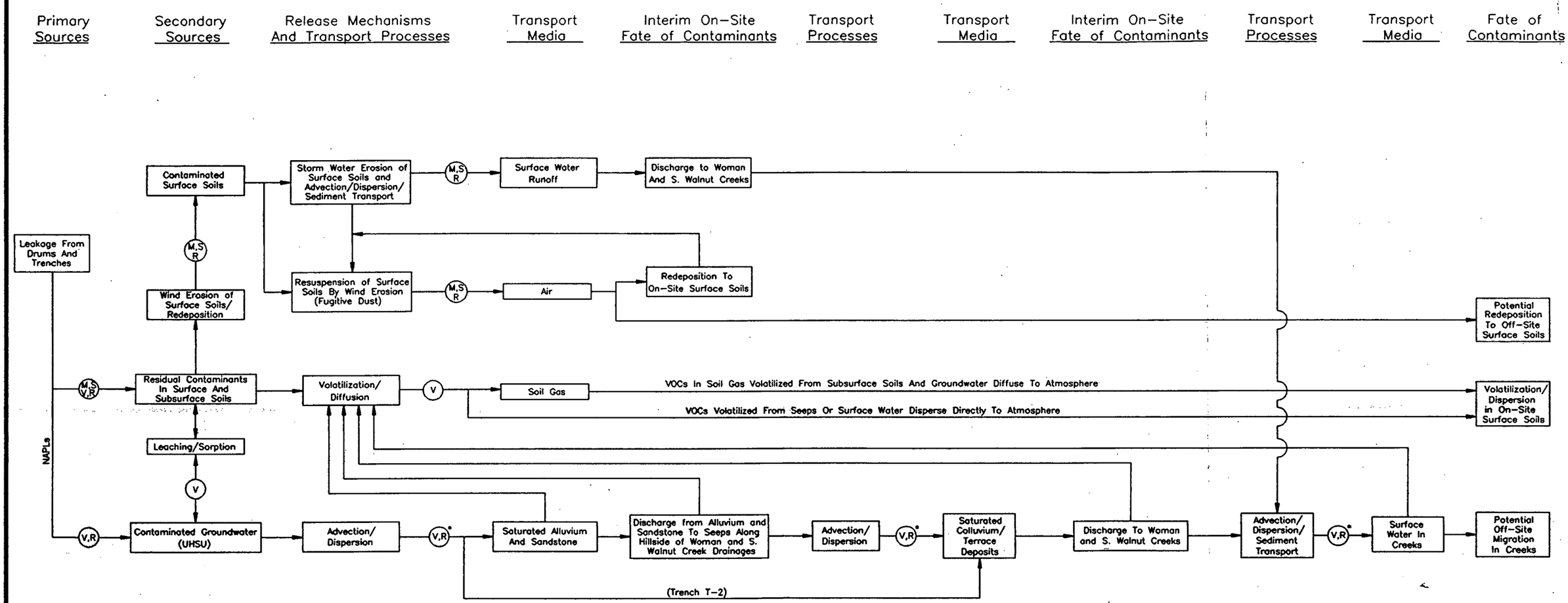
PHASE II RFI/RI REPORT
DETECTIONS OF UHSU GROUNDWATER ORGANIC COMPOUNDS, PCOC RADIONUCLIDES, AND WATER QUALITY PARAMETERS IN SEEP SEDIMENTS
FIGURE 4.6-6
APRIL 1995
OU2RI769 1=500



Legend

(V,R) Analyte Groups Affected

- V Volatile Organic Compounds
- R Radionuclides
- S Semi-volatile Organic Compounds
- M Metals
- * Radionuclides are Transported via Groundwater Processes to Woman Creek Drainage Only

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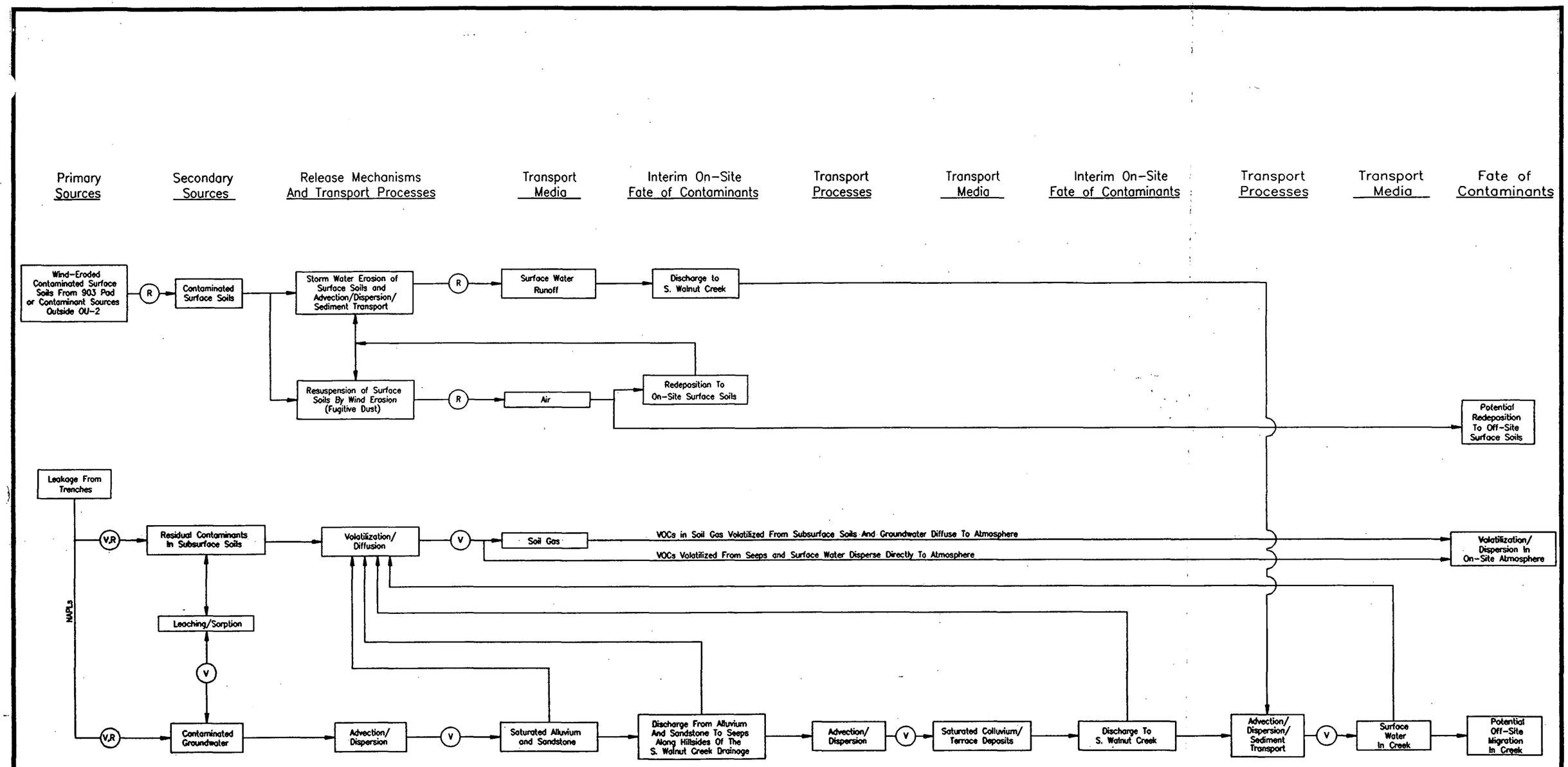
903 PAD SOURCE AREA
MIGRATION PATHWAYS OF
CHEMICALS OF CONCERN

FIGURE 5.3-1

APRIL 1995

OU2R813 1=1



Legend

(V,R) Analyte Groups Affected

V Volatile Organic Compounds

R Radionuclides

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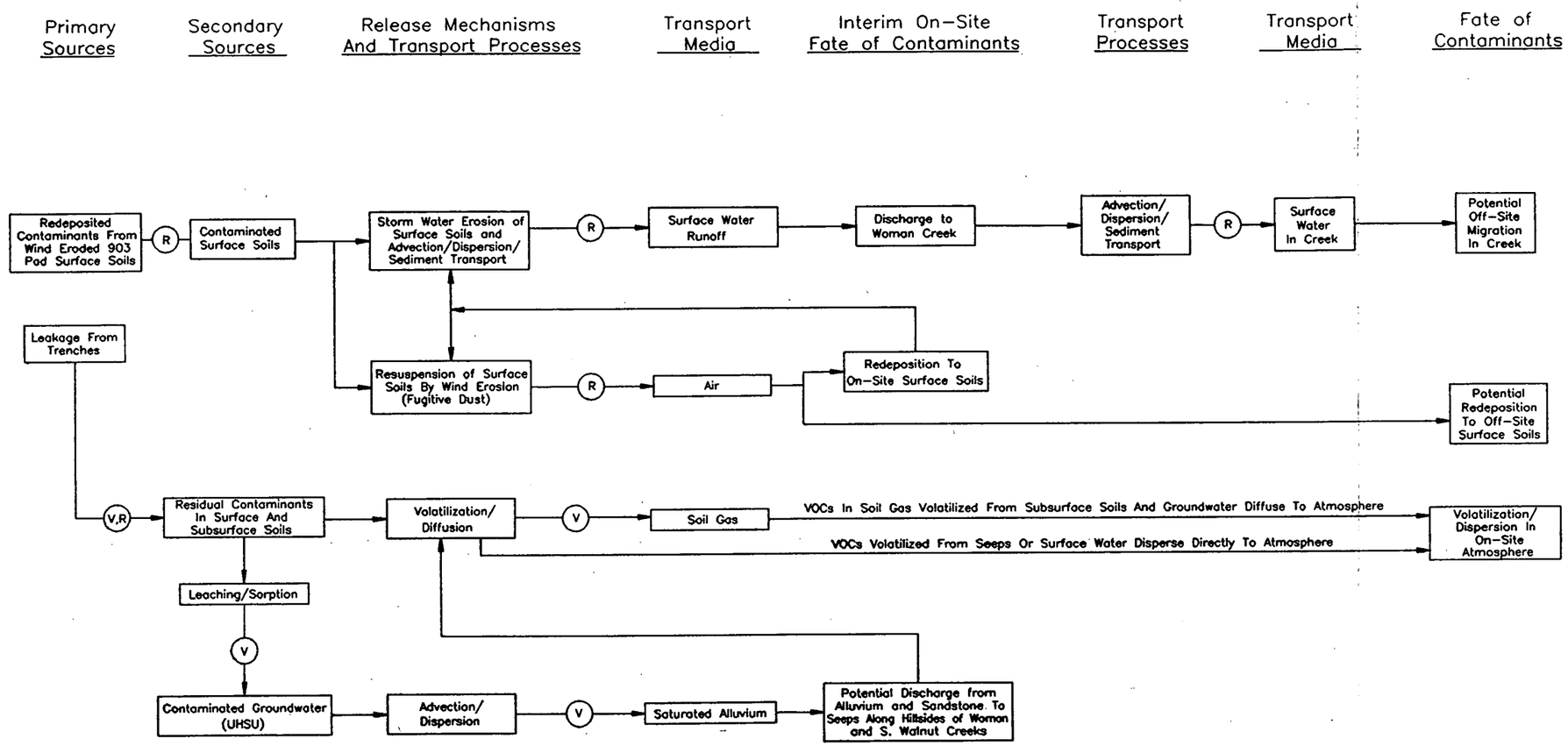
NORTHEAST TRENCHES SOURCE AREA
MIGRATION PATHWAYS OF
CHEMICALS OF CONCERN

FIGURE 5.3-2

APRIL 1995

OU2R814 1=1



Legend

(V,R) Analyte Groups Affected

V Volatile Organic Compounds

R Radionuclides

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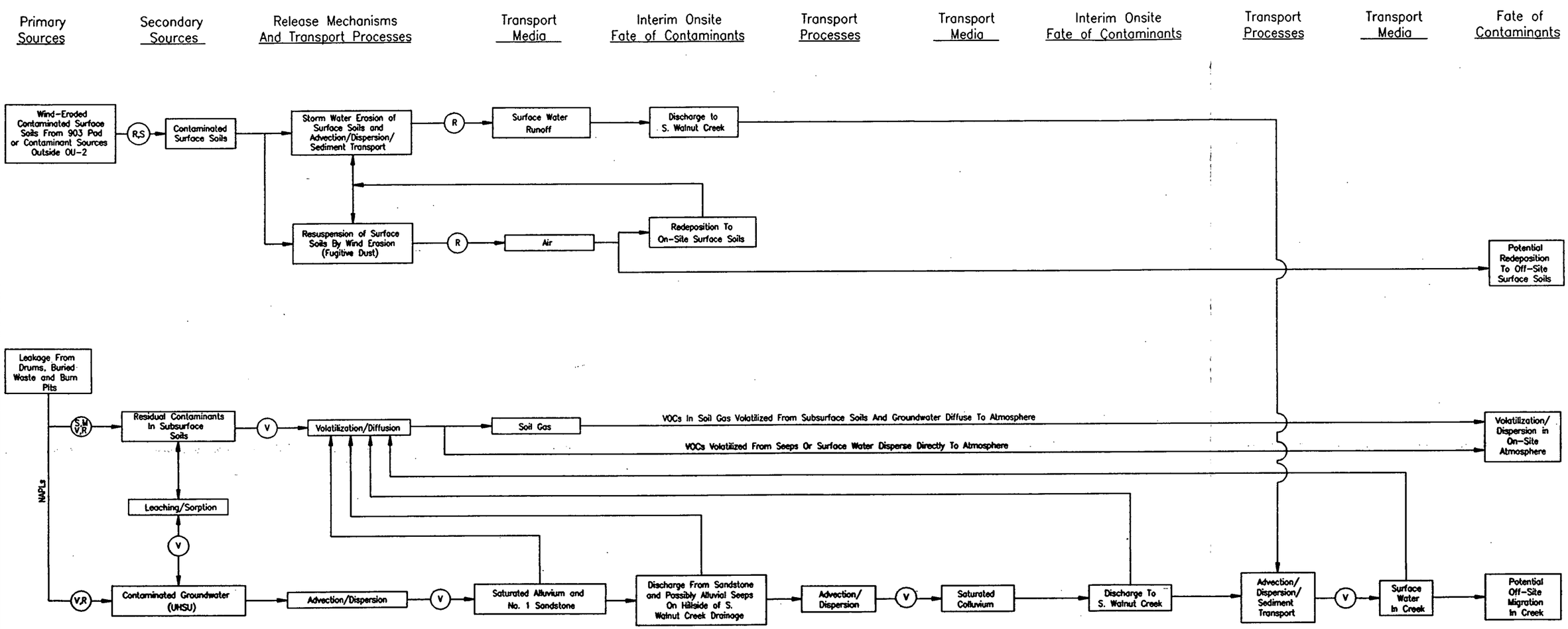
SOUTHEAST TRENCHES SOURCE AREA
MIGRATION PATHWAYS OF
CHEMICALS OF CONCERN

FIGURE 5.3-3 APRIL 1995

OU2RI815 1-1



Legend

(V,R) Analyte Groups Affected

- V Volatile Organic Compounds
- R Radionuclides
- S Semi-volatile Organic Compounds
- M Metals

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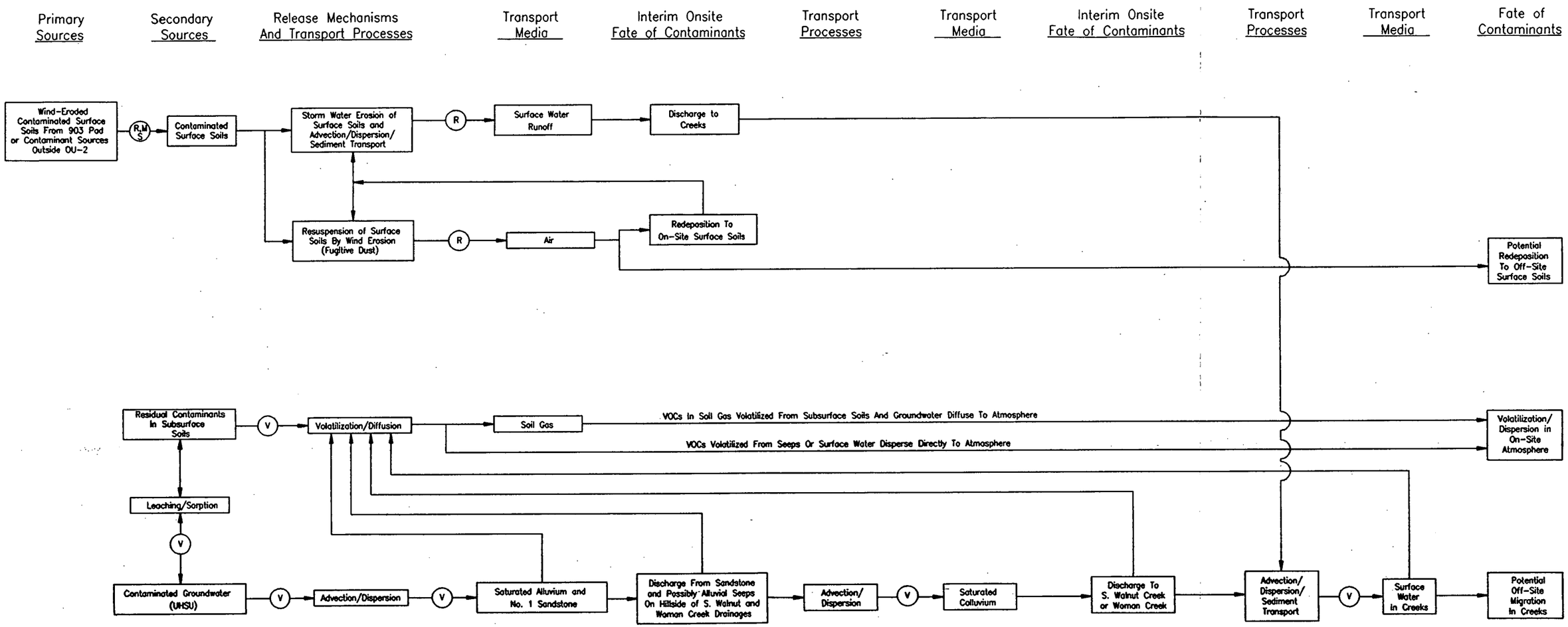
MOUND SOURCE AREA
MIGRATION PATHWAYS OF
CHEMICALS OF CONCERN

FIGURE 5.3-4 APRIL 1995

0U2RI816 1=1



Legend

(V,R) Analyte Groups Affected

- V Volatile Organic Compounds
- R Radionuclides
- M Metals
- S Semi-volatile Organic Compounds

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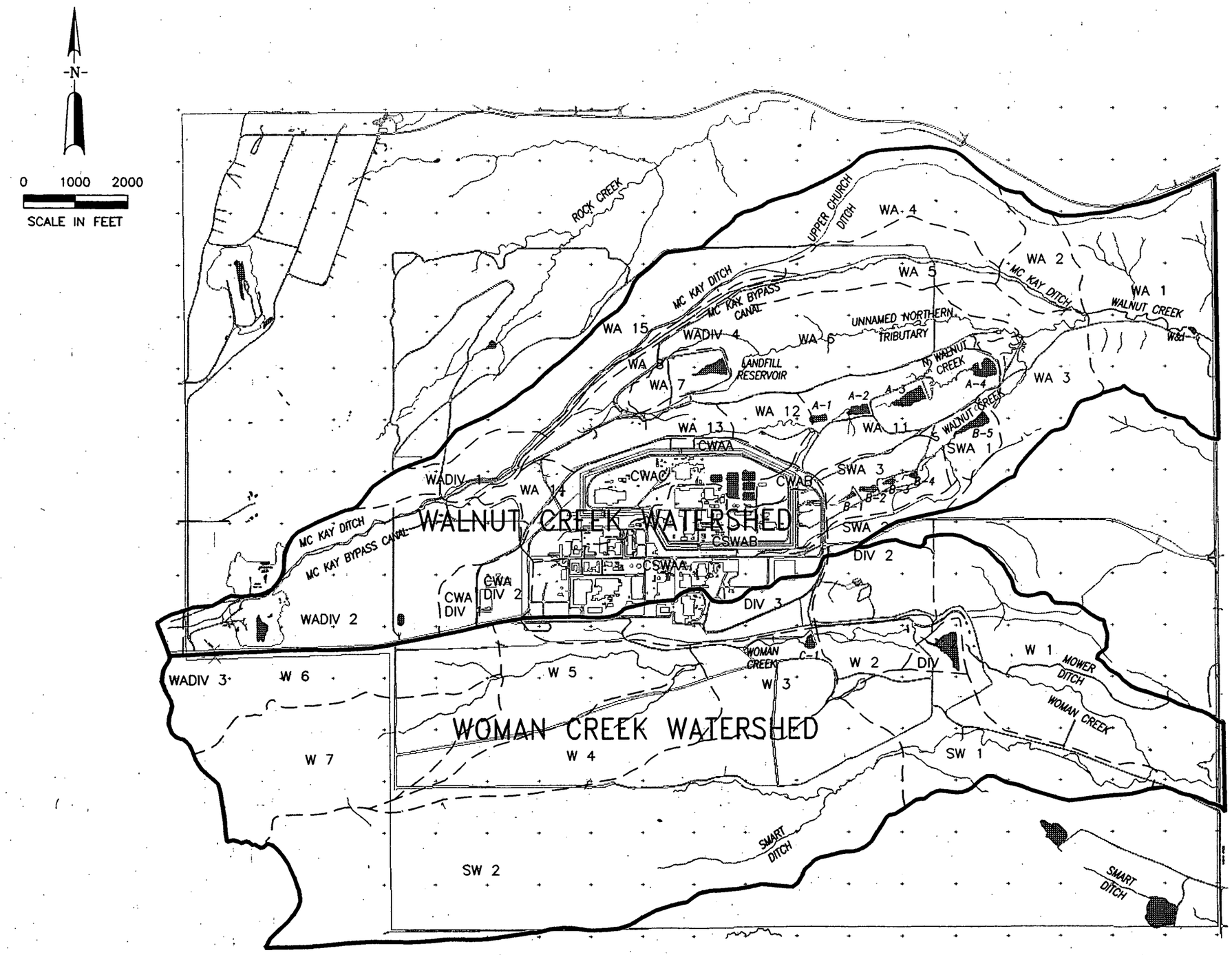
AREA EAST OF OU-2 IHSSs
MIGRATION PATHWAYS OF
CHEMICALS OF CONCERN

FIGURE 5.3-5

APRIL 1995

OU2RI817 1=1



EXPLANATION

MAJOR DRAINAGE BASIN BOUNDARY

SUB-BASIN BOUNDARIES FOR RAINFALL/RUNOFF MODEL

GW 1 SUB-BASIN IDENTIFICATION

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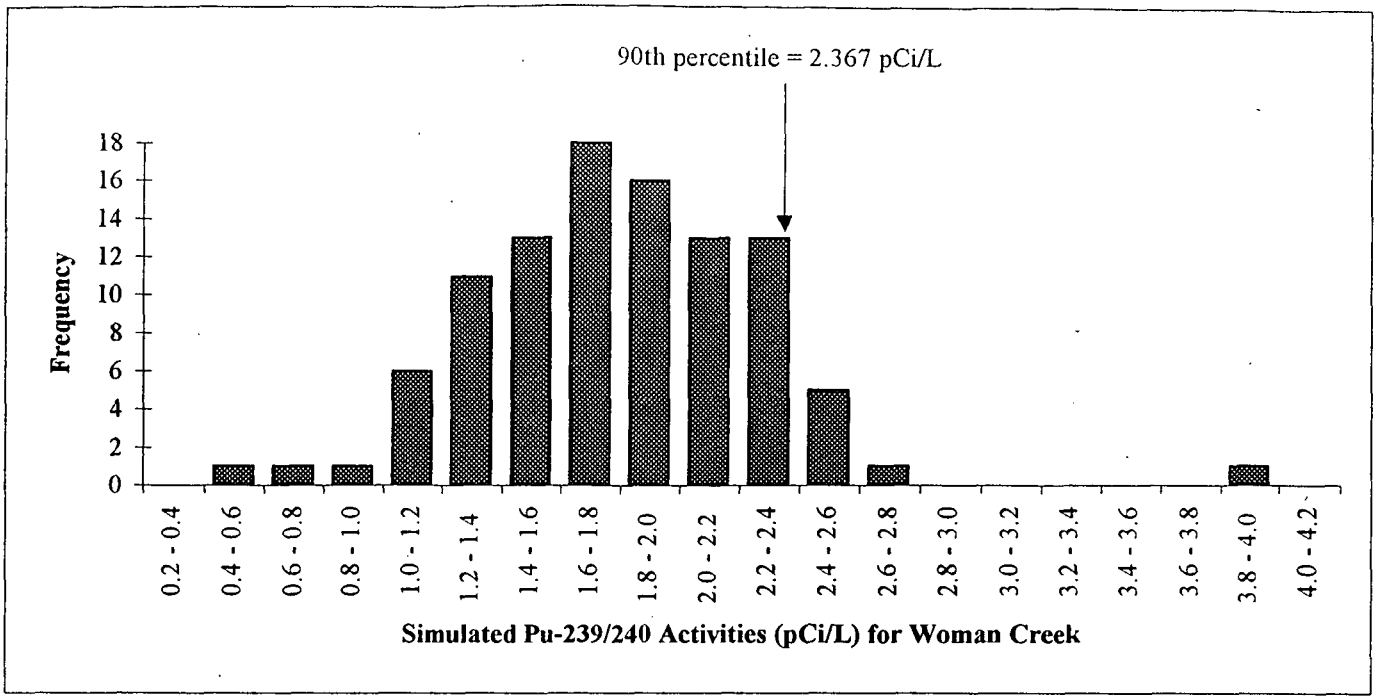
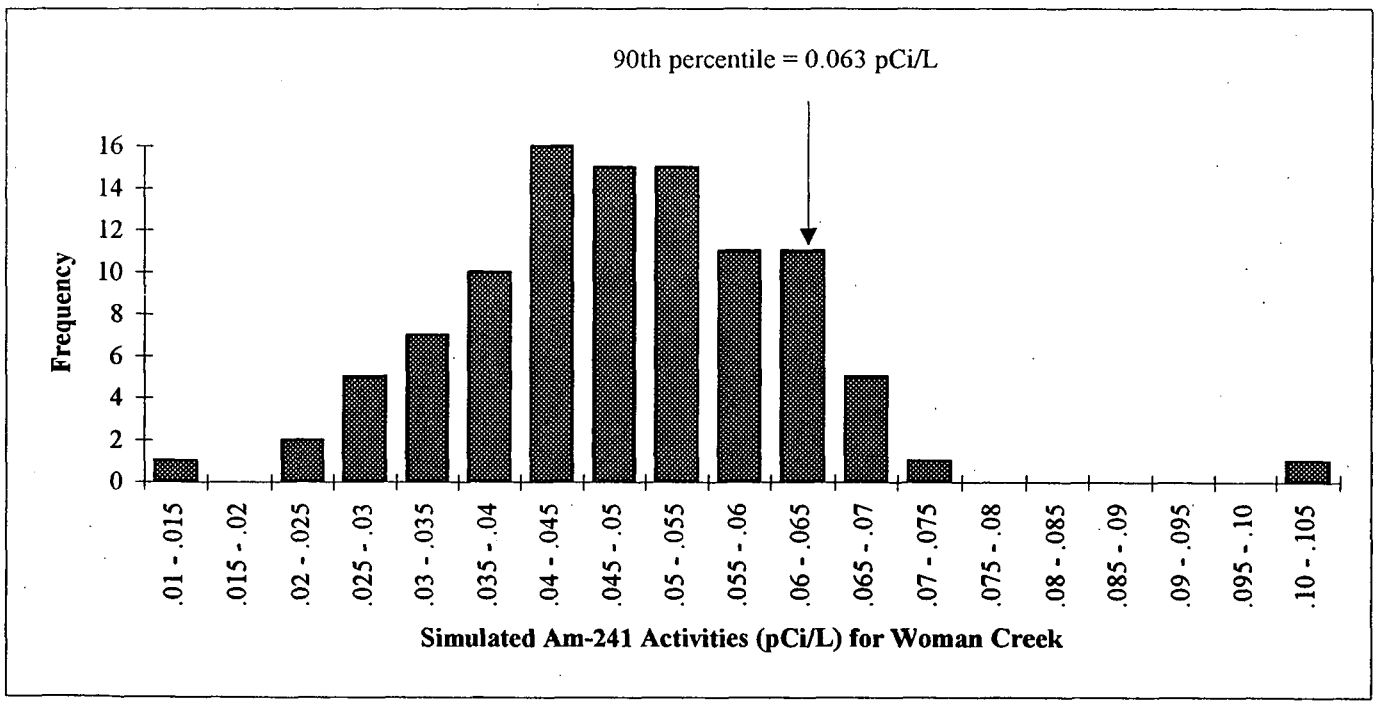
PLANT SITE DRAINAGE BASIN MAP

FIGURE 5.4-1 FEBRUARY 1995

OU2RI832 1=2000

179/179





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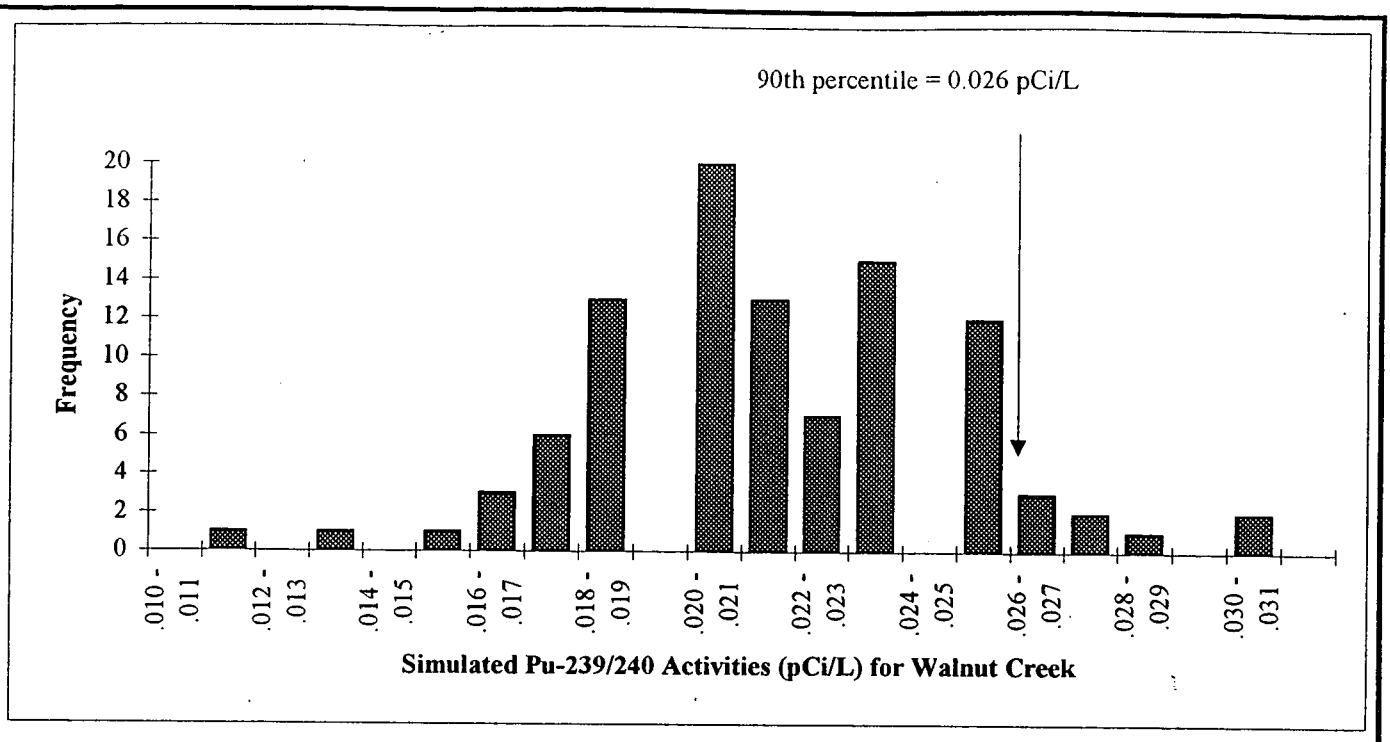
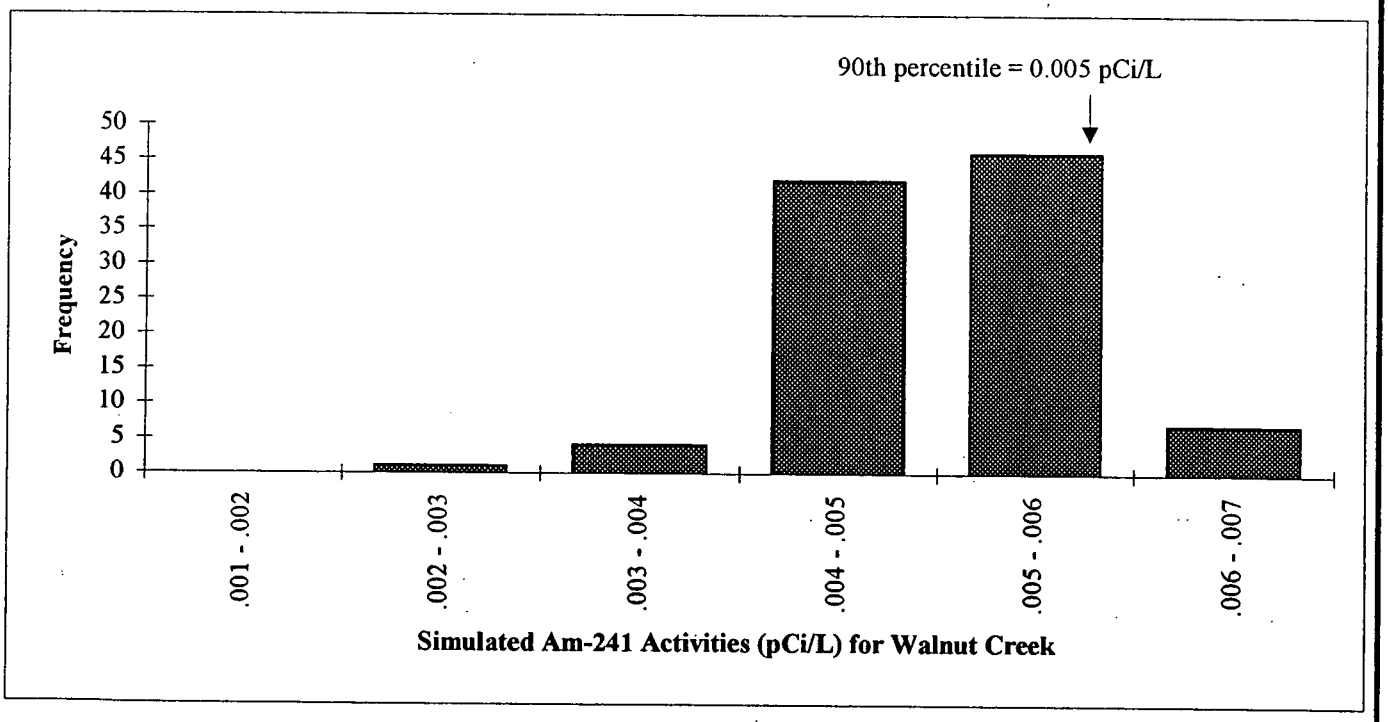
HISTOGRAMS OF SIMULATED RADIONUCLIDE ACTIVITIES IN WOMAN CREEK

FIGURE 5.4-2

MARCH 1995





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HISTOGRAMS OF SIMULATED RADIONUCLIDE ACTIVITIES IN WALNUT CREEK

FIGURE 5.4-3

MARCH 1995

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