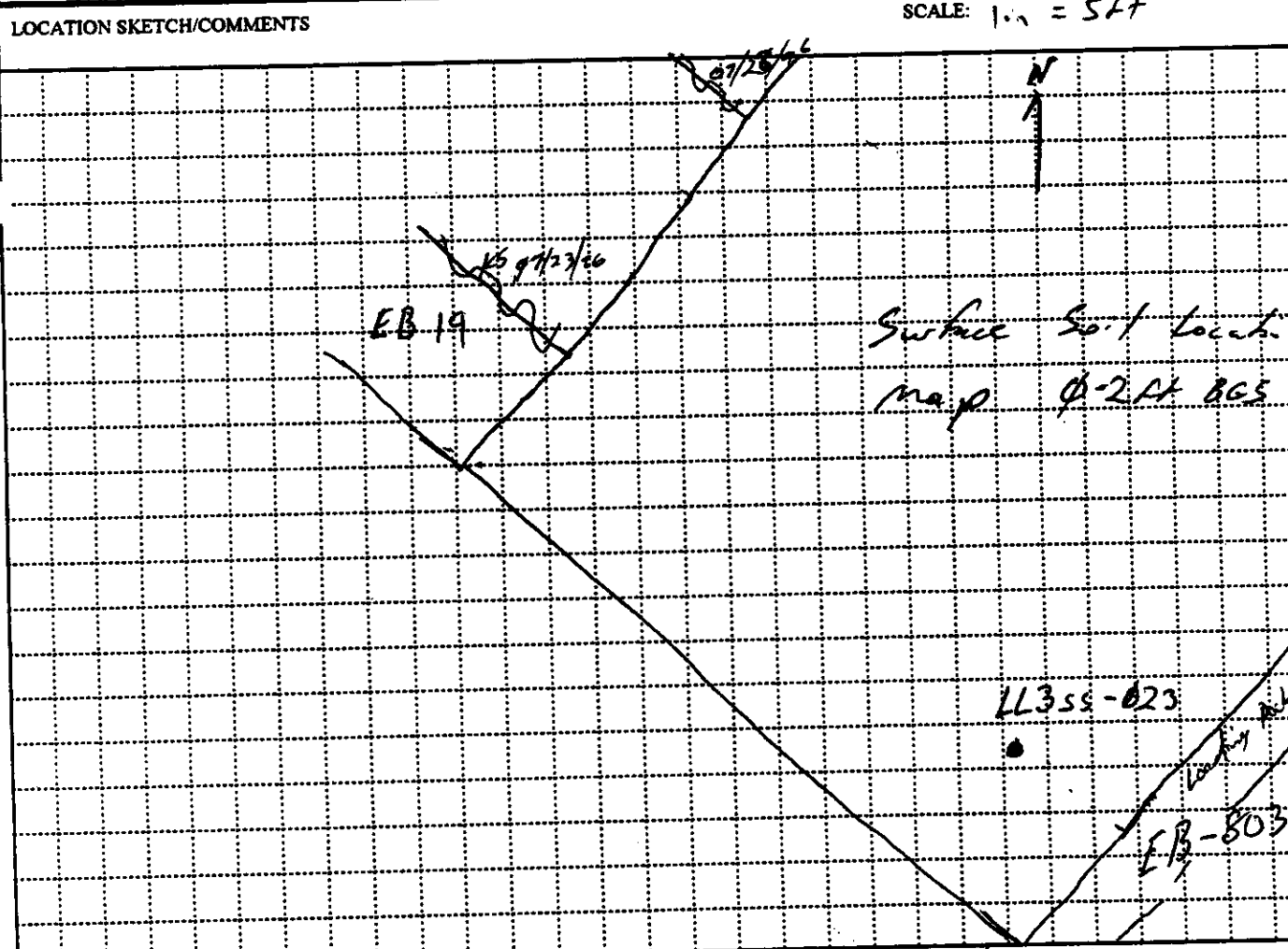


HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER LL355-023
1. COMPANY NAME S A I C		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
3. PROJECT RUAAP		4. LOCATION LL355-023 Building EB-803	
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL hand auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger		8. HOLE LOCATION SEE SKETCH BELOW	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 7/23/96	11. DATE COMPLETED 7/23/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 22 in		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA
19. TOTAL NUMBER OF CORE BOXES NA			
20. SAMPLES FOR CHEMICAL ANALYSIS NO SEE SAMPLE COR		VOC	METALS
21. TOTAL CORE RECOVERY % NA		OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA
		OTHER (SPECIFY) Bentonite	23. SIGNATURE OF INSPECTOR <i>[Signature]</i>



PROJECT Ravenna Army Ammunition Plant	HOLE NO. LL355-023
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HTRW DRILLING LOG

HOLE NUMBER
LL355-033

SHEET
2 of 2

PROJECT

RVAAP

INSPECTOR

K. Swain

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	Gray Black topsoil organic-rich				
		Yellow orange silty-clay w/ rock frags				
	12 inches		→ red soil			Let auger run off/cont'd sampling same bore hole
		becomes mottled w/ gray clay & 10% mottling	Red soil			Concrete frag?
	24 inches					

PROJECT

RVAAP

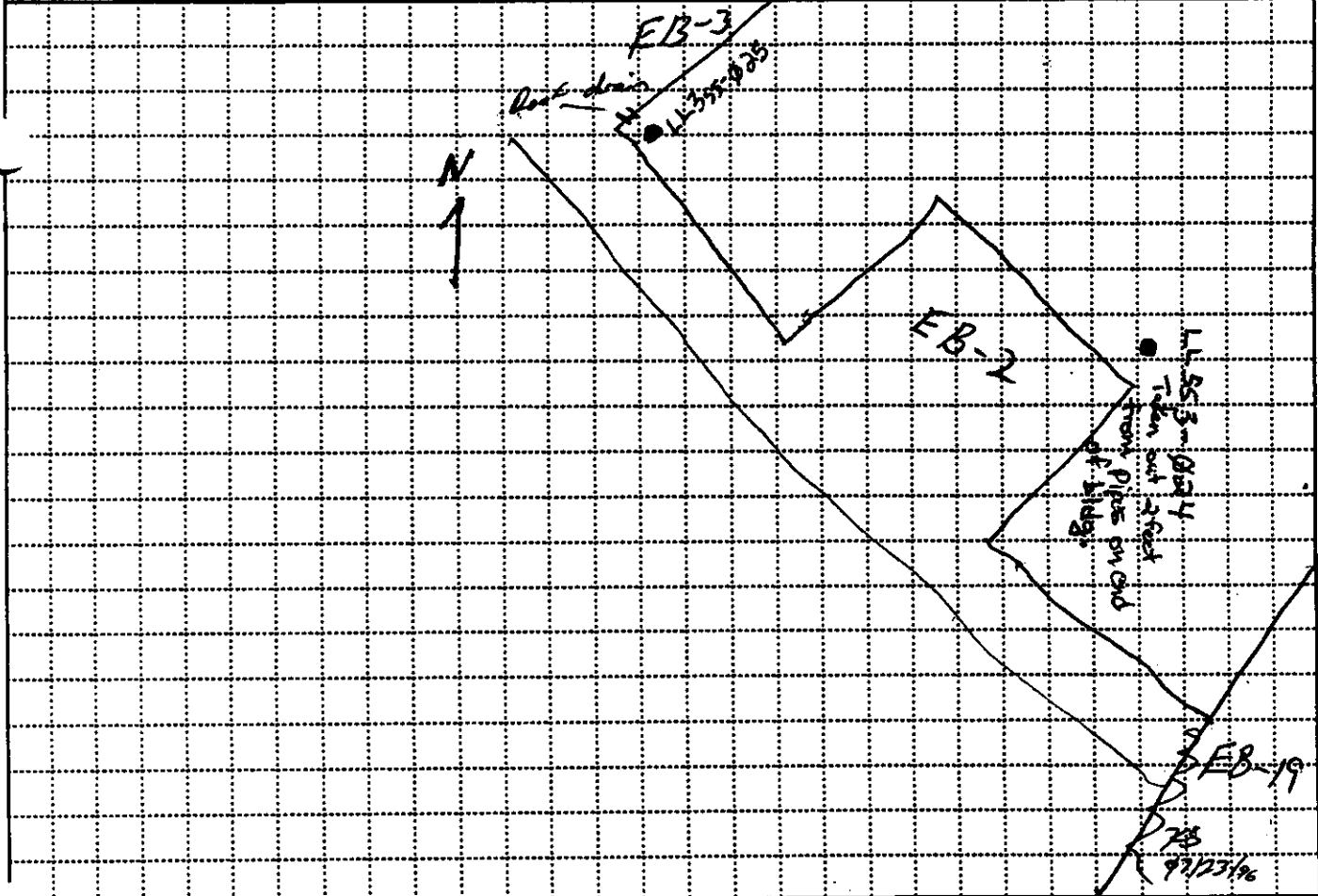
HOLE NO.

LL355-033

32

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER LL353-Ø24 & Ø25	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET 1 OF 2 SHEETS
3. PROJECT RVAAP		4. LOCATION LL353-Ø24/LL353-Ø25		
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger		8. HOLE LOCATION SEE SKETCH BELOW		
		9. SURFACE ELEVATION NA		
		10. DATE STARTED 7/23/96	11. DATE COMPLETED 7/23/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 24 inches		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS SEE SAMPLE CDC	VOC NA	METALS NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY % NA	22. DISPOSITION OF HOLE Abandoned			
BACKFILLED NA		MONITORING WELL NA	OTHER (SPECIFY) Bentonite	23. SIGNATURE OF INSPECTOR <i>[Signature]</i>

LOCATION SKETCH/COMMENTS SCALE: 1 in = 50 ft



PROJECT RVAAP	HOLE NO. LL353-Ø24 & Ø25
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HTRW DRILLING LOG

HOLE NUMBER LL553-024 & 025
SHEET 2 of 2

PROJECT	RVAAP	INSPECTOR	KS			
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	Yellow-brown silty clay				
	10.00					
	14.00					
	15.00					
	16.00					
	17.00					
	18.00					
	19.00					
	20.00					
	21.00					
	22.00					
	23.00					
	24.00					
	25.00					
	26.00					
	27.00					
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	41.00					
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	88.00					
	89.00					
	90.00					
	91.00					
	92.00					
	93.00					
	94.00					
	95.00					
	96.00					
	97.00					
	98.00					
	99.00					
	100.00					

PROJECT RVAAP

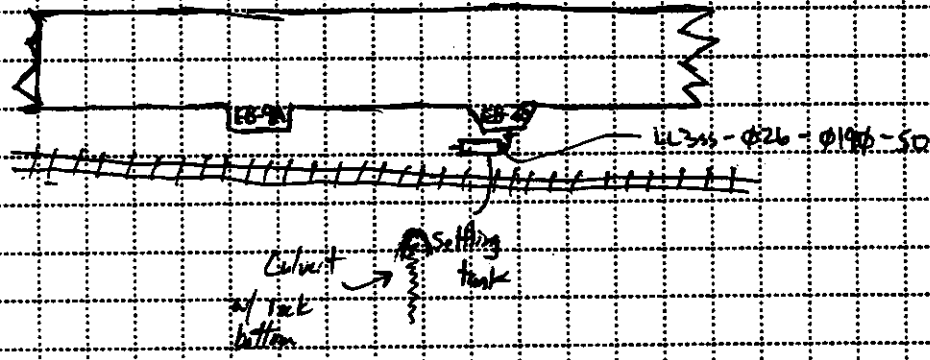
HOLE NO. LL553-024 & 025

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL355-026-0190-50	
1. COMPANY NAME SAC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP			4. LOCATION LL3 / RVAAP		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger		8. HOLE LOCATION SEE SKETCH BELOW			
9. SURFACE ELEVATION NA					
10. DATE STARTED NA			11. DATE COMPLETED NA		
12. OVERBURDEN THICKNESS NA			13. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 6" BGS.			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS See Sample Log		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
21. TOTAL CORE RECOVERY NA %		OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	23. SIGNATURE OF INSPECTOR <i>[Signature]</i>

LOCATION SKETCH/COMMENTS

Sketch of LL3, EB-9A, EB-25 (settling tank, effluent & down gradient pts)

SCALE: 1" = 50'



PROJECT RVAAP	HOLE NO. LL355-026-0190-50
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HTRW DRILLING LOG

HOLE NUMBER
LL355-026-0190-50

SHEET
2 of 2

PROJECT

RVAAP

INSPECTOR

K. Smith

ELEV.
(A)

DEPTH
(B)

DESCRIPTION OF MATERIALS
(C)

FIELD SCREENING
RESULTS
(D)

GEOTECH SAMPLE
OR CORE BOX NO
(E)

ANALYTICAL
SAMPLE NO.
(F)

REMARKS
(G)

Brownish-tan clayey silt

Refract at 6" hrs
on rock fragments

6"

6"

PROJECT

RVAAP

HOLE NO.

LL355-026-0190-50

42

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL355-029	
1. COMPANY NAME SAC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 of 2	
3. PROJECT RVAAP			4. LOCATION LL3/RVAAP		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger.		8. HOLE LOCATION See Sketch for LL355-34, 33, 30, 32, 31.			
			9. SURFACE ELEVATION NA		
		10. DATE STARTED 07/26/96		11. DATE COMPLETED 07/26/96	
12. OVERBURDEN THICKNESS NA			13. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA			14. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 10" BGS.			15. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES		DISTURBED		UNDISTURBED	
NA		NA		NA	
19. TOTAL NUMBER OF CORE BOXES NA		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY % NA	
SEE SAMPLE COC		VOC		OTHER (SPECIFY)	
		NA		NA	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED		MONITORING WELL	
		NA		NA	
23. SIGNATURE OF INSPECTOR Bertone		OTHER (SPECIFY)		OTHER (SPECIFY)	
		NA		NA	
LOCATION SKETCH/COMMENTS See Sketch LL355-34, 33, 30, 32, 31 for location of LL355-029 SCALE: n/a					
<p>SEE SKETCH FOR</p> <p>LL355-034, -033, -030,</p> <p>-032, -031.</p>					
PROJECT RVAAP			HOLE NO. LL355-029		

HTRW DRILLING LOG

HOLE NUMBER
LL355-029

PROJECT
RVAAP

INSPECTOR
J. Wilson

SHEET
2 of 2

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0"	Tannish-grey silt w/ numerous rock fragments and brick fragments				LL355-029 ↓ Retrad @ 10" bgs
	5"					
	10"					
<div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); opacity: 0.5;"> <p>END 07-26-97</p> </div>						

PROJECT

RVAAP

HOLE NO.

LL355-029

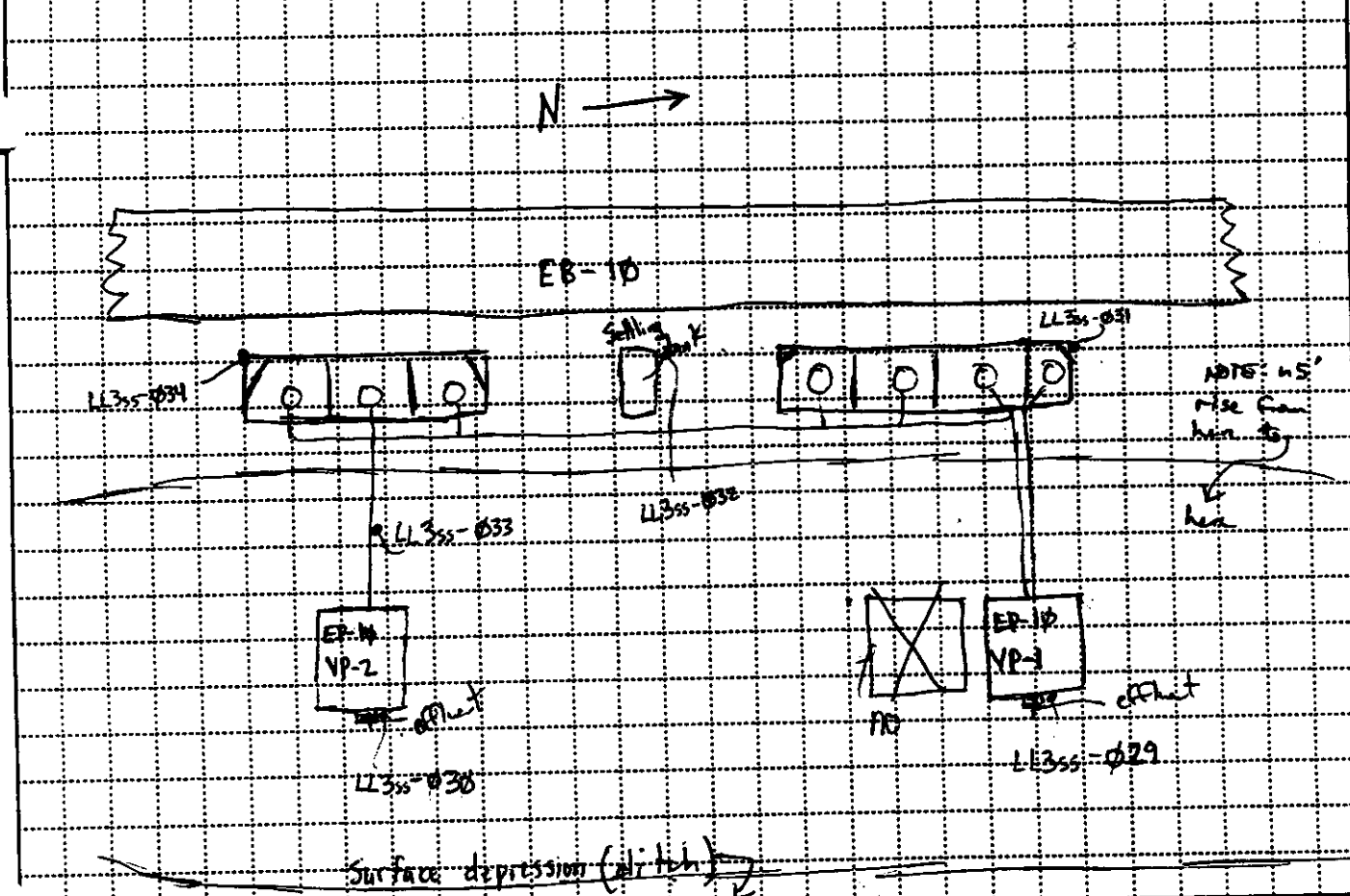
54

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL355-34, 39, 32, 31	
1. COMPANY NAME RVAAP SAC		3. DRILL SUBCONTRACTOR N-4		SHEET SHEETS 1 OF 2	
PROJECT RVAAP			4. LOCATION LL3 / RVAAP		
5. NAME OF DRILLER NA			6. MANUFACTURER'S DESIGNATION OF DRILL Hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger		8. HOLE LOCATION SEE SKETCH BELOW			
9. SURFACE ELEVATION NA			10. DATE STARTED 07/26/96		
			11. DATE COMPLETED 07/26/96		
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE NA		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED NA		UNDISTURBED NA	
19. TOTAL NUMBER OF CORE BOXES NA		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY % NA	
VOC		METALS		OTHER (SPECIFY)	
OTHER (SPECIFY)		OTHER (SPECIFY)		OTHER (SPECIFY)	
SEE SAMPLE COC		BACKFILLED		MONITORING WELL	
Abandoned		NA		NA	
22. DISPOSITION OF HOLE		23. SIGNATURE OF INSPECTOR <i>[Signature]</i>		OTHER (SPECIFY)	
Abandoned		NA		Bentonite	

LOCATION SKETCH/COMMENTS

SCALE: 1" = 20 FT

EAST side of EA-10 Surface Soil Boring Locations



PROJECT RVAAP	HOLE NO. LL355-034, 033, 030, 032, & 031. (Proponent: CECW-EG)
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HTRW DRILLING LOG

HOLE NO. EA-10
 SHEET 2 of 2

PROJECT	ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
EVAAP							INSPECTOR K. SWAN
		0"	Aggregate fill w/ abundant organics				LL3ss-034
		7"					Refusal at 7" bgs on large rock fragment
		0"	Tan-gray clayey silt w/ large rock fragments				LL3ss-033
		10"					Refusal at 11" bgs on large rock
		0"	Topsoil of rock fragment ↓ dark brown				LL3ss-030
		10"	numerous shiny black objects (coal-like) SAA brick fragments				Refusal at 18" bgs on probable brick
		0"	Coarse tan sand of rock fragments				LL3ss-032
		5"	SAA				Refusal at 13" bgs
		0"	Tan brown silt w/ very large rock and brick fragments				LL3ss-031
		8"					Refusal at 8" bgs

PROJECT RVAAP

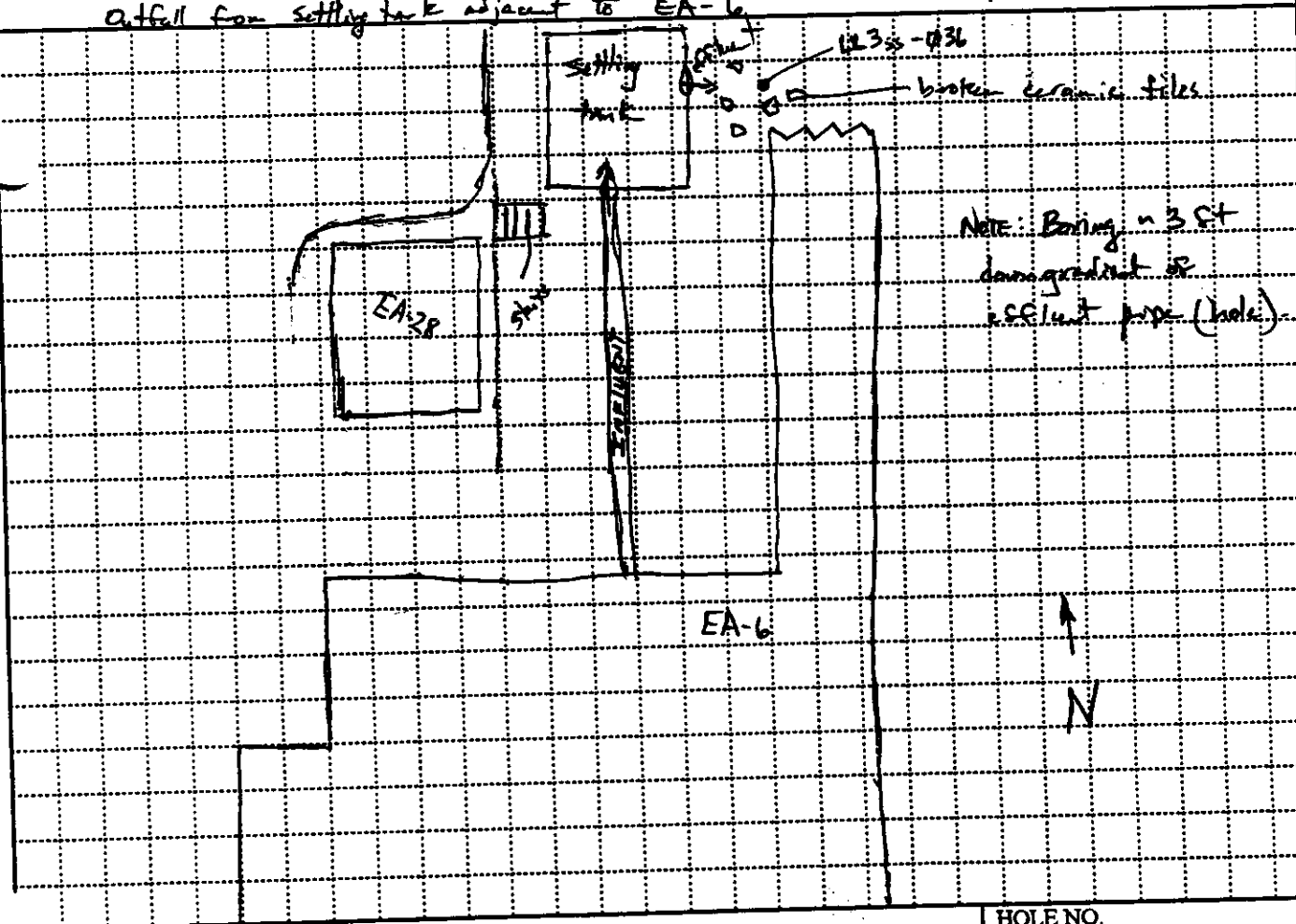
HOLE NO. LL3ss-034, 033, 030, 032, 031.

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER LL35-036
1. COMPANY NAME SAC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
OBJECT RVAAP		4. LOCATION LL3/RVAAP	
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL hand auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" ss. hand auger		8. HOLE LOCATION See sketch below	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 07/26/90	11. DATE COMPLETED 07/26/90
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 10" BGS.		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES		19. TOTAL NUMBER OF CORE BOXES NA	
DISTURBED NA		UNDISTURBED NA	
20. SAMPLES FOR CHEMICAL ANALYSIS NA		21. TOTAL CORE RECOVERY % NA	
VOC NA		OTHER (SPECIFY) NA	
METALS NA		OTHER (SPECIFY) NA	
OTHER (SPECIFY) NA		OTHER (SPECIFY) NA	
22. DISPOSITION OF HOLE Abandoned		23. SIGNATURE OF INSPECTOR <i>[Signature]</i>	
BACKFILLED NA		MONITORING WELL NA	
OTHER (SPECIFY) NA		OTHER (SPECIFY) Benonite	

LOCATION SKETCH/COMMENTS

SCALE: 1" = 10'

Outfall for settling tank adjacent to EA-6



PROJECT

RVAAP

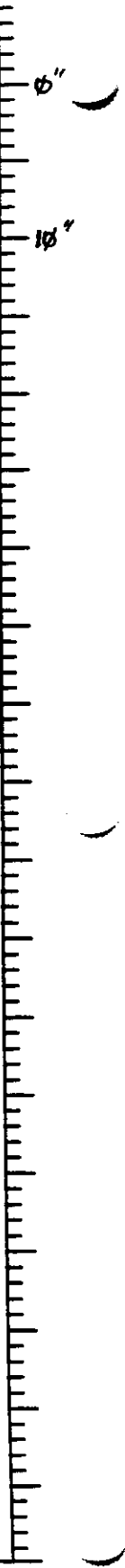
HOLE NO.

LL355-036

HTRW DRILLING LOG

PROJECT: **RVAAP** INSPECTOR: *K. Sullivan* HOLE NUMBER: **LL355-036** SHEET: **2 of 2**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	<p>0" 10" </p>	<p>Tan-brown sandy silt w/ small rock fragments</p>				<p>LL355-036 ↓ Reveal of 10" logs on large rock fragments</p> <p><i>to 01/20/96</i></p>



PROJECT **RVAAP**

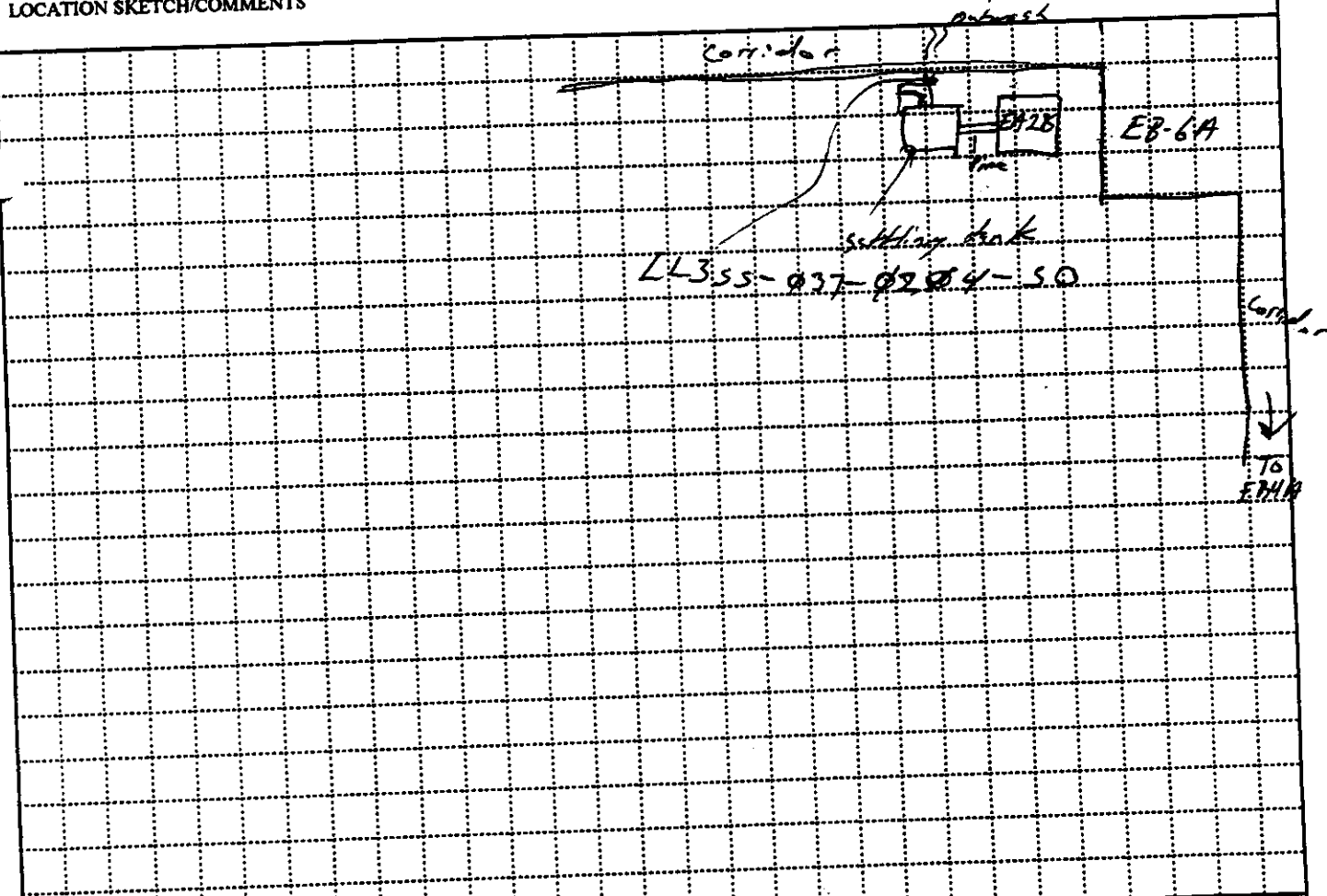
HOLE NO.
LL355-036

50

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER LL355-037
1. COMPANY NAME SATIC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
PROJECT RVAAP		4. LOCATION LL3/RVAAP	
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL HAND AUGER	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3/15.5. hand auger.		8. HOLE LOCATION SEE SKETCH BELOW	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 07/26/90	11. DATE COMPLETED 07/26/90
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 8 inches		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES		19. TOTAL NUMBER OF CORE BOXES NA	
DISTURBED NA		UNDISTURBED NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY % NA	
VOC NA		METALS NA	
OTHER (SPECIFY) SEE Sample COCK		OTHER (SPECIFY) 1	
22. DISPOSITION OF HOLE Abandoned		23. SIGNATURE OF INSPECTOR James A. Wilson	
BACKFILLED NA		MONITORING WELL NA	
OTHER (SPECIFY) Bentonite			

LOCATION SKETCH/COMMENTS

SCALE: 1" = 50'



PROJECT

RVAAP

HOLE NO.

LL355-037-0204-50

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER
LL355-037
SHEET
2 of 2

PROJECT **RVAAP** INSPECTOR **J. Wilson**

ELEV. (A)	DEPTH (B) (ft. or m.)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	Topsoil (organic rich)				LL355-037-037-50
	5	Thin to orange silt rock fines and rootlets				
	13	Light brown silts 01/26/96				
						Revised @ 8 inches

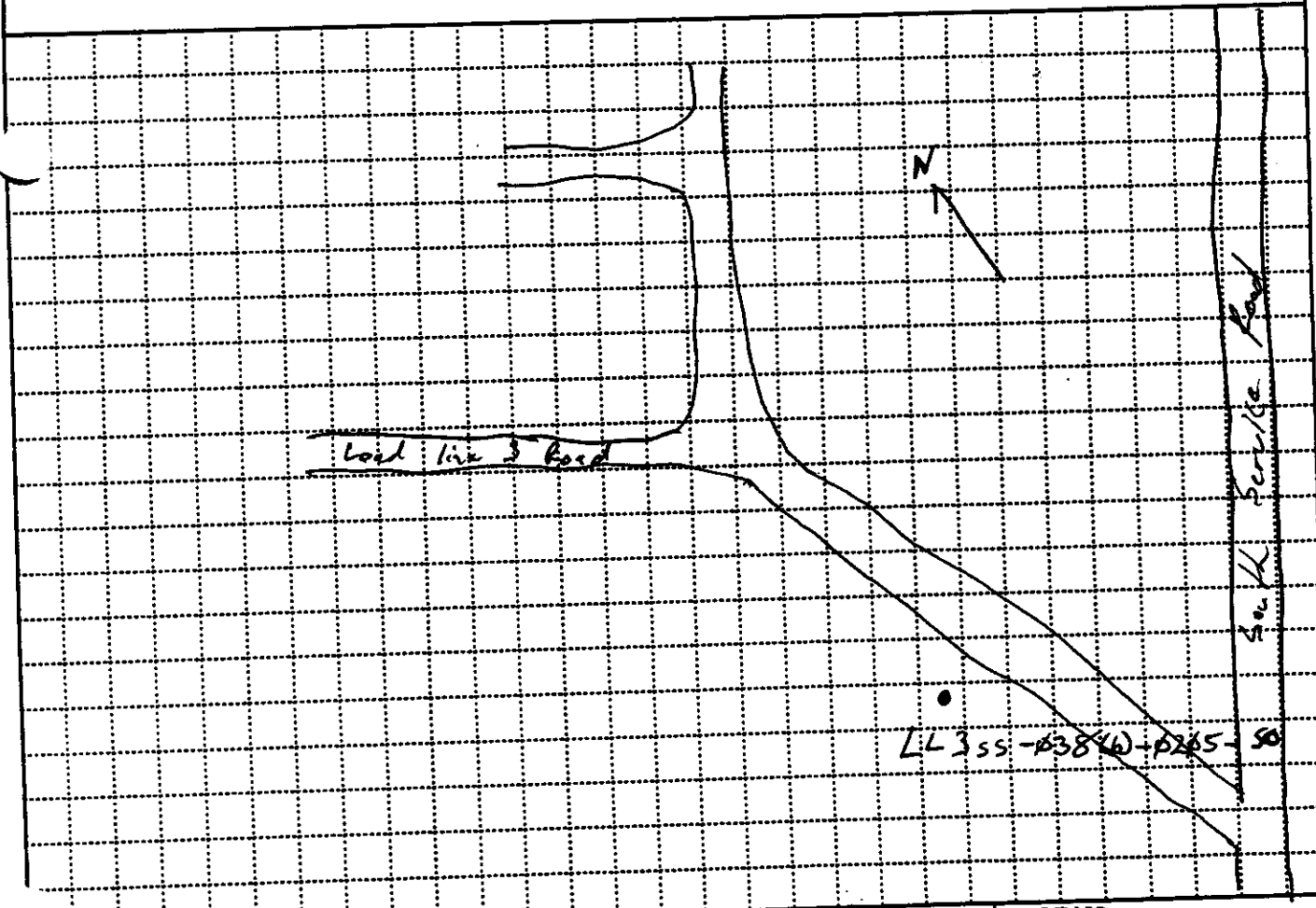
PROJECT **RVAAP**

HOLE NO. **LL355-037-037-50 58**

HTRW DRILLING LOG		DISTRICT <i>NASHVILLE</i>	HOLE NUMBER <i>LL355-038 (b)</i>
1. COMPANY NAME <i>SAIC</i>		2. DRILL SUBCONTRACTOR <i>NA</i>	SHEET <i>7</i> OF <i>2</i> SHEETS
3. LOCATION <i>RVAAP</i>		4. LOCATION <i>LL3/RVAAP</i>	
5. NAME OF DRILLER <i>NA</i>		6. MANUFACTURERS DESIGNATION OF DRILL <i>HAND AUGER</i>	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>3" S.S. AUGER (HAND)</i>		8. HOLE LOCATION <i>SEE SKETCH BELOW</i>	
9. SURFACE ELEVATION <i>NA</i>		10. DATE STARTED <i>07/27/96</i>	11. DATE COMPLETED <i>07/27/96</i>
12. OVERBURDEN THICKNESS <i>NA</i>		15. DEPTH GROUNDWATER ENCOUNTERED <i>NO GW</i>	
13. DEPTH DRILLED INTO ROCK <i>NA</i>		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>	
14. TOTAL DEPTH OF HOLE <i>~2.0# BGS</i>		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>	
18. GEOTECHNICAL SAMPLES	DISTURBED <i>NA</i>	UNDISTURBED <i>NA</i>	19. TOTAL NUMBER OF CORE BOXES <i>NA</i>
20. SAMPLES FOR CHEMICAL ANALYSIS <i>NA</i>	VOC <i>NA</i>	METALS <i>NA</i>	OTHER (SPECIFY) <i>NA</i>
21. TOTAL CORE RECOVERY % <i>NA</i>		23. SIGNATURE OF INSPECTOR <i>[Signature]</i>	
22. DISPOSITION OF HOLE <i>Abandoned</i>		BACKFILLED <i>NA</i>	MONITORING WELL <i>NA</i>

LOCATION SKETCH/COMMENTS

SCALE: 1" = 200'



PROJECT
RVAAP

HOLE NO.
LL355-038 (b)

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER: LL355-038(b)
SHEET: 2 of 2

PROJECT: RVAAP INSPECTOR: K. SWAIN

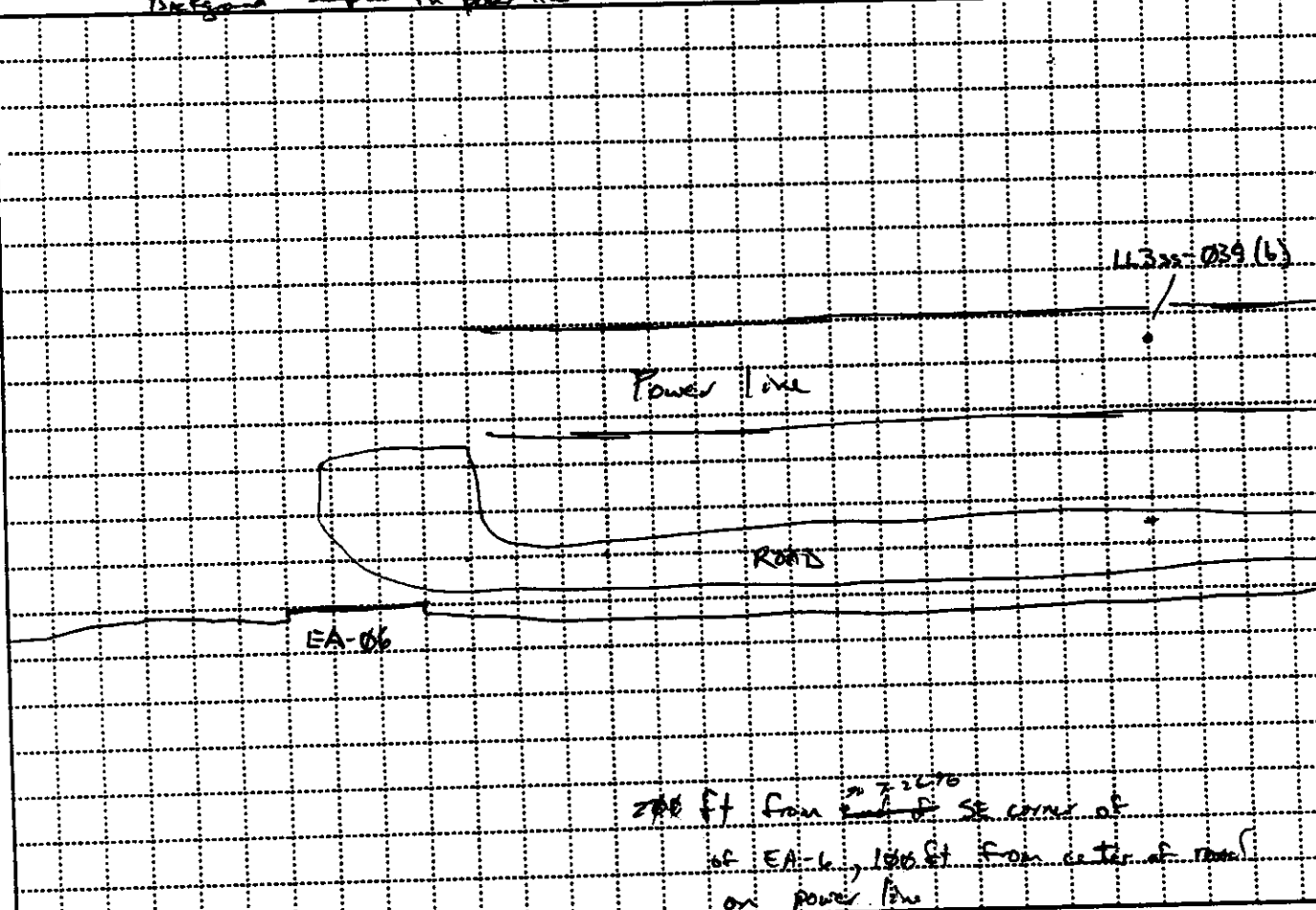
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	Gray silt w/ yellow-brown mottling (40%)				LL355-038(b)-0205-50
	5					
	10					
	15					
	20					

PROJECT: RVAAP

HOLE NO. LL355-038(b) 62
NATCO

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL355-039(b)	
1. COMPANY NAME SAC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
PROJECT RVAAP			4. LOCATION LL3/RVAAP		
5. NAME OF DRILLER			6. MANUFACTURERS DESIGNATION OF DRILL HAND AUGER		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. Hand Auger		8. HOLE LOCATION SEE SKETCH BELOW			
			9. SURFACE ELEVATION NA		
			10. DATE STARTED 07/26/96		11. DATE COMPLETED 07/26/96
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 24" BGS			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES	
NA		NA	NA	NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
SEE Sample CCL					
22. DISPOSITION OF HOLE Abandoned		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY % NA
		NA	NA	Bentonite	John P. Widen

LOCATION SKETCH/COMMENTS SCALE: 1" = 50'



PROJECT RVAAP	HOLE NO. LL355-039(b)
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HTRW DRILLING LOG

HOLE NUMBER
LL395-039 (b)

PROJECT

RVAAP

INSPECTOR

J. Wilson

SHEET

252

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0"	Tanish gray silt w/ some iron stain				
	6"	greenish gray silt				
	12"	SAA w/ slightly more orange mottling.				
	18"	SAA				
	24"					As per Soils Completed hole at 24"

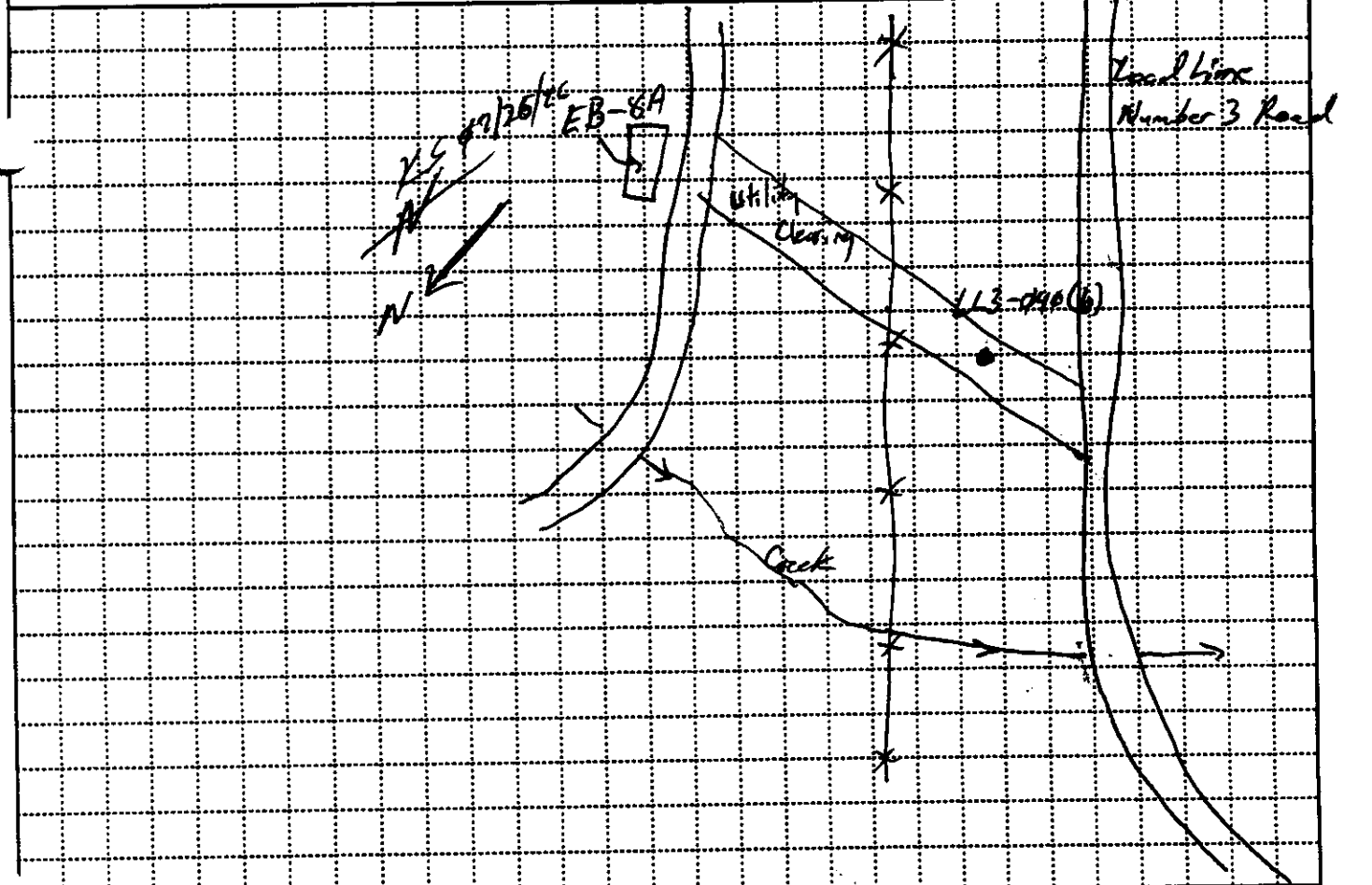
PROJECT

RVAAP

HOLE NO.

LL395-039 (b)

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER LL355-040(b)
1. COMPANY NAME SATC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
3. PROJECT RVAAP		4. LOCATION LL3/RULAP	
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL HAND AUGER.	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. Auger (HAND)		8. HOLE LOCATION SEE SKETCH BELOW	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 07/26/96	11. DATE COMPLETED 07/26/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE NZ. 0 ft + BG 5		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES		19. TOTAL NUMBER OF CORE BOXES	
DISTURBED NA		UNDISTURBED NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY %	
VOC NA		METALS NA	
OTHER (SPECIFY) SEE SOURCE CODE		OTHER (SPECIFY) NA	
22. DISPOSITION OF HOLE		23. SIGNATURE OF INSPECTOR	
BACKFILLED NA		MONITORING WELL NA	
OTHER (SPECIFY) Abandoned		OTHER (SPECIFY) Restoration	
LOCATION SKETCH/COMMENTS		SCALE: 1" = 20' H	



PROJECT RVAAP	HOLE NO. LL355-040(b)
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HTRW DRILLING LOG

HOLE NUMBER LL355-040 (b)

PROJECT

RVAAP

INSPECTOR

R. SWAIN

SHEET

2 of 3

ELEV. (A)	DEPTH (B) Feet (Fus)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	Topsoil (organic-rich)				LL355-040 (b)
	1	Tan gray silt				
	14	Tan yellow silt with orange yellow mottling				
	26					

PROJECT

RVAAP

HOLE NO.

LL355-040 (b)

60

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL355	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP			4. LOCATION LL3 / RVAAP		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL HAND AUGER		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. HAND AUGER		8. HOLE LOCATION SEE SKETCH BELOW			
9. SURFACE ELEVATION NA					
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE ~1.0 FT BGS			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS See Sample log		VOC NA	METALS NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	21. TOTAL CORE RECOVERY % NA
23. SIGNATURE OF INSPECTOR <i>Wade R. ... signing for "Inspector"</i>		MATT O'Boyle			
LOCATION SKETCH/COMMENTS LL3			SCALE: NOT TO SCALE		
PROJECT RVAAP				HOLE NO. LL355-043	

HTRW DRILLING LOG

HOLE NUMBER **LL3SS-043**

PROJECT

RVAAP

INSPECTOR

Matt O'bley

SHEET

2 of 2

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	1	silty clay Refused @ 1.0'	0.0 ppm Lead		LL3SS- 043	

PROJECT

RVAAP

HOLE NO.

LL3SS-043

64

LOAD LINE 3
DRAINAGE SEDIMENT LOGS
LOGBOOK #26

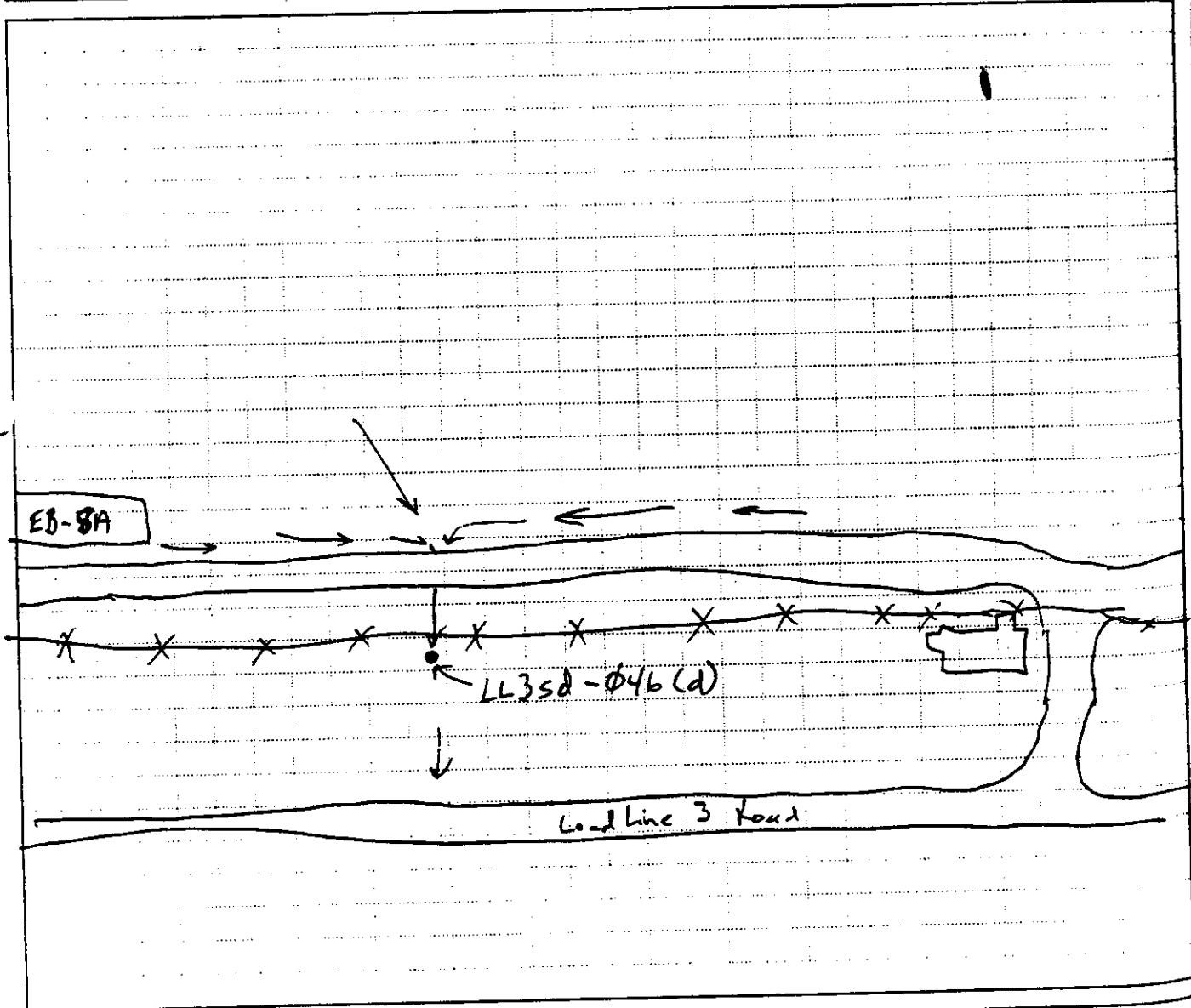
HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL35d-035(d) LL35d-042	
1 COMPANY NAME SATC		2 DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 1	
3 PROJECT RVAAP			4 LOCATION LL3/RVAAP		
5 NAME OF DRILLER NA			6 MANUFACTURERS DESIGNATION OF DRILL NA		
7 SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT NA		8 HOLE LOCATION See Sketch Below			
			9 SURFACE ELEVATION NA		
			10 DATE STARTED 07/27/96		11 DATE COMPLETED 08/20/96
12 OVERBURDEN THICKNESS NA			15 DEPTH GROUNDWATER ENCOUNTERED NA		
13 DEPTH DRILLED INTO ROCK NA			16 DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14 TOTAL DEPTH OF HOLE NA			17 OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18 GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19 TOTAL NUMBER OF CORE BOXES NA	
20 SAMPLES FOR CHEMICAL ANALYSIS See Sample COC		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22 DISPOSITION OF HOLE NA		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) NA	21 TOTAL CORE RECOVERY % NA
23 SIGNATURE OF INSPECTOR NA					
LOCATION SKETCH/COMMENTS No log since sediment samples, sketch only.				SCALE: NOT TO SCALE	
PROJECT RVAAP				HOLE NO LL35d-035(d) & LL35d-042 (Proponent: CECW-EG)	

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL3sd - 046(d) - 0215 - 55	DATE COLLECTED (mm/dd/yy): 07-27-96
SAMPLE LOCATION: Drain C-02	TIME COLLECTED (hh:mm): 1800
SAMPLING POINT: NA	DEPTH: 2'



COMMENTS: NA

RECORDED BY <i>[Signature]</i>	DATE 07/27/96	QA CHECK BY <i>[Signature]</i> 08/27/96	DATE
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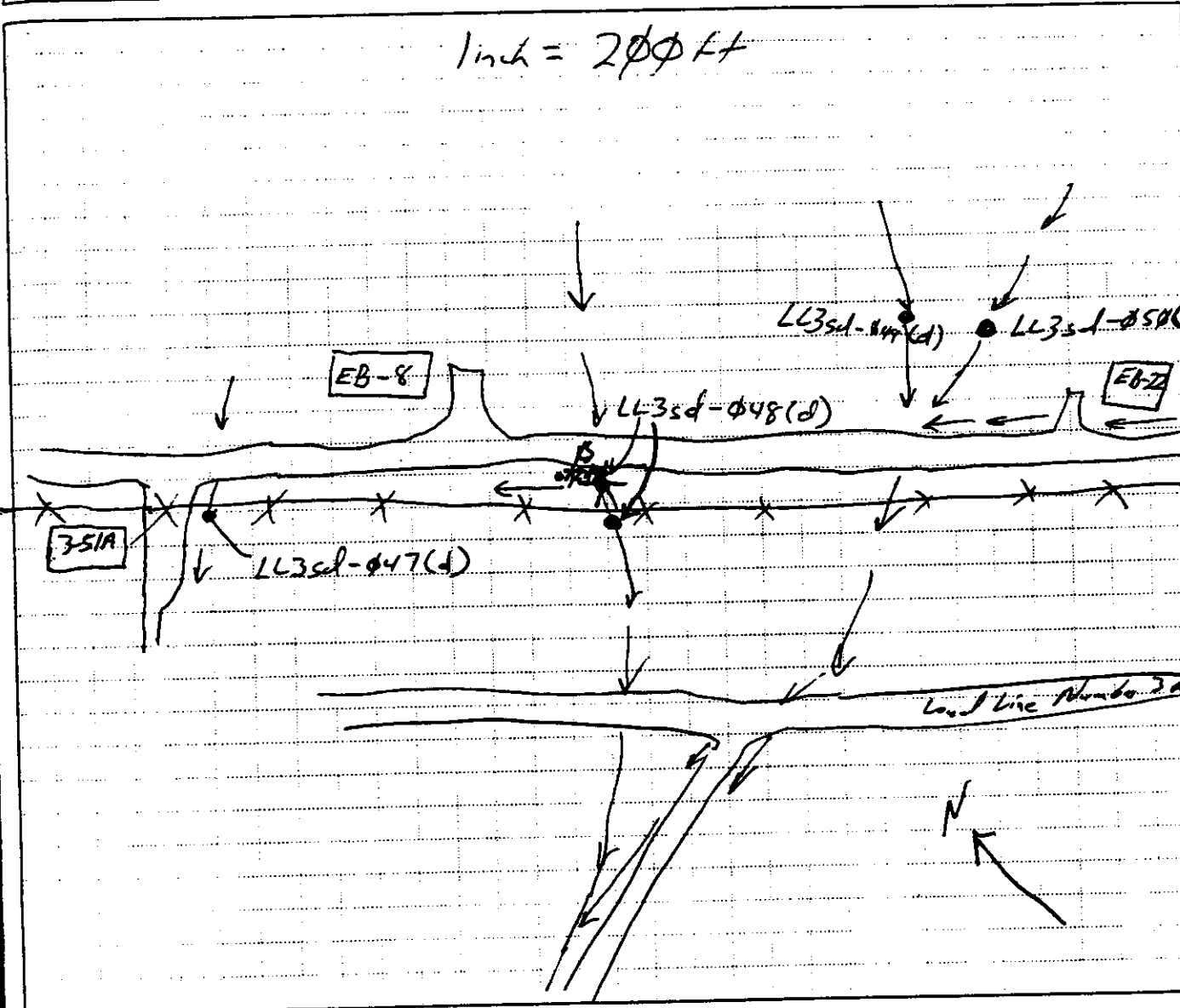
PI
SA
-
SA
SA
CON
RECO

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL3sd-050(d), LL3sd-047(d), LL3sd-049(d) LL3sd-049(d)	DATE COLLECTED (mm/dd/yy): 07/27/96
SAMPLE LOCATION: Drainage ditches near EB-8 & EB-22	TIME COLLECTED (hh:mm): Numerous samples collected - see individual sample sheets
SAMPLING POINT: LL3sd's	DEPTH: Same as above



COMMENTS: NA

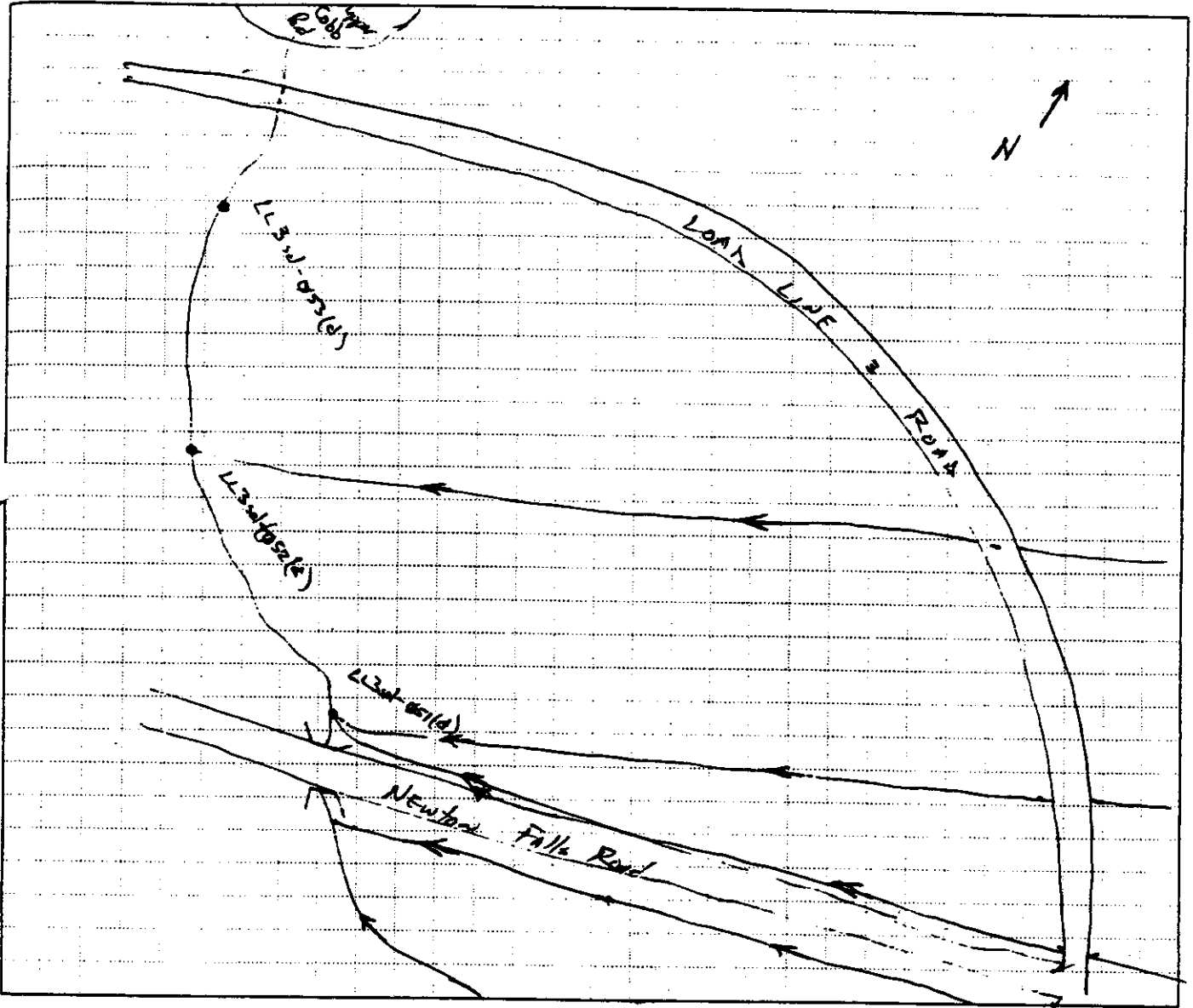
RECORDED BY: <i>[Signature]</i>	DATE 07/27/96	QA CHECK BY: <i>[Signature]</i>	DATE 8/27/96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL3sd-051-052 ^{LL3sd-051-052, 053} 838 (6)	DATE COLLECTED (mm/dd/yy): 07-27-96
SAMPLE LOCATION: NA	TIME COLLECTED (hh:mm): 1:20, 1:40, 2:00 respectively
SAMPLING POINT: NA	DEPTH: 2 ft, respectively



COMMENTS:
 scale ~~is~~ not to scale. LL3sd-052 is in 200 ft from LL3sd-051. LL3sd-052 is in 1050 ft from LL3sd-053. All along main tributary.

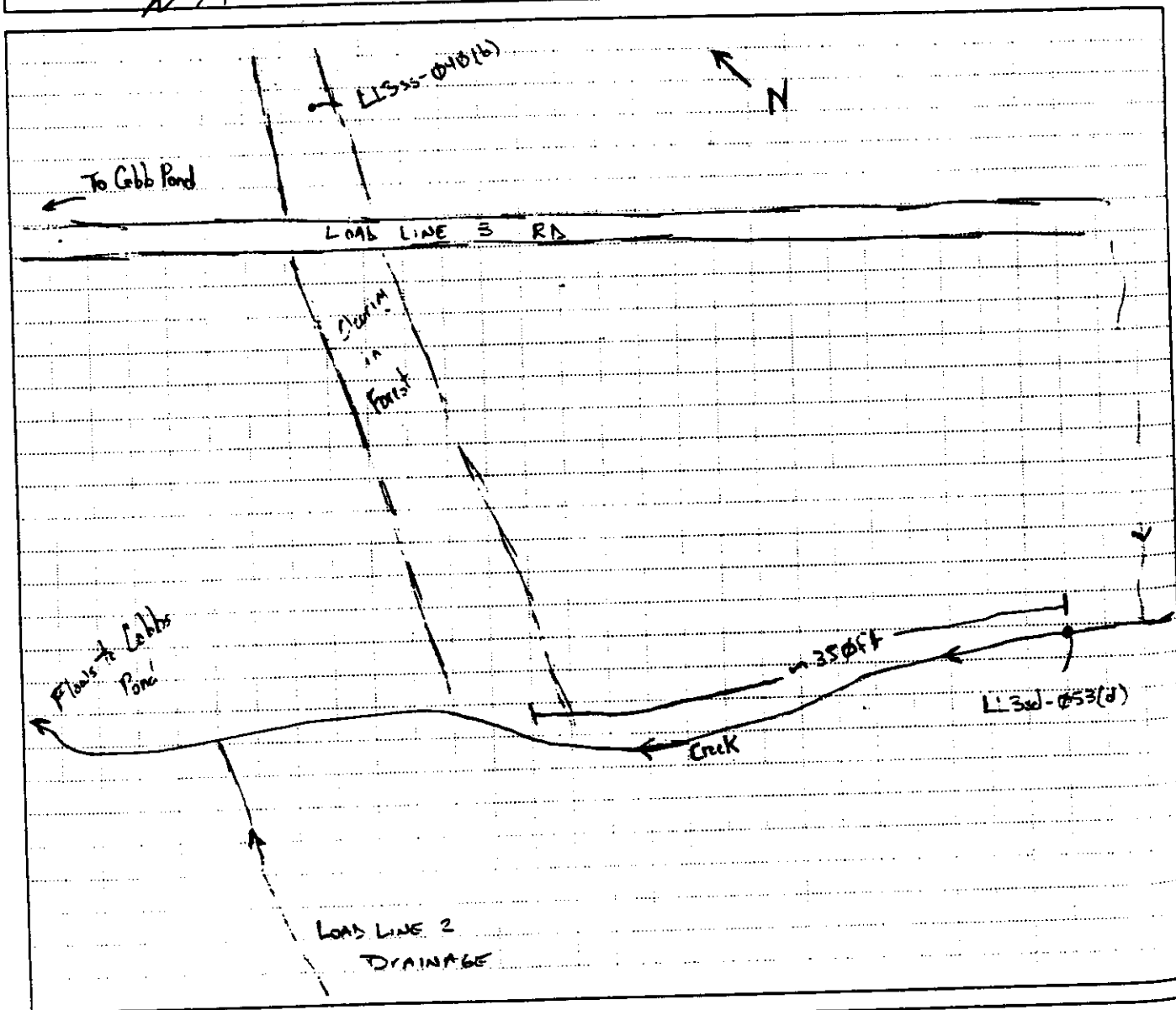
CORDED BY: <i>Joseph O. Wil</i>	DATE: 07-27-96	QA CHECK BY: <i>Matthew J. Ves</i>	DATE: 8/27/96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: D010

SAMPLE ID NUMBER: LL3sd - 053(d) - 0220 - SD	DATE COLLECTED (mm/dd/yy): 07-27-96
SAMPLE LOCATION: Drain C - 08	TIME COLLECTED (hh:mm): 16:10
SAMPLING POINT: NA	DEPTH: NA



COMMENTS: NA

RECORDED BY: Joseph & Lillian	DATE: 07/27/96	QA CHECK BY: K. L.	DATE: 07-27-96
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20

PR
SAM
SAT
SAT
COM
RECO

SAMPLE LOCATION MAPS, SOIL AND WELL POINT BORING LOGS
Load Line 4

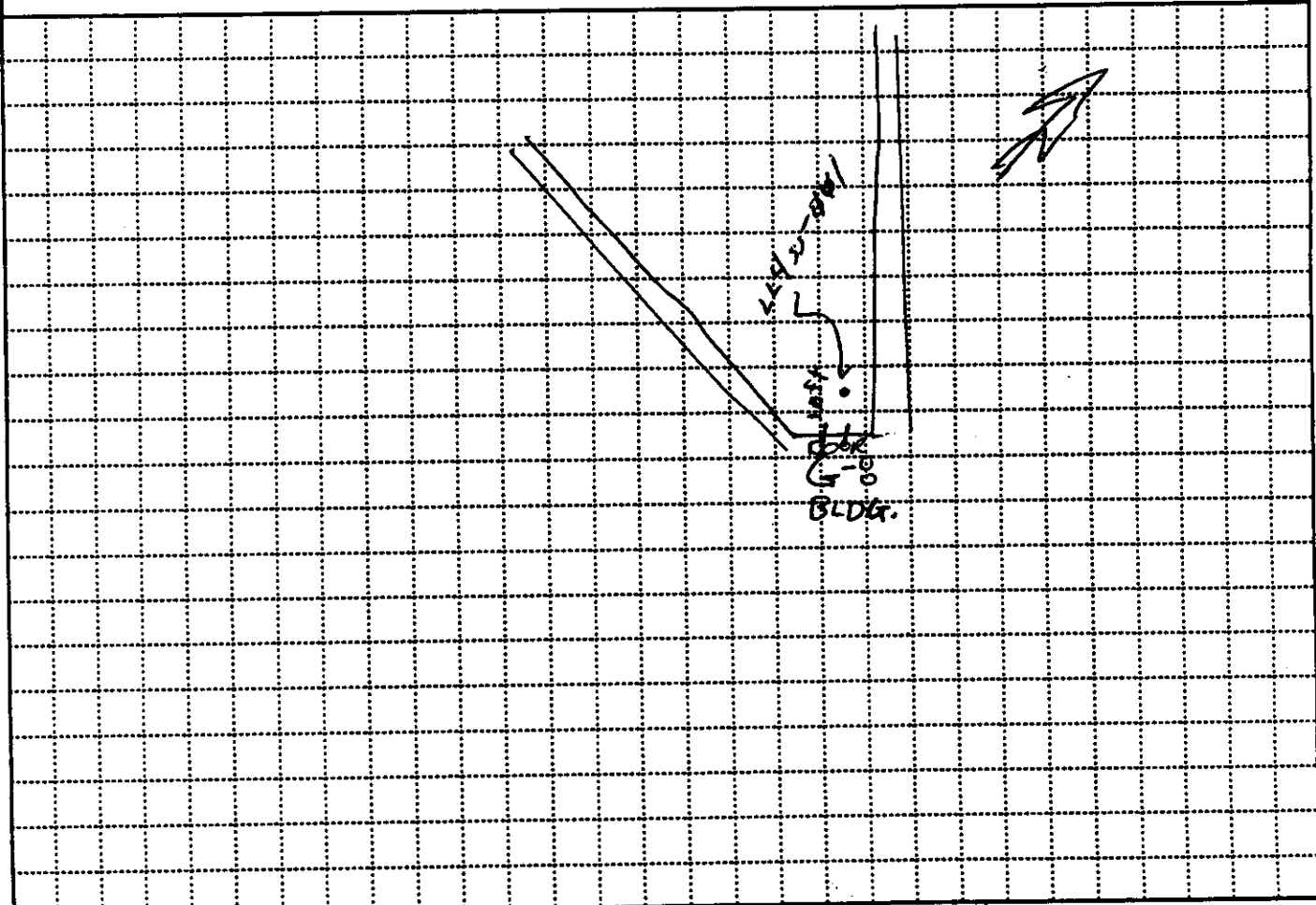
Soil Samples:		Drainage Sediment Samples:
LL4-ss-001	LL4-ss-030	LL4-sd-021(d)
LL4-ss-002	LL4-ss-031	LL4-sd-048(d)
LL4-ss-003	LL4-ss-032	LL4-sd-049(d)
LL4-ss-004	LL4-ss-033	LL4-sd-050(d)
LL4-ss-005	LL4-ss-034	LL4-sd-051(d)
LL4-ss-006	LL4-ss-035	Sfc. Wtr, Pond, Stream Sd.
LL4-ss-007	LL4-ss-036	LL4-sd-013
LL4-ss-008	LL4-ss-037	LL4-sd-044
LL4-ss-009	LL4-ss-038	LL4-sd-052(p)
LL4-ss-010	LL4-ss-039	LL4-sd-053(p)
LL4-ss-011	LL4-ss-040	LL4-sd-054(p)
LL4-ss-012	LL4-ss-041(b)	LL4-sd-055(p)
LL4-ss-014	LL4-ss-042(b)	LL4-sd-056(p)
LL4-ss-015	LL4-ss-043(b)	LL4-sd-057
LL4-ss-016	LL4-ss-045	LL4-sd-058
LL4-ss-017	LL4-ss-046	Well Points:
LL4-ss-018	LL4-ss-047	LL4-wp-059
LL4-ss-019	LL4-ss-062	LL4-wp-060
LL4-ss-020	LL4-ss-063	LL4-wp-061
LL4-ss-022	LL4-ss-064	
LL4-ss-023	LL4-ss-065	
LL4-ss-024	LL4-ss-066	
LL4-ss-025	LL4-ss-067	
LL4-ss-026		
LL4-ss-027		
LL4-ss-028		
LL4-ss-029		

LOAD LINE 4
SOIL BORING LOGS
LOGBOOK #24

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL455-001	
1. COMPANY NAME SAX		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT Ravenna Army Ammunition Plant			4. LOCATION Ravenna OH		
5. NAME OF DRILLER Matt Vest			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" Stainless Steel Hand Auger Auger bucket		8. HOLE LOCATION N 10ft in front of door, door @ left of hall from G-8 to G-7a			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/24/96		11. DATE COMPLETED 7/26/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED No groundwater			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 0.7 Ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS (1)		VOC NA	METALS (1)	OTHER (SPECIFY) 11 explosives	OTHER (SPECIFY) NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bestrite	21. TOTAL CORE RECOVERY % NA
				23. SIGNATURE OF INSPECTOR S. B. ...	

LOCATION SKETCH/COMMENTS

SCALE: Not To Scale



PROJECT Ravenna Army Ammunition Plant	HOLE NO. LL455-001
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HTRW DRILLING LOG

HOLE NUMBER **LL4ss-441**

PROJECT

RVAAP

INSPECTOR

Pa. Casey

SHEET

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.7'	Top soil light brown silt little gravel remains.	0.7 ppm	NA	LL4ss- 441- 0231-50	Auger refusal at 0.8' bp
			# of space			

PROJECT

Ravenox Army Ammunition Plant

HOLE NO.

LL4ss-441

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL455-002	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RYAAP			4. LOCATION Ravenna OH		
5. NAME OF DRILLER Matt Vest			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger		8. HOLE LOCATION ~ 4ft in front of 1 st door to rt. of elevator in BLDG G-8			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/27/96		11. DATE COMPLETED 7/27/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW.			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 2 ft BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA		UNDISTURBED NA	
19. TOTAL NUMBER OF CORE BOXES NA		20. SAMPLES FOR CHEMICAL ANALYSIS (1)		21. TOTAL CORE RECOVERY % NA	
		VOC NA		METALS (1)	
		OTHER (SPECIFY) explosives		OTHER (SPECIFY) NA	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA		MONITORING WELL NA	
		OTHER (SPECIFY) Bentonite		23. SIGNATURE OF INSPECTOR S. S. S. S.	
LOCATION SKETCH/COMMENTS					
<p style="text-align: right;">SCALE: grid block = 4 ft</p> <p style="text-align: right;">located ~ 4ft in front of first door to rt. of elevator in bldg. G-8.</p>					
PROJECT Ravenna Army Ammunition Plant				HOLE NO. LL455-002 (Proponent: CECW-EG)	



HTRW DRILLING LOG

HOLE NUMBER **LL455-002**

PROJECT **RVAAP**

INSPECTOR **S. Bidney**

SHEET **2 of 2**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		<p>0-0.5 Top Soil</p> <p>Silt colored grey-redish brown</p> <p>trace organics</p>	<p>φ.φ ppm</p>	<p>NA</p>	<p>LL455-002-0232-50</p>	
	<p>20</p> 		<p>HeadSpace</p> <p>φ.φ ppm</p>			

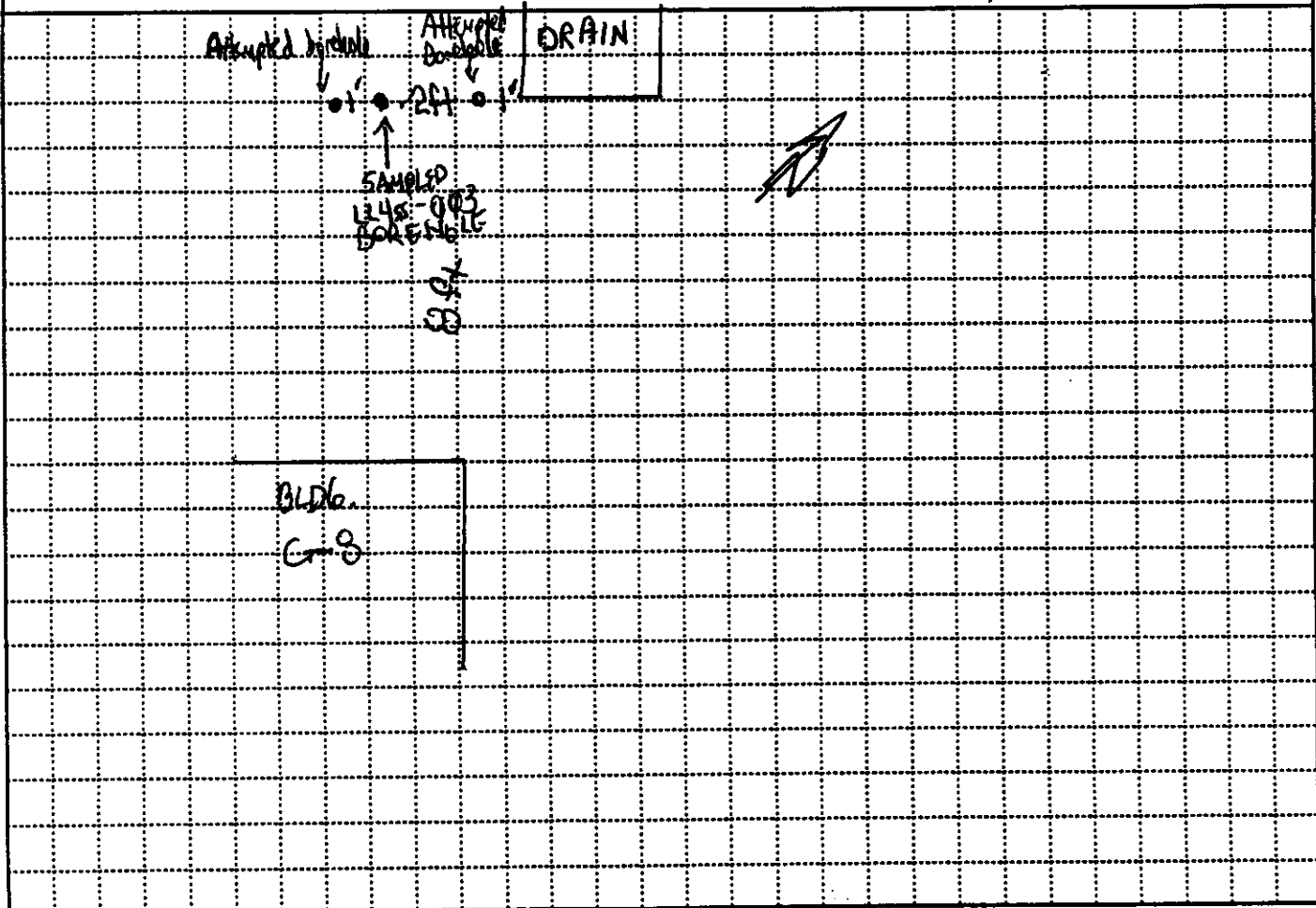
PROJECT **Reverna Army Ammunition Plant**

HOLE NO. **LL455-002**

HTRW DRILLING LOG		DISTRICT <i>Northville</i>		HOLE NUMBER <i>LL455-003</i>	
1. COMPANY NAME <i>SAIC</i>		2. DRILL SUBCONTRACTOR <i>NA</i>		SHEET SHEETS <i>1 OF 2</i>	
3. PROJECT <i>RVAAP</i>			4. LOCATION <i>Ravenna OH</i>		
5. NAME OF DRILLER <i>Mark Vest</i>			6. MANUFACTURERS DESIGNATION OF DRILL <i>Hand Auger</i>		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>3" SS Hand Auger</i>		8. HOLE LOCATION <i>N 8' off NW of NE corner of Bldg G8, ~3ft from drain</i>			
9. SURFACE ELEVATION <i>NA</i>					
10. DATE STARTED <i>7/27/96</i>			11. DATE COMPLETED <i>7/27/96</i>		
12. OVERBURDEN THICKNESS <i>NA</i>			15. DEPTH GROUNDWATER ENCOUNTERED <i>No groundwater</i>		
13. DEPTH DRILLED INTO ROCK <i>NA</i>			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>		
14. TOTAL DEPTH OF HOLE <i>0.5 ft BGS</i>			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>		
18. GEOTECHNICAL SAMPLES <i>NA</i>		DISTURBED <i>NA</i>	UNDISTURBED <i>NA</i>	19. TOTAL NUMBER OF CORE BOXES <i>NA</i>	
20. SAMPLES FOR CHEMICAL ANALYSIS <i>(1)</i>		VOC <i>(1)</i>	METALS <i>(1)</i>	OTHER (SPECIFY) <i>(1) explosives</i>	OTHER (SPECIFY) <i>NA</i>
22. DISPOSITION OF HOLE <i>Abandoned</i>		BACKFILLED <i>NA</i>	MONITORING WELL <i>NA</i>	OTHER (SPECIFY) <i>Bentonite</i>	21. TOTAL CORE RECOVERY % <i>NA</i>
23. SIGNATURE OF INSPECTOR <i>B. B. B.</i>					

LOCATION SKETCH/COMMENTS

SCALE: 1" = 4'



PROJECT <i>Ravenna Army Ammunition Plant</i>	HOLE NO. <i>LL455-003</i>
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HTRW DRILLING LOG

HOLE NUMBER **LL455-063**

PROJECT **RVAAP**

INSPECTOR **Spencer**

SHEET **2 of 2**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.5	(S)H - Some gravel. Topsoil brown.	0.0 ppm	NA	LL455-063-0233-50	Auger refusal 0.5 on gravel
			0.0 ppm Headspace			

PROJECT **Roseme Army Ammunition Plant**

HOLE NO. **LL455-063**

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL455-004	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET 1 OF 2	
3. PROJECT RVAAP			4. LOCATION Ravenna OH		
5. NAME OF DRILLER Matt Vest			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		3" S.S. Auger (hand) + Auger bucket		8. HOLE LOCATION ~4 ft behind manhole in ditch, Man hole 38' from C-10	
				9. SURFACE ELEVATION NA	
		10. DATE STARTED 7/27/96		11. DATE COMPLETED 7/27/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 0.5' bsp		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS (1)		VOC NA	METALS (1)	OTHER (SPECIFY) (1) explosives	OTHER (SPECIFY) NA
					21. TOTAL CORE RECOVERY % NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	23. SIGNATURE OF INSPECTOR B. Borden
LOCATION SKETCH/COMMENTS				SCALE: 1" = 50'	
PROJECT Ravenna Army Ammunition Plant				HOLE NO. LL455-004	

HTRW DRILLING LOG

HOLE NUMBER **LL4ss-004**
SHEET **2 of 2**

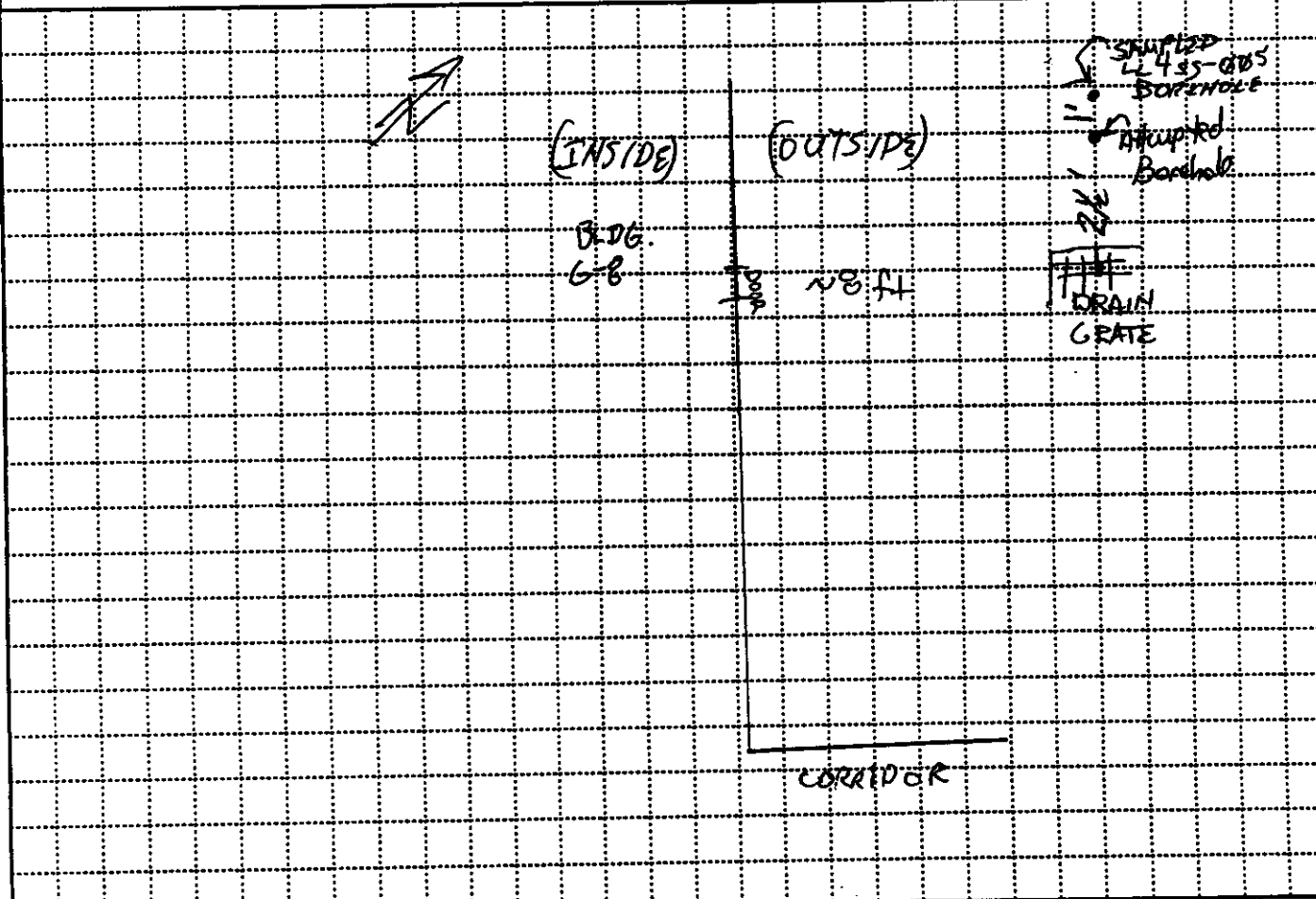
ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.5	topsoil silt little gravel fragments	0.0 ppm	NA	LL4ss-004 0234-S	Auger refusal at 0.5' hit roots
			headspace 0.0 ppm			

PROJECT **Baserra Army Ammunition Plant**

HOLE NO. **LL4ss-004**

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL455-005	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP			4. LOCATION Ravenna OH		
5. NAME OF DRILLER Matt Vest			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3/55 Hand Auger		8. HOLE LOCATION ~ 8ft in front of door near east corner, ~ 3 1/2' N. of drain.			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/27/96		11. DATE COMPLETED 7/27/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED No GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 0.5 Ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC NA	METALS SI, Pb, Cu, (1)	OTHER (SPECIFY) (1) Exposure	21. TOTAL CORE RECOVERY % NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Restoration	23. SIGNATURE OF INSPECTOR S. Buchanan

LOCATION SKETCH/COMMENTS SCALE: 1" = 4'



PROJECT Ravenna Army Ammunition Plant	HOLE NO. LL455-005
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HTRW DRILLING LOG

HOLE NUMBER **LL455-005**

PROJECT **RVAAP**

INSPECTOR **S. Budney**

SHEET **2 of 2**

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.5	Topsoil silt 1.4 H ₂ O gravel Gravel is dark brown	φφ ppm	NA	LL455- 005- 0235-50	Gauge refused at 0.5 ft bop on gravel.
			φφ ppm H ₂ O spec			

PROJECT **Revere Army Ammunition Plant**

HOLE NO. **LL455-005**

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER 11455-006	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET 1 OF 2 SHEETS	
3. PROJECT RVAAP			4. LOCATION Ravenna, OH		
5. NAME OF DRILLER Matt Vest			6. MANUFACTURER DESIGNATION OF DRILL Hard Huger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" stainless steel auger & bucket.			8. HOLE LOCATION ~ 2ft NW of Manhole, Manhole is ~ 20ft SW of G-8		
			9. SURFACE ELEVATION NA		
			10. DATE STARTED 07/26/96		11. DATE COMPLETED 07/26/96
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NOT ENCOUNTERED		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE NA Handy 0.6 ft BGS			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC NA	METALS (1)	OTHER (SPECIFY) (1) EXPLOSIVE	OTHER (SPECIFY) NA
22. DISPOSITION OF HOLE (1) HOLE PLUGGED		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) HOLE PLUGGED	21. TOTAL CORE RECOVERY NA
LOCATION SKETCH/COMMENTS			23. SIGNATURE OF INSPECTOR Matt B. Vest		
			SCALE: 1" = 10ft		
PROJECT RVAAP				HOLE NO. 11455-006	

HTRW DRILLING LOG

HOLE NUMBER **LL455-096**

SHEET **2 of 2**

PROJECT **RLV ARP**

INSPECTOR **S. Burdick**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.6'	topsoil silt some gravel Organic dark brown	4.5 ppm	NA	LL455- 096- 0236-52	Depth reduced 0.6' keep in gravel
			4.8 ppm Hexachlor			

PROJECT

Ravenna Army Ammunition Plant

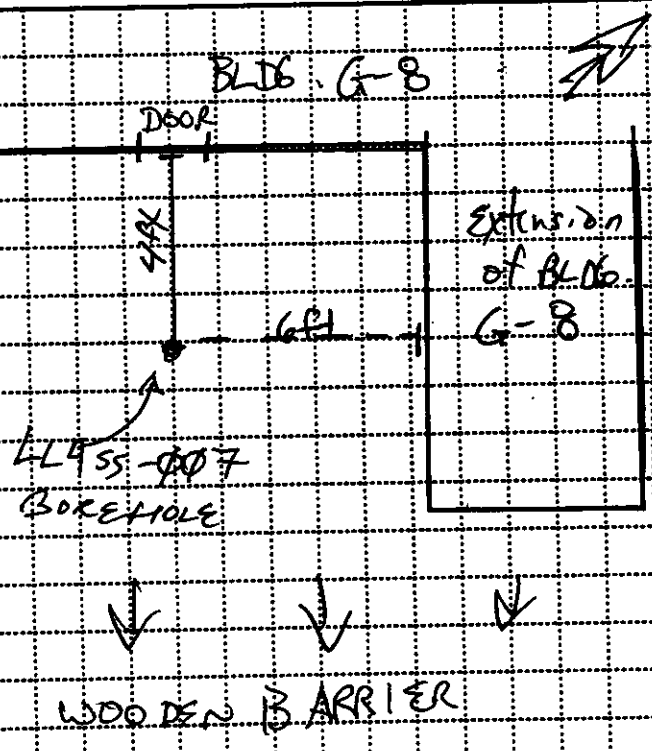
HOLE NO.

LL455-096

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL455-007	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP			4. LOCATION Ravenna OH		
5. NAME OF DRILLER Matt Vest			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger + bucket		8. HOLE LOCATION 4ft in front of door of Bldg. G-8.			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/27/96		11. DATE COMPLETED 7/27/96	
12. OVERBURDEN THICKNESS NA		13. DEPTH GROUNDWATER ENCOUNTERED No GW			
13. DEPTH DRILLED INTO ROCK NA		14. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 1.3ft		15. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS (1)		VOC NA	METALS (1)	OTHER (SPECIFY) (1) explosives	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY % NA		MONITORING WELL NA	OTHER (SPECIFY) Bentonite	23. SIGNATURE OF INSPECTOR [Signature]	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) NA	

LOCATION SKETCH/COMMENTS

SCALE: 1" = 4ft



PROJECT Ravenna Army Ammunition Plant	HOLE NO. LL455-007 (Proponent: CECW-EG)
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HTRW DRILLING LOG

HOLE NUMBER **LL455-ΦΦ7**

PROJECT

RVAAP

INSPECTOR

S. Brown

SHEET

2 of 2

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	1.3	Topsoil silt trace sand little gravel organics	20727MG C.C. 4.2 ppm	NA	LL455-ΦΦ7- Φ237-50	Auger Refusal 1.3 ft deep on gravel
			Headspec Φ.Φ ppm			

PROJECT

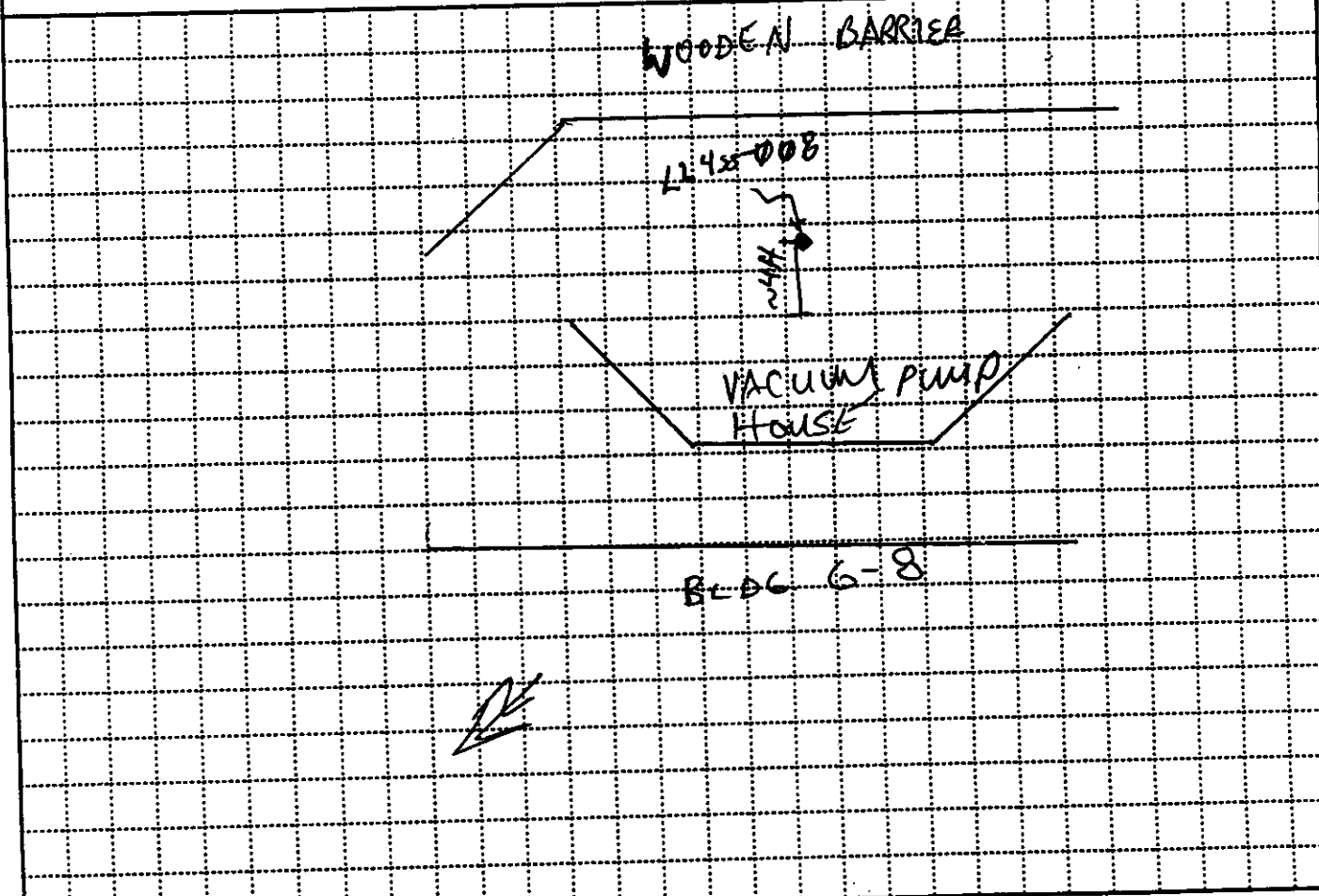
Ravenna Army Ammunition Plant

HOLE NO.

LL455-ΦΦ7

HTRW DRILLING LOG		DISTRICT Richville COE		HOLE NUMBER LL45-008	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP			4. LOCATION Ravenna OH		
5. NAME OF DRILLER Matt Veit			6. MANUFACTURERS DESIGNATION OF DRILL Hend Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Auger + Auger buckets		8. HOLE LOCATION ~ 4 ft in front of vacuum pump house			
		9. SURFACE ELEVATION NR			
		10. DATE STARTED 7/27/96		11. DATE COMPLETED 7/27/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 1.1 ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS G)		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
		OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY % NA
22. DISPOSITION OF HOLE Nondred		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	23. SIGNATURE OF INSPECTOR Jasany

LOCATION SKETCH/COMMENTS SCALE: NOT TO SCALE



PROJECT Ravenna Army Ammunition Plant	HOLE NO. LL45-008 (Proponent: CECW-EG)
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HTRW DRILLING LOG

HOLE NUMBER **LL455-008**
SHEET **2 of 2**

PROJECT **ZVAA?** INSPECTOR **S. Brown**

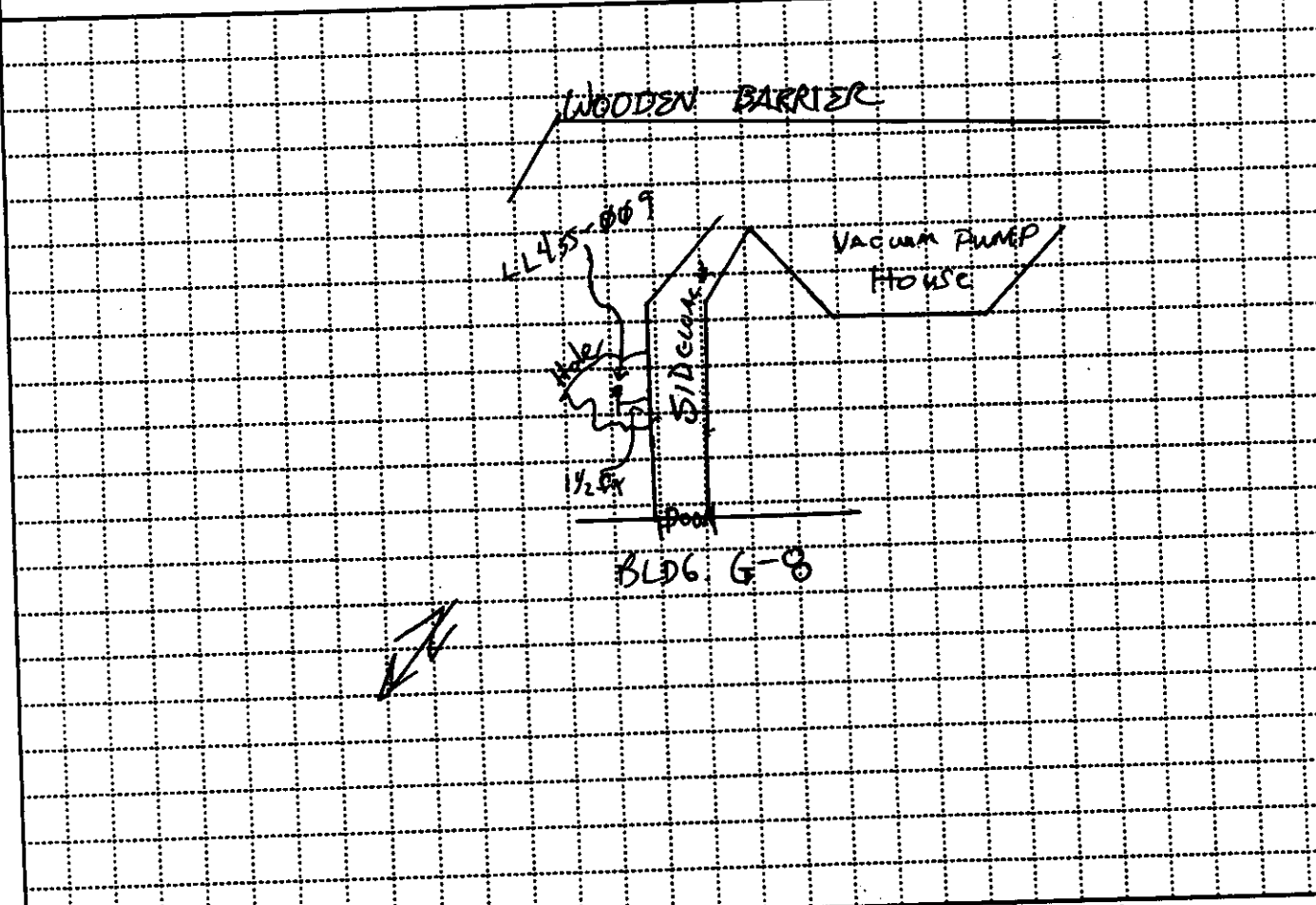
ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	1.1	Topsoil SiH 1.1HR gravel, trace F. Sand	0.0 ppm	NA	LL45- 008- 0238- SD	Auger refusal 1.1Gt
			0.0 ppm Headspace			

PROJECT **Avanna Army Ammunition Plant**

HOLE NO. **LL455-008**

HTRW DRILLING LOG		DISTRICT Nashville	HOLE NUMBER LL455-009
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
1. PROJECT RVAAP		4. LOCATION Ravenna OH	
5. NAME OF DRILLER Matt West		6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger / bucket		8. HOLE LOCATION ~ 1/2 ft left of sidewalk hole going to vacuum	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 7/21/96	11. DATE COMPLETED 7/21/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED No GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 1.3 ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA
20. SAMPLES FOR CHEMICAL ANALYSIS (1)	VOC (1)	METALS (1)	OTHER (SPECIFY) Pest PCB
	BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Benzene
22. DISPOSITION OF HOLE Abandoned			21. TOTAL CORE RECOVERY % NA
		23. SIGNATURE OF INSPECTOR S. [Signature]	

LOCATION SKETCH/COMMENTS SCALE: NOT TO SCALE



PROJECT Ravenna Army Ammunition Plant	HOLE NO. LL455-009 (Proponent: CECW-EG)
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HTRW DRILLING LOG

HOLE NUMBER **LL 455-009**

PROJECT **RVAAP**

INSPECTOR **S. Brown**

SHEET **2 of 2**

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	1.3'	TOPSOIL ^{CLAY} ^{SI} little gravel organics. Piece of plastic small piece of ceramic tile? moist	0.0 ppm	NA	LL455- 009- 0239- 50	Auger refused at 1.3' On gravel
			Headspice 0.0 ppm			

PROJECT **Ravenna Army Ammunition Plant**

HOLE NO. **LL 455-009**

HTRW DRILLING LOG		DISTRICT Nashua H&C COE		HOLE NUMBER LL455-010	
1. COMPANY NAME SIC		2. DRILL SUBCONTRACTOR NA		SHEET 1 of 1 SHEETS	
3. PROJECT RVAAP			4. LOCATION Ravenna OH		
5. NAME OF DRILLER Matt Kost			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger			8. HOLE LOCATION 6' in front of vacuum shed & 1/2' behind barrier.		
			9. SURFACE ELEVATION NA		
			10. DATE STARTED 7/31/06		11. DATE COMPLETED 7/31/06
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED ND GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 2.0 FT BGS			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS (1)		VOC NA	METALS (1)	OTHER (SPECIFY) (1) EXPL SNDS	OTHER (SPECIFY) NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	21. TOTAL CORE RECOVERY % NA
23. SIGNATURE OF INSPECTOR E. Brown					
LOCATION SKETCH/COMMENTS				SCALE: NOT TO SCALE	
<p>WOODEN BEAM</p> <p>• LL455-010</p> <p>VACUUM PUMP SHED</p> <p>(3 COMPARTMENTS TO VACUUM PUMP SHED)</p> <p>BLOG - G - 13</p>					
PROJECT RVAAP				HOLE NO. LL455-010	

HTRW DRILLING LOG

HOLE NUMBER **LL45-φ1φ**

SHEET **2 of 2**

PROJECT **RVAAP**

INSPECTOR **S. Brown**

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		0-1 ft - Topsoil very granular and silt.	8.2 ppm (1-1.5 ft)	NA	LL45-φ1φ - φ2φφ - 50	
		Silt mixed brown/grey 2.573/4.6				
	2.0	Wet + Silty sand at bottom of hole	8.8 ppm Hardpan			

PROJECT

RVAAP

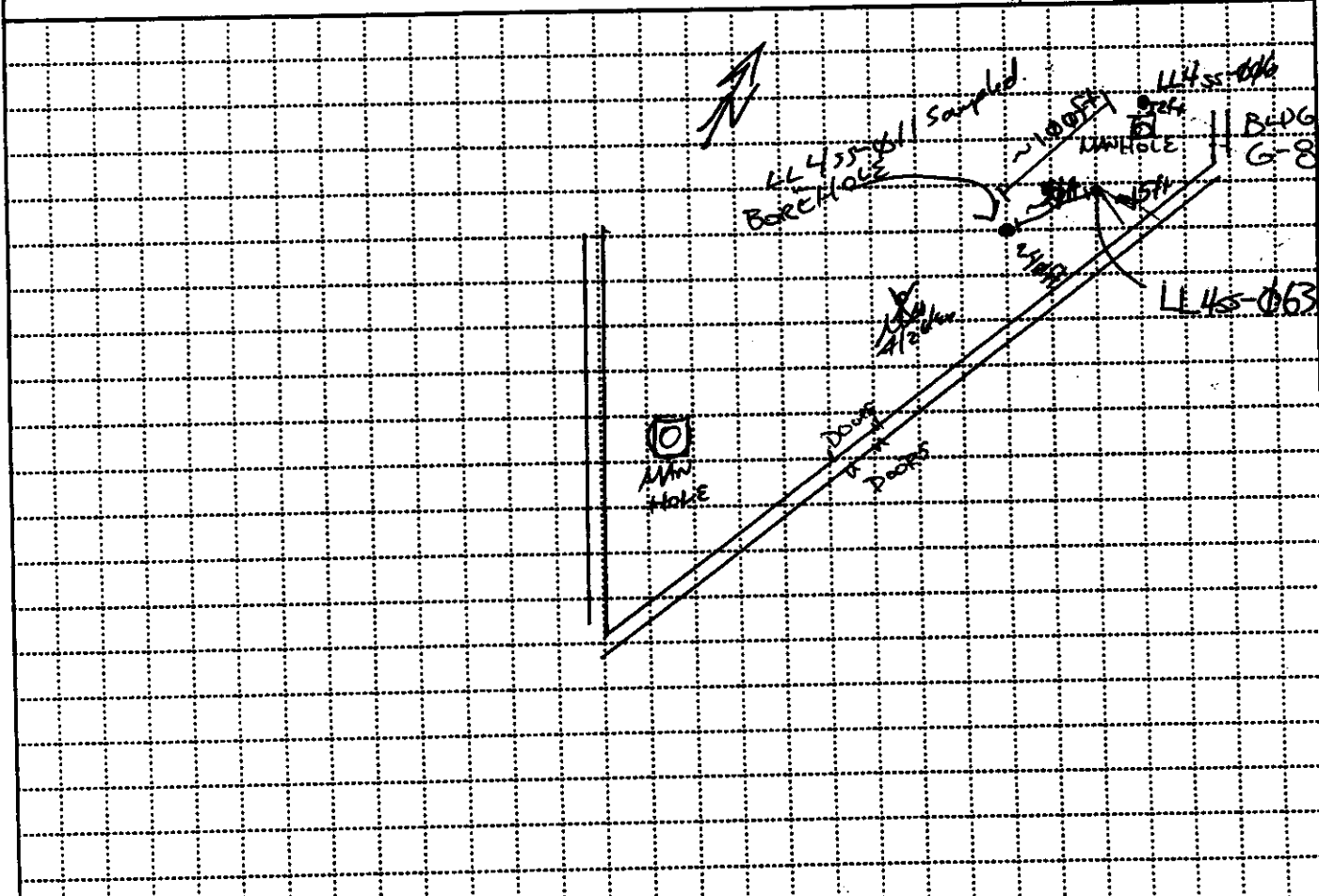
HOLE NO.

LL455-φ1φ

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER LL45-011
1 COMPANY NAME SAC		2 DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
3 PROJECT RVAAP		4 LOCATION RAVENNA, OH.	
5 NAME OF DRILLER MATT VEST		6 MANUFACTURERS DESIGNATION OF DRILL Hand Auger	
7 SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" Stainless steel Hand Auger & Access		8 HOLE LOCATION NW of corridor between 612 & 6-8, ~40ft away.	
		9 SURFACE ELEVATION NA	
		10 DATE STARTED 7/26/96	11 DATE COMPLETED 7/26/96
12 OVERBURDEN THICKNESS NA		13 DEPTH GROUNDWATER ENCOUNTERED No groundwater	
13 DEPTH DRILLED INTO ROCK NA		16 DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14 TOTAL DEPTH OF HOLE 0.8		17 OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18 GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA
20. SAMPLES FOR CHEMICAL ANALYSIS (7)	VOC NA	METALS (1)	OTHER (SPECIFY) (1) chloride
	BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) NA
22. DISPOSITION OF HOLE HOLEPLUG			23. SIGNATURE OF INSPECTOR <i>[Signature]</i>
21. TOTAL CORE RECOVERY NA %			

LOCATION SKETCH/COMMENTS

SCALE: **1" = 100' Not to Scale**



PROJECT RVAAP	HOLE NO. LL45-011
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HTRW DRILLING LOG

WELL NUMBER: LL455-011
SHEET: 2 of 2

PROJECT: RVAAP

INSPECTOR: Rodney

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		SH little gravel little VF sand orange brown	5.2 ppm	NA		
	0.8	Refusal @ 0.8 FT BGS				Refusal due to cocks @ 0.8 FT BGS. 160 ppm Headspace. After 10 more min. (in sun) @ 600 ppm.

PROJECT: RVAAP

RVAAP

WELL NO. LL455-011

LL455-011

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL455-012	
1. COMPANY NAME SALC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP			4. LOCATION Ravenwood, OH LL4		
5. NAME OF DRILLER Matt Vest			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. HAND AUGER & BUCKET		8. HOLE LOCATION SEWER ~ 2 ft NW of man-hole cover in a "ditch"			
			9. SURFACE ELEVATION NA		
			10. DATE STARTED 7/26/94		11. DATE COMPLETED 7/26/94
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NOT ENCOUNTERED		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 2.0 ft			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS (1)		VOC NA	METALS (1)	OTHER (SPECIFY) (1) explosives	OTHER (SPECIFY) NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	21. TOTAL CORE RECOVERED NA %
23. SIGNATURE OF INSPECTOR Jason Budney					
LOCATION SKETCH/COMMENTS				SCALE: 1" = 1'	
<p> EDGE OF APPARENT DITCH LL455-012 ~ 2 ft EDGE OF APPARENT DITCH MAN-HOLE COVER LABELED "SEWER" TO CORRIDOR TO CORRIDOR Sample Borehole in ditch to side of man-hole ditch ~ 1 ft deep. </p>					
PROJECT RVAAP				HOLE NO. LL455-012	

HTRW DRILLING LOG

HOLE NUMBER LL455-φ12

PROJECT RVAAP INSPECTOR Simon Boney SHEET 2 of 7

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Topsoil - Silty Little gravel Trace clay and sand brown	φ. φ ppm	NA	SS 7/24/96	Topsoil.
			Head space 4.4 ppm			

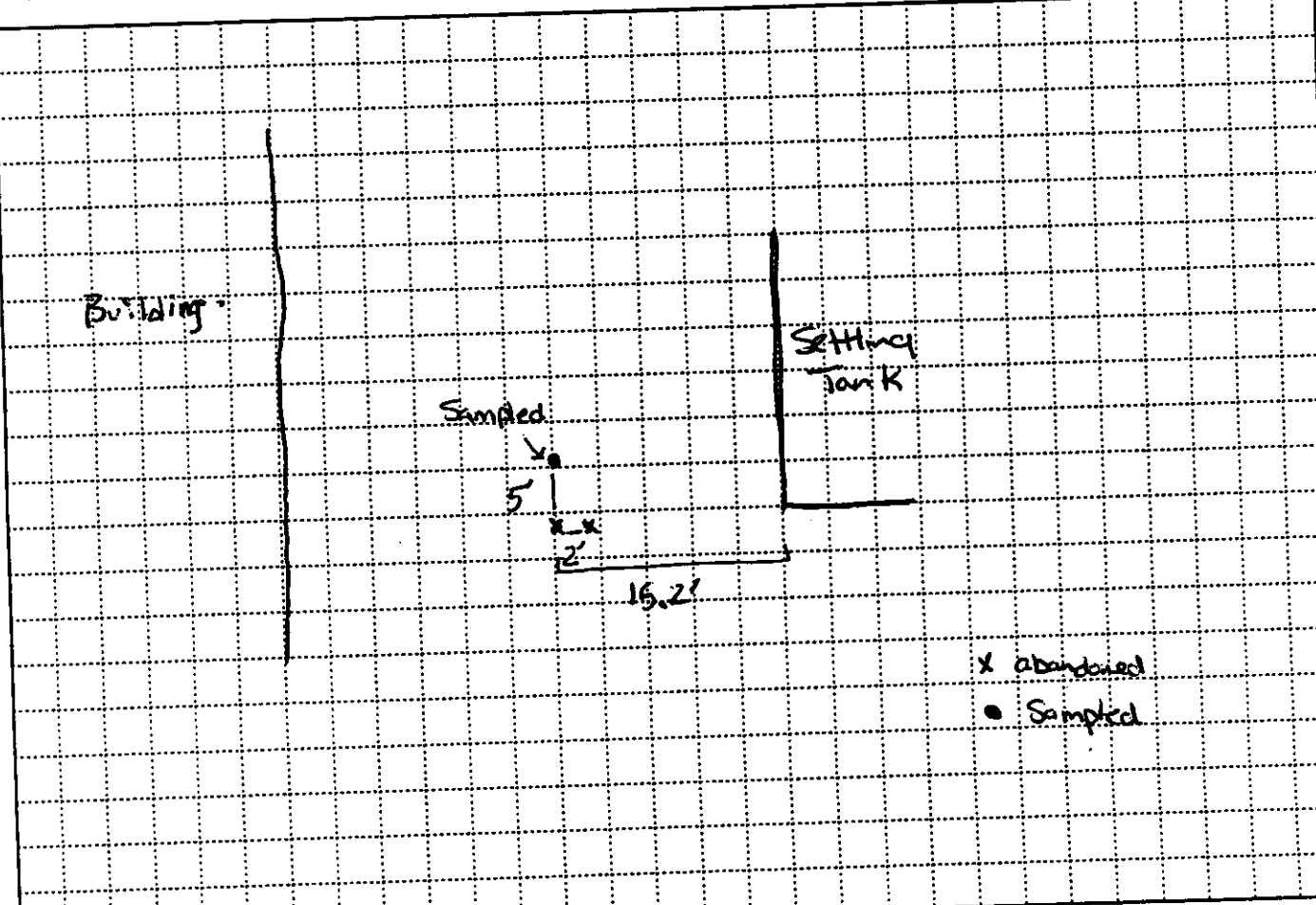
PROJECT RVAAP

HOLE NO. LL455-φ12

HTRW DRILLING LOG		DISTRICT Nashville COE	HOLE NUMBER LL455-014
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR Hand Auger (SAIC)	SHEET SHEETS 1 OF 2
3. PROJECT Ravenna Army Ammunition Plant		4. LOCATION Ravenna, OH	
5. NAME OF DRILLER Matt Vest / Sharon Bidney		6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" Stainless Steel Hand Auger & Auger bucket		8. HOLE LOCATION 15.2' off SW corner of Settling tank building	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 7/24/96	11. DATE COMPLETED 7/24/96
12. OVERBURDEN THICKNESS N/A		15. DEPTH GROUNDWATER ENCOUNTERED NA (No groundwater)	
13. DEPTH DRILLED INTO ROCK N/A		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 0.7' BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA
19. TOTAL NUMBER OF CORE BOXES NA			
20. SAMPLES FOR CHEMICAL ANALYSIS (1)		VOC NA	METALS (1)
		OTHER (SPECIFY) explosives (1)	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY NA			
22. DISPOSITION OF HOLE Hole plugged w/ bentonite		BACKFILLED NA	MONITORING WELL NA
		OTHER (SPECIFY) NA	23. SIGNATURE OF INSPECTOR Sharon Bidney

LOCATION SKETCH/COMMENTS

SCALE: 1 box = 3'



PROJECT Ravenna Army Ammunition Plant	HOLE NO. LL455-014
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HTRW DRILLING LOG

HOLE NUMBER
LL455-014
SHEET **2 of 2**

PROJECT **RVAAP**

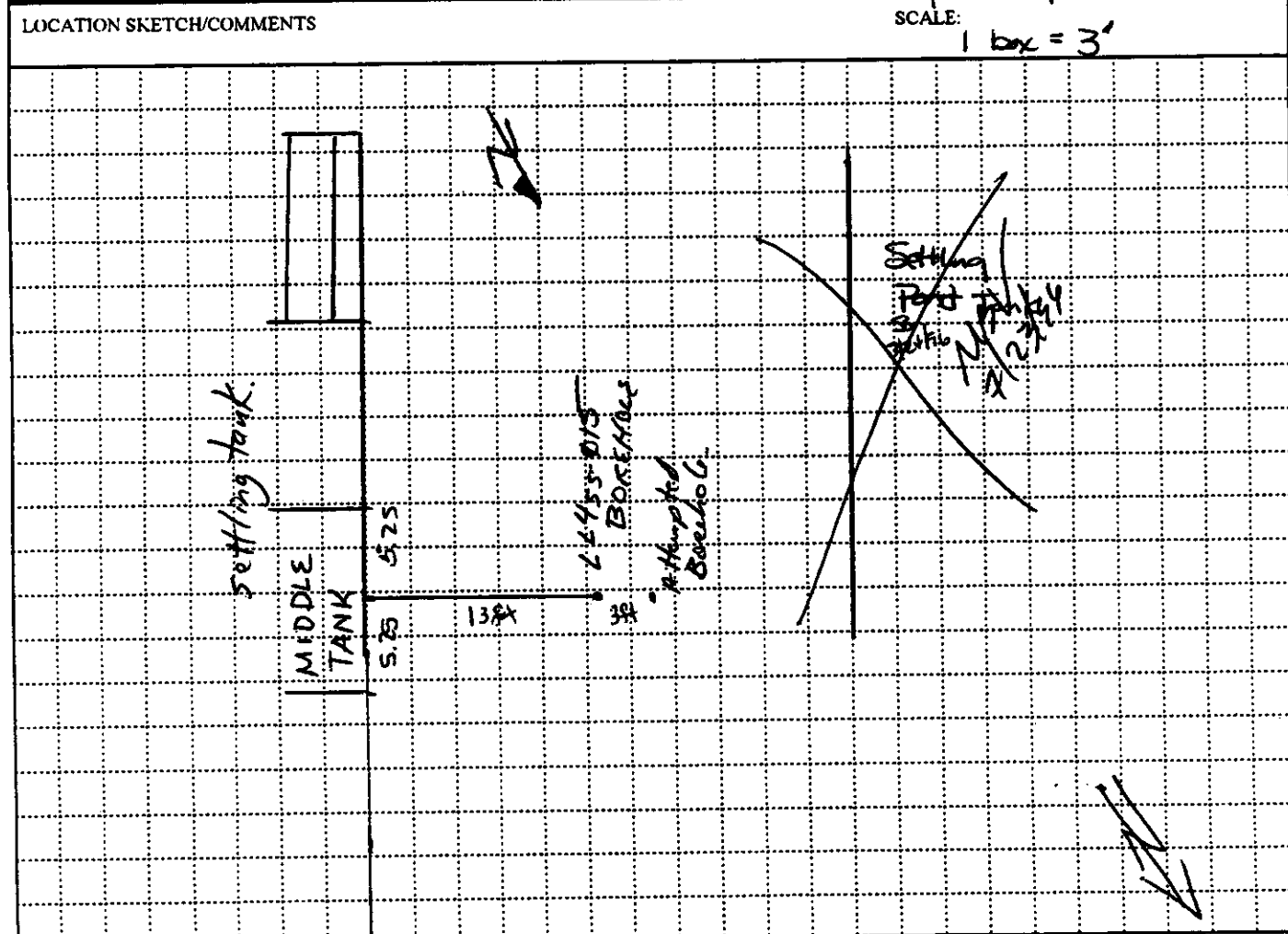
INSPECTOR **Sharon Britton**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.7'	Top soil silt + w-f sand little gravel dark brown poorly sorted	45 ppm	NA	LL45-014 0244-50	Top Soil (Silt + F. sand little gravel)
			Head space 75 ppm		0.7'	Aspx refusal at 0.7 ft hit a rock larger than cup bucket - could not remove. Head Space 75 ppm

PROJECT **Ravenna Army Ammunition Plant**

HOLE NO. **LL455-014**

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL455-015	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR Hand Auger (SAIC)		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP			4. LOCATION Reverna OH		
5. NAME OF DRILLER Matt Vest			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" Stainless Steel Handauger + auger bucket		8. HOLE LOCATION 13 ft NW of middle holding tank @ settling center.			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/24/96		11. DATE COMPLETED 7/24/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED Dry			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 0.7' BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS (1)		VOC (1)	METALS (1)	OTHER (SPECIFY) Explosives	OTHER (SPECIFY) Pest/PCB
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	21. TOTAL CORE RECOVERY % NA
				23. SIGNATURE OF INSPECTOR Sharon Bidwell	



PROJECT Reverna Army Ammunitions Plant	HOLE NO. LL455-015
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HTRW DRILLING LOG

HOLE NUMBER **LL45-015**

PROJECT **RVAAP**

INSPECTOR **Sharon Richman**

SHEET **2 of 2**

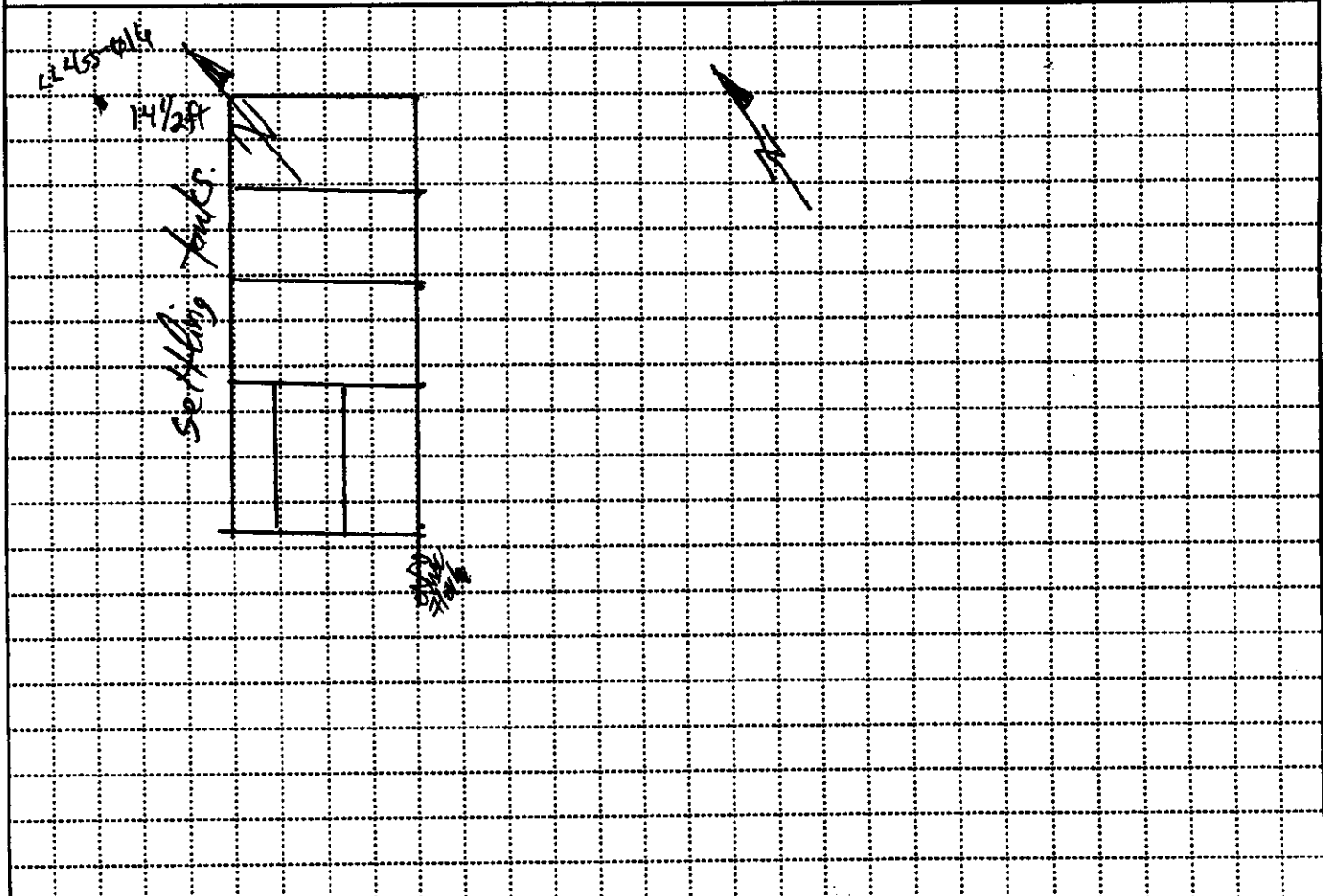
DEPTH (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	0.7'	Top soil silt some sand little gravel brown	4.5 ppm Benzene	NA	LL45-015-0215-30	Sample collected 0.6' - 0.7' hit rock larger than copper bucket could not remove.
			Hexachlorocyclohexane 13-4 ppm			

PROJECT **Reverna Army Ammunition Plant**

HOLE NO **LL45-015**

HTRW DRILLING LOG		DISTRICT Nashville COE	HOLE NUMBER LL455-016
1. COMPANY NAME SAIC		3. DRILL SUBCONTRACTOR WA	SHEET SHEETS 1 OF 2
3. PROJECT Ravenna Army Ammunition Plant		4. LOCATION Ravenna OH	
5. NAME OF DRILLER Matt Veat		6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" Stainless Steel Hand Auger + Auger bucket		8. HOLE LOCATION 14 1/2 ft NW of N. corner of settling tanks	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 7/24/96	11. DATE COMPLETED 7/24/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED Dry No Groundwater	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED Dry	
14. TOTAL DEPTH OF HOLE 0.8' bcp		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA
20. SAMPLES FOR CHEMICAL ANALYSIS (1)	VOC NA	METALS (1)	OTHER (SPECIFY) (1) explosives
21. TOTAL CORE RECOVERY % NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
22. DISPOSITION OF HOLE Abandoned	BACKFILLED NA	MONITORING WELL NA	23. SIGNATURE OF INSPECTOR Susan Pridmore

LOCATION SKETCH/COMMENTS SCALE: 1" = 20 ft





PROJECT Ravenna Army Ammunition Plant	HOLE NO. LL455-016
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HTRW DRILLING LOG

HOLE NUMBER: **LL455-016**

SHEET: **2 of 2**

PROJECT: RVAAP		INSPECTOR: Steven Bucher			REMARKS (G)	
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Topsoil with 1.0 fine F sand little gravel brown clay	4.5 ppm Benzene	NA	272456 LL455- 016- 0246-50	Sample 0-0.8' Auger refusal 0.8' but rocks larger than auger bucket
			Headspace 6.8 ppm		0.8' top	

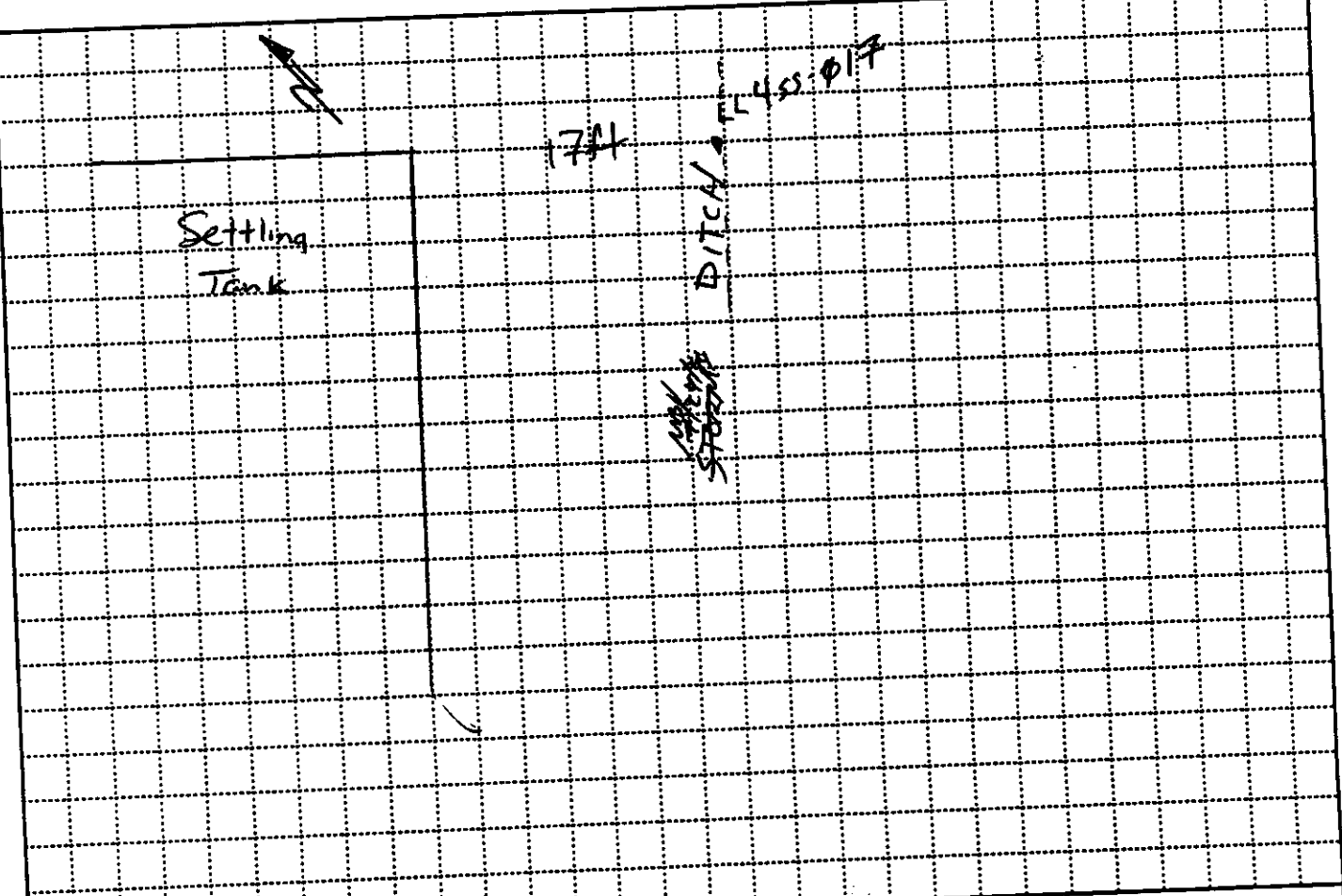
PROJECT: **Ravenna Army Ammunition Plant**

HOLE NO.: **LL455-016**

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL455-017	
1. COMPANY NAME SAIL		2. DRILL SUBCONTRACTOR NA		SHEET 1 SHEETS 2	
3. PROJECT Ravenna Army Ammunition Plant			4. LOCATION Ravenna OH		
5. NAME OF DRILLER Mat + Vost			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION N77T SE of E corner of settling tank			
3" Stainless Steel Hand Auger + Auger Bucket		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/24/96		11. DATE COMPLETED 7/24/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED No Groundwater			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 0.7'		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC NA	METALS NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
21. DISPOSITION OF HOLE (1) Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) explosive	OTHER (SPECIFY) NA
				23. SIGNATURE OF INSPECTOR Sharon Bidman	21. TOTAL CORE RECOVERY % NA

LOCATION SKETCH/COMMENTS

SCALE: **NOT TO SCALE**



PROJECT Ravenna Army Ammunition Plant	HOLE NO. LL455-017 (Proponent: CECW-EG)
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HTRW DRILLING LOG

HOLE NUMBER
LL45-017

PROJECT

INSPECTOR *Sharon Pedway*

SHEET 2 of 2

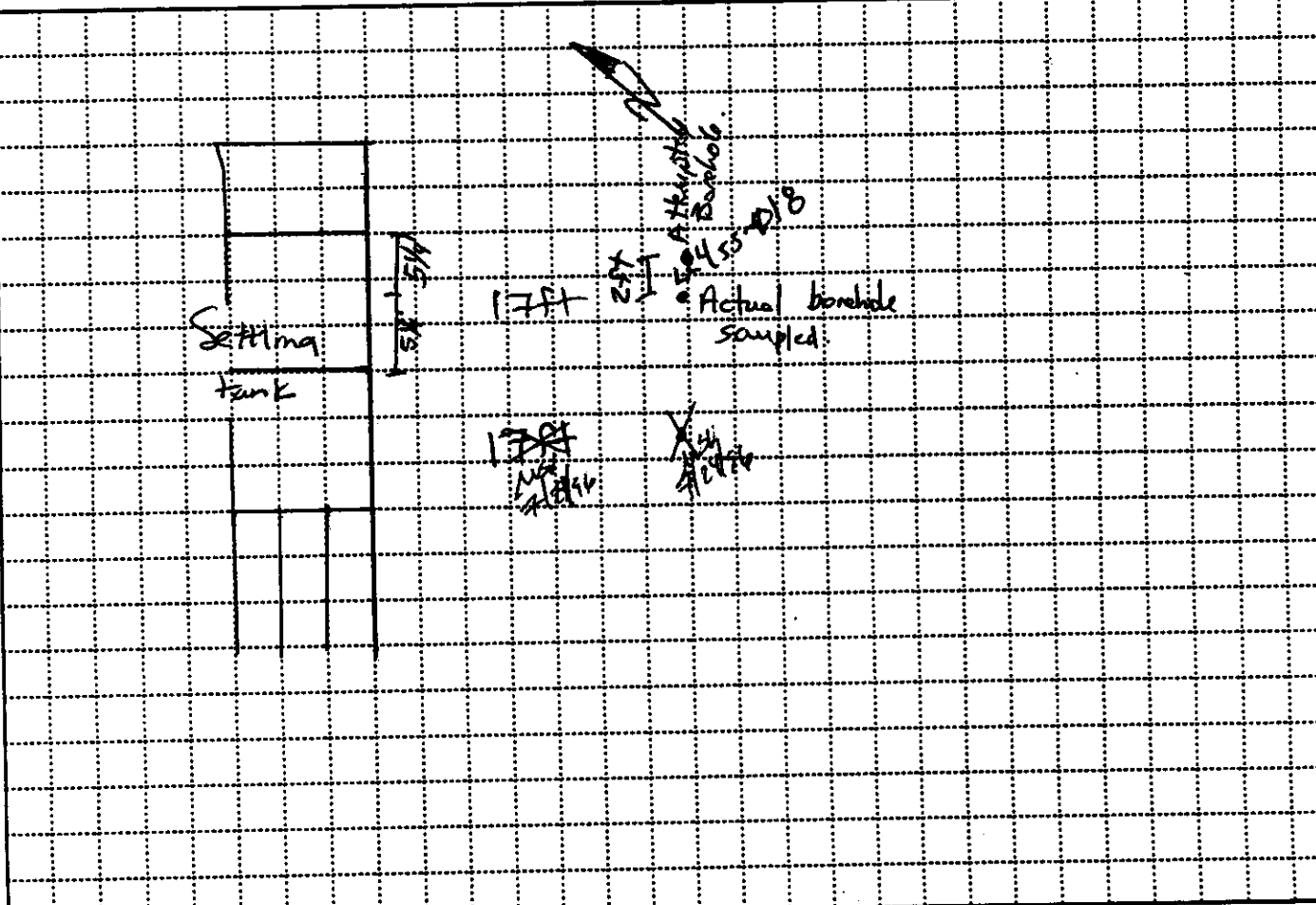
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.7	Top soil silt little sand little gravel	Φ.Φ ppm	NA	856 12/16 LL45- 017- 0247-S0	Bottom of Sealing 0.7' A sign released but gravel longer than Coring bucket
			Newspaper Φ.Φ ppm			

PROJECT

HOLE NO. LL45-017

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL455-018	
1. COMPANY NAME SAIL		2. DRILL SUBCONTRACTOR NA		SHEET 1 OF 2 SHEETS	
3. PROJECT Ravenna Army Ammunition Plant			4. LOCATION Ravenna, OH		
5. NAME OF DRILLER Matt Vest			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION			
3" Stainless Steel Hand Auger + Auger bucket		17ft SE of middle settling tank ^{NSX 2456}			
9. SURFACE ELEVATION NA			10. DATE STARTED 7/24/96		
			11. DATE COMPLETED 7/24/96		
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED No Groundwater		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 2.0ft BGS			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS (1)		VOC NA	METALS (1)	OTHER (SPECIFY) Explosives (1)	21. TOTAL CORE RECOVERY % NA
22. DISPOSITION OF HOLE Drains		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	23. SIGNATURE OF INSPECTOR Sharon Budson

LOCATION SKETCH/COMMENTS SCALE: 1" = 10ft



PROJECT Ravenna Army Ammunition Plant	HOLE NO. LL455-018
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HTRW DRILLING LOG

HOLE NUMBER **LL455-018**

PROJECT **RVAAP**

INSPECTOR **Sharon Burdick**

SHEET **2 of 2**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	1.0'	Top soil - silt some sand trace gravel down partly silty clay	0.4 ppm	NA	LL455- 018- 0248- 50	
	2.0'	Silty-clay little F. sand mottled clay				
			Hand spec 0.4 ppm (1-1.5')			

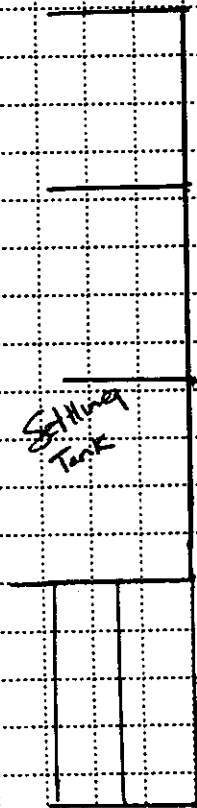
PROJECT **Rawenna Army Ammunition Plant**

HOLE NO. **LL455-018**

HTRW DRILLING LOG		DISTRICT Nashville ACOE		HOLE NUMBER LL455-019	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET 1 OF 2 SHEETS	
3. PROJECT Ravenna Army Ammunition Plant			4. LOCATION Ravenna, OH		
5. NAME OF DRILLER Matt Vest			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" Stainless Steel Hand Auger + Auger bucket		8. HOLE LOCATION 14 1/2 ft SE of bottom SETH corner of tanks			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/24/96		11. DATE COMPLETED 7/24/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED No Groundwater			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 2' BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC NA	METALS (1)	OTHER (SPECIFY) exposed (1)	OTHER (SPECIFY) NA
(1)		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Refractite	21. TOTAL CORE RECOVERY % NA
22. DISPOSITION OF HOLE Abandoned		23. SIGNATURE OF INSPECTOR Sharon Boney			

LOCATION SKETCH/COMMENTS

SCALE: 1" = 10 ft



PROJECT **Ravenna Army Ammunition Plant**

HOLE NO. **LL455-019**

HTRW DRILLING LOG

HOLE NUMBER **LL45-019**

PROJECT **RVAAP**

INSPECTOR **Sharon Bailey**

SHEET **2 of 2**

ELFV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
		Top soil (sit little sand and little gravel) Silt ^{and clay} / trace sand material moderately well sorted ↓	0.0 ppm	NA	LL45-019-0249-S0	
	2'		Headspace 0.0 ppm (1-1.5')			

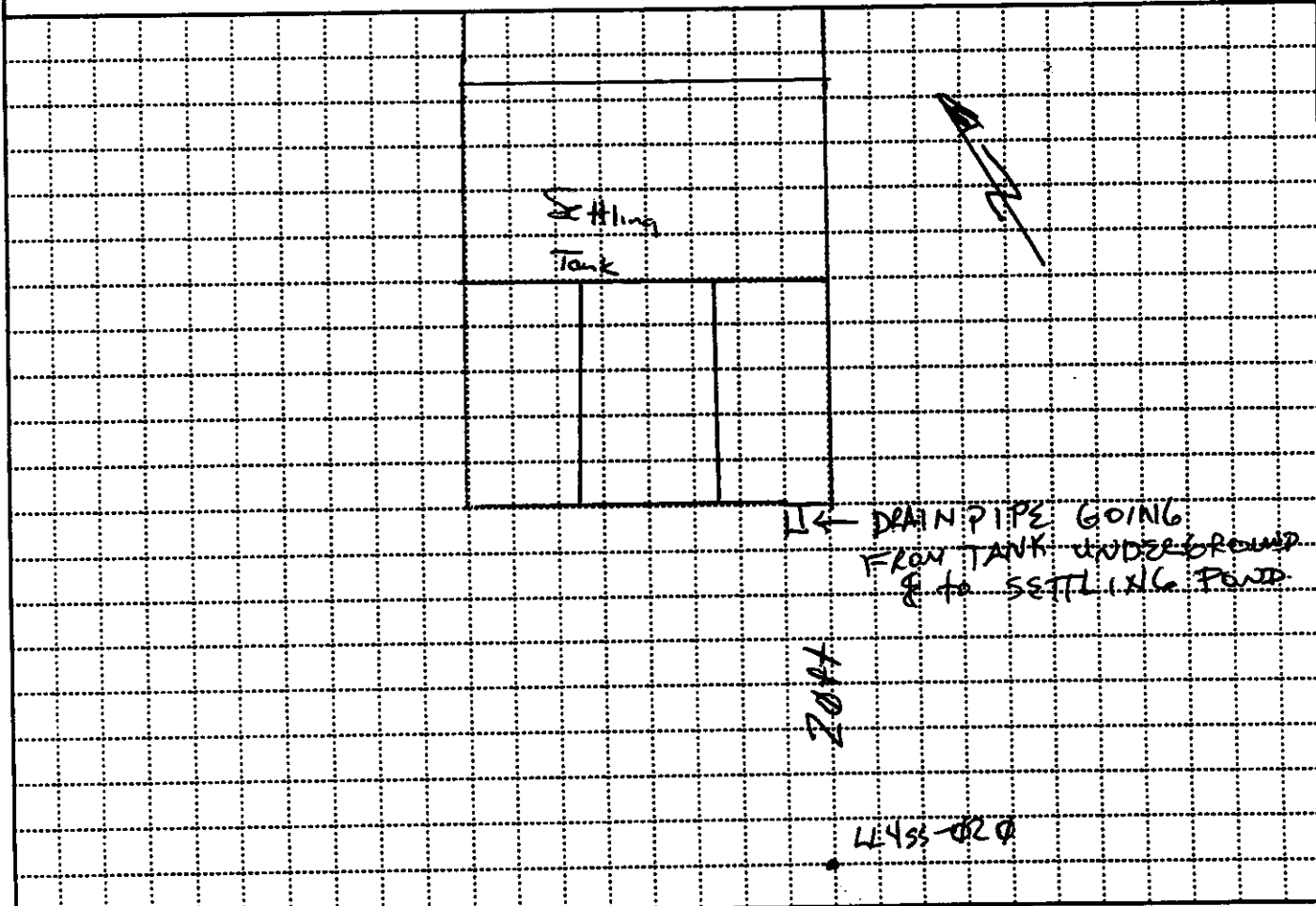
PROJECT **Ravena Army Ammunition Plant**

HOLE NO. **LL45-019**

HTRW DRILLING LOG		DISTRICT Nashville COE	HOLE NUMBER LL455-020
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
3. PROJECT Ravenna Army Ammunition Plant		4. LOCATION LL455 Ravenna OH	
5. NAME OF DRILLER MATT VEST		6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" Stainless Steel Hand Auger & Auger bits		8. HOLE LOCATION N204T SW of SWTH corner of settling tank	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 7/21/96	11. DATE COMPLETED 7/21/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED Not encountered	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 0.7' BES		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA
20. SAMPLES FOR CHEMICAL ANALYSIS (1)	VOC NA	METALS (1)	OTHER (SPECIFY) (1) Explosives
22. DISPOSITION OF HOLE Abandoned	BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) BENTONITE
		OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
		21. TOTAL CORE RECOVERY % NA	
		23. SIGNATURE OF INSPECTOR Sharon P... ..	

LOCATION SKETCH/COMMENTS

SCALE: 1" = 10' ↙



PROJECT Ravenna Army Ammunition Plant	HOLE NO. LL455-020
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HTRW DRILLING LOG

HOLE NUMBER
LL455-020

PROJECT **RVAAP**

INSPECTOR *Sharon Bidney*

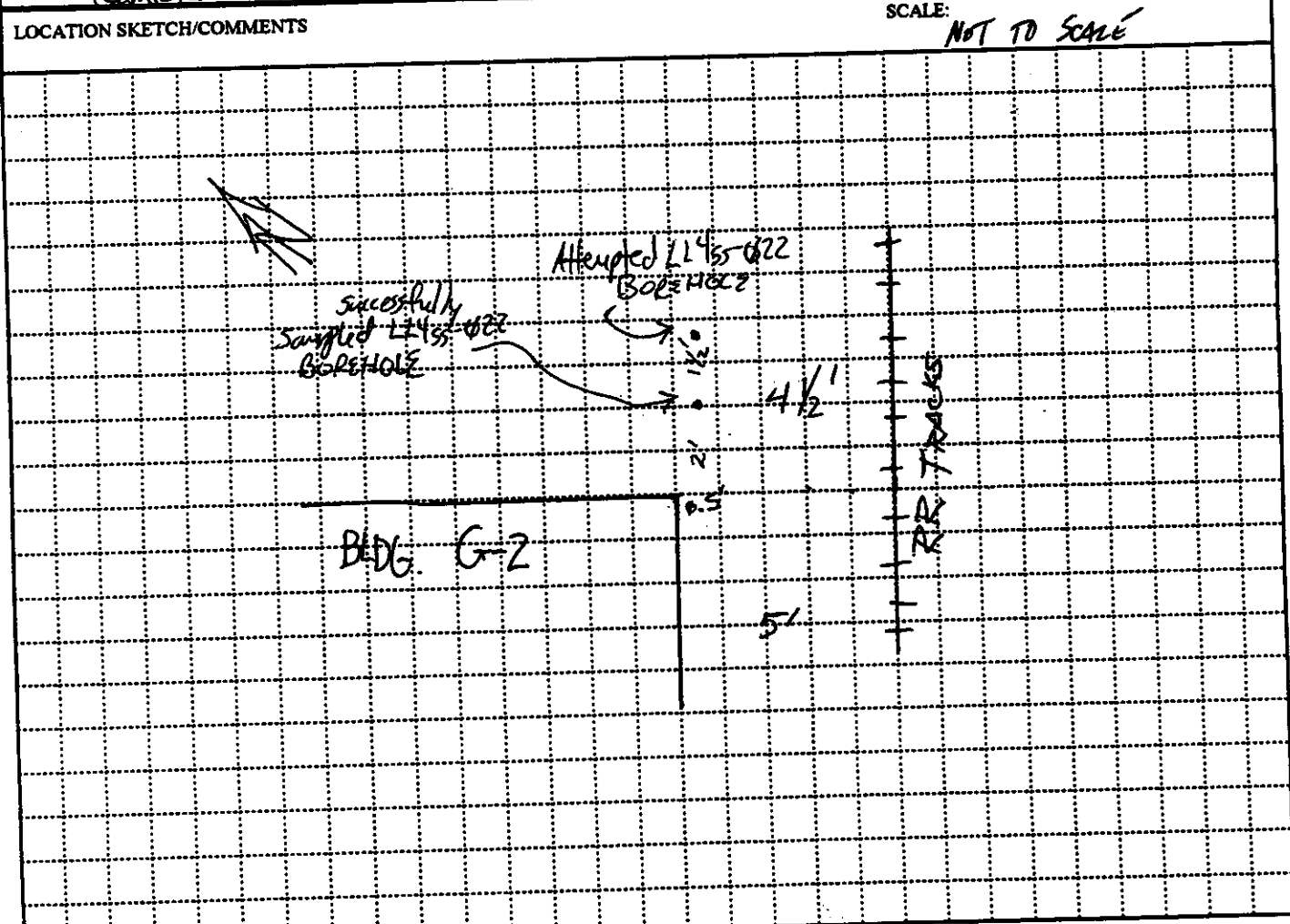
SHEET **2 of 2**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.7'	Top soil silt some F sand trace gravel brown dry	0.4 ppm	NA	LL455- 020 - 0250 - 50	sample 0-0.8' Copper tested C.E. - MT
			Headspace 0.4 ppm			Headspace 0.4 ppm

PROJECT **Reverna Army Ammunition Plant**

HOLE NO. **LL455-020**

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL455-022	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP			4. LOCATION Pavenna OH		
5. NAME OF DRILLER Matt West			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger		8. HOLE LOCATION ~ 2 ft from SE corner of BLDG. G-2 porch.			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/27/96		11. DATE COMPLETED 7/27/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 2.0 FT BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS (1)		VOC (1)	METALS (1)	OTHER (SPECIFY) U/exposures	OTHER (SPECIFY) Peat/P2B/Sill
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentone	21. TOTAL CORE RECOVERY NA
				23. SIGNATURE OF INSPECTOR Sudney	



PROJECT Pavenna Army Ammunition Plant	HOLE NO. LL455-022
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HTRW DRILLING LOG

DATE 11/21/00
HOLE NUMBER 424 LL45-022

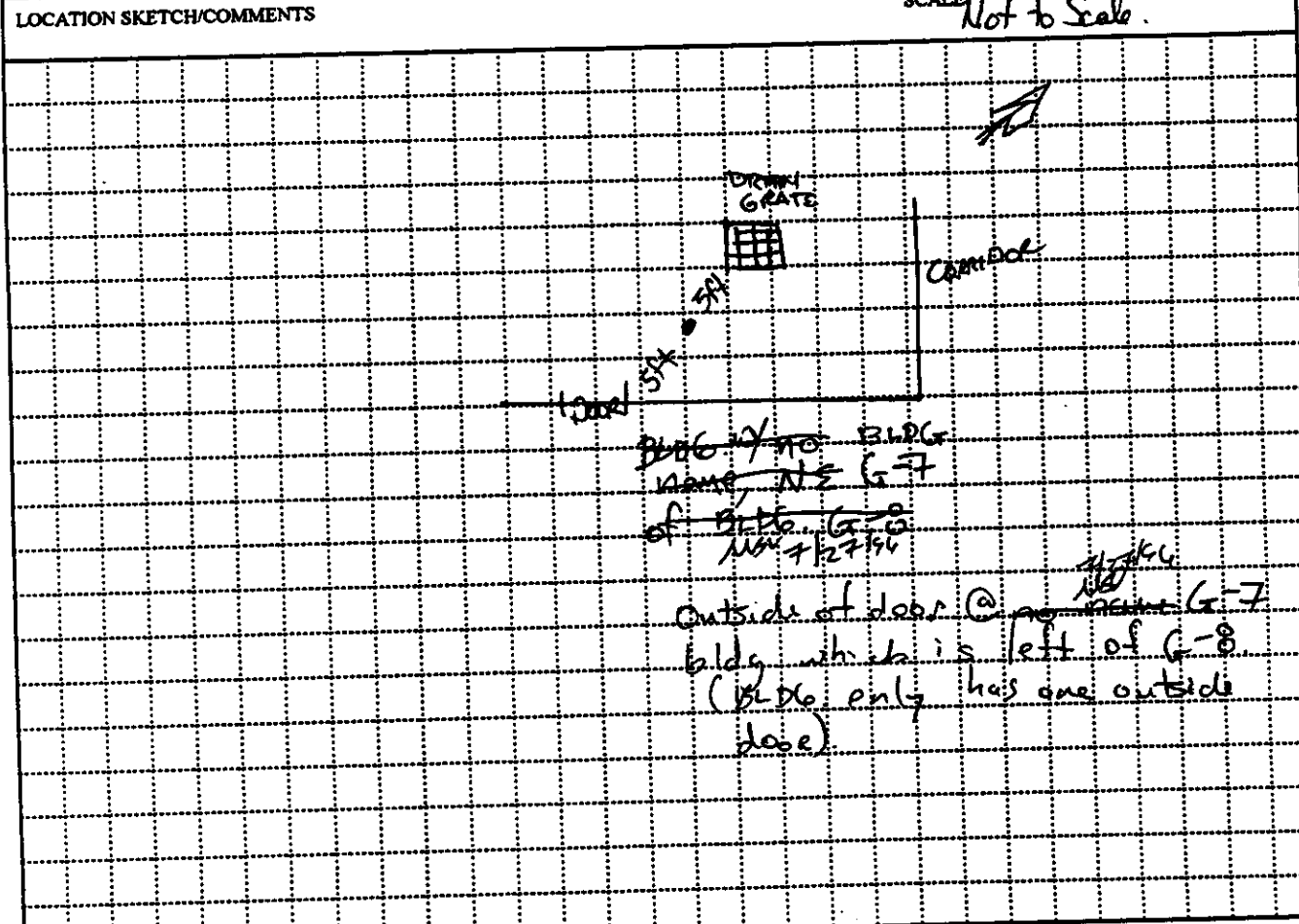
ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Fine sand some silt orange brown well sorted trace gravel at 1.5-2 ft	Ø. 0 ppm	NA	LL45- 022- 0252- 50	
			Headspace Ø. 0 ppm			

PROJECT *Reverna Army Ammunition Plant*

HOLE NO. *LL45-022*

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL455-023	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP			4. LOCATION Ravenna CH		
5. NAME OF DRILLER Matt Vest			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger w/ bit		8. HOLE LOCATION ~5 ft from door, between door & drain.			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/27/96		11. DATE COMPLETED 7/27/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 1.2 ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY NA*
(1)		(1)	(1)	Explosives	NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Rebar	23. SIGNATURE OF INSPECTOR J. Schum

SCALE: Not to Scale.



PROJECT RVAAP	HOLE NO. LL455-023
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HTRW DRILLING LOG

HOLE NUMBER: **LL45-023**

PROJECT: **ZVARD**

INSPECTOR: **Sadman**

SHEET: **2 of 2**

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	1.2'	Top soil - Silt some gravel organics brown	00ppm	NA	LL45-023-0253-50	Auger refusal 1.2 ft bfp
			32ppm Hexachlor			

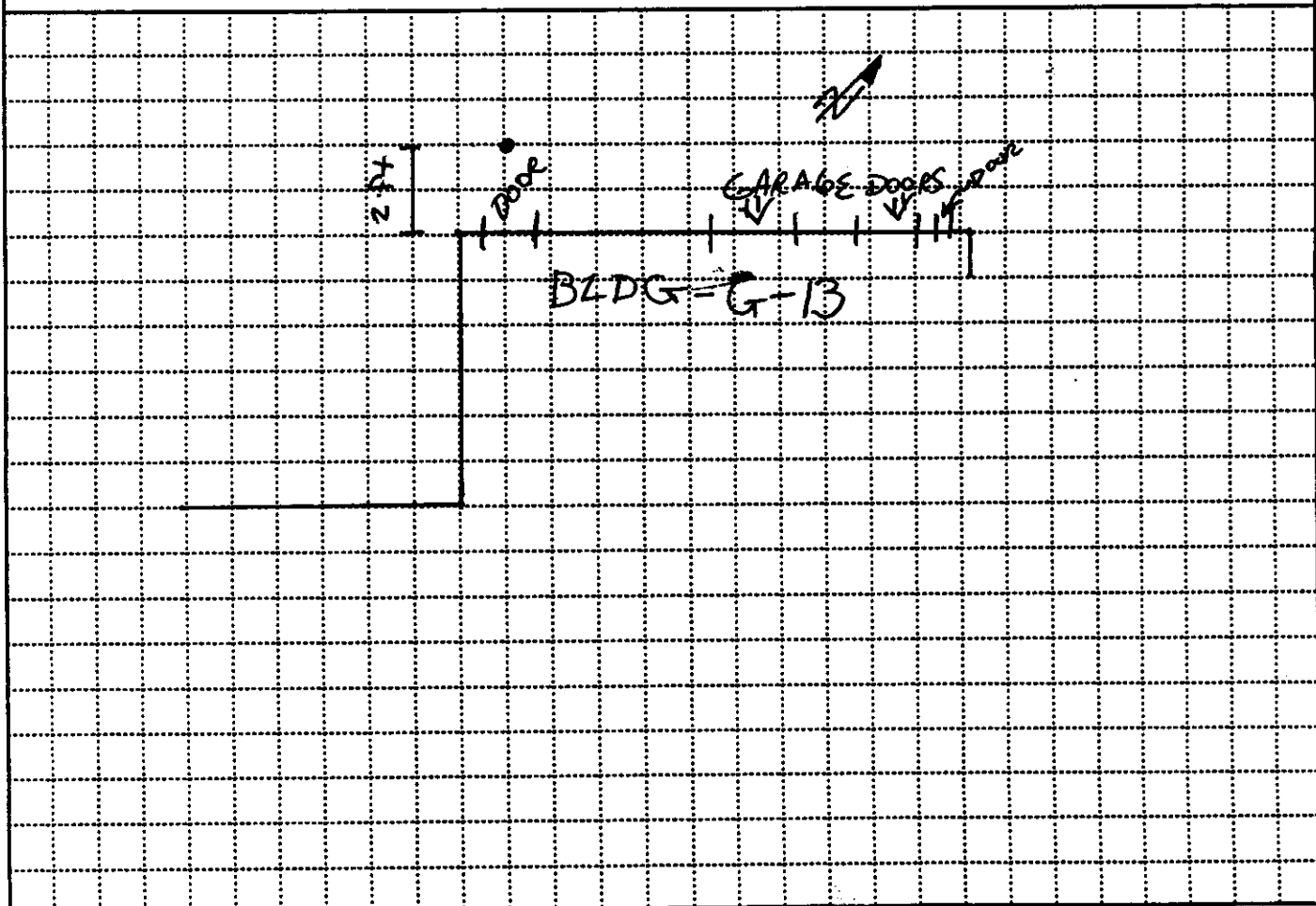
PROJECT: **Ravenna Army Ammunition Plant**

HOLE NO. **LL45-023**

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL455-024	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 of 2	
3. PROJECT RVAMP			4. LOCATION Ravenna OH		
5. NAME OF DRILLER Matt West			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger/Auger bit		8. HOLE LOCATION N 2 ft from door on E. corner of Bldg. G-13			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/28/96		11. DATE COMPLETED 7/28/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED No GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 2.0 ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS ANALYSIS # 1		VOC NA	METALS NA	OTHER (SPECIFY) Explosives	21. TOTAL CORE RECOVERY % NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	23. SIGNATURE OF INSPECTOR D. B. [Signature]

LOCATION SKETCH/COMMENTS

SCALE: Not to Scale



PROJECT Ravenna Army Ammunition Plant	HOLE NO. LL455-024
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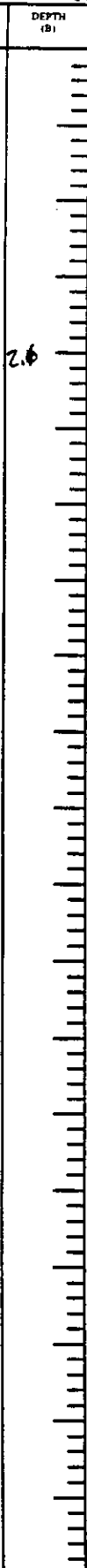
HTRW DRILLING LOG

HOLE NUMBER **LL455-024**

PROJECT **RVAAP**

INSPECTOR **S. Brown**

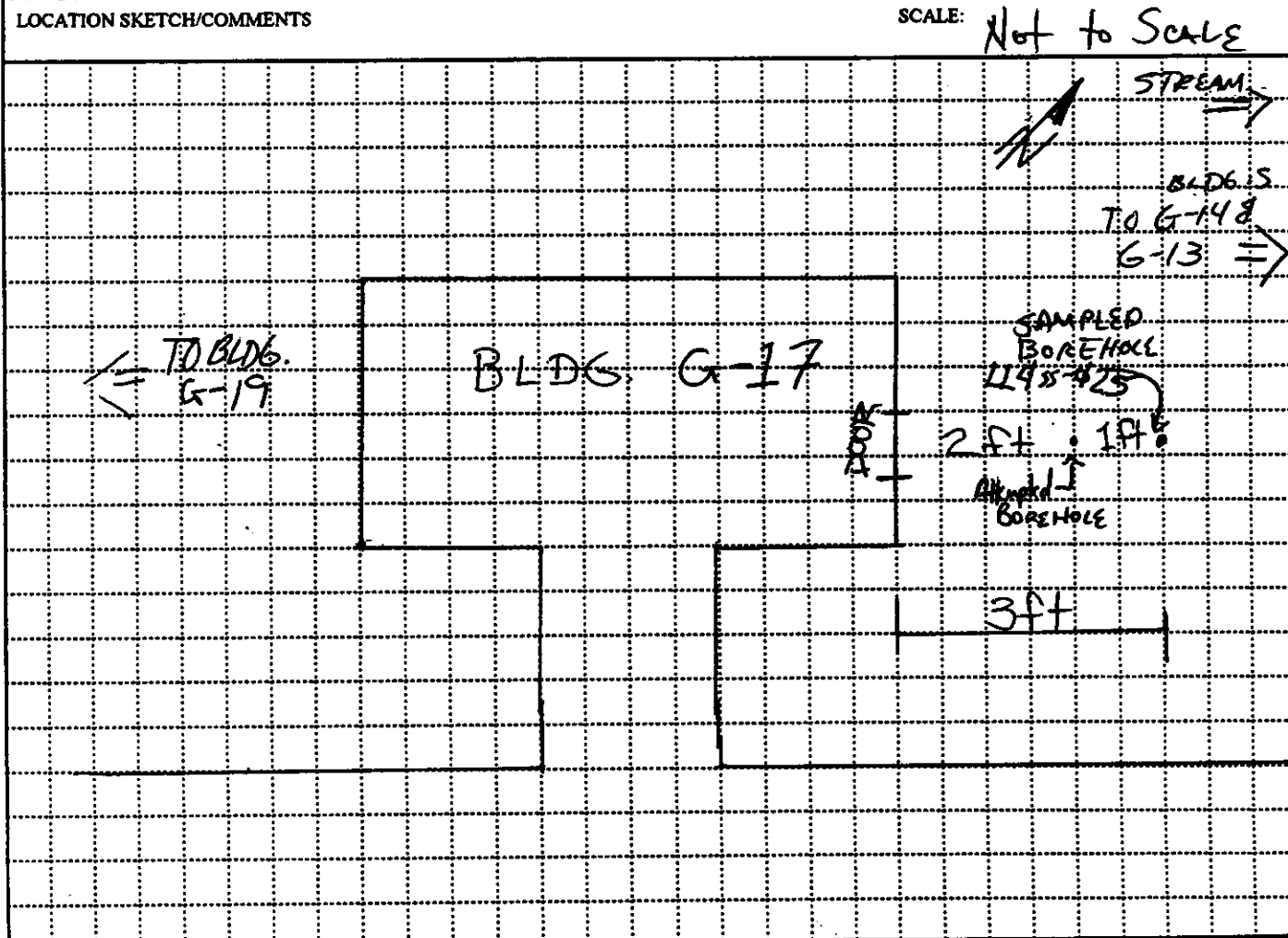
SHEET **2 of 2**

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
		Silt trace clay mottled brown/grey well sorted clay	$\phi - \phi$ ppm	NA	LL455- 024- 0254- 50	
	2.6		headspace $\phi - \phi$ ppm			

PROJECT **Pavanna Army Ammunition Plant**

HOLE NO. **LL455-024**

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL455-025	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT EVAAP			4. LOCATION Ravenna OH		
5. NAME OF DRILLER Matt Vest			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger / A open bucket		8. HOLE LOCATION N 3ft. from door on NE side of bldg. G-17			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/28/26			
		11. DATE COMPLETED 7/28/26			
12. OVERBURDEN THICKNESS NA		13. DEPTH GROUNDWATER ENCOUNTERED 10 GW			
13. DEPTH DRILLED INTO ROCK NA		14. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 2.0 ft		15. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
16. GEOTECHNICAL SAMPLES NA		DISTURBED NA		UNDISTURBED NA	
17. SAMPLES FOR CHEMICAL ANALYSIS 2 Sample + Dup		VOC (2)		METALS (2)	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA		MONITORING WELL NA	
		OTHER (SPECIFY) Rest / Plumb		OTHER (SPECIFY) Exp. / Plumb	
		OTHER (SPECIFY) NA		21. TOTAL CORE RECOVERY % NA	
		OTHER (SPECIFY) NA		23. SIGNATURE OF INSPECTOR S. Vest	



PROJECT Ravenna Army Ammunition Plant	HOLE NO. LL455-025
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HTRW DRILLING LOG

HOLE NUMBER **LL455 - 025**

PROJECT **RVAAP**

INSPECTOR **Jacobsen**

SHEET **2 of 2**

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
		Silt mottled brown/grey	NA S&T φ. φ 7mm	NA	LL455 - φ25 - φ255 - SD Dup LL455 - φ25 - φ256 - SD	
			Headspace φ φ ppm			

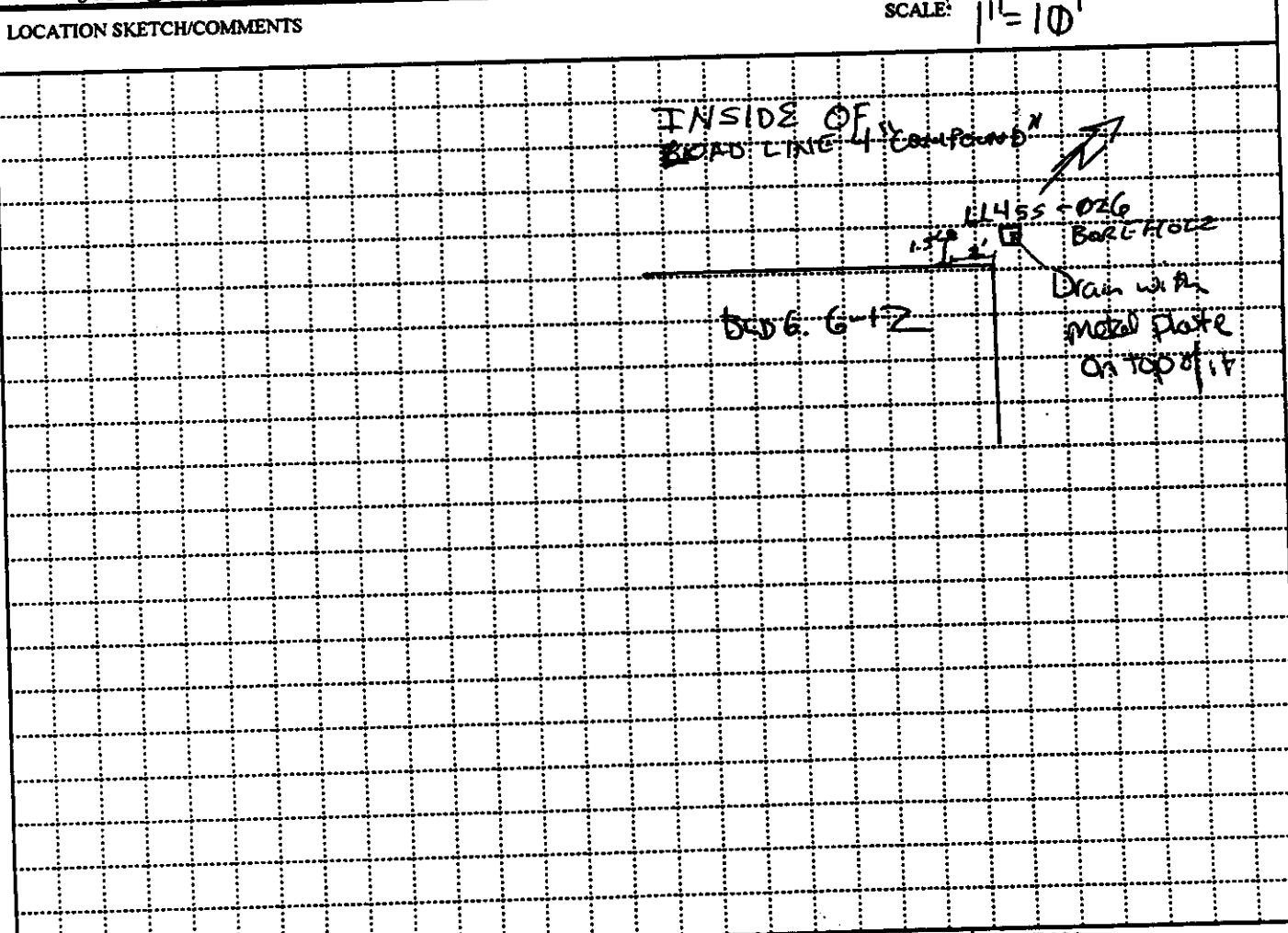
PROJECT

Ravenna Army Ammunition Plant

HOLE NO.

LL455 - 025

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL455-026	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET 1 OF 2 SHEETS	
3. PROJECT Ravenna Army Ammunition Plant			4. LOCATION Ravenna OH		
5. NAME OF DRILLER Matt Vest			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION			
3" Stainless Steel hand Auger + Auger bucket		2' SW of corner of Building 6-12 1.5' from Wall			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/25/96		11. DATE COMPLETED 7/25/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED 0 groundwater			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 1.3'		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA		UNDISTURBED NA	
19. TOTAL NUMBER OF CORE BOXES NA		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY % NA	
NA		VOC NA		OTHER (SPECIFY) NA	
()		METALS ()		OTHER (SPECIFY) NA	
Abandoned		BACKFILLED NA		OTHER (SPECIFY) NA	
22. DISPOSITION OF HOLE		MONITORING WELL NA		23. SIGNATURE OF INSPECTOR Sharon Bedner	
		OTHER (SPECIFY) Bentonite			



PROJECT Ravenna Army Ammunition Plant	HOLE NO. LL455-026
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HTRW DRILLING LOG

HOLE NUMBER **LL455-026**
 SHEET **2 of 7**

PROJECT **RVAPP** INSPECTOR **Sharon B. ...**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Top Soil Sit. little fine sand - 1' - 1.3' Silty clay. Down dry.	ϕ . ϕ ppm	NA	LL455- 026- 0257- 50	Depth of Sample ϕ - 1.3'
			Headspace ϕ . ϕ ppm		1.3'	

PROJECT **Rawana Army Ammunition Plant**

HOLE NO. **LL455-026**

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL4 55-027	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 of 2	
3. PROJECT Ravenna Army Ammunition Plant			4. LOCATION Kawenna, OH		
5. NAME OF DRILLER Matt Vest			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" Stainless Steel Hand Current Auger Drucker		8. HOLE LOCATION 1 ft in front of 3rd door from NE corner BLDG G-12			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 07/25/94		11. DATE COMPLETED 07/25/94	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NA			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 0.8 ft BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC NA	METALS /	OTHER (SPECIFY) Explosives	OTHER (SPECIFY) NA
		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	21. TOTAL CORE RECOVERY NA
22. DISPOSITION OF HOLE Observed		NA	NA	23. SIGNATURE OF INSPECTOR Shaun Bidney	
LOCATION SKETCH/COMMENTS			SCALE: 1" = 10'		
<p>AREA INSIDE LOAD LINE 'COMPOUND' THIS SIDE O.F. BLDG. G-12</p> <p>3RD Door FROM SW CORNER</p> <p>3RD Door FROM LEFT SIDE</p> <p>ATTEMPTED BOREHOLE</p> <p>SAMPLED BOREHOLE</p> <p>1 FT IN FRONT OF DOOR</p> <p>BLDG. G-12</p>					
PROJECT Ravenna Army Ammunition Plant				HOLE NO. LL4 55-027	

HTRW DRILLING LOG

HOLE NUMBER **LL455-027**

PROJECT **RVAAP**

INSPECTOR *Sharon Bruner*

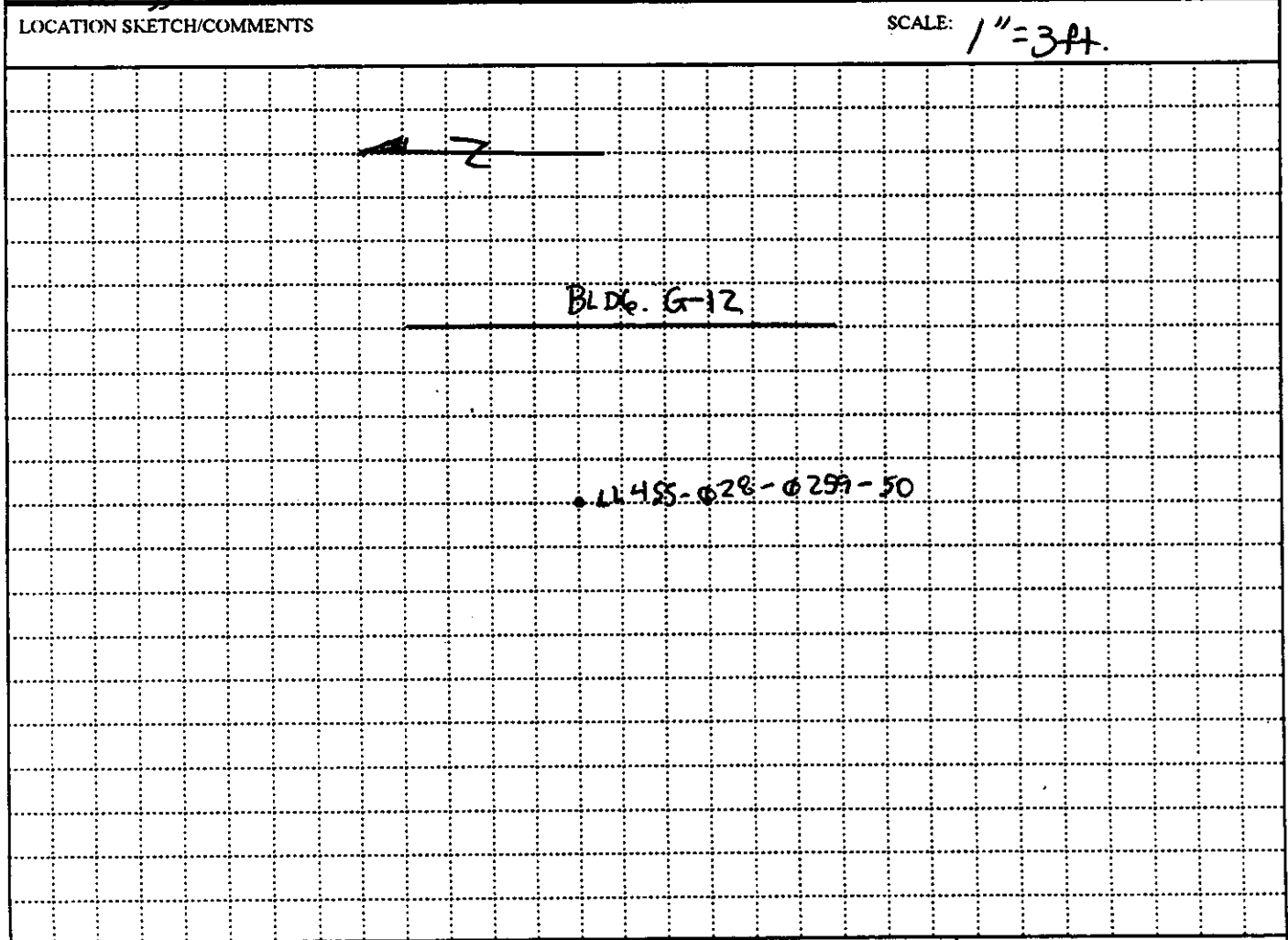
SHEET **2/2**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 5px;">0.8'</div> <div style="margin-bottom: 5px;">1.8'</div> <div style="margin-bottom: 5px;">2.8'</div> <div style="margin-bottom: 5px;">3.8'</div> <div style="margin-bottom: 5px;">4.8'</div> <div style="margin-bottom: 5px;">5.8'</div> <div style="margin-bottom: 5px;">6.8'</div> <div style="margin-bottom: 5px;">7.8'</div> <div style="margin-bottom: 5px;">8.8'</div> <div style="margin-bottom: 5px;">9.8'</div> <div style="margin-bottom: 5px;">10.8'</div> <div style="margin-bottom: 5px;">11.8'</div> <div style="margin-bottom: 5px;">12.8'</div> <div style="margin-bottom: 5px;">13.8'</div> <div style="margin-bottom: 5px;">14.8'</div> <div style="margin-bottom: 5px;">15.8'</div> <div style="margin-bottom: 5px;">16.8'</div> <div style="margin-bottom: 5px;">17.8'</div> <div style="margin-bottom: 5px;">18.8'</div> <div style="margin-bottom: 5px;">19.8'</div> <div style="margin-bottom: 5px;">20.8'</div> <div style="margin-bottom: 5px;">21.8'</div> <div style="margin-bottom: 5px;">22.8'</div> <div style="margin-bottom: 5px;">23.8'</div> <div style="margin-bottom: 5px;">24.8'</div> <div style="margin-bottom: 5px;">25.8'</div> <div style="margin-bottom: 5px;">26.8'</div> <div style="margin-bottom: 5px;">27.8'</div> <div style="margin-bottom: 5px;">28.8'</div> <div style="margin-bottom: 5px;">29.8'</div> <div style="margin-bottom: 5px;">30.8'</div> <div style="margin-bottom: 5px;">31.8'</div> <div style="margin-bottom: 5px;">32.8'</div> <div style="margin-bottom: 5px;">33.8'</div> <div style="margin-bottom: 5px;">34.8'</div> <div style="margin-bottom: 5px;">35.8'</div> <div style="margin-bottom: 5px;">36.8'</div> <div style="margin-bottom: 5px;">37.8'</div> <div style="margin-bottom: 5px;">38.8'</div> <div style="margin-bottom: 5px;">39.8'</div> <div style="margin-bottom: 5px;">40.8'</div> <div style="margin-bottom: 5px;">41.8'</div> <div style="margin-bottom: 5px;">42.8'</div> <div style="margin-bottom: 5px;">43.8'</div> <div style="margin-bottom: 5px;">44.8'</div> <div style="margin-bottom: 5px;">45.8'</div> <div style="margin-bottom: 5px;">46.8'</div> <div style="margin-bottom: 5px;">47.8'</div> <div style="margin-bottom: 5px;">48.8'</div> <div style="margin-bottom: 5px;">49.8'</div> <div style="margin-bottom: 5px;">50.8'</div> </div>	<p>Top soil SH little f sand little gravel. More SH with depth</p>	<p>0.0 ppm</p>	<p>NA</p>	<p>LL455-027-0259-50</p>	<p>Auger refusal @ 0.8' bop</p>
			<p>Headspine 0.3 ppm</p>			

PROJECT **Ravenna Army Ammunition Plant**

HOLE NO. **LL455-027**

HTRW DRILLING LOG		DISTRICT <i>Nashville COE</i>		HOLE NUMBER <i>LL455-028</i> <i>0259-50</i>	
1. COMPANY NAME <i>SAIC</i>		2. DRILL SUBCONTRACTOR <i>Hand Auger. (SAIC)</i>		SHEET <i>1</i> OF <i>2</i>	
3. PROJECT <i>Ravenna Army Ammunitions Plant</i>			4. LOCATION <i>Ravenna, OH</i>		
5. NAME OF DRILLER <i>Matt Vest / Sharon Dudney</i>			6. MANUFACTURERS DESIGNATION OF DRILL <i>Hand Auger.</i>		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>3" stainless steel hand auger & auger bucket</i>		8. HOLE LOCATION <i>~3ft from bldg. G-12 by 3rd door on left, S. side</i>			
		9. SURFACE ELEVATION <i>NA</i>			
		10. DATE STARTED <i>07/23/94</i>		11. DATE COMPLETED <i>07/23/94</i>	
12. OVERBURDEN THICKNESS <i>N/A</i>		15. DEPTH GROUNDWATER ENCOUNTERED <i>NA (NO GROUNDWATER)</i>			
13. DEPTH DRILLED INTO ROCK <i>N/A</i>		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>			
14. TOTAL DEPTH OF HOLE <i>1.3 ft BGS</i>		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>			
18. GEOTECHNICAL SAMPLES <i>NA</i>		DISTURBED <i>NA</i>	UNDISTURBED <i>NA</i>	19. TOTAL NUMBER OF CORE BOXES <i>NA</i>	
20. SAMPLES FOR CHEMICAL ANALYSIS <i>NOV 21 1994 (2) (1)</i>		VOC <i>NA</i>	METALS <i>(1)</i>	OTHER (SPECIFY) <i>(Explosives)</i>	OTHER (SPECIFY) <i>NA</i>
21. TOTAL CORE RECOVERY <i>NA</i>		OTHER (SPECIFY) <i>NA</i>	OTHER (SPECIFY) <i>NA</i>		
22. DISPOSITION OF HOLE <i>Hole Plugged (Bentonite)</i>		BACKFILLED <i>NA</i>	MONITORING WELL <i>NA</i>	OTHER (SPECIFY) <i>Bentonite</i>	23. SIGNATURE OF INSPECTOR <i>Matt Vest</i>



PROJECT <i>Ravenna Army Ammunitions Plant.</i>	HOLE NO. <i>LL455-028-0259-50</i>
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HTRW DRILLING LOG

HOLE NUMBER
LL455-028-0259-50

PROJECT RVAAP

INSPECTOR Matthew B. Vest

SHEET 2 of 2

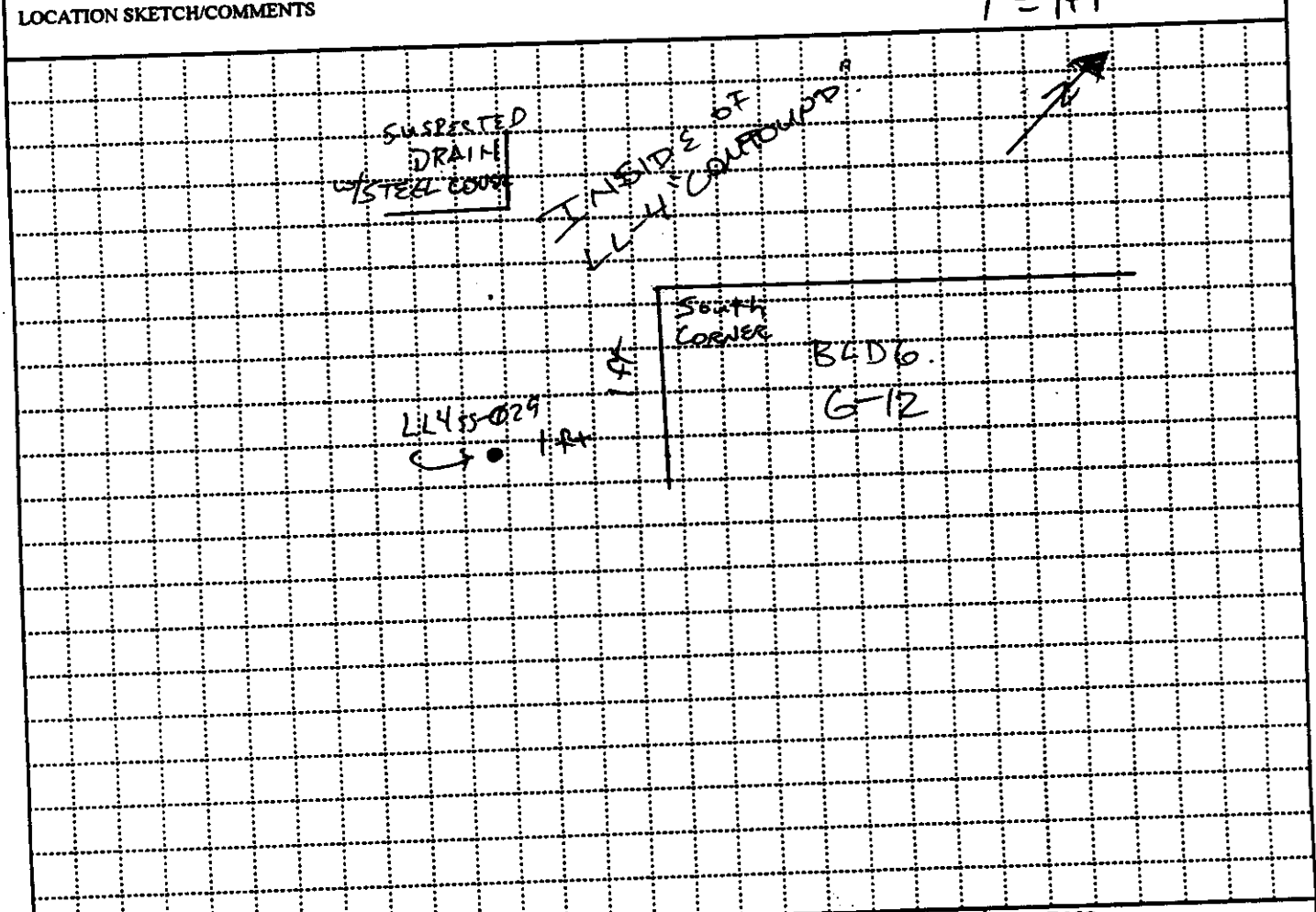
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		TOPSOIL (SILT) w/ ~30% gravel	φ φ ppm	NA	LL455- 028- 0259- 50	Topsoil (silt) w/ ~30% gravel
	1.3	Almost completely gravel.			1.3	Almost completely gravel to large to hand auger through. Have over & retry, but had same result. Refusal @ 1.3ft BGS
		Refusal @ 1.3ft BGS.				Headspace φ. ppm

PROJECT RVAAP

HOLE NO
LL455-028-0259-50

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL455-029	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 of 2	
3. PROJECT RVAAP			4. LOCATION S. corner of BLDG. G-12, Raleigh, OH		
5. NAME OF DRILLER Matt Vest			6. MANUFACTURERS DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION S. corner of BLDG. G12, 1ft away.			
Auger (Hand) 3"		9. SURFACE ELEVATION NA			
STAINLESS STEEL					
BUCKET, stainless steel bowl, & spoon.		10. DATE STARTED 7/25/96		11. DATE COMPLETED 7/25/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO WATER ENCOUNTERED			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 0.9 ft BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED NA		UNDISTURBED NA	
19. TOTAL NUMBER OF CORE BOXES NA		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY % NA	
VOC NA		METALS NA		OTHER (SPECIFY) NA	
OTHER (SPECIFY) NA		OTHER (SPECIFY) NA		OTHER (SPECIFY) NA	
22. DISPOSITION OF HOLE BACKFILLED		MONITORING WELL NA		23. SIGNATURE OF INSPECTOR Sharon Padman	
BENTONITE (HOLE PLUG)		NA		BENTONITE	

SCALE: 1" = 1ft



PROJECT RVAAP	HOLE NO. LL455-029
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(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER **LL433-029**

PROJECT **RVAAP**

INSPECTOR **S. BUONEY**

SHEET **2 of 2**

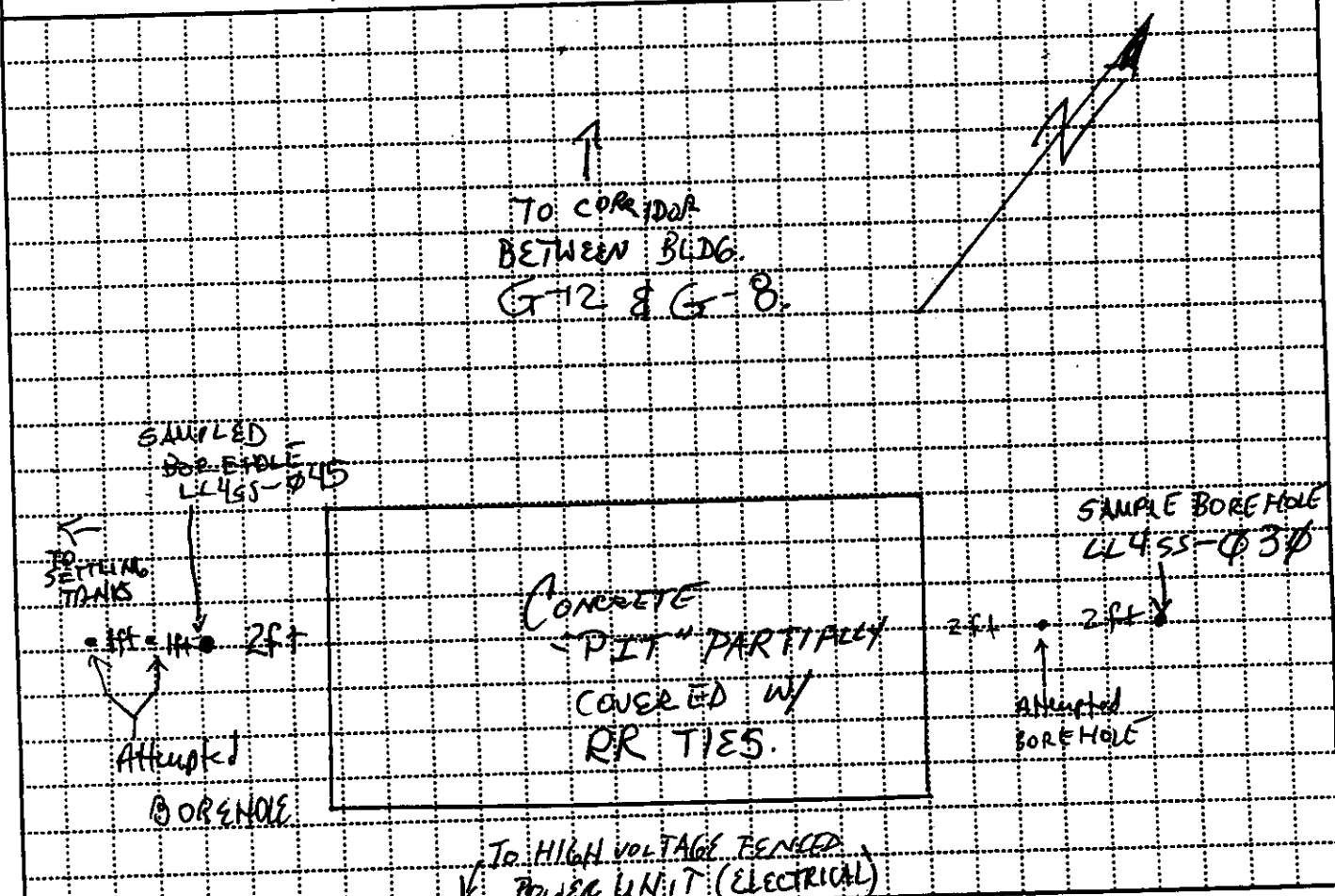
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.9	SILT w/ gravel 10 to 20% throughout.	φ 0.9mm	NA	LL455- 029- 0260- 50	HEADSPACE @ φ φ 9mm φ.9
						AUGER REFUSED @ 0.9 FT

PROJECT **RVAAP**

HOLE NO. **LL455-029**

HTRW DRILLING LOG		DISTRICT Nashville COE	HOLE NUMBER LL455-030
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NJ	SHEET 1 OF 2 SHEETS
3. PROJECT RVAAP		4. LOCATION Reverence OH	
5. NAME OF DRILLER Matt Vest		6. MANUFACTURERS DESIGNATION OF DRILL Hund Auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger		8. HOLE LOCATION N 4ft NE of Concrete "Pit"	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 7/31/96	11. DATE COMPLETED 7/31/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED No GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 0.4 ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA
20. SAMPLES FOR CHEMICAL ANALYSIS (1)	VOC NA	METALS (1)	OTHER (SPECIFY) (1) explosives
22. DISPOSITION OF HOLE Abandoned	BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Rebar
		21. SIGNATURE OF INSPECTOR B. Dwyer	

LOCATION SKETCH/COMMENTS For both LL455-030 & LL455-045 SCALE: 1" = 3'



PROJECT RVAAP	HOLE NO. LL455-030
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HTRW DRILLING LOG

HOLE NUMBER **LL455-034**

PROJECT **RVAAP**

INSPECTOR **S. Adney**

SHEET **2 of 2**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.4	Top Soil Silty gravel + organics	φ. φ	NA	LL455-034 0261-50	Auger refused at φ.4 ft bgs on gravel
			Head space 460 ppm			

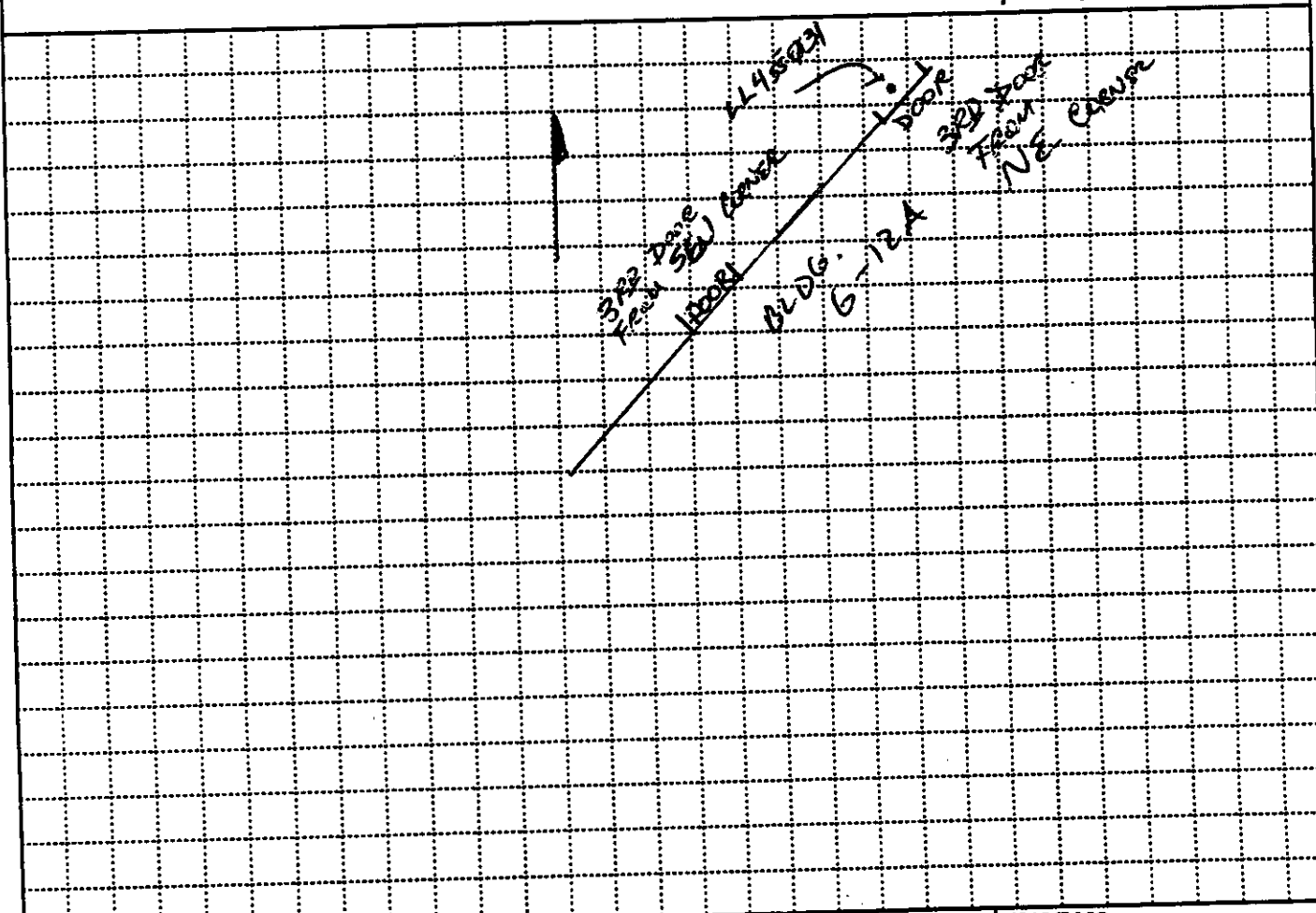
PROJECT **RVAAP**

HOLE NO. **LL455-034**

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL455-031	
1. COMPANY NAME SAC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT Ravenna Army Ammunition Plant			4. LOCATION Ravenna OH		
5. NAME OF DRILLER Matt Vost			6. MANUFACTURERS DESIGNATION OF DRILL Hindauger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" Stainless Steel Hand Auger + Auger Bucket		8. HOLE LOCATION 1/4" out of 3rd door from the NE corner.			
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED 0 groundwater		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 0.8 ft			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS (1)		VOC NA	METALS (1)	OTHER (SPECIFY) (1) cadmium	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY % NA		OTHER (SPECIFY) NA	OTHER (SPECIFY) NA	23. SIGNATURE OF INSPECTOR Shawn Pedersen	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bestande	

LOCATION SKETCH/COMMENTS

SCALE: 1" = 10ft.



PROJECT

Ravenna Army Ammunition Plant

HOLE NO.

LL455-031

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER
LL455-Ø31

PROJECT

RVAAP

INSPECTOR

Simon Bedner

SHEET

2 of 2

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	0.8	Topsoil - Silty lite F-VF sand trace gravel brown	0.0 ppm	NA	LL455-Ø31- Ø262-2	Sample Ø-Ø.8 ft Auger refused Ø.8 ft on gravel.
			20ppm Headspace			

PROJECT

Ravenna Arms Ammunition Plant

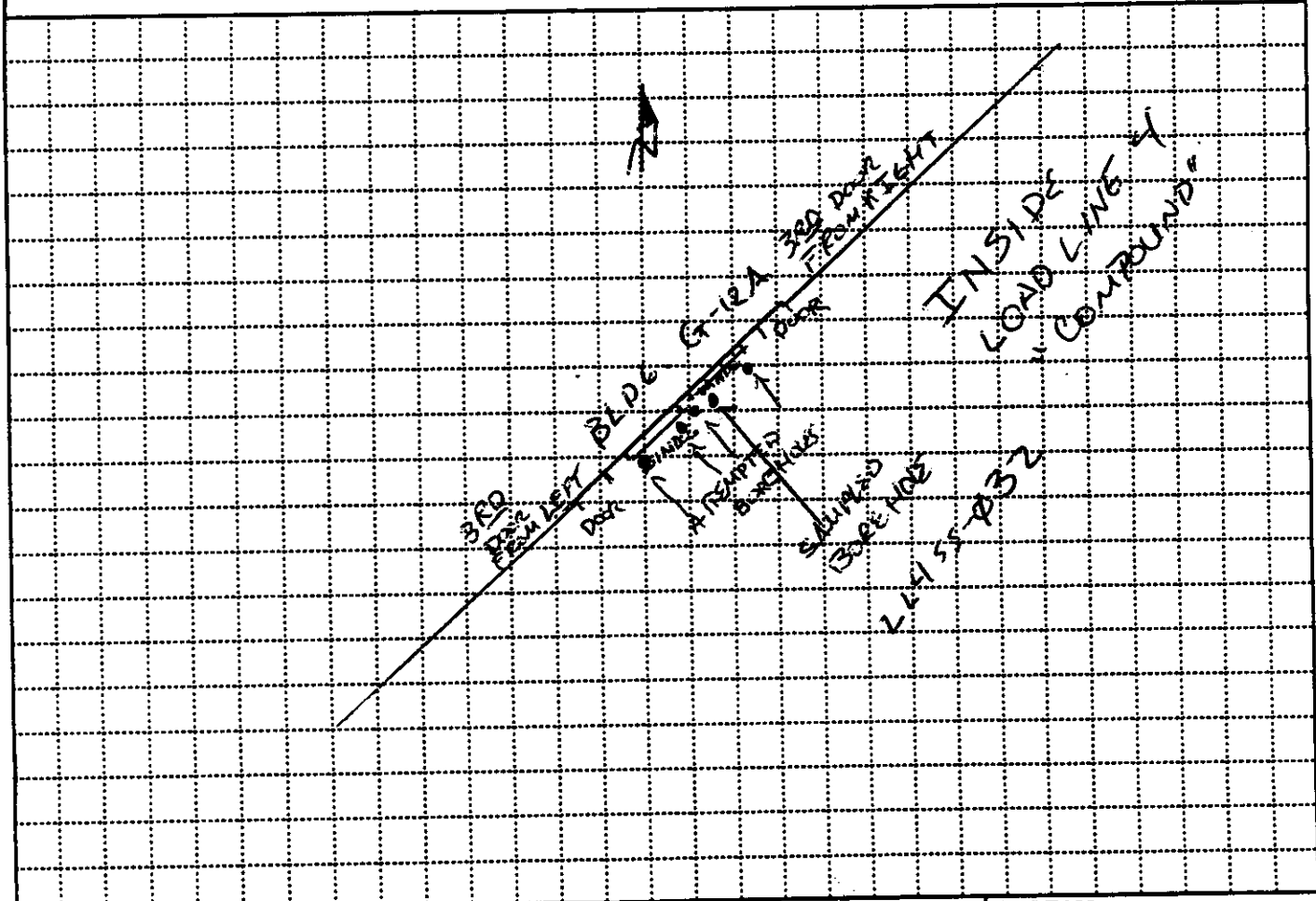
HOLE NO.

LL455-Ø31

HTRW DRILLING LOG		DISTRICT Nashville	HOLE NUMBER LL455-032
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
3. PROJECT Ravenna Army Ammunition Plant		4. LOCATION Ravenna OH	
5. NAME OF DRILLER Matt West		6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" Stainless Steel hand auger + auger bucket		8. HOLE LOCATION Between 2 middle doors, N 1/4 ft Pt. of Center.	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 7/26/6	11. DATE COMPLETED 7/25/6
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED No groundwater	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 0.5 ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA
20. SAMPLES FOR CHEMICAL ANALYSIS (1)	VOC NA	METALS (1)	OTHER (SPECIFY) (1) explosives
22. DISPOSITION OF HOLE (Abandoned)	BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) benzene
			21. TOTAL CORE RECOVERY % NA
			23. SIGNATURE OF INSPECTOR D. J. [Signature]

LOCATION SKETCH/COMMENTS

SCALE: 1" = 10ft



PROJECT Ravenna Army Ammunition Plant	HOLE NO. LL455-032
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HTRW DRILLING LOG

HOLE NUMBER **LL455-032**

PROJECT **RVAAP**

INSPECTOR **Sharon Pacheco**

SHEET **2 of 2**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Topsoil dark brown lot of organic matter	0.4 ppm	NA	LL455- 032- 02L3-50	As per request 0.5' on gravel.
			0.4 ppm Hexachloro-			

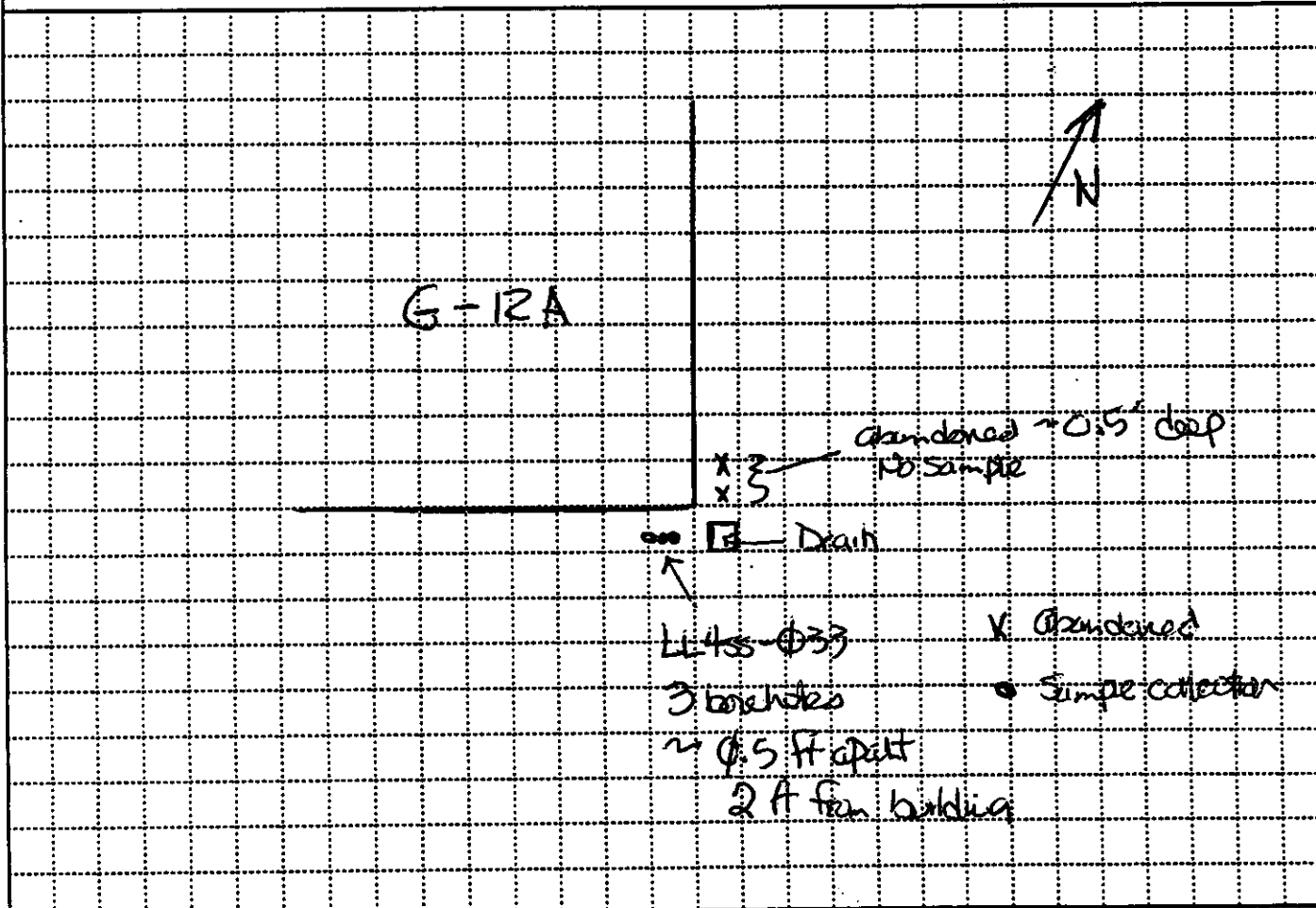
PROJECT **Ravenara Army Ammunition Plant**

HOLE NO. **LL455-032**

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL455-033	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 of 2	
3. PROJECT Ravenna Army Ammunition Plant			4. LOCATION Ravenna OH		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" Standard Steel Hand Auger + Auger Bucket		8. HOLE LOCATION SEE SKETCH BELOW			
9. SURFACE ELEVATION NA					
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED No Groundwater		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 0.5' (3 buckets for sample)			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS 1 Sample (1) Split		VOC NA	METALS 3	OTHER (SPECIFY) 3 Explosives	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY % NA		OTHER (SPECIFY) NA	OTHER (SPECIFY) NA	23. SIGNATURE OF INSPECTOR Jason Bickney	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Decontaminate	

LOCATION SKETCH/COMMENTS

SCALE: 1 box = 3'



PROJECT Ravenna Army Ammunition Plant	HOLE NO. LL455-033
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HTRW DRILLING LOG

HOLE NUMBER **LL455-φ33**

SHEET **2 of 2**

PROJECT

RVAAP

INSPECTOR

Ernest B. ...

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.5'	Top soil silt + F sand 71% + gravel brown dry	0.0 ppm	NA	LL455-φ33-	As per request 0.5' rats keep them in your bucket LL455-φ33 - φ266-SO (sample) LL455-φ33 - φ265-SO (split) LL455-φ33 - φ264-FD (duplicate)
			Head space 2.2 ppm			

PROJECT

Rebecca Anna Amundson Plant

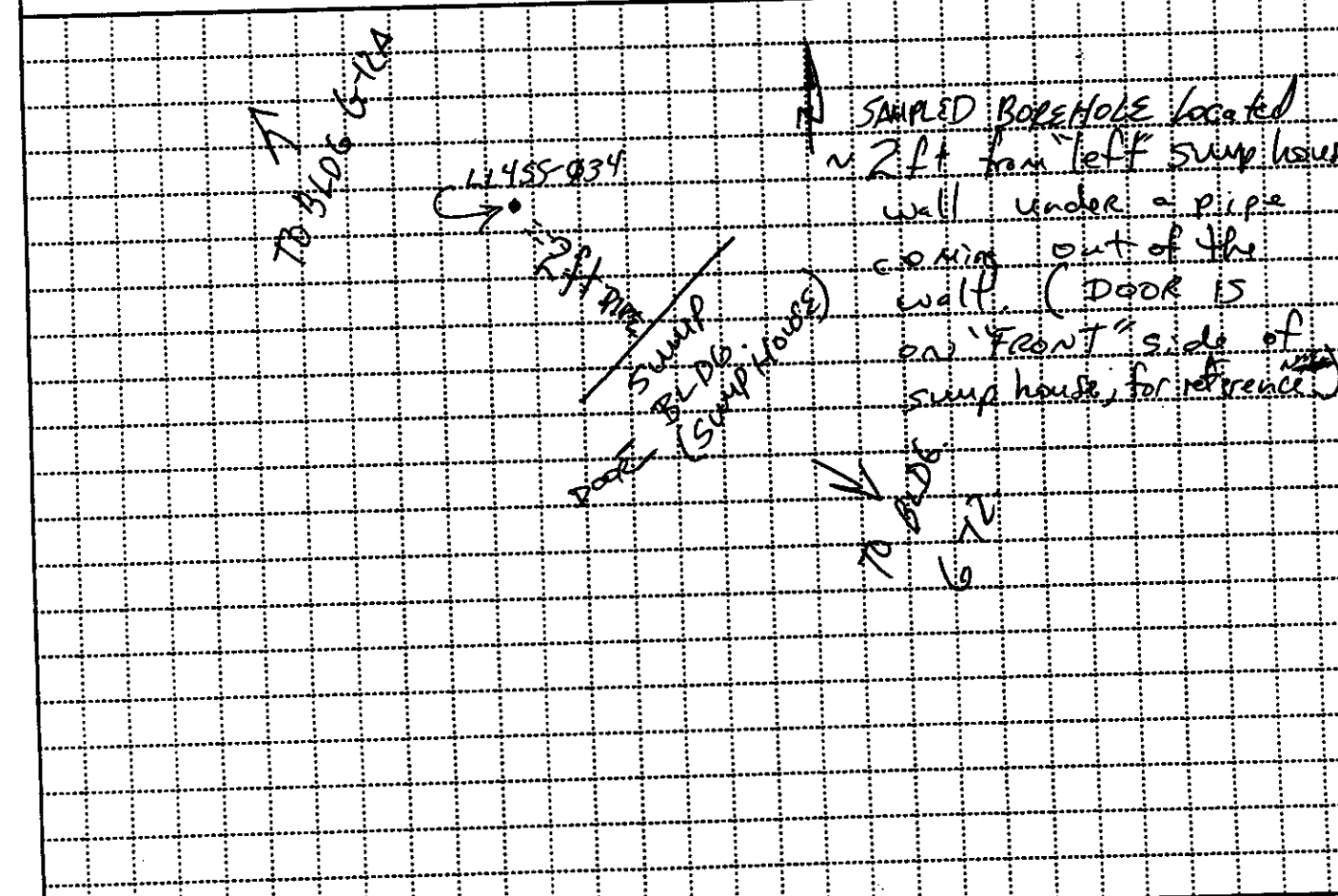
HOLE NO.

LL455-φ33

HTRW DRILLING LOG		DISTRICT Nashville COE	HOLE NUMBER LL455-034
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
3. PROJECT Ravenna Army Ammunition Plant		4. LOCATION Ravenna OH	
5. NAME OF DRILLER Matt Vest		6. MANUFACTURERS DESIGNATION OF DRILL Hand auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3' Stumbar Steel hand Auger & Auger bit/cap		8. HOLE LOCATION ~2ft on left side of sump house, under pipe.	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 7/26/96	11. DATE COMPLETED 7/26/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED No groundwater	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 2.0ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	

18. GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA			21. TOTAL CORE RECOVERY % NA
20. SAMPLES FOR CHEMICAL ANALYSIS (1)	VOC (1)	METALS (1)	OTHER (SPECIFY) (1) exposures	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA	
22. DISPOSITION OF HOLE Abandoned	BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) NA	23. SIGNATURE OF INSPECTOR Daron [Signature]		

LOCATION SKETCH/COMMENTS SCALE: 1" = 2'



PROJECT Ravenna Army Ammunition Plant	HOLE NO. LL455-034 (Proponent: CECW-EG)
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HTRW DRILLING LOG

HOLE NUMBER **LL4SS-034**

PROJECT **RVAAP**

INSPECTOR **Sharon Biduen**

SHEET **2 of 2**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Topsoil - silt. Interglacial More silt with depth clay Brown - near surface Gray-brown last 6" (1.5'Z)	0.0 ppm	NA	LL4SS- 034- 0267- 50	
	2.4		headspace 1.2 ppm			

PROJECT **Ravenna Army Ammunition Plant**

HOLE NO. **LL4SS-034**

HTRW DRILLING LOG		DISTRICT <i>Nashville</i>		HOLE NUMBER <i>1145-035</i>	
1. COMPANY NAME <i>SALP</i>		2. DRILL SUBCONTRACTOR <i>NA</i>		SHEET SHEETS <i>1</i> OF <i>2</i>	
3. PROJECT <i>RVAAP</i>			4. LOCATION <i>Ravenna, OH. (RVAAP)</i>		
5. NAME OF DRILLER <i>Matt Vest</i>			6. MANUFACTURERS DESIGNATION OF DRILL <i>HAND AUGER</i>		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>3" stainless steel hand auger & bucket</i>		8. HOLE LOCATION <i>N/E from G-10 SW side & 48' from its S. corner</i>			
9. SURFACE ELEVATION <i>NA</i>					
10. DATE STARTED <i>7/26/96</i>			11. DATE COMPLETED <i>7/26/96</i>		
12. OVERBURDEN THICKNESS <i>NA</i>			15. DEPTH GROUNDWATER ENCOUNTERED <i>NOT ENCOUNTERED</i>		
13. DEPTH DRILLED INTO ROCK <i>NA</i>			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>		
14. TOTAL DEPTH OF HOLE <i>NA</i>			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>		
18. GEOTECHNICAL SAMPLES <i>NA</i>		DISTURBED <i>NA</i>	UNDISTURBED <i>NA</i>	19. TOTAL NUMBER OF CORE BOXES <i>NA</i>	
20. SAMPLES FOR CHEMICAL ANALYSIS <i>(1)</i>		VOC <i>NA</i>	METALS <i>(1)</i>	OTHER (SPECIFY) <i>(1) Explosives</i>	OTHER (SPECIFY) <i>NA</i>
21. TOTAL CORE RECOVERY <i>NA</i>		OTHER (SPECIFY) <i>NA</i>	OTHER (SPECIFY) <i>NA</i>	22. DISPOSITION OF HOLE <i>PLUGGED</i>	
23. SIGNATURE OF INSPECTOR <i>Matt Vest</i>		BACKFILLED <i>NA</i>	MONITORING WELL <i>NA</i>	OTHER (SPECIFY) <i>MOLE PLUGGED</i>	
LOCATION SKETCH/COMMENTS				SCALE: <i>1" = 50'</i>	
PROJECT <i>RVAAP</i>				HOLE NO. <i>11455-035</i>	

HTRW DRILLING LOG

HOLE NUMBER **LL4SS-φ35**

PROJECT **RANAP**

INSPECTOR **S. B. ...**

SHEET **2 of 2**

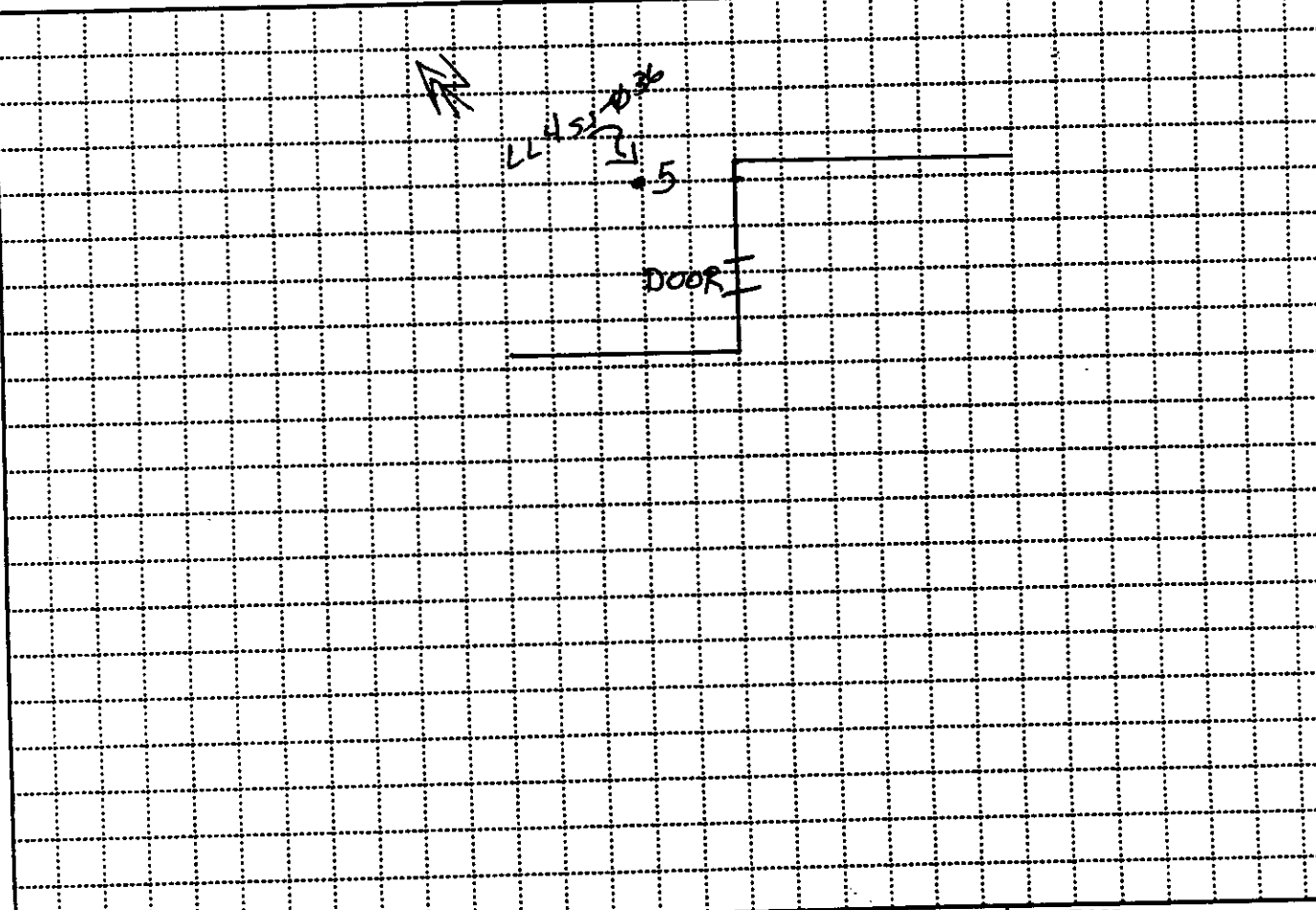
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	φ.5'	Topsoil SH 14% fines gravel 10% sand	φ.φ ppm	NA	LL4SS	Auger refusal 0.5 ft
			5.2 ppm Hexachlorocyclopentadiene			

PROJECT **Ravenna Army Ammunition Plant**

HOLE NO. **LL4SS - φ 35**

HTRW DRILLING LOG		DISTRICT Nashville COE	HOLE NUMBER LL455-036
1 COMPANY NAME SAIC		2 DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
3 PROJECT RVAAP		4 LOCATION Ravenna OH	
5 NAME OF DRILLER Mud & Vest		6 MANUFACTURERS DESIGNATION OF DRILL Hand Auger	
7 SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger		8 HOLE LOCATION N5ft from bldg. G-15 N. corner	
		9 SURFACE ELEVATION NA	
		10 DATE STARTED 7/28/94	11 DATE COMPLETED 7/28/94
12 OVERBURDEN THICKNESS NA		15 DEPTH GROUNDWATER ENCOUNTERED No GW	
13 DEPTH DRILLED INTO ROCK NA		16 DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14 TOTAL DEPTH OF HOLE 2.0 ft bgs		17 OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18 GEOTECHNICAL SAMPLES NA		19 TOTAL NUMBER OF CORE BOXES NA	
20 SAMPLES FOR CHEMICAL ANALYSIS		21 TOTAL CORE RECOVERY %	
DISTURBED NA		UNDISTURBED NA	
VOC NA		METALS Z	
OTHER (SPECIFY) 2 Explosives		OTHER (SPECIFY) NA	
BACKFILLED NA		MONITORING WELL NA	
OTHER (SPECIFY) Dentonite		OTHER (SPECIFY) NA	
22 DISPOSITION OF HOLE Abandoned		23 SIGNATURE OF INSPECTOR Mud & Vest signing for Sharon Budney	

LOCATION SKETCH/COMMENTS SCALE: 1" = 10ft



PROJECT Ravenna Army Ammunition Plant	HOLE NO. LL455-036 (Proponent: CECW-EG)
--	---

HTRW DRILLING LOG

HOLE NUMBER **LL455-036**

SHEET **2 of 2**

PROJECT

RYAAP

INSPECTOR

S. Buckley

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	<div style="text-align: center;">24</div>	Silt trace F sand medium brown/grey well sorted	$\phi .375$	NA	LL455- 036- 0269- SO Dup LL455- 036- 0270- FD	

PROJECT

Ravenna Army Ammunition Plant

HOLE NO.

LL455-036

HTRW DRILLING LOG		DISTRICT Nashville		HOLE NUMBER LL455-037	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RWAP			4. LOCATION Ravenna OH		
5. NAME OF DRILLER Matt Vest			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand auger + cooper bucket		8. HOLE LOCATION In front of sump for BLO6-G-13, LL4 NW of Vacuum Shed.			
		9. SURFACE ELEVATION NA		10. DATE STARTED 7/28/96	
				11. DATE COMPLETED 7/28/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED No GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 2 ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS (1)		VOC (1)	METALS (1)	OTHER (SPECIFY) Pest/PLB	21. TOTAL CORE RECOVERY % NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Densim	23. SIGNATURE OF INSPECTOR SB... ..
LOCATION SKETCH/COMMENTS				SCALE: N/A	
SEE MAP FOR FOR LL455-037.					
PROJECT Ravenna Army Ammunition Plant				HOLE NO. LL455-037 (Proponent: CECW-EG)	

HTRW DRILLING LOG

HOLE NUMBER **LL465-037**

PROJECT **RVAA P**

INSPECTOR **S. Sudney**

SHEET **2 of 2**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Silt little v.f sand trace Clay brown/grey modeled well sorted dry	0.5 0.5 φ.5 ppm	NA	507/037/6 φ LL465 - 037 - φ271 - 50	
	2.0		Headspace φ.0 ppm			

PROJECT **Ravenna Army Ammunition Plant**

HOLE NO. **LL465-037**

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL455-038	
1. COMPANY NAME SAK		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP		4. LOCATION Ravenna OH			
5. NAME OF DRILLER Mott West		6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger/Auger bucket		8. HOLE LOCATION NW of Sump ^{MW 244} Vacuum Shed -			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/28/96		11. DATE COMPLETED 7/28/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 2.0 FT		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS G		VOC NA	METALS G	OTHER (SPECIFY) explosives	21. TOTAL CORE RECOVERY % NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	23. SIGNATURE OF INSPECTOR Stachan
LOCATION SKETCH/COMMENTS				SCALE: N/A	
SEE MAP FOR LL455-038					
PROJECT Ravenna Army Ammunition Plant				HOLE NO. LL455-038	

HTRW DRILLING LOG

HOLE NUMBER **LL455-039**

PROJECT ~~1000~~ **RVAAP**

INSPECTOR **SBudney**

SHEET **2 of 2**

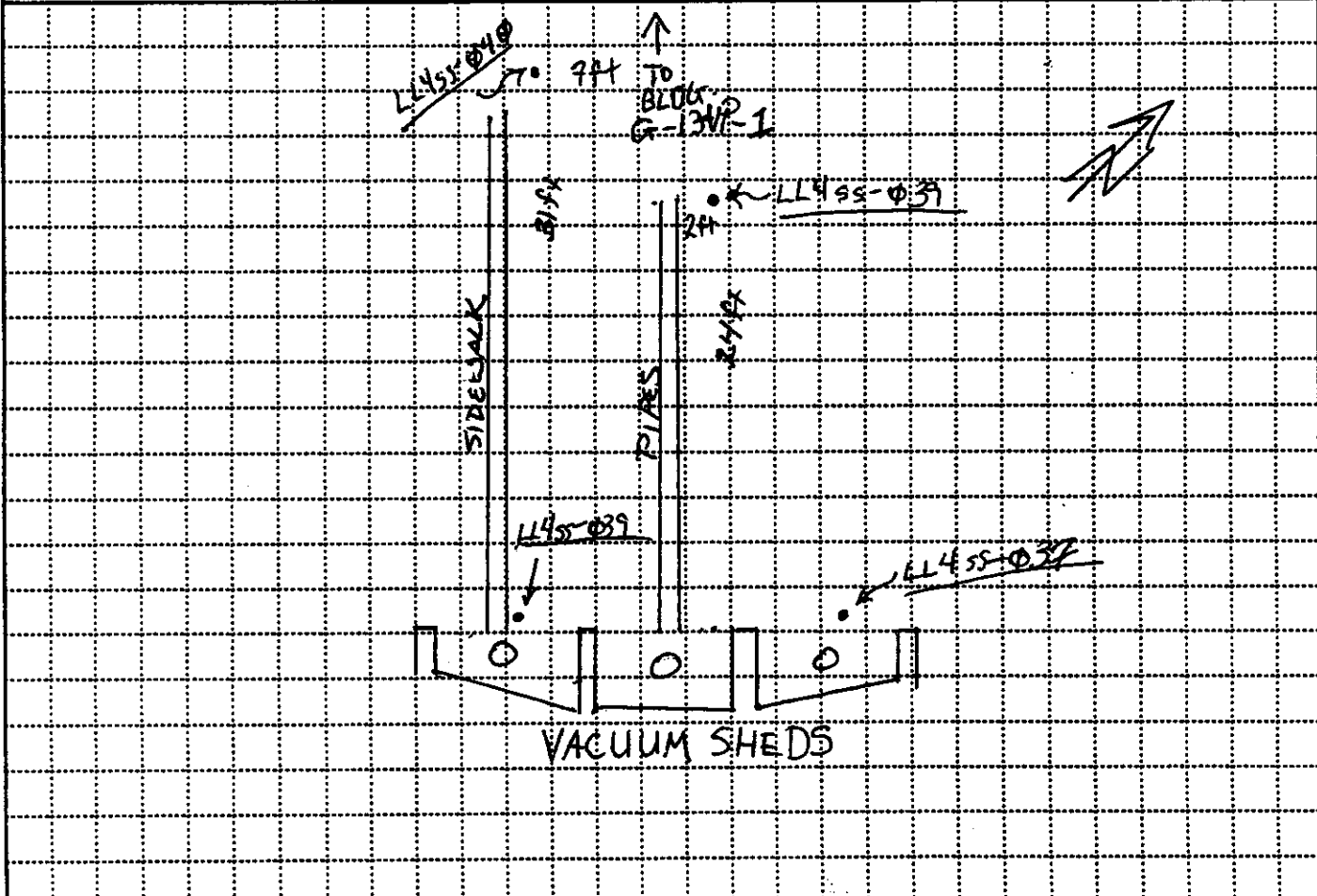
ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	2.0	trace clay silt & unsorted grey + brown mottled. dry	φ. φ ppm	NA	LL455- 035 - 0273 - SO	
			Hard spec φ. φ			

PROJECT **Ravenna Army Ammunition Plant**

HOLE NO. **LL455-039**

HTRW DRILLING LOG		DISTRICT Nashville COE	HOLE NUMBER LL455-039
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
3. PROJECT RVAAP		4. LOCATION Ravenna OH	
5. NAME OF DRILLER Matt Vest		6. MANUFACTURERS DESIGNATION OF DRILL Hand auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger & Auger Bucket		8. HOLE LOCATION In front of vacuum shed @ near Bldg. G-13	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 7/28/96	11. DATE COMPLETED 7/28/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED No GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 2 FT		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA
20. SAMPLES FOR CHEMICAL ANALYSIS (1)	VOC NA	METALS (1)	OTHER (SPECIFY) (Explosives)
	BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Recharge
21. TOTAL CORE RECOVERY NA %	22. DISPOSITION OF HOLE Abandoned		23. SIGNATURE OF INSPECTOR Radner

LOCATION SKETCH/COMMENTS SCALE: 1" = 10'



PROJECT Ravenna Army Ammunition Plant	HOLE NO. LL455-039
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HTRW DRILLING LOG

HOLE NUMBER **LL455-040**

PROJECT **RVAAP**

INSPECTOR **SBuchanan**

SHEET **2 of 2**

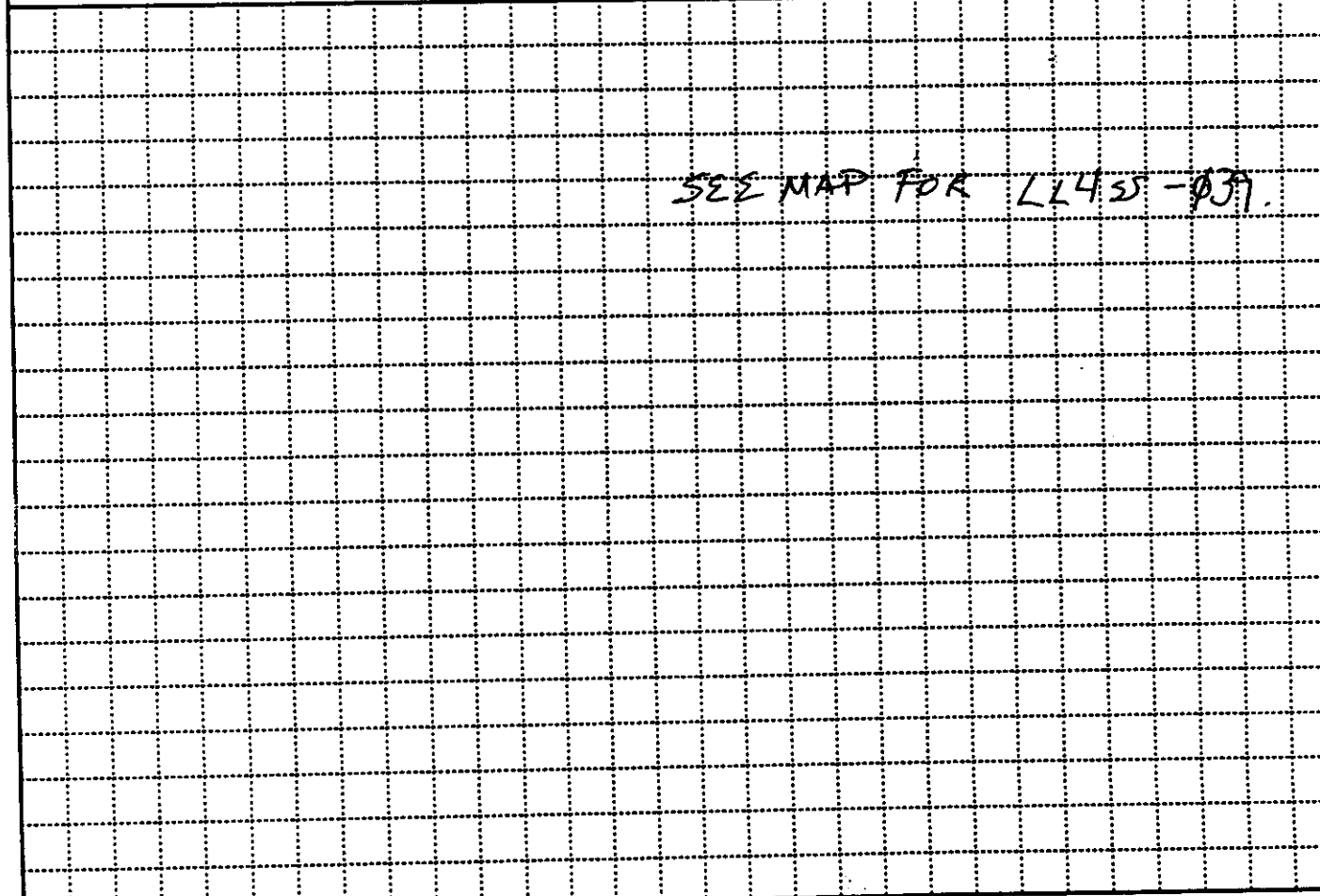
ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Silt trace V.F. Sand - clay brown / grey mottled well sorted clay	0.9 ppm	NA	LL45- 040- 0274- 50	
			Head spec 138 ppm			

PROJECT **Ravenna Army Ammunition Plant**

HOLE NO. **LL455-040**

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL45-040	
1. COMPANY NAME SAK		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP			4. LOCATION Ravenna OH		
5. NAME OF DRILLER Matt West			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger/Auger bucket		8. HOLE LOCATION In front of vacuum shed @ Hdg. G-13, L24 NW of vacuum shed.			
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED No GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 2 ft			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS (1)		VOC NA	METALS (1)	OTHER (SPECIFY) (1) explosives	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY % NA		OTHER (SPECIFY) NA	OTHER (SPECIFY) NA	23. SIGNATURE OF INSPECTOR S. Sidney	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	

LOCATION SKETCH/COMMENTS SCALE: N/A



PROJECT Ravenna Army Ammunition Plant	HOLE NO. LL455-040
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HTRW DRILLING LOG

 HOLE NUMBER **LL455-040**

 SHEET **2 of 2**

 PROJECT **RVAAP**

 INSPECTOR **S. Buchanan**

REMARKS (G)

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	1	Silt trace V.F. sand & clay brown / grey mottled well sorted clay	0.9 ppm	ND	LL455- 040- 0274- 50	
	2		Head space 138 ppm			

PROJECT

Zavenna Army Ammunition Plant

HOLE NO.

LL455-040

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL455-041(b)	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP			4. LOCATION Pavenna OH		
5. NAME OF DRILLER Matt Vest			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger		8. HOLE LOCATION N 50 FT SE of Road going past 81 Dairies			
9. SURFACE ELEVATION NA					
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED No GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 2.4 FT			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS (1)		VOC NA	METALS (1)	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentone	21. TOTAL CORE RECOVERY NA%
LOCATION SKETCH/COMMENTS				SCALE: NOT TO SCALE	
PROJECT RVAAP				HOLE NO. LL455-041(b)	

HTRW DRILLING LOG

HOLE NUMBER: **LL455-041(b)**

PROJECT: **RVAAP**

INSPECTOR: **Radney**

SHEET: **2 of 2**

ELFV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	<div style="text-align: center;">20</div>	Topsoil Silty mottled brown/grey well sorted dry	ϕ - ϕ per	NA	LL455- 041(b) 0275- 50	
			bleed space ϕ - ϕ per			

PROJECT: **RVAAP**

RVAAP

HOLE NO.:

LL455-041(b)

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER W455-042(b)	
1. COMPANY NAME SAIL		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP			4. LOCATION Pawenna OH.		
5. NAME OF DRILLER Matt Vest			6. MANUFACTURERS DESIGNATION OF DRILL Nand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger		8. HOLE LOCATION ~110 ft N. of Rd. toward fence corner. NE			
9. SURFACE ELEVATION NA					
10. DATE STARTED 7/30/96			11. DATE COMPLETED 7/31/96		
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 2.0 ft bop			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA		DISTURBED		UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY %	
VOC		METALS		OTHER (SPECIFY)	
NA		(D)		NA	
22. DISPOSITION OF HOLE Abandoned w/ Bentonite		BACKFILLED		MONITORING WELL	
NA		NA		NA	
23. SIGNATURE OF INSPECTOR B. Stines			SCALE NOT TO SCALE		
LOCATION SKETCH/COMMENTS					
PROJECT RVAAP				HOLE NO. W455-042(b)	

HTRW DRILLING LOG

HOLE NO. **LL455-Ø42(b)**

PROJECT **RVAAP** INSPECTOR **S. J. ...** SHEET **2 of 2**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	26	Silt colored brown/grey well sorted little organic	Ø ppm	NA	Ø 587/2046 LL455- Ø42(b) Ø276- 50	
			red space Ø ppm			

PROJECT **RVAAP**

HOLE NO. **LL455-Ø42(b)**

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL955-043(b)	
1. COMPANY NAME SIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 2 OF 2	
3. PROJECT RVAAP		4. LOCATION Kannana OH			
5. NAME OF DRILLER Matt Vest		6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger		8. HOLE LOCATION ~ halfway between fence & rd. (190 ft)			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/31/96		11. DATE COMPLETED 7/31/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED No GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 2.0 ft bgs		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS SEE SAMPLE COE ←		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NO	OTHER (SPECIFY) Elastic	21. TOTAL CORE RECOVERY % NA
LOCATION SKETCH/COMMENTS		SCALE: NOT TO SCALE			
<p>~190 ft from rd. & ~190 ft from fence, in the woods.</p>					
PROJECT RVAAP		HOLE NO. LL955-043(b)			

HTRW DRILLING LOG

HOLE NUMBER **LL455-043(b)**

PROJECT **RVAAP**

INSPECTOR **S. Brown**

SHEET **2 of 2**

ELEVATION (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOCHEM SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
		top soil ~ 4" S.H light brown trace gravel dry well sorted	ϕ . ϕ ppm	NA	LL455- 043(b) 0277- SO.	
	2.0		Head pipe ϕ . ϕ ppm			

PROJECT **RVAAP**

HOLE NO. **LL455-043(b)**

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL455-045	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 2 OF 2	
3. PROJECT RVAAP		LOCATION Ravenna OH			
5. NAME OF DRILLER Matt Vest		6. MANUFACTURERS DESIGNATION OF DRILL Hard Auger			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger		8. HOLE LOCATION ~2 ft SW of concrete (Pit #44 "P.F.")			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/21/96		11. DATE COMPLETED 7/31/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED No GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 0.5 ft cap		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS SEE SAMPLE CDC ←		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY % NA
22. DISPOSITION OF HOLE ABANDONED		NA	NA	Bentonite	23. SIGNATURE OF INSPECTOR [Signature]
LOCATION SKETCH/COMMENTS SEE SKETCH FOR LL455-030				SCALE: NA	
<p>SEE SKETCH FOR LL455-030 BOREHOLE FOR LOCATION OF LL455-045 BOREHOLE</p>					
PROJECT RVAAP				HOLE NO. LL455-045	

HTRW DRILLING LOG

HOLE NUMBER **LL455-045**

PROJECT **RVAAP**

INSPECTOR **Bidney**

SHEET **2 of 2**

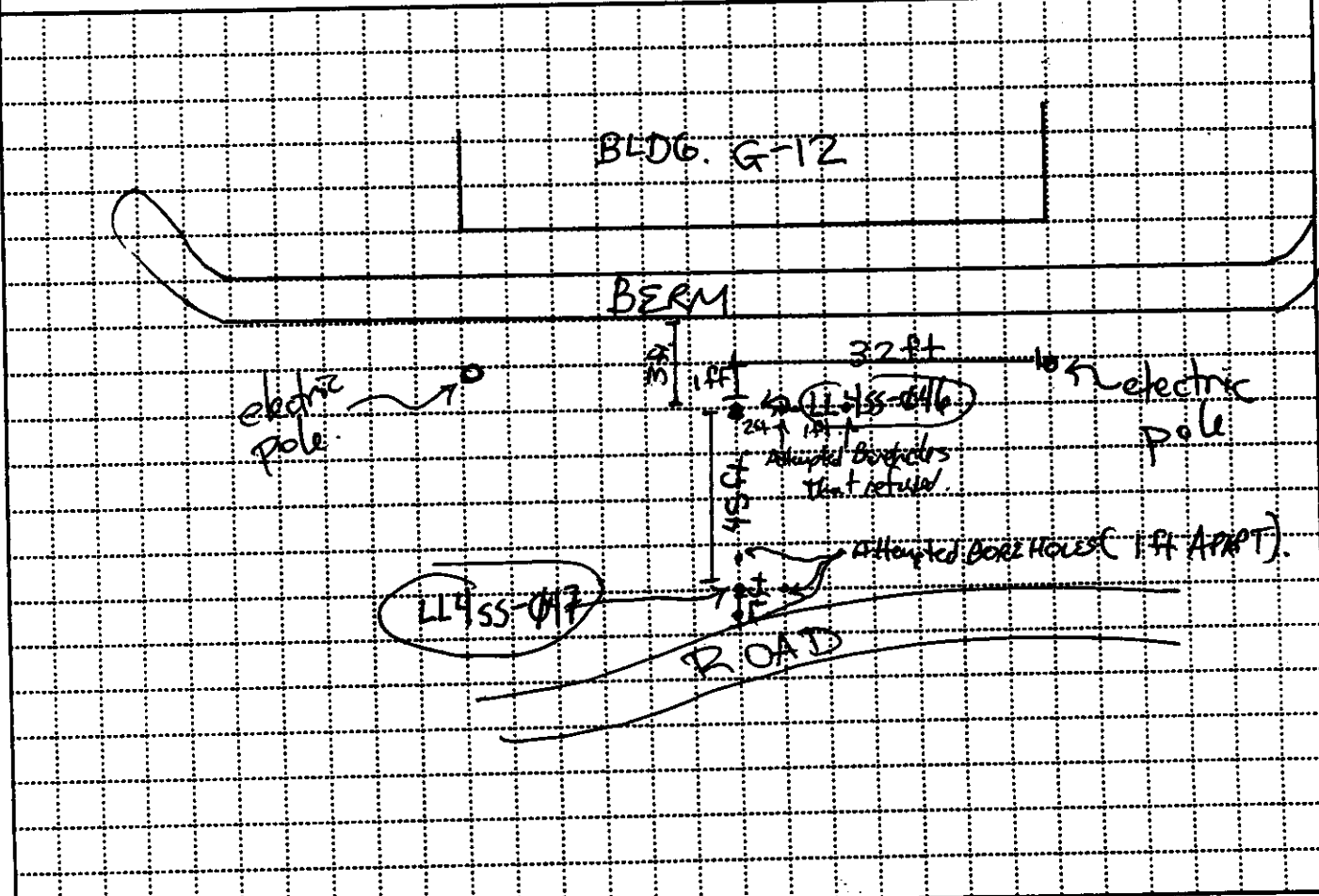
ELV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.5	Top soil silt little gravel organics	24 ppm	NA	LL455- 045 #280-50	Auger refused at 0.5 Ft. b/c on gravel.
			Headplace 700 ppm			

PROJECT **RVAAP**

HOLE NO. **LL455-045**

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL455-046	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP			4. LOCATION Ravenna OH		
5. NAME OF DRILLER Matt Vest			6. MANUFACTURERS DESIGNATION OF DRILL HandAuger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS HandAuger		8. HOLE LOCATION ~3ft SE of berm & ~32ft SW of electric pole.			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/29/96		11. DATE COMPLETED 7/29/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED No GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 0.5ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS (1)		VOC NA	METALS (1)	OTHER (SPECIFY) (1) explosives	OTHER (SPECIFY) NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentrix	21. TOTAL CORE RECOVERY % NA
				23. SIGNATURE OF INSPECTOR SB [Signature]	

LOCATION SKETCH/COMMENTS SCALE: Not to Scale.



PROJECT Ravenna Army Ammunition Plant	HOLE NO. LL455-046
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HTRW DRILLING LOG

HOLE NUMBER **LL455-046**

SHEET **2 of 2**

PROJECT

RVAAP

INSPECTOR

S. B. ...

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Topsail silt like gravel organics boundary.	0.6 ppm	NA	LL455-046 0281-50	Upper refusal of 0.5 on gravel
			Headspace 0.0 ppm			

PROJECT

Ravenna Army Ammunition Plant

HOLE NO.

LL455-046

HTRW DRILLING LOG		DISTRICT Nashville CoE		HOLE NUMBER LL455-047	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP			4. LOCATION Ravenna OH		
5. NAME OF DRILLER Matt Kost			6. MANUFACTURERS DESIGNATION OF DRILL Hand Axen		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Axen/Auger/bucket		8. HOLE LOCATION ~ 7 ft N W of rd. 45 ft SE of LL455-046.			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/25/96		11. DATE COMPLETED 7/25/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED No GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 0.4 ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS (1)		VOC NA	METALS (1)	OTHER (SPECIFY) (1) explosive	21. TOTAL CORE RECOVERY % NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Benito	23. SIGNATURE OF INSPECTOR S. B. [Signature]
LOCATION SKETCH/COMMENTS				SCALE: Not to Scale.	
<p>SEE MAP</p> <p>SEE LOCATION SKETCH FOR LL455-046.</p>					
PROJECT RVAAP				HOLE NO. LL455-047	

HTRW DRILLING LOG

HOLE NUMBER **LL455-047**

PROJECT

RVADP

INSPECTOR

S. J. ...

SHEET

20/2

REMARKS
(G)

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	0.4	Topsoil silt little gravel organics brown clay	φ.0 ppm	NA	LL455- 047-0282 SO	Auger refused at 0.4 ft on gravel
			φ.0 ppm headspace			

PROJECT

RVADP

HOLE NO.

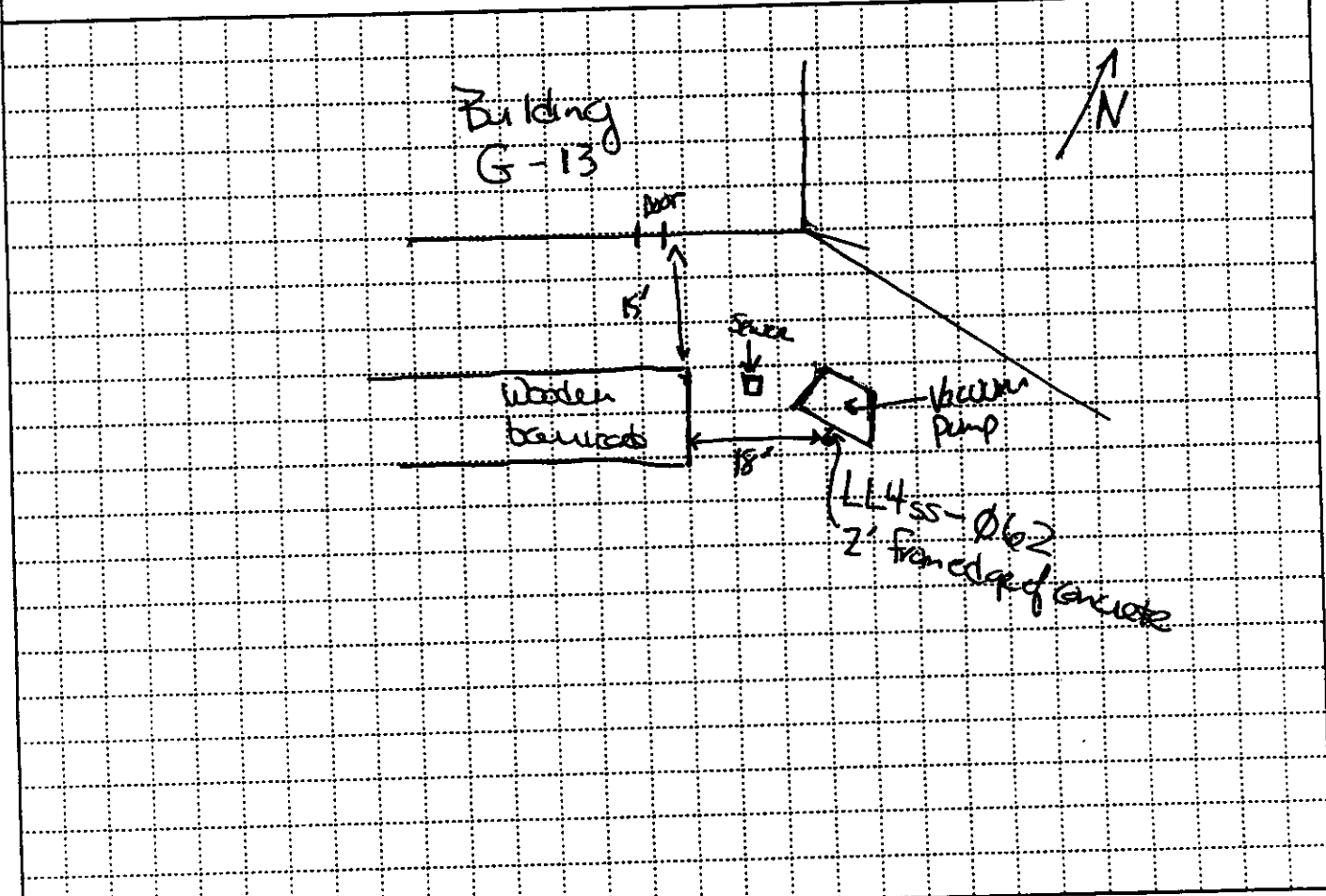
LL455-047

HTRW DRILLING LOG		DISTRICT Nashville Co	HOLE NUMBER LL455-062
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA	SHEET 1 OF 2 SHEETS
3. PROJECT RUMP		4. LOCATION Riverview	
5. NAME OF DRILLER NA		6. MANUFACTURER'S DESIGNATION OF DRILL Hand Auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger		8. HOLE LOCATION SW Building G-13, in front Vacuum Pump Structure	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 8/12/96	11. DATE COMPLETED 8/12/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 1.0 FT		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	

18. GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA
20. SAMPLES FOR CHEMICAL ANALYSIS NA	VOC NA	METALS NA	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
22. DISPOSITION OF HOLE Abandoned	BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Backfilled
23. SIGNATURE OF INSPECTOR S. K. [Signature]			

LOCATION SKETCH/COMMENTS

SCALE: Not to Scale



PROJECT RVAAP	HOLE NO. LL455-062
------------------	-----------------------

HTRW DRILLING LOG

HOLE NUMBER **LL455-062**

PROJECT **RVAAP**

INSPECTOR **Bridney**

SHEET **2 of 2**

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	1.0	3" Dark Topsoil Gout zone 3-10" Dark gray - black Sandy some gravel layers 6-12" Brown brownish Sand Some Silt	5ppm Headspace 600ppm	NA	LL455- 062- 0595- 50	

PROJECT **RVAAP**

HOLE NO. **LL455-062**

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL455-063	
1. COMPANY NAME SJK		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP		4. LOCATION Kaleana OH		5. NAME OF DRILLER NA	
6. MANUFACTURERS DESIGNATION OF DRILL Hard Angel		8. HOLE LOCATION NW Building G-S ~ 75ft.		7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hard Angel	
9. SURFACE ELEVATION NA		10. DATE STARTED 8/12/96		11. DATE COMPLETED 8/12/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED No GW		13. DEPTH DRILLED INTO ROCK NA	
14. TOTAL DEPTH OF HOLE NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA		UNDISTURBED NA	
19. TOTAL NUMBER OF CORE BOXES NA		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY NA	
VOC		METALS		OTHER (SPECIFY)	
OTHER (SPECIFY)		OTHER (SPECIFY)		OTHER (SPECIFY)	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA		MONITORING WELL NA	
OTHER (SPECIFY) Permits		OTHER (SPECIFY)		23. SIGNATURE OF INSPECTOR Sidney	
LOCATION SKETCH/COMMENTS					
<p>See Location sketch of LL455-061 (7/26/96)</p> <p style="text-align: center; font-size: 2em;">8/12/96</p>					
PROJECT RVAAP				HOLE NO. LL455-063	
(Proponent: CECW-EG)					

HTRW DRILLING LOG

HOLE NUMBER **LL455-063**
SHEET **1 of 2**

PROJECT **RVAAP** INSPECTOR **SD W. ...**

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		<p>Tan silt with Some gravel</p>	<p>0.0 ppm He. d. p. ke 7 ppm</p>	<p>NA</p>	<p>LL455- 063- 0208- 50</p>	
	<p>20</p>					

PROJECT **RVAAP**

HOLE NO. **LL455-063**

HTRW DRILLING LOG		DISTRICT Nashville Co	HOLE NUMBER LL45-064
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
3. PROJECT RVAAAP		4. LOCATION Ravenna OH	
5. NAME OF DRILLER NA		6. MANUFACTURER'S DESIGNATION OF DRILL Hand Made	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger		8. HOLE LOCATION Settling tank South of G-12	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 8/17/96	11. DATE COMPLETED 8/14/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 1.5ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES NA	DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA
20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)
22. DISPOSITION OF HOLE See Sample Log Abandoned	BACK-FILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Benthoic
			23. SIGNATURE OF INSPECTOR Blaney

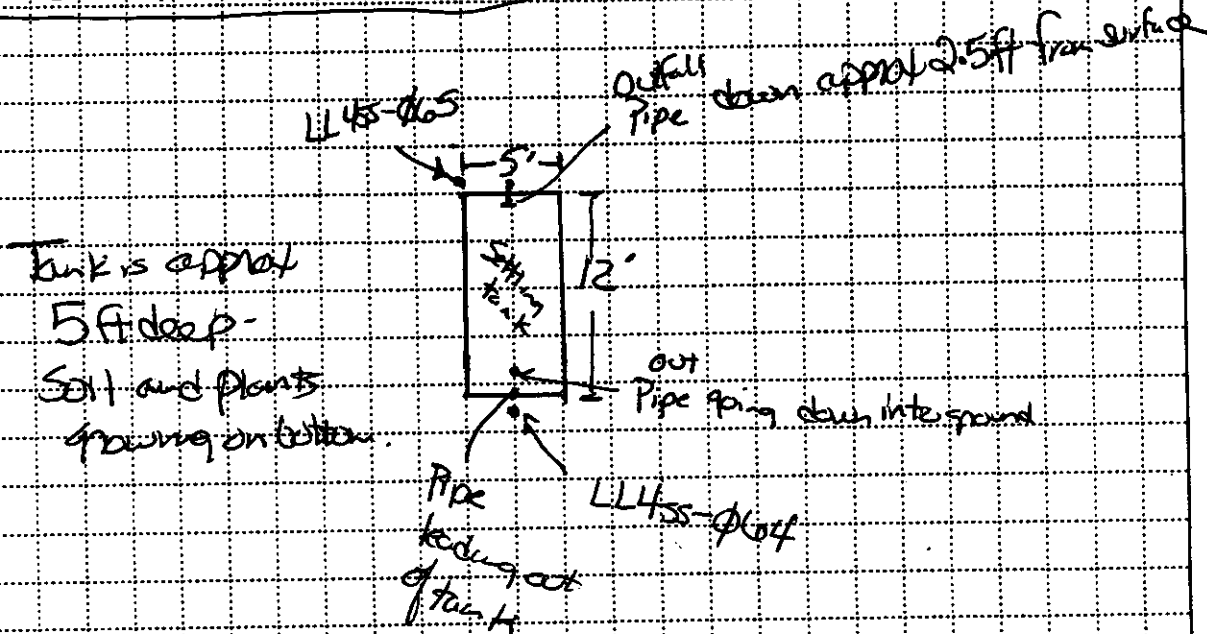
LOCATION SKETCH/COMMENTS

SCALE:

Not to Scale

Building G-12

Berm



PROJECT

RVAAAP

HOLE NO.

LL45-064

HTRW DRILLING LOG

HOLE NUMBER **LL45-064**

SHEET **2 of 2**

PROJECT	ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
RVAAP							
		1.5	Tan Clayey silt Some gravel At 1.5ft. brought up a piece of styrofoam cup	ϕ ϕ ppm	NA	LL45- 064- 0677- 50	Auger refusal at 1.5ft bsp

PROJECT **RVAAP**

HOLE NO. **LL45-064**

LOG BOOK # 24 - LL4

HTRW DRILLING LOG		DISTRICT Nashville COE		HOLE NUMBER LL455-065	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP		4. LOCATION Ravenna OH			
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger		8. HOLE LOCATION North side Settling tank South Side of Ben Settling G-12			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 8/14/96		11. DATE COMPLETED 8/14/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 0.9 ft Bgs		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS See Sample Log		VOC NA	METALS NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) NA	21. TOTAL CORE RECOVERY NA
LOCATION SKETCH/COMMENTS				SCALE: NA	
<p style="font-size: 2em;">See LL455 - (10/11) for site sketch</p>					
PROJECT RVAAP				HOLE NO. LL455-065	

HTRW DRILLING LOG

HOLE NUMBER
LL455-065

PROJECT **RVAAP**

INSPECTOR **Budney**

SHEET **2 of 2**

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GERTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	<div style="position: relative; height: 100px;"> 0.9' </div>	Dark Brown - Sandy silt some gravel fill material?	φ, 4 ppm Heatspa φ, 4 ppm	NA	LL455- 065 0678 80	

PROJECT

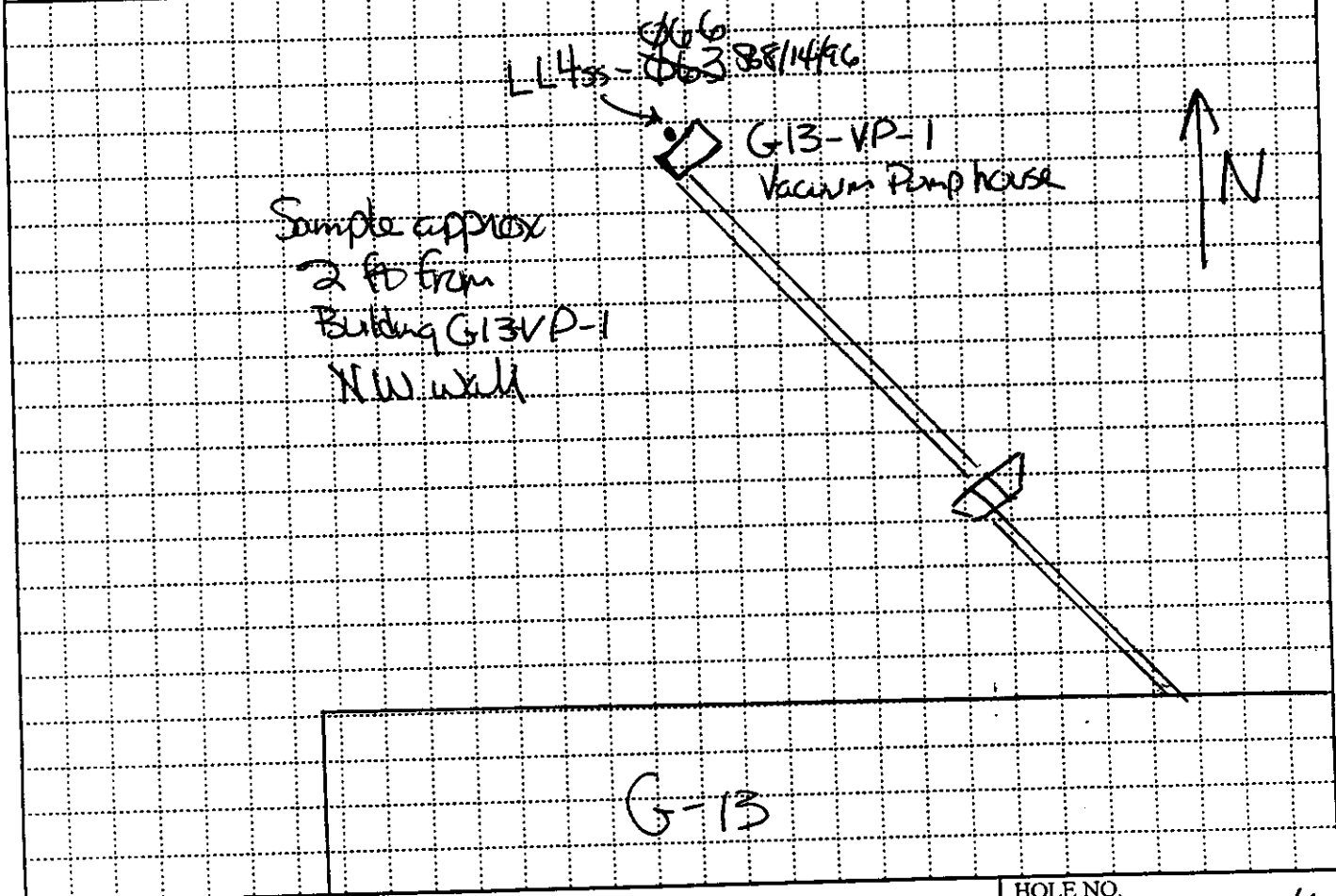
RVAAP

HOLE NO.

LL455-065

HTRW DRILLING LOG		DISTRICT <i>Nashville COE</i>	HOLE NUMBER <i>LL455-063</i>												
1. COMPANY NAME <i>SAIL</i>		2. DRILL SUBCONTRACTOR <i>NA</i>	SHEET SHEETS <i>1 OF 2</i>												
3. PROJECT <i>RVAAP</i>		4. LOCATION <i>Ravenna OH</i>													
5. NAME OF DRILLER <i>NA</i>		6. MANUFACTURERS DESIGNATION OF DRILL <i>Hand Auger</i>													
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>3" SS Auger</i>		8. HOLE LOCATION <i>NW of side building G13-VP-1 under outfall</i>													
		9. CORRELATION <i>NA</i>													
		10. DATE STARTED <i>8/14/96</i>	11. DATE COMPLETED <i>8/14/96</i>												
12. OVERBURDEN THICKNESS <i>NA</i>		15. DEPTH GROUNDWATER ENCOUNTERED <i>NO GW</i>													
13. DEPTH DRILLED INTO ROCK <i>NA</i>		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>													
14. TOTAL DEPTH OF HOLE <i>2.0' Above</i>		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>													
18. GEOTECHNICAL SAMPLES <i>NA</i>		19. TOTAL NUMBER OF CORE BOXES <i>NA</i>													
20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERED <i>NA</i>													
<table border="1"> <tr> <td><input type="checkbox"/> DISTURBED</td> <td><input type="checkbox"/> UNDISTURBED</td> </tr> <tr> <td><i>NA</i></td> <td><i>NA</i></td> </tr> </table>		<input type="checkbox"/> DISTURBED	<input type="checkbox"/> UNDISTURBED	<i>NA</i>	<i>NA</i>	<table border="1"> <tr> <td>VOC</td> <td>METALS</td> <td>OTHER (SPECIFY)</td> <td>OTHER (SPECIFY)</td> </tr> <tr> <td><i>NA</i></td> <td><i>NA</i></td> <td><i>NA</i></td> <td><i>NA</i></td> </tr> </table>		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<input type="checkbox"/> DISTURBED	<input type="checkbox"/> UNDISTURBED														
<i>NA</i>	<i>NA</i>														
VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)												
<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>												
22. DISPOSITION OF HOLE		23. SIGNATURE OF INSPECTOR													
<table border="1"> <tr> <td><input type="checkbox"/> BACKFILLED</td> <td><input type="checkbox"/> MONITORING WELL</td> <td><input type="checkbox"/> OTHER (SPECIFY)</td> </tr> <tr> <td><i>Abandoned</i></td> <td><i>NA</i></td> <td><i>NA</i></td> </tr> </table>		<input type="checkbox"/> BACKFILLED	<input type="checkbox"/> MONITORING WELL	<input type="checkbox"/> OTHER (SPECIFY)	<i>Abandoned</i>	<i>NA</i>	<i>NA</i>	<i>Sikney</i>							
<input type="checkbox"/> BACKFILLED	<input type="checkbox"/> MONITORING WELL	<input type="checkbox"/> OTHER (SPECIFY)													
<i>Abandoned</i>	<i>NA</i>	<i>NA</i>													

LOCATION SKETCH/COMMENTS SCALE: *Not to Scale*



PROJECT <i>RVAAP</i>	HOLE NO. <i>LL455-063</i>
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(Proponent: CECW-EG)

066
8/14/96

8/14/96

HTRW DRILLING LOG

HOLE NUMBER: ~~LL45-006~~ ^{LL45-003} 006
 SHEET: 2 of 2
 8/14/96

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	2.0	light tan silty clay Some brown mottling	φ, φ hardness 0.0ppm	NA	LL45- 004 3831496 φ676- SC	003 006

PROJECT: RVAAP

HOLE NO.: LL455-~~003~~ 006
8/14/96

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL455-067
1. COMPANY NAME SAC		2. DRILL SUBCONTRACTOR NA		SHEET / SHEETS 1 OF 2
3. PROJECT RVAAP		4. LOCATION LL41 RVAAP		
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger		8. HOLE LOCATION SEE SKETCH BELOW		
		9. SURFACE ELEVATION NA		
		10. DATE STARTED NA		11. DATE COMPLETED NA
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW.		
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE ~1.0 ft + BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA
20. SAMPLES FOR CHEMICAL ANALYSIS NA		VOC NA	METALS NA	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY NA		OTHER (SPECIFY) NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite
23. SIGNATURE OF INSPECTOR NA				
LOCATION SKETCH/COMMENTS		SCALE: NA		
PROJECT RVAAP		HOLE NO. LL455-067 (Proponent: CECW-EG)		

LOAD LINE 4
DRAINAGE SEDIMENT LOGS
LOGBOOK #19

HTRW DRILLING LOG		DISTRICT Nashville		HOLE NUMBER LL481-021(G)	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP		4. PROPERTY ADDRESS HES Ravenna OH		6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger	
5. NAME OF DRILLER Matt Vest		7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger		8. HOLE LOCATION N 3ft in front of rusted out outflow pipe ^{setting bar}	
		9. SURFACE ELEVATION NA		10. DATE STARTED 7/29/96	
		11. DATE COMPLETED 7/29/96		12. OVERBURDEN THICKNESS NA	
13. DEPTH DRILLED INTO ROCK NA		15. DEPTH GROUNDWATER ENCOUNTERED No GW		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 0.6 ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		19. TOTAL NUMBER OF CORE BOXES NA	
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	OTHER (SPECIFY) NA	21. TOTAL CORE RECOVERY % NA
20. SAMPLES FOR CHEMICAL ANALYSIS (1)		VOC NA	METALS (1)	OTHER (SPECIFY) Explosive	OTHER (SPECIFY) 119tech NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bioderite	23. SIGNATURE OF INSPECTOR Bridney
LOCATION SKETCH/COMMENTS changed to sediment		SCALE: Not to Scale.			
<p>SAMPLING LOCATION N 3ft in front of partially rusted out flow pipe N 2ft from current stream bed.</p>					
PROJECT RVAAP				HOLE NO. LL481-021(G) (Proponent: CECW-EG)	

HTRW DRILLING LOG

HOLE NUMBER **LL4sd-φ21(d)**

PROJECT **RVAAP**

INSPECTOR **Spudman**

SHEET **292**

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	<div style="display: flex; align-items: center;"> 0.6' </div>	Sediment silt trace sand + gravel organics brown clay	HPCSS 11 PAN	NA	LL4sd- φ21- Q2S1-50	Auger refusal 0.6ft
Empty rows for the rest of the log						

PROJECT

RVAAP-440

HOLE NO.

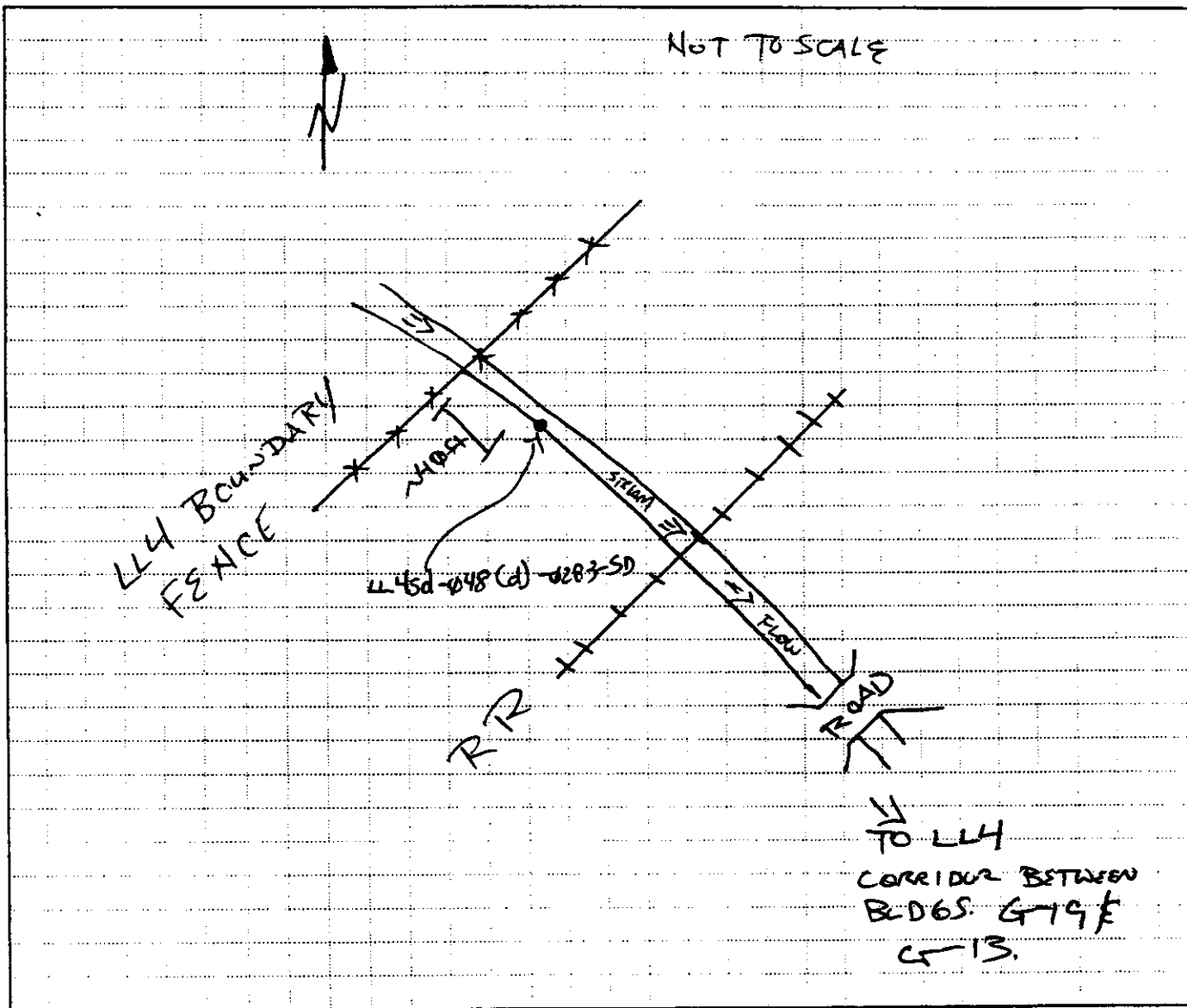
LL4sd-φ21(d)

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL4sd-φ48(d)-φ283-SD	DATE COLLECTED (mm/dd/yy): 07/30/96
SAMPLE LOCATION: LL4sd-φ48(d)	TIME COLLECTED (hh:mm): 1130
SAMPLING POINT: W 1/4 1/2 FT downstream of fence.	DEPTH: φ to 6" BGS.



COMMENTS: NA

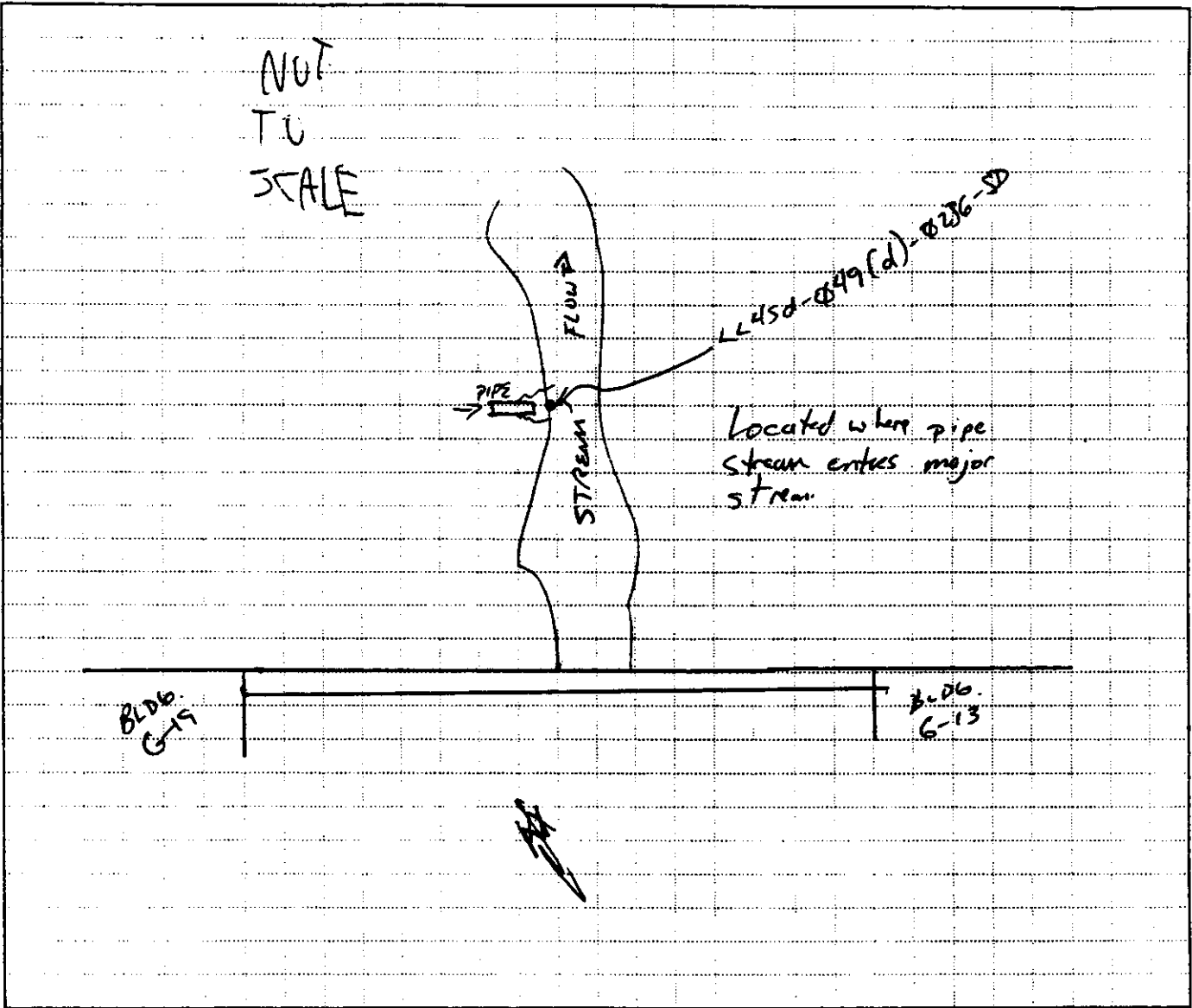
RECORDED BY: Matthew Vest	DATE: 07/30/96	QA CHECK BY: [Signature]	DATE: 7/30/96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL4sd-Ø49(d)-Ø286-SD	DATE COLLECTED (mm/dd/yy): Ø7/29/94
SAMPLE LOCATION: LL4scl-Ø49(d)	TIME COLLECTED (hh:mm): 1515
SAMPLING POINT: Stream after flowing under corridor	DEPTH: Ø to 6" BGS



COMMENTS: NA.

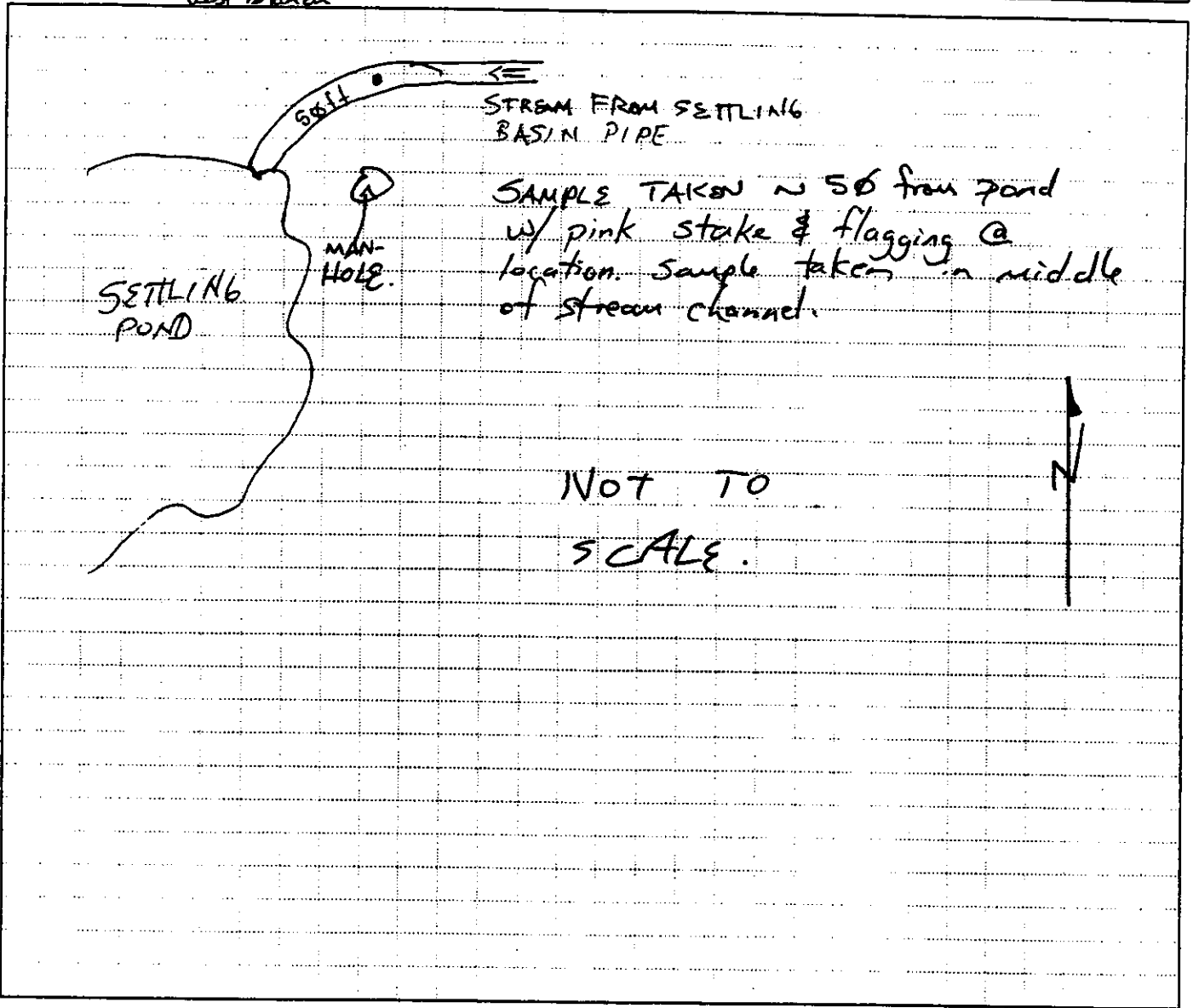
RECORDED BY: <i>[Signature]</i>	DATE: <i>7/29/94</i>	QA CHECK BY: <i>[Signature]</i>	DATE: <i>7/29/94</i>
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL4sd - Ø50(d) - Ø287 - SD	DATE COLLECTED (mm/dd/yy): 07/29/06
SAMPLE LOCATION: LL4sd - Ø50(d).	TIME COLLECTED (hh:mm): 0950
SAMPLING POINT: Drain - Ø3 - Main settling tank drainage channel west branch	DEPTH: Ø - 0.5 Ft



COMMENTS: Sample upstream ~ 50 ft from edge of pond. A Man-hole is across the bank (stream bank) from sample location

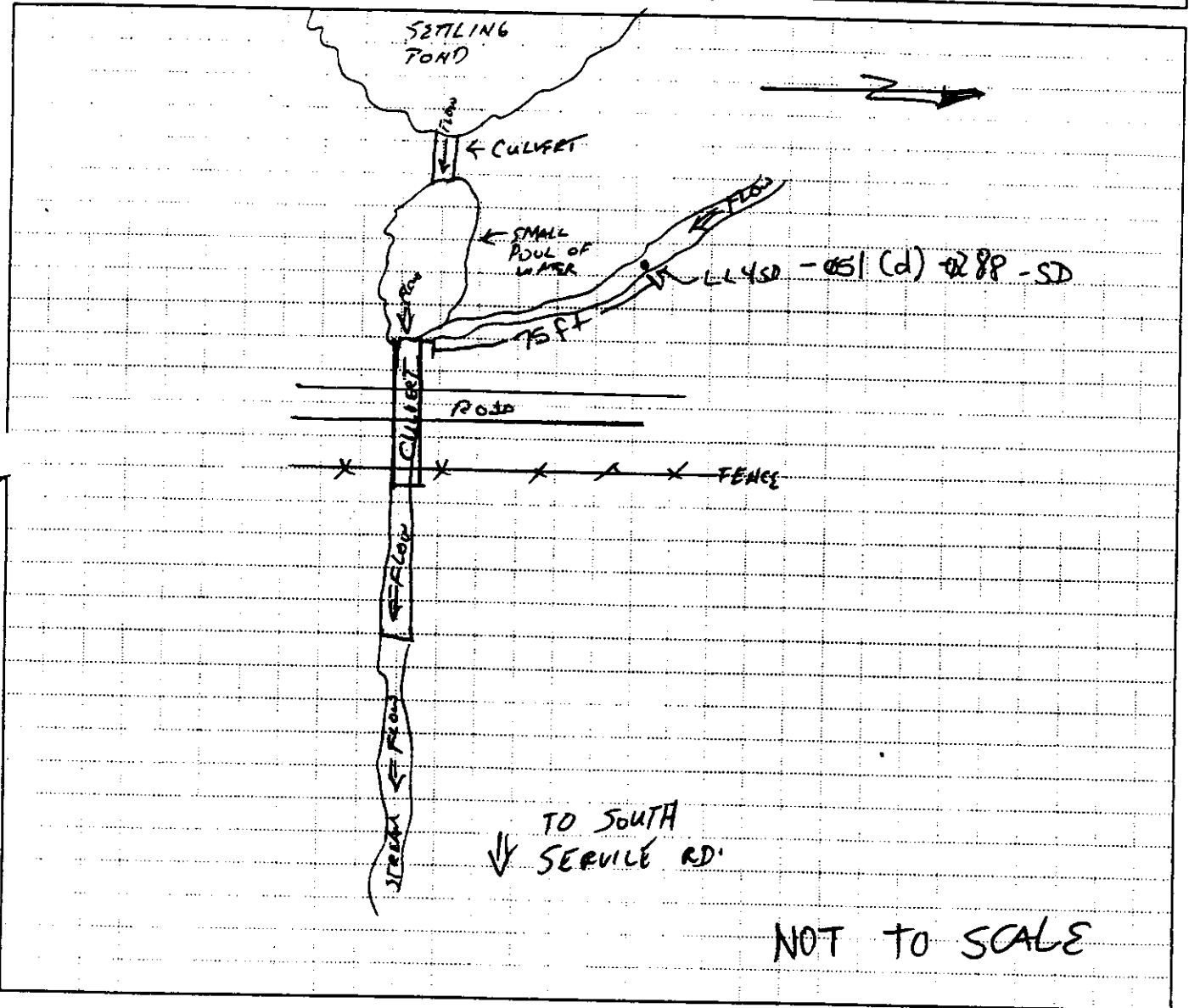
RECORDED BY: <i>Math B. Vero</i>	DATE: <i>07/29/06</i>	QA CHECK BY: <i>Bordner</i>	DATE: <i>07/29/06</i>
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL4sd-051(d)-0288-SD	DATE COLLECTED (mm/dd/yy): 7/30/96
SAMPLE LOCATION: ~75 ft upstream from junction w/ settling Pond drainage stream	TIME COLLECTED (hh:mm): 1050
SAMPLING POINT: LL4sd-051 (d)	DEPTH: 0-0.5ft



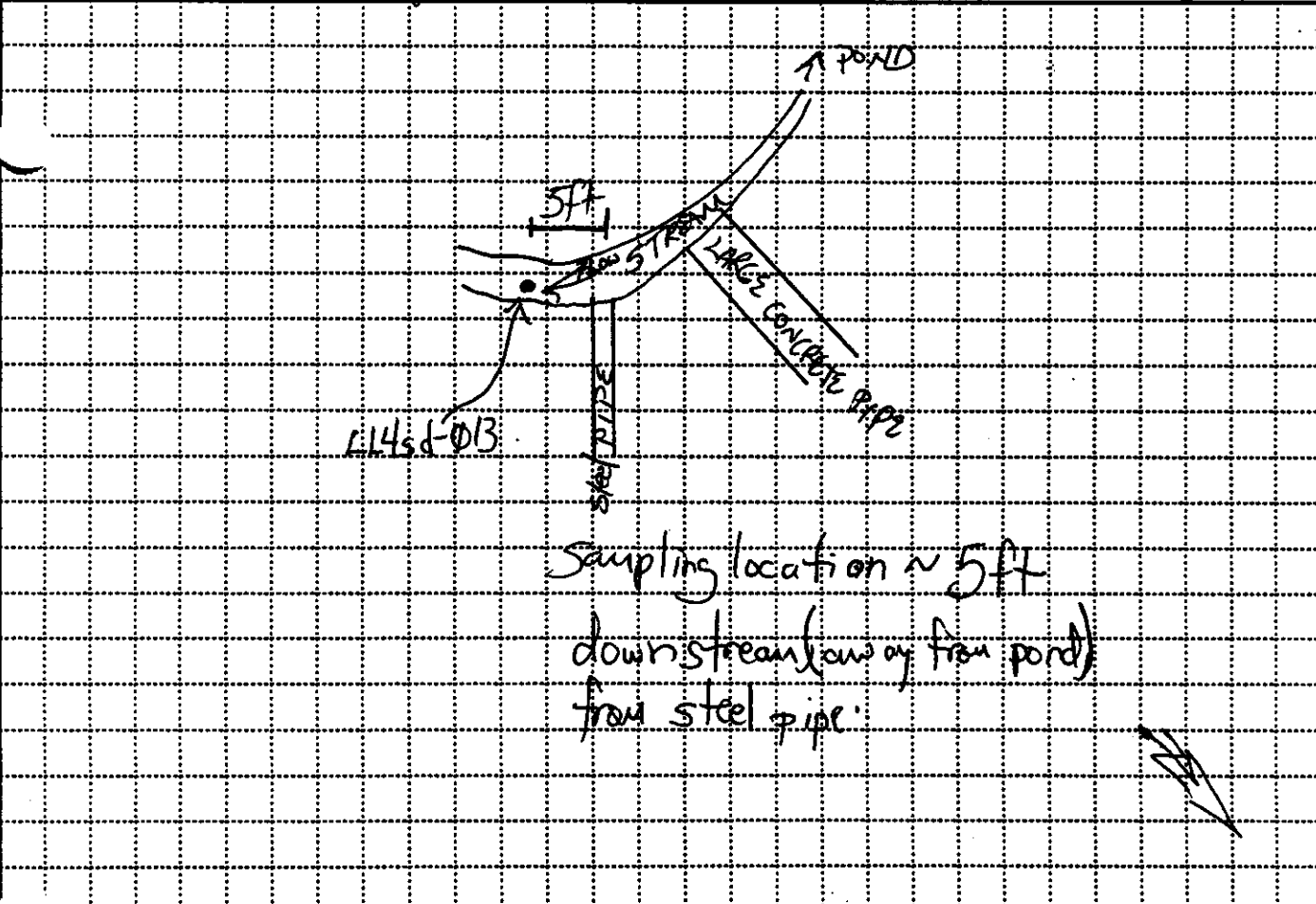
COMMENTS: NA

RECORDED BY: M. Vest	DATE: 7/30/96	QA CHECK BY: Bidney	DATE: 7/30/96
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LOAD LINE 4
SURFACE WATER, POND, AND STREAM SEDIMENT
LOGBOOK #13

HTRW DRILLING LOG		DISTRICT <u>Nashville COE</u>		HOLE NUMBER <u>LL4sd-013(d)</u>	
1. COMPANY NAME <u>SAIC</u>		2. DRILL SUBCONTRACTOR <u>NA</u>		SHEET <u>1</u> OF <u>2</u> SHEETS	
PROJECT <u>RVAAP</u>		LOCATION <u>5th Ave Ravenna OH</u>			
NAME OF DRILLER <u>NA</u>		6. MANUFACTURERS DESIGNATION OF DRILL <u>NA</u>			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <u>SS Scoop</u>		8. HOLE LOCATION <u>N 5ft downstream (away from pond) of steel pipe.</u>			
		9. SURFACE ELEVATION <u>NA</u>			
		10. DATE STARTED <u>7/29/96</u>		11. DATE COMPLETED <u>7/25/96</u>	
12. OVERBURDEN THICKNESS <u>NA</u>		15. DEPTH GROUNDWATER ENCOUNTERED <u>SW covering location ~ 0.25ft</u>			
13. DEPTH DRILLED INTO ROCK <u>NA</u>		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <u>NA</u>			
14. TOTAL DEPTH OF HOLE <u>0.3ft</u>		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <u>NA</u>			
18. GEOTECHNICAL SAMPLES		DISTURBED <u>NA</u>		UNDISTURBED <u>NA</u>	
19. TOTAL NUMBER OF CORE BOXES <u>NA</u>		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY % <u>NA</u>	
		VOC <u>NA</u>		OTHER (SPECIFY) <u>Geotech (1)</u>	
		METALS <u>(1)</u>		OTHER (SPECIFY) <u>(1) exposures</u>	
22. DISPOSITION OF HOLE		23. SIGNATURE OF INSPECTOR			
BACKFILLED <u>NA</u>		MONITORING WELL <u>NA</u>		<u>S. Gardner</u>	
OTHER (SPECIFY) <u>NA</u>		OTHER (SPECIFY) <u>NA</u>			

LOCATION SKETCH/COMMENTS changed to sediment sample. SCALE: Not to scale



PROJECT <u>RVAAP</u>	HOLE NO. <u>LL4sd-013(d)</u>
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HTRW DRILLING LOG

HOLE NUMBER **LL450-013(d)**
SHEET **2 of 2**

PROJECT RVA AP		INSPECTOR Erwin			REMARKS	
ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.3	Silt / muddy little organics little gravel	24 ppm Newspce	NA	LL450- 013(d) 0243- SD	Scoop refusal at 0.3. Ground was v. hard

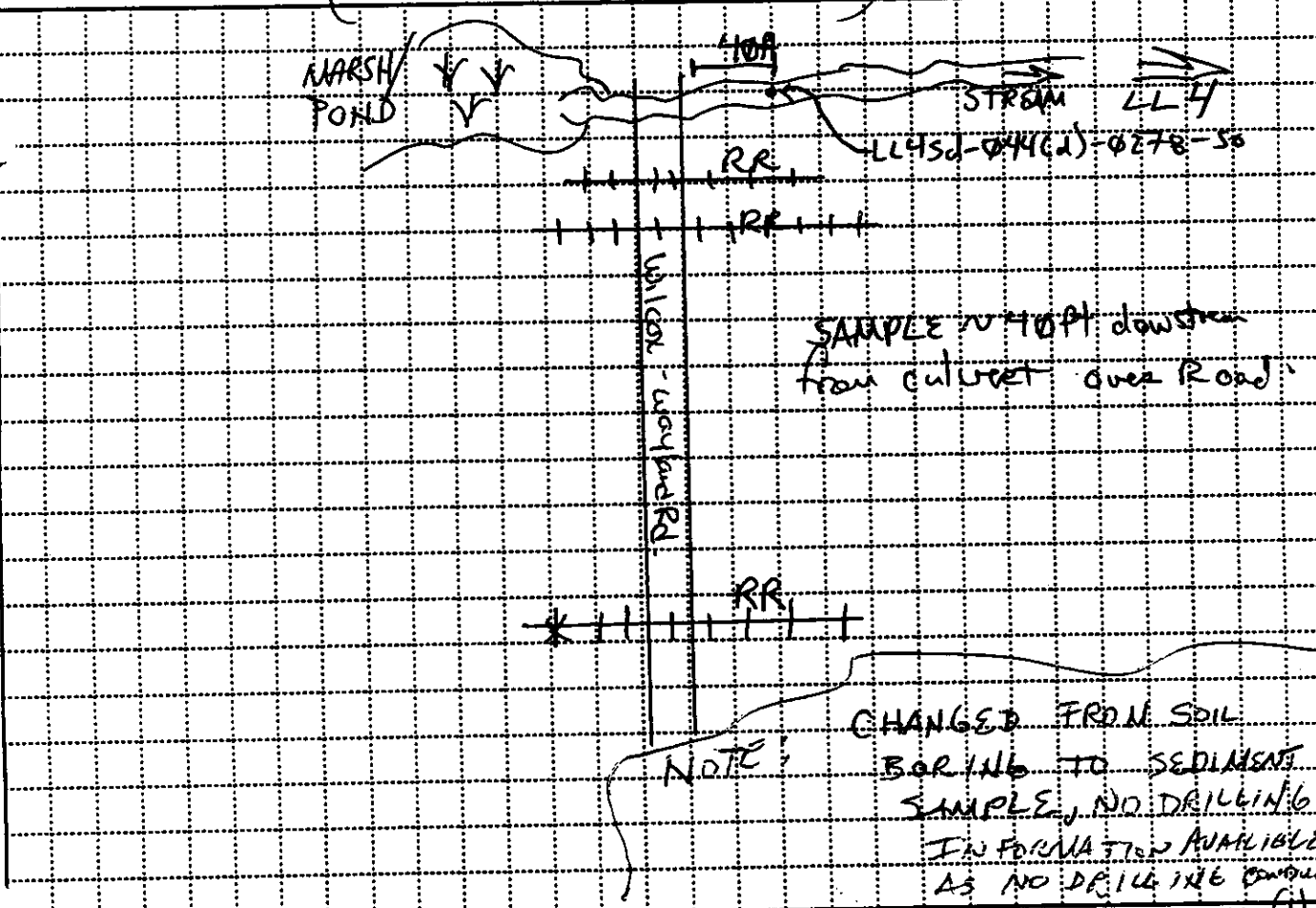
PROJECT **RVA AP**

C-448

HOLE NO. **LL450-013(d)**

HTRW DRILLING LOG		DISTRICT <u>Nashville</u>		HOLE NUMBER <u>LL-4sd-044-(d)-0278-50</u>	
1. COMPANY NAME		2. DRILL SUBCONTRACTOR <u>NA</u>		SHEET <u>1</u> OF <u>1</u> SHEETS	
PROJECT			4. LOCATION		
5. NAME OF DRILLER			6. MANUFACTURERS DESIGNATION OF DRILL		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION			
		9. SURFACE ELEVATION		11. DATE COMPLETED	
		10. DATE STARTED <u>7/19/90</u>			
12. OVERBURDEN THICKNESS		13. DEPTH GROUNDWATER ENCOUNTERED			
13. DEPTH DRILLED INTO ROCK		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED			
14. TOTAL DEPTH OF HOLE		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)			
18. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
					21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR <u>[Signature]</u>

LOCATION SKETCH/COMMENTS (LL4sd-044-(d)-0278-50) SCALE: Not to Scale.



PROJECT <u>RVAAP</u>	HOLE NO. <u>LL-4sd-044-(d)-0278-50</u>
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HTRW DRILLING LOG

WALENTY/DEF
 LL45d-044(d) 0278-SD
 SHEET 2 of 2

PROJECT	RVAAD		INSPECTOR	M. Vest		REMARKS
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		φ.5 FT BGS	NA	NA	LL45d-044(d) φ278-SD & dup LL45d-044(d) φ279-FD	Changed from soil to sediment sample & used a scoop instead of an auger. STOPPED @ 6" BGS (0.5 FT BGS) HEADSPACE @ 5.5 FT w/ HWA. Sample taken @ 1635.

PROJECT

RVAAD

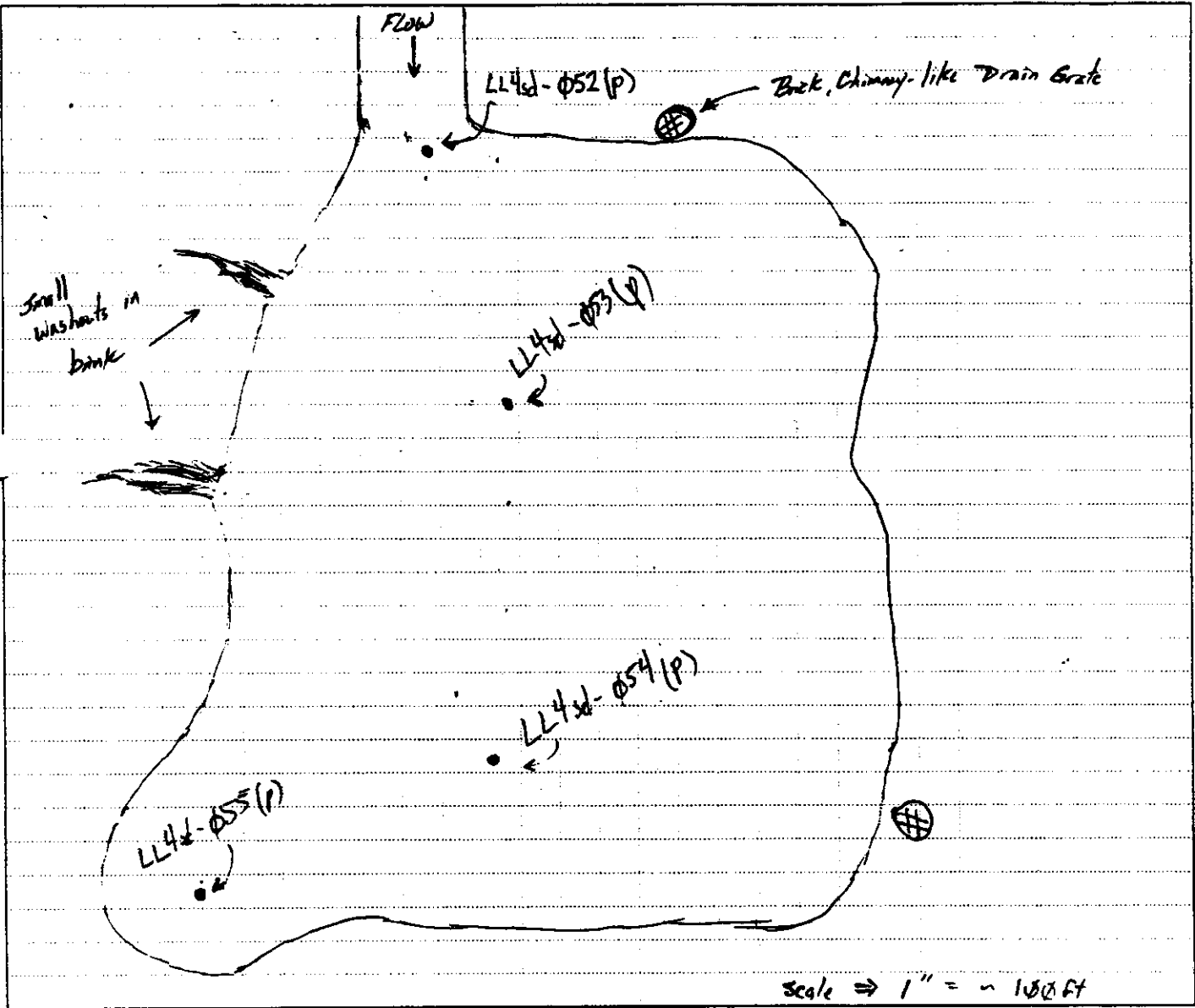
HOLE NO. LL45d-044-(d) φ278-SD

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL4 _{sd} - 052(P), -053(P), -054(P), -055(P)	DATE COLLECTED (mm/dd/yyyy): 08-14-96
SAMPLE LOCATION: LL4 Pond	TIME COLLECTED (hh:mm): see sample log
SAMPLING POINT: see sketch	DEPTH: ↓



COMMENTS: On this date, above pond is about 1/2 filled to its regular capacity
Duckweed covers entire surface of pond

RECORDED BY: Sandra J. Wilson	DATE 08-14-96	QA CHECK BY: [Signature]	DATE 8/22/96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER:

LL4sd-056-0295-SD

DATE COLLECTED (mm/dd/yy):

07/30/96

SAMPLE LOCATION:

On the North side of culvert entering ^{small pool of water} pond. _{7/30/96}

TIME COLLECTED (hh:mm):

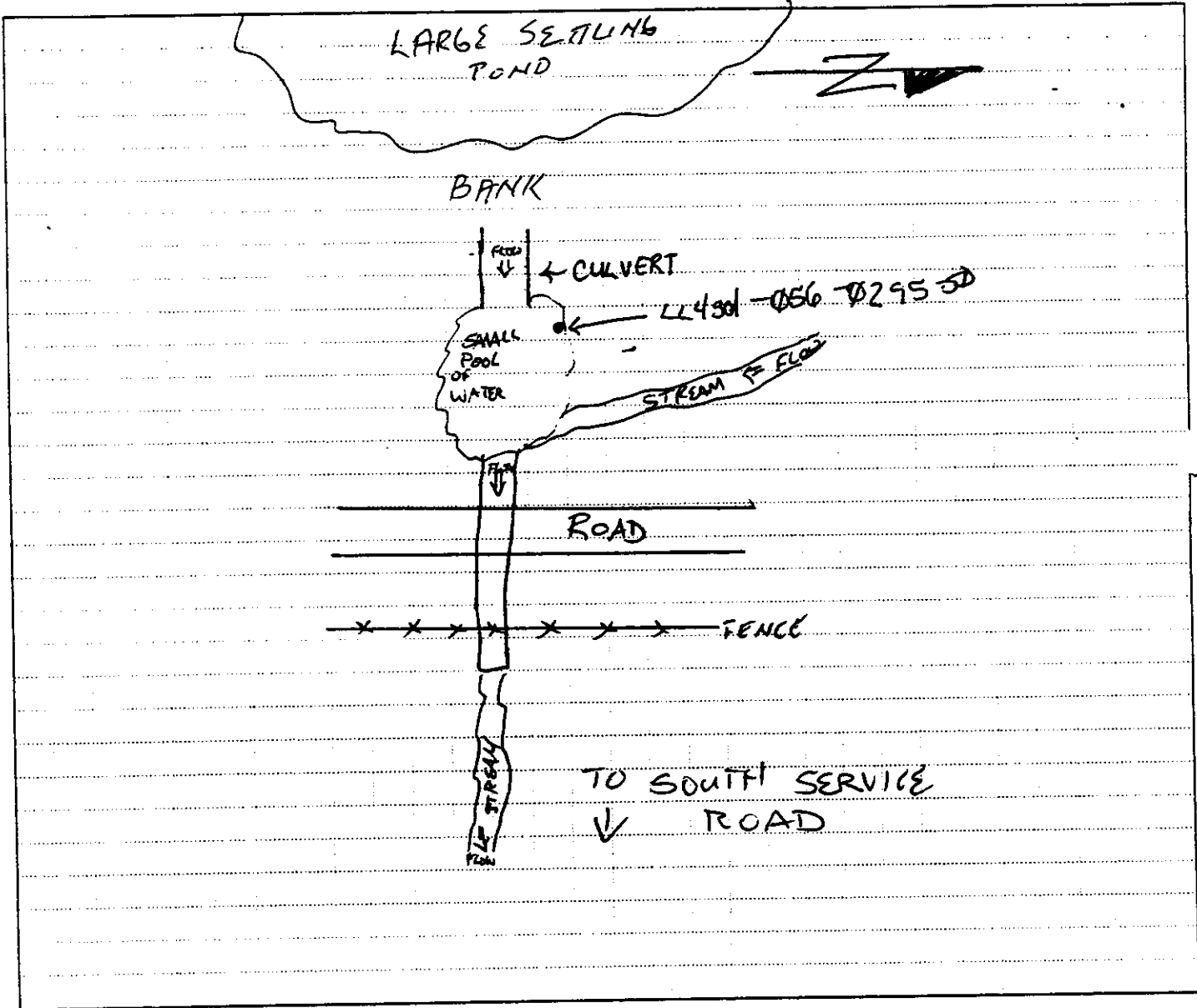
~~10:40~~ ~~10:50~~ ^{10:41} 10:41

SAMPLING POINT:

LL4sd-056-0295-SD

DEPTH:

0 to 6" BGS



COMMENTS: NA

RECORDED BY: M. VEST

DATE: 07/30/96

QA CHECK BY: S. Z. Han

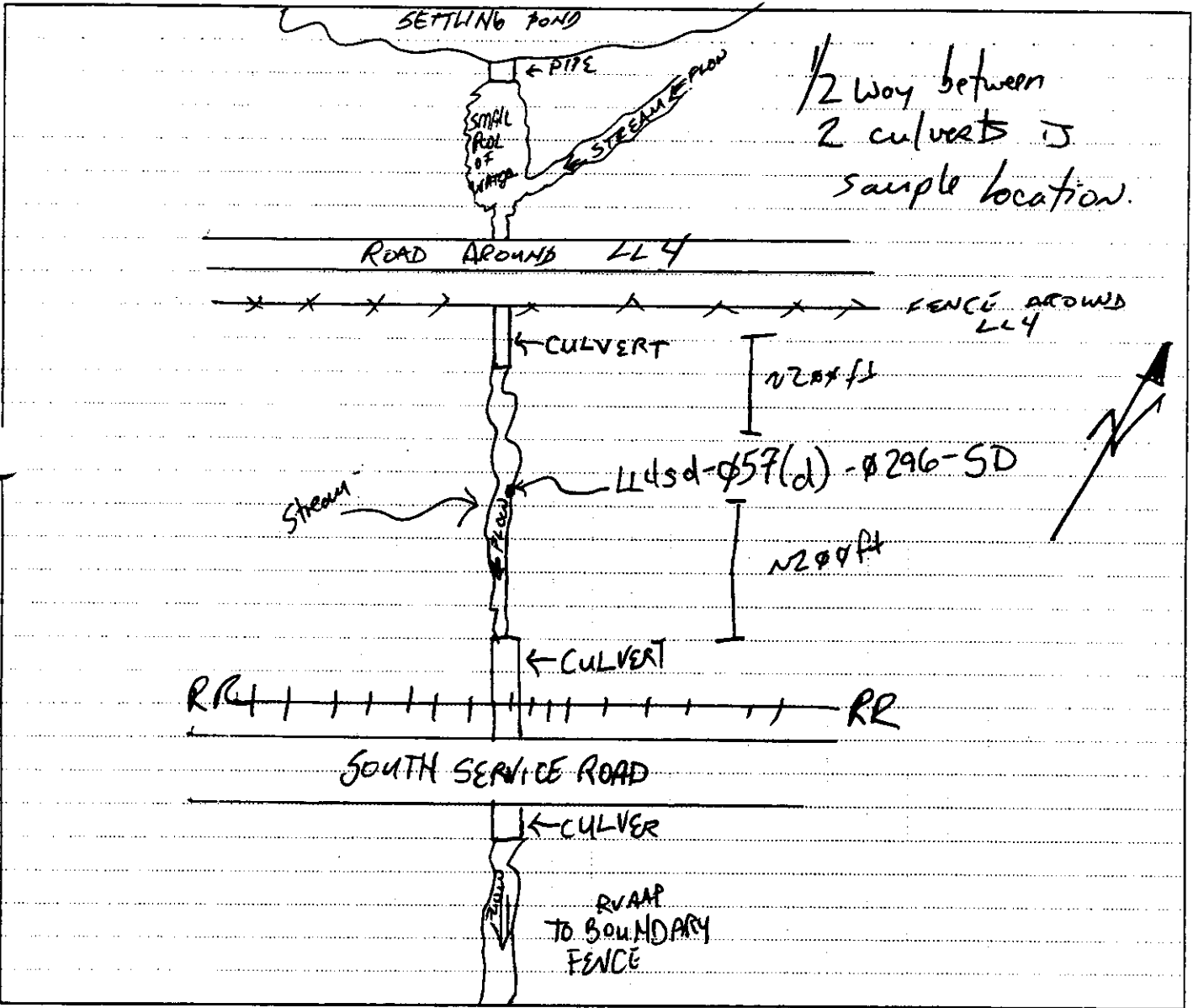
DATE: 7/30/96

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL4sd-057(d)-0296-SD	DATE COLLECTED (mm/dd/yy): 07/30/96
SAMPLE LOCATION: Hd Hwy between Rd. & RR/S. Service Rd. Culverts	TIME COLLECTED (hh:mm): 1557
SAMPLING POINT: LL4sd-057(d)	DEPTH: 0 to 6" BGS



COMMENTS: NA

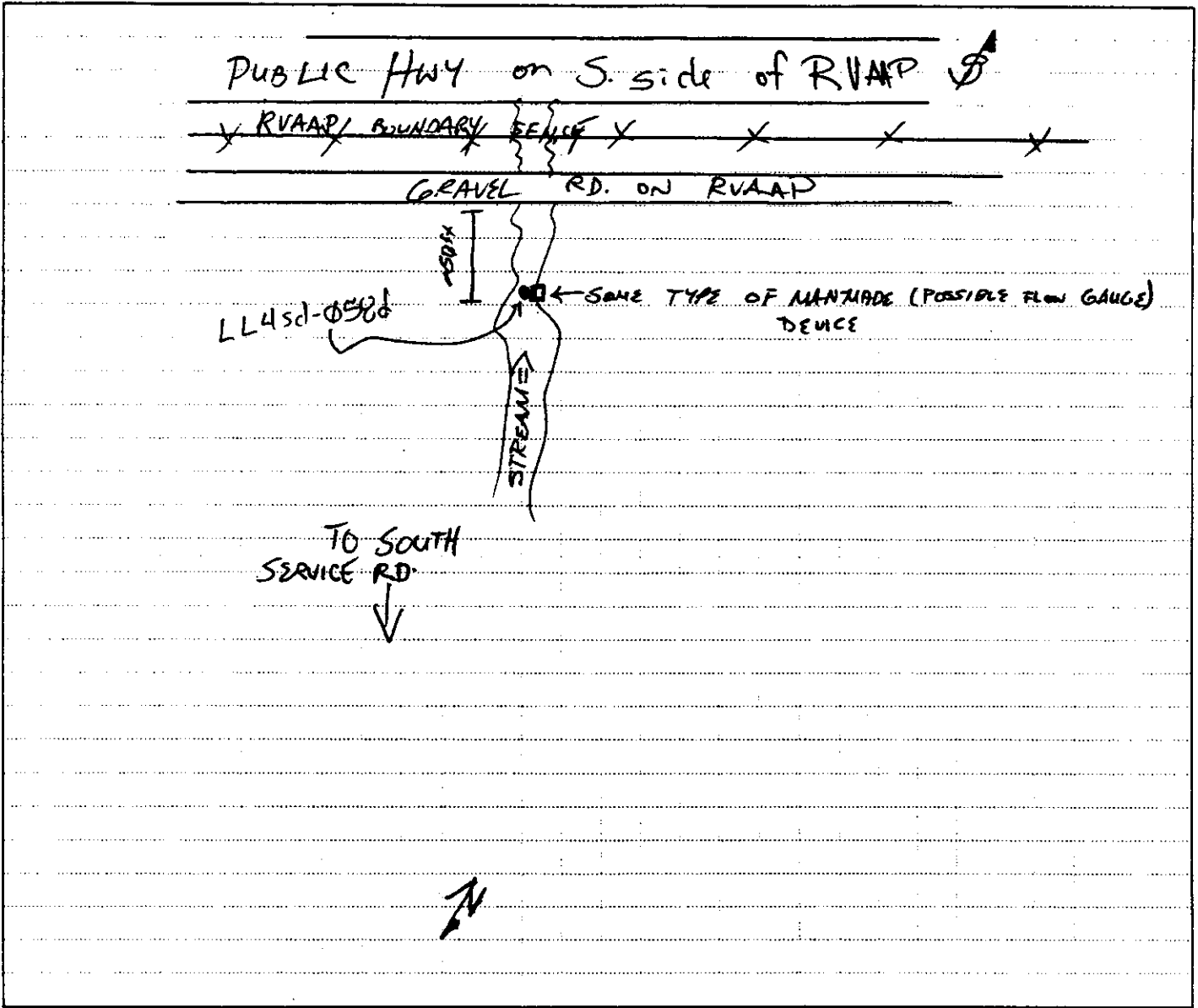
RECORDED BY: Matthew B. Vest	DATE: 07/30/96	QA CHECK BY: [Signature]	DATE: 7/30/96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL4sd-058(d)-0297-SD	DATE COLLECTED (mm/dd/yy): 07/29/96
SAMPLE LOCATION: ~ 50 ft upstream from road near S. boundary fence	TIME COLLECTED (hh:mm): 1550
SAMPLING POINT: Stream on N. side of road that follows S. fence	DEPTH: 0 to 6" BGS



COMMENTS: NA

RECORDED BY: *[Signature]* DATE: 7/29/96 QA CHECK BY: *[Signature]* DATE: 7/29/96

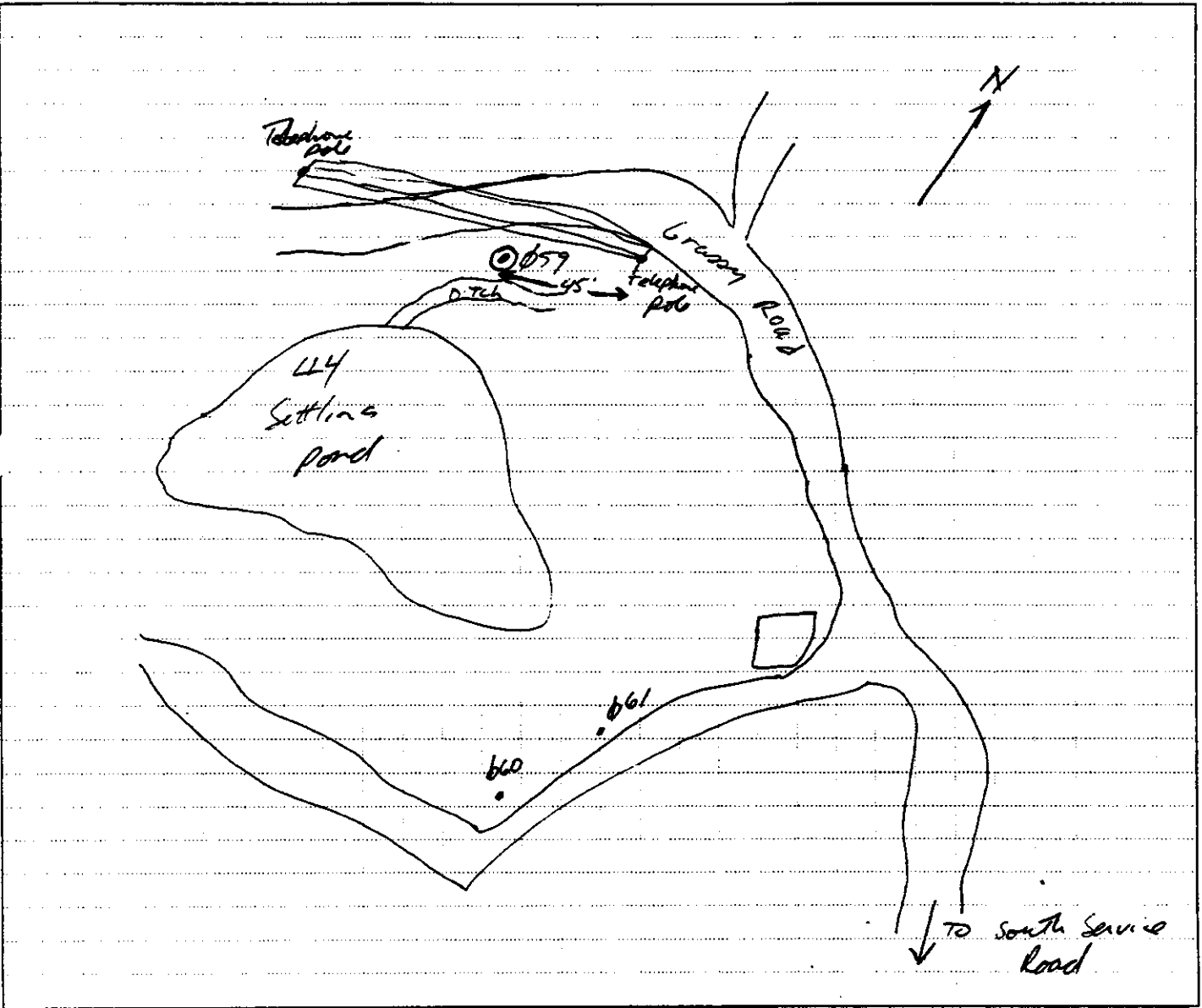
LOAD LINE 4
WELL POINTS/GROUNDWATER
LOGBOOK #9

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LL4wp-059-0298-6W	DATE COLLECTED (mm/dd/yy): 7-24 and 7-25-96
SAMPLE LOCATION: LL4wp-059	TIME COLLECTED (hh:mm): 7/24/96 and 7/25/96
SAMPLING POINT: N/A	DEPTH: TD: 18.5' BES



COMMENTS:

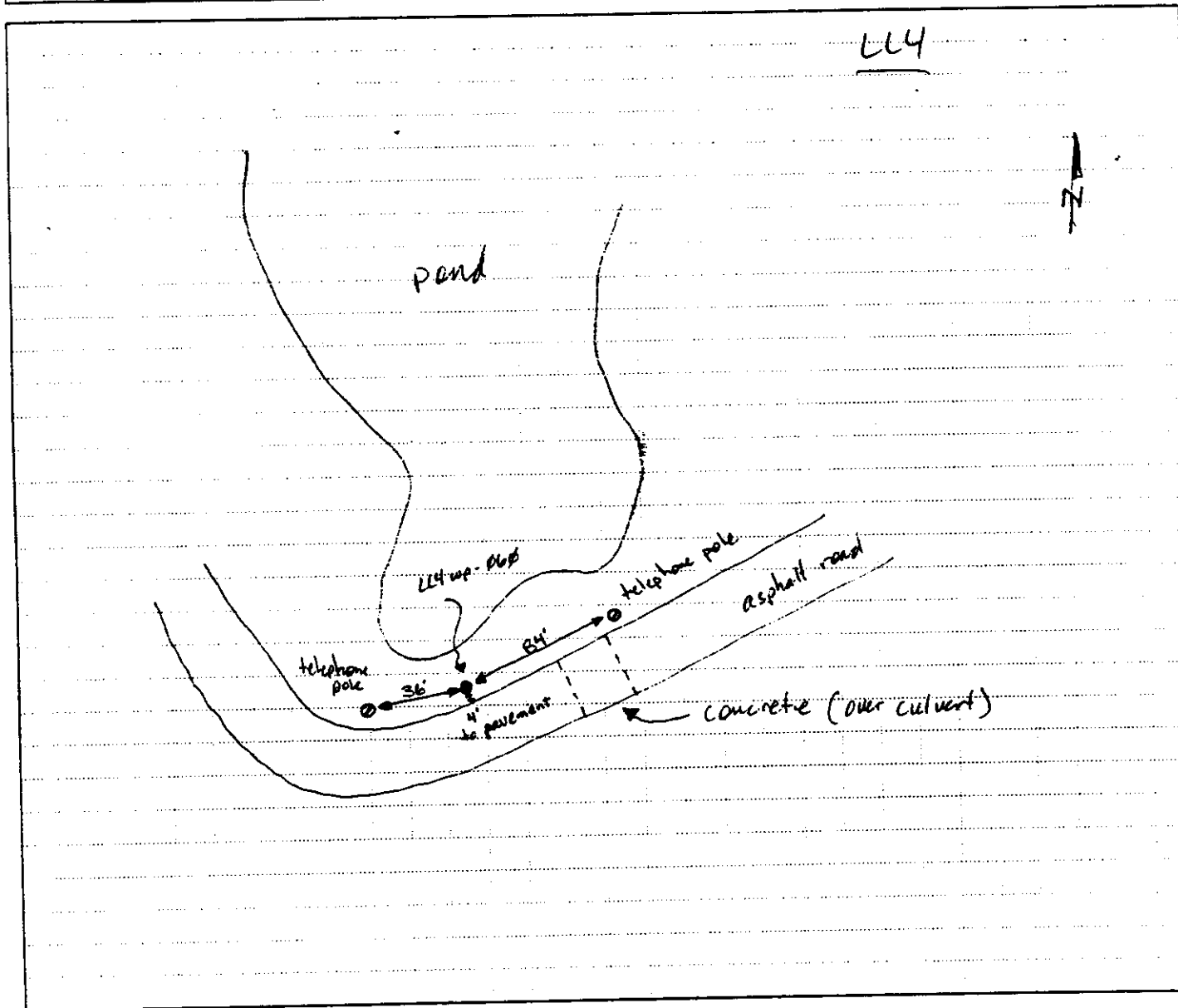
RECORDED BY: <i>Max O'Leary</i>	DATE: <i>7/29/96</i>	QA CHECK BY: <i>Max O'Leary</i>	DATE: <i>8/2/96</i>
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: <i>LL4 wp- φ6φ - φ299-6W</i>	DATE COLLECTED (mm/dd/yy): <i>07/23/96</i>
SAMPLE LOCATION: <i>LL4 wp- φ6φ</i>	TIME COLLECTED (hh:mm): <i>1635</i>
SAMPLING POINT: <i>N/A</i>	DEPTH: <i>TD 13.5' BGS Bottom of Screen 11.5' BGS</i>



COMMENTS:

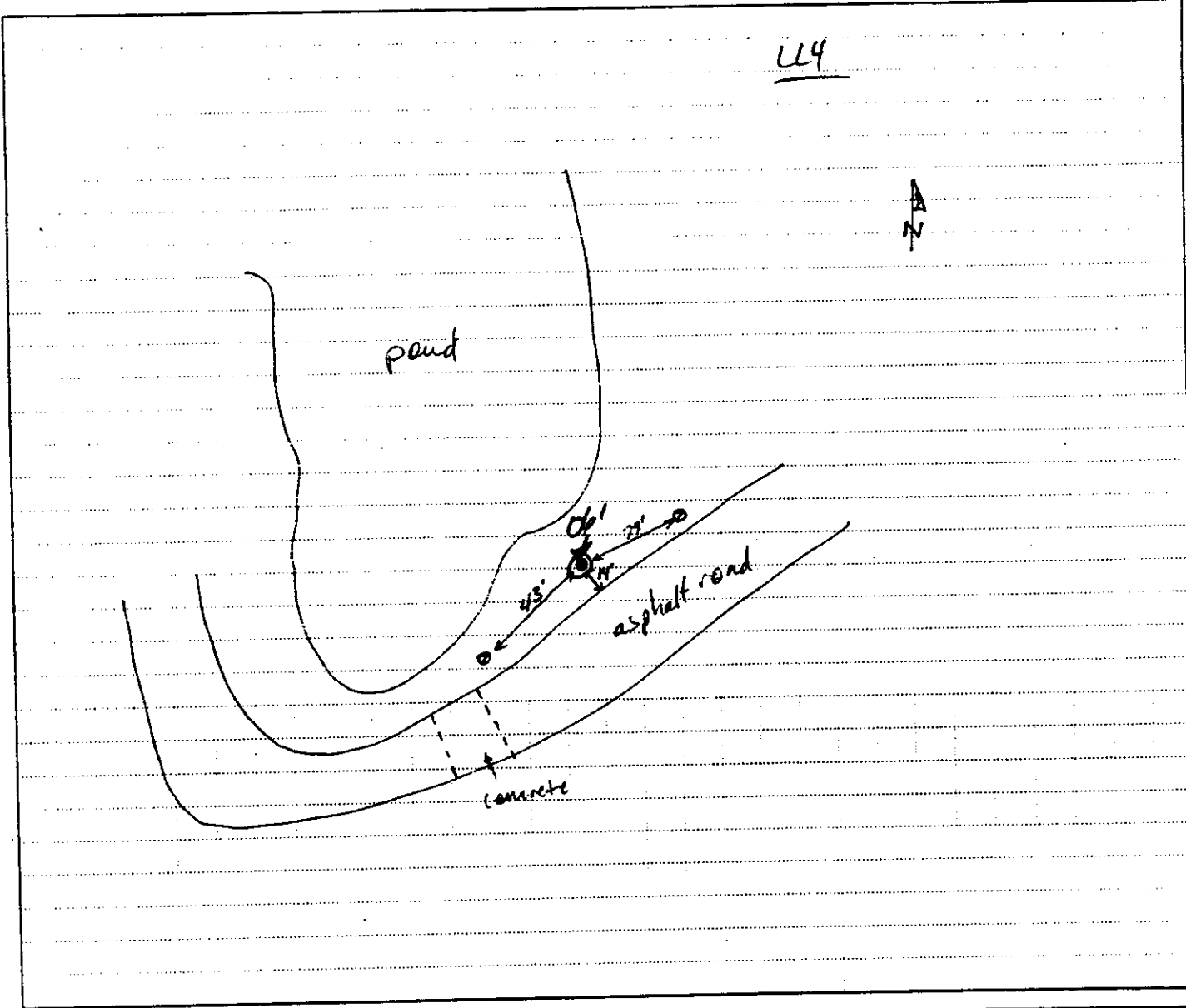
RECORDED BY: <i>[Signature]</i>	DATE: <i>7/24/96</i>	QA CHECK BY: <i>[Signature]</i>	DATE: <i>07-31-96</i>
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: <i>LL4 wp - 061 - 0300 - GW</i>	DATE COLLECTED (mm/dd/yy): <i>07/24/96</i>
SAMPLE LOCATION: <i>LL4 wp - 061</i>	TIME COLLECTED (hh:mm): <i>1145</i>
SAMPLING POINT: <i>N/A</i>	DEPTH: <i>TD hole 22.5' BES, bottom screen 20.5' BES</i>



COMMENTS:

RECORDED BY:

[Signature]

DATE

7/24/96

QA CHECK BY:

[Signature]

DATE

07/31/96

SAMPLE LOCATION MAPS, SOIL AND WELL POINT BORING LOGS
Load Line 12

Soil Samples:		Drainage Sediments:
L12-ss-001	L12-ss-021	L12-sd-025
L12-ss-002	L12-ss-022	L12-sd-026
L12-ss-003	L12-ss-023(b)	L12-sd-027
L12-ss-004	L12-ss-024(b)	L12-sd-028
L12-ss-005	L12-ss-040	L12-sd-029
L12-ss-006	L12-ss-041	L12-sd-030
L12-ss-007	L12-ss-042	L12-sd-032?-031?
L12-ss-008	L12-ss-043	L12-sd-033
L12-ss-009	L12-ss-044	L12-sd-034
L12-ss-010	L12-ss-045	L12-sd-035
L12-ss-011	L12-ss-047	L12-sd-036
L12-ss-012	L12-ss-049	L12-sd-037
L12-ss-013	L12-ss-050	L12-sd-038
L12-ss-014		L12-sd-039
L12-ss-015		Sfc. Wtr, Pond, Stream Sd.
L12-ss-016		L12-sd-051, -052, -053
L12-ss-017		L12-sd-054, -055
L12-ss-018		Well Points:
L12-ss-019		L12-wp-057
L12-ss-020		L12-wp-058

LOAD LINE 12
SOIL BORING LOGS
LOGBOOK #10

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER L1255-001	
1. COMPANY NAME GAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RUAAP Phase I RI			4. LOCATION LL12/RVAAP		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT			8. HOLE LOCATION SEE SKETCH BELOW		
3" HAND AUGER			9. SURFACE ELEVATION NA		
12. OVERBURDEN THICKNESS nil			15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 6" BES			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES	
NA		NA	NA	NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
See Sample CDR ←					
22. DISPOSITION OF HOLE		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
Abandoned		NA	NA	Bestrite	NA
LOCATION SKETCH/COMMENTS				SCALE: NOT TO SCALE	
PROJECT RUAAP Phase I RI				HOLE NO. L1255-001	

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG

WELL NUMBER 42-001

PROJECT

RVAAP

INSPECTOR

M. Deeren

SHEET

2 of 2

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0 6in	Brown sand/silt gravel Refusal at 6 inches				

PROJECT

RVAAP Phase I RI

WELL NO.

42-001

74

HTRW DRILLING LOG		DISTRICT		HOLE NUMBER	
1. COMPANY NAME SAC		DISTRICT NASHVILLE		HOLE NUMBER L1255-002	
2. DRILL SUBCONTRACTOR NA		3. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
4. PROJECT AVAP		4. LOCATION LL12/RUAP		5. NAME OF DRILLER NA	
6. MANUFACTURERS DESIGNATION OF DRILL HAND AUGER		8. HOLE LOCATION See Sketch Below		7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" AS Hand Auger 21 Foot Foot Extension	
9. SURFACE ELEVATION NA		10. DATE STARTED 07/27/96		11. DATE COMPLETED 07/27/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW		13. DEPTH DRILLED INTO ROCK NA	
14. TOTAL DEPTH OF HOLE 6" BGS		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA		UNDISTURBED NA	
19. TOTAL NUMBER OF CORE BOXES NA		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY % 100	
22. DISPOSITION OF HOLE Abandoned		VOC NA		METALS NA	
OTHER (SPECIFY) See Sketch Below		OTHER (SPECIFY) NA		OTHER (SPECIFY) NA	
23. SIGNATURE OF INSPECTOR <i>[Signature]</i>		MONITORING WELL NA		OTHER (SPECIFY) NA	
LOCATION SKETCH/COMMENTS		SCALE:			
PROJECT RUAP Phase 1 RI				HOLE NO. L1255-002	

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER
-1755-ØØ2

PROJECT
RUAPP Phase I RT

INSPECTOR
M. O'Connor

SHEET
2 of 2

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		<p>Silt/sand/gravel brown/black</p> <p>Refusal at 6 inches</p>				

PROJECT
RUAPP Phase I RI

HOLE NO.
1755-ØØ2 2Ø

HTRW DRILLING LOG		DISTRICT		HOLE NUMBER	
1. COMPANY NAME GRIC		NASHVILLE		LL1255-003	
2. DRELL SUBCONTRACTOR NA		3. SHEET		SHEETS 1 OF 2	
4. PROJECT RUAAP Phase I RT			4. LOCATION LL12/RUAAP		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. HAND AUGER			8. HOLE LOCATION See LL1255-002 sketch.		
9. SURFACE ELEVATION NA			10. DATE STARTED 07/27/94		
11. DATE COMPLETED 07/27/94			12. OVERBURDEN THICKNESS NA		
13. DEPTH DRILLED INTO ROCK NA			15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
14. TOTAL DEPTH OF HOLE 6" BES			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			18. GEOTECHNICAL SAMPLES		
DISTURBED NA		UNDISTURBED NA		19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC		METALS	
OTHER (SPECIFY) See Sample LOC		OTHER (SPECIFY)		OTHER (SPECIFY)	
21. TOTAL CORE RECOVERY % NA		22. DISPOSITION OF HOLE Abandoned		23. SIGNATURE OF INSPECTOR <i>[Signature]</i>	
BACKFILLED NA		MONITORING WELL NA		OTHER (SPECIFY) Custom	
LOCATION SKETCH/COMMENTS SEE LL1255-002 sketch for location of LL1255-003					
SCALE: N/A					
See LL1255-002					
PROJECT RUAAP Phase I RT				HOLE NO. LL1255-003	

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER: **L12-003**
 SHEET: **7 of 2**

PROJECT: **RVAAP Phase 1 RI**

INSPECTOR: **M. Descoe**

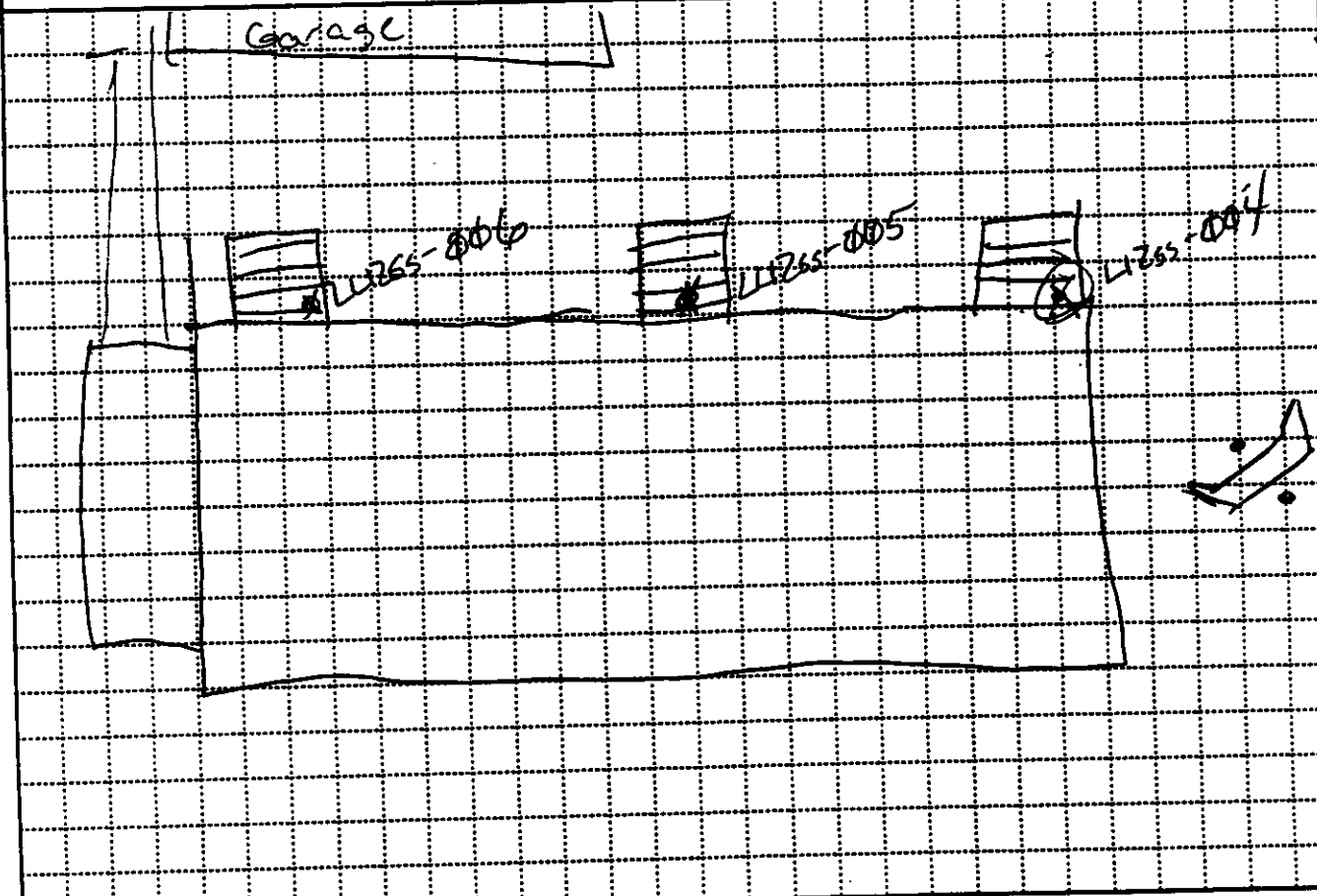
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0 6in.	Brown-Black silty-clay Refusal at 6inches				

PROJECT: **RVAAP Phase 1 RI**

HOLE NO.: **L12-003**

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL255-04	
1. COMPANY NAME SAC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP			4. LOCATION LL12/RVAAP		
5. NAME OF DRILLER M. Deacon			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" 55 HAND AUGER 275 ft EXTENSION			8. HOLE LOCATION SEE SKETCH BELOW		
			9. SURFACE ELEVATION NA		
			10. DATE STARTED 7/26/96		11. DATE COMPLETED 7/26/96
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 9" BGS.			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC NA	METALS NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY % NA		OTHER (SPECIFY) NA	OTHER (SPECIFY) NA	22. DEPOSITION OF HOLE Abandoned	
		BACKFILLED NA	MONITORING WELL NA	23. SIGNATURE OF INSPECTOR <i>M. Deacon</i>	

LOCATION SKETCH/COMMENTS SCALE: **Not to Scale**



PROJECT RVAAP Phase I RI	HOLE NO. LL255-004
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ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER: **L1255-004**
 SHEET: **2 of 2**

PROJECT: **RUAAP Phase I RI**

INSPECTOR: **N. DeLeon & J. Carter**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)	
	<div style="position: relative; height: 100px;"> </div>	<p>Brown to Gray Stained w/ Red Silty clay actual</p>					

0.5
 inches

PROJECT: **RUAAP Phase I RI**

HOLE NO.: **L1255-004**

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER L1255-005	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR N/A		SHEET SHEETS 1 of 2	
3. PROJECT RVAAP			4. LOCATION LL12/RVAAP		
5. NAME OF DRILLER M. Deacon			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. Hand Auger		8. HOLE LOCATION See L1255-004		9. SURFACE ELEVATION NA	
12. OVERBURDEN THICKNESS N/A		10. DATE STARTED 02/26/94		11. DATE COMPLETED 07/29/94	
13. DEPTH DRILLED INTO ROCK N/A		15. DEPTH GROUNDWATER ENCOUNTERED NO GW		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 1.5 ft BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED		UNDISTURBED	
N/A		NA		NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC		METALS	
See Sample Log					
22. DISPOSITION OF HOLE		BACKFILLED		MONITORING WELL	
Abandoned		NA		NA	
19. TOTAL NUMBER OF CORE BOXES		OTHER (SPECIFY)		OTHER (SPECIFY)	
NA					
21. TOTAL CORE RECOVERY %		OTHER (SPECIFY)		OTHER (SPECIFY)	
NA					
23. SIGNATURE OF SUPERVISOR		[Signature]			
LOCATION SKETCH/COMMENTS See L1255-004 Sketch for location of L1255-005 SCALE: NA					
SEE L1255-004!					
PROJECT RVAAP Phase I RI				HOLE NO. L1255-005	

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG						HOLE NUMBER L1255-005
PROJECT RVAAP Phase I RE		INSPECTOR M. D. [unclear] & H. [unclear]		SHEET 2 of 2		
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.5	Dark Grey Brown Silty clay. Top Soil usually discolored	0 ppm		LL1745	
	1.0	Black Gravel (coal?)			0310- SO	
	1.5					

PROJECT RVAAP Phase I RE

HOLE NO. L1255-005

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HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER L1255-006	
1. COMPANY NAME SAC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 of 2	
3. PROJECT RVAAP Phase I RI			4. LOCATION LL12/RVAAP		
5. NAME OF DRILLER M. Deacon			6. MANUFACTURERS DESIGNATION OF DRILL NA		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger w/ 5 ft. EXTENSIONS		8. HOLE LOCATION ES904-01		9. SURFACE ELEVATION NA	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NA (NO GW)		11. DATE COMPLETED 7/26/94	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		10. DATE STARTED 7/26/94	
14. TOTAL DEPTH OF HOLE 1.5 ft BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED 0		UNDISTURBED 0	
19. TOTAL NUMBER OF CORE BOXES 0		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY % NA	
20. SAMPLES FOR CHEMICAL ANALYSIS (1)		VOC NA	METALS (1)	OTHER (SPECIFY) (1) Exposure	OTHER (SPECIFY) NA
22. DISPOSITION OF HOLE Abandoned w/ Hole Plug		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) NA	23. SIGNATURE OF DRILLER <i>M. Deacon</i>
LOCATION SKETCH/COMMENTS See L1255-004 Sketch for Location of L1255-006. SCALE: N/A					
See L1255-004					
PROJECT RVAAP Phase I RI				HOLE NO. L1255-006	

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER
L1255-006

SHEET
2 of 2

PROJECT
RVAAP Phase I RT

INSPECTOR
W. Deegan & J. Cruse

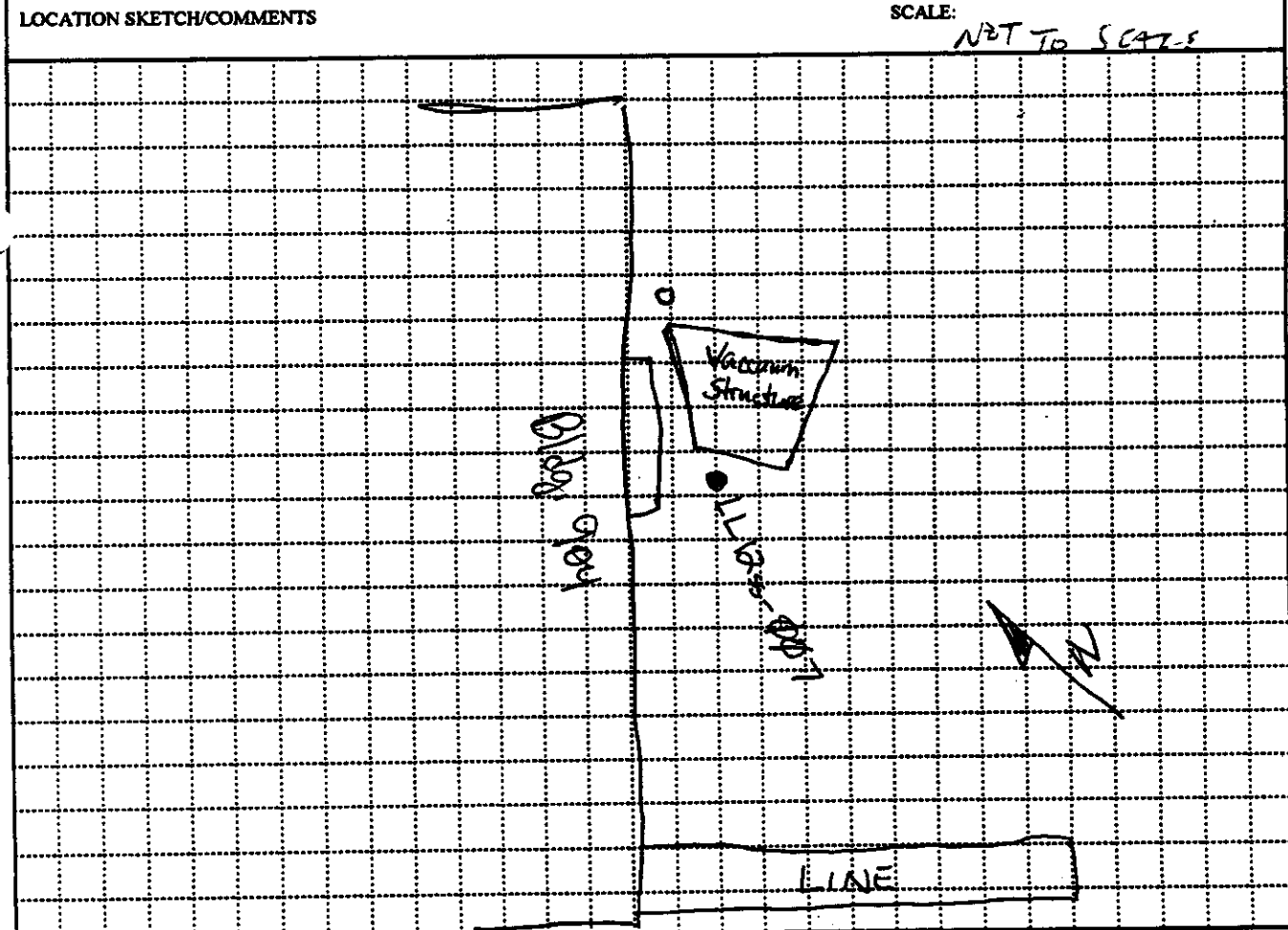
ELE. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	0.5	Dark Brownish Grey Silty clay		NA	L1255- 006- 031-	
	1.0	Layer of Black (Plastic) Back to silty clay			50	
	1.5					

PROJECT
RVAAP Phase I RT

HOLE NO.
L1255-006

56

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER L1255-007	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 of 2	
3. PROJECT RVAAP Phase 1 RI			4. LOCATION L12/2LHAP		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" 55 Hand Auger w/ 5 Foot Extension		8. HOLE LOCATION SEE SKETCH BELOW			
9. SURFACE ELEVATION NA					
10. DATE STARTED 07/26/96			11. DATE COMPLETED 07/26/96		
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED 1.0 GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 0.6 ft BES			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES		DISTURBED NA		UNDISTURBED NA	
19. TOTAL NUMBER OF CORE BOXES NA		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY % NA	
See Sample Log		VOC		OTHER (SPECIFY)	
Hand-dug		METALS		OTHER (SPECIFY)	
NA		OTHER (SPECIFY)		OTHER (SPECIFY)	
22. DISPOSITION OF HOLE Hand-dug		BACKFILLED NA		MONITORING WELL NA	
NA		OTHER (SPECIFY) Bentonite		23. SIGNATURE OF INSPECTOR <i>[Signature]</i>	



PROJECT RVAAP Phase 1 RI	HOLE NO. L1255-007
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ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER L1255-008	
1 COMPANY NAME SAIC		2 DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3 PROJECT RUAAP PHASE I RI			4 LOCATION NA		
5 NAME OF DRILLER M. Deacon			6 MANUFACTURER'S DESIGNATION OF DRILL Hand Auger		
7 SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" BS Hand Auger w/ 5 foot extension.		8 HOLE LOCATION SEE SKETCH BELOW			
			9 SURFACE ELEVATION NA		
			10 DATE STARTED 07/26/96		11 DATE COMPLETED 07/26/96
12 OVERBURDEN THICKNESS NA			15 DEPTH GROUNDWATER ENCOUNTERED NO GW		
13 DEPTH DRILLED INTO ROCK NA			16 DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14 TOTAL DEPTH OF HOLE 0.3" BGS			17 OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18 GEOTECHNICAL SAMPLES NA		DISTURBED <input checked="" type="checkbox"/>	UNDISTURBED <input checked="" type="checkbox"/>	19 TOTAL NUMBER OF CORE BOXES 0	
20 SAMPLES FOR CHEMICAL ANALYSIS (1)		VOC NA	METALS (3)	OTHER (SPECIFY) (3) Explosives	OTHER (SPECIFY) NA
22 DISPOSITION OF HOLE Abandoned w/ Hole Plug		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) NA	21 TOTAL CORE RECOVERY NA %
23 SIGNATURE <i>[Signature]</i>					
LOCATION SKETCH/COMMENTS CONCRETE SCALE: Not to Scale					
PROJECT RUAAP Phase I RI				HOLE NO. L1255-008	

HTRW DRILLING LOG

HOLE NUMBER **L1255-008**
 SHEET **2 of 2**

PROJECT **RVAAP Phase I RE** INSPECTOR **M Deacon & N James**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.5	Brown to Reddish Brown Silty Sand to Silty clay	φ ppm	NA	L1255-008-0313-SO -0314-FD -0315-SP	
	0.8	Refusal				

PROJECT **RVAAP Phase I RE**

HOLE NO. **L1255-008 46**

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER L1255-009	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RUAP Phase I RI			4. LOCATION LL12 / RUA AT		
5. NAME OF DRILLER M. Deacon			6. MANUFACTURERS DESIGNATION OF DRILL NA		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION SEE SKETCH BELOW			
3" SS Hand Auger w/ 5 foot extension		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/27/97		11. DATE COMPLETED 7/27/97	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NA			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 1.5 FT BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED 0	UNDISTURBED 0	19. TOTAL NUMBER OF CORE BOXES 0	
20. SAMPLES FOR CHEMICAL ANALYSIS SEE SAMPLE CORES		VOC	METALS	OTHER (SPECIFY) EXCISE	OTHER (SPECIFY) OTHER (SPECIFY)
21. TOTAL CORE RECOVERY % NA		22. DISPOSITION OF HOLE ABANDONED	BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) BENTONITE
23. SIGNATURE OF INSPECTOR <i>M. Deacon</i>					
LOCATION SKETCH/COMMENTS SCALE: Not to Scale					
PROJECT RUAP Phase I RI				HOLE NO. L1255-009	

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER
71255-289

PROJECT

RUAAP Phase I RI

INSPECTOR

J. Deacon & Northa Comm.

SHEET

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.5	Lt Brown Sandy Silt		NA	L1255- 009- 0316- 50	
	1.4					
	1.5	Refusal				

PROJECT

RUAAP Phase I RI

HOLE NO.

L1255-009

68

HTRW DRILLING LOG		DISTRICT		HOLE NUMBER	
1. COMPANY NAME <i>EFC</i>		NASHVILLE		L1255-010	
2. DRILL SUBCONTRACTOR <i>NA</i>		3. PROJECT <i>RVAAP Phase I RI</i>		SHEET 1 OF 2	
4. LOCATION <i>LL12/RVAAP</i>		5. NAME OF DRILLER <i>NA</i>		6. MANUFACTURERS DESIGNATION OF DRILL <i>HAND AUGER</i>	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>3" SS HAND AUGER</i>		8. HOLE LOCATION <i>SEE SKETCH BELOW</i>		9. SURFACE ELEVATION <i>NA</i>	
10. DATE STARTED <i>07/21/94</i>		11. DATE COMPLETED <i>02/27/94</i>		12. OVERBURDEN THICKNESS <i>NA</i>	
13. DEPTH DRILLED INTO ROCK <i>NA</i>		15. DEPTH GROUNDWATER ENCOUNTERED <i>NO GW</i>		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>	
14. TOTAL DEPTH OF HOLE <i>1.0 ft BGS</i>		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>		18. GEOTECHNICAL SAMPLES	
18. GEOTECHNICAL SAMPLES <i>NA</i>		DISTURBED <i>NA</i>		UNDISTURBED <i>NA</i>	
19. TOTAL NUMBER OF CORE BOXES <i>NA</i>		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY % <i>NA</i>	
20. SAMPLES FOR CHEMICAL ANALYSIS <i>See Sample Log</i>		VOC		METALS	
22. DISPOSITION OF HOLE <i>Abandoned</i>		BACKFILLED		MONITORING WELL	
23. SIGNATURE OF DIRECTOR <i>[Signature]</i>		OTHER (SPECIFY)		OTHER (SPECIFY)	
LOCATION SKETCH/COMMENTS		SCALE: <i>Not to Scale</i>			
PROJECT <i>RVAAP Phase I RI</i>				HOLE NO. <i>L1255-010</i>	

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG						HOLE NUMBER
PROJECT			INSPECTOR	SHEET		
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.5	Brown to Dark Brown Silty Sand.	Φppm	NA	L12ss- Φ1Φ- Φ317- 50	
	1.0	Refusal				

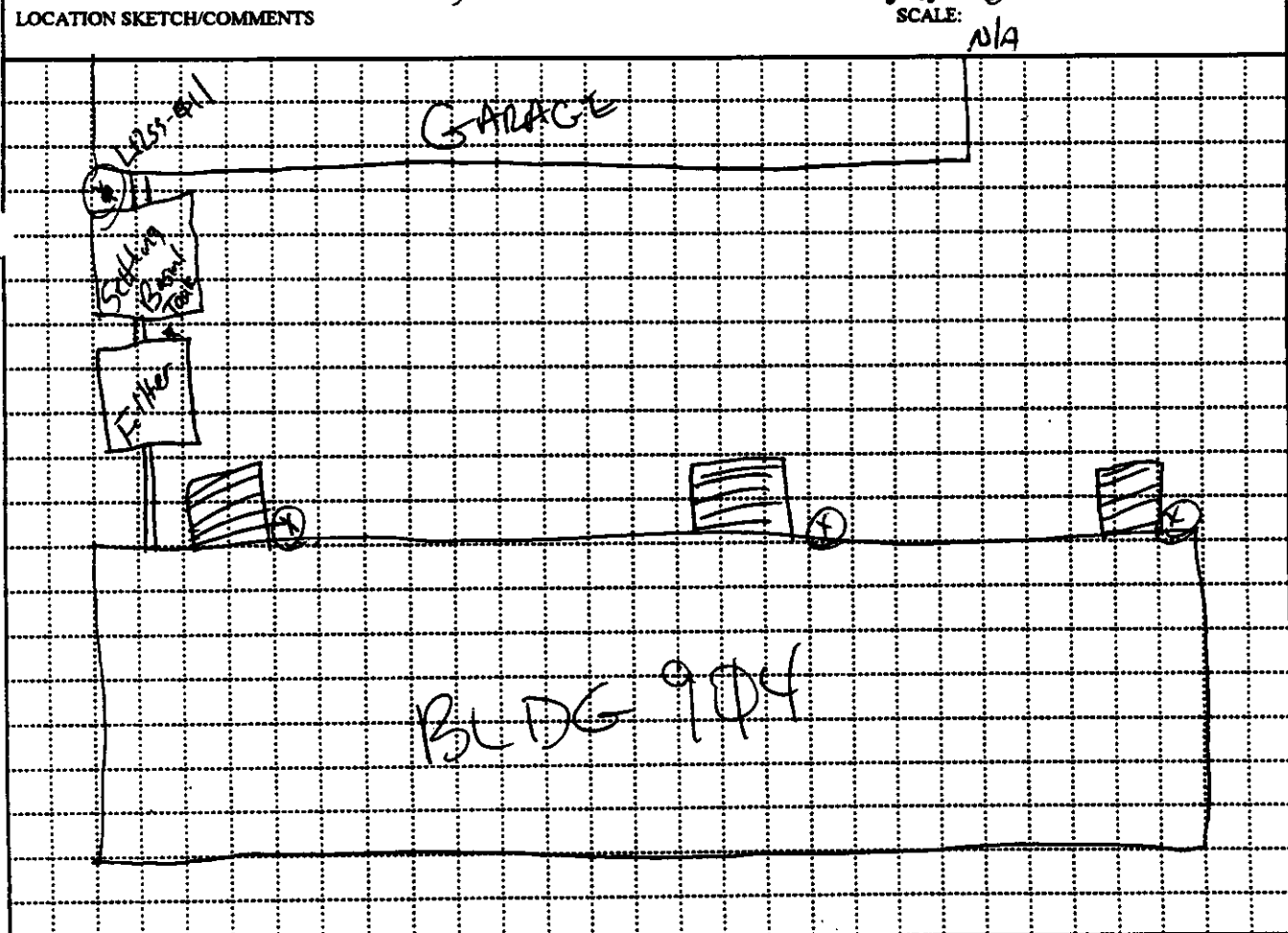
L12ss-Φ1Φ
282

RVAAP Phase I RT
M. Deane

PROJECT RVAAP-Phase I RT

HOLE NO. L12ss - Φ1Φ 58

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER L1255-011	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR		SHEET SHEETS 1 OF 2	
3. PROJECT RUAAP Phase I RI			4. LOCATION LL12/04P		
5. NAME OF DRILLER M. Deacon			6. MANUFACTURER'S DESIGNATION OF DRILL Hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION See Sketch Below			
55 Hand Auger at 5 ft. extensions		9. SURFACE ELEVATION NA			
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NA			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 0.7 ft BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED <input checked="" type="checkbox"/>		UNDISTURBED <input checked="" type="checkbox"/>	
19. TOTAL NUMBER OF CORE BOXES 0		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY %	
NA		VOC		OTHER (SPECIFY)	
NA		METALS		OTHER (SPECIFY)	
NA		OTHER (SPECIFY)		OTHER (SPECIFY)	
NA		OTHER (SPECIFY)		NA	
22. DISPOSITION OF HOLE Abandoned		BACSPILLED at Hole Aug		23. SIGNATURE OF INSPECTOR <i>M. Deacon</i>	
MONITORING WELL NA		OTHER (SPECIFY) NA			



PROJECT RUAAP Phase I RI	HOLE NO. L1255-011
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HTRW DRILLING LOG

HOLE NUMBER **LL1255-011**

PROJECT **RUAAP Phase I RT**

INSPECTOR **J. Deaton & J. P. Rimmie**

SHEET **2 of 2**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Sandy Silt			LL1255-	
	0.5	Silty Clay w/	Φ ppm	NA	011-	
	0.7	Gravel Brown to tan			0318-	
		Refuse			50	
	1.0	Home				
	1.2	1/2 layer				

PROJECT

RUAAP Phase I RT

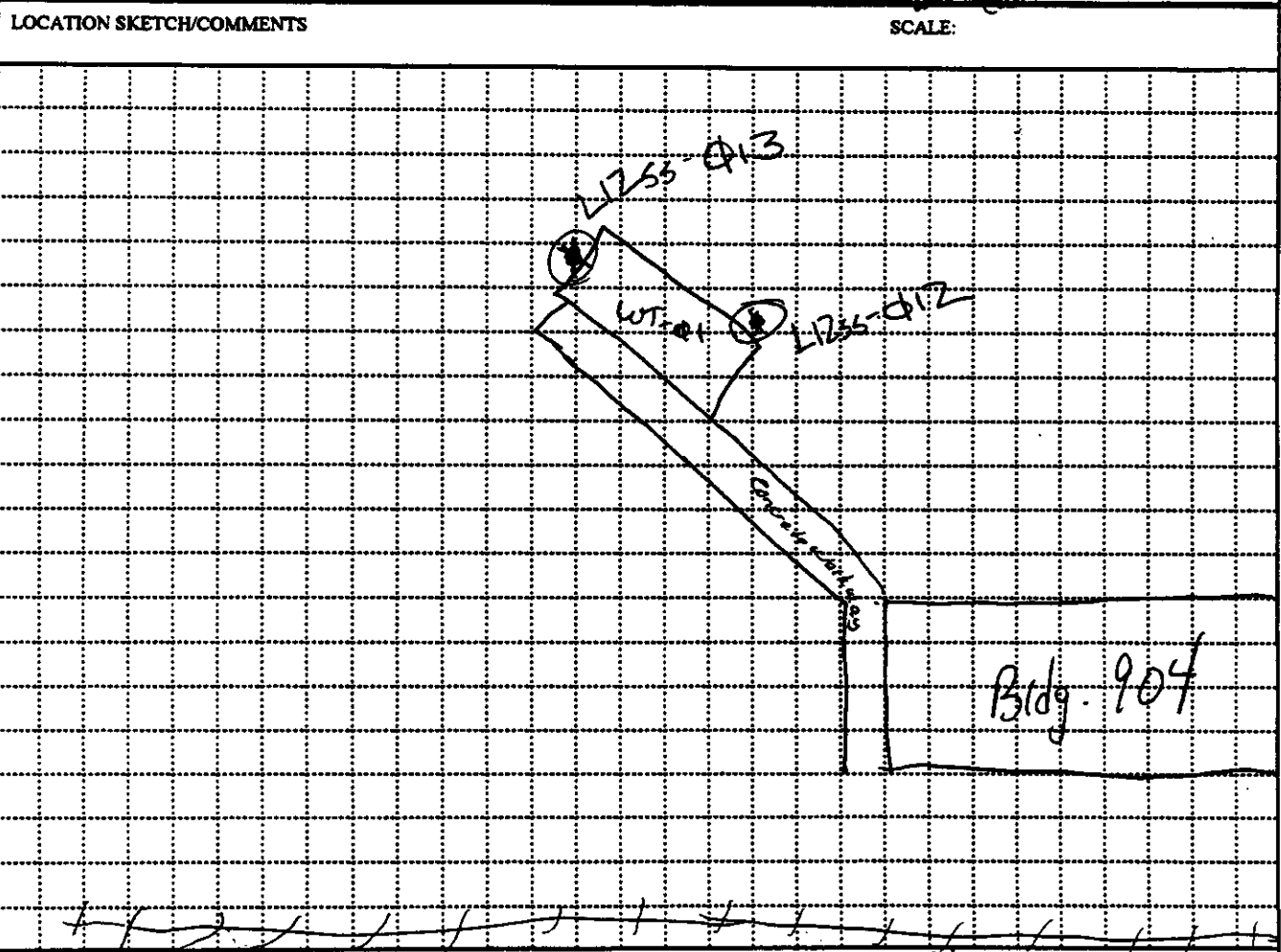
HOLE NO.

LL1255-011

60

L1255-012

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER 7/27/96	
1. COMPANY NAME SAC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RUAAP Phase I RI			4. LOCATION LL12/RVAAP		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL NA		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3 1/2" Hand Auger w/ 5 foot extensions		8. HOLE LOCATION SEE SKETCH BELOW			
			9. SURFACE ELEVATION NA		
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NA (NO GW)			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 1.2 FT BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED 0	UNDISTURBED 0	19. TOTAL NUMBER OF CORE BOXES 0	
20. SAMPLES FOR CHEMICAL ANALYSES (2)		VOC (2)	METALS (2)	OTHER (SPECIFY) (2) Explosives	OTHER (SPECIFY) NA
22. DISPOSITION OF HOLE ABANDONED		BACKFILLED W/ H&E PUG	MONITORING WELL NA	OTHER (SPECIFY) NA	21. TOTAL CORE RECOVERY % NA
				23. SIGNATURE OF INSPECTOR <i>[Signature]</i>	



PROJECT RUAAP Phase I RI	HOLE NO. L1255-012
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HTRW DRILLING LOG

HOLE NUMBER
L1255-012

SHEET
2 of 2

PROJECT
RUAAP Phase I RI

INSPECTOR
M. Dawson

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.5	Sandy Silt	Φ ppm	NA	L1255- 012- 0319- 50	L1255-012-0320-ED is duplicate
	1.0	Silty Clay				
	1.2	Dark Brown Grey refusal on rock/gravel				

PROJECT
RUAAP Phase I RI

HOLE NO.
L1255-012

62

HTRW DRILLING LOG		DISTRICT		HOLE NUMBER	
1. COMPANY NAME SAIC		NASHVILLE		L1255-013	
2. DRILL SUBCONTRACTOR NA		3. DRILL SUBCONTRACTOR NA		SHEET 1 OF 2 SHEETS	
4. PROJECT RUAAP Phase I RI			4. LOCATION LL12/RV4AP		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL NA		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" ss Hand Auger w/ 5 foot extension			8. HOLE LOCATION SEE SKETCH OF L1255-012		
9. SURFACE ELEVATION NA			10. DATE STARTED 7/27/96		
11. DATE COMPLETED 7/27/96			12. OVERBURDEN THICKNESS NA		
13. DEPTH DRILLED INTO ROCK NA			15. DEPTH GROUNDWATER ENCOUNTERED NA		
14. TOTAL DEPTH OF HOLE 1,7 ft lbs			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			18. GEOTECHNICAL SAMPLES		
DISTURBED NA		UNDISTURBED 0		19. TOTAL NUMBER OF CORE BOXES 0	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC (1)		METALS (1)	
OTHER (SPECIFY) (1) EXPOSURES		OTHER (SPECIFY) NA		OTHER (SPECIFY) NA	
21. TOTAL CORE RECOVERY % NA		22. DEPOSITION OF HOLE Abandoned		23. SIGNATURE OF INSPECTOR <i>[Signature]</i>	
BACKFILLED w/ HoE RUG		MONITORING WELL NA		OTHER (SPECIFY) NA	
LOCATION SKETCH/COMMENTS See L1255-012 sketch for location of L1255-013 SEE L1255-012					
SCALE: NA					
PROJECT RUAAP Phase I RI					
HOLE NO. L1255-013					

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER L1255-014	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP Phase I RI			4. LOCATION LL 12 / RVAAP		
5. NAME OF DRILLER M. Deacor			6. MANUFACTURERS DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger w/ 5 foot extensions			8. HOLE LOCATION See SKETCH BELOW		
			9. SURFACE ELEVATION NA		
			10. DATE STARTED 07/26/94		11. DATE COMPLETED 07/26/94
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 1.0 f + BGS			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES	
NA		NA	NA	NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
See Sample Log					
22. DISPOSITION OF HOLE		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
Abandoned		NA	NA	Benite	NA
LOCATION SKETCH/COMMENTS				SCALE: N/A (NOT TO SCALE)	
PROJECT RVAAP Phase I RI				HOLE NO. L1255-014	

HTRW DRILLING LOG

HOLE NUMBER L1255-Ø14

SHEET 2 of 2

PROJECT

RUAAP Phase I RI

INSPECTOR

M. Denton

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.5 1.0	Tanish Silty Sand w/Gravel Refusal	Qppm	L1255- Ø14- Ø322- 50		

PROJECT

RUAAP RI Phase I

HOLE NO.

L1255-Ø14

42

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL12SS-Ø15	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT AVAAP Phase I			4. LOCATION LL12/RUAPP		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL HAND AUGER		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger - 5 feet Extension		8. HOLE LOCATION SEE SKETCH BELOW			
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 8" BGS			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES NA		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS SEE SAMPLE LOG		VOC NA	METALS NA	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	21. TOTAL CORE RECOVERY % NA
LOCATION SKETCH/COMMENTS				23. SIGNATURE OF SUPERVISOR <i>[Signature]</i>	
				SCALE: NOT TO SCALE	
PROJECT RUAPP Phase I RI				HOLE NO. L12SS-Ø15	

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER
L12ss-015

PROJECT

RUAAP Phase I RI

INSPECTOR

N. Deacy

SHEET

2 of 2

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0 8 in.	Brown topsoil gravel & brick				

PROJECT

RUAAP Phase I RI

HOLE NO.

L12ss-015

44

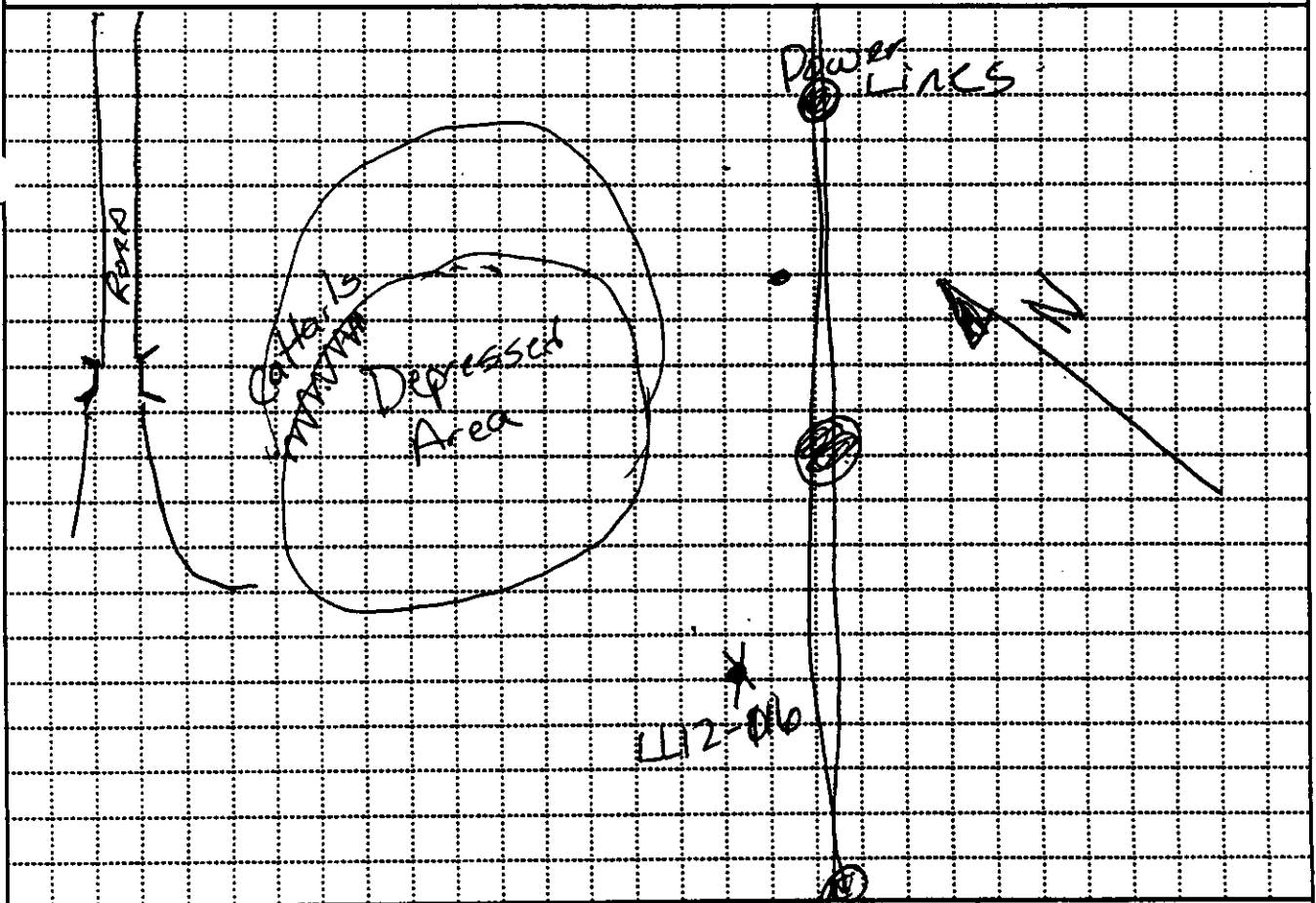
HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER LL1255-016	
1. COMPANY NAME SALC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 of 2	
3. PROJECT RVAAP Phase I RI			4. LOCATION LOAD LINE 12		
5. NAME OF DRILLER M. Deacon			6. MANUFACTURER'S DESIGNATION OF DRILL Hand Auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" Stainless Steel Hand Auger w/ 5 foot extension		8. HOLE LOCATION F905-02			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 25 JUL 96		11. DATE COMPLETED 25 JUL 96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NA			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 2.0 ft.		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED <input checked="" type="checkbox"/>	UNDISTURBED <input checked="" type="checkbox"/>	19. TOTAL NUMBER OF CORE BOXES <input checked="" type="checkbox"/>	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC <input checked="" type="checkbox"/>	METALS <input checked="" type="checkbox"/>	OTHER (SPECIFY) Exposures (1)	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY % NA		OTHER (SPECIFY) NA	OTHER (SPECIFY) NA	23. SIGNATURE OF DRILLER M. Deacon	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED w/ Bentonite	MONITORING WELL NA	OTHER (SPECIFY) NA	

LOCATION SKETCH/COMMENTS

Hole Plug

SCALE:

NOT TO SCALE



PROJECT

RVAAP Phase I RI

HOLE NO.

L1255-016-0325-50

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER: **LL12-16**

SHEET: **2 of 2**

PROJECT: **RUAAP Phase I**

INSPECTOR: **M. Deegan & Martin Condit**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.5	Brown to Greyish Top soil - Sand and silt				
	1.0	Silty clay	pppm	NA	LL255- #16- #325- 50	
	1.5					
	2.0	End of Boring				

PROJECT: **RUAAP Phase I RT**

HOLE NO.: **LL1255-#16 32**

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER L1255-017	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RUAAP Phase I RI			4. LOCATION LL12 / RV41P		
5. NAME OF DRILLER H. Deacer			6. MANUFACTURERS DESIGNATION OF DRILL NA		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger w/ 5 foot extension		8. HOLE LOCATION SEE SKETCH BELOW.			
		9. SURFACE ELEVATION NA		10. DATE STARTED 7/26/96	
				11. DATE COMPLETED 7/26/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NA			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 0 9 ft 0 in		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED <input checked="" type="checkbox"/>		UNDISTURBED <input checked="" type="checkbox"/>	
19. TOTAL NUMBER OF CORE BOXES 0					
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC <input checked="" type="checkbox"/>		METALS <input checked="" type="checkbox"/>	
		OTHER (SPECIFY) Explosives (1)		OTHER (SPECIFY) NA	
21. TOTAL CORE RECOVERY % NA					
22. DISPOSITION OF HOLE Abandoned		BACKFILLED <input checked="" type="checkbox"/>		MONITORING WELL <input checked="" type="checkbox"/>	
		OTHER (SPECIFY) NA		23. SIGNATURE OF INSPECTOR <i>[Signature]</i>	
LOCATION SKETCH/COMMENTS				SCALE: Not to Scale	
PROJECT RUAAP Phase I RI				HOLE NO. L1255-017	

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER
L1255-017
SHEET
2 of 2

PROJECT **RVAAP Phase I RE**

INSPECTOR **M. Driscoll & U. G. ...**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.5 0.9	Brown to Tan Sand and Silt w/ G-silt & brick Refusal on Rocks	5.2ppm barite	NA	L1255- 017- 0326- 50	

PROJECT **RVAAP Phase I RI**

HOLE NO. **L1255-017 48**

HTRW DRILLING LOG		DISTRICT			HOLE NUMBER	
1. COMPANY NAME SAIC		NASHVILLE			L1255-018	
2. DRILL SUBCONTRACTOR NA					SHEET 1 OF 2 SHEETS	
3. PROJECT RVAAP Phase I RI			4. LOCATION LL12, ES905-03			
5. NAME OF DRILLER M. Deacon			6. MANUFACTURERS DESIGNATION OF DRILL NA			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger w/ 5 ft extension			8. HOLE LOCATION L1255-018			
			9. SURFACE ELEVATION NA			
			10. DATE STARTED 25 JUL 96		11. DATE COMPLETED 25 JUL 96	
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NA			
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 2.0 ft BGS			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED NA	UNDISTURBED NA	19. TOTAL NUMBER OF CORE BOXES 0		
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC NA	METALS NA	OTHER (SPECIFY) ERASIVES (1)	OTHER (SPECIFY) NA	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY % NA		22. DISPOSITION OF HOLE ABANDONED w/ Hole Plug	MONITORING WELL NA	OTHER (SPECIFY) NA	23. SIGNATURE OF INSPECTOR <i>Mike [Signature]</i>	
LOCATION SKETCH/COMMENTS				SCALE: NA		
<p>The sketch shows a horizontal line labeled 'DITCH' at the top. Below it, a large scribbled area is labeled 'Large clump of trees'. To the right of the trees, an 'X' marks the location of the well, labeled 'L1255-018'. At the bottom of the sketch, a horizontal line with vertical tick marks is labeled 'Power lines'. On the far left, there is a vertical line with some scribbles, possibly representing a road or boundary.</p>						
PROJECT RVAAP Phase I RI				HOLE NO. L1255-018		

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER: **L1255-Ø18**

PROJECT: **RVAAP Phase I RI**

INSPECTOR: **H. ... & M. ...**

SHEET: **2 of 2**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.5	Brownish to Greyish Sand and Silt w/ Gravel			L1255-Ø18-Ø327-50	
	1.0					
	1.5	Turns to Silty clay	Ø PPM			
	2.0	Clay Red and Gray Silt 5:14				
		End of Boring				

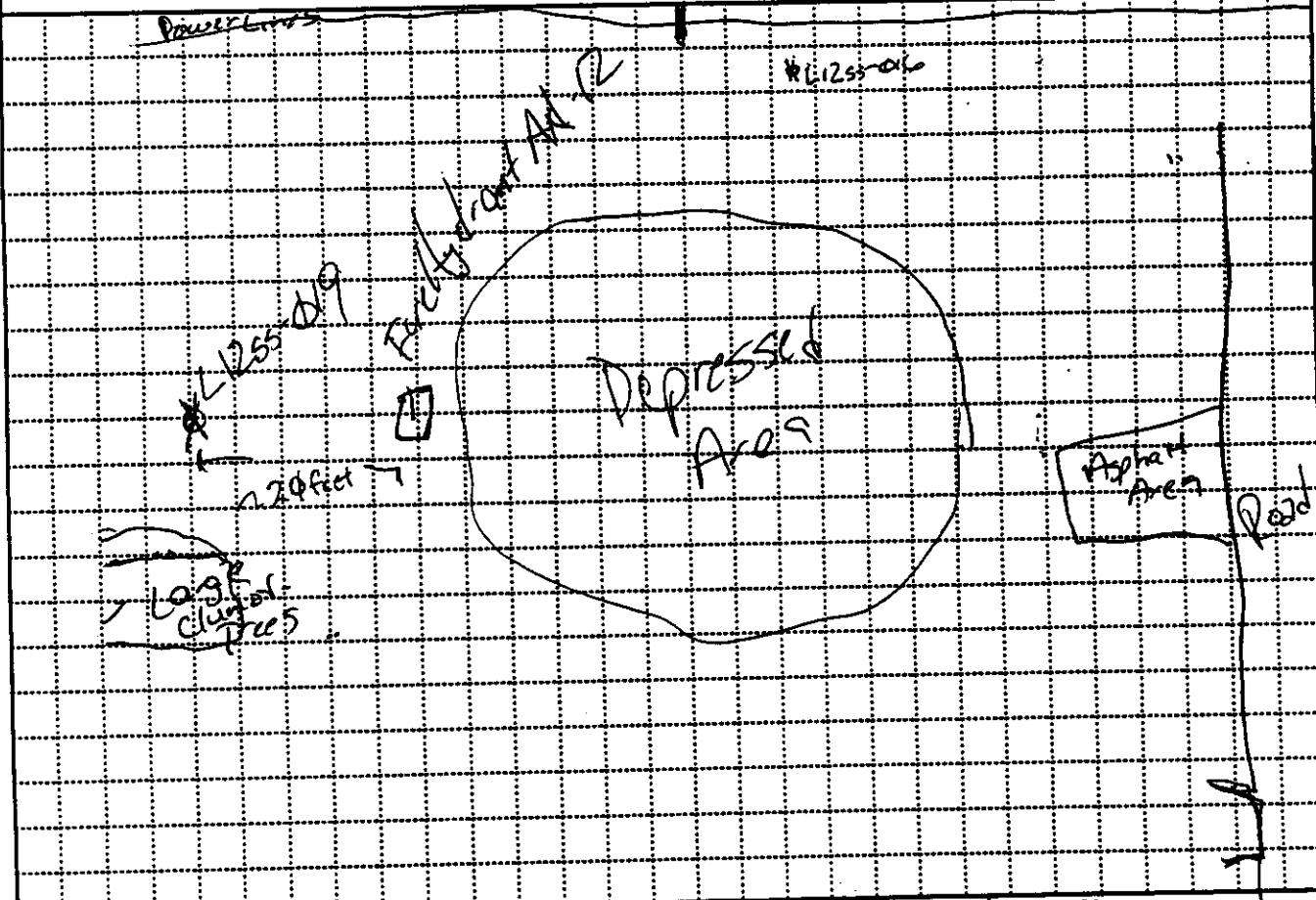
PROJECT: **RVAAP Phase I RI**

HOLE NO.: **L1255-Ø18 36**

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER L1255-019	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR		SHEET SHEETS 1 of 2	
3. PROJECT RUAAP Phase I RI			4. LOCATION Load Line 12, FJ945-03		
5. NAME OF DRILLER M. Deacon			6. MANUFACTURER'S DESIGNATION OF DRILL N.A.		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger w/ 5 foot extension		8. HOLE LOCATION FJ945-03		9. SURFACE ELEVATION NA	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NA		11. DATE COMPLETED 25 Jul 96	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		10. DATE STARTED 25 Jul 96	
14. TOTAL DEPTH OF HOLE φ.8ft BLS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		19. TOTAL NUMBER OF CORE BOXES 0	
18. GEOTECHNICAL SAMPLES		DISTURBED 4	UNDISTURBED 0	20. SAMPLES FOR CHEMICAL ANALYSIS	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC (1)	METALS (1)	OTHER (SPECIFY) Explosives (1)	OTHER (SPECIFY) NA
21. TOTAL CORE RECOVERY % NA		22. DISPOSITION OF HOLE Abandoned		23. SIGNATURE OF INSPECTOR <i>M. Deacon</i>	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED w/ Hole Plug	MONITORING WELL NA	OTHER (SPECIFY) NA	

LOCATION SKETCH/COMMENTS

SCALE: **NOT to Scale**



PROJECT
RUAAP Phase I RI

HOLE NO.
L1255-019

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER
L1255-019
SHEET
2 of 2

PROJECT **RVAAP Phase I RI**

INSPECTOR **H. DeLeon & U. Conner**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.5	Brown Sand some silt			L1255-	
	1.6	w/ Gravel			019-	
		Refusal on Rock			0328	
					50	

PROJECT **RVAAP Phase I RI**

HOLE NO. **L1255-019**

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER L1255-020	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP Phase I RI			4. LOCATION LL12, FJ905-03		
5. NAME OF DRILLER M. Deacon			6. MANUFACTURERS DESIGNATION OF DRILL NA		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS Hand Auger w/ 5 foot extension		8. HOLE LOCATION SEE SKETCH BELOW			
		9. SURFACE ELEVATION			
		10. DATE STARTED 25 Jul 96		11. DATE COMPLETED 25 Jul 96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NA			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 2.0 ft BES		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED 0	UNDISTURBED 0	19. TOTAL NUMBER OF CORE BOXES 0	
20. SAMPLES FOR CHEMICAL ANALYSIS (1)		VOC 0	METALS (1)	OTHER (SPECIFY) (1) EXPLOSIVES	21. TOTAL CORE RECOVERY % NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED w/ Hole Plug	MONITORING WELL NA	OTHER (SPECIFY) NA	23. SIGNATURE OF INSPECTOR M. Deacon
LOCATION SKETCH/COMMENTS				SCALE: N/A	
PROJECT RVAAP Phase I RI				HOLE NO. L1255-020	

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER
L1255-020

PROJECT
RVAAP

INSPECTOR
M. DeLeon & H. Grimes

SHEET
2 of 2

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0.5	Silty Sand Brown			LL1755- 020-	
	1.4	Clay (Silty) Grey, Red			0329-	
	1.5				50	
	2.0	End of Boring				

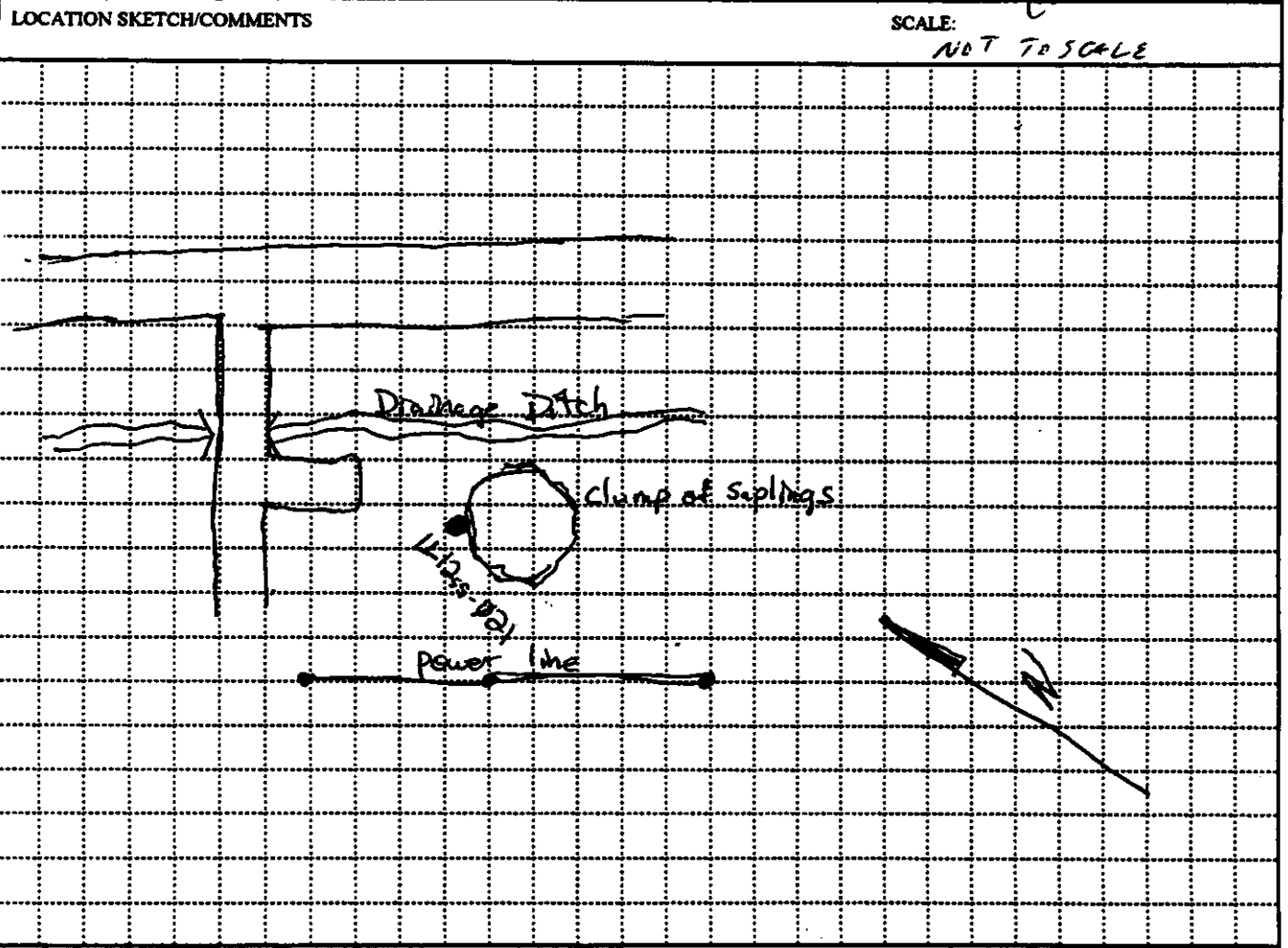
PROJECT

RVAAP Phase I RI

HOLE NO.

L1255-020 38

HTRW DRILLING LOG		DISTRICT <i>Nashville</i>	HOLE NUMBER <i>LL125-021</i>	
1. COMPANY NAME <i>SAIC</i>		2. DRILL SUBCONTRACTOR <i>N/A</i>		SHEET SHEETS <i>1 of 2</i>
3. PROJECT <i>RVAAP Phase 1 RI</i>		4. LOCATION <i>LL12 / RVAAP</i>		
5. NAME OF DRILLER <i>M. Cramer</i>		6. MANUFACTURERS DESIGNATION OF DRILL <i>HAND AUGER</i>		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>Hand auger (3" S)</i>		8. HOLE LOCATION <i>See SKETCH BELOW</i>		
		9. SURFACE ELEVATION <i>NA</i>		
		10. DATE STARTED <i>07/26/96</i>	11. DATE COMPLETED <i>07/26/96</i>	
12. OVERBURDEN THICKNESS <i>NA</i>		15. DEPTH GROUNDWATER ENCOUNTERED <i>N/A</i>		
13. DEPTH DRILLED INTO ROCK <i>NA</i>		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>		
14. TOTAL DEPTH OF HOLE <i>2.0 FT BGS</i>		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>N/A</i>		
18. GEOTECHNICAL SAMPLES <i>NA</i>	DISTURBED <i>NA</i>	UNDISTURBED <i>NA</i>	19. TOTAL NUMBER OF CORE BOXES <i>NA</i>	
20. SAMPLES FOR CHEMICAL ANALYSIS <i>See Sample CXC 5</i>	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
22. DISPOSITION OF HOLE <i>Abandoned</i>	BACKFILLED <i>NA</i>	MONITORING WELL <i>NA</i>	OTHER (SPECIFY) <i>Bentonite</i>	21. TOTAL CORE RECOVERY % <i>NA</i>
			23. SIGNATURE OF INSPECTOR <i>[Signature]</i>	



PROJECT <i>RVAAP Phase 1 RI</i>	HOLE NO. <i>LL125-021</i>
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HTRW DRILLING LOG

HOLE NUMBER
L1255-021

SHEET
2 of 2

PROJECT

RVAAP Phase I

INSPECTOR

M. DeLeon

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	Brownish Sandy Silt turning to Silty Clay. Greyish				
	20					

PROJECT

RVAAP Phase I RF

C-506

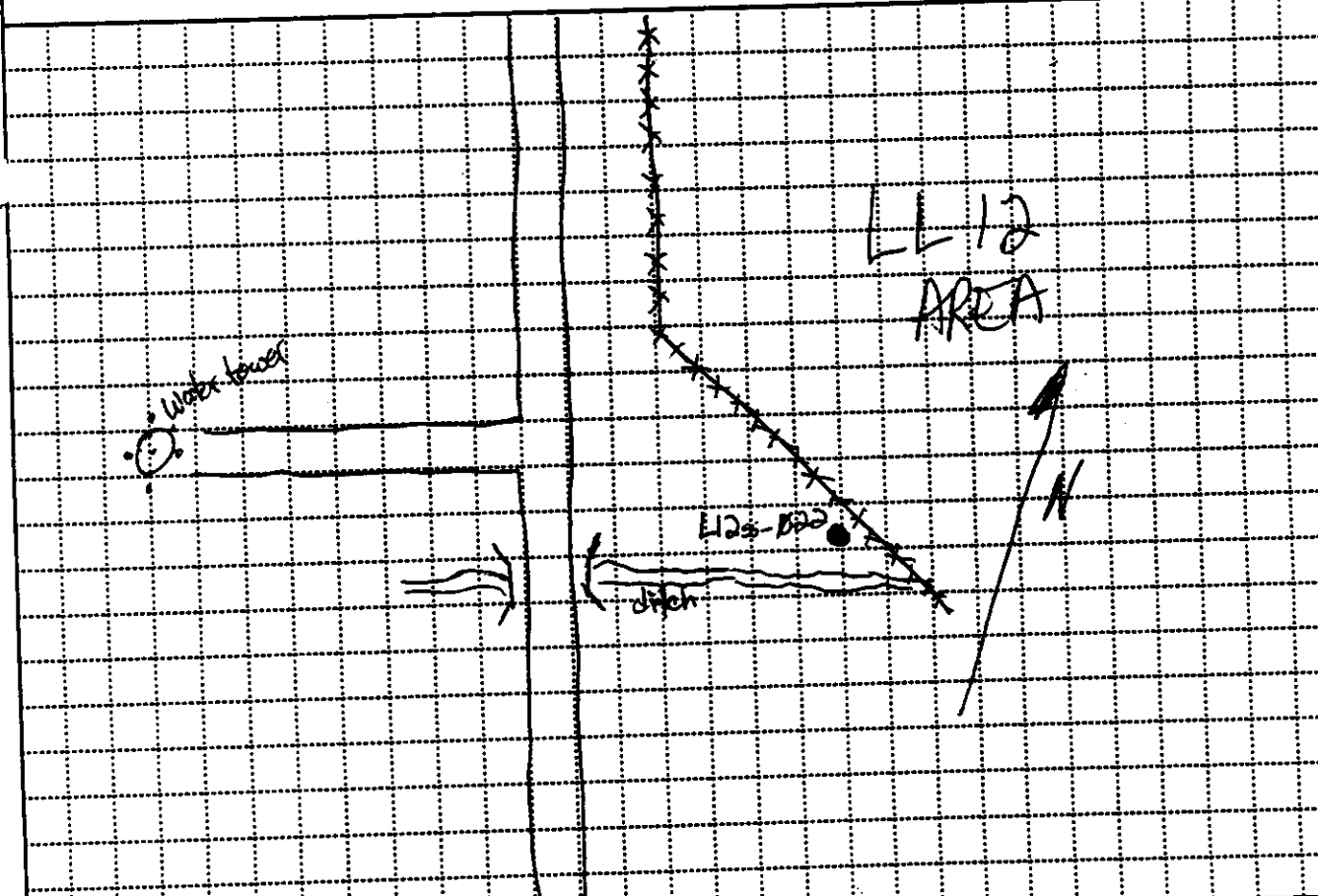
HOLE NO.

L1255-021

40

HTRW DRILLING LOG		DISTRICT NASHVILLE	MOLE NUMBER L1255-022
1. COMPANY NAME SALC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
PROJECT RUAAP Phase I RI		4. LOCATION LL12 R.V. #1	
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL Hand auger	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS hand auger		8. HOLE LOCATION See Sketch Below	
		9. SURFACE ELEVATION NA	
		10. DATE STARTED 7/20/96	11. DATE COMPLETED 7/26/96
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW	
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 2 ft BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
18. GEOTECHNICAL SAMPLES		19. TOTAL NUMBER OF CORE BOXES	
DISTURBED NA		UNDISTURBED NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY %	
VOC NA		METALS NA	
OTHER (SPECIFY) See Sample CEC		OTHER (SPECIFY) NA	
22. DISPOSITION OF HOLE Abandoned		23. SIGNATURE OF INSPECTOR 	
BACKFILLED NA		MONITORING WELL NA	
OTHER (SPECIFY) NA		OTHER (SPECIFY) NA	

LOCATION SKETCH/COMMENTS SCALE: **NOT TO SCALE**



PROJECT RUAAP Phase I RI	HOLE NO. L1255-022(b) <small>(Proponent: CECW-EG)</small>
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HTRW DRILLING LOG

HOLE NUMBER
L12ss-022
SHEET 2 of 2

PROJECT RUAAP Phase I RI

INSPECTOR J. [Signature]

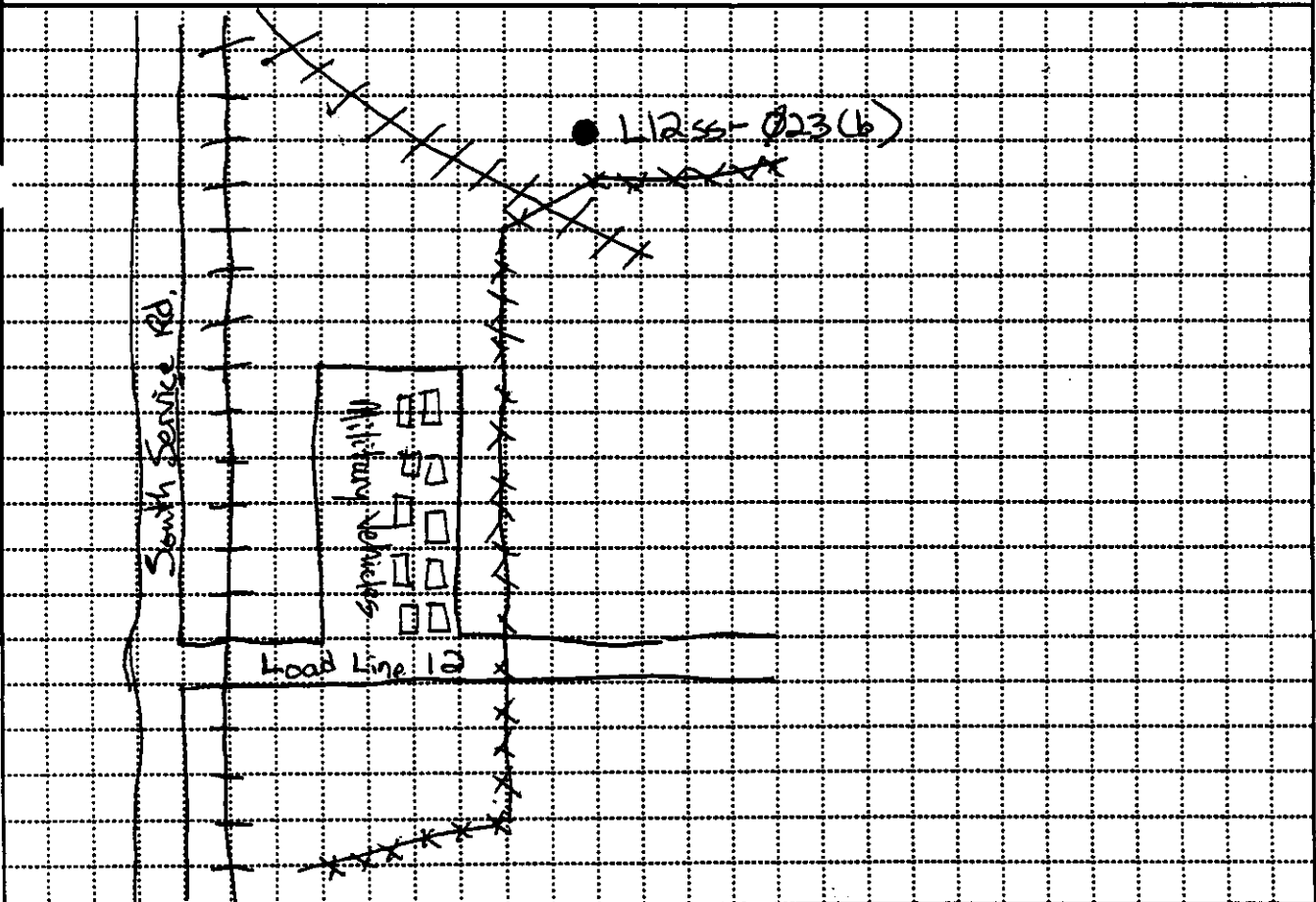
ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	Dark Brown topsoil				
	0.1					
	0.2	Grey/Brown Silty clay				
	0.3					
	0.4					
	0.5					
	0.6					
	0.7					
	0.8					
	0.9					
	1.0					
	1.1					
	1.2					
	1.3					
	1.4					
	1.5					
	1.6					
	1.7					
	1.8					
	1.9					
	2.0					
	2.1					
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	2.7					
	2.8					
	2.9					
	3.0					
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	3.2					
	3.3					
	3.4					
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	3.6					
	3.7					
	3.8					
	3.9					
	4.0					
	4.1					
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	4.8					
	4.9					
	5.0					
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	5.4					
	5.5					
	5.6					
	5.7					
	5.8					
	5.9					
	6.0					
	6.1					
	6.2					
	6.3					
	6.4					
	6.5					
	6.6					
	6.7					
	6.8					
	6.9					
	7.0					
	7.1					
	7.2					
	7.3					
	7.4					
	7.5					
	7.6					
	7.7					
	7.8					
	7.9					
	8.0					
	8.1					
	8.2					
	8.3					
	8.4					
	8.5					
	8.6					
	8.7					
	8.8					
	8.9					
	9.0					
	9.1					
	9.2					
	9.3					
	9.4					
	9.5					
	9.6					
	9.7					
	9.8					
	9.9					
	10.0					

PROJECT RUAAP Phase I RI

HOLE NO. L12ss-022 82

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER L1255-023
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 OF 2
3. PROJECT RUAAP Phase 1 RT		4. LOCATION LL12 / RWAP	
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL HAND AUGER	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION SEE SKETCH BELOW	
3" HAND AUGER		9. SURFACE ELEVATION NA	
12. OVERBURDEN THICKNESS NA		10. DATE STARTED 7/28/94	11. DATE COMPLETED 7/28/94
13. DEPTH DRILLED INTO ROCK NA		15. DEPTH GROUNDWATER ENCOUNTERED 110 GW	
14. TOTAL DEPTH OF HOLE 24" BGS		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
18. GEOTECHNICAL SAMPLES		19. TOTAL NUMBER OF CORE BOXES NA	
DISTURBED NA		UNDISTURBED NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY % NA	
See Sample Log		VOC	
22. DISPOSITION OF HOLE		23. SIGNATURE OF SUPERVISOR	
Abandoned		[Signature]	
Backfilled w/ Hole Plug		MONITORING WELL	
NA		OTHER (SPECIFY) NA	

LOCATION SKETCH/COMMENTS SCALE: NOT TO SCALE



PROJECT RUAAP Phase 1 RT	HOLE NO. L1255-023(b)
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HTRW DRILLING LOG

HOLE NUMBER **L1255-023**

PROJECT

ROAAP Phase I RI

INSPECTOR

J. DeLeon

SHEET

2 of 2

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0					
	12 in.	Brown silt/sand				
	24 in.	Grey reddish silty/clay				

PROJECT

ROAAP Phase I RI

HOLE NO.

L1255-023(b)**ed**

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER L1255-024(b)	
1. COMPANY NAME SALC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RUAAP Phase I RI			4. LOCATION LL12/RVAAP		
5. NAME OF DRILLER M. Deacon			6. MANUFACTURERS DESIGNATION OF DRILL HAND AUGER		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 5.55 HAND AUGER w/ 5 FOOT EXTENSION			8. HOLE LOCATION SEE SKETCH BELOW		
			9. SURFACE ELEVATION NA		
			10. DATE STARTED 7/27/96		11. DATE COMPLETED 7/27/96
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NA (NO GW)		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 2.0 FT + BGS			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES		DISTURBED 0	UNDISTURBED 0	19. TOTAL NUMBER OF CORE BOXES 0	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC NA	METALS NA	OTHER (SPECIFY) OTHER METALS	OTHER (SPECIFY) Background
21. TOTAL CORE RECOVERY % NA		OTHER (SPECIFY) NA	23. SIGNATURE OF INSPECTOR M. Deacon		
22. DISPOSITION OF HOLE Abandoned		BACKFILLED W/ Hoerle	MONITORING WELL NA	OTHER (SPECIFY) NA	23. SIGNATURE OF INSPECTOR M. Deacon
LOCATION SKETCH/COMMENTS				SCALE:	
PROJECT RUAAP Phase I RI				HOLE NO. L1255-024(b)	

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER: L1255 - 024(b)

SHEET: 2 of 2

PROJECT

RUAAP Phase I RI

INSPECTOR

M. D. ... & N. ...

ELEV (A)

DEPTH (B)

DESCRIPTION OF MATERIALS (C)

FIELD SCREENING RESULTS (D)

GEOTECH SAMPLE OR CORE BOX NO (E)

ANALYTICAL SAMPLE NO. (F)

REMARKS (G)

0
1ft
2ft

Brown sandy topsoil

tan, brown, black mottled silty clay

PROJECT

RUAAP Phase I RI

HOLE NO.

L1255 - 024(b)

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER L1255-040	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RVAAP Phase I RI			4. LOCATION LL12/AV440		
5. NAME OF DRILLER M. Deacon			6. MANUFACTURERS DESIGNATION OF DRILL NA (hand auger)		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 55 HAND AUGER w/ 5 FOOT EXTENSION		8. HOLE LOCATION SEE SKETCH BELOW			
		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/27/96		11. DATE COMPLETED 7/28/96	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NA			
13. DEPTH DRILLED INTO ROCK 1 1/2		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 0.8 ft BES		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED 0		UNDISTURBED 0	
19. TOTAL NUMBER OF CORE BOXES 0		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY %	
NA		VOC NA		METALS 0	
0		OTHER (SPECIFY) 2 Exposure		OTHER (SPECIFY) NA	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED NA		MONITORING WELL NA	
		OTHER (SPECIFY) Beaten to		23. SIGNATURE OF DRILLER <i>M. Deacon</i>	
LOCATION SKETCH/COMMENTS			SCALE:		
PROJECT RVAAP Phase I RI			HOLE NO. L1255-040		

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER
L1255-040

SHEET
2 of 2

PROJECT
RUAAP Phase I RI

INSPECTOR
H. Deacon & H. Grant

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	60	Lt. Grey Sand Visibly Discolored w/ Greenish Pellets Brown Sand and Silt Refusal	Φppm	NA	L1255- 040- 351- 30	L1255-040-352-FD 15g duplicate

PROJECT
RUAAP Phase I RI

HOLE NO.
L1255-040

76

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER L1255-041	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR N/A		SHEET SHEETS 1 of 2	
3. PROJECT RUAAP Phase 1 RI			4. LOCATION LL12/RV44P		
5. NAME OF DRILLER M. DEACON			6. MANUFACTURERS DESIGNATION OF DRILL N/A		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS HAND AUGER W/ 5 FOOT EXTENSION			8. HOLE LOCATION SEE SKETCH @ LL12-040 Log.		
			9. SURFACE ELEVATION NA		
			10. DATE STARTED 7/27/96		11. DATE COMPLETED 7/27/96
12. OVERBURDEN THICKNESS NA			15. DEPTH GROUNDWATER ENCOUNTERED NA		
13. DEPTH DRILLED INTO ROCK NA			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 0.5 ft BGS			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES		DISTURBED 0	UNDISTURBED 0	19. TOTAL NUMBER OF CORE BOXES 0	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC (1)	METALS (1)	OTHER (SPECIFY) (1) Exposure	OTHER (SPECIFY) not
		OTHER (SPECIFY) not	OTHER (SPECIFY) not	21. TOTAL CORE RECOVERY % NA	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED W/ Hole Plug	MONITORING WELL not	OTHER (SPECIFY) not	23. SIGNATURE OF INSPECTOR <i>[Signature]</i>
LOCATION SKETCH/COMMENTS See LL12-040 for sketch showing location of LL1255-041.					
SCALE: N/A					
See L1255-040					
PROJECT RUAAP Phase 1 RI					HOLE NO. L1255-041

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER: **L1255-041**

PROJECT: **RUAAP Phase I RT**

INSPECTOR: **M. Decker / J. P. ...**

SHEET: **2 of 2**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GROTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	<div style="position: relative; height: 100px;"> 05 </div>	Sand and Silt Olive to Lt. Grey w/ Gravel Refusal	ϕ	N/A	L1255- 041- 035350	

PROJECT: **RUAAP Phase I RT**

HOLE NO.: **L1255-041 78**

HTRW DRILLING LOG		DISTRICT Nashville		HOLE NUMBER L125-042	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET 1 OF 2 SHEETS	
3. PROJECT BUAAP PHASE I RI			4. LOCATION L12/RVAD		
5. NAME OF DRILLER NA			6. MANUFACTURER'S DESIGNATION OF DRILL Hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION See Sketch Below			
3" HAND AUGER		9. SURFACE ELEVATION NA			
12. OVERBURDEN THICKNESS NA		10. DATE STARTED 7/29/00		11. DATE COMPLETED 7/29/04	
13. DEPTH DRILLED INTO ROCK NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
14. TOTAL DEPTH OF HOLE 12 in BGS.		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
18. GEOTECHNICAL SAMPLES		19. TOTAL NUMBER OF CORE BOXES NA		21. TOTAL CORE RECOVERY NA %	
20. SAMPLES FOR CHEMICAL ANALYSIS NA		DISTURBED NA		UNDISTURBED NA	
22. DISPOSITION OF CORES Abandoned		VOC NA		METALS NA	
See sketch log		OTHER (SPECIFY) Bentonite		OTHER (SPECIFY)	
BACKFILLED NA		MONITORING WELL NA		23. SIGNATURE OF INSPECTOR <i>[Signature]</i>	

LOCATION SKETCH/COMMENTS

SCALE:

See sheet for Hole # L1255-044

PROJECT
BUAAP Phase I RI

HOLE NO.
L1255-042
(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER L1255-042

PROJECT RVAAP Phase I RI

INSPECTOR J. Deason

SHEET 2 of 2

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	lt. brown / brown fill				
	10	refusal				

PROJECT RVAAP Phase I RI

HOLE NO. L1255-042

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER L1255-043	
1. COMPANY NAME SALC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RUAAP Phase I RT			4. LOCATION LL12 / RUAAA		
5. NAME OF DRILLER NA			6. MANUFACTURERS DESIGNATION OF DRILL RUAAA		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION See Sketch Below			
5" Stem Auger w/ 5 foot extension		9. SURFACE ELEVATION NA			
12. OVERBURDEN THICKNESS NA		10. DATE STARTED 7/29/96			
13. DEPTH DRILLED INTO ROCK NA		11. DATE COMPLETED 7/29/96			
14. TOTAL DEPTH OF HOLE 2.0 ft BGS		15. DEPTH GROUNDWATER ENCOUNTERED NA (NO GW)			
18. GEOTECHNICAL SAMPLES		19. TOTAL NUMBER OF CORE BOXES NA		21. TOTAL CORE RECOVERY % NA	
20. SAMPLES FOR CHEMICAL ANALYSIS		DISTURBED NA		UNDISTURBED NA	
22. DISPOSITION OF HOLE Abandoned		VOC NA		METALS (P)	
BACKFILLED NA		MONITORING WELL NA		OTHER (SPECIFY) Explosives	
23. SIGNATURE OF DISTRICT ENGINEER <i>[Signature]</i>		OTHER (SPECIFY) NA		OTHER (SPECIFY) NA	
LOCATION SKETCH/COMMENTS				SCALE: Not to Scale	
PROJECT RUAAP Phase I RT				HOLE NO. L1255-043	

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)


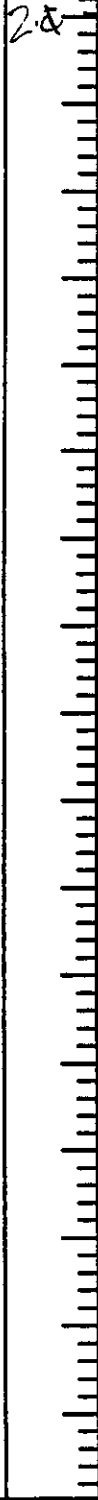
HTRW DRILLING LOG

HOLE NUMBER: **41255-043**

PROJECT: **RUAAP Phase I RI**

INSPECTOR: **M. Dineen & M. Gaur**

SHEET: **2 of 2**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	05 	LT BROWN TO TAN SAND AND SILT w/ Gravel	0 ppm		41255-043-0355-50	
	20 					

PROJECT: **RUAAP Phase I RI**

HOLE NO.: **41255-043**

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER L1255-044	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR NA		SHEET SHEETS 1 OF 2	
3. PROJECT RUAAP Phase I RI			4. LOCATION LL12/RVAAF		
5. NAME OF DRILLER			6. MANUFACTURERS DESIGNATION OF DRILL hand auger		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION See Sketch Below			
3" SS. HAND AUGER		9. SURFACE ELEVATION NA			
		10. DATE STARTED 7/29/94		11. DATE COMPLETED 7/29/94	
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW			
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA			
14. TOTAL DEPTH OF HOLE 6" BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		DISTURBED NA		UNDISTURBED NA	
19. TOTAL NUMBER OF CORE BOXES NA		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY % NA	
NA		VOC		METALS	
See Sample Log		OTHER (SPECIFY)		OTHER (SPECIFY)	
22. DISPOSITION OF HOLE Handled		BACKFILLED NA		MONITORING WELL NA	
		OTHER (SPECIFY) Reinstated		23. SIGNATURE OF INSPECTOR <i>[Signature]</i>	
LOCATION SKETCH/COMMENTS				SCALE: NOT TO SCALE	
<p>The sketch shows a building footprint on a grid. A 'boxed platform' is located on the roof. A 'hole in wall' is indicated on the right side. A marker '1255-044' is shown near the platform. A north arrow points towards the top right. The text 'Bldg 904' is written above the building.</p>					
PROJECT RUAAP Phase I RI				HOLE NO. L1255-044	

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER *L125-044*

PROJECT *ROAAP Phase I RI*

INSPECTOR *M. Decker*

SHEET *2 of 2*

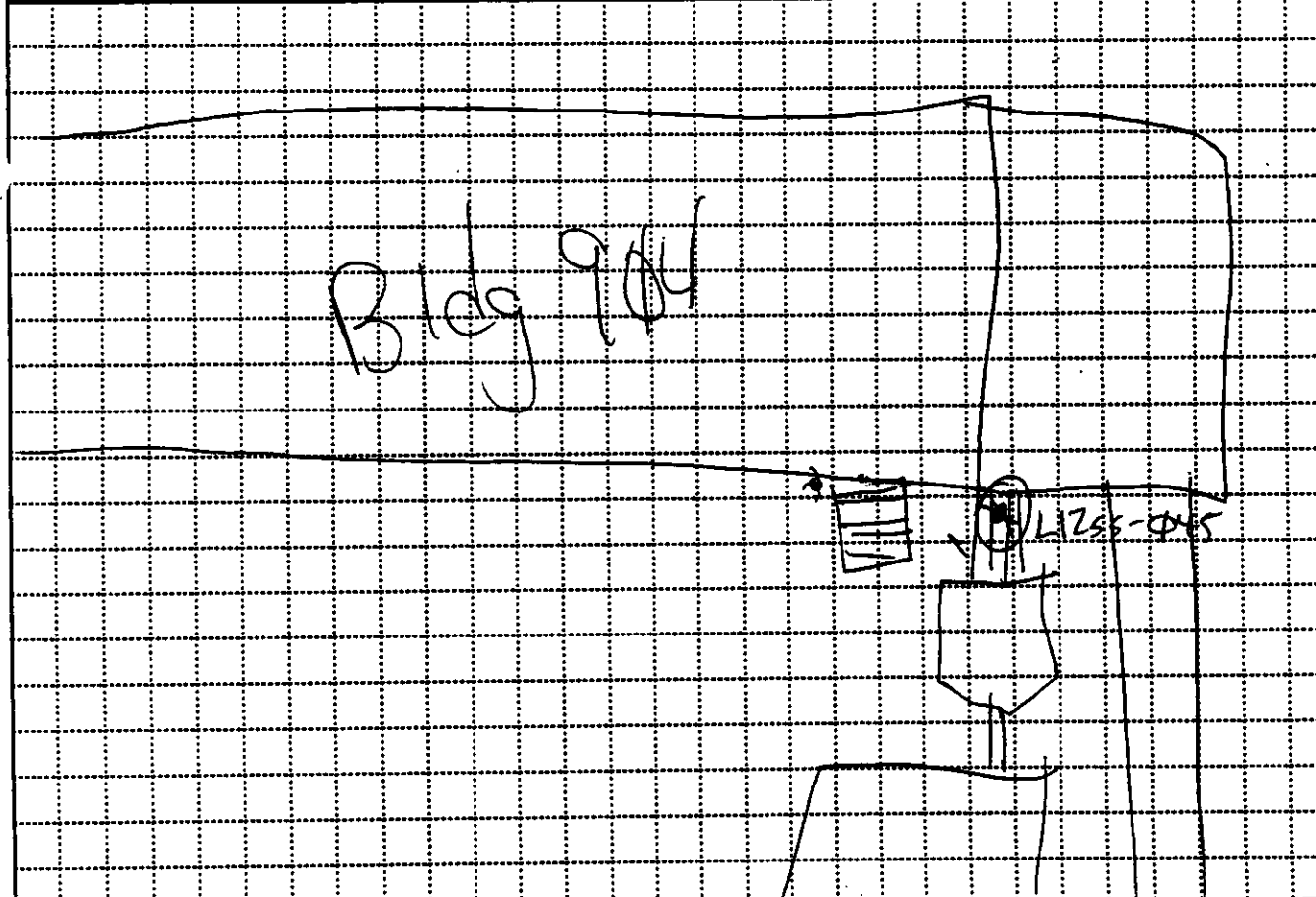
ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	<div style="position: relative; height: 100%;"> 6 in </div>	<p><i>Brown discolored Soil/Fill</i></p>				

PROJECT *ROAAP Phase I RI*

HOLE NO. *L125-044 84*

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER L1255-044 045 <i>once 7/29/96</i>	
1 COMPANY NAME SALC		2 DRILL SUBCONTRACTOR N/A		SHEET SHEET 1 OF 2	
3 PROJECT RUAAP Phase I RI			4 LOCATION LL12/RUAAF		
5 NAME OF DRILLER NA			6 MANUFACTURERS DESIGNATION OF DRILL hand auger		
7 SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" SS hand auger		8 HOLE LOCATION See Sketch Below			
9 SURFACE ELEVATION NA					
10 DATE STARTED 7/29/96			11 DATE COMPLETED 7/29/96		
12 OVERBURDEN THICKNESS NA			15 DEPTH GROUNDWATER ENCOUNTERED NA (NO GW)		
13 DEPTH DRILLED INTO ROCK NA			16 DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14 TOTAL DEPTH OF HOLE 0.5 FT BES			17 OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18 GEOTECHNICAL SAMPLES		DISTURBED NA	UNDISTURBED NA	19 TOTAL NUMBER OF CORE BOXES NA	
20 SAMPLES FOR CHEMICAL ANALYSIS NA		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)
21 TOTAL CORE RECOVERY NA		OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)
22 DISPOSITION OF HOLE Abandoned		BACKFILLED NA	MONITORING WELL NA	OTHER (SPECIFY) Bentonite	23 SIGNATURE OF INSPECTOR <i>[Signature]</i>

LOCATION SKETCH/COMMENTS SCALE: **Not to Scale**



PROJECT RUAAP Phase I RI	HOLE NO. L1255-044 045 <i>once 7/29/96</i>
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HTRW DRILLING LOG		DISTRICT	HOLE NUMBER
1. COMPANY NAME SAIC		NASHVILLE	LL1255-047
2. PROJECT RVADP		3. DRILL SUBCONTRACTOR NA	SHEET SHEETS 1 of 2
4. NAME OF DRILLER NA		4. LOCATION LL1255 PLADP	
5. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand drilled		6. MANUFACTURER'S DESIGNATION OF DRILL Krohn Riggs	
7. HOLE LOCATION SEE SKETCH BELOW		8. SURFACE ELEVATION NA	
9. DATE STARTED 08/29/96		10. DATE COMPLETED 08/29/96	
11. OVERBURDEN THICKNESS NA		12. DEPTH GROUNDWATER ENCOUNTERED NO GW	
13. DEPTH DRILLED INTO ROCK NA		14. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
15. TOTAL DEPTH OF HOLE 2.9 FT (BGS)		16. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
17. GEOTECHNICAL SAMPLES DISTURBED NA UNDISTURBED NA		18. TOTAL NUMBER OF CORE BOXES NA	
19. SAMPLES FOR CHEMICAL ANALYSIS VOC METALS OTHER (SPECIFY)		20. TOTAL CORE RECOVERY % NA	
21. DEPOSITION OF HOLE BACKFILLED NA MONITORING WELL NA OTHER (SPECIFY) Boston		22. SIGNATURE OF INSPECTOR M. O'Leary	
LOCATION SKETCH/COMMENTS		SCALE: NOT TO SCALE	
PROJECT RVADP		HOLE NO. LL1255-047	

HTRW DRILLING LOG

HOLE NUMBER
 612-047
 SHEET
 2 of 3

PROJECT		INSPECTOR				
RVAPP		Z. O. Gray				
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH. SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	1	lean gravel	headspace = 0.08		612-047	
	2	silty clay				

PROJECT
 RVAPP

HOLE NO.
 612-047

HTRW DRILLING LOG		DISTRICT <i>NASHVILLE</i>		HOLE NUMBER <i>LL1255-019</i>																									
1. COMPANY NAME <i>SAIC</i>		2. DRILL SUBCONTRACTOR <i>NA</i>		SHEET <i>1</i> OF <i>2</i> SHEETS																									
3. PROJECT <i>RVAAP</i>		4. LOCATION <i>LL12/RVAAP</i>		5. NAME OF DRILLER <i>NA</i>																									
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT <i>3" S.S. hand auger</i>		6. MANUFACTURER'S DESIGNATION OF DRILL <i>Hand Auger</i>		8. HOLE LOCATION <i>See Sketch Below</i>																									
12. OVERBURDEN THICKNESS <i>NA</i>		9. SURFACE ELEVATION <i>NA</i>		10. DATE STARTED <i>08/21/94</i>																									
13. DEPTH DRESSED INTO ROCK <i>NA</i>		11. DATE COMPLETED <i>08/21/94</i>		15. DEPTH GROUNDWATER ENCOUNTERED <i>NO GW</i>																									
14. TOTAL DEPTH OF HOLE <i>1.0ft BGS</i>		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED <i>NA</i>		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <i>NA</i>																									
18. GEOTECHNICAL SAMPLES		19. TOTAL NUMBER OF CORE BOXES		21. TOTAL CORE RECOVERY %																									
20. SAMPLES FOR CHEMICAL ANALYSIS		23. SIGNATURE OF INSPECTOR		22. DISPOSITION OF HOLE																									
<table border="1"> <tr> <th>DISTURBED</th> <th>UNDISTURBED</th> </tr> <tr> <td><i>NA</i></td> <td><i>NA</i></td> </tr> </table>		DISTURBED	UNDISTURBED	<i>NA</i>	<i>NA</i>	<table border="1"> <tr> <th>VOC</th> <th>METALS</th> <th>OTHER (SPECIFY)</th> <th>OTHER (SPECIFY)</th> <th>OTHER (SPECIFY)</th> </tr> <tr> <td><i>NA</i></td> <td><i>NA</i></td> <td><i>NA</i></td> <td><i>NA</i></td> <td><i>NA</i></td> </tr> </table>		VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<table border="1"> <tr> <th>BACKFILLED</th> <th>MONITORING WELL</th> <th>OTHER (SPECIFY)</th> </tr> <tr> <td><i>NA</i></td> <td><i>NA</i></td> <td><i>Backfill</i></td> </tr> </table>		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	<i>NA</i>	<i>NA</i>	<i>Backfill</i>	<i>Methylenedianiline (Methylenedianiline) M. O'Boyle</i>		<i>NA</i>	
DISTURBED	UNDISTURBED																												
<i>NA</i>	<i>NA</i>																												
VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)																									
<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>																									
BACKFILLED	MONITORING WELL	OTHER (SPECIFY)																											
<i>NA</i>	<i>NA</i>	<i>Backfill</i>																											
LOCATION SKETCH/COMMENTS 																													
PROJECT <i>RVAAP</i>				HOLE NO. <i>LL1255-019</i>																									

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER: **LL1255-049**

PROJECT: **RV-24** INSPECTOR: **W. C. D. C. W.** SHEET: **2/2**

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	1	Black sand & gravel Refused @ 1.0'	PPM Hydrocarbons		LL1255-049	

PROJECT: **RV-24**

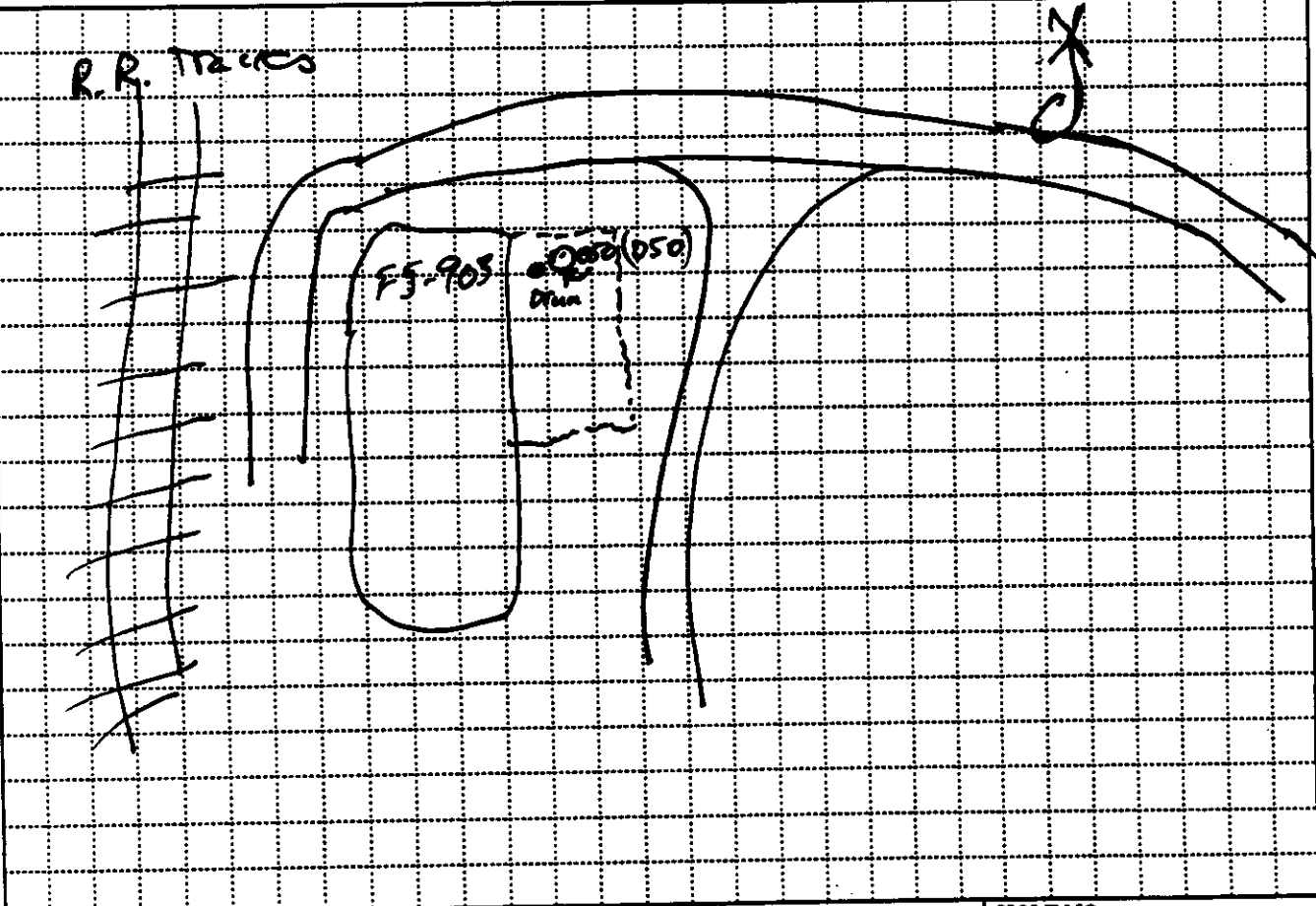
HOLE NO.: **LL1255-049** 916

LL1255-

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER 050
1. COMPANY NAME J.K.		2. DRILL SUBCONTRACTOR NA		SHEET 1 SHEETS OF 2
3. PROJECT RVAAP		4. LOCATION LL12/RVAAP		
5. NAME OF DRILLER NA		6. MANUFACTURERS DESIGNATION OF DRILL Hand Made		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3 1/2" SS. hand auger		8. HOLE LOCATION See Sketch Below		
		9. SURFACE ELEVATION NA		
		10. DATE STARTED 08/20/94		11. DATE COMPLETED 08/20/94
12. OVERBURDEN THICKNESS NA		15. DEPTH GROUNDWATER ENCOUNTERED NO GW		
13. DEPTH DRILLED INTO ROCK NA		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA		
14. TOTAL DEPTH OF HOLE 2.0 ft BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA		
18. GEOTECHNICAL SAMPLES		UNDISTURBED		19. TOTAL NUMBER OF CORE BOXES
DISTURBED NA		NA		NA
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC	METALS	OTHER (SPECIFY)
SEE WASTE LOG		NA	NA	NA
22. DISPOSITION OF HOLE Abandoned		BACKFILLED	MONITORING WELL	OTHER (SPECIFY)
NA		NA	NA	NA
		23. SIGNATURE OF INSPECTOR <i>[Signature]</i>		

LOCATION SKETCH/COMMENTS

SCALE: NOT TO SCALE



PROJECT RVAAP	HOLE NO. LL1255-050
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ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

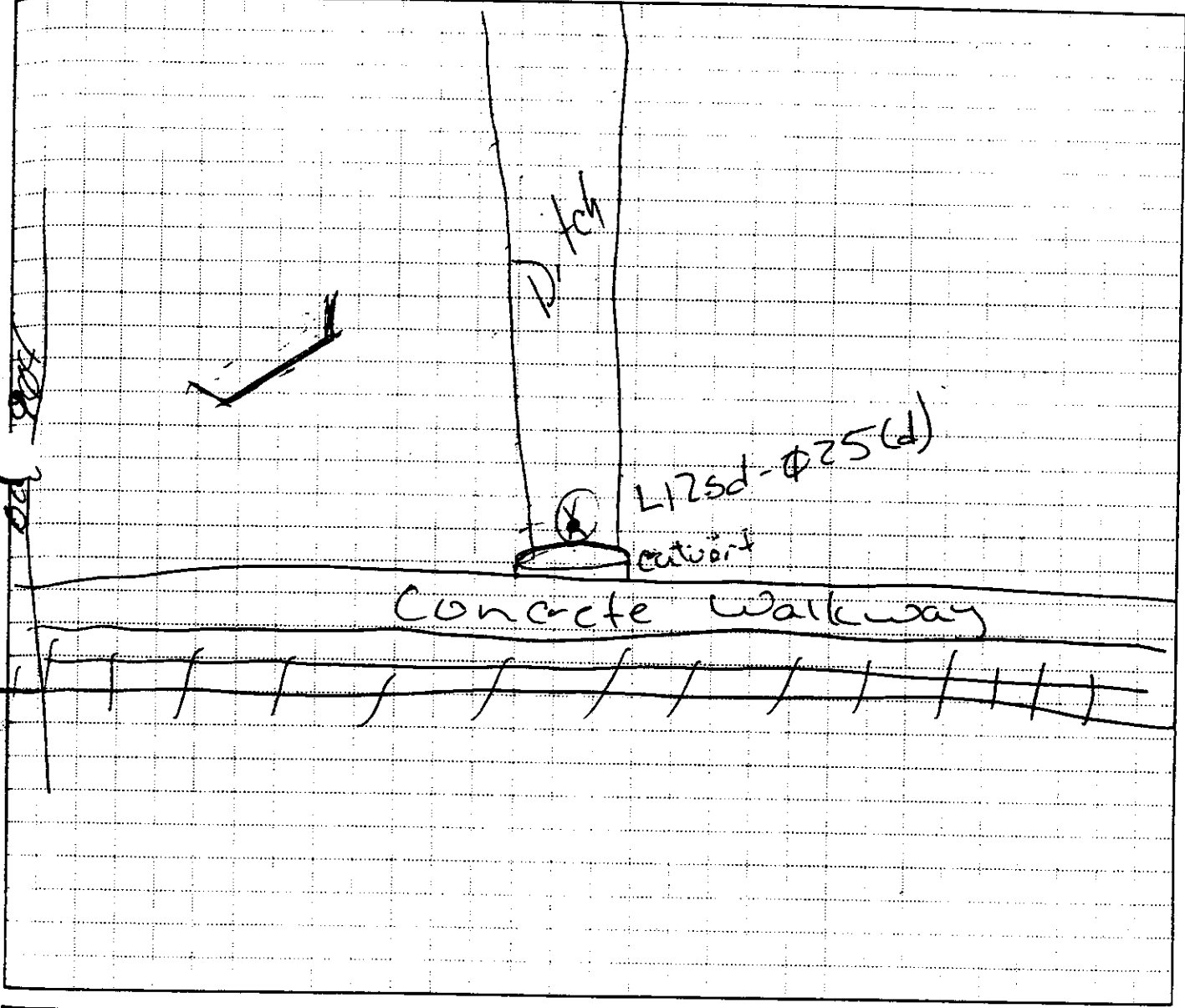
LOAD LINE 12
DRAINAGE SEDIMENT LOGS
LOGBOOK #33

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: L12sd-φ25(d) - φ336-SD	DATE COLLECTED (mm/dd/yy): 7/29/96
SAMPLE LOCATION: LOADLINE 12	TIME COLLECTED (hh:mm): 0910
SAMPLING POINT: L12sd-φ25(d)	DEPTH: φ = φ.5 ft BGS



COMMENTS:
 Moved location to down gradient location.
 Sample taken under 2 inches of water

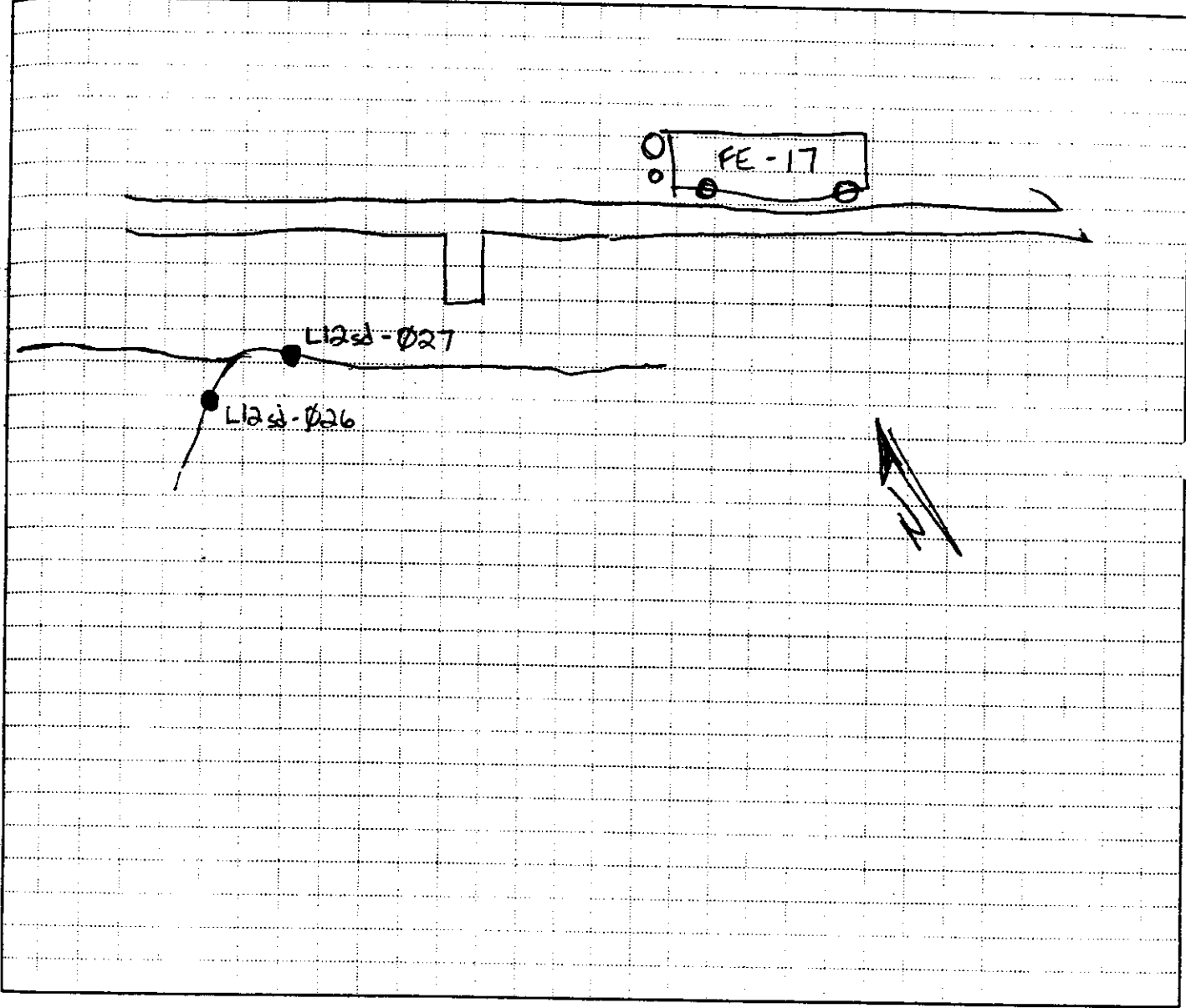
RECORDED BY: <i>M. J. Co</i>	DATE: 7/29/96	QA CHECK BY: <i>M. J. Co</i>	DATE: 7/30/96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: L12sd-026(d)-0337-SD & L12sd-027 (d)-0338-SD	DATE COLLECTED (mm/dd/yyyy): 07/28/96 & 07/29/96
SAMPLE LOCATION: LOAD LINE 12	TIME COLLECTED (hh:mm): 1550 & 0815
SAMPLING POINT: L12sd-026(d) & L12sd-026(d)	DEPTH: 2.00 ft. & 2.0 ft



COMMENTS:

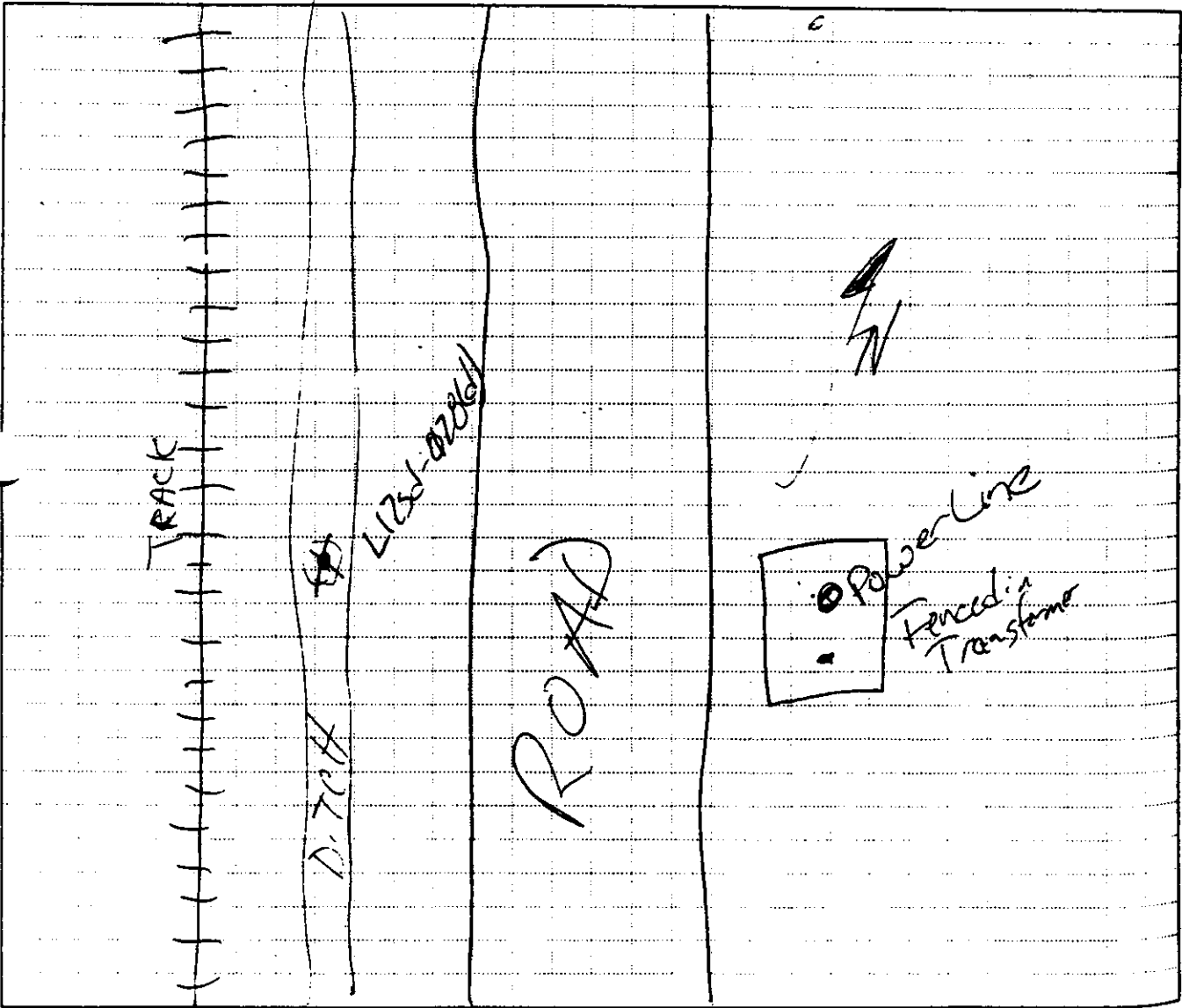
RECORDED BY: <i>[Signature]</i>	DATE: 7/28/96	QA CHECK BY: <i>[Signature]</i>	DATE: 7/30/96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: L12sd-028(d)-0339-SD	DATE COLLECTED (mm/dd/yy): 7/29/96
SAMPLE LOCATION: LOADLINE 12	TIME COLLECTED (hh:mm): 0955
SAMPLING POINT: L12sd-028(d)	DEPTH: 0 - 0.5 ft BGS



COMMENTS:

RECORDED BY: <i>McZ Cre</i>	DATE: 7/29/96	QA CHECK BY: <i>Mike Condon</i>	DATE: 7/30/96
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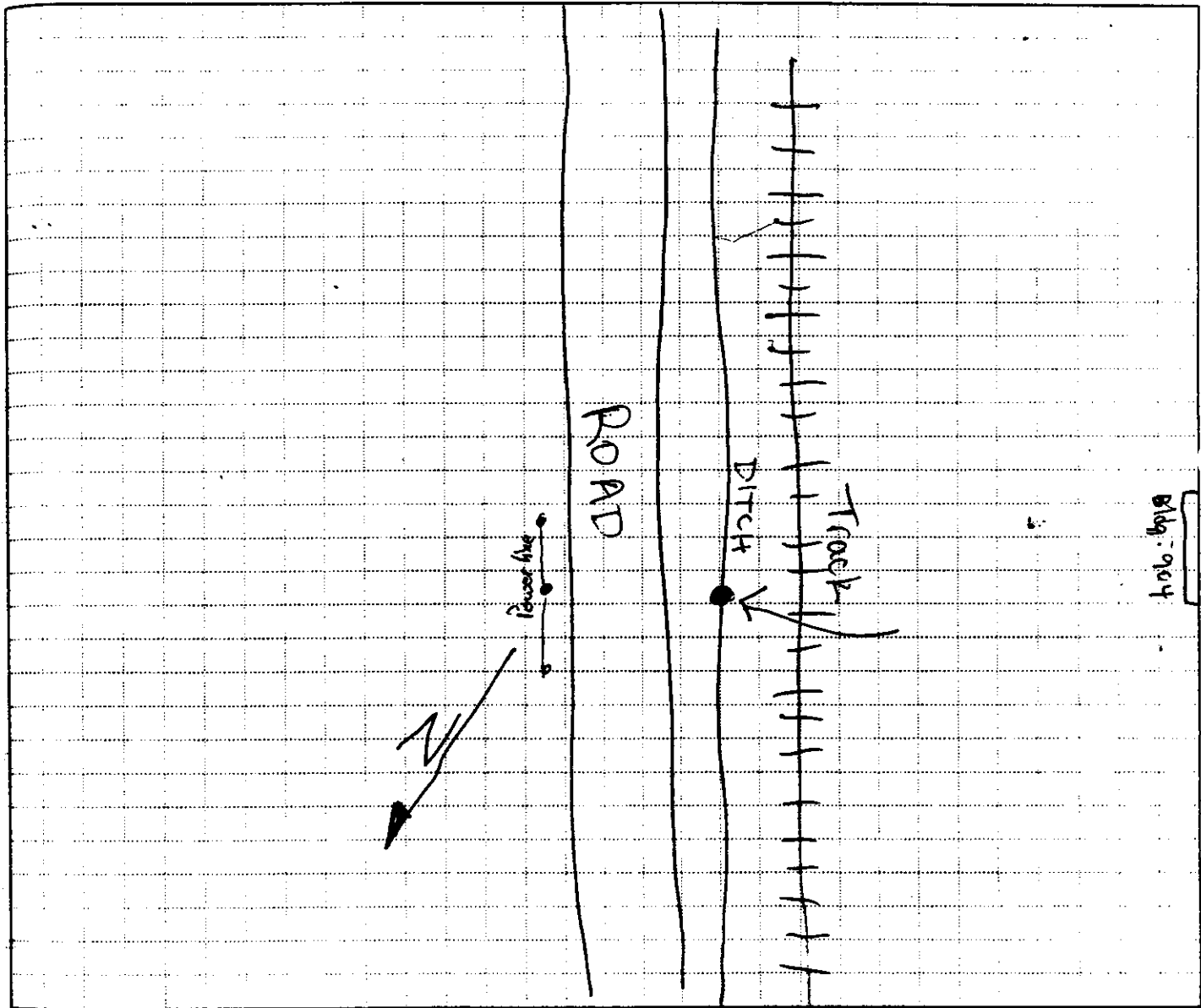
14

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: L12-SD-029(d)-0340	DATE COLLECTED (mm/dd/yy): 07/29/96
SAMPLE LOCATION: LOAD LINE 12	TIME COLLECTED (hh:mm): 1430
SAMPLING POINT: L12SD-029(d)	DEPTH: 1.00 ft.



COMMENTS:

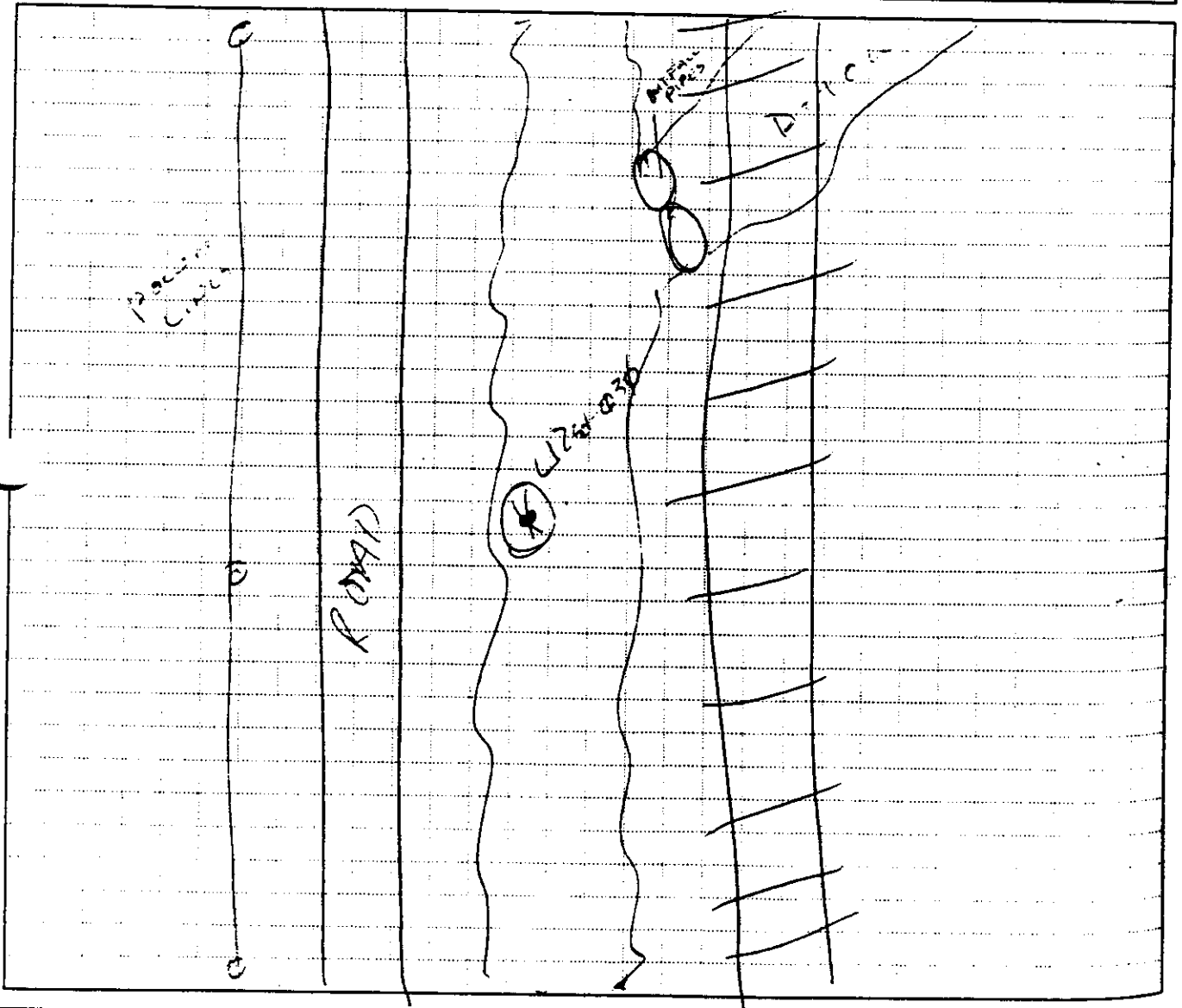
RECORDED BY: <i>[Signature]</i>	DATE: 7/29/96	QA CHECK BY: <i>[Signature]</i>	DATE: 7/30/96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: L125d - Q341 - SD	DATE COLLECTED (mm/dd/yy): 7/30/96
SAMPLE LOCATION: DRAIN - Q341	TIME COLLECTED (hh:mm): 0815
SAMPLING POINT: Q341	DEPTH: 0' - 0.5' BGS



COMMENTS:
Visible Shrink on Water

APPROVED BY: <i>Mat Coe</i>	DATE: 7/30/96	QA CHECK BY: <i>Mike [unclear]</i>	DATE:
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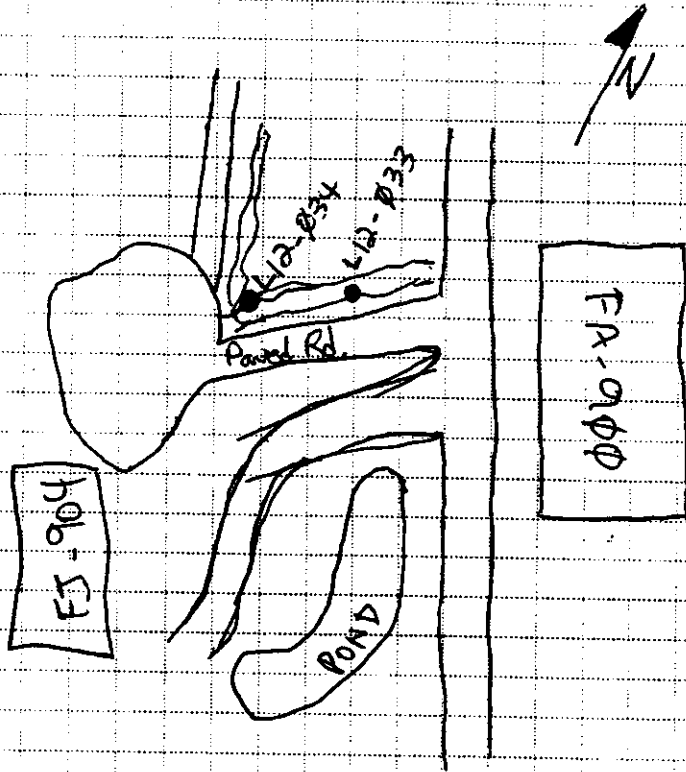
10

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: L12sd-φ33(d)-φ344-SD & L12sd-φ34(d)-φ345-SD	DATE COLLECTED (mm/dd/yy): 07/28/96
SAMPLE LOCATION: LOAD LINE 12	TIME COLLECTED (hh:mm): 0925 & 1008
SAMPLING POINT: L12sd-φ33(d) & L12sd-φ34(d)	DEPTH: 2.00 ft. & 6"



COMMENTS: grey brown silty clay

RECORDED BY: Mike Deacon	DATE: 7/28/96	QA CHECK BY: G-C-7 Cee	DATE: 7/30/96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: L12sd-035(d)-0346-SD &
L.L12sd-030(d)-0347-SD

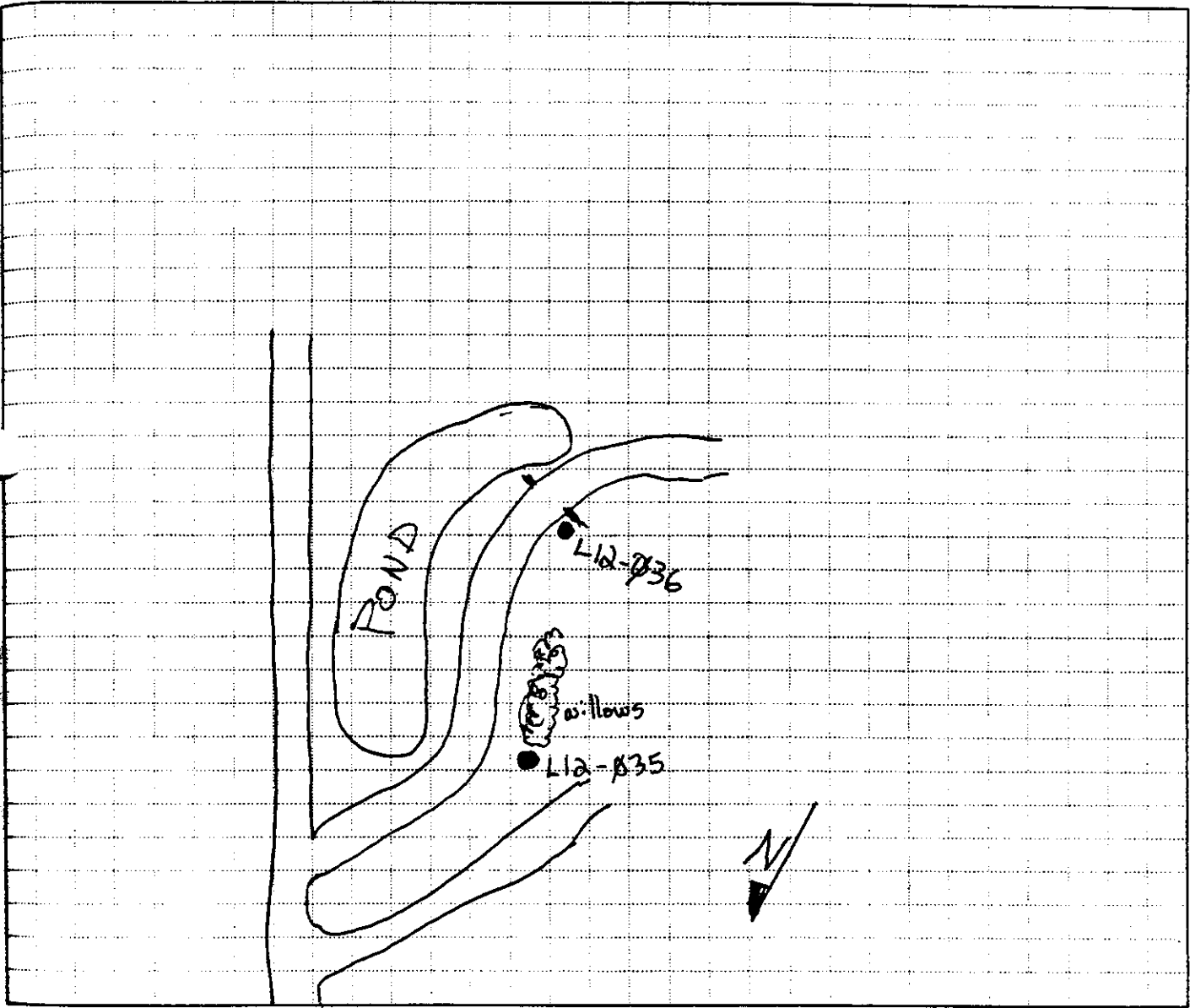
DATE COLLECTED (mm/dd/yy): 7/28/96 & 7/28/94

SAMPLE LOCATION: LOAD LINE 12

TIME COLLECTED (hh:mm): 1033 & 1059

SAMPLING POINT: L12sd-035(d) & L.L12sd-030(d)

DEPTH: 2.00 ft & 1.00 ft



COMMENTS: Grey brown silty clay.

RECORDED BY: *Michelle Carson*

DATE: 7/28/96

QA CHECK BY: *Ma & Co*

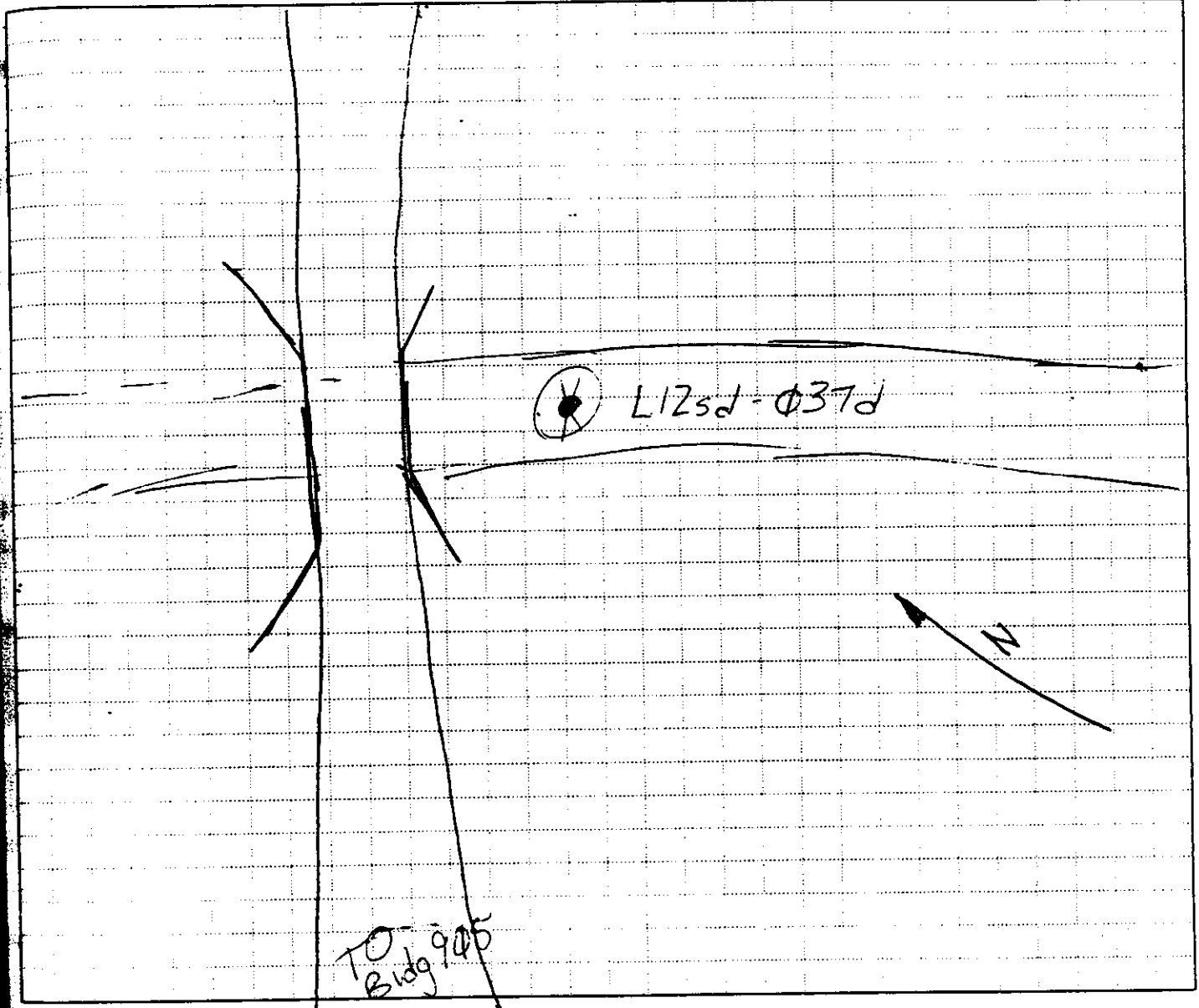
DATE: 7/30/96

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: L12sd-Ø37(d)-Ø37E-SD	DATE COLLECTED (mm/dd/yy): 7/29/94
SAMPLE LOCATION: DRAIN-11	TIME COLLECTED (hh:mm): 152Ø
SAMPLING POINT: L12sd-Ø37(d)	DEPTH: Ø-1.Øft



COMMENTS:

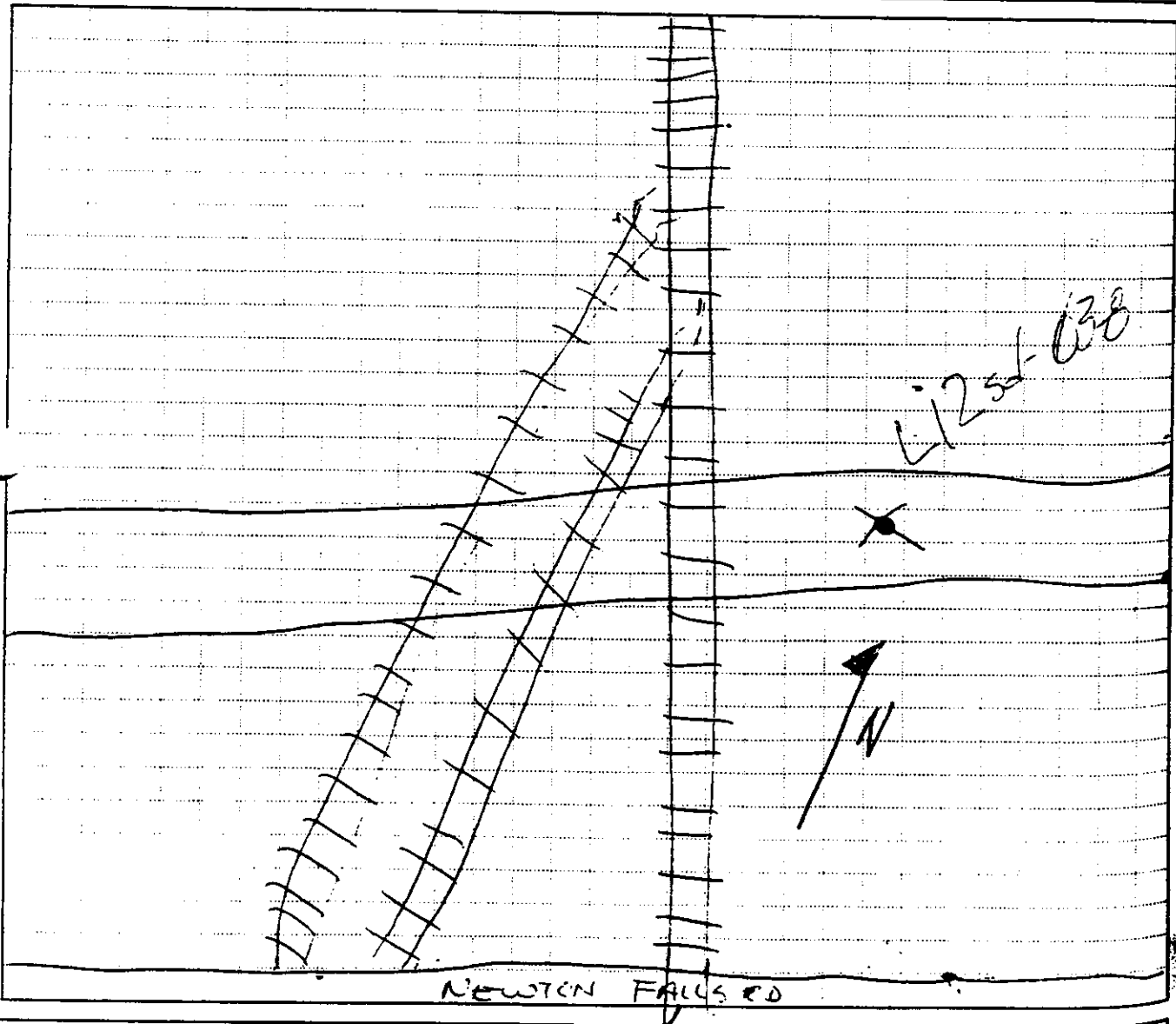
RECORDED BY: <i>Mac</i>	DATE: 7/29/94	QA CHECK BY: <i>Mike Green</i>	DATE: 7/30/96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: L125d-038(d) - L1248-SP ⁰³⁴⁹	DATE COLLECTED (mm/dd/yy): 7/29/96 ^{M.C. 7/30/96} 7/30/96
SAMPLE LOCATION: DRAIN C-12	TIME COLLECTED (hh:mm): 1526 ^{M.C. 1740} 1740
SAMPLING POINT: L125d-038(d)	DEPTH: 0-1.0 ft ^{0.5 ft} 0-0.5 ft



COMMENTS:
 Made Sample Locat on

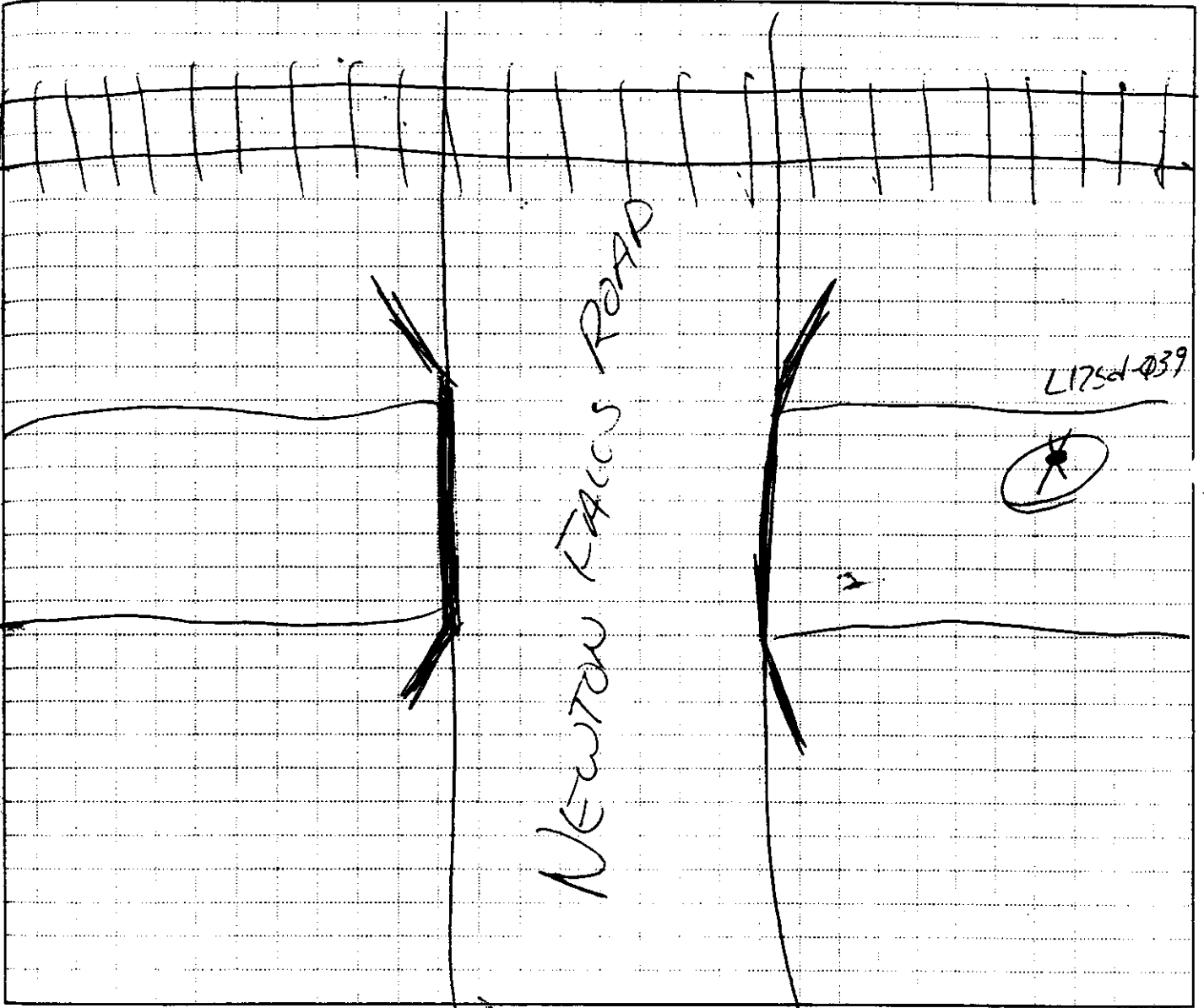
RECORDED BY: <i>Ma T Co</i>	DATE: <i>7/29/96</i>	QA CHECK BY: <i>Steve Anderson</i>	DATE: <i>7/30/96</i>
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: L175d-039(d) - J35d-5D	DATE COLLECTED (mm/dd/yy): 7/30/96
SAMPLE LOCATION: DRAIN C-13	TIME COLLECTED (hh:mm): 0855
SAMPLING POINT: L175d-039(d)	DEPTH: 0 - 0.5' BGS



COMMENTS:
Moved location upstream

RECORDED BY: <i>M. J. Co</i>	DATE: 7/30/96	QA CHECK BY: <i>M. J. Co</i>	DATE: 7/30/96
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LOAD LINE 12
SURFACE WATER, POND, AND STREAM SEDIMENT
LOGBOOK #18

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

-052 & -053

SAMPLE ID NUMBER: - 0363 - SD Sample
 LL12SD-051(P) - 0364 - FD FRT Dup.
 0365 - SF Spic

DATE COLLECTED (mm/dd/yy):

8/31/96

SAMPLE LOCATION:

LL12SD-051(P) / SPOND-01

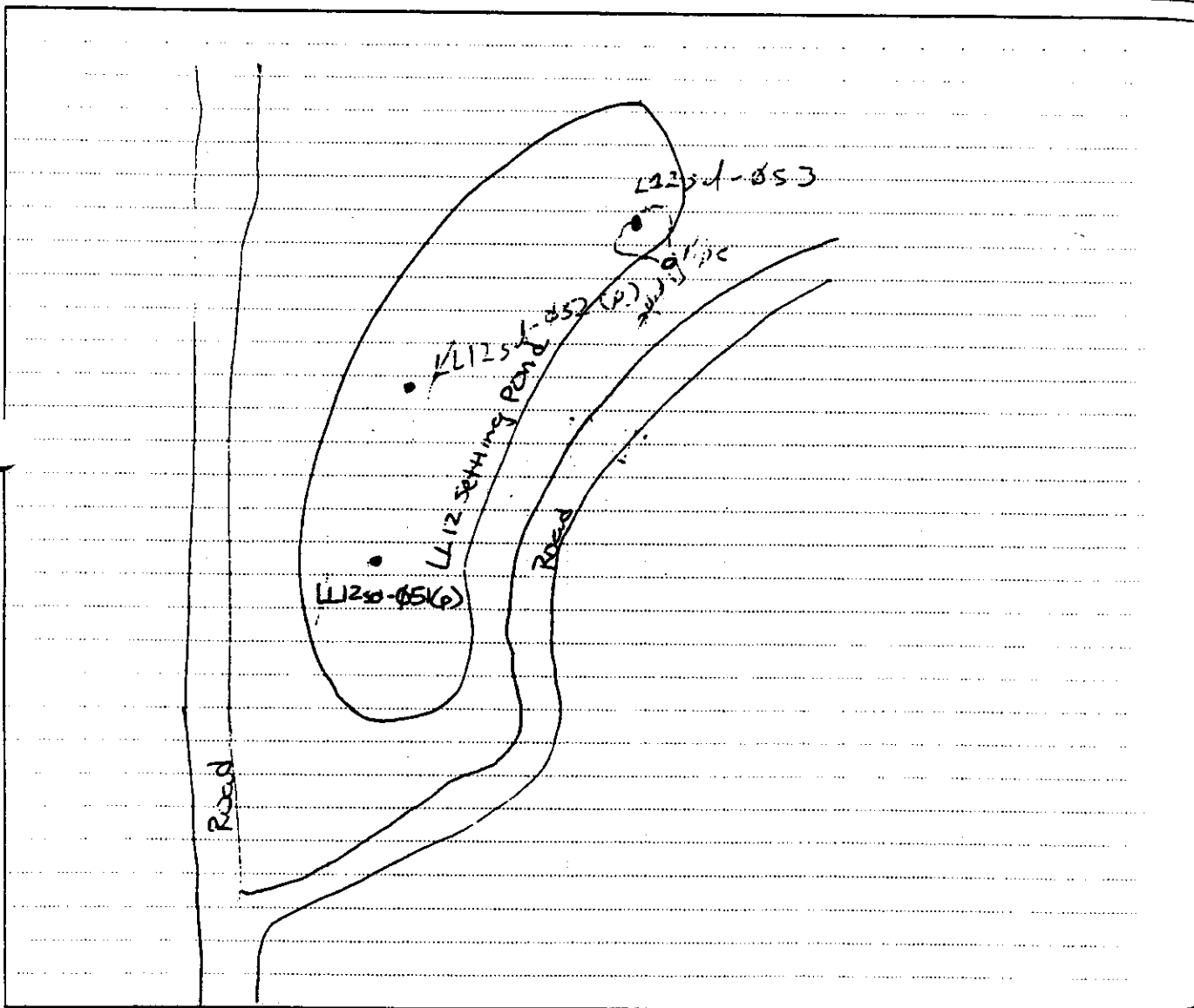
TIME COLLECTED (hh:mm):

See sample log

SAMPLING POINT:

see sketch

DEPTH:



COMMENTS: ~ 3 to 4 ft of water throughout pond

RECORDED BY: Badney

DATE: 8/31/96

QA CHECK BY: [Signature]

DATE: 08-14-96

PF
 SA
 SA
 SA
 CON
 REC

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: ~~04(p) - 0368-SD~~
L12sd - 055(p) - 0369-SD

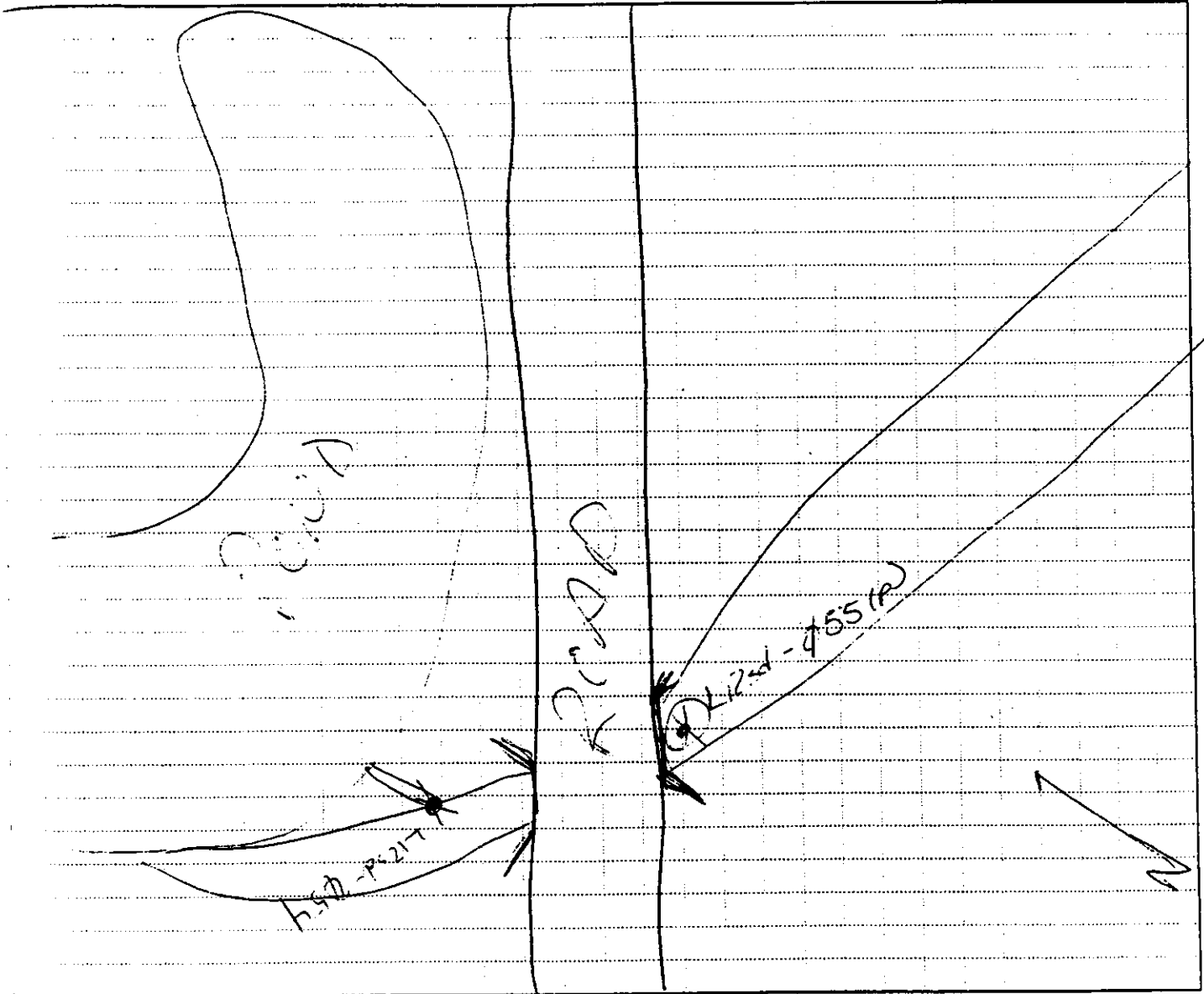
DATE COLLECTED (mm/dd/yy):
7/30/96

SAMPLE LOCATION:
SPOND - 03

TIME COLLECTED (hh:mm):
1620 / 1550

SAMPLING POINT:
0369 - SD

DEPTH:
0 - 0.5 FT



COMMENTS:

Samples taken under water

RECORDED BY:

[Signature]

DATE

7/30/96

QA CHECK BY:

[Signature]

DATE

7/30/96

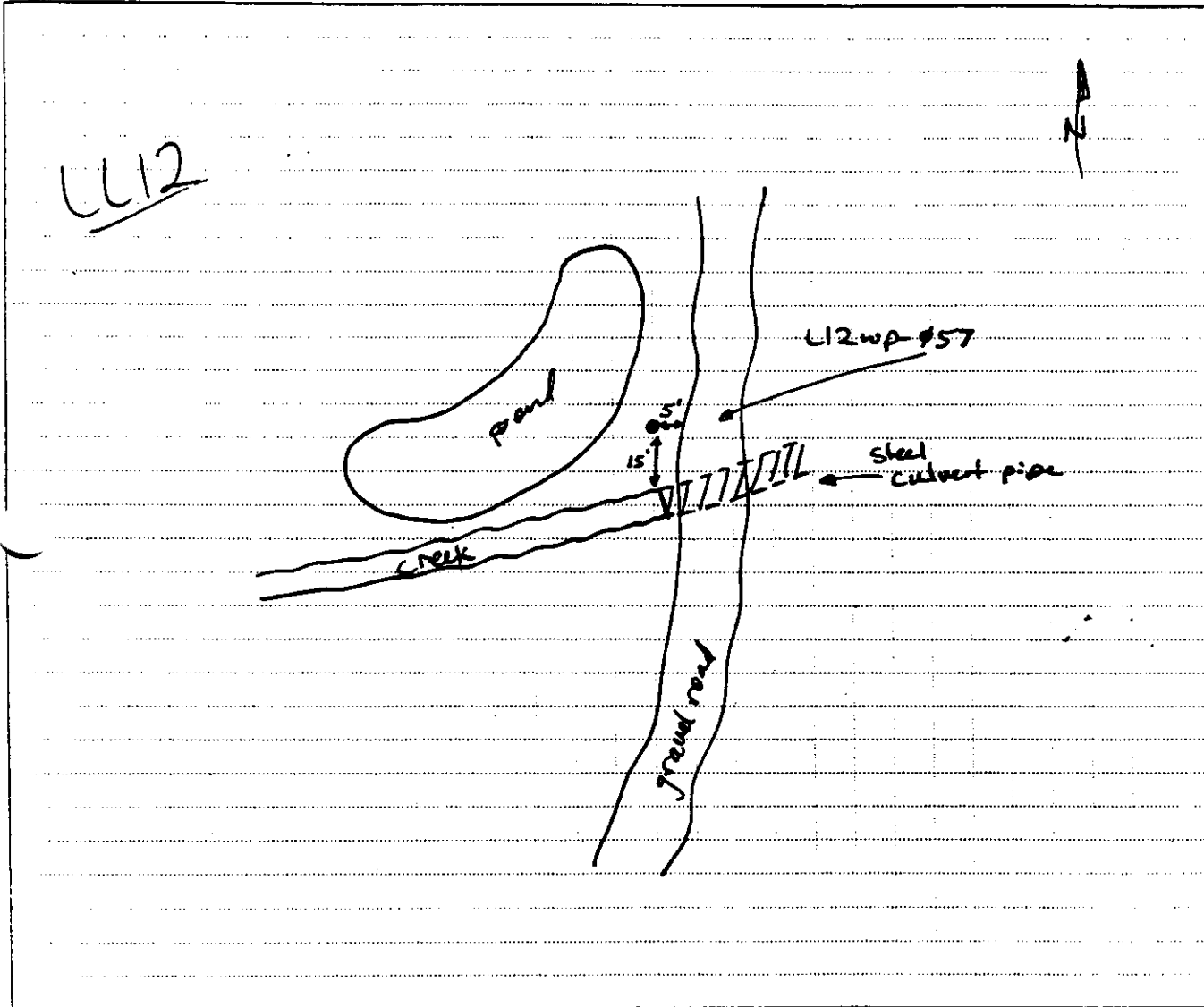
LOAD LINE 12
WELL POINTS/GROUNDWATER
LOGBOOK #29

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: L12wp-057-0371-GW	DATE COLLECTED (mm/dd/yy): 7/20/96
SAMPLE LOCATION: L12wp-057	TIME COLLECTED (hh:mm): 1510
SAMPLING POINT: N/A	DEPTH: TD well point 17.3' @ 65



COMMENTS:

RECORDED BY: <i>[Signature]</i>	DATE: 7/29/96	QA CHECK BY: <i>[Signature]</i>	DATE: 8-22-96
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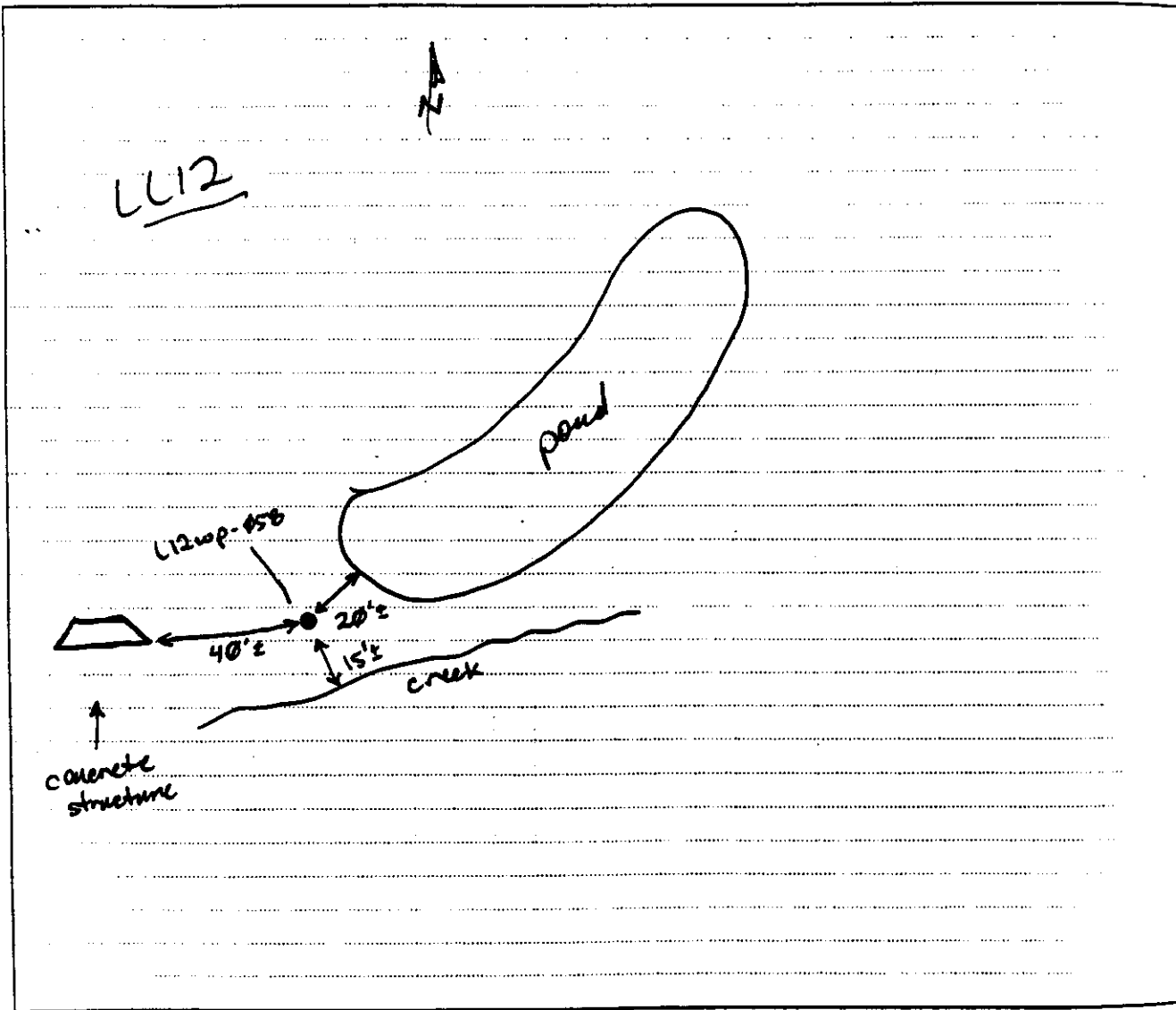
7 *[Signature]*

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: Not sampled	DATE COLLECTED (mm/dd/yy): N/A
SAMPLE LOCATION: L12 wp. Ø58	TIME COLLECTED (hh:mm): N/A
SAMPLING POINT: N/A	DEPTH: N/A



COMMENTS:

RECORDED BY:

DATE

7/29/16

QA CHECK BY:

DATE

8-2-16

PP
SAMP
SAMP
SAMP

COMM
RECV

8.
Handwritten notes and signatures in the bottom left corner.

SAMPLE LOCATION MAPS AND SOIL BORING LOGS
Building 1200 and Dilution/Settling Pond

Soil Samples:

B12-ss-001

B12-ss-002

Drainage Sediment:

B12-ss-003(d)

B12-ss-004(d)

B12-ss-005(d)

B12-ss-006(d)

B12-ss-007(d)

Surface Water, Pond, and Stream Sediment:

B12-sd-008(p)

B12-sd-009(p)

BUILDING 1200 AND DILUTION/SETTLING POND

**SOIL BORING LOGS
LOGBOOK #11**

HTRW DRILLING LOG		DISTRICT NASHVILLE		HOLE NUMBER: B1255-001	
1. COMPANY NAME SAIC		2. DRILL SUBCONTRACTOR N/A		SHEET 1 OF 2	
3. PROJECT RVAAP			4. LOCATION Bldg. 1200 / RVAAP		
5. NAME OF DRILLER M DEACON			6. MANUFACTURER'S DESIGNATION OF DRILL N/A		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" S.S. hand auger		8. HOLE LOCATION See sketch below			
		9. SURFACE ELEVATION N/A			
		10. DATE STARTED 24 JULY 96		11. DATE COMPLETED 7/24/96	
12. OVERBURDEN THICKNESS N/A		15. DEPTH GROUNDWATER ENCOUNTERED No GW			
13. DEPTH DRILLED INTO ROCK N/A		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED N/A			
14. TOTAL DEPTH OF HOLE 2.0 ft + BGS		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) N/A			
18. GEOTECHNICAL SAMPLES		DISTURBED N/A		UNDISTURBED N/A	
19. TOTAL NUMBER OF CORE BOXES N/A		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY % N/A	
22. DISPOSITION OF HOLE Abandoned		BACKFILLED N/A		MONITORING WELL N/A	
23. SIGNATURE OF INSPECTOR <i>Mike [Signature]</i>		OTHER (SPECIFY) N/A		OTHER (SPECIFY) N/A	
LOCATION SKETCH/COMMENTS					
SCALE: NIT TO SCALE					
PROJECT RVAAP Phase I RI				HOLE NO. B1255-001	

FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER B1255-001

PROJECT

King

INSPECTOR

M. Deane & M. ...

SHEET

3 of 2

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEO TECH SAMPLE OR CORE BOX NO (E)	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	5	Top Soil - Brown sand and Clay w/ 40% Gravel				
	1.2	:				
	1.5	Brown clay some Silt				
	2.0					

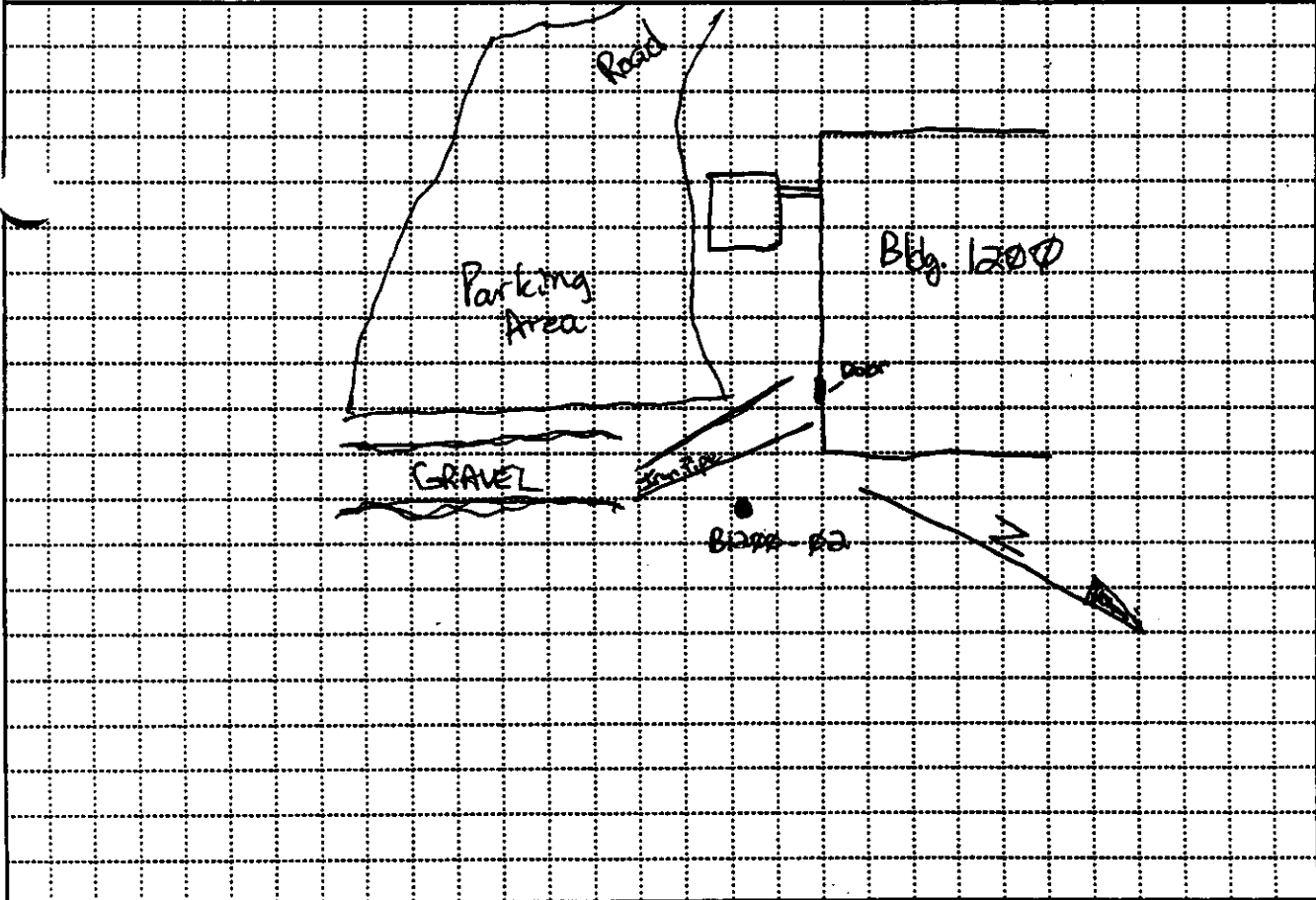
PROJECT RUAAP Phase 1 RI

HOLE NO. B1255-001 3

HTRW DRILLING LOG		DISTRICT NASHVILLE	HOLE NUMBER B1200-02
COMPANY NAME SAC		DRILL SUBCONTRACTOR b-1	SHEET SHEET NO. 1 OF 2
PROJECT RVAAP Phase I RI		LOCATION Bldg. 1200 / RVAAP	
NAME OF DRILLER		MANUFACTURERS DESIGNATION OF DRILL hand auger	
SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 2 1/2" 5/8" hand auger		HOLE LOCATION See Sketch Below	
		SURFACE ELEVATION NA	
		DATE STARTED 7/24/94	DATE COMPLETED 7/24/94
OVERBURDEN THICKNESS NA		DEPTH GROUNDWATER ENCOUNTERED No GW	
DEPTH DRILLED INTO ROCK NA		DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
TOTAL DEPTH OF HOLE 22in. BGS		OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	
GEOTECHNICAL SAMPLES		TOTAL NUMBER OF CORE BOXES	
DISTURBED NA		UNDISTURBED NA	
SAMPLES FOR CHEMICAL ANALYSIS		TOTAL CORE RECOVERY %	
VOC NA		METALS NA	
OTHER (SPECIFY) See Sample Log		OTHER (SPECIFY) NA	
DISPOSITION OF HOLE Abandonment		SIGNATURE OF DRILLER [Signature]	
BACKFILLED with Holedug		MONITORING WELL NA	
OTHER (SPECIFY) NA		OTHER (SPECIFY) NA	

LOCATION SKETCH/COMMENTS

SCALE: NOT TO SCALE



PROJECT RVAAP	HOLE NO. B1200-02
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FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG

HOLE NUMBER **B1255-002**

PROJECT

RVAAP

INSPECTOR

M. Deaton & M. Crane

SHEET

2 of 2

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	FIELD SCREENING RESULTS (D)	GEOTECH SAMPLE OR CORE BOX NO. (E)	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0					
	6 in	Brown topsoil				
	12 in	lt. brown silty clay				
	22 in	Refusal @ 22 in.				

PROJECT

RVAAP

HOLE NO.

B1255-002

5

BUILDING 1200 AND DILUTION/SETTLING POND

**DRAINAGE SEDIMENT LOGS
LOGBOOK #20**

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER:

003
B126d-~~007~~(d)-0382-SD

DATE COLLECTED (mm/dd/yy):

24 Jul 94

SAMPLE LOCATION:

DRAIN - $\Phi 1$

TIME COLLECTED (hh:mm):

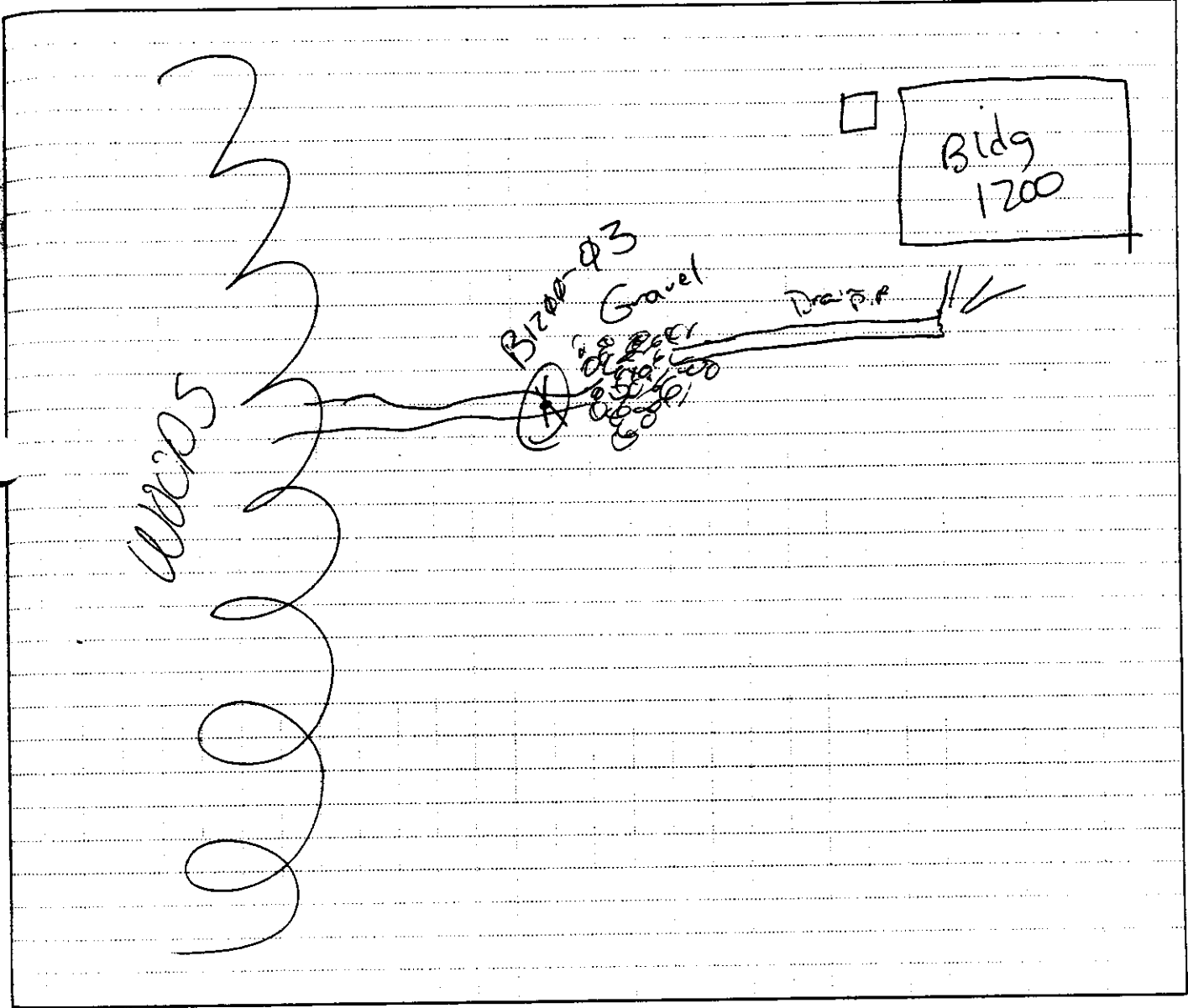
154 ϕ

SAMPLING POINT:

B12 $\Phi\Phi$ -~~04~~^{M.S. Sample} $\Phi 3$

DEPTH:

Φ -6"



COMMENTS:

- Sample Slightly wet

RECORDED BY:

Mac LC

DATE
24 Jul 94

QA CHECK BY:

Michael...

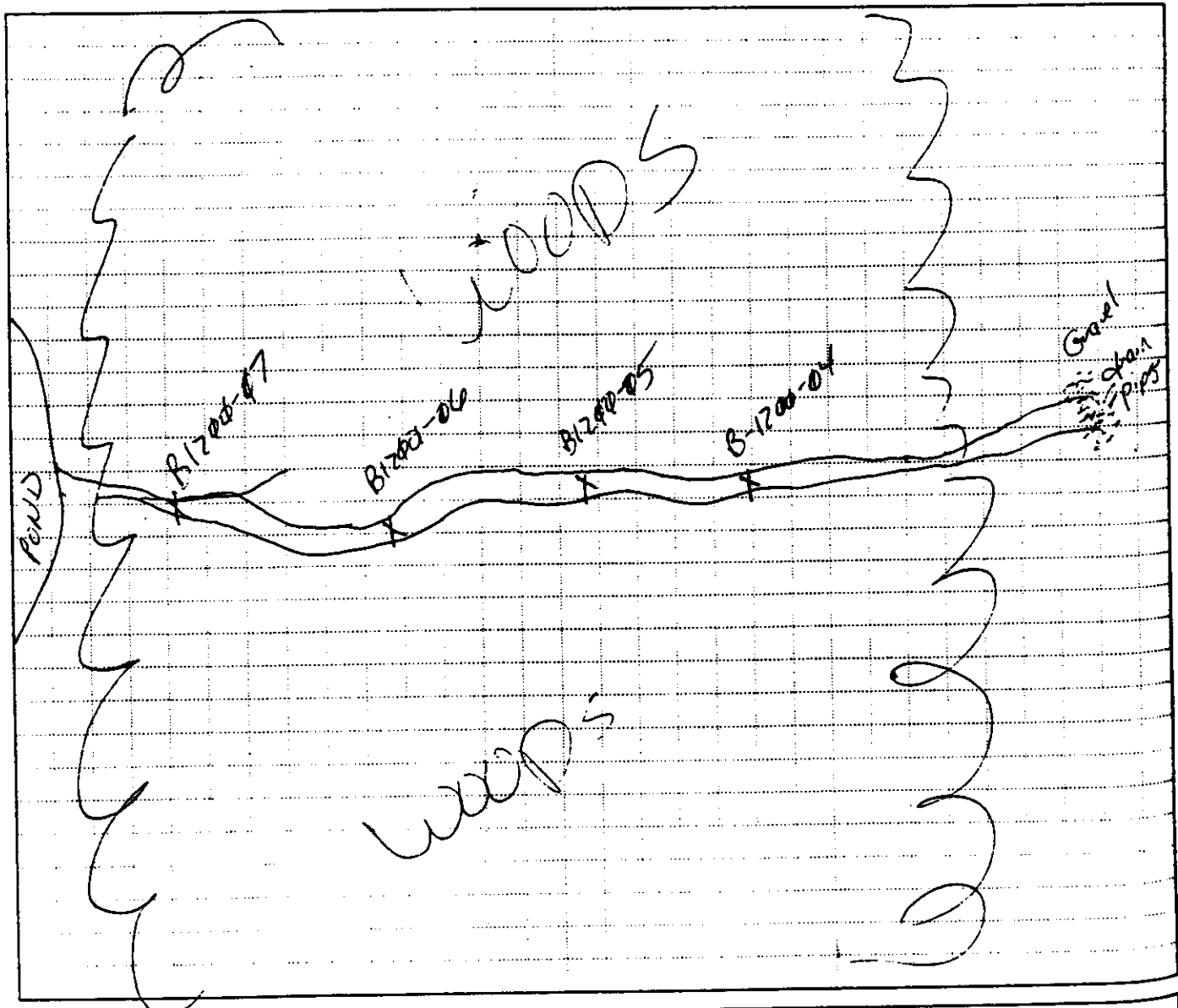
DATE

24 Jul 94

LOCATION SKETCH

PROJECT NO: RVAAP **DELIVERY ORDER NO: 0010**

SAMPLE ID NUMBER: B12sd-444(d)-0303-SD	DATE COLLECTED (mm/dd/yy): 24 Jul 96
SAMPLE LOCATION: B1206 . DRAIN-02	TIME COLLECTED (hh:mm): 1525
SAMPLING POINT: B1206-04	DEPTH: 4"6"



COMMENTS:
Sample in wet organic layer

RECORDED BY: Morel Cor	DATE: 24 Jul 96	QA CHECK BY: [Signature]	DATE: 24 Jul 96
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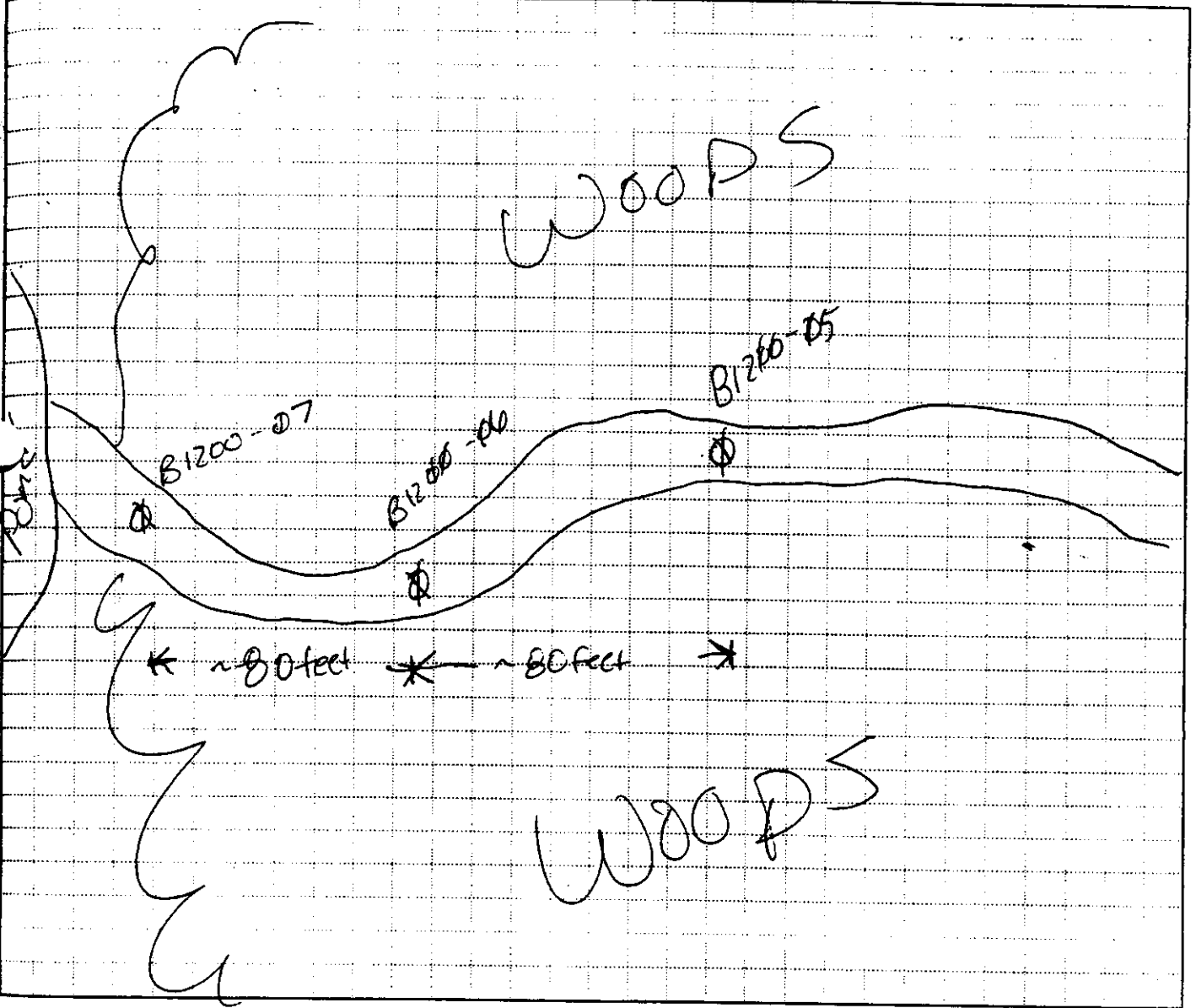
SAT.
 SAT.
 SAT.
 COR
 REC

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: B12SD-Φ05(D)-Φ384-SD	DATE COLLECTED (mm/dd/yy): 24 July 96
SAMPLE LOCATION: B12ΦΦ, DRAIN C-Φ3	TIME COLLECTED (hh:mm): 1445
SAMPLING POINT: B12ΦΦ-Φ5	DEPTH: 3cc sample log



COMMENTS:
Sample take in standing water

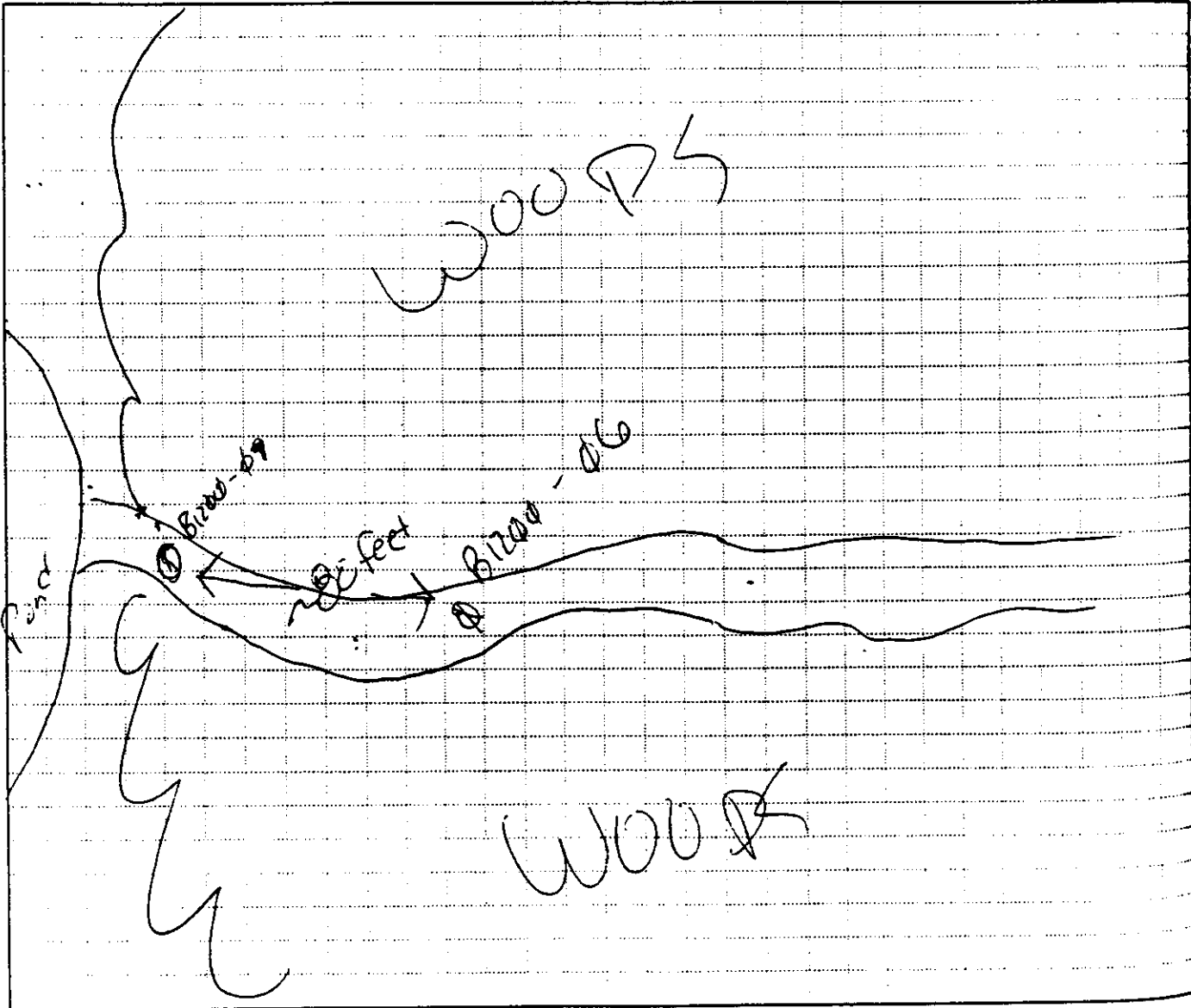
RECORDED BY: <i>M. J. Lee</i>	DATE: 24 Jul 1996	QA CHECK BY: <i>M. J. Lee</i>	DATE: 24 Jul 1996
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: B125d-(0464d)-E385-SD	DATE COLLECTED (mm/dd/yy): 24 Jul 96
SAMPLE LOCATION: B1244, DRAIN-04	TIME COLLECTED (hh:mm): 1432
SAMPLING POINT: B1200-04	DEPTH: 0'-6"



COMMENTS:

Sample is in wet to swampy area

RECORDED BY: <i>Ma L Che</i>	DATE: <i>24 Jul 96</i>	QA CHECK BY: <i>Mike Wilson</i>	DATE: <i>24 Jul 96</i>
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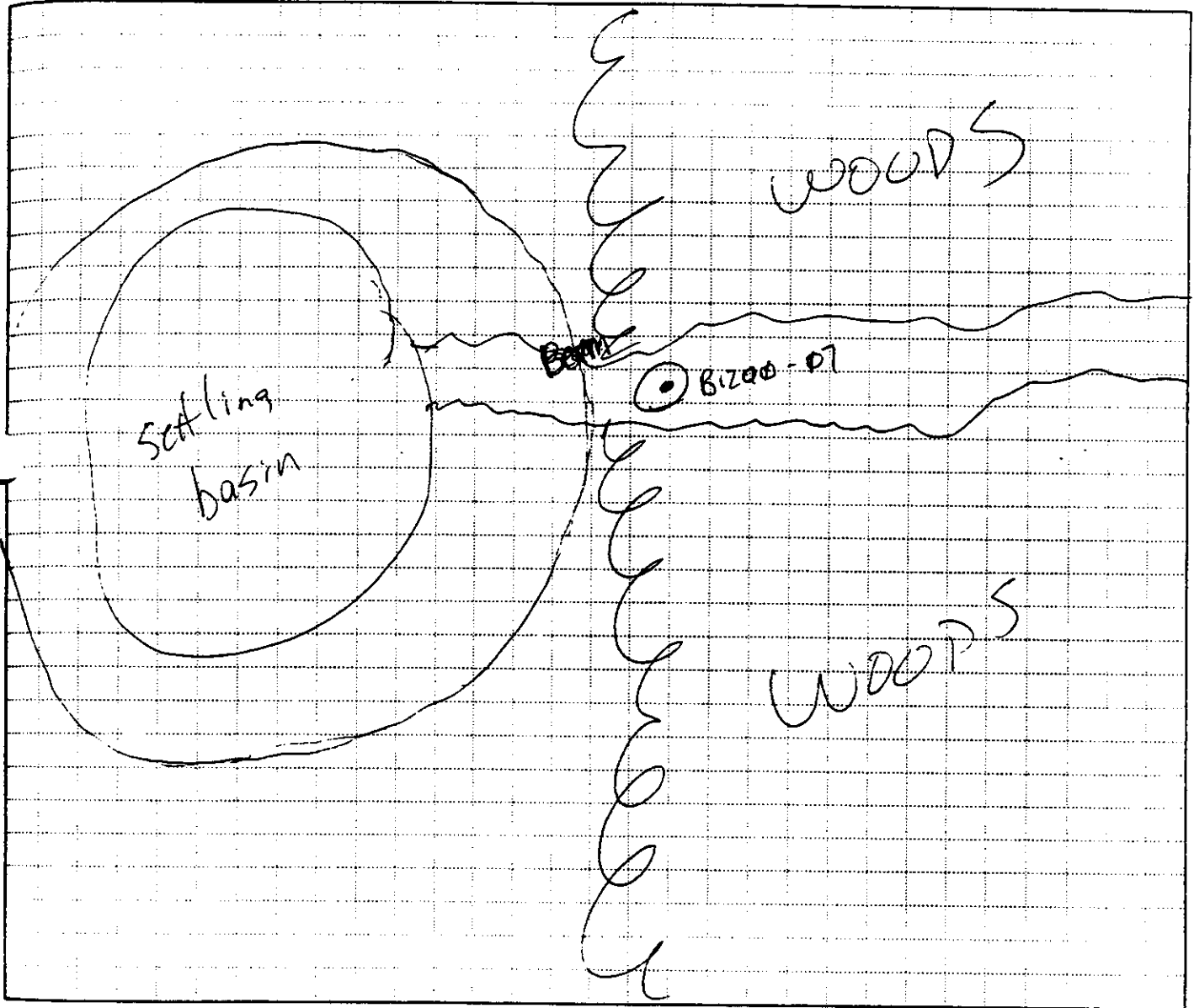
REC'D
 CON
 REC'D

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: B125d-007(d)-0386-5D	DATE COLLECTED (mm/dd/yy): 24 July 96
SAMPLE LOCATION: B1200-07, DRAIN-05	TIME COLLECTED (hh:mm): 1415
SAMPLING POINT: B1200-07	DEPTH: 0'-6"



COMMENTS:

RECORDED BY: <i>Mark C</i>	DATE: 27 Jul 96	QA CHECK BY: <i>Mc Conn</i>	DATE: 24 Jul 96
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**BUILDING 1200 AND DILUTION/SETTLING POND
SURFACE WATER, POND, AND STREAM SEDIMENT
LOGBOOK #30**

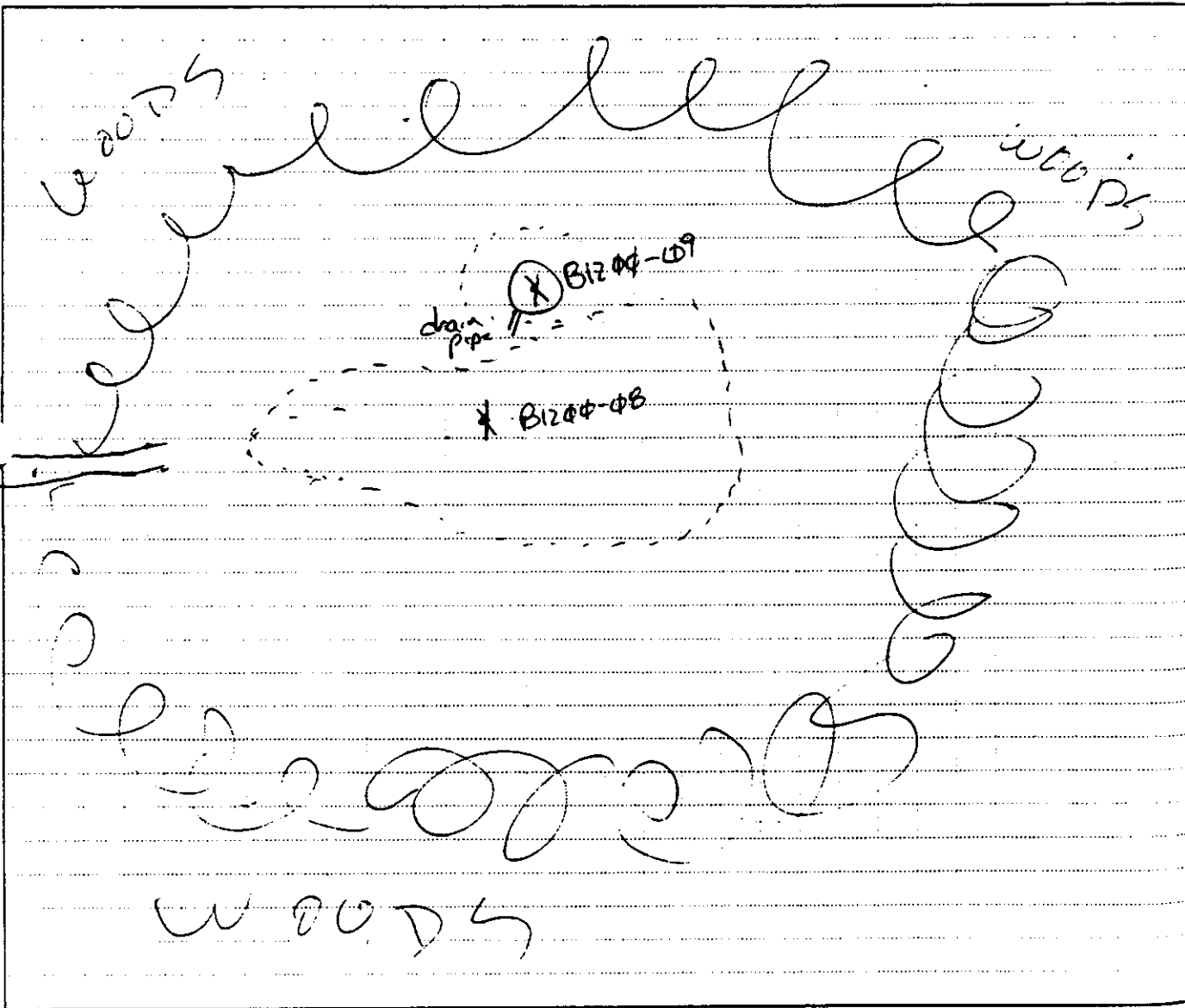
LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: B12sd-009(p)	DATE COLLECTED (mm/dd/yy): 7/25/96
SAMPLE LOCATION: SPOND-φ1	TIME COLLECTED (hh:mm): 0925
SAMPLING POINT: B12φφ-φ9	DEPTH: 1" - 6"

PR
SA'
SAI
SAT



COMMENTS:
Area is dry.

RECORDED BY: <i>M. A. ...</i>	DATE: <i>7/25/96</i>	QA CHECK BY: <i>Mike ...</i>	DATE: <i>7/25/96</i>
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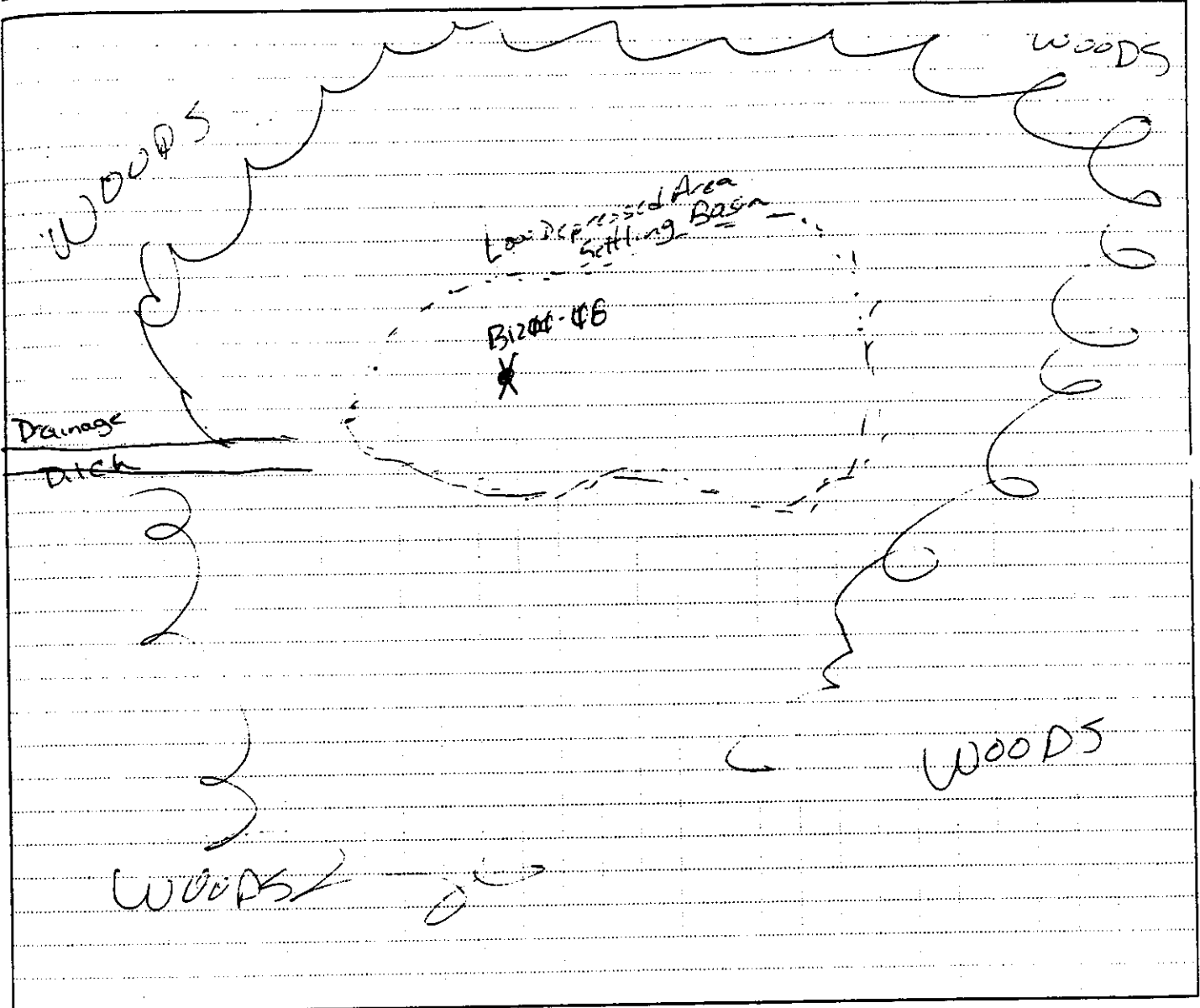
CO
RE

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: B125d 0086f - 0287 - 1P 0287 - 1P 0287 - 1P	DATE COLLECTED (mm/dd/yy): 7/25/96
SAMPLE LOCATION: B124d-0E, SPLND-41	TIME COLLECTED (hh:mm): 0855
SAMPLING POINT: B124d-0E	DEPTH: 0'-6"



COMMENTS: Drainage Basin is slightly swampy, but basically drier up.

RECORDED BY: <i>Max J. Co</i>	DATE: 7/25/96	QA CHECK BY: <i>Michelle [Signature]</i>	DATE: 7/25/96
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SAMPLE LOCATION MAPS, SOIL AND WELL POINT BORING LOGS
Landfill North of Winklepeck Burning Grounds

Surface Water, Pond, and Stream Sediment:

LNW-sd-016(p) (NO LOCATION MAP)

LNW-sd-023(p) (NO LOCATION MAP)

Drainage Sediment

LNW-sd-011(d)

LNW-sd-012(d)

LNW-sd-013(d)

LNW-sd-014(d)

LNW-sd-015(d)

Trench Samples:

LNW-tr-001

LNW-tr-002

LNW-tr-003

LNW-tr-004

LNW-tr-005

Well Points:

LNW-wp-019

LNW-wp-020

LNW-wp-021

LNW-wp-022

LANDFILL NORTH OF WINKLEPECK BURNING GROUNDS
SURFACE WATER, POND, AND STREAM SEDIMENT
LOGBOOK #28

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER:

LNWsd-011(d)-0428-SD

DATE COLLECTED (mm/dd/yy):

8/7/96

SAMPLE LOCATION:

NDRAIN-01

TIME COLLECTED (hh:mm):

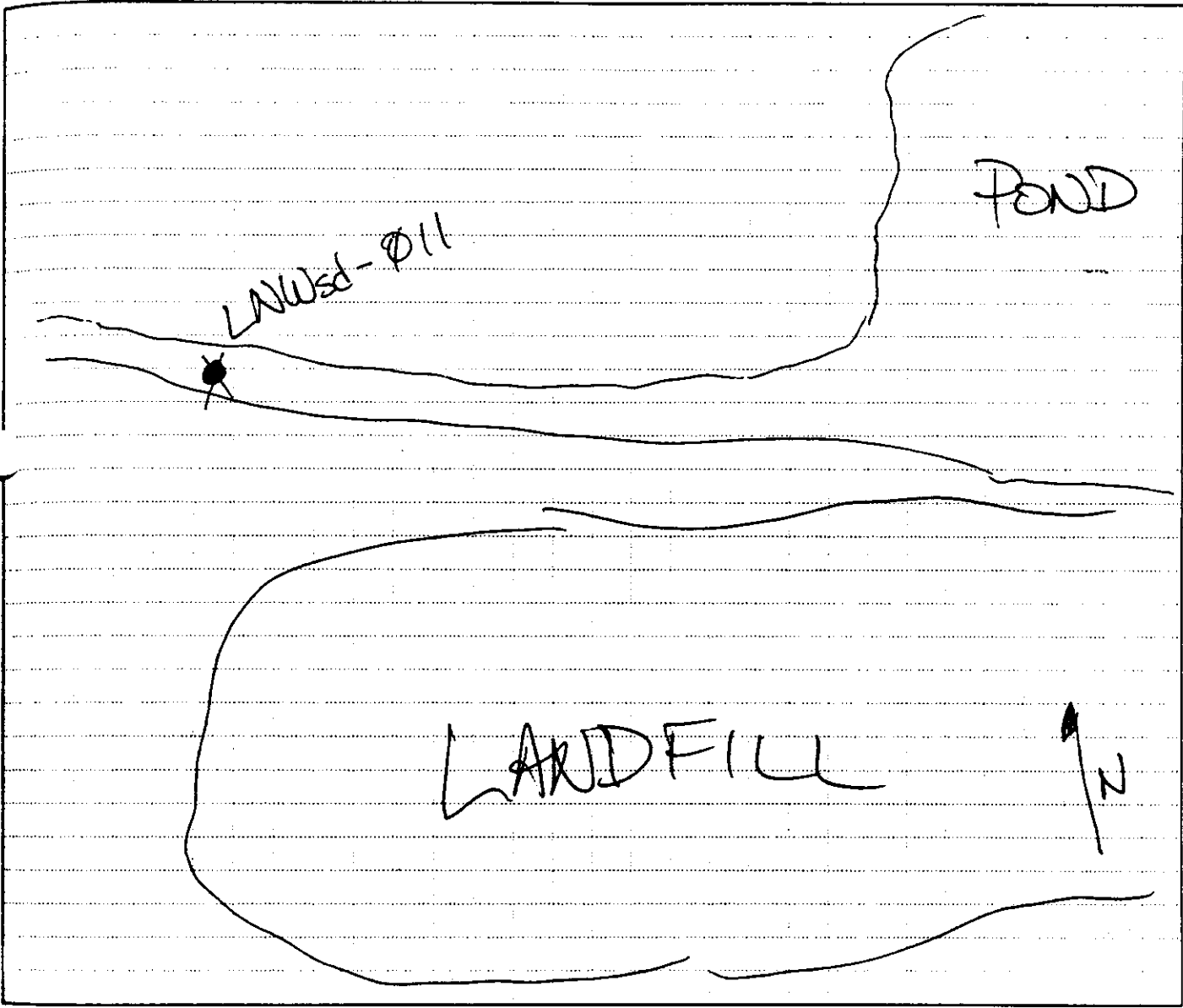
1305

SAMPLING POINT:

011

DEPTH:

0-1.0 ft.



COMMENTS:

Sample taken from ditch just up from pond. No surface water present. Ditch has thick grass growing from it.

RECORDED BY:

M-Z G

DATE

8/7/96

QA CHECK BY:

KL Dominic

DATE

8.22.96

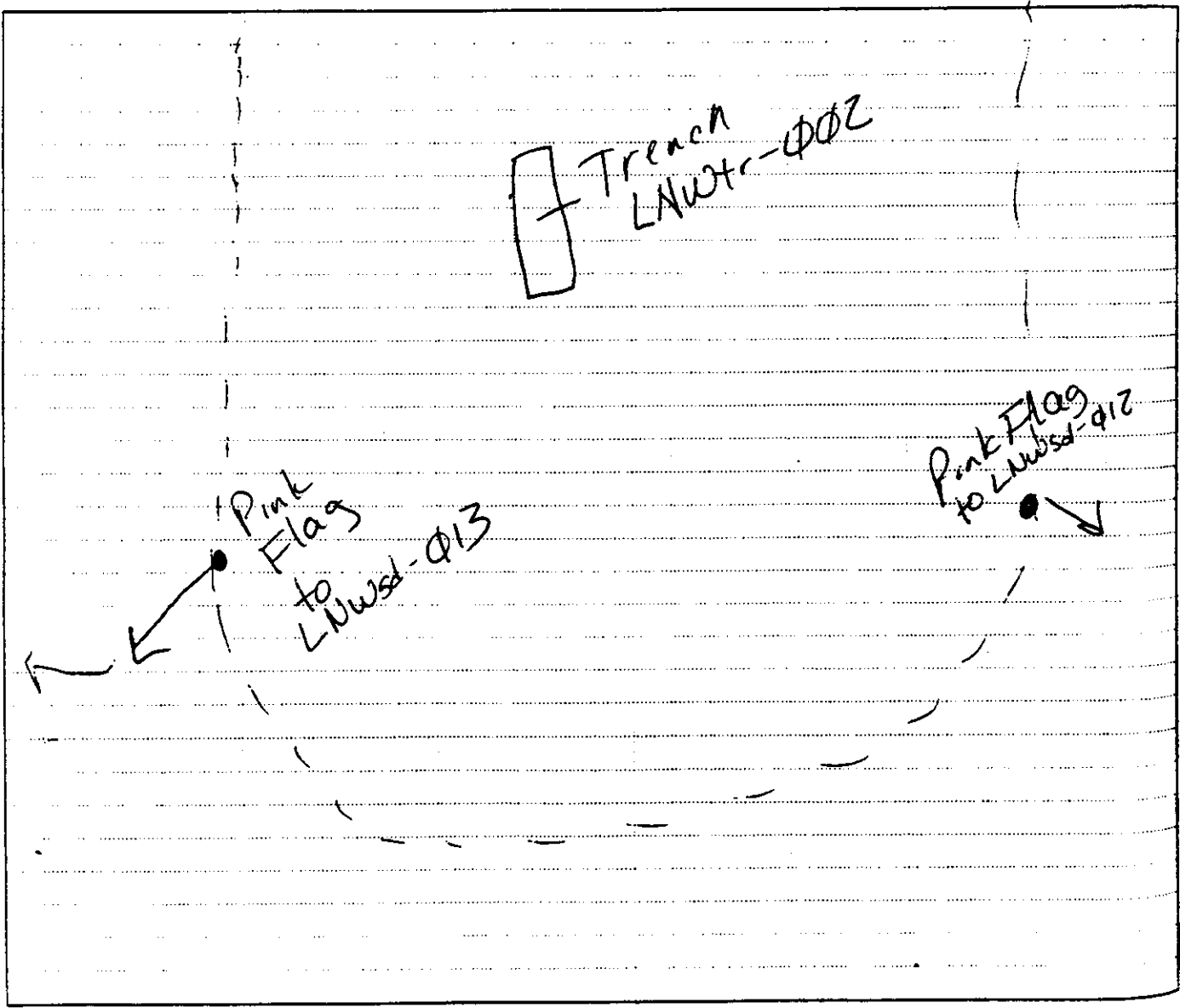
16

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: LNWsd-012(d)-0429-SD	DATE COLLECTED (mm/dd/yy): 8/7/96
SAMPLE LOCATION: NDRAIN-02	TIME COLLECTED (hh:mm): 1400
SAMPLING POINT: 012	DEPTH: 0-0.5 ft.



COMMENTS: ~~8-22-96~~
 Follow the pink flags to the ditch.

RECORDED BY: *[Signature]* DATE: 8/7/96 QA CHECK BY: *[Signature]* DATE: 8-22-96

16

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER:

LNWsd-013(1)-0430-SD

DATE COLLECTED (mm/dd/yy):

8/7/96

SAMPLE LOCATION:

NDRAIN-03

TIME COLLECTED (hh:mm):

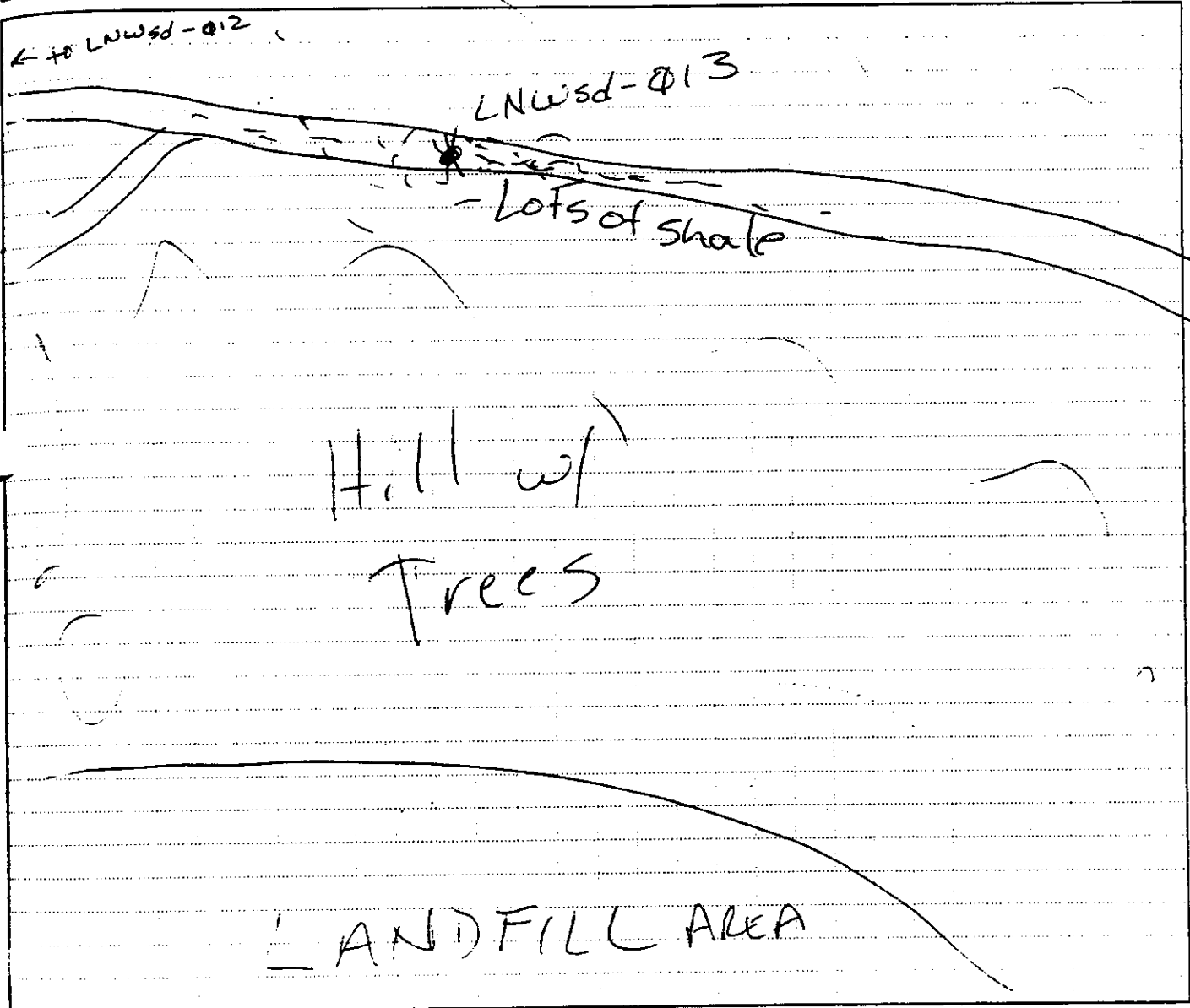
1525

SAMPLING POINT:

013

DEPTH:

0-0.5 ft



COMMENTS:

Note: If you're trying to find this location from this map. We tried to tie back flags to trees to get you to it. If you get to Point 012 it's about 250 feet south from that.

RECORDED BY:

Martina

DATE

8/7/96

QA CHECK BY:

KL Dominici

DATE

8-22-96

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER:

LNWsd- ϕ 14(d)- ϕ 431-51

DATE COLLECTED (mm/dd/yy):

8/7/96

SAMPLE LOCATION:

SDRAIN- ϕ 1

TIME COLLECTED (hh:mm):

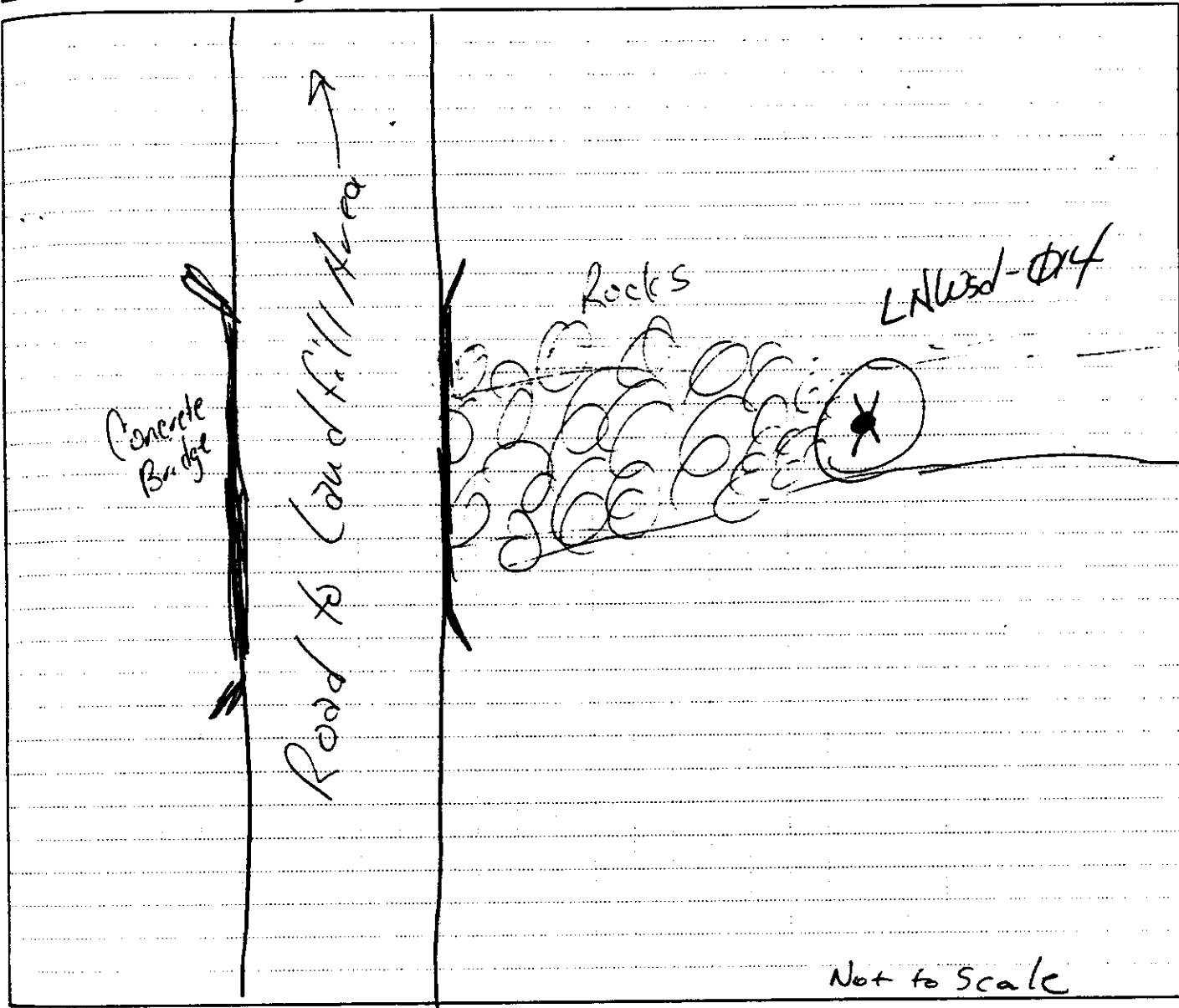
0845

SAMPLING POINT:

ϕ 14(d)

DEPTH:

0 - 0.8 ft



COMMENTS:

Sample taken ~ 30 feet from George Road.

RECORDED BY:

Ma T. Cui

DATE:

8/7/96

QA CHECK-BY:

K. Dornick

DATE:

8/22/96

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

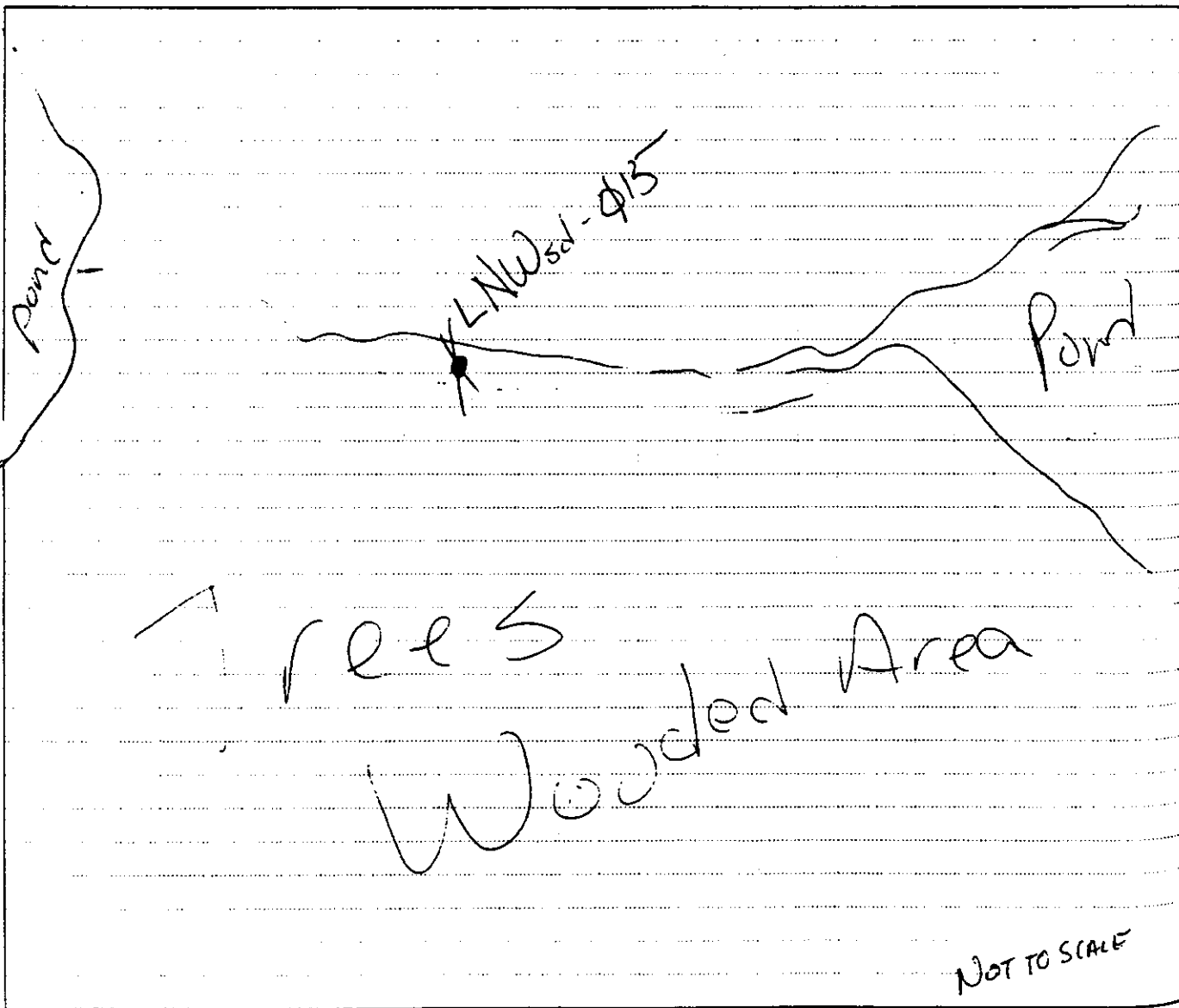
SAMPLE ID NUMBER: LNWsd-φ15(d)-φ434-SD	DATE COLLECTED (mm/dd/yy): 8/7/96
SAMPLE LOCATION: SDRAIN-φ2	TIME COLLECTED (hh:mm): 1025
SAMPLING POINT: φ15	DEPTH: φ-φ.5 ft.

PRC

SAM

SAM

SAM



COMMENTS:

Sample taken from ditch that would have drained into pond before the pond above the location was formed

RECORDED BY: <i>Mr J. Chan</i>	DATE: 8/7/96	QA CHECK BY: <i>K.L. Dominic</i>	DATE: 8.22.96
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COI

REC

LANDFILL NORTH OF WINKLEPECK BURNING GROUNDS

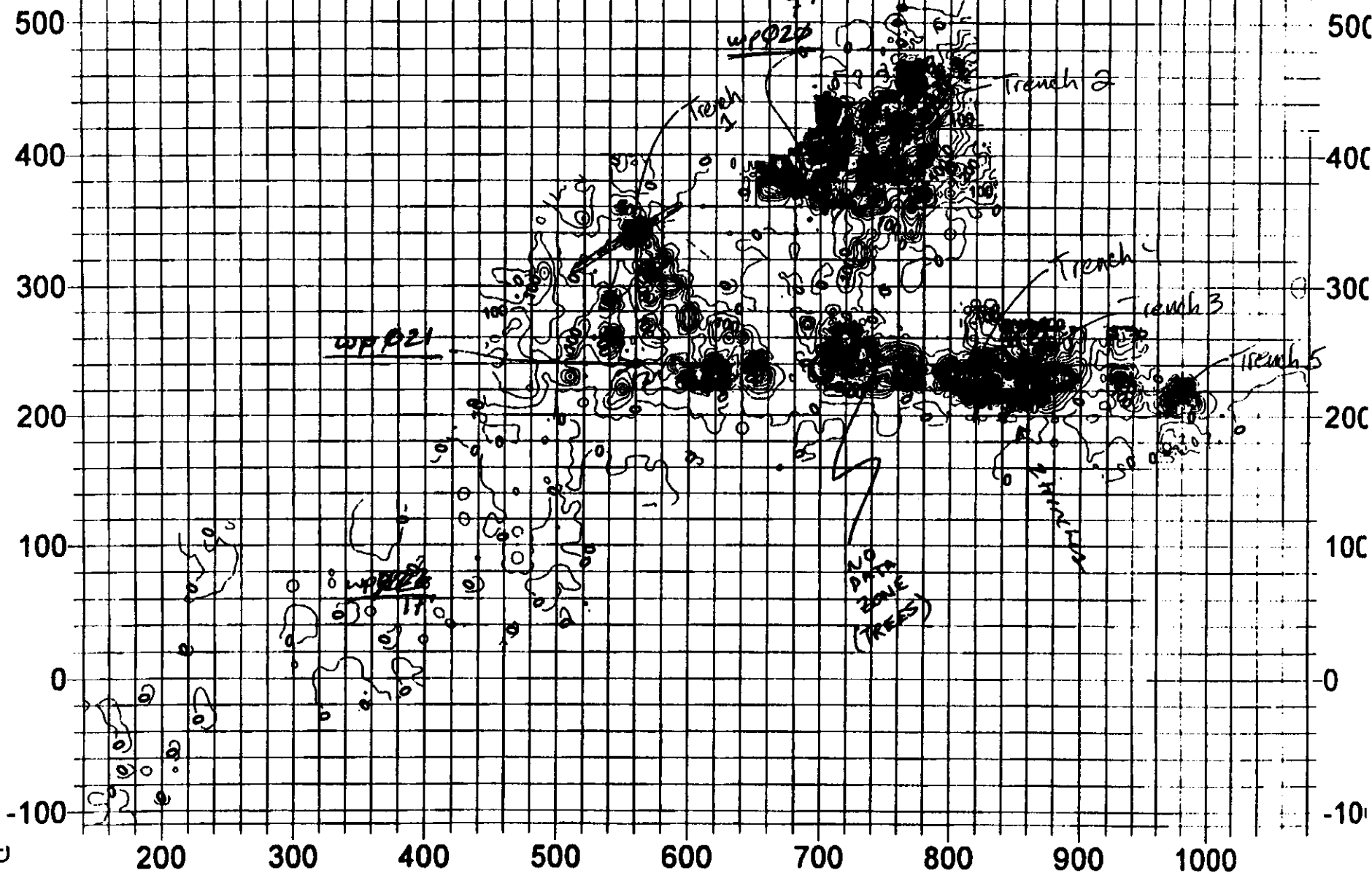
**TRENCHING LOG
LOGBOOK #8**

(6)

C1-5^u

to

200 300 400 500 600 700 800 900 1000



C-583

LANDFILL NORTH OF WINKLEPECK BURNING GROUNDS

**WELL POINTS/GROUNDWATER
LOGBOOK #21**

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER:

N/A

DATE COLLECTED (mm/dd/yy):

SAMPLE LOCATION:

LNWwp-017 Lithologic Log

TIME COLLECTED (hh:mm):

N/A

SAMPLING POINT:

N/A

DEPTH:

recovery description

0'-1.5' Sandy silt, dry, 10YR 4/6 dk. yellowish brown, low plasticity, 30% fine sand

1.5'-3.3' Sand, trace silt, fine to medium sand, some coarse, 10YR 3/3 dk. brown becomes wet at 3', better sorted to wind bottom, low plasticity, loose

0'-2.8' same as above, becoming sandy clay at 2.5', moderate plasticity, soft.

COMMENTS:

RECORDED BY:

[Signature]

DATE

7/30/96

QA CHECK BY:

[Signature]

DATE

8-22-96

SAMPLE LOCATION MAPS & WELL POINT BORING LOGS
Upper and Lower Cobbs Ponds

Surface Water, Pond, and Stream Sediment:

CPC-sd-001

CPC-sd-002

CPC-sd-003

CPC-sd-004

CPC-sd-005

CPC-sd-006

CPC-sd-007

CPC-sd-008

CPC-sd-009

CPC-sd-010

Well Points:

CPC-wp-011

CPC-wp-012

CPC-wp-013

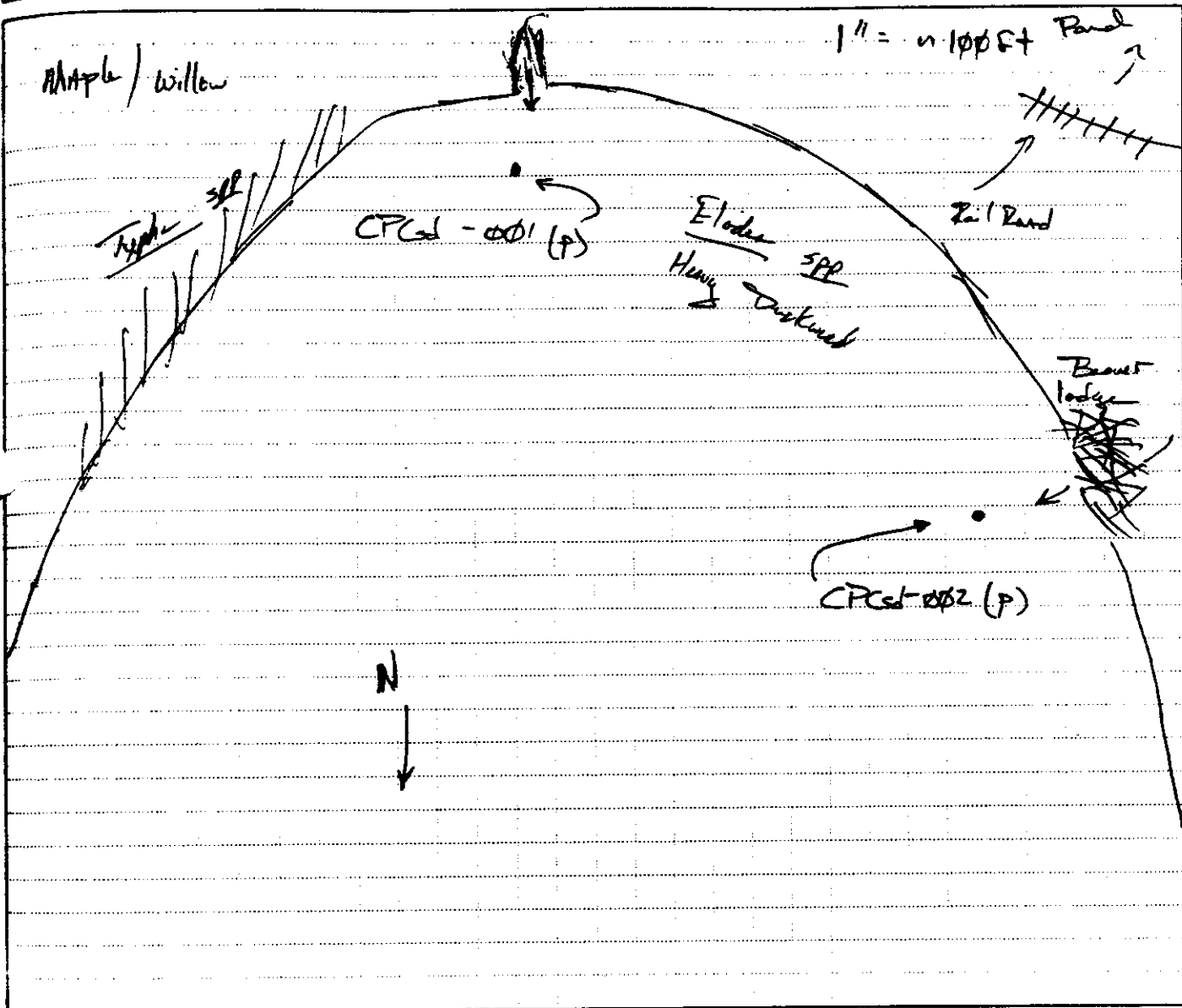
UPPER AND LOWER COBBS PONDS
SURFACE WATER, POND, AND STREAM SEDIMENT
LOGBOOK #7

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: CPCed - 001 (p) & 002 (p)	DATE COLLECTED (mm/dd/yy): 08-19-96
SAMPLE LOCATION: Upper Cabbos Park	TIME COLLECTED (hh:mm): see sample log
SAMPLING POINT: see sketch	DEPTH: ↓



COMMENTS: Beavers have caused the road to extend beyond the railroad toward the South.

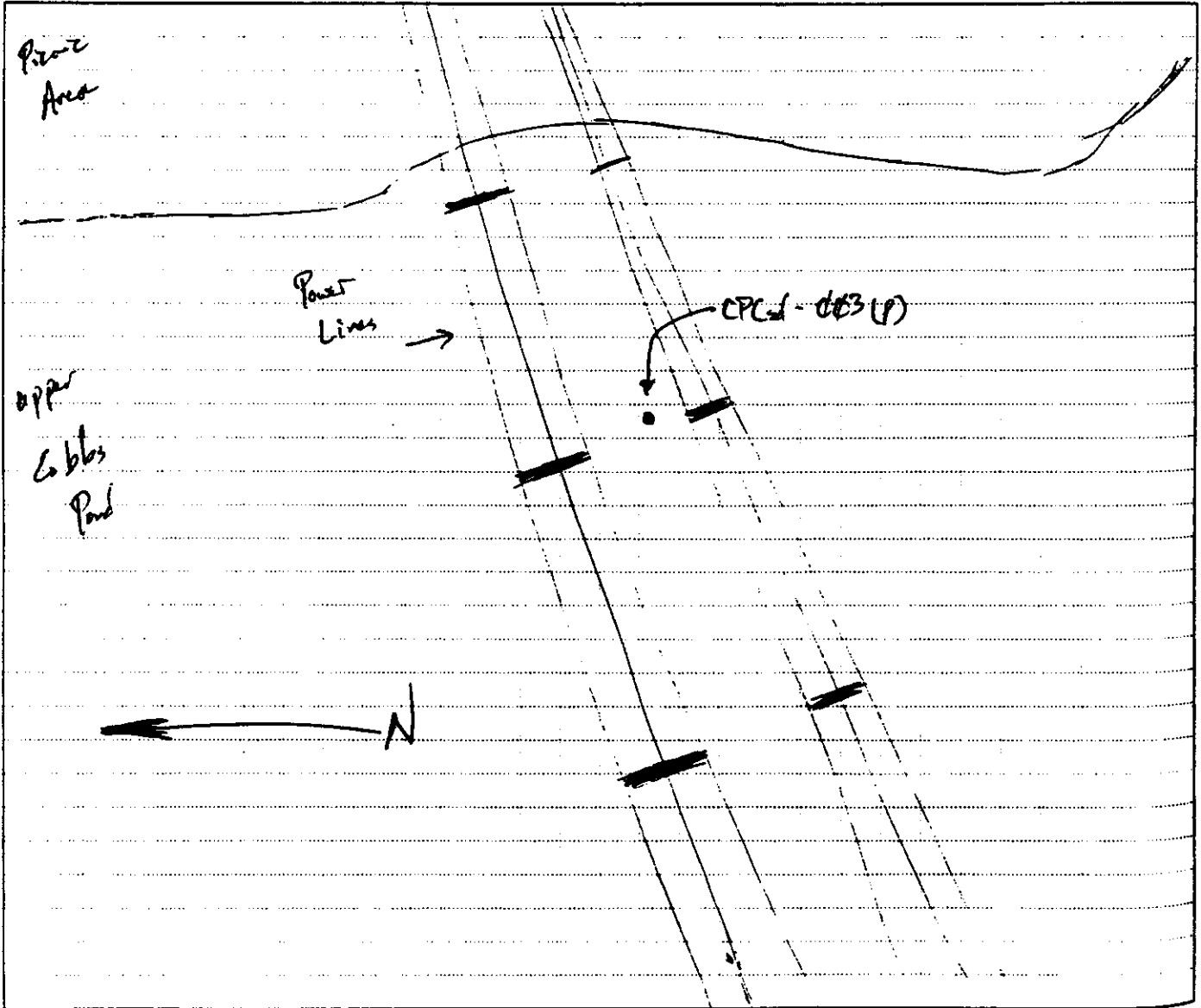
RECORDED BY: Joseph J. Anderson	DATE 08-19-96	QA CHECK BY: <i>[Signature]</i>	DATE 08/19/96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: CPC-003 (P)	DATE COLLECTED (mm/dd/yy): 08-19-96
SAMPLE LOCATION: see sketch Upper Cobbs Pond	TIME COLLECTED (hh:mm): see sample log
SAMPLING POINT: see sketch	DEPTH: ↓



COMMENTS: Location is 10ft North of the second series of power line poles from the East Shore

RECORDED BY: Joseph J. Wilson	DATE: 08-19-96	QA CHECK BY: [Signature]	DATE: 8/19/96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER:

CPCW-004 (P) & 005 (P)

DATE COLLECTED (mm/dd/yy):

08-19-96

SAMPLE LOCATION:

Upper Cobbs Pond

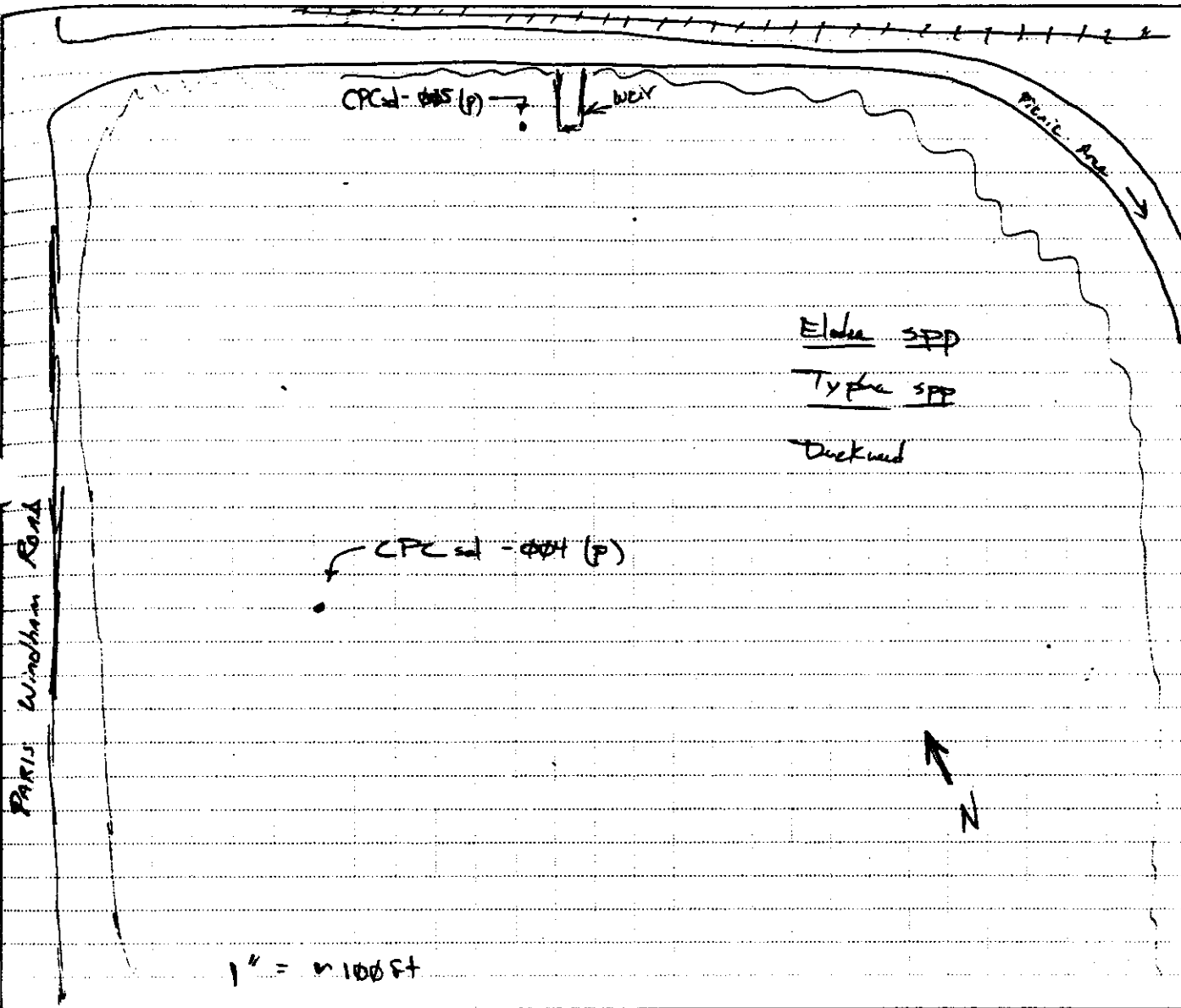
TIME COLLECTED (hh:mm):

see sample log

SAMPLING POINT:

see sketch

DEPTH:



COMMENTS:

005 is west of weir, 004 is due west of swing set at picnic area

RECORDED BY:

Joseph J. Wilson

DATE

08-19-96

QA CHECK BY:

M. T. Case

DATE

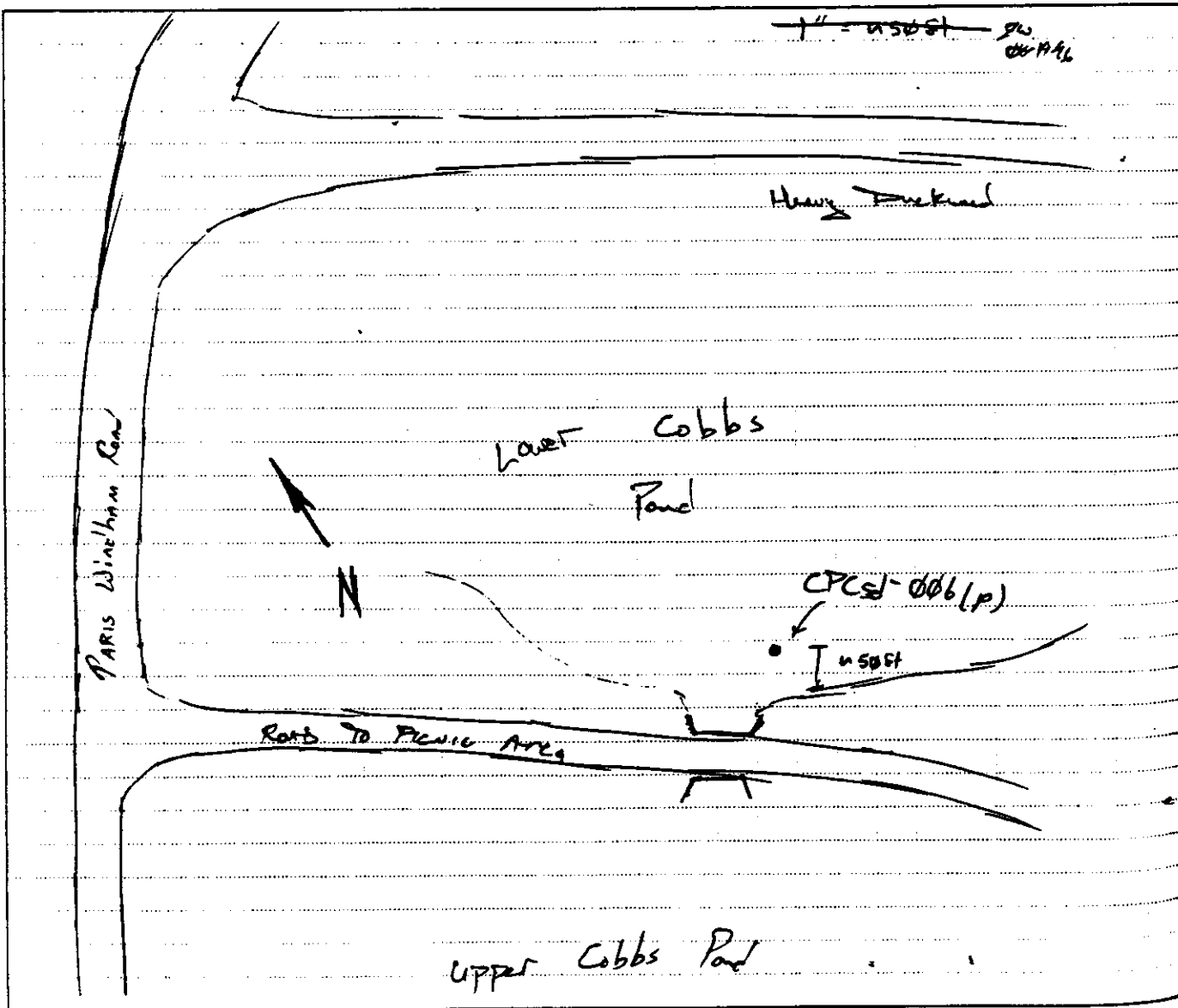
8/22/96

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: CPCSD - 006 (P)	DATE COLLECTED (mm/dd/yy): 08-19-96
SAMPLE LOCATION: Lower Cobbs Pond	TIME COLLECTED (hh:mm): 1010
SAMPLING POINT: see sketch	DEPTH: 1 ft



COMMENTS:

RECORDED BY: <i>[Signature]</i>	DATE: 08-19-96	QA CHECK BY: <i>[Signature]</i>	DATE: 8/17/96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER:

DATE COLLECTED (mm/dd/yy):

SAMPLE LOCATION:

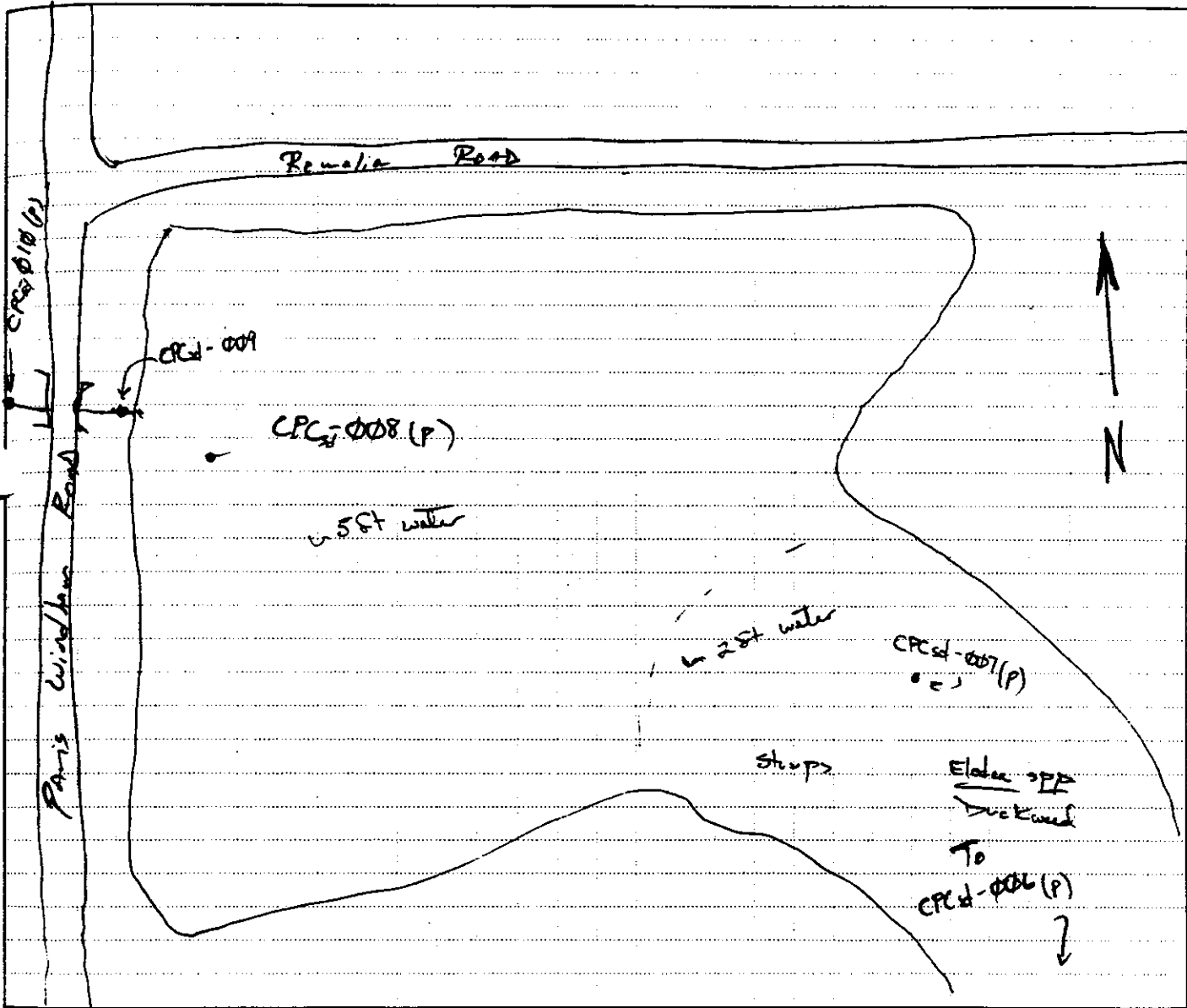
TIME COLLECTED (hh:mm):

SAMPLING POINT:

DEPTH:

007 ~ 04-17-96
 CPC-006 (P) through 010 (P) 11/13/94
 Lower Lobbs Pad
 see sketch

08-19-96
 see sample log
 ↓



COMMENTS:

RECORDED BY: <i>John J. [Signature]</i>	DATE 08-19-96	QA CHECK BY: <i>[Signature]</i>	DATE 8/19/96
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UPPER AND LOWER COBBS PONDS

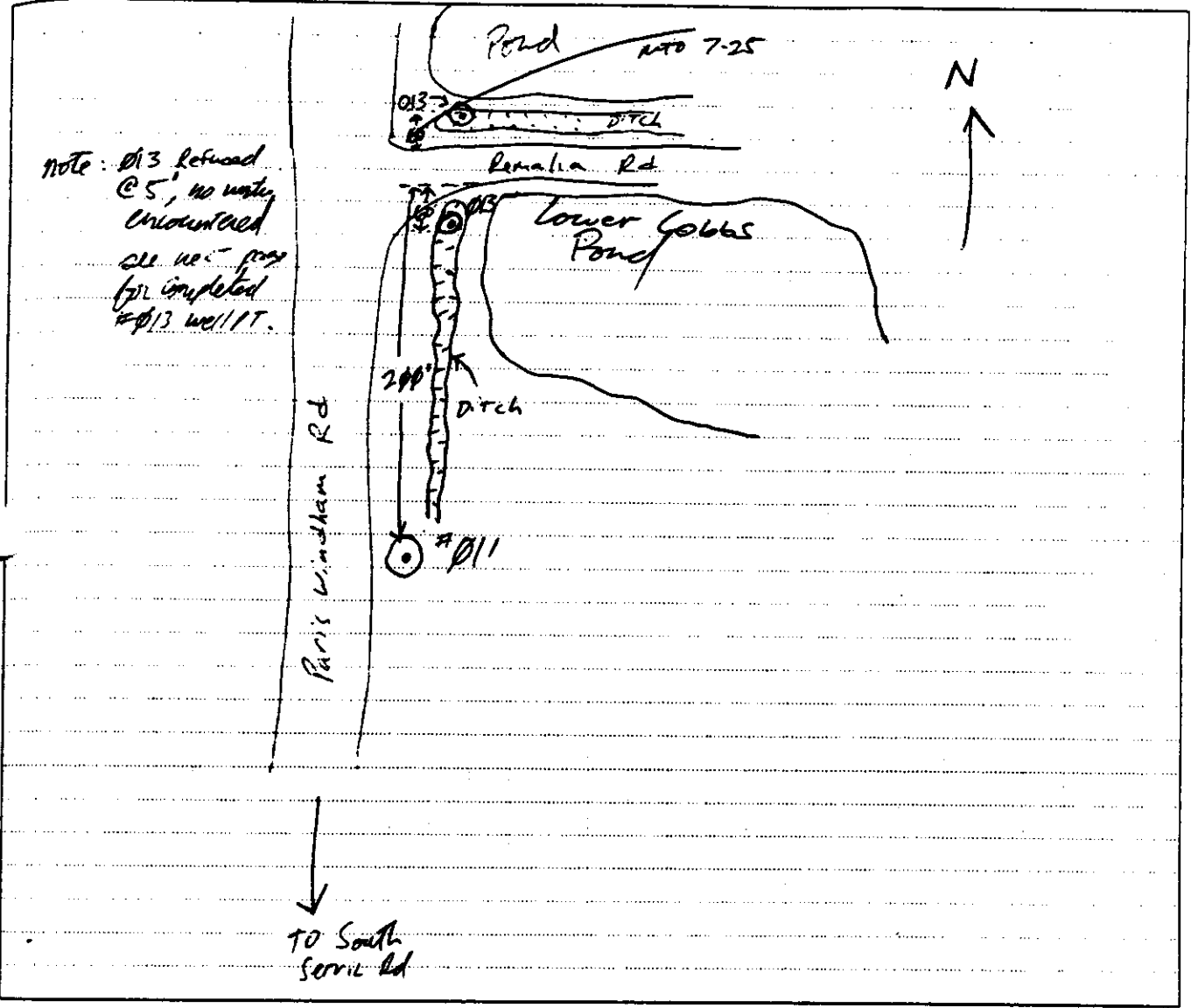
**WELL POINTS/GROUNDWATER
LOGBOOK #14**

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: Also CPLWP-013 CPLWP-011-0221-6W	DATE COLLECTED (mm-dd-yy): 7-25-96
SAMPLE LOCATION: CPLWP-011 and CPLWP-013	TIME COLLECTED (hh:mm): 13:15
SAMPLING POINT: N14	DEPTH: TD 011: 9.5' BGS 013: 10.5' BGS



COMMENTS:

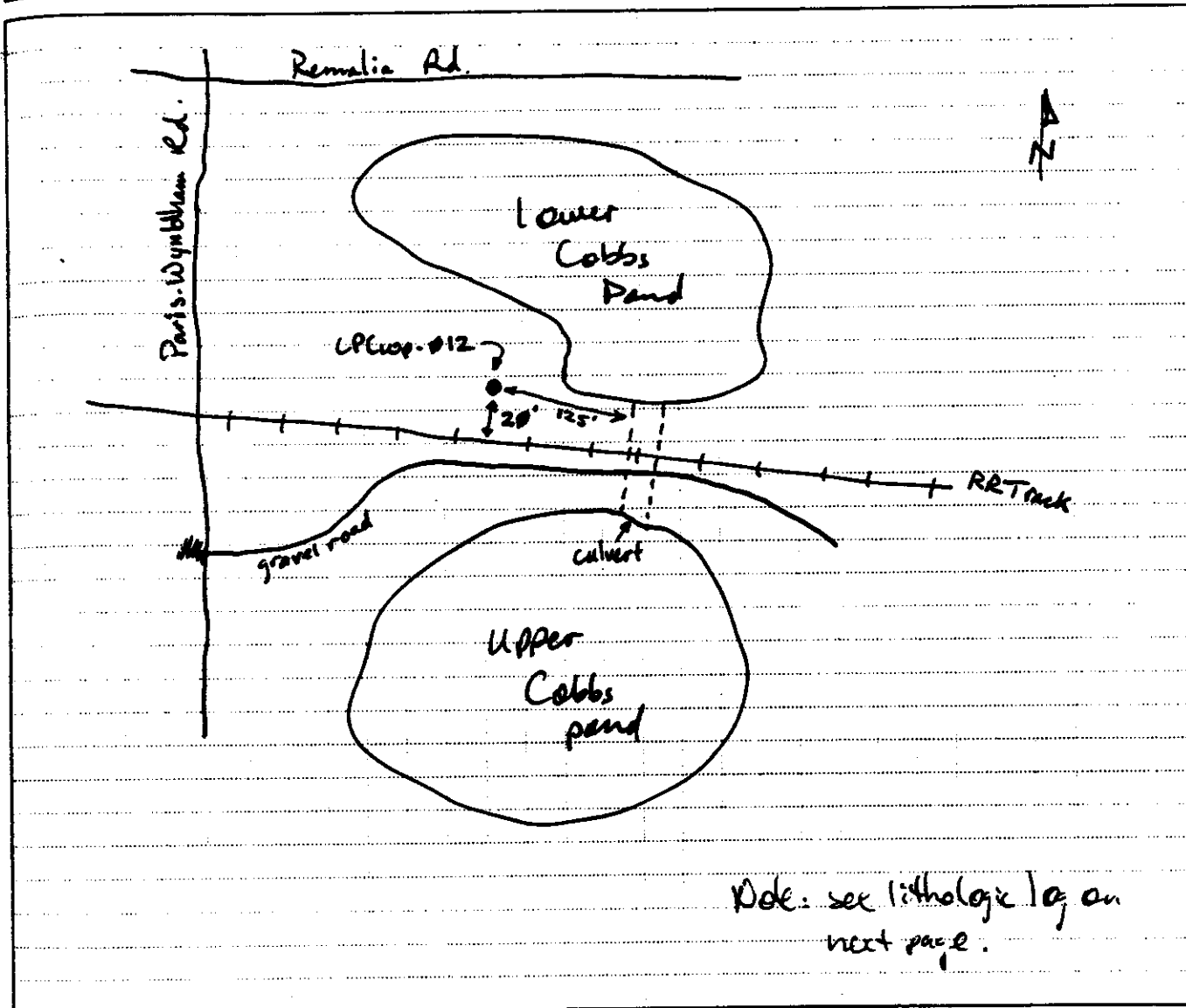
RECORDED BY: <i>Maxx Kelly</i>	DATE: 7-25-96	QA CHECK BY: <i>[Signature]</i>	DATE: 8/23/96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: CPCwp-Ø12-Ø222-GW	DATE COLLECTED (mm/dd/yy): 07/28/96
SAMPLE LOCATION: CPCwp-Ø12	TIME COLLECTED (hh:mm): 0945
SAMPLING POINT: N/A	DEPTH: screen 12.67'-10.67' bgs



COMMENTS:

RECORDED BY: <i>John W. Dwyer</i>	DATE: 7/29/96	QA CHECK BY: <i>Matt DeLong</i>	DATE: 8/22/96
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LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER:

DATE COLLECTED (mm/dd/yy):

SAMPLE LOCATION:

TIME COLLECTED (hh:mm):

CPCwp-Φ12

SAMPLING POINT:

DEPTH:

Ceoprobe Macrocore lithologic log.

Depth	Recovery	Description
4'	0-4'	Silty clay, dry, mottle of 7.5YR 5/6 strong brown and 7.5YR 2.5/1 grey, also some black (increasing near bottom), not plastic, firm. Silty at top.
8'	0-4'	same as above, no more black mottle, very soft toward lower 2', very silty, moist.
12'	0-1.0' 1.8'-3.5' 3.5'-4'	same as above. saturated silt/fine sand, 7.5YR 4/1 dk. grey, not plastic. silty med. to coarse sand, subrounded gravel to 2 cm, firm, saturated, 7.5YR 4/2 brown. Gravel poorly sorted, up to 50% total matrix. (has appearance of weathered conglomerate.)

COMMENTS:

RECORDED BY:

J. DeDach

DATE

7/29/96

QA CHECK BY:

Robert O'Leary

DATE

8-7-96

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER:

CPL up-013-0223-6W

DATE COLLECTED (mm/dd/yy):

07/26 and 07/27/96

SAMPLE LOCATION:

Ditch near lower Colds pond

TIME COLLECTED (hh:mm):

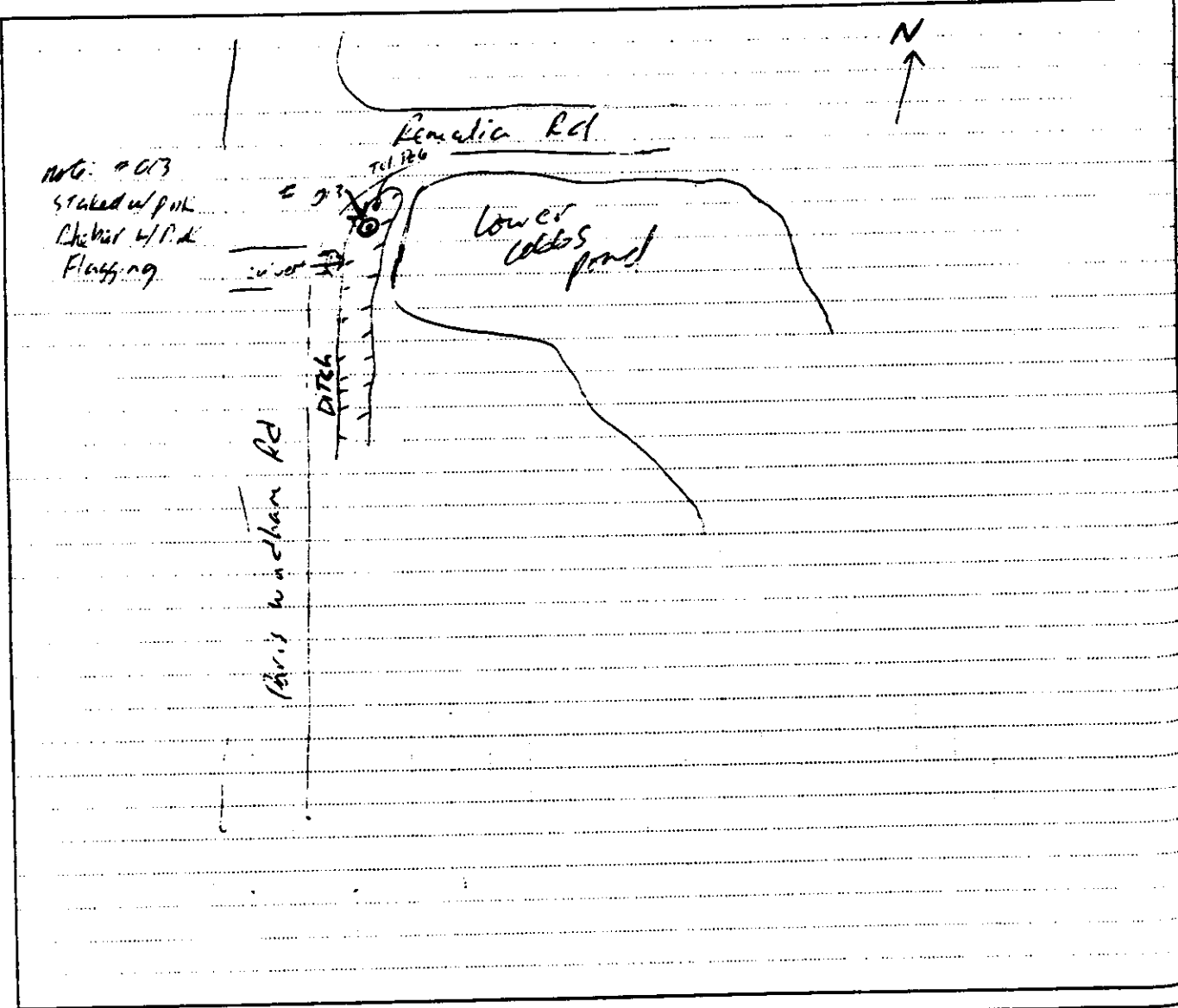
13:15 and 13:55

SAMPLING POINT:

NIA

DEPTH:

Screen @ 3.5-5.5 ft bgs



COMMENTS:

RECORDED BY:

M 03/20

DATE

QA CHECK BY:

[Signature]

DATE

8/22/96

CO

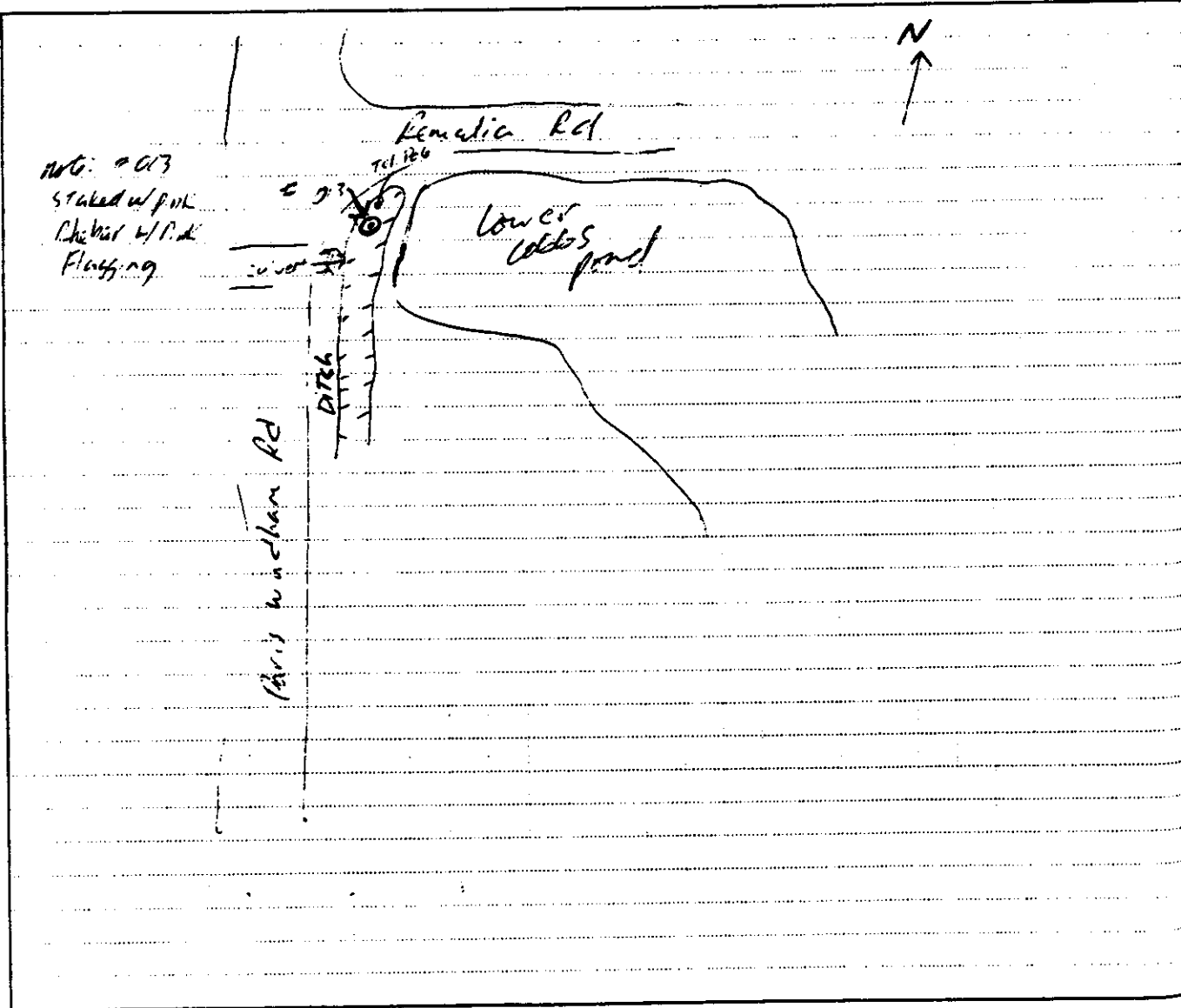
REC

LOCATION SKETCH

PROJECT NO: RVAAP

DELIVERY ORDER NO: 0010

SAMPLE ID NUMBER: <i>CPL up-013-0223-6W</i>	DATE COLLECTED (mm/dd/yy): <i>07/26 and 07/27/96</i>
SAMPLE LOCATION: <i>Ditch near Lower Caddis pond</i>	TIME COLLECTED (hh:mm): <i>13:15 and 13:55</i>
SAMPLING POINT: <i>NIA</i>	DEPTH: <i>Screen @ 3.5-5.5 FT bgs</i>



COMMENTS:

RECORDED BY:

M 5/21

DATE

QA CHECK BY:

[Signature]

DATE

8/22/96

PF

SA

SA

SA

CO

REC