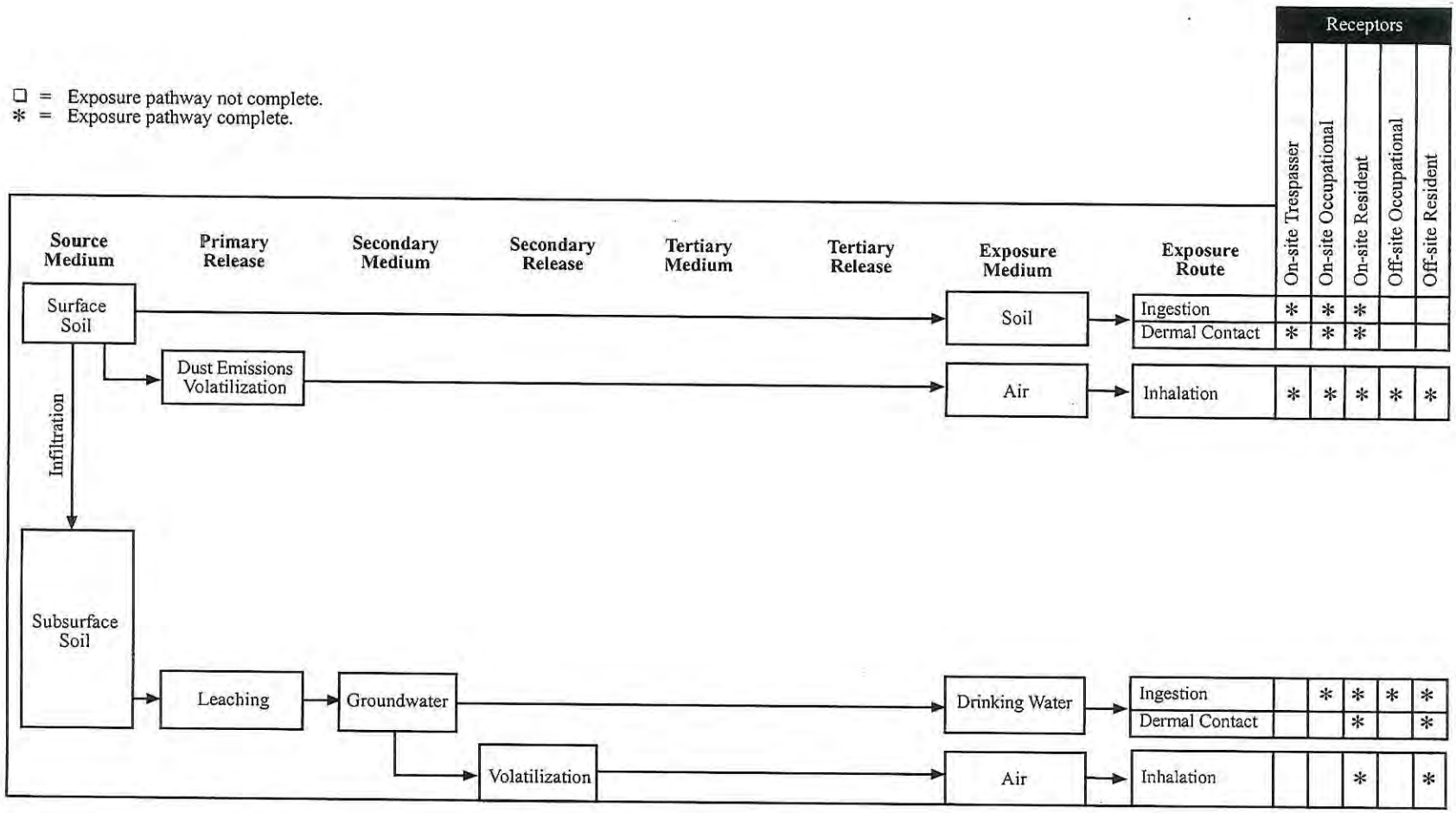

Figure 15. Phase II RFI Migration and Exposure Pathways, SWMU 27F, Northwest of Building 1340

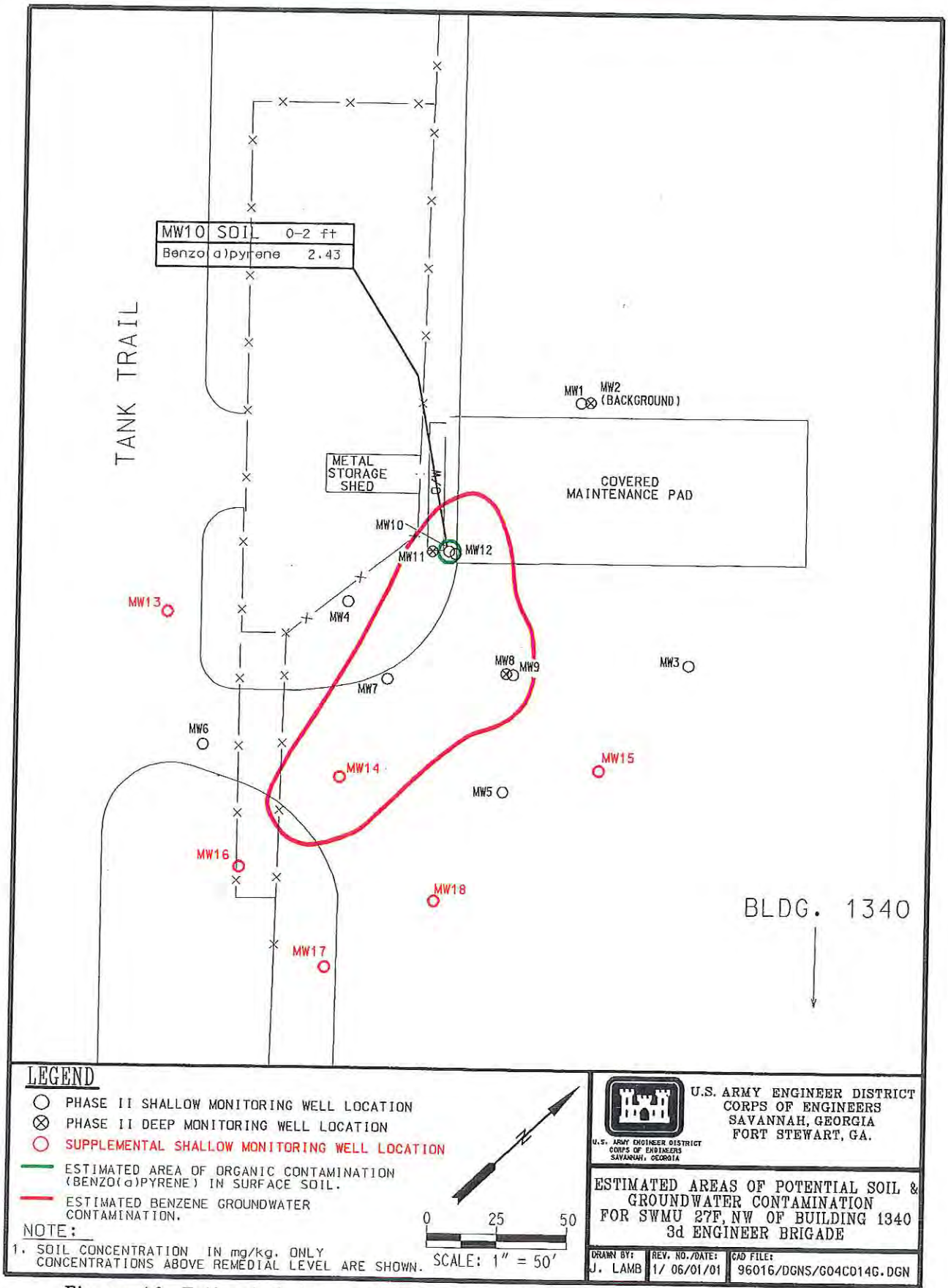

Figure 16. Estimated Areas of Potential Soil and Groundwater Contamination Sampling Locations for SWMU 27F, Northwest of Building 1340

ATTACHMENT A
TO SWMU 27F: NORTHWEST OF BUILDING 1340
TO THE
REVISED FINAL PHASE II RCRA FACILITY INVESTIGATION REPORT
FOR
16 SOLID WASTE MANAGEMENT UNITS
AT
FORT STEWART, GEORGIA

BORING LOGS

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HTRW DRILLING LOG

DISTRICT: USACE- Savannah

HOLE NUMBER: 27F-MW-13(TJ)

1. COMPANY NAME: SAIC

2. DRILL SUBCONTRACTOR: Miller Drilling Company

SHEET 1 OF 3

PROJECT: 16 SWMU's

4. LOCATION: 3rd Engineers Brigade MP

5. NAME OF DRILLER: Clete Sanders

6. MANUFACTURERS DESIGNATION OF DRILL: Mobile B-57

7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Mobile B-57 auger rig; w/ 8 1/2-in. OD, 4 1/4-in. ID Hollow-stem augers, 4-in. OD, 3 3/8-in. ID, 5-Ft split-spoons; 2-in. OD, 2-Ft split-spoons.

8. HOLE LOCATION: Small fenced compound near MW-6.

9. SURFACE ELEVATION:

10. DATE STARTED: 11/29/00

11. DATE COMPLETED: 11/29/00

12. OVERBURDEN THICKNESS: N/A

15. DEPTH GROUNDWATER ENCOUNTERED: 8.2 Ft BGS.

13. DEPTH DRILLED INTO ROCK: N/A

16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 7.3 Ft BGS / 1/2 hour

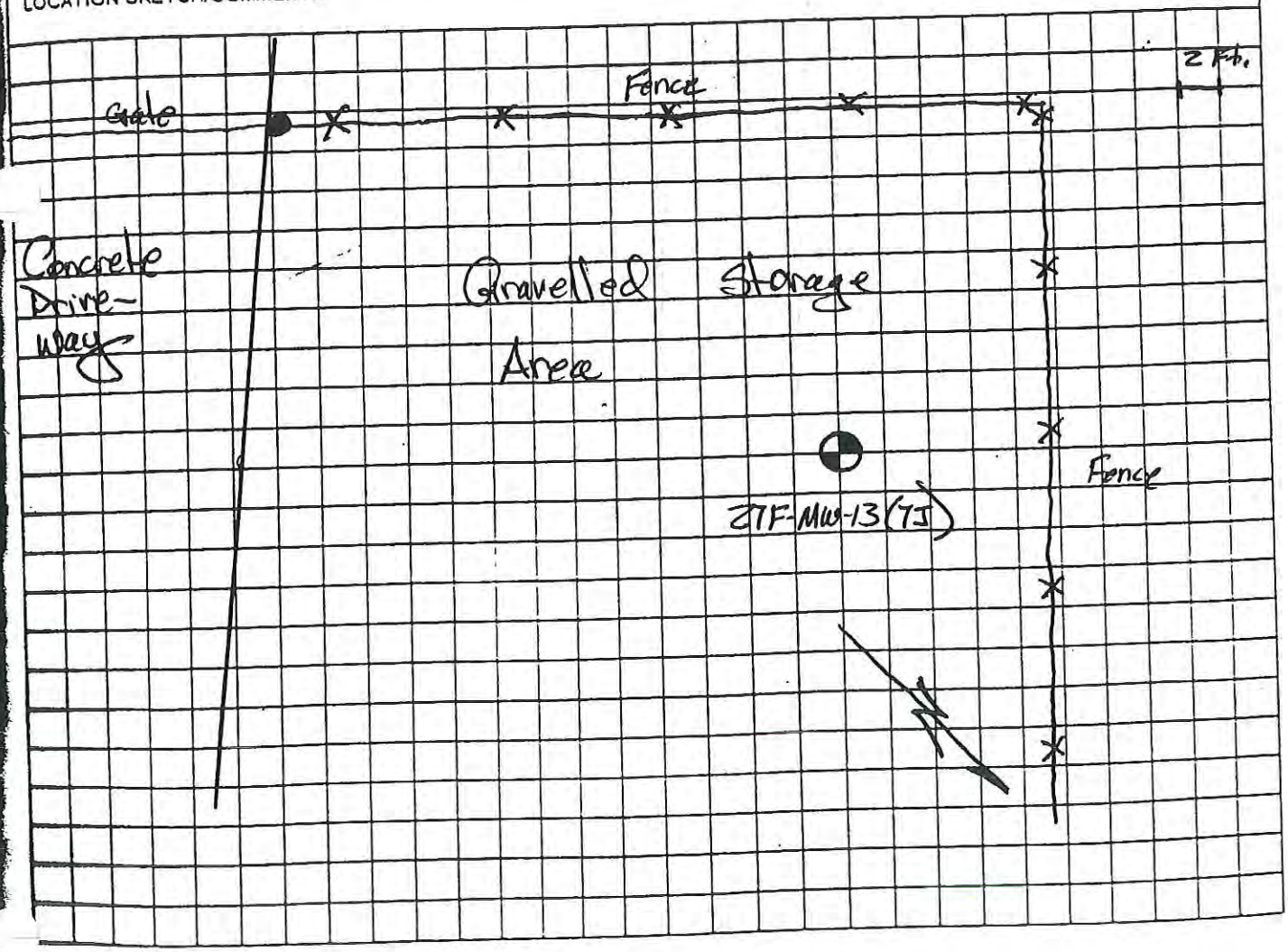
14. TOTAL DEPTH OF HOLE: 15.0 Ft

17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: N/A			
20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	X	X	N/A			
22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: Timothy Joffey		
		X				

LOCATION SKETCH/COMMENTS

SCALE:



QA CHECK BY: Cynthia A. Ulmer (Signature and Date) 12/20/00

well atmosphere, soil core, breathing zone, venting compressed air,

HTRW DRILLING LOG

HOLE NUMBER 27F-MW-13(15)

PROJECT: 16 SWMU's | INSPECTOR Timothy Coffey | SHEET 2 OF 3

4

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	1	Green-grey (10G 5/1) gravel fill DK yell-brn (10YR 4/4) sandy silt Black (10YR 2/1) sandy silt; moist dry, v. F-grnd, mod-packed, but crumbles when handled, massive, becoming bedded at depth.	N/A	N/A	7J1DB1	Run #1 Drill: 2.0 Ft Recover: 1.4 Ft
	2	No Recovery				
	3					Run #2 Drill: 5.0 Ft Recover: 0.0 Ft
	4	No Recovery	N/A	N/A	7J1DB1	
	5					
	6					
	7	V. dk. grey-black (10YR 3/2) silty sand:				Run #3 Drill: 5.0 Ft Recover: 2.5 Ft
	8	V. Pale brown (10YR 8/2) clay sand; moist, bedded, silt: sand and clay; stiff, firm, mod. plastic.		N/A		
	9	V. Pale brown (10YR 8/2) sand: wet, bedded, v. F-grained, med. packed; rare clay.	N/A	7J1DB2	7J1DB1	Water @ 8.2 Ft BGS.
	10	No Recovery				

HTRW DRILLING LOG

HOLE NUMBER 27F-MW-13 (Rev 5)

PROJECT: 16 SWMU's

INSPECTOR Timothy Coffey

SHEET 3 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	11	No Recovery	N/A	N/A	751D81	
	12	Very pale brown sand (as above).				No coring, auger only.
	13		N/A	N/A	751D81	
	14					
	15	TD = 15.0 ft.				
	16					
	17					
	18					
	19					
	20					

HTRW DRILLING LOG

1. COMPANY NAME: SAIC	2. DRILL SUBCONTRACTOR: Miller Drilling Company	HOLE NUMBER: ZTF-MW-14(75) 29
		SHEET 1 OF 3

DISTRICT: USACE-Savannah

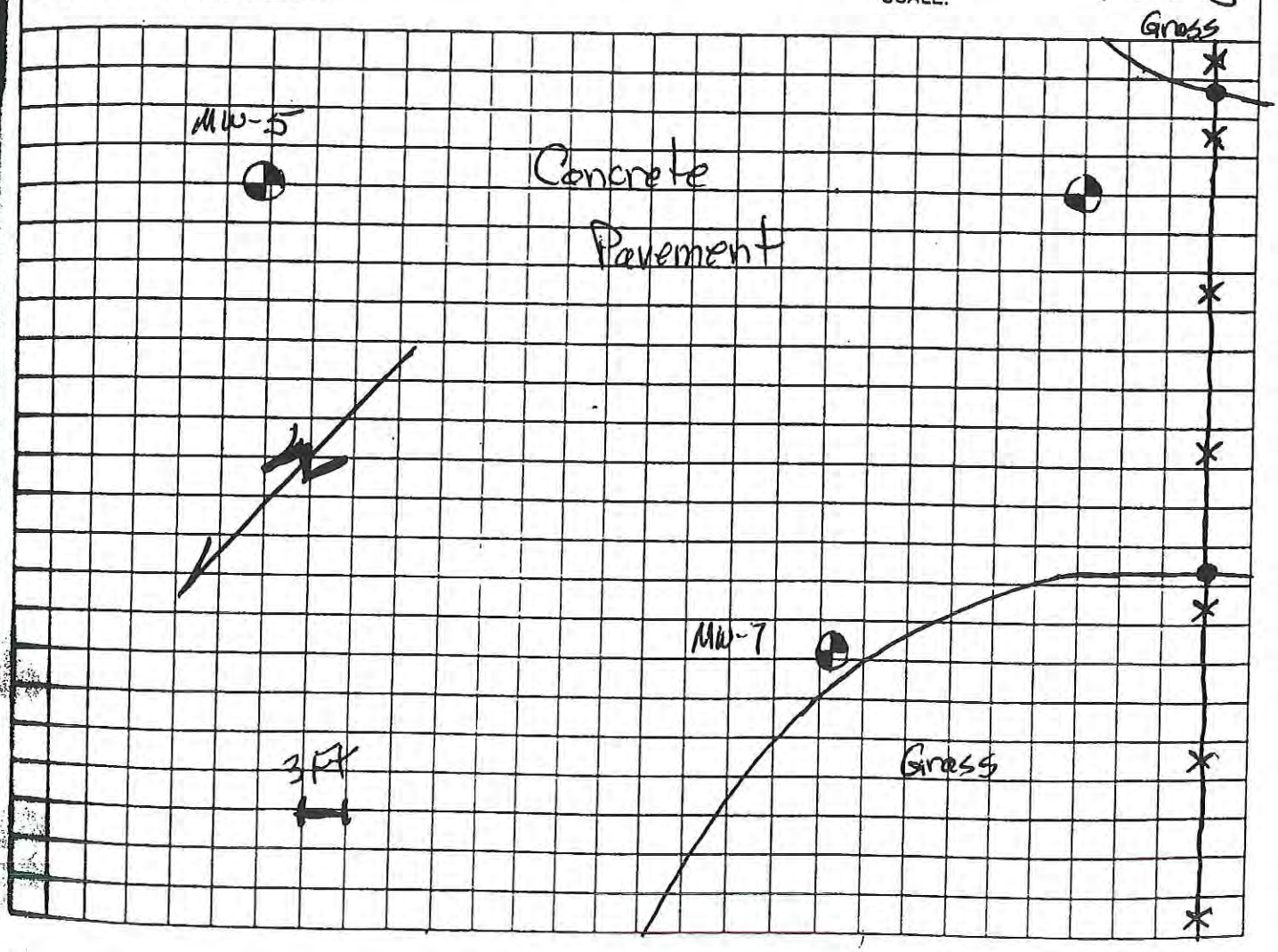
3. PROJECT: 16 SWMU's	4. LOCATION: 3rd Engineers Brigade
5. NAME OF DRILLER: Clete Sanders	6. MANUFACTURERS DESIGNATION OF DRILL: Mobile B-57
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Mobile B-57 auger rig; with 8½-in. OD, 4¼-in. ID hollow-stem augers; 4-in. OD, 3½-in. ID, 5-ft samplers; 2-in. OD, 2-ft split-spoons.	8. HOLE LOCATION: Near fenced storage compound.
	9. SURFACE ELEVATION:
	10. DATE STARTED: 11/30/00 — 11. DATE COMPLETED: 11/30/00
12. OVERBURDEN THICKNESS: N/A	15. DEPTH GROUNDWATER ENCOUNTERED: 7.7 ft BGS
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 8.25 ft BGS / ½ hour
14. TOTAL DEPTH OF HOLE: 15.0 ft	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): N/A

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: N/A

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	X	X	N/A			

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
		X		Timothy Jeffrey

LOCATION SKETCH/COMMENTS — SCALE:



17 58

PROJECT: 16 SWMU's | INSPECTOR Timothy Coffey | SHEET 2 OF 3 | 30

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	1	Concrete pavement.	N/A	N/A	N/A	
	2	No Recovery	N/A	N/A	N/A	No Core, auger only.
	3	Reddish-yellow (5YR 5/6) silty clay; moist, mottled, soft, sl. to mod. plastic.	N/A	N/A	TJIEB1	Run #1 Drill = 2.0 ft Recover = 2.0 ft
	4	Black (10YR 2/1) silty sand; dry to moist, massive, mod. packed, but crumbles when handled, v. F-grad.				
	5	See below Light gray (10YR 7/1) and yell-brn (10YR 5/6) sandy silty clay; med. stiff, plastic, mottled.	N/A	N/A	TJIEB1	Run #2 Drill: 2.0 ft Recover: ~~2.0~~ 1.8 ft
	6	Lt. gray and yell-brn clay; moist, dense, very stiff, plastic, mottled.				
	7	Lt. gray sandy clay; moist, sl. to mod. packed plastic. No Recovery				
	8	v. pale brown (10YR 8/4) sandy clay (as above); sand incr. w/ depth.	N/A	N/A	TJIEB1	Run #3 Drill: 2.0 ft Recover: 1.8 ft Water at 7.7 ft stinky
	9	No Recovery				
	10	v. pale brown Sand; wet, massive, but gradually changes color w/ depth, v. F-grnd, loose, weakly packed.	N/A	TJIEB2	TJIEB1	Run #4 Drill: 2.0 ft Recover: 2.0 ft

HTRW DRILLING LOG

PROJECT: 16 SWMU's | INSPECTOR Timothy Coffey | HOLE NUMBER ZTF-MW-14(15) 31 | SHEET 3 OF 3

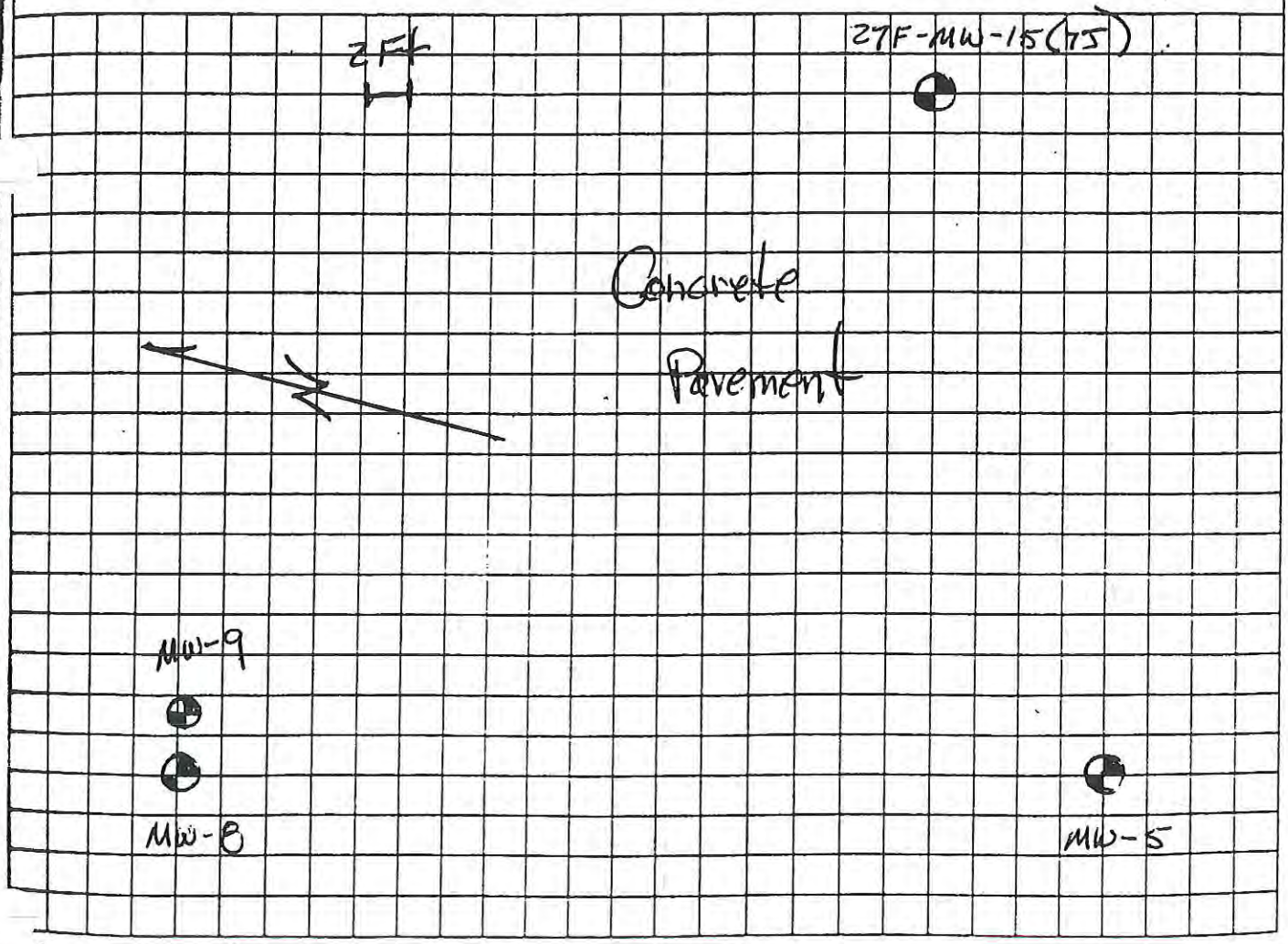
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	11	V. pale brown sand. (as above)				No core, augering only.
	12		N/A	N/A	751E81	
	13					
	14					
	15					
		TD = 15.0 ft.				
	16					
	17					
	18					
	19					
	19					

HTRW DRILLING LOG

1. COMPANY NAME: SAIC	DISTRICT: USACE - Savannah	HOLE NUMBER: 27F-MW-15(75)
3. PROJECT: 16 SWMU's	2. DRILL SUBCONTRACTOR: Miller Drilling Company	SHEET 1 OF 3
5. NAME OF DRILLER:	4. LOCATION: 3rd Engineers Brigade MP	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Mobile B-57 auger rig; with 8½-in. OD, 4¼-in. ID Hollow-stem auger; 4-in. OD, 3 5/8-in. ID samplers; 2-in. OD, 2-ft split-spoons.	6. MANUFACTURERS DESIGNATION OF DRILL: Mobile B-57	
	8. HOLE LOCATION: Paved portion of motor pool	
	9. SURFACE ELEVATION:	
	10. DATE STARTED: 11/29/00	11. DATE COMPLETED: 11/29/00
12. OVERBURDEN THICKNESS: N/A	15. DEPTH GROUNDWATER ENCOUNTERED: 8.7 ft BGS	
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 8.2 ft BGS / ½ hour	
14. TOTAL DEPTH OF HOLE: 15.0 ft	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: N/A			
20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	X	X	N/A			
22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR		
		X				

LOCATION SKETCH/COMMENTS — SCALE:



(Signature and Date)

HTRW DRILLING LOG

HOLE NUMBER 27F-MW-15 (71) 18

PROJECT: 16 SWMU's | INSPECTOR Timothy Coffey | SHEET 2 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Concrete pavement	N/A	N/A	N/A	
	1 2	No Recovery	N/A	N/A	N/A	Run #1 Drill: 1.4 ft Recover: 0.0 ft
	2 3	No Recovery	N/A	N/A	N/A	Run #2 Drill: 1.0 ft Recover: 0.0 ft
	3 4	Black silty sand Black silty sand: dry, loose, friable, v. F-grnd, massive.	clay			Run #3 ft Drill: 2.0 ft Recover: 1.4 ft
	4 5	Brownish-yellow (10YR 6/6) sand: massive, dry, loose, to weakly packed, v. F-grnd.	N/A	N/A	TJIF81	
	5 6	No Recovery				
	6 7	gray (10YR 6/1) and brn-yell (10YR 6/8) clay: moist, med hardness, plastic, mottled. lt-blue-gray (10B 7/1) clay sand: moist, bdd, silty snd/ clay, sl. plast, stiff.	N/A	N/A	TJIF81	Run #4 Drill: 2.0 ft Recover: 1.6 ft
	7 8	No Recovery	N/A	N/A	N/A	
	8 9	Dk yellbrn (10YR 4/4) gravelly silty sand: dry, massive, mod. packed, v. F-grnd. white clay layer dk green-gray wet, plastic, sandy clay!	N/A	TJIF82	TJIF82	Run #5 Drill: 2.0 ft Recover: 2.0 ft Water at 8.7 ft BGS.
	9 10	White (10YR 8/1) sandy clay: wet to moist, sl. to mod. plastic, weak (soft); sand incr. w/ depth.	N/A	TJIF82	~~TJIF82~~ TJIF81	Run #6 Drill: 2.0 ft Recover: 1.4 ft

HTRW DRILLING LOG

HOLE NUMBER TIF-MW-15 (TJ) 19

PROJECT: 16 SWMU's

INSPECTOR Timothy Coffey

SHEET 3 OF 3

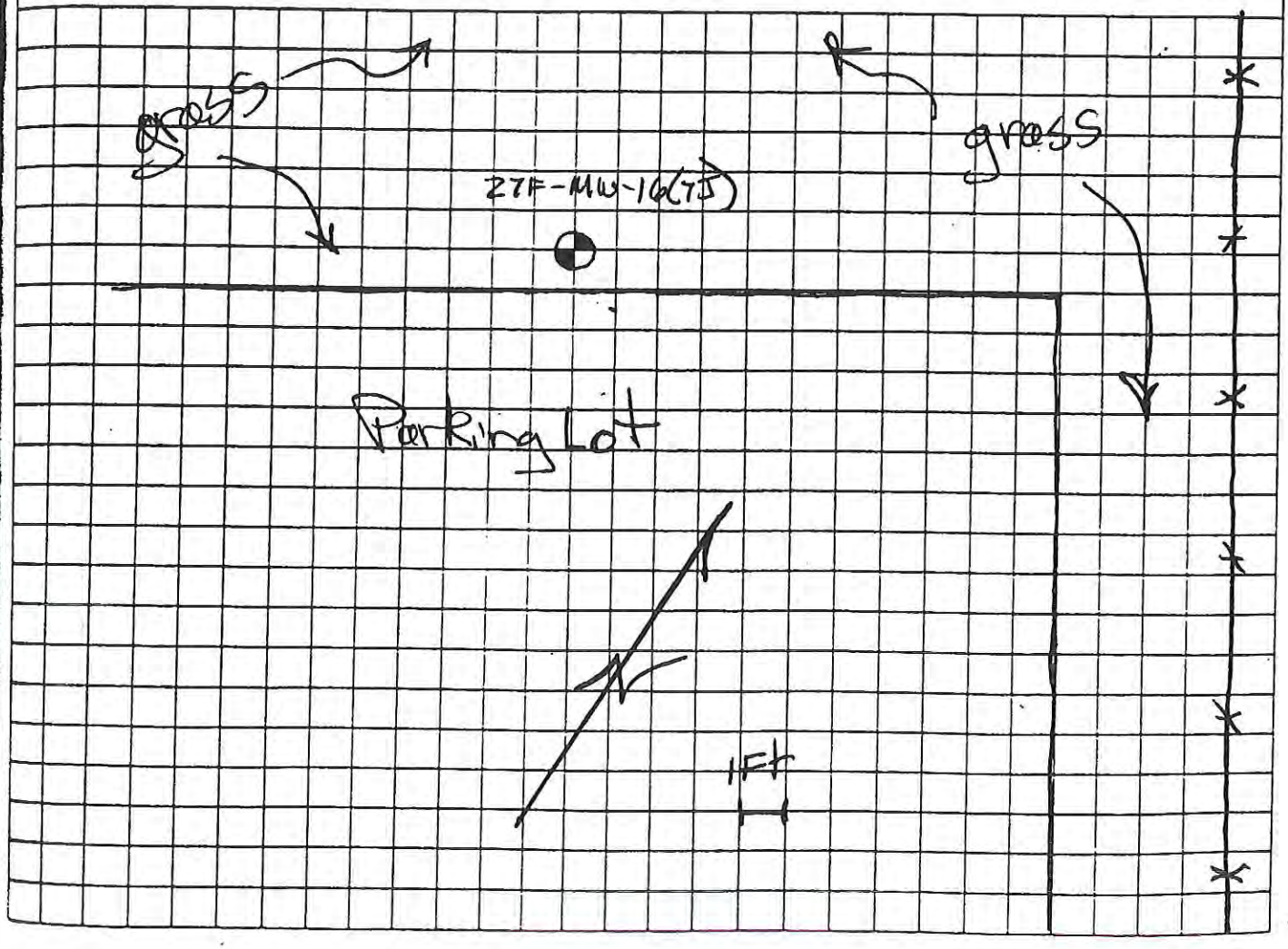
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	11 35	As Above; more sand.	N/A	TJIFBL	~~TJIFBL~~ TJIFB1	
		No Recovery				
		white sand.				No core; augering only.
	12 40					
	13 45		N/A	N/A	TJIFB1	
	14 50					
	15 55					
		TD = 15.0 Ft.				
	16 60					
	27					
	28					
	29					
	30					

HTRW DRILLING LOG

1. COMPANY NAME: SAIC	DISTRICT: USACE - Savannah	HOLE NUMBER: 27F-MW-16(TS) 42
3. PROJECT: 16 SWMU's	2. DRILL SUBCONTRACTOR: Miller Drilling Company	SHEET 1 OF 3
5. NAME OF DRILLER: Clete Sanders	4. LOCATION: 3rd Engineers Batt. MP	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Mobile B-57 auger rig with 8 1/2-in. OD, 4 1/4-in. ID hollow-stem augers; 2-in. OD; 2-Ft split-spoons.	6. MANUFACTURERS DESIGNATION OF DRILL: Mobile B-57	
	8. HOLE LOCATION: outside parking lot @ Motor Pool	
	9. SURFACE ELEVATION:	
	10. DATE STARTED: 12/5/00	11. DATE COMPLETED: 12/5/00
12. OVERBURDEN THICKNESS: N/A	15. DEPTH GROUNDWATER ENCOUNTERED: 8 Ft BGS.	
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 7-9 Ft BGS / 1/2 hr.	
14. TOTAL DEPTH OF HOLE: 15.0 Ft	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): N/A	
18. GEOTECHNICAL SAMPLES: (DISTURBED) UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: N/A	
20. SAMPLES FOR CHEMICAL ANALYSIS: VOC: X; METALS: X; OTHER (SPECIFY): N/A; OTHER (SPECIFY): ; OTHER (SPECIFY):	21. TOTAL CORE RECOVERY %	
22. DISPOSITION OF HOLE: BACKFILLED; MONITORING WELL: X; OTHER (SPECIFY):	23. SIGNATURE OF INSPECTOR: Timothy Poffley	

LOCATION SKETCH/COMMENTS

SCALE:



QA CHECK BY: Cynthia L. Abbott 12/28/00
(Signature and Date)

well atmosphere, soil core, breathing zone, venting compressed air,

PROJECT: 16 Samuels | INSPECTOR Timothy Coffey | HOLE NUMBER 2TF-MW-16(TS) | SHEET 2 OF 3 | 43

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	1	Black sandy topsoil; dry to wet; mottled/ massive (laminated in places), soft, weakly ~~plac~~ packed, V. F-grnd;	N/A	N/A	7S1GB1	Run #1 Drill: 2.0 Ft Recover: 2.0 Ft
	2	Reddish-yellow silty sand; hard				
		V. pale brown sand; dry to wet (perched water); massive, loose, F-grnd.				Run #2 Drill: 2.0 Ft Recover: 2.0 Ft
	3	Lt. gray sandy clay: moist, generally massive, soft, plastic, F-grnd, clay content incr. down.	N/A	N/A	7S1GB1	
	4	Brn yellow silty clay; firm, sl. plast.				
		Brn yellow/ light gray clay; moist, mottled, firm;				Run #3 Drill: 2.0 Ft Recover 0.7 Ft
		Lt. gray sandy clay				
	5	No Recovery	N/A	N/A	7S1GB1	
	6					
		Lt. gray sandy clay (as above)				Run #4 Drill: 2.0 Ft Recover: 1.8 Ft
	7	Light brn-gray clay sand; moist, gen. massive (mnr mottling), rel. firm, sl. plastic.	N/A	N/A	7S1GB1	
		Lt. brn-gray sand; moist to wet, massive, <10% clay.				
	8	No Recovery				
	9	No Recovery	N/A	N/A	7S1GB1	Run #5 Drill: 2.0 Ft Recover: 0.0 Ft Entire spoon is wet; water at 8 Ft.
	10					

HTRW DRILLING LOG

PROJECT: 16SWMU5 | INSPECTOR: Timothy Coffey | HOLE NUMBER: ZTP-MW-16(T3) | SHEET 3 OF 3 | 4f

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	11	Lt. brown-grey sand: moss; lam w/ thin clay beds, weak to loose, F-grnd. saturated.	N/A	TS1GB2	TS1G01	Run #6 Drill: 2.0 ft Recover: 2.0 ft
	12					
	13	V. pale brown to yellow sand: wet, soft, loose/friable, F-grnd.	N/A	N/A	N/A	No cores; auger only.
	14					
	15					
	16	TD = 15.0 ft.				
	17					
	18					
	19					
	20					

HTRW DRILLING LOG

1. COMPANY NAME: SAIC	DISTRICT: USACE-Savannah	HOLE NUMBER: ZTF-MW-17(T3) S5
3. PROJECT: 16 SWMU's	2. DRILL SUBCONTRACTOR: Miller Drilling Company	SHEET 1 OF 3
5. NAME OF DRILLER: Clete Sanders	4. LOCATION: 3rd Eng. Brigade Motor Pool	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Mobile B-57 auger rig with 8 1/2-in. OD, 4 1/8 in. ID hollow-stem augers; 4 in. OD, 3 3/8-in. ID 2-in. OD, 2-Ft split-spoons.	6. MANUFACTURERS DESIGNATION OF DRILL: Mobile B-57	
	8. HOLE LOCATION: Ingress along Motor Pool Fence.	
	9. SURFACE ELEVATION:	
	10. DATE STARTED: 12/5/00	11. DATE COMPLETED: 12/5/00
12. OVERBURDEN THICKNESS: N/A	15. DEPTH GROUNDWATER ENCOUNTERED: 8 Ft.	
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 8.6 Ft BGS/½ hr.	
14. TOTAL DEPTH OF HOLE: 15.0 Ft	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): N/A	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: N/A			
20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	X	X	N/A			
22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR		
		X		Timothy Coffey		

LOCATION SKETCH/COMMENTS

SCALE:

See page 68, this logbook, for location sketch.

QA CHECK BY: Cynthia Hebert 12/20/00
(Signature and Date)

well atmosphere, soil core, breathing zone, venting compressed air, etc.)

HLRW DRILLING LOG

PROJECT: 16 SWMU's | INSPECTOR Timothy Coffey | HOLE NUMBER 27F-MW-17(15-16) | SHEET 2 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	1	Black to dk red-brown sandy silty topsoil: dry, massive, rare gravel; strongly packed, firm, grass, rootlets, etc.	N/A	N/A	7S1HB1	Run #1 Drill: 2.0 ft Recove: 2.0 ft
		v. pale brown sand: packed.				
		dk grey brown silty sand: dry, massive, hand chunks.				
	2	Black sand: dry, massive, uniform, loose.				
		Black sand (as above				Run # 2 Drill: 2.0 ft Recover: 2.0 ft
		Dark brown ~~silty~~ sand: ~~dry, massive, hand~~ mod. firm, grades to below.				
	3	Yellow sand: moist to wet (perched water), loose, friable, F-grnd, massive.	N/A	N/A	7S1HB1	
		Brn-yellow/grey sandy clay: moist, mottled, mod firm, mod. plastic.				
	4					
		brn-yell/gray/dk red-brn sandy clay: moist, mottled, firm, plastic.				Run #3 Drill: 2.0 ft Recover: 1.2 ft
	5		N/A	N/A	7S1HB1	
		No Recovery				
	6					
		Same As Above				Run #4 Drill: 2.0 ft. Recover: 1.5 ft
		Yellow/gray: clay: moist mottled, very firm/stiff, plastic.				
	7		N/A	N/A	7S1HB1	
		No Recovery				
	8					
		Lt. brown-gray clay sand: wet, gen. massive with thin clay layers, nonplastic, F-grnd.				Run #5 Drill: 2.0 ft Recover: 1.4 ft water at 8 ft.
	9		N/A	7S1HB2	7S1HB1	
		No Recovery				
	10					

HTRW DRILLING LOG

PROJECT: 160 SWMU 5 | INSPECTOR Timothy Coffey | HOLE NUMBER ZTF-MW-7(18) | SHEET 3 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	11	white to very pale brown clay sand; wet, massive, v. F-grnd, loosely packed, clay disapears w/depth.	N/A	7J1HB2	7J1HB1	No core; auger only.
	12					
	13					
	14					
	15	TD = 15.0 ft.				
	16					
	17					
	18					
	19					
	20					

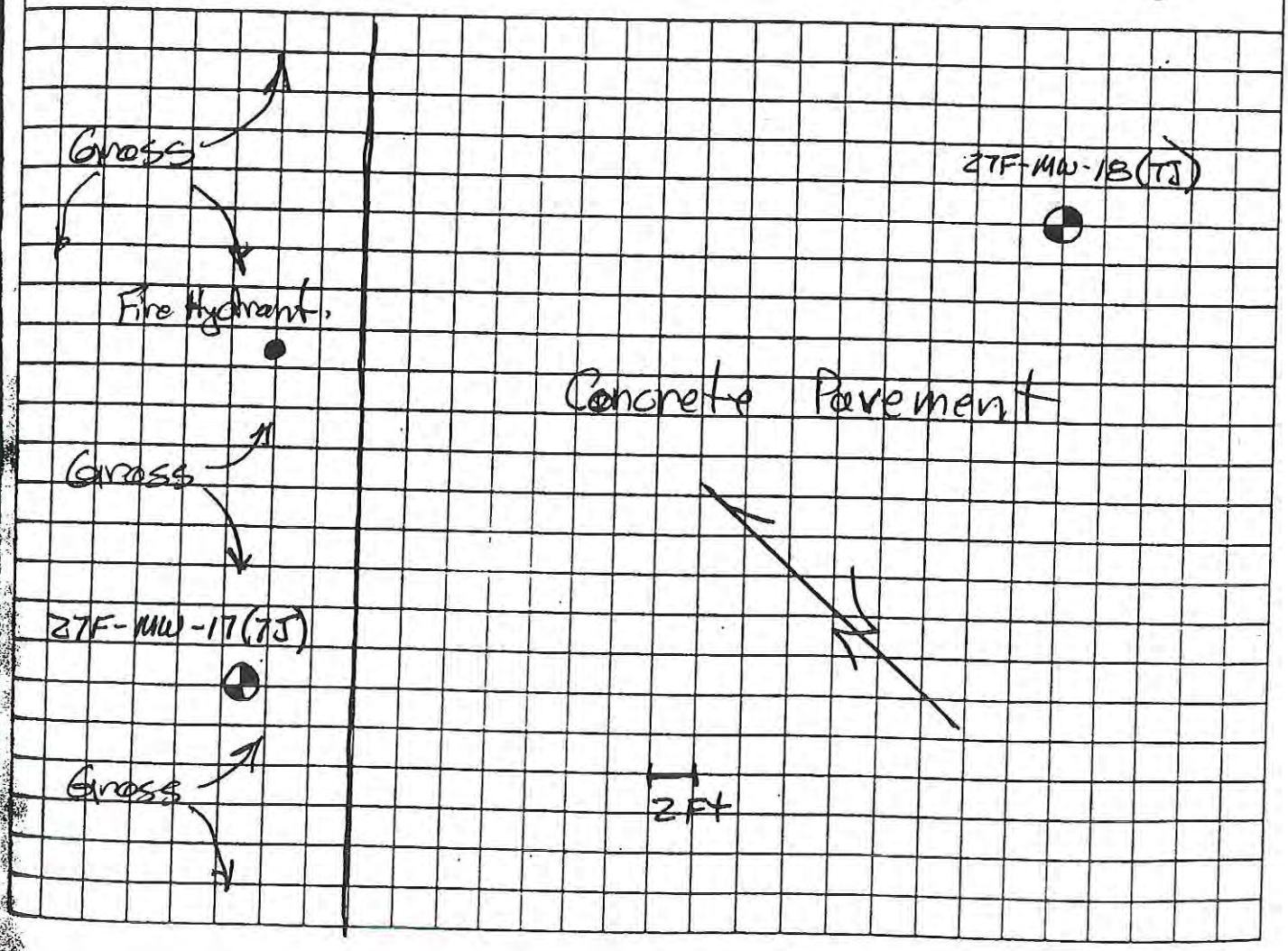
HTRW DRILLING LOG

1. COMPANY NAME: SAIC	DISTRICT: USACE-Savannah	HOLE NUMBER: 27F-MW-18(TJ) 68
	2. DRILL SUBCONTRACTOR: Miller Drilling Company	SHEET 1 OF 3
3. PROJECT: 16 SWMU's	4. LOCATION: 3rd Eng. Brigade Motor Pool	
5. NAME OF DRILLER: Cleve Sanders	6. MANUFACTURERS DESIGNATION OF DRILL: Mobile B-57	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Mobile B-57 auger rig with 8¼-in. OD, 4¼-in. ID hollow-stem augers; 2-in. OD, 2-Ft split-spoons.	8. HOLE LOCATION: In motor pool pavement area.	
	9. SURFACE ELEVATION:	
	10. DATE STARTED: 12/5/00	11. DATE COMPLETED: 12/5/00
12. OVERBURDEN THICKNESS: N/A	15. DEPTH GROUNDWATER ENCOUNTERED: 7.8 Ft.	
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 8.0 Ft BGS / 1 hr.	
14. TOTAL DEPTH OF HOLE: 15.0 Ft	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: N/A			
20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	X	X	N/A			
22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: Timothy Coffey		
		X				

LOCATION SKETCH/COMMENTS

SCALE:



HTRW DRILLING LOG

PROJECT: 16 SWMU's | INSPECTOR Timothy Coffey | HOLE NUMBER 27F-MW-18/75 | SHEET 7 OF 3

69

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Concrete Pavement	N/A	N/A	N/A	
	1	Dark gray silty sand: dry, massive, weakly packed, F-grnd.	N/A	N/A	7JIJ81	Run #1 Drill: 2.0 Ft Recover.
	2	Black silty sand: dry, massive, uniform, hard chunks, packed				
		Very pale brown sand: dry, massive but grades from above, v. F-grnd, loose.				
	3	Same As Above	N/A	N/A	7JIJ81	Run #2 Drill: 2.0 Ft Recover. 1.5 Ft
		brn-yellow/gray sandy clay: mottle, soft, mod. plastic, wet (perched?) grades to: silty clay: moist, rel. firm, sl. plastic				
	4	No Recovery				
	5	Brn-yell/gray/dk red sandy clay: moist, mottled, firm, dense, plastic.	N/A	N/A	7JIJ81	Run #3 Drill: 2.0 Ft Recover: 1.8 Ft
		Lt. brn-gray sand: loose				
		Brn-yell/gray sandy clay: mottled, very stiff.				
	6	Lt. brn-gray sand: wet, soft, F-grnd, <10% clay.				
		Brn-yell/gray clay: mottled.				
		No Recovery				
	7	Same As Above Brn-yell/gray clay	N/A	7JIJ82	7JIJ81	Run #4 Drill: 2.0 Ft Recover. 1.8 Ft water @ 7.8 Ft
		Lt. brn-gray sand: moist to wet, massive, thin clay beds, soft, non-plastic, F-grnd.				
	8	No Recovery				
	9	Lt-brn-gray clay sand as above.	N/A	7JIJ82	7JIJ81	No core; auger only.
	10					

HTRW DRILLING LOG

PROJECT: 16 Swamps | INSPECTOR Timothy Coffey | HOLE NUMBER 27F-MW-18 (TJ) | SHEET 3 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	11	Very pale brown sand: wet, massive, V. F-grnd, sugary, weakly packed.				No core, auger only.
	12		N/A	TJ1JB2	TJ1JB1	
	13					
	14					
	15	TD = 15.0 ft				
	16					
	17					
	18					
	19					
	19					

ATTACHMENT B
TO SWMU 27F: NORTHWEST OF BUILDING 1340
TO THE
REVISED FINAL PHASE II RCRA FACILITY INVESTIGATION REPORT
FOR
16 SOLID WASTE MANAGEMENT UNITS
AT
FORT STEWART, GEORGIA

WELL CONSTRUCTION DIAGRAMS

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MONITORING WELL INSTALLATION LOG

PROJECT: FORT STEWART - SWMU 27F **DELIVERY ORDER: 0009**

MONITORING WELL ID: 27F-MW-13 (7J)

INSTALLATION START: **DATE:** 11/29/00 **TIME:** 13:00

INSTALLATION FINISH: **DATE:** 11/29/00 **TIME:** 13:19

ANNULAR SPACE MATERIALS INVENTORY:

GRANULAR FILTER PACK: **TYPE:** #1 Filter Sand **QUANTITY:** 300 lbs

BENTONITE SEAL: **TYPE:** 1/4" Pellets **QUANTITY:** 25 lbs

GROUT: **TYPE:** N/A **QUANTITY:** N/A

DESCRIPTION OF WELL SCREEN:

SLOT SIZE (Inches): 0.008 **SLOT CONFIGURATION:** Horizontal

TOTAL OPEN AREA PER FOOT OF SCREEN: N/A

OUTSIDE DIAMETER: 2 3/8" **NOMINAL INSIDE DIAMETER:** 2"

SCHEDULE/THICKNESS: Sch 40 **COMPOSITION:** PVC

MANUFACTURER: Campbell-Monoflex

TYPE OF MATERIAL BETWEEN BOTTOM OF BORING AND SCREEN: Sand

DESCRIPTION OF WELL CASING:

OUTSIDE DIAMETER: 2 3/8" **NOMINAL INSIDE DIAMETER:** 2"

SCHEDULE/THICKNESS: Sch 40 **COMPOSITION:** PVC

MANUFACTURER: Drillers Service, Inc.

JOINT DESIGN AND COMPOSITION: Flush-threaded

CENTRALIZERS DESIGN AND COMPOSITION: N/A

DESCRIPTION OF PROTECTIVE CASING:

NOMINAL INSIDE DIAMETER: 8" **COMPOSITION:** Steel

SPECIAL PROBLEMS ENCOUNTERED DURING WELL CONSTRUCTION AND THEIR RESOLUTION:

None.

Was all well screen and casing material used for construction free of foreign matter (e.g., adhesive tape, labels, soil, grease, etc.)? **YES [X] NO [ ]**

Was all well screen and casing material used for construction free of unsecured couplings, ruptures, and other physical breakage and/or defects? **YES [X] NO [ ]**

Is deformation or bending of the installed well screen and casing minimized to the point of allowing the insertion and retrieval of a 1.0-inch bailer throughout the entire length of the completed well? **YES [X] NO [ ]**

QUANTITY OF APPROVED WATER USED FOR FILTER PACK ENPLACEMENT: None.

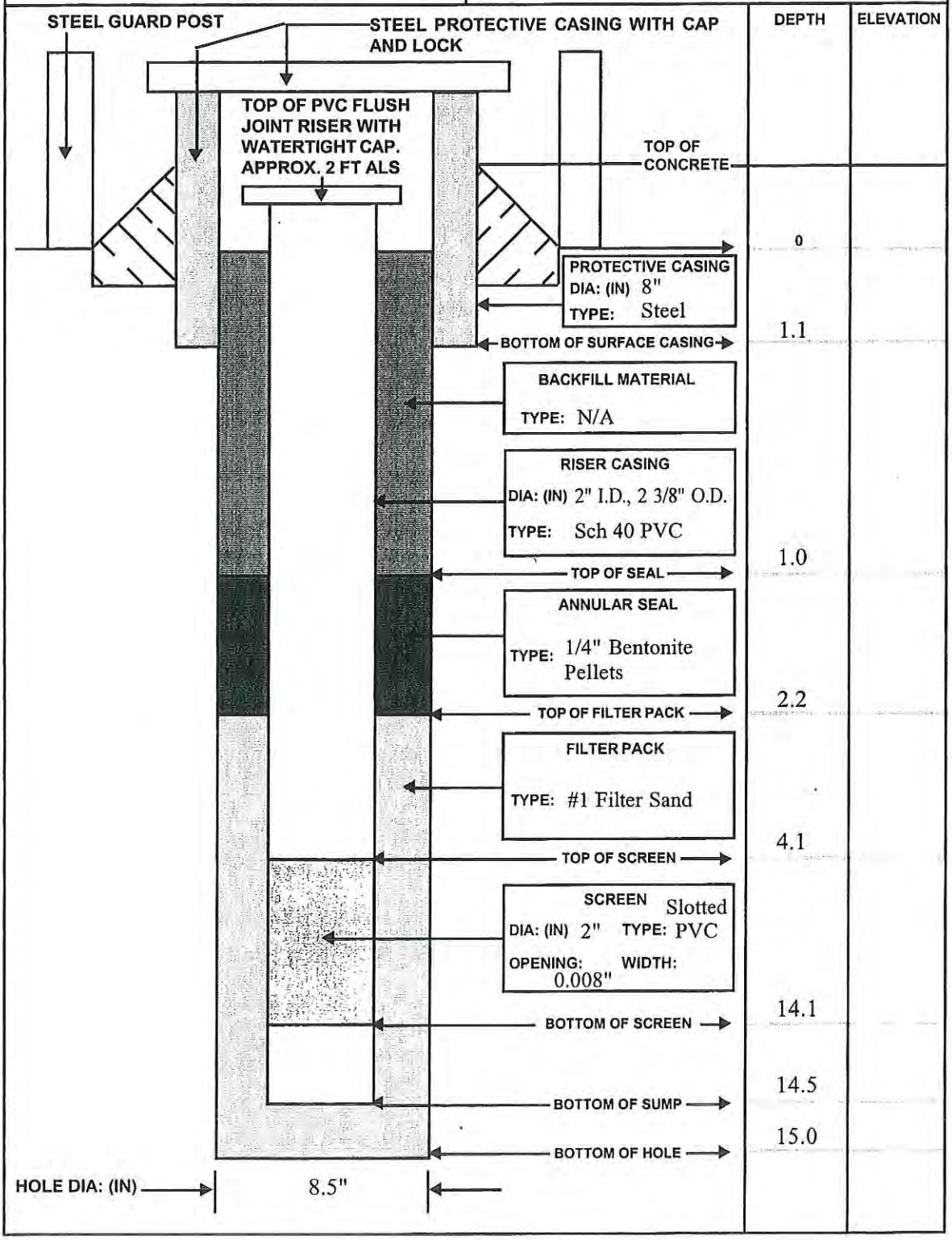
RECORDED BY: _____ **QA CHECK BY:** _____

(Signature & Date) **(Signature & Date)**

MONITORING WELL

PROJECT: FORT STEWART - SWMU 27F **DELIVERY ORDER: 0009**

WELL NUMBER: 27F-MW-13 (7J)	**BEGIN:** 11/29/00	**END:** 11/29/00
COORDINATES: N: 684278.17 E: 821483.84	**REFERENCE POINT:** MSL	**ELEVATION:** 67.26



MONITORING WELL INSTALLATION LOG

PROJECT: FORT STEWART - SWMU 27F **DELIVERY ORDER: 0009**

MONITORING WELL ID: 27F-MW-14 (7J)

INSTALLATION START: **DATE:** 11/30/00 **TIME:** 10:02

INSTALLATION FINISH: **DATE:** 11/30/00 **TIME:** 10:19

ANNULAR SPACE MATERIALS INVENTORY:

GRANULAR FILTER PACK: **TYPE:** #1 Filter Sand **QUANTITY:** 212 lbs

BENTONITE SEAL: **TYPE:** 1/4" Pellets **QUANTITY:** 25 lbs

GROUT: **TYPE:** N/A **QUANTITY:** N/A

DESCRIPTION OF WELL SCREEN:

SLOT SIZE (Inches): 0.008 **SLOT CONFIGURATION:** Horizontal

TOTAL OPEN AREA PER FOOT OF SCREEN: N/A

OUTSIDE DIAMETER: 2 3/8" **NOMINAL INSIDE DIAMETER:** 2"

SCHEDULE/THICKNESS: Sch 40 **COMPOSITION:** PVC

MANUFACTURER: Campbell-Monoflex

TYPE OF MATERIAL BETWEEN BOTTOM OF BORING AND SCREEN: Sand

DESCRIPTION OF WELL CASING:

OUTSIDE DIAMETER: 2 3/8" **NOMINAL INSIDE DIAMETER:** 2"

SCHEDULE/THICKNESS: Sch 40 **COMPOSITION:** PVC

MANUFACTURER: Drillers Service, Inc.

JOINT DESIGN AND COMPOSITION: Flush-threaded

CENTRALIZERS DESIGN AND COMPOSITION: None.

DESCRIPTION OF PROTECTIVE CASING:

NOMINAL INSIDE DIAMETER: 8" **COMPOSITION:** Steel

SPECIAL PROBLEMS ENCOUNTERED DURING WELL CONSTRUCTION AND THEIR RESOLUTION:

None.

Was all well screen and casing material used for construction free of foreign matter (e.g., adhesive tape, labels, soil, grease, etc.)? **YES [X] NO [ ]**

Was all well screen and casing material used for construction free of unsecured couplings, ruptures, and other physical breakage and/or defects? **YES [X] NO [ ]**

Is deformation or bending of the installed well screen and casing minimized to the point of allowing the insertion and retrieval of a 1.0-inch bailer throughout the entire length of the completed well? **YES [X] NO [ ]**

QUANTITY OF APPROVED WATER USED FOR FILTER PACK ENPLACEMENT: None.

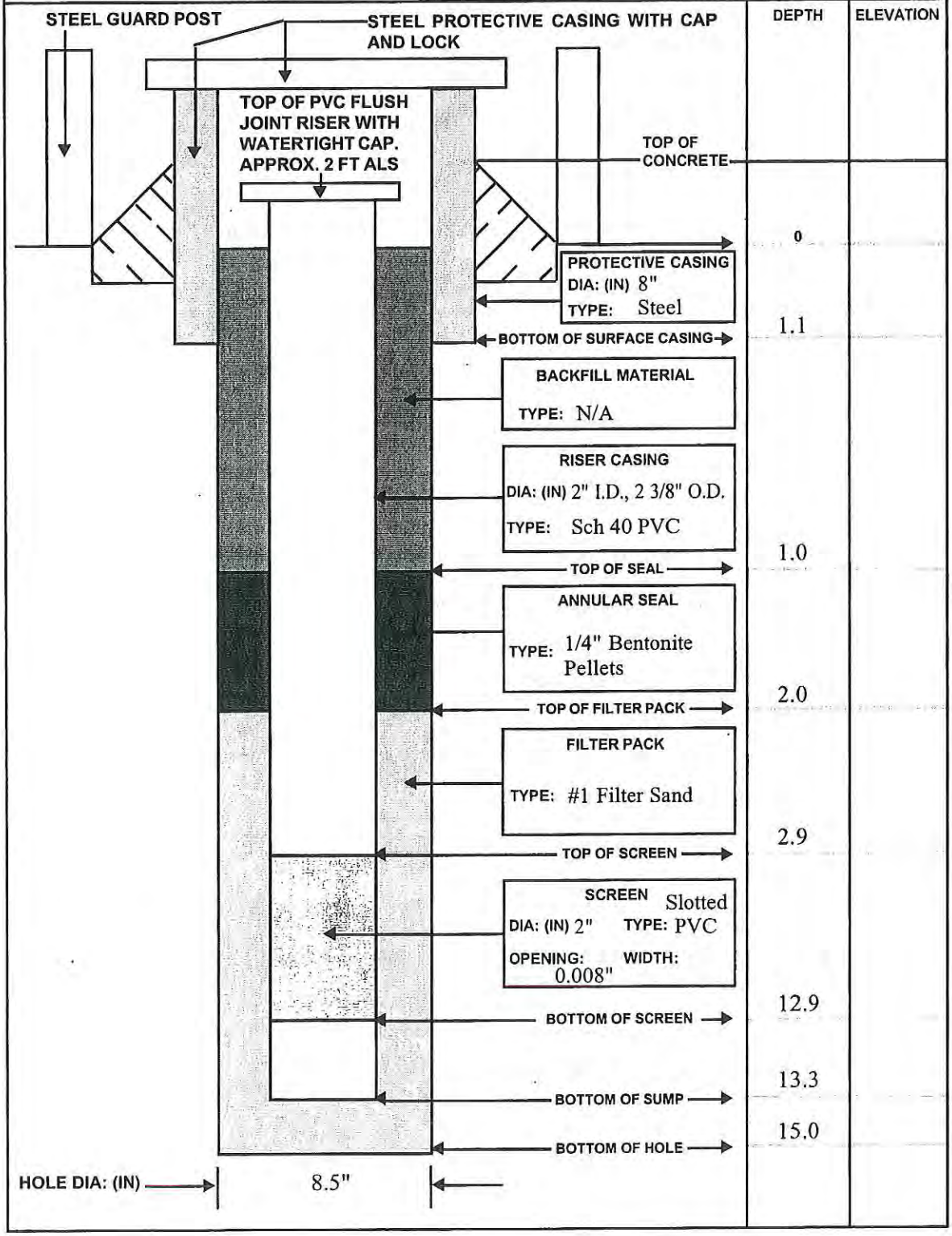
RECORDED BY: _____ **QA CHECK BY:** _____

(Signature & Date) **(Signature & Date)**

MONITORING WELL

PROJECT: FORT STEWART - SWMU 27F **DELIVERY ORDER:** 0009

WELL NUMBER: 27F-MW-14 (7J)	**BEGIN:** 11/30/00	**END:** 11/30/00
COORDINATES: N: 684278.63 E: 821569.04	**REFERENCE POINT:** MSL	**ELEVATION:** 67.76



MONITORING WELL INSTALLATION LOG

PROJECT: FORT STEWART - SWMU 27F **DELIVERY ORDER: 0009**

MONITORING WELL ID: 27F-MW-15 (7J)

INSTALLATION START: **DATE:** 11/29/00 **TIME:** 16:34

INSTALLATION FINISH: **DATE:** 11/29/00 **TIME:** 16:53

ANNULAR SPACE MATERIALS INVENTORY:

GRANULAR FILTER PACK: **TYPE:** #1 Filter Sand **QUANTITY:** 350 lbs

BENTONITE SEAL: **TYPE:** 1/4" Pellets **QUANTITY:** 20 lbs

GROUT: **TYPE:** N/A **QUANTITY:** N/A

DESCRIPTION OF WELL SCREEN:

SLOT SIZE (Inches): 0.008 **SLOT CONFIGURATION:** Horizontal

TOTAL OPEN AREA PER FOOT OF SCREEN: N/A

OUTSIDE DIAMETER: 2 3/8" **NOMINAL INSIDE DIAMETER:** 2"

SCHEDULE/THICKNESS: Sch 40 **COMPOSITION:** PVC

MANUFACTURER: Campbell-Monoflex

TYPE OF MATERIAL BETWEEN BOTTOM OF BORING AND SCREEN: Sand

DESCRIPTION OF WELL CASING:

OUTSIDE DIAMETER: 2 3/8" **NOMINAL INSIDE DIAMETER:** 2"

SCHEDULE/THICKNESS: Sch 40 **COMPOSITION:** PVC

MANUFACTURER: Drillers Service, Inc.

JOINT DESIGN AND COMPOSITION: Flush-threaded

CENTRALIZERS DESIGN AND COMPOSITION: N/A

DESCRIPTION OF PROTECTIVE CASING:

NOMINAL INSIDE DIAMETER: 8" **COMPOSITION:** Steel

SPECIAL PROBLEMS ENCOUNTERED DURING WELL CONSTRUCTION AND THEIR RESOLUTION:

None.

Was all well screen and casing material used for construction free of foreign matter (e.g., adhesive tape, labels, soil, grease, etc.)? **YES [X] NO [ ]**

Was all well screen and casing material used for construction free of unsecured couplings, ruptures, and other physical breakage and/or defects? **YES [X] NO [ ]**

Is deformation or bending of the installed well screen and casing minimized to the point of allowing the insertion and retrieval of a 1.0-inch bailer throughout the entire length of the completed well? **YES [X] NO [ ]**

QUANTITY OF APPROVED WATER USED FOR FILTER PACK ENPLACEMENT: None.

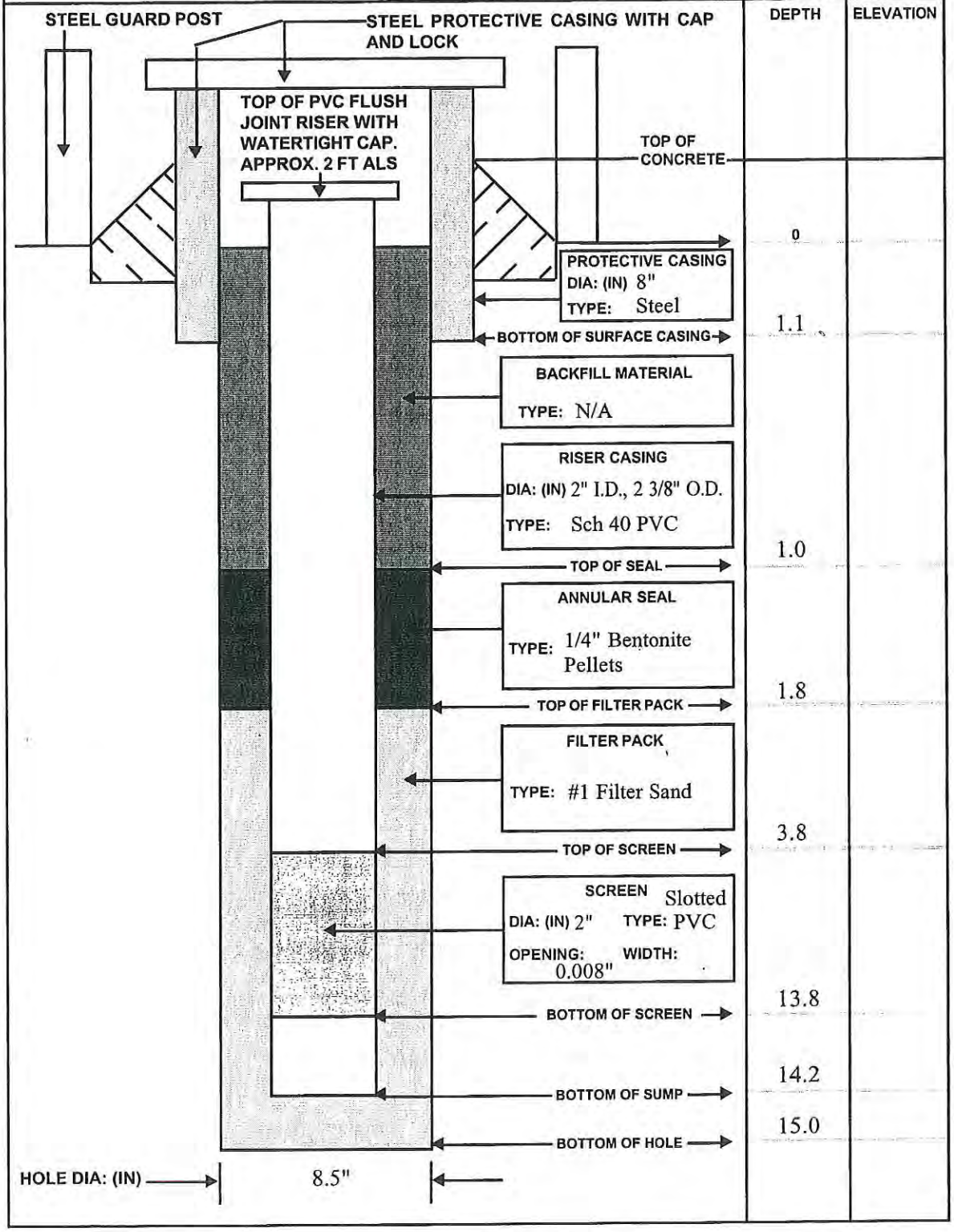
RECORDED BY: _____ **QA CHECK BY:** _____

(Signature & Date) **(Signature & Date)**

MONITORING WELL

PROJECT: FORT STEWART - SWMU 27F **DELIVERY ORDER: 0009**

WELL NUMBER: 27F-MW-15 (7J)	**BEGIN:** 11/29/00	**END:** 11/29/00
COORDINATES: N: 684344.10 E: 821633.70	**REFERENCE POINT:** MSL	**ELEVATION:** 68.03



MONITORING WELL INSTALLATION LOG

PROJECT: FORT STEWART - SWMU 27F **DELIVERY ORDER: 0009**

MONITORING WELL ID: 27F-MW-16 (7J)

INSTALLATION START: **DATE:** 12/5/00 **TIME:** 10:44

INSTALLATION FINISH: **DATE:** 12/5/00 **TIME:** 11:04

ANNULAR SPACE MATERIALS INVENTORY:

GRANULAR FILTER PACK: **TYPE:** #1 Filter Sand **QUANTITY:** 275 lbs

BENTONITE SEAL: **TYPE:** 1/4" Pellets **QUANTITY:** 30 lbs

GROUT: **TYPE:** N/A **QUANTITY:** N/A

DESCRIPTION OF WELL SCREEN:

SLOT SIZE (inches): 0.008 **SLOT CONFIGURATION:** Horizontal

TOTAL OPEN AREA PER FOOT OF SCREEN: N/A

OUTSIDE DIAMETER: 2 3/8" **NOMINAL INSIDE DIAMETER:** 2"

SCHEDULE/THICKNESS: Sch 40 **COMPOSITION:** PVC

MANUFACTURER: Campbell-Monoflex

TYPE OF MATERIAL BETWEEN BOTTOM OF BORING AND SCREEN: Filter sand/wood block

DESCRIPTION OF WELL CASING:

OUTSIDE DIAMETER: 2 3/8" **NOMINAL INSIDE DIAMETER:** 2"

SCHEDULE/THICKNESS: Sch 40 **COMPOSITION:** PVC

MANUFACTURER: Drillers Service, Inc.

JOINT DESIGN AND COMPOSITION: Flush-threaded

CENTRALIZERS DESIGN AND COMPOSITION: N/A

DESCRIPTION OF PROTECTIVE CASING:

NOMINAL INSIDE DIAMETER: 8" **COMPOSITION:** Steel

SPECIAL PROBLEMS ENCOUNTERED DURING WELL CONSTRUCTION AND THEIR RESOLUTION:

Running sands surged up into the augers making well too shallow; re-drill borehole and re-install well.

Was all well screen and casing material used for construction free of foreign matter (e.g., adhesive tape, labels, soil, grease, etc.)? **YES [X] NO [ ]**

Was all well screen and casing material used for construction free of unsecured couplings, ruptures, and other physical breakage and/or defects? **YES [X] NO [ ]**

Is deformation or bending of the installed well screen and casing minimized to the point of allowing the insertion and retrieval of a 1.0-inch bailer throughout the entire length of the completed well? **YES [X] NO [ ]**

QUANTITY OF APPROVED WATER USED FOR FILTER PACK ENPLACEMENT: None.

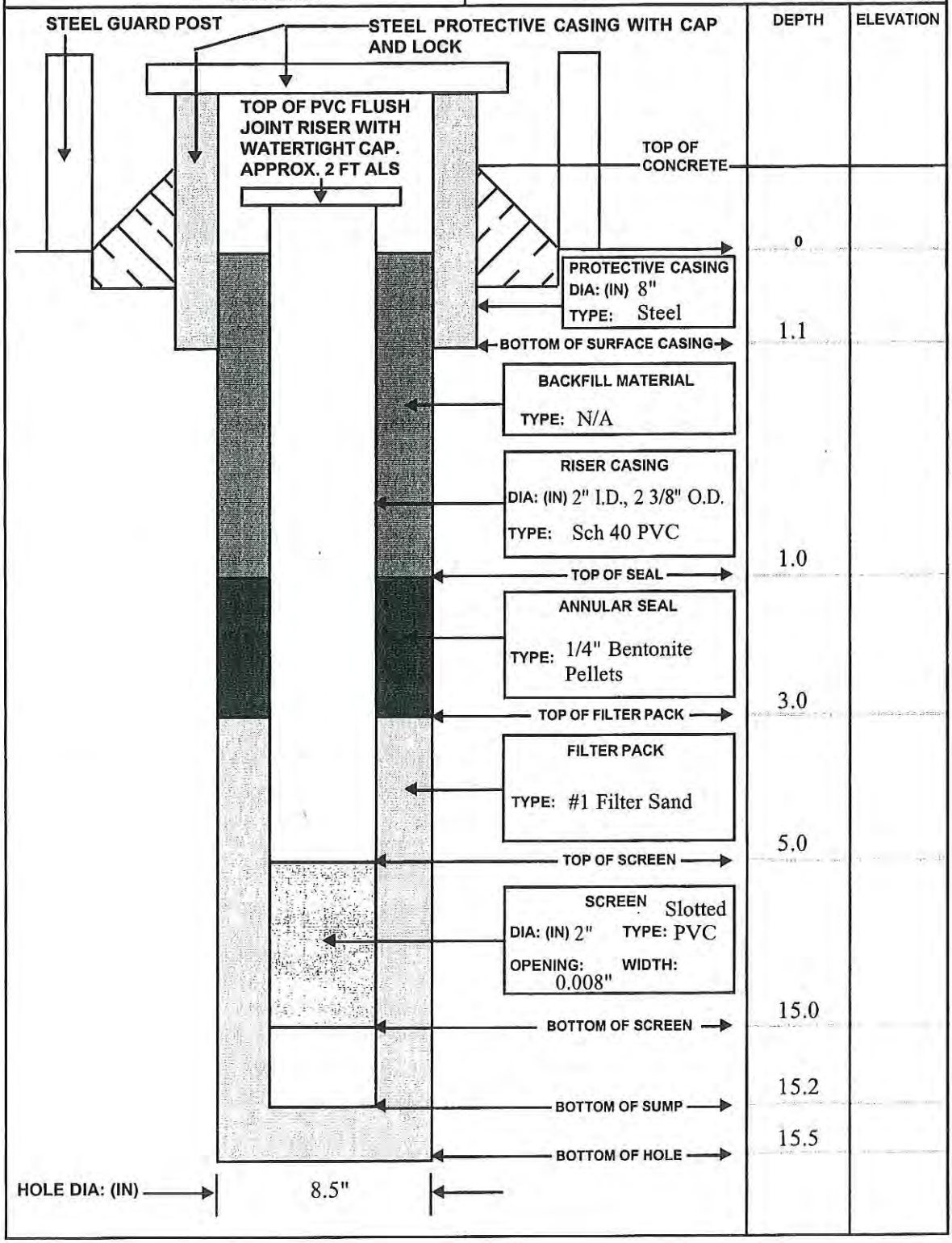
RECORDED BY: _____ **QA CHECK BY:** _____

(Signature & Date) **(Signature & Date)**

MONITORING WELL

PROJECT: FORT STEWART - SWMU 27F **DELIVERY ORDER: 0009**

WELL NUMBER: 27F-MW-16 (7J)	**BEGIN:** 12/5/00	**END:** 12/5/00
COORDINATES: N: 684231.17 E: 821565.74	**REFERENCE POINT:** MSL	**ELEVATION:** 67.64



MONITORING WELL INSTALLATION LOG

PROJECT: FORT STEWART - SWMU 27F **DELIVERY ORDER: 0009**

MONITORING WELL ID: 27F-MW-17 (7J)

INSTALLATION START: **DATE:** 12/5/00 **TIME:** 12:08

INSTALLATION FINISH: **DATE:** 12/5/00 **TIME:** 12:45

ANNULAR SPACE MATERIALS INVENTORY:

GRANULAR FILTER PACK: **TYPE:** #1 Filter Sand **QUANTITY:** 250 lbs

BENTONITE SEAL: **TYPE:** 1/4" Pellets **QUANTITY:** 30 lbs

GROUT: **TYPE:** N/A **QUANTITY:** N/A

DESCRIPTION OF WELL SCREEN:

SLOT SIZE (inches): 0.008 **SLOT CONFIGURATION:** Horizontal

TOTAL OPEN AREA PER FOOT OF SCREEN: N/A

OUTSIDE DIAMETER: 2 3/8" **NOMINAL INSIDE DIAMETER:** 2"

SCHEDULE/THICKNESS: Sch 40 **COMPOSITION:** PVC

MANUFACTURER: Campbell-Monoflex

TYPE OF MATERIAL BETWEEN BOTTOM OF BORING AND SCREEN: Filter sand/wood block

DESCRIPTION OF WELL CASING:

OUTSIDE DIAMETER: 2 3/8" **NOMINAL INSIDE DIAMETER:** 2"

SCHEDULE/THICKNESS: Sch 40 **COMPOSITION:** PVC

MANUFACTURER: Drillers Service, Inc.

JOINT DESIGN AND COMPOSITION: Flush-threaded

CENTRALIZERS DESIGN AND COMPOSITION: N/A

DESCRIPTION OF PROTECTIVE CASING:

NOMINAL INSIDE DIAMETER: 8" **COMPOSITION:** Steel

SPECIAL PROBLEMS ENCOUNTERED DURING WELL CONSTRUCTION AND THEIR RESOLUTION:

None.

Was all well screen and casing material used for construction free of foreign matter (e.g., adhesive tape, labels, soil, grease, etc.)? **YES [X] NO [ ]**

Was all well screen and casing material used for construction free of unsecured couplings, ruptures, and other physical breakage and/or defects? **YES [X] NO [ ]**

Is deformation or bending of the installed well screen and casing minimized to the point of allowing the insertion and retrieval of a 1.0-inch bailer throughout the entire length of the completed well? **YES [X] NO [ ]**

QUANTITY OF APPROVED WATER USED FOR FILTER PACK ENPLACEMENT: None.

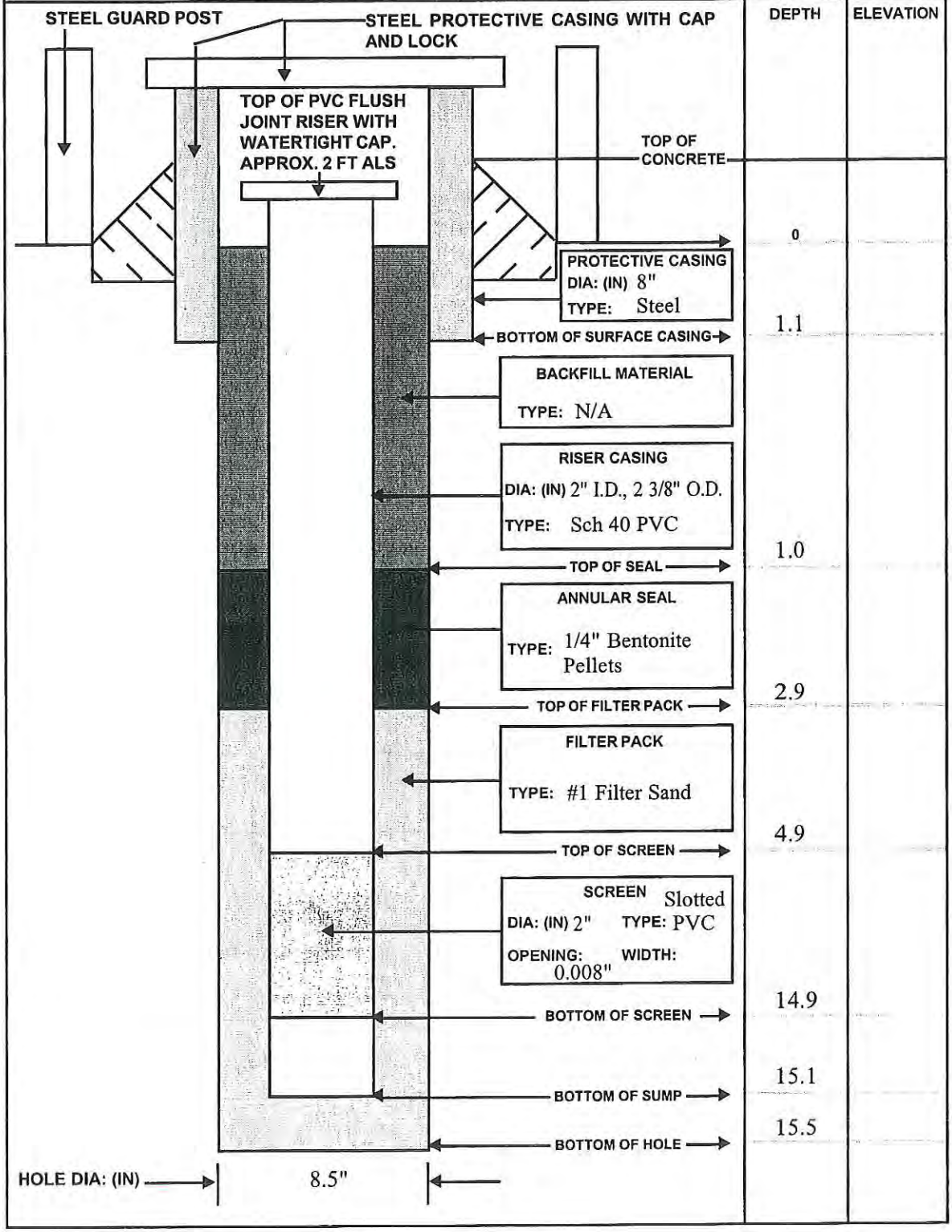
RECORDED BY: _____ **QA CHECK BY:** _____

(Signature & Date) **(Signature & Date)**

MONITORING WELL

PROJECT: FORT STEWART - SWMU 27F **DELIVERY ORDER: 0009**

WELL NUMBER: 27F-MW-17 (7J)	**BEGIN:** 12/5/00	**END:** 12/5/00
COORDINATES: N: 684226.55 E: 821612.29	**REFERENCE POINT:** MSL	**ELEVATION:** 69.08



MONITORING WELL INSTALLATION LOG

PROJECT: FORT STEWART - SWMU 27F **DELIVERY ORDER: 0009**

MONITORING WELL ID: 27F-MW-18 (7J)

INSTALLATION START: **DATE:** 12/5/00 **TIME:** 13:15

INSTALLATION FINISH: **DATE:** 12/5/00 **TIME:** 14:22

ANNULAR SPACE MATERIALS INVENTORY:

GRANULAR FILTER PACK: **TYPE:** #1 Filter Sand **QUANTITY:** 325 lbs

BENTONITE SEAL: **TYPE:** 1/4" Pellets **QUANTITY:** 40 lbs

GROUT: **TYPE:** N/A **QUANTITY:** N/A

DESCRIPTION OF WELL SCREEN:

SLOT SIZE (Inches): 0.008 **SLOT CONFIGURATION:** Horizontal

TOTAL OPEN AREA PER FOOT OF SCREEN: N/A

OUTSIDE DIAMETER: 2 3/8" **NOMINAL INSIDE DIAMETER:** 2"

SCHEDULE/THICKNESS: Sch 40 **COMPOSITION:** PVC

MANUFACTURER: Campbell-Monoflex

TYPE OF MATERIAL BETWEEN BOTTOM OF BORING AND SCREEN: Filter sand/wood block

DESCRIPTION OF WELL CASING:

OUTSIDE DIAMETER: 2 3/8" **NOMINAL INSIDE DIAMETER:** 2"

SCHEDULE/THICKNESS: Sch 40 **COMPOSITION:** PVC

MANUFACTURER: Drillers Service, Inc.

JOINT DESIGN AND COMPOSITION: Flush-threaded

CENTRALIZERS DESIGN AND COMPOSITION: N/A

DESCRIPTION OF PROTECTIVE CASING:

NOMINAL INSIDE DIAMETER: 8" **COMPOSITION:** Steel

SPECIAL PROBLEMS ENCOUNTERED DURING WELL CONSTRUCTION AND THEIR RESOLUTION:

None.

Was all well screen and casing material used for construction free of foreign matter (e.g., adhesive tape, labels, soil, grease, etc.)? **YES [X] NO [ ]**

Was all well screen and casing material used for construction free of unsecured couplings, ruptures, and other physical breakage and/or defects? **YES [X] NO [ ]**

Is deformation or bending of the installed well screen and casing minimized to the point of allowing the insertion and retrieval of a 1.0-inch bailer throughout the entire length of the completed well? **YES [X] NO [ ]**

QUANTITY OF APPROVED WATER USED FOR FILTER PACK ENPLACEMENT: None.

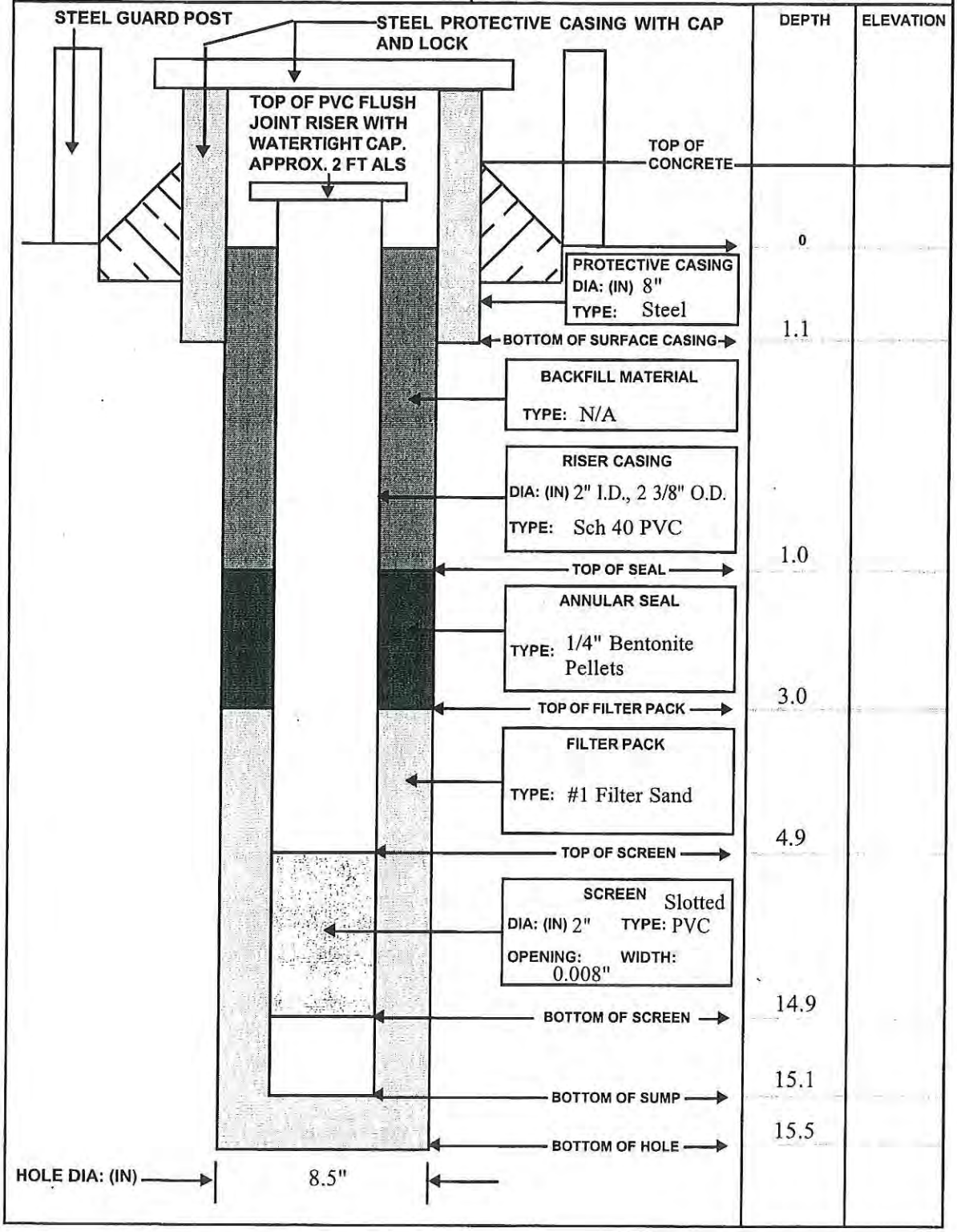
RECORDED BY: _____ **QA CHECK BY:** _____

(Signature & Date) **(Signature & Date)**

MONITORING WELL

PROJECT: FORT STEWART - SWMU 27F **DELIVERY ORDER: 0009**

WELL NUMBER: 27F-MW-18 (7J)	**BEGIN:** 12/5/00	**END:** 12/5/00
COORDINATES: N: 684270.23 E: 821623.61	**REFERENCE POINT:** MSL	**ELEVATION:** 67.49



ATTACHMENT C
TO SWMU 27F: NORTHWEST OF BUILDING 1340
TO THE
REVISED FINAL PHASE II RCRA FACILITY INVESTIGATION REPORT
FOR
16 SOLID WASTE MANAGEMENT UNITS
AT
FORT STEWART, GEORGIA

GEOTECHNICAL LABORATORY TEST RESULTS

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TABLE 1
SUMMARY OF LABORATORY TESTING RESULTS
FOR MOISTURE CONTENT AND ATTERBERG LIMITS

SAIC - SWMU-27F AND SWUM-35
CONTRACT NO. 440030472
CATLIN PROJECT NO. 200-172

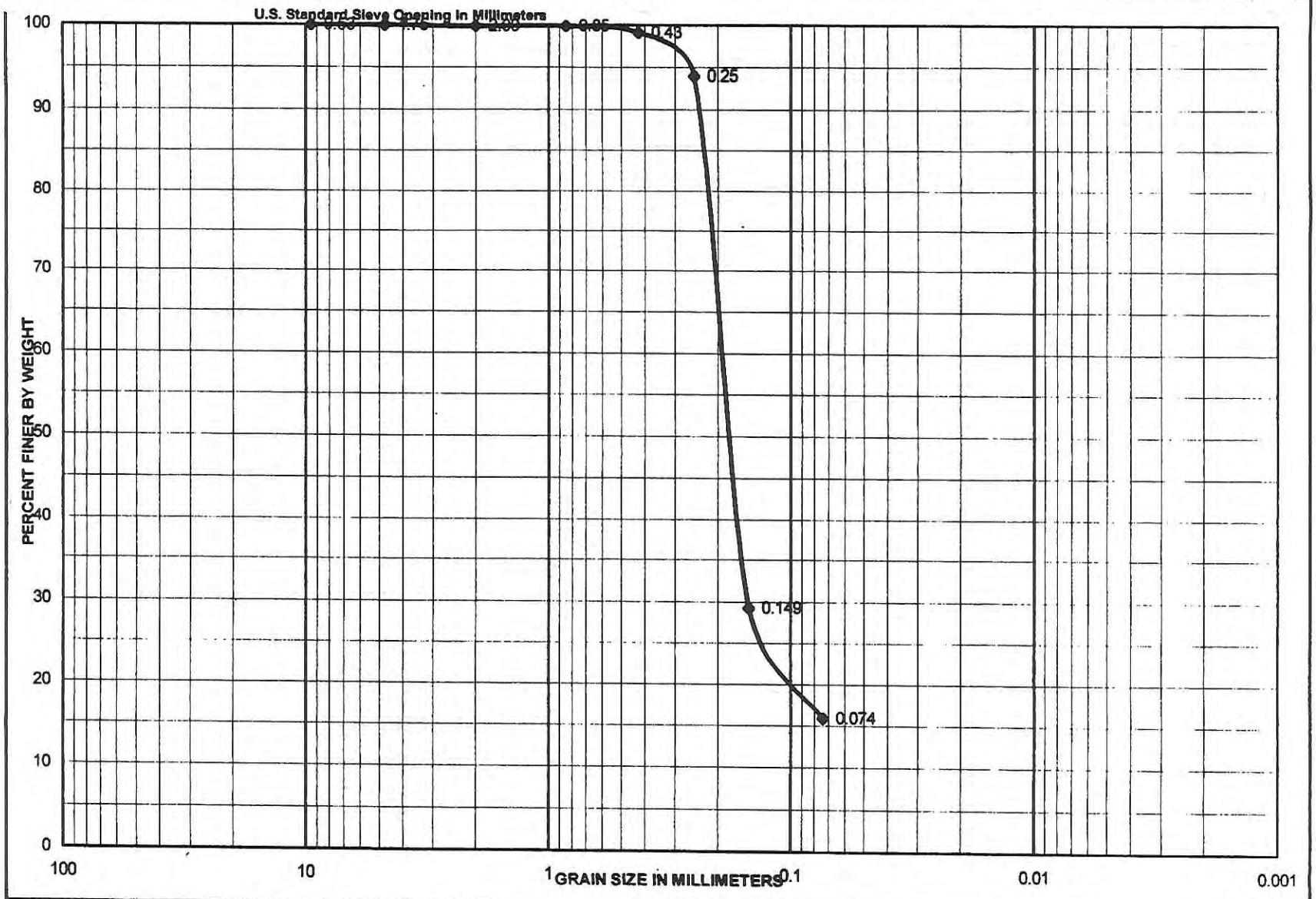
SAMPLE ID	LABORATORY ANALYSIS	
	MOISTURE CONTENT (%)	ATTERBERG LIMITS (LL/PL)
351S12	18.0	31/18
351T12	26.0	51/26
351U12	21.0	30/12
351V12	22.0	39/16
351W12	22.0	NP
351X12	24.0	36/11
351Y12	19.0	NP
7J1D82	17.0	NP
7J1E82	16.0	NP
7J1F82	18.0	NP
7J1G82	20.0	NP
7J1H82	20.0	NP
7J1J82	21.0	NP

LL = Liquid Limit
PL = Plastic Limit
NP = Nonplastic

TABLE 2
SUMMARY OF LABORATORY TESTING RESULTS
FOR GRAIN SIZE ANALYSIS

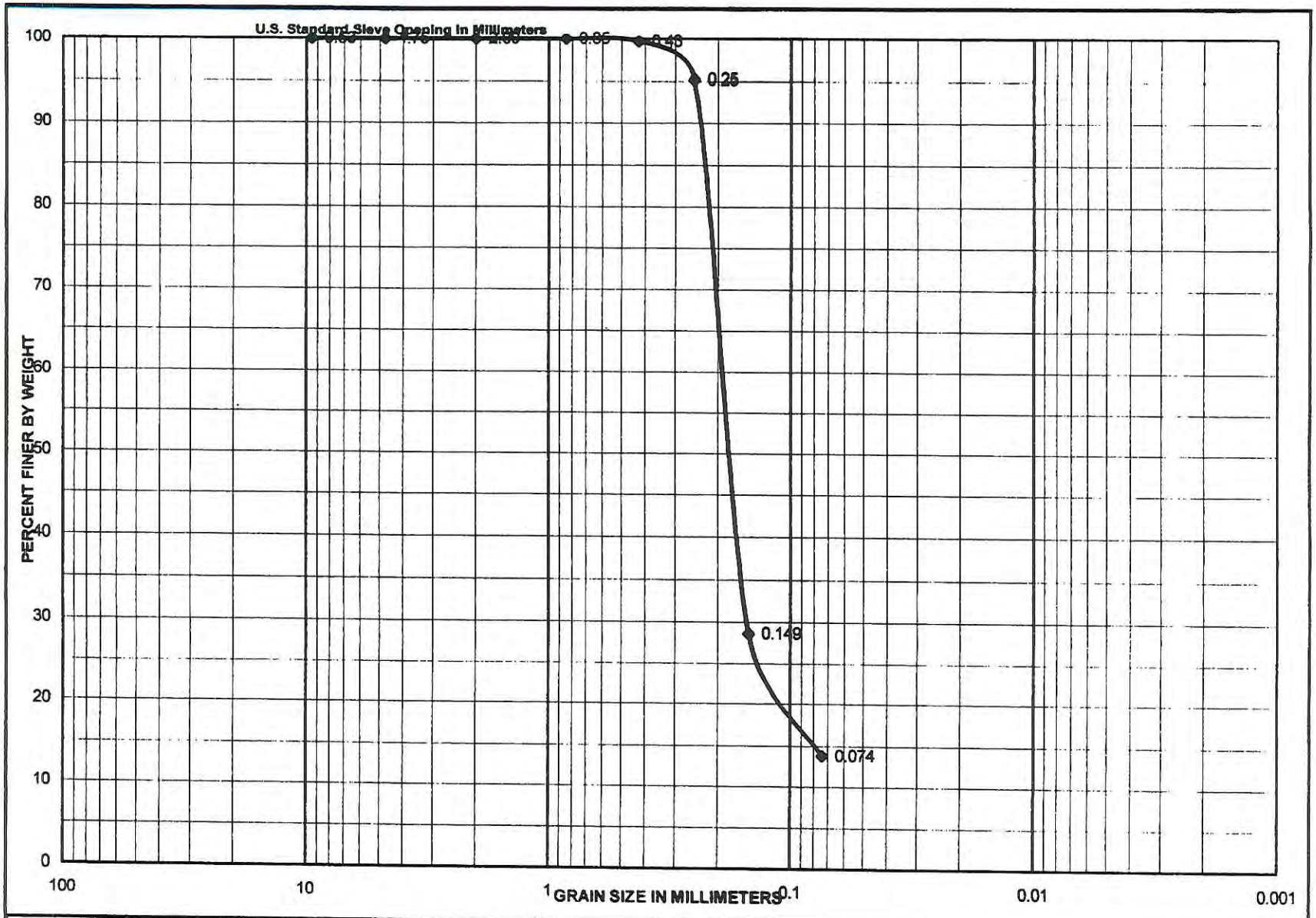
SAIC - SWMU-27F AND SWMU-35
CONTRACT NO. 440030472
CATLIN PROJECT NO. 200-172

Sieve No.	351S12 % Passing	351T12 % Passing	351U12 % Passing	351V12 % Passing	351W12 % Passing
3/8	100.0	100.0	100.0	100.0	100.0
#4	99.7	100.0	99.7	99.8	99.4
#10	91.1	99.1	96.6	97.7	96.2
#20	54.2	83.2	87.2	81.0	82.2
#40	32.5	46.3	55.3	45.8	47.2
#60	22.6	36.2	35.1	31.5	27.3
#100	17.1	31.5	26.1	23.2	18.2
#200	14.3	28.8	21.0	20.1	14.7
	↓		↓	↓	↓
Sieve No.	351X12 % Passing	351Y12 % Passing	7J1D82 % Passing	7J1E82 % Passing	7J1F82 % Passing
3/8	100.0	100.0	100.0	100.0	100.0
#4	99.7	99.0	100.0	100.0	100.0
#10	98.1	94.0	99.9	100.0	100.0
#20	89.3	80.5	99.9	100.0	99.8
#40	64.7	42.5	99.1	99.7	94.0
#60	49.7	23.5	94.0	95.2	51.7
#100	35.1	16.0	29.3	28.6	18.6
#200	30.6	13.3	15.9	13.8	13.8
	↓	↓	↓		
Sieve No.	7J1G82 % Passing	7J1H82 % Passing	7J1J82 % Passing		
3/8	100.0	100.0	100.0		
#4	100.0	100.0	100.0		
#10	100.0	100.0	100.0		
#20	99.9	99.9	99.9		
#40	99.7	99.3	98.9		
#60	98.1	95.8	78.5		
#100	22.5	23.3	22.1		
#200	11.1	14.6	15.4		



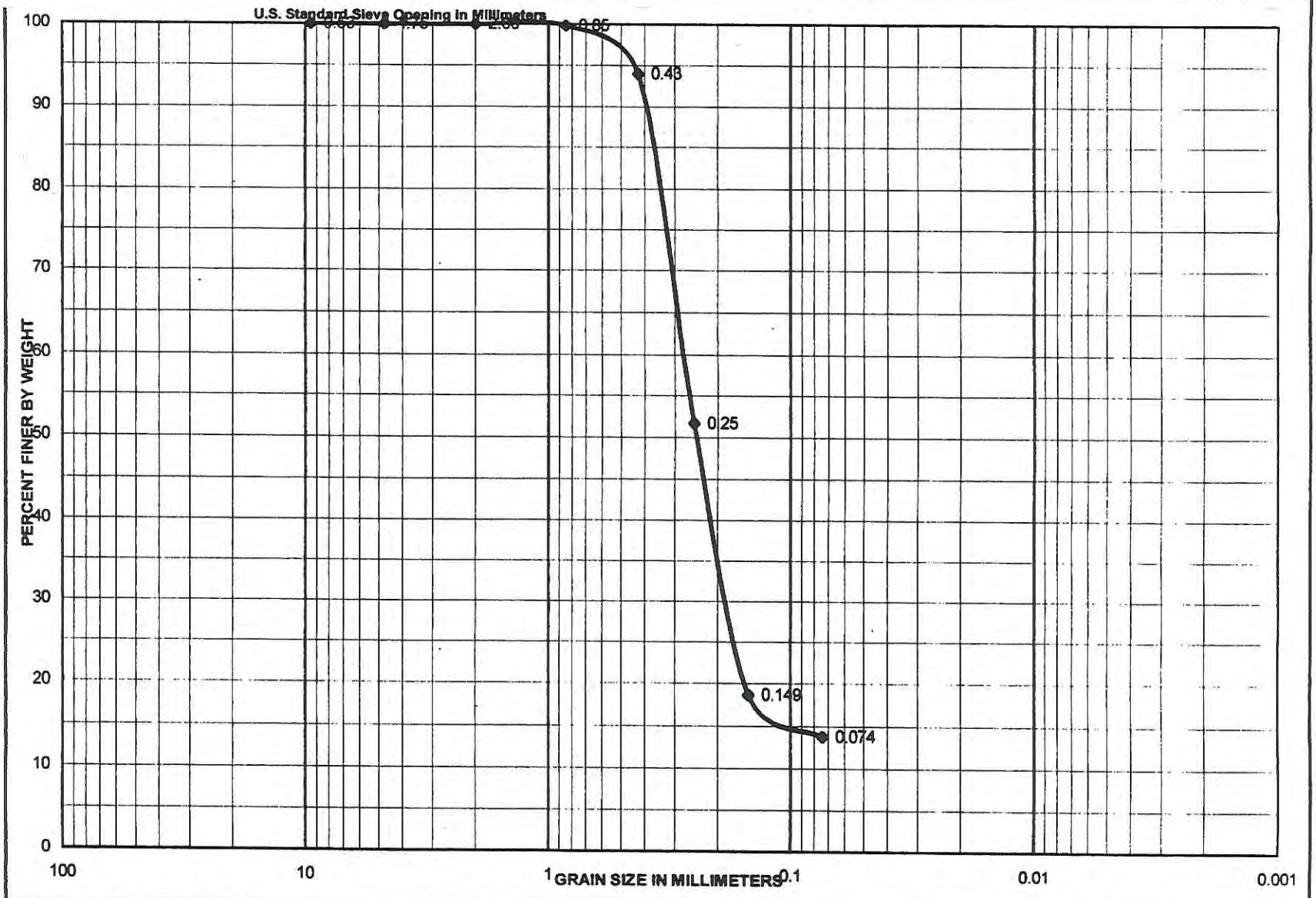
Sample No.	Depth (ft)	Classification
7J1D82		

Project	SAIC
Area	Fort Stewart SWMU 27F
CATLIN Geotechnical Laboratory	
Boring No.	
Date	12/19/2000



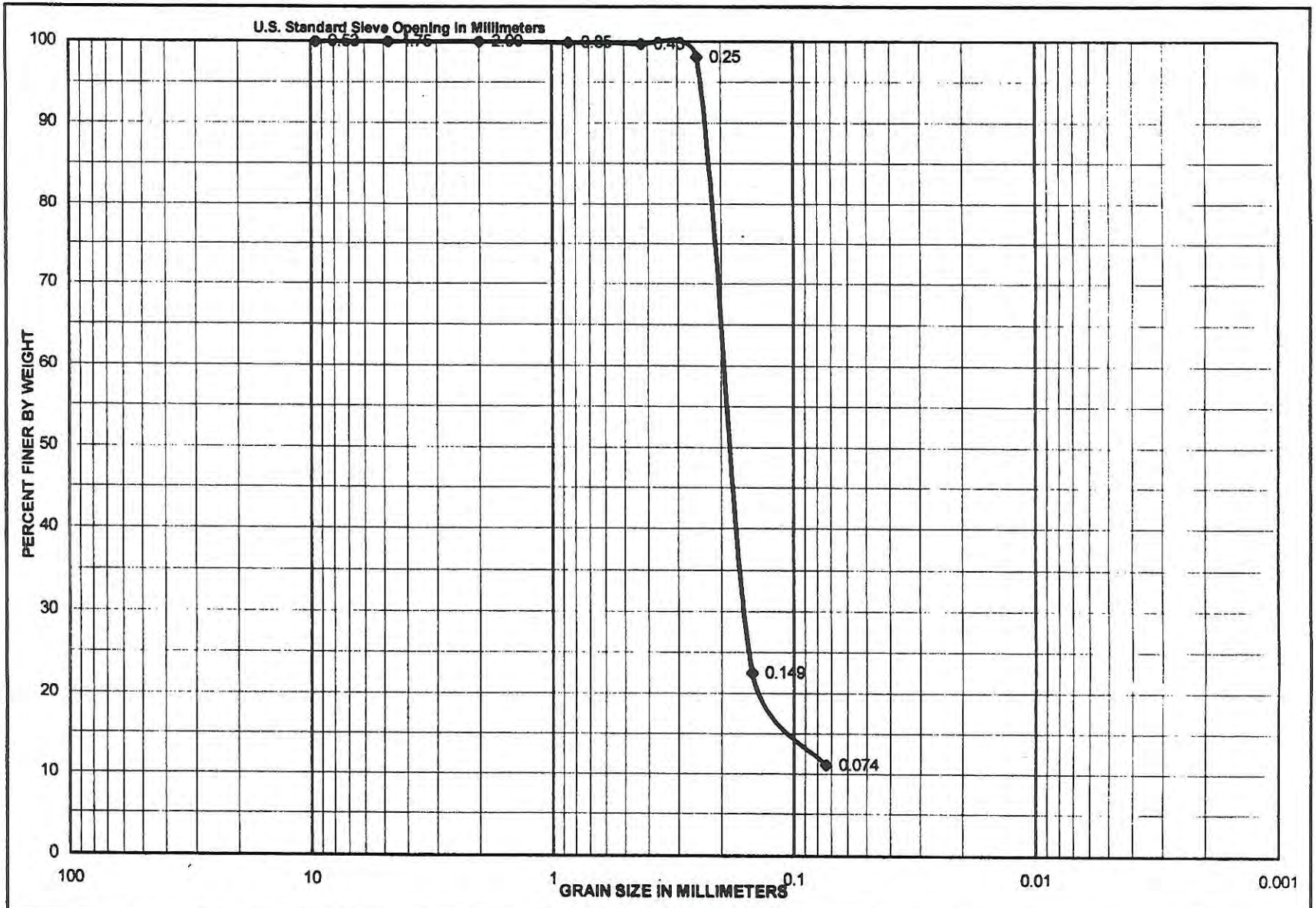
Sample No.	Depth (ft)	Classification
7J1E82		

Project	SAIC
Area	Fort Stewart SWMU 27F
CATLIN Geotechnical Laboratory	
Boring No.	
Date	12/19/2000

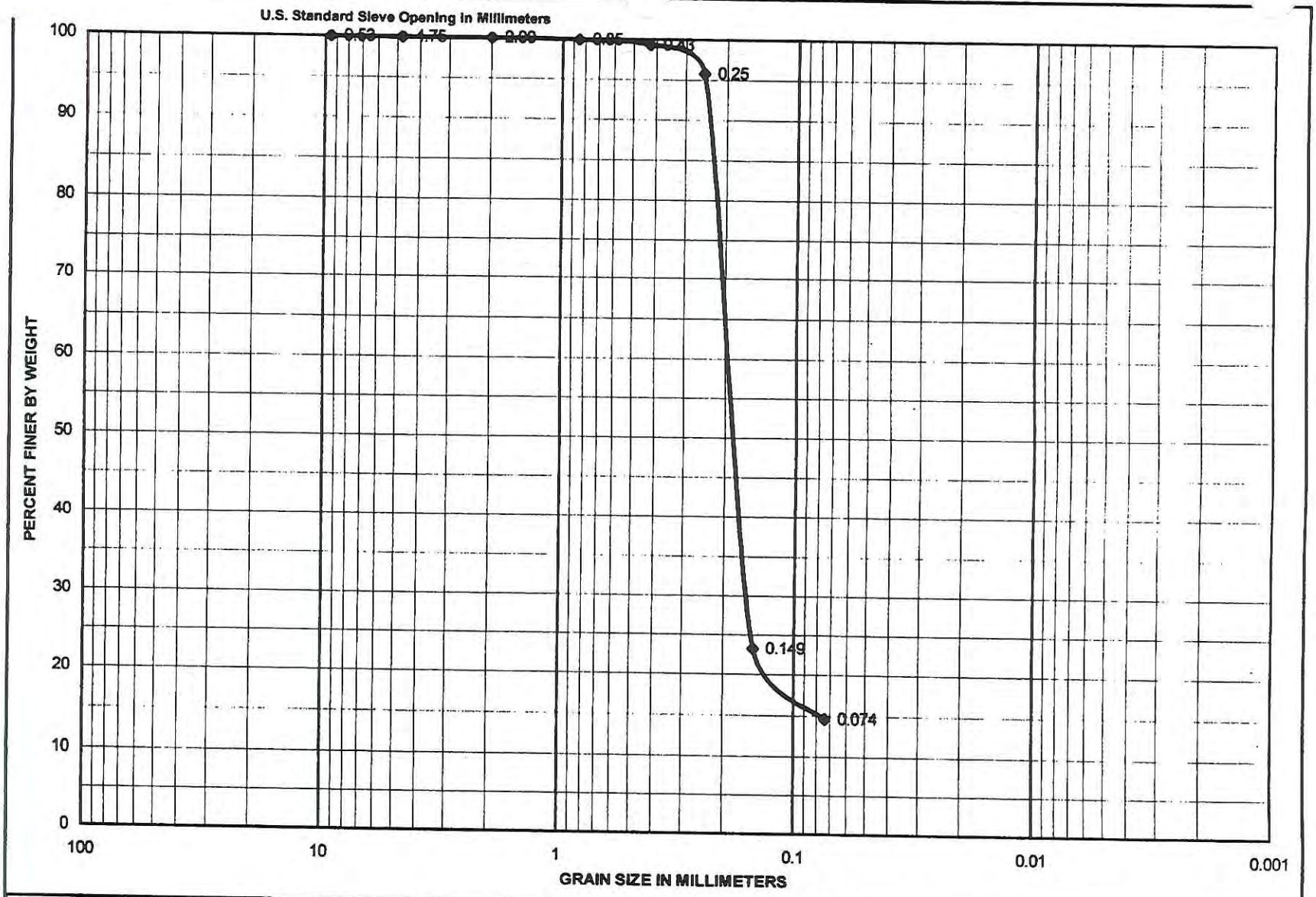


Sample No.	Depth (ft)	Classification
7J1F82		

Project	SAIC
Area	Fort Stewart SWMU 27F
CATLIN Geotechnical Laboratory	
Boring No.	
Date	12/19/2000

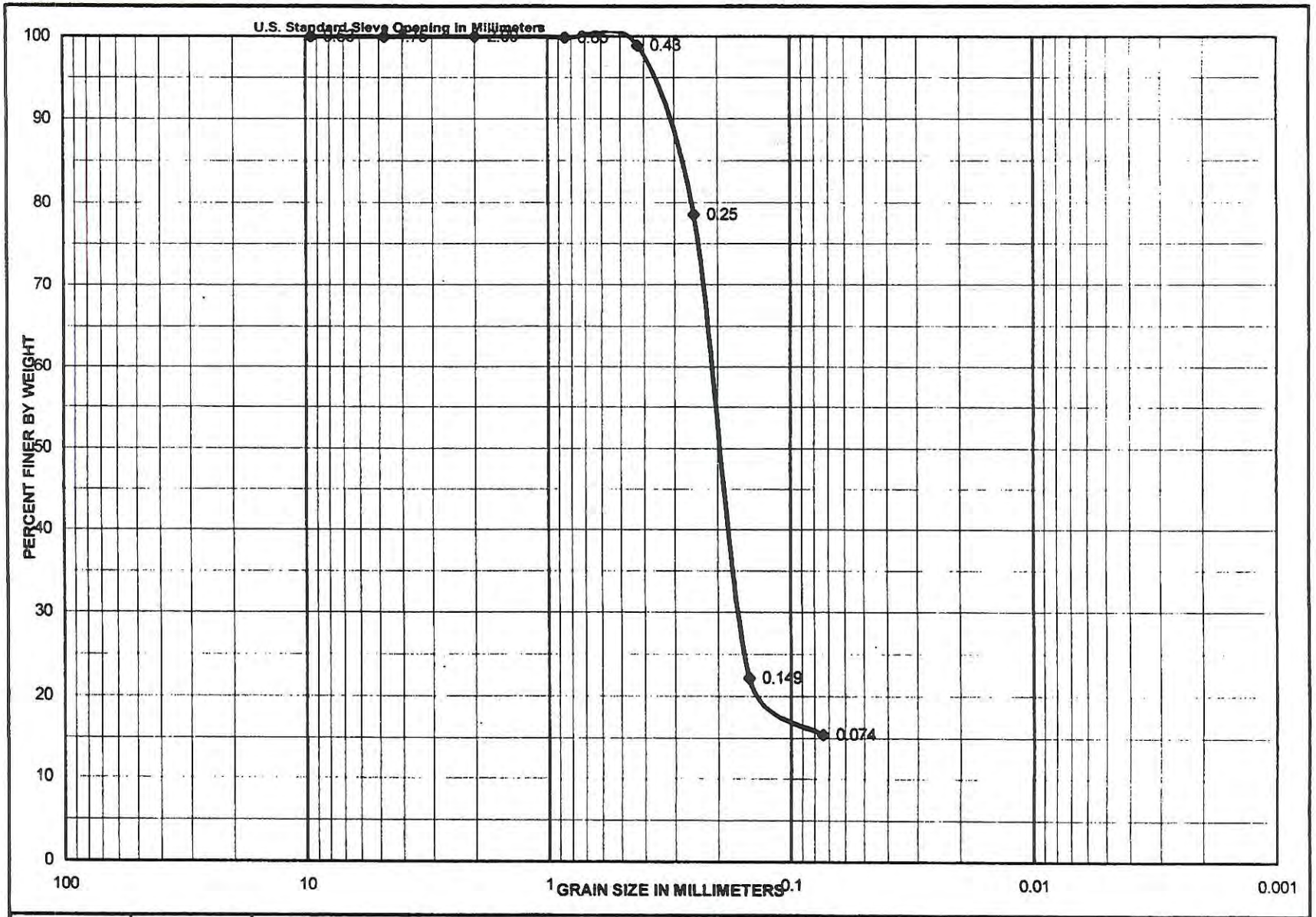


Sample No.	Depth (ft)	Classification	
7J1G82			**Project** SAIC
			Area Fort Stewart SWMU 27F
			CATLIN Geotechnical Laboratory
			Boring No.
			Date 12/19/2000



Sample No.	Depth (ft)	Classification
7J1H82		

Project	SAIC
Area	Fort Stewart SWMU 27F
CATLIN Geotechnical Laboratory	
Boring No.	
Date	12/19/2000



Sample No.	Depth (ft)	Classification	
7J1J82			**Project** SAIC
			Area Fort Stewart SWMU 27F
			CATLIN Geotechnical Laboratory
			Boring No.
			Date 12/19/2000

Science Applications International Corporation — An Employee-Owned Company

800 Oak Ridge Turnpike, Oak Ridge, TN 37831 (423) 481-4600

CHAIN OF CUSTODY RECORD

COC NO.: C2+F01

PROJECT NAME: SWMU-27F

PROJECT NUMBER: 01-1624-04-1041-900

PROJECT MANAGER: Jeff Longaker

Sampler (Signature): Laura Lumley (Printed Name): Laura Lumley

Sample ID	Date Collected	Time Collected	Matrix	MOISTURE CONTENT	ATTERBERG LIMITS	GRAIN SIZE	No. of Bottles/ Vials:	OVA SCREENING	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS
7J1D82	11/29/00	1230	Soil	X	X	X	1		
7J1F82	11/29/00	1640		X	X	X	1		
7J1E82	11/30/00	0920		X	X	X	1		
7J1G82	12/5/00	1010		X	X	X	1		
7J1H82	12/5/00	1206		X	X	X	1		
7J1J82	12/5/00	1310		X	X	X	1		

C-11

12/6/00

REQUESTED PARAMETERS

LABORATORY NAME: Catlin Laboratories

LABORATORY ADDRESS: 1051 Johnnie Dodds Blvd. Suite C Mt. Pleasant, SC 29464

PHONE NO: (843) 881-6000

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
Laura Lumley	12/6/00 1400		
COMPANY NAME: SAIC		COMPANY NAME:	
RECEIVED BY: 820609357884	Date/Time 12/6/00 1400	RELINQUISHED BY:	Date/Time
COMPANY NAME: FedEx		COMPANY NAME:	
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	

TOTAL NUMBER OF CONTAINERS: 6

Cooler ID: N/A

Cooler Temperature:

FEDEX NUMBER: 820609357884

SAMPLE RECEIPT RECORD

PROJECT: SAIC SWMU-27F CLIENT: 2000 Flag 172

LOCATION: CATLIN TRACKING NO.:

CATLIN PROJECT NO.:

1. METHOD OF SAMPLE DELIVERY TO CATLIN (CIRCLE ONE)			
FED-X (UPS) GREYHOUND OTHER:			
CHECK APPROPRIATE ANSWER	YES	NO	NA
2. CUSTODY SEALS PRESENT ON SHIPPING CONTAINER(S) (TRAFFIC REPORTS, AIRBILLS, OR BILLS OF LADING)			✓
3. SHIPPING CONTAINER(S) INTACT	✓		
4. CHAIN-OF-CUSTODY (COC) PRESENT	✓		
5. COC COMPLETED BY COLLECTOR	✓		
IF ANSWER IS NO, SPECIFY WHAT IS MISSING			
6. TOTAL NUMBER OF SAMPLES PRESENT AGREE WITH NUMBER LISTED ON COC	✓		
7. EACH SAMPLE CONTAINER IDENTIFIED BY LABEL	✓		
8. SAMPLE CONTAINER LABELS AGREE WITH COC	✓		
9. SAMPLE CONTAINERS INTACT	✓		
IF ANSWER IS NO, SPECIFY DISCREPANCIES			
10. DATE/TIME OF RECEIPT OF SAMPLE RECORDED AND COC SIGNED	✓		
11. METHOD OF SAMPLE DISPOSAL (CIRCLE ONE)			
(CATLIN DISPOSAL) RETURN TO CLIENT OTHER:			

RECEIVING TECHNICIAN SIGNATURE	DATE/TIME
Michael S. Mason	12/12/00 10:30
COMMENTS	

CATLIN Engineers and Scientists
Geotechnical Laboratories

ATTACHMENT D
TO SWMU 27F: NORTHWEST OF BUILDING 1340
TO THE
REVISED FINAL PHASE II RCRA FACILITY INVESTIGATION REPORT
FOR
16 SOLID WASTE MANAGEMENT UNITS
AT
FORT STEWART, GEORGIA

ANALYTICAL LABORATORY DATA AND CHAIN-OF-CUSTODY FORMS

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ANALYTICAL LABORATORY DATA

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Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-01

7J4172 Field Sample Type: Grab Matrix: Groundwater Collected: 01/05/2001

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,2,4-Trichlorobenzene	10.0	UG/L	U	U	
REG	1,2-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,3-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,4-Dichlorobenzene	10.0	UG/L	U	U	
REG	2,2'-oxybis (1-chloropropane)	10.0	UG/L	U	U	
REG	2,4,5-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4,6-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dimethylphenol	10.0	UG/L	U	U	
REG	2,4-Dinitrophenol	20.0	UG/L	U	U	
REG	2,4-Dinitrotoluene	10.0	UG/L	U	U	
REG	2,6-Dinitrotoluene	10.0	UG/L	U	U	
REG	2-Chloronaphthalene	1.0	UG/L	U	U	
REG	2-Chlorophenol	10.0	UG/L	U	U	
REG	2-Methylnaphthalene	1.0	UG/L	U	U	
REG	2-Methylphenol	10.0	UG/L	U	U	
REG	2-Nitroaniline	10.0	UG/L	U	U	
REG	2-Nitrophenol	10.0	UG/L	U	U	
REG	3,3'-Dichlorobenzidine	10.0	UG/L	U	U	
REG	3-Nitroaniline	10.0	UG/L	U	U	
REG	4,6-Dinitro-o-Cresol	10.0	UG/L	U	U	
REG	4-Bromophenyl-phenyl Ether	10.0	UG/L	U	U	
REG	4-Chloroaniline	10.0	UG/L	U	U	
REG	4-Chlorophenyl-phenylether	10.0	UG/L	U	U	
REG	4-Methylphenol	10.0	UG/L	U	U	
REG	4-Nitroaniline	10.0	UG/L	U	U	
REG	4-Nitrophenol	10.0	UG/L	U	U	
REG	4-chloro-3-methylphenol	10.0	UG/L	U	U	
REG	Acenaphthene	1.0	UG/L	U	U	
REG	Acenaphthylene	1.0	UG/L	U	U	
REG	Anthracene	1.0	UG/L	U	U	
REG	Benzo(a)anthracene	1.0	UG/L	U	U	
REG	Benzo(a)pyrene	1.0	UG/L	U	U	
REG	Benzo(b)fluoranthene	1.0	UG/L	U	U	
REG	Benzo(g,h,i)perylene	1.0	UG/L	U	U	
REG	Benzo(k)fluoranthene	1.0	UG/L	U	U	
REG	Benzoic Acid	10.0	UG/L	U	U	
REG	Benzyl Alcohol	10.0	UG/L	U	U	
REG	Bis(2-chloroethoxy)methane	10.0	UG/L	U	U	
REG	Bis(2-chloroethyl)ether	10.0	UG/L	U	U	
REG	Bis(2-ethylhexyl)phthalate	10.0	UG/L	U	U	
REG	Butyl Benzyl Phthalate	10.0	UG/L	U	U	
REG	Carbazole	10.0	UG/L	U	U	
REG	Chrysene	1.0	UG/L	U	U	
REG	Di-n-butyl Phthalate	10.0	UG/L	U	U	
REG	Di-n-octyl Phthalate	10.0	UG/L	U	U	
REG	Dibenzo(a,h)anthracene	1.0	UG/L	U	U	
REG	Dibenzofuran	10.0	UG/L	U	U	
REG	Diethyl Phthalate	10.0	UG/L	U	U	
REG	Dimethyl Phthalate	10.0	UG/L	U	U	
REG	Diphenylamine	10.0	UG/L	U	U	
REG	Fluoranthene	1.0	UG/L	U	U	
REG	Fluorene	1.0	UG/L	U	U	
REG	Hexachlorobenzene	10.0	UG/L	U	U	
REG	Hexachlorobutadiene	10.0	UG/L	U	U	
REG	Hexachlorocyclopentadiene	10.0	UG/L	U	U	
REG	Hexachloroethane	10.0	UG/L	U	U	
REG	Indeno(1,2,3-cd)pyrene	1.0	UG/L	U	U	
REG	Isophorone	10.0	UG/L	U	U	
REG	N-Nitroso-di-n-propylamine	10.0	UG/L	U	U	
REG	Naphthalene	1.0	UG/L	U	U	
REG	Nitrobenzene	10.0	UG/L	U	U	
REG	Pentachlorophenol	10.0	UG/L	U	U	
REG	Phenanthrene	1.0	UG/L	U	U	
REG	Phenol	10.0	UG/L	U	U	
REG	Pyrene	1.0	UG/L	U	U	

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-01

7J4172 | **Field Sample Type: Grab** | **Matrix: Groundwater** | **Collected: 01/05/2001**

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethene	1.0	UG/L	U	U	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	
REG	1,2-Dichloroethene	2.0	UG/L	U	U	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	5.0	UG/L	U	U	
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	5.0	UG/L	U	U	
REG	Acetone	5.0	UG/L	U	U	
REG	Benzene	1.0	UG/L	U	U	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	
REG	Chlorobenzene	1.0	UG/L	U	U	
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	1.0	UG/L	U	U	
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	1.0	UG/L	U	U	
REG	Trichloroethene	1.0	UG/L	U	U	
REG	Vinyl Chloride	1.0	UG/L	U	U	
REG	Xylenes, Total	3.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-02

7J4222 | **Field Sample Type: Field Duplicate** | **Matrix: Groundwater** | **Collected: 01/06/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,2,4-Trichlorobenzene	10.0	UG/L	U	U	
REG	1,2-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,3-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,4-Dichlorobenzene	10.0	UG/L	U	U	
REG	2,2'-oxybis (1-chloropropane)	10.0	UG/L	U	U	
REG	2,4,5-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4,6-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dimethylphenol	10.0	UG/L	U	U	
REG	2,4-Dinitrophenol	20.0	UG/L	U	U	
REG	2,4-Dinitrotoluene	10.0	UG/L	U	U	
REG	2,6-Dinitrotoluene	10.0	UG/L	U	U	
REG	2-Chloronaphthalene	1.0	UG/L	U	U	
REG	2-Chlorophenol	10.0	UG/L	U	U	
REG	2-Methylnaphthalene	1.0	UG/L	U	U	
REG	2-Methylphenol	10.0	UG/L	U	U	
REG	2-Nitroaniline	10.0	UG/L	U	U	
REG	2-Nitrophenol	10.0	UG/L	U	U	
REG	3,3'-Dichlorobenzidine	10.0	UG/L	U	U	
REG	3-Nitroaniline	10.0	UG/L	U	U	
REG	4,6-Dinitro-o-Cresol	10.0	UG/L	U	U	
REG	4-Bromophenyl-phenyl Ether	10.0	UG/L	U	U	
REG	4-Chloroaniline	10.0	UG/L	U	U	
REG	4-Chlorophenyl-phenylether	10.0	UG/L	U	U	
REG	4-Methylphenol	10.0	UG/L	U	U	
REG	4-Nitroaniline	10.0	UG/L	U	U	
REG	4-Nitrophenol	10.0	UG/L	U	U	
REG	4-chloro-3-methylphenol	10.0	UG/L	U	U	
REG	Acenaphthene	1.0	UG/L	U	U	
REG	Acenaphthylene	1.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-02

7J4222 Field Sample Type: Field Duplicate Matrix: Groundwater Collected: 01/06/2001

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	Anthracene	1.0	UG/L	U	U	
REG	Benzo(a)anthracene	1.0	UG/L	U	U	
REG	Benzo(a)pyrene	1.0	UG/L	U	U	
REG	Benzo(b)fluoranthene	1.0	UG/L	U	U	
REG	Benzo(g,h,i)perylene	1.0	UG/L	U	U	
REG	Benzo(k)fluoranthene	1.0	UG/L	U	U	
REG	Benzoic Acid	10.0	UG/L	U	U	
REG	Benzyl Alcohol	10.0	UG/L	U	U	
REG	Bis(2-chloroethoxy)methane	10.0	UG/L	U	U	
REG	Bis(2-chloroethyl)ether	10.0	UG/L	U	U	
REG	Bis(2-ethylhexyl)phthalate	10.0	UG/L	U	U	
REG	Butyl Benzyl Phthalate	10.0	UG/L	U	U	
REG	Carbazole	10.0	UG/L	U	U	
REG	Chrysene	1.0	UG/L	U	U	
REG	Di-n-butyl Phthalate	10.0	UG/L	U	U	
REG	Di-n-octyl Phthalate	10.0	UG/L	U	U	
REG	Dibenzo(a,h)anthracene	1.0	UG/L	U	U	
REG	Dibenzofuran	10.0	UG/L	U	U	
REG	Diethyl Phthalate	10.0	UG/L	U	U	
REG	Dimethyl Phthalate	10.0	UG/L	U	U	
REG	Diphenylamine	10.0	UG/L	U	U	
REG	Fluoranthene	1.0	UG/L	U	U	
REG	Fluorene	1.0	UG/L	U	U	
REG	Hexachlorobenzene	10.0	UG/L	U	U	
REG	Hexachlorobutadiene	10.0	UG/L	U	U	
REG	Hexachlorocyclopentadiene	10.0	UG/L	U	U	
REG	Hexachloroethane	10.0	UG/L	U	U	
REG	Indeno(1,2,3-cd)pyrene	1.0	UG/L	U	U	
REG	Isophorone	10.0	UG/L	U	U	
REG	N-Nitroso-di-n-propylamine	10.0	UG/L	U	U	
REG	Naphthalene	1.0	UG/L	U	U	
REG	Nitrobenzene	10.0	UG/L	U	U	
REG	Pentachlorophenol	10.0	UG/L	U	U	
REG	Phenanthrene	1.0	UG/L	U	U	
REG	Phenol	10.0	UG/L	U	U	
REG	Pyrene	1.0	UG/L	U	U	

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethene	1.0	UG/L	U	U	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	
REG	1,2-Dichloroethene	2.0	UG/L	U	U	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	5.0	UG/L	U	U	
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	5.0	UG/L	U	U	
REG	Acetone	5.0	UG/L	U	U	
REG	Benzene	1.0	UG/L	U	U	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	
REG	Chlorobenzene	1.0	UG/L	U	U	
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	1.0	UG/L	U	U	
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	1.0	UG/L	U	U	
REG	Trichloroethene	1.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-02

7J4222 — Field Sample Type: Field Duplicate — Matrix: Groundwater — Collected: 01/06/2001

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	Vinyl Chloride	1.0	UG/L	U	U	
REG	Xylenes, Total	3.0	UG/L	U	U	

7J4272 — Field Sample Type: Grab — Matrix: Groundwater — Collected: 01/06/2001

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,2,4-Trichlorobenzene	10.0	UG/L	U	U	
REG	1,2-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,3-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,4-Dichlorobenzene	10.0	UG/L	U	U	
REG	2,2'-oxybis (1-chloropropane)	10.0	UG/L	U	U	
REG	2,4,5-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4,6-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dimethylphenol	10.0	UG/L	U	U	
REG	2,4-Dinitrophenol	20.0	UG/L	U	U	
REG	2,4-Dinitrotoluene	10.0	UG/L	U	U	
REG	2,6-Dinitrotoluene	10.0	UG/L	U	U	
REG	2-Chloronaphthalene	1.0	UG/L	U	U	
REG	2-Chlorophenol	10.0	UG/L	U	U	
REG	2-Methylnaphthalene	1.0	UG/L	U	U	
REG	2-Methylphenol	10.0	UG/L	U	U	
REG	2-Nitroaniline	10.0	UG/L	U	U	
REG	2-Nitrophenol	10.0	UG/L	U	U	
REG	3,3'-Dichlorobenzidine	10.0	UG/L	U	U	
REG	3-Nitroaniline	10.0	UG/L	U	U	
REG	4,6-Dinitro-o-Cresol	10.0	UG/L	U	U	
REG	4-Bromophenyl-phenyl Ether	10.0	UG/L	U	U	
REG	4-Chloroaniline	10.0	UG/L	U	U	
REG	4-Chlorophenyl-phenylether	10.0	UG/L	U	U	
REG	4-Methylphenol	10.0	UG/L	U	U	
REG	4-Nitroaniline	10.0	UG/L	U	U	
REG	4-Nitrophenol	10.0	UG/L	U	U	
REG	4-chloro-3-methylphenol	10.0	UG/L	U	U	
REG	Acenaphthene	1.0	UG/L	U	U	
REG	Acenaphthylene	1.0	UG/L	U	U	
REG	Anthracene	1.0	UG/L	U	U	
REG	Benzo(a)anthracene	1.0	UG/L	U	U	
REG	Benzo(a)pyrene	1.0	UG/L	U	U	
REG	Benzo(b)fluoranthene	1.0	UG/L	U	U	
REG	Benzo(g,h,i)perylene	1.0	UG/L	U	U	
REG	Benzo(k)fluoranthene	1.0	UG/L	U	U	
REG	Benzoic Acid	10.0	UG/L	U	U	
REG	Benzyl Alcohol	10.0	UG/L	U	U	
REG	Bis(2-chloroethoxy)methane	10.0	UG/L	U	U	
REG	Bis(2-chloroethyl)ether	10.0	UG/L	U	U	
REG	Bis(2-ethylhexyl)phthalate	10.0	UG/L	U	U	
REG	Butyl Benzyl Phthalate	10.0	UG/L	U	U	
REG	Carbazole	10.0	UG/L	U	U	
REG	Chrysene	1.0	UG/L	U	U	
REG	Di-n-butyl Phthalate	10.0	UG/L	U	U	
REG	Di-n-octyl Phthalate	10.0	UG/L	U	U	
REG	Dibenzo(a,h)anthracene	1.0	UG/L	U	U	
REG	Dibenzofuran	10.0	UG/L	U	U	
REG	Diethyl Phthalate	10.0	UG/L	U	U	
REG	Dimethyl Phthalate	10.0	UG/L	U	U	
REG	Diphenylamine	10.0	UG/L	U	U	
REG	Fluoranthene	1.0	UG/L	U	U	
REG	Fluorene	1.0	UG/L	U	U	
REG	Hexachlorobenzene	10.0	UG/L	U	U	
REG	Hexachlorobutadiene	10.0	UG/L	U	U	
REG	Hexachlorocyclopentadiene	10.0	UG/L	U	U	
REG	Hexachloroethane	10.0	UG/L	U	U	
REG	Indeno(1,2,3-cd)pyrene	1.0	UG/L	U	U	
REG	Isophorone	10.0	UG/L	U	U	
REG	N-Nitroso-di-n-propylamine	10.0	UG/L	U	U	
REG	Naphthalene	1.0	UG/L	U	U	
REG	Nitrobenzene	10.0	UG/L	U	U	
REG	Pentachlorophenol	10.0	UG/L	U	U	
REG	Phenanthrene	1.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-02

7J4272 | **Field Sample Type: Grab** | **Matrix: Groundwater** | **Collected: 01/05/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	Phenol	10.0	UG/L	U	U	
REG	Pyrene	1.0	UG/L	U	U	

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethene	1.0	UG/L	U	U	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	
REG	1,2-Dichloroethene	2.0	UG/L	U	U	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	5.0	UG/L	U	U	
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	5.0	UG/L	U	U	
REG	Acetone	5.0	UG/L	U	U	
REG	Benzene	1.0	UG/L	U	U	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	
REG	Chlorobenzene	1.0	UG/L	U	U	
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	1.0	UG/L	U	U	
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	1.0	UG/L	U	U	
REG	Trichloroethene	1.0	UG/L	U	U	
REG	Vinyl Chloride	1.0	UG/L	U	U	
REG	Xylenes, Total	3.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-03

7J4372 | **Field Sample Type: Grab** | **Matrix: Groundwater** | **Collected: 01/05/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,2,4-Trichlorobenzene	10.0	UG/L	U	U	
REG	1,2-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,3-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,4-Dichlorobenzene	10.0	UG/L	U	U	
REG	2,2'-oxybis (1-chloropropane)	10.0	UG/L	U	U	
REG	2,4,5-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4,6-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dimethylphenol	10.0	UG/L	U	U	
REG	2,4-Dinitrophenol	20.0	UG/L	U	U	
REG	2,4-Dinitrotoluene	10.0	UG/L	U	U	
REG	2,6-Dinitrotoluene	10.0	UG/L	U	U	
REG	2-Chloronaphthalene	1.0	UG/L	U	U	
REG	2-Chlorophenol	10.0	UG/L	U	U	
REG	2-Methylnaphthalene	1.0	UG/L	U	U	
REG	2-Methylphenol	10.0	UG/L	U	U	
REG	2-Nitroaniline	10.0	UG/L	U	UJ	C05
REG	2-Nitrophenol	10.0	UG/L	U	U	
REG	3,3'-Dichlorobenzidine	10.0	UG/L	U	U	
REG	3-Nitroaniline	10.0	UG/L	U	U	
REG	4,6-Dinitro-o-Cresol	10.0	UG/L	U	U	
REG	4-Bromophenyl-phenyl Ether	10.0	UG/L	U	U	
REG	4-Chloroaniline	10.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-03

7J4372 **Field Sample Type: Grab** **Matrix: Groundwater** **Collected: 01/05/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	4-Chlorophenyl-phenylether	10.0	UG/L	U	U	
REG	4-Methylphenol	10.0	UG/L	U	U	
REG	4-Nitroaniline	10.0	UG/L	U	U	
REG	4-Nitrophenol	10.0	UG/L	U	U	
REG	4-chloro-3-methylphenol	10.0	UG/L	U	U	
REG	Acenaphthene	1.0	UG/L	U	U	
REG	Acenaphthylene	1.0	UG/L	U	U	
REG	Anthracene	1.0	UG/L	U	U	
REG	Benzo(a)anthracene	1.0	UG/L	U	U	
REG	Benzo(a)pyrene	1.0	UG/L	U	U	
REG	Benzo(b)fluoranthene	1.0	UG/L	U	U	
REG	Benzo(g,h,i)perylene	1.0	UG/L	U	U	
REG	Benzo(k)fluoranthene	1.0	UG/L	U	U	
REG	Benzoic Acid	10.0	UG/L	U	U	
REG	Benzyl Alcohol	10.0	UG/L	U	U	
REG	Bis(2-chloroethoxy)methane	10.0	UG/L	U	U	
REG	Bis(2-chloroethyl)ether	10.0	UG/L	U	U	
REG	Bis(2-ethylhexyl)phthalate	10.0	UG/L	U	U	
REG	Butyl Benzyl Phthalate	10.0	UG/L	U	U	
REG	Carbazole	10.0	UG/L	U	U	
REG	Chrysene	1.0	UG/L	U	U	
REG	Di-n-butyl Phthalate	10.0	UG/L	U	U	
REG	Di-n-octyl Phthalate	10.0	UG/L	U	U	
REG	Dibenzo(a,h)anthracene	1.0	UG/L	U	U	
REG	Dibenzofuran	10.0	UG/L	U	U	
REG	Diethyl Phthalate	10.0	UG/L	U	U	
REG	Dimethyl Phthalate	10.0	UG/L	U	U	
REG	Diphenylamine	10.0	UG/L	U	U	
REG	Fluoranthene	1.0	UG/L	U	U	
REG	Fluorene	1.0	UG/L	U	U	
REG	Hexachlorobenzene	10.0	UG/L	U	U	
REG	Hexachlorobutadiene	10.0	UG/L	U	U	
REG	Hexachlorocyclopentadiene	10.0	UG/L	U	U	
REG	Hexachloroethane	10.0	UG/L	U	U	
REG	Indeno(1,2,3-cd)pyrene	1.0	UG/L	U	U	
REG	Isophorone	10.0	UG/L	U	U	
REG	N-Nitroso-di-n-propylamine	10.0	UG/L	U	U	
REG	Naphthalene	1	UG/L		=	
REG	Nitrobenzene	10.0	UG/L	U	U	
REG	Pentachlorophenol	10.0	UG/L	U	U	
REG	Phenanthrene	1.0	UG/L	U	U	
REG	Phenol	10.0	UG/L	U	U	
REG	Pyrene	1.0	UG/L	U	U	

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethene	1.0	UG/L	U	U	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	
REG	1,2-Dichloroethene	2.0	UG/L	U	U	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	5.0	UG/L	U	U	
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	5.0	UG/L	U	U	
REG	Acetone	5.0	UG/L	U	U	
REG	Benzene	1.0	UG/L	U	U	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	
REG	Chlorobenzene	1.0	UG/L	U	U	
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-03

7J4372 **Field Sample Type: Grab** **Matrix: Groundwater** **Collected: 01/05/2001**

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	1.0	UG/L	U	U	
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	1.0	UG/L	U	U	
REG	Trichloroethene	1.0	UG/L	U	U	
REG	Vinyl Chloride	1.0	UG/L	U	U	
REG	Xylenes, Total	3.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-04

7J4472 **Field Sample Type: Grab** **Matrix: Groundwater** **Collected: 01/06/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,2,4-Trichlorobenzene	10.0	UG/L	U	U	
REG	1,2-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,3-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,4-Dichlorobenzene	10.0	UG/L	U	U	
REG	2,2'-oxybis (1-chloropropane)	10.0	UG/L	U	U	
REG	2,4,5-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4,6-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dimethylphenol	10.0	UG/L	U	U	
REG	2,4-Dinitrophenol	20.0	UG/L	U	U	
REG	2,4-Dinitrotoluene	10.0	UG/L	U	U	
REG	2,6-Dinitrotoluene	10.0	UG/L	U	U	
REG	2-Chloronaphthalene	1.0	UG/L	U	U	
REG	2-Chlorophenol	10.0	UG/L	U	U	
REG	2-Methylnaphthalene	15.6	UG/L		=	
REG	2-Methylphenol	10.0	UG/L	U	U	
REG	2-Nitroaniline	10.0	UG/L	U	U	
REG	2-Nitrophenol	10.0	UG/L	U	U	
REG	3,3'-Dichlorobenzidine	10.0	UG/L	U	U	
REG	3-Nitroaniline	10.0	UG/L	U	U	
REG	4,6-Dinitro-o-Cresol	10.0	UG/L	U	U	
REG	4-Bromophenyl-phenyl Ether	10.0	UG/L	U	U	
REG	4-Chloroaniline	10.0	UG/L	U	U	
REG	4-Chlorophenyl-phenylether	10.0	UG/L	U	U	
REG	4-Methylphenol	10.0	UG/L	U	U	
REG	4-Nitroaniline	10.0	UG/L	U	U	
REG	4-Nitrophenol	10.0	UG/L	U	U	
REG	4-chloro-3-methylphenol	10.0	UG/L	U	U	
REG	Acenaphthene	.68	UG/L	J	J	
REG	Acenaphthylene	1.0	UG/L	U	U	
REG	Anthracene	1.0	UG/L	U	U	
REG	Benzo(a)anthracene	1.0	UG/L	U	U	
REG	Benzo(a)pyrene	1.0	UG/L	U	U	
REG	Benzo(b)fluoranthene	1.0	UG/L	U	U	
REG	Benzo(g,h,i)perylene	1.0	UG/L	U	U	
REG	Benzo(k)fluoranthene	1.0	UG/L	U	U	
REG	Benzoic Acid	10.0	UG/L	U	U	
REG	Benzyl Alcohol	10.0	UG/L	U	U	
REG	Bis(2-chloroethoxy)methane	10.0	UG/L	U	U	
REG	Bis(2-chloroethyl)ether	10.0	UG/L	U	U	
REG	Bis(2-ethylhexyl)phthalate	10.0	UG/L	U	U	
REG	Butyl Benzyl Phthalate	10.0	UG/L	U	U	
REG	Carbazole	10.0	UG/L	U	U	
REG	Chrysene	1.0	UG/L	U	U	
REG	Di-n-butyl Phthalate	10.0	UG/L	U	U	
REG	Di-n-octyl Phthalate	10.0	UG/L	U	U	
REG	Dibenzo(a,h)anthracene	1.0	UG/L	U	U	
REG	Dibenzofuran	10.0	UG/L	U	U	
REG	Diethyl Phthalate	10.0	UG/L	U	U	
REG	Dimethyl Phthalate	10.0	UG/L	U	U	
REG	Diphenylamine	10.0	UG/L	U	U	
REG	Fluoranthene	1.0	UG/L	U	U	
REG	Fluorene	.98	UG/L	J	J	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-04

7J4472 | **Field Sample Type: Grab** | **Matrix: Groundwater** | **Collected: 01/06/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	Hexachlorobenzene	10.0	UG/L	U	U	
REG	Hexachlorobutadiene	10.0	UG/L	U	U	
REG	Hexachlorocyclopentadiene	10.0	UG/L	U	U	
REG	Hexachloroethane	10.0	UG/L	U	U	
REG	Indeno(1,2,3-cd)pyrene	1.0	UG/L	U	U	
REG	Isophorone	10.0	UG/L	U	U	
REG	N-Nitroso-di-n-propylamine	10.0	UG/L	U	U	
REG	Naphthalene	11	UG/L		=	
REG	Nitrobenzene	10.0	UG/L	U	U	
REG	Pentachlorophenol	10.0	UG/L	U	U	
REG	Phenanthrene	1.7	UG/L		=	
REG	Phenol	10.0	UG/L	U	U	
REG	Pyrene	1.0	UG/L	U	U	

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethene	1.0	UG/L	U	U	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	
REG	1,2-Dichloroethene	2.0	UG/L	U	U	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	5.0	UG/L	U	U	
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	5.0	UG/L	U	U	
REG	Acetone	5.0	UG/L	U	U	
REG	Benzene	1.5	UG/L		=	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	
REG	Chlorobenzene	1.0	UG/L	U	U	
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	1.3	UG/L		=	
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	.41	UG/L	J	J	
REG	Trichloroethene	1.0	UG/L	U	U	
REG	Vinyl Chloride	1.0	UG/L	U	U	
REG	Xylenes, Total	6.3	UG/L		=	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-05

7J4572 | **Field Sample Type: Grab** | **Matrix: Groundwater** | **Collected: 01/05/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,2,4-Trichlorobenzene	10.0	UG/L	U	U	
REG	1,2-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,3-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,4-Dichlorobenzene	10.0	UG/L	U	U	
REG	2,2'-oxybis (1-chloropropane)	10.0	UG/L	U	U	
REG	2,4,5-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4,6-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dimethylphenol	10.0	UG/L	U	U	
REG	2,4-Dinitrophenol	20.0	UG/L	U	U	
REG	2,4-Dinitrotoluene	10.0	UG/L	U	U	
REG	2,6-Dinitrotoluene	10.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-05

7J4572 Field Sample Type: Grab Matrix: Groundwater Collected: 01/05/2001

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	2-Chloronaphthalene	1.0	UG/L	U	U	
REG	2-Chlorophenol	10.0	UG/L	U	U	
REG	2-Methylnaphthalene	1.0	UG/L	U	U	
REG	2-Methylphenol	10.0	UG/L	U	U	
REG	2-Nitroaniline	10.0	UG/L	U	U	
REG	2-Nitrophenol	10.0	UG/L	U	U	
REG	3,3'-Dichlorobenzidine	10.0	UG/L	U	U	
REG	3-Nitroaniline	10.0	UG/L	U	U	
REG	4,6-Dinitro-o-Cresol	10.0	UG/L	U	U	
REG	4-Bromophenyl-phenyl Ether	10.0	UG/L	U	U	
REG	4-Chloroaniline	10.0	UG/L	U	U	
REG	4-Chlorophenyl-phenylether	10.0	UG/L	U	U	
REG	4-Methylphenol	10.0	UG/L	U	U	
REG	4-Nitroaniline	10.0	UG/L	U	U	
REG	4-Nitrophenol	10.0	UG/L	U	U	
REG	4-chloro-3-methylphenol	10.0	UG/L	U	U	
REG	Acenaphthene	1.0	UG/L	U	U	
REG	Acenaphthylene	1.0	UG/L	U	U	
REG	Anthracene	1.0	UG/L	U	U	
REG	Benzo(a)anthracene	1.0	UG/L	U	U	
REG	Benzo(a)pyrene	1.0	UG/L	U	U	
REG	Benzo(b)fluoranthene	1.0	UG/L	U	U	
REG	Benzo(g,h,i)perylene	1.0	UG/L	U	U	
REG	Benzo(k)fluoranthene	1.0	UG/L	U	U	
REG	Benzoic Acid	10.0	UG/L	U	U	
REG	Benzyl Alcohol	10.0	UG/L	U	U	
REG	Bis(2-chloroethoxy)methane	10.0	UG/L	U	U	
REG	Bis(2-chloroethyl)ether	10.0	UG/L	U	U	
REG	Bis(2-ethylhexyl)phthalate	10.0	UG/L	U	U	
REG	Butyl Benzyl Phthalate	10.0	UG/L	U	U	
REG	Carbazole	10.0	UG/L	U	U	
REG	Chrysene	1.0	UG/L	U	U	
REG	Di-n-butyl Phthalate	10.0	UG/L	U	U	
REG	Di-n-octyl Phthalate	10.0	UG/L	U	U	
REG	Dibenzo(a,h)anthracene	1.0	UG/L	U	U	
REG	Dibenzofuran	10.0	UG/L	U	U	
REG	Diethyl Phthalate	10.0	UG/L	U	U	
REG	Dimethyl Phthalate	10.0	UG/L	U	U	
REG	Diphenylamine	10.0	UG/L	U	U	
REG	Fluoranthene	1.0	UG/L	U	U	
REG	Fluorene	1.0	UG/L	U	U	
REG	Hexachlorobenzene	10.0	UG/L	U	U	
REG	Hexachlorobutadiene	10.0	UG/L	U	U	
REG	Hexachlorocyclopentadiene	10.0	UG/L	U	U	
REG	Hexachloroethane	10.0	UG/L	U	U	
REG	Indeno(1,2,3-cd)pyrene	1.0	UG/L	U	U	
REG	Isophorone	10.0	UG/L	U	U	
REG	N-Nitroso-di-n-propylamine	10.0	UG/L	U	U	
REG	Naphthalene	1.0	UG/L	U	U	
REG	Nitrobenzene	10.0	UG/L	U	U	
REG	Pentachlorophenol	10.0	UG/L	U	U	
REG	Phenanthrene	1.0	UG/L	U	U	
REG	Phenol	10.0	UG/L	U	U	
REG	Pyrene	1.0	UG/L	U	U	

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethene	1.0	UG/L	U	U	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	
REG	1,2-Dichloroethene	2.0	UG/L	U	U	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	5.0	UG/L	U	U	
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	5.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-05

7J4572 | **Field Sample Type: Grab** | **Matrix: Groundwater** | **Collected: 01/05/2001**

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	Acetone	5.0	UG/L	U	U	
REG	Benzene	1.0	UG/L	U	U	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	
REG	Chlorobenzene	1.0	UG/L	U	U	
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	1.0	UG/L	U	U	
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	1.0	UG/L	U	U	
REG	Trichloroethene	1.0	UG/L	U	U	
REG	Vinyl Chloride	1.0	UG/L	U	U	
REG	Xylenes, Total	3.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-06

7J4622 | **Field Sample Type: Field Duplicate** | **Matrix: Groundwater** | **Collected: 01/07/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,2,4-Trichlorobenzene	10.0	UG/L	U	U	
REG	1,2-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,3-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,4-Dichlorobenzene	10.0	UG/L	U	U	
REG	2,2'-oxybis (1-chloropropane)	10.0	UG/L	U	U	
REG	2,4,5-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4,6-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dimethylphenol	10.0	UG/L	U	U	
REG	2,4-Dinitrophenol	20.0	UG/L	U	U	
REG	2,4-Dinitrotoluene	10.0	UG/L	U	U	
REG	2,6-Dinitrotoluene	10.0	UG/L	U	U	
REG	2-Chloronaphthalene	1.0	UG/L	U	U	
REG	2-Chlorophenol	10.0	UG/L	U	U	
REG	2-Methylnaphthalene	1.0	UG/L	U	U	
REG	2-Methylphenol	10.0	UG/L	U	U	
REG	2-Nitroaniline	10.0	UG/L	U	U	
REG	2-Nitrophenol	10.0	UG/L	U	U	
REG	3,3'-Dichlorobenzidine	10.0	UG/L	U	U	
REG	3-Nitroaniline	10.0	UG/L	U	U	
REG	4,6-Dinitro-o-Cresol	10.0	UG/L	U	U	
REG	4-Bromophenyl-phenyl Ether	10.0	UG/L	U	U	
REG	4-Chloroaniline	10.0	UG/L	U	U	
REG	4-Chlorophenyl-phenylether	10.0	UG/L	U	U	
REG	4-Methylphenol	10.0	UG/L	U	U	
REG	4-Nitroaniline	10.0	UG/L	U	U	
REG	4-Nitrophenol	10.0	UG/L	U	U	
REG	4-chloro-3-methylphenol	10.0	UG/L	U	U	
REG	Acenaphthene	1.0	UG/L	U	U	
REG	Acenaphthylene	1.0	UG/L	U	U	
REG	Anthracene	1.0	UG/L	U	U	
REG	Benzo(a)anthracene	1.0	UG/L	U	U	
REG	Benzo(a)pyrene	1.0	UG/L	U	U	
REG	Benzo(b)fluoranthene	1.0	UG/L	U	U	
REG	Benzo(g,h,i)perylene	1.0	UG/L	U	U	
REG	Benzo(k)fluoranthene	1.0	UG/L	U	U	
REG	Benzoic Acid	10.0	UG/L	U	U	
REG	Benzyl Alcohol	10.0	UG/L	U	U	
REG	Bis(2-chloroethoxy)methane	10.0	UG/L	U	U	
REG	Bis(2-chloroethyl)ether	10.0	UG/L	U	U	
REG	Bis(2-ethylhexyl)phthalate	10.0	UG/L	U	U	
REG	Butyl Benzyl Phthalate	10.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-06

7J4622 Field Sample Type: Field Duplicate Matrix: Groundwater Collected: 01/07/2001

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	Carbazole	10.0	UG/L	U	U	
REG	Chrysene	1.0	UG/L	U	U	
REG	Di-n-butyl Phthalate	10.0	UG/L	U	U	
REG	Di-n-octyl Phthalate	10.0	UG/L	U	U	
REG	Dibenzo(a,h)anthracene	1.0	UG/L	U	U	
REG	Dibenzofuran	10.0	UG/L	U	U	
REG	Diethyl Phthalate	10.0	UG/L	U	U	
REG	Dimethyl Phthalate	10.0	UG/L	U	U	
REG	Diphenylamine	10.0	UG/L	U	U	
REG	Fluoranthene	1.0	UG/L	U	U	
REG	Fluorene	1.0	UG/L	U	U	
REG	Hexachlorobenzene	10.0	UG/L	U	U	
REG	Hexachlorobutadiene	10.0	UG/L	U	U	
REG	Hexachlorocyclopentadiene	10.0	UG/L	U	U	
REG	Hexachloroethane	10.0	UG/L	U	U	
REG	Indeno(1,2,3-cd)pyrene	1.0	UG/L	U	U	
REG	Isophorone	10.0	UG/L	U	U	
REG	N-Nitroso-di-n-propylamine	10.0	UG/L	U	U	
REG	Naphthalene	1.0	UG/L	U	U	
REG	Nitrobenzene	10.0	UG/L	U	U	
REG	Pentachlorophenol	10.0	UG/L	U	U	
REG	Phenanthrene	1.0	UG/L	U	U	
REG	Phenol	10.0	UG/L	U	U	
REG	Pyrene	1.0	UG/L	U	U	

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethene	1.0	UG/L	U	U	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	
REG	1,2-Dichloroethene	2.0	UG/L	U	U	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	1.2	UG/L	J	J	
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	5.0	UG/L	U	U	
REG	Acetone	5.0	UG/L	U	U	
REG	Benzene	.17	UG/L	J	J	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	
REG	Chlorobenzene	1.0	UG/L	U	U	
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	.091	UG/L	J	J	
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	1.0	UG/L	U	U	
REG	Trichloroethene	1.0	UG/L	U	U	
REG	Vinyl Chloride	1.0	UG/L	U	U	
REG	Xylenes, Total	3.0	UG/L	U	U	

7J4672 Field Sample Type: Grab Matrix: Groundwater Collected: 01/07/2001

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,2,4-Trichlorobenzene	10.0	UG/L	U	U	
REG	1,2-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,3-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,4-Dichlorobenzene	10.0	UG/L	U	U	
REG	2,2'-oxybis (1-chloropropane)	10.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-06

7J4672 **Field Sample Type: Grab** **Matrix: Groundwater** **Collected: 01/07/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	2,4,5-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4,6-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dimethylphenol	10.0	UG/L	U	U	
REG	2,4-Dinitrophenol	20.0	UG/L	U	U	
REG	2,4-Dinitrotoluene	10.0	UG/L	U	U	
REG	2,6-Dinitrotoluene	10.0	UG/L	U	U	
REG	2-Chloronaphthalene	1.0	UG/L	U	U	
REG	2-Chlorophenol	10.0	UG/L	U	U	
REG	2-Methylnaphthalene	1.0	UG/L	U	U	
REG	2-Methylphenol	10.0	UG/L	U	U	
REG	2-Nitroaniline	10.0	UG/L	U	U	
REG	2-Nitrophenol	10.0	UG/L	U	U	
REG	3,3'-Dichlorobenzidine	10.0	UG/L	U	U	
REG	3-Nitroaniline	10.0	UG/L	U	U	
REG	4,6-Dinitro-o-Cresol	10.0	UG/L	U	U	
REG	4-Bromophenyl-phenyl Ether	10.0	UG/L	U	U	
REG	4-Chloroaniline	10.0	UG/L	U	U	
REG	4-Chlorophenyl-phenylether	10.0	UG/L	U	U	
REG	4-Methylphenol	10.0	UG/L	U	U	
REG	4-Nitroaniline	10.0	UG/L	U	U	
REG	4-Nitrophenol	10.0	UG/L	U	U	
REG	4-chloro-3-methylphenol	10.0	UG/L	U	U	
REG	Acenaphthene	1.0	UG/L	U	U	
REG	Acenaphthylene	1.0	UG/L	U	U	
REG	Anthracene	1.0	UG/L	U	U	
REG	Benzo(a)anthracene	1.0	UG/L	U	U	
REG	Benzo(a)pyrene	1.0	UG/L	U	U	
REG	Benzo(b)fluoranthene	1.0	UG/L	U	U	
REG	Benzo(g,h,i)perylene	1.0	UG/L	U	U	
REG	Benzo(k)fluoranthene	1.0	UG/L	U	U	
REG	Benzoic Acid	10.0	UG/L	U	U	
REG	Benzyl Alcohol	10.0	UG/L	U	U	
REG	Bis(2-chloroethoxy)methane	10.0	UG/L	U	U	
REG	Bis(2-chloroethyl)ether	10.0	UG/L	U	U	
REG	Bis(2-ethylhexyl)phthalate	10.0	UG/L	U	U	
REG	Butyl Benzyl Phthalate	10.0	UG/L	U	U	
REG	Carbazole	10.0	UG/L	U	U	
REG	Chrysene	1.0	UG/L	U	U	
REG	Di-n-butyl Phthalate	10.0	UG/L	U	U	
REG	Di-n-octyl Phthalate	10.0	UG/L	U	U	
REG	Dibenzo(a,h)anthracene	1.0	UG/L	U	U	
REG	Dibenzofuran	10.0	UG/L	U	U	
REG	Diethyl Phthalate	10.0	UG/L	U	U	
REG	Dimethyl Phthalate	10.0	UG/L	U	U	
REG	Diphenylamine	10.0	UG/L	U	U	
REG	Fluoranthene	1.0	UG/L	U	U	
REG	Fluorene	1.0	UG/L	U	U	
REG	Hexachlorobenzene	10.0	UG/L	U	U	
REG	Hexachlorobutadiene	10.0	UG/L	U	U	
REG	Hexachlorocyclopentadiene	10.0	UG/L	U	U	
REG	Hexachloroethane	10.0	UG/L	U	U	
REG	Indeno(1,2,3-cd)pyrene	1.0	UG/L	U	U	
REG	Isophorone	10.0	UG/L	U	U	
REG	N-Nitroso-di-n-propylamine	10.0	UG/L	U	U	
REG	Naphthalene	1.0	UG/L	U	U	
REG	Nitrobenzene	10.0	UG/L	U	U	
REG	Pentachlorophenol	10.0	UG/L	U	U	
REG	Phenanthrene	1.0	UG/L	U	U	
REG	Phenol	10.0	UG/L	U	U	
REG	Pyrene	1.0	UG/L	U	U	

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethene	1.0	UG/L	U	U	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-06

7J4672 **Field Sample Type: Grab** **Matrix: Groundwater** **Collected: 01/07/2001**

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,2-Dichloroethene	2.0	UG/L	U	U	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	5.0	UG/L	U	U	
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	5.0	UG/L	U	U	
REG	Acetone	5.0	UG/L	U	U	
REG	Benzene	.17	UG/L	J	J	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	
REG	Chlorobenzene	1.0	UG/L	U	U	
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	.1	UG/L	J	J	
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	1.0	UG/L	U	U	
REG	Trichloroethene	1.0	UG/L	U	U	
REG	Vinyl Chloride	1.0	UG/L	U	U	
REG	Xylenes, Total	3.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-07

7J4772 **Field Sample Type: Grab** **Matrix: Groundwater** **Collected: 01/06/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,2,4-Trichlorobenzene	10.0	UG/L	U	U	
REG	1,2-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,3-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,4-Dichlorobenzene	10.0	UG/L	U	U	
REG	2,2'-oxybis (1-chloropropane)	10.0	UG/L	U	U	
REG	2,4,5-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4,6-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dimethylphenol	10.0	UG/L	U	U	
REG	2,4-Dinitrophenol	20.0	UG/L	U	U	
REG	2,4-Dinitrotoluene	10.0	UG/L	U	U	
REG	2,6-Dinitrotoluene	10.0	UG/L	U	U	
REG	2-Chloronaphthalene	1.0	UG/L	U	U	
REG	2-Chlorophenol	10.0	UG/L	U	U	
REG	2-Methylnaphthalene	7.4	UG/L		=	
REG	2-Methylphenol	10.0	UG/L	U	U	
REG	2-Nitroaniline	10.0	UG/L	U	U	
REG	2-Nitrophenol	10.0	UG/L	U	U	
REG	3,3'-Dichlorobenzidine	10.0	UG/L	U	U	
REG	3-Nitroaniline	10.0	UG/L	U	U	
REG	4,6-Dinitro-o-Cresol	10.0	UG/L	U	U	
REG	4-Bromophenyl-phenyl Ether	10.0	UG/L	U	U	
REG	4-Chloroaniline	10.0	UG/L	U	U	
REG	4-Chlorophenyl-phenylether	10.0	UG/L	U	U	
REG	4-Methylphenol	21.3	UG/L		=	
REG	4-Nitroaniline	10.0	UG/L	U	U	
REG	4-Nitrophenol	10.0	UG/L	U	U	
REG	4-chloro-3-methylphenol	10.0	UG/L	U	U	
REG	Acenaphthene	1.0	UG/L	U	U	
REG	Acenaphthylene	1.0	UG/L	U	U	
REG	Anthracene	1.0	UG/L	U	U	
REG	Benzo(a)anthracene	1.0	UG/L	U	U	
REG	Benzo(a)pyrene	1.0	UG/L	U	U	
REG	Benzo(b)fluoranthene	1.0	UG/L	U	U	
REG	Benzo(g,h,i)perylene	1.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-07

7J4772 **Field Sample Type: Grab** **Matrix: Groundwater** **Collected: 01/06/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	Benzo(k)fluoranthene	1.0	UG/L	U	U	
REG	Benzoic Acid	10.0	UG/L	U	U	
REG	Benzyl Alcohol	10.0	UG/L	U	U	
REG	Bis(2-chloroethoxy)methane	10.0	UG/L	U	U	
REG	Bis(2-chloroethyl)ether	10.0	UG/L	U	U	
REG	Bis(2-ethylhexyl)phthalate	10.0	UG/L	U	U	
REG	Butyl Benzyl Phthalate	10.0	UG/L	U	U	
REG	Carbazole	10.0	UG/L	U	U	
REG	Chrysene	1.0	UG/L	U	U	
REG	Di-n-butyl Phthalate	10.0	UG/L	U	U	
REG	Di-n-octyl Phthalate	10.0	UG/L	U	U	
REG	Dibenzo(a,h)anthracene	1.0	UG/L	U	U	
REG	Dibenzofuran	10.0	UG/L	U	U	
REG	Diethyl Phthalate	10.0	UG/L	U	U	
REG	Dimethyl Phthalate	10.0	UG/L	U	U	
REG	Diphenylamine	10.0	UG/L	U	U	
REG	Fluoranthene	1.0	UG/L	U	U	
REG	Fluorene	1.0	UG/L	U	U	
REG	Hexachlorobenzene	10.0	UG/L	U	U	
REG	Hexachlorobutadiene	10.0	UG/L	U	U	
REG	Hexachlorocyclopentadiene	10.0	UG/L	U	U	
REG	Hexachloroethane	10.0	UG/L	U	U	
REG	Indeno(1,2,3-cd)pyrene	1.0	UG/L	U	U	
REG	Isophorone	10.0	UG/L	U	U	
REG	N-Nitroso-di-n-propylamine	10.0	UG/L	U	U	
REG	Naphthalene	1.0	UG/L	U	U	
REG	Nitrobenzene	10.0	UG/L	U	U	
REG	Pentachlorophenol	10.0	UG/L	U	U	
REG	Phenanthrene	1.0	UG/L	U	U	
REG	Phenol	10.0	UG/L	U	U	
REG	Pyrene	1.0	UG/L	U	U	

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	.37	UG/L	J	J	
REG	1,1-Dichloroethene	1.0	UG/L	U	U	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	
REG	1,2-Dichloroethene	.24	UG/L	J	J	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	10.6	UG/L		=	
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	6.8	UG/L		=	
REG	Acetone	7.2	UG/L		U	F04,F07
REG	Benzene	31.4	UG/L		=	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	
REG	Chlorobenzene	1.0	UG/L	U	U	
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	4.3	UG/L		=	
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	10	UG/L		=	
REG	Trichloroethene	1.0	UG/L	U	U	
REG	Vinyl Chloride	1.0	UG/L	U	U	
REG	Xylenes, Total	20.7	UG/L		=	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-08

7J4872 **Field Sample Type: Grab** **Matrix: Groundwater** **Collected: 01/08/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,2,4-Trichlorobenzene	10.0	UG/L	U	U	
REG	1,2-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,3-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,4-Dichlorobenzene	10.0	UG/L	U	U	
REG	2,2'-oxybis (1-chloropropane)	10.0	UG/L	U	U	
REG	2,4,5-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4,6-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dimethylphenol	10.0	UG/L	U	U	
REG	2,4-Dinitrophenol	20.0	UG/L	U	U	
REG	2,4-Dinitrotoluene	10.0	UG/L	U	U	
REG	2,6-Dinitrotoluene	10.0	UG/L	U	U	
REG	2-Chloronaphthalene	1.0	UG/L	U	U	
REG	2-Chlorophenol	10.0	UG/L	U	U	
REG	2-Methylnaphthalene	1.0	UG/L	U	U	
REG	2-Methylphenol	10.0	UG/L	U	U	
REG	2-Nitroaniline	10.0	UG/L	U	UJ	C05
REG	2-Nitrophenol	10.0	UG/L	U	U	
REG	3,3'-Dichlorobenzidine	10.0	UG/L	U	U	
REG	3-Nitroaniline	10.0	UG/L	U	U	
REG	4,6-Dinitro-o-Cresol	10.0	UG/L	U	U	
REG	4-Bromophenyl-phenyl Ether	10.0	UG/L	U	U	
REG	4-Chloroaniline	10.0	UG/L	U	U	
REG	4-Chlorophenyl-phenylether	10.0	UG/L	U	U	
REG	4-Methylphenol	10.0	UG/L	U	U	
REG	4-Nitroaniline	10.0	UG/L	U	U	
REG	4-Nitrophenol	10.0	UG/L	U	U	
REG	4-chloro-3-methylphenol	10.0	UG/L	U	U	
REG	Acenaphthene	1.0	UG/L	U	U	
REG	Acenaphthylene	1.0	UG/L	U	U	
REG	Anthracene	1.0	UG/L	U	U	
REG	Benzo(a)anthracene	1.0	UG/L	U	U	
REG	Benzo(a)pyrene	1.0	UG/L	U	U	
REG	Benzo(b)fluoranthene	1.0	UG/L	U	U	
REG	Benzo(g,h,i)perylene	1.0	UG/L	U	U	
REG	Benzo(k)fluoranthene	1.0	UG/L	U	U	
REG	Benzoic Acid	10.0	UG/L	U	U	
REG	Benzyl Alcohol	10.0	UG/L	U	U	
REG	Bis(2-chloroethoxy)methane	10.0	UG/L	U	U	
REG	Bis(2-chloroethyl)ether	10.0	UG/L	U	U	
REG	Bis(2-ethylhexyl)phthalate	10.0	UG/L	U	U	
REG	Butyl Benzyl Phthalate	10.0	UG/L	U	U	
REG	Carbazole	10.0	UG/L	U	U	
REG	Chrysene	1.0	UG/L	U	U	
REG	Di-n-butyl Phthalate	10.0	UG/L	U	U	
REG	Di-n-octyl Phthalate	10.0	UG/L	U	U	
REG	Dibenzo(a,h)anthracene	1.0	UG/L	U	U	
REG	Dibenzofuran	10.0	UG/L	U	U	
REG	Diethyl Phthalate	10.0	UG/L	U	U	
REG	Dimethyl Phthalate	10.0	UG/L	U	U	
REG	Diphenylamine	10.0	UG/L	U	U	
REG	Fluoranthene	1.0	UG/L	U	U	
REG	Fluorene	1.0	UG/L	U	U	
REG	Hexachlorobenzene	10.0	UG/L	U	U	
REG	Hexachlorobutadiene	10.0	UG/L	U	U	
REG	Hexachlorocyclopentadiene	10.0	UG/L	U	U	
REG	Hexachloroethane	10.0	UG/L	U	U	
REG	Indeno(1,2,3-cd)pyrene	1.0	UG/L	U	U	
REG	Isophorone	10.0	UG/L	U	U	
REG	N-Nitroso-di-n-propylamine	10.0	UG/L	U	U	
REG	Naphthalene	1.0	UG/L	U	U	
REG	Nitrobenzene	10.0	UG/L	U	U	
REG	Pentachlorophenol	10.0	UG/L	U	U	
REG	Phenanthrene	1.0	UG/L	U	U	
REG	Phenol	10.0	UG/L	U	U	
REG	Pyrene	1.0	UG/L	U	U	

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-08

7J4872 **Field Sample Type: Grab** **Matrix: Groundwater** **Collected: 01/08/2001**

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethene	1.0	UG/L	U	U	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	
REG	1,2-Dichloroethene	2.0	UG/L	U	U	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	5.2	UG/L		UJ	F04,F07,C05
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	5.0	UG/L	U	U	
REG	Acetone	5	UG/L	JB	U	F01,F06
REG	Benzene	1.0	UG/L	U	U	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	
REG	Chlorobenzene	1.0	UG/L	U	U	
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	1.0	UG/L	U	U	
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	1.0	UG/L	U	U	
REG	Trichloroethene	1.0	UG/L	U	U	
REG	Vinyl Chloride	1.0	UG/L	U	U	
REG	Xylenes, Total	3.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-09

7J4972 **Field Sample Type: Grab** **Matrix: Groundwater** **Collected: 01/05/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,2,4-Trichlorobenzene	10.0	UG/L	U	U	
REG	1,2-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,3-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,4-Dichlorobenzene	10.0	UG/L	U	U	
REG	2,2'-oxybis (1-chloropropane)	10.0	UG/L	U	U	
REG	2,4,5-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4,6-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dimethylphenol	10.0	UG/L	U	U	
REG	2,4-Dinitrophenol	20.0	UG/L	U	U	
REG	2,4-Dinitrotoluene	10.0	UG/L	U	U	
REG	2,6-Dinitrotoluene	10.0	UG/L	U	U	
REG	2-Chloronaphthalene	1.0	UG/L	U	U	
REG	2-Chlorophenol	10.0	UG/L	U	U	
REG	2-Methylnaphthalene	2.3	UG/L		=	
REG	2-Methylphenol	10.0	UG/L	U	U	
REG	2-Nitroaniline	10.0	UG/L	U	U	
REG	2-Nitrophenol	10.0	UG/L	U	U	
REG	3,3'-Dichlorobenzidine	10.0	UG/L	U	U	
REG	3-Nitroaniline	10.0	UG/L	U	U	
REG	4,6-Dinitro-o-Cresol	10.0	UG/L	U	U	
REG	4-Bromophenyl-phenyl Ether	10.0	UG/L	U	U	
REG	4-Chloroaniline	10.0	UG/L	U	U	
REG	4-Chlorophenyl-phenylether	10.0	UG/L	U	U	
REG	4-Methylphenol	10.0	UG/L	U	U	
REG	4-Nitroaniline	10.0	UG/L	U	U	
REG	4-Nitrophenol	10.0	UG/L	U	U	
REG	4-chloro-3-methylphenol	10.0	UG/L	U	U	
REG	Acenaphthene	1.0	UG/L	U	U	
REG	Acenaphthylene	1.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-09

7J4972 **Field Sample Type: Grab** **Matrix: Groundwater** **Collected: 01/05/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	Anthracene	1.0	UG/L	U	U	
REG	Benzo(a)anthracene	1.0	UG/L	U	U	
REG	Benzo(a)pyrene	1.0	UG/L	U	U	
REG	Benzo(b)fluoranthene	1.0	UG/L	U	U	
REG	Benzo(g,h,i)perylene	1.0	UG/L	U	U	
REG	Benzo(k)fluoranthene	1.0	UG/L	U	U	
REG	Benzoic Acid	10.0	UG/L	U	U	
REG	Benzyl Alcohol	10.0	UG/L	U	U	
REG	Bis(2-chloroethoxy)methane	10.0	UG/L	U	U	
REG	Bis(2-chloroethyl)ether	10.0	UG/L	U	U	
REG	Bis(2-ethylhexyl)phthalate	10.0	UG/L	U	U	
REG	Butyl Benzyl Phthalate	10.0	UG/L	U	U	
REG	Carbazole	10.0	UG/L	U	U	
REG	Chrysene	1.0	UG/L	U	U	
REG	Di-n-butyl Phthalate	10.0	UG/L	U	U	
REG	Di-n-octyl Phthalate	10.0	UG/L	U	U	
REG	Dibenzo(a,h)anthracene	1.0	UG/L	U	U	
REG	Dibenzofuran	10.0	UG/L	U	U	
REG	Diethyl Phthalate	10.0	UG/L	U	U	
REG	Dimethyl Phthalate	10.0	UG/L	U	U	
REG	Diphenylamine	10.0	UG/L	U	U	
REG	Fluoranthene	1.0	UG/L	U	U	
REG	Fluorene	1.0	UG/L	U	U	
REG	Hexachlorobenzene	10.0	UG/L	U	U	
REG	Hexachlorobutadiene	10.0	UG/L	U	U	
REG	Hexachlorocyclopentadiene	10.0	UG/L	U	U	
REG	Hexachloroethane	10.0	UG/L	U	U	
REG	Indeno(1,2,3-cd)pyrene	1.0	UG/L	U	U	
REG	Isophorone	10.0	UG/L	U	U	
REG	N-Nitroso-di-n-propylamine	10.0	UG/L	U	U	
REG	Naphthalene	3.6	UG/L		=	
REG	Nitrobenzene	10.0	UG/L	U	U	
REG	Pentachlorophenol	10.0	UG/L	U	U	
REG	Phenanthrene	1.0	UG/L	U	U	
REG	Phenol	10.0	UG/L	U	U	
REG	Pyrene	1.0	UG/L	U	U	

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethene	1.0	UG/L	U	U	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	
REG	1,2-Dichloroethene	2.0	UG/L	U	U	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	5.0	UG/L	U	U	
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	5.0	UG/L	U	U	
REG	Acetone	5	UG/L	J	U	F04,F06
REG	Benzene	5.8	UG/L		=	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	
REG	Chlorobenzene	1.0	UG/L	U	U	
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	.44	UG/L	J	J	
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	1.0	UG/L	U	U	
REG	Trichloroethene	1.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-09

7J4972 **Field Sample Type: Grab** **Matrix: Groundwater** **Collected: 01/05/2001**

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	Vinyl Chloride	1.0	UG/L	U	U	
REG	Xylenes, Total	3.6	UG/L		=	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-10

7J4A72 **Field Sample Type: Grab** **Matrix: Groundwater** **Collected: 01/07/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,2,4-Trichlorobenzene	10.0	UG/L	U	U	
REG	1,2-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,3-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,4-Dichlorobenzene	10.0	UG/L	U	U	
REG	2,2'-oxybis (1-chloropropane)	10.0	UG/L	U	U	
REG	2,4,5-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4,6-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dimethylphenol	10.0	UG/L	U	U	
REG	2,4-Dinitrophenol	20.0	UG/L	U	U	
REG	2,4-Dinitrotoluene	10.0	UG/L	U	U	
REG	2,6-Dinitrotoluene	10.0	UG/L	U	U	
REG	2-Chloronaphthalene	1.0	UG/L	U	U	
REG	2-Chlorophenol	10.0	UG/L	U	U	
REG	2-Methylnaphthalene	1.7	UG/L		=	
REG	2-Methylphenol	10.0	UG/L	U	U	
REG	2-Nitroaniline	10.0	UG/L	U	U	
REG	2-Nitrophenol	10.0	UG/L	U	U	
REG	3,3'-Dichlorobenzidine	10.0	UG/L	U	U	
REG	3-Nitroaniline	10.0	UG/L	U	U	
REG	4,6-Dinitro-o-Cresol	10.0	UG/L	U	U	
REG	4-Bromophenyl-phenyl Ether	10.0	UG/L	U	U	
REG	4-Chloroaniline	10.0	UG/L	U	U	
REG	4-Chlorophenyl-phenylether	10.0	UG/L	U	U	
REG	4-Methylphenol	10.0	UG/L	U	U	
REG	4-Nitroaniline	10.0	UG/L	U	U	
REG	4-Nitrophenol	10.0	UG/L	U	U	
REG	4-chloro-3-methylphenol	10.0	UG/L	U	U	
REG	Acenaphthene	1.0	UG/L	U	U	
REG	Acenaphthylene	1.0	UG/L	U	U	
REG	Anthracene	1.0	UG/L	U	U	
REG	Benzo(a)anthracene	1.0	UG/L	U	U	
REG	Benzo(a)pyrene	1.0	UG/L	U	U	
REG	Benzo(b)fluoranthene	1.0	UG/L	U	U	
REG	Benzo(g,h,i)perylene	1.0	UG/L	U	U	
REG	Benzo(k)fluoranthene	1.0	UG/L	U	U	
REG	Benzoic Acid	10.0	UG/L	U	U	
REG	Benzyl Alcohol	10.0	UG/L	U	U	
REG	Bis(2-chloroethoxy)methane	10.0	UG/L	U	U	
REG	Bis(2-chloroethyl)ether	10.0	UG/L	U	U	
REG	Bis(2-ethylhexyl)phthalate	10.0	UG/L	U	U	
REG	Butyl Benzyl Phthalate	10.0	UG/L	U	U	
REG	Carbazole	10.0	UG/L	U	U	
REG	Chrysene	1.0	UG/L	U	U	
REG	Di-n-butyl Phthalate	10.0	UG/L	U	U	
REG	Di-n-octyl Phthalate	10.0	UG/L	U	U	
REG	Dibenzo(a,h)anthracene	1.0	UG/L	U	U	
REG	Dibenzofuran	10.0	UG/L	U	U	
REG	Diethyl Phthalate	10.0	UG/L	U	U	
REG	Dimethyl Phthalate	10.0	UG/L	U	U	
REG	Diphenylamine	10.0	UG/L	U	U	
REG	Fluoranthene	1.0	UG/L	U	U	
REG	Fluorene	1.0	UG/L	U	U	
REG	Hexachlorobenzene	10.0	UG/L	U	U	
REG	Hexachlorobutadiene	10.0	UG/L	U	U	
REG	Hexachlorocyclopentadiene	10.0	UG/L	U	U	
REG	Hexachloroethane	10.0	UG/L	U	U	
REG	Indeno(1,2,3-cd)pyrene	1.0	UG/L	U	U	
REG	Isophorone	10.0	UG/L	U	U	
REG	N-Nitroso-di-n-propylamine	10.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-10

7J4A72 **Field Sample Type: Grab** **Matrix: Groundwater** **Collected: 01/07/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	Naphthalene	1.2	UG/L		=	
REG	Nitrobenzene	10.0	UG/L	U	U	
REG	Pentachlorophenol	10.0	UG/L	U	U	
REG	Phenanthrene	1.0	UG/L	U	U	
REG	Phenol	10.0	UG/L	U	U	
REG	Pyrene	1.0	UG/L	U	U	

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethene	1.0	UG/L	U	U	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	
REG	1,2-Dichloroethene	.41	UG/L	J	J	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	5.0	UG/L	U	U	
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	5.0	UG/L	U	U	
REG	Acetone	5	UG/L	J	U	F04,F06
REG	Benzene	2.4	UG/L		=	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	
REG	Chlorobenzene	1.0	UG/L	U	U	
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	.94	UG/L	J	J	
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	1.5	UG/L		=	
REG	Trichloroethene	1.0	UG/L	U	U	
REG	Vinyl Chloride	1.0	UG/L	U	U	
REG	Xylenes, Total	3.2	UG/L		=	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-11

7J4B72 **Field Sample Type: Grab** **Matrix: Groundwater** **Collected: 01/08/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,2,4-Trichlorobenzene	10.0	UG/L	U	U	
REG	1,2-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,3-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,4-Dichlorobenzene	10.0	UG/L	U	U	
REG	2,2'-oxybis (1-chloropropane)	10.0	UG/L	U	U	
REG	2,4,5-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4,6-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dimethylphenol	10.0	UG/L	U	U	
REG	2,4-Dinitrophenol	20.0	UG/L	U	U	
REG	2,4-Dinitrotoluene	10.0	UG/L	U	U	
REG	2,6-Dinitrotoluene	10.0	UG/L	U	U	
REG	2-Chloronaphthalene	1.0	UG/L	U	U	
REG	2-Chlorophenol	10.0	UG/L	U	U	
REG	2-Methylnaphthalene	1.0	UG/L	U	U	
REG	2-Methylphenol	10.0	UG/L	U	U	
REG	2-Nitroaniline	10.0	UG/L	U	UJ	C05
REG	2-Nitrophenol	10.0	UG/L	U	U	
REG	3,3'-Dichlorobenzidine	10.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-11

7J4B72 **Field Sample Type: Grab** **Matrix: Groundwater** **Collected: 01/08/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	3-Nitroaniline	10.0	UG/L	U	U	
REG	4,6-Dinitro-o-Cresol	10.0	UG/L	U	U	
REG	4-Bromophenyl-phenyl Ether	10.0	UG/L	U	U	
REG	4-Chloroaniline	10.0	UG/L	U	U	
REG	4-Chlorophenyl-phenylether	10.0	UG/L	U	U	
REG	4-Methylphenol	10.0	UG/L	U	U	
REG	4-Nitroaniline	10.0	UG/L	U	U	
REG	4-Nitrophenol	10.0	UG/L	U	U	
REG	4-chloro-3-methylphenol	10.0	UG/L	U	U	
REG	Acenaphthene	1.0	UG/L	U	U	
REG	Acenaphthylene	1.0	UG/L	U	U	
REG	Anthracene	1.0	UG/L	U	U	
REG	Benzo(a)anthracene	1.0	UG/L	U	U	
REG	Benzo(a)pyrene	1.0	UG/L	U	U	
REG	Benzo(b)fluoranthene	1.0	UG/L	U	U	
REG	Benzo(g,h,i)perylene	1.0	UG/L	U	U	
REG	Benzo(k)fluoranthene	1.0	UG/L	U	U	
REG	Benzoic Acid	10.0	UG/L	U	U	
REG	Benzyl Alcohol	10.0	UG/L	U	U	
REG	Bis(2-chloroethoxy)methane	10.0	UG/L	U	U	
REG	Bis(2-chloroethyl)ether	10.0	UG/L	U	U	
REG	Bis(2-ethylhexyl)phthalate	10.0	UG/L	U	U	
REG	Butyl Benzyl Phthalate	10.0	UG/L	U	U	
REG	Carbazole	10.0	UG/L	U	U	
REG	Chrysene	1.0	UG/L	U	U	
REG	Di-n-butyl Phthalate	10.0	UG/L	U	U	
REG	Di-n-octyl Phthalate	10.0	UG/L	U	U	
REG	Dibenzo(a,h)anthracene	1.0	UG/L	U	U	
REG	Dibenzofuran	10.0	UG/L	U	U	
REG	Diethyl Phthalate	10.0	UG/L	U	U	
REG	Dimethyl Phthalate	10.0	UG/L	U	U	
REG	Diphenylamine	10.0	UG/L	U	U	
REG	Fluoranthene	1.0	UG/L	U	U	
REG	Fluorene	1.0	UG/L	U	U	
REG	Hexachlorobenzene	10.0	UG/L	U	U	
REG	Hexachlorobutadiene	10.0	UG/L	U	U	
REG	Hexachlorocyclopentadiene	10.0	UG/L	U	U	
REG	Hexachloroethane	10.0	UG/L	U	U	
REG	Indeno(1,2,3-cd)pyrene	1.0	UG/L	U	U	
REG	Isophorone	10.0	UG/L	U	U	
REG	N-Nitroso-di-n-propylamine	10.0	UG/L	U	U	
REG	Naphthalene	1.0	UG/L	U	U	
REG	Nitrobenzene	10.0	UG/L	U	U	
REG	Pentachlorophenol	10.0	UG/L	U	U	
REG	Phenanthrene	1.0	UG/L	U	U	
REG	Phenol	10.0	UG/L	U	U	
REG	Pyrene	1.0	UG/L	U	U	

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethene	1.0	UG/L	U	U	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	
REG	1,2-Dichloroethene	2.0	UG/L	U	U	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	10.4	UG/L		UJ	F04,F07,C05
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	5.0	UG/L	U	U	
REG	Acetone	5	UG/L	JB	U	F01,F06
REG	Benzene	1.0	UG/L	U	U	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-11

7J4B72 Field Sample Type: Grab Matrix: Groundwater Collected: 01/08/2001

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	Chlorobenzene	1.0	UG/L	U	U	
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	1.0	UG/L	U	U	
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	.33	UG/L	J	J	
REG	Trichloroethene	1.0	UG/L	U	U	
REG	Vinyl Chloride	1.0	UG/L	U	U	
REG	Xylenes, Total	3.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-13

7J4D42 Field Sample Type: Equipment Rinsate Matrix: Quality Control Collected: 01/09/2001

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,2,4-Trichlorobenzene	9.6	UG/L	U	U	
REG	1,2-Dichlorobenzene	9.6	UG/L	U	U	
REG	1,3-Dichlorobenzene	9.6	UG/L	U	U	
REG	1,4-Dichlorobenzene	9.6	UG/L	U	U	
REG	2,2'-oxybis (1-chloropropane)	9.6	UG/L	U	U	
REG	2,4,5-Trichlorophenol	9.6	UG/L	U	U	
REG	2,4,6-Trichlorophenol	9.6	UG/L	U	U	
REG	2,4-Dichlorophenol	9.6	UG/L	U	U	
REG	2,4-Dimethylphenol	9.6	UG/L	U	U	
REG	2,4-Dinitrophenol	19.2	UG/L	U	U	
REG	2,4-Dinitrotoluene	9.6	UG/L	U	U	
REG	2,6-Dinitrotoluene	9.6	UG/L	U	U	
REG	2-Chloronaphthalene	0.96	UG/L	U	U	
REG	2-Chlorophenol	9.6	UG/L	U	U	
REG	2-Methylnaphthalene	0.96	UG/L	U	U	
REG	2-Methylphenol	9.6	UG/L	U	U	
REG	2-Nitroaniline	9.6	UG/L	U	UJ	C05
REG	2-Nitrophenol	9.6	UG/L	U	U	
REG	3,3'-Dichlorobenzidine	9.6	UG/L	U	U	
REG	3-Nitroaniline	9.6	UG/L	U	U	
REG	4,6-Dinitro-o-Cresol	9.6	UG/L	U	U	
REG	4-Bromophenyl-phenyl Ether	9.6	UG/L	U	U	
REG	4-Chloroaniline	9.6	UG/L	U	U	
REG	4-Chlorophenyl-phenylether	9.6	UG/L	U	U	
REG	4-Methylphenol	9.6	UG/L	U	U	
REG	4-Nitroaniline	9.6	UG/L	U	U	
REG	4-Nitrophenol	9.6	UG/L	U	U	
REG	4-chloro-3-methylphenol	9.6	UG/L	U	U	
REG	Acenaphthene	0.96	UG/L	U	U	
REG	Acenaphthylene	0.96	UG/L	U	U	
REG	Anthracene	0.96	UG/L	U	U	
REG	Benzo(a)anthracene	0.96	UG/L	U	U	
REG	Benzo(a)pyrene	0.96	UG/L	U	U	
REG	Benzo(b)fluoranthene	0.96	UG/L	U	U	
REG	Benzo(g,h,i)perylene	0.96	UG/L	U	U	
REG	Benzo(k)fluoranthene	0.96	UG/L	U	U	
REG	Benzoic Acid	9.6	UG/L	U	U	
REG	Benzyl Alcohol	6.8	UG/L	J	J	
REG	Bis(2-chloroethoxy)methane	9.6	UG/L	U	U	
REG	Bis(2-chloroethyl)ether	9.6	UG/L	U	U	
REG	Bis(2-ethylhexyl)phthalate	9.6	UG/L	U	U	
REG	Butyl Benzyl Phthalate	9.6	UG/L	U	U	
REG	Carbazole	9.6	UG/L	U	U	
REG	Chrysene	0.96	UG/L	U	U	
REG	Di-n-butyl Phthalate	9.6	UG/L	U	U	
REG	Di-n-octyl Phthalate	9.6	UG/L	U	U	
REG	Dibenzo(a,h)anthracene	0.96	UG/L	U	U	
REG	Dibenzofuran	9.6	UG/L	U	U	
REG	Diethyl Phthalate	9.6	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-13

7J4D42 Field Sample Type: Equipment Rinsate Matrix: Quality Control Collected: 01/09/2001

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	Dimethyl Phthalate	9.6	UG/L	U	U	
REG	Diphenylamine	9.6	UG/L	U	U	
REG	Fluoranthene	0.96	UG/L	U	U	
REG	Fluorene	0.96	UG/L	U	U	
REG	Hexachlorobenzene	9.6	UG/L	U	U	
REG	Hexachlorobutadiene	9.6	UG/L	U	U	
REG	Hexachlorocyclopentadiene	9.6	UG/L	U	U	
REG	Hexachloroethane	9.6	UG/L	U	U	
REG	Indeno(1,2,3-cd)pyrene	0.96	UG/L	U	U	
REG	Isophorone	9.6	UG/L	U	U	
REG	N-Nitroso-di-n-propylamine	9.6	UG/L	U	U	
REG	Naphthalene	0.96	UG/L	U	U	
REG	Nitrobenzene	9.6	UG/L	U	U	
REG	Pentachlorophenol	9.6	UG/L	U	U	
REG	Phenanthrene	0.96	UG/L	U	U	
REG	Phenol	9.6	UG/L	U	U	
REG	Pyrene	0.96	UG/L	U	U	

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethene	1.0	UG/L	U	U	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	
REG	1,2-Dichloroethene	2.0	UG/L	U	U	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	5	UG/L	J	UJ	F04,F06,C05
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	5.0	UG/L	U	U	
REG	Acetone	5	UG/L	JB	U	F01,F06
REG	Benzene	1.0	UG/L	U	U	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	
REG	Chlorobenzene	1.0	UG/L	U	U	
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	.073	UG/L	J	J	
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	.34	UG/L	J	J	
REG	Trichloroethene	1.0	UG/L	U	U	
REG	Vinyl Chloride	1.0	UG/L	U	U	
REG	Xylenes, Total	3.0	UG/L	U	U	

7J4D72 Field Sample Type: Grab Matrix: Groundwater Collected: 01/07/2001

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,2,4-Trichlorobenzene	9.9	UG/L	U	U	
REG	1,2-Dichlorobenzene	9.9	UG/L	U	U	
REG	1,3-Dichlorobenzene	9.9	UG/L	U	U	
REG	1,4-Dichlorobenzene	9.9	UG/L	U	U	
REG	2,2'-oxybis (1-chloropropane)	9.9	UG/L	U	U	
REG	2,4,5-Trichlorophenol	9.9	UG/L	U	U	
REG	2,4,6-Trichlorophenol	9.9	UG/L	U	U	
REG	2,4-Dichlorophenol	9.9	UG/L	U	U	
REG	2,4-Dimethylphenol	9.9	UG/L	U	U	
REG	2,4-Dinitrophenol	19.8	UG/L	U	U	
REG	2,4-Dinitrotoluene	9.9	UG/L	U	U	
REG	2,6-Dinitrotoluene	9.9	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-13

7J4D72 Field Sample Type: Grab Matrix: Groundwater Collected: 01/07/2001

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	2-Chloronaphthalene	0.99	UG/L	U	U	
REG	2-Chlorophenol	9.9	UG/L	U	U	
REG	2-Methylnaphthalene	0.99	UG/L	U	U	
REG	2-Methylphenol	9.9	UG/L	U	U	
REG	2-Nitroaniline	9.9	UG/L	U	U	
REG	2-Nitrophenol	9.9	UG/L	U	U	
REG	3,3'-Dichlorobenzidine	9.9	UG/L	U	U	
REG	3-Nitroaniline	9.9	UG/L	U	U	
REG	4,6-Dinitro-o-Cresol	9.9	UG/L	U	U	
REG	4-Bromophenyl-phenyl Ether	9.9	UG/L	U	U	
REG	4-Chloroaniline	9.9	UG/L	U	U	
REG	4-Chlorophenyl-phenylether	9.9	UG/L	U	U	
REG	4-Methylphenol	9.9	UG/L	U	U	
REG	4-Nitroaniline	9.9	UG/L	U	U	
REG	4-Nitrophenol	9.9	UG/L	U	U	
REG	4-chloro-3-methylphenol	9.9	UG/L	U	U	
REG	Acenaphthene	0.99	UG/L	U	U	
REG	Acenaphthylene	0.99	UG/L	U	U	
REG	Anthracene	0.99	UG/L	U	U	
REG	Benzo(a)anthracene	0.99	UG/L	U	U	
REG	Benzo(a)pyrene	0.99	UG/L	U	U	
REG	Benzo(b)fluoranthene	0.99	UG/L	U	U	
REG	Benzo(g,h,i)perylene	0.99	UG/L	U	U	
REG	Benzo(k)fluoranthene	0.99	UG/L	U	U	
REG	Benzoic Acid	9.9	UG/L	U	U	
REG	Benzyl Alcohol	9.9	UG/L	U	U	
REG	Bis(2-chloroethoxy)methane	9.9	UG/L	U	U	
REG	Bis(2-chloroethyl)ether	9.9	UG/L	U	U	
REG	Bis(2-ethylhexyl)phthalate	9.9	UG/L	U	U	
REG	Butyl Benzyl Phthalate	9.9	UG/L	U	U	
REG	Carbazole	9.9	UG/L	U	U	
REG	Chrysene	0.99	UG/L	U	U	
REG	Di-n-butyl Phthalate	9.9	UG/L	U	U	
REG	Di-n-octyl Phthalate	9.9	UG/L	U	U	
REG	Dibenzo(a,h)anthracene	0.99	UG/L	U	U	
REG	Dibenzofuran	9.9	UG/L	U	U	
REG	Diethyl Phthalate	9.9	UG/L	U	U	
REG	Dimethyl Phthalate	9.9	UG/L	U	U	
REG	Diphenylamine	9.9	UG/L	U	U	
REG	Fluoranthene	0.99	UG/L	U	U	
REG	Fluorene	0.99	UG/L	U	U	
REG	Hexachlorobenzene	9.9	UG/L	U	U	
REG	Hexachlorobutadiene	9.9	UG/L	U	U	
REG	Hexachlorocyclopentadiene	9.9	UG/L	U	U	
REG	Hexachloroethane	9.9	UG/L	U	U	
REG	Indeno(1,2,3-cd)pyrene	0.99	UG/L	U	U	
REG	Isophorone	9.9	UG/L	U	U	
REG	N-Nitroso-di-n-propylamine	9.9	UG/L	U	U	
REG	Naphthalene	0.99	UG/L	U	U	
REG	Nitrobenzene	9.9	UG/L	U	U	
REG	Pentachlorophenol	9.9	UG/L	U	U	
REG	Phenanthrene	0.99	UG/L	U	U	
REG	Phenol	9.9	UG/L	U	U	
REG	Pyrene	0.99	UG/L	U	U	

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethene	1.0	UG/L	U	U	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	
REG	1,2-Dichloroethene	2.0	UG/L	U	U	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	5.0	UG/L	U	U	
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	5.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-13

7J4D72 **Field Sample Type: Grab** **Matrix: Groundwater** **Collected: 01/07/2001**

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	Acetone	5.0	UG/L	U	U	
REG	Benzene	1.0	UG/L	U	U	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	
REG	Chlorobenzene	1.0	UG/L	U	U	
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	1.0	UG/L	U	U	
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	1.0	UG/L	U	U	
REG	Trichloroethene	1.0	UG/L	U	U	
REG	Vinyl Chloride	1.0	UG/L	U	U	
REG	Xylenes, Total	3.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-14

7J4E72 **Field Sample Type: Grab** **Matrix: Groundwater** **Collected: 01/06/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,2,4-Trichlorobenzene	10.0	UG/L	U	U	
REG	1,2-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,3-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,4-Dichlorobenzene	10.0	UG/L	U	U	
REG	2,2'-oxybis (1-chloropropane)	10.0	UG/L	U	U	
REG	2,4,5-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4,6-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dimethylphenol	10.0	UG/L	U	U	
REG	2,4-Dinitrophenol	20.0	UG/L	U	U	
REG	2,4-Dinitrotoluene	10.0	UG/L	U	U	
REG	2,6-Dinitrotoluene	10.0	UG/L	U	U	
REG	2-Chloronaphthalene	1.0	UG/L	U	U	
REG	2-Chlorophenol	10.0	UG/L	U	U	
REG	2-Methylnaphthalene	31.9	UG/L		=	
REG	2-Methylphenol	10.0	UG/L	U	U	
REG	2-Nitroaniline	10.0	UG/L	U	U	
REG	2-Nitrophenol	10.0	UG/L	U	U	
REG	3,3'-Dichlorobenzidine	10.0	UG/L	U	U	
REG	3-Nitroaniline	10.0	UG/L	U	U	
REG	4,6-Dinitro-o-Cresol	10.0	UG/L	U	U	
REG	4-Bromophenyl-phenyl Ether	10.0	UG/L	U	U	
REG	4-Chloroaniline	10.0	UG/L	U	U	
REG	4-Chlorophenyl-phenylether	10.0	UG/L	U	U	
REG	4-Methylphenol	10.0	UG/L	U	U	
REG	4-Nitroaniline	10.0	UG/L	U	U	
REG	4-Nitrophenol	10.0	UG/L	U	U	
REG	4-chloro-3-methylphenol	10.0	UG/L	U	U	
REG	Acenaphthene	1.2	UG/L		=	
REG	Acenaphthylene	1.0	UG/L	U	U	
REG	Anthracene	1.0	UG/L	U	U	
REG	Benzo(a)anthracene	1.0	UG/L	U	U	
REG	Benzo(a)pyrene	1.0	UG/L	U	U	
REG	Benzo(b)fluoranthene	1.0	UG/L	U	U	
REG	Benzo(g,h,i)perylene	1.0	UG/L	U	U	
REG	Benzo(k)fluoranthene	1.0	UG/L	U	U	
REG	Benzoic Acid	10.0	UG/L	U	U	
REG	Benzyl Alcohol	10.0	UG/L	U	U	
REG	Bis(2-chloroethoxy)methane	10.0	UG/L	U	U	
REG	Bis(2-chloroethyl)ether	10.0	UG/L	U	U	
REG	Bis(2-ethylhexyl)phthalate	10.0	UG/L	U	U	
REG	Butyl Benzyl Phthalate	10.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-14

7J4E72 | **Field Sample Type: Grab** | **Matrix: Groundwater** | **Collected: 01/06/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	Carbazole	5.7	UG/L	J	J	
REG	Chrysene	1.0	UG/L	U	U	
REG	Di-n-butyl Phthalate	10.0	UG/L	U	U	
REG	Di-n-octyl Phthalate	10.0	UG/L	U	U	
REG	Dibenzo(a,h)anthracene	1.0	UG/L	U	U	
REG	Dibenzofuran	10.0	UG/L	U	U	
REG	Diethyl Phthalate	10.0	UG/L	U	U	
REG	Dimethyl Phthalate	10.0	UG/L	U	U	
REG	Diphenylamine	10.0	UG/L	U	U	
REG	Fluoranthene	1.0	UG/L	U	U	
REG	Fluorene	2.1	UG/L		=	
REG	Hexachlorobenzene	10.0	UG/L	U	U	
REG	Hexachlorobutadiene	10.0	UG/L	U	U	
REG	Hexachlorocyclopentadiene	10.0	UG/L	U	U	
REG	Hexachloroethane	10.0	UG/L	U	U	
REG	Indeno(1,2,3-cd)pyrene	1.0	UG/L	U	U	
REG	Isophorone	10.0	UG/L	U	U	
REG	N-Nitroso-di-n-propylamine	10.0	UG/L	U	U	
REG	Naphthalene	37.2	UG/L		=	
REG	Nitrobenzene	10.0	UG/L	U	U	
REG	Pentachlorophenol	10.0	UG/L	U	U	
REG	Phenanthrene	1.9	UG/L		=	
REG	Phenol	10.0	UG/L	U	U	
REG	Pyrene	1.0	UG/L	U	U	

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	.57	UG/L	J	J	
REG	1,1-Dichloroethene	.32	UG/L	J	J	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	
REG	1,2-Dichloroethene	2.0	UG/L	U	U	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	5.0	UG/L	U	U	
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	5.0	UG/L	U	U	
REG	Acetone	5	UG/L	J	U	F04,F06
REG	Benzene	61	UG/L		=	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	
REG	Chlorobenzene	1.0	UG/L	U	U	
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	7	UG/L		=	
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	.76	UG/L	J	J	
REG	Trichloroethene	1.0	UG/L	U	U	
REG	Vinyl Chloride	1.0	UG/L	U	U	
REG	Xylenes, Total	38.5	UG/L		=	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-15

7J4F72 | **Field Sample Type: Grab** | **Matrix: Groundwater** | **Collected: 01/06/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,2,4-Trichlorobenzene	9.8	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-15

7J4F72 **Field Sample Type: Grab** **Matrix: Groundwater** **Collected: 01/06/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,2-Dichlorobenzene	9.8	UG/L	U	U	
REG	1,3-Dichlorobenzene	9.8	UG/L	U	U	
REG	1,4-Dichlorobenzene	9.8	UG/L	U	U	
REG	2,2'-oxybis (1-chloropropane)	9.8	UG/L	U	U	
REG	2,4,5-Trichlorophenol	9.8	UG/L	U	U	
REG	2,4,6-Trichlorophenol	9.8	UG/L	U	U	
REG	2,4-Dichlorophenol	9.8	UG/L	U	U	
REG	2,4-Dimethylphenol	9.8	UG/L	U	U	
REG	2,4-Dinitrophenol	19.6	UG/L	U	U	
REG	2,4-Dinitrotoluene	9.8	UG/L	U	U	
REG	2,6-Dinitrotoluene	9.8	UG/L	U	U	
REG	2-Chloronaphthalene	0.98	UG/L	U	U	
REG	2-Chlorophenol	9.8	UG/L	U	U	
REG	2-Methylnaphthalene	0.98	UG/L	U	U	
REG	2-Methylphenol	9.8	UG/L	U	U	
REG	2-Nitroaniline	9.8	UG/L	U	U	
REG	2-Nitrophenol	9.8	UG/L	U	U	
REG	3,3'-Dichlorobenzidine	9.8	UG/L	U	U	
REG	3-Nitroaniline	9.8	UG/L	U	U	
REG	4,6-Dinitro-o-Cresol	9.8	UG/L	U	U	
REG	4-Bromophenyl-phenyl Ether	9.8	UG/L	U	U	
REG	4-Chloroaniline	9.8	UG/L	U	U	
REG	4-Chlorophenyl-phenylether	9.8	UG/L	U	U	
REG	4-Methylphenol	9.8	UG/L	U	U	
REG	4-Nitroaniline	9.8	UG/L	U	U	
REG	4-Nitrophenol	9.8	UG/L	U	U	
REG	4-chloro-3-methylphenol	9.8	UG/L	U	U	
REG	Acenaphthene	0.98	UG/L	U	U	
REG	Acenaphthylene	0.98	UG/L	U	U	
REG	Anthracene	0.98	UG/L	U	U	
REG	Benzo(a)anthracene	0.98	UG/L	U	U	
REG	Benzo(a)pyrene	0.98	UG/L	U	U	
REG	Benzo(b)fluoranthene	0.98	UG/L	U	U	
REG	Benzo(g,h,i)perylene	0.98	UG/L	U	U	
REG	Benzo(k)fluoranthene	0.98	UG/L	U	U	
REG	Benzoic Acid	9.8	UG/L	U	U	
REG	Benzyl Alcohol	9.8	UG/L	U	U	
REG	Bis(2-chloroethoxy)methane	9.8	UG/L	U	U	
REG	Bis(2-chloroethyl)ether	9.8	UG/L	U	U	
REG	Bis(2-ethylhexyl)phthalate	9.8	UG/L	U	U	
REG	Butyl Benzyl Phthalate	9.8	UG/L	U	U	
REG	Carbazole	9.8	UG/L	U	U	
REG	Chrysene	0.98	UG/L	U	U	
REG	Di-n-butyl Phthalate	9.8	UG/L	U	U	
REG	Di-n-octyl Phthalate	9.8	UG/L	U	U	
REG	Dibenzo(a,h)anthracene	0.98	UG/L	U	U	
REG	Dibenzofuran	9.8	UG/L	U	U	
REG	Diethyl Phthalate	9.8	UG/L	U	U	
REG	Dimethyl Phthalate	9.8	UG/L	U	U	
REG	Diphenylamine	9.8	UG/L	U	U	
REG	Fluoranthene	0.98	UG/L	U	U	
REG	Fluorene	0.98	UG/L	U	U	
REG	Hexachlorobenzene	9.8	UG/L	U	U	
REG	Hexachlorobutadiene	9.8	UG/L	U	U	
REG	Hexachlorocyclopentadiene	9.8	UG/L	U	U	
REG	Hexachloroethane	9.8	UG/L	U	U	
REG	Indeno(1,2,3-cd)pyrene	0.98	UG/L	U	U	
REG	Isophorone	9.8	UG/L	U	U	
REG	N-Nitroso-di-n-propylamine	9.8	UG/L	U	U	
REG	Naphthalene	0.98	UG/L	U	U	
REG	Nitrobenzene	9.8	UG/L	U	U	
REG	Pentachlorophenol	9.8	UG/L	U	U	
REG	Phenanthrene	0.98	UG/L	U	U	
REG	Phenol	9.8	UG/L	U	U	
REG	Pyrene	0.98	UG/L	U	U	

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-15

7J4F72 Field Sample Type: Grab Matrix: Groundwater Collected: 01/06/2001

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethene	1.0	UG/L	U	U	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	
REG	1,2-Dichloroethene	2.0	UG/L	U	U	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	5.0	UG/L	U	U	
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	5.0	UG/L	U	U	
REG	Acetone	5.0	UG/L	U	U	
REG	Benzene	1.0	UG/L	U	U	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	
REG	Chlorobenzene	1.0	UG/L	U	U	
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	1.0	UG/L	U	U	
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	1.0	UG/L	U	U	
REG	Trichloroethene	1.0	UG/L	U	U	
REG	Vinyl Chloride	1.0	UG/L	U	U	
REG	Xylenes, Total	3.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-16

7J4G72 Field Sample Type: Grab Matrix: Groundwater Collected: 01/06/2001

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,2,4-Trichlorobenzene	9.9	UG/L	U	U	
REG	1,2-Dichlorobenzene	9.9	UG/L	U	U	
REG	1,3-Dichlorobenzene	9.9	UG/L	U	U	
REG	1,4-Dichlorobenzene	9.9	UG/L	U	U	
REG	2,2'-oxybis (1-chloropropane)	9.9	UG/L	U	U	
REG	2,4,5-Trichlorophenol	9.9	UG/L	U	U	
REG	2,4,6-Trichlorophenol	9.9	UG/L	U	U	
REG	2,4-Dichlorophenol	9.9	UG/L	U	U	
REG	2,4-Dimethylphenol	9.9	UG/L	U	U	
REG	2,4-Dinitrophenol	19.8	UG/L	U	U	
REG	2,4-Dinitrotoluene	9.9	UG/L	U	U	
REG	2,6-Dinitrotoluene	9.9	UG/L	U	U	
REG	2-Chloronaphthalene	0.99	UG/L	U	U	
REG	2-Chlorophenol	9.9	UG/L	U	U	
REG	2-Methylnaphthalene	0.99	UG/L	U	U	
REG	2-Methylphenol	9.9	UG/L	U	U	
REG	2-Nitroaniline	9.9	UG/L	U	U	
REG	2-Nitrophenol	9.9	UG/L	U	U	
REG	3,3'-Dichlorobenzidine	9.9	UG/L	U	U	
REG	3-Nitroaniline	9.9	UG/L	U	U	
REG	4,6-Dinitro-o-Cresol	9.9	UG/L	U	U	
REG	4-Bromophenyl-phenyl Ether	9.9	UG/L	U	U	
REG	4-Chloroaniline	9.9	UG/L	U	U	
REG	4-Chlorophenyl-phenylether	9.9	UG/L	U	U	
REG	4-Methylphenol	9.9	UG/L	U	U	
REG	4-Nitroaniline	9.9	UG/L	U	U	
REG	4-Nitrophenol	9.9	UG/L	U	U	
REG	4-chloro-3-methylphenol	9.9	UG/L	U	U	
REG	Acenaphthene	0.99	UG/L	U	U	
REG	Acenaphthylene	0.99	UG/L	U	U	
REG	Anthracene	0.99	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-16

7J4G72 Field Sample Type: Grab Matrix: Groundwater Collected: 01/06/2001

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	Benzo(a)anthracene	0.99	UG/L	U	U	
REG	Benzo(a)pyrene	0.99	UG/L	U	U	
REG	Benzo(b)fluoranthene	0.99	UG/L	U	U	
REG	Benzo(g,h,i)perylene	0.99	UG/L	U	U	
REG	Benzo(k)fluoranthene	0.99	UG/L	U	U	
REG	Benzoic Acid	9.9	UG/L	U	U	
REG	Benzyl Alcohol	9.9	UG/L	U	U	
REG	Bis(2-chloroethoxy)methane	9.9	UG/L	U	U	
REG	Bis(2-chloroethyl)ether	9.9	UG/L	U	U	
REG	Bis(2-ethylhexyl)phthalate	9.9	UG/L	U	U	
REG	Butyl Benzyl Phthalate	9.9	UG/L	U	U	
REG	Carbazole	9.9	UG/L	U	U	
REG	Chrysene	0.99	UG/L	U	U	
REG	Di-n-butyl Phthalate	9.9	UG/L	U	U	
REG	Di-n-octyl Phthalate	9.9	UG/L	U	U	
REG	Dibenzo(a,h)anthracene	0.99	UG/L	U	U	
REG	Dibenzofuran	9.9	UG/L	U	U	
REG	Diethyl Phthalate	9.9	UG/L	U	U	
REG	Dimethyl Phthalate	9.9	UG/L	U	U	
REG	Diphenylamine	9.9	UG/L	U	U	
REG	Fluoranthene	0.99	UG/L	U	U	
REG	Fluorene	0.99	UG/L	U	U	
REG	Hexachlorobenzene	9.9	UG/L	U	U	
REG	Hexachlorobutadiene	9.9	UG/L	U	U	
REG	Hexachlorocyclopentadiene	9.9	UG/L	U	U	
REG	Hexachloroethane	9.9	UG/L	U	U	
REG	Indeno(1,2,3-cd)pyrene	0.99	UG/L	U	U	
REG	Isophorone	9.9	UG/L	U	U	
REG	N-Nitroso-di-n-propylamine	9.9	UG/L	U	U	
REG	Naphthalene	0.99	UG/L	U	U	
REG	Nitrobenzene	9.9	UG/L	U	U	
REG	Pentachlorophenol	9.9	UG/L	U	U	
REG	Phenanthrene	0.99	UG/L	U	U	
REG	Phenol	9.9	UG/L	U	U	
REG	Pyrene	0.99	UG/L	U	U	

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethene	1.0	UG/L	U	U	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	
REG	1,2-Dichloroethene	2.0	UG/L	U	U	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	1.4	UG/L	J	J	
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	5.0	UG/L	U	U	
REG	Acetone	5	UG/L	J	U	F04,F06
REG	Benzene	.28	UG/L	J	J	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	
REG	Chlorobenzene	1.0	UG/L	U	U	
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	1.0	UG/L	U	U	
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	1.0	UG/L	U	U	
REG	Trichloroethene	1.0	UG/L	U	U	
REG	Vinyl Chloride	1.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-16

7J4G72 | **Field Sample Type: Grab** | **Matrix: Groundwater** | **Collected: 01/06/2001**

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	Xylenes, Total	3.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-17

7J4H72 | **Field Sample Type: Grab** | **Matrix: Groundwater** | **Collected: 01/06/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,2,4-Trichlorobenzene	10.0	UG/L	U	U	
REG	1,2-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,3-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,4-Dichlorobenzene	10.0	UG/L	U	U	
REG	2,2'-oxybis (1-chloropropane)	10.0	UG/L	U	U	
REG	2,4,5-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4,6-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dimethylphenol	10.0	UG/L	U	U	
REG	2,4-Dinitrophenol	20.0	UG/L	U	U	
REG	2,4-Dinitrotoluene	10.0	UG/L	U	U	
REG	2,6-Dinitrotoluene	10.0	UG/L	U	U	
REG	2-Chloronaphthalene	1.0	UG/L	U	U	
REG	2-Chlorophenol	10.0	UG/L	U	U	
REG	2-Methylnaphthalene	1.0	UG/L	U	U	
REG	2-Methylphenol	10.0	UG/L	U	U	
REG	2-Nitroaniline	10.0	UG/L	U	U	
REG	2-Nitrophenol	10.0	UG/L	U	U	
REG	3,3'-Dichlorobenzidine	10.0	UG/L	U	U	
REG	3-Nitroaniline	10.0	UG/L	U	U	
REG	4,6-Dinitro-o-Cresol	10.0	UG/L	U	U	
REG	4-Bromophenyl-phenyl Ether	10.0	UG/L	U	U	
REG	4-Chloroaniline	10.0	UG/L	U	U	
REG	4-Chlorophenyl-phenylether	10.0	UG/L	U	U	
REG	4-Methylphenol	10.0	UG/L	U	U	
REG	4-Nitroaniline	10.0	UG/L	U	U	
REG	4-Nitrophenol	10.0	UG/L	U	U	
REG	4-chloro-3-methylphenol	10.0	UG/L	U	U	
REG	Acenaphthene	1.0	UG/L	U	U	
REG	Acenaphthylene	1.0	UG/L	U	U	
REG	Anthracene	1.0	UG/L	U	U	
REG	Benzo(a)anthracene	1.0	UG/L	U	U	
REG	Benzo(a)pyrene	1.0	UG/L	U	U	
REG	Benzo(b)fluoranthene	1.0	UG/L	U	U	
REG	Benzo(g,h,i)perylene	1.0	UG/L	U	U	
REG	Benzo(k)fluoranthene	1.0	UG/L	U	U	
REG	Benzoic Acid	10.0	UG/L	U	U	
REG	Benzyl Alcohol	10.0	UG/L	U	U	
REG	Bis(2-chloroethoxy)methane	10.0	UG/L	U	U	
REG	Bis(2-chloroethyl)ether	10.0	UG/L	U	U	
REG	Bis(2-ethylhexyl)phthalate	10.0	UG/L	U	U	
REG	Butyl Benzyl Phthalate	10.0	UG/L	U	U	
REG	Carbazole	10.0	UG/L	U	U	
REG	Chrysene	1.0	UG/L	U	U	
REG	Di-n-butyl Phthalate	10.0	UG/L	U	U	
REG	Di-n-octyl Phthalate	10.0	UG/L	U	U	
REG	Dibenzo(a,h)anthracene	1.0	UG/L	U	U	
REG	Dibenzofuran	10.0	UG/L	U	U	
REG	Diethyl Phthalate	10.0	UG/L	U	U	
REG	Dimethyl Phthalate	10.0	UG/L	U	U	
REG	Diphenylamine	10.0	UG/L	U	U	
REG	Fluoranthene	1.0	UG/L	U	U	
REG	Fluorene	1.0	UG/L	U	U	
REG	Hexachlorobenzene	10.0	UG/L	U	U	
REG	Hexachlorobutadiene	10.0	UG/L	U	U	
REG	Hexachlorocyclopentadiene	10.0	UG/L	U	U	
REG	Hexachloroethane	10.0	UG/L	U	U	
REG	Indeno(1,2,3-cd)pyrene	1.0	UG/L	U	U	
REG	Isophorone	10.0	UG/L	U	U	
REG	N-Nitroso-di-n-propylamine	10.0	UG/L	U	U	
REG	Naphthalene	1.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-17

7J4H72 | **Field Sample Type: Grab** | **Matrix: Groundwater** | **Collected: 01/06/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	Nitrobenzene	10.0	UG/L	U	U	
REG	Pentachlorophenol	10.0	UG/L	U	U	
REG	Phenanthrene	1.0	UG/L	U	U	
REG	Phenol	10.0	UG/L	U	U	
REG	Pyrene	1.0	UG/L	U	U	

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethene	1.0	UG/L	U	U	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	
REG	1,2-Dichloroethene	2.0	UG/L	U	U	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	2.5	UG/L	J	U	
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	5.0	UG/L	U	U	
REG	Acetone	5	UG/L	J	U	F04,F06
REG	Benzene	1.0	UG/L	U	U	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	
REG	Chlorobenzene	1.0	UG/L	U	U	
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	1.0	UG/L	U	U	
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	1.0	UG/L	U	U	
REG	Trichloroethene	1.0	UG/L	U	U	
REG	Vinyl Chloride	1.0	UG/L	U	U	
REG	Xylenes, Total	3.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-18

7J4J72 | **Field Sample Type: Grab** | **Matrix: Groundwater** | **Collected: 01/08/2001**

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,2,4-Trichlorobenzene	10.0	UG/L	U	U	
REG	1,2-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,3-Dichlorobenzene	10.0	UG/L	U	U	
REG	1,4-Dichlorobenzene	10.0	UG/L	U	U	
REG	2,2'-oxybis (1-chloropropane)	10.0	UG/L	U	U	
REG	2,4,5-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4,6-Trichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dichlorophenol	10.0	UG/L	U	U	
REG	2,4-Dimethylphenol	10.0	UG/L	U	U	
REG	2,4-Dinitrophenol	20.0	UG/L	U	U	
REG	2,4-Dinitrotoluene	10.0	UG/L	U	U	
REG	2,6-Dinitrotoluene	10.0	UG/L	U	U	
REG	2-Chloronaphthalene	1.0	UG/L	U	U	
REG	2-Chlorophenol	10.0	UG/L	U	U	
REG	2-Methylnaphthalene	5.4	UG/L		U	
REG	2-Methylphenol	10.0	UG/L	U	U	
REG	2-Nitroaniline	10.0	UG/L	U	UJ	C05
REG	2-Nitrophenol	10.0	UG/L	U	U	
REG	3,3'-Dichlorobenzidine	10.0	UG/L	U	U	
REG	3-Nitroaniline	10.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-18

7J4J72 Field Sample Type: Grab Matrix: Groundwater Collected: 01/08/2001

Sample Type	Semi-Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	4,6-Dinitro-o-Cresol	10.0	UG/L	U	U	
REG	4-Bromophenyl-phenyl Ether	10.0	UG/L	U	U	
REG	4-Chloroaniline	10.0	UG/L	U	U	
REG	4-Chlorophenyl-phenylether	10.0	UG/L	U	U	
REG	4-Methylphenol	10.0	UG/L	U	U	
REG	4-Nitroaniline	10.0	UG/L	U	U	
REG	4-Nitrophenol	10.0	UG/L	U	U	
REG	4-chloro-3-methylphenol	10.0	UG/L	U	U	
REG	Acenaphthene	1.0	UG/L	U	U	
REG	Acenaphthylene	1.0	UG/L	U	U	
REG	Anthracene	1.0	UG/L	U	U	
REG	Benzo(a)anthracene	1.0	UG/L	U	U	
REG	Benzo(a)pyrene	1.0	UG/L	U	U	
REG	Benzo(b)fluoranthene	1.0	UG/L	U	U	
REG	Benzo(g,h,i)perylene	1.0	UG/L	U	U	
REG	Benzo(k)fluoranthene	1.0	UG/L	U	U	
REG	Benzoic Acid	10.0	UG/L	U	U	
REG	Benzyl Alcohol	10.0	UG/L	U	U	
REG	Bis(2-chloroethoxy)methane	10.0	UG/L	U	U	
REG	Bis(2-chloroethyl)ether	10.0	UG/L	U	U	
REG	Bis(2-ethylhexyl)phthalate	10.0	UG/L	U	U	
REG	Butyl Benzyl Phthalate	10.0	UG/L	U	U	
REG	Carbazole	10.0	UG/L	U	U	
REG	Chrysene	1.0	UG/L	U	U	
REG	Di-n-butyl Phthalate	10.0	UG/L	U	U	
REG	Di-n-octyl Phthalate	10.0	UG/L	U	U	
REG	Dibenzo(a,h)anthracene	1.0	UG/L	U	U	
REG	Dibenzofuran	10.0	UG/L	U	U	
REG	Diethyl Phthalate	10.0	UG/L	U	U	
REG	Dimethyl Phthalate	10.0	UG/L	U	U	
REG	Diphenylamine	10.0	UG/L	U	U	
REG	Fluoranthene	1.0	UG/L	U	U	
REG	Fluorene	1.0	UG/L	U	U	
REG	Hexachlorobenzene	10.0	UG/L	U	U	
REG	Hexachlorobutadiene	10.0	UG/L	U	U	
REG	Hexachlorocyclopentadiene	10.0	UG/L	U	=	
REG	Hexachloroethane	10.0	UG/L	U	U	
REG	Indeno(1,2,3-cd)pyrene	1.0	UG/L	U	U	
REG	Isophorone	10.0	UG/L	U	U	
REG	N-Nitroso-di-n-propylamine	10.0	UG/L	U	U	
REG	Naphthalene	3.8	UG/L		=	
REG	Nitrobenzene	10.0	UG/L	U	U	
REG	Pentachlorophenol	10.0	UG/L	U	U	
REG	Phenanthrene	1.2	UG/L		=	
REG	Phenol	10.0	UG/L	U	U	
REG	Pyrene	1.0	UG/L	U	U	

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethene	1.0	UG/L	U	U	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	
REG	1,2-Dichloroethene	2.0	UG/L	U	U	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	6.5	UG/L		UJ	F04,F07,C05
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	5.0	UG/L	U	U	
REG	Acetone	5	UG/L	JB	U	F01,F06
REG	Benzene	1.0	UG/L	U	U	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	
REG	Chlorobenzene	1.0	UG/L	U	U	

Location: SWMU 27F, NW of Building 1340
Station : 27F-MW-18

7J4J72 **Field Sample Type: Grab** **Matrix: Groundwater** **Collected: 01/08/2001**

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	.9	UG/L	J	J	
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	1.0	UG/L	U	U	
REG	Trichloroethene	1.0	UG/L	U	U	
REG	Vinyl Chloride	1.0	UG/L	U	U	
REG	Xylenes, Total	1.6	UG/L	J	J	

Location: 16 SWMUS
Station : QC

TB1671 Field Sample Type: Trip Blank Matrix: Quality Control Collected: 01/05/2001

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethene	1.0	UG/L	U	U	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	
REG	1,2-Dichloroethene	2.0	UG/L	U	U	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	5.0	UG/L	U	U	
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	5.0	UG/L	U	U	
REG	Acetone	1.2	UG/L	J	J	
REG	Benzene	1.0	UG/L	U	U	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	
REG	Chlorobenzene	1.0	UG/L	U	U	
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	1.0	UG/L	U	U	
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	1.0	UG/L	U	U	
REG	Trichloroethene	1.0	UG/L	U	U	
REG	Vinyl Chloride	1.0	UG/L	U	U	
REG	Xylenes, Total	3.0	UG/L	U	U	

TB1672 Field Sample Type: Trip Blank Matrix: Quality Control Collected: 01/06/2001

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethene	1.0	UG/L	U	U	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	
REG	1,2-Dichloroethene	2.0	UG/L	U	U	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	5.0	UG/L	U	U	
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	5.0	UG/L	U	U	
REG	Acetone	1.2	UG/L	J	J	
REG	Benzene	1.0	UG/L	U	U	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	
REG	Chlorobenzene	1.0	UG/L	U	U	
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	1.0	UG/L	U	U	
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	1.0	UG/L	U	U	
REG	Trichloroethene	1.0	UG/L	U	U	
REG	Vinyl Chloride	1.0	UG/L	U	U	

Location: 16 SWMUS
Station : QC

TB1672 — Field Sample Type: Trip Blank — Matrix: Quality Control — Collected: 01/06/2001

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	Xylenes, Total	3.0	UG/L	U	U	

TB1673 — Field Sample Type: Trip Blank — Matrix: Quality Control — Collected: 01/07/2001

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethene	1.0	UG/L	U	U	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	
REG	1,2-Dichloroethene	2.0	UG/L	U	U	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	5.0	UG/L	U	U	
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	5.0	UG/L	U	U	
REG	Acetone	1.4	UG/L	J	J	
REG	Benzene	1.0	UG/L	U	U	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	
REG	Chlorobenzene	1.0	UG/L	U	U	
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	1.0	UG/L	U	U	
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	1.0	UG/L	U	U	
REG	Trichloroethene	1.0	UG/L	U	U	
REG	Vinyl Chloride	1.0	UG/L	U	U	
REG	Xylenes, Total	3.0	UG/L	U	U	

TB1674 — Field Sample Type: Trip Blank — Matrix: Quality Control — Collected: 01/08/2001

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	1,1,1-Trichloroethane	1.0	UG/L	U	U	
REG	1,1,2,2-Tetrachloroethane	1.0	UG/L	U	U	
REG	1,1,2-Trichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethane	1.0	UG/L	U	U	
REG	1,1-Dichloroethene	1.0	UG/L	U	U	
REG	1,2-Dichloroethane	1.0	UG/L	U	U	
REG	1,2-Dichloroethene	2.0	UG/L	U	U	
REG	1,2-Dichloropropane	1.0	UG/L	U	U	
REG	1,3-cis-Dichloropropene	1.0	UG/L	U	U	
REG	1,3-trans-Dichloropropene	1.0	UG/L	U	U	
REG	2-Butanone	1.5	UG/L	J	J	C05
REG	2-Hexanone	5.0	UG/L	U	U	
REG	4-Methyl-2-pentanone	5.0	UG/L	U	U	
REG	Acetone	5	UG/L	JB	U	F01,F06
REG	Benzene	1.0	UG/L	U	U	
REG	Bromodichloromethane	1.0	UG/L	U	U	
REG	Bromoform	1.0	UG/L	U	U	
REG	Bromomethane	1.0	UG/L	U	U	
REG	Carbon Disulfide	5.0	UG/L	U	U	
REG	Carbon Tetrachloride	1.0	UG/L	U	U	
REG	Chlorobenzene	1.0	UG/L	U	U	
REG	Chloroethane	1.0	UG/L	U	U	
REG	Chloroform	1.0	UG/L	U	U	
REG	Chloromethane	1.0	UG/L	U	U	
REG	Dibromochloromethane	1.0	UG/L	U	U	
REG	Ethylbenzene	1.0	UG/L	U	U	

Location: 16 SWMUS
Station : QC

TB1674 Field Sample Type: Trip Blank Matrix: Quality Control Collected: 01/08/2001

Sample Type	Volatile Organics	Result	Units	Qualifiers Lab	Qualifiers Data	Validation Code
REG	Methylene Chloride	5.0	UG/L	U	U	
REG	Styrene	1.0	UG/L	U	U	
REG	Tetrachloroethene	1.0	UG/L	U	U	
REG	Toluene	1.0	UG/L	U	U	
REG	Trichloroethene	1.0	UG/L	U	U	
REG	Vinyl Chloride	1.0	UG/L	U	U	
REG	Xylenes, Total	3.0	UG/L	U	U	

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CHAIN-OF-CUSTODY FORMS

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Science Applications International Corporation — An Employee-Owned Company

800 Oak Ridge Turnpike, Oak Ridge, TN 37831 (423) 481-4600

CHAIN OF CUSTODY RECORD

COC NO.: 27F004

PROJECT NAME: SWMU-27F

PROJECT NUMBER: 01-1624-04-1041-900

PROJECT MANAGER: Jeff Longaker

Sampler (Signature) Laura Lumley (Printed Name) Laura Lumley

Sample ID	Date Collected	Time Collected	Matrix	VOC	SVOC	TCLP VOC	TCLP RCRA Metals	No. of Bottles/ Vials:	OVA SCREENING	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS
7J4972	1/5/01	1810	water	2	2			4		36061001
7J4572	1/5/01	1200		2	2			4		002
7J4172	1/5/01	1715		2	2			4		003
7J4372	1/5/01	1545		2	2			4		004
TB1671	1/5/01	0745	↓	2				2		005

D-43

REQUESTED PARAMETERS

LABORATORY NAME: General Engineering Laboratory

LABORATORY ADDRESS: 2040 Savage Raod, Charleston, SC 29417

PHONE NO: (843) 556-8171

RELINQUISHED BY	Date/Time	RECEIVED BY:	Date/Time
Laura Lumley	1/6/01 1215		
COMPANY NAME: SAIC		COMPANY NAME:	
RECEIVED BY: Paulette J Wendell	Date/Time 1/6/01 1215	RELINQUISHED BY: Paulette J Wendell	Date/Time 1/6/01 1450
COMPANY NAME: GEL		COMPANY NAME: GEL-courier	
RELINQUISHED BY:	Date/Time	RECEIVED BY: Gustavo Rancel Co.	Date/Time 1/6/01 1450
COMPANY NAME:		COMPANY NAME: GEL	

TOTAL NUMBER OF CONTAINERS: 18

Cooler ID: #489

Cooler Temperature: 3.8

FEDEX NUMBER:

7

SAIC An Employee-Owned Company
Science Applications International Corporation
800 Oak Ridge Turnpike, Oak Ridge, TN 37831 (423) 481-4600

CHAIN OF CUSTODY RECORD

COC NO.: 27F005

PROJECT NAME: SWMU-27F

PROJECT NUMBER: 01-1624-04-1041-900

PROJECT MANAGER: Jeff Longaker

Sampler (Signature) Laura Lumley (Printed Name) Laura Lumley

REQUESTED PARAMETERS

Sample ID	Date Collected	Time Collected	Matrix	VOC	SVOC	TCLP VOC	TCLP RCRA Metals	No. of Bottles/ Vials:	OVA SCREENING	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS
7J4222	1/6/01	1755	water		N			2	3609300	
7J4772	1/6/01	1115			N			2	001	
7J4472	1/6/01	0945			N			2	002	
7J4E72	1/6/01	1315			N			2	003	
7J4672	1/6/01	1730			N			2	004	
7J4H72	1/6/01	1155			N			2	005	
									006	

D-44

LABORATORY NAME: General Engineering Laboratory

LABORATORY ADDRESS: 2040 Savage Raod Charleston, SC 29417

PHONE NO: (843) 556-8171

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
Laura Lumley	1/5/01 1215		
COMPANY NAME: SAIC		COMPANY NAME: GEL	1/5/01 1500
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time
COMPANY NAME:	1/5/01 1215	COMPANY NAME:	
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
COMPANY NAME:	1/8/01 1500	COMPANY NAME:	

TOTAL NUMBER OF CONTAINERS: 12

Cooler ID: #12

Cooler Temperature: 3.6

FEDEX NUMBER:

7951110056

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Science Applications International Corporation
800 Oak Ridge Turnpike, Oak Ridge, TN 37831 (423) 481-4600

CHAIN OF CUSTODY RECORD

COC NO.: 27F0046

PROJECT NAME: SWMU-27F

PROJECT NUMBER: 01-1624-04-1041-900

PROJECT MANAGER: Jeff Longaker

Sampler (Signature) Laura Lumley (Printed Name) Laura Lumley

LABORATORY NAME: General Engineering Laboratory

LABORATORY ADDRESS: 2040 Savage Raod, Charleston, SC 29417

PHONE NO: (843) 556-8171

REQUESTED PARAMETERS

Sample ID	Date Collected	Time Collected	Matrix	VOC	SVOC	TCLP VOC	TCLP RCRA Metals	No. of Bottles/ Vials:	OVA SCREENING	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS
7J4F72	1/6/01	1452	water		2			2	3609307	
7J4272	1/6/01	1755			2			2	008	
7J4A72	1/7/01	1245			2			2	009	
7J4D72	1/7/01	1810			2			2	010	
7J4622	1/7/01	1223			2			2	011	
7J4672	1/7/01	1223			2			2	012	
D-45										

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time	TOTAL NUMBER OF CONTAINERS: 12	Cooler Temperature: 3.5°
Laura Lumley	1/8/01 1220		1/5/01 1500	Cooler ID: #14	FEDEX NUMBER:
COMPANY NAME: SAIC		COMPANY NAME: STL			
RECEIVED BY:	Date/Time 1-8-01 1220	RELINQUISHED BY:	Date/Time		
COMPANY NAME: STL		COMPANY NAME:			
RELINQUISHED BY:	Date/Time 1-8-01 1500	RECEIVED BY:	Date/Time		
COMPANY NAME: STL		COMPANY NAME:			

Page 1 of 2

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An Employee-Owned Company

800 Oak Ridge Turnpike, Oak Ridge, TN 37831 (423) 481-4600

CHAIN OF CUSTODY RECORD

COC NO.: 27F007

PROJECT NAME: SWMU-27F

PROJECT NUMBER: 01-1624-04-1041-900

PROJECT MANAGER: Jeff Longaker

Sampler (Signature) Laura Lumley (Printed Name) Laura Lumley

LABORATORY NAME: General Engineering Laboratory

LABORATORY ADDRESS: 2040 Savage Raod, Charleston, SC 29417

PHONE NO: (843) 556-8171

Sample ID	Date Collected	Time Collected	Matrix	VOC	SVOC	TCLP VOC	TCLP RCRA Metals	Total Phenols	Oil & Grease	24 Hr. TAT	No. of Bottles/ Vials:	OVA SCREENING	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS
IDW026	1/8/01	0900	water	2				2	2	1	7	36090001	* 24-Hr. Turn
TB1673	1/7/01	0740		2							2	36091001	
7J4A72	1/7/01	1245		2							2	002	
7J4D72	1/7/01	1610		2							2	003	
7J4622	1/7/01	1223		2							2	004	
7J4672	1/7/01	1223		2							2	005	
IDW272	1/6/01	0740		2							2	006	
7J4272	1/6/01	1755		2							2	007	
7J4222	1/6/01	1755		2							2	008	
7J4472	1/6/01	0945		2							2	009	
7J4772	1/6/01	1115		2							2	010	
7J4E72	1/6/01	1315		2							2	011	
7J4F72	1/6/01	1452	↓	2							2	012	

REQUESTED PARAMETERS

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
Laura Lumley	1/8/01 1215		1/8/01 1500
COMPANY NAME: SAIC		COMPANY NAME: GEL	
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time
	1-8-01 1215		
COMPANY NAME:		COMPANY NAME:	
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
	1-8-01 1500		
COMPANY NAME:		COMPANY NAME:	

TOTAL NUMBER OF CONTAINERS:

Cooler ID: #445

Cooler Temperature: 3.8

FEDEX NUMBER:

* IDW Sample - 24 Hr. Turn A

Oil & Grease and Total Phenols are not preserved

20010113 28

Science Applications International Corporation — An Employee-Owned Company

800 Oak Ridge Turnpike, Oak Ridge, TN 37831 (423) 481-4600

CHAIN OF CUSTODY RECORD

COC NO.: 27F007

PROJECT NAME: SWMU-27F

PROJECT NUMBER: 01-1624-04-1041-900

PROJECT MANAGER: Jeff Longaker

Sampler (Signature) (Printed Name)

REQUESTED PARAMETERS

Sample ID	Date Collected	Time Collected	Matrix	VOC	SVOC	TCLP VOC	TCLP RCRA Metals	No. of Bottles/ Vials:	OVA SCREENING	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS
7J4G72	1/16/01	1730	water	2				2	36091013	
7J4H72	1/16/01	1155	water	2				2	014	

LABORATORY NAME: General Engineering Laboratory

LABORATORY ADDRESS: 2040 Savage Raod Charleston, SC 29417

PHONE NO: (843) 556-8171

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
COMPANY NAME: SAIC	1/8/01 1220	COMPANY NAME: GEL	1/8/01 1500
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time
COMPANY NAME: GEL	1-8-01 1220	COMPANY NAME:	
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
COMPANY NAME: GEL	1-8-01 1500	COMPANY NAME:	

TOTAL NUMBER OF CONTAINERS: 35

Cooler ID: #445

Cooler Temperature: 3.8

FEDEX NUMBER:

D-47

1.2

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Science Applications International Corporation
800 Oak Ridge Turnpike, Oak Ridge, TN 37831 (423) 481-4600

CHAIN OF CUSTODY RECORD

COC NO.: 27F008

PROJECT NAME: SWMU-27F

PROJECT NUMBER: 01-1624-04-1041-900

PROJECT MANAGER: Jeff Longaker

Sampler (Signature) Laura Lumley (Printed Name) Laura Lumley

REQUESTED PARAMETERS

Sample ID	Date Collected	Time Collected	Matrix	VOC	SVOC	TCLP VOC	TCLP RCRA Metals	0.1µ reuse	Total Phenols	pH	No. of Bottles/ Vials:	OVA SCREENING	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS
7J4872	1/8/01	1630	water	2	2						4		36220 001
7J4B72	1/8/01	1050		2	2						4		002
7J4D42	1/9/01	1200		2	2						4		003
7J4J72	1/8/01	1350		2	2						4		004
IDW027	1/9/01	1730		2				2	2	1	7		36218 001
TD-48 074	1/8/01	0740	↓	2							2		36220 005

LABORATORY NAME: General Engineering Laboratory

LABORATORY ADDRESS: 2040 Savage Raod Charleston, SC 29417

PHONE NO: (843) 556-8171

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
Laura Lumley	1/10/01	M. Elliott	
COMPANY NAME: SAIC		COMPANY NAME: GEL	
RECEIVED BY: Patricia Dowd	Date/Time 1/10/01	RELINQUISHED BY:	Date/Time
COMPANY NAME: GEL	15:00	COMPANY NAME:	
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	

TOTAL NUMBER OF CONTAINERS: 25

Cooler ID: #20

Cooler Temperature: 3.3

FEDEX NUMBER:

20010116532

ATTACHMENT E
TO SWMU 27F: NORTHWEST OF BUILDING 1340
TO THE
REVISED FINAL PHASE II RCRA FACILITY INVESTIGATION REPORT
FOR
16 SOLID WASTE MANAGEMENT UNITS
AT
FORT STEWART, GEORGIA

FATE AND TRANSPORT ANALYSIS

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Fate and transport modeling was performed to estimate the future concentrations of the preliminary contaminant migration contaminant of potential concern (CMCOPC) [benzo(*a*)anthracene], human health contaminants of potential concern (HHCOPCs) (2-methylnaphthalene, 4-methylphenol, benzene, carbazole, and naphthalene), and ecological contaminants of potential concern (ECOPCs) (2-methylnaphthalene, 4-methylphenol, benzene, carbazole, and total xylenes) in groundwater at the surface water receptor location. The nearest surface water receptor is a man-made drainage ditch located approximately 450 feet south of the site. Seasonal Soil Compartment (SESOIL) modeling and Analytical Transient 1-, 2-, 3-Dimensional (AT123D) modeling [see Chapter 6.0 and Appendix K of the revised final Phase II Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) Report for 16 SWMUs issued by Science Application International Corporation in April 2000] were performed to estimate the exposure concentrations of the contaminants of potential concern (COPCs) in the surface water at the receptor location.

The SESOIL hydrogeological parameters and application data are presented in Tables E-1 and E-2, respectively. The biodegradation rate of the constituent used in the modeling is presented in Table 6-2 of the revised final Phase II RFI Report for 16 SWMUs. The SESOIL modeling result is presented in Table E-3. Benzo(*a*)anthracene, the only preliminary CMCOPC for this site, is expected to completely degrade before reaching the water table.

The AT123D input parameters are presented in Table E-4. The biodegradation rates of the constituents used in the modeling are presented in Table 6-2 of the revised final Phase II RFI Report for 16 SWMUs. AT123D models were calibrated to the maximum observed groundwater concentrations of the COPCs at the source. AT123D modeling assumed a steady-state, constant concentration at the source. The AT123D modeling results are presented in Table E-5. A typical A123D output file for one of the constituents (benzene) is presented at the back of this attachment.

The modeling results indicate that none of the HHCOPCs will reach the receptor location; therefore, the predicted surface water exposure concentrations due to migration of groundwater HHCOPCs are all zero.

The modeling results predicted that none of the ECOPCs will reach the receptor location.

Table E-1. Hydrogeological Parameters Used for SESOIL Modeling, SWMU 27F, Northwest of Building 1340

Parameter Value	Parameter Type	Source
Soil type	Silty sand	SWMU 27F specific
Bulk density (gm/cm^3)	1.46	Laboratory analysis
Percolation rate (cm/year)	32.8	Site specific
Intrinsic permeability (cm^2)	7.60E-10	Laboratory analysis
Disconnectedness index	8	Assumed
Porosity	0.45	Laboratory analysis
Depth to water table (feet)	12	Site specific
Organic carbon content (%)	0.69	Laboratory analysis
Frendlich equation exponent	1	SESOIL default value
Area of source (m^2)	1,930	Estimated from soil contamination area

Table E-2. SESOIL Application Data, SWMU 27F, Northwest of Building 1340

COPCs	No. of Layers	Layer No.	Thickness of Layer (feet)	No. of Sublayers	Sublayer No.	Concentration (µg/g)
Benzo(*a*)anthracene	4	1	3	3	1	3.94
					2	0
					3	0
		2	3	3	1	0
					2	0
					3	0
		3	3	3	1	0
					2	0
					3	0
		4	3	3	1	0
					2	0
					3	0

Table E-3. Summary of Leachate Modeling Results, SWMU 27F, Northwest of Building 1340

Preliminary CMCOPCs[a]	Maximum Concentration (mg/kg)	Predicted $C_{leachate,max}$ beneath the Source (mg/L)	Predicted T_{max} (years)	Predicted $C_{gw,max}$ at the Source[b] (mg/L)	Maximum Observed Groundwater Concentration (mg/L)	Groundwater Target Concentration (mg/L)	Source	CMCOPC?
Organics								
Benzo(*a*)anthracene	3.94	0	NA	0.000	ND	0.092	R	No

[a]These constituents were selected for SESOIL modeling from this site.
[b]The predicted maximum concentration in groundwater ($C_{gw,max}$) is 0 as the predicted maximum leachate concentration ($C_{leachate,max}$) is 0.

Table E-4. Key Hydrogeological Parameters Used for AT123D Modeling, SWMU 27F, Northwest of Building 1340

Parameter Type	Parameter Value	Source
Bulk density (kg/m^3)	1,460	Laboratory analysis
Effective porosity (%)	0.2	Mills et al (1985) for silty sand type
Hydraulic conductivity (m/hour)	2.74E-02	Site specific
Hydraulic gradient	0.0009	Site specific
Dispersivity (m)	13.72	Calculated assuming dispersivity = 0.1 × distance to receptor
Density of water (kg/m^3)	1,000	Assumed
Fraction of organic carbon (unitless)	0.0069	Laboratory analysis
Distance to receptor (feet)	450	Approximate distance to the tributary of Peacock Creek
Source area length (m)	33.5	Conservative estimate
Source area width (m)	57.6	Conservative estimate

Mills, W. B., D. B. Porcella, M. J. Ungs, S. A. Gherini, K. V. Summers, G. L. Rupp, and G. L. Bowie 1985. *Water Quality Assessment: A Screening Procedure for Toxic and Conventional Pollutants: Parts 1, 2, and 3*, EPA/600/6-85/002, U.S. Environmental Protection Agency, Environmental Research Laboratory, Office of Research and Development, Athens, Georgia.

Table E-5. AT123D Modeling Results, SWMU 27F, Northwest of Building 1340

Constituent	HHCOPC?	ECOPC?	Source Concentration[a] (mg/L)	Dilution Factor[b]	Receptor	Receptor Point Groundwater Concentration (mg/L)
2-Methylnaphthalene	Yes	Yes	0.0319	Infinite	Man-made drainage ditch (450 feet south)	0.0E+00
4-Methylphenol	Yes	Yes	0.0213	Infinite	Man-made drainage ditch (450 feet south)	0.0E+00
Benzene[a,b]	Yes	Yes	0.061	Infinite	Man-made drainage ditch (450 feet south)	0.0E+00
Carbazole	Yes	Yes	0.0057	Infinite	Man-made drainage ditch (450 feet south)	0.0E+00
Naphthalene	Yes	No	0.0372	Infinite	Man-made drainage ditch (450 feet, south)	0.0E+00
Xylenes, total	No	Yes	0.137	Infinite	Man-made drainage ditch (450 feet south)	0.0E+00

[a]Maximum observed groundwater concentrations.
[b]Dilution factor represents (maximum concentration at the source) ÷ (maximum predicted concentration at the receptor).

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AT123D OUTPUT FILE FOR SWMU 27F, NORTHWEST OF BUILDING 1340

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SWMU 27F, Northwest of Building 1340, Benzene

NO. OF POINTS IN X-DIRECTION 8
NO. OF POINTS IN Y-DIRECTION 1
NO. OF POINTS IN Z-DIRECTION 1
NO. OF ROOTS: NO. OF SERIES TERMS 400
NO. OF BEGINNING TIME STEP 900
NO. OF ENDING TIME STEP 1198
NO. OF TIME INTERVALS FOR PRINTED OUT SOLUTION 16
INSTANTANEOUS SOURCE CONTROL = 0 FOR INSTANT 1
SOURCE CONDITION CONTROL = 0 FOR STEADY SOURCE 0
INTERMITTENT OUTPUT CONTROL = 0 NO SUCH OUTPUT 1
CASE CONTROL =1 THERMAL, = 2 FOR CHEMICAL, = 3 2

AQUIFER DEPTH, = 0.0 FOR INFINITE DEEP (METERS) ..... 0.1524E+02
AQUIFER WIDTH, = 0.0 FOR INFINITE WIDE (METERS) ..... 0.0000E+00
BEGIN POINT OF X-SOURCE LOCATION (METERS) ..... -0.3350E+02
END POINT OF X-SOURCE LOCATION (METERS) ..... 0.0000E+00
BEGIN POINT OF Y-SOURCE LOCATION (METERS) ..... -0.2880E+02
END POINT OF Y-SOURCE LOCATION (METERS) ..... 0.2880E+02
BEGIN POINT OF Z-SOURCE LOCATION (METERS) ..... -0.1000E+01
END POINT OF Z-SOURCE LOCATION (METERS) ..... 0.0000E+00

POROSITY ..... 0.2000E+00
HYDRAULIC CONDUCTIVITY (METER/HOUR) 0.2736E-01
HYDRAULIC GRADIENT 0.9000E-03
LONGITUDINAL DISPERSIVITY (METER) ..... 0.1372E+02
LATERAL DISPERSIVITY (METER) ..... 0.1370E+01
VERTICAL DISPERSIVITY (METER) ..... 0.1000E+01
DISTRIBUTION COEFFICIENT, KD (M**3/KG) 0.4620E-03
HEAT EXCHANGE COEFFICIENT (KCAL/HR-M**2-DEGREE ..... 0.0000E+00

MOLECULAR DIFFUSION MULTIPLY BY POROSITY (M**2/HR) 0.3530E-05
DECAY CONSTANT (PER HOUR) 0.4012E-04
BULK DENSITY OF THE SOIL (KG/M**3) ..... 0.1460E+04
ACCURACY TOLERANCE FOR REACHING STEADY STATE 0.1000E-02
DENSITY OF WATER (KG/M**3) ..... 0.1000E+04
TIME INTERVAL SIZE FOR THE DESIRED SOLUTION (HR) ..... 0.7300E+03
DISCHARGE TIME (HR) ..... 0.8760E+06
WASTE RELEASE RATE (KCAL/HR), (KG/HR), OR (CI/HR) 0.1150E-04

RETARDATION FACTOR ..... 0.4373E+01
RETARDED DARCY VELOCITY (M/HR) 0.2816E-04
RETARDED LONGITUDINAL DISPERSION COEF. (M**2/HR) 0.3904E-03
RETARDED LATERAL DISPERSION COEFFICIENT (M**2/HR) 0.4261E-04
RETARDED VERTICAL DISPERSION COEFFICIENT (M**2/HR) 0.3219E-04

DISTRIBUTION OF DISSOLVED CHEMICALS IN PPM AT 0.0000E+00 HRS
(ADSORBED CHEMICAL CONC. = 0.4620E+00 * DISSOLVED CHEMICAL CONC.)

Z = 0.00

X								
Y	0.	10.	20.	50.	75.	90.	100.	137.
0.	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

DISTRIBUTION OF DISSOLVED CHEMICALS IN PPM AT 0.6563E+06 HRS
(ADSORBED CHEMICAL CONC. = 0.4620E+00 * DISSOLVED CHEMICAL CONC.)

Z = 0.00

X								
Y	0.	10.	20.	50.	75.	90.	100.	137.
0.	0.612E-01	0.217E-02	0.959E-04	0.120E-07	0.739E-11	0.827E-13	0.385E-14	0.644E-20

DISTRIBUTION OF DISSOLVED CHEMICALS IN PPM AT 0.6680E+06 HRS
(ADSORBED CHEMICAL CONC. = 0.4620E+00 * DISSOLVED CHEMICAL CONC.)

Z = 0.00

X								
Y	0.	10.	20.	50.	75.	90.	100.	137.
0.	0.612E-01	0.217E-02	0.959E-04	0.120E-07	0.739E-11	0.827E-13	0.386E-14	0.852E-20

DISTRIBUTION OF DISSOLVED CHEMICALS IN PPM AT 0.6796E+06 HRS
(ADSORBED CHEMICAL CONC. = 0.4620E+00 * DISSOLVED CHEMICAL CONC.)

Z = 0.00

X								
Y	0.	10.	20.	50.	75.	90.	100.	137.
0.	0.612E-01	0.217E-02	0.959E-04	0.120E-07	0.739E-11	0.828E-13	0.386E-14	0.104E-19

DISTRIBUTION OF DISSOLVED CHEMICALS IN PPM AT 0.6913E+06 HRS
(ADSORBED CHEMICAL CONC. = 0.4620E+00 * DISSOLVED CHEMICAL CONC.)

Z = 0.00

X								
Y	0.	10.	20.	50.	75.	90.	100.	137.
0.	0.612E-01	0.217E-02	0.959E-04	0.120E-07	0.739E-11	0.828E-13	0.386E-14	0.121E-19

DISTRIBUTION OF DISSOLVED CHEMICALS IN PPM AT 0.7030E+06 HRS
(ADSORBED CHEMICAL CONC. = 0.4620E+00 * DISSOLVED CHEMICAL CONC.)

Z = 0.00

X								
Y	0.	10.	20.	50.	75.	90.	100.	137.
0.	0.612E-01	0.217E-02	0.959E-04	0.120E-07	0.739E-11	0.828E-13	0.386E-14	0.136E-19

DISTRIBUTION OF DISSOLVED CHEMICALS IN PPM AT 0.7147E+06 HRS
(ADSORBED CHEMICAL CONC. = 0.4620E+00 * DISSOLVED CHEMICAL CONC.)

Z = 0.00

X								
Y	0.	10.	20.	50.	75.	90.	100.	137.
0.	0.612E-01	0.217E-02	0.959E-04	0.120E-07	0.739E-11	0.828E-13	0.387E-14	0.148E-19

DISTRIBUTION OF DISSOLVED CHEMICALS IN PPM AT 0.7264E+06 HRS
(ADSORBED CHEMICAL CONC. = 0.4620E+00 * DISSOLVED CHEMICAL CONC.)

Z = 0.00

X								
Y	0.	10.	20.	50.	75.	90.	100.	137.
0.	0.612E-01	0.217E-02	0.959E-04	0.120E-07	0.739E-11	0.828E-13	0.387E-14	0.159E-19

DISTRIBUTION OF DISSOLVED CHEMICALS IN PPM AT 0.7380E+06 HRS
(ADSORBED CHEMICAL CONC. = 0.4620E+00 * DISSOLVED CHEMICAL CONC.)

Z = 0.00

X								
Y	0.	10.	20.	50.	75.	90.	100.	137.
0.	0.612E-01	0.217E-02	0.959E-04	0.120E-07	0.739E-11	0.828E-13	0.387E-14	0.167E-19

DISTRIBUTION OF DISSOLVED CHEMICALS IN PPM AT 0.7497E+06 HRS
(ADSORBED CHEMICAL CONC. = 0.4620E+00 * DISSOLVED CHEMICAL CONC.)

Z = 0.00

X								
Y	0.	10.	20.	50.	75.	90.	100.	137.
0.	0.612E-01	0.217E-02	0.959E-04	0.120E-07	0.739E-11	0.828E-13	0.387E-14	0.174E-19

DISTRIBUTION OF DISSOLVED CHEMICALS IN PPM AT 0.7614E+06 HRS
(ADSORBED CHEMICAL CONC. = 0.4620E+00 * DISSOLVED CHEMICAL CONC.)

Z = 0.00

X								
Y	0.	10.	20.	50.	75.	90.	100.	137.
0.	0.612E-01	0.217E-02	0.959E-04	0.120E-07	0.739E-11	0.828E-13	0.387E-14	0.180E-19

DISTRIBUTION OF DISSOLVED CHEMICALS IN PPM AT 0.7731E+06 HRS
(ADSORBED CHEMICAL CONC. = 0.4620E+00 * DISSOLVED CHEMICAL CONC.)

Z = 0.00

X								
Y	0.	10.	20.	50.	75.	90.	100.	137.
0.	0.612E-01	0.217E-02	0.959E-04	0.120E-07	0.739E-11	0.828E-13	0.387E-14	0.184E-19

DISTRIBUTION OF DISSOLVED CHEMICALS IN PPM AT 0.7848E+06 HRS
(ADSORBED CHEMICAL CONC. = 0.4620E+00 * DISSOLVED CHEMICAL CONC.)

Z = 0.00

X								
Y	0.	10.	20.	50.	75.	90.	100.	137.
0.	0.612E-01	0.217E-02	0.959E-04	0.120E-07	0.739E-11	0.828E-13	0.387E-14	0.188E-19

DISTRIBUTION OF DISSOLVED CHEMICALS IN PPM AT 0.7964E+06 HRS
(ADSORBED CHEMICAL CONC. = 0.4620E+00 * DISSOLVED CHEMICAL CONC.)

Z = 0.00

X								
Y	0.	10.	20.	50.	75.	90.	100.	137.
0.	0.612E-01	0.217E-02	0.959E-04	0.120E-07	0.739E-11	0.828E-13	0.387E-14	0.190E-19

DISTRIBUTION OF DISSOLVED CHEMICALS IN PPM AT 0.8081E+06 HRS
(ADSORBED CHEMICAL CONC. = 0.4620E+00 * DISSOLVED CHEMICAL CONC.)

Z = 0.00

X								
Y	0.	10.	20.	50.	75.	90.	100.	137.
0.	0.612E-01	0.217E-02	0.959E-04	0.120E-07	0.739E-11	0.828E-13	0.387E-14	0.193E-19

DISTRIBUTION OF DISSOLVED CHEMICALS IN PPM AT 0.8198E+06 HRS
(ADSORBED CHEMICAL CONC. = 0.4620E+00 * DISSOLVED CHEMICAL CONC.)

Z = 0.00

X								
Y	0.	10.	20.	50.	75.	90.	100.	137.
0.	0.612E-01	0.217E-02	0.959E-04	0.120E-07	0.739E-11	0.828E-13	0.387E-14	0.194E-19

DISTRIBUTION OF DISSOLVED CHEMICALS IN PPM AT 0.8315E+06 HRS
(ADSORBED CHEMICAL CONC. = 0.4620E+00 * DISSOLVED CHEMICAL CONC.)

Z = 0.00

X								
Y	0.	10.	20.	50.	75.	90.	100.	137.
0.	0.612E-01	0.217E-02	0.959E-04	0.120E-07	0.739E-11	0.828E-13	0.387E-14	0.196E-19

DISTRIBUTION OF DISSOLVED CHEMICALS IN PPM AT 0.8432E+06 HRS
(ADSORBED CHEMICAL CONC. = 0.4620E+00 * DISSOLVED CHEMICAL CONC.)

Z = 0.00

X								
Y	0.	10.	20.	50.	75.	90.	100.	137.
0.	0.612E-01	0.217E-02	0.959E-04	0.120E-07	0.739E-11	0.828E-13	0.387E-14	0.197E-19

DISTRIBUTION OF DISSOLVED CHEMICALS IN PPM AT 0.8548E+06 HRS
(ADSORBED CHEMICAL CONC. = 0.4620E+00 * DISSOLVED CHEMICAL CONC.)

Z = 0.00

X								
Y	0.	10.	20.	50.	75.	90.	100.	137.
0.	0.612E-01	0.217E-02	0.959E-04	0.120E-07	0.739E-11	0.828E-13	0.387E-14	0.197E-19

STEADY STATE SOLUTION HAS NOT BEEN REACHED BEFORE FINAL SIMULATING TIME

DISTRIBUTION OF DISSOLVED CHEMICALS IN PPM AT 0.8665E+06 HRS
(ADSORBED CHEMICAL CONC. = 0.4620E+00 * DISSOLVED CHEMICAL CONC.)

Z = 0.00

X								
Y	0.	10.	20.	50.	75.	90.	100.	137.
0.	0.612E-01	0.217E-02	0.959E-04	0.120E-07	0.739E-11	0.828E-13	0.387E-14	0.198E-19

ATTACHMENT F
TO SWMU 27F: NORTHWEST OF BUILDING 1340
TO THE
REVISED FINAL PHASE II RCRA FACILITY INVESTIGATION REPORT
FOR
16 SOLID WASTE MANAGEMENT UNITS
AT
FORT STEWART, GEORGIA

TOXICITY PROFILES FOR CONTAMINANTS OF POTENTIAL CONCERN

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This attachment contains the toxicity profiles for human health contaminants of potential concern (HHCOPCs). The toxicity profiles provide pertinent information concerning the uptake, mechanisms of toxicity, and toxicity values for the HHCOPCs. In addition to the toxicity profiles, a toxicity summary (Table F-1) is given for all of the site-related contaminants. The toxicity summary consists of the essential data used to derive toxicity values [reference doses (RfDs) and cancer slope factors] obtained from U.S. Environmental Protection Agency (EPA) toxicity databases [Integrated Risk Information System (IRIS; EPA 2001) and Health Effects Assessment Summary Tables (HEAST; EPA 1997)].

2-Methylnapthalene. 2-Methylnapthalene belongs to a group of chemicals called polycyclic aromatic hydrocarbons (PAHs) that are found in various types of fossil fuel, including coal, oil, gas, and other organic substances (ATSDR 1989).

Little is known about the toxicity of this chemical in humans. In studies with mice, the oral application of 2-methylnapthalene and the dermal painting with a mixture of 1-methylnapthalene and 2-methylnapthalene induced pulmonary alveolar proteinosis (Murata et al. 1997). The reader is referred to the toxicity profile for PAHs for more information on this class of chemicals.

Neither an RfD nor a reference concentration (RfC) has been calculated for this chemical (EPA 2001; EPA 1997). 2-Methylnaphthalene does not appear to be carcinogenic (Maurata et al. 1997).

4-Methylphenol. 4-Methylphenol, also known as *p*-cresol, is one of three similar isomers that include *m*-cresol and *o*-cresol. Mixtures of these three isomers are widely used by industry as a solvent and as a starter compound for the manufacture of other chemicals and are also effective antiseptics and disinfectants (ATSDR 1992; Thompson et al. 1994). Small amounts of cresols are present in foods and drinks (ATSDR 1992).

Most human toxicity data are associated with acute exposures to a mixture of cresols, which makes it difficult to distinguish toxic effects of *p*-cresol from those of the other isomers; however, laboratory studies indicate that the mechanisms of toxicity for *p*-cresol may differ from those of *o*- and *m*-cresol (Thompson et al. 1994). The central nervous system (CNS) is the primary target organ affected by acute exposure of humans to cresols via inhalation, ingestion, and dermal contact (Thompson et al. 1994). Acute exposure often causes CNS and respiratory stimulation followed by CNS depression, resulting in unconsciousness. Laboratory animals exposed to cresols have a series of neurological effects including hypoactivity and lethargy, excess salivation, dyspnea, incoordination, muscle twitches and tremors, convulsions, and coma. Cresols are corrosive and often cause necrosis at the point of contact (ATSDR 1992).

Other target organs include the lung (pulmonary edema) and kidney, and effects include hematological ones (e.g., intravascular hemolysis) and coma (ATSDR 1992; Thompson et al. 1994; Wu et al. 1998). Liver damage has also been noted in some cases (ATSDR 1992).

Toxicological effects noted in laboratory animals exposed to *p*-cresol include decreased red blood cell count, pulmonary edema, CNS stimulation, hypoactivity, ataxia, tremors, and inflammation of the liver (ATSDR 1992).

An oral RfD for *p*-cresol of 0.005 mg/kg/day was derived based on a no observed adverse effect level (NOAEL) of 5 mg/kg/day for a developmental toxicity study of rabbits (EPA 1997). This chemical is classified by EPA in weight-of-evidence Group C, possible human carcinogen, based on the increased incidence of skin papillomas in mice (EPA 2001).

Arsenic. Arsenic is a metallic, steel-gray, crystalline, brittle, trivalent and pentavalent, solid, poisonous element that is commonly used in pesticides (Opresko 1992).

Water-soluble inorganic arsenic compounds are absorbed through the gastrointestinal tract and lungs. Symptoms of acute inorganic arsenic poisoning in humans are nausea, anorexia, vomiting, epigastric and abdominal pain, and diarrhea. In addition, dermatitis, muscle cramps, cardiac abnormalities, hepatoxicity, bone marrow suppression and hematologic abnormalities, vascular lesions, and peripheral neuropathy have been reported. Severe exposures can result in acute encephalopathy, congestive heart failure, stupor, convulsions, paralysis, coma, and death. Possible reproductive effects include a high frequency of spontaneous abortions and reduced birth weights. Occupational exposure studies show a clear correlation between exposure to arsenic and lung cancer mortality (Opresko 1992).

The RfD for chronic oral exposures (0.0003 mg/kg-day) is based on a NOAEL of 0.0008 mg/kg-day for hyperpigmentation, keratosis, and possible vascular complications in a human population consuming arsenic-contaminated drinking water (EPA 2001). No RfCs have been derived for arsenic (EPA 2001; EPA 1997). EPA has placed inorganic arsenic in weight-of-evidence classification Group A, known human carcinogen. The oral slope factor is 1.5/(mg/kg-day), and the inhalation unit risk is 0.0043/($\mu g/m^3$) (EPA 2001).

Benzene. Benzene is a volatile, colorless liquid with a characteristic aromatic odor that is used primarily in the production of other chemicals such as ethylbenzene, cumene, and cyclohexane. Benzene is emitted into the workplace and environment (aquatic, terrestrial, and atmospheric) from industrial and other man-made sources, including gasoline from filling stations, tobacco products, and auto exhaust. According to the Occupational Safety and Health Act, workers employed in industries that produce or use benzene are at risk from exposure to high levels of the chemical. Exposure of the general population may occur in residential areas near chemical manufacturing sites and has also been associated with the ingestion of contaminated food and drinking water and inhalation of cigarette smoke and gas fumes (Daugherty 1992).

The autopsy of a youth who died while sniffing benzene revealed that the chemical was distributed to the urine, stomach, bile, liver, kidney, abdominal fat, and brain. Numerous studies indicate that the liver is the main site for metabolism of benzene; bone marrow is believed to be a minor site. Lethal oral doses of benzene are estimated to be 10 milliliters (7.9 grams) in humans; these data indicate that benzene is of low acute toxicity. Limited data show that nonlethal oral doses of benzene can impact the nervous, hematological, and immunological systems. In addition, inhalation of benzene vapor concentrations of 20,000 parts per million (ppm) for 5 to 10 minutes can be fatal to humans, and death results from central nervous system depression. Furthermore, benzene has been shown to be carcinogenic in humans and animals by inhalation and in animals by oral exposure (Daugherty 1992).

The RfDs and RfCs for benzene have not been established (EPA 2001; EPA 1997). EPA has placed benzene in weight-of-evidence classification Group A, known human carcinogen (EPA 2001). The oral slope factor for benzene is 0.029/(mg/kg-day) (EPA 2001). The air unit risk for benzene is not defined in EPA's IRIS database (EPA 2001). EPA gives a range of carcinogenic risks of 2.2×10^{-6} to 7.8×10^{-6}, for a lifetime exposure of 1 $\mu g/m^3$. This corresponds to an inhalation unit risk range of $2.2 \times 10^{-6}/(\mu g/m^3)$ to $7.7 \times 10^{-6}/(\mu g/m^3)$.

Benzo(*a*)anthracene. Benzo(*a*)anthracene is a PAH with four aromatic rings, two of which share carbons with only one other ring. No commercial production or use of this compound is known. Benzo(*a*)anthracene is found in fossil fuels and occurs ubiquitously in products of incomplete combustion. It is found in various kinds of smoke and flue gases; tobacco smoke; automobile exhaust; roasted coffee; and charcoal-broiled, barbecued, or smoked meats. It is also found in creosote, coal tar, petroleum asphalt, and a variety of foods, including vegetable oils and baker's yeast (Francis 1992).

No absorption data for benzo(*a*)anthracene were available; however, analogy to structurally related PAHs, primarily benzo(*a*)pyrene, suggests that it would be absorbed from the gastrointestinal tract, lungs, and skin (Francis 1992).

Benzo(*a*)anthracene is considered to be a carcinogenic PAH, but little is know about the systemic toxicity of this chemical. The toxic effects of benzo(*a*)anthracene and similar PAHs are primarily directed toward tissues that contain proliferating cells such as the hematopoietic system, lymphoid system, and reproductive tissues (Francis 1992). Neither an oral RfD nor an inhalation RfC has been derived for benzo(*a*)anthracene in either IRIS or HEAST (EPA 2001; EPA 1997). Benzo(*a*)anthracene is classified by EPA in weight-of-evidence Group B2, probable human carcinogen (EPA 2001).

See also toxicity profile for PAHs.

Benzo(*a*)pyrene. Benzo(*a*)pyrene is a PAH that can be derived from coal tar. It occurs ubiquitously in products of incomplete combustion of fossil fuels and has been identified in ambient air, surface water, drinking water, wastewater, and charbroiled foods. Benzo(*a*)pyrene is primarily released to the air and removed from the atmosphere by photochemical oxidation and dry deposition to land or water. Biodegradation is the most important transformation process in soil or sediment (Faust 1994b).

Benzo(*a*)pyrene is readily absorbed after inhalation, ingestion, and dermal contact. After inhalation exposure, benzo(*a*)pyrene is rapidly distributed to several tissues in rats. The metabolism of the compound is complex and includes the formation of a proposed ultimate carcinogen, benzo(*a*)pyrene 7,8-diol-9,10-epoxide. The major route of excretion is hepatobiliary followed by elimination in the feces (Faust 1994b).

Numerous epidemiologic studies have shown a clear association between exposure to various mixtures of PAHs containing benzo(*a*)pyrene (e.g., coke oven emissions, roofing tar emissions, and cigarette smoke) and increased risk of lung cancer and other tumors. However, each of the mixtures also contained other potentially carcinogenic PAHs; therefore, distinguishing the contribution of benzo(*a*)pyrene to the carcinogenicity of these mixtures is not possible. An extensive database is available for the carcinogenicity of benzo(*a*)pyrene in experimental animals. Dietary administration of the compound has produced papillomas and carcinomas of the forestomach in mice, and treatment by gavage has produced mammary tumors in rats and pulmonary adenomas in mice. Exposure by inhalation and intratracheal instillation has resulted in benign and malignant tumors of the respiratory and upper digestive tracts of hamsters. Numerous topical application studies have shown that benzo(*a*)pyrene induces skin tumors in several species, although mice appear to be the most sensitive species. Benzo(*a*)pyrene is a complete carcinogen and also an initiator of skin tumors. It has been reported to induce tumors in animals when administered by other routes, such as intravenous, intraperitoneal, subcutaneous, intrapulmonary, and transplacental (Faust 1994b).

No oral RfD or inhalation RfC has been calculated for this chemical (EPA 2001; EPA 1997). Benzo(*a*)pyrene is classified as a Group B2 carcinogen, probable human carcinogen, with an oral slope factor of 7.30/(mg/kg-day) (EPA 2001).

See also toxicity profile for PAHs.

Benzo(*b*)fluoranthene. Benzo(*b*)fluoranthene, a crystalline solid, is a PAH with one five-membered ring and four six-membered rings. No commercial production or use of this compound is known. Benzo(*b*)fluoranthene is found in fossil fuels and occurs ubiquitously in products of incomplete combustion. It has been detected in cigarette smoke, urban air, gasoline engine exhaust, emissions from burning coal and from oil-fired heating, broiled and smoked food, oils, and margarine (Faust 1994a).

No absorption data were available for benzo(*b*)fluoranthene; however, by analogy to structurally related PAHs, primarily benzo(*a*)pyrene, it would be expected to be absorbed from the gastrointestinal tract, lungs, and skin. Major metabolites of benzo(*b*)fluoranthene formed *in vitro* in the livers of rats include dihydrodiols and monohydroxy derivatives and monohydroxy derivatives in mouse epidermis (Faust 1994a).

Benzo(*b*)fluoranthene is considered to be a carcinogenic PAH, but little is know about the systemic toxicity of this chemical. Neither an oral RfD nor an inhalation RfC has been derived for benzo(*b*)fluoranthene in either IRIS or HEAST (EPA 2001; EPA 1997). Benzo(*b*)fluoranthene is classified by EPA in weight-of-evidence Group B2, probable human carcinogen (EPA 2001).

See also toxicity profile for PAHs.

Carbazole. Carbazole belongs to a group of chemicals called PAHs that are found in various types of fossil fuel, including coal, oil, gas, and other organic substances (ATSDR 1989).

There are limited toxicological data on this chemical. Carbazole may be harmful by ingestion, inhalation, and skin absorption. Symptoms may include irritation, allergic reactions, dermatitis, bronchitis, coughing, dyspnea, and respiratory distress (NTP 2001). The reader is referred to the toxicity profile for PAHs for more information on this class of chemicals.

Neither an RfD nor an RfC has been calculated for this chemical (EPA 2001; EPA 1997). An oral cancer slope factor of 0.02 $(mg/kg/day)^{-1}$ has been derived for this chemical (EPA 1997).

Dibenzo(*a,h*)anthracene. Dibenzo(*a,h*)anthracene is a PAH with five six-membered rings. No commercial production or use of this compound is known. Dibenzo(*a,h*)anthracene is found in fossil fuels and occurs ubiquitously in products of incomplete combustion. It has been detected in cigarette smoke, urban air, gasoline engine exhaust, emissions from burning coal and from oil-fired heating, broiled and smoked food, oils, and margarine (Faust 1994c).

No absorption data were available for dibenzo(*a,h*)anthracene; however, by analogy to structurally related PAHs, primarily benzo(*a*)pyrene, it would be expected to be absorbed from the gastrointestinal tract, lungs, and skin (Faust 1994c).

Data on the toxicity of this PAH in humans are limited. Toxicity studies with laboratory animals have shown depressed immune responses, kidney lesions, and increased development of arterioslerotic plaques (Faust 1994c).

Dibenzo(*a,h*)anthracene is considered to be a carcinogenic PAH, but little is know about the systemic toxicity of this chemical. Neither an oral RfD nor an inhalation RfC has been derived for dibenzo(*a,h*)anthracene in either IRIS or HEAST (EPA 2001; EPA 1997). Benzo(*b*)fluoranthene is classified by EPA in weight-of-evidence Group B2, probable human carcinogen (EPA 2001).

See also toxicity profile for PAHs.

Indeno(*1,2,3-cd*)pyrene. Indeno(*1,2,3-cd*)pyrene is a crystalline solid. No commercial production or use of this compound is known. It is found in fossil fuels; occurs ubiquitously in products of incomplete combustion; and has been identified in soil, groundwater, and surface water at hazardous waste sites. No commercial production or use of this compound is known (Faust 1994d).

No absorption data for indeno(*1,2,3-cd*)pyrene were available; however, analogy to structurally related PAHs, primarily benzo(*a*)pyrene, suggests that it would be absorbed from the gastrointestinal tract, lungs, and skin. *In vivo* metabolites identified in mouse skin include the *trans*-1,2-dihydrodiol and 8- and 9-hydroxy forms of indeno(*1,2,3-cd*)pyrene. Similar metabolites were formed *in vitro* in rat liver microsomes (Faust 1994d).

Indeno(*1,2,3-cd*)pyrene is considered to be a carcinogenic PAH, but little is know about the systemic toxicity of this chemical. Neither an oral RfD nor an inhalation RfC has been derived for indeno(*1,2,3-cd*)pyrene in either IRIS or HEAST (EPA 2001; EPA 1997). Indeno(*1,2,3-cd*)pyrene is classified by EPA in weight-of-evidence Group B2, probable human carcinogen (EPA 2001).

See also toxicity profile for PAHs.

Naphthalene. Naphthalene also belongs to the group of chemicals called PAHs that are found in various types of fossil fuel, including coal, oil, gas, and other organic substances (ATSDR 1989).

Humans exposed via inhalation, combined inhalation and dermal exposure, and combined inhalation and oral exposure have developed hemolytic anemia (lowered hemoglobin, hematocrit, and erythrocyte values). In severe cases, the hemolytic anemia was accompanied by jaundice, high serum levels of bilirubin, cyanosis, and kernicterus with pronounced neurological signs (EPA 1998). In laboratory experiments, the target organs appeared to be the kidneys, thymus, liver, and spleen (EPA 1998).

EPA has calculated an oral RfD of 0.02 mg/kg-day based on decreased mean body weight in exposed laboratory animals (EPA 2001). The RfC for naphthalene is 0.003 mg/m^3 based on respiratory effects in exposed rats (EPA 2001). EPA classifies naphthalene in weight-of-evidence Group C, possible human carcinogen (EPA 2001).

Polycyclic Aromatic Hydrocarbons. The PAHs are a group of chemicals that are formed during the incomplete burning of wood and fuel, including coal, oil, gas, and other organic substances (ATSDR 1989). Exposure to PAHs may occur via inhalation, ingestion, and dermal contact. In any medium, PAHs most often exist as complex mixtures of compounds, and these compounds have been divided into (1) carcinogenic PAHs and (2) noncarcinogenic PAHs.

Carcinogenic Polycyclic Aromatic Hydrocarbons. Available data indicate that benzo(*a*)pyrene is one of the most potent of the carcinogenic PAHs. Other PAHs considered to be carcinogenic are benzo(*a*)anthracene, benzo(*b*)fluoranthene, benzo(*k*)fluoranthene, chrysene, dibenzo(*a,h*)anthracene, and indeno(*1,2,3-cd*)pyrene.

The arrangement of aromatic rings in the benzo(*a*)pyrene molecule and other PAHs gives it a "bay-region" that is often correlated with carcinogenic properties. In general, bay-region PAHs and some of their metabolites are known to react with cellular macromolecules, including DNA, which may account for the toxicity and carcinogenicity of these compounds (Francis 1992). The primary toxicological concern about exposure to this group of PAHs is carcinogenicity. No case reports or epidemiological studies on the significance of human exposure to individual PAHs are available. Coal tar and other materials known to be carcinogenic to humans, however, contain PAHs (Francis 1992). Lung and skin cancers in humans have been associated with chronic exposure by inhalation and dermal contact, respectively, to mixtures of compounds that include carcinogenic PAHs (ATSDR 1989). Several individual PAHs administered to different animal species by various routes have been found to be carcinogenic at both local and systemic sites. Long-term experimental studies resulted in tumors in the liver, mammary gland, respiratory and gastrointestinal tracts, and skin (ATSDR 1989). Carcinogenic PAHs are also reported to be mutagenic in a variety of test systems.

Although reproductive effects in mice fed benzo(*a*)pyrene and adverse effects in their offspring, including birth defects and decreased body weight, have been reported, no reproductive toxicity from PAH exposure has been demonstrated in humans (ATSDR 1989). Toxic effects have also been observed in rapidly dividing cells of the intestinal epithelium, testes, and ovaries (oocytes). Animal studies also indicate that exposure to bay-region PAHs can damage the hematopoietic system, leading to progressive anemia as well as agranulocytosis. The lymphoid system can also be affected, resulting in lymphopenia.

Not all of the carcinogenic PAHs appear to be as potent as benzo(*a*)pyrene (ICF-Clement 1988; EPA 1993). Recent guidance published by EPA (1993) recommended that a series of relative potency values (orders of magnitude) be used for the risk assessment of oral exposure to PAHs, with carcinogenic potency being compared to that of benzo(*a*)pyrene.

Noncarcinogenic Polycyclic Aromatic Hydrocarbons. PAHs not considered to be carcinogenic include acenaphthene, benzo(*g,h,i*)perylene, naphthalene, and phenanthrene.

PAHs are toxic to the skin. For example, naphthalene is a primary skin irritant and causes erythema and dermatitis on repeated contact (Sittig 1981), and acenaphthene is irritating to the skin and mucous membranes of humans and animals (Faust 1994e). Other noncarcinogenic effects of PAHs have been observed in animals; however, of these, only effects of the blood and blood-forming system and of the skin have also been reported in humans (ATSDR 1989). Animal studies indicate that PAHs may adversely affect the gastrointestinal tract, liver, kidneys, lungs, and hematopoietic system and may suppress the immune system after both short- and long-term exposure. Oral exposure of animals to acenaphthene caused reproductive effects, including decreased ovary weights, decreased ovarian and uterine activity, and fewer and smaller corpora lutea (Faust 1991; Faust 1994e). No mutagenic or carcinogenic effects of the noncarcinogenic PAHs have been reported.

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Table F-1. Summary of Toxicity Data for Chemicals of Potential Concern

Chemical	CSF_o (1/mg/kg/day)	Ref	CSF_i (1/mg/kg/day)	Ref	WOE	RfD_o (mg/kg/day)	Ref	UF-MF	Target Organs	RfD_i (mg/kg/day)	Ref	UF-MF	Target Organs
2-Methylnaphthalene						2.00E-02	E						
4-Methylphenol						5.00E-03	H		CNS, blood, kidney, liver				
Arsenic	1.50E+00	I	1.51E+01	I	A	3.00E-04	I	3	Skin				
Benzene	2.90E-02	I	2.90E-02	I	A								
Benzo(*a*)anthracene	7.30E-01	E			B2								
Benzo(*a*)pyrene	7.30E+00	I	3.10E+00	E	B2								
Benzo(*b*)fluoranthene	7.30E-01	E			B2								
Carbazole	2.00E-02	H			C								
Dibenzo(*a,h*)anthracene	7.30E+00	E	3.10E+00	E	B2								
Indeno(*1,2,3-c,d*)pyrene	7.30E-01	E			B2								
Naphthalene					C	2.00E-02	I	3,000	Clinical	9.00E-04	I	3,000	Resp

CSF_i = Inhalation cancer slope factor.
CSF_o = Oral cancer slope factor.
Ref = Source of information: E = U.S. Environmental Protection Agency's National Center for Environmental Assessment; H = Health Effects Assessment Summary Tables, U.S. Environmental Protection Agency; I = Integrated Risk Information System, on-line database, <www.epa.gov/IRIS>.
RfD_i = Inhalation reference dose.
RfD_o = Oral reference dose.
UF-MF = Product of the uncertainty and modifying factors.
Target Organs = Primary organ systems affected by noncarcinogenic chemicals.
Clinical = Endpoints included clinical effects such as change in body weight, enzyme levels, etc. Effects cannot be associated with any specific organ system.
CNS = Central nervous system.
Resp = Respiratory system.
WOE = Cancer weight-of-evidence classification.

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