



Department of Energy

**Ohio Field Office
Fernald Area Office**

P. O. Box 538705
Cincinnati, Ohio 45253-8705
(513) 648-3155



**MAY 27 1998
DOE-0818-98**

**Mr. James A. Saric, Remedial Project Manager
U.S. Environmental Protection Agency
Region V-SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590**

**Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911**

Dear Mr. Saric and Mr. Schneider:

TRANSMITTAL OF VARIANCES TO PROJECT SPECIFIC PLANS

This letter transmits for your records, variances to the following Project Specific Plans (PSP): PSP for Lead Delineation in the Area 2 Phase 1 Firing Range; PSP for Sampling of Soil Stockpile 5 for On-Site Disposal Facility (OSDF) Waste Acceptance Criteria (WAC) Attainment; Area 8 Phase 1 Certification Sampling, Rev 1; and the Certification of Area 1 Phase II Sector 1, Sector 2A, and Conveyance Ditch, Rev 2. The variances do not involve a significant change in scope.

If you have questions or comments regarding these variances, please contact Kathleen Nickel at (513) 648-3166.

Sincerely,

**Johnny W. Reising
Fernald Remedial Action
Project Manager**

FEMP:Nickel

Enclosure: As Stated

cc w/enc:

T. Schneider, OEPA-Dayton (total of 3 copies of enc.)
F. Barker, Tetra Tech
AR Coordinator, FDF/78

cc w/o enc:

A. Tanner, DOE-FEMP
EDC, FDF/52-7

TRANSMITTAL ECDC PROJECT DOCUMENT CONTROL	108792 JARR5585
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To: NICKEL, K. Control No: INFO Location/Mail Stop: 45 From: ECDC	Date: 05/12/98
FOLLOW INSTRUCTIONS BELOW VARIANCE/ FCN	

Project	CWO	Document No	Rev	Title of Document	Comments
22000 VARIANCE		50.03.52.03-2	0	PSP FOR SAMPLING OF SOIL STOCKPILE 5 FOR OSDF WAC ATTAINMENT	

As a controlled document holder, you are required to destroy any old revisions of this document. Sign and date below, verifying receipt of these documents. **Return this record of receipt to ECDC PROJECT DOCUMENT CONTROL, 52-7.** Return receipt within ten (10) days of transmittal date.

Signature	Date
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IF TERMINATION OR TRANSFER OCCURS, NOTIFY ECDC PROJECT DOCUMENT CONTROL AT 4481

VARIANCE / FIELD CHANGE NOTICE

V/F No. 50.03.52.03

WBS NO.: 50.03.52.03 Project # 22000-PSP-0001 Rev 0

Page 1 of 2

PROJECT TITLE: PSP for Sampling of Soil Stockpile 5 for OSDF WAC Attainment

Date: 5/11/98

VARIANCE / FIELD CHANGE NOTICE (Include justification):

Variance:

Archive samples collected above and below the above-WAC intervals (see table below for total U results) will be submitted to the onsite laboratory for total uranium analysis (TAL 50.03.52.03-B). The samples are as follows:

SP5-1-B2-R (depth 7' 11" - 8' 5")
 SP5-8-B3-R (depth 10' 2" - 10' 8")

Justification:

Total U analysis is necessary to verify the vertical extent of above-WAC soil in each of the two borings.

Variance:

This variance describes additional samples to be collected from SP5 as stated in the PSP (Section 1.4) if above-WAC soils are encountered. Above-WAC soil for total uranium was detected in boring locations 1 and 8 of SP5 during the first round of sampling per the PSP as follows:

Location	Sample ID	Depth	Screening Result (ccpm)	Lab Result (mg/kg)	Estimated Total Pile Depth
SP5-1	SP5-1-B1 -R	10' 8" - 11' 2"	10,000	3,300	11' 1"
SP5-8	SP5-8-B1 -R	8' 5" - 8' 11"	2,000	1,800	15' 5"

Additional borings will be located to encompass a triangular-shaped sector in the southwest corner of SP5 in order to bound the above-WAC soil horizontally and vertically. Five borings and one contingency location have been selected for soil coring and field screening as illustrated in Figure 2-2 attached.

Soil cores will be collected for the entire height of the pile at each of the five borings (and possibly contingency location 21) and each core will be surveyed with a beta-gamma probe (frisker). Any soil interval ≥ 100 ccpm will be collected by removing a 6-inch interval (bounding the ≥ 100 ccpm area) for total uranium analysis (TAL 50.03.52.03-B) per the PSP. As stated in the PSP, any debris in the core sample (e.g., concrete, wood, rubber, wire, etc.) that can be separated will be removed from the sample prior to containerizing.

An archive soil sample will be collected from each of the five borings at the 597.1 feet elevation and archived for possible future analysis for total uranium. The archive sample intervals are provided below. Also, archive samples will be collected above and below any interval exhibiting ≥ 100 ccpm for possible analysis in the future.

The total depths to be cored at each location are as follows:

Location	Total Depth (ft.)	Archive Sample Interval	Archive Sample ID
SP5-8A	15.4	8.8' - 9.3'	SP5-8A-1-R
SP5-8B	15.5	8.9' - 9.4'	SP5-8B-1-R
SP5-8C	15.5	8.9' - 9.4'	SP5-8C-1-R
SP5-19	13.5	6.9' - 7.4'	SP5-19-1-R
SP5-20	7.1	0.4' - 0.9'	SP5-20-1-R
SP5-21	14.7	8.1' - 8.6'	SP5-21-1-R

(SP5-21 will only be completed if Location 8C or 20 exhibit >100 ccpm)

**INFORMATION
ONLY**

ORIGINAL

Any biased samples (≥ 100 ccpm) collected from the cores will be assigned identifiers as follows consistent with the PSP and variance #1:

1464

A "B" for biased will be used before the depth code as: SP5-8A-B1-R, where the "B1" represents the first biased sample collected from boring location 8A.

Justification:

The additional borings are necessary to determine the boundaries of above-WAC (total uranium) soil to be excavated from the pile in the vicinity of boring location SP5-1 and SP5-8. The information is required to design an excavation plan for SP5 to segregate above-WAC soil from below-WAC soil.

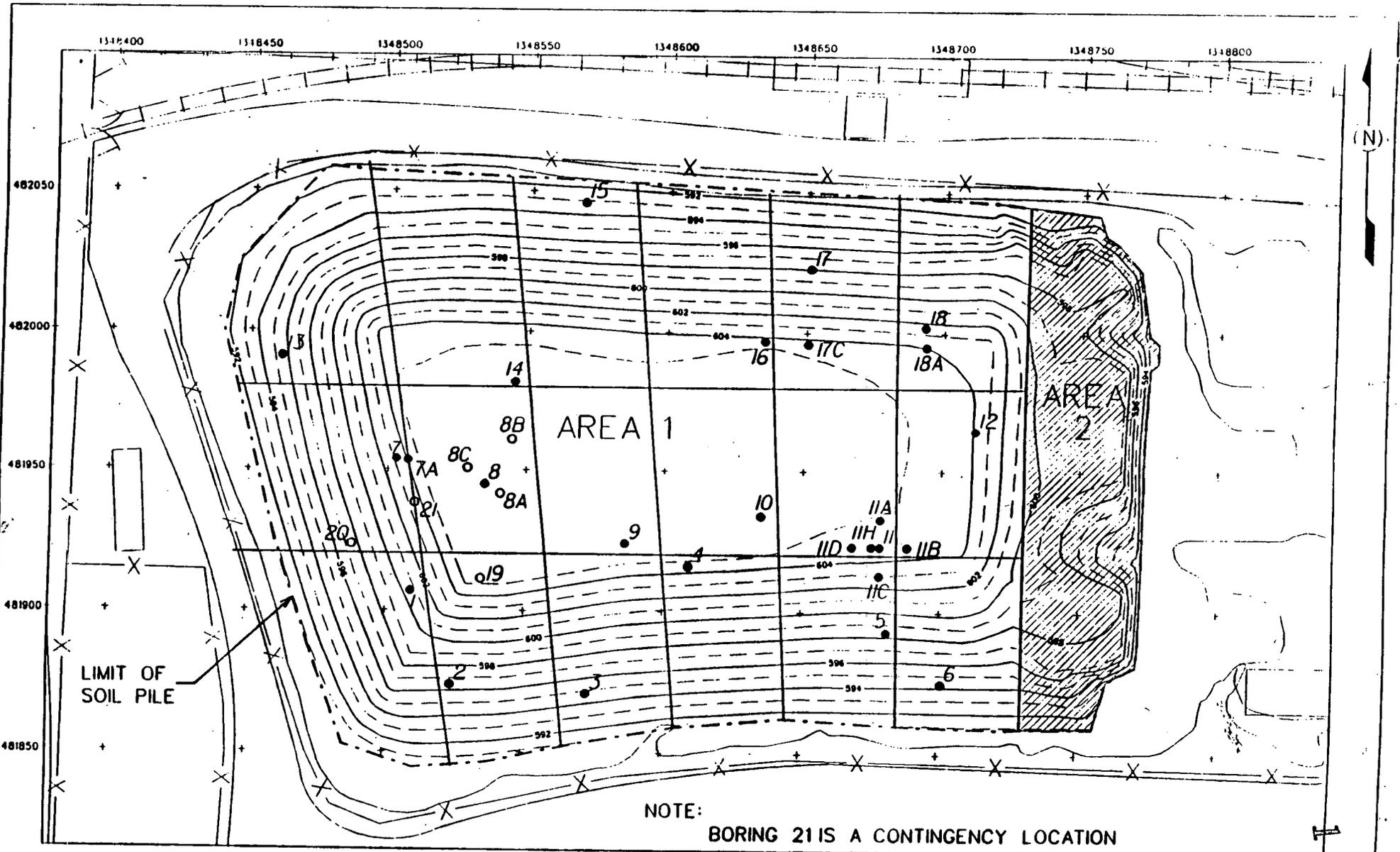
MF

REQUESTED BY: Mike Frank Date: 5/11/98

X IF REQD	VARIANCE/FCN APPROVAL	DATE	X IF REQD	VARIANCE/FCN APPROVAL	DATE
X	QUALITY ASSURANCE <i>Frank Thompson</i>	5-12-98	X	PROJECT MANAGER <i>John G. Ching</i>	5/11/98
	DATA QUALITY MANAGEMENT		X	FIELD SAMPLING MGR. <i>Mike Frank</i>	5/11/98
X	ANALYTICAL CUSTOMER SUPPORT <i>Bill Waterman</i>	5-11-98	X	ENV. MONITORING PROJECT MANAGER	
	OTHER			REAL-TIME MANAGER	
VARIANCE/FCN APPROVED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			REVISION REQUIRED: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		

DISTRIBUTION

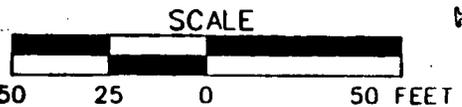
PROJECT MANAGER.	DOCUMENT CONTROL <i>Jeanie Rosser</i>	OTHER:
QUALITY ASSURANCE.	OTHER	OTHER:
FIELD MANAGER.	OTHER	OTHER:



NOTE:
BORING 21 IS A CONTINGENCY LOCATION

LEGEND

- SAMPLE LOCATION
- BORING FOR DELINEATION OF ABOVE-WAC SOIL
- ▨ CONCRETE RUBBLE



DRAFT

1464

TRANSMITTAL
ECDC PROJECT DOCUMENT CONTROL

107613
 DRAG8938

To: NICKEL, KATHLEEN A Date: 05/06/98
 Control No: NA
 Location/Mail Stop: 45
 From: ECDC

FOLLOW INSTRUCTIONS BELOW
VARIANCE ON 20710-PSP-0005 (R2)

Project	CWO	Document No	Rev	Title of Document	Comments
20710 VARIANCE		50.03.59.07-6	0	CERTIFICATION OF A1P11. SECTOR 1. SECTOR 2A. AND CONVEYANCE DITCH (REV 2)	INFORMATION ONLY

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VARIANCE / FIELD CHANGE NOTICE

1464

V/F 50.03.59.07-6

WBS NO.: 50.03.59.07

Page 1 of 1

PROJECT TITLE: Certification of A1PII Sector 1, Sector 2a, and Conveyance Ditch

Date: 4/27/98

VARIANCE / FIELD CHANGE NOTICE (Include justification): 20710-PSP-0005 Rev.2

Field Change Notice:

Sample location A1PII-S1-05 was moved 8 feet to the west of the location stated in the PSP (Rev. 2).

Justification:

The original point fell into a gravel road (installed in 1993) which is 1.5 feet thick.

INFORMATION ONLY

REQUESTED BY: Alex Duarte

Date: 4/27/98

X IF REQD	VARIANCE/FCN APPROVAL	DATE	X IF REQD	VARIANCE/FCN APPROVAL	DATE
X	QUALITY ASSURANCE <i>[Signature]</i>	4-29-98	X	CHARACTERIZATION LEAD <i>[Signature]</i>	4/29/98
	DATA QUALITY MANAGEMENT		X	FIELD MANAGER <i>[Signature]</i>	4-29-
	ANALYTICAL CUSTOMER SUPPORT			OTHER	
	OTHER			OTHER	

VARIANCE/FCN APPROVED [X] YES [] NO

REVISION REQUIRED: [] YES [x] NO

DISTRIBUTION

PROJECT MANAGER:	DOCUMENT CONTROL: Jeanie Rosser	OTHER:
QUALITY ASSURANCE:	OTHER:	OTHER:

TRANSMITTAL
ECDC PROJECT DOCUMENT CONTROL

109429
 ROSS9966

To: NICKEL, KATHLEEN A
 Control No: NA
 Location/Mail Stop: 45
 Date: 05/14/98
 From: ECDC

FOLLOW INSTRUCTIONS BELOW
VARIANCE/FIELD CHANGE NOTICE

Project	CWO	Document No	Rev	Title of Document	Comments
20402 VARIANCE		20.03.13.04-5	0	PSP FOR LEAD DELINEATION IN THE AREA 2 PHASE I FIRING RANGE	INFORMATION ONLY

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IF TERMINATION OR TRANSFER OCCURS, NOTIFY ECDC PROJECT DOCUMENT CONTROL AT 4481

VARIANCE / FIELD CHANGE NOTICE

1464

V/F No. 20.03.13.04-5

WBS NO.: 20.03.13.04 Project # 20402-PSP-0001 Rev 0

Page 1 of 12 VZ

PROJECT TITLE: PSP for Lead Delineation in the A2PI Firing Range

Date: 5/13/98

VARIANCE / FIELD CHANGE NOTICE (Include justification):

Four additional borings (A2PIPB-31, A2PIPB-32, A2PIPB-33, and A2PIPB-34, see attached map) will be completed in the Area 2, Phase I Firing Range area to bound the limits of soil contamination. Borings will be completed to a depth of 3 feet with samples collected at every 6-inch interval.

Sample identification will be as follows:

A2PIPB-x-y-M (or TM)-Y (as applicable)

- A2PIPB = Area 2, Phase I former firing range (lead contamination area)
- x = Sample location number (31, 32, 33, or 34)
- y = Consecutive sample interval number (1 = 0-0.5 ft interval, 2 = 0.5-1 ft interval, 3 = 1-1.5 ft interval, 4 = 1.5-2 ft interval, 5 = 2-2.5 ft interval, 6 = 2.5-3 ft interval)
- M = total lead analysis
- TM = TCLP lead analysis.

~~ECDC CONTROLLED COPY NO.~~

All soil samples will be collected using a 2-inch or 3-inch diameter hand auger or Geoprobe, in accordance with SMPL-01, *Solids Sampling*. Prior to collection of the soil samples, the field sampling technician will remove all surface vegetation within a 6-inch radius from the points to be sampled using a stainless steel trowel, taking care not to remove any of the surface soil. If the hand auger is used, each 6-inch sample interval will be collected individually with a clean auger. If the Geoprobe is used, the sample will be collected in a single core with a core sampler. Two attempts will be made to obtain boring completion; the original attempt will be designated by the location number (A2PIPB-31, -32, -33, or -34). The second attempt will be conducted within two feet of the original attempt and will be designated with an "A" after the location number (i.e., A2PIPB-31A, -32A, -33A, and -34A).

INFORMATION ONLY

Each sample will be homogenized and split with one split (designated -M) submitted for total lead analysis at the FEMP on-site laboratory by GFAA or ICP and the other split (designated -TM) submitted for TCLP lead analysis at the FEMP on-site laboratory. All soil samples will be prepared according to SW846, Volume 1C, Section 8.4 and analyzed at ASL B (TAL A2PI-PB-B).

ORIGINAL

Coordinates for the additional sample points are as follows:

- A2PIPB-31 Easting: 1347921.92 Northing: 477516.26
- A2PIPB-32 Easting: 1347927.15 Northing: 477515.82
- A2PIPB-33 Easting: 1347930.99 Northing: 477513.32
- A2PIPB-34 Easting: 1347902.38 Northing: 477462.74

Justification: Per Section 1.2 of the PSP, and at the request of the Ohio Environmental Protection Agency, additional soil samples may be collected.

REQUESTED BY: Vicky Zimmerman

Date: May 13, 1998

X IF REQD	VARIANCE/FCN APPROVAL	DATE	X IF REQD	VARIANCE/FCN APPROVAL	DATE
X	QUALITY ASSURANCE <i>Jacobs Thompson</i>	<i>5/14/98</i>		AREA PROJECT MANAGER	
	DATA QUALITY MANAGEMENT		X	FIELD SAMPLING SUPERVISOR <i>M. L. ...</i>	<i>5/14/98</i>
X	ANALYTICAL CUSTOMER SUPPORT <i>Bill ...</i>	<i>5/14/98</i>	X	COORDINATION LEAD <i>Vicky Zimmerman</i>	<i>5/13/98</i>
	OTHER			REAL-TIME MANAGER	

VARIANCE/FCN APPROVED YES NO

REVISION REQUIRED: YES NO

DISTRIBUTION

PROJECT MANAGER:	DOCUMENT CONTROL: <i>Jeanie Rosser</i>	OTHER:
QUALITY ASSURANCE:	OTHER:	OTHER:
FIELD MANAGER:	OTHER:	OTHER:

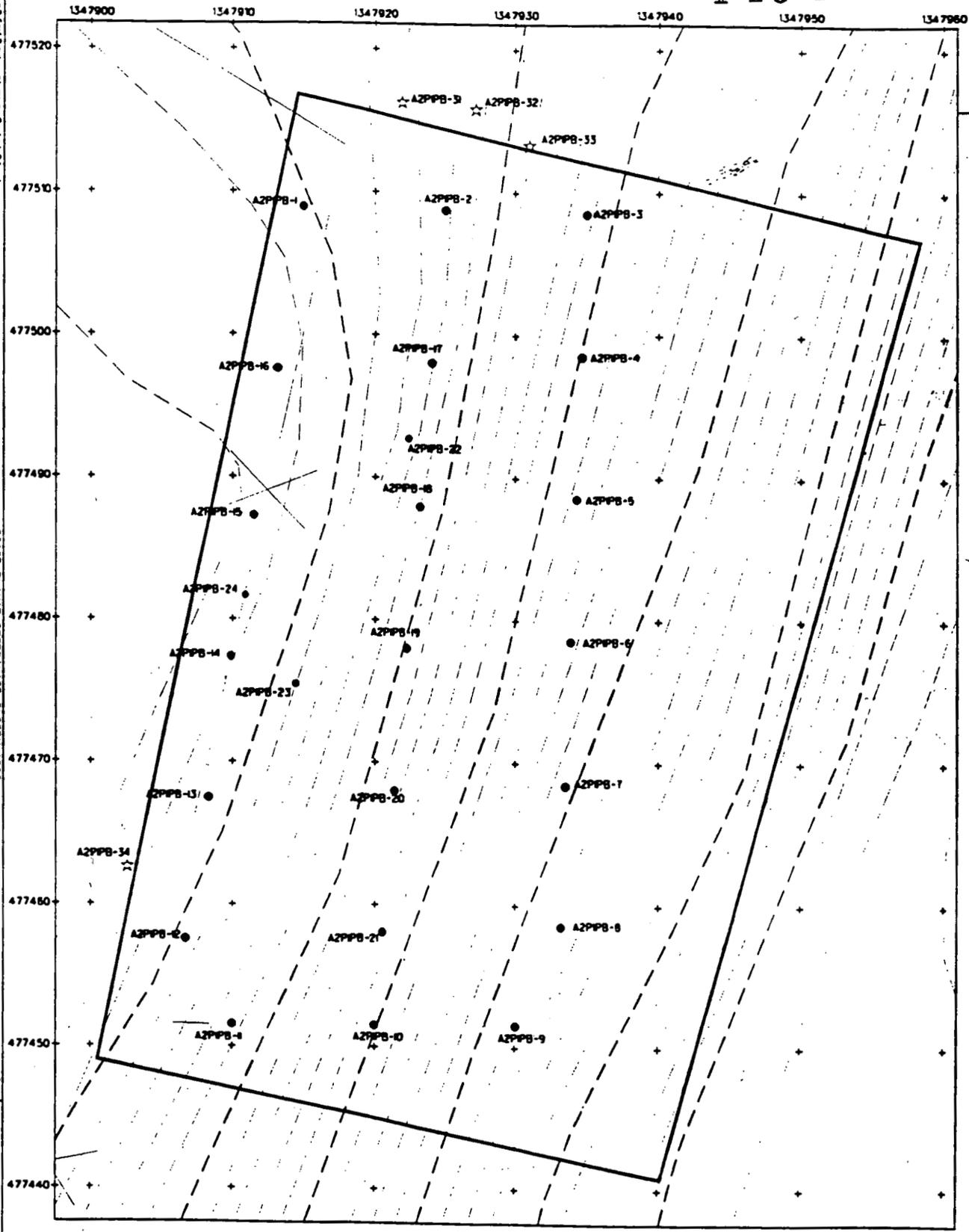
10 VZ

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STATE PLANNING COORDINATE SYSTEM 1983

STATE PLANNING COORDINATE SYSTEM 1983

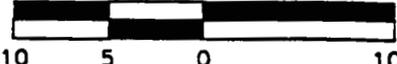
13-MAY-1998



LEGEND:

☆ ADDITIONAL SOIL SAMPLING LOCATIONS

SCALE



DRAFT

ADDITIONAL SOIL SAMPLING LOCATIONS AREA 2, PHASE I FIRING RANGE.

11

1464

TRANSMITTAL
ECDC PROJECT DOCUMENT CONTROL

105035
JARR5585

To: NICKEL, K.
Control No: INFO
Location/Mail Stop: 45

Date: 04/22/98

From: ECDC

FOLLOW INSTRUCTIONS BELOW
APPROVED VARIANCE / FCN

Project	CWO	Document No	Rev	Title of Document	Comments
22000 VARIANCE		50.03.52.03-2	0	PSP FOR SAMPLING OF SOIL STOCKPILE 5 FOR OSD F WAC ATTAINMENT	

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Date

IF TERMINATION OR TRANSFER OCCURS, NOTIFY ECDC PROJECT DOCUMENT CONTROL AT
4481

12

VARIANCE / FIELD CHANGE NOTICE	VIF No. <u>50.03.52.03</u>
WBS NO.: <u>50.03.52.03</u> Project # <u>22000-PSP-0001 Rev 0</u>	Page <u>1</u> of <u>1</u>
PROJECT TITLE: PSP for Sampling of Soil Stockpile 5 for OSDF WAC Attainment	Date: <u>4/21/98</u>

VARIANCE / FIELD CHANGE NOTICE (Include justification):

Field Change Notice:

This field change notice replaces Table B-1 in Appendix B of the PSP. This table (attached) includes the actual discrete depth intervals for each planned sample in addition to the original fraction or "percentage of pile depth" it is based upon. Additionally, the note in Table B-1 for Location SP5-11 has been changed to read: "Sample selection based on intervals ≥ 100 ccpm beta/gamma field reading".

Justification:

The revised table is necessary for the field team to collect samples from the appropriate depth interval at each boring location. The original note in Table B-1 stated that only the highest beta/gamma reading interval would be collected. An OEPA comment requested that any interval ≥ 100 ccpm should be analyzed for total uranium. The text of the PSP already reflects this change.

Variance:

The sample identifiers for biased samples, collected based on beta-gamma readings > 100 ccpm when encountered, were not provided in the PSP. The same nomenclature as specified for the random samples will be used with the following changes:

- A "B" for biased will be used before the depth code as: SP5-4-B2-R, where the "2" represents the second biased sample collected from location 4.

Justification:

A sample identification system for any biased samples collected must be unique to avoid duplication with the random depth sample identifiers.

Variance:

Archive samples will be collected from the 6-inch interval above and below any sample intervals that are ≥ 100 ccpm. If the above or below interval is already designated for sampling, then no archive sample will be necessary.

Justification:

In the event that biased sample intervals are above the total uranium WAC (1,030 mg/kg), the archive samples may be submitted for analysis in an attempt to vertically bound the contamination if necessary.

REQUESTED BY: Mike Frank Date: 4/21/98

INFORMATION
ONLY

ORIGINAL

X IF REQD	VARIANCE/FCN APPROVAL	DATE	X IF REQD	VARIANCE/FCN APPROVAL	DAT
X	QUALITY ASSURANCE <i>[Signature]</i>	4-21-98	X	AREA PROJECT MANAGER <i>[Signature]</i>	4/21
	DATA QUALITY MANAGEMENT		X	FIELD SAMPLING MGR. <i>[Signature]</i>	4/21
	ANALYTICAL CUSTOMER SUPPORT			CHARACTERIZATION LEAD	
	OTHER			REAL-TIME MANAGER	
VARIANCE/FCN APPROVED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			REVISION REQUIRED: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		

TABLE B-1: Soil Pile 5 (SP-5) Sample Identifiers, Depths, Target Analytes

Sample Identifier	Relative Fraction for Sample Depths	Soil Pile Depth at Sample Location	Discrete Sample Interval Depth From Surface (ft)	Discrete Sample Interval Depth From Surface (ft & in)	Target Analytes
SP5-1-1-R	0.44	11.1 ft	4.9 - 5.4 ft	4'11" - 5'5"	Total U, Tc-99
SP5-1-2-R	0.64		7.1 - 7.6 ft	7'1" - 7'7"	Total U, Tc-99
SP5-1-3-R	0.86		9.5 - 10.0 ft	9'6" - 10'0"	Total U, Tc-99
SP5-2-1-R	0.21	6.75 ft	1.4 - 1.9 ft	1'5" - 1'11"	Total U, Tc-99
SP5-2-2-R	0.62		4.2 - 4.7 ft	4'2" - 4'8"	Total U, Tc-99
SP5-2-3-R	0.76		5.1 - 5.6 ft	5'1" - 5'7"	Total U, Tc-99
SP5-3-1-R	0.02	4.48 ft	0.1 - 0.6 ft	0'1" - 0'7"	Total U, Tc-99
SP5-3-1-S	0.02 + 0.5ft		0.6 - 1.1 ft	0'7" - 1'1"	SVOC's
SP5-3-2-R	0.39		1.7 - 2.2 ft	1'8" - 2'2"	Total U, Tc-99
SP5-3-2-S	0.39 + 0.5ft		2.2 - 2.7 ft	2'2" - 2'8"	SVOC's
SP5-3-3-R	0.66		3.0 - 3.5 ft	3'0" - 3'6"	Total U, Tc-99
SP5-3-3-S	0.66 + 0.5ft		3.5 - 4.0 ft	3'6" - 4'0"	SVOC's
SP5-4-1-R	0.10	13.95 ft	1.4 - 1.9 ft	1'5" - 1'11"	Total U, Tc-99
SP5-4-2-R	0.41		5.7 - 6.2 ft	5'8" - 6'2"	Total U, Tc-99
SP5-4-3-R	0.95		13.3 - 13.8 ft	13'4" - 13'10"	Total U, Tc-99
SP5-5-1-R	0.13	8.0 ft	1.0 - 1.5 ft	1'0" - 1'6"	Total U, Tc-99
SP5-5-2-R	0.34		2.7 - 3.2 ft	2'8" - 3'2"	Total U, Tc-99
SP5-5-3-R	0.93		7.4 - 7.9 ft	7'5" - 7'11"	Total U, Tc-99
SP5-6-1-R	0.15	2.44 ft	0.4 - 0.9 ft	0'5" - 0'11"	Total U, Tc-99
SP5-6-2-R	0.46		1.1 - 1.6 ft	1'1" - 1'7"	Total U, Tc-99
SP5-6-3-R	0.86		2.1 - 2.6 ft	2'1" - 2'7"	Total U, Tc-99
SP5-7-1-R	0.10	12.9 ft	1.3 - 1.8 ft	1'4" - 1'10"	Total U, Tc-99
SP5-7-1-S	0.10 + 0.5ft		1.8 - 2.3 ft	1'10" - 2'4"	SVOC's
SP5-7-2-R	0.41		5.4 - 5.9 ft	5'5" - 5'11"	Total U, Tc-99
SP5-7-2-S	0.41 + 0.5ft		5.9 - 6.4 ft	5'11" - 6'5"	SVOC's
SP5-7-3-R	0.84		11.1 - 11.6 ft	11'1" - 11'7"	Total U, Tc-99
SP5-7-3-S	0.84 + 0.5ft		11.6 - 12.1 ft	11'7" - 12'1"	SVOC's
SP5-8-1-R	0.24	15.52 ft	3.7 - 4.2 ft	3'8" - 4'2"	Total U, Tc-99
SP5-8-2-R	0.73		11.3 - 11.8 ft	11'4" - 11'10"	Total U, Tc-99
SP5-8-3-R	0.91		14.1 - 14.6 ft	14'1" - 14'7"	Total U, Tc-99

April 21, 1998

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Sample Identifier	Relative Fraction for Sample Depths	Soil Pile Depth at Sample Location	Discrete Sample Interval Depth From Surface (ft)	Discrete Sample Interval Depth From Surface (ft & in)	Target Analytes
SP5-9-1-R	0.28	14.82 ft	4.1 - 4.6 ft	4'1" - 4'7"	Total U, Tc-99
SP5-9-1-S	0.28 + 0.5ft		4.6 - 5.1 ft	4'7" - 5'1"	SVOC's
SP5-9-2-R	0.36		5.3 - 5.8 ft	5'4" - 5'10"	Total U, Tc-99
SP5-9-2-S	0.36 + 0.5ft		5.8 - 6.3 ft	5'10" - 6'4"	SVOC's
SP5-9-3-R	0.94		13.9 - 14.4 ft	13'11" - 14'5"	Total U, Tc-99
SP5-9-3-S	0.94 + 0.5ft		14.4 - 14.9 ft	14'5" - 14'11"	SVOC's
SP5-10-1-R	0.02	15.0 ft	0.3 - 0.8 ft	0'4" - 0'10"	Total U, Tc-99
SP5-10-2-R	0.15		2.2 - 2.7 ft	2'2" - 2'8"	Total U, Tc-99
SP5-10-3-R	0.79		11.8 - 12.3 ft	11'10" - 12'4"	Total U, Tc-99
SP5-11-1-R	0.03	14.2 ft	0.4 - 0.9 ft	0'5" - 0'11"	Total U, Tc-99
SP5-11-2-R	0.46		6.5 - 7.0 ft	6'6" - 7'0"	Total U, Tc-99
SP5-11-3-R	0.62		8.8 - 9.3 ft	8'10" - 9'4"	Total U, Tc-99
SP5-11A	Sample selection based on intervals ≥ 100 ccpm beta/gamma field reading				Total U
SP5-11B				Total U	
SP5-11-C				Total U	
SP5-11D				Total U	
SP5-12-1-R	0.14	13.6 ft	1.9 - 2.4 ft	1'11" - 2'5"	Total U, Tc-99
SP5-12-2-R	0.25		3.4 - 3.9 ft	3'5" - 3'11"	Total U, Tc-99
SP5-12-3-R	0.56		7.6 - 8.1 ft	7'7" - 8'1"	Total U, Tc-99
SP5-13-1-R	0.17	5.07 ft	0.7 - 1.2 ft	0'8" - 1'2"	Total U, Tc-99
SP5-13-2-R	0.31		1.6 - 2.1 ft	1'7" - 2'1"	Total U, Tc-99
SP5-13-3-R	0.69		3.5 - 4.0 ft	3'6" - 4'0"	Total U, Tc-99
SP5-14-1-R	0.24	14.87 ft	3.6 - 4.1 ft	3'7" - 4'1"	Total U, Tc-99
SP5-14-2-R	0.54		8.0 - 8.5 ft	8'0" - 8'6"	Total U, Tc-99
SP5-14-3-R	0.65		9.7 - 10.2 ft	9'8" - 10'2"	Total U, Tc-99
SP5-15-1-R	0.36	3.5 ft	0.3 - 0.8 ft	0'4" - 0'10"	Total U, Tc-99
SP5-15-2-R	0.59		2.0 - 2.5 ft	2'0" - 2'6"	Total U, Tc-99
SP5-15-3-R	0.87		3.0 - 3.5 ft	3'0" - 3'6"	Total U, Tc-99
SP5-16-1-R	0.22	13.35 ft	2.9 - 3.4 ft	2'11" - 3'5"	Total U, Tc-99
SP5-16-2-R	0.37		4.9 - 5.4 ft	4'11" - 5'5"	Total U, Tc-99
SP5-16-3-R	0.59		7.9 - 8.4 ft	7'11" - 8'5"	Total U, Tc-99

Sample Identifier	Relative Fraction for Sample Depths	Soil Pile Depth at Sample Location	Discrete Sample Interval Depth From Surface (ft)	Discrete Sample Interval Depth From Surface (ft & in)	Target Analytes
SP5-17-1-R	0.16	6.7 ft	1.1 - 1.6 ft	1'1" - 1'7"	Total U, Tc-99
SP3-17-1-S	0.16 + 0.5ft		1.6 - 2.1 ft	1'7" - 2'1"	SVOC's
SP5-17-2-R	0.42		2.8 - 3.3 ft	2'10" - 3'4"	Total U, Tc-99
SP5-17-2-S	0.42 + 0.5ft		3.3 - 3.8 ft	3'4" - 3'10"	SVOC's
SP5-17-3-R	0.72		4.8 - 5.3 ft	4'10" - 5'4"	Total U, Tc-99
SP5-17-3-S	0.72 + 0.5ft		5.3 - 5.8 ft	5'4" - 5'10"	SVOC's
SP5-18-1-R	0.15	11.57 ft	1.7 - 2.2 ft	1'8" - 2'2"	Total U, Tc-99
SP5-18-2-R	0.37		4.3 - 4.8 ft	4'4" - 4'10"	Total U, Tc-99
SP5-18-3-R	0.64		7.4 - 7.9 ft	7'5" - 7'11"	Total U, Tc-99

April 21, 1998

TRANSMITTAL
ECDC PROJECT DOCUMENT CONTROL

105035
 JARR5585

To: NICKEL, K. Date: 04/27/98
 Control No: INFO
 Location/Mail Stop: 45
 From: ECDC

FOLLOW INSTRUCTIONS BELOW

**APPROVED VARIANCE / FCN. PLEASE ATTACH PAGE 2 TO THE VARIANCE/FCN
 PREVIOUSLY DISTRIBUTED**

Project	CWO	Document No	Rev	Title of Document	Comments
22000 VARIANCE		50.03.52.03-2	0	PSP FOR SAMPLING OF SOIL STOCKPILE 5 FOR OSDF WAC ATTAINMENT	

As a controlled document holder, you are required to destroy any old revisions of this document. Sign and date below, verifying receipt of these documents. **Return this record of receipt to ECDC PROJECT DOCUMENT CONTROL, 52-7.** Return receipt within ten (10) days of transmittal date.

Signature

Date

**IF TERMINATION OR TRANSFER OCCURS, NOTIFY ECDC PROJECT DOCUMENT CONTROL AT
 4481**

Sample Identifier	Relative Fraction for Sample Depths	Soil Pile Depth at Sample Location	Discrete Sample Interval Depth From Surface (ft)	Discrete Sample Interval Depth From Surface (ft & in)	Target Analytes
SP5-17-1-R	0.16	6.7 ft	1.1 - 1.6 ft	1'1" - 1'7"	Total U, Tc-99
SP3-17-1-S	0.16+0.5ft		1.6 - 2.1 ft	1'7" - 2'1"	SVOC's
SP5-17-2-R	0.42		2.8 - 3.3 ft	2'10" - 3'4"	Total U, Tc-99
SP5-17-2-S	0.42+0.5ft		3.3 - 3.8 ft	3'4" - 3'10"	SVOC's
SP5-17-3-R	0.72		4.8 - 5.3 ft	4'10" - 5'4"	Total U, Tc-99
SP5-17-3-S	0.72+0.5ft		5.3 - 5.8 ft	5'4" - 5'10"	SVOC's
SP5-18A-1-R	0.15	13.1 ft	2.0 - 2.5 ft	2'0" - 2'6"	Total U, Tc-99
SP5-18A-2-R	0.37		4.8 - 5.3 ft	4'10" - 5'4"	Total U, Tc-99
SP5-18A-3-R	0.64		8.4 - 8.9 ft	8'5" - 8'11"	Total U, Tc-99

INFORMATION
ONLY

TRANSMITTAL
ECDC PROJECT DOCUMENT CONTROL

108620
JARR5585

To: NICKEL, KATHLEEN A
Control No: INFO
Location/Mail Stop: 45
Date: 05/11/98
From: ECDC

FOLLOW INSTRUCTIONS BELOW
APPROVED VARIANCE/ 21010

Project	CWO	Document No	Rev	Title of Document	Comments
21010 VARIANCE		50.03.74.02-1	0	AREA 8, PHASE I CERTIFICATION SAMPLING , REV 1	INFORMATION ONLY
21010 VARIANCE		50.03.74.02-2	0	AREA 8, PHASE I CERTIFICATION SAMPLING , REV 1	INFORMATION ONLY
21010 VARIANCE		50.03.74.02-3	0	AREA 8, PHASE I CERTIFICATION SAMPLING , REV 1	INFORMATION ONLY

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Signature

Date

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4481

VARIANCE / FIELD CHANGE NOTICE

V/F 50.03.74.02-1

WBS NO.: 50.03.74.02

Page 1 of 1

PROJECT TITLE: PSP for Area 8, Phase I Certification Sampling, Rev. 1 (21010-PSP-0001)

Date: 4/28/98

VARIANCE / FIELD CHANGE NOTICE (Include justification):

This Variance documents the field changes necessary to carry out gamma spectroscopy analysis, the desired method for analysis of certification samples.

Field Change Notice:

At least 1000 grams (dry weight) of soil must be collected, and 8 liters of rinsate water must be collected, as follows:

- The necessary soil volume will be obtained by performing two separate pushes to a depth of six inches using two 3-inch diameter plastic liners or one 3-inch liner and one 2-inch liner. The second sample must be collected within 3 inches of the original location. The two plastic liners from each location will be assigned the same sample number, and the soil from each will be treated as one sample by the laboratory.
- The necessary volume of rinsate water will be obtained by rinsing four plastic liners each with two liters of deionized water. The four, 2-liter aliquots of rinsate water will then be composited into two, 1-gallon polyethylene containers to obtain the necessary 8 liters of water. Two rinsates will be collected in this manner, as specified in the PSP.

Justification:

For certification analysis, gamma spectroscopy is preferable to alpha spectroscopy. The larger volumes of soil and water are necessary to meet the specified HAMDCs by gamma spectroscopy analysis.

REQUESTED BY: Mike Frank

Date: 4/28/98

X IF REQD	VARIANCE/FCN APPROVAL	DATE	X IF REQD	VARIANCE/FCN APPROVAL	DATE
X	QUALITY ASSURANCE <i>P. Juske</i>	5/6/98	X	PROJECT MANAGER <i>John E. Wood</i>	5-4-98
	DATA QUALITY MANAGEMENT		X	CHARACTERIZATION LEAD <i>P. Juske</i>	5/4/98
	ANALYTICAL CUSTOMER SUPPORT		X	FIELD SAMPLING LEAD <i>Mike Frank</i>	5/4/98
	OTHER			OTHER	

VARIANCE/FCN APPROVED (X) YES () NO REVISION REQUIRED: () YES (x) NO

DISTRIBUTION

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QUALITY ASSURANCE:	OTHER:	OTHER:
FIELD MANAGER:	OTHER:	OTHER:

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20

VARIANCE / FIELD CHANGE NOTICE

1464

V/F 50.03.74.02-2

WBS NO.: 50.03.74.02

Page 1 of 2

PROJECT TITLE: PSP for Area 8, Phase I Certification Sampling, Rev. 1 (21010-PSP-0001)

Date: 5/5/98

VARIANCE / FIELD CHANGE NOTICE (Include justification):

Field Change Notice:

As a result of U.S. EPA comments, two A8PI certification sampling locations have been moved within CU-02, and an additional sample location has been added to CU-01, as follows:

- Sample location A8P1-02-05 is now at Easting = 1346094, Northing = 478951.
- Sample location A8P1-02-14 is now at Easting = 1346181, Northing = 479197.
- A 17th location has been added to CU-01. It is identified as A8P1-01-17, is located at Easting = 1346584, Northing = 478672, and will be submitted for analysis in the same manner as other certification samples. Therefore, 13 samples from CU-01 will be submitted for analysis.

The revised Figure 7 (attached) shows the final certification sampling locations within A8PI, including the above.

Justification:

A check of the minimum distance criterion failed to identify two sample pairs that did not meet the criterion. Locations A8P1-02-05 and A8P1-02-09 were positioned slightly closer than the minimum distance, as were locations A8P1-02-13 and A8P1-02-14. The above randomly generated sample locations were generated within sub-CUs 05 and 14 of CU-02, and the minimum distance criterion is now satisfied for all certification sampling locations.

Because the pre-certification scan did not include some land within CU-01, an additional certification sampling location has been added within this area to satisfy the concern of the U.S. EPA. This new location also meets the minimum distance criterion.

REQUESTED BY: Eric Woods

Date: 4/29/98

X IF REQD	VARIANCE/FCN APPROVAL	DATE	X IF REQD	VARIANCE/FCN APPROVAL	DATE
X	QUALITY ASSURANCE <i>E. Woods</i>	5-6-98	X	PROJECT MANAGER <i>Eric Woods</i>	5/6/98
	DATA QUALITY MANAGEMENT		X	CHARACTERIZATION LEAD <i>[Signature]</i>	5/7/98
	ANALYTICAL CUSTOMER SUPPORT		X	FIELD SAMPLING LEAD <i>Eric Woods</i>	5/6/98
	OTHER			OTHER	

VARIANCE/FCN APPROVED YES NO

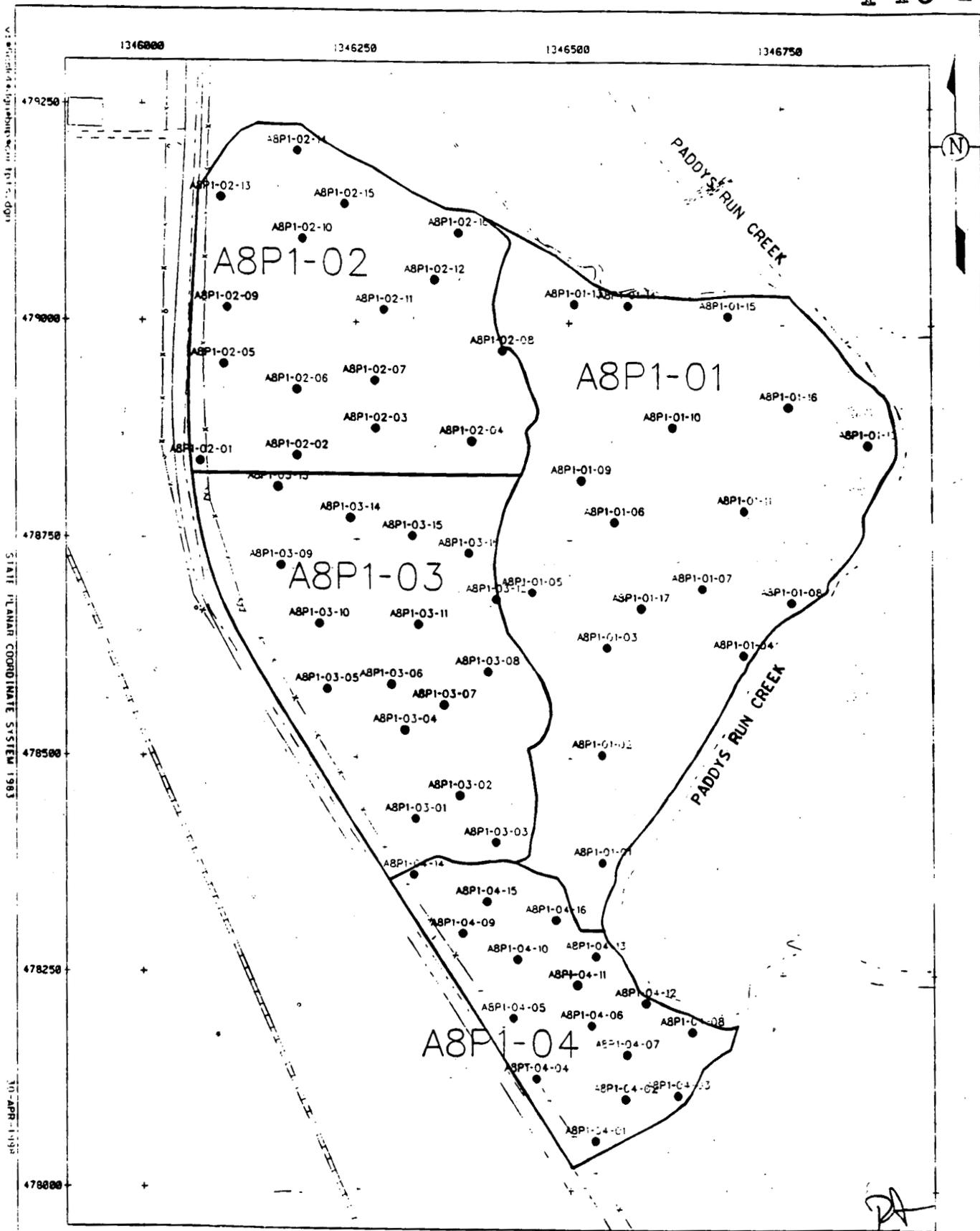
REVISION REQUIRED: YES NO

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LEGEND:

— CU BOUNDARY

A8P1-01 CERTIFICATION UNIT NAME

SCALE



DRAFT

FIGURE 7. AREA 8, PHASE 1 CERTIFICATION SAMPLING LOCATIONS

VARIANCE / FIELD CHANGE NOTICE

1464

V/F 50.03.74.02-3

WBS NO.: 50.03.74.02

Page 1 of 1

PROJECT TITLE: PSP for Area 8, Phase I Certification Sampling, Rev. 1 (21010-PSP-0001)

Date: 5/6/98

VARIANCE / FIELD CHANGE NOTICE (Include justification):

Field Change Notice:

If previously used stainless steel liners are used to collect A8PI certification samples, additional rinsates will be collected at a frequency of 1 rinsate per 20 stainless steel liners. The two rinsates will still be collected for the plastic liners, but the total rinsates collected will not exceed the 1 per 20 requirement (i.e. four rinsates). The method of rinsate collection is described in V/FCN 50.03.74.02-1.

Justification:

The frequency of rinsate collection specified in the PSP is for plastic or stainless steel liners that have not been reused. Since reused stainless steel liners will be used to collect samples, the frequency of rinsate collection must be increased.

REQUESTED BY: Mike Frank

Date: 5/5/98

X IF REQD	VARIANCE/FCN APPROVAL	DATE	X IF REQD	VARIANCE/FCN APPROVAL	DATE
X	QUALITY ASSURANCE <i>[Signature]</i>	5/6/98	X	PROJECT MANAGER <i>[Signature]</i>	5/6/98
	DATA QUALITY MANAGEMENT		X	CHARACTERIZATION LEAD <i>[Signature]</i>	5/7/98
	ANALYTICAL CUSTOMER SUPPORT		X	FIELD SAMPLING LEAD <i>[Signature]</i>	5/6/98
	OTHER			OTHER	

VARIANCE/FCN APPROVED (X) YES () NO

REVISION REQUIRED: () YES (x) NO

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QUALITY ASSURANCE:	OTHER:	OTHER:
FIELD MANAGER:	OTHER:	OTHER:

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